

RTTY

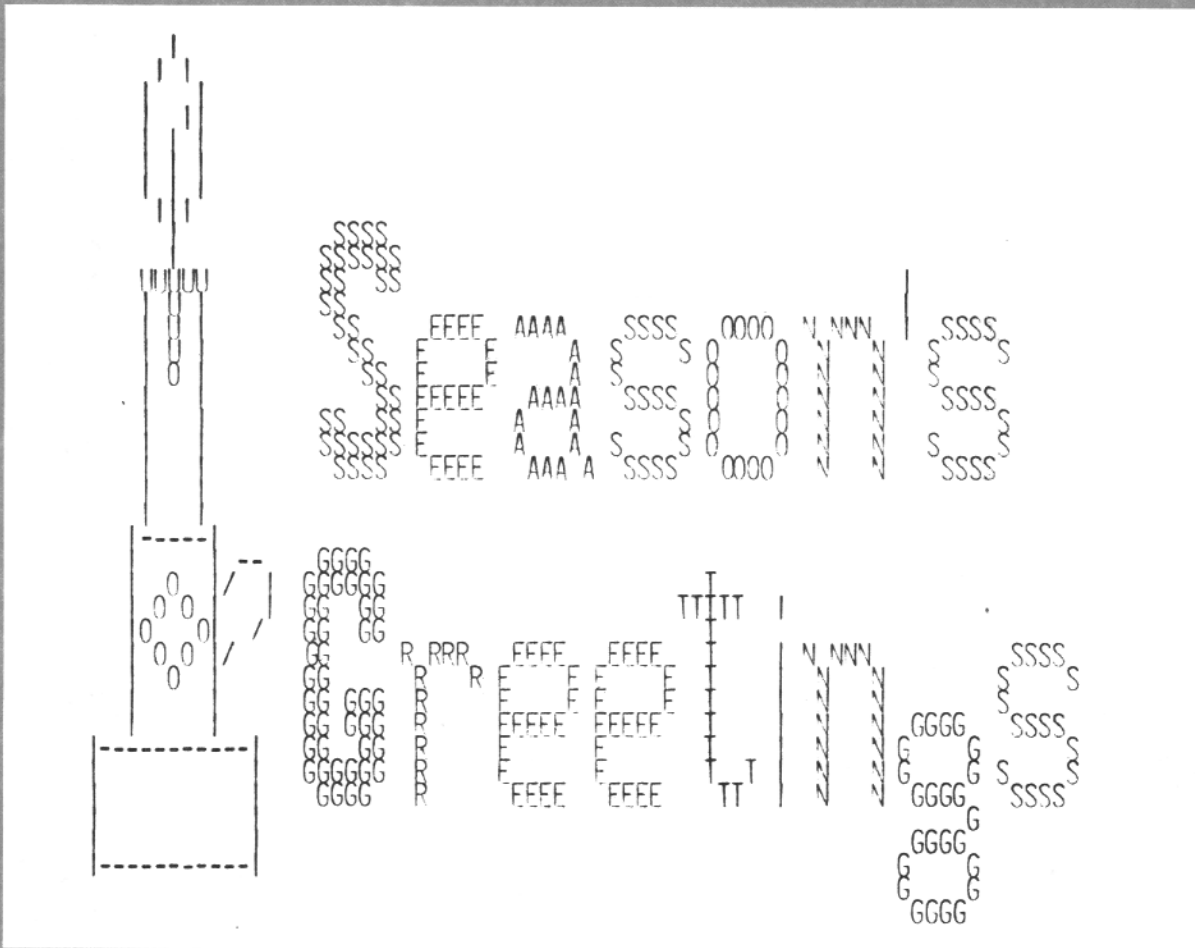
DECEMBER 1982

Journal

VOLUME 30 NO. 10

EXCLUSIVELY AMATEUR RADIOTELETYPE

ONE DOLLAR



FROM THE STAFF, EDITOR AND PUBLISHER OF THE RTTY JOURNAL WE WISH HEALTH, HAPPINESS PROSPERITY AND ABOVE ALL PEACE UNTO ALL

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RTTY JOURNAL

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"ROBOT"

Hal Larsen, N6DOI
630 Hillward St.
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As a start, I should mention that prior to the purchase of my ROBOT, I was the proud owner of a Model 15 that worked most of the time, and a home brew TU with many switches and gadgets on it that worked most of the time. Between the two, I was on the air sometimes when the two meter link was up (prior to its move to Point Loma). Then I bought a 220 Midland and a 14 element KLM beam and then I had the model 15 and TU to *%z\$#@€ when I couldn't reach the repeater.

My first thoughts, when I decided to improve the RTTY portion of my station was the various types and brands. My children are grown and gone from home and I'm semi-retired and have no business to be concerned with, so I dismissed any of the computers and decided on a dedicated RTTY machine. Next came the cost factor, my thoughts were for a HAL, Microlog, Info-Tech or the Robot. In addition to cost, I felt the "local" manufacture of the Robot was a plus for it. I checked into the prices of all four makes, what they were capable of doing for me, and what I required of them and was needed to meet my requirements. Then along came ROBOT with its rebate, and you now know why this is titled "ROBOT".

The ROBOT comes in 2 models, the 800 and 800H. In the original brochure I had, there was no mention of 2 model's so when I went to lay my money on the counter, I had no answer to the question of "which model do you want?" I then got a copy of the of the price list which explains the difference in the model's, picked up my money and went home to contemplate some more.

I found out that, as a rule of thumb, if you wish to RTTY on VHF use the Model 800H, if you plan on HF RTTY, then the Model 800 is the best one for you. The 800H or "high tone" model has, in the 170Hz shift-2125Hz mark and 2295Hz space in 850Hz shift-2125 Hz mark and 2975 space. The 800, or "low tone" model has in the 170HZ shift-1275Hz mark and 1445 Hz space and in the 850Hz shift-1275Hz mark and 2125Hz space. As is mentioned on the price list sheet, "most HF radio's will not pass audio frequencies in the high tone range." So buyer beware

Attention radio amateurs!

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if you are interested in a ROBOT, please read the price list sheet, as it also mentioned it will pass the high tones on HF in the 170Hz shift but not the 850Hz.

I have had great luck on VHF and no problems at all on HF, of course I'm on the 170Hz. shift.

The unit itself is complete and no other "extra's or accessories" are needed other than the monitor. Then you're on RTTY or CW. The unit does have some slow scan TV features, but needs other components to get the SSTV on the air.

