RTTY Journal

I HOPE THAT THE GUYS ON AUTOSTART REALIZE THAT MY LINE FEED STICKS !

CONTENTS

VHF RTTY NEWS

Mike Stone, WBØQCD, P.O. Box H, Lowden, Iowa 52255
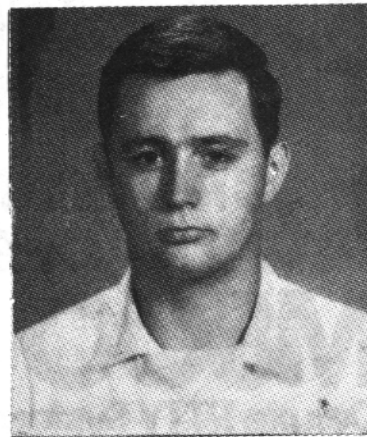
It will certainly be hard to follow in the footsteps of Arny Gamson,K6PZA former writer of this column, but I will do my best to continue in reporting VHF RTTY activity and related information. I am sure that I speak for all of Arny's readership when I wish him well towards a continued recovery. Your reports and articles indeed were a real pioneer effort towards the growing field of VHF RTTY communications.

Please allow me to introduce myself. and give you some background information. I have been licensed since 1979 and have kept abreast of shortwave communications ever since my father bought me my first receiver back in 1963. At age 32, married, with two children, I have been in the sales field for the past ten years. I am very active on all bands with the majority of my time presently being on 10 and 20 meter phone, RTTY and slow-scan television. A member of Iowa's Navy-Marine Corps. Mars, I enjoy my share of DXing, both HF and VHF and have been President of 2 local clubs. I fathered Iowa's first regenerative TTY only 2 meter FM Repeater and Club which still operates at 146.10/70 Mhz out of the Quad-City area. I also enjoy HF RTTY a lot and you will find me around the 14.082.5 autostart frequency with Irv Hoff and the gang.

There are several areas of interest that I would like to cover in this column. Reader input is certainly requested. I would like to hear from all the VHF RTTY operators,repeater, club groups, experimenters, designers and builders etc. I will also blend

with this column a bit of history and nostalgia by bringing back the past popular "TAPE OFF THE FLOOR" segment which ran for many years in the RTTY JOURNAL issues back in the 1950's. Old articles or photographs will be appreciated and returned.

I had a very interesting conversation with WN9WWM Henry Ruh, editor and publisher of "A5 ATV MAGAZINE" concerning the ARRL's apparent recent decision to omit RTTY,SLOW SCAN, FAST SCAN, FACSIMILE and other specialized communication modes from being listed or chaptered in their new 1979 "RADIO AMATEURS HANDBOOK". I mentioned to Henry my personal discussion on this matter with Harry Dannal, W2HD,(president of ARRL), at the Dayton "hamvention 79" and Mr. Dannals had stated that he had heard this complaint from other operators and that it was simply a matter of limited room for printing. W9NTP, Don Miller (ATV experimenter and Central Division Director of ARRL) told me at the Peoria Hamfest In September that surveyed reports from its membership showed less than 1% responded interest in RTTY or ATV activity. This is why, I am told, that there are very few articles printed in QST magazine. One must keep in mind however, that ARRL does indeed recognize and gives its support to RTTY as in its VHF bandplans and daily broadcast W1AW RTTY bulletins. I encourage all RTTY and ATV buffs to write their feelings on representation in the new 1980 Handbook to:ARRL c/o Mr. Perry Williams, Membership Services Department, 225 Main, Newington, CN 06111 (send an

extra copy to the "VHF Advisory committee" as they do represent us at WARC).

Gene Bockman, WA9LRO reports that the Gridley, Illinois 146.10/70 voice RTTY regenerated repeater is again back on the air with 8 folded diapoles at 400 feet and a newly designed WB9GYH control system with UART and space tone activation. This system covers all the way across Illinois and into Iowa and well into Indiana. Gene is working on his 8080 computer and his newly acquired model 35 ASR and BTA-1 converter to "put on line" with the system. Keep up the good work Gene!

Bi-State Teleprinter Society, Davenport, Iowa has temporarily reconstructed their 10/70 repeater in the Quad-City area. Use narrow shift. KH6JEO, Tony in Hawaii confirms perhaps, a record and first? USB RTTY 14 Mhz. crossband/crossmode contact with KOJUY and WB0SAX, Davenport via 146.10/70 FM repeater. Oh, I left out one minor detail--it took three stations to do the trick...(see FCC question and answer #5.) Can you imagine the disbelief of local autostart users when they read the "mail?"

Duane Fruchte, W9HWQ reports that the Mississippi River Valley Repeater Club and their VHF RTTY Repeater on 146.10/70 Mhz. is alive and growing with activity. Located in Minnesota upon a hilltop location of WB0ZRH, the repeater serves about a 50 mile radius. They are using a DT500 demodulator with UT2 regeneration and W9ZTH Selcal control with a crystal controlled ASFK circuit. Live near

HITS & MISSES

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

FROM
THE
MAILBAG

Each month I receive many club news-letters and I will try and share with you items from them. In The **Stark County Ohio RTTY Newsletter** I noticed the following: "The ARRL has in the new handbook dropped the section on RTTY. Maybe this is for the better. The League has always, in the past, devoted a few pages to this mode and had in the past few years the ST-4 terminal and the AK-1 AFSK. Granted these were good units in their time, but with LSI and other developments today, you would think they could come up with something better. It has also been some time since an article has been seen in QST. Wonder why?"

The Amateur Radio Research and Development Corp. (AMRAD) Newsletter contained the following, "ASCII considerations under docket 20777 the bandwidth docket, is on the FCC Commissioners agenda for September 27th, according to HR Report. Paul Rinaldo, W4RI, is planning to attend. Meanwhile, the lack of permission to use ASCII on the air has contributed to a reduction of amateur VHF RTTY activity. Many RTTYers have computers and have phased out their baudot gear. Phone-line data communications, on the other hand, is booming as witnessed by the number of computer bulletin board systems around the country."

