

### OAOG Challenge - Level 3 Object List

NGC / IC	Messier	Const.	Type	R.A.	Dec.	Mv	Size	No *	GX Type	Level	Observe	Meridian	Photo	Name
891		AND	GX	02:22:35	42:21:02	9.9	13		Sb	3	All Year	Sep1-Oct27-Jan18	May22-Apr19	
7662		AND	PN	23:25:52	42:32:59	8.3	0.5			3	All Year	Aug1-Sep12-Dec11	All Year	Blue Snowball
6994	M73	AQR	OC	20:58:58	-12:38:05	8.9	3			3	Mar21-Jan8	Jul6-Aug6-Oct28	Apr17-Dec30	
7293		AQR	PN	22:29:34	-20:48:09	7.3	14.3			3	May31-Jan18	Jul22-Aug29-Nov27	Jun17-Jan8	Helix Nebula
1664		AUR	OC	04:51:06	43:42:03	7.6	17	101		3	Jun15-May28	Sep28-Dec4-Feb15	Jul1-May16	
1778		AUR	OC	05:08:06	37:03:00	7.7	6.9	112		3	Jul3-May21	Oct1-Dec8-Feb18	Jul13-May11	
1857		AUR	OC	05:20:12	39:21:01	7	5.8	23		3	Jul1-May26	Oct3-Dec11-Feb21	Jul13-May16	
1893		AUR	OC	05:22:42	33:23:59	7.5	10	270		3	Jul10-May19	Oct4-Dec12-Feb21	Jul20-May10	
1907		AUR	OC	05:28:00	35:18:59	8.2	6.9	113		3	Jul9-May22	Oct5-Dec13-Feb22	Jul19-May13	
2281		AUR	OC	06:49:19	41:03:59	5.4	14	119		3	Jul15-Jun15	Oct20-Jan3-Mar10	Jul26-Jun2	
129		CAS	OC	00:29:52	60:14:05	6.5	20	193		3	All Year	Aug12-Sep29-Dec26	All Year	
225		CAS	OC	00:43:22	61:47:06	7	11	76		3	All Year	Aug14-Oct2-Dec29	All Year	
IC1805		CAS	CN	02:32:41	61:27:08	6.5	21			3	All Year	Sep2-Oct30-Jan20	All Year	
1027		CAS	OC	02:42:41	61:33:08	6.7	19	152		3	All Year	Sep4-Nov1-Jan22	All Year	
6946		CEP	GX	20:34:46	60:08:54	8.8	11		Sc	3	All Year	Jul1-Jul31-Oct18	All Year	
7160		CEP	OC	21:53:39	62:35:58	6.1	6.9	61		3	All Year	Jul16-Aug20-Nov16	All Year	
247		CET	GX	00:47:05	-20:46:15	9.1	21		Irr	3	Jul6-Feb14	Aug15-Oct3-Dec30	Jul15-Feb4	
2354		CMA	OC	07:14:19	-25:44:15	6.5	19	297		3	Sep17-Apr20	Oct25-Jan9-Mar14	Sep28-Apr10	
2360		CMA	OC	07:17:49	-15:37:13	7.2	12	91		3	Sep7-May1	Oct26-Jan10-Mar15	Sep16-Apr22	
4192	M98	COM	GX	12:13:49	14:53:53	10	7.9		Sb	3	Oct8-Aug22	Dec25-Mar26-May6	Oct17-Jul28	
4254	M99	COM	GX	12:18:49	14:24:53	10	4.7		Sc	3	Oct10-Aug24	Dec26-Mar27-May7	Oct18-Jul29	Coma Pinwheel Galaxy
4321	M100	COM	GX	12:22:55	15:48:53	9.4	6.9		Sc	3	Oct9-Aug29	Dec27-Mar28-May8	Oct18-Aug4	
