

# MODIFYING THE FINCO P-7 PARABOLIC DISH

BY STEVE WEST

I have been experimenting with my 7 foot Finco UHF dish. I would like to share my ideas—and results—on screening the dish. It works well, especially on the higher channels above ch 40. The results of the modifications showed a noticeable improvement on scatter signals, especially on the highest channels.

I have 1/4-Inch hardware cloth on the dish. Hardware cloth seems to be a practical compromise in wind load vs. performance. 3 square feet of hardware cloth bought at a True Value hardware store cost \$1.49 (36" by 12"). To cover the entire dish, you need about 40 square feet. Ice loading is incredible on the cloth; I would not recommend this for winter use.

It seems like the winter winds have gone now, but in practice, the dish needs a lot of "beefing up" to withstand the swaying back and forth. I don't recommend this operation on a hard to reach tower, because a few minor adjustments may be needed.

I got tired of climbing the roof when something would get out of alignment or start wearing out, especially where the top half pivots. Maybe someone else has the determination to make the idea more practical; the results of reception are good.

Here are the modifications done:

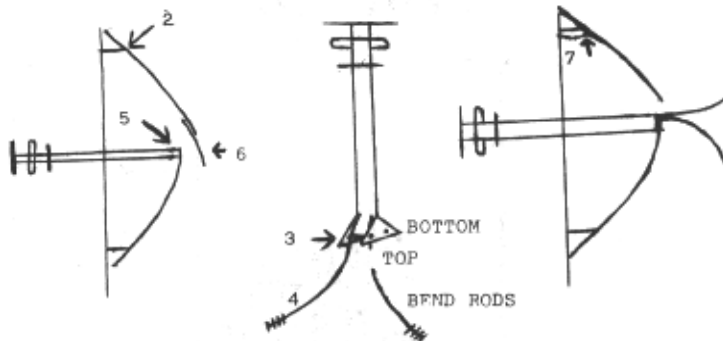
- 1.) Screen the top half of the dish by using grounding wire like a twist tie on a loaf of bread. The screen is placed in front of the reflector elements and then tied by looping the wire through the screen and tying it back to the reflector elements.
- 2.) Remove the rivet at the top of the dish where it connects to the U bolt and mini boom; attach a bolt there.
- 3.) Disconnect the bolt on the feed boom that attaches to the top half of the dish.
- 4.) Using the same bolt and two extra nuts, connect two ends of a rod of the type used for screen doors (these two rods are normally connected together by reverse threads and tighten on the door).

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- 5.) Tie a rag on the bolt for a shock absorber.
- 6.) Tape a rod or old antenna element on the lower part of the top half of the dish (this helps to guide the dish back to normal position).
- 7.) Optional: tie a safety wire from U bolt to upper part of the dish (I used ground wire).

To screen the bottom half of the dish, repeat the process.

My suggestion is to aim the dish toward the wind so that the antenna can sway back easier.



Examples of the improvement are WBFF-45 (1.5 MegaWatts) and WMPB-67 (.65 MegaWatt), both in Baltimore (100 miles), and WDCA-20 (4 MegaWatts) In Washington, DC (130 miles).

Ground wave conditions before the modification were oh 20 strongest, then ch 45, and ch 67 weakest.

Ground wave conditions now show oh 67 strongest, then ch 20, and ch 45 weakest. Both sets of results were with a Wlnegard AC-4990 pre-amplifier. All scatter signals are stronger now.

The antenna has survived a few Siberian blasts. The dish withstood the winds fine, but started developing structure problems.

Steve West  
432 Kenmore Road  
Havertown, PA 19083