

# RTTY

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IN OTHER CASES IT DOES NOT. HOWEVER, IT IS NOT AS COSTLY TO GO THROUGH MANAGERS.

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## THE HAL MSO MEMORY SYSTEM

By Ben Grockett, KR6E  
1127 Shirley Drive #3  
Milpitas, CA 95035

HAL has recently offered an extension for their communications terminal the DS-3100. This extension is called the MSO or message storage option and it is designed to intergrate and enhance the 3100 terminal. This option sells for \$595 including shipping from HAL. Anyone involved in traffic handling or desiring a simple mailbox operation on a given channel might consider taking a good look at the MSO unit.

HAL installs all units and burns them in at the factory so as a result I had no problems with infant death when I first turned the system on. The technical manual is definitely a user's manual and is very easy to follow and learn from.

The MSO is operated as an extension of the WRU that is already part of the 3100 but the MSO has many automatic functions that are related to handling text. I programmed my MSO to respond with an active status indicator which gives the entry and exit commands. It then sends the time (and date) and sends the CW ID before dropping the transmit control line back to the receive mode.

If the .HELP command is sent a list of 17 possible commands is displayed immediately in the receive buffer if the request for help is from the local user. If the request is from a remote user the command list is entered into the transmit buffer and is transmitted out at the rate programmed into the terminal such as 45 baud baudot. The interesting thing about this message handling system is that it may be used by other than the station operator. For instance, if friend A has a MSO on a two meter channel, I can reliably enter a message into his storage system for later retrieval by friend B at some later time. Also, this message may be both delete protected and read protected by the appropriate use of passwords that are entered at the time of message storage into the MSO.

If one chooses to not use passwords then it automatically becomes a "public" message that can be read by anyone on the channel. The following are commands available to the remote user of the MSO: Delete, Dir, Endfile Exit, Filehelp, Help, KY10N, KY10FF, KY20N, KY20FF, Printon, Printoff, QBF, Read, RYS, SDIR, Write.

As can be seen there is provision for several remote user control points such as turning a printer on or off and remotely turning on or off relays that control auxiliary equipment such as a tape recorder or perhaps another receiver.

With such versatility available only ones imagination sets the limit on possible applications for this system. One application that immediately comes to mind is the use of a remote controlled entry point for data coming from another source such as 20 meters.

The MSO provides a directory of content that lists all files by name and time entered into the system. In the case of the local user the passwords are also displayed so that he may control content of the mailbox and edit as necessary. With the command .SDIR a user may send an abbreviated form of the directory to save time.

It is important to remember that all commands must be entered in the first column (beginning with the period) of a given line followed by the delimiter and then the carriage return. For an example, suppose I want to write a file for storage and later transmission. First I would get a new row available by sending a couple of carriage returns and line feeds and then entering .WRITE. The next part of this command would consist of the file name such as TEST. Now our command should look like this; .WRITE TEST and if we wish we now may enter the password for delete protection by typing a slash bar and entering a code word such as KR6E. At this point our file is delete protected and cannot be erased except by someone who knows the delete password. Our command structure now will look like this: .WRITE TEST/KR6E. If we

wish to only allow those who are aware of a read password to see our file, then the last part of the command structure is the writing of the read password. Let's use RTTY as the read password--- so our command now will be complete and will be: .WRITE TEST/KR6E/RTTY(CARRIAGE RETURN)

The text of the message now follows and when the text is entered you may exit the write mode by getting a new line and typing .ENDFILE. The MSO will respond with the acceptance of your message and the total bytes used by your message and the number of bytes remaining in the message center.

One very interesting function of the MSO is the copying into files Transmissions from beacon transmitters such as weather reports. To do this I would program the MSO call up code with the station call letters and then program HERE IS 2 with the write command and TIME. Thus, the MSO would create a unique file each time the weather station came on with data. The reception of 4 n's turns off the write function and then the MSO will standby till or if it is called up again. This method would give you discrete files in any 24 hour period.

I have used my MSO to transfer long files that are written in BASIC from the terminal to the computer. It is also very handy for relaying of messages from one code to another such as from ASCII to Baudot.

This system does not have the sophistication such as the megabyte mailbox in use here in the San Francisco area but it is very clever and effective for such a small system. In most areas of the country where two meter RTTY is relatively modest in activity the MSO system would be more than adequate for any traffic encountered. As with most mailbox systems when put on an existing auto-start channel it quickly leads to all but the most diehard autostart people abandoning 24 hour monitoring. One reason for this is the repeated reading of GST messages that waste paper for those who monitor continuously. Of course, total channel use tends continued on page 14.

# VHF NEWS

BY: John R. Cunningham, WA9WJG.....Rural Route 2, Box 91....Covington, Indiana 47932.....

Well, in spring time a young hams fancy turns toward the basic things in life. Ya know, feed lines, towers, rotors, antennas and all them good things.

Now that it is warmer and you can do something about that rotator that konked out during the coldest day last winter. You can finally get out there and do something about that high SWR that you have been putting up with for months. The time is now right for the Saturday afternoon antenna party.

Remember the "SUPER SIGNAL SEEKER" you found at the mid-winter mini-fest? Drag it out, there will be a day when the wind is not blowing too hard and you can get it up. HINT....If the wind is blowing when you want to put up the antenna all you have to do is:

1. Run down to the dime store and buy a kite.
2. Load the kids in the car and head for open country.
3. Assemble the kite.
4. Try to show the kids how, "THE OLD EXPERT", did it way back when. This system is guaranteed to stop all of the wind around, even a tornado. Never fails. Now quick run home and put up the "SUPER SIGNAL SEEKER".

I want to send a big thank you to the guys who took the time to write or call me during the past month. The day is always a lot brighter when I find a letter from a reader among the "windowed" envelopes.

If you have not tried traffic handling on RTTY yet, or even if you have listen in on 3630 at 3:30 UTC. Thanks to Bill Wright, K4YZU, for the information. Bill, as soon as I start to practice what I preach (get the dipole repaired), I will do more than listen.

There are no VHF RTTY Traffic Nets around this area as yet, but there may be soon. Wouldn't a "mail box" system in each town be an ideal way to handle local traffic? You could

just call up the "mail box" station in the town you have traffic for and leave it for the operator there.

The guys at AMRAD have a system that will beat that. Have you heard about the AMRAD experiments with high speed packets. They are starting to experiment on this system using a beacon operated by the ARRL. Through an arrangement worked out by the two organizations they will start beacon transmissions soon. This is a computerized system with error checking. This is a very interesting system and I certainly will be watching, if not participating, in this operation.

I want to thank Rinaldo, W4RI and AMRAD for the newsletter. From reading only two issues so far, I can see that this is a very active group. They are active in more areas than just packet transmissions. There is a special interest group for developing communications systems for the hearing impaired. This group is developing systems and helping set up a standardized method nationwide. A third group has received a Special Temporary Authority from the FCC to conduct spread spectrum experiments.

If this sounds like something you would like to more about, contact AMRAD at 1524 Springvale Avenue, McLean Virginia 22101.

