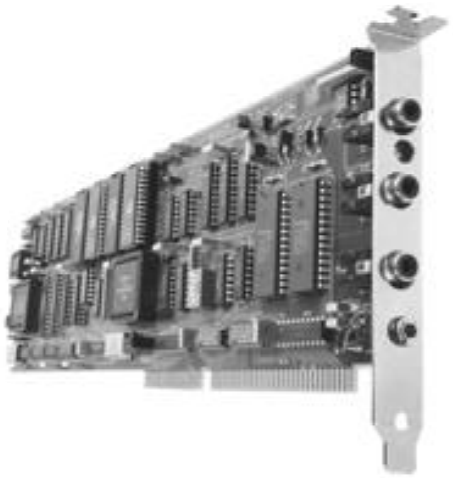
The New
RTTY *Journal* ©

P.O. Box 236, Champaign, IL 61824-0236 Volume 48, Number 4 — Winter 2000 $5.00

A row of M28 teletype machines at the NADCOMM Museum in Fallbrook, California. Curator Don House outlines the history of the Teletype Corporation with a chronology on page fourteen.

Winter Contest Schedule 2
Hits & Misses 3
2001 RTTY Roundup 4
Dayton 2001 6
Rule Changes & Log Checking 7
Submitting Contest Logs 8
Driving an X-Y Scope with the RTTY-1 . . .10
2001 BARTG Sprint Rules 11
CQ/RJ World-Wide WPX Rules 12
Teletype Corporation History 14

P38



The ***P 3 8*** is a multi-mode HF data modem that gives you top performance operation using RTTY, AMTOR, P-Mode* and CLOVER-II waveforms. The ***P 3 8*** is a full sized plug-in card for PC-AT and faster personal computers. Multi-screen menu-driven HAL software is included with each ***P 3 8*** modem. Many popular "third-party" user programs are also available for the ***P 3 8*** - W0RLI, WINLINK, WriteLog, XPWARE, EZTERM and RTTY by WF1B. The ***P 3 8*** is complete and ready to run. Plug in the board, connect three phono cables to your radio, and install the software. That's all there is to it! Whether you want to rag-chew, chase DX, or access electronic mail, the ***P 3 8*** is the modem of choice.

RTTY-1

The HAL **RTTY-1** is an easy to use and very accurate tuning indicator. It may be used with virtually *any* FSK modem, TNC, multi-mode controller, demodulator, and receiver or transceiver. The crossed LED bars show correct tuning for all popular FSK modes including Baudot Teletype (RTTY), ASCII Teletype, AMTOR, SITOR, P-Mode*, and even HF Packet Radio. Just hook it to your receiver's audio output and you're in business, even with modems that do not include "scope" output connectors.

*The word "P-Mode" is the HAL designation for a communications protocol that may be also known as "Pactor" a registered trademark of the Spezielle Communications System GmbH (SCS) firm in Hanau, Germany. HAL affirms that, to the best of its knowledge, "P-Mode" is compatible and interoperable with the protocol SCS calls "Pactor" and with the link establishment and weak signal modes of the protocol SCS calls "Pactor-II".

HAL COMMUNICATIONS CORP.
1201 West Kenyon Road, P.O. Box 365
Urbana, IL 61801-0365
Phone: (217) 367-7373 FAX (217) 367-1701
www.halcomm.com halcomm@halcomm.com

RTTY Contest Schedule — Winter 2001

Date & Time	Contest	Date & Time	Contest	Contest Information Online
1/27 1200 to	BARTG Sprint	3/17 0200 to	BARTG Spring	ARRL: http://www.arrl.org
1/28 1200		3/19 0200	RTTY Contest	Jim's Gazette: http://www.n2hos.com/digital
				LA9HW Contest Calendar: http://home.online.no/~janalme/hammain.html
2/3 1800 to	XE RTTY	4/7 1600 to	EA-WW	SM3CER Contest Service: http://www.sk3bg.se/contest
2/4 2400		4/8 1600		The New RTTY Journal: http://www.rttyjournal.com
2/10 0000 to	CQ/RJ WPX	5/26 0000 to	Anatolian	
2/11 2400		5/27 2400	WW RTTY	OR — The New RTTY Journal will airmail a printed copy to you. For *each contest,* send $3.00 for U.S., Canada, or Mexico destinations or $4.00 to other countries. Please allow three weeks for processing and delivery.

Dates and times subject to change.

The New
RTTY *Journal*©

George W. (Bill) Henry, K9GWT
Publisher and Editor

All Correspondence:
The New RTTY Journal
P.O. Box 236
Champaign, IL 61824-0236

Voice: 217-367-7373
FAX: 217-367-1701
www.rttyjournal.com

STAFF

Linda Henry .....Accountant
Joe Wittmer, KB9SIZ .....Assistant Editor
jwittmer@rttyjournal.com
Dale Sinner, W6IWO .....Associate Editor
dsinner@rttyjournal.com
Jason Allen .....Production Manager
jallen@rttyjournal.com

SUBSCRIPTION RATES

United States, Canada, and Mexico
1 year (4 issues).....$15.00
2 years (8 issues) $28.00
3 years (12 issues) $41.00

Foreign
1 year (4 issues).....$20.00
2 years (8 issues) $38.00
3 years (12 issues) $56.00

The New RTTY Journal is published four times per year: February, June, August, and November. Subscriptions and advertisements must be pre-paid by check or money order in U.S. funds drawn on U.S. banks only. Visa and MasterCard credit cards are accepted.

The publisher assumes no liability or responsibility for errors, omissions or editorial content. Written permission from the publisher of The New RTTY Journal is required prior to and for any reproduction of all or any portion of this magazine.

Expiration Date: Your address label shows the date of your last subscription issue. Please contact us if this does not agree with your calculations.

POSTMASTER: Please send all address changes to: The New RTTY Journal, P.O. Box 236, Champaign, IL 61824-0236

The New RTTY Journal is a continuation of the magazine formerly known as RTTY, RTTY Journal, RTTY Digital Journal, Digital RTTY Journal, and Digital Journal.

Hits & Misses

Bill Henry, K9GWT
k9gwt@rttyjournal.com

Well, here it is winter — again. But, in this neck of the woods we have to spell it with capital letters — WINTER! Wow. And — if your utility bill is like mine — "Ouch!" It seems to me that (1) we have to heat the house, and (2) our power bill is going to be out of sight no matter what we do. Sooo — we may as well make the best of the situation, huddle around the radio, and work RTTY. Hmm — maybe the vacuum tube rig wasn't so bad after all. How about making a combined furnace and linear amplifier? This sounds like a new product to me!

Judging by some of the reports I've seen on the Internet, we had a LOT of folks huddled around their radios for the RTTY Roundup. There were some BIG scores and some BIG BIG signals. No doubt the CQ/RJ WPX will be just as exciting.

Yes, the RTTY Journal is late this issue — VERY late, in fact. It's my fault and I owe everyone an apology. It seems that a lot of things happened at once and the end result is that Bill Henry is about six weeks out of sync. I promise to do better in the future.

With that in mind, I am pleased to announce the addition of Mr. Dale Sinner, W6IWO, to the RTTY Journal staff as "Associate Editor". Dale sat in this chair for many years and certainly did a better (and on-time) job of publishing the magazine. What does an "Associate Editor" do? Beats me — just about anything that Dale says he wants to do! Dale's first and primary task is to find more material for the RTTY Journal. He'll probably be calling or emailing you. He's got some great ideas I think we will all enjoy. So, when Dale comes calling, have a listen and please jump in.

This issue of the RTTY Journal is a collection of quite a wide variety of materials. It is intentionally NOT focused on one facet of the hobby. Don Hill starts off the issue with an article about his involvement in this year's RTTY Roundup. Dale has a summary of the plans for the upcoming Dayton Hamvention on page six. Also, be sure to check our website (www.rttyjournal.com) for the latest Dayton news. Glenn Vinson, W6OTC, discusses the new CQ/RJ WPX rules and log requirements. "Free Drink Eddie" (G0AZT) follows with some tips on how to prepare and submit your logs. You'd better pay attention since Glenn and Eddie are the guys in charge these days — ten-hut! On page ten, I had to put my two-cent's worth in with yet another RTTY tuning indicator idea. Starting on page eleven, we've printed the full rules for both the BARTG RTTY Sprint contest and the CQ/RJ WPX contest. If you're into history, Don House rounds out the issue with a good chronology of the Teletype Corporation — things I've always wondered about.

Several readers have asked "When do we print the RTTY Journal?" Good question and after three years of experience, my ideas have changed a little. We find that some things take longer than expected and that printing is NOT a one-week process, even when using a "completely digital" master. The date for the Dayton Hamvention is also two weeks later than it had been. So, the revised target times are now "early March" for the Spring issue, "mid-June" for Summer, "mid-September" for Fall and "early December" for Winter.

On the DXpedition front, Al Rovner, K7AR, and his crew plan to be in **SYRIA** and on the air signing **YK9A** from Feb. 3 through Feb. 11 or 12. Al has DXP-38s in hand and says that he will *definitely* be on RTTY. Watch the reflectors for current information.

