County Hunter News

December 1, 2012
Volume 8, Issue 12

Welcome to the On-Line County Hunter News, a monthly publication for those interested in ham radio 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.

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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

Want county lines on your Garmin GPS?

http://pages.suddenlink.net/w4ydy/hamlinks.html#County

Download the file to a flash card that fits in your GPS unit, turn it on, and the county lines should appear!

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

Notes from the Editor

1) **Those miles of county hunting catch up to you**. In late October, it was time to put new rubber on the N4CD mobile. Ouch! The good news is that tires last a whole lot longer these days than they did back in the 1950s and 60s. Then, you'd be lucky to get 20,000 miles out of a set of 'tubeless' tires. They were bias-ply tires and just didn't last long. A real good tire might get you 25,000 miles. Now, depending upon your tire size, you can get anything from 30,000 mile 'cheapie' tires up to 80,000 mile rated tires. For my car, they only come in 60,000 – 70,000 mile rated tires, so I had to spring for a new set. The old ones were down to 2/32nds tread in some places and no tire was better than 4/32 and most were at 3/32nds. In TX, you won't pass inspection at 2/32nds of tread left So I had to leave a good chunk of change at Discount Tire with my annual 25,000-30,000 miles of county hunting. Figure about 1.2c per mile for tires and that includes free rotations every 6-8000 miles for the life of the tire. With gas at about 10-13c/mile, and depreciation on the car about 10c/mile, the tire figure gets 'lost in

the noise' but you still got to come up with the money! Hi hi.

2) **Small world department** - Last month we showed a hamfest picture of the Emtron DX-2 Linear Amp made 'down under'. Alan, VK4AAR, sent me a note saying at one time he considered buying one, but didn't. They have a 400W PEP limitation there. Small world!

3) Storms in the Northeast - I heard from Barry, K2MF in Sussex County, NJ. He lost power with SuperStorm Sandy and a week later still had no power and no idea of when power would return. Turns out it was two weeks to the day without power for him. Longer for the cable company to get his email back up – that took 3 weeks.

Gene, NT2A, lives on Staten Island - one of the county hunters used Google Earth and it looked like his QTH was six feet above sea level. He's now back on the air – but suffered a totally flooded basement and major loss of business and ham equipment.

Dave, W4YDY received the following email that was posted on the K3IMC forum:

" I am fine. The family is OK too. All antennas are down. The house has minor damages. Saved the car. Mostly damage in the basement and garage by 5 feet of salty water. Lost lots of staff from my two-way radio business. We still don't have electricity, internet, no heater, just cold and hot not drinking water. There are lots of volunteers on the streets, police, militias, etc. There is a lot of food, water and clothing donated. The beach is now a place for garbage storage. There are hills of garbage there, looks like 5 story building. At least there is No problem with gas. After all we are safe and alive. 73, Gene, NT2A "

Who knows how many other county hunters were affected? Many were without power for 10 days or more.

What is a bit strange is that the Weather Channel has a series of programs, made 10 years ago, titled **"It Could Happen Tomorrow"**. One of them was about a Category 5 hurricane hitting New Orleans. What did it predict? Yep, exactly what we got, and we didn't need a Cat 5 hurricane to do the damage either.

Another of the programs in the series was, get this, a Cat 3 hurricane hitting NYC. Hurricanes have hit NYC area every 80 years for the past millennium from the best available records and geological records. What did the program predict? Yep, except with a Cat 3 hurricane, they predicted a 20 foot storm surge, all the subways flooded, lower Manhattan underwater, half the power plants wiped out, 1/3rd of the island underwater. What happened? We only had 11-14 feet of storm surge and it wiped out the subways, wiped out lower Manhattan – flooded – took out the tunnels for rail and cars. Hundreds of buildings still unoccuppied and dark since all the

equipment was in basement levels for power, heat, control systems, elevator control panels, etc.

Exactly as predicted in the series. You can watch it here.

http://www.youtube.com/watch?v=zBk-PGlgcxY

Then the Weather Channel seems to forgotten that it ever ran that program. You can't even find it any longer – they list it, but it won't come up. All of a sudden the link to the video disappears. Then they go on whining and whining about 'how it is all global warming'. This from the very folks who told us less than 10 years ago 'It was just a matter of time' till this happened.

You wonder where the liberal brains are located. It's not in their heads. Not in Al Gore's head for sure.

4) Cold Weather Arrives

We had the change back to Standard Time in early November. The days are a lot shorter – late sunrise and early sunsets as we head to the Winter Equinox in December. Up north, the snow is flying at higher elevations, and in NY and CT following the tropical storm from another Nor'easter. The freeze warnings are a regular event. Mobiles are still out running and making trips, so there's still folks to work.

Here in Texas, it's been down below freezing a few days, and there have been some days of total clouds making it gloomy all day. Luckily, most of our winter days are still sunny so they'll be some county hunting trips in between the other activities over the next few months. Soon the holidays will be upon us with some making trips to visit the kids or granny and grandpa down the road.

5) County Line Picture Database

Gary, K4EXT, has been working hard to add more and more counties to the County Data Base at the link listed below. He's up to over 500 pictures of county lines in states around the country. Can you help him add even more? Send him pictures of county lines on your travels. With smart phones with built in cameras, it shouldn't be too hard to get this over 1000 or more in the next year!

http://www.charchive.com/cntys.asp

6) Peak Oil Month

The Association for the Study Of Peak Oil has it's annual convention this year in Austin TX at the end of November. I thought it would be a good time to include several articles on peak oil. You've heard a lot on TV about claims that the US will soon overtake Saudi Arabia and Russia on amount of oil produced each year. (we're already the 3rd or 4th largest right now). Those claims remain to be seen, and many really doubt that it will happen and even if it did, it would be short lived as the depletion quickly drops production. You can decide. I've included both sides of the story this issue.

I'll report back next month on the annual ASPO conference. I'm headed there at the end of the month.

7) Those filter capacitors, Episode N

or – It's a small world....

In the past issue or two, we've talked about replacing those old filter caps in those old radios before you fire them up. In the middle of November, on a nice Monday night, I'm watching the latest episode of Pawn Stars on the TV. It's usually a good program of folks bringing in all sorts of items to pawn or sell – anything from 1800s firearms to antique jewelry and watches, to documents signed by John Hancock.

So what shows up? A giant Western Electric made couple hundred watt "Beach Master" PA system with gigantic directional speakers – designed for use on invasion beaches during WW2 to attempt to control the movement of men/material onto and off the beach. It was an interesting item, and they showed it powered up. Meant to be loud and it was. The unit had been in storage for decades and decades. After all, who needs a large speaker array, and couple hundred pound power amplifier other than for recreation of WW2 movies? Also, it had a $5000 'asking price'. Most had been parted out – to different types of collectors.

The Pawn Star folks brought in their 'expert' to evaluate it - and his last comment was something like:

"You've got a ticking time-bomb here. Those old filter capacitors in the amplifier could blow up at any time and destroy the unit"

The Pawn Star folks declined to buy the unit at the price the seller wanted. They offered 500 bucks and that was mainly for the amplifier, which needed hours of work to go through it and replace all the deteriorated parts. (Just the tubes in the amp might have been worth the 500 bucks – those heavy duty tubes like WE-300Bs sell for hundreds each.) Probably the amp

itself weighed in at 250 lbs with heavy duty power transformers, interstate and output transformers.

Just another reminder of DON"T fire up those old radios/amplifiers before you replace those 50-60-70 year old caps. Even radios from the 60s and 70s likely have leaky caps in them. If they are the paper/wax ones...they're toast.

PS. I've seen some exploding/frying electrolytics in my life – or the results of it. Even 'good' capacitors can sometimes 'give up' suddenly. In addition to a giant mess inside the radio, the smell is up there in the same category as selenium rectifiers going bad – something you really don't want to experience.

8) Contest Months

The state QSO party season ended and now we are into contest season. We've had the Sweepstakes and by the end of November, both CW and SSB CQ Worldwide contests. They've messed up the weekends for county hunting, but folks could snag HI counties and at least the 4th AK, perhaps others. We'll have the 160m contests and 10M contest plus a bunch of other smaller ones to let you chase some fixed stations.

If you are headed out mobile, always check the contest calendars to make sure you aren't headed into potential very crowded bands.

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

Mobile Trip Report – Larry, W7FEN

After returning from our three week trip that took us up to Augusta, ME and home. This was almost a 5700 mile trip which meant that it was time to get the wheels services. Just before taking it in I had checked out the 2012 Camry. I found that they had an internet special on them. Made the contact and when we took the 07 in for service had a meeting with the internet sales rep. Ended up getting a good deal and was talking about also trading Rita's Jeep Liberty in on it also. Rita was talking to her son and he told her what he would give her for the Liberty, so she sold it to him. I got a couple of trunk mounts

from DX Engineering and got them installed and radio mounted in the new Camry. I connected the audio from radio into the car's speaker system. It really worked out great, so no more using a headset at time. With the blue-tooth function if some-one called my phone it muted the audio from the radio until I was finished on the cell-phone. Very pleased with the audio system.

Jim, Rita's son lives in Sikeston, MO so I told her we'd just deliver it to him. Right after Rita's Friday morning doctors appointment we headed east. From US 24 we picked up Hwy 94 which we ran some of the counties in Colorado that aren't ran all that often. When we got to US 287 we went south to where we picked up Hwy 96 which took us most of the way across Kansas. In Kansas I did put out a couple of Last Counties. One of them was for Neil K7SEN. There were some that had just finished up on a second or third time around and were right there for every new county that I ran. Got into several new counties in Missouri to transmit. I was busy on 20M SSB/CW and also 17 Meters. There for awhile I had coast to coast coverage on 17 meters. I worked N0KV/N0DXE on the county line of Maui/Kalowao and then N0KV in Kaui on 17 meters.

In Missouri we enjoyed the beautiful fall foliage in between county runs. Rita was following along in the Jeep and every once in awhile she'd call for a stop at tourist attractions.

On the way home when we got to Logan County in Kansas we left I-70 and came straight across into Colorado and Colorado Springs. This put us in Logan County long enough to run on a couple of bands and then through Wallace County, KS which isn't ran all that often.

While on this trip W5IL was running Arizona and some of New Mexico and I finished up Arizona for the third time. Was able to make contacts with WQ7A on his journey back to the beautiful Pacific Northwest.

Thanks to all of those that helped with relays during this four day trip, it certainly is appreciated by the county hunting community.

I have noticed on the forum that several have had problems with their computers. Most have got good back-up files. Today I was thinking about this. What if one of us was wiped out by a fire. So now I am backing up on-line and can access latest files at any time. I happen to use Sky-Drive and it's very easy to us.

First of November we will be in Arizona for the winter and plan on make a couple of trips to put out Arizona and New Mexico counties and maybe even some Nevada and California.

73
Larry W7FEN

Mobile Activity this monthly period

Bill, **K2HVN** wrote about his recent long trip:

Total miles 10,733. Total counties run 338, new 197

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Ron, **N5MLP** made a major trip to North TX, up into OK, then circling back around through TX putting out dozens and dozens of counties. Ran on SSB. He's working on finishing up transmitting from all of TX and getting his 500 done for Master Platinum. Later in the month he headed out again for 9 days or so running many more in TX, over in NM, then east to OK and up into KS. Then back home. He should have everything for MP done by the time he arrives home after a long long trip. Got 4 of the last 5 for K2MF to finish up.

Ray, **AB4YZ**, headed back from MI to VA. Ran on SSB.

Bill, **K2HVN** finished his long trip home through VA. Ran on CW for the most part. He's putting out a few back east from time to time.

Jeff, **W9MSE**, was spotted out and about in WI and MN – on CW.

Rick, **W5QP**, put out a lot of AR counties on CW on many different days – circled around the state getting them all.

Silver, **N9QS** ran a bunch of counties in NC then VA on various days. In mid month, he headed back home via southern VA and into KY through some of the tough to get counties.

Abe, **W7GQK** was spotted out and about in AL.

N9CJH, a big rig, was spotted in many states – on SSB.

Jim, **N9JF**, now back in car with radio and putting them out in MO, IL, IA,,IN, OH, KY, AR, KS, NE and other states.

KC7YE , Jack, spotted out in a few in WA state including Chelan.

Bob, **K7TM**, ran in ID and MT.

N9AC was spotted in various states including IN, IL, KY, SC – on cw and SSB.

WG9A , Bill, headed across to New England putting out the counties along the way.

Ron, **KB6UF,** headed to CA from LA putting them out along the way.

Mike, **KA4RRU**, headed on down to FL and put them out the whole way and while in FL, ran around putting out even more. Then headed back north via new counties. He's also been active up in VA putting them out.

Don, **W0EAR,** put out counties on CW in MN.

Chuck, **W3CR**, headed up to WI for a few counties.

Leo, **WY7LL** and Chris, **WY7ML** headed from WI back to WY.

Larry, **W7FEN,** spotted in a few in AZ.

Joyce, **N9STL**, headed from IL to FL via WV, NC, GA and SC – she'll be down south for the winter.

Paul, **N7JPF** headed east from WA through ID, MT, ND

Lowell, **KB0BA**, and Sandra, **N0XYL**, were busy putting out counties in IA and IL and IN.

Kerry, **W4SIG**, has been putting them out in AR, TN, MS and AL.

Rick, **AI5P** was over in NM in Taos.

Jim, **N4JT,** ran a few in NC. Headed up to Henrico, VA area over the holidays.

WA4UNS, Doug, ran counties in NC and VA.

Neil, **K7SEN**, and Mary, **AB7NK**, headed over to TX and back putting them out along the way.

Fred, **K0FG**, headed east putting them out, and ran around on the east coast before heading back home.

Jack, **WD4OIN,** ran some in VA.

Eddie, **G4KHG,** was operating on PSK from the HI islands.

Ed, **K8ZZ,** ran a few over the holidays trekking to south MI.

WB4KZW, Gene, was spotted headed to FL from NC.

Jimmy**, K4YFH**, headed west through GA, AL, MS to TX.

Team **W8FNW/W4FNW** headed from FL going north for a bit. - SSB only

Matt, **W0NAC** and Sharon, **N0LXJ**, headed over to Hooker, NE – the LC WBOW for Barry, K2MF. Barry has been working on the USACA award for decades.

Nanotube News Update

Researchers at IBM have revealed a groundbreaking technique that could one day replace silicon in computer chips.

The team have developed a new technique to mass produce carbon nanotubes that could create dramatically smaller, faster chips.

For the first time, the team revealed they have created a carbon 'chip' with more than ten thousand working transistors made of nano-sized tubes of carbon, which have been precisely placed and tested in a single.

These carbon devices are poised to replace and outperform silicon technology allowing further miniaturization of computing components and leading the way for future microelectronics, IBM said.

Aided by rapid innovation over four decades, silicon microprocessor technology has continually shrunk in size and improved in performance, thereby driving the information technology revolution.

However, their increasingly small dimensions, now reaching the nanoscale, have reached the limits of performance due to the nature of silicon and the laws of physics.

Expert believe that the future may be carbon nanotubes.

Electrons in carbon transistors can move easier than in silicon-based devices allowing for quicker transport of data.

