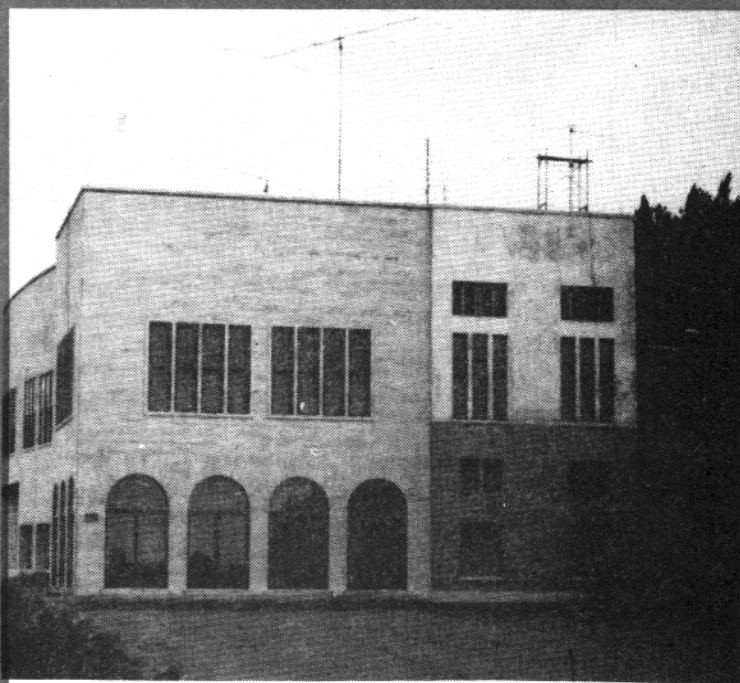EXCLUSIVELY AMATEUR RADIOTELETYPE

STATION 9A1ONU IN SAN MARINO
DX EXPEDITION SPECIAL EVENT-UNICEF
WINNERS OF BARTG MULTI-OP CONTEST

CONTENTS

BACK ISSUES

A duplicate of any back
issue may be obtained from
R.Wilson, 4011 Clearview
Drive, Cedar Falls, IA
50613.$1.00 PP. Reprints
of all UART articles $2.00.

SUBSCRIPTION RATES

USA	$ 5.00	year
Canada	$ 6.50	"
Mexico	$ 6.50	"
Air Mail	$ 7.50	"
Foreign		
Surface	$ 8.50	"
Air Mail	$12.00	"
ALL IN USA FUNDS ONLY		

FOREIGN SUBSCRIPTION MANAGERS

CONTACT MANAGERS FOR RATES IN THEIR TERRITORIES

LOOKING BACK
to
"TAPE OFF THE FLOOR"
WBØESF

R.Wilson, 4011 Clearview
Drive, Cedar Falls, IA 50613

FROM SEPT 1954

The VHF/UHF DX-Season is upon us. Send reports of long distance RTTY contacts. WB4APR, Bob Bruninga in Vienna, Virginia is aiding the deaf by RTTY Phone Patching (AMRAD NEWSLETTER May 80), contact him for details, AM SATS Phase III went up in smoke as the Oscar Satellite's rocket boosters failed and had to be destroyed by the Range Safety Officer two minutes into launch, KA9CAP reports new RTTY VHF Repeater in Urbana, Illinois on 147. .600 in and 147.000Mhz. output. WBO-QDV/R Regenerative RTTY Repeater in Ackley, Iowa (near Waterloo) access with two spaces followed by "XMIT" and enter during 1 minute mark tone tail before reset. This RTTY repeater serves Central Iowa including Cedar Rapids and is on 146.100/700 Mhz. Nice to have a working repeater in Iowa again! Jack Christilaw of Livonia, Michigan reports that a new RTTY repeater WD8NIS/R on 146.10/70 Mhz. at 60 WPM/170 shift is being located at Pine Knob serving the Detroit-Windsor area and was activated in June. This will be the second "RTTY-only" repeater system in the area. WOW! Not to be out done, Chuck Washington of Chardon, Ohio reports that a 144.89/145.49 Mhz. subband RTTY repeater is being prepared featuring Baudot and ASCII modes will be serving the Cleveland area, good luck fellows!

Flux- a four letter word..

Flyback-return on an airplane..

Front end-good example:Dolly Parton..

Gamma match-new game show..

Ground loop-race car track..

Ground fault-area known for earthquakes..

Henry- Jane Fondas Dad.

Hertz-when someone steps on your toes

Keyboard-bored key..

.... W1BGW es W2BDI de W2PBG, Bayside, N.Y. OK es 100 per copy Jack. Well let's see what Ed has to say for himself. Doggone let him wait as I asked him a question before and he never answered me so this should make him think the next time that he stalls a guy off. Hi. OK es FB on the rig there Jack and is really a dandy sig that you have with that rig. Wish I could get ahold of a long winded guy that would keep it for awhile so that I could get the fingers losened up under hot water. Hi. OK on the other stations that are active there in the area. I hope that I get the chance to meet up with them all. Well Jack, the other nite yes, no we did not have a QSO as the ribbon came off the machine here and I couldn't get in. So this is the first time that I've talked to you. I just put on a new ribbon that night and the thing did not have the little jiggers on to reverse the ribbon and the thing just kept running off. Don't know whether or not you got the dope on the layout here the other nite so will give it to just to keep W2BDI burning the table there. Hi. The mux is a 15 and the xmitter is a Collins 32V1 but not using the ECO in it. Well you can have your job as a TV service man. That for my money is just about the last resort the way that they build those things. Well, let Ed take it for awhile, W2BDI dee W2PBG. K

* * * *

.... W8BYB de W1BGW. Roger, Rod. My error! Made a long transmission to you with key open. Hi. Bet U didn't get a thing! Will repeat it.

* * * *

.... W1BDI and W3UWM de W2TKO. Sorry fellows. Too many joy boys on you that time. A couple of local CW stations that time. Glad to hear from you W1BDI. Are you FE Handy. Well I like Ed. Feel it is getting close to sack time. It has been nice talking to you all and Ed I tried ranging you that time and it worked a little better. So I'll turn it back to net control W2BDI and he can turn it back to whoever is next. W2DPH, W3UWM, W1BDI de W2TKO, Buffalo, N.Y.

HITS & MISSES

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

FROM
THE
MAILBAG

CONVENTION

The ARRL Southwestern Division Convention will be held on Sept.5,6 and 7th.Registration will open Friday at 3,exhibits at 5 PM.The Saturday schedule includes a full program of seminars.The banquet at 7:30 Saturday will see Stu Gilliam as master of ceremonies with Vic Clark,W4KFC the main speaker.Drawing of pre-registration ticket will follow the banquet. COST??:advance registrarion with banquet $20,advance registration only $5,advance registration banquet only $17,ladies luncheon/program $9.50, Sunday breakfasr $6.50.

The RTTY Group will have its breakfast Sunday,hosted by SCATS,speaker will be Irv Hoff so get tickets early for this fine program.SCATS will also put on an RTTY forum with Hugh Washburn,WA6IEX with his "World of Green keys",don't miss it as Hugh and Mae do a super job.

COMPUTERS

During the last months I have tried to include as much info on computers and where they interface with RTTY as possible. RTTYers have always strained at the restrictions State of the art placed on them. They constantly pursue new frontiers in this great mode. RTTY is a group of Amateurs who love to build their equipment. They love a challenge. I believe that in the 80's RTTY will see an unparalleled growth. This group will come from the computer. The RTTY Amateurs,like myself,will use his computer on RTTY,CW and ASCII. The Amateur purchasing a computer will soon have it on RTTY. I will continue to have computer info in my column and hope you find it interesting.

QSL BUREAU

The newcomer to RTTY prints QSL thru Buro. What does this mean? The state-side Amateur who is a member of the ARRL can send his outgoing QSL cards to ARRL membership overseas QSL service ,at 225 Main St.,Newington,CT 06111.

Once a week mailings will be made by the ARRL.The Amateur need only arrange QSL's alphabetically,include

one dollar and mailing label from his current QST.

The next step for the stateside Ham is to send a supply of 5 x 7 envelopes/stamped/self addressed to the QSL bureau in his own district. When I go to the division convention in my area I always stop by the bureau and buy a stack of envelopes.

