Bi-Centennial W.A.S. RTTY Contest

The Bi-Centennial W.A.S. RTTY Contest was almost an unbelievable success. We say this as we never thought so many stations could qualify in such a short time. The Dovetron winners in area 1 took just a month and the Dovetron winner from area 2 only two months.

Winners of the Plaques have also been determined and should be shipped by the time this is in print. We have asked for a short story and comments from the Dovetron Winners but as yet do not have the information.

A list of the winners follows, BUT remember everyone completing WAS during 1976 gets a special Bi-Centennial Certificate so keep up the good work.

WINNERS Dovetron MPC 1000 Terminal Unit -
Area 1 -
1st - Ed McGinley, K7BV
2nd - Cecil Armstrong, W7VKO
Area 2 -
LTC R.R. Manahan, WA3JTC/ZP5
Paraguay.
Area 1 - **Bi-Centennial Plaque Winners**
Carl Stevenson, K6WZ
Jack Taylor, W7VCM
James McAdams, K4GJW
Marc Thompson, W5EUN
Earl Crawfis, W7KS (Tie)
Lloyd South, K4YZV

Our personal thanks to John W3KV, for doing such an excellent and tiring job checking all the cards, to Dovetron for donation of the wonderful prizes and to everyone that made possible several months of intense activity on the bands and remember most of the year's still left to win a Bi-Centennial Certificate.

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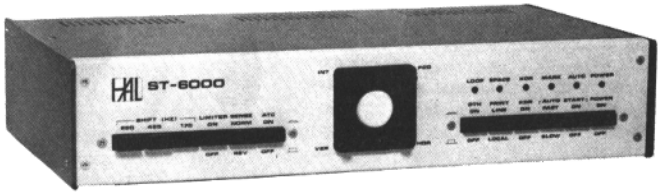
RTTY JOURNAL
P.O. Box 837
Royal Oak, MI. 48068

FIRST CLASS MAIL

RTTY JOURNAL
APRIL 1976
EXCLUSIVELY AMATEUR RADIO TELETYPE
Volume 24 No. 4 35 Cents

New RTTY Equipment From HAL



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CONTENTS

C.A.R.T.G. SWEEPSTAKES RESULTS

15th Annual W/W RTTY DX "Calgary Centennial" Sweepstakes
October 4-6th, 1975
AWARDS

1.	W3EKT	U.S.A.	1,555,340*	Plaque - "C.A.R.T.G." Calgary Centennial
2.	CT1EQ	Portugal	1,465,228*	Plaque - "C.A.R.T.G."
3.	I5GZS	Italy	1,280.796*	Plaque - "RTTY JOURNAL"
4.	KZ5BH	Canal Zone	1,235.050	Plaque - "C.A.R.T.G."
5.	WA3JTC/ZP5	Paraguay	1,158,636*	Plaque - A "CARTG Member"
6.	I8AA	Italy	1,107,400*	Plaque - "RTTY JOURNAL"
7.	W4CQI	U.S.A.	1,068,556*	Plaque - "C.A.R.T.G."
8.	WB9LUK	U.S.A.	971,105	Plaque - "RTTY JOURNAL"
9.	W9NLR	U.S.A.	723,200*	Plaque - "C.A.R.T.G."
10.	I5CLC	Italy	676,048*	Plaque - "RTTY JOURNAL"

11. W3EKT U.S.A. 1,555,340*
High Score U.S.A.
"RTTY JOURNAL"
Gold Medallion & Ribbon

12. VE2JR Canada 470,000
High Score Canada
Canadian Director ARRL

13. WB9LUK U.S.A. 971,105
Green RTTYer High Score
Sidney Burnett Memorial Plaque

14. KZ5BH Canal Zone 40 - 2-way
40 meter contacts
Plaque - "C.A.R.T.G."

15. W3EKT U.S.A. 52 - 2-way
80 meter contacts
Plaque - "RTTY JOURNAL"

16. Wolfgang Geller, West Germany 743,348
SWL Printer High Score
Plaque - "C.A.R.T.G."

17. I1PYS Italy 1,659,612*
Multi-operated station
Plaque - "RTTY JOURNAL"

18. I5CLC Italy 676,048
Low Power Operation
Plaque - "C.A.R.T.G."

Certificates to be issued to the top scores in each U.S.A. and Canadian District, and each country.

1.	W3EKT	1,555,340*	31.	W.6VGL	243,180	62.	PAØRZ	27,608
2.	CT1EQ	1,465,228*	32.	W.ØYDJ/4	238,088	63.	W6AEE	26,672
3.	I5GZS	1,280,796*	33.	CH1XP	235,935	64.	DK1AQ	17,812
4.	KZ5BH	1,235,050	34.	W.6HM./KG6	235,165	65.	LA7AJ	14,792
5.	W.3J/ZP5	1,158,636*	35.	W6JOU	224,820	66.	CH1LV	14,254
6.	I8AA	1,107,400*	36.	G6JF	186,680*	67.	VE3CTP	13,206
7.	W4CQI	1,068,556*	37.	W7BCT	185,720	68.	VE8BDQ	11,608
8.	WB9LUK	971,105	38.	VK3KF	175,600	69.	CE3EX	10,440
9.	W9NLR	723,200*	39.	W6JOX	172,755	70.	WBØIQK	9,372
10.	I5CLC	676,048*	40.	OZ2X	144,800	71.	DK3NH.	8,037
11.	W2GKJ	632,500*	41.	I4BKM	132,700	72.	VE3RH	2,772
12.	K6VZ	620,165	42.	WA2DHF	129,652	73.	VK5WV	2,748
13.	K5.RH	593,925	43.	SM7BGE	119,280	74.	VE3BPM	2,284
14.	W9OEQ	581,920*	44.	W7MI	110,170	75.	SM6C.L	2,460
15.	K3U3G/8	501,388*	45.	WA1MCY.	105,700	76.	V8C.T	2,270
16.	JH1TFF	493,935	46.	W7CBY.	101,800	77.	VS6CL	1,830
17.	VE2JR	470,000	47.	K8NTK	91,600	78.	VE1.HG	1,668
18.	CE3H.	442,280	48.	VA2TAP	87,238	79.	VE6.NE	480
19.	VE7YB	429,280	49.	HB9HK	84,652	80.	V8TCO	455
20.	HB9.VK	395,312*	50.	OK1MP	82,776	81.	SM6GDL	230
21.	V8JIN	374,905	51.	K6ZDL	74,356	82.	VE3GDZ	44
22.	DL1VR	370,024*	52.	SM6EDH	58,656			
23.	K4GJU	356,450	53.	VE7DLX	51,100			
24.	SM6.SD	342,732	54.	K4CFJ	46,572			
25.	DL8KS	329,960	55.	WB9DED	43,448			
26.	ON4BX	304,625	56.	ON6HF	37,052			
27.	JH1ISF	295,690	57.	VE6AYM	36,500			
28.	V5CEG	292,230	58.	OZ8GA	34,088			
29.	V7KS	283,755	59.	LA5HE	33,112			
30.	K4.GC	263,788	60.	OA4BR	33,032			
			61.	WB2QXX	28,072			

Multi-operated.

1.	I1PYS	1,659,612*
2.	DLØTG	1,002,832*
3.	KA2USA	664,820
4.	W1MX	523,845
5.	SK5AA	198,920*
6.	OK1KVK	3,294

SWL Printer.

1.	Wolfgang Geller	743,348*
2.	Giarnello Roberto	622,542*
3.	Paul T. Menadier	604,620
4.	Tosolini Mario	482,240*
5.	Mel La Moreaux, W8VZB	427,065
6.	Larry Filby, K1LPS	330,304
7.	H. Suzuki, JA1-3477	174,750*

WHO ARE YOU?

DICK. MALANOWICZ, W2CY
48 South Lake St!
HAMBURG, N.Y. 14075

Many newcomers to the RTTY net frequencies wonder in amazement at the automatic WRU and replay systems used by some of the net members. This article will give you an idea of the workings in the mechanical WRU system incorporated in a Model 28 Teletype machine that is in use at W2CY.

For a background in automatic RTTY station control, it is suggested that Irv Hoff's article in the May 1971 issue of the RTTY JOURNAL be studied. This one article started off the mechanical WRU and replay systems used successfully at W2CY.

To get down to business, the following operations take place in WRU operation:

a - The computer (stunt box) in the 28 printer recognizes the proper turn-on command. This is usually the last three characters of the station's call letters, followed by the characters LTRS, BLANK, and W.

b - This command automatically turns on the station transmitter and starts up the WRU tape distributor.

c - The WRU message is then transmitted, normally a short "W2CY ON NNNN".

d - The transmitter and tape distributor are then automatically shut down.

The NNNN code is a commercial disconnect code that has been adopted by amateur RTTY operators.

In order to implement the WRU in a model 28 printer, the following stunt box parts should be ordered from your supplier or the Teletype Corp. Allow about two months delivery time from TTY corp., and they will ship C.O.D. Needless to say filling the slots in the stunt box is a major expense, and should be considered first if "finances" are low.

For the turn-on code, the following parts are used:

6 - 153440 uncoded function bars - $3.13 ea.
5 - 153915 stunt box sequential latch mod kit - 1.85 ea.
1 - 153916 stunt box mod kit - 1.25 ea.
1 - 172523 switch assembly - 4.14 ea.

For the NNNN code, the following parts are used:

4 - 153440 uncoded function bars - $3.13 ea.
3 - 153915 stunt box sequential latch mod kit - 1.85 ea.
1 - 153916 stunt box mod kit - 1.25 ea.
1 - 172523 switch assembly - 4.14 ea.

Note that uncoded function bars are recommended, a "special order" for coded function bars is somewhat cheaper, but delivery may take as long as a year!

The two stunt box switches are of the universal variety, each assembly is a four pole double throw switch, and each arm is removable and may be interchanged in other positions of the switch.

While waiting for the stunt box parts to arrive, it is best to review Irv Hoff's articles regarding the stunt box removal, loading, and replacement in the model 28 printer appearing in the May and June 1970 issues of the RTTY JOURNAL.

When the parts arrive (in a month hopefully) the uncoded function bars should be coded for the last three characters of the station call, Ltrs, Blank, and W. The four remaining function bars should be coded for the N character. It is suggested that the function bars also be coded for both print and non-print operations. For coding instructions, refer to the December 1974 issue of the RTTY JOURNAL, "Equipping the Model 28 Stunt Box" by WB2BRB.

