



SQUELCH TALES



NEWSLETTER FROM THE MERRYMEETING AMATEUR RADIO ASSOCIATION FOR JULY 2019



Jack Gelfand, K2BMI now an MARA member will to give a 45 minute talk at the July 9th Association meeting entitled



“The Best DX Amateur Detection of the Cosmic Microwave Background.”

Come and get a good seat.



Ham Radio Cube Satellites to Deploy from ISS

Report from ARRL HQ June 6, 2019

Three BIRDS-3 satellites with Amateur Radio payloads are scheduled to be deployed from the International Space Station on Monday, June 17. The BIRDS-3 constellation includes CubeSats from three countries: They are Nepal's first satellite, NepaliSat-1; Uguisu from Japan, and Sri Lanka's first satellite, Raavana-1.

The primary mission of the BIRDS constellation is to provide ciphered short messages via its 435.375 MHz beacon, giving the opportunity for the Amateur Radio community to decipher the messages using a publicly available key on the BIRDS-3 website at, <http://birds3.birds-project.com/document/amateur/>.

Operators able to successfully decipher the message will be recognized on the BIRDS-3 website and receive a BIRDS-3 QSL card.

Live streaming of the deployment starts at 0835 UTC at: <https://www.youtube.com/watch?v=rrw3cMw10nQ>.

An April 11 Cygnus resupply mission to the ISS delivered the three BIRDS-3 CubeSats and three other CubeSats.



Digital mode Sound Card interface on the cheap

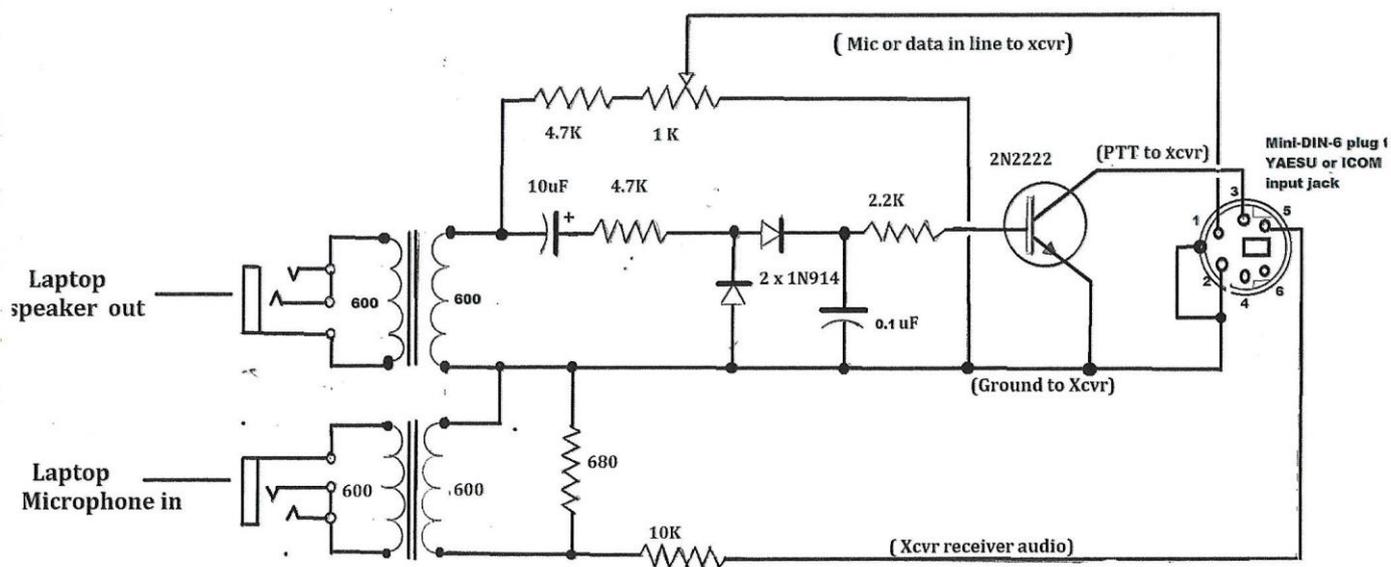
By J. Bruce Randall, W1ZE

As you readers may know by now I like to build things to assist in this great hobby and I am also cheap. Like many of you I got into the digital mode stuff several years ago, first with PSK31 and over the years I have tried my luck with FT8 and follow on weak

signal modes. Most of the programs used to do these modes are free to download from the internet. However you have to figure out a connection from your PC/laptop to your HF transceiver. Most commercial "sound card interfaces" are almost plug-n-play but they are not giving them away for free either. Suppliers like MFJ, West Mountain Radio, Signalink make very nice interfaces that do the job nicely but will set you back from \$70 to almost \$200

to building a small compact sound card interface with tone keying.

Most of the parts are common and available from most electronic parts outlets or on the internet sources. The heart of the unit are the two 600:600 audio isolation transformers that couple the data between your computer and transceiver. I ordered a package (6) of them from an Amazon supplier for about \$10 plus a 6 foot male to male mini-DIN-6 cable used to connect to



depending on the bells and whistles in them. Newer interfaces allow for a USB connection to your computer but older computers may require connection to the serial port to do rig control and keying.

My computers and laptops no longer have serial ports so I would have to use USB connections. I told myself, "why bother" because I found information on the Internet that described how to provide interface keying without using serial or USB data. They use the FSK transmit tones generated in the digital mode program(s) to drive a simple keying (PTT) circuit that takes the audio rectifies it and turns it into a DC voltage that drives a switching NPN transistor. With this in mind I set forward

my Yaesu and ICOM transceivers. I assembled the simple circuit onto a 1.5 x 3" project circuit board. The other components are common resistors, capacitors, a small 1K pot and two 2N914 diodes. Another source for the little isolation transformers are old discarded computer sound cards you can find at the flea markets.

In use this interface circuit is very effective and work just as well as commercial units costing much more. My total cost for parts was less than \$20 and thanks to a large salvaged parts bin.

NOTE: If you use the Yaesu FT-450, FT-856 or FT-897 these rigs have "Digital VOX" so a

2-Two Meter FT8 Transatlantic Contact Reported



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D41CV on Cape Verde Islands and FG8OJ in Guadeloupe spanned the Atlantic Ocean on 2 meters for the first time on June 16, according to reports. The distance was 3,867 kilometers (2,397.5 miles). The historic contact was made on 144.174 MHz using FT8 mode.

"The mode of propagation was most likely marine ducting, with the signal traveling in a layer near the ocean surface," said John Desmond, EI7GL, who was among those [posting](#) information on the contact. Mark De Munck, EA8FF, was at the helm of D41CV, the Monteverde Contest Team club station, off the coast of Africa. He used the beacon antenna at the station, as the so-called "Pinocchio Yagi" was down for repair. Bert Demarcq, FG8OJ, was on the other end of the contact.

"Now that this historic contact has been made, more 144 MHz contacts across this part of the Atlantic are sure to follow," Desmond said.

The initial contact does not qualify for the Brendan Trophies and Brendan Shields awards, because they require a valid contact to be made between Europe and the Americas on 2 meters. The distance covered, however, was greater than the distance between Ireland and Newfoundland.

"We continue to write a part of the history and to push barriers further away," a post on the D4C VHF & Up Facebook page [said](#).



Have a very Happy and Enjoyable Independence Day

