

County Hunter News

December 1, 2013

Volume 9, 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.

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

CW County Hunter Nets run on 14.0565, 10.122.5, and 7056.5, with activity occasionally on 3556.5 KHz. Also, there is SSB activity now is on 'friendly net' 7188 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) N4CD Rumblings

The bands have been mostly good with some days of excellent conditions on 10M. There's even been a rare F2 skip opening on six meters this month. Hundreds of thousands of contacts have been made on 10M and some mobiles had lots of fun getting up to 10M.

The weather has turned to 'winter' in some areas of the country and the wild weather continued into Nov with some severe storms, over 60 tornadoes in IL and IN. Hopefully all our county hunters survived with minimal or no damage.

The mobile trips have declined quite a bit but hopefully we'll see some travel for the holidays. If it weren't for a few mobiles that are out and about for business reasons or 18 wheelers, many

days it would be real quiet. Come to think of it, there were quite a few days of no cw activity so you take what comes along.

There were several big contests during the month – the CW and Phone Sweepstakes that provided lots of opportunities for band/counties and making hundreds of contacts. With the higher bands open, you had lots of room on 10 and 15M to get in there and have fun while avoiding the pile ups on 20M.

Other than the KY QSO Party (good) there were no other county oriented events during the month.

Now's the time to get the snow tires on the car, check out the snowblowers and ski-mobiles up north, and prepare for the snow and ice. You don't have to check the anti-freeze like the old days since your antifreeze is good for 150,000 miles or so. (GM recommends change at 160,000 miles or 5 years). Check the tire pressure as it drops as the temperature drops.

Gas prices dropped in many places to below \$3 – great for those trips – but has headed back up over \$3 in most places. Of course, in liberal paradises like CA, they're still paying \$4/gal so it's more expensive there to go mobiling.

Here in TX, the shorts have been stashed away for the winter and it's time for flannel shirts and long leg pants. The trees are just beginning to drop their leaves (and acorns by the thousands) so we'll be busy cleaning them up for the next three months. By the time you read this, it's past 'leaf season' for the north half of the country and into dreary winter months of shorter daylight hours. Another month to go till the Winter Solstice when the days get longer but the temps still stay down for another couple months.

So that's it from Texas – see you on the road for the holiday travel season. Best wishes for your holiday season.

2) Reader Feedback : Errata - oops – well at least I know folks are reading the CHNews!

Alan, KO7X, noted about the picture of him and Vicki:

Hi Bob;

Thanks for the nice writeup. One small correction, however - Vicki is not my wife - yet. Someday perhaps.

73,

Alan, KO7X

3) Reader Feedback from John, K1ER

“I am beginning to feel motivated to reinstall my ham gear in my new motor home. It is MUCH HARDER to just park on the shoulder in a 40 ft bus, but I used to do it when I was full timing in a Pace Arrow a few years ago.

Good newsletter.

Not related to MOBILES but the club station in the BATTLESHIP USS MISSOURI (KH6BB) is making progress in USACA. Since the people in charge of the ship only allow us to operate during the daylight visitor hours progress is rather slow.

73 John K1ER

4) Reader Feedback from Barry, K2MF

Volume 9 Issue 11 of the County Hunter News you wrote about something that is significant to me and I just have to comment on it, given my familiarity with the subject matter.

I devoted the great majority (37 years) of my 40-year professional career to serving in the engineering department of WCBS-AM (and to a somewhat lesser extent WCBS-FM) and during the period from approximately 2002 through my retirement in 2012, I was the engineering supervisor for WCBS 880 and responsible for all of the radio station's studio maintenance during the time it was located at the CBS Broadcast Center in NYC from 2000 – 2011.

It was during this decade in July, 2005 (I believe) that WCBS began broadcasting in AM "HD" (or IBOC), which as you already know are marketing names for what has become possibly the worst thing that ever happened to AM radio. As you noted in your very accurate comments at the end of this article, the adjacent channel interference problem is very bad and is even worse during the nighttime hours during which MF signals skip off the ionosphere to distant markets and locations that are hundreds of miles away. The broadcasting industry justifies this interference by taking the position that distant markets are not in those primary coverage areas where advertising dollars are intended to boost businesses locally.

No longer being a CBS employee, I can truthfully state here that AM HD is a very badly engineered compromise that causes the main analog signals of our AM stations to sound very bad on wideband receiver systems, since they had to limit their audio bandwidth in order to

make room at the top end for the IBOC signals that you will detect as buzzing between the stations on analog receivers. Effectively, they lowered the quality of AM stations to in order to accommodate a digital technology that at best is mediocre and at worst should never have seen the light of day.

Unfortunately, the broadcasting companies (including CBS) that financially backed Ibiquity (the owner and seller of this technology) are in too deep to ever consider abandoning this technology, which is why Ibiquity is now lobbying the FCC to consider the adoption of rules and regulations that will mandate a complete switchover to HD and go the way that Europe has gone. It is very sad indeed that this is occurring on our wonderful AM broadcast band that will effectively kill it forever.

Yes, the times are a-changing. There has been a whole lot of material on the internet over the past 8 years or so about IBOC which you can find in relatively short order, but a good modern article to read about this is here: <http://www.radioworld.com/article/iboc-at-night-five-years-later/218209>. You can draw your own conclusions from the author's observations.

By the way, if you are interested in reading anything about the great AM radio station that was once WCBS go to <http://donswaim.com/wcbsnewsradio88.html>. This site is the definitive place for a collection of everything that you can possibly imagine that is related to wonderful radio station and the people that made it what it was. I had the honor and privilege of working there between August, 1975 and August, 2012.

And on another subject entirely, I have attached a JPG of myself at my ham station in Sussex, NJ that was taken about two months before I finished USA-CA first time.

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73 de

Barry

K2MF >>



Barry, K2MF at station in Sussex, NJ

5) Anyone in touch?

Curious minds want to know. Rick, AI5P, asked: “Anyone heard from Rudi, HB9RG lately?”
Anyone heard from Jay, AA9KH lately (email not working)?

6) AI5P does DX – info from Rick

Rick, AI5P, USA-CA 387, had extensive foreign travel in September and October. September included Panama, El Salvador and Nicaragua. I always try to check into the CH Nets if no mobile is running. So a few county hunters got a contact with HP1/AI5P, YS/AI5P, and YN2PX. Of course, contacts were also made with county hunters off the net frequencies. Then in October I had the unique opportunity to travel to Sable Island as a part of the CY0P DXpedition team. Over 27K contacts were made. A lucky 13 county hunters got a contact with AI5P/CY0 on the 20m CW Net on Oct 5. I made the last contact on the DXpedition on Oct 9 at 19Z with Hollis, KC3X ! Anyone needing a QSL (for HP,YS, YN or AI5P/CY0 ONLY) can send me a SASE. CY0P qsls go via VE1RGB.



Rick, AI5P at CY0P

7) Wow – the County Hunter News is entering it's 10th year of bringing news to the County Hunter community with the next issue. Who would have thought that when it started out? It was just another voice on the web countering the blathering from the 'nasty folks' who 'occupy' 14.336 and presenting 'the other side of the story'.

8) Reader Feedback from John, W5RQ,

I sent John a note about his USA-CA award worked 'all fixed and portable' stations.

He replied:

Started collecting counties in 1951, just after getting one of the first Novice tickets issued (WN9OIJ in Elmhurst, IL). Three of us started on Illinois counties, and “mobile” operations weren’t undertaken back then. We just got in the habit of working “resident” stations and never stopped!

During this process, some counties had no resident licensed hams; and I encouraged folks to 'go portable' for me.

In every case, I insisted on a strict “portable” station, where at least part of the set-up was “fixed”. In a couple of cases, the home transceiver was powered by tapping the car battery for 12 volts with the rig setting in the trunk or on a car seat, and a dipole antenna (usually 20 meters) strung in the trees as a sloper or inverted vee!

I would have liked to work ‘em all with “resident” hams, but there are a few counties across the nation which may never have a “resident” ham – Kenedy County, Texas, for example, which consists totally of parts of three private ranches! Other very rural counties may also qualify: Wheeler and Blaine in NE. They may have had a “resident” at some time, but not when I was chasing that state.

Jon, W5RQ

9) Call Change Steve, N9WNN is now AC9GK

10) Still deranged - The meds seem to wear off during the day, and the one who 'occupies' 14336 seems to willingly get back into jamming once again. Hmmm..... when certain stations make contacts, he seems 'unable' to 'control' himself and mumbles and intentionally tries to 'bust' QSOs. You'd think by now he be on better meds to control his ability to be civil? To not violate FCC guidelines? To comply with MARAC award rules? Dozens are out there listening – those trying to get a contact. The rest have 'tuned out' so they don't have to listen to him yelling at new comers about 'using phonetics' or messing up relays the first few times. It really gets old quick. Most county hunters just watch the spots, work the mobile, and disappear as fast as possible on SSB. Sad, but reality. Otherwise, you get to listen to blistering attacks on innocent passer by folks, intentional jamming by Jimmy the Jammer, and of course, the usual idiotic remarks from the sidekick in FL. I don't need to mention calls.

11) MRC Cards

Mike, W0MU, posted a new source of MRC cards for those working on first time and needing MRCs. (Logger will print MRCs and many now just list the contacts on a sheet of paper, with a place for the mobile to verify the contacts at the bottom). Here's the URL

<http://cheapqsls.com/chn.htm>

12) IRCS

If you have IRCs (International Reply Coupons) – often sent by, or to, DX stations that have

date codes of 2009, then are expiring at the end of 2013. Check for the expiration date on the IRC. They may become worthless after Jan 1, 2014. I get some here from DX contacts I work as a mobile for return postage. One current IRC gets you an international postage stamp for return postage.

Mobile Activity in late Oct and then November

Bill, WG9A, headed east running them on SSB. Got out to Dukes and Nantucket, too. Did those last two on CW as well.

Gene, WB4KZW put out some in eastern NC then headed to FL. He's moving back to NC and plans to be on 'with a bigger signal' shortly from his new home.

W3DQT, Richard, put out a few in MD. Another day he was up in NJ then back to MD. Another day he headed down into two on the Eastern Shore in VA from MD then home.

Barry, N0KV, headed over to Hinsdale, CO from his home putting out south CO counties.

Gene, K5GE, headed off with W5PKE to run some southwest TX on SSB.

Paul, N7JPF was out on a trip up north.

Ed, N8OYY, was out in WV and PA, Put out a lot of the state for the folks.

Hollis, KC3X, put out some in NC

Kerry, W4SIG was running 'em in TN.

Guff, KS5A, headed east from AZ through TX over to MS then back home.

Dave, KW1DX was up in VT and NH – ran on SSB and CW.

Bill, WG9A, made it out to Dukes and Nantucket and ran them on cw, too.

Silver, N9QS, left SC and headed north via the southeast part of GA up to the NW part, then into TN and KY and home. Also ran a few in IL for the folks.

Dennis, N6PDB, motored over to San Benito, CA – next to LC WBOW for KA4RRU.

Gene, K5GE, headed out to south MO from his QTH in TX and back via the backroads of AR.

Joyce, N9STL, headed east through IN to OH, WV, PA, NJ and then back. 20/40 SSB and cw on request.

Mike, KA4RRU, ran the route he often runs, but this time was real busy on 21, 24.9 and 28 MHz. Band conditions were good!

W8FNW, Jim, and W4FNW, Dee, took a trip to south central FL and back. Ran them on SSB. Seen out another weekend running them too - 20/40/17M

AB7NK, Mary, and Neil, K7SEN, headed over to TX, ran around a bit, then headed back home. Ran a few of them on cw by special request, too.

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Jerry, K5YAA, had Murphy along on this trip to KY. He noted in a mini report:

“Well, Murphy raised his head today but I beat him back what with all my spares and desire to run HP from the mobile so the DX can hear me without squinting. First, I had generator problems that started late last afternoon. This AM I called Wright Implements in Glasgow, KY which was right on my path. They had a new i2000eu sitting there in stock. I told them I would be by soon to get. Did that and lit it off. Sounded good. They only put a drop or two of gas in it so I filled it up with my gas container. I have two of those too. Lowes version with spout etc. filled the gen to the top. Fired it off and 3 minutes later it quit running just like my other two had. Sumptin ain't right here. I went back inside and they immediately put two service guys on it. Water in my gas! How about them apples? My other two are likely just fine. The techs emptied out my gas and put good stuff in. I had them dump the remaining gas I had. Got me two containers full of Marathon gas. Put some to the top of the generator and it has been running fine all day. One Murphy attack pushed back.



K5YAA – Road 11 Lyon County
Typical 2 lane KY Road

I began charging my laptop with the 12 volts in the van. About the time I got the gen going the laptop popped a 20 amp mini fuse in the van. I had been having that happen a ways back and started charging the laptop using AC. No more fuse blowing. Well, I left all my spare mini fuses at home, hasn't been needing them. I asked the Implement dealer if there was a Dodge dealer in town. Sure enough, go to the end of the street turn left then another left. There it is right next to the Ford dealer. Turns out both Fords and Dodges are sold by the same people. The parts room is shared between them. I asked for half a dozen 20 Amp mini fuses. The guy went away and came back with the 6. I asked how much as I pulled out some cash. He said - put them in your pocket - no charge. A good deal for sure. Murphy number 2 fought back.



K5YAA – town of Rocky Hill
Just down from Edmonson/Warren line
Where the key problems started

Murphy number 3 had to do with a hose clamp snapping on my Tarheel brace. Not a disaster but I don't like running without the antenna fully braced. I stopped to replace the clamp. Dropped stuff out of my shirt pocket and didn't pick all of it up because later I discovered my eye glasses were missing. Man, must have left them in that church parking lot I used to do my repairs in. Turned around to go back and retrieve. Hope nobody ran over them! Well, didn't find them so got me two new pair of readers at the Dollar General right near the church lot. Back in business. Murphy number three fought back.

All this led to me running behind schedule from about 11 AM onward that day. Got to Todd County and was hungry so I found Helen's place - lots of trucks and cars - this must be a good place to eat. Sure enough - a Friday night buffet. Just like a family reunion. Everybody seemed to know everybody else. The tables sat 8 or 10 and all the folks sat, ate and gabbed. After my meal Helen said "they are playing music across the street at John Rays" I should go over and join in. Such a deal. There still are places on earth where folks are neighbors. Anyway my meal caused me to not get on in Todd until 7:15 central. All the CHers had gone to bed I guess. Couldn't raise anyone on 40 or 20 CW. Couldn't spot myself - heck I was on Deer Lick Road in the middle of Kentucky farm country. Who needs a cell phone out there? Anyway, my apologies for not getting Todd and Christian covered Friday

. I had a war to fight with Murphy. Oh yeah I forgot. Because the generator had not a drop of gas it wasn't charging my laptop - so that's why it quit at the C/ L of Edmonson and Warren. I reached for my trusty bug but it wanted to give me some grief too. That's what happened there. Got a photo of both of those county signs though so did a good deed with that. I will take out in the morning headed to Webster to begin my 12 hour stretch in the KY QSO Party. “

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Jerry, K5YAA, was busy on bands up through 10M before and after the KY QSO party.

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NS5J, Scott, took a trip out in TX to get the LC WBOW for Jonas, LY5A. Ran a half dozen counties on 20/40 for the folks on cw. Had success with LY5A for LC WBOW for 4th time!



Karnes, TX – LC WBOW for LY5A – by NS5J
added to the County Sign Database, too

Larry, W7FEN, was on in a few counties in CA.....ran on 17m, too

Mike, NF0N, headed down into MO and ran a bunch on cw for the folks.

KC7COP headed east from the coast through MT and other states.

Special Event station W8F –was on the air for the 38th anniversary of the sinking of the Edmund Fitzgerald on the Great Lakes was on – Wayne County MI. If you collect 1x1 calls, they are nifty to snag. The op was looking for contacts. If you hear a special event station on, please spot them. Ask for their county, too!

The same day, W8S in St. Clair MI was on – a Natural Bingo and another 1x1.

Veteran's Day weekend saw at least 10 special event stations on the air. W8VP was on in Guernsey, OH. (I spotted all of them but few others seemed to be even looking for them during the same time the KY QSO Party was going on).

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Ed, N8OYY, was busy in WV putting out some of the rarer counties on SSB.

Joe, N5UZW was out and about in AR

KO7X, Alan, headed from WY over to Salt Lake City, UT.

Jeff, W9MSE, was out and about in WI. Ran up through 12M.

Don, W0EAR, ran a few in MN.

Gene, NT2A, popped up in NY, NY for the folks.

Karl, K4YT, headed on down to SW Virginia then over to catch Letcher, KY – LC WBOW for WB4KZW for 4th time.

W7IN headed southwest from MT for the warmer winter climates. Ran on SSB.

On the Road with N4CD I

The road didn't go to far the last weekend of October. There was a small hamfest up in Ardmore, OK, 108 miles up the road but I decided to skip it. There's been nothing in the way of goodies to justify an overnight trip there in the past five trips and my friend Bob, K5MVZ would watch out and call me if any regens showed up for sale. So it was on to plan B, which was head to an auction of several hundred items up for sale locally by auctioneer Jim Sargent. This was the 'better stuff' of an auction he held up in Ft Smith AR where they sold about 10,000 tubes and tons of parts and other stuff- I skipped that one, too – no regens. I have too much 'miscellaneous' stuff in my house like a lot of other hams

Anyway, after breakfast with the local ham club (the 'late breakfast' that eats at 7am each week on Saturday morning at Poor Richards in Plano – about 15-20 attend), I headed over the 15 miles or so and checked out the goodies. Most of them were up on the web on his auction site to look at, but you never know if some 'late' arriving items show up and you need to eyeball things in person to decide how much to bid. Only one item of interest was there– a 'wireless receiver' from about the 1922-23 time frame, which seemed to have been 'updated' with newer vernier knobs in likely the late 20s. It looked like it was a 'home brew' affair but it seemed to have a cabinet of quarter sawn oak...resembling those of the commercial builders. It was a question mark. Here's a pic of it.



