

ASTEROID-DEEPSKY APPULSES IN 2022

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(Received: 2021 October 14)

The following list is a *very small* subset of the results of a search for asteroid-deepsky appulses for 2022, presenting only the highlights for the year based on close approaches of brighter asteroids to brighter DSOs. For the complete set visit

<https://minplanobs.org/MPInfo/php/dsoappulses.php>

For any event not covered, the Minor Planet Center's web site at <https://www.minorplanetcenter.net/cgi-bin/checkmp.cgi> allows you to enter the location of a suspected asteroid or supernova and check if there are any known targets in the area.

The table gives the following data:

Date/Time	Universal Date (MM DD) and Time of closest approach
#/Name	The number and name of the asteroid
RA/Dec	The J2000 position of the asteroid
AM	The approximate visual magnitude of the asteroid
Sep/PA	The separation in arcseconds and the position angle from the DSO to the asteroid
DSO	The DSO name or catalog designation
DM	The approximate total magnitude of the DSO
DT	DSO Type: OC = Open Cluster; GC = Globular Cluster; G = Galaxy
SE/ME	The elongation in degrees from the sun and moon, respectively
MP	The phase of the moon: 0 = New, 1.0 = Full. Positive = waxing; Negative = waning

Date	UT	#	Name	RA	Dec	AM	Sep	PA	DSO	DM	DT	SE	ME	MP
01 02 11:58		1584	Fuji	04:06.00	+52 33.8	13.9	897	102	NGC 1496	9.6	OC	137	142	0.00
01 27 17:06		15	Eunomia	13:40.06	-23 56.2	11.1	373	228	NGC 5260	12.9	G	95	36	-0.26
01 31 13:29		135	Hertha	13:39.50	-11 29.0	13.2	1	23	NGC 5254	13.0	G	104	95	-0.01
02 01 23:56		739	Mandeville	13:23.87	+09 42.4	12.8	34	317	NGC 5125	12.4	G	116	127	0.01
02 28 00:50		1816	Liberia	12:29.83	+14 00.8	14.0	650	80	NGC 4459	10.4	G	153	123	-0.09
02 28 04:00		1816	Liberia	12:29.79	+14 04.5	14.0	169	81	NGC 4468	12.8	G	153	124	-0.08
02 28 04:01		1816	Liberia	12:29.79	+14 04.5	14.0	185	261	NGC 4474	11.5	G	153	125	-0.08
03 03 11:44		747	Winchester	11:45.37	+19 23.6	12.6	34	220	NGC 3867	13.2	G	163	168	0.01
03 03 23:24		417	Suevia	09:55.66	+04 24.7	12.9	613	32	NGC 3055	12.1	G	164	148	0.02
03 04 06:08		747	Winchester	11:44.78	+19 30.4	12.6	431	218	NGC 3862	12.7	G	163	161	0.03
03 04 23:27		16	Psyche	10:55.70	+07 54.8	10.5	844	25	NGC 3462	12.2	G	178	150	0.06
03 05 06:35		471	Papagena	11:03.83	+28 57.2	11.3	271	21	NGC 3510	12.2	G	157	136	0.08
03 05 23:56		747	Winchester	11:43.44	+19 45.5	12.6	641	217	NGC 3837	13.3	G	163	141	0.12
03 06 01:01		747	Winchester	11:43.41	+19 45.9	12.6	835	217	NGC 3842	11.8	G	163	140	0.12
03 08 06:13		747	Winchester	11:41.67	+20 04.5	12.6	189	216	NGC 3816	12.5	G	163	113	0.30
03 09 05:47		1816	Liberia	12:26.27	+18 14.1	14.0	235	74	NGC 4394	10.9	G	158	111	0.39