The nanotubes are also ideally shaped for transistors at the atomic scale, an advantage over silicon according to IBM's team.

'Carbon nanotubes, borne out of chemistry, have largely been laboratory curiosities as far as microelectronic applications are concerned,' said Supratik Guha, Director of Physical Sciences at IBM Research.

'We are attempting the first steps towards a technology by fabricating carbon nanotube transistors within a conventional wafer fabrication infrastructure.

'The motivation to work on carbon nanotube transistors is that at extremely small nanoscale dimensions, they outperform transistors made from any other material.

'However, there are challenges to address such as ultra high purity of the carbon nanotubes and deliberate placement at the nanoscale.

'We have been making significant strides in both.'

The approach developed at IBM labs paves the way for circuit fabrication with large numbers of carbon nanotube transistors at predetermined substrate positions.

The IBM researchers today revealed they are able to fabricate more than ten thousand transistors on a single chip.

'As this new placement technique can be readily implemented, involving common chemicals and existing semiconductor fabrication, it will allow the industry to work with carbon nanotubes at a greater scale and deliver further innovation for carbon electronics,' the team said.

http://www.dailymail.co.uk

On the Road with N4CD I

There was another small-medium size hamfest just up the road 114 miles from the QTH – in Ardmore OK. Usually 40-50 folks were selling things in an indoor flea market (no outdoor flea market). Some years you'd find a 'goodie' and most years you just went to check it out so you didn't miss something. On Friday afternoon I headed up there. It 'opens' at 5pm 'to the public' but they are open at 2pm for sellers to bring in their stuff and unload, and set up on the inside tables. There's an inexpensive Motel 6 there ($46 including tax) and it's the updated version with nice flat screen TV, free wi-fi, expanded cable, nice laminate type floors, etc. There's a Denny's right next door for an inexpensive breakfast, too.

I arrived early, checked into the motel and wandered over to the hamfest and walked inside to see what was going on. Folks were bringing stuff in, and others were hovering over it to see what bargains they could snap up. It seems most of the 'good stuff' is already sold before the 'public' enters. If someone is selling something at a real bargain, it gets snapped up and is on some other seller table for double the price.

There were the usual offerings of Kenwood Transceivers, some older Heathkit stuff including a couple of SB-200 amps, SB-301/401 combos, one Johnson Valiant Transmitter, boxes full of ARC-5 type stuff (rough shape0, and the normal stuff you see at every hamfest. There were a few battery era wood radios, minus tubes, for sale. It looked like they were attracting zero attention, and a nice 20s era console with a folded horn speaker built it.

I saw only one regen receiver there – a VLF receiver, the Mackay Radio and Telegraph Model 128 AW – which tunes from 17 KHz up to 580 KHz, made in 1945 or so. It was 'tropicalized'. (they spray anti-fungal goop on the parts, wiring inside and try to water/humidity proof it for use on ships and in shore stations in the Pacific. It's a receiver for shipboard use that can run off 120VDC ship power, or 90v B battery. We showed a pic in Nov 2010 issue. I gave the seller a ridiculously low offer and had to lug home the heavy receiver. He didn't want it.

Some of the stuff you don't see all the time -

A 10 way or so adapter to hook 10 resonators to your mast – a 2 inch diameter cast ball with holes all over it. You could put a bunch of resonators off it. Looks like it was set up for 4 Hustler type resonators pointing up at 45 deg, plus one straight up.

There was another 'find' – the first ever issue of CQ DX Magazine – First Edition, First printing. If it were a rare book, like from the 1800s, or the first issue of Playboy Magazine with Marilyn Monroe on the front – it would be worth hundreds and hundreds, but I suspect to hams, it's barely worth more than the buck I paid for it. May – 1947.

It had an interesting ad for a regen set in it I've never seen, so that's why I bought it. It could be the ad was 'vaporware'. There have been dozens of sets advertised in ham magazines that never made it to production. The Knight T-400 transmitter is one of them. The Norden-Houck receiver of 1931 appears to be another – great ad but never produced – apparently. In the 50s, there were quite a few ads for SSB radios and transceivers that never made it past the 'ad' stage.

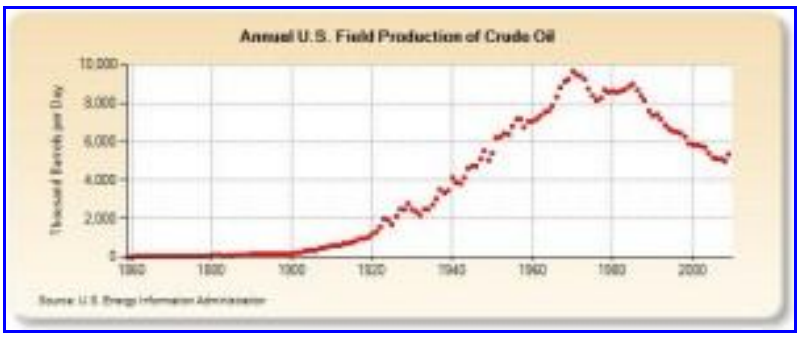
Another cute thing that followed me home was a small MFJ amplified speaker that goes with the Cub series QRP radio. The price was 'cheap' so I bought it to go along with my 30m Cub that got lots of use when W0RRY, Charlie, and I went out mobile together. He's not doing well health wise these days.

It's just a short jaunt on busy highways so I didn't take the radio/antenna long.

Peak Oil Misconceptions

Robert Rapier – the Oil Drum

Misconception 1: Peak Oil = Running Out of Oil
This one is surely the most common. Many articles that seek to debunk the notion of peak oil start with that premise, and then respond by highlighting other historical instances where someone influential suggested that we could be running out of oil. In fact, anyone concerned about peak oil will readily acknowledge that we are going to be producing oil for a very long time, and when we stop there is still going to be a lot of oil left in the ground.



So what then is the definition of peak oil? In its simplest form, peak oil means that just as oil production in the United States peaked in 1970 and began to decline, so shall the rest of the world. Once you get past that basic premise – one in which there is near-universal agreement once people understand that is what you mean when you say "peak oil" – there are many different opinions of exactly how events will unfold.

Misconception 2: Peak Oil Beliefs are Homogeneous

The beliefs among people who are concerned about resource depletion cover a wide span. There are those who believe that a peak is imminent, followed by a catastrophic decline. Included in this group are people who have vocally and (to this point) wrongly predicted dates and catastrophic consequences as a result of peak oil. These are the real targets of those who claim that peak oil is nonsense. What they really mean – but perhaps don't say due to misconceptions about peak oil beliefs – is that the idea of imminent, catastrophic decline is nonsense. But that isn't the same thing as arguing that peak oil is nonsense.
But there are also people who believe peak oil will inevitably lead to cleaner environments, closer communities, and healthier food. Then there are those who believe that peak oil will lead to a dirtier environment as we become more desperate for energy and turn to more oil sands and coal to replace declining oil supplies. There are people who believe peak oil will be a minor inconvenience because there are plenty of sources capable of replacing oil. And there are those who believe certain elements of all of the above.

Misconception 3: Peak Oil is a Theory

It is also common among those writing articles seeking to debunk peak oil to refer to the "peak oil theory." As in the previous example, this paints with a very broad brush. When someone describes peak oil as a theory, what they are really referring to is the belief that a production peak is both imminent and the results promise to be catastrophic. I doubt that's the majority view, and I would estimate that the percentage of people holding that view has declined over the past five years as some of the catastrophic scenarios failed to materialize on schedule. But peak oil itself is an observation, not a theory.

Misconception 4: Peak Oil was Dreamed Up By Big Oil to Inflate Prices

In fact, most of the major oil companies argue that oil production will not decline for decades. This has been the public view of ExxonMobil and the American Petroleum Institute. But within oil companies, there have been some executives who have publicly expressed concern that oil production could not grow to the levels projected by various agencies. I am unaware that this is the official position of any major oil company, but I would submit that the reason *some* executives expressed concern is because they *are* concerned.

Misconception 5: Peak Oil is Denied by Oil Companies Worried about Alternatives

This view is the opposite of the previous misconception. The idea is that if oil companies acknowledge peak oil, governments will redouble their efforts to develop alternative fuels, hastening the end of Big Oil. There are two flaws with this reasoning. First, from my view inside the oil industry, most people in the industry deny peak oil for the simple reason that they have either never given it much thought, or subscribe to one of the misconceptions. I frequently had conversations with people about peak oil in which the response was "They have been saying that we are running out of oil my entire life."

The second flaw in this argument is that I have never seen anyone in the oil industry express anything resembling worry over the alternative energy industry. They may be annoyed at mandates that force them to do something they don't want to do (like blend ethanol) but then they can respond by getting into the business themselves. And in fact, I have yet to see an alternative energy scheme that Big Oil wasn't already working on: Algae, cellulosic ethanol, butanol, solar – oil companies have major efforts in every one these areas (and have been working on them for years). It is just that in most cases, they don't publicize and hype those efforts because they aren't out trying to raise funds. It is just a part of the basic research that oil companies do. The scientists and engineers that work at oil companies aren't just sitting around basking in the final days of the age of oil – a very common misconception. They are thinking about what comes next, and investing to make sure that when it does come, the oil companies are in the position to provide it and profit from it.

Conclusions

So I think as far as peak oil goes, most of us can agree that just as it did in the U.S. in 1970, global oil production will inevitably decline. The points of contention are the timing, the steepness of the decline, the impact on the global economy, and the ability of other energy sources to fill the supply gap. Some believe it will be a non-event, and some people believe it will be catastrophic.

What do I believe? I think of peak oil as supply struggling to keep up with demand, which will keep prices at recession-inducing levels. I think that we will probably eek out a bit more global production, but I will be surprised if the world gets past 90 million barrels per day. I believe that shale gas and oil sands production will continue to rise, and global carbon emissions will continue their upward march.

I still believe in the Peak Lite scenario; in fact I think that view has been validated. I also believe that my view on the Long Recession is supported by the state of the economy as well as the continued strength in oil prices. As far as the consequences of peak oil, I believe that what we are seeing now with respect to the economy is a prelude to what we will see for the next few years. I expect a slow squeeze on western economies as developing countries continue to raise their standards of living – keeping fairly constant upward pressure on oil prices. I believe we have entered the long recession, but if the economy shows major strength within the next couple of years I will concede that at least my timing was too early.

I do not expect a massive die-off of the population, as I reiterated to several people at the ASPO conference this past week. In fact, my mind can't even begin to entertain that scenario. I understand the basis of those who believe in this scenario, but I believe that we will show great resilience in the face of great challenges. It won't be a picnic; I expect the economic situation to further deteriorate from here and I think a lot of people are going to suffer (and I recognize that a lot of people are suffering now). But of course I have always been an optimist…

Postscript

After this essay was originally published on my blog, it was republished in several locations. Based on the comments I received, I want to clarify a couple of points. Some people misinterpreted my comments about those who believe in an imminent, catastrophic decline. What I wrote was that this is the view that those anti-peak oil articles ridicule and attempt to debunk — as if this view is representative of peak oil, period. I personally am not ridiculing that point of view; it is one of many possible outcomes. But it is not, in my opinion, the most likely outcome.

Many seemed to equate "Peak Lite" with "peak oil will be a minor event." That is not remotely what the Peak Lite scenario is all about. I came up with this scenario when we were debating whether 2005 was the peak. It occurred to me that maybe there was far too much emphasis on a physical peak, and then the aftermath of the peak. After all, what happens after a peak? There is not enough supply to meet demand. I reasoned that we would see this and the associated impacts before we necessarily saw a physical peak. When I first started writing about this, I envisioned a scenario in which global demand growth outstrips the growth in supply, so that even if supply could still grow the market behaves as it would in a peak oil situation. So I used "Peak Lite" to denote "Effective Peak" — which is not to imply that the impact of peak oil would be "Lite."

The Long Recession phrase was obviously inspired by The Long Emergency. I reasoned that since high oil prices frequently precede recessions, peak oil would likely mean a recession without end. The reason is that demand usually falls during a recession, supply creeps up, price falls, and the economy recovers. In a Long Recession, supply doesn't creep up, and therefore prices remain high — stalling a recovery. I think that's a pretty apt description of the situation

in which we find ourselves.

Pictures from Bill, K2HVN

Kerry, W4SIG and Bill K2HVN

Leo, WY7LL in the hamshack

Don W0EAR and Bill K2HVN


Bill K2HVN and Wes, NX4C

Bill, KM1C and K2HVN

Bob K7TM and Bill, K2HVN

Some Stuff from Ebay

You never know what is going to show up on Ebay. Here's a nice VHF receiver made by National in the early 1930s, complete with the 'dog house' power supply unit. It's not a 'regen' but a super regen radio. Like the Heathkit Twoer and Sixer receivers, this covered a wide range with plug in coils in the VHF range.

National HF S Super regen 27-250 Mc

from the ad:

“HERE'S A MOST INTERESTING AND SOMEWHAT RARE EARLY VHF FROM NATIONAL RADIO. This is the model HFS and I believe it is the successor to the famous model 10-1. This one is also a super regen circuit and is in very good original condition, including ORIGINAL POWER SUPPLY AND ALL THE ORIGINAL COILS. Frequency range on this radio is 27-250 mc. The radio appears to have a complete set of original tubes also. The connecting power cable is A+ and the power supply has new electrolytics and line cord. The radio also comes with a copy of the original National Radio owner/operating/maintenance manual.

The radio "works" kinda! That is, the power supply runs nice and cool. All the stages seem to function quite well. The RF section seems to have an intermittent connection somewhere. If you wiggle the front end tubes, the radio will perform quite well, but really does need to have the VHF section gone through and resoldered.”

Sold for $305 on Ebay! (and you had to fix it!)

Here's another 'rare' regen that showed up on Ebay – a Meissner Midget set from the 1930s.

Meissner Midget Receiver

The seller listed it as:

“UNKNOWN VINTAGE TUBE-TYPE AMP OR 'REGENERATIVE RECEIVER', MAYBE....”

With a description of:

“This item is being sold AS-IS, no return. Unkown maker vintage tube-type radio or amplifier of some sort, a helpful fellow eBayer has suggested it might be a 'regenerative receiver' though as it has a pair of inputs at the back marked "Phono" we suspect it might be an amplifier. Three vacuum tubes, one type 37 and two type 76. One socket empty, doesn't look like a standard vacuum tube socket, which may be why the unit does not power up. Footprint is 7" x 4.3". Main knob has hash-marks from 0 to 100. If anyone knows more about what this is and/or who made it please email us.”

Unfortunately, the plug in coil is missing and they are near 'unobtainium'. They use a special small diameter coil with the contacts on the OUTSIDE of the plug in coil. The unit appears to be from the mid 1930s.....

The Type 37 and 76 tubes are five pin triode tubes with indirectly heated cathodes. They need 6.3v at 300ma. The 37 was designed for auto radio use. It looks like it had a resistance line cord too – to drop the 117vac down to 6.3volts for the filaments....Let's see....that would be roughly 100v at 0.3 amps or 30 watts dissipated in the line cord.....wow!.....

