RTTY JOURNAL

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VOLUME 37 NUMBER 1 JANUARY 1989

NEW INTERNATIONAL COLUMN

DIMA, UT5RP AND SON ALEX, UB5FDO (SEE STORE PG. 3)

IN THIS ISSUE

RTTY JOURNAL

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HITS & MISSES

LET'S START OFF THE NEW YEAR RIGHT!

I'll bet most of you have made one or more New Year resolutions. By the time you receive this issue of the RTTY Journal, maybe you have even broken one or more of these special promises you made to yourself. However, if you have not broken any yet, then I encourage you to stand firm and follow through on each one. You'll be a stronger person for it, that's for sure. Besides what good are resolutions if we are only lying to ourselves. Suppose you made a resolution to buy a ICOM 781 radio and later on decided you really could only afford a TS440. Heck, no one is going to fault you on breaking this resolution because you did follow through with a purchase even though it had to be modified. Good luck with your resolutions, it's really all up to you.

KEEP THOSE CARDS AND LETTERS COMING!

Quite often in past months, you have read my pleas for mail (that's if you read my column). Especially mail directed to our columnists. You see, they are dedicated to our phase of Amateur Radio just like you are except they have volunteered to be spokespersons for us. But, sometimes they run dry on ideas just like a well can run out of water. New ideas and inspirations are not always something we are blessed with. They come hard to most of us without training in journalism. So we need help, your help. So our plea again is, please take pen in hand and write to us telling us what you want to read, we'll all do our best to do as you ask or recommend. Your thought, idea, criticism or experience may be just what we are looking for. As an example, just this month, we will be minus our AMTOR column because Eddie has not received any mail and is looking for a clue as to what you want him to include in his column. If you would like to experience this fascinating mode of our digital hobby, write to Eddie and help him, help you.

A LOSS BUT NOT A LOSS!

Roy Gould, KT1N our DX NEWS columnist is leaving us with this issue. Roy's work for the RTTY Journal will be missed by many of us. But, Roy's loss is not a real loss because he will remain as our CQ/RTTY Journal W/W RTTY Contest Manager. Also Roy has worked real hard to find a replacement to take his place.

Roy has become one of my dearest friends these past two and half years even though he always gave me fits each month at press time by submitting his articles late. But, his late articles always gave you the reader all the late breaking DX news. Surely, many of you have benefited by this late news by hooking a rare DX station that otherwise may have slipped through the crack. Being and avid DXer himself, Roy has given unselfishly in sharing

(cont. pg. 16)

Dima Slyusarenko, UT5RP
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INTERNATIONAL

ED: *This month the RTTY Journal starts a new column called the INTERNATIONAL COLUMN. The plan is to publish articles with an International flavor contributed by digital Hams from around the world. I hope to start each article with a brief description of the author followed by the article. Our first contributor is Dima, UT5RP from Ukraine, USSR.*

from the desk of Dima Slyusarenko, UT5RP:

I am 45 years young, married with 5 children, oldest son is Alex a Ham (UB5FDO) and a novice. (Alex is a Novice first because the rules do not allow for extra class immediately).
I have been on the air since 1959, first as a Novice, then on to Extra class. My first start on RTTY was in 1978, but not seriously until 1983. The country count is 228/215, DXCC #79, WAZ #14 on 14 Mz.

Dima, UT5RP at operating position in his shack

Everyone always asks me why I am not in the contests. My answer is simple. I do not have the equipment to operate in contests, to many break-downs. Once upon a time a new rig and TU were sent to me but they never arrived to my house. Something happened along the way, who knows, I can't do anything about that anymore. But, without the newer equipment it would be hard to operate in the contests. Maybe someday.

I do have the money to buy newer equipment but there is none to buy here. Some of my friends have helped me to obtain a Commodore C-16 without peripherals. My thanks to John, TG9VT, Clark,W9CD, George, KB2VO and Walter, DJ6QT for helping me get a disk drive for the Commodore. Also thanks to W4JXM for his promise to help with software. Anyway, one of these days I may own a nice PK-232. Many thanks to all for their help, even though I have the money and can't purchase. I hope all will understand my situation.

Here is my article:

UW3TT\UJ1J DXPEDITION

Nick, UW3TT is 39 years old, Haming since 1964, on RTTY since 1985 (did not have time earlier to build RTTY rig). UW333 and UA3TT were the first two stations to run RTTY from Gorky City.

The idea to activate UJ8 land was born suddenly approximately a month before the trip to Tadjikistan. He did not think that RTTY activity had been done from this place so Nick took about thirty five (35) kilos of home brew equipment with him. Upon arrival in UJ8 land he received much help from UJ8JCQ.
Unfortunately, DX propagation was very poor and only about 300 RTTY contacts were made. UW3TT has said he has received many QSL cards and will QSL 100 Percent but does not have the QSL cards yet from the printer. Maybe by the time you read this he will be sending out the cards. Nick said he did not want to send out rubber stamped cards, so look for a nice card from him.Nick also wanted to pass along his best wishes to all theRTTY journal readers.

Second part:

DXing in UG land:
This trip was planned along time ago by Serge, UA3PW but he did not have to go. **(cont. pg. 15)**

Cole Ellsworth, W6OXP
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92640

CONNECTIONS

A Happy and Prosperous New Year to All! This begins my third year as a RTTY Journal columnist and I am wondering where the time went. It just does not seem possible that two years have gone by already. I keep telling myself that the Sands of Time are not running through the glass faster, it's just my metabolism slowing down!

WE HAVE MAIL

Curt Roche, K6AL, 3890 Louis Road, Palo Alto CA 94303 is looking for a IBM PC program to drive a Theta-777 Tono RTTY terminal. He has tried Pro-Comm and Q-Modem but find they are too clumsy to use as a RTTY terminal program. Can anyone help him out with a program name or source? Seems to me I have seen several programs of this type advertised. Think one was from a small firm in Louisiana but I cannot find the address.

Gordon H. Weiler, KI4WV at 8131 Calabria Ct., Orlando, FL 32819 is looking for a similar type program for his IBM PC but he wants to use his ST-6. Gordon, if and when you find the proper program, you will still probably need some type of Computer Interface, such as an AEA CP-1 or the MFJ computer interface or build your own. However, you may already have the interface as you said you had been using a CP/M program in the past with a Heathkit computer. The interface connections should be similar if not identical when using the IBM PC. His prime concern is a program that will allow backspacing for corrections while transmitting.

Leon Brandon K5OKZ, 1609 Hearthstone Drive, Plano, TX 75023-7410 is looking for software, either commercial or public domain, to allow a Apple Macintosh Plus computer to run RTTY with the AEA CP-1 computer interface. Do any of our readers who own a Macintosh Plus know of such software? A Macintosh Plus compatible communications (Modem) program might work but might not be very easy to handle as evidenced by Curt's (K6AL) comment above about modem programs being "clumsy" on RTTY. One possible source of information on using the Macintosh Plus (or any other computer/ham radio combination for that matter) is the HAM RADIO FORUM on Compuserve. This forum is not computer specific so you should find people using all manner of computer brands and Ham Radio applications.

Dan Testa, 390 Lincoln Ave., Newark, NJ 07104 is looking for an Operator's Guide and Schematic Diagram for a Western Union #5200 - Rev. H, CRT display with keyboard, circa 1986.

This is a desk unit and the rear panel has two two-wire connectors labeled Telex Send and Telex Receive. Although Telex has apparently not answered Dan's letters, his best bet may be to call Telex down south (North Carolina?) and ask customer service for a manual unless one of our readers can be of assistance.

Arthur Cohen XE1LC is looking for a method of connecting his Dovetron TU to his PK-232 (for RTTY only) in order to take advantage of the Dovetron filters. I believe this can be done by using the external Modem connector on the PK-232. According to the PK-232 schematic, External Modem connector J8 is capable of taking the digital data (TTL level) output of the Dovetron and using it to drive the PK-232 digital receiving and transmitting system, depending on jumpering of JP4 RX DATA, JP5 TX DATA, and JP6 DCD at J8. So one could connect the TTL level outputs of the Dovetron to the PK-232 external modem connector and be in business. The only possible problem as I see it may be getting the Autostart control signal of the Dovetron properly connected to the DCD input of the PK-232.

