DIGITAL HAPPENINGS #22

<u>(May 2014)</u> By W0NAC ("Matt")

As you probably already know, for some time now I have been recommending Fldigi software. It is gratifying to note that Dave Freese, W1HKJ (who develops and distributes the Fast Light Digital Modem Application) was recently awarded the Technical Excellence Award at the 2014 Dayton Hamvention. The award goes on to state that "FLDIGI is an easy to use, free of charge, and open source computer program intended for Amateur Radio Digital Modes operation using a Personal Computer." I, for one, believe that Dave well deserves this recognition for developing such a great piece of software! If you don't currently have Fldigi in your "bag of tricks", you can download the latest version (3.21.82) at this link: <u>http://www.w1hkj.com/download.html</u>. There are many different programs available on this site (shown below), but I have circled (in red) the main ones you will need to get started in Fldigi using Microsoft Windows:

Download page: updated 1 May 2014

<u>Fldigi / Flarq</u> :	Linux Binary fldigi-3.21.82.bin <u>README</u>	Windows Setup	OS X drng <u>fldigi-3.21.82 dmg</u>	Puppy Pet (1) fldigi-3.21 flarq-4.3	Source fldigi-3.21.82	Help Fldigi-Help Flarq-Help	Release Info <u>Maint'</u>
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Sharon and I were planning a trip through Alaska on the way to the National Convention in July. We are sorry to report that we had to cancel the Alaska part of the trip. We are calling this our "TOO" trip because it was "TOO" far (9300 miles), "TOO" long (33 days), "TOO" expensive (Over \$4,000), and we both now have "TOO" many physical limitations. We will still be putting out a lot of digital counties on both the way to and our return from the National so watch for us on your waterfall. Exact plans will be given a bit later on both K3IMC's site and by email to digital folks.

Now, on to the main topic for this month.

Less Well Known Features of Fldigi

Before I begin, let me repeat that the beauty of the Fldigi program is that you can successfully use it with mostly default settings and never need to understand or use all the features of what is a very complex piece of software. But, for the more adventuresome people out there, the rich feature set of Fldigi will allow you to extract even higher performance from the software.

In this article I only have time and space to cover 10 of these features (from now on these will be called "buttons"). These 10 buttons only "scratch the surface". I may be able to cover more in later articles, but I don't want to deprive you of the pleasure of delving into the Fldigi Manual (LOL)!

You can find the location of Buttons (A - J) on the full Fldigi screen shown below:



I will now discuss each button individually.

Button A – This button displays your current signal display mode and also allows you to "toggle" between three modes (Water Fall, Fast Fourier Transform [FFT], and Scope) by left mouse clicks. The default is the WF or Waterfall display.

Button B – This button displays your current operating mode & sub-mode, but has two other very useful functions. A left click on this button produces a pull-down list of sub-modes for BPSK which you can left click to immediately change to a different sub-mode.

A right click will take you directly into the detail Fldigi configuration screen for the mode you are using. For example, in the sample screen above, a right click on this button will immediately display the Fldigi configuration/Modems/PSK/General settings menu below:

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Since this configuration selection automatically defaults to the correct menu screen for the mode you are currently using, this can save you a lot of time trying to "drill down" several layers in a rather complex Fldigi menu system. Pretty neat!

If operating in the CW mode, this button also displays the speed (WPM) of the received CW signal which is automatically calculated by the CW decoder.

Button C – This button is used to both display the current waterfall/spectrum display Upper Signal Level (dB) and to raise or lower this setting. Each left click on the arrow at the right end of the button will raise the level by 1 dB. Each left click on the arrow at the left end of the button will lower the level by 1 dB. That is all fine, but the question arises: "What is optimum setting for this control?" Since this control interacts with Button E, I will defer trying to answer this question until Button E is discussed later, but for now the default value of -10 dB works fine in most cases.

