

WRTC Rules

Last modified: 21 May 2014

1. Contest Period

The WRTC 2014 competition will be held during the IARU 2014 HF Championship.

Start: Saturday 12 July 2014 1200 UTC (0800 Local time)

End: Sunday 13 July 2014 1200 UTC

2. Frequencies/Bands

Only the 3.5, 7, 14, 21, and 28 MHz bands may be used. All participants must obey the [frequency regulations](#) of the U.S. Federal Communication Commission.

3. Modes

CW and SSB.

4. Language

Only English language and common international abbreviations can be used when operating either SSB or CW.

5. Contest Exchange

5.1 WRTC stations must send signal report plus ITU zone (W1 area is ITU Zone 08). A complete exchange must be sent and logged for each valid QSO.

5.2 No abbreviations are allowed when sending the exchange either on SSB or CW. You must say 5-9 8 on SSB and 5nn 8 on CW. Additional cut numbers such as enn8 are not allowed. You may increase the speed of the exchange up to a maximum of 50 WPM. Voice recorders are allowed to send the exchange on SSB. It is recommended, but not required to send your call sign in every exchange.

6. Valid QSOs

The same station/callsign may be worked once on CW and once on SSB per band. Cross-band or cross-mode QSOs are not allowed.

7. QSO Points

Each valid two-way CW or SSB QSO receives the following QSO points:

QSO With	Points
ITU Zone 08	2

Outside ITU Zone 08 and within North America	3
Outside North America	5
IARU member society HQ stations and IARU officials	2

8. Multipliers

8.1. The total number of DXCC countries plus IARU member society HQ stations on each band will count as multipliers, once per band regardless of the mode. IARU officials represent a maximum of four multipliers per band (AC, R1, R2 and R3).

8.2. IARU member society HQ stations and officials do not count for DXCC country multipliers.

9. Score

The final score will be:

Score = (Total number of multipliers) x (the sum of QSO points).

The judging committee will calculate the final score for all entries based on Cabrillo logs submitted after adjudication.

10. Champions

The WRTC2014 Champion will be the team with the highest score.

11. Special Awards

- The WRTC2014 SSB Leader will be the team with the highest QSO total on SSB.
- The WRTC2014 CW Leader will be the team with the highest QSO total on CW.
- The WRTC2014 Multiplier Leader will be the team with the highest total multiplier.
- The WRTC2014 Accuracy Leader will be the team with the lowest percentage of callsign/exchange errors. [Modified May 31, 2014]

As WRTC is a mixed mode contest, a minimum of 35% of the total number of QSOs must be made on the other mode to qualify as a QSO Leader in either SSB or CW.

12. Special Rules and Disqualification

12.1. WRTC team contest stations must be QRT for at least 15 minutes prior to the contest start (by 1145 UTC). The receiver volume of both radios must be turned fully off and no monitoring or transmitting is allowed within this 15-minute timeframe. The radios may be left powered on.

12.2. The operators are not allowed to identify themselves (i.e., revealing their own call signs) before or during the contest or reveal their team identity in any way. Any attempt to do this such as by radio, telephone, SMS, internet, email, etc., will result in immediate disqualification. Requesting QSOs (e.g.,

setting schedules with special identification procedures in any way) before the contest period is strictly forbidden.

12.3. You may request QSOs with any station on another band/mode. All requests must occur during the contest with no other attempt to reveal the team's identity. All requests can only be made on HF CW or SSB, and by no other means.

12.4. Use of DX spotting (e.g., Packet, Web, etc.), skimmer or any other spotting and supplementary information network is not allowed. You are not allowed to receive any assistance to learn the callsign or exchange of any station other than by tuning the radio and listening by human ear.

12.5. The use of any callsign database or the 'Super Check Partial' tool is not allowed. If the logging software incorporates this kind of feature, it must be disabled. The logging computer(s) may display a 'Check Partial' list based only upon the callsigns already worked during the contest.

12.6. The WRTC Contest is the equivalent of the Ham Radio Olympic Games. To maintain the spirit and credibility that this name implies, the judging committee may disqualify a team that commits any of the following (but not limited to) actions:

- Violates the rules of the contest.
- Shows unsportsmanlike conduct.
- Takes credit for excessive unverifiable QSOs or unverifiable multipliers.

The decisions of the judging committee are final.

13. Callsign Allocation

The callsigns assigned to the competitors will be selected from special calls in a "to be determined" series. The process of assigning calls, stations, and referees will be randomly designated by lottery on Friday (July 11, 2014) before the contest. The competition callsigns will be given to the teams by their referee at the station 15 minutes before the contest. Team members are not allowed to know the callsign before this time.

14. Logging

14.1. Computer logging is required.

14.2. Each WRTC 2014 team must submit their log file in Cabrillo format to their referee within thirty (30) minutes after the contest has ended.

