



# THE COUNTY LINE ROADRUNNER

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## Riding the County Lion

Dave – KE3VV

All the preparations for my first trip to sub-equatorial Africa in mid-January caught me trying to do too many things with too little time – can't remember the last time I actually got away from the home QTH for two weeks without some electronic umbilical, so this was a challenge to be sure all the preps were done, including making sure the Big Green Dragon would not let his fire go out. Not much of an excuse for missing a Roadrunner column, but it will have to do. The weather did not improve here while I was gone, and (like much of the country) it is still pretty iffy. In fact we are expecting an early March snowstorm here to begin the week, so not quite time to put away the snow blower and haul out the lawnmower. Speaking of snow blowers, I finally got to give my new Husqvarna monster a good workout – it really is fun blowing 6 inches or more of snow 20 feet off the sidewalk... got really into it and did the whole block!

Jambo!! Africa – specifically Kenya – was a real adventure. Getting up close and personal with some playful relatives of the County Lion was great fun (heeding the advice to stay in the vehicle, of course). The only problem with winging off to far-away places is the winging off... eight hour flight to Amsterdam (chilly and rainy), then another eight hours overnight to Nairobi. The trip back was another two 8-hour flights (with a layover in chilly/rainy Paris). The reward, of course, was two weeks of glorious warm, sunny weather in Kenya. The first day was a bit rough – we decided to drive from Nairobi to Melindi on the Indian Ocean coast. The main highway from Nairobi to Mombasa is little more than a two-lane road with hundreds (thousands?) of trucks with an average speed just slightly more

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than a sloth with wheels – punctuated by hair-raising moments in the passing lane or watching other drivers cheat death by a few feet by pulling into the queue within inches of trucks heading the other way. At night, that route is a real adventure – many trucks with drivers high on khat vying to get one vehicle farther ahead. It was a relief to take the short cut bypass around Mombasa – although it was basically a dirt road.

Melindi is a typical Kenyan beach town... lots of traffic – including bicycles, motorcycles, and the ubiquitous three-wheeled auto rickshaws known affectionately as tuk tuks. They are supposed to be limited to three passengers and a driver, but in practice are more like the circus act where dozens of clowns emerge from a Volkswagen. Even more exciting are motorcycles with as many as four or even five passengers clinging to the driver and each other. Staying with friends in their fabulous beach house on the Indian Ocean with almost constant warm breezes and a friendly staff that was somewhat reminiscent of more “colonial” days – but more like an extended family. I got to practice my Swahili (Asante sana!), ate fresh fish (they brought it to the kitchen door directly from the boat) and lobster every day, and walked on the beach. I did not want to leave. I definitely want to go back.

But after a few days of languishing on the beach, we boarded a single engine Cessna Caravan and headed for the Ol Seki Mara Camp, which is located on the Naboisho Conservancy to the north of the Maasai Mara reserve in southwest Kenya. Some nice images of the palatial 4-star tents can be found at <http://www.africatravelresource.com/africa/kenya/sw/mara/naboisho/ol-seki-mara-camp/>

Because we were at a camp outside of the national parks, we were not subject to the restriction on being out after dark, so we were up every day before dawn in a sturdy Toyota land cruiser bouncing around the outback among the wildebeest, zebra (billions and billions of zebra and wildebeest and other ungulates), hyena, warthogs, lions, elephant, crocs, leopards, cheetah, and giraffe. Lots. Everywhere. All the time. Lots of babies too – getting the birthing season out of the way before the spring rains.

We also went out late in the afternoon and explored until well after dark when there is much activity. One evening, we stopped by a river and got up close and personal on the riverbank overlooking several families of hippopotamus. Magnificent creatures, but reputed to kill more Africans every year than crocodiles, snakes and big cats combined. We also kept our distance from the Cape buffalo and rhinos... not cuddly beasts. One highlight was watching about 50 baboons chasing a leopard up an acacia tree and getting really out-of-sorts when it escaped. The troop of dozens of screaming baboons tripping over each other to chase the escaping leopard sort of reminded me of a DX pile-up.

After another short flight from the Mara to Wilson Airport in Nairobi (unlike the larger Kenyatta International Airport, the Wilson airport supports a huge variety of small planes and is the busiest airport in Africa). I really enjoyed my flights in the Cessna Caravan – perhaps one of the best single engine passenger aircraft and certainly a lot of fun to fly. Nairobi is overcrowded and noisy and fascinating. Traffic there makes rush hour in DC seem relaxed. It was fun to experience it, but I much preferred the beach and the Mara.

Lots more adventures – hope to see lots of you in Visalia this summer at the MARAC National and share more stories and pictures. Until next month, the County Lion, the Dragon, and I wish you 73s, 88s, and – at long last – the warmth and sunshine of spring and road trips and counties.

**Dateline CW**

Ed, KN4Y

A county hunter is no more than an amateur radio operator in disguise.

The weather has been worse than the usual cold weather winter season in the panhandle. During a winter radio contest my signal froze and fell to the ground and thawed after the contest was over. That is my reason for the low score. I make a note Daylight Saving Time begins on the ninth and the MARAC Michigan Mini is this month. Speaking of contests the CQ CW 160-meter contest resulted in 30 new counties added to Logger. I noticed the new counties were worked when I was calling and not S&P, Makes sense if you drink enough coffee. I hear Gator's truck slide to a stop at the recycled railroad tie. He stops at the mailbox before entering the radio shack.

Gator comes into the shack, "Hi Dude, I stopped at the mailbox and you got a certificate and I bring hot lattes on a cold day. How did you do in the State QSO parties?" I sip my latte, "I listened but heard no CW stations in the Vermont and Delaware QSO parties. I did make 91 QSO's in the Minnesota QSO party. Here is the memory stick, check it out." Gator puts the memory stick in the computer and runs the program. "Not good news Dude, you got 17 No-Stars and two Bingo. You would have been more productive raking leaves. You did, however, work eight mobiles." I sip my latte, Any MARAC county hunters in the group?" Gator does some checking, "Yes there are three; Pat, K0PC, Jon, W0ZQ and a member of the Spirit Valley ARC."

