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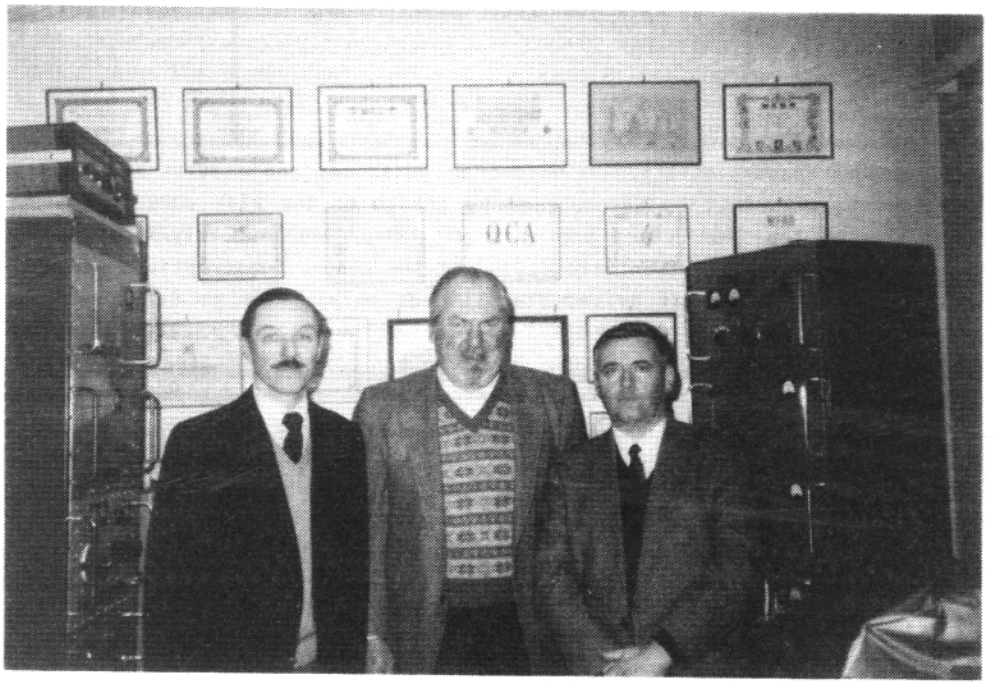

LEFT TO RIGHT WITH THEIR DXCC RTTY NUMBERS ARE: ON4CK, BOB; (233); W3KV, JOHN (222); and ARTHUR, ON4BX (237) = 692 RTTY CONFIRMED CONTACTS. SHACK OF ON4CK-ALL EQUIPMENT IS HOMEBREWED

SEASON'S GREETINGS IN MANY LANGUAGES---BUON ANNO, JOYEUX NOEL, VESELE VANOCE, MELE KALIKIMAKA, GOD JULE, BOAS FESTAS, FELIZ NAVIDAD, BUON NATALE, GODT NYTAR, HUAN TING SHENG TAN CHIEH, MERRY CHRISTMAS - HAPPY NEW YEAR - HEALTH - HAPPINESS - AND MAY THE WORLD BE UNITED IN PEACE AND UNDERSTANDING IN THIS YEAR 1986

RTTY JOURNAL

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BY:Dick Uhrmacher, KØVKH
212-48th Street
Rapid City, SD 57702

MSO'S

Hi there Gang! A very Merry Christmas season to all of you, and I hope that Santa brings each of you bags of Bauds, dump trucks full of Diddles and anything else your heart desires! 1985 has been a year to remember, and I hope that 1986 is a healthy, happy and prosperous New Year for all of you.

MSO HINTS OF THE MONTH:

Bill Henry, K9GWT, has written the best and most comprehensive article on the subject of digital communications that this author has ever read. It's contained in the November 1985 issue of "CQ" magazine, and should be read by MSO users and SYSOP's alike. Bill not only covers general RTTY subjects, but also writes about MSO's, AMTOR and Packet Radio. His common sense approach in utilizing the various digital modes should be adopted by all who use them, and I encourage users to tack a copy on the wall of their Shack, and review it at least weekly!

Increased RTTY operations have resulted with the advent of cooler weather, and along with return of many MSO's as well. The increased activity is welcome, however, three points need to be stressed:(1) Don't be bashful about identifying your station when using the MSO's. Proper identification is not only the law, but it serves some other purposes as well. Namely it provides some valid RTTY data for the MSO to work on, prior to receiving a command; and for the newcomer, the "SYSOP" (System Operator) is much more likely to provide some on-the-spot assistance if you're having difficulties, when he sees your callsign properly given. (2) The MSO can only execute commands which it receives on the left-most margin, (fully left justified). Commands received on other than the left-most margin are totally ignored. This left justification is easily accomplished when the MSO properly receives a "carriage return/line feed" (CR/LF), prior to the actual command. With the proliferation of computers and keyboards, there are several differently named keys that cause your individual RTTY system to output this CR/LF. It may be called an "ENTER" key, "RETURN" key, or "NEWLINE" key. A good operating practice is to first send your station ID, (that provides valid RTTY data for the demodulator to chew on), then a CR/LF, (provides the necessary left justification), and then the appropriate command. And, (3) each MSO or CBMS must be able to distinguish commands from the ordinary text it receives. Punctuation marks are most often used as a command delimiter, the "Period" (.), the "Colon" (:), and the "Slash Bar" (/) being the three most frequently used. Unless these delimiters are properly formatted immediately prior to the command, and received by the MSO on the left-most margin, the command will be ignored.