The DX station finds the outgoing QSL bureau in his country, ARRL membership is not required for DX stations. They must have the same self-addressed envelopes on file with their bureau for incoming cards.Their outgoing cards are sent to ARRL headquarters,sorted into the ZZ call area bureaus for shipment to US and Canada This service was started in October, 1976 and is currently servicing 126 countries. A lot of hard working volunteers keep the cards flowing.On the 1st of every month I get an envelope from my bureau with my DX cards. A tip of the hat and many thanks to them. The next time you print QSL thru buro I hope this will help. To recap:Stateside Amateurs; arrange QSL cards alphabetically by prefix,include mailing label and one dollar,mail to ARRL membership Overseas QSL Service,225 Main,Newington, CT 06111,send 5 x 7 envelopes to your QSL bureau in your call area (self-addressed and stamped).
For DX Stations:arrange QSL cards alphabetically by prefix,mail to your outgoing QSL bureau in your country, send SASE 5 x 7 envelopes to your QSL bureau.

SOFTWARE

Pet computer owners have a Ham radio software package available to them. Bob Baker,WB2GFE is offering a dupe check and 5BWAS program contact him for details,15 Windsor Drive Atco,NJ 08004.

HEATH

Commsoft,665 Maybell,Palo Alto,CA 94306 is offering an RTTY program for Heath computers for $100,with many features.

COMPUTER SSB NETS

Type	Day & Time		Freq.
SWTP-6800	Sun	0200	14250

DIGITAL GROUP	SAT	1600	14281
	SAT	2200	7190
APPLE	SUN	0200	14329
TRS-80	SUN	2000	14342
	SUN	2300	14342

NEWCOMER

One of the most confusing things to the newcomer is AFSK. FCC regulations allow the use of AFSK on the HF bands. A single tone is fed to the input of a single side band transmitter (microphone jack). When this tone is shifted (AFSK) the result is FSK. I use the Kenwood 820S with this system and it works super. The newcomer need not scrap his SSB rig, it will work great on HF RTTY.

In closing my column for the month I want to say that I hope you will drop me a line with your thoughts. So long for now................George
$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$

bundle. Well I hope that everyone had as good time as John and I did. We did see our old friend Dean Mellstrom and XYL Jackie.Dean formerly was an officer in the San Diego Teleprinter Group.He left for the USS Forrestal the following week where our son Jay had spent some months.They overlayed on the weekend on the Forrestal but did not meet (small world). Our son Jay came home to tragedy again (in February his wife Barbara had to have her leg amputated) his 16 year old son fell off of a pickup truck and landed on his head,(8-4-80) he is unconscious as of this writing)(8-17-80). It is quite a world.Someone told me once that "life was just a bowl of cherries" but why do some of us always get just the pits?????????????
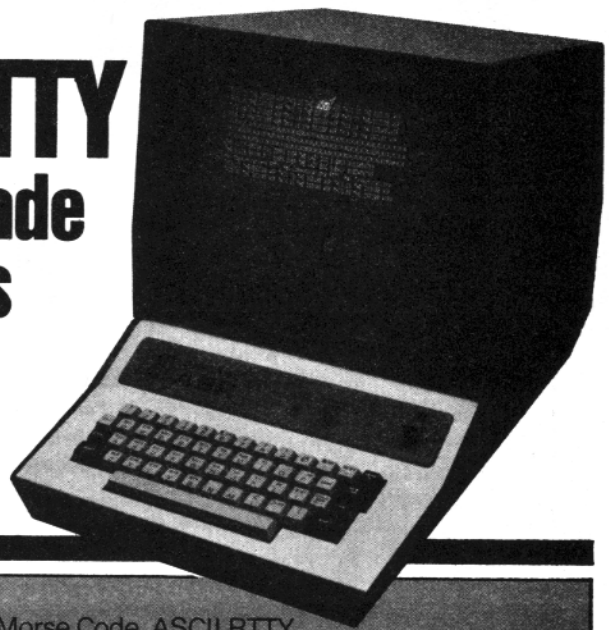
See you (I hope in Los Angeles) on Sept.5-7 at the Marriott Hotel. Look for the RTTY JOURNAL come join us.DEE

CORRECTIONS

In your July-August issue please make the following changes:bottom of 3rd column,page 4-continued on page 6 , column 3. Page 6 middle of 3rd column should read continued from page 4. Page 8 bottom of 3rd column should read contuined on page 9-3rd column.

Greetings to all!

I hope that everyone had a nice quiet peaceful summer. Overall it has been a good summer here for us. I've gotten my heathkit computer going on RTTY with a disk drive system. I presently am evaluating a TTY communications package put out by COMMSOFT of Palo Alto,California. My first impression of this system is nothing but super. Many,many hours worth of work, time and thought had to be put into the program to get it to do all the features that ti will do. When I have finished evaluating the package I will submit a user's report on it. If all goes as scheduled it will be in next months issue.

This month I have been busy putting the contests into my computer. If you know of an RTTY contest that is not listed in this months "Kontest Korner" drop me a line and I'll update the listing. I am also starting a QSL managers list which will be printed in my column about every other month or so. It will take me awhile to set most of the stations in the listing and I will need your help. This will be a RTTY ONLY listing. W6GO & K6HHD offer a directory of QSL managers which is a computerized listing,offered for $15 for 12 issues in US/VE/XE and $25 for overseas mailings. Address is 6606 Fifth St.,Rio Linda,CA 95673.

The DX HONOR ROLL will be printed in the January issue. This listing is now kept in my computer and can be updated instantly,so keep me posted on how you are doing.

KB5BOZ reports working ZM7AA but he cannot seem to get any QSL info, can anyone help him out??

Look for KD6DD they should be active from Eastern Caroline about the time you are reading this. VKOKH on Macquarie can be worked if you make contact with P29JS at 0630Z on Friday mornings before the P29 net gets started and tell him you want a contact with Ken.

A7XQ Quatar is waiting for an inter face for his computer to get on RTTY. TN8AA should be up from Cameroon now.

HV35J the Vatican will be QRV in October with the group that operated 9A1ONU during BARTG. They will be there for a week and maybe,just for the weekend of the CARTG contest.

AP2MQ may be worked by monitoring 21289ssb at 1900Z on Sunday and ask him to qsy to RTTY. When operating on RTTY Mansur uses vox and his car-rieer drops out from time to time causing your machine to lose sync.

FB8XY Chris on Kersuelen Isle is now transmitting on 50 baud reverse and listening on SSB on the same frequency.

We need QSL info or new callsigns on the following stations:EA8RU,WDO-ARA,KZ5OD,and ZP5WO.

A note of interest,Russ,W9CRC recently celebrated his 60TH YEAR IN HAM RADIO. GREAT GOING RUSS!!

I would like to thank the following stations for their help with inputs over the past few months. John,W3KU, Minoru JA1DSI,Paul KOPJ/6.George W2-IUC,"Jake" K5WTA,"Mac K7BV,Bob WA9AKT and Carl K6WZ and anyone I might have missed. See you on the bands.

73 de "SKIP"

GGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG

QSL MANAGERS LIST

O6ACA	W2IUC
FK8CR	W7OK
HMØOO	DK5ML
K65AD/KH2	VE5QY
TU2GA	K9BXA
YJ8YS	JL1CII
YT2D	YU2CDS
ZB2BL	W2UTH
5NØDOG	W4FRU

GGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG

AWARDS SECTION
WORKED ALL STATES

James Smith	K4YI	10 June 1980
George Dansen Jr.	W2IUC	3 July 1980

WORKED ALL CONTINENTS

Bottaini Cesare	I5YTP	27 May 1980
all on 20 meters		
Carl Steavenson	K6WZ	24 Jun 1980
all on 10 meters		
IVO Mansmann	DJ5SO	12 Aug 1980
all on 20 meters		
Ama.Radio Station	9A1ONU	12 Aug 1980
on all bands		
Graeme Wormald	G3GGL	12 Aug 1980
on all bands		
George Dansen Jr.	W2IUC	12 Aug 1980
on all bands		
Nickolaj Lazarov	LZ2KRR	12 Aug 1980
on all bands		
Frank Crofts	G4FLM	12 Aug 1980
on all bands		

ↂↂↂ

DX ADDRESS LISTING

AP2MQ-Mansur Quereeshi,7 Union Park, Samanabad Labore Pakistan............

A7XD-Mike Smedal,POB 4747,Doha,State of Qatar,Arabian Gulf................

FP8DF-Peter POB 41,St.Pierre et Mi-quelon Isle.........................

GW3EHN-Oscar Thomas,76 Waun Rd.,near Swansea,W.Glamorgan SA42QN..........

SVOAP-Kent Parsen,POB 711,APO NY09291

VP2SV-John Caldwell,Palm Island,St. Vincent West Indies.................

XE1LE-Francisco Vasquez Bello,Arroyo I2,Franccionamiento Lo Fresnos,Nau-calpan Estado de Mexico.............

YV3AY-Romarr,POB 456,Barqieisimo,Ven-azuela..............................

