

MicroHAMS Digital Conference 2009

Getting Started in Digital Contesting

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Decorative wavy lines in the bottom right corner of the slide.

Why Contest at All?

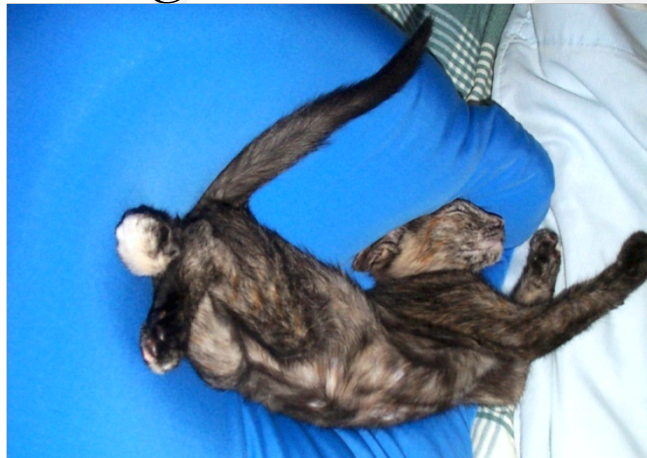
- To enjoy the pleasure of the challenge – you against the world or just you against yourself
- To sharpen your operating skills
- To better understand your station
- To better understand the vagaries of propagation
- To contact states, grids, counties, DXCC entities, etc for various awards

Contesting is Growing

- Despite poor HF propagation, the 2008 ARRL CW and Phone Sweepstakes saw a record number of log submissions
- The 2009 RTTY Roundup set an all-time record with 1,564 logs submitted
- Even VHF contesting, which has been in a decade-long slump, is on the rise

Why *Digital* Contesting?

- It is easy on the body – no sore throats or worn out fingers
- It lets you explore the pleasures of integrating your computer and your radio
- You don't need a big station to make a difference
- It's *quiet!*



RTTY Is the King of Digital Contesting

- Radioteletype (RTTY) is one of the oldest digital modes in Amateur Radio, but it remains the most popular mode for digital contesting.
- RTTY is fast (as fast as most of us can type) and it avoids the “capture effect” common to other digital modes (where the strongest station is the only one copied).

Other Contest Modes

- There are also PSK31 contests and even Hellschreiber contests, but none have yet matched the popularity of the RTTY slugfests.



14 Major RTTY Contests per Year

- First weekend in January
- Second weekend in February
- Fourth weekend in February
- Third weekend in March
- First weekend in April
- Second weekend in May
- Second weekend in June
- Third weekend in July
- Third weekend in August
- Last weekend in September
- Second weekend in October
- Third weekend in October
- Second weekend in November
- Third weekend in December

ARRL RTTY Roundup

CQ World Wide WPX RTTY Contest

North American QSO Party

BARTG Spring RTTY Contest

EA RTTY Contest

A.Volta RTTY DX Contest

ANARTS WW RTTY Contest

North America QSO Party

SARTG RTTY Contest

CQ WW RTTY DX Contest

BARTG RTTY SPRINT

JARTS World Wide RTTY Contest

Worked All Europe DX Contest

OK DX RTTY Contest

RTTY and the Casual Contester

- Casual contesting is competition for the sheer fun of it, on your own terms as your time permits.
- Many testers are casual with very modest stations
- Digital contesting is ideal for modest stations because you can accomplish a lot with relatively little power and minimal antennas



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What Do You Mean You Don't Have a Digital Station?