Jim Cosand, N9BCG, has a new repeater assembled and working. He is going to put a regenerative RTTY system in it as soon as I can find a TU for him. Frequency is 147.135 in and .735 out, QTH is West Lafayette, Indiana. This machine will fill a need for the area as the nearest 2 meter RTTY repeater to it is the .88 machine in Indy.

Keep the letters coming, I appreciate everyone of them. CUL on the green keys. 73 de John

From Bill K4YZU comes the following on the subject of RTTY Traffic Nets.

Well one will ask what is a RTTY traffic net? Well that is a good question and it is being answered on the air every night on 3630 MHz. at 0330 UTC. The RTTY traffic has it over

PAGE 4

the voice and phone and CW nets by its ability to handle a very large volume of ARRL messages in a very short time, so the midwest RTTY traffic net on the air and getting ready with training and experience in RTTY traffic handling. This net can be of great value in case of a diaster of any kind where large numbers of messages are generated concerning health and welfare and the diaster area is set up with the cordination of the state emergency cordinator. With the help of the net managers of the national traffic system in the region or area involved. So you see this has been my experience with diaster on where the voice and phone nets get bogged down. One way to eliminate this is to have a good RTTY traffic net such as the Salvation Army has set up in the south east division, headquartered in the Atlanta area.

The RTTY traffic net is like any other net in that it is always training for times of disaster, and has the outlets for H and W traffic.

Now the argument is, what is the format for the ARRL message used on RTTY?? Well, that is easy. It is in the new ARRL communications manual that is just out. The format is also used on the Midwest traffic net so one can QNI the net and watch the traffic as it is being passed and take a first hand look at it. After the net is closed we have short comments and this is the time for questions about anything on the use of the RTTY mode for traffic handling. This a great time to get some questions about your particular station for use in the RTTY traffic net. So let it be known and we will try to help you.

With the coming of the computer age to Amateur radio many say, well I do not have all that nice tape equipment so I can be of value but you are wrong. We have quite a few of the stations on the net now who are using computers and are finding it to be great and also hard copy for back up copy in case a hard copy is needed continued on page 5



# HITS & MISSES

George Hammon WA6CQW  
14215 Pecan Park Lane SP 73  
El Cajon, CA 92021

FROM  
THE  
MAILBAG



## RTTY SURVEY

I have developed a survey sheet in this issue. The survey does not require your call or signature. The JOURNAL, by this survey is attempting to be responsive to the Amateur active in RTTY. You do not have to be a subscriber to the JOURNAL to respond either. I hope this survey sheet will be copied and passed out at club meetings etc. This will allow us to get as much information on your interests as possible. Please take the time to fill one out.

### RADIO SHACK RECALL

Radio Shack has just announced a recall of 150,000 test lead kits for electrical test meters. The catalog Number is 270-332. The consumer product safety commission has requested this. I hope that if you have one of these kits you will contact Radio Shack.

### DAYTON HAMVENTION

This fantastic Convention will probably be over by the time you read this. I hope that this year the JOURNAL will get some articles on Dayton. How about a human interest story about your Clubs' bus trip to Dayton? How about a story on a RTTY get together? Come on gang, write it up for the JOURNAL. And look for the RTTY JOURNAL at Dayton in the Imperial House North, and say howdy.

### WIAW BULLETINS

The ARRL sends bulletins on RTTY daily at 0100, 0400, 220. The frequencies they use are: 3.625, 7.095, 14.095, 21.095, 28.095 and 147.555. On Fridays the regular bulletin is replaced with the DX bulletin. I hope we, the RTTY gang, will respect this and curtail our operating while the bulletin is operating. I have noticed that lately on 20 meters particularly on the DX bulletin, a few have forgotten the time and failed to QSY.

## MIDWEST RTTY NET

The Midwest RTTY traffic net needs some liason stations. This net meets on 3630 KHz at 0330 UTC daily. Contact Bill Wright, K4YZU. This is another fine story for the JOURNAL so how about it fellows, write it up.

## ITALIAN EARTHQUAKE

A really fine job was done by the RTTY gang. 569 pieces of traffic were passed via RTTY. I hope the people involved will write this up for the JOURNAL. This is a fine example of the value of RTTY in passing traffic.

## THE RAF SPITFIRE

I have tried for many many years to get a tape of this picture. Tom Gibson, W3EAG came to my rescue. Tom many thanks. I received the tape in good order and have made many copies.

## FAIRFIELD CONNECTICUT

I received a nice letter from Jerry Nelson, KA1IPJ. Jerry included a QSL card. His card with a picture of Jerry and his wife Nancy KA1JS is a photo QSL card. Jerry is a newcomer to RTTY. He wants me to mention that HAL is now making a cable set to hook it all up. The fear of getting the wires together and attached can be a chore. HAL Corporation must have felt the same way as they now provide this cable set. Jerry and I are not stockholders, but both of us recognize this was a need as did HAL.

## 33 ASR

A letter from Bob Marchese, K1NOK. Bob needs help in hooking up his 33 ASR to an ST-5. Bob is receiving ASCII using pins 6 & 7. How about some help for him. He lives at 63 Cobb Lane, Scituate, MA 02066.

I will close out my column for this month. I hope you will take the time to write. I received many nice letters this month. The survey in this issue is your way to let us know what the RTTY gang out there likes or dislikes.

SO long for now...George WA6CQW.....

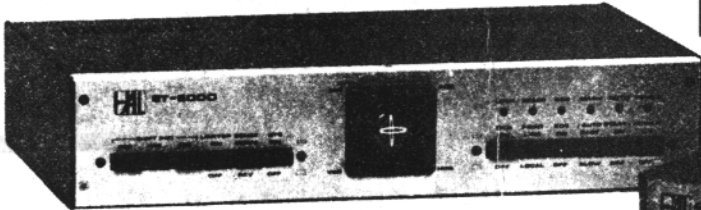
## CONTINUED FROM PAGE 4

to make a file. The use of a computer has many advantages over the tape and we are expermenting with one of it used now and that is the storing of traffic in one of the computer memories and then later on retrieving it for transmission.  
73's Bill, K4YZU.

