

NGC	RA, Dec	Object	Date	Scope	Eyepiece	Description / Co-observers
40	00:10.2 +72.15	Planetary Nebula	8/21/1988	6" f/8	20mm Erfle	Small round green and a real good central star. RD.
129	00:27 +59.57	Open Cluster	7/23/1988	C-14	25mm Kellner	20 stars 1 brighter star full field no nebulosity. JB DB RD.
136	00:28.7 +61.15	Open Cluster	7/23/1988	C-14	25mm Kellner	35 loosely clustered stars roughly triangle shaped 1/4 field in size no nebulosity. JB DB RD.
157	00:32.3 -08.40	Spiral Galaxy	7/30/1992	C-8	26mm Plossl	1/8 field 1:3 elongated between two stars dim with no central brightness. RD.
185	00:36.1 +48.04	Elliptical Galaxy	7/30/1992	C-8	26mm Plossl	Slightly out of round 1/10 field no core Moderately dim. RD.
205	00:37.6 +41.25	Elliptical Galaxy	9/17/1987	C-14	17mm Plossl	An elliptical with a bright center and a bright star in the ellipse. It appeared 1/4 of the field and straight out from the core of M31 but closer than NGC 221.
225	00:40.5 +61.31	Open Cluster	7/23/1988	C-14	25mm Kellner	Full field view of a 25 star cluster no nebulosity. JB DB RD.
246	00:44.6 -12.09	Planetary Nebula	7/30/1992	C-8	26mm Plossl	Very small round green. No central star. Kind of speckled. RD.
247	00:44.6 -21.01	Spiral Galaxy	7/30/1992	C-8	40mm Plossl	1:5 elongated with a star on one end. Dim no core. RD.
253	00:45.1 -25.34	Spiral Galaxy	7/31/1992	33.4" f/5	35mm Panoptic	1:7 elongation bright off center core mottled 1/2 field very nice. MB DB.
278	00:49.2 +47.18	Elliptical Galaxy	7/30/1992	C-8	26mm Plossl	Small and round central brightness next to a star. RD.
288	00:50.2 -26.52	Globular Cluster	8/30/1992	C-8	40mm Orthoscopic	1/4 field near NGC 235 unresolved perhaps because it is so near the horizon big and easy to locate. JK.
381	01:05.2 +61.18	Open Cluster	7/23/1988	C-14	25mm Kellner	About 30 dim stars in a loose cluster about 1/2 the field. JB DB RD.
404	01:06.6 +35.27	Elliptical Galaxy	9/17/1987	C-14	60mm Kellner	1/2 the field diameter from Beta Andromeda it is a round fuzz with central brightness. JB MS.
436	01:12.4 +58.33	Open Cluster	7/23/1988	C-14	25mm Kellner	30 dim stars 1/4 field 6 brighter stars no nebulosity. JB DB RD.
457	01:15.9 +58.04	Open Cluster	7/23/1988	C-14	25mm Kellner	The Owl cluster 2 bright stars for eyes and about 30 or more for wings full field no nebulosity. JB DB RD.
488	01:19.1 +05.00	Spiral Galaxy	7/30/1992	C-8	40mm Plossl	1/20 field 1:2 elongated dim central brightness. RD.
524	01:22.1 +09.16	Elliptical Galaxy	7/30/1992	C-8	26mm Plossl	Very small and dim. 1:2 elongated. RD.
559	01:26.1 +63.02	Open Cluster	7/23/1988	C-14	25mm Kellner	Large and loose cluster of about 20 stars and 3 brighter stars. JB DB RD.
584	01:28.8 -07.07	Spiral Galaxy	7/30/1992	C-8	26mm Plossl	Very small and dim central brightness between two stars. RD.
596	01:30.3 -07.17	Elliptical Galaxy	7/30/1992	C-8	26mm Plossl	Elliptical Galaxy 1/16 field very dim some central brightness. RD.
598	01:31.1 +30.24	Spiral Galaxy	9/17/1987	C-14	60mm Kellner	The Pinwheel (M33). It is large beautiful and bright with a brighter core. Face on. JB MS.
613	01:32.0 -29.40	Barred Spiral Galaxy	8/29/1992	C-8	40mm Orthoscopic	Very small very dim hard to find and define. No central brightness. JK.

615	01:38.3 +63.47	Spiral Galaxy	7/30/1992	C-8	26mm Plossl	Very small and dim no shape no core. RD.
637	01:38.3 +63.47	Open Cluster	7/23/1988	C-14	25mm Kellner	Loose cluster of about 25 stars 6 of them bright 1/4 of field. JB DB RD.
651	01:38.8 +51.19	Planetary Nebula	7/23/1988	C-14	25mm Kellner	Along with NGC 650 it creates a baby dumbell. 1/8 field fairly bright but no central star observed. JB DB RD.
654	01:40.5 +61.39	Open Cluster	7/30/1992	C-8	40mm Plossl	1/5 field one bright star and 25 dim stars and what may be unresolved stars or nebulosity. RD.
659	01:40.8 +60.28	Open Cluster	7/30/1992	C-8	40mm Plossl	One bright star near 12 very dim stars 1/12 field. RD.
663	01:42.6 +61.01	Open Cluster	7/30/1992	C-8	40mm Plossl	1/2 field 30 bright stars small group of dimmer stars. No nebulosity. RD.
720	01:50.6 -13.59	Elliptical Galaxy	8/30/1992	C-8	40mm Orthoscopic	Very small very dim. Slight central brightness. 1/20 field or smaller. JK.
752	01:54.7 +37.25	Open Cluster	7/30/1992	C-8	40mm Plossl	More than full field 50 stars bright with no nebulosity. RD.
772	01:56.6 +18.46	Spiral Galaxy	7/30/1992	16" f/5	20mm Erfle	1/3 field 1:3 elongated moderately dim with brighter core. ES.
779	01:57.2 -06.12	Barred Spiral Galaxy	7/31/1992	C-8	26mm Plossl	1/16 field 1:2 elongated some central brightness. RD.
869	02:15.5 +56.55	Open Cluster	9/17/1987	10 x 40	finder	Very large bright loose open cluster of about 100 stars. About 25 visible at one time in C-14. It is just northwest of NGC 884. Pair looked best in the 10x40 finder. JB MS.
884	02:18.9 +56.53	Open Cluster	9/17/1987	10 x 40	finder	Looks like a mirror image of its close northwest neighbor NGC 869. About 100 stars. JB MS.
891	02:19.3 +42.07	Spiral Galaxy	7/23/1988	C-14	25mm Kellner	3/4 field edge on very dim with a long dark lane very. beautiful. JB DB RD.
908	02:20.8 -27.21	Spiral Galaxy	10/24/1992	C-8	26mm Plossl	1/6 field 1:4 elongated central bulge.
936	02:25.1 -01.22	Spiral Galaxy	7/31/1992	C-8	26mm Plossl	1/20 field central brightening no shape moderately dim. RD.
1022	02:38.5 -06.57	Spiral Galaxy	5/13/1993	C-14	40mm Plossl	1/16 field, central brightness. JK.
1023	02:37.2 +38.52	Irregular Galaxy	7/30/1992	C-8	26mm Plossl	1:20 field 1:5 elongation bright core with a spike in a line of stars. RD.
1027	02:38.8 +61.20	Open Cluster	8/21/1988	6" f/8	20mm Erfle	Small circle of a dozen stars one brighter star. RD.
1052	02:38.6 -08.28	Elliptical Galaxy	10/24/1992	C-8	26mm Plossl	1/20 field 1:2 elongated central brightness dim. ES.
1055	02:39.2 +00.16	Spiral Galaxy	9/17/1987	C-14	17mm Plossl	A small round patch of dim fuzz with a central brightness between two stars. JB MS.
1084	02:43.5 -07.47	Spiral Galaxy	10/24/1992	C-8	26mm Plossl	1/20 field 1:2 elongated no central brightness dim. ES.
1245	03:11.2 +47.03	Open Cluster	7/30/1992	C-8	26mm Plossl	1/8 field dim round 100 stars no nebulosity. RD.
1342	03:28.4 +37.09	Open Cluster	7/31/1992	C-8	40mm Plossl	Full field bright 40 stars. Two interlocking semi- circles next to a scattering of stars. Interesting. RD.
1407	03:37.9 -18.44	Elliptical Galaxy	10/24/1992	C-8	26mm Plossl	1/20 field 1:2 elongated central brightness. ES.

