Digital Mode - JT-65
by Ed Poccia KC2LM

Hams radio operations have always involved either talking, tapping, or typing, until now. With JT65 all you do is *click*. A relatively new digital mode, JT65 has a small communications window in which the operator gets to transmit only 13 characters at a time and this has to be done within a very specific time frame. In a practical sense, QSOs are limited to your call, a signal report and your location, in the form of a grid square.

Even with these severe operating restrictions, JT-65 is quite popular.

1. QRP is fine, few stations use more than 10 watts, and most use less than that.
2. English need not be used. With such a small amount of information exchanged, just the alphabet needs to be known. This is a reason so many DX stations use it.
3. Simple antennas are fine. (*I am using a mobile whip mounted on a painter's pole.)*
4. Since the audio for the HF rig is sent directly to the computer, no headphones nor speaker is used, so there is no sound to disturb family members.
5. DX is plentiful. Even with poor bands conditions, you can still make DX contacts.
6. While an interface between computer and HF rig is necessary, software for it can be downloaded free. *(I use the same **SignaLink USB** unit with PSK31 and JT-65.)*

The screen shot to the right illustrates the control display. Stations listed to the left are those being received at your stations, the ones on the right are using the exact frequency you are receiving.
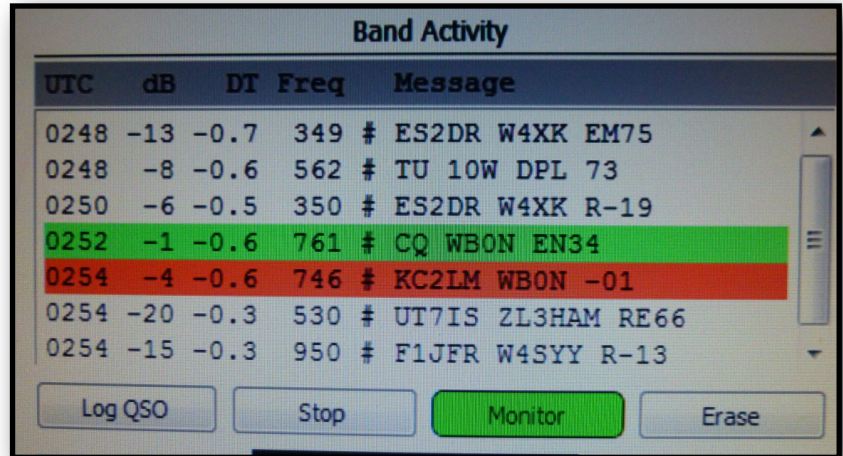
The text message lines in **GREEN** point out stations calling CQ. Text lines highlighted in **RED** are those involving your call, drawing attention to the fact that someone is calling you.

The **BLUE** circle, directs you to a section of the display which lists your text message options. You can change these or create your own. By selecting one, it will be the next message sent. These texts are limited to no more then 13 characters, including spaces.

A close-up of the display screen is on the right and clearly lists the stations on the band at that time.

Spain (ES2DR)
Russia (UT7IS)
New Zealand (ZL3HAM)
France (F1JFR)

WB0N called CQ, KC2LM (me) answered him and then he came back to me. He sent me a signal report of -01, that's pretty strong even though I was running only 10 watts. Signal reports are sent as negative numbers, accurately developed and reported by the computer and sent to show the real strength of the signal. (It also shows that I was receiving him at -04.) (-01 = exceptionally strong, -25 = barely readable, even for the computer)

The software automatically highlights stations calling CQ in **GREEN** and text involving your your own call in **RED** so it pops out at you, clearly.
(You might be watching a movie, and wouldn't want to miss it.)

Important: Your computer **MUST** be accurately synchronized with the Atomic Clock in Colorado. Every station transmits/receives from zero to 48 seconds of each minute allowing your computer 12 seconds to decode any text and provide you with an opportunity to respond. Obviously, if off even by a few seconds, you may not be able to decode any text at all.

Popular JT-65 Operating Frequencies:
      40 meters 7.076 USB   20 Meters 14.076 USB   15 meters 21.076 USB

Download Free Software for JT-65
WSJT Site has software for Windows Vista, 7 and 8 operating systems and Linux
http://physics.princeton.edu/pulsar/K1JT/wsjt.html

Helpful YouTube Video
Getting on the Air with JT65
https://www.youtube.com/watch?v=mUz1H0jClzY

Band Activity

UTC	dB	DT	Freq	Message
0248	-13	-0.7	349	♯ ES2DR W4XK EM75
0248	-8	-0.6	562	♯ TU 10W DPL 73
0250	-6	-0.5	350	♯ ES2DR W4XK R-19
0252	-1	-0.6	761	♯ CQ WB0N EN34
0254	-4	-0.6	746	♯ KC2LM WB0N -01
0254	-20	-0.3	530	♯ UT7IS ZL3HAM RE66
0254	-15	-0.3	950	♯ F1JFR W4SYY R-13

Log QSO   Stop   Monitor   Erase