RTTY Journal

FEBRUARY 1981

VOLUME 29 NO. 2

75 CENTS

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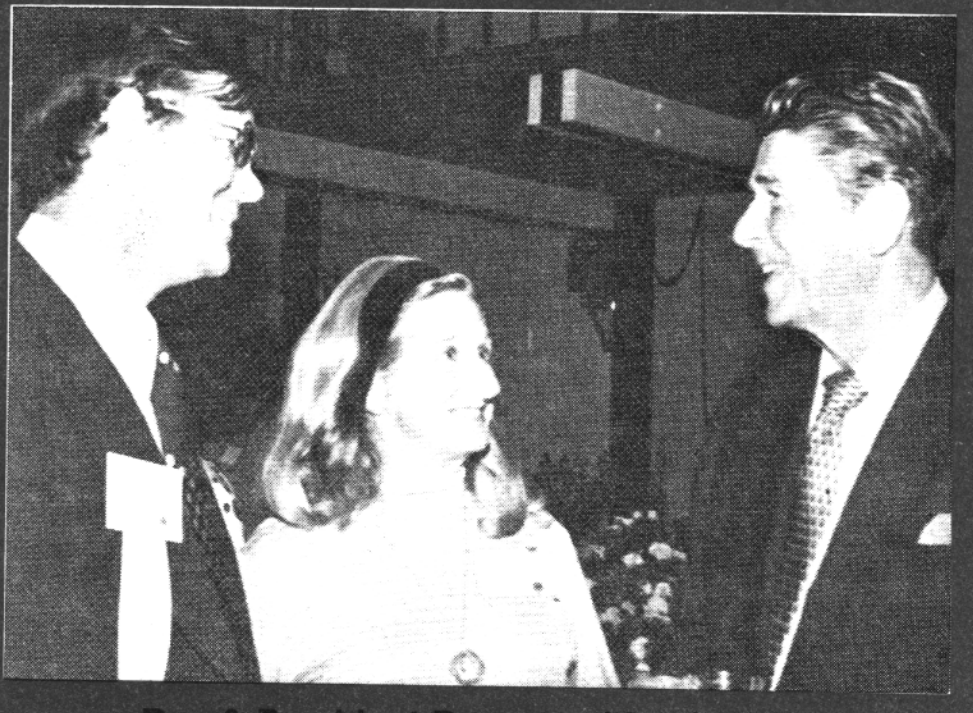

Dee & President Reagan with a friend.

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RTTY JOURNAL

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THE RTTY JOURNAL IS PUBLISHED 10 TIMES PER YEAR. MAY-JUNE & JULY-AUGUST ARE COMBINED.

Second Class permit
Encinitas, CA 92024

Business Offices
1155 Arden Drive
Encinitas, CA 92024

POSTMASTER SEND FORM 3579 to:
POB 179 Cardiff,CA 92007

BACK ISSUES

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

SUBSCRIPTION RATES

USA	$ 5.00 per year
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Canada Air	$ 7.50 per year
Mexico surf.	$ 6.50 per year
Mexico Air	$ 7.50 per year
Foreign surf	$ 8.50 per year
Foreign Air	$12.00 per year

ALL ABOVE MUST BE IN U.S.A. FUNDS

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THE FOLLOWING MANAGERS ARE DROP SHIPPED THE RTTY JOURNAL ON THE SAME DAY THE RTTY JOURNAL IS MAILED BY SURFACE AND AIR MAIL TO THE REST OF THE WORLD. IN SOME CASES AIL MAIL GETS TO OUR READERS FASTER THROUGH OUR MANAGERS, IN OTHER CASES IT DOES NOT. HOWEVER, IT IS NOT AS COSTLY TO GO THROUGH MANAGERS.

EUROPE

JEAN HURTAUD, F8XT
CHILLAC
16480 BROSSAC, FRANCE

AUSTRALIA

NORMAN WILSON, VK4NP
POB 81 ALBION, BRISBANE
QUEENSLAND, 4010 AUSTRALIA

ENGLAND

DR. ARTHUR GEE, G2UK
21 ROMANY ROAD, OULTON BROAD
LOWESTOFT, SUFFOLK
NR32 3PJ, ENGLAND

JAPAN

KANJI YAMAMURA, JH2FHX
2-42 UMENOKI, IZUMI-MACHI
TOKI CITY, GIFU-PREF
JAPAN MAIL NO.509-51

• RTTY-DX •

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

Greetings to all.....

By the time that this gets into your shack the annual Australia-Asia-Oceanic Flash Contest will be over. During this one 1aOKM the Soverign Military Order of Malta will have been active. Qsl is to IOMGM, Mario Gallavotti Via Cassia V929,Roma,Italy 001899. His call sign is not on the approved countries list from ARRL though they have requested country status.

The next contest that I would like to bring to your attention is the BARTG contest that is the weekend of 21st of March. The rules for this one can be found in the December '80 issue of the JOURNAL. I'll be in this one for sure,as it was the first contest that I ever entered into and enjoyed it very much so see you there.

The DX address list and QSL manager lists will be printed in this issue to help those out that work someone and cannot locate the addresses. I have these lists now maintained in my microcomputer so if anyone would like a copy of the list from me you can get the latest updated list by sending me an SASE with 28¢ postage or IRC's.

To all U.S. Amateurs be warned that the dang Post Office has done it to us again and raised the postage going out of the country from 31¢ to 40¢ for an airmail letter. Also the older IRC's that have the country in red printed on them are no longer honored so beware those of you that are using these.

To those of you that are not aware I have the Heathkit computer that I use on RTTY and as a result I have copies of software that has been written by Irv Hoff,W6FFC. I would be happy to send a copy to anyone that writes to Irv with an SASE and asks if it is alright for me to give you a copy of his programs. Irv has put many hours into these programs. If you are interested in seeing what they are doing with them tune in on 14082.5 kHz where most of us hang out

I also have a few programs that I would be willing to swap with others that might be interested in exchanging software. Feel free to drop me a note and let me know what you are looking for. If I don't have what you are looking for chances are that I know where you can get what you need.

HZ1TC Prince Walid Ben Talal Ben Abdul Aziz has been, since just before Christmas, using a KWM-380 Alpha 76 amplifier and Hal DS3100ASR. The Princes' QSL manager is I8YCP.

Gene,UA9PP is reported to be planning a Dxpedition in the spring of 1981 possibly in April to JT1 land.

N2KT/KH4 on Midway Island at the present time and has been active on 10,15 and 20 meters.

Glenn K3SWZ, writes that TU2JJ would like to complete DXCC and WAS while he is on his tour in the Ivory Coast.QSLs go to KNOKCW Doug Wilkowsh 1010 W.Trott,Wilmar,MN 56201. Glenn still has all of the logs for the following DX stations:CP1AP, CP1JV, HI8HJ and HI8XDF.

Following is a listing of some of the stations that have been active over the past few weeks. I would like to thank the following for their help in getting the info to me: W3KV,K0PJ/6, K5WIA/6, K3SWZ, WOLHS, SM5EIT, WA3ZKZ and K1LPS.

C6ADW, CN8BJ, CN8AT, DF5BD/ST2, DU1POL, EA8EV, EI3CN, Fo8FS, HI8WR, HP3ML, HZ1TC, H6SAD/KH2,KP4ANG, LA5IV, LU1NH, N2KT/KH4, ON2HN, SR1PBW, ST2SA TG9GI, TI2MY, TU2JJ, UA9PP, 7B2BL, ZF1GC, ZF1HJ, ZL2TT, ZS2BUF, 5NODOG, 9K2KA.

73's de SKIP.....

AP2MQ-Mansur Quereeshi
7 Union Park
Samanabad Labore
Pakistan

A22PS/P/ZE Box 10148
Gabarone, Botswana

A7XD Mike Smedal
P.O. Box 4747,DOHA
State of Qatar,Arabian Gulf

CP6IH Roberto
Box 163
Santa Cruz de la Sierra, Bolivia

C31MM Bruno Clase
Casa Pascol
LA Massana,Andorra

C6ACA Barry Packington
St.Andrews School,Box N7546
Nassau, Bahama Is.

C6ADW Mike Wallen
Box 6333
Nassau, Bahama Is.

EA6BG Mateo Amengual
M.Canals 40
Palma, Mallorca,Balearic islands

EA6HH Paco
P.O. Box 852
Palma, Mallorca,Balearic Islands

EA6HY Gabriel
La Puebla BOP
Mallorca, Spain

EA8RU Pedro Del Castillo
P.O.Box 357 Dr Chil 3
Las Palmas de GC,Canary Islands

EL2AG
P.O. Box 3049
Monrovia, Liberia,W.Africa

FC2CJ Marcel Poli
Box 223.
Ajaccio, Corsica

FP8DF Pierre M. Cloony
Box 41
St.Pierre, Miquelon Is

GD3FKW Ken Ball
Oxenford Cottage
St.Lawrence, Jersey C.I.