1444	03:45.6 +52.31	Open Cluster	7/30/1992	C-8	26mm Plossl	Very small and dim 20 stars. RD.
1501	03:45.6 +52.31	Planetary Nebula	7/23/1988	C-14	25mm Kellner	Dim round green. A central star was observed with averted vision. JB DB RD.
1502	04:03 +62.11	Open Cluster	7/23/1988	C-14	25mm Kellner	3/4 field cluster of 40 stars with 2 bright center stars very pretty. JB DB RD.
1513	04:06.2 +49.23	Open Cluster	7/30/1992	C-8	26mm Plossl	1/6 field moderately bright no nebulosity. RD.
1528	04:11.4 +51.07	Open Cluster	7/30/1992	C-8	26mm Plossl	1/4 field 30 stars bright no nebulosity decent. RD.
1535	04:12.1 -12.52	Planetary Nebula	10/24/1992	C-8	17mm Plossl	1/40 field green ball no central star. ES.
1545	04:17.1 +50.08	Open Cluster	7/30/1992	C-8	26mm Plossl	1/2 field loose bright 25 stars. RD.
1647	04:43.2 +18.59	Open Cluster	7/31/1992	C-8	40mm Plossl	Full field loose 25 stars 1 bright star. RD.
1664	04:47.4 +43.37	Open Cluster	7/31/1992	C-8	40mm Plossl	1/6 field 30 dim stars 1 bright star. RD.
1788	05:04.5 -03.24	Diffuse Nebula	10/24/1992	C-8	26mm Plossl	1/8 field dim very comet-like with head and tail. ES.
1817	05:09.2 +16.38	Open Cluster	7/31/1992	C-8	40mm Plossl	1/2 field 6 brighter stars and lots of dim stars near NGC 1807. RD.
1857	05:16.6 +39.18	Open Cluster	7/31/1992	C-8	40mm Plossl	More than full field loose 25 stars bright no nebulosity. RD.
1907	05:24.7 +35.17	Open Cluster	7/31/1992	C-8	40mm Plossl	1/5 field compact no nebulosity near bright star. RD.
1931	05:28.1 +34.13	Diffuse Nebula	7/31/1992	C-8	40mm Plossl	1/20 field dim star within it. RD.
1961	05:36.8 +69.24	Spiral Galaxy	7/23/1988	C-14	25mm Kellner	Oval fuzz 1/10 field very dim. JB DB RD.
1964	05:31.2 -21.59	Spiral Galaxy	10/24/1992	C-8	26mm Plossl	1/20 field very small very dim central brightness. ES.
1980	05:34.1 -06.45	Diffuse Nebula	1/24/1988	C-14	24mm Orthoscopic	Just south of M42 this is several bright stars and a field full of H2 nebulosity. JB DB ES.
1999	05:34.1 -06.45	Diffuse Nebula	10/24/1992	C-8	26mm Plossl	Looks like a star with coma dim small stupid. ES.
2022	05:39.4 +09.03	Planetary Nebula	1/24/1988	C-14	24mm Orthoscopic	Very small very dim planetary with no central star observed. JB DB ES.
2024	05:39.4 -01.52	Diffuse Nebula	1/24/1988	C-80	8mm Orthoscopic	East of the eastern bright star in Orions belt. This diffuse nebula has a dark lane in the middle. JB DB ES.
2126	05:58.1 +49.55	Open Cluster	7/31/1992	C-8	40mm Plossl	1/4 field very loose 20 dim stars and 1 bright blue star on the edge. RD.
2129	05:58.1 +23.18	Open Cluster	10/24/1992	C-8	26mm Plossl	1/4 field of about 18 stars. ES.
2158	06:04.3 +24.06	Open Cluster	10/24/1992	C-8	26mm Plossl	1/6 field of unresolved fuzz very close to M35. ES.
2169	06:05.7 +15.58	Open Cluster	10/24/1992	C-8	26mm Plossl	1/4 field unique trapazoid of a dozen or so stars. ES.
2185	06:08.7 -06.12	Diffuse Nebula	10/24/1992	C-8	26mm Plossl	Very small and dim smudge lame. ES.
2186	06:09.4 +05.27	Open Cluster	10/24/1992	C-8	26mm Plossl	1/2 field 50 stars dim no nebulosity. ES.
2194	06:11.0 +12.50	Open Cluster	10/24/1992	C-8	26mm Plossl	1/5 field maybe nebulosity or unresolved stars a dozen moderate stars and a string of dim stars. ES.
2204	06:09.4 +12.50	Open Cluster	2/28/1993	C-8	40mm Pl.	Long and narrow one bright star and a few dim stars. RD.

2215	06:18.4 -07.16	Open Cluster	10/24/1992	C-8	26mm Plossl	1/4 field dim triangle. ES.
2232	06:24.1 -04.43	Open Cluster	10/24/1992	8 x 50	finder	1/3 field inverted V 12 stars brightest star is at the apex. ES.
2244	06:29.7 +04.54	Open Cluster	2/28/1993	C-8	40mm Pl.	Full field 30 stars in two rows and a few scattered dim stars. RD.
2251	06:32 +08.24	Open Cluster	2/28/1993	C-8	26mm Pl.	Sort of 1/3 x 2/3 field shaped like an ice cream cone. 12 good stars and hundreds of dimmer stars. RD.
2264	06:38.4 -09.56	Diffuse Nebula / Open Cluster	2/28/1993	C-8	26mm Pl.	Nice cluster but nebulosity is washed out by sky glow. Interesting symetry. Like a balance scale hanging from a bright blue star with equal numbers of stars in little groups hanging from both sides. No "Cone" tonight. RD.
2266	06:40.5 +27.02	Open Cluster	2/28/1993	C-8	26mm Pl.	1/4 field 1 bright star compact triangle of dim stars. Mars is just barely out of the field! RD.
2281	6:45.8 +41.07	Open Cluster	4/2/1992	C-8	40mm Plossl	Full field 25 stars 8 bright. I like it. DB JR RD.
2286	06:45.1 -03.07	Open Cluster	2/28/1993	C-8	26mm Pl.	40 stars 1/2 field very loose. RD.
2301	6:49.2 +00.31	Open Cluster	4/14/1993	C-14	40mm Plossl	3/4 field string of brighter stars and a small pocket of dim stars. SA.
2304	06:52.3 +18.05	Open Cluster	2/28/1993	C-8	26mm Pl.	Dim 1/5 field hard to find. RD.
2311	6:52.8 -04.31	Open Cluster	4/14/1993	C-14	40mm Plossl	Full field of bright stars and small pocket of dim stars. Perhaps a hundred stars total. Pretty. SA.
2324	07:00.4 +01.08	Open Cluster	4/14/1993	C-14	40mm Plossl	Full field shaped like a big bird in flight. Loose and scattered. Very interesting. SA.
2335	07:04.2 -10.00	Open Cluster	4/14/1993	C-14	40mm Plossl	1/4 field 30 stars 3 brighter stars form a triangle. SA.
2343	07:05.9 -10.34	Open Cluster	4/14/1993	C-14	40mm Plossl	15 stars very dim 1/4 field. SA.
2353	07:12.3 -10.12	Open Cluster	4/14/1993	C-14	40mm Plossl	3/4 field loose and scattered. One brighter star. SA.
2354	07:12.2 -25.38	Open Cluster	4/14/1993	C-14	40mm Plossl	Full field 20 stars very loose hard to recognize as an actual cluster unworthy. SA.
2355	07:14.2 +13.52	Open Cluster	2/28/1993	C-8	26mm Pl.	1/8 field hard to resolve hard to find. RD.
2360	07:15.4 -15.33	Open Cluster	4/14/1993	C-14	40mm Plossl	Lots of dim stars 1/4 field beautiful. Bright star on edge of field. SA.
2362	07:16.6 -24.52	Open Cluster	4/14/1993	C-14	40mm Plossl	1/8 field 40 stars one bright star. Nearby is an Albireo-like double star.
2371	07:22.4 +29.35	Planetary Nebula	1/24/1988	C-14	17mm Plossl	A planetary with a central star. The nebula is a bit brighter than its partner NGC 2372. Together they make a figure 8 which is 1/7 of the field. JB DB
2372	07:22.4 +29.35	Planetary Nebula	1/24/1988	C-14	17mm Plossl	A mirror image of 2371 but without a central star. JB DB ES.
2392	07:26.2 +21.01	Planetary Nebula	1/24/1988	C-14	17mm Plossl	Eskimo nebula a planetary and a central star with which 2 other stars form an equilateral triangle whose height is 1/4 field diameter. JB DB ES.
2395	07:24.3 +13.41	Open Cluster	2/28/1993	C-8	26mm Pl.	Very small very dim very scattered.

