



Smoke Signals

Newsletter of Fullerton Radio Club

February 2023

PREZ SEZ

One of my favorite VHF/UHF ham rigs is the Kenwood TM-742A mobile transceiver. This model accepts three RF modules and my three 742's all have 2m, 220 MHz and 440 MHz modules installed. Other modules for 10m, 6m and 1.2 GHz are available, making this rig one of the most flexible ever produced. Further, the 742 offers all the features you could ever expect to find, including cross-band repeat and power output selectable 2 to 50 Watts. These rigs are still popular sellers on eBay. But what it does not offer (due to its age) is a computer interface and remote programming. Like all complex rigs with many "channels" to be programmed, this can be a pain from its front panel. Fortunately, Larry Anderton WA7YLI developed a programmer that uses the DTMF tones ordinarily sent from the rig microphone.

Larry no longer produces the DTMF circuit board, Arduino microcomputer and programming software for this programmer. But he recently made all the design info available and now the whole packaged programmer, or components, is newly available from George Byrkit K9TRV. I recently got one of these new TM-742A programmers; it works for similar rigs such as the TM-741 and TM-941/942. There is a really nice Arduino enclosure now available that George uses for his new design. A picture of mine, with some added panel nomenclature, is shown here.

I've used my TM-742 for morning QSO's and Bob Houghton's POTA events recently; changing bands is just a button-push away. Bob has generated new club interest with the POTA and WinterHeat activities and we continue our weekly club discussions on Zoom. I invite you all to join in and offer some Show-and-Tell about any ham

radio or other activity of interest to Zoom participants.

Spring is coming and your club board is already thinking about another Antennas in the Park and ARDF event. TAG will start again soon so get out of the "Winter" doldrums and join us for more fun!

Larry W6FUB



Board of Directors

President

Larry McDavid W6FUB
Email: lmcdavid@lmceng.com

Vice President

Robert Gimbel KG6WTQ
E-mail: kg6wtq@arrl.net

Secretary

Paul Broden, K6MHD
E-mail: Pbroden53@gmail.com

Treasurer, Public Service, Membership

Gene Thorpe, KB6CMO
E-mail: gtkb6cmo@juno.com

Members At Large

Walter Clark
Bob Houghton AD6QF
Bart Pulverman WB6WUW

Volunteers

T-Hunt

Joe Moell, K0OV
http://www.homingin.com
E-mail: homingin@aol.com

W6ULI License Trustee

Albert Solomon, AG6OF
E-mail: albertsolomon18@gmail.com

Newsletter Editor

Paul Broden, K6MHD
E-mail: Pbroden53@gmail.com

March 2023 FRC BOARD MEETING

The next Club Board meeting will be on

Wednesday, March 1, 2023

*Due to decisions made by the Board we will
continue to hold the meeting by Zoom at the
usual Zoom ID and passcode.*

Meeting time: 5:30 PM

All Members are welcome

March Club Meeting

**The March regular Club meeting
will be held on Wednesday, March
15 by Zoom at 7:00 PM.**

Show-and-Tell

**Bring something of interest to the Zoom meeting to show and share
your story. Something old, new, or just of interest to hams.**

Web site: www.FullertonRadioClub.org

February 2023 Board Meeting Minutes

The February 2023 Board meeting was called to order on February 1 by Zoom at 5:35 PM by President Larry McDavid W6FUB. Additional members present were Vice President Robert Gimbel KG6WTQ, Secretary Paul Broden K6MHD, Treasurer Gene Thorpe KB6CMO, Board Members Bob Houghton AD6QF, and Walter Clark. Absent was member at large Bart Pulverman WB6WUW.

Minutes from the January 2023 Board Meetings were reviewed and approved.

Treasurer's report: US Bank checking account balance: \$6,720.43 as of the end of January. Additional expected expenses include:

- \$150(+) due to Bob Houghton for renewal of the club's website
- Approximately \$200 for ARRL club liability insurance.

Membership:

The club roster as of 1/4/23 shows 24 paid and 1 life member. One additional membership renewal has been received in today's mail. There were no new member applications.