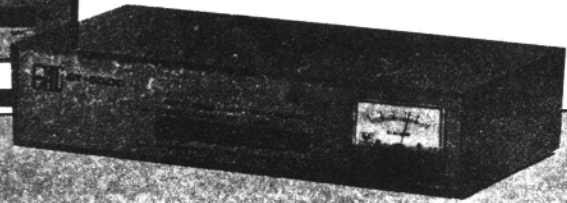
QUARTER	CENTURY	AWARD	CONTINUED
W2IUC	102	VE2JR	55
G3HJC	102	DJ6XBA	54
K8YEK	101	ZL2ALW	54
VK2SG	101	9H1ET	54
DL8KS	100	DJ2YE	53
G8LT	100	OHONI	53
VE2QO	100	PY2CYK	53
K3SWZ	100	VE5RG	53
I5KPK	87	WB2VTD	53
K4VDM	87	W5QCH	53
SM6ASD	85	G3OZF	52
WA6WGL	83	IOLVA	52
I313018	83	F9XY	51
SM5EIT	82	DJ30E	51
DL1VR	81	EI5BH	51
DJ1QT	80	I2WEG	51
G8CDW/SWL	80	I8JRA	51
VK2EG	79	O27RD	51
DK5WJ	75	SM5BO	51
KOBJ	75	W7BCT	51
OZ4FF	70	G3IIR	50
KOPJ/6	70	K6YUI	50
ON5WG	68	PAOCWI	50
SM0oy	68	W8CQ	50
DK1BX	67	G3YDR	49
HB9AVK	65	SM4EMO	49
W6AEE	64	XE1AFU	49
G3ZRS	63	VK5RY	47
W1MX	63	CT1EQ	45
I20LW	61	W2NZ	45
SM6AEN	61	I1CAQ	44
I414707	61	I3FUE	44
SL5AR	60	I6NO	44
GI4AHP	59	K8NN	44
I1PYS	59	9M2CR	44
G3RED	58	BRS25676	44
I1COB	57	Niendorf	43
I1KG	57	EA3AZX	43
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RTTY JOURNAL SURVEY

YEARS LICENSED \_\_\_\_\_  
CLASS OF LICENSE \_\_\_\_\_  
YEARS ACTIVE IN RTTY \_\_\_\_\_  
MEMBER OF RTTY CLUB YES \_\_\_ NO \_\_\_ NAME OF CLUB \_\_\_\_\_  
RTTY CLUB REPEATER FREQUENCY \_\_\_\_\_  
AMATEUR RADIO MAGAZINES SUBSCRIBED TO: \_\_\_\_\_

HF TRANSMITTER {S} \_\_\_\_\_

HF RECEIVER {S} \_\_\_\_\_

HF LINEAR {S} \_\_\_\_\_

HF ANTENNA {S} \_\_\_\_\_

TOWER YES \_\_\_ NO \_\_\_ HEIGHT \_\_\_\_\_ MAST HEIGHT \_\_\_\_\_

HF TERMINAL UNIT {S} \_\_\_\_\_

TELETYPE MACHINES \_\_\_\_\_

VHF TRANSCIEVER {S} \_\_\_\_\_

VHF ANTENNA {S} \_\_\_\_\_

ACTIVE ON TWO METER REPEATER YES \_\_\_ NO \_\_\_

ACTIVE ON 220 REPEATER YES \_\_\_ NO \_\_\_

DO YOU LIKE RTTY CONTESTS YES \_\_\_ NO \_\_\_

RTTY CONTESTS ACTIVE IN \_\_\_\_\_

ARRL MEMBER YES \_\_\_ NO \_\_\_ YEARS MEMBER \_\_\_\_\_

DO YOU USE ARRL QSL BUREAU YES \_\_\_ NO \_\_\_

TIMES PER YEAR QSL BUREAU USED \_\_\_\_\_

DO YOU USE A COMPUTER ON RTTY YES \_\_\_ NO \_\_\_

KIND OF COMPUTER USED \_\_\_\_\_

IS COMPUTER USED FOR AMATEUR RADIO EXCLUSIVELY YES \_\_\_ NO \_\_\_

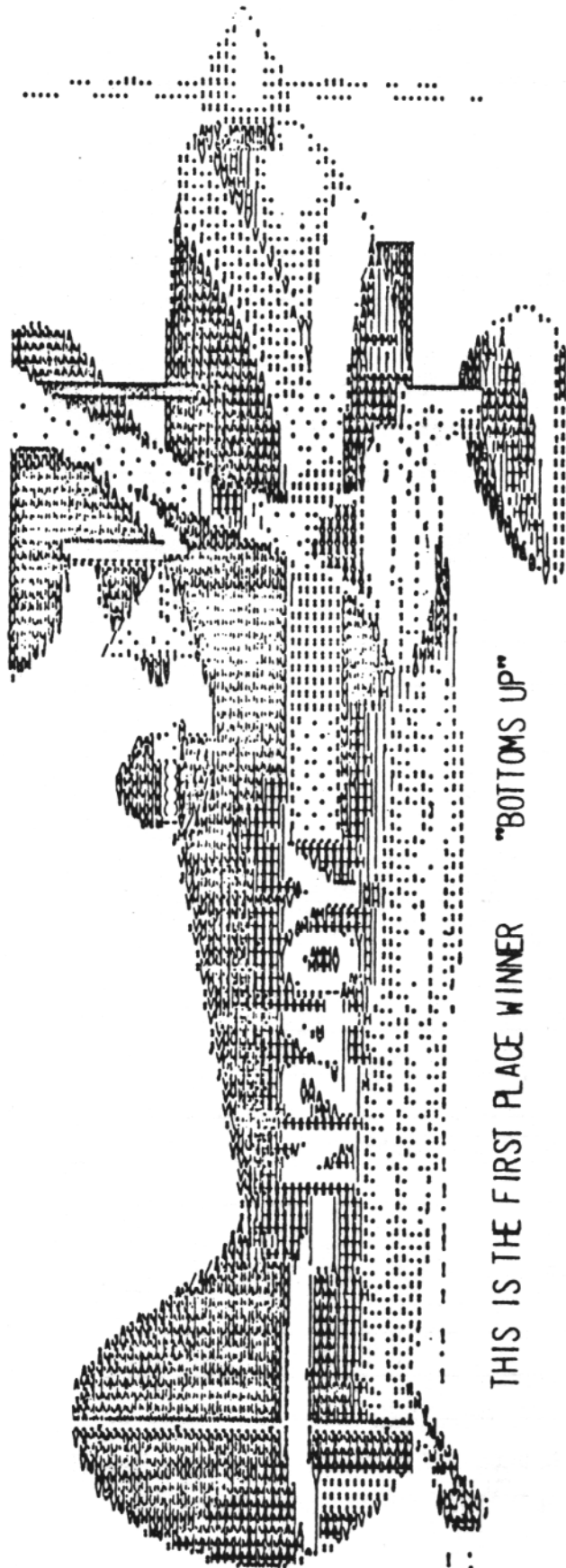
OTHER EQUIPMENT \_\_\_\_\_

ARTICLES YOU WOULD LIKE TO READ MORE ABOUT IN THE JOURNAL \_\_\_\_\_

ARTICLES YOU DID NOT ENJOY \_\_\_\_\_

COMMENTS \_\_\_\_\_

PLEASE MAIL COMPLETED FORM SIGNED OR NOT TO: RTTY JOURNAL, P.O. BOX  
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THIS IS THE FIRST PLACE WINNER "BOTTOMS UP"