<u>Button D</u> – This Button has several different functions that change with the operating mode. For example, when using any PSK mode this button displays the signal to noise ratio (s/n) for the signal on which you are tuned. Actually, the PSK decoder estimates both the s/n and the intermodulation distortion (IMD), but displays only the s/n value on this button and the IMD on Button F.

For any RTTY mode this button displays the baud rate/frequency shift associated with the sub-mode. For example, when operating RTTY-45, this button will display "45.45/170". If you are operating RTTY-75N, this button will display "75/170". For most other digital modes (Contestia, Olivia, MFSK, and Dominox) this button will display either s/n or be blank. If you are operating in the CW mode, this button displays transmit speed (WPM) with arrows at both ends that can be used to adjust speed. This button (and Button F) will automatically clear or dim after the number of seconds set in the Fldigi configuration / Modems / PSK / General settings menu shown above. Setting this time to 0 (zero) disables the clear/dim action.

<u>Button E</u> – This button displays the current setting for the total range over which signals will be displayed on the waterfall/spectrum display. This range is relative to the upper signal level controlled by Button C above. For example if you select -10 dB for Button C and 40 dB for Button E, the waterfall will display signals falling between -10 dB and -50 dB.

The only suggestion I can give to you on where these two controls should be set, is to start with the default values of -10/40 and experiment. Personally, I usually use settings of -10/70. For you to find your own optimum settings, just set your transceiver dial to 14.070 MHz and watch how PSK signals and noise change on the waterfall as you set different values. For example, if you set the upper level too low (high negative number), noise will increase because the floor value (range) moves down at the same time into the noise. If you set the range to a value that is too small, the minimum signal level ends up too high and weak signals disappear. It takes fairly large changes in the values for both of these controls to cause a significant difference in how signals are displayed, so don't be afraid of making bold changes. You can always return to earlier settings that worked better.

Button F – If you are operating in a PSK mode, this button displays the Intermodulation Distortion (IMD) value for the PSK signal you are tuned to. If not tuned to any signal the IMD number (if displayed) is meaningless. Also, the PSK decoder can only calculate an accurate IMD when the PSK signal being received is fairly strong and is in idle, i.e. not sending any characters. However, in my experience, IMD reports are still reasonably accurate even if the other station is sending information (not in idle) as long as their signal is fairly strong. Just keep in mind that all IMD values are an estimate only and that the PSK decoder is NOT a laboratory grade instrument. If someone wants a more accurate report on the quality of their signal, there are better ways of doing this, but they are too lengthy to explain here.

This button also changes function with operating mode. For RTTY it displays s/n. For most other digital modes it remains blank.

<u>Button G</u> – This button displays and controls your current waterfall scale. You can "toggle" the waterfall scale from X1 (Normal scale) to X2, to X4, and back to X1 with successive mouse clicks on this button. The X2 and X4 scales can be useful when using modes that require extremely accurate tuning to get solid decoding (like MFSK-32).

<u>**Button H**</u> – This button is basically a waterfall shift control. The 2 arrows at either end, when clicked, will shift the entire waterfall (including scale and any signals) up or down by 100 Hz for each mouse click when in X2 or X4 scale factor. If you are operating in the default scale factor of X1, these arrows appear to be disabled.

The function of the middle button is to "center the signal". When you are tuned to a signal that is close to either end of your waterfall, you can automatically move the entire waterfall so that your signal is centered by clicking on the square in the center of this button. After the move, the signal will still show with the same offset frequency it had before. Things may appear more symmetrical to your eye, but nothing else is really changed. I haven't found this function to be very useful, but maybe you can. If you find a good use for this function that is not purely cosmetic, please let me know. Also, like the shift arrows, this function only seems to work when using the X2 and X4 scale factors.

Button I – This button is used to control the speed of your waterfall drop. This is a "rotary" type button which cycles through the options in circular fashion with each mouse click. The speeds available are SLOW, NORM, FAST, and PAUSE. Since the load on your computer's CPU is proportional to the speed selected, you may need to select SLOW or PAUSE if you have a slow CPU. In actual use I have yet to find a computer with a slow enough CPU to require any speed slower than NORM, but if you experience problems, you might try a slower speed setting to see if it helps.

