



SQUELCH TALES



Newsletter from the Merrymeeting Amateur Radio Association
for February 2024



**Do you have Cabin Feavor?
Then here is the cure.
It's the Boat Anchor Hamfest**

Sponsor: Augusta Amateur Radio Association



That's right fellow Ham Radio aficionados It is the mid winter Boat Anchor Hamfest at the Calumet Club located at 334 West River Road in Augusta on Saturday, February 10th.

Doors open at 8:00am and will run until noon. In the Augusta area Talk-In is on 146.52 simplex. For additional info go to: <http://W1TLC.ORG>. Admission fee is \$10.00

There will be a VE exam at 9:30am no pre registration required but ID and copy of license. Exam fee is \$15

Do you have goodies to sell and need a table?
If so contact George Szadis, K1GDI at 207-530-6357 or email at GRSZADIS@AOL.COM.

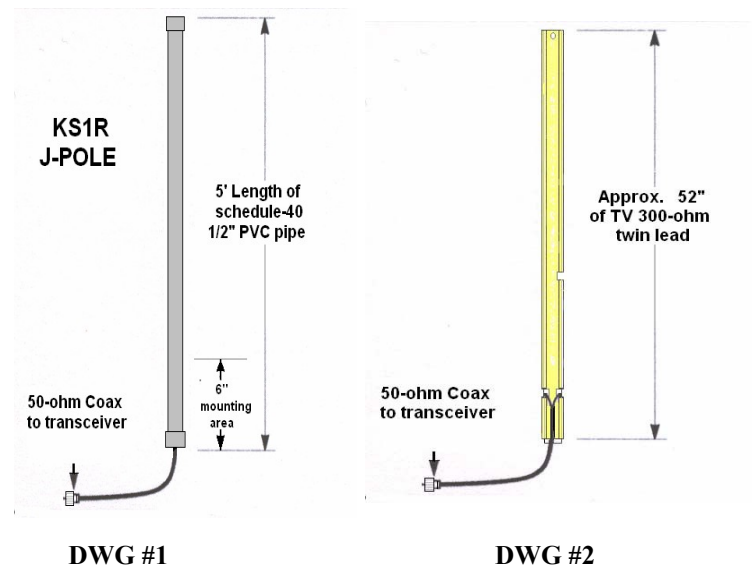
Hope to see you there.



**An effective 2-Meter antenna even
a Ham could build for under \$20**

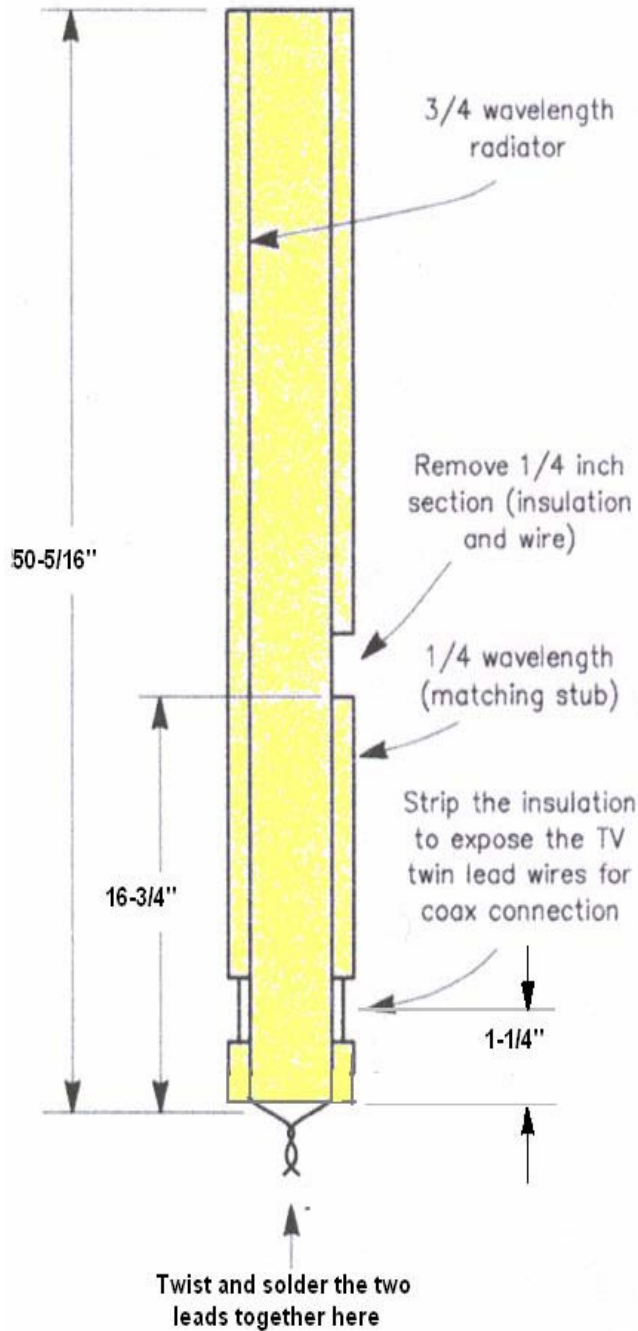
by W1ZE

The hart of the KS1R J-Pole antenna is the classic half-wave J-Pole built out of a 60-inch length of inexpensive 300-ohm TV twin lead. You may even have some in your stash of parts left over from a TV antenna installation.