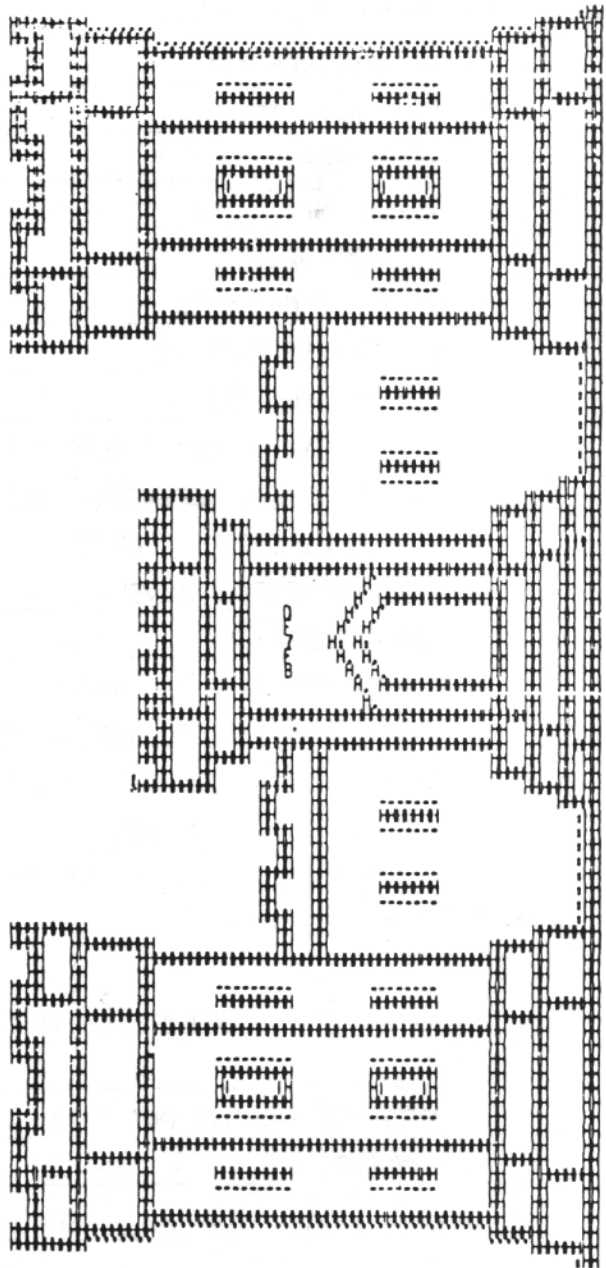
"BOTTOMS UP"

"SCRAPPY UAC-200" - 3/4 SCALE GREAT LAKES POWERED BY 230 HP  
 10-362328 LYCOMING AIRCRAFT ENGINEER AND CONSTRUCTOR BY  
 BILL SUTHERLAND WHO THEN BLEW THE ENGINEER IN COMPETITION AND  
 PROFESSIONAL AIRSHOWS 1969 THRU 1973.

1980 RTTY ART CONTEST

THIRD PLACE WINNER

"MY HOME  
 IS MY CASTLE"



"MY HOME IS MY CASTLE"

1980 RTTY ART CONTEST

ORIGINATED FOR RTTY BY KLAUS, DF7FB, ERLENSEE, FRG

RELAYED BY NORM, KG2OL, TORRANCE, CALIFORNIA



A HISTORY OF RTTY From SCATS BULLETIN

In 1906 the first American tele-typewriter was invented, and a company to market it was formed by the inventor, Charles Krum and financier Joy Morton ( of the Morton Salt Company), called "MORKRUM COMPANY". The young firm had a pretty rough go of it until 1915 when the Associated Press decided to use the Morkrum equipment.

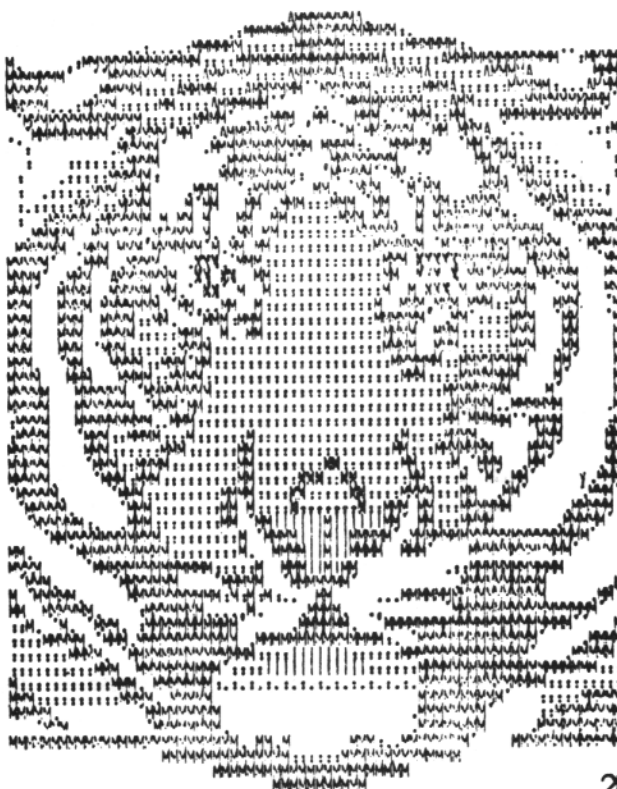
A German immigrant, Edward Kleinschmidt, independently, was manufacturing a machine bearing his name at about the same time. In 1925 these two companies were merged, and the combined company was purchased in 1930 by Western Electric which is the manufacturing branch of Bell Telephone Company. At this time the company changed its name to TELETYPE CO. Kleinschmidt then came out with a new machine and he formed the Kleinschmidt Co. to manufacture his new machine.

In the United States, Amateur RTTY started about 1946. On both coasts groups started using RTTY on 2 and 80 meters. On the lower frequencies

MAB (make before break) keying was used. It sounded like hi speed CW. The pulse length on a teleprinter machine is quite short, and it was soon found that MAB was not as satisfactory as leaving the transmission keyed and shifting the carrier in frequency to correspond to the different letters. This was allowed on 11 meters, and here some of the important contributions were first made using FSK. On VHF, the regulations allowed the use of audio tones. This is used to this day, but most of the VHF is using FM modulated with tones instead of AM. This is very simple to do and allowed the Transmitters to be very simple. This is called ADSK.

In 1953, the FCC modified the rules to permit FSK (frequency shift Keying) to be used on HF using 850 shift only. However, many commercial stations using RTTY had found that certain problems could be minimized by the use of shifts more narrow than 850. Amateurs also wanted the opportunity to experiment with these narrow shifts, and in March 1956 it

became possible to use "narrow shift up to 900." Due to the advance of computers in Amateur Radio in 1980 FCC lifted its ban on the five level code and now allows ASCII to be used. Publishers note: I guess you fellows knew this all along, but it was news to me.....Dee.....



THE TRAVELING BROTHERS, BARNUM AND BAILEY, CIRCUS TIGER  
 ORIGINAL ART WORK BY PAUL BRANSON FOR THE SATURDAY EVENING POST  
 USA 1925  
 ADAPTED FOR RTTY BY  
 JOHN W. BRINSIDE, N4IWH  
 1980 RTTY ART CONTEST



2ND PLACE WINNER THE PROSPECTOR

ORIGINATED FOR RTTY BY WINKY, AD4M, HOLLYWOOD, FLORIDA

TROUBLESHOOTING THE MODEL 28 TU  
BY: Dick Bensinger, K8ILQ  
1023 Coleman Street  
Ypsilanti, Michigan 48197

The following is a brief outline of trouble isolating for the Model 28 typing unit. It is only meant to isolate the trouble to one section of the unit, such as the selector, code bars, front plate, stunt box etc.. Refer to the proper manuals for location of parts and adjustments.

