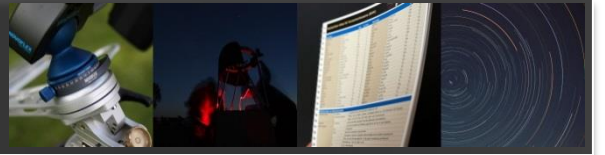


Superthin Galaxien



Superthin Galaxien: 133

Stand: April 2017



Kriterien:

Deklination $> -25^\circ$

Größe mindestens 2,5'

Achsverhältnis 1:7 oder kleiner

Gesamthelligkeit heller als 16 mag

Superthin Galaxien

Auszug aus dem RFGC Katalog (Revised Flat Galaxy Catalogue)

Bezeichnung	SBK	RA	DEC	DSA	a	b	V	PA	N	GH	FH	Sb	AKS	Bemerkung
NGC 100	Psc	00 24 02,7	+16 29 11	(S.51)	6,16	0,64	1:10	55	0	13m3	13m7	II	S.25	Two-layers
UGC 260	Psc	00 27 02,9	+11 35 02	(S.51)	3,14	0,34	1:9	23	0	14m5	13m2	II	S.66	Interact.w.compan.at2.4W
ESO 540-16	Cet	00 42 15,1	-18 09 40	(S.75)	3,36	0,30	1:11	75	0	14m5	13m2	II	S.7	Two-layers
UGC 485	And	00 47 08,0	+30 20 29	(S.39)	2,50	0,21	1:12	177	1	15m1	13m0	II	S.67	
UGCA 14	Cet	00 47 47,5	-09 53 58	(S.75)	3,14	0,43	1:7	84	1	14m3	13m4	II	S.127	Sp. gal. 1.6 at 3.8 N
UGC 542	Psc	00 53 26,6	+29 16 12	(S.39)	3,14	0,43	1:7	159	0	14m5	12m9	II	S.68	F. filamentary periphery
UGC 711	Cet	01 08 37,0	+01 38 29	(S.63)	4,65	0,30	1:15	118	0	14m3	13m7	II	S.69	
NGC 522	Cet	01 24 45,9	+09 59 42	(S.51)	2,63	0,35	1:8	33	2	14m5	13m3	I	S.26	
UGC 1281	Tri	01 49 31,4	+32 35 20	(S.39)	5,82	0,65	1:9	38	0	13m3	13m1	II	S.70	Begleiter östlich? Stellar!
MCG-1-5-47	Cet	01 52 49,0	-03 26 51	(S.63)	3,25	0,37	1:9	160	0	14m6	13m2	III	S.16	Dust lane.2 compan.at 2.2,3 NW
UGCA 23	Cet	02 03 01,9	-09 39 23	(S.74)	2,80	0,18	1:16	36	0	15m1	13m2	II	S.128	Blue associations
UGC 1803	Cet	02 20 29,3	+06 48 38	(S.62)	2,80	0,31	1:9	56	0	14m7	14m2	II	S.71	
UGC 1817	Ari	02 21 31,2	+14 11 53	(S.50)	2,52	0,22	1:11	162	0	15m0	13m4	II	S.72	
UGC 1999	Ari	02 31 52,6	+19 09 11	(S.50)	4,03	0,56	1:7	93	0	14m1	14m5	III	S.73	Dust patches.Wavy.Curved W end
NGC 973	Tri	02 34 20,5	+32 30 21	(S.38)	4,03	0,47	1:9	48	5	14m0	13m2	II	S.27	Dust lane
UGC 2082	Ari	02 36 16,3	+25 25 25	(S.38)	5,94	0,78	1:8	133	0	13m2	14m2	III	S.74	
UGC 2092	Cet	02 36 31,7	+07 18 35	(S.50)	2,89	0,22	1:13	31	1	15m0	14m5	II	S.75	Dust lane
NGC 1110	Eri	02 49 09,4	-07 50 15	(S.62)	3,10	0,35	1:9	18	0	14m5	14m0	II	S.28	Knotty
MCG-2-8-12	Eri	02 50 17,5	-08 35 50	(S.74)	2,55	0,25	1:10	96	0	15m1	13m5	III	S.21	Sharp buldge. Dust lane
NGC 1145	Eri	02 54 34,1	-18 38 07	(S.74)	3,70	0,45	1:8	58	0	14m2	13m2	II	S.29	
UGC 2441	Cet	02 58 22,1	+03 51 43	(S.62)	3,02	0,40	1:8	13	0	14m4	13m9	II	S.77	
UGC 2411	Cas	02 58 51,5	+75 44 40	(S.7)	4,37	0,34	1:13	10	0	14m4	15m8	IV	S.76	Blue/ without condensations
NGC 1163	Eri	03 00 22,1	-17 09 11	(S.74)	2,91	0,37	1:8	143	0	14m7	13m2	II	S.30	
NGC 1247	Eri	03 12 14,3	-10 28 50	(S.74)	4,59	0,58	1:8	69	0	13m7	13m0	II	S.31	
UGCA 71	Eri	03 25 25,0	-16 14 06	(S.74)	3,23	0,28	1:11	10	0	14m7	14m3	II	S.129	
MCG-2-10-9	Eri	03 42 55,9	-12 54 58	(S.74)	3,42	0,32	1:11	34	0	14m5	13m4	II	S.22	Eccentric dust lane
MCG-1-10-35	Eri	03 46 35,8	-04 27 14	(S.62)	2,82	0,35	1:8	26	2	14m6	14m1	II	S.17	
UGC 2920	Per	04 00 48,0	+35 00 43	(S.37)	2,55	0,22	1:12	63	0	15m2	13m8	III	S.78	
UGC 3137	Cam	04 46 15,8	+76 25 08	(S.6)	4,59	0,63	1:7	74	0	13m8	15m3	III	S.79	
NGC 1886	Lep	05 21 48,2	-23 48 36	(S.85)	3,08	0,35	1:9	61	0	14m5	12m8	I	S.32	Dust lane
UGC 3326	Cam	05 39 35,1	+77 18 45	(S.6)	3,75	0,30	1:12	66	0	14m4	14m9	II	S.80	
UGC 3573	Gem	06 51 48,0	+27 28 52	(S.36)	2,77	0,21	1:13	139	1	15m3	13m8	III	S.81	El. compan. at 3.5 SE
UGC 3697	Cam	07 11 19,2	+71 50 13	(S.6)	3,23	0,29	1:11	80	2	14m5	11m8	I	S.82	Integral Sign Galaxy/ Chain of knots
NGC 2357	Gem	07 17 40,8	+23 21 25	(S.36)	4,26	0,35	1:12	118	0	14m3	14m1	II	S.33	
NGC 2424	Lyn	07 40 38,4	+39 13 59	(S.24)	3,94	0,47	1:8	80	0	14m1	13m2	II	S.34	Two-layers/ 0,5° NO von NGC 2419
ESO 494-7	Pup	07 56 54,2	-24 54 22	(S.84)	2,54	0,31	1:8	55	0	14m9	13m8	III	S.5	
UGC 4148	Lyn	08 00 23,5	+42 11 32	(S.23)	2,52	0,34	1:7	8	0	14m8	14m4	III	S.83	4° ssw der Barentatze NGC 2537
UGC 4171	Cnc	08 01 31,2	+09 42 27	(S.47)	2,80	0,36	1:8	111	4	14m6	13m1	II	S.84	Dust lane
UGC 4277	Lyn	08 13 57,6	+52 38 53	(S.13)	4,87	0,40	1:12	110	0	14m2	14m6	III	S.85	Dust lane through nucl.
IC 2233	Lyn	08 13 59,5	+45 44 34	(S.23)	5,17	0,58	1:9	173	0	13m6	12m9	II	S.10	bei der Barentatzengalaxie
UGC 4550	Cnc	08 43 16,8	+13 05 10	(S.47)	3,02	0,39	1:8	5	0	14m4	13m9	II	S.86	1,5° NW von M 67
UGCA 145	Pyx	08 47 16,8	-20 02 10	(S.71)	3,36	0,45	1:7	164	0	14m3	--	III	S.130	Diffuse halo around nucleus
UGC 4704	Lyn	08 59 01,0	+39 12 33	(S.23)	4,14	0,41	1:10	115	0	14m2	15m1	III	S.87	Knotty
UGC 4719	UMa	09 00 37,9	+50 40 42	(S.12)	2,91	0,34	1:9	94	1	14m6	13m3	II	S.88	Compan. 0.5 on the E side
UGCA 150	Hya	09 10 49,4	-08 53 22	(S.59)	6,50	0,69	1:9	32	0	13m2	12m6	II	S.131	
UGCA 151	Hya	09 11 54,5	-20 07 00	(S.71)	4,76	0,31	1:15	167	0	14m4	13m8	III	S.132	Very dusty
IC 2461	Lyn	09 19 57,6	+37 11 28	(S.23)	2,90	0,39	1:7	143	0	14m5	13m8	II	S.11	
NGC 2820	UMa	09 21 45,1	+64 15 28	(S.12)	4,31	0,53	1:8	60	1	13m9	12m8	II	S.35	Badge. Irr. compan. at 3.8 W
UGC 5173	Leo	09 41 32,2	+11 24 48	(S.47)	2,67	0,34	1:8	132	1	14m7	13m3	II	S.89	Dust lane.6 small neighbours
UGC 5245	Sex	09 47 33,6	-02 01 57	(S.59)	2,80	0,34	1:8	160	0	14m8	14m6	III	S.90	S-side broader than N one
NGC 3044	Sex	09 53 40,8	+01 34 46	(S.59)	5,71	0,63	1:9	113	0	13m3	12m8	I	S.36	
UGC 5341	Leo	09 56 36,0	+20 38 46	(S.46)	3,10	0,21	1:15	58	0	15m0	14m0	II	S.91	Dust lane
MCG-1-26-12	Sex	10 02 36,0	-06 00 49	(S.58)	4,31	0,30	1:14	14	1	14m5	13m4	III	S.18	Two-layers.
UGC 5459	UMa	10 08 09,6	+53 05 02	(S.12)	5,04	0,67	1:8	132	0	13m3	13m6	I	S.92	
UGC 5495	Leo	10 11 53,3	+16 26 24	(S.46)	2,97	0,32	1:9	100	0	14m8	13m6	III	S.93	Asteroid's track at 2.3 W
UGC 5537	Leo	10 15 42,2	+07 19 39	(S.46)	2,91	0,17	1:17	146	0	15m2	13m3	II	S.94	
NGC 3245A	LMI	10 27 01,2	+28 38 22	(S.34)	3,64	0,34	1:11	149	1	14m6	12m3	III	S.37	El. gal. at 0.8 SE
UGC 5708	Sex	10 31 13,2	+04 28 23	(S.58)	3,64	0,47	1:8	169	0	14m2	14m4	III	S.95	Bar. Edges of differ.thickness
NGC 3279	Leo	10 34 42,7	+11 11 51	(S.46)	2,86	0,34	1:8	152	0	14m4	13m2	I	S.38	
NGC 3365	Sex	10 46 12,0	+01 48 46	(S.58)	5,04	0,67	1:8	159	0	13m4	13m6	II	S.39	
UGCA 221	Hya	10 51 24,0	-19 53 24	(S.70)	4,26	0,48	1:9	151	1	14m0	13m3	II	S.133	
NGC 3454	Leo	10 54 28,8	+17 20 38	(S.46)	2,80	0,36	1:8	116	3	14m4	12m9	I	S.40	Interact.w.gal.at 3.5S
NGC 3501	Leo	11 02 47,3	+17 59 22	(S.46)	4,76	0,54	1:9	27	1	13m6	13m5	I	S.41	Dust lane
UGC 6378	UMa	11 22 09,6	+69 38 02	(S.5)	2,65	0,35	1:8	140	1	14m5	13m3	I	S.96	
UGC 6594	Leo	11 37 38,4	+16 33 18	(S.46)	3,19	0,39	1:8	134	0	14m4	13m4	II	S.97	Diffuse.Knotty.DwSph at 2.0SW
UGC 6667	UMa	11 42 27,4	+51 35 51	(S.12)	3,70	0,45	1:8	86	0	14m1	13m7	II	S.98	
UGC 6686	Leo	11 43 21,6	+16 29 06	(S.46)	3,07	0,34	1:9	51	1	14m7	13m7	III	S.99	Dust lane. Eroded S edge?
NGC 4019	Com	12 01 09,6	+14 06 14	(S.46)	2,91	0,34	1:9	145	0	14m7	12m6	II	S.42	Two-layers.Compact gal.at 6.0S
UGC 7086	Cam	12 05 55,2	+77 30 19	(S.4)	2,69	0,38	1:7	70	1	14m6	14m3	II	S.100	
UGC 7125	CVn	12 08 42,0	+36 48 11	(S.21)	5,21	0,67	1:8	83	1	13m5	14m6	III	S.101	
UGC 7170	Com	12 10 36,0	+18 49 44	(S.45)	3,25	0,28	1:12	12	2	14m7	13m8	II	S.102	S-shaped

Superthin Galaxien

Auszug aus dem RFGC Katalog (Revised Flat Galaxy Catalogue)

Bezeichnung	SBK	RA	DEC	DSA	a	b	V	PA	N	GH	FH	Sb	AKS	Bemerkung
NGC 4157	UMa	12 11 04,8	+50 29 07	S.21	7,95	1,06	1:8	65	2	12m2	13m3	II	S.43	
NGC 4173	Com	12 12 20,9	+29 12 28	S.33	5,04	0,69	1:7	135	3	13m3	13m8	II	S.44	the Box
NGC 4183	CVn	12 13 17,5	+43 41 52	S.21	6,27	0,67	1:9	165	2	13m3	13m3	II	S.45	Two-layers
NGC 4197	Vir	12 14 38,4	+05 48 24	(S.57)	4,26	0,60	1:7	36	0	13m8	13m3	II	S.46	Two-layers.Bar.Splitted N-edge
IC 3074	Vir	12 15 45,6	+10 42 00	(S.45)	2,69	0,25	1:11	162	0	14m9	13m3	II	S.12	Winding
NGC 4222	Com	12 16 22,6	+13 18 26	(S.45)	3,25	0,45	1:7	55	4	14m1	13m4	I	S.47	edge-on-Trio mit N 4216, 4206
NGC 4244	CVn	12 17 30,0	+37 48 31	S.21	19,38	2,13	1:9	48	1	10m2	13m5	II	S.48	
UGC 7321	Com	12 17 33,8	+22 32 25	S.33	5,54	0,36	1:15	81	0	14m0	13m8	II	S.103	stellar im DSA, haha
NGC 4289	Vir	12 21 02,4	+03 43 20	(S.57)	4,93	0,47	1:10	2	2	14m0	13m8	III	S.49	Dustlane
NGC 4330	Vir	12 23 16,8	+11 22 05	(S.45)	5,04	0,67	1:8	57	6	13m5	13m7	II	S.50	Dust lane on SE side.V.f. halo
NGC 4356	Vir	12 24 14,9	+08 32 15	(S.45)	3,14	0,39	1:8	39	0	14m4	13m4	II	S.51	V.faint halo. Dust lane
IC 3322A	Vir	12 25 43,2	+07 13 04	(S.57)	4,03	0,41	1:10	157	8	14m1	13m2	II	S.13	Dust lane
UGC 7522	Vir	12 25 57,6	+03 25 47	(S.57)	3,02	0,32	1:9	129	1	14m6	13m4	II	S.104	Dust lane
IC 3474	Vir	12 32 36,5	+02 39 41	(S.57)	2,52	0,25	1:10	37	0	14m9	13m4	II	S.14	
NGC 4517	Vir	12 32 45,6	+00 06 53	S.57	11,54	1,46	1:8	82	1	11m3	13m2	II	S.52	Dust spots
NGC 4565	Com	12 36 21,1	+25 59 06	S.33	15,90	1,85	1:9	135	1	10m6	13m0	II	S.53	Slightly asymmetric dust lane
UGC 7774	CVn	12 36 24,0	+40 00 18	S.21	3,54	0,47	1:8	101	0	14m2	14m3	II	S.105	
IC 3608	Vir	12 38 37,4	+10 28 34	S.45	4,03	0,39	1:10	93	2	14m6	13m8	IV	S.15	Slightly curved."Malin 1"-type
NGC 4703	Vir	12 49 19,2	-09 06 31	(S.69)	3,49	0,47	1:7	152	4	14m3	14m1	III	S.54	Slightly eccentric dust lane
UGCA 304	Vir	12 52 26,4	-09 45 13	(S.69)	2,55	0,22	1:12	66	3	15m0	12m4	II	S.134	Sp. gal. 1.2 at 2.5 SE
UGCA 311	Vir	12 57 46,8	-09 38 02	(S.69)	3,76	0,32	1:12	118	0	14m4	13m1	II	S.135	
MCG-1-33-71	Vir	13 01 49,4	-08 20 10	(S.69)	3,14	0,36	1:9	36	0	14m6	13m3	III	S.19	Slightly eccentric dust lane
UGC 8146	UMa	13 02 07,9	+58 41 59	(S.11)	3,92	0,32	1:12	31	0	14m5	13m8	II	S.106	
MCG-3-33-28	Vir	13 02 26,4	-17 40 48	(S.69)	2,91	0,39	1:7	43	1	14m5	12m8	II	S.23	Dust lane
UGCA 320	Vir	13 03 17,0	-17 25 23	S.69	8,01	1,06	1:8	115	0	12m5	14m7	IV	S.136	4 knots in the centre, Helligk. fragl.
NGC 5023	CVn	13 12 11,8	+44 02 17	(S.21)	7,28	0,78	1:9	28	0	12m7	13m5	I	S.56	nicht im isDSA! hm
MCG-3-34-18	Vir	13 13 05,0	-19 58 38	(S.69)	3,53	0,50	1:7	1	3	14m0	13m3	II	S.24	Two-layers
NGC 5022	Vir	13 13 30,7	-19 32 49	(S.69)	2,51	0,34	1:7	23	1	14m7	12m6	II	S.55	El. gal. at 7.0 W
NGC 5073	Vir	13 19 21,6	-14 50 38	(S.69)	4,14	0,58	1:7	150	1	13m8	13m3	II	S.57	
NGC 5170	Vir	13 29 48,7	-17 57 57	S.69	9,91	1,23	1:8	126	0	11m8	13m4	II	S.58	Eccentric dust lane
NGC 5229	CVn	13 34 03,1	+47 54 50	(S.21)	3,58	0,45	1:8	168	0	14m1	14m0	II	S.59	Two-layers
NGC 5496	Vir	14 11 37,9	-01 09 28	S.56	5,49	0,73	1:8	173	0	13m4	13m5	III	S.60	Slightly curved
NGC 5529	Boo	14 15 34,3	+36 13 36	(S.32)	6,38	0,69	1:9	112	2	13m1	13m4	II	S.61	Dust lane
UGC 9169	Boo	14 19 45,6	+09 21 47	S.44	5,15	0,69	1:7	52	0	13m3	15m2	II	S.107	Single condensations
UGC 9242	Boo	14 25 21,6	+39 32 24	(S.20)	5,66	0,34	1:17	71	1	13m9	13m7	I	S.108	
UGC 9249	Boo	14 27 00,0	+08 41 03	(S.44)	2,80	0,31	1:9	85	0	14m5	13m7	I	S.109	
ESO 511-42	Lib	14 28 14,5	-23 52 23	(S.80)	2,54	0,27	1:9	54	0	15m0	14m1	II	S.6	Dust lane. V. faint ends
NGC 5714	Boo	14 38 12,0	+46 38 20	(S.20)	3,08	0,36	1:9	82	0	14m5	13m4	II	S.62	Dust. Knots. In group
UGCA 394	Lib	14 47 24,2	-17 26 44	(S.68)	3,70	0,50	1:7	171	0	14m0	14m7	II	S.137	Very dusted
NGC 5777	Dra	14 51 19,2	+58 58 41	(S.11)	3,38	0,45	1:8	144	0	14m2	13m3	II	S.63	Diffuse compan.1.0 at 2.5 SE
ESO 581-4	Lib	14 57 29,8	-18 27 13	(S.68)	2,65	0,36	1:7	11	0	14m6	13m6	II	S.8	
UGC 9760	Ser	15 12 02,6	+01 41 56	(S.56)	3,25	0,22	1:15	55	2	14m9	13m3	II	S.110	Star projected
NGC 5907	Dra	15 15 52,3	+56 19 46	S.11	12,77	1,40	1:9	156	2	11m3	13m3	II	S.64	
UGC 9841	Ser	15 25 33,6	+18 16 41	(S.44)	2,82	0,36	1:8	54	1	14m6	13m2	II	S.111	
NGC 5965	Dra	15 34 02,4	+56 41 13	S.10	6,16	0,84	1:7	51	1	13m0	13m0	II	S.65	
UGC 9977	Ser	15 42 00,0	+00 42 48	S.56	4,26	0,40	1:11	77	0	14m2	14m2	II	S.112	Dust lane
UGC 10043	Ser	15 48 41,3	+21 52 09	(S.32)	2,69	0,35	1:8	151	1	14m7	14m2	II	S.113	Companion at 2.5SE.Dust lane
IC 1197	Ser	16 08 17,5	+07 32 21	(S.55)	3,34	0,45	1:7	55	0	14m1	13m8	I	S.9	Dust lane
UGC 10288	Ser	16 14 25,0	-00 12 26	(S.55)	5,71	0,58	1:10	90	0	13m5	14m0	II	S.114	Dust lane
UGC 10561	Dra	16 46 36,5	+62 49 22	(S.10)	3,09	0,31	1:10	148	0	14m7	13m7	II	S.115	Dust lane
UGC 11093	Oph	18 01 51,6	+06 58 11	S.54	5,38	0,68	1:8	3	0	13m4	14m2	II	S.116	Nucleus is not seen
UGC 11230	Dra	18 24 04,6	+65 18 22	(S.9)	2,52	0,15	1:17	13	0	15m8	--	IV	S.117	
UGC 11301	Her	18 37 54,5	+17 32 02	(S.42)	2,63	0,19	1:14	110	0	15m3	14m1	III	S.118	Malin 1-type. V.sharp nucl.
UGC 11455	Dra	19 29 57,6	+72 06 47	S.3	2,74	0,37	1:7	62	0	14m5	14m0	II	S.119	Compan. 0.8 at 3.4 NW
MCG-1-53-12	Aqr	20 49 52,0	-07 01 19	(S.53)	3,00	0,40	1:7	179	0	14m8	--	III	S.20	Dust lane
UGC 11841	Cyg	21 52 45,8	+38 56 10	(S.17)	3,09	0,24	1:13	65	0	15m1	15m2	IV	S.120	Malin 1-type. Fine red nucl.
UGC 11859	Aqr	21 58 07,2	+01 00 33	(S.52)	3,47	0,26	1:13	63	0	15m2	13m9	IV	S.121	
UGC 11964	Peg	22 15 28,8	+19 13 12	(S.40)	2,13	0,30	1:7	45	1	14m9	12m9	II	S.122	Br.gal. NGC7241 at 5.0 - opt. pair?
UGC 11994	Peg	22 20 52,8	+33 17 42	(S.28)	2,69	0,30	1:9	121	0	14m7	13m7	II	S.123	Two-layers
UGC 12281	Peg	22 59 12,0	+13 36 18	(S.40)	3,44	0,20	1:17	30	1	14m9	14m2	II	S.124	Dust spots
UGC 12423	Psc	23 13 13,2	+06 25 48	S.52	4,70	0,45	1:10	145	2	14m0	13m5	II	S.125	
UGC 12506	Peg	23 19 30,5	+16 04 29	(S.40)	3,25	0,28	1:12	80	1	14m8	14m0	III	S.126	Compact compan.at S near nucl.

SBK = Sternbildkürzel

RA, DEC = für Jahr 2000

DSA = Seite im interstellarem Deep Sky Atlas / bei Zahlen in Klammern ist die Galaxie nicht im Atlas vermerkt

a = große Halbachse (blau) in '

b = kleine Halbachse (blau) in '

v = Achsverhältnis b/a

PA = Positionswinkel

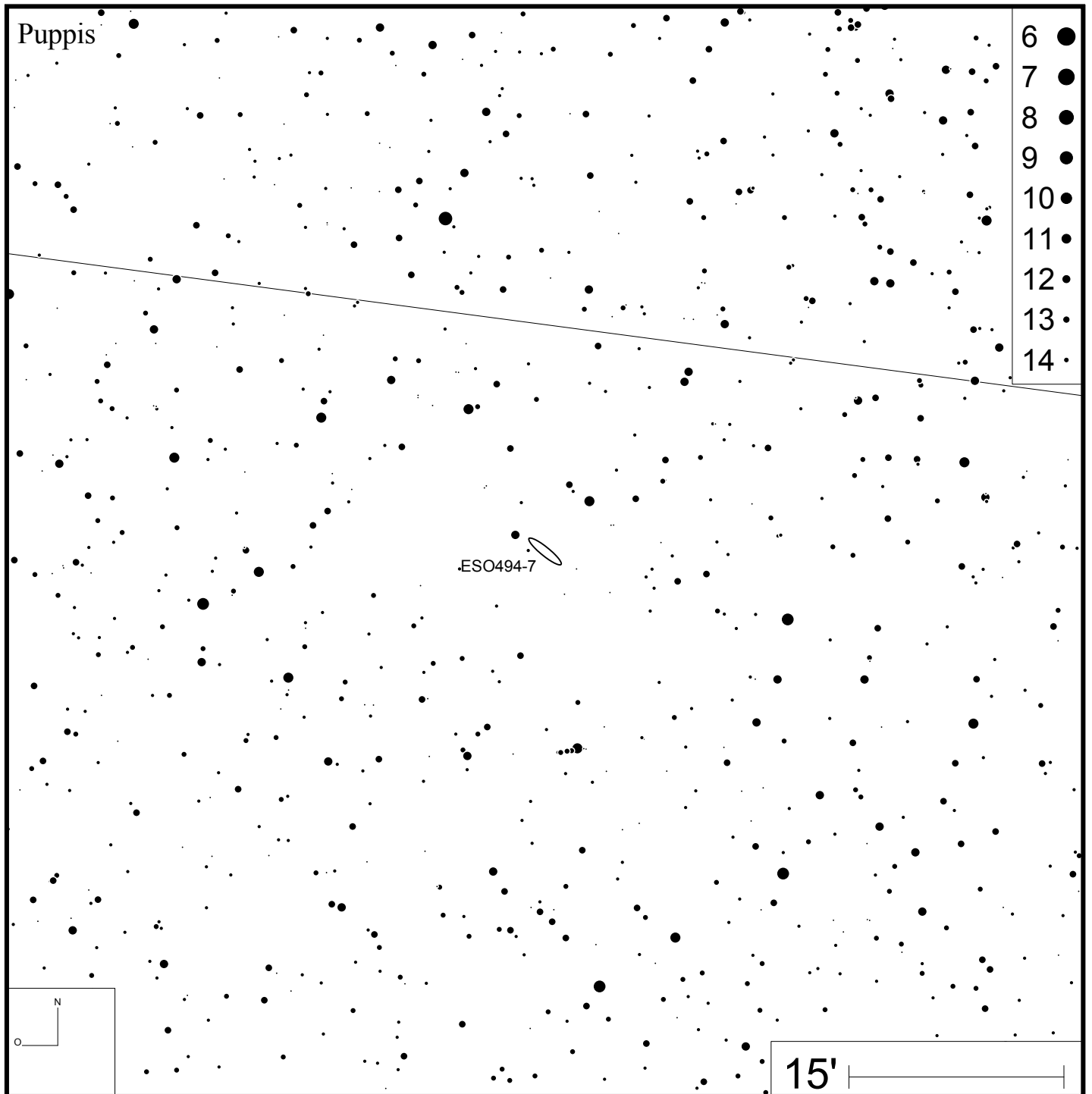
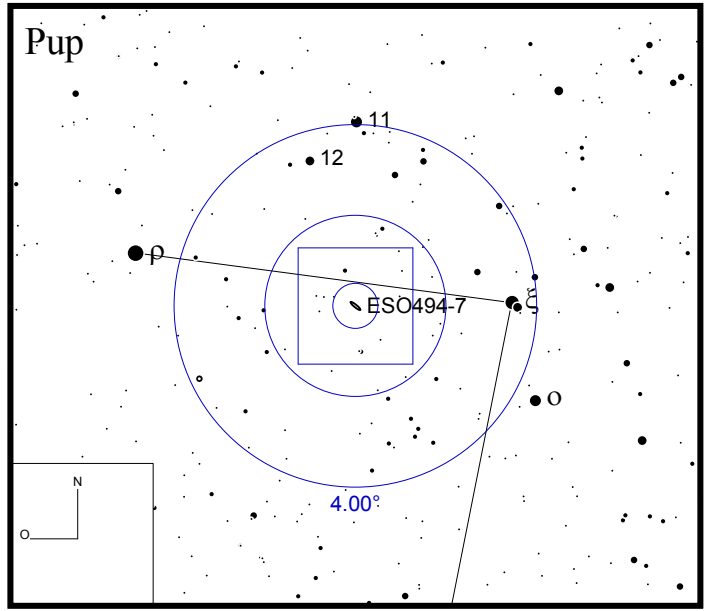
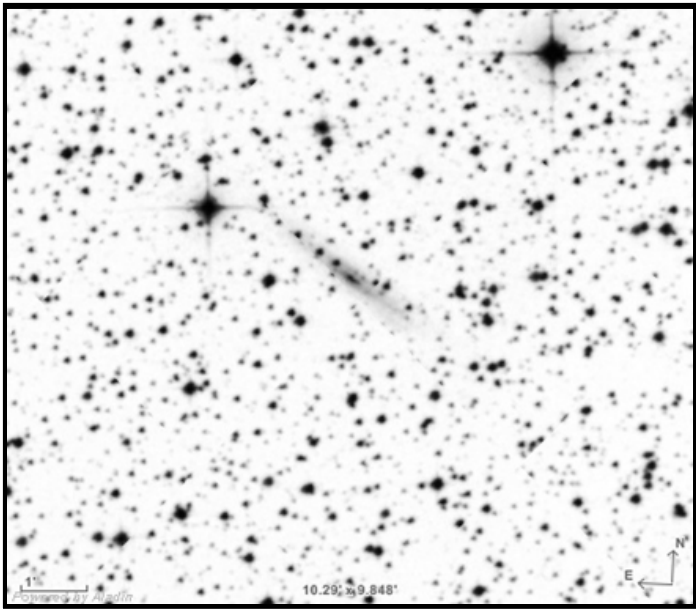
N = Anzahl der unmittelbaren Nachbargalaxien

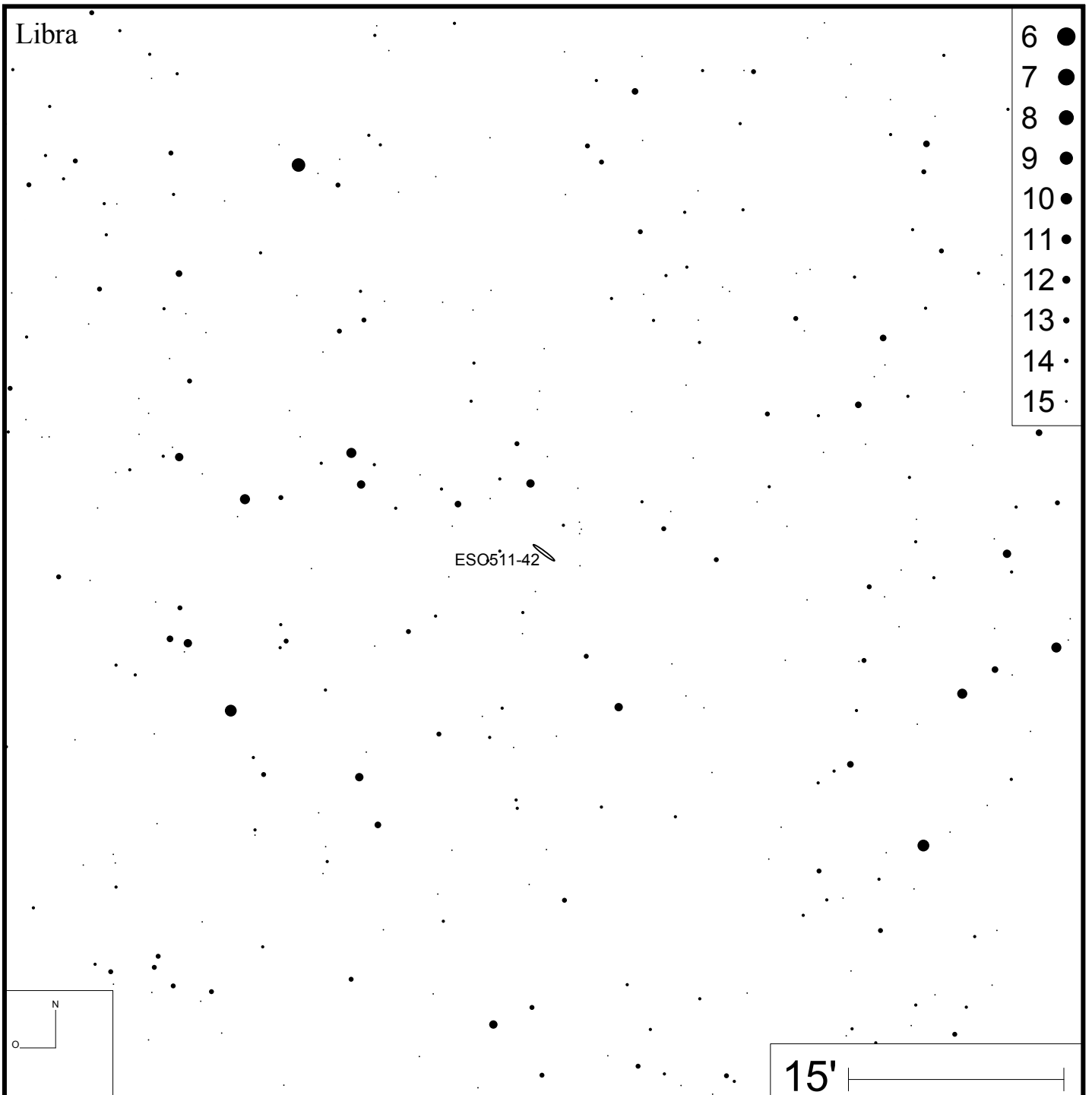
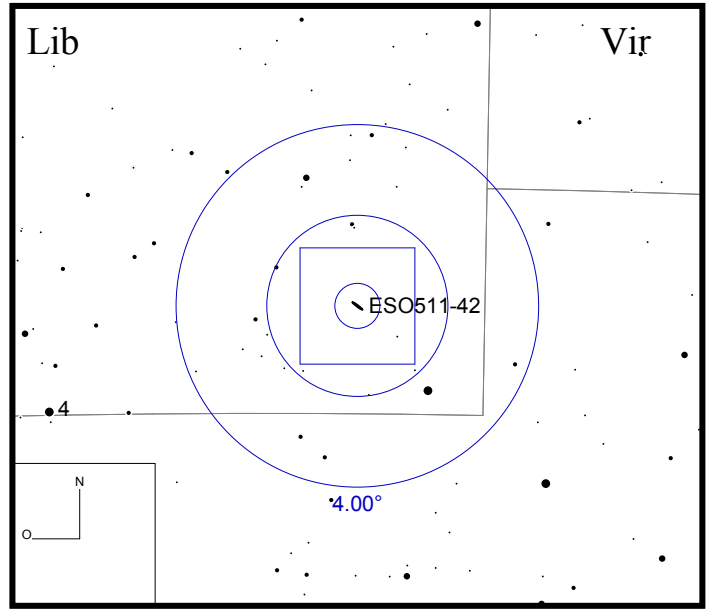
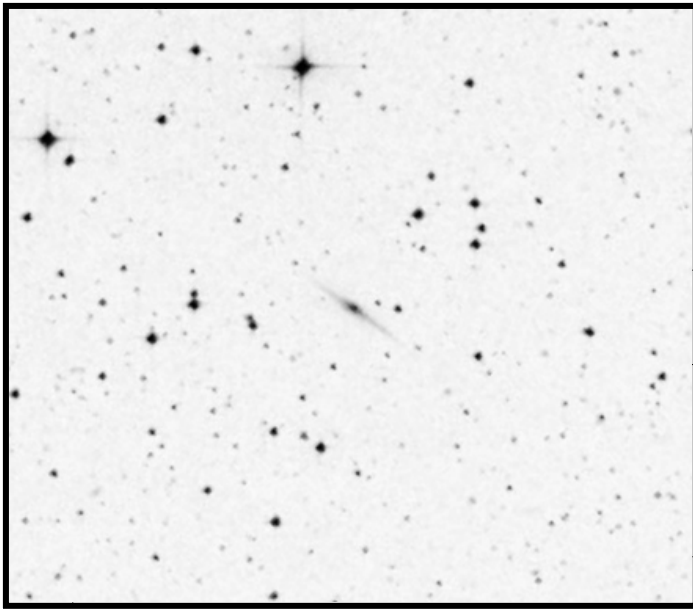
GH = absolute Helligkeit aus DSS (Gesamthelligkeit)

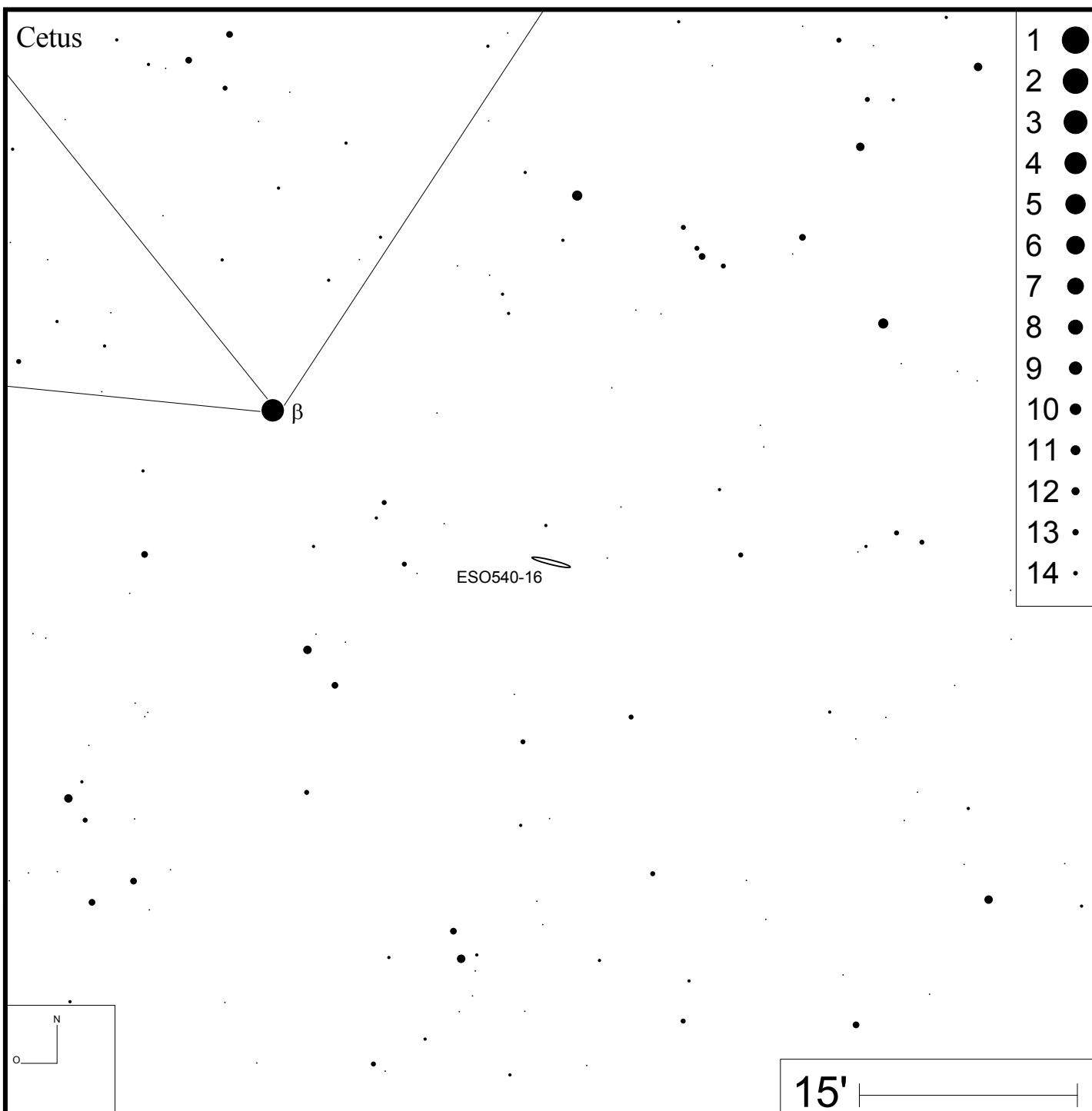
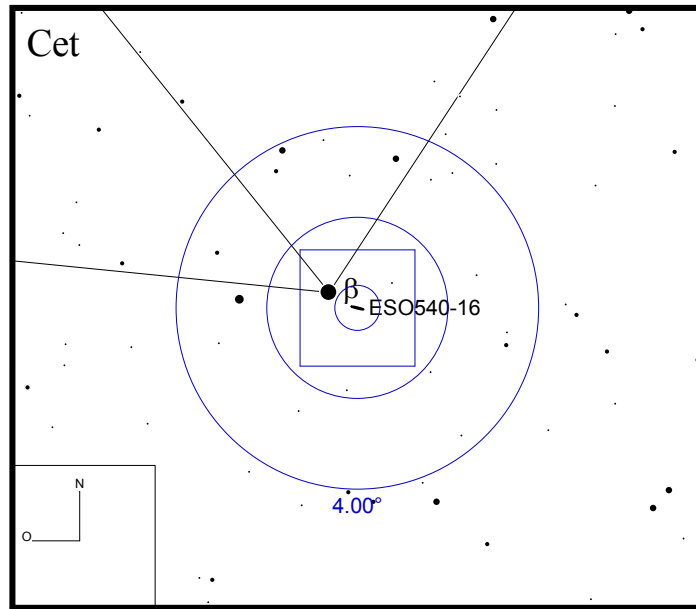
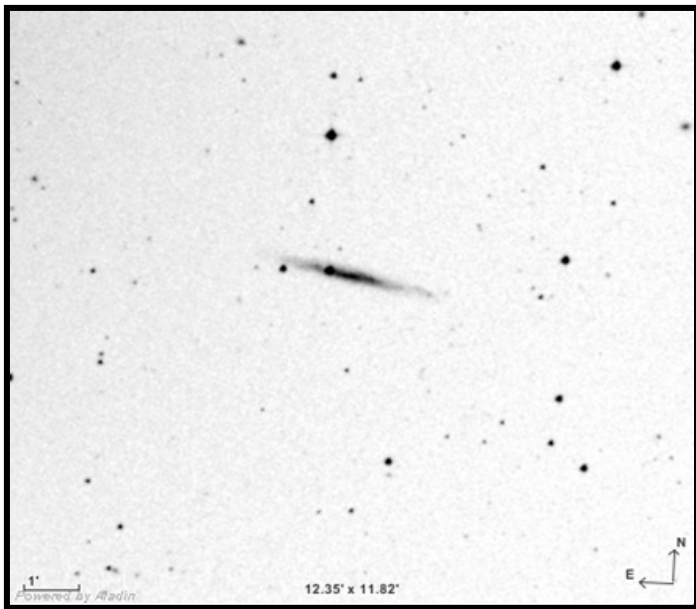
FH = Flächenhelligkeit aus Eye & Telescope