Gator sips his latte, "By the way Dude, did you run counties on the way to the Northwest bowling tournament?" "Yes Gator, and it was great to operate mobile again, I ran all the counties from here to there, band conditions were good except in Washington County when I heard and worked only two stations. The fun part was coming back home and I ran the counties on 80-meters, what a blast." Gator is looking at the computer, "Dude you done did good and got a Last County award." Gator picks up the plain brown envelope and opens it, "Neat Dude, you got first place in Florida in last year's New Hampshire QSO party. How did you do this year?" "I missed this year due to the bowling tournament." "You probably just forgot. Anyway, how did you do in the non-county ARRL DX CW contest?"

I sip my latte, "Here Gator is the memory stick, see what I did in the ARRL DX contest." Gator inserts the memory stick and after a few minutes says, "I see you ran single band ten meters and made 250 QSO's and worked 67 DXCC countries, is that good?" "Probably not, but It is good practice for a CW county hunter by copying the various combination of letters and numbers at 30wpm." Gator sips his latte, "Dude, since you ran on ten meters I wonder how many DX stations had 10-10 numbers?" "Good question, run the log through the Win1010 program and see what you get." I turn on the radio to the CW net to see who is running when Gator turns around in the chair, "Dude can you believe that out of the 250 QSO's in the DX contest only 12 had a 10-10 number." "Makes sense Gator, remember all the QSL cards I got last month, most were DX contest stations." "Okay I will buy that logic, how did you do in the North Carolina QSO party?"

I smile and hand Gator the memory stick, "Run the program and let us be made knowledgeable." Gator gives me the finger, "Well you did okay for an old man, You got two new North Carolina counties on 80-meters, 16 no-star, one 2x1 call and one 2x2 call. What made it extra well were the 3-natural bingo contacts and you worked six mobiles" "How many were MARAC county hunters." "Four, John, AD8J,

Ed, K5EK, Bert, N4CW and Jeff, NY4N.” I smile like a cat on steroids when....

Gator’s cell phone activates, “Sorry dude got to go, the girls scouts are at the office selling cookies.” He is gone like a fly on a frog pond. I do not think I heard him yell, “Wrestling is fake.” The printer stops and I get the print-out, it is a list of stations heard during February on the CW call frequencies, I read: AF5Q, AI5P, K0FG, K0TG, K1TKL, K2HVN, K4EXT, K4YT, K5YAA, KA4RRU, KC3X, KC7QOP, KC7YE, KG4VBK, KJ8V, KJ8W, KN4Y, KO7X, KW1DX, KX0A, N0EO, N4CD, N7IV, N9AC, N9QS, NM2L, NN9K, W1AW/8, W4SIG, W5QP, WB4KZW, AND WG0M.

The month of March comes in like a lion with five great State QSO parties for the CW county hunter; Idaho with 44 counties, Wisconsin with 72 counties, Virginia with 95 counties and 38 independent cities, Oklahoma with 77 counties and Louisiana with 64 parishes (noted as counties so as not to confuse county hunters). That is 353 counties up for grabs. The MARAC logger will convert the Independent Cites to counties for award purposes. There are 17 other CW contests so check out your favorite contest calendar for details. For example if you can handle a sensual CW signal there is the YL CW Party. Dang it, I forget to tell Gator the Texas Dude Norm, W3DYA would be mobile in the Oklahoma QSO party. I answer my phone, some county hunter named Fred from Missouri with the call K0FG is coming over, I need to clean the radio shack and hide Gator’s quality control samples, but first Nap time.



**New Members**

**MARAC Number**  
R4552

**Callsign**  
N5UVH

**Name**  
Virginia Bovee



**MARAC Silent Keys**

**Callsign**  
KA9QKN

**Silent Key Date**  
February 3, 2014

## History Happens

Gary, K4EXT

Is it summer yet? Pat, K7VAY likes to tease me with how toasty warm it has been in Tucson all winter ... and Bob, N8KIE likes to report ridiculous daily temps from his winter home in Honolulu ... but most of us have been stuck in a historic deep freeze forever it seems.

Fortunately, we have folks that still go mobile (or at least send in their county line pics) regardless of the outside temperature! February included County Sign submissions by Roy, WD9HAW who completed the state of Wisconsin for the picture project ... Jack, K0MAF with Missouri and Georgia pics ... Ricky, KA4TLC in North Carolina ... Frank, AA9JJ and Kay, N9QPQ in Texas and Arizona ... Darl, NA8W in Ohio ... Hollis, KC3X in North Carolina ... Rick, W5QP in Missouri again ... Jim, N4JT in North Carolina ... Lowell, KB0BA and Sandra, N0XYL running more counties in Missouri ... and Bob, N4CD out and about in Texas ... plus some single pics from K2HVN, KC5QCB, N4AAT, and WA4JA. Many thanks to all of the road warriors!

Please feel free to check out the current collection of pictures and information by visiting the CH History/Archive website at the following Internet address:

**<http://www.CHarchive.com>**

The picture below is from Lowell, KB0BA and Sandra, N0XYL as they entered St. Louis City in Missouri. Lowell commented, "Thought the picture of St. Louis was unique. The city used a monument to mark the line. This was just across the street from a large cemetery that we sat in to put out the county line."



**Nominations for CW and SSB  
County Hunter of the Year  
Second Request**

**N**ominations are now in order for the 2014 CW and SSB County Hunter of the Year Awards. Nominations must be received by your District Director not later than March 31<sup>ST</sup> and should contain a brief list of reasons for the nomination. Your District Director will select one nominee (one for CW and one for SSB) from those received and forward that selection, with the reasons for the selection, to the Election Coordinator no later than April 15th. Prior winners (per mode) are not eligible to receive this award a second time. Please read the requirements for County Hunter of the Year and support those members who work to make MARAC the vibrant organization that it is.

**MARAC 2014 ELECTIONS ANNOUNCEMENT  
Last Request**

Nominations are currently open for the positions of President, Vice-President, Secretary and Treasurer (all 2 year terms). Nominations are also open for the position of South Central Director (3 year term). Nominations will be open for 60 days - from January 5<sup>th</sup> through March 10<sup>th</sup>. Any current member of MARAC is eligible to run for office. For the District Director position you must live within the District which is listed on the MARAC website.

