



the RARA RAG

Published by
ROCHESTER AMATEUR RADIO ASSOCIATION, INC.

VOL 41

MARCH 1989

No. 7

MARCH 3, 1989 RaRa MEETING

40 & 8 Club
933 University Avenue
8 PM

ELECTRONICS IN TELEPHONY

Advances in electronics are quickly changing Ham radio. Electronics has also revolutionized the telephone industry and Rochester Telephone is no exception. Rochester Telephone has spent \$200 million in the last five years to upgrade its switching and transmission systems. The change has been so extensive that the pulse code modulation, transistors, light emitting diodes, very large integration, optic fibers, lasers, data bases, and disk drives are familiar terms to Rochester Telephone personnel.

This presentation by Karl Greenhagel of RCI will provide the history of Rochester Telephone's electronic revolution and provide basic background to the "intelligent network" that will be introduced to the Rochester market in 1990. Don't miss this very interesting program.

HAVE YOU HELPED W1AW YET?

If you haven't already given a donation to help with the renovation of Amateur Radio's premiere station, W1AW, now is the time!

You have always counted on W1AW for the latest bulletins concerning subjects of concern to amateurs all over the world, and now W1AW needs your assistance to continue to be the flagship station of Amateur Radio.

Tax deductible contributions can be made by phone or mail. Just address your donation to W1AW Fund Drive, 225 Main Street, Newington, Connecticut 06111. Make checks payable to "W1AW Renovation Fund". By phone, credit card contributions can be made by calling Jennifer at ARRL HQ (203-666-1541) between the hours of 8 AM and 4 PM (EST) daily, except weekends. Please help W1AW maintain its leadership on the front lines of Amateur Radio technology. Thanks!

Tnx ARRL Letter

RDXA MEETING — MARCH 21

The next meeting of RDXA will be on March 21 at 8:00 p.m. at 111 Westfall Road.

The program will be a slide show of the VR6HI DXpedition. We are looking forward to seeing you there.

DRUMLINS HAMFEST

The Drumlins Amateur Radio Club will be holding their third annual hamfest at the Marbletown Fire Hall in Newark on Saturday, March 25th, from 8:00 a.m. to 4:00 p.m. Talk-in is on 146.745.

Tickets are \$4.00, with flea market spaces available for \$3.00 each. For more information, and to arrange for flea market tables if necessary, contact Jack Slocum, N2CSY, on the 146.745 repeater or telephone him at (315) 331-1539.

NO RECIPROCAL LICENSING WITH MEXICO

If you are thinking about traveling in Mexico any day soon, **REMEMBER**, we **DO NOT** have a reciprocal licensing agreement with Mexico. That means that you **CANNOT** operate in Mexico using your USA call. You must have a Mexican license which is not that easy to get. The ARRL and LMRE (Mexican ARRL) are working on such an agreement and it may become a reality soon. In the meantime, if you try to take your equipment into Mexico it will probably be confiscated at the border. If you are planning well in advance and would like to apply for a Mexican license, contact the ARRL for a package on how to do it.

Tnx The Readout

TRY 10 METER FM!

The repeater inputs are at 29.52, 29.54, 29.55, 29.56, 29.57, and 29.58 MHz. The corresponding repeater outputs are 0.10 MHz higher at 29.62, 29.64, 29.65, 29.66, 29.67 and 29.68 MHz.

Tnx Groundwave

the RARA RAG

Published by
ROCHESTER AMATEUR RADIO ASSOCIATION, INC.
P.O. Box 1388, Rochester, NY 14603-1388

Co-Editors Neal Eckhardt, WB2EKP
80 Authors Avenue, Henrietta, NY 14467 (716-359-2672)

..... John J. ("Jack") Dempsey, KA2PJJ
357 West Squire Drive, Apt #1, Rochester, NY 14623
(716-424-1637)

Contributing Editor Dwight Hill, K2KWK
265 Norcrest Drive, Rochester, NY 14617 (716-544-2332)

Advertising Manager Dick Goslee, K2VCZ
24 Elaine Drive, Rochester, NY 14623 (716-334-1762)

1st DIAMOND JUBILEE AWARD ISSUED

Bright and early Tuesday, January 3, Phillip Davis, N1FBQ, arrived at HQ to claim the first Diamond Jubilee Award.

N1FBQ earned the Award by working 75 Novices/Technicians on 10 meters.