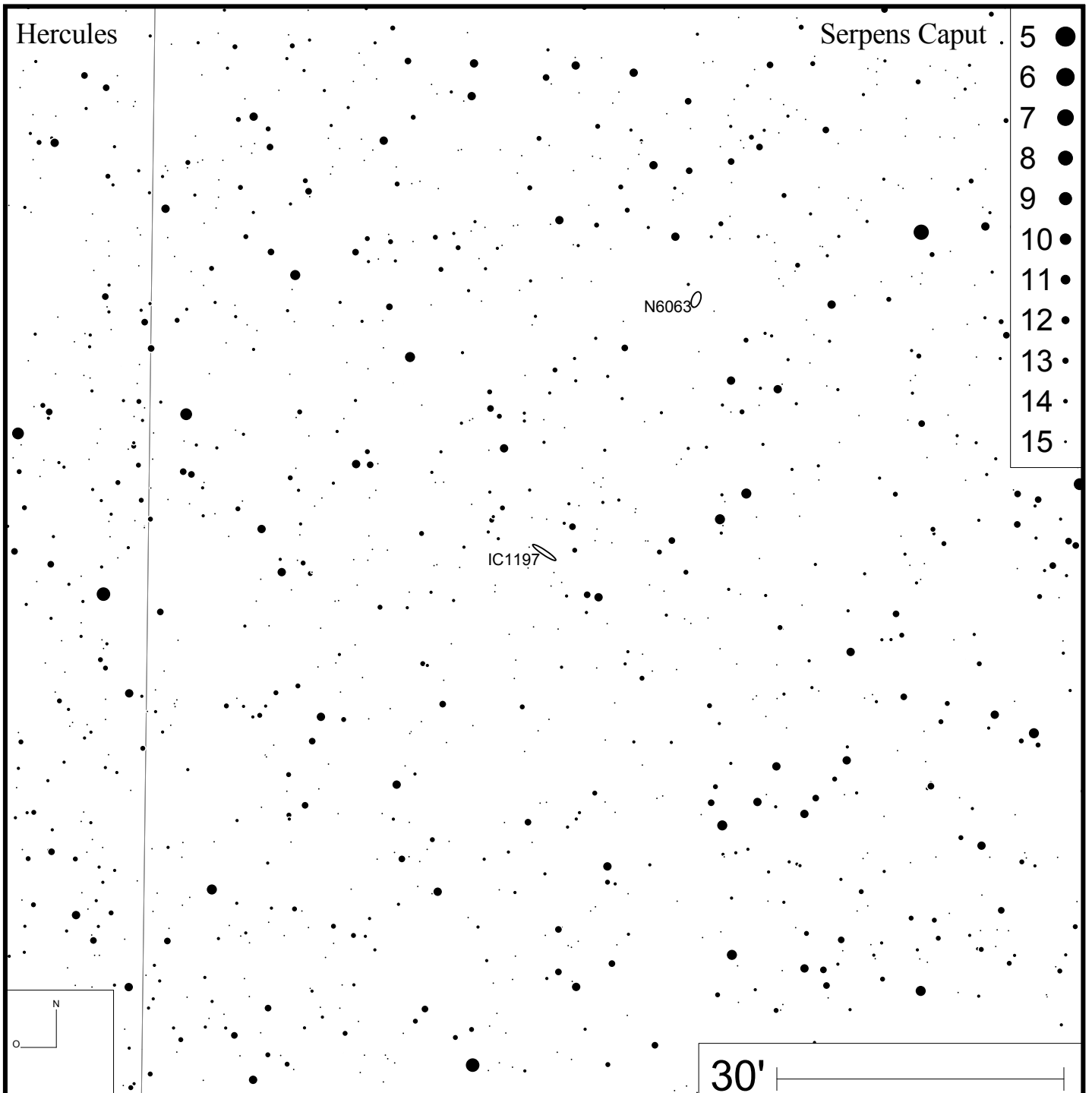
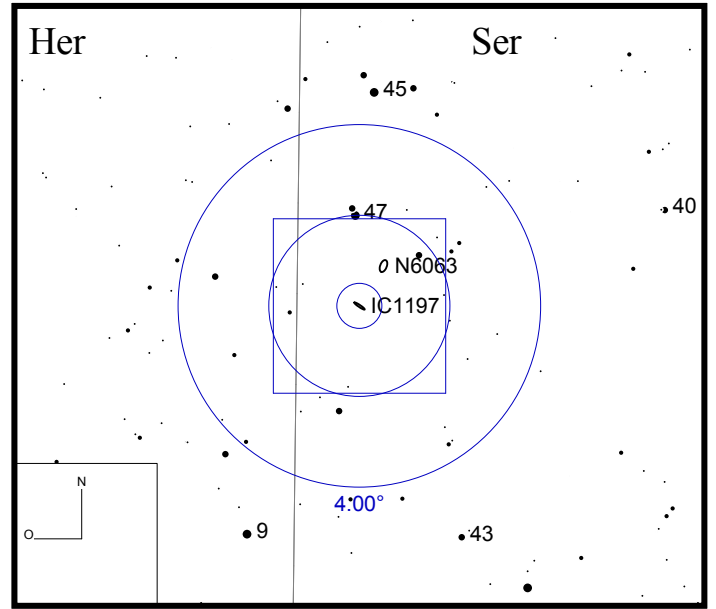
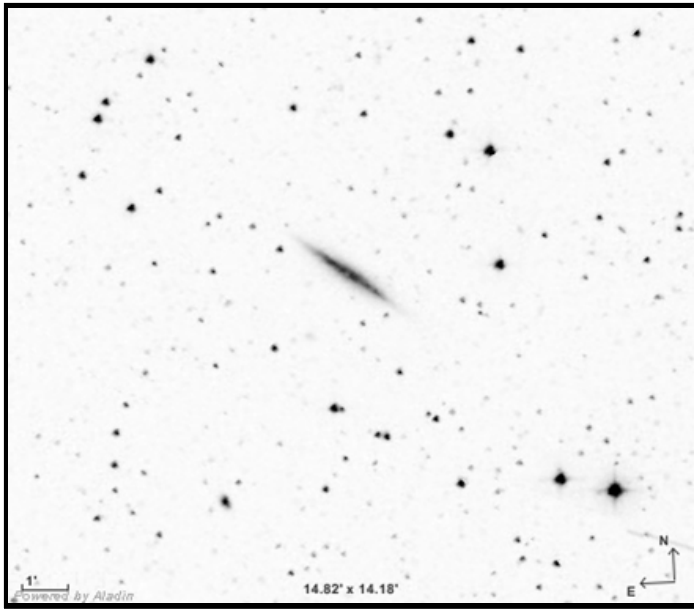
Sb = Flächenhelligkeit (I=hoch)

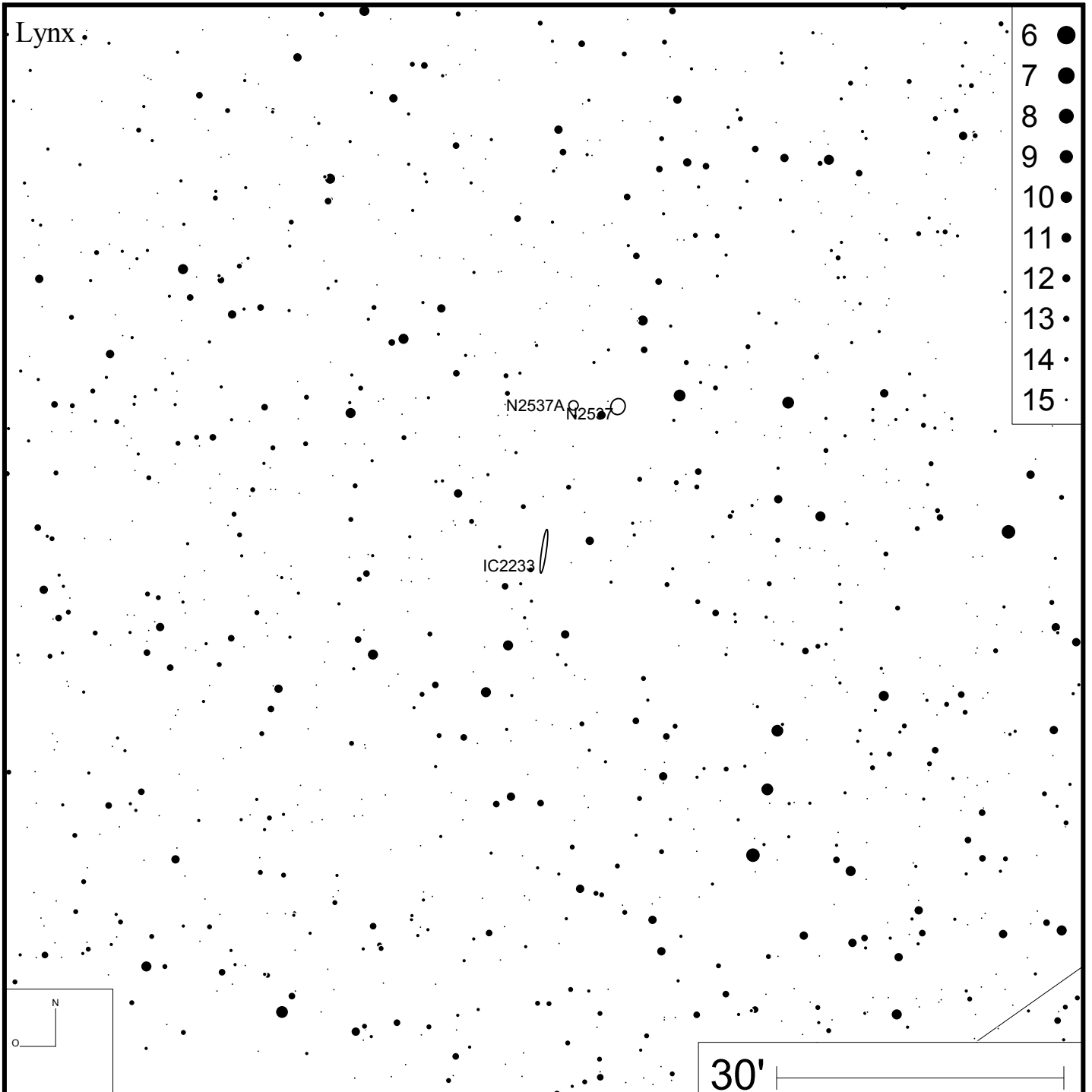
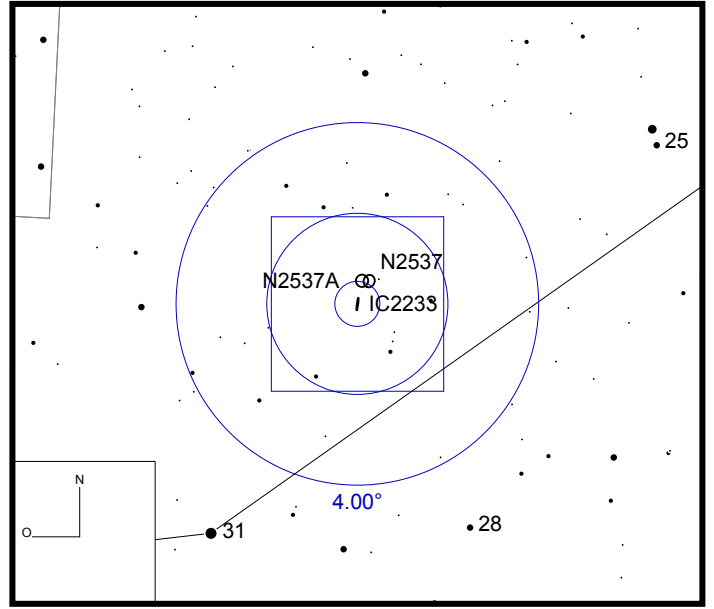
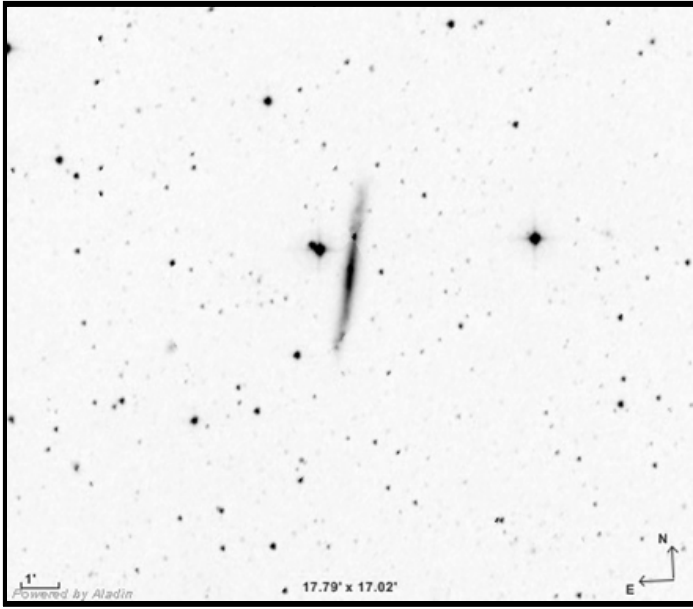
AKS = Seite im Aufsuchkartenverzeichnis

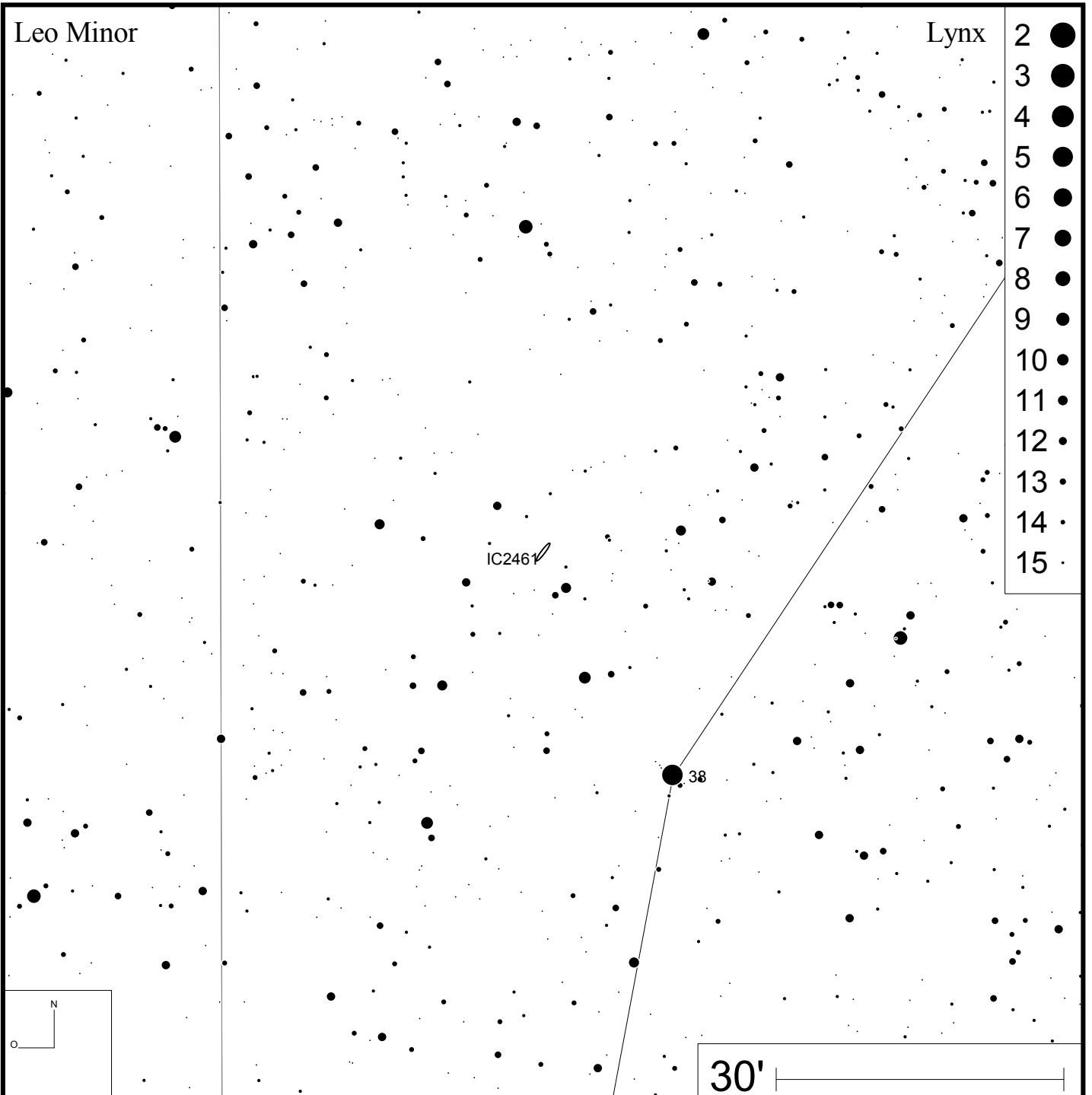
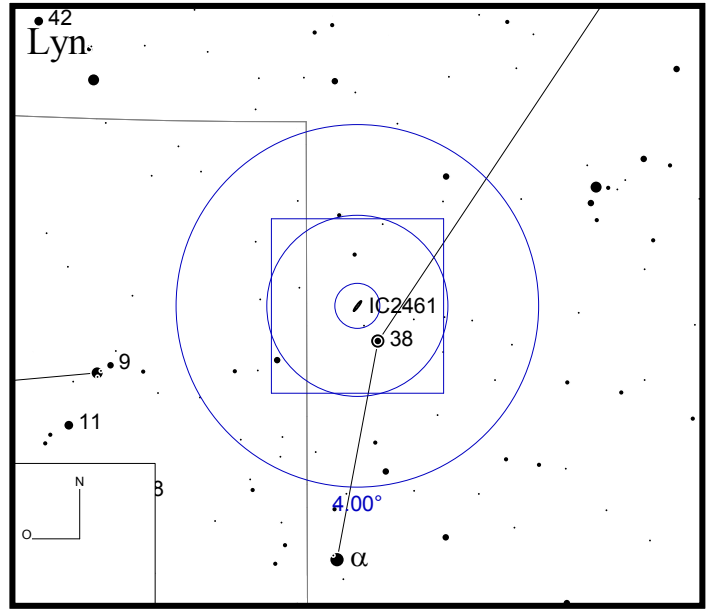
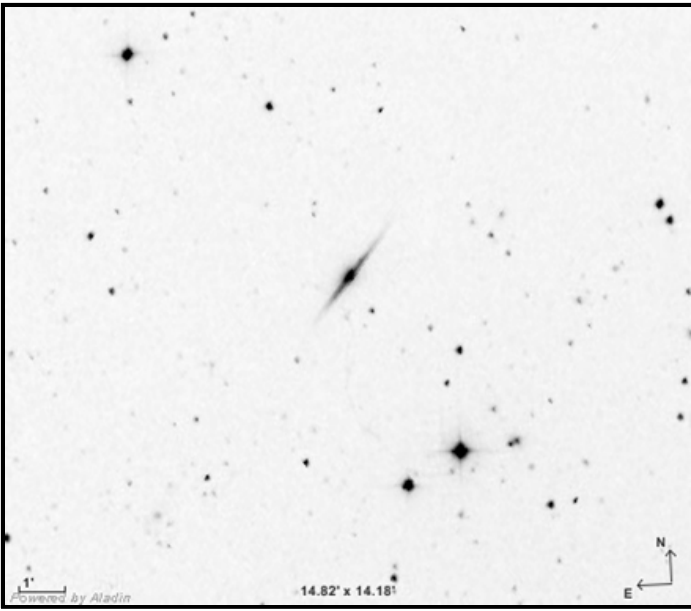


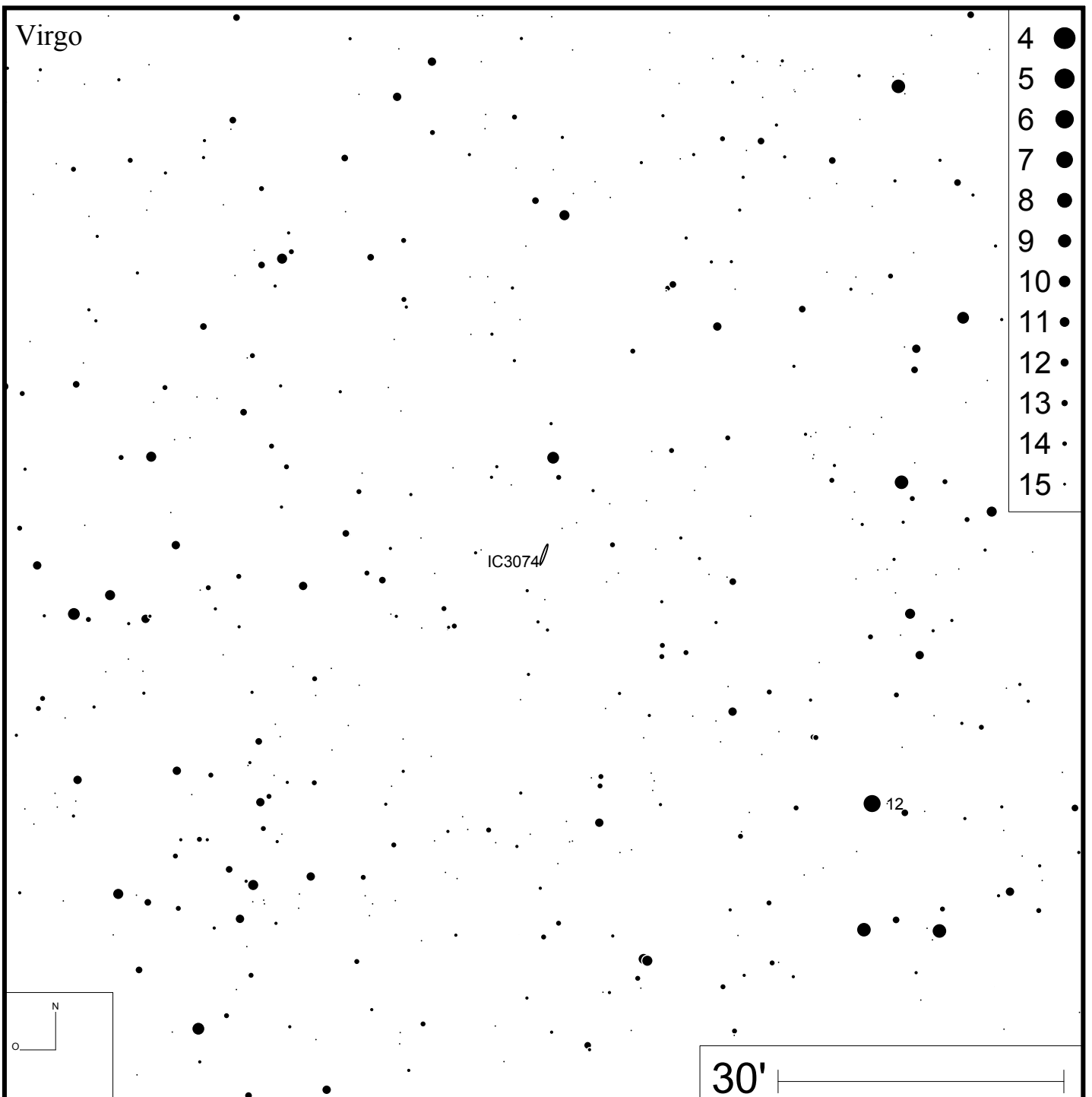
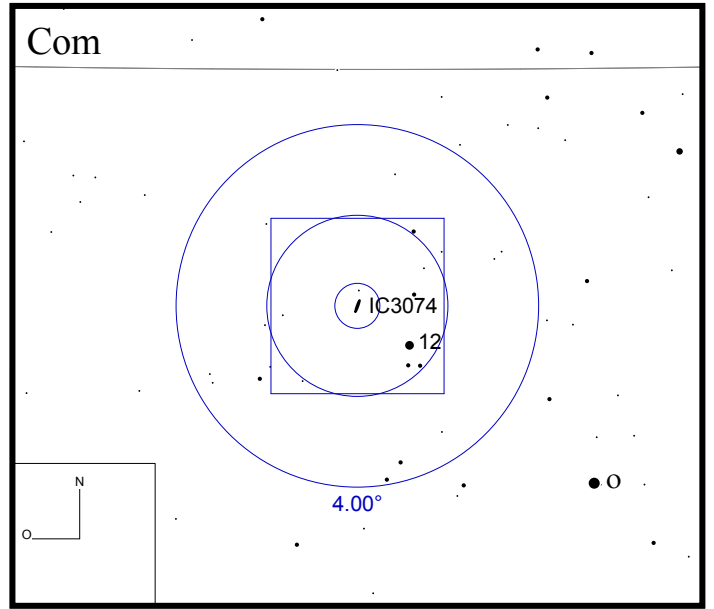
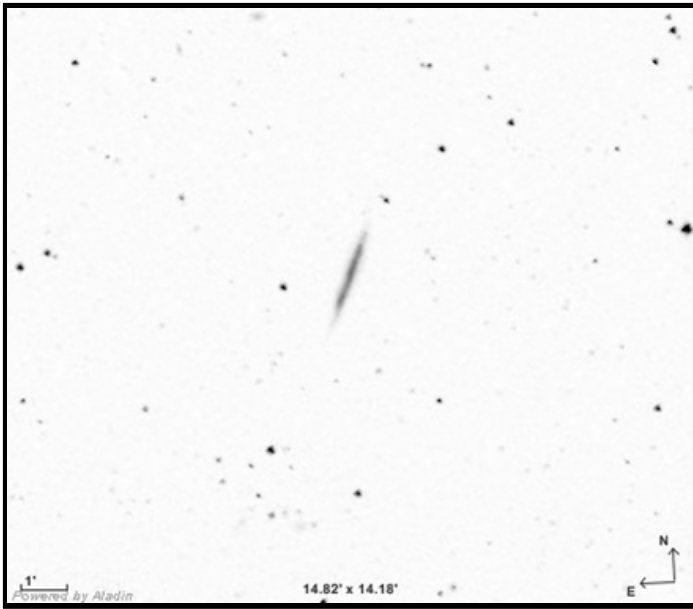


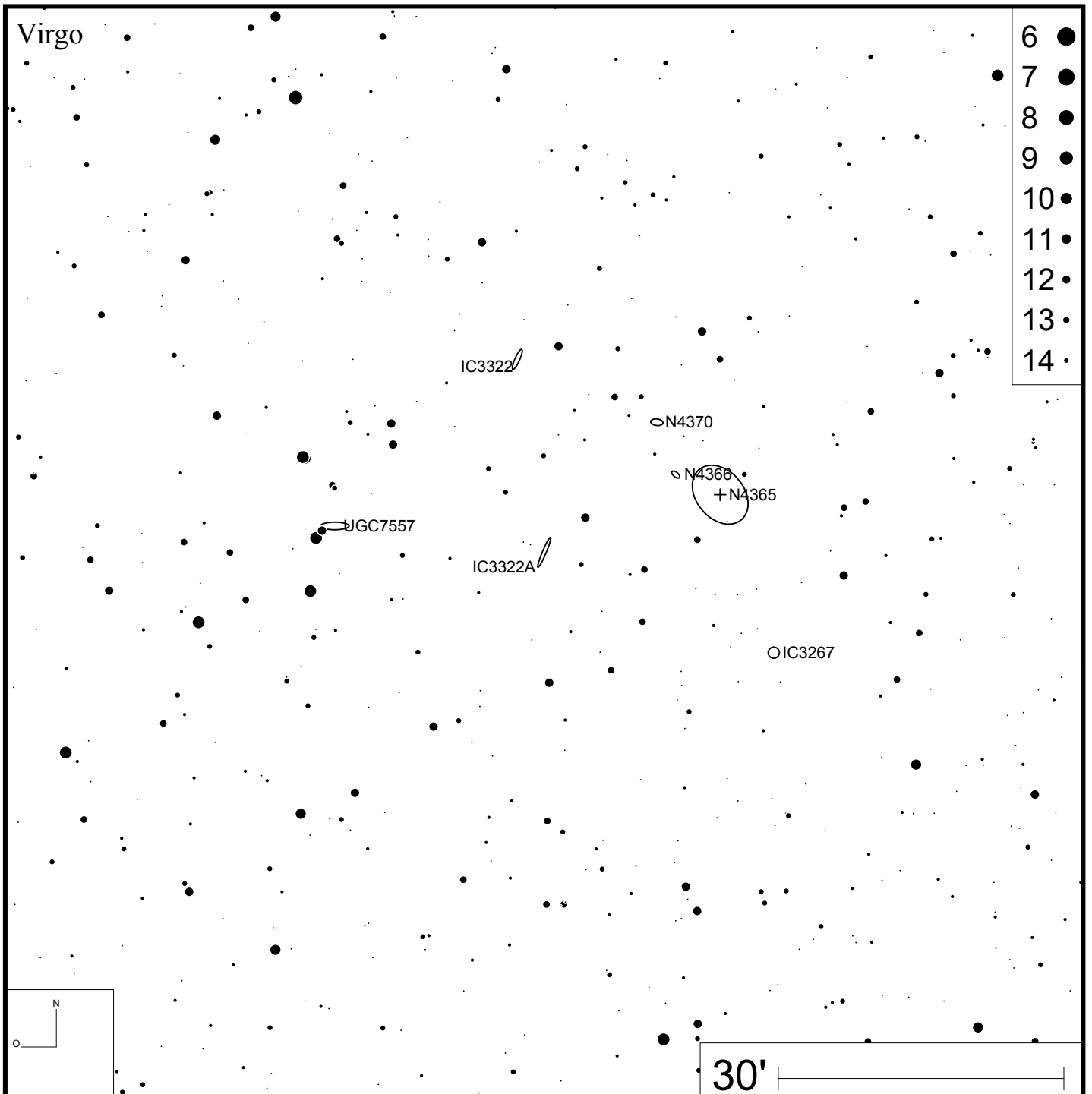
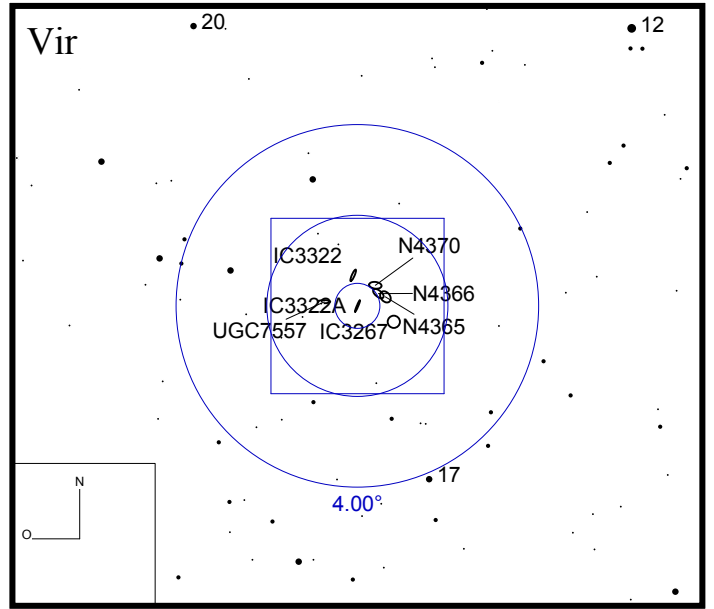
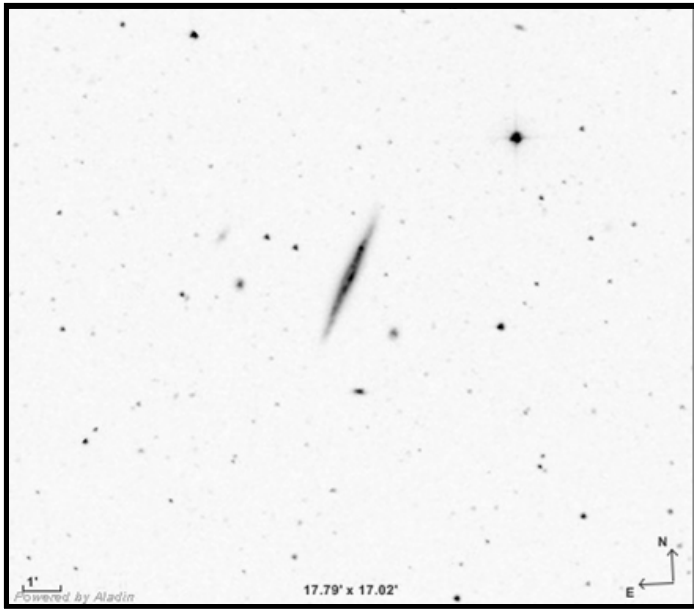


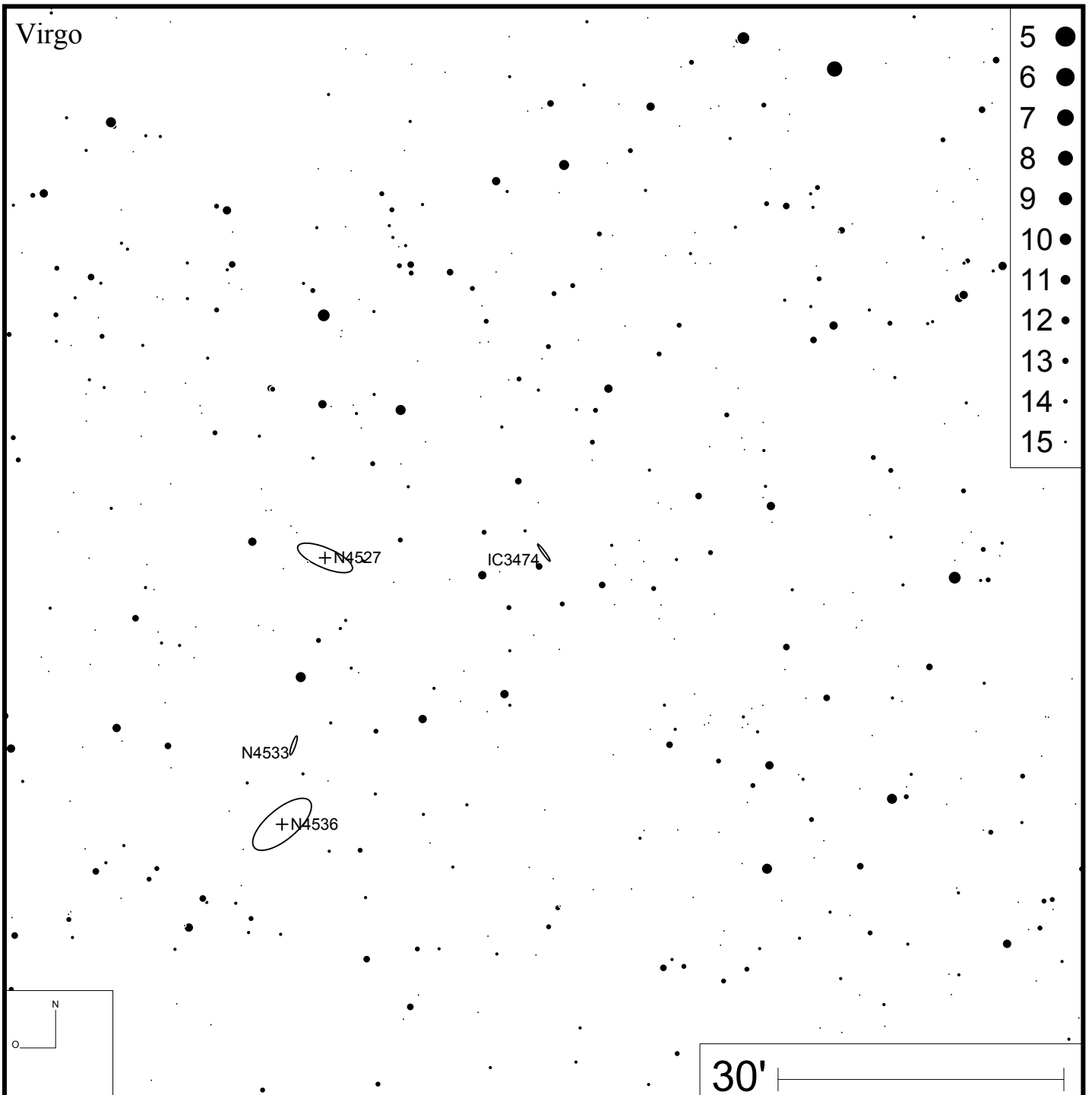
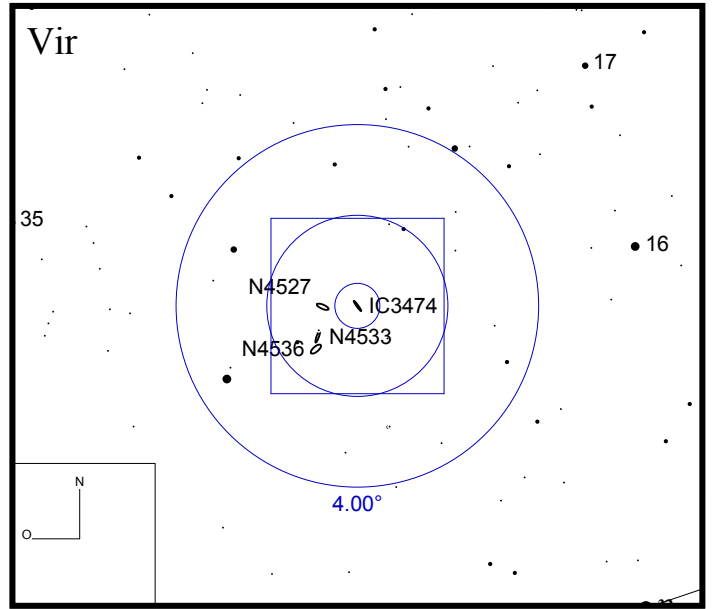
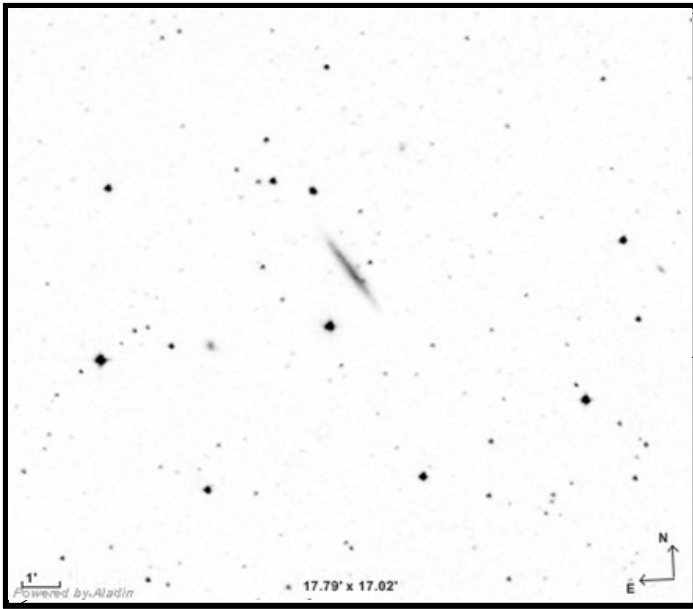


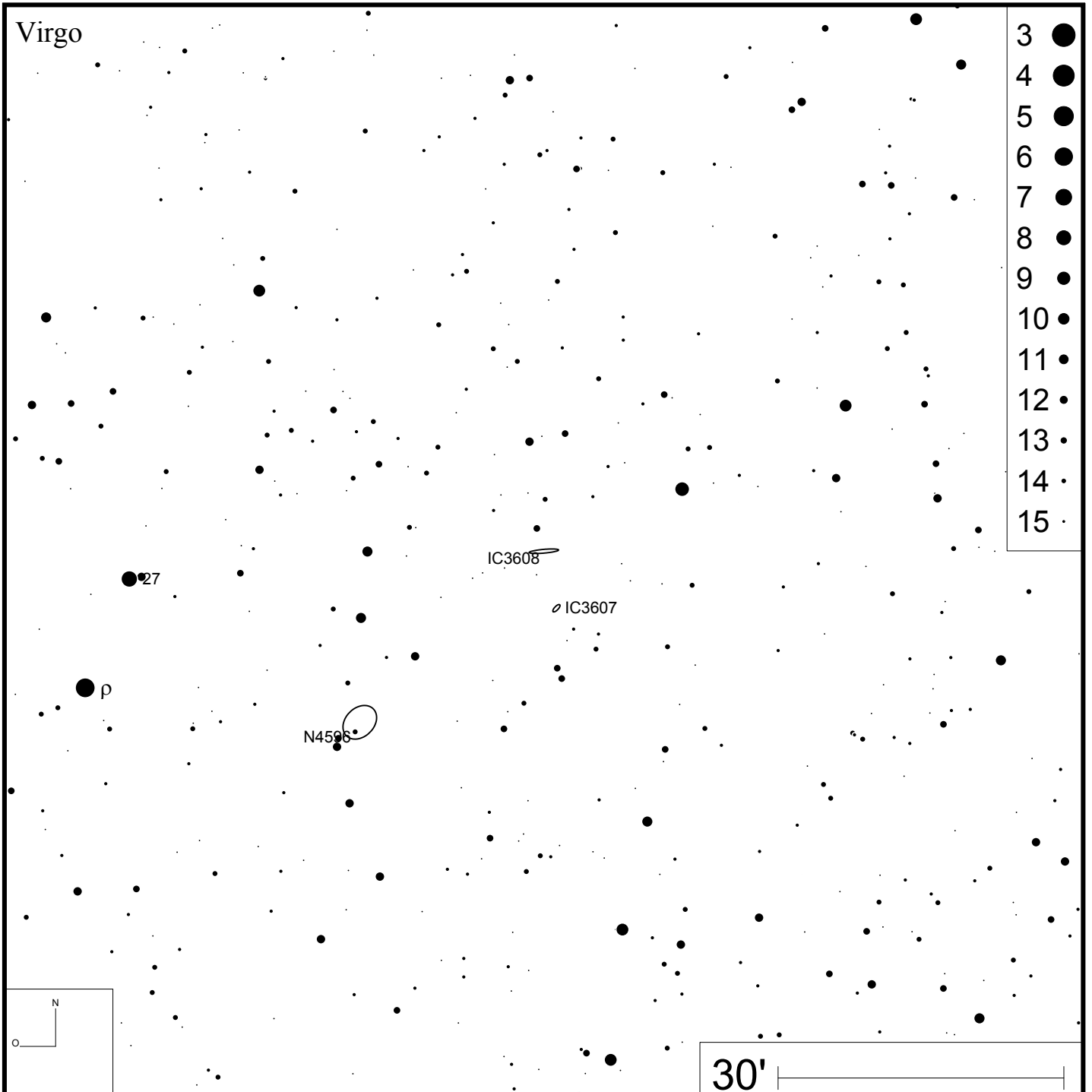
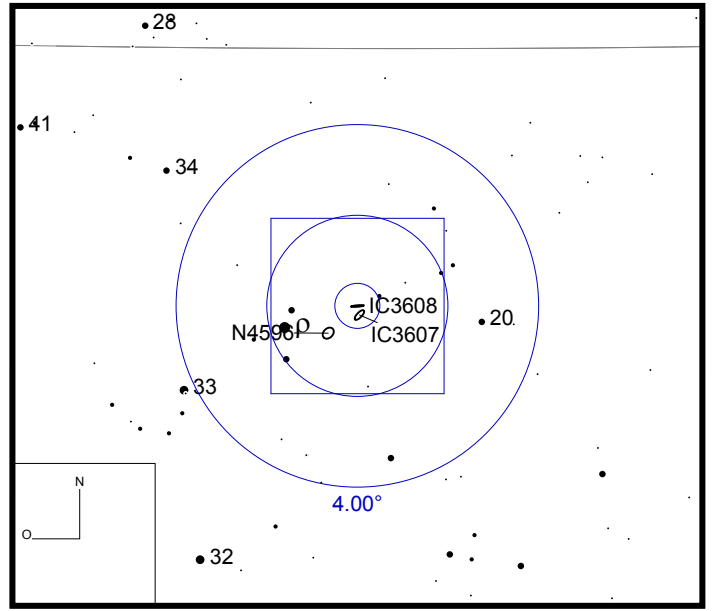
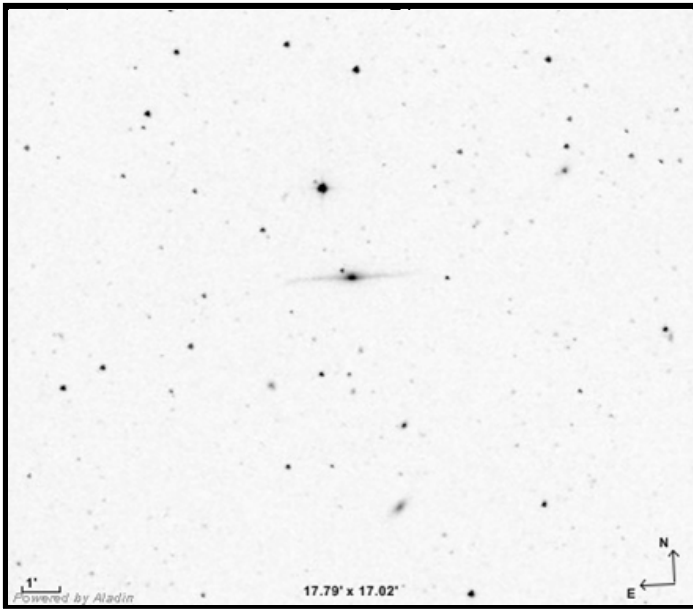