NEW PRODUCTS

Telebyte Technology, Inc., 270 E. Pulaski Rd, Greenlawn, NY 11740 , (516)423-3232 or 1-800-TELEBYTE, announces a new IBM PC compatible asynchronous communications adapter Model 284, which provides dual RS-422 COM Ports. Compared to RS-232 adapters (19.2 KB to 50 feet), the RS-422 adapter will handle data rates to 56 kilobaud over a distance of up to 3000 feet. The communications interface for each port includes signals TD, RD, RTS, CTS, DSR, DCD, DTR, and RI.

(cont. next page)

(CONNECTIONS cont. from pg. 4)
It is packaged on a half-size card with an integral DB37 connector and a "Y" cable that adapts the DB-37 to two DB-25 connectors, one for each port. The complete Model 284 including adapter, Y cable and manual sells for $166. A single port version is available as the Model 283 for $149. Delivery is from stock.

SSC (Software Systems Consulting) 1303 S. Ola Vista, San Clemente, CA 92672 (714)498-5784 announces a PC HF FAX program for $79.95. PC HF FAX is a complete facsimile reception system for the IBM PC family of computers. It includes software, instruction manual, tutorial tape cassette, and demodulator cable. Unlike more expensive TNC FAX decoders, it produces images with grey scale or lively color. It has everything you need to connect your computer and HF reeiver. It will work with virtually all graphics-capable clones that have a CGA, EGA, or monochrome graphics video adapter. "I have never seen better resolution and picture detail than with the SSC PC HF FAX system," comments Gordon West, WB6NOA, of Gordon West Radio School fame and well-known columnist. Contact John Hoot N6NHP, president of SCC for additional details. The printers supported by this system include OKIDATA 92, 93, 192, 193; EPSON FX-80; IBM Printer, and Panasonic 1080. Other printers that are EPSON compatible will also work with this program. Available at leading ham radio dealers or direct.

SSC indicates they will soon have a "Mariner's" PC reception package that includes HF FAX, CW, RTTY, ASCII and AMTOR transcription for under $100. Perhaps a program of this type would fill the needs of both Curt K6AL and Gordon KI4WV as described in the "WE HAVE MAIL" section above if a Transmit function could be included in the Package. (what say, John?).

MORE ON IBM-PC SERIAL PORTS

We have previously discussed the features and peculiarities of the IBM-PC serial ports, and how to get ports COM3 and COM4 going. This final installment on serial ports concerns using a PC with all four ports installed and operational.

As we have said in earlier installments, COM1 and COM2 have standard I/O addresses and standard interrupt assignments. COM1 uses IRQ4 (Interrupt ReQuest) line which is an actual hardwired signal line connected to the interrupt controller in the computer motherboard. IRQ4 is not normally used by the computer for any function except servicing the COM1 port. Even though IRQ4 is assigned and connected to the COM1 port, it is not activated (unmasked) unless the application program specifically requires it to be activated. This allows the serial port to use either polled or interrupt application services with no change in hardware.

Likewise, COM2 has a standard interrupt assignment, IRQ3. Again, IRQ3 is normally assigned only to COM2 and what was said about COM1 applies also to COM2. Comes now COM3 and COM4. What interrupt assignments can we give to these two new ports? For example, the standard PC has only 8 IRQ lines and IRQ0 is the system timer, IRQ5 is for a hard disk, and IRQ7 is for the printer and all other remaining IRQ lines are assigned. One way to handle this is to assign IRQ4 to both COM1 and COM3, and IRQ3 to COM2 and COM4. However, this does make for complications as you cannot have both COM ports tied to one IRQ line if both application programs require interrupt driven I/O. This is due to interrupt contention. To allow, say COM2 and COM4 to operate concurrently with IRQ3 assinged to both, just use one com port for interrupt driven I/O and the other for polled I/O. For example say that COM4 is connected to a Modem (remember that communications application programs such as for Modems are almost always interrupt driven), then you can use COM2 for a polled I/O application, possibly a simple BASIC program requiring serial I/O. Or they can be used vice-versa, as long as both application programs are not interrupt driven. The same situation applies to COM1 and COM3 if both are assigned to IRQ4. Thus it is seen that all four COM ports can be used concurrently with polled I/O but only two of the four can be used with interrupt driven I/O.

How do we actually set up the asynchronous adapter (serial I/O) cards if the standard assignments for COM1 is IRQ4 and IRQ3 for COM2? Let us say you have two serial adapters, each having two serial ports thereon. Each card is usually set up at the factory by means of jumpers for COM1/IRQ4 and COM2/IRQ3. Leave one card as-is and set the jumpers on the second card for the desired COM3 and COM4 I/O port addresses and the IRQ line jumpers the same as for the card that was left as-is. (cont. pg. 8)

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PACKET

THIS IS A NEW YEAR

Well, it is a New Year definitely. The Tournament of Roses Parade is over and the mess left behind was crazy. I can't (yes I can) believe people can be that messy and not pick up after themselves.

On another subject, I hope all of you got what you wanted for the Holidays. I finally got a job. So, for me, it was a Merry Christmas after all. Now on to the new year.

PK-232 PROBLEM

I have received reports of a potential problem in some units. I do not know if AEA has also heard of this problem but it could be quite serious. The problem involves the memory backup battery holder and the double backed foam tape employed. It appears that over a period of time the tape gives way and allows the battery pack to fall onto the circuit board causing some damage to parts in the area. One suggested fix is to take the battery pack off the lid and anchor it to the circuit board using double backed foam tape, placing the pack in an area where it will not interfere with any of the components on the board. Another idea, is to install the pack on top of a couple of IC's but making sure it will not affect any passive components in the area. By doing this, you will be killing two birds with one stone. One, the cover will not be on a leach, and two, you will not have to worry about the battery falling onto the circuit board. It has not happened to me but I suspect the culprit is the foam tape not holding because of the heated environment surrounding it or maybe it was not applied to a clean area and didn't stick to good in the first place. Double backed tape is available in hardware stores or from places like Radio Shack.

DIGICOM > 64

I have obtained two sets of this unit. One in kit form and the other already assembled. As a preview to my review of this unit next month, here are some comments on the kit itself.

The kit is available from A&A Engineering, 2521 W. La Palma, Unit K, Buena Park, Ca. 92801. It is a Packet system for use with the Commodore C-64 and the kit price is $49.95.. It is basically the AM7910 "World Chip", which is an externally programmable Modem in one chip, and some interfacing electronics. The software for the Commodore 64 also came with this package.

