

The RaRa Rag

Published by

The Rochester Amateur Radio Association
INCORPORATED

VOL. 31

NOVEMBER 1978

NO. 3

ANNUAL RaRa AUCTION November 3rd Meeting

by Alan Komenski, AC2K

It's time for you all to dig through your basement, garages, attics, or wherever else you have all your goodies stored because November means RaRa's annual auction is at hand. I'm sure each of you will find just the item you've been looking for all these months. That electronic keyer, portable radio, the hard to find transformer that you've been looking for might just be awaiting for you to purchase. Ed Gable, K2MP, and Alan Komenski, AC2K, will serve as auctioneer this year for the event.

We request that each item that you bring be clearly labeled with what the item actually is, your name and call signs, and your minimum starting price on the item. If you would allow your item to be chineded down from your original starting price please indicate so. RaRa receives 10% of the final price of each transaction.

The auction will again this year be held at the Rochester Police and Fire Academy on Scottsville Road opposite the Monroe County Airport. The auction will start promptly at our regular 8:00 p.m. meeting time, so every-

Director of Public Relations

The Board of Directors of the Rochester Amateur Radio Association is pleased to announce the appointment of Mr. James D. O'Brien, Jr. as our Director of Public Relations. Many of us know him on the air as "Jim", K2UDP. He holds the Advanced Class license and has been a radio ham for 24 years. He is very active in Radio Controlled Model Airplanes and has been building and enjoying them since the age of 9. His age is 38.

Jim is very public relations oriented and is involved in many community betterment projects. He is the Manager of the Retail Department of the Rochester Chamber of Commerce. Also he is Director of the Retail Merchants Council, The Downtown Promotion Council, The Civic Development Council, The Henrietta Chamber of Commerce, and The Penfield Perinton Pittsford Chamber of Commerce.

(Continued on page 3)

one who has equipment to sell is asked to arrive early so that we can all have a look at what you've got to offer. This will also mean less confusion when the auction proceeds. As this is traditionally one of the best attended meetings of the year, you'll all want to arrive early to get a good seat. See you on November 3!

RaRa Congratulates WR2AEI on its 10th

Congratulations to WR2AEI

146.28/146.88 in Rochester

*on its completed tenth anniversary October 15th, 1978
operated by the Rochester Radio Repeater Association*

*Begun by K2LDU and others too
numerous to mention here.*

*Thanks for ten years of good service to
the Rochester area amateur radio community
and to the community at large.*

The RARA RAG

Published by
The Rochester Amateur Radio Association
INCORPORATED

Managing Editor . . . Harold Smith, K2HC
Editor Dwight Hill, K2KWK
Art Director Herm Auch, KB2CM
Staff Helen Smith, WA2YRH
IBM Computer 3032
Editor's office, 265 Norcrest Drive, Rochester
NY 14617. Telephone: 716-544-2332
Managing Editor's office, 153 Mason Avenue,
Rochester, NY 14626. Telephone: 716-225-5260

VOL. 31 NOVEMBER 1978 NO. 3

OFFICERS:

President: Leonard M. Gessin, WA2ZNC

Vice-President: Alan Komenski, AC2K

Secretary: Otto Bluntzer, WB2RJB

Treasurer: Ronald Jakubowski, K2RJ

BOARD OF DIRECTORS:

James Collinsworth, N2JC

Robert Erskine, W2NVZ

Edward Gable, K2MP

Edwin Holdsworth, N2EH

Ashley Palmer, K2EAW

John Schooley, K2NC

Harold Smith, K2HC

Club Historian: Bruce Kelley, W2ICE

Licensing Course Director:

Edwin Holdsworth, N2EH

Membership Chairman:

Robert Erskine, W2NVZ

Director of Public Relations:

Jim O'Brien, K2UDP

K2JD Engraving Director:

Robert Lauzon, K2RL

The RaRa Rag is published monthly except July and August by the Rochester Amateur Radio Association, P.O. Box 1388, Rochester, N. Y. 14603. Subscription price \$1.00 per year (included in \$6.00 annual membership dues). Second class postage paid at Rochester, N. Y.

The President's Corner

by Len Gessin, WA2ZNC

Our October meeting saw over one hundred amateurs and friends gathered at the Farm and Home Center. Many were longtime and dear friends, and quite a few new and willing friends. Rochester Police Lieutenant Roy Irvings' presentation on the "PASS" Radio Alert System was super.

