MARCH 1977

RADIO WAPSM

THE MIDWEST AMATEUR RADIO SERVICE

THE PRESIDENT'S CORNER

As April draws near, many of you are probably planning for the annual trek to southwest Ohio to experience the Dayton Hamvention. If you are not pleased with what you find when you arrive, it will not be because of lack of trying. Members of the Dayton Amateur Radio Association (DARA) have conducted intensive planning for this event since last May.

As you all know, MIDCARS has traditionally conducted a Forum at the Dayton Hamvention. This meeting, together with our MIDCARS hospitality suite in the Imperial House North, has provided the opportunity for many a memorable eyeball QSO between members and friends. If we want this tradition to continue, your help will be needed. What can you do? If you are in Dayton on that weekend, plan to attend the MIDCARS Forum at 9 o'clock AM on Saturday, April 30. Please be there and be on time.

So why all the fuss? A word of explanation is appropriate. When I was <u>not</u> contacted by DARA concerning this year's forum, I telephoned the program chairman. To my surprise, the MIDCARS Forum had been dropped from the agenda. Why had this happened? Because we had poor attendance at last year's forum and rumor had it that MIDCARS was disbanding. I quickly corrected the latter point, but I could not argue with the poor attendance figure. It was, in fact, about ten times smaller than the number we gathered two years ago. DARA has a difficult time accommodating all of the national organizations who want to meet in Dayton and I can not really blame them for dropping us. However, I was able to resecure a time slot for the MIDCARS Forum but this experience should be a warning.

THE PRESIDENT'S CORNER CONT.

This year the Forum will be at 9 o'clock AM on Saturday. We will have only a one and one half hour time slot to conduct our meeting. In the past, we have had three hours and have always started the meeting late. This year we do not have this luxury, so please plan to be there early. A good program is being but together. Our guest speaker will be Mr. Harold Steinman from the National Headquarters of the ARRL. He will talk on the subject of deliberate interference to traffic and service nets. This is a timely topic of interest to all of us.

Frank -- W8LRO

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DAYTON HAMVENTION

The 26th Annual Dayton Hamvention will be held on April 29, 30 and May 1. Why not mark your calendar and plan to attend this gigantic event. While you are there, be sure to attend the MIDCARS Forum and visit with your friends in the MIDCARS hospitality suite - Room 289 at the Imperial House North. For information on tickets and hotel reservations, write to:

DAYTON HAMVENTION
P. O. Box 44
DAYTON, OHIO 45401

* *

CONTACT!

When in the course of human operations, MIDCARS founders and fumbles due to adverse conditions and contrary operators, thank goodness for the check-ins who:

...follow MIDCARS check-in procedure.
...move off frequency with their traffic.
...know where they want to move before making contact.
...avoid moving in on a QSO with their traffic, thereby giving MIDCARS a bad name.
...keep transmissions to a minimum when the service is busy.
...check out if they have traffic listed.
...avoid tuning up on frequency.

These fellows will please Service Control no end!

Russ -- W9CQD

* *

I miss all the group and certainly would like to become as active as I was in the past. It just has not been feasible to install my GT550 in the car. Best wishes to all and will catch you and the rest of the members on the weekends, especially when conditions improve.

John -- WA9RTT

* *

I just got back from 8 days in the hospital and hope to keep out for the rest of the year.

Hank -- WA9TNZ

(Hope you're feeling better, Hank, and we are looking forward to hearing you on MIDCARS. - ED.)

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It is a great relief to hear the fellows on 58' when no one else is on. As a matter of fact, it gives one a sense of security. I know that my location has not much to do with the Service, but we will continue to do our best when we can as band conditions will permit.

Harold -- W5CZP

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TWO ELEMENTS ON FORTY
IT'S EASIER THAN YOU THINK

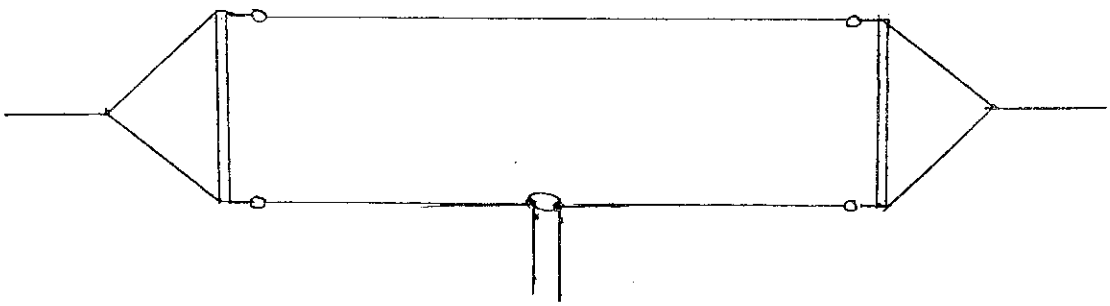
It doesn't take much listening on 7258 from out my way to discover that MIDCARS coverage of the plains states and beyond is mediocre at best. I realize that some dedicated QRM from Texas is probably partly responsible for the fact that control stations west of the Mississippi are practically non-existent but the situation is not an incurable one. Why not let Mother Nature work to our advantage? There is an interesting phenomenon of propagation that takes place every afternoon: east-to-west one way skip. At my QTH (Colorado) it is not uncommon for East coast stations to be just as strong as nearby stations. With just a bit of signal reinforcement eastern stations could easily dominate a frequency. And that reinforcement is not very hard to come by.

