

Sept 1995

FEEDBACK

THE OFFICIAL NEWSLETTER OF THE
GEORGIAN BAY AMATEUR RADIO CLUB INC.

Sponsoring

VE3OSR FM REPEATER 146.940- Mhz MARKDALE
VE3OST FM REPEATER 145.290- Mhz OWEN SOUND
VE3GBT FM REPEATER 146.895- Mhz BARROW BAY
VE3IJD PACKET BBS 145.630 Mhz KEADY

REGULAR EVENTS

GBARC MEETINGS:
FOURTH TUESDAY OF EACH
MONTH

BREAKFAST MEETINGS:
SECOND AND LAST SATURDAY
OF EACH MONTH

GBARC INFORMATION:
INFORMATION REGARDING
MEMBERSHIP SHOULD BE
DIRECTED TO TOM VE3NEM
519-371-9499

Minutes of GBARC meeting JUNE 1995

President Brad VE3RHJ opened the June meeting of the Owen Sound GBARC. Richard VE3WUD read the minutes of the last meeting. Brad VE3RHJ moved that the minutes be adopted as read. Seconded by Ross VE3BZC. Passed.

Program director, Dave VA3DSI asked what activities the club members would like such as field trips, speakers, etc. VE3NEM Tom gave a report on the financial status for the past year. VE3TSA Tom gave us the results of the number of contacts made during the field day. VA3KMS Ken said there is not much to report about packet. But again expressed that there are people who have not yet paid into the packet user group. VE3IJD Gene said the flea market was cancelled due to a lack of vendors.

VE3DXO Dave was appointed to be the club's auditor. Approved by the members.

A couple of members VE3TFQ Jim and VE3DTS Jack made the copper cactus J-pole using the plans printed in the last issue of FEEDBACK. They reported that it worked well.

It was suggested that we have a booth at the Owen Sound Fall Fair, but nothing definite was decided at this time.

The club agreed to donate \$100.00 to the Canadian Institute for the Blind (CNIB) as approved by the membership.

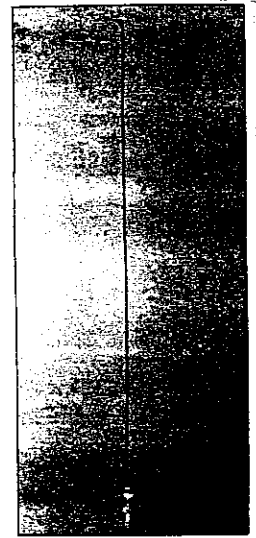
Guest speaker Mark Steffen of Wingham spoke to the club members about the internet and demonstrated how it works. He also told us that plans are in the making to set up a node in the Owen Sound area to service the area.

The 50/50 draw was won by VA3JRF John.

Low-Cost Easy-to-Build Antenna

For 146/440 MHz.

by Bob Witmer W3RW and Ed Clegg W3LOY



This easy-to-build antenna provides improved performance in range on both bands over the standard antenna ("rubber duck") currently supplied with the dual-band, hand-held transceiver. In addition, at less than 2 feet tall, it's space-efficient for mobile operation.

The Challenges

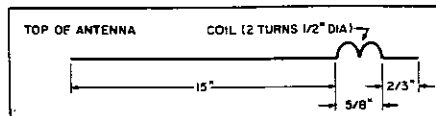
The recent popularity of compact dual-band 146/440 MHz FM transceivers has created an antenna problem for those owners who desire improved performance over the standard antenna. Improved performance antennas are available separately for both bands, but you have to change antennas when you change bands. This is hardly convenient.

We discovered, quite by accident, that this antenna, originally designed just for gain performance over a quarter-wave on 440 MHz, had dual-band capability.

How It Works

The antenna works in different modes on each of the bands. On 146 MHz, the performance is virtually identical to a quarter-wave whip. At this frequency, depending on the ground plane configuration, the performance can be significantly superior to the rubber duckie antenna, even within a small fraction of a dB of a conventional quarter-wave located in the same ground plane environment. The SWR characteristics and bandwidth also behave similarly to a quarter-wave monopole.

The real virtues of this antenna appear in the 440 MHz application. Many have been surprised to find that they were able to get some measure of performance when they operated on 440 MHz with a conventional 146 MHz whip. The fact is that a 146 MHz whip looks like a $\frac{3}{4}$ -wave whip when used at 440 MHz. It presents a very acceptable SWR to the rig. Any piece of wire will radiate to some degree, in some direction. And there's the rub—some direction. Most of the radiation from a $\frac{3}{4}$ -wave vertical whip over a ground plane is directed up into the sky! It will send a nice signal at about 48 degrees above the horizon. That's not where we want our signal to go most of the time!



Dimensions for the dual-band antenna.

The easy-to-build antenna, while occupying essentially the same space as the 146 MHz vertical whip, behaves quite differently on 440 MHz than the above sky-warmer. The secret is in the current distribution resulting from the addition of the "curly-Q" inductor inserted into the lower part of the whip. Because of the resulting current distribution, the antenna behaves similarly to the classical $\frac{3}{4}$ -wave vertical, which not only provides several dB of gain over a quarter-wave whip, but also directs its radiation along the horizon where we want it to go. (For a copy of the current distribution plots and MININEC radiation simulations for this antenna, send an SASE to the authors at 146 Forest Trail Dr., Lansdale PA 19446).