4382	M85	COM	GX	12:25:25	18:10:53	9.3	4.7		S0	3	Oct8-Sep6	Dec28-Mar29-May8	Oct17-Aug11	
4494		COM	GX	12:31:25	25:46:51	9.8	4.7		E	3	Oct2-Sep29	Dec29-Mar30-May9	Oct11-Sep2	
4501	M88	COM	GX	12:32:00	14:24:53	9.5	5.8		Sb	3	Oct12-Sep1	Dec29-Mar31-May9	Oct21-Aug6	Markarian's Chain
4548	M91	COM	GX	12:35:24	14:12:53	10.2	4.2		Sc	3	Oct12-Sep3	Dec30-Mar31-May10	Oct21-Aug8	
4565		COM	GX	12:36:19	25:58:51	9.6	15		Sb	3	All Year	Dec31-Apr1-May10	Oct12-Sep6	

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4725		COM	GX	12:50:24	25:29:51	9.4	10		Sb	3	All Year	Jan3-Apr4-May13	Oct15-Sep13	
4214		CVN	GX	12:15:37	36:19:50	9.8	8.2		Irr	3	All Year	Dec26-Mar26-May7	Sep28-Sep24	
4449		CVN	GX	12:28:13	44:05:49	9.6	6.1		Irr	3	All Year	Dec29-Mar30-May9	All Year	
4490		CVN	GX	12:30:37	41:37:50	9.8	6.1		S	3	All Year	Dec29-Mar30-May9	All Year	Cocoon Galaxy
4631		CVN	GX	12:42:07	32:31:50	9.2	15		Sc	3	All Year	Jan1-Apr2-May11	Oct7-Sep27	Whale Galaxy
5005		CVN	GX	13:10:54	37:02:49	9.8	5.5		Sb	3	All Year	Jan8-Apr9-May16	All Year	
5195		CVN	GX	13:30:00	47:15:48	9.6	5.5		Irr	3	All Year	Jan13-Apr14-May19	All Year	
6811		CYG	OC	19:38:10	46:33:50	6.8	12	249		3	All Year	Jun19-Jul17-Sep21	All Year	
6866		CYG	OC	20:03:40	43:59:51	7.6	6.9	129		3	All Year	Jun25-Jul23-Oct4	All Year	
6871		CYG	OC	20:05:52	35:46:52	5.2	19	66		3	All Year	Jun25-Jul24-Oct5	All Year	
6910		CYG	OC	20:23:04	40:46:52	7.4	7.9	66		3	All Year	Jun29-Jul28-Oct13	All Year	
7027		CYG	PN	21:07:04	42:13:53	8.5	0.3			3	All Year	Jul7-Aug8-Oct31	All Year	
7063		CYG	OC	21:24:22	36:29:54	7	7.9	66		3	All Year	Jul11-Aug13-Nov6	All Year	
6934		DEL	GC	20:34:10	07:23:54	8.9	6.9			3	Feb2-Jan20	Jul1-Jul31-Oct18	Feb19-Jan12	
4125		DRA	GX	12:08:07	65:10:50	9.7	5.5		E	3	All Year	Dec24-Mar24-May5	All Year	
5866	M102	DRA	GX	15:06:30	55:45:45	10	2.9		S0	3	All Year	Feb14-May9-Jun5	All Year	Spindle Galaxy
1395		ERI	GX	03:38:29	-23:02:17	9.6	5.8		Ecd	3	Aug7-Mar15	Sep14-Nov15-Feb1	Aug16-Mar5	
1532		ERI	GX	04:12:05	-32:52:19	9.9	12		Sc	3	Aug26-Mar8	Sep21-Nov24-Feb8	Sep11-Feb19	
1535		ERI	PN	04:14:12	-12:44:17	9.6	0.8			3	Aug4-Apr1	Sep21-Nov25-Feb8	Aug12-Mar24	
