" 144 MHz Meteorscatter Sprint Contest 2022 "

MMMonVHF[1], in cooperation with the magazines DUBUS[2] and Funk-Telegramm[3], invites you to take part in the 15th edition of the "144 MHz Meteorscatter Sprint Contest" during the maximum of the Perseids meteor shower (PER). Based on predictions from IMO[4] (the International Meteor Organisation), this maximum will occur on August 13, 2022, between 02:00 GMT and 05:00 GMT.

RULES:

Contestperiod:
August 12, 2022, 15:00 GMT – August 14, 2022, 14:59 GMT (end time last completed QSO).

Participation:
Class 1: QRP (< 1.5 kW ERP)
Class 2: QRO (>1.5 kW ERP)
Stations can participate in one class only. No difference between single- or multioperator stations or modes (HSCW, FSK441, MSK144, JTMS etc).

Exchange:
Full callsigns, reports (e.g. 26 or R26) and final rogers (RRRR)[5].

Scoring:
For each completed QSO you receive an amount of points that equals the distance between you and the station you completed with. A worked station only counts once, so no duplicates allowed.
Note: each year we see logged QSO's with distances below 400 km. As from 2021, we assume that these contacts are not made via meteorscatter, unless the path shows a clearly blocked direct path. This will be investigated by the contest manager.

Final scoring:
The total score is the sum of all points you received for all completed QSO's together.

Logs:
Logs can be send via E-mail or regular mail. Your log has to be received before September 15, 2022 23:59 GMT. In case you have send your log by regular mail, the postmark will count. Logs received after that date will be considered as checklogs.
Logs via E-mail can be sent to: mssprint@mmmonvhf.de ; Subject: MSSprint "Call"
Logs via regular post can be sent to: A.F. Veldhuijsen, PA4EME,
                        Westlandstraat 9,
                        6137 KE Sittard,
                        The Netherlands.

Be sure you log contains at least the following:
- Your call, name, adress and class you want to participate in. Stations in Class 1 (QRP) have to state details about the equipment they used in form of used output power and antennagain. If no data about your station is given, you will be placed in Class 2. The power used for the calculation of the Effective Radiated Power will be the power measured at the output of your transceiver or active amplifier(s);
- The QSO list. As there are many logging programs available nearly every format is possible [6]. But make sure that the log will show at least: date, time (to be specific: end time), call, report send, report received, locator and distance (equals points). If you don't have a logprogram, send a simpel .txt file from your notepad. Just list your QSO's as dd/mm/yy; hh:mm; call, locator. No need for distance calculation then as all distances will be calculated when processing your log.

With sending your log you also declare to have operated within the limits of your chosen Class, licence and local regulations when performing any activity that could impact your submitted score. Unsportsmanlike conduct can be ground for disqualification. Also you agree to have the log open to the public which might result in publishing your log on MMMonVHF or in the magazines DUBUS and/or Funk-Telegramm.
Reception of a log will be confirmed in the same way it was received.
Stories and pictures are welcome for the soapbox.

Conditions to be observed:
The use of DX-clusters and chat-channels during the contest is only allowed in such way that there is no exchange of reports or other data from which the status of the QSO can be extracted. Limited information on the cluster (e.g. 12:00 DK5EW PA4EME JN48MB<MS>JO20WX) or chat (e.g. 12:00 PA2DW 144.355 CQ for MS Sprint) is allowed.
Selfspotting exceeding more then once every 15 minutes will be considered as unsportsmanlike behaviour.

Acceptable examples:
 "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

Winner of the contest:
The winner of the contest is the station with the highest amount of points. There will be a winner in each class. If two stations have the same amount of points, the position will have to be shared.

Special scoring for outside Europe stations:
There will be a seperate listing for stations outside Europe.

Certificate:
All stations will receive a digital certificate showing the Class and ranking achieved. The certificate will be send the same route as the received log.

Results:
The results of the MS Sprint Contest will be published on the foreseen date that DUBUS magazine no. 4, 2022 will be issued: December 7, 2022. Results will be online that day on MMMonVHF. Printed versions will be in DUBUS magazine no.4, 2022 and Funk-Telegramm no. 1, 2023. VHF-editors around the world are free to publish the list as well provided the source and organizers are mentioned.

Additional notes:
[1] MMMonVHF (Make More Miles on VHF): www.mmmonvhf.de
[2] DUBUS - the serious magazine for VHF and up amateur radio: www.dubus.org
[3] Funk-Telegramm - Magazin für Funkamateure: www.funk-telegramm.de
[4] IMO – International Meteor Organisation: www.imo.net
[5] Operating Procedures for Meteor Scatter QSO's: http://www.vhfdx.de/ms_howto.pdf
[5] Проведение MS QSO в 1 районе IARU: http://www.vhfdx.ru/ms/provedenie-ms-qso-v-1-rayone-iaru
[6] The "144 MHz Meteorscatter Sprint Contest" is supported by at least two software
    programs:
- Arcom (Ham Office) : www.hamoffice.de
- Ucxlog : www.ucxlog.de
Other logging programs are allowed as well.

When using MGM generated modes, please take in account that in Europe we use 30 second periods. Using 15 second periods on the center calling frequencies will cause inteference and waste 50% of your time. Stations in Western and Central Europe (stations in the Netherlands, Belgium, Germany, Northern France) are always transmitting second periods while calling CQ on the center calling frequencies. If you feel the need to do otherwise, do it well away from the center calling frequencies and be sure not causing inteference at a station you can copy via tropo.

MSK144

In the summer of 2016 MSK144 was introduced and it developped meanwhile in a widely used mode for meteorscatter. An effective transmision rate of 250 characters per minute, a bandwidth efficient modulation, a cutting-edge forward error correction and the ability to decodes signals as low as -8 dB in a 2500 Hz bandwith should give you more decodes than the older FSK441 protocol. However, the introduction of the MSK144 protocol has also caused uncertainties. Frequency, timing, which period to transmit, no decodes... all questions you can see on the various chats with all kinds of different answers.

As the 144 MHz Meteorscatter Sprint Contest 2022 is near, we would like to say a few lines about using MSK144.

- MSK144 is for meteorscatter contacts. Do not call stations via tropo; usually this means distances below 800 km.
- The center calling frequency for MSK144 in Europe is 144.360 MHz.
- On the calling frequency we use ONLY 30 second periods. By local agreement all stations in the Netherlands, Belgium, Germany, Luxemburg, Denmark and the upper half of France (line Brest - Tours - Dijon) will ALWAYS transmit second period. Using 15 second period in the wrong timeframe will cause mutual inteference, loss of signals and above all bickering and annoyance. Forget all the old stuff written about timing of meteorscatter.
- Due to the forward error correction, MSK144 will give you a full decoded line or nothing. Meteorreflections are proportional to the inverse square of the operating frequency and therefore a 144 MHz ping will last 1/8 as long as those on 50 MHz. In MSK144 most of the transmitted frame must be received to decode the message, so pings less then 70 ms, very common on 144 MHz, will NOT decode. When you face such conditions, trying FSK441 might be a better option as it will give you also decodes on pings smaller then 70 ms. Maybe you will need to puzzle a bit more but at the end you might succeed.