Finally, a few minutes observation of a MSO or CBMS operation will provide most of the significant clues to its formatting requirements. Take the time to observe a system in operation, rather than a "fishing expedition" to see if you can guess at its requirements. And, take the time to fire up that printer of yours when you see someone else ask for the "HELP" command. My memory capacity was recently described as relating to a "rabbits tail",..... short and fuzzy! Having hardcopy of a MSO/CBMS "HELP" command list saves me time when utilizing a new system.

WHERE TO FIND MSO'S:

Message Storage Operations, and Computer Based Mailbox Systems, are scattered across the spectrum, mainly on 20, 40 and 80 meters on "HF", and Two-Meters on "VHF". Rather than attempt to list each and every system, I will include a copy of my current "MSO List" for the "National Autostart Frequency". Several of these MSO's have expanded lists of MSO's and CBMS's listed in their directories. And, newcomers are encouraged to also check the CBMS's located on the "International Mailbox Frequency", (carrier frequency is 14 097 500 Hertz), for additional lists and information.

NATIONAL AUTOSTART FREQUENCY MSO LISTING:
"Mark" frequency is: 14 085 625 Hertz
"Carrier" frequency is: 14 087 750 Hertz

ACCESS CODE	QTH	SYSTEM OP
MSOICL	Yellow Springs, OH	Gaylord
MSOVKH	Rapid City, SD	Dick
MSOKOZ	Boca Raton, FL	Frank
MSONYA	Midwest City, OK	John
MSOQXK	Near Dallas, TX	Don
MSO9CD	Urbana, IL	Clark

MSO COLUMN CONTINUED

MSOAJØX	Laurel, MS	Joe
MSOAPI	Meriden, CT	Al
MSOZRR	San Luis Obispo, CA	Ernie
MSOMTC	North Ft. Myers, FL	Dick
MSO5FL	Denton, TX	Brownie
GUATMAIL	Guatemala City, Guat.	John
MSOBIS	Westwood, MA	Bob
MSOKFX	Hollister, CA	Harry

Good hunting!

MSO RAMBLINGS :

Dick Schulte, WD4MTC MSO, has been a little under the weather recently, and we all hope that he's back with us on RTTY soon. Dick was very instrumental recently in handling a large amount of traffic into the Mexico City area, after their earthquake crisis. Tandy Way, KA4SYN, a frequent MSO user, has a very excellent article in the November 1985 issue of QST, describing his hardware and software systems to receive RTTY and AMTOR, and converting them to synthesized speech. Tandy is sightless, yet hasn't allowed his handicap to prevent him from using digital communications. Congrats Tandy! Six of the fourteen MSO's on the "National Autostart Frequency" are now using the Kenwood TS-940S transceiver. Clark, W9CD MSO, reports that this transceiver also makes tuning "HF" packet radio signals a snap. The W5QXK MSO, remains off the air while Don and Marie build and move into their new home. Joe, AJØX MSO, reports that "DX Information" may be dropped to the KØVKH MSO, should remote users not find his MSO active. The W6ZRR MSO now oerates with the new "HAL" ST8000 computer controlled demodulator. Harry, W6KFX, from Hollister, CA., has joined the "National Autostart Frequency" gang. Welcome aboard Harry!

COMPLAINT DEPARTMENT

It's difficult for any author to maintain currency and interest in a monthly column. The "MSO Column" is no exception, and I need your help in providing current thoughts, ideas, operating hints, complaints and information about MSO's and CBMS's. Let's hear your ideas about any of these subjects. You don't need to worry about typing up your data, long-hand is fine; there's nothing commercial about your thoughts about MSO's, so drop them to my MSO on 20 meters, and I'll include them in the column; you have a complaint about the way MSO's operate, where they operate, or who operates them? Drop me a line, and I'll give you the floor!

That's it for this month Gang! May each of you have a Merry Christmas and a very Happy New Year! I look forward to many fine QSO's with each of you in the coming year!
DE: Dick, KØVKH

MSO LIBRARY PART II

By Dick Uhrmacher, KØVKH
These files may be obtained by leaving a short note in mailbox MSOVKH-files will be loaded into this MSO and addressed to user. RTTY JOURNAL, and KØVKH assume no liability for problems with equipment modified with this information.

PG2
HAL DS3100 serial ASCII output, to OKI-DATA 82A serial input port.

Interfacing the OKI-DATA 82A printer to the HAL DS3100 serial ASCII output port (referred to as 'retrans data port'), is very easy, use a suitable length of two-conductor, shield wire, and a common male, DB-25 connector.

Connect the shield and one of the wires to pin five (5) of the "switched outputs" plug, (back of the DS3100). (Pin five is a ground connection). Connect the remaining wire in the cable to pin six (6) of the "switched outputs" connector, ("retrans data port").

On the other end of the cable, connect the shield to pin one (1) of the DB-25 connector, (protective ground). Connect the wire coming from pin five (5) of the "switched outputs" plug, to pin seven (7) of the DB-25 connector, (signal ground). Connect the remaining wire, coming from pin six (6) of the "switched outputs" connector, to pin three (3) of the DB-25 connector, (received data).

Plug the DB-25 connector into its mating socket on the rear of the OKI-DATA 82A printer. The serial interface plug is located under a small cover, immediately to the right of the parallel interface.

