County Hunter News

February 1, 2012
Volume 8, Issue 2

Welcome to the On-Line County Hunter News, a monthly publication for those interested in county hunting, with an orientation toward CW operation**.**

Contributions of articles, stories, letters, and pictures to the editor are welcomed, and may be included in future issues at the editor's discretion.

The County Hunter News will provide you with interesting, thought provoking articles, articles of county hunting history, or about county hunters or events, ham radio or electronics history, general ham radio interest, and provide news of upcoming operating events.

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

CW County Hunter Nets run on 14.0565, 10.122.5, and 7056.5, with activity occasionally on 3556.5 KHz. Also, there is SSB activity now is on 'friendly net' 7188/7185 KHz. The cw folks are now pioneering 17M operation on 18.0915. (21.0565, 24.9155, and 28.0565 when sunspots better). Look around 18136 or for occasional 17M SSB runs usually after the run on 20M SSB. (21.336 and 28.336)

You can see live spots of county hunter activity at ch.W6RK.com

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

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

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

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

The CW net procedure is written up at:

http://www.wd3p.net/ch/netproc/netproc.htm

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

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

Notes from the Editor

1) We are in the **winter doldrums** of activity with some days of great activity, and other days when nary a mobile is spotted or runs. Winter weather is clobbering the Pacific Northwest and New England, and of course, Minnesota and WI and MI are seeing their normal cold and snowy temps. The Gulf coast has seen some tornadoes and severe weather kick up.

Usually it has been the 18 wheelers and those on the road for business who have kept things alive and humming on the nets. So far in January, activity has been sparse.

There were a few events like the North American QSO Party that allowed some to log some counties – the upper bands were open, so contacts made on 15 meters and some on 10M.

2) Shortly we'll be into **QSO Party** time with a few coming up in February. Hopefully a few county hunter mobiles will participate to put out each's states counties.

3) There will be a few **hamfests** coming up– the HamCation in Orlando – and others – so maybe we'll see some headed to them and putting out some counties. It's an opportunity to meet and greet fellow county hunters, too.

4) Sunspots – continue to climb and the forecast continue to rise for the peak. 17M and 15M have produced lots of counties for those mobiles so equipped.

Mobile Activity - starting 12/26 to Jan 25th

Cliff, **K6JN**, and Nelda, **W6XJN**, headed back from CA going east.

KB0BA, Lowell, and Sandra, **N0XYL**, ran a few counties in IA to get a LC for Ralph, WB4FFV.

Ron, **KB6UF,** headed back from CA to LA.

Jerry, **W0GXQ,** headed down to IA. There he teamed up with Mike, **NF0N**, and they ran about 20 counties in IA together for next two days. Then Jerry, W0GXQ headed back to MN.

Mark, **N2MH**, was out in NJ hitting a few rare ones on several weekends.

Stan, **AC8W,** ran a few in MI

Don, **AE3Z,** was spotted in NY

Joe, **N5UZW**, was out in Northeast AR putting them out.

Dan, **AA0TT,** was busy running counties in KS, NE and other places. He was on many days when almost no one else was running.

Karl, **K4YT**, was down in FL running them. Around the first of the year, he headed back north running them as he went.

Jack, **N7IV,** showed up in a few in North Dakota.

Matt, **W0NAC,** and Sharon, **N0LXJ**, returned from NM back to CO via the southeast corner, running each county on 'five modes'.

Frank, **AA9JJ**, and Kay, **N9QPQ,** headed up to Clark, NV for the holidays

Ed, **N8OYY**, was out on several weekends in WV, over into the eastern edge of OH, and into PA. He also ran up on 17M SSB as well as 40M SSB.

Leo, **WY7LL, and WY7ML,** Chris, headed west from Chicago over through WI, MN, ND,

WY over to Fallon, MT, a LC WBOW and desperately needed by many. Then on to Carter MT, then home to Crook, WY.

Jeff, **W9MSE,** spotted out in WI on the cw frequencies.

Mitch, **W4RKV**, made a special trip over to Crockett, TN for Ralph, WB4FFV. Folks are trying to get him finished off after 30 years or more of county hunting.

K7TM , Bob, was out and about in WA and ID putting them out.

VE2MAM, Gilles, put out some rare northern NY counties.

Jim, **N4JT,** ran some in NC – spotted all the way up through 12 meters.

Alex, **K5XY,** ran some NM counties for the folks. Good to hear him on again.

Don, **K3IMC,** was busy in GA putting out 20 or more counties there.

Terry, **WQ7A,** put out Yakima and Benton, WA – 20, 17 and 40M.

Dan, **KM9X,** and Judy, **KB9MGI,** headed down to KY for a day trip and to get some for Ralph, WB4FFV. Ran on 20/17/40 SSB.

Steve, **AK8A**, headed over to Branch, MI for Mitch, W4RKV, one of his last few to finish up.

Ed, **K8ZZ**, was checking out the portable installation equipment in MI – running from 40 up through 10M cw, and occasionally on 20M SSB. He's off on a big trip at the end of the month in CA and then to HI.

Fred, **K0FG,** was putting out some in MO on SSB and CW. Then spotted in KS..and all the way west to UT and AZ.

K0PVW: Final Numbers for this trip: 14 Counties, 378 Miles, 342 QSO's including 2 counties that had 54 q's in 1 and 56 in another! Thanks again to all!

Jim, **N8HAM**, spotted out and about in MI.

Barry, **N0KV,** and Pat, **N0DXE,** trekked from CO to FL, and then finished running the whole state of FL for 'all FL transmitted'.

N9AC, big rig, was spotted all over the country – and on a big trip down to FL.

Dan, **KM9X**, made a run in IN, IL, and KY for the folks. He's working on his Mobile

Diamond transmits and getting some rare counties in folks logs.

Ed, **N8OYY,** headed on over to OH to get some rare ones for the folks.

Jack, **N7ID**, headed across ID to the western edge and back.

Jim, **K0ARS,** seen a few times in IA.

K5ZG, **Wayne,** noted out in CO.

Scottie, **N4AAT,** made a two day run in GA and NC.

W5DNT spotted in counties in TX on SSB.

Paul, **WD9EJK**, noted out and about in IL.

Larry, **W7FEN**, headed across to El Paso TX then back to NM. He was busy on bands up through 10M.

Matt, **W0NAC** and Sharon, **N0LXJ,** made a multi-day trip through NE and KS. It took them about an hour per stop on county lines to transmit on SSB, and 4 other modes. RTTY, PSK63, THROB4, MFSK16, etc.

Joe**, N5UZW**, took a two day trip around MS putting them out.

Jerry, **K1SO**, ran a bunch in NC and VA.

Jimmy, **K4YFH,** put out some in NC.

AD8P seen portable on a few county lines in OH.

Jerry, **W0GXQ**, and Bill, **N0CIC**, headed out to give out a few needed counties in MN – one of them a LC WBOW.

Ron, **KB6UF**, was on in LA.

Scottie, **N4AAT,** was on occasionally mobile around in SC.

End date 1/24/2011

3M Murphreesboro 2012

MMM REUNION Announcement.....

We are pleased to announce the formation of the latest " Old Timers Reunion" !!! The location has been expanded, because we sold out the last one, and we have relocated it to the scene of the biggest reunions..... MURFREESBORO, Tenn.

The old Holiday inn Holodome has been bought by Choice Hotels and has been totally renovated and improved and we have reserved 50 rooms. It's now a Clarion Inn. Date is set for September 27-30 (Thursday-Sunday) . Rates are $70/night dbl occupancy. (note to pet lovers: pets, up to 2, are welcome and the $12 fee is waived for attendees) You can view the hotel and amenities such as the indoor heated spa and pool, elevated balcony in the atrium, and large rooms and extra size parking areas in the website for Choice Hotels, here:

http://tinyurl.com/7pcdlqc

take the virtual tour!

Past attendees also recall proximity of Cracker Barrel just 100 yards away and the many golf courses in the area as well as abundant other restaurants and shopping.

When making reservations, you must mention " 3M REUNION" for this rate. Phone 615-896-2420 for reservations. More information to be added soon but please circle the date and make plans for this great County Hunter event.

NOTE: THIS IS NOT A MARAC SPONSORED EVENT and never has been. Additional info available from KA3DRO, KM4W, W4RKV, W9GBH. You do not have to be an MMM alumni to attend.

- - - - - - - –

Mary Bobo's – Chow Down with Herb, W9GBH

MARY BOBO'S/MMM REUNION

DATE: Friday, September 28, 2012 @ 11:00 a.m.

PLACE: Mary Bobo's Lynchburg, TN

COST: $20.81 per person tax incl. Gratuity extra

THOSE WHO WISH TO ATTEND THE LUNCHEON MUST DO THE FOLLOWING ASAP!!

1. Each county hunter shall call MARY BOBO'S (1-931-759-7394}and make your own reservation/s with a valid credit card and tell them you are with the AMATEUR RADIO GROUP.
2. 2. You must also e-mail me (hm315pka@gmail.com) and give me your NAME AND CALL. This allows me to track the number/s signed up and paid with a credit card. CALLING ME DOES NOT MAKE YOU A RESERVATION. YOU MUST CALL MARY BOBO'S.
3. It is imperative you call MARY BOBO'S NOW to lock up your reservation/s. You cannot wait as we currently have 40 seats. Herb W9GBH

If you've never been there, check out

http://huntsville.about.com/cs/daytrips/a/bobo.htm

Annual CW Status

The Annual CW Status, compiled this year by Dennis, KK7X, are in this issue at the end. Please be sure to check to see where the various folks. Maybe you can help get them finished up?

On the Road with N4CD I

The radio sat silent. No activity on cw. It was 2012 and it was time to start the new year off right with a day of County Hunting. Things had been slow on the First of the year – with only K4YT on cw the whole day. Folks had moved in on 7187 with some sort of 3905 type net since no one had been using it for a week. Many people had the Monday after New Year's Day off from work as a holiday. Traffic might be a bit lighter. (it wasn't).

Barry, N0KV, is working on his Master's Gold and needed Fannin County TX as one of his last 50 or so to finish up. It's about 50 miles up the road and he missed me several times before. I called him up early in the morning – he sounded awake, and asked him if he would be around in an hour or hour and a half. He said yes, so I put the antennas on the car and headed out to get to Fannin. It was 38 degrees out and the weather forecast was for sunny and clear, with a 20 mph north wind.

The K3IMC site was down so I couldn't post the trip and the needs page wasn't available, although I had checked a few days earlier and folks needed Marshall, Johnston and Coal, the ones off the 'beaten path'. Those and of course a bunch of others further away than a day trip would allow. The car needed some exercise.

From here, it's about 3 miles and 7 traffic lights to get up to the 121 Tollroad which heads northeast for 10 miles or so up to Rt 75 headed north to OKLA. With the Toll Tag, you don't even have to fork over money, it just disappears from your account as you use it. It saves a few miles of driving and avoids the usual heavy traffic on 75. (there are 250,000 cars a day on highway 75 through my suburb– now the plan is to increase it from six lanes to 8 lanes to 35 miles north of downtown Dallas). It always seems to be 'under construction' too. Then onto route 75 for twenty miles through McKinney up to 121 for 20 miles over to Fannin County. It's late enough so most of the country has propagation by the time I get there.

There's someone on 14336 begging for a mobile and running others off. I think he went for 3 hours begging for mobiles before he gave up. I'm not sure if anyone ran on 14.336 in those 3 hours. Lack of activity for sure.

Anyway, ran Fannin on 20cw, 20 SSB (off frequency) , 17 cw and SSB, 30, and 40cw. No talkers on 40M SSB. Well, it's early in the day so I figure I can run some OKLA ones too. It was up to Grayson, then across on 82 back to 75 headed north to OKLA. I was lazy and stopped to run each county on the trip. The Grayson run was similar to the Fannin run. I went up to 15M cw – my antenna doesn't want to tune right, but I can get about 10w into it on 15M. Worked a few on 15M.

Next came Bryan OK – where I stopped in the first rest area with the Visitor Center – good

place to pick up a new map. Another good run there. It's reasonably quiet.

Well, if you get off and head on up 48, then west, you can head over to Marshall, past historic Fort Washita..... from the OKLA history site:

> In 1841, the U.S. Army, under the command of General Zachary Taylor, constructed Fort Washita north of modern day Durant, Oklahoma. Though considered isolated even by frontier standards, Fort Washita was constructed in order to establish law and order in the southeastern territories and to protect the Choctaw and Chickasaw Indian tribes from rival Indian tribes. The fort contained a large stable and corral to support the cavalry and dragoons who frequently patrolled the plains to protect Indian and settler alike from raiding Comanche's.
>
> At the start of the Civil War, in 1861, Federal troops abandoned fort Washita. Confederate soldiers operating in the area later used the fort as a major supply depot and hospital facility during the war. After the war, the fort was burned to the ground and abandoned. When the Department of the Interior assumed control of Fort Washita, in 1870, it was considered obsolete. Instead of reactivating the fort, the Department of the Interior deeded the property to a Chickasaw Indian named Charles Colbert and his family. Charles rebuilt the barracks inside the compound for use as a private residence.
>
> The first night Charles, his family, and his 32 dogs spent the night at their new home. When Charles awoke the next morning, he found that all of the dogs had disappeared during the night. Charles spent the following day tracking down all 32 of the dogs and returning them to the fort. The next morning, Charles awoke again to find that all of the dogs had again escaped the house. Charles could not find any logical reason for the dogs disappearance. It is said that this series of strange events was the main reason Charles and his family moved away from the fort a short time later.
>
> The next tenant of Fort Washita fared no better than Charles Colbert and his family did against the ghosts that inhabited the old post. A doctor named Steele and his sister moved into the renovated barracks formerly occupied by the Colbert's. Dr. Steele's sister was responsible for taking care of the house, and it was not long before she was reporting strange unexplainable experiences both in the house and on the adjoining grounds. Some people later alleged that Dr. Steele's sister had encountered the forts spirit denizens while others attributed her experiences as figments of a fevered imagination. As a result of these other worldly encounters, Dr. Steele's sister experienced a nervous break down. A short time later, the Steele's moved away. Since that time, no one else has dared to take up official residence on the property. "

http://www.militaryghosts.com/washita.html

http://www.okhistory.org/outreach/military/fortwashita.html

Fort Washita – on the way to Marshall, OK
A genuine "Percy Pic"

Wikipedia has a pretty good article on the Fort, the history surrounding it, it's role in the Mexican American war, it's place as a jumping off point for the California Gold rush via the southern route.

http://en.wikipedia.org/wiki/Fort_Washita

Did you catch who was the army commander at the time? Zachary Taylor? He became the 12th President of the US after his role in the war. Maybe you've heard of Fort Sill, OK and Forth Worth, TX? All part of the military fort and road system way back then.

Well, you go past Ft Washita about five miles to the wet line of Marshall. It's worth a 20 minute stop if you happen to head by the fort and have some site seeing time. I've been through it before. It was the Monday after New Year's day. It was closed for the holiday.

There's a great parking spot in Marshall and it's nice and quiet – but out of cellphone range most of the time – you might barely make a call at times. Only if you get out of the car and hunt around for a spot that works is there any service! Out in the boonies. I sat for half an hour running the bands, and 14336 was open to all again.

Next I head back east, over to route 48, and headed up 48 again to the short section of Atoka on

the road. You can pull over and run Johnston/Atoka County line if you don't mind parking at about a 25 degree list – on the side of the road. It's dry so there's no problem of not getting back on the road...don't try this if it has been raining for several days or you'll slide down the slope and not get out. The signs on the road and the GPS seemed to differ by about 20 feet as to where the county line actually was, and the GSP showed it crossing the road at about a 20 degree angle, but the signs were opposite each other as if the line went perpendicular across the road. Oh well. I parked by the sign. Likely the GPS has at least 10 foot error in exact location, too, as I've seen teeny differences at various county lines before.

Bill, KM1C, was spotting me on most of the bands and that worked out well. Not much DX in the log with only DL6KVA in one, and LY5A, Jonas in a few, and Bruce KL7D in the log. 15M provided 4 or 5 contacts per county. 40M was horrendously noisy in OK. Even when the noise on 20M is S1, it can be S9 on 40M for tens of miles.

After that it was about 20 miles up to Coal County. The power line was 20 over S9 along route 48. I went a few miles into the county – still S9 and getting worse! There were no side roads with no power line, either. Finally a little dirt road to " Moore Cemetery' appeared and I took it. Great – the noise dropped to S1 about 1000 feet off the road by the cemetery and I sat there for half an hour running it. It was 'too far' to get to more counties for a one day trip, so I elected to head back home and that meant going through the same counties again. There are thousands of signs for old cemeteries all over TX and OK for the tens of thousands of small settlements that used to be. Some of the roads in have no power lines, so if you are desperate for a place to run, think about them. Usually there's not much advance notice if you are flying along at 60 mph to react to the small signs.

I got an attack of the hungries after 2pm – hadn't eaten in a couple of hours, so I hit the McDonalds in Durant (Bryan County) for a $1 menu 'McDouble' (small double patty cheeseburger) and a $1 drink just before 3pm. Any size drink $1. The nice lady at the counter shoved a 32 oz cup my way. Wow..that much Diet Coke and I'd bounce off the ceiling for the rest of the day and half the night. I put about 16 oz in it. The bill was $2.18 which wasn't bad.

A stranger was standing in the parking lot asking for a jump start. Seems he shut his car off and it wouldn't start and not too many seemed to have jumper cables and would admit admit to it. Well, he was from TX and I couldn't let a fellow Texan down. Besides, he had a wife and small kid in the car. So we tried to jump start his car. He thought he had a dead battery.

The good news..it wasn't his battery that was bad.

The bad news – it wasn't his battery that was the problem. The solenoid went click....the headlights when on shone bright. The starter motor wasn't pulling any current. He either had a bad starter relay (unlikely), a bad connection to the starter motor (possible but not likely) or a defunct starter motor on his 1980 something Chevy. He called for more help.

After that interlude, it was pedal to the metal to get home before rush hour. The closer to Collin County, the more traffic on US 75. It was onto the Sam Rayburn 121 Tollroad again to home by just before 5pm. Many folks had the day off, which meant it was good for county hunting, and only half the normal traffic on the way home.

Well, hope you caught something you needed. It seemed the bands were pretty quiet with Ed, N8OYY about the only other mobile out there putting out counties. Gas was $3.05/gal in my town, and $3.15 typically along the route.

Solar Activity 2012

Dateline: Jan 23, 2012

A powerful solar eruption is expected to blast a stream of charged particles toward Earth tomorrow (Jan. 24), as the strongest radiation storm since 2005 rages on the sun.

Early this morning (0359 GMT Jan. 23, which corresponds to late Sunday, Jan. 22 at 10:59 p.m. EST), NASA's Solar Dynamics Observatory caught an extreme ultraviolet flash from a huge eruption on the sun , according to the skywatching website Spaceweather.com.
The solar flare spewed from sunspot 1402, a region of the sun that has become increasingly active lately. Several NASA satellites, including the Solar Dynamics Observatory, the Solar Heliospheric Observatory (SOHO), and the Stereo spacecraft observed the massive sun storm.
A barrage of charged particles triggered by this morning's solar flare is expected to hit Earth tomorrow at around 9 a.m. EST (1400 GMT), according to experts at the Space Weather Prediction Center, a division of the National Oceanic and Atmospheric Administration.
According to NOAA, this is the strongest solar radiation storm since May 2005, and as a precaution, polar flights on Earth are expected to be re-routed within the next few hours, Kathy Sullivan, deputy administrator of NOAA, said today at the 92nd annual American Meteorological Society meeting in New Orleans, La.