We're now into the "new millennium". The concept of teleprinting is 100 years old and "radio teleprinting" is at least 50 years old. During the last ten years, there have been big advances in data communications and we hams have led the way trying new and different ideas. But, 45 baud Baudot remains the common denominator for HF, the same code we used in our "steam-RTTY" Model 15's. Maybe — "It ain't broke and don't need fixin".

— 73 de K9GWT

2001 RTTY Roundup

Don Hill, AA5AU
aa5au@msn.com

This year's 2001 ARRL RTTY Roundup will go down as the best ever. This is my favorite contest of the year. I have been fortunate to have won the Low Power category of this contest eight times including the last six years in a row.

This year I had several goals in mind. The ultimate goal for me was to achieve the 1440 QSO total mark. This total represents making one QSO per minute on average for the entire 24 hour single operator permitted period. My secondary goal was to surpass my 1999 World Record of 152, 625 points. I had no idea I was about to shatter both these goals.

In the last two Roundups, I had incorporated three radios. However, after doing some RTTY contests in 2000 with three radios, I came to the conclusion that two radios are actually better than three. Concentrating on three radios is too difficult for me. I found that I could operate much more efficiently using only two radios. For this year's contest I had a third radio set up and ready to operate. I made only two QSOs with it on 10 meters. I designated it as my backup in case of failure with the two main radios.

During the year 2000 a lightning strike at my QTH would impact this year's Roundup. Two of my three radios were damaged (a Kenwood TS-870 and one of my two Icom IC-751As). While my TS-870 was in for repair, I purchased another TS-870. My original TS-870 was repaired and now I had two TS-870s. The Kenwood TS-870 is the best transceiver I have ever used on RTTY. Having two of them as my main radios in the 2001 Roundup would give me a big boost over previous years when I used only one TS-870 and the two Icoms. The Icom IC-751A is still an excellent RTTY radio, especially when equipped with the 250 Hz filter, but it is no match to the Kenwood with its IF DSP filtering.

Another advantage the second Kenwood gave me was radio control on both radios. I would now be able to use WriteLog's bandmap feature with both radios.

Station "A"

Station "A" consisted of a Kenwood TS-870 transceiver, a Hewlett-Packard Pavillion 200 MHz Pentium computer running WriteLog version 10.23B (Beta) under Windows 98SE, a JPS NIR-10 audio filter and a HAL DXP38 TNC. This station was designated for 15 and 40 meters and was equipped with Dunestar bandpass filters and a 23' shorted stub for 15 and 40 meters connected to the output of a Bird wattmeter.

The DXP38 was used for both transmit and receive. I opened up a second RTTY window in WriteLog and used the left channel of the stereo sound card in the HP computer for dual receive by splitting the audio output of the BIR-10 filter for feeding one leg to the DXP38 and the other to the left channel input of the soundcard. During rough copy conditions, if the DXP38 misses any print, the soundcard normally receives it OK and vice versa.

The computer station "A" was networked to the computer on station "B" through a 3COM ethernet hub.

Station "B"

Station "B" consisted of a Kenwood TS-870 transceiver, a Dell 166 MHz Pentium computer running WriteLog version 10.23B (Beta) under Windows 95, a JPS NIR-12 Dual DSP audio filter and a PK232MBX TNC. This station is designated for 10, 20, and 80 meters. This station is equipped with an open 23' stub for 10 and 20 meters plus a Dunestar 600 switchable band filter which allows this station to be used on any band 10-80 meters.

The PK232 was used for both transmit and receive. I opened up a second RTTY window in WriteLog and used the left channel of the stereo soundcard like in Station "A" for dual receive. This second RTTY window was also capable of being switched to operate PSK31. However, I made no PSK31 contacts. The activity on RTTY was too high.

Station "C"

Station "C" consisted of an Icom IC-751A with a 250 Hz filter in the IF. I used the right channel of the soundcard in Station "B"'s computer to decode the RTTY. I used an extra COM port on the same computer to key PTT and FSK. This station was dedicated to 10 meters only and used a Dunestar 10 meter filter. It was mainly a "spare" station in case of failure with either of the other two stations. I made only two contacts using this radio.

Strategy #1:
How Much Time Spent on Each Band

In the days before the contest I tried to lay out a strategy for the contest. I looked at my logs for the past two years and tried to determine what I could do to improve my score. In 2000, I thought I had made more of an effort than in 1999, but my score was significantly lower. I noticed some major differences between the two logs. In 1999, I made more contacts on 10 and 15 meters. In 2000, I made more contacts on 80 meters. It seemed that I spent more time on 40 and 80 in 2000 than I did in 1999. Multipliers, especially DX, are more readily available on 10 and 15 meters as shown by the logs. My first strategy going into the contest was to spend significantly more time on 10 and 15 meters this year and spend less time on 80 meters.

Strategy #2:
When to Change Bands

The next strategy I thought about was when to change bands. I always start the contest on 10 and 15 meters. The big decisions are when to move radio "A" from 15 to 40 meters and when to move radio "B" from 10 to 20 meters. It seemed that in 2000 I left 15 meters and moved to the 40 on the "A" radio an hour earlier than in 1999. Since I wanted to make at least 250 contacts on 40 meters, I had to make sure I went there at the right time in 2001and not leave myself short on 15 or 40. The move from 10 to 20 meters on radio "B" is always dependent on how the 10 meter band is on that particular day. My thoughts are that I will hit 10 and 15 meters very hard on Sunday morning, so when 10 starts slowing down on the first day, it's time to move to 20 meters quickly on radio "B".

At 2015Z, I determined it was time to move from 10 to 20 meters on radio "B". Ten slowed fast and my rate started to fall so I didn't hesitate to move to 20. The next move for radio "B" is from 20 to 80 meters. My strategy was to stay on 20 longer and I wondered why I had gone to 80 so soon in 2000.

Then I remembered why I had gone to 80 earlier in 2000. It was because when I was on 40 meters and 20 meters at the same time, I had interference on 20 meters when I transmitted on 40 despite using band filters. I also remembered I didn't have this problem in 1999 so on Friday, the day before the contest, I constructed two stubs as described on the previous page. I tested with one radio on 40 and the other on 20 meters and found that these stubs made significant improvements to the interference. Without the stubs, I had S5 noise on 20 when I transmitted on 40. With the stubs, the noise was reduced to S2 across the RTTY sub-band on 20 meters. The reason I had more contacts on 80 meters in 2000 was because I had to go there from 20 meters because the RFI was too bad on 20 when I was transmitting on 40 meters. These hastily constructed stubs made a big contribution to my 2001 effort.

With the newly made stubs, my strategy was to spend more time operating the combination of 40 and 20 meters before I went to 80 meters on radio "B". So I decided on going to 40 from 15 meters at around 2330Z. As it turns out 15 was still going strong at 2330Z, I ended up going to 40 at 2345Z. I had to make that decision and despite 15 still being good, I forced myself to go to 40. I probably should have gone at 2330Z as planned because my rate jumped dramatically when I moved to 40. With the stubs, I was able to operate 40 and 20 meters at the same time for two hours and fifteen minutes and made 174 contacts.

The next decision was when to move from 20 to 80 meters on radio "B". I didn't plan ahead for this. I only knew I wanted less contacts on 80. The stubs allowed me to continue on longer on 20, but I wanted at least 150 contracts on 80 meters so I went there at 0200Z. Since radio "B" is equipped with a switchable Dunestar 600 filter, I am able to go back and forth from 80 to 20 quickly and that's what I did. At 0230Z, I planted myself on 80 permanently and operated 40 and 80 until 0700Z (1 A.M. local time) when I rested. I ended up with 145 contacts on 40. My total at that time was 941 contacts. I was very pleased.

Strategy #3:
Rest Periods

The third and final strategy in this contest is when to take rest periods. The rules state you must take six hours of rest for single operators in two periods. The ARRL has allowed single operators to take the entire six hours at once (two three hour rest periods back-to-back). In 1999, I took all six hours at once. In 2000, I took 5.75 hours once, then fifteen minutes during the day Sunday. I decided in 2001 I would take all six hours at one time.

The biggest question is when to take these six hours. To answer that I listened to the bands the previous two mornings to find out when 10 and 15 meters opened. I determined that 15 meters opened up at 1315Z the previous two days. Since there wasn't much activity, I had to rely on my recent contest experiences in this sunspot cycle to guess that 10 meters opens at approximately the same time or perhaps fifteen to thirty minutes later.

Since the bands seem to open "earlier" when a contest is going on, I decided I would start the second day at 1300Z on 15 and 20 meters. With the third radio on 10, I anticipated listening to this radio until I started hearing signals, then switching from 20 to 10 meters on radio "B".

When to start on Sunday is a critical decision. Probably the most critical of all the strategies. The reason being that this is a rate contest. I have to make sure that 15 meters is open enough to get a good rate going, whether it be supported with contacts on 20 or 10 meters. 15 meters is only going to be open to Europe at that time for me. Running Low Power, I know that I hear Europe on 15 meters a few minutes earlier than they hear me.

Because I heard strong signals from Europe at 1315Z on 15 meters the previous two days, I decided beforehand to restart on Sunday at 1301Z. So at 0700Z I went QRT for rest.