If you are willing to serve MARAC in an elected position, please send your nomination to [KR@GCI.NET](mailto:KR@GCI.NET) or via regular mail, which must be received on my end by March 10<sup>th</sup>.

***MARAC VOTING INFORMATION***

Remember, if you are a new member or are REJOINING following a lapse in membership, you are **NOT** eligible to submit nominations or vote in an election until the first day of the month following receipt of initial payment of dues and valid membership application to the Secretary of MARAC.

Those individuals maintaining uninterrupted membership status are not restricted from nominating or voting in the current month.

If you are unsure of your membership status, please go to the MARAC web site at <http://marac.org> click on Member Database and enter your call in Call Lookup to determine your MARAC Expiration Date.

***BALLOT RECOGNITION***  
***3rd Quarter 2014***

I would like to congratulate the following stations for receiving recognition from their peers and votes in the 3rd quarter award voting. They are in no particular order and have received at least 3 points. They are given 2 points for a first place and 1 point for a second place vote. There were 45 electronic ballots received this quarter.

**NET CONTROL SSB:** N4AAT, AB7NK, KZ2P, KC3X, N5UZW

**NET CONTROL CW:** N0KV, KC3X, W0GXQ, N4CD, K0DEQ, W4SIG

**BEST MOBILE SSB:** KB6UF, W0GXQ, N4CD, W3CR, N0KV, W4SIG, KW1DX, K0FG

**BEST MOBILE CW:** N0KV, N4CD, W5QP, W4SIG, W0GXQ

**BEST TEAM:** AB7NK/K7SEN, AA9JJ/N9QPQ, N0KV/N0DXE, K6JN/W6XJN, W0GXQ/NF0N, W8FNW/W4FNW, KB0BA/N0XYL

**Kent Reinke KV7N  
MARAC Election Coordinator  
1826 East 4500 North  
Buhl, Idaho 83316**





MARAC National

46th Annual National Convention 2014 Registration

July 9 – 12 Visalia, California

(Deadline for Early Registration Prize Drawing is May 1, 2014)

NAME: (First Mi, Last) \_\_\_\_\_

ADDRESS: \_\_\_\_\_

CITY \_\_\_\_\_ ST/PROV \_\_\_\_\_ POSTAL CODE \_\_\_\_\_

Convention registration fee: **\$ 45.00**

(One registration fee/family unit – Includes 1 prize ticket & 1 group photo)

NAME ON BADGE \_\_\_\_\_ CALLSIGN \_\_\_\_\_ USACA# \_\_\_\_\_

Additional Name Badges (list information below) Total # \_\_\_\_\_ @ \$5.00 each = \$ \_\_\_\_\_

Name \_\_\_\_\_ Callsign \_\_\_\_\_ USACA# \_\_\_\_\_ Relation \_\_\_\_\_

Name \_\_\_\_\_ Callsign \_\_\_\_\_ USACA# \_\_\_\_\_ Relation \_\_\_\_\_

Relation: W-Wife, H-Husband, D-Daughter, S-Son, M-Mother, F-Father, X-Friend, GD-Grand Daughter, GS-Grand Son, for any additional badges please attach or list on back of form.

*Enter number of persons that will attend events*

**Wednesday 09 July – Check-In/Do It Yourself Activities**

**Thursday 10 July**

If enough interest a Bus will come to the hotel, free of charge and transport a group to the nearby Indian Casino, please check here if interested \_\_\_\_\_

**Friday 11 July (Tour below is limited to Max of 30 People)**

Sequoia National Park – Depart 8:00/9:00 AM (2 buses 15 each) #Adults \_\_\_\_\_ X \$35.00 = \$ \_\_\_\_\_

**Saturday 12 July**

Banquet – **San Joaquin Buffet**

Mixed Field Green Salad with assorted Dressings

Pasta Salad with Bay Shrimp, Red Onions, Red and Yellow Bell Peppers

Platter of Sliced Fresh Fruit and Berries

Grilled Balsamic Vegetable Platter with Fresh Mozzarella Cheese

Braised Breast of Chicken in Red Wine Sauce with Pancetta and Pearl Onions

Charbroiled Salmon Medallions on Bed of Sautéed Spinach, Dill Herb Sauce

Rice Pilaf, Roasted Red Potatoes

#Adults \_\_\_\_\_ X \$45.00 = \$ \_\_\_\_\_

**Additional Prize Tickets**

Prize (Singles) \_\_\_\_\_ X \$ 1.00 = \$ \_\_\_\_\_

Prize (Book 12 tickets) \_\_\_\_\_ X \$10.00 = \$ \_\_\_\_\_

Cash (singles) \_\_\_\_\_ X \$ 1.00 = \$ \_\_\_\_\_

Cash (Book 12 tickets) \_\_\_\_\_ X \$10.00 = \$ \_\_\_\_\_

**Photographs**

Extra: \_\_\_\_\_ X \$10.00 = \$ \_\_\_\_\_

YL: \_\_\_\_\_ X \$10.00 = \$ \_\_\_\_\_

USA-CA: \_\_\_\_\_ X \$10.00 = \$ \_\_\_\_\_

CW: \_\_\_\_\_ X \$10.00 = \$ \_\_\_\_\_

DATA: \_\_\_\_\_ X \$10.00 = \$ \_\_\_\_\_

**Total Amount Enclosed:** \$ \_\_\_\_\_

Mail Registration Form and Check to – Robert Devine (KC6AWX) [Home Phone 1-415-883-8980]

(Make check payable to “MARAC”, 407 Alameda Del Prado, Novato, CA 94949

Hotel Reservations – MARAC (MAR)

**Guest rooms have been set aside for your special event (\$89) One King Bed Standard Rooms:**

Telephone: dial (800)holiday ask for a room from the above group room blogLink:

[MARAC](#)



**Digital Happenings****DIGITAL HAPPENINGS #19****(February 2014)****By W0NAC ("Matt")**

I'm sure many of you have heard the quote (by Robert Burns – 1786) where he said:

**"The best laid schemes a' mice an' men gang aft agley"**

Well, Sharon and my plans certainly went 'agley' during our digital trip earlier in February through the Texas panhandle area. Things were going well until our antenna failed. What happened is that the insulator at the base (trailer hitch mount) cracked and allowed high voltage RF to burn its way through the crack to ground. Even though I attempted to tune many times, I just couldn't get a stable tune condition. I tried a quick repair, but that didn't solve the problem either. Since we had no spare antenna, we had to terminate our trip plans and head pretty much straight for home. We apologize to all who we disappointed, but we had no other choice. It was also frustrating for us since the weather was beautiful all that weekend and this was the maiden voyage for our new VW Passat TDI diesel. I'm sure that we lost a lot of good counties also!

