

Mullaney & McCall	SBO Catalog Number	Other Catalog Numbers	Common Name	Object Type	Con stel lation	Epoch 2000		Visible Mag	Appar Size or Separation	Distance Light Years	Description or Comments
						R. A. h m s	Dec deg ' "				
1	31, 201	NGC 224	M31 Andromeda	Spl Gal	And	00 42 46	+ 41 16 12	4.5	240' x 60'	2.2 M	Milky Way "twin", 15deg from edge-on, 300B *
2	202	NGC 253	NGC 253	Spl Gal	Scl	00 47 32	- 25 17 48	7.5	22' x 6'	7.5 M	Sc, high tilt, next brightest gal after M 31
3	203	BS 219	eta Cas	**	Cas	00 49 06	+ 57 49 00	4+8	12"	18	Yellow + red/purple, 500 y period, 65 AU
4	204	BS 545,6	gamma Ari	**	Ari	01 53 32	+ 19 17 36	5+5	9"	125	White + white, A1 p + B9 V, 340 AU
5	205	BS 595,6	alpha Psc	**	Psc	02 02 03	+ 02 45 48	4+5	1.8"	650	White + white, AO +A3, 350 AU app. separation
6	206, 403	BS 603,4	gamma And	* **	And	02 03 55	+ 42 19 48	2+5+6	10", 0.5"	250	Orange + blue(2), 61 year period, 800 & 30 AU
7	207	NGC 869	NGC 869 "h"	Open Cl	Per	02 19 04	+ 57 08 54	4.5	45' x 45'	7,400	Half of "Double Cluster", 7 M yr old cluster
8	208	NGC 884	NGC 884 "chi"	Open Cl	Per	02 22 28	+ 57 06 48	4.5	45' x 45'	7,400	Older (11 M yr) half of "Double Clstr", w/ red star
9	209	BS 707	iota Cas	***	Cas	02 29 04	+ 67 24 12	5+7+8	2.5", 7"	800	Yellow + blue/white +blue/white
10	210	BS 804	gamma Cet	**	Cet	02 43 18	+ 03 14 12	4+6	3"	63	Blue + yellow, A3 V + F2, 60 AU separation
11	211	BS 897,8	theta Eri	**	Eri	02 58 16	- 40 18 18	3+4	9"	93	White + white, A4 III + A1 V, 250 AU
12	212	BS 1211,2	32 Eri	**	Eri	03 54 17	- 02 57 12	5+6	7"	800	Yellow + blue/green, G8 III + A2 V, 1,700 AU
13	213	NGC 1535	NGC 1535	Plt Neb	Eri	04 14 16	- 12 44 18	9.3	0.4' x 0.3'	?	Small pale blue/green disk, 11.5 mag center star
14	214, 505	BS 1713	Rigel	**	Ori	05 14 32	- 08 12 06	0+7	10"	900	B8 supergiant, 50 Mo, 57,000 x Lo
15	215	BS 1788	eta Ori	**	Ori	05 24 29	- 02 23 48	4+5	1.5"	460	Close pair, white + white, B1 V + B2e, 210 AU
16	216	BS 1879,80	lambda Ori	**	Ori	05 35 08	+ 09 56 06	4+6	4.5"	460	White + white, O8e + B0.5 V, 620 AU
17	217	BS 1893-6	Trapezium	****	Ori	05 35 15	- 05 23 12	5+7+7+8	8,12,14,20"	1,900	Theta-1 Ori, young hot O + B0 stars exciting M 42
18	42, 218	NGC 1976	M 42 Orion Neb.	Dif Neb	Ori	05 35 20	- 05 23 12	4	66' x 60'	1,900	H II, 30,000y old, 30 ly across, stellar nursery
19	219	BS 1899	iota Ori	**	Ori	05 35 26	- 05 54 36	3+7	11.5"	130	O9 III primary, 450 AU apparent separation
20	220	BS 1931,2	sigma Ori	*** *	Ori	05 38 46	- 02 36 00	4+6+7+10	11,12,42"	1,400	All O & B stars, 35 Mo primary w/ companion
21	221	BS 1948,9	zeta Ori	** *	Ori	05 40 46	- 01 56 36	2+4+9	2.5", 58"	1,600	East star of "belt", excites emission nebula
22	37, 222	NGC 2099	M37	Open Cl	Aur	05 52 20	+ 32 32 18	6	20' x 20'	4,600	150 stars to 12.5 mag., 28 ly across
23	223	BS 2095	theta Aur	**	Aur	05 59 43	+ 37 12 42	3+8	3.5"	110	B9 V + solar type, 800y period, 110 AU app. sep.