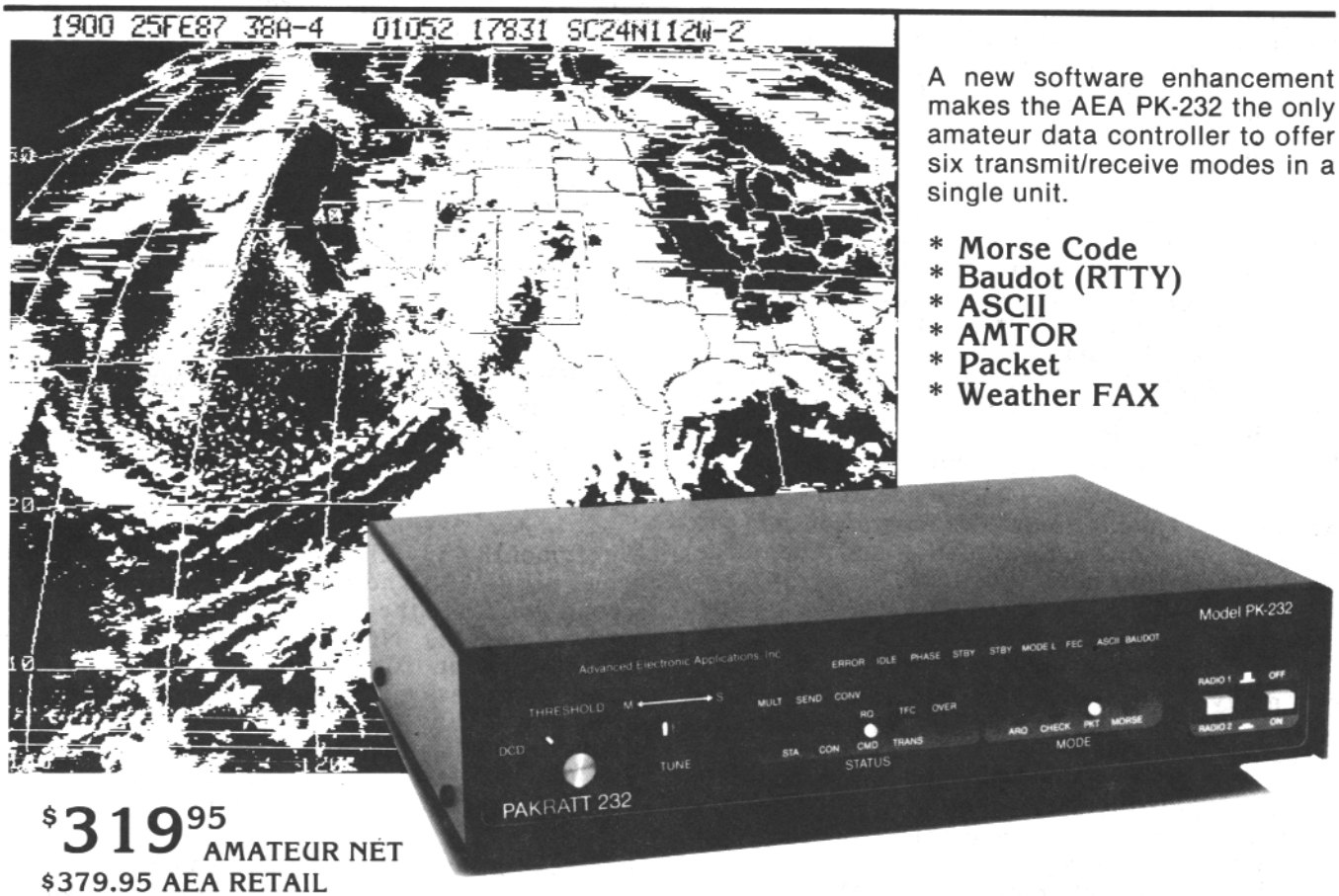
The circuit board is a glass-epoxy board with one layer of traces that are pre-tinned. There is no resident solder mask on the board therefore solder can flow along the traces when assembling the board if you use to much. The pads for the parts could stand to be larger for the non-IC components. It would take a fine tip on a soldering iron to yield a clean, quick joint with the small pads provided. The width of the pad from the outer edge to the inner edge is less than the radius of the lead hole. A larger pad would be appreciated here for the average hobbyist who does not possess a fine tipped soldering iron. The IC pads are of the standard size and soldering them should not present any problems since there are no traces running between the pads save a couple of pads which have been jumpered because they are next to each other. The circuit traces give the appearance that the photo overlay was hand taped. Cosmetically, this does not matter but for a better appearance of quality the traces should run in straight lines. None of the IC socket etchings have the same indication of where pin #1 is located. Usually, a pad of a different shape than the others has a dot next to pin #1. The lettering of the pads where external leads attach is quite distinct and non-confusing. The socket holes on the opposite end of the board are not labled nor is pin #1 marked.

On the component side, there are no silk screen markings helping one determine where the parts are to be installed. To remedy this, on the schematic drawing, you will find a layout of the parts and their orientation on the board. Silk screen marking would be a great help in building and debugging the unit. But, one has to understand this unit is a kit designed to operate at a low end price and therefore all the nice things we would normally expect from kits such as this are absent.

In reference to debugging, the schematic supplied with the unit is mainly hand drawn but easily readable. **(cont. pg. 8)**

New PK-232 Breakthrough

Six Digital Modes - Including Weather FAX



A new software enhancement makes the AEA PK-232 the only amateur data controller to offer six transmit/receive modes in a single unit.

* **Morse Code**
* **Baudot (RTTY)**
* **ASCII**
* **AMTOR**
* **Packet**
* **Weather FAX**

$319.95 AMATEUR NET
$379.95 AEA RETAIL

Your home computer (or even a simple terminal) can be used for radio data communication in six different modes. Any RS-232 compatible computer or terminal can be connected directly to the PK-232, which interfaces with your transceiver. The only program needed is a simple terminal program, like those used with telephone modems, allowing the computer to be used as a data terminal. All signal processing, protocol, and decoding software is in ROM in the PK-232.

The PK-232 also includes a no compromise VHF/HF/CW modem with an eight pole bandpass filter, four pole discriminator, and 5 pole post detection low pass filter. Experienced HF Packeteers are reporting the PK-232 to have the best Packet modem available.

Operation of the PK-232 is a breeze, with twenty-one front panel indicators for constant status and mode indication. The 240 page manual includes a "quick start" section for easy connection and complete documentation including schematics. Two identical back panel radio ports mean either your VHF or HF radio can be selected with a front panel switch. Other back panel connections include external modem disconnect, FSK and Scope Outputs, CW keying jacks, and RS-232 terminal interface.

The RS-232 connector is also used for attaching any Epson graphics compatible parallel printer for printing Weather Fax. Weather maps and satellite photos, like the one in this ad, can be printed in your shack.

Contact your local AEA dealer today for more information about the one unit that gives you six modes for one low price, the PK-232.

AEA Brings you the Breakthrough

2006-196th St. SW
Lynnwood, WA 98036
(206) 775-7373

(PACKET cont. from pg. 6)
The parts layout on the other side is hand drawn also but of drafting quality. Had the schematic been drawn to a larger scale and then reduced, I think it would be even more readable. After all, some of us have problems with small print.

The parts come in a small plastic bag as individual items. A nice addition to the parts list would have been to add the color code markings on the resistor list for people who are not familiar with the color code. The coding of capacitors may be ambiguous to most and that should be explained a bit to the builder. All parts are of high grade quality. There are metal film resistors, mylar capacitors, where needed, and good grade active components.

Next month, I will cover the operation of the unit with a Commodore C-64 and continue where I finished up here.

DATA TRANSFER ON PACKET

How many of you have tried to transfer programs using Packet? If so, have you just transferred "source code" or have you also transferred "object code"? Well, "source code" is simple because it is just plain text, like regular type. "Object code", on the other hand, is a bit more difficult. Along with the codes that represent printable characters, you also get the codes that represent non-printable characters. That can cause headaches for some machines. Here's why, if an extra character sneaks in there, the whole program is trashed because there would be no way of knowing it belonged to the "object code". But if there was an error in the "source code", you can usually find it and repair the mistake with it only being a minor inconvenience.

When transferring data over telephone lines between two computers, there are programs that check for errors in the data and request repeats of the data until it is right. One of these programs is called "XModem". It works great on phone lines and on hard wired communications lines where there is no communications delay. But, try using XModem on Packet and you'll find it does not work well. There are to many delays in the basic network which have the ability to screw up the timings used and is therefore, reflected in the received text as errors. There is a program out which can be used and is called YModem. This data transfer program has the timings and communications protocol re-arranged so the delays inherent to Packet do not disturb the data flow. In other words, the program will wait for its responses instead of wanting them immediately. So, this program will work much better for Packet "object code" transfer.

YModem is available on most PBBS's in "source code" form for the PC compatible machines. This way, it can be tailored to your own situation because not all machines are configured the same. I am sure the "source code" can be modified for the CP/M machines as well.

So, now you have another program available for your files to make life easier on the airways. Try it and be convinced.

ADDENDA

Next month, I will answer the mail which has been piling up here to the ceiling and the second part of the Digicom >64 review. Packet mail address is N6NKO @ WB6YMH-2. Please do not use Zip forwarding to send traffic here because it has a good chance of getting lost. Also, I can now receive traffic via Navy-Marine Corps MARS. Route the traffic to NNNOPCOT SCA. Soon the "T" will be history. That is, as soon as I finish my training.

Till next month, BRRRRRRAAAAAPPPP

de Richard, N6NKO

(CONNECTIONS cont. from pg. 5)
Now you have COM1 and COM3 set up for IRQ4 and COM2 and COM4 set up for IRQ3. Note that most third party serial port cards have jumper selection for port addresses and IRQ lines. This is not necessarily true for true-blue IBM cards, especially those of earlier manufacture. Before you buy the card, make sure the manual states that the port address and IRQ line can be selected by jumpers.

