



AMATEUR RADIO SERVING THE PUBLIC

THE CMRA *SQUELCH TALE*

Newsletter of the Central Missouri Radio Association (a Not-for-profit Missouri Corporation), PO Box 283, Columbia, MO 65205

February 1991

President
Vice-President
Recording Secretary
Corresponding Secretary
Treasurer
Board Member-at-Large

Dale Huffington, AEØS
Jim Lawler, WYØB
Bill Turner, KFØKC
Brian Thomas, NØLXP
Doug Turner, NØIKD
Scott Herin, NØKYW

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Meeting Minutes

The January meeting was held Jan. 8 at the Boone Electric Coop and was presided over by Jesse Bowen, WMØY. The major news from the Treasurer's report was that the repeater upgrade fund reached its goal so that the new board can now be purchased. Thanks to all who donated! (And don't forget, the special donation to the repeater fund is tax-deductible.)

Election of New Officers The nominating committee presented nominations for President, Vice-President, Recording Secretary, and Treasurer. Nominations were requested from the floor for Corresponding Secretary and Member-at-Large. The final slate of nominations was unanimously elected. CMRA officers for 1991 are:

President: Dale Huffington, AEØS
Vice-President: Jim Lawler, WYØB
Recording Secretary: Bill Turner, KFØKC
Treasurer: Doug Turner, NØIKD
Corresponding Secretary: Brian Thomas, NØLXP
Member-at-Large: Scott Herin, NØKYW

The 1991 officers will take over their new positions during the coming month.

Newsletter Publication The nominating committee expressed the feeling that the position of Corresponding Secretary was difficult to fill since it has in the past involved writing, copying, folding, preparing and attaching address labels, sorting, and mailing the club newsletter. Since there was general agreement that the newsletter serves a valuable purpose to keep the local amateur population informed about local events, the nominating committee proposed that the Corresponding Secretary be responsible for supervising publication of the

newsletter with the help of a newsletter committee. Jesse Bowen, WMØY, agreed to serve as newsletter editor and will write the newsletter. Mac McKenzie, K4CHS, Earl Felten, KFØGE, and George Hessenbruch, NØIMS, volunteered to perform the other functions necessary to get the newsletter out.

Club Construction Project Mac McKenzie, K4CHS, solicited interest in building the memory keyer described in a recent issue of *QST*. The cost of parts would be about \$25-30. The keyer has four separate memories and numerous features that include the ability to send commands to the keyer microprocessor via Morse code. Several people expressed interest in the project.

Thanks to 1990 Officers A motion was made and approved to thank the 1990 officers for their service to the club. In addition, outgoing president Jesse Bowen specifically thanked Roger Young, NØJZC for providing complete minutes to the meetings; Dale Huffington, AEØS, for continuing and expanding the newsletter during 1990; Mike Harmon, WBØLDJ, for planning a variety of interesting programs throughout the year; and Earl Felten, KFØGE, for valuable service in handling club finances for the last three years.

New Members Two new members were elected to the CMRA. Welcome to Terry Huskey, KBØGZR, of Centralia and Phil Brooks, KBØHWT, of Columbia.

VE License Exams

All FCC amateur radio license exam elements will be available following the February meeting. Contact John Turner (657-2391) for more information.

Newsletter Renamed

As you may have noticed, the newsletter sports a new title on the masthead this month. The "*SQUELCH*" refers to the somewhat abbreviated nature of our newsletter so that extraneous "noise" is eliminated. The "*TALE*" refers to the information conveyed concerning the activities of club members and local amateur radio events. To help keep the empty white space down each month, please let the editor know about all club-related happenings and who is involved. You are also welcome to submit news of events in surrounding areas, technical or short construction articles, equipment available for sale, and so on.

Novice Class

Response to the Novice class has been phenomenal! Over the last two weeks, 39 people have attended the introductory sessions. Some of the increased interest seems to be due to the new no-code Technician license to be implemented in February. However, more than half of the prospective hams are also interested in learning code to gain access to HF privileges. Help us welcome these prospective new hams!