Set the OKI-DATA 'dip' switches as follows:

A. Front panel operators 'dip' switches (accessed only when cover is removed).

SWITCH 1	OFF	SWITCH 5	ON
SWITCH 2	OFF	SWITCH 6	OFF
SWITCH 3	OFF	SWITCH 7	OFF
SWITCH 4	OFF	SWITCH 8	ON

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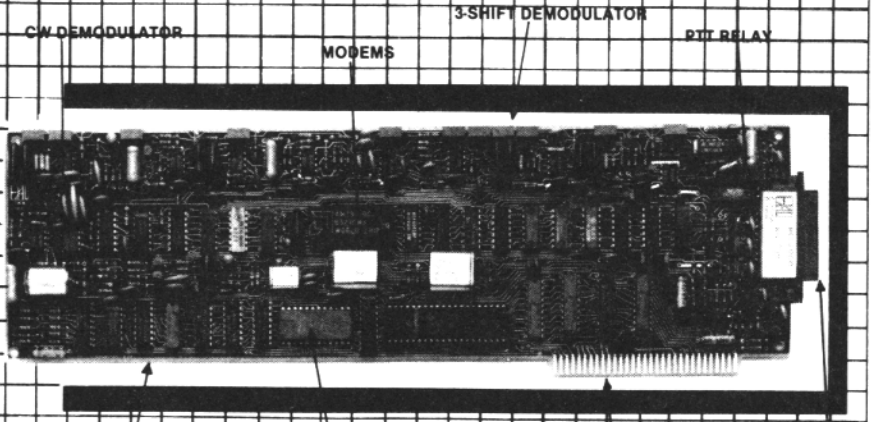

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DX

JOE WOOD, AJØX

POB 64

LAUREL, MS 39440

MERRY CHRISTMAS! to each of you out there in DX'land. The year is almost behind us and it has been an interesting one indeed. With propagation at an all time low, the lower frequencies have come through for us. Twenty has been the mainstay with forty and eighty providing a haven for the DX types in the evenings when twenty folds. There have been a few sporadic openings on fifteen and ten recently which tend to lead us into believing that all is not lost. It is almost a certainty that the upswing is only months away and that it will be welcomed by all. Have you made out your Ham gear "want list" yet? Now is a good time to sit down and go through those Ham mags and clip advertisements (there seems to be a proliferation of them) to be left in strategic locations around the house. What better way to let the XYL [ED note: or in some cases OM] and family know what you would like Santa to drop down the chimney and too, it removes all doubts if you should drop a hint that you would like "shoes" for the rig or "diskettes" for the computer. Whatever, may your fondest desires along with those of those close to you, become a reality on this Crhistmas Day.

DXPEDITIONS

I am about to step on the soap box, this time to again address the lack of interest in the RTTY mode, of those that journey to distant DX locations. Excitement reigned when this writer found out that a recent group traveling to the Galapagos were going to include RTTY operations in their pre-contest warm-up. The possibility of working HC8 pumped large amounts of adrenalin through my body in anticipation (as I'm sure it did others). With much dialing and listening after the appointed arrival time we did find members of the group on CW and SSB. On one occasion, one of the group was heard on RTTY calling a stateside station. It appeared to be a prearranged sked so I waited patiently to see what would develop. The portable HC8 called persistently for about ten minutes with no reply from the called station. At this time I decided to give him a quick call and possibly a short contact with the usual exchange of reports and a big welcome from the RTTY gang along with an invitation to remain on frequency for a bit and work those that need HC8 for DXCC. I couldn't believe that after a few calls, no response would be experienced. The station had a terrific signal here in the states and it is difficult to believe that my signal was non-existent at their end. Whatever their reason, and it may be a valid one, I along with countless others are wondering why a group of Hams, properly equipped for this mode, would ignore an opportunity to help fellow DXers. I have been told that the group did work several stations on Thursday of the week preceding the contest...they were not heard here but we do thank them for that effort.

In my opinion, the organization represented by these operators has missed an opportunity to gain a number of supporters by their lack of recognition of RTTY. Remember guys, we are DX'ers too!!!

WORKED/HEARD

CALLSIGN	FREQ.	DATE	TIME	MODE/ADDRESS
9U5BB	14090	10-31	2000	Baudot
8Q7AV	14095	10-30	1510	Baudot
A4XZF	14098	10-29	1500	Baudot
UZ2FWA	14097	10-28	1510	Baudot
G4RYO	21074	10-27	1234	ARQ
JA1BYL	14075	10-27	0045	ARQ
YB2SV	14075	10-27	0011	ARQ
JE7BQQ/1	14080	10-26	2325	Bau dot
JA4CMW	14085	10-24	2226	Baudot
CE3GN	14095	10-23	2304	Baudot
T3ØAT	14082	10-18	2210	ARQ
YO4PX	14092	10-15	1144	Baudot
OD5IG	14096	10-14	1052	Baudot
HK5YC	14074	10-13	2209	ARQ
TR8JLD	21088	10-13	1641	Baudot
ZC4ESB	14100	10-13	1327	Baudot
ZC4ESB	14090	10-12	1314	Baudot
DU7EV	14089	10-13	1252	Baudot
UA6AP	14085	10-13	1228	Baudot
T77J	14092	10-13	1144	Baudot
TR8DX	14090	10-13	1138	Baudot
VK6PM	14096	10-12	1237	Baudot
T32AB	14074	10-11	2224	ARQ
FY/DA1OP	14083	10-11	2125	Baudot
A4XFW	14078	10-10	1130	ARQ
9K2LA	14075	10-10	1056	ARQ
SV2QI	14095	10-09	1145	Baudot
A4XRS	14087	10-08	1218	Baudot
				POB 981, Muscat
5N2SZHN	14090	10-07	2202	Baudot

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DX COLUMN CONTINUED

J28EI	14082	10-05	1900	Baudot/INV.
A4XJQ	14081	10-05	1450	Baudot
VU2VIM	14093	10-01	1121	Baudot
I8AA	14093	09-27	1611	Baudot
EA2AFR	14093	09-27	1600	Baudot
FT8XA	7037	09-27	0300	Baudot

Falkland Islands-was working Europeans on 26 October at 2000Z on 14090.4...there was no propagation at that time to my location, Jules, W2JGR. The station has been worked recently on twenty around 0100Z, QSL to G6KFR, reports from Arden, N5DSK and Steve, AE5H.