I snagged it as fast as I could type – it was a real 'bargain' and it had a very reasonable 'buy it now' option. I love it when folks don't know what they have. The back panel connections are for 'phones' – the headphones. It's not a phono amp.

- - - -

Lots of other interesting 'stuff' went by on Ebay – a lot of it way way out of sight in prices, but some 'rare' stuff traded hands including a Western Radio Weskit Scout two tube regen kit, complete in 'plastoid' cardboard 'cabinet'($89) , half a dozen Knight Kits like the Space Spanner, a nice Ocean Hopper with all coils for well north of $150. Finding them among all the clutter is sometimes an exercise in exhaustive searching, but occasionally a 'gem' comes this way. It's something to do when the bands are quiet on cw – which, unfortunately, seems to be a lot of the time these days!

County Challenge Top List

The County Challenge Top List is maintained by Risto, W6RK. It contains the latest reported data from the county hunters – in the CW category, SSB category, Digital Category and Combo (all of the above) – for listing for 'band counties'. From 160M through 10M including the WARC bands.

It's at this URL:

http://www.w6rk.com/ccatoplist/ccatoplist.htm

At the moment, KN4Y is leading the mixed band county challenge with over 15,500 band counties. That's working counties on any band regardless of the mode. Jerry, W0GXQ is right behind on his tail.

On only CW, Ed KN4Y is leading the pack with over 15,500 cw band counties.

In the digital category, KD7KST is at 2825 and counting.

On SSB, AD8W is leading with over 8000 band counties. Hollis, KC3X isn't far behind.

In the combo category, W0QE leads the pack with 20,441 as of 10/6/2012

If you are interested in participating, send in your monthly update to"

toplist(at)w6rk.com by the first of the month.

Don't forget to edit the address to take out the (at) and replace it with the "@"

Barry and Pat Visit Hawaii

by Barry, N0KV, and Pat, N0DXE

Earlier this year, we had discussed heading over to Hawaii – for both a vacation and to operate, but it wasn't until August that we actually started planning for trip. While Barry planned the trip from an amateur radio operating perspective, Pat worked with a travel agent to secure flights, rental cars, and accommodations. (Pat's sister, Paulette, joined for the first two weeks.)

The equipment:

We used a Yaesu FT-757, an 8 ft Hustler mast (4 two ft sections), and a COMET RS-840 heavy duty trunk lip mount antenna base. We modified the mount by adding "pointy" mounting screws that went thru the paint on the backside and helped give us a better ground. We were able to mount the antenna on the "long side" of the trunk lid behind the rear window on all the mid-size rental cars, but we were not that lucky on the one compact that we had on Molokai. A Palm Radio mini-paddle was purchased for the trip, and it worked just fine. The entire mini-paddle is only 1 x 1 x 3 inches, very light, and has a magnet that holds it down on anything metal.

Operating statistics:

Total QSO's: 616
QSO's by mode: SSB: 420, CW: 187, FM: 9
QSO's about evenly divided among 20, 17, 15 meters.

Signal levels were consistently the strongest on 15 meters with lots of 59's on that band.

QSO's by County:

Honolulu: 2,
Hawaii: 129,
Maui: 70,
Maui/Kalawao: 261,
Kauai: 151

Airport Security:

It was fairly easy going through the TSA security checkpoints at all airports. We removed the laptop and radio from our carry-on bags and placed them in the bins so they were in plain sight, and had no problems. The antenna and associated cables were in our large bag that went as checked baggage. Checked baggage fees ranged from $25 to $15.

Operating locations.

To some extent, operating locations were determined by where we stayed on each of the islands. It generally wasn't convenient to operate from the preferred east-facing beaches, but it was pretty easy to find relatively quiet locations with reasonable paths to the east. Generally speaking, the hour after sunrise (0600-0700 local) provided the best operating conditions to the USA, and it took us a few days to figure that out. . .

The trip:

We left from Denver on a non-stop flight to Honolulu and from there headed to the Big Island where we were fortunate enough to stay at the cottages at Kilauea Military Camp. We were able to access the hiking trail at Kilauea Volcano from there and took several short hikes.

Pat and Barry – Hiking on the Big Island

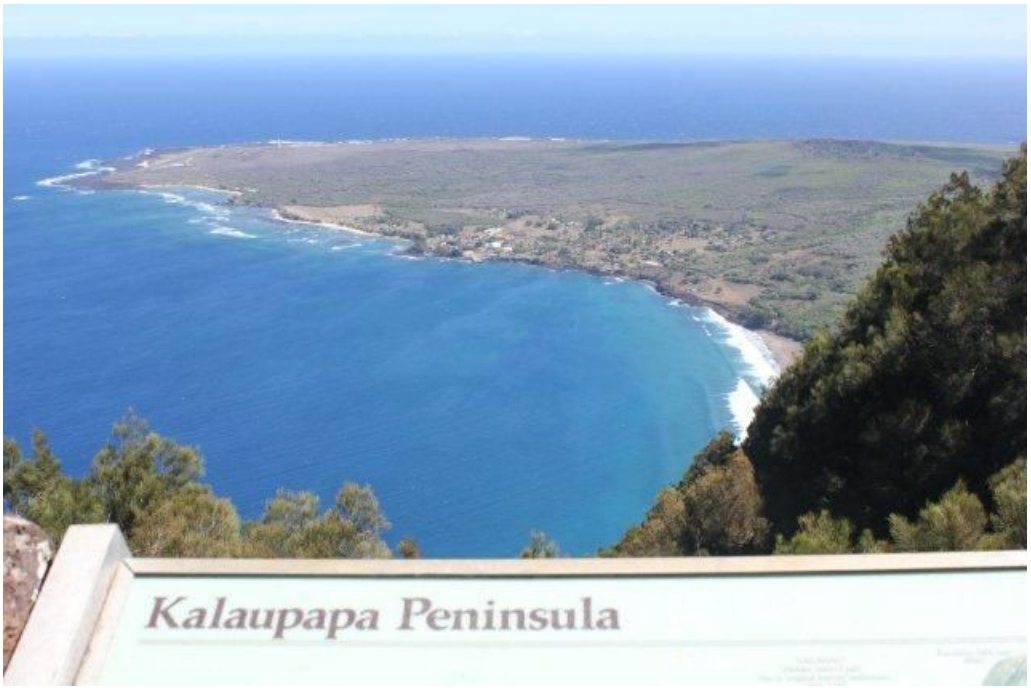
Also, by driving up the road a few blocks, we found a great quiet location to operate. Well, I say we, but after the first day, Pat didn't want any part of getting up at 5 a.m. several mornings in a row.

On the Big Island – Hawaii
Volcanoes National Park

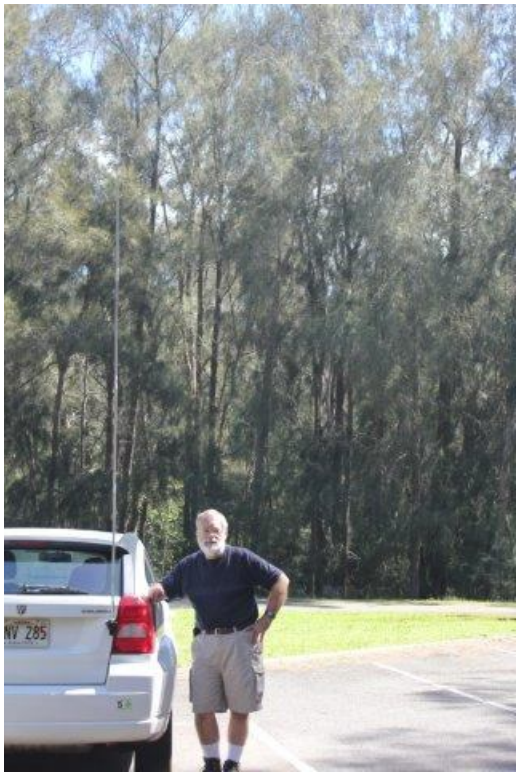
After morning operations, we played tourist, going to the Moana Loa macadamia factory, local farmers' market, driving around Island and on one beach stop spotted large sea turtles basking in the sun, and did Luau night complete with Hula dancers.

Next, off to Maui where we stayed in Kaanapali, on the western shore. Very busy area but we did find a quiet overlook from which to operate. Again, played tourist and took a narrow, winding road around the northwest end of the Island. From here, Paulette headed back to Oahu for her flight back to Denver while Pat and I continued on to Molokai.

In Molokai, we stayed at the Hotel Molokai (only hotel on Island) for 2 nights, which was our shortest stay. While operating from the Maui/Kalawao County Line, Merv, K9FD, joined us for an "eye ball" and joined us for lunch in town. We also took a short walk to an area overlooking the old Leper Colony. Small island, no traffic lights, a few restaurants, and no night life, except Friday nights when the locals get together and play their ukulele's and sing at the Hotel Molokai.



The overlook near the Kalawao/Maui line
Kalawao is nealy all 'down below'



Barry at the Kalawao/Maui Line

Lastly, off to Kauai, where we stayed in Poipu, on the south end of the Island. Found a nice quiet spot on a hill about a ½ mile from condo from which to operate. Accommodations again were great with walking paths throughout the complex and we once again observed sea turtles almost daily as they swam near the shore.

Spectacular scenery taken during Catamaran boat trip on Kauai Napali coast

All in all, the trip went smoothly and we were sorry to have to leave this beautiful paradise. We would love to go back, but there are still too many counties to run so hopefully you'll catch up with us when "we're on the road again".

Aloha!!! Barry/N0KV and Pat/N0DXE

On the Trail of Regens I

or ….On the Trail of Regens (and sometimes other 1 tube radios) ….what shows up on Ebay.....

Graymark 521 Mighty One - One Tube set

You never know what shows up. Here's an interesting item from Ebay. Information suggests it's a one pentode tube (1T4) set using a tube as a grid leak detector. Made by Graymark, this is a model 521 Kit - assembled. It only has an on/off switch, and main tuning dial. Inside are places for two batteries - 1.5v AA cell and a 22.5v or 30v B+ battery. It has a ferrite loopstick coil, variable cap, and 2 fixed capacitors and two resistors. As advertised, it comes with an earphone and a wire to hook up to an antenna. No other information provided and I can't find a single thing about it on the web. Strange.

GrayMark “Mighty-One” one tube set.

Graymark sold quite a few kits, including a nice 3 tube regen kit with plug in coils for the SW bands, an a/c DC 5 tube table radio, and other non-radio kits. That was back in the 60s.

Denco Plug in Coils

These were very popular in England and are sought after by collectors and owners of radios that used them. The 'green' coils were designed for regenerative receivers – 3 windings with a tickler winding included. The 'blue' coils were for the RF amp stage with two windings. Denco manufactured a whole series of coils, including ones to use in a superhet receiver for all the stages (not plug in). They made them in octal (old) and then a nine pin socket miniature tube type socket version. If you wanted to build something in the UK, you probably ordered your coils/IF transformers from Denco.

The lower frequency ones were wound with Litz wire – which is multiple strands of individual insulated fine wire braided together for low loss. It's very common for high quality receivers below about 2 MHz. Any good VLF receiver will use Litz wire in the coils. Even transmitters down below 200 KHz use Litz wire for low loss (or just operation down at 20 KHz).

I found a great site if you need any information on the Denco plug in coils. There were made for about 30 years in the UK.....and went in a dozen models of shortwave listening sets. They came pre-wound. I don't know of any in the US that were pre-wound in the 50s and 60s. Before that, you could buy a set of coils already made – as we've covered in past issues.

http://vintageradio.me.uk/info/dencodtb4_data.htm

Radio Shack P Box Series Shortwave Kit

Radio Shack has offered various kits for builders. This showed up on Ebay – one of the series

of kits known as P-Box kits where you built the circuit on a plastic 'chassis' using small screws into a plastic molded web to hold the wires of the parts. No soldering.

It was a 3 transistor regenerative receiver for 2-30 Mhz that sold for $7.95 back in the 70s. There's a cult of collectors who accumulate un-built P Box kits! This one sold for $161 on Ebay! (if you had stashed a bunch of these back then, just think of the profits you would have made. Who would have known? Same with an Altair computer that sold for $395 as a kit from MITS – you can get over $10,000 for a mint version of one today. Same for an Apple 1 computer).

On the other hand, a Collins KWM-2 would bring less today in inflation adjusted dollars even after 60 years. They sell for a good price, but they sold for a good price back then. You'd barely triple your money in 60 years.

Peak Oil 2

IMF study: Peak oil could do serious damage to the global economy
By Brad Plumer , Updated: October 27, 2012

The world isn't going to run out of oil anytime soon. But there's still concern among various geologists and analysts that our oil supply won't grow as quickly or as easily as it used to. We'll have to resort to harder-to-drill oil to satisfy our crude habits. More expensive oil. That would push prices up. And high oil prices could act as a drag on growth.

This, at any rate, is the basic idea behind "peak oil." And there's some reason for worry. Between 1981 and 2005, world oil production grew at a steady pace of about 1.8 percent per year. All was well. But starting around 2005, oil production appeared to plateau. And, since demand for oil kept rising, especially in countries like China and India, that caused prices to soar. Oil doesn't get much cheaper than $100 per barrel these days. And that, some economists worry, has acted as a drag on growth around the world.

So how bad would it be if peak oil was really upon us? That's a question that two IMF economists try to tackle in a new working paper, "Oil and the World Economy: Some Possible Futures." (pdf) The authors, Michael Kumhof and Dirk Muir, don't make any definitive predictions about how the oil supply will evolve. Rather, they try to model a number of different scenarios in which oil does become more scarce and the world tries to adapt.

The paper itself offers an interesting look at how the world might cope with higher oil prices, so let's take a look at the various scenarios:

1) Oil production grows very slowly or plateaus. This is the baseline scenario that Kumhof and Muir use. They assume that oil grows by about 1 percentage point less each year than its historical average. So, let's say, oil grows at a steady 0.8 percent per year rather than the 1.8 percent annual average between 1981 and 2005. This isn't a temporary oil disruption like the one we saw in 2008. It's a persistent, long-term supply shock.

What would happen? Oil prices, the IMF model suggests, would gradually double in 10 years and quadruple over 20 years. Regions that import oil on net, such as Europe and the United States, would see a small hit to growth—about 0.2 to 0.4 percentage points each year. Countries that export, like Saudi Arabia, would get a lot wealthier.

2) Oil production grows at a slower rate, but the world adapts fairly easily. In this scenario, oil

production declines, but countries start switching to electric cars or fueling their vehicles with natural gas. Vehicles and manufacturers become more efficient. In economist terms, the "elasticity" of demand quickly increases.

Under this scenario, the United States and Europe take just a small hit to growth, about 0.1 to 0.2 percentage points per year. Japan and Asia actually get a boost to their economy, since they can adapt to higher oil prices and export more stuff to oil-producing countries in the Middle East. All told, this is a fairly happy outcome.

3) Oil production grows at a slower rate, but the world can't find substitutes. As the IMF authors note, it's not assured that the world can quickly adapt to steadily increasing oil prices. Oil is, after all, quite valuable and hard to replace. Electric cars may not catch on. It's tough to build infrastructure for natural-gas vehicles. The chemical industry might struggle to find substitutes for oil as feedstock. The oil substitutes that result turn out to be lower-quality. In this scenario, wealthy regions like Europe, the United States, and Japan take an annual GDP hit of 0.4 percent to 0.6 percent. That starts to hurt.

