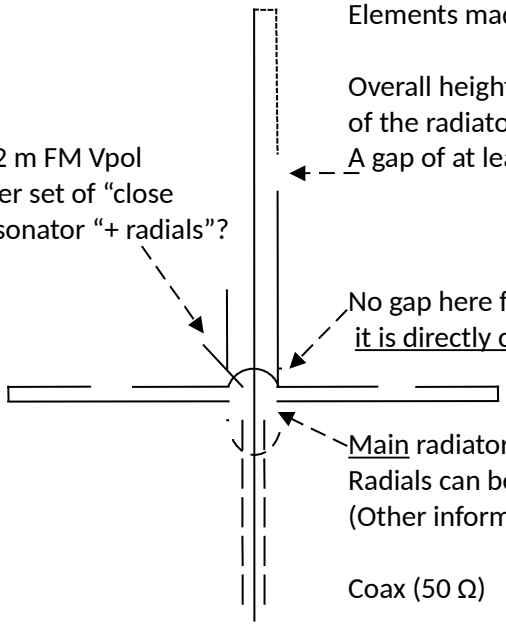
"Close Coupled Resonator" multiband antenna

de N9ACC
ArnalCC@comcast.net

Gap and folded lengths specified in March 2015 *QST* article, pg 41.



Elements made from 450 Ω ladder line.

Overall height and length can be shortened by folding back the upper portion of the radiator and radials with very little change in performance (~-1.2 dB).

10, 6, and 2 m FM Vpol with another set of "close coupled resonator "+ radials"?

A gap of at least 6 inches from the shorter element should be kept.

No gap here for the coupled (shorter) vertical resonator, it is directly connected to the center of the "coupled radials."

Main radiator is NOT connected to the radials, just the coax shield is.
Radials can be drooped down towards 45° for a better match to the 50 Ω coax.
(Other information shows 4 radials will broaden the 2.0:1 SWR bandwidth.)

Coax (50 Ω)

UNfolded lengths: MHz	1/4 λ, FT + INT(234/MHz)	inches	UNfolded lengths: 234/MHz	= feet.decimal feet		e.g., Folded lengths of longest element, (See article):
28.3	8	3.22	8.268551	Novice / Tech / SSB		
28.4	8	2.87	8.239437	Novice / Tech / SSB		6.9 ft ("SSB")
28.5	8	2.52	8.210526	Novice / Tech / SSB		
29.5	7	11.18	7.932203	E/A/G	FM	
29.6	7	10.86	7.905405	E/A/G	FM	
29.7	7	10.54	7.878788	E/A/G	FM	
50	4	8.16	4.68	CW/SSB		4.3 ft ("SSB"??)
51	4	7.05	4.58	FM		
52	4	6	4.5	FM		
53	4	4.98	4.41	FM	(4.45 ft specified in unfolded version. FM?)	
54	4	4	4.33	FM		
144	1	7.5	1.625			1.46 ft (SSB?)
145	1	7.36	1.613793			
146	1	7.23	1.60274			
147	1	7.10	1.591837			
148	1	6.97	1.581081			
435	0	6.45	0.537931			None specified.
440	0	6.38	0.531818			
445	0	6.31	0.525843			
450	0	6.24	0.52			