THE NEXT TECHNICAL SERIES

I have not decided what the subject will be for the next technical series discussion. I am open to suggestions from our readers. What subject would you like to see discussed in the column? If I don't have the background to do justice to the subject, perhaps a guest columnist with the proper expertise can be persuaded to write on the subject.

Until next month, vy 73 **de Cole W6OXP**

BARTG SPRING RTTY CONTEST 1989

When 0200 GMT Saturday March 18th until 0200 GMT Monday March 20th 1989.

The total contest period is 48 hours but not more than 30 hours of operation is permitted. Time spent as listening periods count as operating time. The 18 hours of non operating time can be taken at any time during the contest period, but off periods may not be less than 3 hours at a time. Times on the air must be summarised on the summary sheet.

WHO - There will be separate categories for Single Operator, Multi-Operator and Short Wave Listener stations.

BANDS - 3.5, 7.0, 14.0. 21.0, 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.

COUNTRIES - The ARRL DX Countries list will be used, and in addition, each W/K, VE/VO, and VK CALL areas will be counted as a separate country.
NOTE: W/K, VE/VO and VK count once each only for QCA purposes.

MESSAGES - Messages will consist of:
A: TIME GMT. this must consist of a full four figure group and the use of the expression "same" or "same as yours" are not permitted.
B: RST AND MESSAGE NUMBER. The number must consist of a three figure group and start with 001 for the first contact made.

POINTS - Points can be claimed as follows:
A: All two-way RTTY contacts with other stations within one's own country will score two points.
B: All two-way contacts with other stations outside one's own country will score ten points.
C: All stations can claim a bonus of 200 points for each country worked, including their own. Note that any one country may be counted again if worked on a different band but continents are counted once only.
NOTE: Proof of contact will be required in cases where the station worked does not appear in any other contest log received or the station worked does not submit a check log.

SCORING
A: Two-way contact points times the total of countries worked.
B: Total country points times 200 times the number of continsents worked (max 6).
C: Add A and B together to obtain the final score.

SAMPLE CALCULAITON

EXCHANGE POINTS (302) X COUNTRIES (10) =	3020
COUNTRY POINTS (10) X 200 X CONTINENTS (3) =	6000
A AND B ADDED TOGETHER TO GIVE A SCORE	9020

LOG AND SCORE SHEETS
Use a separate sheet for each band and indicate all times on the air.

LOG TO CONTAIN
DATE, TIME GMT, CALLSIGN of station worked, RST and MESSAGE NUMBER sent, TIME, RST and MESSAGE NUMBER received and the points claimed.
NOTE: Logs received from Short Wave Listeners must contain callsign of station heard, report sent by that station and callsign of the station being worked. Also date and time in GMT that the QSO was logged. Incomplete loggings are not eligible for scoring and will be classified as check logs. The summary sheet should show the full scoring, the times on the air, address for correspondence, and in the case of multi operator staitons, the names and callsigns of all operators involved with the operation of the station during the contest.

ALL LOGS MUST BE RECEIVED BY MAY 28TH 1989 IN ORDER TO QUALIFY.

SUMMARY AND LOG SHEETS: Are available from the contest manager at the address shown below, in the U.K. on request of a (A4) S.A.E. All other countries outside the U.K. require no envelope but will need 6 IRC's to cover the cost of postage.

SEND YOUR CONTEST OR CHECK LOG TO:

Peter Adams, G4LZB
464 Whippendell Rd.
Watford - Herts
ENGLAND WD1 7PT

The judges decision will be final and no correspondence can be entered into in respect to incorrect or late entries. All logs submitted shall remain the property of the British Amateur Radio Teleprinter Group. Certificates will be awarded to the leading stations in each of the three groups, the top staion in each continent and to the top station in each W/K, VE/VO and VK call area. **(cont. pg. 10)**

Jay Townsend, WS7I
P.O. BOX 644
Spokane, Wa. 99210

AWARDS

The year 1988 has faded into the past and Betsy, Hal and I missed our annual Dxpedition in favor of satellite equipment, a new amp and some antenna upgrades. But look out for us again in 1989. Even if we don't go anywhere, we might sign ZA1ZA for the CQWW just for the excitement.

The list of all-time RTTY Journal Awards published in last month's issue generated some feedback! Thanks to K6WZ and W6JOX for the updated information and next year's list will show the corrected standings.

There seems to be a rather distinct lack of interest in awards by the RTTY people on this side of the world. We process quite a lot of wall paper for our Asian and European readers but most of our own top RTTY Dxers seem to be avoiding us. From the number of requests for awards, you would think that there is no one at all on RTTY from South America.

There is, however, lots of grumbling about the ARRL and their lack of an RTTY Honor Roll. Those who are pursuing the elusive DX are also a little upset about not having endorsements in increments to suit. The answer from the ARRL was quite clear: 200 serious RTTY DXer are not enough to influence the system. But they can influence the RTTY Journal !!! We exist only to serve you, the reader. If you want an Honor Roll, let me know. If you desire nothing, ...send us no reply, we will know you are satisfied.

AWARDS OFFERED BY JOURNAL!

We still offer a 5-band Worked All Continents, a Worked All States and very rare Worked All Zones. We also have a 100 Countries Award with endorsements. All awards are available to SWL's. International check points are: J.A.R.L., B.A.R.T.G., and S.A.R.T.G. and others are available with prior approval of the RTTY Journal Awards manager. We hope to be setting up a U.S.S.R. checkpoint soon. Remember no charge to subscribers of the RTTY Journal for the awards. $5.00 U.S. for others to help cover the expenses.

DO YOU HAVE A RTTY JOURNAL AWARD ON YOUR WALL?????????

We also would like to offer a Special Annual award to the best RTTY Dxpedition and Dxpeditioner. Expeditions that come immediately to mind were the KH5K/KH5 Dxpedition; A15; VP5 trips. What do you think? We would like to get your input as to the best of 1988. Please drop me a note and I will tabulate the results and publish it. This award will be made in Dayton during the annual dinner by the publisher.

de Jay, WS7I

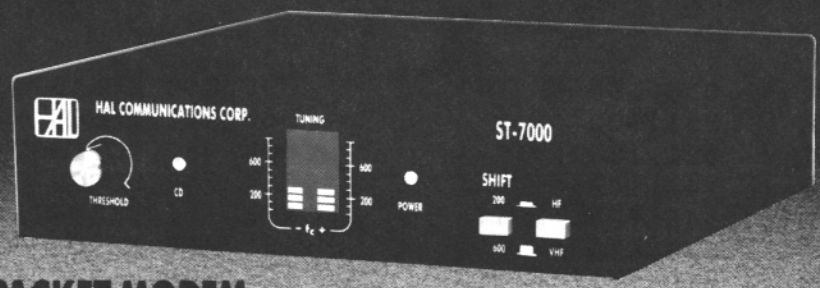
(BARTG rules cont. from pg. 9)

ADDITIONAL NOTES: If a contestant manages to contact 25 or more different countries on two way RTTY during the contest, a claim may be made for the Quarter Century Award (QCA) issued by BARTG and for whcih a charge of 4 dollars U.S. or 18 IRC's is made. Holders of existing QCA AWARDS should indicate and list new countries to be added to their existing records. Make your claim at the same time you send in your log.

However, in view of the high volume of work which the contest manager will have to deal with, it will not be possible to prepare and dispatch any new awards or to up date any existing records until the final results of the contest have been evaluated and published.

Additionally, if any contestant manages to contact stations on two way RTTY within each of the six continents and the BARTG manager receives either a contest log or check log from each of the six stations concerned, a claim may be made for the WAC AWARDS issued by the RTTY JOURNAL. The necessary information will be sent to the RTTY JOURNAL after the contest results have been evaluated and dispatched, the RTTY JOURNAL will issue the WAC AWARD. A charge of $5.00 U.S. is charged for non subscribers to the RTTY JOURNAL, while subscribers are free.

HF PACKET DESERVES A ~~GOOD~~ GREAT MODEM



ST-7000 HF PACKET MODEM

The verdict is in and the opinion of HF Packet operators is clear . . . the HAL ST-7000 is a winner!

The HF Packet communications world is not forgiving. Selective fading, noise, and interference coupled with poor tuning indicators and simplistic phone line modems contribute to the poor performance of packet controllers on HF.