4) Oil turns out to be far more important than most economists had assumed. The Energy Information Administration estimates that petroleum purchases make up just 3.5 percent of the U.S. economy. Looked at from that angle, expensive oil shouldn't do too much damage. But, the IMF authors note, several books and articles have pointed out that this understates how crucial oil is to the functioning of a modern economy. Many key technologies contain materials or use fuels derived from crude.

If, in fact, oil is much more important than many economic modelers have assumed, then the blow to growth from even a modest plateau in oil could be quite large—lowering growth rates by up to 1.2 percentage points over the next two decades.

5) Oil production starts shrinking rapidly. This is the doomsday scenario. Some studies have suggested that global oil production is currently on a plateau and will soon start shrinking in by around 2 percent per year. Existing wells will dry up. The world will increasingly rely on oil from places that are more expensive to develop, such as Canada's tar sands. What happens then?

Nothing good. According to the IMF's modeling, prices could increase by 800 percent over two decades. Growth rates in Europe and the United States would be reduced by at least a full percentage point—and much more if oil turns out to be more important than we thought. "Relative price changes of this magnitude would be unprecedented," the authors note, "and would almost certainly have nonlinear effects on GDP that the model is not able to capture adequately." Yikes.

In any case, these scenarios aren't easy to model—especially since nations might respond in unpredictable ways. (If crude output started shriveling, some oil producers could start

restricting exports. Or fuel subsidies could affect demand elasticity.) All told, however, the IMF authors say it's quite possible that a decent-sized decline in oil production could have "dramatic" effects that could prove very, very difficult for the world to adjust to.

County Search on QRZ dot com

QRZ has upgraded the search function on the QRZ dot com site. However, it works differently than before.

When you go there now, from the main page, click on the search box. You'll get a new page. You can type in a county in the search box. You'll see a pull down menu below where you type in the county. If you type in something like Hamilton, NY, then select "county" from the pull down menu – then hit search – it will give you a listing of hams in Hamilton, NY.

For a call, you can type in the call in the search box on the main page and hit search. If you want to search by a county, you must first hit the 'search' box – only then do you get the menu to find counties.

This is an improvement over what they had before making it less steps to find hams in a county. If you are closing in, you might want to try to find fixed stations in the counties you need. Sometimes it's easy. Other counties have no active hams.

SuperStorm Sandy

The SuperStorm Sandy Hysteria – It seems the global warming alarmists are once again at it claiming that this storm was 'caused' by 'global warming'. Duh! It's just anything to rake in more lobbying bucks and get more influence and rip off the taxpayer with more phony 'greenie schemes' and cons.

If you've ever watched the Weather Channel, they have a series 'It Could Happen Tomorrow'. It was made back in the mid 2000s. One of the episodes was a Category 3 hurricane hitting NYC:

http://www.youtube.com/watch?v=zBk-PGlgcxY

They also had an episode about what would happen if a Category 5 hurricane would hit New Orleans. It was scheduled to broadcast two weeks before Katrina hit – but was pulled when the weather pattern looked like that might actually become a possibility.

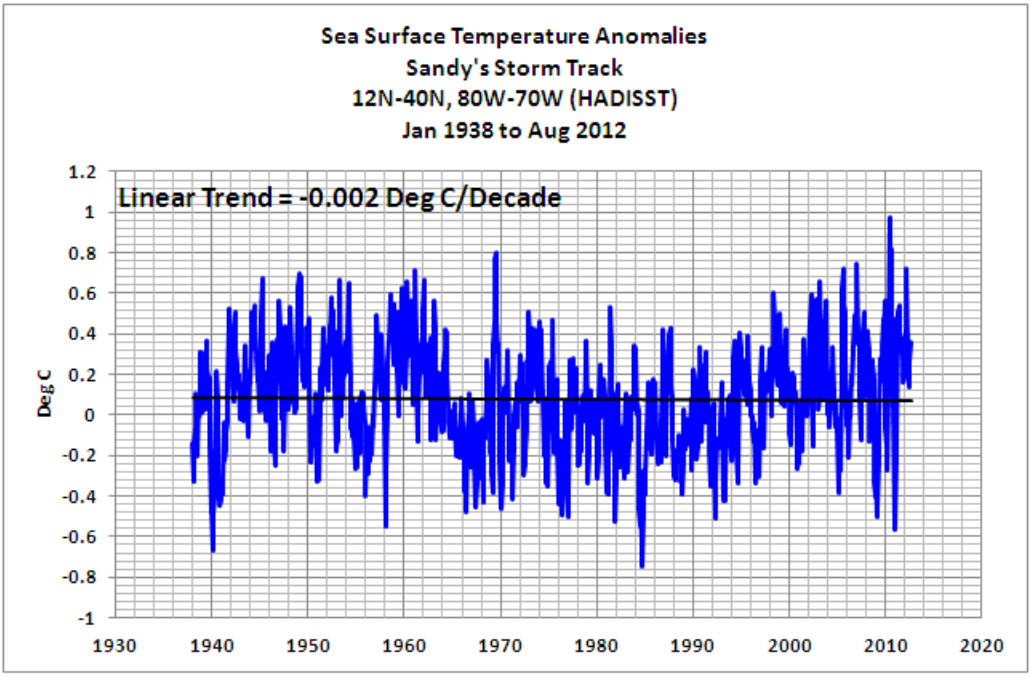
If you ever saw the episode or follow the above link...you'll see that NYC actually got off easy. Had 125-175 mph winds hit NYC the damage would be hundreds of billions worse and thousands of people would likely be dead.

What did they predict? Pretty much exactly what happened with Katrina in New Orleans. Pretty much what happened to New York City from Sandy – flooded subway systems, Wall Street and 1/3rd of lower Manhattan under water. Actually, the damage we had was less than what they projected since Sandy wasn't even a hurricane.

The area had been living on borrowed time since the 1934 hurricane wiped out a good part of Long Island with a 20 foot wall of water!

Let's do some analysis

Their first claim is that the Atlantic was 'much hotter' than historical records, causing the massive storm to be 'powerful'. Here's a chart of the region temperatures the storm took



Looking at sea surface temperatures over the area that Sandy traveled (12°N-40°N and 70°W-80°W) the trend over the last 75 years is a negative 0.002°C/decade. This trend is not significantly different from zero. This year was slightly above the average. Some years are below. Since we started burning carbon fuels 200 years ago, you would have to see a RISING trend for the last 100 years at least to assert scientifically that 'warming' caused the storm. The evidence is simply not there. In fact, the evidence shows a cooling trend.

Conclusion: No 'warming trend' in the Atlantic.

When this storm approached land, it combined with a powerful LOW pressure system that was very cold. The combined storm took the energy from both. A blocking high kept the storm from veering off to the Northeast as they usually do. You do recall 'the Perfect Storm'? Not only was it a movie that many people saw, it was an actual event that wiped out the coast line along New England (and sank large fishing ships that ventured out late in the season). It was a combination of THREE storms. Combined storms are usually more powerful that just twice or three times the storms themselves. Let's see...can you image 60 foot waves hitting New York City or Boston? Hmmm.....

The storm damage had almost nothing to do with wind speed and everything to do with flooding by the storm surge. The storm's landfall coincided with a full-moon high tide, giving the storm surge a 5 ft. head start. The additional tide due to low barometric pressure was about 3-5 ft. Unfortunately the local shallow gradually sloping coastal water depth amplifies such a surge by several feet. Add to that the wind driven 10-20 ft waves and you get major flooding. It was primarily a coincidence of astronomy (high tide) and geography (shallow coast) with a moderate storm. Had a real hurricane with 125-200 mph winds hit the area – which HAS happened many times in recorded history (every 80 years), the damage would have been 10 or more times worse.

The fact that so much infrastructure got wiped out by 60-75 mph winds goes more to show how poorly things were maintained - keeping trees away from power lines, having a smarter grid to allow re routing of power around downed tree streets, etc, than anything else.

Bottom Line: A “warmer climate” can't contribute to an event if the climate hasn't warmed where the event occurred.

The 'warmists' are going to insist you go back to 1820s living standards to avoid 'future Super Storms'. How about we start by not building on barrier islands five feet above high tide that will get hit, on average, by 10 foot or more storm surges every 80 years or so? That would make a whole lot more sense than silly carbon extortion and other schemes that merely transfer 'wealth' and 'money' from those who make it to the welfare weenies and queenies of the world in the name of 'the social welfare' and 'fairness'. Where 5% of that money sticks to Al Gore's hand as a 'broker'? (and his buddies)

Before Sandy hit NJ, over 225,000 people lived at five feet or less above 'the mean high tide' sea level. How many are going to move right back there, waiting for another repeat to occur, maybe in 3 years, maybe 10 or 20 or 40?

What do the greenies want? Let's see..to start they want a 250 billion a year 'carbon tax'. That would collect 40 trillion in the next 80 years till the end of the decade. Just to put that in perspective, the total value of all real estate in the US is about 10 trillion now. You could buy up all the property in 'flood prone areas', move the folks, at 1/10 the cost. And what will spending 40 trillion get you? Yep, if you follow the greenie agenda , carefully, it will slow the rise in sea level by LESS THAN ONE INCH in 80 years!

So why would any sane person spend 40 trillion dollars to reduce the next flood in NYC (just a matter of time – it gets hit every 80 years, on average, with a Category 3 hurricane) by one inch? Instead of 7.5 feet above high tide, it is 7.5 feet minus ONE INCH. Do you think that will help the folks who had six feet of water outside their home? Do you really think that a dime of those 'carbon taxes' would be used to build higher seawalls, or buy out folks five feet above sea level?

Better to have much tougher building codes, require folks along the shore who are five feet above sea level to build their homes on strong stilts so they can withstand floodwaters and suffer no damage.....or simply not build at all or rebuild at all. Just like along major rivers where the government has bought out entire towns and moved them to higher ground, building on barrier islands is just an invitation to the next taxpayer funded disaster. If your house was totaled, you get your insurance money this time, but we won't cover you if you rebuilt. Sound like a good idea? Don't bet on it happening, though. Politicians don't think logically, only with votes and with money 'donated' to the campaign chests to buy them the next election

A Year of QST Nostalgia

Somehow I seem to wind up with years of QST coming in my door. Maybe I should learn to keep my hand down at auctions.....but for some reason, old editions of QSTs for bargain prices (like five years for five bucks) keep following me home. You can, if you are a member, get copies of all the articles on line from the QST archive. That doesn't however, get you all the ads that are in the old magazines and sometimes you have to hunt and do devious searches to find what you really want.

So I'll share a bit of the year 1952 QST with you. The big topics of discussion in that year were:

1) **TVI** – seems that TV sets were proliferating – and hams had just received permission to use the 15 meter band, and the new Novice and Tech licenses were getting a zillion new hams on the air. Old equipment and old equipment designs were not TV friendly. There was little bypassing and little shielding. No one needed it before 1948-50. Neighbors were not happy when they just spend a lot of money on their new black and white TV set, with a big outside antenna to be able to watch the evening TV shows and they got wiped out by the ham next door or down the street.

One of the articles was titled: "TVI Went Thattaway! Back in the Hamshack Again" - describing how the author had shielded his transmitter and solved his TVI problem. Another was 'using the Pi-Network for TVI suppression'.

Many early TV sets used an IF frequency close to 21 MHz. That wasn't great for the 15 meter ham band!....and of course, the 3rd harmonic of 40M would clobber them too. Worse, a loud 40m signal would 'mix' in the TV set front end and produce the harmonics – overload. TV sets had no high pass filters in them. Up to the era of mass TV sales, there weren't any concerns about 'harmonics'. For the most part, they fell into other ham bands or way up on those 'not used' VHF frequencies – like the new TV channels 2-6! or even higher for the 7-13 channels.

TV sets were being sold by the million and a dozen makers were producing them. Making them at the lowest possible cost (cutting all corners) made many of them very susceptible to TVI and overload).

So you'd find articles about TVI proofing the Johnson Viking I. You'd install bypass capacitors and chokes on the A/C line input. Install RF chokes on leads in and out – key and mic and metering leads – power supply leads if external. Putting in better grounding inside – single point grounds in an RF stage.

Most of the transmitters of the previous decade used plug in coils. That meant you needed a way to change the coils, and doors to do so provided nice escape routes for TVI. New designs

used tetrodes or beam pentodes for finals – which take less drive – and produce less harmonics. Folks took measures to reduce parasitic oscillators – that often occurred at VHF frequencies.

The designs went from link coupled with balanced output to pi-networks to 50 ohm coax. At worst, that kept the harmonics inside the coax – but it also provided a shielded output connector and allowed for easy, effective low pass filter design and implementation. Otherwise, you'd have two unshielded terminals for a balanced line – and an escape path for VHF signals.

The design of pi-networks would also allow band switching – which meant you could 'button up' the transmitter more tightly. Pi-networks also appeared matching driver stages to the final stage.

Folks paid more attention to key clicks. Not only did key clicks produce garbage on nearby frequencies, it could also produce crud on the TV channels. Those keying transients could wipe out nearby TV sets. Rigs went from 'cathode keying' – with the key in the path to ground – to grid block or cathode bias, allowing the cathode to be solidly grounded.

There was a proliferation of low Pass filters to chop the harmonics above 30 MHz. Coax kept any harmonics inside the coax where the low pass filter could then block it from getting to the antenna. It was hard to implement a good LP filter in a balanced line approach, or for a 'long wire' antenna off link coupling.

Transmitters became totally shielded. No more open chassis with no cover over them. You needed a bottom cover on your transmitter, too!

Folks thought about resonant antennas. Also antenna tuners which were resonant to reduce harmonic transmission – the Johnson Matchbox and similar.)Then you could drive a balanced antenna with them if you wanted.)

The TV industry also eventually moved the IF from 21 MHz and put in a little bit better rejection of out of band signals, but TVI still was a big problem. Older rigs were often retired in favor of more shielded newer rigs.

The ads started to appear for 'New TVI suppressed' transmitters. The New Johnson “Viking II” transmitter came out to replace the TVI generating Viking I. The New Hallicrafters transmitters were seen. It was a very big topic. New RF shielded novice rigs were advertised. Rigs now came with pi-network filter instead of link coupling, and tuned stages before the final in the transmitter. By proper design, a pi-network could be configured to actually 'trap' some of the harmonic energy before it left the transmitter. (remember, we are talking about reducing harmonics- not 'eliminating' them. Getting them down to 40 and 50 and 60 and 70 dB below the carrier level).

You had Drake announcing a new series of TVI fighting filters – low pass for the transmitter,

high pass for the TV set.

Of course, today, with big screen plasmas, and giant DVD setups and wireless routers, it is more often the hams on the receiving end of QRM from all that radiated crap from those devices! However, the good news with the advent of cable TV, the 'front end' overload and 'harmonic caused TVI' has nearly gone to zero.