In the **El Cajon (Calif.) Amateur Radio Club Newsletter "COUNTERPOISE"** the following article appeared: "TRS-80 on the air nets: West coast phone net, Sunday on 14,432.5Khz, WA6YKH is net control. CW net: Daily on 14,060 KHz at 0200Z. VE6AMW is net control. RTTY Net: Daily on 14,075 KHz at 0300Z 60 WPM 170 shift. WB6VGO is Net control.
Credit is also given to **SQUELCH TALES** for this information.

HANDBOOK FLAK

I have received many letters from readers of this column, who took the time to write to the ARRL about the 1979 Handbook. The deletion of RTTY-- and SSTV along with transmitting tube tables, base diagrams and semiconductor information was the main complaint in your letters. I think that your letter writing is going to pay off and the League will include the above deleted items in their new hand books.

SCATS FAMILY PICNIC

The Southern California Amateur Tele printers Society (**SCATS**) **family picnic was held on September 8th at the home of Merrill Swan, W6AEE.** Bob Smith, WB6ODR President of the San Diego Teleprinters Society and myself made the drive to Arcadia, California for this event. The chance to talk RTTY with the SCATS gang and Merrill was sure a lot of fun. Dale Sinner, W6IWO, President of **SCATS** and his club officers met with Bob and myself and discussed the lack of articles on RTTY in **QST**, and how best the RTTY gang can receive the recognition it deserves from the ARRL. I have re-printed with Dale's permission a letter he sent me. I hope it will stimulate more RTTY clubs to stand up and be counted.

SCATS

October 1,1979
George Hammon, WA6CQW
14215 Pecan Park Lane SP # 73
El Cajon, CA 92021
Dear George,

I enjoyed meeting you at our **SCATS** picnic at Merrill Swan's home on Saturday, September 8. I know it was a long drive up to Arcadia from San Diego, but I hope you enjoyed meeting Merrill and many of our **SCATS** members

It was my pleasure to call to order

a special meeting of members and officers of **SCATS**, the president of the San Diego RTTY Society, Bob Smith, Merrill Swan and yourself. Your desire to represent the RTTY mode and its relationship with ARRL is an admirable task. I cannot think of any other medium which could best reflect the interests, desires, and goals of RTTY on a nationwide scale. My sincere hope is that all RTTY groups will come forward and support your efforts. From our meeting with you-you can count on us for complete support.

RTTY is here to stay; each day we grow. Even CW is nearing our advanced state of transmission with superspeed keyers and code readers with video monitors. Our need for recognition is long overdue, but we have never complained much. However, times have changed, thousands of Amateurs now possess RTTY equipment, either in the form of mechanical machines, video terminal units or microcomputers.

We are always on the air. Here in the LA area our club owns and maintains an exclusive RTTY repeater. It is not unusual to have 20 to 30 users each day. Our repeater also sports a microcomputer on line 24 hours a day which is owned by one of our members. With computer on line, we know how many users we have each day on an hourly basis. As you know, with our autostart feature we need not be at home to receive a message and, accordingly, our answer back can be delayed hours and still be received by the first party. On the HF bands, I cite 20 meters between 14.080 and 14.100. Call any time when the band is open and instantly you are in QSO with someone, somewhere. Numerous RTTY contests are held each year,

most of which are sponsored by RTTY groups outside our country. However, our club **SCATS**, is sponsoring the Worldwide RTTY art contest. When it comes to emergencies, no one can handle as much information, as fast, and as accurately as RTTY users. Our only handicap being the need for electricity, but that problem can be solved.

The ideas presented at this meeting will, I hope, spur you on to contact all other RTTY and computer groups for their opinions and ideas. If we (SCATS) can help in any way, please do not hesitate to ask.
(signed)
Dale Sinner, `W∅IWO`
President SCATS

I wish to thank Dale for his very fine letter. The warm hospitality the **SCATS** Officers and Members extended to Bob and I, made us feel right at home. Thanks again Dale, to you and your very fine club. I took the opportunity while steaks cooked on the barbecue's to talk with Merrill Swan. Merrill and I sat in his shack and discussed RTTY. The years of frustration for Merrill getting RTTY gear for the Green Key Bunch. Many of us owe so much to this pioneer in RTTY, from machines we use to the continuing fight for RTTY recognition. Merrill made his services available to the ARRL to edit technical articles on RTTY with little or no success. I hope we will never stop fighting for RTTY.

EMI

Electromagnetic interference is apparently becoming a real problem. The amount of electronic products being marketed for our homes and cars are not always compatible. Newspaper accounts daily point this out. The lady using her toaster--receives a local broadcast station, the motorist, who has the electronic fuel injection system affected by a mobil radio in a nearby car. The National Bureau of Standards is concerned about the growing number of radio and microwave emission sources and have suggested the need to establish electronic compatibility standards.

LOCAL LOOP

The monthly newsletter of the San Diego Teleprinter Society is called the "LOCAL LOOP" and is now being edited by Linda Canon,`KA6ENA` along with Ray LaBelle, `W6RUL`. The last issue was really super and I hope all members will send in items for them to print. Keep up the good work Linda and Ray.

ARTICLES

The need for a wide variety of articles for the **RTTY JOURNAL** is solicited each month. The **JOURNAL** is looking for cartoons, humorous happenings, pictures (RTTY or black and white photos), weekend projects, RTTY art, computer programs or anything that you would like to share with the readers of the **RTTY JOURNAL**. Sharpen up your pencils and let us hear from you.

QSL CARDS....

This month I received QSL cards direct from `TF3IRA` and `7P8BC`. I also received through the bureau QSL cards from:`HB9Z`, `OH2BH`, `G3UUP`, `JA8ADQ` and `DJ2YE`, thanks so much. I also received a QSL card from Richard Doering `WA6CFM/9`. Richard was an explorer scout in a post I was associated with in 1969. He is now working for Argonne National Laboratory after completing college with a degree in Physics and Economics. I am glad after all these years Ham Radio and the **RTTY JOURNAL** caused our paths to cross again.

To close out my column this month I hope you found it interesting and will drop me a line or two. In my next column I hope to have some input as the result od meeting with the Southwestern Director-Jay Holladay at the Southwestern Convention.
SO LONG FOR NOW
GEORGE,`WA6CQW`

Trempealeau, Wisconsin?? Try the repeater!