The features of the ROBOT are; it has 72 characters per line, split screen, while in split-screen mode it shows 11 lines on transmit and 11 lines on receive. When on full screen mode it has 24 lines available. While in split screen the buffer holds 511 characters for transmit. It receives and transmits in Baudot speeds of 60-66-75-100 and 132 WPM. In ASCII only 110 Baud. CW has an indicator of how many words per minute are being received and has the capability of transmitting from 4 to 99 WPM. Transmit CW speed is controlled from the keyboard and receive speed is automatically tracked and shown on the status indicator. It has a side tone oscillator and a trainer that generates random five letter groups at any desired pre-settable speed. Due to the filtering in my transceiver (a Tempo 2020) and in the ROBOT, communicating in the CW mode is more involved. Receive is accomplished in the sideband mode and transmit in the CW mode of the transceiver, so I must have the RIT set up properly for shifting from transmit to receive and CW to SSB.

The unit has memories for ID, WRU code, 2 "here is" messages and Selcom code (selective communicating.) While in Selcom the unit will store up to one full page (screen) of characters and transmit one of the "here is" messages automatically. Some of the additional features are, auto start, automatic CQ, word wrap around prevention, automatic carriage return and line feed after completion of a word after the 64th character on the line, when in ASCII it automatically shifts back from figs to ltrs when the space bar is pressed, transmit/rec is controlled from the keyboard, a status indicator (including tuning indicator) at the top of the screen indicates to the operator the combination of modes he is in and can be

Continued on page 12



HITS & MISSES

by **GEORGE**

GEORGE HAMMON, WA6CQW
14215 Pecan Park Lane Space 73
El Cajon, CA 92021

The SAROC Amateur Radio Convention will be held again at the Aladdin Hotel in Las Vegas, Nevada on January 13 through 16th January 1983. Advance registration is \$17.00 per person before January 1, 1983. Swap tables will cost \$2.50 each with SAROC registration. A special room rate of \$37.00 plus room tax, per night, single or double is available. Two Aladdin Hotel breakfast/brunches included with each paid registration. A Friday evening cocktail party will be hosted by Ham Radio Magazine. There will be a ladies program and hourly prizes with the main drawing Saturday. This is a fun convention so look for the RTTY JOURNAL and myself to be there.

HEATHKIT SS--9000

All the indicators are being received at this Qth that Christmas is not too far away. A variety of Christmas catalogs are starting to be received and earlier than last year. A welcome catalog was the new Heathkit catalog. I just couldn't put it down. I was really impressed with the new SS-9000 deluxe HF synthesized transceiver. The features of this unit are varied and many. It contains a built-in terminal interface with an RS-232 I/O port which allows direct control of operation via ASCII terminal, modem or computer. A single VFO is connected to the dual display (transmit and receive). The 256 bytes of RAM allows the operator to access frequencies (27) for DX nets, schedules or your favorite listening frequency. The front panel features two frequency readouts. This allows you to transmit on one and listen on the other or toggle back and forth.

The controller circuit acts as a serial interface between external requests, via the front panel controls

and terminal interface, and the internal circuits on the synthesizer, T/R and the audio circuit boards. The controller consists of a CPU, peripheral interface adapter (PIA), a static memory interface, a read only memory (ROM, for the program sequence) and 256 bytes of CMOS random access memory (RAM).

The terminal interface package (EIA standard RS-232C) allows you to control and monitor the transceiver from a video terminal, hard copy teletype terminal or remote transceiver control is possible over telephone lines with a modem. Commands built in to the transceiver controller allow you to select, display and change the band, mode, up to 27 operating and memory frequencies, passband shift, band scan and baud rates. you can also place the transceiver in transmit or receive mode, toggle the dual readout for I/R/TR operation plus exchange the one memory and two displayed frequencies at will.

The SS-9000 can be connected to the Heathkit SA-1480 remote coax switch. When changing bands, the built-in motorized bandswitch selects the proper antenna automatically with a dip switch. The baud rate is initialized upon power-up. The data flow speed is customized for any terminal. An 8 position switch on the front panel circuit board allows you to select any of 15 different baud rates between 50 and 9600. Half of this switch is used to control their rate at which readout frequencies change when the up/down band scanning button is pushed.

A matching power supply speaker provides 13.8 VDC with short circuit and surge protection. A dual digital clock is also housed in this cabinet which allows independent UTC and local time capability.

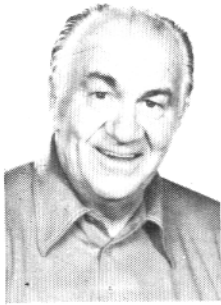
A special introductory price of \$2495.00 is good for 90 days. The era of computer-aided communication has certainly taken a big step. The potential of the computer is endless in Amateur radio and Heathkit in engineering the SS-9000 recognized the fact that more than any single station accessory, the computer is a power tool. The marriage of the SS-9000 and the computer truly is State-of-the-art.

P.L. 97-259

A decade of effort by Amateurs and their supporters, including Senator Barry Goldwater, K7UGA, came to a successful conclusion with President Reagan signing into law p.l.97-259 on September 13,1982. The amending of the Communications Act of 1934 was no easy task. A concerted effort which took resolve in the face of many setbacks over the years. The first RFI bill was introduced in 1972 and thru the years the ARRL and Senator Goldwater waged a relentless battle. In May of 1975 Rep. Charles A. Vanil introduced H.R. 7052. In February of 1976 Senator Goldwater introduced a new bill S. 929. Overwhelming response by Amateurs let their elected representatives know they supported this bill. The power of the people was clearly heard in Washington.

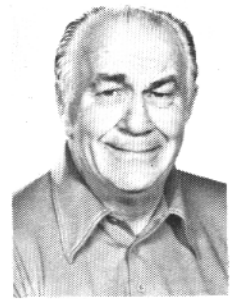
The many provisions of this bill include renewal of Amateur licenses every 10 years. The volunteer examination program. Exempts the Amateur communications from the Secrecy Act. One of the most significant parts of this bill is the establishment of minimum performance standards for home electronic equipment and systems to reduce their susceptibility to interference from radio frequency energy. The total provisions of this law are too long to list here, but CONTINUED ON PAGE 13

DX RTTY



BY BILL

WØLHS SNYDER, 1514 S. 12th Street, Fargo, ND 58103



"BULLETIN: THE TEN MHZ BAND IS OPEN NOW!"

