2015 ARRL EME Contest Results

New rules, new tools, new views — more Qs!

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Following the contest’s three weekends, more than 7500 QSOs were submitted for scoring from 131 logs. Estimates placed the number of stations on the air at more than 500. EME has never been more accessible to the amateur than it is today, and you don’t need an enormous dish in the backyard — although that certainly helps!

Tommy, WD5AGO, had 20 CW and phone moonbounce contacts on 2304 MHz. It was interesting to hear him and Bruce, PY2BS, chatting on SSB during the contest. Chatting? On SSB? Off the Moon? Yes! You can do EME, too!

Dmitry, UA3PTW, produced a prodigious Single Op, Multi-Band, All-Mode score of over 5 million points, with activity on 144 MHz and 432 MHz and three additional microwave bands. He has been increasing his score by about a million points per year and appears to have set a new record for this category of operation.

Online Microwave Matchmaking

New for 2015 and beyond, ARRL VHF+ contest rules now allow the use of spotting assistance or nets to identify stations available for contacts and to announce (self-spot) their availability. While change always results in various degrees of controversy, what was the outcome? Three weekends for EME action was just not enough! With so many stations adding and improving their microwave capabilities, there was a request to add more weekends for the bands at 2304 MHz (13 centimeters) and above in order to have more time to operate the five (or more) microwave bands popular for EME activity.

Several stations announced their microwave band selection and timing prior to the first weekend of the contest. Others simply operated on the bands for which their equipment was configured. Certainly, there was some frustration as stations found themselves selecting different bands than others. As Manfred, DL7YC, wrote, “According to Murphy, everybody who can change bands decided for the ‘wrong’ band…but we found each other online!”

Changing bands for competitive EME stations is not simply a matter of pressing a button and selecting a different antenna. Their large dish antennas require a different feed antenna for each band, sometimes many feet above ground. Thus, safety is a concern for stations operating during the night when feed changes are required. Dan at HB9Q has this issue resolved with a turret full of feeds for the 2304 MHz and up bands. Others have designed and built work platforms to be able to get to the dish feeds in relative safety.

Nevertheless, for the first microwave weekend, many found the online “loggers” useful for coordinating band changes and cross-band operation, especially when participants had different frequency allocations from country to country.

Get Ready for 2016

The 2016 ARRL EME weekends are currently scheduled for 2.3 GHz and up on September 24 – 25, and 50 MHz – 1296 MHz on the weekends of October 22 – 23 and November 19 – 20. Find a good Elmer to help you and you might just make your first EME QSO!

What Does Moonbounce Take?

You might think that it takes a brobdingnagian station to work others via lunar echoes, but EME is surprisingly accessible to modest stations using the digital mode JT65 (physics.princeton.edu/pulsar/k1jt). You may already have most of the necessary equipment if you have an all-mode 2 meter radio, a pair of long-boom Yagis (which are also straightforward to build yourself), and a linear amplifier “brick.” EME leader Joe Taylor, K1JT, has written an extensive guide to moonbounce, available in the “Space Communications” chapter on the CD-ROM distributed with The ARRL Handbook. Once you get some experience, building up your capabilities to try for an “ear-to-ear” CW or SSB contact will surely follow.

Looking at the business end of the “feed turret” shows how HB9Q puts the big 10 meter diameter dish to work. In the center is the 1296 MHz feed, with the 2.3 GHz feed underneath. On top is the 3.4 GHz feed, at the right is the 5.76 GHz feed, and 10 GHz is on the left. [Daniel Gautschi, HB9CRQ, photo]