To shoot a case of mechanical trouble which can be made to fail from the keyboard, such as dropping of a character, wrong character, L/F failure etc., first cause the failure. Once the failure is in the machine hold it there. Do not hit any other character. You can now follow the chain of movement nearly all of the way through the machine as follows:

1. Check the selector push levers for proper coding of the character. These are the bars that ride the selector just below the selector magnets. These count from left to right as you are facing the machine, pulses 1 through 5. If the bar is towards you it is in the selected or mark selection and if it is away from you it is in the space condition. If the character is selected ( such as 2 and 4 marking and 1, 3 and 5 spacing for the letter "R"), you can figure that you are OK through the selector. Remember, upper case characters will be the same as its corresponding lower case character in a 28 machine.

2. Next go to the transfer levers. These are the "Y" shaped bars just forward of the selector levers. They transfer the motion from the levers to the code bar shift bars. They are numbered as to code pulse with a flag attached to the front of each lever. Also at this point, you will pick up another transfer lever marked "C" for common. Once again check to see that each code pulse is either marking or spacing as called for. Forward for space and rear for mark. The common transfer lever has an extension that passes behind the number 1 and 2 transfer levers. When either 1 or 2

Push bar is selected the common transfer lever is also selected. The 1, 2 and common determine the vertical position of the type box. If okay go on to the next step.

3. The code bars are set up by the position of the extension passing through the transfer leaves. If the levers are forward the code bars will be driven to the right for spacing and if they are to the rear, they will be carried to left for marking by the code bar shift levers. The code bar shift levers are like scissors/like vertical projections that the ends of the code bar shift bars pass through. If the code bars are set up okay on the right side of the machine, move to the left side and check there. They are numbered for you on the frame. At this time you will notice that there are several other code bars. Disregard them at this time. The code bar movement can be affected by the front plate mechanism so do not be fooled into immediately suspecting code bar troubles if the code bars are not placed correctly. Before tearing the front plate off and going into the code bar basket, check further into the front plate. The code bars can also be jammed from the stunt box if the stunt box function bars are not pulled out of the way in the proper sequence. A good spot to check for this problem is the roller that rides the function clutch cam and operates the function reset bail. If the roller is worn it will cause "BIG" problems. To check it for wear, grasp it with a pair of long nose pliers and pull it towards you. You should have only a few thousandths of an inch of play. Check this on every routine and be sure to oil it. It gets missed a lot on routines.

4. If you are okay on the code bar positions and its still getting errors check the type box position as follows:

Remove the typing unit from the cabinet. Clip the selector magnet in-to mark position with an alligator clip (sometimes it helps to flatten the jaws a bit so that you can get it over the armature a bit easier).

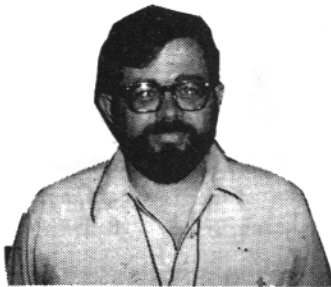
Now trip the selector clutch and spin the mainshaft to put everything into mark condition. Now strip off the space pulse selector push levers for the letter "M". (1 and 2) Trip off the code bar clutch by operating the lever between the frame and the selector cam. Turn the mainshaft till the print hammer just trips off. Stop here. At this point everything should be in final print position. The print hammer should have struck the type pallet squarely. If not, check print hammer trip lever adjustments and left and right oscillating rail shift links for adjustment. Check in both upper and lower case by manually snapping the shift links over into the other case. They will snap over easily by pulling up with a spring hook at the hinge point of the link that is straight.

5. Stunt box checks can be made in the same manner by setting up the function that is failing and running it through the machine. For instance, a C/R function. Watch the C/R function bar in slot 5 of the stunt box. The function bar should drop in and the pawl should latch to its' function lever. Then, as you continue to rotate the mainshaft, the lever should be driven to the rear, the carriage should return and the pawl should be stripped off. Each operation can be observed as it is happening and the trouble isolated. Simple, huh?? It ain't necessarily so.

One word of caution. Don't be in too big a hurry to change adjustments. Look first for worn parts, broken parts or missing springs. This is usually what you will find and you would be surprised how many times a part can be changed and the machine will run perfectly without any further adjustments. Most adjustments are interdependent and you can end up with a lot of work if you have to completely readjust a machine.  
Good luck and 73..Dick K8ILQ

TTY rule of thumb.....  
All TTY adjustments are.....  
Enough Not To Exceed Too Much.....

Note: That is Dicks' very unique QSL card on this months cover.....



# • RTTY-DX •

Skip Prinsen, WB6CYA-3611 Merrimac, San Diego, CA 92117. (714)276-3182

Greetings to all...

The B.A.R.T.G. is behind us again for another year what a turn out from this end of the world. There were many stations on this year again. I printed no new countries but several new ones were reported to be active.

The DX HONOR ROLL is due to be printed in the July issue of the JOURNAL. For our new readers, this is a listing of where most of the active DX'ers stand in their quest for DXCC. What I need is a listing of the number of countries that you have worked and number that you have confirmed. Such as 104/94 indicating your standing. This will then be printed in the July/August issue of the JOURNAL.

This article will be shorter than normal due to the fact that "DEE" will be taking copies of this issue with her to the Dayton Convention. I sure wish that I could go to Dayton myself and get to meet some of you that will be there. Maybe after I get out of the Navy I'll be able to get away and do some of the traveling that I would like to do.

Another means of communicating has become available to those having computers and or telephone modems. MicroNET is growing with leaps and bounds and Steve Harding KAGETB has a bulletin board strictly for the Ham called HAMNET. This can be reached thru Commuserve's Micronet. To gain access leave Steve a message on EMAIL his ID number is 70371.113. Steve also needs someone to put the ARRL bulletin into his bulletin board are there any takers?

In last months article I made mention that DU2MEL was active and I made a mistake on his callsign. DU1MEL is the correct call and his name is MEL. His QSL manager is Don K9MD. MEL is using the TRS-80 micro with the Macrotronics interface. Sorry Mel for the error.

YS2MFI QSL info P.O. 860, Las Palmas, Canary Islands, his name is Salvador.

Here are some notes from John W3KV "QSL cards have started to come thru for the operation from Sabah". 9M6MO's QSL manager is JA1PUI. JA1PUI may be active from Yap and Panape.

Here is a listing of some of the stations that have been active over the past few weeks: C5ACL, CT1SU, CT-1KB, DU1POL, DU1MEL, DU1JMG, EI5Q, FP8DF, FP8HL, GD3YEO, GW4EVJ, LU3EQ, LX2LH, SP3CMX, SP9BQJ, SVOAP, TI2WR, TR8WR, TU2JJ, VK4AAT, YJ8TT, YS2MFI, YS2RU, ZL1BBR, ZS3L, 5Z4TV, 8P6JA, 8P6FX, 8P6JG, 9K2GR, 9X5SP.

