

# W9JOZ

Volume 7, Issue 12

December 2017

## Next Meeting is January 18, 2018

**Fox Hunts**  
are suspended until spring.

Weekly 2 meter Net

Once again we are having the Saturday Night Net at 8:00 pm on the 145.410 repeater. Hope you can check in and let everyone know what you are up to now that winter is almost here. Or here depending on how you look at it.

If for some reason on a Saturday, I do not show up to run the net would someone please pick it up and take check-ins and comments.

Thanks  
John W3ML



Meetings are at the Henry F. Schricker Library on the third Thursday of each month, with the exception of December.

The library is located on west Culver Road, two blocks west of Highway 35.



Are you on the air?

Richard, K9QA is an official ARRL DXCC Card Checker. Contact him at [k9qa@arrl.net](mailto:k9qa@arrl.net) to have your cards checked.

DX Century Club

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## December Events

### Birthdays

December 7th - Nita Basham KC9PM

I do not have birth dates for WA9YOZ, and KC9LHM

**Starke County Amateur Radio Club Weekly 2 Meter Net will  
be on each Saturday at 8:00 p.m. Central time.**

DAY OF WEEK: Saturday 8:00 p.m. Central time

HOST: KN9OX Repeater

FREQUENCY: 145.410 - 600

PL TONE: 131.8

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Morse Code: A Staple in the Navy IW Toolkit

[http://www.navy.mil/submit/display.asp?story\\_id=92864](http://www.navy.mil/submit/display.asp?story_id=92864)

## Radio Boulevard

### *Western Historic Radio Museum*

Vintage Radio Communication Equipment Rebuilding & Restoration Articles,  
Vintage Radio History and WHRM Radio Photo Galleries