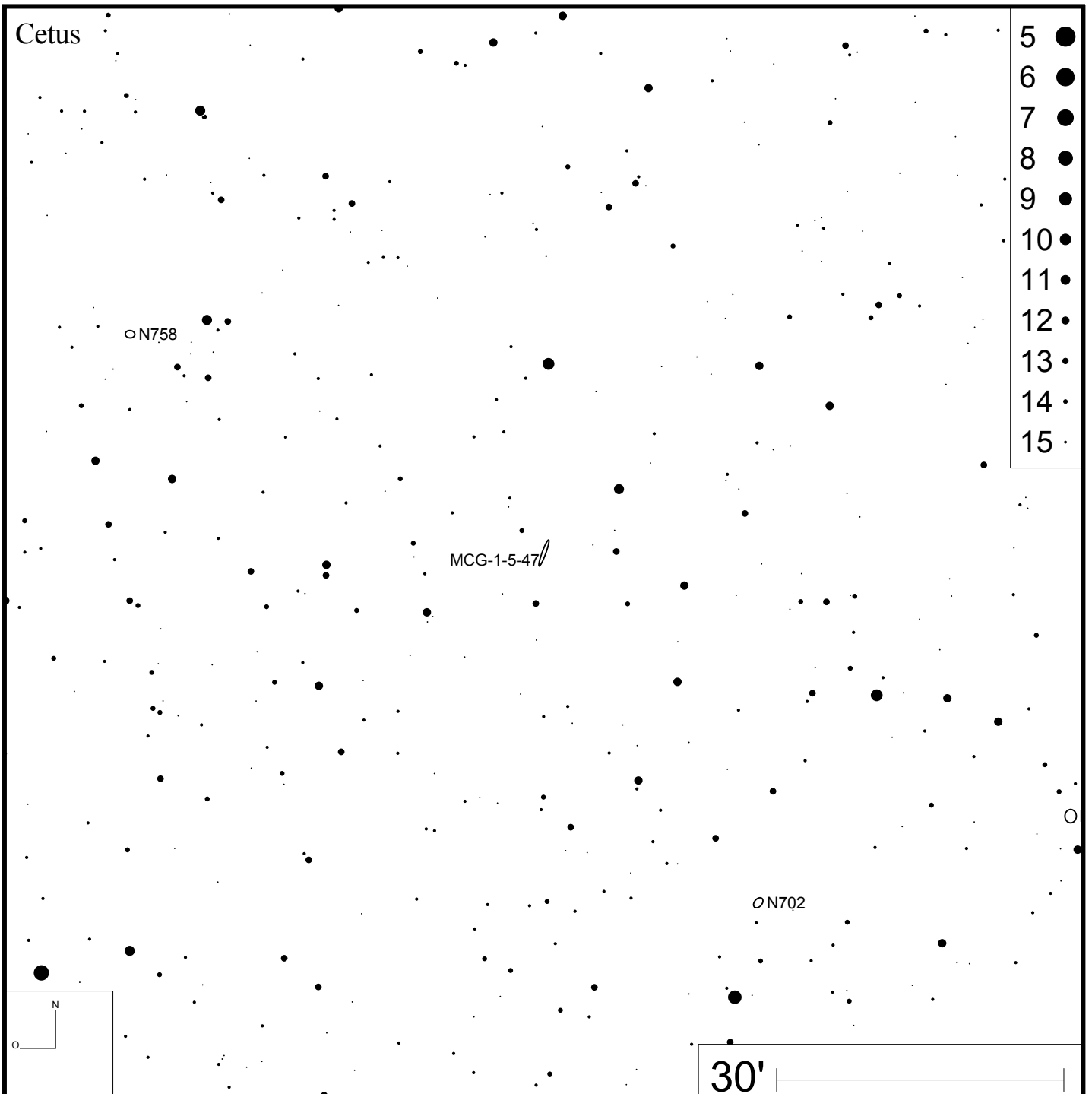
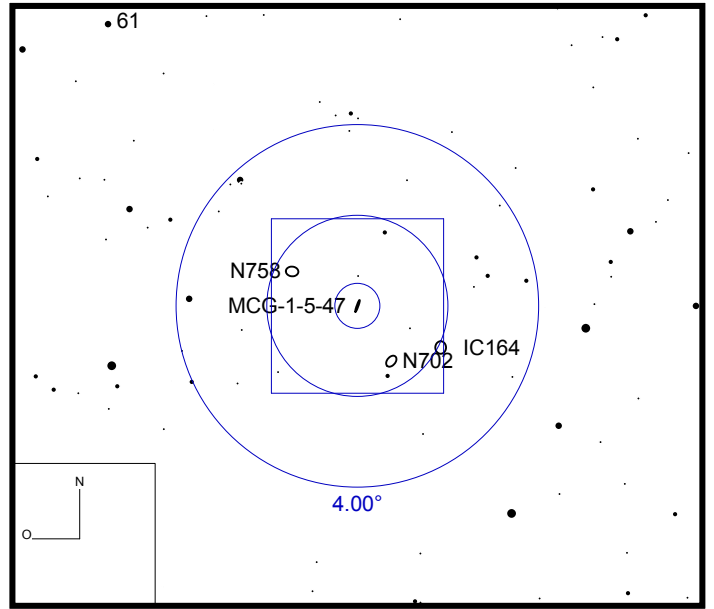
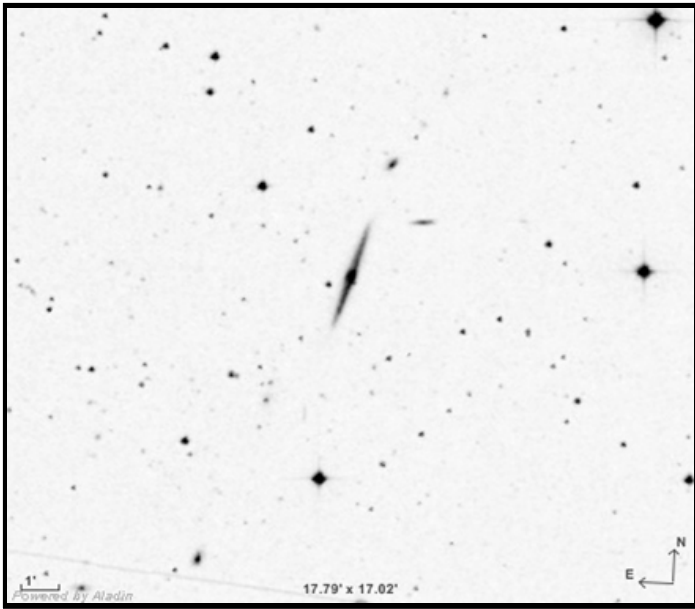


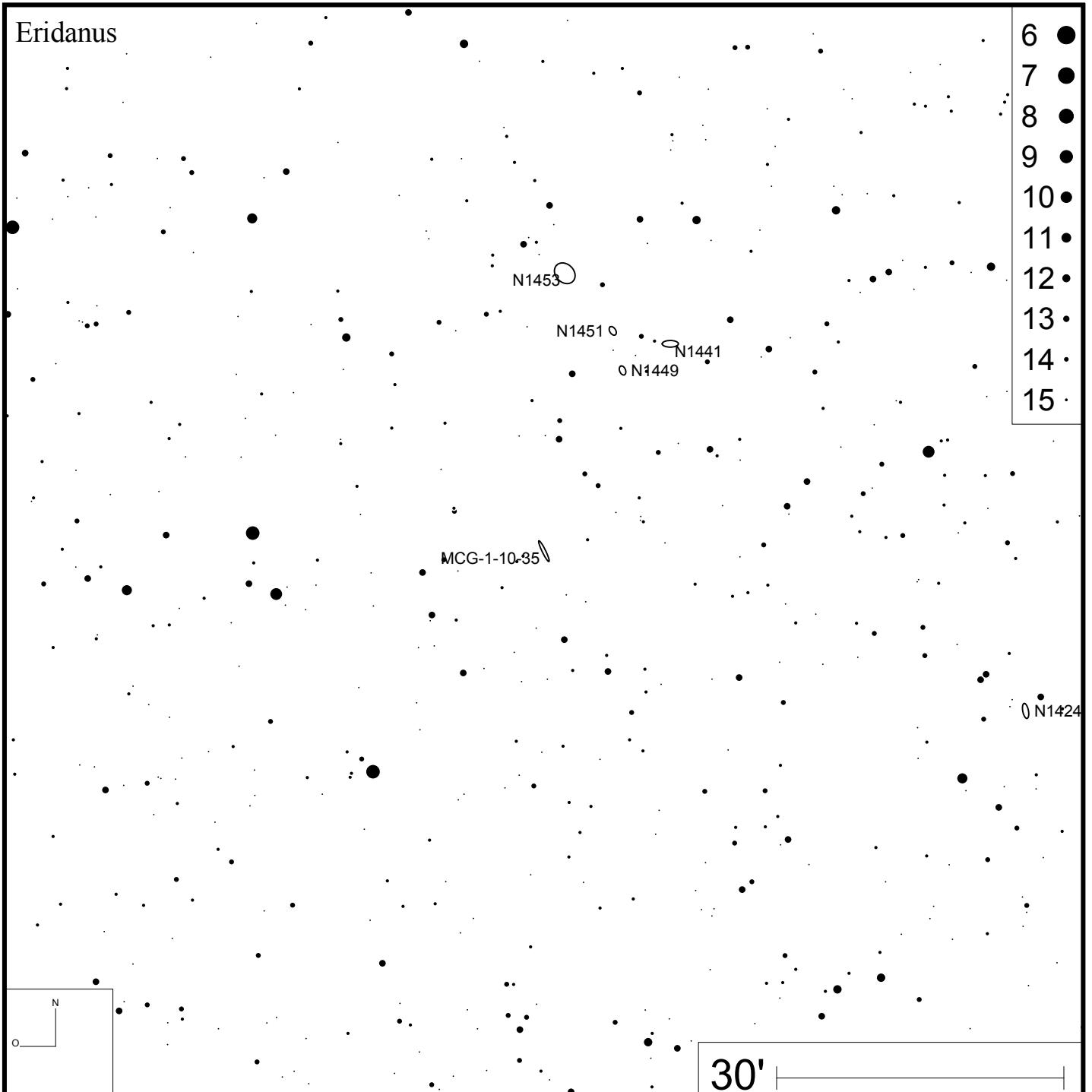
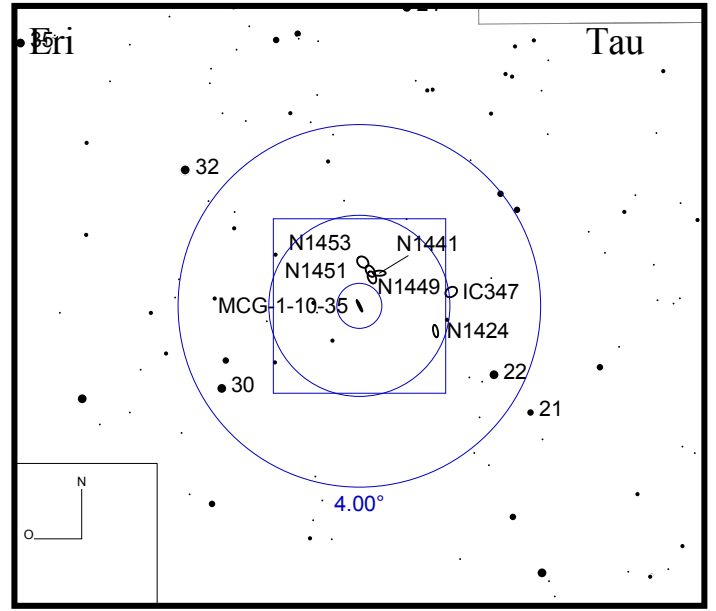
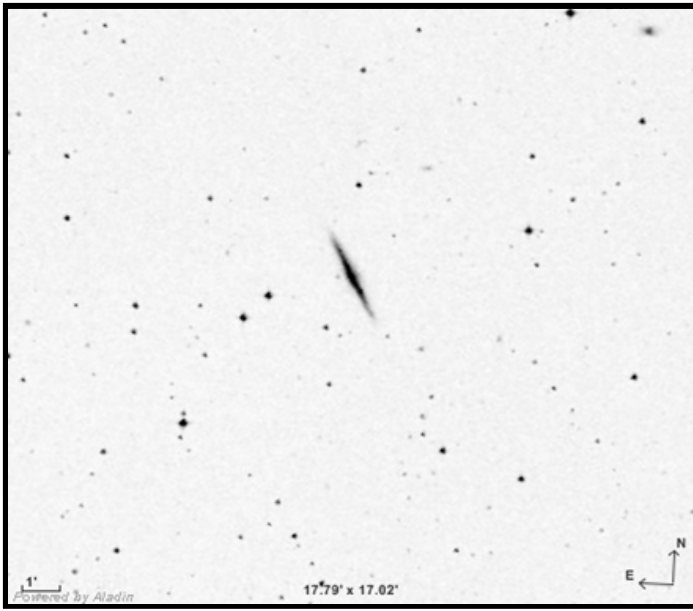


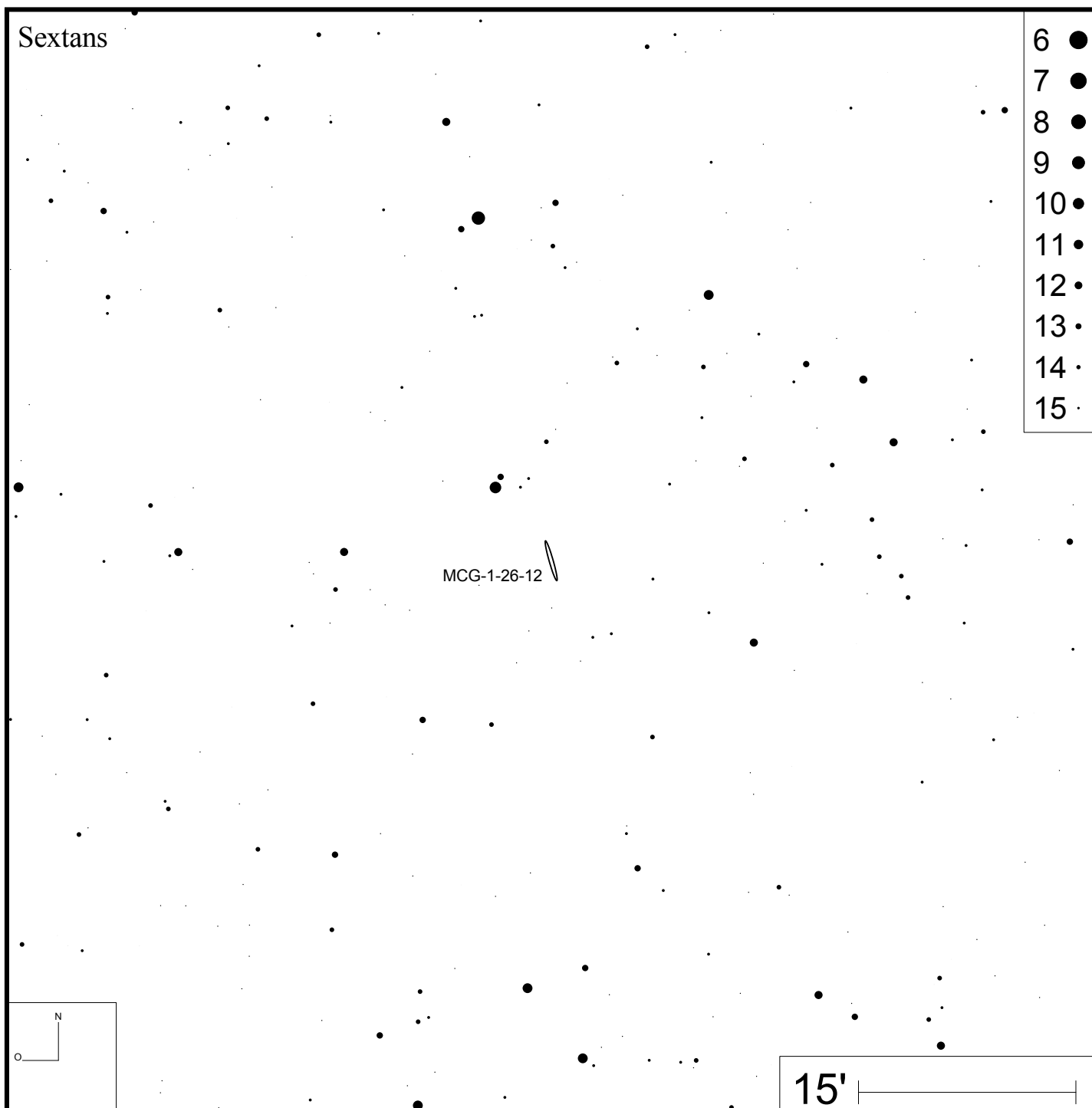
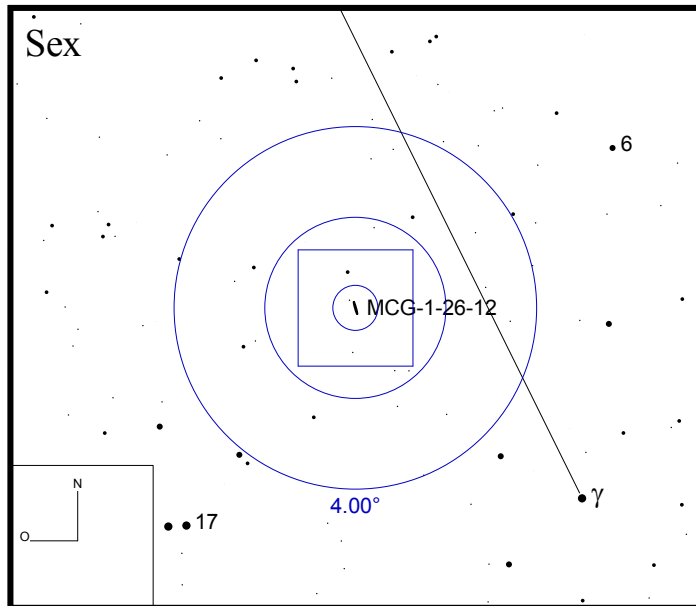
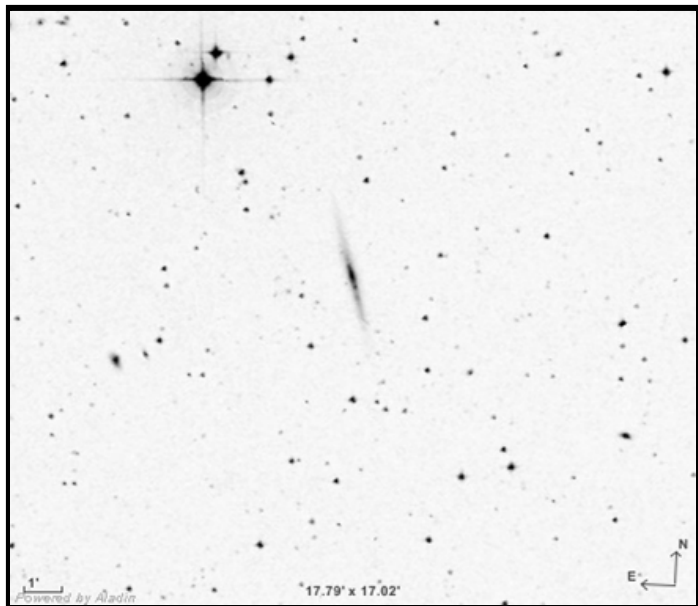


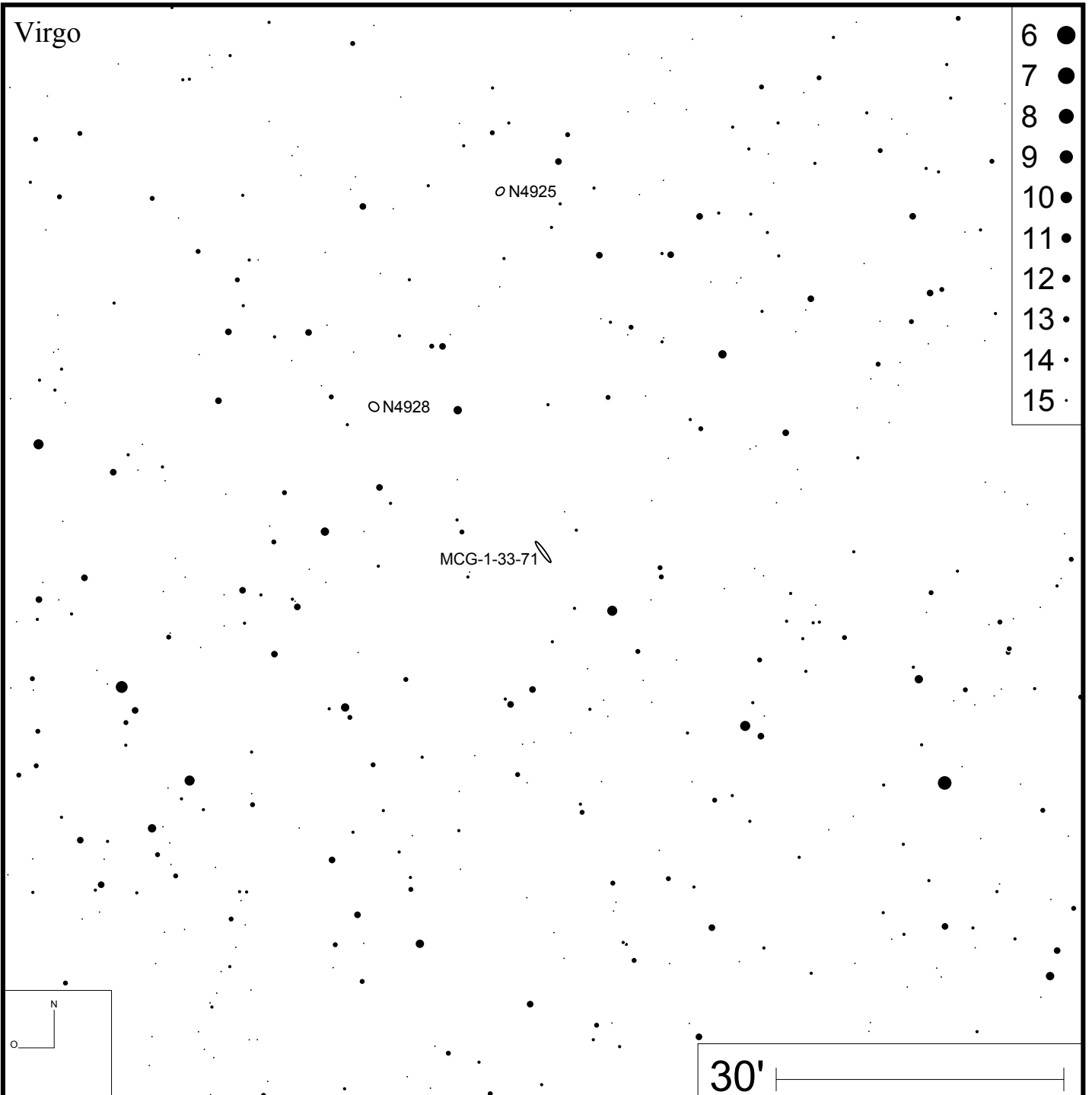
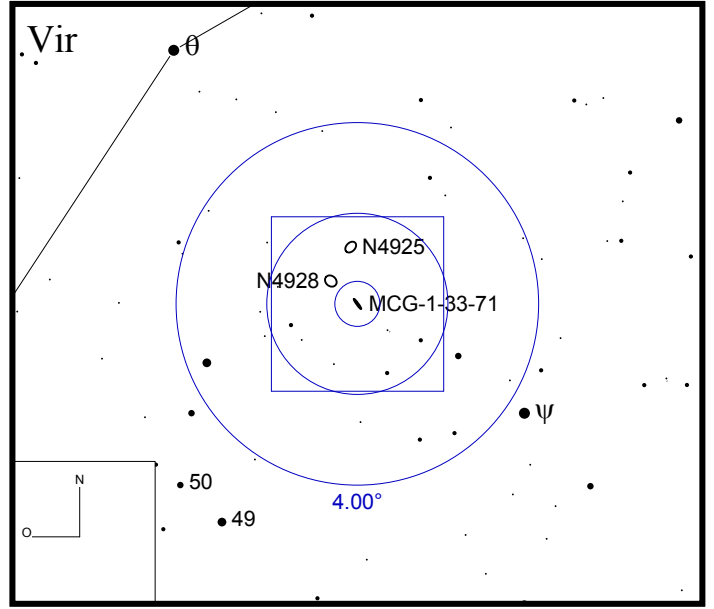
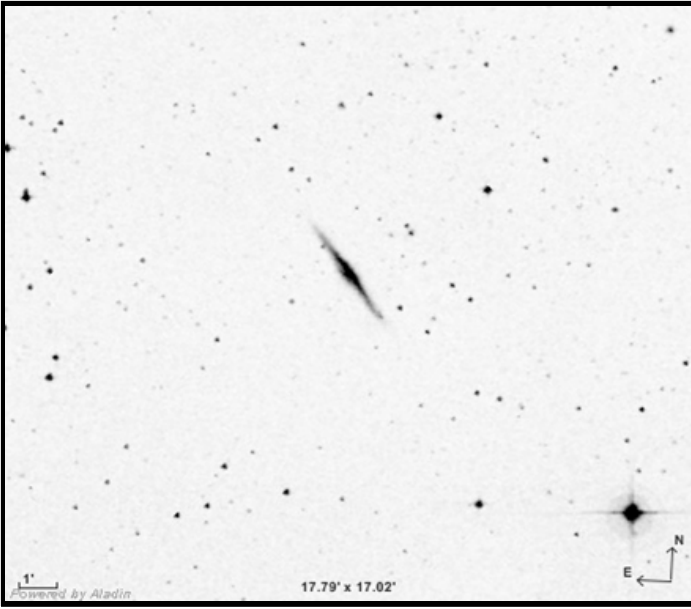


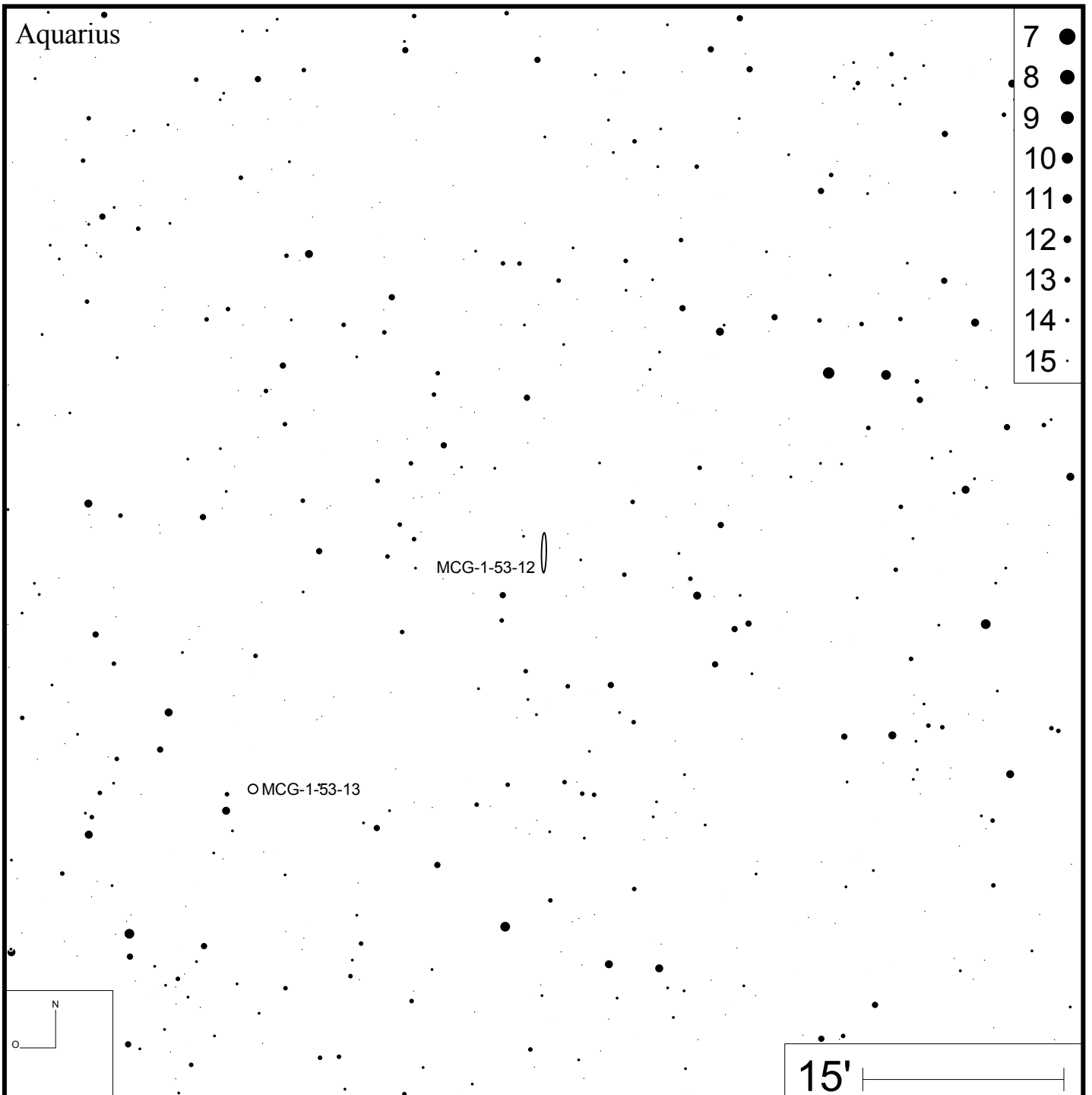
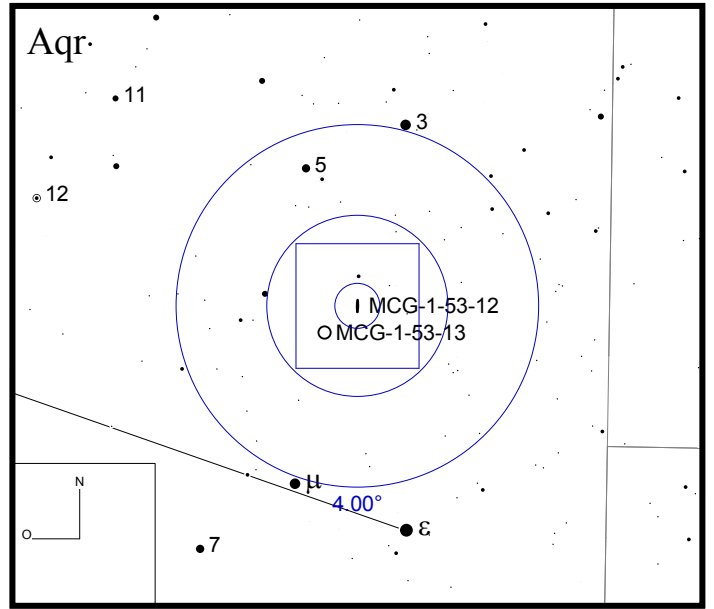
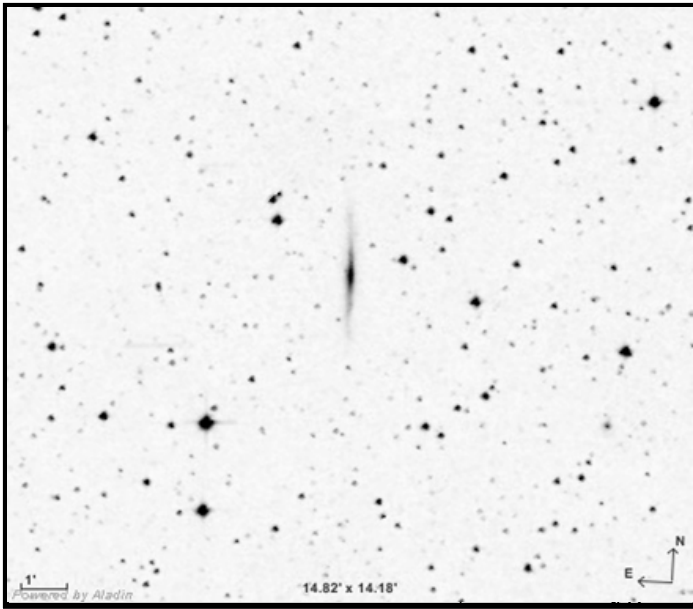


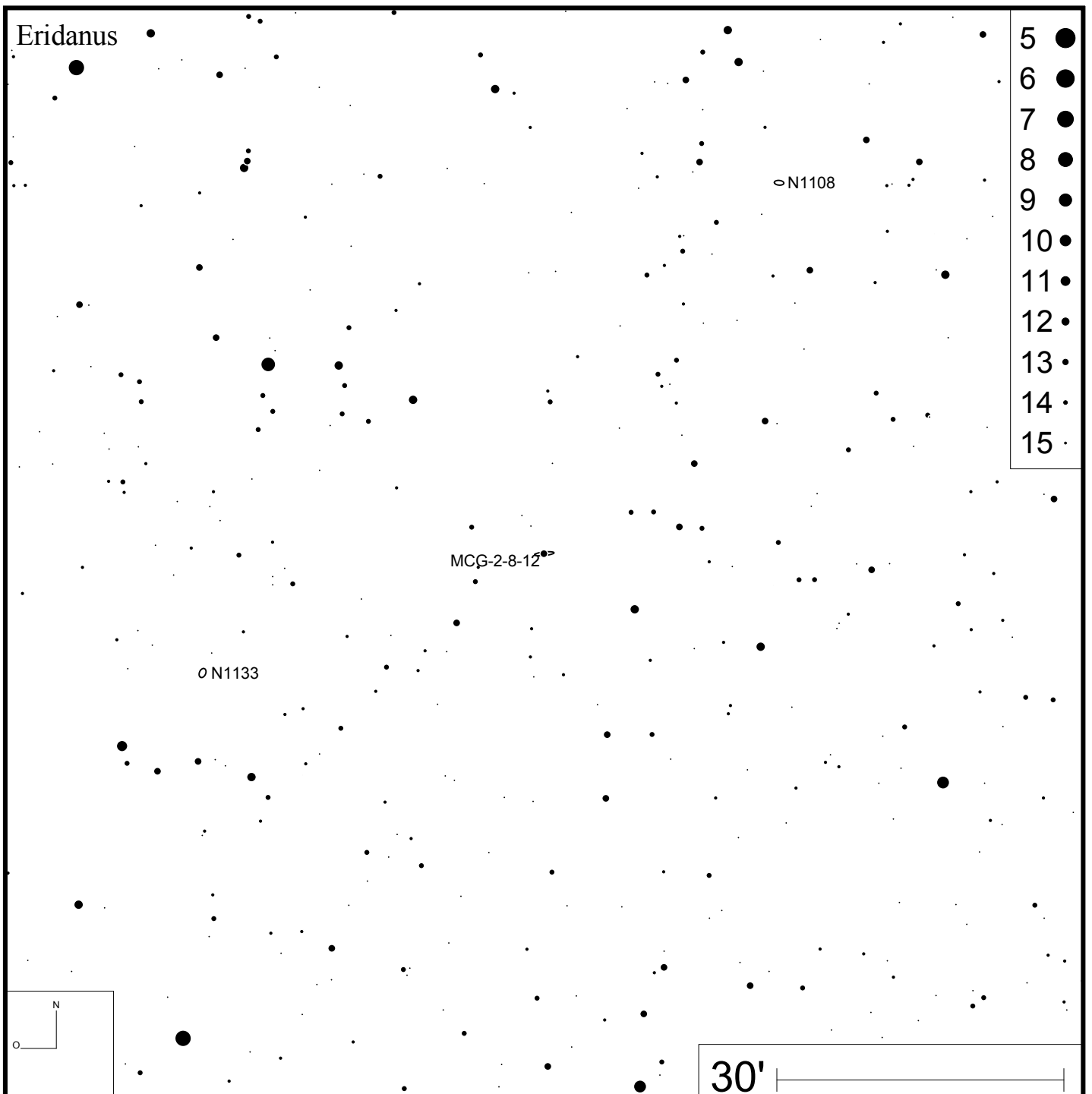
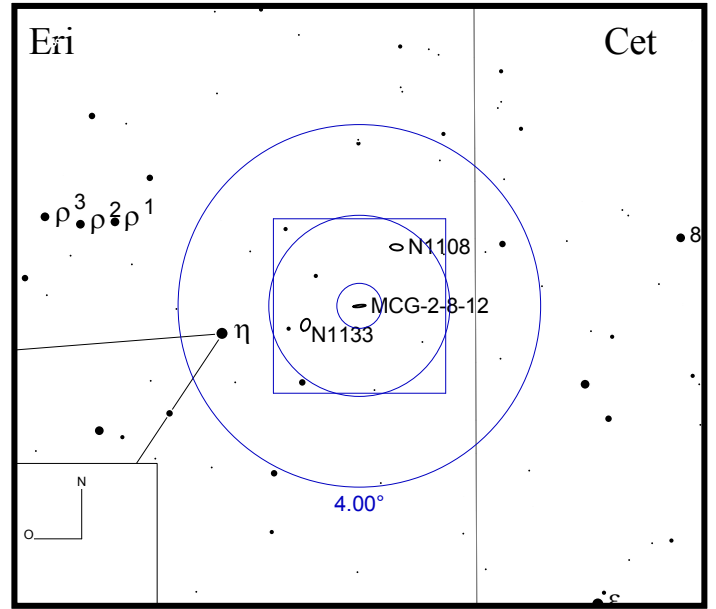
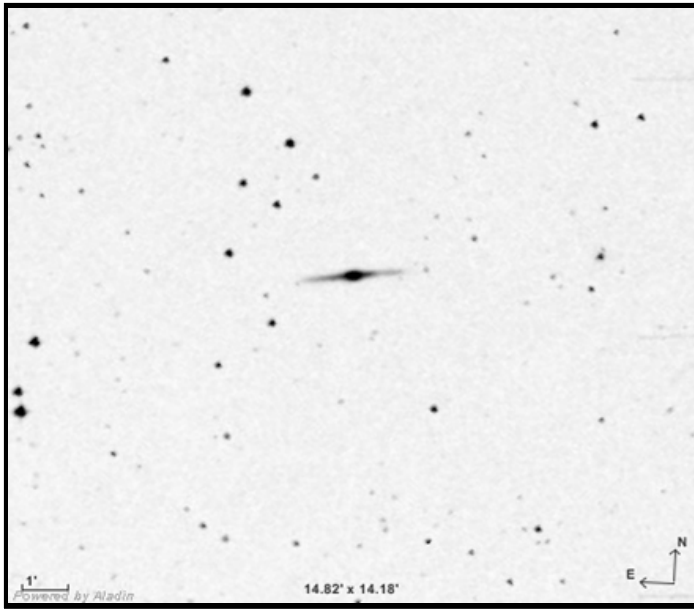


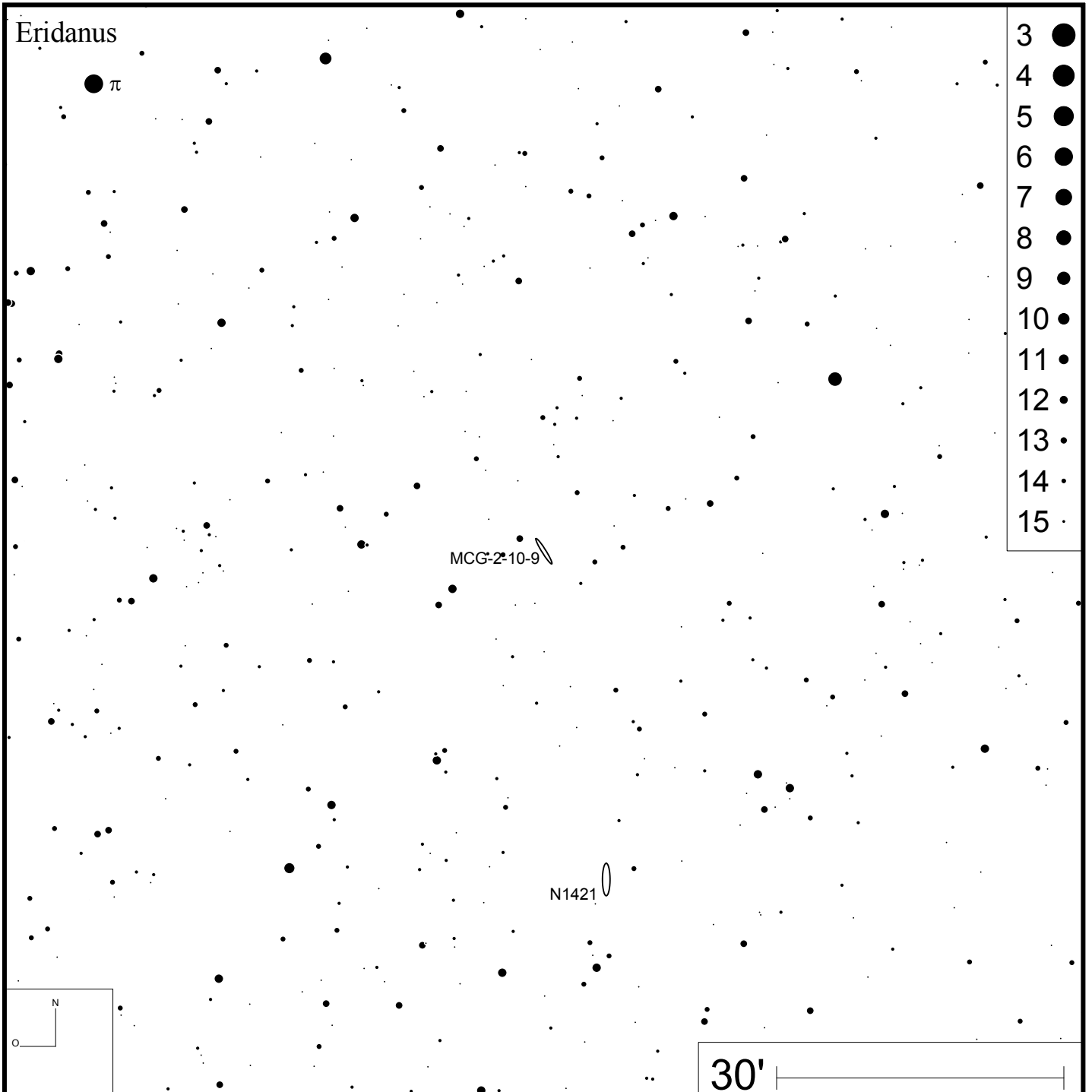
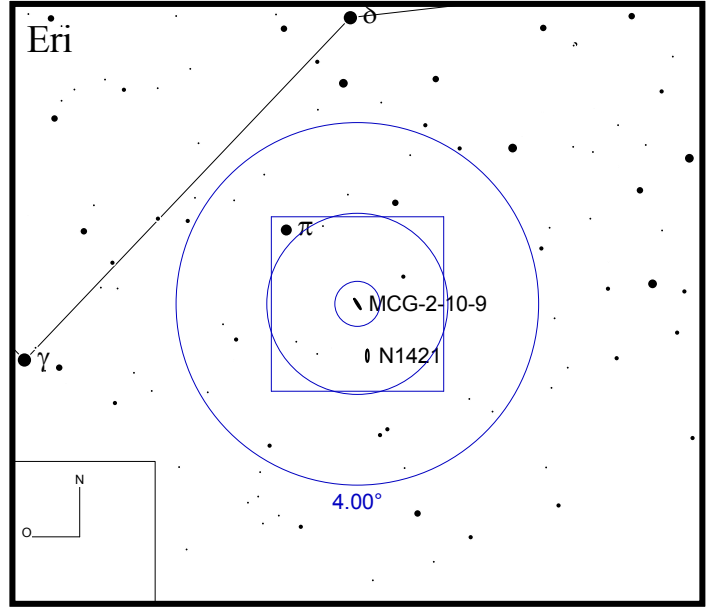
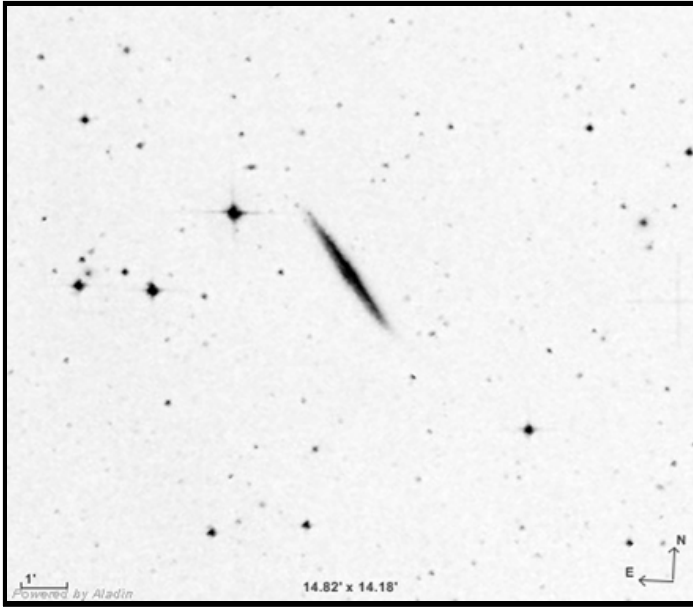