The curly-Q inductor not only establishes the ideal current distribution, but also performs the impedance matching required to make a highly reactive, high impedance $\frac{3}{4}$ -wave whip look like the 35–60 Ω resistive load we want to match to our 50 Ω rigs!

Construction

The antenna is simple to build. Actual dimensions vary slightly, depending on the application, but in any case appear to be non-critical. Forming the base loading coil is the hardest part of construction. When constructing my mobile antenna, I worked with a stainless steel whip and formed it as such. It was difficult. I used 18-gauge Copperweld wire to construct the antenna for my 146/440 MHz handheld. It was considerably easier to form!

The easiest way to start construction of a mobile antenna is to obtain a quarter-wave VHF commercial high-band mobile antenna uncut for the operating frequency. This should provide you with all the material you need. Simply measure the antenna for the location of the loading coil, form the loading coil, and mount the antenna on the mounting base. Construction of a hand-held version is

similar. Use any conductor material which will give you the desired size and structural integrity.

When selecting the material for your dual-band antenna, remember that you have to attach it to the antenna connector on your handheld. When I used 18-gauge Copperweld wire, I chose a BNC connector with a screw stud, left over from a broken 2 meter rubber duck. I formed a loop in the bottom of the antenna, and attached the connector and screw stud with a matching nut.

Adjustment

The next step is to trim the antenna for optimum 2 meter band operation. 440 MHz SWR usually does not appear to need adjustment since observed SWRs have not been higher than 2:1.

Performance

Mobile performance of my magnet-mounted version on 2 meters is indistinguishable from that of a regular quarter-wave whip. 440 MHz performance approaches that of a commercial "5 dB gain" antenna.

Performance of the portable version, which I have used on my 146/440 MHz handheld, shows a noticeable improvement on both bands over the standard antenna supplied with the rig.

On a 35-mile path with 3 Watts, 440 MHz operation proved superior to that with 30 Watts into the 2 meter whip, and gave barely detectable difference when compared with an expensive commercial vertical collinear!

SWR was not measured on the handheld. Complexities associated with antenna SWR on handhelds precluded such measurement. I have used this antenna with my HT, however, for quite some time, with no troubles.

Summary

This low-cost antenna is space-efficient and easy to build. It gives you greater range and versatility over the antenna supplied with your handheld transceiver.

For information on the availability of a commercial grade Clegg dual-band antenna, contact Viatek, Inc., 350 Main St. E., Allentown PA 18106. Phone (215) 395-7222. ■

Hooked on Foxhunting

Confessions of a foxhunting junkie.

by Clifford Vaught N9FHF

In the summer of 1984 I was first introduced to foxhunting. I was fascinated with it early on and now have become hopelessly addicted to the sport. Yes! After much deliberation over my direction finding activity, I hereby unequivocally admit to the amateur radio world, and to myself, that I am a foxhunting junkie.

They say that admitting your addiction is the first step to recovery. Then one must join a support group. I have already done that. Although, I sometimes wonder, as does my wife, if I'm getting the right kind of therapy. I joined a group of other foxhunting enthusiasts who meet regularly to discuss the thrills and chills of the activity. But, let me warn you about how I got hooked on this "drug."

A few months after I received my ham ticket, Paul Bohrer W9DUU was the guest speaker at our repeater association meeting. As I watched him carry in some of his equipment, I was interested in the pieces that looked like H's on long poles. There were tall ones and skinny ones, short ones and fat ones. Some appeared to be made of wood, others of plastic. Some were not much more than wire and tape. No two of them seemed to be exactly alike. Other pieces of the equipment I recognized as beam antennas. Then there were those metal boxes with meters and LEDs. I knew I had a lot to learn.

Challenged by the Force

As Paul began describing how some of his gear was made and used, my interest was piqued. Then, when he got into some of his war stories, my attention was arrested. Suddenly, as if being born anew, I saw foxhunting as I never thought I would. It was not about home-brewing those funny little antennas. Foxhunting was about a challenge. A dare to the amateur from an invisible force. It was as if radio frequencies were saying to me "I dare you to locate my source. You, with such limited radio knowledge will never be able to track me down." Well! That was just about all I needed.

Our speaker went on, and I began to feel the romance of the sport. I could be like a knight going into battle and conquering over the evil enemy. And, not only was there the three F's: fun, food and fellowship, but a practical side also.

Paul told of tracking stuck police transmitters and kitchen appliances causing TV interference; of ferreting out malicious interference and DFing stolen radios. Wow! I had really hit the jackpot. I could become a knight, conquering evil with my lance made in the shape of an H. What more could a



Photo A. Cliff N9FHF, conquering evil with a lance made in the shape of an H.

middle-aged romantic want out of life?