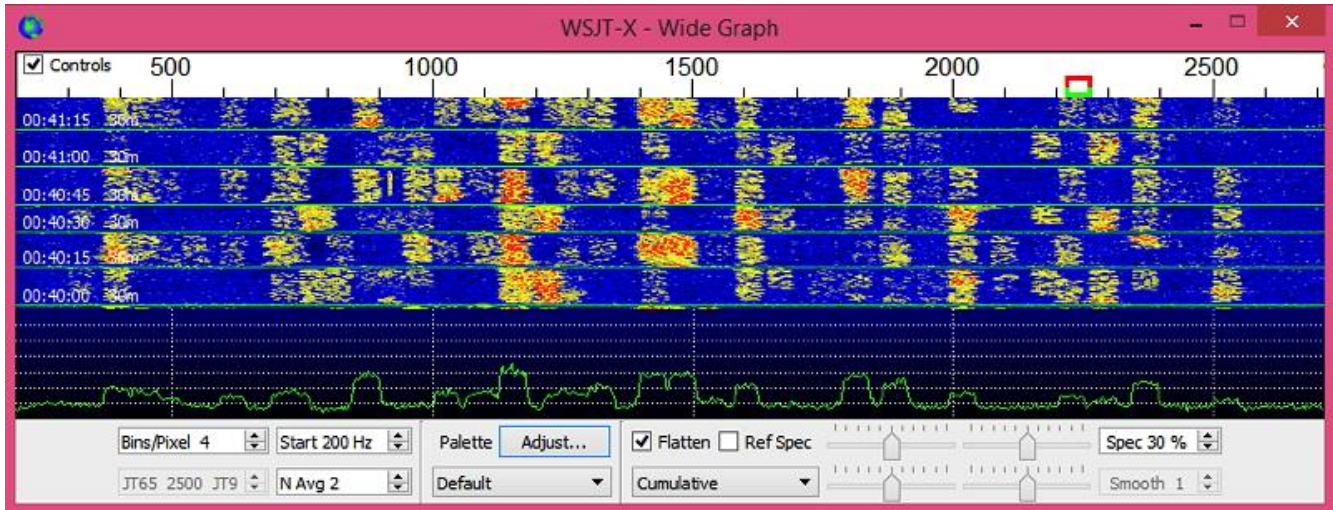
*1909 to 1969*

<http://radioblvd.com/>

## FT-8: I'm not really feeling the magic

By Dan Romanchik, KB6NU ~~0000000000000000~~

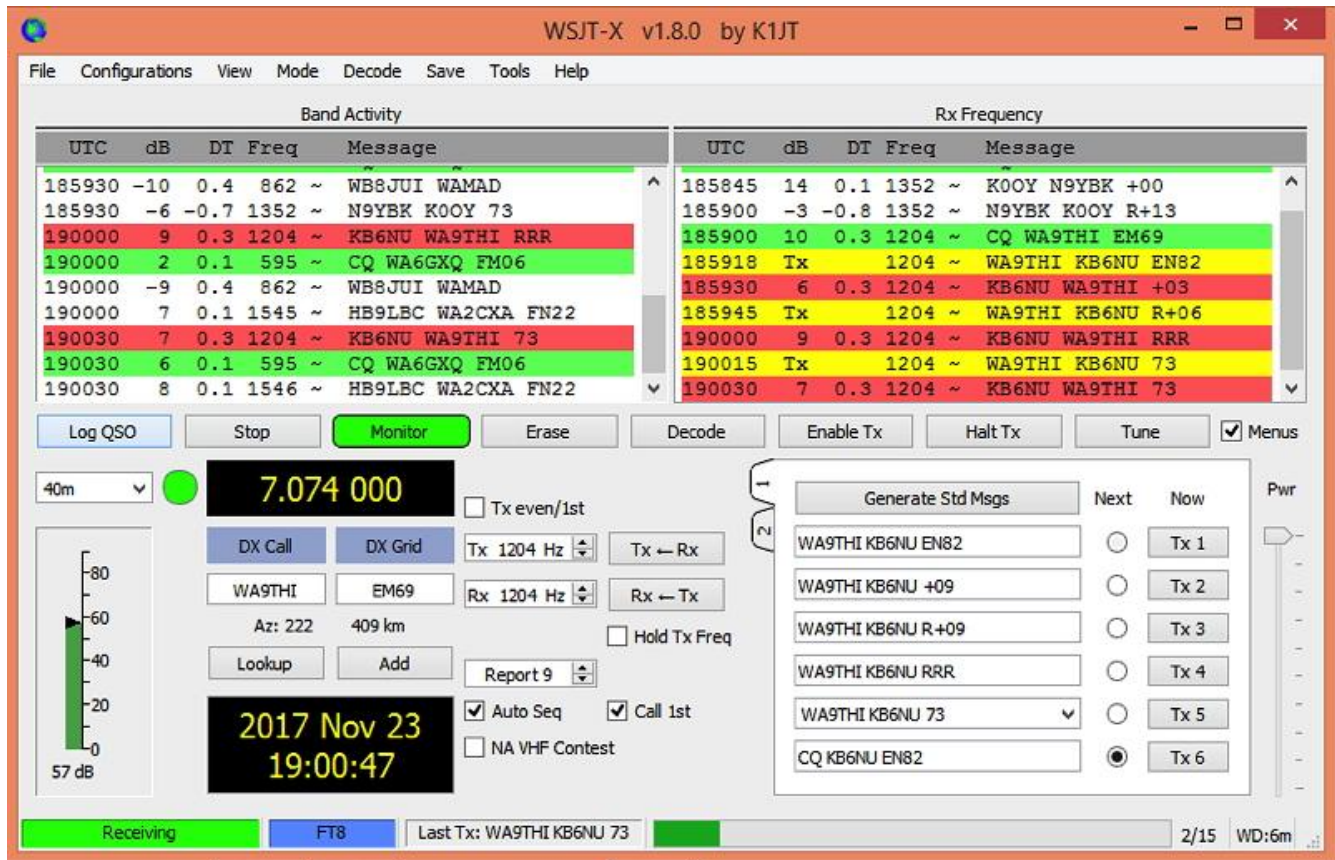
Partly out of curiosity and partly because Jeff, KE9V, shamed me into it, I setup my Signalink interface, downloaded WSJT-X from <https://physics.princeton.edu/pulsar/k1jt/wsjsx.html>, and started operating FT-8, the latest “shiny object” (as the ARRL dubbed it) from the K1JT team. As you probably know, this mode has really caught on with the digital crowd, and the waterfall is chock full of FT-8 signals. Part of the reason for this is that it has some of the characteristics of JT-65, but is not as excruciatingly slow.



~~0000~~ waterfall display generated by WSJT-X at 7:30 pm, 11/23/17.

Over the past couple of days, I've made 32 QSOs, including a couple of DX contacts. It's been fun to try something new, but to be honest, I'm not really feeling the magic.

Part of it is that I don't feel like I'm really doing anything. I downloaded the software, plugged in my digital interface, fooled around with the settings a bit, and then, the computer started making contacts. I have to click a few on-screen controls to make contacts, but even that's a step that could be easily programmed in by the WSJT-X developers. (In fact, I wonder why they haven't done that already!)



WSJT-X screenshot. The sequence of transmissions in the Rx Frequency window comprises a contact.

Take a look at the screenshot above to see how a typical contact happens. When a CQ appears in the “Band Activity” window, you double click on it. When you do this, the software begins listening for signals on that frequency. In this case, I double-clicked on the CQ by WA9THI. When I double-clicked on the CQ, the program began decoding signals on that frequency and display the transmissions in the “Rx Frequency” window.