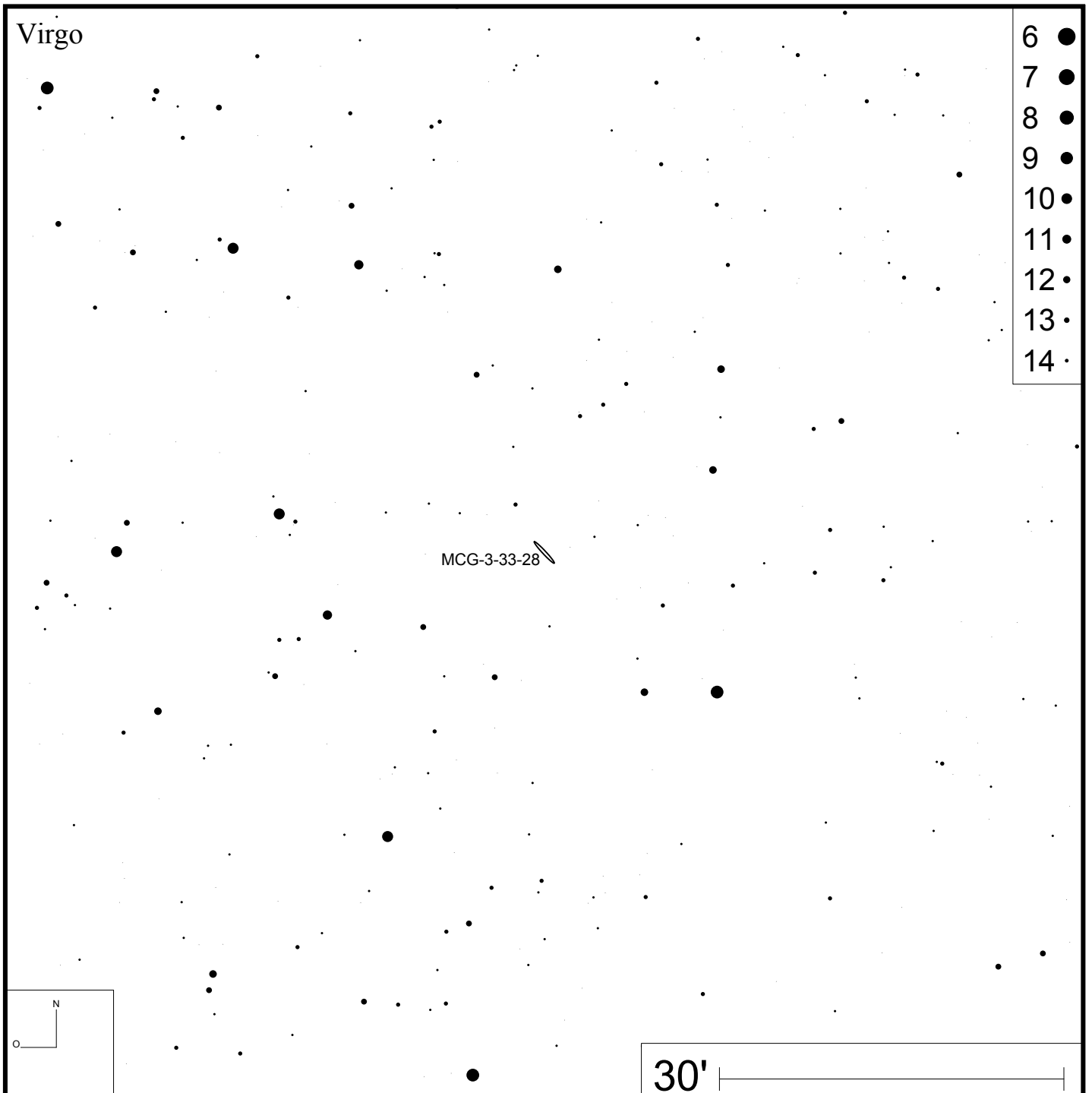
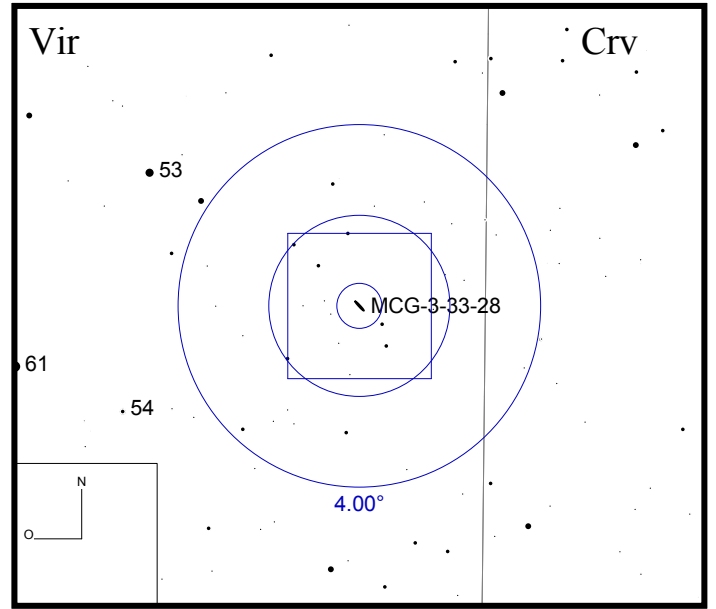
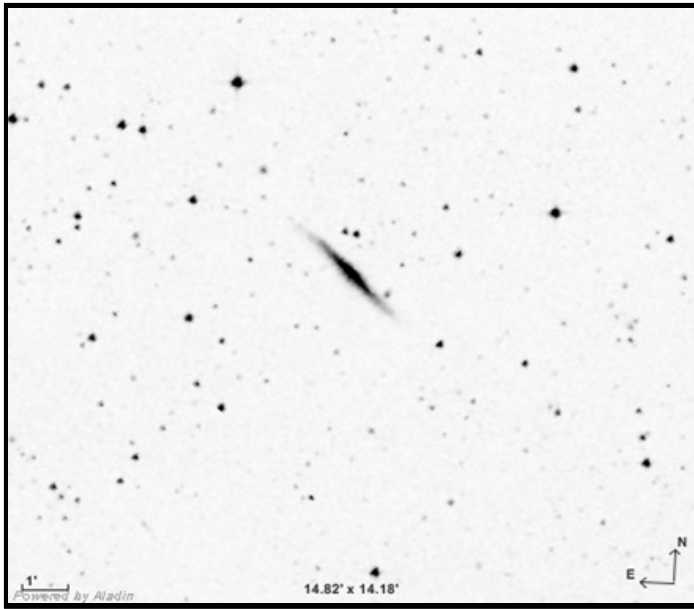


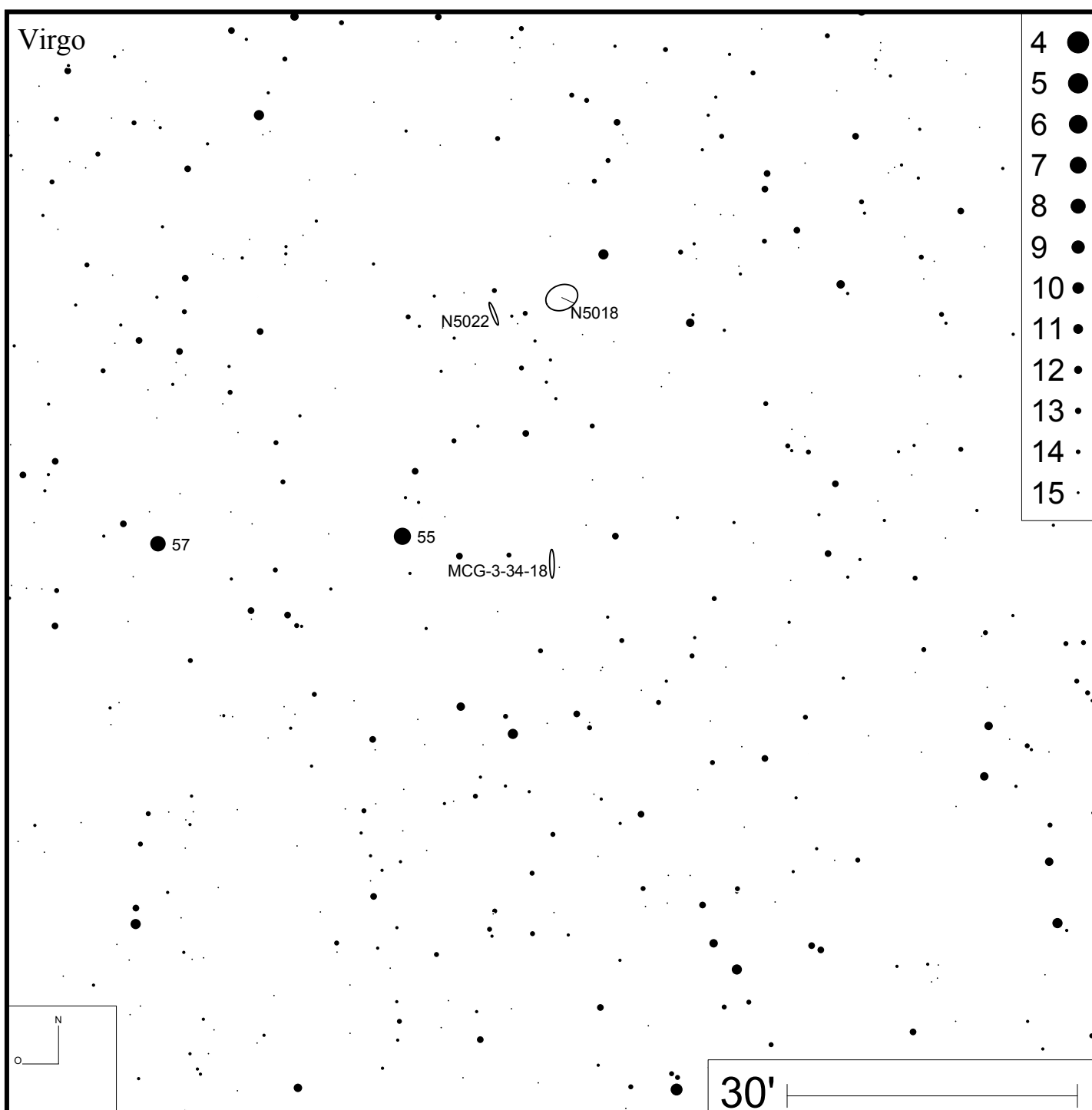
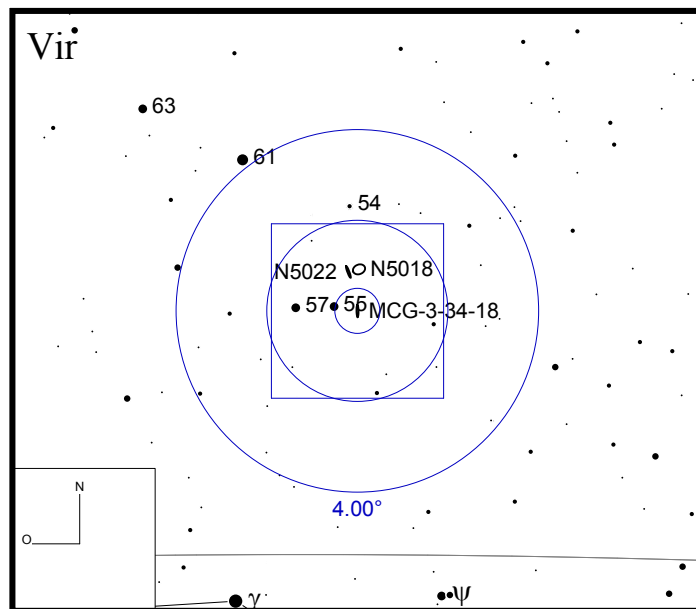
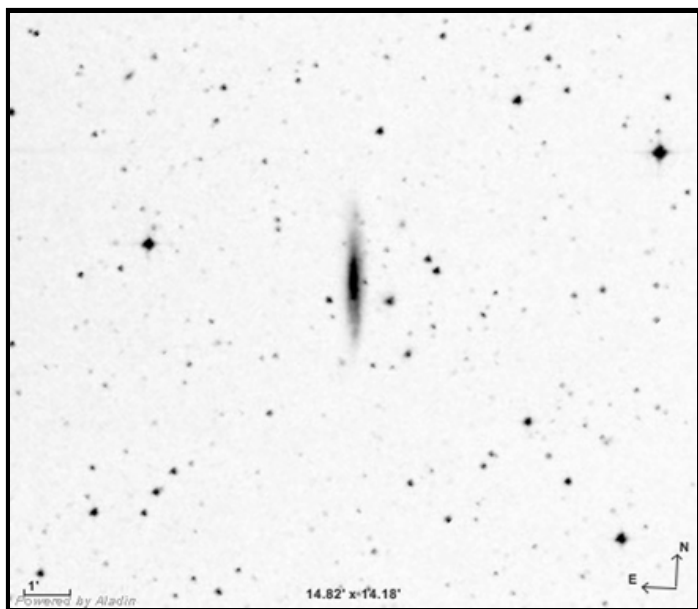


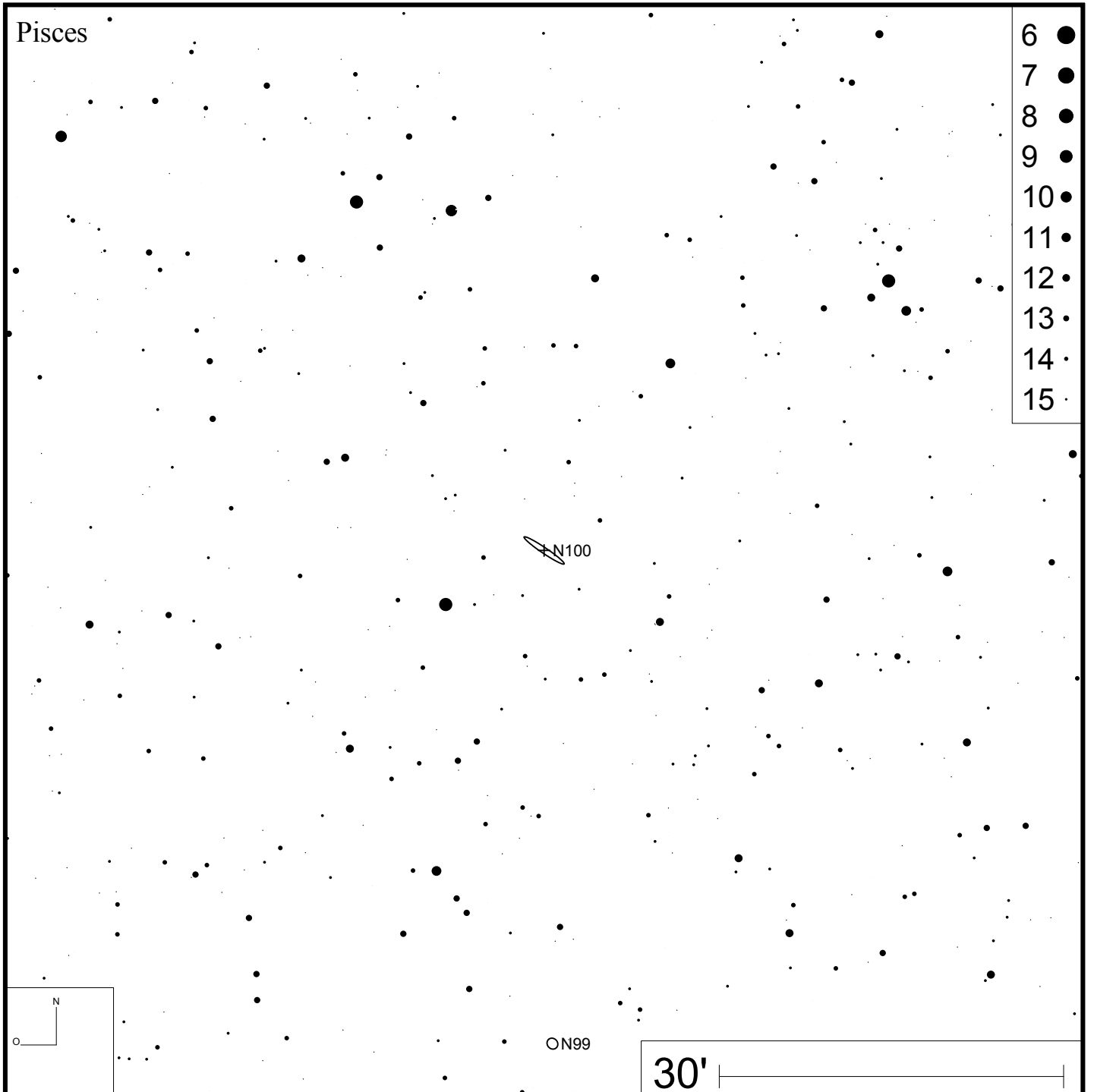
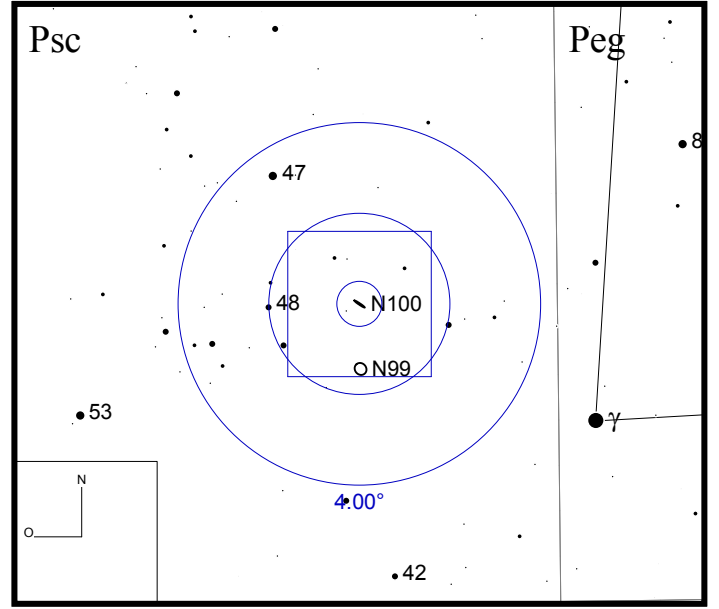
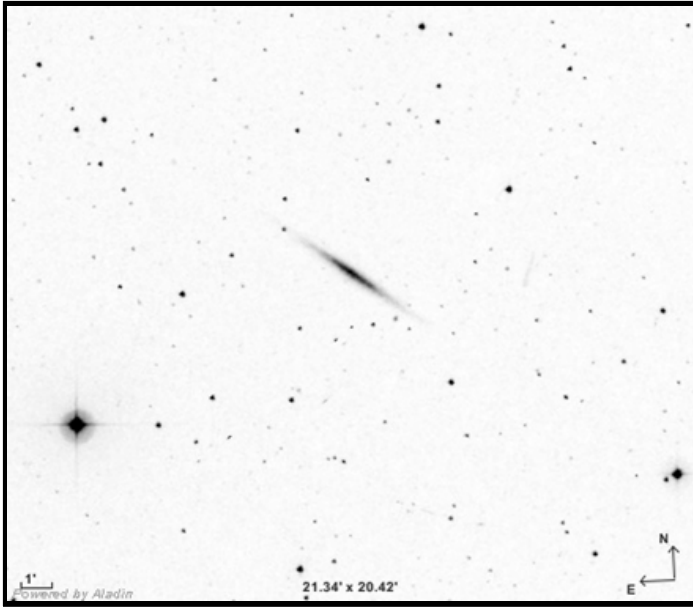


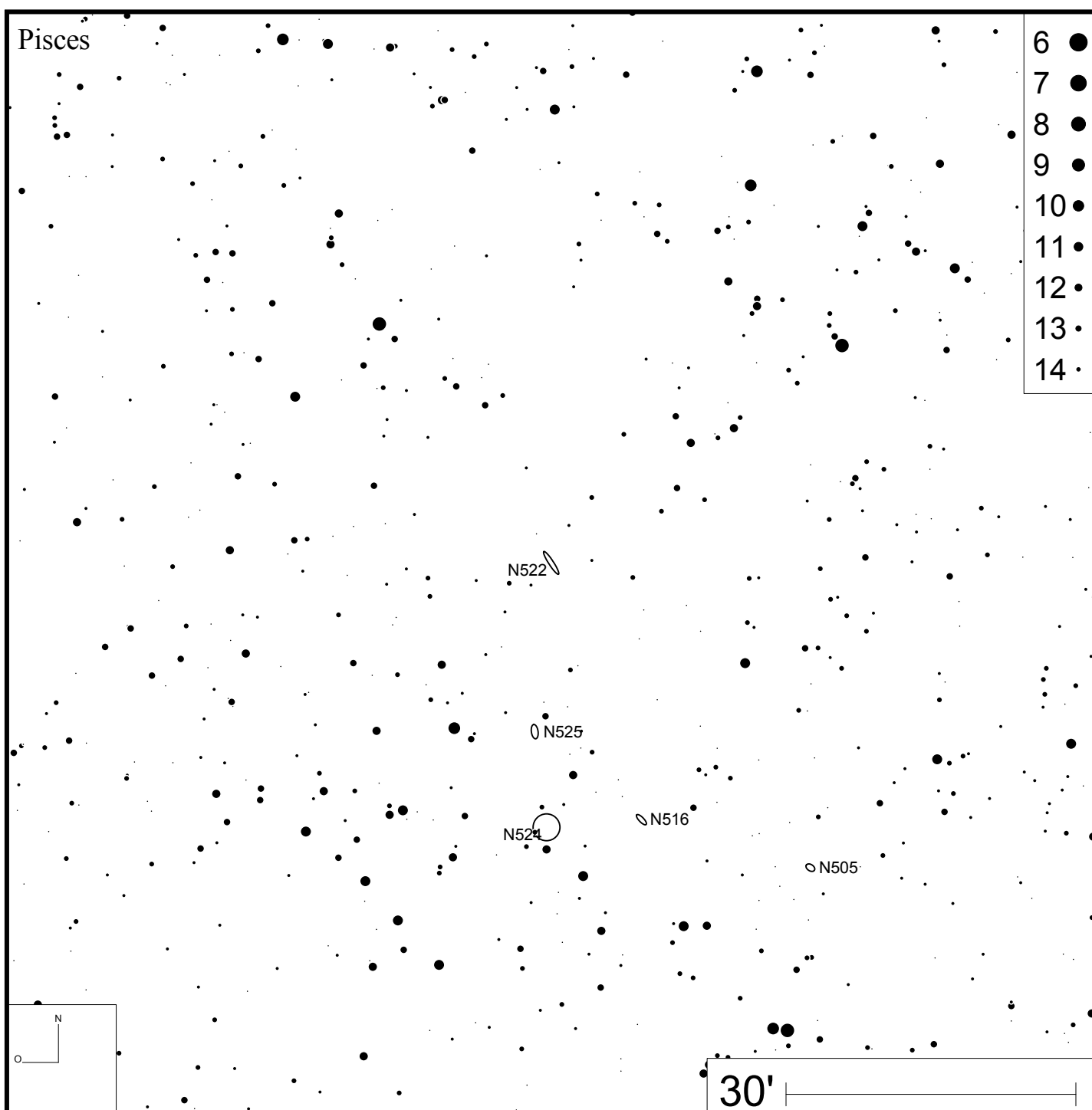
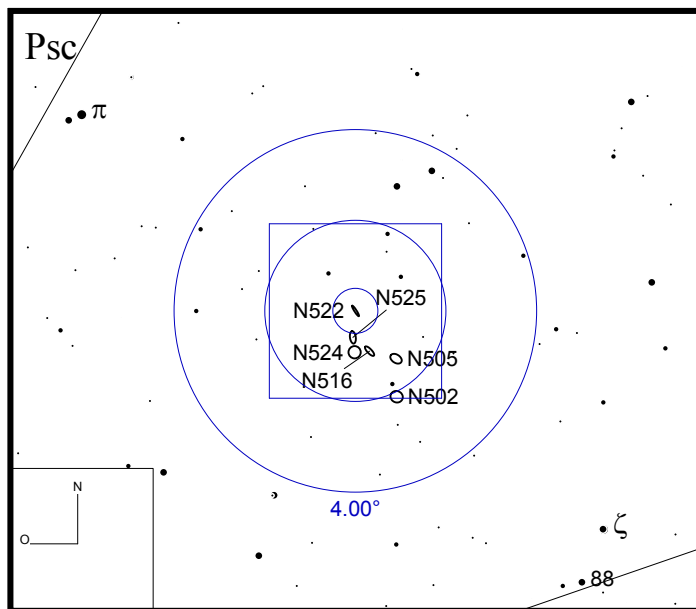
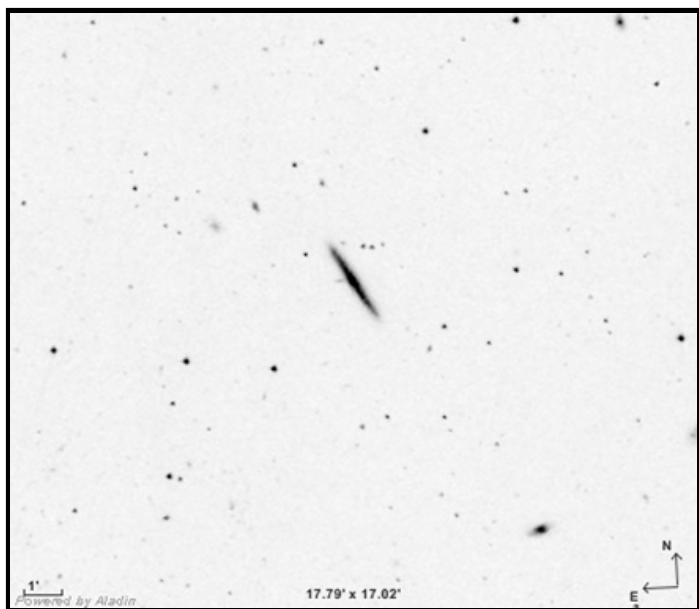


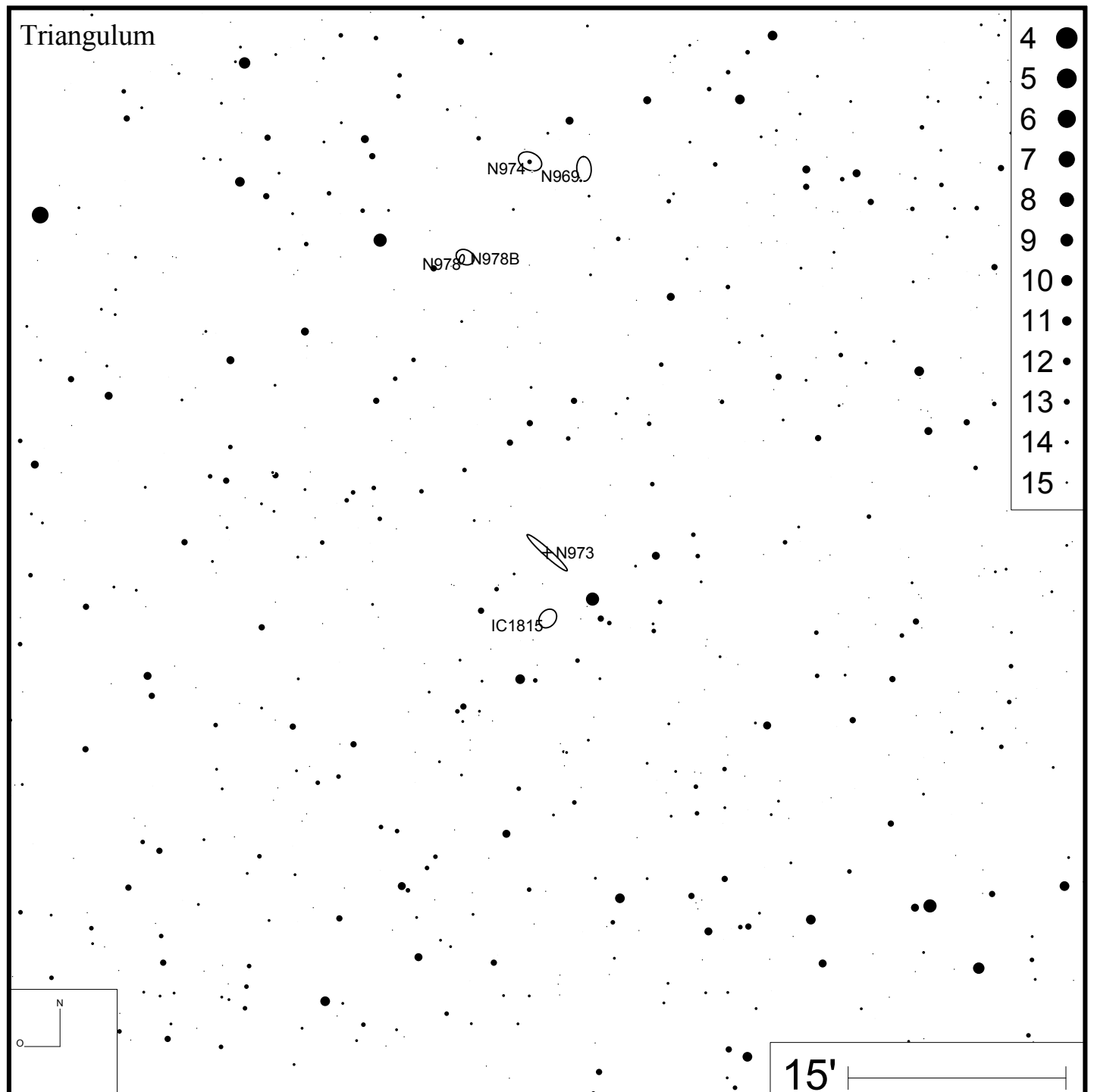
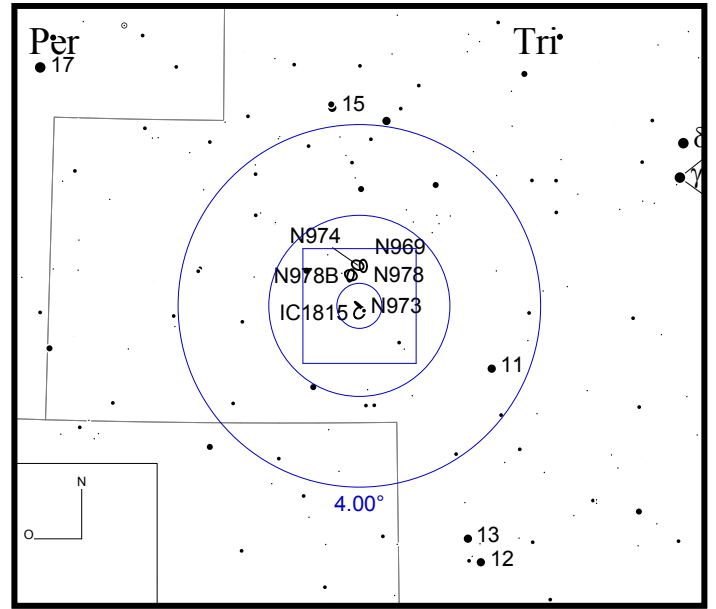
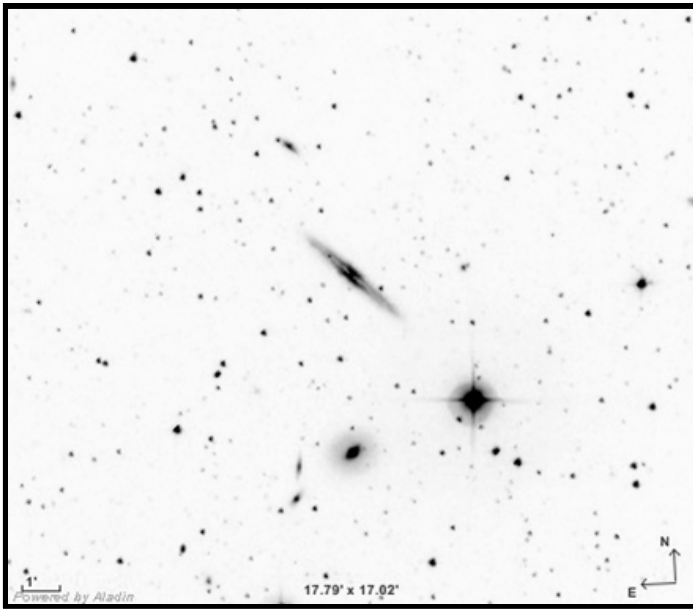


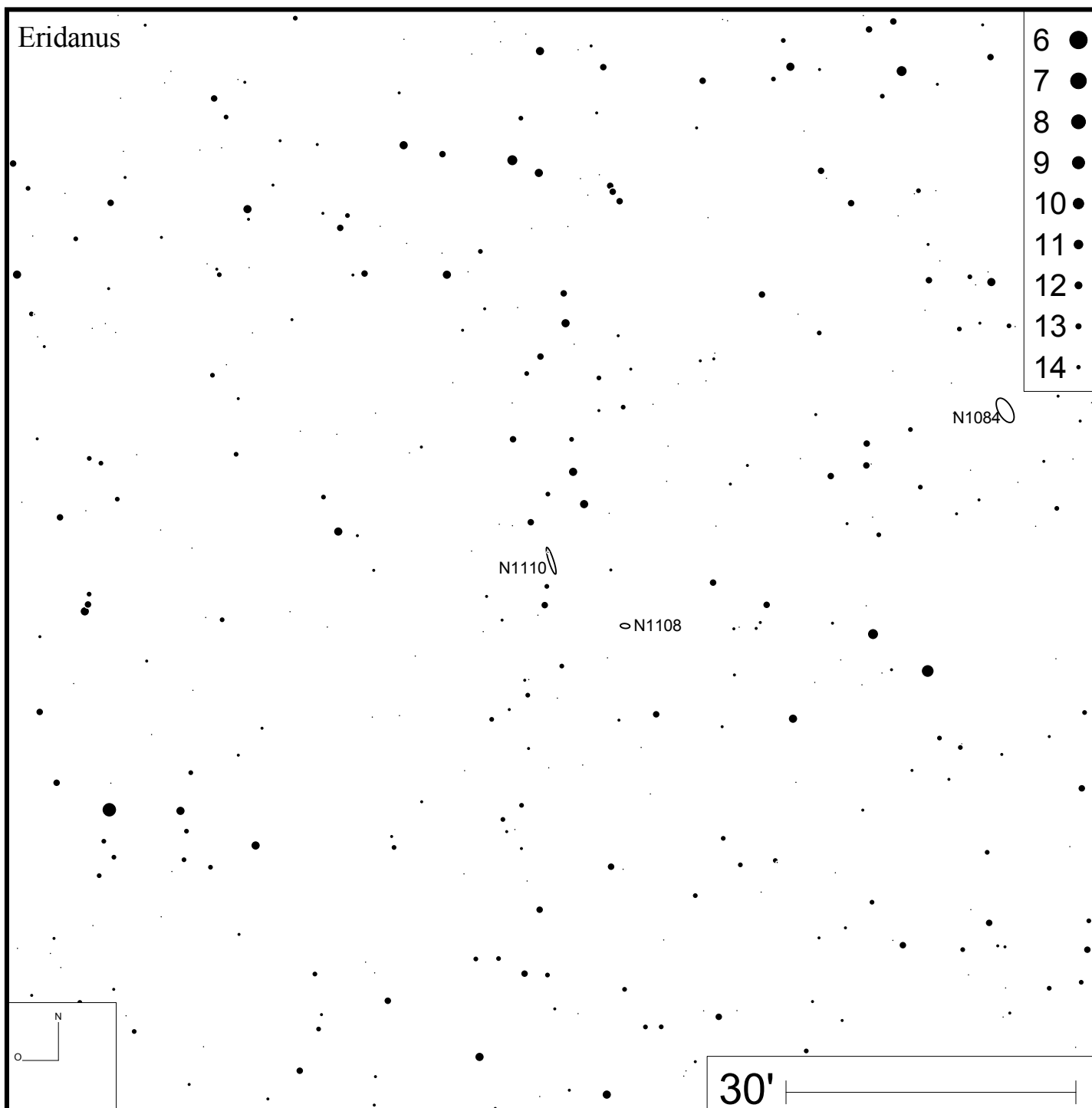
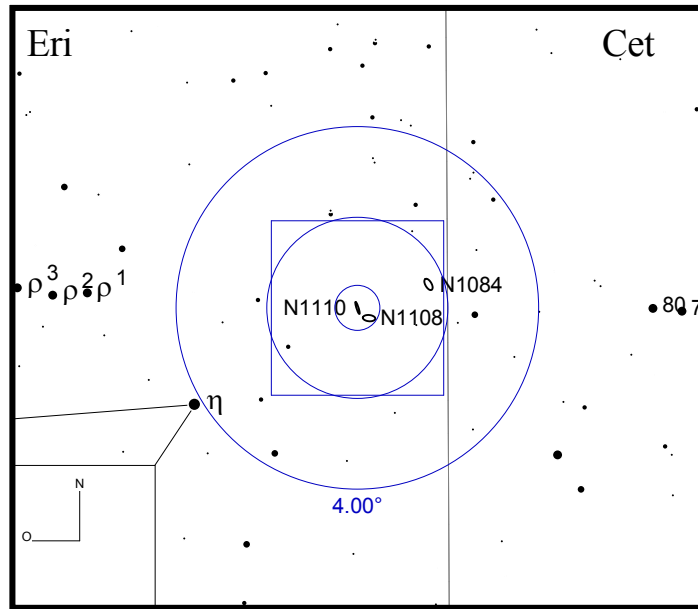
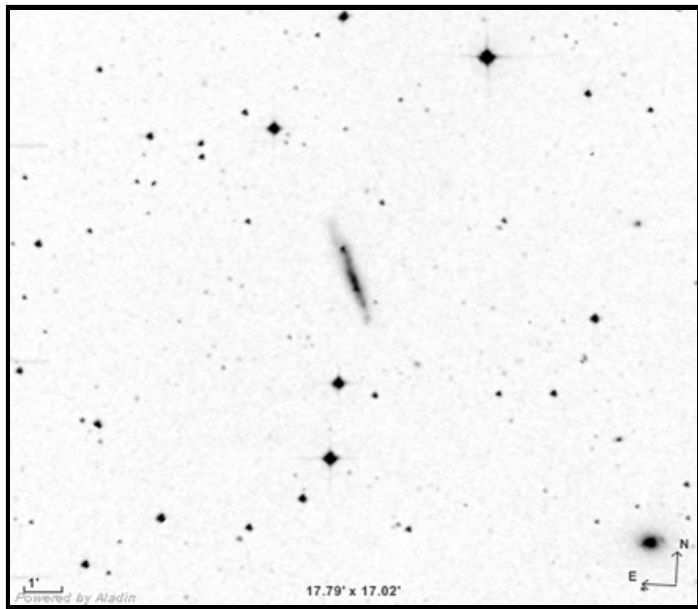


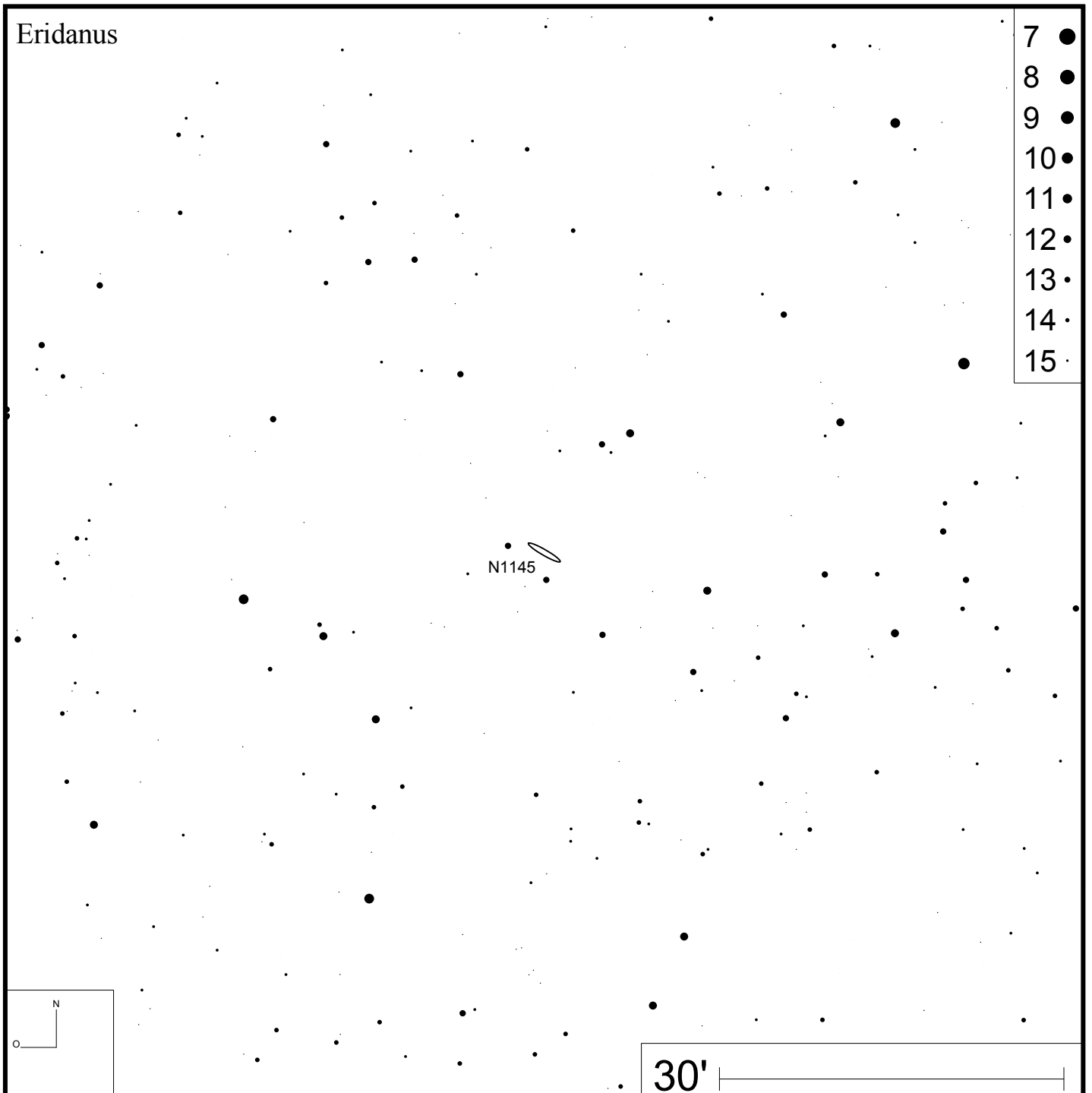
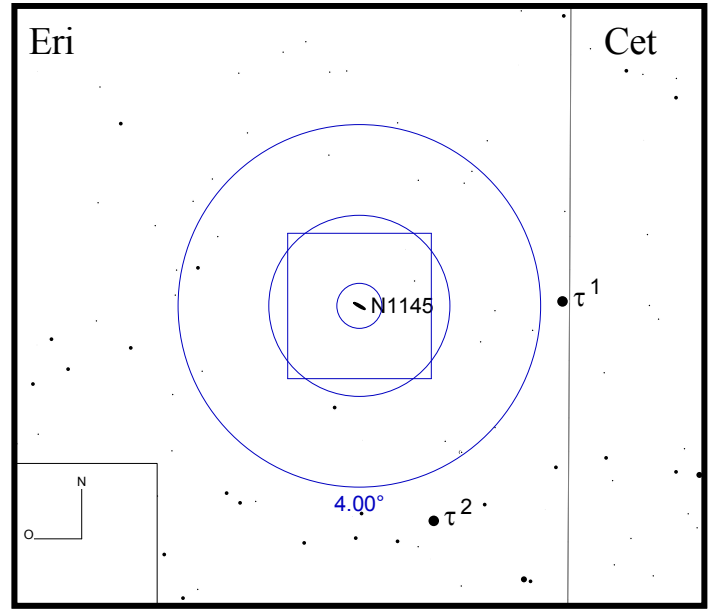
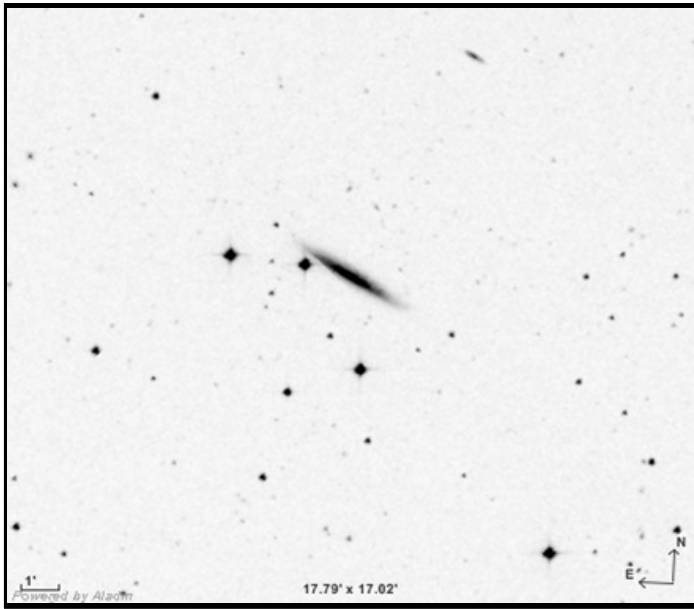