My two friends and I decided to build antennas and enter the next monthly hunt. After all, it seemed harmless enough. The battle started out easily. We assembled with the other DFers for the September hunt. Using only the buzz box or H antenna, we decided to triangulate our headings from different locations. It was a beautiful day for the activity. The fox had hidden and was ready to make his first transmission at 1:45 p.m. We waited anxiously. When the signal came, we took our reading and drew a corresponding line on our map. Then, after moving about five miles to the northwest, we found an open area and took our second reading. Another line was drawn. The two lines intersected a few miles to our northeast.

Thrilled that the system was working

just as W9DUU had said, we jumped back into the car and headed to where "X" marked the spot, thinking this was really going to be a snap. We entered the area less than a hundred yards south of our X. The next reading we took put our third line almost directly through the bull's-eye.

The problem we faced was it was one of those "you can't get there from here" situations. Dead-end streets, woods and ravines were in front of us. We wandered around trying to find a shortcut to the other side, but we ended up being led astray by multipath and our own uncertainties. We crisscrossed back and forth, taking few readings but checking out every place where we just "knew the fox had to be."

A First Success

Finally, we recognized an area just a little north of the spot from which we had taken our third reading. Upon finding an open area, we waited for the next transmission. This time our heading was almost due south. We could see no street there, but the map showed one coming in from the west that ended in a cul-de-sac due south of us. Eureka! The sly old fox had been found. It was 2:30 p.m., and we were the first ones to find the little animal. We headed for the local burger shop to wait for other hunters so we could boast and otherwise be stroked.

We waited and waited for someone else to show. We began to wonder if this had really been a snipe hunt, with us left holding the bag. Then at about 4:00 p.m. we heard on the radio that two hunters had given up and gone home. Then at 4:30 came the announcement

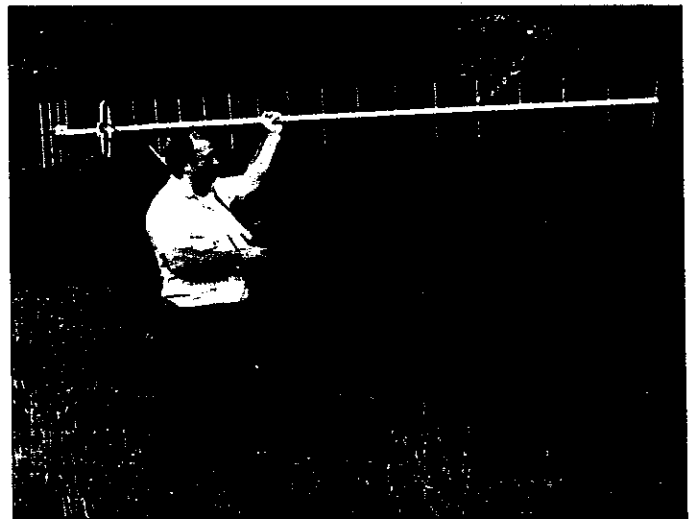


Photo B. Tom N9DZJ with his "secret weapon" foxhunting beam.

that everyone else had spent the entire time searching the forest on the grounds of Fort Harrison, feeling sure the fox had hidden there. That was an easy error to make since the sly one was only about three hundred yards to their northwest. The multipath caused by the trees had done just what the fox had hoped for. Everyone was told to pack up and go home for the day.

We did, but with great disappointment, since we had planned to bask in the limelight. Of course, the old pro lost-in-the-woods hunters were very disappointed, too. Talk about frustration!

The result of all these hunts over the years is that we have a strong core of about a dozen hunters who are at almost every hunt. Even in January and February we commonly have eight to ten people show up ready to go. Not only have we had fun all this time, we've also solved some serious interference problems.

Any Time

Now about this support group I have joined. There is a very definite cluster of hams here who are also, without question, foxhunt junkies. These people are: Tom N9DZJ, Paul W9DUU, Bernie KB9AWS, Larry WB9YAJ, Keenan N9HCK, Mike WA9FDO, Kevin N9FWB, and myself, N9FHF, along with maybe one or two more who will go foxhunting at the drop of a frequency. Not only on scheduled, monthly games, but also on frequent, impromptu games sometimes held as often as several times a month.

Impromptu foxhunts are usually held at night, starting around 10 p.m. to midnight. One of the group might put out a CQ FOX HUNTERS call, then tell us he has hidden

and to come find him. Or, maybe, in a QSO someone will urge another to be the fox for that night. If neither of those happenings occur, two or three persons will search various bands with a scanner. If a problem frequency can be found, or just one that seems interesting, someone might ask, "Where do you suppose that signal is coming from?" Often, after discussing it a few minutes, the hunt is on.