2403	07:32 +65.43	Spiral Galaxy	7/23/1988	C-14	25 Kellner	1:2 elongation bracketed by 2 bright stars with a central brightness just off center 3/4 field. JB DB RD.
2419	07:34.8 +39.00	Globular Cluster	4/19/1993	C-14	40mm Plossl	1/10 field in line with 2 stars moderately dim unresolved. RD.
2420	07:35.4 +21.41	Open Cluster	2/28/1993	C-8	26mm Pl.	1/4 field 25 stars in compact cluster nice. RD.
2421	07:34.1 -20.30	Open Cluster	4/14/1993	C-14	40mm Plossl	1/3 field triangular about 50 stars. bright and pretty. SA.
2422	07:34.3 -14.22	Open Cluster	4/14/1993	C-14	40mm Plossl	Full field a couple hundred stars. One bright star. M47 very nice. SA.
2423	07:34.8 -13.45	Open Cluster	4/14/1993	C-14	40mm Plossl	3/4 field 200 stars Moderately bright. Close to NGC 2422. SA.
2438	07:39.6 -14.36	Planetary Nebula	1/24/1988	C-14	24mm Orthoscopic	A planetary nebula in NGC 2437 (M46) a cluster. There is a star just off center perhaps not "the" central star. 1/6 field in diameter. JB DB ES.
2440	07:39.9 -18.05	Planetary Nebula	4/14/1993	C-14	40mm Plossl	Very small no color or central star seen. SA.
2479	07:54.7 -17.35	Open Cluster	3/31/1992	C-8	26mm Plossl	Full field 25 bright stars no nebulosity pretty. RD BW.
2482	07:52.8 -24.10	Open Cluster	4/14/1993	C-14	40mm Plossl	1/2 field loose and dim near horizon. SA.
2489	07:56.2 -29.56	Open Cluster	4/14/1993	C-14	40mm Plossl	1/4 field 40 stars very dim about 5 degrees off of the horizon. SA.
2506	07:57.7 -10.29	Open Cluster	3/31/1992	C-8	26mm Plossl	Fairly compact 1/4 field mostly unresolved but two brighter stars bracket the object. RD BW.
2509	07:58.5 -18.56	Open Cluster	3/31/1992	C-8	17mm Plossl	25 moderately bright stars "A" shaped 1/4 field. RD BW.
2527	08:03.2 -28.01	Open Cluster	4/14/1993	C-14	40mm Plossl	Full field 50 stars bright loose. SA.
2539	08:08.4 -12.41	Open Cluster	3/31/1992	C-8	26mm Plossl	75 stars 1/2 field bright yellow star on the edge. Nice. RD BW.
2548	08:11.2 -05.38	Open Cluster	3/31/1992	C-8	40mm Plossl	Full field 50 stars no nebulosity very pretty. RD BW.
2567	08:16.9 -29.35	Open Cluster	4/14/1993	C-14	40mm Plossl	1/4 field 25 stars dim very close to horizon. SA.
2571	08:16.9 -29.35	Open Cluster	4/14/1993	C-14	40mm Plossl	1/4 x 1/10 field 3 bright stars and lots of dim stars. Too low on horizon for good seeing. SA.
2613	08:31.1 -22.48	Spiral Galaxy	4/14/1993	C-14	40mm Plossl	1/10 field very dim averted vision required. Seems to be elongated hard to tell. SA.
2627	08:35.2 -29.46	Open Cluster	4/14/1993	C-14	40mm Plossl	1/3 field very faint round. SA.
2655	08:49.4 +78.25	Spiral Galaxy	7/23/1988	C-14	25mm Kellner	1/4 field with good central brightness. A bright star is nearby. JB DB RD.
2681	8:50 +51.31	Spiral Galaxy	5/13/1993	C-14	40mm Plossl	Very small very dim undetectable shape but a stellar core. JK.
2683	08:49.6 +33.38	Spiral Galaxy	4/19/1993	C-14	40mm Plossl	1/4 field 1:6 elongated nice bright edge on with brighter core. RD.
2742	9:03.7 +60.41	Spiral Galaxy	5/13/1993	C-14	40mm Plossl	1:6 elongation 1/32 field dim with stellar core. JK.
2768	9:07.8 +60.16	Elliptical Galaxy	5/13/1993	C-14	40mm Plossl	Very small and dim round stellar core. JK.

2775	09:07.7 +07.15	Spiral Galaxy	3/31/1992	C-8	26mm Plossl	1/16 field 1:3 elongation central brightness. RD BW.
2782	09:10.9 +40.19	Spiral Galaxy	4/19/1993	C-14	40mm Plossl	1/10 field very dim with some central brightness. RD.
2787	9:14.9 +69.25	Spiral Galaxy	5/13/1993	C-14	40mm Plossl	1/8 field dim central brightening faint star in the object. JK.
2811	09:13.9 -16.06	Spiral Galaxy	4/14/1993	C-14	40mm Plossl	Tiny very dim fuzz. Non-descript shape. SA.
2841	9:18.6 +51.12	Spiral Galaxy	5/13/1993	C-14	40mm Plossl	1/16 field dim with brighter core two stars in the field. JK.
2859	09:21.3 +34.44	Barred Spiral Galaxy	4/19/1993	C-14	40mm Plossl	Small and dim with central brightness. Undetectable shape. Two bright stars nearby. RD.
2903	09:29.3 +21.44	Spiral Galaxy	3/31/1992	C-8	26mm Plossl	1:5 elongation 1/4 field good central brightness nice. RD BW.
2950	9:39.1 +59.05	Spiral Galaxy	5/13/1993	C-14	40mm Plossl	1/30 field 1:3 ellongated dim with a brighter core. JK.
2964	9:40 +32.05	Spiral Galaxy	3/27/1993	33.4" f/5	35mm Panoptic	A triangular threesome made up of 2964 2968 and 2970. The Herschel dominates the field even though it is small and moderately dim. 2968 is half the size and 2970 is barely there. All are round. MB DB.
2974	09:40.0 -03.29	Spiral Galaxy	4/14/1993	C-14	40mm Plossl	1:4 elongated stellar core 1/20 field faint. Foreground star. SA.
2976	9:43.2 +68.08	Spiral Galaxy	5/13/1993	C-14	40mm Plossl	1/4 field 1:4 ellongated moderately bright smooth with no central brightness. JK.
2985	9:46 +72.31	Spiral Galaxy	5/13/1993	C-14	40mm Plossl	1/16 field slightly oblong dim with some central brightness faint star in object. JK.
3034	09:51.9 +69.56	Irregular Galaxy	1/24/1988	C-80	8mm Orthoscopic	A very bright edge on galaxy (M82) close to NGC 3031 both are in the field. 1:8 elongation. JB DB ES.
3077	09:59.4 +68.58	Elliptical Galaxy	1/24/1988	C-14	24mm Orthoscopic	A very small round satellite galaxy near NGC 3031 (M81). JB DB ES.
3079	9:58.6 +55.57	Spiral Galaxy	4/2/1992	33.4" f/5	20mm Nagler	1:8 elongation 1/2 field slightly curved. Facinating detail (33 inches helps) large central brightness 2 companions nearby. MB JR RD WC.
3115	10:02.8 -07.28	Elliptical Galaxy	4/14/1993	C-14	40mm Plossl	1:5 elongated 1/4 field bright with brighter core. Not bad. SA.
3147	10:12.8 +73.39	Spiral Galaxy	7/23/1988	C-14	25mm Kellner	Round shape 1/8 field with a central brightness. JB DB RD.
3166	10:11.2 +03.40	Spiral Galaxy	3/31/1992	C-8	26mm Plossl	Small and dim but good central brightness same field as NGC 3169. RD BW.
3169	10:11.7 +03.43	Spiral Galaxy	3/31/1992	C-8	26mm Plossl	1/10 field dim but good central brightness 1:2 elongation same field as NGC 3166. RD BW.
3184	10:15.2 +41.40	Spiral Galaxy	5/13/1993	C-14	40mm Plossl	1/4 field bright round close to bright star. JK.
3190	10:15.4 +22.05	Spiral Galaxy	3/31/1992	C-8	26mm Plossl	Dim very small. Some central brightness. Near NGC 3193. RD BW.