The RaRa Board met, as usual, the following Wednesday, and as always, was a lively affair. W2NVZ tells me we have over 560 members paid up as of 10-11-78. With over 325 still to pay, we will bring the total membership to 887. For those of you who might have forgotten, our club has a life membership available, also. We have 33 life members to date. Life membership fee is 20 times the current dues, if you are interested.

If you checked your desire to work on RaRa committee, your call is now in our computer file. We "will" be calling. Some of the special areas where we will need help are at the County Fair, and the Hamfest. One of our more immediate needs now is for a cabinet to cover the top of a standard office type desk. We will be setting up a complete VHF-UHF station on this desk, and for safety sake, it will need to be covered and locked. If you have a console type top cover or could build one for the club station, please see Ed for particulars. That's N2EH or K2MP.

One of our newest adventures is our telephone. We are now listed in both white and yellow pages. The line goes into a Board Members home, and will have a tape answering machine connected. We would like any member who is willing to answer questions about Amateur Radio, to let a Board member know. The phone machine will tell whomever calls how and where to get more information about Amateur radio and our club.

So, see you the third of November; I'll be talking to you on the airways.

STOLEN - Model 1402 Wilson H/T with touch-tone pad. Serial number 006610. Equipped with xtals for 52, 76, 91, 88, 94, 79. Look for a possible stranger on two meter FM. Rich McCracken, WD9HIG, 546-5530, ext 165 (days).



Write for FREE COPY of any of our publications.

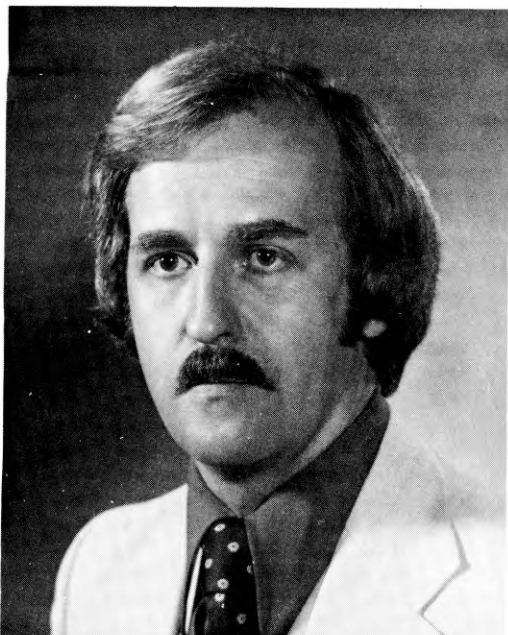
The Ham Radio Publishing Group
GREENVILLE, NEW HAMPSHIRE 03048



ATR 142 Lyell Ave.
454-7116

Communications
COMMERCIAL, TWO-WAY RADIO
SALES & SERVICE

WILSON - STANDARD - LARSEN
Wally Kincaid, W2PG, Pres.



Jim O'Brien K2UDP

Formerly he was Manager of the Heathkit Electronic Center in Henrietta, and previously employed by the Heath Company for nine years. Jim has built over 300 Heathkits, can anyone top that? Also, Jim will be our Dinner Chairman for the 1979 Rochester Hamfest Banquet.

All RaRa Club Members should understand that Jim can be very effective. He needs one tool to maintain and improve the community image of RaRa and the general image of each RaRa member, input from the club. It is up to both the Board of Directors and each member to see that Jim gets the factual information to do the job we want to have done. We look forward to having the valuable services of Jim O'Brien assist RaRa and amateur radio in general.

FOR SALE: Lafayette LM-400, 40 channel. Remote control CB rig, top of the line, AM, like new. "WA2ZNC".

WANTED: Manual, or just schematic for Knight T-60 xmtr. Will copy and return. Jack Schanker, W2ATM, 716-334-7175.

