



HAM HUM

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Dues-Annual Basis

(Due and Payable each January 1.)

New member initiation fee ... \$ 1.00

Regular member \$10.00

Regular member and spouse . \$12.00

Student member \$ 4.00

NEXT MEETING

WHEN: FRIDAY, October 9, 1981

TIME: 7:30 P.M.

WHERE: DOUGLAS/SARPY COUNTY CHAPTER
AMERICAN RED CROSS
38th AND DEWEY AVENUE
OMAHA, NE 68105

PROGRAM: SALUTE TO THE AK-SAR-BEN AMATEUR RADIO
CLUB'S PAST PRESIDENTS.

THE PREZ SEZ

The meeting was great and the program super. Too bad we had to miss the second film, but the hour was getting late. Maybe another time. Thx to Lou WØLVI we saw how "The Electron Tube Was Born". Tnx again, Lou.

I won't mention the Septemberfest (you will read about this further back and see a list of those that helped, and also helped in the ski tournament and marathon), except to say that it was a success because of just a hand full of people who worked long and hard to pull it off. A BIG Thx to Mitch NØAZF and Ed WDØHBY and a fine crew.

In October we will honor the Past Presidents. We have them scattered from Maine to California so they will not all be here. I hope to hear from those out-of-towners that can't make it and will read these at the meeting. Hope we will have a large turnout so we can show our Past Presidents how much we appreciate their efforts.

Also further back you will read about Handi-Help. Tnx to Andy W9MEI. He has volunteered to help the handicapped in any way he can. So, if you can use any kind of aid, let him know.

73's

De Jim WBØJPN

What I need is somebody to make me do what I can.

-Emerson

NEW FEATURES ON LOCAL REPEATER

John Gebuhr WBØCMC

The Benson repeater has a new permanent addition. It had the feature about 2 years ago for a few months but on the Saturday of Septemberfest it was made permanent.

The new feature is a 147.60 receiver located at 35th and Cuming overlooking all of downtown Omaha and Florence. Its main purpose is to improve hand held coverage in those areas. To the date of this writing it has certainly done it.

Generally speaking, if you are east of 36th Street in Omaha or in Council Bluffs and wish to use the Benson (147.00) repeater, it will work best if you use a +600 KHZ offset on 147.6 rather than 146.4 which is a -600 KHZ. (-600 will

continue to work as it always has).

The next addition planned is a higher power transmitter to better penetrate the areas where it is now weak. 147.0 now runs 6.5 watts and will eventually be about 30 to 35. The 220 side of it runs 10W.

Currently, if a station has a 10 to 15 watt transmitter, he can get into the repeater on 146.4 about as well as he can hear it.

For those listening to the repeater, they can tell which of the inputs a station is on by the transmitter hang time. 147.6 is about ½ second, 146.4 is about one second and 222.34 is nearly 2 seconds.

It remains my intention and

wish that the entire system be open and free to use by all amateurs who hold a Tech or higher license.

The only thing I ask and require is that minimum legal requirements be observed.

Those most commonly infringed are: NO call sign on the first transmission (Kerchunkers) and only one call sign on clearing.

When one clears a QSO, autopatch, or on completion of using a specific feature of a repeater he **MUST** give his own call **AND** at least one other call sign. This may be the repeater's call in the case of a QSO but in the case of an autopatch it **MUST** be.

Finally, on completion of a call to 911 it is most important that the patch be shut off before you clear, give date, time, and whatever else seems necessary or pertinent. This applies to **ALL** area

repeaters. The reason is this: To disconnect a call to 911, both parties must hang up. If you don't disconnect # (Kill the Patch) immediately when you're done talking to the 911 operator and wait until after you have signed clear, he has hung up and you haven't.

His phone will ring right back and he, expecting another emergency call, hears: "KAØXYZ clearing the WØRST repeater... etc", and wonders QWF?? Thinking it's a prank call, he seizes the line and the next person who tries to use the patch automatically gets 911 the instant he brings it up. It's happened several times in the past. Therefore, generally speaking it's a good idea to get in the habit of first shutting off the patch and then signing clear on all calls made via the patch.