Button J – This button both displays the offset frequency of any signal you are tuned to and allows you to make fine tuning corrections for those modes that require extremely accurate tuning (i.e. MFSK-16 and MFSK-32) before they will decode properly. The center part of this button simply displays (to 1 Hz accuracy) the offset frequency of your tuning bar. If you are accurately tuned to a signal, this would also correspond to the offset frequency of the signal. Most people (me included) tune on a signal by moving the tuning bar with their mouse to center it on the signal trace as best you can before clicking with the mouse to lock it in place. Then we let the AFC function complete the final tuning. This is all well and good unless you are trying to tune very weak signals or signals transmitting with modes that don't support AFC or those few modes that are super critical on tuning before they will decode reliably. I wish I could give you a complete list of modes, etc. that are difficult to tune, but at this point I am aware of only MFSK-16 and MFSK-32 in common use by county hunters.

Trying to tune to either type MFSK signal (especially if they are weak to begin with) can be very difficult when using the mouse. Here is when the fine tuning functions of this button can be very helpful. There is a single arrow and a double arrow at each end of this button. You can mouse click on either single arrow to move the offset frequency up or down by 1 Hz per click. The double arrows will move the offset frequency up or down by 10 Hz per click. If you are using a true mouse, it is pretty easy to use these functions. However, if you are using a laptop in your vehicle and all you have is a touch pad, using all functions is slower and a bit more difficult. Also, don't leave the AFC function ON when trying this tuning technique as you will end up fighting each other. Please give this tuning method a try. After using it a few times, I'm sure you will like it.

Once more, I encourage you to dig into the Fldigi Manual (pdf version). This manual was last updated for Version 3.21.75 (Latest version is 3.21.82) and contains some incorrect information, but it is still well worth the effort! As we used to say in the military, "RTFM !!"

