Here are typical SWR plots for the MacTenna Wire Switching dipole.

These plots were generated from data gathered by the AIM 4170 Antenna Analyzer and the graphs were constructed using the ZPLOTS utility program.

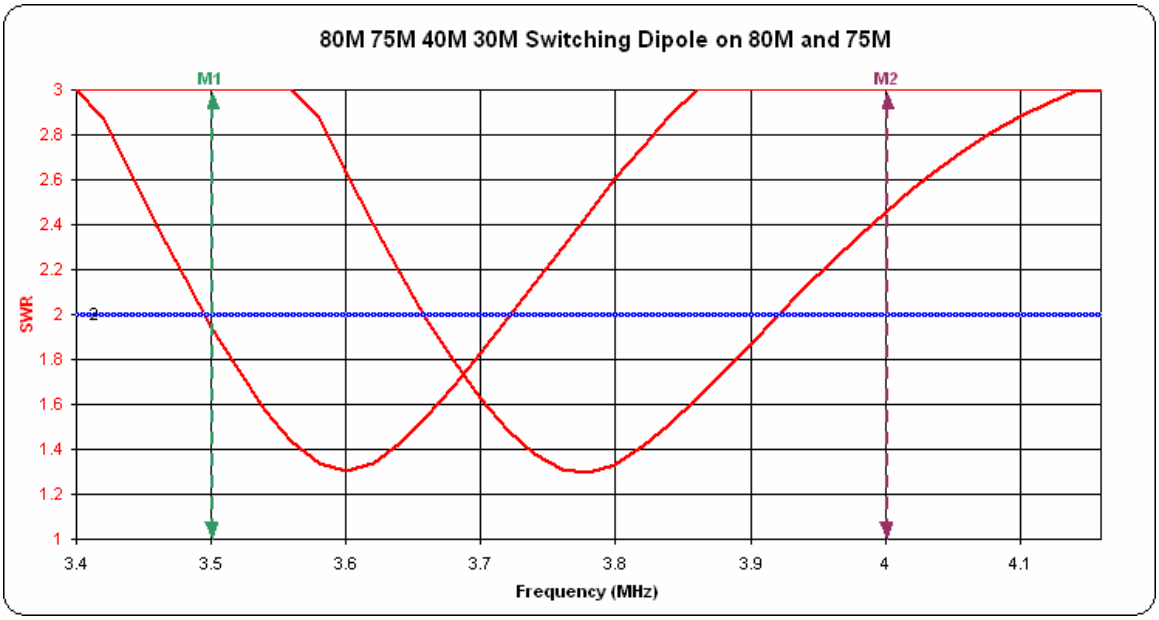
The Wire Switching Dipole was tested at a height of 35 feet and SWR was measured at the transmitter end of a 75 foot length of 50 ohm coax cable.

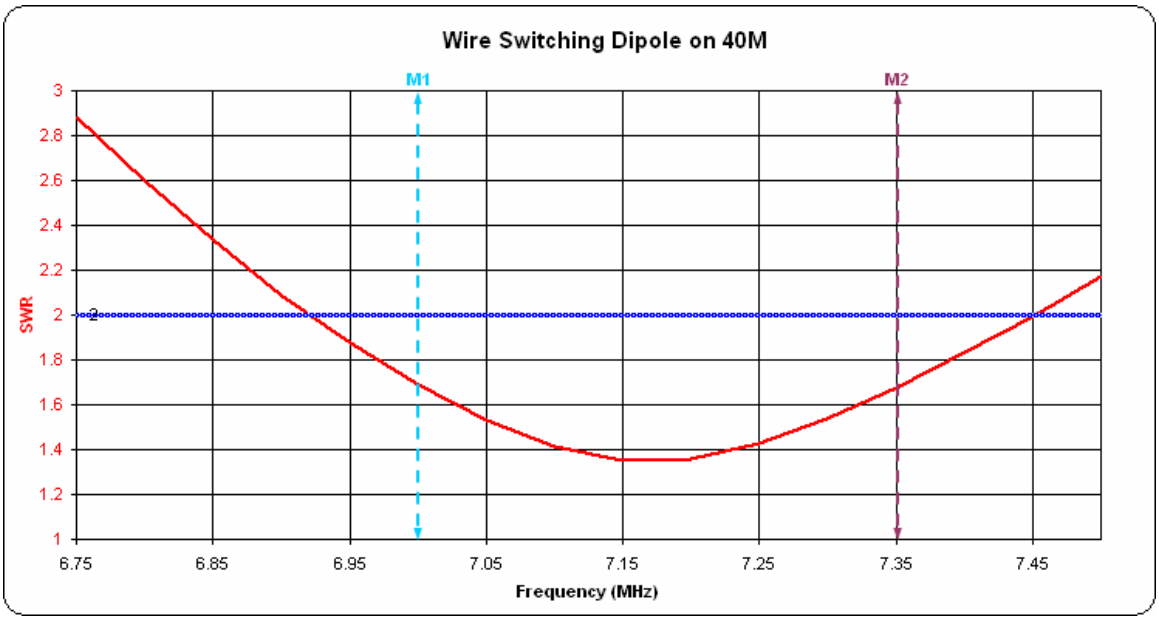
Your SWR on a particular frequency may be slightly different due to effects of surrounding objects, coax cable length and characteristics, and height above ground.

