

DIGITAL HAPPENINGS #10

(May 2013)

By W0NAC ("Matt")

Winston Churchill is quoted as saying "A pessimist sees the difficulty in every opportunity; an optimist sees the opportunity in every difficulty." I found myself wondering how this applies to digital county hunting. Yes, it can be challenging to set up a digital rig (especially mobile), and wading through those pesky manuals to learn how to use new software is sometimes enough to make a preacher cuss! Never-the-less, I remain convinced that the end result is worth all the effort and I invite those of you that are uninitiated into digital county hunting to take the plunge! As an old commercial used to say "Try it, you'll like it".

Challenge Department:

Last month I challenged you to solve a new puzzle as stated below:

What is the shortest word in the English dictionary that contains all 5 vowels once and only once and in exact alphabetical order?

I certainly got my "comeuppance" on this one! For ages I have believed the answer to this question was the word "facetious" (9 letters). Our president, KE3VV (Dave) provided the earliest correct solution with the word "aerious" (7 letters), closely followed by KB9VQM (Louie) and W5VD (Hank). Thanks, Dave, for straightening me out...

Now, I would like to challenge you again with a different problem:

What 6 letter English word contains NO common vowels (AEIOU), but does contain 3 Y's used as vowels.
Hint: an astronomical term.

I will again provide the correct solution in next month's article along with a list of who sent in the correct solution. Send your solutions to w0nac@comcast.net.

Western Colorado Digital Mode Experiment:

Last month I described a series of over-the-air tests of 83 different digital modes/sub-modes to determine their Bandwidth, Time to transmit 100 characters, Words/Minute, and general comments on delays, copy, etc. The results of these tests are still available at this link:

https://dl.dropboxusercontent.com/u/26171574/Modes_Submodes%20Test%2002.xlsx.

Based on these results I selected 18 modes/sub-modes which warrant further testing. These are shown below:

Mode/Sub-Mode Candidates

Mode	Sub-Mode #1	Sub-Mode #2	Sub-Mode #3
CONTESTIA	8/1000		
DOMINOEX	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	

In an effort to better explore the usefulness of these 18 modes/sub modes, Sharon and I completed a loop around Western Colorado where we tested 5 of them. We put out a total of 24 unique counties on 11 county lines and 4 as single counties. Please keep in mind when you examine the table below, that I have counted ALL contacts, not QSOs. For example, if a station worked both of us on a county line, that was counted as four contacts. As promised earlier, here are the detailed results of our trip:

WESTERN COLORADO TRIP RESULTS
(26 – 28 April 2013)

COUNTIES\MODES	COMBINED CONTACTS						
	SSB	CW	BPSK-63	RTTY-45	RTTY-75N	MFSK-32	DOMINOEX-22
Jefferson	6	0	0	0	0	0	0
Summit	10	0	2	2	0	2	0
Lake/Eagle	104	0	32	24	0	32	0
Pitkin/Gunnison	52	0	24	24	0	24	0
Garfield/Rio Blanco	40	12	12	8	0	12	0
Mesa/Delta	84	0	36	44	0	40	0
Montrose/Ouray	88	0	40	24	0	36	24
San Juan/La Plata	0	0	4	0	0	0	0
San Juan (Only)	76	0	12	20	0	18	0
La Plata/Montezuma	48	4	32	32	0	36	0
Archuleta	20	0	16	16	0	0	14
Mineral/Hinsdale	112	0	36	36	0	24	20
Rio Grande/Alamosa	124	0	44	48	0	0	40
Conejos/Alamosa	136	0	32	0	36	0	40
Costilla/Huerfano	108	4	28	0	36	0	36
TOTALS:	1008	20	350	278	72	224	174
					Grand Total:	2126	

Based on our experiences on this trip, I offer the following comments:

- 1) The “old standby” modes – BPSK-63 and RTTY-45 still work well, but are noticeably slower than some of the newer modes. This slowness is especially true for RTTY-45. Even so, both modes seem to be very robust and most people have the software to run them.
- 2) RTTY-75N is about 50% faster than RTTY-45 and may eventually become the recommended RTTY mode for running counties. Its main drawbacks are that not everyone has the software to run it and a general mistrust of anything new. Fldigi users will have no problems using this mode.
- 3) MFSK-32 is a good mode, but like all MFSK modes, requires extremely accurate tuning to successfully decode. When operating in a mobile environment, difficult tuning can slow things down because missed calls/replies require repeats. Never-the-less, MFSK-32 is a better mode to use than MFSK-16 that has been used in the past, mainly because it is twice as fast!
- 4) DominoEX-22 seems to be gaining favor lately. It is extremely fast and seems to do as well (or better) with weak signals than other modes. Terry (WQ7A) has pointed out that this mode will occasionally truncate the first few characters of a received transmission (maybe because it is so fast?). This may require users to insert a few leading spaces or CR/LF's into their macros.