HARVEY'S HAM

CALEDONIA, N.Y. 538-4750

TEN TEC — DENTRON
TRITON IV — ARGONAUT

**NEW AND USED — FOR
SUPER—LOW PRICES !!!**

3154 STATE ST. — Across from
CHASE MANHATTAN BANK

ROCHESTER VHF GROUP

The November meeting will be at the factory of RF Communications, on Friday, November 10th starting at 8 p.m. The program will be announced in advance of the meeting via the newsletter and on the air. However due to the postage fee increase we regret to advise those beyond 50 miles from Rochester and/or those who have not attended a meeting in two years that we will no longer be able to mail the newsletter. However if someone still wants it they should contact K2KGE to work out the details.

PROJECT REPORT: After the smoke of order taking finally cleared, the workload for the project shapes up as follows: 50 Mhz - 34; 144 Mhz - 51; 220 Mhz - 21; 432 Mhz - 72; Total - 178 xverters. The project managers who will make sure that these are the best goodies for the buck are: 50 Mhz - Charlie Mills, K2LDU; 144 Mhz - Bob Carl, KB2BY; 220 Mhz - Bob Nezelek, W2CNS; 432 Mhz - Floyd Koontz, WA2WVL (acting) Floyd is overall program manager and yours truly is keeping an eye on the cash. . . cost projections are on target - Floyd reports great success at getting parts at the hoped for discounts. . . cash flow to purchase when needed will be tight. . . 54% of the needed amount has been collected. . . keep in mind that delivery will be around Holiday time. . . if you can pay in full ahead of time, please consider doing so checks or cash gladly accepted at the meeting or send to me via post.

AFTERBURNER REPORT: Transistors for more than 40 amps have been ordered. . . no down payment was requested at the last meeting . . . again half or more of the total will be due by this meeting or send to me. . . your cooperation in the always sticky money region has been great. . . please continue the good response.

JUICE REPORT: As you may have guessed, transverters don't plug into 110 A.C. . . they thrive on 2.5 amp regulated stuff. . . kits have been made available. . . price will be \$10; includes all except a box.

UP-IN-THE-AIR REPORT: Where o where is all that 220 and 432 energy going to go? in the shack? . . nay: Fred, W2DUC, has offered to head up a project to build some el cheapo quagis for these bands. . . interested? see Fred.



COLOR TV...HI-FI...AUTO. BOAT AND
AIRCRAFT EQUIPMENT...AMATEUR RADIO
GEAR...RADIO CONTROL MODELING
...MUSIC AMPLIFIERS...DIGITAL SCALE
...DIGITAL CLOCKS...WEATHER STATIONS
...METAL LOCATORS...SHORTWAVE RADIOS
...TOO MANY MORE TO MENTION HERE!

HEATHKIT ELECTRONIC CENTER
837 JEFFERSON ROAD
ROCHESTER, NEW YORK 14623
PHONE: 716-244-5470

Open Daily at 9:30 ... Thurs. till 9:00 p.m.

Introductory Amateur Radio Radio Information via Braille and Cassette Tape

by Virgil DuMond, WB2FGY

The October issue of QST had an article on page 41, "A Different Kind of Courage", relating to amateurs with physical and visual handicaps. There was a side bar note on page 43 indicating that ARRL had available a package of information where material could be secured for the visual handicapped persons interested in amateur radio.

I sent for this package and it consisted of about 8 pages of typewritten material. Ray Pickens, WA2MYG, has put all of this material on to a hour and half tape cassette and is available through him. In addition to this, Stew Bowden, WA2SYR, was sent a copy and he is now in the process of going over the contents and having it put into Braille and is going to make several copies available. I have asked Stew to make at least one copy available for the club and if possible to make a copy that can be given to the Rochester Public Library.

Any visually handicapped persons interested in the above material can contact Ray, WA2MYG, or Stew, WA2SYR, through the 04-64 repeater. Stew Bowden lives in Batavia.

RRRA GIVES OSCAR PROGRAM

On Friday evening, November 17th, the Rochester Radio Repeater Association will delve into the delights of "OSCAR". The meeting will be held at the Pittsford Town Hall on South Main Street in the Village of Pittsford. A short business meeting will begin at 8 p.m.

The program to follow features Bob Crumrine, WB2DNN, and Gerry Gietbohl, K2VFR, who have excelled in operating via several amateur radio satellites. They will give special attention to tracking, that is how to find out when to hear the "bird". They will clarify the matters of crossing times, longitudes, and beam heading. They will have the ARRL Slides showing the Oscar 8 project.

