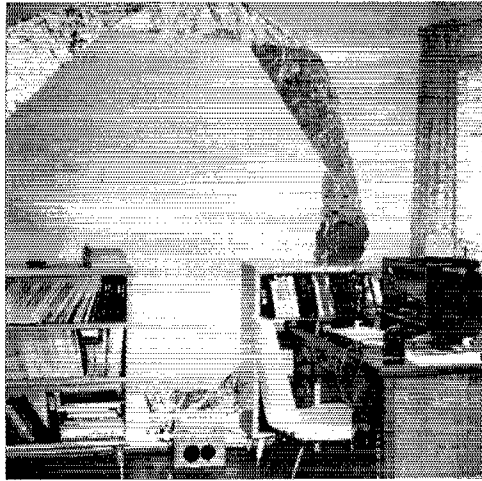


Technical Editor, *QST*:

I was quite interested in Lew McCoy's article on the vertical loop antenna. An indoor version of this antenna has been used at my QTH for several months. Being an apartment dweller I am unable to put up an outside antenna, and have found this version of the vertical loop to give excellent results.



W3TOB's wall-mounted loop solved his apartment-antenna problem — and probably dazzles visitors when light strikes the bright side of the aluminum foil!

The antenna is made from ordinary 12-inch wide aluminum foil attached to an outside wall of the apartment with Scotch tape. A sketch of the layout and dimensions are shown in Fig. 3. Note that the

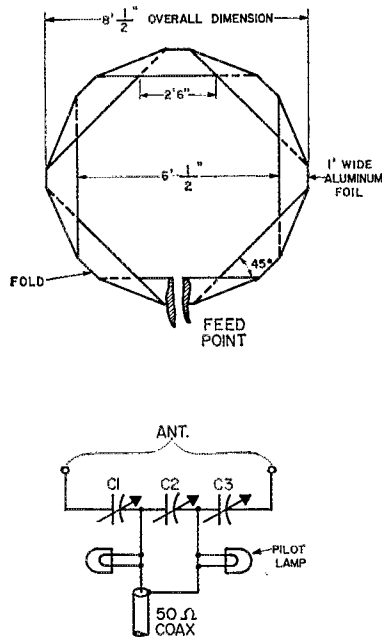


Fig. 3—Dimensions of the aluminum-foil loop used by W3TOB. The circuit for matching into the transmission line also is shown.

dimensions are made by folding the continuous strip of foil. The original capacitive tuning arrangement shown in Fig. 3 is used. Pilot lamps shunting three to four inches of the feed line are used to tune up. Care must be taken not to tear the foil when putting up the antenna. It is estimated that C_1 and C_3 must go to about 800 pf. to tune to 80 meters, and C_2 to several thousand pf. Receiving-type mica capacitors have been used successfully for C_2 , but fry in the other positions.

Although this antenna may not be as effective as a good outside antenna, it does very well for its size and convenience. The first night on 80 meters three stations were worked — K1DGE, WA6WNI, and VE3COO — with 150 watts input to an Apache. A month before trying it on 80, it was used on 40 with 50 watts to an HN-20, where several Europeans were worked. Operation has been confined primarily to low-frequency c.w.; however, contacts have been made on 15 and 10 meters. On the latter bands the antenna is loaded directly from the pi network of the Apache. The antenna is self-resonant at about 30 Mc. as indicated with a grid dipper. It works to ten meters, but don't expect it to work like a beam. — R. B. Short, W3TOB, 12307 Academy Way, Apt. 16, Rockville, Md. 20852.

M.U.F. VALUES

Technical Editor, *QST*:

In "Interpreting 50-Mc. M.U.F. Tendencies in the Current Sunspot Cycle," March *QST*, Mr. Cooper, in referring to "Ionospheric Predictions," prepared by ITSA, writes that the m.u.f. values given therein "purport to show the highest frequency that the F layer will reflect back to earth for that point above the globe, for that time of day." This is an inaccurate statement.

Median values of m.u.f. are used in the "Predictions" (and are so labeled). The frequencies shown are those for which there is a 50-percent probability of ionospheric support for a signal return.

Had ITSA chosen to do so, the prediction charts might have been prepared for any other percentage of the time during the month — for example, for 3 percent of the time for long-shot amateurs, or for 97 percent of the time for those who require a high order of reliability.

We would expect that Mr. Cooper would be interested in reviewing the "Predictions" on a long-shot basis, using the median m.u.f. (zero) F_2 data. If the contacts he reported at 50 MHz. were actually made as the result of an F_2 path, he may find that he might have deduced from the "Predictions" that such an opportunity was possible. He could not, however, have said on what day of the month the occurrence would take place. So far as we know, no one has the ability to do that at any frequency in the h.f. and v.h.f. ranges. We cannot say what will happen a week from next Tuesday.

V.h.f. amateurs have used active stations in other services as "indicators" of possible extended range communication for at least 20 years. It is the only system we know of that applies to current conditions in a v.h.f. band in which the amateur activity is not intensive over wide areas. — Lewis B. Gilmer, K4ETM, 17 Adams St., Garden City, N. Y. 11530.

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TO SAFETY!**

