

Testing the Venus di Clegg

Back last spring, when we were getting 73 Mountain ready for the big June VHF scramble, there was considerable discussion over which rigs were best for which bands. Everyone agreed that, if we could get it, a Clegg Venus would be the last word for our six meter effort.

Somehow I managed to talk Clegg into sending one up on loan. When it arrived everyone was so anxious about it that they had it unpacked before the carton ever got off the delivery truck.

What a beauty!

I could see that nothing further would get done on 73 if I left it around here, so I drove it on up to the mountain, plugged in the ac, the mike, and an antenna and started talking to the growing mob of sidebanders down at the low end of six. I found I was getting out so well with the Venus that it was hard to tell if the band was open or not.

While the AM boys were fighting RM and changing band conditions I found that I could have long rag chews with sideband stations. VP7CX, who, by the way, has a Venus and is wild about it, called me one day and we talked for about an hour. He has been carrying on daily skeds with Panama and crazy things like that which no one would even have considered before the advent of sideband on six.

One fellow called in and said he had been considering a Venus, but that the transceive type of operation worried him. He wanted to be able to tune his receiver separately from his transmitter. I pointed out how simple it was to feed the 14 mc output of the Venus' converter to his regular station receiver and use that for tuning off the transmitter frequency. In this way you get all the extraordinary sensitivity of the grounded grid nuvistor converter in the Venus as well as its stability (it *has* to be stable to be good for SSB).

Tuning the Venus is a dream. Those Eddystone dials may be expensive, but they sure are worth it.

Since a lot of the six meter gang still are using receivers without bfo's, it is handy to be able to switch to the AM position at times. The receiver has both AM and SSB detectors, switchable AVC and a very effective noise limiter. The Venus was able to give perfect copy of signals under QRM conditions that just about stopped every other receiver we had



available. Between a two meter kilowatt in the next room and a six meter kilowatt on a nearby mountain top, the pressure was really on.

Grid block keying is used on CW, though we only were able to make a few contacts on this mode. There sure isn't much CW activity in that bottom 100 kc, even when the band is open. If it ever develops, the Venus will be ready for it.

The Venus kicks up to 85 watts PEP (all modes), which is plenty for most operation. If you want to always be first there is a nice linear available from Clegg, the Apollo, which plugs right into the Venus and boosts you to 700 watts.

The Venus normally tunes from 49.975 to 50.475, though it takes just a quick crystal replacement to change this range to any other 500 kc you want to tune. Since the great bulk of six meter activity is in the lower 500 kc this will hardly ever cause much of a problem . . . and if you stick to sideband, which is almost completely between 50.1 and 50.2, you'll never know there is part of the band you're not using.

The stability of the Venus is attributable to the carefully built 5.0 to 5.5 mc oscillator. This is mixed with the 14 mc output of the converter to give a 9 mc signal which is fed through the 9 mc crystal filter and results in 3 kc selectivity. The final *if* is 450 kc. The transmitter heterodynes the 14 mc signal up to 50 mc with a 6883 (twelve volt 6146) in the final. The unwanted sideband is down over 50 db at 1000 cycles and the carrier is suppressed more than 56 db. Distortion products are down over 30 db at full output. Since all circuits except the final are broadbanded the tuneup process is simple. Even the final doesn't have to be touched for small frequency changes (say 100 kc or so).

During the two months that I used the Venus I worked 43 states, VE1-2-3-4, VP7, and CO2. What a world of difference there was using this rig as compared to a small AM job!

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