Rules of the Diamond Jubilee (see October 1988 *QST* page 59) are in three categories: work 75 ARRL/CRRL Sections on any combination of bands/modes; work 75 different DXCC countries on a combination of the 18- and 24-MHz WARC bands. (Note: the 18-MHz band is not expected to be available to US amateurs until mid-1989, so most early activity in this category for US stations will take place on 24 MHz); or work 75 Novice (or Technicians below 30 MHz) with exchanges something more than simple signal reports. General, Advanced and Extra class work 75 Novice/Technician to qualify. Novice/Technician work anybody for a total of 75 stations.

The award may be endorsed in any of the two remaining categories, and in addition, a special SWL endorsement is available.

Certified log entries on the official entry form are required (no QSL cards). For further information or to obtain entry forms, contact the Awards Department at HQ.

Tnx ARRL Letter

VOL. 41 MARCH 1989 NO. 7

OFFICERS:

President: Dave Bernheisel, N2DPF 244-1856
Vice President: Bob Hobday, N2EVG 624-3368
Secretary: Pete Secrist, WB2SUN 265-2028
Treasurer: Dick Goslee, K2VCZ 334-1762

BOARD OF DIRECTORS:

Chet Albrecht, WB2MDO 865-6440
Lloyd Caves, WB2EFU 671-7079
Neal Eckhardt, WB2EKP 359-2672
Irv Goodman, AF2K 671-4430
Ed Holdsworth, N2EH 624-1929
Bill Shaw, N2EKR 288-1547
Bud Young, WA2UGE

Club Historian: Bruce Kelley, W2ICE
Public Service Coordinator: Edwin Holdsworth, N2EH
License Testing Director: John Schooley, K2NC
Membership Chairman: Lloyd Caves, WB2EFU
Licensing Course Director: Edward Gable, K2MP
Hamfest General Chairman: Harold Smith, K2HC
K2JD Engraving Director: Robert Lauzon, K2RL

The RaRa RAG (USPS 605-440) is published monthly except July and August by the Rochester Amateur Radio Association, Inc., 357 West Squire Drive, Apt. #1, Rochester, New York 14623. Subscription is \$4.00 per year (included in the \$9.00 annual membership dues). Second class postage paid in Rochester, New York.

POSTMASTER - Send address changes to The RaRa Rag, P.O. Box 1388, Rochester, New York 14603-1388.

Full permission is granted for reprinting articles provided a credit line is given to the RaRa Rag. The Rag exchanges with other organizations' publications.



Amateur Radio News Service

NEXT HAM IN SPACE IS DELAYED

NASA announced recently that the shuttle launch of the Hubble Space Telescope will be pushed back eight months from June, 1989 to February, 1990. Additionally, the ASTRO-1 mission, on which Ron Parise, WA4SIR, is scheduled to be on board, is now slated for March, 1990. NASA attributed the delays to a shortage of rocket fuel caused by the explosion of a rocket fuel factory in Nevada.

ARRL Newsletter via The Readout

FCC ENFORCEMENT ACTION

In the continuing crackdown by the Commission on unauthorized radio use, Kingsville (Texas) FCC investigators visited several station operators, who, when asked, said they were unaware that an FCC license was required for operation of these stations on frequencies in and around the amateur bands.

The stations are now silent, awaiting license applications to be acted upon, and the Commission hopes that the interference to authorized operations in the area will be curtailed.

Tnx ARRL Letter

RADIO CRIMINAL GETS CAUGHT . . .

from the WB2WXQ Bulletin Board

Well, here's a good one... Wondering where to take the kiddies on some rides? RECONSIDER before going to SIX FLAGS parks!

Over the Labor Day weekend I decided to take the kids to GREAT ADVENTURE here in New Jersey (a SIX FLAGS AMUSEMENT PARK). Well – much to my surprise, when I entered the park I was SURROUNDED by no less than eight security folks. Yes, I was a RADIO CRIMINAL!

I immediately feared what would happen to my wife and kids, in case daddy was strip searched and cuffed for having his HT... But no... They were kinder than that, they just told me that EITHER I LEAVE or the HT leaves. I proceeded to tell them about the Federal License, and that I was on 144 MHz, WAY away from them, and that this was NOT the first time I brought it in. They in turn proceeded to tell me that “*they knew about ham op's*” and that we cause interference to their communications.