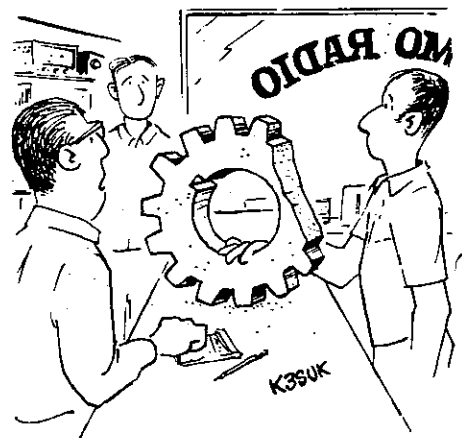
There is much diversity in both our group of junkies and our regular folk. Backgrounds include lawyer, salesman, electronic tech, TV station engineers, toolmaker, real estate agent, home inspector, disabled, retired, to name a few. Equipment types range from small signal strength meters to buzz boxes, left/right boxes—mostly those of Paul Bohrer W9DUU design—to Doppler boxes and beam antennas. Several of us are now using marine direction finders along with other tools of the trade. Hidden transmitters have been almost everything from 100 mW oscillators to 100 W, or more, amplifiers. Distance traveled by those in our group during a hunt has been as little as a few miles to as many as 450 miles. The group has hunted and found transmitters as far away from Indianapolis as the Kansas City area, as well as in southern

Indiana, northern Kentucky, and western Ohio.

Over the past two years we have gotten excited about tracking "bring 'em back alive" weather balloons carrying ATV equipment, including a video camera. It's just like what they say about the rest of the hobby—"something for everybody."

Are you having a hunt in your area soon? Let us know. We would like to join you. But then, if you're as addicted as we are, you would rather join us. Wouldn't you? Let's talk about it. **76**

Clifford F. Vaught N9FHF may be reached at 5350 Kilmer Lane, Indianapolis IN 46250.



"Joe, we got any parts for those 160-meter beam rotators we were selling last year?"

Satgen333 Johannes Kepler by GM4IHJ

12 Aug 95

For many Radio Amateurs, first acquaintance with Kepler and his orbital elements, came with W3IWI Dr Tom Clark's epoch making article in Orbit magazine for March 1981. Titled Basic Orbits, it introduced a major change in the way most Amateurs tracked satellites.

Keplers story however, really began 400 years ago, even before the general use of telescopes, when the Danish astronomer Tycho Brahe built and operated a quite sophisticated naked eye observatory on the island of Hven. Brahe was a controversial character, who perhaps deserves his own report, but his importance for us and for Kepler, was that in 1583, he made accurate measurements of the position of the planet Mars.

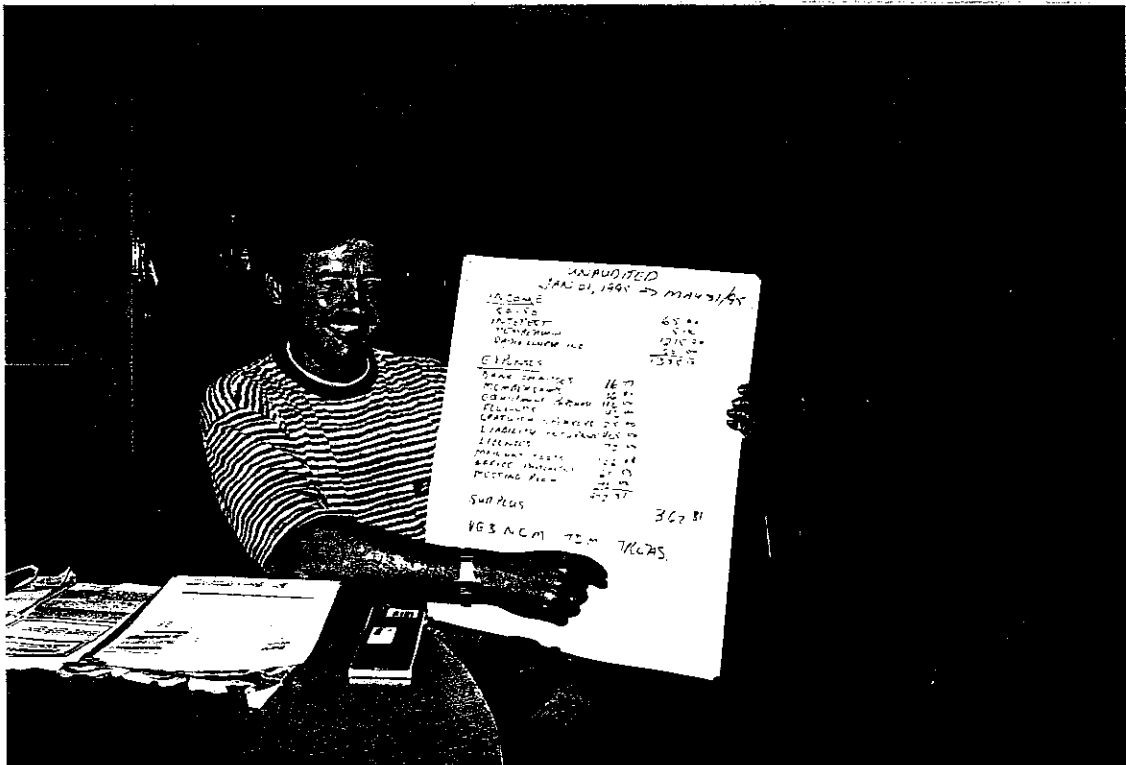
Later Brahe received from the young German mathematician Kepler, Keplers first incorrect treatise on planetary motions, and being unable to accept what Kepler said, Brahe invited Kepler to come to Hven, but Kepler had no money and could not come. Then fate intervened and Brahe fell out of favour in Denmark and was forced to head south to Prague in Bohemia where Kepler was now working at the court of Emperor Rudolph II. Brahe died within 2 years of getting to Prague, but despite opposition from Brahe's relatives, Kepler kept possession of Brahes Mars records and began to use them to try to work out the orbit of the planet.