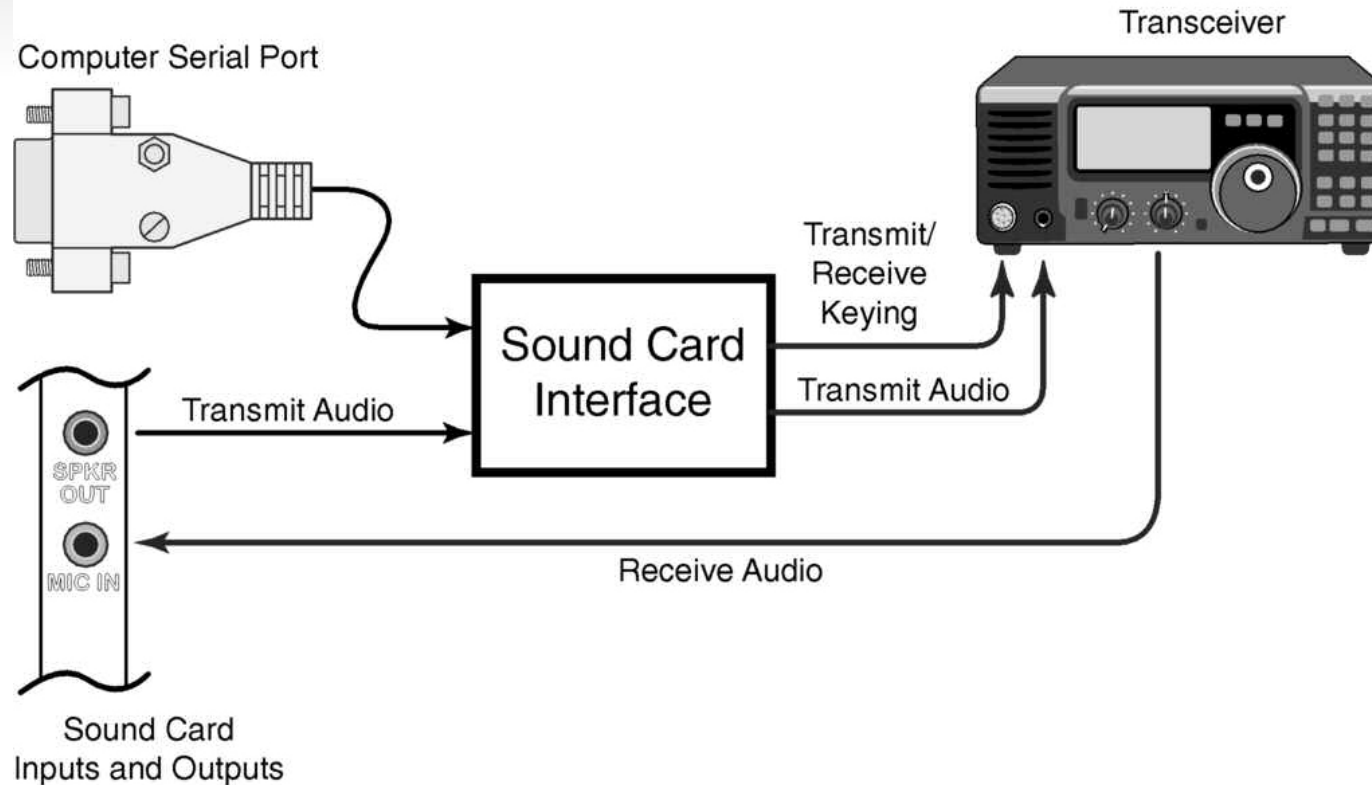
All you need is . . .

- An HF SSB transceiver
- A computer with a sound card or sound chipset
- A sound card interface
- Software
- Refreshments optional