Probably the biggest news to USA RTTY ops was the grand opening of the 10MHZ band on October 28th. I missed the ARRL bulletin that evening, but accidentally hit the new band while tuning my new Kenwood TS-930S for WWV. The first RTTY QSO I observed was between K4VYM and WØHFX on about 10143 MHz. One of the interesting facts, produced by my eavesdropping, was that both of these Hams are 75 years of age. I didn't log the time, so I can't Prove who was the first to hit the band. Anyway, the 10 MHz segment should be a good RTTY band.

The next good news was contained in a nice letter from Jerry KØJH who lives in Norfolk, VA. The news is this: "there really is a KG4AH QSL!" And Jerry has three! They were hand delivered by KG4WS, Wes, who stopped at Jerry's QTH on his way home in Delaware. Wes is on the air from Gitmo also, and from what my mail says, he is doing a good job of QSLing those who need the country. Wes is operating with an Atari 400 on the RTTY mode.

Later Wes, in QSO with Jon, WB8YJF, said KG4AH had recently received a shipment of two thousand blank QSL cards and was about to start answering the pack. Another on-the-air-source said three thousand cards had been received, so I pass it all along to you who need Gitmo for DXCC. Wes can be addressed as follows: Wes Smith, KG4WS, Box 22, FBPO Norfolk, VA 23593.

While on the subject of QSLing.... I called Everett, VP2EDX, on the land line, and was informed that his cards will soon be going out. Everett said he was last in getting his QSL cards printed, the other mode contacts took precedence over the green key operation.

DJ6QT/CT3 has been giving a new one to a lot of daytime operators. Walter is on from Madiera can can be QSL'd by his home callsign address. Walter made the 100th country for Jim, K4JAF who sends along a nice list of recently worked 20 meter stations: KV4-BQ, 2200Z; YB0ADI, 1130; GM4KHE, 2245 XT2AW, 2300; VE8CM, 0200. Jim also worked these stations on 15 meters: 9H1FA, 1300; 4N7NS, 1900.

The CARTG contest brought out enough new ones to tickle any DXer's imagination. CR9WW surprised Carl, K6WZ (130/121), by answering his contest CQ about 0110Z on 21 MHz. Others worked by Carl include ISØSVG from Sardinia; FP8DF, POB 41, St. Pierre and Miquelon; and EC8SJN from the Canary Islands.

Right in the middle of the CARTG I stumbled across ZD8DZ from Ascension Island. He was running an Atari 800 and rag-chewing with another W station. When they signed, I gave the ZD8 a call, but no answer. I also missed HZ1AB, 5N22BSH, TG9NR, TF3CC, HC1JX and CR9WW. Otherwise it was a really fun contest.

Fall always brings on "new rig" fever, so I popped for a new Kenwood TS-930S. It happened right after I read the glowing letter from Jerry, KØJH, in which he said he was extremely happy with his new 930 and would recommend it. So, I got mine! Having used a Kenwood TS130S for the last three years (at full power by putting a blower on the heat sink), I was happy to see that the manufacturer put blowers (quiet ones, too) in both power supplies of the 930. So far, I love it, except for the metering circuit which seems to have developed a problem. It's a little disconcerting, but I bought it from a nearby dealer who runs a first-

"NO TEN MHZ BAND ON THE RIG!"

class warranty repair shop, and because he's only one day away by UPS; I'll get it fixed without too much hassle. The antenna tuner works fine, the two VFO's are stable as a rock, and the SSB monitor circuit provides me with a tape recordable signal when I am transmitting--something I didn't have with the previous rig.

Bob, WØHAH, is the proud owner of a new FT-ONE, and John, K4VDM (120/104), gave away his Models 19 and 14 and purchased a TRS-80 color computer to join the CRT watching crowd. John cautions everyone not to give up on QSL cards from C02FRC. John got his after a two year wait. It was signed by Jesus, Box 19, Habana, whose home call is C02DC. The C02FRC callsign is a club station, so Jesus may not have anything to do with it now.

K4VDM also is interested in finding out if anyone has received a card from SP3KEY?

G5EPV is alive and well from Over, England. Mark, WABSM, who operates G5EPV, will be stationed in England for the next two years with the RAF and is looking for RTTY contacts with his old homestead. Mark can be contacted at POB 2729, APO, NY 09238.

HK3NBG, Ron, is new to RTTY from Bogota. Ron says he really is in love with the mode. His old call is WD9IPW /HK3. His address is Ron Pettingill, American Embassy Bogota, APO Miami, FL 34038.

EAVESDROPPING...."Have 4 boys and 5 girls, but I like RTTY best!"..... "whose calling the kettle lid?"..."I had to go help my wife find her car!" ..running a TS-820S bear-footed"..... "and a great big sayonara back to you!"..."the 20 meter band is rapidly being divided into phone, CW and mailboxes."..."the only reason I gave

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DX COLUMN CONTINUED

you an RST 339, is that's all I had in the buffer."..."it was tougher to understand than two Russians working each other on CW at 40 WPM."..."How's the copy? It can't be better than my typing!"..."Don't work all of the good DX, save some for me!"..."I shot a 7 point buck, that's 4 on one side and 3 on the other!"..."I will never get DXCC because yesterday I tossed out all my old QSL cards. My wife saved the stamps though!"..."I had to send in my ham rig for repair and modification, so while it was gone, I had to spend some time doing things around the house"..."my wife will kill me"..."This is my first DX contact on RTTY and boy am I excited!"

I would like to welcome Milos, OK1-JKM, to the subscriber list. According to Jean F8XT, our European RTTY JOURNAL manager, he is the first on the other side of the woodpecker curtain to join up. (ED note: we do have other subscribers in the communist block countries not subscribing thru Jean).

Right in the middle of the CARTG contest I came across two stations trading bible verses. If a guy can read THE WORD off a CRT, he should be able to do it faster and better out of THE BOOK, and not clutter up our busy ham bands uselessly.

I was glad to see KC4AAA turn up in the CARTG, as I transmitted a short set of rules to them a couple of weeks before the test. They added a lot of spice to the contest.

I used to think the RY key and the QBF keys were handy-dandy adjuncts for operating. But I have changed my mind! I would like to see them eliminated from the computer keyboards entirely. Back in the "good old days" of model 12, 14 etc. the RY tapes served a useful purpose, and it was great for channel holding on commercial stations, but let's get rid of them on new computer-styled rigs. Why? Well, I recently watched a station call a DX op about six times, then run a QBF line, then another DX call line, then a QBF...etc...this put him last in the "tailending" derby, and he got the DX station, much to my dismay.