**HERE ARE JUST A FEW OF THE WAYS YOUR CLUB
CAN HELP YOU**

Jackets & Caps
Name Tags
RFI

Technical Help
Tower Climbers

ARES
Public Relations
QSL

Programs
Courtesy
Novice Help

Manpower

Advertisement
Coffee Lady (at the meetings)
Handi - help

Walt KAØDMB
Edie WØGHA
Frank WAØIWF
Dave NØCLW
John WBØCMC (not before 10 AM)
Mitch NØAZF
Scot WBØWOT
Jim NØAIH
Jerry WBØPPF
Scott WBØQPP
Charlie WØQQN
Alma XYL of WØQQN
Dick KØDG
Charlie KØQVL
Charlie WØQQN
Chuck KCØDB
Jim WBØQGV
Chuck WBØNVL
Tom KØPQR
Aileene XYL of NØCKH
Andy W9MEI

COMMITTEES

| | |
|--------------------------------|--|
| Education | Bob WAØDHU Ellen WBØHWF Lloyd KØDKM |
| Instructors | Bob WAØDHU Chuck KCØDB Charlie WØQQN Jim NØAIH |
| Subs | Frank WAØIWF Dave NØCLW Jim WBØQGV |
| Auction | Jim NØAIH |
| Field Day | Frank WAØIWF Dave NØCLW |
| Equipment | Scott WBØWOT Jim NØAIH |
| Finance | Dick KAØAAB Walt KAØDMB Lysle NØCKH Paul WDØHRK Sam WDØBVH |
| Silent Key Plaque | Lloyd KØDKM Lou WØVLI |
| Repeater | John WBØCMC Ed WDØHBY Scott WBØWOY Wayne WBØHEW John WØWRT |
| Roster (notify of any changes) | Ellen WBØHWF Jon WBØGQT |
| Historian | Lou WØVLI |
| Ham Shack | Mitch NØAZF Tom KØPQR Dave NØCLW |

MIDWEST DIVISION DIRECTOR

Code and Theory Classes

- Starting early in January
- Novice, General, Advance, Extra
- Details in November Issue
- Bob Lockwood WAØDHU

Watch for the election papers from ARRL. Paul Grauer, WØFIR, Wilson, Kansas is running for re-election as Division Director and Bob McCaffrey, KØCY, Des Moines, Iowa has been nominated. Votes really do count so make your decision and return your ballots as requested.

WOMENS AUXILIARY CHATTER

The August 26th meeting was chaired by Loretta Kydney WBØMNL and was a very lively meeting, as usual! We discussed the "soggy" but "happy" picnic on August 23rd. We couldn't believe the turnout and fun time had by all, **despite** the rain! It was very disappointing to the children, as we couldn't play games and give out prizes. Darn! Oh well, President Jim WBØJPN said we would have a "repeat picnic" Sunday September 13th at Benson Park. We did. And had a lovely day, but the turnout was **not** as big and still, no games. Oh well, each child got a prizes anyway and the remaining prizes will be used at the Christmas Party.

Plans were also made for an "Old Fashioned" Halloween weiner roast with Dick Jugel KØDG as our guitar playing old fashioned "sing-a-long" host. It will be held at Dodge Park on Saturday, October 10th. Sounds like another grand time will be had by all!

We discussed our Christmas Party and dinner and will have to wait till the restaurants can be called for reservations. It will be decided at our September meeting.

The program was slides of Jim & Kay Wilson's "Trip to England". It was very nice of several ladies to say they enjoyed it. Have more — will travel!

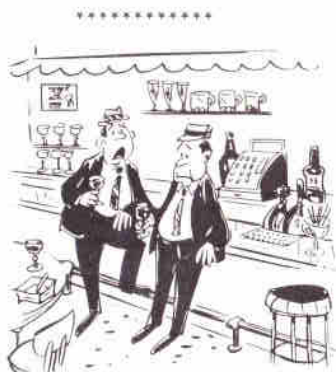
The delicious desserts were furnished by Loretta Kydney WBØMNL and Aileene Renne. They are always **very** calorie loaded, but we eat them anyway!

Hope to see more ladies in September and know they will enjoy Marilyn Peterson's demonstration on the spinning wheel.

Kay Wilson

◆ ONLY ◆
YOU
 CAN ELECT
«KØCY»
 ARRL
 < MIDWEST
 DIRECTOR >

 Bob McCaffrey/IOWA



"Remember the good old days when they could solve problems without raising taxes?"

Due to the Labor Day weekend holiday there was NO BOARD OF TRUSTEES meeting on September 4, 1981

MINUTES OF THE GENERAL MEMBERSHIP MEETING held September 11, 1981, at the Red Cross Building at 38th & Dewey Avenue, Omaha, Nebraska

The meeting was called to order at 19:30 hours by President Jim Wilson, WBØJPN, and began with the Pledge of Allegiance.

Each member identified by name and call.

Two visitors — Dennis Mortensen WDØETH and Jeff Fancher, both from Carter Lake.

New members — Robert B. Sanford KAØLQF, David H. Ahrendts, KAØHTW, Don S. Farrens, KAØHZE and his XYL Eleanor A. Farrens. Motion made and seconded that they be admitted to the Club.

Dick Fehrman, KAØAAB our Treasurer read the Treasurer's report for August.

Tom Thiessen, KØPQR, read a repeater report that was prepared by John Gebuhr, WBØCMC about the repeater and the raising of the antenna.