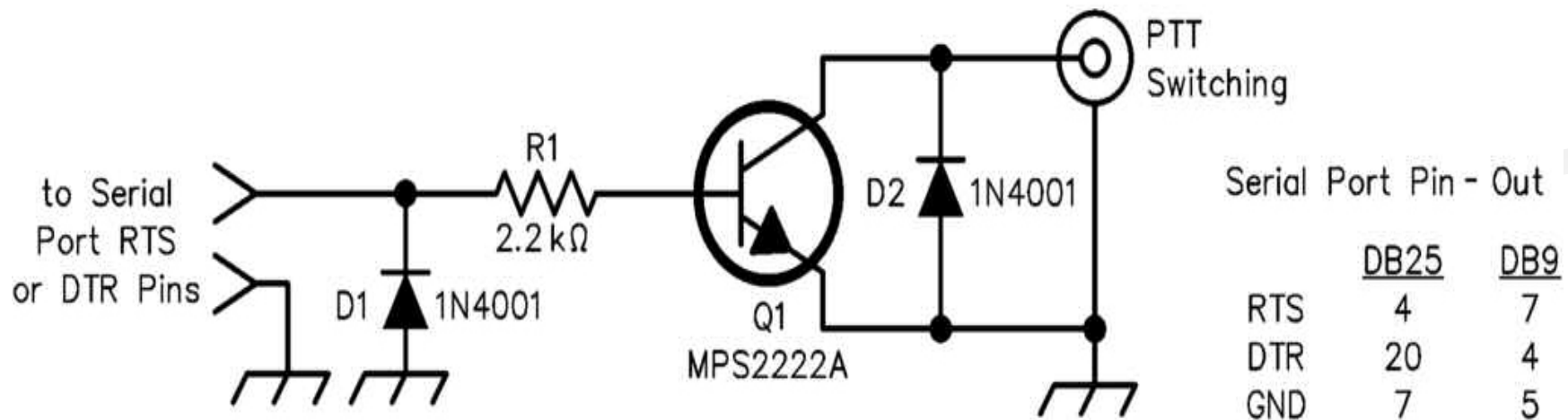


Sound Card Interfaces

- They can be simple or complex



If All You Want to do Is Control Transmit/Receive Switching, a Single Transistor Does the Trick



Or You Can Buy an Interface Off the Shelf



Digital Contest Software

- Contest-specific programs are best because they provide all the features you need . . .