See you all on Friday, November 17th.

73, Bill Gillette, WB2KIW
Program Chairman, RRRA

1978 Gibraltar DX-PEDITION

Early November will find local ham operators visiting Gibraltar and looking for contacts in the U.S.A. and especially contacts with Rochester hams. Russell M. McKay, WA2CBU, and Irwin (Irv) Goodman, AF2K are making the trip and intend to operate from November 4th through November 7th in the 20, 15, and 10 meter bands using SSB voice. Operation will tend to be in the lower portions of the voice sub-band allocations. They have applied for a Gibraltar call sign, which has not yet arrived, but will bear the prefix ZB2. For those of us who are more casual about our dx chasing, a contact with Irv and Russ will mean an easy, inexpensive, QSL confirmation. This one card can qualify for DXCC award credit, as Zone 14 for WAZ award credit, and even as a station on the continent of Europe for WAC award credit. If you catch them on 20, 15 and 10 you'll have a few more notches toward a 5 band DXCC.

DX "STANDS BY" ROBERTS CHASING FISH

Our famous DX Column writer Bob Roberts, WA2QAU, has gone fishing (honestly, that's what he said) but, with due consideration for his age, we know this will not last more than one month. Look for his column to re-appear in the December RaRa Rag. Meanwhile the rest of us will grin (slyly) and bear it; and, we all know he's chasing yls anyway. But we hope that at least these are DX yls so some of the stories will qualify for printing in a radio oriented bulletin.

73, Editor

METRO COMMUNICATIONS
ELECTRONICS
SERVING
WESTERN NEW YORK
(716) 621-1750

Gary - W2TR
Jim - WB2ITL
Mike - WB2HYP

METRO  **COMM**

TWO WAY * MARINE * AMATEUR * CITIZENS
SERVICE * SALES * INSTALLATION
DOCKSIDE SERVICE

Commercial
Sales and Service
Aerotron * Repco * Genave
37 STONEMOOD AVENUE
ROCHESTER, N.Y. 14612



*The magazine that
does more for you...*

- Contests
- Propagation
- Antennas
- DXing
- Awards

ONE YEAR
\$9.95

The Radio Amateur's Journal
14 Vanderventer Ave. Port Washington, N.Y. 11050

- ELECTRICITY -

It's the Current That Kills

Author anonymous

Offhand, it would seem that a shock of 10,000 volts would be more deadly than 100 volts. This is not so! Individuals have been electrocuted by appliances using ordinary house currents of 110 volts and by electrical apparatus in industry using as little as 42 volts direct current. The real measure of a shock's intensity lies in the amount of current (amperes) forced through the body, and not the voltage. Any electrical device used on a house wiring circuit can, under certain conditions, transmit a fatal current.

It's the electrical current that does the damage. Current equals voltage divided by resistance ($I = V/R$), but the resistance of the human body varies so widely it is impossible to state that one voltage is "dangerous" and another is "safe".

The actual resistance of the body varies depending upon the condition of the skin at the points of contact (moist or dry). The skin resistance may vary from 1000 ohms for wet skin to over 500,000 ohms for dry skin. However, once the skin is broken through (for example by the burning away of skin) the body presents no more than 500 ohms resistance to the current.

The path through the body has much to do with the shock danger. A current passing from finger to elbow through the arm may produce only a painful shock, but that same current passing from hand to hand or from hand to foot may well be fatal.

Therefore, the practice of using only one hand (keeping one hand in your pocket) while working on high-voltage circuits and of standing or sitting on an insulating material is a good safety habit.

THE PHYSIOLOGICAL EFFECT OF ELECTRIC SHOCK

Electric current damages the body in three different ways: (1) it harms or interferes with proper functioning of the nervous system and heart; (2) it subjects the body to intense heat; and, (3) it causes the muscles to contract.

(1) Chart 1 shows the physiological effect of various currents. Note that voltage is not a consideration. Although it takes a voltage to make the current flow, the amount of shock-current will vary, depending on the body resistance between the points of contact.

As shown in the chart, shock is relatively more severe as the current rises. At values

as low as 20 milliamps, breathing becomes labored, finally ceasing completely even at values below 75 milliamps.

As the current approaches 100 milliamps, ventricular fibrillation of the heart occurs--an uncoordinated twitching of the walls of the heart's ventricles.

