

IAU Meteor Data Center – the shower database: a status report

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New meteor showers

At the time of the Meteoroids 2013 meeting in Poznań, see [1] the IAU MDC database contained data of 579 showers. The list of established meteor showers contained 95 records, the working list included 460 meteor showers, among them 95 had *pro tempore* status. The list of shower groups contained 24 complexes, three of them had established status.

Presently the MDC database includes: 112 established showers (see Table 1 for 18 newly established showers), 530 in the working list, among them 3 have *pro tempore* status and 3 will be removed from the list. Number of the shower complexes remains the same: 24 on the list, 3 have established status.

At the request of P. Jenniskens, the Working Group on Meteor Shower Nomenclature (WG) proposed to move meteor shower 3/SIA, the Southern iota Aquarids, from the list of established showers back to the working list (for details see [2]).

In the past three years, new meteor showers submitted to the MDC database were detected amongst meteors observed by CAMS stations (Cameras for All-sky Meteor Surveillance), meteors included in the EDMOND (European viDeo MeteOr Network Database), meteors collected by Japanese SonotaCo Network, meteors recorded in IMO (International Meteor Organization) database and amongst meteors observed by Croatian Meteor Network.

Table 1: Eighteen newly established meteor showers.

21/AVI α Virginids	69/SSG Sout. μ Sagittariids
96/NCC Nort. δ Cancrids	97/SCC Sout. δ Cancrids
343/HVI h Virginids	362/JMC June μ Cassiopeiids
428/DSV Dec. σ Virginids	431/JIP June ι Pegasids
506/FEV Feb. ϵ Virginids	510/JRC June ρ Cygnids
512/RPU ρ Puppids	524/LUM λ U. Majorids
526/SLD S. λ Draconids	529/EHY η Hydrids
530/ECV η Corvids	533/JXA July ξ Arietids
549/FAN 49 Andromedids	569/OHY o Hydrids

New meteor shower naming rules

At the IAU Commission 22 business meeting at Helsinki ACM014 conference the following change of the meteor shower nomenclature rule was accepted. The wording : "The general rule is that a meteor shower (and a meteoroid stream) should be named after the current constellation that contains the radiant, specifically using the possessive Latin form." was replaced with a new text reading: "The general rule is that a meteor shower (and a meteoroid stream) should be named after the constellation that contains the nearest star to the radiant point, using the possessive Latin form." Also it was clarified that the nearest star means a star with a Bayer designation, a Greek or Roman letter, or (in exceptional cases) Flamsteed number, [2].

Present and future activity

The Meteor Data Center continue completing all available data records for each shower from the literature sources and adding the hyperlinks to the literature references. Noticed data mistakes, as well as the software bugs are constantly corrected. Also, in a small extend the database software is improved to make the MDC database more convenient for the users.

References

- [1] Jopek, T.J., Kaňuchová, Z., in "The Meteoroids 2013", Proceedings of the Astronomical Conference held at A.M. University, Poznan, Poland, Aug. 26-30, 2013, Eds.: T.J. Jopek, F.J.M. Rietmeijer, J. Watanabe, I.P. Williams, A.M. University Press, pp. 353-364, 2014.
- [2] Jenniskens, P., Borovička, J., Watanabe et al., Transactions IAU, Volume 10, Issue T28, pp. 120-123, 2015.
- [3] Meteor-showers data website: <http://www.astro.amu.edu.pl/~jopek/MDC2007/>