Kay Wilson gave us a report of the upcoming programs of the Ladies Auxiliary. September will be Marilyn Peterson, XYL of Jim Peterson, WBØQGV and she will bring her spinning wheel and show us how yarn is made and some pieces she has made. October program will be put on by Lou Cutler, WØVLI, November will be on antique greeting cards and then for December will be a special meeting at a restaurant.

W. A. Duke Humphrey, WDØEWH and President of the Carter Lake Water Ski Club presented a Certificate of Award to the Ak-Sar-Ben Amateur Radio Club for Outstanding Achievement in Communication Services on the tournament held September 6, 1981. Eight club members also received a certificate for their participation.

Motion and second that the business meeting be closed.

Program for the evening

Lou Cutler, WØVLI presented the program on "The birth of a radio tube" which had a pictorial format that was most instructive. The actual making of the tube is truly an art. There were many questions answered.

Doughnuts and coffee followed.

Program concluded at 21:45 hours.

Club Secretary,
Ellen WBØHWF

RECENT CONTRIBUTORS

HAM HUM POSTAGE

Lawrence A. Hiltner WAØQCI

34/94 REPEATER

W.A. Duke Humphrey WDØEWH

Lysle A. Renne NØCKH

Samuel S. Kaplan WDØBVH

James R. Newland KØEMC

40/00 REPEATER

W. A. Duke Humphrey WDØEWH

Lysle A. Renne NØCKH

Samuel S. Kaplan WDØBVH

Walter J. Brown KAØDMB

James R. Newland KØEMC

22/82 REPEATER

Samuel S. Kaplan WDØBVH

A COMPUTER MEMORY KEYSER

After using one of the new memory keyers in the 20 meter CW shack on field day, I was hooked! Never again would I be completely satisfied with a normal keyer or bus, having gotten used to automatic CW's and contest exchanges. The extra "pause that refreshes" that the keyer provided during memory read-out cycles had the effect of relaxing the constant contest tension, resulting in more pleasurable operation. However, I did not like the \$100.00 plus price tag, especially since the almost-new Heath HD-1410 electronic keyer at the home QTH still had a good many dits and dahs left in it.

Then, while running RTTY with my Heath HB9 computer one evening, the idea hit me - why not use the computer, interfaced to the keyer, as a memory device? This should allow even more flexibility than any of the currently available stand-alone memory keyers, and would not require a cash outlay for another keyer. The only cost would be for the interface components, since I already had the computer and the electronic keyer. The idea seemed sound enough, so the next weekend was spent building the hardware interface and developing a suitable memory-keying computer program.

The HD-1410 Keyer has provision for an external key input, so the computer can be used, in effect, as an external keyer. The program can be easily changed to perform different functions, including automatic message numbering and logging for contest work. The program discussed in this article is a basic memory-keying program, but can easily be modified to perform almost any desired function. It is written in Microsoft Basic, and should be useable, with some changes, on other types of computers.

The interface from the computer to the keyer is a simple RS-232 to TTL converter, consisting of a 1K resistor, a diode, and an NPN transistor (figure 1). I etched the circuit on a piece of scrap PC board, but perfboard construction is also acceptable. Coaxial cable

was used to connect the board between the HD-1410 keyer and an H89 computer serial port. A Rhono Plus is used to connect the interface to the keyer's "EXTERNAL KEY" Jack, and a 25 pin RS-232 male Plus connects to the computer serial port (I used port 3200 on the H89). The coax shield is connected to the system ground. The interface board can be encased in a small metal box if high levels of RF are present.

In operation, the VOK circuit of a transceiver can be used to provide automatic transmit/receive switching, much like semi-breakin operation. I use the VOK method with a Kenwood TS-520 with good results, as long as the VOK delay is adjusted properly. If the VOK delay is not long enough, the constant dropping in and out of the transmit relay between words or characters can become annoying.

The main program variables can be modified to fit any given hardware configuration or application by simply changing the program source code. I have found this method works well, particularly when there are many more possible uses for the keyer than could be defined and coded into a single large program. For instance, I have modified versions of the program that will support contest operation, keyboard send/receive operation with or without memories, and code practice transmission from pre-stored disk files.

The string variable "CF" at line 60 contains the sending station's call sign. This variable is used in the program to identify the station, without the need to repeatedly key in the station call sign.

