

The Minuteman



Volume 12 Number 4

The OFFICIAL NEWSLETTER of the MINUTEMAN REPEATER ASSOCIATION

March 1984

MEMBERSHIP MEETING

DATE

Monday, March 19, 1984.

PLACE

Campion Center, Concord Rd., Weston (see

map).

TIME

7:30 PM, doors open at 7:00 PM for socializing.

FEATURE

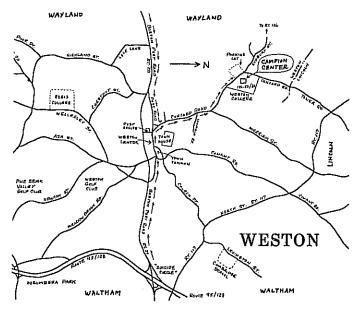
Jim Morris, KIUGM, a trustee of the 88 machine, giving his ZAP direction funding program.

RAFFLE Be

Be sure to buy your raffle tickets early and

often.

REFRESHMENTS Free coffee and doughnuts.



PRESIDENT'S CORNER

In January during blizzard conditions, I had to make a split second decision and cancel the Membership Meeting.

I could feel the pulse of the membership telling me to reschedule this meeting. We did just that and the meeting was a resounding success as to attendance, response to the guest speaker and the enjoyment of the membership. The speaker was dynamic in his delivery and covered a lot of territory in a brief period. This allowed us to present some technical insight to the membership of what is meant by a remote receiver site. I was delighted by the interest of the members in the working of a repeater and when the questions became really technical, Bob Wilmarth, WICMR bailed me out. Although I am not a technical person by training or profession, I have acquired some knowledge of repeaters and their operation while serving on the Board since 1978.

They say a little knowledge is a dangerous thing and I had assumed that everybody knew a lot about repeaters.

It appears that this little session with questions and answers about repeaters and their operation was well received by the membership and perhaps in the future, as time permits, we will be able to have more miniseminars. We would like your input as to whether or not you would like this. Let us know by dropping a line or telling Board members on the air. We ordered the new transmitter and two receivers for 146.22/82 repeater which is the first step in up dating our equipment and for the link to Arlington.

At the same time we ordered the new transmitter for the 450 MHZ machine. We have been able to come in under budget by obtaining an amateur discount on this equipment. The total price of the two transmitters and two receivers, assembled and ready to go with crystals in die cast aluminum cases was under \$926.82. Both transmitters were not bare bones variety; each contained an amplifier and was complete in every detail. We expect April delivery and you should reap the benefits of this perhaps in May.

We should be very proud of our HAM classes, and the excellent teachers. The Chairperson (also an MMRA Director) Frank Comfort, KOlM and his staff have put in an awful lot of time and

effort in this educational process.

Your support in directing prospective students to these classes will be of benefit to the organization and to HAM Radio in general. There is almost no growth in HAM Radio and the danger of losing young people who would normally be interested in communications to the computer with telephone modem services lurks ever present.

I preach the necessity of paying dues and supporting repeaters because of the ever shifting HAM population in our area, and we always need new blood to allow us to keep upgrading and improving repeater service despite inflation at the same dues structure enjoyed for some ten years. Our goal is to continue this as long as possible; we ask only that you support us both with your dues and bringing in new members. Many new members can be obtained via the Amateur Radio educational classes.

Don't forget the March 19th meeting — show us your support by your attendance, meet your old friends and the face behind the call of new friends and have a little fun at the same time. After all isn't HAM Radio and especially repeaters supposed to be a pleasurable hobby?

In parting, the upcoming horror of the reconstruction of the Southeast Expressway will put a heavy burden on Quincy Civil Defense. We are allied with them and HAMS in the South Shore area can contact the Civil Defense Headquarters in Quincy and telling the Secretary of your willingness to be of assistance. You need not be a Civil Defense member to give a little time or be available in the event of an emergency.

73 De KAIAL

SUNDAY, APRIL 29 - SECOND ANNUAL RUN-OF-THE-CHARLES

The Charles River Watershed Association liked the job ham radio did last year in making sure the participants in their 41-mile canoe race came through safely. They want us again. Stew Johnson, WIUVE, is coordinating the job. The main effort will be on 2 meter repeaters, but we can use anyone with 220 gear or packet capability as well. Full details, as they develop, will be on the Public Service Net, Tuesdays at 1930 on 146.82.

