

Nov '91



# Ole Virginia Times

The OVH QRC Newsletter



"OLE VIRGINIA HAMS" AMATEUR RADIO CLUB, INC.  
Post Office Box 1255, Manassas, VA 22110

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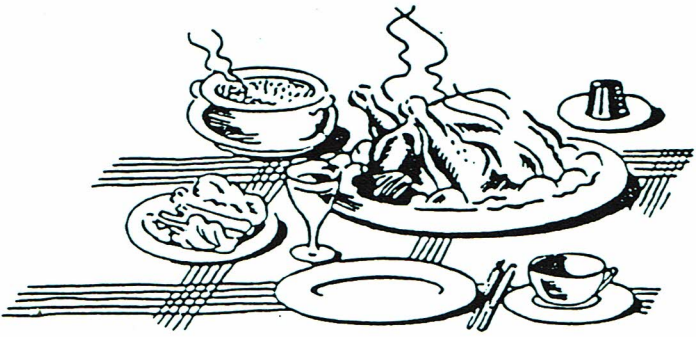
## NEW MEMBERS

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- Ivan Reeder (KC4DFD)
- Dave Kennedy (K4HZF)
- Dan Johnson (KC4EWT)
- Tim Fritsch (KD4DWR)
- Tom Barrett (KC4AOC)
- Wayne Johnson (KC4DD)
- David Bruce (KD4DEE)

**WELCOME!! WELCOME!! WELCOME!!**

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## MINUTES FROM THE OCTOBER MEETING

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Harry (W4PVA) gave a report regarding the Prince William County Park Authority's October Bike Tour -- out of approximately 54 riders, a two riders were lost and had to be found.

Mary Lu (KB4EFP) reported that the Novice Class currently being conducted at Stonewall Jackson High School on Tuesday evenings has approximately 15 attenders, including three youngsters under the age of 12!!.

Butch (W4HJL) gave a report regarding the TVI Committee's solving several problems regarding RFI resulting from computers and even CD players. The TVI Committee is available to help any Ham with problems.

Steve (N4OGR) asked for volunteers for some of the Club committees. Needed are a 1992 Field Day Chairman, Publicity Chairman and Program Chairman.

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# ARTICLES FROM THE MEMBERS

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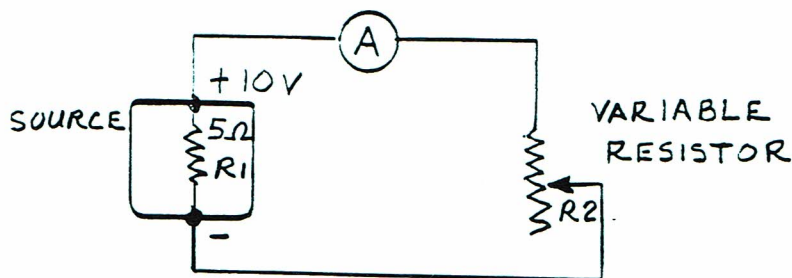
## ELECTRICAL POWER TRANSFER

by

Harry (W4PVA)

This discussion takes the form of a mathematical explanation. But first, a statement: Maximum power is transferred from the source to the load when they are of the same resistance.

Given the circuit:



Assume a source voltage of 10 Volts and an internal resistance of 5 ohms.

I will give you three points to set the variable resistance - you can select any number of other for yourself.

Calculate the power in the load:

1. When the load resistance is zero:

$$I = \frac{E}{R} = \frac{10V}{R_1 + R_2} = \frac{10V}{0+5} = \frac{10}{5} = 2A$$

$$P_{load} = I^2 R_2 = (2 \times 2) \times 0 = 0$$

2. When the resistance of the load is 5 ohms:

$$I = \frac{E}{R} = \frac{10}{R_1 + R_2} = \frac{10}{5 + 5} = \frac{10}{10} = 1A$$

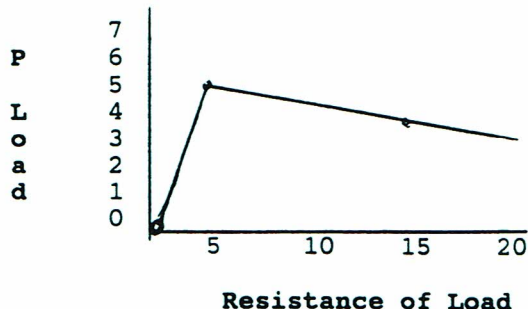
$$P_{load} = I^2 R = (1 \times 1) \times 5 = 5 \text{ watts}$$

3. When the load resistance is 15 ohms:

$$I = \frac{E}{R} = \frac{E}{R_1 + R_2} = \frac{10}{0 + 15} = \frac{10}{20} = 1/2 \text{ Amp}$$

$$P_{load} = I^2 R = (1/2 \times 1/2) \times 15 = 1/4 \times 15 = 3.75 \text{ W}$$

Plotting these points on a graph:



i.e.: Maximum power in the load occurs when the input resistance equals the load resistance.

