Two Crappie Poles
and
Some Wire

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I enjoy “picnic table” QRP
but
what can I do if I don’t have a tree?

W6ZO
Delta Loop

- 2 crappie poles + 4’ PVC extensions
- 65’ of 26 gauge magnet/enameled wire
- Approx full wave loop on 20
- Author reports good results
- I found unacceptable small wire size and crappie pole sag

20 Mtr
V Dipole

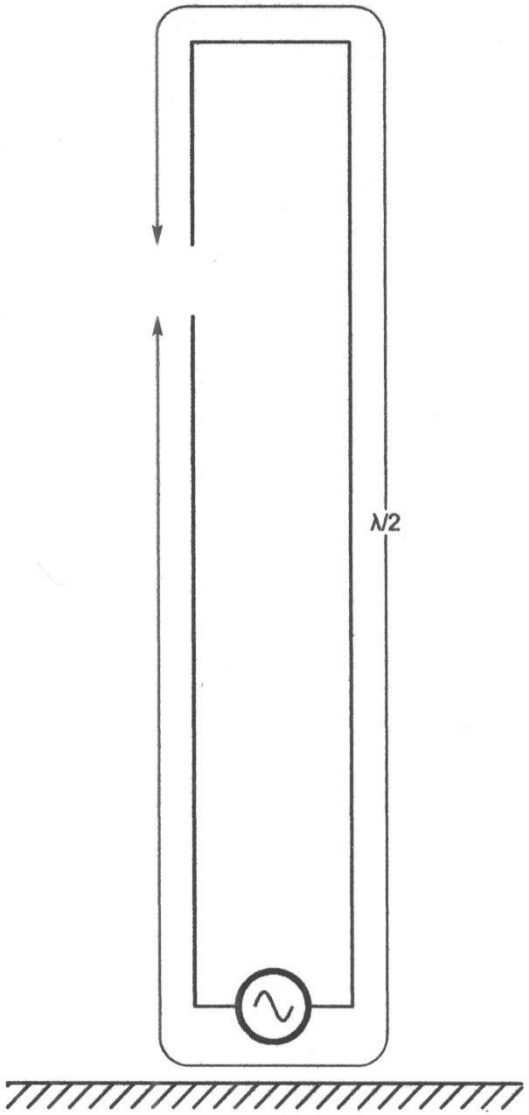
- Reused my W6ZO crappie pole supports
- Eliminated the top of the delta to turn it into a 20 mtr V
- Worked OK
- Suspect like any low dipole this one has ground loses and a high angle of radiation

20 Mtr Vertical

- Simple ¼ wave vertical mounted 4’ off the ground on PVC pipe
- Four elevated radials perform as well as 64 radials on the ground. See March 2010 QST
- Four radials also serve as guys for the 4’ base
- Crappie pole itself (supporting a single vertical wire) is unguyed
- Worked well
- Easy to setup
- 35’ diameter tripping hazard/footprint makes it campground unfriendly

KF2YN C-Pole

- The “C Pole”— A Ground Independent Vertical Antenna, Brian Cake, KF2YN, QST, Apr 2004
- Omni directional
- Low angel of radiation
- Performs well with no ground system
- Ground currents/loses greatly reduced over a ground mounted vertical
- For 20 Mtrs 40” wide by 15’ tall and a foot or two off the ground

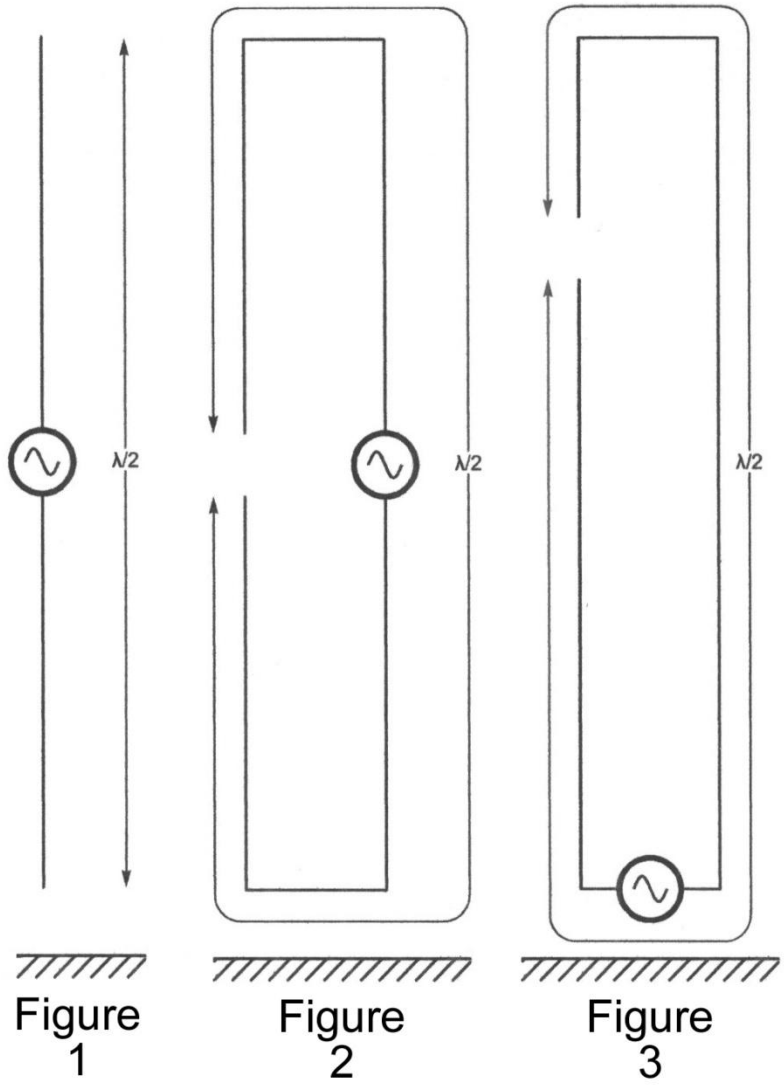


C-Pole Antenna Theory

- Fig 1 – Vertically Oriented Dipole
  - ½ wavelength tall
  - Inconvenient feedpoint