1983-84 MEETING DATES

MONDAY - MAR. 19 - WESTON TUESDAY - MAY 15 - WESTON

THE MINUTEMAN REPEATER **ASSOCIATION**

The Minuteman Repeater Association is an organ-ization dedicated to the promotion of amateur radio activities through the use of UHF and VHF Frequency Modulation techniques; to encourage participation in the Radio Amateur Civil Emergency Service (RACES) of the Commonwealth, or any county or town therein, and the U.S. Government; to develop, utilize and coordin-ate amateur radio repeater systems as licensed by the Rederal Communications Commission: to assist Civil Federal Communications Commission; to assist Civil Defense and other units of government in the field of communications as the need may arise; to sponsor any endeavor or engage in any other non-profit purposes for and in behalf of the membership of the Association, which is consistent with the provisions of Internal Revenue Code, section 501 (C)(7).

The MMRA owns and operates four two meter repeaters, one 220 repeater and one 450 repeater:

Marlboro 146.01 444.50 146.115 - 449.50 .715 Stoneham .67 Quincy 146.07 222.80 - 224.40 146.22 .82 Weston

All general correspondence and inquiries regarding membership should be addressed to The Minuteman Repeater Association, P.O. Box 2282, Lexington, MA 02173.

BOARD OF DIRECTORS

PRESIDENT

Alan Kunian KALAL 47 Carl Road Holliston, MA 01746 (W)879-2992 (H)429-2906 VICE PRESIDENT

Gene Piken WEHAP 32 Elm Street Medfield, MA 02052 (W)964-8820 (H)359-7686

SECRETARY Evelyn Benson KA1BBN 237 West Street Reading, MA 01867 (H)944-1020 TREASURER

William Shaughnessy KB Arlington, MA 02174 KB1 DY 49 Grafton Street (W)861-6600 x2364 (H)643-0575

Charles Hanson WAlYRQ 245 The Va Concord, MA 01742 (H)369-9362 245 The Valley Road

BOARD MEMBERS

JAKU MEMBERS
Earle Benson WIHXF Reading (H)944-1020
Frank Comfort KOlM Medford (H)396-8458
Thomas Holmes WALZID Randolph (H)961-3156
Gerald Horne KIGOI Stow (H)897-3996 or 7146

Board meetings are held the first Wednesday of the month (except July) at 7:30 PM at 326 Union Avenue in Framingham

THE MINUTEMAN

THE MINUTEMAN, the official Newsletter of the Minuteman Repeater Association, is published six times a year. The purpose of the Newsletter is to keep its members informed on meetings, special events and actions of the officers and membership. It is also to serve as a source of technical information written by its members and to list eqipment offered for sale. Letters to the Editor are strongly encouraged, and they must be signed. Names will be withheld upon request, Material for The MINUTEMAN should be sent to the Editor, William Shaughnessy, KBIDY 49 Grafton Street, Arlington, MA 02174

PUBLIC SERVICE NET Tuesdays - 7:30 PM on 22/82 Traffic or comments

SATELLITE NET Wednesdays -- 8:00 PM Information and discussion

APPOINTMENTS FOR THE YEAR 1983-1984

Trustees of repeaters

-61 -67

of repeaters
Steve Tolf KIST (H) 366-7636
Joe Devin, Sr. WIMWF (H) 782-8893
Bill Sencabaugh KIUAQ (W) 942-0100
Bill Wade KIIJZ (H) 891-9079
Tom Holmes WAIZID (H) 961-3156
Fred Campbell WELFAE (H) 485-7935 -715

-82 -220

-450

Public Service

Quin Spear KlZFH (H) 481-0052

Communications

Newsletter Editor

Bill Shaughnessy KBLDY (W) 861-6600 x2364 (H) 643-0575

Newsletter Production WALYRO

Charlie Hanson (W) 495-7328 (H) 369-9362

Technical Coordinator

Bill Wade Klijz (H) 891-9079

Meeting Arrangements

Earle Benson WilhXF (H) 944-1020

Data Processing

Al Hamilton AGIF (H) 922-3307

Education

Frank Comfort KOlM (H) 396-8458 Microprocessor and New Tech Projects George Downs WICT (H) 899-4794