The string variables "F1#", "F2#", "F3#", "F4#", "F5#", "B#", "R#", and "W#" in lines 210 through 280 contain the memory contents for the f1 through f5, blue, red, and white function keys, respectively. These variables may be set to contain any desired string. They can then be "called up" for transmission at any time during program execution by simply hitting the associated function key. Each of these eight memories has a maximum individual storage size of 255 characters, for a combined total of 2,040 characters.

when the program is executed, it will clear the screen, print a heading line on the first line of the CRT, and a legend line on the last (25th) line. The legend line will remain on the screen, but the heading line will eventually scroll upward and off the display. The legend line is a constant reminder of special morse code character assignments, as follows:

| CHARACTER | FUNCTION |
|-----------|---------------------------|
| ; | RR |
| = | SK |
| : | BK |
| - | BT |
| < | KN |
| > | RS |
| ! | SOS |
| %BYE | END OF JOB (STOP PROGRAM) |

When the indicated keyboard characters in the CHARACTER column are entered, the corresponding morse special characters in the FUNCTION column will be generated. These characters may be imbedded anywhere in the text or memory contents. The %BYE command, on the other hand, is used to terminate the execution of the program, and it must start at the beginning of a line and be the only entry on that line.

The program will then ask the operator to enter the keying speed desired, in a range of 1 to 49 words per minute. An invalid entry at this time will cause the system to default to a standard speed of 18 words per minute. However, the speed may be changed at any time during program execution by simply keying in the command Snn, where n is the new speed desired. This command, like the %BYE command, must be the only entry on the line.

The special command Cx, where x is either CQ or another station's call, will cause a standard amateur calling sequence to be performed. For instance, if the string variable "Cf" contains "K0CQ", the command C=CQ will result in the following string being generated:

C0 C0 C0 DE K00G K00G K00G K

The command C=N0CLM will result in the following string being generated:

N0CLM N0CLM N0CLM DE K00G K00G K00G K

The C= command, like the S=, XBYE, and memory read-out function key commands, must be the only entry on an input line.

The memories are called up and sent by simply hitting their associated function keys as the first entry on a given line. No carriage return is necessary for sending the memories, since they are automatically sent as soon as the function key is pressed. This is the only time that transmission takes place before hitting the carriage return key, since the normal mode allows the entry of an entire line before transmission begins. The automatic transmission of the memories in this manner saves an extra keystroke when using the computer only as a memory storage device and not as a keyboard Morse code generator. The operator can send a memory by hitting only one key, the function key, and does not have to also hit the carriage return key.

I would encourage you to experiment with the program and modify it to your own particular needs. The interface board will probably work with other solid state keyers equipped with an external key Jack, and the program should not be too difficult to modify for computer systems other than the M09. In addition, I hope this article has given you some new ideas for using your own computer in the Ham Shack.

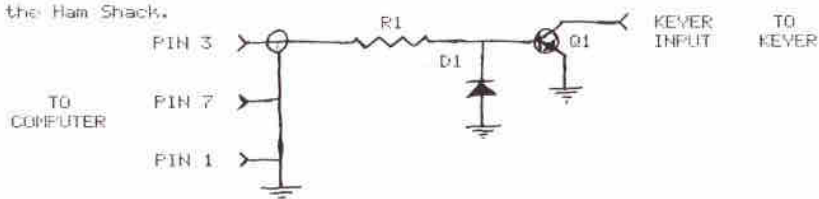


FIGURE 1.

PARTS LIST:

- R1 - 1K 1/4 WATT RESISTOR
- D1 - 1N914 DIODE (OR EQUIVALENT)
- Q1 - GENERAL PURPOSE NPN SILICON SWITCHING TRANSISTOR
- MISCELLANEOUS - COAXIAL CABLE, PHONE PLUG, RS-232 25 PIN MALE PLUG, PERF BOARD OR PRINTED CIRCUIT BOARD