Now, remove the stunt box from the printer, and select a spot in the stunt box that is free from stunt box parts. Mount one of the 172523 switches, but first remove the second and third switch position arms from this switch. Insert the W function bar and all the parts from one of the 153916 mod kits in the stunt box slot immediately below the last switch position. The other five coded function bars and the parts from the 153915 mod kit are placed in the stunt box slots immediately preceeding the W slot. Note that the last character of the call also will operate one of the switch positions, this switch is not necessary for WRU operation, but may be used to ring a bell every time your call is received, or operate a "qualifier relay" necessary for other operations that you may later want to add to the system.

The other switch assembly should now be mounted on the stunt box that is also free from stunt box parts. The first switch position is used, and the last position of this switch may be used for another operation to be described later. The last N function bar along with the 153916 mod kit is placed in the slot immediately below the first switch position.

The remaining N function bars along with the 153915 mod kits are placed in the slots preceding this slot position.

This should complete loading of the stunt box, and it is well to check all parts to make sure they operate freely, and are in the correct positions in the stunt box. Now is a good time to lube the printer and the stunt box, as the printer is now exposed and almost all the parts can now be properly lubed. Replace the stunt box in the printer.

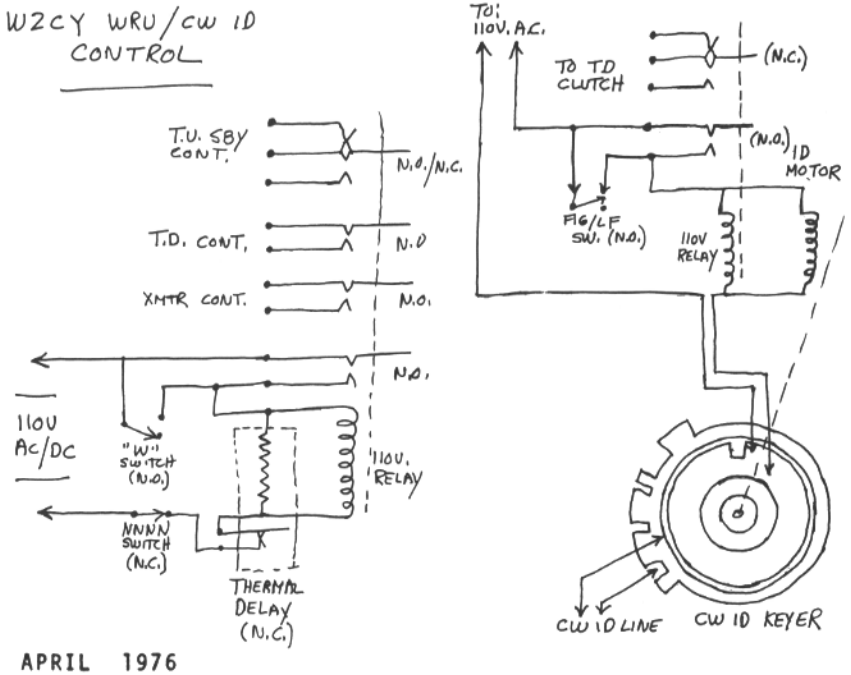
With the machine turned on, check the mechanical action of the stunt box, making sure that the switches operate properly when the callup and the NNNN commands are received.

Now, for the WRU circuit. Obtain a four pole double throw relay (two D.P.D.T. relays with the coils in parallel can be used instead) either 110V. A.C., D.C. or for any coil voltage that you can easily supply. The 28LESU in the machine can supply 110V. D.C. if you have D.C. relays. Connect one side of the supply line to one contact of a N.O. set of the relay, the other contact of this set to one side of the relay coil, or coils, and the other side of the relay coil to the other side of the relay supply. Now, from the N.O. contacts of the switch assembly over the W character of the stunt box, run a pair of wires to the two relay contacts just mentioned. Note that this is a "self-latching" relay circuit, when the W character switch momentarily operates, it shorts out the two above relay contacts thereby applying power to the relay. The relay contacts close, and remains closed due to the self-latching system. The second set of relay contacts control the transmitter, the third set places the terminal unit in the standby position, and the fourth set starts up the WRU T.D. (the clutch and the motor in the T.D. should come on at the same time for proper operation.)

To stop the system, run a pair of wires from the N.C. contacts of the stunt box switch over the N character to the relay coil, placing the wires in series with the bottom side of the coil (or coils) and the supply lead. When the N switch momentarily opens, it opens the supply current, unlatching the relay, placing the system in the standby mode.

Programming the T.D. - Punch your wru message on tape, followed by the NNNN command, and a few Ltrs characters. Splice the tape together. Put the tape in the T.D., send the command on the keyboard, and if everything is connected correctly, the transmitter will come on, the WRU T.D. will start up with the WRU message, the NNNN command, and the system should then shut down.

You may wish to add a C.W. ID between the end of the WRU message and the NNNN command. The CW ID command



normally is the Fig-LF combination. Order two more 153440 uncoded function bars, one 153915 stunt box mod kit, and one 153916 mod kit. The function bars should be coded for the Figs and the LF characters. Install the Figs function bar along with the 153915 mod kit in the stunt box slot immediately after the last N character, and the LF function bar along with the 153916 mod kit in the next slot. The last switch position of the N switch assembly should be over the LF slot. This switch can then operate another latching relay which turns on the CW ID machine, (a motor and coded wheel assembly) open the clutch of the WRU T.D., and when the CW ID is over, this relay drops, closing the WRU clutch again, starting up the WRU T.D. again for the NNNN shutoff command. In this case the WRU T.D. tape would be programmed: "W2CY on CR FIG LF Ltrs NNNN.".

One more thing! WRU's have been known to hang up, especially whe the operator is out of the shack. A carrier on a net frequency for a long time by your transmitter can lead to a condition known as "nobody answers me, what's wrong?" A simple solution is to install an Amperite time delay relay in the system. Since most wru's run for about ten seconds or less, a short timer will suffice. The Amperite 115C60 is a good bet if the four pole relay runs off 110V. A.C. or D.C. (other voltages are available in this relay) The heater of this thermal relay (60 seconds delay to open) is wired across the four pole relay, and the N.C. contacts of this relay are connected in series with the four pole relay supply. Both the NNNN stunt box switch and the delay relay contacts are now in series with the relay supply. When the tape hangs up, or some other malfunction, the delay relay contacts will open after sixty seconds, shutting down the system automatically.

So - that's it. Hope to ping on YOUR wru soon!

NOTE: Automatic WRU operation is illegal if a licensed amateur radio operator is not present on the premises!

*****

COMMERCIAL RTTY STATIONS -

Our request for various stations sending commercial RTTY that could be printed by average ham equipment brought several answers. Some of them follow - Remember anything printed from the air is strictly secret and should not be used except for your own information.

The following lists of commercial frequencies have been supplied by two hams that are shipboard operators but prefer to remain anonymous.

ORIGIN	AGENCY	SPEED	SHIFT	FREQUENCIES & REMARKS
AUSTRALIA	REUTERS			20393 (VKH101), 14365 (VKS71), 12224 (VKS23)
BEIRUT	REUTERS			11895, 5354
HOLLAND				15517 (PCK45)
[redacted]				
HONG KONG	U.P.I.	66	425	19515 (ZE094), 14965 (ZEN71), 9895, 7485, 5875.
HONG KONG	C.N.A.			7544 (2EN33)
INDIA	A.I.R.	66	425	23130(ATR73), 18255(ATR68), 14785(ATR65).
LAGOS	REUTERS			18488, 10747 CIRCUIT TO LONDON.
LONDON	REUTERS	66	425	18687, RCVD NEAR AFRICA, CIRCUIT TO AUSTRALIA?,14481,10986,9076.
LONDON	REUTERS	66	170	14515(GPR34), 5935(GPA25) TO AFRICA.
LONDON	A.P.	66	425	14975, 10650, 6985 TO AFRICA/MIDEAST. 10/14MHZ ESPECIALLY GOOD.
MANILA	A.F.P.			14770.
[redacted]				
MOROCCO				13698, 13470, 10187, 6875, 5040, 3355.
NEW YORK	A.P.	66	425	19538(WFD59),15915(WEY45),10214(WFE90)DAYLIGHT ENGLISH LATAM/CARIB
NEW YORK	A.P.	66	425	23928(WGF43),19621(WFT79), 14711(WFD24),10891(WFE40),6936(WFA36). BI-LINGUAL (ENGLISH & SPANISH) DAYLIGHT & EARLY EVENING HOURS. TO LATIN AMERICA AND CARIBREAN POINTS.
NEW YORK	U.P.I.	60	425	20796(WFE20),16371(WFD86),9326(WFL44) DAYLIGHT HOURS, ALL-ENGLISH, TO LATIN AMERICA & CARIBREAN POINTS.
NEW YORK	U.P.I.	60	425	20986(WFG54),18485(WFK28),14661(WFL44), DAYLIGHT HOURS, BI-LINGUAL (ENGLISH & SPANISH) TO LATIN AMERICA & CARIBREAN.
NEW YORK	U.P.I.	60	850	22975(WFG42),19580(WFT59),14695(WFD24),10825(WFE20),7760(WFA67), BI-LINGUAL (ENGLISH & SPANISH), NEARLY ALL HOURS.
NEW YORK	ANSA	66	425	12-2400Z,23072(WFN53),18273(WFL28),13938(WFK93),10748(WFL60), AND 7710KHZ.
NEW YORK	E.F.E.	66	425	11-1200Z,20803(WFN30),15856(WFL85)11643(WFK41).
NEW YORK	REUTERS			10754KHZ.
NEW YORK	PRENINY	66	850	14595(WFK54),10740(WFK60),SPANISH & ENGLISH.
NEW YORK	U.P.I.	66		22790(WEU52),18885(WER78),14770(WER24)13480(WER73),PX TO SHIPS.
PARIS	A.F.P.	66	425	PX TO AFRICA,DAYLIGHT HOURS,20311,14794,10183KHZ.
PARIS	A.F.P.	66	425	PX TO MANILA, 20109KHZ.
ROME	ANSA	66	850	ENGLISH TO FAR EAST, 18215(ISX21),7823(ISX17).
SANFRANCISCO	ITT	66	850	TO CENTRAL NEWS AGENCY, 20807(WMM78),18562(WMM78).
SANFRANCISCO	ITT	66	425	TO "MIRROR" SYDNEY, 19470(WMM29).
SINGAPORE	ANSA			20752(9VF230),20893(9VF288),22245(9VF228),14804(9VF97).
SINGAPORE	A.P.	66	425	20755(9VF231),13810(9VF88),16035(9VF252).
SINGAPORE	REUTERS			14720(9VF96).
SPAIN	REUTERS			6910(8XP29).
TAIWAN	C.N.A.			16224(3MA26),13563(3MA22),9375(3MA25),7695(3MA25)
TOKYO	A.P.	66	425	18048(JAZ28),14592(JAL54)10975(JAG70) ENGLISH 24-HRS DAILY TO FAR EAST POINTS.
TOKYO	AP/DOWJONES			7593KHZ.