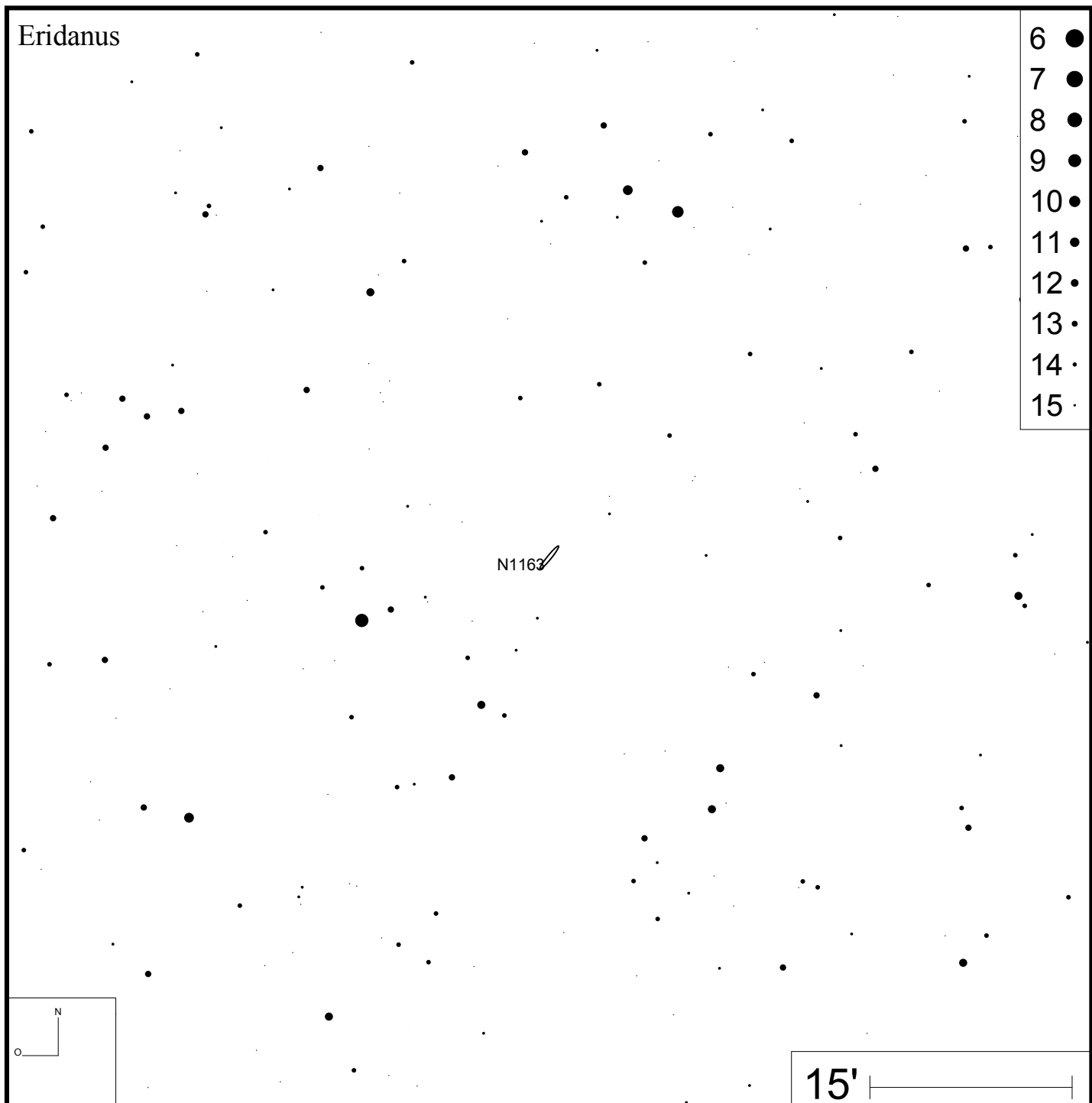
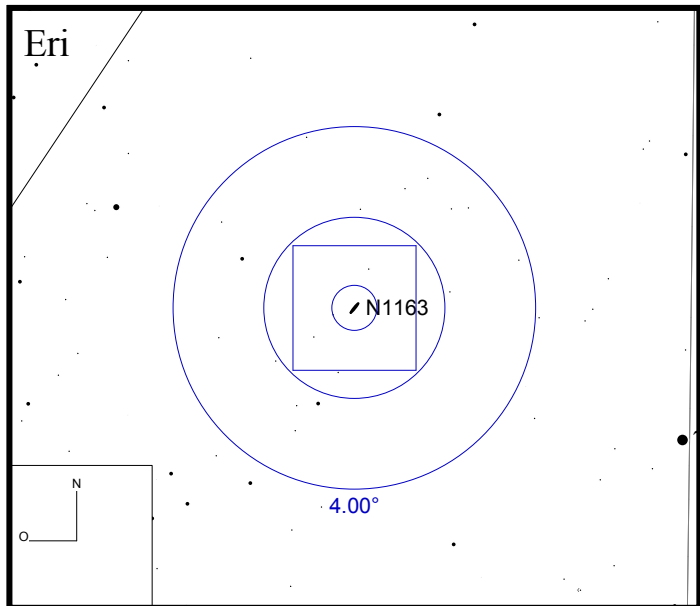
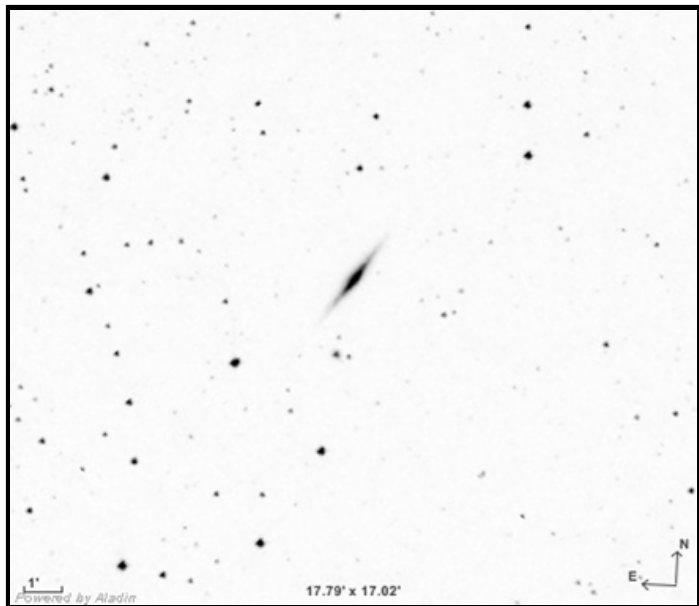


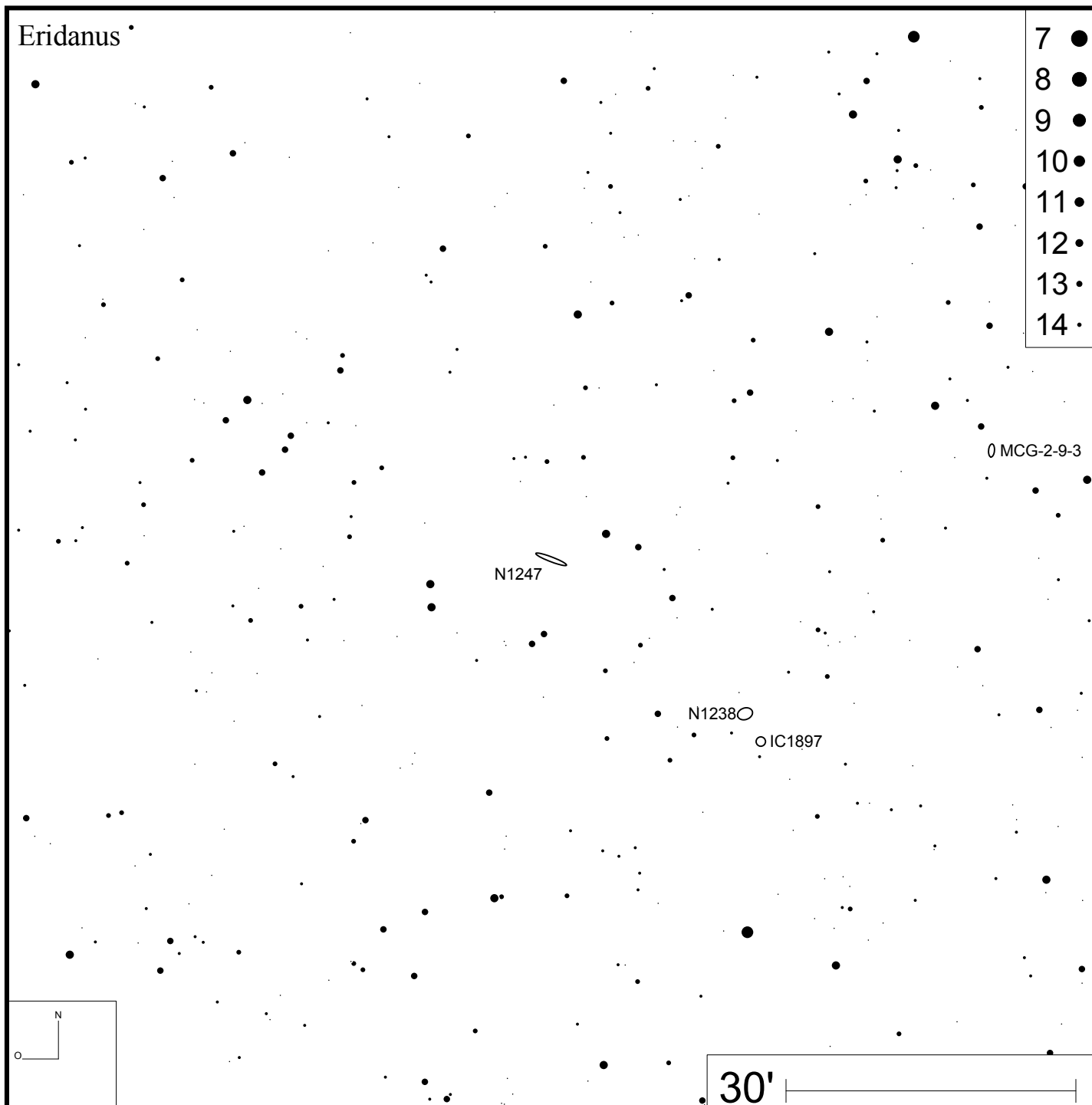
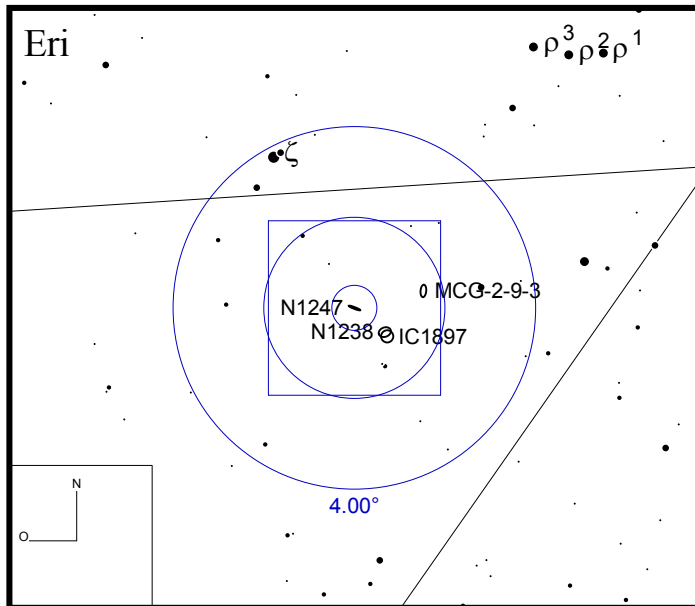
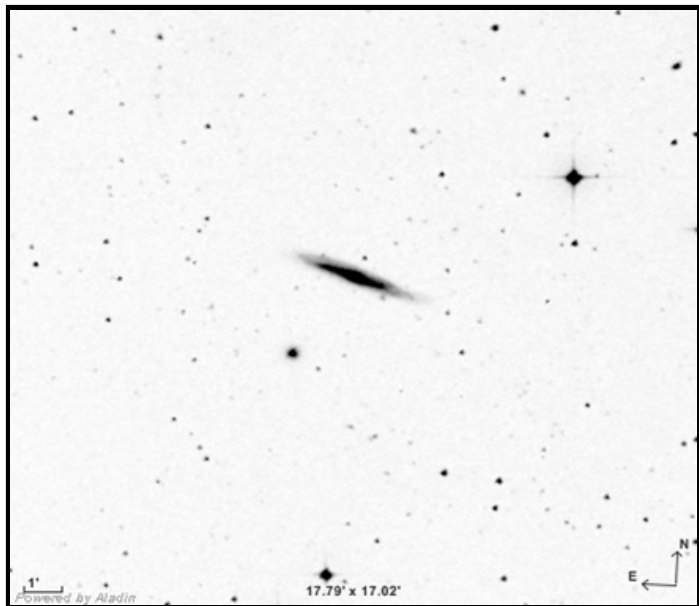


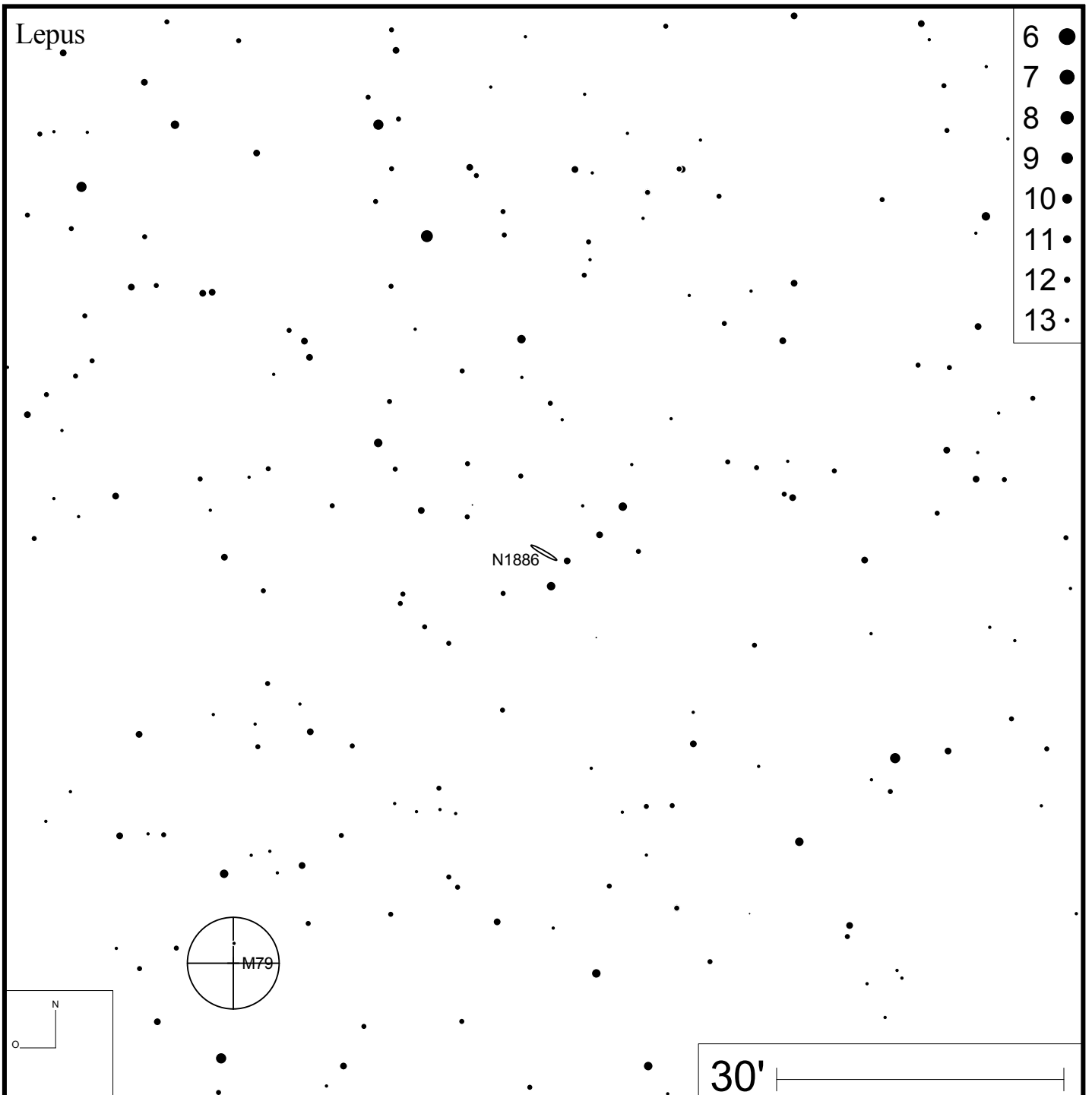
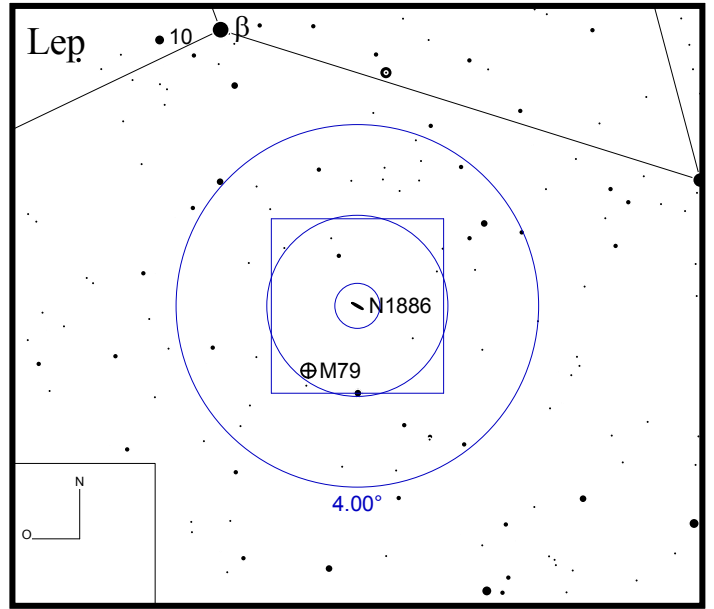
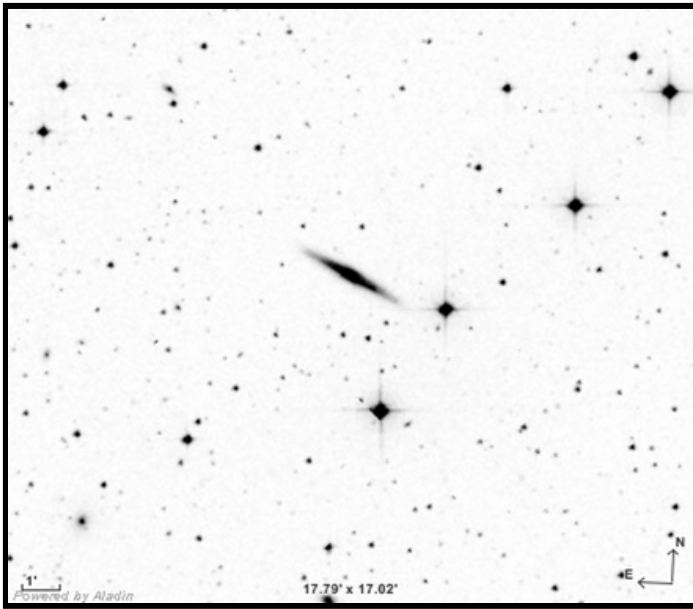


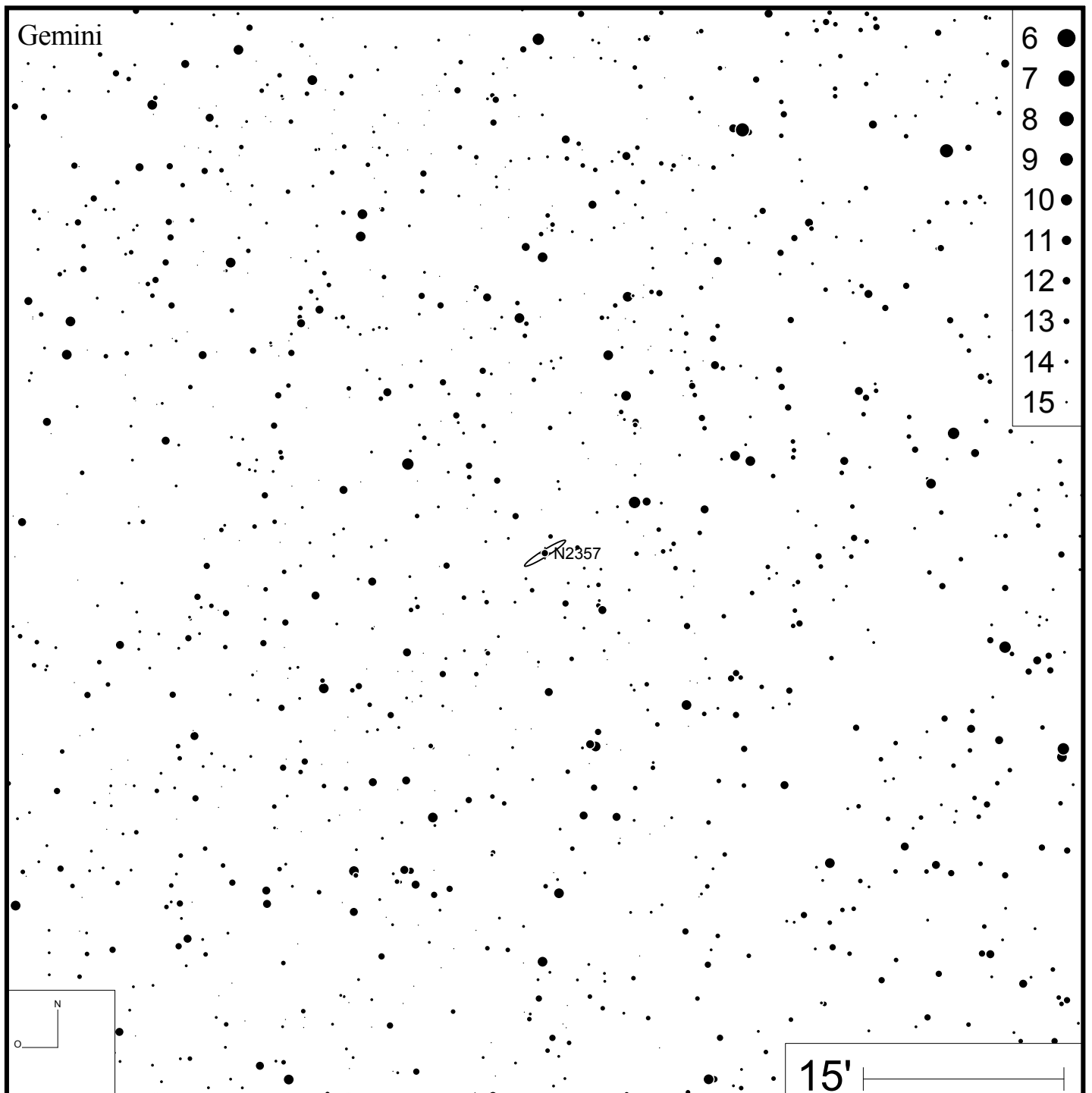
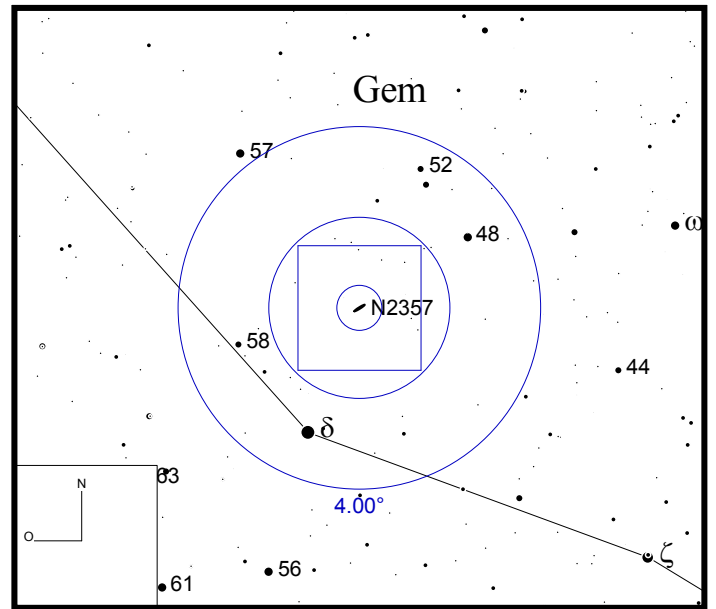
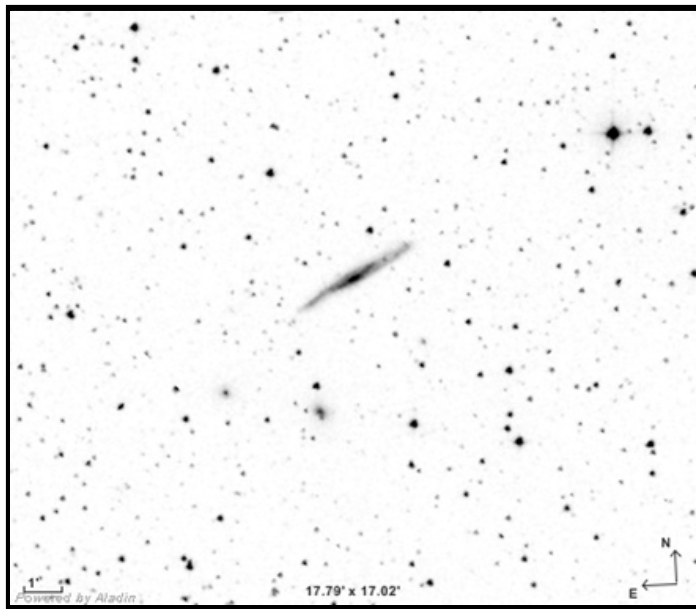


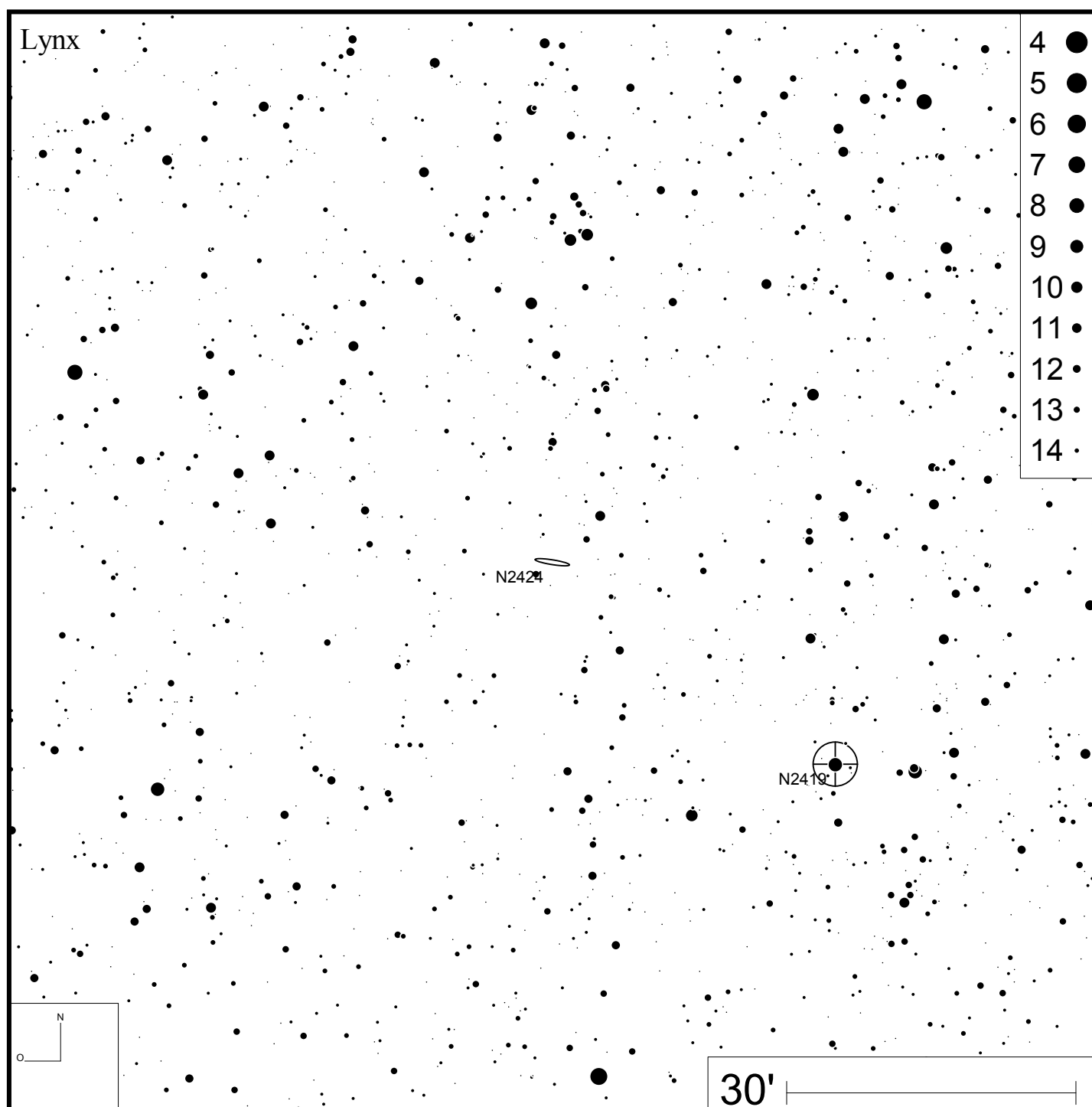
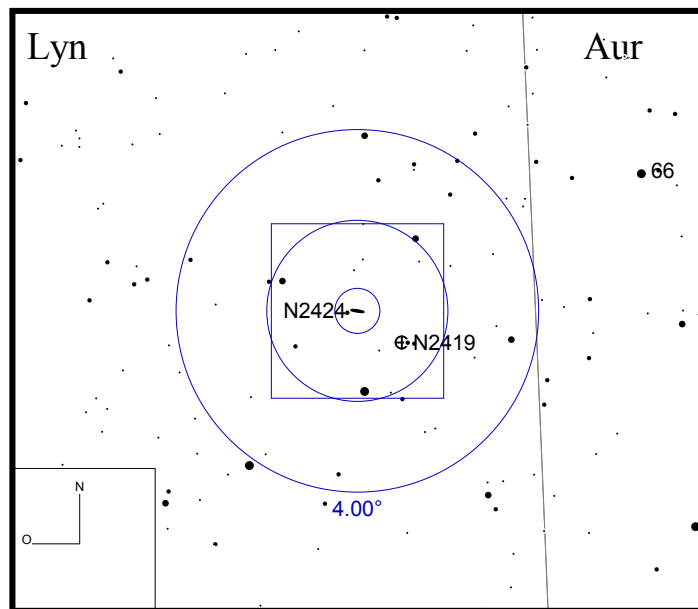
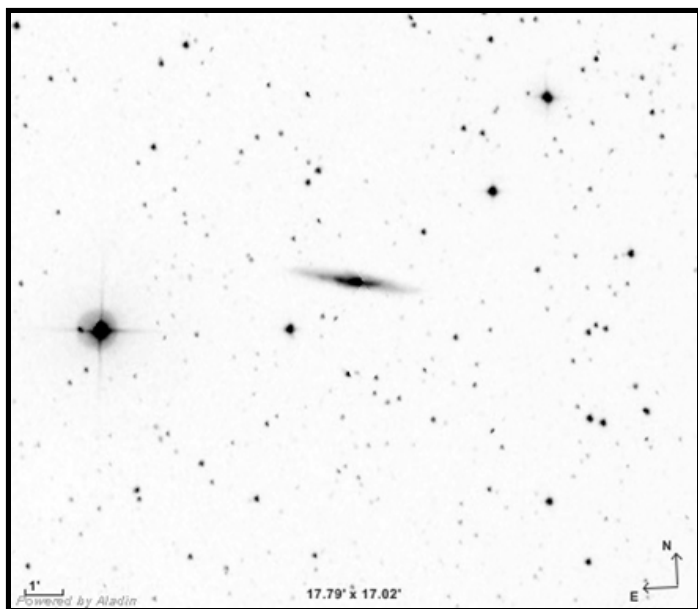


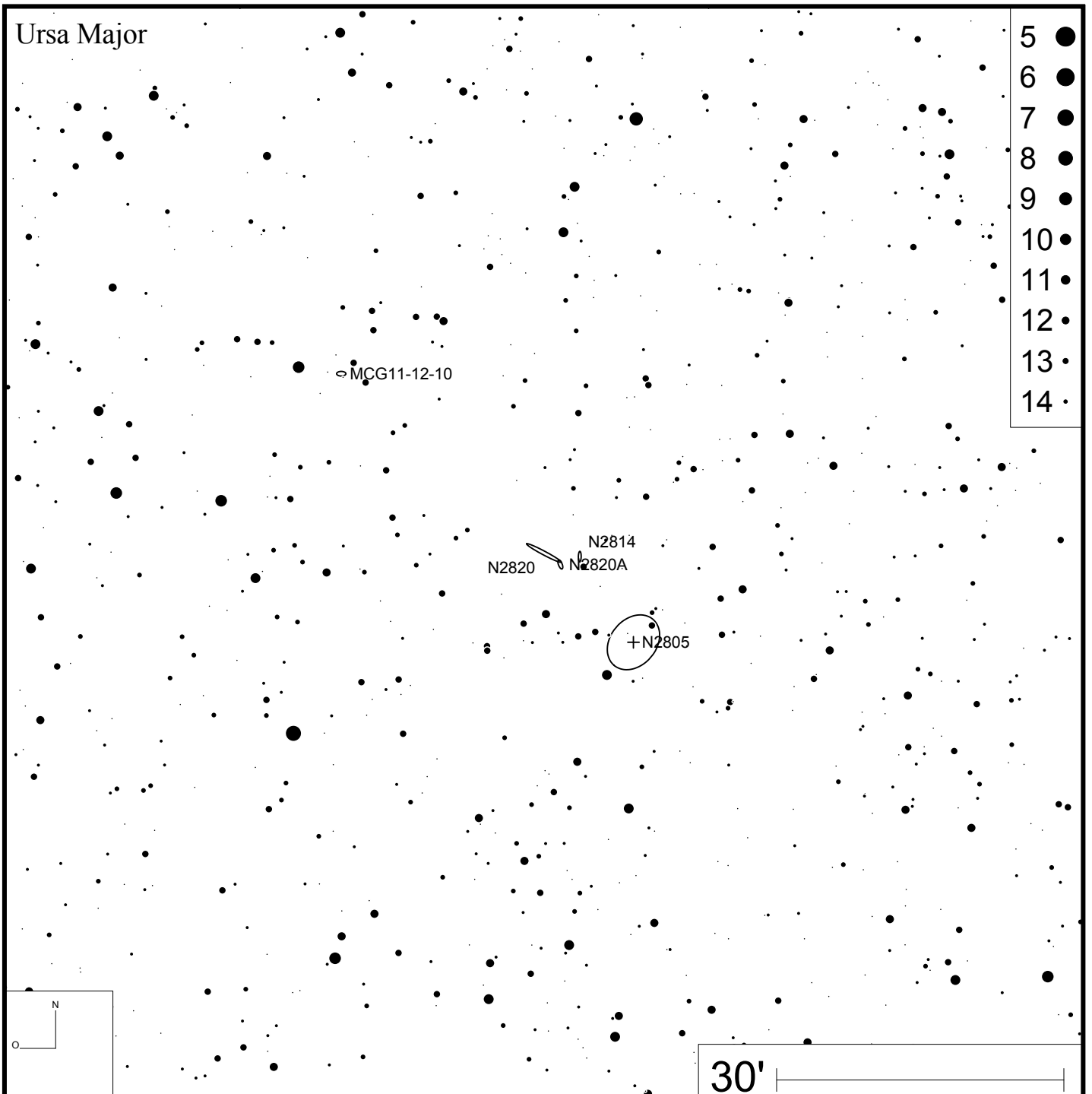
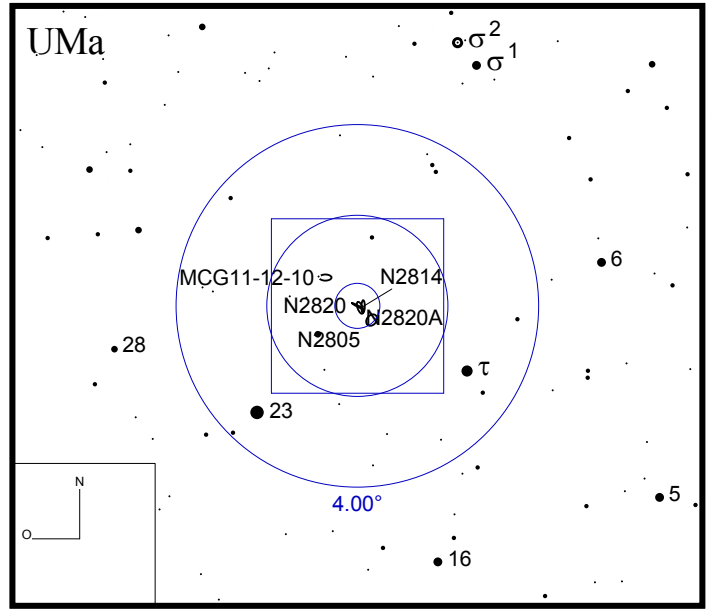
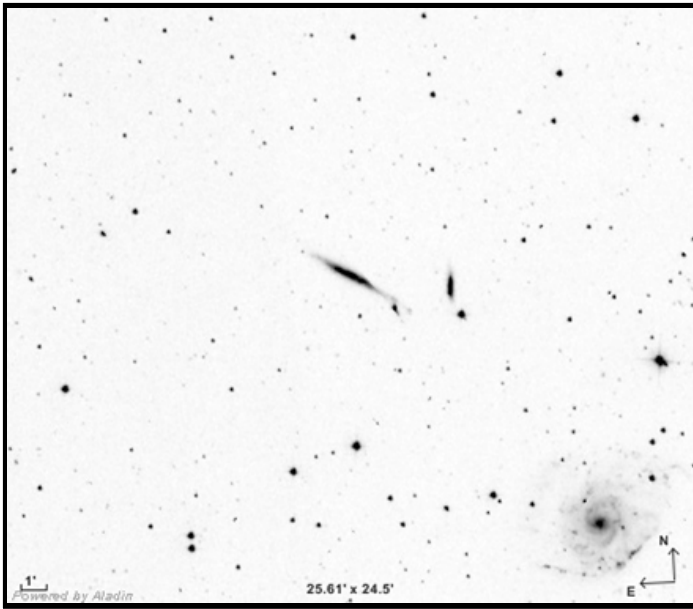


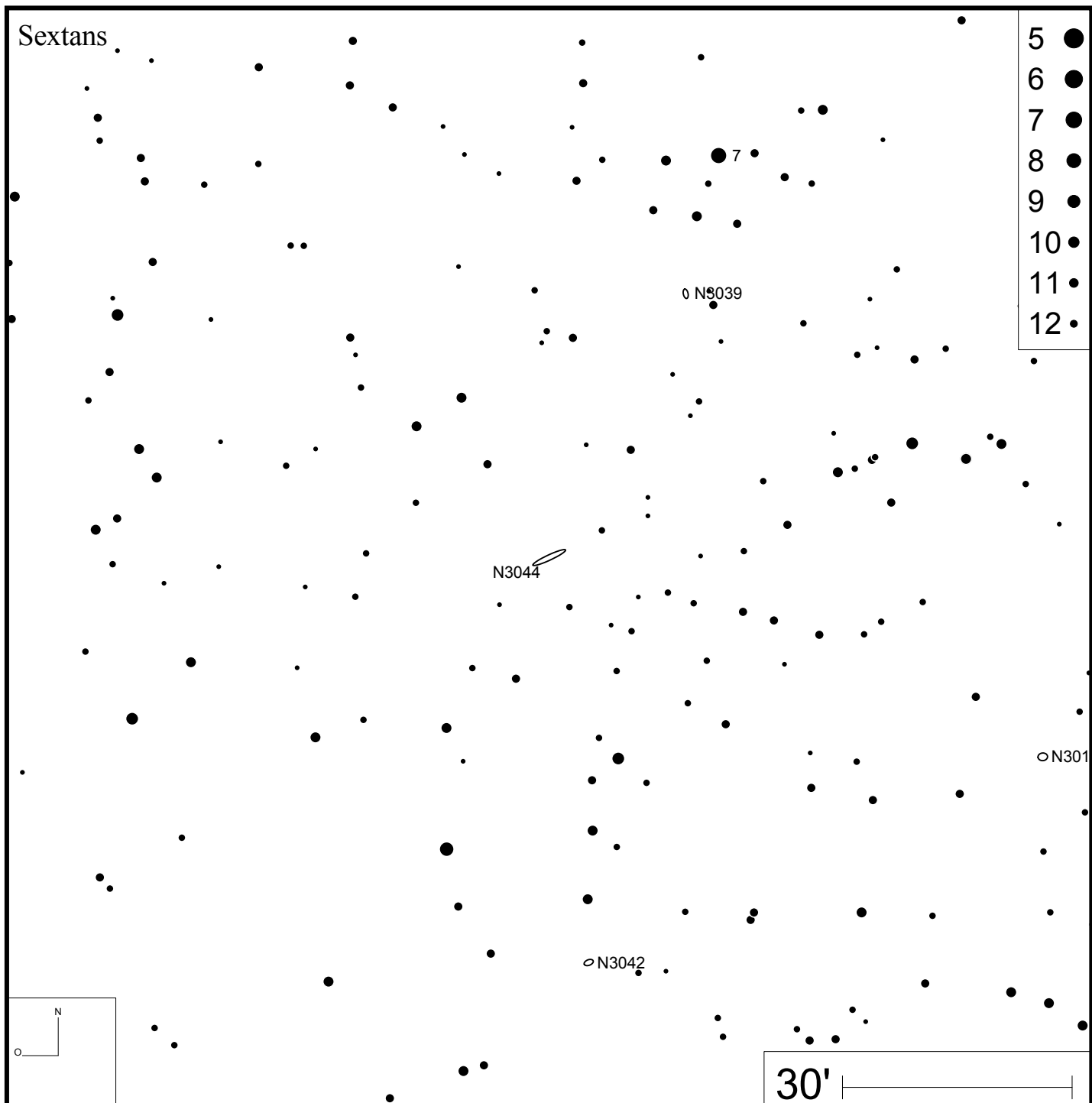
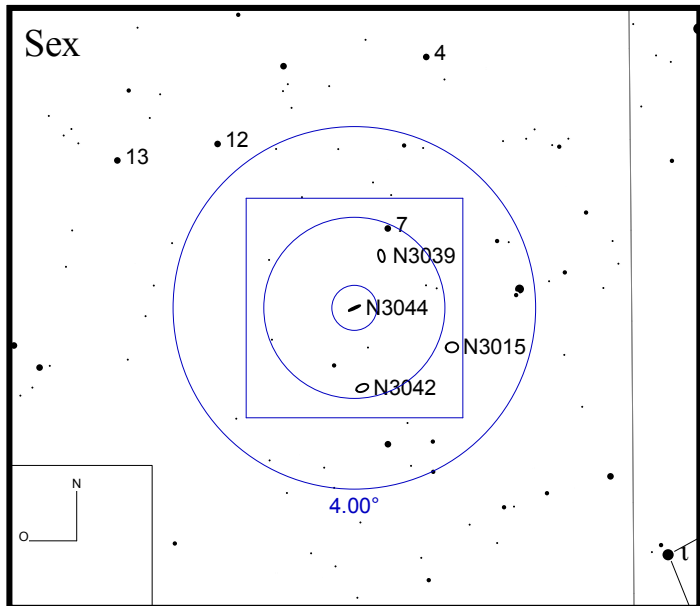
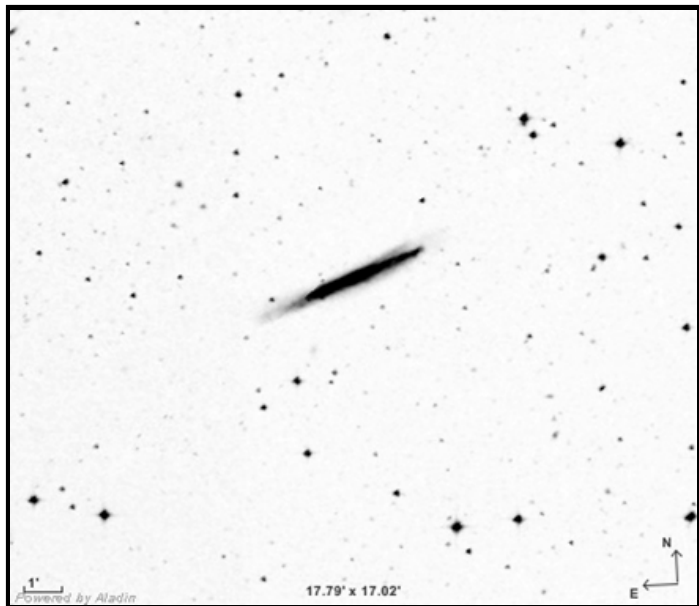