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10 REM MEMORY KEVER PROGRAM.
20 REM BY DICK JUGEL, K00G, AUGUST 1, 1981
30 WIDTH 255:REM SET CONSOLE WIDTH TO MAXIMUM
40 CLEAR 4500:DEFINT I,T,F,G,H,P,X
50 F=80320:REM OUTPUT PORT ADDRESS
60 C="K00G":REM STATION'S CALL SIGN
70 REM ***** SET MEMORY VARIABLES HERE *****
80 REM
90 REM      VARIABLE NAME:      CALLED BY FUNCTION KEY:
100 REM
110 REM          F1#              F1
120 REM          F2#              F2
130 REM          F3#              F3
140 REM          F4#              F4
150 REM          F5#              F5
160 REM          B#              BLUE
170 REM          R#              RED
180 REM          W#              WHITE
190 REM
200 REM *****
210 F1#="THIS IS MEMORY ONE."
220 F2#="THIS IS MEMORY TWO."
230 F3#="THIS IS MEMORY THREE."
240 F4#="THIS IS MEMORY FOUR."
250 F5#="THIS IS MEMORY FIVE."
260 B#="THIS IS BLUE MEMORY"
270 R#="THIS IS RED MEMORY"
280 W#="THIS IS WHITE MEMORY"
290 REM THE ABOVE MEMORY VARIABLES MAY BE SET TO ANYTHING.
300 REM ***** SPEED CONSTANTS FOR BRUD TIMING ROUTINE *****
310 REM ***** MAY HAVE TO BE CHANGED TO WORK WITH OTHER THAN H89 COMPUTER *****
320 DATA 1275,585,370,255,190,145,114,90,73,55
330 DATA 45,33,28,26,23,21,19,18,16,15
340 DATA 14,13,12,11,10,9,8,8,7,7
350 DATA 6,6,5,5,5,4,4,4,3,3
360 REM ***** MORSE CHARACTER TABLE *****
370 DATA .....
380 DATA .....
390 DATA .....
400 DATA .....
410 REM ***** ARRAYS *****
420 DIM C$(47)
430 DIM P$(48)
440 REM ***** FILL ARRAYS *****
450 FOR T=1 TO 48:READ P$(T):NEXT T
460 FOR T=0 TO 47:READ C$(T):NEXT T
470 REM ***** PUT LEGEND ON 25TH LINE - HEATH HIS TERMINAL ONLY *****
480 PRINT CHR$(27);CHR$(106);
490 PRINT CHR$(27);CHR$(128);CHR$(49);CHR$(27);CHR$(89);CHR$(96);CHR$(32)
500 PRINT
510 PRINT "          =FR =SK =BK =BT <=N >=AS [=SOS =NVE=EOJ"
520 PRINT CHR$(27);CHR$(187)
530 REM ***** CLEAR SCREEN AND PRINT HEADING *****
540 PRINT CHR$(27);"E";"          M O R S E   M E M O R Y   K E Y
E R"
550 PRINT
560 REM ***** GET MORSE SPEED DESIRED *****
570 LINE INPUT "ENTER SPEED IN WORDS-PER-MINUTE (1 TO 40): ";X#
580 GOSUB 1550:REM GO SET MORSE SPEED
590 REM ***** INITIALIZE 8250 A.C.E. *****
600 OUT P+1,800:REM CLEAR UART INTERRUPTS
610 OUT P+4,8040:REM SET UART LOOPBACK MODE
620 OUT P+3,80200:REM SET ON DATA LATCH ACCESS BIT (DLAB)
630 OUT P+1,800:REM 19,200 BRUD MD
640 OUT P+8,806:REM 19,200 BRUD LSD
650 OUT P+3,800:REM RESET DATA LATCH ACCESS BIT (DLAB)
660 T=INP(P):REM READ A CHARACTER
670 GOSUB 1350:REM WAIT AT LEAST TWO CHARACTER TIMES
680 T=INP(P):REM READ A SECOND CHARACTER
690 OUT P+4,800:REM TAKE UART OUT OF LOOPBACK MODE.
700 REM ***** MAIN KEYBOARD INPUT ROUTINE *****
710 Z#="":REM NULL INPUT LINE
720 ZB#=INPUT$(1):REM GET AN INPUT BYTE
730 IF ZB#=CHR$(13) GOTO 840:REM EXIT IF CARRIAGE RETURN
740 IF ZB#=CHR$(27) AND LEN(Z#)>0 GOTO 720:REM DUMP IF ESC NOT 1ST CHARACTER
750 IF ZB#=CHR$(27) THEN PRINT "!"; ELSE PRINT ZB#;REM ECHO CHARACTER
760 IF ZB#<CHR$(8) THEN 810:REM EXIT IF NOT BACKSPACE
770 IF LEN(Z#)<1 THEN 720:REM SKIP BACKSPACE IF AT BEGINNING OF LINE

```

700 Z=MID(CZ#,1,LEN(CZ)-1):REM DROP LAST CHARACTER IN LINE
750 EKINT="*(CHR(C))