I am now in the process of re-designing the base mount with a much "beefier" insulator which a good friend will create using a 3-D printer, but the machining, printing, and parts acquisition will take a couple of weeks to complete. I now have an alternate antenna base mount on the trunk lid and a bunch of Ham Sticks for various bands so that if the main antenna should fail for any reason, we won't be "dead in the water"!

Before the antenna failure, we were able over Friday, Saturday, and Sunday to put out 7 counties in Colorado, 2 counties in Oklahoma, and 7 counties in Texas on SSB and various digital modes. The Gray/Carson, TX county line was our last. We missed putting out 7 more counties in TX, 2 in NM, and 6 in CO. Even so, between the two of us, we did manage to make over 1500 total contacts on the trip.

The big lesson I re-learned from all this is the value of carrying spares when going mobile. Naturally, you can't carry spares of everything, but I recommend that, if possible, you take at least a spare antenna for 20M and a spare radio. The potential value of these spares increases exponentially as you get farther from home!!

**How To Find And Work Other Digital Mobiles:**

As promised last month, I will continue trying to answer the question: **"How in the @!X\*#! do I find and work other digital county hunters?"**.

Last month I talked about **True Frequency**, and **Typical Digital Frequencies Used by County Hunters**. This month I will continue with 2 new topics.

**How Do I Tell What Mode The Other Guy Is Using?**

Here are four clues you can use to help determine the mode being used:

- Where in the band are they operating?
- How wide is their signal?
- What does their signal sound like?
- What does their signal look like?

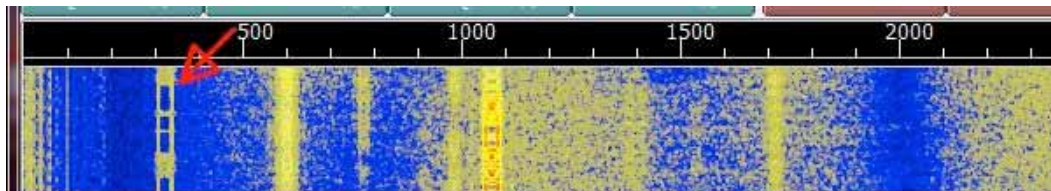
There are other useful tools you can use such as RSID (Reed Solomon Identification) and Video mode display, but to save space I will discuss these next month.

Here is a table (repeated from last month) giving signal bandwidth for the various modes:

Mode	Signal Bandwidth (Hz)	"True" Frequency Convention
PSK- 31	40	Center Of Trace
PSK- 63	80	Center Of Trace
RTTY- 45	180	Center Of Trace
MFSK- 16	230	Center Of Trace
MFSK- 32	475	Center Of Trace
HELL- 80	450	Center Of Trace
CONTESTIA 8/1000	880	Center Of Trace
DOMINO- 22	380	Center Of Trace
OLIVIA 8/1000	875	Center Of Trace
THOR- 22	385	Center Of Trace
THROB- 4	125	Center Of Trace
JT65- HF (W6CQZ)	175	Left Edge Of Trace
JT65 (WSJT- X)	175	Left Edge Of Trace
JT9- 1 (WSJT- X)	16	Left Edge Of Trace

I know that to the "newbie" this can all be mind-boggling at first. Just hang in there and you will find things a lot easier as time goes by.

The best way to understand how these clues can be used is with an example: Let's say that you are seeing this on your waterfall (Your radio dial is set to 14.071 MHz):



Let's look at the signal indicated with the red arrow.

First, it is at an offset of ~300 Hz which makes its true frequency 14.0713 MHz. If you know that most casual PSK'ers hang out between 14.070 and 14.072 MHz, you have your first clue that this is probably some kind of PSK signal.

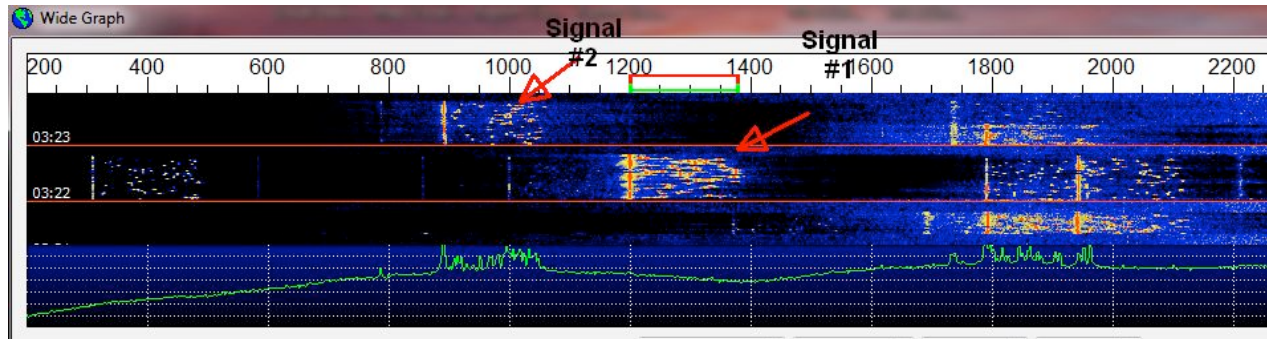
Second, you notice that the width of this signal is around 40 Hz. This tells you that this is most likely a PSK-31 signal.

Third, I can't convey here what this signal sounds like, but I can say that it has a distinctive warbling sound with a fundamental pitch of about 300 Hz (equal to the offset). Once this sound gets fixed in your mind, you will have no trouble identifying it as a PSK signal.