Later, I noticed they now have 4 repeaters on site for miscellaneous communications – they used to have 1; and that LARGE military planes were ALWAYS on approach to Mcguire AFB, right overhead, but they don't use any high power communications equipment, do they?... So they proceeded to tell me that, as of this season, it was SIX FLAGS POLICY not to allow any ham radio gear into the park. Gee somebody must be a radio expert there to assume 144, 220, and 440 HTs interfere with them huh?

Of course, there was NO SIGN POSTED telling me of this and I was now a HALF MILE from my car!!! I ended up going by tram back to my car with the HT, after all I just paid well over \$50 to get in AND there are NO REFUNDS, NICE EH?!!!!

THIS must be a sign of the times, and I see that I'd BETTER contact Disney World BEFORE I go there next year, cause... IF MY HT AIN'T WELCOME, I AIN'T GOING!!!!

JUST A WARNING TO CHECK BEFORE YOU GO!

73, John D/KA2QHD (*Radio Criminal*)

PS: Good thing it was my 2ATNÓT my u2AT or I'd REALLY be in big trouble (Illegal in NJ, copies police band).

Ed. Note: The management of the KPARC in no way agrees nor endorses the above article – it's just that the editor (KA2GPJ) thinks it's something to consider if you're planning on visiting one of these places...

RaRa CALENDAR FOR MARCH

- 1 - West Coast Qualifying Run – 10-35 WPM starts at 0500 Z
- 3 - RaRa MEETING – 8:00 p.m.
40 & 8 Club, 933 University Avenue
- 4 - ARRL DX Contest – Phone starts at 0000 Z
- 5 - Genesee Repeater Association – 9:00 a.m.
Sunday breakfast at Perkin's, Jefferson Rd.
- 7 - New Moon
- Partial Solar Eclipse at 1808 Z
- 9 - PACKET GROUP – 7:30 p.m.
111 Westfall Road
- 10 - VHF Group – 7:30 p.m.
111 Westfall Road
- 12 - W1AW Qualifying Run – 10-35 WPM starts at 0300 Z
- 14 - Squaw Island ARC – 8:00 p.m.
Sheriff's Office, 84 Ontario Street,
Canandaigua
- 15 - Kodak Park ARC – 12:00 Noon
1st Floor, Building 28
- Drumlins – 7:30 p.m.
NYS Disaster Preparedness Headquarters,
Route 31, Newark (across from the State
Police Barracks)
- 17 - Happy St. Patrick's Day
RRRA – 8:00 p.m.
Pittsford Town Library
- 19 - Palm Sunday
- St. Joseph's Day
- Genesee Repeater Association - 9:00 a.m.
Sunday breakfast at Perkin's, Jefferson Rd.
- 20 - Spring begins at 1528 Z
- 21 - Purim
RDXA – 8:00 p.m.
111 Westfall Road
- 22 - Full Moon
- 24 - Good Friday
- 25 - Drumlins Hamfest – 8 a.m. to 4 p.m.
Marbletown Fire Hall - talk-in 146.745
- 25,26 CQ World Wide Prefix Contest – Phone
- 26 - Easter Sunday
- 28 - W1AW Qualifying Run – 10-35 WPM starts at 1400 Z

FOR SALE – ICOM IC-290A all mode 2 meter transceiver \$375.00. Call Neal, WB2EKP, 359-2672.

HAM HACKER HELD WITHOUT BAIL

In a rare ruling, convicted computer whiz, Kevin David Mitnick, N6NHG, 25, of Panorama City, California, was ordered jailed without bail. Mitnick has been charged in a three-count federal grand jury indictment with illegally penetrating international computer and telephone systems and causing up to \$4 million in damage.

Among the systems he accessed were those of Digital Equipment Corporation, Leeds University/England and MCI to obtain free telephone use. It is believed that the case is the first in the nation to be prosecuted under a federal 1984 Computer Fraud statute that makes it a crime to gain access to an interstate computer network for criminal purposes.

His attorney, Anthony J. Patti, said Mitnick could be controlled by placing him under house arrest and disconnecting all telephone lines. A federal magistrate denied bond, however, ruling *"It sounds like the defendant could commit major crimes no matter where he is"*. Federal prosecutors obtained a court order restricting Mitnick's telephone calls fearing he might gain access to a computer over jail phone lines.