ZS2AB-Brian Weller,POB 10317,Port E-lizabeth 6001,Rep.of South Africa....

ZS3B-Box 109,Luderitz,South Africa...

9V1TP-Tip Ball,American Embassy-FPO San Francisco,CA 96699..............

ↂↂↂ

KONTEST KORNER

DARC		27 September	September 80
CARTG	18-20 October		September 80
WAEDC	8-9 November 1980		September 80
DARC	15 November 1980		September 80
VOLTA		December 1980	coming
Europe & Africa Giant Flash			
		March 1981	coming
BARTG		March 1981	coming
VK/ZL/OCENIA-June		1981	coming
SARTG		August 1981	coming
WAEDC	7-8 November 1981		coming

Ↄ***
Ↄ***

DARC

3rd test September 27th 1100-1700 GMT
4th test November 15th 1100-1700 GMT
Band:Recommended portions-10 meters
Contest Call:CQ CORONA TEST
Exchange: RST/QSO-Nr./Name
Points:Each station has to contacted only once. Each complete 2 x RTTY - QSO is worth 1 point.
Multiplicator:a)Use the WAE-and DXCC list and each district in W/K,VE/VO and VK. b)Each different prefix.
Scoring:Total multipliers times total number of QSO's.
Classes:A)Single or Multi OP.B-SWL
Logs:Must contain Name,Call and full address of participant/Class/Time in GMT/Exchange/Final score. SWL's apply to the rules accordingly.
Deadline:Each entry must arrive at the managers address within 30 days of each test.
Manager:Klaus Zielski,DF7FB,POB 1147 D-6455 Erlensee,West Germany.
Plaques:Will be awarded to the leading stations in each class.
****
****

CARTG

Test Period:Saturday October 18th, 0200 GMT to Monday October 20,1980, 0200 GMT. Not more than 30 hours of operating is permitted. Non-operating periods can be taken at any time,but summary of times on and off must be submitted with score.
Bands:Use all bands,3.5, 7, 14, 21 and 28 Mhz.
Classifications:a)single operator, b)multi-operator (one transmitter) c) SWL Printer.
Messages:Consist of RST/Time GMT/Zone
Exchange Points:All two-way RTTY QSO's with ones own zone counts 2 points. All other contacts will receive points listed on CARTG Zone Chart.
Multipliers:Country status as ARRL Countries List,KL7,KH6,W/K,VE/VO and VK Districts counted as separate countries.Stations not to be counted more than once on any one band. Additional contacts counted on different bands. One's own country counts as a multiplier.
Scoring:Total exchange points X number of countries contacted X number of continents (max.6). Two hundred (200) bonus points for each Canadian contact made on all bands,added finally to total score.

Logs:To contain band/date/time GMT/RST/call signs/exchanges sent and received. Use separate log sheet for each band. Send SASE or IRC's to: CARTG for log sheets and zone charts. Logs must be received before January 1, 1981 to qualify.
Send logs/time summary and scores to: Canadian Amateur Radio Teletype Group 85 Fifeshire Road,Willowdale,Ontario, Canada M2L 2G9.
Awards: The top ten winning scorers will receive engraved plaques donated by the "RTTY JOURNAL" and C.A.R.T.G. NOTE: Would ASCII users please identify their logs so evaluation can be made of the amount of participation.
****
****

EUROPEAN DX-CONTEST

Contest periods: November 8th and 9th 1980, November 7th and 8th 1981-0000 GMT Saturday to 2400 GMT Sunday.
Bands: 3.5, 7, 21, 28 MHz.
Classifications:Single operator-all band;Multi Operator-Single transmitter.
Rest periods:Only 36 hours of operation out of the 48 hours are permitted for single operator stations. The 12 hours of non operation may be taken in one, but not more than three periods at any time.
Exchange:A contest QSO can only be established between a non-European and a European station. Exchange the usual five or six digit serial number RTS/RS report plus a progressive QSO number starting with 001.
Points:Each QSO counts 1 point.A station may be worked once per band.Each confirmed QTC-given or received-count 1 point (see below).
Multipliers:Multiplier for non-European stations is determined by the number of European countries worked on each band. Europeans will use the last ARRL countries list. In addition each call area in the following countries will be considered a multiplier JA, PY, VE, VO, VK, W/K (W/K stations have to show their location-area in their callsign when operating outside of the original district i.e. N6KK/3) ZL, ZS, UA9O.(See special regulations for RTTY following.
RTTY:In the RTTY section, contacts between all continents and also one's own continent are permitted. Multipliers will be counted according to

the European and ARRL countries list. Contacts within the same continent count a multiplier of one per band (including 80 and 40 m). QSO as well as QTC traffic with one's own country (district) is NOT allowed. SWLs apply to the rules accordingly.
Multiplier on 3.5 MHz multiplied by Four.
Multiplier on 7 MHZ multiplied by 3.
Multiplier on 14/21/28 MHz multiplied by 2.
Scoring:Final score is the total QSO points plus QTC points multiplied by the sum total multipliers from all bands.
QTC Traffic:Additional point credit can be reliazed by making use of the QTC traffic feature.A QTC is a report of a confirmed QSO taken place earlier in the contest and later sent back to a European station. It can only be sent from a non European station to a European station.The general idea being that after a number of European stations have been worked a list of these stations can be reported back during a QSO with another station.An additional 1 point credit can be claimed for each station reported.A) A QTC contains time/call and QSO # of the station being reported. b) QSO can be reported only once and not back to the originating station. c)Only a maximum of 10 QTCs to a station is permitted. You may work the same station several times to complete this quota.Only the original contact,however,has QSO point value.d)keep a uniform list of QTCs sent.QTC 3/7 indicates this is the 3rd series of QTCs sent and that 7 QSOs are reported.Europeans may keep the list of received QTCs on a separate sheet if they clearly indicate the station who sent the QTCs.
Awards:Certificates to top scorer in each classification in each country. Continental leaders will be honored.
Disqualification:Violation of the rules of this contest or unsportsmanlike conduct,or taking credit for excessive duplicate contacts will be deemed sufficient cause for disqualification.Decisions of the contest committee are final.
Deadline:CW:9/15th, Phone:10/15th, RTTY:12/15th 1981.
Mail entries to:WAEDC-COMMITTEE,c/o Klaus Zielski,DF7FB,POB 1147 D-6455, Erlensee,West Germany. PAGE 7

BARTG SPRING 1980 CONTEST RESULTS

#	Call	Points	#	Call	points
1.	W3FV	592012	54.	YO2IS	91596
2.	F9XY	506456	55.	WA3ZKZ	91478
3.	I5FZI	498456	56.	DJ9IR	90948
4.	K7BV	454940	57.	K1LPS	87416
5.	SM6ASD	417648	58.	OZ1EWX	87200
6.	W4CQI	413354	59.	YO3JX	87166
7.	I2OLW	410416	60.	G3GGL	82808
8.	I2WEG	389850	61.	JA1JDD	81240
9.	KØPJ/6	385556	62.	VK5WV	78936
10.	G3HJC	351330	63.	IØZSG	78144
11.	I7FKO	334090	64.	GW3EHN	73960
12.	W2UIC	323596	65.	SM3EZO	72248
13.	I2DMI	313116	66.	IØWQP	69510
14.	EA8RU	289800	67.	DL8QP	67510
15.	W1GKJ	270720	68.	G3RDG	63812
16.	DJ6JC	269178	69.	EA3BLQ	60192
17.	WA6WGL	262800	70.	DJ1QT	58266
18.	YO3AC	251280	71.	VE2BOS	57964
19.	ZS6BLV	247456	72.	SL3ZR	56784
20.	VE4BF	244850	73.	DJ5SQ	56316
21.	I1TXD	235386	74.	VK1GM	53130
22.	F8XT	229922	75.	G4HYD	52972
23.	OZ9GA	221112	76.	SM6CAL	45760
24.	KL7HDS	217840	77.	G4BHT	45300
25.	VK5RY	216518	78.	W7CBY	42504
26.	XE1AFU	214976	79.	VK5UP	41712
27.	W6JOX	312150	80.	PA3ABE	41602
28.	Y31XB	207480	81.	Y53VA	40190
29.	VE2AXO	200976	82.	VE4WZ	39900
30.	G4FLN	177358	83.	YV4AD	39800
31.	DF7FB	174908	84.	JA7ML	39600
32.	ON5WG	174616	85.	G4IPZ	30524
33.	K4VDM	171948	86.	G3YJQ	29640
34.	K6WZ	164576	87.	K8UFW	25740
35.	W5HEZ	163880	88.	EA8RG	25300
36.	VK2EG	156650	89.	HA1VS	23520
37.	EA3AZX	155620	90.	OK2BJT	23460
38.	I5CBF	150784	91.	G4EEV	22704
39.	I8JRA	150144	92.	W2ODA	21200
40.	VE2JR	147200	93.	WAØLGU	21160
41.	KA7CYK	146190	94.	G4HJD	20112
42.	VK2SG	142710	95.	DJ6AD	20010
43.	VE3JKZ	138600	96.	SK7CS	14070
44.	ZL2BR	134946	97.	F6BTR	13328
45.	OZ8GA	131824	98.	G4EDR	12600
46.	DK1BX	126356	99.	W2KHQ	12410
47.	G2PB	119322	100.	ZL3IC	11880
48.	JA6GIJ	111910	101.	DJ2YE	9000
49.	SM6AEN	110800	102.	Y53TA	8540
50.	VK2APG	108342	103.	DK4IS	7072
51.	Y43ZK	106512	104.	SM5AAY	6600
52.	DL1VR	99448	105.	W8TCO	1250
53.	OZ8JYL	94860			