All plots were constructed with an expanded frequency range in order to illustrate the broad banding effects on bands higher than 75M.

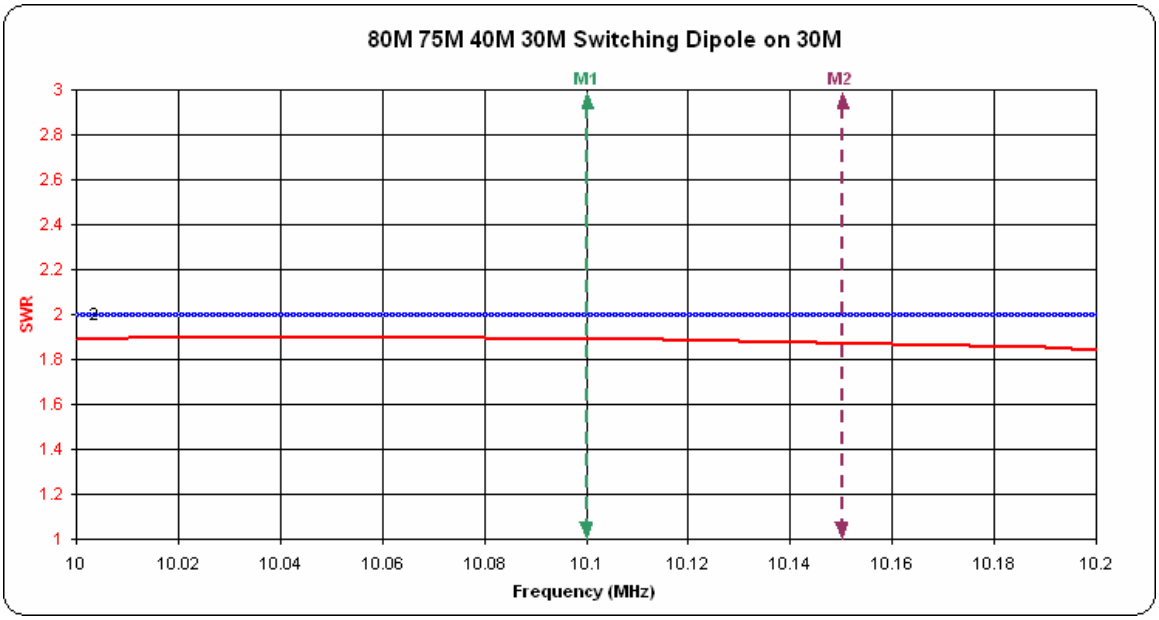
“M1” designates the approximate lower end of the respective band and “M2” shows the high end of the band.