TARAWA KIRIBATI- Alan, T3ØAT, operates on weekdays 1830-1930Z and 0500-0800Z mostly AMTOR and CW. weekwnds he gets on earlier, at about 0300Z. Gary, AGØN.

AFRICA-Nico, ZS3NH, operates approximately 1730-1930Z daily and can be found around 14075 on AMTOR. QSL via POB 1436, Windhoek, Southwest Africa, Zip 9000. Gary AGØN.

There exists a stron European rumor that someone will put Dahomey, TV and one other African country on RTTY in January or February. George, W1DA.

9U5BB is reported active on 15 meters around 1800Z. QSL via the ON4 bureau. Steve, AE5H and Arden, N5DSK. Carl, K6WZ reports that 9U5BB appeared on 15 during the CARTG but was fading. A little later he was in a pile-up on 20 but had to QRT. An hour transpired after which the 9U5 answered Carl's CQ! What a way to go....

RHODES- SVØDH/5 is reported active on 20 meters around 2300Z. QSL to Bill Cox, POB 282, Rhodes, Greece. Steve, AE5H and Arden, N5DSK.

KUWAIT-According to a QST on LA9OK's mailbox, 9K2EC is active on 21.083 AMTOR. Gary,AGØN.

SABLE- Andy is reported to be starting up his operation on November 18 for seven days. N5DSK, AE5H and K6WZ.

Congratulations are extended to W5ZPA, K5KR and I5FLN . They have achieved and surpassed the "hundred" mark and are now ARRL DXCC members. Good hunting as you look for more!

CARTG NOTES- K6WZ reports that he barely made WAC during the test...only one JA and 9U5BB for for Africa. AA4FR was working strings of Europeans, which were not audible in California, and no Pacific. Carl says that from the West Coast he found only one VK, no ZLs and three KH6s who were not contesting. To quote Carl, "tain't like it used to be".....

MAILBOX- The AJ0X MSO is generally up and ready to receive any input that you might have and would like to pass along to the RTTY gang. I have more or less dedicated the system to the gathering and dissemenation of DX info and would like to have you use it primarily for that type of activity. It is located on the National Autostart Frequency (on my Icom 751 this is 14087.7, LSB) and operates at 74bd Baudot. The access code is MSOAJØX. Hope to see you in the machine.....

In closing the column for this month, I would like to thank W2JGR, N5DSK, AE5H, K6WZ, W1DA, AGØN and W5DOZ for their thoughtful input. It is much appreciated. See you next month, 73 es the best of DX DE Joe, AJ0X.

OOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOO

MSO LIBRARY CONTINUED

b. rear circuit board 'dip' switches: (accessed only when cover is removed).

SWITCH	1	ON	SWITCH	4	OFF
SWITCH	2	ON	SWITCH	5	OFF
SWITCH	3	ON	SWITCH	6	OFF

C. Jumper plug #1, located on the "B" side of the jumper. And, jumper plug #2, located on the "A" side of the jumper. Both of these plugs are located on the rear circuit board.

The output of the HAL DS3100 'retrans data' port is factory set at 300 baud, ASCII. Switches two (2), three (3) and four (4) in "B" above, set the OKI-DATA printer to receive 300 baud ASCII. Please note that in order to 'COMMAND' the OKI-DATA printer, (to change print styles, do vertical tabbing, etc., you M-U-S-T send control codes to the printer in ASCII format!

Please see file PG3 for OKI-DATA printer control codes, and their respective HAL DS3100 counterparts.

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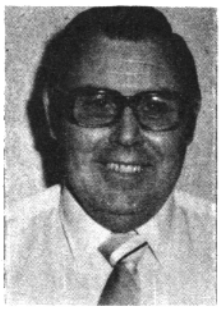
by GEORGE

HITS & MISSES



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

OCTOBERVENTION

The drive to Las Vegas was windy and long this year. I pull an 18 foot house trailer to most conventions and due to bad winds, the trip to Octobervention was a little tiring.

ACTIVITIES

The first day was full of forums: "Working Oscar 10"by Julian Macassey, N6ARE, Vice President of AMSAT discussed getting started with satellites.

"How to Handle Message Traffic"was presented by Bob Roesner, WB7WOW, Manager of Daytime Region 7 Net, a must for all traffic handlers.

"DX Slide Show on Belize" given by Bob Smith, NA6T and Mark, AA6DX was a good presentation of what it is like to be there on DXpedition.

"Earthquakes and Hurrucanes" by Rick Palm, K1CE of ARRL headquarters was very timely due to the recent Mexican earthquake and hurricane Gloria. This was a must for those wishing to be prepared for these disasters. (If that is possible, as no one is ever quite prepared).