Automatic scoring

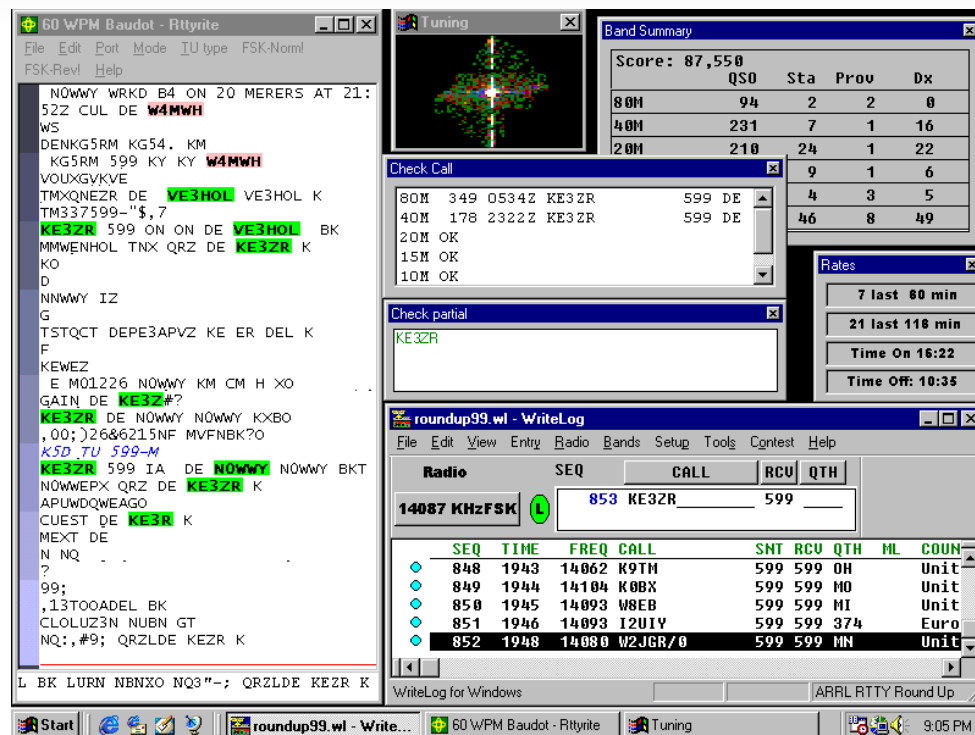
Duplicate contact checking

Multiplier tracking

Log submissions

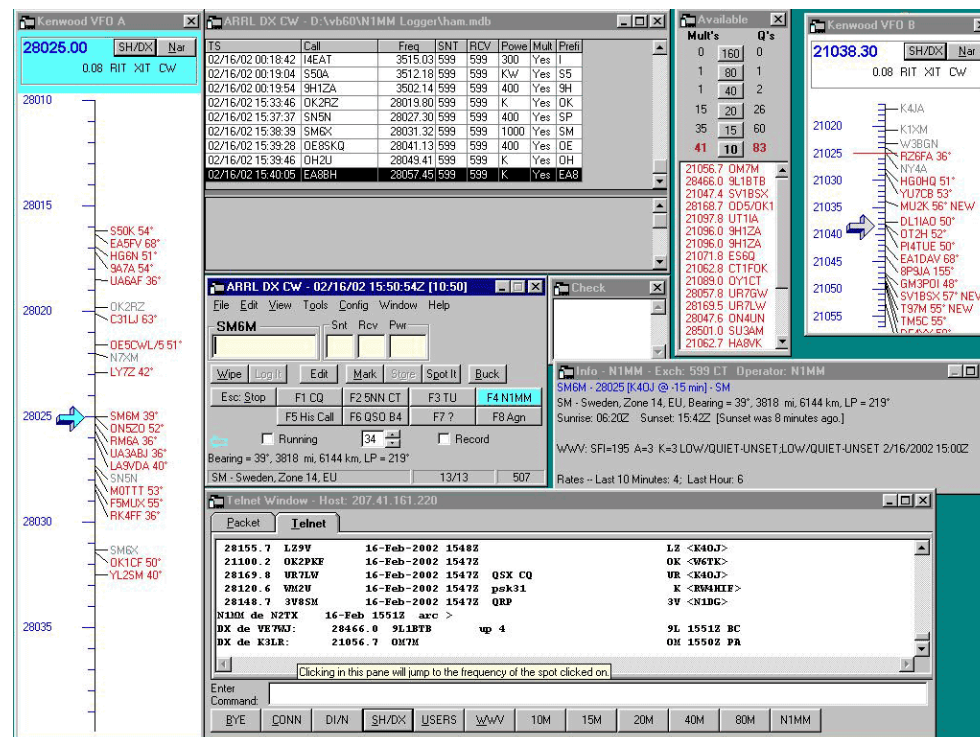
WriteLog

- \$30 from <http://www.writelog.com/>
- Includes sound-card based RTTY functionality



N1MM Logger

- Free for downloading at <http://www.n1mm.com/>
- Does not include a RTTY application, but can be used with the free *MMTTY* software available at <http://mmhamsoft.amateur-radio.ca/mmtty/>



Contest Tips and Tricks!

- Read the rules before the contest starts
- Choose your operating category . . .

Single Op All Band or Single Band?

MultiSingle? (Several operators, but only one transceiver)

MultiMulti? (Several operators on different transceivers)

Contest Tips and Tricks!

- Know the exchange

Examples . . .