800 GOTO 720:REM GET NEXT INPUT CHARACTER
810 Z=C+Z8:REM APPEND INPUT CHARACTER TO INPUT LINE
820 IF LEN(Z) = 2 AND LEFT(CZ,1) = CHR(C27) GOTO 840:REM EXIT IF MEMORY KEY
830 GOTO 720:REM GET NEXT INPUT CHARACTER
840 PRINT:REM CARRIAGE RETURN FOR ECHO LINE
850 IF Z = "MOVE" THEN 1530:REM MOVE IS END OF JOB!
860 IF Z="" THEN 710:REM SKIP NULL INPUT LINES
870 IF LEFT(CZ,1) = CHR(C27) GOTO 950:REM TEST FOR ESC
880 IF LEFT(CZ,2) <> "S" GOTO 1670:REM TEST FOR SPEED SET COMMAND
890 W=MID(CZ,3,LEN(CZ)-2):REM GET NEW SPEED
900 GOSUB 1550:REM SET NEW SPEED
910 GOTO 710:REM GET NEXT INPUT LINE
920 REM ***** PROCESS MEMORY SEND COMMAND (ONE OF THE FUNCTION KEYS) *****
930 IF LEN(Z) <> 2 THEN 710:REM ERROR IF LENGTH NOT 2
940 R=RIGHT(CZ,1):REM GET KEY IDENTIFIER
950 IF MID < "H" OR MID > "M" GOTO 710:REM ERROR IF NOT VALID FUNCTION KEY
960 REM ***** GET SPECIFIED MEMORY CONTENTS *****
970 IF MID="P" THEN Z=F0
980 IF MID="Q" THEN Z=F1
990 IF MID="R" THEN Z=M0
1000 IF MID="S" THEN Z=F14
1010 IF MID="T" THEN Z=F22
1020 IF MID="U" THEN Z=F34
1030 IF MID="V" THEN Z=F44
1040 IF MID="W" THEN Z=F54
1050 GOTO 1120:REM PROCESS MEMORY AS IF IT WERE KEYED INPUT.
1060 REM ***** TEST IF CALL C=> COMMAND *****
1070 IF LEFT(CZ,2) <> "C" GOTO 1130:REM EXIT IF NOT CALL COMMAND
1080 IF LEN(Z) < 3 THEN 710:REM EXIT IF INVALID
1090 Z = RIGHT(CZ,LEN(CZ)-2):REM GET PARAMETER PORTION OF C=> COMMAND
1100 IF RIGHT(CZ,1) <> " " THEN Z=Z+" ":REM INSURE TRAILING BLANK
1110 Z=C+Z+LEFT(Z,"DE" +C04+" +C04+" +C04+" K"):REM BUILD CALL LINE
1120 PRINT Z:REM PRINT MEMORY OR CALL LINE
1130 IF RIGHT(CZ,1) <> " " THEN Z=C+Z+" ":REM INSURE TRAILING BLANK
1140 REM ***** NOW CONVERT THE LINE TO MORSE CODE AND SEND IT. *****
1150 FOR F=1 TO LEN(Z):REM ITERATE THROUGH EACH CHARACTER IN LINE
1160 G=ASC(MID(Z,F,1))-44:REM GET A CHARACTER FROM LINE
1170 IF G=6 OR G=47 THEN 1260:REM DUMP IF INVALID CHARACTER
1180 LF=C(G):REM GET CORRESPONDING MORSE CHARACTER
1190 IF LF="" THEN 1260:REM DUMP IF NULL CHARACTER
1200 FOR H=1 TO LEN(LF):REM PUT OUT EACH MORSE ELEMENT
1210 IF MID(LF,H,1)="." THEN GOSUB 1270 ELSE GOSUB 1320:REM DIT OR DASH
1220 NEXT H:REM ITERATE THROUGH ENTIRE MORSE CHARACTER.
1230 GOSUB 1440:REM WAIT BETWEEN WORDS
1240 NEXT F:REM ITERATE (GET NEXT CHARACTER).
1250 GOTO 710:REM GO GET NEXT INPUT LINE
1255 GOSUB 1420:GOTO 1240
1270 GOSUB 1300:REM TONE ON (MARKING A DIT)
1280 GOSUB 1350:REM WAIT ONE BRUI
1290 GOSUB 1400:REM TONE OFF
1300 GOSUB 1350:REM WAIT ONE BRUI
1310 RETURN
1320 GOSUB 1300:REM TONE ON (MARKING A DASH)
1330 GOSUB 1350:GOSUB 1350:GOSUB 1350:REM WAIT THREE BRUI
1340 GOTO 1290
1350 FOR I = 1 TO 3
1360 NEXT I
1370 RETURN
1380 OUT P43:80100:REM TURN CW TONE ON (BREAK BIT SET)
E60:RETURN
1390 IN P43:809:REM TURN CW TONE OFF (BREAK BIT RESET)
1410 RETURN
1420 GOSUB 1500:GOSUB 1500:GOSUB 1500:GOSUB 1500:GOSUB 1500
1430 RETURN:REM WORD SPACE
1440 GOSUB 1400:GOSUB 1500:GOSUB 1500:REM LETTER SPACE
1450 RETURN
1460 IF X=XI THEN RETURN
1470 FOR I=X TO XI
1480 NEXT I
1490 RETURN
1500 RETURN
1510 FOR J=1 TO XI
1520 NEXT J
1530 RETURN
1540 PRINT CHR(C27);"W!"\$END OF JOB. THANK'S FOR DROPPING BYE (H.I.)."
1550 END