Designs for this antenna are all over the Internet called by various names. A search for the key word "J-Pole" will give you pages of plans, descriptions and calculators. My basic dimensions I used were taken from an article in the September 94 issue of QST by Jim Reynante, KD6GLF called "An Easy Dual-Band Antenna." His designs were for a fold-up and stick in your pocket J-Pole for portable and HT use in lieu of a "no gain at all" rubber ducky. I built his antenna then inserted it into a 5-foot length of half-inch schedule-40 PVC pipe.

300-Ω TV twin lead
(Not to scale)



DWG #3

In the drawing No.3 you will see a sketch for the TV twin lead J-Pole with dimensions. The only tools you will need are diagonal cutting pliers, a razor knife (or Exacto knife) and a low-wattage soldering iron. Follow the dimensions closely for

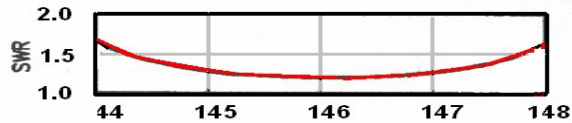
now; we will modify it later for insertion into the PVC pipe

Now, let's get to work:

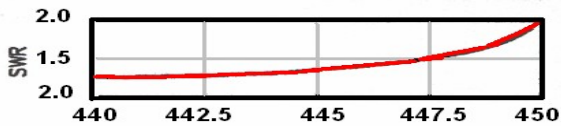
- First cut a 60-inch length of TV twin lead.
- From one end measure up about 2-inches and perform surgery with the razor knife to expose the two copper wires. Make the opening about 1/4" long.
- Now solder tin the two exposed wires.
- From the middle of the opening for the two exposed wires measure down 1-1/4" and mark the twin lead. From this point remove the insulation from the two wires.
- Twist the two wires together and solder them.
- Now from the two twisted and shorted wires, measure up the twin lead 16-3/4" and make a 1/4" notch in one of the two leads (conductor removed see diagram 2 & 3).
- From the shorted and twisted conductor end, measure up the twin lead 54" and cut off the remaining twin lead.
- Cut a three of 4-foot length of RG-58 coax.
- Strip the outer insulation back about 1/2" from one end.
- Separate the shield and center conductor. Twist the shield braid into a pigtail. Remove the insulation from the center conductor to a point about 1/8" from the center/shield separation.
- Solder-tin the center and shield pigtail. Then trim the center and shield leads to a length of about 3/8".
- Now tack solder the two coax leads to the exposed wires 1-1/4" from shorted end. Tack the shield side to the stub side of the twin lead J-Pole and the center conductor to the long antenna side.

You have built the fold-up portable J-Pole. Temporarily install a PL-259 connector on the un-terminated end of the RG-58 coax but don't solder it yet.

Get out the old SWR bridge and tack the J-Pole up on a wooden wall of fence post. Apply a small amount of RF and check the SWR. Verify that the low SWR is around 146 MHz. If it is lower than that (say 144 MHz), trim 1/4-inch from the stub and 1/2-inch off the top end length of the antenna and recheck. You may have to do this again. You should see a SWR plot similar to the following chart:



SWR plot of the J-Pole across the 2-meter band



SWR plot across the FM portion of the 70cm band

Now, let's put this puppy in a radome (PVC pipe). When you add material, even insulation material around an RF conductor it changes the Velocity Factor (VF). When you slide the 300-ohm twin lead J-Pole into the pipe the VF changes making the antenna electrically longer and in turn lowering the resonant frequency. Most likely you will need to snip off another 1/4" or more from the 1/4-wave stub and the overall length. Do is a 1/8-inch at a time until the SWR drops to the lowest reading at about 146 MHz. When you find the sweet spot, apply electrical tape over the antenna/coax junction to secure it.