Then a couple of days later I called a juicy DX station, got him, only to be QRM'd by 3 lines of RY and the following comment, "WOLHS, how do you like that, Har!" Gee, I wonder what I did wrong?

One day last month I watched a YV station (how do you get cards from Venezuela?) try 15 times to hit one of the popular MSO rigs. Everytime was slightly plus or minus the freq. and as far as I know never did make the thing operate.

MAC, K7BV, reports hearing UK7KK in Kazakh. But Mac raises this question...are there any 2 letter calls in the UK7 prefix?

Had a very enjoyable rag chew with W6NRM (W9TCJ) recently. Bob is one of the real old timers of our hobby, and over the years graced the pages of this magazine with many how-to-do-it articles. We chatted about the old Model 12 and all the fun we had licking the key-clix (and other assorted problems) of early-day high freq RTTY. It was really fun!

I WISH I HAD SAID THAT DEPARTMENT: "JT1KAA is the Loch Ness monster of RTTY!" (F8XT).

FM7WO is very active from Martinique. Laurent can be QSO'd via box 287 Fort de France 97203, French West Indies. His wife Aurore is also a Ham.

QSL address of YV5ABW is Miguel Hernandez, Apratado Postal 1636, Caracas 1010-A.

I4JXE, Gabriele, is quite interested in working 40 meter DX, so if you are interested in that band, you might contact him when you see him on the air.

I get a number of requests for information about rare states that are available for WAS contacts. One mentioned quite often is Idaho. Anyone in Idaho who will promise to QSL please send me your operating times, etc, so I can pass it along. This also holds true for Montana and Wyoming.

F8XT, Jean, reports 5B4CV can be QSL'd via Box 219, Limassom, Cyprus.

VP4WW. Greg, is the callsign of N4CC. QSL's go to N4KE at his callbook address.

KP4BJD, Gabriel, is now on from Puerto Rico after a 10 year absence from the mode. He says he now has a HAL CWR-6850 and there no longer is an oily Model 15 in the shack. QSL via Box 573, Puerto Real, PR 00740.

JA1ACB, Gin, informs us that VKØDX has been heard from Mawson base in the Antarctic transmitting on 50 baud and receiving on 45.

While on the subject of that area, there is a rumor that VKØKH, Ken will be active from Macquarie Island. Apparently he is there every 2 years. And more rumors..if Jim Smith, VK9NS, goes to Heard Island, RTTY will go along! That Heard Island expedition is one of two planned, and the DX Bulletin published in Vernon, CT., had a very interesting story about the place and the up-coming expeditions.

Had fun trying to work 5R8AL, Alain from Malagasy but, the God of Sunspotius was against us that day. Dick KB9IS, and a couple other US stations made the grade, and then got Alain to switch to SSB. F8XT tells about Alain's machine: it is quite old and Alain is complaining about having to fix broken springs all the time. Jean also helped Alain tune his filters by sending him the proper tones. 5R8AL is the only licensed station in Madagascar (Malagasy Republic).

Jean also reports working YB7AAU in Borneo. However, this country counts only with Indonesia, not as a separate country.

WA2DFR, Gordon, indicates that there will be a number of HH stations popping up on RTTY as a bunch of them have ordered gear for the mode.

FG7XE is on now and then from Guadeloupe. Georges may be addressed by Box 460, Pointe a Pitre.

GD5UG, Jack, has been appearing quite regularly on 21 MHz at about 1600Z. Jack is using a new Iono 9000E and the RTTY bug has really bitten him. He is even studying computer science at the local college on the Isle of Mann. GD3YEO is another station reported by Jack as being active on RTTY from the island. When I first worked Jack on the keys, W6JOX, Chuck

A RTTY DXers' Dream



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DX COLUMN CONTINUED

and Dick, KB9IS, both got him right afterwards.

If your RTTY club, publishes a newsletter I would like to be put on the mailing list. My mailman hasn't enough to do these days, and I really enjoy hearing from you. Let me know your likes and dislikes, that's what this column is for.

KV4BQ, Ed is on from the Virgin Islands. Look for him on 21 MHz around 2300Z and 14 MHz about 1200. JA1ACB, Gin, worked Ed for country # 210.

K7BV, Mac, as usual a good source of RTTY DX news, gives more information to pass along: 5J7JS operates AMTOR on 14075 from Togo. PA0WAY/A6 also operates only AMTOR. The Chilean DXpedition to Juan Fernandez is still on for December/January. The Clipper-ton DXpedition might happen soon, if the paperwork comes through as promised. VK9NS, Jim told Mac that a Tono was going along to Heard Island if the expedition comes off as promised.

KA2IJ, Jim, was active for a few days from Iwo Jima. See last months JOURNAL for info on his operations in the Pacific. He will be showing up repeatedly on these island locations but only for a few days at a time. His home base is in Japan. The KA2 call signs are American Military in the far east only.

ZP2CW is active again, but ask him for his QTH as the callbook is rumored as incorrect.

HZ1AB has appeared now and then on RTTY and has been giving a number of old time DXers another new one.

K1LPS, Larry, gives us some interesting information on QSLing with UT5RP. Some Soviet Hams do have direct mail privileges and Dima must be one of them. I have another Ham friend who regularly writes to a Russian Amateur, and he says if you do write direct, do not put the words "Amateur radio" or call signs on the envelope. ROS, I8AA adds that Dima does not want his name on the envelope either, just address it: Box 373 Odessa, Ukraine, USSR.

Larry also asks for help in getting a QSL card from 4X4MR. Is there any

other QSL info other than the call-book? Help is requested. While on the subject of QSL's, Larry takes the bull by the horns and makes up a hand-made QSL for those hard-to-get countries. By using press-on lettering available at any art store. Larry fabricates a QSL and then sends it, with IRC's and/or foreign stamps from the stamp service, to the overseas Ham. He says it usually turns the trick! But once when he got one of his handmade cards back from a FP8, it had the wrong mode inscribed on it! (Gee, Larry, I guess it happens to everyone now and then, hand-made or regular.)

Larry also sends along a nice list of stuff worked and/or heard. HC1JX, 10 Mtrs. 1530Z; VP9GE-20-2300Z; VY1CM 15-2000Z. The foregoing stations are all okay in the callbook. HP1XUL-15-2000Z (Jack Meyer, POB 412, APO Miami 34002); 5N22HKR-15-1945Z via OE5YR.