The ST-7000 makes HF Packet Work

The ST-7000 is designed specifically to greatly improve the 300 baud HF Packet performance of all packet and multi-mode controllers. Techniques developed for our government and military ST-8000 (MD-1232/G) HF modem are applied to the special problems of HF Packet radio. It's simple . . . just connect the ST-7000 to your existing packet or multi-mode controller . . . and you're ready to send data, **not** repeats.

The "standard" 200 Hz shift mode of the ST-7000 has a 6-pole input bandpass filter, an optimized detector circuit, plus a 40 db AGC system. These design features make 200 Hz HF Packet work!

The ST-7000 also includes a 600 HZ shift mode for even better performance than is offered by the 200 HZ "standard" shift mode.

Other features of the ST-7000 include:

- A new tuning indicator design assures quick and accurate tuning of HF Packet signals
- CD (carrier detect) and threshold level circuits designed specifically for 300 baud HF Packet
- A sine-wave synthesized transmit tone generator assures minimum phase distortion and splatter
- Easily interfaces with all packet and multi-mode controllers via RS-232C, TTL, or TNC VHF audio tones

Best of all, the ST-7000 is manufactured and tested entirely in the United States by HAL Communications, a company you've known and trusted for years.

The ST-7000 is available directly from the factory at a price of $299.00, which includes a 12VDC, 0.25A power supply.

WRITE OR, BETTER YET, CALL TODAY TO ORDER YOUR HAL ST-7000.

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URBANA, ILLINOIS 61801-0365
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FAX: (217) 367-1701

BARTG SPRING RTTY C

SINGLE-OPERATOR

1	TG9VT	1,030,160
2	UZ9CWA	831,600
3	SM4CMG	821,184
4	I2OLW	744,142
5	WB5HBR	549,908
6	G4PKP	538,692
7	IA5PLB	510,112
8	OH2LU	504,384
9	3C1MB	489,440
10	DJ6JC	487,236
11	K6WZ/0	462,852
12	NTOV	460,528
13	ZC4JA	450,934
14	KL7LXC	404,984
15	W0WP	399,632
16	SM6ASD	370,862
17	AB0Y/4	367,092
18	AA5AU	360,640
19	OE2DAN	357,768
20	G0ARF	342,472
21	VE6ZX	337,343
22	G0ATX	336,896
23	AL7BB	320,394
24	PT2BW	318,240
25	CR6AUR	316,370
26	OK2FD	316,260
27	N6GG	314,292
28	JH1BIH	307,476
29	A22BW	297,900
30	YU7AM	294,270
31	VK5RY	286,360
32	W6JOX	278,214
33	W6/G0AZT	276,060
34	N9CCI	271,260
35	7J6CAS	266,604
36	KE0KB	263,190
37	SP5DED	259,200
38	DL3YBL	258,148
39	KI4MI	257,868
40	Y79XN	253,528
41	HB9DCQ	253,344
42	HB9DCQ	253,344
43	KH6UL	244,650
44	JA1DFQ	242,176
45	I2HEO	266,260
46	Y38CG	255,164
47	Y76ZL	213,568
48	I2WEG	199,424
49	PA3DBS	195,130
50	YV5AKJ	184,952
51	W5HEZ	183,616
52	YO2IS	180,498
53	HC8GR	168,764
54	KA1GET	167,832
55	LZ2OV	162,624
56	ZL2AKI	161,436
57	SP9BCH	158,790
58	Y27AO/A	151,097
59	WB4UBD	145,026
60	YV5IZE	144,000
61	AI7B	142,426
62	WA6WGL	141,700
63	Y22UL	141,120
64	SM7BGE	138,024
65	HA5CP	136,820
66	SM5FUG	125,008
67	HA6PX	124,932
68	IV3UT	124,196
69	W3FV	123,660
70	F6GMB/P	119,080
71	ZC4NC	109,662
72	WB6ZHN	109,120
73	KC2FD	105,144
74	F6BVB	104,060
75	HA8BI	101,420
76	G3HJC	100,576
77	F6AUS	96,060
78	UA3TN	91,060
79	W8LNK	89,862
80	W0HAH	89,658
81	W3KV	89,440
82	HP1AC	86,800
83	VK2BQS	75,432
84	W8PBX	75,240
85	SM5AAY	72,450
86	PY6ACP	70,144
87	IK1DFH	68,240
88	VE7DTA	62,712
89	VK7AE	56,610
90	VK2SG	53,312
91	G8VF	53,200
92	VK3EBP	52,032
93	OH2BYS	51,000
94	OK1MP	49,290
95	DK3JU	48,576
96	VE3ST	48,236
97	EA8AKQ	45,000
98	VK2EG	44,400
99	IN3NHZ	43,296

ONTEST RESULTS 1988

SINGLE OPERATOR (CONT.)

100	VK1GN	42,100	123	SK4BX	22,898
101	G0BRY	42,056	124	OK1AMS	22,616
102	G3XON	40,658	125	Y24MB	21,840
103	W2JRG	40,078	126	WB2CHO/6	21,480
104	YU3HJ	38,502	127	IOKHP	21,360
105	Y51XO	38,192	128	HA8AI	21,120
106	WA8FLF	35,224	129	KA1LMR	21,084
107	Y23NI	34,720	130	Y54OL	20,983
108	KD2HE	34,074	131	IK2IKW	17,708
109	WA9FBV	33,852	132	VE7VP	17,240
110	G0IUW	33,280	133	Y26QL/A	14,872
111	DL8QP	33,250	134	SP3BGD	14,110
112	Y67RG	31,230	135	DK5KJ	12,960
113	DF5BX	29,900	136	PA0KHM	12,120
114	GM4VDI	29,140	137	Y84CL	11,762
115	FK8AH	28,960	138	Y43ZB	10,530
116	SM4LLP	28,044	149	Y22HA	9,960
117	OH5VL	27,930	140	ZL2BRQ	8,832
118	I4IBR	27,748	141	YO2DNO	6,768
119	FE6FNI	27,360	142	WA3JXW	5,040
120	JA2NNF	26,928	143	Y64ZF	3,120
121	YB0QC	25,252	144	HA8XF	3,000
122	Y24ZM	25,200			

MULTI-OPERATOR

1	WA7EGA	1,143,296	10	HA5KAG	337,610
2	NG7P	1,081,880	11	LZ1KKR	317,374
3	HD5G	1,046,220	12	OK3RJB	299,040
4	KT1N	1,024,974	13	OK3KGI	183,376
5	LZ2KIM	678,720	14	YU7BZD	136,524
6	LZ1KDP	617,568	15	OK3KII	135,120
7	4U1UN	475,300	16	YO5KDW	12,960
8	G3UUP	464,520	17	DF0DG	8,030
9	4N7M	378,240			

THANKS TO WA9TMU, SP5IYV, G1DPL, SM5APS, KH2F,, IK2ECX, G4SKA, Y55ZF, HA5FA, VE7ARS, G2BUY, DF9XI, PA3AFD, IK1AMC, KA7IVA AND LZ2KR FOR CHECK LOGS.

Hal Blegen, WA7EGA
12910 E. Broadway
Spokane, WA.
99216

CONTESTING

Outstanding! When the QSO total in a 24-hour contest rises above 700, it pretty much answers the question about people having lost interest in RTTY. The RTTY ROUNDUP apparently caught the eye of almost every US station capable of shifting a signal. Several times during the contest my QSO rate jumped above 70 contacts an hour and could have been higher if I could have figured a quick way to spread the signals.

The DX participation was less than anticipated but with the clamor of US activity from 14070 to 14100, I suspect that some of the DX that may have been interested simply gave up. Amazed at finding himself on the wrong end of a 10-meter pileup, **9Y4DG** commented, "I WAS BEGINNING TO WONDER IF I WAS GETTING OUT." Although I worked several Europeans, most were hidden behind an unsettled geomagnetic field. Even with the Flux running at a cycle 21 record high of 268, with a K index over three the polar path from north 49 degrees latitude is like talking to a wall.

Sunday afternoon on fifteen, a US station broke in to say that a 9J2 was calling me. "PLEASE ANSWER HIM AND THEN LET ME WORK HIM WHEN YOU'RE DONE," he said. Sounded like a good deal to me but by the time the squirrel got my house-size yagi cranked around to 36 degrees, it was too late. It was as if I had been offered a byte of some exquisite, French desert and then spit it out on the plate. "I GUESS THE 9J GAVE UP," he said. I could almost hear his disgust.