A chronic hacker, Mitnick has in the past accessed the internal records of the Los Angeles Police Department, TRW and Pacific Telephone and tried to break into the USC system five years ago. His teenage record shows that he served six months in juvenile hall for stealing computer manuals from Pacific Telephone and altering telephone bills ... and for using a pay phone to destroy \$200 thousand worth of computer data of a Northern California company.

Mitnick later penetrated the files of TRW Corporation and altered the credit information of several people, including his probation officer whose telephone he allegedly disconnected with his computer. Mitnick was also found guilty of stealing software under development by Microport Systems but his conviction record mysteriously disappeared from Santa Cruz's police computer files. He earlier held amateur callsign, WA6VPS, General class.

Prosecutors alleged that Mitnick used a computer belonging to a friend, Leonard M. DeCiccio, at his Calabasas, California, work place to intrude on the Digital Equipment network. Mitnick might have gone undetected had DeCiccio not notified DEC's security division in Maynard, Massachusetts, about the invasions into their system. A monitoring device confirmed Mitnick's activities that evening. Mitnick was allegedly examining the system to allow him to identify persons having

legitimate access so he could further infiltrate the system, according to the complaint. DEC said it had lost about \$4 million because its 30,000 unit system had been the target of numerous breakins over the past year. A search of Mitnick's car turned up confidential DEC documents and he was carrying a list of 14 MCI network access codes when arrested on December 9.

Mitnick is also charged with stealing a DEC security software program valued at \$1 million from a Boston computer. Assistant US Attorney Leon Weldman said he did not know what Mitnick intended to do with the program but he could have tried to sell it. A second charge accuses Mitnick of unauthorized use of MCI telephone lines to get into the computer at Leeds University in England.

More new evidence turned up last week indicates that Mitnick has penetrated the computer files of the nation's ultra top secret National Security Agency where he obtained telephone billing data. There was no evidence, however, that Mitnick has accessed their classified data files.

A Los Angeles newspaper report said that he may have planted a false story on a financial news wire that was released in the New York Stock Exchange about an astronomical \$400 million loss at Southern California's Security Pacific Bank. The story could have caused catastrophic damage exceeding that figure to the bank had it reached investors. Due to a *"coding error"* the hoax was uncovered before that could happen and the report not further circulated to newspapers. Mitnick had been turned down for a job at the bank just four days earlier for lying about his criminal record.

The Los Angeles Police said *"He's several levels above what you would characterize as a computer hacker. He started out with a real driving curiosity for computers that went beyond personal computers. He grew with the technology"*. The LAPS reported that Mitnick has tried unsuccessfully for years to get a job as a computer-security expert. Apparently no one put any stock in his ability. Mitnick, who was on 36 months probation in connection with the December 1987 Santa Cruz computer fraud sentence, now faces up to 20 years in prison and a \$750,000 fine if convicted on the new charges. He was arraigned on December 27.

de W5YI Report via Groundwave

ROCHESTER HAMFEST

MAY 19-20-21, 1989

THE RaRa RAG 20 YEARS AGO —

MARCH 1969

by Ed Gable, K2MP

The March 1966 RaRa meeting was announced as a joint gathering with the Kodak Communications Club to be held at the Farm and Home Center. Bill DeWitt, W2DD, will be the guest speaker informing us of the history and then current status of FCC licensing and examinations. Bill is well prepared to speak on the subject as he has passed all of those examinations!

At the last RaRa meeting significant changes were made to the By-Laws to form the Board of Directors of which the President is the Chairman. Still in use today, that restructure allowed certain tax and other benefits. February saw the 8th annual Valentines Dinner Dance with a great time had by all. Bob (WB2RVV) and Susan Gross chaired the event while the founder, Cappy Capauldy, K2UXF, recovered from an illness. From nearby Brockport, Jim Knapp, W2AFQ, was honored by the US Navy and the men of the USS Forestal for his service to them in running phone patches to their families. Named to the nominating committee were Linc Cundall, W2QY; Wally Kincaid, WB2HZG; and Bob Pavlock, WA2ECD. Bruce Kelley, W2ICE, completed his four part series on the history of RaRa. This portion covered the post war era with many "firsts" reported including first Field Day, first RDXA meeting (1947), first VHF Group meeting (1949), the first RaRa Rag (1948), and the formation of the AWA (1954). This series makes excellent reading even today.