The CANADAWARD, according to Larry, is administered by VE2ZP, and is a very nice piece of wallpaper to go after. So far no claim for the award has been made for RTTY. There are 12 provinces for award purposes: VE2 through 8, plus VY1. V01/V02. The catch is all QSO's must be on the same band.

How about the continuous "diddle" running all morning long on one of the popular MSO frequencies? Was it intentional jamming..or unattended operations running berserk? It would be sad if it were intentional. My mail indicates that many Hams would like to see all the MSO outfits confined to one area of the band and not spread all over the 20 meter RTTY portion.

Some more QTH's courtesy of K1LPS: FK8BK-Louis Houdart, Indosuez, Box G-5, Noumea, New Caledonia; HK3OZ, Alfredo Goubert, POB 100115, Bogota, Columbia.

W8JIN, Jim, sends this list of worked/heard: SV10E, 1400Z; VP5BAX-2000Z (QSL via N4BAA) both on 21 MHz. VK0DX. 1230Z; and HZ1AB-0330, both on 14 MHz. Jim is getting a new HAL terminal now that DX interest is high!

W3KV, John, contributes a big string of goodies this month. ON7OS/

HB0 and HB0LP/HB0 from Liechtenstein can be QSL'd via home calls. TR8WR is active on 10 meters (QSL via F6-ERG). VP4WW via N4KE. YBOADI, Mike, who has been active in all mode contests is now on RTTY and can be QSL'd via WA3HUP. KE0ERD/KH0 can be reached via JA1UT. Other activity observed by John: ZS1KT, ZS6BWO, ZS6CC, LU6DMB LU3FAE, TI3DJT, CT4TF, LA60J, LA6EQ, OH5YW, OH2TI and EA9KQ. QSL info: HI3ADI, Box 1000, Santiago, Dom Rep.; TG9NR, Box 1200, Guatemala City; and YB0BOT via box 52 Solo.

YS70B (ex YS20B), Oscar can be QSL'd by just putting Oscar YS70B, Ahuchapan, El Salvador. The callbook address is incorrect. If you want to write him 1st class then add Batres (his last name) and Calle Gerardo Barrios 14 in the middle of the QTH. But Oscar who hangs around 20 meters, says the short version will work just fine.

SV1IW, Manos, is active on 15 meters and gives his QTH as POB 3751, Athens, Greece.

VP2MJL, on from Montserrat, gives the QTH for cards as N3JL, POB 2346, zip code 20879-0346. For you that are not familiar with the post office zip codes, they now have a new nine digit arrangement in which the zip code is first, followed by a second group of numbers. In some cases it is the post office box number. Therefore I am a little suspicious of this zip code, but I could be wrong.

I would like to thank all those who contributed to this column, plus W5-HEZ, JA1JDD, WD0HXQ, and my wife who puts up with all those squeals in the night!

AWARDS

Jim Ringland, W8JIN
150 endorsement, October 8, 1982

Dr. Ros Pentimalli, I8AA
190 endorsement, October 15, 1982

Gustavo Pellegrini, I2WT
190 endorsement, October 30, 1982.

I0AOF, Joe, has been busy working new ones. Joe's total is now 170/154. His recent cards from 8Q7CC, C53CL, VS6FX and 4S7EA helped boost his total. Joe proudly says he has a card from BY1PK in China, but alas it was CONTINUED ON PAGE 15

CLASSIFIED ADS

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

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FRED SAYS: "Cash in those Teletype-writer parts." Send list or UPS them for offer. Ask about personal visit to pickup. Send SASE for list of Teletype parts, supplies, paper, tape and gears for sale or trade. TYPE-TRONICS, Box 8873, Ft. Lauderdale, FL 33310. Fred Schmidt, N4TT. 305-583-1340.

SALE: PERFORATOR TAPE 11/16" wide x 8" diameter, case of 40 rolls \$18.50; case of 1" perforator tape (28 rolls) \$18.50; Teletype ribbons, box of a dozen \$7.00; Model 28 TD stand alone type \$89.00; Model 28 TD with 3 speed gearshift \$180; Model 28 typing unit, sprocket feed, as removed from equipment, complete less typebox \$49.00; Model 28 ASR underdome reperforator--replace your keyboard operated perf with a reperf while they last \$79.00. Model LARP, multi magnet reperf complete with motor and hardware to mount above 28 TD in ASR cabinet \$39; Model 28 LESU, various types \$12; Model 28 stock ticker strip printer, uses 1" wide perf tape \$49. We carry a full line of Teletype machines and

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QUALITY RTTY KITS and PC boards available for all applications. The RACK LINE boards are all 6 1/2 x 4 1/2 with edge connector mounting for easy servicing. Choose from the following kits and boards. 1. UT4D UART speed converter kit, SALE \$99.95, board alone \$22.95. 2. UT2 Regen Repeater kit \$39.95, board alone \$13.95. 3. TU loop supply kit \$31.99. 4. TU LV supply kit \$56.99, board alone \$8.95. 6. XD6 clock kit for UART use \$29.95, board alone \$8.95. 7. CW ID kit w/timer & interface \$27.90, board alone \$8.95. 8. crystal controlled AFSK kit \$29.95 board alone \$8.95. 9. AFSK tone mixer for CW ID kit (Nov 1979 JOURNAL) \$10.95, board alone \$3.50. 10. Single voltage power supply kit specify voltage - or + \$13.95, board alone \$4.75. 11. RTTY ID generator kit (please supply what you wish coded up to 32 positions) \$24.95, board alone, same size as the SI-6 boards, Sale priced \$2.50. All orders add \$2 for shipping/handling. Catalog of over 1000 electronics parts available for stamp. Visa/MC accepted. DAYTAPRO Electronics, 3029 N. Wilshire Ln, Arlington Hts, IL 60004. Phone evenings 312-870-0555.

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NEWS-NEWS-NEWS-AMATEUR RADIO'S newspaper "WORLD RADIO". Year subscription is \$9.00 per year. WORLD RADIO 2509-F Donner Way, Sacramento, CA 95818. HAM RADIO MAGAZINE. The no-nonsense state-of-the-art technical magazine. Subscribe now and see for yourself. One year \$19.50 US. Canada and foreign surface \$21.50. Europe, Africa, and Japan \$28.00. Ham Radio Publishing Group. Greenville, NH 03048.