No surprise that despite encouraging words from the ARRL (who included all digital modes in the contest), I only heard one station working packet. I made enough chirps at **VE1VCK** to convince the flock of sparrows outside my window that I was torturing one of their brethren but when I gave up, he was still calling CQ. At least **W0LYM** said he found a little group of novices working the contest on ten meters. I never heard them. It sure looks like we could use some RTTY Elmers.

Some of the high QSO scores from a random sampling were **KT1N** with 707, **HC5K** with 562, **AA5AU** with 508, **WS7I** 584 and **NG7P** with a whopping 770. At press time, I had no info from some of the other "big time" contest stations like **W3LPL** who was a constant presence on the band and should have an impressive total. On Sunday afternoon I couldn't even break the pileup that was on **WB5HBR**!

WHAT'S THAT FUNNY SMELL?

As for **WA7EGA**, fear not. The first three hours of the contest were wasted in repairing the damage resulting from an attempt to mate a PK232 to the serial PRINTER port of a clone that at the last minute I decided to use for the contest. I bought a PK232 because it had more blinky lights than a Japanese sports car and when they all went out at once I got really upset. It did help when the 2nd op wandered in with the coffee pot and asked, "What's that funny smell."

When he saw me crawling around behind the smoking console, Jay decided to go single op. Since he changes calls almost as often as some people change socks, you may not have recognized him (**WB7WSX**, **KE7PN** and now **WS7I**). He started the contest in low power mode and switched on the amp for the 2nd day. In his usual, no-nonsense manner his comment was, "Changing power classes in the middle of a contest is almost as dumb as bringing a computer home an hour before the contest and expecting it to work. In either case, you're not likely to win." Fiddling with new software on contest day is a good way to provide hours of hilarity for the stations trying to work you. After I had run through about three buffers trying to find the exchange info finally gave up and cleared the transmit buffer. "VERY NICE," said WH6I, "BUT YOU DIDN'T SEND ANYTHING.

Hope you all had a good time.

Next month I plan to review a couple of software packages for the PK232. One is marketed by AEA and the other is a public domain. Until then 73's and see you on the band.

de Hal, WA7EGA

WHAT FEATURES WOULD YOU LIKE TO SEE ON YOUR NEW TRANSCEIVER ?

Here is George Hitz, W1DA ideas on features the digital Ham would find most beneficial and has suggested to the ARRL review department to give them consideration when testing new equipment.

Mode
Any rig can be made to run AFSK (i.e. putting the mark/space tones into the microphone jack and running LSB). Does the UUT (unit under test) also have FSK? (i.e. mark/space oscillators built into the radio and selected by an FSK INPUT line). What are the FSK INPUT levels? What are the MARK/SPACE frequencies?

IF Filtering
When running AFSK (LSB), can you select a CW filter? What bandwidth(s)? (the TS440 has this feature) When running FSK, what IF filtering is available as standard? As an option? (e.g. the 170 hertz shift needs to be centered in a 500 hertz bandpass)

Frequency Readout
Does the UUT have the capability to readout to 10s of hertz? (this is very important for setting up precisely on a mailbox frequency) In the FSK mode, what frequency is the readout frequency displaying? (It could be the MARK frequency, the SPACE frequency or the "carrier" frequency as in SSB. MARK is preferred, but not widely implemented)

AMTOR Turnaround
Does the UUT have adequately short RX to TX and TX to RX delays to be compatible with ARQ operation without modification? If modification is required, does the manufacturer have and supply the information?

Power Output
What is the continuous duty power output that the UUT is capable of supplying? Since CW and SSB are "100 % duty cycle" modes, thermal issues are less of a problem than with continuous carrier operations such as those found running Baudot and FEC.

Adaptor Connections
Does the UUT have the connections necessary to use panadaptors and signal monitoring equipment? Which of these devices does the manufacturer offer?

ED: Some of these suggestions have come up at the Digital Digest held in Dayton each year and have been hammered home to the manufacturers attending representatives but the ARRL lab could also play an important role in this area as well. I am therefore happy to see these suggestions being forwarded to the ARRL. Thank you George.

(DIMA cont. from pg. 3)
Since Serge is a military man he planned to operate SSB only at first but later when group was formed he found others wanted CW and RTTY. Igor, RW3PW, a radio tech handled propagation, licenses and other details for all members of the trip. Victor, UA3PW a radio tech was in charge of all technical details and was interested in CW and RTTY.

The results of trip are as follows: More than 7000 QSO's including about 1000 on RTTY. In the CW/WW RTTY contest they made 490 QSO's in only 12 hours. Their feeling after the trip were very good, but they were also very tired from jumping from one place to another. Next year they would like to go someplace else and are looking for suggestions from you the readers. They have thirty days vacation time and can activate the following places - UI8Z, UG6, JT lands. They await your suggestions. The QSL cards have been ordered and hopefully they will be ready by the end of the year (1988). All will be sent out on those received with IRC'S and all others will go via the bureau. They have plans to have their picture on the cards. They would like to thank the following people who helped them organize this DXpedition: UD6DX, Alex and his wife Irina, UD6DM/UD6GF, Josef.

Two complete rigs have been given to UD6DX and UD6BE and they are waiting for their licenses to work RTTY. They will soon be on the air.

73's Dima,UT5RP

ED: *The above short biography of Dima and the article are my interpretation of Dima's letter to me. If I have made some errors, I'm sure Dima will correct me. Dima also plans to have another article later on with pictures from some of the DXpeditions. Thank you very much Dima for submitting this very nice article on what is happening in your country. I hope others will also do likewise and submit an article on what is happening in their countries. See pictures of Dima's station and son elsewhere in this issue.*

Roy Gould, KT1N
P.O. BOX DX
Stow, Ma. 01775

DX NEWS

Happy New Year.....I hope 1989 brings you all much DX on the RTTY bands and maybe that new one you need for WAS, DXCC or WAZ.

Next month, if things go according to plan, you will have a new columnist in this space. At this time I can tell you that he is well known in the RTTY DX circles and is reveiwing all his activities to make sure he has time. So will let you all know next month.

DX NEWS

QSL Info:

5U7XX RTTY QSOs only go via DJ6JC
5N9SRC via PO Box 1915, Sokoto, Nigeria
EI2MR via WA8LKS
TU2MUP via Box 520 Abigjan, Ivory Coast

DX Info....

VK9Z the Mellish Reef DXpedition appears to be on Sked and will be active on RTTY, QSL to NM2L.

VK9ZW... Willis Island is scheduled to follow the Mellish Reef appearance by the same group.

VP5...Turks and Cacios, Don AA5AU and Eddie W6/G0ATZ should be on from here by the time you read this.

3W Vietnam!!... R18PLY reports that there will be RTTY from here in late January or early Febuary, Maybe also Laos!

VU7 .. Laccadives RTTY is also planned for this Dxpedition in early February.

XF1.. Revilla Gigedeo, also rumors of a plan RTTY Activity from here late January early February.

ZL1AMO... reports that he plans on RTTY operation from the NO Cook Islands in March.

VK0JV .. is on the Ice in Antartica at Casey Base.

OTHER STATIONS HEARD

6W6JX, 9K2DZ, 5B4PW, 5U7XX, EL2M, FR5ZD, FS5UQ, RL8PYL TF3LB, and **TU2MUP.**

My card to 6T2MG which was sent Registered mail 3 months ago came back as undeliverable??? Anybody have luck getting this card?

CQWW/RTTY JOURNAL CONTEST...

Well I didn't quite get the time to list the high claimed scores, but will do so next month, I promise. The logs are still coming in!!!

RTTY DINNER

at Dayton...

It looks like I will not be there this year. Bob Foster WB7QWG has agreed to Host it this year and he will be getting the word out on the MSOs etc. Drop him a note if you plan to attend. Bob's addr: 11920 Cable Dr, Indianapolis, In. 46236.