GD3YED Rich Hillsboro
Selbourne Dr.
Douglas, Isle of Man

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

HK2ECH Fernando
P.O. Box 1791
Cucuta, Columbia

HL9WU Gordon Anson
PSC Box 2137
APO San Francisco,CA 96366

HP1BS
P.O. Box 8577
Panama

HP1PM Peter
Box 603035
El Dorado, Panama

continued on page 4

DX ADDRESS LIST CONTINUED

H44DX Bernie
P.O. Box 332
Guadalcanal, Solomon Island

JA0BXU/SU P.O.Box 150
%Penta Ocean Construction Co.,Ltd.
Ismaelia, Egypt

KV4RQ Dr. Randall James
Christranslot
St. Croix, Virgin Islands 00820

LU1AE
Greek Embassy
Buenos Aires, Argentina

OA4BR Zip Zellon
Box 538
Lima, Peru

OD5JW Wassim
P.O. Box 14-5449
Beirut, Lebannon

OX3FG Walther
Box 177
Julianhaube,Greenland 3920

PY2DRH
P.O. Box 22
San Paulo, Brazil

PZ1BF G. Lichtveld
P.O.Box 184
Paramaribo,Surinam

SV1AB
Box 564
Athens, Greece

SV8CS
P.O. Box 564
Athens,Greece

SVoAP Kent Parsen
P.O. Box 711
APO New York,NY 09291

TI2HP Humberto Perez
Apartado 952
San Hose,Costa Rica

TF3SB Doddo Sigurbjorn Bjarnason
Skeejagata 17
105 Reykjavik, Iceland

TI2MY Jaun
Box 1845
San Jose,Costa Rica

TR8JG
P.O. Box 665
Port Gentil, Garbon

TU2HH Alain
P.O. Box 1347
Abidjan, Ivory Coast

UT5RP Dima
Box 373
Odessa, Ukraine

VP2AR Hickey
Box 550
Antigua, West Indies

VP2SV John Caldwell
Palm Island
St. Vincent, West Indies

XE1LE Francisco Vasquez Bello
Arroyo Num.12,Fraccionamiento Lo
Fresnos, Naucalpan, Mexico

YB0ACB Warren
Box 2282
Jakarta, Indonesia

YV2ABF Sofia
P.O. Box 310
Merida, Venezuela

YO3KWA
Box 1395
Bucharest 5, Romania

YV3AY Roman
P.O. Box 456
Barqieisimo, Venezuela

ZE1CE Taffy
P.O. Box 300
Gatooma,Zimbabwa,Rhodesia

ZF1HJ Jack
P.O. Box 1215
Grand Cayman,British West Indies

ZP5CD Claudio del Conte
Box 1337
Asuncion, Paraguay

ZS2AB Brian Weller
P.O. Box 10317
Port Elizabeth 6001,Rep. of S.Africa

ZS3B
Box 109
Luderitz, Southwest Africa

4X4QG
P.O. Box 92
Heryelia, Israel

5B4HF John Hurley
Box 4180
Nicosia, Cyprus

5H3KS Karl
P.O. Box 250
Dar-Es-Sallam,Tanzania

5K3SB
Box 584
Bogata, Columbia

5N2AMT
P.O. Box 1150
Kaduna, Nigeria

5NOAAS Paul
P.O. Box 2873
Lagos, Nigeria

5NODOG David Guthne
P.O. Box 12705
Lagos, Nigeria

5R8AL Alain
P.O. Box 3833
Antananarivo, Madagascar

5Z4PD Wolfgang Richter
P.O. Box 14829
Nairobi, Kenya

6Y5SS Rick Knox College
Spauldings, Clarendon
Jamica, West Indies

7X4MD Dr. Driss Bendani
23 Avenue Quid Aissa
Mostaganem, Algeria

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

QSL MANAGERS LIST

A4XFW------K6QX
CN8BI------IOUWG
C5AAN------DJ5QT
C31UL------DF5HS
C31PS------DL5NJ
C6ACA------W2IUC
DK5BD/ST2--DF1BP
FK8CR------W7OK
FK8CU------W7OK
FK8DJ------JH3XCU
FM7BW------WB4IWW
FR7BE------W4LZZ
FR7ZS------F5DV
FY7AS------F5WQ
HI8XDF-----K3SWZ
HM000------ DK5ML
HP1AXW-----K1RQ
HZ1TC------I8YCP
JY1------- WA3HUP
K4GMH/VQ9--K4GMH
K6SAD/KH2--VE5QY
KX6HC------W1FO
OY1A-------K6XP
P29BB------VK4AHD
QX3CO------WB3KGY
S8AHC------WA6QFN
ST2SA------DJ0ZB
SVOAP------WB7NCF
T4AHC------WA6QFN
TG9GI------K8HV
TU2GA------K9BXA
TU2JJ------KNOKCN
VE6GBU/SV--- DK3CU
VK0KH------- VK5WV
VK0JM------- VK3BAF
VP5AH ------ WA4DRU
VQ9MR------- N5GU
VR1AF--------W7OK
VR3AH--------WB4PRU
VR6BJ------- K0BJ
XT2AW--------KN1DPS
YJ8YS--------JL1CII
YT2D---------YU2CDS
ZB2BL--------W2UTH
ZB2EY--------DL5NJ
ZD9GG--------ZS1Z
ZF2AC------- N3JL
ZF2BN------- W4HET
ZK1AM========WOWP
ZS2MI=====---WA2IZN
ZS6DN------- WA4HHG
3B8RS--------DJ6QT
3B9RS--------DJ6QT
3D6AD--------WA6QFN
5NOAAS------ DJ2HZ
5NODOG------ W4FRU
5Z4PD========DL3WL
5Z4RT--------I8JN
5Z4YV--------JA2AJA
8P6AY------- K4ZS
9A1ONU-------IOLVA
9M2MW--------K4BF
9Y4VU--------W3EVW

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KONTEST KORNER

BARTG	21-22 Mar 81	Dec.80
N & S American Flash	28-29 Mar 81	Jan.81
VK/ZL/Oceania	6-7 Jun 81	coming
SARTG	15-16 Aug.81	coming
WAEDC	7-8 Nov.81	coming
CARTG	Oct. 1981	coming
Australia/Oceania & Asia Flash	January 82	coming
Europe & Africa Giant Flash	23-23 May 81	Jan.81

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AWARDS SECTION

Worked all states award to: K3TOM, Ed Cupples of Pennsylvania

****

DXCC Endorsement #160 to:I8AA, Ros Pentimalli of Italy.....Congratulations to Ros and to Ed.....

CONTESTS*CONTESTS*CONTESTS*CONTESTS* CONTESTS*CONTESTS*CONTESTS*CONTESTS*CONTESTS*CONTESTS*CONTESTS*CONTESTS*CONTESTS**

SARTG 1980 RESULTS

Call	Points
1. I3FUE	350,900
2. I7FKO	278,760
3. SM6ASD	215,670
4. W3FV	215,040
5. G3HJC	195,500
6. G3OZF	186,550
7. I2ZGP	172,800
8. VK2SG	149,400
9. SJ9WL	148,400
10. VK5RY	146,010
11. OR7AZ	135,585
12. DJ6JC	126,350
13. JA3AHQ	124,195
14. KØPJ/6	101,400
15. ON5WG	101,170
16. I1TXD	93,465
17. KØBJ	88,020
18. JA6GIJ	81,855
19. SL5AR	80,535
20. OZ8GA	78,175
21. SM5FUG	74,115
22. SK6DK	71,280
23. Y79XN	69,850
24. IV3PVD	69,300
25. OZ1CRL	67,500
26. SM6AEN	59,220
27. JA8ADQ	55,660
28. WB3FSN	53,900
29. VK5IF	48,620
30. OH2CQ	43,240
31. Y53SA	41,580
32. DF5YX	39,585
33. LA2IJ	37,170
34. VK8HA	35,650
35. VK1GM	32,085
36. VE7DOC	31,320
37. VK3EG	30,525
38. VE6GL	28,960
39. HB9AAG	27,000
40. G4HYD	25,800
41. PA3ABE	22,440
42. DF6ZY	17,985
43. JA1MIN	17,980
44. LA7QM	17,360
45. DF7FB	14,550
46. W2KHQ	13,875
47. ON6HF	13,860
48. JR2TZL	13,750
49. XE1VV	13,320
50. DK5VA	13,220
51. PAØKFF	12,875
52. KH6GMP	12,705
53. G3RDG	12,000
54. WD9GRI	11,440
55. DJ2YE	9,085
56. SMØIIB	8,190
57. W3KV	8,165
58. SM5AAY	6,290
59. G3UVZ	6,270
60. VK2ATQ	5,200
61. VE7DLX	5,015
62. YO3AC	3,640
63. DJ1XT	2,730
64. VK8BE	2,320
65. Y33TA	2,220
66. JA7ML	2,025
67. OR5TO	1,260
68. WØLHS	1,200
69. SM6HCX	1,140
70. W8TCO	280
71. DL1AM	90
72. Y53VA	10

Multi-operators

1. I5MYL	324,360
2. OE9ERI	224,720
3. G3UUP	137,550
4. OH2ZY	128,040

Call	Points
4. OK3KFF	137,550
5. OH2ZY	128,040
6. Y31ZB	120,750
7. HB9Z	84,790
8. OZ9GA	72,570
9. K5WTA	57,000
10. SK6AW	49,245
11. LZ1KDP	19,320

S.W.L.