More Commercial Stations -

CT02.MARK REGAN,USN
Box 798- NAVSECGRUACT
FPO. New York, N.Y. 09555
(Sabana Seca-Puerto Rico)

In the two years I have had my RTTY set-up, I have compiled a list of over 500 stations that are copiable on standard RTTY equipment. In this letter I will mention some of the English language stations that I have. The Press agency that I copy most if the AP out of New York. This transmission is to the Caribbean area at 1400 GMT (1300 GMT during Daylight Saving time) to 2300 GMT, seven days a week. The UPI is another that I copy sometimes comes on around 1130 GMT and goes off about around 2400Z.

Transmissions from these two stations are the type that are printed in newspapers which is why I like to copy them. It was especially helpful when the English language newspaper was on strike. (The paper "San Juan Star" uses the UPI service.)

Other RTTY press agencies that broadcast in English, I have come across, are Reuters, Tass, AFP, and others. These frequencies have been published in the Journal from a friend of mine in Guam. A lot of his listings are for the Pacific area.

For those interested in what our U.S. Information Agency is sending to our overseas Embassies in South and Central America here are the frequencies for the "American Republic Service." English and Spanish is used. Time usually about 1600 GMT. Mon. thru Friday.

I hope that this information is of help to some of the readers. If anyone would like to share information with me on Press receiving I would appreciate it. I am always trying to expand my knowledge in this area.

Freq.	Call Sign
18540	WFK-48
14638	WFK-54
11455	WFK-51

THE FOLLOWING IS A LIST FOR AP & UPI ENGLISH TRANSMISSIONS

Freq. KHZ	Call Sign	Service	Shift HZ	Speed WPM/ BAUD	Unit Code
20795	WFE 20	UPI	425	6045.5	7.42
19538	WFE 59	AP	425	67/50	7.42
16372	WFD 86	UPI	425	60/45.5	7.42
15914	WEY 45	AP	425	67/500	7.42
10213	WFE 90	AP	425	67/50	7.42
9327	WFI 29	UPI	425	60/45.5	7.42

ANOTHER PRESS SERVICE THAT I SOMETIMES COPY IS REUTERS. HERE ARE SOME FREQS THAT ARE USED BY IT:

20097	GLK	40
18865	GPR	38
14515	GPN	34
14365	???	
14352	GPA	34
13555	GIC	33
12224	VKS	23 (AUSTRALIA)
10984	GPR	30
10820	ODI	82 (BEIRUT, LEBANON)
7924	GNU	27
6855	GPE	26B
6775	GPR	26
5935	GPA	25
5353	ODD	35 (BEIRUT, LEBANON)

***

Still More Stations

JIM COOPER, W2BVE
PO Box 73
PARAMUS, N.J. 07652

Hi Dusty,

Just a comment on your note in "Hits & Misses" of December, 1975 . . . I have been doing considerable SWLing on TTY between 7300 and 7600KHz (that's all the TR-4 covers on 40m) in evening hours lately.

There are several good press frequencies in this range, that are good on the East Coast from about 7 PM to midnight and later, but they are nearly all transmitting in Spanish. (Since I am a high school electronics teacher, I often copy these and provide them to the Spanish teacher — from what he says they are a big hit with the kids, who prefer translating these than the regular book work. Might be a thought for other RTTYers to contact their local high school Spanish teacher) . . .

Most of these press stations are using 425Hz shift, and 50 Baud speeds. I use a Boehme 5-C converter at present, which has a variable inductor to tune in any shift from 100 Hz to over 1000 Hz. To accommodate the speed I have found that setting the rangefinder of the M-15 printer down to about 15 to 25 gets me good copy on a reasonable clean 50 Baud signal. Also, have a reperf at 56.8 baud (75 wpm), and on this I move the rangefinder up to about 85 to 100; and get good copy.

I'm using an A.T.E. (British) TDMS (Telegraph Distortion Measuring Set) with the spiral display to be sure my TU adjustments are proper for getting a zero distortion signal in the loop. I find this type of test set outstanding for observing all types of loop problems. (It's really amazing how poor the signals can be, distortion-wise, and still get copy on the printer!!)

Jim Cooper, W2BVE

*
*
*

***

Selective-Overline/Non overline for the 28 Stunt Box.

HAL REED,K7JGM
2412 W. Boston St.
SEATTLE, WA. 98199

Now that you have added non-overline feature to your stunt box as per Hoff in the Feb. thru July-August of the RTTY Journal, 1970, you find that all the nice pix being sent are mostly overlined. That leaves you out, unless you have a second machine that will overline.

In these articles you have done the following: Added function bars coded only for the zero code bar, to slot 4 and slot 39 for automatic CR/LF.

Removed the CR function bar from slot 5 and put a LF function bar in its place -- this will give you both CR/LF on a LF sent.

Added the CR function bar to some other slot only to suppress spacing when a CR is sent.

Now to make it selective, you will make use of the suppressor code bar (which is the top one). This will select non-overline/overline when it is moved one way or the other.

First remove the function bar from slot 5 (LF) and with an uncoded function bar, code it for LF and leave on one of the top lines, the one that hits the suppressor code bar.

Now, with another uncoded function bar, code it for CR and leave the opposite tine on top for the suppressor code bar and this one will go in slot 6 in the stunt box.

Now the function levers that will go in slots 5 and 6 will have to be modified as follows -- a 157206 function lever (one that will operate two switches simultaneously) for slot 6, and a 152641 function lever for slot 5, are modified by grinding equal parts off the top end where they touch each other so they will lay back against their stop, so that the one in slot 6 will pull the one in slot 5 when slot 6 is operated.

Now by moving the suppressor code bar one way will be non-overline and the other way for overline -- set the zero code bar strip so that 73 or so characters are sent before you get automatic CR/LF so that won't goof up the pix.

There are several ways to move the suppressor code bar -- one is manually, just reach in and push or pull it, or some lever hooked to it to make it handy. However, the indexing balls and springs should be in there to help in this regard. It may be noted that the code bar may over travel when it's in the in position. A stop of some kind will have to be made to prevent this. The movement of this bar is one-eighth inch and when it is in should go just past the ball index.

Look in parts bulletin at modification kit no. 153912 (modification kit to provide FIG-LTRS code bar manual shifting) for ideas. The piece that goes on top could have a slotted hole and be a little longer so will hit the frame as a stop when pushed in -- and with a slotted hole can be adjusted not to over travel on the in position.

The way I do it is with a small double solenoid that is operated by a momentary SW, center off and is mounted on the keyboard panel so it is handy. The solenoid operates a fork to move the suppressor code bar in either direction (All home made.)

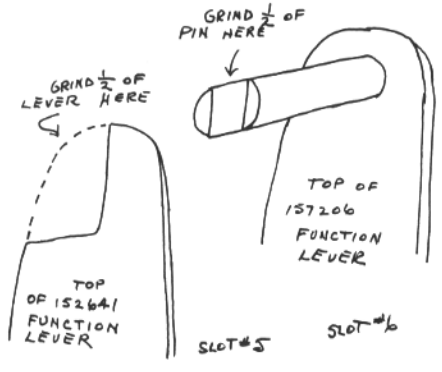
Another way is to buy modification kit no. 153910 (modification kit to provide function suppression for the "AZ" stunt box) or no. 152913 for the "AQ" stunt box. Look it up in your parts bulletin to see what it looks like. This provides manual control but it looks nice.

I also suppress the bell function when it's in the overline position to keep the bell from ringing on some of the pix. To do this, you have to add another upper case "S" in another slot to prevent spacing when the bell function is suppressed.

Here is a circuit I use between my ST-6 and the VFO. For a lot of band changing, it is certainly handy. It uses a voltage variable capacitor in place of the usual diode and eliminates the variable capacitor (and the insulated mounting) usually employed to change the FSK range. It provides both remote FSK control and a calibrated dial for any shift on any output frequency. The resettability is excellent and the keying is very clean and fast.

I installed a ten turn pot and dial in my ST-6 which is about 20 feet (through cable) away from the VFO. A chart gives the dial settings. I can obtain 850/170 shift from 3205 KHZ (Army Mars) through 21 MHZ. The CW ID remains fairly constant and I don't change it between band-changes.

I used a 'PSI' type V947 varicap from the junk box, however, any other type of about 50 MMFD or so would work. A 1000 OHM and 100 OHM pot in series would do in place of the ten turn pot. The transistor is also a junk box NPN. The fixed capacitor is silver mica. I don't have a UT-4, but believe the circuit would interface directly.



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Interpreting RTTY Weather Data.

PART 3

There is another form of SHIP report used to specify special weather conditions. It reports conditions, especially large or rapid changes, of wind speed, direction, fog, precipitation, pressure, state of the sea, etc. Its WMO format is as follows:

SPESH 99LaLaLa QcLoLoLoLo YYG'G'w2 Nddff VVwwW 8NsChshs (OTTTdTd)

The term w2, gives the special weather element the report covers as follows:

0 -- Gusts
1 -- Wind (either direction or speed, or both)
2 -- Visibility
3 -- Cloud (amount or height)
4 -- Precipitation
5 -- Pressure
6 -- State of sea or of swell, i.e., waves
7 -- Dust storm, sandstorm or blowing snow
8 -- Thunderstorm (with or without precipitation)
9 -- Squall or tornado

When a pressure change is reported (5), the direction of unusual change is indicated by adding the words PLUS or MINUS to the end of the report.