This is why a radio delivers the maximum power to its antenna (load) when it is "matched".

Most modern day transmitters represent a 50 ohm internal resistance and one adjusts the antenna system to be a 50 ohm load - a match! This is a considerable over simplification BUT IT IS TRUE!

### Transmitter/antenna match:

In order to accomplish this match of transmitter to load match, the antenna proper is adjusted to present, as near as possible, a 50 ohm feed point resistance, then a 50 ohm transmission line is used to connect between the antenna and transmitter. There is considerably more to the exact explanation than this, but this should suffice for an elementary explanation.

### Coax transmission lines:

A 50 ohm transmission line is a line wherein the RATIO of center conductor diameter to inner diameter of the outer conductor (times a correction factor for the type of insulation) is a particular ration.

Obviously the RG8 and RG58 transmission lines are of different overall dimension - BUT THEY ARE BOTH 50 ohm LINES! That is: the ratios are selected to satisfy the same value.

What is the difference: The smaller diameter is not as good at transferring energy from the rig to the antenna. Also, the larger diameter coax can handle a greater power.

A fundamental fact: With a given coax, losses are greater as the frequency of use increases!

It is a general rule to use the largest diameter coax that cost and other factors permit.

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# ARTICLES FROM THE MEMBERS

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## "CONTROVERSY"

There has been considerable controversy recently concerning the use of amateur radio, especially at public service events.

Amateur radio is governed by the Federal Communications Commission (FCC), more specifically by the FCC Part 97 Rules.

The primary problem revolves around FCC Rule 97.113, which reads in part "... A station may, however, transmit communications to:

*(1) Facilitate the public's safe observation of, or safe participation, a parade, race, marathon or similar public gathering. No amateur station shall transmit communications concerning moving, supplying and quartering observers and participants for any sponsoring organization unless the principal beneficiary of such communications is the public and any benefit to the sponsoring organization is incidental. ..."*

FCC Rule 97.113 forbids the use of amateur radio for logistic purposes. It seems that the FCC Private Radio Bureau (PRB) has interpreted the rules to include non-profit organizations. This includes even government organizations.

FCC Rule 97.113(a) states in part "... To facilitate the business or commercial affairs of ANY party ...". A further amplification holds that "business" includes any activity to make the organization function in its intended manner.

Amateur Radio Operators (Hams) can (and willingly do) furnish communications with regard to health and welfare -- an example would be to get medical help to an injured person at a public service event, or to help search parties hunting for a lost child, missing airplane, etc.

This is certainly not a complete run down, but it is a starting place in determining the limits concerning public service activities.

Harry (W4PVA)

## FROM THE 1991 FIELD DAY CHAIRMAN

Well, the results are in with regards to the 1991 Field Day! Contrary to pre-Field Day opinion, even in the 5A category, we did not do badly. Out of 76 entrants, we ranked at number 31 with 3,442 total points. Not Bad -- especially since you have to consider that with the wind and rain caused LOW Member turn-out/participation!

Although I am not going to be Field Day Chairperson next year, I will be glad to help the new Chairman.

Bonnie (N4QPB)

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## ANNOUNCEMENTS

  
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1. The Manassas City Christmas Parade is on December 7. All volunteers are to meet at the DMV on Mathis Avenue at 8:30 a.m. to check in at receive the listing of Parade participants. For more information, listen to the weekly OVH at 8:00 pm Thursday evenings.
2. OVH sponsored and financially supported the V.E. Exams given on November 9th at the Manassas Campus of the NOVA Community College. More details in the December Newsletter.
3. Need tubes????! Have tubes you'd like to have tested????? Don't know where to go??? Don't throw them out!!! Check with US Electronics, 14516 Smoketown Road (telephone number 703-490-4445). This local store (located near Potomac Mills Mall) has a tube tester and a good supply of tubes.



YOUR FOR SALE ITEM  
COULD GO HERE !!!

Subject: WORD FIND PUZZLE # 26

STATES.002

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J Z I B E P A R H N J P D K U K O V I J
X B A R N S T A B L E Q T A T D R D L L
K U H T U O M R A Y F O I E O I L E E X
Q X P T E S R E M O S Z U S P Z E C N I
G F S Y G R O T O N L U T E S S A H O C
V Y E L R I H S H L K O N X F B N S X D
R L B L T R U R O F W Y A U I T S O I Q
L C W D L E J H W G I F S L E Z S R O E
K J H S P I T T S F I E L D L G Z O Z X
C W T E W A V W L L F E L C D T F B S B
I J A N L A V T A O R E G D I R B X U N
T X E Q R S N H N I B P N O R W O O D K
A N H A M O E S C O N C O R D U V F B P
N O T G N I B A E L M P G N I V R E U N
G I L A S F U R N A C E V L T O C K R W
M R B W T A S R E V N A D Q N K P S Y H
V A M A Z U O X J H M A H D E D F W H C
H M Y M R W H C I W S P I T Q G M P V X
B E M P S R Q Z N Q W O M A H R B U U G
R N Y S J W E M W Y B E H G R C O X U W

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CAN YOU FIND THESE TOWNS IN MASSACHUSETTS ????

