

400 Night Sky Objects for Small Telescopes

Object	Type	Con	Mag	Size '	RA	Dec	Observer Notes
NGC 129	Open Cluster	CAS	6.5	21	0 29	60 13	35 stars
Pi Andromedae	Double Star	AND	4.5, 8.5	36"	0 37	33 43	White and blue
NGC 185	Galaxy Elliptical	CAS	9.7	12x10	0 39	48 20	distant companion to M31
M110 NGC 205	Galaxy Elliptical	AND	8.5	17x10	0 40.4	41 41	M31 companion
Alpha Cassiopeiae	Double Star	CAS	2.2, 8.9	69.8"	0 40.5	56 32	PA = 282° Schedar, Reddish-white + blue
M32 NGC 221	Galaxy Dwarf	AND	8.1	8x6	0 42.7	40 52	M31 companion
M31 NGC 224	Galaxy Spiral	AND	3.4	178x63	0 42.7	41 16	Andromeda Galaxy
NGC 225	Open Cluster	CAS	7	12	0 43	61 47	
NGC 247	Galaxy	CET	9.1	20.0x7.0	0 47	-20 45	
NGC 188	Open Cluster	CEP	8.1	13	0 47	85 14	120 stars
NGC 246	Planetary	CET	8.5	240"x210"	0 47.1	-11 53	low surface brightness
NGC 253	Galaxy Spiral	SCL	7.2	25x7	0 47.5	-25 17	Large edge-on spiral
Eta Cassiopeiae	Double Star	CAS	3.4, 7.5	12"	0 49	57 49	PA = 307° Yellow-white + reddish-purple or light yellow + orange
IC 1590	Open Cluster	CAS	7.4	4	0 52	56 37	
NGC 281	OC + Diff Neb	CAS	7.4	4 & 30x25	0 52.8	56 37	responds to UHC filter
Psi 1 Piscium	Double Star	PSC	5.6, 5.8	30"	1 5	21 28	PA = 159°
Zeta Piscium	Double Star	PSC	5.6, 6.5	23"	1 14	7 35	PA = 63°
NGC 457	Open Cluster	CAS	6.4	13	1 19.1	58 20	Owl Cluster, rich, 80 stars
R Sculptoris	Carbon Star	SCL	6.1	6.1-8.8	1 27	-32 30	
M103 NGC 581	Open Cluster	CAS	7.4	6	1 33.2	60 42	
M33 NGC 598	Galaxy Spiral	TRI	5.7	73x45	1 33.9	30 39	
M74 NGC 628	Galaxy Spiral	PSC	9.4	10.2x9.5	1 36.7	15 47	
M76 NGC 650	Planetary	PER	10.1	2.7x1.8	1 42.4	51 34	
NGC 659	Open Cluster	CAS	7.9	5	1 44	60 42	
NGC 654	Open Cluster	CAS	6.5	5	1 44	61 53	
NGC 663	Open Cluster	CAS	7.1	16	1 46	61 15	NGCs 654 + 659 nearby
Cr 463	Open Cluster	CAS	5.7	36	1 47	71 46	40 stars
Chi Ceti	Double Star	CET	4.7, 6.7	184"	1 50	-10 41	PA = 250°
Gamma Arietis	Double Star	ARI	4.8, 4.8	7.8"	1 53	19 18	PA = 0° Mesarthim, Orange and green or both white
56 Andromedae	Double Star	AND	5.7, 5.9	200"	1 56	37 15	PA = 298°

400 Night Sky Objects for Small Telescopes

Object	Type	Con	Mag	Size '	RA	Dec	Observer Notes
NGC 752	Open Cluster	AND	5.7	50	1 57	37 41	
Lambda Arietis	Double Star	ARI	4.9, 7.7	37"	1 58	23 36	PA = 47° Yellow and blue
NGC 744	Open Cluster	PER	7.9	11	1 58	55 28	20 stars
Gamma Andromedae	Double Star	AND	2.3, 5.5	9.8"	2 4	42 20	PA = 63° Almach, Orange and blue
Stock 2	Open Cluster	CAS	4.4	60	2 15	59 15	Muscleman Cluster
NGC 869	Open Cluster	PER	5.3	30	2 19	57 8	Double Cluster w/NGC 884
NGC 891	Galaxy	AND	9.9	14.0x3.0	2 22	42 20	Edge-on spiral w/prominent dust lane
NGC 884	Open Cluster	PER	6.1	30	2 22	57 6	Double Cluster w/NGC 869, 350stars , use low power
Cr 26	Open Cluster	CAS	6.5	21	2 32	61 27	40 stars
Alpha Ursa Minoris	Double Star	UMi	2.0, 9.0	18.4"	2 32	89 16	PA = 218°
NGC 957	Open Cluster	PER	7.6	11	2 33	57 34	30 stars
30 Arietis	Double Star	ARI	6.2, 7.2	39"	2 35	24 30	Yellow and blue
Cr 29	Open Cluster	PER	5.9	20	2 36	55 54	20 stars
NGC 1023	Galaxy Elliptical	PER	9.4	9.0x4.0	2 40	39 3	lens shaped
M34 NGC 1039	Open Cluster	PER	5.5	35	2 42	42 47	
NGC 1027	Open Cluster	CAS	6.7	20	2 42	61 35	40 stars
M77 NGC 1068	Galaxy Spiral	CET	8.9	7x6	2 42.7	0 1	
Eta Persei	Double Star	PER	3.8, 8.5	28.3"	2 51	55 54	PA = 300° Gold and royal blue
IC 1848	Open Cluster	CAS	6.5	12	2 51	60 24	
Theta Eridani	Double Star	ERI	3.4,4.5	8"	2 58.3	-40 18	bright, striking pair
Cr 34	Open Cluster	CAS	6.8	24	2 59	60 33	
Struve 331	Double Star	PER	5.3, 6.7	12.1"	3 1	52 21	PA = 85°
Cr 36	Open Cluster	CAS	7	23	3 12	63 11	30 stars
NGC 1245	Open Cluster	PER	8.4	10	3 14	47 14	200 stars
Cr 39 Mel 20	Open Cluster	PER	2.3	185	3 24	49 51	Alpha Persei Association 50 stars
NGC 1342	Open Cluster	PER	6.7	14	3 31	37 23	40 stars
IC 348	Open Cluster	PER	7.3	8	3 44	32 10	
M45	Open Cluster	TAU	1.6	110	3 47	24 7	Pleiades 7 Sisters star cluster
32 Eridani	Double Star	ERI	4.8, 6.1	6.8"	3 54	-2 57	PA = 347° Yellow and greenish blue
Kemble Cascade	Asterism	CAM			3 57	63 4	Beautiful 3° chain of ~ 20 mag. 5 stars; coordinates for SAO 12969

