

WW-DIGI Contest SWL Report from North Carolina

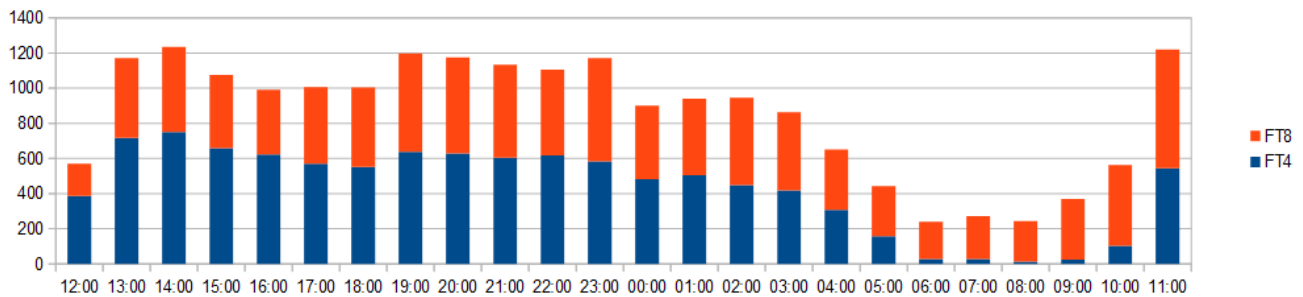
I operate a Reverse Beacon Network (RBN) Skimmer node that can send CW, RTTY, FT4, and FT8 spots to the RBN server. Normally I skim all bands from 2,200 to 6 meters for CW signals and 160 to 6 for FT4 and FT8 signals. I decided to devote my node during the 2020 Contest weekend to test generating spots in the Contest Committee's FT4 and FT8 recommended sub-bands. This is my report on that test.

The central piece of hardware for my node is a Red Pitaya model 122-16. This functions as two independent 16 bit SDRs each capable of supporting up to eight receivers. The software I used allows me to run up to 32 instances of WSJT-X simultaneously, all on one computer. I split them evenly between FT4 and FT8 as shown in the table below. Using a 2 Khz separation dove tailed with the Committee's "Spread Out!" operating tip.

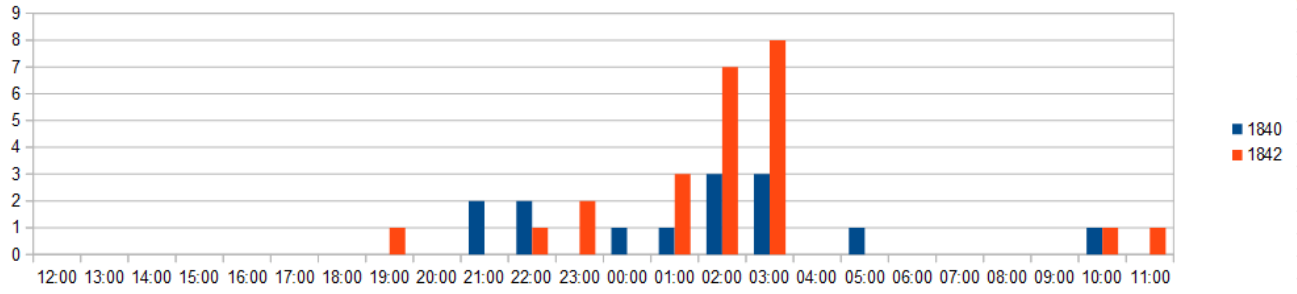
The last two columns show the number of spots my node recorded over the 24 hour contest period. The antenna was a tribander pointed at Europe during the day and an 80 meter dipole at night. The node ran continuously – I didn't need to do anything to keep it going. CPU utilization was in the 50% range every time I looked. I'm happy with these results.