Thanks to the following for their inputs: W3KV, KOPJ/6, K5WTA, WA6CQW, W2IUC and K9MD.

## AWARDS SECTION

Worked All States, Dated 12 March, 1981. John F. Wojtkiewicz, W7LLC.....

## HAM HELPS

Terry Simonds, WB4FXD/1, P.O.B. 1558, Edgartown, MA 02539 writes that he has purchased a Teletype Corporation Model 32ASR and wishes to modify it to work with his system. He needs a Teletype wiring diagram package NO. WDP-0203 for the 32ASR with Centralized Selective Calling System and SA150 Accessory/Interface Unit. Terry says that he would be more than happy to pay for any copying costs.

## KONTEST KORNER

GARTG	12 Apr.81	Apr/81
A. Volta	2-3 May.81	Apr/81
Europe & Africa Flash		
Giant	23-24	May 81 Jan/81
VK/ZL/Oceania	6-7 Jun.81	coming
GARTG	13 Jun.81	Apr/81
SARTG	15-16 Aug.	coming
GARTG	30 Aug.81	Apr/81
WAEDC	14-15 Nov	Apr/81
GARTG	17- Oct.81	Apr/81
CARTG	17-18 Oct	coming
Australis-Oceania and		
Asia Flash	Jan 1982	coming
BARTG	March 1982	coming

PAGE 11

As some three years have passed since the last review of the Quarter Century Award it is desirable to update the info, especially in view of the newcomers to RTTY who may be unaware of its existence.

Printed in red, green and blue, the award measures 10" x 13" and makes a very attractive addition to the shack "decor". Additionally, the wording of the Award has been revised prior to a re-print and the Award is now available to both the short-wave listener and the transmitting Amateur. In the past, whenever a SWL made a claim it became necessary to have an extra piece of artwork added to cover up the additional wording. The award is available to any Amateur or SWL, not necessarily a BARTG member, who can provide evidence of having heard/worked 25 different countries using the RTTY mode. The status of a country is determined by either the ARRL DX list or the Geoff Watts DXNS listing.

One way in which an Award can be made is by using a contest entry for the BARTG Spring RTTY Contest as the Contest entry can be accepted instead of waiting for QSL cards to arrive. Taking this years Contest as an example, there were over 50 different countries active during the contest. Endorsement stickers are available for attachment to the original Award and these go up in steps of 25 countries as far as 200 although so far, no one has reached this magical number. The nearest so far is Arthur Blave, ON4BX with 189 confirmed but another English call of note is G3KPT as Gerry has managed to confirm 29 countries so far using power less than 4 watts.

At the moment 229 Awards have been issued. Here is the list:

ON4BX	189	I5WT	111
W2LFL	155	W1GKJ	106
G6JF	146	DL8VX	105
ON4CK	135	OK1MP	104
K6WZ	117	DJ8BT	103
W3KV	113	I1ROL	103

continued on page

# CLASSIFIED ADS

30 WORDS \$3.00. ADDITIONAL WORDS 5¢ EACH. CASH WITH COPY--DEADLINE 1st of month for following month.

TELETYPE, KLEINSCHMIDT repair parts wanted, unused. M 14 thru 40. Possibly can pick up at your QTH. Cash or trade for any quantity. Write TYPE-TRONICS, Box 8873, Ft. Lauderdale, FL 33310 or phone 305-583-1340 after 10 PM EST. Send SASE for list of parts, gears, ribbons, supplies, toroids. Fred Schmidt, N4TT ex W4NYF

SATELLITE LOCATOR: find SATCOM-1, GOES-1 others. Computer generated, typically gives direction and elevation to 157 geostationary satellite locations visible from your unique location (horizon to horizon, one degree increments). Send \$10.00 and your latitude, longitude in degrees, minutes to PPI, Box 74-RJ, Mobile, AL 36601.

SALE\*SALE\*SALE\*SALE\*SALE; Heavily inked UPI ribbons, fits all Teletype machines \$6.50 doz.; dual spool red & black ribbons \$14.50 Doz.; Perf tape 11/16" x 8" case of 40 rolls \$19.50; 1" x 8" case of 28 rolls \$19.25; black 1" x 8" box of 7 rolls \$7.50; strip printer tape 3/8" wide ungummed, box of 25 rolls \$14; model 28 self contained, stand-alone typing reperf with 3 speed gear shift \$120; single speed \$95; model 28 TD \$99; roll paper canary or white, 5" diameter, case of 12 rolls \$25; model 28 ASR complete, but not rewired or checked \$255; model 28 ASR complete and checked, rewired for local loop \$300; model 28 typing units, sprocket feed, less type box \$99; model 28 typing units, friction feed, less type box \$149; model 28 ASR auxiliary reperf type LARP complete with motor, base and mounting studs to fit inside model 28 ACR cabinet behind TD, \$99. All prices are FOB Brooklyn, NY. ATLANTIC SURPLUS SALES, 3720 Nautilus Ave., Brooklyn, NY 11224. Tel: 212-372-0349. TELETYPE MACHINES, all makes & models and allied items. 25% off on everything. SASE for list. GOODMAN 5454 S. Shore, Chicago, IL 60625. 312-753-8342.

TOROIDS WANTED for export, any quantity, any models, highest prices paid 201-464-5310. Van W2DLT, Box 217, Berkeley Heights, NJ 07922.

GOVERNED MOTORS, Teletype LMU 39/LMU 41 wanted. Also Teletype ESU for ASR/KSR 28 Lo-level/RFI (gold box located in kneewell of unit, or will buy/swap whole units) 201-464-5310 Van, W2DLT, Box 217, Berkeley Heights, NJ 07922. TELETYPE 43 KSR/EIA at cost \$848.00 new, also M33 ASR good condition \$325 201-464-5310 Van W2DLT, Box 217, Berkeley Heights, NJ 07922.

WORLD PRESS RADIOTELETYPE STATION lists. Over 50 different worldwide press services contained in 3 lists. By time, by frequencies and ITU combination list. All transmitting in English. 24 hours. Hundreds of confidential and fascinating RTTY news stations in these up-to-date lists. Utilize your present equipment. Book with lists \$5.95 + .50 Shipping PPD. Universal Electronics, 1280 Aida Dr., Reynoldsburg, OH 43068.

NEWS-NEWS-NEWS-Amateur Radio's Newspaper, "WORLD RADIO". Trial subscription Two issues for one dollar. WORLD RADIO, 2509-F Donner Way, Sacramento, CA 95818 NEW SUPER-LOG II machine language program for TRS-80 Model I & Model III Computers. Whether you're a rag-chewer, contester, DXer or Award Hunter, SUPER-LOG II will overwhelm you with 'lightening Search & Sort' capability--the absolute ultimate in computerized logkeeping! Instant recall of typical logbook information at your fingertips! Cassette based Regularly \$19.95, INTRODUCTORY OFFER \$16.95 plus FREE Contest Program, Super Duper II. Complete Disk version add \$8.00. MICRO-80 Inc., R-2665 Busby Road, Oak Harbor, WA 98277.

