Observing Planetary Nebulae and Supernova Remnants

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Palomar Compact Galaxy Catalogue

Object of the Week 2012 and 2013 – Deep Sky Forum

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Planetary Nebulae Catalogue

Page	AL	Object	Type	RA	Dec	Size	Mag	Mag*	Con
16		PK 118+2.1	-	00 07 20.5	+64 57 21	2.1'	-	-	Cas
17		Vyssotsky 1-1	-	00 18 42.4	+53 52 18	5"	12.6p	14.1	Cas
18		PK 119+0.1	-	00 19 58.8	+62 59 01	50 x 20"	14.7v	22.3	Cas
19		PK 119-6.1	2	00 28 15.7	+55 57 54	5"	12.3v	16.5	Cas
20		Sharpless 2-176	-	00 31 53.6	+57 22 33	12.0'	-	18.1	Cas
21		Wein 1-1	-	00 38 54.6	+66 23 47	24"	21.9p	21.0	Cas
22		PK 121+00.1	-	00 40 21.6	+62 51 25	40"	15.4v	-	Cas
23		PK 124+10.1	SNR?	01 07 12.9	+73 32 57	270"	-	16.4	Cas
24		Kohoutek 3-90	-	01 24 58.9	+65 38 33	9"	16.0p	-	Cas
25		Sharpless 2-188	-	01 30 30.0	+58 23 30	9.0'	-	17.4	Cas
26		Wein 2-5	-	01 42 38.2	+60 10 06	3.3'	-	-	Cas
27	*	IC 1747	3b	01 57 36.0	+63 19 17	13"	12.0v	15.8	Cas
28		Kohoutek 3-91	-	01 58 35.7	+66 33 58	10"	20.9p	20.5	Cas
29		Kohoutek 3-92	-	02 03 41.5	+64 57 36	12"	16.7p	20.6	Cas
30		Kohoutek 3-93	-	02 26 30.3	+65 47 50	10"	17.6p	-	Cas
31		PK 136+5.1	SNR?	03 03 48.8	+64 53 28	8.3'	-	13.3	Cas
32	*	IC 289	4+2	03 10 19.7	+61 19 01	45 x 30	12.3p	15.9	Cas
33		PK 138+4.1	-	03 11 02.1	+62 47 57	5.7'	-	12.6	Cas
34		Hubble 12	-	23 26 14.9	+58 10 53	1"	11.9v	13.8	Cas
35		Vyssotsky 2-3	2	23 22 58.1	+46 53 57	4"	13.9p	14.7	And
36	*	NGC 7662 (Blue Snowball)	4+3	23 25 53.9	+42 32 06	35"	8.3v	13.2	And
37		Kohoutek 1-20	4	23 39 10.7	+48 12 30	37 x 31"	16.5	20.7	And
38		Minkowski 1-1	-	01 37 19.6	+50 28 11	6"	14.1p	16.2	And
39		Kn 58		02 12 27.0	+47 27 10	1.5'	-	-	And
40		PK 125-47.1	-	00 59 53.7	+15 44 00	4.6'	-	-	Psc
41	*	NGC 1360	3	03 33 15.4	-25 52 13	6.4'	9.4v	11.3	For
42	*	M-76 (Cork Nebula)	3+6	01 42 19.9	+51 34 35	167	10.1v	15.9	Per
43		PK 131-05.1	-	01 53 03.1	+56 24 17	24"	14.2v	18.0	Per
44		Minkowski 1-2	1	01 58 49.7	+52 53 47	18"	14.9p	13.4	Per
45		PK 149-9.1	-	03 27 15.5	+45 24 20	9.0'	-	17.0	Per
46		Minkowski 1-4	-	03 41 43.5	+52 16 57	4.0"	13.6p	16.7	Per
47		PK 156-13.1	-	03 45 26.6	+37 48 53	34"	-	17.7	Per
48	*	IC 351	2a	03 47 33.1	+35 02 45	7"	11.9v	15.8	Per
49	*	IC 2003	2	03 56 22.1	+33 52 27	9"	12.6p	15	Per
50		Kohoutek 3-64	-	04 13 27.4	+51 50 59	8"	16.9p	-	Per
51	*	Sharpless 2-216	3	04 45 35	+46 48.5	100'	-	-	Per
52		Wein 1-2	-	04 46 42.9	+44 28 00	92"	-	20.8	Per
53	*	NGC 1535 (Cleopatra's Eye)	4+2c	04 14 15.8	-12 44 21	60"	9.6v	12.1	Eri
54	*	NGC 1501 (Oyster Nebula)	3	04 06 59.6	+60 55 11	52"	13.3p	14.2	Cam
55		Minkowski 2-2	3	04 13 15.2	+56 56 56	6"	14.0p	-	Cam
56		PK 171-25.1	4	03 53 36.4	+19 29 39	48"	15.1v	17.2	Tau
57	*	NGC 1514 (Crystal Ball)	3+2	04 09 16.9	+30 46 34	1.9'	10.9v	9.4	Tau
58		Haro 3-29	-	04 37 23.6	+25 02 36	25"	15.1v	18.6	Tau

Page	AL	Object	Type	RA	Dec	Size	Mag	Mag*	Con
59		M-1 (Crab Nebula)	SNR	05 34 31.9	+22 01 00	6.0 x 4.0'	8.4	-	Tau
60		PK 181+0.1	-	05 52 48.2	+28 05 57	65"	15.9	21.1	Tau
61		Sharpless 2-221	SNR	04 54 48.0	+46 41 00	25.3x9.2'	-	-	Aur
62		Kohoutek 2-1	3	05 07 08.1	+30 49 26	2.2'	13.7p	18.8	Aur
63		Sharpless 2-223	SNR	05 16 38.0	+42 04 00	60.0x7.0'	-	-	Aur
64		IC 2120	2	05 18 10.4	+37 33 28	60"	12	16.2	Aur
65		Sharpless 2-224	SNR	05 26 52.0	+42 58 00	30.5x17.5'	-	-	Aur
66		IPHAS J052708.2+383113	-	05 27 08.2	+38 31 13	30"		16?	Aur
67		Wein 2-21	-	05 31 36.0	+28 58 39	10"	16.1p	-	Aur
68	*	IC 2149	3b+1	05 56 24.0	+46 06 15	34 x 29"	10.6v	11.5	Aur
69		NGC 2242	-	06 34 07.6	+44 46 37	22"	15.1p	17.6	Aur
70	*	PK 164+31.1 (Headphones Nebula)	4	07 57 51.7	+53 25 16	6.3'	12.1v	16.8	Lyn
71	*	Jonckheere 320	2	05 05 34.3	+10 42 23	26 x 14"	11.9v	14.4	Ori
72		Haro 3-75	-	05 40 45.1	+12 21 21	24"	13.9v	-	Ori
73	*	NGC 2022	4+2	05 42 06.2	+09 05 13	35"	11.6v	15.8	Ori
74		Wein 1-4	-	06 14 33.6	+07 34 29	40	-	21.1	Ori
75	*	IC 418 (Raspberry Nebula)	4	05 27 28.2	-12 41 49	12"	9.3v	10.1	Lep
76		PK 011+17.1	-	05 55 06.8	-22 54 02	2.2'			Lep
77		IC 443	SNR	06 17 52.0	+22 46 00	27x7'	-	-	Gem
78	*	Jonckheere 900	3b+2	06 25 57.4	+17 47 26	9.0"	11.7v	17.8	Gem
79	*	Minkowski 1-7	2	06 37 20.9	+24 00 37	32 x 15"	13.0v	19.6	Gem
80		PK 192+7.1	-	06 40 09.5	+21 24 50	76	-	19	Gem
81	*	NGC 2371/2 (Double Bubble)	3a+2	07 25 34.8	+29 29 22	55"	11.2v	14.8	Gem
82	*	NGC 2392 (Eskimo Nebula)	3b+3b	07 29 11.0	+20 54 39	50"	9.1v	10.5	Gem
83		PK 218-10.1	-	06 23 37.1	-10 13 24	94"	15.4p	16.2	Mon
84		Kohoutek 3-72	-	06 23 55.0	+05 30 11	11"	-	-	Mon
85		Wein 1-5	-	06 41 34.7	-05 02 37	15"	17.9p	19.1	Mon
86		Kohoutek 2-2	3	06 52 27.9	+09 57 40	6.2'	12.5p	15.0	Mon
87		Minkowski 1-8	-	06 53 33.8	+03 08 26	18"	14.5v	21.3	Mon
88		Minkowski 1-9	1	07 05 19.3	+02 46 56	12"	13.3p	15.6	Mon
89		PK 217+2.1	-	07 06 51.0	-03 05 10	15"	14.5v	>21	Mon
90	*	NGC 2346 (Butterfly Nebula)	3b+4	07 09 22.4	-00 48 24	120"	11.6v	11.4	Mon
91		Wein 1-6	-	07 17 25.5	-10 10 39	62"	-	16.8	Mon
92		Minkowski 3-3	4	07 26 34.2	-05 21 52	12"	14.8v	-	Mon
93	*	IC 2165	3b	06 21 42.7	-12 59 14	9.0"	10.5v	17.9	CMa
94		PK 233-10.1	4	06 50 40.7	-22 26 15	55"	16.3p	-	CMa
95		PK 239-12.1	-	06 55 12.3	-29 07 28	24"	15.1p	19.0	CMa
96		Sanduleak 2-2	-	07 02 46.9	-13 42 37	10"	13.3p	16.2	CMa
97		Minkowski 3-1	? + 6	07 02 49.8	-31 35 30	30 x 20"	12.3v	15.5	CMa
98		Kohoutek 2-3	3	07 06 57.7	-22 02 21	90 x 40"	14.5v	21.0	CMa
99		Kohoutek 1-10	3b	07 12 35.9	-16 06 02	90 x 54"	-	21.0	CMa
100		Minkowski 3-2	3b	07 14 49.8	-27 50 24	8"	14.7v	21.1	CMa
101		Minkowski 1-13	-	07 21 14.9	-18 08 37	42 x 30"	12.6v	-	CMa
102		Minkowski 1-18	2b	07 42 04.2	-14 21 19	32"	15.0v	20.9	Pup
102	*	NGC 2438 (in M-46)	4	07 41 50.4	-14 44 06	64"	10.8v	17.7	Pup

Page	AL	Object	Type	RA	Dec	Size	Mag	Mag*	Con
103	*	NGC 2440	5+3	07 41 55.4	-18 12 31	54 x 20"	9.4v	17.6	Pup
104	*	NGC 2452	4+3	07 47 26.5	-27 20 09	30"	12.0v	17.7	Pup
105		Kohoutek 1-12	2	07 50 11.6	-19 18 16	42"	15.9p	21.0	Pup
106		Minkowski 3-4	4	07 55 11.4	-23 38 13	20"	11.8p	15.7	Pup
107		Sanduleak 2-21	-	08 08 44.1	-19 14 01	40"	13.6p	-	Pup
108		Sanduleak 2-28	-	08 36 16.4	-35 15 04	20"	-	-	Pyx
109	*	Minkowski 3-6	2a	08 40 40.3	-32 22 34	19"	10.9v	13.9	Pyx
110		Kohoutek 1-2	2	08 57 45.9	-28 57 36	58"	15.3p	16.6	Pyx
111	*	NGC 2818	3b	09 16 01.5	-36 37 37	93 x 55"	11.6v	19.4	Pyx
112	*	IRAS 09371+1212 (Frosty Leo)	Proto	09 39 54	+11 59 00	12"	10.5	11	Leo
113	*	NGC 2610	4+2	08 33 23.4	-16 08 58	58"	12.7v	15.9	Hya
114	*	NGC 3242 (Ghost of Jupiter)	4+3b	10 24 46.2	-18 38 34	75"	7.7v	13.3	Hya
115		Kohoutek 1-28	-	10 34 30.7	-29 11 16	54"	14	16.7	Hya
116		Kohoutek 1-22	-	11 26 43.7	-34 22 18	3.0'	12.1v	17.4	Hya
117	*	NGC 3132 (Eight-burst)	4+2	10 07 01.8	-40 26 09	88 x 58"	9.2v	10	Vel
118	*	NGC 4361	3a+2	12 24 30.8	-18 47 02	118"	10.9v	13.2	Crv
119	*	M-97 (Owl Nebula)	3a	11 14 47.8	+55 01 09	3.4'	9.9v	16.0	UMa
120		Longmore-Tritton 5	-	12 55 34	+25 53 31	8.8'	-	14.9	Com
121		IC 4406 (Retina Nebula)	4+3	14 22 26.5	-44 09 05	100 x 37"	10.2v	17.4	Lup
122	*	NGC 5873	2	15 12 51.1	-38 07 33	7"	11.0v	15.5	Lup
123	*	NGC 6026	4	16 01 21.0	-34 32 36	55"	12.9v	13.2	Lup
124		Kohoutek 1-32	-	16 03 22.0	-36 00 54	60"	-	19.0	Lup
125	*	NGC 6058	3+2	16 04 26.6	+40 40 59	35"	12.9v	13.9	Her
126	*	IC 4593 (White Eyed Pea Nebula)	2+2	16 11 44.5	+12 04 17	30"	10.7v	11.2	Her
127	*	NGC 6210 (Turtle Nebula)	2+3b	16 44 29.7	+23 47 58	30"	8.8v	12.6	Her
128		Kohoutek 1-14	4	17 42 36.6	+21 27 01	48"	15.1v	16.4	Her
129		Wein 3-1	-	18 34 03.1	+14 49 17	2.3'	-	-	Her
130		PK 051+9.1	-	18 49 47.6	+20 50 36	3"	11.4v	13.3	Her
131		Henize 2-126	2	15 22 19.4	-23 37 33	16"	11.6v	18.8	Lib
132		Henize 2-180	1	16 43 53.9	-18 57 14	12"	14.4	15.2	Oph
133	*	IC 4634	2a+3	17 01 33.8	-21 49 34	12"	10.9v	13.9	Oph
134	*	Minkowski 2-9 (Minkowski's Butterfly)	?+6	17 05 37.9	-10 08 32	50 x 20"	14.6v	15.6	Oph
135		Sanduleak 2-172	-	17 05 44.6	-25 25 02	10"	14.9	17.8	Oph
136	*	NGC 6309 (Box Nebula)	3b+6	17 14 04.5	-12 54 41	21 x 12"	11.5v	16.5	Oph
137		Sanduleak 3-42	-	17 17 20.3	-28 59 27	17"	16.4p	-	Oph
138		DHW 1-2	-	17 06 55.0	-09 46 59	30 x 20"	-	-	Oph
139		Minkowski 3-39	3+2	17 21 11.7	-27 11 37	18"	15.2v	-	Oph
140		Minkowski 3-9	3	17 25 43.4	-26 11 56	17"	15.0v	18.8	Oph
141		Minkowski 1-20	1	17 28 57.7	-19 15 53	7"	13.4p	17.1	Oph
142	*	NGC 6369 (Little Ghost)	4+2	17 29 20.5	-23 45 34	38"	11.4v	15.9	Oph
143		Wray 16-282	3	17 31 47.3	-28 42 04	37"	14.9p	-	Oph
144		Minkowski 1-22	4	17 35 10.1	-18 34 20	9"	13.3p	-	Oph
145		Henize 2-260	-	17 38 57.4	-18 17 35	10"	11.0v	14.2	Oph
146		Henize 2-261	3	17 39 54.8	-21 14 14	17"	15.3p	-	Oph
147		Henize 2-264	3	17 40 26.8	-27 01 03	37"	-	20.3	Oph

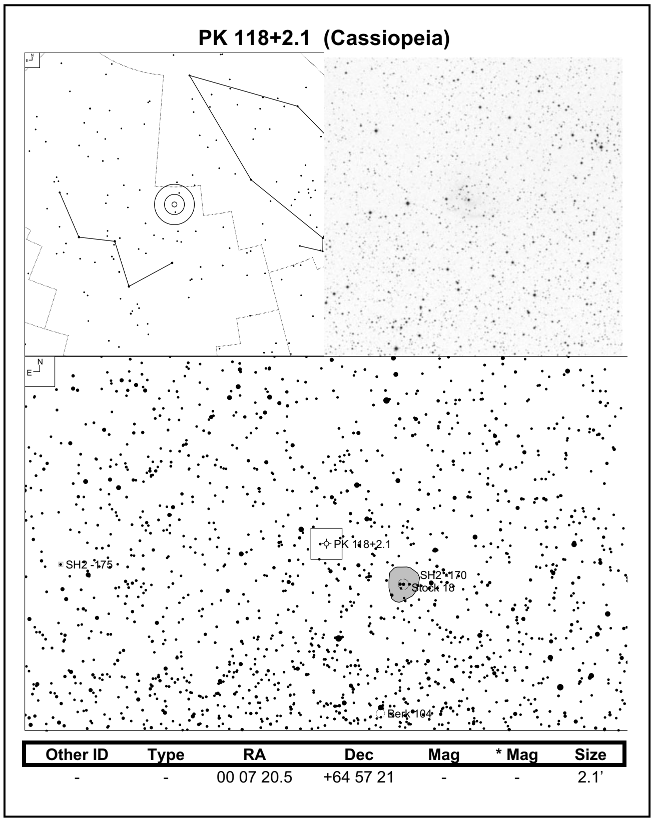
Page	AL	Object	Type	RA	Dec	Size	Mag	Mag*	Con
148		PNG 027.6+16.9	-	17 41 41	+03 07 02	94"	16.3p	14.9	Oph
149		Henize 2-266	3b	17 41 52.8	-24 42 08	6"	13.0v	17.0	Oph
150		PK 028+10.1	-	18 06 00.5	+00 22 42	36"	16.8p	16.8	Oph
151	*	NGC 6572 (Emerald Nebula)	2a	18 12 06.4	+06 51 11	11"	8.1v	13.1	Oph
152		Cannon 3-1	2	18 17 34.2	+10 09 01	5"	12.4p	12.5	Oph
153	*	NGC 6072	3a	16 12 58.3	-36 13 48	98 x 72"	11.7v	19.3	Sco
154	*	NGC 6153	4	16 31 30.6	-40 15 12	24"	10.9v	16.1	Sco
155		Wray 17-76	-	16 44 49.1	-28 04 06	23"	11.0 IR	12.7	Sco
156		IC 4637	3	17 05 10.5	-40 53 09	19"	12.5v	12.5	Sco
157	*	NGC 6302 (Bug Nebula)	6	17 13 44.3	-37 06 13	83 x 24"	9.6v	21.1	Sco
158	*	NGC 6337 (Cheerio Nebula)	4	17 22 15.6	-38 29 02	51"	12.3v	14.9	Sco
159		Sanduleak 3-62	-	17 32 20.0	-39 51 23	20"	15.8p	-	Sco
160		Henize 2-253	4	17 36 29.8	-39 21 57	18"	14.4p	-	Sco
161		Wray 17-98	3+2	17 46 02.5	-31 03 36	13"	-	-	Sco
162		Henize 2-289	-	17 49 48.2	-37 01 28	10"	12.0p	16.8	Sco
163		Minkowski 1-28	3+6	17 47 38.4	-22 06 20	15"	16.8p	20.8	Sgr
164		Henize 2-286	2+4	17 47 56.2	-29 59 40	3"	11.8v	18.6	Sgr
165		NGC 6439	2a	17 48 20.3	-16 27 35	5"	12.6v	20.2	Sgr
166	*	NGC 6445 (Box Nebula)	3b+3	17 49 14.9	-20 00 36	38 x 29"	11.2v	19.0	Sgr
167	*	Henize 2-305	2	17 55 07.0	-21 44 40	5"	12.0v	14.7	Sgr
168		Minkowski 2-25	3	18 02 46.5	-32 09 28	14"	15.0p	-	Sgr
169		IC 4673	4	18 03 18.5	-27 06 22	16"	13.0v	17.6	Sgr
170	*	NGC 6537 (Red Spider Nebula)	2a+6	18 05 13.1	-19 50 35	10"	11.6v	18.8	Sgr
171		Minkowski 3-23	2	18 07 06.1	-30 34 17	11"	13.8p	-	Sgr
172	*	PK 359-06.2 Gomez Hamburger	proto	18 09 13.3	-32 10 48	5.5 x 3.5"	14.0v	-	Sgr
173	*	NGC 6565	4	18 11 52.6	-28 10 42	14"	11.6v	18.5	Sgr
174	*	NGC 6563	3a	18 12 02.5	-33 52 06	50 x 37"	11.0v	17.3	Sgr
175	*	NGC 6567	2a+3	18 13 45.2	-19 04 33	12"	11.0v	14.4	Sgr
176	*	NGC 6578	2a	18 16 16.6	-20 27 03	9"	12.9v	15.8	Sgr
177	*	NGC 6620	2b	18 22 54.3	-26 49 18	8"	12.7v	19.6	Sgr
178	*	NGC 6629	2a	18 25 42.4	-23 12 10	16"	11.3v	12.9	Sgr
179		PK 013-2.1	-	18 26 03.9	-18 12 37	18'	15.2	-	Sgr
180	*	NGC 6644	2	18 32 34.7	-25 07 44	3"	10.7v	15.6	Sgr
181	*	IC 4732	1	18 33 54.6	-22 38 41	10"	12.1v	16.2	Sgr
182		Wray 15-1876	-	18 34 55.4	-27 06 32	13"	15.2p	18.0	Sgr
183		Minkowski 1-54	3	18 36 08.3	-16 59 57	13"	12.5p	-	Sgr
184		Henize 3-1716	-	18 36 32.3	-19 19 29	-	15.1p	13.2	Sgr
185		Minkowski 1-56	1	18 37 46.3	-17 05 47	10"	13.3p	16.2	Sgr
186		Henize 2-418	-	18 44 14.6	-30 19 36	13"	15.1	15.6	Sgr
187		Sanduleak 2-364	?+3	18 45 35.2	-20 34 59	13"	13.9p	18.4	Sgr
188	*	IC 4776	2a	18 45 50.9	-33 20 36	8"	10.8v	14.1	Sgr
189		Sanduleak 2-375	2	18 55 37.8	-32 15 48	4"	10.9p	13.9	Sgr
190		Sanduleak 2-381	2	19 05 35.9	-33 11 37	5"	12.5v	-	Sgr
191		Pne Candidate Jul 27, 2009		19 37 44	-13 51 20	34"	-	-	Sgr
192	*	NGC 6818 (Little Gem)	4	19 43 57.8	-14 09 10	48"	8.8v	16.9	Sgr

Page	AL	Object	Type	RA	Dec	Size	Mag	Mag*	Con
193	*	NGC 6543 (Cat's Eye Nebula)	3a+2	17 58 33.5	+66 37 59	23 x 18"	8.1v	11.1	Dra
194		Kohoutek 1-16	3	18 21 52.2	+64 21 53	1.9'	14.2v	15.0	Dra
195		Sweet Pea		18 41 41.9	+65 11 58	<5	-	-	Dra
196		Kohoutek 1-6	2	20 04 24.9	+74 26 17	2.7'	-	17.6	Dra
197	*	M-57 (Ring Nebula)	4+3	18 53 35.2	+33 01 44	1.8 x 1.4'	8.8v	14.7	Lyr
198		Minkowski 1-64	4	18 50 02.3	+35 14 33	24"	13.3v	-	Lyr
199	*	NGC 6765	5	19 11 06.8	+30 32 39	40"	12.9v	16.0	Lyr
200		Kohoutek 3-27	-	19 14 30.2	+28 40 43	16"	14.9p	17.2	Lyr
201		Ethos 1	-	19 16 31.5	+36 09 48	60 x 20"	-	17.6	Lyr
202	*	Henize 2-438 (Campbell's Star)	4	19 34 45.2	+30 31 01	3"	11.3v	10.0	Cyg
203	*	Minkowski 1-92 (Minkowski's Footprint)	-	19 36 18.9	+29 32 51	20 x 4"	11.7v	-	Cyg
204	*	NGC 6826 (Blinking Planetary)	3a+2	19 44 48.2	+50 31 31	38"	8.8v	10.4	Cyg
205	*	NGC 6833	2	19 49 46.7	+48 57 38	2"	12.1v	14.8	Cyg
206		Kohoutek 3-46	3b+6	19 50 00.3	+33 45 53	32 x 17"	16.4p	14.8	Cyg
207		Henize 1-4	3b	19 59 18.5	+31 54 34	22"	14.1	21.1	Cyg
208		NGC 6857	?	20 01 48.7	+33 31 32	40"	11.4p	13.3	Cyg
209		PK 075+4.1	3b	20 04 16.4	+39 35 30	28"	16.0	-	Cyg
210		Minkowski 1-75	3b+6	20 04 44.1	+31 27 20	42"	16.0v	21.0	Cyg
211		Kohoutek 3-74	-	20 08 43.1	+42 30 05	20"	16.1p	-	Cyg
212		Minkowski 4-17	4+2	20 09 02.0	+43 43 42	23 x 21"	13.7v	-	Cyg
213		WR 134	-	20 09.4	+36 08	100'	-	-	Cyg
214		PN G075.5+1.7 (Soap Bubble)	-	20 15 22	+38 02 43	240"	-	19	Cyg
215	*	NGC 6884	2b	20 10 23.8	+46 27 38	6"	10.9v	15.8	Cyg
216	*	NGC 6881	2a+3	20 10 52.5	+37 24 41	6"	13.9v	18.6	Cyg
217	*	NGC 6894	4+2	20 16 24.0	+30 33 51	60"	12.3v	18.1	Cyg
218		Wein 1-10	-	20 31 52.4	+48 52 51	3.2'	15.1v	18.1	Cyg
219		Kohoutek 4-53	-	20 42 16.5	+37 40 22	20"	16.0p	-	Cyg
220		Kohoutek 4-55	-	20 45 10.2	+44 39 10	27"	-	-	Cyg
221		Kohoutek 3-79	-	20 53 13.8	+53 45 42	12"	17.8p	-	Cyg
222	*	NGC 7008 (Fetus Nebula)	3	21 00 33.1	+54 32 32	86"	10.7v	13.2	Cyg
223	*	PK 080-6.1 (Egg Nebula)	proto	21 02 18.7	+36 41 40	1.0 x 0.5'	13.5p	-	Cyg
224	*	NGC 7026 (Cheeseburger Neb.)	3a	21 06 18.5	+47 51 08	40"	10.9v	14.2	Cyg
225	*	NGC 7027 (Magic Carpet Neb.)	3a	21 07 01.8	+42 14 07	60"	8.5v	16.3	Cyg
226	*	PK 089-0.1	3a	21 14 07.5	+47 46 26	64 x 28"	12.1v	19.7	Cyg
227	*	NGC 7048	3b	21 14 15.3	+46 17 15	61"	12.1v	19.1	Cyg
228		Wein 2-245	-	21 18 06.9	+43 48 46	35"	-	-	Cyg
229		Kohoutek 3-81	-	21 22 15.5	+38 07 13	10"	15.4p	15.7	Cyg
230		Kn 26	-	21 23 09.3	+38 58 13	~50 x 25"	-	-	Cyg
231		Kohoutek 3-82	-	21 30 51.8	+50 00 05	24"	16.0p	19.5	Cyg
232	*	IC 5117	2	21 32 31.1	+44 35 47	6"	11.5v	16.7	Cyg
233	*	PK 086-8.1 (Baby Dumbell)	2	21 33 08.2	+39 38 12	32 x 20"	12.0v	17.3	Cyg
234		Minkowski 1-79	4	21 37 01.6	+48 56 00	60 x 42"	13.2v	19.1	Cyg
235		Minkowski 1-59	2	18 43 20.2	-09 04 49	5"	12.5v	-	Sct
236		Minkowski 1-46	4+2	18 27 56.3	-15 32 55	11"	14.6p	12.8	Sct
237		PNG 22.5+1.0	-	18 28 35.4	-08 43 24	17"	18.0p	-	Sct

Page	AL	Object	Type	RA	Dec	Size	Mag	Mag*	Con
238		Minkowski 1-51	3	18 33 29.0	-11 07 26	10"	16.7p	-	Sct
239		PN G 027.0+01.5	-	18 35 11.6	-04 29 06	32 x 25"	-	-	Sct
240		Minkowski 3-30	4	18 41 14.8	-15 33 39	17"	14.6p	17.9	Sct
241		Wein 1-7	-	18 44 06.5	-12 12 50	17"	-	21.0	Sct
242		Kohoutek 4-5	-	18 45 36.3	+06 18 43	20"	15.7p	-	Sct
243		PN G 026.2-03.4	-	18 51 31.3	-07 32 29	38"	-	-	Sct
244		Minkowski 4-11	2	18 54 17.7	-10 05 10	21"	13.8v	18.0	Sct
245	*	IC 1295	3b+2	18 54 37.2	-08 49 33	120 x 90"	15.0p	15	Sct
246		Shane 1	-	16 21 04.5	-00 16 12	6"	12.8p	14.7	Ser
247		Minkowski 4-9	4	18 14 18.3	-04 59 22	54"	16.0p	20.3	Ser
248		PC 19	-	18 24 44.6	+02 29 27	14"	12.1p	-	Ser
249		Sharpless 2-68	-	18 25 01.3	+00 52 18	7'	10.0v	16.0	Ser
250		Minkowski 2-43	1	18 26 40.1	-02 42 58	15"	16.8p	-	Ser
251		Kohoutek 3-4	3b+2	18 31 00.3	+02 25 23	20"	14.6v	-	Ser
252		RCW 181	3b	18 54 56.9	+06 02 41	5.1'	-	-	Ser
253		Kohoutek 3-34	-	19 24 02.9	+25 18 47	10"	15.8p	-	Vul
254		Minkowski 4-15	6	19 32 57.8	+26 52 41	35 x 7"	16.9p	-	Vul
255		Minkowski 4-16	-	19 39 43.5	+26 29 30	10"	16.2	-	Vul
256		Henize 1-3	2	19 48 26.4	+22 08 34	12"	16.0	11.6	Vul
257		Minkowski 2-48	3	19 50 28.6	+25 54 27	29 x 13"	16.5p	-	Vul
258		NGC 6842	3b	19 55 02.4	-29 17 17	57"	13.1v	16.2	Vul
259	*	M-27 (Dumbbell Nebula)	3+2	19 59 36.1	+22 43 13	6.7'	7.4v	13.8	Vul
260		Wein 1-9	-	20 09 04.7	+26 26 55	24"	-	21.0	Vul
261		Henize 1-6	3+2	20 17 21.5	+25 21 44	24"	14.9p	-	Vul
262		Henize 1-7	-	20 19 38.3	+27 00 08	5"	13.5p	-	Vul
263		Little Blue Fox	-	20 29 07.5	+23 11 12	17 x 13"			Vul
264		Kohoutek 1-17	4	19 03 37.4	+19 21 21	45"	16.6p	19.2	Sge
265		Sharpless 2-80	-	19 11 30.9	+16 51 35	1.8'	8.2IR	11.1	Sge
266		PK 051+1.1	4	19 19 18.8	+17 11 45	20"	-	15.1	Sge
267		Necklace Nebula	-	19 43 59.5	+17 09 00	~25"	-	-	Sge
268		PK 058-5.1	-	20 01 42.1	+19 54 37	2.5'	-	17.4	Sge
269		Kohoutek 3-51	-	20 02 36.4	+17 36 50	15"	14.7p	-	Sge
270	*	NGC 6879	2a	20 10 26.8	+16 55 19	8"	12.5v	14.8	Sge
271		Henize 1-5	3+2	20 11 56.1	+20 20 04	40"	16.2p	11.3	Sge
272	*	NGC 6886	2+3	20 12 43.0	+19 59 20	6"	11.4v	18.0	Sge
273	*	IC 4997	1	20 20 08.8	+16 43 52	2"	10.5v	14.4	Sge
274	*	NGC 6891	2a+2b	20 20 08.8	+16 43 52	12"	10.5v	12.4	Del
275	*	NGC 6905 (Blue Flash)	3+3	20 22 23.0	+20 06 16	72 x 37"	11.1v	15.5	Del
276		PK 031-0.2	-	18 50 24.6	-01 40 22	25"	-	-	Aql
277		Kohoutek 3-17	2	18 56 18.3	+07 07 22	15"	-	-	Aql
278		Minkowski 1-66	1	18 58 26.3	-01 03 46	10"	13.2p	-	Aql
279	*	Sharpless 2-71	3b+3	19 02 00.0	+02 09 23	2.6 x 1.5'	13.2v	13.8	Aql
280		PK 043+2.1	-	19 02 17.8	+10 17 32	14"	-	18.5	Aql
281	*	NGC 6741 (Phantom Streak)	4	19 02 37.1	-00 26 57	8"	11.5v	17.6	Aql
282		PK 036-1.2	-	19 02 59.4	+03 02 20	12"	-	-	Aql

Page	AL	Object	Type	RA	Dec	Size	Mag	Mag*	Con
283		Sharpless 2-78	-	19 03 10.3	+14 06 56	10.0'	-	17.7	Aql
284	*	NGC 6751	3	19 05 55.5	-05 59 33	26"	11.9	15.4	Aql
285		PK 036-2.1	-	19 08 02.2	+02 21 21	21"	-	-	Aql
286		Minkowski 4-12	4+2	19 13 05.5	+15 46 42	9"	18.6p	-	Aql
287		PK 029-7.1	-	19 13 55.7	+06 18 53	14"	15.6p	-	Aql
288		NGC 6772	3b+2	19 14 36.4	-02 42 27	84"	12.7v	18.6	Aql
289	*	IC 4846	2	19 16 28.4	-09 02 38	2"	11.9v	15.1	Aql
290		Sanduleak 2-387	-	19 18 19.7	-11 06 17	16"	13.3p	14.0	Aql
291	*	NGC 6778	3+3	19 18 24.9	-01 35 46	16"	12.3v	16.9	Aql
292	*	NGC 6781	3+3	19 18 28.2	+06 32 15	1.8'	11.4v	16.2	Aql
293		Minkowski 4-14	4+3	19 21 00.8	+07 36 50	7"	14.8p	-	Aql
294	*	NGC 6790	2	19 22 57.1	+01 30 44	7"	10.5v	11.1	Aql
295	*	Vyssotsky 2-2	1	19 24 23	+09 53.9	14"	12.7	14.6	Aql
296		PK 048-1.1	SNR	19 26 26.7	+13 19 33	40"	-	-	Aql
297		PB 10	-	19 28 14.5	+12 19 35	10"	14.8p	-	Aql
298	*	NGC 6803	2a	19 31 16.6	+10 03 20	6"	11.4v	15.2	Aql
299	*	NGC 6804	4+2	19 31 35.2	+09 13 31	35"	12.2p	14.4	Aql
300	*	NGC 6807	2	19 34 33.7	+05 41 01	2"	12.0v	16.3	Aql
301		Merrill 1-1	4	19 39 09.9	+15 56 45	8"	11.8v	14.1	Aql
302		Minkowski 1-73	2	19 41 09.4	+14 56 57	5"	14.0v	14.5	Aql
302		Minkowski 1-74	1	19 42 18.8	+15 09 06	5"	12.9v	18.1	Aql
303		PC 22	-	19 42 03.6	+13 50 35	24 x 18"	14.4p	18.1	Aql
304		PK 035-0.1	-	18 58 10.6	+01 36 55	33"	12.8IR	15.1	Aql
305		NGC 6852	4	20 00 39.2	+01 43 41	28"	12.6v	17.9	Aql
306	*	IC 1297	-	19 17 23.5	-39 36 48	20"	10.7v	14.2	CrA
307		IC 5148/50 (Spare Tyre Neb.)	4	21 59 35.2	-39 23 09	2.2'	12.9p	16.5	Gru
308	*	IC 5217	2	22 23 55.7	+50 58 00	7"	11.3v	15.4	Lac
309		Minkowski 2-53	3b	22 32 17.6	+56 10 26	23 x 17"	14.8v	21.2	Lac
310	*	NGC 7094	4	21 36 53.0	+12 47 19	94"	13.4v	13.6	Peg
311	*	Jones 1	3b	23 35 53.6	+30 28 02	5.3'	12.1v	16.1	Peg
312	*	NGC 7009 (Saturn Nebula)	4+6	21 04 10.9	-11 21 49	70"	8.0v	12.7	Aqr
313	*	NGC 7293 (Helix Nebula)	4+3	22 29 38.4	-20 50 12	16'	7.3v	13.5	Aqr
314		NGC 7139	3b	21 46 08.6	+63 47 31	77"	13.3v	18.1	Cep
315		Minkowski 2-51	2+3	22 16 03.8	+57 28 33	72"	13.5v	20.4	Cep
315		Minkowski 2-52	3	22 20 30.9	+57 36 18	14"	15.3v	-	Cep
316		PK 111+11.1	-	22 19 33.9	+70 56 05	8.8'	-	15.1	Cep
317	*	NGC 7354	4+3b	22 40 20.1	+61 17 06	36"	12.2v	16.1	Cep
318		Minkowski 1-80	2	22 56 19.9	+57 09 20	8"	14.0v	-	Cep
319		Minkowski 2-55	3	23 31 51.5	+70 22 16	63 x 45"	14.2v	21.1	Cep
320	*	NGC 40 (Bowtie Nebula)	3b+3	00 13 00.9	+72 31 19	70 x 60"	12.3v	11.5	Cep
321	*	IC 3568 (Baby Eskimo)	2+2a	12 33 06.1	+82 33 48	10"	10.6v	11.4	Cep
322	*	NGC 246 (Skull Nebula)	3b+3	00 47 03.6	-11 52 20	4.1'	10.9v	11.9	Cet

How to Use the Atlas



On the upper left, the naked eye field with the TelRad™ recticle is superimposed on the Planetary Nebula. The bottom chart is a finder field about 4.8º across and 3.0º high. The finder field is wide enough for the finder scope and detailed enough for those who choose to use a low power eyepiece as a "finder", like I do. The limiting magnitude of the field stars is generally set to 12.0 but set to a lower limit in star rich regions. Pay attention to the magnitude scale on the bottom left. The field of the DSS image is superimposed on the finder chart. The field size of the image is overlaid on the finder chart.

On the upper right, the negative DSS image is provided. The field is generally 15' square unless noted.

The images are oriented north pointed up and west to the right. A table is provided below giving some basic information of the Planetary Nebula.

The table provided at the bottom of the page includes the following data.

- **Other ID** – Other ID's associated with this object
- **Type** –

Type	Description
1	Stellar
2a	Smooth disc – brighter towards the center
2b	Smooth disc – uniform brightness
2c	Smooth disc – traces of ring structure
3a	Irregular disc – very irregular brightness distribution
3b	Irregular disc – traces of ring structure
4	Ring structure
5	Irregular form
6	Anomalous form

- **RA** and **Dec** – Epoch 2000 celestial coordinates
- **Mag** – magnitude (sources Megastar or Hynes). Visual magnitude used wherever possible.
- ***Mag** – Magnitude of the central star
- **Size** – listed size of the object.

The Planetary Nebulae Catalogue (pages 6-12) provides the following information:

- **Page** – Page number of the detailed finder charts
- **AL** – Denotes if the planetary nebula qualified as part of the Astronomical League Observing program which results in the Pin. For details, see www.astroleague.org/al/obsclubs/planetarynebula/planetneb1.html
- **Object** – listed name
- **Type** – listed type
- **RA and Dec** – Epoch 2000.0 coordinates
- **Size** – listed size
- **Mag** – Listed magnitude
- **Mag* -** Listed magnitude of the central star
- **Con** – Home constellation of the object

Several additional indices are provided at the end with the following sort orders.

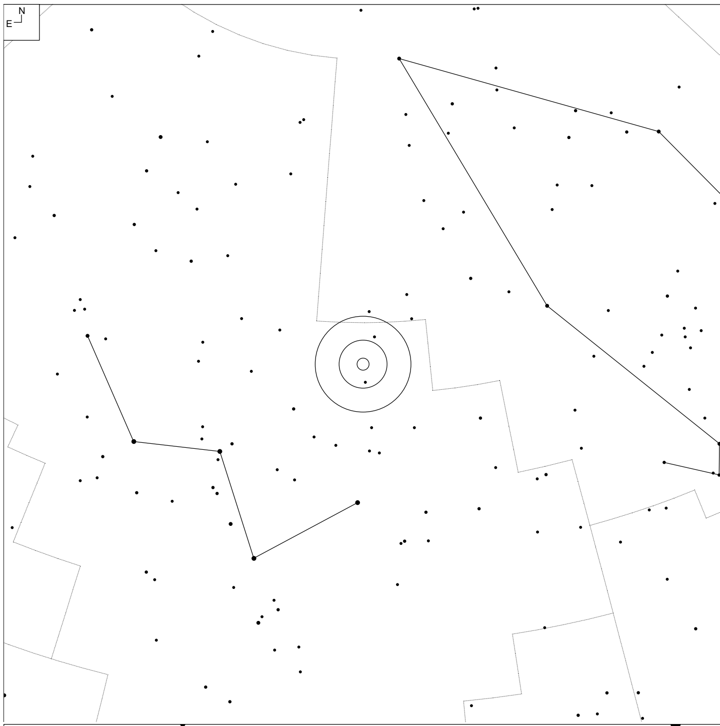
1. By Object name (eg NGC, IC, PK, etc)
2. Astronomical League pin requirements (filtered)
3. By Object Common Name (filtered)

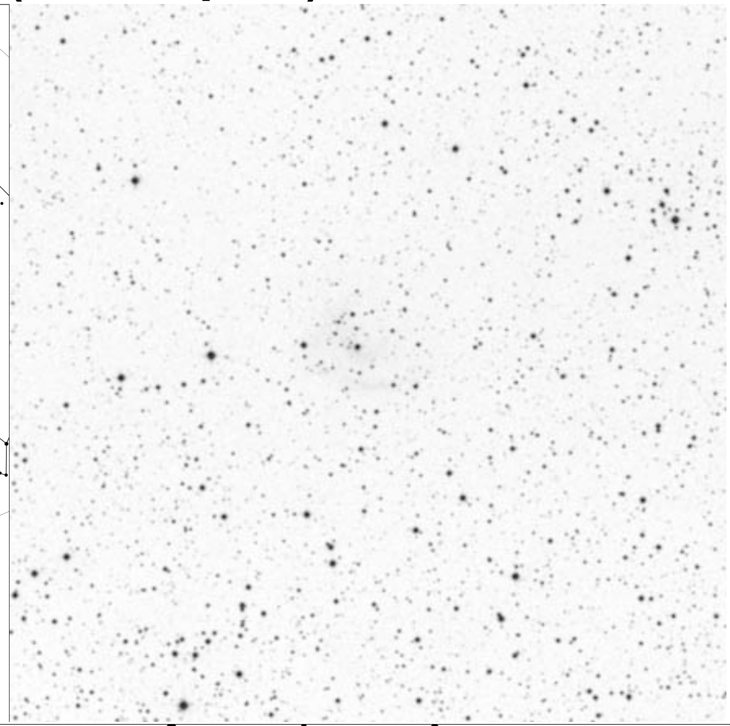
Any comments or to share any observations, send them to Alvin.Huey@FaintFuzzies.com.

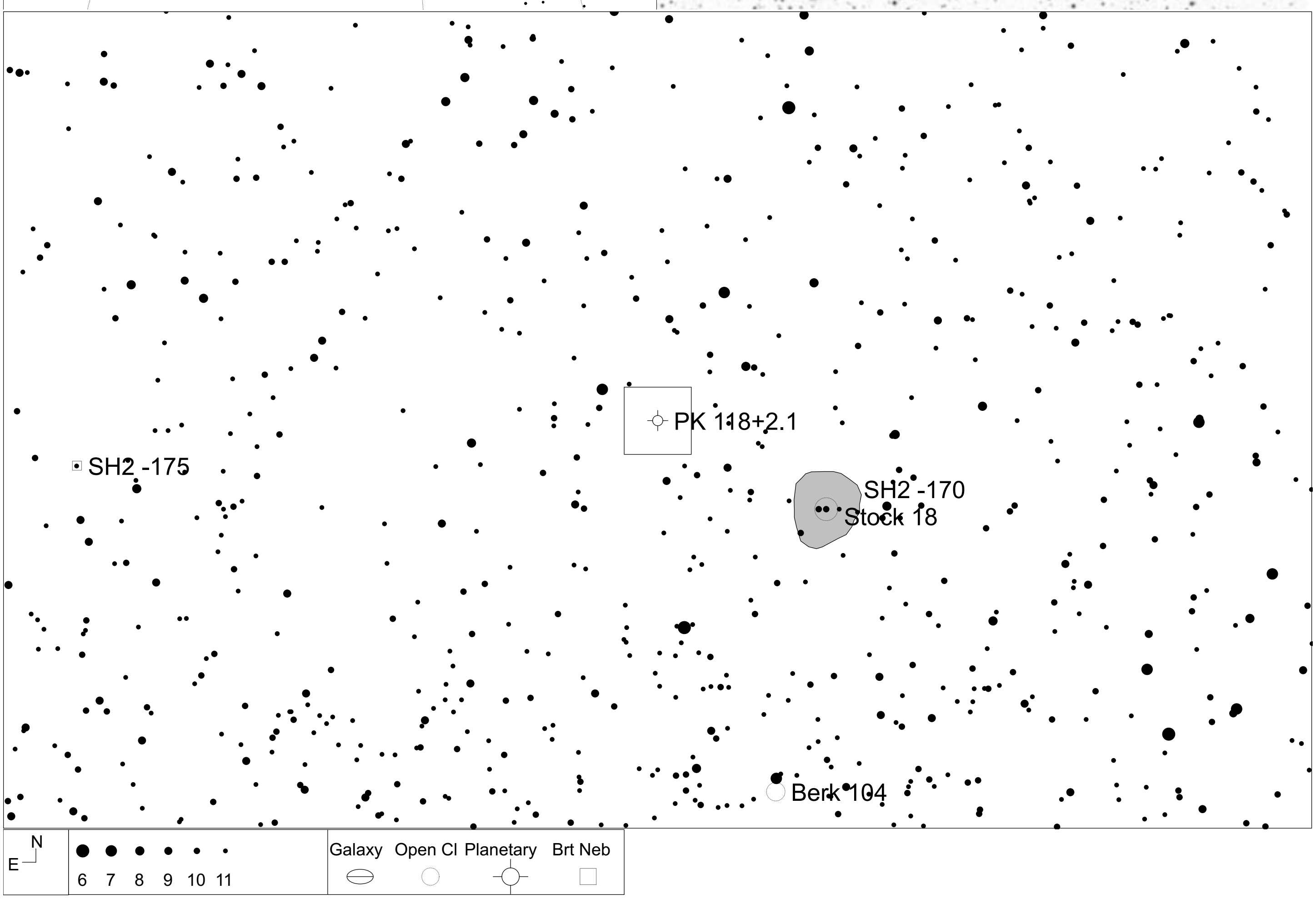
Any feedback or suggestions would be greatly appreciated. I hope to keep this resource updated and made available to all of you, the deep sky observer.

Planetary Nebulae and Supernovae Remnants Atlas

PK 118+2.1 (Cassiopeia)

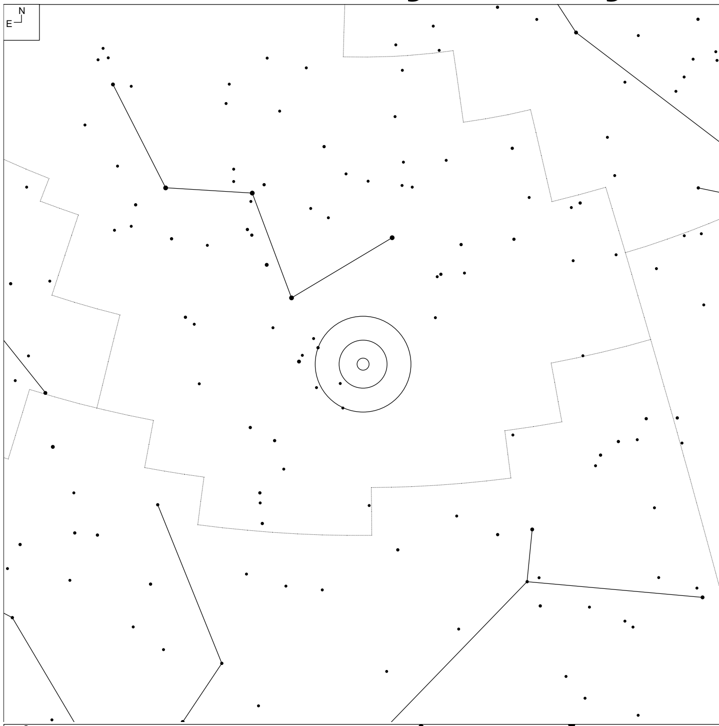


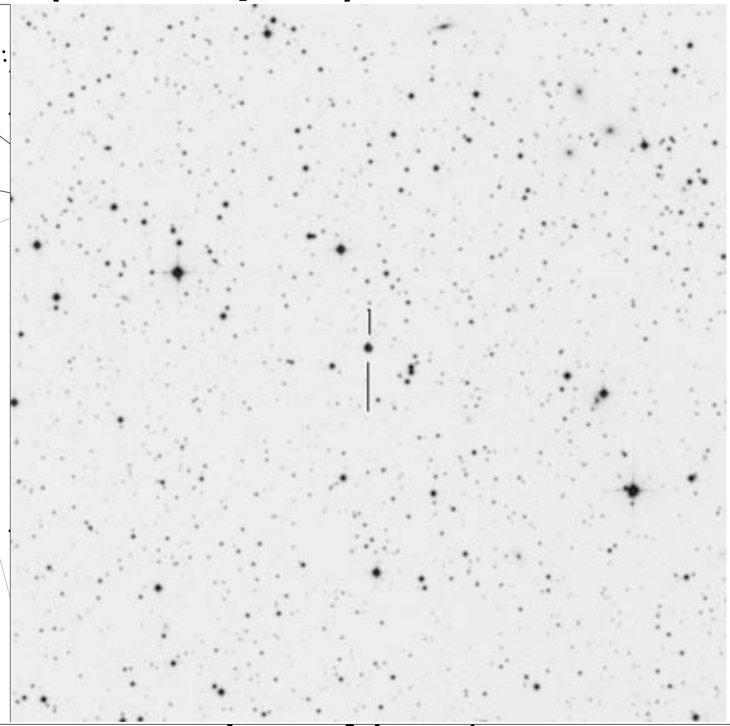


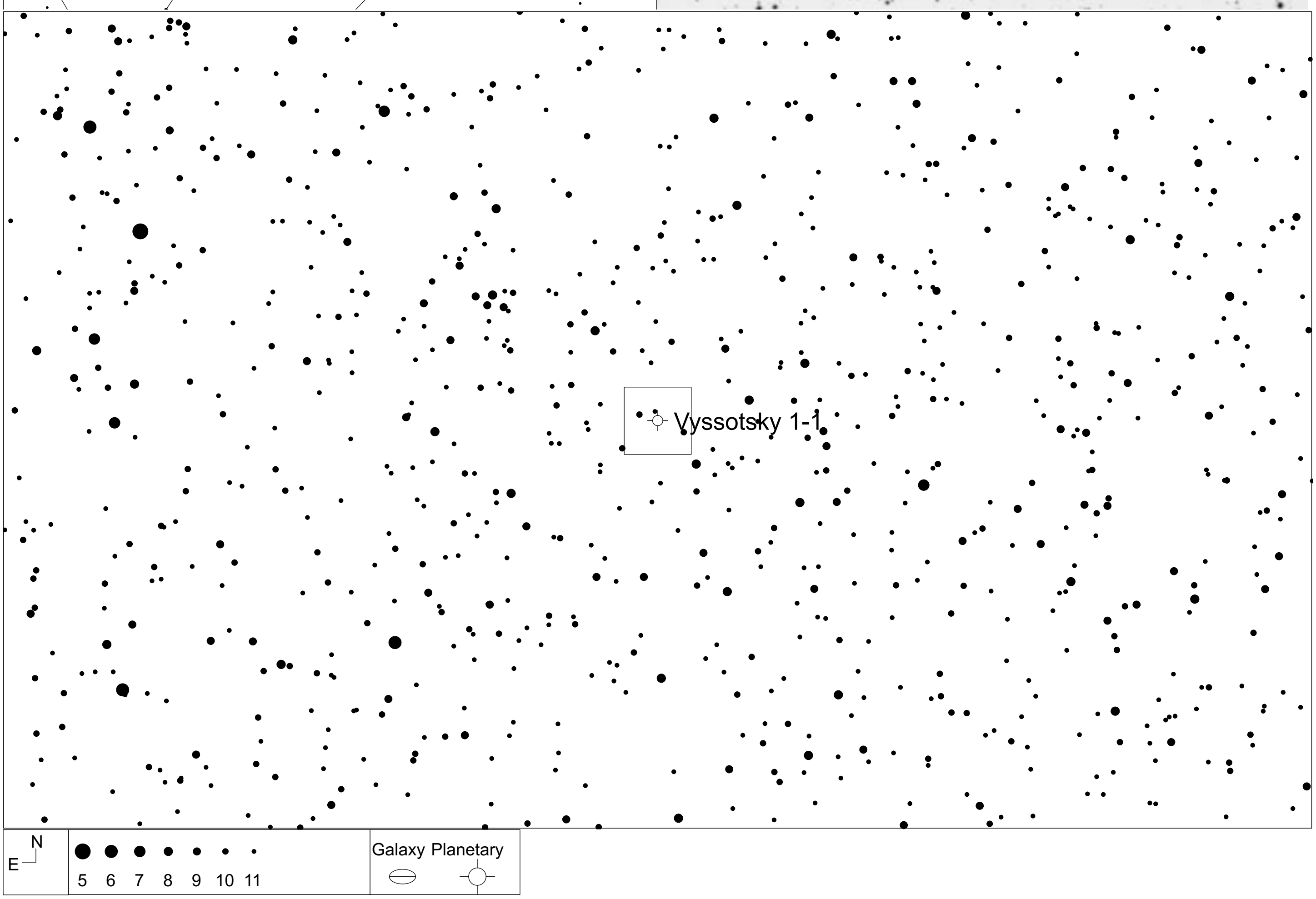


Other ID	Type	RA	Dec	Mag	* Mag	Size
-	-	00 07 20.5	+64 57 21	-	-	2.1’

Vyssotsky 1-1 (Cassiopeia)

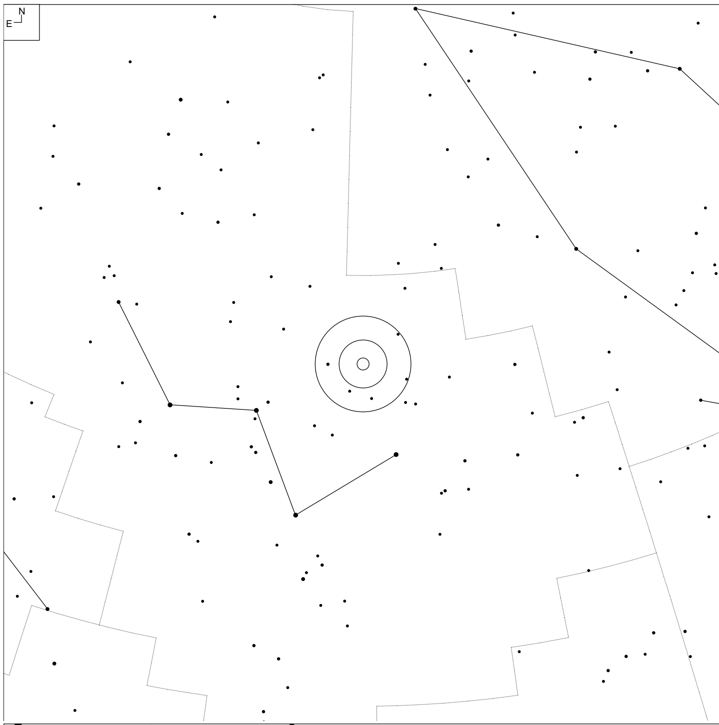


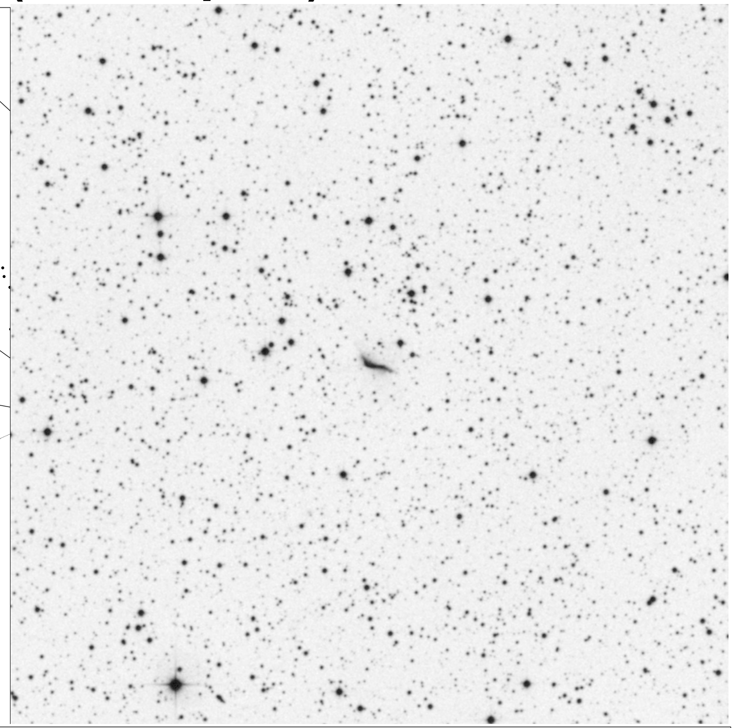


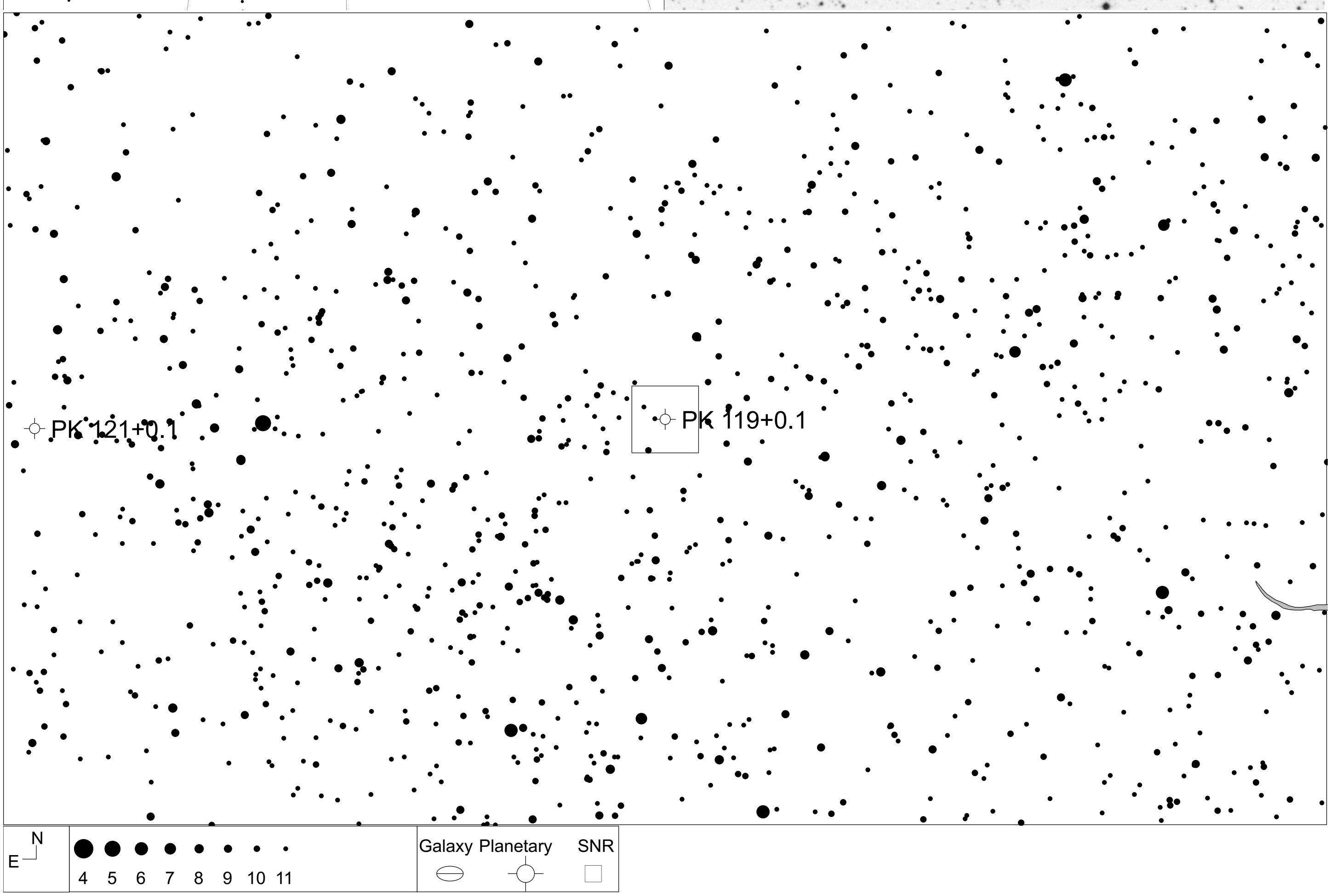


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 118-8.1	-	00 18 42.4	+53 52 18	12.6p	14.1	5.0”

PK 119+0.1 (Cassiopeia)

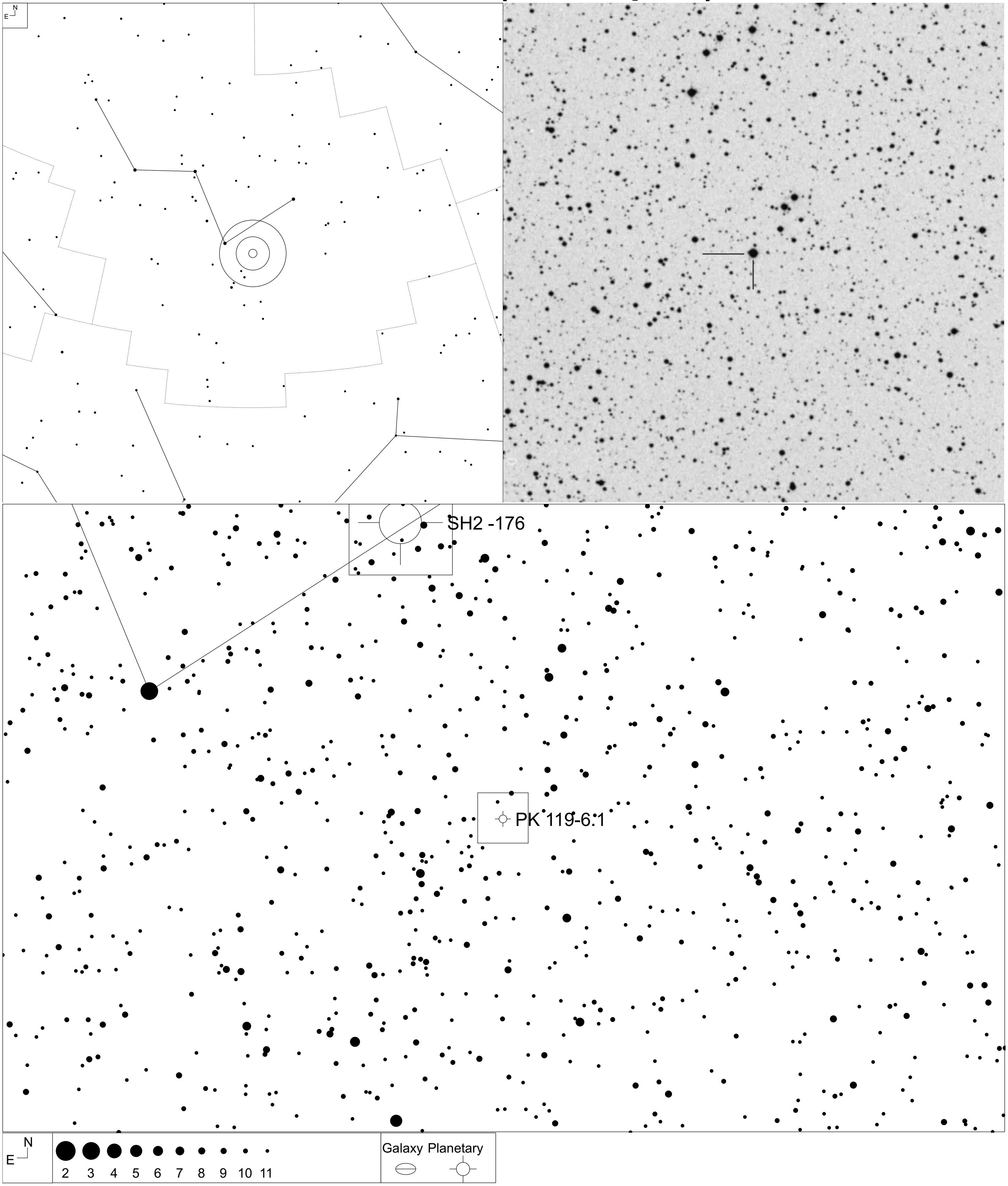






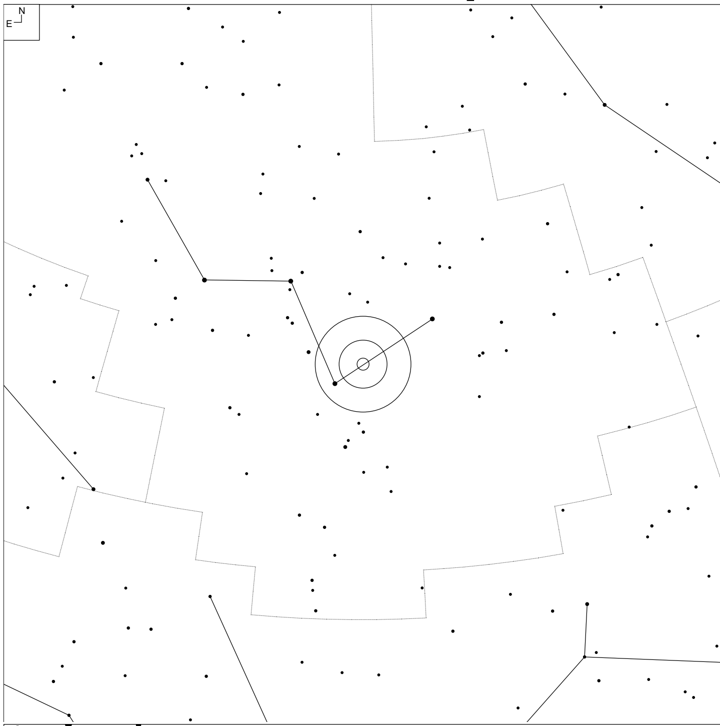
Other ID	Type	RA	Dec	Mag	* Mag	Size
BV 1	-	00 19 58.8	+62 59 01	14.7v	22.3	50x20”

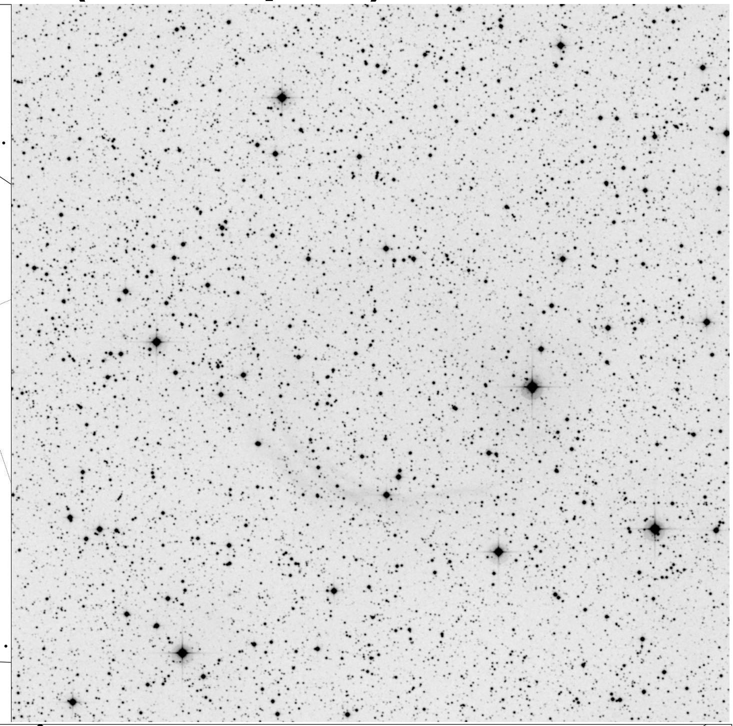
PK 119-6.1 (Cassiopeia)