```

1550 R=ABS(CINT(CURL<M>>))
1560 IF X<1 THEN X=10
1570 IF X>40 THEN X=10
1580 PRINT "SPEED NOW SET TO" X;"WORDS PER MINUTE."
1590 X=X/2<<<
1600 XI=X
1610 IF X>30 THEN X=30
1620 RETURN

```

Many thanks to our own Dick Jugel KØDG for this excellent article.

"THE SILENT KEY PLAQUE"

At our regular May '81 meeting of the Ak-Sar-Ben Amateur Radio Club, I suggested to our President, Jim Wilson, WBØJPN that it would be appropriate for the Radio Club to consider a "Silent Key" Plaque which would have the names of our members on it as well as the call letters. I submitted a full size preliminary drawing of the proposed Plaque and the number of bronze plates with the names and call letters on them of the existing "Silent Key" members. He agreed with the drawing in sketch form but suggested that it be submitted to the Board of Directors at their next meeting.

The Board members agreed to the concept of this Plaque and it was decided to proceed to the next phase, that is, getting some ideas of the cost involved. A committee was appointed with myself as the chairman. Lloyd McElhaney, KØDKM and Walt Brown, KAØDMB as assistants. Our first step was the mounting board which we were hoping would be walnut. However, after inquiring about the cost, it was found to be beyond our budget. We continued our search for a mounting board of some other wood when Walt came up with a large door from a cabinet in a light Teak Formica which was adopted. The size was almost right and after removing the hardware, it was decided to proceed. We were on our way and the work was cut out for us. Our next step was to get some hard wood for the board moulding to cover the raw edges as well as providing a picture frame. This frame was stained in a dull black acid stain. Step three was the bronze name plates as well as the large letters for the name of the Club, the installation of the J-38 key. Again Walt Brown volunteered this big undertaking and after getting several prices for the name plates, engraving of the call letters which included the Ø being a special die, we found this to be our most expensive item. However, we had some good fortune in having friends in this type of work. This luck helped keep the cost to the minimum.

The Plaque was ready for assembly during the month of June or the early part of July, but it turned out to be the vacation period of the people in charge of the name plates and the Club Titles. We were hoping that the J-38 key would be plated to match the name plates but Walt surprised us by having it gold plated. The entire project was finally completed in the early part of August and will be on display at our regular October meeting.

I would like to acknowledge the help from the following persons who

donated their time, materials and workmanship on this Club Project. A special thanks to our President and the Board of Directors who encouraged us to proceed with this program. We hope it finds a suitable spot in the Red Cross Building where it can be seen by the membership and the general public.

The Donors are as Follows:

Mr. Bob Peterson, owner of the Anfra Products Millwork Co.
 Mr. John Vollmer, retired Civil Engineer from the Union Pacific R. Co., who installed the frame moulding.
 Our own Walt Brown, KAØDMB, Lloyd McElhane, KØDKM, who helped with the leg work as well as motor transportation.
 Plaque Chairman
 Lou Cutler, WØVLI



CALL CORRECTION

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PLEASE NOTE

As you know, activities wouldn't be successful without helpers and participants. The lists below indicate some active members at recent activities. Certainly hope we haven't forgotten anyone.

Sept. 6, 1981 Water Ski Tournament at Carter Lake, Iowa

W. A. Duke Humphrey WDØEWH
Jon J. Penner WBØGQT
Rick K. Stansbury WAØROP
Dave B. Hamilton NØCLW
Thomas L. Thiessen KØPQR
Bill Leatherwood WAØZUR
Ellen Morrissey WBØHWF
Mike Bruening NØAON
Frank Wolczak WAØIWF

Sept. 5, 1981 6 mile marathon

Scot E. Thompson WBØWOT
Net Control
Jim Sanford NØAIH
Edward J. Hofmann WDØHBY
Mitch Gagne NØAZF
Any Hohensee WBØUQI
Elliot S. Hamilton WA9JIQ
Scott E. Persson WBØQPP
Walter J. Brown KAØDMB
Ellen Morrissey WBØHWF