BARTG MULTIPLE OPERATOR SECTION

#	Call	Points	#	Call	Points
1.	9A1ONU	644160	12.	DKØOW	188024
2.	G3ZRS	490048	13.	W1MX	148460
3.	I5MYL	456246	14.	HA5KFU	122366
4.	G3UUP	360294	15.	OK3RJB	112572
5.	HA5KBM	334482	16.	Y41ZE	75508
6.	LZ2KRR	330480	17.	OZ4IJ	66048
7.	YU2CDS	296940	18.	ZS2AB	61776
8.	YO3KPA	273480	19.	OK3VSZ	54740
9.	K8ZOA/4	263304	20.	LA7A	40200
10.	KB9DM	224960	21.	Y63ZI	39440
11.	OK3RMW	188440	22.	HA5KKC	5220

****

BARTG SWL SECTION

1.	Ballenberger 403862 Pts.		6.	Y2-7111/A 69114 Pts.
2.	OK1 11857 382506 Pts.		7.	A. Schneider(DL) 37492 Pts.
3.	IV3 13018 309430 Pts.		8.	OK2 21478 22644 Pts.
4.	Y2-2814/M 270864 pts.		9.	Y2-6754/A 11304 Pys.
5.	T. Musson(GB) 132492 Pts.			

****
****

DARC RTTY CONTEST RESULTS MAY 10,190

#	Call	Points	#	Call	Points
1.	9G1JX	2703	12.	DL2FAR	224
2.	YT2D	1225	13.	DL5TN	221
3.	G3UUP	980	14.	DL4GJ	220
4.	I5CBF	930	15.	DF6ZY	208
5.	EA3BLQ	780	16.	DL8MY	160
6.	EA3BQQ	744	17.	DF3NA	140
7.	HB9LP	713	18.	G4HYD	117
8.	I2WEG	504	19.	Ok1WEQ	77
9.	G3VXN	437	20.	DL8CX	56
10.	G3HJC	336	21.	OZ1DAF	21
11.	I8JRA	252		Above Class "A"	

CLASS "B" AS FOLLOWS:

1.	H. Ballenberger	368
2.	K. Wuestner	260
3.	W. Ludwig	66

Checklogs. EA8RG, DFØBUS

££££££££££££££££££££££££££££££££££££

BARTG QUARTER CENTURY HONOR ROLL

CALL	# countries	CALL	# country
ON4BX	189	K8YEK	101
W2LFL	155	DL8KS	100
G6JF	136	G8LT	100
ON4CK	135	VE2QO	100
K6WZ	117	K3SWZ	100
W3KV	113	I5KPK	87
I5WT	111	K4VDM	87
W1GKJ	106	SM6ASD	85
DL8VX	105	WA6WGL	83
OK1MP	104	I3 13018	83
DJ8BT	103	DL1VR	81
I1ROL	103	DJ1QT	80

BARTG CONTINUED

CALL	# COUNTRIES	CALL	# COUNTRIES
G8CDW/SWL	79	F9XY	51
G3HJC	78	DJ3OE	51
DK5WJ	75	EI5BH	51
KØBJ	75	I2WEG	51
OZ4FF	70	I8JRA	51
ON5WG	68	OZ7RD	51
SMØOY	68	SM5BO	51
DK1BX	67	W7BCT	51
HB9AVK	65	G3IIR	50
SM5EIT	65	K6YUI	50
W6AEE	64	PAØCWI	50
G3ZRS	63	W8CW	50
W1MX	63	G3YDR	49
I2OLW	61	XE1AFU	49
SM6AEN	61	KØPJ/6	48
I4 14707	61	VK5RY	47
SL5AR	60	CT1EQ	45
GI4AHP	59	W2NZ	45
I1PYS	59	I1CAQ	44
G3RED	58	I3FUE	44
I1COB	57	I6NO	44
I1KG	57	K8NN	44
SM4CMG	57	9M2CR	44
DL8QP	56	BRS 25676	44
G3MWI	55	B.Niendorf	44
G3UUP	55	EA3AZX	43
VE2JR	55	JA7ML	43
DJ6XBA	54	SM7BGE	43
ZL2ALW	54	OK25350	43
DJ2YE	53	I2DMI	42
OHØNI	53	I5FZI	42
PY2CYK	53	K5ARH	42
VE5RG	53	9H1ET	42
WB2VTD	53	K4CG	41
W5QCH	53	OZ2CJ	41
G3OZF	52	SMØCBC	41
IØLVA	52	9H1EL	41

40 countries: DF7FB, G3YYD, G4ALE and WA9BOW.

38 countries: G3RDG, ISØRUH, IT9ZWS, VE7UBC, VU2KV, WA3IKK. WB6ADY, 9A1ONU L. Reynold.

37 countries: KB9DM and VK3DM.

36 countries: JH1TFF, VK6PG and W2ICU

35 countries: EA8RU, FG7XT, GW3IGG, KA7CYK and VK5WV.

34 countries: DL6YH, KX6LA and 9K2EP.

33 countries: HA5FE, ISØZUD, OK3KFF, SM5HEV, TF3IRA and WB6QFE.

32 countries: DJ9IR, G2HIO, I1PXC, WA2YVK, BRS 27239 and Kurt Wustner.

31 countries: G3VXO, LZ2KRR, OE5BRL, WA3JTC/ZP5 and W6CG.

30 countries: I1YTL, JH1ISF, K8ZOA/4, WB3CCZ, W8GPB, WØCJZ and YO3AC.

29 countries: DK1AQ, G3KPT, IØZAN and SMØIIB.

28 countries: F5QE, DF2ME, DJ4TJ, DL-8CX, I5CBF, K4RN, LA7AJ, OZ1EWX,OZ9GA CONGRATULATIONS TOO ALL ....

"THE EPROM CONTESTER" BY PAUL JOHNSON, KØPJ/6-3425 GURNARD CT, SAN DIEGO, CA 92124

NOTE: PLEASE FIND AND REFER TO SCHEMATICS IN JULY-AUGUST 1980 RTTY JOURNAL PAGES 11 THROUGH 14. AND FOLLOWING PAGES....

Many RTTY stations are now using Microprocessors with their stations. This article describes a non-microprocessor approach to a contest message generator. The original idea for the "EPROM Contester" is based on an article entitled the "COMPUTOR QSO MACHINE" designed by Lichtenwalner (see note 1).

As most stations are now using terminal units with built-in CW IDer's it was decided to eliminate the CW ID capability, thus simplifying the circuit. The addition of seven BCD thumb wheel switches allows for RST, message number, and units of year messages with an appropriately coded memory chip.

U1 (EXAR XR2240 TIMER/COUNTER) is the heart of the contester and provides all timing. Pins 1, 2 and 3 provide timing for each TTY character and pins 4 through 8 select the 32 character memory locations of a memory block. (32 blocks of 32 characters each).

The clock speed of U1 measured at pin 1 is set by the 200K timing pot and should be 22.7 HZ per sec for 60 WPM and 37 HZ per sec for 100 WPM operation. A run LED indicator is powered from pin 1 via U17C. Start and stop pulses are provided by U18A and B.

U2 (74151, 8-INPUT MULTIPLEXER) serializes the date provided by U3 and U4 (bits 1 through 5) and is outputed via U17A, B. As the inverted output of U2 is used, bit 0 is tied low, (one unit start pulse) and bits 6 and 7 are tied high (two unit stop pusle) for Baudot code.

U3 and 4 (74158, Quad 2-INPUT DATE SELECTOR) provides switching between EPROM Memory data and thumb wheel/clock data. Memory chip bit 0 is programmed low if data is to be supplied by the memory chip and high if data from the TW/clock is desired. Switching of U3 and U4 is via N and gate U15 A.