400 Night Sky Objects for Small Telescopes

Object	Type	Con	Mag	Size '	RA	Dec	Observer Notes
NGC 1499	Nebula Diffuse	PER	E	150x40	4 0.7	36 37	California Nebula
NGC 1502	Open Cluster	CAM	6.9	8	4 7	62 19	Near SE end of Kembles Cascade
NGC 1528	Open Cluster	PER	6.4	24	4 15	51 13	
NGC 1545	Open Cluster	PER	6.2	18	4 20	50 15	20 stars
Chi Tauri	Double Star	TAU	5.5, 7.6	19.4"	4 23	25 38	PA = 24°
Mel 25	Open Cluster	TAU	0.5	330	4 27	16 0	Hyades, Aldebaran is not a member
NGC 1582	Open Cluster	PER	7	37	4 31	43 45	20 stars
1 Camelopardalis	Double Star	CAM	5.7, 6.8	10.3"	4 32	53 55	PA = 308°
55 Eridani	Double Star	ERI	6.7, 6.8	9.2"	4 44	-8 48	PA = 317°
NGC 1647	Open Cluster	TAU	6.4	45	4 45	19 8	200 stars
NGC 1662	Open Cluster	ORI	6.4	20	4 48	10 55	35 stars
NGC 1664	Open Cluster	AUR	7.6	18	4 51	43 40	100 stars
NGC 1746	Open Cluster	TAU	6.1	41	5 3	23 49	20 stars
11-12 Camelopardalis	Double Star	CAM	5.2, 6.1	179"	5 6	58 58	PA = 9°
NGC 1817	Open Cluster	TAU	7.7	15	5 12	16 41	60 stars
Cr 464	Open Cluster	CAM	4.2	120	5 12	73 57	50 stars
Rho Orionis	Double Star	ORI	5, 9	7"	5 13	2 55	Yellow and pale orange
14 Auriga	Double Star	AUR	5.4, 7.5	14"	5 13	32 42	Pale yellow and orange
Beta Orionis	Double Star	ORI	0.1, 6.8	9.5"	5 14	-8 12	PA = 202°
NGC 1893	Open Cluster	AUR	7.5	11	5 22	33 25	60 stars
Cr 62	Open Cluster	AUR	4.2	28	5 22	41 0	---
M79 NGC 1904	Globular	LEP	7.7	8.7	5 24.5	-24 33	
NGC 1907	Open Cluster	AUR	8.2	7	5 28	35 19	30 stars mag 9
M38 NGC 1912	Open Cluster	AUR	7.4	21	5 28.4	35 50	
Delta Orionis	Double Star	ORI	2.2, 6.3	52.6"	5 32	18	PA = 359°
M1 NGC 1952	Supernova Rem	TAU	8.4	6x4	5 34.5	22 1	Crab Nebula (M1)
Struve 747	Double Star	ORI	4.8, 5.7	35.7"	5 35	-6 0	PA = 223°
Iota Orionis	Double Star	ORI	2.8, 6.9	11.3"	5 35	-5 55	PA = 141° White, light-green, purple(mag 7.5, 50" from primary)
Theta 2 Orionis	Double Star	ORI	5.2, 6.5	52"	5 35	-5 25	PA = 92° Trapezium

400 Night Sky Objects for Small Telescopes

Object	Type	Con	Mag	Size '	RA	Dec	Observer Notes
Theta 1 Orionis	Multiple Star	ORI	6.7, 7.9, 5.1, 6.7	8.8",13", 21.5"	5 35	-5 23	PA = 31°, 132°, 96° Trapezium
NGC 1981	Open Cluster	ORI	4.2	24	5 35	-4 26	Cluster in Orions Sword, 20 stars
Cr 69	Open Cluster	ORI	2.8	64	5 35	9 56	20 stars with Lambda Orionis embedded
M42 NGC 1976,1982	OC + Nebula	ORI	4	85x60	5 35.4	-5 27	Great Nebula of Orion (M42,M43)
M43 NGC 1982	Nebula Emission	ORI	9	20x15	5 35.6	-5 16	
M36 NGC 1960	Open Cluster	AUR	6.3	12	5 36.1	34 8	
Sigma Orionis	Multiple Star	ORI	4.0, 7.5, 6.5	12.9",43"	5 39	-2 36	PA = 84°, 61°
Zeta Orionis	Multiple Star	ORI	1.9, 4.0, 9.9	2.4", 58"	5 41	-1 57	PA = 162°, 10° Alnitak
Gamma Leporis	Double Star	LEP	3.7, 6.3	96"	5 44	-22 27	PA = 350° Yellow and red
M78 NGC 2068	Nebula Diffuse	ORI	8.3	8x8	5 46.7	0 3	Nebula around field star, NGC 2064,67,71 nearby
Alpha Orionis	Carbon Star	ORI		0.0-1.3	5 52	-7 24	Betelgeuse, red supergiant, may supernova soon
M37 NGC 2099	Open Cluster	AUR	6.2	24	5 52.4	32 33	
IC 2157	Open Cluster	GEM	8.4	6	6 4	24 4	
NGC 2158	Open Cluster	GEM	8.6	5	6 7.5	24 6	near M35, compact
NGC 2169	Open Cluster	ORI	5.9	7	6 8	13 56	"37" Cluster
M35 NGC 2168	Open Cluster	GEM	5.3	28	6 8.9	24 20	
NGC 2194	Open Cluster	ORI	8.5	10	6 13.8	12 48	rich with faint stars
NGC 2204	Open Cluster	CMa	8.6	12	6 15	-18 40	80 stars
Cr 89	Open Cluster	GEM	5.7	35	6 18	23 38	15 stars
NGC 2215	Open Cluster	SUN	8.4	11	6 20	-7 17	40 stars
Cr 91	Open Cluster	MON	6.4	17	6 21	2 20	20 stars
Cr 92	Open Cluster	MON	8.6	11	6 22	5 7	---
Beta Monocerotis	Double Star	MON	4.7, 5.2	7.3"	6 24	-7 2	PA = 132° Triple 6.2 at 2.9" & PA = 133°
Epsilon Monocerotis	Double Star	MON	4.5, 6.5	13.4"	6 24	4 36	PA = 27° good color contrast
NGC 2232	Open Cluster	MON	3.9	30	6 26	-4 44	
Cr 97	Open Cluster	MON	5.4	21	6 31	5 55	15 stars
NGC 2237	Nebula Bright	MON	5.5	70.0x80.0	6 32	4 59	Rosette Nebula OC NGC 2244 embedded
NGC 2244	Open Cluster	MON	4.8	24	6 32	4 52	Open cluster involved with Rosette Neb. (NGC 2237)
NGC 2252	Open Cluster	MON	7.7	15	6 34	5 22	30 stars