24	35, 224	NGC 2168	M 35	Open Cl	Gem	06 08 50	+ 24 20 42	5.5	30' x 30'	2,800	120 stars > 13 mag., compact 4' cluster 30' to SW
25	225	BS 2356-8	beta Mon	***	Mon	06 28 49	- 07 02 00	5+5+6	7.4", 2.8"	155	All are yellow/white B3, 350 & 150 AU app. sep.
26	226	BS 2405	UU Aur	* (red)	Aur	06 36 33	+ 38 26 42	5.29	-----	650	C5 II carbon star, variable 5-7 mag. in 2/3 yr
27	227	BS 2470	12 Lyn	***	Lyn	06 46 14	+ 59 26 30	5+6+8	1.7", 8"	300	A3 V primary, 150 & 700 AU apparent separation
28	228, 501	BS 2491	Sirius	**	CMa	06 45 09	- 16 43 00	-1.46	8"	8.6	A1 V + white dwarf, 20 AU sep., 51 yr period
29	229	BS 2777	delta Gem	**	Gem	07 20 07	+ 21 59 00	4+8	6"	53	Yellow + red/purple, F2 IV primary, 100AU sep.
30	230	NGC 2392	NGC2392 Eskimo	Plt Neb	Gem	07 29 18	+ 20 54 54	8.3	0.7' x 0.7'	3,000?	Mottling, 1700 yr old, 0.6 ly dia, Brt center star
31	231, 408	BS 2890,1	Castor	** *	Gem	07 34 36	+ 31 53 18	2+3+10	2", 60"	48	Wh +wh+orange; 30, 900 AU (each is spect. bin.)
32	232	BS 2948,9	kappa Pup	**	Pup	07 38 50	- 26 48 12	4+5	10"	325	White + white (B5 IV + B6 V), primary is double
33	46, 233	NGC 2437	M 46	Open Cl	Pup	07 41 51	- 14 49 36	6.5	28' x 28'	5,400	200 stars > 14 mag., dim planetary in foreground
34	234	BS 3208-10	zeta Cnc	***	Cnc	08 12 13	+ 17 38 54	6+6+6	6, 1, 0.2"	84	60, 18 yr periods for close pairs; 150, 25, 5 AU
35	235	BS 3474,5	iota Cnc	* *	Cnc	08 46 41	+ 28 45 42	4+7	31"	190	Yellow/orange + blue, G8 III + A3 V, 1800 AU
36	67, 236	NGC 2682	M 67	Open Cl	Cnc	08 51 04	+ 11 48 24	7.5	15' x 15'	2,250	Yellow stars 10 - 15 mag., 10 billion yr old cluster
37	81, 237	NGC 3031	M 81	Spl Gal	UMa	09 55 39	+ 69 03 54	8.5	21' x 10'	7 M	Sb spiral, bright nucleus, 1 deg. from M82
38	82, 238	NGC 3034	M 82	Irr Gal	UMa	09 55 52	+ 69 40 54	9.5	9' x 4'	7 M	Dark lane, chaotic, exploding
39	239	BS 4057,8	gamma Leo	**	Leo	10 19 58	+ 19 50 30	3+4	4.3"	150	Yellow + yellow, KO III + GO III, 407 yr. period
40	240	NGC 3242	NGC 3242	Plt Neb	Hya	10 24 48	- 18 38 36	9	0.7' x 0.6'	2,500?	Bright, apparent size of Jupiter, actual 0.6 ly
41	241	BS 4374,5	xi UMa	**	UMa	11 18 11	+ 31 31 48	4+5	2.9"	24	White + white, both GO V, 60 yr. period, 21 AU
42	242	BS 4757	delta Crv	* *	Crv	12 29 52	- 16 30 54	3+8	24"	135	White + lilac, B9.5 V primary, 1000 AU
43	243	BS 4791,2	24 Com	* *	Com	12 35 07	+ 18 22 36	5+7	20"	1,600	Orange + blue/green, K2 III + A9 V