Direction Finding

Mort Grant WLJSH (H) 657-7940

Ombud sman

Gene Piken WHIHAP (H) 359-7686

Raffle

Gerry Horne KLGOI (H) 897-3996 or 7146

WELCOME TO NEW MEMBERS

Wlace	Charles	Quincy
NLAPE	Harold	Littleton
NTBAN	Leo	Milton
NICLN	Paul	Woburn
NICVI	Ronald	Quincy
KBLEN	Gary	Brookline
NLER	Anthony	Bedford
KALGLH	Ralph	So. Weymouth
KALLDX	Tom	Stoneham
WALMFG	Dan	Wollaston
KLNIP	Dave	Holliston
WALRNM	Carol	Needham
WALSCH	Bob	Millis
WB7VJK	John	Bedford
WA2VST	Ira	Newton

HERE and THERE

Last chance for nominees for MMRA Officers get your nomination in to the Secretary ASAP.

The Marlboro 61 repeater has exceptionally good ears but has a weak voice. The current duplexer can handle 35 watts output but fails in the higher range. Be prepared to appropriate (fromexisting funds) \$850 for a new 6-cavity set of "cans" at the March 19th meeting. When this unit is installed, 61 can resume its normal output of 200 watts.

Soon there will be another 220 repeater on the air. Gary Johnson, WA1QMI, owns a new unit which he hopes to install at the Marlboro 61 location under the umbrella of MMRA. It would be an open machine available to anyone, with an operating frequency of 222.34 in and 223.94 out. And so MMRA continues to grow.

EDITOR'S CORNER

Well, here we are in March and just coming off a warm and wet February. For the first time in ages the MMRA will be holding membership meetings two months in a row. This is a result of the January postponement.

The February meeting was a big hit. Officer Bill Connell of MDC traffic copter fame provided us with an insight into the hectic traffic picture. Too bad Bill had to cut it short and hit the sack early. After all, he is up and flying before most of us are out of bed.

To change the subject a bit, I've been on the soap box in the last few issues about the influx of computer hackers on our repeaters. While my editorials have brought a snicker of amusement to some, they have not made a dent in the floppy disc peoples' corner. OK, I give up! I'm offering all you bits and bytes people that inhabit our prime time to put your expertise on paper. If you are interested in writing a column for the MINUTEMAN, here's your big chance! It doesn't have to be anything big, just a chance to exchange views and tips with other computerphiles. Drop me a line, my electronic mail box is out of order.

KBIDY

DF EQUIPMENT

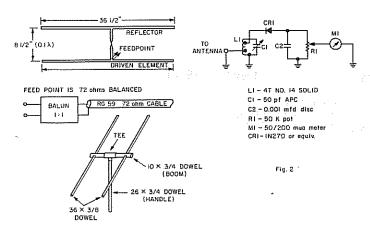
The winter months offer you an excellent opportunity to gather the necessary parts and build the equipment you will need to join us in transmitter hunting. The basic equipment includes: a ZL special direction-finding antenna, a receiver with a 146.31 MHz crystal installed, a field strength meter and an attenuator.

Construction details of the ZL special are shown in Fig. 1. This antenna is ideal since it has a cardioid pattern with about 3-1/2 db forward gain and a sharp null off the back. It has two 300 ohm twin lead, half-wave elements, about .1 wavelength apart, strung out on dowel supports. Spacing is about 8-1/2 inches and the elements are driven 135 degrees out of phase, resulting in a near perfect cardioid pattern. The feed point impedance (in spite of the elements being folded dipoles, which ought to result in about 300 ohms) is about 72 ohms, balanced. The impedance is changed from balanced to unbalanced with a balun coil mounted directly at the feed point. You may wish to try the bazooka balun which several of our hunters have used. RG-59/U is used for the feed-line and length is unimportant. Slip a length of shield braid over the vinyl covering of the cable and connect it to the cable shield 1/4 wavelength from the feedpoint. The opposite end, near the feed point, is not terminated; but, the shield must cover the feed-line up to this point. Additional details will be found in the ARRL Antenna Book and the FM and Repeater Handbook.