Parley Applegate WDØENB

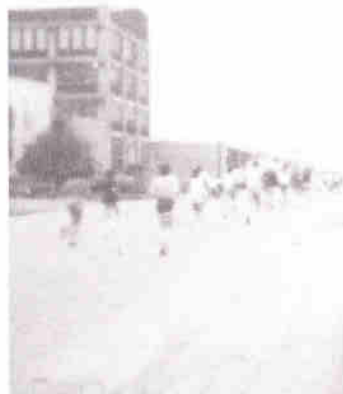
Garrison Wamset NØBYB
Virgil Wamsat KBØBW
Bob Boetcher KAØCKF
Marty Peck WBØYTV

Septemberfest Sept. 5, 6, 7, 1981

Mitch Gagne NØAZF
Ed Hofmann WDØHBY
Parley Applegate WDØENB
Fred Genovesi KAØKDJ
Walter Brown KAØDMB
Lloyd McElhanev KØDKM
Chuck Carroll N7APO
Charlie Peaker KCØDB
Jim Sanford NØAIH
Sam Kaplan WDØBVH
Dick Jugel KØDG
Ellen Morrissey WBØHWF
Bob Boetcher KAØCKF
Lysle Renne NØCKH
Jim Wilson WBØJPN
Ray Fink WDØGIL
John Gebuhr WBØCMC
Any Hohensee WBØUQI



Club picnic — Sept. 13th



6 mile-Labor Day
Sept. 5th

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Don S. Farrens KAØHZE
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ADD CALL LETTERS

Paul R. Mason KAØMDP

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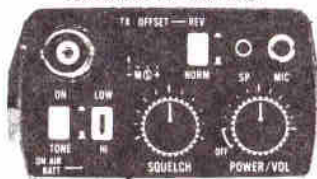
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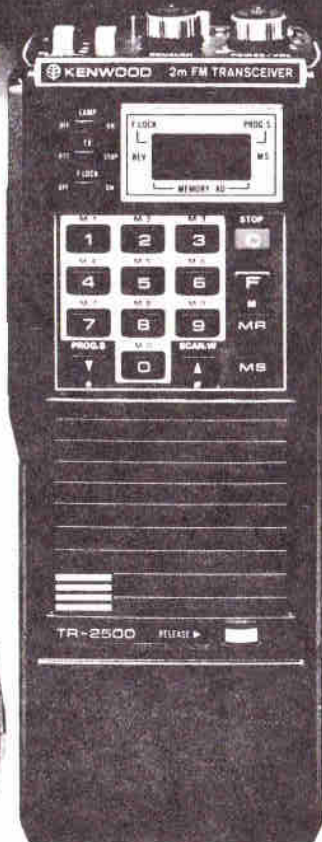
The TR-2500 is a compact 2 meter FM handheld transceiver featuring an LCD readout, 10 channel memory, lithium battery memory back-up, memory scan, programmable automatic band scan, HI/LO power switch and built-in sub-tone encoder.

- **Extremely compact size and light weight**
Measures 6.6 (2.5/8) W x 1.68 (6.5/8) H x 4.0 (1.5/8) D, mm (inches). Weighs 540 grams (1.2 lbs) with Ni Cd pack. (Photo shows actual size).
- **LCD digital frequency readout**
Easy to read in direct sunlight or dark (with lamp switch). Low current drain. Shows frequencies and memory channels, plus four "Arrow" mode indicators.
- **Ten channel memory**
Nine memories for simplex or +600 KHz offset. "MR" memory for non standard split frequency repeaters.
- **Lithium battery memory back-up**
Built in Lithium battery (estimated 5 year life) maintains memory when Ni Cd pack is fully discharged or removed.

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- **HI/LO power output selection**
Allows operation at 2.5 watts or 300 mw RF output



Actual size

Memory scan

- **Scans only channels in which frequency data is stored.** Stops on busy channel, resumes scan approximately 2 seconds after signal ceases.
- **Programmable automatic band scan**
Upper and lower frequency limits and scan steps of 5 KHz and larger (5, 10, 15, 20, 30 KHz, etc.) may be programmed. Scan locks on busy channel, resumes approximately 2 seconds after signal ceases.
- **UP/DOWN manual scan**
Up/Down manual scan in 5 KHz steps.
- **Built-in tuneable sub-tone encoder**
Sub-tone encoder, with activate switch, tuneable (variable resistor) to desired CTCSS tone. Optional TU-1 programmable (DIP switch) encoder accessory available.
- **Built-in 16 key autopatch encoder**
16 keys provide telephone dual tone modulation.
- **"SLIDE-LOC" battery pack**
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Shifts receiver to transmit frequency, and transmitter to receive frequency.
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Sets operation frequency across full range.
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Covers 143.500 to 149.995 MHz in 5 KHz steps.
- **Optional power source**
Using optional MS-1 mobile or ST-2 AC charger/power supply, radio may be operated while charging. (Automatic drop in connections.)
- **High impact plastic case**
Provides extra strength to resist damage.
- **Battery status indicator**
Flashes to indicate low battery charge level.
- **Two lock switches**
Prevent accidental frequency change and accidental transmission.

Standard accessories included:

- Flexible rubberized antenna with DMC connector.
- 400 mAh heavy duty Ni Cd battery pack
- AC charger
- Plugs for external microphone and speaker

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Optional accessories:

- ST-2 Base station power supply and quick charger (approx. 1 hr)
- MS-1 Mobile stand charger/supply
- TU-1 Programmable sub-tone CTCSS encoder
- SMC-25 Speaker microphone
- LH-2 Deluxe top grain cowhide leather case
- PB-25 Extra Ni Cd battery pack, 400 mAh, heavy duty
- LH-2 Belt hook
- WS-1 Wrist strap
- EP-1 Earphone
- _____ RF power amplifier (to be announced later)

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