Then, I clicked on “Enable TX” and the program began the contact sequence, sending “WA9THI KB6NU EN82.” EN82 is my grid designator. This is shown as the first yellow line in the Rx Frequency window. The transmissions that I sent are highlighted in yellow. The transmissions sent by WA9THI are highlighted in red.

The sequence of transmissions shown there comprise a complete contact, and that whole process takes less than two minutes. And, once WA9THI received my first transmission, the sequence is all automatic. You just sit there and watch the two computers talk to one another.

While I can certainly appreciate the thought and the work that went into the design of the protocol and programming to implement it, sitting and watching the computers talk to one another just doesn’t excite me. On the other hand, if you’re one of those guys who wants to make contacts, but doesn’t really want to talk to anyone, than this is the mode for you!

Here are a few more notes about FT-8 operation:

- Not surprisingly, synchronizing your computer with the other stations computer is very important. To do that, you need to get your computer to use the network time protocol (NTP). I failed to do this when I first installed WSJT-X, and while my waterfall was full of FT-8 signals, WSJT-X just wouldn’t decode them.
- I got my PC laptop to talk ntp by installing Meinberg NTP software (<http://www.ntp.org/ntpfaq/NTP-s-def.htm>). Once I did that, WSJT-X magically started decoding transmissions.

- Most of the cool guys seem to be using Meinberg NTP, but there are other options. One of the guys in our club is using a program called Dimension 4, for example.
- Apparently, you don't have to limit your power output as you would with PSK-31. At first, I set my output power to 10 W. I had a bit of success at 10 W, but I expected more. When I asked on Twitter how much power other guys were using, most of them said that they were using more than that.
- For the last couple of sessions, I've been setting my output power to 25 W, and I've been having more success. I've now worked several Europeans on 30m.
- Even at 25 W, my signal reports are more often than not not as good as the signal reports I'm handing out. I haven't figured this one out yet. This doesn't happen to me when I'm operating CW, so I don't think it's my antenna.
- When I'm operating, I write down the calls of stations I've contacted. The reason for this is that while WSJT-X does have a logging function, it doesn't have a log window, so unless you have a great memory, you could end up working guys two or three times a session. That's probably not a big deal since contacts are so quick, but I'd rather avoid doing that if I can.
- WSJT-X works "split." While most contacts take place on the same frequency, a station can call you anywhere in the passband of your receiver and WSJT-X will decode the signal and begin a contact. This threw me the first time or two that this happened, and I tried to change my transmit frequency to match the other station's. In doing so, I messed up the sequence. I now just let the contact proceed normally, and it works out great.
- When I work the other digital modes, I set my IC-746PRO to the USB-D mode. In this mode, the receive passband is narrower than for working phone. When operating FT-8, however, you don't want to limit that passband. Signals will appear across the entire 2.6 kHz of the USB signal, and if you narrow the passband, you won't be able to work those stations.
- WSJT-X checks the validity of call signs. This afternoon, there was a guy who had typed in his call as "WAMAD" and was calling CQ. WSJT-X wouldn't let me answer that CQ.
- Operating this mode opens up the possibility of working more stations whose call signs spell words and adding those QSL cards to my collection. I have, for example, already worked K1GUY, N4HER, and N5SLY. I'm guessing that these guys don't operate CW.

All told, I've found this to be an interesting foray into a new digital mode. While I'm not feeling the magic that some others seem to be feeling when operating FT-8, it certainly will be a change of pace to operate this mode from time to time. Give it a shot and tell me what you think.

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Dan, KB6NU, is the author of the "No Nonsense" amateur radio license study guides and blogs about amateur radio at KB6NU.Com. When he's not working FT-8, he teaches ham radio classes and operates CW on the HF bands. You can email him at cwgeek@kb6nu.com.