3193	10:15.7 +22.09	Elliptical Galaxy	3/31/1992	C-8	26mm Plossl	Very dim very small round looks like a planetary. Near NGC 3190 and a star. RD BW.
3198	10:16.7 +45.49	Spiral Galaxy	5/13/1993	C-14	40mm Plossl	1/3 field 1:4 ellongated smooth and bright. JK.
3226	10:20.7 +20.09	Elliptical Galaxy	3/31/1992	C-8	26mm Plossl	Stellar core 1/8 field touching NGC 3227. RD BW.
3227	10:20.7 +20.07	Spiral Galaxy	3/31/1992	C-8	26mm Plossl	1/8 field no bright core touching NGC 3226. RD BW.
3242	10:22.4 -18.23	Planetary Nebula	4/14/1993	C-14	40mm Plossl	Very very small green round bright no central star seen. SA.
3245	10:24.5 +28.46	Elliptical Galaxy	4/19/1993	C-14	40mm Plossl	1/10 field dim no shape less than amazing. RD.
3277	10:30.2 +28.46	Spiral Galaxy	4/19/1993	C-14	40mm Plossl	Very small very dim undetectable shape may have slight central
3294	10:33.4 +37.36	Spiral Galaxy	5/13/1993	C-14	40mm Plossl	1/8 field non-descript shape no central brightness reasonably bright. JK.
3310	10:35.7 +53.46	Irregular Galaxy	5/13/1993	C-14	40mm Plossl	1/32 field round fuzz no core brightness close to a bright star. JK.
3344	10:40.7 +25.11	Spiral Galaxy	4/19/1993	C-14	40mm Plossl	1/5 field moderate brightness 1:2 elongated no bright core 3 foreground stars. RD.
3377	10:45.1 +14.15	Elliptical Galaxy	3/31/1992	C-8	26mm Plossl	1:3 elongation small maybe 1/20 field good central brightness. RD BW.
3379	10:45.2 +12.51	Elliptical Galaxy	3/31/1992	C-8	26mm Plossl	M105 1/4 field 1:4 elongated bright good central brightness. RD BW.
3384	10:45.7 +12.54	Elliptical Galaxy	3/31/1992	C-8	26mm Plossl	1/4 field round central brightness. RD BW.
3395	10:47.1 +33.15	Spiral Galaxy	4/19/1993	C-14	40mm Plossl	Very small very dim undetectable shape. RD.
3412	10:48.3 +13.41	Elliptical Galaxy	3/31/1992	C-8	26mm Plossl	1:3 elongated 1/6 field central brightness bright star nearby. RD BW.
3414	10:48.6 +28.15	Barred Spiral Galaxy	4/19/1993	C-14	40mm Plossl	Close to bright star dim undetectable shape some central brightness. RD.
3432	10:49.7 +36.54	Spiral Galaxy	4/19/1993	C-14	40mm Plossl	1/4 field 1:4 elongated bright edge on. RD.
3486	10:57.8 +29.15	Spiral Galaxy	4/19/1993	C-14	40mm Plossl	1/5 field dim round some central brightness. RD.
3489	10:57.7 +14.10	Elliptical Galaxy	3/31/1992	C-8	26mm Plossl	1/4 field 1:4 elongation good central brightness. RD BW.
3504	11:00.5 +28.15	Spiral Galaxy	4/19/1993	C-14	40mm Plossl	1/5 field 1:4 elongated bright with good central brightness. RD.
3521	11:03.2 +00.14	Spiral Galaxy	4/14/1993	C-14	40mm Plossl	1/3 field 1:4 elongation good core bright looks like almost edge on. SA.
3556	11:08.7 +55.57	Spiral Galaxy	4/2/1992	C-8	26mm Plossl	(M108) 1:5 elongation stellar core 1/2 field. DB RD WC.
3593	11:12.0 +13.06	Spiral Galaxy	3/31/1992	C-8	26mm Plossl	1:4 elongated dim 1/6 field slight central brightness. RD BW.
3607	11:14.3 +18.20	Elliptical Galaxy	3/31/1992	C-8	26mm Plossl	1/10 field central brightness very close to NGC 3608. RD BW.
3608	11:14.4 +18.26	Elliptical Galaxy	3/31/1992	C-8	26mm Plossl	1/8 field central brightness just south of NGC 3607. RD BW.
3610	11:15.6 +59.04	Elliptical Galaxy	6/7/1992	C-14	40mm Konig	Very small 1:3 elongated. Some central brightness. ES.

3613	11:15.7 +58.17	Elliptical Galaxy	6/7/1992	C-14	40mm Konig	Very small 1:4 elongation some central brightness. ES.
3619	11:16.5 +58.02	Spiral Galaxy	6/7/1992	C-14	40mm Konig	Very dim very small hard to define.
3621	11:15.9 -32.32	Spiral Galaxy	4/14/1993	C-14	40mm Plossl	1/3 field very faint close to horizon difficult. SA.
3626	11:15.9 +18.38	Spiral Galaxy	3/31/1992	C-8	26mm Plossl	1/10 field round dim central brightness. RD BW.
3628	11:17.7 +13.53	Spiral Galaxy	6/23/1990	17.5" f/4.5	12mm Nagler	Large bright galaxy 1:8 elongation no central brightness near M65 & M66. DB ES RD.
3631	11:18.3 +53.28	Spiral Galaxy	5/13/1993	C-14	40mm Plossl	1/16 field very dim round. JK.
3640	11:18.5 +03.31	Elliptical Galaxy	3/31/1992	C-8	26mm Plossl	Very small very faint with averted vision some central brightening. RD
3655	11:20.3 +16.51	Spiral Galaxy	4/14/1993	C-14	40mm Plossl	Dim 1/10 field round kind of stupid.
3665	11:22.1 +39.02	Elliptical Galaxy	5/13/1993	C-14	40mm Plossl	1/8 field dim round with stellar core.
3675	11:23.5 +43.52	Spiral Galaxy	5/13/1993	C-14	40mm Plossl	1/6 field 1:3 elongated moderately bright with good central brightness. JK.
3686	11:25.1 +17.30	Spiral Galaxy	4/14/1993	C-14	40mm Plossl	1/8 field dim 1:2 elongated brighter member of a threesome of galaxies.
3726	11:30.7 +47.19	Spiral Galaxy	5/13/1993	C-14	40mm Plossl	1/4 field smooth brightness with no core 1:2 elongated but sort of egg shaped faint star in object. JK.
3729	11:31 +53.24	Irregular Galaxy	5/13/1993	C-14	40mm Plossl	1/16 field round and dim close to NGC 3718. JK.
3810	11:38.4 +11.45	Spiral Galaxy	4/14/1993	C-14	40mm Plossl	Small very faint no shape or core detected. SA.
3813	11:38.7 +36.49	Spiral Galaxy	5/13/1993	C-14	40mm Plossl	1/15 field lopsided 1:2 dim no central brightness. JK.
3877	11:43.5 +47.46	Spiral Galaxy	5/13/1993	C-14	40mm Plossl	1/4 field 1:8 elongation bright with brighter core. Close bright star. JK.
3893	11:46.1 +49.00	Spiral Galaxy	5/13/1993	C-14	40mm Plossl	1/5 field round bright with core brightness faint star in object. JK.
3898	11:46.7 +56.22	Spiral Galaxy	7/31/1992	C-8	17mm Plossl	1:6 elongated 1/20 field central brightness. RD.
3900	11:46.6 +27.17	Spiral Galaxy	4/14/1993	C-14	40mm Plossl	1/10 field dim non-descript shape. SA.
3912	11:47.5 +26.46	Spiral Galaxy	4/14/1993	C-14	40mm Plossl	1/4 field seems elongated very faint hard to find. SA.
3938	11:50.2 +44.24	Spiral Galaxy	7/31/1992	C-8	40mm Plossl	1/5 field round bright no central brightness. RD.
3941	11:50.3 +37.16	Spiral Galaxy	5/13/1993	C-14	40mm Plossl	1/16 field 1:3 elongated moderately bright with brighter core. JK.
3945	11:50.6 +60.57	Spiral Galaxy	7/31/1992	C-8	17mm Plossl	1/30 field round dim with central brightness. RD.
3949	11:51.1 +48.08	Spiral Galaxy	5/13/1993	C-14	40mm Plossl	1/10 field 1:4 elongated egg shaped moderately bright. JK.
3953	11:51.2 +52.37	Spiral Galaxy	5/13/1993	C-14	40mm Plossl	1/5 field 1:4 elongated moderately bright with a brighter core. JK.
3962	11:52.2 -13.42	Elliptical Galaxy	4/14/1993	C-14	40mm Plossl	1/12 field non-descript shape dim two stars are nearby. SA.
3982	11:53.9 +55.24	Spiral Galaxy	7/31/1992	C-8	17mm Plossl	1/20 field round no central brightness. RD.
3992	11:55 +53.39	Spiral Galaxy	4/2/1992	C-8	17mm Plossl	(M109) Dim 1/8 field 2 bright stars nearby close to Gamma Ursa Major. DB RD WC.