Finally, it appears like a miniature ladder whose sides keep switching - - sort of a twisting herring-bone look. This is distinctive to a PSK signal.

Put all four clues together and you can bet your bottom dollar that this signal is coming from a casual user (not a county hunter) using a PSK mode (sub mode BPSK-31).

Here is another example (Radio dial set to 14076 MHz):



Let's examine Signal #1.

First, its true frequency is 14.0772 MHz (Dial of 14.076 + 1200 Hz offset). We know that JT65 users typically hang out between 14.076 and 14.078 MHz. This is a pretty good clue that this is a JT65 signal.

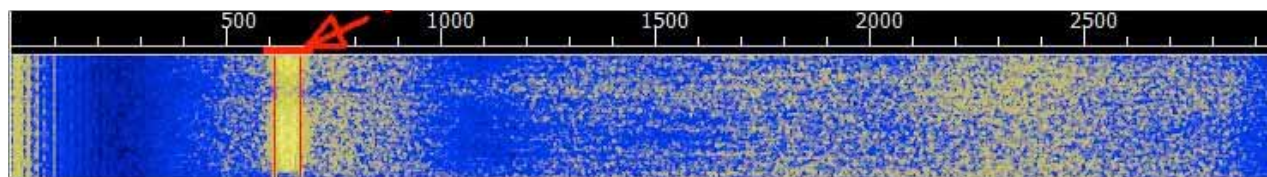
Second, it looks to be about 175 Hz wide. This is close to the width of a JT65 signal.

Third, when listening to it, you can hear a base tone at about 1200 Hz with a lot of short tone bursts of several higher frequencies. These correspond to the small horizontal marks to the right of the base tone. Unfortunately, the sound of this signal is similar to what some other modes sound like, so sound is a weak clue.

Fourth, and last, this signal just looks like a JT65 signal! It's sort of like recognizing an old friend's face.

Putting all 4 clues together, you can be almost 100% sure that this signal is using the JT65 mode (JT65 mode has NO sub modes)

Here is another example (Radio dial set at 14.074 MHz):



First, the true frequency of this signal is ~ 14.07465 MHz (14.074 MHz + 650 Hz offset). This is higher than the usual frequency range for PSK31 signals and lower than the lowest frequency commonly used by JT65 signals. We also know that digital people commonly use the range of 14.072 MHz to 14.076 MHz for wider modes like MFSK, DOMINO, OLIVIA, CONTESTIA, PSK63, etc. In addition, frequencies around 14.074 MHz or 14.075 MHz are commonly used by county hunter mobiles putting out counties using digital modes.

Second, the width of the signal is close to 80 Hz. This matches the width of a PSK63 signal very well.

Third, like PSK31, PSK63 has a unique sound all its own. Once you have this fixed in your brain, you can easily identify this mode/sub mode in the future.

Fourth, and last, a PSK63 signal looks just like a PSK31 signal only it is twice as wide and twice as fast.

If you combine all 4 clues with the fact that you have been alerted (by a spot) that a mobile is putting a county out using digital modes, you can be pretty sure that this signal is a mobile county hunter using PSK63.

For more detail on the various digital modes, I strongly suggest that you check out the following web site of G4UCJ: [http://hfradio.org.uk/html/digital\\_modes.html](http://hfradio.org.uk/html/digital_modes.html). It has great descriptions of many different digital modes. It also has good audio clips of actual transmissions so you can learn what each mode sounds like. Short descriptions of RSID and Video Text are also covered.

**Typical Modes Used On Digital Mobile Runs And Why.**

This topic is very much a moving target! As more people get involved with running counties mobile using digital modes, each one develops their own preferences and techniques. As time passes, I’m sure that these ideas will merge into a more stable set of standards, but, in my opinion, it is too early for that to happen now. Digital county hunting still needs to consider every new idea that comes down the pike. Besides, dealing with new ideas is half the fun! What follows should be thought of as preliminary and subject to change after more testing is done and county hunters gain more experience.

Terry (WQ7A) and I conducted over-the-air tests of almost every mode and sub mode supported by Fldigi (82 total). We tested for Band Width, Time needed to send a standard length message (which was converted to equivalent Words/Minute speed, and made notes on usability, lags, etc. Based on these tests, I narrowed the list down to 22 candidates which might be suitable for use by county hunters. This list was published in an earlier issue of Digital Happenings.

With a little additional pruning, I have come up with a “Shopping List” of 18 digital modes and sub modes which might be useful for running counties while mobile. Here it is:

SHOPPING LIST OF DIGITAL MODES/SUB MODES			
MODE	SUB MODE 1	SUB MODE 2	SUB MODE 3
CONTESTIA	8/1000		
DOMINO	16	22	44
HELL	80		
MFSK	31	32	64
OLIVIA	8/1000		
PSK	BPSK-63	BPSK-125	BPSK-250
RTTY	45	75N	75W
THOR	22		
THROB	4	X4	

You may notice that PSK-31 and MFSK-16 are conspicuous by their absence. Why? It is simply that they are both too slow for efficient use of your time when putting out counties (already a slow process compared to CW or SSB).

On the other hand, even if these two modes are slow, they may still be useful if propagation is poor. Here is a rule of thumb which can help you decide. **For the same mode, whenever you double the speed, you lose ~ 3 dB S/N capability and double the band width.**

Stated another way, **if you double the speed of a mode, you will also need to double your power output to be heard at the other end with the same signal strength.**

When Sharon and I are running counties (digital) we mostly use PSK-63, RTTY-45, and MFSK-32 (in that order) when we are only putting out 3 digital modes. If we have time for a fourth mode, we usually use either DOMINO-22 or OLIVIA 8/1000. These are just suggestions and are certainly not “cast in concrete”. For example, some people (who use an Elecraft K-3 without an interface) can only transmit on PSK-31 and RTTY-45! Other digital software may not support some of these modes/sub modes either. Regardless of what modes you end up using, you will be welcomed with open arms as there are a growing number of people now pursuing the new digital awards. The key is to publicize your trip in advance (on K3IMC Planned Trips) and to get yourself spotted on the W6RK spotting site.