44	104, 244	NGC 4594	M 104 Sombrero	Spl Gal	Vir	12 39 54	- 11 37 12	9.5	6' x 2'	40 M	Bright, edge-on, nuclear bulge, dark dust rim
45	245	BS 4825,6	gamma Vir	**	Vir	12 41 40	- 01 27 00	4+4	4"	33	Wh + wh, 172 yr. period, 0.4" periastron in 2008
46	246	BS 4846	Y Cvn	* (red)	CVn	12 45 08	+ 45 26 24	4.99	-----	1,600	Carbon star, spectral type C7 I
47	94, 247	NGC 4736	M 94	Spl Gal	CVn	12 50 59	+ 41 07 54	9.5	7' x 3'	14.5 M	Bright center, hint of arms, 33,000 ly across
48	248, 413	BS 4914,5	Cor Caroli	* *	CVn	12 56 01	+ 38 19 00	3+6	20"	120	Both blue/white, AO + FO V, 720 AU app. sep.
49	64, 249	NGC 4826	M 64 Black-Eye	Spl Gal	Com	12 56 44	+ 21 40 54	9	6' x 3'	12 M	Sb, good detail, dark patch is "black eye"
50	250	BS 5054,5	Mizar (w/Alcor)	** *	UMa	13 23 56	+ 54 55 24	2+4,4	15", 12'	88	Alcor is 12' away; compare visual vs. telescope
51	51, 251	NGC 5194	M 51 Whirlpool	Spl Gal	CVn	13 29 57	+ 47 11 18	10	11' x 7'	14 M	Bright Sc, spiral arm bridge to colliding galaxy
52	3, 252	NGC 5272	M 3	Glob Cl	CVn	13 42 15	+ 28 22 30	7	10' x 10'	30,000	45,000 stars, very rich, 90 ly across
53	253	BS 5505,6	epsilon Boo	**	Boo	14 44 59	+ 27 04 30	3+5	3"	200	Yellow + blue, KO II + A2 V, 180 AU app. sep.

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54	254	BS 5544	xi Boo	**	Boo	14 51 23	+ 19 06 06	5+7	7"	22	Yellow + red, 150 yr. period, 50 AU app. sep.
55	5, 255	NGC 5904	M 5	Glob Cl	Ser	15 18 34	+ 02 05 36	7	12' x 12'	30,000	100 ly across, contains 100 RR Lyra stars
56	256	BS 5733,4	mu Boo	* **	Boo	15 24 30	+ 37 21 48	4+6+8	108", 2"	95	B9 V + G1 V, latter double (43 AU, 260 yr. period)
57	257	BS 5788,9	delta Ser	**	Ser	15 34 48	+ 10 32 18	4+4	4"	150	Both type F0 IV, white, 180 AU apparent sep.
58	258	BS 5833,4	zeta CrB	**	CrB	15 39 22	+ 36 38 12	5+6	6"	220	Bluish + greenish, B7 V + B9 V
59	259	BS 5977,8	xi Sco	*** **	Sco	16 04 22	- 11 22 24	5+5	1", 7"	80	** * with another 12" ** 4.5' from the triple
60	260	BS 5984,5	beta Sco	* *	Sco	16 05 26	- 19 48 12	3+5	14"	360	Both blue/white, B1 V + B2 V, 1,500 AU app. sep.
61	261	BS 6026,7	nu Sco	** **	Sco	16 11 59	- 19 27 18	4+6+7+8	42", 2", 1"	400	Colorful double double
62	4, 262	NGC 6121	M 4	Glob Cl	Sco	16 23 38	- 26 30 30	7.5	14' x 14'	10,000	Loose, open, appears to have chains of stars
63	263, 511	BS 6134	Antares	**	Sco	16 29 24	- 26 25 54	1+6	3"	520	Red M1 supergiant + emerald green B4 V comp.