Table 3 - Active Digital County Hunters Award Statu

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321 MSMLP Ron M/F 391 3077 409 54 37 9 3586 23.3% 5/19/ 331 NSPDD Dennis M/F 942 3077 2036 1161 842 674 8690 56.5% 5/27/ 35 NSHAM Jim F 0 3077 0 0 0 0 3077 20.0% 4/2/2 36 NSMNN Steve F 0 2180 0 0 0 0 2180 14.2% 2/244 37 NASW Date F 900 3077 3077 1091 283 127 7655 49.8% 4/18 38 NNOK Rete F 816 3077 8077 1091 283 127 7655 49.8% 4/18 3/23/ 40 NTZA Gene F - - - - 0 0.0% - 4/14 1/14 79 7152 46.5% 5/6/2 41 N4W Lord <td< th=""><th>31</th><th>N4JT</th><th>Jim</th><th>M/F</th><th>911</th><th>3077</th><th>3067</th><th>919</th><th>417</th><th>296</th><th>7776</th><th>50.5%</th><th>5/18/2014</th></td<>	31	N4JT	Jim	M/F	911	3077	3067	919	417	296	7776	50.5%	5/18/2014
32 NPTOD Definits NV/F 242 3077 2530 1101 642 074 3030 3020 3027 3027 33 NRGL Dick F 782 3077 0 0 0 0 0 0 0 0 0 0 0 0 0 1077 20.0% 4/2/2 35 NSMNN Steve F 0 2180 0 0 0 0 0 1010 2120 14.2% 2/244 36 NSWN Not Fete F 0 3077 3034 755 40.0% 20.0% 4/212 38 NON Mike F 900 3077 807 1091 283 127 7655 49.8% 4/184 39 NAW Uowd M/F 1183 3077 293 338 103 5338 3/21/3 4/254 5/26/ 41 NAW Uowd M/	32		Ron Donnic	M/F	391	3077	2026	54	37	9	3586	23.3%	5/19/2013
35 NBHAM Im F 0 3077 0 <th0< th=""> 0 0 0</th0<>	34	N8CIJ	Dick	F	782	3077	3034	775	400	297	7583	49.3%	5/25/2014
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	35	N8HAM	Jim	F	0	3077	0	0	0	0	3077	20.0%	4/2/2013
J INAW Dail F/M 37.9 30/22 332 331 212 392 4380 29.7% 97.7%	36	N9WNN	Steve	F F/N4	0	2180	0	0	0	0	2180	14.2%	2/24/2013
39 NN9K Pete F 816 3077 859 78 1 0 4015 26.1% 3/23/ 40 NTZA Gene F - - - - 0 0.0% 41 NU4C Paul F - - - 0 0.0% 42 NW6S Jim F 784 3077 3077 805 114 79 7152 46.5% 5/6/2 43 NVAW Llovd M/F 11845 3077 1327 493 338 103 5338 34.7% 4/26/ 44 WONAC Matt M/F 1843 3077 2390 298 101 55 5921 38.5% 10/12/4 46 W3ZUH Dick F 5 3077 2048 11 2 0 5138 33.4% 12/4/ 47 W4HH Garv F - - <	38	NFON	Mike	F	900	3077	3077	1091	283	127	7655	49.8%	4/18/2013
40 NTZA Gene F - - - - - 0 0.0% 41 NU4C Paul F - - - - 0 0.0% 42 NW6S Jim F 784 3077 3077 805 114 79 7152 46.5% 5/6/2 43 NXAW Llovd M/F 1185 3077 1327 493 338 103 5338 34.7% 4/26 44 WONAC Matt M/F 11843 3077 2390 298 101 55 5921 38.5% 10/12/ 46 W32UH Dick F 5 3077 2248 11 2 0 5138 33.4% 12/4/ 47 W4HI Garv F - - - - 0 0.0% 0	39	NN9K	Pete	F	816	3077	859	78	1	0	4015	26.1%	3/23/2012
41 IVGAC F - - - - - 0 0.0% 42 IVGAC Jim F 784 3077 3077 805 114 79 7152 46.5% 5/6/2 43 NX4W Lloyd M/F 1185 3077 1327 493 338 103 5338 34.7% 4/26/ 44 WONAC Matt M/F 1843 3077 2849 2019 1142 490 9577 62.2% 5/22/ 5/21 38.5% 10/12/ 45 W3DUM Don F 5 3077 22390 298 101 55 5921 38.5% 10/12/ 46 W3UH Dick F - - - - 0 0.0% 0.0% 49 W4HIG Gary F - - - - 0 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% <td< th=""><th>40</th><th>NT2A</th><th>Gene</th><th>F</th><th>-</th><th>-</th><th>-</th><th>-</th><th>-</th><th>-</th><th>0</th><th>0.0%</th><th></th></td<>	40	NT2A	Gene	F	-	-	-	-	-	-	0	0.0%	