Received a nice catalog from `WA0UZQ`, Bob in Pueblo, Colorado that offers a lot of money saving kit circuit boards, many for RTTY. Bob has a "RTTY" repeater on 146.19/79 Mhz. tha doubles for voice use and employs a mark decoder and special disabling "time-out feature" for extended RTTY transmission use. Most of the station is homebrew based around Motorola "motrac" transcievers. His antenna system on the repeater is a bi-directional 12 element beam heading north and south for maximum coverage. Write to Bob for catalog information at POB 969, Pueblo, CO 81002.

"TAPE OFF THE FLOOR"

(EXCERPTS FROM VOLUME 1,JANUARY 1953
"Amateur Radio Christmas Gift" FCC announced on December 23rd 1952 its actions on dockets #10073 and #10173 giving a single channel 5 unit, 850 cycle shift emission priveledge to "hams" effective February 18,1953. No less than 55 and no more than 65 words per minute was the speed allowed.

"Southern California Radio Teletype Society" held its meeting at `W6LS` QTH with discussion on new VHF teletype frequencies 146.70, 146.10, 147.75, 147.85 Mhz. Shorty Griggs, `W6RL` has his RTTY-mobile station operating.

`W∅AEE`, Merrill Swan heads the list of 73 California TTY operators roster listing.

"Horse Trades",`W6NAT` and `W6CL` are looking for Model 12 keyboards (did they ever find them????)

(Copies of old **RTTY JOURNAL** magazines are available via `WB0ESF`, Red Wilson, see inside front cover.)

`SEE` `YOU` `NEXT` `MONTH`
MIKE

You can't tell how deep a puddle
is until you step in it.

the exciting new
INFO-TECH M-70 CODE/SPEED CONVERTER

The Info-Tech M-70 is a microprocessor based unidirectional simplex converter which will accept as an input: Loop, RS-232 or TTL signals at Baudot speeds of 60, 66, 75 or 100 wpm or ASCII speeds of 110 or 300 baud. The outputs of the M-70 are: Loop, RS 232 and TTL at Baudot speeds of 60, 66, 75 or 100 wpm or ASCII at 110 or 300 baud. With simple external switching, the M-70 can be operated half duplex in any mode/speed conversion combination.

A 1024-character buffer is provided for down-speed conversion, with buffer empty and buffer full status indicator outputs.

OTHER FEATURES:

- Auto-start output with two selectable formats: channel active, or space character detect
- Two programmable sel-cal (selective calling) outputs decode up to 7 characters each. (4 character turn off code)
- WRU output generated after detection of a string up to 7 characters long
- Selectable automatic C/R and L/F
- Selectable unshift on space (Baudot inputs only)
- Selectable bell defeat
- Selectable parity select (ASCII outputs only)
- Buffer Run/Load input

PRICE $175.00 FCB ST. LOUIS.

BARTG SPRING CONTEST - RESULTS & REPORT

SINGLE OPERATOR

	CALL	QSO's	*	POINTS		CALL	QSO's	*	POINTS
1	F9XY	290	37	445720	47	DK1BX	100	35	133224
2	W3EKT	298	34	428610	48	K1YHM	125	32	132990
3	W7BV	290	36	408292	49	VK2APG	124	23	122400
4	IT9ZWS	287	36	400656	50	JA8ADQ	118	27	122209
5	I5GZS	252	35	392274	51	VE7DTA	113	20	121160
6	K3FV	260	33	372204	52	W9RY	123	28	121100
7	SM6ASD	265	34	356544	53	DK5WJ	119	22	120400
8	K8NN	229	36	346632	54	9M2CR	132	28	120224
9	I5FZI	242	33	321816	55	PAØCWI	82	26	118520
10	C5AAN	241	34	319510	56	JH1B1H	112	23	116964
11	I2OLW	247	31	299802	57	DM5ZNN	145	24	109300
12	WA9BOW	199	34	282600	58	SMØIIB	107	28	102580
13	K9KU	190	32	275188	59	GM3ZXL	87	24	101430
14	HB9AVK	174	36	270444	60	VE2JR	100	23	96800
15	I2WEG	236	33	269584	61	VE4BF	100	17	96360
16	G3RED	221	31	256872	62	F8XT	105	20	96288
17	I2DM1	223	33	256784	63	G2PB	104	21	96248
18	WA6WGL	173	29	238170	64	DJ9IR	106	25	87744
19	EA8RU	201	29	233600	65	IØZSG	124	27	86564
20	DL6BI	177	29	228640	66	K4VDM	77	26	85976
21	G3HJC	168	34	228256	67	G4FLM	101	22	83864
22	ISØRUH	197	33	224502	68	JA1DSI	68	22	82720
23	ZS6AKO	178	35	216956	69	SM5EIT	70	28	80324
24	DK3MG	190	28	215556	70	K5ZOH	46	12	80040
25	KA7CYK	218	29	212420	71	G4EEV	86	24	78260
26	3D6AD	176	28	207200	72	SM7BGE	100	17	76368
27	W4CQI	188	38	202752	73	W4YZ	96	22	76342
28	JA2JHR	165	31	198664	74	W5HEZ	80	22	75200
29	W6JOX	156	28	193688	75	VK5WV	91	22	74888
30	K6WZ	143	25	192450	76	ON7AZ	104	21	74702
31	F5QE	176	28	188232	77	DJ3OE	58	25	72652
32	I2ZGP	178	30	168720	78	N7RY	90	18	71604
33	WB6CYA	149	18	167552	79	VE7DLX	91	10	70110
34	W7WHY	151	27	166036	80	VE6GL	92	19	69120
35	I8JRA	152	27	164552	81	PAØKFF	98	20	67640
36	VE2QO	164	28	161400	82	DL8QP	66	23	66748
37	GI4AHP	156	33	161280	83	DP7FB	51	19	65754
38	I5HZZ	127	26	159852	84	DM6AK	97	25	64596
39	PY2CYK	164	29	156744	85	DM2CHD/A	110	20	61576
40	WØHAH	164	27	156360	86	W6IWO	73	15	60272
41	I7FKO	207	24	154744	87	WB2WZX	60	16	57720
42	VE2AXO	134	19	152520	88	W6TDY	53	15	57456
43	W3KV	63	35	149632	89	SM6BUV	80	18	55936
44	EA3AZX	128	30	146320	90	W7CBY	76	16	54360
45	WB3CCZ	126	30	142216	91	I4GZF	64	25	53582
46	SM6AEN	111	25	137982	92	WB2QFE	61	18	51264