CODE NUMBERS FOR PRESENT WEATHER ww in VVwwW group

00-49 No precipitation at the station at the time of observation.
00-19 No precipitation at the time of observation or except for 09 and 17 during the preceding hour.
00 Cloud development not observed or not observable
01 Clouds generally dissolving or becoming less developed.
02 State of sky on the whole unchanged
03 Clouds generally forming or developing.
04 Visibility reduced by smoke.
05 Haze
06 Widespread dust in suspension in the air not raised by wind
07 Dust or sand raised by wind but no well developed whirls
08 Well developed dust or sand whirls
09 Duststorm or sandstorm
10 Light fog (Visibility 1100 yards or more)
11 Patches of shallow fog
12 More or less continuous shallow fog
13 Lightning visible, no thunder heard
14 Precipitation within sight, but not reaching the ground
15 Precipitation within sight, reaching the ground but distant (i.e., estimated to be more than 3.1 miles) from the station
16 Precipitation within sight, reaching the ground near to but not at the station
17 Thunderstorm, but no precipitation at the time of observation
18 Squalls at or within sight of the station during the preceding hour or at the time of observation.
19 Funnel cloud(s) (i.e., tornado cloud or waterspout) at or within sight of the station during the preceding hour or at the time of observation.
20-29 Conditions during the preceding hour but not at the time of the observation
20 Drizzle (not freezing) or snow grains
21 Rain (not freezing)
22 Snow
23 Rain and snow or ice pellets
24 Freezing drizzle or freezing rain
25 Shower(s) of rain
26 Shower(s) of snow, or of rain and snow
27 Shower(s) of hail, or of rain and hail
28 Fog or ice fog. (Visibility less than 1100 yards)
29 Thunderstorm (with or without precipitation)
30-39 Duststorm, sandstorm, drifting or blowing snow
30 Light dust or sandstorm - has decreased in the last hour
31 Light dust or sandstorm - no change in the last hour
32 Light dust or sandstorm - has begun or increased in the last hour.
33 Severe dust or sandstorm - has decreased in the last hour
34 Severe dust or sandstorm - no changes in the last hour
35 Severe dust or sandstorm - has begun or increased during the last hour
36 Slight or moderate drifting snow, generally low (less than 6 ft)
37 Heavy drifting snow, generally low. (Less than 6 ft)
38 Slight or moderate blowing snow, generally high (6 ft. or more)
39 Heavy blowing snow, generally high (6 ft. or more)
40-49 Fog or ice fog at the time of observation with visibility less than 1100 yards
40 Fog or ice fog at a distance at the time of observation but not at the station during the preceding hour
41 Fog or ice fog in patches
42 Fog or ice fog, sky discernible - has become thinner during the preceding hour
43 Fog or ice fog, sky not discernible - has become thinner during the preceding hour
44 Fog or ice fog, sky discernible - no change in last hour
45 Fog or ice fog, sky not discernible - no change in last hour
46 Fog or ice fog, sky discernible - has begun or become thicker during the last hour
47 Fog or ice fog, sky not discernible - has begun or become thicker during the last hour
48 Fog, depositing rime, sky discernible
49 Fog, depositing rime, sky not discernible
50-99 Precipitation at the station at the time of observation
50-59 Drizzle
50- Drizzle, not freezing, slight intermittent
51 Drizzle, not freezing, slight continuous
52 Drizzle, not freezing, moderate intermittent
53 Drizzle, not freezing, moderate continuous
54 Drizzle, not freezing, heavy intermittent
55 Drizzle, not freezing, heavy continuous
56 Drizzle, freezing, slight
57 Drizzle, freezing, moderate or heavy (dense)
58 Drizzle and rain, slight
59 Drizzle and rain, moderate or heavy
60-69 Rain at the time of observation
60 Slight intermittent rain, not freezing
61 Slight continuous rain, not freezing
62 Moderate intermittent rain, not freezing
63 Moderate continuous rain, not freezing
64 Heavy intermittent rain, not freezing
65 Heavy continuous rain, not freezing
66 Slight freezing rain
67 Moderate or heavy freezing rain
68 Slight rain or drizzle and snow
69 Moderate or heavy rain or drizzle and snow
70-79 Solid precipitation not in showers
70 Slight intermittent fall of snow flakes
71 Slight continuous fall of snow flakes
72 Moderate intermittent fall of snow flakes
73 Moderate continuous fall of snow flakes
74 Heavy intermittent fall of snow flakes
75 Heavy continuous fall of snow flakes
76 Ice prisms (with or without fog)
77 Snow grains (with or without fog)
78 Isolated starlike snow crystals (with or without fog)
79 Ice pellets (sleet)
80-89 Showery precipitation, or precipitation with current or recent thunderstorms.
80 Rain shower(s), slight
81 Rain shower(s), moderate or heavy
82 Rain shower(s), violent
83 Shower(s) of rain and snow mixed, slight
85 Snow shower(s), slight
86 Snow shower(s), moderate or heavy
87 Slight showers of snow pellets, or ice pellets with or without rain or rain and snow mixed
88 Moderate or heavy conditions as in 87
89 Shower(s) of hail, slight, with or without rain or snow and snow mixed, not associated with thunder
90 Moderate or heavy conditions as in 89
91-94 Thunderstorms during the preceding hour but not at the time of observation
91 Slight rain at time of observation
92 Moderate or heavy rain at the time of observation
93 Slight snow or rain and snow mixed or hail at time of observation
94 Moderate or heavy snow, or rain and snow mixed or hail at time of observation
95-99 Thunderstorms at the time of observation
95 Slight or moderate thunderstorms without hail but with rain and/or

snow

96 Slight or moderate thunderstorm with hail

97 Heavy thunderstorm without hail

98 Thunderstorm combined with duststorm or sandstorm but with rain and/or snow

99 Heavy thunderstorm with hail

77201 Key West, Fla.
72202 Miami, Fla.
72205 Orlando, Fla.
72206 Jacksonville, Fla.
72207 Savannah, Ga.
72208 Charleston, S.C.
72211 Tampa, Fla.
72214 Tallahassee, Fla.
72217 Macon, Ga.
72218 Augusta, Ga.
72219 Atlanta, Ga.
72223 Mobile, Ala.
72226 Montgomery, Ala.
72228 Birmingham, Ala.
72231 New Orleans, La.
72234 Meridian, Miss.
72235 Jackson, Miss.
72240 Lake Charles, La.
72242 Galveston, Tx.
72243 Houston, Tx.
72248 Shreveport, La.
72250 Brownsville, Tx.
72251 Corpus Christi, Tx.
72253 San Antonio, Tx.
72254 Austin, Tx.
72255 Victoria, Tx.
72256 Waco, Tx.
72258 Dallas, Tx.
72259 Ft. Worth, Tx.
72261 Del Rio, Tx.
72263 San Angelo, Tx.
72265 Midland, Tx.
72266 Abilene, Tx.
72267 Lubbock, Tx.
72268 Roswell, N.M.
72270 El Paso, Tx.
72274 Tucson, Ariz.
72278 Phoenix, Az.
72280 Yuma, Az.
72289 Mt. Wilson, Cf.
72290 San Diego, Ca.
72295 Los Angeles, Ca.
72304 Hatteras, N.C.
72306 Raleigh, N.C.
72308 Norfolk, Va.
72310 Columbia, S.C.
72311 Athens, Ga.
72312 Greenville, S.C.
72314 Charlotte, N.C.
72315 Asheville, N.C.
72317 Greensboro, N.C.
72334 Chattanooga, Tn.
72326 Knoxville, Tn.
72327 Nashville, Tn.
72334 Memphis, Tn.
72340 Little Rock, Ark.
72344 Ft. Smith, Ark.
72348 West Plains, Mo.
72349 Monett, Mo.
72351 Wichita Falls, Tx.
72353 Okla. City, Okla.
72356 Tulsa, Olka.
72363 Amarillo, Tx.
72365 Albuquerque, N.M.
7237 Winslow, Az.
72384 Bakersfield, Ca.
72386 Las Vegas, Nv.
72389 Fresno, Ca.
72392 Pt. Arguello, Ca.
72394 Santa Maria, Ca.
72401 Richmond, Va.
72402 Wallops Is., Va.
72403 Wash. D.C. (DIA)
72405 Wash. D.C.
72406 Baltimore, Md.
72407 Atlantic City, N.J.
72408 Philadelphia, Pa.
72410 Lynchburg, Va.
72411 Roanoke, Va.
72412 Beckley, W. Va.
72413 Pikeville, Ky.
72414 Charleston, W. Va.
72421 Cincinnati, Oh.
72422 Lexington, Ky.
72423 Louisville, Ky.
72425 Huntington, W. Va.
72428 Columbus, Oh.
72429 Dayton, Oh.
72432 Evansville, Ind.
72434 St. Louis, Mo.
72438 Indianapolis, Ind.
72439 Springfield, Ill.
72440 Springfield, Mo.
72445 Columbia, Mo.
72446 Kansas City, Mo.
72450 Wichita, Ks.
72451 Dodge City, Ks.
72456 Topeka, Ks.
72458 Concordia, Ks.
72464 Pueblo, Co.
72465 Goodland, Ks.
72469 Denver, Co.
72472 Blanding, Ut.
72476 Grand Junction, Co.
72486 Ely, Nev.
72487 Austin, Nev.
72488 Reno, Nev.
72492 Stockton, Ca.
72494 San Francisco, Ca.
72499 Pt. Arena, Ca.
72503 New York, N.Y. (LG
72504 Bridgeport, Ct.
72507 Providence, R.I.
72508 Windsor Locks, Ct.
72509 Boston, Mass.
72513 Avoca, Pa.
72515 Binghamtom, N.Y.
72517 Allentown, Pa.
72518 Albany, N.Y.
72519 Syracuse, N.Y.
72520 Pittsburgh, Pa.
72521 Canton, Oh.
72523 Danville, N.Y.
72524 Cleveland, Oh.
72525 Youngstown, Oh.
72528 Buffalo, N.Y.
72529 Rochester, N.Y.
72532 Peoria, Il.
72533 Ft. Wayne, Ind.
72534 Chicago Midway
72535 South Bend, Ind.
72536 Toledo, Oh.
72537 Detroit, Mich.
72544 Moline, Il.
72546 Des Moines, Ia.
72547 Dubuque, Ia.
72552 Grand Is., Neb.
72553 Omaha, Neb.
72555 Burwell, Neb.
72557 Sioux City, Ia.
72562 North Platte, Neb.
72564 Cheyenne, Wy.
72567 Valentine, Neb.
72568 Douglas, Wy.
72569 Casper, Wy.
72570 Roosevelt, Ut.
72572 Salt Lake City, Ut.
72576 Lander, Wy.
72577 Big Piney, Wy.
72578 Pocatello, Id.
72583 Winnemucca, Nev.
72584 Susanville, Ca.
72586 Gooding, Id.
72587 Owyhee, Nev.
72589 Lakeview, Or.
72591 Red Bluff, Ca.
72594 Eureka, Ca.
72597 Medford, Or.
72598 Brookings, Or.
72599 Cape Blanco, Or.
72605 Concord, N.H.
72606 Portland, Me.
72608 Eastport, Me.
72612 Newport, Vt.
72613 Mt. Wash., N.H.
72614 St. Johnsbury, Vt.
72615 Wolfeboro, N.H.
72616 Jaffrey, N.H.
72617 Burlington, Vt.
72618 Rumford, Me.
72635 Grand Rapids, Mi.
72636 Muskegon, Mi.
72637 Flint, Mi.
72638 Houghton Lake, Mi.