Thanks and a tip of the DX hat to VK2SG, W1DA, TG9VT, **de 73 Roy**

(HITS & MISSES cont. from pg. 2)
with you all the DX information he receives and this was always an important part of his column each issue. So, on those occasions when your copy of the RTTY Journal was a day or two late, most often is was due to the late breaking DX news provided by Roy. We sure can't fault him for bringing us all this latest news first. As Roy would always say, "A tip of the hat" to all those whose provided him with information each month, so I say, " A tip of the hat to you Roy, for an outstanding job".

Roy has not disclosed who our new DX NEWS columnist will be in his last column this month and so I will not release this information either. It will have to be a surprise but one I'm sure you will accept wholehearted. I will only give you a slight hint. This person is a very personable human being, very much respected in RTTY circles, and an avid DXer with many awards to his credit. His signals are heard around the world because he makes it so and I'm sure his wit and charm will overwhelm you when he takes pen in hand next month. Enough said without giving it away.**(cont. from. pg. 16)**

NOSTALGIA

(THE BEGINNING)

FORWARD

Amateur Radioteletype, now boasting around 3000 participants, has come of age, having passed its 10th anniversary! Starting with just two teletypewriters in 1946, both the property of John Williams, W2BFD, the ham RTTY population built up very gradually until 1948. By that year the major technical problems had succumbed to enthusiastic development by the little group and, with ARRL's recognition of our pioneering efforts by the publication in QST of RTTY's "history", our ranks suddenly began to expand. Instead of just the two or three states grouped around New York City the idea spread to every corner of the land. By early 1949 tiny groups were already in operation in Ohio, Louisiana, Washington, Oregon, New Mexico, California, Indiana, Minnesota, Iowa, and Illinois.

The two years, between the founding of the Society (Amateur radioteletype Society) in 1946 and "telling the world about us" in 1948, yielded a rich harvest of technical advancement, fully documented in the numerous "bulletins" that were published gratis and "broadcast" by RTTY tape transmissions and Uncle Sam's post office. During this time amateurs, most of whom had never been closer to a machine printer than 20 feet, had to painfully acquire through professional contacts and by cut-and-try, operating knowledge and familiarity with the complex-appearing machines and circuits. The great majority of a the present-day RTTY membership have no awareness of the difficulties that beset the early "jingle- bell" boys. Today there are virtually dozens of circuits of terminal units, frequency shifters, etc. to select from, contrasted with the almost complete nonexistence of printer and frequency-shift information in 1946. The commercial companies were still hanging onto their wartime "hush-hush" techniques and most of the military manuals had not yet been de-classified.

The earliest bulletins (ARTS series-1) were punched into teletype perforated tape and transmitted, on a local "loop", to from one to six page printer machines connected in series and loaded with carbon paper rolls making from 3 to 6 copies at a time per machine. By 1951 the organization had gotten to become known principally by its alternate name of "VHF Teletype Society" (VHF representing 90% of the operations until FCC yielded to the pressure of numerous petitions and let us in the "happy hunting grounds" below 11 meters in 1953). The capacity of this system of printing the Bulletin was stretched to the breaking point, even with "assists" from members who could help out with mimeograph facilities. The editor for practically all of the original free bulletins had been W2BFD, founder and present National Secretary. Several hundred issues of these early ARTS series-1 and the VHFTS series-2 bulletins, news-letters and "flashes" had been "cranked out", by 1951 being circulated to a few hundred members.

These news-letters dealt with the development of standards of operation and circuitry to guarantee that all of our stations might "speak the same language" and some issues were merely filled with that "chit-chat", social and "activities" news, so necessary to keep a "gang" pulling together. Other bulletins ran a "course" in FSK and RTTY theory for the newcomers to our ranks. The great majority of these hundreds of early news-letters went unnumbered, some even undated, but an attempt was made to number the more important ones. In case this may sound strange to a present-day RTTYer let us hasten to explain that, in our wildest imagination, none of the pioneer group ever contemplated the vast expansion that took place through the publicity we received in magazines, newspapers, conventions exhibits, and even radio and television broadcasts during the first few years. Who knows in advance of his participation in history? When the fact did, later, begin to sink in, many of the previously unnumbered releases were reissued with new numbers.

By the middle of 1951 a major change took place. Wayne S. Green, W2NSD, offered to take over the publication of the national RTTY bulletin, which was eating heavily into the secretarial time that W2BFD was able to donate to the headquarters work. The new ARTS bulletin, ARTS series-3, after a beginning published by mimeograph, was photo-offset printed. The expense of, this means of reproduction ended the period of free bulletins and the circulation continued on a subscription basis.

One of the biggest tasks facing RTTY headquarters (and it still is) was the stupendous one of procuring the hundreds of superseded teleprinters, on a non-profit basis, for the growing membership. It has been variously

(cont. next page)

(NOSTALGIA cont. from pg. 17)
estimated that, to equip one single member, required the writing of a total of, perhaps, 20 letters to the member, telegraph agency, warehouses, freight outfits, etc. Multiply all this by the 3000 printers and countless thousands of pieces of accessory equipment that have been "liberated" for members by the Society and you will have a faint idea of the bedlam that was RTTY headquarters. Up until 1951 this organization had been operating under two names; VHF Teletype Society for (mostly) two-meter operation and Amateur Radioteletype Society for what low-frequency work existed. This low-frequency work was in the minority and, even today, nearly four years after the "green light" was given us by FCC for the use of the low bands, there are still many more VHF printer installations than on the "DC" bands. The discrepancy is being narrowed down rapidly, however, and we may look forward to seeing low- frequency RTTY in the lead one of these days.

With Wayne's assumption of the publication of the bulletin, under the name "Amateur Radio Teletype Society" ("Radio Teletype" two words), there was still occasional need for the tape-printed editions as the offset printed job was published on a monthly basis. If a particularly "hot" RTTY news item might be delayed otherwise it was run off via page-printer and carbon roll-paper. Thus it will be seen that, adding to the numerical confusion, is the fact that the W2BFD series-2 "flashes" overlapped the W2NSD series-3 bulletins at times.

Just as W2BFD found, during the six years of turning out the first two series, so, also, did W2NSD find out, during the following three years of his "editorship", the great "bite" that this "labor of love" was bound to take out his hamming, earning and family time. Even with W2BFD supplying most of the technical writeups it was growing more and more obvious, by the end of 1954, that this was no one man task. When Wayne found the call to earn the "bread and butter" could no longer be disregarded a cooperative group of headquarters members, headed by editor Clayton Cool, stepped in and undertook the job of pushing out the National Bulletin. W2BFD continues to furnish many of the technical articles printed in this fourth series of amateur RTTY publications as he did for those published by W2NSD.

In the following pages of this booklet will be found direct reproductions made from the original stored bulletin tapes. Only a portion of these can be printed here but, if sufficient interest is displayed, a second volume may be attempted. Most of the reprinted news-letters are of the first series but a few of the VHFTS series-2 messages are included. No illustrations were shown but diagrams were circulated on a "loan" basis, with each member recopying by hand. Early in 1949, out of his enthusiasm for ham RTTY, Ray Macomber, W3CZE footed the bill for a large printing job to reproduce the diagrams, drawings and instructions needed to get the newcomers on the air. To ARTS members, such as these, we attribute the huge progress the hobby has made.

The main bulletins are arranged in chronological order and the various news-letters and minor items are fitted in wherever space will be most efficiently used. Little or no editing has been done to the perforated tapes from which the bulletins have been printed. We reason that you would prefer to read them as they were originally published.

For the newcomer to our ranks let us state that we feel no more verdant fields exist in amateur radio today than these experimental "happy hunting grounds" of printing telegraphy. There still remains unlimited opportunity to pioneer in the allied subjects of Radioteletype, Radiofacsimile, and Radio Remote Control.

ED: From there the booklet goes directly into the reproduction of all the material chosen for this special publication. Just a bit of Nostalgia.

(HITS & MISSES cont. from pg. 16)

SUBSCRIBERS - WE NEED MORE!

