
VHF Weak-Signal Activity

A Review of Recent Progress for Three Bands

A lot has happened on the VHF+ bands over the past ten years. In this article WB2AMU reviews these happenings on the bottom three bands, 6 and 2 meters, and 125 cm.

By Ken Neubeck,* WB2AMU

Every once in a while it's a good exercise to take a reality or temperature check with regard to the hamradio hobby. One aspect that is worth exploring is the progress of activity on the VHF bands over the past decade.

VHF is defined as the frequency range from 30 MHz to 300 MHz. In North America this includes three amateur radio bands: 6 meters, 2 meters, and 125 cm (222 MHz). In parts of Europe and Africa there is also another VHF band allocation at 70 MHz (4 meters).

The three VHF bands used by hams in North America have interesting forms of propagation that make certain days special in comparison to the line-of-sight contacts that are made. In this article we will review the progress of weak-signal activity over the past decade for these three bands.

6 Meters

It is now the year 2005, and it can safely be said that 6 meters is no longer the forgotten band amidst all the allocated ham radio bands. A number of things have changed the fortunes of the "Magic Band" over the past decade, and it has become a very popular band during the summer months. Publicizing the many unique propagation conditions of the 6-meter band, ranging from sporadic-E to F2-layer activity, as well as the availability of more commercially made equipment have increased the band's popularity.

I remember how things were on the band back in 1990, when I first got on 6

meters with a Swan 250 transceiver that I picked up at a local flea market. I found that it was very hard to figure out the nuances of the band and when to listen for any activity. All too often back then 6 meters was quiet, and I wondered when contacts could be made. My first real wave of contacts was during the September VHF contest in 1990. All the contacts I made then were of the line-of-sight variety up to a distance of 200 miles away.

I had heard rumors from other operators that at times the band had skip activity, but available reference material such as the *ARRL Operating Manual* did not clearly spell out what the best times were to listen on 6 meters. Various VHF books discussed some of the propagation modes on the band, but the information presented was of the broad-strokes variety, without specifics.

It was not until June 1991, just hours before a VHF contest, that I worked my first sporadic-E contact on 6 meters from my location in Long Island into Florida. Gee, I thought, maybe long-range stuff on 6 meters can be worked after all! When the contest started, I worked a large number of stations and was amazed that a dead band could come to life! Over the balance of that summer I looked at anything I could find about the band (remember that this was before the Internet became really popular), but I could only find general information in the *Operating Manual* about what kind of conditions could be found on 6. Unfortunately, this information was too general for it to be of much use to a newcomer to the band, and much information had to be gained by the laborious process of word of mouth. Because the information was so broad, it made the band seem much more mysterious than it really is.

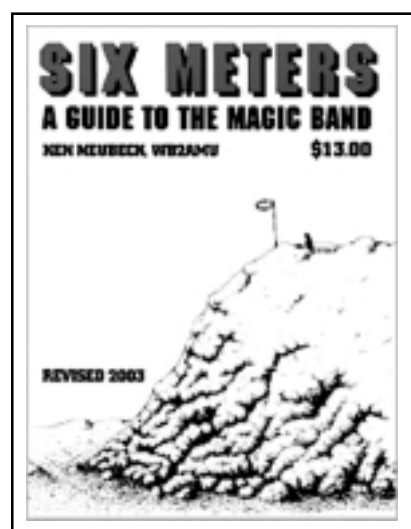


Figure 1. Here is the book that started getting the word out about 6 meters. It still remains the one and only book out there dedicated to 6 meters. First published by WorldRadio Books in 1994, a second edition came out in 1998, followed by a third edition in 2003. Each edition featured additional pages with the current scientific information about propagation along with up-to-date amateur radio observations on the 6-meter band.

It then became obvious that more articles and a dedicated book for the 6-meter band were needed. I had written an article on 6 meters for the December 1992 issue of *QST*, and from that article I was able to write additional articles for *WorldRadio*. In 1993 when that magazine sent out a request to its readers for ideas for books, I suggested that I write a book dedicated entirely to 6 meters. After a few