

HF ALL BAND: 6-160 Meters
“Flagpole Antenna”
Tom G - NV1U



This Antenna is Based On:
A Motorized Inverted-L Antenna for 80 – 10 Meters
by, Don Crosby, W1EJM

*Honorable Mention in the 2017 QST Antenna Design Competition,
80 Through 10 Meters category: Page 46!*

My “Flagpole” antenna is a version of Don Crosby’s design without the motorizations. As mine isn’t motorized, I use an LDG, RT-600 remote tuner which tunes 1:1-1.5:1 from 160-6 meters.

Here are a few of the antenna’s images and descriptions:

Three foot Galvanized pipe cemented with stone at 2.5’, installed by Earl Hancock (W1IPN) and George Briggs (K2DM). There is also a radial plate with “32” available radial connection points. Don’s modeling software suggested “17” radials to fit within the area of my front yard!

This images shows the radial furrows about a week after Chuck Theisen (K9IA) and Bob Anderson (W3RTA) installed the radial wires which are held down by several, six inch staples. Gary Sienkiewicz (W2TR) tightened and dressed the radial leads from the radial plate. You can see the radials affixed to the plate which was purchased on [ebay](#).



This is my “Refurbished and Reconfigured Force I2 Flagpole Vertical.” I replaced the OCF section and a damaged section at the top. This “21” configuration is designed to be bottom fed. I removed the paint on the bottom to accommodate the tilt over bracket that also doubles as the feed point. The bracket then mounts to the PVC insulated mounting pipe. (Img. 1)



Image 2

This image is a closeup of the MFJ, tilt over mounting base, attached to the insulated pipe. The radial plate, now buried, is fed with a coax shield pigtail from the RT-600 remote tuner.

Since the RT-600 is designed for coax in and out, I cut a length of coax and separated the center conductor from the braided shield. I covered the braid with heat shrink and soldered a 1/4" copper ring terminal to both the shield and center conductor.

The RT-600 is fed with BuryFlex from DavisRF. You can see it's feed on the left of the tuner.

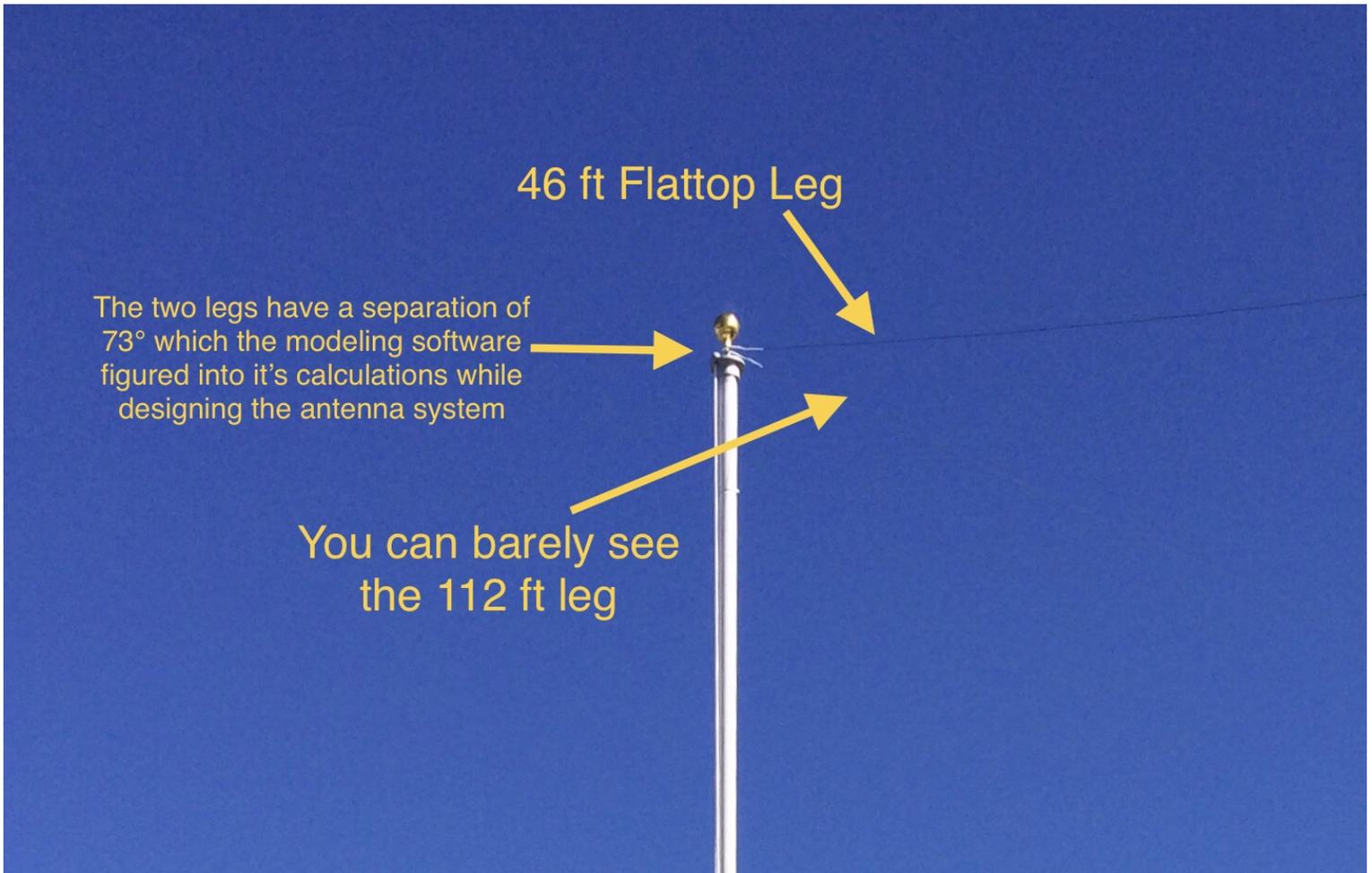
The orange cable will carry a 12 vdc control voltage for my coaxial Dow Key relay antenna grounding system. In the upper right is a LED flood light to illuminate the Flag.