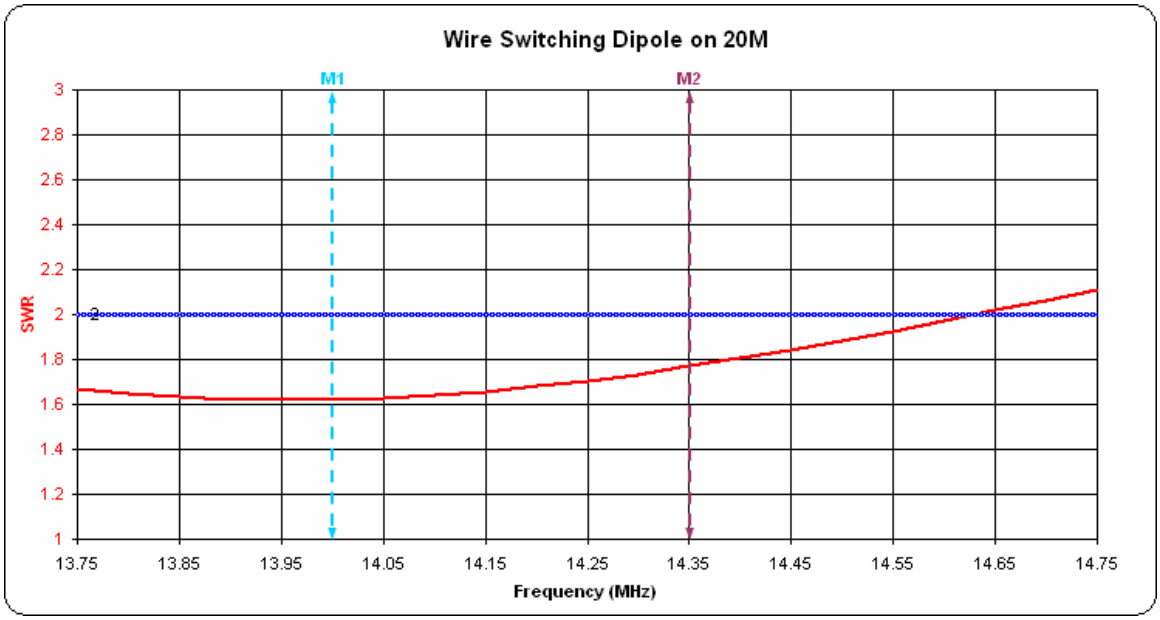
Notice the 2 to 1 SWR bandwidth on the 75M band is much like a conventional dipole. To fully cover 80M thru 75M with an SWR less than 2 to 1, you may want to add another relay switching module and to extend the length of the dipole for 80M. The MacTenna control box has extra switch positions for this possibility. The SWR plot shown is for 75M and 80M for an antenna that uses two relay switching modules. One module switches to the 80M band and the other relay switches to the 75M band. Adjustments may have to be made to both band elements to cover the frequencies that you frequently use