Scientists call these electromagnetic bursts "coronal mass ejections" (CMEs), and they are closely studied because they can produce potentially harmful geomagnetic storms when the charged particles rain down Earth's magnetic field lines.

In addition to generating stronger than normal displays of Earth's auroras (also known as the northern and southern lights), geomagnetic storms aimed directly at our planet can also disrupt satellites in orbit, cause widespread communications interference and damage other electronic infrastructures.

"There is little doubt that the cloud is heading in the general direction of Earth," Spaceweather.com announced in an alert. "A preliminary inspection of SOHO/STEREO imagery suggests that the CME will deliver a strong glancing blow to Earth's magnetic field on Jan. 24-25 as it sails mostly north of our planet."

Sunday's solar flare was rated an M9-class eruption, which placed it just on the verge of being an X-class flare, the most powerful type of solar storm. M-class sun storms are powerful but mid-range, while C-class flares are weaker.

NASA routinely monitors space weather conditions to determine any potential hazards to the astronauts aboard the International Space Station. Based on the agency's assessment, the six spaceflyers currently living and working on the orbiting outpost are not in any danger, said NASA spokesman Kelly Humphries.

"The flight surgeons have reviewed the space weather forecasts for the flare and determined that there are no expected adverse effects or actions required to protect the on-orbit crew," Humphries told SPACE.com in an email.

Last week, a separate sunspot group unleashed several M-class flares, and SDO scientists said these types of flares are occurring almost daily as the sun's rotation slowly turns the region toward Earth.

The sun's activity waxes and wanes on an 11-year cycle. Currently, our planet's nearest star is in the midst of Solar Cycle 24, and activity is expected to ramp up toward solar maximum in 2013.

source: Space.com

De N4CD – along with increased sunspot numbers, great propagation on higher bands, six meter openings – you also get more solar storms, HF dropouts, and disturbed conditions. The good news is there is lots of solar activity!

The Bakken – A Tale

The Bakken Boom - A Modern-Day Gold Rush

In 2009, U.S. oil production began to climb after declining for 22 of the previous 23 years. The shale oil production of the Bakken formation, which straddles the Montana-North Dakota border and stretches into Canada, has been a significant contributor to this temporary uptick in oil production.

While the *Bakken boom* offers a hopeful story in which American ingenuity and nature's endless bounty emancipate us from energy oppression and dependence on evil and oppressive foreign dictators, musings of energy independence are premature, misguided, and misleading. The problem with the Bakken story as told by Crooks and others is that it lacks historical context. Referring to recent developments as an energy revolution implies that there are no lessons to be learned from history. But as Mark Twain put it, "history doesn't repeat itself, but it does rhyme."

Lessons from the California Gold Rush

In 1848, John Marshall discovered gold while constructing John Sutter's sawmill in Coloma, California. Sutter and Marshall attempted to keep the discovery secret, but savvy newspaper publisher and merchant Samuel Brannan soon learned the news. Brannan hurriedly set up a store to sell prospecting tools and provisions and began promoting the discovery in much the same way that the media has been promoting the Bakken. As the news of Marshall's discovery spread, the California Gold Rush grew to international proportions.

Forty-niners rushed to *The Golden State* in search of riches, and California's population exploded from 8,000 in 1848 to 93,000 in 1850, a quarter of a million in 1852, and 350,000 by 1860. With the majority of the influx of humanity employed in prospecting, precious few engaged in support activities. But with the rapid accumulation of mineral wealth, imports were easily acquired. Timber, for instance, was sourced from the Pacific Northwest, and the small town of Seattle, which was only settled in 1852, entered a sustained period of rapid exponential growth.

Despite the low productivity of the labor-intensive process of gold panning, annual production grew from just over 1,400 ounces in 1848 to more than 3.9 million ounces by 1852. To put this into perspective, prior to 1848, cumulative U.S. gold production amounted to just over 1 million ounces.

The rapid growth in output was driven not by the backbreaking extraction of gold dust so much as by the discovery of colossal gold nuggets like the twin 25-pounders found in Downieville

(1850) and on the banks of the Mokelumne River (1848). By comparison, one could spend decades panning and toiling over rockers and sluices manually sorting flakes of gold from stream sediments and never accumulate such an amount.

Of course nuggets are easier to find than flakes, and the great majority were discovered in the first few years. By 1852, only four years after gold was first discovered, California gold production began a rapid descent. Production declined 50% by 1862 and 80% by 1872.

The decline was only barely checked by the adoption of 'hydraulic mining' – a process by which massive amounts of water under intense pressure is used to disintegrate entire hillsides. At the North Bloomfield mine, for example, 60 million gallons of water per day eroded more than 41 million cubic yards of debris between 1866 and 1884.

(http://www.sierranevadavirtualmuseum.com/docs/galleries/history/mining/hydraulic.htm)

The runoff from 'hydraulicking', as it was called, was directed to sluice boxes where dense gold dust was separated from the other detritus. The displaced earth eventually came to rest in California's fertile valleys in massive quantities. It has been estimated that hydraulicking generated eight times the amount of 'slickens' (tailings) than was removed during construction of the Panama Canal, which, by the way, employed the same process.

The redirection of such massive amounts of water generated conflict. "Legal ledgers dating back to the early years of the California Gold Rush record complaints that existing water rights were being impinged by the diversion ditches for, and the resultant pollution from, mining operations, especially hydraulic mines.

These challenges were consistently defeated on the basis of the 1857 California Supreme Court decision that gold production provided a greater good for the leading interest of the State and its citizens than would have been achieved had water not been diverted.

This all changed in January 1884 when Judge Lorenzo Sawyer issued the nation's first environmental injunction after presiding over the case of *Woodruff v. North Bloomfield*. Judge Sawyer was swayed by Woodruff's claim that not only was gold production from the North Bloomfield mine *not* the leading interest of the State, but that the 1857 decision did not supersede laws that protected agriculture and property owners. And with the scratch of a pen, hydraulic mining operations around Marysville were ordered to halt the discharge of tailings into the Yuba River. Other areas were soon to follow.

During California's successive gold rushes more than a few prospectors became rich, but the vast majority spent more cash purchasing claims and supplies than they earned from the gold dust they sold. The main beneficiaries were the businessmen who profited from the search for gold, rather than the discovery of gold; men like Samuel Brannan and Thomas Craig, the manufacturer of the 'Monitor' nozzles used in hydraulic mining.

Lessons from the Klondike Gold Rush

A half-century later, a similar story unfolded in the Yukon. In 1897, the nation was suffering through the Long Depression, which, ironically, was in large part the result of the decision to revert to the gold standard upon the conclusion of the Civil War. As 'greenbacks' – notes which were not explicitly backed by gold – were pulled from circulation in order to bring the number of dollars back to par with gold reserves, deflation set in. Deflation hit laborers and farmers the hardest and proved to be a significant force behind the populist call for bimetallism.

As a result of the Long Depression, people were desperate for work, but even more desperate for a reason to maintain hope in the face of despair. Much as the Bakken has provided hope for contemporary society, the *SS Portland* provided hope when it arrived in Seattle in the summer of 1897 with a half a ton of Yukon gold on board. The conditions were primed for an outbreak of gold fever, and just as Samuel Brannan advertised the discovery of gold at Sutter's mill, the *Seattle Post-Intelligencer* eagerly hyped the Klondike 'prospects' to not only sell newspapers but the entire town as the launch site for stampeders.

As was the case in California, Klondike gold discoveries fell just as quickly as they had climbed. Between 1896 and 1900, annual discoveries rose from $300,000 to more than $22 million, but by 1904 production had fallen to less than half the peak value, and by 1907 production had declined more than 80%. And just as the new and ecologically disruptive technology of hydraulic mining failed to arrest or reverse declining production in California, the introduction of hydraulic mining and large scale dredging failed to maintain the pace of discovery made by the first few waves of stampeders who employed far less technologically advanced and capital intensive processes.

After studying dredging operations in the Klondike, mining engineer J.P. Hutchins concluded, "The most satisfactory returns were from a dredge working an unfrozen area in the flood-plain of the Klondike River; this was installed before the large corporation, now so prominent in the Klondike, became interested. The dredges installed since that time have been very disappointing in returns. Three powerful dredges began operation on the lower Bonanza Creek, but the experience there has been most discouraging." (J.P. Hutchins, January 4, 1908, "Klondike District", Engineering and Mining Journal on January 4, 1908)

While dredging was not able to arrest declining production, the process certainly made an impression on the landscape. Tailings moraines provide a lasting visual testament to the efforts made by dredge operators, who quite literally left no stone unturned.

The similarity in California and Klondike gold production curves was not lost on Mr. Hutchins who further wrote, "[Klondike] figures reveal a marked similarity between this and other placer districts not only in respect to the rapid increase of the annual output to a maximum a few years

after the discovery of the placers, but also in the rapid decrease in the output after the maximum figure had been reached. It is of passing interest to note that in both California and Klondike, the annual production reached a maximum the fourth year after discovery. These figures were more than $80,000,000 for California and more than $22,000,000 for Klondike."

As historian Pierre Burton put it, "The statistics regarding the Klondike stampede are diminishing ones. One hundred thousand persons, it is estimated, actually set out on the trail; some thirty or forty thousand reached Dawson. Only about one half of this number bothered to look for gold, and of these only four thousand found any. Of the four thousand, a few hundred found gold in quantities large enough to call themselves rich. And out of these fortunate men only the merest handful managed to keep their wealth. The Kings of Eldorado toppled from their thrones one by one."

While gold production continues to this day, the Klondike gold rush ended in the summer of 1899, when over the course of a single week, more than 20,000 'sourdoughs' left the Yukon on news that gold had been discovered on the beaches of Nome, Alaska. The Nome gold rush, which was similarly short-lived, is widely cited as the last gold rush of importance, but only by those whose narrow definition excludes black gold.

The Rush for Black Gold on Alaska's North Slope

In 1902, Alaska produced its first barrel of oil, and in 1953, the discovery of oil in a small town West of Fairbanks ushered in the modern era of oil production. In 1957 oil was discovered on the Kenai Peninsula, and in 1959, one hundred years after Colonel Drake produced the first barrel of oil in Pennsylvania, British Petroleum (BP) began prospecting for oil along Alaska's expansive North Slope.

BP was soon joined by Atlantic Richfield Company (ARCO), who in 1968 discovered Prudhoe Bay, the oilfield equivalent of a 25-pound gold nugget. The Prudhoe Bay field is estimated to have had 25 billion barrels of crude before extraction commenced in 1977, making it the largest field in North America. Another major US field, Kuparuk with reserves of 6 billion barrels is also on the North Slope and was discovered in 1969 by Sinclair Oil.

In order to transport oil from the remote North Slope, the Trans Alaska Pipeline System (TAPS) was proposed, but construction did not begin until 1974, after 515 federal permits and 832 state permits were approved. Construction was completed in 1977. At peak construction, in October 1975, 51,000 direct and contract employees were at work on various aspects of the 800-mile pipeline. With construction costs totaling roughly $8 billion, small fortunes were made long before the first barrel of North Slope oil was produced, and once again the Puget Sound economy benefitted as nearly all equipment and supplies were shipped through Washington's seaports.

Production from the Prudhoe Bay field peaked in 1988, and production from the Kuparuk field peaked in 1992. With these two fields dominating North Slope production, the black gold flowing through the TAPS then fell into decline after only 11 years of operation.

Eleven years after the peak, North Slope production had declined to less than half the peak volume. To use Mr. Hutchins's words, it is of passing interest to note that in California, the

Klondike, and Alaska, production had declined to roughly half the maximum value within the same period of time it took to reach the peak. Today, production is only slightly more than 24% of the peak, and it continues to decline. Through June this year production was 35,000 barrels per day less than the average production rate in 2010.

Without some type of North Slope game-changer, production will by decade's end decline to the minimum TAPS operating capacity of 350,000 bpd.[2] Currently, it is believed that a flurry of new projects including projects that are already under development and those that are under evaluation will significantly slow the rate of decline.[3]

One such project is BP's Liberty project, which is currently a couple of years behind schedule and delayed indefinitely. If or when the Liberty project comes online, North Slope production will be goosed by an estimated 40,000 bpd, which will essentially add one year to the operating life of the TAPS. There is a danger associated with making hasty generalizations from the performance of just one field, but *if* the technologically challenging Liberty project is indicative of challenges that will be encountered elsewhere, it stands to reason that other new projects may encounter similarly long delays. And if this is the case, production will decline more quickly than is currently being anticipated.

Consequently, in order for U.S. oil production to remain flat in the face of North Slope declines, which have persisted for 22 years despite the fact that no fewer than nine significant fields have been brought online over this period, production elsewhere in the U.S. needs to increase by 35,000 or 70,000 bpd. This will be a challenge because the oilfield equivalents of colossal gold nuggets have, by and large, already been discovered.

There are exceptions, of course. It was estimated that the 1 billion barrel Thunder Horse field in the Gulf of Mexico would produce at a maximum rate of 250,000 bpd. Unfortunately, production peaked within 10 months and then fell into rapid decline.

The Rush for Shale Oil

The Bakken formation is estimated by the USGS to have an impressive 4 billion barrels of technically recoverable oil in place.

While this is a significant amount, it should be pointed out that the Prudhoe Bay field was more than 6 times the Bakken's size, and Kuparuk was 1.5 times larger. It also bears mentioning that the Bakken oil is trapped in two layers of impermeable shale and a layer of 'tight' sandstone. In order to extract oil from the middle sandstone layer, producers utilize the process of hydraulic fracturing pioneered by natural gas producers. The process of hydraulic fracturing should not be confused with hydraulic mining, though similarities abound.

Hydraulic fracturing, or fracing, involves pumping millions of gallons of fracing fluid (a mixture of water, propants, and chemicals) per well into the earth under pressures great enough

to fracture rock and release the oil. As a consequence of the process, flow rates from shale oil wells are low compared to the high flow rates of wells tapped into large conventional fields.

Whereas conventional wells like those in the Thunder Horse reservoir produce at a rate of 40,000 bpd, only 14 of the nearly 9,000 wells in the Bakken produce more than 800 barrels per day, and the average well produces only 52 bpd. Even at 800 barrels per day, 50 Bakken wells would need to be drilled for each Liberty/Thunder Horse size well, and nearly 800 of the average size Bakken wells would be required.

In order to arrest North Slope declines, 700 average size Bakken wells will need to be completed each and every year.

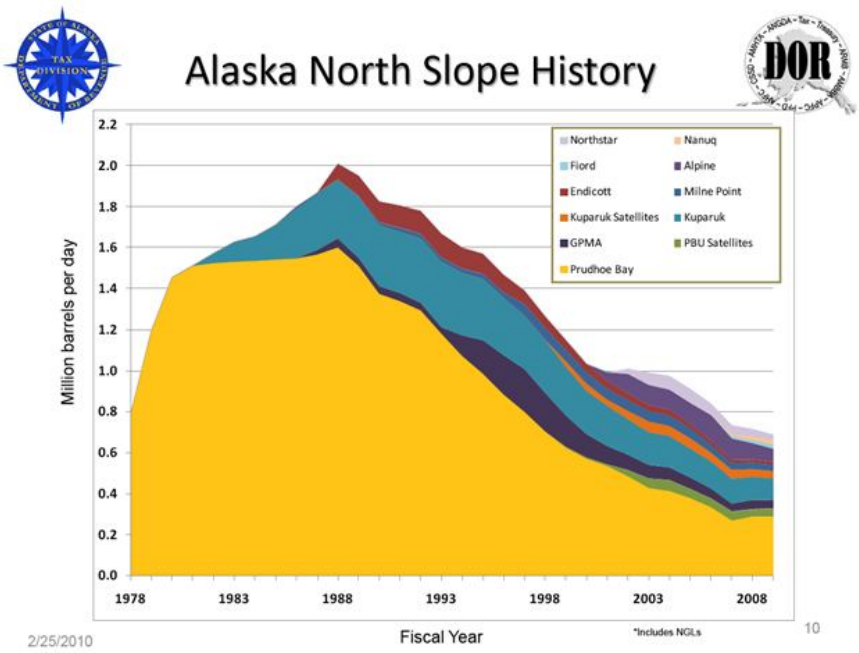
Due to the massive quantity of water required by the hydraulic fracturing process, the chemical cocktail that is added to the water to create fracing fluid, and the massive amount of dangerous wastewater generated by the process, environmental activists, or 'fractivists' as I like to call them, oppose hydraulic fracturing. Thus far, fractivists have turned a blind eye to Bakken production, choosing instead to focus on natural gas fracing in the far more populated areas along the Marcellus Shale formation that runs along the East Coast.

Fractivists have attained some level of success in New York, Pennsylvania, and France. The fractivists' success has engaged the oil and gas industry's fight or flight response, and elicited a relentless pro-fracing propaganda campaign. It appears as if this campaign has successfully enlisted prominent boosters who hold court in the Wall Street Journal and The Financial Times.

Regardless of whether or not fractivists target the Bakken, there is no escaping the fact that the Bakken wells are merely flakes of gold dust, and Prudhoe Bay and Kuparuk are the oilfield equivalents of colossal nuggets. And history teaches us that replacing nuggets with dust is at best a stopgap measure. While gold production in California continues to this day, production will never climb to anywhere near the peak reached in 1852 despite the fact that gold now trades at $1,800 per ounce and extraction technologies have improved by leaps and bounds.

Within this historical context we can sift the Bakken hope from the hype. The good news is that Bakken output rose from 130,000 bpd in June 2003 to over half a million barrels per day today, and is well on its way to producing a 750,000 barrels per day of high quality shale oil. Of course an analogous statement could have been said of California gold production in 1853, Klondike gold production in 1899, and North Slope oil production in 1987, so the danger of extrapolating past trends into the future is clear. That said, the growth rate *is* impressive.

Every silver lining has a cloud, and the bad news is that Montana production peaked in December 2006 and has already declined to 62% of the peak volume. This decline in Montana's production indicate that what is commonly billed as a homogeneous geologic formation is in fact heterogeneous. The pattern of production suggests that the region of economically viable and productive wells is not ubiquitous, but rather concentrated in a few important areas



Parting Thoughts

George Orwell wrote that, ”He who controls the present, controls the past, and he who controls the past, controls the future.” There is more than a nugget of truth in this statement. The future is guided by the stories which shape our imagination and our perception of what is possible, and therefore what is pursued.

Just like Samuel Brannan marketed the California gold rush and the *Seattle Post-Intelligencer* marketed the Klondike gold rush, the Bakken boom is being boosted by those that stand to benefit from production, namely the oil and gas producers, oil field services companies, and the producers of inputs consumed during the process. These entities recognize their vulnerability to fractivism, and I suspect that they are behind the recent surge in boosteristic promotion of the energy independence meme.

The Bakken narrative being constructed by its proponents thrusts forth two main points. First, recent technological advances have opened the door to bountiful energy supply, so much so, that talk of energy independence has re-emerged. Second, alternative/renewable/clean energy requires subsidies that we (i.e. the U.S.) can’t afford, that the public doesn’t want, and that go against the free market ideology that Milton Fiedman chipped into the impenetrable stone walls that fortify the Chicago School. From these propositions it is concluded that shale oil and gas are not simply the *best* option for our non-negotiable way of life, they are the *only* option.