Band	FT4 Dial Frequencies	FT8 Dial Frequencies	FT4 Spots	FT8 Spots
160:	1.840, 1.842	1.844, 1.846	38	29
80:	3.580, 3.582, 3.584	3.590, 3.592, 3.594	673	1,425
40:	7.080, 7.082, 7.084	7.090, 7.092, 7.094	2,485	3,781
20:	14.080, 14.082, 14.084	14.090, 14.092, 14.094	7,126	4,106
15:	21.080, 21.082, 21.084	21.090, 21.092, 21.094	51	749
10:	28.080, 28.082	28.090, 28.092	9	16
Total:			10,382	10,106

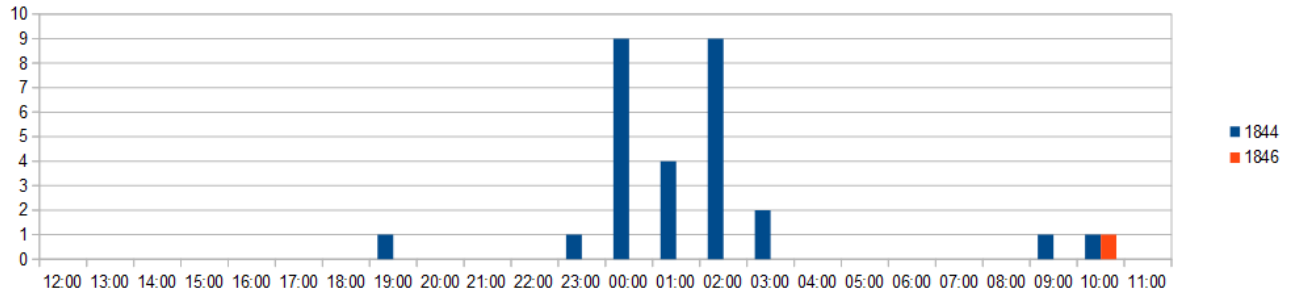
The charts that follow show how spots were distributed during the contest period. The horizontal axis has one division for each hour or the contest starting at 12:00 UTC on August 29 and ending at 11:59 UTC on August 30. The vertical axis is the count of spots during that hour. The first chart shows the overall level of activity during each hour and the relatively even split between FT4 and FT8. There are 12 more charts, one for FT4 and one for FT8, for each band. Each shows the spots per hour for each 2 kHz segment covered within that band. Some convey very little information but are included for completeness.



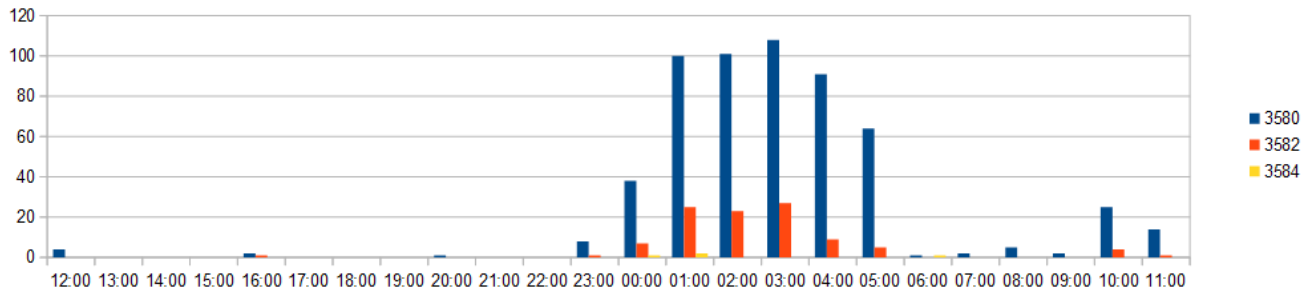
Total of FT4 and FT8 spots on all bands.