1. G8IZD	227,525
2. Ballenberger	164,755
3. Y2-2814M	140,400
4. G8CDW	96,960
5. Wüstner	86,790
6. HE9OZM	86,080
7. DL-14907.	30,135
8. Ludwig	15,960
9. Y2-7111A	855
10. Y2-6754A	120

Check Logs: W6Jox, OZ7FG, Y44YO, OZ4IJ and VE2AXO

SARTG RTTY 1981 CONTEST AUG.15-16.

RULES:

TEST PERIODS:

0000-0800 GMT Sat. August 15,1981
1600-2400 GMT Sat. August 15,1981
0800-1600 GMT Sun. August 16,1981

BANDS:3.5, 7, 14, 21, 28 Mhz.

CLASSES: a)single operator. b) Multi operator,single transmitter,NOTE: These logs must contain names and callsigns of all operators involved. c) S.W.L's.

EXCHANGE: RST and QSO #

POINTS: QSO with own country five points.Other country on same continent ten points. Other continent 15 points.In USA, Canada and Australia each call-district will be considered as a separate country.The same station may be worked once on each band for QSO and multiplier credits. Only 2-way RTTY QSO's will count.

MULTIPLIERS: Use the DXCC list and each district in W/K,VE/VO, and VK.

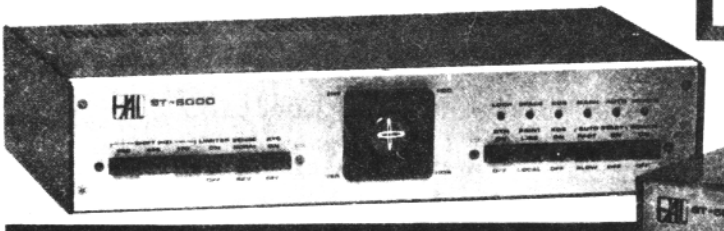
SCORING:Sum of QSO points x sum of multipliers.

SWL's: Same rules for scoring based on stations and messages copied.

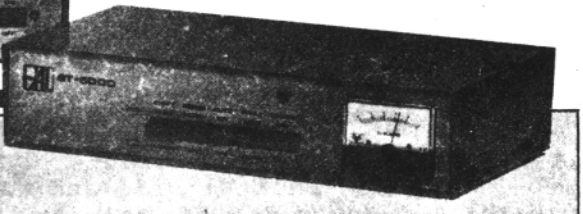
continued on page 11

Even WEAK SIGNALS print clearly with a HAL Demodulator.

ST-6000 Demodulator $659.00



ST-5000 Demodulator $239.00



Pulling in weak or distorted signals with a HAL Demodulator is no problem. Even if the band is crowded.

With high-gain, wide-bandwidth limiters and extremely linear active detector circuits, both the ST-6000 and ST-5000 Demodulators convert RTTY tones into strong, readable signals that display bright and clear.

Tones necessary for transmitting RTTY are conveniently generated and receive filters and transmit tones are accurately set and matched to assure on-the-money transceive operation.

Both the ST-6000 & ST-5000 offer these features:
Internal Loop Supply • Internal AFSK Generator with CW ID Tone • Internal Tuning Indicator • Autostart Motor Control • Line/Local Loop Control • TTY Machine Compatibility • RS-232 type DATA Interface • "High" or "Low" Tones • 120/240, 50/60 Hz Power • Normal/Reverse Switch • 170 and 850 Shift • Active Discriminator • Metal Cabinets for RF Shielding.

Special Features of the ST-6000:
Mark-Hold • Antispace • Automatic Threshold Control (ATC) • Decision Threshold Hysteresis (DTH) • Keyboard Operated Switch (KOS) • MIL-188 and CMOS Data Interface • Oscilloscope Tuning Indicator • Crystal Controlled AFSK Tones • Active Input Bandpass Filter • Pre-Limiter AGC • Three Shifts (170 - 425 - 850)

Write or give us a call. We'll be glad to send you our new RTTY catalog.

HAL COMMUNICATIONS CORP.
Box 365
Urbana, Illinois 61801
217 367 7373

For our European customers, contact: Richter & Co. D3000 Hannover 1 • I.E.C. Interelco, 6816 Bissone/Lugano • Radio Shack Ltd., London NW6 3AY • Erik Torpdahl Telecom, DK 3660 Stenlose Denmark

DEUTSCHER AMATEUR-RADIO-CLUB E.V.
Mitglied der IARU
REFERAT BILD- UND SCHRIFTÜBERTRAGUNG

RESULTS 4TH DARC +CORONA+ 10 M RTTY CONTEST DATED NOV. 15TH 1980

CALL	SCORE	QSO	COUNTRIES	PREFIX
GRUPPE A:				
1. YU2CDS	4898	62	26	53
2. ZS6AKO	2520	45	18	38
3. DL5GAS	2226	42	16	37
4. DKØFR/p	2090	38	21	34
5. EA3BQQ	1944	36	19	35
6. OZ1CRL	1925	35	20	35
7. DF6ZV/A	1820	35	19	33
8. I5CBF	1650	33	21	29
9. N8ES	1575	35	14	31
10. DF3NA	1488	31	17	31
11. SL5AR	1485	33	17	28
12. LA7QM	1248	32	12	27
13. WB2UEF	1230	30	14	27
14. DL1VR	1188	27	19	25
15. G3HJC	1176	28	17	25
16. DK8FS	1066	26	16	25
17. OK3KII	1040	26	16	24
18. DF7FB	975	25	14	25
19. WA6WGL	925	25	12	25
20. OK1WEQ	912	24	14	24
21. EA3BLQ	851	23	16	21
22. LA3FE	621	23	08	19
23. G3UUP/A	540	18	12	18
24. OZ1BAN	260	13	08	12
25. W5TZB	216	12	06	12
26. DK4IS	054	06	03	06
27. OK1KBL	028	04	03	04
28. LA2IJ	004	02	01	01
GRUPPE B:				
1. STIG KAHR (OZ)	2914	47	20	42
2. H. BALLENBERGER	2542	41	22	40
3. KURT WÜSTNER	2240	40	18	38
4. WERNER LUDWIG	1148	28	15	26
5. VACLAV CESAK (OK)	700	20	16	19

CHECKLOG: KØBJ

WE LIKE TO THANK YOU ALL FOR THE GREAT INTEREST AND ACTIVITY IN THIS FINAL TEST. WE WILL FOLLOW THE MANY SUGGESTIONS AND ESTABLISH THE +CORONA+ ALSO IN 1981. TWO MINOR ALTERATIONS WILL BE NOTED: FOR THE MULTIPLIER WE WILL USE THE DIFFERENT COUNTRIES ONLY, ALSO THE TEST DATES WILL BE ALTERNATE FROM SATURDAYS TO SUNDAYS WITHIN THE YEAR. THE SCHEDULE WILL BE: MARCH 14TH, MAY 10TH, SEPT. 26TH AND NOV. 8TH.

WE ARE WISHING ALL OF YOU THE VERY BEST FOR THE FESTIVE SEASON AND MAY EVERYBODY HAVE + A H A P P Y 1 9 8 1 +

73 DE KLAUS, DF7FB, CONTESTMANAGER

HITS & MISSES

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

FROM THE MAILBAG

SAROC

The annual SAROC HAM Convention was held in Las Vegas,Nevada,January 1st thru the fourth. Jeanne, my XYL, and I always enjoy this convention. While walking thru the exhibit hall looking at all of the new Amateur equipment,I sure had fun talking RTTY. The number of Amateurs who stopped me and discussed RTTY ran the gambit from newcomer to oldtimer. I brought with me a large supply of RTTY JOURNALS and ran out of them on the first day. The interest and enthusiasm for RTTY was indeed gratifying.