400 Night Sky Objects for Small Telescopes

Object	Type	Con	Mag	Size '	RA	Dec	Observer Notes
NGC 2251	Open Cluster	MON	7.3	10	6 34	8 22	30 stars
Cr 107	Open Cluster	MON	5.1	35	6 37	4 45	15 stars
Cr 106	Open Cluster	MON	4.6	45	6 37	5 58	20 stars
NGC 2264	OC + Diff neb	MON	3.9	30.0x60.0	6 40	9 53	Christmas Tree Cluster; Cone Neb includes naked-eye S(15) Mon
M41 NGC 2287	Open Cluster	CMA	4.6	38	6 46	-20 44	
12 Lyncis	Multiple Star	LYN	5.4,6.0,7.3	2",9"	6 46	59 27	PA = 308° Triple 7.3 at 8.9" & PA = 310° use high power on close pair
NGC 2286	Open Cluster	MON	7.5	14	6 47	-3 8	50 stars
NGC 2281	Open Cluster	AUR	5.4	14	6 48	41 4	30 stars
NGC 2301	Open Cluster	MON	6	12	6 51	0 28	
Cr 121	Open Cluster	CMA	2.6	49	6 56	-24 43	20 stars
Epsilon Canis Majoris	Double Star	CMA	1.5, 7.4	7.5"	6 59	-28 58	PA = 161°
M50 NGC 2323	Open Cluster	MON	6.3	16	7 3.2	-8 20	
NGC 2335	Open Cluster	MON	7.2	12	7 6	-10 1	35 stars
NGC 2331	Open Cluster	GEM	8.5	18	7 6	27 17	30 stars
NGC 2345	Open Cluster	CMA	7.7	12	7 8	-13 11	70 stars
NGC 2354	Open Cluster	CMA	6.5	20	7 14	-25 41	100 stars
NGC 2353	Open Cluster	MON	7.1	20	7 14	-10 16	30 stars
h3945	Double Star	CMA	4.8, 6.8	27"	7 16.6	-23 19	striking color contrast, 1.7 N of NGC 2362
Cr 135	Open Cluster	PUP	2.1	49	7 17	-36 50	77 stars
145 Canis Majoris	Double Star	CMA	4.8, 6	26.8"	7 17	-23 19	PA = 52°
NGC 2360	Open Cluster	CMA	7.2	13	7 17	-15 36	
NGC 2362	Open Cluster	CMA	4.1	8	7 18	-24 56	
Delta Geminorum	Double Star	GEM	3.5, 8.2	6.8"	7 20	21 59	PA = 211°
NGC 2374	Open Cluster	CMA	8	19	7 23	-13 15	25 stars
19 Lyncis	Double Star	LYN	5.6, 6.5	14.8"	7 23	55 17	PA = 315°
Cr 140	Open Cluster	CMA	3.5	42	7 24	-31 51	Inside Cr 132, 30 stars
Cr 132	Open Cluster	CMA	3.8	95	7 24	-31 49	Contains Cr 140, 25 stars
NGC 2395	Open Cluster	GEM	8	12	7 27	13 36	30 stars
NGC 2396	Open Cluster	PUP	7.4	10	7 28	-11 43	30 stars
NGC 2392	Planetary	GEM	8.6	47.0"x43.0"	7 29	20 54	Eskimo Nebula; Clown Face, use high power