3998	11:55.3 +55.44	Elliptical Galaxy	7/31/1992	C-8	17mm Plossl	1:4 elongated stellar core 1/20 field. RD.
4026	11:56.9 +51.14	Elliptical Galaxy	5/13/1993	C-14	40mm Plossl	1/12 field 1:4 elongated moderately bright with a brighter core. JK.
4027	11:57 -18.59	Spiral Galaxy	3/31/1992	C-8	26mm Plossl	1/10 field no shape no central brightness stupid. RD BW.
4030	11:57.8 -00.49	Spiral Galaxy	3/28/1992	C-8	26mm Plossl	1/6 field central brightness near 2 stars. ES.
4036	11:58.9 +62.10	Elliptical Galaxy	7/31/1992	C-8	26mm Plossl	1:4 elongated good stellar core 1/16 field near NGC 4041. RD.
4038	11:59.3 -18.35	Spiral Galaxy	3/31/1992	C-8	26mm Plossl	1/6 field round bright no central brightness. RD BW.
4041	11:59.7 +62.25	Spiral Galaxy	7/31/1992	C-8	17mm Plossl	Very small round no central brightness near NGC 4036. RD.
4051	12:00.6 +44.48	Spiral Galaxy	5/13/1993	C-14	40mm Plossl	1/4 field 1:3 elongated bright with brighter core bright star on the edge.
4085	12:02.8 +50.38	Spiral Galaxy	5/13/1993	C-14	40mm Plossl	1/16 field 1:4 elongated dim close to NGC 4088. JK.
4088	12:03.3 +43.21	Spiral Galaxy	5/13/1993	C-14	40mm Plossl	1/4 field moderately bright 1:5 elongated looks kind of whale shaped very interesting smooth even brightness close to NGC 4085. JK
4102	12:03.8 +52.59	Spiral Galaxy	5/13/1993	C-14	40mm Plossl	Very small non-descript shape some core brightness. JK.
4111	12:04.5 +43.21	Elliptical Galaxy	5/12/1993	C-14	40mm Plossl	1:6 elongated bright central brightness 1/8 field. Star nearby. JK.
4143	12:07.1 +42.49	Elliptical Galaxy	5/12/1993	C-14	40mm Plossl	Dim with central brightness nondescript shape. JK.
4147	12:07.6 +18.49	Globular Cluster	3/28/1992	C-8	26mm Plossl	Small round fuzz no stars resolved. ES
4150	12:08 +39.41	Elliptical Galaxy	5/12/1993	C-14	40mm Plossl	1/4 field very dim round. JK.
4151	12:08 +39.41	Peculiar Galaxy	5/12/1993	C-14	40mm Plossl	Dim round central brightness 1/5 field. JK.
4179	12:10.3 +01.35	Elliptical Galaxy	3/28/1992	C-8	26mm Plossl	Very small and dim. On the end of a string of evenly spaced stars of similar brightness which caused me to pass over it several times before seeing fuzz and central brightness. ES.
4203	12:12.5 +33.29	Elliptical Galaxy	5/12/1993	C-14	40mm Plossl	1/10 field dim with good central brightness right next to a star. JK.
4214	12:30.1 +36.36	Irregular Galaxy	5/12/1993	C-14	40mm Plossl	1/3 field 1:2 elongated bright with central brightness. JK.
4216	12:13.4 +13.25	Spiral Galaxy	3/28/1992	C-8	26mm Plossl	About 1/3 field slight central brightness. ES.
4245	12:15.2 +29.53	Spiral Galaxy	5/12/1993	C-14	40mm Plossl	1/8 field dim undetectable shape central brightness. Near NGC 4274. JK.
4251	12:15.7 +28.27	Spiral Galaxy	5/12/1993	C-14	40mm Plossl	Bright with good central brightness 1:3 elongation 1/8 field. JK.
4258	12:16.5 +47.35	Spiral Galaxy	4/2/1992	C-8	26mm Plossl	(M106) Bright 1:4 elongation 1/3 field stellar core. Nice. DB JR RD WC.
4261	12:16.8 +06.06	Elliptical Galaxy	3/31/1992	C-8	26mm Plossl	Round fuzz 1/20 field averted vision detects slight. central brightness. RD BW.
4273	12:17.4 +05.37	Spiral Galaxy	4/21/1993	C-8	40mm Plossl	Very small very dim. Round. Stellar core. Semicircle of stars nearby. Twin to NGC 4281. JK.

4274	12:17.4 +29.53	Spiral Galaxy	5/12/1993	C-14	40mm Plossl	Dim 1/16 field 1:3 elongation central brightness. JK.
4278	12:17.7 +29.34	Elliptical Galaxy	5/12/1993	C-14	40mm Plossl	Tiny and very dim round. JK.
4281	12:17.8 +05.40	Elliptical Galaxy	4/21/1993	C-8	40mm Plossl	Very small very dim. Round. Stellar core. Next to NGC 4273. JK.
4293	12:18.7 +18:40	Irregular Galaxy	3/28/1992	C-8	26mm Plossl	Fairly bright 1:4 elongation central brightness. ES.
4303	12:19.4 +04.45	Spiral Galaxy	3/31/1992	C-8	26mm Plossl	M61 Bright round strong central brightness 1/6 field. RD BW.
4314	12:20 +30.1	Barred Spiral Galaxy	5/12/1993	C-14	40mm Plossl	1:4 elongated 1/8 field bright with good central brightness JK.
4346	12:21 +47.16	Elliptical Galaxy	5/12/1993	C-14	40mm Plossl	Dim 1:3 elongation 1/10 field stellar core. JK.
4350	12:21.4 +16.58	Elliptical Galaxy	3/28/1992	C-8	26mm Plossl	Dim very small unexciting. ES
4361	12:21.9 -18.29	Planetary Nebula	3/28/1992	C-8	26mm Plossl	Faint with central star. No green. ES
4365	12:22 +07.36	Elliptical Galaxy	4/1/1992	C-8	26mm Plossl	Round dim 1/20 field. RD.
4371	12:22.4 +11.59	Spiral Galaxy	4/21/1993	C-8	40mm Plossl	Very small round moderately bright with good central brightening. Close to star. JK.
4394	12:23.4 +18.29	Barred Spiral Galaxy	5/12/1993	C-14	40mm Plossl	1/2 field from M85 dim with slight central brightness. JK.
4414	12:24 +31.3	Spiral Galaxy	5/12/1993	C-14	40mm Plossl	1/16 field moderately dim 1:3 elongated good central brightness. JK.
4419	12:24.4 +15.19	Elliptical Galaxy	4/1/1992	C-8	26mm Plossl	1:4 elongated 1/10 field dim no central brightness. RD.
4429	12:24.9 +11.23	Spiral Galaxy	3/28/1992	C-8	26mm Plossl	Small 1:2 elongated bright central brightness. ES.
4435	12:25.2 +13.21	Elliptical Galaxy	3/28/1992	C-8	26mm Plossl	Extremely small very dim seems to be a companion to NGC 4438. ES.
4438	12:25.3 +13.17	Spiral Galaxy	3/28/1992	C-8	26mm Plossl	Small round and bright strong central brightness close to NGC 4435. ES.
4442	12:25.6 +10.05	Elliptical Galaxy	3/28/1992	C-8	26mm Plossl	1:2 elongated 1/20 field dim no central brightness. ES.
4448	12:25.8 +28.54	Spiral Galaxy	5/12/1993	C-14	40mm Plossl	Very small and dim 1:3 elongated. JK.
4449	12:25.8 +44.22	Irregular Galaxy	5/12/1993	C-14	40mm Plossl	1:4 field egg shaped bright. JK.
4450	12:25.9 +17.21	Spiral Galaxy	3/28/1992	C-8	26mm Plossl	1:3 elongated faint slight central brightness. ES
4459	12:26.5 +14.15	Elliptical Galaxy	4/1/1992	C-8	40mm Plossl	Round dim central brightness 1/8 field. Close to star. RD.
4473	12:27.3 +13.42	Elliptical Galaxy	4/1/1992	C-8	40mm Plossl	Bright small 1:3 elongation central brightness. Same field as NGC 4477. RD.
4477	12:27.6 +13.55	Spiral Galaxy	4/1/1992	C-8	40mm Plossl	Very small and dim. Averted vision seems to indicate central brightness. Close to NGC 4473. RD.
4478	12:27.8 +12.36	Elliptical Galaxy	4/21/1993	C-8	40mm Plossl	Very small round moderately bright.
4485	12:28.2 +41.58	Irregular Galaxy	5/12/1993	C-14	40mm Plossl	Close to NGC 4490 1/12 field 1:3 elongation dim. JK.
4490	12:28.3 +41.55	Spiral Galaxy	5/12/1993	C-14	40mm Plossl	Bright 1/4 field 1:4 elongation NGC 4485 is in the field. JK.
4494	12:28.9 +26.03	Elliptical Galaxy	4/19/1993	C-14	40mm Plossl	1/12 field round central brightness. A short hop from beautiful NGC 4565.