YAESU

I stopped by the Yaesu booth and was treated to a look at three new items for RTTY. Yaesu is now selling a CW/RTTY reader (YR-901),video monitor (YVM-1) and ASCII keyboard (YK-901). All three units are keyed to match the FT 901. The reader lists for $730 the video monitor $199 and the keyboard $175.

CURTIS

I dropped by the Curtis booth where the Curtis KB4900 was on display. The unit lists for $379.95. The features of this ASCII, Morse, Baudot keyboard are endless. A couple of the features I really liked were the meters for WPM speed and buffer fullness.

28ASR

The price of the 28ASR is now becoming very attractive to many Amateurs. I can remember starting out in RTTY and dreaming that someday I would own one of these very fine units. I have received many requests for information on the 28ASR. Let's dig in and see what I can come up with to help.

The 28ASR has all of the features of the Model 19 with more thrown in. It will operate at 60, 75, 100 WPM. The 28ASR unlike the Model 19 leaves room for expansion in the future. This module design allows for additional features to be added as money or need arises.

A loop supply will have to be built (See figure 1). I built mine on a 19 inch rack panel (4 inch by 19 inch). THe lower compartment has two rails where you can mount this panel.

I brought my machine home and gave it a good cleaning,lube and oiling. Then I inspected all of the wiring and found a series of terminal strips on the back inside wall of the cabinet. Look behind the paper roller and take covers off these strips (note: AC plug out of the outlet PLEASE). Starting at the strip at the far right, you find it numbered terminals 21 thru 40 (see figure two). I wired a switch to 29 and mounted the switch on the front of the cabinet. This switch allows me to switch my loop supply in or out. This also allows me to use a TU without a loop supply or a TU with a built-in loop. If the TU you have has a loop supply omit this switch and the loop supply shown in figure 1.

We have now located the AC terminals. Let's now hook up the selector magnets and keyboard. This terminal is numbered 1 thru 20 and is the second strip from the right of the cabinet (see figure three). I hope by now that you can see by placing the keyboard, selector magnets in series with your loop along with your TU you're off and running.

The AC is run thru a noise filter to terminals 29 and 30. The incoming signal is filtered thru a filter going to terminals 5 and 10. The signal is now picked up on terminal 9 where it is jumpered to terminal 8. Then back thru the wiring harness thru a filter to terminal 7 jumpered to terminal 6. Now back thru the wiring harness to terminal 5.

You now can see that the AC goes to terminals 29 and 30. The keyboard goes to terminals 7 and 8. The selector magnets 5 and 6. Motor control 9 and 10. You now can see how easy it is to wire the 28ASR and start getting hard copy.

I have made an effort to show you only one way to wire a 28ASR. There are a large number of possibilities in the combinations of the various units it should be kept in mind that the wiring and functioning of the page printer is essentially that of the 28KSR.

Most machines come with 100 WPM gears. I will list the gears needed if you want 60 WPM.

Fiber gear part # 151131
Pinion part # 151130
Nylon gear part # 159279
Pinion part #159278

I hope that this will help you,also look at the classified ads in the RTTY Journal for parts you may need.

So long for now, George, WA6CQW

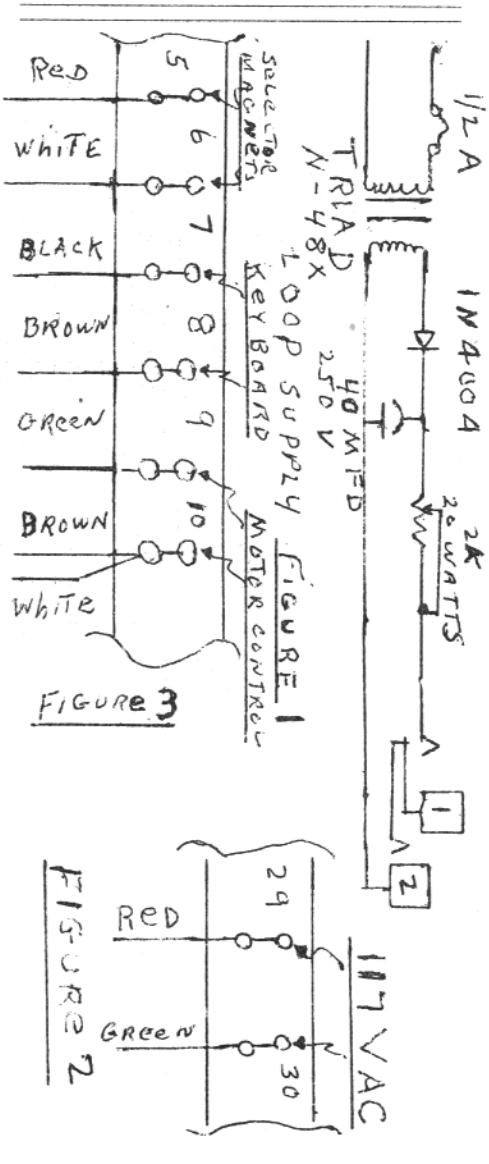


FIGURE 3

FIGURE 1

FIGURE 2

CLASSIFIED ADS

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

GOV'T SURPLUS TUNING FORKS 96.19,10"L UNUSED PKG. only $10 each.Ship. pd. Quantity Available;QSL SPECIALS:Quality QSLs printed 300/$5, 500/$9.Add 20% Ship. Samples SASE.White,colored stock! D. Testa, 390 Lincoln Ave,RJ Newark,NJ 07104.

HAM RADIO MAZAZINE.The no-nonsense state-of-the-art Technical magazine. Dozens of exciting projects and an emphasis on quality unmatched by any other radio magazine. Suscribe now and see for yourself.1 year $12.00, 2 years $22.00, 3 years $30.00. Ham Radio Magazine,Greenville,NH 03043.

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

SATELLITE TV RIPOFF?Building a Satellite TV terminal?Tired of "Information package" ripoffs?Let's band together and exchange information on the best LNA's,mixers,kits,P/C boards antennas,and on the RIPOFFS!Send a SASE (1-15¢ stamp) and your comments, compliments,RIPOFFS,etc,and I will duplicate information received and return in your SASE.Mitch,WA4OSR,Box 973,Mobile,AL 36601.

NEW SUPER-LOG II machine language program for TRS-80 Model I & Model III Computers.Whether you're a ragchewer,contester,DXer or Award Hunter SUPER-LOG II will overwhelm you with "Lightning Search & Sort"capability-the absolute ultimate in computerized logkeeping!Instant recall of typical logbook information at your fingertips!Cassette based Regularly $19.95, INTRODUCTORY OFFER $16.95 plus FREE Contest Program,Super Duper II.Complete Disk Version Add $8.00.MICRO-80 INCORPORATED,R-2665 Busby Rd,Oak Harbor,WA 98277.

UPGRADE SUCCESSFULLY!!Make the next trip to the FCC count! New 1981 License Exam Review now available for TRS-80 16K cassette based computers. 12 programs totaling 100K for each license class.Specify General,Advanced or Extra.Only $19.95 each. All three $39.95 PREPAID."SUPER-LOG", THE popular logkeeping system,the ultimate,only $16.95."MICRO-CLOCK",19-function timepiece,zones of the world automatic ID & timer %6.95.MICRO-80 INCORPORATED,R-2665 Busby Road, Oak Harbor,WA 98277.

WHOLESALE DIGITAL CASSETTES ONLY 59¢ for C-10's in lots of 24 each,add $1.50 shipping.Fully guaranteed!100% error free.Used by serious programmers and Software Firms Nationwide! Wholesale Listing on request!MICRO-80 INC., R-2665 Busby Rd., Oak Harbor WA 98277.

PUT RTTY INTO YOUR S-100 Bus computer AR-1 card contains ST-5,AK-2 and baud rate generator (4.5, 50, 75 and 110). Software programmable baud rates and ASCII/BAUDOT.Bare Board $45,Kit $245. Ass & tested $349.Xtal and toroids $15.Add 10% for shipping,excess refunded.Write for flyer describing other S-100 hardware and Northstar software for Amateur Radio. Snow Microsystems Inc.,Box 1704,Silver Springs,MD 20902.

HAL ST-5000 DEMODULATOR Mint condition,one year old $198.W4AKQ, 4415 S.E.12 Place,Cape Coral,FL 33904.813 549-0075.No collect.