400 Night Sky Objects for Small Telescopes

Object	Type	Con	Mag	Size '	RA	Dec	Observer Notes
Eta Puppis	Double Star	PUP	5.1, 5.1	9.8"	7 34	-23 28	PA = 117°
NGC 2421	Open Cluster	PUP	8.3	10	7 36	-20 36	70 stars
M47 NGC 2422	Open Cluster	PUP	5.2	30	7 36.6	-14 30	
NGC 2423	Open Cluster	PUP	6.7	19	7 37	-13 52	40 stars
NGC 2403	Galaxy Spiral	CAM	8.9	22x12	7 37	65 36	visible in binocs
NGC 2420	Open Cluster	GEM	8.3	10	7 38	21 34	100 stars
Kappa Puppis	Double Star	PUP	4.5, 4.7	9.9"	7 39	-26 48	PA = 318°
NGC 2439	Open Cluster	PUP	6.9	10	7 40	-31 41	80 stars
M46 NGC 2437	Open Cluster	PUP	6	27	7 41.8	-14 49	
M93 NGC 2447	Open Cluster	PUP	6	22	7 44.6	-23 52	
NGC 2451	Open Cluster	PUP	2.8	45	7 45	-37 57	40 stars
NGC 2477	Open Cluster	PUP	5.8	27	7 52	-38 32	160 stars
NGC 2467	OC + Nebula	PUP	7.1	15	7 52.5	-26 22	Use UHC or O-III filter; incl loose OC of 50 mag. 8-12 stars
NGC 2482	Open Cluster	PUP	7.3	12	7 55	-24 15	40 stars
NGC 2527, 2520	Open Cluster	PUP	6.5	15	8 4	-28 7	40 stars, NGC 242 mag 12 OC embedded within
NGC 2539	Open Cluster	PUP	6.5	22	8 10.7	-12 50	rich, near M46 + M47
NGC 2546	Open Cluster	PUP	6.3	40	8 12	-37 37	40 stars
Zeta Cancri	Double Star	CNC	5.6, 6.0	5.9"	8 12	17 39	PA = 89° Triple 6.3 at 6.4" & 77°
M48 NGC 2548	Open Cluster	HYA	5.5	54	8 13.8	-5 48	
NGC 2567	Open Cluster	PUP	7.4	10	8 18	-30 38	40 stars
NGC 2571	Open Cluster	PUP	7	13	8 18	-29 45	30 stars
NGC 2579	Open Cluster	PUP	7.5	10	8 22	-36 24	20 stars
Phi 2 Cancri	Double Star	CNC	6.4, 6.4	5"	8 27	26 56	PA = 217°
NGC 2627	Open Cluster	PYX	8.4	11	8 37	-29 57	60 stars
M44 NGC 2632	Open Cluster	CNC	3.7	95	8 40.1	19 59	Praesepe or Beehive Cluster
Iota Cancri	Double Star	CNC	4.2, 6.6	30"	8 47	28 46	PA = 307° Yellow and blue or gold and light blue
M67 NGC 2682	Open Cluster	CNC	6.1	30	8 50.4	11 49	
NGC 2841	Galaxy	UMa	9.2	7.4x3.5	9 22	50 59	bright edge-on
Tau1 Hydra	Double Star	HYA	4.6, 7.2	66"	9 28	-2 36	White and lilac
NGC 2903	Galaxy	LEO	9	13.3x6.0	9 32	21 29	bright, elongated

400 Night Sky Objects for Small Telescopes

Object	Type	Con	Mag	Size '	RA	Dec	Observer Notes
M81 NGC 3031	Galaxy Spiral	UMa	6.9	21x10	9 55.6	69 4	
M82 NGC 3034	Galaxy Irregular	UMa	8.4	9x4	9 55.8	69 41	
NGC 3115	Galaxy Elliptical	SEX	8.9	8.3x3.2	10 5	-7 43	Spindle Galaxy, lens-shaped
Alpha Leonis	Double Star	LEO	1.4, 7.7	177"	10 8	11 58	PA = 307°
NGC 3242	Planetary	HYA	8.6	40"x35"	10 25	-18 38	Ghost of Jupiter
U Hydrae	Carbon Star	HYA	4.7	4.7-6.2	10 38	-13 24	
M95 NGC 3351	Nebula Emission	LEO	9.7	4.4x3.3	10 44	11 42	
M96 NGC 3368	Galaxy Spiral	LEO	9.2	6x4	10 46.8	11 49	
M10 NGC 3379	Galaxy Elliptical	LEO	9.3	2	10 47.8	12 35	
NGC 3384	Galaxy Elliptical	LEO	10	5.4x2.8	10 48.3	12 38	In field with M105
54 Leonis	Double Star	LEO	4.5, 6.3	6.5"	10 56	24 45	PA = 110°
NGC 3521	Galaxy Spiral	LEO	10.1	13.5x7.0	11 5.8	0 2	Large, bright
M108 NGC 3556	Galaxy Spiral	UMa	10	8x1	11 11.5	55 40	
M97 NGC 3587	Planetary	UMa	9.9	3.4x3.3	11 14.8	55 1	Owl Nebula
NGC 3607	Galaxy Elliptical	LEO	10.2	4.5x4.0	11 16.9	18 3	Galaxies NGC 3605, 3606, 3599 in same 155X field
M65 NGC 3623	Galaxy Spiral	LEO	9.3	8x1.5	11 18.9	13 5	Leo Triplet, same field with M66, NGC 3628
M66 NGC 3627	Galaxy Spiral	LEO	8.9	8x2.5	11 20.2	12 59	Leo Triplet, same field with M65, NGC 3628
Tau Leonis	Double Star	LEO	5.2, 7	90	11 26	3 0	Yellow and blue
N Hydrae	Double Star	HYA	5.8, 5.9	9.2"	11 32	-29 16	PA = 210° equal magnitude pair
M109 NGC 3992	Nebula Emission	UMa	9.8	7x4	11 57.6	53 23	
NGC 4038	Galaxy	COR	10.3	2.6x1.8	12 1	-18 51	The Antennae; interacting w/NGC4039; also called Ringtail Galaxy
M98 NGC 4192	Galaxy Spiral	COM	10.1	9.5x3.2	12 13.8	14 54	
NGC 4244	Galaxy Spiral	CVn	10.4	18.5x2.3	12 17	37 48	huge edge-on
M99 NGC 4254	Galaxy Spiral	COM	9.9	5.4x4.8	12 18.8	14 25	
M106 NGC 4258	Galaxy Spiral	CVn	8.4	19x8	12 19	47 18	
M61 NGC 4303	Galaxy Spiral	VIR	9.7	6x5.5	12 21.9	4 28	
M40	Double Star	UMa	8.4	0.8"	12 22.4	58 5	Messier mistook this double for a deep sky object
M100 NGC 4321	Galaxy Spiral	COM	9.3	7x6	12 22.9	15 49	
SS Virginis	Carbon Star	VIR	6	6.0-9.6	12 25	0 42	
Markarian Chain	Galaxy Chain	VIR			12 25	12 53	Covers 3° from M84 & M86 in Virgo to NGC 4459 & 4474 in Coma Ber