This narrative is enticing to many politicians and much of the public because it fits into a greater national narrative that holds at its core the primacy of market-led American ingenuity. When faced with a challenge, American entrepreneurs always emerge victorious, resource limits be damned! Or so the thinking goes.

A sober reading of history, however, suggests that the Bakken success story fits a well-

established pattern in which every natural resource boom is followed by an inevitable decline.

Sometimes history provides us with lessons that we don't want to learn. Gold dust can't replace colossal nuggets, shale oil can't replace giant conventional oil fields, and wishful thinking and ideological fortitude is no substitute for dispassionate analytical rigor.

Source: http://www.theoildrum.com/node/8697#more

My Twenty Sixth Dual Operator Trip

by Jerry, W0GXQ

Mike, NF0N and I had been talking about another Iowa trip for some time, and decided that since Mike is *just* semi-retired, ☺ we would have to fit it in between his training classes and the busy Tax Season. We made our first Iowa trip back in April of 2006, and followed that with another in August of 2009 and one in October of 2010; so it was time for the "dangerous duo" to get back into action. This was my seventh trip with Mike which now ties him with W9MSE!

To give you an idea of our mobile setup, the primary transceiver is an IC-7000 with a IC-706 backup - both bodies located behind the rear seat in my Blazer. An LDG AT-7000 tuner is used on 40m. Mike sets his Yaesu FT-817 on the dash with an A123 Nanophosphate power supply, and a small dummy load for antenna. A coax switch located just aft and between the front seats allows me to switch between the main antenna, the screwdriver, and a D/L. The main antenna is a Hustler system mounted atop the vehicle using a Hi-Q stainless GQD (giant quick disconnect). Ball mounts and springs are a pain! The 6' mast tops out at 12' 3" above ground. All resonators are horizontally mounted with 20/30/40m at the top and 17/15/12/10 at the 4' level which makes the higher frequency resonators very easy to tune. An old High Sierra HS-1500 screwdriver is mounted on the hitch receiver using the HS layback hardware. This antenna is generally set to the 80m CW or 40m SSB frequency.

An Acer computer is mounted in front of the passenger seat and is loaded with DeLorme Street Atlas with GPS. We have not gotten into logging software as yet. An extension of the center console allows the operators arm to rest flat in position to use the Bencher paddle. The head of the transceiver is directly over the paddle, and an adapter box allows the use of two paddles. And the best part . . . . . Mike does all the logging of CW by hand and rarely needs a fill. It pays dividends to have the second op copy at your speed! The SSB contacts are captured with a digital recorder. Mike carries a Samsung Droid Charge (Verizon) and on occasion would upload our spots. When our trips are complete, I'm handed my CW logs to take back home for any required Logger input. My copy of the SSB portion follows at a later date . . . . logging duties are a good trade-off for the use of my vehicle.

The day after Christmas on my way to Iowa, I happened to be parked in Lac Qui Parle in front of the Yellow Medicine sign (running CW) when a highway patrol pulls up along side of me. I roll the window down and he is pointing toward the YM sign, and smiling

he tells me I should move forward to run the county line. I told the net to QRX and asked how it was going . . . he said fine and reached over and held up a CD for me to see . . . it was entitled “Learning the Morse Code”. ☺ We chatted for a few minutes and he said “go ahead with your net, I’ll look at your antennas and be on my way”. It turned out he was a no-code Extra class wanting to join in on the fun!

On the trip to and from Iowa, I made 1,714 contacts with 30% of those on 17, 15, and 12 meters. Twenty meters was the most productive band. Last County contacts – eight. The two days that Mike and I ran counties, I made 775 contacts on CW of which 17% were on the higher bands. The estimated number of SSB contacts is near 500 and even though Mike did the honors, I was involved in perhaps 80% of the total. As far as we know, we were able to satisfy twenty two LC needs.

When trying to run eight bands on CW and both SSB nets, the timing can get complicated, so I count on Mike to decide which county lines we must run to make the best use of our time. On one such occasion the decision to run the C/L of Humboldt and Wright was set and Mike entered both counties into the log. Well, as it turned out I was transmitting the fact that I was running Humboldt only. ☹ I ran the single county on three bands before I realized my error. I mentioned before that Mike copies at my speed and enters the data, but what I didn’t realize is, while I’m sending my call and county info, he is not listening (gives his brain a rest) while I have “brain gas”. I called N4CD and he posted the correction on the forum.

We preach “getting on frequency”, but you know what . . . it’s much easier for me to pick out calls when they are *not* all on the same frequency. In my case, the receiver is not tightly filtered and I find it easy to copy signals up to 200hz off the net frequency. I know that most mobile operators like a tighter setting, so it does pay to “know your mobile”.

There may be times when, in order to thin out the crowd, I will ask for Mobiles first, DX next, and then QRZ. Using break in operation and showing some courtesy to the other operators, will go a long way in helping the run to proceed smoothly. Very seldom do we leave a county without working everyone, but keep in mind that there may be times when no relays will be taken.

Weather wise we couldn’t have asked for better conditions. This time of year in the Midwest, you just have to get lucky. We enjoyed ourselves and hope that you were able to delete some counties from your needs lists. Until our next trip,

73, Jerry and Mike.

Boy Scout Radios Part III or IV

On the quest to document all the Boy Scout Radios – I discovered not only was there a One Transistor Radio and a Three transistor radio, there was also a Two Transistor Radio offered by the Boy Scouts. I haven't seen a Two Transistor one show up on Ebay (E-Pay) yet.

TRANSISTOR RADIO KITS

Transistors make it easy. Now you can build a compact radio set that is powerful and inexpensive to run. Low-cost batteries last about 6 months. Complete kits have quality transistors and components, two-tone plastic cabinets, instructions, and antenna. Can be assembled easily using just a screwdriver. Batteries extra.

1-TRANSISTOR RADIO KIT—Has fixed diode detector, earphone. Set operates on one 1810 penlight battery. **No. 1811**. **$4.50**

2-TRANSISTOR RADIO KIT—Picks up more stations, with earphone. Uses two 1810 penlight batteries. **No. 1812**. **$8.95**

3-TRANSISTOR RADIO KIT—Most powerful transistor set has its own loudspeaker. Uses one 9-volt battery. **No. 1813**. **$14.95**

No. 1813A Nine-volt battery for use with set. **No. 1813**. . . . **$1.35**
No. 1810 Penlight battery for use with **Nos. 1811, 1812**. . **.20**

Boy's Life Ad – March 1961

I”d venture the two transistor radio is just like the one transistor one, with an added transistor

direct coupled. It uses two penlight batteries (2x1.5v) instead of just one. These are likely Germanium transistors with very low voltage requirements.

The 3 transistor radio operates off 9v – so it has enough gain to drive a speaker. You'd still likely need an outside antenna. It cost 3 times as much as a one transistor one – and $15 was a lot of money back when the minimum wage was about 75c/hour. You'd have to rake a lot of leaves, shovel a lot of snow, mow a bunch of lawns at 50c to be able to buy one of these, then the battery would cost you another couple hours of work as a teenager to buy. Or if you were lucky, Santa Claus might deliver one if your family was well off.

If you ever see one of these 'transistor' or tube Scout radios (not the xtal version which seems to be everywhere) at a hamfest for $5 or $10 or $15, grab it and send it down to CHN HQ! There's got to be some of these floating around at hamfests, garage sales, and maybe even antique stores.

On the Road with N4CD II

It was another weekend coming up, and folks needed TX counties. Ralph, WB4FFV, who put out a thousand counties or more, was trying to finish up. The county hunters were making a country wide effort to 'finish him off' with special trips to get the ones he needs. He had a bunch of reworks including some in TX. Kerry, W4SIG, was going to get a few in MS for him. Dan, KM9X, hit the road to get some in IN and KY for him. Others were trying to get the last counties for Mitch, W4RKV who was closing in.

One of Ralph's needs was 250 miles southeast. Another was 350 miles to the northwest and the last in TX was 350 miles to the southwest. Whew....no easy ones to get. I could get to Jasper, TX, for him in an overnight trip. If you are crazy enough, you could probably drive down and back in one day, but that wouldn't leave any time for stopping, running county lines or anything else. Others needed counties off a straight line. So I packed up the car for an overnight trip. I'd find an inexpensive motel. Gas had crept up 15c/gal up to $3.25/gal here. It was a bit less down that way.

For the enjoyment of Alan, VK4AAR, I've included a detail route plan for him to follow along on his maps. He can travel along vicariously. Unfortunately, I only heard him once or twice the whole trip. The bands were not in good shape for DX. One time DL6KVA worked me. It sounded like about six different multi-path propagation from over there – made it a bit tough to

even figure out his call with all the echoes. Andy, SP5SA, was worked just once on the whole trip. It was not a weekend for DX.

The trip started on a Friday – and I'd have to go down through Dallas to get out to the southeast before rush hour. That meant getting up at 5 am, hitting the road a bit after 5:30 am, to be out of the Dallas area by 6:30 before things came to a creep. It was down Highway 75, known as the 'Central Expressway' (which isn't at rush hour), to the Dallas I-635 going around to the southeast. Even before 6am, traffic was full but moving 60 mph toward downtown Dallas. It was around the beltway down to Highway 175 to Kaufman County. I tried to work folks, but no one around at 6:00 am in the morning, and a few showed up at 7am local time. The sun doesn't even come up till after 7:30 here.

I had checked the needs. Don, W0EAR, needed just one – Newton, TX. Doug, WA4UNS, had just 8 to go for all Mobile to Mobile, and I could hit Sabine which is north of Newton/Jasper with no problem. Ed, N8OYY needed Sabine, too, to help finish up first time. The route was down 175 through Henderson, Anderson into Cherokee, then down 69 south to Highway 21 over past Nachogdoches into San Augustine. It was nice and warm with temps about 15 degrees above normal for this time of year. The humidity was up in east TX and toward the southeast. After a few hours, the fog in the low valleys moved in.....temp 70 deg with high humidity....and it drizzled then for a few hours until noon. Then the sun came out and it was great for county hunting for the rest of the trip. The steady rain was going to move in on late Sunday so I'd be home to miss that.

After San Augustine, I took the little road 353 northeast up to Shelby County, then hit 87 going south. There's lots of nothing (well, trees, trees and more trees - and open fields) in between the trees) for mile after mile there – 20-30 miles at a stretch, with a convenience store maybe every 8 or 10 miles at a highway intersection. These are pine trees – and lots of scrub trees. Texas has one million acres of trees – mostly in the eastern part of the state. Logging was the biggest industry before oil came along in the 1920s.

Sabine, TX County Line

Genuine Percy Pic

You run into Sabine then down into Newton after a long long drive. There you can catch R255, a great highway with good county line at Newton/Jasper. I've run that at least a dozen times.

Newton/Jasper, TX on R255

A genuine “Percy Pic”

The NC who had been begging for mobiles all morning, and I don't think even had one run in 4 hours, finally disappeared , so things were really humming on 14.336 with two or three mobiles now putting out the counties on 'the friendly net'. Scottie, N4AAT, Ed, N3HOO, Bill, KM1C, Bob, KA9JAC, Dick, K5VYT, and many others pitched in to help for the next day and a half.

After than county line of Newton/Jasper, someone had asked for Liberty, which would be their last county in TX. Dang...that was further south...well, it was still early enough, so it was down 96 to Route 190 going west. You head through Tyler – another county with lots of nothing but trees and open patches and not much else. Did I say trees? Lots of them. Then the car heads over to Polk, where you catch 59 headed south, and catch San Jacinto, then into Liberty for a short stretch. It was taking 30 minutes a county run to do 14, 17, and 7 SSB, then 40, 30, 20, 17 and 15 cw. I stopped most to the time to run on SSB, and many times stayed for the CW run. There's only a few miles in Liberty, so it's a long run stopped on the side of the road. It was well after 4pm, and sunset is 5:30 or so this time of year.

It was getting late, so I started looking for a motel. There was a Motel Six over in Conroe, TX about 20 miles west on the Interstate. (Montgomery, TX). I checked the Super 8, but it wanted $70 with tax for a room. The Motel 6 was $35 including tax. I headed to the Motel 6.

Now, I'm not in love with Conroe, TX...what a mess, in many ways, It was rush hour, and the traffic getting to the Interstate 45 was a zoo. It took nearly an hour. I 45 was under

construction. The GPS database said get on I45 south, exit in 2 miles on a road, and its right down the access road 1/2 a mile. Great. So it would seem. There were barricades (cattle chutes) on I45. You couldn't get off at the exit! The sign said 'exit closed' and there was no way off. Hmm. I saw the motel. No way to get to it.

After going another couple miles to the next exit, I figured I'd circle back, then hit the road from the south and exit. Well, I did even better...I stayed on the access road. It too was 'cattle chutes' and turned into one lane. You could not even get off on the right road from the access road. It took you up and over it. No exit! Well, I went back north, got off at an exit, and took the southbound access road. I'd fool them. NOT!.....the access road ended, guess where. Just before the closed exit and the Motel 6. I have no idea how anyone ever got there. You had to get back on northbound I-45. No choice! I said enough of this nonsense. It was now pitch black, there was lots of traffic bumper to bumper on I-45 with the normal lanes squeezed down to 2 and very narrow. I was back on I45 going north and said the heck with Conroe. Huntsville is 25 miles north (in the next county). I had stayed at the Super 8 there before – not cheap, but at least you could find the right exit! It was dark, there was no obvious way to the Motel 6, and it looked like no place to eat anywhere near it either – it was all by itself. That would mean more hassles getting in and out of it to find a place to eat.

Well, along the road I saw a sign for the Motel 6 in Huntsville. I got off at that exit for it, found it no problem, and they had a single non-smoking room - $30 including tax – senior rate. What a deal. Room was fine. I was tired, and it was late. There was a Grand Buffet on the other side of the interstate, so after unloading the car, taking out the radio, GPS and little spotting tablet, I headed over there for a nice dinner ($9.01 senior rate). Then it was down the interstate one exit, circling back to get back to the Motel 6. I've had enough of circling around on Interstates for a while! It was dark – 7:30pm.

I was up early, and there was a McDonalds about 1000 feet away for breakfast open at 6 am when I got there. I walked. On the way back, I picked up a newspaper to read to kill some time to allow the band to open before getting out on the road. I was already in a new county of Walker. There's a nice rest area north on the interstate a few miles to run it. It was warm – 65 degrees but humid. Then it is into Madison, and I get off at the first exit, and sit on the two way access road to the south for 30 minutes running it. The 20M net is a 'friendly session' where everyone was allowed to run, so it was a good day for SSB only county hunters.

The bands were good, with 30 plus contacts on 20SSB, and a good pile on 17cw – up to 15 at some counties. 40M SSB was good only in the mornings with the band going very short in the day. 40M cw was a bit better, but contacts got sparse in the middle of the day. Not too many showed up on 30m, but 20, 17, and 15cw were good, too.

Don, K3IMC was out in GA on 20 and 40m SSB. He was busy.

While I'm there in Madison, Scottie comes on and says 'Any chance for Brazos? His LC'. One county to the west of you he says. Well, as you know, that usually means likely that you are in

the eastern part of the county as far away from the west boundary – the Murphy law of county hunting...or maybe that's someone just comes on after you leave a county and there is no way to turn around on the interstate and get back without going 30 miles to the next exit to circle back. It's 20 plus miles to the west, but heck, it's early, and last counties are hard to come by in TX with 254 of them. He's given me enough counties...and I still need a few in his neck of the woods for MD, too. Mobiles helping mobiles – yep.

He also picked the right time and lucked out since I stopped at the right exit instead of sailing on by it. After the run, it was west on 190, through North Zulch (nifty sounding town name) , across the river into Brazos, where I sat on the side of the road for 30 minutes running all the bands and CW and SSB. Then it was backtracking to North Zulch and north on highway 39 up into Leon. Don, W0EAR, needed that for one of his last 7 for WBOW for MG. Jerry, W0GXQ needed Limestone – and Ed, N3HOO had asked for it while I was in Leon – so that was easy to get with almost no detour. Just stay on 39 headed to Mexia.

Keep on route 39 and it runs into Limestone, and a few miles later, you can take highway 80 going east to hit the C/L Limestone and Freestone. The GPS was going nuts with the County Line – it must cross highway 80 five or six times in a one mile stretch. I went down the road looking for a C/L sign. It twists and turns like crazy for a mile. Didn't see any sign but the GPS showed the C/L crossing the road several times. I went a few miles just to be sure. Dang....Well, I figured it was time to go back to the main road and try again. Oops, just before 39, on the right side of the road was the C/L sign you could easily see headed west. You need eyes in the back of your head at times. I hadn't expected the sign so close to the road . GPS was happy , the sign was there, and I was happy (and I could get a Percy Pic). That C/L got run. It's right across the road fro a giant cement/power complex, but it was 'noise free' amazingly.

Limestone/Freestone, TX

on Highway 80

A genuine “Percy Pic”

After that, it was time to get moving toward home, so it was up to Mexia on 39. There I grabbed a sandwich, and headed on 14 up into Navarro and I-45 to get home. Then into Ellis and Dallas, TX....where I 45 gets to be six and 8 lanes wide, the traffic builds – but not too bad until near Dallas downtown. Then its often pretty busy with six and 8 lanes full of traffic – but it was moving 55-60 mph on a late Saturday. I 45 goes past I-20 and I-30 with all their traffic, and finally turns into Highway 75 in downtown Dallas headed north (still 8 lanes). After 30 miles of that six/eight lanes and traffic, I got to the home QTH, and a few miles of 'only six lane' local main roads and I was home. Whew..no fun coming through downtown, but it's a lot easier when it is not rush hour. That one hour hassle turns into 3 hours or more at a typical rush hour. You really, really, really don't want to try that at rush hour. Believe me! (or at 2am in the morning when the folks leave the downtown entertainment district and motorcycles zip by at 100 mph and folks are half drunk, yakking on cellphones or trying to text, while doing 10-20 over the speed limit).

Wow...15M was working well, with six to 8 or more contacts per county – AB7RW, K1TKL, W9MSE, W0EAR, W0GXQ, KM1C, W4YDY, K4YT and others in the long. I only get about 10w into the antenna on 15cw. I can't get a better match with 5 resonators on the mast. 17M was excellent – more so on CW where we have a good bunch of cw folks there, and sometimes good on 17M SSB with N1API, N6PDB, WQ7A, KM1C, K4YT, W0GXQ, W0QE, WA1ZIC, WD4OIN, K4YFH, and lots of others showing up. Sometimes a DX station or two – JH7VHZ on cw, OK1VD, YV5OIE.

The weather cooperated – nice in the 60s and 70s – above average and Saturday was nice and

sunny all day. You can't ask for much more in January. It can snow and be nasty with icy roads here this time of year, so when the weather is good, it's time to take a county hunting trip. (Two days later it was 43 for a high and it rained steadily for two more days. Midland County got a record 12 inches of snow in one day. We need the rain. No one is complaining.)

I hope I cleaned up a few needs. We have some new county hunters and they need 'everything' so that helps fill in TX. The Texas QSO party goes a long way to filling in counties, but most of those folks aren't good for Bingo or Stars or for the other MARAC awards. Nearly every county gets run each year in the TQP. It's coming up on state QSO Party season (see coming activities for county hunters) so folks will be able to fill in large numbers of counties hopefully each weekend!

Thanks for riding along.

