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The Official Journal of the Mad River Radio Club

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FLASHES of Inspiration  
A New Course for the Mad River  
by Dave Pruett KBCC

April is upon us, and with it comes 'the World's Largest Ham Radio Gathering', otherwise known as the Dayton Hamvention. Besides being three days of ham radio overdose and the best flea market in existence, Dayton is the changing of the guard for the Mad River Radio Club as we elect new officers for 1984/85.

Mad River was at a crossroads when I was elected in April 1981. The selection was noteworthy only in that it produced the first non-Ohio president in the club's history, but the same time period saw many new people added to our group. New enthusiasm, coupled with a revitalized 'Flash' saw MRRC enjoy a dramatic turnaround in membership and activity which continues today.

KBCC will not run again for president. The time has come for new leadership to take MRRC in new directions, but the path must be chosen carefully. Our club has risen from lethargy to become both a force among Medium Clubs and a source of camaraderie between our members, but there is still much work to be done. The new leadership must encourage outstate membership, to dispel the attitude that Mad River is an Ohio-only club. It must stimulate more activity from 'little guns' and 'big guns' in contests where they don't normally participate. It must reach out to involve new member and old timer alike in the activities of their club, and make them feel they belong.

The challenges are there and we must consider them carefully. The last two years have been exciting, but they were only the foundation. Now is the time for building.....

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The MRRC FLASH is the newsletter of the Mad River Radio Club, an ARRL affiliated club serving contesters in Ohio, Michigan, Pennsylvania, Indiana, Kentucky and West Virginia. The FLASH may be reprinted in whole or in part provided proper credit is given. Mail all inquiries or submissions to: Dave Pruett KBCC, at the address given above. Join the Mad River Net, on Mondays, 8:30 PM Eastern, on approximately 3.825 MHz.

# SHUNT FEEDING SHORT TOWERS FOR 160

by Dave Pruett K8CC

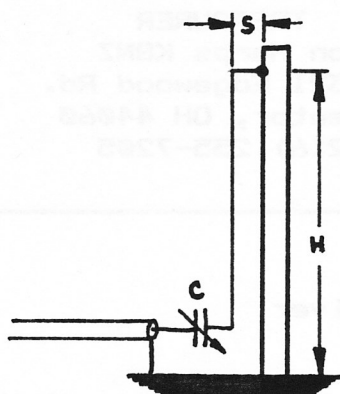


figure 1

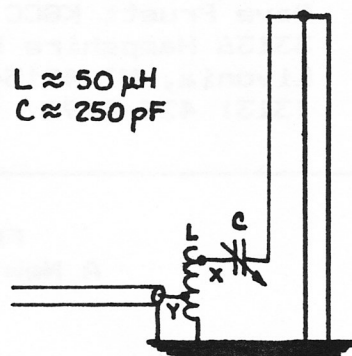


figure 2

Many new hams are not familiar with the technique of shunt feeding a tower for use as an effective low frequency radiator. During my recent stint as HR1DAP I had need for a good 160M antenna, and discovered a feed technique which greatly reduced the cut-and-try required to match the tower to the feedline.

The usual shunt fed tower looks like figure 1. The height of the gamma attachment 'H' and spacing 'S' are adjusted to show 50 ohms at the feedpoint. Any remaining reactance (hopefully inductive) is tuned out with the variable capacitor. This technique works well for towers above 70' or so with a large beam on top, but as it can be time consuming climbing the tower adjusting the parameters of the gamma. On the other hand, a 40 to 50 foot tower with a small beam may exhibit a very low input impedance with capacitive reactance and be impossible to match with this method.

At HR1DAP I had a 40 foot tower supporting a Classic 36 to use as a radiator for 160M. The gamma wire was attached to the top of the tower and spaced 12 inches from it. A commercial surplus Hallicrafters tuning unit was available which yielded the configuration shown in figure 2. The system proved to be remarkably easy to match, requiring no tower climbing to adjust the gamma parameters.

The matching network is a variant of the L network designed to convert low impedance loads to 50 ohms, and should be located at or near the base of the tower. The tap at 'x' is set so that minimum SWR (not necessarily 1:1) occurs within the range of the variable capacitor. The feed tap at 'y' is then moved up or down the coil to improve the match, each time readjusting the capacitor for minimum SWR. It should be easy to achieve 1:1 SWR as indicated on a SWR meter at the tuning unit.