Pair of Regen Receivers

The unit on the left has in internal plug in coil and has 4 UV-201A tubes. Looks like it would tune the broadcast band from the turns on the coil. The unit on the right seemed to be a 3 tube (UV-199s) with the 'DeForest' type coil assembly for the medium and long wave area. Well, I started bidding on it when in came up hours into the auction – and it went quickly to triple digit prices and climbed out of my comfort zone. Someone either knew something about it that the

rest of the folks didn't, or just 'wanted it' no matter what the price. Sadly, it didn't come home with me. One might believe it was a DeForest 'interpanel' type receiver front panel, cut down to a smaller size, then with an added regen behind it. OK....but was it worth \$260? It was to someone! Not me! Hi hi

Some folks paid big bucks for items. 'Baseball' old vacuum tubes, the VT-2s, with good tested emissions sold for \$330 each! This was one of the oldest tubes ever made. It had a brass base and the tube structure was large and enclosed in a glass globe about the size of a baseball. Some VT-1s, about 6-7 inches long and 1 1/2 inches in diameter, with large 4 pin bases, sold for \$120 each – with good tested emission. Some 'duds' sold for \$50-60 each – just so you had something to put in an empty socket. Ouch. These tubes were used as audio amplifiers for the most part. The internal structures were too large to work effectively at RF frequencies. The filament took up to 4.8v at over an amp – basically a light bulb with added elements for the grid and plate.



VT-2 tube circa 1917-22

One radio sold for over \$600 – a Hop-A-Long Cassidy radio from the 1930s – a small radio in a metal case with a front panel showing the famous movie star on it. A red Regency TR-1 - the first ever transistor radio – sold for over \$200. There were pieces of advertising and clocks that went for hundreds each, but most of the transistor radios sold for \$5 or \$10 a box

containing 3 or 4 of them.

Some of the original UV-201s with the 5v 1amp filament sold for \$30-\$40 each! The newer ones with 1/4 amp filaments went for \$7.50 to \$10 each. Some folks just gotta have the 'original' old ones which were only made for a year or two before the newer ones came out. It was adding thorium to the filaments that let them emit more at lower currents.

Likely ten thousand bucks plus changed hands in the 7 hours of auction, but I paid my \$20 for the few items I bought and left before the very end. Many old radios went to new homes. No ham stuff whatsoever.

Book Review of the Month

It was a dull day on the radio. Two mobiles were out on cw – but only one new county all day. I had time to surf the web.

I stumbled upon a “Radio Boys” type wireless book listed on Ebay – and one thing led to another, and sure enough, the book was on line. No need to pay \$10 or \$20 for a book on Ebay when you can read it for free...unless you are an avid 'book collector' of 90 year old musty books. It's another 'wireless' book when wireless meant mostly spark gap transmitters and similar, and receivers that were very primitive by today's standards – many crystal sets still in use, and only the military able to afford high cost tube sets.

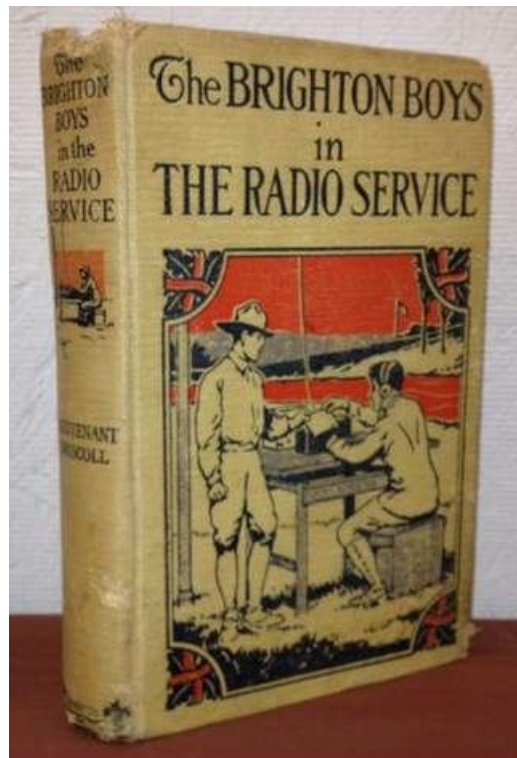
There seem to be four Brighton Boys books including the Brighton Boys in the Trenches (ie, WW1), the Brighton Boys with the Flying Service, Brighton Boys in the Submarine Service and this one – The Brighton Boys with The Radio Service. There might be more but that's all appear on the common indexes – and are available on line on Project Gutenberg. (nifty) The real author is Judson Snell, who wrote under the name James Craig.

What I find interesting in these books is seeing how much different the times were – and how different the technology was. There's also a bit of history – on WW1 but there's not much in the way of guts and gore, despite millions being killed in the war and many from the US never to return home again. The 'trench warfare' was a brutal killing machine. You learn a bit about it in the book.

Brighton Boys in The Radio Service by James R Driscoll

From Project Gutenberg at

<http://www.gutenberg.org/ebooks/22079>



It's a 1917 era book. The US is now at war (WW1) and there is a need to transport all sorts of material to Europe on ships. Three youths from Brighton, who just happen to be telegraphers, and who, in addition, just happen to know the International Morse Code used on the wireless – recall that the telegraph system used American Morse – wind up enlisting to serve the country. They're immediately assigned to be wireless operators on transport ships to Europe.

Before they even sail, they manage to find a spy at the Naval base. Then it's off on the ship Everett – headed to Europe.

Here's a bit of text from the book – they've left the spark gap era:

“He immediately began explaining the apparatus of the wireless room—how messages were sent and received; the power of the batteries and their auxiliaries; the switch-board regulating

voltage; the automatic recording apparatus—in fact, every detail connected with the intricate mechanism of an up-to-date wireless.

"There was a time," explained Lieutenant Mackinson, "when the sending of a message almost deafened the sender. It was like being in the midst of a machine-gun assault. But recent improvements have eliminated that. You may see for yourselves." And the lieutenant tapped off the Everett's own signal call with little more sound than is made by the sending of a message with the ordinary telegraph instrument. "We have a sending and receiving radius of from five hundred to eight hundred miles," Lieutenant Mackinson continued.

"Of course, it doesn't compare with the great wireless station at Radio, Virginia, one of the largest in the world, where one tower is six hundred feet high and the other four hundred and fifty feet in height, and each charged with two hundred thousand volts, giving a radius of three thousand miles; but it is sufficiently powerful for practically every purpose required at sea."

"Wasn't Marconi a wonderful man?" said Jerry in true admiration. "Yes, he was; no doubt of that, and he still may contribute much to the science, for he is not old yet," the young lieutenant answered. "But still, full credit must be given where credit is due, and in that respect it must be acknowledged that Marconi only assembled and perfected to practicable purposes the discoveries and inventions made before his time. "Radio-telegraphy might be briefly traced in the names of Faraday, Maxwell, Hertz—the discoverer of the Hertzian rays—Righi, Lodge and Marconi. All of them contributed something to the evolvement of the present highly efficient and dependable wireless. Marconi should, and does, receive great credit; but the others, the pioneers, the real discoverers, should not be forgotten or overlooked."

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Sailing across the Atlantic, they discover yet another Nazi spy on the ship, and this one is out to alert the U-boats of the position of the convoy using a small wireless set. He manages to evade capture while attempting to wire up his wireless, and almost kills the lead wireless officer – but is eventually caught when he is tampering with other electrical equipment on board..and dies in a scuffle. Good adventure, but almost nothing about radio and wireless, sadly!

Not long after, the convoy is attacked by a submarine, but a cruiser and destroyer make quick work of the submarine and the transport winds up safely arriving in Liverpool, England. After a train ride across the country to Dover, they travel to France. They are assigned to the Signal Corps.

Here's another part of their adventures – mobile wireless, circa 1918

“An hour later, with Frank Hoskins, who was an experienced driver, at the wheel, they started for their destination in one of the big, high-powered trucks which not only carry a complete

wireless equipment but also provide enough space for sleeping quarters for half a dozen men. As a matter of fact, these trucks are so designed that, if it is necessary, they can carry a crew of ten men, while by means of a special clutch and gear the engine is made to drive an alternator for generating the necessary electrical energy which, under the most adverse atmospheric conditions, will give a sending and receiving range of at least one hundred miles. In ideal weather the radius increases to as much as two hundred and fifty miles. A powerful mechanism which in its operation resembles the opening of a giant pair of shears, raises the mast and umbrella-shaped antenna, and the average time in getting the apparatus ready for service is only about eight minutes. The entire tractor, including crew, weighs close to five tons, and it can be easily imagined that its operation on a steep and treacherous mountain road was far from easy and anything but entirely safe. With them the lads carried sufficient rations to last them five days, it being understood that their larder would be replenished at the necessary intervals. They also took with them a radio pack-set, which is another wireless apparatus that can be carried about with little difficulty. This they had in the event of any unexpected emergency. The entire pack-set could be carried about in a suitcase, and after it was set up its current was generated by turning a crank by hand. Its range, under ordinary atmospheric conditions, was about twenty-five miles.”

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“Half a mile in the air, apparently over a point midway between what had been the first-line trenches of the opposing armies, a stationary balloon showed where Jerry and an observation officer were doing duty on that fateful day. Jerry was operating a telephone that ran directly to division headquarters, and hardly a moment passed when he was not repeating some observation of the other man in the basket with him, or relaying to him a query from the commander below.”

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The adventures continue, but, alas, no more 'radio' or wireless for the rest of the book. The three 'Boys from Brighton' advance in rank, and at the end of the book, all get commissions to attend West Point. The war is still going on. So ends the book. It's actually a decent read a bit different than the 'standard formula' book of the day.

There appears to be a series of Brighton Boys books, but this is the only one dealing with radio.

As we noted last month, you can download this one as an audio book at

<http://www.librivox.org/>

It's a modern recording of the old book.

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One thing leads to another – I found another couple of early 'wireless' books – this the Radio-Phone Boys series written by a competitor to the Stratemeyer Syndicate which had written the vast majority of 'youth books' from the Radio Boys, Radio Girls, and nearly 1000 other titles in varying interest areas. More reviews to come. We'll mix them in with some other book reviews on the books that pass through the N4CD QTH. There's 8 books in the Radio Phone Boys book series. Wow..I've managed to track down all 8 of them in less than a month! Got lots of reading for quiet days on the cw bands.

Oh....and I was looking for some of those books (not all are on line) and I stumbled into the 4th in the Radio Girls Series – on www.abebooks.com - one of the sites you can hunt for new and old books. So I'll quickly review the last of the Radio Girls series in a bit– some of them are on line and we reviewed the first three a year ago in the December 2012 and January 2013 issues of the CHNews.

I'm still hunting for the sixth in the series of the Ocean Wireless Boys on War Swept Seas. The WorldCat site only lists 4 libraries in the entire country that have a copy! I missed a copy that sold back in July of this year. Hmmm. Should have started earlier getting into these books. The WorldCat site lists the contents of nearly every library around the country so if you are hunting for a book, you can find the library nearest to you with a copy!

Most of these 1920s era books are down in the Amazon dot com ratings. One of the Radio Phone Boys books is the #8,672,820 th most popular book! Since I bought one of them, it probably moved up a couple hundred in rank!

Allied Radio Catalogs

Were you a ham back in the 1950s and 1960s? Do you remember those Allied Radio Catalogs that came out every year – a 'wish book' for many kids? Do you remember the Knight Kits?

Here's a site with every Allied Radio Catalog. You can browse through any year and see what was in there. Remember the long listing of parts you could order to build things? The audio components and kits, antennas, and of course, the Knight Kit transmitters and receivers.

http://www.alliedcatalogs.com/catalogs_main.html

Here's some Allied Radio milestones as part of their history

Allied Radio (now known as Allied Electronics) is a company with a long history. On August 6, 1928, the company was started by Chicago industrialist Simon "Sy" Wexler when he was only 31 years old.

Initially, Allied Radio's purpose was to distribute radio parts for Columbia Radio Corp. At the time, Allied Radio occupied a building at 711 W. Lake Street in Chicago, IL

■ 1932: Allied was selling electronic parts by catalog. Storefront sales operations were established with the goal of selling to amateur radio operators and electronics experimenters. The company built a growing business in marketing radio parts and kits to home hobbyists, and was one of the first to sell electronics through a catalog. Allied's main competitors were Radio Shack, Lafayette Radio, Olson Electronics, Newark Electronics, Burstein-Applebee Co, and local independent dealers (such as WinterRadio). Allied's primary house brands included "Allied" and "Knight-Kit".

■ 1941-45: Having survived the depression, Allied focused on the war effort, primarily servicing government contracts and high-priority industrial orders. During WWII, Allied devoted itself to the war effort by handling government contracts and high-priority industrial needs. This was Allied's first real experience in industrial electronics. After the war, Allied continued to sell to the consumer and industrial markets.

■ 1946-60: The electronics industry exploded as new developments in electronics were adopted on a widespread basis in commerce and industry. Innovations such as television, industrial automation, space technology and defense accelerated the need for electronics. Consumer demand also grew as radio sets and components not available during the war proliferated. During this exciting era, Allied gained both the experience and specialized staff necessary to handle both consumer and industrial sales. Allied's main competitors were Radio Shack, Lafayette Radio, Olson Electronics, Newark Electronics, Burstein-Applebee Co., and local independent dealers. Allied's primary house brands included "Allied", "Knight", and "Knight-Kit".

1953 Allied Radio Corporation moves into its new, 2 million dollar building at 100 N. Western Ave, Chicago, IL. This "ultra-modern" facility was designed by experts to give their customers the best service in the industry. The new building covered a full city block and provided 147,000 sq. ft. of efficient floor space for better, faster service. It included pneumatic tubes and conveyors to carry transactions and merchandise on a speedy order-filled schedule that cut hours off normal handling time.

■ 1961: Allied Radio Corporation established Allied Electronics Corporation as a wholly

owned subsidiary to assume industrial sales of its small electronic components, relays, semi-conductors and the like which accounted for more than one-third of Allied's \$40 million annual sales.

■ 1962: The first industrial catalog for Allied Electronics, a subsidiary of Allied Radio, was released. The company continued to serve both amateur and professional ham radio operators as one of the few places to locate that "hard to get" piece of radio equipment.

■ 1967: Allied Radio Corporation acquired by LTV Ling Altec, Inc., a subsidiary of Ling-Temco-Vought.

■ 1970: LTV Ling Altec, Inc. sold Allied Radio Corporation to Tandy Corporation, of Fort Worth, TX for about \$30 million. The transaction included some \$12 million in cash with Ling Altec retaining certain Allied assets.

■ 1970: Allied has 21 regional locations. Allied moved its headquarters from Chicago, Illinois to Fort Worth, Texas because 1970 marked the year when Radio Shack's parent company, the Tandy Corporation (now Radio Shack Corporation) , purchased Allied Electronics and Allied Radio. On the consumer side, the new firm became known as Allied Radio Shack. Allied Electronics, with their new "computerized order tracking systems," boasted the highest percentage of filled orders in the country.

■ 1970: For their 1971 calendar year, Tandy introduced combined catalogs of Allied Radio Shack stereo equipment, computers, phones, CB radios, scanners, speakers, antennas, P.A. systems, walkie-talkies, radios, electronic components, test equipment, electronic kits, & more. Allied Radio Shack catalogs from 1971 can be found on the RadioShack Catalogs website.

■ 1973: Due directly to federal court action, Tandy was ordered to divest itself of Allied Radio. But by that time with the purging of duplicate stock and closing of low volume stores, there was very little left to sell off. To satisfy the Justice Department's antitrust suit, Tandy Corporation agreed to sell some of its Allied Radio stores.

Allied Radio now sold only to the commercial market – and still exists to today.

On the Road with N4CD II

October passed quickly with no major trips other than down to the Bell County Hamfest, and the trend continued in early November. Guess I saving up my mobile time for the annual trek

back to Maryland for turkey day and a visit with the family.

Through the grapevine I heard that there would be an 'estate sale/garage sale' and the home of silent key W5TU – Bob Jones – who was a member of the Richardson Wireless Radio Klub for many years. He was an avid tinkerer and wrote a few articles for various magazines. He passed away not that long ago and the family was selling the ham equipment and all the 'stuff' he accumulated. There were supposed to be some keys and telegraph items for sale. When you go to these and you knew the ham, it really is both nice to help the family out by buying some stuff, but also sad because you knew that this was all their personal stuff and they are no longer with us. You never know what you might find.

Back 25 years ago, he contributed articles to the Morse Telegraph Club publication – here's a link to one of them - Milestones in Morse Telegraph History:

<http://www.morsetelegraphclub.org/files/TelegraphMilestones.pdf>

So it was off to the sale at 8am in the morning trying to find some bargains. Well, he had a bunch of stuff. The main rig for sale was the Heathkit line from the 1960s- a nice SB301/401/200 set up in working shape. He had a couple two meter rigs but no interest here. He had a collection of telegraph items including about 20 common telegraph 'relays' and 20 keys/KOB sets (that's a key and sounder on the same board- usually practice sets) but very little that was unusual or 'rare'. I bought one 'leg key' – that's a key with long mounting screws that are designed to go through the operating bench so prevent the key from 'wandering off', and one relay that was designed to work on quadruplex systems (4 telegraph circuits over one wire). Oh, I did pick up a nice J-38 key for \$8 as well – good hamfest stuff. One other cute item that followed me home was the connector junction for a 4 wire “T” antenna used the good old days – a 'flat top' antenna usually strung up between two tall towers or on a ship, center fed to each of the 4 wires. Just a small piece of hardware.

There were boxes of ARRL publications – handbooks and antenna handbooks – maybe 30-40 of them but few buyers.

There were some two meter mobile rigs, lots of misc, an MFJ-259 antenna analyzer – asking price \$160, lots of QSTs, CQ's and other magazines, boxes of books, and row after row of parts. There was a wall of parts....7 foot high, 8 foot wide – with little drawers of resistors and screws and capacitors. I think someone walked off with 100,000 parts for a song...the folks just wanted them out of the garage. If I had a way to get them home and had space, it would have been a bargain and a lifetime of parts for building stuff. Then again, I don't build much from scratch these days and never have so it's probably better I didn't buy even more 'stuff'.

The best find of the day was a VT-1 tube in socket. I looked at it as did many others, then finally decided to pull the tube out of the socket and see what it was. On the metal base, it said

VT-1. That's the first production tube and was made by the tens of thousands for WW1 service.



VT-1 Vacuum tube

You need about 2.0 to 2.5v on the filament at an amp and up to 90v on the plate. They are really not great tubes...but they were the first made for the war effort in WW1 to put into all the radios. Still, many of the receivers of the day still used crystal detectors – not tubes! These were primarily used in audio, detector and low power oscillator circuits. The VT-2 was the 'transmitting tube'. The navy also used them in sub hunting gear - hydrophones. These were the first 'production' tubes ever made by Western Electric (and the US). It had taken years for WE to get the process to where they could churn out reliable tubes. WE got into the tube business to make amplifiers for the telephone system so you could talk cross country on 'long distance' toll circuits.