Surface Mediated SMCs

Compared with supercapacitors and batteries, SMCs offer both a high power density and high energy density.

It has all the appearances of a breakthrough in battery technology, except that it’s not a battery. Researchers at Nanotek Instruments, Inc., and its subsidiary Angstron Materials, Inc., in Dayton, Ohio, have developed a new paradigm for designing energy storage devices that is based on rapidly shuttling large numbers of lithium ions between electrodes with massive graphene surfaces. The energy storage device could prove extremely useful for electric vehicles, where it could reduce the recharge time from hours to less than a minute. Other applications could include renewable energy storage (for example, storing solar and wind energy) and smart grids.

The researchers call the new devices "graphene surface-enabled lithium ion-exchanging cells," or more simply, "surface-mediated cells" (SMCs). Although the devices currently use unoptimized materials and configurations, they can already outperform Li-ion batteries and supercapacitors. The new devices can deliver a power density of 100 kW/kgcell, which is 100 times higher than that of commercial Li-ion batteries and 10 times higher than that of supercapacitors. The higher the power density, the faster the rate of energy transfer (resulting in

a faster recharge time). In addition, the new cells can store an energy density of 160 Wh/kgcell, which is comparable to commercial Li-ion batteries and 30 times higher than that of conventional supercapacitors. The greater the energy density, the more energy the device can store for the same volume (resulting in a longer driving range for electric vehicles).

“Given the same device weight, the current SMC and Li-ion battery can provide an electric vehicle (EV) with a comparable driving range,” Bor Z. Jang, co-founder of Nanotek Instruments and Angstron Materials, told PhysOrg.com. “Our SMCs, just like the current Li-ion batteries, can be further improved in terms of energy density [and therefore range]. However, in principle, the SMC can be recharged in minutes (possibly less than one minute), as opposed to hours for Li-ion batteries used in current EVs.”

Jang and his coauthors at Nanotek Instruments and Angstron Materials have published the study on the next-generation energy storage devices in a recent issue of Nano Letters. Both companies specialize in nanomaterial commercialization, with Angstron being the world’s largest producer of nano graphene platelets (NGPs).

As the researchers explain in their study, batteries and supercapacitors each have their respective strengths and weaknesses when it comes to energy storage. While Li-ion batteries provide a much higher energy density (120-150 Wh/kgcell) than supercapacitors (5 Wh/kgcell), the batteries deliver a much lower power density (1 kW/kgcell compared to 10 kW/kgcell). Many research groups have made efforts to increase the power density of Li-ion batteries and increase the energy density of supercapacitors, but both areas still have significant challenges. By providing a fundamentally new framework for energy storage devices, the SMCs could enable researchers to bypass these challeges.

“The development of this new class of energy storage devices bridges the performance gap between a Li-ion battery and a supercapacitor,” Jang said. “More significantly, this fundamentally new framework for constructing energy storage devices could enable researchers to achieve both the high energy density and high power density without having to sacrifice one to achieve the other.”

The key to the SMCs’ performance is a cathode and anode that contain very large graphene surfaces. When fabricating the cell, the researchers put lithium metal (in the form of particles or foil) at the anode. During the first discharge cycle, the lithium is ionized, resulting in a much larger number of lithium ions than in Li-ion batteries. As the battery is used, the ions migrate through a liquid electrolyte to the cathode, where the ions enter the pores and reach the large graphene surface inside the cathode. During recharging, a massive flux of lithium ions quickly migrates from the cathode to the anode. The electrodes’ large surface areas enable the rapid shuttling of large numbers of ions between electrodes, resulting in their high power and energy densities.

As the researchers explain, the exchange of lithium ions between the porous electrodes’

surfaces (and not in the bulk of the electrode, as in batteries) completely removes the need for the time-consuming process of intercalation. In this process, the lithium ions must be inserted inside the electrodes, which dominates the charging time of batteries.

Although in this study the researchers prepared different types of graphene (oxidized, and reduced single-layer and multilayer) from a variety of different types of graphite, further analysis of the materials and configuration is needed for optimizing the device. For one thing, the researchers plan to further investigate the cells' cycling lifetime. So far, they found that the devices could retain 95% capacity after 1,000 cycles, and even after 2,000 cycles showed no evidence of dendrite formation. The researchers also plan to investigate the relative roles of different lithium storage mechanisms on the device's performance.

"We do not anticipate any major hurdle to commercialization of the SMC technology," Jang said. "Although graphene is currently sold at a premium price, Angstron Materials, Inc., is actively engaged in scaling up the production capacity of graphene. The production costs of graphene are expected to be dramatically reduced within the next 1-3 years."

- - - - -

Nanotek says that even the first generation devices (which aren't optimized yet) feature fast recharge cycles - and already outperform both supercapacitors and lithium-ion batteries. Recharge time is 10 times faster than supercapcitor and 100 times faster than lithium ion while energy capacity is the same as Li-ion batteries and 30 times higher than conventional supercapacitors.

They say that it will be easy to commercialize SMCs - but graphene is still very expensive, and it will take 1-3 years (according to Angstron Materials) to dramatically reduce the price.

More Greenie Fail

When the MSM isn't outright ignoring Green scandals like Climategate, it is shrugging off the failure of Big Government's green "investments" like Solyndra as isolated incidents.

"The failure of a single company — and anyone who knows anything about transformative technologies knows there will be failures — is no reason to stop our efforts to catch up," huffs the New York Times's editors.

Before Barack Obama hung out his White House Investment Bank shingle ("We invest, taxpayers bear all the risk"), former Michigan governor Jennifer Granholm had already thrown away millions in taxpayer money on green ventures from bankrupt Fisher Coachworks to Evergreen to RASCO. Obama & Co. have followed with investments in boondoggles like Beacon Power and A123 Systems — which is struggling in part because government has mistakenly invested in too many battery suppliers chasing too little demand.

Now the snowball of bad investments has claimed another victim: Saginaw's GlobalWatt solar company.

ABC-affiliate WJRT reports that "eviction proceedings have begun for . . . GlobalWatt. It's no secret people have been skeptical about this business . . . especially when the CEO has declined to comment on production or how many people have been hired."

Due to skimpy press coverage, it was likely a secret to taxpayer investors who are about to lose even more money.

"It was two years ago, mid-December, when California based GlobalWatt Inc. announced it would bring 500 jobs and invest $177 million into making solar panels in Saginaw," continues WJRT. "The state of Michigan awarded millions in tax credits, A MEGA grant included, and the break was to come when jobs were created.

This despite the fact the experts like the Mackinac Center's Michael LaFaive and consultant Chris Philbrick were warning of GlobalWatt's lack of viability. "I'm not surprised, based on the public record," Philbrick said this week at the news of GlobalWatt's eviction.

Meanwhile, Governor Granholm continues to parade around the country on a book tour touting green energy as the future and the federal Department of Energy continues to pour money down the drain. And Green cheerleaders like the Free Press blindly insist that "there's a great deal (of evidence) to suggest that federal support for alternative energy is increasingly critical to America's economic recovery."

http://www.nationalreview.com/planet-gore/286696/another-green-industry-failure-henry-payne

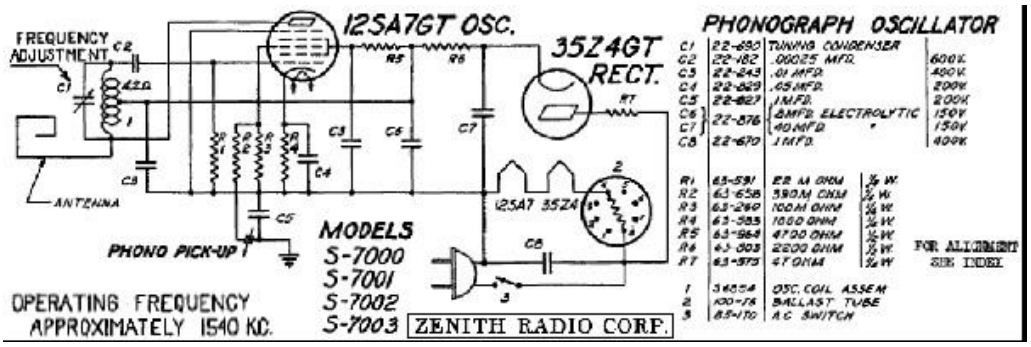
Part 15 and Phono Oscillators

In 1938, the FCC created Part 15 rules, which allowed for low power use (100 milliwatt output power max on the AM broadcast band with an antenna no longer than 10 feet) in the broadcast band. One of the first uses of this new rule was the 'phono oscillator' which was a low power transmitter that would allow one to take the output from a crystal or magnetic cartridge on your phonograph and 'broadcast' it to a nearby radio. Some manufacturers included it instead of an audio amplifier and speaker.

Most folks had a decent radio – console or table top with at least a couple watts of power, and it was less expensive to put a two tube low power phono oscillator in the phonograph and let you use the big power amplifier and speakers of your console radio.

Zenith was one of the first to do this with their S-7000 unit which was built into the phonograph. It saved having to put speakers, power amplifier, volume controls, etc, in the box for the phono turntable. (times were still tough in the late 30s – still in the depression0

Here's a schematic of the Zenith S-7000



With the advent of the hobbyist kit, Knight Kit and Lafayette radio offered kit versions of this starting in 1954. This really caught on the late 50s and 60s with the advent of 'rock and roll' and tens of thousands of teenagers anxious set up their own 'broadcasting' studios. Kids were interested in electronics and radio as a hobby. There wasn't much on TV to distract them (no cable, no satellite and only 3 or 4 channels).

The first Knight Kit unit was just a 'phono oscillator'. It had open ends to the chassis. Within

a few years, the 'safety issue' arose, and they came up with a second version which also had a low power audio amplifier, and enclosed chassis.

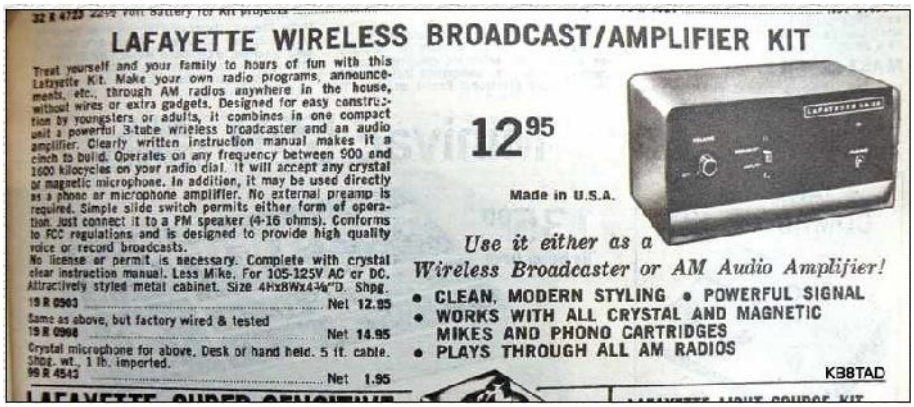
Knight Kit Broadcaster

There's now a bunch of fanatic collectors. These will sell for $60 to over $100 depending upon the condition and model on Ebay.

More info and pics here

http://www.crompton.com/wa3dsp/KnightBroadcaster/

Here's a catalog page for the Lafayette unit. Over the years, they offered both a kit and factory wired versions of this. One model was the KT-195



More on the Lafayette unit here

http://www.ohio.edu/people/postr/bapix/LA23.htm

All of these units operated directly off the line, with 'floating grounds'. There was no power transformer. Later versions would use polarized plugs, but that was no guarantee your house wiring was correct, and when you hooked this to other equipment, you could have major safety hazards.

Two other units were available from Graymark – the 505 and 515.

Graymark Educational Products AM Transmitter - Model 505 transmitter shown

The later 50s Knight Kits and Graymark used two 50C5 type tubes and a 12AU7 or similar for

their circuits. The 12AU7 was an audio amp, the 50C5 was an oscillator, and the other 50C5 was used as a rectifier. (those good old days where it took a tube to just give you a half wave rectifier! - now a small diode does the same) .

The first Knight offering in 1953, with the open chassis, used a 50L6GT and a 35Z5GT.

Radio Shack, which absorbed Knight Kit, offered a 'wireless microphone' as part of its P-Kit line. Solid state and one of the 30 p-box kits that you used the plastic box as the 'chassis' to built it. There were dozens of others available as well in the solid state era. Remco offered their Broadcasting station with weird antenna on top out of cheap plastic.

Masco offered a built 'stereo broadcaster' that had two channels built in.

Naturally, some enterprising kids set up mini-broadcasting stations, with a switchboard to connect a studio microphone, the turntable, maybe a tape recorder, and made themselves into a 'radio station' complete with call in requests. If you were 'legal', the range was maybe 200-300 feet if your 'station' was in the clear. However, many connected 100 foot long antennas or boosted the power out of the unit to a watt or so, and could cover a mile radius. No one really cared unless you wiped out a local broadcast station most of the time. In fact, most people didn't even know there were other stations there as their radios were glued to the one or two stations they actually listened to! But the kids had a lot of fun.

Today you can still buy a 'phono oscillator' kit (solid state) from Ramsey Electronics.

Here's a copy of the manual for it

http://www.ecst.csuchico.edu/~hma/DesignProject.311.pdf

However, if you are a boatanchor fan...you can still buy a vacuum tube project kit from Antique Wireless Supply company and build yourself a 1939 style Zenith phono oscillator!

http://www.tubesandmore.com/

Look under 'kits' then transmitters!

If you grew up in the 50s and 60s, you likely knew someone who had one of these...if you didn't think of having one yourself!

Sources:

http://www.radiomuseum.org/r/allied_rad_wireless_phono_oscillato.html

http://my.core.com/~sparktron/pbox.html

Of course, now Part 15 covers all of the cordless telephones and the other wireless devices that operate at 900 MHz, 2.4 GHz, 5.4 GHz and the FM broadcast band.

Some stuff from Ebay

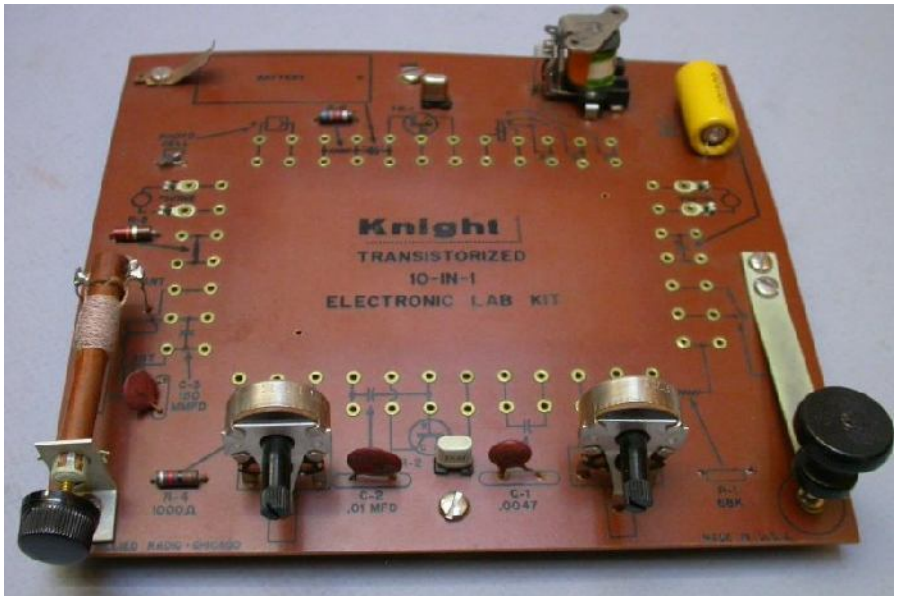
Here's an interesting receiver. Made in Chicago by Guthman, it's a model U17 Silver Super receiver

The tube line up is: V1 (6K8) conv, V2 (7A7) if amplifier, V3 (6B8) detector, avc, af1, V4 (7A7) beat frequency oscillator, V5 (7A7) meter amp, V6 (6V6) af out, V7 (VR150) voltage regulator, V8 (80) rectifier.

It has a regenerative IF. It covers 540 to 61 MHz in six bands. It was designed by McMurdo Silver – who had his own company and own receivers up to 1938, but went bust in the depression. This set was designed in 1938, then this unit offered for sale in 1939. A year later, they offered a model U-50 which had a crystal filter. WW2 broke out not long after.

Rather rare! Sold for $200 on E-Pay.

Here's another interesting goodie from the 'early' days of 'solid state' electronics. A Knight Kit 10 in 1 solid state lab kit with two genuine transistors. A 2N34 and one other (2N35?). Advertised in Boy's Life and other magazines in 1957. Transistors were new and expensive then – like dollars EACH.



Knight 10 in 1 " transistorized" lab kit

You could build audio amps (it came with 2 single headphones) – you would use one as a microphone and listen on the other. You could use a key to close a relay. Very simple circuits. It appears you could build a one or two transistor radio – you would use wires between the eyelets. The battery went at the left back corner – one battery clip missing. It comes with the original manual. The 2N35 would barely work up to a few hundred kilohertz. Germanium. You could also make a 'wireless broadcaster', code practice oscillator, etc. These are rather rare – sold for $100 on E-Pay. Most, I guess, hit the dumpster 50 years ago.

Here's a catalog sheet on the lab kit.

http://myweb.msoe.edu/reyer/knight-kit/1962-432-433.jpg

Now you can buy a $3 digital wrist watch with 1 million transistors in it. Or get a cellphone with half a billion transistors in it.

Toyota 600 Mile Battery News

The Nikkei reports that Toyota Motor Corp. and its partners the Tokyo Institute of Technology and the High Energy Accelerator Research Organization have devised a prototype solid-state Li-ion storage battery and aim to improve and then commercialize it in the 2015-2020 timeframe.

> *Since the battery can easily be processed into sheet form, it can store several times the amount of electricity, volume for volume, than the current generation of electric vehicle batteries, according to the developers. This added capacity may extend the maximum driving distance per charge for compact EVs to around 1,000 km [621 miles] from the 200km or so for existing vehicles.*

Currently, Li-ion batteries with high energy and power densities used organic liquid electrolytes; these, however, require relatively stringent safety precautions, making large-scale systems more complicated and expensive. The use of solid electrolytes—which would address many of those issues associated with the liquid electrolytes—is currently limited by their conductivities.

Toyota and its partners earlier this year published a paper in the journal *Nature* describing the development of a lithium superionic conductor $Li_{10}GeP_2S_{12}$ that has a new three-dimensional framework structure. Kamaya et al. reported that the new material exhibits an extremely high lithium ionic conductivity of 12 mS cm^{-1} at room temperature, representing the highest conductivity achieved in a solid electrolyte, exceeding even those of liquid organic electrolytes.

The new solid-state battery electrolyte has many advantages in terms of device fabrication (facile shaping, patterning and integration); stability (non-volatile); safety (non-explosive); and excellent electrochemical properties (high conductivity and wide potential window).

Wind Power Woes

Renewable-energy misery spreads to Vestas, as the Danish wind turbine maker slashes jobs, some in Portland

Turbulence in the renewable-energy industry buffeted Vestas on Thursday, as the Danish wind-

turbine maker announced plans for 2,335 layoffs, including some at its U.S. headquarters in Portland.

Vestas Wind Systems will cut about a tenth of its worldwide work force, slashing costs by $190 million before year's end. Layoffs will include 182 in the United States and Canada, including an undetermined number in Portland, where Vestas is ***a subsidized star in the city's green galaxy***. Managers said another 1,600 Colorado factory jobs could be axed later this year if a federal tax credit for renewable energy is not extended.