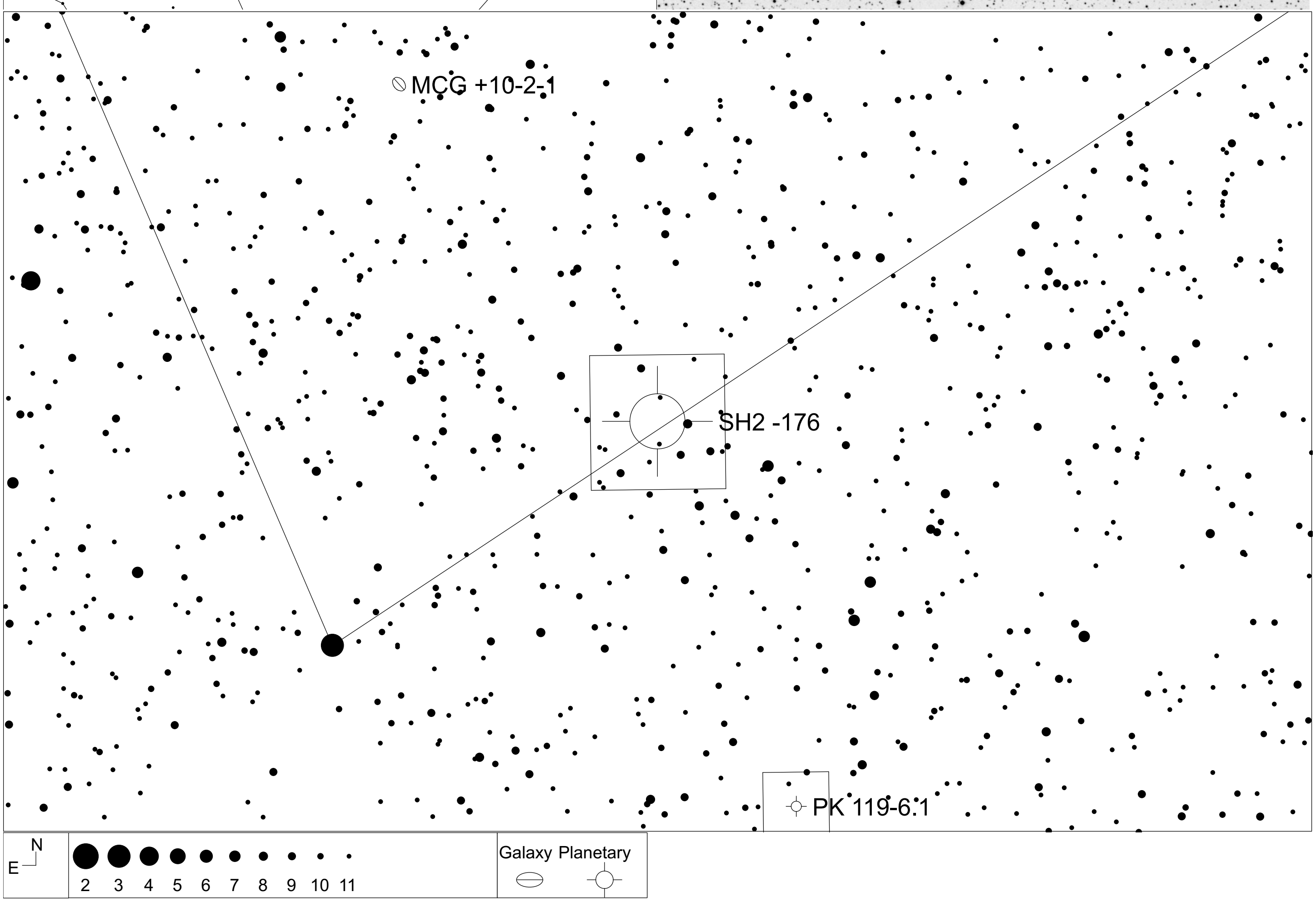


Other ID	Type	RA	Dec	Mag	* Mag	Size
Hu 1-1	2	00 28 15.7	+55 57 54	12.3v	16.5	5”

Sharpless 2-176 (Cassiopeia)

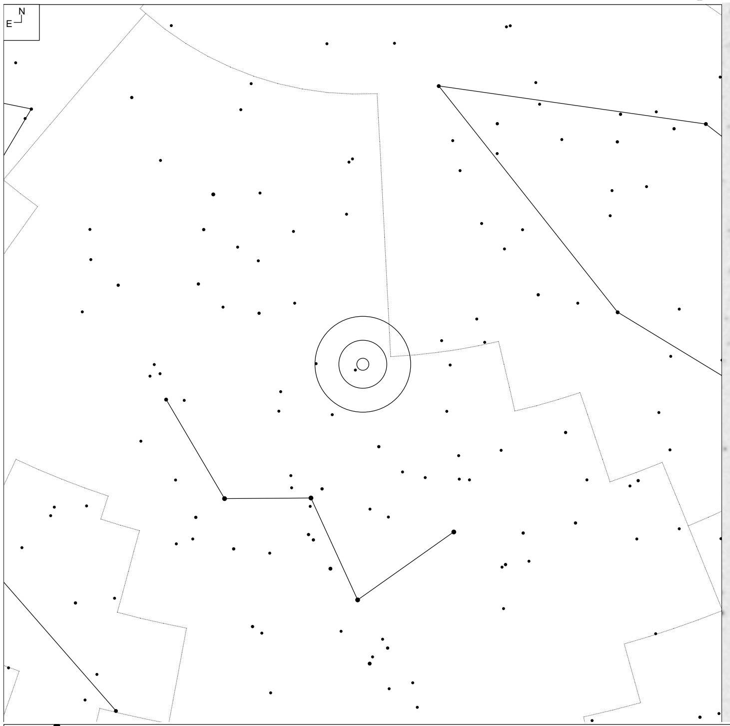


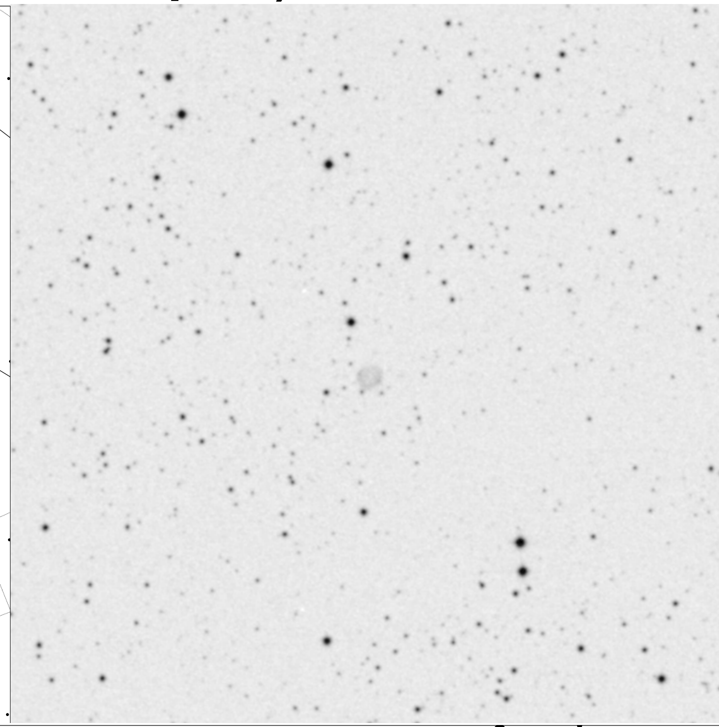


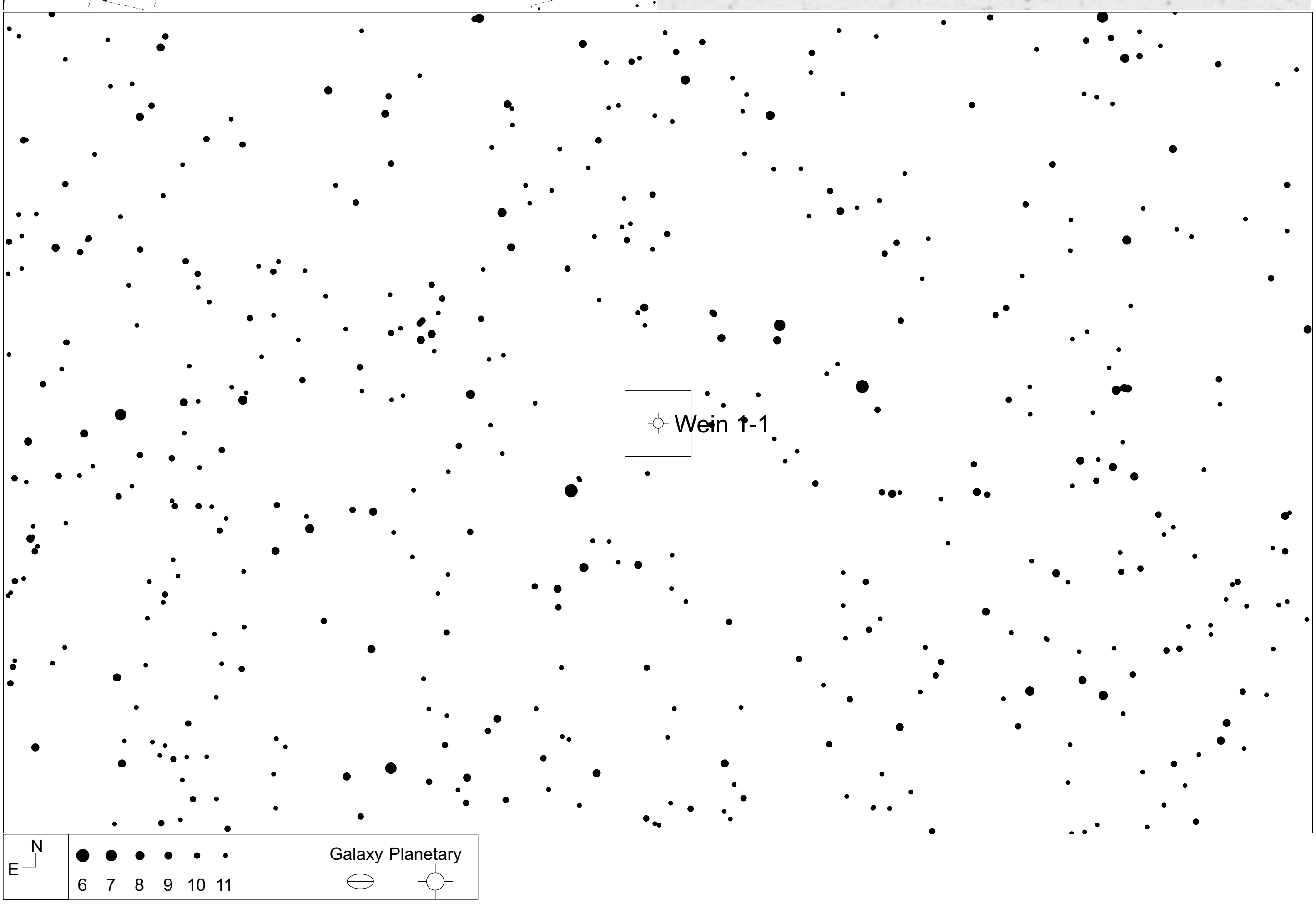


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 120-5.1	-	00 31 53.6	+57 22 33	-	18.1	12.0’

Wein 1-1 (Cassiopeia)

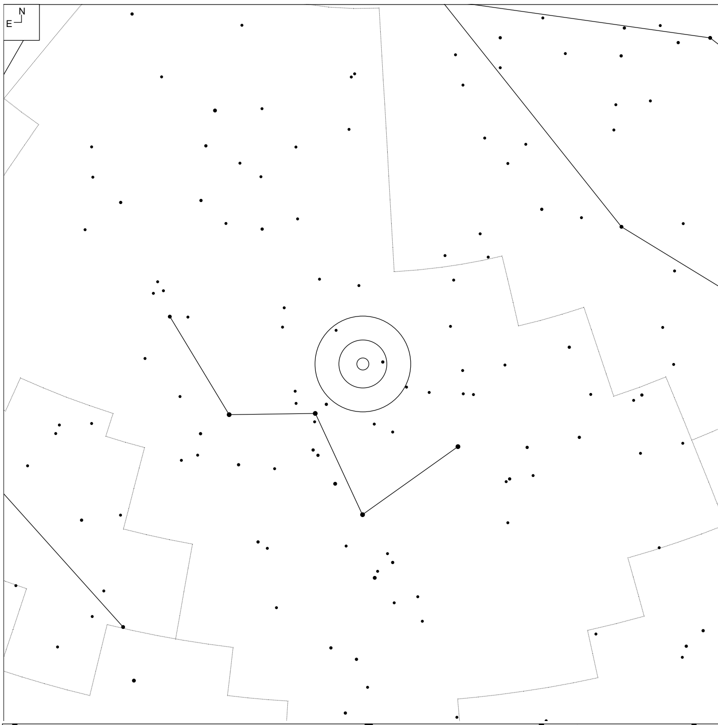


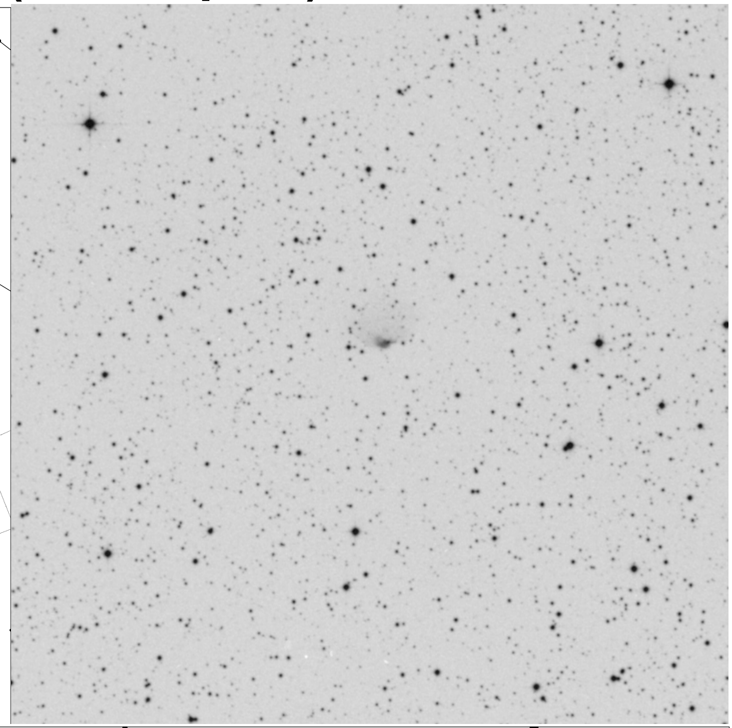


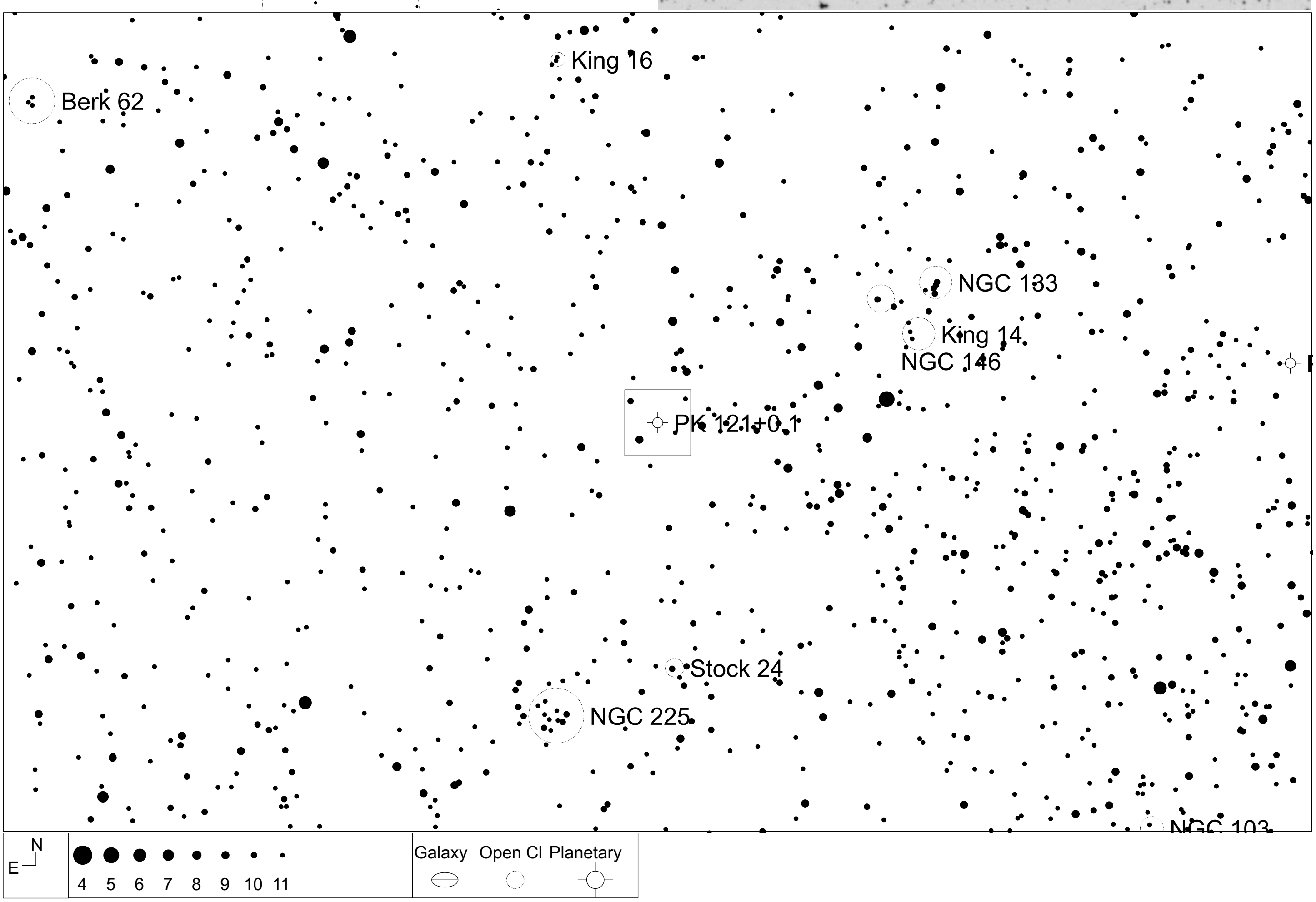


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 121+3.1	-	00 38 54.6	+66 23 47	21.9p	21.0	24”

PK 121+0.1 (Cassiopeia)

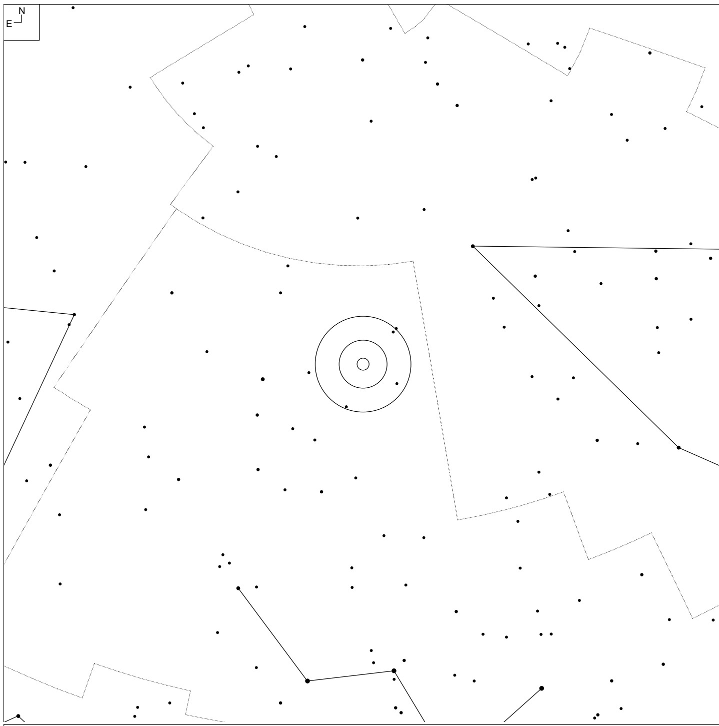


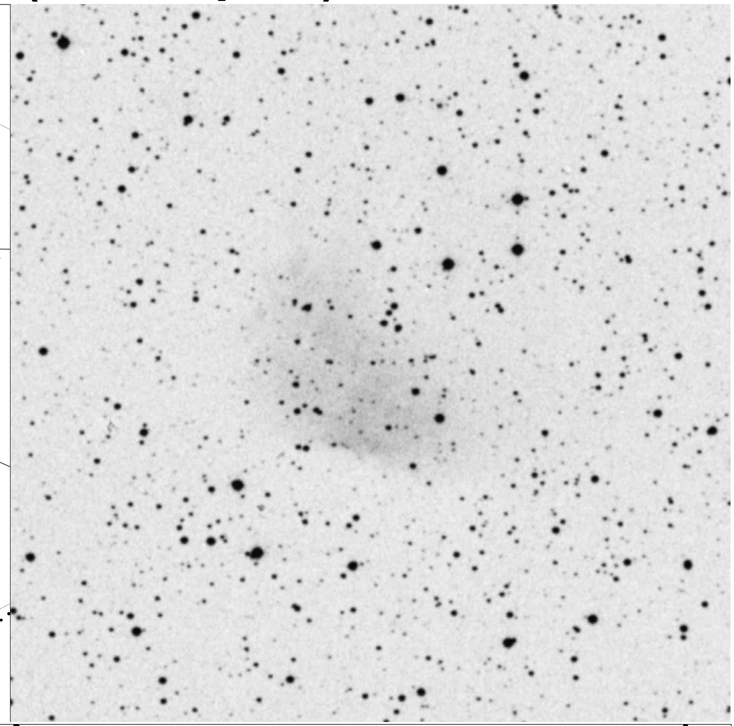


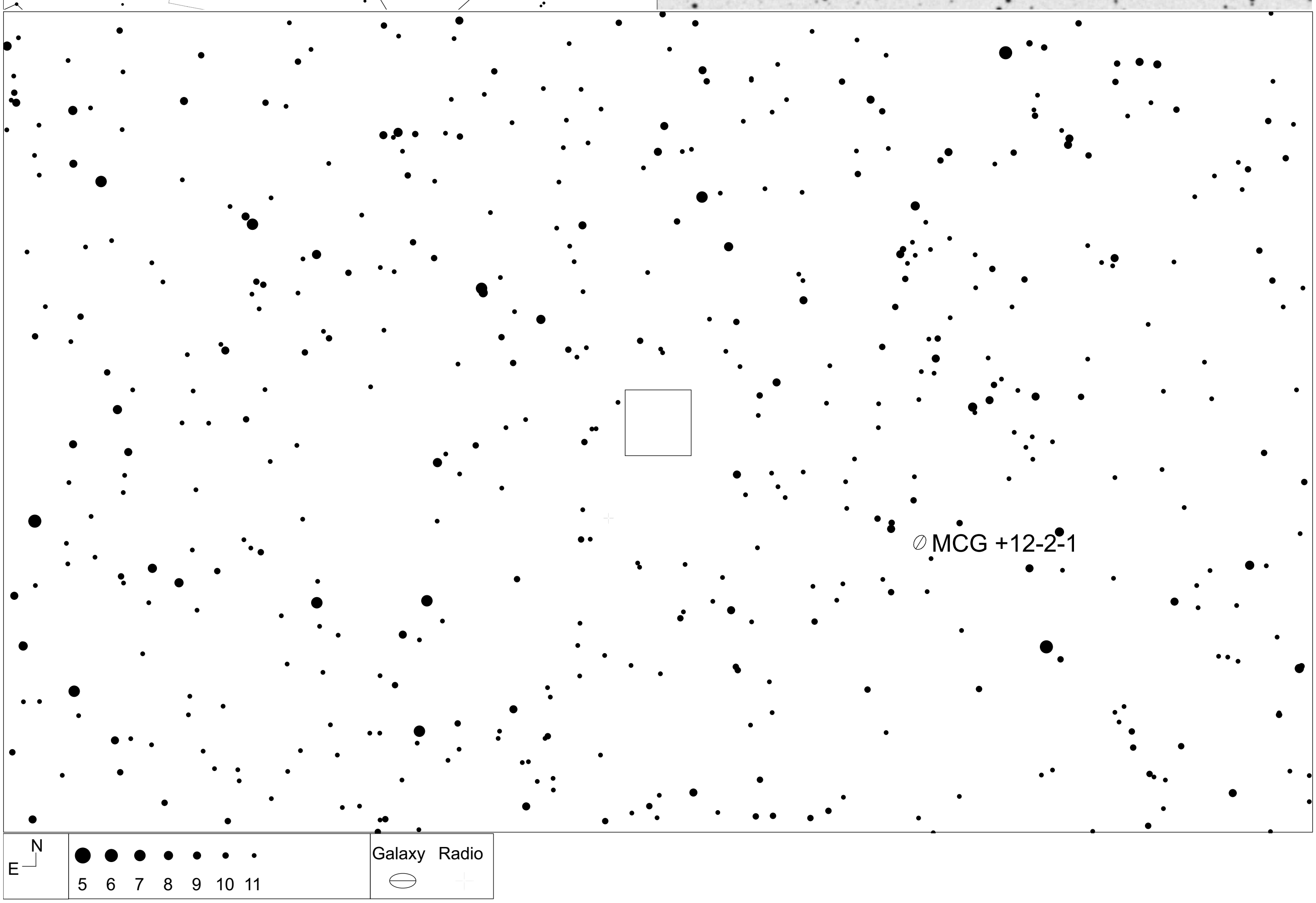


Other ID	Type	RA	Dec	Mag	* Mag	Size
BV 2	-	00 40 21.6	+62 51 25	15.4v	-	40”

PK 124+10.1 (Cassiopeia)

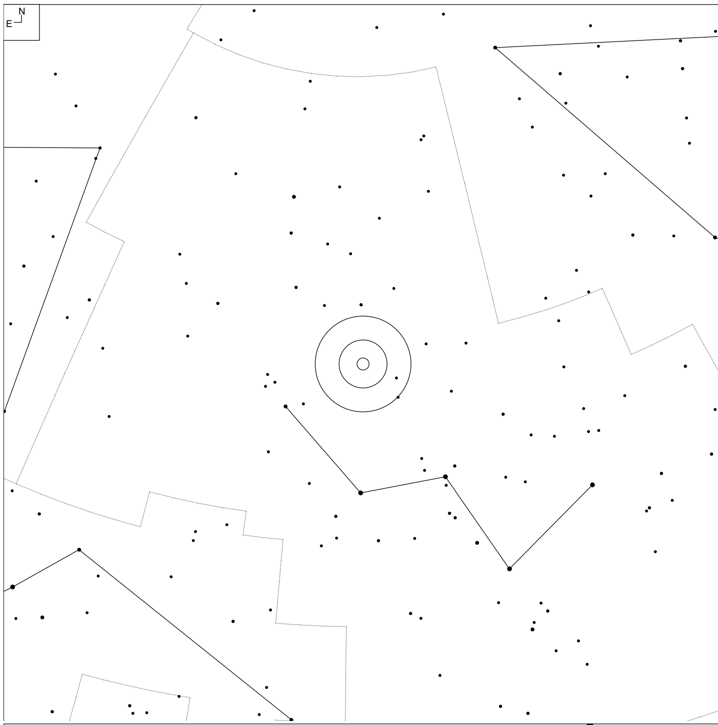


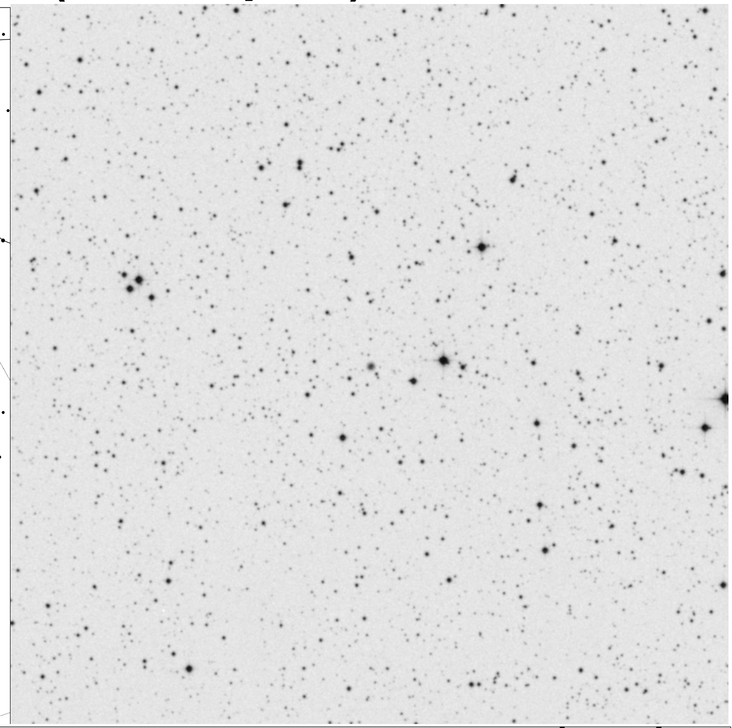


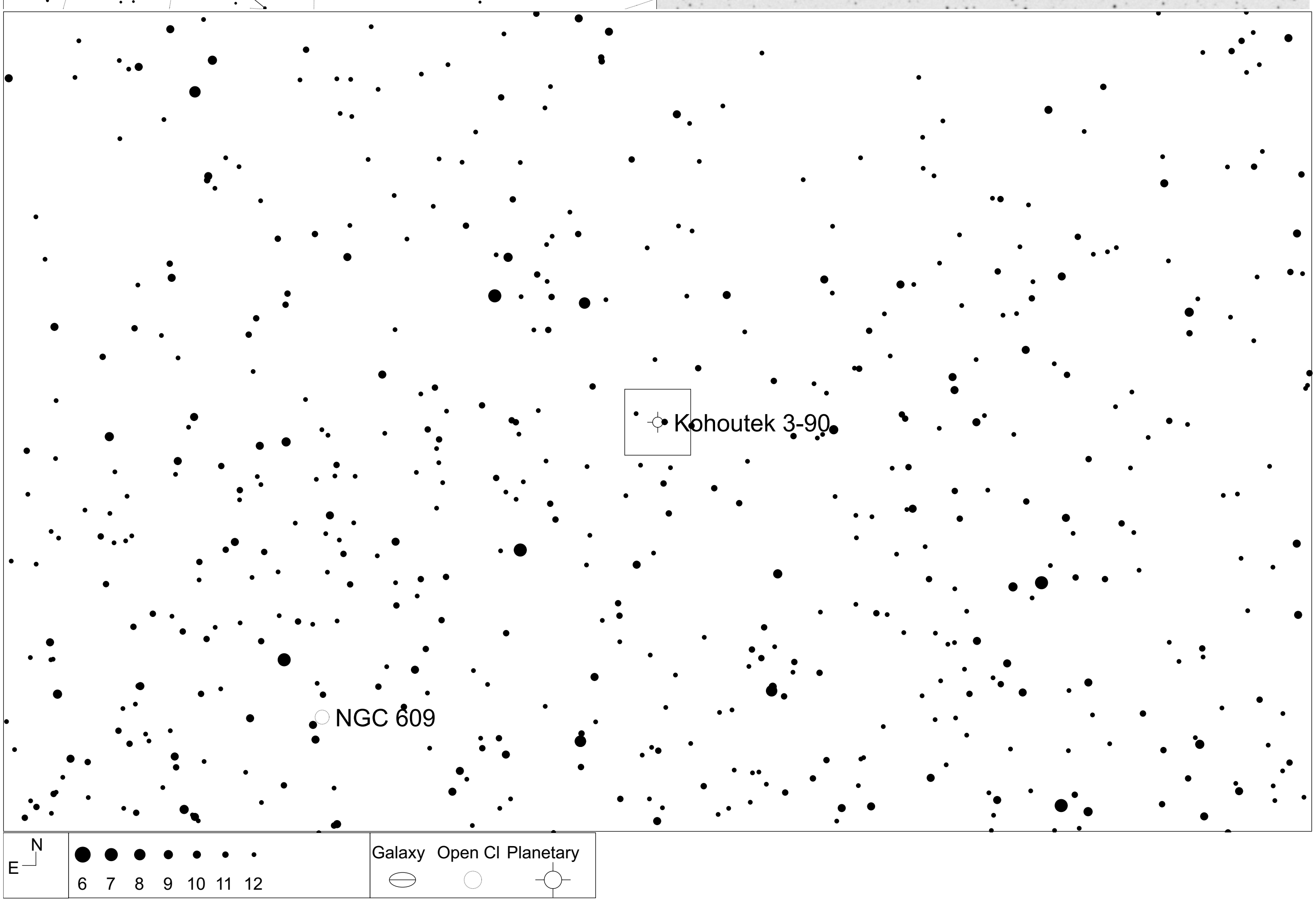


Other ID	Type	RA	Dec	Mag	* Mag	Size
-	SNR	01 07 12.9	+73 32 57	-	16.4	4.5'

Kohoutek 3-90 (Cassiopeia)

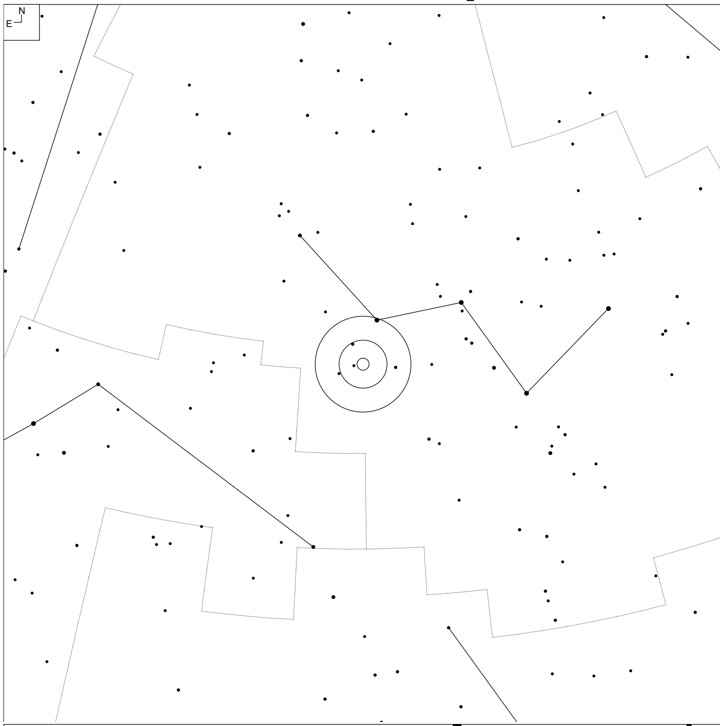


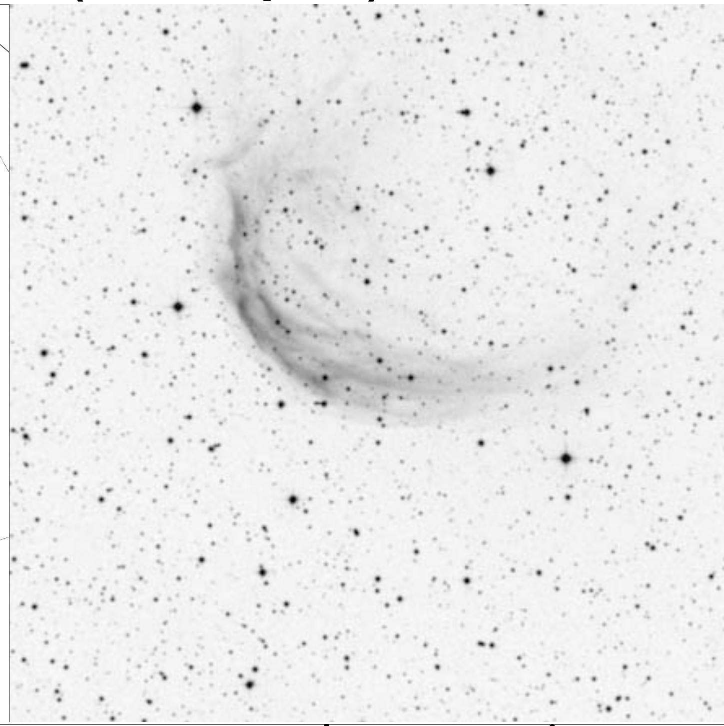


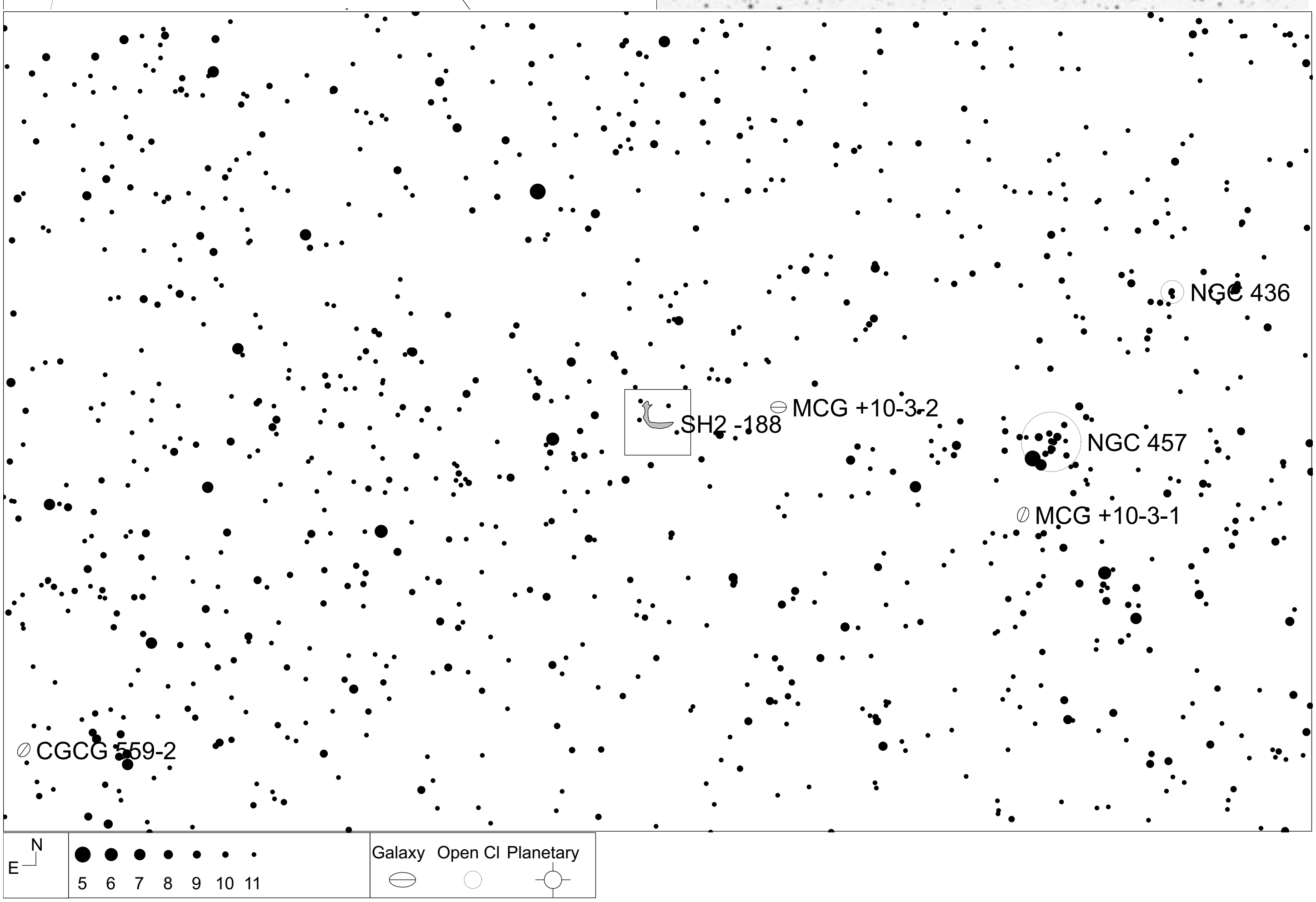


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 126+3.1	-	01 24 58.9	+65 38 33	16.0p	-	9”

Sharpless 2-188 (Cassiopeia)

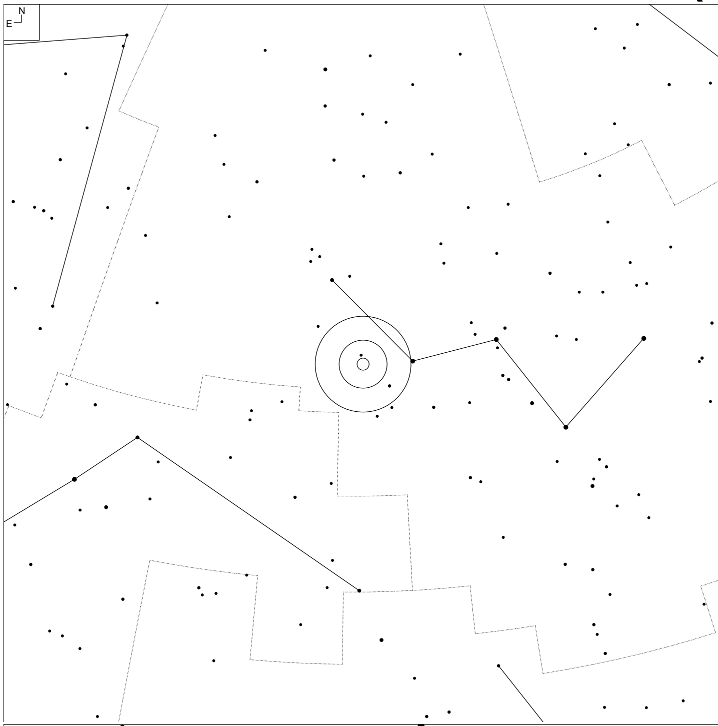


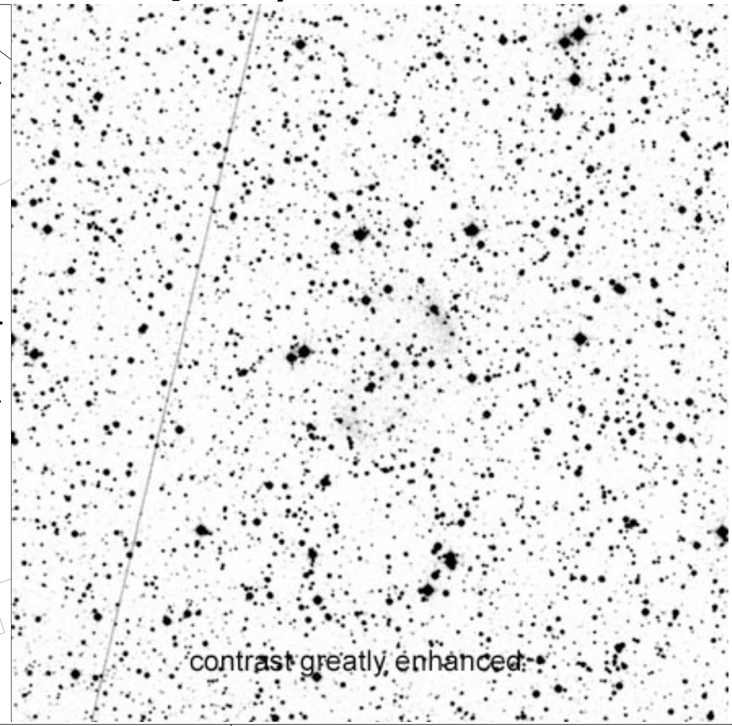


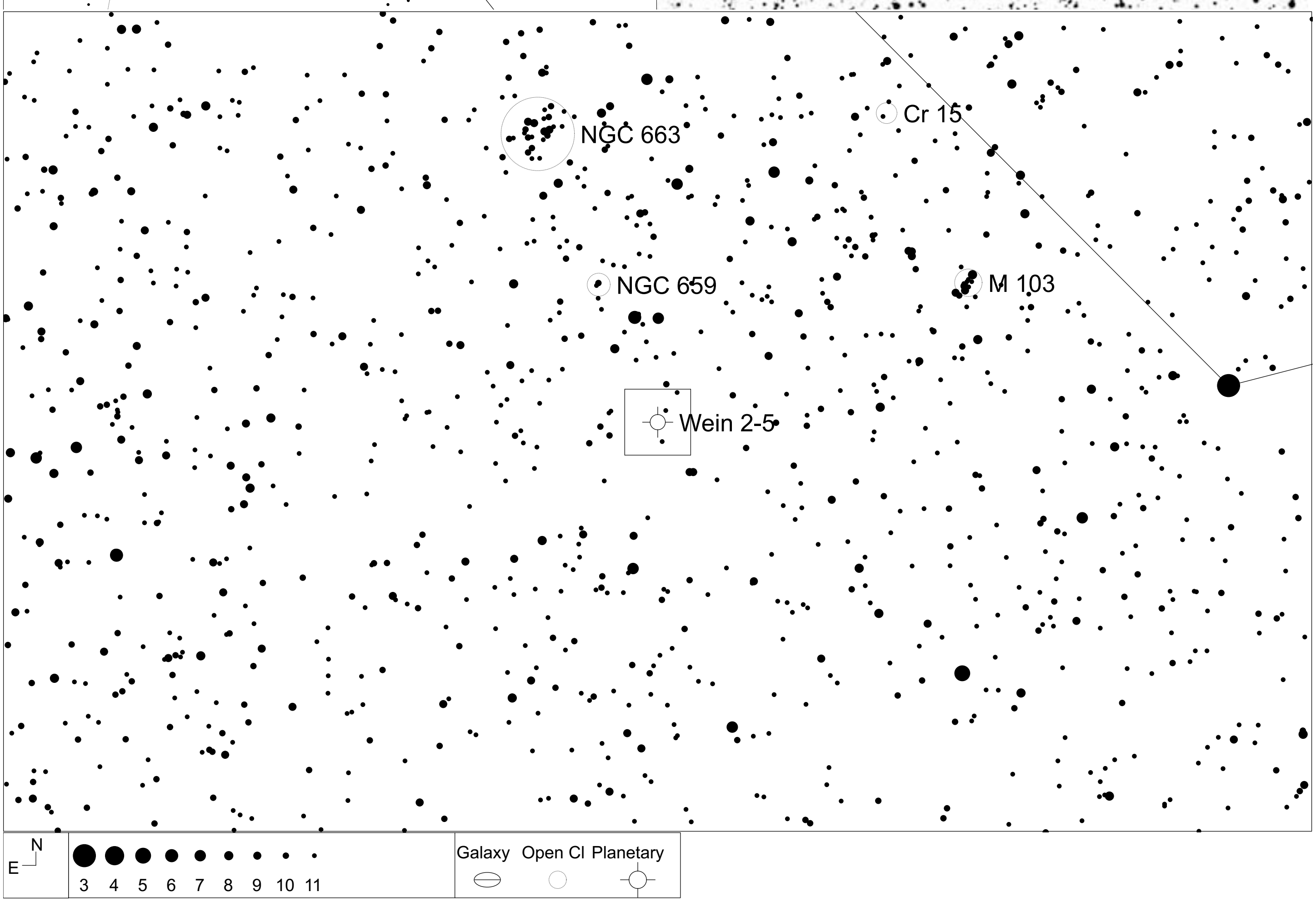


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 128-4.1	-	01 30 30.0	+58 23 30	-	17.4	9.0’

Wein 2-5 (Cassiopeia)

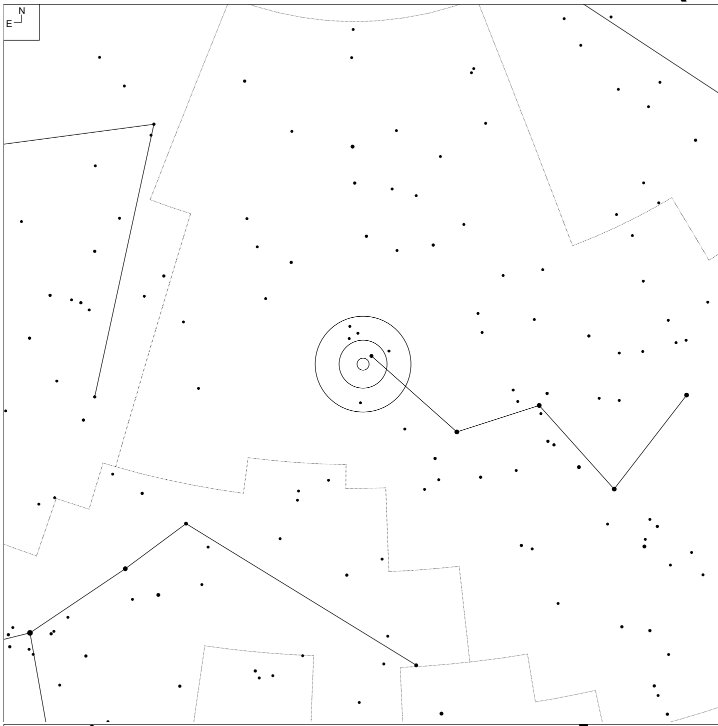


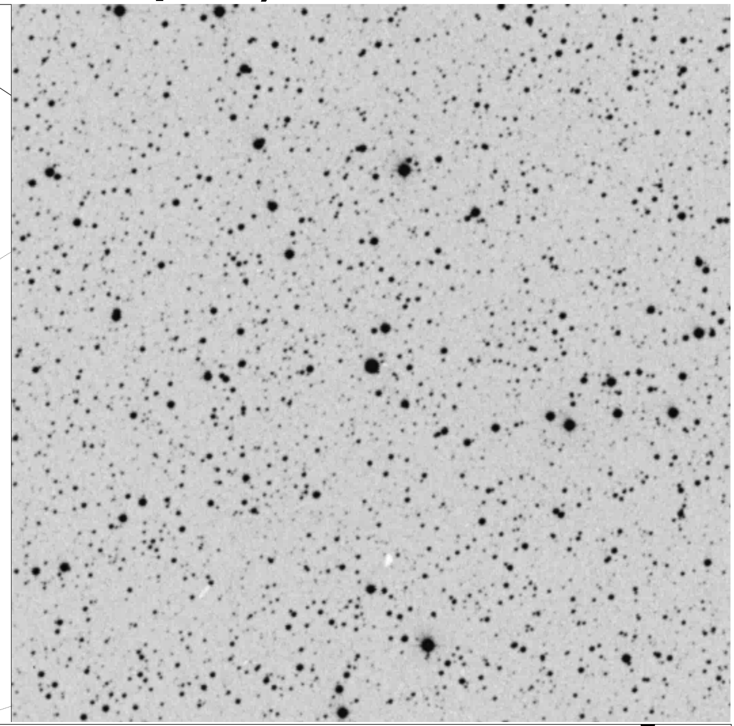


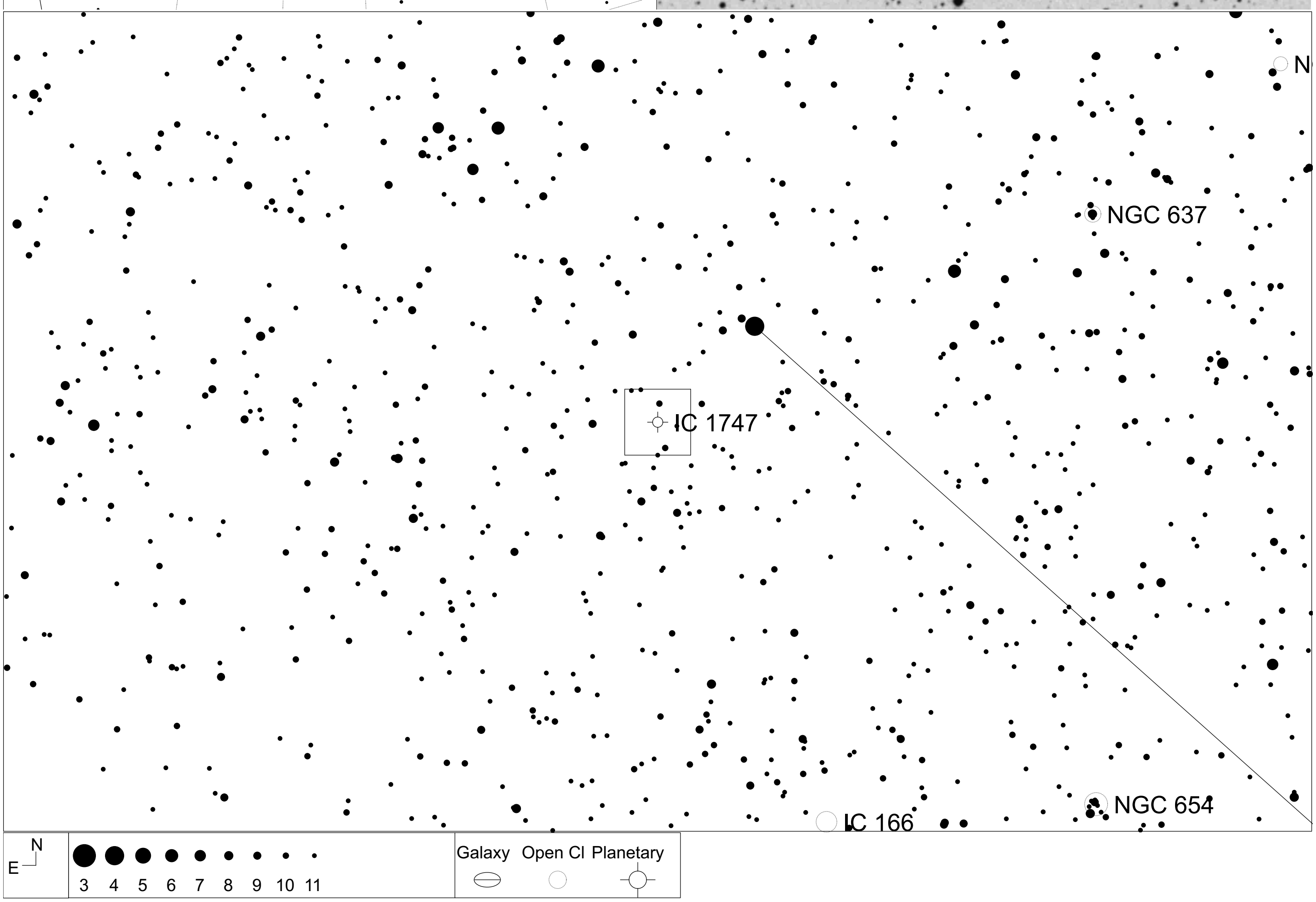


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 129-2.1	-	01 42 38.2	+60 10 06	-	-	3.3’

IC 1747 (Cassiopeia)

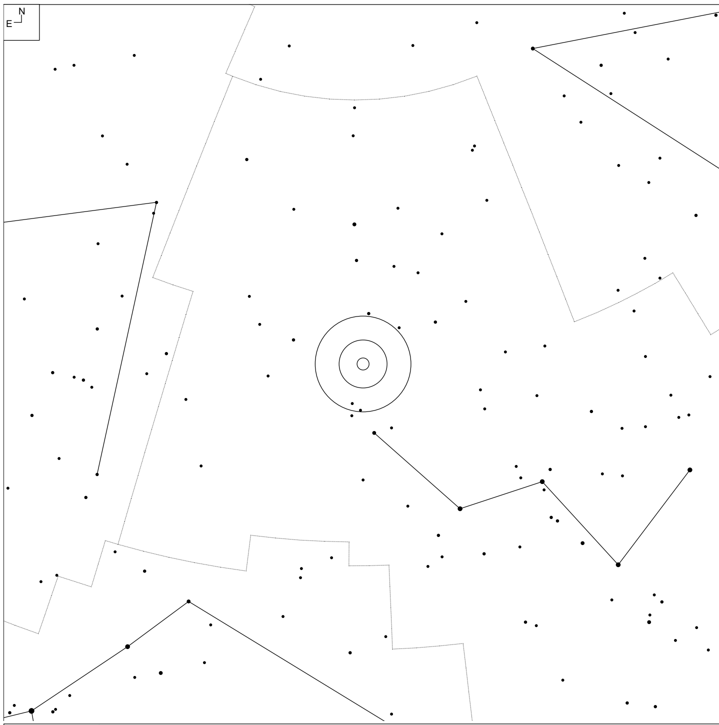


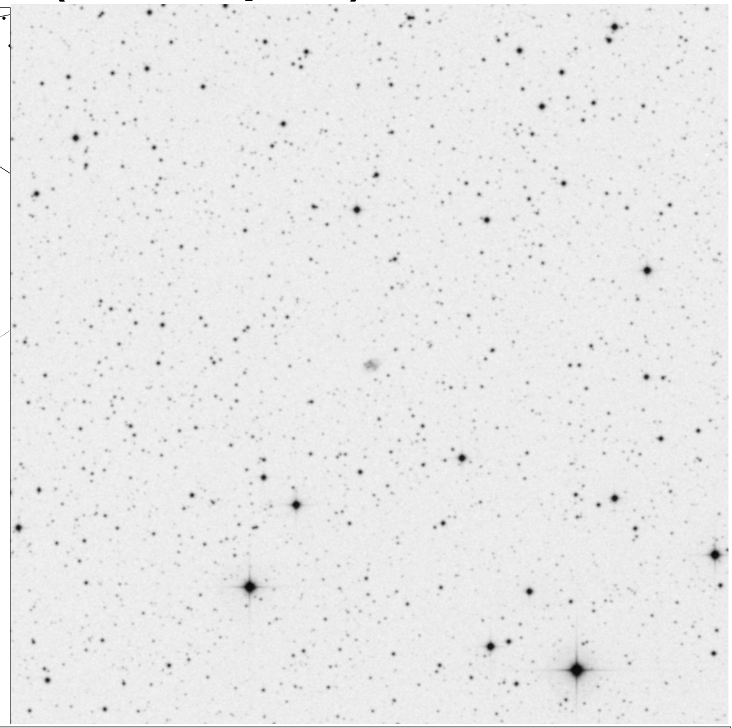


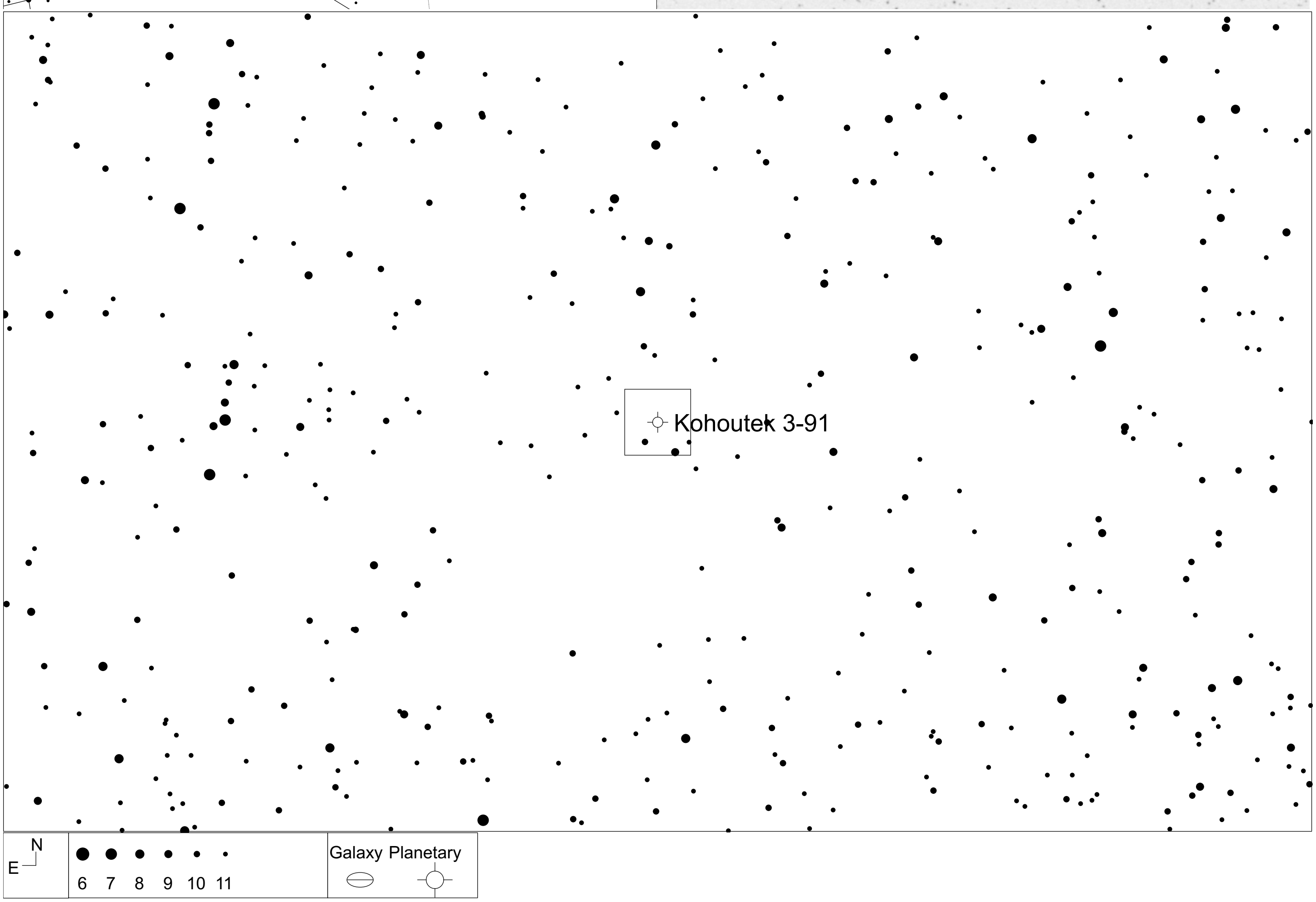


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 130+1.1	3b	01 57 36.0	+63 19 17	12.0v	15.8	13”

Kohoutek 3-91 (Cassiopeia)

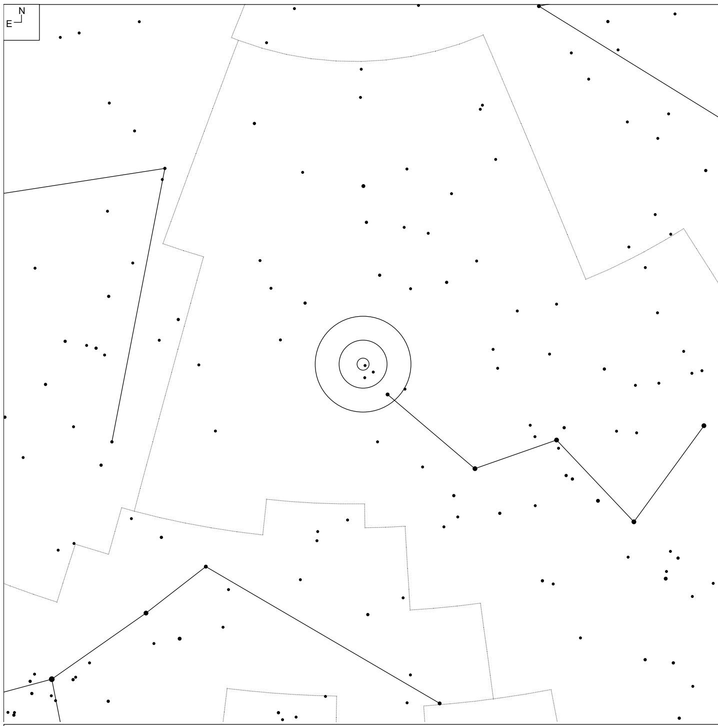


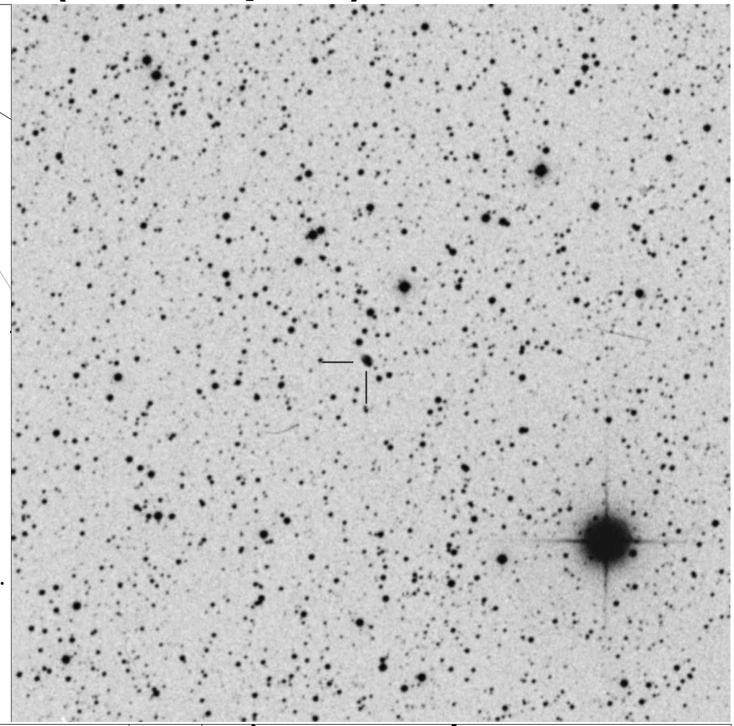


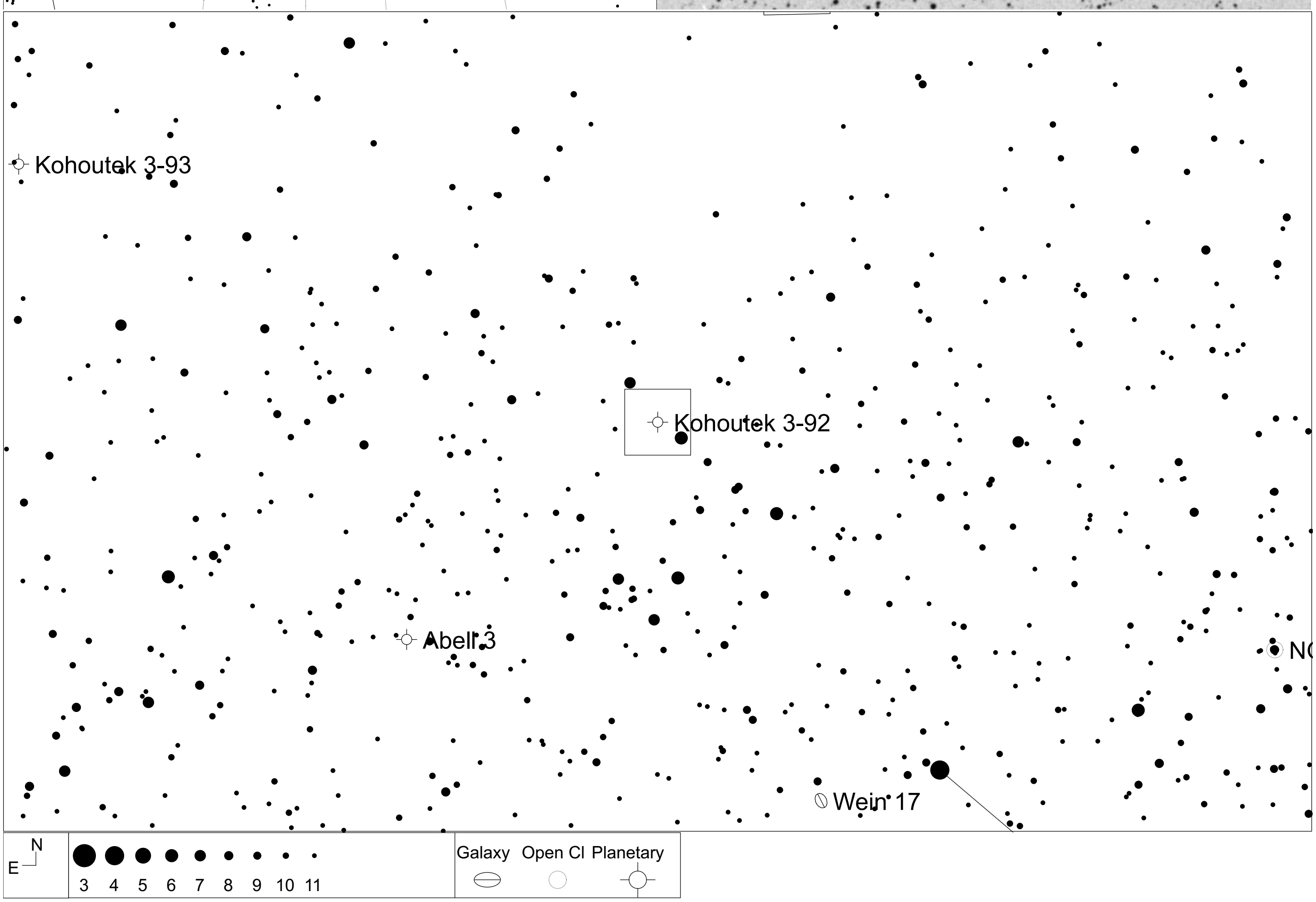


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 129+4.1	-	01 58 35.7	+66 33 58	20.9p	20.5	18”

Kohoutek 3-92 (Cassiopeia)