During the war, Western Electric churned out 25,000 VT-1s a week. It will be a good 'show piece'. They are getting to be scarce, although in 1923, you could buy them by the barrel full. Now, if you have a barrel full, you might cut off all the pins for the gold plating on them and make a few bucks if you can't find enough collectors to buy them all. \$8.

November CW Sweepstakes

Fireworks! Ten Meters Wide Open!

The solar index shot way up in early November. Ten meters was alive and well, and the CW SS made good use of 15 and 10m. There were stations end to end on 15m from 21030 up to 21075 and on ten meters from 28030 up to 28075 at times. Signals were pounding in here from both coasts with HI and the Caribbean in three, plus the bottom part of the band had nice DX from a TX5 to SP's to ZS3's coming in. There must have been a DX pedition out there somewhere since there were giant pileups on 10, 15 and 20M around 030! I think I heard about 45 states on 10M although many were very weak and not workable with my barefoot rig and vertical.

I heard many of the county hunter regulars in there. WA6KHK, W0EAR, W0GXQ, N8II, K5OT, KN4Y, AA8R, NM2L, N4PN, KV7N, K2DSW, N2JJ, and many others were heard working the stations. Some made well over 1000 QSOs in the contest period.

I made my usual couple hundred contacts– I didn't need a whole lot of counties in CA (dozens and dozens worked) or WA or OR, or on the east coast, but still caught one of the 2 I needed in ME. No new ones in NJ despite having worked 20 there – all in the same few counties – hi hi. After a couple hours I poop out. Then come back a few hours later. If you're not up to 25-30 wpm you might not enjoy this. The exchange requires sending serial number and a 'check' - the year you were first licensed – and your ARRL section so you need to be able to copy that info and be able to send it. Of course, if you aren't going to send in your log, all you need to copy is the call - hi hi – but might want to copy the 'section' as testers aren't always in their home states, no less counties. Dozens 'borrow' stations and operate from a nice high powered station as a guest operator. Now a days, you can even do that 'remotely' – sitting in NJ and operating from California if you have a friend out there who'll set you up.

Meanwhile, KS5A and N9QS were running on cw, W3CR was out on SSB running all over IL, and a few others were out on SSB for some counties.

Jack, KC7YE, was 'portable' in Island County, WA. Worked him on 10M. Nifty.

Meanwhile, 17m was busy and cw folks were QSYing up to 12m in some of the counties. 15M was jammed up with testers. So they'd run cw on 10 and 17 meters in most of the counties and N9QS made it to SSB for the folks.

There were spots for several of the HI stations –and some of the AK stations – but no Second or First noted, or Kalawao – hi hi.

The flux number was up at 150 with the sunspot count over 125 – excitement for sure in this second 'cycle peak'.

This was a 'special' year for Sweepstakes. From the ARRL Letter of Nov 15 just before the Phone Weekend (report later)

“This weekend, the 2013 ARRL November Sweepstakes phone event will dominate the bands, continuing the 80th running of the oldest domestic ham radio contest. Sweepstakes -- also known as "Sweeps" and "SS" -- debuted in 1930, but ham radio was suspended during World War II. The action gets underway at 2100 UTC Saturday and runs through 0259 UTC Monday.

The somewhat lengthy SS exchange, which participants must copy accurately to earn points, reflects the event's origins as a traffic-handling exercise and borrows some radiogram vocabulary. It consists of a consecutive serial number (leading zeroes are not required); a "precedence" -- a letter representing your entry category, eg "A" for single ops running 100 W; your call sign; a "check" consisting of the last two numerals of the year in which you were first licensed, and your ARRL or Radio Amateurs of Canada Section. Participants work each station once for contact points, and the score multiplier is the number of ARRL/RAC sections worked (83 total).

As noted in advance of the CW weekend, the number 80 comes into play for participants in this weekend's contest who want to enhance the fun and the challenge by setting some individual achievement goals this year -- for example, for working 80 contacts per mode, scoring 80,000 points (total), running 80 W, and even for working all ARRL sections traversed by Interstate 80 and all sections on 80° W longitude. SS operators also can earn recognition for working all of the ARRL Sections in place in 1930 -- there were 68 back then, as opposed to 83 today. New this year are an 80 years T shirt and "Clean Sweep" coffee mug, as well as participation pins and a special certificate. Operators 80 years old or older and all participating clubs will get special recognition. Details are on the ARRL November Sweepstakes web page.”

Comments from the 3830 reflector:

NM2L : Part time again (11.75 Hrs), but had a lot of fun. Conditions great and some really great operators out there. FT1000 Mark V @ 100w to an 80 meter loop and a 160 Inv. L No tower. Just a combination of beechnut, oak and pine trees, no beam. I'm wondering when they will have a 12 hour category for those that need a little more sleep :) and have other commitments. 73 de Greg NM2L

K2NNY (WNY) : I had a BLAST, only thing is that I over slept on my time off periods. I tried to stay on for the entire 24 hours, but it didn't happen. OH well, that's what happens when you try and stay on for 24 out of 30 hours. I did have fun, it is definitely different when the upper bands are open. We normally have our most q's on 80 meters, but this year it was 40. I did my best to get everyone the NNY section, did a lot of s & P instead of running this year. It was a nice experiment, and I think the control up & down arrows got a real workout on N1MM. If you were CQ'ing, you probably worked K2NNY, with CW Skimmer and VE7CC software, you cannot hide, I will find you.

Murphy was here again this year, he ALWAYS strikes and this year was no different, he struck on Friday, with the 60 mph winds, everything was OK, except the tree that held up one end of the 80 meter inverted vee blew over and broke the rope that held the center support of the antenna at the top of the tower in the pulley. Yeh, the pulley is still up there hihi. Had to go out in the 40 degree temp, with a pouring rain on Saturday morning and put it back up. Not on the tower this time, I am too old to climb in that kind of WX, so out came the fishing pole with a heavy weight. We got it back up in the pine trees at about 50 feet.

The worst QRM I had here was local, in the shack, with my Dad yelling at the TV when our Steelers were getting their butts handed to them by the Patriots! He wasn't too happy with the Buffalo Bills either.

73 Paul K2DB @ K2NNY.

K5YAA/m :

95% CQing from my mobile - took a look around now and then to see what a band sounded like but mostly just ran. Wanted to see what a Tarheel would do from the middle of the country. Pleased but it doesn't work like a few yagis at greater heights with a second radio. A handful of times had more than one caller but never a real strong run with the mobile set up.

Didn't have a VY1 or VO1 call me so missed those for a sweep.

Had a good ride in this one. Thanks for giving me a call. One of my last QSOs was with Bill K0DEQ on 80 meters. Have been working Bill for many many years in the CW SS. Logged several 59 Checks too. A good year for ham radio.

73 'til the next one. Jerry K5YAA

KS5A/m: We were enroute to some business meetings in another state and to avoid the Hammel-Curse, we had to get on the air some, even if it was a short-time effort. If we had missed two SSCW's in a row, it was toastville.

There is no real mobile category in SS, so we picked a Multi-single status since I either had a driver or a logger during most of my op times. To avoid more problems, we limited the entry to only one state - OK, since we were there at the start and wanted to use the same exchange throughout. We were kaput once we crossed the state line.

Fun times and fantastic upper bands. Thanks for the Q's.

N4PN: Think 1000+ Q's is a personal best....was fighting the last hour or so on 40m to get over the "hump." Had 82 sections early, but had to wait until Sunday to get EWA.

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Thanks to all,

73, Paul, N4PN

KN4Y: I did like the TV program, I was a Amateur Picker roaming the bands picking that exclusive multiplier. Working the stations regardless of age, Precedence or location. I was not deterred by a time change but pushed onward on many bands. Truly a great contest. I survived. Missed 5 sections, PR and 3 Canada due to the panhandle QSO censors.

On the Trail of Regens

Antique Radio Supply Company

This is a kit radio that was up for sale on Ebay. You can buy the kit new from Antique Radio Supply and build one yourself. It covers the BC band and one SW band with a two tube design- an untuned RF amp and a regen detector, both using the 1T4 pentode tube designed for battery portable radios.



K-925 Kit Back View

You need hi impedance headphones (or a transformer to use the new headphones typically about 32 ohms) and a long wire antenna and ground. You'd use five 9v batteries in series for the B+ voltage and they should last quite a while. The two tube filaments would eat up a "D" cell in 20-30 hours likely.

Starrgratt Radio (out of California)

Another interesting item also showed up on Ebay – a limited production regen radio made by Starrgratt and sold in small numbers. It's a solid state radio. It's got a 10 turn dial for tuning, and the feedback is done via a rotating tickler coil. This one sold new for \$150 in 2010 and is up for sale on Ebay. Simple JFET front end and a LM386 IC audio chip. Runs off internal batteries.

It comes with the BC band coils and they have optional coils for 1.7 to 5, 5 to 10, and 10-20 MHz bands.



Starrgratt Radio

Here's the website on the company with a lot more pics and information.

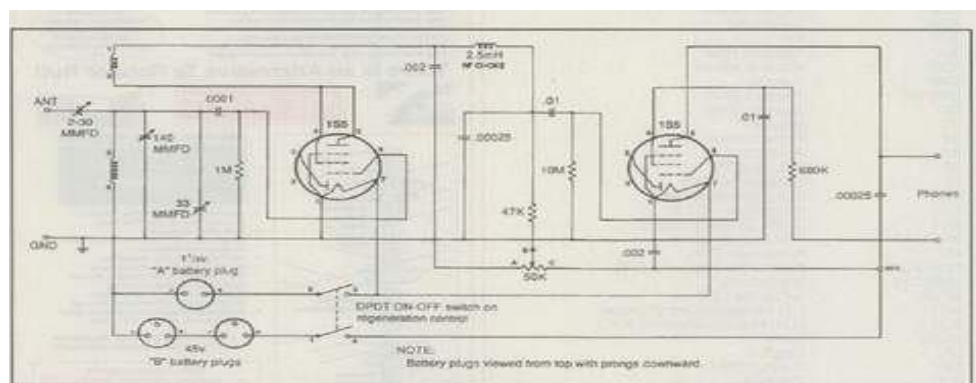
<https://sites.google.com/site/starrgratt/sw2p-art-gallery-1>

I'd never seen this one before. Not sure where they advertised! However, if you watch Ebay, sooner or later one of everything will come up for sale!

Allied Radio/Knight Kit Lil Hopper

In the early 1960s, Knight Kit produced another seldom heard about kit. It was the “Lil Hopper” battery power regen set. It was not advertised much but it was in the Allied Radio Catalog from 1948 to 1955 or so.. This was a two tube simple regen – great for camping trips and the like – using two 1S5 tubes in a simple circuit with plug in coils – the same that the Ocean Hopper – the AC powered version used. This required a 1.5v battery and a 90v battery. They called this the battery DX'er. It had no cabinet – you'd have to make your own. Or put in a small cardboard box for transport.

Here's a schematic of it. I've never seen one – but I suspect one of these days one will show up on Ebay



Knight "Lil Hopper" Regen

Ebay Prices – through the roof!

The insanity on Ebay continues with some really 'extreme' buys. One Ocean Hopper- nice with coils – went for \$284! Ouch.

Remember than Meissner 2BK radio I bought at Dayton? One sold on Ebay for an incredible \$269. Even more amazing is that a Philmore set from the 1950s – a 3 tube 7001 CR, regen, sold for \$322! Someone with lots of bucks is starting a collection and paying top , top dollar for anything that comes along. Truly Amazing. Glad I've picked these up at decent 'flea

market' prices. They aren't too common – then again, few seem to have 'wanted them'. You never know about Ebay. It only takes two bidders to send prices sky high.

18, 21, 24.9 MHz Report

Things were hopping on the upper bands this month! Besides November SS, where tens of thousands of contacts happened on 10 and 15M, several mobiles were out putting out counties on the upper bands – with lots of activity on 17, and good activity on 15 and 12M.

There were loads of opportunities to fill in those upper band counties.

On cw:

Mike, KA4RRU, headed down and back in VA. He was real busy on the bands up to 12M with good signals at many times.

Jerry, K5YAA, was busy in KY, starting on 40M and getting all the way up 10M at times. He had quite a pile up on 17 and 15m. 12M was a bit sparser – skip longer and signals weaker but I could hear him often, but he didn't hear me on 12M.....dang. I need to run as much power as he does in the mobile – hi hi. That amp helps. During the QSO party, he was busy on 15 and 10 meters. I could hear him on 10M but he couldn't hear me. Dang. He runs high power. He was LOUD on 15m.

Guff, KS5A, headed from AZ to MS – running the bands all the way up to 10 meters! Then later he headed back home keeping the bands hopping.

Jack, KC7YE was in the SS (all bands) and also ran on bands up to 10M for the county hunters

Silver, N9QS, ran 17m on his trip back from SC.

Bill, K2HVN, put out a few on 17M on a short trip back to DE.

Jim, N4JT, ran a few on 17M in NC.

Larry, W7FEN, spotted on 12m in El Dorado, CA. Also on 17M in Amador. Ran a few more in CA on the higher bands up through 10M.

Kerry, W4SIG, was spotted on 17 and 15m and 10m in TN and MS.

Barry, N0KV, was busy on 17M and up in Colorado

Mike, NF0N, put out some in MO on 17m.

Karl, K4YT was busy on 17 running down to Letcher, KY.

on SSB

Chuck, W3CR, was running all over IL putting them out on 17m SSB

AB7NK/K7SEN were spotted on their trip to Texas on 17m SSB

Gene, K5GE, put out the counties on 17M ssb on his trip to MO and back through AR.

Bill, WG9A, was on 17m ssb on his trip back to the east coast and out to Dukes and Nantucket.

Dave, KW1DX, ran some New England on 17M SSB

Ron, N5MLP, ran some in TX on 17SSB

Barry, N0KV, and Pat, N0DXE, put out CO counties on 17M SSB

The Planet is Burning Up!

Anyone looking to get some delicious Chilean fruit this winter is going to be disappointed, as the worst frost in more than 80 years has damaged 50 million boxes of fruit exports — causing the country to declare a state of emergency in its agricultural sector.

The Chilean Fresh Fruit Exporters Association said that freezing temperatures throughout mid-September hit the country's fruit growers with the coldest frost since 1929. Temperatures fell to an average of 19 degrees Fahrenheit for an average of seven hours in several of the Chile's growing regions, contributing to a huge drop-off in fruit exports.

Chilean growers exported about 282 million boxes of fruit last year, and experts believe that exports will fall short of that by about 50 million boxes for this year. However, when production increases are taken into account, the total frost damage to fruit production could be closer to 60 million or 65 million boxes.

The wine industry was hit hard by the frost as well.

Estimates put the total damage to Chilean crops at \$1 billion. Reuters reports that between 35 percent and 61 percent of stone fruit crops were damaged, 57 percent of almonds, 48 percent of kiwis and 20 percent of grapes. The U.S. imports about 42 percent of the country's grapes.

"These frosts are the worst that agriculture has faced in 84 years, impacting the area from Coquimbo to Bio Bio," the National Agricultural Society said.

Because of the lost production, fruit prices are expected to rise.

September also brought with it record levels of arctic sea-ice coverage — only six years after the BBC reported that global warming would leave eliminate arctic sea ice by 2013.

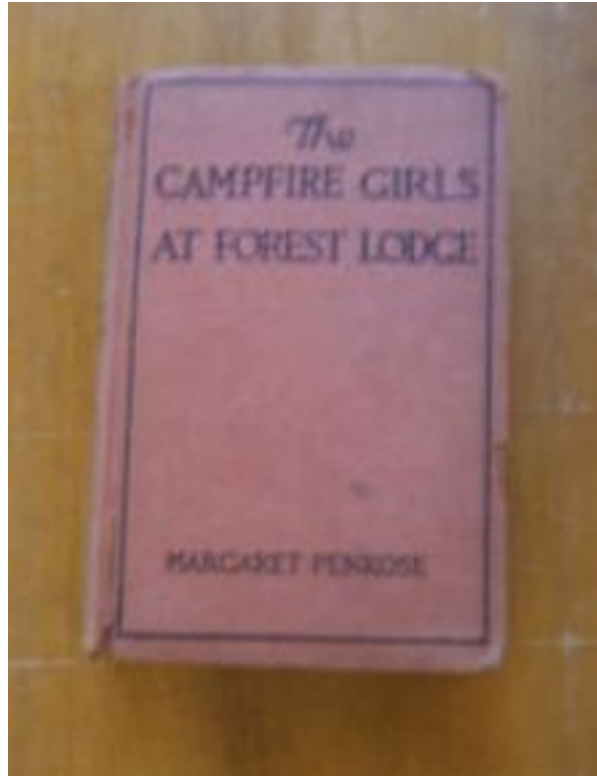
Antarctica also experienced record levels of sea ice in September, with 7.51 million square miles surrounding the continent. This beat out the previous sea-ice coverage record, set in 2012.

Read more: <http://dailycaller.com/2013/10/26/global-warming-chile-hit-with-worst-cold-spell-in-80-years/#ixzz2ixWCoQIL>

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Well, needless to say, Al Gore and the Greenies were wrong yet again..and again...and again....and again.....they're about as accurate as Obama on 'If you like your health care plan, you can keep it' and 'shovel ready jobs'. LIARS all!

Radio Girls at Forest Lodge



As you may recall, the Radio Girls are two young ladies in their teens living somewhere on the east coast (suburban NY?). In the first book, Radio Girls at Roselawn, they set up a radio and get involved with the rescue of another kidnapped youngster who put out a mysterious call on the air – leading to finding the hidden transmitter and the location of the kidnapper's QTH. That captive was a critical witness in a legal case.

In the second book, the Radio Girls on the Program, the Radio Girls make friends with the owner/operator of a radio station and get 'on the air' entertaining folks. That's it.

Book 3 finds them on a trip to Station Island (Radio Girls at Station Island). There's more adventures and a yacht trip that nearly ends in disaster except for the Radio Girls ability to get

the spark gap transmitter working and send a distress message by Morse Code. That is picked up on Station Island and help arrives shortly thereafter.

The fourth book – Radio Girls at Forest Lawn – was a later print. All four of The Radio Girls were later reprinted as the CampFire Girls series – but, only 4 of them are reprints of the Radio Girls and there were tons of other CampFire Girl stories not dealing with radio. No copyright date, but probably late 20s or early 30s. The story takes place in the early days of radio broadcasting – the early 20s.