Now, hams have to worry about their signal getting into poorly designed consumer devices – boom boxes, stereo systems, house intercoms with 200 feet or more of wiring as an antenna picking up signals, etc. Not harmonics wiping out TV sets. Your signal getting into audio stages of consumer electronics is the big problem of the day, or into a DVD player or TV set-up with remote speakers, etc.

2) **Mobile operation** - there were a dozen construction articles on mobile transmitters. This was when 'mobile operation' was beginning to be 'allowed'. Wow...talk about a difference than today. Back then, probably 2/3rds of hams built their own transmitters. There were lots of trained electronic techs from WW2 – courtesy of Uncle Sam. The TV industry was just taking off and every town needed a TV repairman – no matter how small the town. The average TV set crapped out at least once every two years – some more often than that. They had 15 or 20 tubes in them. Surplus parts were everywhere and you could cannibalize lots of other equipment for the parts needed to roll your own.

Of course, you'd still have to notify the FCC Engineer in charge if you left your home QTH for more than 48 hours! Loads of low power AM rigs for 80-10 meters, mostly crystal controlled were in the magazine. There were a dozen makers of 'Mobile Converters' that you would put in front of your car AM radio and convert the ham bands down to the broadcast band. - Gonset, Morrow, Mallard to start with..... You'd find an 'empty' AM frequency and that would be your IF frequency. You'd tune the converter. There were some makes I'd never seen before. Then again, few of these show up at hamfests these days other than the Gonsets. They must have sold a ton of them!

There were new mobile transmitter ads showing up. The Johnson Mobile TX – started at $79 and was up to $99 by the end of the year. The Gonset 'commander' small set. The Babcock MT-5A six band transmitter,(described in detail in March 2012 issue) and the MarMax MT-52 mobile/fixed transmitter. Never seen one of those at a hamfest but advertised heavily. Also every issue had ads for Sonar transmitters of various models – 6M only, 10M only , multi-band. Also Subraco MT-15 – a 20M mobile TX. That was even before 'county hunting' began. It was nearly 99.9% AM modulated projects and mobile set ups. Very few of these show up at hamfests any longer, and rarely on Ebay. [Who needs a 10 or 20w AM crystal controlled mobile transmitter that needs an external power supply these days other than for 'nostalgia' reasons?] There were ads for the Philmore NT-200 novice transmitter (July 2012 issue – picture and more info) – a low power, plug in coil unit for aspiring Novices. Lysco advertised their fixed and mobile products.

For home stations, it was mainly Hallicrafters, National, Harvey Wells, Collins, Hammarlund, Eldico, WRL Globe King, and Johnson type rigs pushed by the manufacturers and the retailing Radio Stores.

With all those new novices and all those xtal controlled mobile transmitters – you also had a half dozen makers of quartz crystals advertising in each issue.

Were you a novice back in the 60s and 70s? Stuck with crystal control until you upgraded? Or maybe even ran mobile with an xtal controlled transmitter? After all, all you'd need is one on the 20M SSB net frequency and one for the 40M and 80M frequencies if you ran those bands. I remember in the 1963 era, they cost about a $1.50 from Texas Crystals, the least expensive place around. That was about twice the minimum hourly wage (it was 85c an hour in 1966 – dunno about '63). For a high school kid, you'd have to shovel a bunch of snow or cut a few lawns at maybe 50c a lawn to spring for just one crystal! It was the era of 'rock bound' hams. If you were lucky, you might have had 2 or 3 crystals for the 40M or 80M cw band. If someone else was on 'that frequency' you either had to talk to them, or wait till they were done!

What didn't you see? Only a single ad for a HF base station beam antenna – a Hy-Lite 10-15-20 antenna and one for the 'new band - 15M'. Just a few for VHF. Two tower makers – Trylon guyed towers and a seller of windmill type towers for ham use. Heathkit only had test equipment advertised – VTVMs and the like.

Central Electronics was advertising the 'new' SSB 10A exciter. Get on SSB and minimize TVI! 10W of SSB would match 80w of AM they claimed There was one other SSB article – but 99.9% of the magazine was “AM” and CW.

3) **The Coffee-Can Receiver**

In the November 1952 issue, there was a nice article on The Coffee-Can Receiver. Hmm....turns out that was a nice regen receiver! You'd build the RF amplifier and band switch into a coffee can to shield it. The regen detector with a separate bandswitch went into another coffee can. Those were placed upon another chassis and the rest of the parts – the audio amp and other controls wired in.

You'd need two 1 lb coffee cans. I don't know what you did for lids....I guess they were left open at the top. Or did coffee cans come with metal lids back then? I dunno.

Here's the schematic – it used a pair of 6F7 pentode tubes and a 6J5 audio amp. Notice the headphones were connected directly to the B+. Way back then, then didn't worry too much about operator safety or having exposed high voltage on the key or on the headphones!

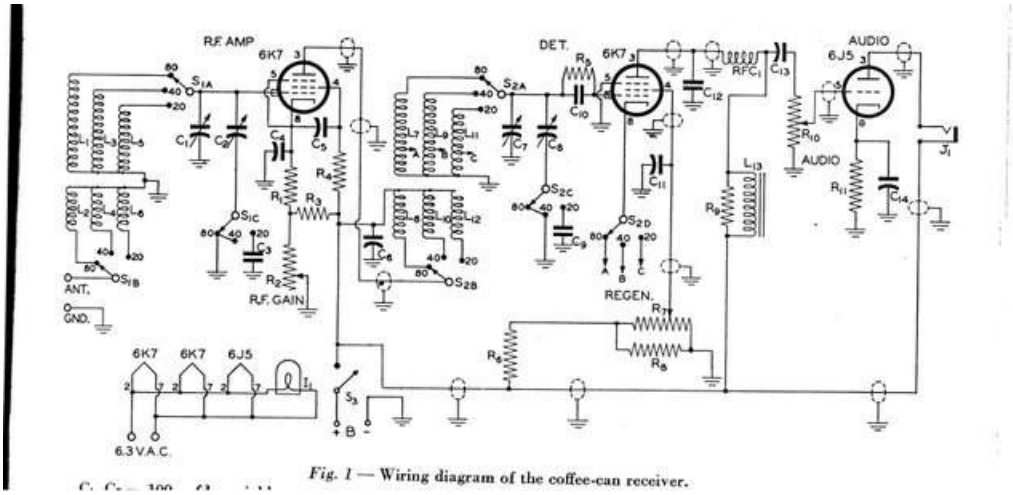


Fig. 1 — Wiring diagram of the coffee-can receiver.

With the shielding, it would likely give fairly decent results, and they had a schematic for a voltage regulated power supply with it. You'd have to sort of wire everything outside the coffee can to the tube socket and bandswitch, then stick it all down inside the can mounting it all with the bandswitch and standoffs for the tube socket!

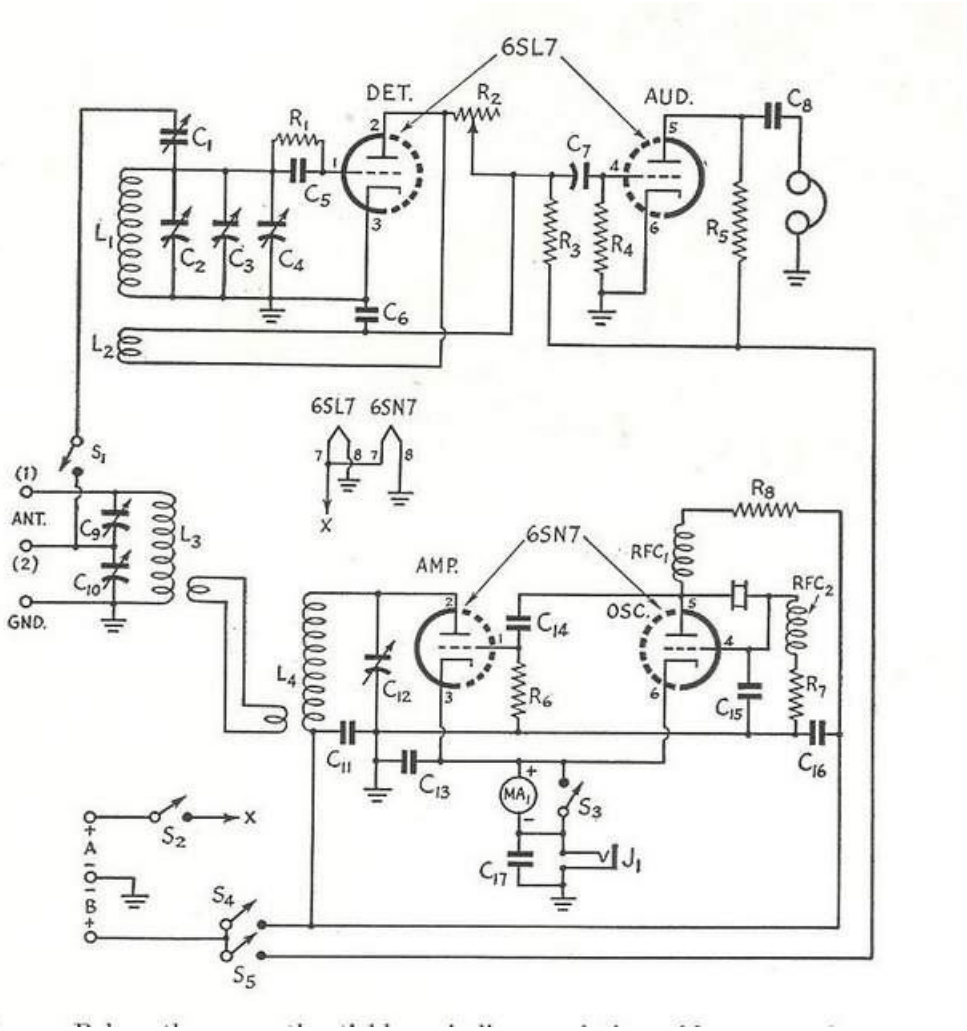
You can check out the article on line in the QST archives (members only) or if you want a better scan and parts list let me know...the 'good scan' is 1.7 megabits.... hi hi. We don't have room for high res pictures each month. I guess when everyone has gigabit internet access bandwidth and computers with 50 terabyte drives, we can move to 50 gigabytes per issue!

4) **The Flea Power Portable -**

Another project appeared – it seemed those folks back then loved construction articles. How

about a Flea-power Portable CW Station? Article on building a handbag-size transmitter – receiver. August 1952 issue.

What do we have? Yepper, a one tube regen receiver using a 6SL7 dual triode tube and a one tube transmitter using a 6SN7 dual triode tube. It used indirectly heated tubes (less efficient) so you could easily run it off an a/c power supply or pull the tube out of your car radio (the audio tube) and 'steal' HV from it. With 240v of B+, it ran 3w input and on 135v of battery, it ran 1.3 watts input. It used an interesting output circuit. The plate was link coupled to an extra 'antenna matching' circuit so you could run it using a wire antenna. I wonder how many of these got built?



This is about as simple as you can get. The regen control is a 10K pot across the feedback winding (not all that great since you have rf in the pot and it can get noisy easily.) You got microvolts of signal at that level.

ARRL members can check out the article on line.

- - -

Another article, the Ultimate CW Receiver, described how to use a surplus radio compass to add a 37 KHz IF to your cw super receiver. With stages of IF from the unit, you'd get a nice 100 Hz wide IF – perfect for cw reception on a crowded band with a nice shape factor and no ringing. You'd use a regular 1700 KHz IF first, then downconvert to the 37.5 KHz IF. The super receiver had SIX IF stages at 37.4 KHz. You'd have to rewind all the coils you borrowed from the AN/ARN-7 Radio Compass which was sold surplus then for $17.50 – for the 37.4 KHz IF used. That took carefully winding on two windings of 750 turns of #35 wire on each form for each IF transformer. You'd get an IF that was down over 100 dB at 800 Hz, 100 Hz wide at the 6 dB points, about 400 Hz at the 40 dB point.

- - -

It was a good year – two regen project kits, and a lot of the stuff that was new in the early 1950s that a lot of the new hams in the 1960s might have used as they were now 'old'. Hi hi. Now, most fall into the category of boat anchor – serious boat anchor – with the only ones that hold much value being the Collins equipment and things like the top of the line Hallicrafters SX-115 and similar radios. Even they aren't worth twice as much as what folks had to pay for them back year.

However, all the lessons learned about shielding and good transmitter design are still with us today and is 'standard practice'. It took them a while to 'get it right' and solve the TVI problems. The 'new' 15 meter band was authorized and hams were getting ready for it then.

CW Stats to Dennis, KK7X

This year, Dennis, KK7X will be again doing the processing to come up with the CW stats.

Please send in your CW total – how many worked toward USACW , or Nth time CW, to Dennis right after the first of the year. Wait till the end of December....this is 'early early notice'. Then zip them off to Dennis after the beginning of the year.

If you are using MARAC Logger Click on VIEW/EDIT and then Book Summary. You will find your WORKED statistics under USA-CW, or if you

are working on multiple time under USA-CW II etc.

His email is: dennis@kk7x.us

Peak Oil Update III

-Last week's energy news included a piece from the Associated Press with a headline reading: "U.S. poised to become world's top oil producer; may soon overtake Saudi Arabia." If the reporter had actually examined figures available from the U.S. Energy Information Administration (EIA) website carefully instead of simply parroting oil industry sycophants, he would have ended up with a headline more like this: "Marginal gains in U.S. oil production mean continuing high prices and imports for Americans."

As it turns out, U.S. crude oil production is averaging 6.2 million barrels per day (mbpd) so far this year compared to Saudi Arabia's 9.9 mbpd. So, how did the reporter and his sources end up with a production number of 10.9 mbpd for the United States?

The problem results from the deceptive redefinition of oil supply by the oil industry itself, one designed to obscure the true oil supply picture and one that, unfortunately, has been adopted by some government agencies. Within the last decade the industry began to count something called natural gas plant liquids (NGPL) as part of oil supply. Here's how I've explained NGPL previously:

NGPL are hydrocarbons other than methane that are separated from raw natural gas at a processing plant. They include ethane,propane, butane and pentane.

The amounts vary. For example, raw natural gas extracted off the coast of Malaysia contains 11 percent ethane, 5 percent propane, 2 percent butane and about 2 percent of something called natural gasoline or drip gas, a low-octane fuel that is used today primarily as a solvent. Raw natural gas from the North Slope of Alaska contains a higher percentage of methane and correspondingly smaller percentages of ethane (7 percent), propane (4 percent), butane (1 percent) and other components including carbon dioxide and pentanes (2 percent). In these two cases you can see that ethane makes up about half of the NGPL, propane makes up about a quarter, butane makes up 10 percent of Malaysian NGPL and 7 percent of Alaskan slope

NGPL.

As you will note, these products all come from natural gas, not oil. While it is true that propane and butane are used as vehicle fuel in a very limited way, most of the volume of NGPL cannot easily be used as a substitute for oil. And, it is doubtful that either propane or butane could become major vehicles fuels since they make up only a small fraction of natural gas and are limited in their supply by the amount of natural gas extracted. Some NGPL are used as feedstocks for chemical production, just as petroleum is. But the likelihood that NGPL would significantly displace oil in this market as it is currently configured is small.