14.3. All competitors are required to use one of the following logging programs:

- Writelog
- Win-Test
- TR4W (TR for Windows)

- N1MM Contest Logger
- DXLog.net
- SkookumLogger

Other software that meets the requirements of Cabrillo output and database limitations may also be acceptable with written permission from the WRTC2014 committee at least 90 days prior to the contest. The team is solely responsible to ensure the software conforms to WRTC2014 standards as defined in these rules.

14.4. In all cases, the competitors are responsible for creating Cabrillo-compliant output with the software used in the contest. The Committee does not assume any responsibility for the conversion of log data into Cabrillo format.

15. Recording

15.1. After the contest, each team must provide to the referee a continuous stereo recording of Radio A and Radio B on one of the following:

- USB2 compatible device (USB flash memory, USB hard drive)
- CD/DVD disk

The recordings should be separated into two audio files, one for each radio. You may record in one of the following 2 formats:

- Two (2) separate files, one for each radio.
- One file with each radio on a separate channel.

15.2. The judging committee has the right to remove any claimed contacts not found in the recordings.

16. WRTC 2014 Station Setup

16.1. Each participating WRTC team must bring everything needed for their station except items listed in [Station Description](#).

16.2. Each WRTC 2014 station will have two radios – Radio A and Radio B.

16.2.1. Radio A and Radio B can each use only one antenna connector. This means that every transmission and reception must go through a single antenna connector of that Radio. No external receive antennas are allowed. External bandpass filters are allowed in the receive line if desired.

16.2.2. Use of any sub receiver in radios that are so equipped, is not allowed. This includes diversity receiving. Radios are not allowed to receive on two frequencies simultaneously. For a two-channel (or multi-channel) radio (which has sub-receiver or parallel reception capabilities), which allows reception of signals on different frequencies simultaneously, the sub-receiver (or that parallel reception) must not be used.

16.2.3. You are allowed to share audio between Radio A and Radio B. Each operator may listen to the other operator's radio and vice versa.

16.2.4. Both Radio A and Radio B are allowed to transmit. The contest is a full Two-Operator Two-Transmitter type operation. The only limitation is that each radio must transmit on a different band regardless of mode (e.g., if Radio A is on 15M SSB, Radio B is not allowed on 15M SSB or 15M CW during the same time period).

16.2.5. Spectrum scopes (pan adapters) are allowed provided that they are used solely for instant spectrum visualization of the current amateur radio band of Radio A or Radio B. The spectrum scope may be built-in to the radio or be a separate device. It may be connected to the radio or PC-A/B with the following limitations:

- The only output from the spectrum scope can be video.
- Data transfer to the logging program or any other software is not allowed.
- Only the current band/frequency data of a single Radio (A or B) can be transferred to one spectrum scope for that radio.
- The spectrum curve may be displayed in any suitable device, including the PC-A/B monitor screen.
- No additional computers may be used for SDR signal processing; only PC-A/B computers may be used.
- The spectrum scope must not be used to control any other device (e.g., tune Radio A/B).
- No signal demodulation or any other secondary spectrum processing (e.g., station detection, peak holding, or waterfall display) is allowed.

16.3. All radios must be commercially manufactured transceivers, meeting all manufacturer specifications.

16.4. Competitors are allowed to have a backup radio. The backup radio may only be used in case of malfunction of the station's primary radio and with approval of the referee.

16.5. Radio A and Radio B are each limited to 100 watts (KEY DOWN) maximum power output. The power will be measured by a peak power monitor provided by organizer. The monitor has two detectors which must be connected directly to Radio A and Radio B's respective antenna connectors. The power monitor acts on forward power only. Any devices connected after the detectors must not amplify the transmitted signal.

16.6. Band-pass filters are allowed for both Radio A and Radio B. External antenna tuners are allowed for all antennas. These devices must be connected after the power detector. Any power losses from these devices may not be compensated for in any way.

16.7 Two networked PCs are allowed (PC-A at Radio A, PC-B at Radio B). The PCs should be named PC-A and PC-B (or similar) within the team's logging software before the contest begins. No wireless connections are allowed from the PCs except for wireless keyboards and mice. No WiFi or Bluetooth network connections are allowed. Network connections between logging computers must utilize the 5-port Ethernet switch provided by WRTC 2014. Each team will provide two straight Ethernet cables to connect PC-A and PC-B to the Ethernet switch. Each team should also bring an Ethernet crossover cable to use in case of an Ethernet switch failure – or should plan on bringing a backup Ethernet switch (3 ports, minimum). [Modified May 21, 2014]

16.8. The teams must provide an audio output for both radios that the referee can monitor. This may be in parallel with the recording device described in rule 16.9 if desired. The audio must be isolated so the referee may listen to either channel or both at the same time. The team may provide headphones for the referee or the referee may bring their own. In either case, it is the team's responsibility that the referee can monitor both radios continuously. If the referee uses his or her own headphones, it must not interfere with the team's audio in any way.

