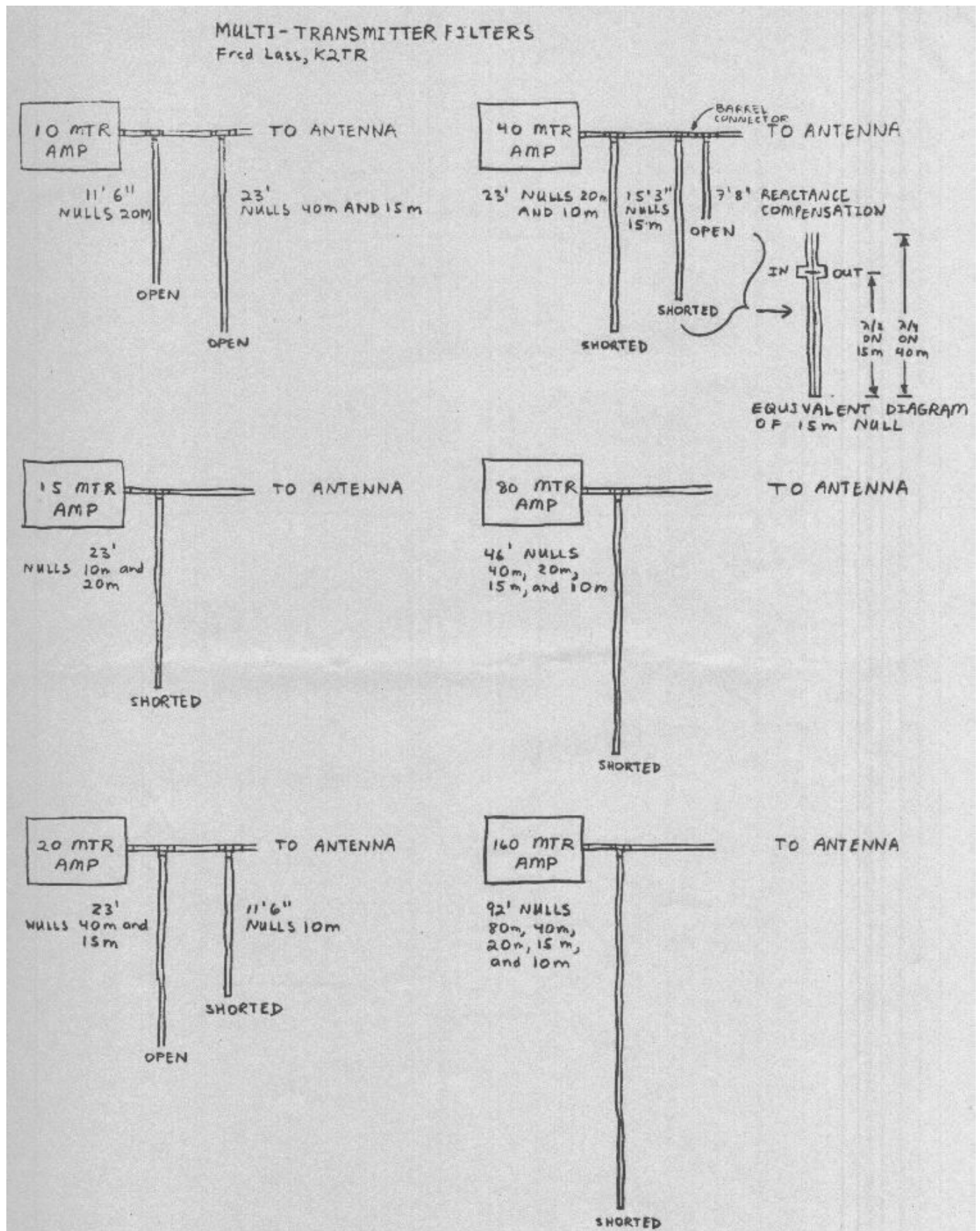


K1TTT Technical Reference

K2TR Coax Stub Filters



There are 1, 2, or 3 stubs as described below between the amp and the antenna. I like to keep them as close to the amp as possible, usually just a "T" connector on the amp output or at the SWR meter.

The lengths below are for solid dielectric coax with a velocity factor of .66. I use RG-8, but you could also use RG-213 or RG-11. If you want to use a foam coax most of them have a velocity factor of .80. On the high bands (10, 15, 20) I use CATV hardline that has a velocity factor of between .81 and .83. The basic formula for a shorted 1/4 wave stub is $246 * V / f$. Where V is the velocity factor of the cable and f is the frequency in MHz.

Band by Band these are K2TR's stub plans. The copy of the article I have I think was from an old YCCC Scuttlebutt.

10 Meters. 2 Stubs

- 11' 6" OPEN nulls 20m
- 23' OPEN nulls 40m and 15m

15 Meters. 1 stub

- 23' SHORTED nulls 10m and 20m

20 Meters. 2 stubs

- 23' OPEN nulls 40m and 15m
- 11'6" SHORTED nulls 10m

40 Meters. 3 stubs

- 23' SHORTED nulls 20m and 10m
- 15'3" SHORTED nulls 15m
- 7'8" OPEN compensates for reactance from 15'3" stub. This pair of stubs works out to a 1/4 wave on 40m that is tapped at a point that results in a 1/2 shorted stub on 15m.

80 Meters. 1 stub

- 46' SHORTED nulls 40m, 20m, 15m, 10m

160 Meters. 1 stub

- 92' SHORTED nulls 80m, 40m, 20m, 15m, 10m

For more detailed analysis of stubs and pairs of stubs see my other notes:

- [Single Coax Stub Analysis](#)
- [Coax Stub Pair Analysis](#)