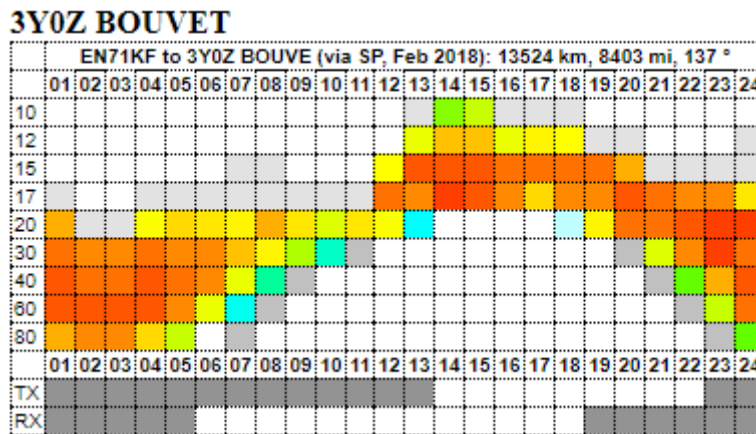
# 3YØZ Bouvet in Early 2018

Carl Luetzelschwab K9LA

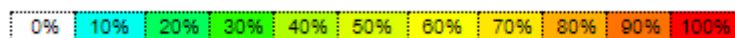
If you're a DXer, the upcoming DXpedition to 3YØZ Bouvet in early 2018 is an important one to get worked and confirmed since it's currently #2 on the DXCC Most Wanted List at ClubLog (<https://secure.clublog.org/loginform.php>). It may be years before another operation takes place.

In addition to 3YØZ, there are many other DXpeditions to DXCC entities that you may need. How do you determine when the best time is for you to work them? You can roll your own propagation predictions or go to the web site of the DXpedition as many have propagation info.

Another way is to visit <http://www.voacap.com/dx.html>. This web site has VOACAP predictions for many DXpeditions, and is offered by Jari OH6BG, James HZ1JW and Juho OH8GLV. You input your 6-character grid square, and predictions to all the listed DXpeditions are calculated. As an example, here are the predictions for my location in EN71kf to 3YØZ.



The color coding is as follows:



The percentages, in simple terms, indicate the probability of making a QSO on the desired band at the desired time. For your best shot, concentrate on the yellow-orange-red blocks.

The predictions assume the DXpedition has a 3-ele Yagi at about 30 feet on 20m thru 10m and a quarter-wave vertical over good ground on the low bands. On your side, a 3-ele Yagi at about 60 feet and a quarter-wave vertical over good ground are assumed. The transmit power for both the DX station and you is 1.5 kW. Having a more modest station than the above assumptions means you may not in reality have any yellow-orange-red blocks, but the colors will still indicate the highest probabilities.

Finally, by hovering your cursor over any block gives the color-coded probability, the estimated monthly median signal power in dBW (add 30 to get to dBm) and the probability that the operating frequency is below the MUF (maximum useable frequency).

# *Handy Hint*

## Burying Radials

By Steve Mollman-KD9HL

A new vertical antenna has gone up and now comes the sometimes onerous job of installing the radials. It is generally accepted that 60 quarter-wave radials are the most cost effective vs. performance installation. If you have a 80 meter antenna and one considers the job of burying approximately 2033 feet of wire the job becomes mind boggling. (1/4 wave @ 3.625 MHz = 33.89 ft. X 60=2033 ft.).

Most of us would probably grab a straight bladed spade and start cutting a slot in the lawn 8" at a time while feeding the radial wire into the ground. A mechanically inclined person with a welder may construct a plow to tow beyond a garden tractor. Both methods will work.

There is an easier way!

In the fall cut the grass as low as practicable. Then lay the radials flat on the surface. Anchor them periodically with homemade u-shaped pieces of stiff wire or fence staples. Be sure to put the wire down as low as possible. Over the winter and following spring two things will happen. First the grass will grow above the wire covering it. The second thing that will happen is the moisture from the winter rain and snow will allow the wire to sink into the ground. To be on the safe side, when you mow be sure that the mower blades are set to a height that will clear the wire. I usually set my mower blades at 3" which seems to be a good compromise for moisture retention, weed control, a nice manicured look and clearing any stray radial. After six months to a year the radials will have completely disappeared.

I have also used this method for burying coax.

Thanks to W8GZR (SK) for cluing me in on this tip over 50 years ago!

Some views on radial wire. I have found that galvanized steel wire corrodes after a few years while aluminum wire, while a great conductor, turns to white powder from interaction with the soil. Both become useless after time. My best luck has been with copper. Studies have shown that it doesn't make any difference as to whether it is insulated or not. Both seem to perform about the same. Hamfest bargain copper wire works well.

*β 73's and good DX β*

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I have two different types of roof towers for sale. One is about 3 feet high and the other one is a heavy-duty 5 foot, four legged tower with rotor plate. If interested, please email me. W3ML

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We have several **new** pieces of equipment for sale on our For Sale Page <http://www.w9joz.org/forsale.htm>  
Please check it out.

Free: 3 Motorola-type Mobile Radios - one is set up to work cross-band 2-6 others are in the 2 meter or 440 meter band. Will not ship.

Email John at <mailto:w3ml@w3ml.com>.

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If you have something for the newsletter, please send it to me before the 20th of the month.

See you at a meeting.

73

*John*, W3ML