I recommend a PVC pipe length of 5-feet so that the bottom of the twin lead J is about 6 to 8 inches up inside the PVC tube. Attach a 1/2" PVC end cap at the top end and an end cap with a hole drilled in it just large enough to slide the coax through. You may want to put a few layers of tape or a tie wrap on the coax just inside the end cap hole to keep the coax and antenna from sliding down inside the pipe. The bottom 6 to 8 inches is where you can clamp the antenna to a mast and not have it de-tune your antenna. I used RTV vs. PCV cement to weather seal the caps, so if needed you could take the antenna apart for repairs or modification at a later date.

A Bonus: this J-Pole also works on the 70cm (440 MHz) band, but the radiation takeoff angle is high so don't expect to work Boston with it, but for local repeaters and simplex it will work fine with low SWR (see previous 440 SWR graph).

While you are at the hardware store buying that 10-foot length of 1/2-inch PVC pipe, pick up 4 end caps in lieu of just two. If you cut the

pipe in half you will have enough material for two KS1R J-POLES!

NOTE: If you can not find some old 300-ohm TV twin-lead you can use standard old 2 conductor No.12 lamp cord wire and use the same dimensions. You will most likely have the same final results.



FREE HEATHKIT SB-220 KW+



AMPLIFIER LOOKING FOR A GOOD HOME

JACK GELFAND, K2BMI has a clean SB-220 amplifier that needs minor repair and willing to give it to someone that will give it a good home. If interested you can contact Jack at: gelfand@oswego.edu. New owner will need to pick it up at his QTH location at:
13 Harris Avenue Portland, ME 04103



Dear Friends of NEAR-Fest!

Due to an unfortunate scheduling conflict with the Deerfield Fairgrounds our Spring 2024 hamfest, NEAR-Fest XXXV, the main day of the hamfest will be Friday April 26th 2024 and will end at 3:00 PM. This time only we will not be there on Saturday. Our 2024 Fall NEAR-Fest XXXVI scheduled for October 11th and 12th will be the same as always.

We hope to have some flea market and social activities on Thursday, April 25th. However, this

is still being negotiated at this point in time so nothing is written in stone but here is what we anticipate.

Advance ticket holders will be admitted first (exact times to be announced) so you might want to buy your tickets EARLY online starting February 1st 2024 on our Web site, www.near-fest.com, or in March at H R O in Salem NH and Ross Hochstrasser's Clock Shop in Whitman MA (cash only please) and get your favorite spot. Everyone else will get in one hour later.

Campers, RVs and overnight stayers will go directly into the Fairgrounds as we will not be using the Fair's campgrounds for Thursday night this time.

For this event only admission per person is \$10.00 whether you buy your ticket online, in advance or at the gate. Overnight parking and tent passes are \$15.00 regardless of whether you plug into an electric outlet or not. All vehicles that remain at the Fairgrounds overnight (after 9:00 PM) will require an overnight parking pass in addition to an inside parking pass for Friday. An RV/Camper/ Motorhome pass is \$30.00. Everyone over 21 will need an admission ticket except unlicensed spouses, active duty military, full-time students (with ID) and other valid pass holders.

The gates open Friday morning and buying and selling may commence immediately. We offer our long-standing Porter service; if you buy something big and heavy in the flea market one of our volunteer staff members will be glad to transport it and you to your vehicle at no charge as it has been for many years. As always inside parking for disabled persons is free of charge and they may use a single person ?mobility device? as well. NEAR-Fest reserves the right to limit the use of golf carts and ?other power driven mobility devices? due to safety concerns and potential liability issues.

Please go to our Web site, www.near-fest.com, for exact opening times and any further updates. We apologize for any inconvenience that the abbreviated ?Mini-NEAR-Fest may have caused this time. We appreciate your indulgence and understanding.

See you at Deerfield!
73,
MisterMike, W1RC



ARRL Board Approves Free Membership for Students

The ARRL Board of Directors met in Windsor, Connecticut, for its Annual Meeting, January 19 – 20. The Board approved two motions aimed at engaging young hams with a strong start to their lifelong journey with amateur radio and ARRL:

1. **FREE ARRL Membership for Students.** For decades, ARRL has offered a reduced dues rate for young hams, currently priced at \$30 per year. At this meeting, the Board established a new option for a no-cost Associate membership for full-time students of age 21 and younger.

2. **ARRL Student Coding Competition.** The Board approved the creation of a coding competition that will challenge students 21 and younger to design a software application that meets the specifications established by ARRL. Awards of up to a total of \$25,000 will be granted by an awards committee to the winning student(s). The terms and schedule for the competition will be determined by the committee.



QCWA Pine Tree Chapter 134 update

The Pine Tree Chapter will have a table set up at the Calumet Club Boat Anchor Hamfest on February 10th. Stop by and say hello. Interested attendees and Chapter members plan to gather for lunch at the Great Wall Chinese buffet in Augusta following the hamfest, about 12:30. Come join in for an informal gathering.