U5 and U6 (74188, 8 x 32 PROM) decode the BCD thumb wheel and clock inputs, chip coding is shown in fig. 7.

If data from the T/W is desired, memory chip bit 0 and 5 are coded high. If data from clock is desired memory bit 0 only is coded high. The selection of each T/W segment is provided by memory chip coding and U19 and 20. For example: if data from T/W #1 was desired that memory word (8 bits) would be coded as follows:

```
BIT 0 1 2 3 4 5 6 7
    H H L L L H H L
```
For data from T/W #5
```
    H H L L L H L H
```

The clock can be forced to display either time or date. To display time clock pin 1 N 3 is driven positive at digit 3 time via memory bit 6 high U21A and Q1. To display date, clock pin 1 N 3 is driven positive via memory bit 7 high, U21B and Q1. The appropriate time/date digit is then selected by coding memory chip bits 1 through 4 high. For an example of clock display coding see figure 8.

As the clock segment information is changing at better than 100 KHZ, U16 (7400), U8 (7430) and U9A (74221) are used to clock U7 (74116 DUAL 4-BIT TRANSPARENT LATCH) when the desired information is available.

U10 and U11 (74193 PRESETTABLE 4-BIT BINARY UP/DOWN COUNTER) may be pre-loaded to select any of the 32, memory start locations of the EPROM. Pre-loading of U10 and U11 is accomplished by the desired setting of S1 and S2 and a load pulse from U9B. The up count of U10 and U11 comes from pin 8 of U22. U10 and U11 may be reset/cleared by a momentary positive voltage applied to pin 14.

If the auto load feature is not used, an upcount is generated on start. This is caused by lines 1-8 of U1 going high when the circuit is at reset. When start is initiated these lines go low causing an up count.

U12 and U13 (7446 BCD to SEVEN SEGMENT DRIVER) drives two 7 segment LED's which tells which memory block is being used/selected. This readout is in octal, the maximum count is 37 octal or 32 decimal.

U14B (7411) provides a high output if both bits 6 and 7 are coded high, and when the last stop pulse of any

character is reached. This high output can be used for automatic TTY stop, and ensures that a full character is outputed on a stop operation.

U11 pin 2 provides a high when the last bit of EPROM memory has been sent. This output is used for auto stop to prevent memory over run. The clock circuit is included as figure 6 from the original article.(note 1).

Figure 4 shows typical control wiring. Figure 5 is a power supply for the contester. Figure 8 shows the coding for the TIME/DATE memory chip and is a good example of all elements of Contester EPROM coding.

Memory could be expanded to eight 2708 EPROMS by using the output of U11 (pins 2, 6 and 7) to drive a 7442 (BCD to DECIMAL DECODER) and using its outputs to enable each EPROM. (pin 20). As the EPROMS output is tri-state, their outputs can be hooked in parallel.

Many Hams have microprocessors that can program EPROMS. Skip, WB6CYA, programmed the one I am using.

As there is no PCB available for this circuit, the use of wire Rap is the best way to construct this circuit.

#NOTE 1: "The Computer QSO Machine", by B.D. Lichtenwalner, W1HAB. 73 Magazine. June 1976 pg 80.
PLEASE LOOK FOR FIGS. 6, 7, 8 on pages 10 and 11.

¢¢¢¢¢¢¢¢¢¢¢¢¢¢¢¢¢¢¢¢¢¢¢¢¢¢¢¢¢¢¢¢¢¢¢

EDITORS NOTE: Mr. Johnson has had an article published previously in the JOURNAL, in February 1980 erronously attributed to Skip Prisen, WB6CYA. The article "A DIGITAL READOUT FOR THE UT-4" was given to us by Skip and we made a wrong assumption as to whom credit should be given. Our apoligies to Mr. Johnson, a very fine author indeed.

¢¢¢¢¢¢¢¢¢¢¢¢¢¢¢¢¢¢¢¢¢¢¢¢¢¢¢¢¢¢¢¢¢¢¢

CORRECTIONS
In Your July-August issue...........
Page 10, Credit should be given to C.W Abrams, 1758 Comstock Lane, San Jose, CA 95124, for writing the column "Micrecomputing". Top of page 16 should read, "BLOCKBUSTER" part two, by R. Parry, W9IF, 38 W. 255 Deerpath Rd., Batavia, Illinois 60510. Sorry about that!
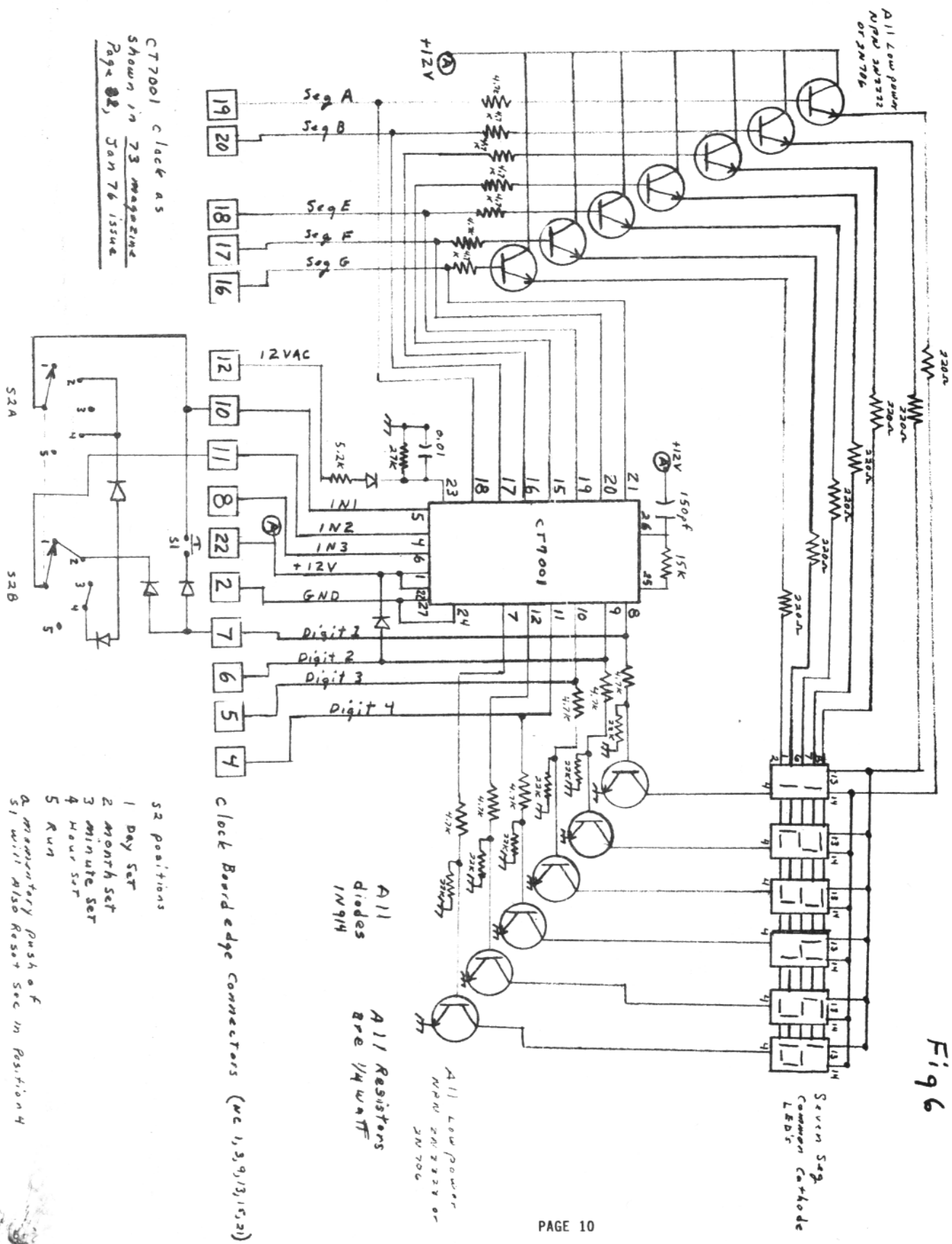
RTTY BEGINNERS HANDBOOK $4.50

Fig 6

45 T/W decoder 74188

MK-0-□ SP-1-■

	7 6 5 4 3 2 1 0
0	BCD0
1	BCD1
2	BCD2
3	BCD3
4	BCD4
5	BCD5
6	BCD6
7	BCD7
10	BCD8
11	BCD9
12	
13	
14	
15	
16	
17	
20	
21	
22	
23	
24	
25	
26	
27	
30	
31	
32	
33	
34	
35	
36	
37	