64	264	BS 6184-6	16 - 17 Dra	* **	Dra	16 36 13	+ 52 54 48	6+6+7	90", 3"	330	B9.5 V + (B9 V + A1 V)
65	13, 265	NGC 6205	M 13 Hercules	Glob Cl	Her	16 41 42	+ 36 27 12	7	23' x 23'	25,000	170 ly dia., 200,000+ stars, 500x local star density
66	266	NGC 6210	NGC 6210	Plt Neb	Her	16 44 33	+ 23 47 18	9.5	0.3' x 0.3'	?	Small bright planetary, featureless blue disk
67	12, 267	NGC 6218	M 12	Glob Cl	Oph	16 47 12	- 01 57 42	8	8' x 8'	16,000	10 - 15 mag. stars, 80 ly across, grainy nucleus
68	10, 268	NGC 6254	M 10	Glob Cl	Oph	16 57 07	- 04 06 18	7.5	8' x 8'	16,000	Similar to M 12, 3 degrees away
69	269	BS 6406,7	alpha Her	**	Her	17 14 39	+ 14 23 24	3+5	4.5"	430	Orange + blue/green, M5 Ib + (G5 III + F2 V)
70	270	BS 6410	delta Her	**	Her	17 15 02	+ 24 50 24	3+9	10"	95?	Optical double (unrelated stars), white + purple
71	92, 271	NGC 6341	M 92	Glob Cl	Her	17 17 10	+ 43 08 24	7.5	12' x 12'	28,000	100 ly across, concentrated bright center
72	272	BS 6484,5	rho Her	**	Her	17 23 41	+ 37 08 48	5+6	4"	?	Attractive with small aperture, B9.5 III + A0 V
73	273	BS 6554,5	nu Dra	* *	Dra	17 32 13	+ 55 10 42	5+5	62"	95	A4 + A6 V, white, evenly matched stars
74	6, 274	NGC 6405	M 6 Butterfly	Open Cl	Sco	17 40 02	- 32 12 48	4.5	30' x 26'	2,000	Coarse, 80+ stars 7-11 mag., blue/white w/1 red *
75	7, 275	NGC 6475	M 7	Open Cl	Sco	17 53 58	- 34 48 18	3.5	60' x 60'	800	80+ stars > 10 mag., many yellow & orange stars
76	23, 276	NGC 6494	M 23	Open Cl	Sgr	17 56 58	- 19 01 12	6	25' x 25'	4,500	30 ly across, 120 stars 10th mag. and fainter
77	277	NGC 6543	NGC 6543	Plt Neb	Dra	17 58 35	+ 66 38 00	9	0.4' x 0.4'	1,700	Ring-shaped, 11th mag. center star, 0.2 ly across
78	278	BS 6729,30	95 Her	**	Her	18 01 30	+ 21 35 42	5+5	6"	400	Pale red & green (colors change), G5 III + A5 III
79	8, 279	NGC 6523	M 8 Lagoon Neb	Dif Neb	Sgr	18 03 08	- 24 23 00	5	60' x 35'	5,200	Emis. neb. (O5 star) 30 ly dia., w/lane, open clust
80	280	BS 6752	70 Oph	**	Oph	18 05 27	+ 02 30 00	4+6	2"	16	Yel + red, 88 yr per., 10 AU app. sep, KO V prim.