### **The Rest Of The Story:**

Well folks, I again ran out of space before I could totally answer the original question. I’ll try to finish answering this question next month by discussing the following topics:

**What Is RSID (Reed-Solomon Identification) and Video Text? How Do You Use Them In FLDigi?**

**Compatibility Issues When Making RTTY Contacts.**

### **February Activities:**

Digital activities during February picked up tremendously! Digital county hunter mobiles spotted on W6RK in February and a rough count of each’s total spotted counties/modes are:

W0NAC/N0LXJ		> 13
K5YAA	59	
KW1DX	35	
N4WYR	1	
WA4UNS	1	

I’m sure the numbers are actually higher since not every mode in a county gets spotted. There would have been even more digital opportunities for you if our trip had not been cut short by the antenna failure.

### **Special Notice:**

The free SignalLink USB put up for grabs last month has found a good home! Both the donor and the recipient will remain anonymous.

**The updated Table 3 is given below:**

Table 3 - Active Digital County Hunters Award Status

#	CALL	NAME	STATUS* (M,F,I)	USA - DIGITAL COUNTIES (of 3077)	(1 MODE)	(2 MODES)	FIVE MODE COUNTIES (3 MODES)	(4 MODES)	(5 MODES)	TOTAL	% 5-Mode Completed	LAST UPDATED
1	AA8R	Randy	F	1000+	-	-	-	-	-	0	0.0%	9/30/2012
2	AC0B	Cliff	F	205	-	-	-	-	-	0	0.0%	12/10/2012
3	AD1C	Jim	F	-	-	-	-	-	-	0	0.0%	
4	K0DEQ	Bill	F	-	-	-	-	-	-	0	0.0%	
5	K0FG	Fred	F	169	3077	3006	169	11	0	6263	40.7%	1/17/2014
6	K0PVV	Rob	F	-	-	-	-	-	-	0	0.0%	
7	K0WJ	Lou	F	-	-	-	-	-	-	0	0.0%	
8	K4PBX	Jim	F	151	2889	133	19	9	8	3058	19.9%	2/26/2014
9	K5GE	Gene	F	26	1893	575	8	0	0	2476	16.1%	5/26/2013
10	K5SF	Dick	F	-	-	-	-	-	-	0	0.0%	
11	K5WAF	Bill	F	599	3044	?	?	?	?	3044	19.8%	5/2/2013
12	K7REL	Tom	F	-	-	-	-	-	-	0	0.0%	
13	K8QWY	Ed	F	-	-	-	-	-	-	0	0.0%	
14	K8ZZ	Ed	F	-	-	-	-	-	-	0	0.0%	
15	KA4RRU	Mike	M/F	975	3077	2939	944	49	1	7010	45.6%	1/10/2014
16	KA8IQP	Pamela	M/F	22	202	64	53	28	4	351	2.3%	9/12/2013
17	KC3X	Hollis	F	-	-	-	-	-	-	0	0.0%	
18	KC6AWX	Bob	F	450	3077	1592	264	59	14	5006	32.5%	5/7/2013
19	KC7YE	Jack	F	-	-	-	-	-	-	0	0.0%	
20	KD5YUK	Billy	F	-	-	-	-	-	-	0	0.0%	
21	KD7KST	Bill	M/F	1792	-	-	-	-	-	0	0.0%	9/30/2012
22	KF7PKL	Davis	F	379	879	211	48	15	1	1154	7.5%	10/9/2013
23	KG5RJ	Greg	F	671	3050	2097	618	239	90	6094	39.6%	2/23/2014
24	KM1C	Bill	F	-	-	-	-	-	-	0	0.0%	
25	KU4YM	Dave	F	30	2782	29	10	2	1	2824	18.4%	9/6/2013
26	KM6HB	Mark	F	714	3077	2936	694	87	1	6795	44.2%	2/3/2013
27	KW1DX	Dave	M/F	-	-	-	-	-	-	0	0.0%	
28	N0KV	Barry	M/F	500	3077	3029	2289	355	69	8819	57.3%	1/7/2014
29	N0LXJ	Sharon	M/F	1366	3077	2263	1212	476	237	7265	47.2%	1/29/2014
30	N1API	Al	F	522	3077	1969	435	218	121	5820	37.8%	2/24/2014
31	N4JT	Jim	F	736	3077	3064	743	235	150	7269	47.2%	10/21/2013
32	N5MLP	Ron	M/F	391	3077	409	54	37	9	3586	23.3%	5/19/2013
33	N6PDB	Dennis	M/F	827	3077	2861	888	540	400	7766	50.5%	2/27/2014
34	N8CIJ	Dick	F	676	3077	3014	668	303	229	7291	47.4%	9/5/2013
35	N8HAM	Jim	F	0	3077	0	0	0	0	3077	20.0%	4/2/2013
36	N9WNN	Steve	F	0	2180	0	0	0	0	2180	14.2%	2/24/2013
37	NA8W	Darl	F/M	579	3022	852	381	212	99	4566	29.7%	9/12/2013
38	NF0N	Mike	F	785	3077	3077	915	108	50	7227	47.0%	12/31/2012
39	NN9K	Pete	F	816	3077	859	78	1	0	4015	26.1%	3/23/2012
40	NT2A	Gene	F	-	-	-	-	-	-	0	0.0%	
41	NU4C	Paul	F	-	-	-	-	-	-	0	0.0%	
42	NW6S	Jim	F	722	3077	3077	743	59	35	6991	45.4%	9/7/2013
43	NX4W	Llovd	M/F	1135	3077	1274	436	290	97	5174	33.6%	7/27/2013
44	W0NAC	Matt	M/F	1816	3077	2833	1979	1084	432	9405	61.1%	1/29/2014
45	W3DLM	Don	F	359	3077	2390	298	101	55	5921	38.5%	10/12/2013
46	W3ZUH	Dick	F	5	3077	2048	11	2	0	5138	33.4%	12/4/2013
47	W4IHI	Gary	F	-	-	-	-	-	-	0	0.0%	
48	W4SIG	Kerry	F	-	-	-	-	-	-	0	0.0%	
49	W4YDY	Dave	F	883	3077	3077	1041	361	181	7737	50.3%	12/22/2013
50	W5QP	Rick	M/F	248	3077	2671	258	114	83	6203	40.3%	2/23/2014
51	W6RK	Risto	F	-	-	-	-	-	-	0	0.0%	
52	W6RLL	Joe	F	-	-	-	-	-	-	0	0.0%	
53	W7FEN	Larry	F	25	3077	2975	32	1	0	6085	39.6%	10/3/2013
54	W7IN	Larry	F	-	-	-	-	-	-	0	0.0%	
55	W7QQ	Bill	M/F	-	-	-	-	-	-	0	0.0%	
56	W9JR	Rich	F	90	3077	1674	44	0	0	4795	31.2%	10/31/2012
57	W9SUQ	Larry	F	-	-	-	-	-	-	0	0.0%	
58	WA4FEZ	Leslie	F	1086	3077	1742	699	234	31	5783	37.6%	1/6/2014
59	WA4UNS	Doug	F	-	-	-	-	-	-	0	0.0%	
60	WA6OCV	Susan	M/F	328	3077	328	320	130	10	3865	25.1%	3/28/2013
61	WA7ETH	Ed	F	141	1910	370	26	3	0	2309	15.0%	2/17/2014
62	WA7JHQ	Sterling	F	-	-	-	-	-	-	0	0.0%	
63	WB0M	Jeff	F	-	-	-	-	-	-	0	0.0%	
64	WB2ABD	Paul	F	-	-	-	-	-	-	0	0.0%	
65	WD4OIN	Jack	F	951	3077	3070	961	391	175	7674	49.9%	2/16/2014
66	WQ7A	Terry	F	201	3077	3028	206	132	112	6555	42.6%	8/24/2013
67	WY4D	Ben	F	281	3077	303	36	15	9	3440	22.4%	2/11/2014