The main pain will be in Denmark, where 1,300 employees will go. Helle Thorning-Schmidt, the Danish prime minister, called the scale of the layoffs "an enormous setback" for the industry in Europe. "This is one of the businesses that we thought would be the new way of doing things," she said.

After the layoffs, Vestas will employ about 20,400 people globally, company officials said, including 5,300 in Denmark. CEO Engel, who is reorganizing his management team, cut the company's 2011 revenue forecast by 400 million euros to 6 billion euros.

Vestas shares have fallen more than 90 percent since peaking at 692 kroner in 2008. On Thursday, they closed at 58.50 kroner in Copenhagen, down 7 percent.

The North American market was strong in 2011, as Vestas announced orders of 812 wind turbines -- enough to power about 500,000 homes. Vestas hired nearly 700 people in the United States and Canada during the past eight months, many for manufacturing positions.

But in November, Engel said U.S. sales could "fall off a cliff" unless the federal government extended a tax credit beyond this year. The renewable-electricity production tax credit gives an incentive of 2.2 cents a kilowatt-hour of power for the first 10 years of a project's operation.

On Thursday, managers said they might lay off an additional 1,600 workers at U.S. plants if the tax credit expires as scheduled Dec. 31. The credit has been extended seven times since 1999, sometimes retroactively, creating uncertainty in the industry.

Vestas sales last year evidently benefited from customers rushing to launch projects that could be completed before Dec. 31, 2012. The company hasn't announced any firm and unconditional orders for this year. Managers can't speculate on this year's sales amounts, Longeteig said.

Source: http://www.oregonlive.com/business/index.ssf/2012/01/renewable-energy_misery_spread.html

---

de N4CD: What do you think, warmists? Should we increase the already massive debt we are leaving your kids and grandkids to jack up the subsidies for these companies so we can have more unreliable energy down the road? Another half a million per green job ought to do it.

The ARC-5 Command Set

During WW2, one of the transmitters built in large numbers was the ARC-5 'Command Sets'. After WW2, these were available as 'surplus' in very large numbers. You could buy them for $5 and up, and convert them to ham band use. Many novices back in the 50s bought one, and with a few simple steps put them on the air. It did take an external power supply, naturally, to run the filaments and tubes.

Here's an interesting series of of videos on the ARC-5 transmitter, conversion to the ham band – each one of the series is 10-15 minutes long, so on a 'dead band' day, grab a cup of coffee and enjoy! There's five videos in the series

http://www.youtube.com/watch?v=x2IllIrYPTSM

Global Warming Alarmists Cries – Phony

Gleick finishes his opening sentence by asserting, “a year in which unprecedented combinations of extreme weather events killed people and damaged property around the world.”

That is quite a bold, unsupported statement. Just what were those extreme weather events? Gleick doesn't say. Perhaps we can speculate.

It certainly wasn't hurricanes, as Ryan Maue at the Florida State University Center for Ocean-Atmospheric Prediction Studies documents that global and U.S. hurricane activity has been remarkably quiet for the past few years. During 2009, global accumulated tropical cyclone energy reached a record low, and has remained abnormally quiet in the two-plus years since.

It certainly wasn't tornadoes, as the National Oceanic and Atmospheric Administration reports 2011 continued a long-term trend in declining frequency of strong tornadoes. Yes, there were some strong tornadoes in 2011, but there are strong tornadoes every year. The only thing climatically remarkable about the 2011 tornado season is that the relatively few strong tornadoes that did occur happened to beat the odds and touch down more often in urban areas than is usually the case. Unless Gleick is arguing that global warming somehow causes hurricanes to wickedly target disproportionately urban areas, tornadoes like hurricanes are becoming less of a threat during recent decades as the planet has modestly warmed.

It certainly wasn't drought, as multiple peer reviewed studies report global soil moisture has consistently improved during the past century as the planet has warmed. (See, for example, this study.) Yes, some droughts are going to occur somewhere on the planet each year, as they always have, but cherry-picking one of the increasingly less frequent droughts that still do occur does not constitute evidence that global warming is causing more extreme weather events.

source: http://www.forbes.com/sites/jamestaylor/2012/01/12/please-global-warming-alarmists-stop-denying-climate-change-and-science/3/

BPL Provider IBEC Announces Shutdown

One of the very few remaining operators of Access BPL systems -- has announced that it is closing down. In an undated announcement that appeared on the IBEC website, the company announced that it has “no other option than to close our doors and cease operations.” IBEC claims that it cannot recover financially from the April 2011 tornadoes in Alabama that “ravished some of our major service areas.” IBEC provided Internet service via broadband over power lines (BPL) to rural communities.

IBEC said that it expects service to continue through the end of January, but that it “cannot guarantee the quality and availability of service during this period.” IBEC will discontinue its customer service operations as of January 16. In a letter to IBEC customers dated December 23, 2011, IBEC said that it “will no longer be in a position to provide Internet service to your area. We encourage all of you to pursue other options for your Internet services as soon as possible. This includes your e-mail service.”

“While we regret the loss of jobs brought about by IBEC’s broadband over power lines (BPL) business failure, in the long run the rural areas that IBEC was trying to serve will be better served by broadband technologies that are superior to BPL and do not pollute the radio spectrum,” said ARRL Chief Executive Officer David Sumner, K1ZZ. “While initially IBEC was cooperative in addressing the ARRL’s concerns about interference to licensed radio services -- including Amateur Radio -- the ARRL was dismayed to find that the systems as actually deployed fell short of meeting even the inadequate requirements of the FCC’s rules. We hope that this latest in the long string of BPL failures will persuade the few remaining fans of Access BPL to turn their attention elsewhere.”

More than a year ago, the ARRL filed a complaint with the FCC, documenting ongoing harmful interference and egregious rules violations by IBEC-installed BPL systems in Virginia, Pennsylvania and Indiana. The ARRL had requested that the FCC “initiate immediately an enforcement proceeding regarding these BPL systems, and cause them to cease operation until such time as they are each in full compliance with the Commission’s Rules.” The ARRL even discovered IBEC BPL systems in operation that are not listed in the online BPL database -- another clear violation of the FCC rules, which require listing 30 days prior to initiation of service. To the ARRL’s knowledge, even as of today, the FCC has taken no enforcement action to correct these violations.

IBEC Chief Executive Officer Scott E. Lee told customers that although he was sure that the

closure was “an unexpected surprise,” his team “has done all things possible to stop this day from coming. Our demise, started with the April 27th storms of this year in Alabama, which destroyed over 3.2 million in assets, which our Insurance Provider (CHUB) has refused to pay. We also lost a critical investment from an Investor commitment, due to these storms, putting IBEC into a negative financial situation. IBEC pursued assistance from RUS (our Federal Creditor at US Department of Agriculture), our vendors and endless potential buyers after these events without success.”

Jeff Loven, the General Manager of French Broad Electric Membership Corporation, told the ARRL that he had only heard about IBEC’s closure around 10 AM January 3. “We really don’t know what we’re going to do right now,” he said. “IBEC only served a small number of our customers.” Loven said that of FBEMC’s 37,000 customers, only 200 subscribed to IBEC’s Internet service. FBEMC serves Madison, Buncombe, Yancey and Mitchell Counties in North Carolina, and Unicoi and Cocke County in Tennessee.

In Virginia, Central Virginia Electric Cooperative’s Member Services Manager Greg Kelly told the ARRL that with IBEC leaving the area, they will begin looking for “anyone who is committed to serving rural space for broadband. I’m not sure how many customers IBEC served, as Central Virginia Electric Cooperative had nothing to do with the service; IBEC just put their equipment on our poles.” CVEC provides service to 33,000 customers in 14 counties in Central Virginia.

The ARRL asked Kelly if CVEC would use the IBEC equipment to provide broadband Internet service to its rural subscribers, Kelly said he didn’t know: “IBEC owns and operates the system. If we used the equipment, we would have to train people on how to use it, how to maintain it. Maybe a third party would have to come in and operate it for us. I just don’t know. But if I had to guess, it will just lie dormant if it’s not removed.”

Kelly cited the Alabama storms as the reason for IBEC’s dismantling. “I’m not sure how many customers we have here in Central Virginia,” he told the ARRL, “but in Cullman, Alabama where the tornados hit, IBEC lost 1400 customers.” IBEC is headquartered in Huntsville, Alabama.

ARRL Laboratory Manager Ed Hare, W1RFI, has made field strength measurements at several of the IBEC BPL sites. Over a period of two years, he has consistently found that these systems were operating at levels much greater than the permitted FCC limits.

“Distribution power lines are simply not designed to carry broadband signals,” he explained.

“Although systems can be designed to work in that hostile environment under ideal conditions, in practice, conditions are not ideal. In system after system measured by the ARRL over the past 10 years, Access BPL systems were operating at levels from 15 to 40 dB greater than the FCC limits, but still not working well.”

From an interference perspective, Hare said IBEC’s closure is good news: “There are still BPL systems running in the United States. Now that IBEC is out of the game, no other system in the country uses the amateur bands in their deployments.”

Source: ARRL NewLetter 1/5/2012

http://www.arrl.org/news/bpl-provider-ibec-announces-shutdown

de N4CD – good riddance – Nelson County VA had S9 noise on 20m everywhere in the county within a 1/4 mile of the power lines. It started just inside the county. Worse on 40M. It ended after you left the county. Good riddance!

Ham Radio in the Movies

According to previews, the plot of the movie **Journey 2: The Mysterious Island** -- set to be released February 10 -- hinges on Amateur Radio. The movie’s hero Sean Anderson (played by Josh Hutcherson) receives a coded distress signal that comes from a mysterious island where no island should exist. Sean decides to follow the signal with the unwilling assistance from his stepfather Hank (played by Dwayne “The Rock” Johnson).

Sean explains to Hank why he wants to hunt down the signal: “A few nights ago, a radio signal got sent out from these coordinates. It could be the mysterious island that Jules Verne wrote about.”

Hank replies: “You think you’re gonna travel halfway around the world and meet up with some lunatic who’s messing around on a ham radio?”

“That’s not some lunatic,” Sean says. “That’s my grandfather.”

Other than this mention of “ham radio,” it is not yet known how Amateur Radio will be featured in the movie.

Together, Sean and Hank fly out to a tropical island to begin their quest. There, they meet up with Gabato (a helicopter pilot played by Luis Guzman) and his daughter Kailani (played by Vanessa Hudgens). The group sets out to find the island, where they find the island’s lone human inhabitant: Sean’s grandfather (played by Michael Caine). For a while, the five enjoy the wonders of the island -- the lost world of Atlantis -- but soon, seismic shockwaves begin destroying this rediscovered world. They must escape before the island is forced under the sea and its treasures are buried forever.

In the summer of 2011, two movies featured Amateur Radio: Mr Poppers Penguins and Super 8. While it was exciting to see ham radio on the big screen, there were inaccuracies in its portrayal, ranging from incorrect frequencies to the wrong equipment being used. Radio amateurs are holding out high hopes for Last Man Standing, a new situation comedy that currently airs on Tuesday nights on ABC. The ARRL has been working closely with Last Man Standing producer John Amodeo, NN6JA, to ensure that Amateur Radio will be portrayed correctly.

Movie Trailer for the movie here:

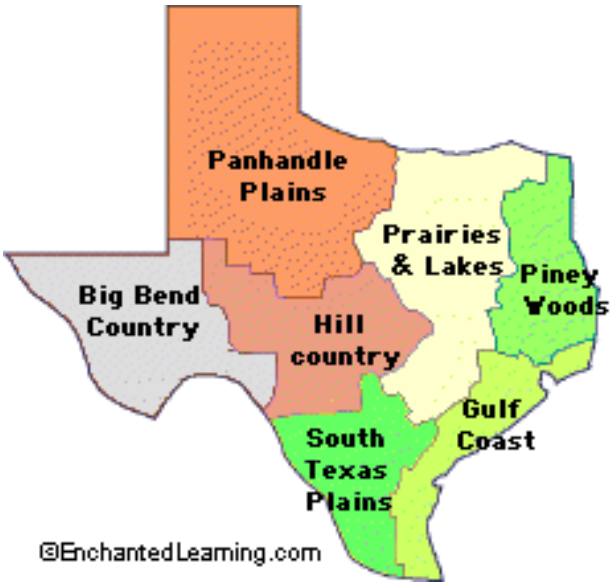
http://www.imdb.com/video/imdb/vi4230192665/

On the Road with N4CD III

There was another hamfest down in San Antonio, TX, about 250 miles down Interstate 35 through lots of congested roadway. It was only a Saturday affair. I'd never been to this hamfest, so I decided to check it out to see how big it was. Besides, it was a good excuse to go county hunting over a 3 day weekend for the MLK holiday. Some would be around on the Monday as well as the weekend.

For Alan, VK4AAR's enjoyment, I'll toss in some route numbers so he can follow along on his Texas maps. There hasn't been much in the way of DX propagation.

There are seven regions in TX as shown in the following map. Last trip, I headed to the southeast part of the state – the Piney Woods to get Sabine and Newton. Just touched the Gulf Coast region at Conroe, TX – just north of Houston. I live in the Lakes and Prairie region.



On this trip, I'd hit the South Central Plains – barely – with the trip to San Antonio. Then over to the Hill Country, down to the Big Bend Country, up through the Panhandle Plains, and back to home. All 7 regions in less than 10 days! Keep in mind that if you start at the east border on I-20 or I-30...and drive all day at 60-70 mph average.....a long long day...and get to the far west tip at El Paso, you've driven half way to California. If you start at the bottom and head north through the panhandle, you've done 1/3rd of the way to Canada. That will take you all day too of steady driving from 6am to 6pm. Texas is a big state.

As an old saying says(usually found on tourist postcards): The sun has riz – the sun has set – and we ain't out of Texas yet!

The weather was supposed to be great – this time of year, it can be nice or nasty. West TX had already had two major snow events with record setting snows, blizzards, white outs, and closed highways. Usually they don't last long, but you don't want to try to drive in it. The forecast was for 'above normal temps' and no rain!

I headed out after breakfast on Friday after 'rush hour'. I had to head right on through downtown Dallas – it was still a giant traffic mess taking an extra 30 minutes or more to get out the south side of Dallas on I-35. There's always a big mess around Austin TX on the interstate (massive slowdowns at times) so I took highway 95 from Bell County down to Bastrop then highway 21 down to Bexar County – which got me few other counties along the way, too!

That way, I'd miss Austin TX completely.

It took most of the day - the detour added another 75 miles to the trip. There are several Motel Sixes down there and I checked into a Motel 6 just off the interstate (San Antonio north - $35). There's a nice Cracker Barrel about a 2000 foot walk away for dinner (country **HAM** dinner, of course). In the morning, you have your choice of a Wattaburger, McD, Burger King, and two or three others within spitting distance. The hamfest is in Schertz, TX about 10 miles away and I made it there early and managed to get in before the 8am start time to check out the goodies. There wasn't a whole lot of interesting stuff that tugged at my wallet. I did buy a nice little vernier tuning dial and two nice metal enclosures (boxes) for $2 and one or two other small things. There were maybe 50 tables of 'stuff' inside and only 2 or 3 tailgaters as it was chilly in the morning (40s) with a good breeze blowing.

The only really nifty oldie things there 'mobile wise' was a pair of Morrow units from the1950s– in super nice condition – the mobile transmitter and mobile receiver.

Morrow Twins

These were expensive, solidly built rigs for mobile use back in the AM days. 25W of plate modulated AM – covered 80-10m (no WARC naturally). Made 1958-59. Also did cw. The receiver was double conversion. It took an external power supply to run it.

George, K5GE, was the only county hunter I saw there at the hamfest– he lives not far away. The other 'cute thing' I picked up was a W1AW small solid state receiver, supposedly in working condition. It had the W1AW schedule on the front panel along with an off/off switch, and took a 9v battery, antenna and ground connection. It was a buck. I bought it. For a buck, I'd play around with it.

After about 90 minutes, it was back to the motel to pickup the radio and goodies, then head out.

Here's the scoop on the South Texas Plains

http://www.tpwd.state.tx.us/kids/about_texas/regions/south_texas/big_kids/

“The South Texas plains and brush country stretches from the edges of the Hill Country into the subtropical regions of the Lower Rio Grande valley. Much of the area is dry and covered with grasses and thorny brush such as mesquite and prickly pear cacti. “

I had checked the needs for Texas – I didn't need anything myself other than Aransas TX for mobile diamond – and this trip was going west. Many of those western TX counties hadn't been run in a year and only 2 or 3 times in the past 3 years! Wow.

This part of Texas is very historic – first with the mission trails of the Spanish who headed out of Mexico - and then with the Alamo (a converted mission) – the Republic of Texas. Then it was the frontier as the US expanded west in the 1830s – into Indian territory with the Texas forts. It started in the east with Fort Worth, Fort Gates up near Temple, TX – in a line south to San Antonio – then gradually west with Ft McKavett, Fort Mason – then west to Fort Davis, Fort Stockton, Fort Bliss (El Paso) and others in between – roughly along the route of I-10 now all the way west.

Read more here about TX forts: http://www.texasbeyondhistory.net/forts/military.html#map

Of course, OKLA is the same way....I'd pass by other frontier forts on the OK part of this trip.

After Bexar County (San Antonio area), you run into Kendall going west on I-10. Gene, K5GE, needed that so we hooked up. I got off at the exit to 'Welfare, TX' – that's so small it's not even on the map. I missed the turn to get to Bandera – other 'most' needed county - so it was backtracking 7 miles or so to get to route 46 down to the Bandera county line. Ran it. Then back to the interstate to head west again.

Hill Country -

“The Texas Hill Country is located in Central Texas. The land is rolling to hilly grassland. It sits on the Edwards Plateau. A plateau is high, flat land. Over many millions of years, this plateau has been eroded into a hilly terrain. There are many springs and some steep canyons in this area.

There are also hidden, underground lakes in the Edwards Aquifer. An aquifer is an underground layer of rock or sand that captures and holds water. The underlying limestone rock of the Edwards Aquifer has many holes and caves with water running through it. Water comes to the surface as springs through cracks in the limestone. This aquifer provides drinking water for 1.5 million people, as well as for farming and wildlife habitat. People who like to explore caves enjoy the caves of the Hill Country.

Central Texas was once a land of many springs. Human use and development has stopped the flow of many springs. One spring that still flows is at the bottom of a lake! The San Marcos

Springs are found at Texas State University's Aquarena Springs. People ride glass-bottom boats to see them. It is a favorite spot for divers who come to see water bubbling out of the ground! In the central part of this region, there are large granite domes or uplifted areas. The most famous one is Enchanted Rock near Fredericksburg. “

http://www.tpwd.state.tx.us/kids/about_texas/regions/hill_country/big_kids/

Ralph, WB4FFV, was working hard to finish up and the county hunters were working hard to get him finished up. Last trip I got him Jasper, but he still needed two more. Just west of Bexar TX – well, a hundred miles or more – is Gillespie. It lies on the interstate (a 'green stamp' county) but there isn't too many miles of it. There's a nice rest area – quiet if there are no noisy trucks parked there – and you can sit and run it till you exhaust all the bands for contacts. Ralph was there and we whittled down his list to just one to go in TX.