- Fig 2 – Vertically Oriented Open Folded Dipole
  - Approx ¼ wavelength tall
  - Folding lowers feed impedance to approx 25 ohms
  - Inconvenience feedpoint

- Fig 3 - Vertically Oriented Off Center Fed Open Folded Dipole
  - Moving the feed point towards an end raises the feed point impedance
  - Feed point at ground level
  - Substantial common mode potential must be controlled with a choke/current balun



20 Mtr C-Pole

- 16’ tall
- Two 40” PVC Spreaders
- Tree limb at least 17’ off the ground

20 Mtr
Crappie Pole C-Pole

- Frame of two 16.5’ crappie poles on top of 4’ sections of PVC pipe
- Self supporting
- No guys required
- Campground friendly with 4’ x 5’ footprint

C-Pole Base Details

- Base is 5’ piece of 1x4 with 4’ stabilizers
- Spiked to the ground for increased stability
- 15 turn choke balun wound on plastic Folgers coffee “can”

Setting up a C-Pole Antenna

- Easy one-person job
- Only tool required is a hammer
- Takes about 15 minutes
- See Youtube video at http://www.youtube.com/v/nYn-GnwcSoE

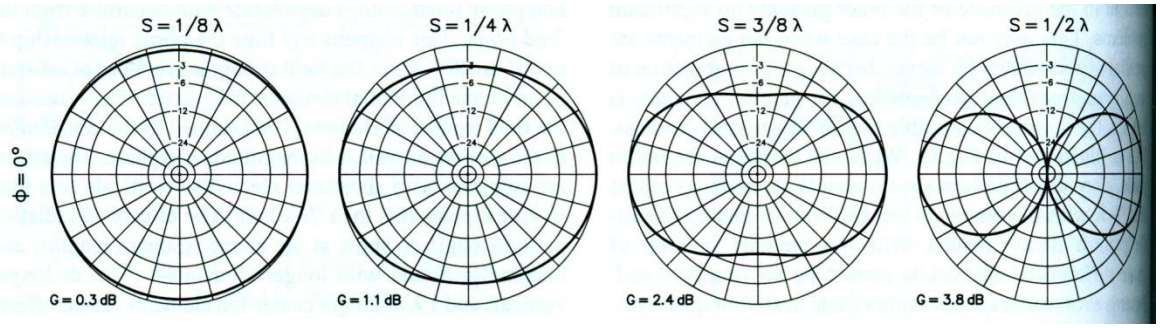
Summer 2010 QRP C-Pole Contacts

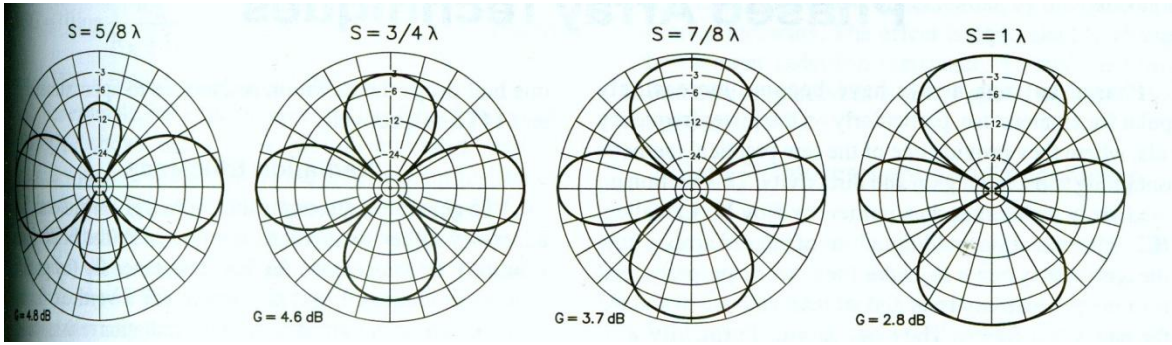
W8CQA	OH	599
WA3SLN	PA	449
W0WCA	CO	449
KI0II	CO	549
N4ESS	FL	589
VE3FIT	ONT	579
N3EIN	PA	499
K9WWT	IN	589
W9FHA	IN	459
EA6UN	SPN	579
WB6HGJ	CA	559
W7LPV	AZ	569
N6IV	CA	229
WA3SLN	PA	559
K4SPO	KY	449
K3WWP	PA	449
AF4O	TN	459
WB2PEF	NY	449
VA3RKM	ONT	559
WB6OJB	CA	559
WB4KLI	KY	589
WD9F	IL	559
W2IQK	NY	449
W9LD	WA	339
N2UGB	NY	559
CT4RL/1	PORT	329
W7ZT	AZ	579
N1GKE	RI	529
KS7R	MT	589

What's Next?

Two C-Poles in phase

- Feed each with arbitrary but equal length of coax
- Space for pattern of interest
- Orient broadside to direction of interest
- Up to 4.8 dB gain





ARRL Antenna Handbook, 19th ed, pg 8-8