The May Western NY Hamfest and VHF Conference was already shaping up well with an announcement of Mr. Ed Tilton, W1HDQ, QST's VHF Editor, as the Hamfest Guest of Honor. The May 10th Hamfest was scheduled for Bristol Fifty Acres, Route 15. Advance registration and banquet tickets were available for \$5.00 from Ticket Chairman Bob Lozen, WB2ERE.

Adirondack Radio Supply of Amsterdam, NY, continued as a long time advertiser.

CAR PHONE CONVERSATIONS

In a recent New Orleans court case, a mobile telephone user sued a radio operator for taping a conversation the ham thought was about criminal activities and giving the tape to the FBI. The court ruled it is not reasonable to expect privacy on a car phone conversation that can be picked up by anyone's radio receiver scanner.

Tnx World Radio, via METROPLEX

THE WINTER WATCH

As winter is finally here, it behooves us to watch the waist line, since many of us sit for hours in front of the rig instead of shoveling snow or jogging. The following is a list of rules that may help you adjust your caloric intake.

1. If you eat something and no one sees you eat it, it has no calories.
2. If you drink a diet soda with a candy bar, the calories in the candy bar are cancelled out by the diet soda.
3. Food used for medicinal purposes NEVER count, such as hot chocolate, toast and Sara Lee Cheesecake.
4. Movie related foods such as Milk Duds, buttered popcorn, Junior Mints, Red Hots and Tootsie Rolls, have no calories since they are part of the entire entertainment package and not part of one's personal fuel.
5. Cookie pieces contain no calories. The process of breaking causes calorie leakage.
6. Things licked off knives and spoons have no calories if you are in the process of preparing something. Examples are peanut butter on a knife while making a sandwich and ice cream on a spoon while making a sundae.
7. Foods that have the same color have the same number of calories. Examples are spinach and pistachio ice cream, mushroom and white chocolate. Note: Chocolate is a universal color and may be substituted for any food color.

Tnx to the Chattering Relay and WA8VSY via RF-CARRIER

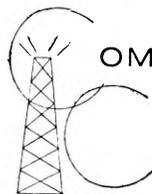
ROCHESTER HAMFEST

MAY 19-20-21, 1989



W2YJ

AMATEUR RADIO REPAIRS
ALL MAKES OLD/NEW
BUSINESS 2 WAY SYSTEMS



COMMERCIAL

COMMUNICATIONS

3654 BOWEN ROAD
LANCASTER, NEW YORK 14086

GEORGE L. KRICKOVICH
Advertisement

(716) 684-3562



AMATEUR RADIO SCHOLARSHIPS

The Foundation For Amateur Radio, Inc., a non-profit organization with headquarters in Washington, D.C., plans to award thirty-two (32) scholarships for the academic year 1989 - 1990 to assist licensed Radio Amateurs. The Foundation, composed of fifty local area Amateur Radio Clubs, fully funds four of these scholarships with the income from grants and its annual Hamfest. It administers, without cost to the donors, seven (7) scholarships for the Quarter Century Wireless Association, five (5) for the Baltimore, (MD) Amateur Radio Club, three (3) for the Radio Club of America, and two (2) each for the Dade (FL) Radio Club, the Amateur Radio News Service, the 10-10 International Net, and the West Allis Radio Amateur Club of Milwaukee. It also administers one (1) each for the Richard G. Chichester Memorial, the Young Ladies' Radio League, the Columbia (MD) Amateur Radio Association, the Frederick (MD) Amateur Radio Club and the Vienna (VA) Wireless Society.

Licensed Radio Amateurs may compete for these awards if they plan to pursue a full-time course of studies beyond high school and are enrolled in or have been accepted for enrollment at an accredited university, college or technical school. Some of the scholarships require the holding of at least an FCC GENERAL Class license or equivalent. The awards range from \$500 to \$2000 with preference given in some cases to residents of specified geographical areas or the pursuit of certain study programs.

Additional information and an application form can be requested by letter or QSL card, post-marked prior to May 31, 1989 from:

FAR Scholarships
6903 Rhode Island Avenue
College Park, Maryland 20740

The Foundation for Amateur Radio, incorporated in the District of Columbia, is an exempt organization under Section 501(c)(3) of the Internal Revenue Code of 1954. It is devoted exclusively to promoting the interests of Amateur Radio and those scientific, literary and educational pursuits that advance the purpose of the Amateur Radio Service.