*Countries

	CALL	QSO's	*	POINTS		CALL	QSO's	*	POINTS
93	ZL2BR	62	16	50220	116	DM2DLE	77	12	21690
94	JE1RWX	56	22	48728	117	SM6CAL	63	14	18216
95	DJ1KF	79	23	47460	118	K8UPW	29	10	17460
96	G3RDG	83	17	46134	119	OK1AGA	57	14	16588
97	JA4ONZ	40	15	44660	120	OK1MP	14	11	16080
98	JR6AG	46	16	42444	121	W2KHQ	33	11	14880
99	IV3PVD	71	22	41820	122	PAØSOL	29	12	14240
100	VE1AIT	63	11	41470	123	GW3ZVA	27	13	13910
101	SMØEZO	70	20	39000	124	DM3CP	44	14	10112
102	JH1HWN	37	20	38850	125	G3GGL	16	8	9120
103	W6II	44	10	38448	126	VK5BI	11	9	9100
104	KL7IFP	71	6	36048	127	W2ODA	20	7	7800
105	DJ8BT	34	17	35808	128	K2JW	6	6	7560
106	DF1LX	47	19	31140	129	G3SZS	19	8	7080
107	DL8MY	45	17	29176	130	5Z4PD	25	9	5850
108	DM5YYI	50	19	29052	131	VE3BPM	10	7	4900
109	WB5QBV	31	9	28864	132	W6AEE	12	6	4680
110	SL3ZR	33	18	25806	133	PAØYZ	5	5	4250
111	I1JK1	14	14	25200	134	OK3YCM	4	4	3360
112	KZ5JA	28	10	24840	135	DM3GL	17	8	2960
113	OH6HJ	55	16	24120	136	DM4MF	18	8	2912
114	OK2BJT	47	16	23912	137	W8TCO	8	3	2880
115	OK3KGQ	56	18	22040	138	DM2CNE	9	7	1918

MULTI OPERATOR

	CALL	QSO's	*	POINTS		CALL	QSO's	*	POINTS
1	I5MYL	373	44	525332	13	WBØEWV	112	17	85544
2	W1MX	238	36	384116	14	OZ4IJ	107	19	79722
3	G3ZRS	211	37	306816	15	OK3KII	105	20	77280
4	SM5HEV	235	32	286704	16	HA6KVD	88	22	65240
5	G3UUP	227	31	263256	17	OZ8JYL	103	23	56770
6	DKØOW	167	30	225342	18	OK3KEU	97	24	46512
7	OK3RMW	164	32	174848	19	G3RCV	62	14	32292
8	YO3KAA	163	27	160430	20	DM4EE	49	16	28998
9	LZ1KDP	192	31	149760	21	G4HJD	50	10	17040
10	UK4PAD	149	25	119520	22	OK3RJB	25	14	12750
11	HA5KPU	146	27	106752	23	OK3KVT	34	12	6000
12	OK3KFF	118	28	106036					

SWL

	CALL	QSO's	*	POINTS		CALL	QSO's	*	POINTS
1	I1-50071	381	37	568764	8	DM8987/K	114	26	120628
2	IV3-13018	292	45	420912	9	B Niendorf	62	32	112394
3	OK1-11857	263	45	389546	10	A Muench	108	28	95616
4	P Menadier	250	37	354760	11	A Schneider	81	23	47460
5	H B'berger	233	33	326890	12	OZ DR2067	54	21	46060
6	K Wustner	175	32	237744	13	DM0742/P	32	16	16272
7	T Musson	152	29	130744	14	A Heikhaus	23	12	10110

Because of incomplete information, it was not possible to include the entry from K8ZOA/4. The contest manager acknowledges with thanks the check logs from DLØUF DM3NYF DM4DJ DM4EB G4FEV G5BHC G8CDW ISØESS LA8SA ON4BX and VK2EG.

Classified Ads

TELETYPE 43 KSR RS-232 $999.95 factory new postpaid USA. Data Mart, 914 Waverly, Arlington Heights,IL 60004 312-398-8525.

MODEL 28 KSR $135.00. Model 28 ASR $275.00. Model 33 KSR $225.00. Model 33 ASR $375.00. All in top condition. Pick-up only-No shipping. Weinschenker,K3DPT,12690 Rte. 30, North Huntingdon, PA 15642.412-863-7006.

TELETYPEWRITER PARTS WANTED, for all machines manufactured by Kleinschmidt Hite and Teletype Corp., new only, also sub-assembled. I pay shipping. Phil Rickson, W4LNW, Rt.6, Box 1103G2 Brooksville, FL 33512.

FOR SALE: HAL VIDEO DS-3000 V3 with Morse. New 6/25/79 perfect $1,000.00 firm (new HAL on order).Murray Fisher W7WSU, 1011 Hobson, Walla Walla, WA 99362. 509-529-0916.

FOR SALE: RTTY DEMODULATOR, designed especially for the reception of short wave RTTY signals with various types of speeds and shifts. The PLL circuit is adapted automatically to the shift of the station received! Printing usual stations like press, military, amateur, diplo, weather, etc., is rather easy with this LED-controlled unit. Features: switchable audio filter; autostart relay; power supply 220 V AC 50 Hz; outputs:loop supply for mechanical RTTY machine, and/or TTL-compatible for VDU. Price, including packing and surface mail postage to anywhere in the world, DM 460.00 or $260.00. Some more information is airmailed to you for DM 10.00 or$6.00 this amount is credited on the final price of the unit if ordered later on. Joerg Klingenfuss, Goethestrasse, 14, D-7400 Tuebingen 1, West Germany.

UT-4 COMPONENTS.FC33512DC Fifo $12.00 AY5-1013A UART $5.00. See July/August and September ads for others. 74221/ 74LS221 all gone. Peter Bertelli.W6KS 5262 Yost Place,San Diego, CA 92109 714-274-7060.