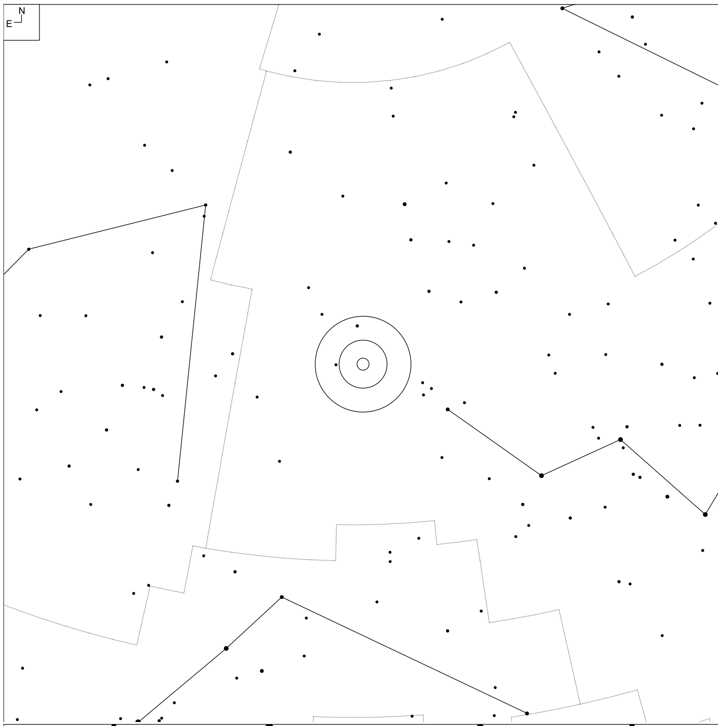


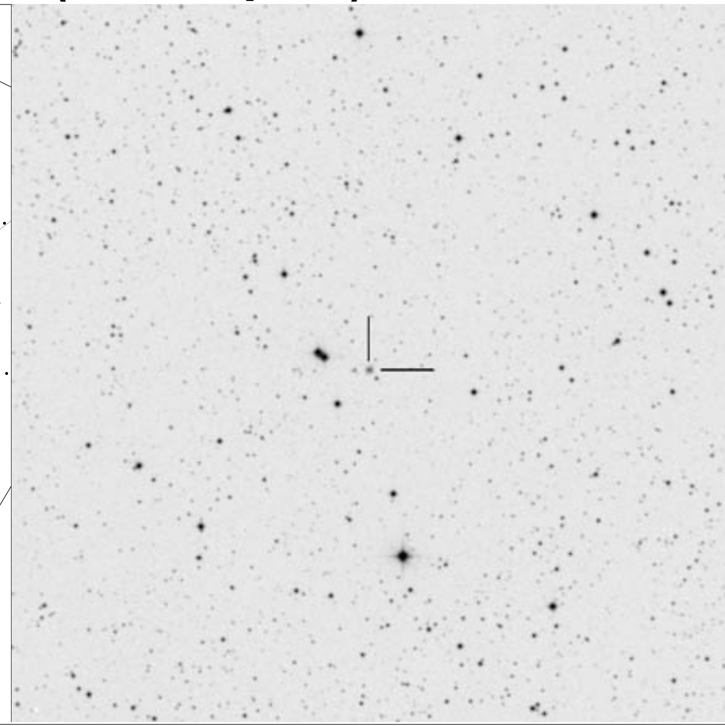


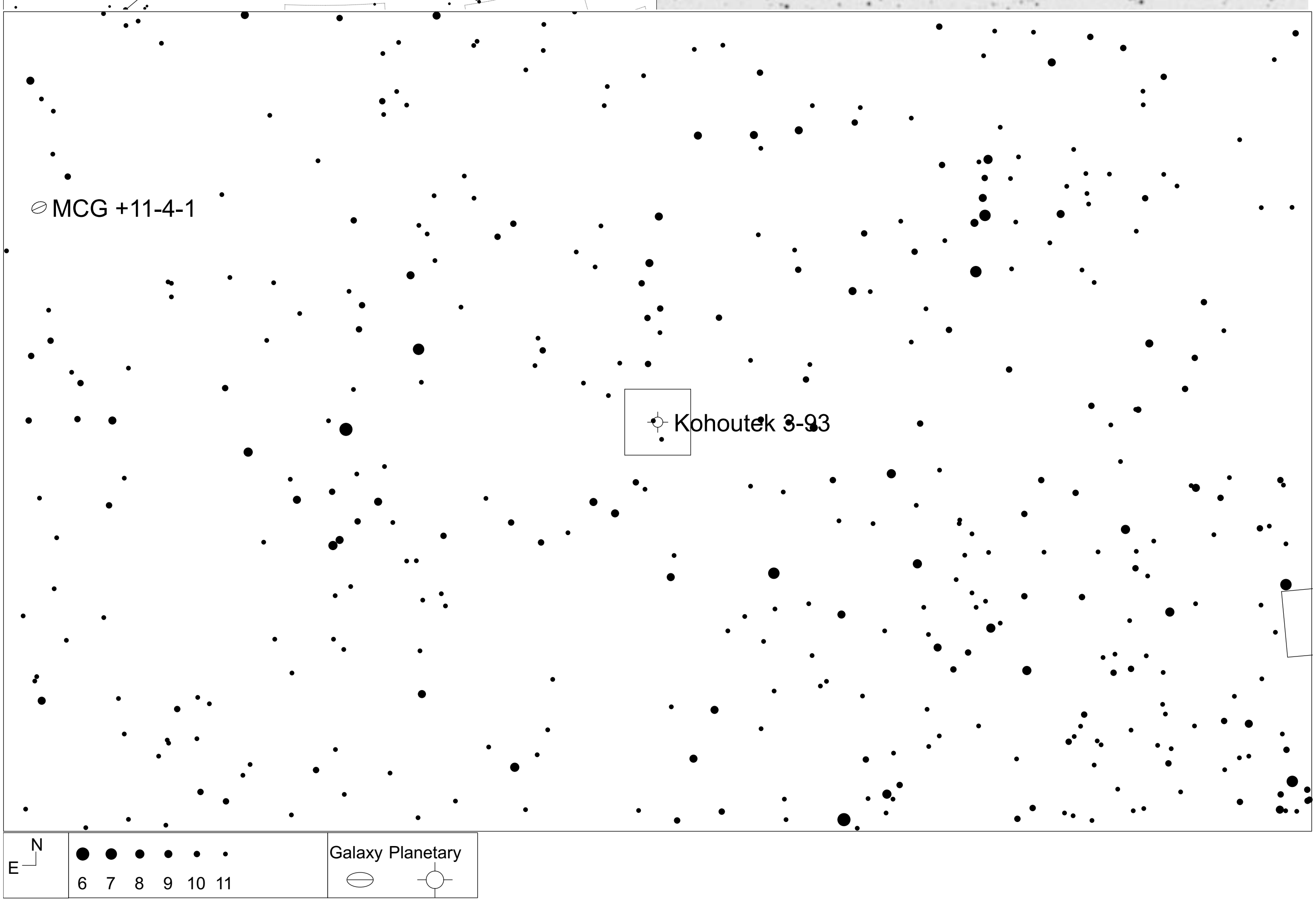


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 130+3.1	-	02 03 41.5	+64 57 36	16.7p	20.6	12”

Kohoutek 3-93 (Cassiopeia)

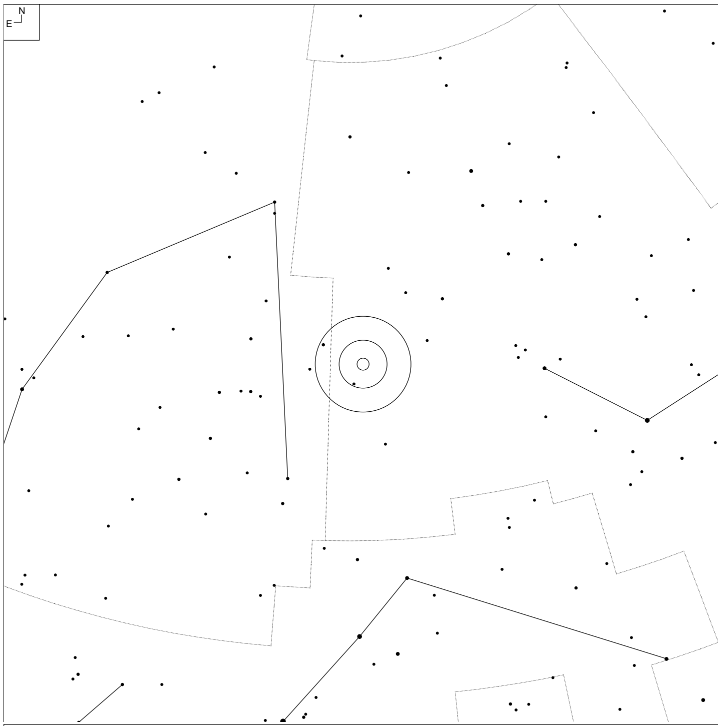


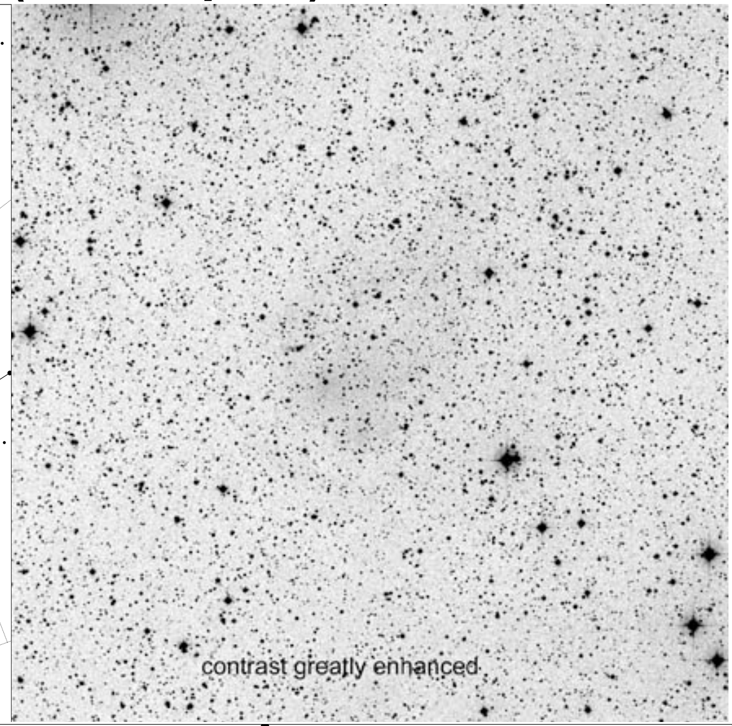


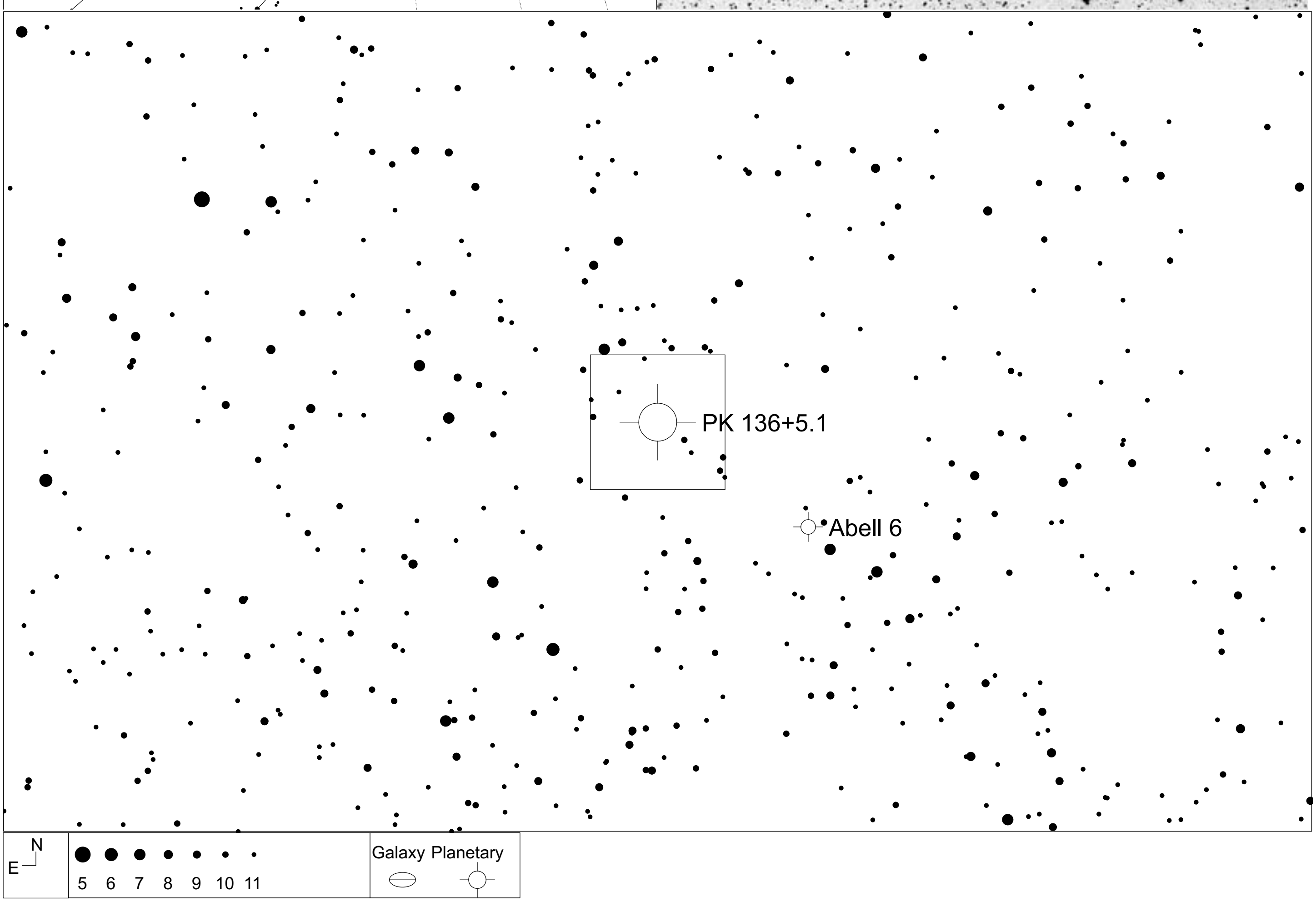


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 132+4.1	-	02 26 30.3	+65 47 50	17.6p	-	10”

PK 136+5.1 (Cassiopeia)

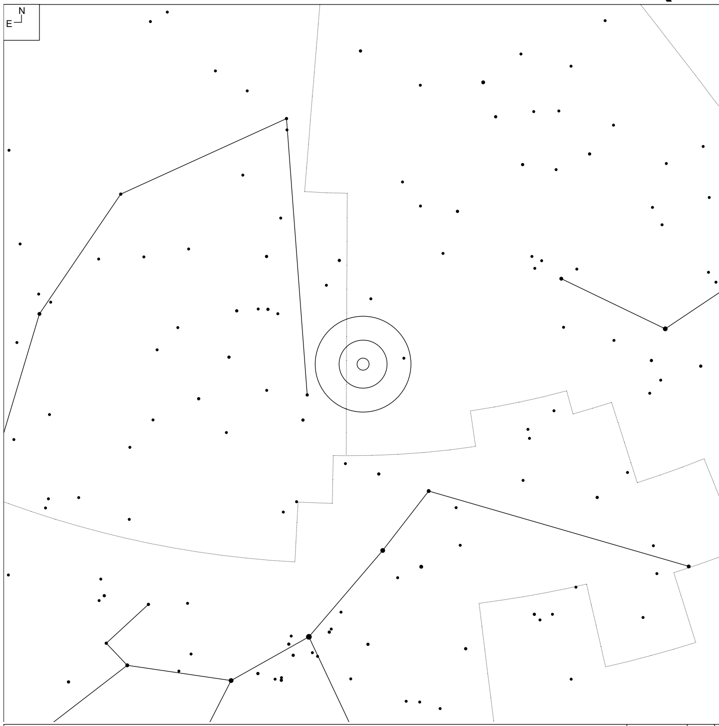


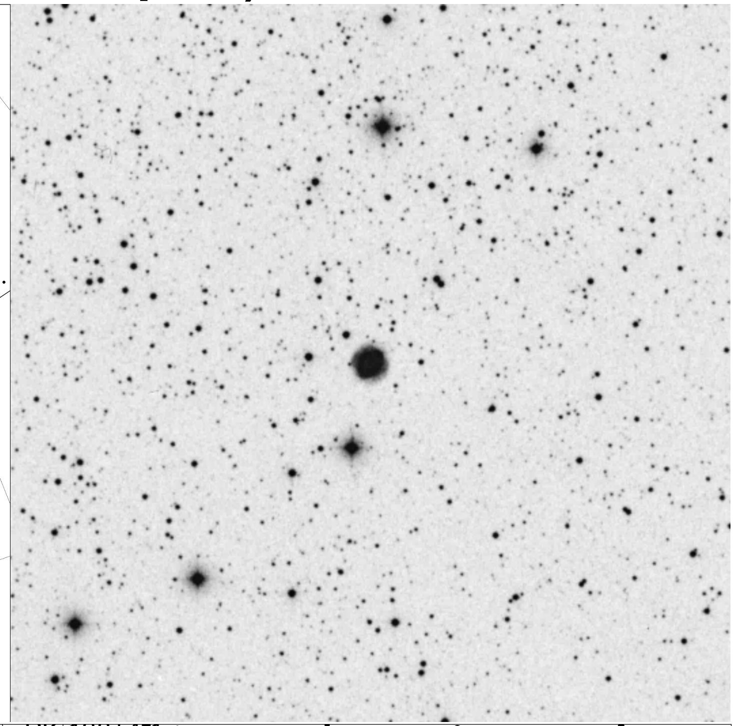


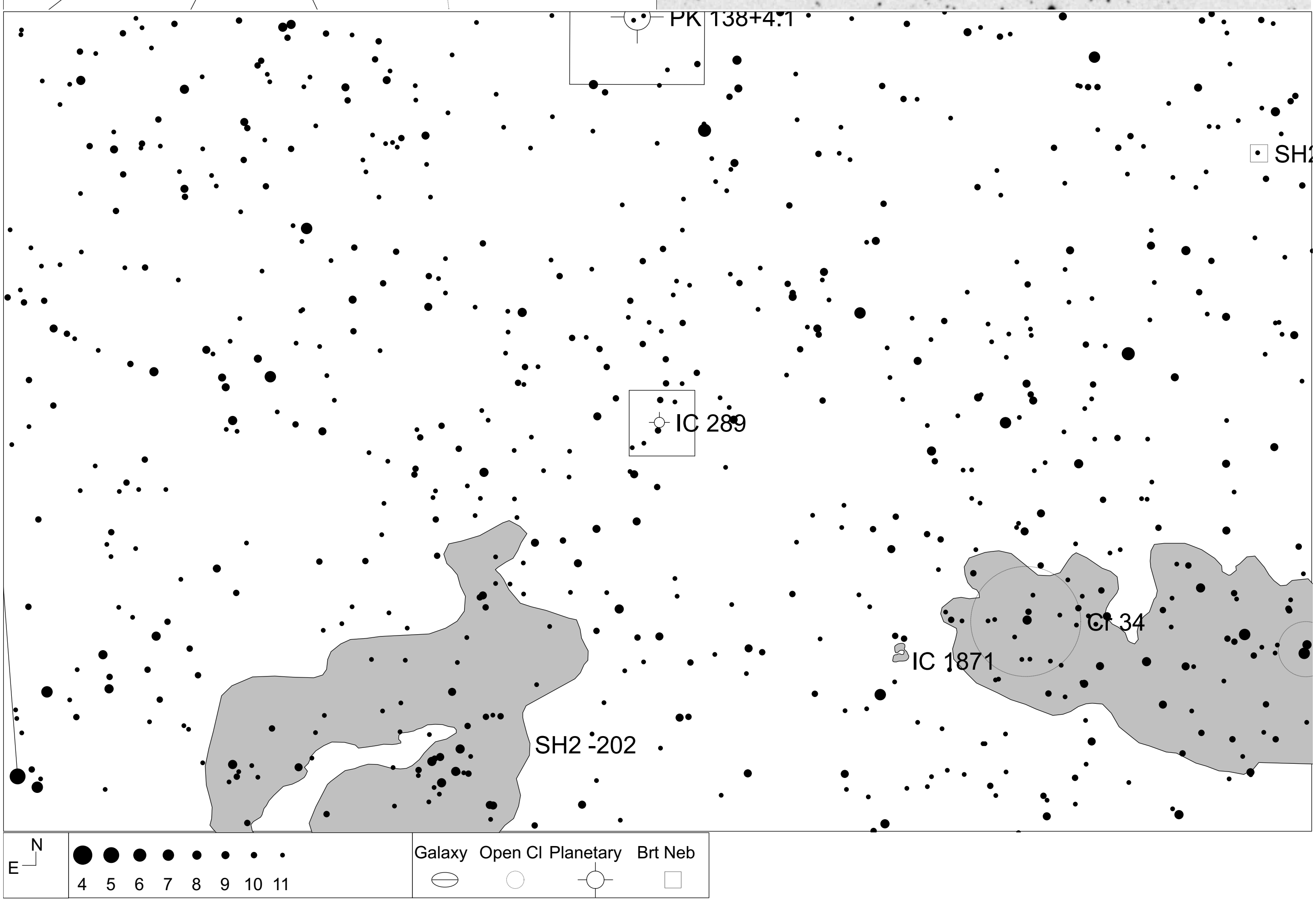


Other ID	Type	RA	Dec	Mag	* Mag	Size
-	SNR?	03 03 48.8	+64 53 28	-	13.3	8.3’

IC 289 (Cassiopeia)

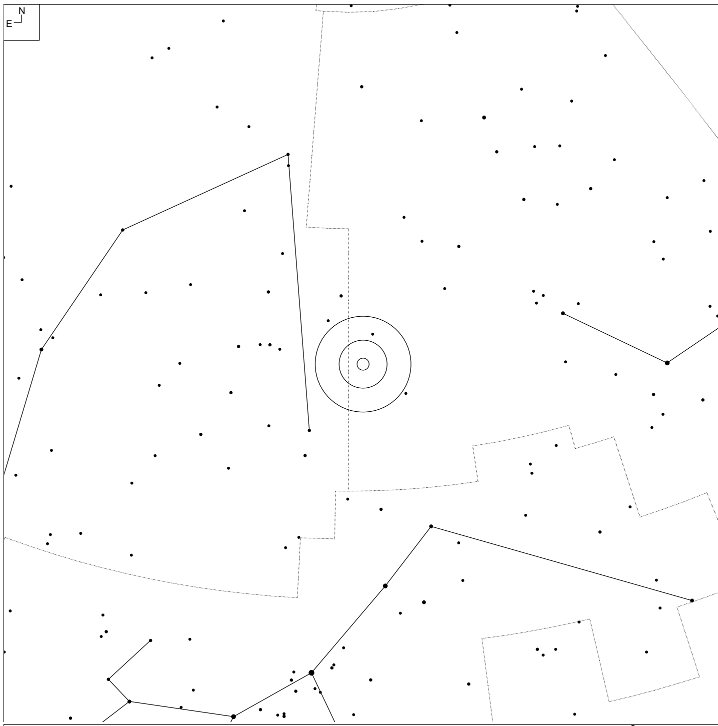


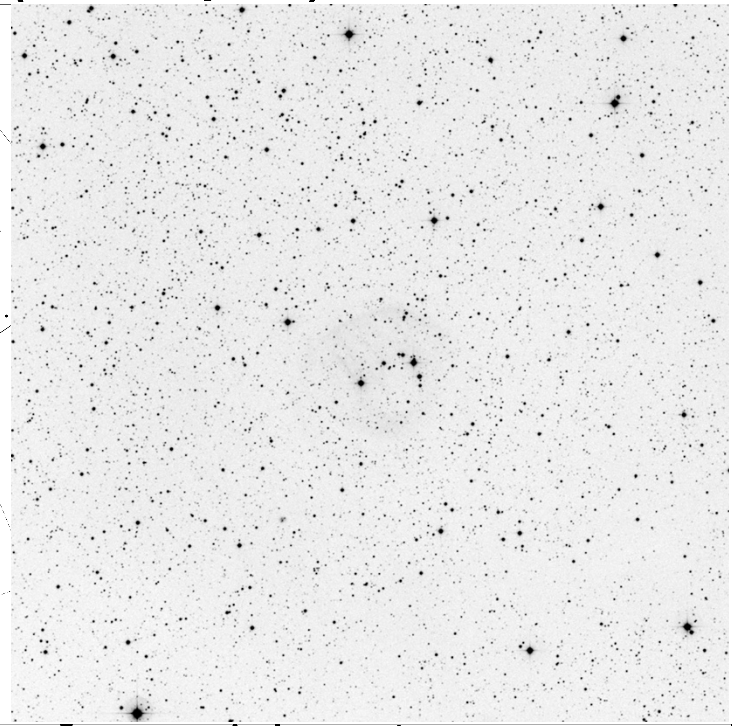


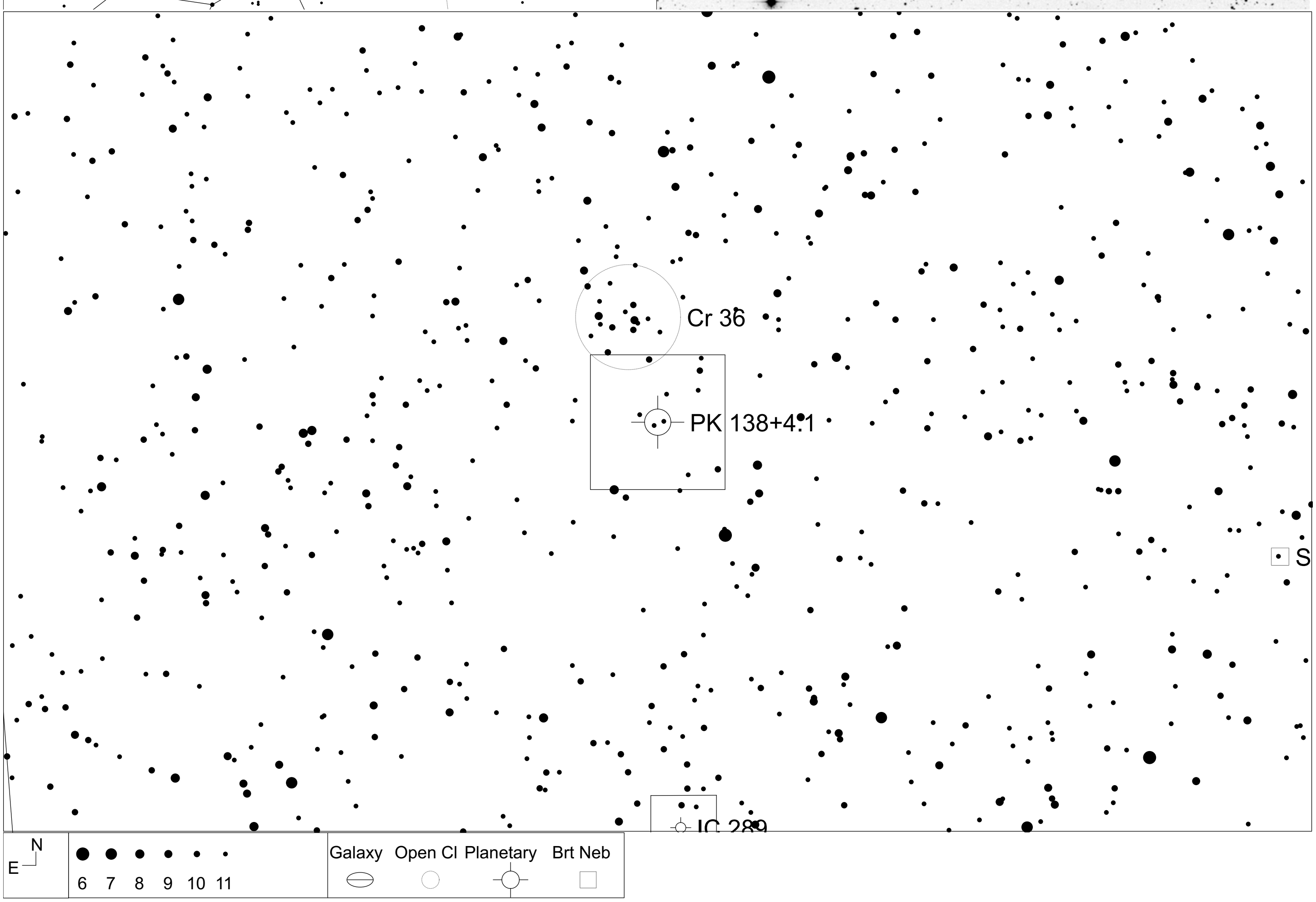


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 138+2.1	4+2	03 10 19.7	+61 19 01	12.3p	15.9	45x30”

PK 138+4.1 (Cassiopeia)

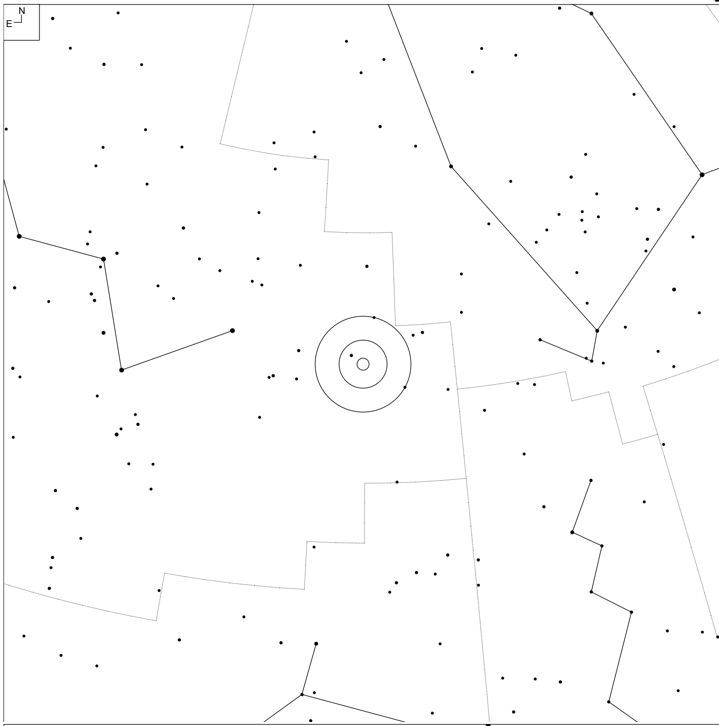


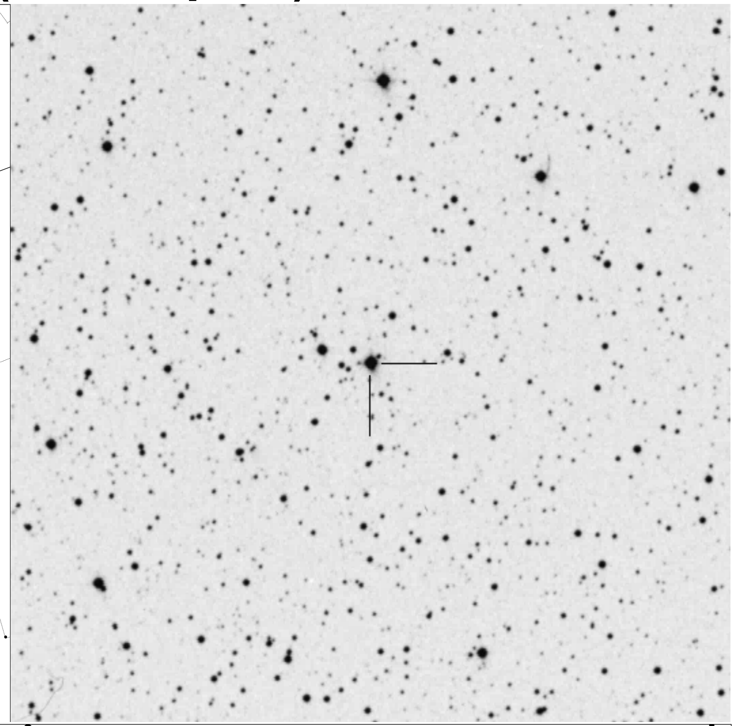


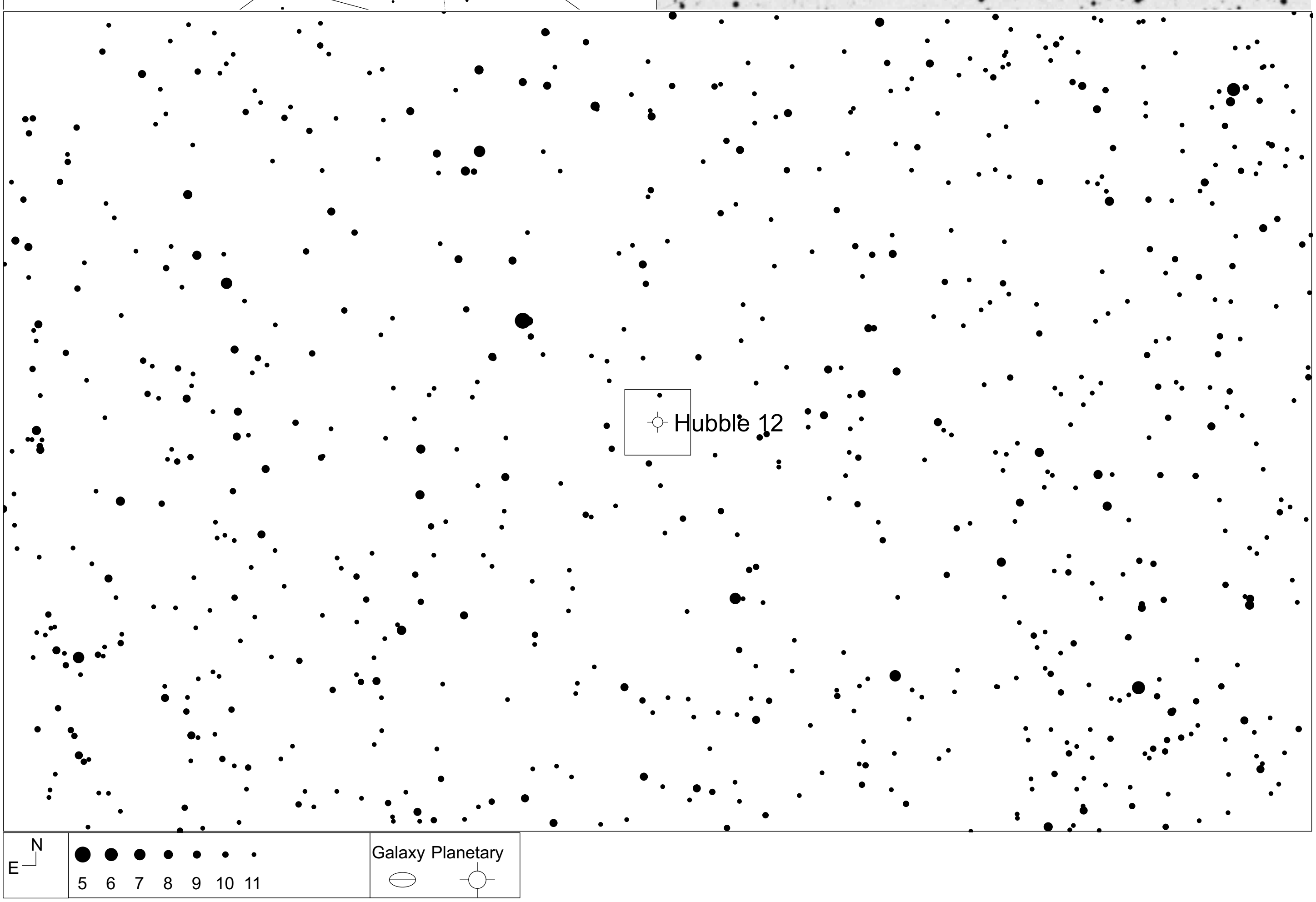


Other ID	Type	RA	Dec	Mag	* Mag	Size
-	-	03 11 02.1	+62 47 57	-	12.6	5.7’

Hubble 12 (Cassiopeia)

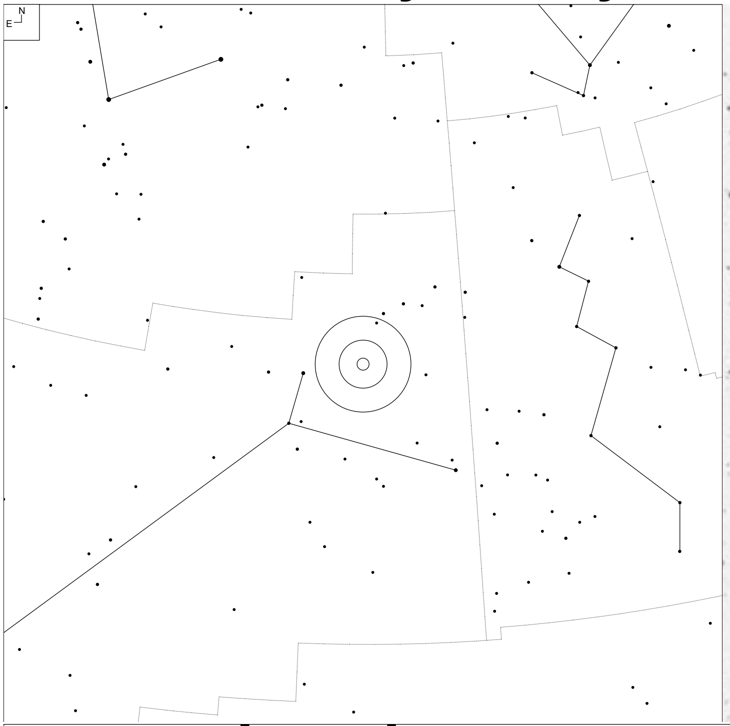


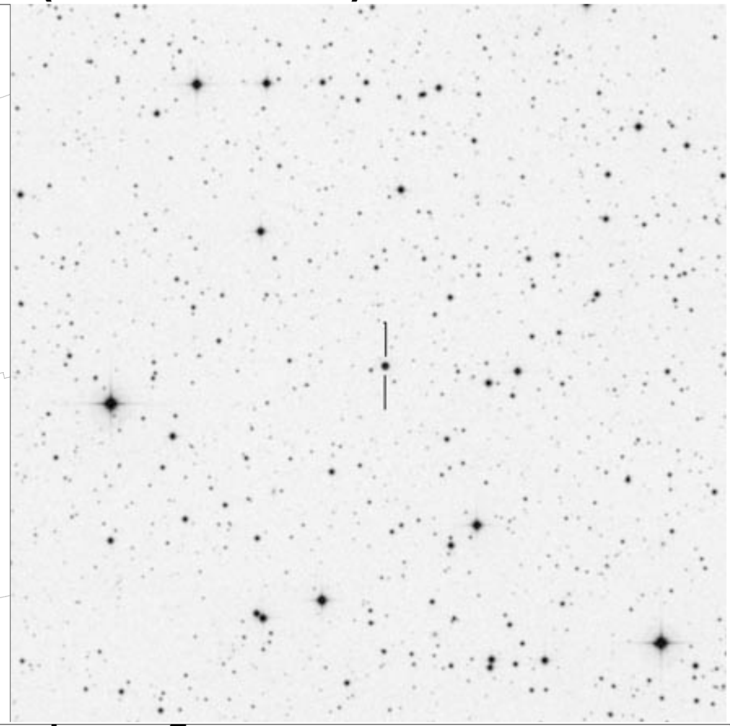


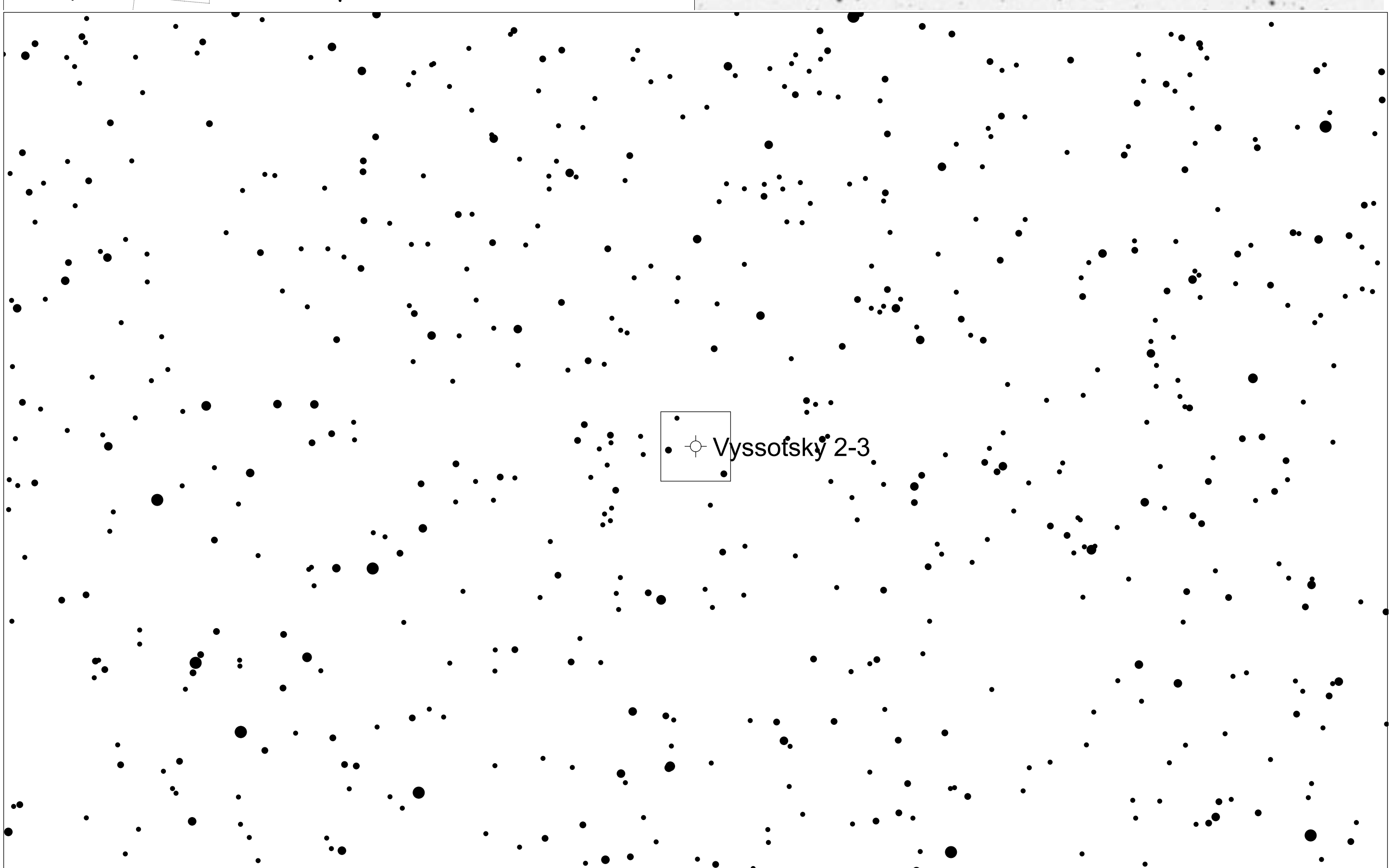


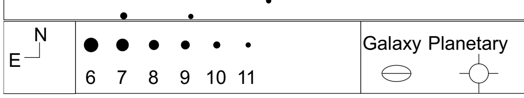
Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 111-2.1	-	23 26 14.9	+58 10 53	11.9v	13.8	1.0”

Vyssotsky 2-3 (Andromeda)



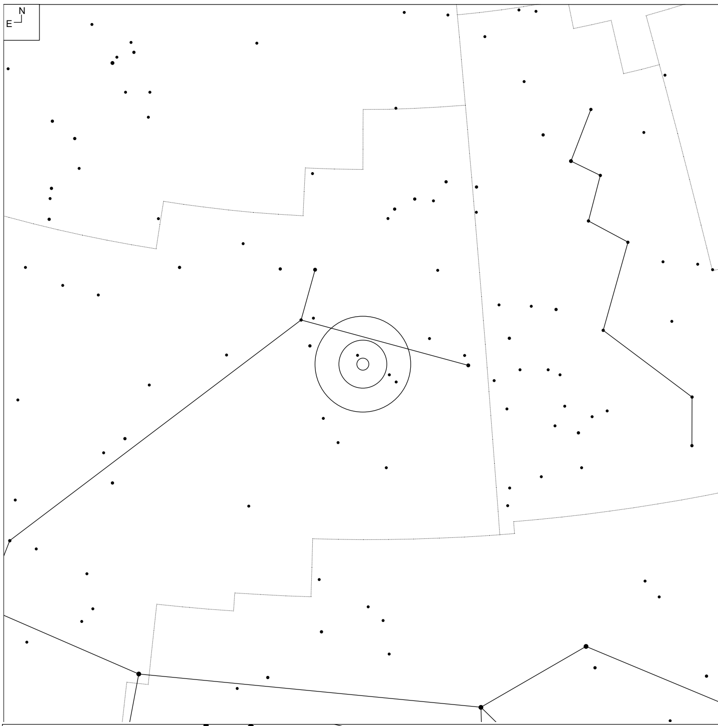


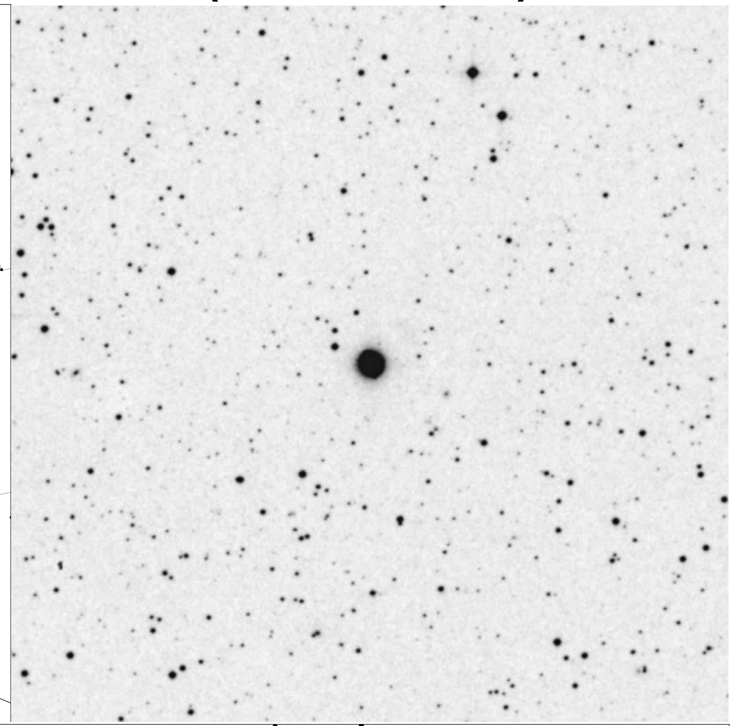


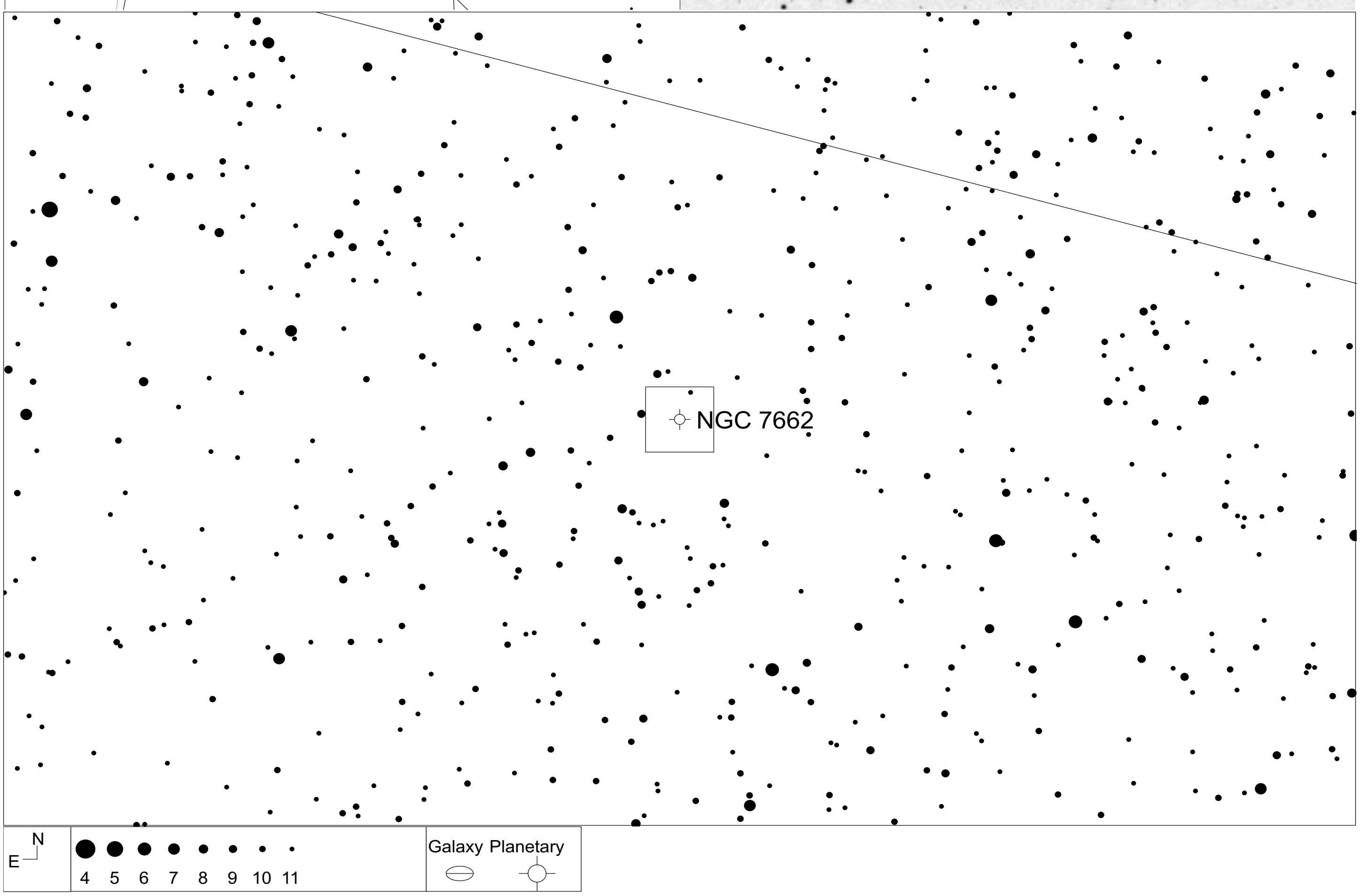


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 107-13.1	2	23 22 58.1	+46 53 57	13.9p	14.7	4.0”

NGC 7662 – Blue Snowball   (Andromeda)



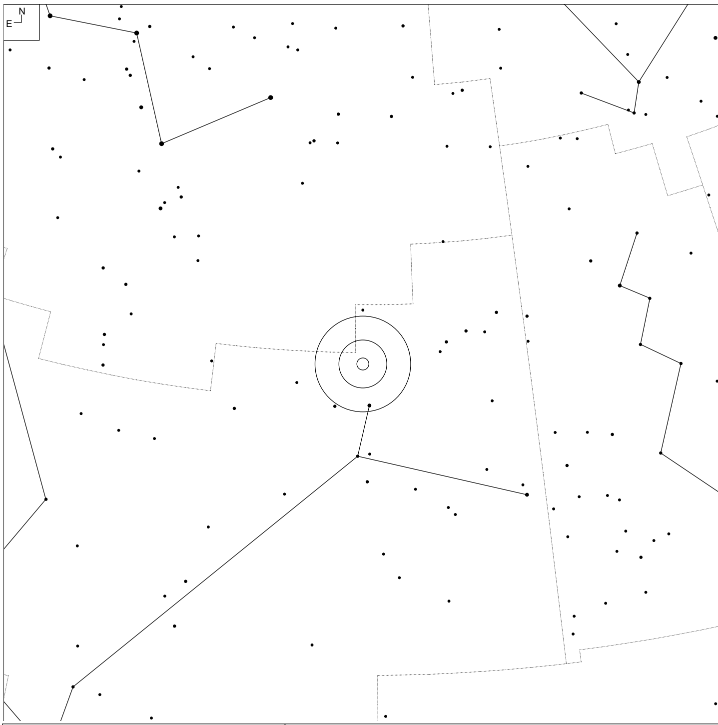


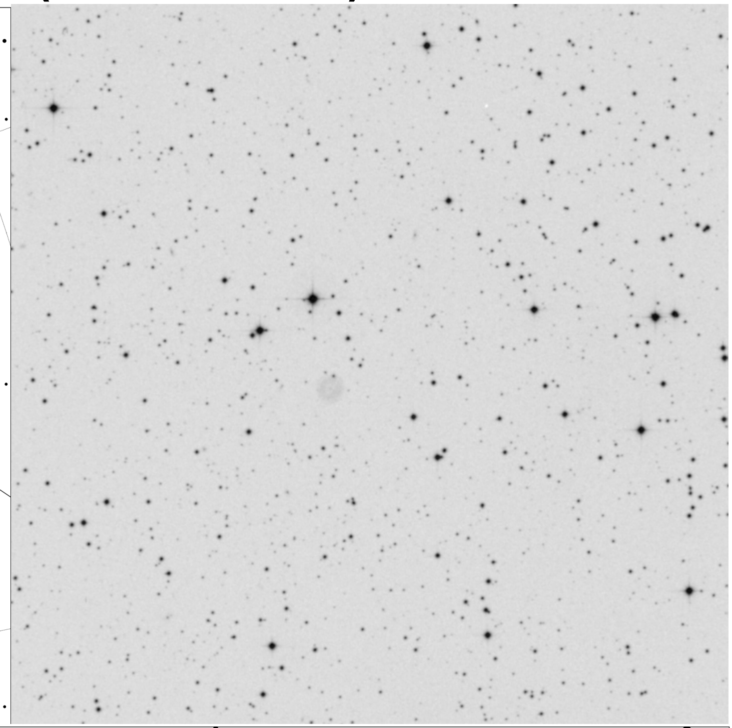


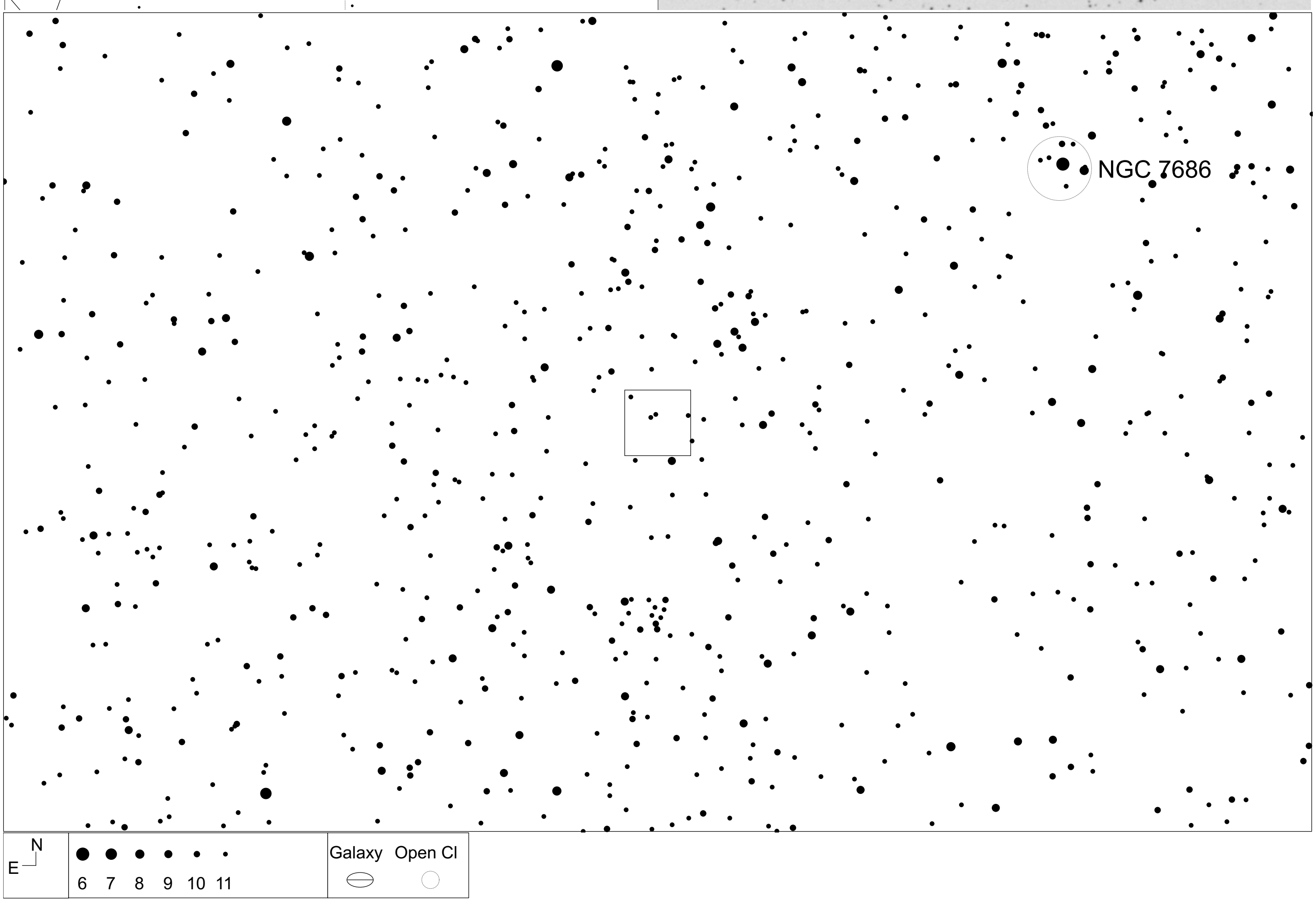
Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 106-17.1	4+3	23 25 53.9	+42 32 06	8.3v	13.2	35”

Extension - NE more prominent. Nebula’s disk blends into halo.

Kohoutek 1-20 (Andromeda)

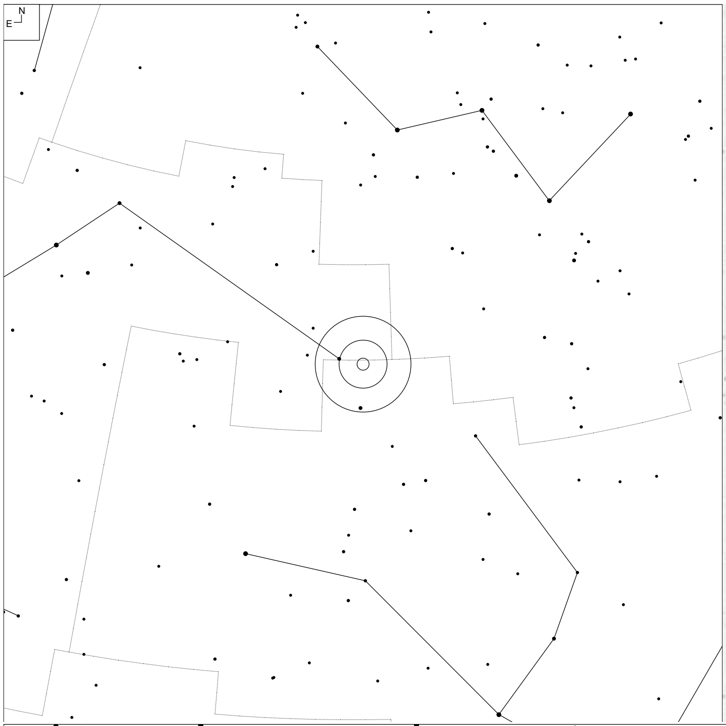


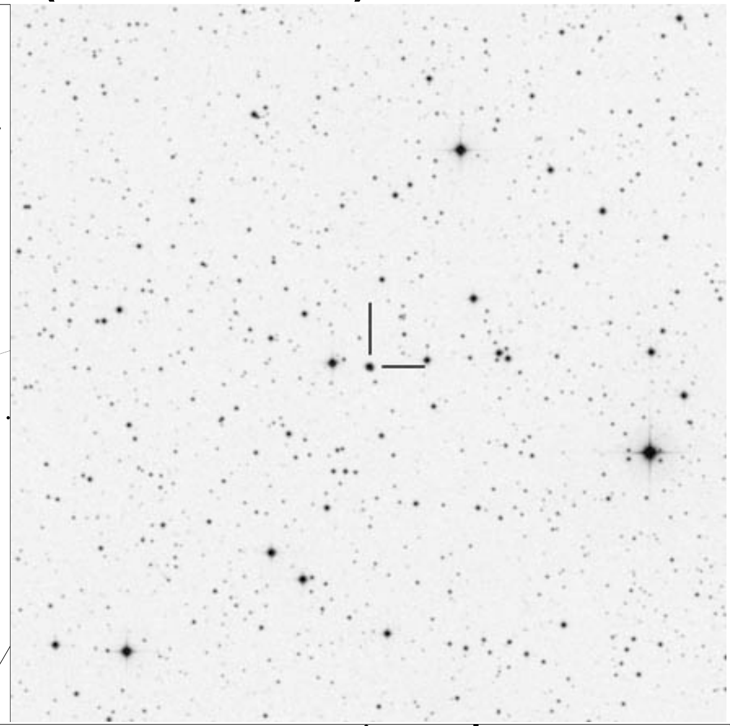


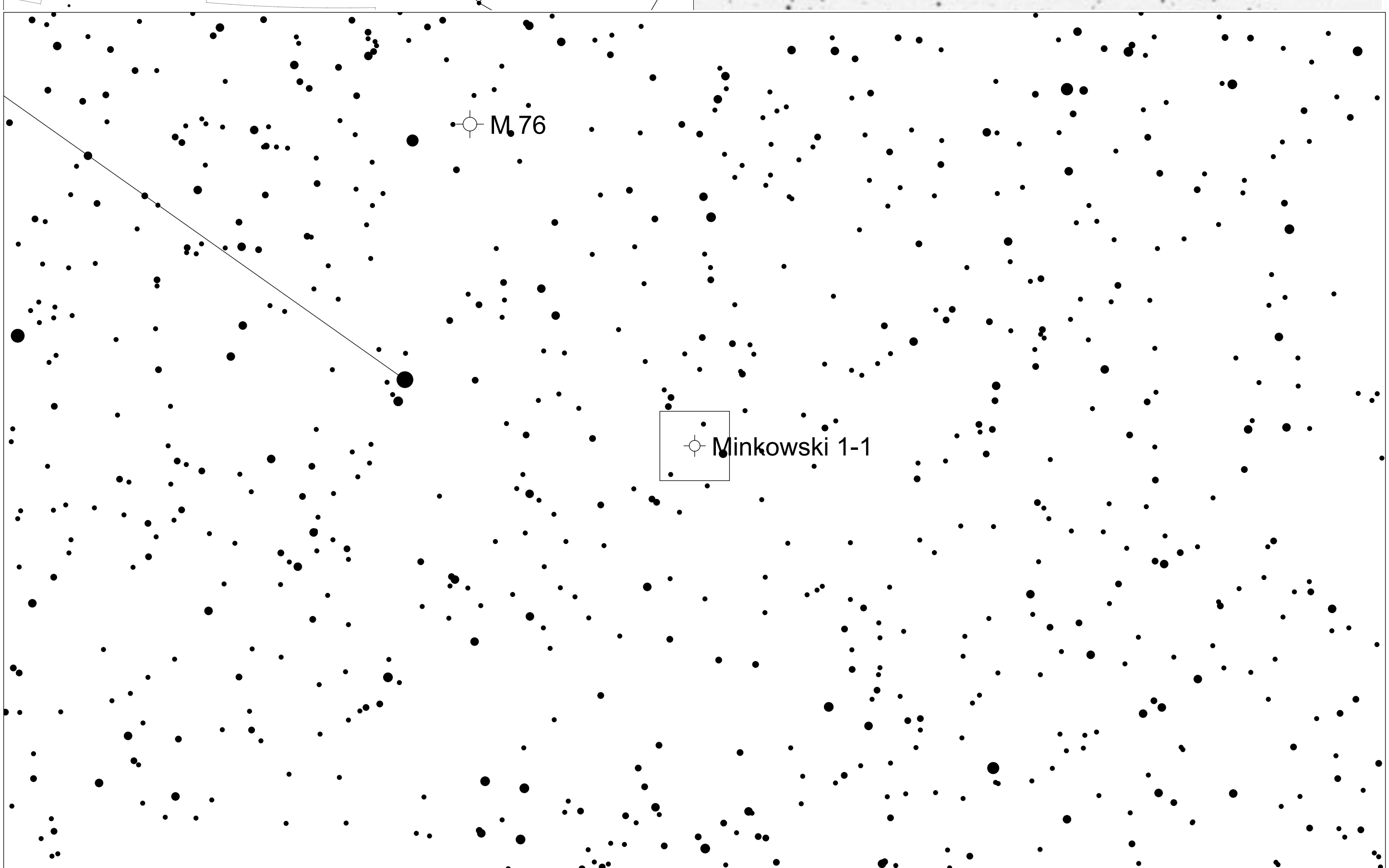


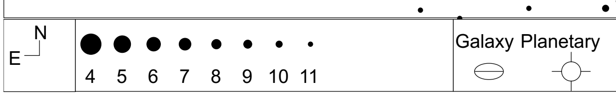
Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 110-12.1	4	23 39 10.7	+48 12 30	16.5p	20.1	36”

Minkowski 1-1 (Andromeda)



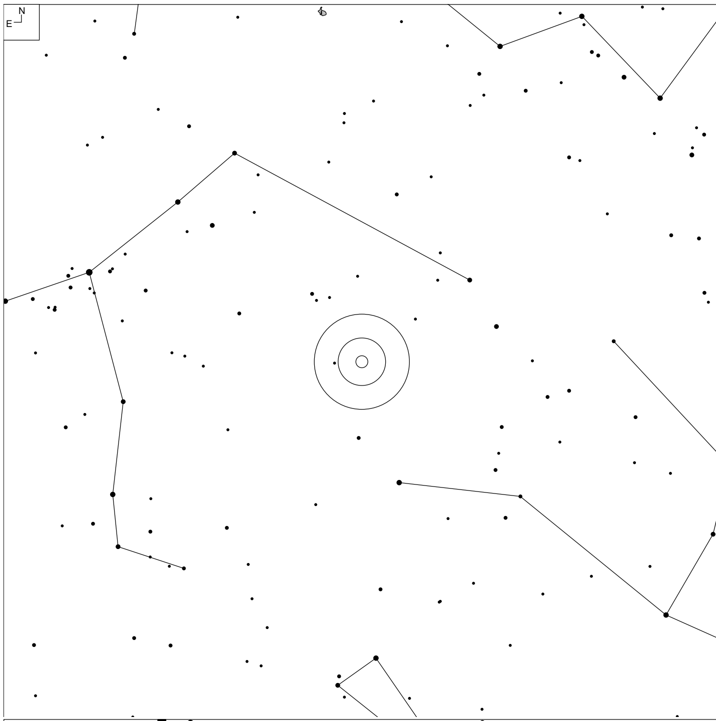


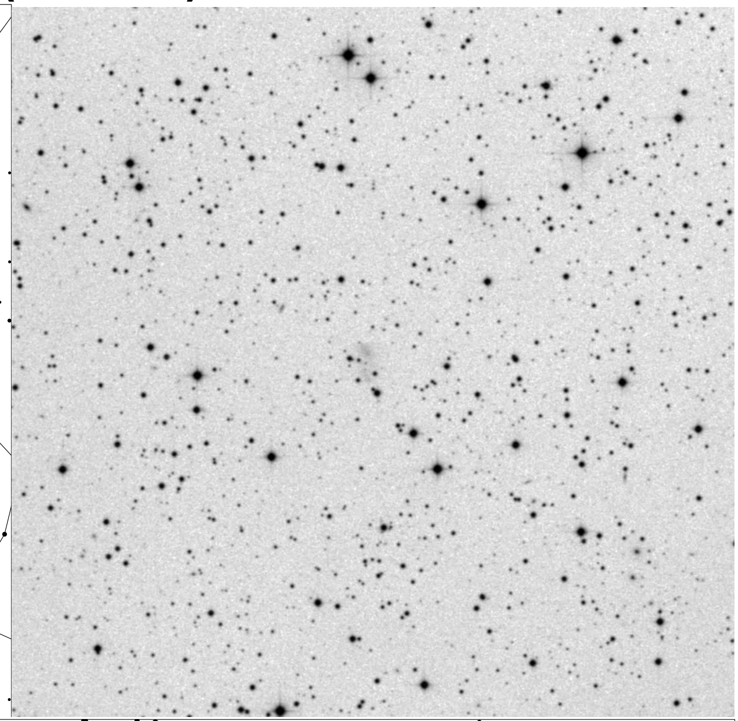


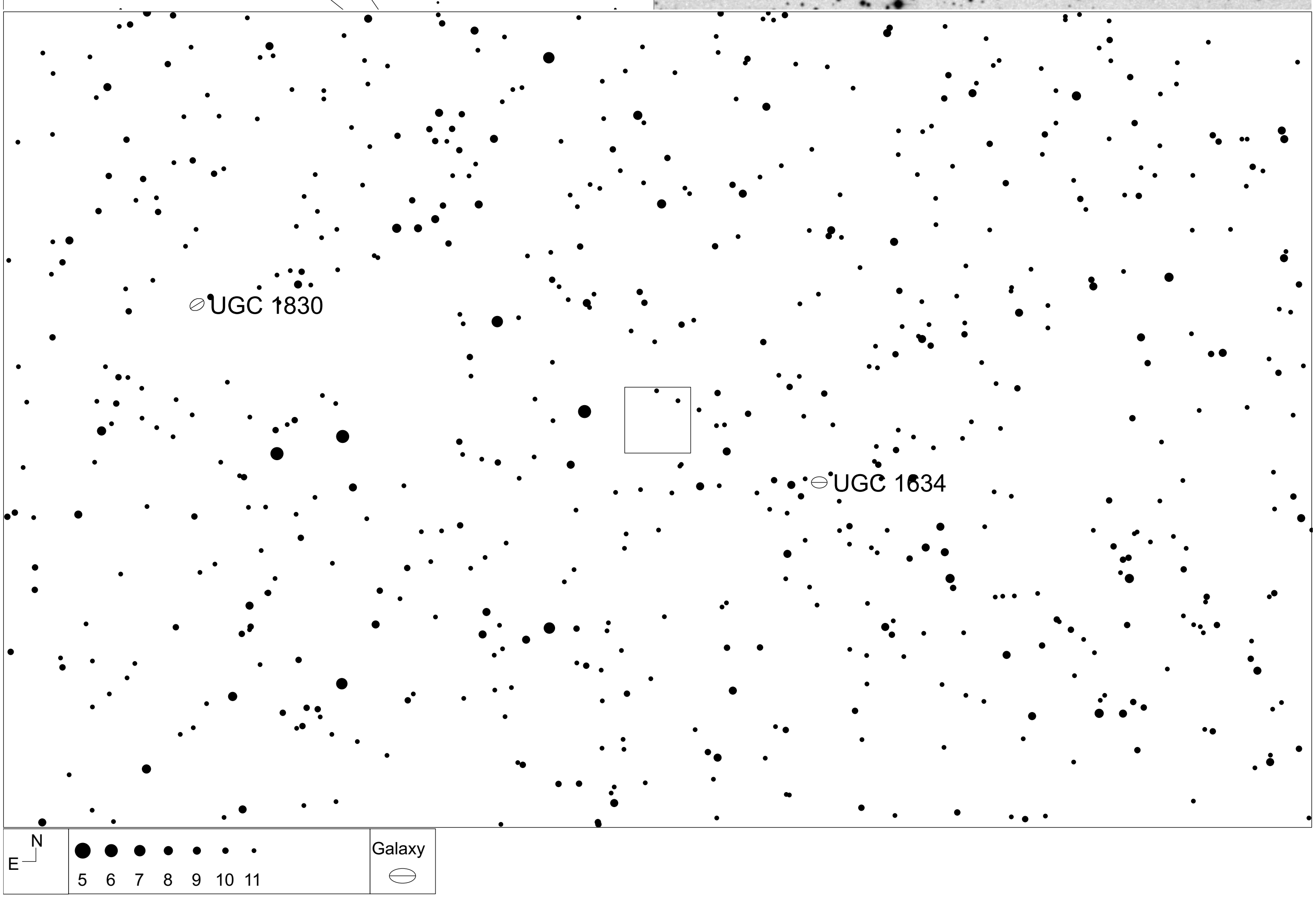


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 130-11.1	-	01 37 19.6	+50 28 11	14.1p	16.2	6.0”

