RADIOWORLD OK2FJ

Amateur radio station Czech Republic - *my name: František Javůrek, QTH: Brno, LOC: JN89HE, ASL: 205 m*

PORTEJBLOVÝ VERTICAL 160-80-40 M

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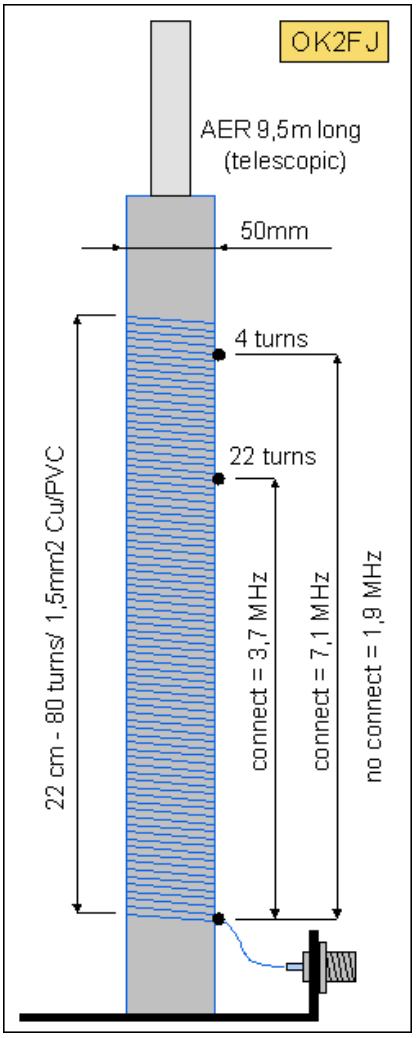

After obtaining military telescopic lamps 9.5 m length, I decided to build vertical specially for the lowest HF bands 160, 80 and 40m. As the length of 9.5 m is almost Λ1 / 4 for 7MHz band, the lower band, I extended the incandescent electric inductance. This coil is wound on novodur pipe with a diameter of 50mm, wiring insulated wire of 1.5 mm^2 . The coil has a total of 80 turns wound tightly together without gaps on the length of 22 cm. The coil taps are made banana jack 4mm for disposal of certain parts of the coil for higher bandwidth, so that the band is working coil 160 m wide, 80 m band is on the 22nd of thread from the emitter turn-off, the band 40m is turning to the 4th thread . The lower end of the coil is connected to the middle connector PL. Since it is brought out again at 4 mm banana socket. By connecting the lower sockets short cable with banana jack to the 22 thread spools will cross section of the coil, and the antenna will tune to 3.75 MHz. If you connect the lower to the upper socket, discard most of the coil, and the antenna will tune to 7.1 MHz. Without interconnection antenna tuned to 1.9 MHz.

In much of novodur pipe is epoxy encapsulated iron screw thread on the telescope (it was part of your radiators), and escorted him from the M5 screw through the wall of the pipe. On it is mounted the upper end of the coil. At the lower end of the tube is attached duralumin plate with four M5 screws in the corners, fitted with wing nuts are fastened to the wire radials length of 40 meters (the longest range). These are freely drawn on the ground. When a stable antenna placement is appropriate radials dig into the ground to a depth of about 15 cm. The plate is conductively attached PL connector.

So my colleague OK2FF certikál tested in our weekly portable in South Bohemia. We slightly modified the total number of turns, and the upper branch. Everything in the article is corrected. In testing, we achieved the following results:

- 1.9-MHz SWR 1.2
- 3.75-MHz SWR 1.0
- 7.1-MHz SWR 1.1

Texts and treatment: **František Javůrek** ©