4526	12:31.6 +07.58	Elliptical Galaxy	3/28/1992	C-8	26mm Plossl	1/10 field central brightness bracketed by two bright stars. ES.
4527	12:31.6 +02.56	Spiral Galaxy	3/28/1992	C-8	26mm Plossl	Dim with slight central brightness. 1:8 elongated 1/4 field. ES.
4535	12:31.8 +08.28	Spiral Galaxy	3/28/1992	C-8	26mm Plossl	Large but dim 1/3 field 1:2 elongated. ES
4536	12:31.9 +02.28	Spiral Galaxy	3/28/1992	C-8	26mm Plossl	Large but very dim. 1:4 elongated up to 1/2 field no central brightness ES.
4546	12:32.9 -03.31	Elliptical Galaxy	4/21/1993	C-8	40mm Plossl	Very small very dim. 1:3 elongated with slightly brighter core. JK.
4548	12:32.9 +14.46	Barred Spiral Galaxy	4/1/1992	C-8	26mm Plossl	M91 round dim 1/4 field central brightness. RD
4550	12:32.9 +12.30	Elliptical Galaxy	4/21/1993	C-8	40mm Plossl	1/10 field moderately bright with brighter core. Round. Close to M89. JK.
4559	12:33.5 +28.14	Spiral Galaxy	4/21/1993	C-8	40mm Plossl	1/4 field elongated 1:2 moderately bright no core. JK.
4565	12:33.9 +26.16	Spiral Galaxy	6/23/1990	17.5" f/4.5	12mm Nagler	Beautiful bright edge on galaxy across entire field with a dark lane down the middle 1:10 elongated. DB ES RD.
4570	12:34.4 +07.31	Elliptical Galaxy	3/28/1992	C-8	26mm Plossl	1/4 field 1:5 elongated dim some central brightness. ES.
4594	12:37.3 -11.21	Spiral Galaxy	1/24/1988	C-14	24mm Orthoscopic	An edge on spiral 1/4 width of field. A bright and bulging core and a long wonderful dark lane makes it resemble a Sombrero. JB DB ES.
4596	12:37.4 +10.27	Barred Spiral Galaxy	4/21/1993	C-8	40mm Plossl	1/10 field dim undetectable shape. JK.
4618	12:39.2 +41.25	Spiral Galaxy	5/12/1993	C-14	40mm Plossl	Dim 1:2 elongated 1/4 field small companion near by. JK.
4631	12:39.8 +32.49	Spiral Galaxy	1/24/1988	C-14	24mm Orthoscopic	An edge on galaxy the full width of the field. There is a star very near the core and a satellite galaxy on the other side of the core from the star. JB DB ES.
4636	12:40.3 +02.57	Elliptical Galaxy	3/28/1992	C-8	26mm Plossl	Fairly bright 1:2 elongation 1/4 field a bright star is at the edge of the object. ES.
4643	12:40.8 +02.15	Barred Spiral Galaxy	3/28/1992	C-8	26mm Plossl	Small but bright. No central brightness. ES
4654	12:41.4 +13.23	Spiral Galaxy	4/1/1992	C-8	40mm Plossl	1:2 elongation dim 1/8 field some central brightness. RD.
4656	12:41.6 +32.26	Irregular Galaxy	1/24/1988	C-14	24mm Orthoscopic	A bright edge on galaxy with a star near a central bulge. JB DB ES.
4660	12:42 +11.26	Elliptical Galaxy	4/21/1993	C-8	40mm Plossl	Very small dim no shape close to M60. JK.
4665	12:42.9 +03.19	Barred Spiral Galaxy	3/28/1992	C-8	26mm Plossl	Very dim very small very hard to describe. Perhaps 1/10 field. ES.
4666	12:42.6 -00.12	Spiral Galaxy	4/2/1992	C-8	26mm Plossl	1:4 elongation 1/4 field strong central brightness. DB RD.
4689	12:45.2 +14.01	Spiral Galaxy	3/28/1992	C-8	26mm Plossl	Very dim no shape a bright star is immediately to the south. ES.
4697	12:46 -05.32	Elliptical Galaxy	4/2/1992	C-8	26mm Plossl	1:3 elongation 1/4 field strong central brightness. DB RD.
4698	12:45.8 +08.45	Spiral Galaxy	4/21/1993	C-8	40mm Plossl	1/8 field moderately bright with good central brightness. 1:3 elongated very close to bright star. JK.

4699	12:46.5 -08.24	Spiral Galaxy	4/2/1992	C-8	26mm Plossl	1/16 field 1:2 elongation bright with good central brightness. DB RD.
4725	12:48.1 +25.46	Spiral Galaxy	5/12/1993	C-14	40mm Plossl	Small perhaps 1/20 field round. JK.
4753	12:49.8 -00.55	Spiral Galaxy	4/2/1992	C-8	26mm Plossl	1:3 elongation 1/4 field central brightness. DB RD.
4754	12:49.7 +11.35	Elliptical Galaxy	3/28/1992	C-8	26mm Plossl	Very dim small probably round. Just northwest of NGC 4762. ES.
4762	12:50.4 +11.31	Spiral Galaxy	3/28/1992	C-8	26mm Plossl	Reasonably bright very near NGC 4754 1:4 elongation no nucleus observed. ES.
4781	12:51.8 -10.16	Spiral Galaxy	3/28/1992	C-8	26mm Plossl	Dim small no central brightness 1:2 elongated. ES.
4800	12:52.4 +46.48	Spiral Galaxy	7/31/1992	C-8	26mm Plossl	1/8 field dim no shape no central brightness. RD.
4845	12:55.5 +01.51	Spiral Galaxy	4/21/1993	C-8	40mm Plossl	1/8 field dim 1:3 elongated bright star in field. JK.
4856	12:56.7 -14.46	Elliptical Galaxy	4/21/1993	C-8	40mm Plossl	1/12 field dim undetectable shape. JK.
4866	12:57 +14.27	Spiral Galaxy	4/21/1993	C-8	40mm Plossl	1/12 field 1:4 elongation dim with central brightness. JK.
4900	12:58.2 +02.46	Spiral Galaxy	3/28/1992	C-8	26mm Plossl	1/8 field small and dim. Non-descript shape. ES.
4958	13:03.1 -07.45	Elliptical Galaxy	4/21/1993	C-8	40mm Plossl	Very small moderately bright with good central brightening. 1:2 elongated. JK.
4995	13:07 -07.34	Spiral Galaxy	4/21/1993	C-8	40mm Plossl	Bright but no central brightening. 1/12 field round. JK.
5005	13:08.5 +37.19	Spiral Galaxy	4/2/1992	C-8	17mm Plossl	1:4 elongation central brightness very small near NGC 5033. DB JR RD.
5033	13:11.2 +36.51	Spiral Galaxy	4/2/1992	C-8	17mm Plossl	Very dim barely there with averted vision small undetectable shape or central brightness. Near NGC 5005. DB JR RD.
5054	13:14.3 -16.23	Spiral Galaxy	4/2/1992	C-8	26mm Plossl	1/8 field very dim no shape no central brightness. DB RD.
5195	13:27.9 +47.31	Elliptical Galaxy	1/24/1988	C-14	24mm Orthoscopic	With NGC 5194 (M51) it looks like a comet. Its actually a satellite galaxy of the face on spiral. An arm connects the two making them look like one object. JB DB ES.
5248	13:35.1 +09.08	Spiral Galaxy	4/1/1992	C-8	26mm Plossl	1/4 field 1:2 elongation bright with stellar nucleus. RD.
5273	13:39.9 +35.55	Elliptical Galaxy	7/31/1992	C-8	26mm Plossl	1/8 field undetectable shape very faint. RD.
5322	13:47.6 +60.26	Elliptical Galaxy	5/13/1993	C-14	40mm Plossl	Tiny thin strip 1:8 elongation? hard to find. JK.
5363	13:53.6 +05.29	Elliptical Galaxy	4/1/1992	C-8	26mm Plossl	1:3 elongation central brightening 1/20 field. RD.
5364	13:53.7 +05.15	Spiral Galaxy	4/1/1992	C-8	26mm Plossl	1/16 field dim no central brightness. RD.
5466	14:03.2 +28.46	Globular Cluster	4/2/1992	C-8	26mm Plossl	1/4 field of unresolved fuzz. DB JR RD WC.
5473	14:03.0 +55.08	Elliptical Galaxy	7/31/1992	C-8	26mm Plossl	1/30 field 1:5 elongation good central brightness. North of M101. RD.
5474	14:03.2 +53.54	Spiral Galaxy	7/31/1992	C-8	17mm Plossl	1/6 field round central brightness and a star within. RD.