KITS AND PARTS for the RTTY Amateur, featuring the famous MEG-1 Demodulator, ID-1 CW IDer and IPT-1 Interface Power Supply and Timer. These units available as kits, or fully assembled plus a wide selection of quality new components, make the MIDNIGHT ENGINEERING GROUP well worth checking out, and don't forget our carbide drill bits, now more sizes available.

Send 18¢ stamp for catalog. Midnight Engineering Group, POB 349, Galesburg IL 61401.

DRAKE C LINE/ Filters/crystals \$1000- Kenwood TR7600 \$255-Sonar 2M. FM/9 pairs/P.S. \$100-Hustler 2M. mobile \$15-Hygain 14EL. 2M. Beam \$20-28ASR/gearshift/reperf \$750-Model 26 \$30-Model 15/loop supply \$50-motorized tape winder \$25-ST6 \$300-UT4 \$200-DT600 \$80-diode matrix CW ID \$20-Info Tech M200E/300/9" monitor \$850-Hickock 665 oscilloscope \$30-450 RTTY picture tapes \$100-all excellent with manuals-wanted Collins S line. Call Dave K3KD, 1-(215)-754-6286.

FOR SALE: 6th edition of the "LIST OF RTTY STATIONS IN FREQUENCY ORDER", now contains 1717 frequencies monitored in 1980-81 of commercial stations like press, aeronautical, weather, telex, military, diplo, maritime etc. on shortwave. Schedules of 82 news agency stations on 641 frequencies, and 178 special abbreviations are also included. This offset printed list is airmailed to you for \$17.00 (check or cash) from Joerg Klingenfuss, panoramstrasse 81, D-7400 Tuebingen 7, West Germany. THOUSANDS OF COMMERCIAL RTTY STATIONS are active between the Amateur shortwave bands. Many of them can be easily printed with your existing equipment. (Take care of legislative restrictions if applicable!) If interested, you need "software", compiled from nonstop monitoring the complete shortwave spectrum. I have up-to-date frequency, callsign, schedule, code lists on press, military, diplo, telex, aeronautical, weather etc. stations. Write for details. Joerg Klingenfuss, Panoramstrasse 81, D-7400 Tuebingen 7, West Germany. TECH. MANUALS, SUPPLIES, INFO, PARTS, rubber stamps, badges. Teletype maintenance manuals and wiring diagrams. Facsimile supplies. Ribbons and paper for Teletype. \$1 for catalogs (refundable with order). BVE ENTERPRISES, Box 73, Paramus, NJ 07652.



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## The INFO-TECH M-77 COM-CLOCK

A microprocessor based station accessory that will, on command:

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Outputs: MIL 188, EIA, TTL, isolated loop FSK  $\overline{\text{FSK}}$  AFSK (2 shifts) grid and cathode keying, + 6 open collector programmable outputs.

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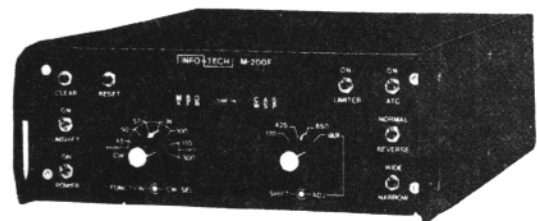
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SELL-ST6 AND MODEL 28 ASR with TD, typing reperf, auto CR/LF, paper and tape winders, UT4. DDTMG and RTTY scope built into seperate ST6 cabinet. All controls built into panel on 28 ASR. Also, Model 14. All excellent condition. See operating before you pick up. Wired as complete system Sell as complete system. \$800.00 Dave Wipperfurth, WB9OUM, Rt. One, Box 700, Flagstaff, AZ 86001. 602-526-0868 Eves

FOR SALE: "LIST OF NEW RADIO REGULATIONS DECIDED AT WARC 1979", containing the original texts of those new Radio Regulations (RRs) which are of essential interest to radio Amateurs. They cover: terms and definitions; designation of emissions (completely revised!); frequencies; call signs; broadcasting service; Amateur service. The chapter dealing with frequencies contains the new Table of Frequency Allocations including all footnotes. Most of these new RR's will come into force on 1 January 1982. The list is compiled from official ITU documents and includes also the agenda and the final acts of the Conference. This offset printed and hardbound book is airmailed to you for \$16.00 (check or cash) from Joerg Klingenfuss, Panoramastrasse 81, D-7400 Tuebingen, 7, West Germany.

HELP..NEED INFORMATION from someone having an Info-Tech M-70 code speed converter. Wes Nowosad VE4VE, 515 Selkirk Ave., Winnipeg, Manitoba, Canada MODEL 28ASR WITH reperf and TD \$300. Model 28KSR \$175, Model 28 reperf with keyboard and 60-75-100 WPM gearshift \$150. Model 28RO \$125, Model 35RO in 28 cabinet \$200 including 20 mA power supply. Model 28RO with 60-75-100 gearshift in compact cabinet \$250. Central Electronics 100v transmitter \$250. All equipment rewired and ready to plug in. FOB Akron. Bill Parker K8NCV, 984 Amelia Ave., Akron, OH 44302.

RTTY CLOSEOUT- 50% off of all RTTY equipment listed on my January, 1981 list. Send SASE for six-page list-page list and prices of Model 14, 15, 28, 33 and 35 Teletype equipment, parts and supplies. Lawrence Pflieger, K9WJB, 2600 S. 14th St., St. Cloud, MN 56301. Phone 612-255-9794.

MAG-TAPE REPERF. Wiltek "Digi-Store" R/T set. Stores digital signals on magnetic tape for later playback/speed change. Used original at MIT. 19" rack mounted \$99. Jim Cooper, 651 Forest Ave., Paramus, NJ 07652. (201-265-7075).

HAL MSO SYSTEM CONTINUED

to go up since one doesn't have to remain on channel 24 hours to insure reception of messages directed toward them.

The MSO has too many functions and features to list them all here but for anyone that is into handling large numbers of messages, the MSO is a dream come true.

QUARTER CENTURY AWARDS CONTINUED

- I5FZI 42 countries
- K5ARH 42 "
- K4CG 41 "
- OZ2CJ 41 "
- SMOCBC 41 "
- 9H1EL 41 "
- 40 countries: DF7FB, G3YYD and WA9BOW
- 38 countries: G3RDG, ISORUH, IT9ZWS, VE7UBC, VU2KV, WA3IKK, WB6ADY, 9A10NU and L. Reynold
- 37 countries: KB9DM and VK3DM.
- 36 countries: JH1TFF and VK6PG.
- 35 countries: EA8RU, FG7XT, GW3IGG, KA7CYK and VK5WV.
- 34 countries: DL6YH, KX6LA and 9K2EP.
- 33 countries: HA5FE, ISOZUD, OK3KFF, SM5HEV, TF3IRA, WA6CQW and WB6QFE.
- 32 countries: DJ9IR, G2HIO, I1PXC, WA2YVK, BRS27239 and Kurt Wustner.
- 31 countries: G3VXO, LZ1KDP, LZ2KRR, OE5BRL, WA3JTC/ZP5, and W6CG.
- 30 countries: I1YTL, JH1ISE, K8ZOA/4, WB3CCZ, W8GPB, WOCJZ and YO3AC.
- 29 countries: DK1AQ, G3KPT, IOZAN and SMOIIB.
- 28 countries: F5QE, DF2ME, DJ4TJ, DL8CX, I5CBF, K4RN, LA7AJ, OZ1EWX, OZ9GA, W5TZB, W5HEZ, 3D6AD, 4U1ITU, and Anton Mensch.
- 27 countries: DL1TV, G3ZWW, G4EEV, IOZSG, JABADQ, K8MYF, ON7AZ, OK3ZAS, OZ9JB, PAOYZ, W2RUI, W3CIX, W8JLN, W0MT and 4X4MR.
- 26 countries: DJ9XBA, DK3CU, DK7UC, DL6ZB, I1CWX, PA3ABE, VE3JKZ, XE1LL, YO3KAA and 9Y4RB.