Also included in the definition of oil supply are biofuels, namely ethanol and biodiesel. While these are direct substitutes for oil, they make up only a small fraction of total liquid fuel, about 1.9 mbpd as of 2010 in a world that consumed 86.8 mbpd of all liquid fuels the same year. In the United States biofuels production reached 0.9 mbpd in 2010. But, there is little reason to believe biofuels will be able to substitute in a big way for oil-derived transportation fuels. Here's how I've described the situation previously:

As for biofuels, America is already approaching the current limit of its ability to absorb the supply of ethanol. Most cars can only run with a 10 percent mixture. Above that engine parts in the vast majority of vehicles start to degrade. Of course, we could continue to increase the ability of automobiles to burn ethanol. But the scale problem is the deciding factor. In North America it would take 1.8 billion acres to grow enough corn to supply enough ethanol to run the North American vehicle fleet. That's four and one-half times the amount of arable land available. And besides, corn ethanol takes more energy to produce than it provides. It's not an energy source so much as an energy carrier. Similar limitations apply to biodiesel which is made from vegetable oil.

If biofuels or NGPL were good substitutes for petroleum-derived liquid fuels,the United States would not still depend on petroleum for 93 percent of its transportation fuel. And, keep in mind that copious amounts of petroleum are needed to grow the crops used to make biofuels. Petroleum products run the farm machinery, are used as feedstocks to make the herbicides and pesticides sprayed on the crops, and power the vehicles that transport those crops to the refinery. Natural gas and coal are typically used to power biofuel refinery operations. And so, biofuels might better be described as a way to transform fossil fuel energy into liquid fuels using crop materials as a medium.

So, what is the real situation in the United States, if it is not as the reporter and his sources describe? First, recognize that the EIA defines crude oil production as "crude oil including lease condensate." Lease condensates are very light hydrocarbons that turn from gases into liquids when released from the pressure of an underground reservoir and are "recovered as a liquid from natural gas wells in lease or field separation facilities and later mixed into the crude stream (my emphasis)."

The importance here is that these are the only liquids from natural gas wells that become part of the crude oil supply. NGPL, on the other hand, are separated at natural gas processing plants and therefore do not become part of the crude oil stream.

Production of crude oil including lease condensate has, in fact, been growing in the United States. The key fact, however, is that U.S. production only just recovered last year to levels not seen since before 2005 when Hurricane Katrina badly damaged many offshore oil production facilities in the Gulf of Mexico. This year production has grown further to an average of 6.2 mbpd through June. But that's a far cry from the 10.9 mbpd quoted in the article which includes NGPL, biofuels and something called refinery processing gain--which is the result of the well-known fact that the total volume of products made from crude oil such as gasoline, diesel and kerosene always exceeds the original volume of the crude oil used--hardly something to write home about.

The EIA projects that production of U.S. crude oil (using the proper definition) will rise to 6.7 mbpd by 2020 and begin a gradual decline thereafter. It's certainly possible that the EIA projection is too conservative. But it is worth keeping in mind that U.S. consumption of finished petroleum products is now around 13.6 mbpd. U.S. oil production would have to double to meet U.S. needs.

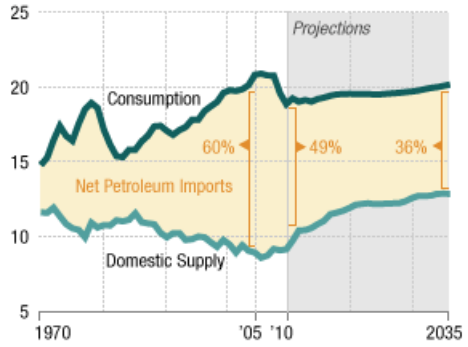
In two previous pieces--"The Oil Industry's Deceitful Promise of American Energy Independence" and "Oil and Gas Industry Uses Deceptive Energy Independence Message to Push U.S. Exports"--I explained why the oil industry wants Americans to believe that we are in the midst of an oil boom that will somehow free us from imports and bring declining average prices for petroleum products. But continuing high prices for crude oil and petroleum products across the world demonstrate that small gains in American production are no match for worldwide depletion which has kept crude oil production range bound between about 72 and 74 mbpd from 2005 through 2011. One should keep in mind that oil is a worldwide commodity that can always be shipped to the highest bidder. So, it is worldwide supply and demand that ultimately determines prices (once transportation costs are taken into account).

Source: Berry Stock Board – IV -

continuing commentary

In June 2007, the US imported 13.297 million barrels of petroleum products per day. June

2012, the US imported 8,133 million barrels of oil per day. We are clearly going the right way. If our net imports continue on the current trajectory, in 10 years we would not be importing oil products.



Total consumption – top vs domestic supply – bottom

This brings up a good question - can this trend continue? The answer to that is unknown. There are quite a few unknowns. If we really drill everywhere off our coasts including Alaska and Florida, how much oil is there? Second, how much can we ramp-up domestic production from shale? Third, how much fuel shifting to using natural gas as a transportation fuel will there be in the next 10 years? Fourth, in the next 10 years, what other technologies such as converting natural gas to diesel will there be? Finally, the US has the worlds largest supply of oil shales that can be heated to produce oil. Prior to Obama becoming president, there were two companies planning on full scale trials to test in-situ if they could heat the oil shale in the ground and produce oil. If this technology worked, the US would have the worlds largest oil reserves.

I don't know the answer to the questions above. I do believe we have tens of billions of barrels to be discovered offshore Alaska, the East and West Coasts. I think we can ramp-up shale oil production for several more years before reaching a production plateau. The technological questions are more difficult. Will we convert natural gas to diesel in quantity? Will we use natural gas as a transportation fuel? Other technologies that no one is thinking about today might also help reduce oil consumption helping reduce our oil dependence. t say how far down the declining petroleum import trend we will go - but I do know we need to move farther down it and every barrel of oil we produce helps us do that.

On the Road with N4CD II

The annual convention of the Vintage Radio and Phonograph Society was held in Dallas in mid month. About 225 people attended this years event. During the convention, there is usually a technical program or two, a 'silent auction' for small items, and 3 main auctions. One is for tubes and paper, one for lower cost items($10 min bid) , and the big Saturday auction for big ticket items ($20 min bid and up). It starts early on Friday morning and goes till late Saturday if you stay for the convention awards dinner and entertainment.

I headed over early Friday morning to see what was going on. Folks were checking in their auction items for the first two sales. This year I actually had a few items to sell that I picked up along the way and didn't need or didn't fit the collection. Luckily I sold most of them.

The 'paper and tube' auction is just that. Anything from a single tube to boxes of tubes filled with 'pulls' or maybe 100-200 tubes, in boxes – 'New Old Stock' – NOS, or anything in between. You could get yourself boxes with just about any receiving tube or transmitting tube. There were tube caddies filled, mostly with TV servicing tubes, and some mil surplus type tubes like 811s, 807s, likely in MARS released 40s and 50s era 'surplus'. There were some new lots of high voltage caps for sale (450-600v type caps for transformer tube radios).

Some of the tubes went for big bucks. Four 6A5 tubes sold for $230! 2A5 tubes for $70 a piece. Boxes that had a 1L6, used in the Zenith Transoceanics and apparently rare sold for $70 and up per tube. Power tubes were priced accordingly. Some boxes of tubes went for $10 if they were 'run of the mill' tubes or TV type tubes like 17xxx or 5xxx ones. I didn't need any and didn't buy any.

In addition to the tubes, there were boxes of books, Riders service manuals, and magazines. I did buy some 'Shortwave Magazines' from the 1920s.....A year of 1922 QST in a nice binder went for $50. (you can read all of the articles in QST on line).

After a short break, it was into the evening auction starting at 5pm where about 250 table radios were sold. Most were 40s and 50s wood and plastic table radios, with some going back to the 30s. There were a few shortwave sets like a Hallicrafters S-119 Sky Buddy II, a solid state DX-100 Radio Shack, but not much else to get excited about. No regen sets to get excited about. Not a one. It ran till nearly 9pm, then you had to check out and retrieve the items you win, or anything that didn't sell if you were selling. Lots of things sold for 10 to 20 bucks. It was a long day by the time you paid and checked out for your items. The club always does a fine job of running things.

The silent auction started at 8:30 am on Saturday morning. Not much interesting was there or that I needed there but I did spy a Radio Girls book. I 'd never seen one of those before. More

later about these in the CH News about those books follows. I did buy a 1927 Radio Catalog for six bucks but got outbid on a few things.

Then the main auction started at 11am and ran for six hours. Hundreds and hundreds of radios, a half dozen Edison type wax cylinder players($350 and up) , wax cylinders for them (2 and 4 minute versions), the big big colorful horns for them($100 and up) , a wire recorder, a laser disc player, some 8 track players and reel to reel tape decks, 10 TV sets from a 3 inch Philco from 1949 or so, with a big magnifier in front of it to a 17 inch Motorola console, maybe 20 console radios were sold. You could buy a lot of the table radios for $20. However, some went for $150 and $250 bucks depending upon the make and model and how 'attractive' they looked. If they had been restored by a name restorer – even more bucks. “As is” sold for less. Catalin radios sold at a premium. Folks collect those – they look pretty. One lady sitting next to me buys radios with 'attractive and colorful dials'. Never fixes them up, just displays them. The radios ran from 'barn fresh' to absolute mint looking condition inside and out.

There were 'chair side' radios and radios built into lamps. There were boxes of novelty radios and early transistor radios. Half a dozen Zenith TransOceanics were up for sale and sold.

After a while, the eyes glaze over. Everyone had a chance to preview the items before the auction and I had my list of six things out of the couple hundred that might be of interest if they 'price was right'. It was a long wait between items, and I got outbid on the first four of them. They would have been interesting at 'bargain prices' but they went for a lot more than that!

There was a Hallicrafters SX-100 that went for $85. Too much. A big National HRO, in a five foot high rack mount, with power supply, speaker panel, and all coils – sold for $350. It would take up a lot of radio bench room! It likely weighted 200 lbs. No one wanted the Heathkit Cheyenne and Comanche AM transmitter and receiver pair that didn't sell up at the Little Rock auction, and a modified Swan 350 sold for $50. There wasn't a whole lot of ham gear there and usually isn't. If it isn't 50 or more years old, and looks pretty or in a wood or plastic case, most of the attendees are just not into it or want the big ticket items. Most of the items were sold 'as is – condition unknown'. There were old scopes and tube testers – some of them went for over $500! The TV-7 tube tester is in high regard and demand – it's the 'standard' for testing tubes. There were VTVMs and signal generators, too. Something for everyone.

An early 1920s Atwater Kent Model 10 breadboard, as found, needing lots of TLC, with 'display tubes' (ie dead) sold for $500! Many sold in the 100 buck range, but most sold for not much more than 20.

Two regen sets did follow me home.

One was a RACO DX-4 from about 1939. (Radio Constructors Labs) This is a 4 tube 4 band bandswitched regen set made by a job shopper on Radio Row in NYC. I had a real grungy

one I picked up from another auction – but this one was in much better shape and with the cabinet – for $20 – the minimum bid. It showed up late late in the auction near the very end and I supposed folks were tired and running out of space/money. I had talked to a few folks and they had 'no idea' of what it was and it didn't look pretty. The front was black wrinkle finish and the dials were two 0-100 dials on the outside of the panel with warping 'pointers'. Not pretty for sure except to a regen receiver collector.

1939 RACO Model DX-4

Here's an article on the 'big brother' to the RACO DX-4. If you take out the nice glass dial nad put in another 'dial' like the bandspread dial in his article, you got the smaller unit. Not the least bit sexy. The big brother also has an added RF state.

http://www.eht.com/oldradio/awa/otb/v3301p26/v3301p26.htm

The other was a Knight Span Master – in nice shape – for the minimum bid of $20. I've got a few of them now. Most were built by first time kit builders - who left long leads on the parts not cutting off any leads on the bypass capacitors so they are not doing much. You've got to spend a lot of time fixing those if you want it to work..along with checking for cold solder joints. Some work, some don't but you don't get to check it ahead of time during the auction or take it apart to see what is inside. It's buyer beware. Most things are sold as 'condition unknown'.

A few other small items followed me home (Tripplet 630 VOM in nice shape with case and leads, working - $15, , two Radio Shack P-box kits - $10), but that was it. It was interesting to see all the old radios, and find out what is 'rare' and what isn't these days. If it looks pretty or has a fancy dial it seems to sell well. Some folks collect 'red' or 'orange' radios. Some 'green

radios'. I dunno, but whatever turns them on. Some collect only one make, whether it be Motorola, Zenith, Crosley, or any of the at least 100 makers of sets.

There were two radios made in the Dallas area and some folks love to collect them. Watterson and the Dalbar. Nothing special but a few collects enjoy restoring them and showing them.

During the convention, there was also an area for folks to 'display' their radios in various categories – from crystal sets to tube radio to television – in 12 different categories. On Saturday the judges review all the entries and 'winners ' are selected. Let's see – most interesting this year, at least in my book – a nice wireless transmitter circa 1925 – Hartley oscillator, a display of the 10 in 1 Knight Kit experimenter kits by two different folks, a display of about 50 Heathkit catalogs – yearly and the extra editions.

1920s Transmitter

Heathkit Catalog Display 1952-1990

One follow had a display of Star War Toys Radios – robot like toys that were actually radios – about 20 of them in different models. There were advertising signs 'with neon' – fancy. I didn't check to see who won first prizes. I'll catch up with that in the next VPRS newsletter.

If you're into old time radio – the Rochester NY area has a big convention every year in August, there's the Houston club convention in February, and there's one up in Willowbrook IL in August each year. Those are the big ones I know about. There are antique radio clubs in many cities around the country.

So that was all the 'travel' for mid November. 30 miles over and 30 miles back.

Kentucky QSO Party

The KY QSO Party was the last of the season for 2012 it seems. There was one mobile out on CW – W4CDA that was spotted, and a few fixed stations like N4PF (Harrison), the bonus station KY4DXA (Warren) and some others on SSB. Otherwise, it was slim pickings. Silver, N9QS headed through KY, but wasn't contesting that day.

Some stations reported working 28 counties – there were more available on SSB than on CW it seems, but those who worked both modes picked up more.

From the 3830 contest reflector:

W4ANT – SC

Challenging conditions since I was too close for 20 mtrs. and 40 was in a constant state of change from SC. Worked KY4DXA on 20, 40 and 80 CW. Thanks to W4CDA/M for 11 mults.

KN4Y – FL

Worked the four Kentucky fixed CW stations, the rest of my QSO's with mobiles. I did work the club station and got a bonus. Has most of Kentucky CW operators retired and moved?

Ed worked 24 contacts on cw.

Mobile Keys/Paddles

What key should you use if you go mobile and want to operate CW? There are probably as many answers as there are CW operators.

Here's a list of key makers.....

http://www.dxzone.com/catalog/Manufacturers/Morse_Key/

My personal preference is a two paddle key that won't fall apart if bumped. I've had a few benchers/MFJ knockoffs and found it doesn't take much to hit them the wrong way and get the paddles to move off the pivot points. You've got to be careful when you go to send and not hit the paddles the wrong way – otherwise, it just won't work. They do, however, stay in adjustment well with vibration.