KITS AND PARTS FOR THE RTTY AMATEUR, featuring the famous MEG-1 Demodulator,ID-1 CW ID'er,and IPT-1 Interface Power supply and Timer.These units available as kits,or fully assembled, plus a wide selection od quality new components,make the Midnight Engineering Group well worth checking out.And don't forget our carbide drill bits,now more sizes available. Send 15¢ stamp for catalog.Midnight Engineering Group,POB 349, Galesburg, IL 61401.

WE "SPECIALIZE" IN RTTY Equipment and supplies.Authorized Dealer for the fabulous "INFO-TECH" RTTY/CW/ASCII equipment,including Models;M-100E,Video Converter:M-300C Super Tri-Mode Keyboard;M-200F Tri-Mode Video Converter:M-70 Code & Speed Converter: Magnetic Tape Interface.Also HF Transcievers,amplifiers,antennas and other general Ham Radio equipment. Call or write Dick,KOVKH,DIALTA AMATEUR RADIO SUPPLY,212- 48th St.,Rapid City,SD 57701.(605)343-6127.Special quotes and prices for special people

NEWS-NEWS-NEWS-Amateur Radio's Newspaper "WORLDRADIO".Trial Subscription-Two issues for one dollar.WORLD RADIO. 2509-F Donner Way,Sacramento, Calif.95818.

THE BIT-BYTER is now available for the TRS-80 Model 111.See Bit-Byter ad this issue.Vic Frump,K8EXJ.UHF Sales & Service CO. Rte.1,Box 52A, Evans,WV 25241.

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

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

TELETYPE ASR 33 COMPLETE W/STAND, paper, tape and manuals.Just refurbished by Teletype.Works perfectly. $400 or best offer by Mar.1st.Steve Larson,N3SL,1525 S. Lansing St,Aurora CO 80012. 303-752-3768.

TELETYPE MACHINES,ALL MAKES & MODELS and allied items. 25% off on everything.SASE for list.Goodman,5454 S. Shore,Chicago,IL 60615. 312-753-8342.

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

SALE*SALE*SALE*SALE*SALE;HEAVILY INKED RIBBONS,FITS ALL TELETYPE MACHINES $6.50 dozen;Dual spool red & black ribbons $14.50 dozen;Perforator tape 11/16" x 8" case of 40 rolls $19.50; 1" x 8" case of 28 rolls $19.25;Black 1" x 8" box of 7 rolls $7.50;Strip printer tape 3/8" wide,ungummed, box of 25 rolls $14.00;Model 28 self-contained,stand-alone typing reperforator with 3 speed gear shift $120.00; Single speed $95;Model 28 TD $99.Roll paper,Canary or white 5" diameter, case of 12 rolls $25;Model 28 ASR complete,but not rewired nor checked $255;Model 28 ASR complete and checked,rewired for local loop $300;Model 28 typing units,Sprocket feed,less type box $99;Model 28 typing units, friction feed,less type box $149;Model 28 ASR Auxillary reperforator type LARP complete with motor,base and mounting studs to fit inside model 28 ASR cabinet behind TD $99.All prices are FOB Brooklyn,NY.ATLANTIC SURPLUS SALES,3730 Nautilus Ave., Brooklyn,NY 11224,Tel:212-372-0349.

NOW KEEP SENDING WHILE YOU CW ID. The MS-738 AFSK tone mixer is the VHFers answer.See November 1979 RTTY JOURNAL for full description.Kit $10.95 plus $1.25 shipping.DATAPRO ELECTRONICS 3029 N. Wilshire,Arlington Hts, IL 60004.Visa/MC Accepted.

FOR SALE:TELETYPE ASR-33 with stand, in perfect shape.Asking $385.You ship Call Joe at KN60.408-730-4839 or write to 635 Carlisle Way,Sunnyvale, CA 94087.

"MONITOR 12 INCH" Good working condition $45.National Linear NCL 2000, good tubes $495.voltage is low power 2200v x .700 ma=1540 watts input. HI power 3000v x .700ma=watts input.E. Shafer,N8ES,3479 Kersdale Rd.,Pepper Pike,OH 44124.Fone #216-831-9198.

"ATTENTION" DUE TO UNCONTROLLABLE circumstances, T&D Sales were unable to handle the sales of "IRL" TU's from Aug.to Dec.1980.So if you were among those who called or wrote,we are very sorry.T&D Sales is noow able to accept orders for the following: "IRL" FSK-1000 and "IRL" FSK-500. Please call or write to T&D Sales,524 Sixth St.,Fremont,OH 43420.PH;419-334-3462.

THE RACK LINE BY DATAPRO,for individual or repeater these versatile uniform boards will do the job.All board are 4½ x 6½ inches (same size as DT-600 board),solder plated with a 22 pin edge connector for easy servicing. All kits have edge connectors included.

CW ID SYSTEM,Interfaced for digital, FSK or AFSK keying,10 minute timer, variable speed (5-25 WPM),5 or 12 volt use.Kit $37.90,NOW ON SALE 29.90 Board alone $8.95.

UT-2 SPEED CONVERTER,options include transitional autostart,on board clock parallel bufferred outputs,and FSK out board has 2 clocks for basic speed conversion (one speed per clock),For multi-speed use see XB-6 kit.May be used for ASCII with few modifications.Complete kit $39.95. Board alone $13.95.UT-4D KITS AND BOARDS,See other ad in this issue.Kit $109.95.Board $22.95.TU-LOOP POWER SUPPLY,If you're looking for the ideal loop supply for your TU this is it.This board has provisions for a plua and negative supply (12 or 15 volts),a 5 volt supply and a high voltage loop supply.All supplies need not be mounted on the board for operation.Loop supply has on board provisions for keying transistor.All supplies have LED power status indication.Basic +12,+5,-12 volt supply $34.99.Loop supply alone $31.99,both supplies complete $56.99.

DUAL XB-6 UART CLOCK,Develops 6 baud rates for each side of UART.Rock solid accuracy with use of crystals, good for both UT-2 & UT-4 systems. Kit $29.95.Board alone $8.95.

CRYSTAL CONTROLLED AFSK KIT.Supplies rock solid tones of 2125 for mark and 2295 or 2975 for space.Avoid drift with crystal control.Kit $29.95.Board alone $8.95.MS512 SINGLE BOARD SUPPLY where space is at a premium this single voltage supply fits.Voltage is determined by regulator,supplies vary from 5 to 24 volts with change of regulator and transformer. All parts including transformer fit on the 2¼ x 4½ board.Current output 700 ma.to 1 amp.May be configured for negative or positive supplies.Specify negative or positive voltage,5,6,8,12 13.2,15,18 or 24 volt.Complete kit (5-18 v $13.95)(24 volt $14.95).Board alone $5.75.AVAILABLE FROM DATAPRO ELECTRONICS,3029 N.Wilshire Ln,Arlington Hts,IL 60004.Add $1.25 for shipping.Use your Visa/MC for added convience.Phone evenings 312-870-0555

UT-4D KITS AND BOARDS.Now better than ever.Complete speed conversion with many extras,which incl:transitional autostart,on-board clocks,expanded buffer and easy assembly.Board is the same size as DT-600 Tu (4½ x 6½).See other ad for power supply and optional crystal clock.Board kit for UT-4D $109.95,Plated thru board alone $22.95.Please add $1.50 for shipping. DATAPRO ELECTRONICS,3029 N.Wilshire, Arlington Hts.,IL 60004.Phone orders welcome.Visa/MC 312-870-0555.

SALE! RTTY ID GENERATOR.Accepts 5 or 12 volt supplies,31 RTTY characters available,(please include letters,figures,spaces etc.).Your preprogrammed answer-back must be supplied with order.EX:DE YOUR CALL,NAME,CITY AND STATE.See January 1980 RTTY JOURNAL for complete description.Board is same size as popular ST-6 boards.Kit $34.99 Now on sale $24.95.Board alone was $8.50 now priced $4.00.Please add $1.50 for shipping.DAYTAPRO ELECTRON IC,3029 N.Wilshire,Arlington Hts.,IL 60004.Visa/MC accepted.312-870-0555.

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

MINT MODEL 28ASR WITH Single TD and typing perf $350.HAL ST-6 AK-1 Plus UT-4 plus CW/ID'er plus SB-610 scope all cables and books.Play here before pay $450.Another 28ASR with dual TD's typing perf and LAXB under dome reperf.All parts working but needs loop rewiring for HAM use. $200.K2JW,609-234-3255.

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WANT ADS CONTINUED

THE BIT-BYTER IS NOW AVAILABLE for the TRS-80 Model 111.See Bit-Byter ad this issue.Vic Frump,K8EXJ.UHF Sales & Service Co,Rte 1, box 52A, Evans,WV 25241.