Before going to bed Saturday night, I set radio "A" to 15 meters and radio "B" to 20 meters — both on the high side above 21.100 and 14.100 kHz respectively. I had set my alarm for 1200Z, but stayed in bed and got as much rest as possible. I climbed out of the sack at about 1245Z. The first thing I did when I got to the shack was to get online and check the WWV numbers. I don't recall exactly what they were, but they looked good. I knew 15 and 10 would open early. From seeing those numbers I knew that 10 would be open and that I shouldn't spend much time on 20 meters on radio "B".

At 1301Z I put on the headphones. I immediately heard a signal on radio "B" on the frequency where I had left the radio on 20 meters. It was A52YL on 14104 kHz. she was calling CQ. My heart jumped out of my chest. I called her immediately and she came right back to me. I could not believe it! How lucky can I get? Was this an omen of good things to come?

After logging A52YL, I made a quick decision to go straight to 10 meters without even tuning the rest of 20 meters. When I flipped to 10 meters, I just happened to land on UW8I calling CQ. One call and he was in the log. In the meantime, I came across LZ2PI on 15 meters and got him on one call. Things were starting very nicely!

My strategy before the contest was to keep radio "A" on 15 meters the entire rest of the contest. And with the small exception of checking 40 meters at about 2300Z for a few minutes, that's what I did. On radio "B", the strategy was to work 10 meters until the rate fell. For the next six hours I pounded 10 and 15 meters with all my might yielding 396 contacts and a great deal of multipliers.

Things were going well combining 10 and 15 meters, but there was something heavy weighing in my mind. I had to make a decision when to move from 10 to 20 meters on radio "B". The rate was slowing down a bit on 10. Europe was just about gone at 1900Z but stateside was still abundant. And I had worked all states except Georgia. I did not work all states in 1999 or 2000. But if I wanted to take advantage of multipliers, I knew I needed to work Georgia. I realized that 10

WriteLog for Windows
with Rttyrite/WinRTTY/AFC
One Package Handles All Your CW, SSB, and RTTY Contesting Needs

NEW Version 10 for Windows 95, 98, NT
Operate 2 radios with one sound card on RTTY and SSB & Perfect CW transmission.

Tired of obsolete DOS logging packages that force you to use special configurations and don't use all of the power of your computer? WriteLog is the first contest logging software designed to fully deliver the convenience and ease of use of Windows 95, 98 & NT.

WriteLog includes these battle-proven features:

- Work RTTY using any 16-bit (or better) sound card. No other hardware required! Opt. 2 sound cards and run 4 radios
- Full Radio Control
- Helpful Band Map
- Packet Interface
- Fast Ethernet Networking
- Super Check Partial
- Click and Go Mouse Support
- Perfect Log Submission
- Two Radio Support
- Supports All Major Contests in All Modes
- **Only $75.00**
  Ver 9 users upgrade $30.

PLUS These NEW Features:

- RTTY mode AFC — also known as Autotune
- Audio Compression — now you can save & play back your entire log after a contest, contact by contact, from WAV files on your H.D. — in CW, SSB, RTTY & PSK31 modes — via WAV file compression.
- CW Reader - print CW on screen like in a RTTY contest. We also added multi-channel CW reader capability. With a fast PC (350MHz Pentium or faster) WriteLog will decode CW at 6 different pitches on 2 radios simultaneously. Like having a backup operator looking over your shoulder.

"I made the first contest (non RTTY) with WriteLog, and it is FANTASTIC. It is such an improvement for me over CT... I really love it, and from now on anyone who operates from here will HAVE to use this program! I will twist their arms." — John, ON4UN

http://www.writelog.com
e-mail:k5dj@writelog.com
Ron Stailey, K5DJ
504 Dove Haven Dr.
Round Rock, TX 78664-5926
Tel: (512) 255-5000

meters was not going to yield any new multipliers in the middle of the day so at 1900Z I decided to change from 10 to 20 meters on radio "B". 20 meters is normally not very good here in Louisiana at that time of day, but I felt I needed to make this change. This would ultimately be the best move I would make during the contest.

When I went to 20 meters at 1900Z, I found the band alive with plenty of signals. I found DJ7AA for my first contact in the Search and Pounce mode. This was a good sign. I normally don't hear or work Europe this early on 20 meters. I worked a few more stations Search and Pounce until I settled on 14091 kHz and ran that frequency for a good hour. I maintained a good rate of 62 per hour and it increased as time went along. At 1954Z, N9HZQ called me on 20 meters from Georgia. He was my 1398th contact and I had finally worked all states.

The strategy for the last five hours was to pound 15 and 20 meters. And that is what I did. As the QSOs went past 1500, I turned my sights to 1600. With 300 QSOs on 10 meters, I worked hard toward objectives of 500 QSOs on 15 meters and 400 QSOs on 20 meters.

In the last hour, things really slowed down. But one by one I reached all of these "spur of the moment" goals and reached 1611 QSOs when it was all over. Total QSOs: 145 on 80 meters, 262 on 40 meters, 402 on 20 meters, 502 on 15 meters, and 300 on 10 meters.

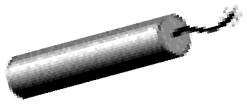
If someone would have told me I would end up with 1611 contacts, all 48 continental states, 11 Canadian provinces, and 70 DXCC countries, I wouldn't have believed it. But it did happen and this contest will be forever etched into my memory as one of the greatest efforts I would ever have in my RTTY contesting career.

The people I have to thank for this achievement are those digital Amateur Radio operators that took part in the 2001 ARRL RTTY Roundup. If it were not for these operators, this achievement would not have been possible. And I thank each and every one of them.

Thank You!

— Don Hill, AA5AU

Dayton 2001



Dale Sinner, W6IWO
dsinner@rttyjournal.com

BING! BANG! BOOM!

Those sounds are ringing in my head reminding me it's time to start thinking about Dayton 2001. *My goodness, how time do fly.* It seems like only yesterday we were at Dayton 2K enjoying ourselves and now it's time to plan for this year's big bash. Are you ready? Ready or not, at least give it some serious thought. I am ready to accept reservations with this issue and will also be announcing this same information on the internet. The dates are May 18, 19 and 20.

BING!

Last year we all had a great time and our events were well attended. We hope you will come and join us again this year and bring or invite a friend. We've added a few more rooms for this year in the hopes we will not run out. We were close to the wire last year and we don't want that to happen again. The Holiday Inn Dayton Mall is our destination again this year and they are looking forward to serving our needs again with great expertise and expediency. Our accommodations last year went off without a hitch and both Friday and Saturday night dinners were a success. We don't plan on changing anything except maybe the menu. However, this year Jay Townsend, WS7I, will host the Friday night affair while Joe Wittmer, KB9SIZ, will continue with the RTTY Journal annual dinner on Saturday night. I will be handling the hotel reservations and I hope I can count on everyone getting their deposit money to me on time. Remember, first come, first served, and I cannot hold a room without the deposit money.

BANG!

As for the dinners, I cannot give you a price or the menu because both Jay and Joe still have to work those items out with the hotel staff. They also will have speakers for each dinner which have not yet been finalized. But, I assure you everyone will receive this information in ample time to finalize their plans. Some may ask again about the transportation to and from the hotel. This year we are told the hotel will have a bus at our disposal and again a nominal fee will be charged. The Dayton Convention Bureau will again have a bus available at a nearby school. We still have some details to work out regarding the busing, but you can be assured we are working for everything to be in our favor.

The RTTY Journal will again be hosting a hospitality suite both Friday and Saturday nights right after each dinner has concluded. If you have not attended one of our Dayton gatherings, let me tell you the hospitality suite is one of the highlights. Here you can meet everyone in a casual atmosphere or just renew old friendships. The RTTY Journal has been hosting these affairs for more years than I want to count and every year has been a success. We have hams from all parts of the world attending and it is just great fun to be a part of this event. I'm sure there are hams in our group who come back each year just to enjoy the hospitality suite. Don't miss out this year, be there when we open the doors to this fun room.

BOOM!

Oh, let me not forget the RTTY Journal forum which will be held again this year on Saturday. We had a great turnout last year with our new moderator Frank Fallon, N2FF, who is the ARRL Hudson Division Director. Frank has consented to due the honors again this year and I know he will do an excellent job.

I can't tell you much more, the rest is up to you. Be there and experience Dayton with us all. Send your reservation in today. Either use the form enclosed in this issue or pick one up from the rttyjournal.com web page. Watch the WF1B and the WriteLog reflectors for updates and check the rttyjournal.com web page frequently. Hope to be hearing from you soon.

— 73, Dale Sinner, W6IWO

Rule Changes and Log Checking

Glenn Vinson, W6OTC
w6otc@garlic.com

The 7th Annual CQ/RJ World-Wide RTTY WPX Contest, to be run February 10-11, 2001, promises to be the largest and most competitive yet. With solar flux at or near its peak for Cycle 23 and the number of RTTY contesters constantly growing, many new records are certain to be established. The log-checkers (Eddie — G0AZT, and I) are now processing the Year 2000 CQ/RJ World-Wide DX logs and have already seen some great scores there. We expect to have those scores available for publication in the February issue of the New RTTY Journal. As in recent years, we also expect to have WPX scores available for publication at the time of the Dayton Hamvention.

