RULES IARU R1 50/70 MHz, 145 MHz and UHF/µW CONTESTS

New rules for 2018

1 Objective

The main objectives are to make as many contacts as possible and to have fun. Other objectives may include improving your operating skills, testing new equipment configurations and techniques, expanding your horizons by operating on the microwave bands and exploring radio propagation.

2 Definitions

- **Station**: set of antennas, transmitters and receivers used during the contest on each frequency band (i.e. multiband setups are composed of multiple stations).
- **Location:** geographical area with diameter of no more than 500 meters where the station resides during the contest.
- **Call Sign:** identification of the station during the contest. Added prefix and/or suffix do not generate different call sign (i.e. S50AAA/p or DL/S50AAA are the same call sign as S50AAA).
- **Operator:** an individual that operates the station during the contest using the station's call sign. Operator may reside inside (local operator) or outside (remote operator) the location. During the contest an operator may operate only stations that form one entry.
- **Entries:**
    - **MULTI operator**: stations from the same location, operated by more than one operator and using one callsign on all bands.
    - **SINGLE operator**: stations from the same location, operated by the same operator and using one callsign on all bands, with no operational assistance of another person during the contest.
    - **6 HOURS:** stations from the same location, operated by any number of operators and operating according to the 6 hours' time rule. The 6 hour time segment can be divided into maximum two periods. The time of the first QSO sets the start time of the first period. When operating in two periods, the pause between the periods must be longer than 2 hours. The first time difference of 2 hours or more between two consecutive QSOs marks the pause segment. Only the QSOs that fall into the combined 6 hour time segment will be counted for points. Participants are welcome to operate longer than 6 hours and in such case they shall send their complete log (the contest robot will automatically extract the 6 hours part from the log, while the rest of the log entries will be used for cross-checking purposes).
    - **LOW POWER**: multi or single operator entries, transmitting with total of up to 100 W PEP from the transmitter and using only one directional or omnidirectional antenna system. The same antenna must be used for transmit and receive. Directional antenna system is a single directional antenna or a group (array) of single directional antennas, grouped together to achieve maximum obtainable gain in a given direction (that is, all the antennas in the group shall be pointed in the same direction). Omnidirectional antenna is an antenna with a radiation pattern that has approximately the same gain in all azimuth directions.

3 Conditions for entrants

All licensed radio amateurs in Region 1 may participate in the contest.

The entrants must operate within the letter and spirit of the contest. Entrants must operate according to the license conditions of the country where the station resides. Stations operating under special high power license can only entry as check logs.

4 Date of contests

- **The 50/70 MHz contest will begin on the third Saturday of June.**
- **The 145 MHz contest will start on the first Saturday of September.**
- **The UHF/Microwaves contest will start on the first Saturday of October.**
- **The contest will commence at 1400 hours UTC on the Saturday and end at 1400 hours UTC on the Sunday.**

5 Contest sections

5.1 50/70 MHz Contest:

The contests shall comprise the following sections for:

- **50 MHz band:**
  - **SINGLE (SO): single operator entries.**
  - **MULTI (MO): multi operator entries.**
  - **6HOURS (6H): 6 hours entries.**
- **70 MHz band:**
  - **SINGLE (SO): single operator entries.**
  - **MULTI (MO): multi operator entries.**

5.2 145 MHz contest:

- **SINGLE (SO): single operator entries.**
- **MULTI (MO): multi operator entries.**
- **SINGLE LOW POWER (SO-LP): single operator low power entries.**
- **MULTI LOW POWER (MO-LP): multi operator low power entries.**
- **6HOURS (6H): 6 hours entries.**

5.3 UHF/Microwaves Contest:

The contests shall comprise the following sections for:

- **435 MHz band:**
  - **SINGLE (SO): single operator entries.**
  - **MULTI (MO): multi operator entries.**
  - **SINGLE LOW POWER (SO-LP): single operator low power entries.**
  - **MULTI LOW POWER (MO-LP): multi operator low power entries.**
  - **6HOURS (6H): 6 hours entries.**
- **1.3 GHz, 2.4 GHz, 3.4 GHz, 5.7 GHz, 10 GHz bands and for the Millimetre group (the combined group of amateur bands above 10 GHz):**
  - **SINGLE (SO): single operator entries.**
  - **MULTI (MO): multi operator entries.**

6 Operating

Only one signal on the band is allowed at any time.
Station must operate from the same location throughout the contest time.

7 Contacts

Each station may only be worked once per band. If a station is worked again on the same band, only one contact may count for points. Any duplicate contacts should be logged without claim for points and clearly marked as duplicates.

Contacts made via active repeaters and EME contacts do not count for points.

Competitors are obliged to follow the common definition for a valid QSO (as defined in the VHF Managers Handbook and replicated below). The contest exchange (call, report, QSO number and locator) shall be sent and confirmed on the band where the contact started and only during the contact.

No attempt should be made during the QSO to obtain any part of the required exchange information via other communication methods such as the Internet chat channel, DX Cluster, talk-back on another amateur band, telephone etc.. Such a secondary method invalidates the contest QSO.

Self-spotting is permitted on all media except the DX Cluster (sending lots of self-spots to chat rooms is not recommended and is discouraged).

7.1 Acceptable examples when using a secondary method:

- “Shall we make a sked on 144.388?"
- "I have QRM, let's move to 144.218 kHz and start again"
- "Nothing received, please try again" and the QSO starts again
- "Thank you for a nice QSO" - Note: Only after the QSO has completed on the radio!