Kn 58 (Pisces)

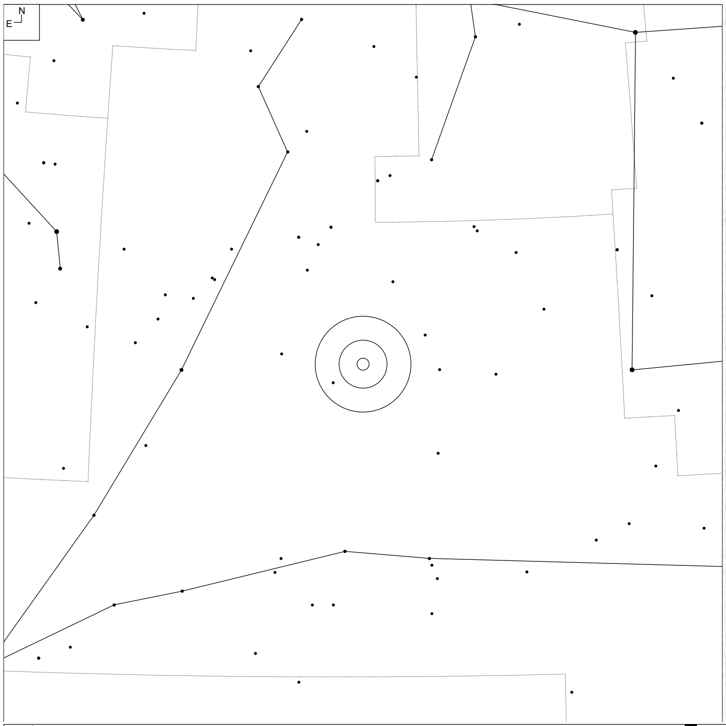


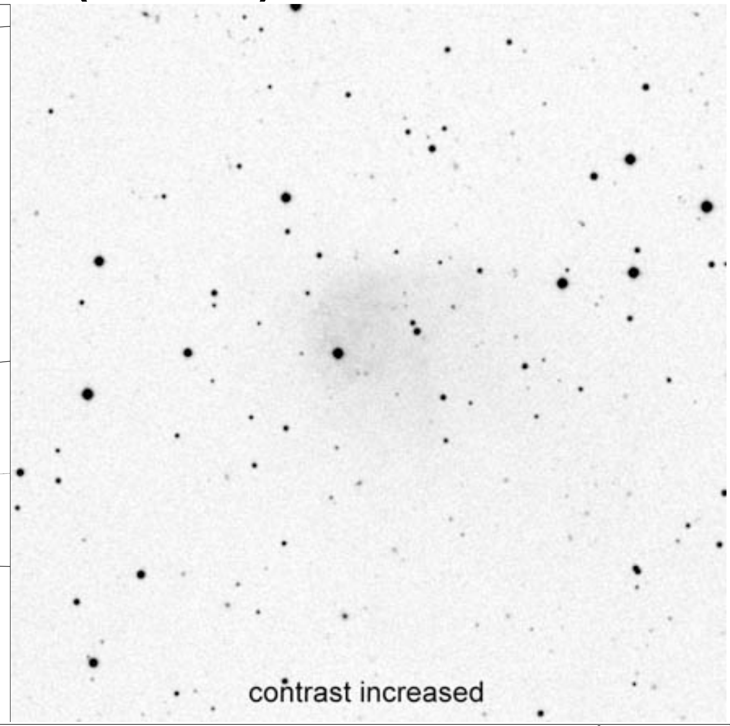


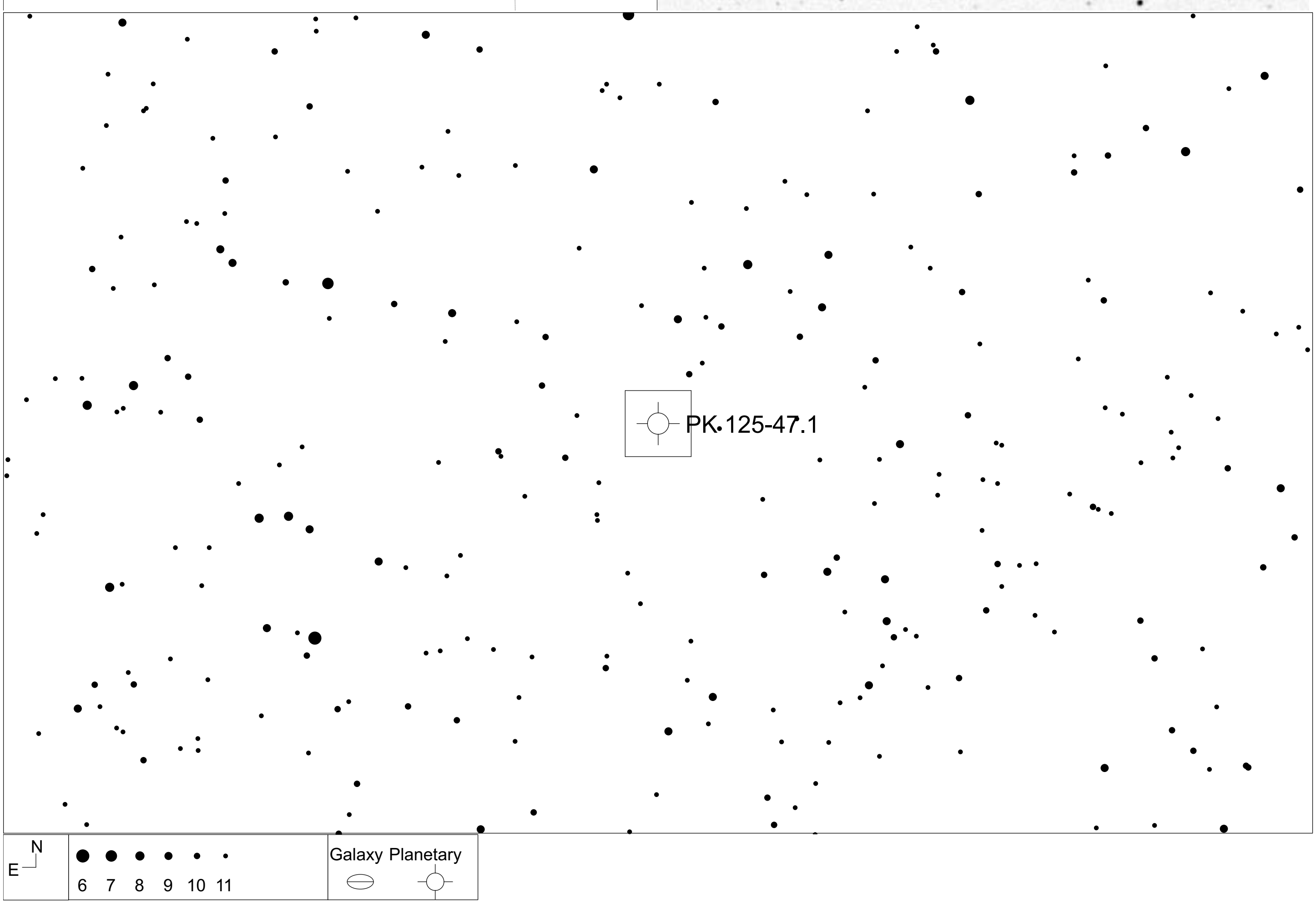


Other ID	Type	RA	Dec	Mag	* Mag	Size
	-	02 12 27.0	+47 27 10	-	-	1.5’

PK 125-47.1 (Pisces)

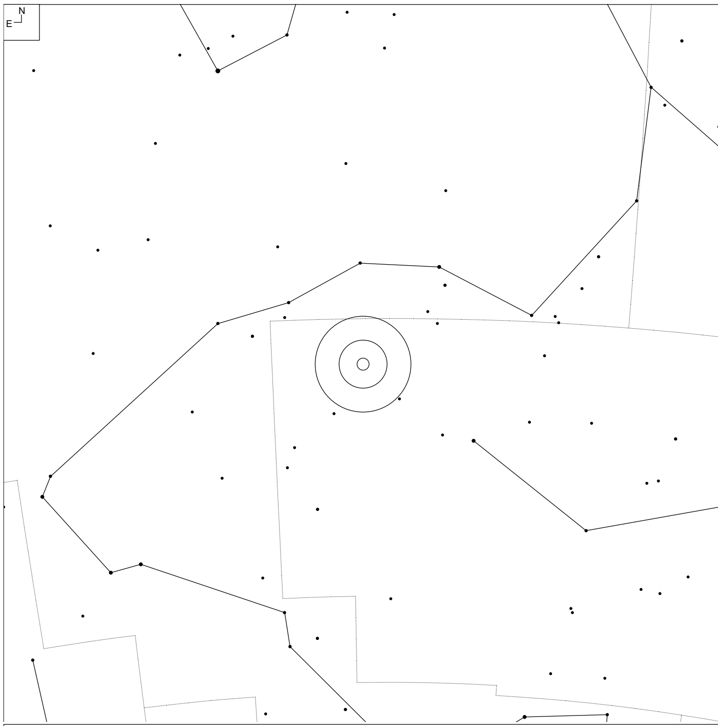


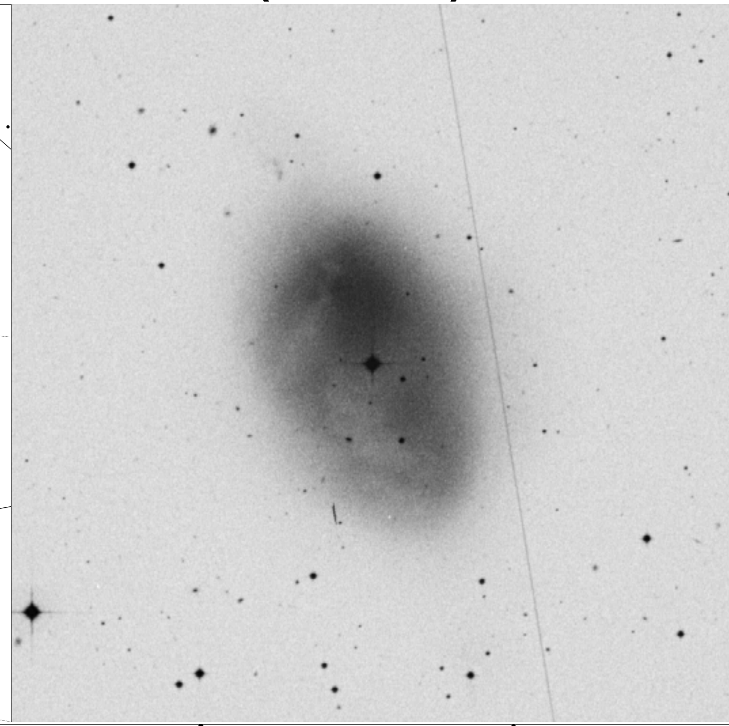


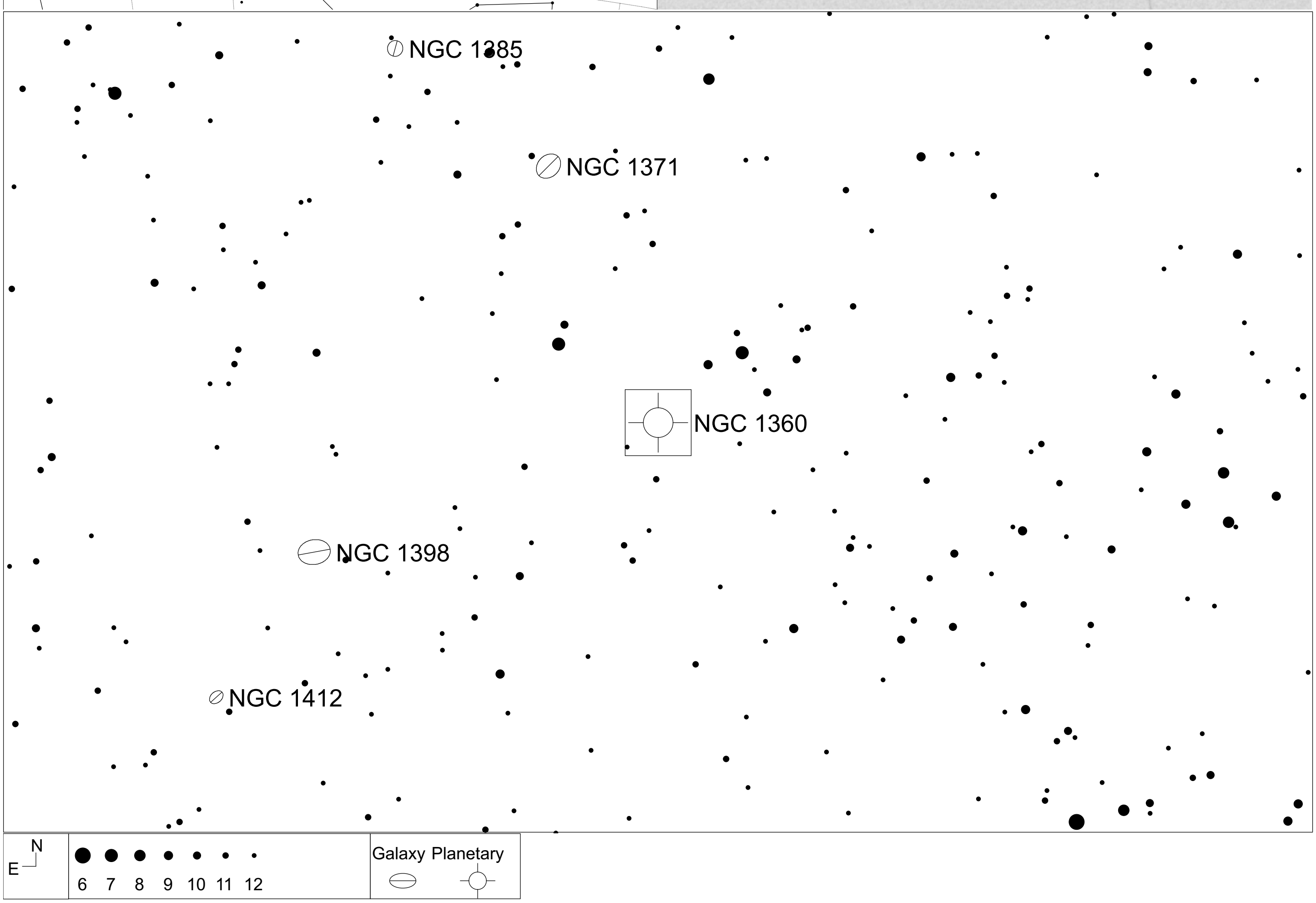


Other ID	Type	RA	Dec	Mag	* Mag	Size
-	-	00 59 53.7	+15 44 00	-	12.1	4.6’

NGC 1360 – Comet Nebula (Fornax)

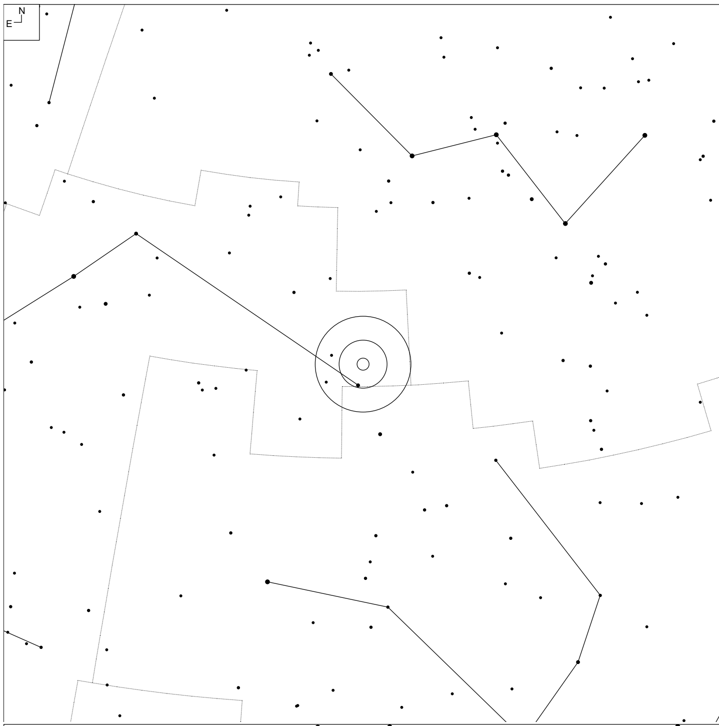


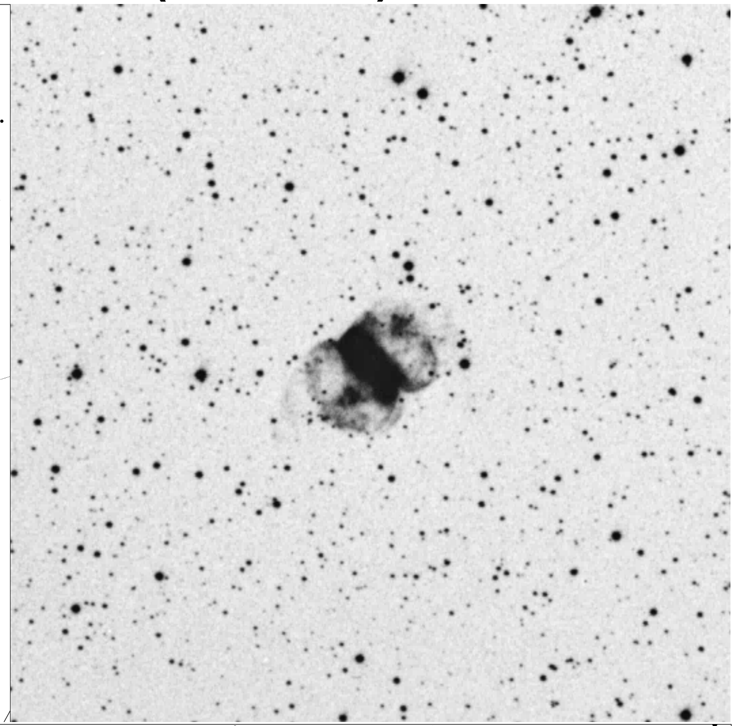


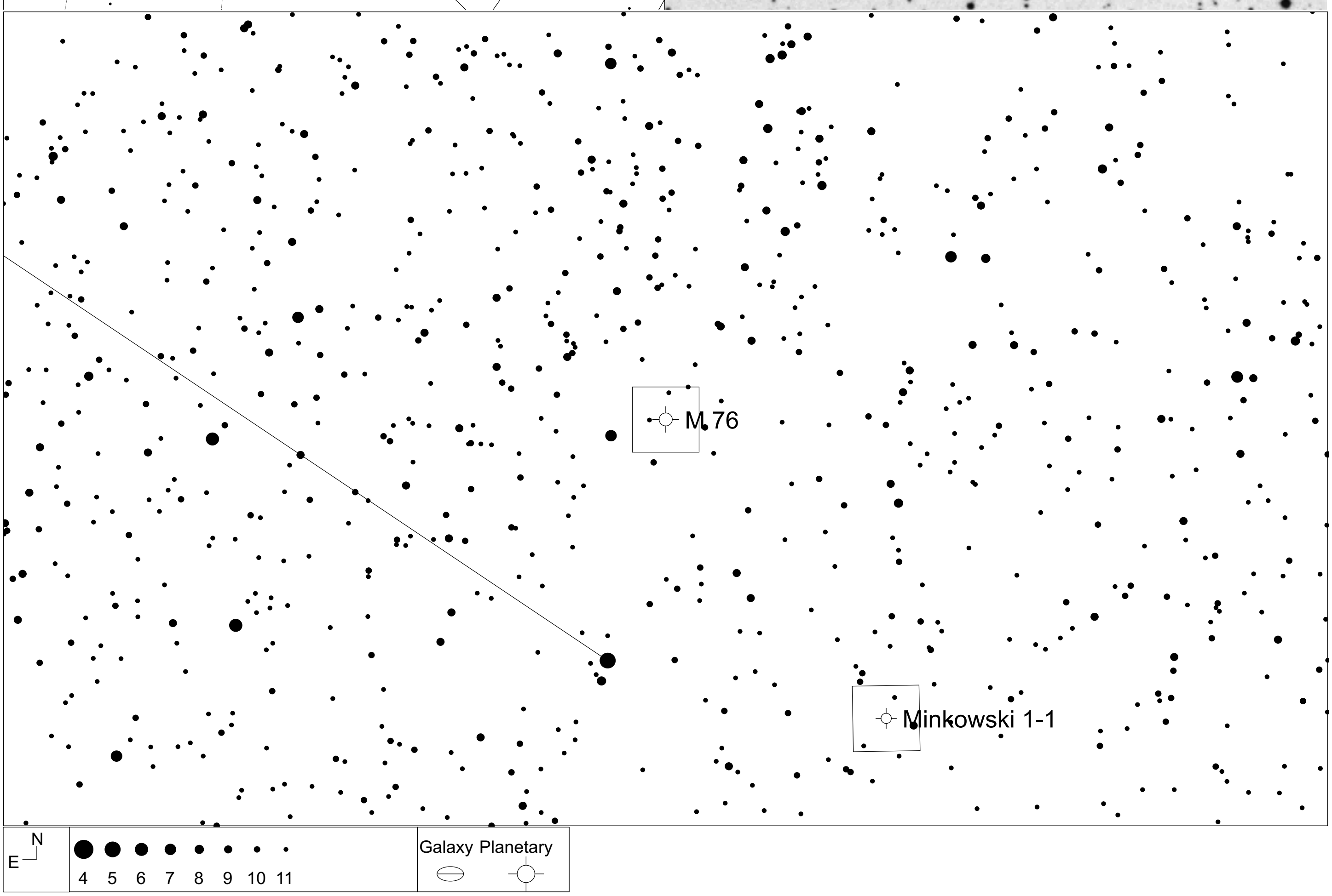


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 220-53.1	3	03 33 15.4	-25 52 13	9.4v	11.3	6.4’

M-76 – Cork Nebula (Perseus)



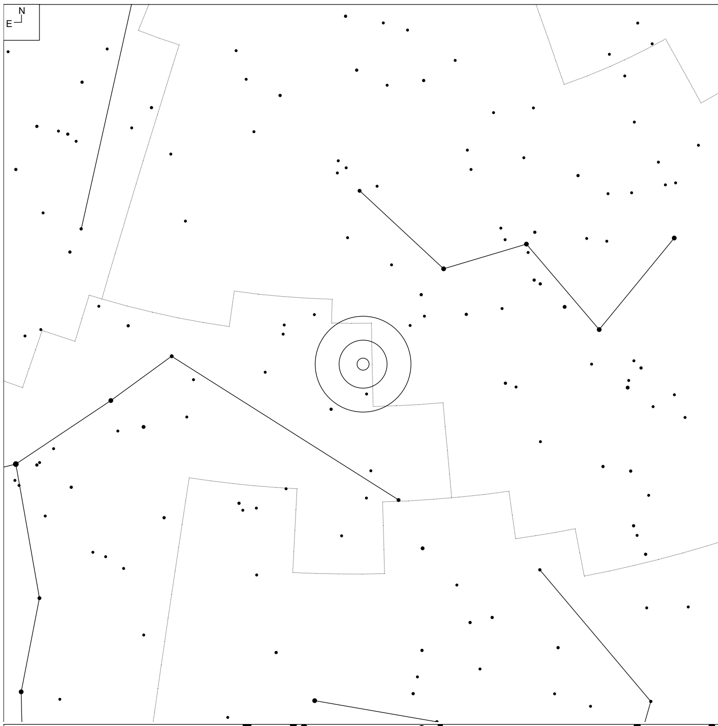


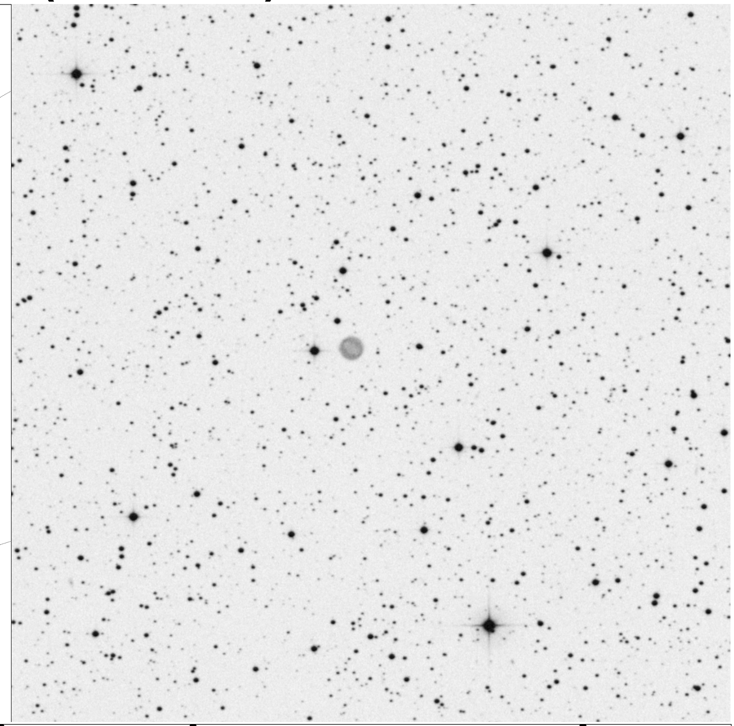


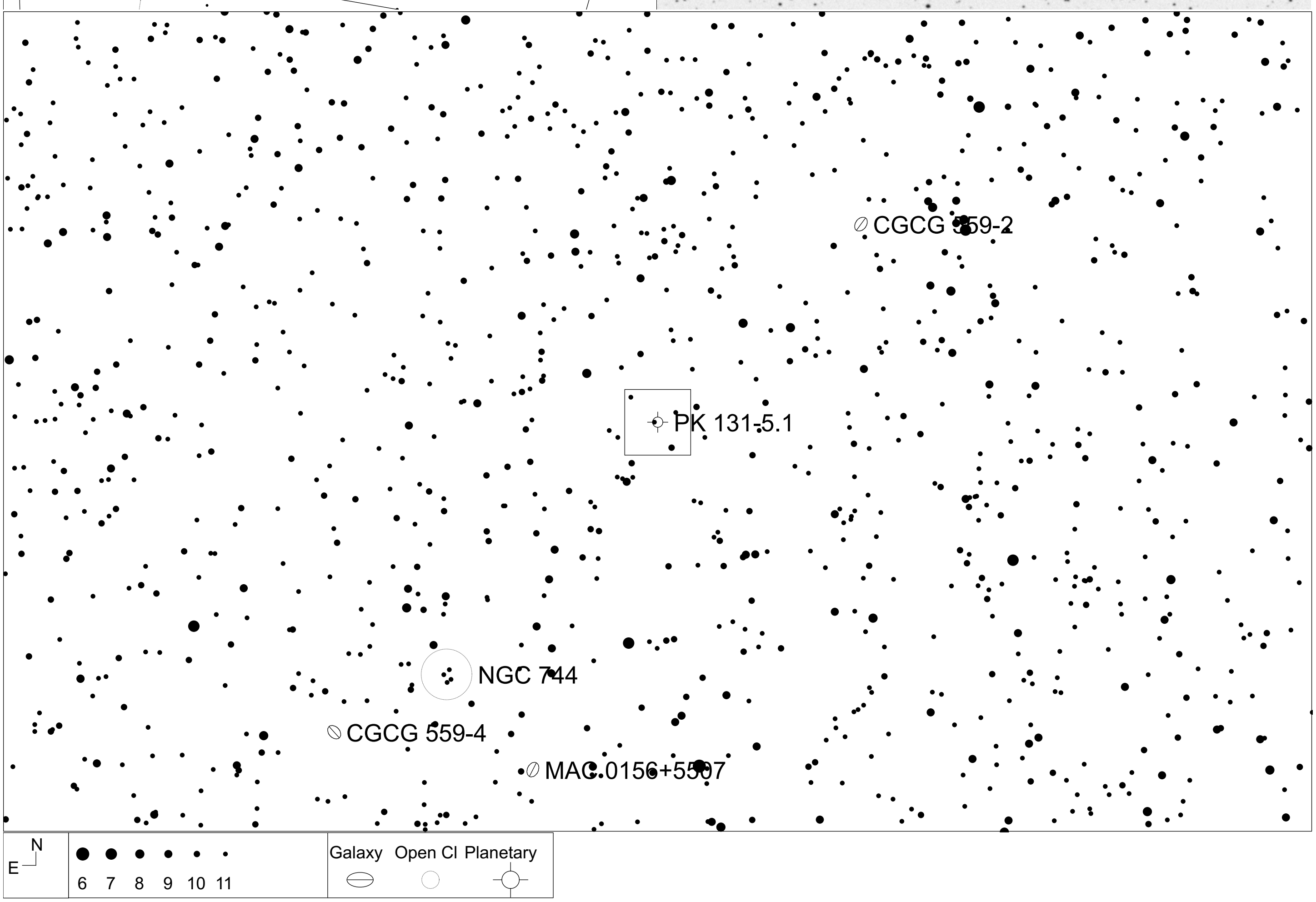
Other ID	Type	RA	Dec	Mag	* Mag	Size
NGC 650-1	3+6	01 42 19.9	+51 34 35	10.1v	15.9	167”

Bright and noticeable without filter. The wings of the little dumbbell.

PK 131-5.1 (Perseus)

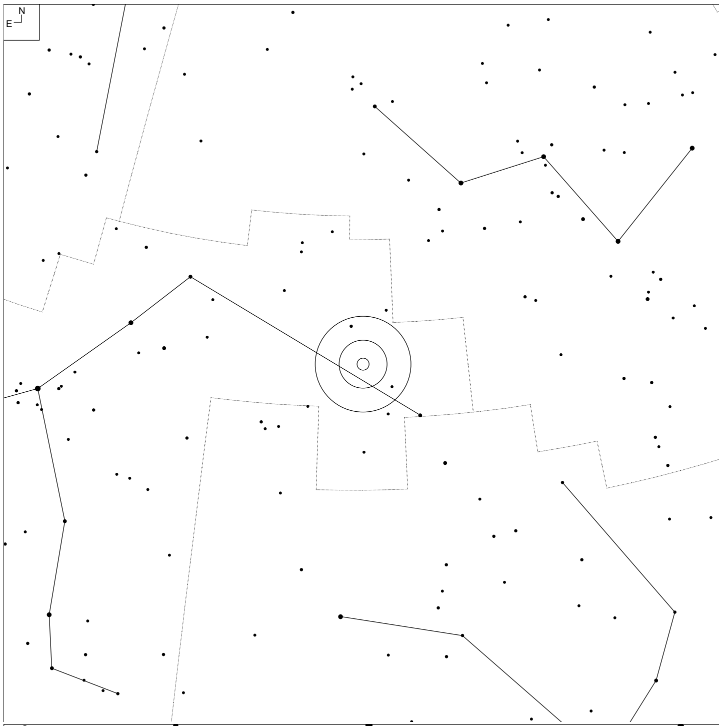


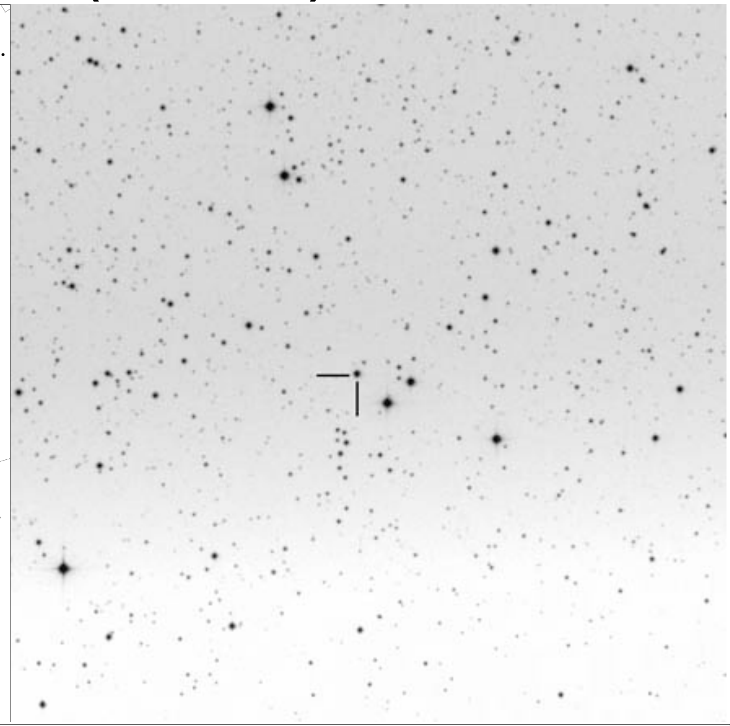


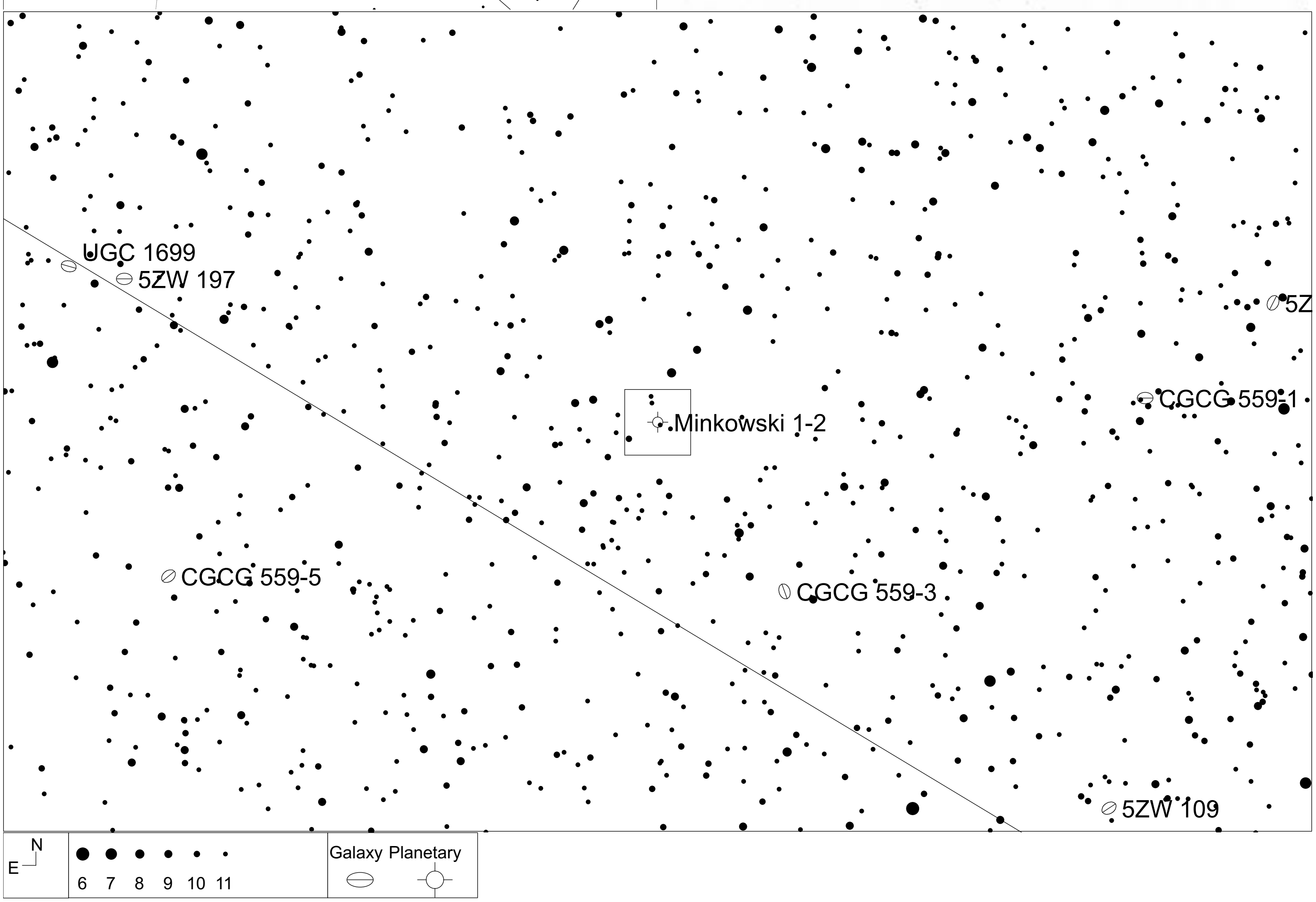


Other ID	Type	RA	Dec	Mag	* Mag	Size
-	-	01 53 03.1	+56 24 17	14.2v	18.0	24”

Minkowski 1-2 (Perseus)

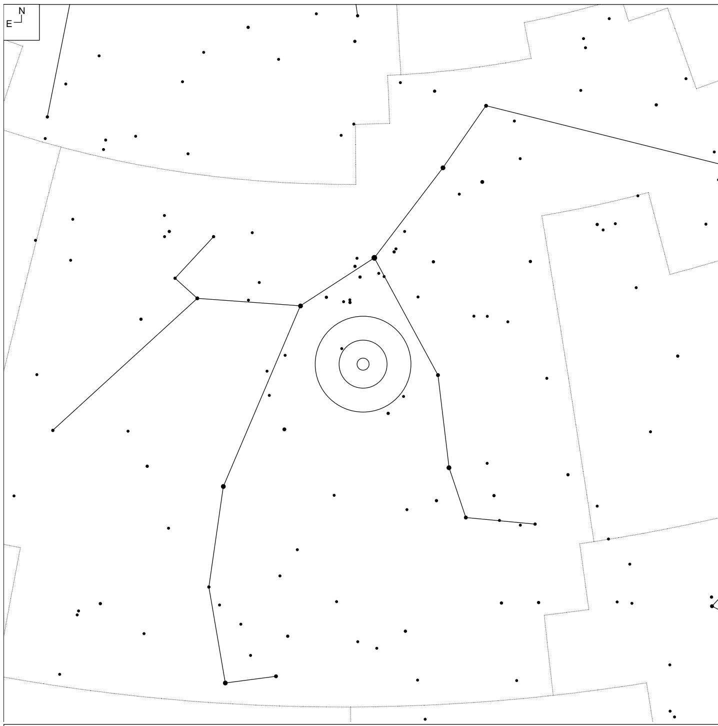


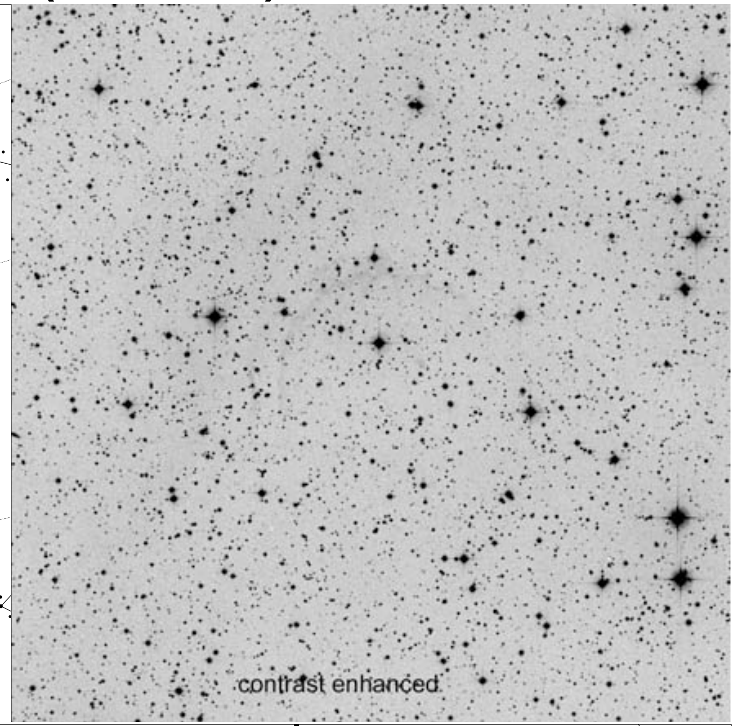


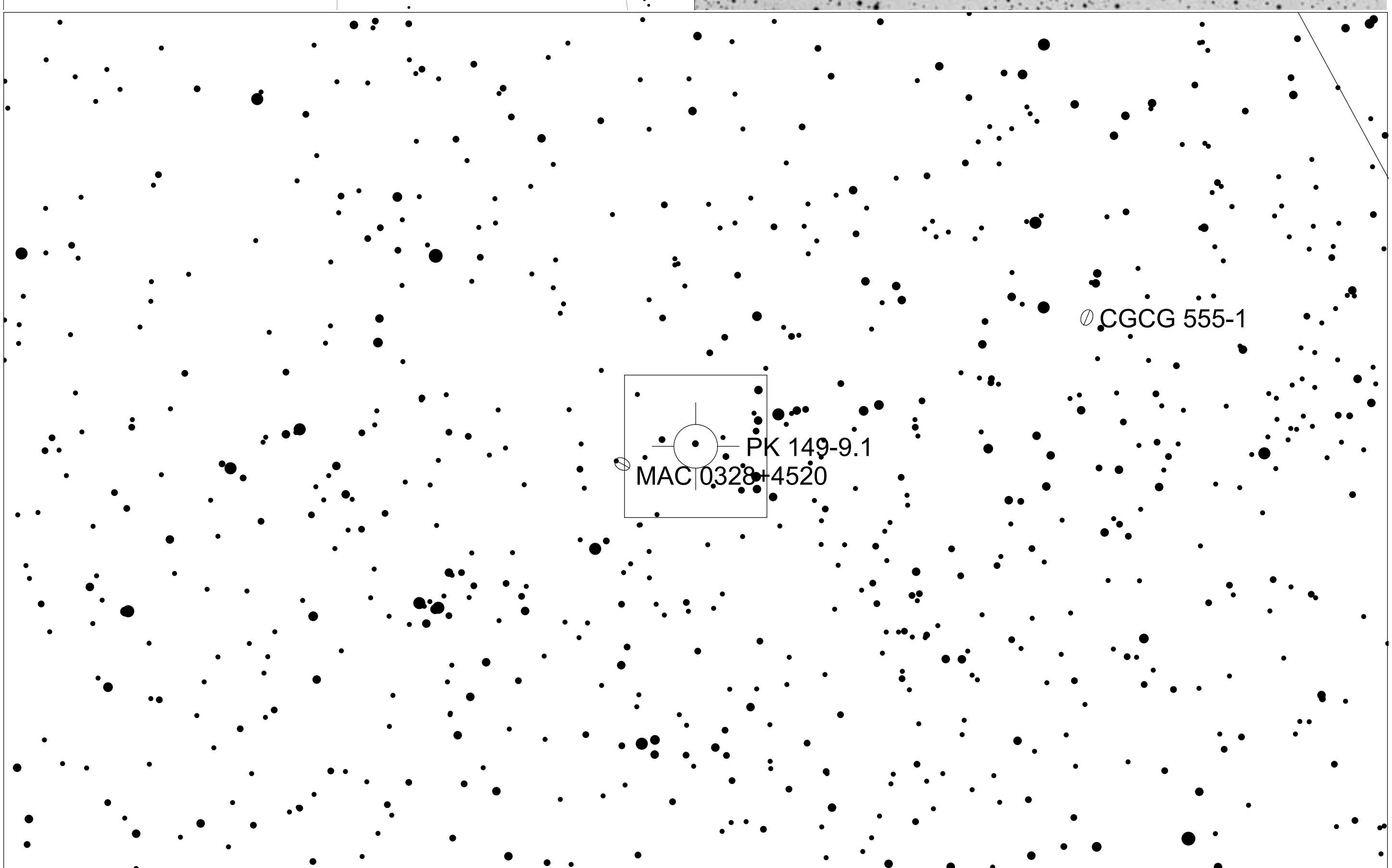


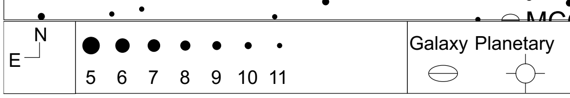
Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 133-8.1	1	01 58 49.7	+52 53 47	14.9p	13.4	18”

PK 149-9.1 (Perseus)



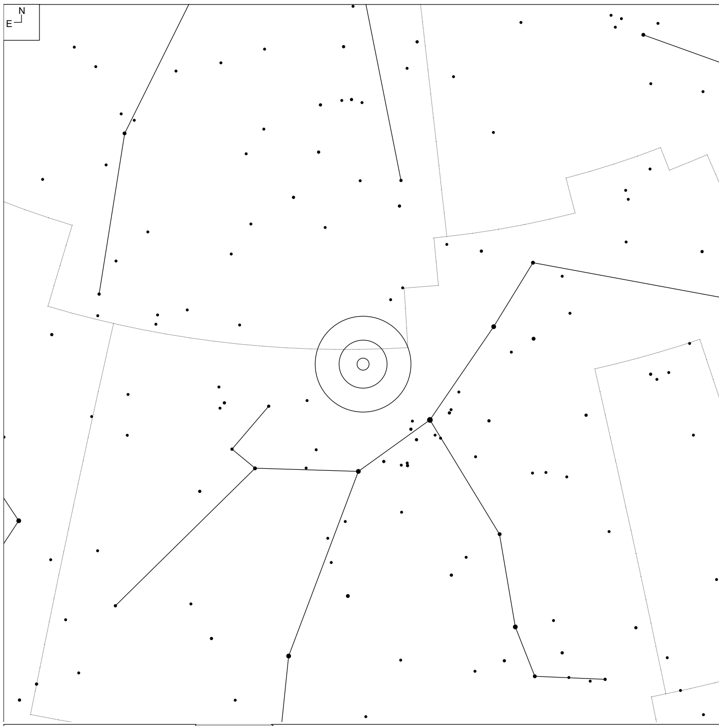


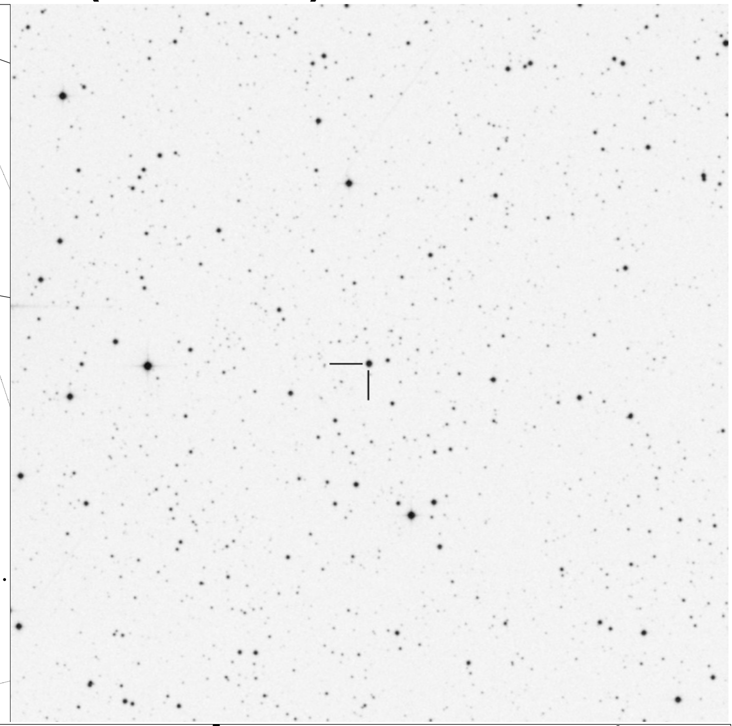


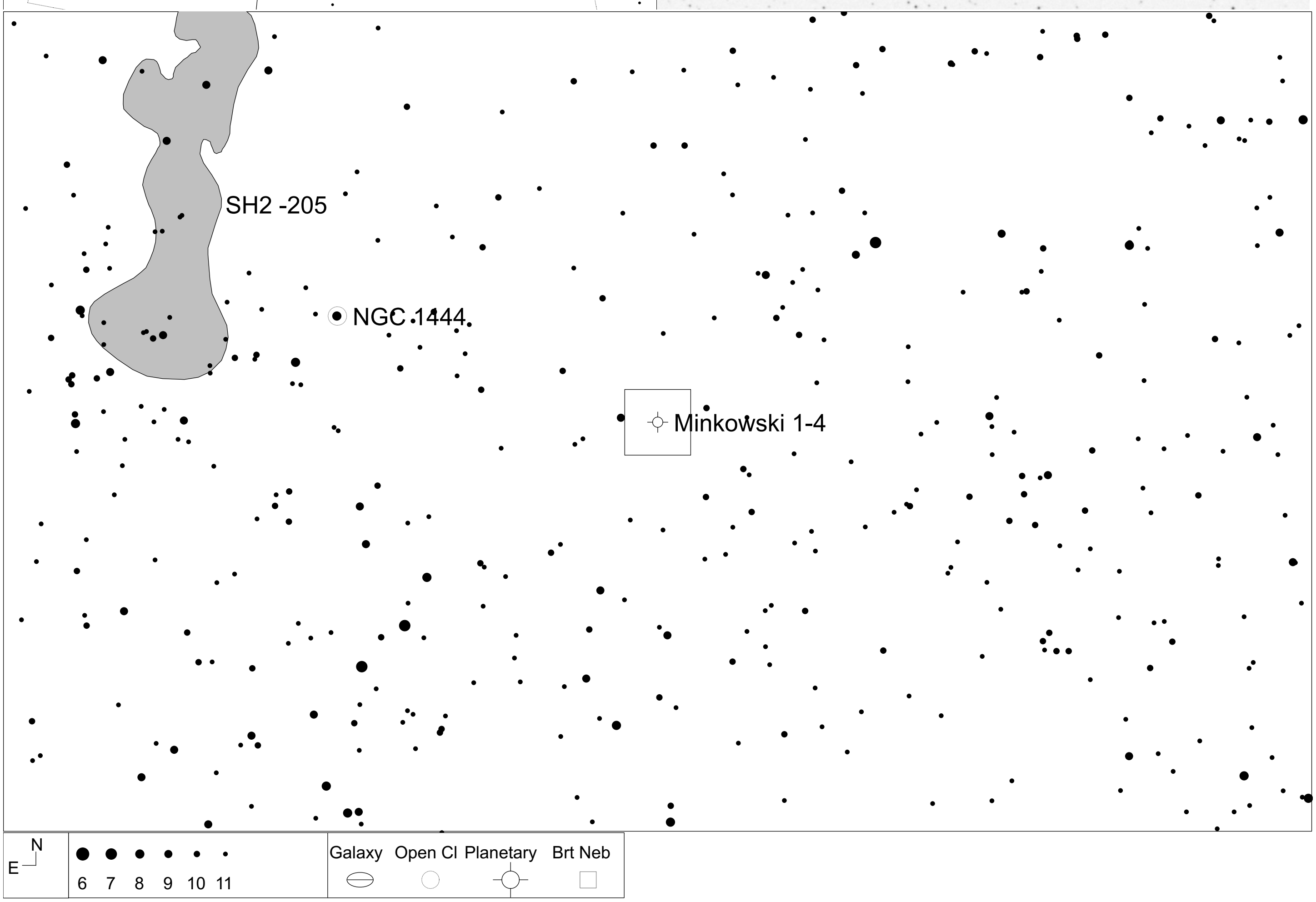


Other ID	Type	RA	Dec	Mag	* Mag	Size
-	-	03 27 15.5	+45 24 20	-	17.0	9.0’

Minkowski 1-4 (Perseus)

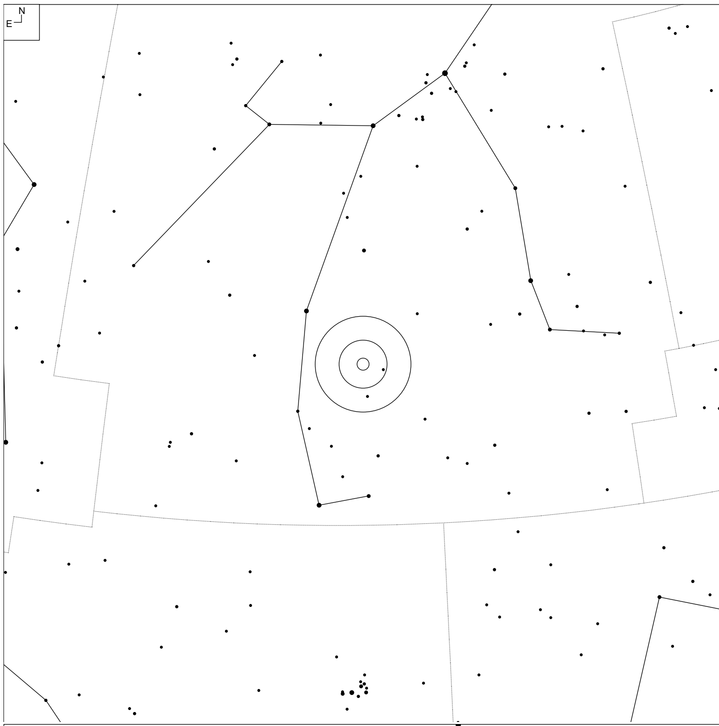


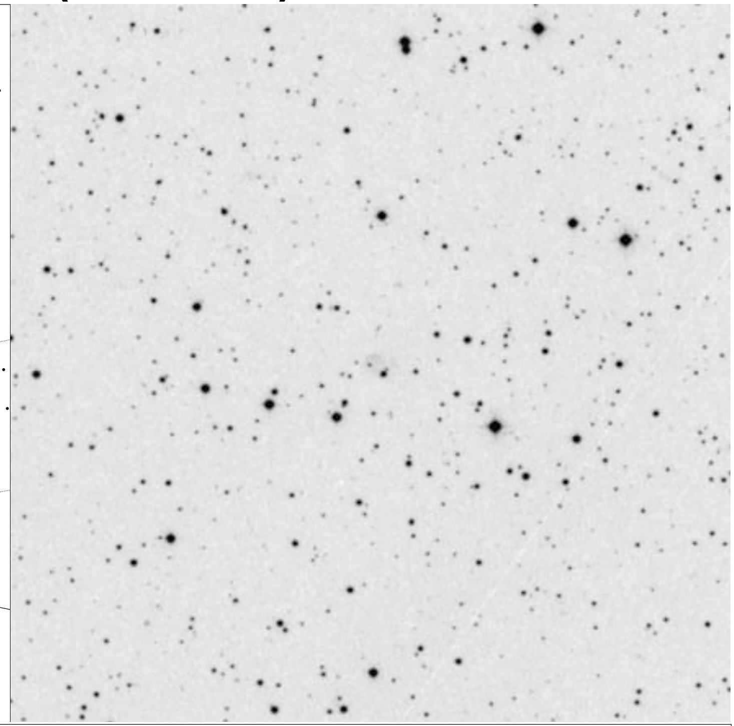


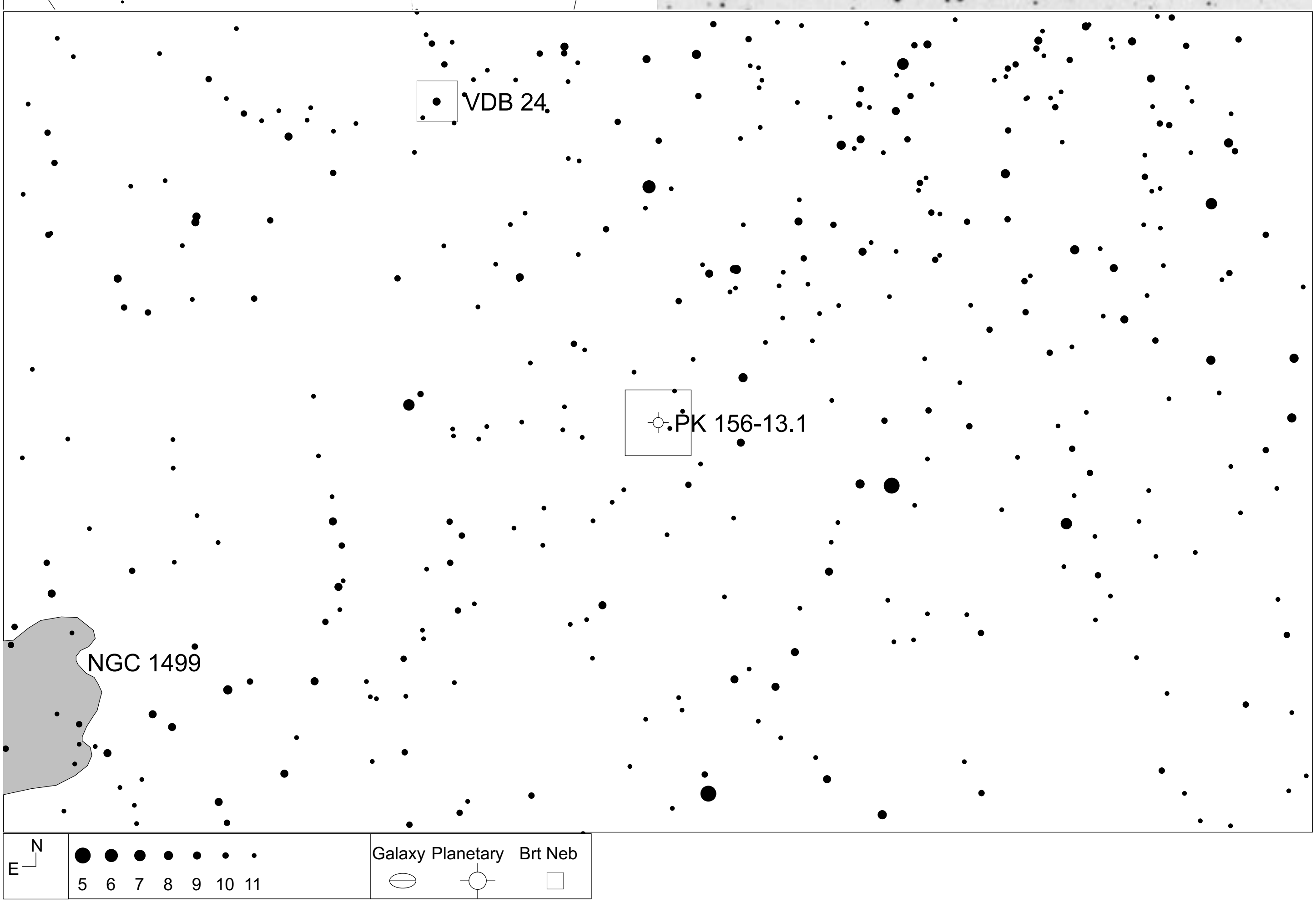


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 147-2.1	-	03 41 43.5	+52 16 57	13.6v	16.7	4”

PK 156-13.1 (Perseus)

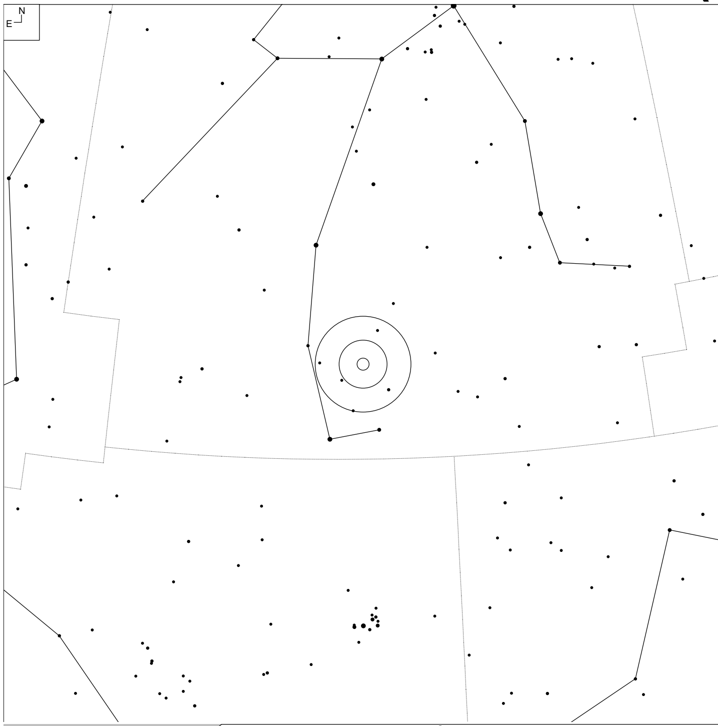


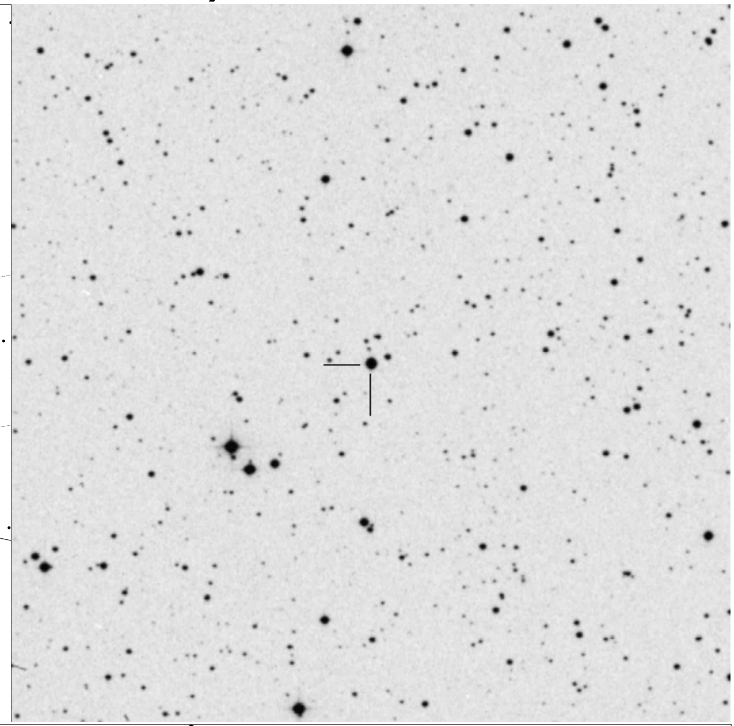


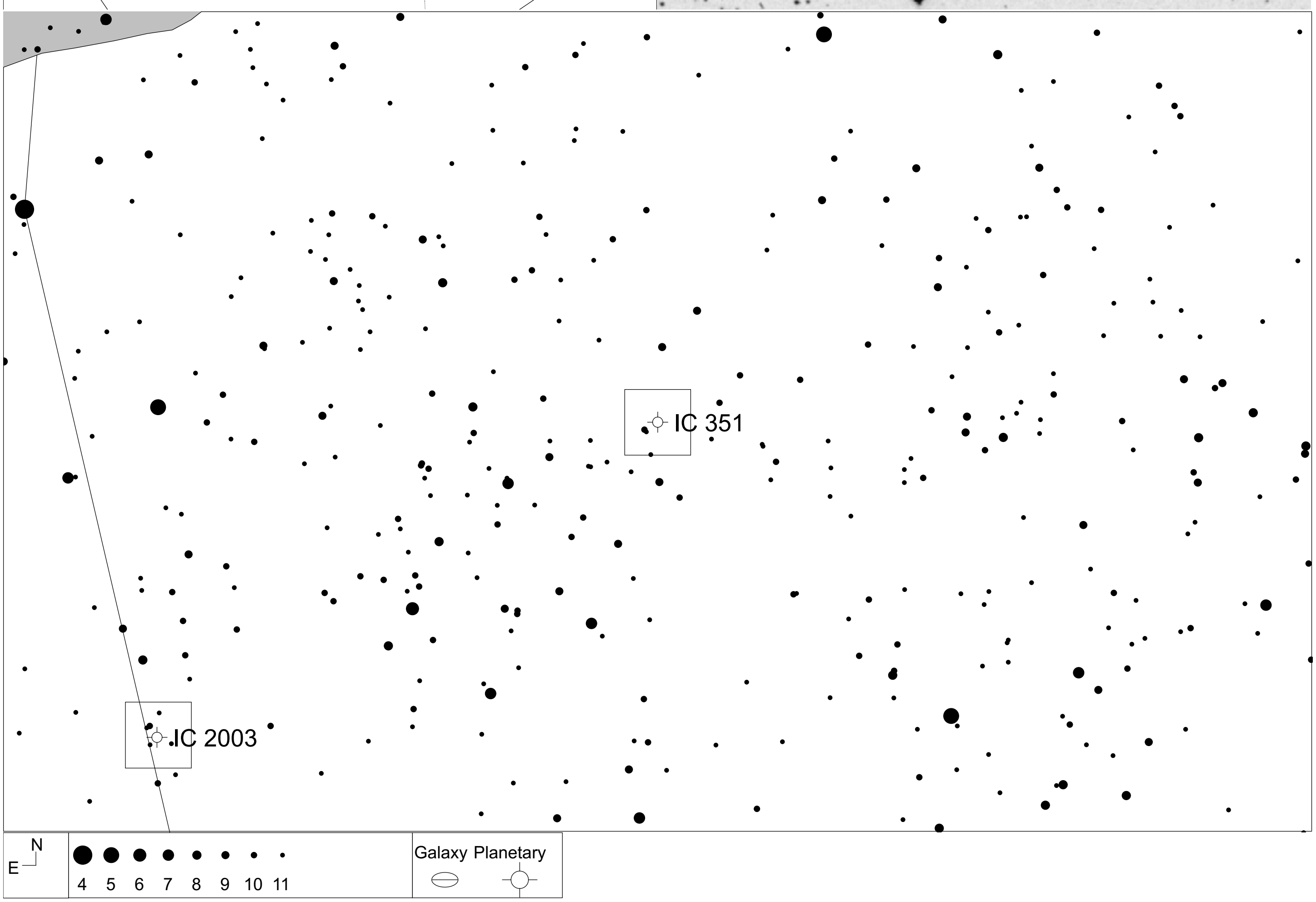


Other ID	Type	RA	Dec	Mag	* Mag	Size
-	-	03 45 26.6	+37 48 53	-	17.7	34”

IC 351 (Perseus)

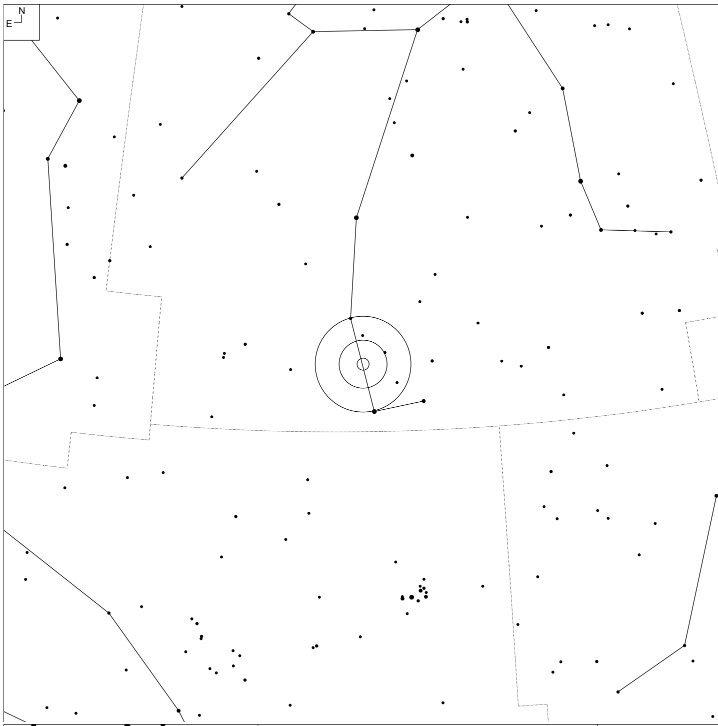


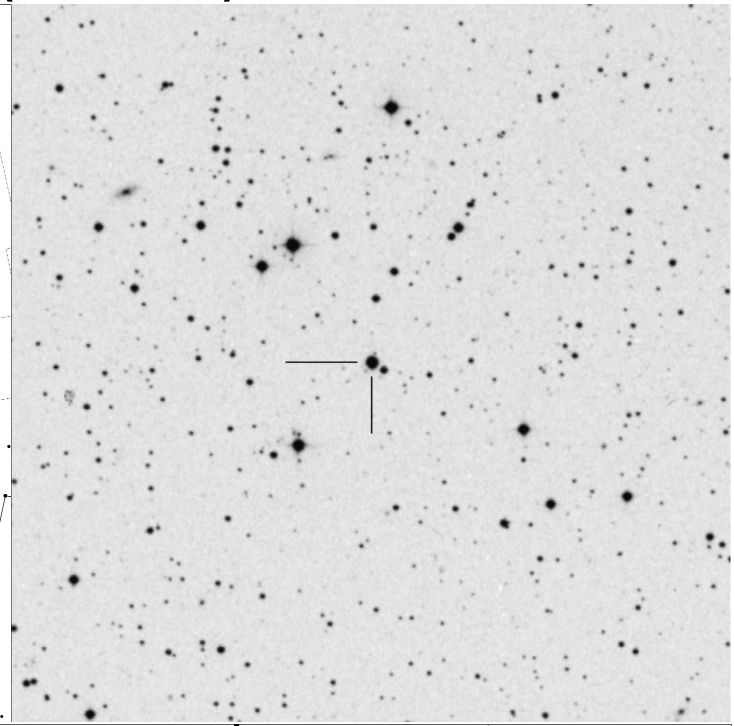


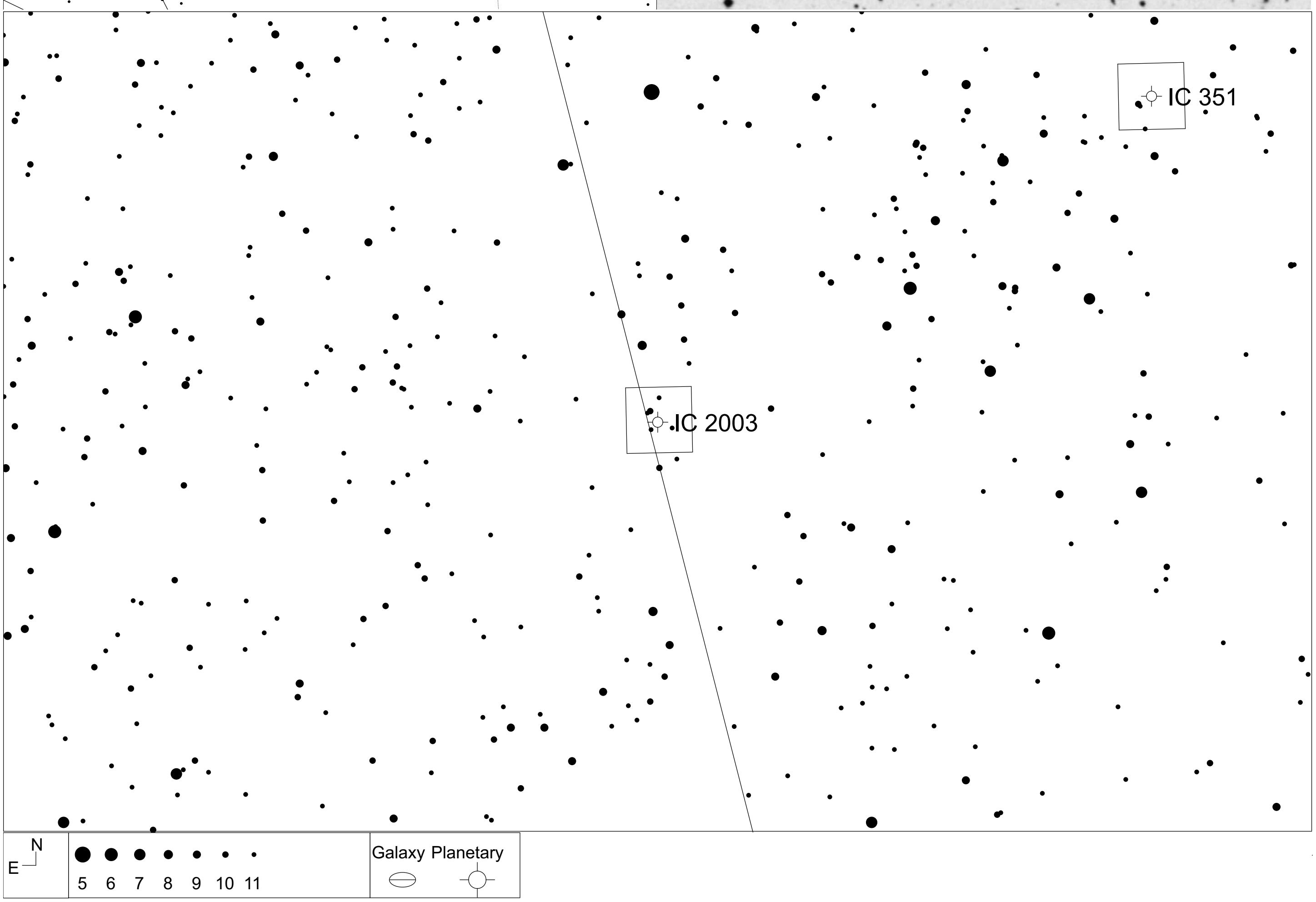


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 159-15.1	2a	03 47 33.1	+35 02 45	11.9v	15.8	7”