Obviously, a lot of additional testing and experience is needed. I may be able to offer some recommendations at the Digital meeting next July in Deadwood.

Given below is a list of who called us on our Colorado trip and which modes were used:

W0NAC/N0LXJ WESTERN COLORADO TRIP TOP DIGITAL CALLERS
(26-28 April 2013)

#	CALL	NAME	# CONTACTS BY MODE				TOTALS
			PSK	RTTY	MFSK	DOMINO	
1	K4PBX	Jim	4	0	0	0	4
2	K6KAR	Kirk	0	0	4	0	4
3	K7REL	Tom	4	0	0	0	4
4	K8QWY	Ed	22	4	0	0	26
5	KA4RRU	Mike	0	22	0	0	22
6	KE4ETY	Bill	4	4	0	0	8
7	N1API	Al	32	28	18	22	100
8	N4JT	Jim	26	28	18	18	90
9	N5MLP	Ron	34	22	8	0	64
10	N6PDB	Dennis	26	26	20	10	82
11	N8CIJ	Dick	34	30	16	10	90
12	NA8W	Darl	34	40	22	18	114
13	NX4W	Lloyd	16	14	10	12	52
14	W3DLM	Don	16	8	8	0	32
15	W4YDY	Dave	12	14	6	12	44
16	W5QP	Rick	16	16	4	8	44
17	WA4UNS	Doug	14	14	8	10	46
18	WB0PYF	Ray	4	4	0	0	8
19	WB2ABD	Paul	20	28	18	22	88
20	WD4OIN	Jack	18	14	18	12	62
21	WQ7A	Terry	34	34	22	20	110
	Totals:		370	350	200	174	1094

The top 3 callers were NA8W (Darl), WQ7A (Terry), and N1API (Al) in that order. PSK and RTTY were, by far, the most used modes. Domino was the least used, probably because it is still so new.

May Activities:

Digital Activities during May have picked up quite a lot.

- 1) **W5QP** (Rick) has continued being very active putting out digital counties in MO, AR and OK. Rick has been using BPSK-63, RTTY-45, MFSK-16, MFSK-32, and DOMINOEX-22.
- 2) **WA4UNS** (Doug) put out digital counties in KY, OH, and WV. He used MFSK-32 and other modes on his runs.

- 3) W0NAC/N0LXJ (Matt & Sharon) put out rare (??) Elbert County, CO in late May. We used BPSK-63, RTTY-75N, DOMINOEX-22, and OLIVIA 8/1000 modes.
- 4) NX4W (Lloyd) put out a tremendous number of digital counties in FL, GA, and AL in late May. He used at least 5 different modes including BPSK-63, RTTY-45, MFSK-32, THROB, and DOMINOEX-22 during his many runs. Unfortunately, poor propagation and high noise levels reduced the number of people who could take advantage of Lloyd's good work.

Support calls related to digital setup, etc. have maintained a steady pace. As always, I stand ready to help anyone who has problems or wishes to get started with digital operations. Just email me or call me on the phone. My email is w0nac@comcast.net and my home phone number is 303-799-3658. Call any time.

Table 3 (below) has again been updated from last month. I updated several people using files I had from previous Logger support calls. Please check my work, and if you think your numbers are not right, please drop me a quick email and include your correct stats, if you know them. If you haven't the "foggiest" idea what your stats are, please attach zipped copies of your most current Logger call sign database, and your Common database and I can extract your stats from these. For example, my two databases are named "County Hunter – W0NAC.mdb" and "County Hunters – Common.mdb". Both files can normally be found in the following folder: "C:\Logger Data\". Again, please "ZIP" these files as my email provider won't pass files with an "mdb" file extension.

Logger will currently give you your status for the **USA – Digital Award** (go to "View/Edit/Book/USA-Digital/All"), but for the **5 - Mode Award**, Logger only reports those counties which have been worked using all 5 different modes. You can see your **5 - Mode Award** status by going to "View/Edit/Book/5 - Mode/All". A fix is still in the works that will report on the status of 1, 2, 3, and 4 completed counties. In the meantime, your only options are to manually count them (from a Logger printed 5-Mode report) or, as mentioned above, send your data files to me for extraction.

Establishing an interactive web site for digital matters is still in the works, but has been held up by more pressing matters. One of the functions I hope to have on the site is an interactive way for digital folk to input their status so I can update the table. I have a server and a domain name, but still need to develop the software for the site. It will probably be several months before the site is up and functional.