Other folks like other keys, including the old Brown Brothers keys, the Hamkey and similar. I'm all for paddles that don't have adjustments that vibrate loose. If you lose a screw from a paddle somewhere in the car, you might not find it. The Kent Paddles are nice but heavy.

You need a way to secure the paddles, too, to your vehicle. If you have to slam on the brakes for an idiot driver, or a deer jumping in front of the car, you don't want it to go flying. Is there a way to secure it in your vehicle? Or to your operating position?

Some, like Norm, W3DYA, use a paddle/keyer combination . He's very active in QSO parties and having a memory keyer keeps him from endless CQ and contest exchange manual sending. That could be a considertion.

If you've always have a driver, or stop to run, you might consider a PC with logging program – that way you type in calls, it does the sending for you. And the logging.

Some prefer hand keys. Pete, K4QFK, did lots of cw with a key strapped on his leg. Bill, K2HVN does the same – see last months issue for a pic of his key strapped to his leg. Joyce, N9STL, has a J-38 type key on a board she uses when she stops to put out a county on CW. It's hard to do 25 wpm with a hand key, but you can zip along fine at 15-20 wpm with practice.

My personal preference is the Shurr Mobile Key – has adjustments that stay adjusted, rugged...and I mount it on a small board I stick under my leg. I bought it way back when the Euro was worth way less, and now the price is 'out of sight' due to the dollar devaluation.

A lot of county hunters use the Bencher/MFJ (it's one of the most popular) or the Vibroplex smaller unit. There are dozens of small keys/paddles out there for those with big space

problems, including $35 keys from American Morse and others.

If you want to help out the folks, send in a pic of your cw paddles/keys in your car and we'll stick them in future issues to share with the folks!....

Peak Oil IV

Hofmeister: A Difficult Decade Ahead For Oil Prices and Supplies

(Commentary by Robert Rapier – Oil Drum)

Readers may recall that I have put forth a pair of hypotheses with respect to future oil production and prices. One is called Peak Lite.

In a nutshell, we all know that peak oil is a phenomenon in which global oil production begins an irreversible decline, and the shortages that ensue drive global oil prices very high and cause widespread hardship. However, as I began to see spare global oil production capacity erode away over the past decade, I began to ask myself how that situation was really distinct from peak oil. Technically the difference is that production can continue to grow in that scenario, but if demand growth is higher than production growth, for practical purposes you have a situation that mimics peak oil. I referred to this situation as peak lite.

The Long Recession hypothesis is related. Historically, the oil industry undergoes boom and bust cycles. When oil prices are high, the oil industry invests more money into infrastructure, the economy slows (and often ends up in recession), and consumers begin to conserve. This results in a major correction — and often a crash in oil prices. This leads to underinvestment by the oil industry, and people once more are attracted to gas guzzlers. This ultimately tightens up supplies, and the cycle repeats.

But what if the supply situation was so tight that spare capacity could not be built out? In either a peak oil or a Peak Lite scenario, it will be impossible for the oil majors to build out sufficient spare capacity because it simply isn't there to be had. So high oil prices slow the economy, and people begin to conserve, but supply can't build out ahead of demand as in years past either because demand is growing too fast, or supplies are declining. This prevents a collapse in prices which previously enabled the economy to recover. Therefore, what's waiting on the other side of the recession is more recession: The Long Recession.

Mr. Hofmeister's views very much reiterated my positions on these topics. The first question I posed to him was:

RR: How great do you feel is the potential for expanding global oil production, and over what time period? Some people have suggested 100 million bpd of oil, some even higher. My former CEO Jim Mulva (at ConocoPhillips) was quoted as saying he didn't think we could get to 100; he didn't know where that oil would come from.

In response he reminded me of the studies from the late 1990′s and early 2000′s that claimed that oil production could reach over 120 million barrels per day (bpd). But he suggested that this was before a more realistic understanding of the nature of the resources evolved, and concluded "I think that 120 million bpd of global production probably remains on the outside of optimistic. So I am not sure we will ever get there."

On the topic of Peak Lite, he stated "I think the course that we are on, with China growing rapidly, India not too far behind – I think that demand for oil is going to exceed the supply by the middle of this decade – the current decade. And I think we are going to be hard-pressed to keep supply growing as rapidly as it needs to grow to meet the demand."

Gas Lines — U.S. At Greatest Risk

What might that mean? "And so what I actually anticipate is that even with the shale oil of North America, the Canadian oil sands, the bare beginnings of Arctic development, with Brazil coming in on time, which is late in the decade, and the other kinds of basin development that are taking place, I am not sure that in this decade supply will keep up with demand. And I anticipate shortages, gas lines — at any price — because of the growing demand, without alternative fuel technologies yet grabbing hold and picking up some of that demand."
This is very much in line with my assessment of the upcoming decade, which thus far is playing out as I expected. Oil prices are high by historical standards, and I see little relief over the long term due to very strong demand in developing countries. Mr. Hofmeister agrees: "Possibly by 2020 and beyond we could see alternative fuels beginning to play a bigger role than they do today, which could ease the pain on the oil front, perhaps even ease the price on the oil front. But in the meantime I think this decade is going to be a struggle, and countries like the United States are going to be the greatest countries at risk from suffering the effects of not only high prices, but insufficient supplies."

The Oil Drum – October 19, 2012

Nanotech News II

Stanford University scientists have built the first solar cell made entirely of carbon, a promising alternative to the expensive materials used in photovoltaic devices today.

"Carbon has the potential to deliver high performance at a low cost," said study senior author Zhenan Bao, a professor of chemical engineering at Stanford. "To the best of our knowledge, this is the first demonstration of a working solar cell that has all of the components made of carbon. This study builds on previous work done in our lab."

Unlike rigid silicon solar panels that adorn many rooftops, Stanford's thin film prototype is made of carbon materials that can be coated from solution.

"Processing silicon-based solar cells requires a lot of steps," Vosgueritchian explained. "But our entire device can be built using simple coating methods that don't require expensive tools and machines."

The Bao group's experimental solar cell consists of a photoactive layer, which absorbs sunlight, sandwiched between two electrodes. In a typical thin film solar cell, the electrodes are made of conductive metals and indium tin oxide (ITO). "Materials like indium are scarce and becoming more expensive as the demand for solar cells, touchscreen panels and other electronic devices grows," Bao said. "Carbon, on the other hand, is low cost and Earth-abundant."

For the study, Bao and her colleagues replaced the silver and ITO used in conventional electrodes with graphene – sheets of carbon that are one atom thick –and single-walled carbon nanotubes that are 10,000 times narrower than a human hair. "Carbon nanotubes have extraordinary electrical conductivity and light-absorption properties," Bao said.
For the active layer, the scientists used material made of carbon nanotubes and "buckyballs" – soccer ball-shaped carbon molecules just one nanometer in diameter. The research team recently filed a patent for the entire device.

"Every component in our solar cell, from top to bottom, is made of carbon materials," Vosgueritchian said. "

One drawback of the all-carbon prototype is that it primarily absorbs near-infrared wavelengths of light, contributing to a laboratory efficiency of less than 1 percent – much lower than commercially available solar cells. "We clearly have a long way to go on efficiency," Bao said. "But with better materials and better processing techniques, we expect that the efficiency will go up quite dramatically."

Source: Stanford University Press Release

Another QST "Tidbit" from 1948

One night when not much was happening – no mobiles out – been real quiet lately with only W4SIG and N9JF running late these days – I ran across the 1948 October issue of QST. That's going back a few years – like 64 years or so.

Other than the normal stuff in 1948 – like talking about that really really new mode – SSB – that some were experimenting with – and even articles on TVI problems, and a nice CW receiver using a second IF of 72 KHz with six IF stages there for narrow bandwidth reception (six tubes just in that IF strip), there was an article in Technical Topics about **the Transistor.** I'll share a bit of it with you.

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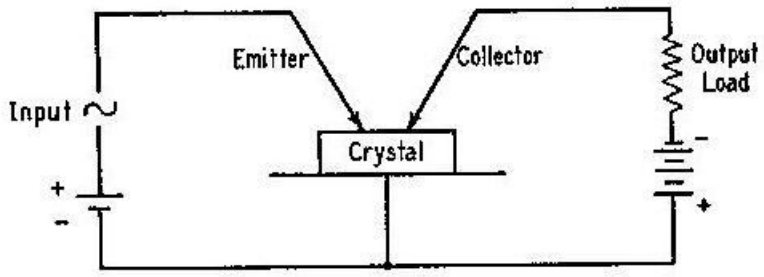
p. 48 QST October 1948

"There was a time in the early days of radio when the 'oscillating crystal' could be cataloged with sky hooks, left- handed monkey wrenches and striped paint, because no one knew how to amplify a signal with a galena, silicon or other crystal. [1] All this is changed by the recent Bell Telephone Laboratories' announcement of the "Transistor", a small germanium-crystal unit that can amplify signals, and hence be made to oscillate.



Housed in a small metal tube less than one inch long and less than a quarter inch in diameter, the Transistor has no filament, no vacuum, and no glass envelope, and is made up of only cold solid substances. Two 'catwhisker"-point contacts are made to a surface of the small

germanium crystal, spaced approximately 0.0002 inch apart. “

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Measuring the gain shows it to be on the order of 100, or 20 dB, up through the television video range (5 Mc. - or so). The present upper-frequency limit is said to be around 10 Mc., where transit-time effects limit the operation.

The Bell labs have demonstrated complete broadcast-range superhet receivers using only Transistors for oscillator and amplifier functions. An audio output of 25 milliwatts was obtained by using two Transistors in a push-pull connection. However, it seems likely that in the near future, Transistors will find their maximum applications in telephone amplifiers and large-scale computers, although their small size and zero warm-up time may make them very useful in hearing aids and other compact amplifiers

It doesn't appear that there will be much use made of Transistors in amateur work, unless it is in portable and/or compact audio amplifiers. The noise figure is said to be poor, compared to that obtainable with vacuum tubes, and this fact may limit the usefulness in some amateur applications. Those clever little devices are well worth keeping an eye on. “

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[1] Readers will recall the work of the Russian, Lossev, in 'amplifying crystals' and others had worked on, but stopped further research. They key was getting highly refined and purified germanium, which wasn't available to previous experimenters.

Bell Labs announced the Transistor in a press release and demonstration on June 30, 1948.

It was another 5 or 6 years before 'commercially available' transistors hit the market, with the Raytheon CK-722 among the first for ham audio use at an 'affordable price'. [about 3 times the minimum wage for each transistor].

As to 'not much use of transistors in Amateur work'...that falls into the same category of IBM predicting in 1950s that the world would only need six computers in total.....they would do all the computation ever needed.

The Radio Girls Books

While at the Antique Wireless Association Annual Convention, one of the items up for sale at the 'silent auction' was a book titled 'The Radio Girls at Roselawn'. It was published around 1922. Someone bid $15 for it. I was familiar with the Radio Boys books – a series of over 15 books where the two main characters use 'wireless' (and we are talking spark era equipment) on various adventures similar to Carl and Jerry in the 1950s/1960s Popular Electronics era. The Carl and Jerry stories were short stories appearing each month in the magazine for a decade.

[Not familiar with Carl and Jerry? You've missed out, but you can read some free episodes at this link:

http://www.copperwood.com/carlandjerry.htm

All the stories are available in a series of 4 or 5 reprints.

Anyway, that book led to some investigation at CHN HQ into the Radio Girls books, and there appear to be four of them written under the pseudonym Margaret Penrose. A search of the internet revealed the following information:

1: The Radio Girls At Roselawn
2: The Radio Girls on the Program
3: The Radio Girls on Station Island
4: The Radio Girls at Forest Lodge

After the mild-to-moderate success of the Radio Boys, the Stratemeyer Syndicate decided that girls shouldn't be left out of the radio-themed fun.

Margaret Penrose was yet another pen name used by the The Stratemeyer Syndicate. The first three of those were written by W. Bert Foster, the fourth by lizabeth M. Duffield Ward.

The Radio girls are unique in juvenile fiction as the first radio-centric series to be marketed specifically toward girls. Books for boys were a decade old by then. It was an interesting angle, very few women worked in radio. In 1920 most people didn't' know what radio was. The typical radio listener had built their own radio.

Only two years later the advent of prefabricated sets had wildly increased listenership.. Magazines and newspapers were hiring "radio editors" to write about radio personalities and entertainers. It was about then that women began to penetrate that job market.

The radio girls were much softer on the technical hands-on than The Radio Boys. The Radio

Girls were radio performers as often as they were operators.

The Radio Girls books were reissued by Goldsmith Publishing in 1930 rebranded as the Campfire Girls. They were marketed more specifically toward Brownies and girl scouts.

The final volume was ghosted by Elizabeth M. Duffield Ward. Ward was the daughter of John W. Duffield, another prolific Syndicate ghostwriter, whose work includes most of the Radio Boys books under the Allen Chapman name.

Broadcast radio began to really take hold in the early 1920s and these series capitalized on this. A decade earlier there were books like Tom Swift and His Wireless Message (1911) and the Wireless Boys by "Capt Wilbur Lawton".

Anyway, if you want to read one, you can buy the first one on Amazon dot com for under $10. Even better, you can download it free and read it here!

http://www.gutenberg.org/ebooks/28448

Source: Arcane Radio Trivia

Here's a few extracts posted on the web. Enjoy. Remember, this was 1922, when a typical receiver had from one to several expensive tubes and spark transmitters outnumbered tube transmitters and 'radio telephone' was really really new. A 'portable set' typically weighed over 100 lbs.

The Radio Girls of Roselawn, Margaret Penrose, 1922, page 24:

"It has been rather windy. I suppose it must be rough out in the ocean. Oh, Amy!" Jess suddenly exclaimed, "if I get my radio rigged why can't we communicate with the *Marigold* when it is at sea?"

"I don't know just why you can't. But I guess the wireless rigging on the yacht isn't like this radio thing you are going to set up. They use some sort of telegraph alphabet."

"I know," declared Jessie with conviction. "I'll tell Darry to put in a regular sending set--like the one I hope to have, if father will let me. And we can have our two sets tuned so that we can hear each other speak."

"My goodness! You don't mean it is as easy as all that?" cried Amy.

"Didn't you read that magazine article?" demanded her chum. "And didn't the man say that, pretty soon, we could carry receiving and sending sets in our pockets--maybe--and stop right on the street and send or receive any news we wanted to?"

"No, I sha'n't," declared Amy. "Pockets spoil the set of even a sports skirt. Where you going

now?"

Pages 55-56:

"I guess, after all, Mrs. Grimsby has it partly right. Human beings cannot easily command the elements which Nature controls."

"Seems to me we are disproving that right now in this radio business," cried Jessie. "And it is going to be wonderful--just *wonderful*--before long. They say moving pictures will be transmitted by radio; and there will be machines so that people can speak directly back and forth, and you'll have a picture before you of the person you are speaking to."

She began to laugh again. "You know what Amy says? She says she always powders her nose before she goes to the telephone. You never know who you may have to speak to! So she is ready for the new invention."

"Just the same, I am rather timid about the lightning, Jessie," her mother said.