IC 2003 (Perseus)

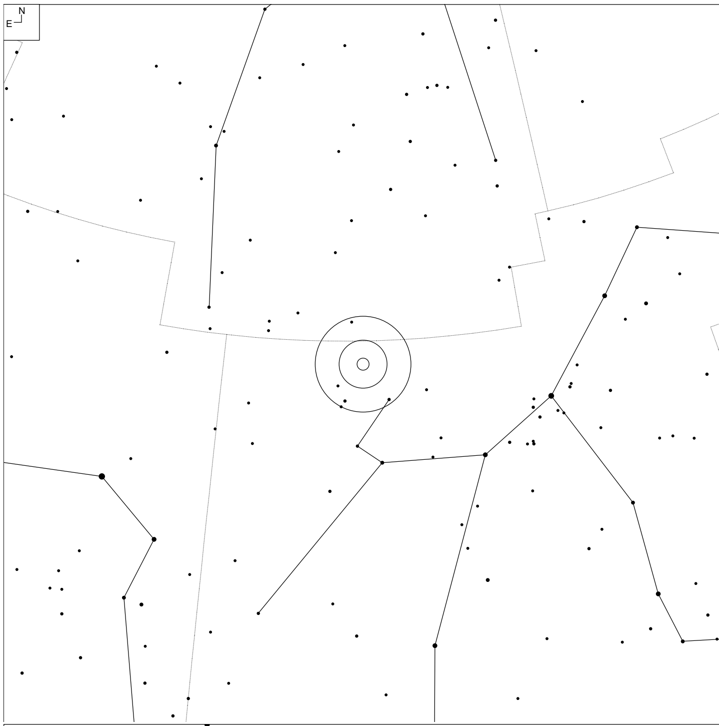


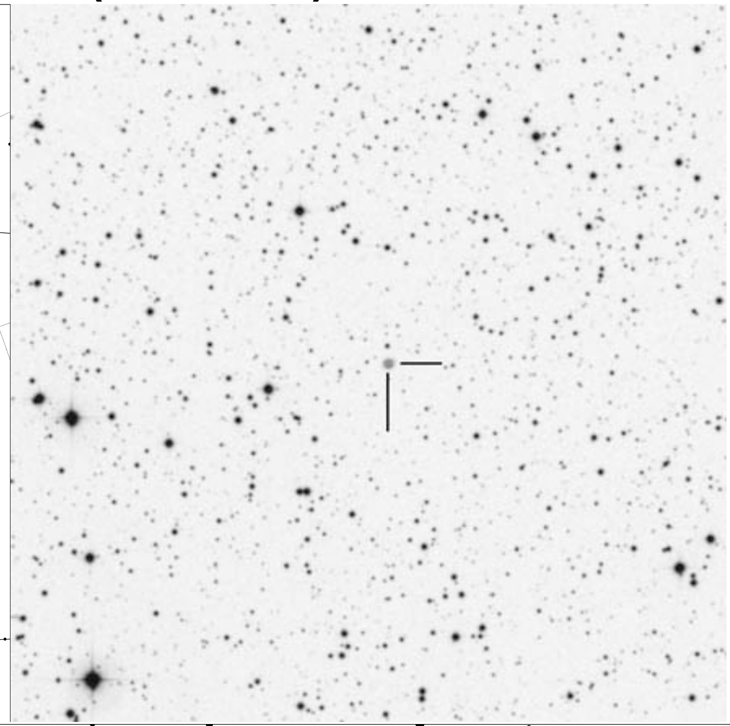


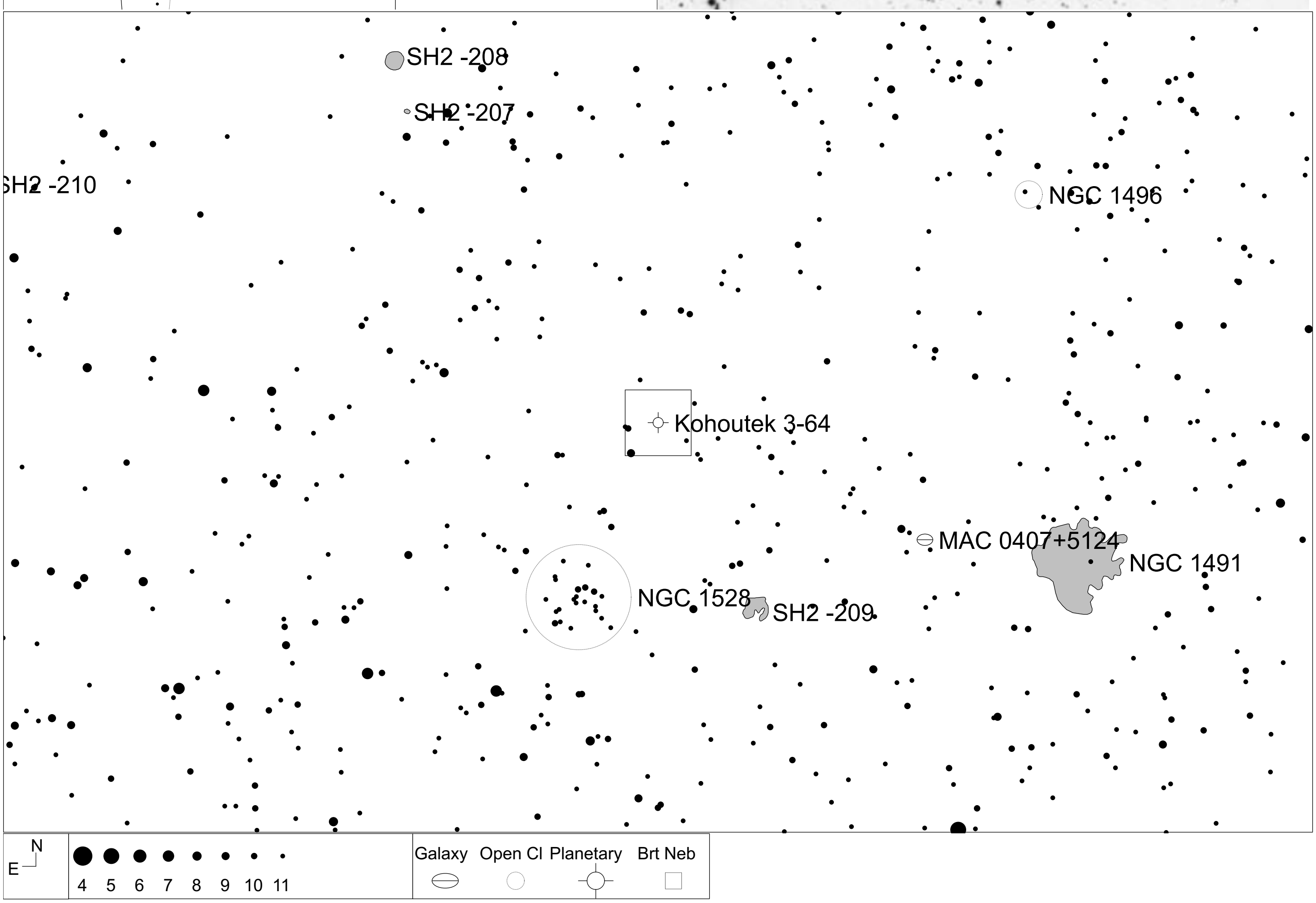


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 161-14.1	2	03 56 22.1	+33 52 27	12.6p	15.0	9.0”

Kohoutek 3-64 (Perseus)

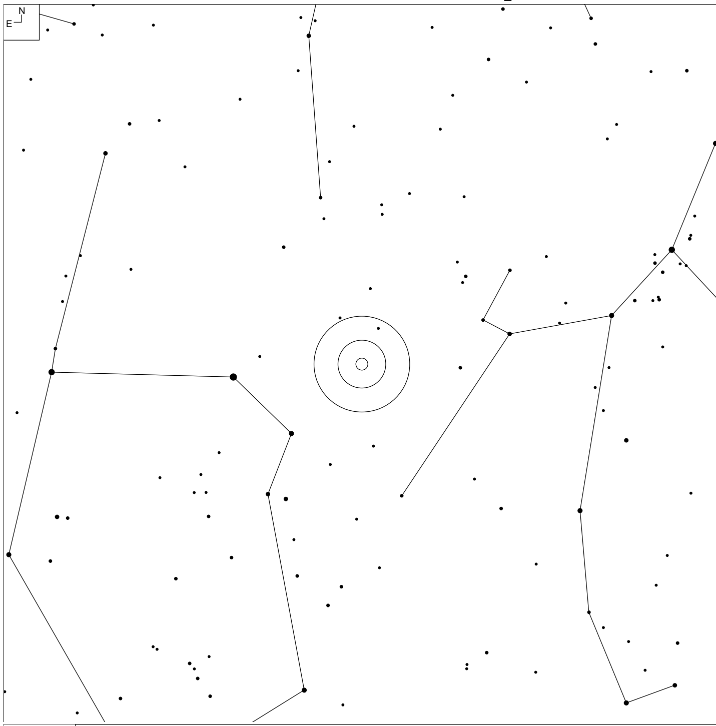


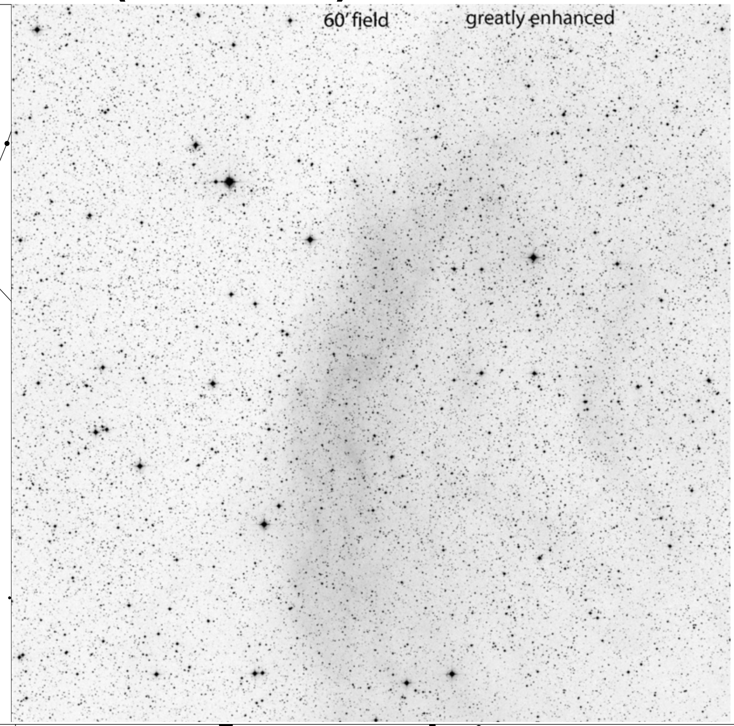


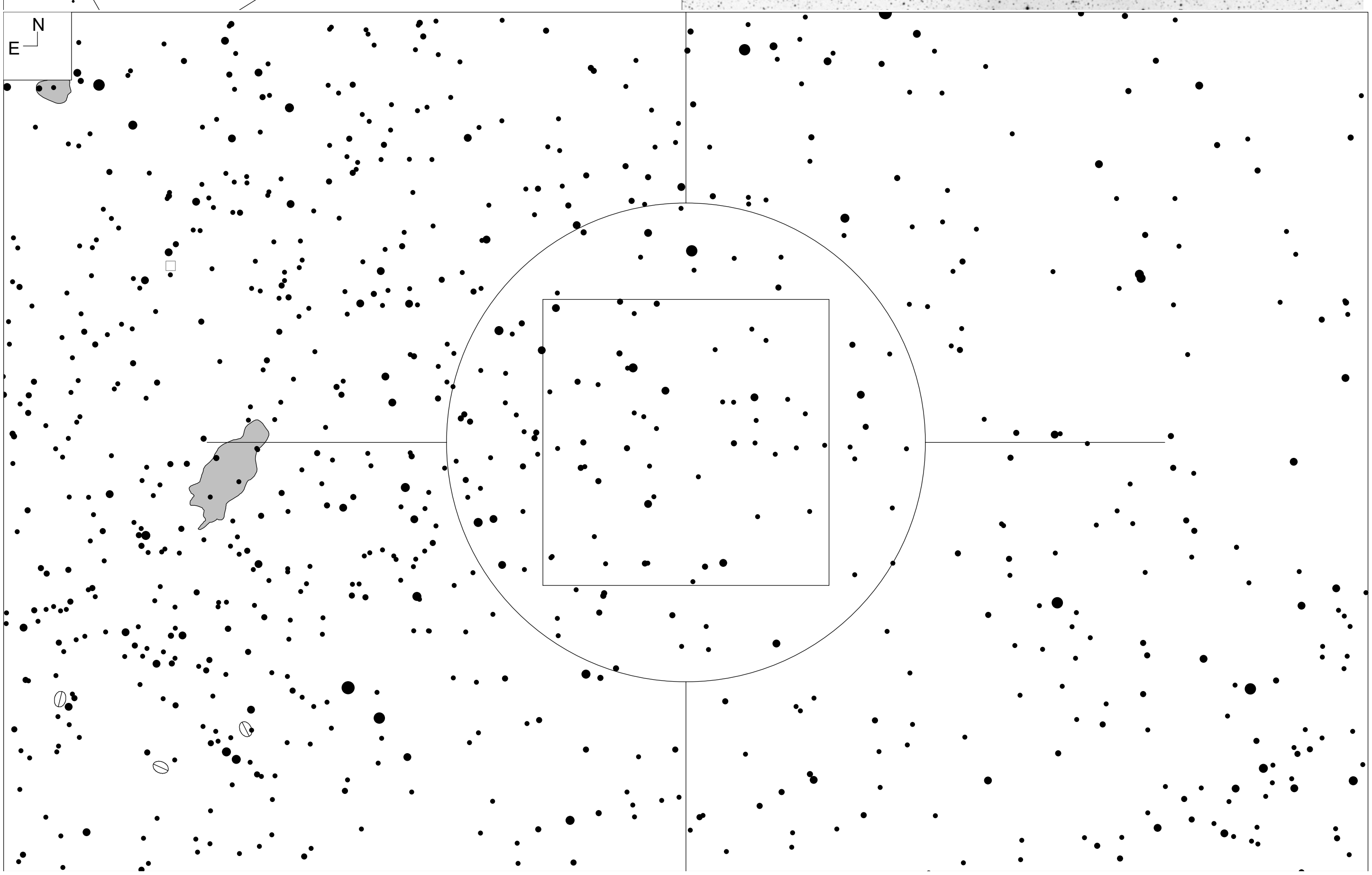


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 151+0.1	-	04 13 27.4	+51 50 59	16.9p	-	8”

Sharpless 2-216 (Perseus)

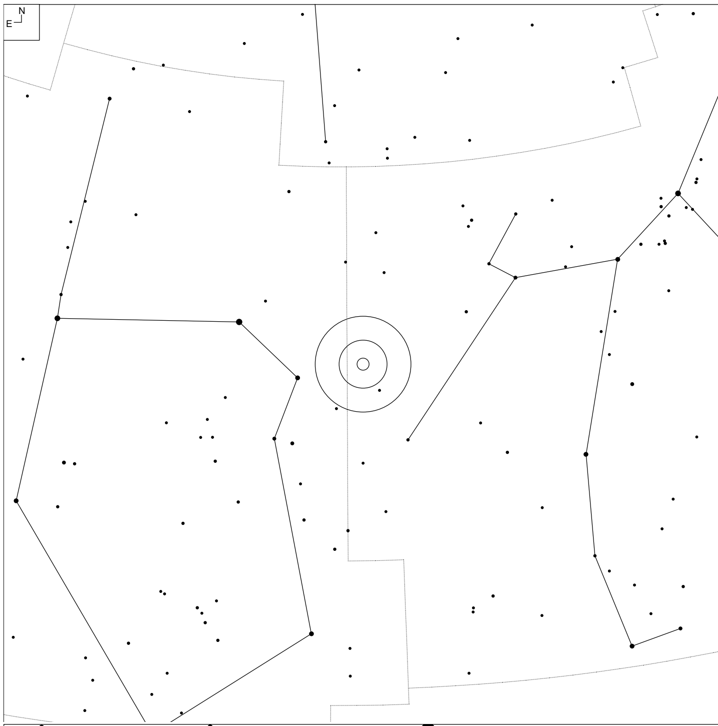


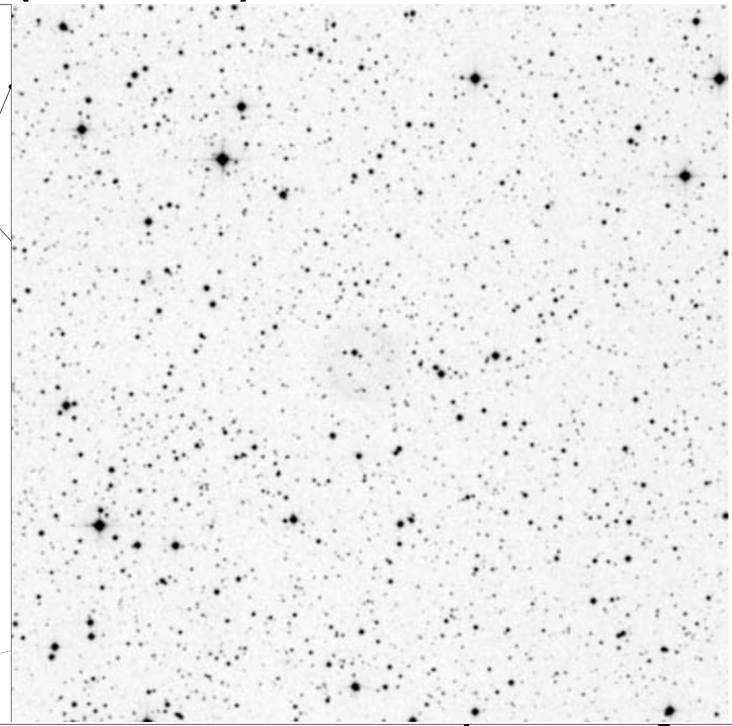


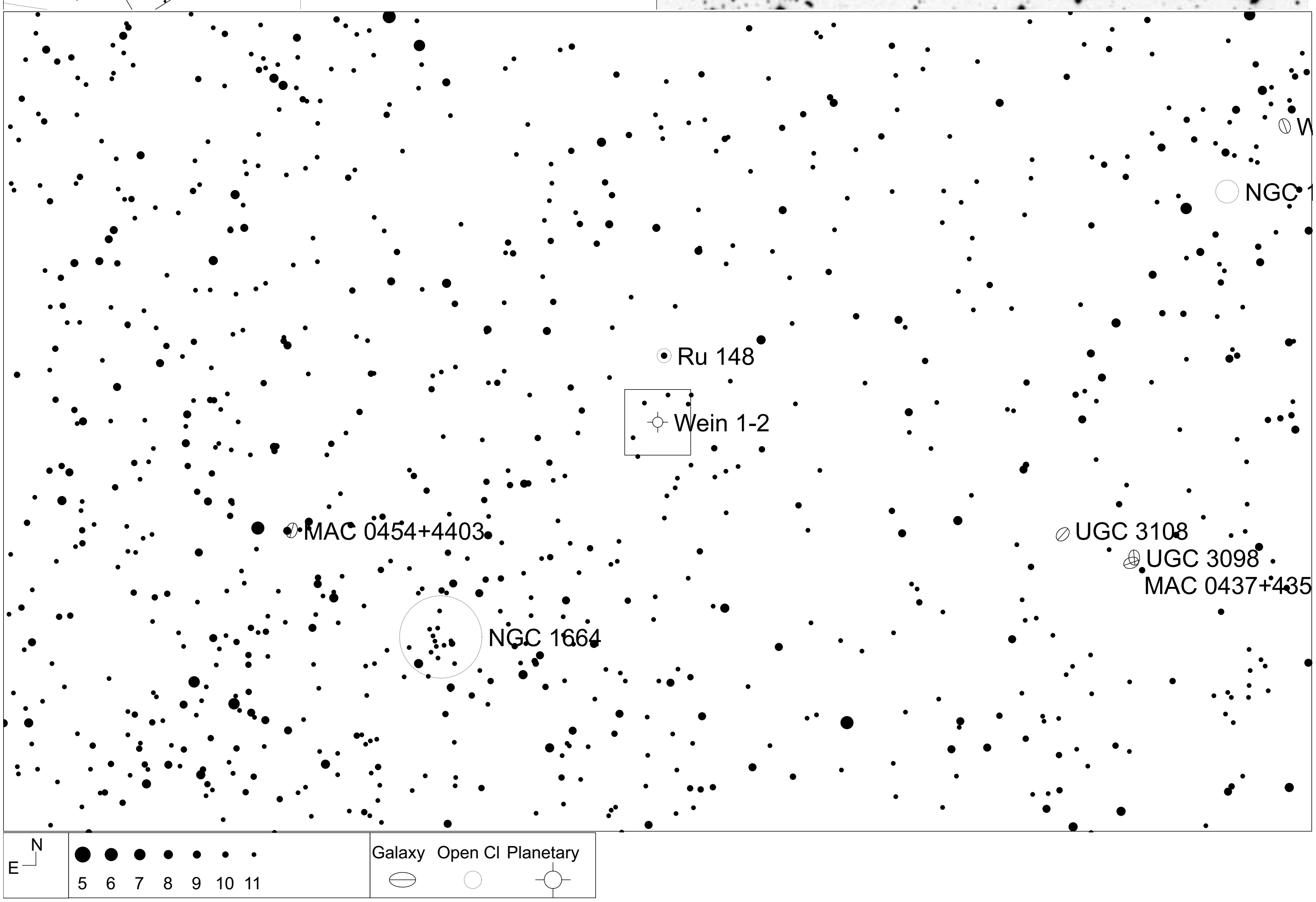


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 158+00.1	3	04 45 35	+46 48.5	-	-	100'

Wein 1-2 (Perseus)

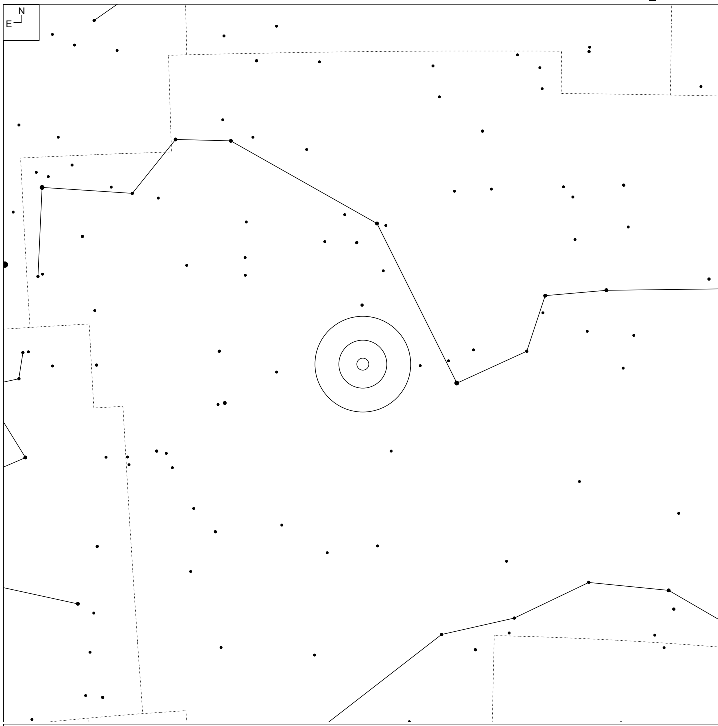


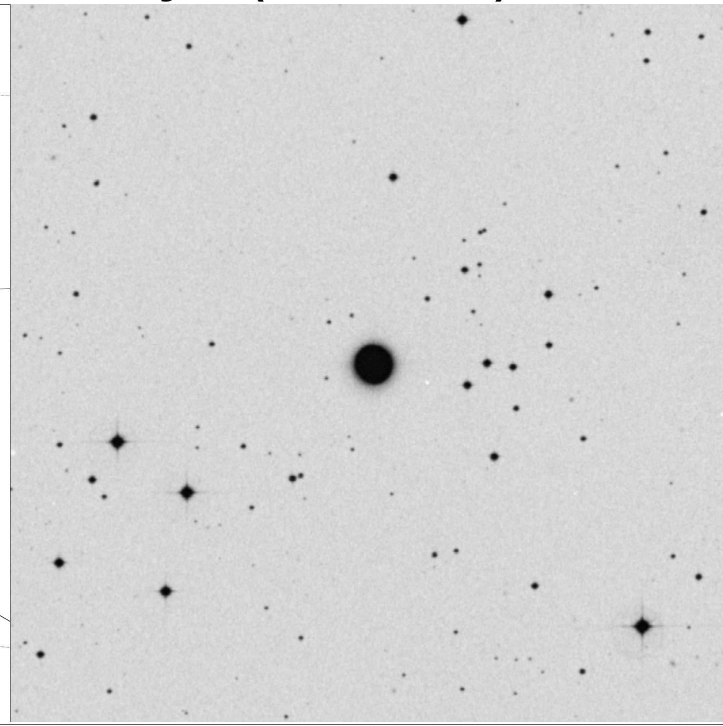


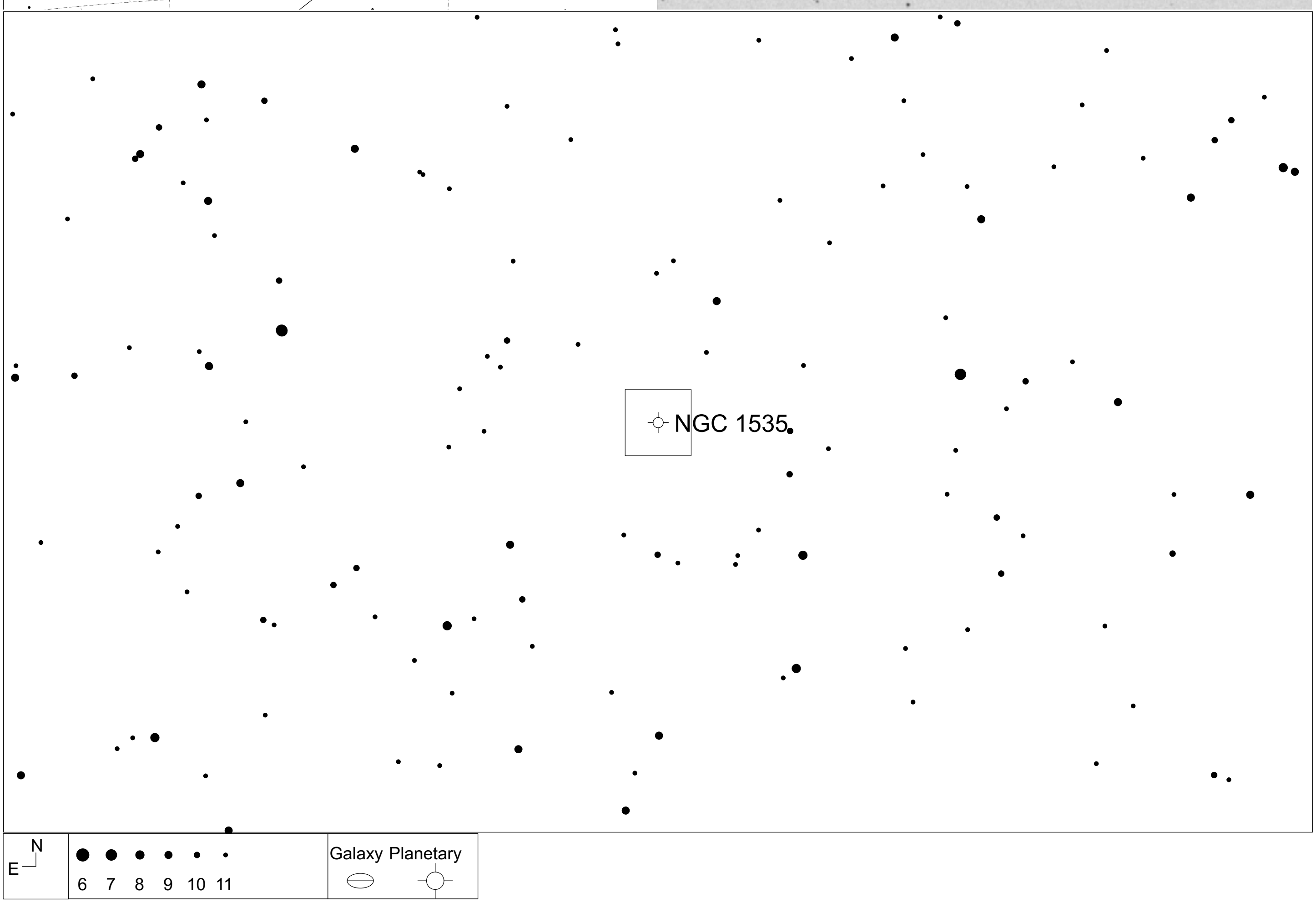


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 160-0.1	-	04 46 42.9	+44 28 00	-	20.8	92”

NGC 1535 – Cleopatra’s Eye (Eridanus)

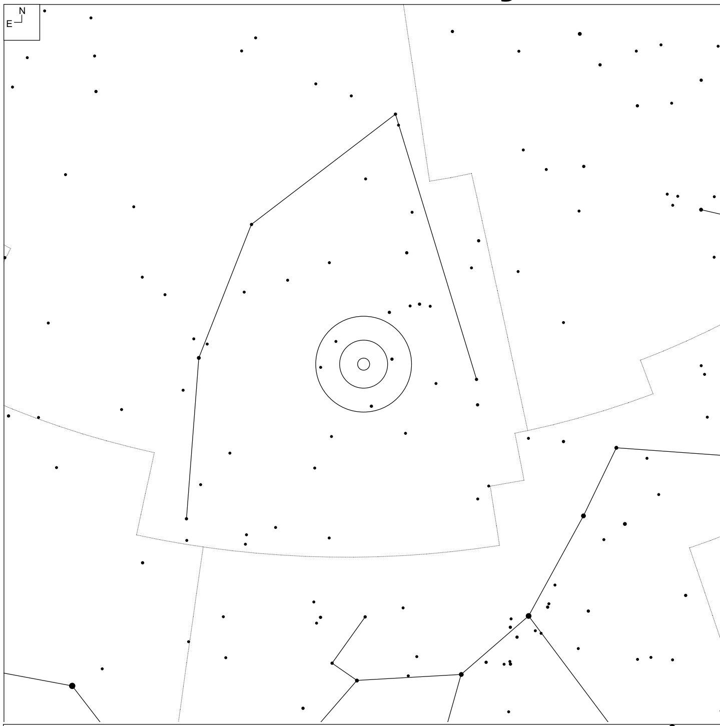


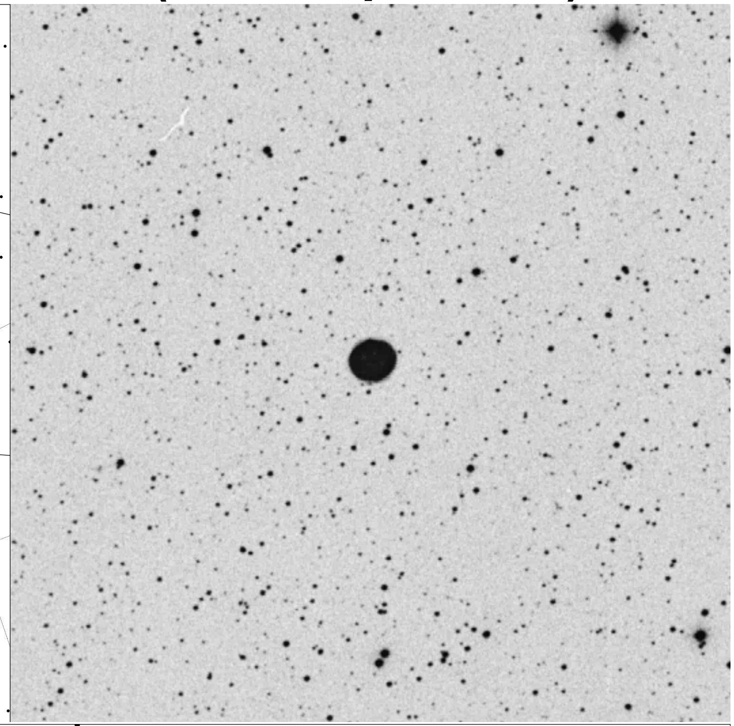


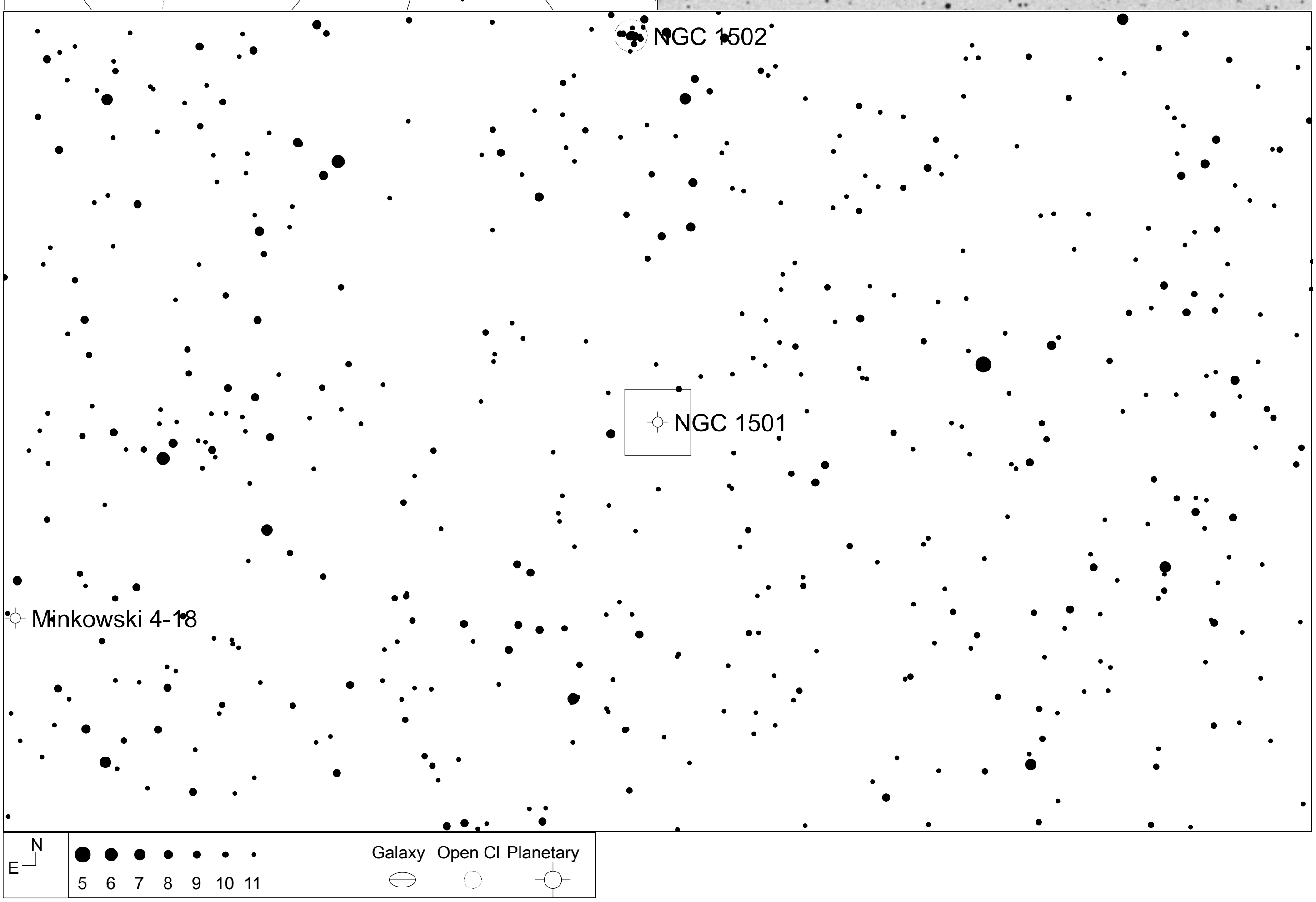


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 206-40.1	4+2c	04 14 15.8	-12 44 21	9.6v	12.1	60”

NGC 1501 – Oyster Nebula   (Camelopardalis)

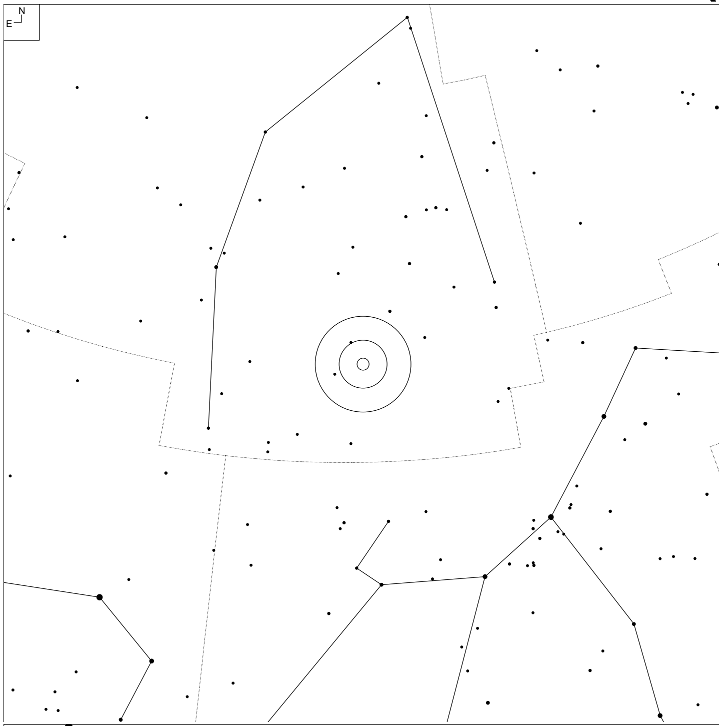


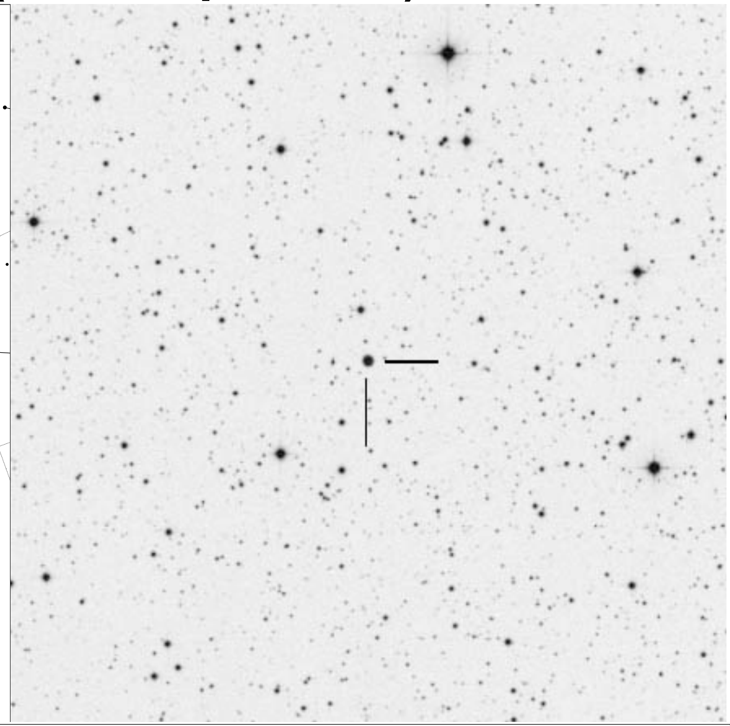


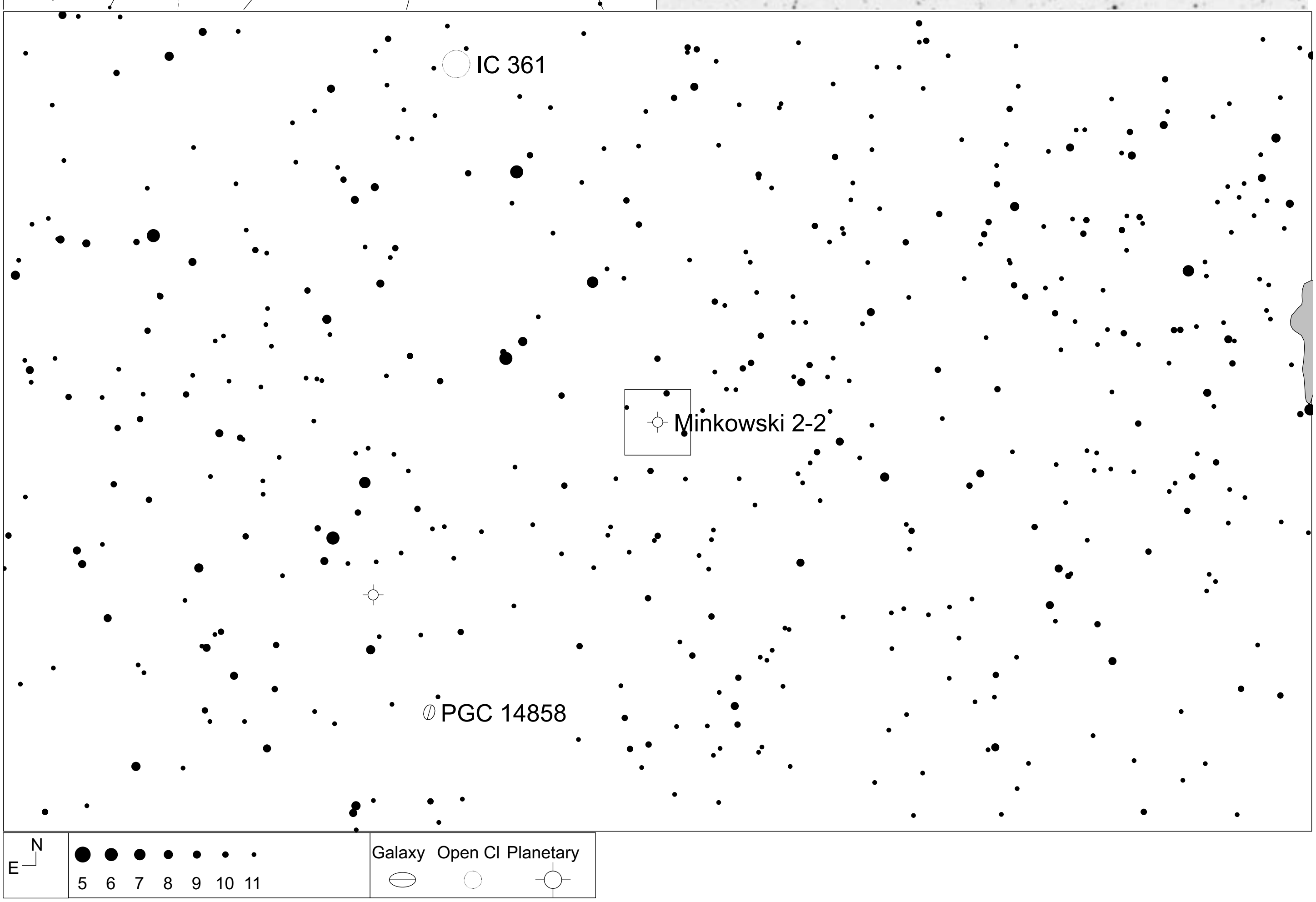


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 144+6.1	3	04 06 59.6	+60 55 11	13.3p	14.3	52”

Minkowski 2-2 (Camelopardalis)

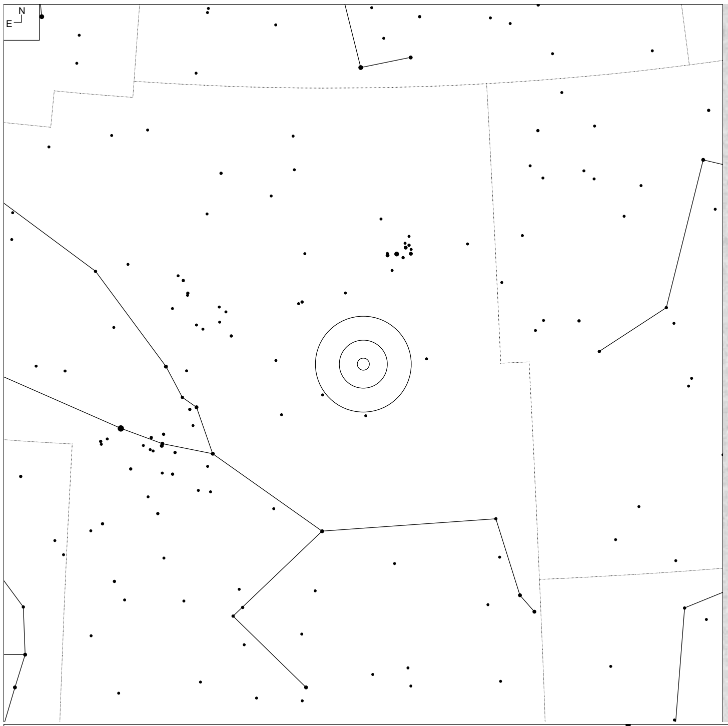


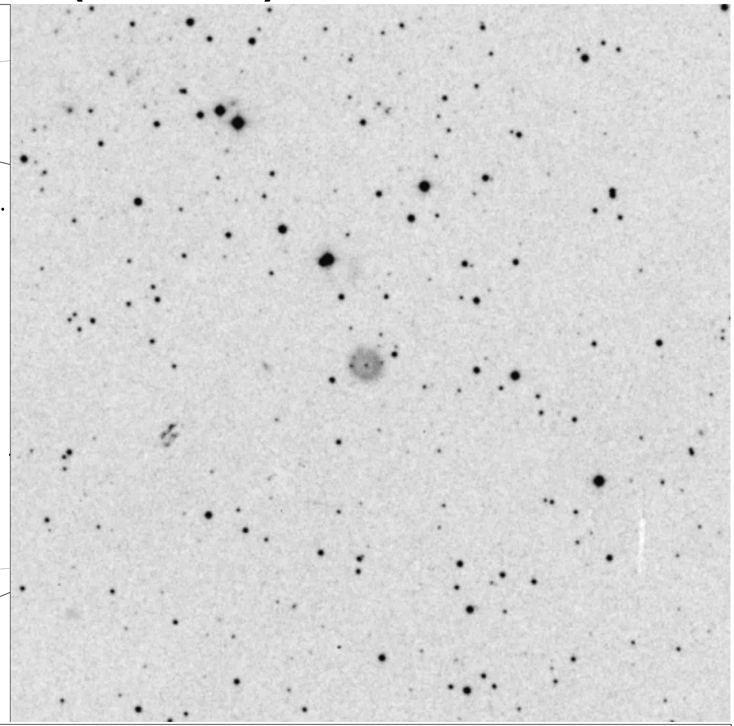


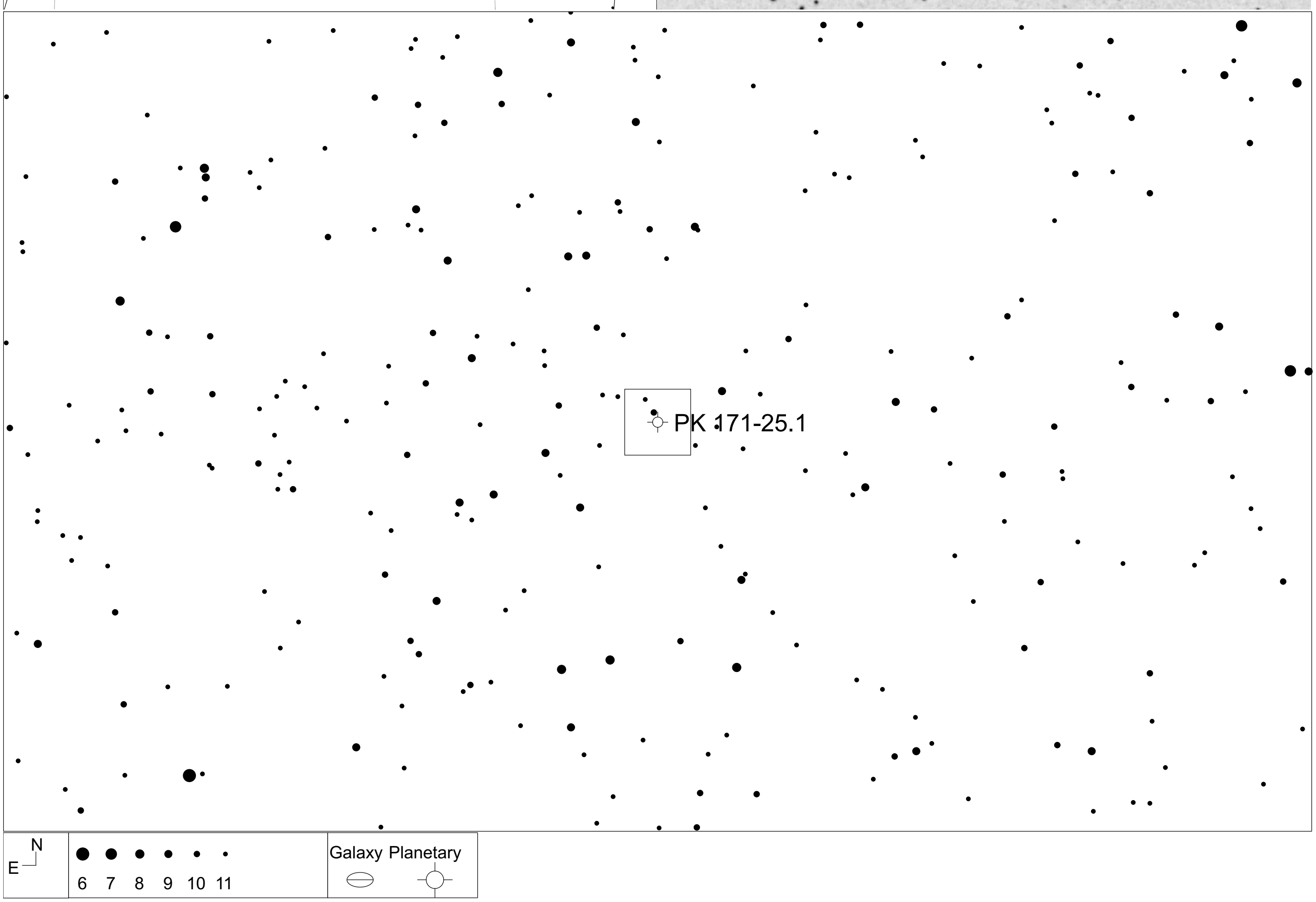


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 147+4.1	3	04 13 15.2	+56 56 56	14.0p	-	6”

PK 171-25.1 (Taurus)

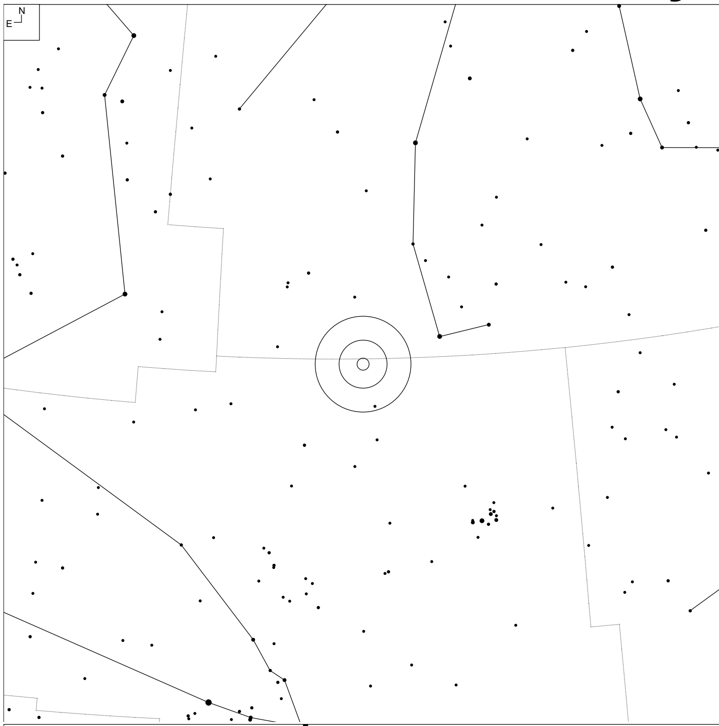


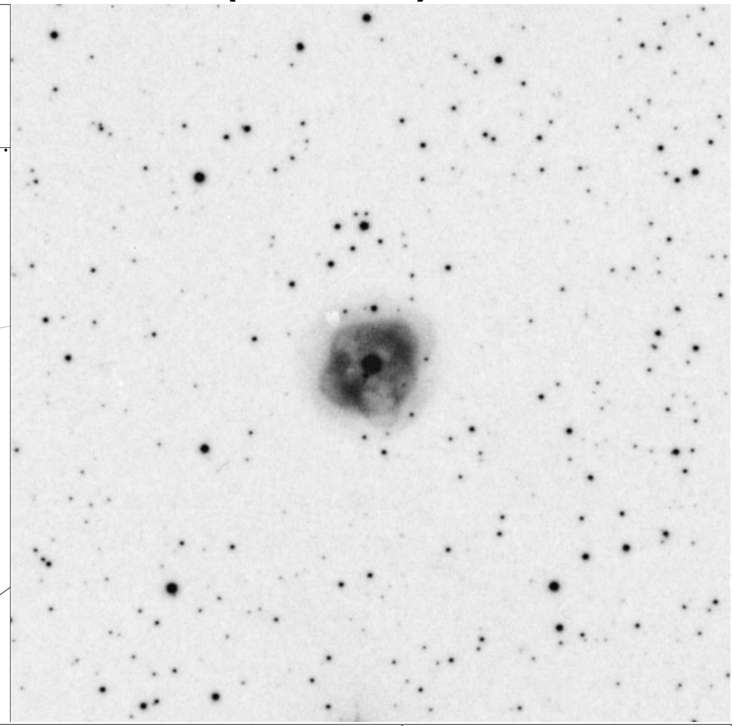


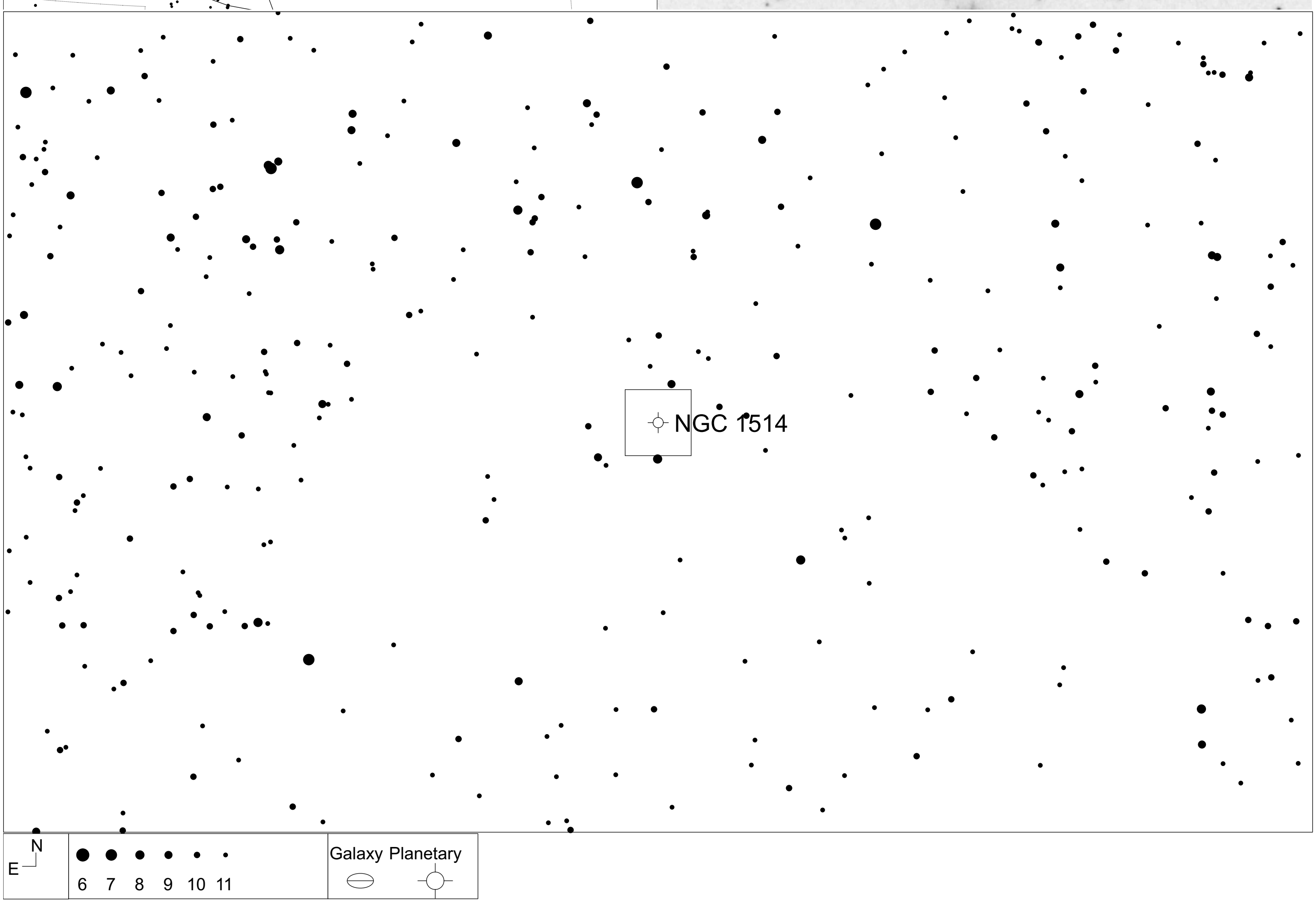


Other ID	Type	RA	Dec	Mag	* Mag	Size
Baade 1	4	03 53 36.4	+19 29 39	15.1v	17.2	48”

NGC 1514 – Crystal Ball (Taurus)

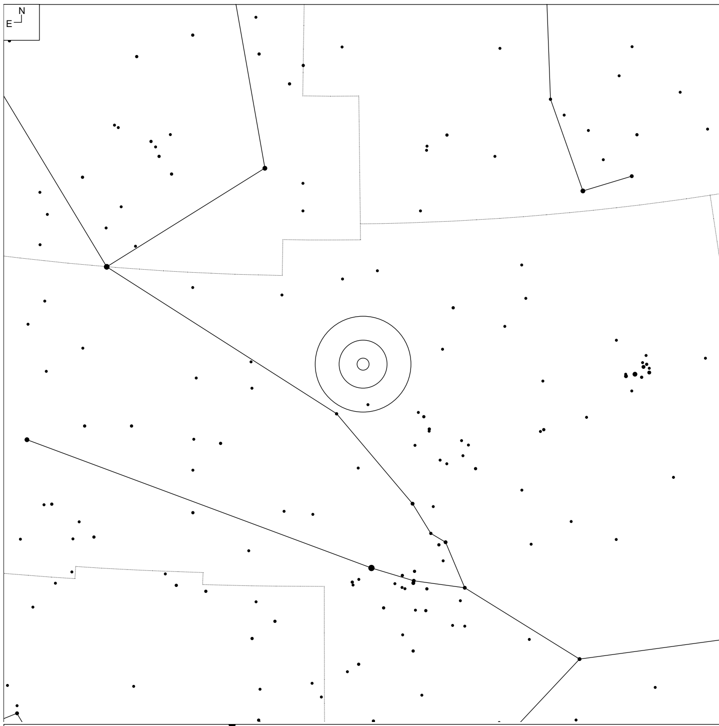


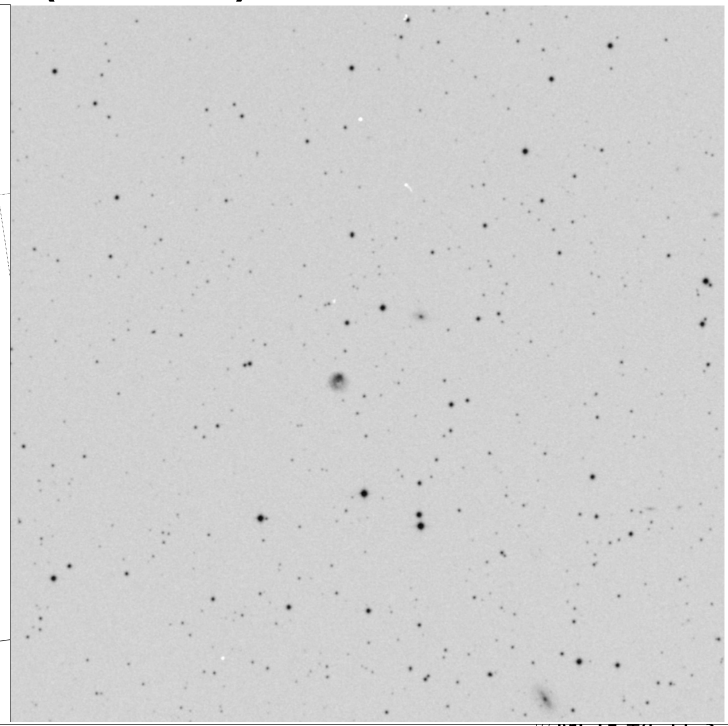


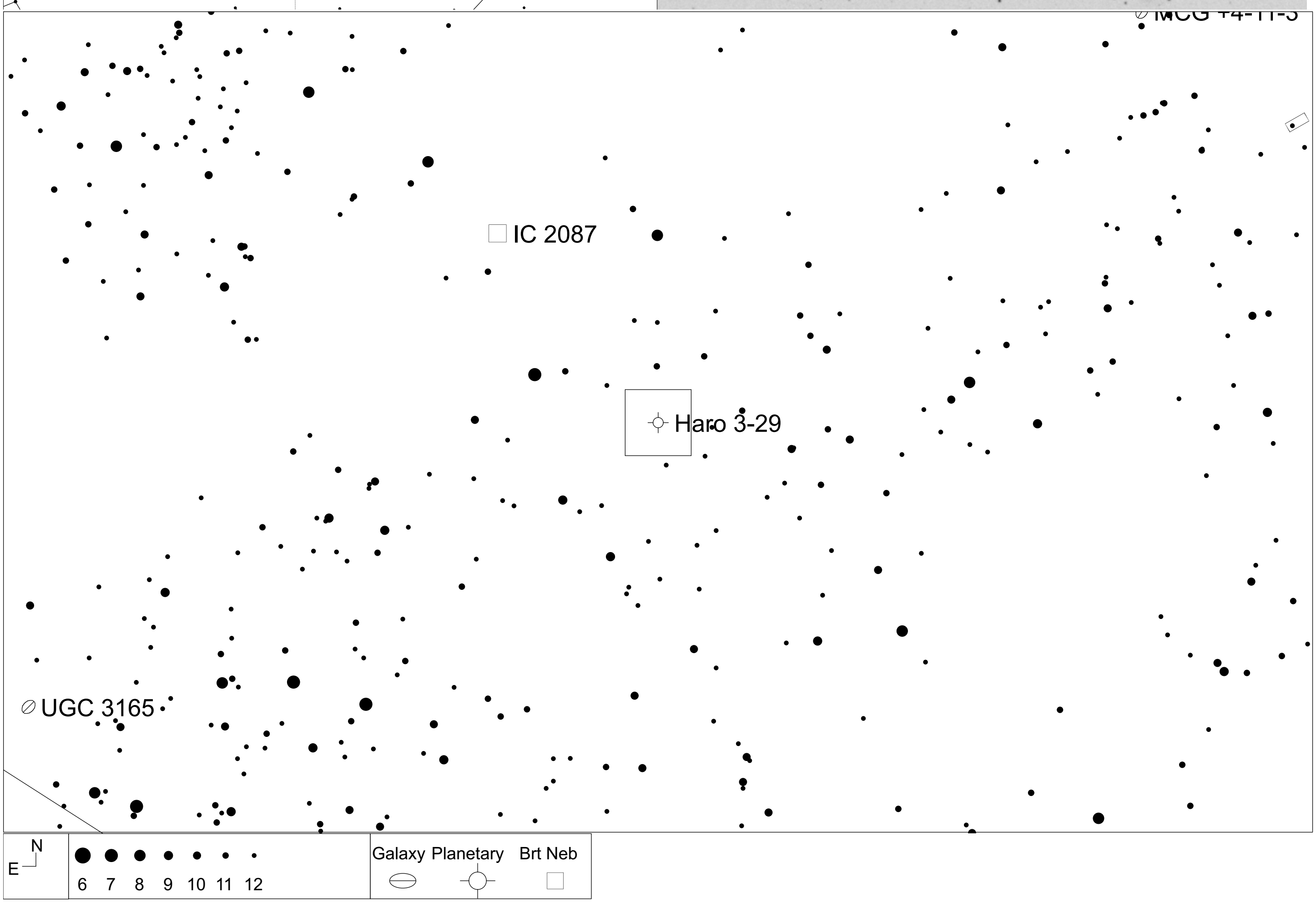


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 165-15.1	3+2	04 09 16.9	30 46 34	10.9v	9.4	1.9’

Haro 3-29 (Taurus)