DIGITAL PAPER

Get ready for what could be the next revolution in data storage: digital paper. Developed by a British firm, this new material may provide the foundation for a number of inexpensive optical storage devices.

Digital paper is a simple, yet potentially revolutionary, medium for storing information. It looks like ordinary, blue tinted paper. However, when struck with a tiny dot of laser light, the paper undergoes a chemical change that causes the area under the dot to turn red. Millions of these dots can be placed on a square inch of digital paper. The dots can later be read back by the same laser down to a lower intensity.

Digital paper storage is similar to Write-Once Read Many (Times) Compact Disks (CD-WORMS) which are also encoded and read back with tiny lasers. However, CD-WORMS are expensive and difficult to manufacture whereas digital paper can be produced for only pennies per square foot. Moreover, because digital paper is thin and flexible, it can be used to make not only optical storage disks, but optical storage tape as well.

What will digital paper mean to personal computer users? It may mean that for about the price of a standard 40 megabyte hard disk you'll be able to buy a 500 to 1,000 megabyte digital paper disk. The one drawback of the digital paper disk is that it won't be erasable so that every time you want to change a file on a disk you'll have to store a new copy of it. However the digital paper disk will be removable making it relatively easy to store hundreds of gigabytes of data.

Watch for Iomega of Roy, Utah, to introduce the first digital paper disk system in the 1989-91 time frame. Iomega has the exclusive U.S. license to develop disk systems based on digital paper. Its first paper disk will look similar to its current Bernoulli cartridge, packaged in a five-inch square, 1/2 inch thick plastic cartridge. Iomega expects this first product to store 500 megabytes per cartridge and retail for about two to three thousand dollars.

*de Boston Computer Society
by way of TELEPARC,
Pioneer ARC (Ottawa)
via Groundwave*

Advertisement

HEATH/ZENITH

Zenith - Apple - Heathkit - Epson
Computers - Printers - Software - Accy

AMATEUR RADIO ACCESSORIES
Heathkit - Cushcraft - ARRL
Ameco - Van Gordon

(716) 424-2560
937 Jefferson Road Rochester, NY

TRICKS FROM ANTENNA "Hill":

This product is so useful for radio hams, it has to be shared.

"White Plastic Rubber" a DURO product

Why does a radio ham want a product that repairs rubber, canvas and fabric for his antenna? Read on, - "antenna artist", read on.

This package says this item insulates and seals things. "Things" can also mean the exposed terminals of your antennas. It is not brittle, and does not crack apparently. It bonds to glass, fiberglass and copper, wood, concrete and metals such as aluminum- stainless steel- copper. These materials are all common to your antennas and mine. (Well, - I have made some antennas that behaved like concrete haven't you?)

The recommendation to use this product came from the VHF/UHF grapevine. And the stuff is great!

Let's say that you have a mobile antenna with a Larsen magnet base that the winter salt keeps invading. The next time you tear down the base to clean those connections, (and re-new the coax too), consider this product as part of your fix. When you are done with the coax and solder work, you turn the box up-side-down to be sure the flow of this stuff seeps all over. Follow the product directions to clean the surfaces. Scrape, scrub or sand the inside of the box. Apply the product from the tube. Allow an overnight dry-time especially on an up-side-down application.

Then also try it on that beam, use either a new one or a cleaned up old one. After you finish the rf feed point connections see that this stuff is applied. You can pour it or apply it by hand. If you have a satellite beam like a KLM with a polarity switching circuit board you can pour this over the circuit board rather than build a small house for it. For a mast mounted pre-amp, use the product to seal the box seams, but leave a bottom hole for diurnal pumping to occur.

I use hardline to feed my vhf/uhf beams. At the top I have a short section of small flexible coax (RG-58) to form the rotator turning loop. Two years ago I used the **Duro White Plastic Rubber** to keep moisture from following the small coax into its connector. After two years its still tight and flexible.

I see no reason this product could not be used on wire antennas to keep moisture from the feed-line.

You can see that I think this is a neat product. But, I do want you to be fully aware this is a product for wary adults only. By that I mean it's made of some powerful stuff. It contains Methyl-

ethyl-ketone and Heptane. Do not swallow. Do not rub it in or near your eyes. Do not inhale it. And, it's inflammable too. So watch out how you use it.

I found my present 3.5 fl. oz. tube at Wegmans for \$1.50. Go get some so the store think its hot and they order more. "Duro" is a TM of "Loctite Corp." Loctite Corporation Automotive and Consumer Group.