5557	14:16.4 +36.43	Elliptical Galaxy	7/31/1992	C-8	26mm Plossl	1:2 elongation 1/20 field central brightness dim. RD.
5566	14:17.8 +04.11	Spiral Galaxy	4/1/1992	C-8	40mm Plossl	Dim round 10 field central brightness 2 bright stars nearby. RD.
5576	14:18.5 +03.30	Elliptical Galaxy	4/1/1992	C-8	40mm Plossl	Dim round central brightness 1/16 field. RD.
5631	14:25.1 +56.48	Spiral Galaxy	4/2/1992	33.4" f/5	20mm Nagler	Small 1/16 field 1:3 elongation moderately dim with a stellar core. MB RD WC.
5634	14:27 -05.45	Globular Cluster	4/1/1992	C-8	26mm Plossl	1/8 field unresolved fuzz next to a star. RD.
5676	14:31 +49.41	Spiral Galaxy	4/2/1992	C-8	17mm Plossl	Very dim 1/10 field 1:2 elongation some central brightness. DB JR RD WC.
5689	14:33.7 +48.57	Spiral Galaxy	7/31/1992	C-8	26mm Plossl	Very small very dim 1:3 elongation slight central brightness. RD.
5694	14:36.7 -26.19	Globular Cluster	4/21/1993	C-8	40mm Plossl	Small and dim unresolved uniform brightness no core. Very close to two nice double stars easy to find. JK.
5746	14:42.3 +02.10	Spiral Galaxy	4/1/1992	C-8	40mm Plossl	Dim 1:5 elongation 1/4 field central brightness. Close to a very bright star. RD.
5846	15:04 +01.48	Elliptical Galaxy	4/1/1992	C-8	26mm Plossl	Dim 1/10 field central brightness close to double star. RD.
5866	15:05.1 +55.57	Elliptical Galaxy	4/1/1992	C-8	26mm Plossl	Bright 1/12 field 1:2 elongation seems to have a dark lane. Close to NGC 5907. RD.
5897	15:14.5 -20.50	Globular Cluster	4/1/1992	C-8	26mm Plossl	Big and dim too close to horizon passed over without seeing it many times but rewarding once found. 1/4 field unresolved. RD.
5907	15:14.6 +56.31	Spiral Galaxy	4/1/1992	C-8	26mm Plossl	1/4 field thin maybe 1:10 with averted vision it looks mottled. No central brightness. RD.
5982	15:37.5 +59.32	Elliptical Galaxy	7/30/1992	C-8	26mm Plossl	1:2 elongated central brightness 1/20 field dim. RD
6118	16:19.3 -02.11	Spiral Galaxy	6/7/1992	C-14	40mm Konig	1/6 field averted vision required 1:3 elongated with no central brightening. ES.
6144	16:24.2 -25.56	Globular Cluster	5/30/1992	C-8	17mm Plossl	Small and dim 1/8 field bright star on edge of cluster. ES DB.
6171	16:29.7 -12.57	Globular Cluster	6/7/1992	C-14	40mm Konig	M107 1/8 field round unresolved close to bright star. ES.
6207	16:41.3 +36.56	Spiral Galaxy	1/24/1988	C-14	24mm Orthoscopic	A dim galaxy with a brighter core. It is 1/5 the field in size and not far from M13. JB DB ES.
6217	16:34.8 +78.18	Spiral Galaxy	1/24/1988	C-14	24mm Orthoscopic	A small dim edge on galaxy 1:3 elongated alone in the field. JB DB
6229	16:45.6 +47.37	Globular Cluster	4/1/1992	C-8	26mm Plossl	Small unresolved fuzz with two bright stars that make an equilateral triangle. RD.
6235	16:50.4 -22.05	Globular Cluster	5/30/1992	C-8	17mm Plossle	1/16 field moderately bright not bad. ES DB.
6284	17:01.5 -24.41	Globular Cluster	5/30/1992	C-8	17mm Plossle	1/16 field moderately dim unresolved near double star. ES DB.

6287	17:02.1 -22.38	Globular Cluster	5/30/1992	C-8	17mm Plossl	1/16 field moderately bright brighter core. ES DB.
6293	17:07.1 -26.30	Globular Cluster	5/30/1992	C-8	17mm Plossl	1/12 field 1 bright star in field near M19. ES DB.
6304	17:11.4 -29.24	Globular Cluster	5/30/1992	C-8	17mm Plossle	1/16 field moderate brightness unresolved. ES DB.
6316	17:13.4 -28.05	Globular Cluster	5/30/1992	C-8	17mm Plossl	1/20 field very dim compact next to bright star. ES DB.
6342	17:18.2 -19.32	Globular Cluster	5/30/1992	C-8	17mm Plossl	1/16 field fairly bright nice. Next to star. ES DB.
6355	17:20.1 -26.19	Globular Cluster	5/30/1992	C-8	17mm Plossl	1/10 field very dim 3 bright stars in field. ES DB.
6356	17:20.7 -17.46	Globular Cluster	5/30/1992	C-8	17mm Plossl	Bright with brighter core very nice unresolved. ES DB.
6369	17:26.3 -23.44	Planetary Nebula	5/30/1992	C-8	10.5mm Plossl	UHC filter Small and round nice change from globulars. No central star observed. ES DB.
6401	17:35.6 -23.53	Globular Cluster	5/30/1992	C-8	17mm Plossl	1/10 field very dim slight central brightening. Triangle shape. ES DB.
6426	17:42.4 +03.12	Globular Cluster	5/31/1992	C-8	17mm Plossl	1/10 field very dim unresolved. ES.
6440	17:45.9 -20.21	Globular Cluster	5/30/1992	C-8	17mm Plossl	1/10 field central brightness several bright stars in field. Unresolved. ES
6445	17:46.3 -20.00	Planetary Nebula	5/30/1992	C-8	17mm Plossl	Bright small no central star. Near 2 sets of Double stars. ES DB.
6451	17:47.4 -30.11	Open Cluster	5/30/1992	C-8	26mm Plossl	1/4 field 6 bright stars 50 dim stars. ES DB.
6514	17:58.9 -23.02	Diffuse Nebula	9/17/1987	C-14	24mm Orthoscopic	A diffuse nebula with 2 bright central stars. 3 dark lanes come together splitting the "Trifid" into thirds. It is about 1/2 the field. JB MS.
6517	17:59.1 -08.57	Globular Cluster	6/27/1992	C-14	40mm Konig	Very small and dim with a brighter core. SK ES.
6520	18:00.3 -27.54	Open Cluster	6/7/1992	C-14	40mm Konig	1/4 field 6 bright stars 50 dimmer stars. No nebulosity. ES.
6522	18:00.4 -30.02	Globular Cluster	5/30/1992	C-8	17mm Plossl	Very small but bright. Near NGC 6528. ES DB.
6528	18:01.6 -30.04	Globular Cluster	5/30/1992	C-8	17mm Plossl	Very small moderate brightness near NGC 6522. ES DB.
6540	18:03.1 -27.50	Open Cluster	6/7/1992	C-14	40mm Konig	Very small 20 stars. ES.
6543	17:58.8 +66.38	Planetary Nebula	1/24/1988	C-14	24mm Orthoscopic	A small planetary nebula with an obvious green hue. So called "Atom Nebula". With averted vision I saw a central star. JB DB ES.
6544	18:04.3 -25.01	Globular Cluster	6/27/1992	C-14	40mm Konig	1/10 field bright central brightness not bad. SK ES.
6553	18:06.3 -25.56	Globular Cluster	6/27/1992	13.1" f/4.5	32mm Plossl	1/8 field bright with central brightness unresolved. SK BW.
6568	18:10.1 -21.36	Open Cluster	6/28/1992	C-14	40mm Konig	1/2 field 30 stars dim and loose. SK ES.
6569	18:10.4 -31.50	Globular Cluster	6/7/1992	C-14	40mm Konig	Very small and very dim. No central brightness. Quite unresolved. ES
6583	18:12.11 -22.09	Open Cluster	6/7/1992	C-14	40mm Konig	1/10 field compact unresolved. ES.
6624	18:20.5 -30.23	Globular Cluster	6/7/1992	C-14	40mm Konig	1/16 field Bright with central brightness unresolved. ES.