I had pulled up with 300 feet of a truck – wow- it produced S7 crud across the bands. I backed up as far as I could in the rest area and it was down to S2. He left halfway through the runs. Great. Some have giant inverters and other stuff that produces white noise everywhere up through white light.

One of the most needed counties in TX was Presidio. You really have to want to go there – it's a long drive and 'off the beaten path' down by the Big Bend area. Only 2 or 3 folks have wandered through there in the last 3 years – and one of them was yours truly, N4CD. It deserved to be 'put out' again. The speed limit on I-10 is 80 mph....and you can go hundreds and hundreds of miles before getting anywhere. You go and go and go, with not much to see other than open road. The speedometer read 85 mph for the next few hours till I reached Pecos County, where you get on 67 down to the small town of Alpine in Brewster County. South Texas has 'mountains'. As you head down 67, you see a whole panorama of mountains from the far left to the far right. Eventually you reach them, then head on in to the town which is up at 4500 feet. That means nice cool evenings even in the summer time – you can build a 'passive solar house' here – one of the few places in Texas where they work well year round. You have lots of sun to heat the house in the winter, and in the summer, the cool evening temps allow you to cool down the house, and use minimal a/c during the day. (use thick adobe walls and you are set).

The speed limit on rt 67 is 75 mph and you can go 80. It still took till 5pm – all day at 80 mph plus to get there. As I found out when I filled up, my car only gets 25 mpg at 85 mpg. Ouch.

This part of Texas is as dry as a bone. Normally it is dry – getting only 12-20 inches of rain a year, but for the past 2 years...there has been next to none in the rain department and over 130 counties are still in 'exceptional drought' conditions.

I headed right to the 'lines' of Presidio/Brewster on 67. The highway crosses the county line 3

times in about a mile or so. The first crossing has power lines. This was the first time I had GPS and could see all 3 crossings. The last one has the sign for Presidio, and I stopped there to take a pic and run the county. It's a bit noisy. On the way back, I actually saw the small sign (side by sign wood type sign) on the side of the road – the 'middle crossing' - I think it just got put back up – hadn't been there last few times I've been there. No power line – probably the best place to run it. On the way back you see the sign for 'Brewster County' at the 3rd crossing. You have your pick of 3 spots at this county line! Pat, K7VAY, needed Presidio as one of his last three in TX. He also needed Martin and El Paso, and Larry, W7FEN, was headed to El Paso in a week to get him that one. I'd hit Martin for him. Pat got his 'spotter' working again. It's nice when folks spot you on a band. Within minutes, the whole pack of county hunters show up. Not many listen to 40M out west. Or 30M at all these days. Some will follow you band to band and spot you (KM1C, for example).

The motel was the 'Antelope Motel' where I've stayed before - $50. It's a small family run motel probably from the 50s with individual cottages with two units per building. You've got a refrig, stove, sink and they'll lend you pots and pans and dishes if you want to stay and enjoy yourself for a few days.

http://www.antelopelodge.com/

There's also a Hampton and Best Western down there if you like to spend more money. There's 6000 people in Alpine.

Dinner was at the restaurant a mile to the west – now called Texas Fusion. It's BBQ, Tex-Mex, Mexican, American, Burgers, and some veggie stuff. The lady at the motel said it was hard to find help in Alpine. The other few restaurants were very spotty came and went, couldn't find a good cook or waitstaff. That seems strange with 15% real unemployment rate, then again, maybe working folks don't want to be in Alpine TX. The main 'industry' there is the state college – Sul Ross. It graduates 'teachers' for the TX school system. Alpine is 'on the way' to Big Bend national park. It's 60 miles to the nearest Walmart.

Big Bend Region

"West Texas has wide-open spaces with rugged plateaus and desert mountains. The plateaus have short grasses and brush. The desert area is part of the great Chihuahuan Desert of Mexico. The only mountains in Texas are found here.

Big Bend Country is a region of extremes. The desert is dry and hot in the day and cool at night. The mountains provide cold weather in the winter, where on occasion it even snows. Forests grow on the slopes. The slopes of these mountains can grow trees because the high, cooler mountain tops cause precipitation to fall from clouds moving over the peaks.

The Rio Grande River runs along the southern part of the Big Bend Country. It forms the border between Texas and Mexico. The Rio Grande is one of the longest rivers in North America. This region is called "Big Bend" because the Rio Grande River turns here in a big

bend. Look at a map of Texas. Kayakers enjoy the rapids of the Rio Grande River and beautiful canyons along this part of the river."

http://www.tpwd.state.tx.us/kids/about_texas/regions/big_bend/big_kids/

Many people come to this part of Texas to see its mountains. The three highest mountain ranges are the Guadalupe Mountains, Davis Mountains and Chisos Mountains. The highest peak is Guadalupe Peak far in West Texas. The Franklin Mountains are on the edge of El Paso."

Radio conditions were good. We had nice day or two of 'Friendly Net' on 14.336 during the trip, and when not 'friendly', 14.339 worked much of the time when there was no HI-CA net on 14340, and otherwise up on 14343 or 347. 17M required hopping around. It seems a couple DX-peditions are out now taking up the top part of the band – so 18.120 plus or minus worked. Around 18136 or 138, the DX folks were calling and not listening – making a mess. Soon another DX-pedition will be out so it will get real messy. So far not a problem on CW there. However, the DX was sparse – and big echoes on signals when they were on – maybe both long and short path at the same time. Only a handful of DX worked with PA3ARM showing up on 17m along with DL3IAC, DL3DXX, SP5SA for about the only DX consistently heard. Of course, south TX is about as far away from EU as you can get distance wise.

The weather was great – warm with temps expected up to 70. The wind was blowing – 30-50 mph. I decided to head north – really didn't have a plan other than get home in a day or two. Terry, WQ7A, said he needed Jeff Davis, so we headed up that way on 118 then 17 EARLY ion the morning. He was up at 5am his time. That seemed like a good way to head, so it was 17 up to the interstate in Reeves. Loving County is not run that often, so I decided to head there on 385 to 302. There's a good line to run at Loving/Winkler and I sat there for half an hour running 40/30/20/17/15 cw. This was one of the few trips where I've used 15M cw – my resonator doesn't want to tune right – I get about 10w out, but it seems to be good enough to work from five to 15 folks on 15M cw. Then ran 40/20 and 17 SSB at most counties too. Joe, N5UZW was doing the NC on 40M as he often does with that big signal out of AR.

Who was up on 15m cw? (and one or two SSB runs) Here's some of the folks according to a brief scan of my logs:

K7TM KM1C K8QWY N8CIJ N3HOO VE1BES W4YDYWB2ABD K8MW W2ZI AE3Z AA4GT WA2CNJ W9MSE W0GXQ K4XI N4AAT AB8RW KG8N NG9L W0EAR NW6S KA4RRU NU4C K4YFH NM2L KB8OMG DL6KVA W7GVE AB7RW WD6CKT and a few other passer by folks. I might have missed one or two CH, too.

On 17m , it became common to work an extra non-county hunter or two after you sat on the C/L for a few minutes calling.

Panhandle Plains

“This region has mostly flat, grassy land or plains. These plains are part of the same flat grassland that extends from the Great Plains of the Central United States. Sometimes this land is also called the Llano Estacado or “Staked Plains.” The land is mostly treeless and is on a high, flat plateau. The eastern part of the Panhandle is not quite as flat. It is lower in elevation and called a rolling plain. There is more rainfall in this eastern half and it is brushy.

The western and eastern parts of the Panhandle region is strikingly divided by deep canyons carved by rivers and their tributaries that wind their way through this area.

Palo Duro Canyon and Caprock Canyons State Parks are in this region. The remarkable canyons were carved by rivers. They are sometimes called "inverted mountains" since the land is relatively flat until you reach the long and steep canyons in the ground. “

http://www.tpwd.state.tx.us/kids/about_texas/regions/panhandle/big_kids/

Wow...all 7 regions of Texas covered on this and the last trip! Mountains, plains and everything in between. Up to over 5000 feet in elevation – and down to 50 feet AMSL.

I headed east on 302 – to 158 - Andrews was another 'needed county' according to the K3IMC page – so I'd run it and Ector on 385, a good spot. After enough trips, you find good lines and bad lines to run. There are some really rotten lines to try to run as most county hunters have found out. ...I went through the teeny town of “Notrees' TX. That really describes this part of TX - no trees! Population – very small.

Then it was east again to run the C/L of Martin (needed by K7VAY) and Midland.

Then there was a detour to Glasscock. I got lost in Midland trying to find 307. Never did find it and wasted 30 minutes there after getting gas and some chow in downtown streets. I'm sure there is a way to find it – but there are no towns that you can punch into the GPS and there are so many streets in town that you can't see the route show up. Oh well. Lesson learned..just hit the interstate and head on down 137 and go an extra 4 miles or so. Good county line to run there – actually two of them within a mile or two.

Mary, AB7NK, told me that Glasscock was a LC for K7SEN (formerly KA7JAS – USACA #825) who is closing in on Second time. We hooked up. Glassscock is a another one not run often – it's not that far off the interstate either – it's just that once you get to the C/L, you'll be there at least 15 minutes and maybe 30 minutes if you run SSB and CW from it!

The day had gone by – doesn't make much in west TX with the big distances and half hour stops to run– so it was time to head for a motel. There's a good Motel 6 in Big Spring, TX – Howard County $51 – not cheap. There's a former Super 8 motel next door ($66) – now under a different off brand franchise – and some smaller ones off the main road. I've stayed at the Motel 6 before. It's OK. Super 8 includes a breakfast, but you can buy lots of breakfast for $15

price differential.

It was Sunday so I found a Pizza Inn 2 miles away– they had a nice buffet with salad for $8 senior rate. In the morning early I walked the 500 feet over to the truck stop there for breakfast. They had a five buck special of 2 eggs, bacon, hash browns and toast and coffee It's hard to beat that. They also have a buffet for $8.95 plus coffee extra – if you like luke warm scrambled eggs, rubber pancakes, etc.

Or you can order off the menu. It was early so I wandered around the truck stop store for a bit. Golly, you can buy little ovens for 12vdc, little toasters, and all sorts of appliances that plug into 12v. I guess those trucks with 200 amp alternators can run a lot of stuff. It was too early to be out county hunting so I killed some time. The sun doesn't come up till 7:30 out in west TX and no sense to be on the road too early or the bands won't be open. It started out at 40 deg but the forecast was for temps in the mid 70s! Shorts weather!

Borden and Scurry are two other seldom run counties – well, there are lots of them. Seems we don't have all that many active mobiles these days – and without a mini in Feb to bring people down to TX, the counties aren't being run like the past few years - like for the past 15 or 20 years? For many awards, the Texas QSO Party fills in lots of needs – usually over 250 of the 254 counties make it on the air and sometimes all 254! However, for MG, stars, MP and MD, you've got to wait for a county hunter to get there. On SSB, another mobile had just wandered across this part of TX.

There aren't too many places out here where you can 'whack the corner' of counties. It's often just one or two roads east/west and one or two north south. Some counties have just 2 main roads in them – and lots of nothing but giant ranches that take up most of the county.

Take 350 going northeast out of Big Spring – and then hit the little road 1205 for a nice C/L of Howard/Borden – good line to run. You get back on 350 and go a few more miles and hit the line of Scurry/Mitchell, another good line to run.

Scurry was a LC for Mobile Diamond for Joe, N5UZW. Wow.....he's getting 'em done. Well, I could head home – or head for more counties. It was Sunday morning and I didn't have any reason to be home with Monday being a holiday – so it was north on 208 through Kent to Dickens, then further north on 70. Kent was a LC for WA2NEW. Through Motley on 70 to Hall to the town of Turkey, TX.

Turkey Texas was the birthplace of county music legend Bob Wills. Never heard of him? Well, you probably were born after 1965 or so then. Or never listened to Country Music oldies. Here's the official web site.

http://www.bobwills.com/index.html

Here's a short YouTube video.

http://www.youtube.com/watch?v=Vr-zj0Mr4AQ&feature=related

There's not much else to say about Turkey TX other than the wind was blowing 50 mph, the temp was up at 75 degrees, and everything was flying through the air – dust, dirt, paper, branches and TUMBLE WEEDS.

I headed over west a few miles to the C/L of Hall and Briscoe – another 'most needed' TX county. Highway 86 – good line to run. However, today, the wind was howling from the west. There was a plowed field to the south and the dust was blowing a cloud 10 feet high and 500 feet wide – fortunately mostly straight to the east, but some was coming my way. I had to keep the windows shut – it was a bit warm. I tried to get out of the car, to take a Percy Pic but don't try to open a car door into a 50 mph wind. I could have gotten out but it would have taken a major effort to do so. Well, no C/L pic there. I watched as the tumble weeds came flying by. They had been crossing the road all the way north with 50 mph winds. They go 'crunch' if you can't get out of the way, or 'bang' against the side of the car. They don't weigh much, but they can hang up under the car for a while.

Tumbling Tumbleweed

Here's a tumble weed going by. They can be four feet in diameter but most are 1-2 feet in diameter. That's how the 'weed' gets it's seeds distributed. Now that there are fences in most places, they get hung up against the fences, but when there are no fences they can travel for 10-20 miles until they find a low spot or get hung up on something else You see piles of them against fences until someone clears them out.

“Would you believe that tumbleweed actually hitched a ride from the steppes of Mongolia with

a shipment of grain? That's how it got here, and it isn't a native plant at all. Very strange, but true.

Tumbleweed is also known as Russian thistle, and is a member of the Goosefoot family. It is a round, bushy, much-branched plant growing 1 to 3-1/2 feet high. The branches are slender, and soft when young, woody when mature. The leaves are alternate. The first ones start off being dark green, soft, slender, and 1 to 2-1/2 inches long. These drop off and the next set of leaves are short, stiff, spiny, and not over 1/2 inch long. The flowers are small, green-white or pink in color. Seeds are about 1/16 inch in diameter and shaped like a cone.

"Tumbleweed grows on dry plains, in cultivated fields, roadsides, and waste places, mainly in grain-growing areas. It has a special way of broadcasting its seeds. It doesn't depend on the wind, or birds. It doesn't hitchhike on the fur of animals. When it becomes mature, it breaks off at the base and because it is shaped like a ball, it tumbles before the wind, scattering seeds where ever it goes."

Source: http://www.blueplanetbiomes.org/tumbleweed.htm

After the C/L, the dust, dirt...did I mention giant fire ant mounds at the C/L?....I headed back east on 86, then up 657 to 256 across to Childress County. I normally run Collinsworth on highway 1547 – it is nice and quiet with near zero traffic. I highly recommend it.

I had never run it on 83. From the map, it looked like it had potential – so I headed there. Whoa...you DO NOT want to try this. Horrible noise all bands with crossing power lines. Yuk! What a problem. I did manage to work about a dozen on 40M through S9 noise. It was Ralph's last county in TX and we hooked up. 20M was not much better on SSB , and even CW had lots of QRN that you just could not escape from but with the narrow filters, could make most of the usual contacts. . There were side dirt county line roads, but they, too had power lines as far as you could see. What a disappointment for SSB. I'll be sure NOT to try that one again. You never know till you've been there. Maybe there's a way to check google maps to see if there are power lines there? Hmmmm?

After disappointing SSB runs and so-so CW runs – it was east again on 256 to OK..where it turns into 62 at the border.

It's a bit noisy there. The GPS and signs didn't quite agree. If you head south on what the GPS thinks at time is a CL road – about 2000 south feet you can find another E-W road and sit there where the state C\L and make the GPS and road signs agree.

On the trip, the GPS and signs agreed about half the time....usually within 10 feet, but sometimes 20 feet, likely the accuracy of the GPS itself and the algorithm that does the C/L positioning on the display. In many cases, you see the pavement change from county to county – which goes straight across the street even if the C/L is slanting through the road. Same for

the signs. I usually park by the sign or 'split the difference' and now with the GPS have more info. That's one of the fun parts of CH – you can put out 2 counties at once. Once upon a time, you could be driving down a 'county line road' and putting out both, but that ended about 10-15 years ago. There's lots of C/L roads in IA and the midwest. It does take 30 minutes a run if you stop – for SSB and CW. You can be all the way across the county if you don't stop.

It was getting late in the day so I headed toward a motel in Jackson County. Some road construction slowed me down – half hour wait. I checked the GPS database– no Motel 6 listed for Altus but many others there. Most seemed to be clustered on 62. I just punched in the Ramada Inn to get to that neck of the woods. Just before town, I saw a sign for a Motel 6. It was 2.3 miles ahead. OK...I'd check it out.

As Yogi Bear would say...it was “Deja Vu all over again”. The Ramada had turned into a Motel 6! (the same thing happened just recently in TN when a Super 8 turned into a Red Roof Inn). Nice motel for $50. Just like a Ramada except Motel 6 doesn't provide shampoo or five kinds of soap and 6 luxury towels. Just soap and little teeny bars. You still got giant beds with 3 pillows, fancy room, refrigerator, microwave, couch, all nice fancy wood, all the cable channels. Nice. I headed to the J&K Supper Club, a nice Chinese Buffet ($8.22 senior rate). Excellent. It was warm – 70 degrees at 7pm. Delightful. The weather was going to change!

I woke up early at 6 am. – there's a Burger King across the street. The cold front had moved through. It was 29 degrees with a stiff wind – 20-30 mph– Brrr. The high temp there was going to be 40.

Jerry, W0GXQ needed Tillman OK for a LC. The route was west on 62 which runs into Tillman at the river. A few miles more, you hit a nice C/L of Tillman/Kiowa. Great line to run. Jerry got his LC there. After some great runs, I head back a few miles to give DL3DXX Jackson ...he had missed it earlier. Then it was back east on 62 to 183 south to 5 east to get to Comanche on 36. Some needed that even though K5OH is there. (well, there's prefixes and stars and MG and MP and MD to chase, too). There's noise on the C/L, but you can head 1000 feet north and find another road for the C/L where the GPS and signs are happy and the noise is less.

Then it was south to get to 5 east to Cotton, OK.....to 281 south. Cotton turns out to be a LC for N4AAT for MD. Great. Highway 281 takes you down into TX...stay on it and you'll hit the C/L of Archer/Wichita – another good line I've run many times before. There was a bit more noise now but not too bad to work through. Then it was back home via the standard routes (287 to 380 east to I-35 to 121 to home) , stopping once or twice to put out Clay, Montague (Mon – taaage....only two syllables), Wise....and silent the rest of the way back through lots of traffic to home. It's amazing how many cars/trucks are out on I-35. No recession with the traffic there – cars and trucks solid every 150 feet in both lanes – going between 30 and 60 mph with congestion. Eventually the road widens to six and 8 lanes – but still full of traffic. I'm home by 4pm before the real 'rush hour'.

Texas has a few counties you just have to learn....like Bosque – Two syllables...Bos-Key

TX...and Refugio.....that's 'Re fury oh' from the Spanish. It's a lot easier on CW...you don't have to remember Sabine TX and Sabine LA...one pronounced Suh'-bean....the other Say Bine. It's all the same on CW! But you do have to remember how to spell them when you are in Transylvania or Aroostook or Piscatiquis. Or worse, Vermilion and Vermillion IN and IL. Hi hi. Well, that's a fun part of CH...you get to learn a bunch of geography at the same time as you either travel yourself or travel vicariously around the country.