-- Dwight B. Hill, K2KWK



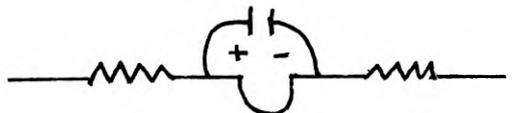
DID YOU KNOW?

The National "Schmoe" character, known to every military electronics specialist in the 1940's (and the one depicted in NARTE's "Where are you?" headline), originated in an ROTC Radio and Telecommunications classroom in 1938.

A class handbook illustrated two shunts, on a line with two resistors.

When the polarity of the lines was added, it became the "Winking Schmoe" and eventually represented the fields of Radio and Telecommunications for an entire generation.

The title of the lecture was "Standard Communications Hardware for Measurement of Error" - so the students promptly dubbed the accidental cartoon "SCHMOE".



"SCHMOE"

MICHAEL G. RICE

(KB2SG)

Attorney At Law

Land Use/Zoning Personal Injury

Real Estate Matrimonial

Wills/Estates Criminal/Traffic

Social Security Claims

Evening Hours

(716) 454-6000

Advertisement

RDXA SNAGS CUP AND WB2SUN WINS FM ONLY

The Rochester DX Association had a special meeting just prior to the contest weekend and came up with a plan to inspire its members to participate in the VHF sweepstakes and it worked to perfection as they led all clubs in this area's competition for the Rochester CUP sponsored by the Rochester VHF Group in the 1989 VHF sweepstakes held the weekend of the 14th and 15th of January. The 34 member low band DX club entered 13 logs (39%), logged 2,875 QSO's and had a total score of 308,388 led by single-op station **K2OS** and won 4 out of 5 categories and they were awarded 49 out of a possible 50 points to capture the CUP for the first time. One could tell they wanted to win very much as no less than 3 of their members (**KB2WN**, **K1JUL**, **N2HKD**) went grid hopping to show the local VHF FM repeater regulars what the low band boys know about contesting. In fact Fred **KB2SE** worked with a multi-op team half of the weekend and went home and logged 100 QSO's. The big surprise was the Xerox ARC taking second from RaRa, winners the previous two years and pushing them back into third place. The xerography group entered 9 logs with 944 QSO's and a score of 42,693 as Ev **WB2ELB** had 31,185 and FM King **WB2SUN** led the way with 27% of their club turning in logs. **N2HXJ** was the top gun for RaRa running QRP and QSO'ing his way to a fantastic score of 21,831. As usual RaRa submitted the most logs, 21 to earn 10 points in that category with a score of 99,470 and the highest number of QSO's with 3,010. But with only 2.8% of their club participating things started sliding down hill after that for the largest club in the competition. Squaw Island ARC finished 4th led by **WB2JLR** with 38,136 and RF Harris Corp ARC in 5th as their multi-op club station **WB2PSI** had 110,396 and single-op Al **K2SPO** added 17,990. A real nice effort came out of Honeoye from Len **WA2ZNC** with a score of 25,690 to pace **RRA** with 11 logs, 1628 QSO's and a score of 57,395 for a 6th place tie with **GRAM**. Bruce **WA2TMC** was the Kodak ARC top dog with a very nice score of 62,068 but with only 2.1% of the club operating they finished 8th. **K2AN** was the top point producer for **GRAM** out of Batavia and the Rochester Amateur Packet Society (**RAPS**) rounded out the field of clubs that qualified. A club needs a minimum of 3 logs to qualify.

In the FM only category Pete **WB2SUN** took the first place plaque for the third straight year with 200 FM only contacts beating out **KD2KQ**

with 170 and **N2HKD** in third with 121. The top scoring YL trophy goes to Helen **WA2YPT** of RaRa who beat out Billie **WB2FNF** of the Genesee Repeater Association. I would like to thank all who participated and especially those that took the time to send in a log. A total of 76 logs were submitted for 12 local clubs. Last year 34 logs for 6 clubs were submitted. I hope everyone enjoyed the contest. To everyone that got on to hand out contacts the Rochester VHF Group thanks all of you for helping us break an all-time club scoring record with 1,127,992 points. We won't know how we did on the national scene till May. I will keep you posted. Listed below are the scores and some of the award winners from the compiled results. If you have an * after your call you have a nice award coming and awards will be presented to all winners on April 8th at the Rochester VHF Group Awards Banquet. Tickets are available from Wayne **N2WK** 477-3692 days or 247-7283 evenings.

