It Seems to Us

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DV, I_4 , W/I_{1-2}

DX: It's Whatever You Think It Is

In Amateur Radio, DX is simply the abbreviation for 'distance.' But what does it really mean?

A sure-fire way to break the conversational ice with a ham is to ask how he or she first learned about Amateur Radio. Every one of us has a story to tell.

Mine begins with a crystal radio kit given to me at the age of 10. I fiddled with that thing for hours, trying to pick up an AM broadcast station whose blinking red tower lights could be seen from our home in rural southeastern Connecticut.

I never did succeed. But one evening, out of the headphones came a totally unexpected sound: the first few notes of "Columbia, the Gem of the Ocean" repeated again and again. Then a voice, announcing that this was Voice of America transmitter WLWO, located in Ohio. The signal had traveled from there to Connecticut, filling my bedroom with sound from a receiver that had no source of power but the signal itself.

I didn't know to call it that, but this was my first experience with chasing — well, more like stumbling upon — DX. It would be another couple of years before I learned about Amateur Radio and began the quest for a license, but it was that initial encounter with the magical properties of the ionosphere that planted the seed.

You may be thinking that hearing a high-power shortwave transmitter from a few states away doesn't meet your definition of DX, and it's true that if done with anything but a crystal set, it wouldn't merit much comment. In Amateur Radio we generally think of DXing as two-way communication with amateurs on other continents, or at the very least in other countries.

The drive to span ever-greater distances is what led radio amateurs to be at the forefront in discovering and exploiting the ionosphere in the 1920s. Because we now know that HF signals sometimes propagate all the way around the world, today it's the rarity of the target and not the absolute distance that defines the common understanding of what constitutes DX on the HF bands.

With our modern knowledge of propagation and "space weather," coupled with dramatic improvements in equipment and antennas and the sharing of real-time information among DX chasers, finding the rare targets is less of a challenge than making contact through the mass of other stations trying to do the same thing. The popularity of that pursuit is evidenced among other things by the size of the pileups and the ever-lengthening DXCC Honor Roll.

But that's not the only way to think of DXing. You can set your own goals, tailored to your own interests and the capabilities of your station. You can add spice to the challenge by joining the QRP community, working the world with 5 watts or less. You can also simply enjoy the opportunity to chat with others around the globe who share your interests — arguably a more rewarding way to spend your time on the air than collecting hello/goodbye QSOs.

Or you can explore new frontiers. At VHF and higher, anything beyond the normal working range of your station can legitimately be called DX, and records are still based on distance. One particularly hardy breed of DXers is exploring the millimeter waves, where atmospheric attenuation can be so high that light propagates better than radio. Here, cooperation rather than competition is the rule as builders and operators pool their knowledge and skill to overcome natural obstacles. Much the same will be true of our new bands at 136 kHz and 472 kHz once we get them, particularly with the power limits that will apply.

We chose the October issue of *QST* as the annual DX special issue because this is the time of year that heralds the beginning of the best HF propagation conditions in the northern hemisphere. Around the autumnal equinox is a great time to connect with our friends south of the Equator, particularly in Australia and New Zealand, before they slip into their own summer. While summertime is far from a washout DX-wise, particularly on 20, 17, and 15 meters, both the higher-frequency bands during the day and the lower-frequency bands during the lengthening hours of darkness come alive about now. Low-band DXers enjoy welcome relief from summer static levels and major DXpeditions return to the bands.

What do the fall and winter seasons have in store for us this year? We are on the downward slope from the peak of Solar Cycle 24, so conditions on 10 meters are not likely to be as good this year as last. But that was also the expectation last year, and there was plenty of DX to be had on our widest HF band as well as on 12 meters, which often is open when 10 is not. At the other end of the HF spectrum and on 160 meters, which technically is a medium frequency (MF) band, conditions on average should be better than we've seen for several years. If you've been taking a break from 160 and 80, now is a good time to get those antennas back in shape.

All the ARRL Centennial activity during 2014 showed that the bands are open more than we think. If your favorite band sounds quiet, don't just listen. Make some calls!

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