43 NX4W Llovd M/F 1185 3077 1327 493 338 103 5338 34.7% 4/26/ 44 WONAC Matt M/F 1843 3077 2849 2019 1142 490 9577 62.2% 5/22/ 45 W3DLM Don F 3559 3077 2048 11 2 0 5138 33.4% 12/4/ 46 W3ZUH Dick F 5 3077 2048 11 2 0 5138 33.4% 12/4/ 47 W4HII Gary F - - - - 0 0.0% 49 W4SD Dave F 1000 3077 3077 1149 495 300 8098 52.6% 4/22/ 50 WSQP Rick M/F 339 3077 2721 366 205 167 6536 42.5% 5/20/ 51 WGRL Joe F - - - - - 0 0.0	41	NW6S	Jim	r F	- 784	3077	3077	- 805	- 114	- 79	7152	46.5%	5/6/2014
44 WONAC Matt M/F 1843 3077 2849 2019 1142 490 9577 62.2% 5/29/ 45 W3DLM Don F 359 3077 2390 298 101 55 5921 38.5% 10/12/ 46 W32UH Dick F 5 3077 2048 11 2 0 5138 33.4% 12/4/ 47 W4IHI Garv F - - - - 0 0.0% 12/4/ 48 W4SIG Kerry F - - - - 0 0.0% 12/4/ 49 W4YDY Dave F 1000 3077 3077 1149 495 300 8098 52.6% 4/22/ 50 W5QP Rick M/F 339 3077 2721 366 205 167 6536 42.5% 5/20/ 51 W6RL Isto F - - - - 0 0.0% 52	43	NX4W	Llovd	M/F	1185	3077	1327	493	338	103	5338	34.7%	4/26/2014
43 W3DUW Doil F 333 3077 2236 101 33 3921 38.3% 10/12/2 46 W3ZUM Dick F 5 3077 2048 11 2 0 5138 33.4% 12/4/ 47 W4HH Garv F - - - - 0 0.0% 48 W3CIW Dave F - - - - 0 0.0% 49 W4YDV Dave F 10000 3077 3077 1149 495 300 8098 52.6% 4/22/ 50 W5QP Rick M/F 339 3077 2721 366 205 167 6536 42.5% 5/20/ 51 W6RL Joe F - - - - 0 0.0% 5/20/ 52 W6RL Joe F - - - - 0 0.0% 5/20/ 53 W7EN Larry F 25 3077	44	WONAC	Matt	M/F	1843	3077	2849	2019	1142	490	9577	62.2%	5/29/2014
47 Walth Garv F - - - - - 0 0.0% - 48 WASIG Kerry F - - - - - 0 0.0% - 49 WAYDY Dave F 1000 3077 3077 1149 495 300 8098 52.6% 4/22/ 50 WSOP Rick M/F 339 3077 2721 366 205 167 6536 42.5% 5/20/ 51 WGRK Risto F - - - - 0 0.0% 52 WGRL Joe F - - - - 0 0.0% 53 W7EN Larry F 25 3077 2975 32 1 0 6085 39.6% 10/3/ 54 W7IN Larry F - - - - 0 0.0% 55 W7QQ Bill M/F - - - - <th>45</th> <th>W3DLIVI W3ZUH</th> <th>Don Dick</th> <th>F</th> <th>5</th> <th>3077</th> <th>2048</th> <th><u> </u></th> <th>2</th> <th>0</th> <th>5138</th> <th>33.4%</th> <th>12/4/2013</th>	45	W3DLIVI W3ZUH	Don Dick	F	5	3077	2048	<u> </u>	2	0	5138	33.4%	12/4/2013
48 W4SIG Kerry F - - - - - 0 0.0% 49 W4YDY Dave F 1000 3077 3077 1149 495 300 8098 52.6% 4/22/ 50 W5QP Rick M/F 339 3077 2721 366 205 167 6536 42.5% 5/20/ 51 W6RK Risto F - - - - 0 0.0% 52 W6RL Joe F - - - - 0 0.0% 53 W7FEN Larry F 25 3077 2975 32 1 0 6085 39.6% 10/3/ 54 W7QQ Bill M/F - - - - 0 0.0% 55 W7QQ Bill M/F - - - - 0 0.0% 57	47	W4IHI	Gary	F	-	-	-	-	-	-	0	0.0%	