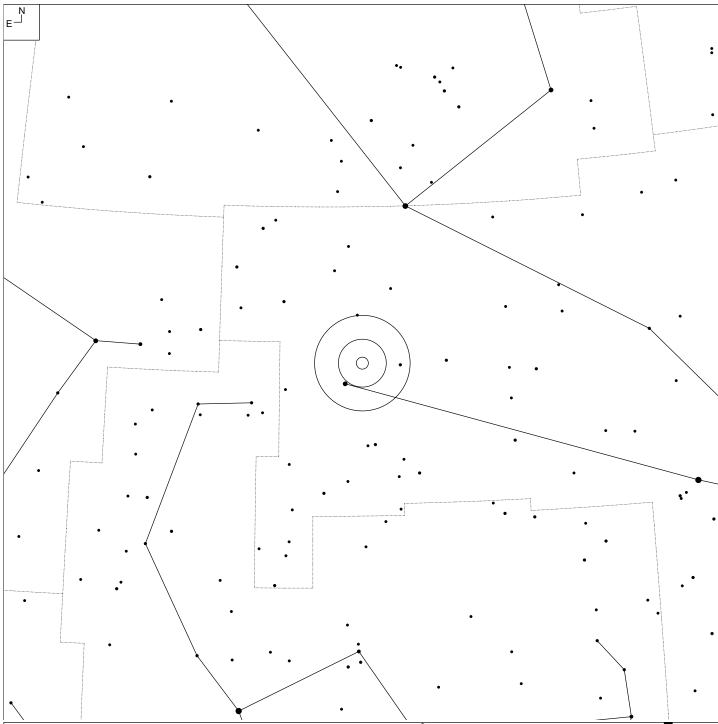


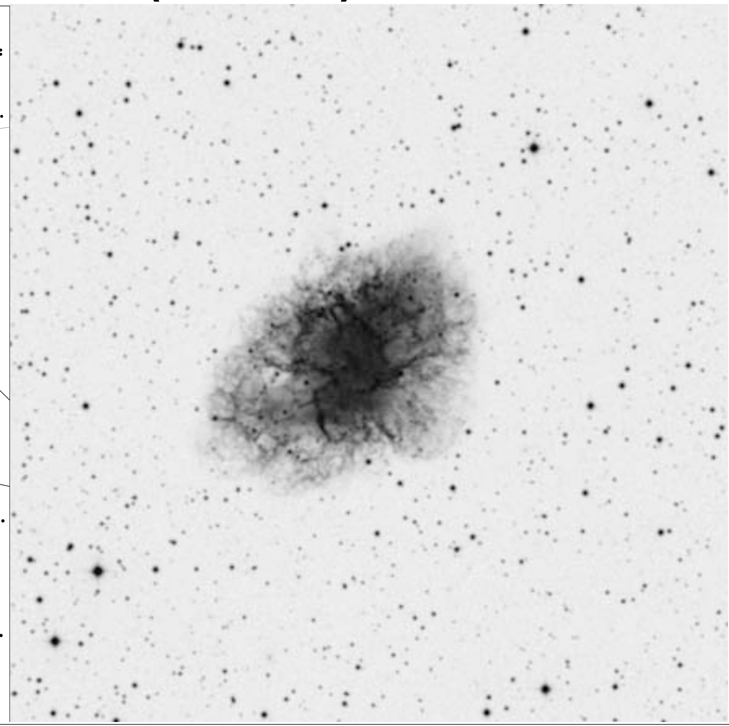


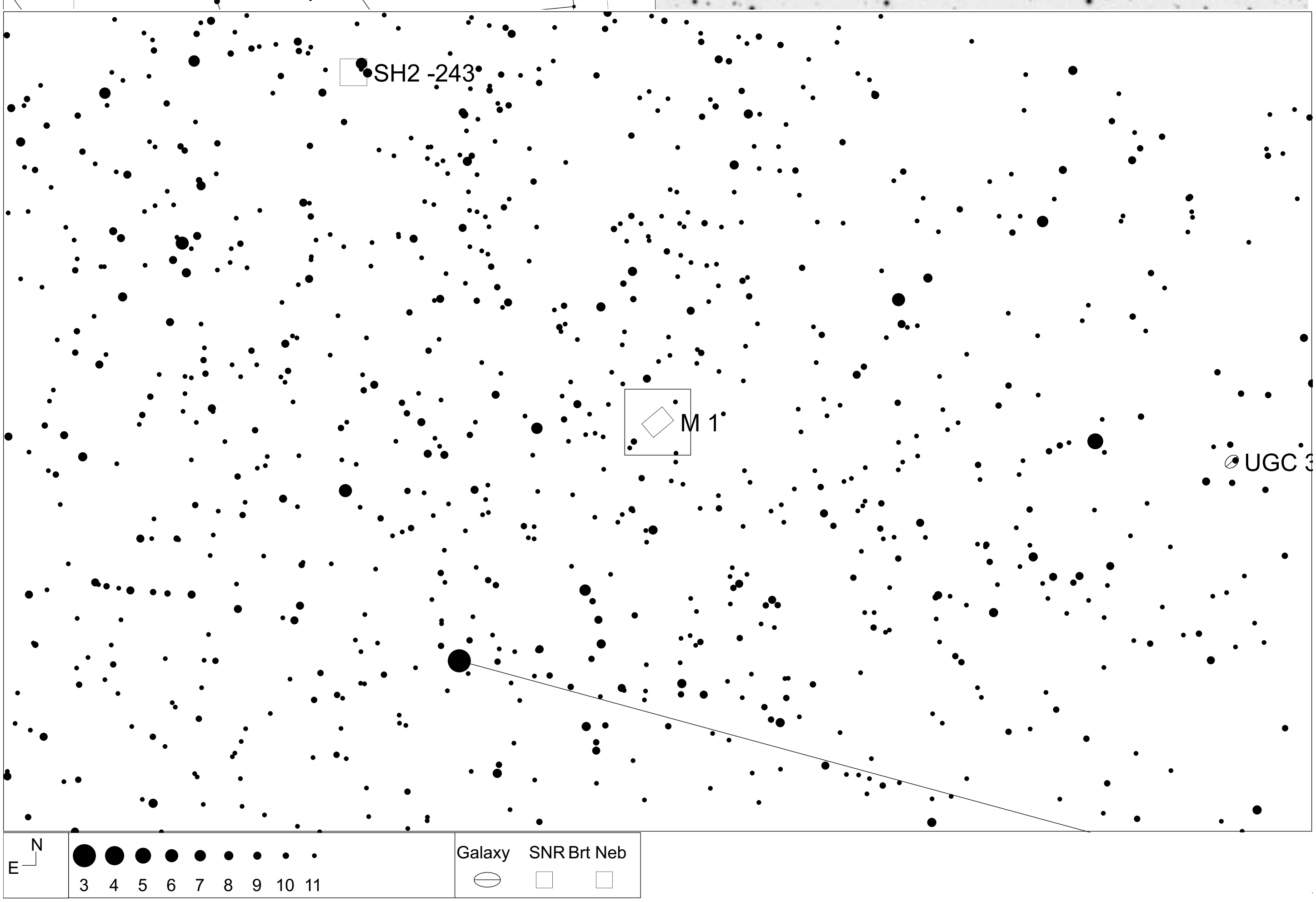


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 174-14.1	-	04 37 23.6	+25 02 36	15.1v	18.6	25”

M-1 – Crab Nebula (Taurus)

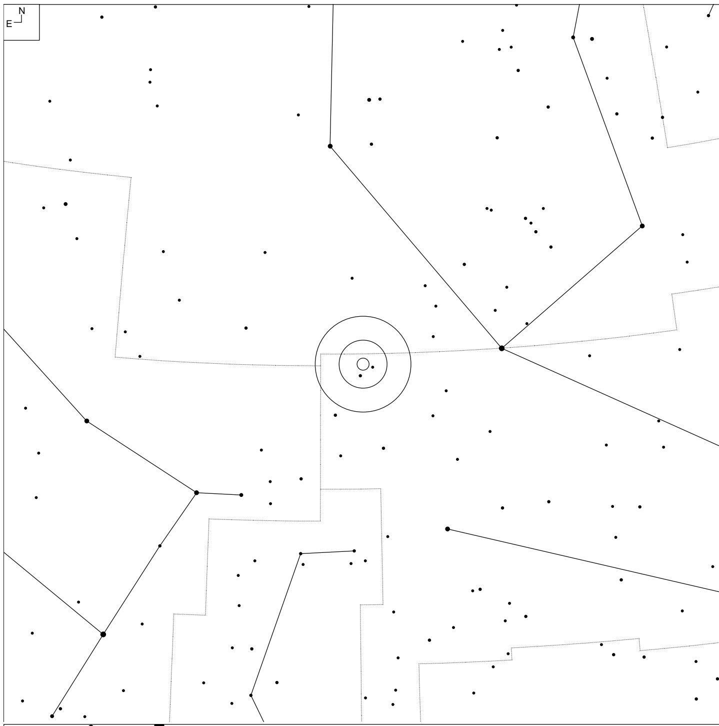


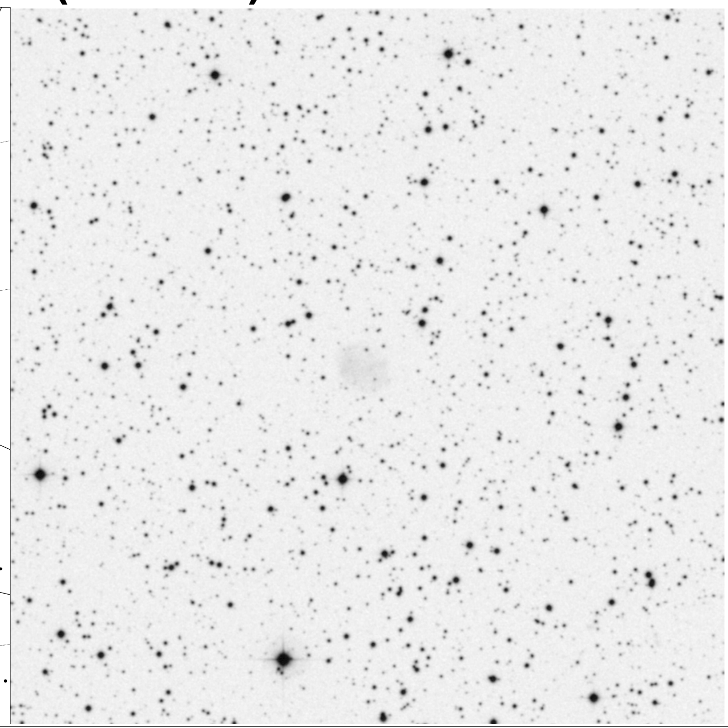


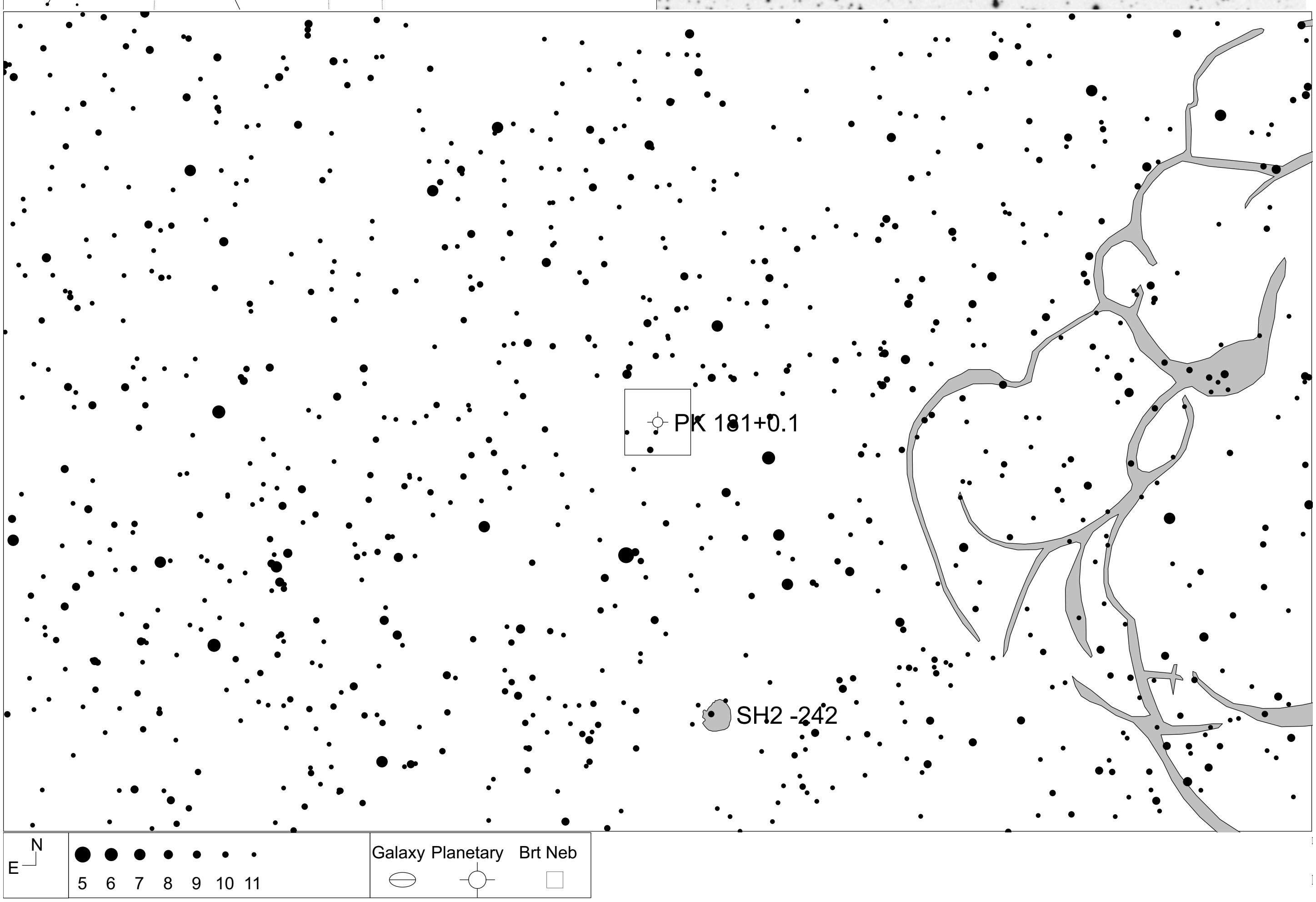


Other ID	Type	RA	Dec	Mag	* Mag	Size
NGC 1952	SNR	05 34 31.9	+22 01 00	8.4	-	6.0 x 4.0’

PK 181+0.1 (Taurus)

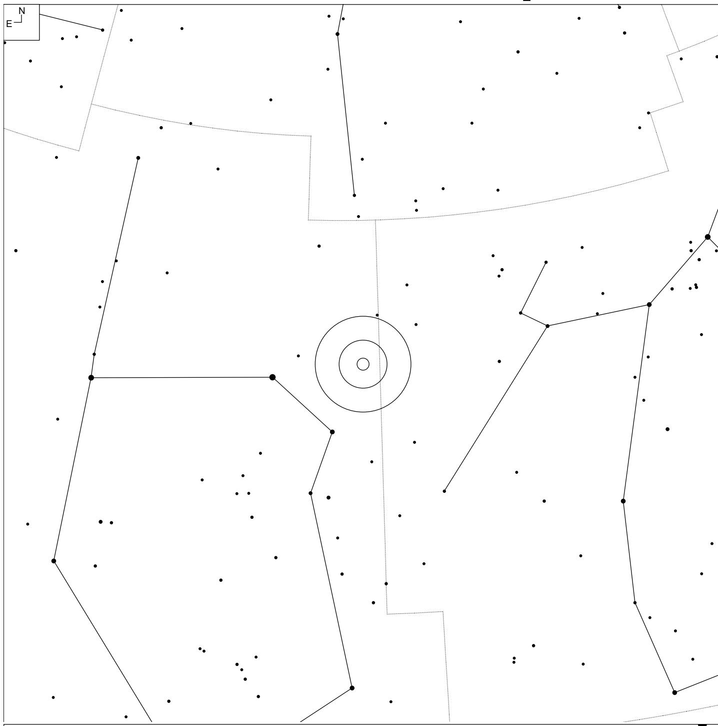


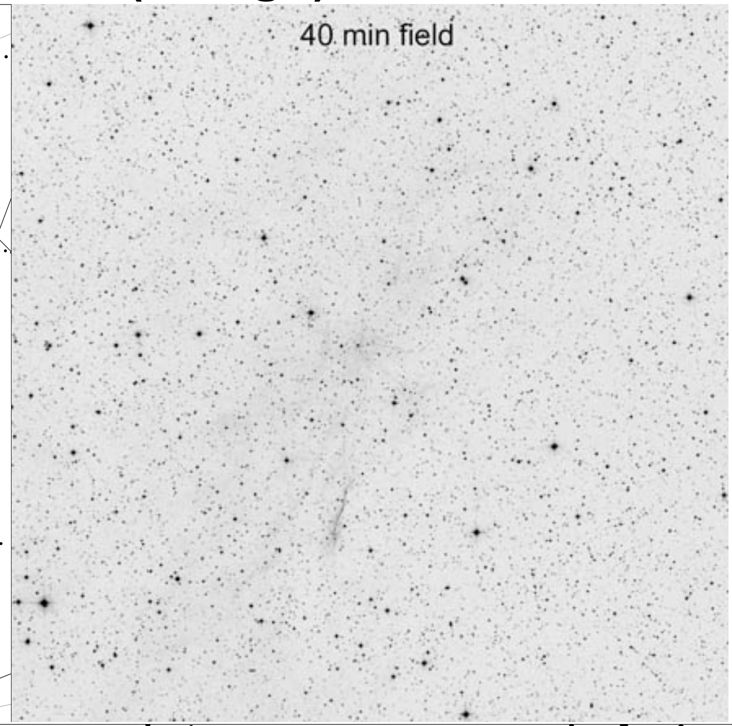


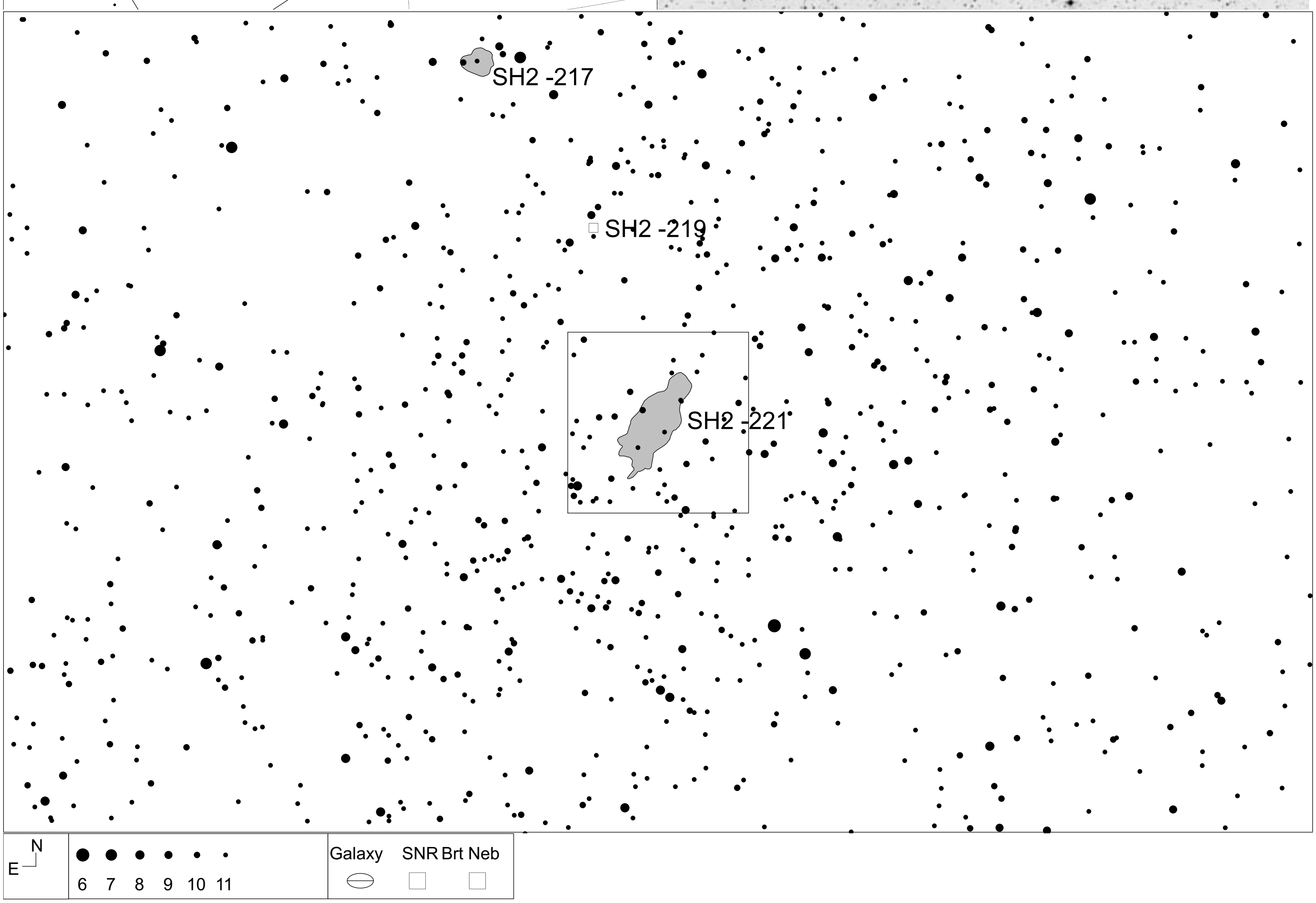


Other ID	Type	RA	Dec	Mag	* Mag	Size
-	-	05 52 48.2	+28 05 57	15.8p	21.1	65”

Sharpless 2-221 (Auriga)

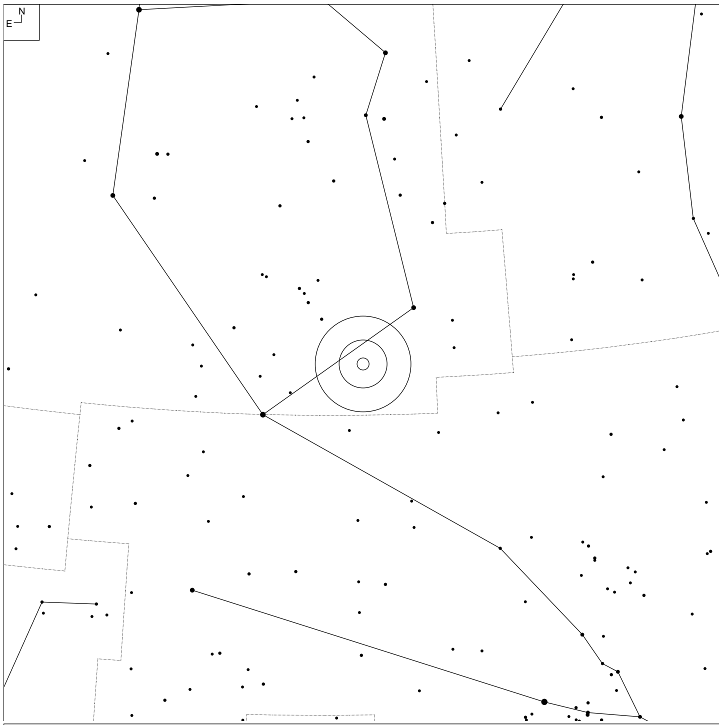


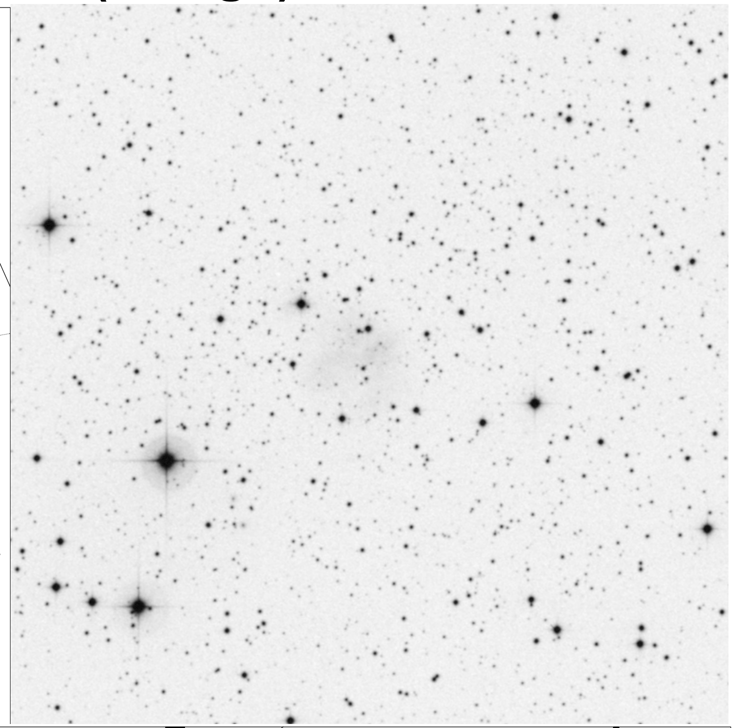


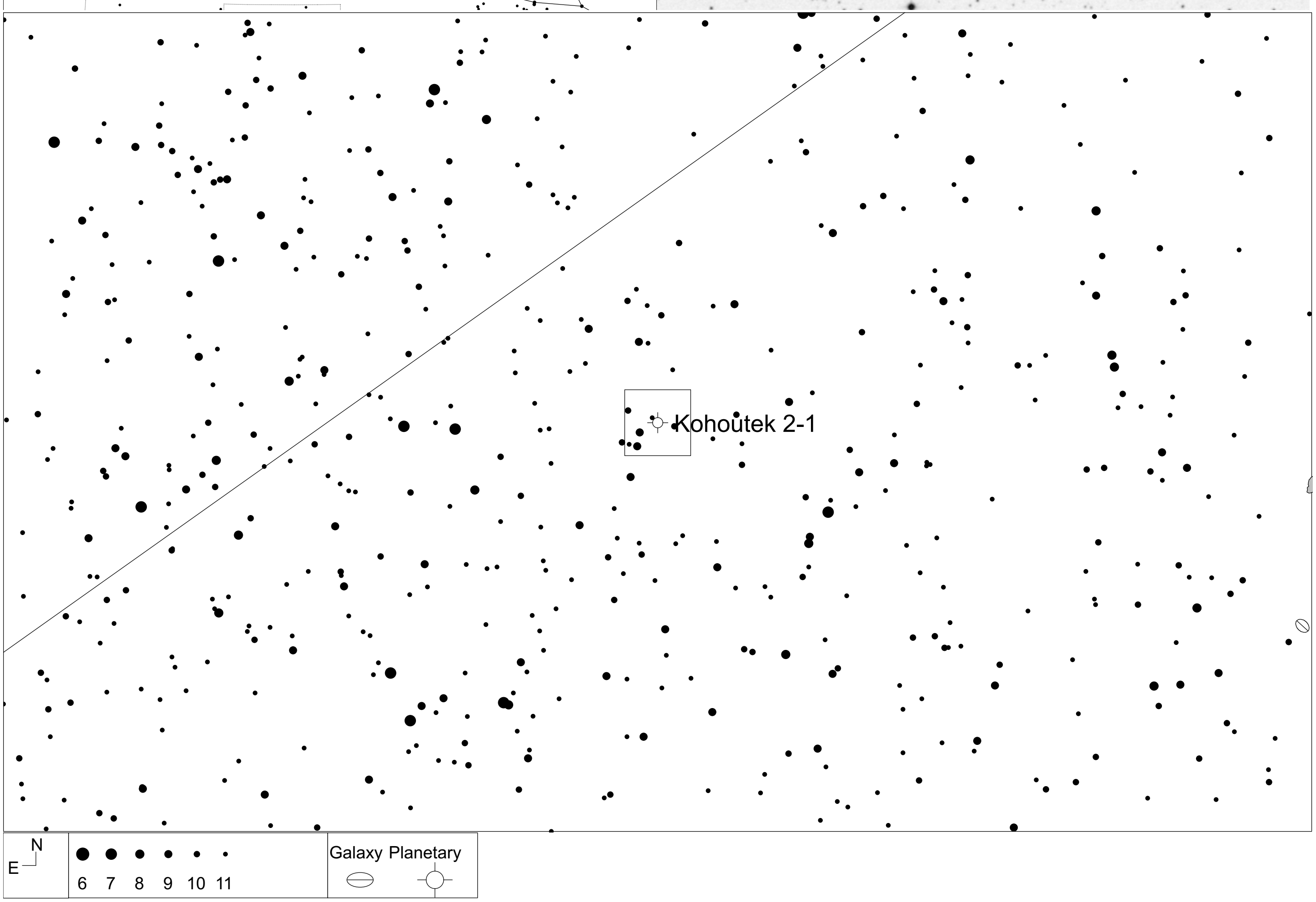


Other ID	Type	RA	Dec	Mag	* Mag	Size
LBN 754	SNR	04 54 48.0	+46 41 00	-	-	25.3 x 9.2’

Kohoutek 2-1 (Auriga)

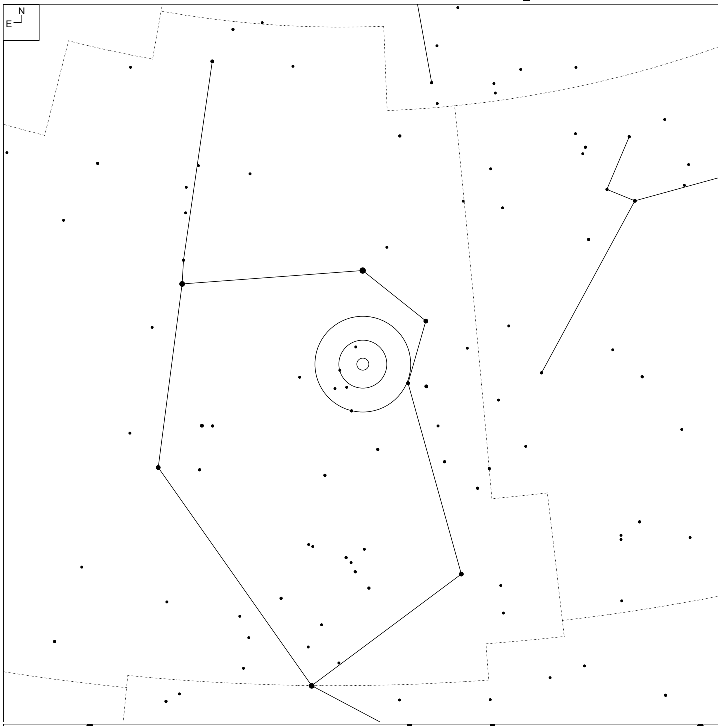


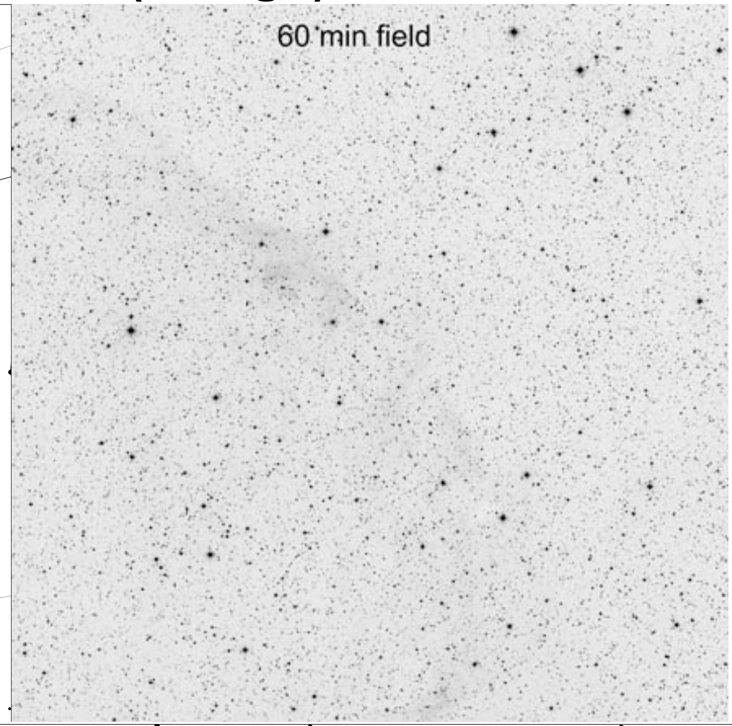


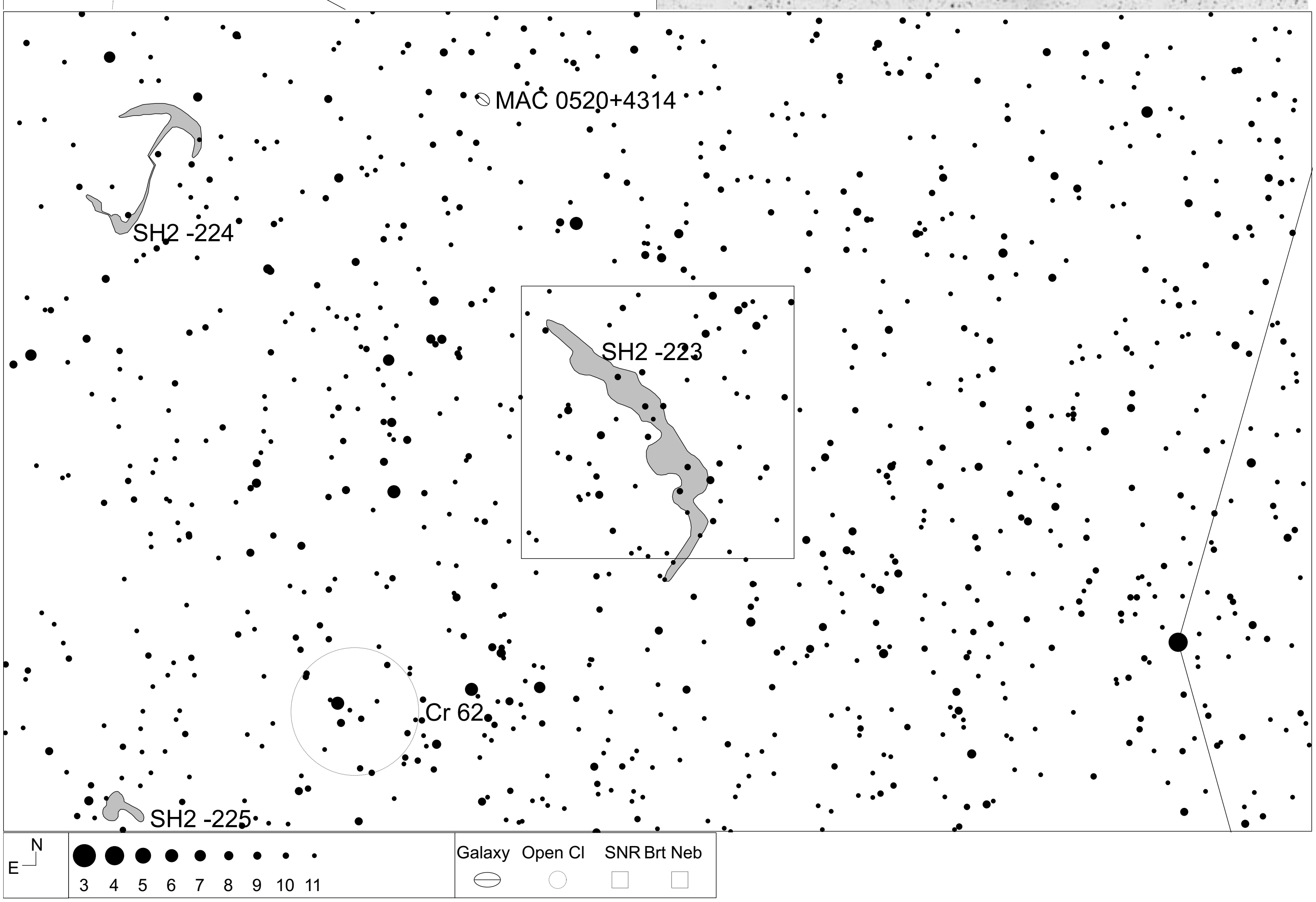


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 173-05.1	3	05 07 08.1	+30 49 26	13.7p	18.8	2.2’

Sharpless 2-223 (Auriga)

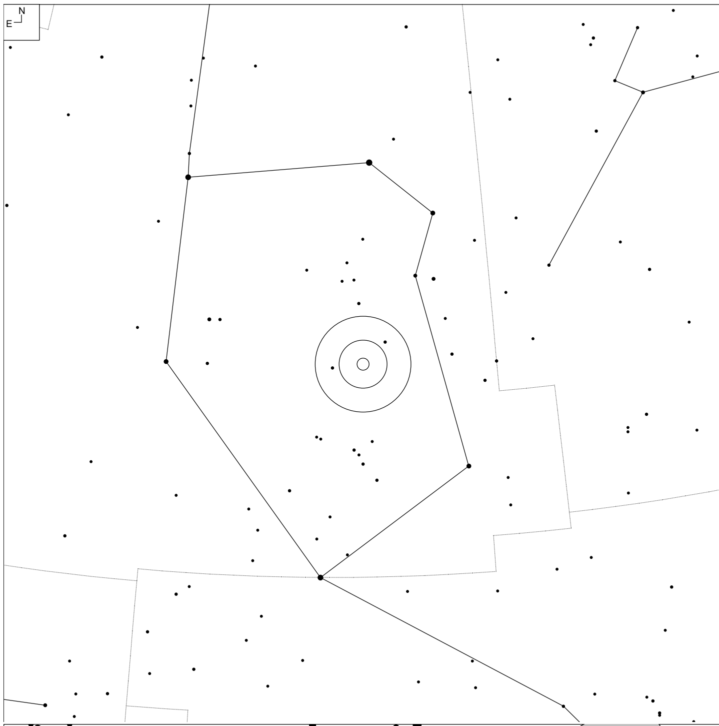


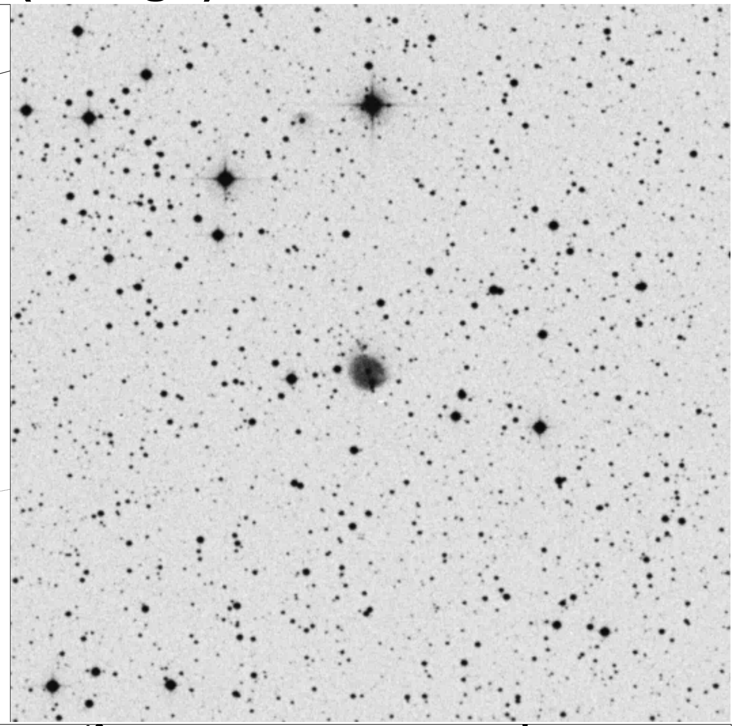


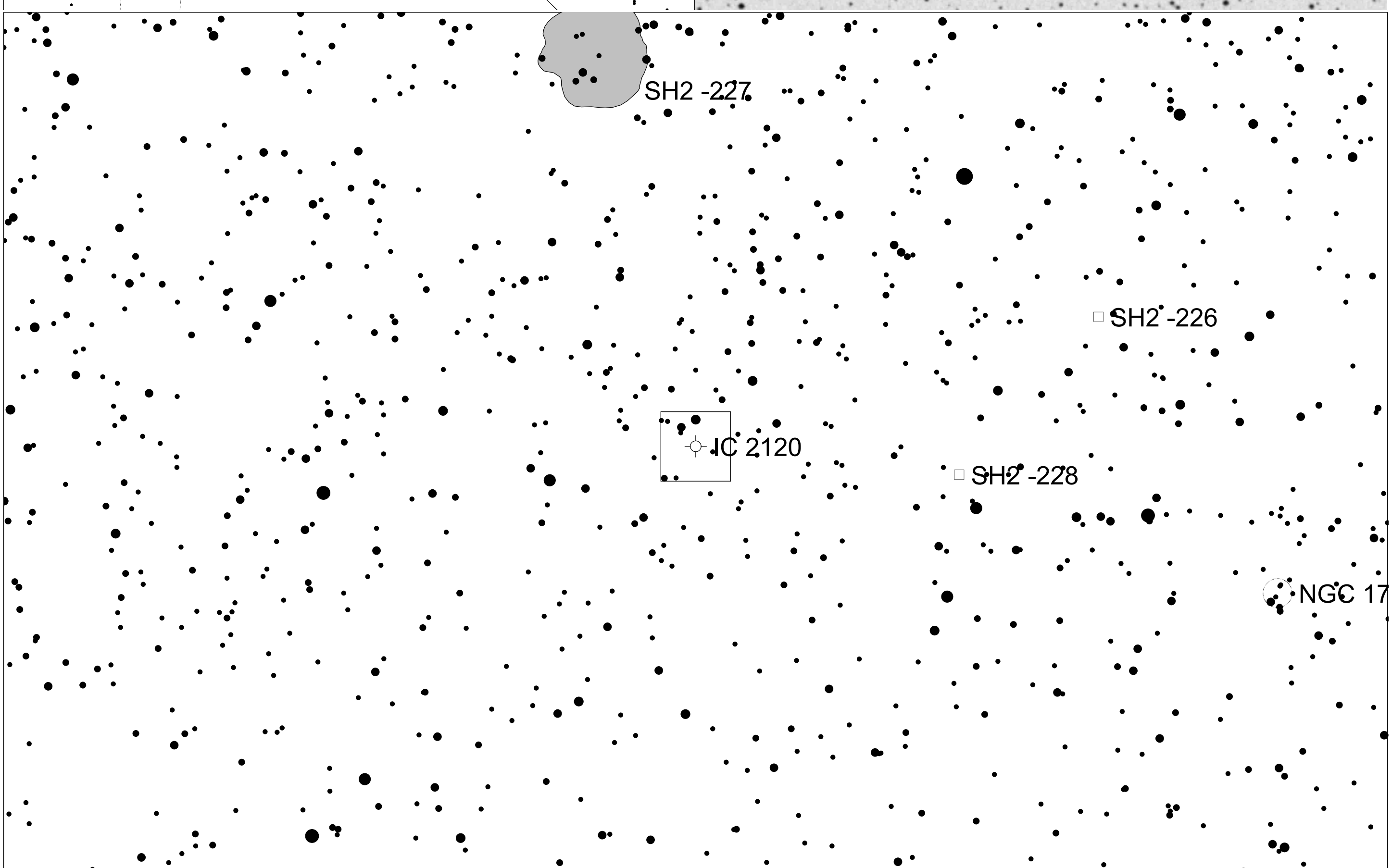


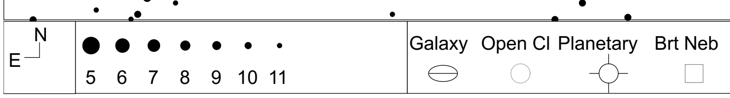
Other ID	Type	RA	Dec	Mag	* Mag	Size
-	SNR	05 16 38.0	+42 04 00	-	-	60 x 7’

IC 2120 (Auriga)



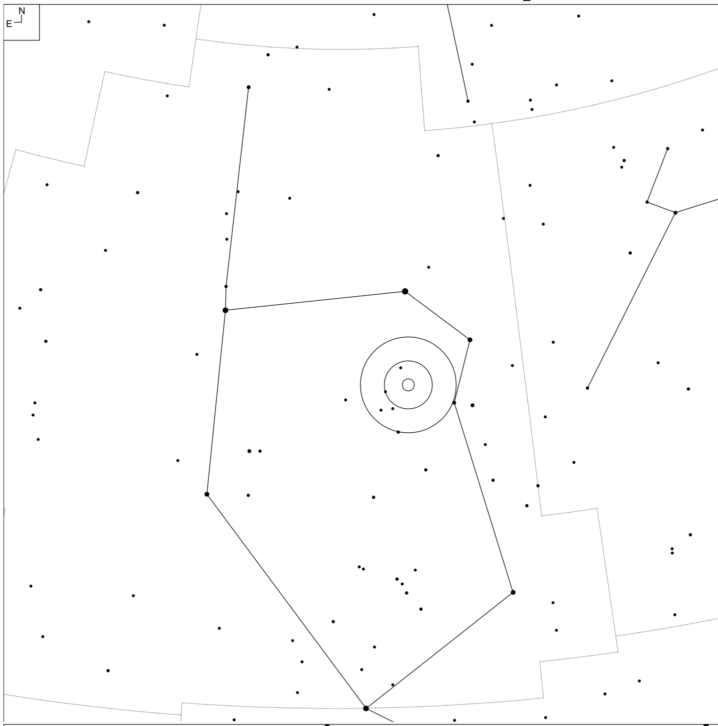


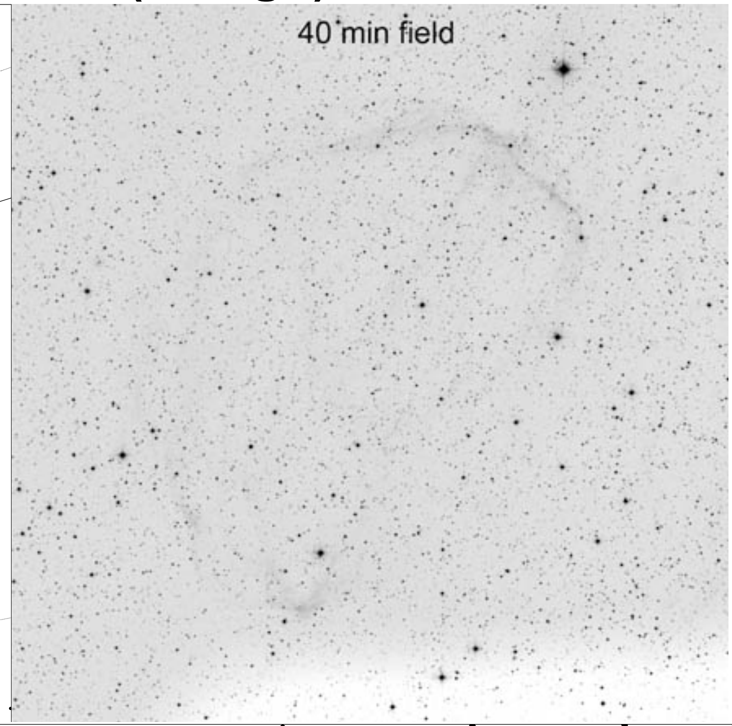


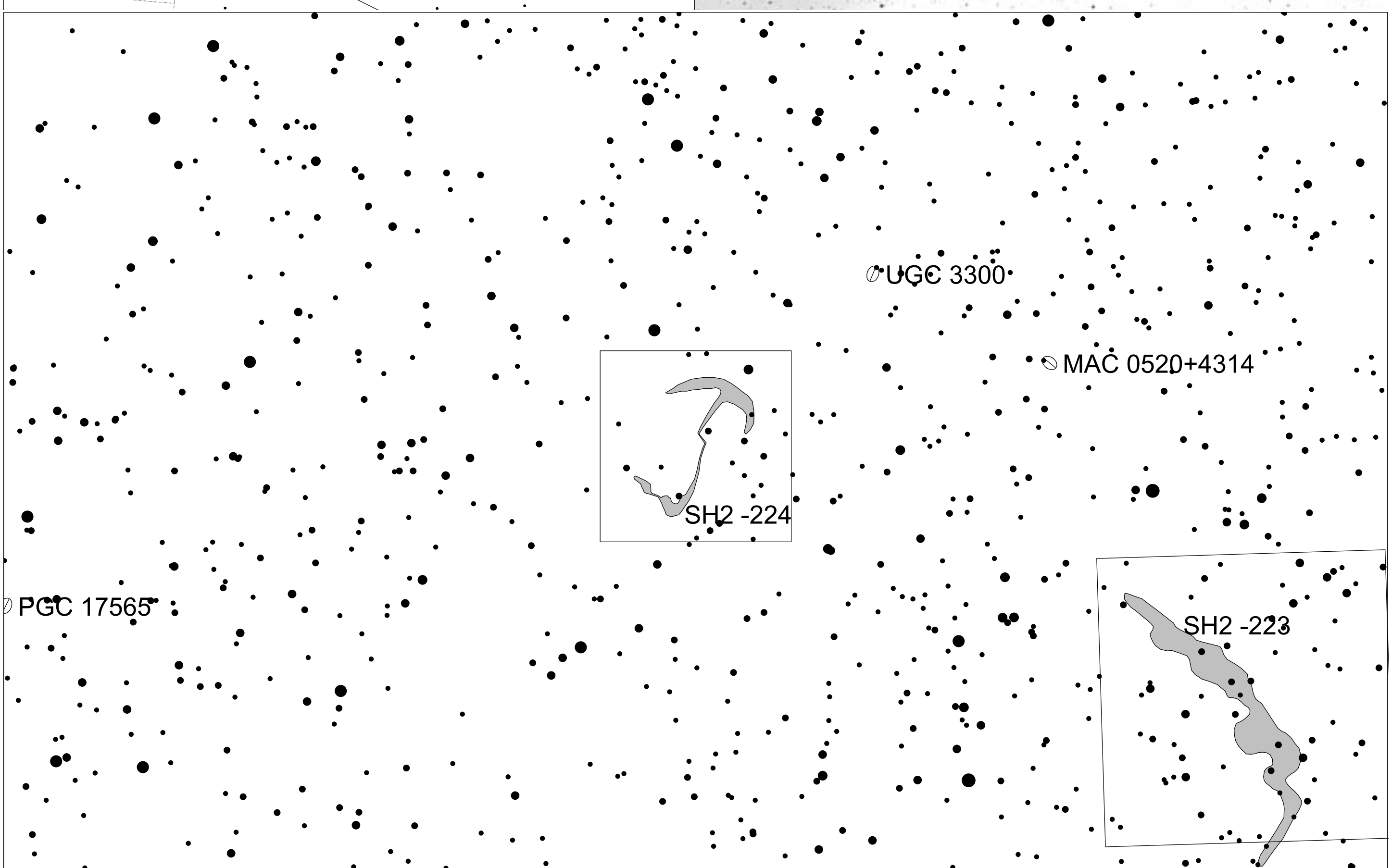


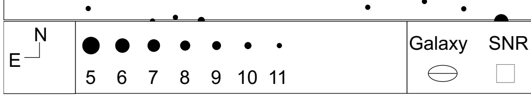
Other ID	Type	RA	Dec	Mag	* Mag	Size
Minkowski 2-3	2	05 18 10.4	+37 33 28	12p	16.2	60”

Sharpless 2-224 (Auriga)



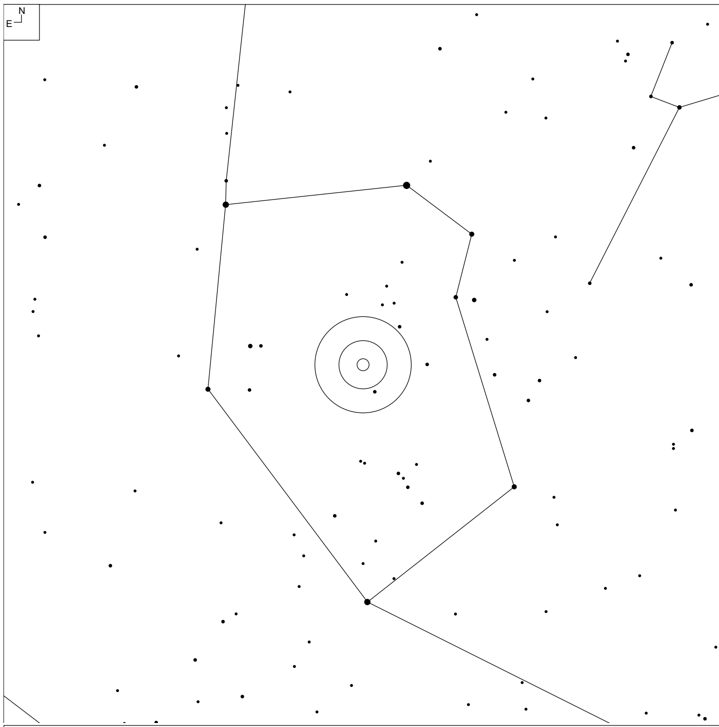


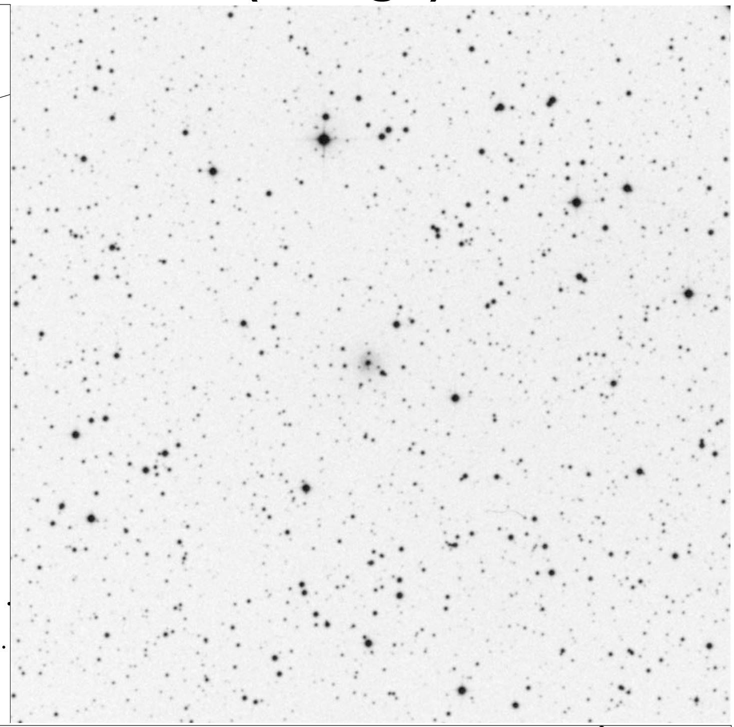


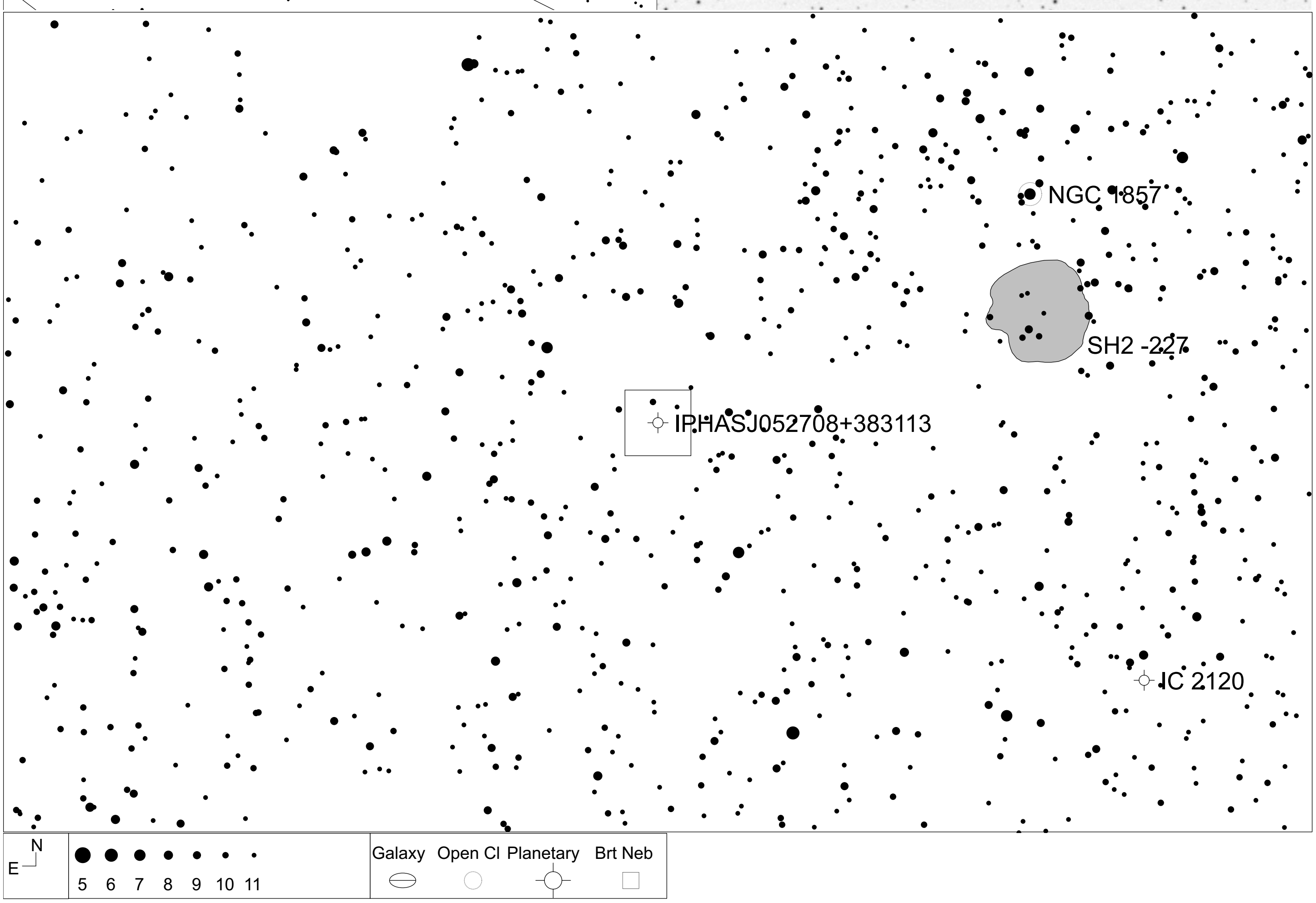


Other ID	Type	RA	Dec	Mag	* Mag	Size
LBN 769	SNR	05 26 52.0	+42 58 00	-	-	30.5x17.5’

IPHAS J052708.2+383113 (Auriga)

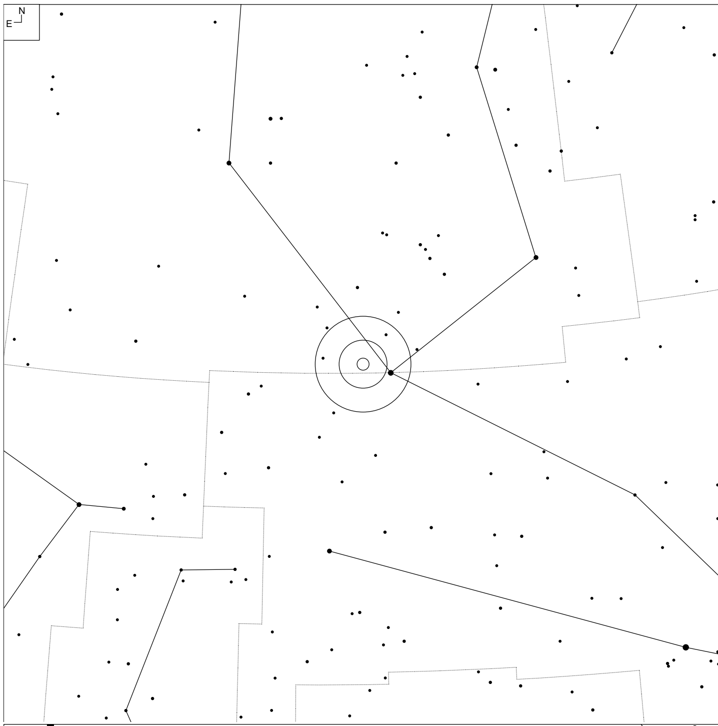


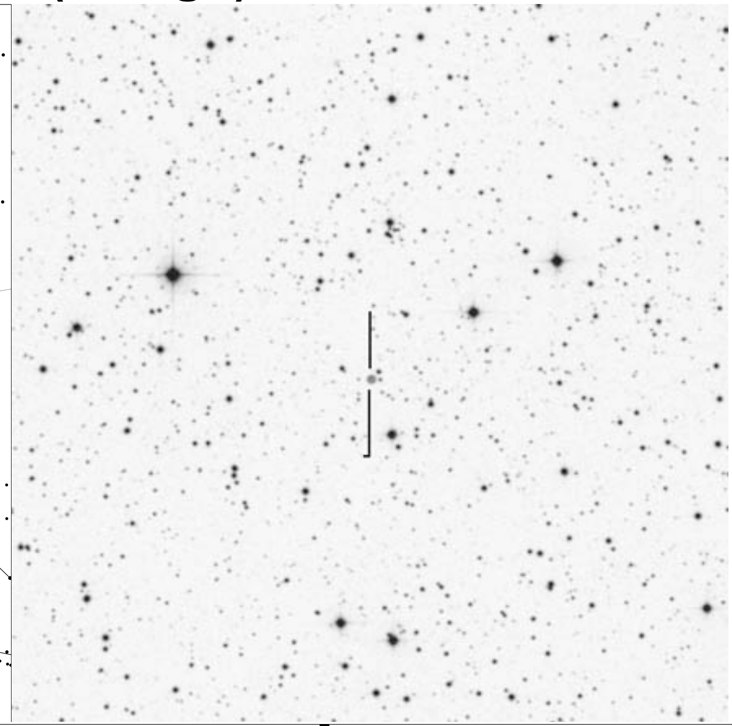


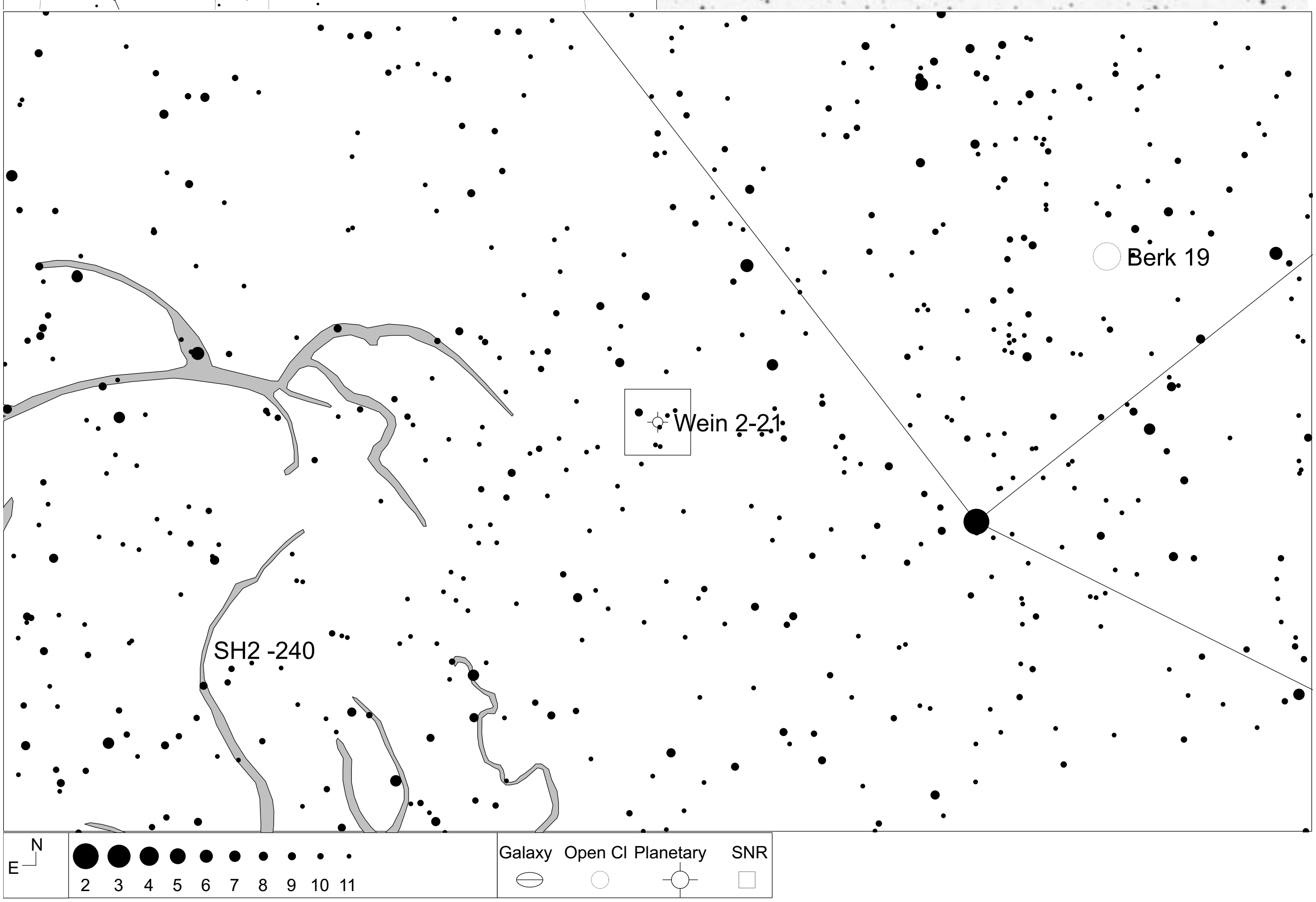


Other ID	Type	RA	Dec	Mag	* Mag	Size
	-	05 27 08.2	+38 31 13	16.1p	-	30”

Wein 2-21 (Auriga)

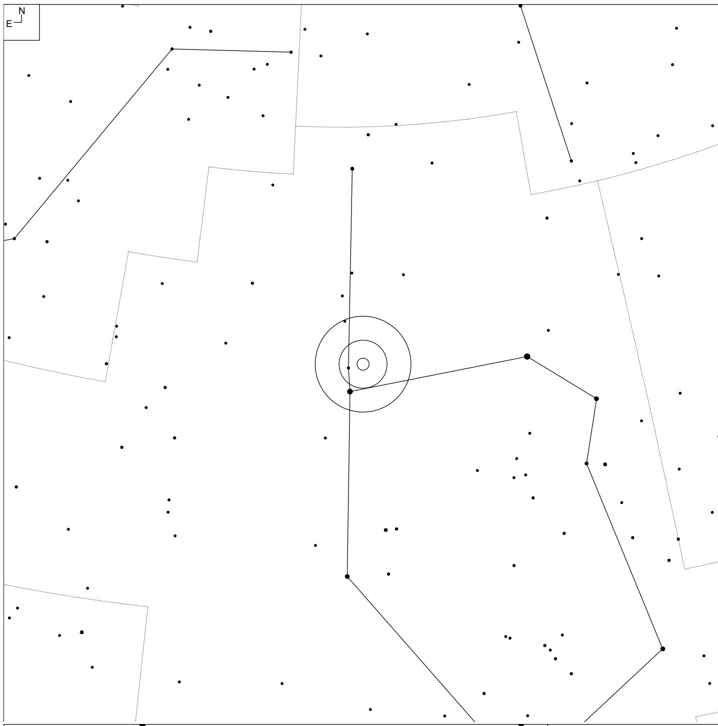


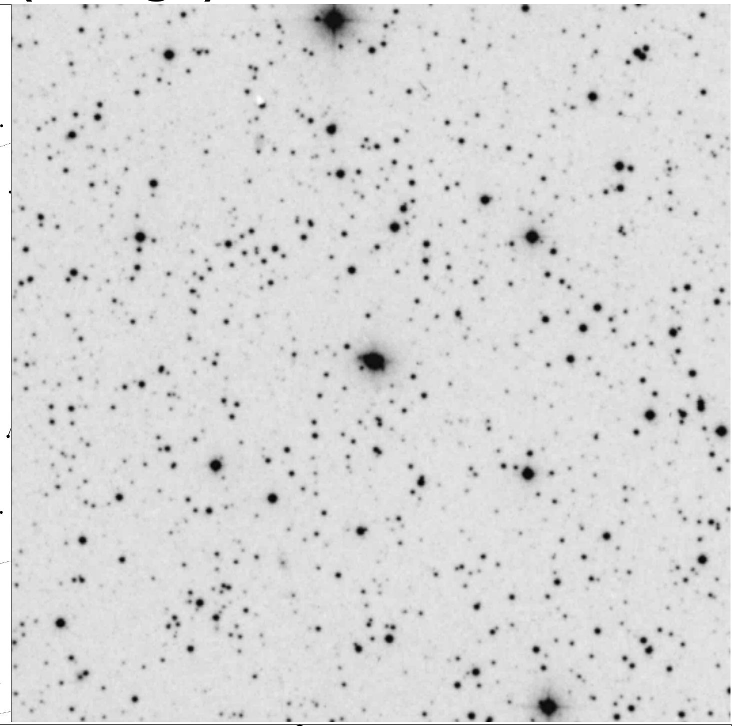


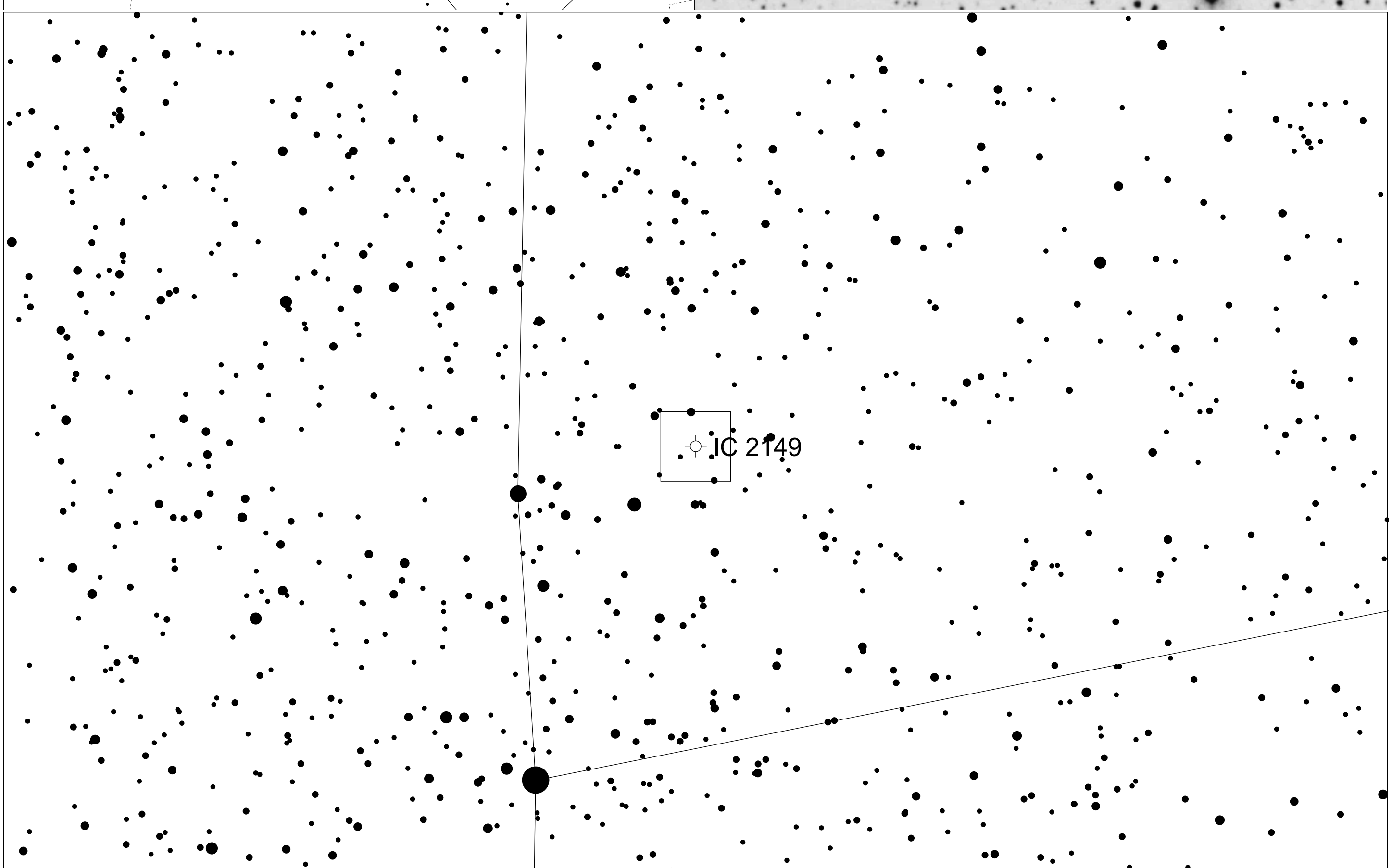


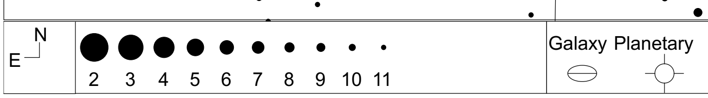
Other ID	Type	RA	Dec	Mag	* Mag	Size
Kohoutek 3-68	-	05 31 36.0	+28 58 39	16.1p	-	10”