Above 200 milliamps, the muscular contractions are so severe that the heart is forcibly clamped during the shock. This clamping protects the heart from going into ventricular fibrillation, and the victim's chances for survival are good.

(2) AC is said to be four to five times more dangerous than DC. For one thing, AC causes more severe muscular contractions. For another, it stimulates sweating that lowers the skin resistance. Along that line, it is important to note that resistance goes down rapidly with continued contact. The sweating and the burning away of the skin oils and even the skin itself account for this. That is why it's extremely important to free the victim from contact with the current as quickly as possible before the climbing current reaches the fibrillation-inducing level.

The frequency of the AC has lots to do with the effect on the human body. Unfortunately, 60 cycles is in the most harmful range. At the house current frequency, as little as 25 volts can kill. On the other hand, people have withstood 40,000 volts at a frequency of a million cycles or so without fatal effects.

(3) A very little current can produce a lethal electric shock. Any current over 10 ma. will result in serious shock.

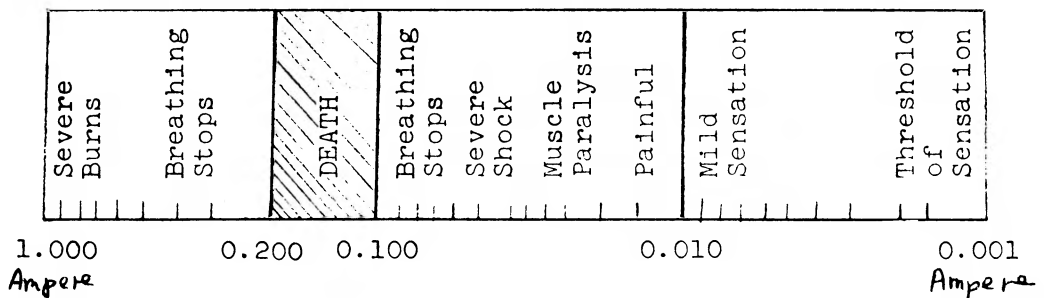
SUMMARY

Voltage is not a reliable indication of danger because the body's resistance varies so widely it is impossible to predict how much current will be made to flow through the body by a given voltage.

The current range of 100- to 200-ma. is particularly dangerous because it is almost certain to result in lethal ventricular fibrillation. Victims of high-voltage shock usually respond better to artificial respiration than do victims of low-voltage shock, probably because the higher voltage and current clamps the heart and hence prevents fibrillation.

AC is more dangerous than DC, and 60-cycle current is more dangerous than high-frequency current.

Skin resistance decreases when the skin is wet or when the skin area in contact with a voltage source increases. It also decreases rapidly with continued exposure to electric current.



Possibility of Strange Signal on 50 Mhz Band

by John B. Power, W2AXU Tnx: "Cheesebits"
Mt. Airy VHF Club

The age of solid state digital electronics is upon us. We all must have a digital clock in the ham shack these days. Its the in thing. And one that uses a crystal controlled time base instead of the 60 Hz line frequency will provide very accurate time for so little money.

Now, a strange CW signal shows up on the low end of 50 MHz around 50.113 MHz. It can be a bit puzzling for a while, until you get the digital calculator out and start struming the key board.

The crystal for the clock time base is usually 3579.545 KHz. This is also the TV color burst frequency. The crystal is operated into an oscillator divider chip, a MM6369, the output of which is 60 Hz. It is a 60 Hz square wave. The 3579.545 KHz is also present and it is also a very excellent square wave. We all know that square waves are rich in harmonics and so is this one. The 14th harmonic of the 3579.545 KHz crystal is 50.11363 MHz, and, incidentally, the 41st harmonic is 146.76134 MHz. There will also be signals in other parts of the radio spectrum as well every 3579.545 KHz. These frequencies will be very accurate and, therefore, can be used for calibration purposes.

There is a means to calibrate this crystal as well as other crystal standards via your color TV set. The method was developed at the National Bureau of Standards in Boulder, Colo. about 1968. It makes use of the extremely accurate color burst frequency transmitted in a network program transmission. This frequency is checked weekly by NBS for each network and the results published. If you use the color burst frequency method of calibration, your instrument calibrations can be traceable to the National Bureau of Standards.