RTYM80 is an adaptation of the Bit-Byter RTY-80(C) software for use on the M80. board.Split screen & type a-head buffer (See Bit-Byter ad this issue).Price $30.PPD.Vic Frump,K8EXJ. Phone 340-372-2047.UHF Sales & Service CO,Rte,1, Box 52A,Evans,WV 25241 Specify:Name,address,Call & lv 1 or2.

THE BIT-BYTER RTTY SYSTEM. Designed for the TRS-80*,a radioteletype system for the discerning amateur.It is now possible to enjoy sophisticated yet simple RTTY operation without all the mechanics,bulk,noise and cost by putting your TRS-80* to work.Software features,RTY-80:(1)split screen operation, received information is scrolled across the bottom 2/3s of the screen and the transmit buffer is scrolled across the top 1/3 of the screen with a status banner separating them.(2)works equally well with level 1 or level 2 computer.(3)automatic station operation. PTT and CW ID under software control.Automatic return to the receive mode at end of transmission from keyboard command (4)your call,customized into the soft ware to provide:"shift I" sends xxxxx to the CWID relay.(new)"shift Q"sends a line of CQ's.(new)"shift Y" sends a line of RY's.(new)"shift T"sends 'the quick brown fox' etc.(5)speed control,keyboard selection (receive or transmit) of 60 or 100 WPM.(6) On-screen status:counter shows amount of transmit buffer used.Mode shows 'transmit' or 'receive'.Speed selected is displayed i.e. 60 WPM or 100 WPM.(7)word edit,transmits a word when space bar is depressed.Mistakes made in the word may be edited prior to transmission.(8)automatic carriage return.(9)buffer size.The software 'discovers' how much memory you have. 4K,greater than 1,400 characters available.16K,greater than 14,000 available.Hardware features:Bit-Byter interface:(1)simple installation,just put in series with your 60ma loop.(2) completely shielded,this cannot be over emphasized.(3)complete loop isolation through optoisolators.(4) CW/ID relay sends required CW/ID.(5) PPT relay controls transmitter status Can be used with external diodes to control TU too.(6)interface unit keys loop from computer and reads the loop into the computer.It is essential that your AFSK unit be keyed from the loop.(7)self-contained regulated power supply.(8)assembled & tested. (9)metal cabinet matches your TRS-80* Order from Vic Frump,K8EXJ.Phone 304-372-2047,UHF Sales & Service,RT.1,Box 52A,Evans,WV 25241.Specify:name,address,callsign and level 1 or 2.Cost $129.00.*trademark of the Tandy Corp.

FOR SALE:MODEL 35KSR Teletype machine excellent condition $400.Skip Prinsen 3611 Merrimac Ave,San Diego,CA 92117. 714-276-3182.

SARTG CONTEST RULES CONTINUED.....

LOGS: Must be received by October 10, 1981. The logs to contain:band,date, time GMT, Callsign, exchanges sent, and received, points, multipliers,and final score.Use a separate sheet for each band and enclose a summary sheet showing the scoring, classification, callsign, name and address,and in cases of multi-operators,name and call of all operators involved.Comments are always appreciated. Send logs to:SARTG Contest & Award Manager OZ2CJ,C.J.Jensen, P.O. Box 717, 8600 Silkeborg, Denmark.....

OOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOO

BARTG SPRING VHF-UHF CONTEST RULES

DURATION: 1800 GMT Sat.18th to 1200 GMT Sun.19th April, 1981. A rest period of minimum 4 hours must be taken and declared at some time during the contest.

BANDS: 144 MHz and 432 MHz.Cross band and contacts via a repeater or satellite will not be valid.

OPERATORS: Licensed Amateur radio stations within zones 14 and 15 who are permitted to use RTTY as a means of communication. Portable operation is allowed but must be from one location or within one Km. for the whole of the contest. Contest logs from SWL's will also be welcomed.

For forms A4 and 427 and further rules write :Chris Plummer,G8APB, 148 Porter Road,Brighton Hill,Basingstoke Hampshire,RG22 4JT England.....

OOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOO

HAM HELPS

Billy Evans, Route 3, Box 236, Nevada Missouri 64772 writes that he has a Model 28ASR and a 28 RO with the main line demodulator from QST of 1964 and has them partially working on receive Is anyone out there,close to where Billy lives, that can help him????

OOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOO

DARC "CORONA" 10 METER-RTTY CONTEST SCHEDULE:

1st test,March 14th 1100-1700 UTC
2nd test, May 10th 1100-1700 UTC
3rd test,Sept. 26th 1100-1700 UTC
4th test,Nov. 08th 1100-1700 UTC

BAND: the recommended portions of 10 meters.

CONTEST CALL: CQ CORONA TEST

EXCHANGE: RST/QSO-nr/name

POINTS: each station hasto be contacted once only. Each complete 2 x RTTY QSO is worth 1 point.

MULTIPLIER: use the WAE and DXCC list and each district in W/K, VE/VO and VK.

SCORING: total multipliers x total number of QSO's.

CLASSES: A-single or multiple OP
B-SWL- Printer

LOGS: must contain name, call and full address of participant/class/ time in UTC/exchange/final score.SWLs apply to the rules accordingly.

DEADLINE: each entry shall be postmarked not later than 30 days after each test.

MANAGER: Klaus Zielski,DF7FB, P.O.Box 1147, D-6455 Erlensee, West Germany.

PLAQUES: will be awarded to the leading stations in each class, according to a reasonable score.

OOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOO

EURD

The DARC issues the EURD to promote RTTY activities. It is available to all Amateurs and Club stations holding an official RTTY-license.It is based on 2 way RTTY contacts with different European countries and their prefixes.

CLASSES: EURD III- written confirmation (QSL) from at least 20 different countries (regardless of the band used) and a minimum of 100 prefix points are required.European coun--tries are determined by the "European country list" (WAE). Each official European prefix counts for 1 prefix-point per each band.

TELECOMMUNICATIONS DEVICES FOR THE DEAF.....From AMRAD Newsletter.....

Robert Bruninga
USS Blueridge LCC-19
FPO San Francisco,CA 96628

There are over 3,000 telecommunication devices for the deaf in use in the greater Washington D.C. area and estimates range as high as 55,000 nationally. The deaf have been using these devices very successfully for over fifteen years to communicate among themselves and more recently with a growing number of services which have provided TTY numbers to allow telephone access to deaf users. Although historically the majority of devices were surplus Teletypewriters donated by the Telephone Company and the Military, these mechanical printers are rapidly being replaced by more modern devices offering special features as well as reductions in size and weight. A small portable device about the size of a calculator is available for under $200.00.

This historical background has well established the 5 level Baudot code as the standard for communications among these devices. The recent explosion of home computers and the increasing number of ASCII terminals in home and business, however, has been a confusing phenomenon. Many owners of ASCII equipment are interested in opening the communication channel with their deaf counterparts and some of the deaf users are interested in participating in many of the services available to ASCII users.

The following comparison attempts to show the glaring differences between the modes and show that the conversion is not a simple process but requires a concerted software and hardware effort. Often, The 8 level ASCII user has a microcomputer with more flexibility and in most cases can easily accomplish this conversion so that he can communicate in the deaf world using deaf standards. Conversely, many deaf users who have tasted the speed of 300 baud operation using the 8 level standards will soon be looking for dual 5/8 level capability.

To meet this need, the Amateur Radio Research & Development Corporation, a Ham radio and computer organization in the Washington D.C. area is actively involved in this field of deaf communications. AMRAD is working on interfaces to the popular home computers to allow 5 level Baudot communications in addition to the 8 level ASCII capability. They have established a computer message system called HEX, for Handicapped Education and Communication Exchange, on 301-593-7033 to disseminate information about the project and to encourage communications among interested parties.

DIFFERENCES BETWEEN 8-LEVEL ASCII AND 5-LEVEL BAUDOT USING BELL 103 AND WEITBRECHT MODEMS.

There are several distinct differences between protocols used for the transmission of 8 level ASCII and 5 level Baudot signals over standard telephone lines. The following table attempts to clarify these differences in corresponding fashion. Some of the features are obvious while some of the differences have more subtle ramifications.

CODE	ASCII	BAUDOT
SPEED	110/300 baud	45.45 baud
MODE	full/half-duplex	2 way simplex
MODEM	Bell 103 ORIG/ANS	Weitbrecht
MARK	ORIG 1270 Hz	1400 Hz
	ANS 2225 Hz	
SPACE	ORIG 1070 Hz	1800 Hz
	ANS 2025 Hz	

In the Weitbrecht modem, tones are only transmitted for the duration of the character so that the line is available for transmission in either direction during pauses between words or characters. In practice the mark tone is retained for as much as a half second before being squelched. This tone provides continuity while continous characters are being transmitted.