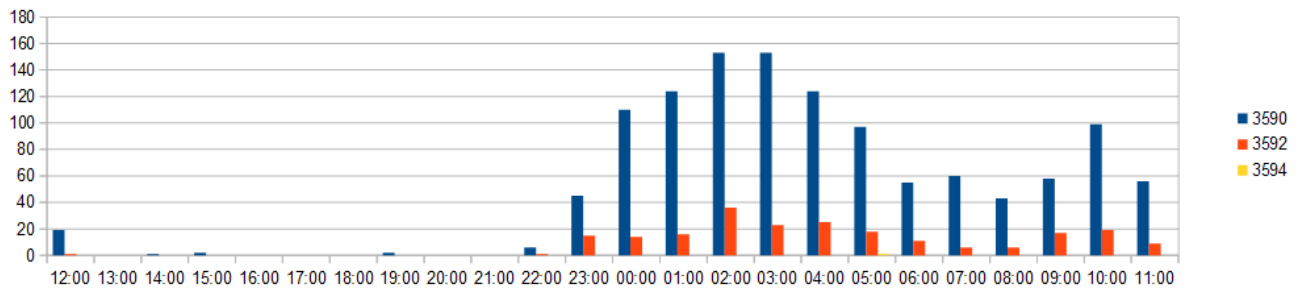
FT4 on 160 Meters



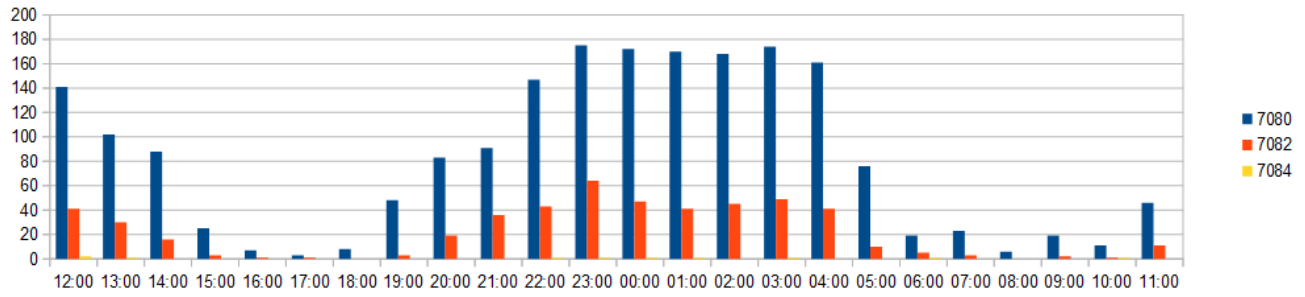
FT8 on 160 Meters



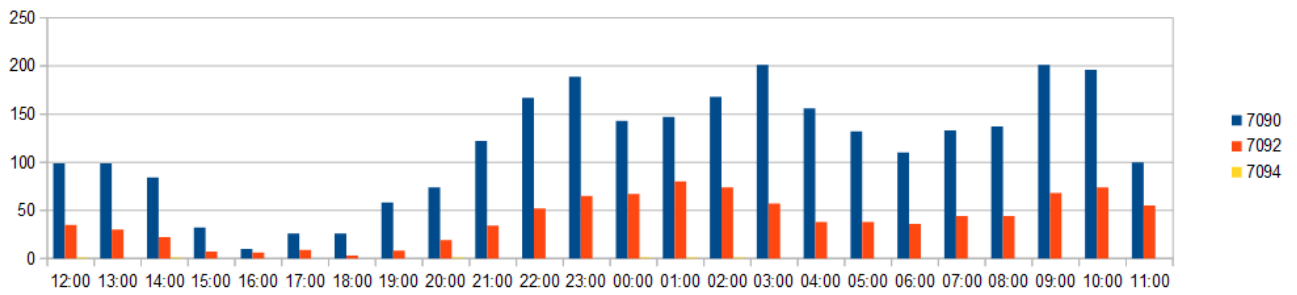
FT4 on 80 Meters