I hope I hit some you needed – lots of driving on a 5 day trip around Texas. 1655 miles on this trip. More hamfests to come. With 2200 miles of driving , I managed to clean up the 3 that Ralph, WB4FFV needed in TX. I'll leave the others in other states for other county hunters to get for him. It looks like I stumbled into a few LC for the folks – which is great. I've seen all the regions of TX, but there's still lots of closer in counties that need to be run again. More hamfests coming up! It's also about time for a panhandle sweep. Someone has to put them out for the folks.

Dan, KM9X, was out one day running in IL and IN and KY. Barry and Pat, N0KV/N0DXE were headed south during my trip – winding up in FL. They'll head back to CO in a few weeks. Fred, K0FG, was putting out a few in UT..he's spending a few days there before he heads back east. N9AC was on the road headed to FL as well on a trip. . The net could have used a bit more activity – but it's winter time with below zero temps up north and very cold back east. The Pacific Northwest was getting lots of snow finally. Jerry, W0GXQ had below zero temps in MN. I guess TX is a pretty good place for county hunting in the winter time if you watch out for the occasional snow in west TX and ice storms that descend out of OKLA in the Dallas area and central TX areas.

- - --- - - --- -- --- -- --–

At home....

After I got home, I did a web search for the Matric Limited W1AW only receiver just to see if there was any info out there on the small receiver (4 inches wide, 3 inches deep 2 inches high – a metal panel attached to a circuit board. This was a mini-goodie bought at the San Antonio hamfest for a buck. What do you know? – the first thing that I could find was a reference on the QRP-L archive that noted that such a receiver had been described in QST pages 56-57 by WA3IFY in a 1993 issue. Hmm.

On the QRP-L archive:

“Lee Richey, WA3FIY, founder of Adventurer Radio wrote about
his W1AW receiver in Feb 1993 QST, which I just happen to be
browsing through before sending it off to the library. See
pages 56 and 57. At the time the article was written I think Lee was calling
his company Matric Limited. “

That turned out to be the only reference that Google turned up – but it was 'gold'.

So it was off to the QST Archives (free to ARRL members) where I hunted down the 2 page article and printed it off. Nifty.

In an article called "W1AW at the Flick of a Switch", it was described in detail, including schematic. They sold a 'kit' back in 1993 or so for $35. You could build it for 80 or 40 or 20M and it was a direct conversion receiver using two ICs – your NE602 mixer, a crystal that determined the frequency, and a dual op for audio amplification. It took a 20 foot or longer wire to receive W1AW. About 60 parts in the unit. It's amazing what you can find on the web these days. You tweaked the crystal to get it right on.

I also noted there was a fixed tube receiver made to receive W1AW back in the 1930s according the QRP-L archive. Wow. I've never seen one of those. Well, I'd never seen one of these solid state ones– probably read the QST article, but it didn't stay in the memory banks – hi hi. Or maybe I just didn't need a dedicated W1AW only receiver then and promptly forgot about it. Or now. But it's cute! Too many things just follow me home from hamfests!

US Secretly funds the UN IPCC

It turns out that the GAO, the US General Accounting Office, says US has been secretly hiding their funding of the IPCC for the last decade.

They were already told not to do that by the GAO. In the 2005 GAO report with the swingeing title of *"Federal Reports on Climate Change Funding Should Be Clearer and More Complete",* the GAO said … well, basically what the title said. But noooo, those sneaky bureaucrats didn't do that at all.

The latest 2011 GAO Report says the US government has not changed their ways. They have been clandestinely providing about **half the operating funds for the IPCC for the last decade**. In other words, the IPCC funding arrangements are of a piece with their "scientific" claims and their other actions—secretive, shabby, with a hidden agenda, and full of disinformation.

The report says that the State Department provided $19 million dollars to the IPCC. Thanks, guys. Foolish me, I hadn't realized that paying for bureaucrats to go party in Cancun and Durban was part of the function of the United States Department of State.

I also found out that the IPCC got $12.1 million dollars from the US Global Change Research Program. That one really angrifies my blood. The IPCC flat out states that they do not do a single scrap of scientific research … so why is the US Global Change **Research** Program giving them a dime, much less twelve million, that was supposed to go for research? I could use that for my research, for example …

The 2011 GAO report had some strong advice for the climate profiteers behind this secretive funding. They said:

> "Congress and the public cannot consistently track federal climate change funding or spending over time,"

Oh, no, wait, that's what the GAO said back in 2005. Unfortunately, they have no enforcement powers. What they said this time around was that the funding information:

> "… was not available in budget documents or on the websites of the relevant federal agencies, and the agencies are generally not required to report this information to Congress."

In other words … no change from 2005.

Congressfolk, you are not paying attention. These guys are taking money for research and using it to party in Durban and other nice places around the planet. And the US has been secretly funding them for a decade.

Can anyone name for me one valuable thing that the IPCC has done? Can anyone point to an accomplishment by the IPCC that justifies their existence? Because I can't. They throw a good party, to be sure, their last global extravaganza had 10,000 guests … but as for advancing the climate discussion, they have done nothing but push it backwards.

And the next Assessment Report, AR5, will be even more meaningless than the last. This time, people are watching them refuse to require conflict-of-interest statements from the authors. This time, people are watching them appoint known serial scientific malfeasants to positions of power in the writing of the report. This time, people are keeping track of the petty machinations of the railroad engineer that's running the show despite calls from his own supporters to step down.

As a result, the AR5 report from the IPCC has been pre-debunked. It will be published to no doubt great fanfare and sink like a stone, dragged down by the politicized, poorly summarized bad science and rewarmed NGO puff pieces that the IPCC is promoting as though they were real science.

Folks … can we call a long overdue halt to this IPCC parade of useless and even antiscientific actions? Can we stop the endless partying at taxpayer expense? Can we "trow da bums out" ?

Source: http://wattsupwiththat.com/2012/01/05/defund-the-ipcc-now/

Transparent Aluminum

In a remarkable case of science fiction becoming science fact, it seems scientists have been able to invent transparent aluminum.

The fantastically strong material was mentioned in Star Trek IV: The Voyage Home by Enterprise engineer Mr Scott. With the crew of the Enterprise stuck in the 20th century, Scotty barters his knowledge of 24th century technology with an engineer in exchange for having a tank built. It appears that now that the future has arrived. Sort of.

While scientists have not figured out a way of making metallic aluminum transparent, they have developed a transparent aluminum-based ceramic that is almost as strong. The material, aluminum oxynitride, known as AION, is four times harder than fused silica glass, 85 per cent as hard as sapphire and stable up to a temperature of 1,200C. At 1.6in thick it is strong enough to stop .50 caliber bullets which can easily penetrate more than twice that thickness of conventional laminated glass armor.

And, of course, you can see through it, making it sound incredibly similar to the stuff peddled by the Enterprise engineer. In Star Trek IV, the Captain Kirk et al return to the the Earth to find it threatened by an Alien probe attempting to contact now-extinct humpback whales. To save the planet, the Enterprise crew are forced to travel back to the 20th century aboard a Klingon starship to retrieve some whales to answer the probe's call. However, when they arrive back on Earth, they find that they need to have a giant whale tank built for their ship, but have no goods to trade with. To get their hands on the kind of tank they need, the crew's engineer, Scotty, trades his knowledge of transparent aluminum with an engineer in exchange for having one built.

Research into aluminum oxynitride powder has being going on since at least 1981, making it possible that the 1986 movie's writers took their idea for transparent aluminum at least partly from early publicity about AION.

But these days the stuff can actually be mass produced. To make the material, aluminum oxynitride powder is packed into a rubber mold in the rough shape of the part wanted.
In a tank of hydraulic fluid, the mold is compressed to 15,000psi - a procedure known as isostatic pressing - until the powder is mashed into a grainy 'green body'.

This grainy structure is then fused by heating at 2,000C for several days. The fused substance is

cloudy, but can be given an optically clear finish by mechanical polishing. The resulting material is expensive, and so is generally only used for high-performance applications, especially in the military.

Source: UK Daily Mail

Peak Oil Interview

The following interview is a guest post by Matthieu Auzanneau, a freelance journalist living in Paris. This article previously appeared in Le Monde.

Olivier Rech developed petroleum scenarios for the International Energy Agency over a three year period, up until 2009. This French economist now advises large investment funds on behalf of La Française AM, a Parisian assets management firm.

His forecasts for future petroleum production are now much more pessimistic than those published by the IEA. He expects stronger tensions as of 2013, and an inevitable overall decline of oil production "somewhere between 2015 and 2020", in the following interview.

Olivier Rech, responsible for petroleum issues at the International Energy Agency from 2006 to 2009.

Rech's outlook serves as another significant contribution to the expanding list of leading sources portraying the threat of an imminent decline in global extraction of crude oil.

MA: What do you foresee? Let's begin with the non-OPEC producers (which represent 58% of production and 23% of global reserves).

OR: Outside OPEC, things are clear: of 40 million barrels per day (mb/d) of conventional petroleum extracted from existing fields, we face an annual decline on the order of 1 to 2 mb/d.

MA: In your view, are we therefore close to the 5% decline per year from existing production mentioned by Royal Dutch Shell?

OR: Yes, that's about it.

MA: And for OPEC production (42% of production and 77% of global reserves) ?

OR: It's more difficult to say; the data are still opaque. We are stuck in a haze. Nevertheless, I note that Barclays and Goldman Sachs banks estimate that the spare production capacity of OPEC, more particularly that of Saudi Arabia, is significantly lower that what is officially claimed.

MA: Many new production projects are presently under development all around the world. What should we expect of them?

OR: There are new projects off the coasts of Brazil, Ghana and Guyana. The Gulf of Mexico is far from being depleted. The Arctic is far less certain, but there is real potential for natural gas there. Nevertheless, we must still expect a decade before seeing eventual and significant production of petroleum.

MA: In that case, what is your view on the timing of the global peak and decline of total world oil and alternative liquid fuels output?

OR: It is always delicate to project a precise date. The recovery rate of existing fields is increasing. The US on-shore production is declining very slowly (and one must add that they are drilling in a frenzy over there). It is an error to underestimate the know-how of drilling engineers.

MA: Taking account of all these factors capable of slowing a decline, what conclusion do you draw?

OR: We will certainly remain below 95 mb/d for the combined totals of conventional and non-conventional oil.

MA: Therefore, you are clearly more alarmist than the IEA and Total, the most pessimistic of petroleum companies. Total evokes the possibility of maintaining production on a plateau of about 95 mb/d until 2030.

OR: It's true. The production of oil has already been on a plateau since 2005 at around 82 mb/d. [NB: with biofuels and coal-to-liquid, we approximate 88 mb/d for all liquid fuels.] It appears to me impossible to go much higher. Since demand is still on an increasing trajectory (unless, possibly, the economic crisis engulfs the emerging economies), I expect to see the first tensions arising between 2013 and 2015.

MA: And after that?

OR: Afterward, in my view, we will have to face a decline of the production of all forms of liquid fuels somewhere between 2015 to 2020. This decline will not necessarily be rapid, however, but it will be a decline, that much seems clear.

MA: You state “not necessarily rapid”. Why?

OR: This will all depend on the speed at which streams of non-conventional oil will be able to be developed. Conversion of coal and natural gas to liquid fuels will remain infinitesimal. For first-generation biofuels, I believe we are already approaching the maximal limit. As for second-generation biofuels, we are still at the stage of industrial pilot projects. It should take another quarter century before we achieve a significant production on a world scale, let’s say around 2.4 mb/d.

MA: In your view, will all of this be insufficient to compensate for the decline of existing conventional oil fields?

OR: Insufficient, yes.

Patience, Folks, Patience

When you finish a MARAC award, and are using Logger, you can zip your file over to the Awards Chairman. OK ..folks..... let's review a little history.

In the past, there were 3 (or more) groups that issued awards after the first time. CQ Magazine sponsors the USACA. In the past, you had to MAIL (via the post office) your application, wait to hear what county MRCs the custodian wanted to see, send those in, and wait for the custodian to issue you a number. It could take weeks or longer to get your number and the certificate back via mail. You might venture to call the custodian to see what cards he wanted to see so you could send them in with your application. He or she might give you grief over the way you 'made contacts' or the fact you had some of your reports wrong. (We've had one or two strange custodians along the way). The current one, Ted, K1BV, is doing a great job.

MARAC required confirmation of second time for decades – and that ended not all that long ago. For Second Time, you'd have to send in an application and it might take days for the mail, and maybe a week or two or three for the new award to be issued. There was no way to electronically zip your file to the awards chairman. Think....slow mail...snail mail. Both ways.

The B&B Shop issued Nth time and other awards including YL Mobile. Bingo started out, I believe, at the SC award issuing group. Keep in mind it took days to weeks to even months if the custodian was off on vacation, traveling, at the national, etc. You waited. Patiently. If you had luck on your side, the award was dated when you postmarked it.

Now, with Logger and electronic communication where you can send in a file to the MARAC awards custodian 22 milliseconds after you work the last station and log it, where it is likely received 50 milliseconds later at the custodian's computer if on line, there still is a human in the process. The computer doesn't spit out the award.

Just like you probably 'have a life' with other activities, travel, weekend excursions, visitors from out of town, the awards custodian isn't sitting at the computer 24/7 ready to instantly within microseconds issue new awards as soon as you work the last station. Maybe once in a blue moon. Folks have gotten to expect that they will receive their award within hours of when it is sent.

Come on folks..... let's not run off the current awards chairperson with unrealistic

expectations. While your Bingo XXVIII might be important to you, he's got 300-400 county hunters to take care of each month, issuing dozens of awards. Just check the tally of the Last Counties issued each month (all those certificates and lists and stickers have to be mailed out once a month). That's two days work right there – all day.

The way the computer system processes applications for awards, they will be dated on the date of the last contact, even if your award is issued 3 days later or a week later. That means you can start over the next GMT calendar day in Logger. It will count the new contacts toward the next award once it is issued and you recompute your files.

Please don't be bugging the awards chairman or posting on forums: 'Where's my award?'. If you never get real busy , have 24 hours a day to devote to county hunting every single day of the year.....never have family visit, or go out of the house, well, I guess you might be the one in 1000 to wonder why your award wasn't issued instantly and complain. Otherwise, just have some patience.

In the old days, it could take WEEKS and the award was dated on the date it was issued. Now, it usually happens within a few days and is post dated to the date of the last contact.

Give KC6AWX some time to process them. If you don't hear back in a 'reasonable' time, then maybe a friendly email asking 'did you get my file' might be in order.....but , guys and gals, not the next hour or six hours or 12 hours. It's one guy working with 300 or 400 of y'all to get those awards out. Plus living his own life. Maybe someday you'll volunteer to help send out those 50 or 70 or 100 envelopes at the end of the month with all the LC awards? That takes two full days. Each and every month? Plus get the plaques and trophies done and mailed out? And get things ready for the listing in the RoadRunner each month? Do you check to see how many awards are issued each month? It might give you some new appreciation of the job.

Patience, folks, patience. Appreciate what your Award Chairman does. He's got the busiest and toughest job in County Hunting.

County Hunter Check List

Phil, G0GBY, has put together a County Hunters County Checklist which is available is 2 formats.

Either as a Microsoft XL spreadsheet or a in a PDF Format.

The XL spreadsheet is available here - County Hunter CheckLog

Or the PDF version is available here - http://www.kk7x.us/countyhunter/county-award-checklog – COUNTIES.pdf

If you find this useful be sure and send Phil a thank you message at: . yeti585@ntlworld.com

(Posted by KK7X on K3IMC forum)

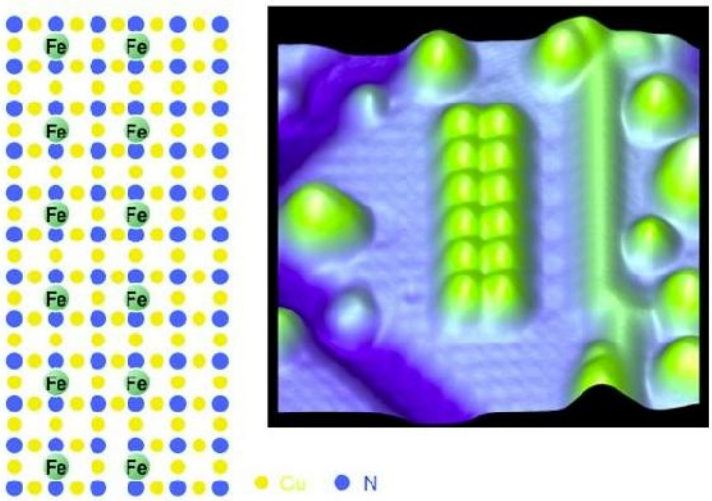
Nanotech IBM News

With a discovery that could some day fundamentally alter the scale of mass data storage, nanotechnology researchers at IBM say they have found a way to store a bit of information in as little as 12 magnetic atoms.

That's a radical improvement over today's storage devices which, IBM argues, require about a million atoms to hold a bit of information. For those keeping score at home, IBM's discovery could mean storage could one day be possible at 1/83,000th the scale of today's disk drives.

And while the IBM researchers behind the breakthrough say there is no time frame for bringing their work to market, it's clear that the company sees this as a way to one day develop storage that breaks the mold of what's possible today and drastically reduces the size of drives, while significantly boosting their speed and energy efficiency.

In coming up with the atomic-scale memory system, IBM realized an entirely new approach was required if it wanted to break through the physical limits of today's technology, it said. IBM published its findings in "Science" magazine this morning.



The technology industry has depended for years on Moore's Law--in which the number of transistors that can be placed on an integrated circuit doubles every two years--to make smaller and smaller devices. But according to Andreas Heinrich, the lead atomic storage researcher at IBM, ultimately, that means shrinking down to the scale of atoms. And it's not possible to shrink beyond that, he said.

At IBM's Almaden Research Center here, Heinrich and his team set out to see if they could start at the atomic level and build up from there, rather than waiting for Moore's Law to get there in ten or 20 years. "We are explorers in the field of starting from atoms and building structures that might be useful for IBM or other players in industry," Heinrich told CNET.

The question that Heinrich's team has been trying to answer is how many atoms it would take to create a magnetic bit in which it was possible to store information. And they've now arrived at the answer: 12.

And that means that in the future, scientists may be able to apply what they say is an unconventional type of magnetism known as "antiferromagnetism" that could make it possible for data storage at 100 times the level of anything that can be done today.

Computers' understanding of information starts with the bit. A bit can have just two values--one or zero. IBM says that prior to this development, it was unclear how many atoms would be required to create a reliable memory bit.

"With properties similar to those of magnets on a refrigerator, ferromagnets use a magnetic interaction between its constituent atoms that align all their spins--the origin of the atoms' magnetism--in a single direction," IBM said in a release about the storage discovery. "Ferromagnets have worked well for magnetic data storage but a major obstacle for miniaturizing this down to atomic dimensions is the interaction of neighboring bits with each other. The magnetization of one magnetic bit can strongly affect that of its neighbor as a result of its magnetic field. Harnessing magnetic bits at the atomic scale to hold information or perform useful computing operations requires precise control of the interactions between the bits."

In order to achieve this control, Heinrich and his team used IBM Almaden's scanning tunneling microscope to "atomically engineer 12 antiferromagnetically coupled atoms" that were capable of holding on to a data bit for several hours at temperatures as low as 4 degrees Kelvin. And that meant that by leveraging the "inherent alternating magnetic spin directions," Heinrich and his fellow researchers showed that it is possible to place adjacent magnetic bits far closer together than has ever been done before.