400 Night Sky Objects for Small Telescopes

Object	Type	Con	Mag	Size '	RA	Dec	Observer Notes
Cr 256 Mel 111	Open Cluster	COM	1.8	275	12 25	26 7	Coma Bernices Cluster 80 stars
M84 NGC 4374	Nebula Emission	VIR	9.1	5	12 25.1	12 53	
M85 NGC 4382	Nebula Emission	COM	9.1	7.1x5.2	12 25.4	18 11	
M86 NGC 4406	Nebula Emission	VIR	8.9	7.5x5.5	12 26.2	12 57	
17 Coma Berenices	Double Star	COM	5.4, 6.7	145"	12 27	26 6	White and lilac
NGC 4449	Galaxy Irregular	CVn	10	6.0x4.5	12 28.2	44 6	Bizarre rectangular shape
M49 NGC 4472	Galaxy Elliptical	VIR	8.4	9x7.5	12 29.8	8 0	
Delta Corvi	Double Star	COR	3.0, 9.2	24.2"	12 30	-16 31	PA = 214° Algorab, Yellow and red-purple, wide, uneven with nice colors
NGC 4490	Galaxy Spiral	CVn	10.1	7.0x3.5	12 30.6	41 39	bright spiral
M87 NGC 4486	Galaxy Elliptical	VIR	8.6	7	12 30.8	12 24	
M88 NGC 4501	Galaxy Spiral	COM	9.6	7x4	12 32	14 25	
NGC 4526	Galaxy Elliptical	VIR	9.7	7.0x2.7	12 34	7 42	Lost Galaxy, between 2 stars of 7th mag
24 Comae Berenices	Double Star	COM	5.2, 6.7	20.3"	12 35	18 23	PA = 271° Orange and emerald or gold and blue
M91 NGC 4548	Galaxy Spiral	COM	10.2	5.4x4.4	12 35.4	14 30	
M89 NGC 4552	Galaxy Elliptical	VIR	9.8	4	12 35.7	12 33	
NGC 4565	Galaxy	COM	9.6	15.5x1.9	12 36	25 59	Bernices Hair Clip Classic edge-on spiral with dust lane
NGC 4565	Galaxy Spiral	COM	10.3	15.5x1.9	12 36.3	26 0	superb edge-on, dust lane
M90 NGC 4569	Galaxy Spiral	VIR	9.5	9.5x4.5	12 36.8	13 10	
M58 NGC 4579	Nebula Emission	VIR	9.7	5.5x4.5	12 37.7	11 49	
M68 NGC 4590	Globular	HYA	7.8	12	12 39.5	-26 45	
M104 NGC 4594	Galaxy Spiral	VIR	8	9x4	12 40	-11 37	
M59 NGC 4621	Galaxy Elliptical	VIR	9.6	5x3.5	12 42	11 39	
NGC 4631	Galaxy	CVn	9.2	17.0x3.5	12 42	32 32	Same LP field as NGC 4656
NGC 4631	Galaxy Spiral	CVn	9.8	17.0x3.5	12 42.1	32 33	huge edge-on
M60 NGC 4649	Galaxy Elliptical	VIR	8.8	7x6	12 43.7	11 33	
Y Canum Venatici	Carbon Star	CVn	5	5.0-6.4	12 45	45 24	hd 110914
32 Camelopardalis	Double Star	CAM	5.3, 5.8	21.6"	12 49	83 25	PA = 326°
NGC 4725	Galaxy Spiral	COM	10.2	12.0x9.0	12 50.4	25 33	bright, large spiral
M94 NGC 4736	Galaxy Spiral	CVn	8.2	7x3	12 50.9	41 7	
Alpha CanesVenatici	Double Star	CVn	2.9, 5.8	19.4	12 56	38 19	PA = 229° Cor Caroli, Blue-white both or blue-white and green