72639 Alpena, Mi.
72640 Milwaukee, Wis.
72641 Madison, Wis.
72644 Rochester, Mn.
72645 Green Bay, Wis.
72650 Spencer, Ia.
72651 Sioux Falls, S.D.
72652 Pickstown, S.D.
72654 Huron, S.D.
72655 St. Cloud, Mn.
72658 Minneapolis, Mn.
72659 Aberdeen, S.D.
72662 Rapid City, S.D.
72663 Moorcroft, Wy.
72666 Sheridan, Wy.
72667 Broadus, Mt.
72668 Mobridge, S.D.
72669 Lemmon, S.D.
72676 West Yellowstone, Mt.
72681 Billings, Mt.
72681 Boise, Id.
72683 Burns, Or.
72686 Salmon, Id.
72688 Pendleton, Or.
72693 Eugene, Or.
72694 Salem, Or.
72695 Newport, Or.
72698 Portland, Or.
72712 Caribou, Me.
72734 Sault Ste. Marie, Mi.
72741 Park Falls, Wis.
72743 Marquette, Mi.
72745 Duluth, Mn.
72747 Int. Falls, Mn.
72753 Fargo, N.D.
72755 Bemidji, Mn.
72757 Devils Lake, N.D.
72764 Bismarck, N.D.
72767 Williston, N.D.
72768 Glasgow, Mt.
72772 Helena, Mt.
72773 Missoula, Mt.
72775 Gt. Falls, Mt.
72777 Havre, Mt.
72779 Kalispell, Mt.
72781 Yakima, Wash.
72783 Lewiston, Id.
72784 Hanford, Wash.
72785 Spokane, Wash.
72787 Colville, Wash.
72789 Omak, Wash.
72791 Astoria, Or.
72793 Seattle, Wash.
72797 Quillayute, Wash.
72798 Tatoosh Is., Wash.
74484 Oneonta, N.Y.
74483 Wilmington, N.Y.
74486 New York, N.Y. (JFK)
74494 Chatham, Ma.
74595 Ocean City, Md.
74798 Dry Tortugas, Fla.
74201 Port Angeles, Wash.
78016 Kindley Field, Bermuda

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B.A.R.T.G. RTTY DX CONTEST

0200 GMT Saturday March 27 to 0200 GMT Monday March 29.

The total contest period is 48 hours but not more than 36 hours of operating time is permitted. Times spent in listening count as operating times. The 12 hour non-operating period can be taken at any time during the Contest, but off periods may not be less than 2 hours at a time. Times on and off the air must be summarized on the Log and Score sheets.

BANDS. 3.5, 7.0, 14, 21 and 28 Mhz. Amateur Bands.

STATIONS. Stations may not be contacted more than once on any one band, but additional contacts may be made with the same Station if a different Band is used.

COUNTRY STATUS. ARRL Countries List, except that KL7, KH6 and VO to be considered as separate Countries.

MESSAGES - Messages exchanged will consist of:
(A) Time GMT
(B) Message Number and RST.

POINTS. (A) all two-way RTTY contacts with Stations within one's own country will earn **TWO** points.
(B) all two-way RTTY contacts with Stations outside one's own country will earn **TEN** points.
(C) All stations will receive a bonus of 200 points per Country worked including their own. **NOTE** Any one Country may be counted again if worked on another Band but Continents are counted once only.

SCORING. (A) Two way exchange points times total Countries worked.
(B) Total Country points times number of Continents worked.
(C) Add (A) and (B) together to obtain your final score.

LOGS AND SCORE SHEETS. Use one Log for each Band and indicate any rest periods. Logs to contain: -
Date, Time GMT. Message and RST numbers sent and received and exchange points claimed.

Certificates will be awarded to: The leading RTTY Stations and Short Wave Listeners. The final positions in the Results Table will be valid for entry in the "World Champion of RTTY" Championship. The Judges decision will be final and no correspondence can be entered into in respect of incorrect or late entries. Send your Contest Logs to: Ted Double, G8CDW - 89 Linden Gardens, ENFIELD, Middlesex, England.

(A) If a Contestant contacts 25 or more different Countries on two-way RTTY during this contest he may claim the QUARTER CENTURY AWARD issued by the B.A.R.T.G. and for which a charge of $2. U.S. or 8 IRC's is made. Make your claim when you send in a Contest Log. Holders of existing QCA Awards will automatically have any new additional Countries added.

(B) If any Contestant contacts Stations on two-way RTTY with all 6 Continents and the BARTG Contest Manager receives Contest Logs from the operators in those 6 Continents a claim may be made for WAC Award issued by the "RTTY JOURNAL". The necessary information will be sent on to the "RTTY JOURNAL" who will issue the WAC Award free of charge.

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VHF RTTY NEWS

RON GUENTZLER, W8BBB Editor
212 GRANDVIEW Blvd.
Ada, Ohio 45810

We have some additional VHF operating information - not as much as we would like to have, but enough to show that there are readers and that there is activity.

First, we have a rebuttal of some of the comments from Dave Chapman, W9DPY, which appeared in last month's column. Mark Witmer, WA6FXM/9, in Great Lakes, IL, says that no one in Great Lakes has used the Milwaukee RTTY repeater. Mark then goes on to say: "As a relative newcomer to the area and to RTTY, I'd like to give my views of the VHF RTTY picture here. There are quite a few who use 146.700 MHz on a regular basis, and a lot of us monitor with 24-hour autostart. We all use 850 Hz shift. I find that even with the 7-element beam pointed toward Milwaukee, the repeater doesn't bother me.

"There is a group running 100-speed on 147.900 MHz, however, to me, that doesn't 'fragment' the operation as a lot of them monitor both frequencies.

"We send pictures, etc., on 146.700 MHz, and I find it has turned out to be a rather nice group. As a matter of fact, I spend more time here (on RTTY) than on Oscar, HF, SSTV, etc."

Don Crumpton, W6KCW, reports on the San Diego RTTY Group known as "CATS" (California Amateur Teletype Society). "At the present we have a repeater on 146.685 MHz in, 146.085 MHz out. The repeater was built up from an old Motorola base station by W6KCW. It runs 25 watts and at present the antenna consists of 2 quarter wave dipoles separated by about 40 feet, vertically. At this time, the machine is located in Encinitas — about 20 miles north of downtown San Diego and about 1 mile from the ocean, on a high point. Due to the odd frequency pair, not too many are using it, but my son in Hawthorne, about 100 air miles north, has been able to hit it quite well running 10 watts with an ICOM 22.

"The only active members right now are W6MNO, Chuck, WB6CYA, Skip, and W6KCW, Don. We hope that with the new location, the boys in the LA area will be able to get into the machine.

Most of the gang in San Diego do get into the LA machine but I haven't been able to hit it from Encinitas with a Ringo at 70 feet and 25 watts ERP."

Bill Brodie K3TGY/5, has the following news from Moore, OK: "At the present time I know of no RTTY repeaters on the air in Oklahoma with the exception of the RTTY group in Ardmore, OK. They have completed plans for putting up a repeater in Madil, OK, on 146.100/146.700 MHz, very soon. (I can and have talked to Ardmore direct on 146.700 MHz — about 80 air miles.) It appears that RTTY fans in Oklahoma City will be able to make contact with the RTTY repeater in Madil using a beam and some antenna height. We in Oklahoma City are hoping that the fellows in Dallas, TX, will turn their beams toward Madil and try for Oklahoma City.

"Some of the fellows in Tulsa have tried SSB/RTTY on 145.025 MHz with success.

If anyone is interested in getting on VHF/RTTY autostart in the area, contact K3TGY/5 in Oklahoma City. I will be more than glad to help them get started. I would like to see a RTTY repeater on the air in Oklahoma City."

We have had some interest expressed in a RTTY repeater for the Lima, OH, area. Anyone interested contact W8BBB.

Finally, Keith Peterson, W8SDZ, the moderator for the RTTY forum at the forthcoming Dayton Hamvention sent a list of the program as of this writing: Talk #1: "The ST-6000 Demodulator/Keyer," Thomas Spritz, WB9RWQ, Hal Communications; Talk #2: The DS-3000 KSR Video Display Terminal," Michael Thompson, WA9WJP, Hal Communications; and, Talk #3: "Selecting a Microcomputer for Your RTTY Station," John Souvestre, WA5NYY.

73, ES CUL, RG.

***

RTTY for the TS520

JAKE. JACOBUS,WA9WGX
422 Spring Ave.
DeKalb, IL. 60115

Here is an easy way to put the TS-520 on RTTY with AFSK, as suggested by Irv, W6FFC.

All it takes is one DPDT toggle switch. The one pole shorts across a small (C6 on the carrier board) in series with the "LSB" "BFO" crystal, which moves the center of the "BFO" from about 1500 to 2200, and the other pole merely kicks the 500 hz filter in rather than the voice filter, no matter what position of the selector switch you have chosen.

There is an external speaker jack on the back which you can tuck out of the way and install the toggle switch.

When my wife gave a TS-520 for Xmas I tried the above and it worked like a charm.

***

RTTY-DX

JOHN POSSEHL - W3KV
Box 73 Blue Bell, Pa., 19422

Hello there . . .

Did you ever have Murphy, The Evil Eye, The Double Whammy, and Voodoo, all descend upon you at once? Andy, ZS6BNF (SM4CNN), did recently and we all suffered a loss as a result of it. Andy, along with Erik, SM0AGD went to Losotho on a DX-pedition over the weekend of 22 January to coincide with the Giant Flash Contest. Andy had with him a Creed 54, ST-6, and Drake Line. He was all set to fire up for his first QSO when the T4XC blew up and put an end to it. Repair parts were impossible in what may be called "rural" Africa. You can well imagine Andy's feelings bringing all that gear to a new country and not being able to operate for even one RTTY QSO. His call is 7 P8AH and it is good for a year so he has high hopes of having another opportunity to put Losotho on RTTY for the first time in the near future.

A2CED is getting closer to reality now. Ed, W3EKT, has been heard making preliminary tests on RTTY so watch the bands, both 15 and 20 meters.