Here Lood S077 S077 <th< th=""><th>48</th><th>W4SIG</th><th>Kerry</th><th>F</th><th>-</th><th>-</th><th>- 2077</th><th>-</th><th>-</th><th>- 200</th><th>0</th><th>0.0%</th><th>1/22/2014</th></th<>	48	W4SIG	Kerry	F	-	-	- 2077	-	-	- 200	0	0.0%	1/22/2014
51 WGRK Risto F - - - - - 0 0.0% 0.0% 52 WGRLL Joe F - - - - 0 0.0% 53 WGRLL Joe F - - - - 0 0.0% 54 W7IN Larry F 25 3077 2975 32 1 0 6085 39.6% 10/3/ 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/ 57 W9SUQ Larry F - - - - 0 0.0% 58 WA4EEZ Leslie F 1086 3077 1742 699 234 31 5783 37.6% 1/6/2 <th>50</th> <th>W41D1 W5OP</th> <th>Rick</th> <th>r M/F</th> <th>339</th> <th>3077</th> <th>2721</th> <th>366</th> <th>205</th> <th>167</th> <th>6536</th> <th>42.5%</th> <th>5/20/2014</th>	50	W41D1 W5OP	Rick	r M/F	339	3077	2721	366	205	167	6536	42.5%	5/20/2014
52 W6RLL Joe F - - - - - 0 0.0% 53 W7FEN Larry F 25 3077 2975 32 1 0 6085 39.6% 10/3/ 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/ 57 W9SUQ Larry F - - - - 0 0.0% 58 WA4EEZ Leslie F 1086 3077 1742 699 234 31 5783 37.6% 1/6/2 59 WA4UNS Doug F - - - - 0 0.0% 61 WA6OCV Susan M/F 328 3077 328 320 130 10	51	W6RK	Risto	F	-	-	-	-	-		0	0.0%	
Soverfly f 2.5 3077 2573 32 1 0 0085 39.0% 10/3/ 54 W7IN Larry F - - - - - 0 0.0% 5 55 W7QQ Bill M/F - - - - 0 0.0% 5 56 W9JR Rich F 90 3077 1674 44 0 0 4795 31.2% 10/31/ 57 W9SUQ Larry F - - - - 0 0.0% 5 58 WA4EEZ Leslie F 1086 3077 1742 699 234 31 5783 37.6% 1/6/2 59 WA4UNS Doug F - - - - 0 0.0% 60 WA6OCV Susan M/F 328 3077 328 320 130 10 3865 25.1% 3/28/ 61 WA7IHQ Sterling F -	52	W6RLL	Joe	F	- 25	-	- 2075	- 27	-	-	0 6095	0.0%	10/2/2012
55 W7QQ Bill M/F - - - - - 0 0.0% 56 W9JR Rich F 90 3077 1674 44 0 0 4795 31.2% 10/31/ 57 W9SUQ Larry F - - - - 0 0.0% 58 WA4EEZ Leslie F 1086 3077 1742 699 234 31 5783 37.6% 1/6/2 59 WA4UNS Doug F - - - - 0 0.0% 60 WA6OCV Susan M/F 328 3077 328 320 130 10 3865 25.1% 3/28/ 61 WA7ETH Ed F 194 1924 405 35 3 0 2367 15.4% 5/27/ 62 WA7JHQ Sterling F - - - - 0 0.0% 63 WB0M Jeff F - - <	55 54	W7IN	Larry	F	-	- 5077	-	- 52	-	-	0085	0.0%	10/ 5/ 2015
56 W9JR Rich F 90 3077 1674 44 0 0 4795 31.2% 10/31/ 57 W9SUQ Larry F - - - - 0 0.0% 58 WA4EZ Leslie F 1086 3077 1742 699 234 31 5783 37.6% 1/6/2 59 WA4UNS Doug F - - - - 0 0.0% 60 60 WA6OCV Susan M/F 328 3077 328 320 130 10 3865 25.1% 3/28/ 61 WA7ETH Ed F 194 1924 405 35 3 0 2367 15.4% 5/27/ 62 WA7JHQ Sterling F - - - - 0 0.0% 63 WBOM Jeff F - - - - 0 0.0% 64 WB2ABD Paul F - - <	55	W7QQ	Bill	M/F	-	-	-	-	-	-	Ő	0.0%	