Shunt fed towers tend to be less ground dependent than conventional verticals, so don't be discouraged if you are unable to copper plate your backyard. Every radial helps, but if you can at least install a few ground rods you might be amazed at how well the antenna plays.

How well did it work in Honduras, you ask? Undoubtedly, the HR1 call is a real attention getter, but even from Central America it can be hard to be heard on 1.8 MHz. The final 160M tally from the HR1DAP s/o all band effort was 118 QSOs and 34 mults using 100 watts output and a single four foot ground rod from a 30 by 80 foot lot in downtown Tegucigalpa. The effort required to make these contacts seemed reasonable compared to other Caribbean stations, so in that regard I would rate the antenna as an effective performer.

DAYTON HAMVENTION  
ACTIVITIES FOR CONTESTERS

The Dayton Hamvention is the world's largest ham radio gathering, and has many activities to attract the contest and DX minded ham. To help you plan your fun, here is a timetable of contest and DX activities for the weekend, as known to the editor at presstime:

FRIDAY & SATURDAY EVENING (1900 EST until ????)

MRRC Hospitality Suite	Daytonian Hilton Hotel
YCCC Hospitality Suite	Admiral Benbow Inn
KCDXC Hospitality Suite	Stouffer's Dayton Plaza Hotel
SWODXA Hospitality Suite	Stouffer's Dayton Plaza Hotel

Note that the Hamvention Program lists other suites sponsored by the NIDXA, NNJDXA and 160 operators group, but specific info is not available at presstime. Keep your ears open.

SATURDAY MORNING AND AFTERNOON

0900-1200 EST - DX Forum - K8NW & K8MN moderators.

Malpelo - HK0TU - Columbian Amateur Radio Group  
Cocos Island - TI2CF  
YASME South American Tour - W6KG & W6QL  
K4YT World Travels - K4YT  
ARRL DX Advisory Committee Report - W0SR, N4MM & W3AZD

Antenna Forum - K3LR moderator.

Advanced Computer Antenna Modeling  
Yagi Antennas - WA3FET/6  
Superior Mobile Antennas - WB0DJP  
Misconceptions Concerning Reflected Power and SWR - W2DU

1300-1600 EST - Contest Forum - K3LR moderator.

The Ten Meter Contest at K2RF - KT2B w/multimedia  
Design Criteria, Station Efficiency & Operating Techniques - W3LPL  
Doing Well in a Stateside Contest from a Small Station - K3UA  
The International Radio Contest Association - VE3BMV  
Awards & Presentations - MRRC, etc.  
CQ Contest Committee Report - K1AR  
ARRL Contest Advisory Committee Report - K8CC

1600-1700 EST - Mad River Radio Club Meeting

Subsequent to and in the same room as the Contest Forum.  
Election of Officers and Directions for 1984/85.



## MAD RIVER NEWS

The Dayton MRRC Meeting will have election of club officers for the 1984/85 year. In years past, the process somewhat resembled a kangaroo court' so for this year the executive committee (i.e. K8NZ & K8CC) has decided to introduce order to the process. There are three positions to be elected - President, Treasurer and Editor. If you know someone who you feel would do a good job in one of these offices, please make the nomination known to either K8CC or K8NZ by April 25. We will contact your nominee to confirm his or her interest, and put their name on ballots to be used at the meeting.

MRRC DAYTON HAMVENTION HOSPITALITY SUITE INFO: For the first time in a great while, the Mad River Radio Club will be having a Contest Hospitality Suite at the Dayton Hamvention, which will be in the Daytonian Hilton Hotel downtown both Friday and Saturday nights. Joe Warden W8LNO is the MRRC Hospitality Coordinator in charge of the suite and has done a bang-up job making this activity happen.

Several club members have volunteered to help run the suite, assuming two hour shifts. The operating schedule is as follows:

## FRIDAY

1900-2100 N8BTU N8CXX W90BF  
2100-2300 W8FN WM4T AD8P  
2300-0100 W8YVR W8UA

## SATURDAY

W8LNO K8UE  
K8CC N8ET  
N8DET W8RRR

support crew: W8LNO K8MR

Refreshments will be covered by a cash kitty, and \$280 for suite cost has been provided by donations from the following members as of 4/17/84:

W8LNO AD8C N8BTU WM4T K8MR K8CC W8FN N8ET W8YVR  
KC8MK W90BF KN8Z (Design Electronics Ohio)

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