The big surprise this month was the operation by Sid from A4XGB in The Sultanate of Oman. Sid wanted no advance publicity due to past disappointments, but he has been very active since late February. Signals are very weak here in the States as he is using a make-shift set up with an 18 AVQ vertical antenna. Into Europe his signal is S-9. Sid plans a beam in the near future so signals will be better to all points. A three year stay is anticipated, so eventually everyone should have this rare country in the log. Although we did have his QTH, it seems to have eluded us at this writing; however, I'm sure it will be widely circulated over the air.

Bob, SM00S, whom you also remember as YA10S a few years back, has a new assignment that will take him to Kuwait (9K2) for an extended period of time. He will arrive there in March and promises to make every effort to put this country on RTTY. We hope to keep you posted as things develop.

Roy, PJ3AR, will go to St. Maartin (PJ7), and St. Martin (FS7), for a seven week stay commencing 1 June. He is presently looking for a light weight for machine to perhaps borrow for the air flight from Aruba. Licensing is no problem for him and he will use his present TU. While both of these places were first put on RTTY by FG7XT back in the early 60's there is now a whole new generation of RTTY'ers that do not have these two rare places in the log.

Dick, WA3JTC/ZP5, passes word that Fred, CX7BZ has an opportunity and will attempt to put his Falkland Islands on RTTY by mid summer (winter there). This could be VP8 or perhaps more likely a CE9 call would be used by Fred. This would be a new country for everyone. Dick also says that CP1DN may be QRV RTTY in late March if permission is granted for this mode.

No doubt most of you have already printed or worked KC4AAC at Palmer Base, Antarctica. Tom promised to be very active since they will soon be "iced" in until next November as winter sets in in those latitudes. His signal is fantastic from an all band Discone vertical, but I guess when the antenna is 9000 feet high on a flat sheet of ice a beam is an anticlimax. QSL's can best go via his manager --

Fred Dorffeld, K7ODK
3812 W. Maplewood
Bellingham, Wash. 98225

At the other end of the axis, Bob, VE8RE, has been very active from Cambridge Bay, NWT, which is getting pretty close to the North Pole.

John, F5LO, (ex-5T5LO) was printed telling someone that he will be going to Libya (5T) on business soon and hopes to get a license if at all possible. We certainly hope he is successful as this is another country that has not been active on RTTY for a few years.

Word has been passed that Graham, P29DJ, is looking for Stateside contacts. 0500 - 0900z is about the right time for this area.

Jeep, K3HVG/HR6 (also HR6SWA club station) says that he will be QRT as of 1 May. His QTH has been given in previous columns.

Barbados activity increases with each passing week. Presently active to join 8P6AY, and 8P6GC, is 8P6HE and you can send QSL to --

Luke Lewis
Nr. 8 Clairmont
Route 18 Eagle Hall P.O.
St. Michael, Barbados

Johnson Island will soon be QRV again. A letter from Captain Marvin Feldman, K4KEW informs us that he will be signing KJ6DL starting at about 1 May. He will be active on 80 thru 10 and his direct QTH will be --

PSC Box 884
APO San Francisco
96305

He advises to use that QTH only to set up schedules which he will be happy to do. All QSL cards are to go via his managers. Stateside this will be WB5HVY, and for Asia they go via JA10CA in

tokyo.

WB9LUK has offered a machine to KC6AQ (WA7TCC/KC6) at no cost except for shipping, if arrangements can be made to get it there. More on this later as things develop. This would be in the Western Carolinas.

When handling traffic, teletype can't be beat. Messages can be pre-punched on tape, corrected, edited, and stored, and then zipped out to the receiving station in record time. Roberto, TG9AD has been doing just that recently while handling traffic between earthquake ravaged Guatemala and the States. When the traffic is completed, Bob has been gracious enough to work as many of the boys on the band as possible giving many a new country. He is not new to the keyboard, as he had been quite active in the early 60's. We hope he will continue activity when the emergency is over.

HL9UU has been contacted in Japan and printed on the West Coast. With activity from this area very rare, it may be well to put the beam in that direction when conditions are right. Bill says to QSL only to his home QTH --

William French, W2SRQ
RFD 2 Priest Rd.,
Geneva, N.Y. 14456

The top RTTY-DS Award this month goes to a very active RTTY amateur.

Plaque Nr. 21 -- 100 RTTY DXCC
TO
Carl Steavenson - K6WZ

A QSL from 8P6AY gave Carl the necessary 100 and WB8JEY/VP2S put him over the top at 101 confirmed.

While he was first licensed in 1938, the RTTY bug bit in 1956 with a W2PAT TU for receiving and a machine that found its way into the shack by 1957. At that time, Carl was located in South Bend, Indiana as WA9NHO and subsequent job assignments had him bouncing back and forth between Indiana and California where the call changed to WB6RXM, and then with the Extra Class license to K6WZ in 1972. It was not until about 50 countries were confirmed in mid 1972 that DXCC was tackled in earnest, as at that time 100 confirmed seemed as far away as the stars. With the major part of RTTY DX activity coming from Europe, Africa and South America, plus the Caribbean, it is quite an accomplishment for the West Coast USA to break through the QRM and propagation difficulties of an additional 3000 miles to be able to make contact for what might be easy pickings for most of us. Present equipment at K6WZ consists of: KWS1, 75A4, TTL2, 28KSR* 14 TD, and 14 Reperf. Antennas are the TH3MK3 tribander, 40 meter vertical, and 80 meter dipole. Carl is in all the contests and comes up with an excellent score every time. Congratulations on a job well done.

A milestone for RTTY - DX was recently reached by Arthur, ON4BX. Arthur now has 150 countries confirmed on RTTY. This plateau may have seemed impossible only a year ago but it is a good measure of what is presently possible on this mode. As you may know, Arthur received Plaque Nr. 1 for RTTY DXCC and has maintained that position ever since, despite a busy schedule as professor of Engineering at the University of Mons. In addition, most all of the RTTY gear is of his own design and fabrication using the latest TTL techniques. Present project is RTTY via Oscar on VHF-UHF. The French proverb, "Tel Pere, Tel Fils" is very appropriate, as Arthur's son Edward was recently licensed as ON4CX.

Next contest coming up at about the time you read this is the BARTG commencing 0200 GMT 27 March; hope to meet you there.

The next Honor Roll listing is to be run in the July/August issue so we would appreciate any up-date on your standings and if you have not done it before, just send in number of countries Worked/Confirmed.

We have quite a few WAC Awards this month, but as we are running out of allotted space, we will run them in the next issue.

73 de John

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Thoughts on QSL Cards.

GLEN KURZENKNABE, K3SWZ
403 Centerview Ave.
NEW CUMBERLAND, PA. 17070

The only thing more disturbing than not receiving a QSL card is receiving one filled out incorrectly. Regardless of what award you are working toward, incorrect or incomplete QSL cards are **worthless**!

QSL cards should be filled out carefully and double checked for accuracy. If you are active on several modes, be sure the mode is correctly indicated. A card indicating a 2 way CW QSO will be of no value to a RTTY operator.

Always use GMT (UTC) and spell out the date . . . 9 Jan. 1976 not 1-9-76 or 9-1-76. Last but not least, don't forget the report and the band.

If you should make an error, don't write over or cross out . . . fill out a new card. Questionable or apparently altered cards only create hard feelings when they are rejected by award managers.

QSL cards are becoming more and more costly to send, so let's all try to make each one count.

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RTTY CONTEST

A letter from Franco Fanti announces a grand prize of an IC21A 2 meter FM transceiver along with the DV21 VFO for the winner of the World's RTTY Championship in 1976. The winner is the combined leader of 6 RTTY contests. CARTG, BARG, DARC and the Giant Flash are the contests that are counted. Last year Ed, W3EKT was the winner. The announcement in CQ Elettronica is in Italian so we are not sure of the rules but they appear to be the same as past years.

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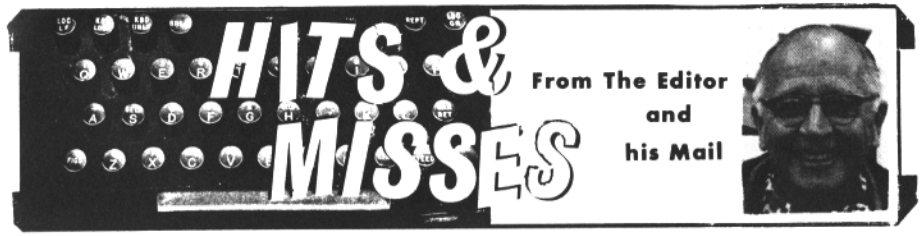

A message from Paul, KH6AG, just after our last issue went to press, saddened us with the news that Freeman, KH6AX, was a silent key.

Freeman was 79 and had been ailing since a fire destroyed his ham gear and business offices several months earlier. A colorful figure with a radio, recording, movie and yachting background. A prominent RTTY, phone and CW ham he was probably one of the best known hams active on the air.

Aloha, Freeman -

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Our post office has notified us NOT to use air mail stamps for domestic mail - everything is dispatched air mail anyway. We do not know if this applies to Canada, Hawaii and Alaska, until we know for sure we will continue using airmail postage. Do not renew at the Air rate in the U.S. however unless things change.

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The RTTY Binders and the Beginners Handbook are again in stock. Any back orders held up have been shipped and should have arrived by the time you read this.

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In order to simplify our mailing and notification of subscriptions about to expire we have changed our stencils to an alphabetical filing according to month of expiration.

On any inquiries or renewals be sure the last name is given and if possible the month of expiration.

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DAYTON

Time does pass — and Dayton is almost here again. April 23-24-25 are the dates. The RTTY JOURNAL hospitality suite is all set to go. Kings Room (formerly the South Room), at the Imperial North Motel. The room will be open on Friday and Saturday evenings and we hope to see all our old friends as well as some new ones. RTTY pix on the walls and Kentucky Kool Ade on the bar. Everybody welcome.

RTTY FORUM Sun. April 25

The RTTY forum will again be moderated by Keith Petersen, W8SDZ, and promises to be of interest to everyone. Sunday morning, April 25th at 10 AM.

1. "The ST-6000 Demodulator /Keyer". Thomas Spitz, WB9RWQ, HAL Communications Corp.
2. "The DS-3000 KSR Video Display Terminal". Michael Thompson, WA9WJP, HAL Communications Corp.
3. "Selecting A Microcomputer For Your RTTY Station." John Souvestre, WA5NYY.