Signal report, serial number (beginning with 001) and time

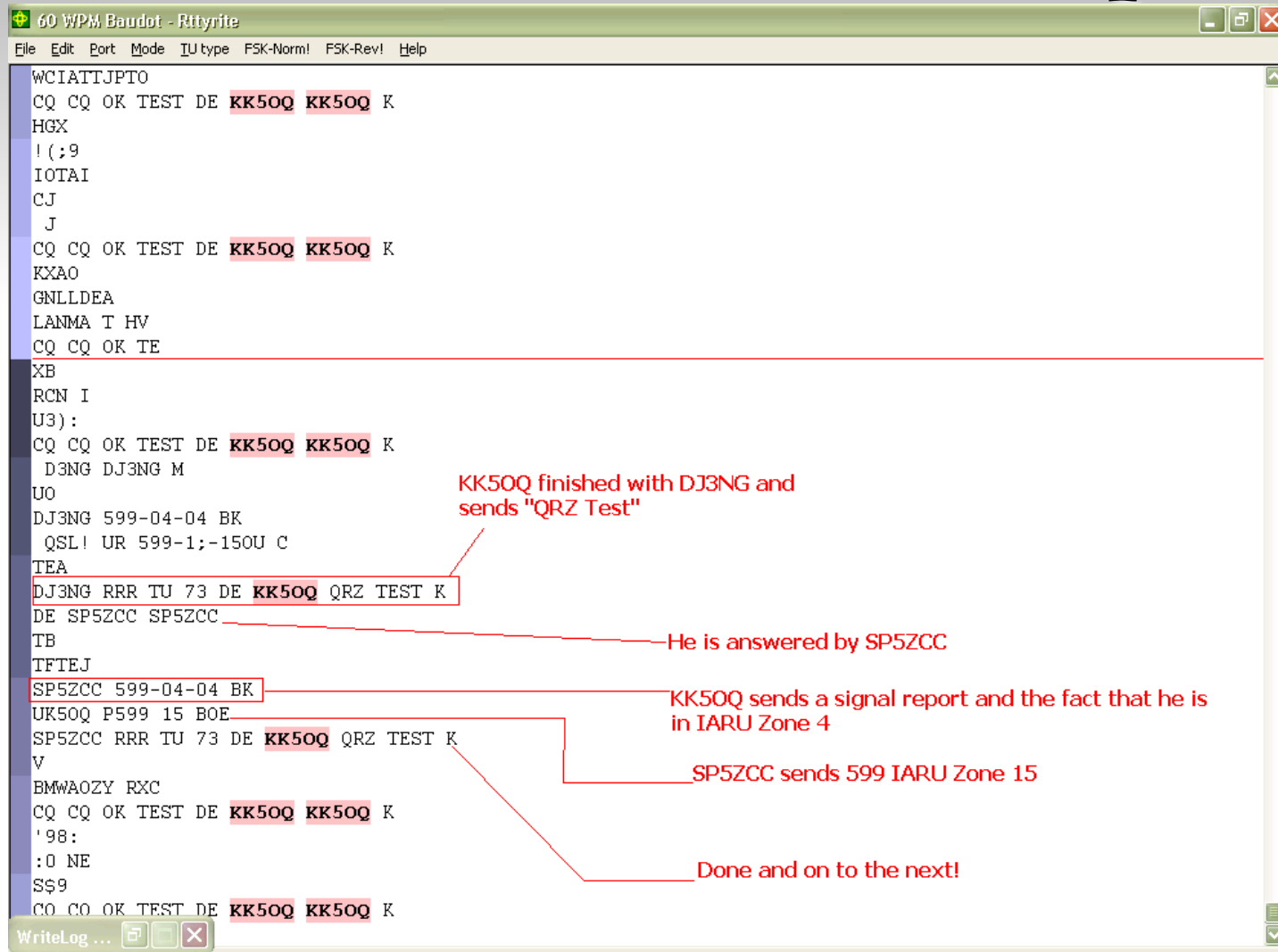
Signal report and state

Serial number and age

Signal report and IARU Zone

- Many contest programs already “know” the necessary exchanges for all major contests

OK DX Contest Example



60 WPM Baudot - Rttymite

File Edit Port Mode IU type FSK-Norm! FSK-Rev! Help

WCIATTJPTO
CQ CQ OK TEST DE **KK5OQ** **KK5OQ** K
HGX
! (;9
IOTAI
CJ
J
CQ CQ OK TEST DE **KK5OQ** **KK5OQ** K
KXAO
GNLLDEA
LANMA T HV
CQ CQ OK TE

XB
RCN I
U3):
CQ CQ OK TEST DE **KK5OQ** **KK5OQ** K
D3NG DJ3NG M
UO
DJ3NG 599-04-04 BK
QSL! UR 599-1;-150U C
TEA
DJ3NG RRR TU 73 DE **KK5OQ** QRZ TEST K
DE SP5ZCC SP5ZCC

He is answered by SP5ZCC

SP5ZCC 599-04-04 BK
UK5OQ P599 15 BOE
SP5ZCC RRR TU 73 DE **KK5OQ** QRZ TEST K
V
BMWA0ZY RXC
CQ CQ OK TEST DE **KK5OQ** **KK5OQ** K
'98:
:0 NE
S\$9
CO CO OK TEST DE **KK5OQ** **KK5OQ** K

KK5OQ finished with DJ3NG and sends "QRZ Test"

KK5OQ sends a signal report and the fact that he is in IARU Zone 4

SP5ZCC sends 599 IARU Zone 15

Done and on to the next!

WriteLog ...

Contest Tips and Tricks!

