



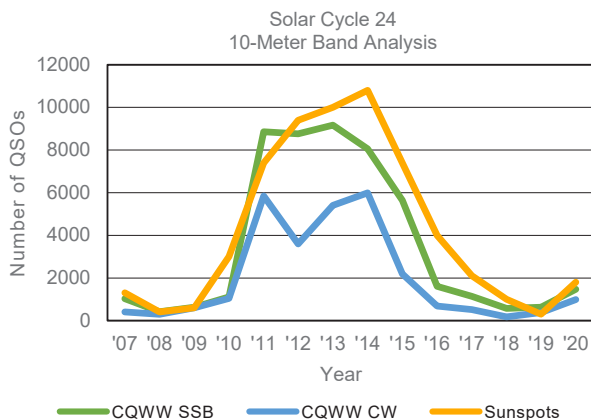
# Second Century

## Here Comes Cycle 25!

*I was licensed in 1977, and what luck from a propagation perspective. With a modest station, running only 40 W and a homebrew vertical on the roof, I was able to break a pileup for Chatham Island in the Pacific — on 10 meters! This experience pales to that of Solar Cycle 19, which peaked from 1957 to 1959. The sunspots were so active that ionization levels never fully diminished during darkness, so propagation on the high bands was occurring 24 hours a day, worldwide! Even 6-meter DX around the world was routine.*

Relatively new hams will read this and say “*What?*” because their luck wasn’t so good coming into the hobby at the end of Solar Cycle 24. But that 10-meter band you’ve been thinking was a dud is about to *explode!* Here comes Solar Cycle 25! And some of the latest forecasts from scientists and space weather experts have us hoping for an epic event. A theory related to the actual terminator of each solar cycle, and the measured time between cycles, states that a long period between cycles leads to lower sunspot levels, but a short period leads to much higher sunspot levels for the next cycle. If that theory proves to be true, Solar Cycle 25 could be gangbusters!

Let’s look at some correlation between the solar cycle and 10-meter activity. The chart below graphs the total number of 10-meter contacts made by the top US multi-multi contest stations during the CQ World Wide contests going back to the end of Solar Cycle 23. I used CQWW data because CQWW is a “world works the world” contest, and activity on 10 meters during those contests should theoretically represent peak efforts. Other than a drop in the 2012 CW contest that may be attributed to a geomagnetic disturbance, you’ll see that the total QSOs track pretty consistently with how the sunspots are affecting ionization at that time in the cycle.



Interestingly, it shows us what the science has also told us: new Solar Cycle 25 sunspots began to show up in November 2019, and we are now starting to see an uptick!

There is still much we do not know or understand about how the solar cycle works. Despite sunspots being tracked by hand for hundreds of years, many theories — not facts — still abound. We’ve had satellites giving us better imaging and data for the last four solar cycles, which is only a beginning. For ham radio operators, the new solar cycle is more than just an exciting time for operating. It’s an opportunity to use *our* tools, many of them new and evolving, to better understand radio propagation. So, how can you get involved?

ARRL will begin showing you how this month with a series of articles in *On the Air* magazine, on the various aspects of the solar cycle, and *QST* will follow suit next month. In the months to come, the magazines will also be offering wide-ranging activities you can undertake to further our understanding and contribution, much in the way we have developed an understanding about greyline propagation, as well as the effects during a solar eclipse. You’ll recognize these articles from the “Cycle 25” logo (above) that we will be using to brand the content!



So, here it comes! We are extremely excited! As always, get on the air. Be radio active! And if you have ideas, please drop me a note at [ceo@arrl.org](mailto:ceo@arrl.org).

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