6629	18:22.7 -23.14	Planetary Nebula	6/7/1992	C-14	40mm Konig	Very small green no central star seen. ES.
6633	18:25.1 +06.32	Open Cluster	6/7/1992	C-14	40mm Konig	Full field lots of stars about 100 a bright star on the edge possibly some nebulosity. ES.
6638	18:27.9 -25.32	Globular Cluster	6/7/1992	C-14	40mm Konig	1/16 field central brightness unresolved. ES.
6642	18:28.8 -23.31	Open Cluster	6/7/1992	C-14	40mm Konig	1/16 field looks like a small globular. Close to M22. ES.
6645	18:29.8 -16.56	Open Cluster	6/7/1992	C-14	40mm Konig	Full field 100 stars very nice. ES.
6664	18:34.0 -08.16	Open Cluster	6/7/1992	C-14	40mm Plossl	3/4 field 35 stars close to Alpha Scuti. ES.
6712	18:50.3 -08.47	Globular Cluster	6/7/1992	C-14	40mm Plossl	1/8 field unresolved near M11. ES.
6755	19:05.3 +04.09	Open Cluster	6/7/1992	C-14	40mm Konig	1/2 field 100 or more stars including a little cluster within the cluster. Weird.
6756	19:06.2 +04.35	Open Cluster	6/7/1992	C-14	40mm Konig	1/6 field 25 stars no nebulosity. ES.
6781	19:16.0 +06.26	Planetary Nebula	6/7/1992	C-14	40mm Konig	1/10 field green round no central star seen. Very nice. ES.
6802	19:31 +20.17	Open Cluster	9/17/1987	C-14	17mm Plossl	This dim open cluster is at the end of the coathanger. 3 bright stars mark the very edge of the field. JB MS.
6818	19:41.1 -14.17	Planetary Nebula	9/20/1990	10" f/5.5	9mm Nagler	Very small green no central star seen. ES RD DF.
6823	19:41.1 +23.12	Open Cluster	6/7/1992	C-14	40mm Konig	1/2 field bright 40 stars no nebulosity. ES.
6826	19:43.4 +50.24	Planetary Nebula	5/31/1992	C-8	17mm Plossl	Small round and green. Not bad. ES.
6830	19:48.9 +22.58	Open Cluster	5/31/1992	C-8	17mm Plossl	1/4 field 15 stars no nebulosity. Close to M27. ES.
6834	19:50.2 +29.17	Open Cluster	6/28/1992	C-14	40mm Konig	1/6 field 5 bright stars and lots of small stars. SK ES.
6866	20:02.1 +43.51	Open Cluster	5/31/1992	C-8	26mm Plossl	20 stars 1/4 field sort of trapezoidal.
6882	20:09.6 +26.24	Open Cluster	6/28/1992	C-14	40mm Konig	Connected to NGC 6885 12 stars. SK ES.
6885	20:09.9 +26.20	Open Cluster	5/31/1992	C-8	40mm Plossl	Full field triangle 30 to 40 bright stars. Connected to NGC 6882. ES.
6905	20:20.5 +19.57	Planetary Nebula	6/28/1992	C-14	40mm Konig	Very small green between two stars no central star. SK ES.
6910	20:21.3 +40.37	Open Cluster	5/31/1992	C-8	26mm Plossl	1/3 field wishbone shape 30 stars no nebulosity. ES.
6934	20:31.7 +07.14	Globular Cluster	6/28/1992	C-14	40mm Konig	1/16 field Round bright brighter core unresolved very nice. SK ES.
6939	20:31 +60.39	Open Cluster	9/17/1987	C-14	17mm Plossl	This compact open cluster contains a nice dark lane with a straight line of stars on either side of it. JB MS.
6940	20:32.5 +28.08	Open Cluster	5/31/1992	C-8	40mm Plossl	1/2 field 250 stars no nebulosity. ES.
6946	20:33.9 +59.58	Spiral Galaxy	6/28/1992	C-14	40mm Konig	Face on 1/3 field no central brightness round. SK ES.
7000	20:57 +44.08	Diffuse Nebula	7/23/1988	8 x 40	finder	North American Nebula. Faint large filled the finder. Subtle but beautiful. JB DB RD.
7006	20:59.1 +16.00	Globular Cluster	9/20/1990	10" f/5.5	9mm Nagler	Very small and dim round. ES RD
7008	20:59.1 +54.21	Planetary Nebula	4/2/1992	C-8	17mm Plossl	1/16 field no color no central star seen close to a double star. DB RD.

7009	21:01.4 -11.34	Planetary Nebula	7/16/1988	C-14	40mm Kellner	The Saturn Nebula. Bright round and green. There is a faint spike protruding from either side of this planetary. JB
7044	21:11.1 +42.17	Open Cluster	5/31/1992	C-8	26mm Plossl	1/2 field 50 stars 1 bright star. No nebulosity. ES.
7062	21:21.5 +46.10	Open Cluster	5/31/1992	C-8	26mm Plossl	1/6 field 20 stars no nebulosity. ES.
7086	21:29 +51.22	Open Cluster	6/28/1992	C-14	40mm Konig	Full field 3 bright stars hundreds of dimmer stars. ES.
7128	21:42.4 +53.29	Open Cluster	6/28/1992	C-14	40mm Konig	1/10 field a dozen stars in a little circlet. One bright orange star.
7142	21:44 +65.34	Open Cluster	6/11/1991	10" f/5.5	17mm Plossl	1/3 field 3 bright stars 50 dim stars.
7160	21:52.3 +62.22	Open Cluster	6/11/1991	10" f/5.5	17mm Plossl	1/3 field 2 bright stars 15 moderately bright stars. RD.
7209	22:03.2 +46.15	Open Cluster	5/31/1992	C-8	26mm Plossl	Full field no nebulosity 100 stars. ES.
7217	22:05.6 +31.07	Spiral Galaxy	5/31/1992	C-8	17mm Plossl	1/16 field 1:3 elongated dim with brighter core. ES.
7243	22:13.2 +49.38	Open Cluster	5/31/1992	C-8	26mm Plossl	100 stars full field pretty. No nebulosity. ES.
7296	22:26.2 +52.02	Open Cluster	5/31/1992	C-8	26mm Plossl	12 stars 1/10 field. Less than amazing. ES.
7331	22:37 +34.26	Spiral Galaxy	9/17/1987	C-14	17mm Plossl	About 1/12 the field in length this edge on view of a galaxy has a bright bulging core and a satellite galaxy nearby. JB MS.
7380	22:44.9 +57.49	Open Cluster	8/21/1988	6" f/8	20mm Erfle	Loose cluster of about 20 stars 1/2 field. RD.
7448	22:57.6 +15.43	Spiral Galaxy	9/20/1990	10" f/5.5	9mm Nagler	Very small and dim central brightness no shape. ES RD DF.
7479	23:02.4 +12.03	Barred Spiral Galaxy	9/20/1990	10" f/5.5	9mm Nagler	1:4 elongation 1/4 field fairly bright with a bit of a dark lane. ES RD DF.
7510	23:09.2 +60.18	Open Cluster	8/21/1988	6" f/8	20mm Erfle	Small cluster. 5 or 6 brighter stars and many fairly compacted dimmer stars. RD.
7606	23:16.5 -08.46	Spiral Galaxy	9/20/1990	10" f/5.5	9mm Nagler	Extremely small very dim no central brightness no shape boring. ES RD DF.
7662	23:23.5 +42.14	Planetary Nebula	6/28/1992	C-14	40mm Konig	Very small very bright very green very round. No central star. ES.
7686	23:27.8 +48.51	Open Cluster	8/21/1988	6" f/8	20mm Erfle	Cluster of 15 dim stars and 3 bright stars. RD.
7723	23:39 -13.00	Spiral Galaxy	9/17/1987	C-14	17mm Plossl	1/4 of the field is filled by a fuzzy patch of non-descript shape. 2 stars are nearby. I could not see any central brightening. JB MS.
7727	23:40 -12.25	Spiral Galaxy	9/17/1987	C-14	17mm Plossl	1/4 of the field in size this dim fuzz has a central brightness but no definable shape. JB MS.
7789	23:54.5 +56.26	Open Cluster	4/2/1992	C-8	26mm Plossl	Loose but fairly bright almost full field. About 40 stars. RD.
7790	23:54.5 +60.56	Open Cluster	8/21/1988	6" f/8	20mm Erfle	Small cluster 1/8 field. Dim but lots of stars. RD.
7814	00:03.2 +16.15	Spiral Galaxy	8/21/1988	6" f/8	20mm Erfle	1/4 of the field, dim, 1:4 elongated, no central brightness. RD.

Herschel 400 Observation Log #89

Observations made by Brad Snowder, the 89th member to be admitted into the Astronomical League's Herschel 400 club.

Co-observers: RD RL.Dietz, JB Jeff Baldwin, DB Dan Bakken, MS , MB Mike Benz, JK , ES Eric Strang, SA Stephanie Alex, BW Bill Wilson, JR Justin Rhodes, WC Wayne Cunningham, SK Steve Kraus, DF Dale Fisk.