7.2 Unacceptable examples when using a secondary method:

- "I need your serial number"
- "Please repeat all information"
- “Please confirm <report>, <serial number>, <locator> etc.”

7.3 Definition for a valid contest QSO:

A valid contact is one where both operators during the contact have:

- mutually identified each other
- received a contest exchange, and
- received a confirmation of the successful identification and the reception of the contest exchange.

7.4 Type of emission

Contacts may be made in **A1A**(CW), **J3E**(SSB) or **F3E**(FM) (**G3E**(PM)).
MGM (Machine Generated Mode) modes are allowed during the 50/70 MHz contest. Every MGM contact shall be properly marked in the LOG with EDI mode **code 7**.

7.5 Contest exchanges

Code numbers exchanged during each contact shall consist of the RS, RST or RSQ (MGM mode) report, followed by a serial number commencing with 001 for the first contact on each band and increasing by one for each successive contact on that band. This exchange must immediately be followed by the complete locator of the sending station (examples: 59003 JO20DB or 579123 IN55CC).

All times must be logged in UTC.

Call signs logged must be the same as those exchanged over the air by the entrants during the QSO.

For contacts on 50 MHz, outside of Region 1, the received locator can be 4 digits and “MM” will be added as 5th and 6th digit.

Correction of logged exchanges after the contest, by use of any database, recordings, email or other method, is not allowed.

8 Scoring

For the amateur bands up to 10 GHz inclusive, points will be scored on the basis of one point per kilometre, i.e. the calculated distance in kilometres will be truncated to an integer value and 1 km will be added. The centre of each locator square is used for distance calculations. In order to make contest scores comparable, for the conversion from degrees to kilometres a factor of 111.2 should be used when calculating distances with the aid of the spherical geometry equation.

All QSOs including those with unique stations shall count for points (unique station is a station that appears in the log of only one contest entrant).

For the combined higher bands (Millimetre group) the score will be the sum of the points scored on each of the bands, using the following multiplication factors for the number of kilometres scored on each band:

- 24 GHz 1 x
- 47 GHz 2 x
- 76 GHz 3 x
- 122 GHz 4 x
- 134 GHz 8 x
- 245 GHz 10 x

9 Entries

The entries must be set out in EDI digital/electronic form (refer to VHF Managers Handbook, Part 3 section 5) separately for each frequency band. EDI header shall as a minimum contain the following fields:

- Callsign and WWL used (PCall and PWWLo)
- Section and band (PSect and PBand)
- Operators callsigns (RCall for SO entries, RCall and Mope1, Mope2,… for MO entries)
- E-mail address (RHBBS)
- TX power in watts (SPowe)
- Antenna (SAnte); it shall be clearly identifiable how many antenna systems were in use

Logs shall be sent no later than the second Monday following the contest weekend. Late entries will be accepted as check logs.
By submitting the contest or check log, an entrant agrees that he / she has:

- understood the contest rules and agrees to be bound by them,
- operated according to all the rules and regulations that pertain to his and/or station license,
- agreed the cross-checked log may be made open to the public, except for the personal data in PAdr1, PAdr2, RName, RAdr1, RAdr2, RPoCo, RCity, RCoun, RPhon and RHBBS lines of EDI file format,
- agrees the contest organizer can score, amend, publish, republish, print, and otherwise distribute (by any means including paper or electronic) the entry either in its original format, in any other suitable format with or without modifications or combined with the entries from other contestants for entry into the specific contest, other contests, or for other reasons including training, development and advancement of amateur radio,

- accepts all decisions of the contest organizer as final.

10 Judging of entries

All logs are checked using custom software and human judgement.

The claimed contact shall be disqualified for any error in the information logged by the entrant. When there is high evidence that the error is due to the wrongly logged information of the transmitting station (i.e. wrong date/time or call/UL) such a LOG shall not be used for adjudication purposes.
The final judging of the entries shall be the responsibility of the contest organizer whose decision shall be final.

Entrants deliberately contravening any of these rules, attempting fraud or flagrantly disregarding the IARU Region 1 band plans shall be disqualified. Each VHF Manager and/or national Contest Committee can propose to the contest organizer disqualification or penalization of an entrant.

11 Awards

11.1 Section winners:

Certificates will be issued by the contest organizer to the winners of the sections on each band up to 10 GHz and for the Millimetre group.

11.2 Overall winners for UHF/Microwave contest:

The overall winner of the IARU Region 1 UHF/Microwaves contest will be declared separately for the SO and MO sections.
For the overall results tables, the scores of the entrants operating on at least two of the following bands will be combined, using an adaptive multiplier system:

11.3 Millimetre group

Note: SO entries to the 6H section on 435 MHz will be included in the Overall SO classification if the entries on all bands are SO. MO entries to the 6H section on 435MHz will be included in the Overall MO classification.

The band multipliers for the overall score are calculated as follows:

- The multiplier for 435 MHz is one.
- The multiplier for each of the other bands is equal to the winning score on the 435 MHz band divided by the winning score on each band. The multiplier on each band for the SO and MO sections are determined separately.
- Example:
    - Winning score in SO on 435MHz is 200,000 points
    - Winning score in SO on 1.3GHz is 20,000 points
    - The multiplier for SO on 1.3GHz is 200,000 divided by 20,000 = 10
    - So, all scores in SO on 1.3GHz are multiplied by 10 for the Overall SO results table
- The overall millimetre group scores are calculated according to rule 9 before the multiplier for the millimetre group is calculated.