"Putting up Amateur Satellites" was an insight into how AMSAT goes about designing and building satellites presented by Julian Macassey, N6ARE.

"YL's 'Can Do' " was nicely presented by Mary Lewis, W7QGP, Director of the Northwestern Division of ARRL, who told us what we did not need to know, namely that women are here to stay and doing a fine job with Amateur Radio.

"Packet Radio Technical Forum" by Pete Eaton, WB9FLW of the Tucson Radio Group gave the usual standing room only talk on packet. Seems more and more to be the way to go along with RTTY.

Gordon West, WB6NOA, spoke with great authority on "Passing that Upgrade Exam". Gordon operates a school for Hams on the west coast. Teachers and pupils alike were interested in this forum.

That was the schedule for Friday's forums. There was a Hospitality Room sponsored by the Vegas Valley Amateur Radio Association from 6PM that ran and ran until the wee hours and busses were provided for all wanting to see the Folies Bergere shows.

SATURDAY

Julian Macassey, N6ARE was up to bat again, this time on "The Amateur Satellite Program, Past Present and Future". This was all about what Radio Amateurs are doing with satellites.

"ATV Today" by Tom O'Hara, W6URG included the latest on transmitting space shuttle video.

ARRLs legal beagle Chris Imlay, N3AKD gave us all a shot at asking questions on recent FCC rulings with his forum on "Amateur Radio and the Law".

"Tax Deductible Contest DXpeditions" was a great slide presentation. T32AW, Christmas Island and WA1SQB/CEØA on Easter Island, Chod Harris, VP2ML were speakers on 'A captain's Cook tour by Chod'. This needs looking into by some of us stay at home types.

"Tropo Ducting" or "You too can work Hawaii on two meters!" was an interesting presentation with never-before-seen weather service charts detailing the 'How to' on this aspect of Amateur Radio. Gordon West, WB6NOA was the moderator.

"An Introduction to Packet Radio" by Chuck Green, NOADI gave all of the info on getting started with this mode.

If you have ever watched a Bill Pasternak, WA6ITF movie and who has not? This "Behind the scenes" forum was a must in learning the "bloops and blunders" of the movie world. Bill was the speaker and told some very funny stories.

EME (Moonbounce) Operations" was presented by Sam Belcher, WA7JUO and was a good introduction to the subject.

A sequel to "EME" was presented by Keith Thompson, K6PVS and Al Olcott, K7ICW with reference to "Weak Signal VHF Forum". Those interested in weak signals modes were well rewarded here.

PAGE 8 to page 11 please

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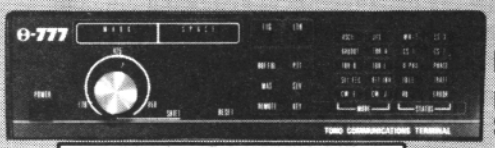

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CoCo RTTY PART VI

BY: MARK SPENSER, WA8SME/DA10Y
POB 5889
APO New York, NY 09012

The output of the mark and space filters described in Part III is sine wave, hardly compatible with the remainder of the demodulator which requires TTL. This month I'll tackle the detector and splicer circuits and end with the meter "bells and whistles."

IC6a (MC1489) is an RS-232 Line Receiver that converts high level input voltages to TTL compatable output signals (figure 5). Internal feedback provides a small hysteresis which prevents conversion of some low level input signals (noise). The hysteresis switching voltage level is adjusted by applying voltages to a response control node. The 10K resistors terminated to Vc+ and pins 2 and 5 provide a threshold shift of about -1 volt. Additionally, high frequency pulses can be filtered with external capacitance applied to the node, in this case the 150pf capacitors serve nicely. The end result: the line receivers do not detect low level noise but respond to high level tones.

The TTL signals at 2125 and 2295 Hz are now fed to the NE 555 retriggerable one shot timers. The lead in transistors trigger the timer (pin 2) and dump the charge on the timing capacitor to hold the timer in the triggered state (i.e.,1) during pulses of a shorter period than the period of the timer.

The time out of the one shot is set to a period slightly longer than the period of the input signals. The average period of the mark and space tones is .00045 second. The period of the timer is computed by 1.1 X R X C= .00051 second. The tones first trigger the one shot and each sucessive pulse causes a discharge of the timing capacitor and retriggering to hold the output high. When the tones stop, the one shot times out and the output returns to 0 volts. There is some distortion induced in this circuit, caused by the time out of the one shot after the tones stop: however, this is negligable and will be partly compensated for in the splicer. Switch S1 provides reverse/normal switching capability.

The TTL RTTY pulses are now recombined in the splicer IC9a (7432). IC17a, part of a 7404, inverts the space pulse for proper phasing prior to feeding the OR gate. The logic of the OR gate causes the output to "mark" when either the space or mark signals are jammed. This helps prevent printing during interference.

The TTL RTTY serial pulse train is now ready for conversion to parallel data which is fed to the computer for processing. That discussion is in the next installment. Before I leave the detectors and splicers and go on to the meter circuits, I want to digress to adjust the limiter threshold voltage. While feeding a signal of typical background noise from the station receiver, adjust the limiter threshold voltage control resistor so that the line receivers do not trigger (i.e., the noise is just below the line receiver hysteresis threshold).