While Heinrich has now shown that storage is possible at many magnitudes smaller scale than ever, it will likely be many years before this results in any kind of marketable technology, he said. It will take quite some time before he and his team can move this new technology out of the lab, and creating products from the discovery is a business decision, not one that will be made by Heinrich and his fellow researchers. "We have the luxury of now worrying about [manufacturing]," Heinrich said. "Our mission is to figure out what we want to build, but now worry about how it's practical" because that's a huge next step.

Source: http://news.cnet.com/8301-13772_3-57357938-52/ibm-creates-data-storage-at-the-atomic-level/?tag=rtcol

One the Road with N4CD IV

The Cowtown Hamfest is held over in Fort Worth (Also known as Cowtown from it's historic past – the main tourist area is 'the stockyards' now full of restaurants and clubs). It's 55 miles away and starts at 3pm on Friday. On the way, you'll find it is all six and 8 lane driving through the middle of the Metroplex traffic, so I headed over there without radio to concentrate on the driving. The car needed some rest so no long trip for this weekend after the hamfest. Got to

let the credit card cool down too- it's had a lot of gas and motels stuck on it recently. On Friday the weather was great with 70 degree temps. There were only a few folks in the outside flea market in the shirtsleeve weather. More show up on Saturday – sellers and buyers and gawkers. Gas is now up to $3.29/gal locally and 10c a gallon more in the far west rural areas.

The flea market starts again at 8am on Saturday all day. I headed over there again, but this time the temp was 34 degrees and darn cold the entire morning. There were a dozen folks out in the frigid weather selling things. I checked out the outside flea market and headed inside for 2 hours, then zipped back home with a few goodies. The hamfest does have some programs during the day for ARRL updates, DX'ing , etc. I skipped them.

This is a small nice friendly hamfest. I ran into Joe, KK5NA and wife, Barbara, KK5QA. Both hold extra class licenses and live in Tarrant County. They have a mobile radio setup and are planning on running some counties shortly. Keep your ears open for this new team. They've been reading the CHnews for quite a while now.

Joe KK5NA Beverly KK5QA

The flea market yielded a few goodies. I found two 70 foot spools of Radio Shack 14 gauge stranded antenna wire brand new in the plastic wrapper, and another roll of 300 feet of the same - $10 for all. Basement bargain price. That stuff is expensive these days with the price of

copper at $3-4 a pound! Also found was a National Velvet vernier tuning dial for a buck. They sell for $30 on E-Pay. That's about it for several hours of seeing what was there. The usual half dozen mobile rigs, maybe 20 old 2M FM radios for 30 years ago, and two or three base station rigs were up for sale along with lots of miscellaneous. Half a dozen radio vendors show up selling new rigs, coax, antenna stuff, nameplates/license plate holders, shirts and jackets and hats, ARRL publications and other books, etc.

Maybe one or two other county hunters made it by there, but we didn't run into each other. Still did 220 miles but didn't get any further than 55 miles from home this trip. More county hunting to come.

Your Star Trek Tricorder

Star Trek's 'tricorder' medical scanners could become reality after breakthrough in T-ray technology

Star Trek-style hand held medical scanners are a step closer thanks to a new breakthrough in technology. Scientists have developed a new way to create electromagnetic Terahertz (THz) waves or T-rays - the technology behind full-body security scanners. The waves are also capable of detecting biological phenomena such as increased blood flow around tumorous growths, but current techniques are pricey and low power.

The researchers say their method of producing stronger and more continuous wave T-rays could be used to make better medical scanning gadgets, leading to innovations similar to the 'tricorder' scanner used in Star Trek. The development could lead to medical tests becoming quicker and more convenient for patients.

Writing in journal Nature Photonics, the team from Agency for Science, Technology and Research (A*STAR) in Singapore, and Imperial College London told how they have focused the rays into a much stronger directional beam than was thought possible. It means that future T-ray devices could become smaller, easier to use and cheaper.

T-rays are waves in the far infrared part of the electromagnetic spectrum that have a wavelength hundreds of times longer than those that make up visible light.

They are already used for security and in protoype medical devices.

But researchers have created a strong beam of T-rays by shining light of differing wavelengths on a pair of electrodes, using a tiny gap between them as an antenna to amplify the signal.

The output is 100 times more powerful than conventional methods.

Lead author Dr Jing Hua Teng, from A*STAR's IMRE, said: 'The secret behind the innovation lies in the new nano-antenna that we had developed and integrated into the semiconductor chip.'

Research co-author Stefan Maier, of Imperial College London, said: 'T-rays promise to revolutionize medical scanning to make it faster and more convenient, potentially relieving patients from the inconvenience of complicated diagnostic procedures and the stress of waiting for accurate results.

'Thanks to modern nanotechnology and nanofabrication, we have made a real breakthrough in the generation of T-rays that takes us a step closer to these new scanning devices.

'With the introduction of a gap of only 0.1 micrometers into the electrodes, we have been able to make amplified waves at the key wavelength of 1000 micrometers that can be used in such real world applications.'

Source: UK Daily Mail

Blacker Than Black

Black is black, right? Not so, according to a team of NASA engineers now developing a blacker-than pitch material that will help scientists gather hard-to-obtain scientific measurements or observe currently unseen astronomical objects, like Earth-sized planets in orbit around other stars.

The nanotech-based material now being developed by a team of 10 technologists at the NASA Goddard Space Flight Center in Greenbelt, Md., is a thin coating of multi-walled carbon nanotubes — tiny hollow tubes made of pure carbon about 10,000 times thinner than a strand of human hair. Nanotubes have a multitude of potential uses, particularly in electronics and advanced materials due to their unique electrical properties and extraordinary strength. But in this application, NASA is interested in using the technology to help suppress errant light that has a funny way of ricocheting off instrument components and contaminating measurements.

This is a technology that offers a lot of payback," said engineer Leroy Sparr, who is assessing

its effectiveness on the Ocean Radiometer for Carbon Assessment (ORCA), a next-generation instrument that is designed to measure marine photosynthesis. "It's about 10 times better than black paint" typically used by NASA instrument designers to suppress stray light, he said.

The technology works because of its super-absorption abilities. The nanotubes themselves are packed vertically much like a shag rug. The tiny gaps between the tubes absorb 99.5 percent of the light that hits them. In other words, very few photons are reflected off the carbon-nanotube coating, which means that stray light cannot reflect off surfaces and interfere with the light that scientists actually want to measure. The human eye sees the material as black because only a small fraction of light reflects off the material.

Principal Investigator John Hagopian developed a new nanotech-based material that is 10 times more effective than black paint used by instrument developers to absorb stray light, which can contaminate scientific data. The sample on the left is black paint typically used to suppress errant light in instruments; the sample on the right is the new nanotube material. Credit: Chris Gunn/NASA

Multi-walled carbon nanotubes are tiny hollow tubes made of pure carbon about 10,000 times thinner than a strand of human hair. NASA is investigating their use to help suppress errant light that ricochets off instrument components and contaminates measurements. Credit: NASA
The team began working on the technology in 2007. Unbeknownst to the group, the New York-based Rensselaer Polytechnic Institute also had initiated a similar effort and announced in 2008 that its researchers had developed the darkest carbon nanotube-based material ever made — more than three times darker than the previous record. "Our material isn't quite as dark as theirs," said John Hagopian, the principal investigator leading the development team. "But what we're developing is 10 times blacker than current NASA paints that suppress system stray light. Furthermore, it will be robust for space applications," he said.

Continue Reading and Video at:

http://www.nasa.gov/topics/technology/features/new-nano.html

ARRL LOTW for USACA

FOR IMMEDIATE RELEASE: January 24, 2012

ARRL & CQ Sign Agreement to Provide
ARRL's Logbook of The World Support for CQ's Awards

(Hicksville, NY and Newington, CT - Jan. 24, 2012) – CQ Communications, Inc. (CQ) and ARRL – the national association for Amateur Radio, have signed an agreement to begin providing support for CQ-sponsored operating awards by the ARRL's Logbook of the World (LoTW) electronic confirmation system.. The agreement was announced jointly today by ARRL Chief Operating Officer Harold Kramer, WJ1B, and CQ Communications President Richard Ross, K2MGA.

CQ's awards will be the first non-ARRL awards supported by LoTW and will be phased in, beginning with the CQ WPX award. Additional CQ awards will follow. The ARRL's LoTW system, an interactive database recording contacts between radio amateurs was created in 2003 and has been adopted by 47,500 radio "hams" worldwide. It already has records of 400 million contacts and grows weekly. The target date for beginning LoTW support for WPX is April 1, 2012. Amateurs will be able to use LoTW logs to generate lists of confirmed contacts to be submitted for WPX credit. Standard LoTW credit fees and CQ award fees will apply.

ARRL Chief Executive Officer David Sumner, K1ZZ, observed that this step gives radio amateurs throughout the world an inexpensive and convenient means of gaining credits toward CQ's popular operating awards. "LoTW has significantly increased interest and participation in the ARRL's DXCC, Worked All States and VUCC awards programs. We anticipate a similarly positive response to the addition of the CQ WPX award. Amateurs will be able to spend more time operating and less time chasing QSL cards."

CQ President Richard Ross, K2MGA, said he is very pleased to be able to move forward with Logbook support for CQ awards. "We have had excellent results with electronic confirmations for several years," he said, "and I am glad that we are now able to begin expanding that convenience to those participants in our award programs who use Logbook of the World. We look forward to a smooth launch for WPX, and to the expansion of LoTW support to include the rest of our award programs as well."

Awards Issued

Second Time #411	Billy, KD5YUK	January 14. 2012
Second Time #412	John, N8OR	January 20, 2012
Third Time #231	Gene, WB4KZW	January 5, 2012
Fourth Time #155	Jerry, N5KGY	January 5, 2012
Fourth Time #156	Abe, W7GQK	January 20, 2012
Fifth Time #106	Jerry, W0GXQ	January 11, 2012
USA-PA -N #14	Tom, K7REL	January 14, 2012
Bingo #338	Kerry, W4SIG	January 14, 2012
Bingo III #20	Tony, WA9DLB	January 18, 2011

Upcoming Events for County Hunters

It's time for State QSO Parties again!

Feb 4 **Vermont QSO Party** - RS(T) and State
0000Z to 2400Z
www.ranv.org

Feb 4 **Ten Ten Phone QSO Party** - RST, Name, State, and Ten Ten number (none if none)
0001 to 2359z
www.ten-ten.org

Feb 4 **Minnesota QSO Party** - Name and S/P/C
1400Z to 2400Z

Feb 4 – **Delaware QSO Party** - RS9T) and S/P/C
1700-2400Z
www.fsarc.org

Feb 11 – **Louisiana QSO Party** - RS(T) and S/P/C
1500-0300Z

laqso.w5yl.org

Feb 11 – **New Hampshire QSO Party** - RS(T) and S/P/C
1600Z to 0400Z
www.w1wqm.org

Feb 18 – **ARRL CW DX contest** – all weekend...good day for cw mobiles to stay home

Feb 25 – **Mississippi QSO Party** – RS(T) and S/P/C
1500-0300Z
www.arrlmiss.org

Feb 26 – **North Carolina QSO Party** - RS(T) and S/P/C
1700-0300
www.w4nc.com

More details at:
http://www.arrl.org/files/file/Contest%20Corral/2012-01.pdf

Plus you can check the WA7BMN weekly contest site:

http://www.hornucopia.com/contestcal/weeklycont.php

Trips to watch

Ed, K8ZZ, is headed to Hawaii shortly to run all the counties, including Kalawao. Keep an ear open. He's got at least 20,17, 15 and 10 meters with him.

End of Year CW Stats

from Dennis, KK7X (filling in for Elwood, KA3MMM)

Call/Yr	2011	2010	2009	2008	2007	2006
AA4GT				1992		
AA7CP					1246 #2	1034 #2
AA8R	2194 #2	1930 #2	751 #2	3059	2721	2717
AA9KH	2999 #2			3064 #2	3069 #2	3053 #2
AA9ZZ				25 #2		
AB2LS					1600	1250
AB4YZ	3063	3054				
AB7RW	2040 #3	3073 #2	3062 #2	3010 #2	2886 #2	2430 #2
AC0B	1117		1101	985	897	689
AD1C	3067	3064	3057	3045	3044	3026
AD8W	2985			2889	2699	2373
AE3Z	1886	1854	1818	1806	1942	1630
AK8A			3077	3056	2995	2850
DL5AWI			2670		2541	2457
DL6KVA	2810	2636		2439	2398	2267
G4KHG					1436	1434
K0DEQ	2637					
K0LG	2708		1968			
K0PY	1679					
K1TKL	3065	2967	2705	1820	851	
K2RP	2520					2275
K4AMC	2717 #2	1594 #2				
K4EXT	3049	2782	1814	1431	727	
K4UNF		SK		1278	1835	1556
K4XI	3062 #2	2962 #2	2462 #2	1387 #2	3071	3064
K4YFH				3077	3075	
K4YT		2959			1233	1871
K5AAR	SK			3073 #2	3055 #2	2926 #2
K5GE	2721 #2	627 #2				
K5JF	1718 #2	1608 #2	1047 #2	326 #2	69 #2	397 #2
K5OT					3075	3026
K5XY			132	131	131	
K7DM						
K7INA				2972		
K7REL	2551 #4	433 #4	2949 #3	2347 #3	41 #3	2946 #2
K7TM	3077	2602				
K7VAY					QRT	3077
K8CW				2885 #3		2397 #3
K8IW	3010		2997	2982	2952	2933
K8OHC		SK		1842	1814	1812
K8OOK	2115		1900	1720		
K8QWY	2927 #2		2570 #2		3057	

K8ZZ	1512 #2	1064 #2	605 #2	3072	2952	2717
K9AAA	3040	2402				
K9RF				2813		
K9WA				3057 #2	3025 #2	2988 #2
KA0SHC		2929				
KA1Q						
KA3MMM	3077 #6	3032 #6	2872 #6	2412 #6	2125 #6	1044 #6
KA3QLF		2531				
KA4RRU	2794	2162	1636		658	
KA9JAC	108 #2	3049	3014	2950	2819	2511
KB6TAL		2988				
KB6UF	3059	3023	2957		2336	2122
KB8OMG					1683 #2	3072
KC3X	3060 #2	3035 #2	2786 #2	1492 #2		222 #2
KC6AWX	1380					
KC7YE	1286					
KD8HB	QRT	3050 #5	2709 #5	630 #5		
KE3VV	2638 #2	3074	3074	3052	2983	2779
KI7WO			3045	2929	2631	1635
KK7X	2069	1965	1814	1772		
KL1V	2101	2078	1943	1808	1730	1595
KL7GN						
KM1C	2771			2070		
KM6HB	2680	2305	1561	1049		
KM8U	3062			2885 #2	2885 #2	2885 #2
KN4XP					2125	1638
KN4Y	3041 #5	3008 #5	2868 #5	2610 #5		2954 #4
KO1U		543 #3				
KR4OE	1879	1842	1678	1614	1555	1461
KS5A						
KS7S						
KW4V	241 #3	3062 #2	2874 #2	2231 #2		
KY0E	188 #2	3068	3018	2885	2617	2298
N1BY	2300					
N2MH	1078				944	
N2OCW	2238 #2	940 #2	649 #2	3000	2992	2687
N3AHA				3077	2971	2830
N3HOO	3061					
N3TG	1440					
N3XX						11 #2
N4AAT	3057 #2	2524 #2	1050 #2		2	
N4AKP	1731 #3	263 #3	3037 #2	2918 #2	2411 #2	869 #2
N4CD	3052 #4	2977 #4	2394 #4	3064 #3	2903 #3	2759 #3
N4JT		2926				
N4PJ	3073	2921				
N4RS	2871 #4	2629 #4	1924 #4		3035 #3	191 #3
N5EBD						
N5PR	3056	3023	2968	2882	2634	2412
N5XD				726		
N5XG	3077 #1	2950	1984			
N6PDB	2162					
N7JPF	378	18				
N7WO	2504	2449		1997	1994	1854
N8CBW	5	2				
N8CIJ	2750	2445	1132			
N9AG						

N9ID		2748	2554	2296	2121	1711
N9JF	2937	2896	2851	2779	2637	2415
N9QS	3077 #2	3039 #2	2908 #2	2562 #2	1364 #2	3053
N9STL					2940	2499
ND9M			3070		3066	3064
NF0N	3067	3046		2773	2548	2252
NF9A						
NM2L	1958 #2	1686 #2	1125 #2	35 # 2	2952	2677
NN9K	919 #4	1470 #3	1555 #3	865 #3	3064 #2	2625 #2
NO2W					1589	1589
NU0Q	1811 #2	542 #2	3072	3061	2976	2718
NU4C	2321	1766				
NV6I						
NW6S	2131 #2	121 #2	3050	3004		2870
NX0X	2077		2009	1966	1888	1737
OH3JF						
PA3ARM	2740					
SM6VR	3060	3029	2998	2914	2860	2808
VA3NN				2939	2901	2849
VA3XOV	2376 #2	668 #2	3073	3042		
VE3KZE						
VE9DH						
VK4AAR	2005					
W0EAR	3075					
W0GXQ	2987 #5	1207 #5	2912 #4	502 #4	3049 #3	2648 #3
W0QE	2905 #4		2102 #4	3073 #3	2819 #3	3076 #2
W0RRY						
W0ULU	1301					
W0UM	2159					
W3DLM	1552	1300	984			
W3DYA	2870 #3	2311 #3	1489 #3	474 #3	3072 #2	3057 #2
W4GNS		2554			1882	1010
W4HSA			2576 #2	2210		
W4RKV	2929 #2	2844 #2	2810 #2	2793 #2	2775 #2	2761 #2
W4SIG	2478 #2	794 #2				
W4VQ						
W4XT	2479	2447				
W4YDY	1715 #2	986 #2	3053	2967	2936	2789
W5AL	3017					
W6FG	2639					
W6OUL						
W6RK						2142
W6TMD	QRT	1460 #3	1333 #3	3056 #2	3002 #2	2949 #2
W6TPC	280		276	234		
W7FEN	2641	2316	2252	2036	2029	1932
W7KQZ				2569		
W7TSM						
W8CE				3075 #2	3060 #2	3022 #2
W8FNW	2922					
W8JJ	1788	1599	1356	1103	940	779
W8LSV						
W8MP					327	
W8OP						
W8PN	2905 #2					
W8WVU						
W8YL						

W9GBH	2540	2182		2547	2413	2404
W9MSE	3054 #5	2835 #5	1401 #5	3061 #4	2955 #4	2052 #4
W9UX	3077				2883	
W9WOC	805					
WA2AKB					1621	1621
WA3GNW						
WA3QNT	2890				2614	2638
WA4UNS	2840	2093	835			
WA7JHQ	3014	2965 #2	2897 #2	2784 #2	2569 #2	2178 #2
WB2ABD	1572 #3	3070 #2	2964 #2			
WB4KZW	3077	3052	2937			
WB4VFN			3077	3067	3015	2899
WC5D						1904 #2
WD3P						
WD4OIN	3040	3011		2902		2674
WD6CKT	1200 #3	700 #2	500 #2	250 #2	3077	3071
WD8OWA						3006
WD9BCG						
WE7G	2978					
WG6X				1714	2491	
WU3H	2019 #4		1150 #4	785 #4	3073 #3	3057 #3
WV2B	808	808	773		505	
WY7LL	1994					
Updated	01/22/12	@ 17:30 UTC				