Upcoming Events:

Antennas In The Park will be planned for May. Date coordination for the hidden transmitter hunt is pending.

Smoke Signals articles: An email will be sent to all members indicating the need for input to the newsletter.

Old Business: Topics of discussion:

- We continue to plan a Zoom backup strategy.
- The Presidents shared duties and responsibility

New Business: A call for club priorities for 2023 was made. None identified.

There being no further identified business the meeting was adjourned at 5:49PM.

Submitted by Paul Broden K6MHD, Secretary

February 2023 FRC Regular Club Meeting

The February club meeting will be held on Wednesday, **February 15, at 7:00 PM**, on Zoom at the usual address and passcode. If you need this connection information, please contact one of the Board members who will provide the information.

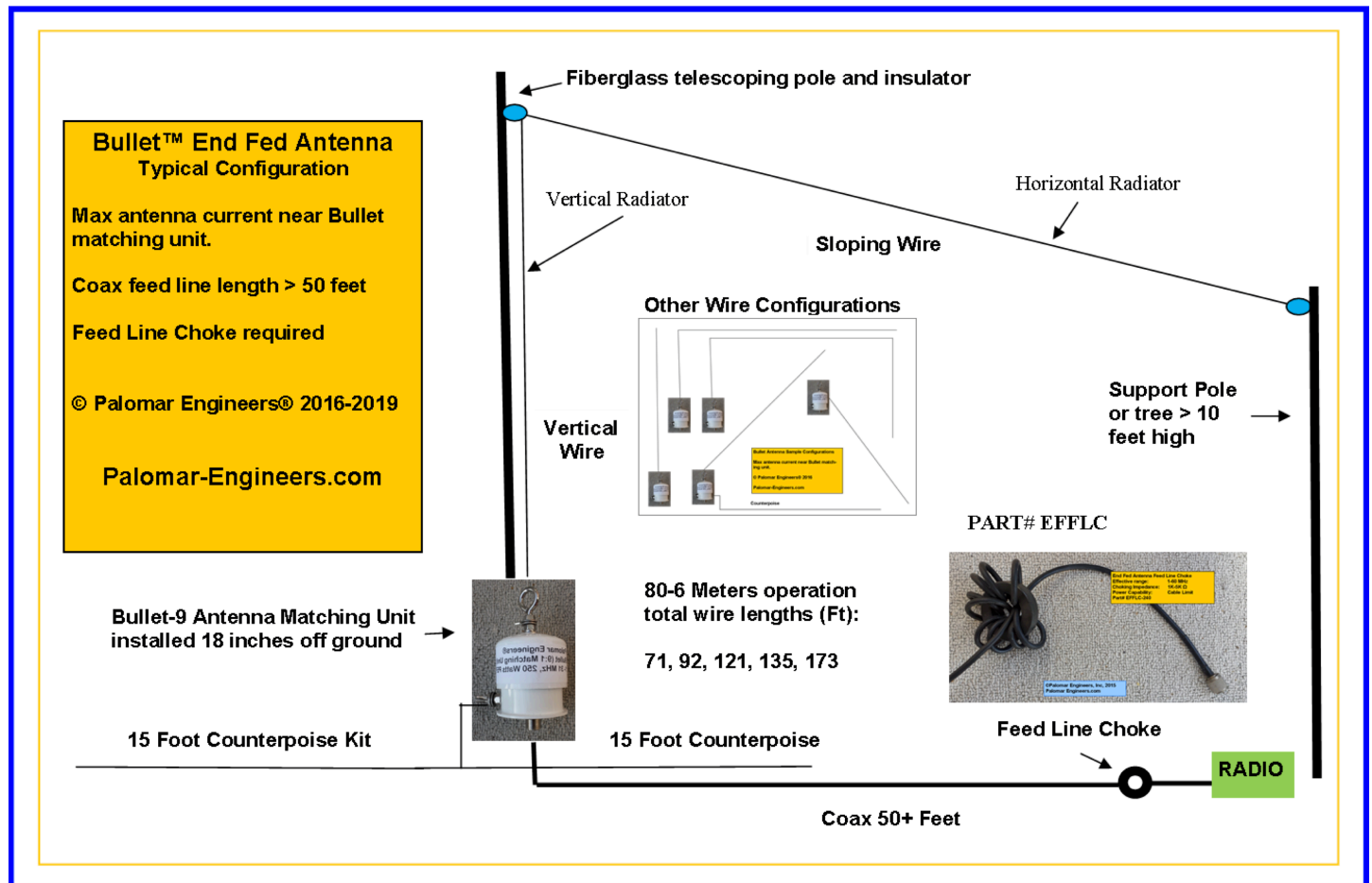
An Antenna Project

On Tuesday January 31, Stephen Shobe (W6WKW), of Pioneer Antenna and Tower, troubleshot and repaired my KT34A beam antenna. He found that the UNBAL had an open secondary and that the 45-year-old RG213 coax had reached its EOL. After replacing the UNBAL and the RG213 with RG8X the antenna works on all three bands as it did before.

In addition, Stephen installed a Palomar Engineering BAS-71 71-foot bullet end fed antenna on my tower in an inverted-L configuration as a replacement for my unused 40-meter inverted-V. This antenna gives me full coverage from 80 through 6-meters with the aid of the Flex 6400's internal auto-tuner. The vertical radiator is at 38-feet and the horizontal slopes due north to a

height of 5-feet above the peak of the roof of our garage.

Hiring a professional to do the job was necessary since I can no longer climb my tower. Stephen's total charge was \$515 computed at \$110 per hour plus \$75 travel. Considering that I had anticipated that I might need his services a second time to replace the KT34A with new lower gain antenna - it turned out to be quite a bargain.



Bullet End Fed Antenna System - 71' Antenna (80-6 meters), Counterpoise Kit and Choke, 500 Watt PEP -

73, Bart, WB6WUW

AN ATTRACTIVE SOLUTION