Notice also that the mark is high for the Bell 103 and is the low tone for the Weitbrecht. The only significance is when attempting to convert a Bell 103 modem to Weitbrecht tones, the data will be inverted from normal RS-232 and the mark hold circuitry will need to be inverted.

Another aspect is in line supervision. In the Bell 103 protocol, the presence of the tone carriers gives positive indication of the status of each end of the link. In the Weitbrecht case, however, the absence of tones except while characters are being transmitted results in there being no positive way to test the status of the other end of the communications link. To aid the deaf, a visual lamp is provided on most Weitbrecht modems which varies in intensity proportional to signals on the line so that the ringing and busy signals are recognizable.

The following is a simplified modem conversion to make the readily available VADIC 81046 modem into a Weitbrecht compatible modem for use by the deaf. The Weitbrecht modem uses the 1400 and 1800 level Hz tone pair for signalling with the 5 level Baudot code. The conversion described here changes the frequency from the ORIGINATE mode to the Weitbrecht mode but results in the data being inverted relative to normal RS-232 at the input and output. The reason for this is that in the ORIGINATE mode, the higher frequency is the MARK tone wheras in Weitbrecht the low frequency is the MARK tone. Also the circuit to squelch the mark tone after one-half second must be added externally to the modem as shown in F.1

What follows is a table of the ORIGINATE and TDD values of components. Notice that the first 2 entries can be changed out-right;but that the last 5 values must be tweaked with a scope, frequency counter, and a signal generator to assure the resulting conversion will live up to specs. To aid in this process, representative values for these 5 resistors are shown.

RESISTOR	ORIGINATE	TDD	CONVERSION
C17	0.01	.0047	replace
R43	16.5	7.8	par'lel 15k
R39/R40	11.5	? ?	as required
D9	-	-	remove
R2/R3	430	860	series 430
R7/R8	380	560	series 180
R25/R26	330	510	series 180
R23/R24	400	790	series 390

The R39/R40 combination sets the transmit frequency. To set the frequency, be sure to have pin 18 biased to -12 volts to assure a solid space signal before adjusting the R39/R40 combination. Once it is set to 1800 then check the mark frequency by biasing pin 18 to +5 volts and see if the shift is within about 10 Hz of 1400 Hz. If not, adjust the R43 combination.

The 4 bandpass stages that need to be adjusted in the receiver require

continued on page 13

CONTESTS*CONTESTS*CONTESTS*CONTESTS*CONTESTS*
CONTINUED.....
EURD II=150 prefix points in 30 countries.
EURD I=200 prefix points in 40 countries.
EURD TROPHY=250 prefix points in 50 countries.
All Amateur bands may be used including VHF.
All QSL's must confirm "TWO WAY RTTY" and shall be dated after January 1st, 1965. Any altered or forged confirmations will result in disqualification of the applicant.
Contacts made during the EUROPEAN DX CONTEST,WAEDC,RTTY-part can be used for EURD endorsements,provided the log of the requested station has also been received. Therefore,claims should not be made before the publication of the annual contest results. Requests must be stated within two years after the respective contest.
The fee for each certificate is DM 10, or 15 IRC's.
Send a list which is certified by your radio club and the fee to:
DARC-RTTY Manager
Klaus Zielski, DF7FB
P.O. Box 1147
D-6455 Erlensee,West Germany.
WAE country list:
C31-CT1-CT2-DL-EA-EA6-EI-F-FC-G-GC-GD-GI-GJ-GM-GMShetland-GW-GU-HA-HB9-HBO-HV-I-IS-IT-JW-JWBaer-JX-LA-LX-LZ-M1-OE-OH-OHO-OJO-OK-ON-OY-OZ-PA-SM-SP-SV-SVCrete-SVRhodos-SVAthos-TA1-TF-UA13456-UA2-UAFranz Josef Land-UB5-UC2-UO5-UN1-UP2-UQ2-UR2-YO-YU-Y2-ZA-ZB2-3A-4U-9HI.....

OOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOO

RTTY TRAFFIC NET

BY Bill Wright K4YZU

The midwest RTTY traffic net is being formed for the purpose of handling ARRL message traffic on high speed net. The coverage is for the midwest or the NTS area of the CAN and to the EAN area. The net has been in operation for about a month now. With the kind of equipment that is on the market today most of the RTTY can be of great value in the public service of being able to handle messages in ARRL form for the public. The check-ins are building with each session and we invite all RTTYers to check in or just monitor the net. All are welcome.

The net meets each night on 3.630 MHz + or - the QRM. The net callup is the Midwest RTTY net and the NCS will call for station by callsign in alphabetical order. At the end of the formal session their is a short informal session for comments. As we are still in the building stage, all comments are welcome.

We need stations to check in from the NTS and can be a liaison to the NTS nets. The more we have the better off we will be. So hope to see you on the Midwest RTTY net.

There are many state RTTY nets but none, as far as we can tell, is set up on an area basis as yet.

With your inputs we will have more of this next month.

Write to me at:1758 West Gaulbert Street, Louisville, KY 40210 or call: 502-776-1936.

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DEVICES FOR THE DEAF CONTINUED.....

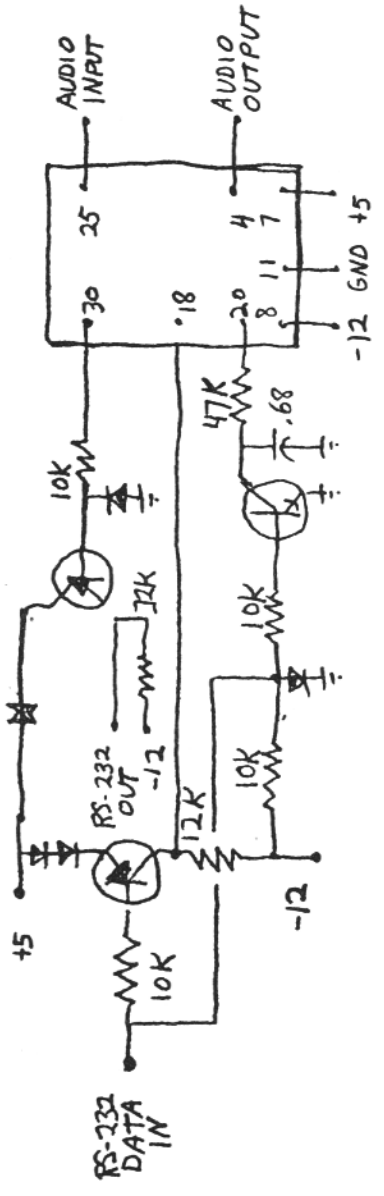
a little more finesse. The first 2 stages are stagger tuned; one for mark, the other for space. All that is necessary is to tune each stage and the discriminators so that equal minimum levels of audio are required to activate the carrier detector and that the cross over point from mark to space occurs at roughly 1600 Hz. The 1st stage can be measured for a peak of 1400 Hz at pin 7 of IC M7. The 2nd stage cannot be measured directly, but should be adjusted for an overall peak at 1800 Hz measured at pin 1 of IC M7 after the 1st stage is peaked at 1400 Hz.

The discriminators, one for Mark and the other for Space, can be adjusted next by peaking their response for 1400 Hz at pin 7 of M4 and for 1800 Hz at pin 1 of M4. Proceeding in this order, each adjustment is relatively independent. All of these adjustments are made with the signal fed into the modem input of pin 25. The diode D9 which normally clamps the output to mark,in the absence of tones, must be removed since that would now be space in the Weitbrecht modem. If the output does not normally result in a positive signal, bias pin 2 of IC M5A with the highest value resistor that will assure +5 with no signal.

These modems will be available from Terry Fox at 1819 Anderson Rd., Falls Church, VA 22043 or from VADIC,write to author or Mr. Fox for prices and availability.

Our thanks to Don Conover of San Diego, himself a deaf Amateur, for bringing this article in AMRAD to our attention.

Figure 1. Suitable circuitry for inverting the RS-232 data and driving pin 20 follows.



A UNIVERSAL CW/TTY GENERATOR BY PAUL JOHNSON KOPJ/6

The primary uses for the Universal CW/TTY Generator are as a CW IDer or as a WRU TTY answer back message generator. Construction cost is approximately $15 if all parts must be purchased, a small PCB can easily be made up for this circuit.