Gradually after many false starts, Kepler came to realise that the orbit was an ellipse around the Sun, and reasoning that this was also the case for the other planets, he began to put together his Rudolphine Tables which would provide the first ever accurate past and future location predictions for all the known planets.

Despite problems when the Emperor failed to pay him, and religious wars forced him to flee to Linz in Austria, Kepler continued working on the tables greatly assisted by the new mathematics of logarithms invented by the Scot John Napier. Indeed now that Kepler was treating the Sun as the focus of the planetary ellipses, he was able to speed up the prediction calculations by tabulating the logarithms of the planetary radius vectors and the earths radius vector in a double entry table, there by permitting rapid calculation by pre electronic computer standards, of the planets past and future positions seen from the earth, with far greater accuracy than had previously been the case.

Even when he had completed the tables it seemed for a time that Kepler would not get them published. First Tycho Brahes relatives complained that their man had not been given enough credit, then he had to move from Linz to Ulm to get a publisher who would take on the task.

Eventually however publication was achieved in 1627. Then a further 60 years were to pass before Isaac Newton showed mathematically that the elliptical orbits were a natural consequence of cosmic laws. But that is another story, as is the event a further 330 years later again when in 1957, Sputnik one the first artificial satellite of the earth, was able to confirm that Keplers methods applied equally well for both natural and unnatural objects. 73 de GM4IHJ @ GB7SAN or, gm4ihj@delphi.com



A Sterba Curtain for the Low Bands

BY GEORGE COUSINS*, VE1TG/W6

If you have the space available and are interested in DX, here is an antenna to consider. The results on 80 and 40 were terrific.

BEING one of those poor individuals with a fanatic love of DX, closely followed by contests, I became convinced long ago that the antenna was where I should concentrate my efforts. Having a few acres of ground available, and living on the East coast of Canada, where 80 and 40 meter DX is not too hard to work providing one can get through the QRM, I began to take a good hard look at various types of wire arrays.

The most familiar such arrays are the Vee beams, Rhombics, Lazy H's, and assorted varieties of end-fire, broadside and collinear arrays. There are reams of information on these in any antenna handbook, and one by one they were considered, and rejected for one reason or another. There were not too many more to try, but as usually happens, where there's a will there's also a way.

The Sterba Curtain

In every handbook, usually in one or two sentences, on rare occasions in a short paragraph reference is made to another array, the Sterba Curtain. It is a broadside array made up of a combination of parallel and collinear elements giving excellent gain. It is simple to extend to any size, simple to feed and it's used by commercial short wave installations, so it must be good. Let's take a close look at the possibilities.

I have heard of one or two cases of this antenna being used on the high bands by a few amateurs, but when the low bands are concerned, several very important points must be considered: size, height, materials, cost, etc. In order to see what could be done, I first decided on a frequency of operation. 7 megacycles, remembering that this was going to be used in a c.w. contest. Glancing at the basic sketch of the antenna, fig. 1, the dimensions work out to be approximately 66 feet for each half wave section and 33 feet for each quarter wave section. For best results (according to the books) the lowest set of elements should be at

*38751 Puerta St., Palmdale, California.

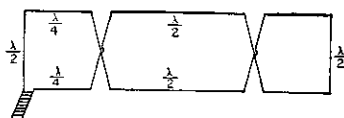


Fig. 1—Basic design of the Sterba Curtain.

least a half wavelength above the ground. Since the antenna is normally hung vertically above the ground, this adds up to something rather staggering—a pair of towers about 120 feet high! This thought was almost enough to discourage me. After thinking about it for awhile I went outside and checked the height of a few maple trees I had down in the field. Three of these were around 40 or 50 feet high and a couple of spruce trees were around 30 feet. The more I looked, the more I wondered what would happen if I strung the antenna with the top string of elements stretched between the tops of the tall maples, and the lower string between the shorter trees. The whole affair would end up hung at about a 45 degree angle to the earth with at least a little height on one set of elements. The others would be pretty low, but maybe this would work out anyway. I built the thing, tried it out, and it did all that I wanted it to, and lots more besides. Interested? Well let's see how to build one.

Construction

As can be seen from fig. 1, the Sterba can be extended as far as desired so I checked the distance that I had available between the anchor trees and found that I had about 450 feet in a straight line; enough for a string of 5 half wave elements plus the 2 quarter wave sections at the ends. This also allowed reasonably good clearances at the ends, so that tree branches and wires would not end up in a wild entanglement. Enough room was available to place the second string the proper half wave away, so the design was finalized. With an antenna of this size, fed through 600 ohm feeders and a tuner. I didn't consider that the dimensions would be too critical, so I settled

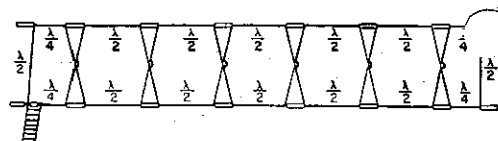


Fig. 2—The final design of the Sterba Curtain at VE1TG. The half wave sections are 66 feet long, the quarter wave sections 33 feet long and the phasing lines 66 feet long.

for those shown in fig. 2, which shows my antenna as it was finally built.