The influx of logs in the two premier RTTY contests sponsored by *CQ* and *The New RTTY Journal* — World-Wide DX and World-Wide WPX — and the proliferation of logs reporting more than 1,000 QSOs — with top Multi-Operator logs now exceeding 3,000 and even 4,000 QSOs — have caused the CQ/RJ RTTY Contest Advisory Committee to re-think some of the details of the rules of these contests. The new WPX rules appear in this issue of the *New RTTY Journal*. The 2001 WWDX rules will appear later and will incorporate the basic changes in the WPX rules.

First, the format and some detail of the rules have been modified to track more closely the *CQ* CW and SSB WPX rules, and to provide more precision in log-checking. For example, no high power entrant may exceed 1,500 watts total output power on any band. The 30 hour time-limit for Multi-Single stations has been eliminated. Also, the 10-minute rule has been changed to a 6 band-changes per hour rule. In addition, the submitted log for any entrant in the Multi-Two category must indicate which transmitter makes each contact. Other relatively minor changes appear throughout the rules. Accordingly, I urge you to read them before the contest begins. In addition to being printed here, the RTTY WPX rules appear at www.rttyjournal.com/rules/wpx.html .

However, the most important changes in the 2001 CQ/RJ WPX RTTY (and the soon-to-be published 2001 CQ/RJ WWDX RTTY) rules are the adoption of the Cabrillo format for electronic log submissions — and the *requirement* that electronic logs be submitted for *any possible "high score"* entrant in a category (e.g., single band SO or SOAB either HP or LP, M/M, M/2 or M/S either HP or LP). In addition, *all* logs containing *more than 200* QSOs and which were generated using a computer program *must* be submitted via e-mail or on a 3.5 inch floppy disk. If you choose to mail a floppy disk, be sure to use a proper disk mailer to protect your log. Electronic logs should be submitted to wpxrtty@kkn.net .

A brief article about Cabrillo, by Joe, KB9SIZ, appeared in the RTTY Journal last year in Vol. 47, No. 4. Questions frequently asked by contesters about Cabrillo format are addressed at www.kkn.net/~trey/cabrillo/faq.txt. For those of you not yet familiar with Cabrillo, it is not a substitute or replacement for your favorite logging program. Instead, Cabrillo is a simple, specific interface (in the form of an ASCII file) between logging programs and the log checkers. Some RTTY contest programs presently provide a Cabrillo file utility for users to generate the proper file after the contest. If your software does not have this capability, you can create your own or purchase WT4I's Cabrillo conversion utility from www.cabrillotools.com (or contact K5DJ).

The major benefits of Cabrillo-format log files are to automate log-checking (which increases accuracy and significantly reduces the time required to report contest results) and to apply a *uniform* filter/check to all logs. Use whatever logging program you like but please create a Cabrillo format file for your log submission. Many logs submitted in the 2000 RTTY WPX and RTTY WWDX contests have already been submitted in Cabrillo format. As more of you submit logs in this format, the process will become more automated and efficient.

In no event should you submit .bin or .ndx files. These files are generated by your logging software for use and interpretation by it. We cannot use these files. It is your job to have your software produce an ASCII file of your contest log — and preferably in Cabrillo format. Log-checkers have the appropriate software tools (developed by WT4I, with great support from G0AZT and K5DJ) to process Cabrillo logs. I hope you will appreciate the quicker and more accurately reviewed contest reports which result from many improvements in this log processing and checking.

The rule changes described above will be incorporated in the *2001 CQ/RJ WW RTTY* contest rules. In addition, the very popular Multi-Two class in the WPX contest will be added to the CQ/RJ WW contest, and the contest submission deadline will be shortened to be approximately six weeks following the contest weekend. I look forward to working all of you in these contests — and to receiving your logs.

RCKRtty
For Windows 95/98/2000/ME/NT
RTTY, PSK31, Pactor, AMTOR, and CW

- Normal QSO and Full Contest operation in all modes with one package
- Supports major RTTY, PSK31, CW, and SSB contests
- Supported TNCs: SCS-PTCx, AEA-x, KAM-x, MFJ-x, DSP-COM, HAL-Dx
- ★ ***NEW:*** Supports RTTY and PSK31 with PC soundcard
- Radio Control: Kenwood, ICOM, Yaesu
- Packet-Radio for DX-Cluster in same window
- ★ ***NEW:*** Waterfall display and spectrum analyzer
- Multilingual versions: English, Italian, Spanish, German, Dutch, Czech, Russian, Ukranian, French
- Uses "friend.ini", "master.cal", "cty.dat"
- Powerful logging functions (edit, search, export...)
- Call, DXCC, State, CQ Zone, ITU Zone, WPX, and IOTA detection with automatic insertion
- Full contest operation with mouse
- Generate all contest reports
- Realtime QSO rates and other statistics
- Extensive documentation and Windows help file
- Free updates on the internet, e-mail reflector
- Many more features, write or e-mail for full details

Standard $30 • Contest $45

Walter Dallmeier, DL4RCK
Odenwaldstrasse 4
D-93173 Wenzenbach, Germany
FAX: +49 9407 957139
e-mail: dl4rck@rckrtty.de
http://www.rckrtty.de

Submitting Contest Logs

Eddie Schneider, G0AZT
edlyn@california.com

Glenn, W6OTC has already outlined some changes to both the co-sponsored CQ/RJ WW-DX and CQ/RJ WW-WPX contest rules for 2001, so with this in mind, I would like to cover the nuts and bolts of how to submit your log to the contest management. On average, there are four options, so closely follow the log submission rules for the specific contest.

1. Electronically, using the Cabrillo format; preferred for CQ/RJ WW and BARTG entries.
2. The relevant files produced by your logging software, e.g. .all, .sum; also sent electronically (e-mail).
3. A correctly formatted and packaged 3.5 inch diskette.
4. Paper, either hand written or computer generated. However, if the log contains more than 200 entries, either options 1, 2 or 3 will have to be used.

Electronically Submitted Files

First of all, the Cabrillo [1] format is here to stay. From November this year, the ARRL will ONLY accept this format for electronically submitted files. Both RTTY CQ/RJ WW-DX and CQ/RJ WW-WPX will require this format for any log produced by your logging software or containing more than 200 QSOs. BARTG Sprint and BARTG HF will also be requesting this format.

As more and more contest organizers realize the simplicity of a Cabrillo formatted log, they will no doubt follow suit in the not too distant future.

If your favorite contest logging software does not support the Cabrillo format yet, get in contact with the writer. An alternative would be to purchase a converter utility and/or log checking software from WT4I [2].

One of the main features of a correctly formatted Cabrillo log is that ALL the contest specific data required is written in just ONE .log file. There is no need to send a summary, dupe or multiplier sheet and separate band files are no longer required either. Besides simplifying the whole process of log submission for the entrant, Internet bandwidth is reduced and assuming that the checkers have appropriate log checking software, their life is made a whole lot easier.

Here is an example of how much time can be spent by a contest manager obtaining the correct files for just one contest. For CQ/RJ WPX 2000, I received 533 logs via e-mail. I generated over 1300 contest related e-messages in a five week period. Deducting the 533 confirmation messages plus approximately 100 other e-mails, passing logs to the other two log checkers, leaves 360 odd e-mails asking entrants for missing files, incomplete summary sheets, unreadable .bin, .wl, .xls files etc. It is NOT the log checker's responsibility to convert these files into a readable format! The onus is on the entrant's ability to know how to produce the required files using their preferred logging software. In other words, if in doubt, read the manual!

Contest managers, usually unpaid, are trying to reduce the delay in posting the results, so you can appreciate that spending time and effort having to ask for missing data could be well spent actually checking the logs and finalizing the results in a timely manner. Log submission deadlines are also being reduced in an effort to expedite the results.

Sophisticated log checking software [2] is now available to any contest manager interested in making their life a lot easier. This same software is also available to contesters who would like to thoroughly check their logs before submitting them.

If you operate in a single band class but make contacts on other bands to relieve boredom or help out friends, please submit TOTALLY separate logs for those bands. Bundling the whole lot together means the checker has to cut and paste the non-scoring entries to a different file, and in the process you may lose a valuable multiplier.

So lets get down to the nuts and bolts of preparing and submitting an electronic log to managers who will accept the Cabrillo format.

1. When converting your log to Cabrillo make sure that you FULLY complete the Cabrillo Header information with the required information:

a. Call sign used. In the case of multi ops, all call signs of operators and names of persons involved in the contest, even the tea lady. :-) For those of you using special calls, add your personal call sign in the appropriate field.
b. Class of operation, e.g. Single op, all band, high or low power if appropriate.
c. Claimed score.
d. Your name and FULL postal address. Adding an e-mail address in the 'Soapbox' field would be helpful in case of queries.
e. The name of the contest that the log refers to. This may seem obvious but we've had contestants send SSB or CW logs for CQ/RJ WW RTTY!
f. For non US/VE entrants, select "DX" for the ARRL Section.
g. US/VE entrants select the appropriate state or province. For ARRL sponsored contests, your US section or VE province/territory abbreviation

Once you are satisfied that all the relevant information has been included in the Cabrillo Header, now comes the part that many entrants have a hard time with, naming their files correctly in order to submit them via the Internet.

Contest managers are not at all interested in what you actually named your files on your hard drive. Names like CQWWRTTY2000.x, WPXSOABL.x and so on, have little meaning and only cause confusion and possible errors if the manager has to rename them. So, number one priority is to rename all the files you intend to send, with the CALL SIGN you used during the contest. For example, XX0XXX.log and so on.