TELETYPE PARTS WANTED. Any quantity, any models, highest prices paid. 201-464-5310. Van, W2DLT, Box 217, Berkeley Hts, NJ 07922.

LIST OF WORLDWIDE RADIOTELETYPE STATIONS IN FREQUENCY ORDER. (7th Edition Klingenfuss) Over 2,067 frequencies of stations which have been logged in the last part of 1981. Frequency, call sign, name of the station, ITU country symbol, times of reception and details are included. All types of stations are listed, including schedules of 88 news agency stations on 741 frequencies. 178 special RTTY operation abbreviations are listed. A list of 208 GENTEX destination indicators is attached. Covers all RTTY stations from 3 MHz to 30 MHz, air, metro, government, military, diplomatic services. The only accurate RTTY list in existence. \$12.00 PPD, Universal Electronics, Inc., 1280 Aida Dr., #J, Reynoldsburg, OH 43068. (DEALER INQUIRIES INVITED.)

REBATES-REBATES-REBATES-REBATES-Even greater discounts on INFO-TECH RTTY-CW equipment. Purchase the M-500ASR, M-200F demodulator, and M-300C keyboard at substantially reduced prices Call or write: DIALTA Amateur Radio Supply, 212 - 48th Street, Rapid City SD 57701. (605) 343-6127.

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THE ONLY RTTY UNIT THAT DECODES —

- **BIT INVERSION**-method used for security and privacy by governments, business, press and others, automatic system opens up a new world of RTTY listening. Now you can copy those stations that defied copy on standard RTTY units.
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PLUS — All speeds of BAUDOT, ASCII and MORSE (CW). M-300 keyboard plug-in for transmit. BAUDOT, ASCII, CW.

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BIT INVERSION-5 level security bit inversion for baudot decoding from key pad. Decodes any combination of bit inversion being used for security.

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WEATHER TEXT-Weather Bureau symbols, arrows and other weather type uses. Key pad Controlled.

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ASCII-110, 150, 300, 600, and 1200 baud rates

BAUDOT—60, 66, 75, 100 and 132 WPM

MORSE-CW-AUTO-RANGE up to 60 WPM

SPEED READOUT-ASCII and BAUDOT

MULTIPLE SCROLL INHIBIT

UN-SHIFT ON SPACE

SELF-TEST SYSTEM-Allows check out of M-600 operation.

AUDIO INPUTS-4 to 600 OHMS .25V.P-P.

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PRINTER DRIVER-Isolated loop, Mil-188 or RS232 and optional parallel ASCII. All with handshaking available. Baud rates of 45, 50, 57, and 74 in baudot and 110, 150, and 300 in ASCII. The M-600 will drive almost any printer available at any of the input modes.

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PRINTER BUFFER—A 2K printer buffer allows reasonable down conversion and handshaking of printer.

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(7th edition) All RTTY stations, all services worldwide, more than 3,000 call signs in alphanumerical order. All types of stations are listed. 213 utility stations mnemonics and name abbreviations. Abbreviations for regional states in Australia, Canada, USA and USSR. All ITU country/ geographical symbols. Table of allocation of international call sign series, as decided at WARC 1979. Regulations for the formation of call signs. \$6.00PPD. Universal Electronics, 1280 Aida Dr. #J, Reynoldsburg, OH 43068.

WANTED FOR CASH:Teletype wiring DIAGRAMS (WD's & WDP's)-modification kit SPECS (S-Specs). Send list of available numbers for quote, you copy or we'll copy. Especially need: WDP0014, WDP0029, WDP0031, WDP0038, WDP0041, WDP0042, WDP0043, WDP0047, WDP0039, WDP0048,WDP0049, WDP0050, WDP0052, WDP0053, WDP0054, WDP0056, WDP0057, WDP0058, WDP0059, WDP0060, WDP0061, WDP0088, WDP0090, WDP0094, WDP0095, WDP0086, WDP0099, WDP0100, WDP0110, WDP0111, WDP0117, Write or call Van, W2DLT, Teleprinter Corp., Springfield Ave., Berkeley Hts, NJ 07922. 201-464-5310.

RTTY BEGINNERS HANDBOOK still only \$8.00 PPD in USA. \$8.00 + postage outside of US. Dealer inquires invited. POB RY, Cardiff-by-the-Sea, CA 92007-0179.

"ROBOT" continued

turned on/off from the keyboard. Other keyboard functions are: a line of RY's, a line of Quick Brown Fox, ID, CQ, delete key (for bad spellers like me) and repeat key.

There are also provisions on the unit for plugging in a 60Ma loop for hard copy, mark and space jacks for a scope, aux out jack for a tape recorder and SSTV, CW key plug in, output and side tone level controls, built in demodulator and terminal unit.

All this in one 10 pound unit, the Zenith 12" monitor is almost the same width and color and with a base I built for the monitor, the ROBOT and monitor looks like a complete "factory type" installation.

When Jake, K5TWA asked for an article on my impression and opinion of the ROBOT, I did not know it was going to be this easy to get carried away.

You now know some things about my ROBOT, I would like to have you send an article in to the JOURNAL, so you can tell me about your RTTY machine and why you chose it.

73's to all,N6DOI, HAL

HITS AND MISSES CONTINUED

but a new age for Amateur radio will be ushered in with its passage. The RFI provisions clearly place the blame where it belongs and not always to be presumed to the Amateur next door or down the block.

So long for now, WA6CQW George

NEW PRODUCT

There is a new RTTY TU unit on the market known as the MMD board. The board is made for the Apple II or II+ computer, fits inside the case of the Apple and is a complete demodulator and AFSK generator. The board comes complete with a master disk with all the setup portions to make the system work with most 80 column boards, printers, clock cards and language cards.

The system has a mailbox portion which can be used for message storage

or retrieval. Full control is given to the calling station to get a listing of the directory or to do other disk commands. The system supports Videx, Smarterm and Sup-R-Term boards giving 80 columns. Clock cards are supported are the Mountain, CCS, Thunder and Times II, which give the time both on screen and in transmit. The system supports 16K standard language card and the legend 128K card. The printer support portion has a buffer for printers with no buffer so there are no lost characters. The system auto ID's at the beginning of your transmit and every 9 minutes and 30 seconds thereafter. It also has a complete editor in the transmit buffer area with all the commands of a full text editor, including search, insert, replace and move cursor up/down, backspace and forward. The best thing I have found is that it has the ability to edit text while still receiving. The text file saves or loads may be done while still receiving with no loss of incoming text as the system has a complete buffer, so while the text editor is away doing disk commands the receive is being buffered to a buffer on the board. The filtering on the board is software changeable as well as the shift, mark tone frequency and the split screen size for receive and transmit. The default value for the screen is 8 lines receive and 15 for transmit.