For Sale Icom BC-35 drop-in fast charger for full-size Icom batteries. Contact Mac, K4CHS (442-7619)

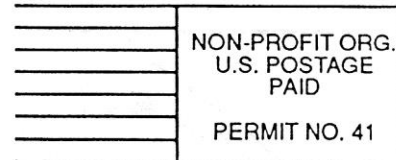
STAFF

Editor: Jesse Bowen, WMØY
Newsletter Committee: Mac McKenzie, K4CHS; Earl Felten, KFØGE; George Hessenbruch, NØIMS; Brian Thomas, NØLXP

The CMRA *SQUELCH TALE* is published monthly by the Central Missouri Radio Association. To be put on the mailing list or to submit informational, editorial, or technical articles, contact the editor at 1915 Blue Ridge, Columbia, MO 65202 (474-7674). Equipment ads by individuals can be accepted if space is available.

Central Missouri Radio Association

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WMØY

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Antenna Projects

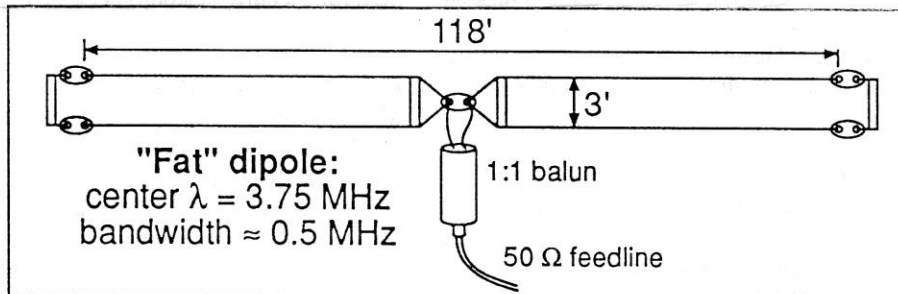
by Dale Huffington, AEØS

Here are two antenna designs to think about in your warm, dry shack as winter winds whistle around bare branches and swaying copper dipoles. The first is a practical answer to the problem of how to cover the whole 75-80 meter band without a tuner. The second is an unusual adaptation of a design usually found on VHF antennas.

The "Fat Dipole" is described in Vol. 2 of the ARRL Antenna Compendium (pp. 106-7). It takes advantage of the fact that as an antenna becomes thicker, its bandwidth also grows. In this case, the normal dipole is paralleled with a second dipole, spaced three feet apart from the first. The dipoles are tied together only at the feedline (top figure). The builder, Robert C. Wilson, specifies feeding it with 50 ohm coax through a 1:1 balun. The overall length of the fat dipole is 118 feet for a center frequency of 3.75 MHz. The bandwidth is 0.5 MHz.

The second antenna is called an "open-sleeve antenna." It is described in Ch. 7 of the ARRL Antenna Book (1988 edition) as a way to get a trapless multiband or broadband antenna. With a little tinkering, this could be just the thing to add the WARC bands to your antenna system!

The open-sleeve antenna consists of a central monopole resonant at the lowest frequency and two shorter flanking poles, or sleeves. As the sleeve elements are brought closer to the central element, and the ratio of element diameter to space between elements falls under 10, the impedance drops and the frequency where



the impedance is purely resistive gradually increases. At some precise point, it will transform the end impedance to 50 ohms.

The article describes a 14-28 MHz antenna: "The length of the central monopole is 195.5 inches and of the sleeve elements 89.5 inches. The element diameters range from 1.25 inches at the bases to 0.875 at each tip." A spacing of 6 to 8 inches between the central monopole and the sleeves is suggested. "Once the spacing is found, the lengths of the elements can be tweaked slightly for a choice of resonant frequency." The two sleeves are grounded; only the center element is fed with coax (bottom figure).

The basic principle is to operate the antenna on the lowest frequency in "an antenna mode"; as the frequency goes up, the "transmission line mode" comes into play to provide a 50 ohm match at additional frequencies. In addition to simple vertical antennas for 10/21, 10/24, 14/21, and 14/24 MHz, the article suggests making horizontal dipole and beam antennas. Apparently the Telex/Hy-Gain Explorer 14 triband beam antenna uses this principle.

This sounds like an experimenter's delight: a simple homebrew mount, a few

lengths of telescoping aluminum or galvanized pipe, and Presto! — a multi-band DX antenna for small suburban lots where towers and beams are impossible.

February CMRA Meeting

The next meeting will be at 7 pm, Feb. 12 at the Boone Electric Coop, 1413 Rangeline in Columbia. Ann Guptill, WBØTEG, will present a program on repeater operation and packet radio.

Open-sleeve antenna