The second priority is to zip or 'pack' the files. By doing this, your original file format has less chance of being corrupted in transit.

Thirdly, make the subject line in your e-mail as meaningful as possible. If lots of files received by the manager are called CQWW2000, there is a good possibility that one or more logs are accidentally going to be over written. Been there, done that :-) So please use your call sign in the subject header. Including the entry class would also be

appreciated, e.g. XX0XXXsoabl, X0XXXsoa. Finally, do not forget to include your zipped file as an attachment to the electronic submission!

Now on to non-Cabrillo'd files for electronic submission:

1. Obtain the log submission rules for a specific contest entry from www.rttyjournal.com
2. Most contest software writers have ensured that their particular file formats meet with the approval of the various contest organizers. Do NOT change the format or layout of the original files.
3. Submit ONLY plain ASCII text files that can easily be read by a simple text editor. That means, NO .bin, .xls, .pdf or other dot whatever files.

In a nut shell for Cabrillo'd logs:

1. Fully complete the Cabrillo Header. Include e-mail address in Soapbox.
2. Rename the file with your call sign.log.
3. Zip it as call sign.zip.
4. Put your call sign and class of entry in the Subject header of the e-mail.
5. Attach the zipped file.
6. Send the bloody thing but only to the CURRENT e-mail address.
7. Wait for a robotic or personal confirmation.
8. Sit back, relax and wait for the final results.
9. If your score has been greatly reduced, either invest in log checking software or copy the exchanges more carefully and thoroughly review your log before submitting it.
10. Keep these notes as a handy reference.

For Non-Cabrillorised Logs:

1. Fully complete the summary sheet (name, e-mail and FULL postal address).
2. Rename all the required files as: your call sign.x
3. Put your call sign and class of entry in the Subject header of the e-mail.
4. Do not send all the files enclosed in the e-mail text. Zip and attach them.

5 through 10, same as above.

Diskette Submissions:

1. Only send 3.5 inch floppies, very few modern computers have 5.25 inch drives!
2. Rename all required files as: your call sign.x
3. Enclose a complete and signed summary sheet.
4. Label the outside of the diskette with your call sign, contest name and entry class.
5. Pack the floppy in a disk mailer or padded envelope, NOT in a plain one.
6. Buy Airmail postage rate stamps and add an Airmail sticker if the package has to travel outside your own continent. Surface and reduced rates will probably arrive after the results have been published!
7. Do NOT Register the package. Not only does this slow down the post office handling process because everyone handling it has to sign the Registration book, it is also inconvenient for the manager to have to be available to sign for it.

8 through 10, see above.

Paper Submissions:

1. If your log is computer generated and contains more than 200 entries, go to the previous paragraph. We are in the computer age folks!
2. Hand written logs must be legible. No inky spider's feet please.
3. Besides logging the contest exchange, band, time etc. all multipliers, points per contact and score claimed, MUST be included in the log. For CQ/RJ WW, one entrant submitted a paper log with 811 contacts with no points/Q and other missing data. Once again, it is not the contest manager's responsibility to score your entry. If essential data is missing, don't be surprised if your log lands up in the Check Log category.
4. Pack your paperwork securely.
5. Send it to the correct postal address as outlined in the CURRENT rules.

6 through 10, you guessed, see above.

11. If you want a copy of the results, make sure you enclose an address label and enough return postage. 1 IRC/$ for non US/VE mail is not enough.
12. For next year, save trees and seriously consider sending a diskette or an electronic log.

[1] http://www.kkn.net/~trey/cabrillo/
[2] http://www.wt4i.com

SPECIAL OFFER

Get all eight RTTY Journal Archive discs for only $100!

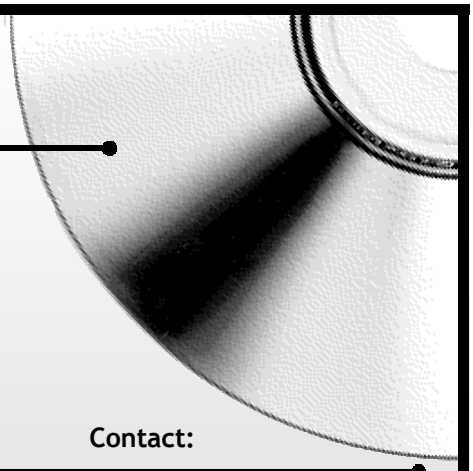
See enclosed slip or contact us for details.

RTTY *Journal*
CD-ROM Archives

Disc One: 1953-1962 Disc Two: 1963-1972
Disc Three: 1973-1977 Disc Four: 1978-1982

Now Available!
Disc Five: 1983-1987 Disc Six: 1988-1991
Disc Seven: 1992-1994 Disc Eight: 1995-1997

See enclosed order form for details.



Contact:

The New RTTY Journal
P.O. Box 236
Champaign, IL 61824-0236
Phone: 217-367-7373
FAX: 217-367-1701
sales@rttyjournal.com

Special Thanks to Don Warburg, WA6HNC; Charles Prindle, W6JOX; Neil Friedman, N3DF; Dale Sinner, W6IWO; Bob Boyd, W1VXV; for donations and loans of well kept RTTY Journals.

Using the HAL RTTY-1 to Drive an X-Y Scope

Bill Henry, K9GWT
k9gwt@rttyjournal.com

Many of us recall the days of ellipse traces on a scope and prefer that type of RTTY tuning display over all others. The HAL RTTY-1 is a very good RTTY tuning indicator but it still isn't a RTTY scope. However, the following is a short description of how to modify your RTTY-1 and use it to drive your X-Y scope.

The RTTY-1 includes an amplitude limiter stage and separate Mark and Space audio filters that then drive the X and Y LED bar graphs. You can use the signal that has been processed by the limiter and filter stages to drive an X-Y scope by adding two connectors and two coupling capacitors. The simple steps are:

1. Remove the RTTY-1 from its case (four *black* screws on back) and remove the circuit board from the back panel (four *brass* screws on back).

2. Mount two phono jacks on the rear panel in the locations shown in Figure 1. If you are careful, you can drill the new holes without disconnecting the wires. The jacks can be found at Radio Shack, P/N 274-346 (Switchcraft 3501FP).

3. Connect the ground lugs of the new jacks to the ground lug on the audio input connector (Figure 1).

4. On the solder side of the PC board, solder one lead of a 0.1uF ceramic capacitor to pin 1 of U1 and one lead of another 0.1uF capacitor to pin 1 of U4 (see Figure 2). The capacitors are Radios Shack P/N 272-135 or 272-1069 (long leads are required).

5. Carefully reposition the PCB on the rear panel so that the free lead of each capacitor passes through the hole in the center terminal of one of the new connectors.

6. Replace the *brass* screws that hold the PCB to the rear panel. Solder the capacitor leads to the phono connectors. Cut-off any excess wire.

7. Connect DC power and receiver audio to the RTTY-1 and run two phono cables from the new connectors to the X (Mark) and Y (Space) inputs of your scope.

8. Turn everything on and adjust your scope for best display of a RTTY signal. If you like what you see, put the cabinet back on the RTTY-1 (four *black* screws).

Hints:

A. If you don't see ellipses on your scope, the most common reason is that the scope controls are not all set correctly. Most "general purpose" scopes include X-Y capability but it may not be apparent which knobs apply to the "X" input. Read your scope manual and/or use trial and error!

B. The maximum output from the RTTY-1 filters is 6 volts peak-to-peak. This may not be enough for some scopes. If it isn't enough, you may need to add an audio amplifier.

C. The RTTY-1 filter frequencies can be "tweaked" if you wish. Control R20 sets the Mark frequency (2125 Hz) and R6 sets the Space frequency (2295 Hz). R5 sets the amplitude of the bar graphs (see Figure 3).
D. RTTY-1 filter bandwidths are optimized for use with the bar graphs but may be a little wide for a scope. The filter bandwidths are controlled by fixed resistor R21 for Mark and R7 for Space (165K; see Figure 3). To narrow the scope ellipses, increase the resistance of R7 and R21 (try 220K or 330K, 1/4W). R7 and R21 should have the same value (both 330K, etc.); 5% or 10% resistors may be used.

Please make these changes yourself and do *not* ask the guys at HAL to do them for you or to trouble-shoot problems for you. It's a simple change and I'm sure that all of us with ham licenses can make the changes or find an Elmer to help us!