In conversing with the "board of directors" on 3863 I find that the feeling prevails that a NCS would be at a severe disadvantage using a beam because of the loss of omnidirectional coverage. This is not necessarily the case. Beams can be set up many different ways. Commercial rotary arrays with shortened elements usually use wider spacing between elements to keep the efficiency within reason. Wide spacing will produce good front-to-side discrimination. With full-sized elements of heavy wire it is possible to utilize closer spacing with a poorer front-to-side ratio. Inverted vee elements will degrade the front-to-side ratio even further, which is desirable with a fixed beam.

The front-to-back ratio can be adjusted by changing the length of the parasitic element.

Figure 1 shows a design for a dipole with a director which worked very well for me when I lived in the Chicago area. It was tied between two trees and I taped a block of wood to the center of the director to counter-balance the weight of the feedline. The spreaders can be 14 feet of wood or tubing.

Figure 1



With a director length of 63 feet, the impedance of the driven element at 7250 was 35 ohms. More gain and less front-to-back ratio can be obtained by lengthening the director. Maximum gain is obtained with a resonant director but the impedance is then only 15 ohms. A simple matching scheme is to use a quarter wave of 50 ohm coax at the feedpoint to feed a quarter wave of 70 ohm coax which then connects to the main 50 ohm feedline. This will match a 50 ohm cable to a 25 ohm load. A balun of some kind is desirable since any signal radiated by the coax is not influenced by the director and the feedline can also act as a receiving antenna and pick up a lot of foreign broadcast.

My father is using a similar design with inverted vee elements which requires only one support in the center. A single spreader is used in the center of the antenna and the ends are tied off to any convenient points which are 14 feet apart. I should mention that the resonant frequency of an inverted vee element can be varied 100 khz or more simply by changing the tension on the wire.

I now have a similar arrangement for my inverted vee elements but they can be raised and lowered independently. The spreader is a length of Rohn TV mast

TWO ELEMENTS ON FORTY CONT.

clamped to my tower with Antenna Specialists ASPA-320 clamps. The spreader has four pulleys -- one at each end and one on each side of the tower. The legs are tied off to metal stakes spaced the length of the spreader.

Inverted vee elements must be longer than horizontal ones by a few per cent but the basic prodecure is the same; the driven element is resonated about 50 khz below the desired frequency without the director in place. The director is then cut 3 to 5 per cent shorter and put into position. Shortening the director will raise the impedance of the driven element but don't go more than 5 per cent shorter. Close spaced inverted vee elements will give good coverage over about 270 degrees and reasonable coverage off the back for short skip. The directivity usually associated with beams only occurs on low angle radiation, which is all we can hear on 10, 15, and 20 meters. Daytime 40 meters is a different story; there are minor high angle lobes which "spray" in all directions and this radiation is useful on short skip. What I am saying is that any loss of coverage incurred with the addition of a parasitic element is minimal and the apparent gain off the front is greater than the actual gain of 4 to 5 db. In fact, it is often possible to run barefoot and get equal or better signal reports on the long haul than guys running a KW to a dipole. So when it becomes necessary to flip on the afterburner, the QRM usually moves over.

I realize that this is more of an idea article than a precise how-to-do-it project, but anyone with questions or problems can drop me a line (SASE please)

Nick Geer WØORW, Star Route Box 410, Castle Rock, Colorado 80104

Nick -- WØORW

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FROM THE EDITOR

MIDCARS is occasionally interrupted by intentional interference. The usual reaction is immediate anger. The temptation to make comments about the mental deficiencies of these guys can be overwhelming. DON'T DO IT! No matter how strong the urge and no matter how angry the interference makes you, KEEP QUIET! Nothing frustrates these characters more than being ignored. If they are totally ignored, chances are they will leave the frequency within a few minutes. All it takes is one station to make a comment and the guy will be around for hours. The NCS should continue to run the service as if the interference was not there. Exersize common sense and courtesy at all times and interference will be minimized.

If any members have equipment for sale or are looking for something, let me know. The WATCH may be able to help you sell that unused transmitter or find the antenna you're looking for.

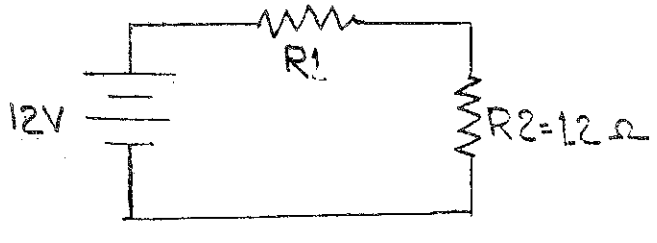
See you on 7258

Phil -- WB9QXY

* *

MIND BENDER

What value does R1 have to be to dissipate maximum power in R2?



Ans. last month: 24 ohms

MIDWEST AMATEUR
RADIO SERVICE
7258 KHz

THE ALL DAY
EVERY DAY NET...
WHERE THE ACTION IS!!

—@—

Lyle Wright W9JEB
406 LINCOLN Rd.
Marquette Heights,
ILL. 61554

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