400 Night Sky Objects for Small Telescopes

Object	Type	Con	Mag	Size '	RA	Dec	Observer Notes
M64 NGC 4826	Galaxy Spiral	COM	8.5	9.3x5.4	12 56.7	21 41	
M53 NGC 5024	Globular	COM	7.6	12.6	13 12.9	18 10	
M63 NGC 5055	Galaxy Spiral	CVn	8.6	10x6	13 15.8	42 2	
Zeta Ursa Majoris	Multiple Star	UMa	2.3, 4.0, 4.0	14.4", 709"	13 24	54 56	Mizar-Alcor, PA = 152°, 71°, naked eye double
M51 NGC 5194	Galaxy Spiral	CVn	8.4	11x7	13 29.9	47 12	
M83 NGC 5236	Galaxy Spiral	HYA	7.6	11x10	13 37	-29 52	
M3 NGC 5272	Globular	CVn	6.2	16.2	13 42.2	28 23	
Alpha CanumVen	Double Star	CVn	2.9, 5.5	19.4"	13 56	38 19	PA = 229°
M101 NGC 5457	Galaxy Spiral	UMa	7.9	22	14 3.2	54 21	
Kappa Bootis	Double Star	BOO	4.6, 6.6	13.4"	14 13	51 47	PA = 236°
Iota Bootis	Double Star	BOO	4.9, 7.5	38"	14 16	51 22	PA = 33°
Pi Bootis	Double Star	BOO	4.9, 5.8	5.6"	14 41	16 25	PA = 108°
Alpha Librae	Double Star	LIB	2.8, 5.2	231"	14 51	-16 2	PA = 314°
Xi Bootis	Double Star	BOO	4.7, 7.0	6.9"	14 51	19 6	PA = 332° Yellow and red
M102 NGC 5866	Nebula Emission	DRA	9.9	5.2x2.3	15 6.5	55 46	
Iota Libra	Double Star	LIB	4.7, 9.4	58	15 11	-19 42	Pale yellow and red-purple
Delta Bootis	Double Star	BOO	3.5, 8.7	105"	15 15	33 19	PA = 79° Light yellow and light blue
M5 NGC 5904	Globular	SER	5.6	17.4	15 18.6	2 5	
Mu Bootis	Double Star	BOO	4.3, 7.0	108"	15 24	37 23	PA = 171°
Zeta Corona Borealis	Double Star	CBr	5.1, 6.0	6.3"	15 39	36 38	PA = 305° Blue-white and blue
T Corona Borealis	Nova Recurring	CrB	2.3	2.3-10	16 0	26 0	Blaze Star
Xi Scorpii	Double Star	SCO	4.8, 7.3	7.6"	16 4	-11 22	PA = 51°
Struve 1998	Double Star	SCO	7.4, 8.1	11.6"	16 4	-11 27	PA = 99°
Beta Scorpii	Double Star	SCO	2.6, 4.9	13.6"	16 5	-19 48	PA = 21°
Kappa Herculis	Double Star	HER	5.3, 6.5	28"	16 8	17 3	PA = 12°
Nu Scorpii	Double Star	SCO	4.3, 6.4	41"	16 12	-19 28	PA = 337°
Sigma CBr	Double Star	CBr	5.6, 6.6	6.2"	16 15	33 52	PA = 233°
M80 NGC 6093	Globular	SCO	7.3	8.9	16 17	-22 59	
M4 NGC 6121	Globular	SCO	5.6	26.3	16 23.6	-26 32	
M107 NGC 6171	Globular	OPH	7.9	10	16 32.5	-13 3	

400 Night Sky Objects for Small Telescopes

Object	Type	Con	Mag	Size '	RA	Dec	Observer Notes
16/17 Draconis	Multiple Star	DRA	5.4, 6.4, 5.5	3.4, 90	16 36	52 55	PA = 108°, 194°
M13 NGC 6205	Globular	HER	5.8	16.6	16 41.7	36 28	
NGC 6210	Planetary	HER	9.7	20"x13"	16 44.5	23 49	small, bluish
M12 NGC 6218	Globular	OPH	6.7	14.5	16 47.2	-1 57	
M10 NGC 6254	Globular	OPH	6.6	15.1	16 57.1	-4 6	
M62 NGC 6266	Globular	OPH	6.5	14.1	17 1.2	-30 7	
M19 NGC 6273	Globular	OPH	6.8	13.5	17 2.6	-26 16	
Delta Herculis	Double Star	HER	3.1, 8.2	8.9"	17 15	24 50	PA = 236°
M92 NGC 6341	Globular	HER	6.4	11.2	17 17.1	43 8	
Omicron Ophiuchi	Double Star	OPH	5.4, 6.9	10.3"	17 18	-24 17	PA = 355°
M9 NGC 6333	Globular	OPH	7.7	9.3	17 19.2	-18 31	
B 59, 65, 66, 67	Dark Nebula	OPH		300x60	17 20	-26 54	Pipe Nebula (Stem), also rump of Dark Horse Nebula
B 72	Dark Nebula	OPH		30x30	17 23.6	-23 37	Snake Nebula, head & front legs of Dark Horse Nebula
Nu Draconis	Double Star	DRA	4.9, 4.9	62"	17 32	55 11	PA = 312° very wide similar pair
B 78	Dark Nebula	OPH		200x140	17 32.7	-25 36	Pipe Nebula (Bowl), also rump of Dark Horse Nebula
M14 NGC 6402	Globular	OPH	7.6	11.7	17 37.6	-3 15	
Cr 338	Open Cluster	SCO	8	24	17 38	-37 33	40 stars
M6 NGC 6405	Open Cluster	SCO	5.3	25	17 40.1	-32 13	
Psi Draconis	Double Star	DRA	4.9, 6.1	30.3"	17 42	72 9	PA = 15°
NGC 6416	Open Cluster	SCO	5.7	18	17 44	-32 21	40 stars
IC 4665	Open Cluster	OPH	4.2	40	17 46	5 43	
Cr 350	Open Cluster	OPH	6.1	45	17 48	1 18	Near Cr 359, 20 stars
NGC 6469	Open Cluster	SGR	8.2	12	17 52	-22 20	50 stars
M7 NGC 6475	Open Cluster	SCO	4.1	80	17 53.9	-34 49	
Cr 355 TR 30	Open Cluster	SCO	8.8	10	17 56	-35 19	At SE edge of M7, 20 stars
M23 NGC 6494	Open Cluster	SGR	6.9	27	17 56.8	-19 1	
NGC 6543	Planetary	DRA	8.3	22"x16"	17 59	66 38	Cats Eye Nebula, 11th mag central star
40/41 Draconis	Double Star	DRA	5.7, 6.1	19.3"	18 0	80 0	PA = 232°
Cr 359 Mel 186	Open Cluster	OPH	3	240	18 1	2 54	Very large at 4 deg, use finder!
95 Herculis	Double Star	HER	5.0, 5.1	6.3"	18 1	21 36	PA = 258° Green and red-yellow