Dr. worstory F - - - - - 0 0.0% 58 WA4EEZ Leslie F 1086 3077 1742 699 234 31 5783 37.6% 1/6/2 59 WA4UNS Doug F - - - - 0 0.0% 60 60 WA6OCV Susan M/F 328 3077 328 320 130 10 3865 25.1% 3/28/ 61 WA7ETH Ed F 194 1924 405 35 3 0 2367 15.4% 5/27/ 62 WA7JHQ Sterling F - - - - 0 0.0% 63 WBOM Jeff F - - - - 0 0.0% 64 WB2ABD Paul F - - - - 0 0.0% 65 WD40IN Jack F 1074 3077 3070 1084 507 254	56	W9JR	Rich	F	90	3077	1674	44	0	0	4795	31.2%	10/31/2012
Signed and signed by the second sec	57	WA4FFZ	Leslie	F	- 1086	3077	1742	- 699	234	- 31	5783	37.6%	1/6/2014
60 WA6OCV Susan M/F 328 3077 328 320 130 10 3865 25.1% 3/28/ 61 WA7ETH Ed F 194 1924 405 35 3 0 2367 15.4% 5/27/ 62 WA7JHQ Sterling F - - - - 0 0.0% 63 WBOM Jeff F - - - - 0 0.0% 64 WB2ABD Paul F - - - - 0 0.0% 65 WD40IN Jack F 1074 3077 3070 1084 507 254 7922 51.9% 5/18/ 66 WQ7A Terry F 201 3077 3028 206 132 112 6555 42.6% 8/24/ 67 WY4D Ben F 281 3077 303 36 15	59	WA4UNS	Doug	F	-	-	-	-	-	-	0	0.0%	
O1_WA/EIn Eu F 194 1924 405 35 3 0 2367 15.4% 5/2// 62 WA7JHQ Sterling F - - - - - 0 0.0% 5/2// 63 WBOM Jeff F - - - - - 0 0.0% 6 64 WB2ABD Paul F - - - - 0 0.0% 6 65 WD4OIN Jack F 1074 3077 3070 1084 507 254 7992 51.9% 5/18/ 66 WQ7A Terry F 201 3077 3028 206 132 112 6555 42.6% 8/24/ 67 WY4D Ben F 281 3077 303 36 15 9 3440 22.4% 2/11/	60	WA6OCV	Susan	M/F	328	3077	328	320	130	10	3865	25.1%	3/28/2013
G3 WBOM Jeff F - - - - 0 0.0% 64 WB2ABD Paul F - - - - 0 0.0% 65 WD40IN Jack F 1074 3077 3070 1084 507 254 7992 51.9% 5/18/ 66 WQ7A Terry F 201 3077 3028 206 132 112 6555 42.6% 8/24/ 67 WY4D Ben F 281 3077 303 36 15 9 3440 22.4% 2/11/	61 62	WATHO	Sterling	F	- 194	- 1924	405	-	<u>5</u>	-	2367 0	0.0%	5/2//2014
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bs:wb40in jack if 10/4 30/7 30/0 1084 50/7 254 7992 51.9% 5/18/ 66 WQ7A Terry F 201 3077 3028 206 132 112 6555 42.6% 8/24/ 67 WY4D Ben F 281 3077 303 36 15 9 3440 22.4% 2/11/	64	WB2ABD	Paul	F	-	-	-	-	-	-	0	0.0%	E/10/2014
67 WY4D Ben F 281 3077 303 36 15 9 3440 22.4% 2/11/	66	WO7A	Terry	F	201	3077	3070	206	132	<u> </u>	6555	42.6%	8/24/2013
	67	WY4D	Ben	F	281	3077	303	36	15	9	3440	22.4%	2/11/2014

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 W0NAC. 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: <u>https://dl.dropboxusercontent.com/u/26171574/Happenings/5%20Mode%20Update.doc</u>

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

"More Lesser Well Known Features of Fldigi" "How to Log Your Digital Contacts in Logger" "Macros – Revisited" "New Digital Awards?" "Digital Software Installation – Revisited" "Award Difficulty Index"

If anyone has 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 <u>w@nac@comcast.net</u> 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 at the digital meeting in Visalia, CA in July. If not, on our waterfall again real soon!

Matt - W0NAC