81	281	NGC 6572	NGC 6572	Plt Neb	Oph	18 12 07	+ 06 50 24	9.5	0.3" x 0.3"	?	Small, bright, blue
82	17, 282	NGC 6618	M 17 Omega Neb	Dif Neb	Sgr	18 20 44	- 16 10 18	7	25' x 25'	5,700	Emis. neb., horseshoe shaped, w/faint open cl
83	22, 283	NGC 5626	M 22	Glob Cl	Sgr	18 36 19	- 23 55 42	6.5	18' x 18'	10,000	Nearby glob., 70K stars 11-15 mag., 50 ly across
84	284, 419, 503	BS 7001	Vega	* *	Lyr	18 36 56	+ 38 47 00	0+10	70"	26	A0 V, faint comp. is unrelated star, alpha Lyra
85	285	BS 7051-4	epsilon Lyr	** **	Lyr	18 44 21	+ 39 38 30	5+5+5+6	208,2.3,2.7"	150	Double double, all white A or F type stars
86	11, 286	NGC 6705	M 11	Open Cl	Sct	18 51 02	- 06 16 12	7	12' x 12'	6,000	Rich & compact, 600 stars 9-12 mag., 21 ly across
87	57, 287	NGC 6720	M 57 Ring Neb	Plt Neb	Lyr	18 53 32	+ 33 01 54	9.5	1.3' x 1.0'	1,500	Smoke ring 0.5 ly dia., 14 mag. star 100K deg K
88	288	BS 7141,2	theta Ser	* *	Ser	18 56 14	+ 04 12 12	5+5	23"	130	Both white A5 V stars, 900 AU apparent sep.
89	289	BS 7417,8	Albireo	* *	Cyg	19 30 44	+ 27 57 48	3+5	35"	200	Vivid orange + blue, (K3 II + B0.5 V) + B8 V
90	55, 290	NGC 6809	M 55	Glob Cl	Sgr	19 40 05	- 30 56 30	7	15' x 15'	20,000	Rich, 90 ly across, w/ conspicuous bright star
91	291	NGC 6818	NGC 6818	Plt Neb	Sgr	19 43 54	- 14 08 24	10	0.4' x 0.3'	?	Bright uniform blue disk
92	292, 420	BS 7528	delta Cyg	**	Cyg	19 44 58	+ 45 07 54	3+6	2"	270	B9.5 IV + F1 V (230 deg p.a.), 400 yr apparent per
93	293	NGC 6826	NGC 6826	Plt Neb	Cyg	19 44 52	+ 50 31 42	9	0.5' x 0.4'	?	Blinking planetary (see M&M) 11 mag. ctr star
94	27, 294	NGC 6853	M 27	Plt Neb	Vul	19 59 35	+ 22 43 06	7.5	8' x 4'	900	Greenish, hourglass shaped, 2 ly dia, 1.3mag star
95	295	BS 7947,8	gamma Del	**	Del	20 46 39	+ 16 07 30	4+5	10"	125	Yellow + pale green, K1 IV + F7 V
96	296	NGC 7009	NGC7009 Saturn	Plt Neb	Aqr	21 04 16	- 11 22 00	8.5	0.4' x 0.2'	3,900	Blue/green ellip. disk, v faint extensions
97	297	BS 8085,6	61 Cyg	* *	Cyg	21 06 54	+ 38 44 42	5+6	28"	11	Both orange, K5 V + K7 V, 5.26"/yr. prop. motion
98	15, 298	NGC 7078	M 15	Glob Cl	Peg	21 30 00	+ 12 10 36	7.5	12' x 12'	40,000	Rich, contains 14th mag. 1" planetary nebula
99	299	BS 8238	beta Cep	* *	Cep	21 28 40	+ 70 33 42	3+8	14"	240	Both blue/white, B1 IV primary, very unequal
100	2, 300	NGC 7089	M 2	Glob Cl	Aqr	21 33 29	- 00 49 18	7.5	10' x 10'	50,000	175 ly across, appears to contain dark lane
101	301	BS 8316	mu Cep	* (red)	Cep	21 43 30	+ 58 46 48	4.08	-----	1,00	Herschel's garnet star, M2 lae, semiregular
102	302	BS 8558,9	zeta Aqr	**	Aqr	22 28 50	- 00 01 12	5+5	1.8"	150	Both white, F3 V + F6 IV, 80 AU apparent sep.
103	303	BS 8571	delta Cep	* *	Cep	22 29 10	+ 58 24 54	4+8	41"	1,000	Primary is prototype Cepheid var., 5.4 day period
104	304	NGC 7662	NGC 7662	Plt Neb	And	23 25 54	+ 42 32 12	9	0.5' x 0.4'	5,600	Slightly elliptical, ring shaped with 2nd ring
105	305	BS 9004	19 (TX) Psc	* (red)	Psc	23 46 23	+ 03 29 12	5.04	-----	1,000?	C5 II, very red, in circllet of Pisces