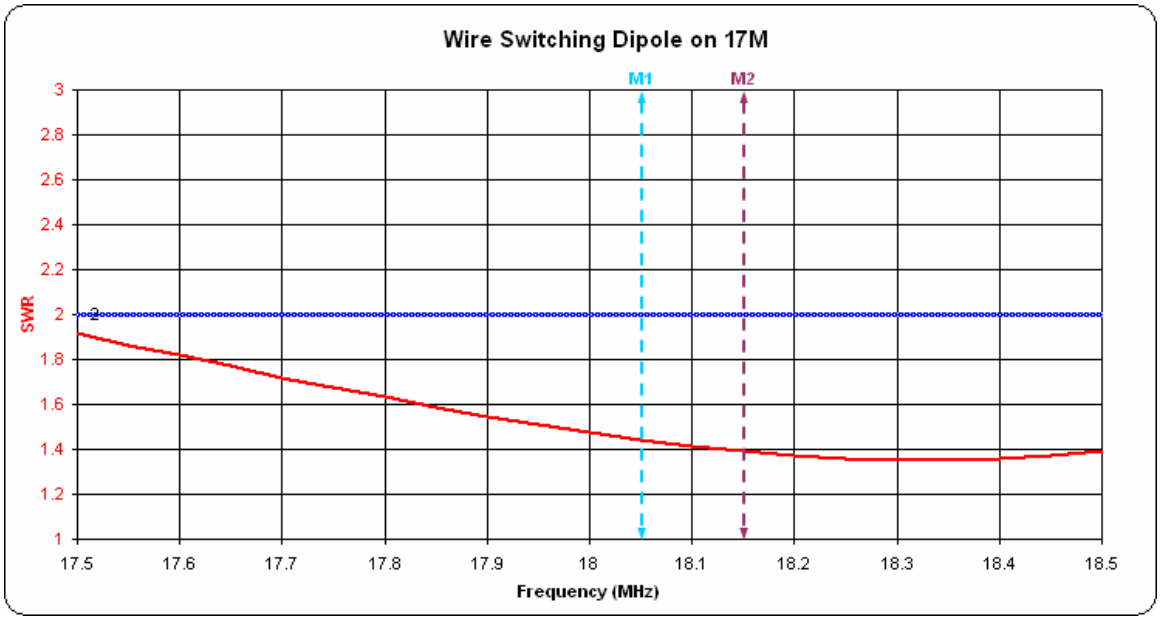


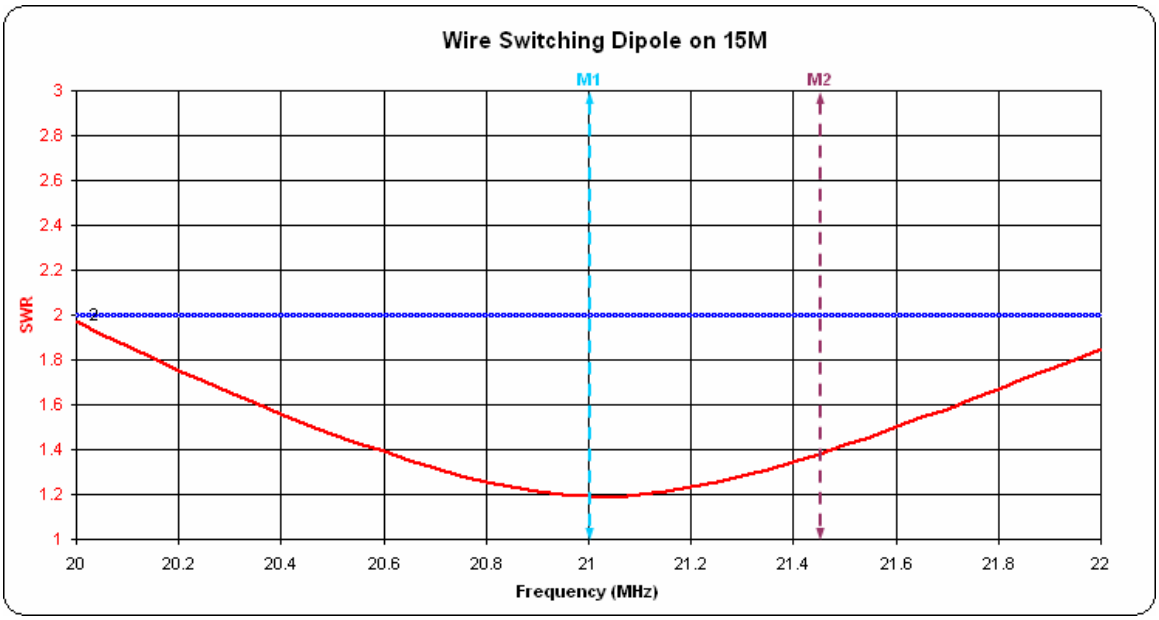


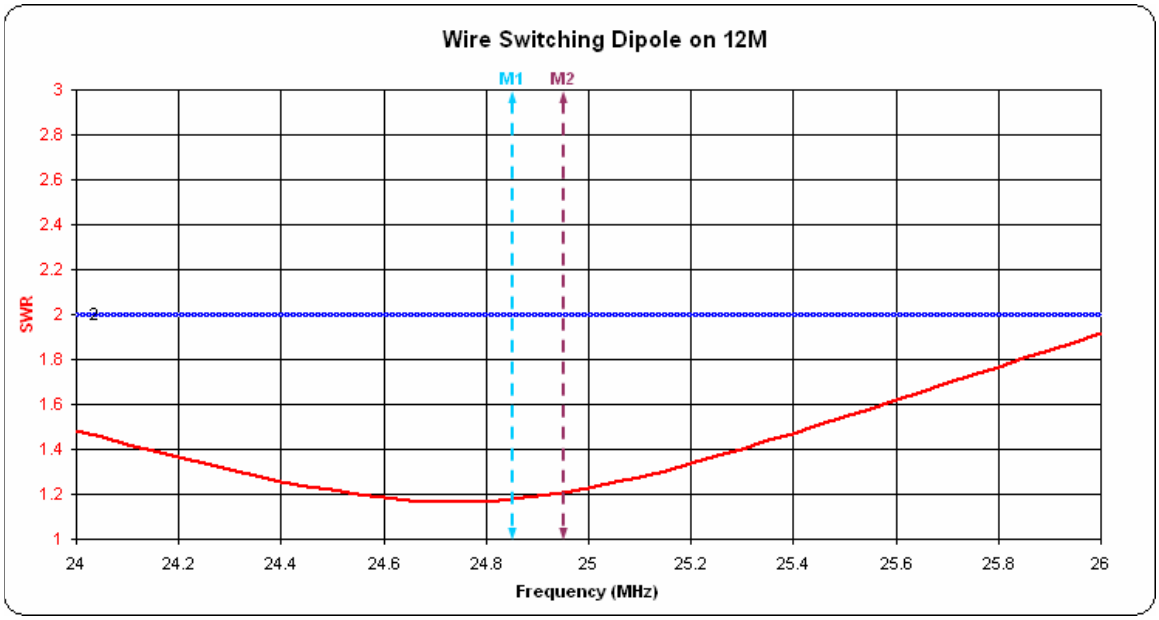
The 30M SWR plot shows a flat response across the entire 30M band. There are several reasons for this. One, the 30M band is a very narrow band and two, the broad banding effect of the switching dipole. You SWR results may vary with height, the surroundings around the antenna, and the tuning of the antenna elements.