All connections are protected by "Corrosion Guard" from Mercury Outboards! It's a wet, self healing, waxy material that thickens up when set.



Here, you can hardly see the “Flattop” wires where the arrows are pointing. They are “Polys-26, made from Poly-STEALTH™” High Strength Aerial Wires, manufactured with high strength, high conductivity Bare Copper-Clad Steel (BCCS) and insulated with a high quality UV Resistant Polyethylene to provide one of the strongest and longest lasting antenna wires, by DavisRF in Haverhill, NH.

The long flattop is cut to tune 160 meters. The shorter flattop helps tune 80 meters. With the RT-600, SWR is nominal for all HF bands and 6 meters.



This fixture, rigged much like a pole for an outside antenna, actually serves a dual purpose. It supports an omnidirectional FM Broadcast antenna and also supports a nylon chain link via a 1/4", UV proof, rubber bungee for the 112' leg of the 160 Meter Flattop aerial. It's main purpose is to allow the flattop to make a Right Angle, crossing over the peak of the roof to another 15' support pole on my utility room.

This last pole has a fishing reel and a cleat to affix the monofilament leader line which keeps tension on the antenna wire. This allows easy lowering of the aerial for servicing or dropping the flagpole.

The shorter 80 meter leg runs over the yard and driveway to a tree in my side yard. This also has a fishing reel and cleat to handle the aerial. All I need to do is just let it drop with no worries of entanglement. **"Thanks for reading about my antenna!"**

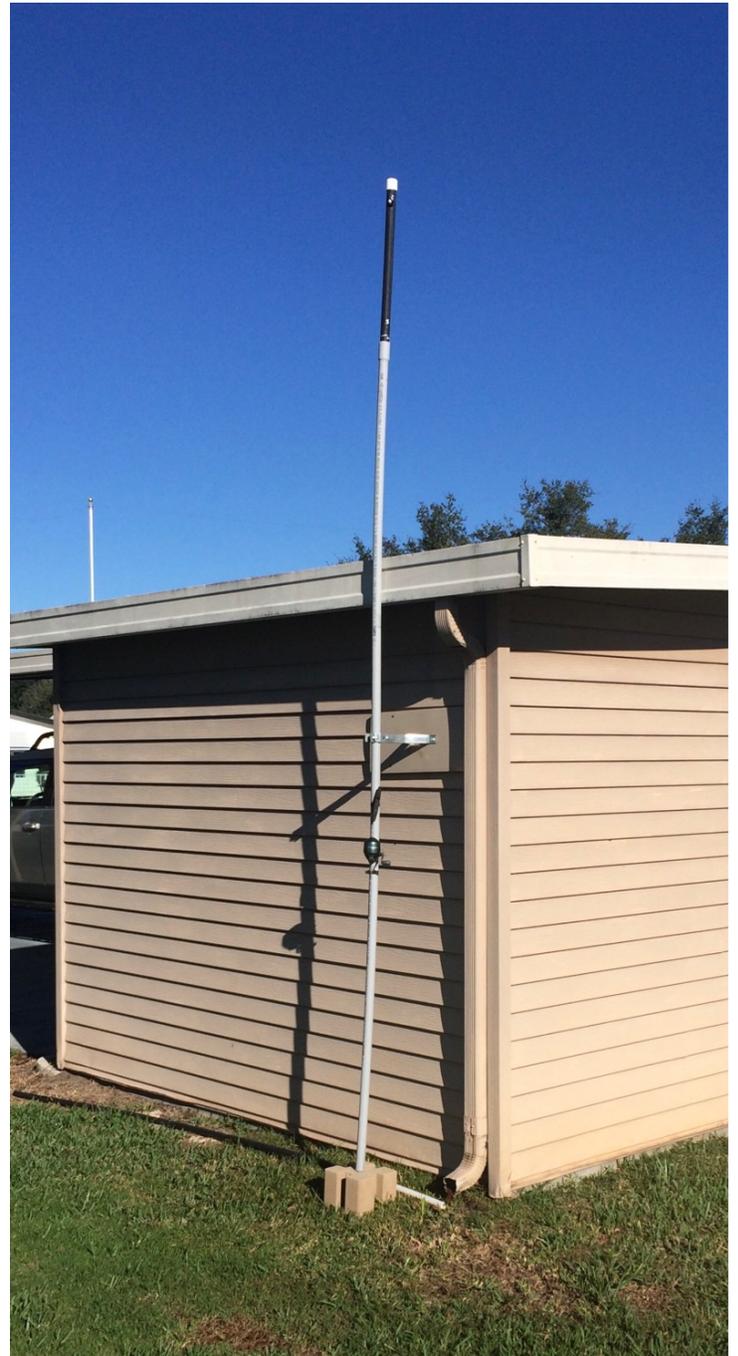


Image 6

Google Maps Aerial View

I used this as my planning template



I added 110 Ft of Poly-STEALTH™ (Polys-26) from DavisRF, to make this Leg operable on 160 Meters

My Completed Layout to Add 160 Meters to My Existing Flagpole