All of these books were put out by the Stratemeyer Syndicate – who paid a flat fee to authors for their work and it was a 'formula' that every book followed. The first three volumes were written by Walter Bertam Foster, and the last book in the series was by Elizabeth Duffield Ward. All the books have the pen-name of Margaret Penrose. Guess they wouldn't sell too many books to young girls with a male author's name on it – hi hi

The Radio Girls at Forest Lodge starts out as our young ladies have just returned from the ill fated trip to Station Island and the trip on to further east, where the yacht caught fire and was sinking and wireless saved the day.

For the girls, they were invited to a remote 'house in the woods' - Forest Lodge – a summer place of a rich eccentric lady 40 - miles away from their town up in the 'mountains'. The time frame is about 1923 or so.

Of course, they bring along their “radio” (a broadcast receiver) and set it up. It also can pick up marine and forest service transmissions when tuned to the right 'wavelength'. They get involved with trying to solve the mystery of the “howling” emanating from the swamp at the end of the lake every couple of days. Like always in these cookie cutter books, someone gets kidnapped, the girls with the help of the boys manage to find the hideout of the counterfeiter gang, a radio message is sent from the Forest Service cabin via wireless to the authorities, who then sweep in and catch the gang of counterfeiters, ending the story. A good 2-3 hour action adventure read for a 'dead band' day when cw mobiles are running or in the evenings.

Not a whole lot of the book deals with radio and next to no technical detail....but, it's a part of radio history. \$10 for the book delivered to my door and I'll pass it off to the next reader at the next Vintage Wireless auction or event probably for the same ten bucks! That wraps up all four of the Radio Girls books.

You might find one of these at a used book store as the CampFire Girls were published up into the 1960s. You see the Radio Boys books at hamfests occasionally. I see them on Ebay all the time.

What is amusing is what the folks in 1923 thought that AM radio would turn out to be. At that

time, the big deal was 'tuning in on a radio concert'. Many stations only operated a few hours a day, or had 'special programming' a few times a week and people would tune on 'schedule' to listen to them, maybe on a Saturday or Sunday afternoon. Families would gather around the radio to listen. There were also 'lectures' for an hour or two on schedule. I can just see youngsters today tuning into 'concerts' and 'lectures' on the AM radio – hi hi.

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If you go to Amazon dot com you can find a lot of the Radio Boys books for “Free” in Kindle editions.

Some of the titles available include:

Radio Boys at Ocean Point - Chapman
Radio Boys on Secret Service Duty
Radio Boys at Mountain Pass
Radio Boys on the Mexican Border
Radio Boys – Trailing a Voice - Chapman
Radio Boys Lost Alaska Expedition
Radio Boys First Radio (book 1 in the series) Chapman
Radio Boys in the Thousand Islands
Radio Boys at the Sending Station - Chapman
Radio Boys and the Inca Treasure
Radio Boys with the Revenue Guards

There are a total of 29 in the series. The best are by Chapman(13 books), then the series went downhill with Breckenridge (10 titles) and final authors for the last six varied.

Kentucky QSO Party

The KY QP is the only one held in November so it's a welcome change to DX contests and Sweepstakes that happen during the month. Propagation was good on the upper bands. Jerry, K5YAA, was very busy on 15m and had a good pile up going on 10M with shorter skip. He was working N8II in WV and stations in FL and CA and a dozen EU stations. Later in the evening activity shifted to 80m and K4FT was still running counties as the last mobile out.

Terry, AJ4A, formerly AC4PY, and USACA #1012 was on from his home county of Madison.

Mobiles were out and running. Jerry, K5YAA headed over from OK and was busy putting them out in the western part. . K4FT was off and running in central KY. Half a dozen fixed stations showed up on cw, and at least a dozen SSB mobile counties were spotted on SSB.

The bonus station, KY4DXA ran mobile on SSB with a good signal. It's a shame they only have a bonus station on SSB. If you're a CW op only, no chance at the bonus stations.

There was one 1x1 call – K4Y – to work.

Steve, AA8HH, along with K8DV and K8CR, set up a temporary facility in the farm of W8DDR in Bracken County to activate K4Y. Here's a picture of their operating site. The station was set up in the small white building in the rear.



K4Y operating site

QSL to KD4QHG if you need one.

Now here's a mystery. There was a spot for W4VHQ in Elliott, KY. During the QSO Party On 14273 by 'IBOT'. That's interesting because QRZ.com says W4VHQ was a silent key in 2007 and the FCC database still has the silent key holding the license. Since he is a silent key, he couldn't give anyone else permission to use his station if it still exists. Hmmm??? Might be real hard to get a confirmation on that contact.

IBOT	14273	W4VHQ	elliott, ky 14.273 SSB	1646	2013-11-09	3 d 0 h 32 min	OK
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Comments from the 3830 reflector:

K4FT mobile

Well, that was a learning experience. Thanks for all who worked me mobile and several who followed us on our journey, I sure appreciate all the Q's! My apologies to those who I could not pull out, I have lots of noise problems to work out (along with operating skills).

There are miles of noisy power lines in KY! The RFI fuel pump filter that Ford installed on my F150 finally gave up the ghost after 10 years. A test run with the IC706 a couple of weeks ago revealed I could use a better front end on my rig so I ran with the FT990. I could always pull over and shut the truck off so I could hear (like I do with my 706) but found out the 990 pulls a little more current and would shut down if the truck wasn't running.



K4FT mobile – with K4OH, John, Driver
20 and 40M Hustler Ants
later switched to 40 and 80m antennas

Thanks to those who corrected me when I was sending the wrong county line abbreviation, I left my sheet at home (embarrassed!). N1MM, what an awesome program! It sure makes it easy to run rover class. Had a little trouble with it spitting out a correct Cabrillo at the end but a small price to pay.

Jerry K5YAA is working with those in the know to get that corrected. When I hear stations like W9MSE and K5YAA out running around with their super strong signals it makes me realize how much work I have to do to get my mobile in shape. Tried three different DC to AC adapters to run the computer, do they make a quiet one? Thanks to K4OH for driving and KA4SWT for navigating!

John, K4FT

note de N4CD: Larry, W0QE, tested a bunch of dc to ac inverters to run computers. One he found that was excellent was the Cotek S300-112 but it was expensive. Also...be aware the charging cords for some computers from 117v – have dc/dc switching regulators that make a racket on the radio themselves , adding into the hash from cheap dc to ac inverters.

Larry also used a 2F capacitor by the radio to allow operation at lower battery voltage and later

he used a NJ8X dc to dc converter to regulate the voltage to the radio.

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K5YAA mobile

Had a good run in the KYQP. Kentucky is a beautiful state. Rolling hills and well manicured farms and ranches. Lots of horse ranches around Frankfort and Lexington. Wooden and rock fences run for miles. The countryside is much like Missouri and Arkansas. Pretty good roads even in the hollers of the eastern counties. It is hunting season in Kentucky I think because I saw quite a few pickups sitting off the road in the trees. Also counted well over two dozen deer killed on the roads especially along I64 headed west. Had to be a dozen in the middle of the interstate that had been hit. I figure they had strayed from the woods what with all the bullets flying. Sad to see those big animals lying along the roads. Fortunately I had no encounters with deer or even smaller game on the roads I traveled. I sure kept an eye out though.

Murphy wanted to spoil my fun and put some water in my gas I use for the generator. Not knowing that was what it was, and thinking I had simply wore out my two generators, I bought a new one at Wright Implement in Glasgow, KY early morning on Friday. Put it on the trailer - fired it up and it was humming. Back in business so I thought. Put some of my gas in it to fill it up and the new one quit after about 3 minutes of running. Something ain't quite right here. Wright put a tech on it right away. They determined it was water in the gas - emptied out the old and put more in. Runs good again. I had them empty both of my gas containers. Later got me some Marathon gas and the problem stayed solved for Friday and most of the QSO Party. The new one quit one time on the Fulton Hickman county line where I ran a puny 100 watts. My lowest total Qs for the day - figures. A bit later in Carlisle County I pulled the starter string and up it came. It ran fine the rest of the evening and even on Sunday all day in Missouri and Arkansas. I like running with higher power - it has to help DX hear me better - so good to have one more idea of what happens when the generator quits!

Without generator power my laptop doesn't get charged. Another Murphy thing. A ways back I used to charge the laptop using a DC charger plugged into the accessory jack on the van. Strangely I started having 20 amp mini fuses blow

for seemingly no reason. After quite a few changes of the fuse I quit charging the laptop that way and got out my AC charger for it. The fuse problem went away. I had the van serviced and they discovered a bad battery cable. Replaced it and some other electrical component. This might have fixed the fuse blowing so I thought. Since I had no AC I plugged the laptop back into the 12 VDC jack to charge it. Worth a try anyway. The fuse blew in a few miles. Changed it and it blew again immediately. Almost drained the laptop battery before I got AC back again. No laptop - no good CW - no logging - Glad I got the AC back up.

Those were the two main things Murphy tried on me to spoil my running in Kentucky with the County Hunters and the QSO Party. What with the neat devices today, including my iPhone, it is amazing what one can do to find their way around and locate anything needed to stay on the air. The people I dealt with in Kentucky were real helpful. The Dodge dealer in Glasgow gave me a half dozen mini fuses free of charge. If you get through Glasgow some day give Gillie Hyde your business for me. They made my morning with those fuses after spending an hour or so getting the generator going again.

Eats were fantastic on my road trip. On the way to Frankfort, KY for a Tuesday evening stay I saw a sign, going toward Evansville on I64, that said "Amish Buffet 8 Miles" - I also had visions and was sure I saw "Real Mashed Potatoes with Cream Gravy". Wasn't really on the sign but I had experienced an Amish dinner one time that had bowls of good veggies and some of the best mashed potatoes I had ever eaten. Sure enough my stop was well worth it. Stroll's Buffet just off the interstate was the place. Rows and rows of troughs full of stuff to eat. I stuffed myself on mashed potatoes - real ones with cream gravy - a few small lumps in 'em very tasty! I recommend the place if you get by Evansville some day.

The other place that was a real joy to eat was Helen's Place in Todd County - in the middle of now where. I was pushing to get to all the counties I had on my list. Todd county was the last one for Wednesday evening. I had worked hard for two days in a row to get the KY counties on the air. Should probably have put Todd on the air before eating at Helen's but was hungry, tired and decided to take the liberty of a rest. Glad I did - the place was crowded with pick up trucks and cars - most covered in mud. Went inside and saw dozens of people sitting and gabbing at long tables. Looked like a family reunion. Everybody seemed to know each other. Another long line of trays filled with country goodies to eat. I found out later that Friday nights were Catfish Buffet nights. I filled two plates. When I went to pay my check - I think it was Helen herself who said "They are playing music across the street at John Rays' Place you should go over". Well I was already late on the air for

Todd so I just took a look across the street - saw a sign that said "John Rays' Place". It was in a large brick building and I heard the music from across the road. I enjoyed that stop along my travels in Kentucky. Again the people were very friendly and hospitable. If you are in Todd County on Friday nights you can't miss Helen's place for sure.

The funniest thing I saw on my trip was in Arkansas Cross County. The sun had gone down and just in front of me on Hwy 64 was a new pickup truck that for some reason was scoping out the trees on the left side of the road with a bright light. I thought he was some kind of government official taking a poll for deer in the woods. A bit later I blew around him and saw what the deal was. His pickup had been in a small wreck I guess - the left headlight was dangling down swaying from side to side as he drove along. Question solved. The headlight was randomly scoping out the trees on the left side of the road.

990 QSOs in the Kentucky party. Many DX stations on 15 and 10 meters. Band conditions were quite good. I didn't do any operating while I drove along this time. Almost more radio than a fellow can stand in the three days ahead of the party. Worked a few county lines to make up for some of the difference.

I thank all of you for your efforts to make it in my log. Especially the DX of which there were the following DL, G, I, OE, OK, ON, YV and ZS. VE1, VE2, VE3 and VE9. Thanks to the Canadians that hollered at me.

That's my report for the Kentucky QSO Party and some of my 6 day trip to Kentucky, Missouri and Arkansas. The K3 was fun as usual. All my gear worked quite well considering the complexity of my mobile. Seems there is always a thing or two I learn on the road that should make me more prepared for the next traveling I do.

Thanks to the Western Kentucky DX Association for sponsoring the party. I enjoyed the stay in your fine state and hope to be back some other day when I can partake of the things your state has to offer.

73 - Jerry K5YAA

N6MU – fixed – CA – 61 cw 36 ssb 37 mults

Score includes 500 bonus points for KY4DXA. . Over half my Qs (51) were with mobile K5YAA. Thanks for all the QSYs, Jerry! Thanks also to mobiles K4FT and KY4DXA.

Nice to have 10 and 15 open. 73...

John, N6MU

KN4Y – fixed FL 20 cw 14 mults

“Two mobiles on CW prevented a code mode disaster. heard four fixed stations. 80-meters was a nice surprise.”

K4BAI - fixed – GA - 23 cw 18 ssb 19 mults

Could use more KY activity. Thanks for all QSOs. Thanks especially to John, K4FT/M, who gave me two all time new counties.

Still need the following KY counties: ALLeN, ANDerson, ELLiott, LAWrenece, LEWis, MEAde, and TRiMble.

Heard no activity on 75 SSB. Tuned several times from 3880 down to 3760 or so and heard no one despite fair activity on 40 and 20 SSB. If there was any 75M activity, it must have been somewhere far from the suggested 3820 frequency. Thanks to K5YAA/M for traveling to KY from OK. 73, John, K4BAI.

Some Things from Ebay UK

This month we'll bring you a few items you don't see over on 'this side of the pond'. Here's a few items up for sale in the UK on the UK version of Ebay.

This is a Codar brand transmitter. Codar made QRP equipment and a regen shortwave receiver from the 60s to 90s.

This is a classic 1960s 10w 5 valve (tube) transmitter



Codar A.T.5 QRP Transmitter

W3EEE has a nice site with the following description and lots more pics for those interested.

<http://www.w3eee.com/CodarAT5.html>

Tiny (as valve gear goes) at about 3 1/2" x 5" x 8 1/2", the Codar AT5 was what one today would describe as a QRP transmitter of about 10W for topband and 80m., built by Codar in England, and was popular in the UK in the mid 1960's.

The AT5 was the commercial rig to which every kid in Britain starting on topband AM aspired. And in the sixties, topband is where one usually started, for a number of reasons. Firstly, there was a community - starting to slowly drift to 2m, maybe - but there was a community. The then power limit of 10W DC input was entirely doable, transmitters were simple and kitchen-table-able, the tech was sufficiently low that parts were readily available, the chances of success high and the effects of inadvertant electrocution likely limited to "Yowch!". Antennas were bits of wire. Yep, topband AM was where it was at. Few European countries had 160m allocations at that time (fish-fone, coastal stations and Loran 'A' still dominated the band) and ones first CW contact with a Czech station was considered a rite of passage. CW was - as is now - the primary DX mode, for what little DX as there was. Making it across the Atlantic was rarified stuff, and the sort of memory that ranks up there, like those of a first lover, pint, or car wreck. But first and foremost, topband AM was about whiling away hours chatting to friends.

It came with its matching PSU

Signal I/O is all on British style 'Belling Lee' TV coax connectors (which are quite unobtainable in the US) but which were very common on ham gear in the UK back then - even

the very substantial bees-knees (and breathtakingly expensive at the time) Eddystone EA12 receiver had a TV coax connector for aerial.

The schematics and manual are available from that ever-fabulous resource for the anchorphile - BAMA..

In circuitry terms the AT5 is fairly straightforward. An EF80 pentode's cathode, control grid and screen grid act as a fairly unusual Vackar oscillator which works well (drift is not a problem) running on 160m.; the anode (from which the oscillator output is taken) is not included within the oscillator loop, so providing a measure of isolation and buffering. A second EF80 pentode acts as a power buffer on 160m. and as a doubler on 80m. A 6BW6 is the RF PA, which can pull some 50mA at 300V for a typical maximum of 15W DC input (50% over the then UK power limit - gasp!). RF power output on both bands is between 5 and 10W, depending on how the rig is loaded.

A 12AX7 acts as a two-stage mic amplifier with a gain tweak between them; there is tons of gain available - indeed more than enough for the recommended crystal microphone - and I can fully modulate this transmitter with a high-impedance dynamic mic. The single-ended audio output stage uses another 6BW6 in a rather clever Heising arrangement

For those not familiar with the 6BW6, it is essentially a 6V6 (baby 6L6) in a B9A enclosure - in other words it is a very robust valve, and in no danger of being abused in these circuits. It's a bit of a well-kept secret, being a superior tube in many respects (not the least in filament current, which at 450mA is a fraction of that of similar dissipation-class valves) to 'usual suspects' for this kind of application, such as the 12BY7, 5763 or 6BQ5 (EL84) or the B7G 6AQ5. The choice of such a strong valve for a mobile transmitter, where the load can be 'interesting' at times was wise.

A rear-panel switch allows the modulator to be de-powered and disconnected for CW; the available power to the RF PA notches up somewhat without the DC loss of the mod inductor. Keying is straight into the PA cathode.

Neat Features

As just said, there's not a lot to the AT5. As with many tube designs it is minimalist, but there are a number of really, and I mean admirably, clever design features:

* Firstly, the VFO dial itself. Remember, this is a dual-band transmitter, 160 and 80. The fact it has a common VFO for the two bands, with 80 simply a doubling, is not the clever part: the large, circular dial has both bands' frequencies printed on it, 180 degrees apart. Turning the VFO dial all the way around until the correct band is indicated (the VFO capacitor being free to rotate continuously) makes for a very clean presentation.

- * The VFO itself is a 'Vackar' variant which for only a part or two more gives noticeably superior stability to a more conventional Hartley or Colpitts. I know, I've built a few.
- * The power supply neon is - for the worthwhile price of an additional couple of resistors and a cap - part of a relaxation oscillator, which serves to indicate when the power is simply on by blinking or if the system is in 'Net' or 'Transmit' by coming on solid.
- * By wiring up the power supply lead in different fashions, the filaments may be run at either 12.6V for, say, mobile (and the transmitter really is small enough to easily countenance mobile) or, as is normal with the PSU, 6.3V.
- * The modified Heising modulation scheme is brilliant: A conventional Heising uses a single choke reactor common to the class-A modulator tube's anode and the RF power stage; the AT5 uses a centre-tapped choke - HT is applied to the centre-tap, the modulator is fed from one end, the RF PA from the other. In this way the standing current of the class-A modulator tube and that of the PA tube substantially cancel, as far as DC in the core of the choke is concerned. Since the choke has less DC to cope with, far cleaner modulation can be achieved for a similar-sized modulation reactor. Or, as in this case, a smaller choke can be used for equivalent modulation...
- * A simple capacitor-coupled neon gives a surprisingly accurate front-panel indication of when the modulation starts to get non-linear. (This guy liked neons. Mind you, there weren't that many options back then.)