1097		FOR	GX	02:46:17	-30:17:21	9.5	9		SBb	3	Aug7-Feb24	Sep5-Nov2-Jan22	Aug19-Feb10	
1316		FOR	GX	03:22:41	-37:12:23	8.5	11		S0	3	Aug27-Feb15	Sep11-Nov11-Jan29	-	
1360		FOR	PN	03:33:17	-25:51:17	9.4	7.3			3	Aug9-Mar11	Sep13-Nov14-Feb1	Aug19-Feb28	
1365		FOR	GX	03:33:35	-36:08:22	9.6	11		Sc	3	Aug26-Feb21	Sep13-Nov14-Feb1	-	
1398		FOR	GX	03:38:53	-26:20:20	9.7	6.9		SBa	3	Aug11-Mar12	Sep14-Nov16-Feb1	Aug21-Feb28	
2129		GEM	OC	06:01:00	23:17:55	6.7	6.9	73		3	Jul27-May16	Oct11-Dec22-Mar1	Aug4-May8	
2158		GEM	OC	06:07:30	24:05:56	8.6	4.7	973		3	Jul27-May18	Oct13-Dec23-Mar2	Aug4-May10	
2266		GEM	OC	06:43:12	26:57:57	~10	6.9			3	Jul31-May26	Oct19-Jan1-Mar8	Aug8-May18	
6210		HER	PN	16:44:29	23:48:51	8.8	0.3			3	All Year	Apr2-Jun3-Jun28	All Year	

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3621		HYA	GX	11:18:19	-32:49:01	9.7	12		Sc	3	Nov14-May22	Dec13-Mar12-Apr27	Dec2-May7	
7209		LAC	OC	22:05:10	46:29:56	6.7	24	98		3	All Year	Jul18-Aug23-Nov19	All Year	
7243		LAC	OC	22:15:16	49:52:56	6.4	20	38		3	All Year	Jul20-Aug25-Nov23	All Year	
3351	M95	LEO	GX	10:44:01	11:41:53	9.7	3.9		SBb	3	Sep24-Jul3	Dec6-Mar3-Apr21	Oct2-Jun21	
3368	M96	LEO	GX	10:46:49	11:48:53	9.3	5.8		Sa	3	Sep24-Jul4	Dec6-Mar4-Apr21	Oct3-Jun22	
3379	M105	LEO	GX	10:47:49	12:34:53	9.3	3.9		E	3	Sep24-Jul6	Dec6-Mar4-Apr22	Oct2-Jun23	
3384		LEO	GX	10:48:19	12:37:53	9.9	5.3		S0	3	Sep24-Jul6	Dec6-Mar4-Apr22	Oct2-Jun23	
3521		LEO	GX	11:05:49	-00:02:06	9	10		Sb	3	Oct7-Jun26	Dec10-Mar9-Apr25	Oct16-Jun15	
3628		LEO	GX	11:20:19	13:35:53	9.5	14		Sb	3	Sep29-Jul21	Dec13-Mar12-Apr27	Oct8-Jul3	
2301		MON	OC	06:51:49	00:27:49	6	11	75		3	Aug21-May8	Oct21-Jan3-Mar10	Aug29-May1	
2343		MON	OC	07:08:19	-10:39:13	6.7	6.9	55		3	Sep1-May3	Oct24-Jan7-Mar13	Sep10-Apr25	
2353		MON	OC	07:14:37	-10:18:13	7.1	19	106		3	Sep2-May4	Oct25-Jan9-Mar14	Sep11-Apr27	
2506		MON	OC	08:00:13	-10:47:12	7.6	6.9	807		3	Sep11-May12	Nov3-Jan21-Mar23	Sep19-May4	
6171	M107	OPH	GC	16:32:29	-13:02:57	9	6.9			3	Dec23-Oct31	Mar26-May31-Jun24	Jan2-Oct12	
6293		OPH	GC	17:10:11	-26:34:53	8.2	7.7			3	Jan20-Oct16	Apr17-Jun9-Jul6	Feb9-Sep16	