I used two tuning circuits in the demodulator, one to drive a meter and the other is LED's (figure 6). IC16a (747) is configured as an OP-Amp adder. The output of the mark and space filters (IC5) are fed into IC6a which adds the two signals together, rectifies and filters the output and drives the sum to the meter for display. Any meter can be used with the proper multiplier resistors. The 2.2K resistor across the capacitor improves meter response by bleeding off the capacitor during signal changes, ideally, only one signal is on at any given time, either mark or space, so that you would tune for maximum/steady meter indications. Additional indicators of proper tuning were found helpful so the LED's and drivers were added. The imputs to the IC17 and IC18 inverters are tied to the NE 555 detectors so that when either mark or space signals are present, the LED's are lit. I found this dual tuning indication almost as effective as an oscilloscope cross pattern, and cheaper.
CUL DE Mark, WA8SME/DA10Y·SEE PAGES 12 and 14.
OOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOO

EDITORS LOG COLUMN CONTINUED

Received another timely article from Mark Spenser, WA8SME. It will be printed in a subsequent issue of the RTTY JOURNAL. Mark states that he wants to get on his soapbox and declare that homebrew is not dead. And I could not agree more. Mark also writes that readers of the RTTY JOURNAL should be encouraged to send in their homebrew "triumphs for others to share. Each may not be as complex as a TNC Packet System, any idea put to use in the Ham Shack has merit and deserves to be shared with others of like mind". I would be the last one to disagree with Mark on that score. Mark also writes that he will be coming home to Beale, AFB here in California around the end of January. We look forward to an eyeball QSO with him.

PAGE 10 to page 15 please

HITS AND MISSES COLUMN CONTINUED

TOURS

A Hoover Dam and a Loran C at Searchlight, Nevada were available for those wanted to travel the area.

BANQUET

The Grand Banquet and Awards Ceremony was held at 8PM Saturday night. The speaker were Dr. John Bartoe, W4NYZ and Roy Neal, N6DUE. The featured speaker, astronaut Tony England, WOORE was unavailable due to commitments back in Houston.

PRIZES

Hourly prizes were presented during the convention. The pre-registration prize was an Icom IC-3200A and the main prize an Icom 751 complete with power supply and desk mike. Wish I had the winning ticket on that one. Second prize was an S-COM repeater controller and third a PC electronics ATC station. The banquet prize was a Robot 1200C SSTV system.

NEXT YEAR AND YEAR END

The convention next year will be held November 7-9 at Cashman Field Center and will be called Ham/West. A good time was had by all and I look forward to being there next year.

The old year sure rolled by fast and I want to wish you all the best of holidays and the best of all possible New Years!.
So long for now George, WA6CQW.....

THE EDITORS LOG

I have some comments on the lack/no lack of RTTY communications during the Mexican earthquake. I will have to stand by my statement of "Where were all of the RTTYers" as I did not see anyone on RTTY handling H & W traffic. One station was handling a list of items needed for a news media service! Another one, Valentin, XE1M was handling Salvation Army requirements. But for the record there apparently were a few RTTYers handling Health and Welfare traffic.

Carl, K6WZ advises that XE1LE, XE2DH, XE2XEC, and XE1GGD were active in Mexico while W2JGK, W5DUZ, NK2M, W2LWB, WA2ZFX/4, K3FSP, NOFWX and KA8CWA were stateside operators. Sorry guys, but I did not hear you. Too bad for, as we all know, RTTY is THE mode for traffic handling expecially where quantities of unusual name/spelling/phone numbers are involved. SSB was frustratingly slow and inaccurate. Thanks to all who helped in any way, shape or form, RTTY/SSB or CW.

to page 10 please

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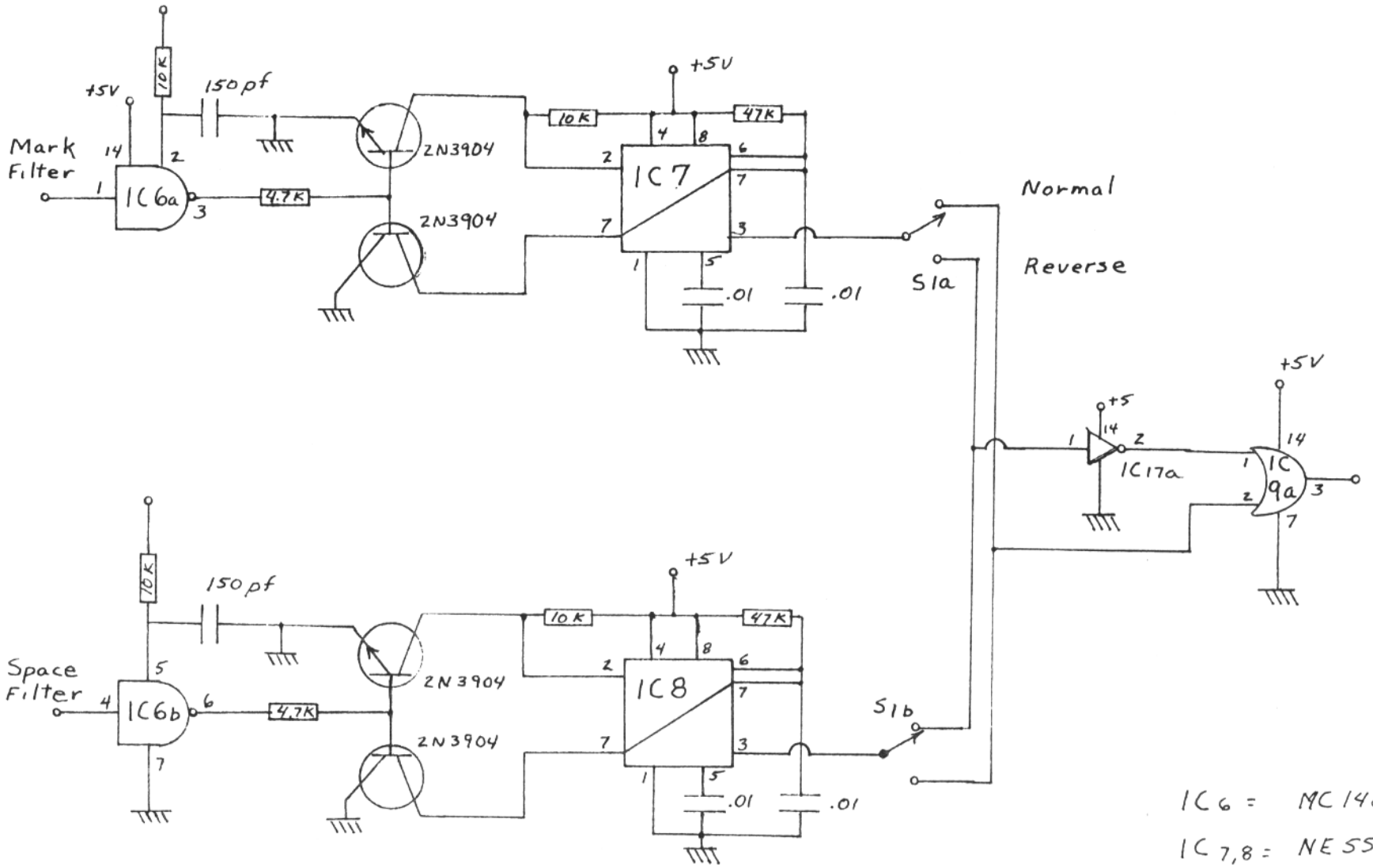