400 Night Sky Objects for Small Telescopes

Object	Type	Con	Mag	Size '	RA	Dec	Observer Notes
M20 NGC 6514	OC + Nebula	SGR	9	29x27	18 2.6	-23 2	Trifid Nebula (M20)
NGC 6520	Open Cluster	SGR	7.6	6	18 3.4	-27 54	60 stars , compact, near B86
M8 NGC 6523	OC + Nebula	SGR	6	90x40	18 3.8	-24 23	Lagoon Nebula (M8)
NGC 6530	Open Cluster	SGR	4.6	14	18 4	-24 21	Cluster in M8, 113 stars
M21 NGC 6531	Open Cluster	SGR	6.5	13	18 4.6	-22 30	
NGC 6546	Open Cluster	SGR	8	13	18 7	-23 18	150 stars
Cr 367	Open Cluster	SGR	6.4	37	18 9	-23 51	30 stars
NGC 6568	Open Cluster	SGR	8.6	12	18 12	-21 35	50 stars
NGC 6572	Planetary	OPH	9	15"x12"	18 12.1	6 51	small, bright
M24 NGC 6603	Star Cloud	SGR	4.6	90	18 16.9	-18 29	NGC 6603 small open cluster embedded
NGC 6595	Open Cluster	SGR	7	11	18 17	-19 44	30 stars
M16 NGC 6611,IC4703	OC + Nebula	SER	6.4	7	18 18.8	-13 47	Eagle Nebula (M16)
M18 NGC 6613	Open Cluster	SGR	7.5	9	18 19.9	-17 8	
M17 NGC 6618	OC + Nebula	SGR	7	11, 40x30	18 20.8	-16 11	Omega Nebula (M17)
M28 NGC 6626	Globular	SGR	6.8	11.2	18 24.5	-24 52	
NGC 6633	Open Cluster	OPH	4.6	27	18 27.7	6 34	large, sparse, bright
M69 NGC 6637	Globular	SGR	7.6	7.1	18 31.4	-32 21	
M25 NGC 14725	Open Cluster	SGR	6.5	40	18 31.6	-19 15	
NGC 6645	Open Cluster	SGR	8.5	10	18 32	-16 53	40 stars
NGC 6664	Open Cluster	SCT	7.8	16	18 36	-8 11	50 stars
M22 NGC 6656	Globular	SGR	5.1	24	18 36.4	-23 54	
IC 4756	Open Cluster	SER	4.6	52	18 38	5 26	
M70 NGC 6681	Globular	SGR	7.9	7.8	18 43.2	-32 18	
Epsilon Lyrae	Multiple Star	LYR	5.0, 6.1, 5.2, 5.5	208", 2.6", 2.3"	18 44	39 40	PA = 357°, 173°, 94° Famous "Double-Double"
Zeta Lyrae	Double Star	LYR	4.3, 5.9	44"	18 45	37 36	PA = 150° Red and blue-green
M26 NGC 6694	Open Cluster	SCT	8	15	18 45.2	-9 24	
Beta Lyrae	Double Star	LYR	3.4, 8.6	46"	18 50	33 22	PA = 149°
Otto Struve 525	Double Star	LYR	6.0, 7.7	45"	18 50	33 58	PA = 350°
NGC 6709	Open Cluster	AQL	6.7	13	18 51	10 20	40 stars
M11 NGC 6705	Open Cluster	SCT	6.3	14	18 51.1	-6 16	Wild Duck Cluster, 2900 stars

400 Night Sky Objects for Small Telescopes

Object	Type	Con	Mag	Size '	RA	Dec	Observer Notes
NGC 6712	Globular	SCT	8.2	7.2	18 53.1	-8 42	PN IC 1295 in field
M57 NGC 6720	Planetary	LYR	8.8	1.4x1.0	18 53.6	33 2	
ADS 11834	Double Star	LYN	6.0,7.7	45"	18 54.9	33 58	wide with good colors
M54 NGC 6715	Globular	SGR	7.6	9.1	18 55.1	-30 29	
Theta Serpentis	Double Star	SER	4.5, 5.4	22.3"	18 56	4 12	PA = 104°
NGC 6738	Open Cluster	AQL	8.3	15	19 1	11 36	
NGC 6755	Open Cluster	AQL	7.5	14	19 7	4 14	100 stars
Struve 2470, 2474	Multiple Star	LYR	6.6,8.6, 6.5,8.6	13.4" 16.4"	19 9	34 36	PA = 271°, PA = 261°, another "Double-Double"!
M56 NGC 6779	Globular	LYR	8.3	7.1	19 16.6	30 11	
Cr 399	Asterism	VUL	3.6	60	19 25	20 11	Brocchis Cluster; Coathanger, 6802 nearby
Beta Cygni	Double Star	CYG	3.0, 5.1	34.4"	19 30	27 57	PA = 54° Alberio, Superb gold and blue or yellow and green
PK 64+5.1	Planetary	CYG	9.6	35"	19 35	30 31	Campbells Hydrogen Star (Wolf-Rayet star)
Stock 1	Open Cluster	CYG	5.3	80	19 36	25 13	40 stars
NGC 6811	Open Cluster	CYG	6.8	12	19 37	46 21	70 stars
M55 NGC 6809	Globular	SGR	6.3	19	19 40	-30 58	
NGC 6819	Open Cluster	CYG	7.3	5	19 41.3	40 11	rich, 150 stars
NGC 6823	Open Cluster	VUL	7.1	12	19 43	23 18	30 stars
NGC 6818	Planetary	SGR	10	22"x15"	19 44	-14 9	annular, near NGC 6822
NGC 6826	Planetary	CYG	8.8	27"x24"	19 44.8	50 31	Blinking Planetary, 10 mag stars
NGC 6830	Open Cluster	VUL	7.9	12	19 51	23 3	20 stars
M71 NGC 6838	Globular	SGR	8.2	7.2	19 53.8	18 47	
M27 NGC 6853	Planetary	VUL	7.4	8.0x5.7	19 59.6	22 43	
57 Aquilae	Double Star	AQL	5.8, 6.5	36"	19	-8 14	PA = 170°
NGC 6866	Open Cluster	CYG	7.6	10	20 3	44 9	80 stars
NGC 6871	Open Cluster	CYG	5.2	20	20 5	35 46	Rich Milky Way field, near 6883, 15 stars
M75 NGC 6864	Globular	SGR	8.5	6	20 6.1	-21 55	
NGC 6883	Open Cluster	CYG	8	14	20 11	35 51	Rich Milky Way field, near 6871, 30 stars
NGC 6885	Open Cluster	VUL	8.1	7	20 12	26 29	
31 Cygni	Multiple Star	CYG	3.8, 6.7, 4.8	107", 337"	20 14	46 44	PA = 173° Orange, blue, blue (mag 6.7, 337"), 4th 13 mag at 34"