ABINGTON	FOXBORO	ORLEANS
AGAWAM	FURNACE	PITTSFIELD
ATHOL	GROTON	SANTUIT
AYER	HALIFAX	SHERBORN
BARNSTABLE	HEATH	SHIRLEY
BARRE	IPSWICH	SOMERSET
BECKET	LEE	STOW
BILLERICA	LENOX	SUDBURY
CHELSEA	MARION	SWANSEA
COHASSET	MONTVILLE	TOPSFIELD
CONCORD	NATICK	TRURO
DANVERS	NORTHFIELD	UXBRIDGE
DEDHAM	NORWOOD	YARMOUTH
ERVING		

HAVE FUN...NOKGX...GENE.....73

OLE VIRGINIA HAMS

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**NOTES FROM THE EDITOR**  
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The Ole Virginia Times is published monthly by the Ole Virginia Hams Amateur Radio Club, and is mailed free to members of the OVHARC. Permission is granted for use of material contained within this Newsletter, provided proper credit is given. This Editor will exchange Newsletters with other Clubs and Associations upon request. Newsletter deadline for submission of articles is the 25th of each month for inclusion, in next month's Newsletter. The Newsletter is entered as First Class Mail at the Manassas Post Office, Manassas, Virginia.

We are always looking for interesting items for the Newsletter. If you see articles, have shack tips, items for sale, items wanted, brain teasers, etc., please send them to the Newsletter Editor c/o OVH, Post Office Box 1255, Manassas, Virginia 22110; or, give me a landline (703-361-0008). If it is interesting to you, chances are it will be interesting to others!

73

Bonnie (N4QPB)  
Editor

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**NEXT MEETING**  
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The next meeting of the OVHARC will be on Monday night, **DECEMBER 16th**, 1991 at 8:00 p.m., in the basement Meeting Room of the Northern Virginia Electric Co-Op, 1032 Lomond Drive, Manassas, Virginia.

Looking forward to seeing **YOU** there!!!!

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**RENEWAL APPLICATION FOR THE OLE VIRGINIA HAMS AMATEUR RADIO CLUB**

DATE: \_\_\_\_\_

NAME: \_\_\_\_\_

CALL SIGN: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

TELEPHONE: \_\_\_\_\_

ARE YOU PRESENTLY AN ARRL MEMBER: \_\_\_\_\_

DO YOU WANT YOUR TELEPHONE NUMBER LISTED IN THE OVH ROSTER: \_\_\_\_\_

YOUR PRESENT LICENSE CLASS: \_\_\_\_\_

Dues are \$6.00 (for each additional family member, living at the same mailing address, the dues are \$3.00)

AMOUNT YOU ARE SENDING: \_\_\_\_\_

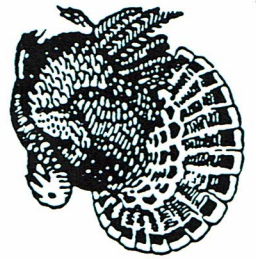
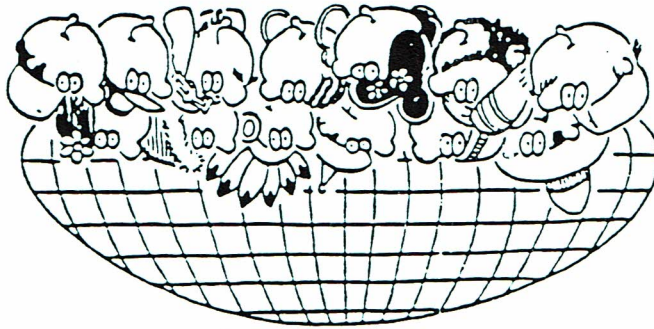
NAMES OF ADDITIONAL FAMILY MEMBERS (IF ANY): \_\_\_\_\_

Please fill in all of the above-requested information (please PRINT) and return to the attention of the Treasurer, OVH, P.O. Box 1255, Manassas, VA 22110

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TREASURER'S INITIALS: \_\_\_\_\_

DATE SENT TO MEMBERSHIP CHAIRMAN: \_\_\_\_\_

DATE RECEIVED BY MEMBERSHIP CHAIRMAN: \_\_\_\_\_



Remember, no club meeting in November

NOVEMBER

Ole Virginia Hams A.R.C., Inc.  
Post Office Box 1255  
Manassas, VA 22110



FIRST CLASS MAIL