Looks rather immense doesn't it? Well, it is! But remember, you can add or subtract as many of those half wave sections as you wish, depending upon your available space and materials. Figure out the amount of wire you need, and go to it! As can be seen, this one of mine took a total of 1,716 feet of wire, not counting the 600 ohm transmission line, which in my case was 95 feet long.

Materials

Now what about materials? The insulators could be the nice porcelain type, but it's a lot cheaper to buy a few feet of 3/8 inch hardwood dowel, cut it into 6 inch lengths, drill holes in each piece, and then boil them in paraffin wax for about a half hour.

I can hear the next remark, "What nut is going to buy all that expensive wire?" Well now, all you need is wire that is strong enough to support the weight of the antenna if This in turn depends upon how many supports the antenna will have and how big you're going to build it. My curtain was supported at 5 main points and it was made entirely of #18 stranded wire with a woven cloth jacket! Not exactly the classic idea of antenna wire, is it? The old idea of #10 or 12 copper wire is fine, if you can get enough of it. But if not, look around for anything else that will do. Check the local utility companies, surplus stores, even junkyards or farm suppliers, for any sort of wire they might have. It's all metal, and it will radiate r.f. Just be sure that all joints are clean and well soldered before you put it up there. Now you have the layout; just put it together as shown in fig. 2. Make very sure that you have only one cross-over in the phasing lines, because if you get one of them mixed up you can see you'll end up with only part of the array in the circuit to the tuner. I used the method shown in fig. 3 for connecting the elements and phasing lines. The lines are looped through a hole in the insulator, wrapped a turn around the insulator,

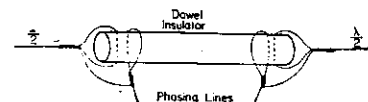


Fig. 3—Method of connecting the phasing time to the elements.

and then soldered to the elements.

The 600 ohm transmission line is also made up of wood dowel insulators, but of 3/8" diameter stock. The wire I used was #14 copper ground wire with a plastic jacket. A piece of ordinary house wire could be stripped and used. The plastic jacket has no ill effects that I have ever been able to see, and the line is not affected by rain or snow. The rig's loading doesn't seem to change whether the sun is shining or it's pouring rain.

Now about getting the monster assembled—the easiest way (I think) is to build the upper string of elements, attach the phasing lines to this string, and then raise this much up. Incidentally, if you don't like climbing trees, as I don't, attach a light line to a small weight and heave it over the tree and then use this to pull up your main line. A good bet is the use of polypropylene clothes line which won't stretch, rot, or otherwise let you down.

When you get the first set of elements up and secure, assemble the second string and attach the connecting phasing lines (watch that crossover!) and the end sections. Now raise this string as high as you can and attach any side lines in order to keep the sides as nearly a half wave apart as possible. The whole affair will end up hanging at some angle to the ground but this won't matter too much. Just try to get it as high and in the clear as you can. antenna ended up with some of the bottom elements only about 6 to 10 feet off the ground.

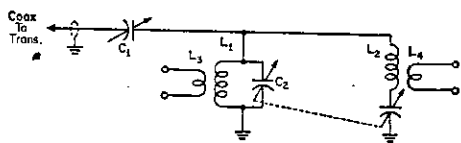


Fig. 4—Circuit of the all-band tuner used with the Sterba Curtain. The circuit was taken from the ARRL Handbook. The coil forms are from a BC-375 tuning unit and wound with #12 plastic covered copper house wire. Capacitor C₁ was scrounged from a TU-12 and is spaced for 150 watts only.

- C₁—350 or 450 mmf. L₂—5½t, 2" d., 1½" long
- C₂—300-300 mmf. L₃—6t, 221/2" d., 1¼" long.
- L₁—11t, 2" d., 2¾" long. L₄—5t, 5½" d., 1¼" long.

Antenna Tuner

Now it's all up, the feedline is attached, so run the line into the shack and hook it onto the tuner. I strongly recommend the all band tuner shown in the ARRL *Antenna Handbook*. The circuit is shown in fig. 4.

If at all possible, reduce the power of the transmitter as low as you can during initial tune up. It doesn't matter what anyone says—it takes time and patience to get the tuner to do the job you want it to do. The entire tuning procedure is aimed at getting as low an s.w.r. on the coax line from the transmitter to the tuner as possible, consistent with proper loading on the final. You should not be satisfied

with anything higher than 1.5 to 1, and with this tuner you can get it down to 1:1. I've built three of them now, and they all work the same, so take the extra few minutes and do a good job. With this tuner, output is taken from coil L₃ for both 80 and 40 meters, and from either L₃ or L₄ for 20 meters. With modern pi-network transmitters, you'll have to manipulate both capacitors in the tuner, as well as the final and loading controls on the transmitter. I don't think there is any possible way to describe a set procedure for this, as there are so many variables involved. In fact, the best bet would be to use a dummy load on the output of the tuner until you get the thing in line.