6304		OPH	GC	17:14:29	-29:27:52	8.4	6.6			3	Jan28-Oct8	Apr20-Jun10-Jul7	Feb22-Sep1	
6356		OPH	GC	17:23:35	-17:48:56	8.3	7.1			3	Jan9-Nov10	Apr25-Jun13-Jul11	Jan24-Oct23	
6572		OPH	PN	18:12:05	06:50:55	8.1	0.3			3	Dec26-Dec22	May20-Jun25-Aug2	Jan5-Dec12	
1662		ORI	OC	04:48:30	10:55:51	6.4	19	59		3	Jul23-Apr25	Sep27-Dec3-Feb15	Jul31-Apr17	
2169		ORI	OC	06:08:24	13:56:52	5.9	6.9	25		3	Aug4-May10	Oct13-Dec23-Mar2	Aug12-May3	
7331		PEG	GX	22:37:04	34:24:55	9.5	10		Sb	3	All Year	Jul23-Aug31-Nov29	All Year	
650	M76	PER	PN	01:42:17	51:35:05	10.1	2			3	All Year	Aug24-Oct17-Jan10	All Year	Little Dumbell Nebula
957		PER	OC	02:33:35	57:32:07	7.6	10	119		3	All Year	Sep2-Oct30-Jan20	All Year	
1023		PER	GX	02:40:23	39:04:01	9.4	8.5		SB0	3	May13-Apr28	Sep4-Nov1-Jan21	Jun7-Apr18	
1245		PER	OC	03:14:41	47:15:04	8.4	9.5	156		3	All Year	Sep10-Nov9-Jan28	May26-May6	
1342		PER	OC	03:31:35	37:20:01	6.7	13	99		3	Jun8-May5	Sep13-Nov14-Jan31	Jun24-Apr25	
1444		PER	OC	03:49:24	52:40:06	6.6	3.9	57		3	All Year	Sep16-Nov18-Feb4	All Year	
1545		PER	OC	04:20:54	50:15:05	6.2	17	65		3	All Year	Sep22-Nov26-Feb10	Jun6-May23	

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628	M74	PSC	GX	01:36:41	15:46:53	9.2	9.5		Sc	3	Jun9-Mar25	Aug23-Oct16-Jan9	Jun21-Mar17	
2440		PUP	PN	07:41:55	-18:13:14	9.4	1.2			3	Sep14-May2	Oct31-Jan16-Mar19	Sep24-Apr24	
288		SCL	GC	00:52:46	-26:35:16	8.1	13			3	Jul13-Feb8	Aug16-Oct4-Dec31	Jul24-Jan27	
7793		SCL	GX	23:57:46	-32:35:14	9.1	9		Sd	3	Jul12-Jan18	Aug6-Sep20-Dec19	Jul27-Jan1	
6144		SCO	GC	16:27:17	-26:01:53	9.1	9			3	Jan7-Sep27	Mar24-May29-Jun23	Jan24-Aug24	
6242		SCO	OC	16:55:35	-39:29:49	6.4	8.5	23		3	Mar31-Jul7	Apr8-Jun5-Jul1	-	
6281		SCO	CN	17:04:47	-37:53:49	5.4	7.9			3	Mar5-Aug6	Apr14-Jun8-Jul4	-	
6383		SCO	CN	17:34:47	-32:33:52	5.5	4.7			3	Feb15-Oct4	May1-Jun15-Jul15	Mar27-Aug17	
6425		SCO	OC	17:46:53	-31:31:52	7.2	7.9	73		3	Feb15-Oct14	May8-Jun18-Jul20	Mar23-Sep4	
6441		SCO	GC	17:50:11	-37:02:51	7.4	7.7			3	Mar20-Sep11	May10-Jun19-Jul22	-	
6451		SCO	OC	17:50:41	-30:12:53	~8	7.9			3	Feb12-Oct21	May10-Jun19-Jul22	Mar16-Sep17	