400 Night Sky Objects for Small Telescopes

Object	Type	Con	Mag	Size '	RA	Dec	Observer Notes
IC 4996	Open Cluster	CYG	7.3	5	20 16	37 38	
Alpha Capricornus	Double Star	CAP	3.6, 4.2	378"	20 18	-12 33	PA = 291°
Beta Capricornus	Double Star	CAP	3.4, 6.2	206"	20 21	-14 47	PA = 267° Dabih, Orange-yellow and sky blue
M29 NGC 6913	Open Cluster	CYG	7.1	7	20 23.9	38 32	
NGC 6939	Open Cluster	CEP	7.8	8	20 31.4	60 38	rich, 80 stars , near NGC 6946
NGC 6940	Open Cluster	VUL	6.3	31	20 34.6	28 18	rich, 60 stars
NGC 6960	Supernova Rem	CYG		60x9	20 45	30 43	Veil Nebula West, Use UHC or OIII
52 Cygni	Double Star	CYG	4.3, ?	6.5	20 46	30 43	Orange and blue
Gamma Delphinus	Double Star	DEL	4.5, 5.5	9.6"	20 47	16 7	PA = 266° Yellow and green
IC 5067-68,IC507	Nebula Diffuse	CYG	E	80x70	20 50.8	44 21	Pelican Nebula
NGC 6979	Supernova Rem	CYG		28x7	20 51	31 58	Part of Veil Nebula, between East and West segments
M72 NGC 6981	Globular	AQR	9.3	5.9	20 53.5	-12 32	
NGC 6992, 6995	Supernova Rem	CYG		80x26	20 57	31 30	Veil Nebula East, Use UHC or OIII
NGC 7000	Nebula Diffuse	CYG		175x110	20 58.8	44 33	North America Nebula, low power easier in binocs
M73 NGC 6994	Asterism	AQR	9	2.8	20 58.9	-12 38	Asterism of four stars
Cr 428	Open Cluster	CYG	8.7	13	21 3	44 35	20 stars
NGC 7009	Planetary	AQR	8.3	28"x23"	21 4.2	-11 22	Saturn Nebula, small green oval
61 Cygni	Double Star	CYG	5.2, 6.0	28"	21 7	38 45	PA = 146°
NGC 7027	Planetary	CYG	9.6	18"x11"	21 7.1	42 14	proto-planetary, unique
NGC 7039	Open Cluster	CYG	7.6	24	21 11	45 39	50 stars
IC 1369	Open Cluster	CYG	8.8	4	21 12	47 45	
Beta Cephei	Double Star	CEP	3.2, 7.9	13.3"	21 29	70 34	PA = 249° Alfirk, White and blue
M15 NGC 7078	Globular	PEG	6.2	12.3	21 30	12 10	
M39 NGC 7092	Open Cluster	CYG	4.6	32	21 32.2	48 26	
M2 NGC 7089	Globular	AQR	6.5	12.9	21 33.5	0 49	
Struve 2816	Multiple Star	CEP	5.6, 7.7, 7.8	11.7", 20"	21 39	57 29	PA = 121° , 339° triple star at center of faint nebula IC 1396
IC 1396	OC + Diff Neb	CEP	3.5	49,170x140	21 39	57 30	
M30 NGC 7099	Globular	CAP	7.2	11	21 40.4	-23 11	
Mu Cephei	Carbon Star	CEP	4.23	3.7-5.0	21 43	58 48	Herschels Garnet Star deep red variable
Epsilon Pegasi	Double Star	PEG	2.4, 8.4	142"	21 44	9 52	PA = 320°

400 Night Sky Objects for Small Telescopes

Object	Type	Con	Mag	Size '	RA	Dec	Observer Notes
Xi Cephei	Double Star	CEP	4.4, 6.5	7.7"	22 4	64 38	PA = 277°
NGC 7209	Open Cluster	LAC	7.7	24	22 5	46 30	25 stars
NGC 7243	Open Cluster	LAC	6.4	21	22 15.3	49 53	40stars
NGC 7293	Planetary	AQR	6.3	16.0x12.0	22 29	-20 47	Helix Nebula, large & diffuse
Delta Cephei	Double Star	CEP	3.9, 6.3	41"	22 29	58 25	PA = 192° Orange and blue
8 Lacerta	Double Star	LAC	5.7, 6.5	22.4"	22 36	39 38	PA = 186°
NGC 7331	Galaxy Spiral	PEG	9.5	11.4x4.0	22 37	34 25	Little Andromeda Galaxy, elongated in PA 171 deg
Tau1 Aquarii	Double Star	AQU	5.7, 9.2	26	22 46	-14 12	White and pale red
NGC 7380	Open Cluster	CEP	7.2	12	22 47	58 6	40 stars
94 Aquarii	Double Star	AQU	5.3, 7.3	12.7"	23 19	-13 28	PA = 350° Reddish-white and light blue
M52 NGC 7654	Open Cluster	CAS	7.3	13	23 24.2	61 35	
NGC 7662	Planetary	AND	8.6	17"x14"	23 25.9	42 32	Blue Snowball Nebula, use high power for detail
NGC 7686	Open Cluster	AND	5.6	14	23 30	49 7	20 stars
107 Aquarii	Double Star	AQU	5.4, 5.7	7"	23 44	-18 48	White and blue
NGC 7789	Open Cluster	CAS	6.7	16	23 57	56 44	very rich, many dim stars
NGC 7790	Open Cluster	CAS	8.5	17	23 58	61 12	40 stars