I know many people will look askance at the idea of a tuner, but once you find the right settings, put a couple of dials on the capacitors and mark them carefully; it only takes a few seconds to reset the dials when you change bands. In addition to what the tuner does for your transmitted signal, have you heard what a tuner will do for the received signal? Don't malign it; it may make the difference between lost contacts and solid QSOs.

Results

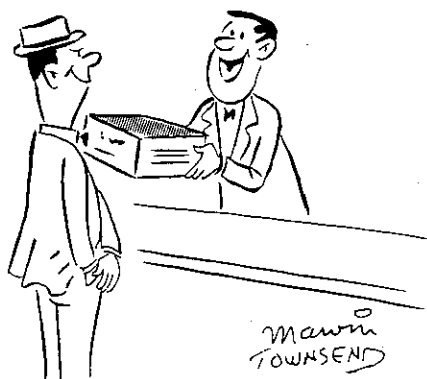
The first evening I put the curtain on the

air on 40 meter, the log shows the first QSO was with ITIAGA, who reported the signal was 589 in Palermo. In the next hour, OK1, DM3, UB5, GM3, and OK3 were worked with all reports either 579 or 589. A couple of evenings later, I tuned up on 80 meters, and again tried a one hour session, this time ending with EA4, OK1, G3, DJ5, DM3 and UA3. By some odd coincidence every report was 579, which convinced me that the curtain was doing the job. In the contest it lived up to my hopes by bringing in all districts of G-land, plus other tidbits such as ZC4 and VS9, for quite a decent contest log. Since then most of Europe has been worked on 80 meter and various parts of the world on 40. All this with 150 watts!

Anyway this is all beside the point. The fact remains that for an antenna that is fairly easy to build, non-critical to feed or tune, can be built (within reason) as large or as small as you like, and which will pay off with a real QRM-busting sign, I don't think you can beat the Sterba.

One thing that must be done — a hearty thanks to Ed, VE1ZL, Ray Ortmann, and Al McDonnell for the time they spent slogging around in a cold snow covered field hauling on wires and ropes, and to Gordy, VE1TM, who encouraged me to keep going and finish the thing.

GIVE ONE OF OUR SPECIAL ELECTRONIC KITS TO THAT "CERTAIN" WISE-GUY FRIEND



"Each Kit has a vital component or two missing."

FEEDBACK — SEPT 1995

The Georgian Bay Amateur Radio Club is pleased to announce that it is conducting an Amateur Radio Licensing Course for the BASIC and 5 WPM MORSE CODE qualifications in its southern region this fall. The details are as follows:

AMATEUR RADIO
BASIC AND 5 WPM MORSE CODE
LICENSING COURSE

LOCATION
DURHAM DISTRICT COMMUNITY SCHOOL
426 GEORGE ST. E. DURHAM ONT.

ORIENTATION & INTRODUCTION
THURSDAY SEPT. 21 1995
7:00 pm

CLASSES
7:00 - 10:00 pm
STARTING THE FOLLOWING THURSDAY AND
CONTINUING EVERY THURSDAY TILL DEC 21

COST \$ 110.00
INCLUDING TEXT & COURSE MATERIALS
FAMILY RATE AVAILABLE

TO REGISTER OR GET FURTHER INFORMATION
PLEASE CONTACT

DAVE STROBEL VA3DSI
(519) 369-2403

STEVE SHARPE VE3XKM
(519) 369-5800
PACKET VE3XKM @ VE3IJD

From VE3XKM to GBARC@

Hi Everyone, we need instructors for the licensing course this fall in Durham. Anyone intrested in teaching a lesson please contact Dave Strobel VE3DSI (thrus. 2m net or 369-2403) or myself Steve Sharpe VE3XKM (2m or packet). The course runs Thursdays Sept 21 to Dec. 21.

73 Steve VE3XKM

FOR SALE

VE3XOX BOB
1 MAXON 2 METER HAND HELD....BUILT BY MAXON FOR RADIO SHACK....
SAME UNIT AS RADIO SHACK \$200. 376-0715

I HAVE A 286 WITH 40 MEG H.D., 5.25 FLOPPY, 640 RAM, COLOR EGA MONITOR,
9 PIN PRINTER AND KEYBOARD FOR SALE ASKING \$225. 519-376-8060

Report from the Executive Committee

During the summer, the GBARC Executive Committee met once via 2m repeater, and once "face-to-face," to handle new club business and business that was referred from the general meeting.

1. Owen Sound Fall Fair (referred from June meeting). Richard VE3WUD and John VA3JRF reported that a table at the Owen Sound fall fair would cost \$95. Due to the high cost, and the fact that no volunteers were found to man the table, we decided to not have a table at the fair.