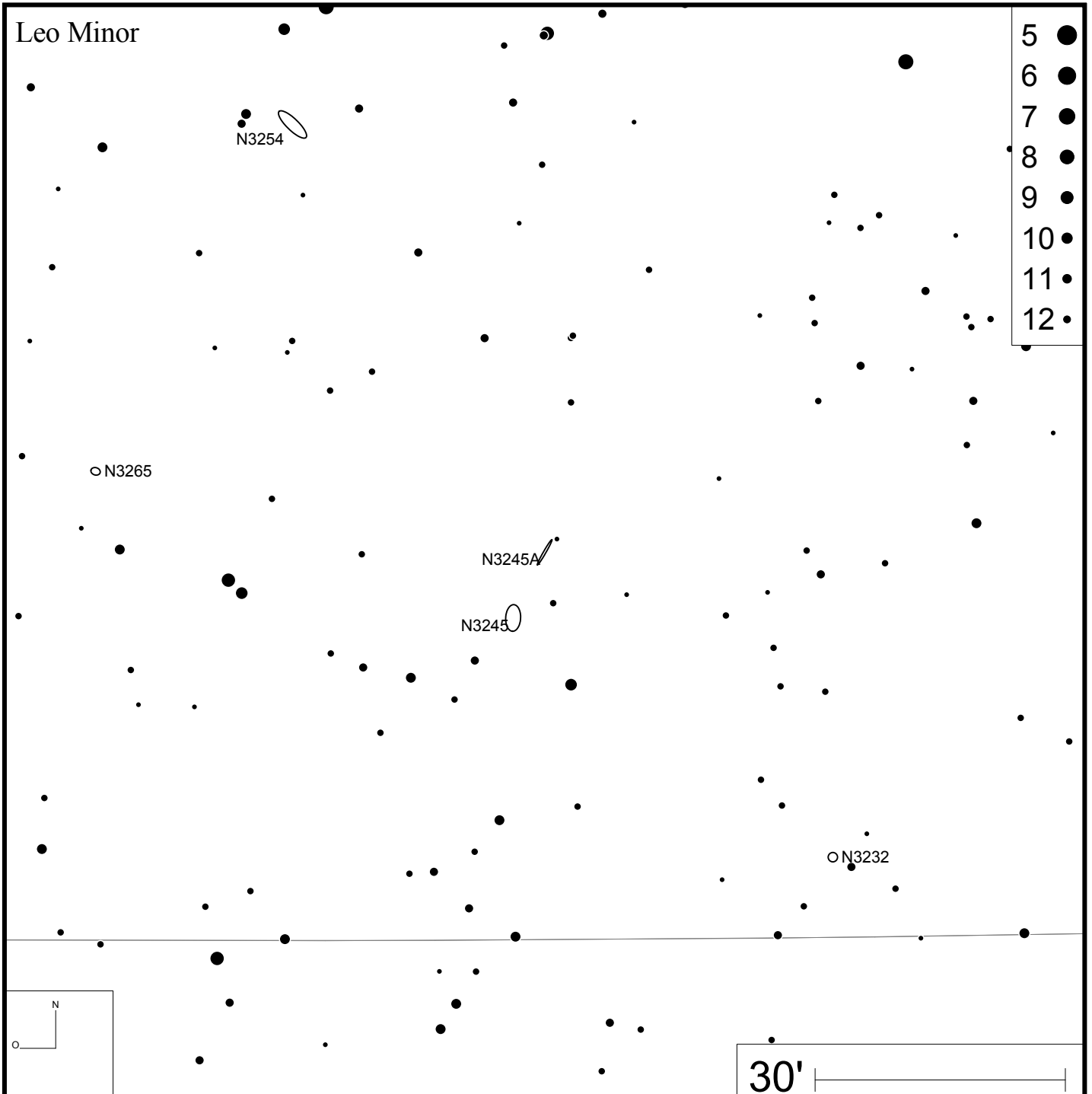
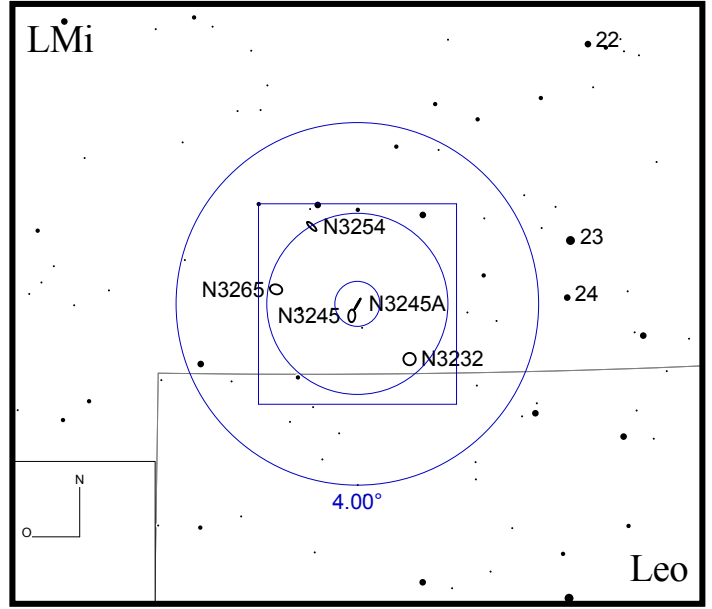
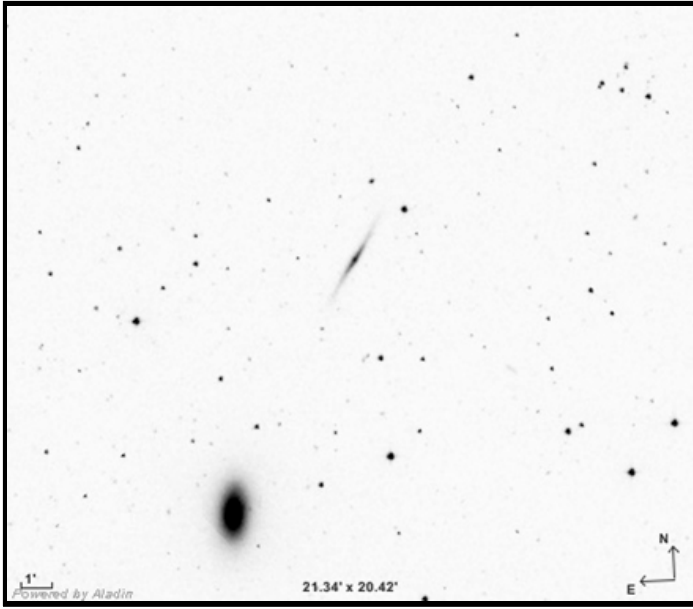


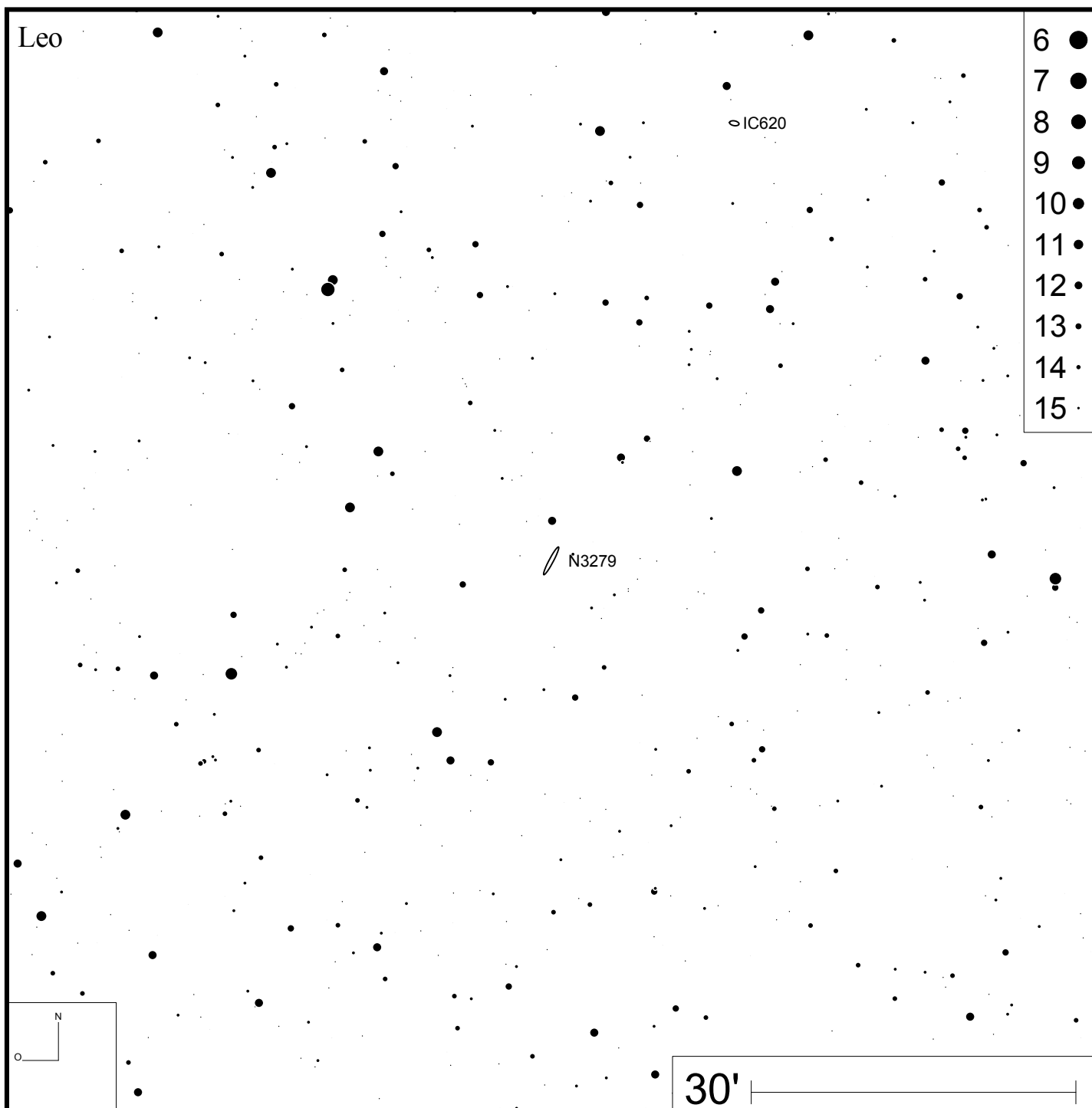
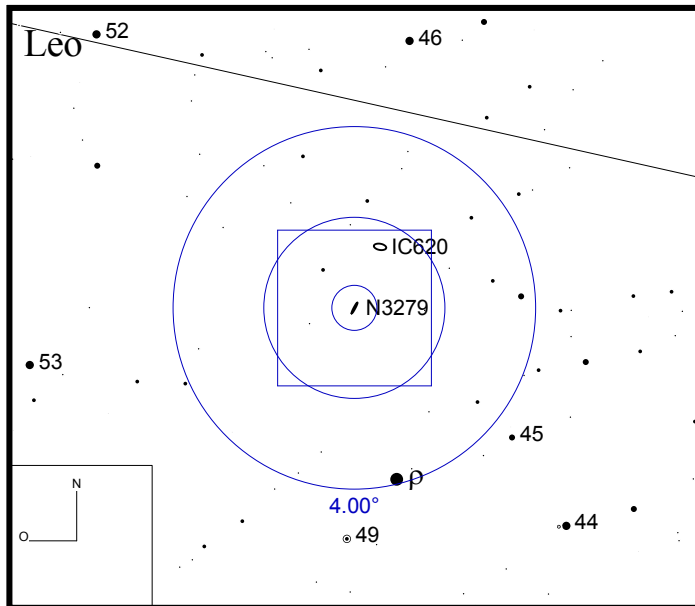
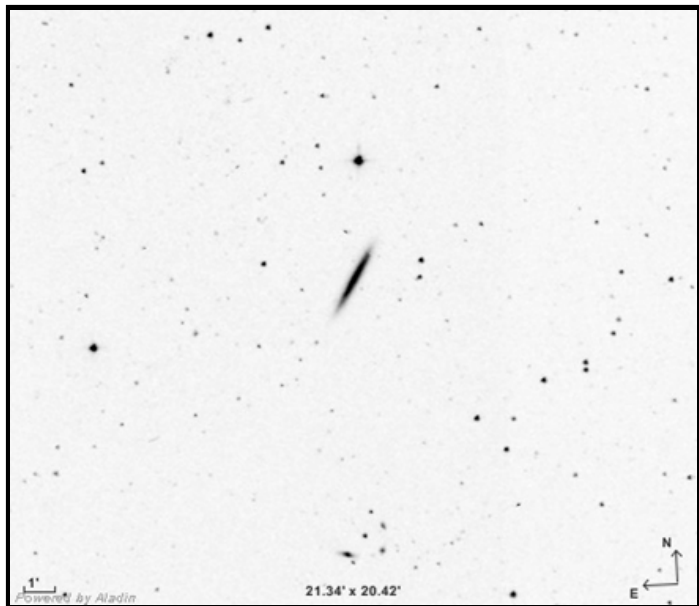


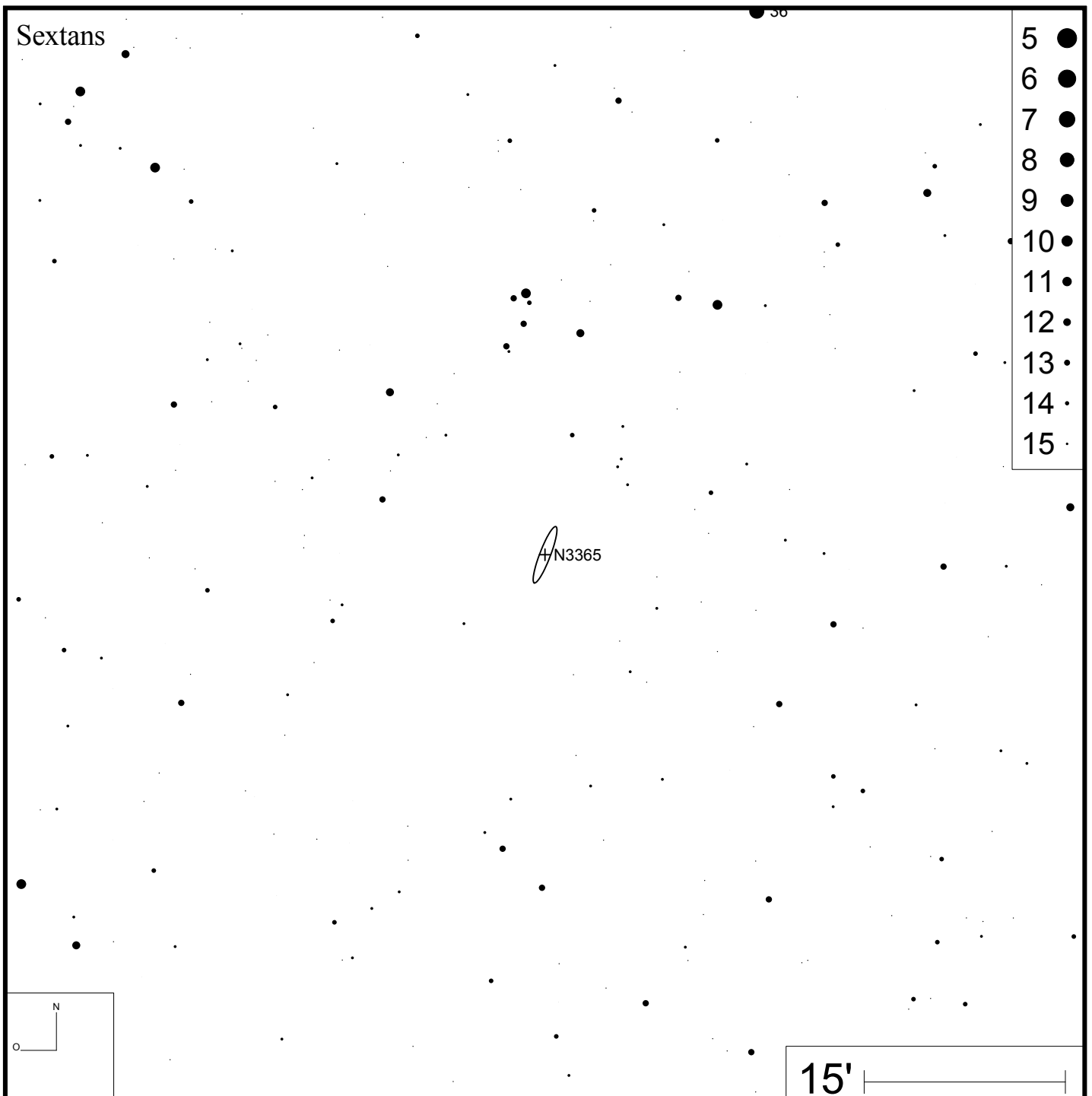
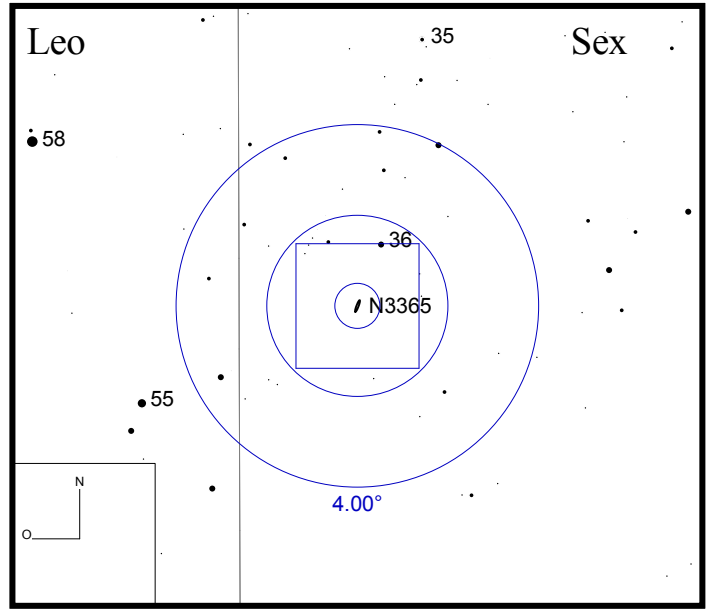
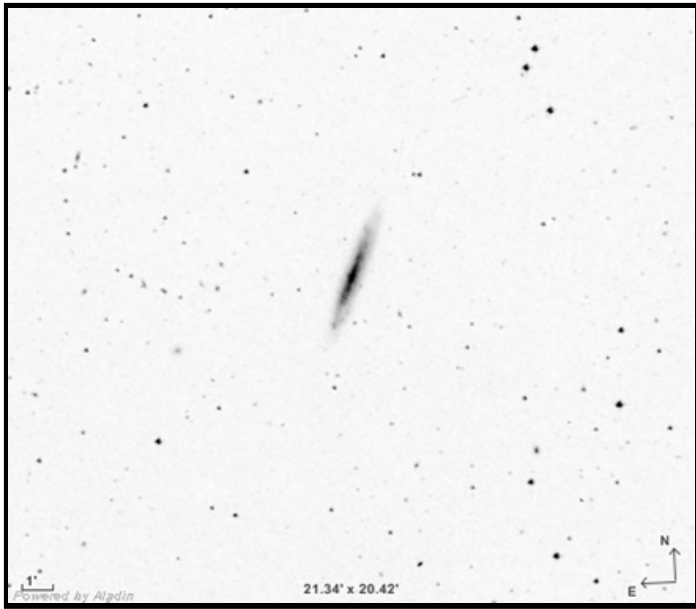


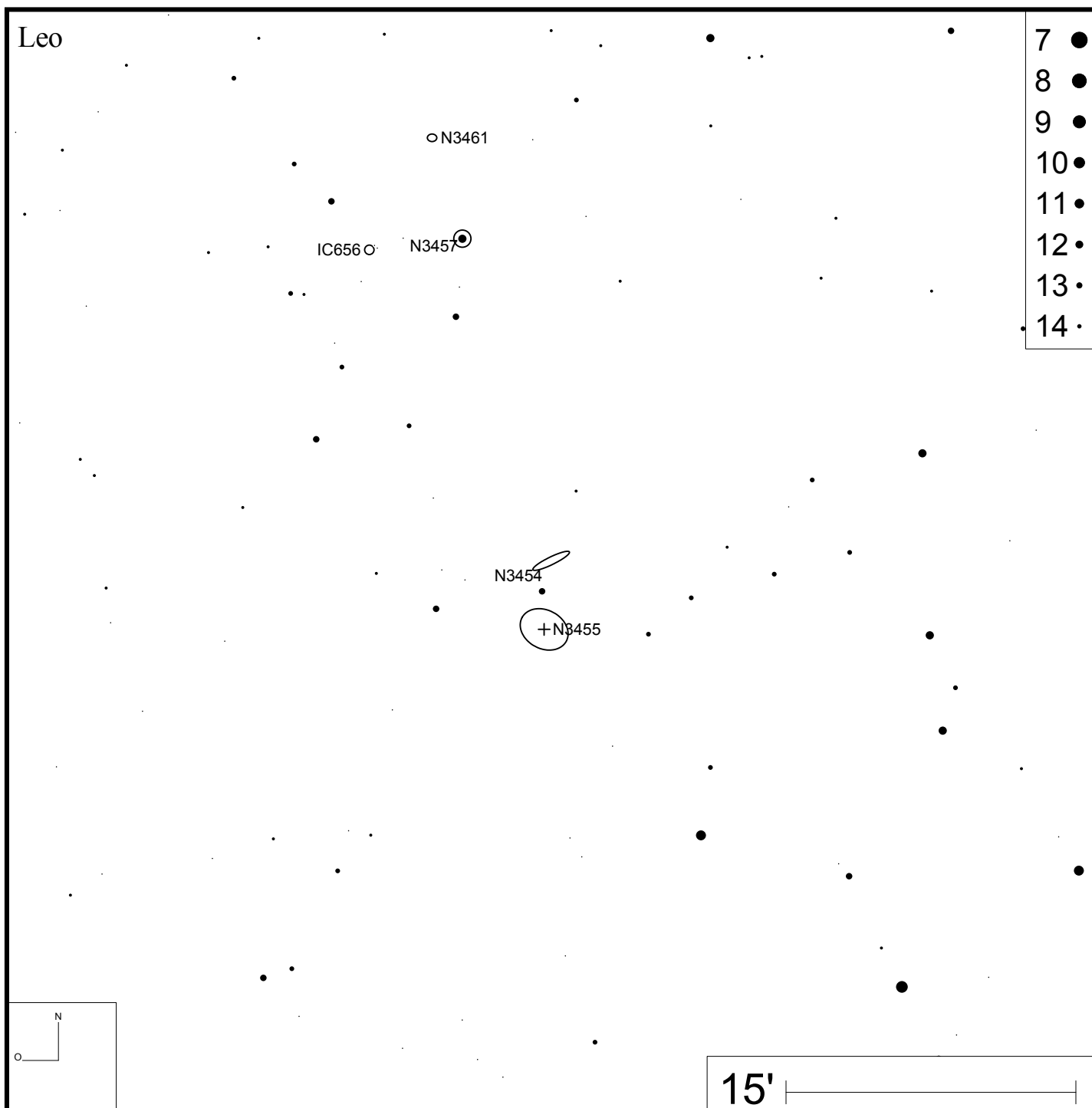
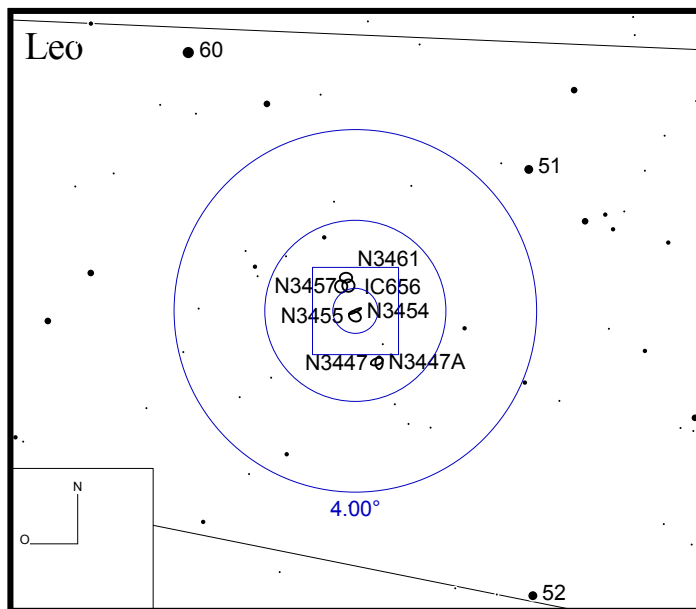
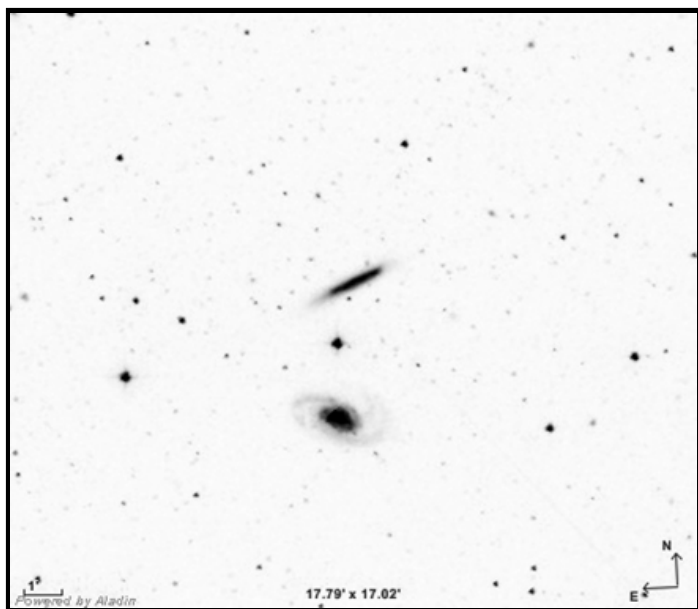


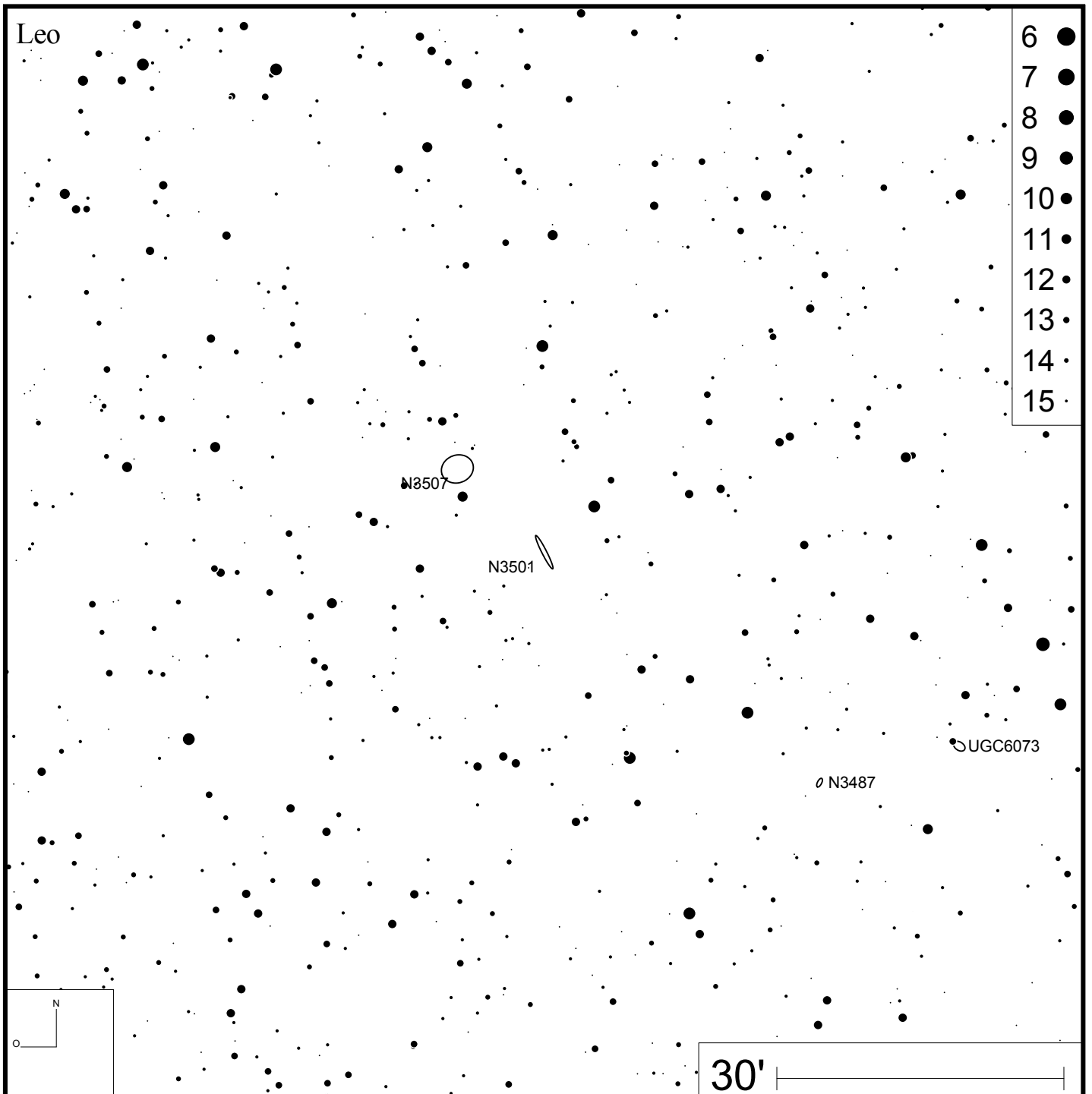
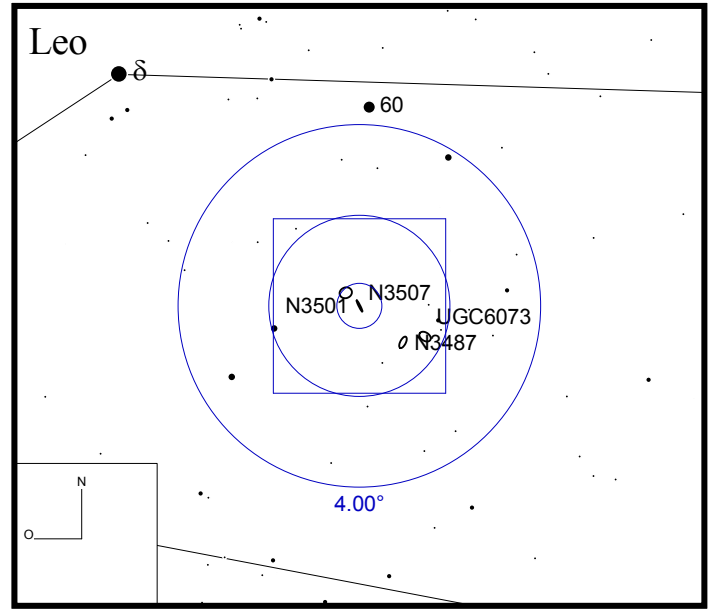
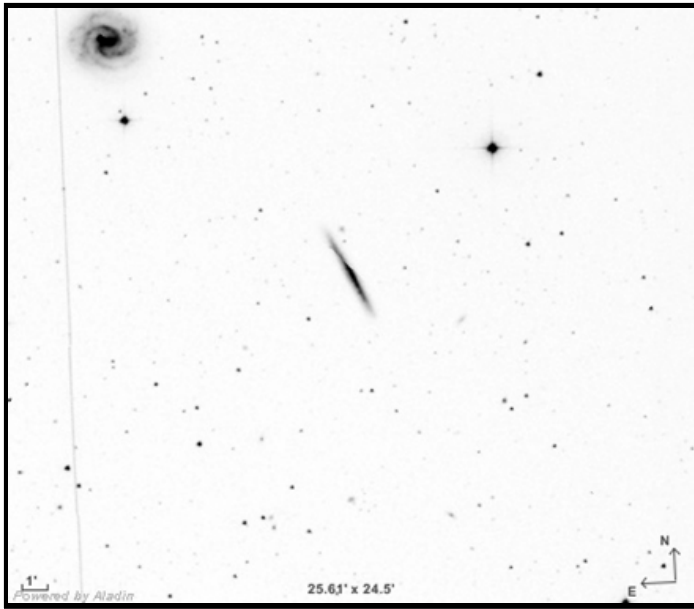


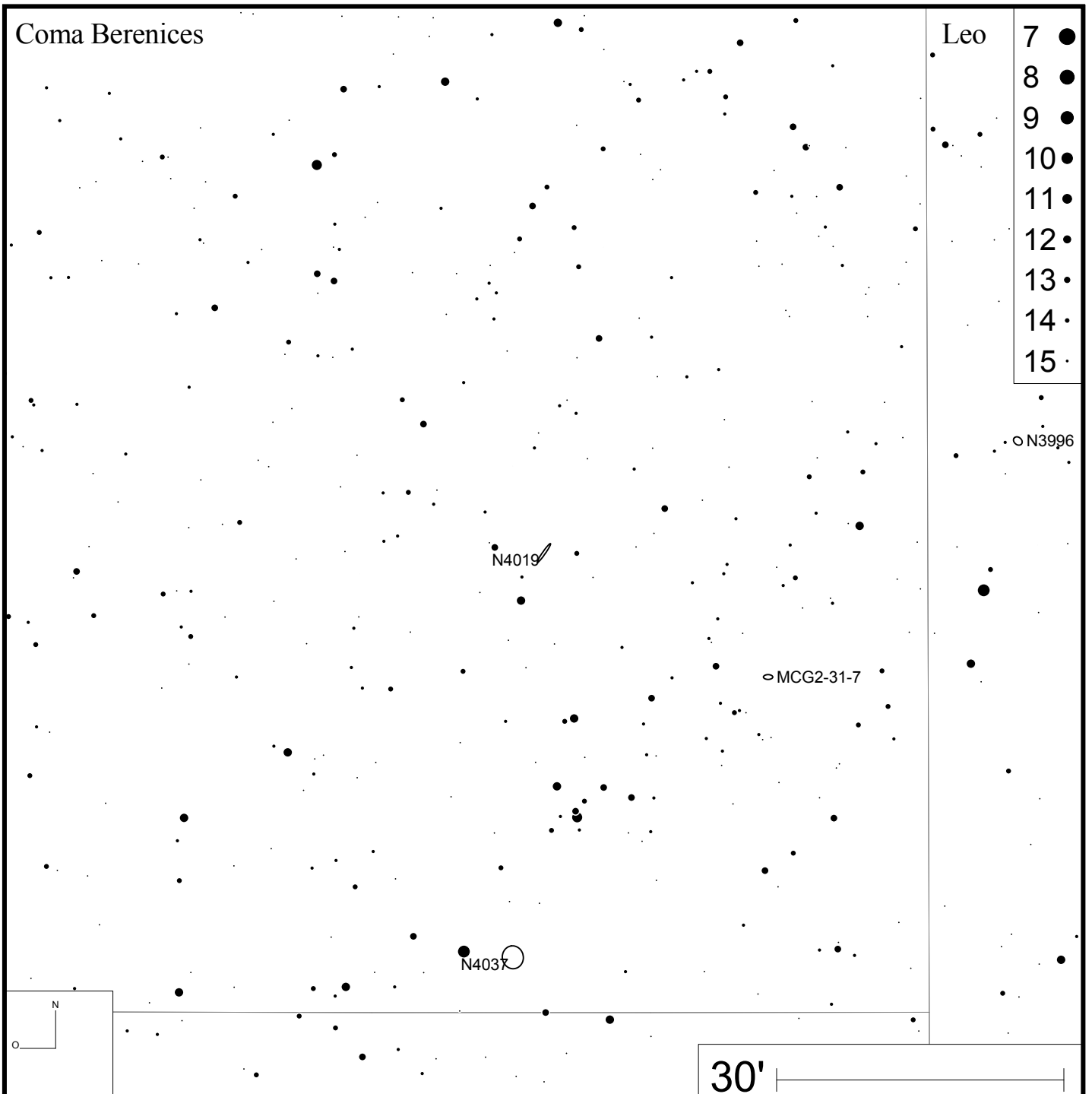
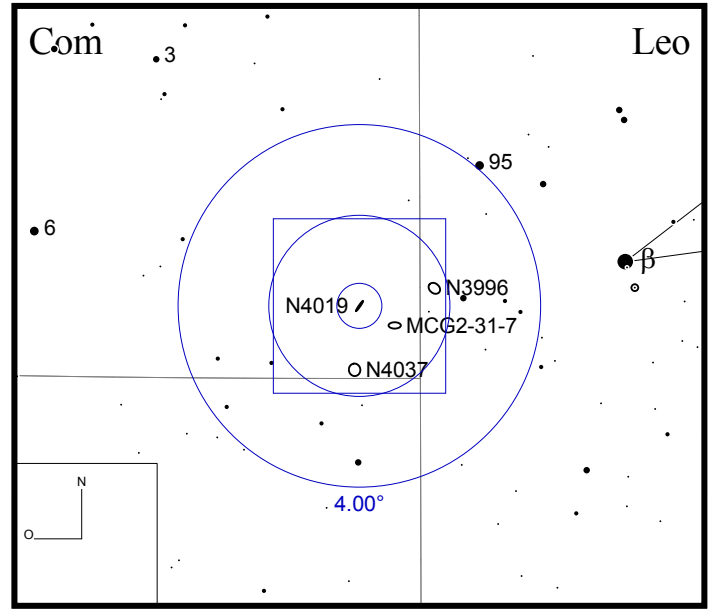
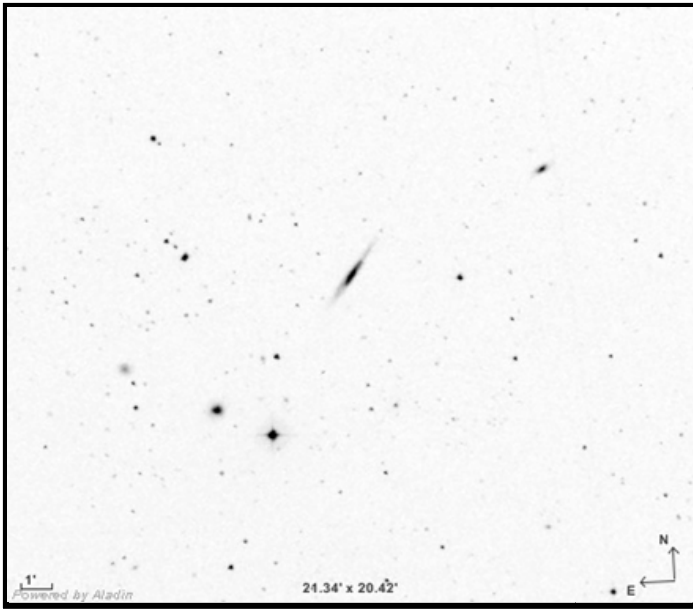


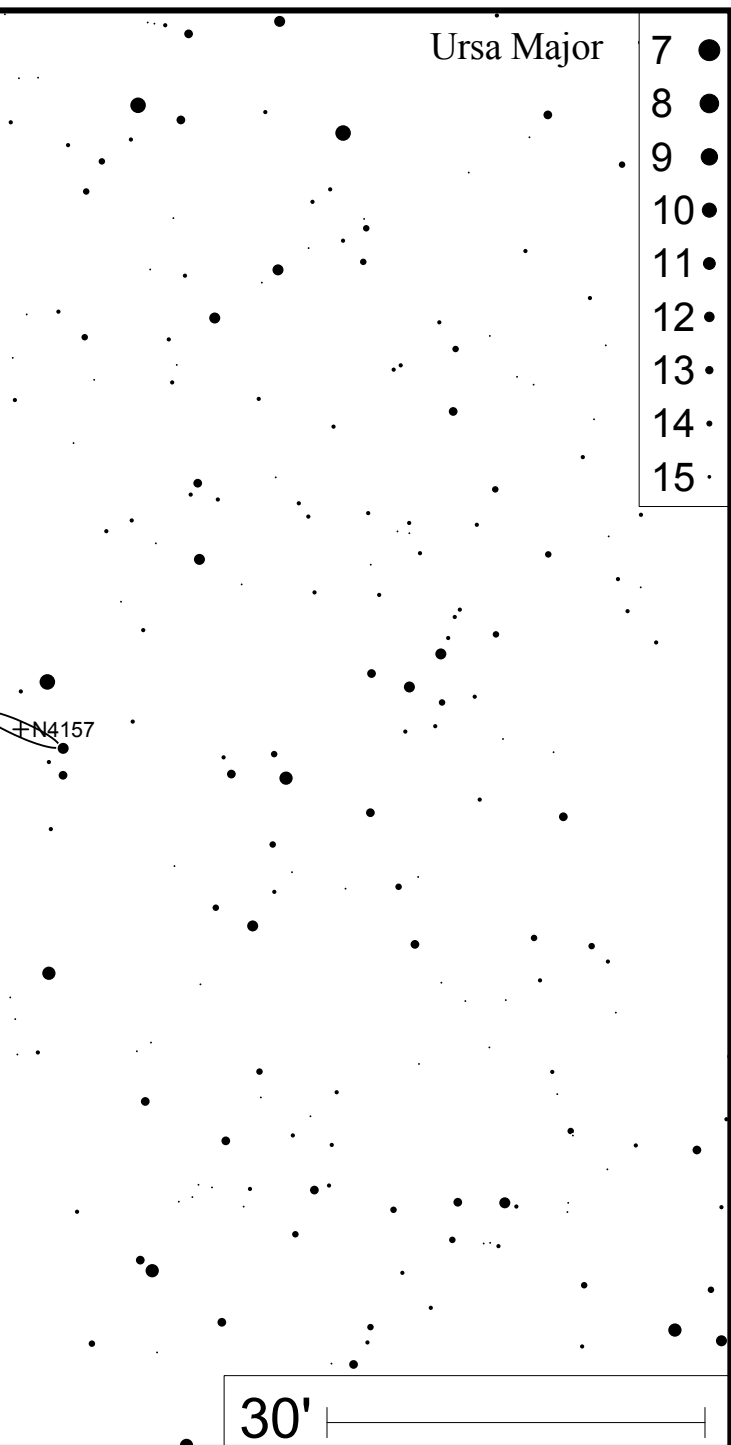
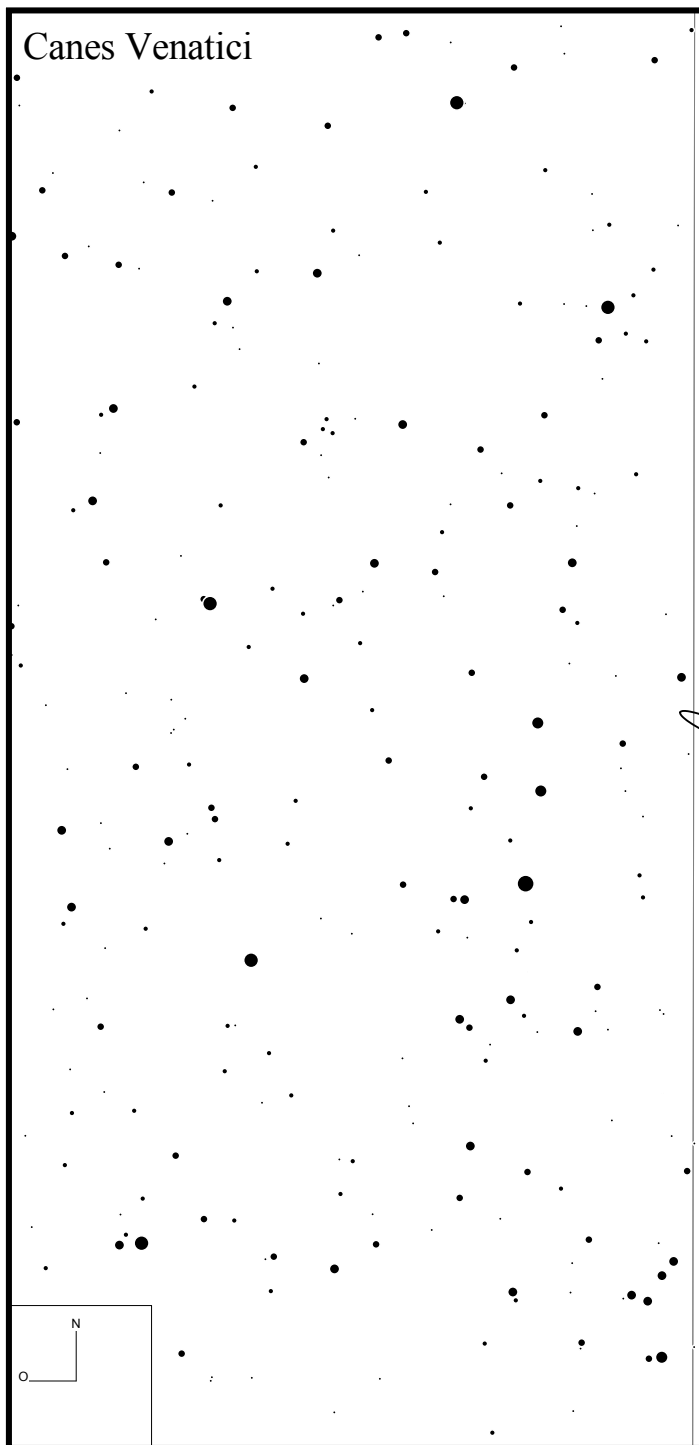
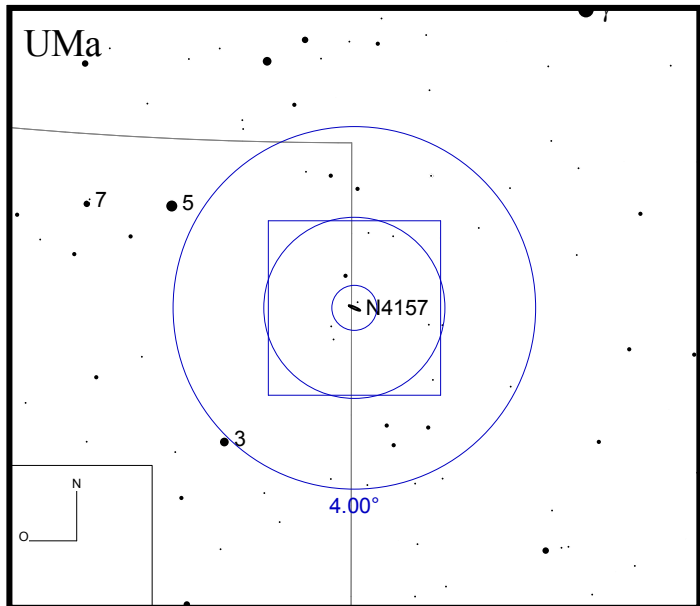
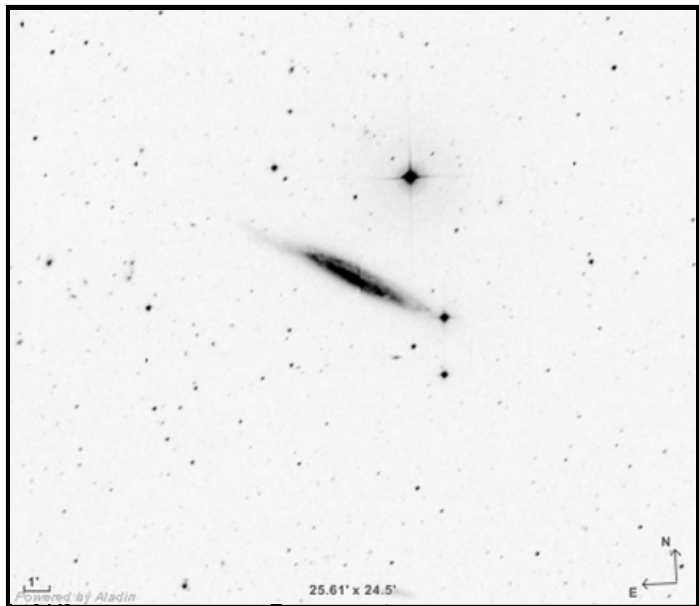