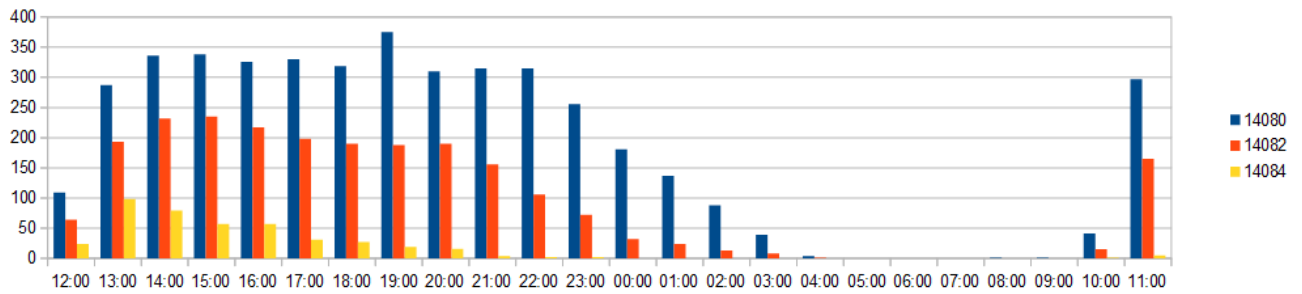
FT8 on 80 Meters



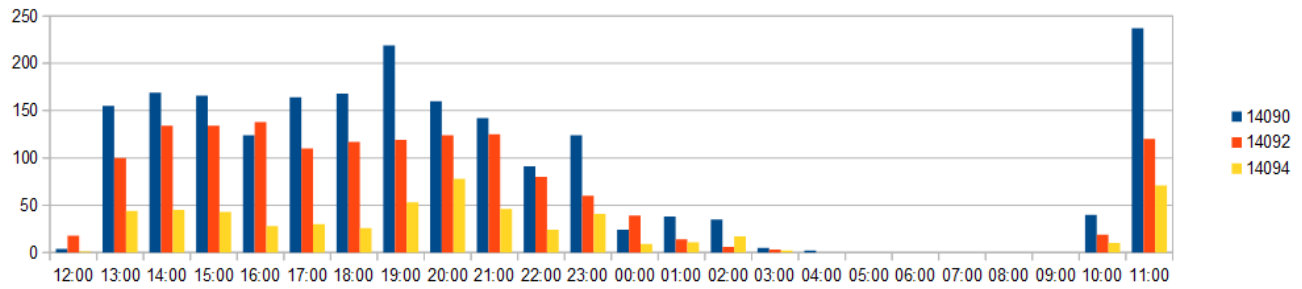
FT4 on 40 Meters



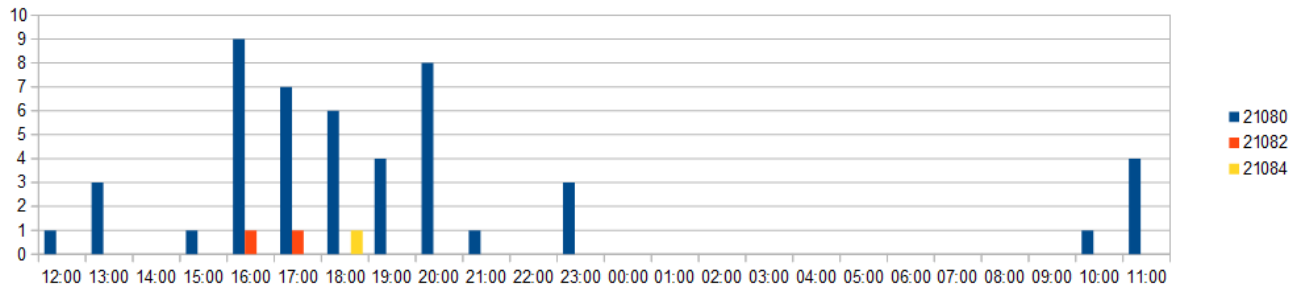
FT8 on 40 Meters



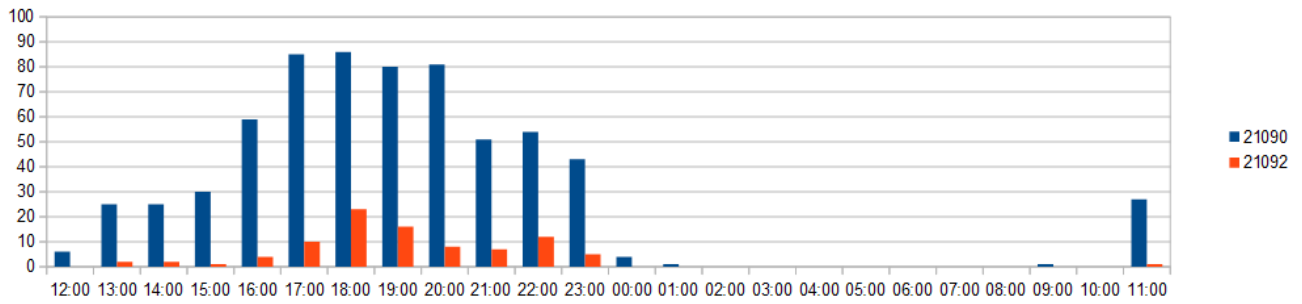