Discussion: the purpose of this event is to promote the club. Are there better (more effective, less costly) promotions? Perhaps we should see what other area clubs (e.g. Collingwood, Kincardine) are doing. Consensus was that we need to do something for P.R., but not this.

2. Radio course (referred from June meeting). Dave VA3DSI and Steve VE3XKM reported substantial interest in a radio course in the Durham area, and located a meeting place and several instructors. In view of their volunteer effort, and the fact that no similar effort was underway in Owen Sound, we decided to hold this year's radio course in Durham. The course will run Thursdays 7 to 10 pm, for 13 weeks, starting Sep. 21, at the Durham District Community School. Dave and Steve are jointly acting as coordinators for this course. Cost is \$110; refer inquiries to Dave at 519-369-2403.

Discussion: it was felt by many that we have, for the moment, exhausted the Owen Sound market (and the Owen Sound instructors). We periodically receive requests from our southern region, and no club is active in that area. If there is demand for an Owen Sound course, we decided it could be held in the spring. Other ideas: a self-study plan, or a joint effort with Collingwood.

3. Coffee at club meetings (referred from June meeting). Consensus was that if a volunteer wants to do this, we won't stand in the way. But it was felt that the demand would be small, and there might be a conflict with the airport, since they sell coffee as well.
4. Fundraising. Bob VE3XOX (Advisor Emeritus to the Executive Committee) suggested that the club hold a raffle to raise funds, selling tickets through local merchants. (I've seen this done by several sporting organizations in the Owen Sound area.) He has a source for some novel and valuable prizes "on consignment", meaning we wouldn't have to pay for them until the raffle was completed and the prize awarded. Since this would involve a major commitment on the part of GBARC, and would require several volunteers, we decided to hold this item until the general meeting.

We were reminded that GBARC is still in the queue of applications to run the Bingo event. When our name comes up, we must be ready with volunteers (at least a dozen), or pass on this fundraising opportunity. Since this could raise thousands of dollars, we should not turn it down lightly. This too will be brought up at the general meeting.

5. Flea Market 1996. We have selected the first weekend in June as the date for next year's flea market. This avoids conflict with Kitchener, which has been pushed back to the second weekend of June 1996. It was suggested that we make this a joint endeavour with the Port Elgin and Collingwood clubs, and split the proceeds 3 ways. Richard VE3WUD and John VA3JRF will act as liason with Port Elgin; Aubrey VE3TUQ or Barrie VE3TUS were suggested as possible liasons with the Collingwood club.

We need to find a larger (and cheaper) location. Richard VE3WUD will investigate the Coliseum and the Bayshore arena; Brad VE3RHJ will investigate the Chatsworth arena. The Kilsyth Derby arena was also suggested. (Other suggestions are eagerly solicited.)

6. Packet Users Group meeting. Ken VA3KMS noted that the (as yet unnamed) packet users group would meet sometime in September.
 7. J-pole draw. Richard VE3WUD has donated a 2m J-pole antenna to the club, as a fundraiser. We will sell tickets and hold a draw for this prize. The draw will probably be held at the October meeting.
 8. Santa Claus Parade. We plan to participate in the Owen Sound Santa Claus parade again this year. Volunteers will be needed. John VA3JRF will confirm the date.
 9. Durham and Flesherton Fall Fairs. Many of our Durham members have arranged to have a GBARC table at the Durham Fall Fair, at a cost of \$25. We also expect to have our usual table at the Flesherton Split Rail Festival in September...volunteers to man the table are needed.
- Brad VE3RHJ

Skunk Antidote.

Paul Krebaum knows a thing or two about smells. As a chemist at Molex Inc. in Lisle, Illinois, he occasionally tangles with vile-smelling substances. When the stink becomes overpowering, Krebaum relies on chemical tricks to spare his nose.

Krebaum faced perhaps his biggest challenge when a colleague came to work fretting about a pet cat that had waged a losing battle with a skunk. The recommended antidote, tomato juice, had failed to rid the cat of its repellent odor, and the still-reeking pet had been banished from the house.

Krebaum leapt to the rescue, prescribing a concoction - a quart of 3 percent hydrogen peroxide, a quarter cup of baking soda, and a teaspoon of liquid soap - that saved the malodorous feline from exile. The man bathed his pet in the solution and applied a tap-water rinse, and the smell instantly vanished.

The success of the recipe stems from Krebaum's extensive experience with "thiols" - chemicals that impart a stench to skunk spray, decaying fecal matter, and decomposing flesh. The remedy Krebaum prescribed neutralizes thiols by inducing them to combine with oxygen, supplied by the hydrogen peroxide.

Krebaum has not tried to market his skunk potion, because there is no way to store it. "If you put the ingredients in a bottle, the whole thing would explode," he warns. So if you have such a thing, try to use this portion either on your pet or on your self, if you got stunk by a skunk.

73's de 5B4AAI@5B4TX.CYP.MDLE (Nicholas).

From VE3TSA

Hi... I have included an advertisement for this years radio course in Feedback. Could you cut the little tabs with scissors and post it in your local corner store? This will help Dave and Steve get a full class this fall.

Thanks and 73...Tom