—de Not 2 Well Known

CLUB AND SINGLE-OP SCORES

CLUB	NO LOGS	RAW SCORE	MEMBERS % PART.	SCORE % PA	QSO'S % P	TOTAL PTS	PLACE FINISH
RARA	21	99,470	2.8%	2,793	84		
---pte---	10	47	+5		+5	=34	3rd
RDXA	13	308,388	39%	120,271	1121		
---pte---	9	+10	+10	+10	+10	=49	1ST
RRA	11	57,395	4%	2,296	65		
---pte---	8	+5	+7		+4	=30	6th
XEROX	9	42,693	27%	11,527	255		
---pte---	7	+4	+9		+9	=38	2nd
SIARC	6	38,990	20%	7,798	101		
---pte---	6	+3	+4		+8	=33	4th
RF ARC	3	144,181	3%	4,325	30		
---pte---	5	+9	+6		+5	=32	5th
GRAM	3	126,835	3%	3,805	30		
---pte---	5	+8	+6		+5	=30	6th
KPARC	3	64,026	2.1%	1,945	12		
---pte---	5	+6	+4		+4	=22	8th
RAPS	3	1,316	1.6%	21	3		
---pte---	5	+2	+3		+3	=15	9th
MCC	2	61,451					
---pte---	N/A	N/A					N/A
GRA	2	2,820					
---pte---	N/A	N/A					N/A
DRUMLINS	1	11,032					
---pte---	N/A	N/A					N/A

FM ONLY CLUB	FM QSO'S	JAN 1989	TOP YL	CLUB	SCORE
WB2SUN * XEROX ARC	200		WA2YPT *	RARA	2958
KD2KQ * RARA	170		WB2ENE	GRA	2130
N2HRD RDXA	121		WA2JRE	RRA	1725
KA2QNT GRA	115		KB2CHV	RARA	1272
K1JUL RDXA	102		WA2NFY	RARA	90
KB2SE RDXA	100				
KB2WN RDXA	99				
N2EVG RARA	96				
WA2NFY RARA	96				
K2ZC RDXA	88				
W2DHW RRA	85				
KB2NU RDXA	85				
KB2DI RAPS	84				
N2JD RRA	82				
W2PHT RDXA	76				
N2E2S XEROX ARC	75				
WA2HYG RRA	65				
N2JLH XEROX ARC	58				
KA2YBJ RARA	57				
KD2LZ XEROX ARC	51				
KJ2P RARA	30				
N2HXK SIARC	28				
KA2AAP RARA	28				
K2ANC XEROX ARC	20				

SINGLE-OP CLUB	SCORE
WA2TMC *	KODAK PARK ARC 62,068
KB2SE	ROCH IS ASSOC 40,180
WB2JLR *	SQUAW IS ARC 38,136
WB2ELB *	XEROX ARC 31,185
NH2J *	MCC ARC 31,040
K2AN	GRAM 28,341
WA2ZNC	RRA 25,690
N2HXJ *	RARA 21,831
K2SPO	RF HARRIS ARC 17,990
K2PZ	DRUMLINS 11,032
WB2FNF	GENESEE REPEAT 2,130
KB2DI	ROCH STACKING SO 1,316

ROCHESTER CUP STANDINGS

ROCHESTER CUP	PLACES	TIE
1 RDXA *	6 RRA	TIE
2 XEROX ARC	6 GRAM	TIE
3 RARA	6 RPARC	
4 SIARC	9 RAPS	
* AWARD WINNERS		
5 RF HARRIS		

FOR SALE – 2 Meter Handheld IC-2AT with charger and spare battery – \$125; Heathkit HX-30 SSB 6 Meter 10 watt Exciter and Matching 100 watt Amplifier HA-20 – Mint Condition – \$180; Motorola Motrac (Bus Radio) 6 Meter FM, 2 frequencies crystallized – \$60; Heathkit SB-104A HF 100 Watt Digital read-out Transceiver with matching 20 Amp. SB-604 Power Supply – \$300; Monochrome Monitor ZVM1240, 12 inch screen, new – \$125. Call Ed, K2RHS, or Lee, WA2YEK, at 716-889-2536.