03 09 06:36		1816	Liberia	12:26.25	+18 15.0	14.0	663	75	M85	9.1	G	158	111	0.39
03 09 17:44		747	Winchester	11:40.51	+20 16.5	12.6	411	216	NGC 3805	12.6	G	163	95	0.44
03 10 07:16		16	Psyche	10:51.59	+08 23.9	10.6	392	26	NGC 3427	13.2	G	172	83	0.49
04 03 21:35		739	Mandeville	13:19.78	+22 58.3	12.1	140	224	NGC 5092	13.3	G	151	135	0.07
04 04 05:18		70	Panopaea	18:11.81	-28 14.1	12.5	197	201	NGC 6565	13.0	PN	102	136	0.09
04 04 05:43		70	Panopaea	18:11.83	-28 14.2	12.5	505	21	PK 3-4.7	11.0	PN	102	136	0.09
04 05 02:44		70	Panopaea	18:12.83	-28 19.1	12.5	56	22	PK 3-4.9	12.0	PN	102	147	0.15
04 06 17:21		15	Eunomia	13:18.32	-26 41.9	10.1	629	16	NGC 5061	10.4	G	159	128	0.27
05 30 22:11		711	Marulla	17:37.29	-36 02.1	13.6	886	341	Ru 127	8.8	OC	160	165	0.00
06 23 01:50		2035	Stearns	20:52.37	-48 46.9	14.0	218	88	NGC 6970	12.6	G	139	83	-0.30
06 25 00:01		786	Bredichina	18:31.15	-25 37.4	12.7	487	155	NGC 6638	9.2	GC	176	131	-0.14
06 28 19:23		786	Bredichina	18:27.72	-25 59.1	12.6	525	335	PK 7-6.2	13.1	PN	177	177	0.00
07 01 14:20		606	Brangane	18:34.33	-32 29.6	13.7	521	186	M69	7.7	GC	171	150	0.06
07 03 06:27		135	Hertha	12:56.92	-08 30.0	12.9	62	20	NGC 4818	11.1	G	95	50	0.15
07 06 20:01		2035	Stearns	20:50.32	-57 03.0	14.0	830	278	IC 5063	11.9	G	140	105	0.48
07 22 06:03		497	Iva	22:02.69	-19 07.9	12.9	755	161	NGC 7183	11.9	G	152	83	-0.34
07 24 07:07		372	Palma	00:23.40	+16 30.2	12.7	526	278	NGC 100	13.3	G	109	61	-0.17
07 29 09:46		70	Panopaea	17:42.64	-39 41.6	11.3	383	208	PK 350-5.1	13.2	PN	138	133	0.01
08 05 00:19		786	Bredichina	18:02.29	-28 38.0	13.6	859	147	PK 2-2.4	12.4	PN	138	54	0.45
08 20 09:51		71	Niobe	02:39.05	+41 29.4	13.0	403	113	NGC 995	13.4	G	96	30	-0.38
08 21 03:22		71	Niobe	02:39.31	+41 36.5	13.0	440	110	NGC 996	13.0	G	96	36	-0.31
08 21 06:23		71	Niobe	02:39.35	+41 37.7	13.0	397	110	NGC 999	13.5	G	96	37	-0.30
08 28 19:08		71	Niobe	02:41.26	+42 48.8	12.9	500	282	M34	5.2	OC	102	115	0.02
08 31 04:05		776	Berbericia	21:34.64	-40 50.9	11.8	117	168	NGC 7087	13.0	G	145	108	0.15
08 31 04:46		125	Liberatrix	00:29.95	+02 10.7	12.9	409	326	NGC 132	12.6	G	150	165	0.15
09 02 00:39		170	Maria	00:04.13	+20 51.1	13.3	442	14	NGC 7817	11.8	G	145	139	0.32
09 26 19:34		216	Kleopatra	22:43.32	+08 48.8	9.9	619	304	NGC 7362	12.7	G	157	146	0.01
09 29 12:44		1789	Dobrovolsky	23:39.12	-06 42.3	14.0	736	157	NGC 7721	11.6	G	166	121	0.15
10 31 01:42		1116	Catriona	06:58.04	+45 18.5	13.9	485	313	NGC 2308	13.2	G	114	160	0.37
11 18 00:23		497	Iva	22:00.70	-13 07.4	13.9	583	333	NGC 7171	12.2	G	92	165	-0.36
12 17 00:39		38	Leda	23:46.86	+07 01.8	13.6	658	349	NGC 7751	12.8	G	95	169	-0.43
12 21 02:28		1655	Comas Sola	07:08.09	+18 42.5	13.8	377	209	NGC 2339	11.8	G	162	131	-0.07

Bold indicates Messier objects and/or separations of 1 arcminute or less