46 clock decoder 74188

MK-0-□ SP-1-■

	7 6 5 4 3 2 1 0
0	
1	
2	clock1
3	clock7
4	
5	
6	
7	
10	
11	
12	
13	
14	
15	
16	
17	clock0
20	
21	
22	
23	clock3
24	
25	
26	
27	clock2
30	
31	clock5
32	clock4
33	clock9
34	clock6
35	
36	
37	clock8

Fig 7

Time/Date Eprom Coding

MK-0-□ SP-1-■

	7 6 5 4 3 2 1 0		Source of output
00 0	LTR		Eprom
E 1	T		
32 2	1		
063 3	M		
3C 4	E		
365 5	SP		
086 6	Fig.		
7			
457 8	7 Tens Hr		
49 9	Tens min		
5 A	Units min		clock decoder (Time)
00 B	LTR		Eprom
1 C	C		
2 D	SP		
3 E	A		
38 F	A		
1 E 10	T		
3C 11	E		
36 12	SP		
0 B 13	Fig.		clock decoder (Date)
8 3 14	Tens Mo		Eprom
8 5 15	Units Mo		
04 16			
89 17	Tens Day		clock decoder (Date)
9 18	Units Day		Eprom
04 19			
32 1A	Tens Yr		T/W decoder
7 1B	Units Yr		Eprom
36 1C	SP		
2 E 10	CR		
C 0 1F	Auto LTR		Eprom
3A 1E	LF		

Hexadecimal used for EPROM coding

Fig 8

Classified Ads

WHOLESALE DIGITAL CASSETTES ONLY 79¢. Fully guaranteed!Computer grade.Are you tired of no-loads;had it with poor quality and inflated prices?Obviously you're not using MICRO-80 CASSETTES. Send for your wholesale listing today. 24-hour answering service,same day processing. 1-206-675-6143. MICRO-80 Inc., R-2665 N.Busby Rd.Micro-80 Park,Oak Harbor,WA 98277.

KITS AND PARTS FOR THE RTTY AMATEUR, featuring the famous MEG-1 Demodulator,ID-1 CW ID'er,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 15¢ stamp for catalog.Midnight Engineering Group,P.O.B.349,Galesburg,IL 61401.

LIST OF RADIOTELETYPE STATIONS SECOND edition.Press agency,commercial,etc. Frequency in KHZ,call sign,etc. $4.00 Pierre Gagnon,C.P.511 Stn-St-Laurent, Ville St.Laurent,Quebec,Canada.

SELL-Like new HAL DKB-2010 with 128 char.buffer also HAL RVD-1005 video conv.Also model 26 TTY with synchronous motor.Will sell all for $600.00. Kenneth Owen,521 East 13th St.,North Platte,Nebr.69101. 308-532-5745.

FOR SALE: 5th edition of the "LIST OF RTTY STATIONS IN FREQUENCY ORDER", now contains more than 1200 frequencies monitored in 1979-1980 of commercial stations like press,aeronautical,weather,telex,military,diplo, maritime,etc.on shortwave.Schedules of around 70 news agency stations,and more than 180 special abbreviations are also included.This offset printed list is airmailed to you for $16.00 or 39 IRC from Joerg Klingenfuss,Panoramastrasse 81,D-7400 Tuebingen 7, West Germany.

THOUSANDS OF COMMERCIAL RTTY STATIONS are active between the amateur shortwave bands.Many of them can be printed easily with your exixting equipment.(Take care of legislative restrictions if applicable!)If interested,you need "software",complied from nonstop monitoring the complete short wave spectrum.I have up-to-date frequency,callsign,schedule, code lists for press,military,diplo,telex,aeronautical,weather etc. stations. Write for details. Joerg Klingenfuss,Panoramastrasse 81, D-7400 Tuebingen 7, West Germany.

"RL" TU'S-We have both the FSK1000 and FSK500 available.Also contact us for your up-dates to these units (TRS-80 Hardware and Software) for the best deals around call "T&D" Sales or write to T&D Sales,524 Sixth St. Fremont,OH 43420. Tel.419-334-3462.

MODEL 33 RO'S LESS STAND,as is.Used/Checked on line prior to shipment $250 Total,shipped prepaid,anywhere in continental USA.With stand $265. W/RS 232 installed $300-while they last.Please specify 20 or 60 MA service.All units checked for Major (visable) wear.Model 33 Manuals $20 per set Volume 1,2 and parts. Paper $30 per case of 12 rolls.Ribbons $17 per box,one dozen.Please send certified check or money order.Many supplies and various terminals as is and rebuilt.Parts are also available. please write or call for lists. TRAM TELETYPEWRITER SERVICE 58 E.Elm St., Central Islip,NY 11722.516-582-9787.

FOR SALE:ASSORTED METERS;MA,HV,DC,DEV VU,db,RF amps etc., 60 WPM 3 headed TEE DEE.5 FP7 and 3GP1 scope tubes. Parts for 1KW continous duty amp $100 Send stamp for details.W9RI,4211-7 AV,Rock Island,IL 61201.

TELETYPEWRITER GEARS,Parts,Ribbons, Tools,Manuals,Supplies.Also Toroids. List SASE,TYPETRONICS,Box 8873,Ft. Lauderdale,FL 33310.Cash or trade for unused repair parts,components,klystrous,and military connectors.

NS-CQ SOLID STATE AUTOMATIC CQer. Board and PROM programmed,your call $21.50ppd.SASE for info.NAT STINNETTE ELECTRONICS,Tavares,FL 32778.

IF-2 SELCAL-WRU PRINTED CIRCUIT BOARD $15.00 (73 mag.p 254 Nov.78).Contains all circuits to control TTY and transmitter.Programmable to any access code in minutes.Easily interfaced to any station.Connects to UT-4 (UART) or IF-1 REGENERATIVE REPEATER PCB $12.00.Complete documentation Commercially fabricated boards.R.Parry,38 W 255 Deerpath Rd.Batavia,IL 60510.

I PAY CASH-Kleinschmidt Model TT-98 & TT-76 Call Dave collect213-760-1000

WANTED:FOR TELETYPE MODEL 15 with key board,plastic cover,the type used by U.P.I.,shown in Jan.'65 JOURNAL.N4BRX Dave Hamilton,413 Seneca Ave,Louisville,Ky 40209.502-368-7845.

RTTY89 FOR THE HEATH H89 or H8/H19/H17 offers full disk I/O,disk autostart,dynamic video graphics,split screen,ASCII or Baudot operation.70 page comprehensive user's manual and prompt card included plus much more. Write for free brochure.Price only $100ppd.California residents add 6% sales tax.COMMSOFT,665 Maybell Ave., Palo Alto,CA 94306.415-493-2184.

WANTED:TELETYPEWRITER PARTS And assemblies for Teletype,Kleinschmidt and Mite Corp.machines.Phil,W4LNW, P.O.B 70,Morrisonville,NY 12962.

CASSETTES WHOLESALE! Computer grade in packs of 10,25,50,and 100.Same tape used in all MICRO-80 software. LIMITED OFFER,Only 99¢ each.Add $1.50 postage & handling.Write MICRO-80 Inc Wholesale Division,R-2665 N.Busby RD. Oak Harbor,WA 98277.

NEWS-NEWS-NEWS-Amateur Radio's Newspaper "WORLDRADIO" Trial subscription Two issues for one dollar"WORLDRADIO" 2509-F Donner Way,Sacramento,CA 95818

SURPLUS TD PAPER 11/16 carton of 10 $3.00 Wt.13lbs.11/16 carton of 40 $10 Wt.47lbs.7/8 carton of 8 $3.00.Wt.13 lbs.7/8 carton Of 32 $10.00 Wt.47lbs. For Kleinschmidt machines-Paper Teletypewriter Continous Flat Fold 500 sets Wt.25lbs. $7.50.Add UPS wt. Harmon,5628-10th S,Birmingham,AL 35222.

TELETYPE PARTS WANTED:highest prices paid,old or new models,especially model 15,any quantity.Send list/call Van,W2DLT,Teleprinter Corp.,Box 15, Berkeley Heights,NJ 07922,201-464-5310 days.

TELETYPE & ALLIED MACHINES & Accessories.SASE for list 20% off on all pick-ups.10% off on all shipments. B.Goodman,5454 S.Shore,Chicago,IL 60615.312-753-8342.

COLLECTOR BUYING TELEGRAPH & Allied instruments of yesteryear.R.Eichner, 914A Oakcrest,Charleston,IL 61920.