The Pi-Tank

On the down side, the output pi-tank was originally unswitched and one and the same for both 160 and 80, which means it was a compromise for both (mostly at the expense of 80) and definitely not optimum for either. A common modification (and apparently standard in later production) overcomes this with using spare contacts on the band slidey-switch to reduce the inductance for 80m. But that one-size-fits-all pi-tank is really the only really cheesy thing about the original design. Impressive.

The pi-tank limitation I addressed by extending the common modification somewhat, and spending some time optimizing the pi-tank for the extremes (low end of 160, top end of 80). As can be seen in the picture, there is too much 'L' overall on 160m. (blue wire near right end shorts out the surplus) whilst 80m. needs significantly less inductance (blue tap near center). A 680pF additional loading capacitor is switched in for 160m., too: The overall effect is now that the pi-tank has a sane 'Q' on both bands, the transmitter operates reasonably efficiently over all of both bands, and neither the tuning nor loading controls end up pegged one way or the other to achieve this into a 50 ohm load.

! No, this little box will not win any loudness wars, but it's about as much fun as an adult can legally have with five valves!

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Most of the UK 'novices' started on the 80/160 bands

Sunspot News Update

Scientists say that solar activity is stranger than in a century or more, with the sun producing barely half the number of sunspots as expected and its magnetic poles oddly out of sync.

Based on historical records, astronomers say the sun this fall ought to be nearing the explosive climax of its approximate 11-year cycle of activity—the so-called solar maximum. But this peak is "a total punk," said Jonathan Cirtain, who works at the National Aeronautics and Space Administration as project scientist for the Japanese satellite Hinode, which maps solar magnetic fields.

"I would say it is the weakest in 200 years," said David Hathaway, head of the solar physics group at NASA's Marshall Space Flight Center in Huntsville, Ala.

Researchers are puzzled. They can't tell if the lull is temporary or the onset of a decades-long decline, which might ease global warming a bit by altering the sun's brightness or the wavelengths of its light.

"There is no scientist alive who has seen a solar cycle as weak as this one," said Andrés Muñoz-Jaramillo, who studies the solar-magnetic cycle at the Harvard-Smithsonian Center for Astrophysics in Cambridge, Mass.

To complicate the riddle, the sun also is undergoing one of its oddest magnetic reversals on record.

Normally, the sun's magnetic north and south poles change polarity every 11 years or so. During a magnetic-field reversal, the sun's polar magnetic fields weaken, drop to zero, and then emerge again with the opposite polarity. As far as scientists know, the magnetic shift is notable only because it signals the peak of the solar maximum, said Douglas Biesecker at NASA's Space Environment Center.

But in this cycle, the sun's magnetic poles are out of sync, solar scientists said. The sun's north magnetic pole reversed polarity more than a year ago, so it has the same polarity as the south pole.

"The delay between the two reversals is unusually long," said solar physicist Karel Schrijver at the Lockheed Martin Advanced Technology Center in Palo Alto, Calif.

Scientists said they are puzzled, but not concerned, by the unusual delay. They expect the sun's south pole to change polarity next month, based on current satellite measurements of its shifting magnetic fields.

At the same time, scientists can't explain the scarcity of sunspots. While still turbulent, the sun seems feeble compared with its peak power in previous decades. "It is not just that there are fewer sunspots, but they are less active sunspots," Dr. Schrijver said.

However, the sun isn't idle: After months of quiescence, it unleashed vast streams of charged particles into space five times in as many days last month, and flared again last week. Even so, these outbursts exhibited a fraction of the force of previous solar maximums.

By comparison, a Halloween solar storm in 2003, near the peak of the last solar maximum, was the largest of the Space Age. Even though it mostly bypassed Earth, the storm disabled a Japanese satellite, sent astronauts aboard the International Space Station scrambling for radiation shelter, disrupted drilling for oil and gas in Alaska, scrambled GPS navigation and forced the U.S. Defense Department to cancel military maneuvers.

As the solar cycle winds down in the years ahead as part of its normal cycle, blasts of charged particles should become even less frequent. Among other things, Earth's outer atmosphere will cool and contract, which can extend the life of satellites by lessening the drag on them.

Several solar scientists speculated that the sun may be returning to a more relaxed state after an era of unusually high activity that started in the 1940s.

"More than half of solar physicists would say we are returning to a norm," said physicist Mark Miesch at the High Altitude Observatory in Boulder, Colo., who studies the internal dynamics of stars. "We might be in for a longer state of suppressed activity."

Better Headlights

BMW Engineers:” These engineers want more than mere intensity: They want a focused, high-contrast white light that mimics that of the sun. BMW’s system will deliver about 5500 to 6000 K—the highest color temperature that international regulations will allow. That level is much closer than today’s headlights to the cool, blue end of the scale, which helps drivers pick out objects and eases eye fatigue.

Until the dawn of semiconductor lighting, the whitest brights any headlights could manage were high-intensity discharge (HID, also known as xenon) lamps, which BMW introduced on the 1991 7 Series coupe. HID light—still an optional upgrade on many 2014 cars—is between 2800 and 3500 lumens and above 4000 K, but it’s weaker, yellower, and less energy efficient than either LED or laser light.

The first LED headlights shone from a car a mere six years ago, when Lexus introduced them on its LS 600h L sedan. Soon, the technological torch may pass to lasers. Laser light will debut in Europe in the 2014 BMW i8, a plug-in hybrid sports car that promises 2.45 liters per 100 kilometers (about 94 miles per gallon) and a 4.4-second surge from 0 to 100 kilometers per hour (or 0 to 60 miles per hour in 4.3 seconds).

The reign of the LED headlight may be ending even before it gets properly under way, says Shuji Nakamura. He should know: Nakamura invented both the blue laser and the blue LED, which made possible the whole world of powerful white solid-state lights. And his Silicon Valley start-up, Soraa, is developing laser systems to complement its LED lighting technologies.

“The laser, we believe, is the next generation of lighting, even for general applications” such as homes, businesses, and a variety of displays, Nakamura says.

But have no fear . That’s because the BMW lamps turn the intense blue beam into a tightly concentrated but nonlaser—and therefore eye-friendly—cone of white light.

The production version will have up to four Class 4 blue-laser diodes. Collimating lenses will direct their beams onto a phosphorus plate that will convert the laser beams to white light,

which will bounce off secondary optics and reflect onto the road.

LEDs can approach that 6000-K, white-light nirvana. And for flooding an area with diffuse white light, LEDs are great, Nakamura says.

But he and other experts agree that lasers are much better and more efficient at precisely directing light onto a distant spot. That's exactly what's required in automotive lighting

"Wherever you want directional, flexible applications of light, the industry is moving like a freight train in the laser's direction," says Paul Rudy, general manager of the laser division of Sora. "It's simply the best way to direct light through a complex optical system."

The reasons are clear. At just 10 square micrometers, the laser's active light-emitting area is 1/10 000th the size of a 1-square-millimeter LED. That makes it much easier for the laser to focus and project light exactly where it's needed.

Lasers also beat LEDs where it matters most: efficiency. It's true that LEDs are more efficient at turning electricity into light, though laser efficiency is rapidly catching up. But for overall system efficiency, it's no contest: LEDs are nowhere near as good at getting the light to where you want it to go. That intense laser, for example, can be beamed into a fiber-optic strand and lose only 10 to 20 percent of its initial energy, as opposed to what an LED could lose—up to 90 percent, experts say. A pair of the old halogen headlights drew about 120 watts from a car's battery; a couple of today's best LED headlights draw roughly 40 W. Laser light's usage is projected to drop below 30 W.

BMW intends to introduce the laser-based system on its 2014 i8 plug-in hybrid sports car. As with any plug-in vehicle, the i8 has a particular need to conserve battery electricity for propulsion, as well as for steering assist, entertainment, and heating and cooling. Finding small savings everywhere—even on the order of mere watts—translates directly into more miles of driving range.

And BMW and other luxury brands are now introducing headlights that direct a "cone of darkness" toward oncoming cars, allowing drivers to keep bright beams on to maintain peak visibility

The cars of the future, BMW engineers envision, will automatically adapt to roadway environments by switching among hundreds of lighting programs, if not more. Laser light, Levering says, will dovetail nicely with those developments.

As a further safety measure, the i8's high beams will operate only above roughly 40 km/h, to preclude the possibility of someone's staring into a static light. Photodiodes will monitor the high-power pumped lasers, switching them off if they fail during a collision or even just as the result of wear and tear. And the system automatically switches to low beams when oncoming

cars are detected, as with current adaptive units.

Source: IEEE Spectrum Magazine.

Full article here: <http://spectrum.ieee.org/green-tech/advanced-cars/bmw-laser-headlights-slice-through-the-dark>

Sunspot F2 Propagation! Rare!

Six meter operators were treated November 9 to an F₂ opening from approximately 1500 until 1630 UTC. "These have been very rare in Solar Cycle 24," said *QST* "The World Above 50 MHz" Editor Jon Jones, NØJK. He described the opening as "mostly single-hop F₂" from the East Coast, Midwest, Gulf Coast, and to the West Coast to Central America, Northern South America and Caribbean.

Jones said the geomagnetic field was active, with a K of 4, due to what Spaceweather.com called "a gusty stream of solar wind buffeting Earth's magnetic field, sparking auroras around both of our planet's poles." Jones said he was "late to the show" because he'd worked the night before. He didn't get into the fray until 1550 UTC after he saw all the 6 meter spots showing up.

"I turned on the radio, and FM5AN, P43A, PJ4NX, etc were all blasting in loud here in eastern Kansas," he said. "I worked FM5AN and P43A from home using a M² loop in the attic. Jean, P43A said I was S-9. Nothing new or rare, but any F₂ on 6 meters in solar cycle 24 is a treat."

Source: ARRL Letter Nov 15, 2013

General Electric Mobile Radio History

Many people who got their ham licenses may have worked in the 'two way' radio industry which employed tens of thousands of people. Just like AM broadcast radios and later television sets, mobile radios were full of tubes and took large numbers of folks working to keep them all working. Starting back in the late 1920s, the idea of 'mobile' radios slowly started out. At

first – it was one way – from broadcast stations to police cars equipped with NORMAL AM broadcast sets. For hours a day, you'd have police calls interspersed with other programs. Soon the FCC allocated channels just above the broadcast band, which extended only up to 1500 Kcs at the time. You'll find old broadcast radios with 'police' at the top end up at 1700.

Later, some police departments got a 'two way' channel at 2.3 Mcs where cars could reply back, but, of course, with the normal 'skip' at night on those frequencies (just listed to the BC band at night in between your local stations), it became a real zoo. Then – the push was on to use those 'difficult' frequencies above 25 Mcs.

Here's a bit of two way history from the GE Mobile Radio History Site – mostly dealing with the early years up to about 1970.

While today you pick up your \$50 synthesized 5 watt handheld with re-chargeable battery, or run your 50w small mobile unit, likely neither of which will need fixing for at least five years, the history of two way radio was quite a bit different. It started out all AM, and there was a lot of reluctance to move it to FM. In the 1920s, police broadcasts would be mixed in with entertainment on some stations. Later, the FCC gave the police about 10 channels up at 1700 KHz area and 2.3 MHz. AM. You could listen in on many broadcast radios as they tuned up to 1700-1800.

Along the way you had channel congestion- not enough frequencies for all the users – and it resulted in 'channel splits'. Some equipment could be upgraded. Much wasn't worth the trouble if old. That was fortunate for hams who quickly got the idea of converting it to ten, six and two meters and putting in repeaters.

The first 'ham repeaters' were actually on AM way way back in just a few towns that were hotbeds of commercial mobile manufacturing activity – Boston, MA, Schenectady, NY and a few other places back in the 1950s. Later, other hams would manage to get and convert 'surplus' two way FM radios and there were 'hotbeds' of 2m FM activity using crystal control – usually one or two frequency radios, in Chicago (home of Motorola) and some other cities.

You'd have to spend quite a few bucks to order crystals for the ham channels – one for receive and one for transmit – maybe \$10 or \$15 each. You could quickly have a lot of money invested in your one or two or 3 channel radio in your car, or for your large base station.

Then, Regency introduced an inexpensive radio that really started to jump start ham activity. For a reasonable sum, you could buy a six channel radio (still needed to buy those crystals) and get on with ten watts or so and join the repeater groups. Soon, others jumped in from Japan.

Into the 1970s there were lots of now solid state equipment that started to show up. Regency made the HR-2 and HR-6 low cost transceivers that used cheaper crystals, but still a pair per frequency. You could buy an add on synthesizer for different rigs to put you on different

channels (GLB) . In the mid 70s, fully synthesized rigs like Kenwood TR-7400 and others showed up. Just 'dial in' the frequency and you had 60 or 80 channels (30 KHz channels) at your finger tips. Same for portables with the IC-2. Wow! That was nifty stuff. 40 years ago now! How time flies. No memories in those – you used thumbwheel or rotary switches to set the frequency you wanted.

Along the way, getting from tube based giant radios (a separate receiver cabinet and transmitter cabinet, each weighing lots of pounds, plus, of course, dynamotor power supplies), there were lots of steps. Here's a few from the GE perspective.

<http://www.gemradioha.org/>

Some interesting mobile radio history extracted from the website

February, 1928

Detroit Police Department installation of an AM transmitter on 144.8 meters (2.07 megacycles) for one-way service to Police Cars after many false starts over the period 1921 to 1927.

1929

G.E. leased to and operated a 5 KW AM station at South Schenectady for the New York State Police.

1931

General Electric early activity in the fledgling Police radio field. One kilowatt AM transmitters supplied to the North Carolina Highway Patrol, the New York Fire Department and many others.

February, 1933

Federal Radio Commission Public Notice 8026 concerning the Police Radio Service. At the time there were only eight frequencies available to the Police Radio Service in the 1500 to 3000 KC range. Frequencies above 30 megacycles were experimental. This release states that two-way communication could not be authorized because of the shortage of frequencies.

March 1933

Bayonne, New Jersey believed to have the first two-way police radio system. Lieutenant Vincent Doyle applied for two frequencies in the 30 to 40 megacycle band in 1932. These were granted and he established the system using REL AM equipment.

1934

Boston Police Department two-way installation of General Electric AM equipment operating in the 30 to 40 megacycle band.

1935

Major Edwin H. Armstrong, inventor of frequency modulation, presentation of his FM system to the Institute of Radio Engineers in New York.

September , 1936

Proceedings of the Institute of Radio Engineers paper on “A Modern Two-Way Radio System” by Stuart Booken and L. M. Leeds of General Electric Company, Schenectady, New York This paper described AM equipment for operation on the 30 to 40 megacycle band with 15-watt mobile transmitters and 75/150 watt station transmitters. Receiver were of the super heterodyne-super regenerative type.

October, 1937

The FCC allocated 29 40KC channels to the Police Service in the 30 to 40 megacycle band. Frequency tolerance was 0.05% and crystal control of both transmitters and receivers was universally employed.

April 26, 1938

G.E. application to the FCC for an experimental license for the use of FM on 49 megacycles for tests of the feasibility of FM for the mobile Radio Service. The license was issued on August 3, 1938 and field tests started immediately with equipment previously developed in the laboratory.

August 24-26, 1938

Mobile FM versus AM demonstrations were conducted on 40 megacycles between Schenectady and Albany for the U.S. Navy.

April, 1939

Mobile FM versus AM tests were conducted for technical representatives of many Government agencies and others including the Signal Corps and the C.A.A.

September 28-29, 1939

G.E. mobile FM/AM tests (at 15KC deviation later to become the industry standard) were run again for the FCC Emergency Service people. These tests proved to the FCC Engineers the feasibility of the intermixed FM/AM on the then existing 40 KC channels.

July 18, 1939

First FM radio broadcast station Major Armstrong's W2XMN at Alpine, New Jersey.

October, 1940

Sheriff's Department, Douglas County, Nebraska. A G.E. pioneer FM installation using a 250 watt station and 25 watt mobile units.

November, 1940

First state police FM radio system – Connecticut. The Equipment was supplied by the Fred M. Link Company of New York City, who was awarded the contract on low bid.

1941

Production of FM equipment started G.E.'s Bridgeport works . The original equipment was designed by G.E. Engineers at Schenectady and manufactured by James M. Millen of Malden, Massachusetts.

Spring, 1942

Start of the difficult war years. G.E. conversion to war production of Heavy Military Equipment. The Emergency Communication Equipment Section was moved from Bridgeport to Schenectady Works. For the duration of World War II only police and fire departments could obtain the necessary A1A priority to purchase two-way radio equipment. Quartz crystals were in particularly short supply.

January, 1944

With the end of the war in sight, the FCC established the Radio Technical Planning Board (RTPB) under the chairmanship of Dr. W. R. G. Baker, Manager of the Electronics Department of General Electric Company to represent all claimants to use of the radio spectrum from 25 to 890 megacycles.

September 26, 1944

F.C.C. granted special temporary authorization to Cleveland Yellow Cab for taxicab radio tests on 118.05 MC.

October 30, 1944

Taxicab Industry hearings in FCC Docket 6651. One taxicab channel was subsequently granted, followed by three additional channels. After May, 1949, four taxicab channels were made available in the 150 MC band by the FCC.

September, 1946

The FCC released specific blocks of frequencies to the various services in the 152-162 megacycle and 72-76 megacycle bands.

October, 1946

FCC released block assignments of frequencies in the 30 to 40 megacycle band.