25 countries: DK2 VX, EA3BLQ, G3CQE, G3GGL, G3IYG, G3KMI, G4FLM, GI3VDB, I1ORS, I4GZP, I8YRK, IC8FHC, ISOESS, ISOTIU, KOHSC, KG6NAA, LA3YU, OK10AT, OK2BMC, OZ4IJ, VE3AYL, VE3IR, VE4BJ, VP2KH, W2UGM, W5VJP, WA8BOT, W8CAT, and SWL 50.160.

This is the list as of November 1980. Hope we did not miss anyone or get their call wrong, our copy was a bit fuzzy though. Dee

Claims for this award may be made by: submission of appropriate number of QSL cards or photostat copies witnessed by two licensed Amateurs. By check list containing call signs, details of date of contact, report received and band in use. This must be witnessed by two officers of a recognized Radio Club or National Amateur Radio Society.

By logs submitted for any RTTY contest sponsored by BARTG. The claim should be made at the same time as the contest log is submitted.

The cost of this award is: United Kingdom 50p. Overseas, \$3.00 Dollars USA or 15 IRC's.

Cost of extra "stickers": United Kingdom 20p. Overseas 2 IRC's, plus 50p (U.K.) or 5IRC's if QSL cards are to be returned.

Send your claims to: Ted Double, G8CDW, BARTG Contests & awards manager, 89 Linden Gardens, Enfield, Middlesex England EN1 4DX.

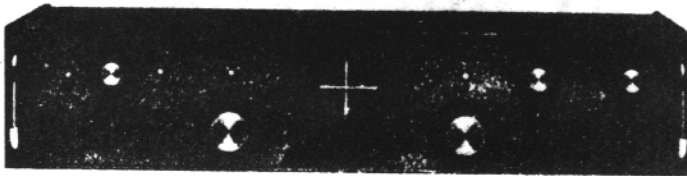
73's de Skip.....

GOING TO DAYTON....

Yes, the JOURNAL will be heading for Dayton just as soon as this issue is in the mail. That had better be before 23 April as the flying machine we are booked on says we will go then or start flapping our wings east. Hi. Messages for John KA6NYK and/or yours truly KA6NYW may be left at our hotel The Knights Inn in Miamiasburg just south of Dayton. RTTYers will meet in the Imperial House North in the Kings' Room. If we do not see there give us a call. We will be in Cincinnati April 26 and 27. Then go to Chicago from the 28th to 2nd of May. From there we will go to Philadelphia In Chicago its 459-1374 my son Glenn, WB6AQR/O and in Philadelphia its 461-2544 Pete Goheen, Johns' son. Call Dee.

# DOVETRON

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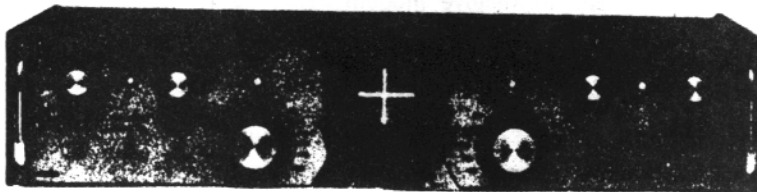
## MPC-1000C

Multipath Correction  
In-Band Diversity &  
AFSK Tone Keyer

Amateur Net:

Standard features include CONTINUOUSLY tuneable Mark and Space channels (1000 Hz to 3200 Hz), Dual Mode (MARK or FSK) Autostart and internal high level neutral loop keyer (20 to 60 ml). Both EIA and MIL FSK outputs are provided for direct interface to microprocessor and video terminal peripherals.

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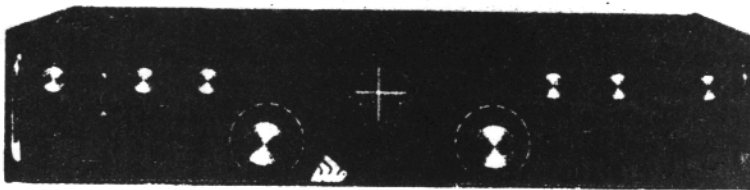
## MPC-1000CR

Signal Regeneration &  
Speed Conversion

Amateur Net:

A front panel switch permits internal TSR-200 Signal Regenerator-Speed converter assembly to electronically "gear-shift" between 60, 67, 75 and 100 WPM. All incoming and outgoing signals are regenerated to less than 0.5% bias distortion. Also available with DIGITAL Autostart (TSR-200D): Amateur Net:

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## MPC-1000R/- TSR-500

Dual UART Regeneration,  
Speed Conversion, 200  
Char. Memory, Word Cor-  
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Autostart

Amateur Net:

The MPC-1000R/TSR-500 provides Preloading and Recirculation of the 200 character FIFO Memory, a keyboard-controlled Word Correction circuit, Variable Character Rate, Tee Dee Inhibit, Blank/LTRS Diddle, a Triple Tone-Pair AFSK Tone Keyer and a Character Recognition/Speed Determination DIGITAL (DAS-100) Autostart mode.

\*The MPC-1000R is also available without a TSR assembly and functions as a MPC-1000C with a Triple Tone-Pair AFSK Tone Keyer. This "Basic-R" permits future expansion with a TSR-100, TSR-200, TSR-200D or TSR-500 by simply lifting the lid and plugging in the appropriate TSR assembly: Amateur Net (Basic-R):

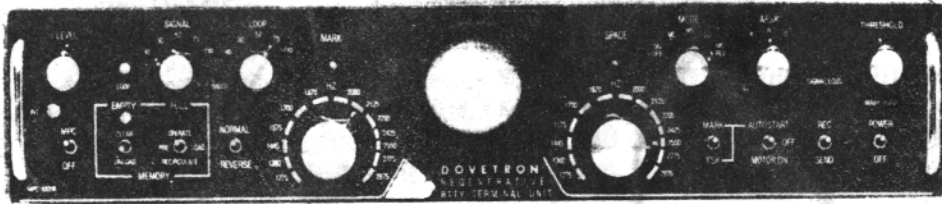
Your QSL will bring complete specifications, or call: 213-682-3705.



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# MPC-1000R BY DOVETRON

MULTIPATH CORRECTION, IN-BAND DIVERSITY, SIGNAL REGENERATION,  
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