

# modified inverted-V antenna

This modified  
inverted-V antenna  
provides complete  
multiband operation  
from 40 through 10

Many amateurs I have worked have expressed interest in my rather unconventional multiband antenna. I call it a modified inverted-V because it began as an inverted-V for 40 meters. However, it has been modified considerably and now provides good performance on all bands from 40 through 10 meters.

For those amateurs who are already using an inverted-V antenna, this design may give them some ideas for covering other bands. For the amateur with limited space this antenna offers good efficiency with minimum size.

The multiband inverted-V antenna shown in fig. 1 offers many advantages, including small physical size, relatively low height, broadband response with low swr and requires no traps or tuning devices. In addition, it appears to be nearly omnidirectional.

The vswr curves plotted in fig. 2 were measured with a Knight P2 swr bridge. As you can see, the antenna is cut for phone

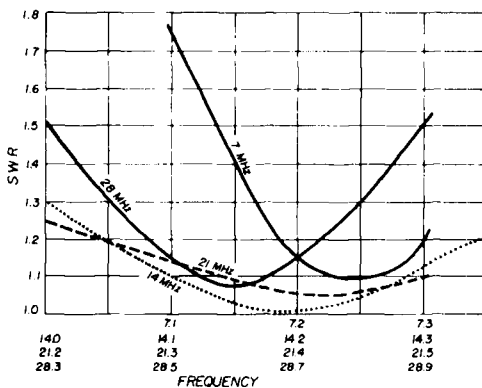


fig. 2. Swr performance of the W2KTW modified inverted-V.

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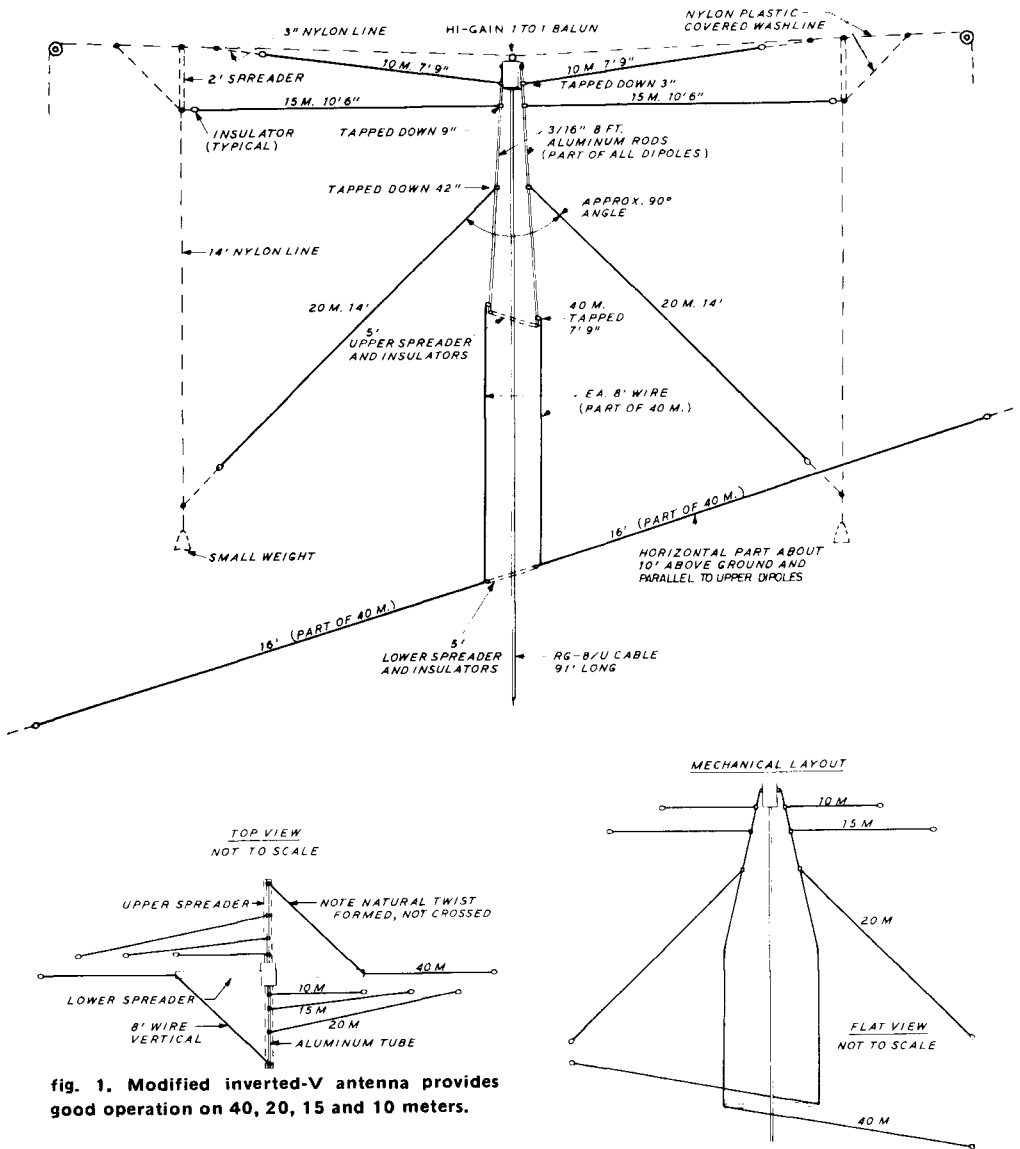


fig. 1. Modified inverted-V antenna provides good operation on 40, 20, 15 and 10 meters.

portions of the amateur bands. Although my modified inverted-V has the dimensions given in fig. 1, at other locations it will probably be necessary to trim each of the sections to resonate at the desired frequency.

On 20 meters, where the antenna appears as a more conventional inverted-V it was noted that decreasing the angle between the elements raised the resonant frequency.

On 40 meters it was noted that the horizontal part of the elements must be

180° away from the higher-frequency elements. Also of importance is the fact that the vertical support provides more of a twist than a transposition.

With this antenna I have obtained optimum loading on all bands with my TR-4 transceiver. In the future I hope to devise a way of including a 75-meter antenna within the limited space I have available.

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