6649		SCT	OC	18:33:29	-10:24:00	8.9	5.8	477		3	Jan19-Dec10	May29-Jun30-Aug15	Feb2-Nov28	
6694	M26	SCT	OC	18:45:11	-09:24:01	9.5	8.5	120		3	Jan21-Dec14	Jun3-Jul3-Aug21	Feb5-Dec2	
6712		SCT	GC	18:53:05	-08:42:01	8.2	7.1			3	Jan22-Dec17	Jun6-Jul5-Aug26	Feb6-Dec5	
6604		SER	CN	18:18:05	-12:13:59	6.5	1.9			3	Jan17-Dec4	May23-Jun26-Aug6	Jan31-Nov21	
6838	M71	SGE	GC	19:53:46	18:46:54	9	5.8			3	All Year	Jun22-Jul21-Sep29	Jan20-Jan13	
6440		SGR	GC	17:48:53	-20:21:56	9.1	5.3			3	Jan20-Nov14	May9-Jun19-Jul21	Feb6-Oct26	
6522		SGR	GC	18:03:35	-30:01:53	8.5	5.5			3	Feb16-Oct27	May17-Jun23-Jul29	Mar21-Sep24	
6546		SGR	OC	18:07:11	-23:19:56	8	12	53		3	Jan31-Nov14	May18-Jun24-Jul30	Feb21-Oct25	
6544		SGR	GC	18:07:17	-24:59:55	8.2	6.9			3	Feb4-Nov11	May18-Jun24-Jul30	Feb27-Oct20	
6553		SGR	GC	18:09:17	-25:53:55	8.3	5.8			3	Feb7-Nov9	May19-Jun24-Aug1	Mar3-Oct18	
6569		SGR	GC	18:13:35	-31:49:53	8.7	5.5			3	Feb28-Oct25	May21-Jun25-Aug3	Apr10-Sep16	
6624		SGR	GC	18:23:41	-30:21:54	8.1	5.8			3	Feb26-Nov2	May25-Jun28-Aug8	Apr4-Oct3	
6645		SGR	OC	18:32:35	-16:53:58	~9	9.5			3	Jan28-Dec2	May29-Jun30-Aug14	Feb15-Nov18	
6681	M70	SGR	GC	18:43:10	-32:17:54	8	3.9			3	Mar16-Nov3	Jun2-Jul3-Aug20	May2-Sep28	
6716		SGR	OC	18:54:35	-19:52:58	6.9	6.9	38		3	Feb10-Dec3	Jun6-Jul6-Aug26	Mar4-Nov16	
6715	M54	SGR	GC	18:55:04	-30:28:56	9	5.8			3	Mar13-Nov13	Jun6-Jul6-Aug27	Apr23-Oct16	
6723		SGR	GC	18:59:34	-36:37:54	7.3	10			3	Apr24-Oct19	Jun8-Jul7-Aug30	-	

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6864	M75	SGR	GC	20:06:04	-21:55:01	8	2.9			3	Mar19-Dec18	Jun25-Jul24-Oct5	Apr18-Dec5	
1647		TAU	OC	04:46:00	19:03:54	6.4	44	117		3	Jul17-Apr30	Sep27-Dec3-Feb14	Jul25-Apr22	
1817		TAU	OC	05:12:06	16:41:53	7.7	15	283		3	Jul23-May3	Oct2-Dec9-Feb19	Jul31-Apr25	
1952	M1	TAU	NB	05:34:30	22:00:55	8.4	5.9			3	Jul23-May11	Oct6-Dec15-Feb24	Jul31-May3	Crab Nebula
2768		UMA	GX	09:11:38	60:01:59	9.9	7.9		E	3	All Year	Nov17-Feb8-Apr5	All Year	
2841		UMA	GX	09:22:01	50:57:57	9.2	7.9		Sb	3	All Year	Nov19-Feb10-Apr7	All Year	
3077		UMA	GX	10:03:20	68:43:57	9.9	5.3		Irr	3	All Year	Nov27-Feb21-APr14	All Year	