THE DOVETRON TBA-1000 Baudot-ASCII Code Translator is designed to interface Baudot and ASCII circuits. I/O may be low level polar (EIA RS232C or MIL 188C) or high level neutral (active or passive). Parallel ASCII is also available. A preloadable 192 character buffer prevents character over-runs when down-converting baud rates. ASCII Control characters may be used to command peripheral equipment and functions. Features such as Unshift/Space, LTRS Only, Blank Diddle, Variable Character Rate, LED Memory Status Indicators and TD Inhibit are standard. Baudot speeds of 45,50, 57 and 75 bauds are front panel selectable. ASCII baud rates of 110, 150, 300, 600, 1200, 2400, 4800 and 9600 bauds are internally selectable via a BCD coded DIP switch. All baud rates are crystal controlled and programming instructions are etched on the PC board. The 3.5" X 9.0" X 17.0" package is self-contained and available as a table top or rack mount unit. Power requirements are 115/230 VAC, 40-400 Hz, 10 watts. A bypass option is available. Amateur Net: $395.00FOB. DOVETRON,627 Fremont Ave. South Pasadena, CA 91030.

MODEL ASR'S GEARED FOR 100 WPM, excellent $300.00. Model 35 RO's $350. Model 33 RO, $250.00. Can ship. Gaston. 2117 Westlake Dr.Plano,TX 75075.

FOR SALE: MINT UT-4 speed converter/ regenerator, TD control, meter, etc. $75.00. Icom 22S $180.00. Hygain 9, 10 meter AM $55.00. K4JAF,7316 Valley Lane, Hixson, TN37343,615-842-3379.

HAL DS3000 KSR version 2 like new $850.00. ST-6 W/built-in scope, AKS, Dovetron CW ID, Single frequency solid state autostart RCVR complete station control facilities built-in $350.00, both for $1,150.00. Prices firm. KL7GRF/6 6170 Downey Avenue, Long Beach,CA 90805.213-531-4832.

FOR SALE 4TH EDITION of the "LIST OF RTTY STATIONS IN FREQUENCY ORDER" now contains more than 2800 frequencies of commercial stations like press, military, diplo, telex, weather, etc.on shortwave. Schedules of around 100 news agency stations are also included. This offset printed list is air mailed to you for $15 or 39 IRC from Joerg Klingenfuss, Goethestrasse 14,D-7400 Tuebingen 1, West Germany.

HARDCOPY: RECENTLY REFURBISHED Teletype machines available. 32 R/O $279.95,33 R/O $379.95, 33KSR $489. 95, 33 ASR $599.95 FOB Ottawa,Canada Prices in Canadian dollars, Visa and MC accepted. C.O.T.S. Enterprises, Box 3103, Stn.D,Ottawa,CanadaK1P 6H7

TELETYPE SUPPLIES, TECHNICAL manuals equipment. 11/16" and 7/8" perforator tape. Page paper. New ribbons. Teletype Corp. maintenance manuals. Let me know what you need. Send 75¢ postage for 3 current catalogs. Jim Cooper, W2JC/W2BVE, Box 73, Paramus, NJ 07652.

KITS! ST5X TERMINAL unit/power supply/AFSK. WRU. RTTY scope amplifier. Write for details: Bomark, Inc., Box 7116, Hollywood, Florida 33021, 305-962-7219.

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

SOLID STATE TIME DELAY RELAY. 10 Mw input signal can control up to 1 Kilo watt of load power. Great for teletype users in the Microcomputer and/or Amateur Radio environments. Plans or PC board $5.00, Information 50¢. Keith Ryan, Dept. RTTY, Box 3103, Ottawa, CANADA K1P 6H7.

KLEINSCHMIDT RE-PERF TT-107 Choice 60 or 100 words. Checked and working $39.95. Add UPS 40 lbs. HARMON,5628 10th Avenue, South Birmingham,AL35222

ST-5, DT500, NS-1A OWNERS. Get increased selectivity with our active bandpass filter 2125/2295 Hz. See February JOURNAL. Kit $11.95 wired/tested $16.95 postpaid. SASE for info Nat Stinnette Electronics, Tavares, Florida 32778.

THOUSANDS OF COMMERCIAL RTTY stations are active between the amateur shortwave bands. Many of them can be printed easily with your existing equipment. (Take care of legislative restrictions if applicable!) If interested, you need "software", compiled from nonstop monitoring the complete shortwave spectrum. I do have up-to-date frequency, callsign, schedule, code lists for press, military, diplo, telex, aeronautical, weather, etc. stations. Write for details. Joerg Klingenfuss, Goethestrasse 14, D-7400 Tuebingen 1, West Germany.

HAM RADIO MAGAZINE-The no-nonsense state-of-the-art technical magazine Dozens of exiting projects and an emphasis on quality. Subscribe now and see for yourself. 1 year $12.00, 2 years $22.00,3 years $30.00. Ham Radio Magazine, Greenville, NH 03048.

TELETYPE MACHINES AND Allied equipment. Send SASE for list. Model 28 three (3) speed receive only $250.00. Model 28 ASR perforators, TD's, ROTR's, Modems, TWX's, Telex's etc., Antique Telegraph Instruments. Goodman, 5454 South Shore Drive, Chicago, IL 60615. 312-753-8342.

THE DOVETRON SSD-100 SOLID state cross display replaces the conventional CRT and associated high voltage power supplies as the tuning indicator in the MPC-Series RTTY Terminal Units. In addition to "instant on" operation and a predicted reliability in excess of 100,000 hours, the solid state display out-performs the original CRT in every instance. The absence (or deactiviation) of the high voltage supplies and the resultant decrease in heat generation increases the MTFB(mean time before failure) of the terminal unit more than 10 times. The display itself consists of high intensity (4 millicandelas), red, rectangular LEDs (light emitting diodes) arranged in the traditional cross pattern and operated in a bargraph mode. The two LEDs that form the apex of the Cross are tied into the terminal unit's logic in such a way that they extinguish if the TU is improperly tuned to the incoming tones, or if the incoming signal is upside down in respect to the "sense" of the terminal unit. A separate LED in the upper left quandrant of the cross display monitors the two input channels and "flashes" in the presence of time or frequency dispersive multi path distortion, indicating that the Multipath Corrector should be turned on. Separate LEDs in two other quadrants monitor the status of the internal loop, the Signal Loss circuit and the Send/Receive mode of the terminal unit, making the SSD-100 a convenient display center of the various functions. A light sensitive photocell in the fourth quadrant monitors the ambient light conditions at the operating location and automatically adjusts the display's light output. Under normal conditions, the SSD-100 may be read comfortably from 75 feet. The new front Bezel contains an antiglare optical filter and provides 30% more viewing area than the original CRT bezel. A retrofit kit (SSD-100K) is available to update existing CRT-equipped terminal units in the field. Your inquiry will bring complete details by return mail. DOVETRON, 627 Fremont Ave.,(POB 267),South Pasadena California 91030.