Please note that N6PDB has joined the small group of those who have completed 50% or more of the 5 – Mode Award. Congratulations Dennis!

**How To Get Your 5 – Mode Statistics Updated:**

Several past Digital Happenings articles have given detailed instructions on a new and easy way to update your digital statistics for Table 3 by using a small program called “Digital Report Utility”. This



new program will create a report for you showing your progress for both the **USA – Digital** and the **5 – Mode Awards** and email it to WONAC. Instead of repeating these instructions every month I have included them in a Microsoft Word document that you can download by clicking on the following link: <https://dl.dropboxusercontent.com/u/26171574/Happenings/5%20Mode%20Update.doc>

**Other possible topics for future months include (in no particular order):**

“How To Log Your Digital Contacts In Logger”

“Macros – Revisited”

“New Digital Awards?”

“Digital Software Installation – Revisited”

“Award Difficulty Index”

I hate to keep harping at you all, but I really need (and welcome) your suggestions on topics for future articles! Or, if you have a story or tip that you wish to contribute, I will certainly try to include it. Short stories describing your experiences/joys/frustrations/etc. in getting started in digital ops would be especially welcome. Summaries of any digital trips you make (or have made in the past) would also be good. I look forward to hearing from you. Don't be shy!

Please email me with your comments/suggestions at [w0nac@comcast.net](mailto:w0nac@comcast.net) and don't forget to send your updated status for the **USA – Digital** and **5 - Mode Awards** so I can update the Active Digital County Hunters Award Status list again next month.

73's and we hope to see you on our waterfall again real soon!

Matt – WONAC





**Awards**

<b>Awards Issued For February</b>			
<b>Call</b>	<b>Date</b>	<b>Award</b>	<b>Number</b>
KC3X	2/17/2014	Worked all Counties - 9th Time	# 9
N9QS	2/10/2014	Worked all Counties - 9th Time	# 8
N7LFX	2/21/2014	USA-CA WAC 1 <sup>st</sup> Time	# 1244
KC3X	2/24/2014	County Challenge - 16000	Level 16
W0EAR	2/25/2014	County Challenge – 13000	Level 13

<b>Roadrunner Issued For February</b>			
<b>Call</b>	<b>Date</b>	<b>Award</b>	<b>Number</b>
AB4YZ	2/27/2014	Last County Count 775	# 15
N4CD	2/25/2014	Last County Count 2275	# 1
K0FG	2/25/2014	Last County Count 75	# 268
N0XYL	2/18/2014	Last County Count 225	# 92
KB0BA	2/18/2014	Last County Count 150	# 162
W4SIG	2/5/2014	Last County Count 200	# 112
N9AC	2/5/2014	Last County Count 50	# 344



## Birthdays

Roadrunner - Birthdays	
Call	Birthday Date
KC7FPB	Mar - 01
K9EZ	Mar - 01
N9JFW	Mar - 01
KA7JNU	Mar - 01
N5MIV	Mar - 01
N5PR	Mar - 01
KA9JOL	Mar - 01
WA5YNE	Mar - 02
W6RLL	Mar - 02
N0KM	Mar - 02
KB3WN	Mar - 02
WN3W	Mar - 02
W3ZUH	Mar - 02
K5TVC	Mar - 03
KS7T	Mar - 03
KL7D	Mar - 03
W2WHC	Mar - 03
N5NK	Mar - 03
N4RS	Mar - 03
K1IK	Mar - 04
WN4AFP	Mar - 04
WB0O	Mar - 04
N5KUC	Mar - 05
KR9Z	Mar - 05
K6JRY	Mar - 05
WB9CAC	Mar - 05
N7MZW	Mar - 05
N0FP	Mar - 06
WO5W	Mar - 06
KK5P	Mar - 06
W4DF	Mar - 06
K9ZV	Mar - 06
WY0A	Mar - 07
W5VUB	Mar - 07
N0AKC	Mar - 07
N4HY	Mar - 07
W9WX	Mar - 08