The interface card and software is very versatile with the master disk having all the support software on it so all that is necessary is to run the setup program which asks for each card and what slot they are in and when this is answered you are asked for your callsign. Then the program CONTINUED ON PAGE 15

APPLE II INTERFACE



BAUDOT ASCII MORSE

Complete computer interface • Sends and receives RTTY and Morse • Plugs into game port • 170/850 Hz shift • Unconditionally guaranteed for 30 days • Software by Dr. C.H. Galfo • Split screen with transmit and receive buffers • Status display • Automatic CW ID • Logging system • Text transfer to disk and printer • User programmed messages • Integer BASIC

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- Send or receive ASCII, Baudot, or Morse code
- RTTY and Morse demodulators are built-in
- RTTY speeds of 45, 50, 74, 100, 110, 300, 600, and 1200 baud – ASCII or Baudot
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- Three shifts for high and low tones (170, 425, and 850 Hz)
- Crystal-synthesized transmit tones
- Send and receive Morse code at 1 to 100 wpm
- Characters displayed on 24 line screen
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- 2 pages of 72 character lines or 4 pages of 36 character lines
- Split-screen for pretyping transmit text
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Write or call for more details. See the CT2100, KB2100, Printer, and Video Monitor at your favorite HAL dealer.



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BOX 365

URBANA, ILLINOIS 61801

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ANNOUNCEMENT Oct. 5, 1982
AFSK-CW 800A RTTY-CW A COMPLETE SYSTEM

The AFSK-CW 800A is a integrated modulator/demodulator with state of the art features using the newest active filters available. The 8 pole mark and space filters track any desired mark and space frequency and can also be tuned with constant Q. The system is useable with any computer (with appropriate software) which has either RS232 or TTL I/O, or it can be used with current loop TTY machines.

MODULATOR FEATURES:

- * Programable, any 4 mark and any 4 space frequencies
- * Crystal controlled accuracy of 0.5 percent or better
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- * RS232, TTL, or opto-isolated current loop input.
- * Data invert jumper for compatibility
- * Tunable space oscillator to match odd shifts
- * Hand key input for CW ID
- * Simple D/A converter provides true sine wave output
- * Phase coherent, frequencies change at zero crossing
- * Convenient microphone/RTTY-CW switching

DEMOMULATOR FEATURES

- * Input bandpass filter
- * Separate tracking mark and space filters follow the modulator programming
- * Space filter follows tunable space oscillator
- * Receive all popular shifts and speeds up to 600 baud ASCII.
- * Meter, LED's, and scope outputs for tuning aids
- * Input level adjustable for full limiting or linear operation
- * 8 pole filter bypass switch
- * Normal/reverse data switch
- * Auto start or free run switch
- * XR2211 PLL demodulator for wide dynamic range
- * Simple alignment procedure
- * Opto-isolated current loop output.

COMMON FEATURES

- * All power supplies on the board (external supply needed for TTY machine loop)
- * 6" by 8.5" epoxy board with component legend
- * Double sided board with over 1200 plated thru holes
- * All parts easy to obtain

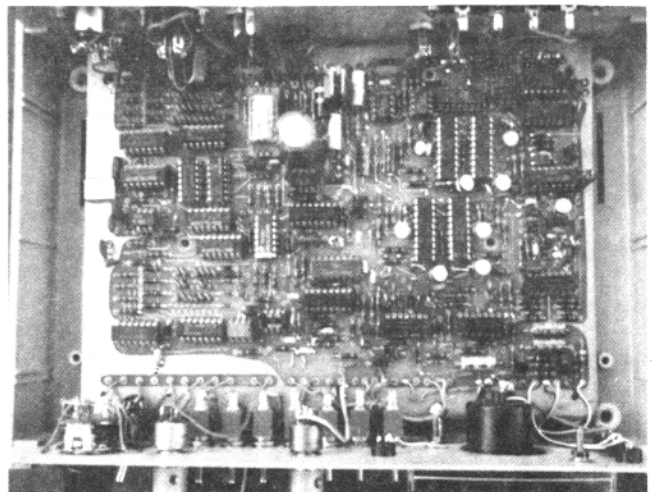
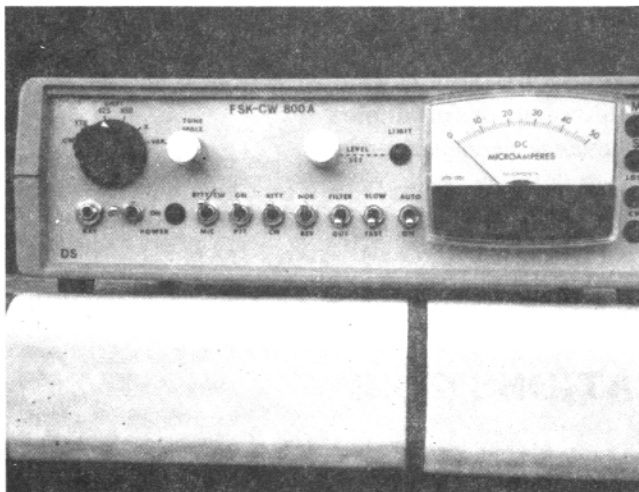
The prototype board has been assembled and tested on the air, and testing with computer programs at 600 baud has been very successful. The PC board only, with assembly instructions and parts ordering information will be available some time around the end of October or early November. Final PC board changes and documentation are now in progress. Orders may be placed now; money orders, checks, or cash only please. (no COD's or bank cards) Send cash by registered mail only. Checks won't be cashed until boards are ready for shipping. The board is \$45.00. Add \$1.50 for postage and \$1.00 for insurance. California residents add 6.5 percent state and local tax. (\$2.93)

Order from:

Dynamic Specialties
PO Box 20903
San Jose, CA 95160

All IC's cost a total of about \$49.00 when purchased from a popular mail order firm. Of course, many other parts are needed. If demand is great enough, silk screened and drilled panels will be made available in the future, and possibly completely assembled units. No prices are available for these services at this time.