THE RACK LINE BY DAYTAPRO, for individual or repeater these versatile uniform boards will do the job right. All boards are $4\frac{1}{2}$" X $6\frac{1}{2}$"(same as the DT-600) G-10 1 oz copper solder plated with a 22 pin edge connection. All kits have edge connector included. CW ID System, interfaced for digital, FSK or AFSK keying, 10 minute timer, variable speed (5-24 wpm) 12 or 5 volt use. Kit $27.90, board alone $8.95. MINI VERSION of above CW ID (CW ID only) Kit $19.95.(NEW LOW PRICES). M4D power supply, plus 5 volts @ 1 amp with crow bar protection, plus 12 volts @1 amp and minus 12 volts at 1 amp. Each fused and has LED indication. Kit $32.50, Board alone $8.50.DUEL XB-6 crystal controlled clock for UAR/T control develops 6 baud rates each. Kit $26.95, board alone $8.50. CRYSTAL CONTROLLED AFSK. Now enjoy rock solid frequency with no drift. Kit $28.49, board alone $8.75. TU-LOOP POWER SUPPLY. Low voltage supplies (+5, +12 and -12) all rated at 800 mils each with a high voltage loop supply with the keying transistor located on board. Also has a 20 mil loop driver and keying provisions, input keying need be only 5 volts and ground. Kit $52.49, board alone $8.50. EXTENTION BOARDS (available in February 1980.) Two types. Straight for rack testing and 90 degree angle for cabinet testing. With edge connector Kit $13.95. UT2B SPEED CONVERTOR Transitional autostart, on board clocks, parallel buffered outputs, FSK keying output and edge connector mounting to name a few of the options available on this basic speed converter. Complete board kit $39.49. Thru plated board alone $13.95.DAYTA PRO ELECTRONICS, INC., 3029 N. Wilshire Lane, Arlington Heights, IL 60004.Phone 312-870-0555 evenings. Add $1.00 for shipping, VISA accepted

· RTTY·DX ·

SKIP PRINSEN WB6CYA 714-276-3182

3611 Merrimac, San Diego, Calif. 92117

Greetings to all.......

After having been kicked out of my ham shack my my oldest son's coming to live with us,I now have my HF station back on the air again. I am looking forward to working everyone during the CARTG test this month. While on the subject of contests mark down the first weekend of May for a contest. Watch the coming issues of the JOURNAL for further news.

The DXCC honor roll will run again in the January issue. Please do not wait until the last minute to give me your scores. If you get any last minute QSL cards a short note or call me on the air for updates or just to say hello. Remember don't wait until the last minute due to printing lead time requirements of six weeks. I must have your inputs no later than Thanksgiving (fourth Thursday in November) to meet the deadline. For newcomers, I need two sets of numbers from you for listing, they should be 28/13, meaning that you have worked 28 countries and confirmed 13 of them.

John W3KV writes that he has been laid up with a bad back lately so has not been very active. Inputs on DX this month come from John W3KV, Mac K7BV, George WA6CQW and the West Island Amateur Newsletter. Thank you all.

3V8ONU QSL via IOLVA

Look for Al 3D6AD/7P8BC from Losotho in October or November again.

ZK1AM QSL via WoWP

Sid is active as 5NOSID again.

VE6CKS/SU with the Canadian forces is in Ismailia, Egypt.

JAOBXU/SU will be operating barefoot with a dipole for one hour per day, calls CQ just once and only responds to Good evening Mr Yoshiaki may I have a QSO with you de your calisign.

5R8AL Malagasy Republic in the Indian Ocean is now active but gets nervous in the pile-ups and goes QRT. He operates 20 meters 1600Z.

Other calls printed during the month CLUN.,Jesus, Havana, Cuba 9H1EH , DU1PUL Paul, QRV from Manila, TI2HP OX3JUL , EA8RP , EA8IY , EA6FJ , ISO-QDV , PJ2rR , YV2AEH , YV2BSV , GM3-TRI , G..5.WL Gary's home call WD5CSY W1AW has recently made a change to their regular ARRL bulletin transmissions. On Fridays at 0100, 0400, 1500 and 2200 UTC, W1AW will send DX bulletins in place of their regularly scheduled bulletins. Items of a DX nature should be sent to "Hams DX" editor K1JX at Newington.

The "JOURNAL" would like to print more pictures of your station and you Anyone that wishes to share this with our readers please send us black and white(prefferable) glossy prints. Color may be used but the clarity is not the best.

FROM THE AWARDS SECTION.

W3FV Barry Gardner ex W3JSX RDI Old Barn Road, East Greenville, PA 18041 earned DXCC #41 in September 1979. DL-GO8 158260, Anton Muench, Ruedesheimerstrasse 16 D5300 Bonn 2 Germany earned WAC #75 all on 20 meters as a short wave listener.

That is all for this month folks.

73 de skip

GIANT FLASH	3-4 November 79		Oct 79
(AUST-OCEANIA-ASIA	10-11	Nov	79
DAFG	24 November 79		March 79
VOLTA	1-2	December	79
GIANT FLASH	19-20 January 80		Oct 79
(North & South America)			
GIANT FLASH	9-10 March 80		Oct 79
(Europe & Africa)			
BARTG	March	80	coming
****	May	80	coming
VK/ZL/Oceania	16-17 June	80	coming
SARTG	August	80	coming
CARTG	October	80	coming

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CARF   NEWS   BULLETIN:
Carf News Service Bulletins are transmitted with the co-operation of the Carleton University Amateur Radio Club (VE30CM/VE30CR) using the call sign VE3TCA in accordance with the following schedule:

Sundays: 1745Z 14.140MHz SSB
         1930Z 14.077 15 WPM CW
         2030Z 14.077   170 HZ shift
         5 level -45.5 Baud.Followed
         by ASCII 110 Baud.

Tuesdays: 0000Z 3.590 MHz 15 WPM
          CW.
          0030Z 3.610 170 HZ Shift
          5 level - 45.5 Baud.Followed by ASCII 110Baud.