Roadrunner - Birthdays	
Call	Birthday Date
K5LEO	Mar - 08
W6FJU	Mar - 08
K4DOM	Mar - 08
K9HID	Mar - 08
NT4D	Mar - 08
AC5AR	Mar - 08
W6LX	Mar - 09
NY3B	Mar - 09
N0DXE	Mar - 09
W4DEE	Mar - 09
KL7VB	Mar - 09
WB0OAO	Mar - 09
N8FEB	Mar - 10
KS8W	Mar - 10
K9FDL	Mar - 10
WB2WZE	Mar - 10
OK2PAY	Mar - 10
K1GQ	Mar - 10
WA9NBU	Mar - 11
WD9ITF	Mar - 11
K1HV	Mar - 11
N5UR	Mar - 11
NN8L	Mar - 12
K5ZZR	Mar - 12
K5TIA	Mar - 12
W4OV	Mar - 12
VE4AGT	Mar - 12
KC4YBO	Mar - 12
N1WR	Mar - 12
KB6HW	Mar - 13
WK7E	Mar - 13
K3ZV	Mar - 13
WG4P	Mar - 13
W5TM	Mar - 13
NV3E	Mar - 13
AA4VN	Mar - 14
KU0A	Mar - 15

Roadrunner - Birthdays	
Call	Birthday Date
WOEWH	Mar - 15
KG4VBK	Mar - 16
W7MEL	Mar - 16
KD1OG	Mar - 16
N3KN	Mar - 16
KM6QF	Mar - 17
WA8LKD	Mar - 17
K5WAF	Mar - 17
N7ID	Mar - 17
KG7MU	Mar - 17
W0MTW	Mar - 17
W1VJ	Mar - 17
K7VAY	Mar - 17
9A2WJ	Mar - 18
K1NEF	Mar - 18
W4WBA	Mar - 18
KL7H	Mar - 18
KB9SF	Mar - 18
K9TY	Mar - 19
W5JAC	Mar - 19
K8OOK	Mar - 19
KN4XP	Mar - 19
K6OO	Mar - 20
N0AX	Mar - 20
WA2GLU	Mar - 20
NC4JL	Mar - 20
K5RIC	Mar - 20
N3TA	Mar - 22
KM4W	Mar - 22
WA5VGI	Mar - 22
W0HII	Mar - 22
WA7NV	Mar - 22
KW3F	Mar - 22
K1RV	Mar - 23
KF9YR	Mar - 23
KA3T	Mar - 23
K1RO	Mar - 23

## Roadrunner - Birthdays

Call	Birthday Date
N9AUV	Mar - 23
NK0N	Mar - 23
K0WTZ	Mar - 23
AF4ZZ	Mar - 23
KC0M	Mar - 24
WA2DWP	Mar - 24
KC2MO	Mar - 24
K0QD	Mar - 24
KZ5KG	Mar - 24
W3ZD	Mar - 25
AA9DV	Mar - 25
KD5FZN	Mar - 25
W4KFA	Mar - 25
WA0QFY	Mar - 26
N4US	Mar - 26
K6CA	Mar - 26
K5EBS	Mar - 26
NU9C	Mar - 27
KY4T	Mar - 27
N2FPM	Mar - 27
K9EDE	Mar - 27
K8OI	Mar - 27
N8BNI	Mar - 27
K4BAI	Mar - 27
WA4RNN	Mar - 27
K5EK	Mar - 28
N7JXS	Mar - 28
AA6MZ	Mar - 28
W9VB	Mar - 28
AA8DM	Mar - 28
WA7TC	Mar - 28
NH7Y	Mar - 28
KA9H	Mar - 28
WB4FEV	Mar - 29
NG3O	Mar - 29
W4RJK	Mar - 29
NR2H	Mar - 30

## Roadrunner - Birthdays

Call	Birthday Date
KS7S	Mar - 31
KD0HX	Mar - 31
WA3GLJ	Mar - 31
KD2N	Mar - 31



**Treasurer's Report (WONAC)  
January 2014\***

Beginning Account Balances Jan 6, 2014		<b>\$35,257.80</b>
January Income:		
Money Market Interest	\$2.89	
Awards Manager Income	\$217.50	
Membership Income	\$480.21	
Logger distribution	\$20.00	
Total Income:		<u>\$720.60</u>
January Expenses:		
Awards Manager Expenses	\$378.36	
Office Expenses (Postage)	\$0.00	
Total Expenses:		<u>\$378.36</u>
January Net Income Less Expenses		<b>\$342.24</b>
New Total Balance ALL Accounts:		<b>\$35,600.04</b>
Checking Account Balance	<u>\$4,559.62</u>	
Money Market Account Balance	<u>\$31,040.32</u>	
Total:		<b>\$35,600.04</b>

## Note:

The following monies are not included in the account balances above:

Awards Manager's Funds	\$1,500.00
2014 National Convention Seed Monies	\$4,000.00 (Some will be expensed later)

\* Includes January Transactions through 2/4/2014



**Awards Manager's Report  
February 28, 2014**

Funds Balance January 31, 2013		<b>\$1,500.00</b>
Income	\$ 238.50	
	<u>\$ 238.50</u>	
Expenses:		
Office supplies	\$ 81.68	
Plaque Suppliers	\$ 67.00	
Postage	\$ 27.93	
	<u>\$ 176.61</u>	
Sent to Treasurer		\$ 238.50
Reimbursement received from Treasurer		\$ 176.61
Funds Balance February 28, 2014		<b>\$1500.00</b>



Calendar

~ March 2014 ~						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
ONLY START DATE SHOWN						1
2	3	4 YL CW QP	5	6	7	8 STRT KEY SPRINT  ID QP
9 NA RTTY SPRINT  WI QP	10	11	12	13	14	15 VA QP
16 NA SSB SPRINT	17 RUN4BACON	18	19	20	21	22 OK QP  LA QP
23	24	25	26	27	28	29 CQ SSB WPX
30	31	Notes: MI MINI 4/24				



**Awards Committee**

**These MARAC members are serving on the Awards Committee:**

**Awards Manager - Bob Devine (KC6AWX)**

**Phil Yasson ( AB7RW )**

**Bob Gedemer ( KA9JAC )**

**Dave Splitt ( KE3VV )**

**Kent Reinke ( KV7N )**

**Ed Palagyi ( KN4Y )**

**“Matt” Matthew (W0NAC)**

**David Pyle ( KW1DX)**



*The County Line Roadrunner*  
**MARAC Secretary**  
**2690 Bohicket Rd**  
**Johns Island, SC 29455**

*“A Road Runner Is A Very Fast Bird”*

**Monthly Deadline for Articles is the 25<sup>th</sup>!**

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