CAMS Meteoroid Orbit Database v2.0

Released: December 1, 2015

When using this data, please refer to:

P. Jenniskens, Q. Nénon, J. Albers, P. S. Gural, B. Haberman, D. Holman, R. Morales, B. J. Grigsby, D. Samuels, C. Johannink, 2015. The established meteor showers as observed by CAMS. Icarus (in press) http://dx.doi.org/10.1016/j.icarus.2015.09.013

Meaning of columns:

#	- Catalog entry number
Daily #	- Reference index for the meteor from a nights collection of trajectories
Date	- Date in [month, day, year]
Time	- Universal Time of zero point of trajectory solution [hh:mm:ss.ss]
Tbeg	- Time from zero point to begin point (in seconds)
Tend	- Time from zero point to end point (in seconds)
RAinf	- Right Ascension of radiant, as observed with no zenith correction applied (degrees)
DECinf	- Declination of radiant, as observed (degrees)
Vinf	- Entry speed after fitting velocity profile, as observed (km/s)
Acc1	- Acceleration parameter a1 (km/s) [see: Jenniskens et al., 2011]
Acc2	- Acceleration parameter a2 (/s) [see: Jenniskens et al., 2011]
Lat beg	- Geodetic latitude of the beginning point (+ to North)
Long beg	- Geodetic longitude of the beginning point (+ to West)
H beg	- Altitude of the beginning point above WGS84 Earth geoid (km)
Lat end	- Geodetic latitude of the end point (+ to N)
Long end	- Geodetic longitude of the end point (+ to W)
H end	- Altitude of the beginning point atove WGS84 Earth geoid (km)
Q	- Highest convergence angle between planes (º)
Az rad	- Azimuth of the radiant measured west from south (º)
Z rad	- Zenith angular distance of the radiant measured from zenith (º)
H	- Altitude of peak brightness above WGS84 Earth geoid (km)
Max Mv	- Peak brightness in V-magnitudes (zero = 3.67×10^{-11} W/m^2/nm)
Integr Mv	- Integrated brightness in magnitude (zero = 3.67×10^{-11} W/m^2/nm)
F-skew	- Skew factor of light curve (0 = peak at beginning, 1 = peak at end point)
Stations	- Contributing cameras numbers
IAU#	- IAU shower number, initial determination
Verified	- IAU shower number, after verification of shower detection
#	- Reference index for the meteor from a nights collection of trajectories (repeated)
Date	- Date [month, day, year] (repeated)
UT (begin)	- Time of zero point (hh:mm:ss.ss) (repeated)
RA_g	- Right Ascension of the geocentric radiant (º), after correction for Earth's gravitational attraction and Earth's rotation

DEC_g	- Declination of the geocentric radiant (º)
Vg	- Geocentric speed, after correction for Earth's gravitational attraction and Earth's rotation (km/s)
lambda_g	- Ecliptic longitude of the radiant (º)
beta_g	- Ecliptic latitude of the radiant (º)
Vh	- Heliocentric entry speed, after removal of Earth's velocity around the Sun (km/s)
lambda_h	- Ecliptic longitude of the heliocentric radiant (º)
beta_h	- Ecliptic latitude of the heliocentric radiant (º)
Sol long (º)	- Solar longitude at the time of the entry (º)
q	- Perihelion distance (AU)
1/a	- Inverse semi-major axis (1/AU)
a	- Semi-major axis (AU)
e	- Eccentricity
i	- Inclination (º)
w	- Argument of perihelion (º)
Node	- Ascending node of the orbit (º)
Pi	- Longitude of perihelion (º)
Stations	- Participating camera numbers (repeated from previous)
Flag Vg	- Flag =1 when entry speed less than escape speed of Earth
T_J	- Tisserand parameter with respect to Jupiter
Flag pairs	- Flag= 1 when meteor already listed from prior fitting of unrelated cameras

Details can be found in:

P. Jenniskens, P. S. Gural, L. Dynneson, B. J. Grigsby, K. E. Newman, M. Borden, M. Koop, D. Holman. 2011. CAMS: Cameras for Allsky Meteor Surveillance to establish minor meteor showers. Icarus 216, 40–61.

P. S. Gural, 2012. A new method of meteor trajectory determination applied to multiple unsynchronized video cameras. MAPS, doi 10.111/j.1945-5100.2012.01402.x

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