- “Running” vs. Searching and Pouncing



Contest Tips and Tricks!

- Make it easy with *Macros* (*Writelog* examples)

KEY F5 = WB8IMY WB8IMY %E

KEY F4 = %D 599 CT CT DE WB8IMY K %E

KEY F9 = MY STATE CT CT CT CT DE
WB8IMY K %E

Contest Tips and Tricks!

- Watch out for duplicate contacts, better known as *dupes*

The screenshot displays a radio contest software interface with several windows open:

- 60 WPM Baudot - Rttyrite:** The main log window showing a list of contacts. Notable entries include:
 - NOWWY WRKD B4 ON 20 MERERS AT 21:52Z CUL DE **W4MWH**
 - DENK5RM KG54. KM
 - KG5RM 599 KY KY **W4MWH**
 - VOUXGVKVE
 - TMXQNEZR DE **VE3HOL** VE3HOL K
 - TM337599-";,7
 - KE3ZR** 599 ON ON DE **VE3HOL** BK
 - MMWENHOL TNX QRZ DE **KE3ZR** K
 - KO
 - D
 - NNWY IZ
 - G
 - TSTQCT DEPE3APVZ KE ER DEL K
 - F
 - KEWEZ
 - E M01226 NOWWY KM CM H XO
 - GAIN DE **KE3Z**#?
 - KE3ZR** DE NOWWY NOWWY KXBO
 - ,00;26&6215NF MVFNBK?O
 - KSD.TU 599-M**
 - KE3ZR** 599 IA DE **NOWWY** NOWWY BKT
 - NOWWEPX QRZ DE **KE3ZR** K
 - APUWDQWEAGO
 - CUEST DE **KE3R** K
 - MEXT DE
 - N NQ
 - ?
 - 99;
 - ,13TOOADEL BK
 - CLOLUZ3N NUBN GT
 - NQ:;#9; QRZLDE KEZR K
- Tuning:** A window showing a waterfall display of the radio spectrum.
- Band Summary:** A table showing the current score and contact statistics across different bands.

	QSO	Sta	Prov	Dx
80M	94	2	2	0
40M	231	7	1	16
20M	210	24	1	22
- Check Call:** A window for logging contacts, showing fields for frequency, time, call, and rate.

80M	349	0534Z	KE3ZR	599	DE
40M	178	2322Z	KE3ZR	599	DE
20M	OK				
15M	OK				
10M	OK				
- Check partial:** A window for logging partial contacts, showing the call **KE3ZR**.
- Rates:** A window showing the current time on and off the air.

7 last	80 min
21 last	118 min
Time On	16:22
Time Off	10:35
- roundup99.wl - WriteLog:** A window showing a detailed list of contacts.

Radio	SEQ	CALL	RCU	QTH
14087 KHzFSK	853	KE3ZR	599	

Contest Tips and Tricks!

- IF filters are a must – 500 Hz or even 250 Hz in extremely crowded conditions



Without filters to separate the signals, you'll quickly go insane.

There is a RTTY Contest Going on *Right Now!*

- The BARTG HF RTTY Contest began Friday evening at 0200 UTC (7 PM local) and will continue until 7PM Sunday.
- Exchange: RST, Message Number (beginning with 001) and Time (UTC)
- Rules online at **<http://www.bartg.org.uk/contests/08hfrules.htm>**
- Download *MMTTY*, run an audio cable from your radio to your sound card and watch the action. Or, jump into the fray!

References

- *ARRL HF Digital Handbook* (www.arrl.org/catalog)
- *WriteLog for Windows* <http://www.writelog.com/>
- *N1MM Logger* <http://www.n1mm.com/>
- *CocoaModem* (MacOS)
<http://homepage.mac.com/chen/w7ay/Site/index.html>
- *MMTTY*
<http://mmhamsoft.amateur-radio.ca/mmtty/>
- *AA5AU RTTY Contesting*
<http://www.rttycontesting.com/>

References

Common RTTY Contest Frequencies

- 3570 to 3600 kHz
- 7030 to 7050 kHz
- 14075 to 14110 kHz
- 21075 to 21100 kHz
- 28070 to 28100 kHz