For the past few months I have been inserting a special subscription card into each issue sent to our readers in the U.S. It purpose is to help increase our subscribers and it has helped for which I thank all who have helped in this endeavor. Aside from this, something wonderful has evolved. Some of you have expressed a desire to sponsor a one year subscription for a friend in the U.S. or a digital Ham in another country. In a couple of cases, money was even sent asking us to pick the recipient. Because of this generosity on your part, I have been able to send copies of the RTTY Journal to digital Hams in countries where postal money orders, U.S. currency and even IRCs are very hard to obtain. Heretofore, I have not given this act of generosity much publicity but the word is getting around and requests keep arriving. Consequently, I'm happy to tell you about this germ of an idea that has blossomed. **(cont. pg. 21)**

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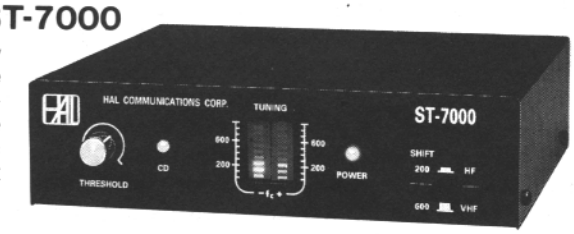

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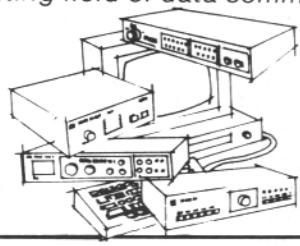

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Dick Uhrmacher
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MSO'S

Happy New Year to all of my friends and acquaintances out there in RTTY land! My goodness how times flies, and before you know it, the Dayton HAMVENTION will be here again. It's never too early to get your reservations in at your favorite hotel/motel in Dayton, and I hope to have some information on the annual RTTY Dinner next month. Keep your eyes on your favorite MSO for the "RTTY Dinner List".

NATIONAL AUTOSTART FREQUENCY

Doc, KD9BS, asked me recently to elaborate on just what the "National Autostart Frequency" is, how it got started, and what its functions are. About 11 years ago, several of us decided that we would like to have a more or less permanent place to meet on RTTY, mainly for ragchewing and socializing. Some of the original members of this elite group were Frank, K4KOZ, Red, K9KUW, Gaylord, WB8ICL, Clark, W9CD, myself, and probably others that I have forgotten. We didn't have any of the sophisticated MSO's and computer mailboxes back then, although several of us did modify our state-of-the-art INFO TECH equipment for autostart operation. Our main intent at that tine was just to have a frequency where we could meet and keep track of each other. It wasn't long until the HAL Communications Corporation came out with their DS-3100ASR, followed by addition of their Message Storage Operation (MSO) option, and we were really in business then. This dedicated RTTY mailbox system has been the mainstay of equipment on the National Autostart Frequency, and remains today one of the most sophisticated and reliable pieces of RTTY equipment ever designed.

As time went on, several other System operators (SYSOP's) joined the group on the National Autostart Frequency, allowing coverage of most of the United States with excellent mailbox service. At the present time we have 13 MSO's parked on 14 085 625 Hz, (Mark frequency), located from Connecticut to Florida, thru Texas to California, including the heartland of the United States in Ohio, South Dakota, Iowa, Illinois, and New York.

But with all of those systems sharing the same frequency, don't you experience a lot of interference? Actually we have little problem with the MOS's clashing with each other. The computer based systems most all have software "time out" feature that automatically closes the system down after a short period of inactivity, and other systems all automatically close with reception of 4 N's, (which are tagged onto most MSO closing sequences). And, propagation is such that in most cases a remote user can determine if one of the MSO's is currently up and running. A little astute listening before transmitting, just as in other modes in Amateur Radio, makes MSO operation a breeze!

The National Autostart Frequency has long prided itself on being a place where friends meet, newcomers are welcome, and sophisticated mailbox services are available. One might think that ragchewing and mailbox activity might not be quite compatible, but over the years we have fostered the idea that personal relationships and the social aspects of Amateur Radio are equally as important as electronic mail forwarding. So, you'll see quite a bit of ragchewing between friends and acquaintances on the National Autostart Frequency, and in between, lots of mailbox activity as well.

The MSO's and mailboxes themselves of course are very useful in a variety of ways. Primarily they offer the opportunity for remote users to leave messages for friends and acquaintances, who can at some later time pick them up. No schedules to meet, just open up your favorite mailbox, leave your message, and your friends can retrieve it at some later time, convenient to their operating schedule. You'll also find a treasure of technical assistance available on the National Autostart Frequency, centered around digital communications, and with respect to most other operating modes in Amateur Radio. If you've got a problem with a piece of equipment, computer, printer, software, etc., chances are that there's someone on the National Autostart Frequency who can provide assistance. You'll see quite a few "I need help" messages in the MSO's, as well as libraries of technical files on equipment and operating practices. **(MSO's cont. next pg.)**

(MSO's cont. from pg. 20)

So, if you're looking for a friendly place to hang your RTTY hat, you won't find a better place that the National Autostart Frequency. Many of the SYSOP's have dedicated expensive equipment and their time for over ten years so that others may benefit from these electronic marvels, and my congratulations go out to them. Crank up 74 baud, (100 WPM), 170 Hz shift, and 14 085 625 Hz, and drop in and on the National Autostart Frequency and meet some of the greatest guys and gals in Amateur Radio.

W6ZRR RECOVERING NICELY

Ernie, W6ZRR, San Luis Obispo, Ca. MSO SYSOP, recently underwent emergency gallbladder surgery. I'm happy to report that Ernie is at home after a short hospital stay, and 4 very nicely. Ernie's MSO always booms into my neck of the woods, and we're glad to see it back up and running in fine shape. Get well soon Ernie!

TG9VT MSO BACK IN OPERATION

John Troost, TG9VT, has returned his MSO to active status from Guatemala City, after the end of his annual "thunderstorm" season. Unfortunately John experienced a direct lightning hit last year, and has since been a bit apprehensive about another visit by Mr. Lightning Bolt. John's MSO is the preeminent source of DX information on the National Autostart Frequency, and if their's a "new one" out there to be worked, you can bet that John's MSO will have the appropriate information.

MSO TUNNEL VISION

Who says that MSO SYSOP's only have time for automated systems? Check out Al, N1API, from Meriden, CT., who's DXCC score now stands at 295 countries!! Not only does Al maintain a well run MSO on the National Autostart Frequency, but he also has time for DX'ing and 10-10 activities. Keep up the good work Al!

WD4MTC UPDATE

Dick Schulte, WD4MTC, North Fort Myers, Fl, is alive and kicking, and enjoying life. I had a recent note from Dick, and he tells me that he and Sandy have driven over 31,000 miles in the past two years in their motorhome, and hope to keep on trucking down the road. They are thinking of purchasing a larger motorhome in the near future, and travelling across the United States. Do you suppose there's room in that new vehicle for a RTTY rig? Dick sends his Holiday greetings to all of his friends on the National Autostart Frequency.

That's it for this issue Gang, and I want to wish each and every one of you a Happy New Year, filled with good health and prosperity! See you on the MSO's! 73 **de Dick, K0VKH**

(HITS & MISSES cont. from pg. 18)

If you would like to sponsor a one year subscription for another digital friend either here in the U.S. or in another country, simply fill in the card and enclose the amount of funds to cover the subscription. The inside cover of each issue contains all the different prices which cover the mailing via the foreign surface of air mail mode. However, I do not suggest the surface mode of mailing because it is so slow and sometimes the issues get lost in transit. You be the judge on this. As for who you wish to sponsor, we would prefer you make this choice but if you have no one in mind, we'll find someone. Your callsign will appear on each label to the recipient in case they wish to respond to you.

A BIT OF NOSTALGIA

Recently Phillip Hatfield, W9GFS sent me a number of copies of the publication ARTS. This publication was started about 1946 and I found reading through them most interesting and a great source of history on our phase of Ham radio. In about 1952 a special edition was printed which contained a selection of all the RTTY bulletins published between 1946 and 1952. I have reproduced the Forward to this special edition in this issue to give all our newcomers some insight on our digital beginnings. I hope you find it interesting reading. Hopefully, I'm not infringing on any copyrights that still might be in existence over these articles. My only intent is to broaden our knowledge of RTTY and all credit goes to the Amateur Radio Teletype Society (ARTS) who originally published all these articles. So it is only a little bit of "nostalgia" and to give reflection on our past. If you liked reading the reproduction, let me know pro or con. If you liked this information maybe I can include more some time later on when we have the space.

That's it for this month, 73's for now.

de Dale, W6IWO

0000

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