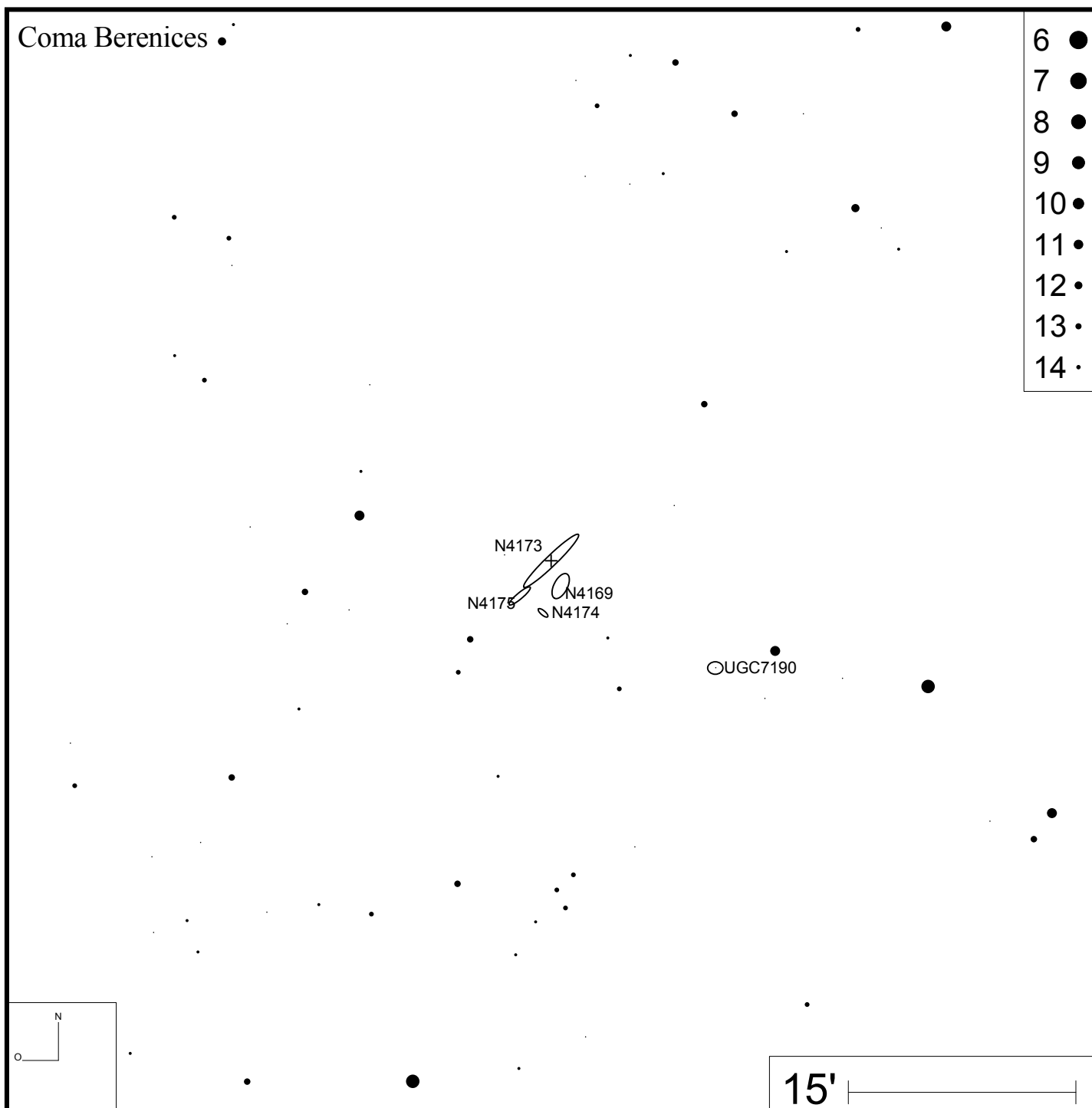
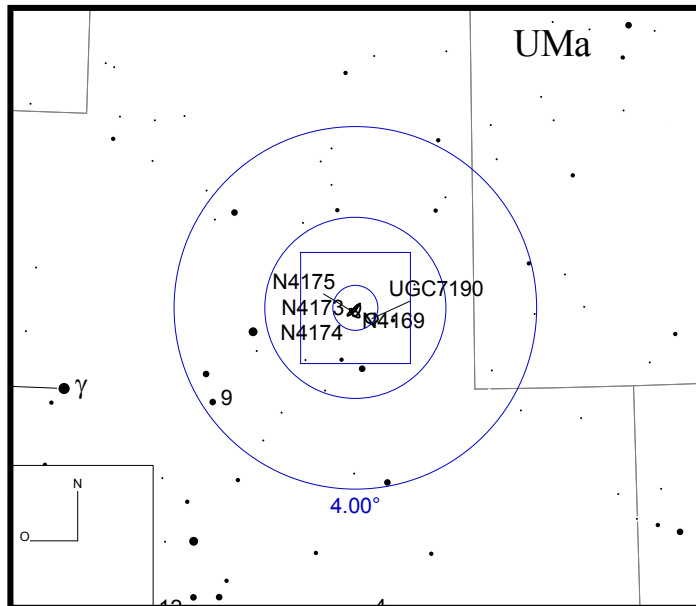
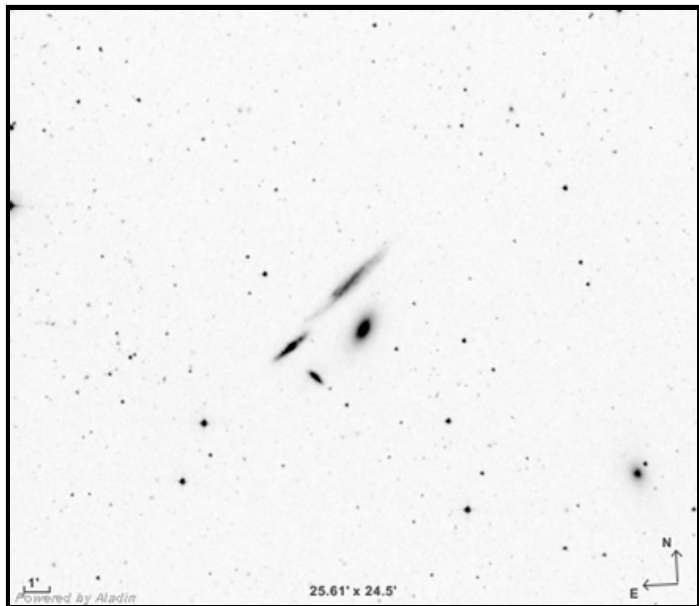


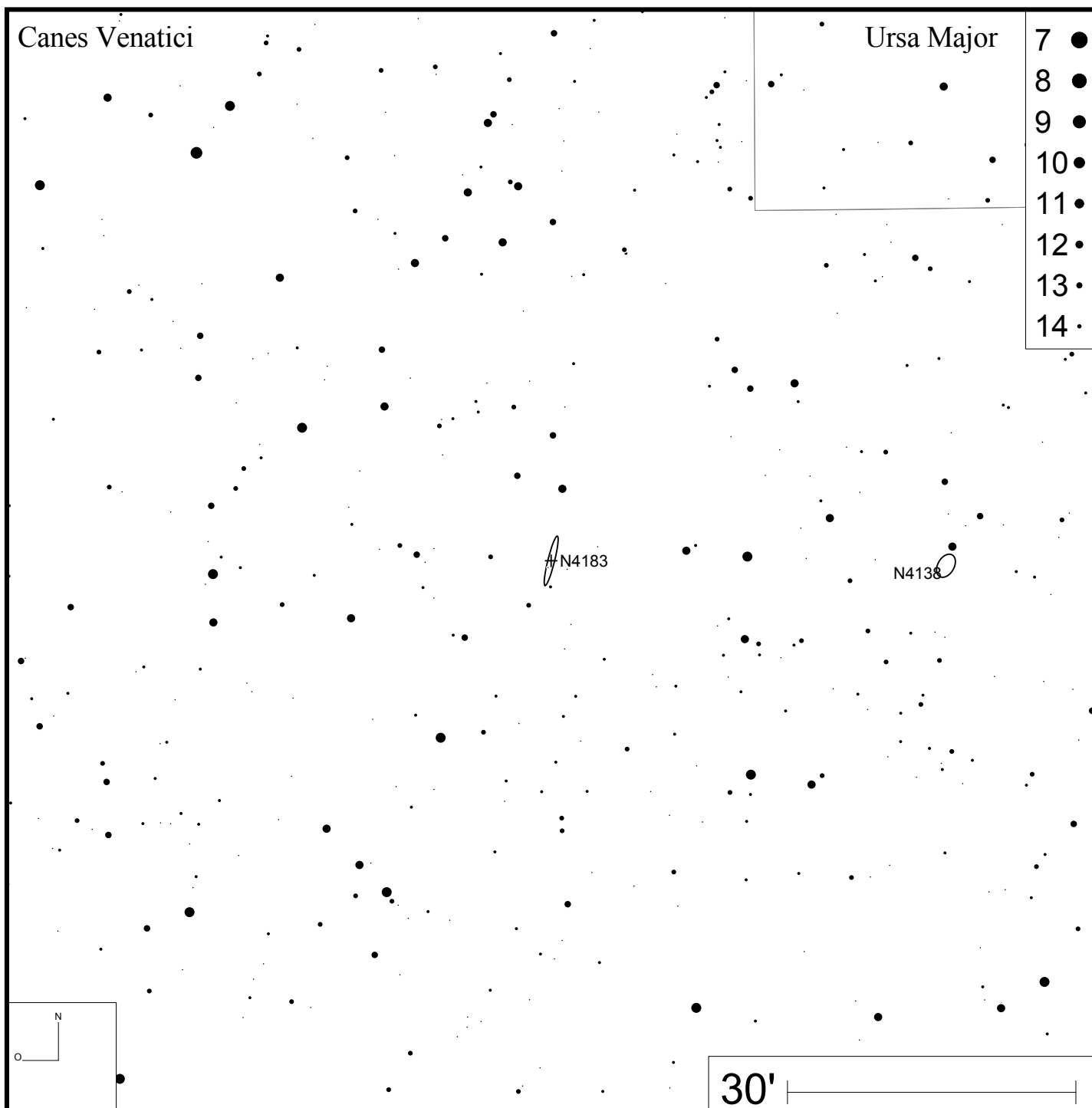
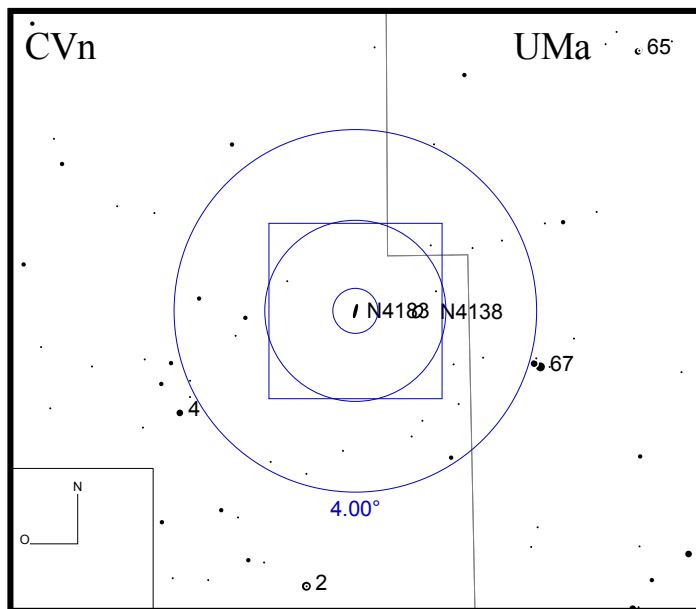
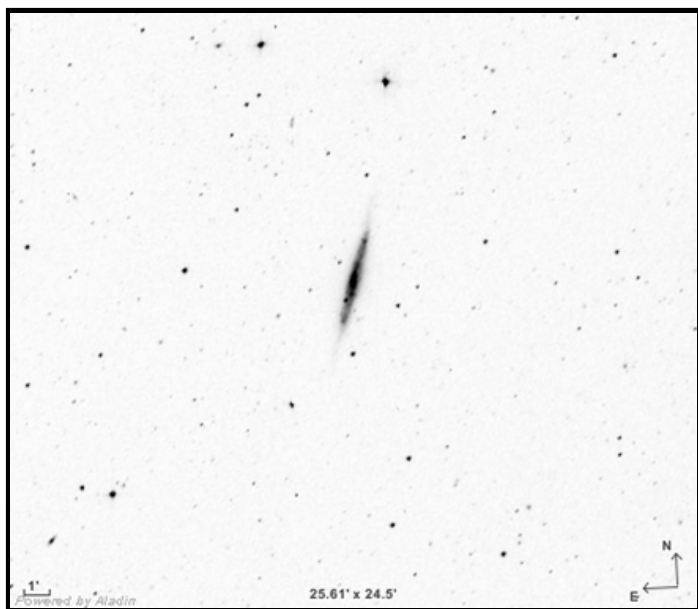


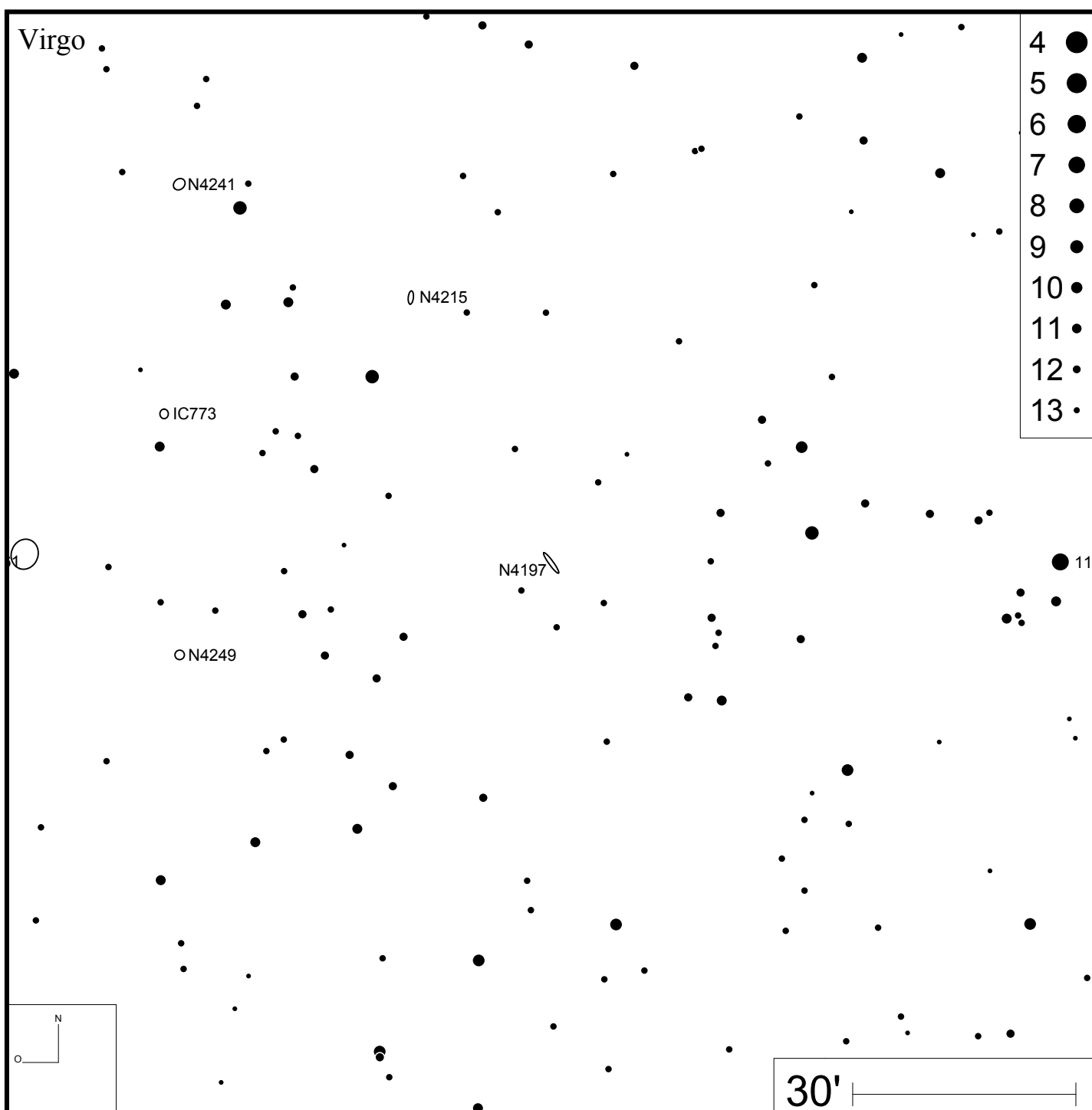
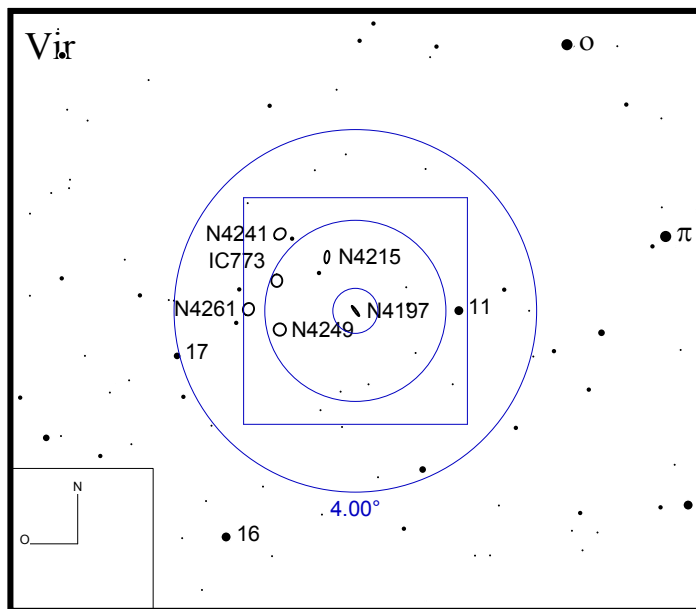
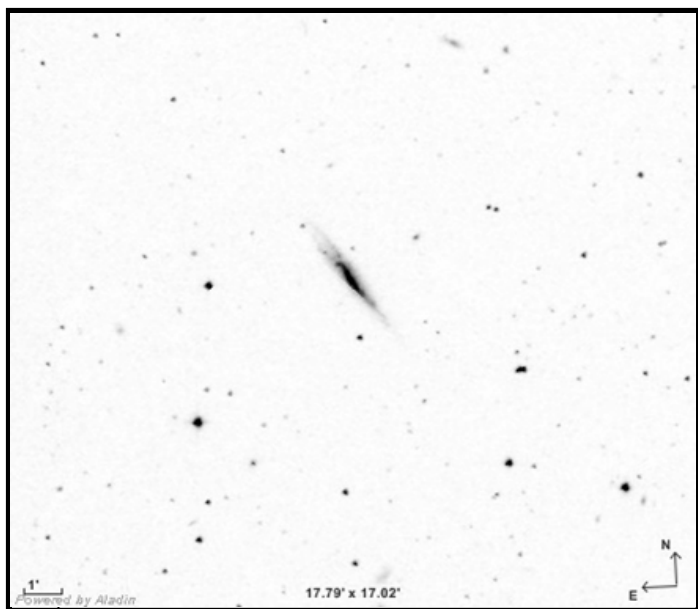


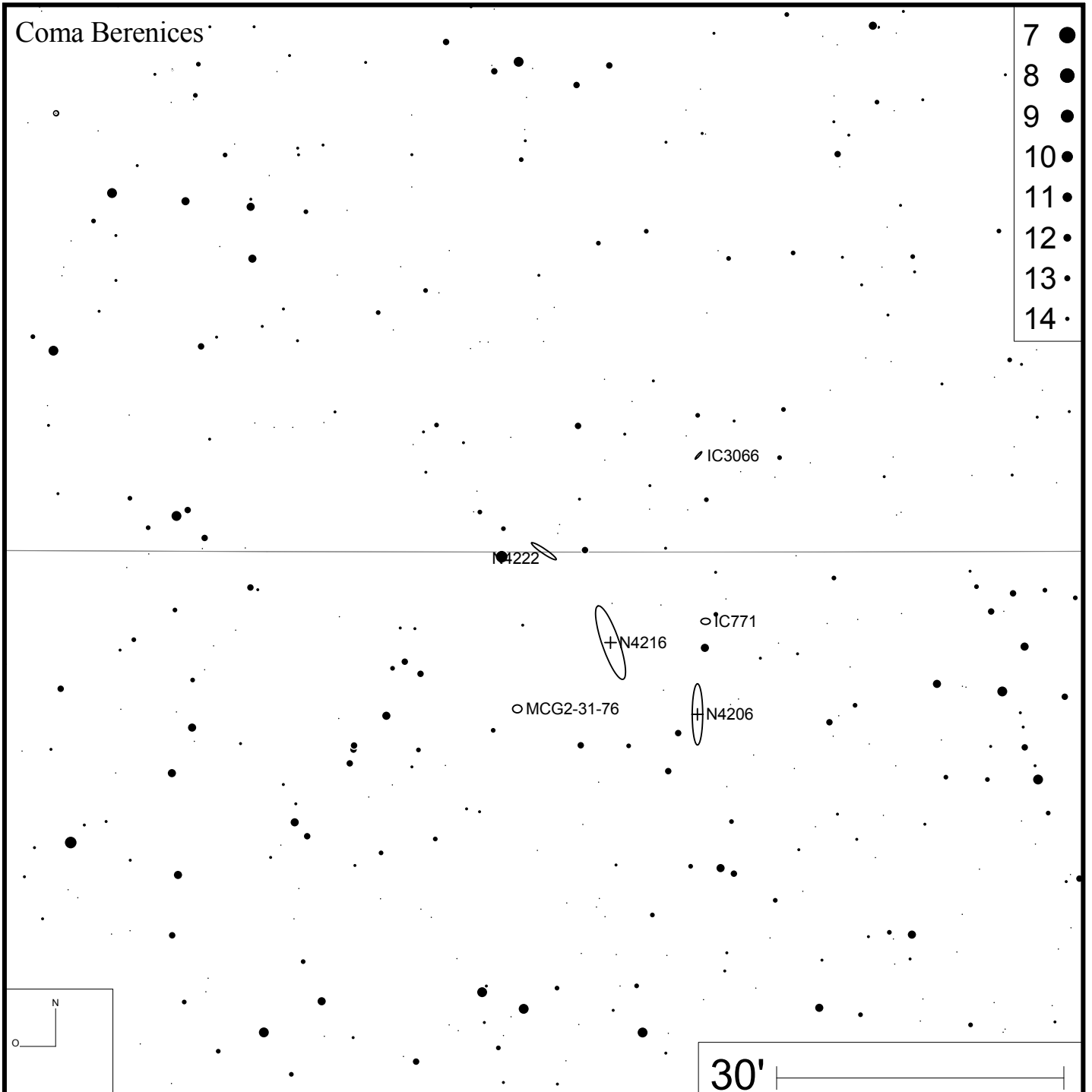
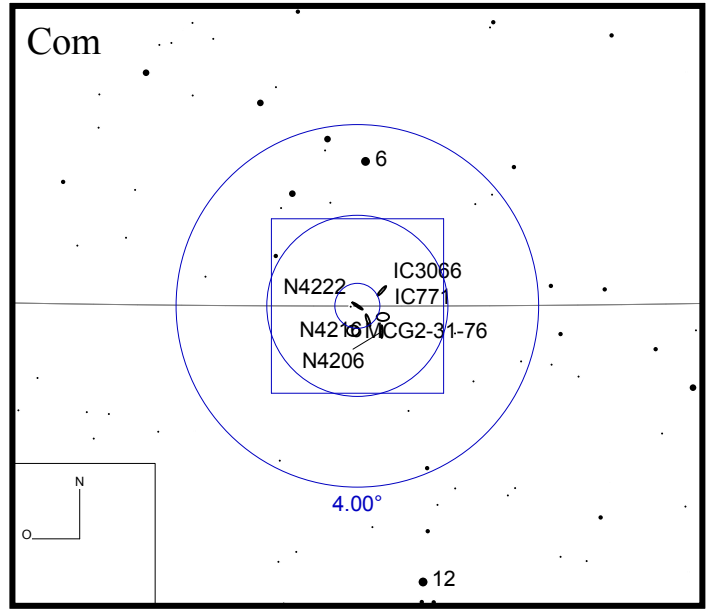
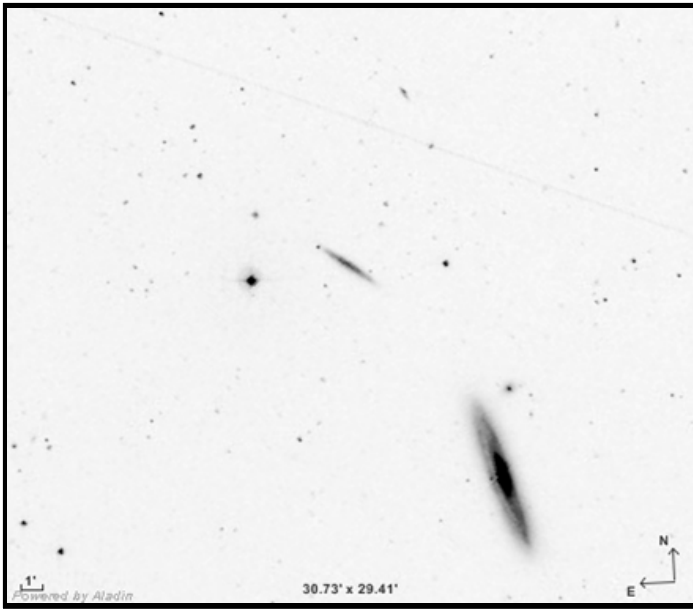


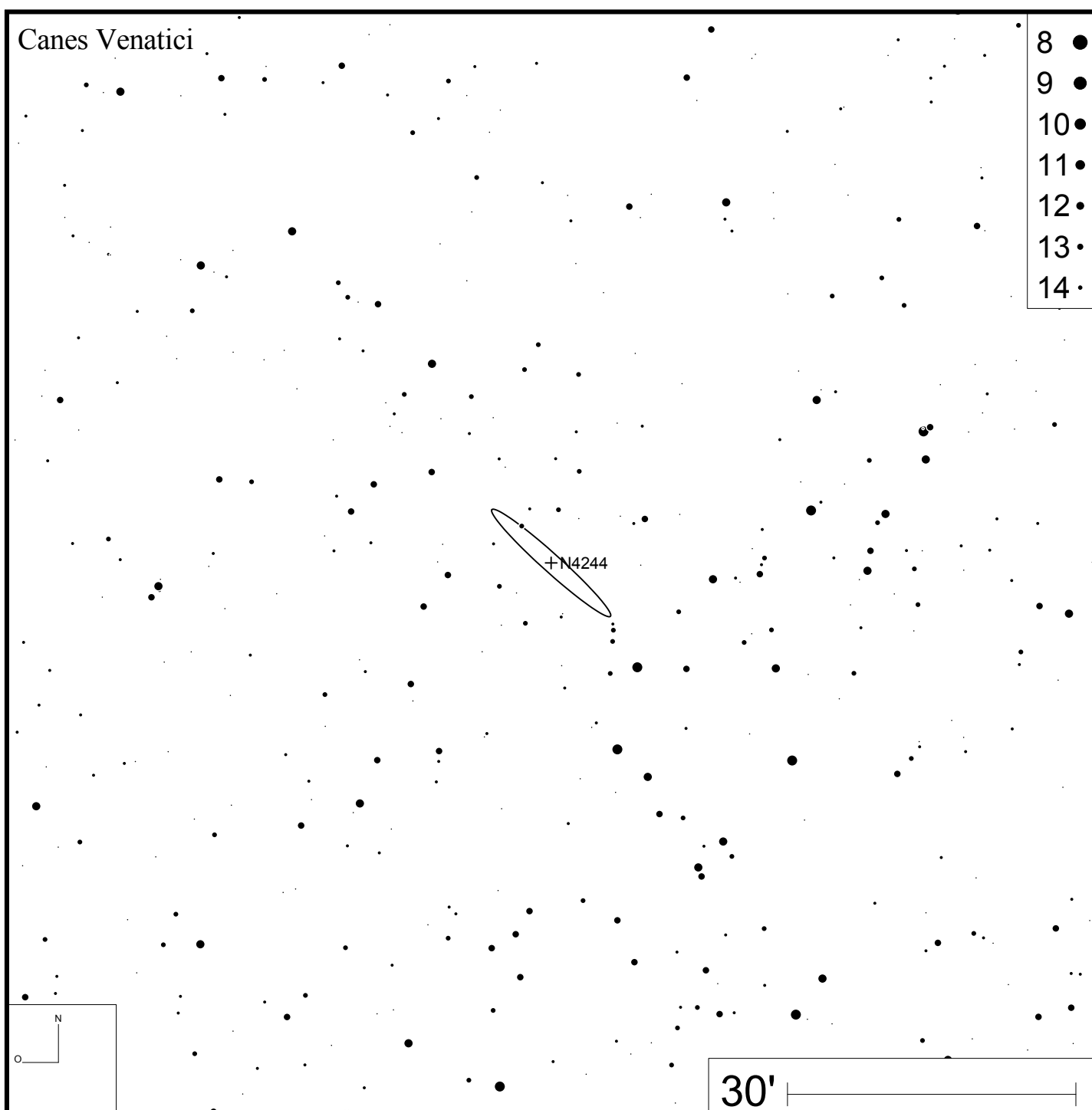
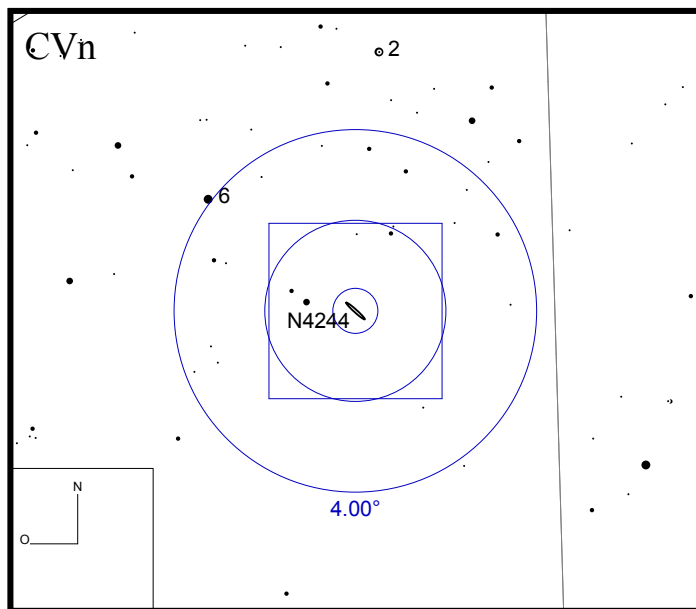
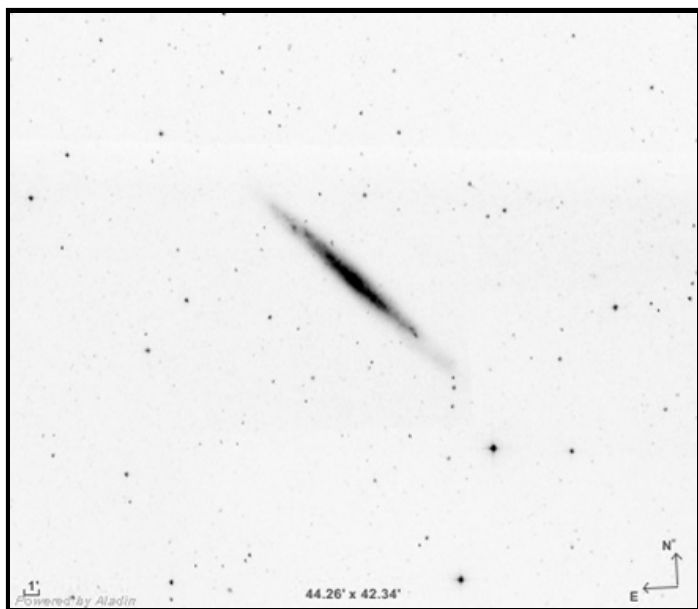


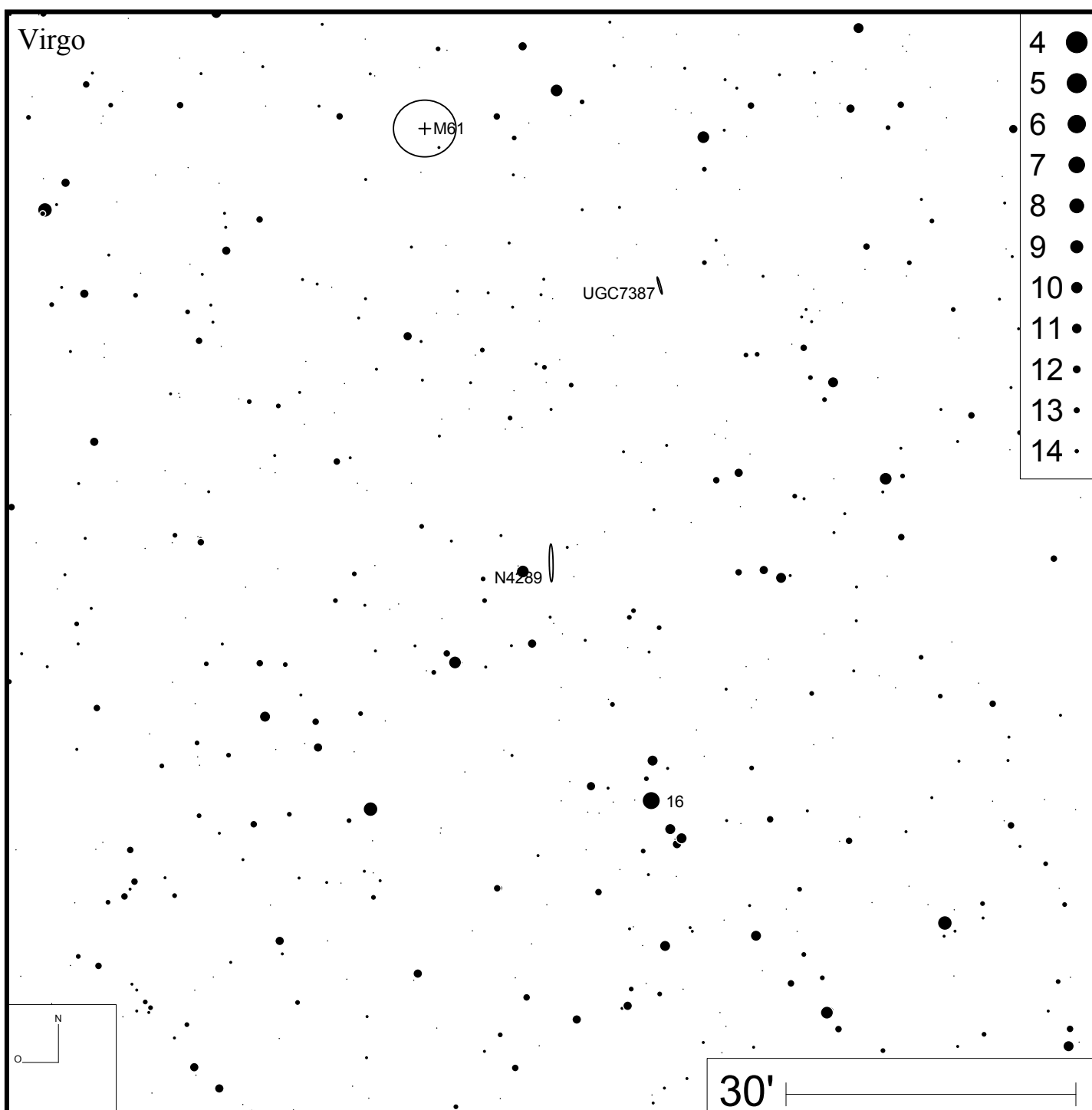
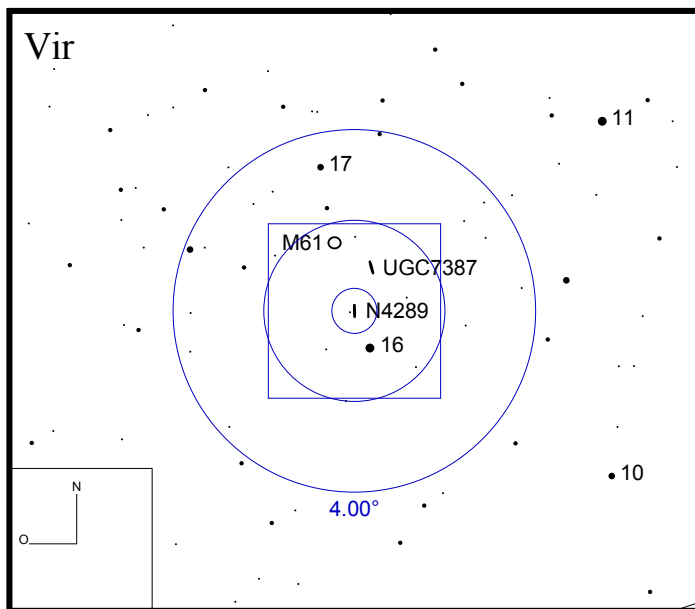
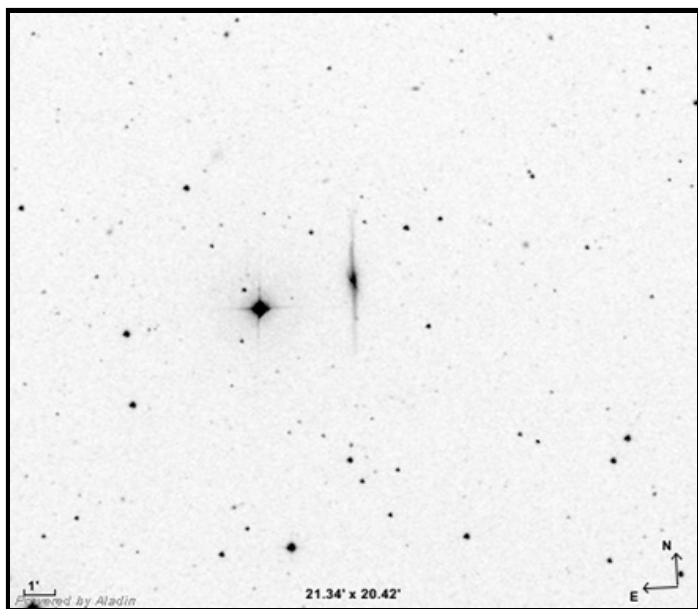


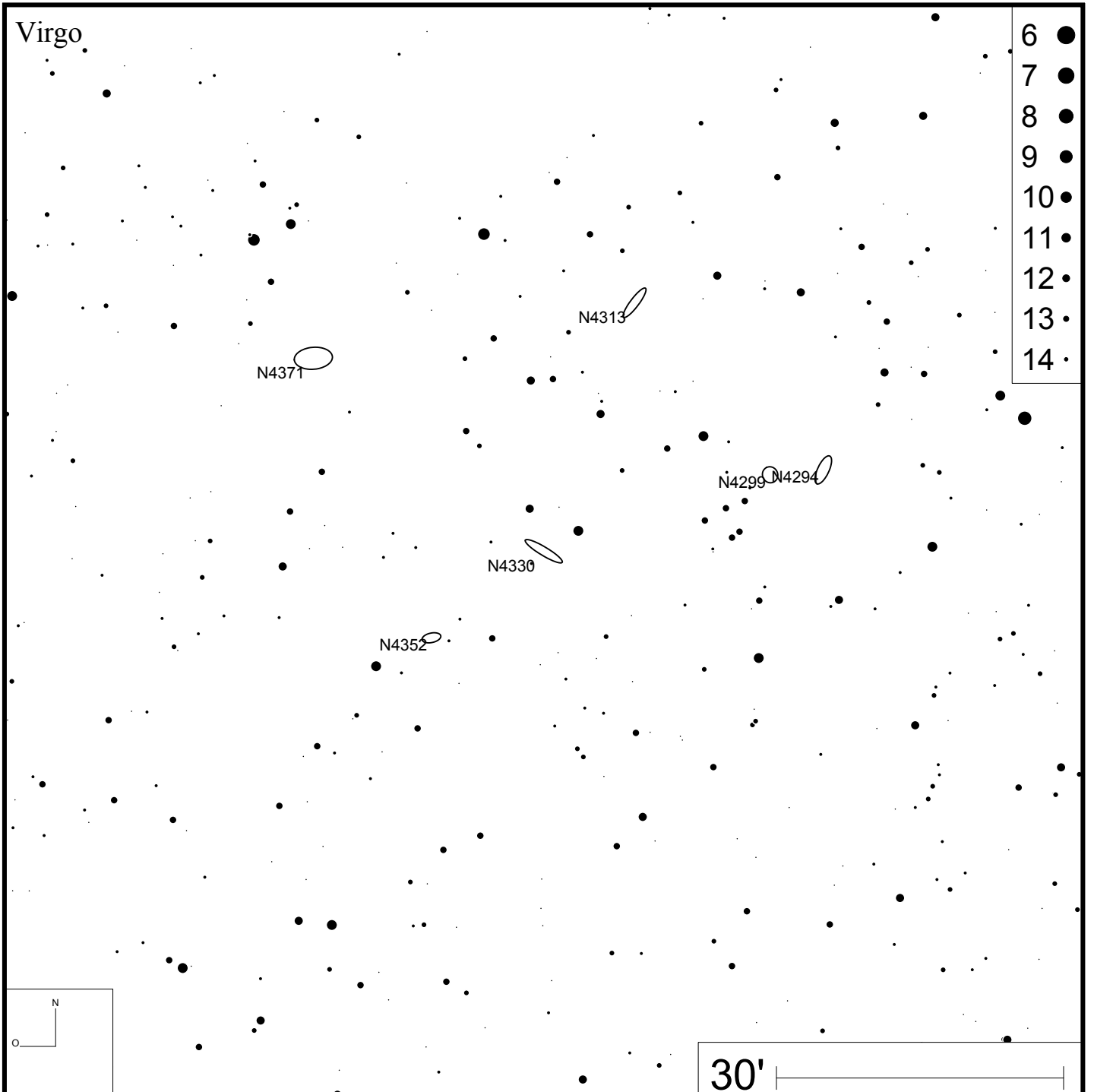
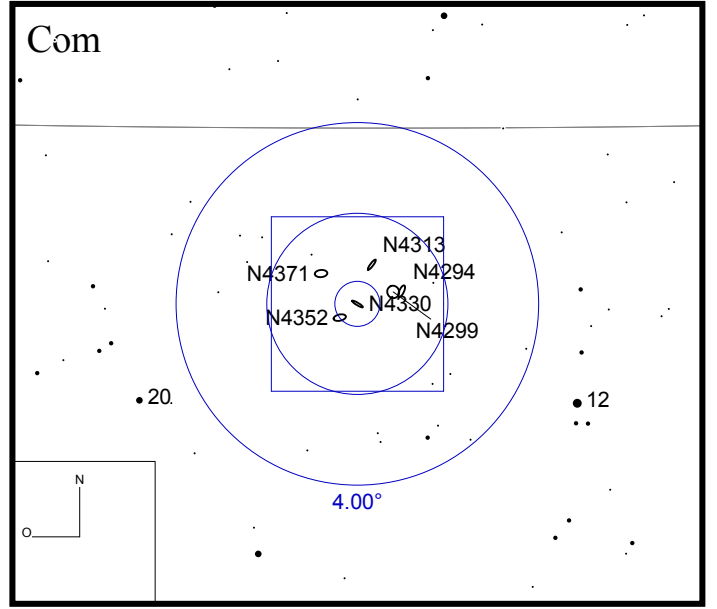
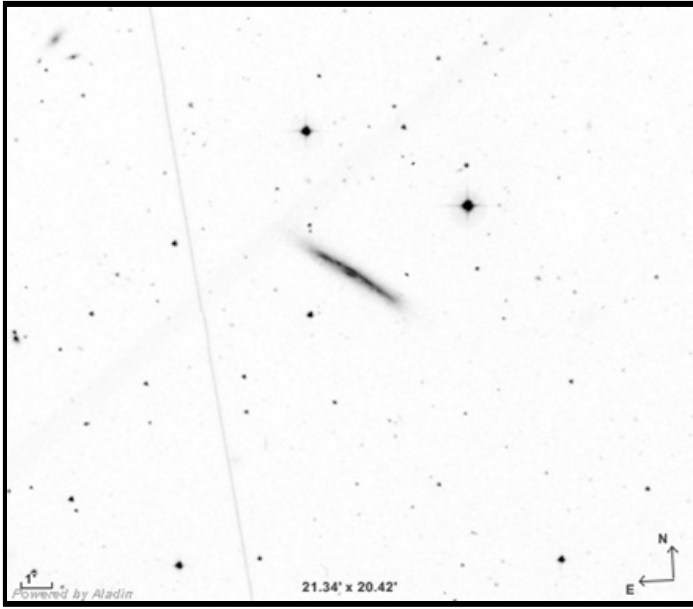