FOR SALE - Yaesu FT 101-B Transceiver, \$550.00; CW Filter-Installed, \$25.00; Fan - Installed, \$10.00; FV 101B VFO, \$100.00; and Spectronics Display DD-1, \$100.00. Contact Fred J. Retallick, WA2BLF, 280 Rye Road, Rochester. Phone: 225-7965.

FOR SALE - Wilson Handi-Talki, 2-meter, Model 1405-SM. 1 and 5 watt switchable output, touch-tone pad, 6 channels, battery condition meter, monolithic filter, telephone-type speaker/mic, includes some crystals, and manual. Ordered direct from factory one year ago. New condition, never transmitted with. Call Phil at 263-2554 days, 271-2699 nights.

FOR SALE - Swan 117AC w/spkr mint \$105 - will haggle - call 473-0634 my unreliable exchange & if nec leave message. "Doc", N2EI ex-WA2HNX.

Chance to Structure Regulations

The FCC has issued a Notice Of Inquiry, Docket 78-250, to find out how we think they should administer cw exams to persons who are handicapped. This is especially of interest to persons who have or are training ham radio operators. This is your one chance to voice your opinion and have it given real consideration. Comments are also pertinent coming from any one who has any kind of handicap, whether physical, visual, auditory, or however. In your response it would be of value to state the nature of the handicap you have.

The basic question deals with whether there should be less rigorous cw standards, and, if so, if the operating privileges should be reduced accordingly. Also, the FCC asks if there should be a new non-code license available only to the handicapped.

Your comments for Docket 78-250 are due on or before November 30, 1978.

K2JD
ENGRAVING

P.O. Drawer G PITTSFORD, N.Y. 14534

CALL SIGN BADGES

<u>Size</u>	<u>Up to</u>	<u>Cost</u>
3/4 X 3	(1 Line)	\$1.00
1 1/4 X 3	(2 Lines)	\$1.50
2 X 3	(3 Lines)	\$2.00
2 X 4	(4 Lines)	\$2.50
Base Station Sign		
2 X 8	(2 Lines)	\$3.00
Plastic stand add		\$1.50
Clip fastener on badge		
instead of pin add		\$.25

RUBBER STAMPS

Design your own stamp using the sample type sizes shown below. \$2.50 for three lines. Add 50¢ for each additional.

36 PT

24 PT

18 PT

12 PT

10 PT

8 PT

Most color badges are in stock

ARRL Sig on stamp or badge Add \$.50

JR'S

3327 LAKE AVENUE • ROCHESTER, NEW YORK • 865-0430

Fill In And Leave Around For The YL or XYL To Find!

----- CHRISTMAS SHOPPING LIST
CALL

- _____ LOG BOOK
- _____ DUMMY LOAD
- _____ WATT METER
- _____ SWR METER
- _____ CALL BOOK _____ U.S. _____ D.X.
- _____ 1979 HAND BOOK
- _____ DESK MIKE
- _____ HEAD PHONES
- _____ EXTERNAL SPEAKER
- _____ COAX SWITCH
- _____ STRAIGHT KEY
- _____ ELECTRONIC KEY
- _____ PADDLES
- _____ TOUCH TONE MIKE
- _____ TWO METER MOBILE
- _____ WORLD MAPS
- _____ OTHER _____
- _____
- _____

AMATEUR RADIO OF ROCHESTER

"Your only Full amateur radio store."

AUTHORIZED DEALERS FOR:

ATLAS

CUSHCRAFT

TEMPO

DENTRON

LARSEN

BARKER & WILLIAMSON

HAM - KEY

NYE CO. "VIKING"

BIRTEX

WILSON

HYGAIN

PIPO Tone Pads

TELEX

BOMAR Crystals

WES - COM Power Supplies

R. L. DRAKE

ICOM

SWAN

HUSTLER Antennas



Wilson Electronics Corp.

Pipo Communications

BOMAR



TELEX



Monday - Friday 10 a.m. - 3 p.m.

6 p.m. - 9 p.m.

Saturday - - - - 10 a.m. - 2 p.m.



Amateur Radio of Rochester

1185 SCOTTSVILLE ROAD · ROCHESTER, NEW YORK 14604 · (716) 235-7540