FT4 on 20 Meters



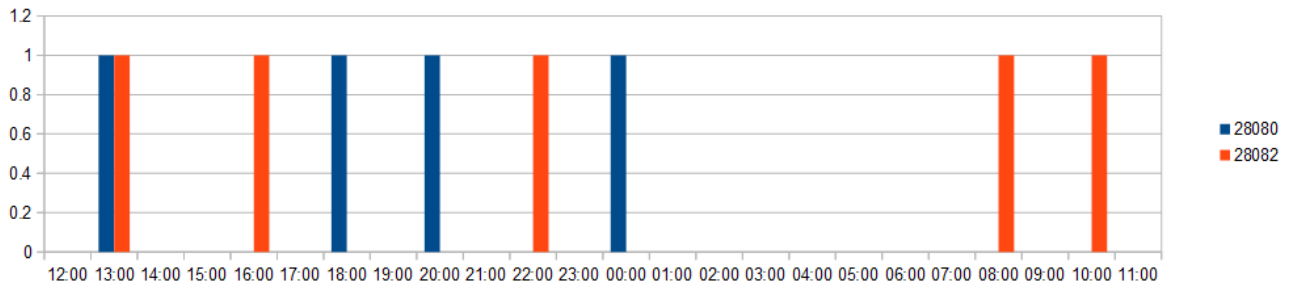
FT8 on 20 Meters



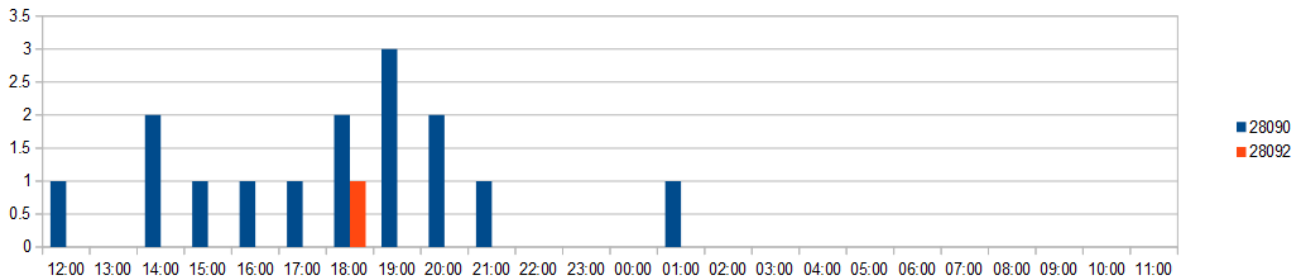
FT4 on 15 Meters



FT8 on 15 Meters



FT4 on 10 Meters



FT8 on 10 Meters