The Sunday 20 meter RTTY Bulletin follows the "CARFNET" RTTY Traffic net, on the same frequency; the starting time for the Bulletin is approximate, as the Bulletin starts when the net ends.

Also we have experienced some success in copying ASCII Bulletins with a Teletype Model 35 with 101C Data set, with the TTY in originate mode, simply hooked up to the receiver audio output.

ISLANDS OF THE WORLD DX AWARD

1. This award is sponsored by Amateurs residing on WHIDBEY ISLAND, Washington.
2. This award is available to all Licensed Amateurs in the world.
3. All qualifying contacts must be amde AFTER OCTOBER 1, 1977.
4. Mode of operation may be CW, SSB, or both....Special endorsement Certificates will be issued for SSTV, OSCAR, **RTTY**; Special endorsement also issued for making all contacts on one Amateur Band.
5. There are four classes of Island DX Awards: 50 ISLAND Contaces including WHIDBEY ISLAND
100 ISLAND Contacts including WHIDBEY ISLAND
150 ISLAND Contacts including WHIDBEY ISLAND
162 ISLAND Contacts including WHIDBEY ISLAND
6. ISLANDS qualifying as contacts for this award are taken from the "PREFIX BY COUNTRIES LIST" which is published in the Radio Amateurs CALLBOOK. Each island must also be recognized by the National Geographic Society.
7. Complete list of Islands that qualify for this award may be obtained by writing the Awards Manger. Please include and S.A.S.E.
8. To apply for the ISLAND DX AWARD, make a **SELF-PREPARED** list showing the **ISLANDS Name, Callsign of the Amateur contacted, Band of Operation, Mode** utilized, and the **DATE** of CONTACT. This list should be arranged in **ALPHABETICAL ORDER BY ISLAND**.....Lists received by Awards Manager in any other order must be returned to the sender.
9. **DO NOT SEND QSL CARDS!!! INSTEAD,** have your self-prepared list of contacts verified and signed by at least **TWO AMATEURS** General Class or above...**IMPORTANT:**Be sure the signatures are legible and they must include their callsigns.
10. Send you VERIFIED LIST with $1.00 and a SELF-ADDRESSED STAMPED EVELOPE (Large) to the AWARDS MANAGER;
  Bill Gosney, WB7BFK
  4471 40th N.E. Street
  Oak Harbor, Washington
  WHIDBEY ISLAND U.S.A. 98277
11. Foreign Amateurs exclued the fee and stamps, but do send a 4 x 9½" Business size envelope for returning your award.
12. Rules governing this award will be reviewed annually on October 1st.

5 CONTINENT WORLD RTTY CHAMPIONSHIP
1979 - 1980
Sponsored by
I.A.T.G.-Radiocommunications

IATG-Radiocommunications and CD Publications in continuation of their more than 10 years of activity promoting the most advanced radioamateur techniques, have decided to sponsor a new series of contest for teletypers of all continents.

The purpose of the contest is not only to increase interest among radioamateurs for the radio teletype, but also to promote interest in long range contacts.

That is to stress intercontinental contacts rather than domestic and intercontinental contacts as in previous contests.

For this purpose IATG & CD have organized the following three contests:
AUSTRALIA-OCEANIA & ASIA RTTY FLASH CONTEST 3/4 November 1979.
NORTH & SOUTH AMERICA RTTY FLASH CONTEST 19/20 January 1980.
EUROPE & AFRICA RTTY GIANT FLASH CONTEST 9/10 March 1980.

For each of the three contests there will be a general winner plus a winner from each of the two continents involved.

Separate standing for each continent plus a general standing for each contest will be puslished in cq elettronica magazine and other magazines and points will be awarded as follows:

a) For contest winners: first place 50 points; second place 46 points; third place 43 points; fourth place 41 points; fifth place 40 points; etc.; 44 degrees 1 point.

b) For continental winners: (a.g. Australia-Oceania & Asia in the first contest) first place 25 points; second place 22 points; third place 20 points; fourth place 18 points; fifth place 17 points; etc.; 21 degrees 1 point.

Standing are independent. That is continental winners can also be general winners.

At the end of the three contests continental & general standing points will be totaled and a **WORLD CHAMPION OF THE 5 CONTINENTS** will be declared according to the new final standing obtained.

PRIZES: Grand prizes, as usual, are reserved for the four first place winners. Consolation prizes along with medals and certificates will also be awarded.

THE   FCC

In a letter dated 12/29/78 questions were presented to the Personnel Radio Division of the FCC in Washington DC concerning VHF Teletype-er situations A "Fast" 6 months later they responded. Herewith follow some of them:

Q. Would a RTTY repeater with tone-access be technically considered a "closed" repeater system even if it was open to all enthusiasts?

A."It is our understanding that stations in repeater operation using "provisions to limit automatically" the acess to the station (2125 or 2295) are generally referred to as "closed" repeater systems.

Q.Would the use of "autostart" circuit messages be considered "one-way communications" if not answered immediately?

A."Although the vast majority of intercommunication occurs in "real time", the so-called "autostart" type of communication can meet this definition as long as the control operator of the transmitting station has reason to expect the intended receiving station was indeed receiving and recording the message so that the intercommunication could be completed at a later time. However, for the unattended receiving station to transmit an acknowledgement (SELCAL/WRU) would be a violation of 97.79b."

Q. Are bulletins to the RTTY community via autostart circuits permissable?

A. "If they are indeed of general Amateur interest and fulfill the requirements of 97.89b then they would be permissable as "one-way" communications.

The preceding questions and answers were "condenced" for use here and full actual worded copies may be obtained with a SASE. Thanks to Mr. George Petrutas, Chief, Rules Division, FCC, Washington, D.C. for his interpretations.

BUY YOUR RTTY BEGINNERS HANDBOOK $4.50

AFSK TONE MIXER

NEIL PETLOCK K9WRL
3029 N. Wilshire Lane
Arlington Heights, IL 60004

As we know, the FCC recently upheld its CW ID provision for RTTY stations Like it or not we still have to ID every ten minutes. This means stopping the RTTY output and going to the key. Digital electronics has eased the burden of remembering to ID by means of automatic timers to warm an operator that ten minutes has lapsed. Auto CW ID's have taken us one step further by using the timer to trip the auto ID, thus we eliminate a step in the ID process. We no longer have to push the ID buttom every ten minutes. The problem now is that we must stop sending while the ID is sent, or it will interfere with our RTTY shifts if over 100 htz wide. Going to a narrower shift less than 100 htz. will eliminate interference to the RTTY output, but then one borders offending the FCC and ending up with more than an unwritten law.