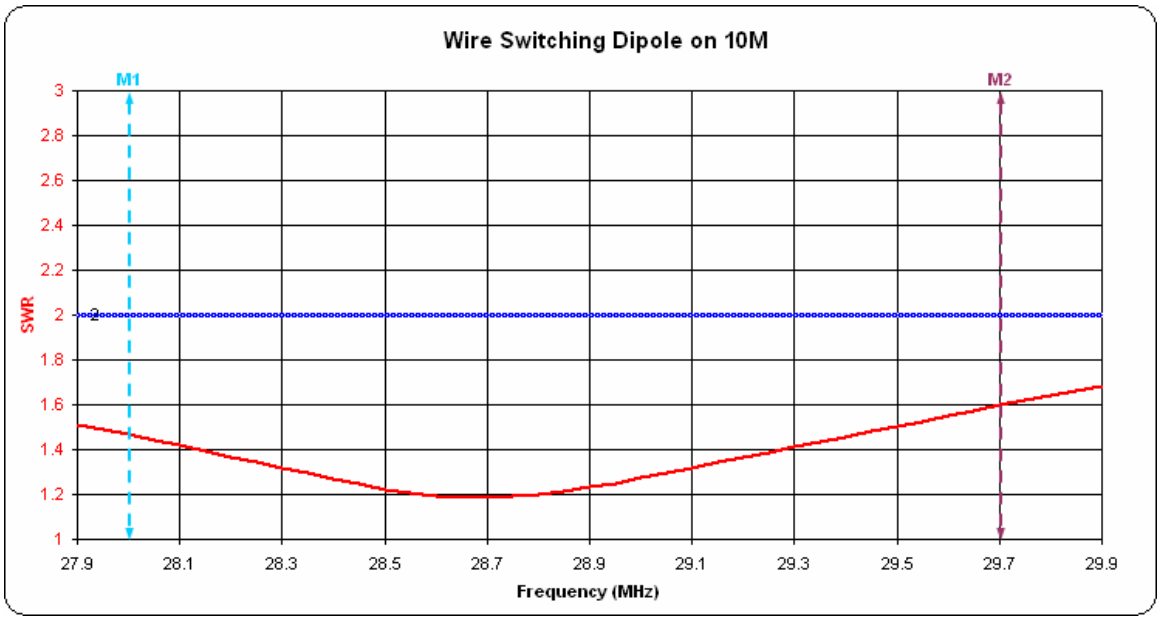



Wire Switching Dipole on 20M
M1
M2
SWR
3
2.8
2.6
2.4
2.2
2
1.8
1.6
1.4
1.2
1
13.75
13.85
13.95
14.05
14.15
14.25
14.35
14.45
14.55
14.65
14.75
Frequency (MHz)


Wire Switching Dipole on 17M
M1
M2
SWR
3
2.8
2.6
2.4
2.2
2
1.8
1.6
1.4
1.2
1
17.5
17.6
17.7
17.8
17.9
18
18.1
18.2
18.3
18.4
18.5
Frequency (MHz)


Wire Switching Dipole on 15M
M1
M2
SWR
3
2.8
2.6
2.4
2.2
2
1.8
1.6
1.4
1.2
1
20
20.2
20.4
20.6
20.8
21
21.2
21.4
21.6
21.8
22
Frequency (MHz)


Wire Switching Dipole on 12M
M1
M2
SWR
3
2.8
2.6
2.4
2.2
2
1.8
1.6
1.4
1.2
1
24
24.2
24.4
24.6
24.8
25
25.2
25.4
25.6
25.8
26
Frequency (MHz)


Wire Switching Dipole on 10M
M1
M2
SWR
3
2.8
2.6
2.4
2.2
2
1.8
1.6
1.4
1.2
1
27.9
28.1
28.3
28.5
28.7
28.9
29.1
29.3
29.5
29.7
29.9
Frequency (MHz)