Here is the updated Table 3:

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)	LAST UPDATED
1	AA8R	Randy	F	1000+	-	-	-	-	-	9/30/2012
2	AC0B	Cliff	F	205	-	-	-	-	-	12/10/2012
3	AD1C	Jim	F	-	-	-	-	-	-	
4	K0DEQ	Bill	F	-	-	-	-	-	-	
5	K0PVW	Rob	F	-	-	-	-	-	-	
6	K0WJ	Lou	F	-	-	-	-	-	-	
7	K4PBX	Jim	F	106	2575	84	6	0	0	10/15/2012
8	K5GE	Gene	F	-	-	-	-	-	-	
9	K5SF	Dick	F	-	-	-	-	-	-	
10	K5WAF	Bill	F	599	3044	?	?	?	?	5/2/2013
11	K7REL	Tom	F	-	-	-	-	-	-	
12	K8QWY	Ed	F	-	-	-	-	-	-	
13	K8ZZ	Ed	F	-	-	-	-	-	-	
14	KA8JQP	Pamela	M/F	-	-	-	-	-	-	
15	KC3X	Hollis	F	-	-	-	-	-	-	
16	KC6AWX	Bob	F	450	3077	1592	264	59	14	5/7/2013
17	KC7YE	Jack	F	-	-	-	-	-	-	
18	KD5YUK	Billy	F	-	-	-	-	-	-	
19	KD7KST	Bill	M/F	1792	-	-	-	-	-	9/30/2012
20	KG5RJ	Greg	F	557	3048	2062	496	147	34	5/2/2013
21	KM1C	Bill	F	-	-	-	-	-	-	
22	KM6HB	Mark	F	714	3077	2936	694	87	1	2/3/2013
23	N0KV	Barry	M/F	412	3077	2996	2064	249	24	8/26/2012
24	N0LXJ	Sharon	M/F	1334	3077	2235	1163	423	201	5/26/2013
25	N1API	Al	F	313	3077	519	128	22	6	4/10/2013
26	N3HOO	Ed	F	-	-	-	-	-	-	
27	N4JT	Jim	F	572	3077	3058	575	99	55	10/30/2012
28	N5MLP	Ron	M/F	391	3077	409	54	37	9	5/19/2013
29	N6PDB	Dennis	M/F	375	3077	2633	413	138	115	3/28/2013
30	N8CIJ	Dick	F	481	3077	2971	393	117	109	1/21/2013
31	N8HAM	Jim	I	0	3077	0	0	0	0	4/2/2013
32	N9WNN	Steve	F	0	2180	0	0	0	0	2/24/2013
33	NA8W	Darl	F	535	2993	?	?	?	55	4/6/2013
34	NF0N	Mike	F	785	3077	3077	915	108	50	12/31/2012
35	NN9K	Pete	F	816	3077	859	78	1	0	3/23/2012
36	NT2A	Gene	F	-	-	-	-	-	-	
37	NU4C	Paul	F	-	-	-	-	-	-	
38	NW6S	Jim	F	-	-	-	-	-	-	
39	NX4W	Lloyd	M/F	1127	3077	1190	306	146	78	5/21/2013
40	W0NAC	Matt	M/F	1769	3077	2802	1899	940	349	5/26/2013
41	W3DLM	Don	F	-	-	-	-	-	-	
42	W4IHI	Gary	F	-	-	-	-	-	-	
43	W4SIG	Kerry	F	-	-	-	-	-	-	
44	W4YDY	Dave	F	752	3077	3077	921	213	46	3/6/2013
45	W5QP	Rick	M/F	90	3077	1674	44	0	0	10/21/2012
46	W6RK	Risto	F	-	-	-	-	-	-	
47	W6RLL	Joe	F	-	-	-	-	-	-	
48	W7IN	Larry	F	-	-	-	-	-	-	
49	W7QQ	Bill	M/F	-	-	-	-	-	-	
50	W9JR	Rich	F	90	3077	1674	44	0	0	10/31/2012
51	W9SUQ	Larry	F	-	-	-	-	-	-	
52	WA4UNS	Doug	F	-	-	-	-	-	-	
53	WA6OCV	Susan	M/F	328	3077	328	320	130	10	3/28/2013
54	WA7JHQ	Sterling	F	-	-	-	-	-	-	
55	WB0M	Jeff	F	-	-	-	-	-	-	
56	WB2ABD	Paul	F	-	-	-	-	-	-	
57	WD4OIN	Jack	F	395	3077	3065	410	67	8	3/3/2013
58	WQ7A	Terry	F	158	3077	3011	163	96	81	5/26/2013
59	WY4D	Bennie	F	-	-	-	-	-	-	

Possible topics for the coming months include –

“How To Log Your Digital Contacts In Logger”

“Macros – Revisited”

“New Digital Awards?”

“Digital Software Installation – Revisited”

“Award Difficulty Index”

“Additional Digital Mode Test Results”

“Monthly Tip For Digital Operation”

So long again.....Please email me with your comments/suggestions at w0nac@comcast.net and don't forget to send me your counties worked status on the **USA – Digital** and **5 - Mode Awards** so I can update the Digital County Hunter Status List again next month.

73's and we hope to see you at the National Convention in Deadwood.

Matt – W0NAC