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BACK ISSUES -

New subscriptions and classified ads are cash in advance as we have no method for billing. New subscriptions will be started with the current issue and one back issue, if requested. Please do not ask us to start any further back than this. Back issues - if available - may be ordered at 30¢ each at time of subscription. The JOURNAL is mailed about the 20th of the month preceding the dated month. May and June are a combined issue and July-August is a combined issue.

The ONLY back issues available are listed below. 30¢ each.

1972-OCT.-NOV.-DEC.-[3]
1973-ALL ISSUES- [10]
1976-FEB.-MARCH- [2]

BEGINNERS HANDBOOK---$2.50
RTTY JOURNAL BINDERS-$4.00

SUBSCRIPTION RATES
RTTY JOURNAL
Box 837
Royal Oak, MI. 48068
Editor & Publisher "Dusty" Dunn, W8CQ

U.S. Canada -Mexico	1st Class	$3.50
	Air Mail	$4.00
Other Countries	Surface Mail	$4.00
AIR Mail South-Central America		$7.00
AIR Mail - Other Countries ---		$8.00

CARTG Contest Comments

The Canadian Amateur Radio Teletype Group (VE3RTT) sponsored the fifteenth annual RTTY DX world-wide Sweepstakes in October 1975, honcring the Calgary Centennial Year (1875-1975). Propagation reports were on the whole favorable, though varied from different countries. Ten meter operation was low on account of condx.

There were 101 Contest Logs received, and no doubt that due to a prolonged Canadian Postal strike at that time, there was some difficulty as many Logs were returned to the senders. However, the deadline date was extended until January 31, 1976, and we hope all Logs were received and accounted for. If all contest participants submitted their Logs, it would make cross-checking more accurate and eliminate the possibilities of false entries.

54 countries were logged - quite an increase of the forty-six heard last year.

So there was an opportunity for everyone to log some new countries. Some report not hearing the African Continent, but there were 3 stations active — Some did not hear a VE/VO though K5ARH made 18 Canadian contacts. 21 stations worked all six Continents (WAC). 21 Green RTTYers reported, and 23 Canadian stations participated. Noted increased activity from Japan, Germany and U.S.A.

KA2TS and KA2PJ got together for the contest in order to celebrate the United States Bicentennial Year (1976) and obtained the call sign KA2USA and participated as a multi-operated station, with the very excellent score of 664,820 points.

Many thanks to all contestants who made the CARTG S/S a success again. To "RTTY JOURNAL", and to George Spencer - Canadian Director ARRL, for providing awards, and to "QST", "RTTY JOURNAL" and all magazines, bulletins, etc. for their splendid publicity.

Hope to see you all in October 1976 for the sixteenth "Big Smoke!"

"C.A.R.T.G."

CARTG MERIT AWARDS for 1975

The 1975 CARTG Merit Award Committee:
Chairman: Al Venning - VE7LL
John Smith - VE7AYI
Bill Moore - VE7BGA
Alex Chalmers - VE7AMK

There were many recommendations for this Annual Merit Award Plaque and Certificate, and the committees had a hard decision to make. Entries were received from Canada, U.S.A., Sweden, Norway, England and Germany, and it was realized that many were helping the cause of the RTTY art, and merited special attention.

However, the Committee arrived at the following decision:

1975 Plaque to Robin Addie, G8LT for the achievement of having the first RTTY two-way contact via Oscar 7.

Certificate to Gwen Burnett, VE3AYL for devotion to the art, and the unstinting efforts on behalf of the Canadian Amateur Radio Teletype Group in particular, and the rest of the world in general.

The "C.A.R.T.G." wishes to thank all those who took the time to write and inform the committee of nominations for this annual award, and hope they will send in their recommendations for the 1976 Plaque and Certificate.

The "C.A.R.T.G." Merit Ward [for 1976]

The original "C.A.R.T.G." Merit Award was created in 1967 to be presented to the amateur chosen for his outstanding contribution to the art of amateur radio teletype communications. It need not necessarily be confined to technical contributions but recognition of any outstanding achievement world-wide.

RTTY experimental work, RTTY technical articles, Traffic handling or organized net operation - RTTY, DX for world-wide good will.

Assistance to the blind and handicapped, or for any other outstanding RTTY achievement.

A Plaque has been offered for this award, complete with engraving and the "C.A.R.T.G." is pleased to request the names of suggested qualifiers be sent in for consideration. Recommendations should be sent to 85 Fifeshire Road, Willowdale, Ontario, CANADA M2L 2G9 or to Alan Venning, VE7LL, 6171 Brantford Avenue, Burnaby 1, British Columbia, CANADA. V5E 2T8. Closes December 31st, 1976.

CLASSIFIED ADS-- 30 words $2. Additional words 4¢ ea.

Cash with copy, Deadline 1st of Month.

Additional Classified See Next Page -

ANY ISSUE OF RTTY JOURNAL reproduced $1.00 PP. I have a complete file of all issues. R. Wilson, WBØESF, 4011 Clearview Dr. Cedar Falls, IA. 50613

Give your ASCII-Baudot keyboards, Morse Code keyboard generators, or keyswitch oriented master control stations a distinct professional appearance with the Univue keyboard and control center enclosure. The 24 x 12 1/2 x 3" Univue enclosure gives you dimensional flexibility with a modern low profile appearance. The blank 23 x 8" removable aluminum front panel is easily cut to accommodate virtually any keyboard or control arrangement. Over 200 cubic inches of space in the rear is available for housing additional circuitry, allowing a complete and handsome desk top unit. The Univue enclosure body is precision machined welded steel, and is primed and surfaced light gray, ready for the color coordinated finish of your choice. Shipped complete with panel, heavy duty non-skid rubber feet, plated mounting hardware, and Money-Back Guarantee. $29.95 plus $4.50 shipping/handling. Send stamp for complete information and pictures to: Advanced Data Sciences, P.O. Drawer 1147A, Marion, Ohio 43302.

TELETYPE MODEL 28 KSR's: Good working condition, over 200 available at $350 each. Call: Henry Holder, (817) 420-3021.

TELETYPE MACHINES - $25.00 up. Also allied items. Patch panels and misc. electronics, etc. Send SASE for info. Operating instructions for teletypes Xeroxed, $5.00 PPD. Manuals for Kleinschmidt TRP-311's, $25.00 PPD. C. B. Goodman, 5454 South Shore Dr., Chicago, IL 60615 312-752-1000 anytime.

MODEL 28 ASR's $600.00 ea. excellent condition. 32 ASR's $500.00 ea. 28 KSR's $250.00 ea, DXD-4. Write or call A.D.M. Communications, Inc., 1322 Industrial Ave., Escondido, Ca. 92025, 714-747-0374.

WANTED - INOPERATIVE COLLINS R 390A. Need for parts to repair and maintain my R390A. Ed Wagner, 1018 Birch Haven Cir. Monona, WI. 53716

EXPERT REPAIR WORK. Any Teletype Corp. model. Repair work $15.00 plus parts no matter how long it takes. Rebuilding by estimate. Write K9WRL or phone (312) 392-2358, ask for Neil. Chicago Area.

NS-1A (Journal 1/76) Wired/tested $29.95 ppd. Drilled and plated board $4.75 ppd. Parts kit $15.00 ppd. Fla. orders add tax. Stamp for further info. Nat Stinnette Electronics, Tavares, FL 32778.

HAL COMMUNICATIONS CORP. announces the DS-3000 and DS-4000 series of KSR Video Display Terminals for Baudot and/or ASCII code. Offering error correction capability, multi-speed operation, and 16 lines of 72 characters per line, these terminals employ the 8080 microprocessor in what we believe is the first microprocessor based product offered to the amateur radio communications market. Request data sheet for full information. HAL COMMUNICATIONS CORP., Box 365RJ, Urbana, IL 61801. Phone 217-367-7373.

PC BOARDS FOR THE UT-4, double sided, thru-hole plated, plug-in edge connectors. Write for details. AK-2 kit for $19.95, XK-2 STAL AFSK kit $34.95. ELECTRONIC DEVELOPMENT, INC., P.O. Box 951, SALEM, OREGON 97308 (503) 399-9660

NEW RTTY DEMODULATOR-KEYER - Complete with: Auto-start with 10 amp, DPDT contacts, PLL receiver tracking, switchable 170 Hz and 850 Hz shift, switchable mark-space, normal-reverse, terminals for tuning meter, power supply, etc. Model WM-R12A for 12 VDC operation. Model WM-R130A for 130 VDC or loop supply operation. 3.7" x 9.3" circuit board, wired, tested, $42.95. Post Paid, no C.O.D. WM Electronics, P.O. Box 544. Wilton, CT. 06897

WANTED: SELECTRIC I/O, including interface, RS-232 or TTY, ASCII or BCD. B. Thurman, W8ISG, Galesburg, MI. 49053. (616) 665-7071.

RTTY VIDEO DISPLAY UNIT -- 1000 characters, plugs into loop or logic circuits, ASCII or BAUDOT available. Kit $395, assembled $495. Leland Associates, 18704 Glastonbury Rd., Detroit, Michigan, 48219

YOUR COMPUTER IMAGE (10x12): Have your favorite full head photo printed by our computer system for only $4.00 per picture ($2.00 for each additional copy). Send your photo to-The Computer Hut, 7702 Richmond Hwy. Alexandra, VA 22306. - Only full head photos are acceptable.--

MINI-MANUALS ON FOLLOWING EQUIPMENT, $2.95 each -- M15/19 Wiring Hints and Diagrams. CV-89/URA-8 FSK Converter. TDA-2 Stelma Teletype Distortion Analyzer. AN/SGC-1 FSK Converter. Teletype Gear Guide for all teletype Corp. equipment. SASE for surplus list. Jim Cooper W2BVE, POB 73, Paramus, NJ 07652.

HAL COMMUNICATION CORP: Replace those machines with the HAL electronic RTTY RVD-1005 Visual Display Unit and DKB-2010 Dual Mode Keyboard. You'll have a quiet, reliable system allowing you to transmit and display Baudot code at all four standards speeds. Full details available in our data sheets. HAL COMMUNICATIONS CORP., Box 365RJ, Urbana, Illinois 61801. Phone 217-367-7373.

TRADE: EBC-144 Jr, 2 meter synthesized fm receiver with 8 Amp power supply. Unit has dual synthesizers, priority channel, 30 watts output. Covers 143.5 mHz - 148.5 mHz. Trade for model 28 or sell for $5.00. Will ship in U.S. M. Watson, WBOIKT. 7800 E. 119th St., Grandview, Mo 64030. Phone: (816) 761-1412.