December, 1947

Frequency congestion starts to rear its ugly head in the Land Mobile Radio Services. The explosive growth of these services following the war causes the FCC to consider ways and means to provide additional channels. General proposed channel splitting in the 25-54

megacycle part of the spectrum in the FCC hearings conducted during December 1947,

April 21-22, 1949

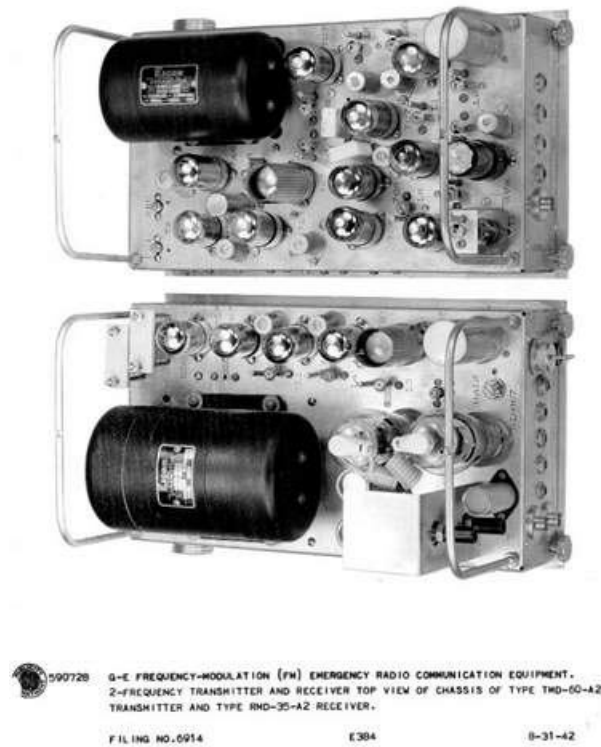
Narrow band FM versus wide band FM demonstration to FCC representatives at Electronics Park, Syracuse, New York, using standard production equipment.

January 24-26, 1949

New products introduced – first narrow band (20 KC) low band equipment. Vibrator powered version of the MC202 – the MC201, 72-76 megacycle equipment. Narrow band conversion kit for older, 40 to 50 MC G.E. equipment. Modulation limiter kits.



Early GE equipment. Separate large TX and RX cabinets – full of tubes



The insides – tubes and DYNAMOTORS

July 1, 1949

New FCC frequency allocations effective (30 to 50 megacycle frequencies still on a 40 KC basis).

1953

Advent of automobiles with 12-volt electrical systems, thus giving rise to the need for 6/12 volt operated mobile radio equipment.

FCC establishes the final rules for the 450 megacycle band and G.E. introduced its first equipment for this band.

Carbon microphones eliminated as the standard approach in Land Mobile Radio. G.E. was first to standardize on controlled reluctance “high fidelity” microphones.



GE Progress Line Mobile”– Single Cabinet
full of tubes! Lots of them

1957

First appearance of transistors in LM equipment. G.E. introduced the EPP-8A transistorized power supply for receiver application .

April, 1958

G.E. introduced the Industry’s first fully transistorized receiver – the Progress Line Portable – made possible by G.E. tetrode transistors.



A 'portable' back then – many many pounds

August 1, 1958

All newly licensed transmitters operating under Parts 10, 11 and 16 of the FCC Rules must now meet Narrow Band technical standards. All transmitters must meet the new standards by November 1, 1963.

June, 1959

Mobile unit with transistorized exciter, as well as a fully transistorized receiver – the High Band transistorized Progress Line equipment

TPL was the first mobile equipment to meet 0.0005% frequency stability without the use of crystal ovens.



GE TPL – Transistorized Progress Line

February, 16-17, 1960

Field tests of 15 KC (tertiary channel) operation in High Band using the G.E. Gocrete installation at Dallas, Texas, believed to be the first tertiary channel installation made.

July, 1961

Industry's first solid-state transmitter. The Voice Commander hand-held (as contrasted to hand-carried) Portable. This was a one-watt transmitter with tubes in the final amplifier originally, but made fully solid state in September 1962.



GE Voice Commander 'Hand Held' radio
takes two hands!

March, 1962

Ignition Noise Blankers introduced.

November 1, 1963

Termination of wide-band operation in the FCC Services, Low Band, 72-76 ,and High Band.

June 1-3, 1964

First built-in voltage regulation.

First use of silicon transistors in Land Mobile equipment.

First thermistor compensated oscillators completely eliminating crystal warmers and ovens.

First major manufacturer use of a Quartz crystal filter in the high IF amplifier of the receiver to provide adjacent channel selectivity at the front of the set.

Dec 1967

FIRST fully-protected, continuous-duty capability, solid-state final power amplifier in a Land-Mobile transmitter (computer-like sensing and control network).

FIRST mobile unit with a built-in Reflectometer to indicate forward and reverse power on the ordinary DC test meter.

FIRST two-year warranty on transistors. FIRST solid-state UHF mobile unit. (18 watts-Royal

Executive)

FIRST use of integrated circuitry in Land-Mobile Radio equipment, the ICOM (Integrated Circuit Oscillator Module) for 0.0002% frequency stability.

March 1969

FIRST "plug-in" mobile unit. A hand-held personal radio which can also serve as a mobile unit when plugged into a dashboard receptacle.

FIRST high performance, single-conversion Superheterodyne receiver, in Land-Mobile Radio history,

FIRST use of thick-film integrated circuits in transmitter, receiver and tone modules,

FIRST advanced Nickel-Cadmium battery chargers:

(a) FIRST automatic switch-over to trickle charge

(b) FIRST fast charger (15 minutes to 70% level or charge).

FIRST high-speed, high-resolution receiver "voting" system based on 1-to-noise ratio,

October 1972

FIRST unit to meet full performance specifications over the temperature range -40° to +70°C).

Here's a nice site with the history and lots of pictures of the GE radios over time – Voice Commander, Progress Line, TLP, Accent 450, Pacer, Porta-Mobil, Mastr Series, Early mobiles, etc. worth a look

<http://www.wb6nvh.com/GE/GEhist1.htm>

- - - -

de N4CD

GE de-emphasized the two way radio business in 1983, laying off much of its engineering staff and going to a limited number of 'standard sets'. Several major missteps along the way made GE only 'nicely profitable' and Jack Welch was out for double digit gains in every area of the GE empire. There wasn't enough 'growth' in two way radio. Radio was morphing into giant 'trunking systems' – for the most part, and the 'state of the art' permitted the Japanese to begin to dominate the low and mid end of the rest of the mobile radio business. It was getting very competitive and GE had no 'advantage' over others, other than a large patent portfolio.

Two years later, he sold half the GE Radio Business to Ericsson of Sweden in a joint venture. That went on for many years until Ericsson bought the entire business a decade later.

If you go to a hamfest, you'll see lots of commercial FM gear for sale. Much of it goes back to the 1960s and 1970s (GE Mastr series, Mastr II, Exec and newer - Motorola – many vintages). Much of it these days takes proprietary programming programs and cables to put new frequencies in the radio so be sure you know what you are buying. Every now and then at Dayton you see some of the real early stuff for sale, like 1930s vintage AM police single channel receivers! Not very useful unless you run a two way equipment museum – hi hi

Well, I hope you enjoyed the short jaunt through radio history – which has led to your \$50 two meter handheld with 5 watts output. There's a lot more history since 1972 or so when FM and FM repeaters exploded in popularity. On the FM radio side, it started with 50lb transmitters and receivers to now handheld 8 oz radios that talk all day on their internal batteries. What will your radio look like in another 40 years?

County Sign Database Project

The database of sign pictures is at:

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

This month, N8KIE, Bob, added a bunch from his recent long trip to SC and back. Here's Pendleton, KY – and a sign that is more than just the county name.



N8KIE – Pendleton KY

So who is Dr Phillip a Sharp? Looked him up on Wiki:

“Phillip Allen Sharp (born June 6, 1944) is an American geneticist and molecular biologist who co-discovered RNA splicing. He shared the 1993 Nobel Prize in Physiology or Medicine with Richard J. Roberts for "the discovery that genes in eukaryotes are not contiguous strings but contain introns, and that the splicing of messenger RNA to delete those introns can occur in different ways, yielding different proteins from the same DNA sequence".

Sharp was born in Falmouth, Kentucky.

In 1974, he was offered a position at MIT by biologist Salvador Luria. He was director of MIT's Center for Cancer Research (now the Koch Institute for Integrative Cancer Research) from 1985 to 1991; head of the Biology department from 1991 to 1999; and director of the McGovern Institute for Brain Research from 2000 to 2004. He is currently a professor of Biology and has been an Institute Professor since 1999; he is also a member of the Koch Institute. Sharp co-founded Biogen” “

You learn something new everyday...and with the internet, you can go off on tangents easily. So now we know who Dr Sharp is.

Jim, N4JT, sent in a couple. Here's a wayback pic of his mobile in 1984...and a recent 2010 pic he sent in



N4JT (ex- KB4XK) in 1984 - Vance NC

and in 2010



N4JT - Zapata TX in 2010

Here's one from W5UGD, John



Pend Oreille County, WA – by W5UGD

Sometimes the big signs aren't on the 'county line' so you have to be careful and not run a county line there - but for the database, we just need a sign for the county and this is a nice colorful sign. Thanks John for contributing.

Dan, KM9X, sent in the following from one of his trips out west



Mineral NV by KM9X/KB9MGI

Barry, N0KV, with N0DXE, sent in some pics from CO. Here's a tough to get one of Denver CO - looks like on the interstate, too.



Denver County CO – by N0KV

Here's one from WY8I



WY8I Lapeer, MI

Here's one from Scottie on his recent 'short' trip to GA



N4AAT at Evans GA

Paul, N7JPF sent in a bunch from his trip from the west coast over the SD. The snow was flying and winter weather appeared in some of the pics. Here's Gallatin MT.....snow!



Gallatin MT by Paul, N7JPF

John, KD8MQ sent in a couple from OH. Here's Portage



KD8MQ at Portage/Stark Line in OH

Duane took a trip in NC for some counties:



WV2B at Lee/Moore County Line, NC

Hollis, KC3X, snapped a few signs for the database project



KC3X Lenoir/Duplin, NC

Quantum Tunneling Transistors

Quantum tunneling is a limitation in today's transistors, but it could be the key to future devices

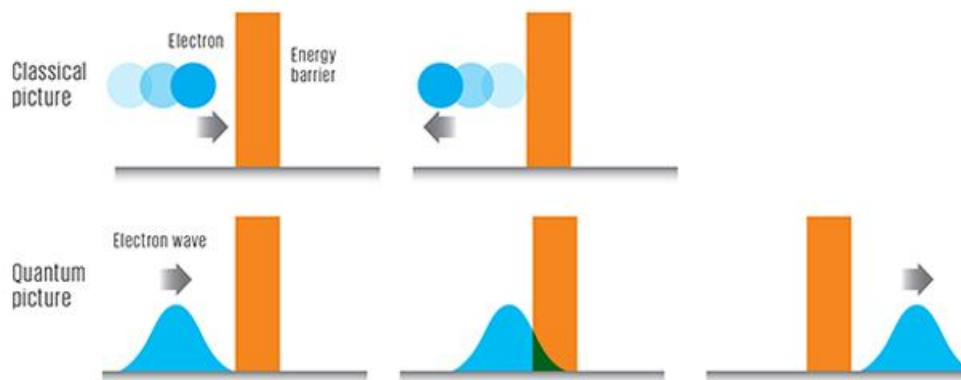
Our always-on world of PCs, tablets, and smartphones has come about because of one remarkable trend: the relentless miniaturization of the metal-oxide-semiconductor field-effect transistor, or MOSFET. This device, which is the building block of most integrated circuits, has shrunk a thousandfold over the past half century, from the tens-of-micrometers scale in the 1960s to tens of nanometers today. And as the MOSFET has become tinier, generation after generation, the chips based on it have become much faster and less power hungry than their predecessors.

This trend has given rise to one of the longest and greatest winning streaks in industrial history, bringing us gadgets, capabilities, and conveniences that previous generations could scarcely have imagined. But now this steady progress is under threat. And at the heart of the problem lies quantum mechanics.

The electron has a pesky ability to penetrate barriers—a phenomenon known as quantum tunneling. As chipmakers have squeezed ever more transistors onto a chip, transistors have gotten smaller, and the distances between different transistor regions have decreased. So today, electronic barriers that were once thick enough to block current are now so thin that electrons can barrel right through them.

It has long been hard to pin down the precise year when size reductions will end. Industry road maps now project the miniaturization of the MOSFET out to 2026, when gates will be just 5.9 nanometers long—about a quarter the length they are today. This timeline assumes that we'll be able to find better materials to stanch leaks. But even if we do, we'll need to find a replacement for the MOSFET soon if we want to continue getting the performance enhancements we're used to.

We can't stop electrons from tunneling through thin barriers. But we can turn this phenomenon to our advantage. In the last few years, a new transistor design—the tunnel FET, or TFET—has been gaining momentum. Unlike the MOSFET, which works by raising or lowering an energy barrier to control the flow of current, the TFET keeps this energy barrier high. The device switches on and off by altering the likelihood that electrons on one side of that barrier will materialize on the other side.



Back or Through: In classical electrodynamics, an electron [blue] would bounce back from an energy barrier [orange] if its energy did not exceed the barrier height. In fact, electrons have a finite probability of passing through the energy barrier. The thinner the barrier, the higher the probability that such a tunneling event might occur.

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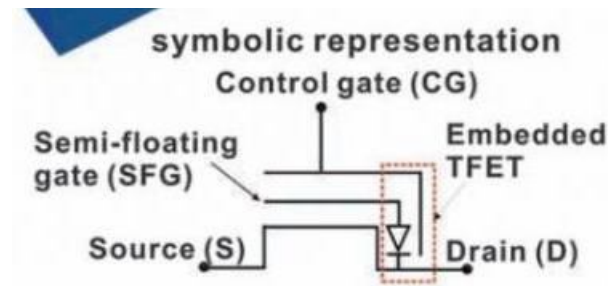
That's a huge departure from the way traditional transistors work. But it might be just the thing to pick up where the MOSFET leaves off, paving the way for faster, denser, and more energy-efficient circuits that will extend Moore's Law well into the next decade.

It wouldn't be the first time the transistor has changed form. Initially, semiconductor-based computers used circuits made from bipolar transistors. But only a few years after the silicon MOSFET was demonstrated in 1960, engineers realized they could make two complementary switches. These could be combined to make complementary metal-oxide-semiconductor (CMOS) circuits that, unlike bipolar transistor logic, consumed energy only while switching. Ever since the first integrated circuits based on CMOS emerged in the early 1970s, the MOSFET has dominated the marketplace.

In many ways, the MOSFET wasn't a big departure from the bipolar transistor. Both control the current flow by raising and lowering energy barriers—a bit like raising and lowering a floodgate in a river. The “water” in this case consists of two kinds of current carriers: the

electron and the hole, a positively charged entity that's essentially the absence of an electron in the outer energy shell of an atom in the material

That's where the tunnel FET comes in. Instead of raising or lowering the physical barrier between the source and drain as you would in a MOSFET, we use the gate to control the effective, electrical thickness of the barrier and thus the probability that electrons can slip through it.



Electrons and holes obey the laws of quantum mechanics, which means they have a fuzzy, uncertain size. When an energy barrier has a thickness below about 10 nanometers, there is a small but nonzero probability that an electron that starts on one side of the barrier will appear on the other.

In the TFET, we boost this probability by applying a voltage to the transistor gate. This causes the conduction band in the source and the valence band in the channel to overlap, opening up a tunneling window.

As a device mechanism, tunneling is not a new idea. The flash memory inside our USB sticks, cellphones, and other gadgets uses tunneling to inject electrons across oxide barriers into charge-trapping regions. Tunnel junctions like the one used in the TFET are also widely used to connect multijunction solar cells and to trigger semiconductor-based quantum cascade lasers. And tunneling governs the way current flows across metal-semiconductor contacts, an essential part of every semiconductor device.

The p-n tunnel junction has also been around a while. It was first demonstrated and explained by Nobel Prize winner Leo Esaki in 1957 (Tunnel diode). But it took a fundamental impediment to get the industry to think seriously about how tunneling might be applied to logic.

The first TFET papers were written only about nine years ago, when chipmakers started to see

computer clock speeds stall and struggled with the problem of removing heat from denser, leakier chips.

It turns out that silicon and germanium aren't great for tunneling. It's for the same reason that these materials don't make good light emitters and lasers. Silicon and germanium have indirect bandgaps, which means that in order to transition from one band to another, electrons must also absorb some extra energy from vibrations in the crystal lattice that makes up the material. This extra hurdle significantly lowers the probability that charge carriers will make the leap. As a result, the current-carrying capacity of silicon and germanium TFETs is only a trickle compared with that of today's transistors.

However, there are a range of direct-bandgap materials, based on a mix of elements picked from columns III and V of the periodic table, that have considerably higher tunneling probabilities. These materials (gallium, Arsenic, Indium, etc) have yet to make it into mass production in logic chips, but work on incorporating them into traditional MOSFETs is already gearing up. The notion that they might emerge in logic chips in the foreseeable future is not nearly as far-fetched as it would have seemed just a few years ago.

Much as it would have been hard to predict the MOSFET's ultimate capabilities 50 years ago, it's difficult to say exactly what may ultimately be achieved with the TFET.

While the TFET's electrical characteristics look promising, there are also quite a few practical things we must tackle before we can start building chips with these transistors. Researchers have been focusing most of their energy on developing n-channel TFETs. P-channel TFETs—and a complementary process technology that could pair the two transistor types to make circuits—are still on the drawing board.

<http://spectrum.ieee.org/semiconductors/devices/the-tunneling-transistor>

You can view a longer more detailed technical article at above link if interested.

More here:

<http://phys.org/news/2013-08-transistors-embedding-tunneling-field-effect-transistor.html>

<http://www.tacc.utexas.edu/documents/13601/88791/TunnelingTransistors.pdf>

Hiker Series Radios

Back in the 1930s and 1940s, there were lots of folks building radios. It seems that the New Zealanders are great 'hikers' and one of the radios those folks promoted was the 'Hiker' radio which was one of the first to use 'space charge' tubes and very low voltage on the plates – like 3 to 12v to build a compact radio you could take along with you on a hike up to your local hilltop, then put up a short antenna, and listen in with headphones while you enjoyed the view.

A half put together radio showed up on Ebay for the Hiker II design. Let's backtrack a second to the original hiker which used a type 49 tube. This is a sort of weird tube with two grids...but it wasn't a 'screen grid' but one grid wound inside the other. Experimenters found that you could put a few volts positive on the inner grid, use the other as the control grid, and use very low voltage on the plate. That gave you low current drain, small battery size, and a 'portable' package. (that is usually referred to as 'space charge' operation).