IC_6 = MC1489

$IC_{7,8}$ = NE555

IC_9 = 7432

Detectors and Splicer fig 5

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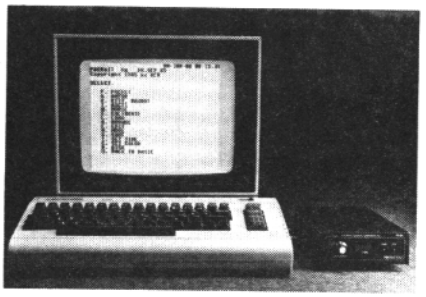

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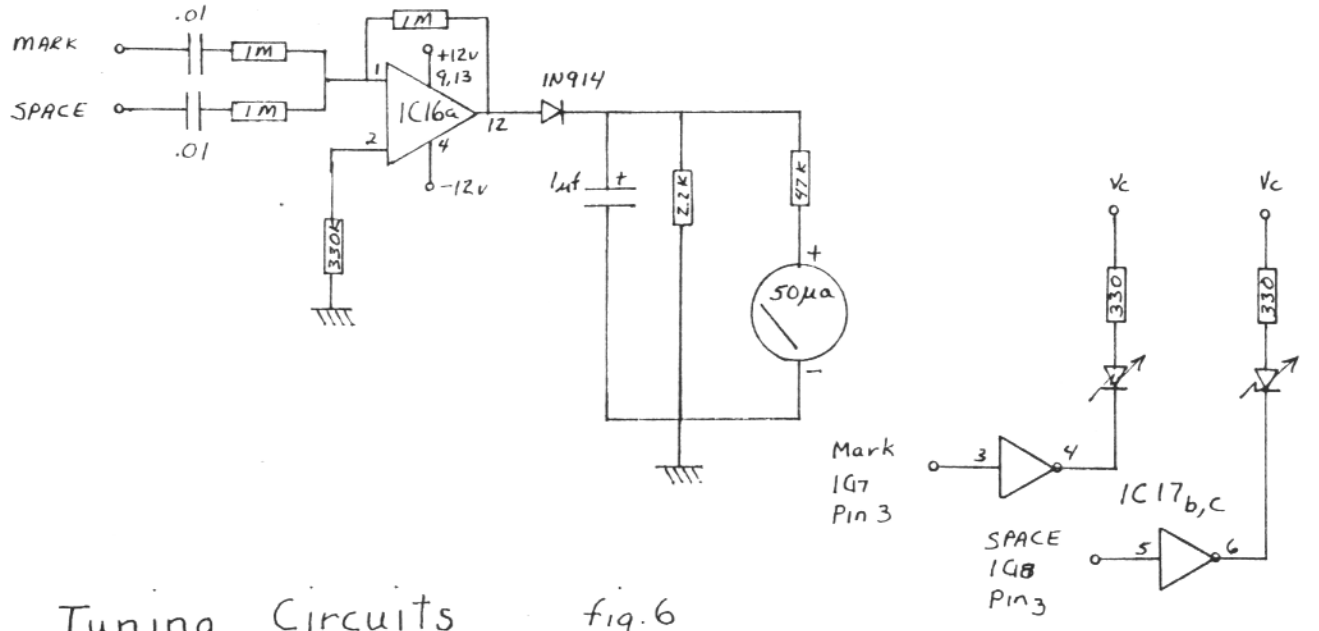
WHEELS ARE IN MOTION for next year's ARRL National Convention to be held in San Diego, California, on September 5, 6 and 7, 1986. SANDARC, will sponsor this event. Theme of the convention is "Amateur Radio in Public Service". The event will be held at the fabulous Town & Country Convention Center, site of previous notable conventions. Walt Hicks, W6UZL has been appointed chairman of the event and is the contact for advance planning of exhibits, forums and technical sessions. Hotel reservations may now be made and are advised to be made as early as possible. Inquiries: 2671 Elysee St., San Diego, CA 92123. 619/292-7918. GOOD SPOT FOR A VACATION!!