3184		UMA	GX	10:18:19	41:24:54	9.8	7.1		Sc	3	All Year	Nov30-Feb25-Apr17	Aug31-Aug7	
3587	M97	UMA	PN	11:14:49	55:00:51	11	2.3			3	All Year	Dec12-Mar11-Apr26	All Year	Owl Nebula
3992	M109	UMA	GX	11:57:37	53:22:50	9.8	7.9		SBb	3	All Year	Dec22-Mar22-May4	All Year	
	M40	UMA	ST	12:22:24	58:05:00	9	0.8			3	All Year	Dec27-Mar28-May8	All Year	
4216		VIR	GX	12:15:55	13:08:53	10	7.9		Sb	3	Oct10-Aug18	Dec26-Mar26-May7	Oct19-Jul25	
4303	M61	VIR	GX	12:21:55	04:27:55	9.7	4.7		Sb	3	Oct18-Aug2	Dec27-Mar28-May8	Oct27-Jul12	
4365		VIR	GX	12:24:31	07:18:54	9.6	6.6		E	3	Oct17-Aug10	Dec28-Mar29-May8	Oct25-Jul18	
4374	M84	VIR	GX	12:25:07	12:52:54	9.3	3.9		Eab	3	Oct12-Aug24	Dec28-Mar29-May8	Oct21-Jul29	Markarian's Chain
4406	M86	VIR	GX	12:26:13	12:56:54	9.2	6.9		Ecd	3	Oct12-Aug24	Dec28-Mar29-May9	Oct21-Jul30	
4526		VIR	GX	12:34:01	07:41:54	9.7	7.1		S0	3	Oct18-Aug16	Dec30-Mar31-May10	Oct26-Jul24	Lost Galaxy
4535		VIR	GX	12:34:19	08:11:54	10	6.9		Sc	3	Oct18-Aug17	Dec30-Mar31-May10	Oct26-Jul25	Lost Galaxy
4552	M89	VIR	GX	12:35:42	12:32:54	9.8	2.9		E	3	Oct14-Aug29	Dec30-Mar31-May10	Oct23-Aug4	
4569	M90	VIR	GX	12:36:48	13:09:54	9.5	8.5		Sb	3	Oct14-Aug31	Dec31-Apr1-May10	Oct23-Aug5	
4579	M58	VIR	GX	12:37:42	11:48:54	9.8	4.7		Sb	3	Oct15-Aug29	Dec31-Apr1-May10	Oct24-Aug3	
4621	M59	VIR	GX	12:42:00	11:38:54	9.8	1.9		E	3	Oct16-Aug30	Jan1-Apr2-May11	Oct25-Aug5	
4636		VIR	GX	12:42:49	02:40:55	9.5	5.8		E	3	Oct24-Aug10	Jan1-Apr2-May11	Nov1-Jul18	
4697		VIR	GX	12:48:37	-05:48:03	9.2	7.1		E	3	Oct31-Jul25	Jan2-Apr4-May12	Nov9-Jul6	
4699		VIR	GX	12:49:01	-08:40:02	9.5	3.7		S	3	Nov3-Jul19	Jan2-Apr4-May12	Nov12-Jul2	
4753		VIR	GX	12:52:25	-01:12:04	9.9	5.8		S	3	Oct29-Aug6	Jan3-Apr5-May13	Nov6-Jul15	
6802		VUL	OC	19:30:35	20:15:52	8.8	2.9	201		3	All Year	Jun17-Jul15-Sep17	Jan11-Jun9	
6823		VUL	OC	19:43:05	23:17:52	7.1	11	79		3	All Year	Jun20-Jul18-Sep23	All Year	

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6830		VUL	OC	19:50:59	23:03:52	7.9	11	82		3	All Year	Jun22-Jul20-Sep27	All Year	
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