Pages 58-59:

"I tell you what," said Amy as, with their paddles, the girls wended their way down to the little boathouse and landing. "Won't it be great if they ever get pocket radios?"

"Pocket radios!" exclaimed Jessie.

"I mean what the man said in the magazine article we read in the first place. Don't you remember? About carrying some kind of a condensed receiving set in one's pocket--a receiving and a broadcasting set, too."

"Oh! But that is a dream."

"I don't know," rejoined Amy, who had become a thorough radio convert by this time. "It is not so far in advance, perhaps. I see one man has invented an umbrella aerial-receiving thing--what-you-may-call-it."

"An umbrella!" gasped Jessie.

"Honest. He opens it and points the ferrule in the direction of the broadcasting station he is tuned to. Then he connects the little radio set, clamps on his head harness, and listens in."

"It sounds almost impossible."

"Of course, he doesn't get the sounds very loud. But he *hears*. He can go off in his automobile and take it all with him. Or out in a boat--Say, it would be great sport to have one in our canoe."

The entire book is available in several formats at the above link.

Book Synopsis

At the beginning of the story, the girls see someone being forced into a big French car – but it is soon forgotten. Girls decide to get radio set and go buy books on how to do radio.

Girls string up big 'aerial' using 300 feet of copper wire and connect a 'lightning switch' and a ground wire. They get a crystal radio set and run 3 headphones from it. Using a buzzer, they adjust the catwhisker for good reception on the galena crystal. The first night they listen to a 'radio concert' [classical music]. It seems the main justification for buying a radio was radio concerts and listening to the news so they didn't have to buy the newspaper for many.

Later they got a 'two step amplifier' and a 'horn speaker'. (Momsey drove around town in an electric flivver – a real early 'Volt' type car – popular around 1910). People came from miles around when they set up their 'apparatus' in a large tent at a church bazaar to listen to the 'new radio'.

It seems a distant relative is missing – and can't be found.

One day they hear a girl screaming for help on their radio. They try to track down the 'radio broadcasting station from the clue given by the radio transmission. They find the 'hidden' radio broadcasting station.

Then they find the missing girl. End of story. Two hours or less to read.

More info on Radio Boys at:

http://www.keeline.com/Chapman/

Free Radio Boys E-book here

http://www.gutenberg.org/ebooks/7899

Back in the 20s, Hugo Gernsbach wrote a lot of 'science fiction' and articles about the future. Many adventure stories speculated upon the future. It's sort of amazing that folks were talking then about picture phones in your pocket.....which took nearly 80 years to realize!

That Shale Gas 'Miracle'

The shale gas "miracle" is overhyped and bound to disappoint. That's what energy expert Bill Powers argues in his upcoming book. But Powers tells *The Energy Report* that this could be a

very good thing for oil and gas companies and their shareholders, and he is placing his bets accordingly.

The Energy Report: Bill, you have a new book coming out next spring entitled "Cold, Hungry and in the Dark: Exploding the Natural Gas Supply Myth." What is your basic argument?

Bill Powers: My thesis is that the importance of shale gas has been grossly overstated; the U.S. has nowhere *close* to a 100-year supply. This myth has been perpetuated by self-interested industry, media and politicians. Their mantra is that exploiting shale gas resources will promote untold economic growth, new jobs and lead us toward energy independence.

In the book, I take a very hard look at the facts. And I conclude that the U.S. has between a five- to seven-year supply of shale gas, and not 100 years. That is far lower than the rosy estimates put out by the U.S. Energy Information Administration and others. In the real world, many companies are taking write-downs of their reserves.

Importantly, I give examples of how certain people and institutions are promoting the shale gas myth even as they benefit from it economically. This book will change a lot of opinions about how large the shale gas resources really are in the U.S. and around the planet.

TER: How did you obtain your information?

BP: I spent three years doggedly researching this book. Most of the information came from publicly available sources. I used a fair amount of work done by Art Berman, who has written the forward for the book. Art is a leading expert on determining the productivity of shale gas plays. I contacted a lot of other geologists and petroleum engineering professionals and had them review my conclusions about declining production.

Put simply: There is production decline in the Haynesville and Barnett shales. Output is declining in the Woodford Shale in Oklahoma. Some of the older shale plays, such as the Fayetteville Shale, are starting to roll over. As these shale plays reverse direction and the Marcellus Shale slows down its production growth, overall U.S. production will fall. At the same time, Canadian production is falling. And Canada has historically been the main natural gas import source for the U.S. In fact, Canada has already experienced a significant decline in gas production—about 25%, since a peak in 2002—and has dramatically slowed its exports to the United States.

TER: What does this mean for investors?

BP: The decline is a set-up for a gas crisis, a supply crunch that will lead to much higher prices similar to what we saw in the 1970s.

Interestingly, during the lead-up to that crisis, the gas industry mounted a significant advertising campaign trumpeting the theme, "There's plenty of gas!" Now, it is true that there was a huge ramp-up for gas during the post-World War II period that lasted through the late 1960s as demand for gas for the U.S. manufacturing base grew rapidly. But we hit a production peak in the early 1970s during a time of rapidly growing demand. This led to a huge spike in prices that lasted until 1984.

It was very difficult to destroy demand, so the crisis was resolved by building hundreds of coal-fired power plants and dozens of nuclear power plants. But today, gas-fired plants are popular as we try to turn away from coal. This time around, those options are no longer available. Nuclear plants are still an option, but the time and money involved in keeping our aging nuclear power plant fleet operational, let alone building new plants, will be quite significant.

TER: How will the contraction of the natural gas supply affect its price?

BP: We will see a new equilibrium price for gas at much higher levels than the present. I vehemently disagree with industry observers who say that the U.S. is the next big exporter of liquefied natural gas (LNG). I believe that the U.S. will soon be *increasing LNG imports,* and that U.S. prices will move back to world levels.

We are currently seeing between $13 per thousand cubic feet (Mcf) and $15/Mcf in South America as Brazil and Argentina import LNG. We're seeing $17/Mcf in Japan and similar prices in Korea. The only place that is not increasing its LNG imports right now is Europe, and that is being made up for by increasing demand in Asia.

TER: How will a contracting supply affect the prospects of companies that are exploring and developing gas fields in North America today?

BP: The companies that can find new reserves of oil and gas will enter a golden era as prices skyrocket. There has been a lot of consolidation in the industry over the last five years. In Canada, very few juniors have started up since 2007. This is the fifth anniversary of the Halloween Massacre, when the Canadian government changed the laws regarding trusts, which really shrank the amount of capital going into junior companies.

The bigger North American companies are consolidating, because it is harder to acquire prospective land. Plus, the cost of drilling wells has gone up. But juniors that can find new reserves and that can increase production per share and cash-flow per share will have a wonderful rise over the next three to five years. Companies are helped by the upward trend of ever-higher oil prices and we will soon see *much* higher gas prices. And remember, all of this is happening at a time of historically low interest rates. So companies that can get to critical size and borrow money at today's low rates have a chance to deploy that capital into some very high-return projects. Good companies are trading at historically low multiples of cash flow or multiples of NAV (net asset value). So there are some great values out there that really make the energy sector attractive.

TER: Does your analysis about the looming contraction in the supply of shale *gas* apply to shale *oil?*

BP: Shale oil is a significant resource, of course, but it is not a "game changer." It is in the same category with shale gas. The Bakken is a very material resource and it will provide decades of production. However, Bakken production has peaked in Saskatchewan. It has peaked in Montana. It is approaching its peak in North Dakota. This does not mean that we are running out of drilling locations, or that production is going to fall off a cliff tomorrow.

However, I expect production to plateau before long. Something similar is happening in the Eagle Ford in Texas. A lot of the wells there have extremely high decline rates and production may be hitting a plateau. In the overall context of the United States, we see a continuous decline in the Gulf of Mexico and California. There is significant decline in Alaska. Those producers are struggling to keep up the flow through the Alyeska pipeline without having to do a major retrofit of the pipeline to put in more pumps due to the low throughput pressure. We are seeing a decline in California of about 15,000 barrels every year. The overall increase in oil production in the U.S. in the last few years has been wonderful, but many oil fields are getting long in the tooth, and I would expect a plateau to soon emerge.

TER: Will decline spur investment in alternative energy sources?

BP: Yes, absolutely. Electricity prices are often set by the highest-cost producer. Until recently, those electricity producers used natural gas as their feedstock. Low natural gas prices have depressed electricity prices in some areas. This makes the economics of a lot of alternative energy projects very difficult. But as gas prices rise, electricity prices will also rise. This will make solar and wind projects more viable. For example, in California, electricity prices rose significantly over the last decade despite falling gas prices. But as the efficiency of solar panels has improved, solar costs have declined and reached grid parity. Residential solar makes a lot of sense in California. And as solar efficiencies continue to improve, costs will continue to fall.

TER: Do you think that international markets pay enough attention to finding and developing new oil and gas resources?

BP: It's a very difficult thing to explore as the world becomes more and more resource mature and resource nationalism rises. It is very difficult to explore off the coast of Nigeria or in Russia or in Iraq, where the political situation is very unstable. Fifteen years ago, Exxon Mobil was divesting its onshore U.S. assets. Now, Statoil ASA has come to the United States in a significant way for the Bakken. BHP is buying into the shale gas and shale oil business in the United States. Frankly, onshore in North America is not the easiest place to operate. But there are not a lot of other options available right now.

TER: What are the likely impacts in industrial and residential demand in oil and gas prices for North America during the next decade or so?

BP: Efficiency will improve. The U.S. has already dropped its demand for oil by about 2M barrels from its peak in 2007. Part of this was due to the recession; part of it is due to an increase in the miles-per-gallon standard. The trend will continue as it becomes more and more unaffordable for people to drive cars.

And we will see efficiencies in the structure of the electricity grid. The U.S. currently wastes around two-thirds of the consumable electricity that goes into the power grid through energy source conversion and line loss. I envision a trend toward distributed energy production. People will put solar panels on their rooftops and sell sun power to their neighbors. The big utilities are fighting this tooth and nail in California. But there is a movement toward electricity co-ops. As electricity becomes more expensive, people will find other ways to conserve. Demand will

increase for residential geothermal heating and cooling; the economics of geothermal home heating and cooling systems have improved drastically in the last 20 years, and it continues to get better. We will also see the emergence of an electric car industry. It's had a rocky start, but it will move forward as gas prices in the U.S. go north of $5 per gallon.

Source: The Energy Report – Bill Powers

Postage Rate Increase

First class postage is going up in January 2013. If you want, stock up on some 'Forever' stamps. Buy 'em now at current prices and they'll be good forever for a a first class letter. It's going up a penny and postcards going up a penny to 33c/card.

Next year, the rates for international mail go from $1.06 to $1.10 , but there will be a 'Forever Stamp' available for that, too.

You Wonder Why Department

from Ebay – once again:

KNIGHT ELECTRONICS CORPORATION - A product of Allied Radio of Chicago - T-60
60-WATT TRANSMITTER
Includes: Original box with postage dated Sept 1964, Assembly manual, (2) Wiring diagrams, (2) Boxes of crystals, (1) Tool, (1) Adapter

From the description:

“This item may or may not be in proper working condition. The power indicator light and output meter function, but the **transmitter smoked slightly** after heating up. “

Hmmm.....sayonara to one power transformer possibly.....dang, why do these stupid folks plug in sets with capacitors that haven't seen any use in 40 years? Smoked 'slightly'?

You wonder why!.....not.....once the smoke comes out of something, you just can't put it back in. That's the simple minded answer.

Peak Oil

You might wonder why all the articles on peak oil.

Rule #1 - Oil Energy = Economy

If you want a growing economy and growing GDP, you need energy. Exponentially more oil every year to fuel an exponentially growing world. Oil and its derivatives supply nearly all the transportation worldwide. Provide all the energy to farm and raise and transport food for 7 billion people. Between coal (a fossil fuel and it will peak shortly) and natural gas (a fossil fuel) you have the other two stored CONCENTRATED forms of energy that has allowed the economy to grow by several percent a year over the past two centuries. For each percent of GDP, you need 0.25 percent growth in energy supply. Worldwide.

Unless you can continue EXPONENTIAL increases in energy production worldwide, the ride is soon over. Our economy, based upon every growing GDP, requires ever growing energy supplies. To replace all the 'energy' in oil, we would need to build 6400 nuclear reactors and find fuel for them. Then build another sixty every year after that. Year after year. Or pave over 20,000 square miles of the southwest US with solar panels – for about 20 trillion dollars. Then grow that each year by maybe 1% if you wanted 4% GDP growth. Only another 200 sq miles of solar panels every year, year after year after year. That's about 10,000 times the total solar capacity of the world today and you'd have to do it every year.

You hear the Washington politicians talk....and the talk is mainly about 'growing the economy. The focus is ALWAYS on increasing GDP. Staying out of recession when the GDP doesn't grow. Spending trillions in 'stimulus' (money we don't have) to avoid sagging back into recession.

Oil Energy = Economy. There is no substitute. Not in your lifetime.

A country in recession has more and more problems paying back debt. When you have negative growth, you have less and less money to pay for current things, no less being able to repay debts. Europe is circling the financial drain because most of its economies are in recession and their debt loads are too big to pay back. Naturally, unemployment goes up.

Company profits decline. Incomes decline. Less stuff is bought. It also feeds upon itself. At some point, the politicians can't borrow enough to 'stimulate' the economy. We're past that point and now the fed is busy printing money via QE. That means each year your money is worth less and buys less. The price of oil/gas goes up. The price of food goes up. The price of just about everything goes up. It's hidden inflation. They won't tell you that. And that is exactly whey gold has gone from $300 an oz to $1700 an ounce.

And don't believe your GDP growth numbers. The numbers are cooked. You know it and I know it. Look at your cost of living – your food and energy and health care costs. Those are 'conveniently' not counted. Starting in 1985, the government started to 'cook' the cost of living numbers. Makes you feel better when they tell you it is only 1.4% when it's more like 4%, and in 17 years your money will only have half as much purchasing power.....but they also 'save' a lot by not having to raise federal pay levels and Social Security payments, too, by the 'real' numbers.

We've really been in a recession for the past 10 years or 'stalled' due to escalating energy prices. You've been fed 'cooked' statistics to make it seem like you've been making real progress. The numbers don't really lie when you realize that average family income has dropped $4300 a year in the past 10 years. The government tells you that GDP has increased and you should be happy participating in an 'increasing' economy? Really?

Remember, it wasn't that long ago that oil sold for $10 and $20/bbl. It's harder to get, will be even harder to get in the future, and when you apply Rule 1 – peak oil is going to be a game changer.

Awards Issued

Second Time #420	Kerry, W4SIG	October 11, 2012
Second Time $421	Fred, K0FG	November, 20, 2012
Third Time #235	Barry, N0KV	November 9, 2012
Third Time #236	Bill, K2HVN	November 10, 2012
Seventh Time #21	Dave, KE3VV	October 27, 2012
USA CW II #30	Hollis, KC3X	November, 25, 2012
USA Call Combo 1x3 #9	Terry, WQ7A	Nov 13, 2012

That's all folks!...