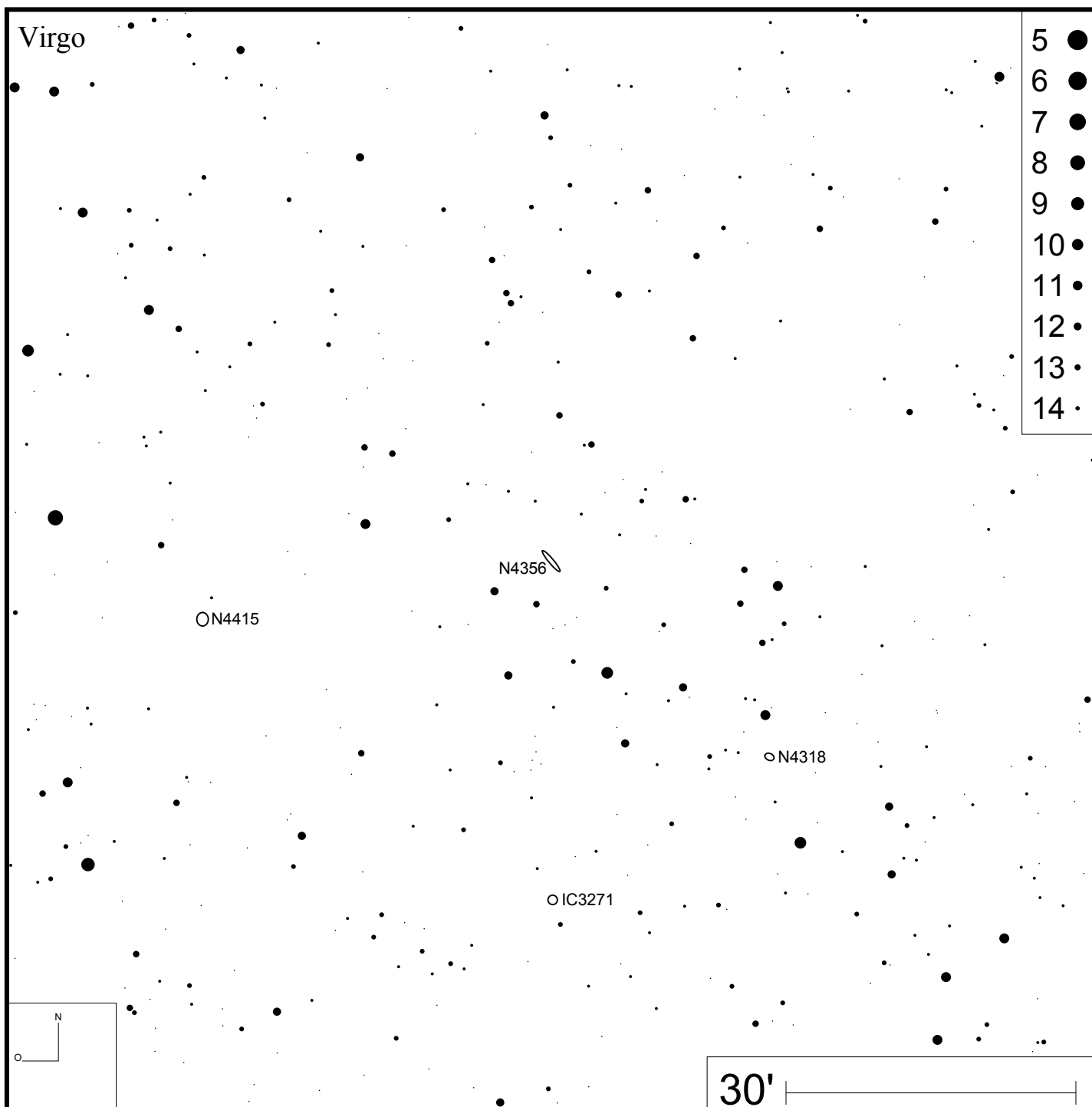
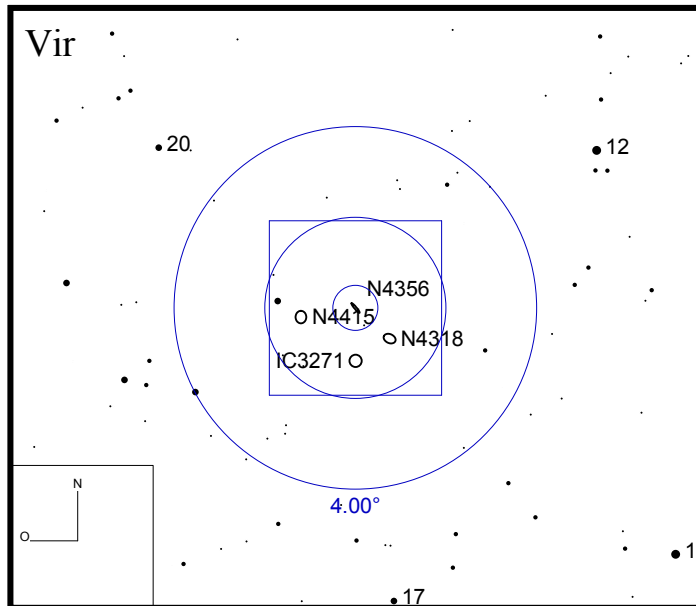
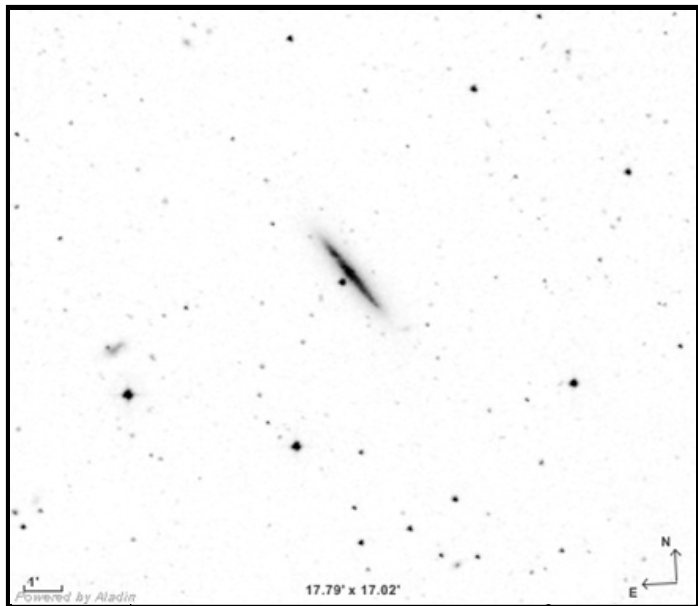


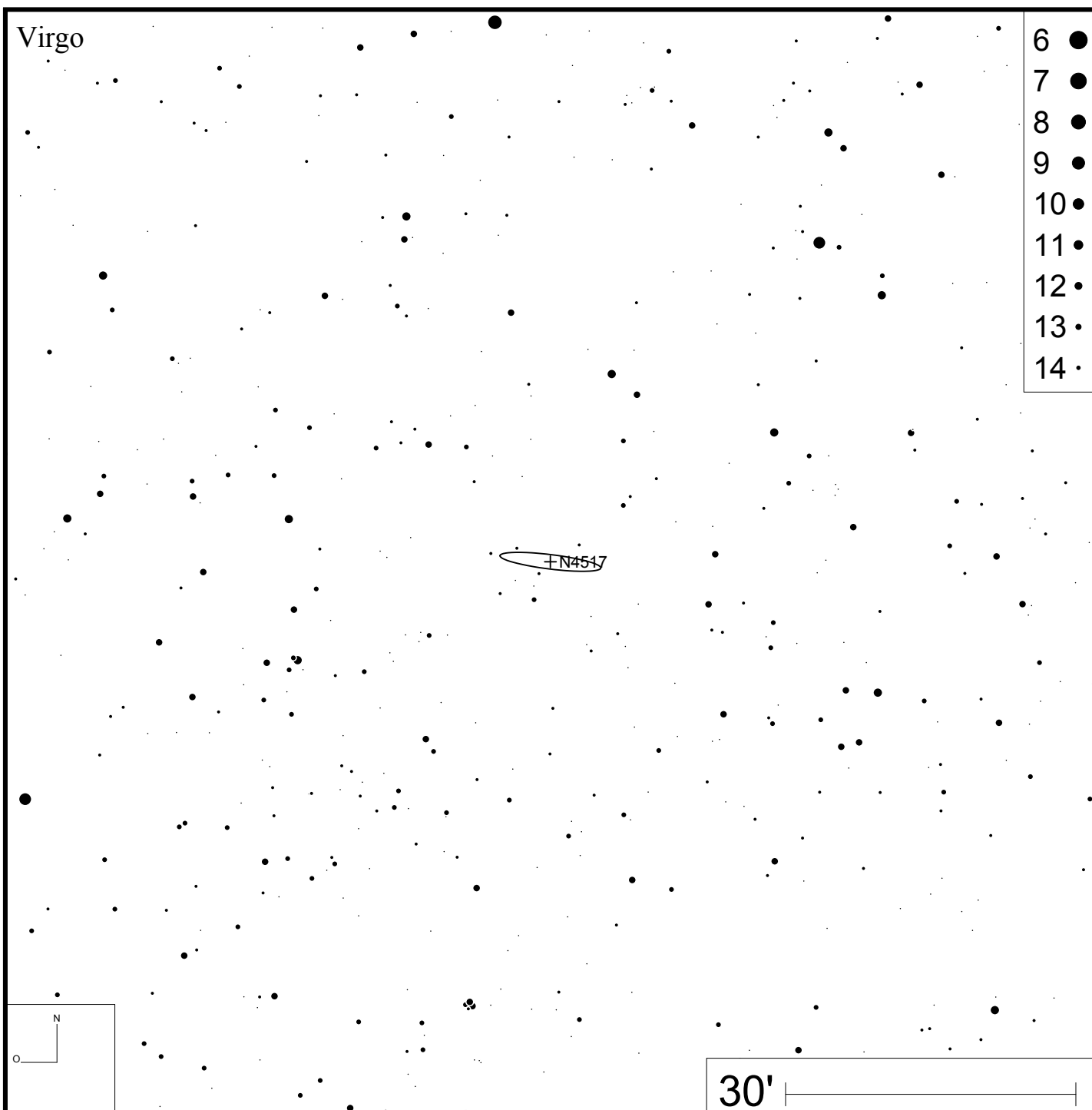
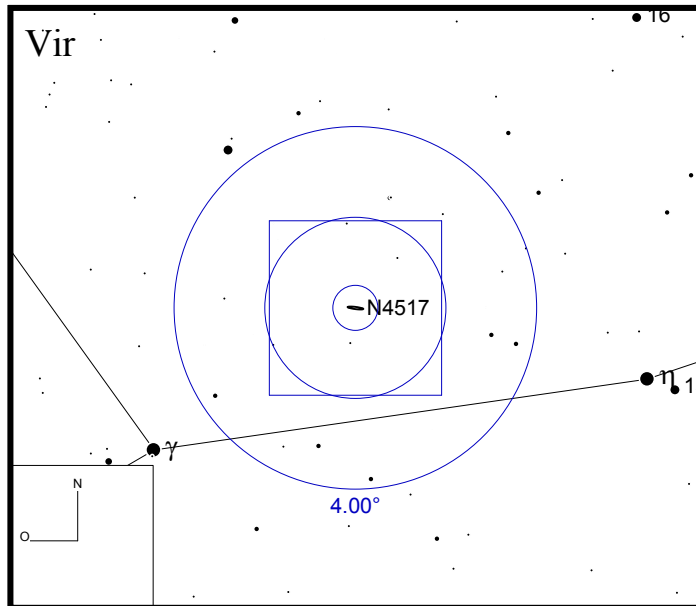
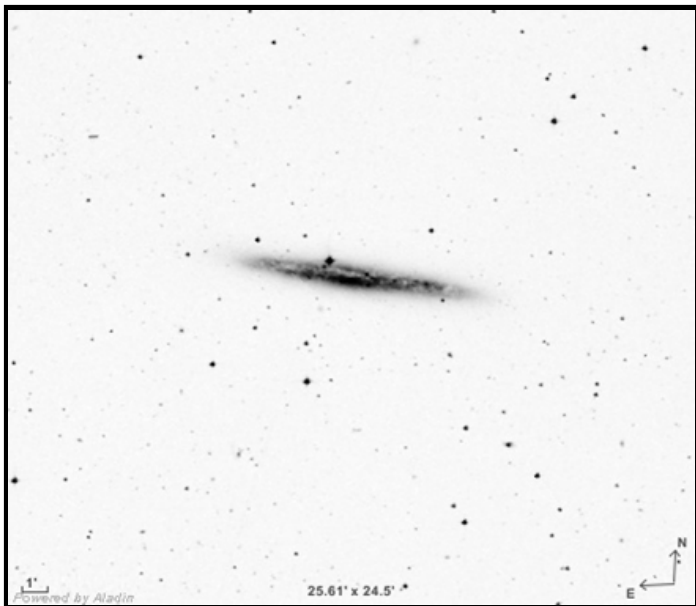


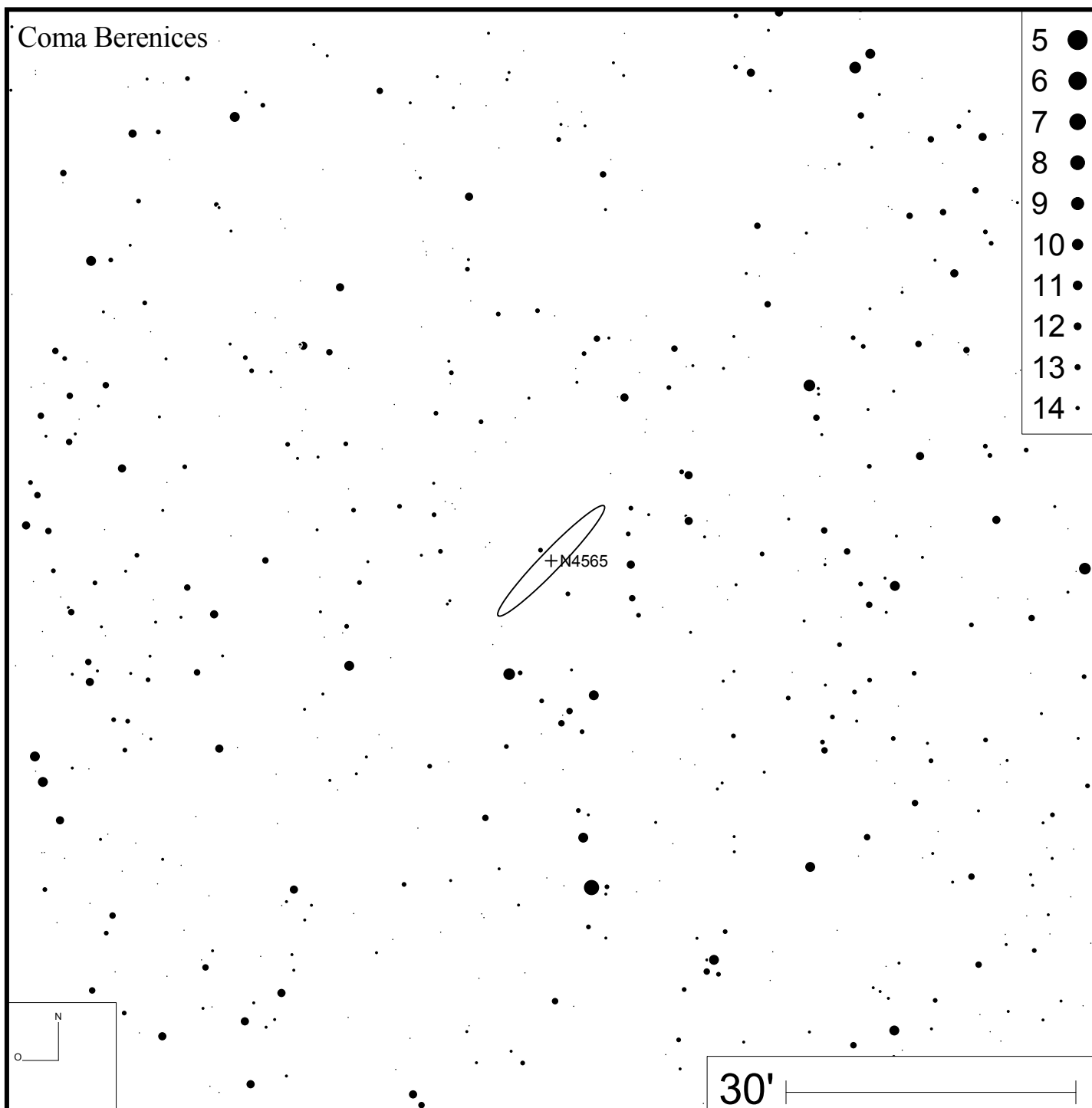
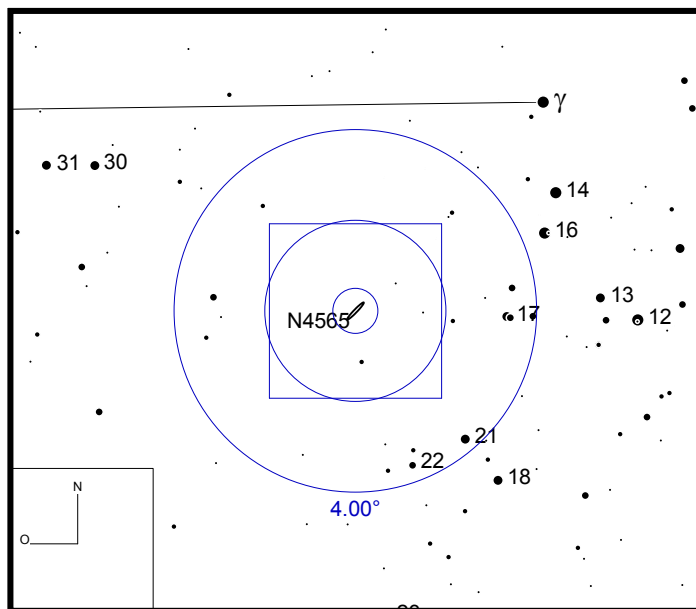
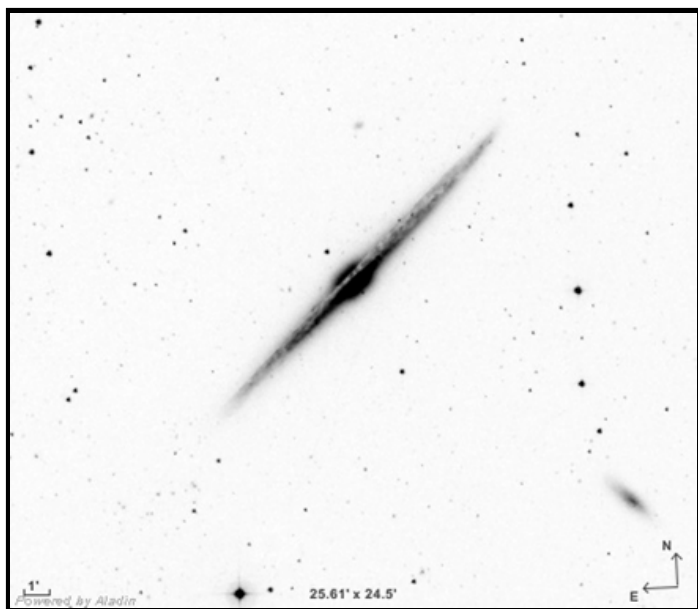


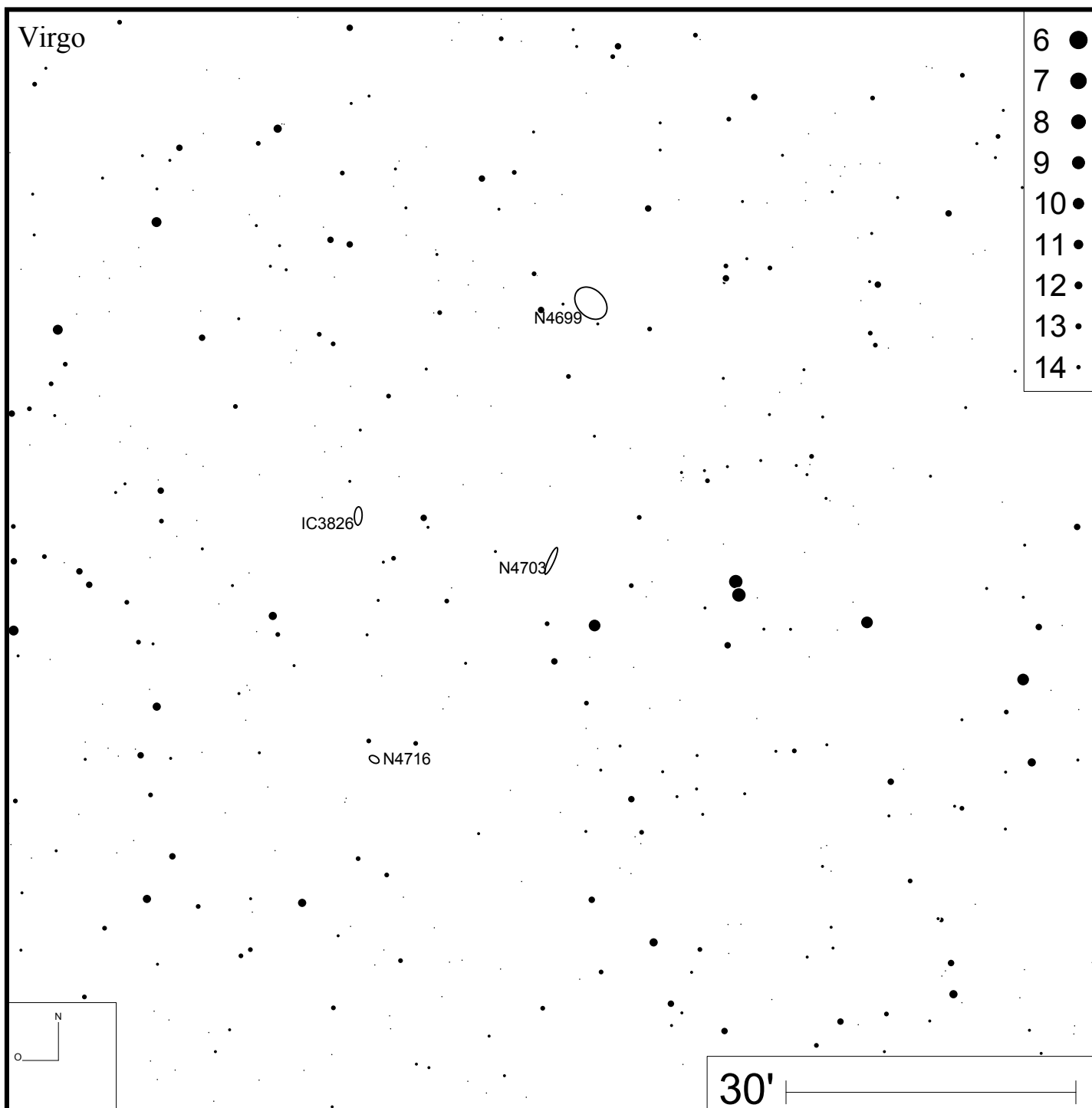
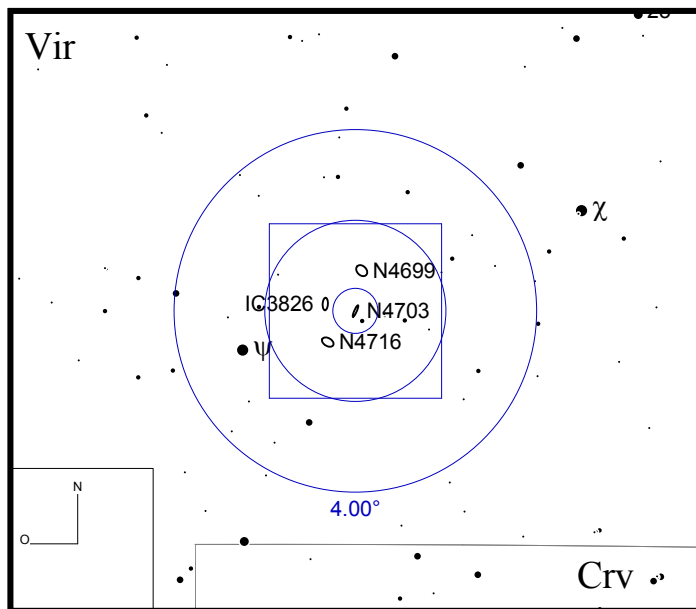
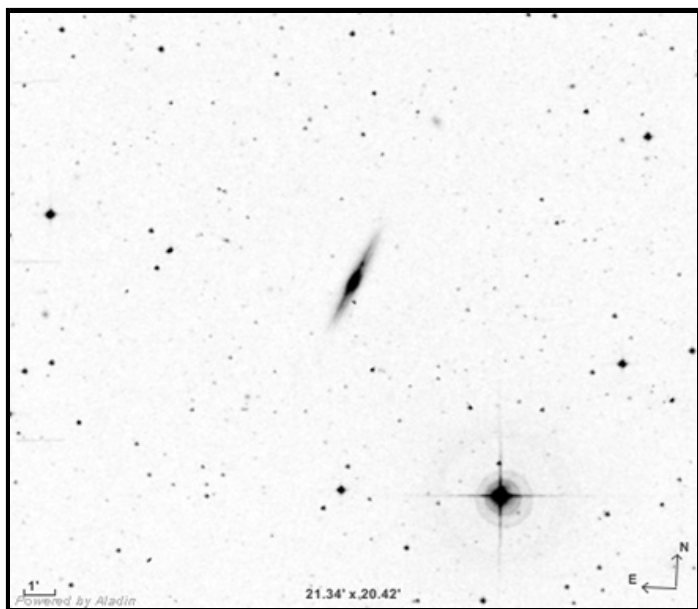


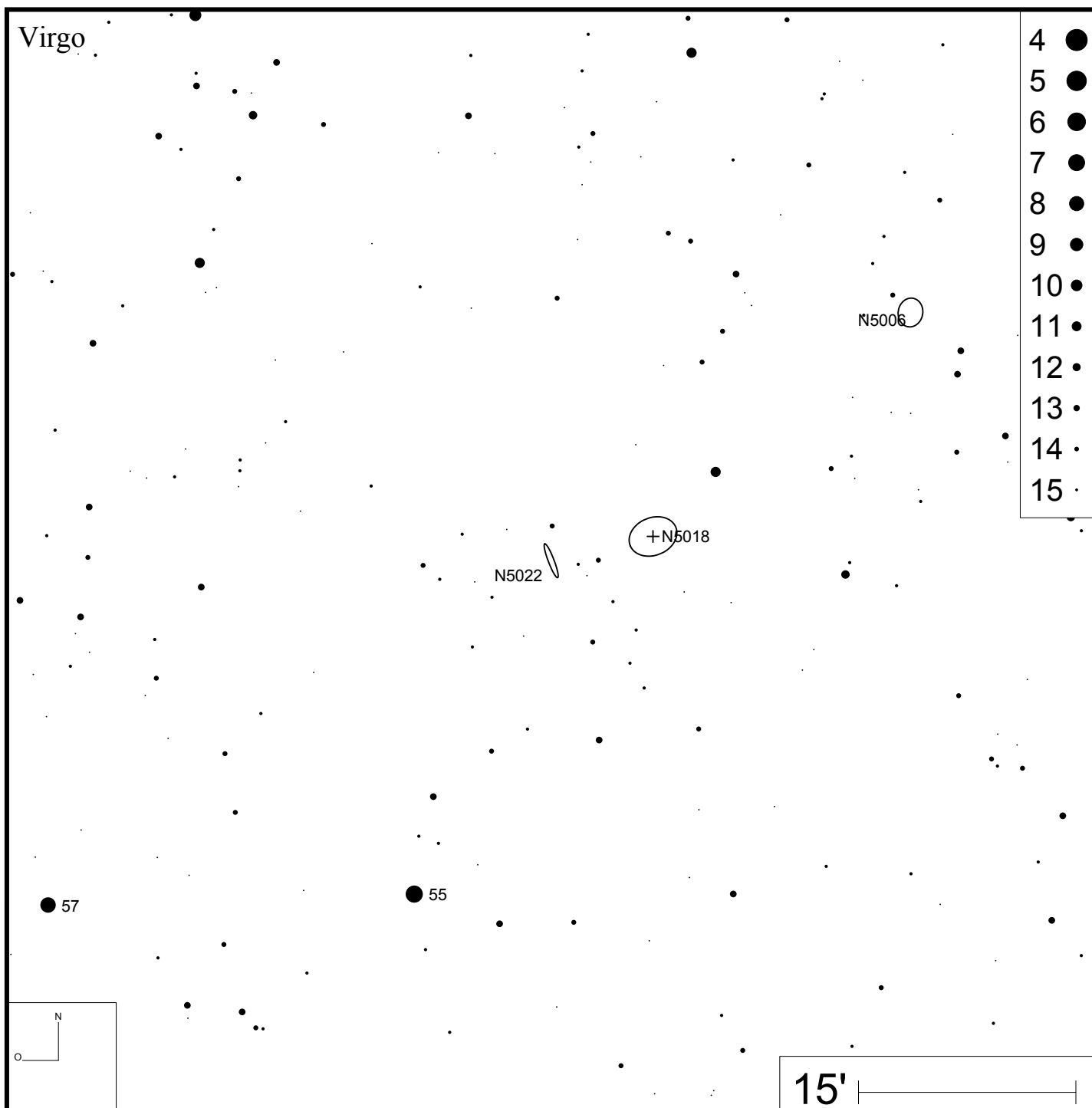
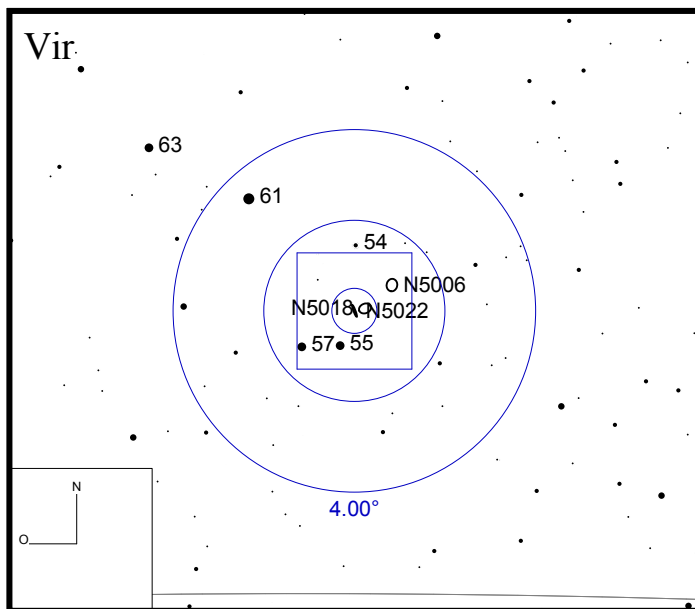
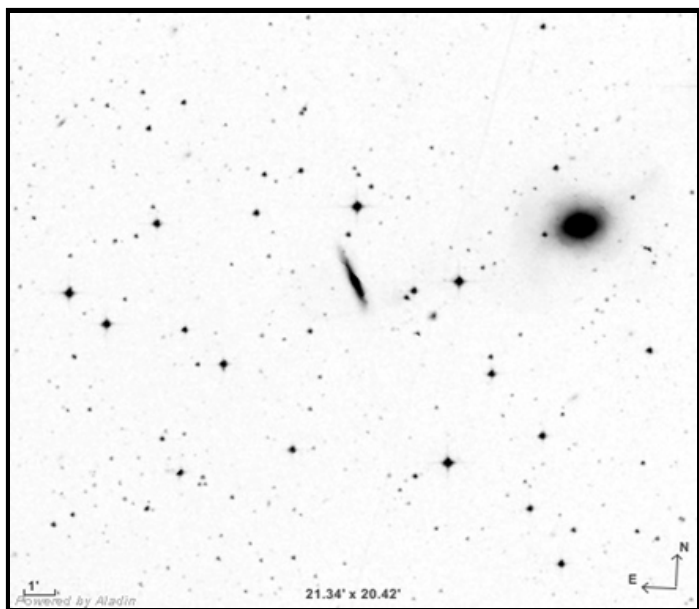


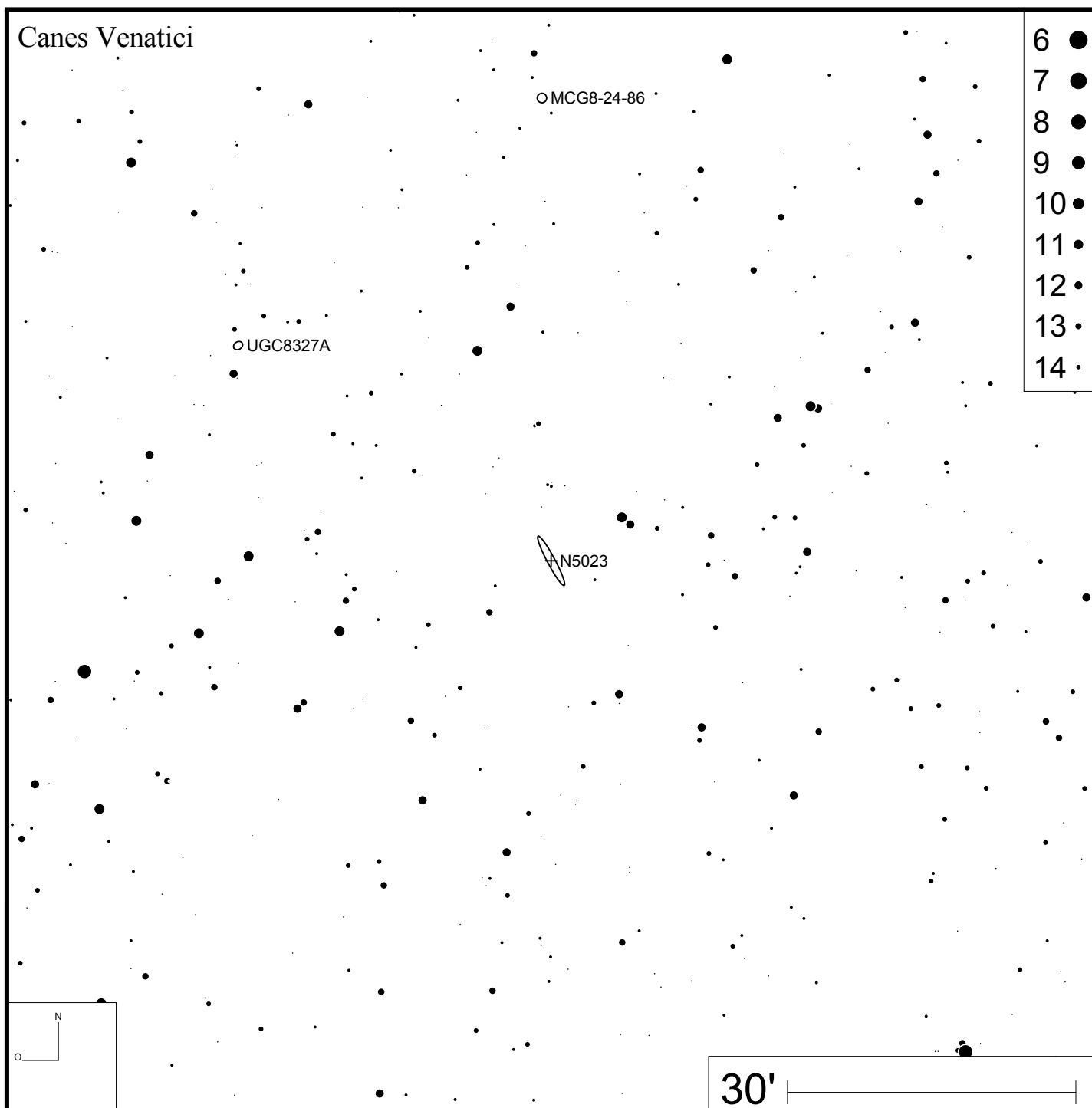
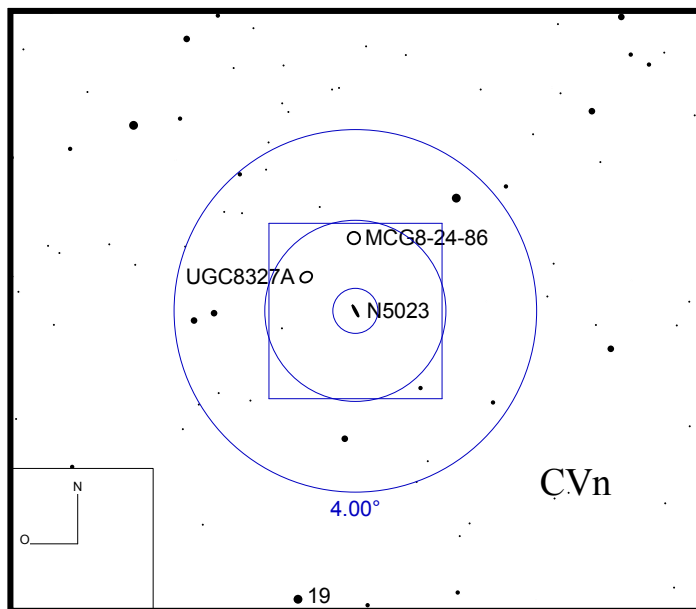
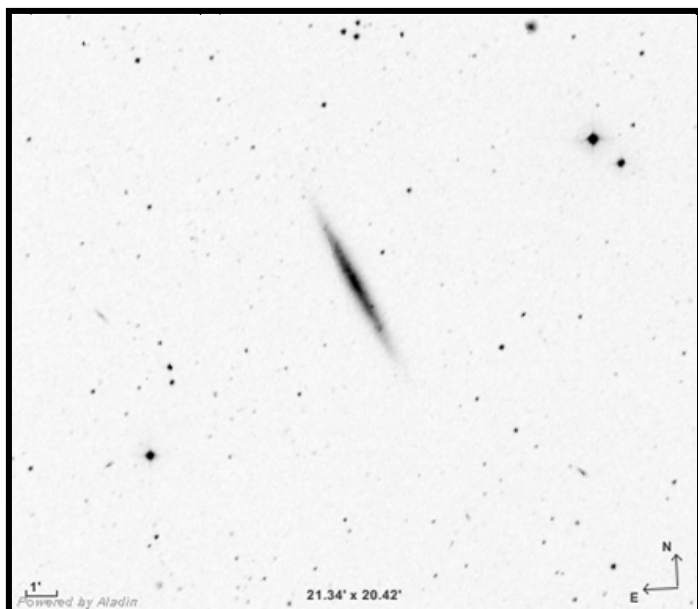


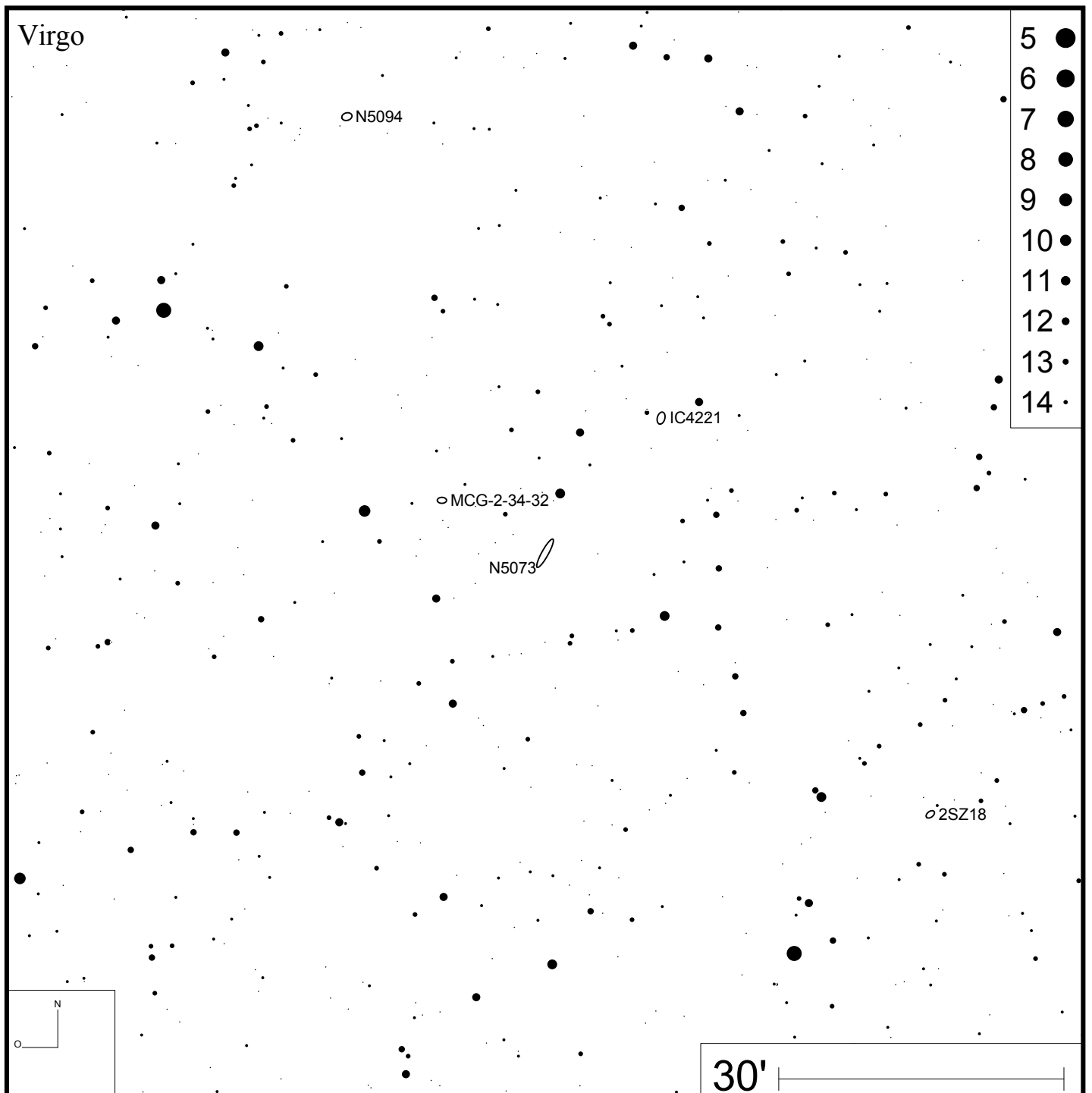
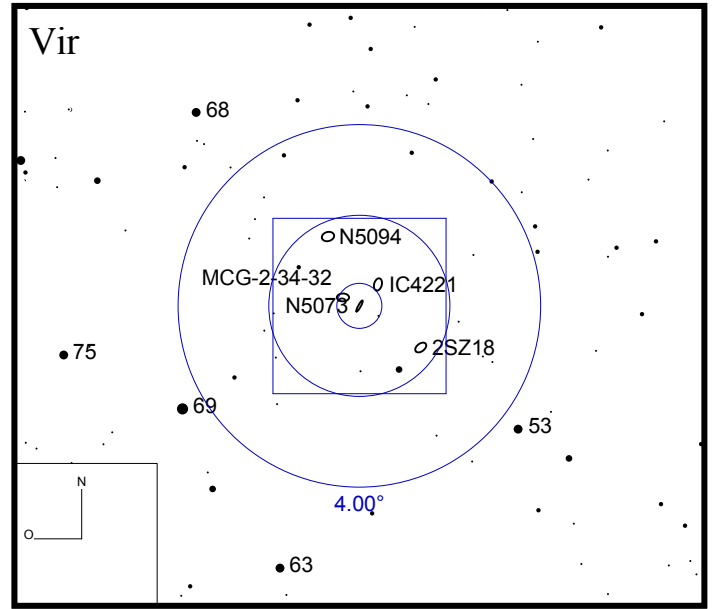
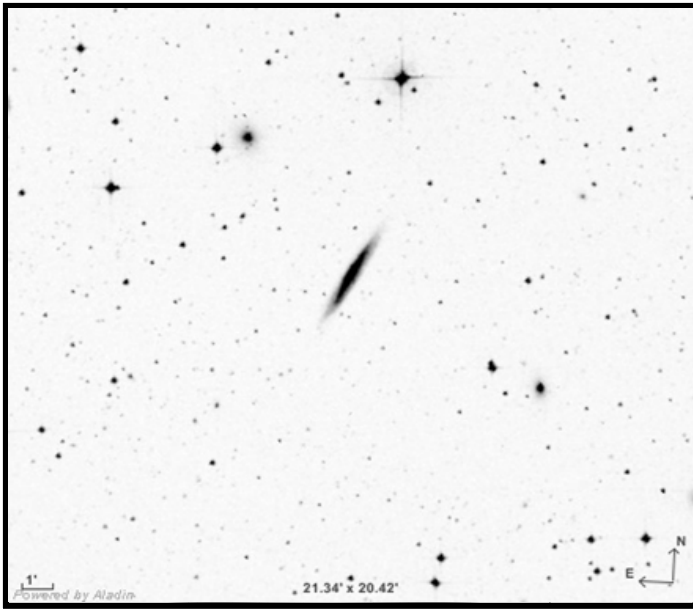












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