Tuning Circuits fig.6

CoCo RTTY

IC_{16} = 747

$IC_{17,18}$ = 7404

MSO TECHNICAL LIBRARY PART II CONTINUED

PG 3-Programming the OKI-DATA 82A printer with ASCII control codes.

Most 82A OKI-DATA printer features are software controllable through the use of "ASCII Control Codes". Following is a list of items that can be controlled via the ASCII control codes output from the HAL DS3100 terminal. Please note that the HAL DS3100 terminal must be in the ASCII mode in order to properly output these control codes.

FUNCTION DESIRED	ASCII CONTROL CODE			HAL KEYSTROKES REQ'D
Line Feed	Dec	10	LF	CTRL-J (LF)
Carriage Return	Dec	13	CR	CTRL-M (RTN)
Form Feed	Dec	12	FF	CTRL-L (FF)
Suppress Printing	Dec	19	DC3	CTRL-S (DC3)
Permit Printing	Dec	17	DC1	CTRL-Q (DC1)
Begin Loading Vert Tab No's	Dec	20	DC4	CTRL-T (DC4)
End Loading Vert Tab NU's	Dec	63	?	Shift-? (?)
Print 10 Characters Per Inch	Dec	30	RS	Shift-CTRL-N
Print 16.5 Characters Per Inch	Dec	29	GS	Shift-CTRL-M
Print 5 Characters per inch	Dec	31	US	Shift-CTRL-O
Print 8.3 Characters per inch	Dec	29/31	GS & US	Shift-CTRL-M & O
Set Top Of Form	Dec	27/53	ESC & 5	ESC & 5
Designate Six Lines Per Inch	Dec	27/54	ESC & 6	ESC & 6
Designate Eight Lines Per Inch	Dec	27/56	ESC & 8	ESC & 8
Designate Long Line	Dec	27/65	ESC & A	ESC & A
Designate Short Line Margin	Dec	27/66	ESC & B	ESC & B
Clear Buffer	Dec	24	CAN	CTRL-X

DS3100 owner/operators should refer to the ASCII code display symbols (Table 4) in their manual,to insure that they have in fact, properly programmed the DS3100 to output the correct ASCII code.

LOG C ONTINUED

The article Mark sent is on the Info-Tech M-200E and M-44 and AMTOR converters. It is entitled "THE SWITCH". Look for it in the February or March issue.

For those winning contesters who have not, as yet, received their certificates from the RTTY WORLD CHAMPIONSHIP CONTEST, do not despair. I am still waiting for the certificates from 73 mag. I did receive the new rules for next year. Seems they are a little slow in getting things done since Mr. Green departed the scene? I have waited for all of the material to arrive before I sent out anything except the top winners.(And those were given in person to those attending the Dayton Imperial House North RTTY banquet.) I also have certificates for WAS, WAC and DXCC etc., for some contesters that will be mailed shortly. My fault on those. I wanted to combine efforts. Will not do that again.

Rules and regs of up coming contests will be in next months issue. Look for them then.

Results of contests will also be published as soon as we receive them at this QTH.

Did you know USQS is no more? K1QS-K4CLA tells me that they will be handling all incoming QSL cards in the future. Details may be had by an SASE to: 562 Oak Drive, Lexington, SC 29072-9059. Hope they make the grade as this type of service is definately needed in the USA. Perhaps we should set up an RTTY incoming/outgoing service any comments on that one??

Alan, W1VTP sends this info on his MSO: Time of operation is 6PM to 6AM (local) on 147.33Mz. 110 Baud ASCII with a limit of 50 files, 5000 bytes per file. Access by sending CR .HELP CR SASE to A1 at 2132 Candia Rd., Manchester, NH 03103 will bring a detailed .HELP listing. A1 says more users would be appreciated so o o o....

Since the new WARC bands have been opened, I have not had any input on activity. Have you been there?? With what results?? The bands are opening up again..While getting the RTTY JOURNAL ready today (21 November,late late late), I was distracted by Dick, KC6DU on the landline. Dick called to tell me F8XT Jean was on the air. I did look for him and found him..in the pile-up with CY0SAB, (Gerry, VE1RMO on from Sable Island. In the hour I took away from business I noted over thirty callsigns of non US RTTYers. Most were from Europe. So keep trying guys and gals there is hope. Happiness and Health and good DX WX are sent you. May the world have Peace.73/88 de DEE..

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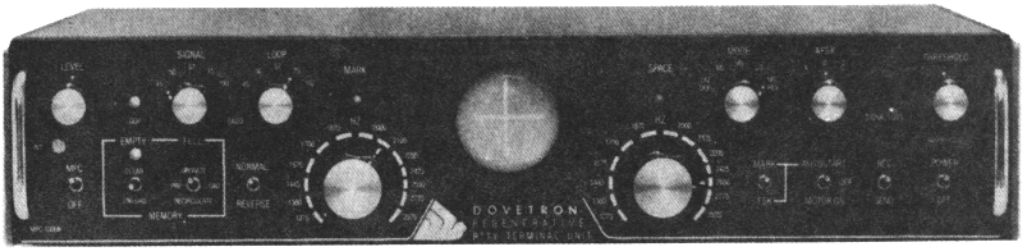

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