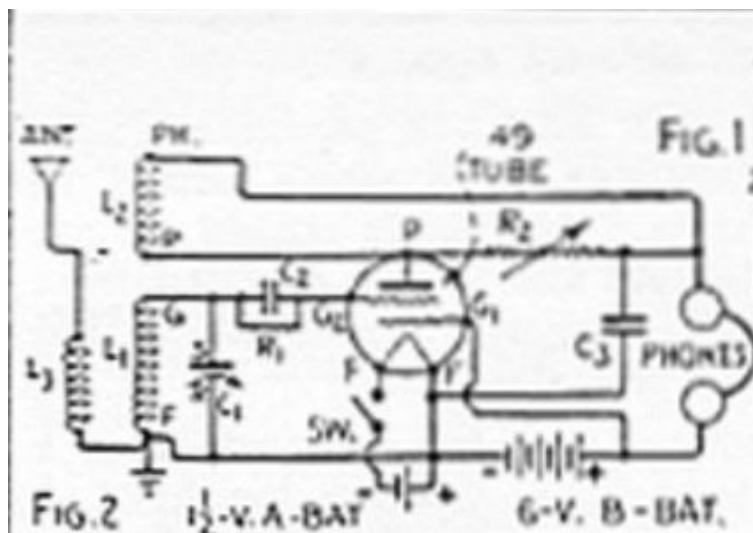
It was reprinted in Popular Mechanics.

You can check out the articles here:

<http://www.peeblesoriginals.com/projects/hikers-radio.php>

Dave, of Dave's Homemade radios, has a nice reproduction here

<http://makearadio.com/tube/hikers1.php>



Hiker Radio – 6v on plate

There were a whole series of tubes designed for car radios in the 1950s that ran off 12v to avoid needing a HV power supply. There were hybrids of 12v tubes and a transistorized audio stage (usually one transistor) to drive the speaker. They didn't last long in popularity or use as transistor technology quickly allowed all solid state radios to be made.

US #1 in Oil: So Why Isn't Gasoline \$0.80 Per Gallon?

Submitted by [Tyler Durden](#) on 10/30/2013 19:15 -0400

While the White House spied on Frau Merkel and Obamacare developed into a slow-moving train wreck, while Syria was saved from all-out war by the Russian bell and the Republicrats fought bitterly about the debt ceiling... something monumental happened that went unnoticed by most of the globe.

The US quietly surpassed Saudi Arabia as the biggest oil producer in the world.

You read that correctly: "The jump in output from shale plays has led to the second biggest oil boom in history," stated Reuters on October 15. "U.S. output, which includes natural gas liquids and biofuels, has swelled 3.2 million barrels per day (bpd) since 2009, the fastest expansion in production over a four-year period since a surge in Saudi Arabia's output from 1970-1974."

After the initial moment of awe, pragmatic readers will surely wonder: Then why isn't gasoline dirt-cheap in the US?

There's indeed a good explanation why most Americans don't drive up to the gas pump whistling a happy tune (and it has nothing to do with evil speculators). Let's start with the demand side of this equation.

Crude oil consists of very long chains of carbon atoms. The refineries take the crude and essentially "crack" those long chains of carbon atoms into shorter chains of carbon atoms to

make various petroleum products. Some of the products that are made from petroleum may surprise you.

**Top 10 Things You Didn't Know
Use Compounds Made from Crude
Oil**

1. Golf balls
2. Toothpaste
3. Soap
4. Aspirin
5. Life jackets
6. Louis Vuitton knock-offs
7. Guitar strings
8. Shoes
9. Soccer balls
10. Pantyhose

The United States has the largest refining capacity in the world and is still by far the largest consumer of oil in the world (though China is beginning to catch up), and its refineries require 15 million barrels of oil a day. That means even though, due to the shale revolution, domestic production has dramatically increased to about 8 million barrels, the US still has to import between 7 and 8 million barrels of expensive foreign oil a day.

Let's take a look at who the US buys the imported oil from.

Country	Millions of barrels exported to US per day
Canada	2.5–3
Saudi Arabia	1.2–1.5
Mexico	0.8–1.0
Venezuela	0.8

Canada is blue because it is not only friendly with the US, but also has the ability to increase oil production. The other countries are red because they either have decreasing oil production, or the country is not on good terms with the US government, or the production may be at risk for various reasons. The "red countries" all sell oil to the US at higher prices than does Canada. As I said, the US imports about 7 million barrels of oil a day, and our top 5 exporters make up between 5.6 and 6.8 million barrels while the rest is split among other countries.

This means that even though the US has significantly increased its oil production in the past five years, a good chunk of oil has to be imported at much higher prices. And higher crude oil prices for refineries means higher prices at the gas pump.

But that's not the only issue: The "new oil" produced from the shale oil fields in the Bakken and Eagle Ford formations isn't cheap. Both the Bakken and Eagle Ford have been hugely successful, and an average well in either region can produce over 400 barrels of oil per day. That may sound like a lot, but drilling thousands of meters into the ground (both vertically and horizontally), then casing and fracking the well, costs millions of dollars. And the trouble doesn't end once the well has been drilled: oil and gas production can drop as much as 50% in the first year.

Think of it as running on a treadmill—but the incline gets steeper and steeper the longer you run. That's the current reality of America's oil production.

Now, these areas also have to deal with declining legacy oil production ("legacy" meaning older oil wells that produced before fracking became popular) due to depletion rates. Freeze-offs, and even hurricane season can affect the legacy oil wells' production decline.

As the old wells begin to deplete, they need to be replaced by unconventional wells with horizontal drilling and hydraulic fracturing. Even though these new wells provide an initial burst of production, they decline very quickly. That means you need to drill even more wells just to keep up—and the vicious cycle continues.

The costs, as you can imagine, are forbiddingly high. Even in known oil-rich regions like the Bakken and Eagle Ford, the all-in cost of extracting a barrel of oil from the ground can cost as much as US\$75 per barrel (for comparison, Saudi Arabia can produce oil for as low as US\$1 per barrel). To put it in simple terms: cheap oil in North America is a thing of the past. So, the US produces expensive oil and relies on imports of even more expensive oil. And since the refiners need to make money as well, this means higher prices at the pumps. Who loses? The US consumer, of course.

What would help lower gas prices? Building more pipelines to deliver cheaper Canadian oil to refineries in the US and decreasing the refineries' dependence on expensive foreign oil. Until these new and much safer pipelines are built, rail has to pick up the slack. Almost 400,000

railcars full of oil are expected to be shipped in 2013, compared with just 9,500 railcars in 2008, a whopping 41-fold increase.

But rail is not the answer. In fact, transporting oil by rail is much more dangerous than transporting it by pipeline. Just last week, we wrote about two recent accidents, one of which claimed 47 lives.

Federal and state taxes at every step of the gasoline-making process make the pain at the pump even worse. The US government already takes more than 60% of the divisible income from every barrel of oil produced... and another 50 cents per gallon at the pump.

Then there's the matter of Obama's supposed "Green Revolution" and how America would be saved through the use of alternative energies. Obama wrote massive checks to different renewable energy firms that went belly-up, the most famous of them all being solar panel manufacturer Solyndra, whose bankruptcy cost American taxpayers more than \$500 million. Obama is also a heavy supporter of ethanol (his home state of Illinois, after all, is the third-largest ethanol-producing state) and has increased the targets for the use of ethanol in transportation.

Someone has to pay for all of these subsidies, so why not get the dirty, evil oil companies to pay for them? Keep in mind, though, that the oil companies have enough lobbyists and lawyers to keep the government at bay—so the higher prices will be passed on to the consumers. To sum up why the price of gasoline is so high even though the US is producing so much more oil than before:

1. The high cost of American oil production
2. Even higher costs due to imported (non-Canadian) oil
3. Obama not allowing cheaper Canadian oil to flow to the refineries via pipelines such as the Keystone XL
4. The taxes on crude are used to fund Obama's green dream—his green-energy "legacy"—and his love for ethanol and the taxes at the pump will not decrease

Source: <http://investorvillage.com/smbd.asp?mb=4288&mn=124299&pt=msg&mid=13252971>

Some Things from Ebay

This month a rather unusual receiver from the late 1940s showed up on Ebay. It's a Pierson PK-81 – and there were only a few of them sold as it was a very expensive top of the line unit.



Pierson KP-81 Receiver

From the website below:

“Toward the end of World War II, noted radio engineer Karl E. Pierson undertook the development of what he hoped would be a general coverage communications receiver of the highest quality, suitable for professional as well as amateur use. Utilizing knowledge Pierson gained during his wartime radio development work, and incorporating the best electrical and mechanical design features of the day, the result was the Pierson KP-81 receiver. First offered for sale in 1946 in the midst of an economic downturn, the KP-81 was a technical success, but was difficult and expensive to manufacture. The Pierson Electronic Corporation was apparently unable to produce the receiver profitably, even at its exorbitant selling price of nearly \$400. Furthermore, there was considerable competition from low cost war surplus receivers beginning to flood the market. Regrettably, the KP-81 remained in production for only about one year, and only a few hundred sets were ever produced before Pierson Electronic Corporation failed some time in 1948.

Because of its high quality, a surprising number of KP-81 receivers still exist today. The RF section of the KP-81 features two RF stages, a pentagrid mixer, and electron-coupled Hartley local oscillator. The 500 kc crystal calibrator is switched in whenever the bandspread control is rotated to a calibration position at the high end of its scale. Mixer IF output is at 465 kc. All RF and L.O. coils are contained in individually shielded compartments within a massive, cast aluminum coil drawer located in the bottom compartment of the main chassis. The effective shielding provided maximizes image rejection, and minimizes conducted L.O. emissions at the antenna terminals. The coil drawer rides on ball bearing equipped rollers which run on a precisely machined carriage rod at the rear of the coil drawer. Each end of the carriage rod is anchored to the side of the receiver's heavy gauge steel chassis. The front panel bandswitch control drives a gearbox which operates a rack and pinion mechanism which moves the RF coil drawer horizontally from band to band. Heavy silver plated contacts on the coil modules within the drawer engage silver plated spring fingers on the bottom of the RF subchassis. This method of bandswitching ensures that coils are connected as directly as possible to the RF circuits, with minimal lead lengths.

Sensitivity in AM mode is very good on all bands, typically 2 uV or better, although there are some areas where front end tracking errors cause dips in sensitivity. Noise figure was not measured, but is low enough to ensure the receiver is atmospheric noise limited at the upper end of band 5, with modest sized antennas.

Image rejection ranges from excellent to fair, and varies considerably with frequency. On band 1, image rejection, is at least 100 dB, referred to 1 uV input, limited mainly by L.O. phase noise, not front end selectivity. On bands 2 and 3, image rejection ranged from around 75 dB at the low end, to 55 dB at the high end, referred to 1 uV RF input. Band 4 image rejection ranged from 60 dB at 11 Mc to 40 dB at 20 Mc, and on Band 5 was a fairly consistent 40 dB from 20-30 Mc.

RF input third order intermodulation distortion was checked at a few frequencies. At 4 Mc, 3rd order IM rejection ratio was 50 dB, and at 7 Mc and 15 Mc, it was 52 dB, all referred to 1 uV RF input, with interferers at +10kc, and +20 kc. When listening in the crowded 9, 11, and 15 Mc broadcast bands on a 12 element 10-30 Mc log periodic antenna aimed at Europe from my QTH on the Atlantic coast of Florida, strong stations such as Radio Marti caused intermod problems, and inserting a 15 dB pad in the antenna feedline was beneficial. This would not likely be necessary using smaller antennas. AVC range was adequate for receiving the strongest broadcast stations without distortion.

Adjacent channel rejection checked at +10 kc was 77 dB.

These measurements indicate the KP-81 is a good performer, similar to the better receivers of the 1940s.

The KP-81 IF signal path features nine tuned stages utilizing specially designed high Q

permeability-tuned IF transformers, and three IF amplifiers, plus a crystal filter, to obtain a high degree of selectivity. Pierson used the somewhat unorthodox technique of capacitive bottom-coupling of adjacent double-tuned IF transformers. A maximum bandwidth of 4 kc is set by the aggregate effect of these tuned stages, and this can be reduced to a minimum of about 500 cps through the use of the crystal filter. Unlike some other receivers of its day, a wideband IF setting for high fidelity reception was not provided. As the nameplate indicates, the KP-81 was designed as a communications receiver. “

The radio also had a unique noise blanker which worked well. It was one of the first in a AM communications radio. The radio by itself weighs 80 lbs and you need an extremal power supply! This is a true 'boat anchor' type radio.

You can see a whole lot more detailed pictures and very detailed description here:

<http://tmchistory.org/kp-81/>

Here's another WW2 Boat anchor type radio – made by Scott – it also weighs 80 lbs and if you buy it on Ebay, it will cost you \$110 or more to ship it to your door!



Scott SLR-H WW2 Marine Radio

There isn't much info on the web about this. Probably this was sold to the military as a marine radio – put on ships. It's 'hardened' with battle ship type construction, but likely used on

transport ships which were built by the hundreds to haul materiel to Europe and the Pacific for the war. It covers the AM band and two shortwave bands. One article notes they were designed for very low oscillator radiation, so the enemy could not track the ships. Likely that's just so the radios didn't interfere with the other radios on board.

This is the only brief web page I could find on the radio. These could have been 'morale' radios mainly for use in reception of broadcasts to then play on board the ships through speakers in public areas. They had push pull 6v6 audio output to drive speakers (600 ohm).

http://www.imradioha.org/scott_labs.htm

It's also listed on the Western Radio Museum web site under WW2 receivers

<http://www.radioblvd.com/WWII-PostWar%20Hamgear.htm>

One of these sold on Ebay for \$240 plus \$110 in shipping!

Heathkit HD-1420 VLF Converter

Want to get on the proposed new ham bands under 500 KHz with a sensitive receiving set up? Long ago, Heathkit sold a VLF converter to go ahead of your HF receiver. It converted 10-500 KHz to your ham band RX at 3.005 to 3500 KHz. Now these are popular items as folks get on the 190 KHz band and are ramping up to use the new ham band at the 494 KHz area.

It's solid state and has a 7 pole bandpass filter to keep the broadcast band from wiping out the front end, and eliminating images. There selling for well over \$100 on Ebay.



Heath HD-1420 VLF Converter

More info here:

http://www.w6ze.org/Heathkit/Heathkit_016_HD1420.pdf

Here's something for antique wireless collectors to drool over:



Marconi Mark III SW Tuner – 1916 – ser 139

This is a 1916 vintage radio by Marconi, made in England. It features not one, not two, but three different detectors including a crystal detector, a carborundum crystal detector, and a tube detector. It's in 'mint condition'. The frequency range is 100 to 700 meters. This unit comes with all 14 crystals as originally supplied. You have a buzzer (the shiny object) used to generate RF noise so you can optimize the setting on the galena crystal surface.

This was made for WW1 use to allow artillery folks to hear transmitters carried in aircraft flying over enemy lines to spot targets. This is just the tuner. You'd likely have a similar size box that was the amplifier with one or two stages.

Want to guess what it's worth?

The price got up to \$2600 big on Ebay but it didn't meet the sellers reserve so it didn't sell.

Those 'deer spotting' Headlights

In a recent issue, we talked about the new product to be available shortly on at least one make of car that automatically detects deer and pedestrians in your path at night. I ran across some additional information on how it works:

The system uses two spot lights that are controlled by a central processor to pick out up to two targets it finds (like a deer and a pedestrian at the same time, or pedestrian on each side of the road). The BMW dual night camera sensors can detect a difference of 0.1 deg C in ambient temperatures - picking out the signatures from the shape and temperature of the target from a library of 150 animal types, from deer to camels to goats, moose, elk, wild boar, horses and cows.

The article in the IEEE journal noted that over 1 million collisions, 200 deaths, 29,000 injuries and a billion dollars in property damage occur each year in the US. Autotiv, in Sweden, spent six years 'training' its processor system to identify the animal types. They have been working with BMW for years on this project.

The system uses views from a windshield mounted near -infrared camera and a bumper mounted long wavelength infrared camera. These stereoscopic cameras create an image grid from which the electronic controller extracts and classifies the picture, using factors such as shape, velocity, temperature, and directional vectors. The factors are ranked to throw out false targets and targets not likely to affect you.

Small electric motors in the headlight housing pivot spotlights to then shine on the target when detected. The night vision system can illuminate targets up to 1500 feet down the road, accurately identifying pedestrians at about 300 feet and animals at 150 to 600 feet. Normally, drivers can only identify a pedestrian at 60 feet – too short to stop.

In the BMW system, you also get a heads-up display and 'Alert' on your windshield.

The system also tracks oncoming cars and won't turn on the spotlight if there is a chance of blinding the oncoming driver. You still get the pop up heads display with the alert.

This will be available on the BMW series 7 cars in 2014. Approval is pending in the US. The BNW Series 7 is 'not cheap' but likely this technology will quickly migrate down into the regular passenger cars within a couple years.

TV Show Spins off New Hams

Ham Radio in the Media: TV Show Featuring Fictional Ham Sparks Crop of Real Hams

Fans of the ABC Television show "Last Man Standing" may be aware that its main character, "Mike Baxter" -- played by Tim Allen -- is supposed to be a radio amateur, KAØXTT. While it may come as no surprise that the sitcom's producer is a ham -- John Amodeo, NN6JA -- several radio amateurs also are on the production crew, and their number just increased, with help from the Greater Los Angeles Amateur Radio Group (GLAARG) VEC. The show's "Thanksgiving" episode, which airs Friday, November 22 (8 PM ET), will feature a scene with "Baxter" in his basement ham shack. Amodeo said that for the first time in the series, Baxter will briefly talk on the radio. In response, viewers will hear a pileup created by using the voices of hundreds of real hams, sent in to the production company.

In the scene, the Mike Baxter character appears with his grandson "Boyd," played by Flynn Morrison. The episode was shot in mid-October. According to Amodeo, Mike heads to his basement ham shack to escape a houseful of guests waiting for Thanksgiving dinner to be served. This episode of the show is only the second to include ham radio as a story element and the first in which Tim Allen's character is shown operating his ham station.

At an exam session on November 9, the "Last Man Standing" crew added eight new Technician class hams to its crew as well as its first General upgrade. GLAARG volunteer examiners Norm Goodkin, K6YXH; Naomi Goodkin, WB6OHW, and Rob Antonacci, AA6RA, administered the test session. Including the additional new hams, the show's behind-the-scenes crew complement now boasts 14 Technician, one General, and two Amateur Extra class operators.

In "Last Man Standing," Allen's character Mike, a pickup-driving sporting goods marketing manager, must spend more time in his female-dominated household after his wife gets a promotion at work. The couple's three daughters are not prepared for the shift to his stricter parenting style."