FOR SALE:2nd edition of the "LIST OF ABBREVIATIONS,CODES AND TABLES USED IN RADIOCOMMUNICATIONS",now contains: 170 general abbreviations;260 Q-code groups from QAA to QUZ;300 military and civil Z-code groups from ZAA to ZZZ;phonetic alphabet;signal reporting codes;symbols for designation of emissions from A0 to P9 and for classes of stations;table of frequency allocations from 10 kHz to 150 MHz and common use frequencies.This offset printed list is airmailed to you for $9.00 or 20 IRC from Joerg Klingenfuss;Panoramstrasse 81,D-7400 Tuebingen 7;West Germany.

SALE:FRESH,HEAVILY INKED UPI RIBBONS, FITS ALL TELETYPE MACHINES $6.95 doz; red & black nylon ribbons dual spool $16.50 doz:Kleinschmidt ribbons $11. 50 doz;perforator tape 11/16"x8" case of 40 rolls $19.50;perforator tape 1"x8" pink,case of 28 rolls $19.50; perforator tape 1"x8" black,case of 28 rolls $19.50;narrow strip printer tape 3/8" wide ungummed,box of 25 rolls $8.90;case of 100 rolls $23.50; jack panel containing 100 jacks on a 24" panel,takes standard $\frac{1}{4}$" plugs $28.00;88MH toroids pack of 5 for $3. model 28 self-contained,stand-alone typing reperf with 3 speed gear shift $135.00;single speed $99.00;model 28 ASR keyboard (less motor and perf) $49.00;model 28 LAXD TD head $55.00; model 28 LARP multi magnet reperf complete with motor,base and mounting studs to fit inside model 28 ASR cabinet $195.00;model 14,15 syn motors, 1800 rpm $19.50;model 14 typing reperf (less base and cover) $29.00;also available paper,gears,manuals, parts,and complete 14 through 35 machines.Send us a list of your requirements.All prices are FOB Brooklyn NY 11224.Tele:212-372-0349.

RM-300 THE COMPLETE TU AND AFSK Generator on one board PROM.Thinking of VHF RTTY through your local repeater? This premium quality is ideal.Complete documentation $2.RM-300 board just $21.25.Complete kit (less PROM) $71.25.PROM programmed with your call $7.00.RP-400 power supply (+5v &-12v and dual loop supply) bd.only $21.25. Complete kit with heavy duty transformer and solid state autostart telay $71.25.Cal residents add 6%.Postage & handling $1.00.ECLIPSE COMMUNICATIONS,5 Westwood Dr.,San Rafael, CA 94901.

THE BIT-BYTER RTTY SYSTEM..Designed for the TRS-80*,a radioteletype system for the discerning amateur. It is now possible to enjoy sophisticated yet simple RTTY operation without all the mechanics,bulk,cost and noise by putting your TRS-80* to work.Software features..RTY-80:(1) split-screen operation..received information is scrolled across the bottom two-thirds of the screen and the transmit buffer is scrolled across the top third of the screen with a status banner separating them.(2) works equally well with level 1 or level 2 computer.(3) automatic station operation..PPT and CW ID under software control. Automatic return to the receive mode at end of transmission from keyboard command.(4)your call.. customized into the software to provide:"SHIFT I" sends de XXXX in Baudot. "SHIFT D" sends de XXXX to the CW ID relay.(new)"SHIFT Q" sends a line of CQ's.(new)"SHIFT Y" sends a line of RY's.(new)"SHIFT T" sends 'the quick brown fox' etc.(5) speed control..keyboard selection (receive or transmit) of 60 or 100 WPM.(6) on screen status: counter shows amount of transmit buffer used.Mode shows 'transmit' or 'receive'. Speed selected is displayed I.E.60 WPM or 100 WPM.(7)word edit..transmits a word when space bar is depressed.Mistakes made in the word may be edited prior to transmission.(8) automatic carriage return.(9) buffer size.. the software "discovers" how much memory you have.4K..greater than 1,400 characters available.16K..greater than 14,000 characters available.Hardware features.."BIT-BYTER" interface:(1) simple installation..just put in series with your 60 MA loop.(2) completely shielded..this cannot be over emphasized.(3) complete loop isolation through opto-isolators.(4) CW ID relay sends required CW ID.(5) PTT relay controls transmitter status.Can be used with external diodes to control terminal unit too.(6)interface unit keys loop from computer and reads the loop into the computer.It is essential that your AFSK unit be keyed from the loop.(7)Self contained regulated power supply.(8)assembled and tested.(9)metal cabinet matches your TRS-80.Order from:Vic Frump,K8-EXJ phone 304-372-2047 UHF Sales & Service CO,RT 1 Box 52A,Evans,WV 25241.Specify:Name,Address,Call letters and level 1 or level 2.Cost $129.00..*Trademark of the Tandy Corp

MODEL 28 GEARS,GEARSHIFTS,PARTS and supplies for all machines.Two matching metal pieces for M28 stand-alone TD's $37.00PP;auto CR-LF kits (with instructions) for M28 printers $22.00 PP;wiring diagram packets for 33ASR with 101C modem,$6.50PP;M28 motorized paper winders $77.00PP;underdome typing reperf for 28ASR,single-speed complete $280.00PP. Model 28 keyboard typing reperfs,stand-alone TD's,triple TD's,answerbacks,Model 33 and 35 machines.Send SASE for complete list and prices.Lawrence R.Pfleger,K9WJB, 2600 S.14th St.,St.Cloud,MN 56301.

FOR SALE: 28ASR 100WPM keyboard perf, 4 ribbons,9 rolls TTY paper,8 rolls reperf tape $400.00. 28 typing reperf 6 large rolls tape,auto wind up reel, tape disp. reel $150.00. Flesher TR 128 $175. Free delivery 75 mile radius Danville,IL.Call WB9YJF 217-267-2734.Mike .

WE "SPECIALIZE" in RTTY equipment and supplies. Authorized Dealer for the fabulous "INFO-TECH" RTTY/CW/ASCII equipment,including models: M-100E, Video Converter: M-300C Super Tri-Mode Keyboard; M-200F Tri-Mode Video Converter: M-70 Code and Speed Converter: Magnetic Tape Interface. Also HF Transcievers,amplifiers,antennas and other general Ham Radio equipment Call or write Dick,KOVKH,DIALTA Amateur Radio Supply,212-48th St.Rapid City, SD 57701.605-343-6127.Special quotes and prices for special people. ST-6 TU 850-425-170 shifts and AFSK gen.$225.RVD-1005 video converter $200 9" video monitor $50.DKB2010 RTTY/CW keyboard with 128 character extended memory $250.AK-1 AFSK board $20.TR-128 baud rate converter $125. All Above plus shipping.Joe,W6RLL, 16808 Goodvale Rd.Canyon Country,CA 91351.805-251-2135.

WANTED: UT-4 FLESHER.I want to interface a HAL ST-6000 with ASR-28.Must be in operating condition. State price and condition,Bob Cannefax,WOrks,2346 E.15 Ave,N.St Paul,MN 55109.

SELL HAL DS2000 WITH CW board $400. HAL RVD 1005 $200 both mint.TS8205, 500 Hz filter,dentron coupler and MFJ 482 keyer,1 year old $850. KP4BOM, 809-852-4401.Box 147,Punta Santiago, PR 00741.Henry Hays.

NOW KEEPS SENDING while you CW ID.The MS-738 AFSK tone mixer is the VHF answer.See Nov 1979 RTTY JOURNAL for full description.Kit $10.75 plus $1.

continued from page number 13
shipping.Daytapro Electronics,3029
N.Wilshire Ln,Arlington Hts,IL 60004.
VISA ACCEPTED.

SALE! SALE! SALE! SALE! RTTY ID Gen-
erator.Accepts 5 of 12 volt supplies,
31 RTTY characters available,(please
include letters,figures,spaces,Etc)
your pre-programmed answer-back must
be supplied with order. EXAMPLE:DE
(YOUR CALL) (YOUR NAME) (CITY & ST
ATE).See Jan.1980 RTTY JOURNAL for
complete description. Board is same
size as popular ST-6 boards. Was
$34.99 now priced $24.95.Board alone
was $8.50 now $6.00.Please add $1.00
for shipping.DATAPRO Electronics,3029
N.Wilshire Ln,Arlington Hts,IL 60004.
VISA accepted.Phone 312-870-0555.

UT-4B BOARDS,SEE NOV. RTTY JOURNAL
1978 for users report.Complete speed
conversion and many additional extras
as seen in 1974 RTTY JOURNAL plus ot-
her additional modifications such as
parallel buffered outputs,Transition-
al autostart and more.Slight modifi-
cation for ASCII use.Price $18.95 ea
plus shipping.See our other ad in the
classified section for M4D power sup-
ply and XB-6 crystal clock specifica-
tions.DATAPRO Electronics,3029 N.Wil-
shire Ln,Arlington,Hts,IL 60004,VISA
accepted.Phone 312-870-0555 evenings.