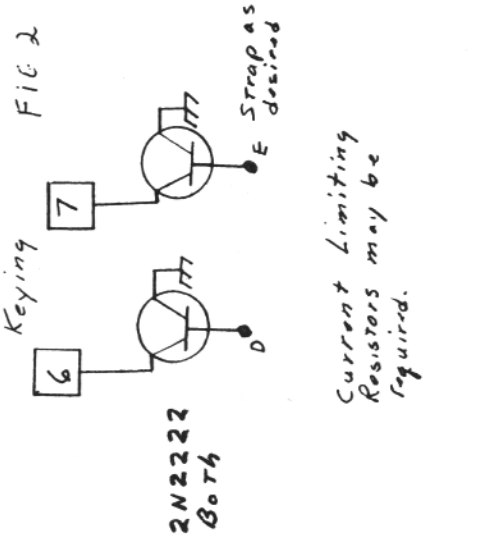
CIRCUIT DESCRIPTION-The EXar (XR 2240 timer/counter) provides all timing for this circuit. Timing is selected by the combination connected to pin 13. T, $\frac{1}{2}$ cycle is equal to 1 RC. If C = 0. 1mf a total R (R1 + Pot) of 135Ω would be required for 100 WPM TTY. (13.5 ms pulse width) A low pulse on pin 11 starts the circuit in operation resetting all chip outputs from high to low. Chip output pins 1, 2 and 3 are used for timing at the data selector (74151), while output from pins 4 through 7 are used for an up count of the PROM memory locations (74188). Output eight can be strapped to pin 14 of the PROM if the full 32 memory words are desired.

Data selector (75151) converts the parallel data of the PROM to serial data at the rate selected by the timer as described previously. Both an inverted (pin 5) an non-inverted (pin 6) output are available and can be strapped to either Q1 or Q2 as desired for required keying.

The 7430 is used to turn the timer off. For turn off, memory bits Ø through 6 are programmed high which gives a low output at pin 8, which in turn is tied to the timer's pin 10, (the reset input). In most cases, bit 7 of word 17_8 and 37_8, in the described circuit when using both CW for the first part and TTY in the last part should be programmed low to provide an unkeyed output status on stop. When the timer is stopped, all of its outputs go high selecting PROM memory location 17_8 or 37_8 depending on the setting of S1B. The two 2N2222 transistors are strapped to either pin 5 or 6 of the 74151 to give the required keying. When programming the 74188 for CW a high bit should be used for a keyed status. (dash-3 successive bits high, dot-one bit high, with one bit low between dots/dashes of a character, and 5 or 6 bits low between words). The first eight bits in memory should be left low.

For programming of Baudot characters bit 0 of each memory word is the start pulse and should be programmed high, bits 6 and 7 are the stop pulse and should be programmed low. Bits 1-5 represent the five data bits and are programmed space high/mark low. Normally, the first memory word should be a letter function. See figure 2.

By strapping the base of one of the 2N2222 transistors to point B, and connecting a LED in series with current limiting resistor to the collector of that transistor, (the other end of this series circuit is attached to +5v) gives a run indicator. It will blink at the dot rate for CW and appear steady for TTY.



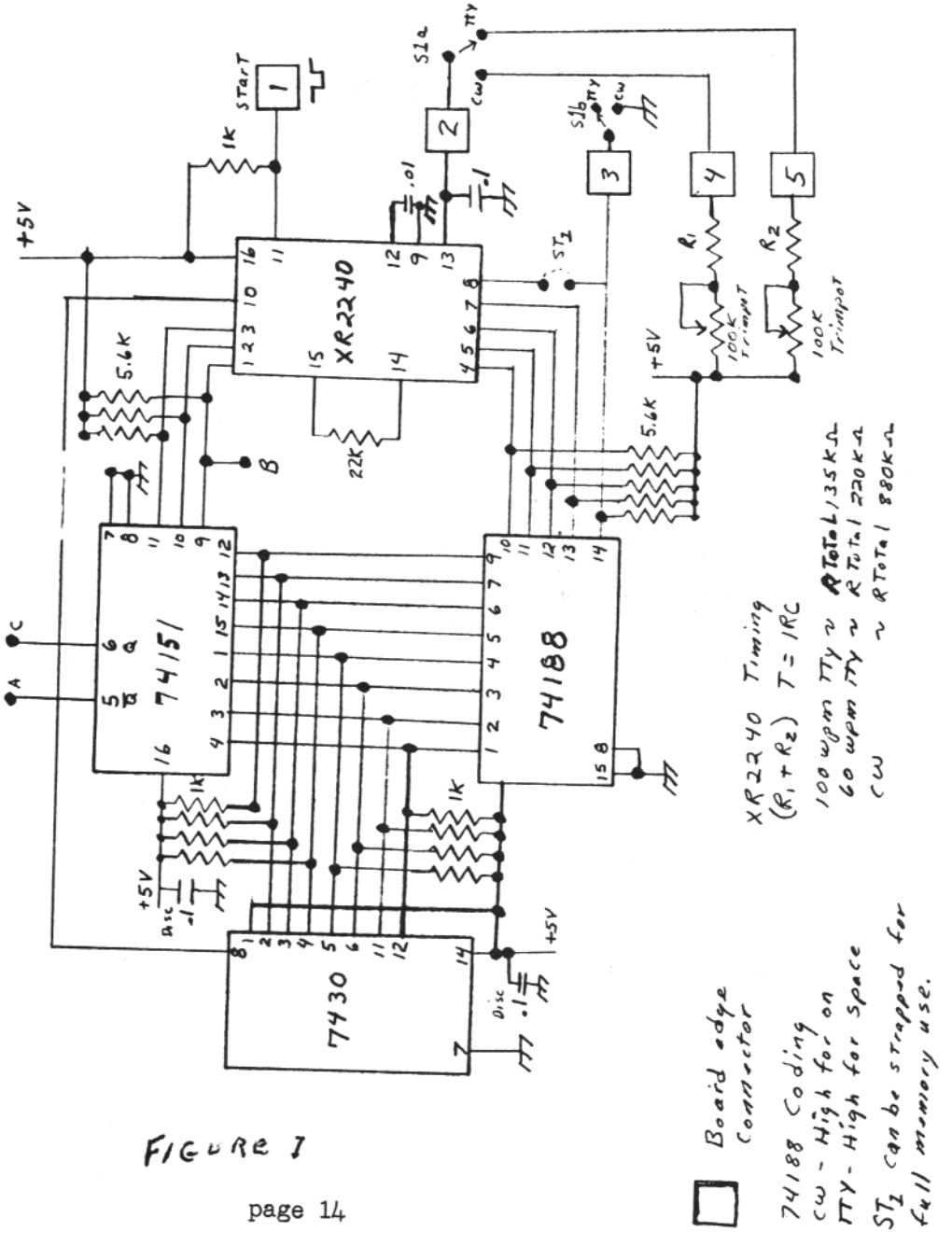
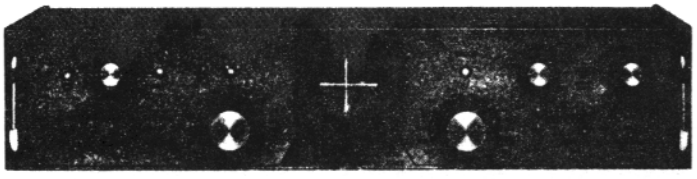


FIGURE 1

DOVETRON



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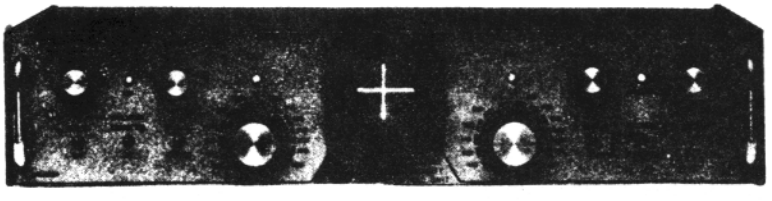

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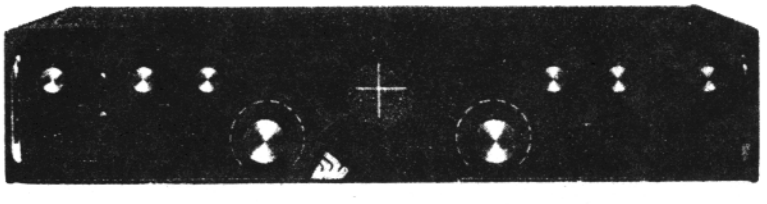
A front panel switch permits internal TSR-200 Signal Regenerator-Speed converter assembly to electronically "gear-shift" between 60, 67, 75 and 100 WPM. All incoming and outgoing signals are regenerated to less than 0.5% bias distortion. Also available with DIGITAL Autostart (TSR-200D): Amateur Net: $695.00



MPC-1000R/-TSR-500

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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.

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