Source: ARRL Newsletter, Nov 15, 2013 (free to all hams by email, or on line at ARRL.org)

November Sweepstakes Phone

This was another great contest with excellent band conditions. 10M was wide open and the stations on the coasts did fantastic business working stations around the country. From TX I was hearing both coasts, and KV7N and other county hunters were on. The HI stations were in there along with some in AK.

I hope you turned the radio on and made some QSOs and helped out the folks! Maybe you even caught some counties on new bands?

From the 3830 contest reflector:

N4PN – fixed – GA - 1500+ QSO (131 on 10M)

Personal best!! - by far...great having all the bands open - it spread everyone out and could always find a "hole" when changing bands.. First time ever that I actually planned my off times...lots of 30 minute breaks...Sunday was getting concerned about getting the NL mult for the sweep when VO1? called in...it was VO1BQ and lots of patience. It took five minutes to get all of the information....did work VO1KVT later as always happens...plenty of activity from all sections...a little slack from Puerto Rico this year, but NP4Z showed up late and a portable KP4 was on Sunday.

N5DO – fixed – STX – 1201 QSO with 384 on 10M!

“We have been operating SS Phone as a multi-op since 2002. We are already discussing how we can do better next year. The station here is by no means a "super station," having one tower up 55 feet, but it does work well in domestic contests. Thanks to all the ops giving us low numbers on 10M Sunday afternoon.”

KL7RA – Fixed – Third AK - 2001 SSB QSO – made over 800 contacts on 10m and 519 on 15 meters

Global Warming Fraud Continues

2013 was a disaster for alarmists so they needed an excuse to bring the fraud of global warming back to the front page. Typhoon Haiyan (Yolanda) was just another typhoon until the fraudsters decided to blame the typhoon on, what else, global warming.

Jeff Masters rushed to press that Yolanda had the highest wind speeds ever at landfall, before there was any actual surface data available. It turned out that he exaggerated the wind speeds by more than 30%.... Yolanda was below 150 MPH... So why did Masters do it? The only way to blame this storm on global warming was to make it a record. Once the legend was created, it propagated and will stay out there for at least a year before the dust settles. <http://stevengoddard.wordpress.com/2013/11/12/why-jeff-maste...>

After all, "if you repeat a lie often enough it becomes the truth."

The 195 MPH winds were exaggerated by 30%. The storm surge was exaggerated by 120% and the death toll was exaggerated by 300%... death toll from typhoon Haiyan, [is] between 2,000 and 2,500. Not 10,000 dead or more.

<http://stevengoddard.wordpress.com/2013/11/12/shock-news-dea...>

According to William Sweet, an oceanographer with NOAA - **Those tremendous winds drove even more water ashore because sea-level rise due to climate change has been occurring four to five times faster in the eastern Philippines...** <http://www.npr.org/blogs/thetwo-way/2013/11/11/244575221/sto...>

So now we have a super typhoon - **Super Typhoon Haiyan devastated the Philippines, destroying whole towns, killing thousands and displacing more than 600,000 people...**

<http://www.npr.org/templates/story/story.php?storyId=2445806...>

And the fraud machine is now on a mission - According to NPR: **Thousands Feared Dead In Philippines After Super Typhoon... The death toll could rise as high as 10,000 after Typhoon Haiyan laid waste to the eastern swath of the island nation**

<http://www.npr.org/templates/story/story.php?storyId=2443077...>

At this point does anyone remember Cyclone Nargis that killed 138,000 people in 2008?

Cyclone Nargis was ...barely mentioned by the press. That was in the days of “global warming”... now that global warming is officially “paused” – the climate racketeering team has changed the dialogue to try to convince the public that bad weather never happened before. <http://stevenoddard.wordpress.com/2013/11/11/the-progressio...>

"There have been 35 cyclones in the last 800 years which killed more than 10,000 people. Thirty-three of them occurred with CO2 below 350 PPM. The deadliest one in 1970 was blamed on global cooling at the time." See <http://stevenoddard.wordpress.com/2013/11/11/correlating-de...>

And the fraud of global warming continues unabated.

Source: TMF Climate Board

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Note de N4CD: According to the weather service, a typhoon like this happens every 10 years in the Pacific Basin. This time, as the odds happen, it hit land at near maximum intensity, which only happens once in a century. Just like New Orleans, New York, and Galveston get hit 'once a century' on average by large hurricanes, this was the storm of the century for the Philippines. Had this storm not hit land, the global alarmists would have merely gone their merry way, wishing for some disaster to pin on 'global warming'. Nothing new here. Just more lies from the eco-whack progressives out to redistribute wealth and line their own pockets. Yes, it was a bad typhoon, but it was nowhere near 'record setting' or 'caused by global warming'.

On the Road with N4CD III

In the middle of November, the Vintage Radio and Phonograph Society holds its annual convention in the Dallas area, right down the road from my QTH at the Hampton House in Mesquite. I headed over for the 2 1/2 day event which features 3 main auctions, a 'silent auction' of smaller items, and a Sunday small flea market. There are usually about 250 or so in attendance and it's one of the largest annual auctions of 'vintage radios'. There's not much ham gear for sale although a few items show up.

Friday started out with the 'tube and paper' auction which includes everything from boxes and boxes of tubes, to single tubes like X-ray tubes and Iconoscopes (the first decent TV picture

camera image tube) to 'display tubes' to tubes for your old radios. The most valuable are the 1L6 tube for the Zenith TransOceanic radios (\$40 for a 9 pin tube) plus the audio output tubes. The tubes that go on the audio power amplifiers of the 1950s and 60s command from \$50 to \$150 each. Ouch! Early early vacuum tubes can sell for hundreds each. You could buy boxes of books, Radio Age magazines and other '20s/30s periodicals for reasonable prices, but rarer things like advertising from the 1920s, and display pieces would go up to \$1000! Wow. There were 200 lots of up for sale, but nothing was of interest other than to watch. I bought one box of books with 2 1950s ARRL handbooks, a year of 1938 bound QST and some other interesting stuff for \$10.

The second auction is for \$10 minimum bid items (although you can set a higher reserve). This is where lots of 'miscellaneous' gets sold – from test equipment like signal generators, old broadcast TRF radios, portable TV sets (analog!) to common broadcast sets of the 50s and 60s, parts radios, tube testers, radio oriented toys, remote control stuff, transistor radios, a few ham things – 300 plus lots and it took a good 4 hours to sell it. I wound up buying a few items and sold two telegraph sounders and an old Hallicrafters SW-500 short wave set. About as much junk came back into the house as went out of the house. No success in 'cleaning out'. No regens for sale that day other than a few common early BC sets of the 1920s. I've got a couple of them and don't need more! I did buy a Manhattan wood horn speaker.

Also folks bring their radios to display at the convention. There were 17 categories to enter radios and try to win 'best of show' for the items – from 'totally restored' radios to collections of items (one was a display of Snoopy radios), crystal radios, regenerative radios factory made, regenerative radios home made, console radios, "kit" radios, etc. There were some nifty displays, including a Japanese transceiver made before WW2 and allegedly used by a Japanese coast watcher in the Pacific theater.



Japanese Transceiver WW2

On Saturday the big auction is held for the more expensive items. This has a \$20 minimum bid although you can set a higher reserve. You've got items from \$20 to over a thousand bucks for sale. This is the higher quality radios from wood cabinet BC sets in nice condition, some 'mint' like they came out of the factory yesterday, plastic radios – only one Catalin radio for sale the entire auction (\$250), large consoles, audio amplifiers, speaker systems, TVs including two Predicta units, chairside consoles, rare 1910s vintage stuff, half a dozen pieces of ham gear including an IC-735 with power supply and antenna matcher(\$400 asked,no bids) , an Heathkit SB200 1200w PEP amp (sold \$200), an SB-610 station monitor (sold \$50), a TS2000 with cables/manuals from SK – asking \$800 and didn't sell. An MFJ Intelli-tuner sold for \$65, probably a bargain.

You could buy yourself a WW2 era Radio Direction finder field unit for \$470. Likely weighed a couple hundred pounds – sat on collapsible legs.



WW2 Direction Finding Unit

There were a few items I'd like to add to my collection, but the Federal 159 radio from the 1910 era was a starting price of \$1425 (ouch!) and the DeForest InterPanel had a starting price of \$900. Way out of my budget, plus they take up lots of shelf room. There was a Scott SLRH radio (talked about above) up for sale – it went for \$25 – all 80 lbs of it! I try and follow the 'one hand rule' these days. If I can't carry it in one hand, I don't buy it. (rare exceptions allowed). That helps to keep down the junk coming in the house after visits to hamfests and auctions.

I did find a nice National SW-3 1931 era regenerative receiver with plug in coils to buy (one set inside only)....but the power supply for it went for \$115 (ouch) so I missed out on that. Not much else to report regen wise – there just weren't any up for sale -it's feast or famine these days. I still had a blast. There's the annual awards dinner on Saturday night, so it keeps you busy for those couple days with activities. The auctions totaled over \$38,000 worth of radios/tubes/paper sold.

I got home on Sunday morning and turned on the radio and made some Sweepstakes contacts on SSB on 10m just for the heck of it. Not much else was happening on the bands with no cw mobiles out and about.

Global Warming Greed Exposed

132 countries exit Warsaw climate talks

“Poor countries walk out of UN climate talks as compensation row rumbles on, we heard from the Guardian and many others earlier in the morning. **These 132 countries were apparently expecting that they would be paid "compensations for extreme weather events". It seems that they took this meme (so radical one that we haven't even heard much about it in the richer parts of the world) for granted and already demanded a new U.N. bureaucratic body to "oversee" the compensatory payments.**

Many of the countries are governed by shamans who believe that thunderstorms are created by witches. Almost all of these countries are dominated by folks who just don't grasp science, not even at the elementary level. The IPCC was produced to support these beliefs – that Exxon creates hurricanes, McDonald's creates typhoons, the Great Devil is responsible for the floods, and the Little Devil (renamed to the rabid dog by the mullah-in-chief today) brought the wildfires to the world. And everyone will be living in a happy paradise once the assets of these villains are confiscated and redistributed.

A part of the climate industry is powered by greedy opportunists like Al Gore who once saw the opportunity to benefit. Many of the others are however classic leftwingers who just believe in the redistribution schemes. They don't know whether they believe that the richer nations are "guilty"; they want to believe it because it's their strategy to benefit.

Nothing essential has changed about these international conferences on redistribution for decades, perhaps centuries. Richard Feynman once attended such a conference (the overall theme was "fragmentation of knowledge") which has used the "threats of war" to advocate a global wealth redistribution. He wrote:

“ ..There was a special dinner at some point, and the head of the theology place, a very nice, very Jewish man, gave a speech. It was a good speech, and he was a very good speaker, so while it sounds crazy now, when I'm telling about it, at that time his main idea sounded completely obvious and true. He talked about the big differences in the welfare of various countries, which cause jealousy, which leads to conflict, and now that we have atomic weapons, any war and we're doomed, so therefore the right way out is to strive for peace by making sure there are no great differences from place to place, and since we have so much in the United States, we should give up nearly everything to the other countries until we're all even. Everybody was listening to this, and we were all full of sacrificial feeling, and all

thinking we ought to do this. But I came back to my senses on the way home.

I started to say that the idea of distributing everything evenly is based on a theory that there's only X amount of stuff in the world, that somehow we took it away from the poorer countries in the first place, and therefore we should give it back to them. But this theory doesn't take into account the real reason for the differences between countries—that is, the development of new techniques for growing food, the development of machinery to grow food and to do other things, and the fact that all this machinery requires the concentration of capital. It isn't the stuff, but the power to make the stuff, that is important. But I realize now that these people were not in science; they didn't understand it. They didn't understand technology; they didn't understand their time.

The conference made me so nervous that a girl I knew in New York had to calm me down. “Look,” she said, “you’re shaking! You’ve gone absolutely nuts! Just take it easy, and don’t take it so seriously. Back away a minute and look at what it is.” So I thought about the conference, how crazy it was, and it wasn’t so bad. But if someone were to ask me to participate in something like that again, I’d shy away from it like mad—I mean zero! No! Absolutely not! And I still get invitations for this kind of thing today.

When it came time to evaluate the conference at the end, the others told how much they got out of it, how successful it was, and so on. When they asked me, I said, “This conference was worse than a Rorschach test: There’s a meaningless inkblot, and the others ask you what you think you see, but when you tell them, they start arguing with you!”

Even worse, at the end of the conference they were going to have another meeting, but this time the public would come, and the guy in charge of our group has the nerve to say that since we’ve worked out so much, there won’t be any time for public discussion, so we’ll just tell the public all the things we’ve worked out. My eyes bugged out: I didn’t think we had worked out a damn thing!

”

There were a lot of fools at that conference—pompous fools—and pompous fools drive me up the wall. Ordinary fools are all right; you can talk to them, and try to help them out. But pompous fools—guys who are fools and are covering it all over and impressing people as to how wonderful they are with all this hocus pocus—THAT, I CANNOT STAND! An ordinary fool isn’t a faker; an honest fool is all right. But a dishonest fool is terrible! And that’s what I got at the conference, a bunch of pompous fools, and I got very upset. I’m not going to get upset like that again, so I won’t participate in interdisciplinary conferences any more.’ (end quote)

Good that there was no IPCC half a century ago and that Feynman wasn't forced to attend the conference of these pompous fools because their pomposity and stupidity has grown so significantly in the last 50 years that Richard Feynman wouldn't have survived the conference.

The silver lining is that at least the Warsaw climate conference was capable of de facto ending sharply and cleanly. But the richer nations that assured the looting nations that they wouldn't get anything now suggested that things might change after 2015. So it's very likely that these attempts aren't over and the pseudoscientifically justified witch hunts will resume in a foreseeable future.”

<http://motls.blogspot.com/2013/11/132-countries-exit-warsaw-climate-talks.html>

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from the daily caller

Poor countries pulled out of the United Nations climate talks during a fight over transferring wealth from richer countries to fight global warming.

The G77 and China bloc led 132 poor countries in a walk out during talks about “loss and damage” compensation for the consequences of global warming that countries cannot adapt to, like Typhoon Haiyan. The countries that left claim to have the support of other coalitions of poor nations, including the Least Developed Countries, the Alliance of Small Island States and the Africa Group.

Poor countries have demanded that the developed world give them \$100 billion annually by 2020 to prepare for the impacts of global warming, such as heat waves and droughts. Brazil even put forward a proposal last week that would have made rich countries pay for historical greenhouse gas emissions.”

Read more: <http://dailycaller.com/2013/11/20/epic-fail-un-climate-talks-fall-apart-as-132-countries-storm-out/#ixzz2IERCpiJO>

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Let's see..that would be a trillion dollars every ten years. A trillion dollars!

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It looks like nobody at the UN read their very own IPCC report, AR5 and they are still trying to link typhoon Haiyan to global warming. According to AR5, published in September 2013, there have been 'no significant observed trends in

global tropical cyclone frequency over the past century'.

Some quotes from the IPCC AR5:

-
- "There is limited evidence of changes in extremes associated with other climate variables since the mid-20th century"
- "Current datasets indicate no significant observed trends in global tropical cyclone frequency over the past century ... No robust trends in annual numbers of tropical storms, hurricanes and major hurricanes counts have been identified over the past 100 years in the North Atlantic basin"
- "In summary, there continues to be a lack of evidence and thus low confidence regarding the sign of trend in the magnitude and/or frequency of floods on a global scale"
- "In summary, there is low confidence in observed trends in small-scale severe weather phenomena such as hail and thunderstorms because of historical data inhomogeneities and inadequacies in monitoring systems"
- "In summary, the current assessment concludes that there is not enough evidence at present to suggest more than low confidence in a global-scale observed trend in drought or dryness (lack of rainfall) since the middle of the 20th century due to lack of direct observations, geographical inconsistencies in the trends, and dependencies of inferred trends on the index choice. Based on updated studies, AR4 conclusions regarding global increasing trends in drought since the 1970s were probably overstated. However, it is likely that the frequency and intensity of drought has increased in the Mediterranean and West Africa and decreased in central North America and north-west Australia since 1950"
- "In summary, confidence in large scale changes in the intensity of extreme extratropical cyclones since 1900 is low"

Meteorologist Dr. Ryan Maue: 'Over past 1,000 years, Philippines have been hit by 10-20 thousand tropical cyclones. Don't be so arrogant to believe man caused Haiyan.'

de N4CD: The ONLY reason the UN IPCC exists is that most of the nations 'participating' see gigantic flows of money (trillions of dollars) from the US and Europe to their countries, where it will be squandered by the tyrants and tycoons and wind up in Swiss bank accounts. The folks like Al Gore, broker, will trim a 10% commission off the top. There are THOUSANDS of high paid (we pay 1/3rd the total UN budget) delegates staying in Five Star hotels, eating at

Five Star restaurants on your nickel. Their goal is to bring you to your knees with crushing “guilt taxes” for living such a nice life.

When you note that all the delegates walk out when they realize there is no paydayand trillions coming their way.....you know the real reason behind 'global warming' . It's nothing but a massive, massive, massive money redistribution machine they intend to put in place, control from some UN committee run by a group of people from these 132 countries who will vote for the 'czars' out to redistribute as much as possible, with no understanding of economies, only grabbing your wealth. The liberals see the world as 'one big fixed size pie of wealth' to be redistributed according to their 'socialist goals'. If you've 'got it', no matter how little, they 'want it'.

Awards Issued

USA-CW #134	Jim W8FNW	October 13, 2013
Fourth Time #161	Jonas, LY5A	November 11, 2013
USA Call Combo 1x3 #11	Tony, WA9DLB	10-24-2013
USA-PA- K Prefix #27	Gene, K5GE	Nov 10, 2013
Ran all USA #16	Ray, AB4YZ	10-15-2013

Upcoming Events for County Hunters

The QSO Party Season is over until next year. This month you have your choice of the 10M ARRL contest (could be interesting this year – get on – it might be the best it will be for the next 50 years). You've got the 160M contest, and at the very end of the year, the ARRL Straight Key Night.

You've got other operating events to check out from lighthouses to smaller contests.

ARRL 160M contest

Starts 2200 UTC Friday, ends 1600 UTC Sunday (December 6-8, 2013). This is a forty-two hour period with no time limitation.

<http://www.arrl.org/160-meter>

ARRL 10M Contest

Second full weekend of December. Starts 0000 UTC Saturday; runs through 2359 UTC Sunday (December 14-15, 2013)

<http://www.arrl.org/10-meter>

Happy Turkey Day! See you next month. That's all for this month.