UAR/T's with memory solved the problem of garble while IDing by stopping the memory output and storing RTTY data while the ID is being sent. So far this has been the best solution on the VHF bands for complete automatic ID'ing. It allows the operator to keep right on typing while his ID is sent every ten minutes.

Two meters is another story. Here we have AFSK (audio frequency shift keying). After installing the CARRS RTTY repeater in Chicago we figured the Id problem had been solved by our repeater. It would ID at 738 htz. while data was being sent thru the repeater. This totally eliminated interference to RTTY tones on the output. We had failed to realize the input station using the repeater would ID every ten minutes also. Even with the DT600/UT2 configuration some ID's would key the TU and UAR/T and we would get characters out when the input station ID'ed. Nothing worse than the "vknnnnank" between characters in a picture or between words.

Our soloution was simple. Use the same circuit as used in the repeater

to generate a 738 htz. ID tone over the RTTY tones from the input station The filters on the DT-600 or for that matter most TU's would never recognize the 738 htz. tone and therefore there would be no interference to the RTTY tones being sent. Now there would be no worries about the receiving station getting garble in a picture from your ID. There would be no reason to have to stop the tape or memory of the sending station. Even stations with keys could use this circuit and just key while sending the RTTY data.

HOW IT WORKS

A colpitts oscillator is employed to develop a stable 738 htz. tone. This tone is run to Q3 and keyed by Q1 and Q2. Thus each time point A goes high Q1 is turned on and Q2 is turned on which keys Q3 and allows the tone to go to the op-amp. The RTTY tones are brought thru R1 then thru R2 then to the op-amp, where they are mixed with the ID tones. -1 or more volts at point A will turn on Q3 and allow the ID to be mixed with the RTTY tones. 0 volts or ground at point A will turn off Q3 and only the RTTY tones will be heard on the output of the op-amp. The R1 and R2 combination will give a gain of 10 at minimum resistance. The R1 pot may be used as a level control for the input RTTY tones. R3 may be used as a level adjustment for the ID tones. The ID tone should be adjusted to be heard with the RTTY tones but not over them as it will null them out if adjusted too high.

Some experimenting should be done with another receiving station to make sure that the ID tones are not over-riding the RTTY tones. The .47 capacitor C1 was used to protect the op-amp from whatever the circuit is tied to.

With this circuit RTTY data may constantly be sent without interference from a CW ID. This eliminates the need to stop RTTY data for a CW ID

if automatically sent or if manually sent.

CONSTRUCTION

All the parts were put on a small circuit board 2 X 4 inches which could be easily piggy backed on the AFSK card already in use. The parts are all common and available from any electronic shop. Total current draw is about 5 ma when in use. Most TU's have the positive and negative supplies already built into them and the 5 ma draw will not pose much of an additional load to them. For your convience a circuit board is available for $3.50 or a complete kit for $9.95 from Daytapro Electronics, 3029 N. Wilshire Lane, Arlington Heights, IL 60004. Total construction time should run about 1.5 hours from start to install in TU.
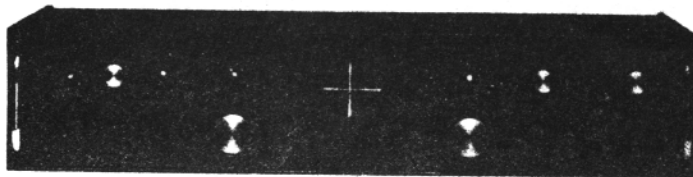
Some thanks for this unit should go to my close friend Bob Ehrhardt for his assistance in designing the circuit.

ADS CONTINUED

AFSK TONE MIXER

RESISTORS
1 - 1k
1 - 4.7k
2 - 5.6k
2 - 10k
2 - 20k
1 - 22k
1 - 220k
1 - 240k
1 - 5k POT
1 - 25K POT

CAPACITORS
1 - .18 MYLAR
1 - .2 MYLAR
2 - .47 MYLAR
1 - 2.2 MYLAR

IC'S AND TRANSISTORS
1 - 741 OP-AMP
1 - 2N3641
1 - 2N3904
1 - 2N3906
1 - MPF102

MISC. PARTS
2 - CABLE TIES
2 - 1/4" SPACERS
2 - 1/2" SCREWS NYLON
2 - 4-40 NUTS NYLON
1 - 88 UH TOROID
1 - PC BOARD
1 - SET INSTRUCTIONS

Q1 - 2N3904
Q2 - 2N3906
Q3 - MPF102
Q4 - 2N3641
A - GROUND CONNECTION
B - OUTPUT TO TRANSMITTER
C - POSITIVE 12 VDC
D - NEGATIVE 12 VDC
E - AFSK IN FROM TU.
F - CW KEY OR AUTO ID INPUT
    (0 VOLTS = NO ID OUT)
    (+1 TO +15 VOLTS = ID OUTPUT)

DOVETRON

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.
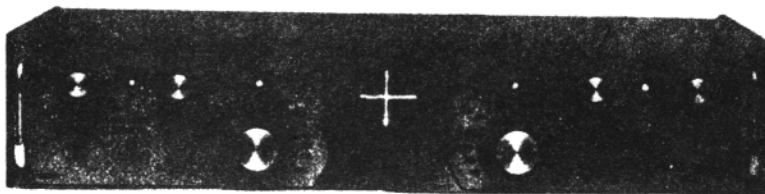
MPC-1000CR

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
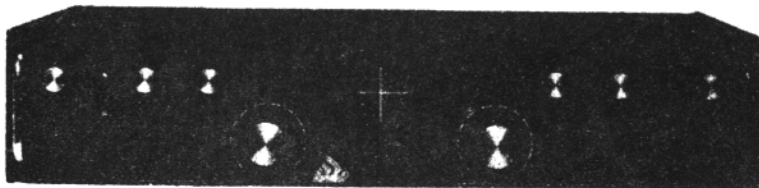
MPC-1000R/- TSR-500

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

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