16.8.1. The audio output should be terminated in a 3.5mm headphone female jack for the referee to plug into. If desired, the referee may bring an audio switch box to choose Left/Right or Both audio channels.

16.9. The teams must provide the equipment for recording the WRTC contest operation, including both the received and transmitted audio of Radio A and Radio B. The recording must be complete for the entire operation. A third PC is allowed for this purpose, but may not be networked to PC-A or PC-B in any way. Operators are not allowed to review the recorded audio except for troubleshooting purposes while under the referee's supervision.

16.10. Teams may adjust the length of the 80M antenna to move its resonance from the low end of the band to the SSB portion or back. This may be done by folding the extension wires from the insulators at each end back along the dipole wires (SSB), or out along the support ropes (CW). The center and ends of the antenna must not be moved. This adjustment must be made while standing on the ground. No climbing of the antenna structure or other objects is permitted. In the case of a failure of the wire antenna(s), only the site team is allowed to repair it. It is not allowed to move the antenna ends without express permission from WRTC HQ. [Modified May 2, 2014]

16.11. Participants are not allowed to change or cut antenna coaxial cables provided by the organizer. All such cable lengths must remain unchanged. Any filters or other devices allowed as previously described must be connected after the entire length of cable provided.

16.12. Before the competition the Teams are allowed to use third party technical support to organize and install the station as well to install and test software or other permitted devices and peripherals.

16.13. During the competition the Referee may permit repair of any equipment or antennas reported damaged during the operation. This can be done by the operators or WRTC support staff only. No third party is allowed in the operating area at any time during the competition.

16.14. All equipment used by any team must be located inside of the tent (except generator, antennas and cables). Participants must stay in the referee's field of view.

17. Definitions

17.1 Radio

A

1. Allowed to transmit
2. Main receiver reception
3. Sub-receiver reception is not allowed
4. VFO A and VFO B transmit
- 5. A triplexer should be used on the triband antenna to provide 10/15/20 meter antenna inputs. See special triplexer section in the station description.**
6. Allowed to use band-decoder
7. Allowed to use audio and RF filters
8. Can share audio with Radio B
9. Must share audio with Referee
10. Can be replaced by back-up Radio (in case of failure)
- 11. Radio A cannot transmit on the same band as Radio B. You may listen on the same band as Radio B at any time. After one QSO is made on a band, all QSOs for that band must be made on the same radio during that time period. Either radio may use any antenna but may not share that antenna with the other radio.**

B

1. Allowed to transmit
2. Main receiver reception
3. Sub-receiver reception is not allowed
4. VFO A and VFO B transmit
- 5. A triplexer should be used on the triband antenna to provide 10/15/20 meter antenna inputs. See special triplexer section in the station description.**
6. Allowed to use band-decoder
7. Allowed to use audio and RF filters
8. Can share audio with Radio A
9. Must share audio with Referee
10. Can be replaced by back-up Radio (in case of failure)
- 11. Radio B cannot transmit on the same band as Radio A. You may listen on the same band as Radio A at any time. After one QSO is made on a band, all QSOs for that band must be made on the same radio during that time period. Either radio may use any antenna but may not share that antenna with the other radio.**

17.2 Computer

A

1. May be interconnected with Computer B
2. Allowed to key Radio A only.
3. Can exchange messages with Computer B
4. Voice and CW keyers are allowed
5. Super Check Partial is not allowed
6. Log must be converted to Cabrillo format after

B

1. May be interconnected with Computer A
2. Allowed to key Radio B only.
3. Can exchange messages with Computer A
4. Voice and CW keyers are allowed
5. Super Check Partial is not allowed
6. Log must be converted to Cabrillo format after

the contest

the contest

17.3 Operator

A

1. Operator of Radio A
2. Operator A can change position (chair) with Operator B at any time
3. Allowed to populate the band-map
4. Can exchange messages with operator B
5. Must share audio with the Referee throughout the contest
6. Can share audio at any time with Operator B
7. Can operate any of the allowed devices

B

1. Operator of Radio B
2. Operator B can change position (chair) with Operator A at any time
3. Allowed to populate the band-map
4. Can exchange messages with operator A
5. Must share audio with the Referee throughout the contest
6. Can share audio at any time with Operator A
7. Can operate any of the allowed devices

18. Conditions of entry

By submitting an entry in the WRTC Contest you agree that:

1. You have read and understood the rules of the contest and agree to be bound by them;
2. You have operated according to all rules;
3. Your log and your audio recording, as well as photo and video materials of your operation prepared by the organizer may be made open to the public;
4. All actions and decisions of the WRTC Judging Committee are official and final.

<<end>>