Figure 1

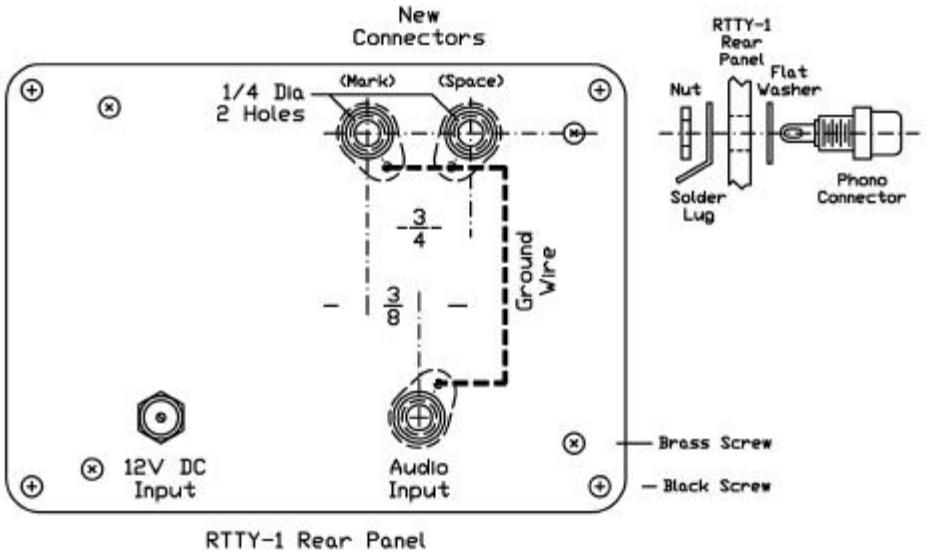


Figure 2

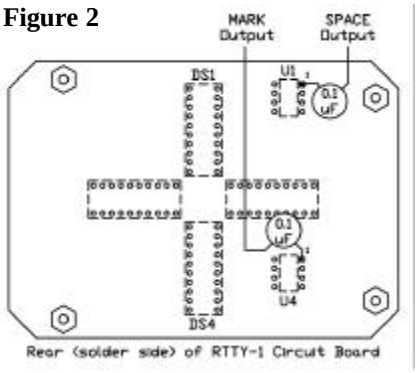


Figure 3

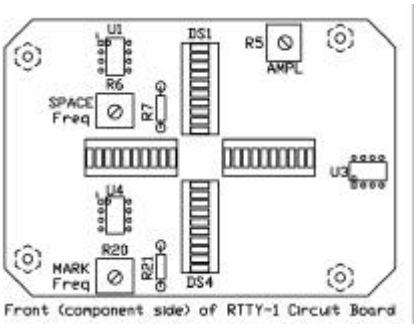
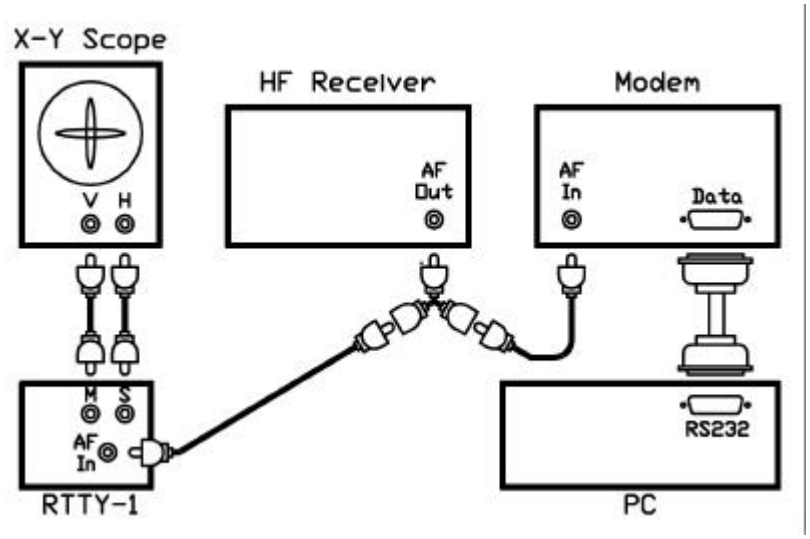


Figure 4



2001 BARTG RTTY Sprint Rules

TIME: 1200 GMT Saturday, January 27th to 1200 GMT Sunday, January 28th 2001.

CLASSES:
1. Single Operator Expert; 2. Single Operator; 3. Multi-Operator; 4. SWL

Any single operator with a top ten all band placing in any BARTG contest during the previous 3 years must enter as an expert in class 1; other stations may enter either class 1 or class 2. The class entered must be clearly stated on the summary sheet.

BANDS: 3.5, 7.0, 14, 21 and 28MHz Amateur bands. Stations may be contacted once on each band. Duplicate contacts on the same band must be clearly marked.

EXCHANGE: Serial number only.

MULTIPLIERS: All DXCC countries and JA, W, VE and VK areas count as multipliers. *Multipliers and continents count only once in the contest regardless of band. U.S. stations must use correct call or suffix for area of operation.*

SCORING: QSOs x Multipliers x Continents (max 6).

LOG SHEETS: Logs must show BAND, DATE and TIME, CALLSIGN, MESSAGE SENT and RECEIVED, MULTIPLIERS and POINTS claimed. SWL logs must contain DATE and TIME of logging, CALLSIGN of station heard, MESSAGE sent by that station and CALLSIGN of the station being worked.

SUMMARY SHEET: FULL SCORING and POSTAL ADDRESS for correspondence must be shown, and in the case of multi-operator stations the names and callsigns of all operators involved with the station operation during the contest. *Any incomplete entries will be classified as check logs.*

ELECTRONIC LOGS are preferred in Cabrillo format, including summary sheet header and complete log list. Entries will also be accepted as plain (or zipped) text files, *but must include summary sheet, full chronological log of all contacts and multiplier list.* Files must be named with your callsign, for example gw4ska.sum, gw4ska.all etc. No .bin files will be accepted. Disk logs must be sent with a printed summary sheet. ALL LOGS MUST BE RECEIVED BY 03/25/01 IN ORDER TO QUALIFY.

The judge's decision will be final and no correspondence can be entered into in respect of incorrect or late entries.

Trophies will be awarded to category winners. Certificates will be awarded to the top ten stations in each class.

ADDITIONAL NOTES: Any contestant contacting 25 or more different countries in the contest may claim the Quarter Century Award (QCA) issued by B.A.R.T.G., for which a charge of 8 dollars U.S. or 10 IRC's is made. Holders of existing QCA awards may add new countries to their existing records. A separate sheet showing bands, callsigns and countries claimed must be included with the contest log.

Your comments on the contest would be much appreciated.

Send Logs To:

John Barber, GW4SKA
PO Box 611
Cardiff, CF24 4UN, Wales

or e-mail to:
ska@bartg.demon.co.uk

2001 CQ/RJ World-Wide RTTY WPX Contest

Sponsored by CQ Magazine and The New RTTY Journal

February 10-11, 2001
Starts: 0000 GMT Saturday, Ends: 2400 GMT Sunday
Logs are due no later than March 13, 2001

Period of Operation: Single Operator stations may operate only 30 hours of the 48 hour contest period. Off time periods must be a minimum of 60 minutes in length and must be clearly marked on the Summary Sheet. Multi-Operator stations may operate the entire 48 hour contest period.

Objective: The object of the contest is for amateurs around the world using RTTY to contact as many amateurs in other parts of the world as possible during the contest period.

Bands: The 3.5, 7, 14, 21 and 28 MHz bands may be used. No 1.8 MHz or WARC bands.

Terms of Competition (for all categories): All entrants must operate within the limits of their chosen category when performing any activity that could impact their submitted score. Transmitters and receivers must be located within a 500 meter diameter circle or within the property limits of the station licensee, whichever is greater. All antennas must be physically connected by wires to the transmitters and receivers used by the entrant. All high power categories must not exceed 1500 watts total output power on any band. Only the entrant's callsign can be used to aid the entrant's score.

Any form of DX alerting assistance is permitted in ALL categories.

Categories:

Single Operator (Single Band and All Band)

Single Operator stations are those at which one person performs all of the operating, logging, and spotting functions. Only one transmitted signal is allowed at any time.

Low Power: Same as 1(a) except that output power is 150 watts or less. Stations in this category compete with other low power stations only.

Rookie: An entrant in this category shall, at the time of the contest, have been licensed as a radio amateur three years or less. If you are entering this category, please indicate on your Summary Sheet.

Multi-Operator (All band operation only)

Single-Transmitter: Only one transmitted signal at any time. Limited to 6 band changes in any clock hour (0 through 59 minutes.) For example, a change from 20 meters to 40 meters and then back to 20 meters constitutes two band changes. Violation of the 6 band change rule will result in reclassification to the Multi-Multi category.

Two-Transmitter: A maximum of two transmitted signals are allowed as long as each transmitter is on a different band. Each of the two transmitters is limited to 6 band changes in any clock hour (0 through 59 minutes.) For example, a change from 20 meters to 40 meters and then back to 20 meters constitutes two band changes. Violation of the 6 band change rule will result in reclassification of the entry to the Multi-Multi category.

Multi-Transmitter: No limit to transmitters, but only one signal and running station allowed per band.

SWL: SWL's are required to log the callsigns of both the heard and correspondent station. Scores are based only upon the heard station, using the same rules as transmitting stations. Correspondent callsigns may not appear more than three times per band in your log.

Exchange: RS(T) report plus a progressive contact three-digit serial number starting with 001 for the first contact. (Continue to four digits if past 999.)

Serial Numbers and Identification of Transmitters: Single Operator log entries must contain a progressive three (or four) digit serial number sequence starting with 001 for the first contact. Multi-Single log entries must follow the same serial number scheme and are required to identify which transmitter made each QSO in the log. Multi-Two and Multi-Multi entries must provide a separate log and serial number sequence for each transmitter.

Points:

Contacts between stations on different continents are worth three (3) points on 28, 21 and 14 MHz and six (6) points on 7 and 3.5 MHz.