PHOTOGRAPHS OF THE PROTOTYPE SYSTEM



VHF COLUMN by JOHN

JOHN CUNNINGHAM, WA9WJG
POST OFFICE BOX RY

Several of the Hams in this area have recently put up a different type of 2 meter antenna. One of the locals got the information on it from a guy in N.M. The antenna is made like a quad except the elements are round. The reports I have, from those who have built them, are really good.

I am seeing more activity in this area now. The cooler evenings and earlier sunset has made the airways more active. The Champaign-Urbana, Illinois machine gets a lot more use now. I have even heard simplex activity on 146.40 from both Terre Haute and Lafayette, Indiana.

While checking the locally used frequencies the other evening I heard a signal on 146.40 from Terre Haute. It sounded like a high baud rate so I tried the 100WPM machine, no luck. I loaded the TRS-80 with the M800 program (that old slow tape system takes forever). Fortunately, the signals were still there. There it was an ASCII QSO.

When the QSO signed, I called one of the stations, KB9JD. Steve is running a TRS-80 color computer. He has the K6AEP program which he uses on CW and SSTV as well as RTTY. Steve's demodulator was built from an article in QST, December 1980 (as corrected in March '81).

From WATTS Happening, the newsletter of the Stark RTTY Group, the group has decided to participate in another novice class if sufficient interest is found.

It is reported that the SRG net is operating again on Wednesday nights at 7 PM local time. They use 60 WPM and 170Hz shift. Members swap pix usually after the net and visitors are welcome.

There are 2 items in the Stark newsletter that I want to comment on. They say that Mother Nature co-operated and gave them fine wx for field day. I have a bit of difficulty swallowing that. They also state that Murphy stayed away from their field day....come on now guys.....

Due to the time change, it now gets dark about an hour after I get home from work (one of those four letter words). This makes more time for me to get on the radio.

I have reports on two groups "stirring up" activity on the bands. The Eastern Illinois RTTY group is upgrading their system. This in turn should draw more members and thus bring in money for better equipment. The better equipment will get still more members and so on--sounds like a good idea to me.

Secretary Ron, KA9CAP tells me that the new antenna is up now at the new location and will be running by the time this gets printed. So if you are within 100 miles of Champaign-Urbana, IL put the rig on 147.00+600 and tell 'em John sent you.

The RTTY Group from Terre Haute is active on 147.50+600 and will welcome visitors anytime. They do ask that you give the phone patch priority. Inx Max, N9CJH for this info. Hope the repeater people can give RTTYers there more time than just Monday nite after 8PM.

Christmas is not far off and I have my favorite magazine opened to the rig I have been drooling over. Hope Santa will glance at it and the piggy bank next to it labeled "for my CWR-6850".

Merry Christmas to all of you, hope the little guy in the red suit is good to you and doesn't knock down your antennas with his reindeer come Christmas eve.

73 and CUL on the green keys-
John WA9WJG.

The Argonne Amateur Radio Group has sent the JOURNAL office a copy of their very informative November newsletter. Their RTTY repeater is on 144.59 in, 145.19 out and is located in the Argonne-Hinsdale area of Illinois. They have a very distinguished member by the name of Bill Karraker, W9AVE who retired last month after

33 years of service at Argonne.

Judging from this groups newsletter they have a very active group of about 150 members. Hope they have fun at their Christmas party, December 11th. Find them on their repeater for more info on this if interested.

DX COLUMN CONTINUED

FOR CW, not RTTY!

I8AA, Ros, is the QSL manager for ISØVSG. Ros says to look for John on Saturday and Sunday from 0500 to 0800 on 14090 +/- . Ros operated 9A10NU during the BARIG in 1980. He still has the logs and will confirm any QSO not having been done as yet.

WB8YJF, Jon, has a good job working for irl, the people that make RTTY terminal equipment. He gives the equipment the burn-in while checking for DX on the test bench. Some of his recent listings are IC8TRA (Ischia Island); OZ1GRF (Bornholm Island); UA9PP (0145Z on 20); and ZF1GC. Jon says he uses the FSK-1000 at home, and can copy signals that he can't even hear.

73 and "dit dit". Bill WØLHS

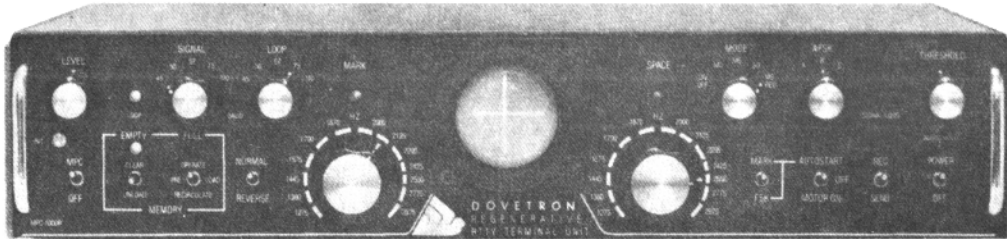
NEW PRODUCT CONTINUED

goes through the master disk picking up all the support software. Then you are instructed to place a blank disk in the drive and press a key at which time the boot disk is made to your order, this runs the system. If you change card slot or add interface cards later on, all you need do is run the master disk again and answer the questions again.

The system is priced at \$315.00 including shipping and will increase to \$500 when the completed software is available. The system runs all speeds of Baudot. ASCII and Morse code will be out as soon as possible. For anyone buying at the reduced price, up-dates will be free as they become available if you send your disk or be charged for disk if not. Address is: MMD Company, 4163 Fuller Ave., Eugene, OR 97402. Phone 503-689-4266. Submitted by Tinlin, WD6CEW

MPC-1000R BY DOVETRON

MULTIPATH CORRECTION, IN-BAND DIVERSITY, SIGNAL REGENERATION,
UP-DOWN SPEED CONVERSION, 200 CHARACTER FIFO MEMORY,
KEYBOARD-CONTROLLED WORD CORRECTION & DIGITAL AUTOSTART



THE MPC-1000R REGENERATIVE RTTY TERMINAL UNIT

The DOVETRON MPC-1000R is a complete Transmit-Receive modem designed for optimum radio teleprinter communications on land, sea and in the air.

Standard features include a high level loop supply and keyer (neutral or polar), EIA and MIL FSK outputs, a phase-continuous AFSK Tone Keyer with three selectable Mark - Space - Shift tone pairs, Mark, FSK & Digital Autostart, Automatic Markhold, an internal RY Generator for terminal unit Self-Test and circuit adjustment, and a Signal Loss Alarm circuit.

The MPC Series is available in six different models to meet your exact requirements.

**Complete specifications are
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