

Table 5. Working List of Visual Meteor Showers. Details in this Table were correct according to the best information available in June 2024, with maximum dates accurate only for 2025. The parenthesized maximum date for the Puppids-Velids indicates a reference date for the radiant only, not necessarily a true maximum. The given ZHR is based on recent observed returns. Possibly periodic showers are noted as ‘Var’ = variable. For more information check the updates published e.g. in the IMO Journal *WGN*.

Shower	Activity	Maximum Date	λ_{\odot}	Radiant α	δ	V_{∞} km/s	r	ZHR
Antihelion Source (ANT)	Dec 10–Sep 20 –	March–April, late May, late June		see Table 6		30	3.0	4
Quadrantids (010 QUA)	Dec 28–Jan 12	Jan 03	283°15	230°	+49°	41	2.1	80
γ -Ursae Minorids (404 GUM)	Jan 10–Jan 22	Jan 18	298°	228°	+67°	31	3.0	3
α -Centaurids (102 ACE)	Jan 31–Feb 20	Feb 08	319°4	211°	−58°	58	2.0	6
April Lyrids (006 LYR)	Apr 14–Apr 30	Apr 22	32°32	271°	+34°	49	2.1	18
π -Puppids (137 PPU)	Apr 15–Apr 28	Apr 23	33°5	110°	−45°	18	2.0	Var
η -Aquariids (031 ETA)	Apr 19–May 28	May 06	45°5	338°	−01°	66	2.4	50
η -Lyrids (145 ELY)	May 03–May 14	May 10	50°0	291°	+43°	43	3.0	3
Dayt. Arietids (171 ARI)	May 14–Jun 24	Jun 07	76°7	43°	+24°	38	2.8	30
June Bootids (170 JBO)	Jun 22–Jul 02	Jun 27	95°7	224°	+48°	18	2.2	Var
July Pegasids (175 JPE)	Jul 04–Jul 14	Jul 10	108°0	347°	+11°	63	3.0	3
July γ -Draconids (184 GDR)	Jul 25–Jul 31	Jul 28	125°13	280°	+51°	27	3.0	5
S. δ -Aquariids (005 SDA)	Jul 12–Aug 23	Jul 31	128°	340°	−16°	41	2.5	25
α -Capricornids (001 CAP)	Jul 03–Aug 15	Jul 31	128°	307°	−10°	23	2.5	5
η -Eridanids (191 ERI)	Jul 31–Aug 19	Aug 07	135°	41°	−11°	64	3.0	3
Perseids (007 PER)	Jul 17–Aug 24	Aug 12	140°0	48°	+58°	59	2.2	100
κ -Cygnids (012 KCG)	Aug 03–Aug 28	Aug 16	144°	286°	+59°	23	3.0	3
Aurigids (206 AUR)	Aug 28–Sep 05	Sep 01	158°6	91°	+39°	66	2.5	6
Sep. ε -Perseids (208 SPE)	Sep 05–Sep 21	Sep 09	166°7	48°	+40°	64	3.0	8
Dayt. Sextantids (221 DSX)	Sep 09–Oct 09	Sep 27	184°3	156°	−02°	32	2.5	5
Oct. Camelopard. (281 OCT)	Oct 05–Oct 06	Oct 05	192°58	164°	+79°	47	2.5	5
Draconids (009 DRA)	Oct 06–Oct 10	Oct 08	195°4	262°	+54°	20	2.6	5
δ -Aurigids (224 DAU)	Oct 10–Oct 18	Oct 11	198°	84°	+44°	64	3.0	2
ε -Geminids (023 EGE)	Oct 14–Oct 27	Oct 18	205°	102°	+27°	70	3.0	3
Orionids (008 ORI)	Oct 02–Nov 07	Oct 21	208°	95°	+16°	66	2.5	20
Leonis Minorids (022 LMI)	Oct 19–Oct 27	Oct 24	211°	162°	+37°	62	3.0	2
S. Taurids (002 STA)	Sep 20–Nov 20	Nov 05	223°	52°	+15°	27	2.3	7
N. Taurids (017 NTA)	Oct 20–Dec 10	Nov 12	230°	58°	+22°	29	2.3	5
Leonids (013 LEO)	Nov 06–Nov 30	Nov 17	235°27	152°	+22°	71	2.5	10
α -Monocerotids (246 AMO)	Nov 15–Nov 25	Nov 21	239°32	117°	+01°	65	2.4	Var
Nov. Orionids (250 NOO)	Nov 13–Dec 06	Nov 28	246°	91°	+16°	44	3.0	3
Phoenicids (254 PHO)	Dec 01–Dec 05	Dec 01	249°5	08°	−27°	15	2.8	Var
Puppids-Velids (301 PUP)	Dec 01–Dec 15	(Dec 07)	(255°)	123°	−45°	44	2.9	10
Monocerotids (019 MON)	Dec 05–Dec 20	Dec 09	257°	100°	+08°	41	3.0	3
σ -Hydrids (016 HYD)	Dec 03–Dec 20	Dec 09	257°	125°	+02°	58	3.0	7
Geminids (004 GEM)	Dec 04–Dec 20	Dec 14	262°2	112°	+33°	35	2.6	150
Comae Berenicids (020 COM)	Dec 05–Feb 04	Dec 16	264°	158°	+30°	64	3.0	3
Ursids (015 URS)	Dec 17–Dec 26	Dec 22	270°7	217°	+76°	33	2.8	10

Table 6 (next page). Radiant positions during the year in α and δ .