Contacts between stations on the same continent but in different countries, and contacts with maritime mobile stations are worth two (2) points on 28, 21 and 14 MHz and four (4) points on 7 and 3.5 MHz.

Contacts between stations in the same country are worth one (1) point on 28, 21 and 14 MHz, and two (2) points on 7 and 3.5 MHz.

Multiplier: The multiplier is the number of "valid" prefixes worked. A prefix is counted only once regardless of the number of times the same prefix is worked.

A prefix is the letter/numeral combination which forms the first part of the amateur call. Examples: N8, W8, AB8, DL5, DJ2, HG1, WD200, WF96, 3DA0, GB75, ZS66, U3, etc. Any difference in the numbering, lettering, or order of same shall constitute a separate prefix. A station operating from a DXCC country different from that indicated by its callsign is required to sign portable. The portable prefix must be an authorized prefix of the country/call area of operation. In cases of portable operation the portable designator will then become the prefix. Example: AB5KD operating from Wake Island would sign AB5KD/KH9 or AB5KD/NH9. American DX (KL7, KH6, KP2, KH3, etc.) operating within the 48 states must sign with a full designator of their choice. KH6XXX operating from Ohio must use an authorized prefix for the U.S. 8th district (W8, K8, etc.) United States portable stations are not permitted to select a portable prefix designation. For example, WS7I/2 is permitted, but WS7I/WY2 or WS7I/KZ2 is not. Portable designators without numbers will be assigned a zero (0) after the second letter of the portable designator to form a prefix.

Example: N8BJQ/PA would become PA0. All calls without numbers will be assigned a zero (0) after the first two letters to form the prefix. Example: XEFTJW would count as XE0. Maritime mobile, mobile, /A, /E, /J, /P, or interim license class identifiers do not count as prefixes.

Special event, commemorative, and other unique prefix stations are encouraged to participate. Prefixes must be assigned by the licensing authority of the country of operation.

Scoring:

Single Operator: (a) **All Band** score = total QSO points from all bands multiplied by the number of different prefixes worked (prefixes are counted only once.) (b) **Single Band** score = total QSO points on the band multiplied by the number of different prefixes worked.

Multi Operator: Scoring is the same as Single Operator, All Band.

A station may be worked once on each band for QSO point credit.

Awards: First place certificates will be awarded in each category listed under Section V in every participating country and in each call area of the United States, Canada, Australia and Japan. All scores will be published. To be eligible for an award a Single Operator station must show a minimum of 12 hours of operation. Multi-operator stations must operate a minimum of 24 hours. A single-band log is eligible for a single-band award only. (Single band entrants who also operate on other bands are encouraged to submit their logs to aid in the log checking process. Note: If a log contains more than one band it will judged as an all-band entry unless specified otherwise.) In countries or sections where returns justify, 2nd and 3rd place awards will be made. All certificates and plaques will be issued to the licensee of the station used.

Trophies and Plaques (Donors):

Single Operator, All Band

World . . . . . .Jules Freundlich, W2JGR
USA . . . . . .Arnold Sias, K7VS — W6FFC Memorial
N.A. . . . . .Steven Franzen, N9CK
S.A . . . . . .Jacob Oduber, P43P
Oceania . . . . . .Jay Dyer, W8JAY
Africa . . . . . .CQ Magazine
Europe . . . . . .Bill Hellman, NA2M
Asia . . . . . .Dick Stevens, N1RCT
Canada . . . . . .Raj Singh, VE6RAJ
Japan . . . . . .John Lockhart, W0DC

Single Band

World 28 MHz . . . . . .Gary Stout, W9OX
World 21 MHz . . . . . .TARA (Troy Amateur Radio Association), N2TY
World 14 MHz . . . . . .Francis Fallon, N2FF
World 7 MHz . . . . . .Bill Heinzinger, W9OL
World 3.5 MHz . . . . . .CQ Magazine

Low Power, All Band

World . . . . . .CQ Magazine
USA . . . . . .Wayne Matlock, K7WM
N.A. . . . . .Ron Hall, KP2N
S.A. . . . . .Bob Wruble, W7GG
Oceania . . . . . .CQ Magazine
Africa . . . . . .Charles Anderson, KK5OQ
Europe . . . . . .Eddie Schneider, G0AZT
Asia . . . . . .CQ Magazine
Canada . . . . . .Victor Kindjerski, VE6PC

Multi-Single

World . . . . . .HAL Communications Corp.
USA . . . . . .RTTY by WF1B
N.A. . . . . .CQ Magazine
Oceania . . . . . .Bob Wruble, W7GG
S.A. . . . . .Open
Europe . . . . . .Peter Schultz, TY1PS
Asia . . . . . .CQ Magazine
Canada . . . . . .Malcolm McLeod, VE6CKG

Multi-Two

World . . . . . .Amateur Radio Trader
USA . . . . . .CQ Magazine
N.A. . . . . .John Lockhart, W0DC
Oceania . . . . . .CQ Magazine
S.A. . . . . .Julien and Susan Baldwin, N7VGO/KC7AVS
Europe . . . . . .Maurizio Soci, I4MKN & Giovanni Olivari, I4FTU (I4AYP Memorial)
Asia . . . . . .Bob Wruble, W7GG

Multi-Multi

World . . . . . .Amateur Radio Trader
Europe . . . . . .Tony De Prato, WA4JQS

Rookie-of-the-Year Award

Rookie Award . . . . . .CQ Magazine

Instructions for Preparation of Logs:

Logs must be postmarked no later than 30 days after the contest.

We want an electronic log in the Cabrillo format. We require an electronic log for any possible high score. All logs containing more than 200 QSO's and which were generated using a computer program must be submitted via e-mail or on a 3.5 inch floppy disk. In the Subject: line of your e-mail message please include your callsign and the category you are entering, e.g., SOABL, M2, MS, etc. (If you submit a floppy disk, please be sure to use a proper disk mailer to protect your log.) If the Cabrillo format is unavailable then logs must be prepared in accordance with paragraph 4. below and submitted via e-mail or on a 3.5 inch floppy disk containing files in plain ASCII text. Submit and name your files as follows:

Summary Sheet: *yourcall.sum*
Chronological log: *yourcall.log*
Dupesheet: *yourcall.dup*
Prefix List: *yourcall.wpx*

A Zip file containing the four files listed above is acceptable and must be named *yourcall.zip.*

Logs submitted via e-mail should be sent to wpxrtty@kkn.net. In the Subject: line of your e-mail message please include your callsign and the category you are entering, e.g., SOABL, M2, MS, etc. Receipt of all e-mailed logs will be confirmed via return e-mail.

If paper logs are submitted, your log must contain the date, time in GMT, band, callsign of the station worked, sent and received exchanges, multiplier claimed, and points claimed for each contest QSO. Prefix multipliers should be logged only the FIRST TIME they are worked. All duplicate contacts must be shown and indicate zero points claimed.

Single Operator entries must be submitted in chronological order and show clearly marked off-times in the log and on the Summary Sheet. Off-times must be at least one hour in length. Your off-time begins one minute of clock time after you log your last QSO and ends as soon as you log another QSO.

Entries from Multi-Single and Multi-Two stations must be merged into a single, chronological log that clearly indicates which transmitter made each QSO. Multi-Multi logs must be submitted chronologically by band.

An alphanumeric checklist of all callsigns worked (dupesheet) and a list of claimed prefix multipliers must be submitted with your log.

Each entry must be accompanied by a Summary Sheet listing all scoring information, the category of competition, entrant's e-mail address, and the entrant's name and mailing address in BLOCK LETTERS. Also submit a signed declaration that all contest rules and regulations for amateur radio in the country of operation have been observed.

If you do submit a paper log, please submit the originals. All logs go to:

CQ Magazine — WPX RTTY Contest
25 Newbridge Road
Hicksville, NY 11801
USA

Questions pertaining to the WPX RTTY Contest may be sent to the WPX RTTY Contest Director:

Glenn Vinson, W6OTC
488 Locust Street — #401
San Francisco, CA 94118
USA
e-mail: w6otc@garlic.com

Official log forms and summary sheets are available; send an SASE with sufficient postage to:

Wayne Matlock, K7WM
RT2, Box 102
Cibola, AZ 85328
USA
e-mail: k7wm@i10net.com

Disqualification: Violation of amateur radio regulations in the country of the contestant, or the rules of the contest, unsportsmanlike conduct, taking credit for excessive duplicate contacts, unverifiable QSO's or multipliers will be deemed sufficient cause for disqualification. An entrant whose log is deemed by the WPX RTTY Contest Committee to contain a large number of discrepancies may be disqualified as a participant operator or station for a period of one year. If within a five year period the operator is disqualified a second time, he will be ineligible for any CQ contest awards for three years.

Deadline: All entries must be postmarked NO LATER than **March 13, 2001.** E-mail logs are subject to the same deadline. Logs postmarked after the deadline may be listed in the results but will be ineligible for any awards.

Synopsis of Teletype Corporation History

Don House
drhouse@nadcomm.com

1902: Charles Krum, a cold storage engineer, initiated experiments with printing telegraph devices. This invention of the "start-stop" principle made possible the mechanization of "key" telegraph. Jay Morton of the Morton Salt dynasty gave support to Krum's experiments.

1906: The Morkrum Company was established with its ownership shared by Charles Krum and the Morton family.