A field strength meter is desireable once you get near the hidden transmitter. Usually, the S-meter on your receiver will be pegged and become useless close to the transmitter. The field strength meter is less sensitive and includes a means of attenuating the signal from your DF antenna. The schematic for a simple meter is shown in Fig. 2. If you want to build a more sophisticated version, check the FM and Repeater Handbook. In it you will also find construction details for a VHF attenuator. An attenuator is handy for getting in a little closer to the hidden transmitter while still using your highly selective receiver.

still using your highly selective receiver.

Get your equipment together and join us next season. If you have questions, ask some of the hunters mentioned in Will Gregson's article. We'll be looking forward to having you with us!



COMING EVENTS

March 17, Saturday - The Interstate Repeater Society will hold a Flea Market at the Hudson Lions Club, Hudson, NH. Admission is \$1.00. Tables are ????. Talk-in on .25/.85 or .52 direct. Food available.

March 18, Sunday – Second annual Insurance City Club Flea Market will be held at the Farmington Youth Center, 66 School Street, Unionville, CT. Talk-in on 146.28/.88 and 147.15/.75. Admission is \$1.00. For reservations call Chuck K1FDS at (203)747-6377.

April 1, Sunday — The Framingham Amateur Radio Association will hold its Annual Spring Flea Market at the Framingham Civic League Hall on Concord Street (Rt. 126) in Downtown Framingham. The Civic Hall is located on the corner of Sanger and Concord Streets, one block south of Dunkin Doughnuts. Doors open at 9:00 am for sellers and 10:00 am for buyers. Admission is \$2.00. Tables are available in advance for \$8.00?? Write The Framingham Amateur Radio Assoc., P.O. Box 3005, Framingham, MA 01701. Talk-in on 147.15/.75 and 146.52 direct. Food available.

April 7, Saturday - The Great Bay Radio Association will hold its Third Annual Hamfest-Flea Market at the Somersworth Armory, Somersworth, NH. From 9:00 am to 3:00 pm. Antique radios and computers will be on display. Food and Refreshments available. Free parking. Entrance fee \$1,00 per person. For advance reservations and further info, call Dick Sedgewick, NIEX at (603)742-3703. Or write Great Bay Radio Association, Rt. 16, Dover, NH 03820. Talk-in on 146.52 or 147.00. Doors open at 8:00 am for set up.

April 14, Saturday — The Wellesley Amateur Radio Association will hold an Auction with Bargain Table at the First Congregational Church, 207 Washington Street (Rt. 16), at the intersection of Rt. 9, Wellesley, Mass. Check-in starts at 10:00 am. Auction starts at 11:00 am. Club Commission is 15%, with a \$1.00 min. and \$30.00 max. There will be a bargain table for less expensive items where a straight 15% commission will be charged. Talk-in on 147.63/.03. Food and drinks available. For more info contact Nels Anderson, KIUR, at (617)872-5259.

FLEA MARKET

Celebrating its 53rd year in Amateur Radio, the South Shore Amateur Radio Club of Braintree, Mass., will hold an indoor flea market on Sunday, April 29, 1984 at the Viking Club, 410 Quincy Avenue, Braintree, Mass., from 11 am to 4 pm. There will be eight-foot (8'), tables available for \$10. each (which includes 1 free admission per table), and paid for in advance by sending the appropriate amount to Ed Doherty, W1MPT/236 Wildwood Avenue/Braintree, Mass. 02184. Checks should be made payable to the South Shore Amateur Radio Club. Confirmation of check receipt will be sent. No cancellation refund after April 25. The Viking Club will open to vendors at 9:30 am. Doors open to the public at 11 am with an entrance fee of \$1. which includes 1 chance toward the door prizes. Additional chances may be purchased 3 for \$1. Winners do not have to be present to win. Plenty of parking. We'll run, rain or shine! We sold out all tables last year so don't be disappointed; first come, first served. Questions?? Call (617)843-4431 (Ed, W1MPT), evenings.

NEVER SAY DIE

Wayne Green has submitted a petition on the FCC which asked for periodic code retesting every two years. The petition also requests that the test have a requirement to demonstrate a proficiency of at least five words per minute faster than the last time, until you reach 30-35 wpm. — are you kidding, Wayne?

So far, no comment from FCC. All this editor can say to that is, ------, Wayne

* Written at 35 wpm.

- Editor

BLUE RIBBON CORNER

Katy did it! A big blue ribbon to Katy, KAIKEH, XYL of Tom, NIAZM for moving up to General from the Novice class. And isn't Tom proud of her!

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