IC 2149 (Auriga)



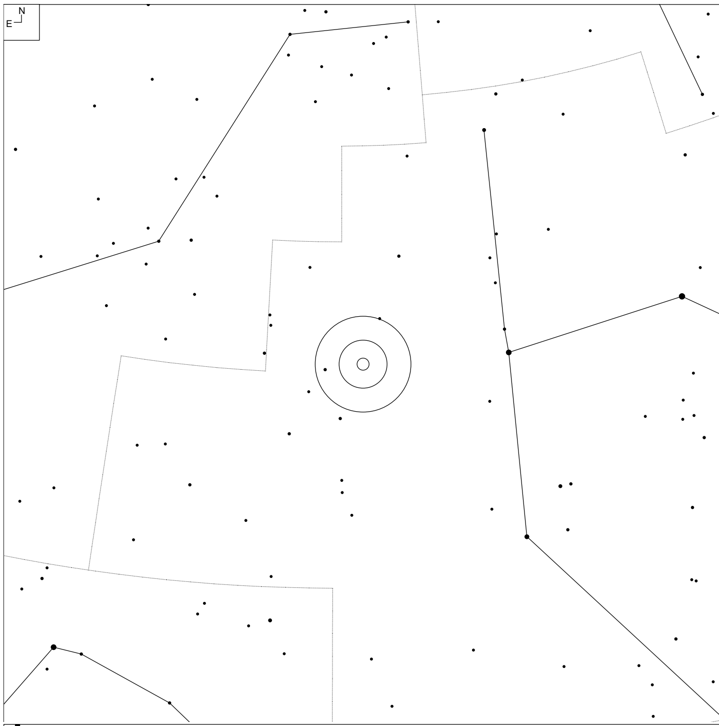


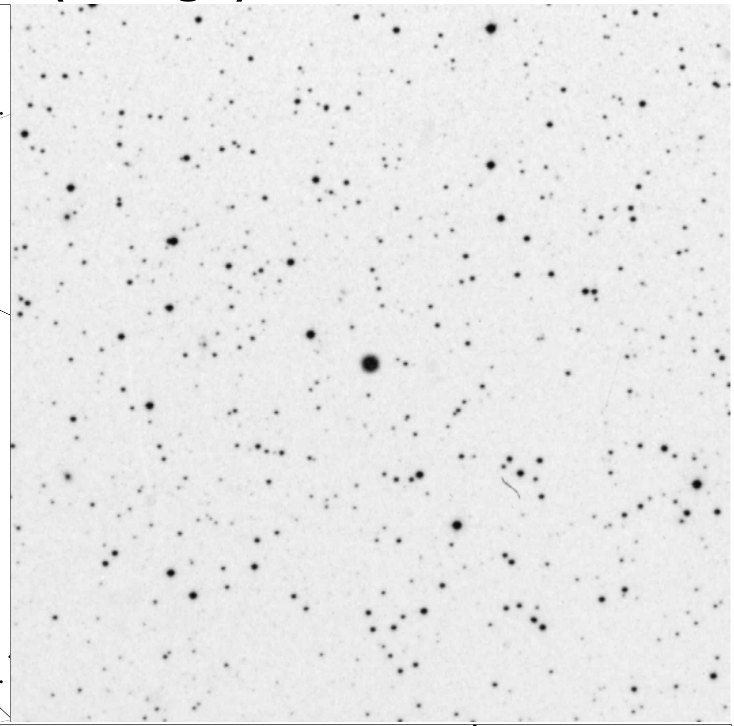


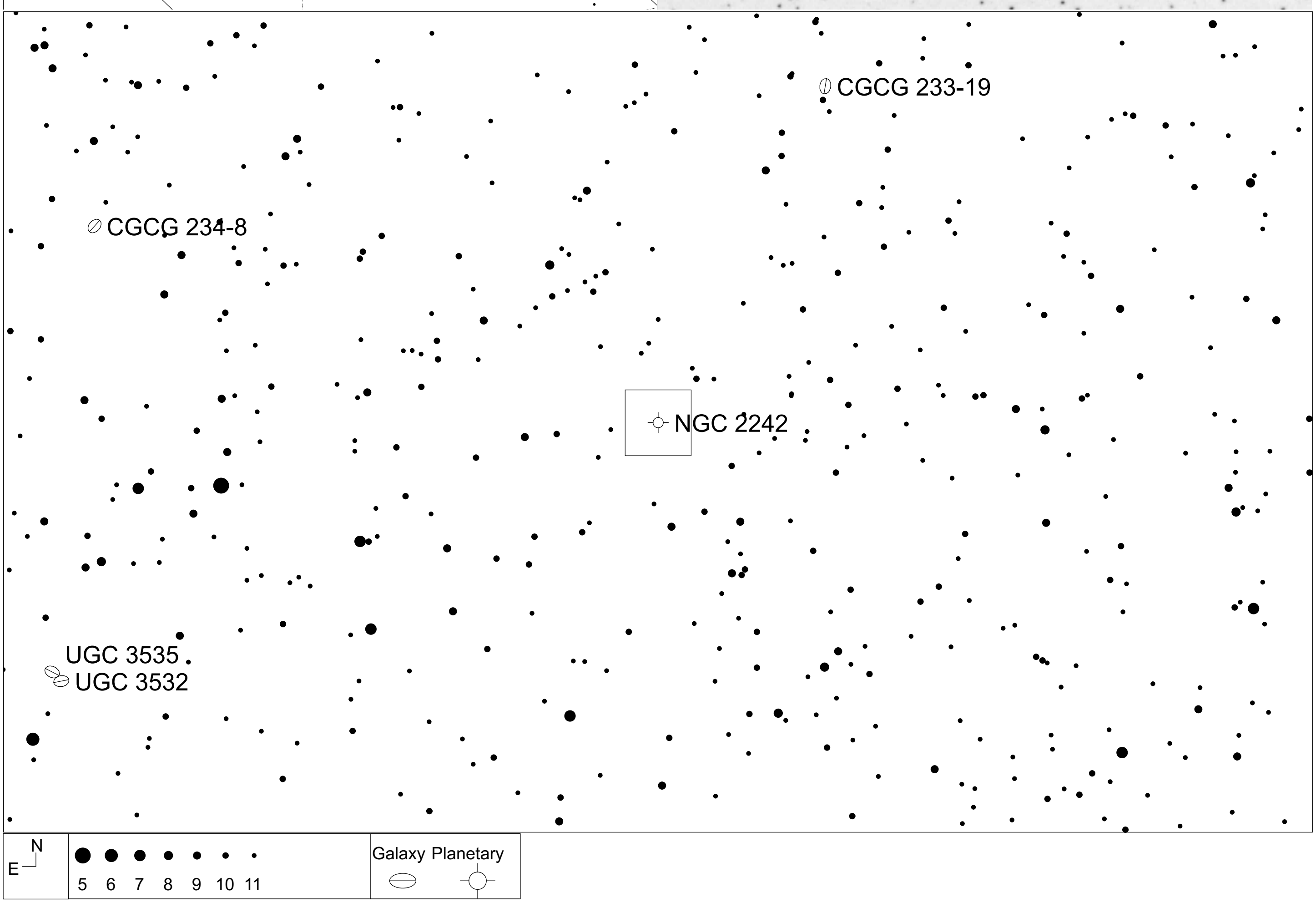


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 166+10.1	3b+2	05 56 24.0	+46 06 15	10.6v	11.5	34 x 29”

NGC 2242 (Auriga)

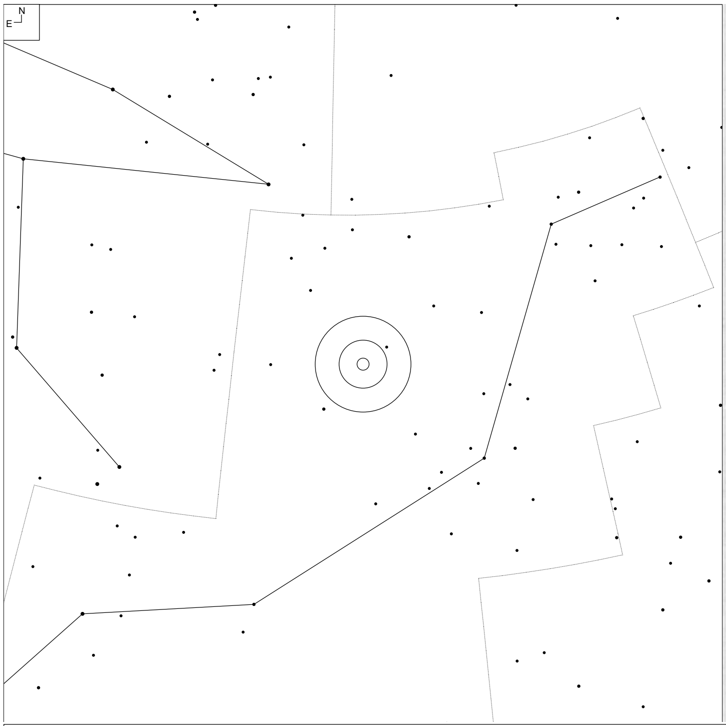


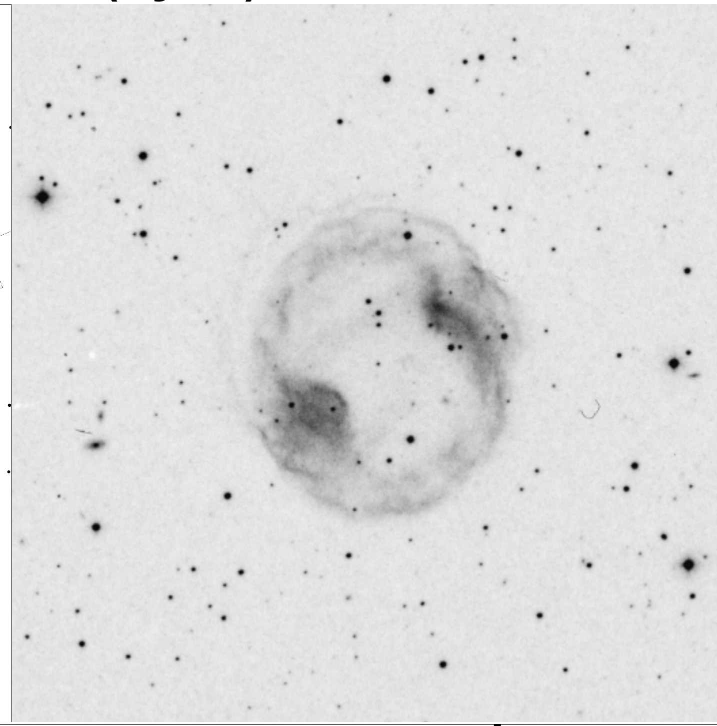


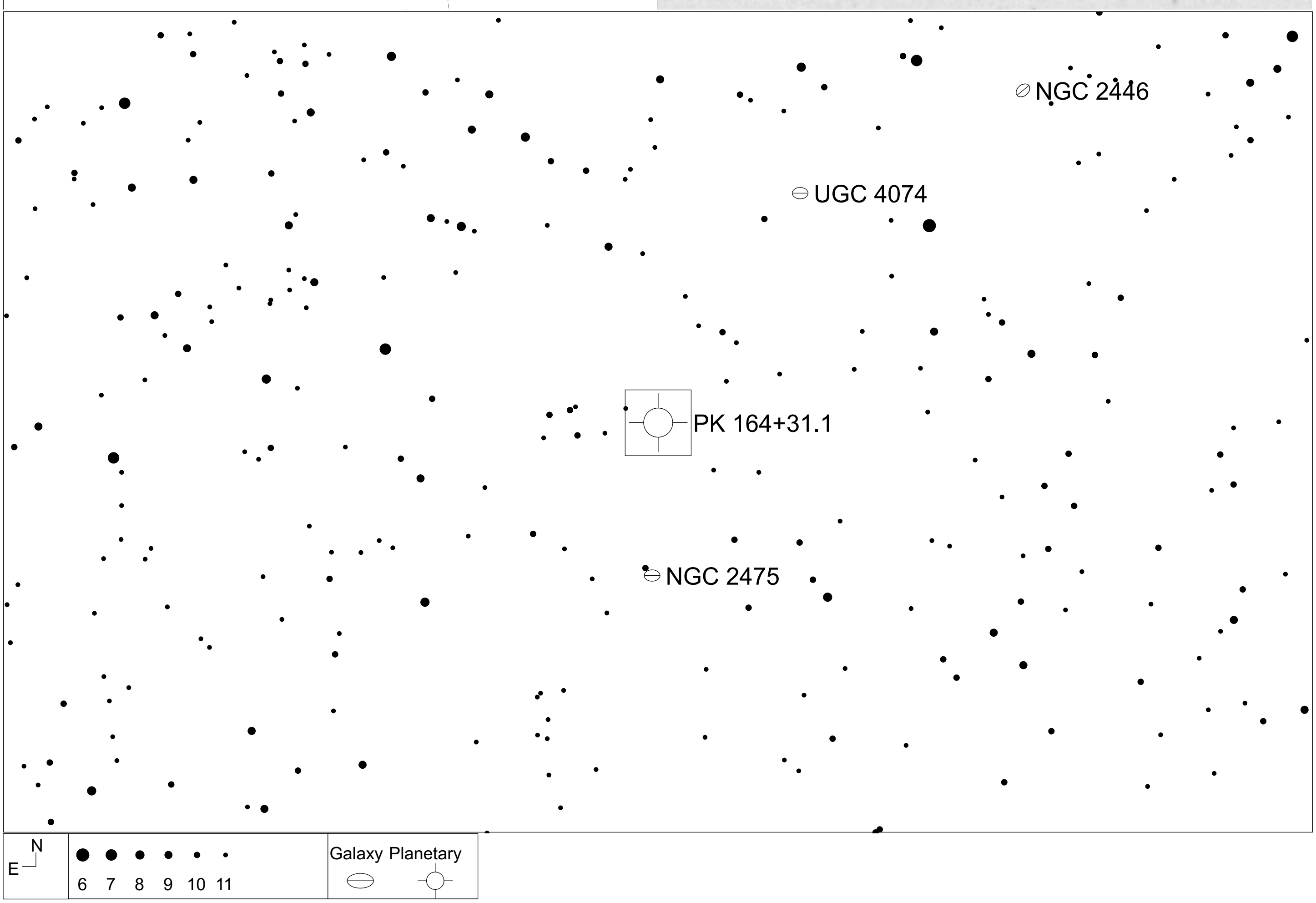


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 170.3+15.8	-	06 34 07.6	+44 46 37	15.1p	17.6	22”

PK 164+31.1 (Lynx)

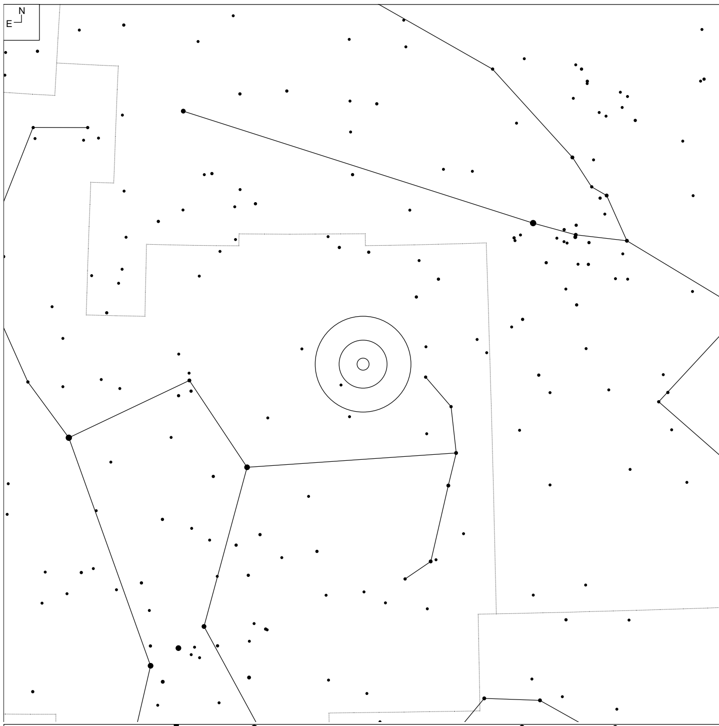


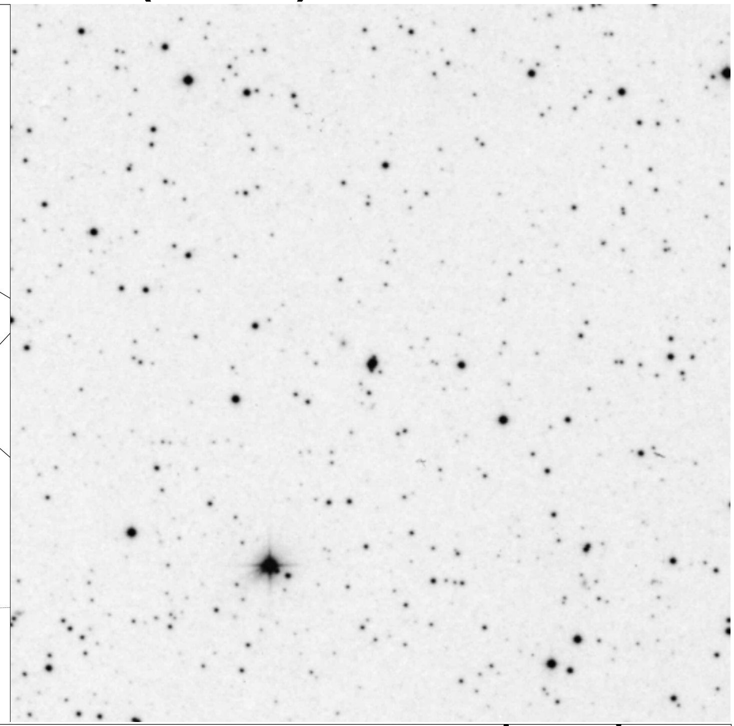


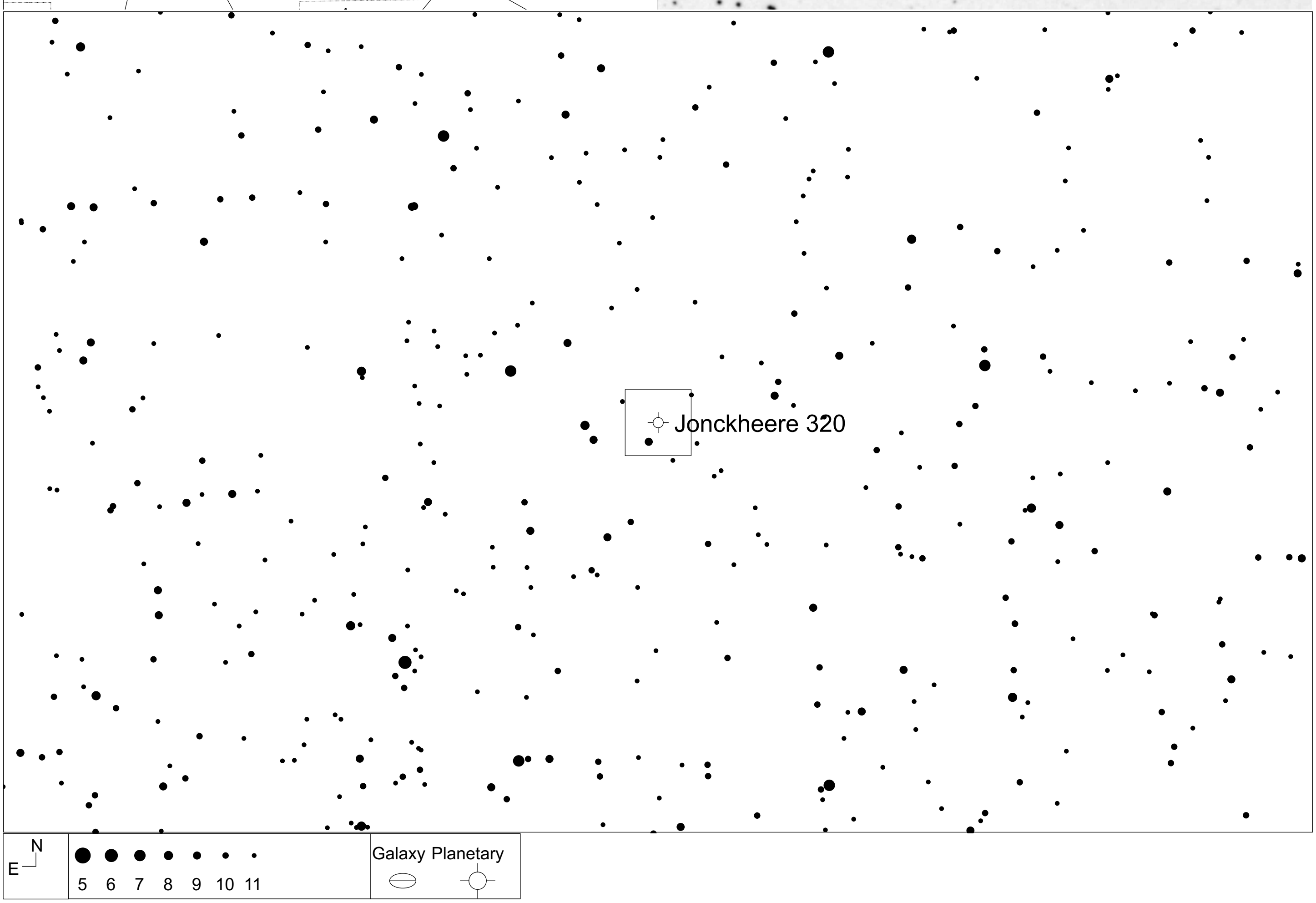


Other ID	Type	RA	Dec	Mag	* Mag	Size
JE 1	4	07 57 51.7	+53 25 16	12.1v	16.8	6.3’

Jonckheere 320 (Orion)

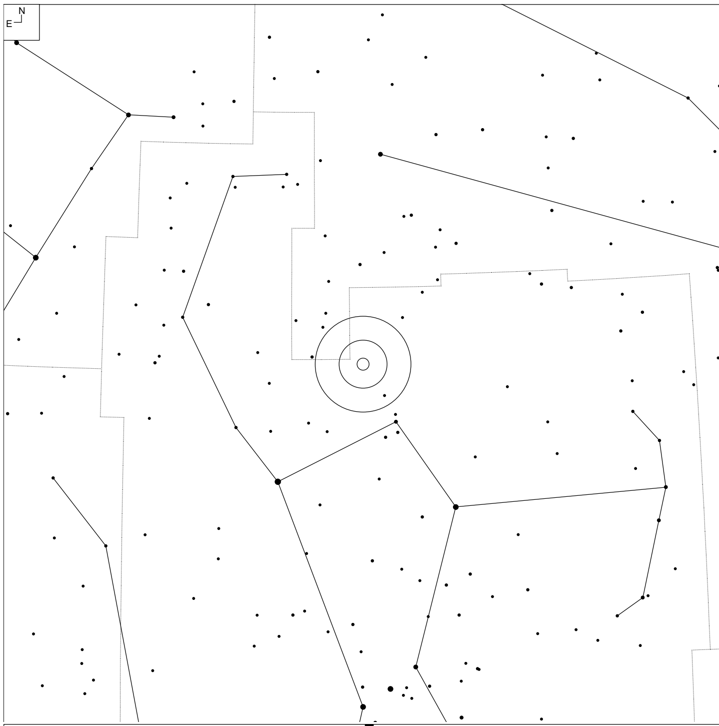


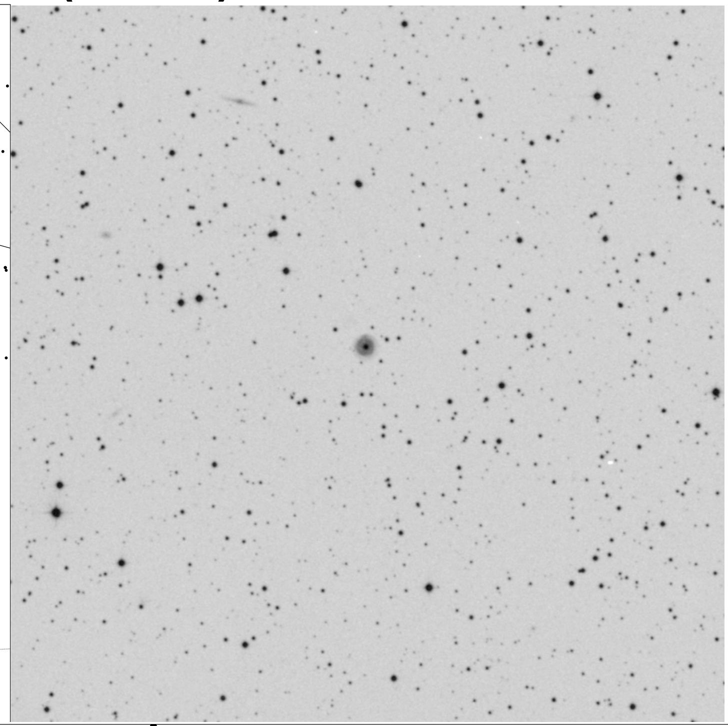


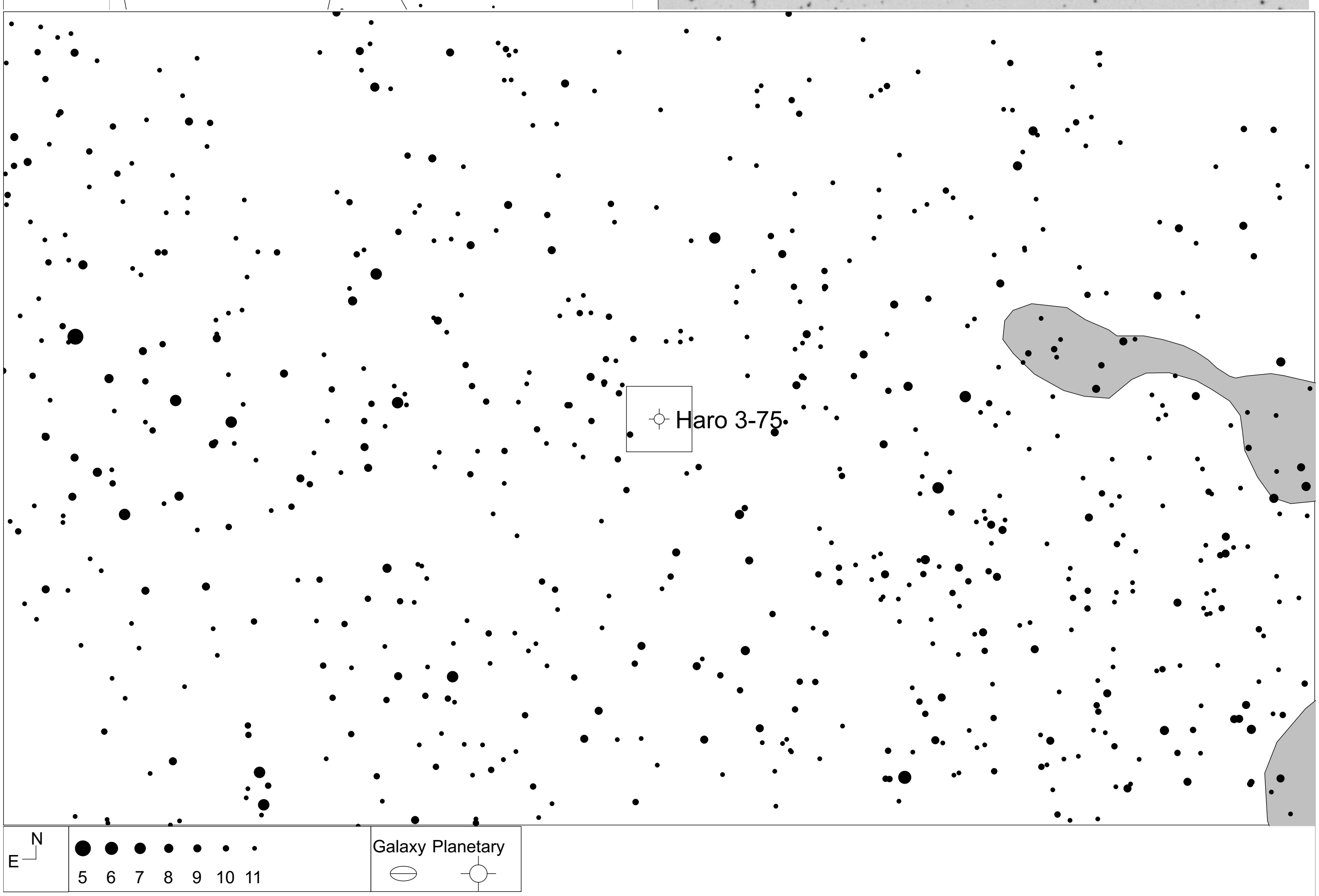


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 190-17.1	2+4	05 05 34.3	+10 42 23	11.9v	14.4	26 x 14”

Haro 3-75 (Orion)

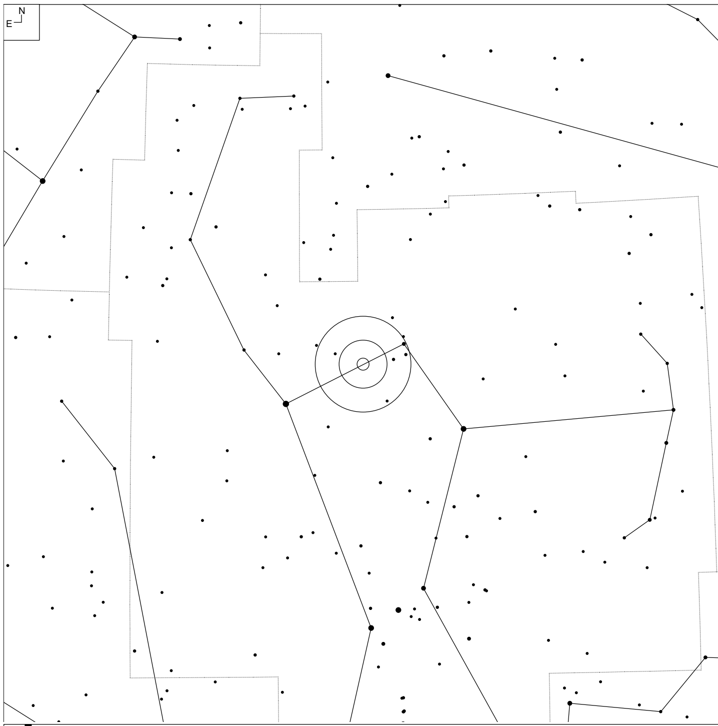


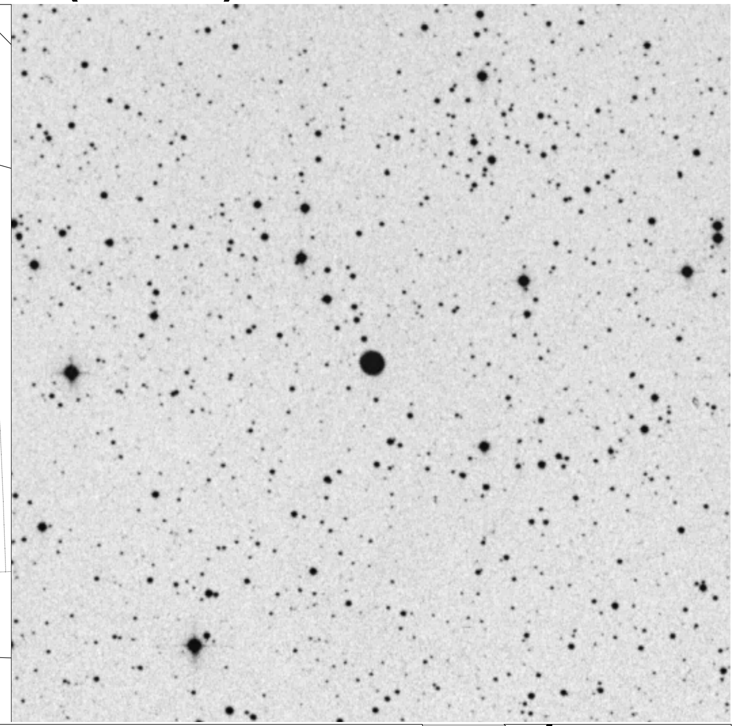


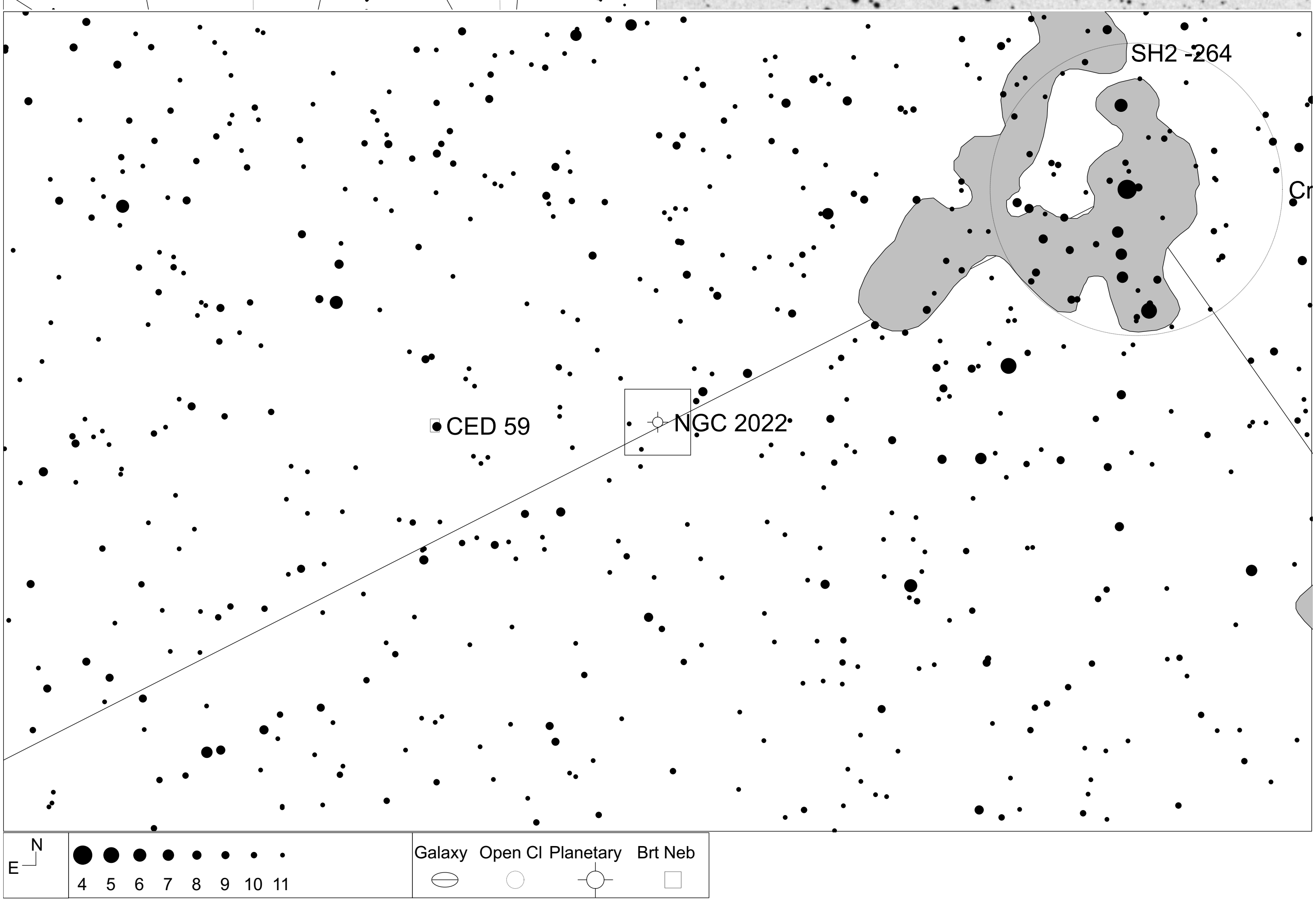


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 193-9.1	-	05 40 45.1	+12 21 21	13.9v	-	24”

NGC 2022 (Orion)

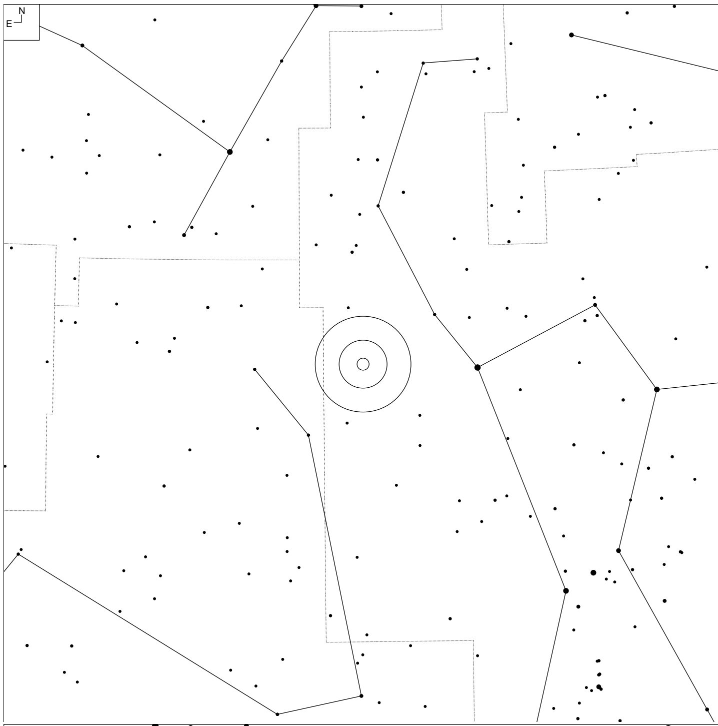


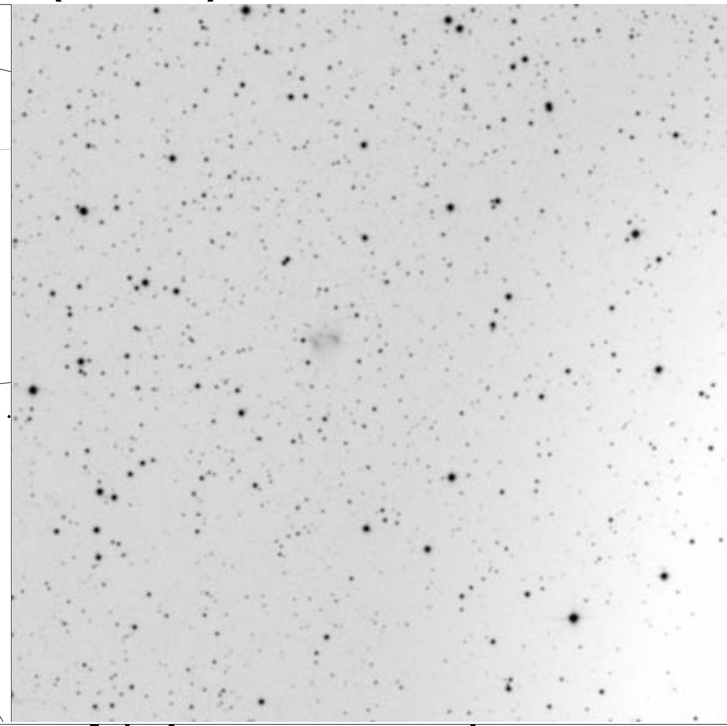


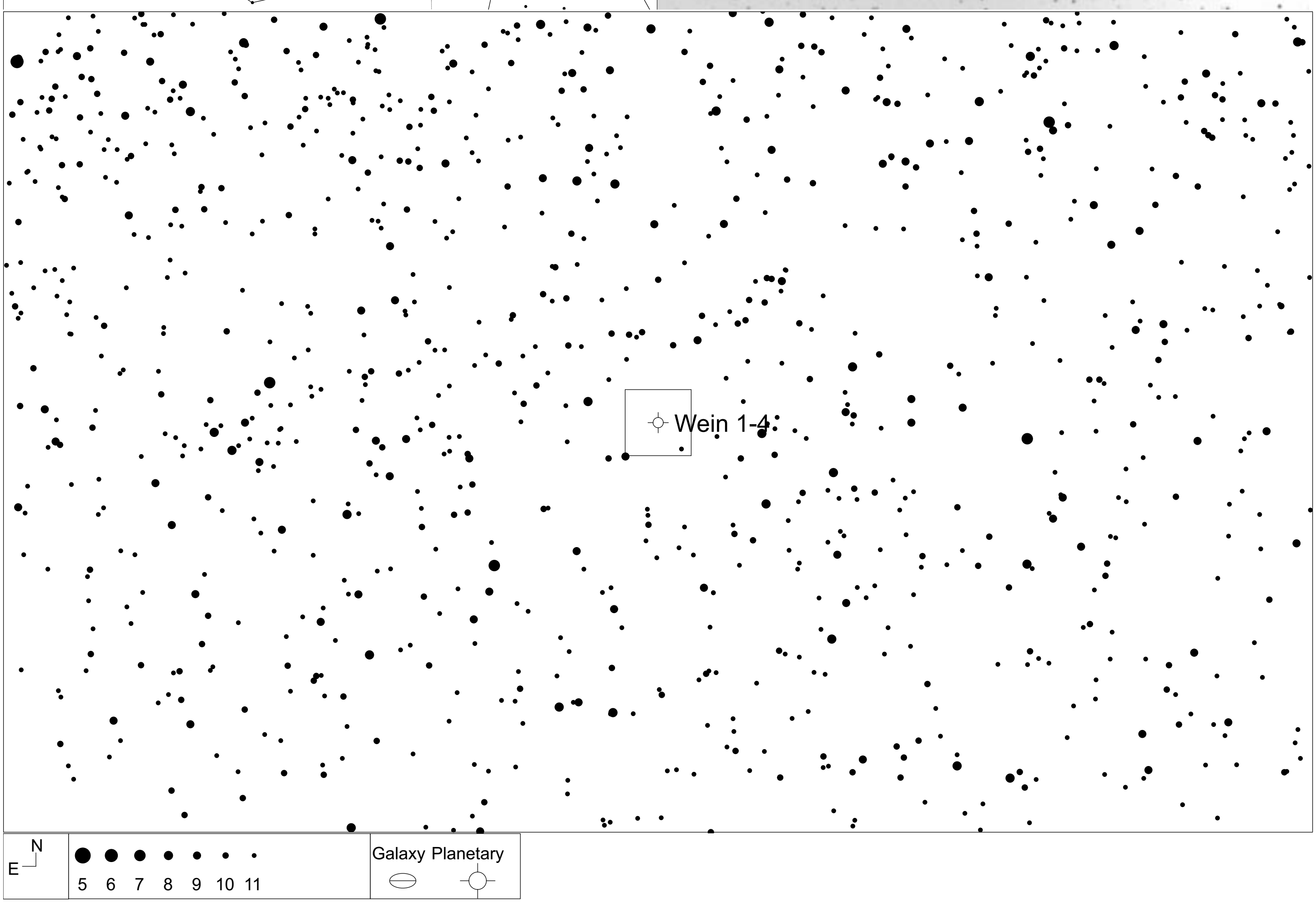


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 196-10.1	4+2	05 42 06.2	+09 05 13	11.6v	15.8	35”

Wein 1-4 (Orion)

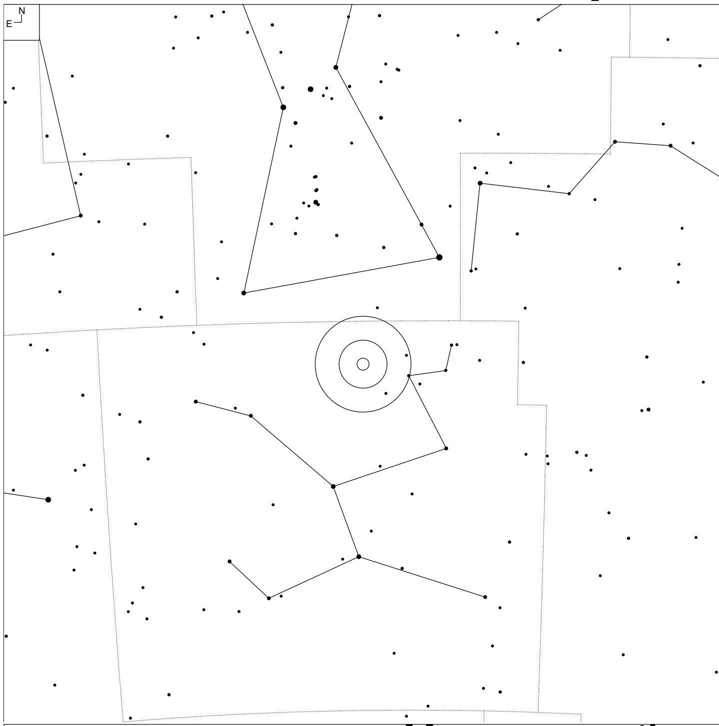


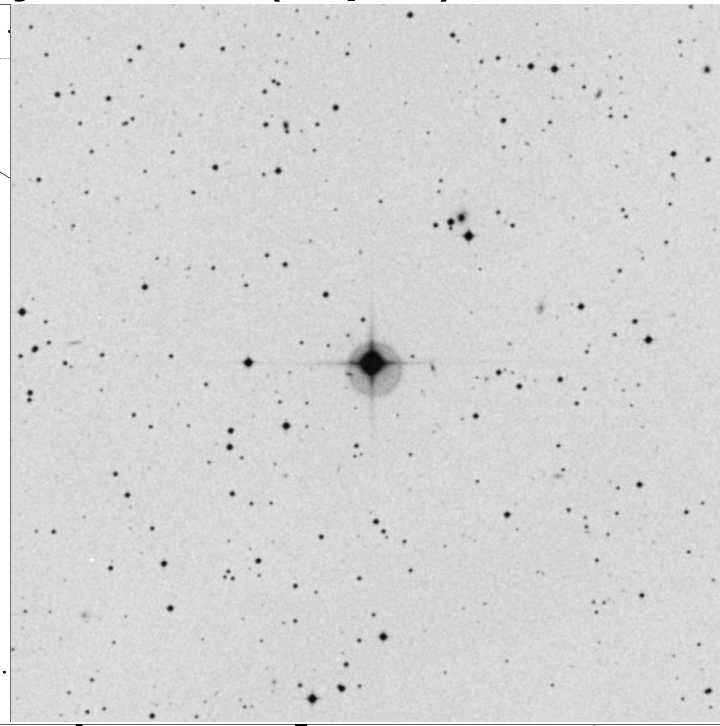


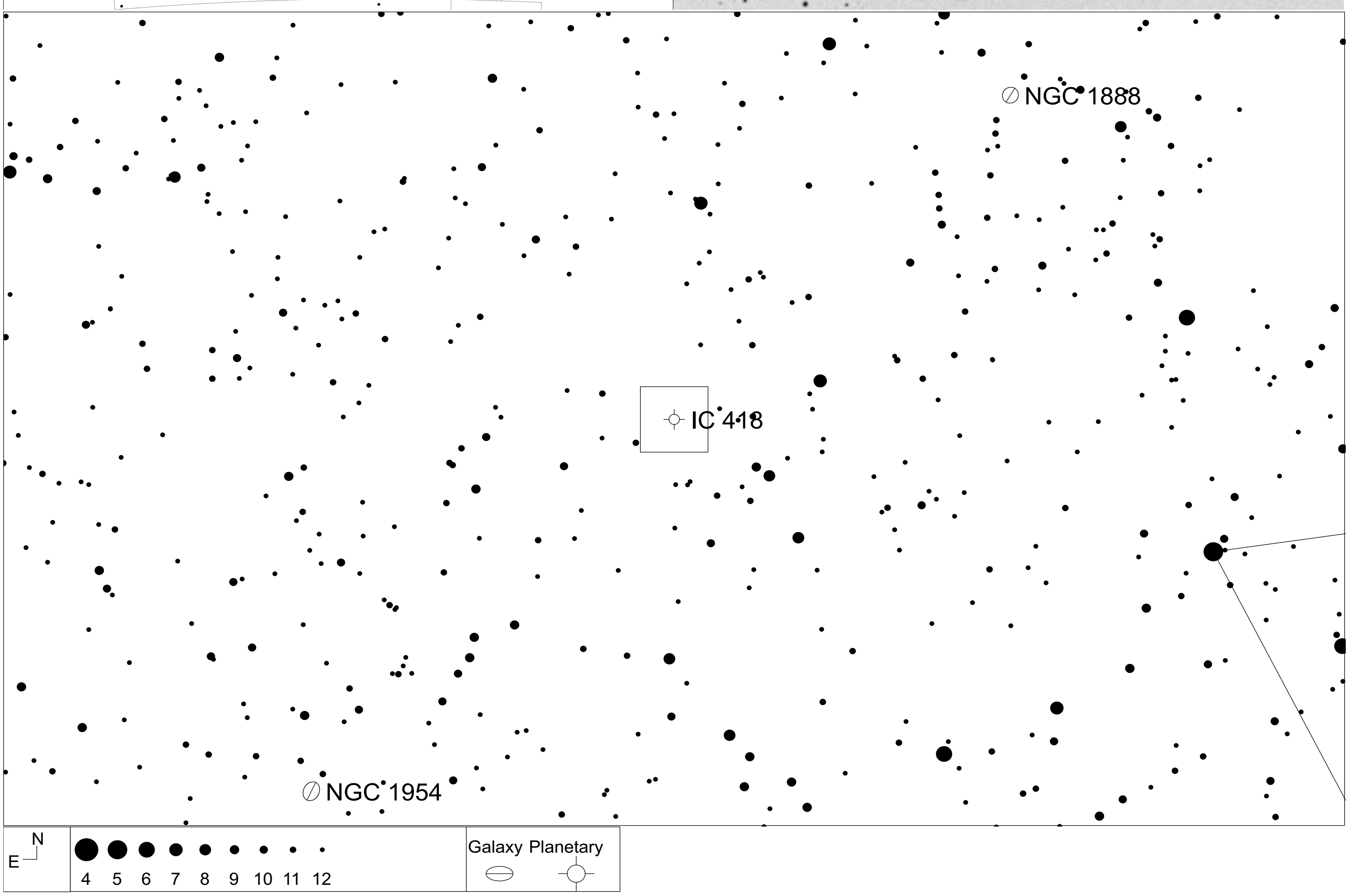


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 201-4.1	-	06 14 33.6	+07 34 29	-	21.1	40”

IC 418 – Raspberry Nebula (Lepus)



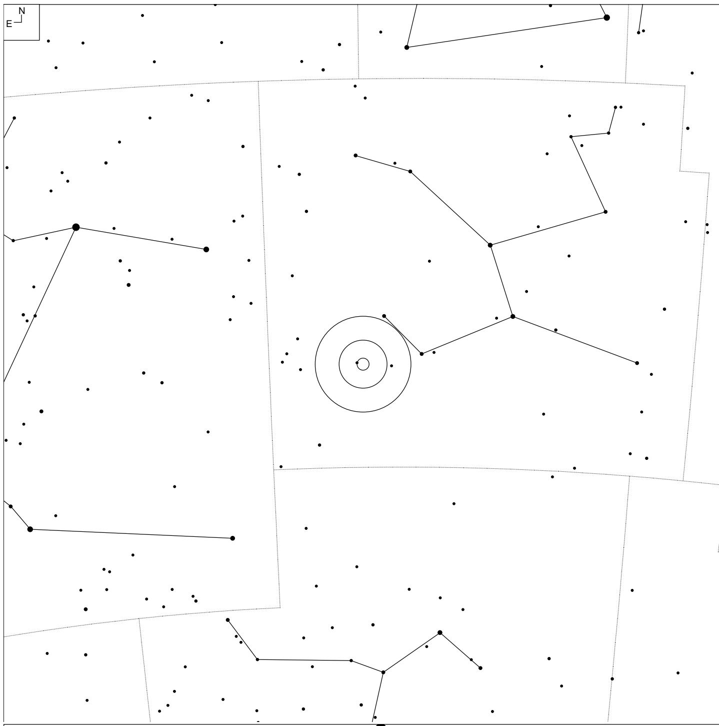


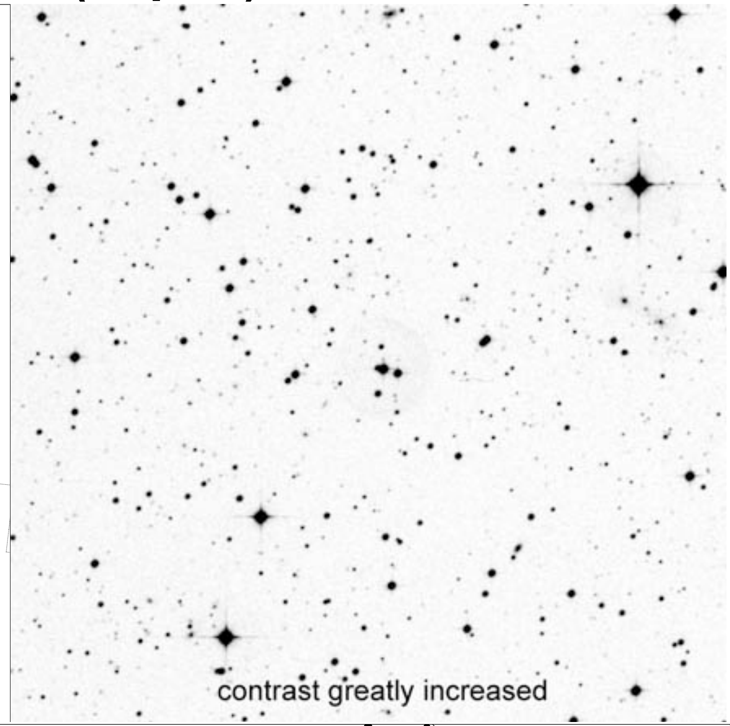


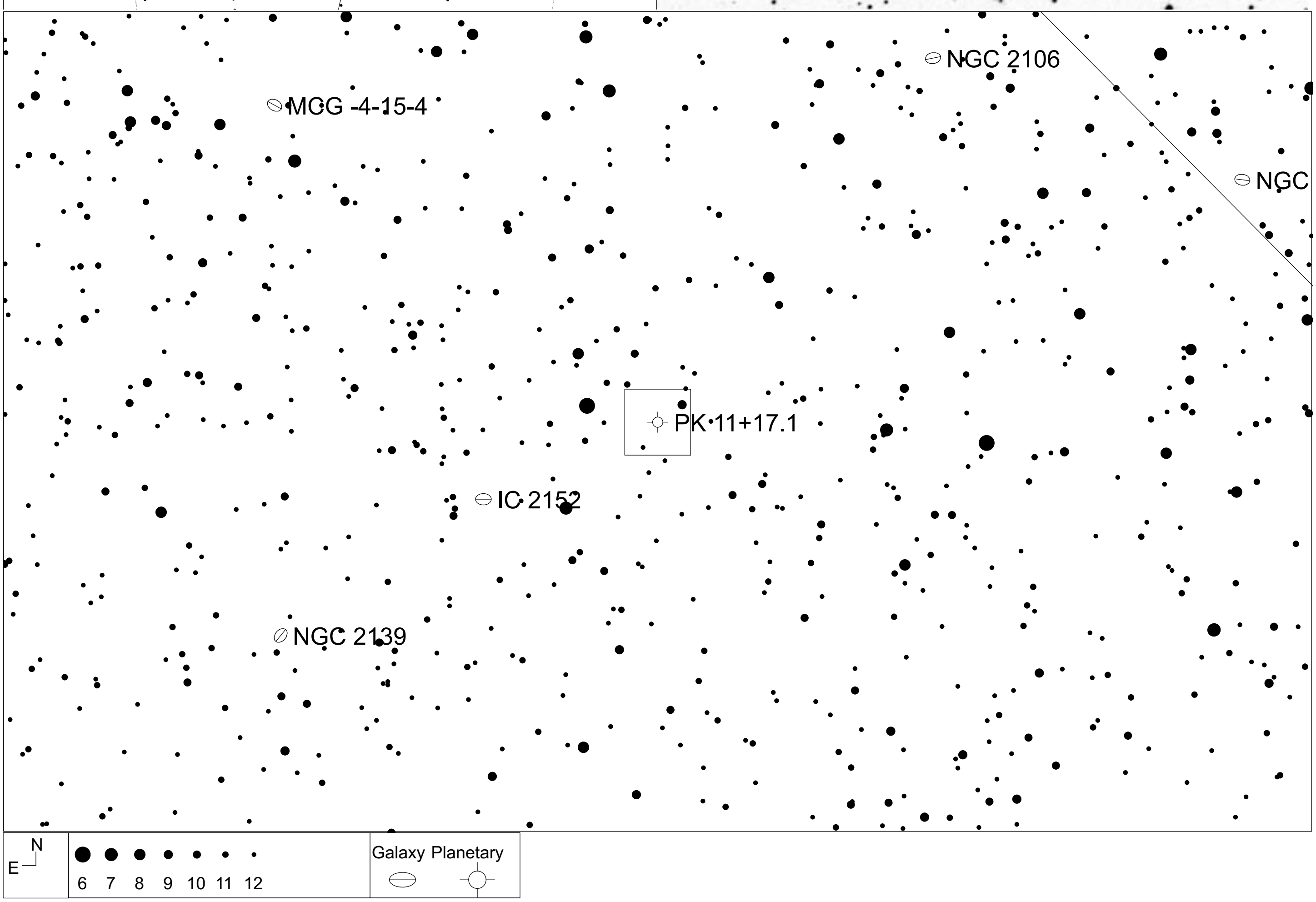
Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 215-24.1	4	05 27 28.2	-12 41 49	9.3v	10.1	12”

Without O-III filter, halo extends 30-40”

PK 11+17.1 (Lepus)

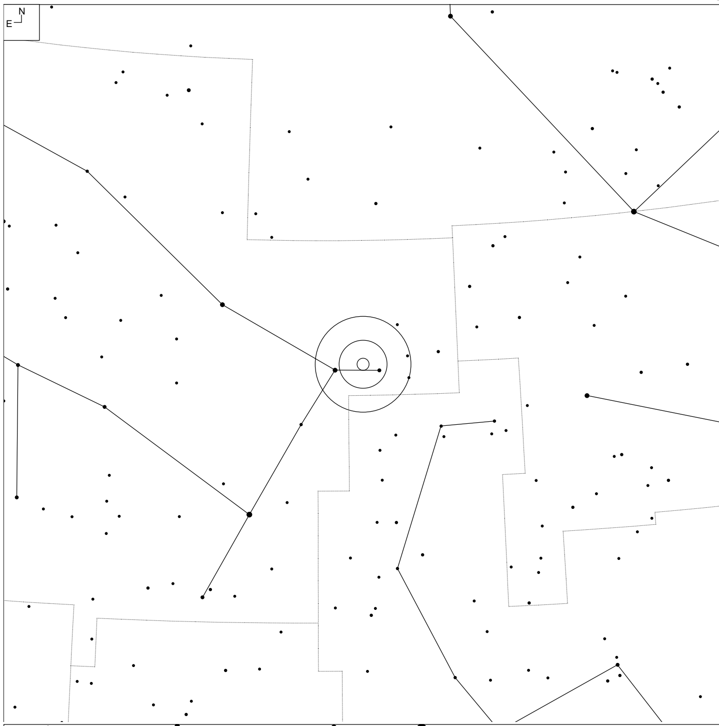


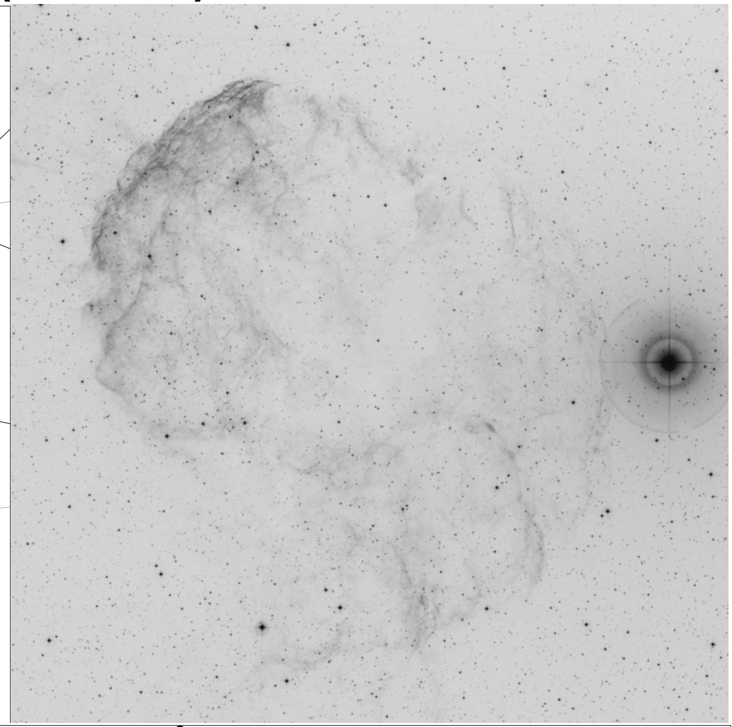


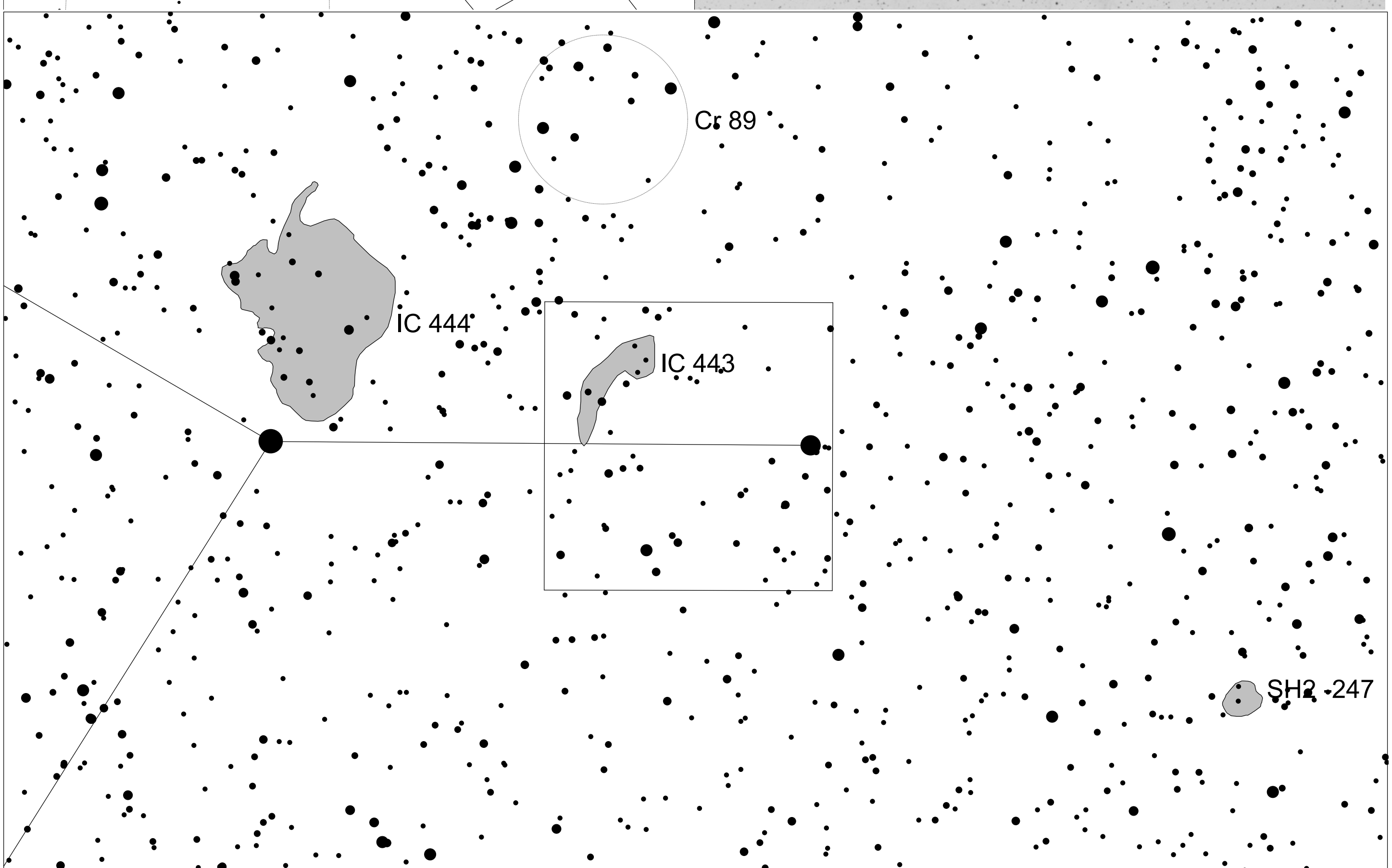


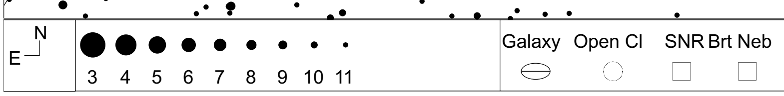
Other ID	Type	RA	Dec	Mag	* Mag	Size
-	-	05 55 06.8	-22 54 02	-	-	2.2’

IC 443 (Gemini)