1908: The Morkrum Company developed its first commercial printer. A field trial was conducted with the Alton Railroad. The trial was successful, but the Alton Railroad made no purchase.

1910: The Postal Telegraph purchased the first commercial Morkrum equipment. In 1912, Western Union purchased the same device. Although these M10 units were mechanically successful, none were commercially successful until 1925.

1915: The Associated Press adopted Morkrum M10 printing telegraph equipment to provide simultaneous service to competitive newspapers in New York City.

1918: Morkrum Company operation was expanded from its "garage" type facility. Employees numbered "over 200."

1921: The M11 type-wheel tape printer went into production. It constituted the first commercially acceptable and successful unit. The M11 was manufactured through 1927 with 883 machines being produced overall.

1922: The M12, a type-bar page printer with moving platen, was first marketed. Previous to 1922, printing telegraph was limited largely to commercial-telegraph and railroad uses. The M12 page printer opened the way to general business uses. Substantial numbers of this unit were sold through 1930, with quantity, too, being sold as late as 1943. A total of 11,899 M12 units were sold.

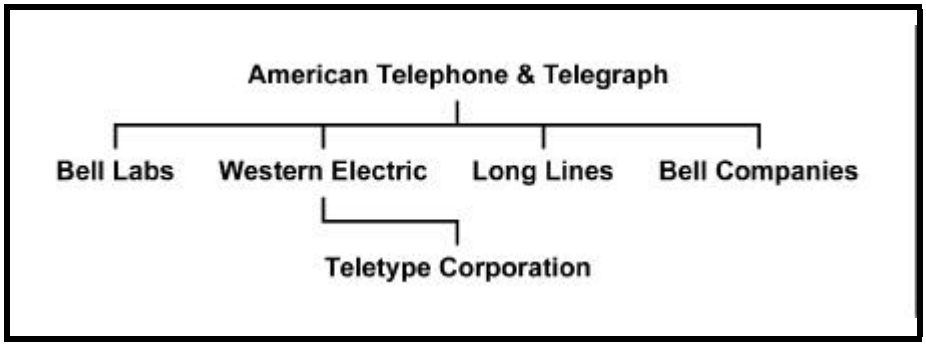
1925: The M14 type-bar tape printer was first marketed. The machine reached its highest production in 1929 and 1930. A total of 60,000 units had been sold when the device was discontinued in the late 1950s.

1925: The Morkrum and Kleinschmidt Companies merged to form the Morkrum-Kleinschmidt Company.

1929: The title "Morkrum-Kleinschmidt" was found to be too cumbersome and was dropped in favor of "Teletype."

1930: The M15 type-bar page printer with stationary platen was introduced. This machine soon became the "bread and butter" unit of Teletype, reaching its peak output during WWII. Through 1954, about 200,000 were sold. A large percentage of Bell System Teletypewriter Exchange (TWX) stations were of the M15 vintage.

1930: The Teletype Corporation was purchased by the Bell System and became a wholly owned subsidiary of the Western Electric Corporation. The Bell System at this time, was formulating plans for a new teletypewriter exchange service called TWX.



The Teletype Corporation was selected and purchased to provide the necessary equipment for the proposed service.

1932: TWX (Teletypewriter Exchange Service) was inaugurated by the Bell System. Terminal equipment provided by the Teletype Corporation was of the M15 type.

1941: The M14 tape punch was first marketed. Approximately 50,000 units were sold through the late 1950s when the device was discontinued. About 90% of all effort at Teletype was devoted to the war.

1951: The first M28 page printer was delivered to the Navy. This represented approximately 12 years of research and development effort. The M28 line was accepted by the Bell System as a successor to the M14, 15 and 19 lines of equipment in 1956. The M28 design principle constituted the corporation's basic approach to both message and data recording equipment until 1960.

1960: Teletype Corporation assembles for the first time under one roof in their new quarters in Skokie, Illinois. A multi-million dollar plant with 1.5 million square feet of operating area and employing over 6000 workers, it represented a milestone in the history of the Teletype Corporation.

1961: The M35 and M33 lines of equipment were being introduced. While the M35 is merely an 8 level version of the M28, the M33 represented the marriage of many proven designs into a totally new design, best described by the term "low cost concept." Approximately six years of research and development went into the M33.

1965: As a manufacturing arm of the Bell System, the primary function of the Teletype Corporation through the years was the research, development and manufacture of the best possible record communications equipment at the lowest possible cost. Simply stated, Teletype's job was to supply the Bell System with the data terminal equipment required to satisfy their customer's needs. This function remained the same until the end. Concentrating on the above fields of endeavor, Teletype depended for direction upon market analysis information supplied by the Bell System. The product mix available to the data communications salesman, represented the requirements placed on Teletype by the Bell System.

Considering the fact that the teletypewriter, with associated devices, constituted the sole offering in the field of data terminal equipment, it is useful to have an understanding of Teletype Corporation's position within the Bell System organizational structure (see figure on facing page).

Teletype's responsibility within the Bell System was the research, development and manufacture of data and record communications equipment. This did not conflict with Western Electric's efforts as a manufacturer of transmission, switching, and telephone equipment. But this was not the only difference between Teletype and Western Electric; and in fact, all other elements of the Bell System. Because of the nature of its business, as stated in the corporate charter, Teletype was allowed a unique mode of operation. It was organized as a separate entity, and contained all the elements necessary for a separate corporation.

Teletype's charter permitted the sale of equipment to customers outside the Bell System which explains their need for a separate sales force. Here is a breakdown of Teletype's customers: Bell Systems (55-60%), Federal Government (25-30%), Other (10-15%).

RTTY by WF1B
Version 5.0

Available at www.wf1b.com

Hardware:

HAL DXP38
HAL P38
HAL PCI-4000
HAL PCI-3000
HAL ST-8000
HAL DSP 4100
PK-232
PK-900
AEA Generic
K6STI Ritty
K6STI Bitty
MFJ-1278
Kantronics KAM Allmode
Kantronics UTU
SCS PTC-I & PTC-II
Timewave DSP-599ZX
AMT-1
ALL old-style terminal units

Radio Control:

Yaesu
- FT-1000D
- FT-1000MP
- FT-990
- FT-920
- FT-900
- FT-890

TenTec
All Kenwood Models
Most ICOM Models

Computer:

486/66 or faster. Pentium class CPU is not required, but will work, of course!
4 MB Ram or more
COM 1-8, any IRQ
DOS, Win 3.1, Win95, Win98

Contests:

ARRL RTTY Roundup
WPX RTTY Contest
BARTG RTTY
EA WW RTTY
SP DX RTTY
ANARTS WW RTTY
ARI International
VOLTA RTTY
ARRL Field Day
NA QSO Party
Russian WW RTTY
SARTG Contest
CQWW RTTY
WAEDC RTTY
JARTS RTTY
TARA Sprint
Internet SprINT
BARTG RTTY Sprint
Plus DxPedition Mode

More Features:

Advanced callsign detection algorithms
Pure RTTY! No additives
Internet mailing list
Website
Complete Reports
Beam headings
Networking
Real Time Rates
Real Time Scoring

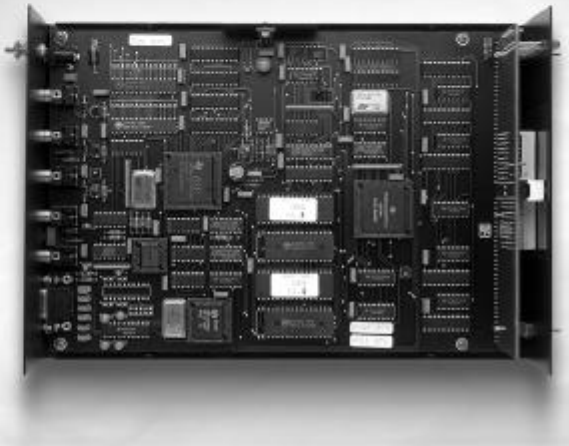
Contact for full details.

RTTY by WF1B software is now free! Technical support available for $25/year.

WYVERN TECHNOLOGY, INC.
35 Colvintown Road, Coventry, RI 02816-8509
Phone: 401-823-RTTY (7889) FAX: 401-822-0554
e-mail: sales@wf1b.com www.wf1b.com

Next Contest, Work the Weak Ones

- Rugged and portable aluminum cabinet
- Unique Crossed-X tuning indicator displays M/S in FSK and CLOVER, and frequency center in all modes



- DSP filtering and Motorola microprocessor control
- Flash memory for easy software and firmware updates

- Connects to computer with a standard DB9 serial cable
- Radio connections made easy with phono connectors

DXP38 DSP HF Radio Modem

Modes: CLOVER-II, RTTY, AMTOR, P-MODE

Everything bad can and does happen to your HF signals, especially during a contest. Selective fading, noise, interference, and poor tuning indicators all conspire to let that rare DX get away. Track it down with the DXP38.

The DXP38 modem provides advanced digital signal processing the other do-everything analog designs can t. You can t work the rare ones if your modem can t copy them. The DXP38 will!

HAL COMMUNICATIONS CORP.
1201 West Kenyon Road, P.O. Box 365
Urbana, IL 61801-0365
Phone: (217) 367-7373 FAX (217) 367-1701
www.halcomm.com halcomm@halcomm.com