After completing my bathroom remodel I was surprised to find that the main door into my bathroom would no longer remain open. True, I had removed and rehung that door five or more times during the remodel but why this door behavior changed I still don't know. It was a really annoying problem! If you have a door that won't stay placed against its doorstop, you may find my solution helpful.

Note the door stop shown in the pictures, a very common wall-mounted coiled spring thing. It serves well to keep the doorknob from hitting the wall but was never intended to retain the door against its rubber bumper. Some magnets solved my problem.

I found on Amazon a 3/16-inch diameter neodymium iron boron magnet 3/4-inch long. I used some reclaimed-rubber adhesive to bond this magnet into the inside of the

stop coiled spring, leaving the north end of the magnet protruding slightly from the spring. I replaced the rubber end cap, hiding the magnet.

Also on Amazon I got a 3/4-inch diameter, 1/8-inch thick neodymium magnetic disk that came with double-sided foam adhesive disks. I put the foam adhesive on the north face of the magnetic disk and stuck it to the bottom of the door so it aligns with the newly-magnetic door stop. Now, the door is attracted to the door stop and does not open by itself! There is an air gap caused by the rubber end cap so strong, rare-Earth magnets are needed.

When working with magnets of all kinds, it is necessary to recognize magnets have north and south poles and to identify those poles so the magnets can be oriented to serve their intended purpose. Opposite poles attract so to keep the door against the doorstop, I oriented the

two magnets so opposite poles face each other.

While you can do this orientation experimentally if both parts are available, it is handy to actually identify the polarity of each magnet.

You don't want to stick the double-sided foam disk to the wrong face of that magnet as the foam is very difficult to remove and replace on the other face. A "magnetpolanzeiger" is needed! Good German word that! It just translates as "magnet pole indicator." I happened to have one in my magnetics tool box from earlier magnetic sensor work. Similar polarity indicators are available today on Amazon.

It was an attractive solution...

[This is not very high-tech and not ham radio, but it might be helpful to others.]

Larry W6FUB