WANTED: Model 32 or 33ASR teletype. Please specify condition and price. J. Crane, 5650 Windsor Way #308, Culver City, CA 90230. 213-649-4187.

MODEL 28ASR -Sprocket feed printer - dome reperf. (perforator on base). Complete, 60 wpm throughout. $550. 28ASR minus printer (has TD, perforator, complete keyboard, electric backspace; needs minor adjustments) $375.00, you transport. Wendell WA4ERD, 502-368-7179, 1420 Garvey Dr., Louisville KY 40216.

THRU-HOLE PLATED UT-4 PC BOARDS - Commercially made. Set of four thru-hole plated, solder coated, G-10 epoxy glass boards. 2-7/8" X 7" with provisions for 12 pin edge connectors. Boards include XB-6 Dual Clock, Two UT-4 boards, and power supply board including plus 5 volts, minus 12 volts, and plus 12 volts. All boards two sided with the exception of the power supply. Boards ready for immediate shipment. $22.50 Postpaid in U.S. Clyde Keenan K7WTQ, Rte. 1 Box 309, Lakebay, Washington, 98349 1-206-884-3838.

28ASR FOR SALE. 100 WPM-sprocket feed. Expertly adjusted and lubricated. All previously worn parts replaced. Excellent condition. Must go-sacrifice for $550. Prefer no shipping. Gary Straub, WA8RXQ, 24 Marshall Street, Norwalk, Ohio 44857. Phone 419-668-1100 after 6 P.M.

MOD-U-LINE CABINETS ST-6 STYLE MCP3-17-12 $24.36. All sizes available. Blue and tan normal 24 hour delivery. Black and gray 2 to 4 weeks. Send SASE for more information NuData Electronics, Dept. C, 104 N. Emerson St., Mt. Prospect, IL 60056.

CIRCUIT BOARDS--Frequency Standard $8, CW ID-ER $8, RTTY Counter $18, Clock $8, see previous ads. Also Morse to ASCII converter Nov QST plug-in board includes improved WA1BYM proc $15, ASCII to tv board Dec QST $10. Boards epoxy plated postpaid in US only. Morse/ASCII board requires several jumpers. Bert Kelley, 2307 S. Clark Ave., Tampa, Fla., 33609.

MODEL 28KSR WITH MkIII KEYBOARD, new and unused MkII typing unit, green Bell System cabinet with scratches on one side, $325. Model 28KSR Compact with three speed gearshift (60-67-100), very late MkIII, brand new condition, $425. Ron Ott, WA6FAD, 528 Bonita Avenue, Pleasanton, CA 94566 (415-846-1459).

DISTRIBUTOR TRANSMITTER TELETYPEWRITER Kleinschmidt. Model TT-123A/FG. 100 WPM Check out and working. Reperforator Teletypewriter Kleinschmidt Model TT-07FG, some have both 60 and 100 gears - 100 gears installed. All of these tested worked fine at 100. Prints wide punched tape with message on tape. $24.50. Teletypewriter ANFGC20 models TT-98A/FG and some are model TT-100FG. Has keyboard - some have both 60 and 100 word gears, 60 gears installed. These units are fair, will be working when shipped, $29.95 less holders for roll paper. Table FN/FG fair condition, will accommodate ANFCCG20. $12.95. W.F. Harmon, 5628 10th Ave., S. Birmingham, AL. 35222.

SELL: MODEL 28ASR, $650.00. Model 32ASR, $350.00. You ship. Paul Spurlock, WA4FHY, 2408 Brookline Dr. Huntsville, AL. 35810. (205) 859-2408.

33ASR - Works Perfectly, can arrange shipping. $650.00 K9HJU, Tony, (312) 349-9002 after 6 P.M.

SALE - 28KSR Excellent $225. SP-600JX receiver, speaker and manual $225. ST-6 AK-1, 170/850 shifts, manual used 20 hours - $250. Dave Carberry, 845 Long Cove Road, Gales Ferry, Conn. 06335 (203) 464-0225.

SELL MODEL 28 ASR - Excellent Condition. All usual features plus dial TDs (outboard TD6 Level) and auto cw and rtty id. $600 or best offer. Will accept SB-220 in trade. FOB Ed Sleight, K4DJC, 4165 Williamsburg Drive, College Park, Ga. 30337 404-766-4050.

UT-4 COMPONENTS. Still geared up for hard-to-get items. Everything postpaid first class mail. Fairchild 33512 FIFO's $13.00, 2/$25; GI-AY-5-1013 UART $7.00; MC1408L-6 D/A chip $6.50; Edge Connectors for K7WTQ PCB's $6.00 set; JAN XB-6 crystal $3.50; MJE-340, MJE-370, 74LS221, $1.25 each. TTL's (12) for XB-6 Dual Clock $9.50; TTL & semiconductor kit for UT-4 $8.50. Peter Bertelli, W6KS, 5262 Yost Place, San Diego, CA 92109. 714-274-7060.

UT-4 COMPONENTS; Set of all 28 economical low profile PCB sockets for new K7WTQ, thru plated boards. $8.00 pp. See other ad for address. Pete Bertelli, W6KS.

ST-6 CW IDENTIFIER designed for HAL ST-6 terminal unit. Plug in circuit board measures 2.75" x 5". Will work with most other keyers. Easiest to program 127 bit diode matrix, adjustable speed, sidetone speaker output. Can be programmed for RTTY-ID. Complete kit for HAL ST-6 includes 50 programming diodes: $26.50. Wired and programmed: 36.50. Flesher Corp. P.O. Box 902, Topeka, Kansas 66601. BankAmericard, Master Charge, phone orders accepted (913 234-0198). No COD.

WANTED: INFORMATION FOR PUTTING non-overline and carriage return into Lorenz #15C. Also want Bird 43 watt meter and elements. L.W. Alves, WB4JQQ, 2231 Hunter Mill Rd., Vienna, A VA. 22180, Tel. (703) 281-9137.

FOR SALE: MODEL 28KSR, 60 or 100 speed, floor model cabinet. $250.00. C. Keeler, W2NQW, 66 Franklin St., Port Jervis, N.Y. 12771. Tel. (914) 856-7095.

BLIND HAM WANTS TO WORK RTTY. Needs information. Need info on receiving RTTY by Baudot to CW conversion or baudot to braille conversion. Anyone have a Braille reperf for sale? Send correspondence to Dale Monaghen, WOHSK, 4909 Wyoming, Kansas City, MO. 64112 - Craig, WAOWPJ.

CLOSEOUT! PETIT LOGIC MT-5 MORSE TO RTTY (either Baudot or ASCII) converters. Fantastic price reductions. Semi-kit now just $95, complete parts kit (no power supply or cabinet) $255. ALSO, Baudot to ASCII converter kit for $59 - perfect for the new low cost SWTP video display unit! LIMITED SUPPLY AVAILABLE ON ALL ITEMS. Walters IND. Box 563, Oak Harbor, WA. 98277.

RTTY PICTURE PERF TAPES. Hundreds to choose from, including nudes, cartoons, animals, works of art, landscapes, all of the 1974 and 1975 RTTY Art Contest entries. Chad type (fully punched, no lids) 11/16 inch standard Amateur 5-level paper tape. Guaranteed COMPLETELY error-free. Run times from 2 minutes to 10 hours. Send 13 cents in STAMPS for listing. For introductory package of ten picture tapes of the best, various subjects, various lengths (total run time - 2 hours 11 minutes), send $6.00, immediate delivery, POSTPAID, listing included. Joe Dickens, WA9UGE, 601 S. Dodson St., Urbana, IL 61801. A FREE TAPE for all active RTTY hams at our Dayton Booth - See you there!

WANTED: R/O COVER FOR M28 REPERF. For Sale (1) New M28 Reperf Base, $30.00. (2) New 174006 Plae Assys. (ASR Power Supplies) $7.00 each. (1) New LARP 1 28 T.D. & multi-wired relay reperf in one $50.00. New 28 ASR tape holders with reel $5.00. Used 28 T.D. & CX T.D. Covers $4.00. (2) New LESU-47 $7.00 each. (1) LARB201EB Min-multiple relay chad reperf with motor $60.00. New M-19 T.D. Slide base $5.00. (1) New gray M28 keyboard cover $4.00. CC Armstrong W7VKO, 3109 East Roma, Phoenix, Az. 85016. 602-955-9393.

HAL COMMUNICATIONS CORP. wil display THE line of RTTY equipment at DAYTON. Phone your orders for pickup at the show (217-367-7373).

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New from HAL --

HAL announces the ST-6000 Demodulator/Keyer and the DS-3000, DS-4000 series of communications terminals.

The HAL ST-6000 Demodulator/Keyer provides outstanding performance for the reception and transmission of FSK teletype signals particularly on the HF radio band where the effects of interference and fading put severe requirements on demodulator performance.

Features include switchable automatic threshold control (ATC), autostart operation, antispace circuitry, 850, 425, and 170 Hz shifts, self-contained loop supply, crystal controlled tone keyer for all shifts, keyboard-operated-switch (KOS) circuitry, and new decision threshold hysteresis (DTH) circuitry for improved performance in the presence of selective fading and multipath propagation effects. Carefully designed active filters and active detection insure a wide dynamic range. Complete flexibility in interconnection of the demodulator and the keyer allow them to be used independently, in half duplex mode (typical commercial and amateur service) or in full duplex mode. The ST-6000 is compatible with all HAL electronic TTY video display equipment, as well as conventional mechanical equipment.

The HAL KSR terminals employ the latest developments in integrated circuit technology to provide a silent, reliable, all electronic terminal for transmission or reception of Baudot (5 level) and/or ASCII (8 level) code data. These terminals use the powerful 8080A microprocessor family of integrated circuits to achieve reception of Baudot and/or ASCII code at standard data rates, full cursor positioning and editing capability, display of up to 1152 characters organized as 16 lines of 72 characters per line, selectable letters shift on space, and non-overprint capability. Use of the microprocessor allows unparalleled flexibility in meeting special requirements, and in guaranteeing that the unit which fills your needs today will do so tomorrow. The terminal accepts demodulated signals from radio or wire links, and provides a composite video signal to the video monitor. Models are the DS-3000 KSR Version. 1.1 for Baudot code, the DS-3000 KSR Version 2.1 for ASCII/Baudot code, and the DS-4000 KSR for ASCII only. (Also available in Read-Only models.) Additional hardware and software will be available for decoding and encoding Morse.

For comprehensive data sheets, write to HAL Communications Corp., Box 365RJ, Urbana, Illinois 61801.

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