FOR SALE:MODEL 35 ASR,Excellent con-
dition,$250 or best offer.Model 19,
Complete,Excellent condition $100.Don
Smith 20120 Brick Rd.,South Bend,IN
46637. 219-272-1816.

THE RACK LINE BY DATAPRO,For indivi-
dual or repeater these versatile uni-
form boards will do the job right.All
boards are $4\frac{1}{2}$ x $6\frac{1}{2}$",22 pin edge con-
nector mounting for easy servicing.
All kits have the edge connector in-
cluded. CW ID SYSTEM.Interfaced for
digital, FSK or AFSK keying, 10 mi-
nute timer,variable speed (5-25 WPM),
12 or 5 volt use.Kit was $37.90 each,
NOW ON SALE FOR ONLY $27.90,Board a-
lone $8.95. CW ID.Above CW ID but
without timer and interface compo-
nents.Board is the same as that for
CW ID SYSTEM.Kit was $21.95 NOW ON
SALE AT $19.95.UT-2B SPEED CONVERTOR,
Board has transitional autostart,on
board clocks,parallel buffered out-
puts,FSK keying output.Boards have
two clocks for basic speed conversion
(one speed per clock,for multi speed
see XB-6 clock board).May be used for
ASCII with slight modification. Com-
PAGE 14

plete kit $39.49,thru plated board
alone $14.95.TU-LOOP POWER SUPPLY,
If you're looking for the ideal loop
supply for your new demodulator board
this is it.This board has provisions
for a plus and negative supply (12
or 15 volts), A 5volt supply,and a
high voltage loop supply.All supplies
need not be mounted on the board if
operation of one of the supplies is
not desired.Loop supplies have LED's
for indication of power.Complete kit
(plus and minus 12v,plus 5 volt and
HV 250 volt loop supply) $56.50,board
alone $8.50.DUal XB-6 UART CLOCK BO
ARD. Develops 6 baud rates for each
side of the UART.Complete crystal
control.Good for UT-2 and UT-4 sys-
tems.Kit $27.85.Board alone $8.95.
CRYSTAL CONTROLLED AFSK BOARD. Sup-
plies rock solid tones of 2125 for
mark and 2975 for space.Avoid drift
with crystal control.Complete kit
$29.50.Board alone $8.95.MULTI VOLT
AGE POWER SUPPLY M4D Supplies plus
and minus 12 volts at a constant 800
ma and 5 volts at 800 ma. 5 volt sup-
ply is crowbar protected to avoid
overlay of chips.All supplies have
LED indication for voltage presence.
Complete kit $33.95,board alone $8.50
M4D3 same as above but with 5 volt
supply expanded to 3 amps $51.95.
MS-512 SINGLE BOARD POWER SUPPLY,
where space is at a premium this sin-
gle voltage supply fits nicely.Volt-
age is determined by voltage regula-
tor.Supplies vary from 5 to 24 volts
with change of regulator and trans-
former.All parts including transfor-
mer fit on the $2\frac{1}{4}$ x $4\frac{1}{2}$ board. Current
output 1 amp. May be configured for
negative or positive supplies.SPECIFY
NEGATIVE OR POSITIVE VOLTAGE,5,6,8,12
13.2,15,18 or 24 volt.Complete kit
(5-8 volt $13.95) (24 volt $14.95)
Board alone $5.75.AVAILABLE FROM DAY
TAPRO ELECTRONICS,3029 N.Wilshire Ln.
Arlington HTS.IL 6004.Add $1.00 for
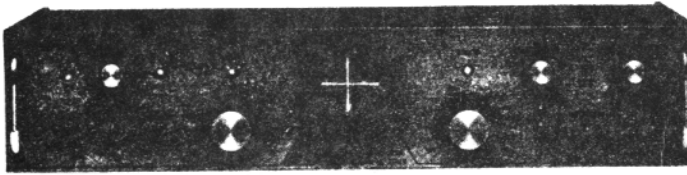shipping.Use your VISA for added con-
venience.PH.312-870-0555   evenings.

FROM YOUR EDITOR/PUBLISHER Dee Gohee
I hope that everyone has enjoyed
the summer months/vacation. Here at
the JOURNAL we have taken a bit of
time off, publishing the May-June is-
sue just a little early and the July-
August issue a lot early. We had rea-
sons forthis and it turned out, by
far, they best thing we have done in
a long time. John and I attended the
SEANARC '80 Convention in Seattle,
July 25-27. It was quite a convention
but,I gathered that, it would have
been better if that crazy ole Mt.St.
Helens was not in the vacinity. Well,
that ole Mt. didn't bother the con-
vention one bit, in fact the spectac-
ular sunsets were due to that MT.
We arrived on Friday just in time to
attend the Salmon dinner on Blake Is-
land,Tillicum Village(our plane was
four hours late in getting off the
ground here in San Diego). The buses
were late in taking us to the ship
so we did have time to change clothes
for our voyage. We brought heavy win-
ter clothing but,I never wanting to
wear anything absolutely unnecessary,
inquired of the bellman, who said a
light sweater would be all that was
needed, he was right and off we went.
The bus we got on failed to start so
we all got off and prepared ourselves
on the six remaining buses when our
bus decided to start,off we went to
our original bus where our delighted
bus driver said "when you get back
be sure to get on this bus,I promise
that it will start",we did,and it did
The Salmon dinner and Eskimo dancing
and interpretations were just what
we needed to start our weekend on a
relaxed note. We met some very nice
Amateurs on the ship by the names of
Danny & Bunnie Dunivan (later turned
out that they had the suite just be-
low us).Danny is KA7CKH and lives 35
miles east of Mt.St.Helens.What tales
they told us of the eruptions!!.
Joining us in the RTTY JOURNAL hos-
pitality room were:Hugh K7JDR, Dennis
WA7IEL, Gay W4UG, Frank WA0OVU, Bill
W7BYK, Del W7EVI,Lester WA7AGG,"Ike"
N7AIO,Bill W7QFY/VK4QF, LaVerne KBBD-
0433, Berrita KATR 2827,Pat WB7UUM,
Elmer W2DOD and Bill KC7G. There were
a lot more there but someone thought
that my hospitality papers were some-
thing that they had lain down, and off
they went. All my careful pic taking
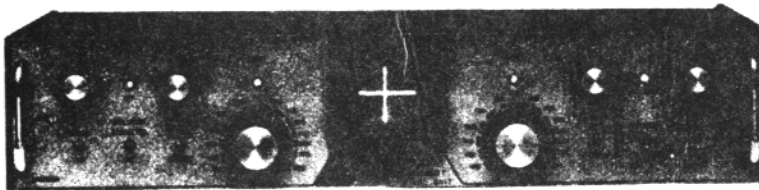with names and calls were also in the

D O V E T R O N

MPC-1000C

Multipath Correction
In-Band Diversity &
AFSK Tone Keyer

Amateur Net: $545.00

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.
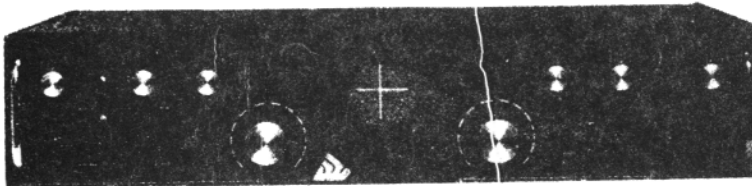

MPC-1000CR

Signal Regeneration &
Speed Conversion

Amateur Net: $645.00

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: $695.00

MPC-1000R/-TSR-500

Dual UART Regeneration, Speed Conversion, 200 Char. Memory, Word Correction & DIGITAL Autostart

Amateur Net: $895.00*

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): $595.00
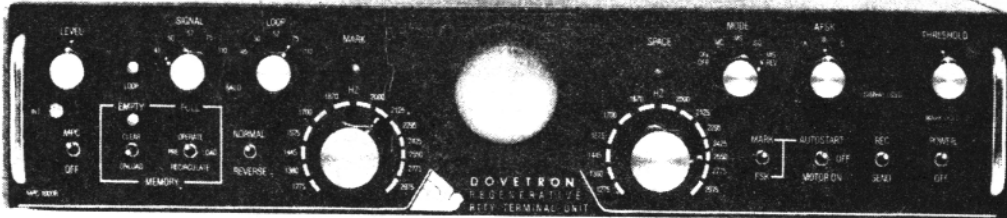
Your QSL will bring complete specifications, or call: 213-682-3705.

DOVETRON

627 FREMONT AVENUE
(P. O. BOX 267)
SOUTH PASADENA, CA. 91030