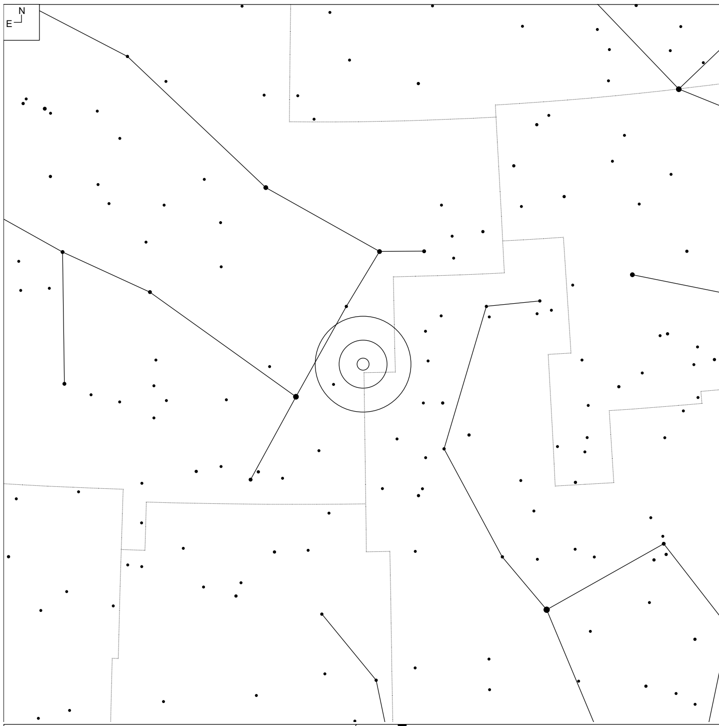


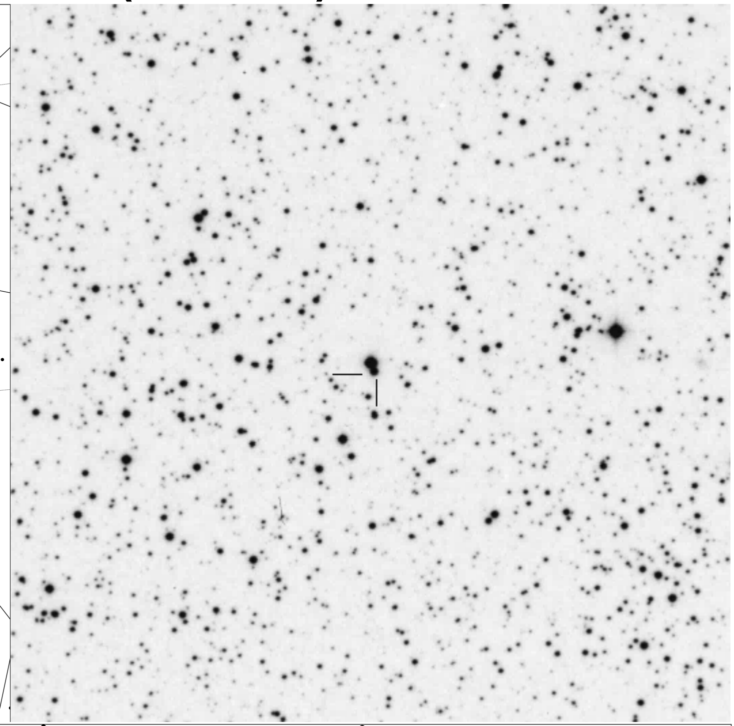


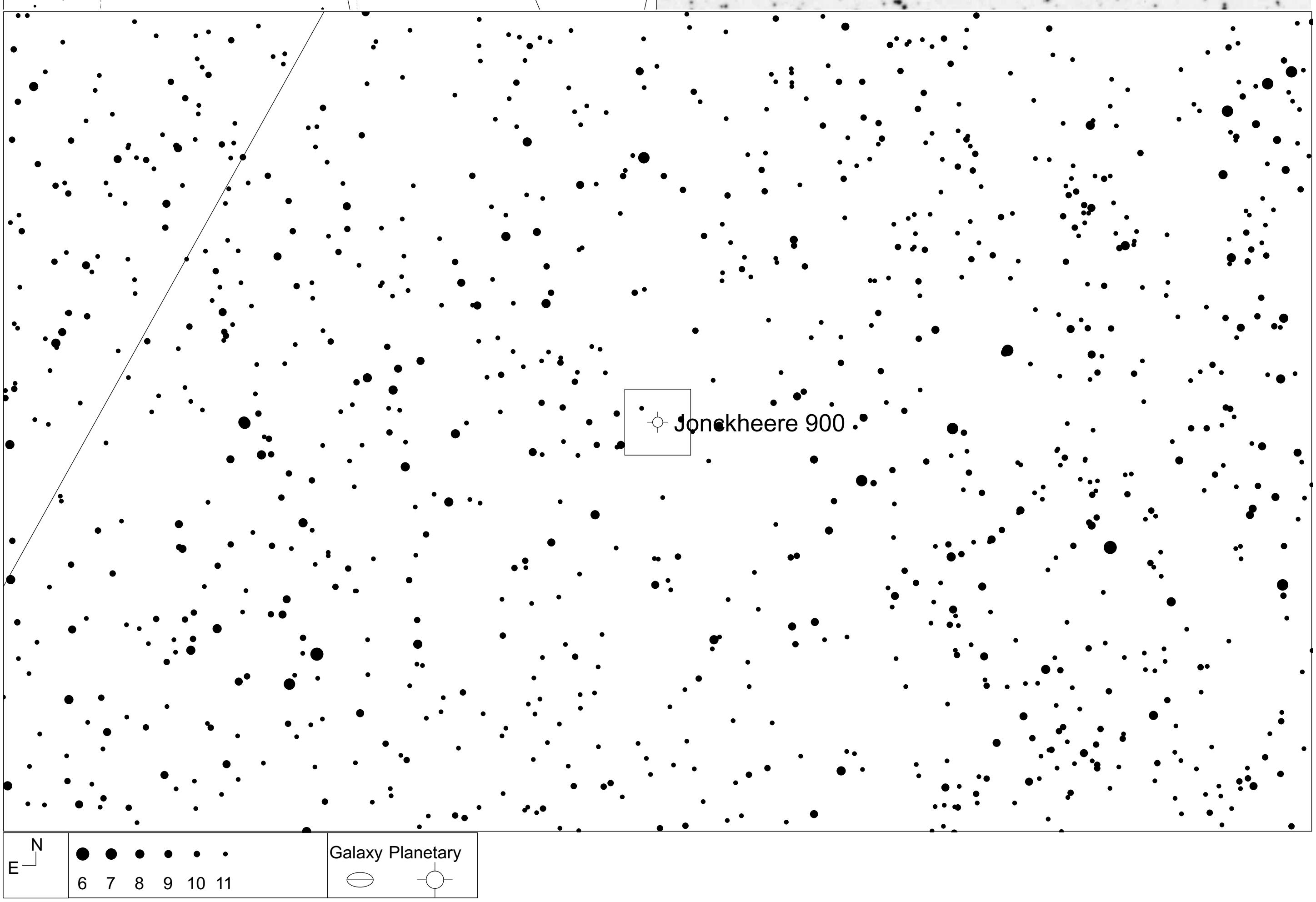


Other ID	Type	RA	Dec	Mag	* Mag	Size
LBN 844	SNR	06 17 52.0	+22 46 00	-	-	27 x 7’

Jonckheere 900 (Gemini)

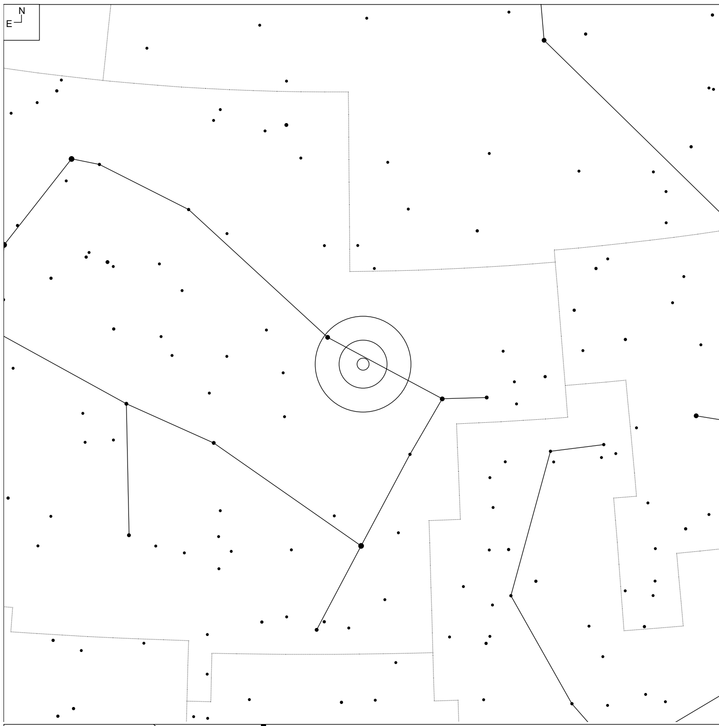


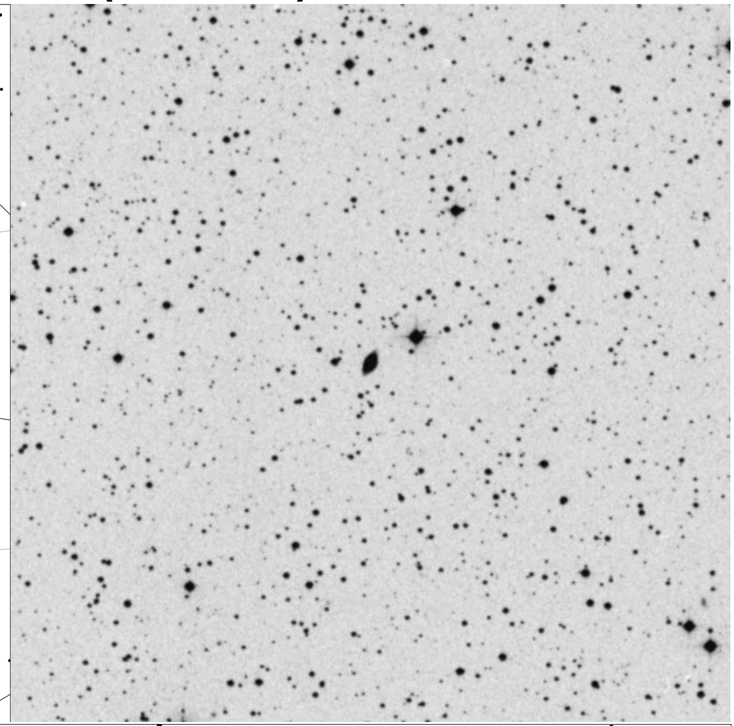


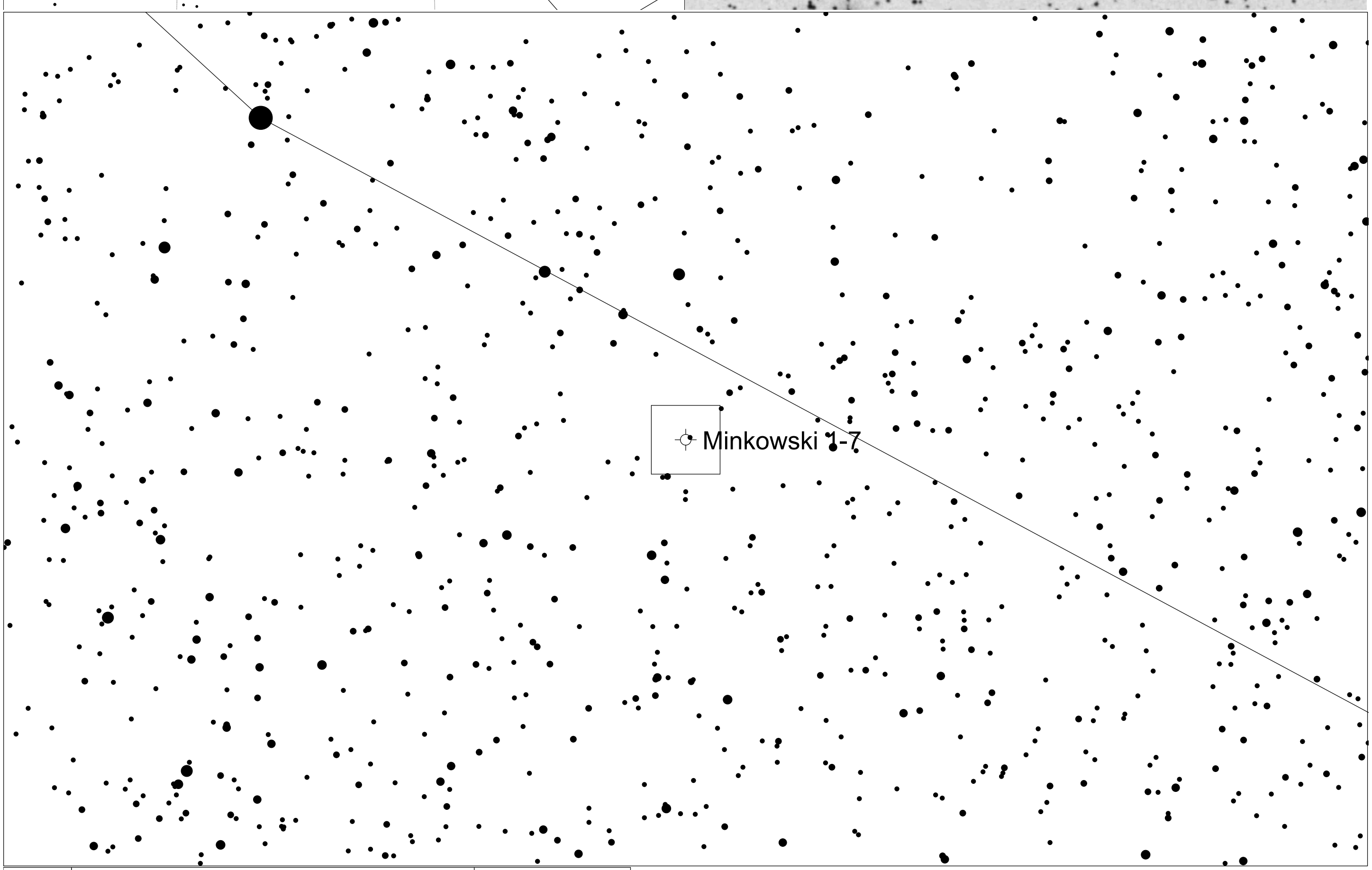


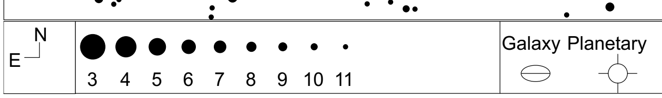
Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 194+2.1	3b+2	06 25 57.4	+17 47 26	11.7v	17.8	9.0”

Minkowski 1-7 (Gemini)



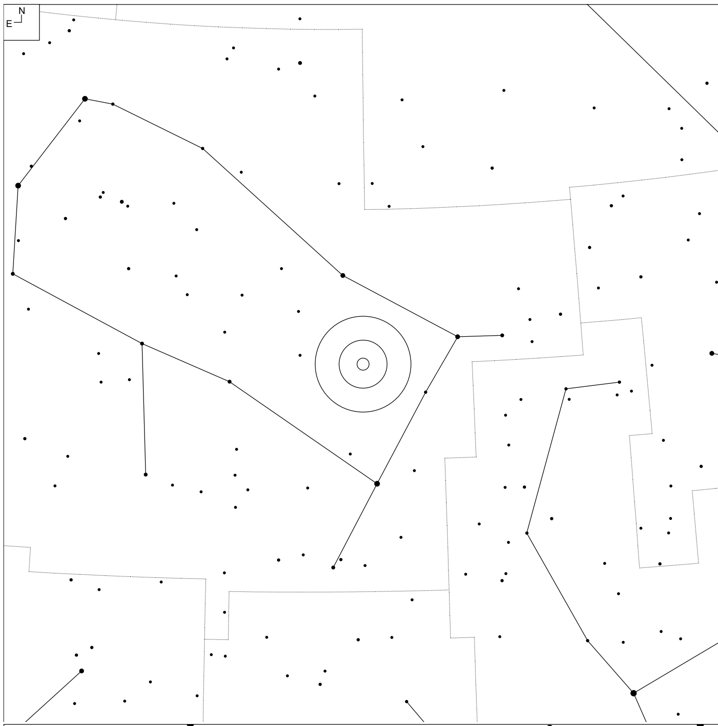


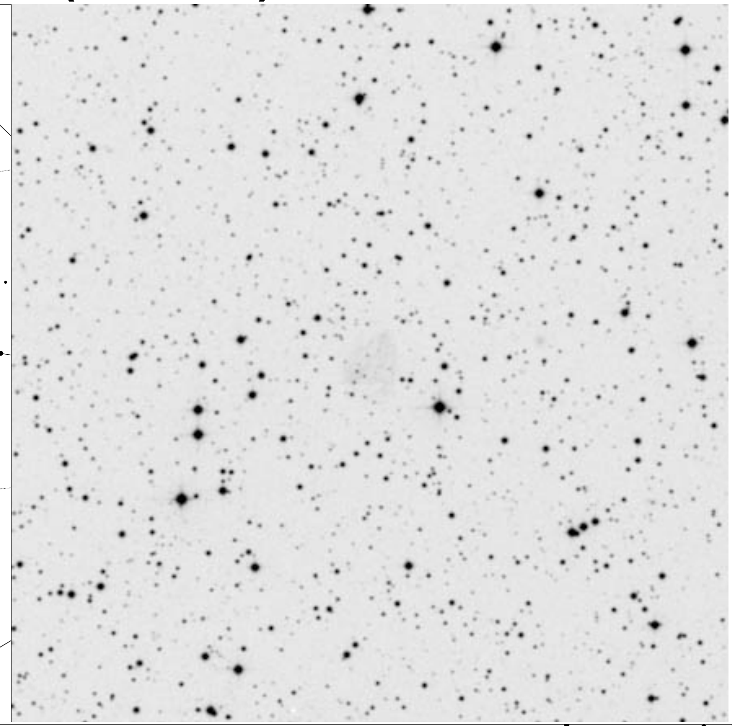


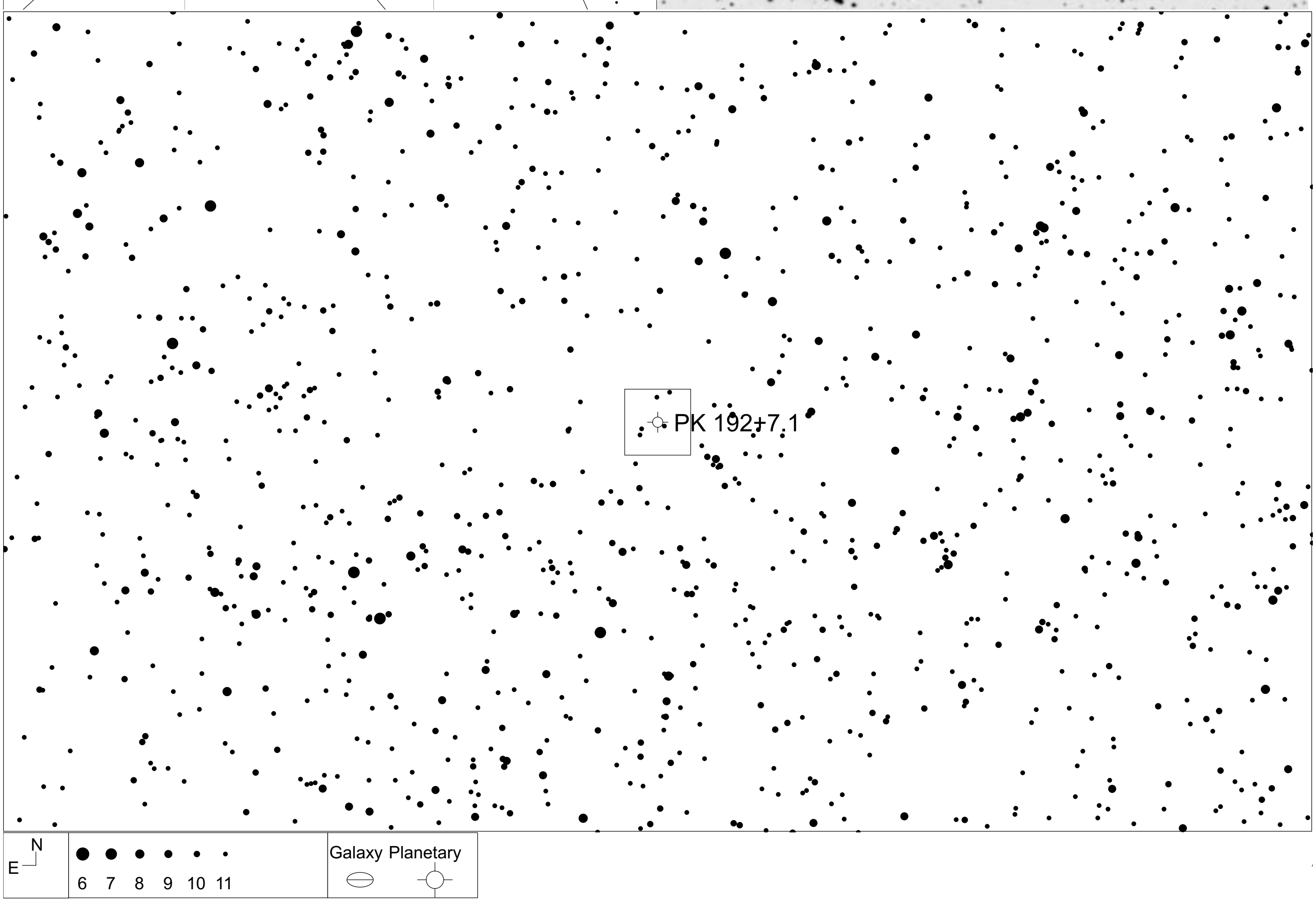


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 189+7.1	2	06 37 20.9	+24 00 37	13.0v	19.6	32 x 15”

PK 192+7.1 (Gemini)

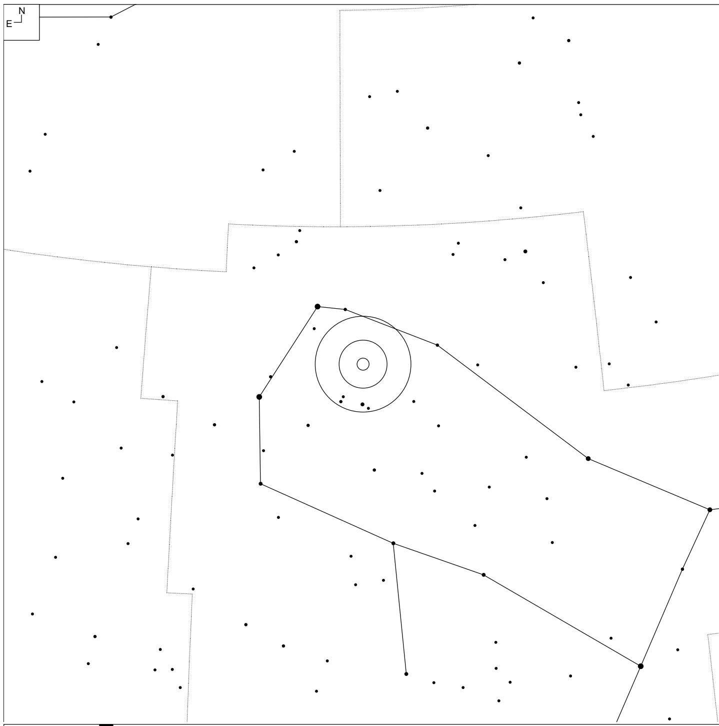


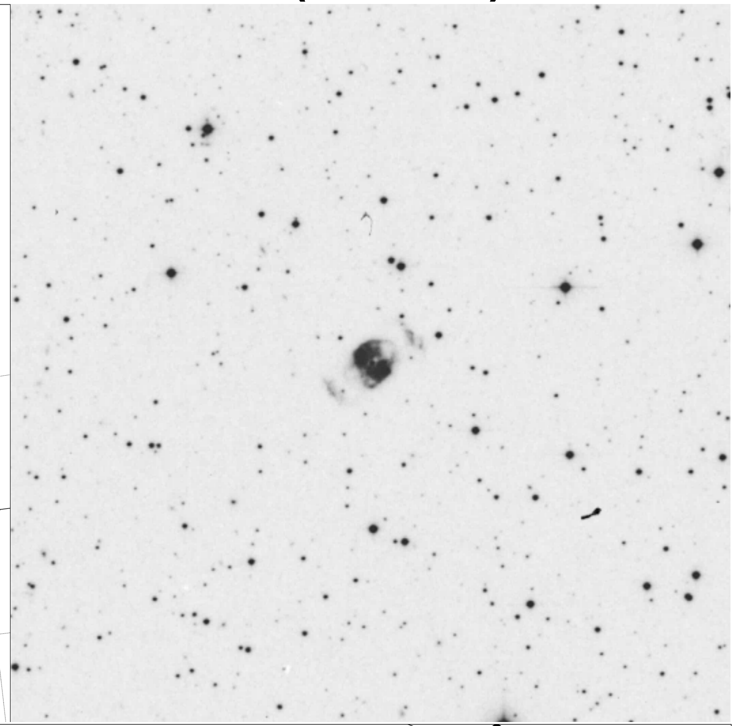


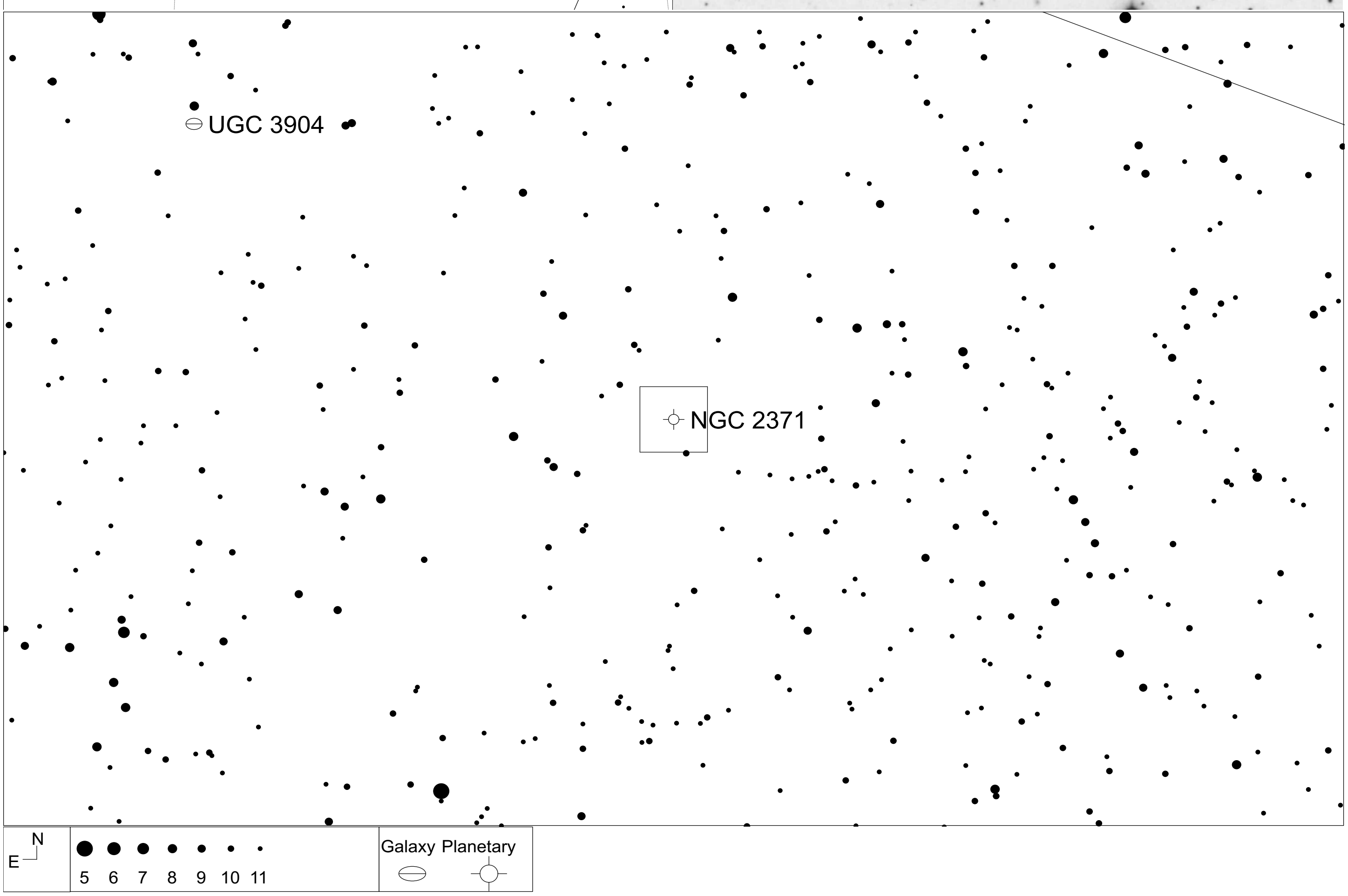


Other ID	Type	RA	Dec	Mag	* Mag	Size
-	-	06 40 09.5	+21 24 50	-	19.0	76”

NGC 2371/2 – Double Bubble   (Gemini)



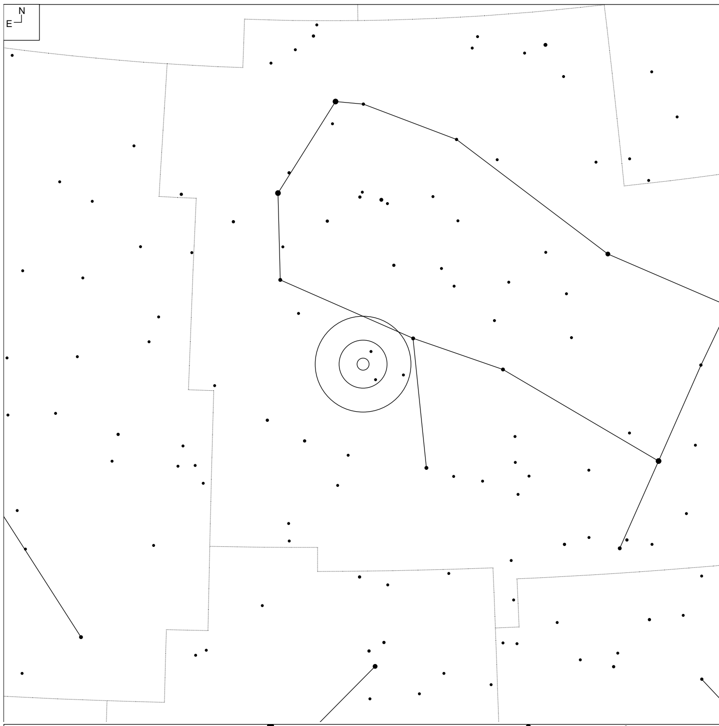


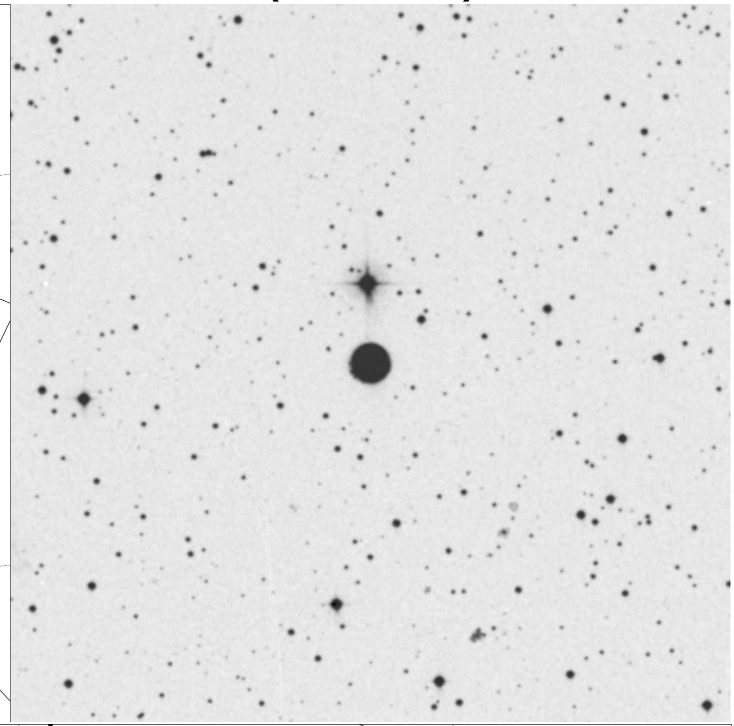


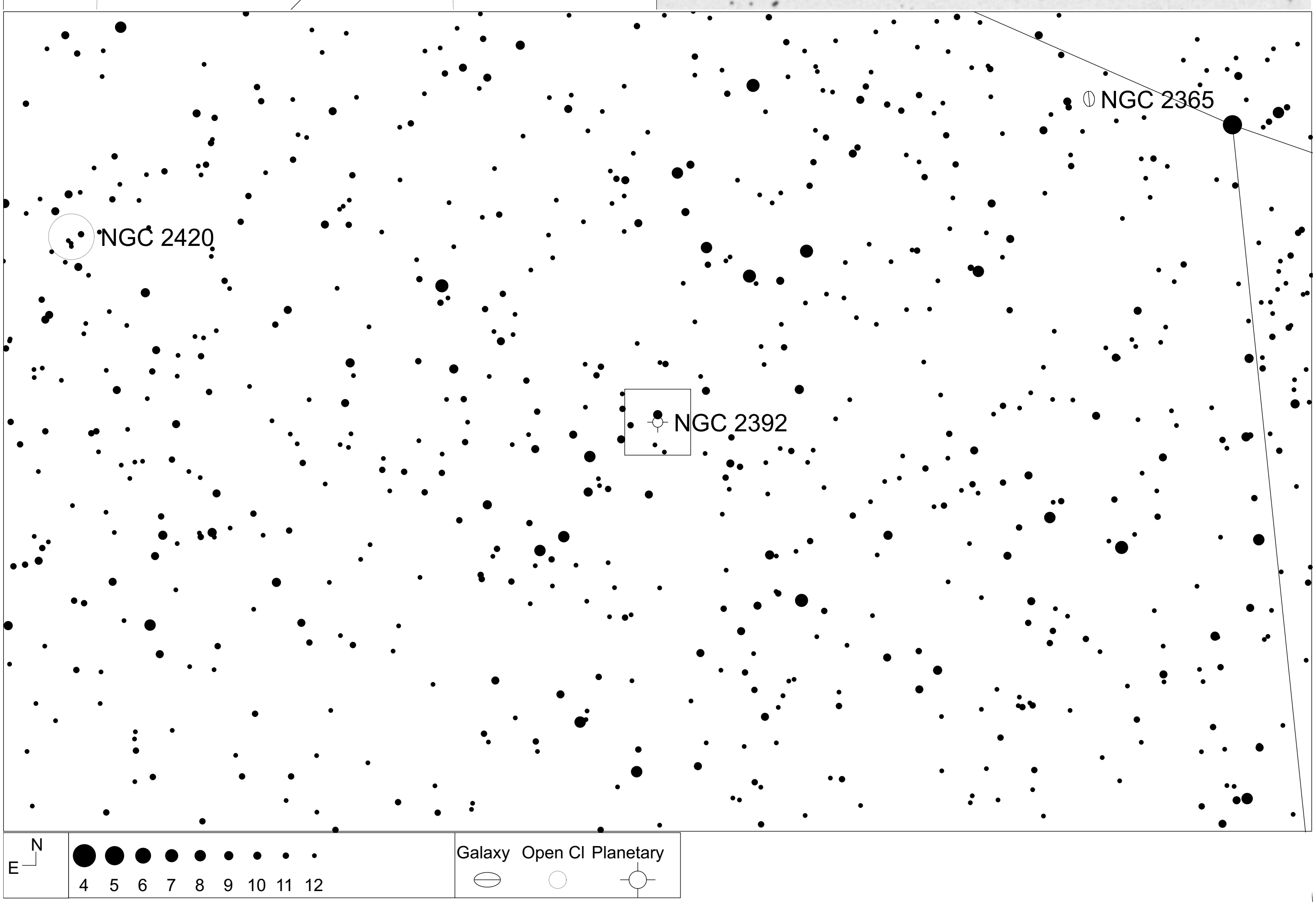
Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 189+19.1	3a+2	07 25 34.8	+29 29 22	11.2v	14.8	55”

Extensions - Broken arcs, difficult to discern, are SE and NW of poles.

NGC 2392 – Eskimo Nebula (Gemini)

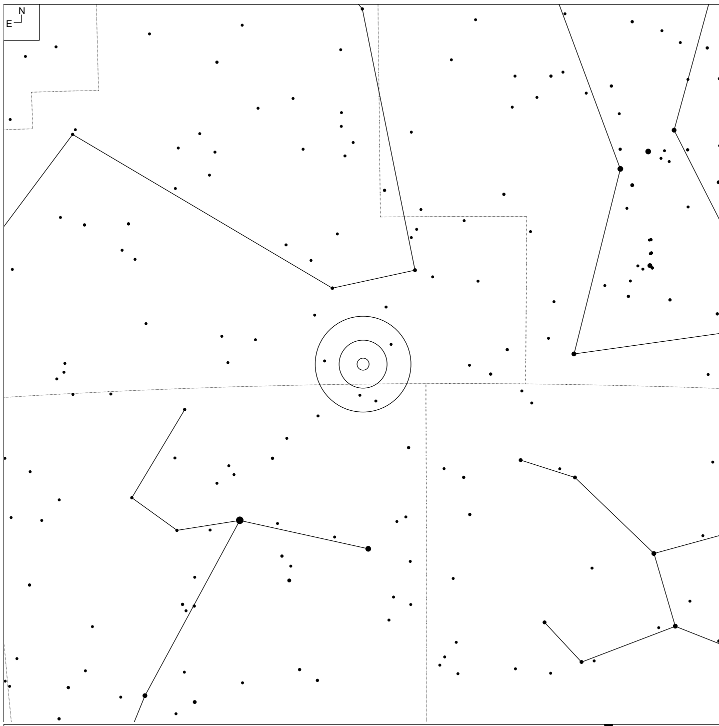


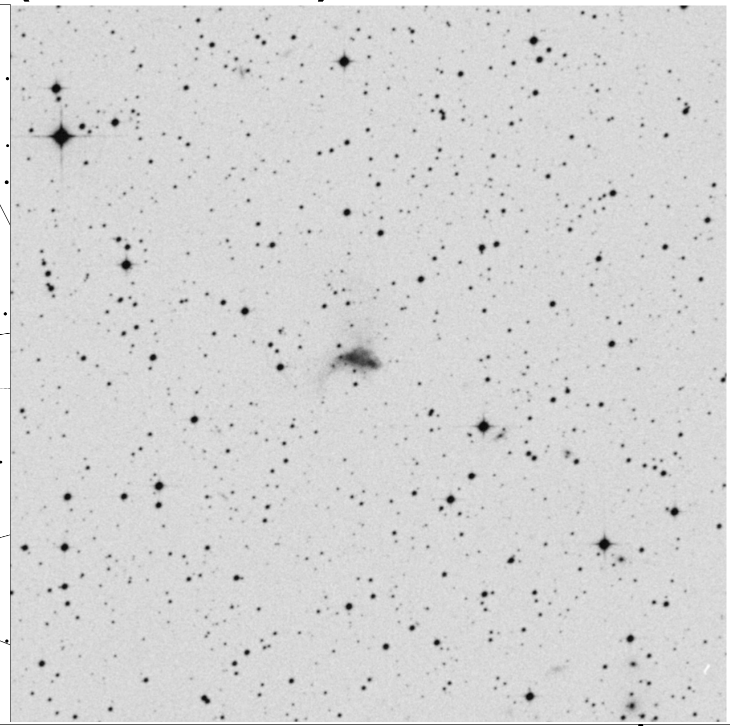


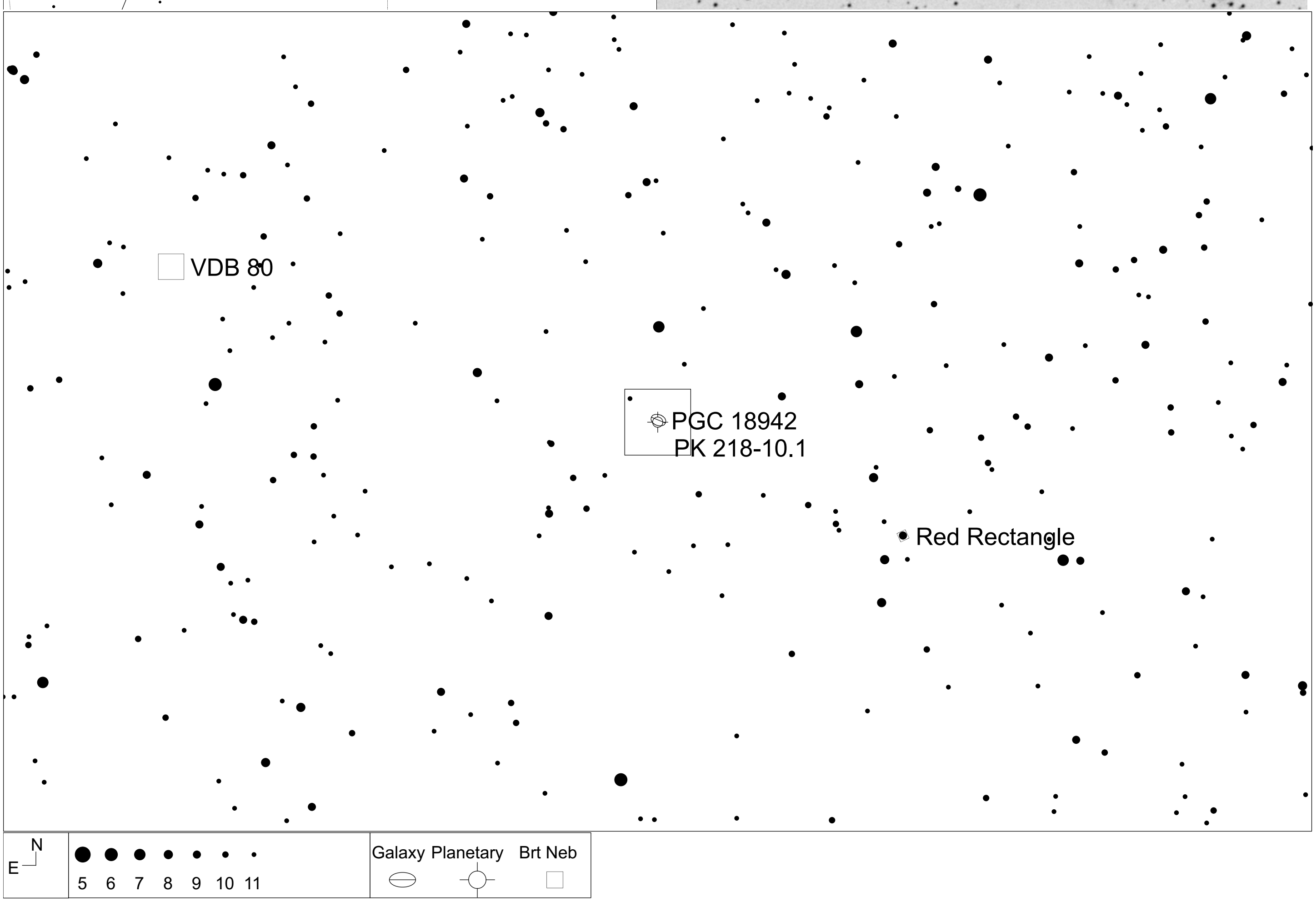


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 197+17.1	3b	07 29 11.0	+20 54 39	9.1v	10.5	50”

PK 218-10.1 (Monoceros)

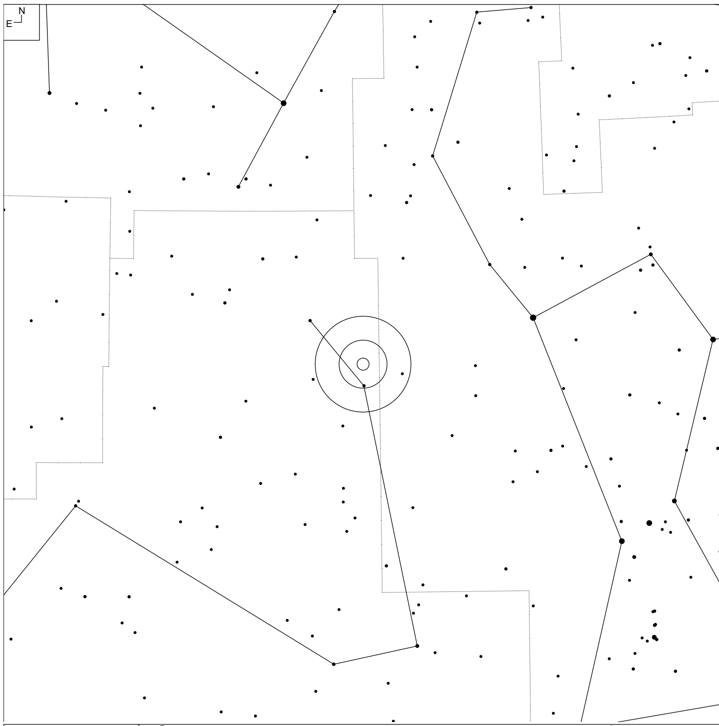


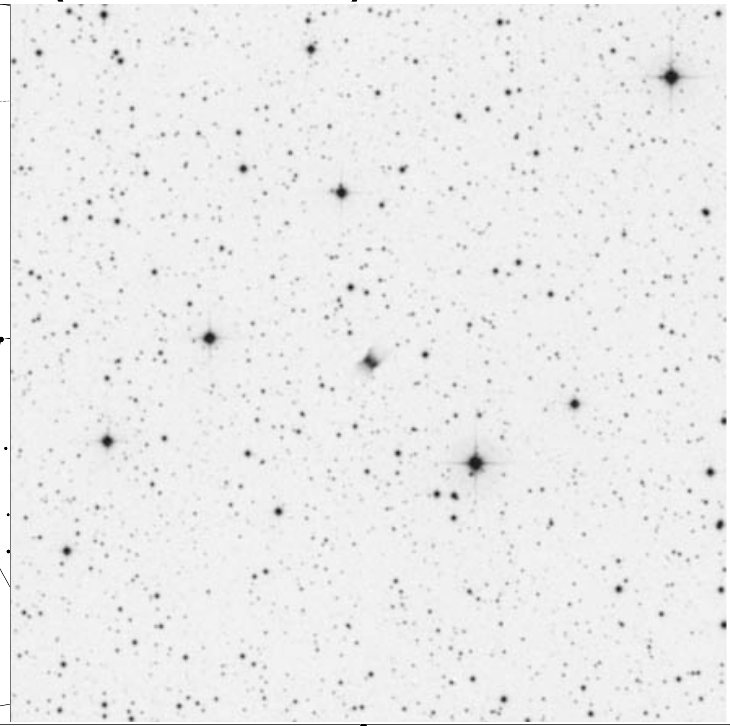


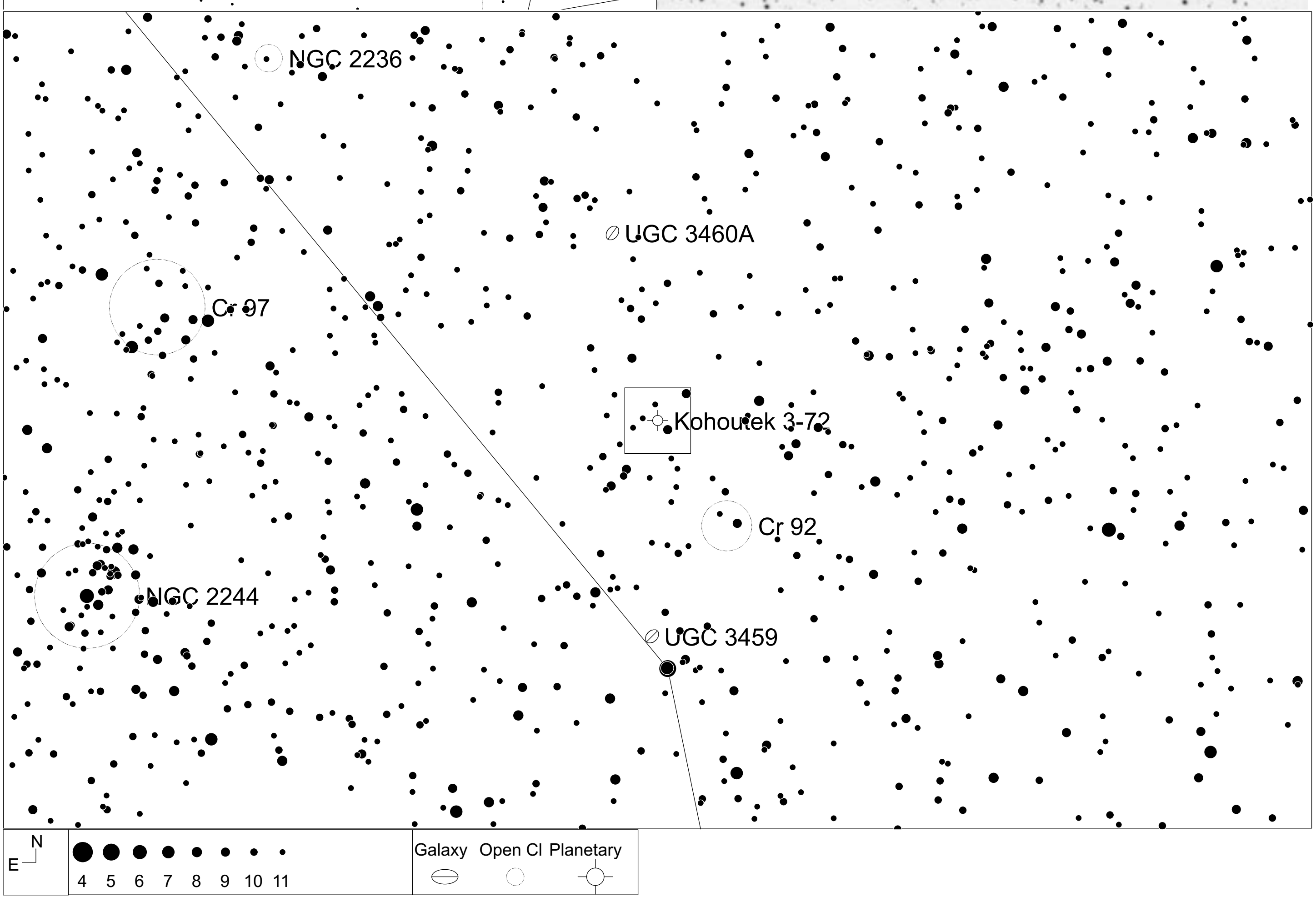


Other ID	Type	RA	Dec	Mag	* Mag	Size
-	-	06 23 37.1	-10 13 24	15.4p	16.2	94”

Kohoutek 3-72 (Monoceros)

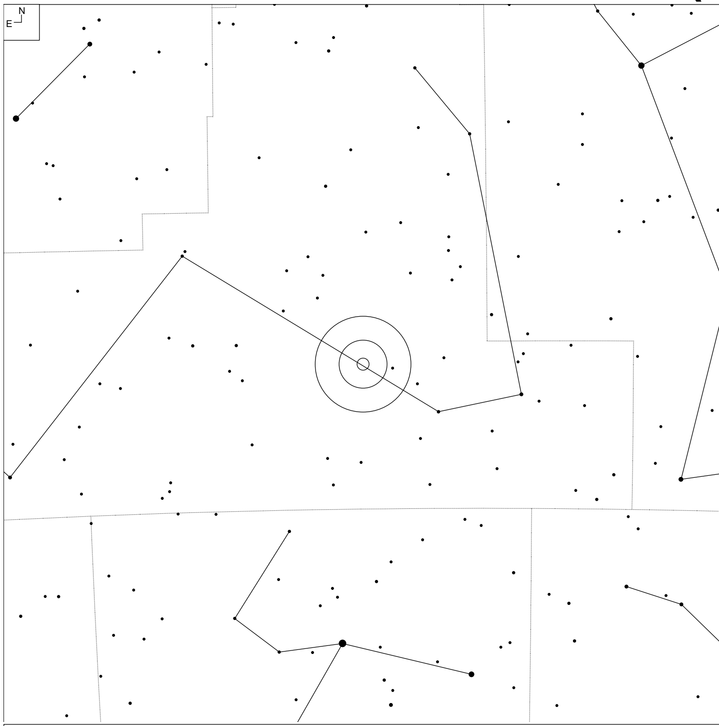


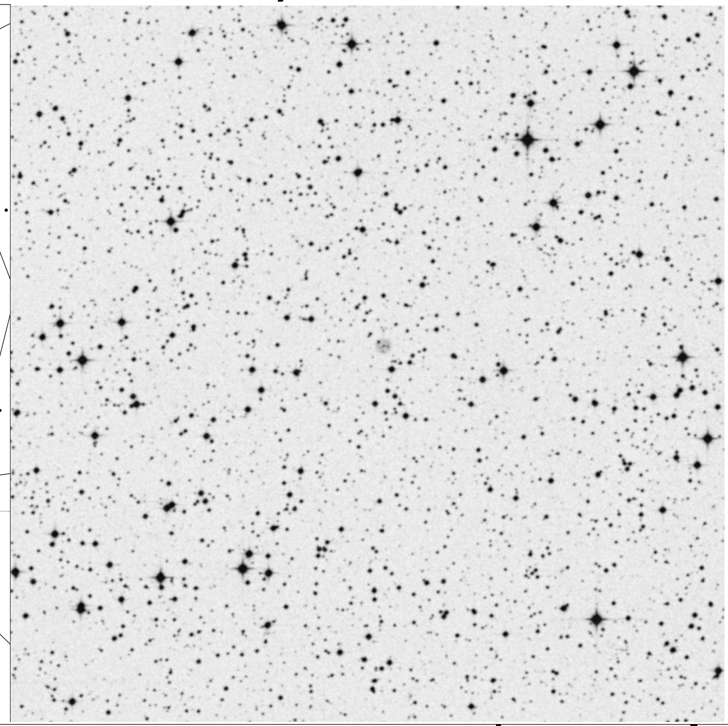


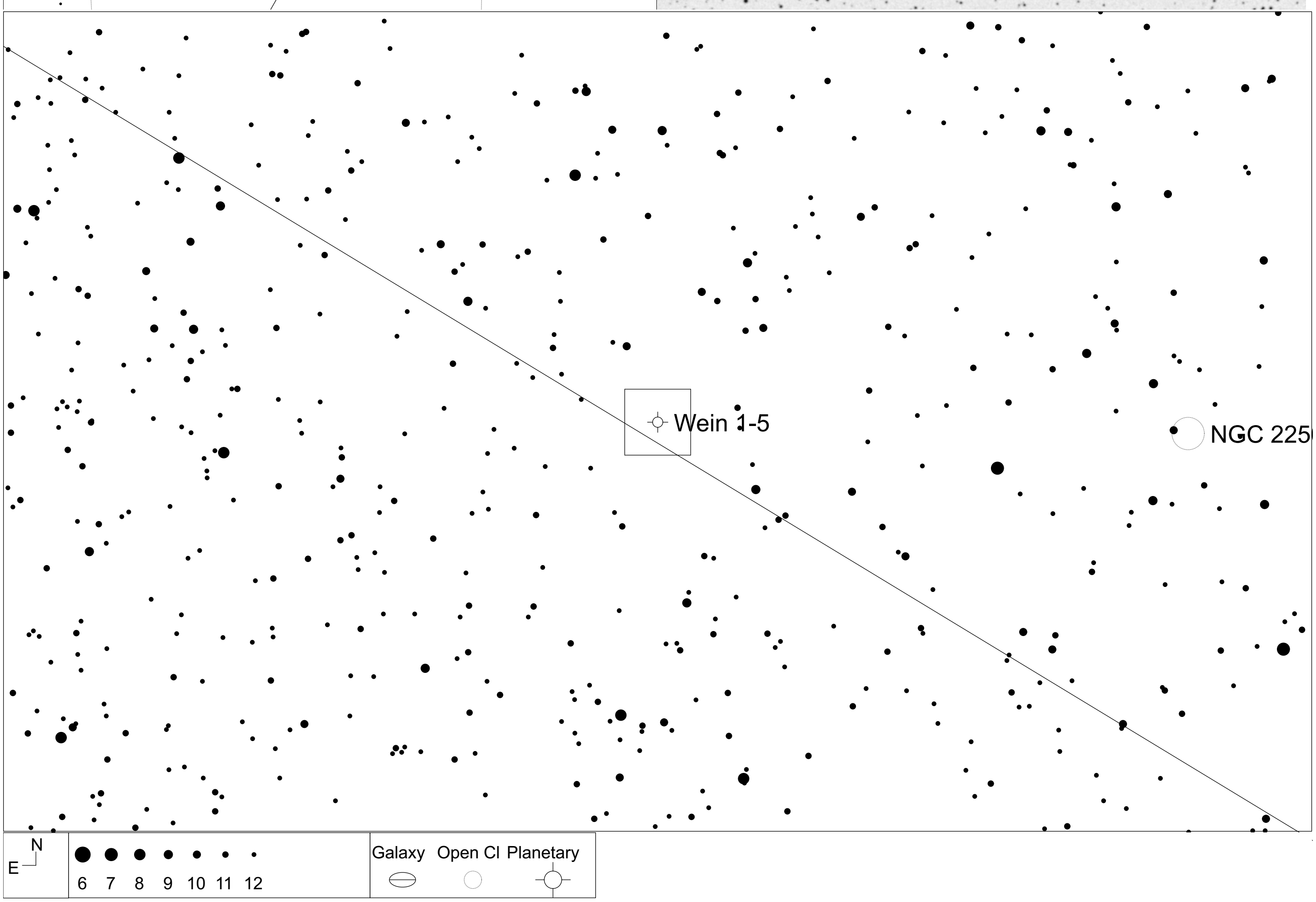


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 204-3.1	-	06 23 55.0	+05 30 11	-	-	11”

Wein 1-5 (Monoceros)

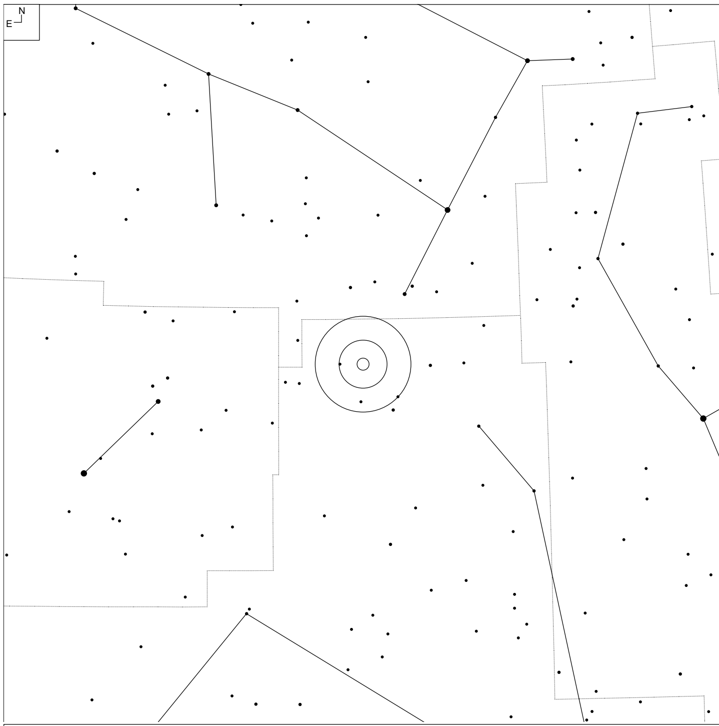


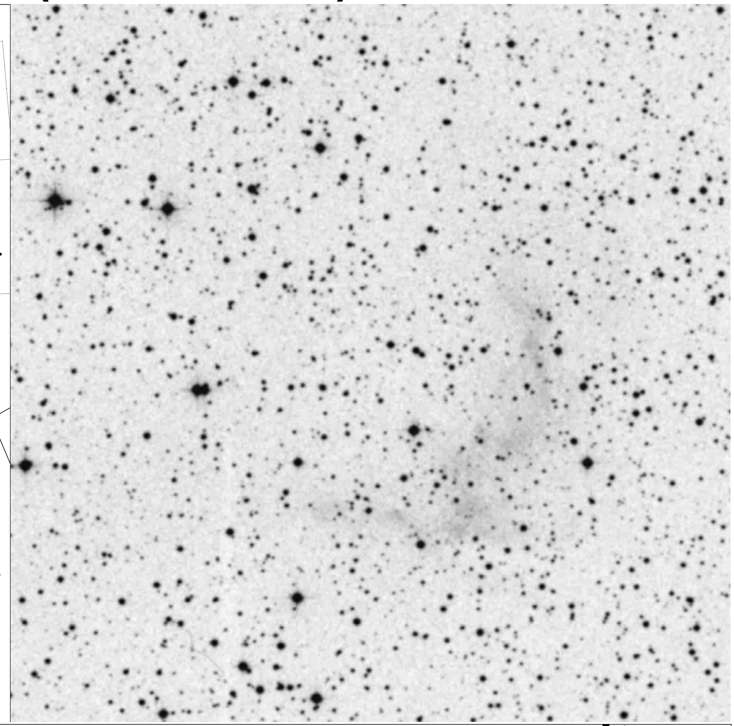


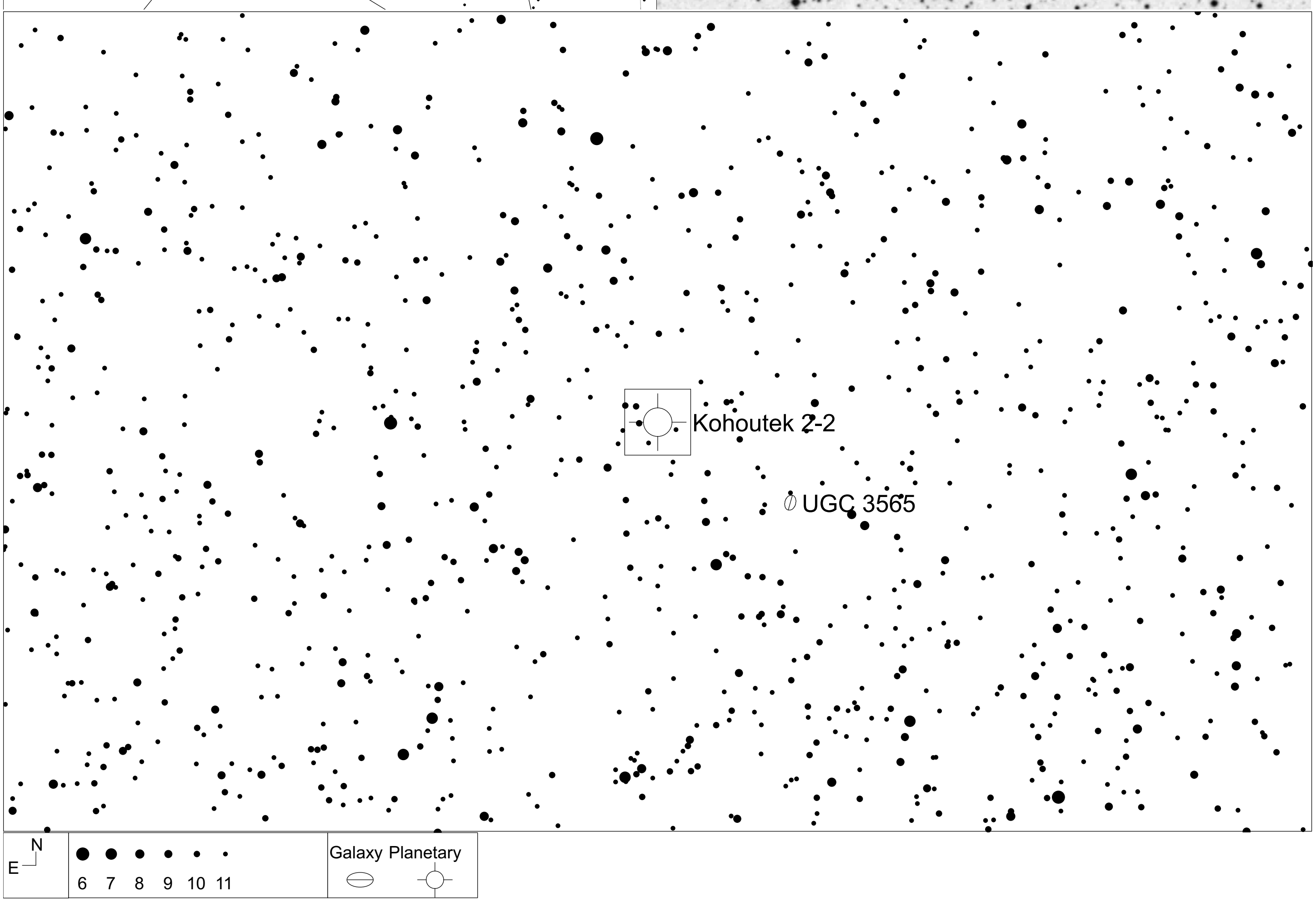


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 216-04.1	-	06 41 34.7	-05 02 37	17.9p	19.1	15”

Kohoutek 2-2 (Monoceros)

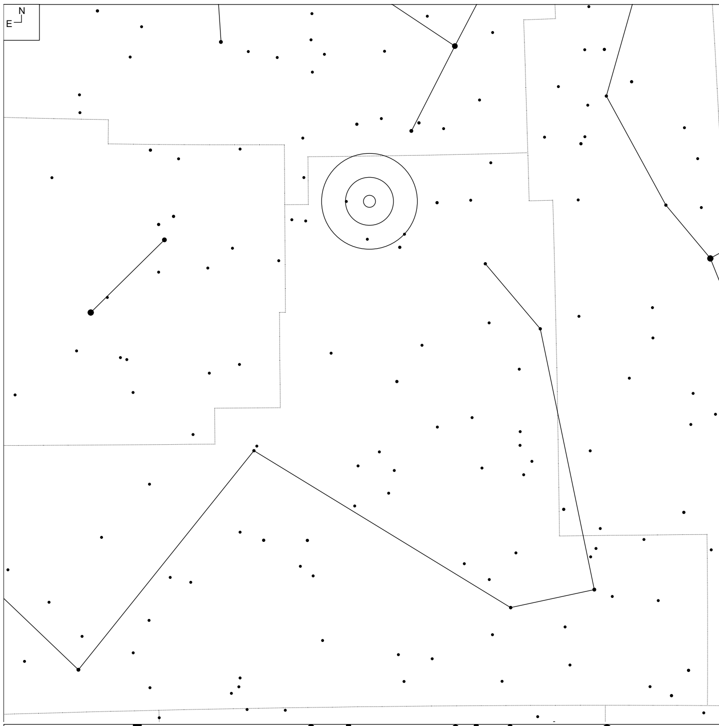


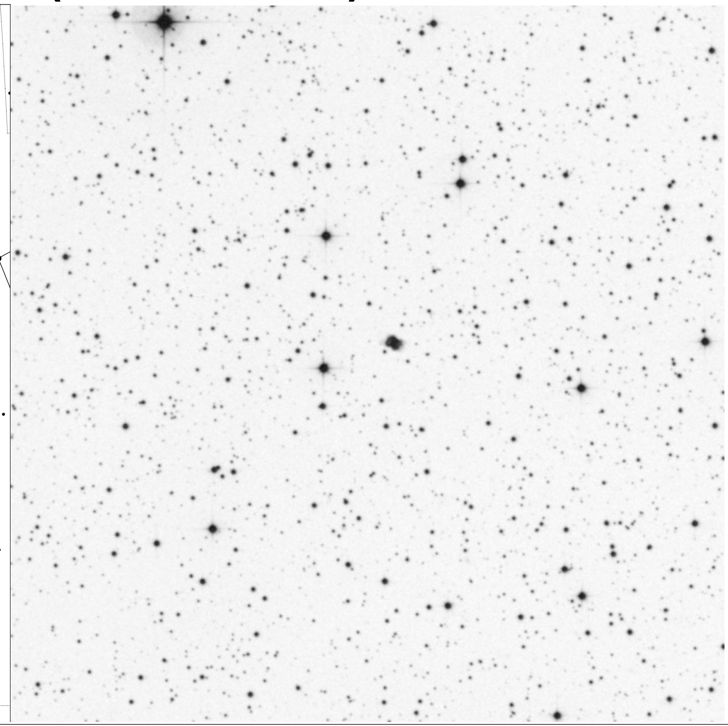


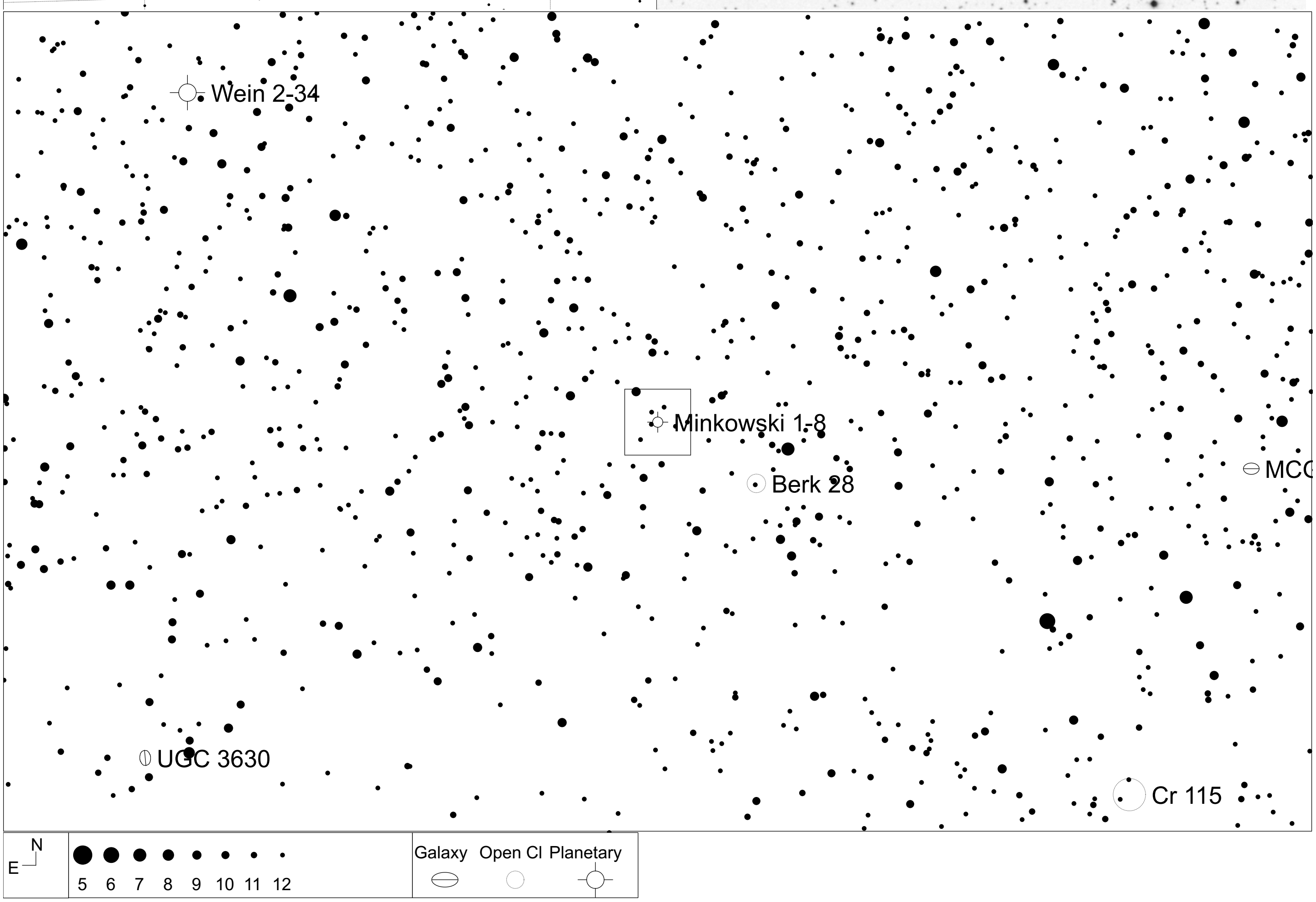


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 204+04.1	3	06 52 27.9	+09 57 40	12.5p	15.0	6.2’

Minkowski 1-8 (Monoceros)

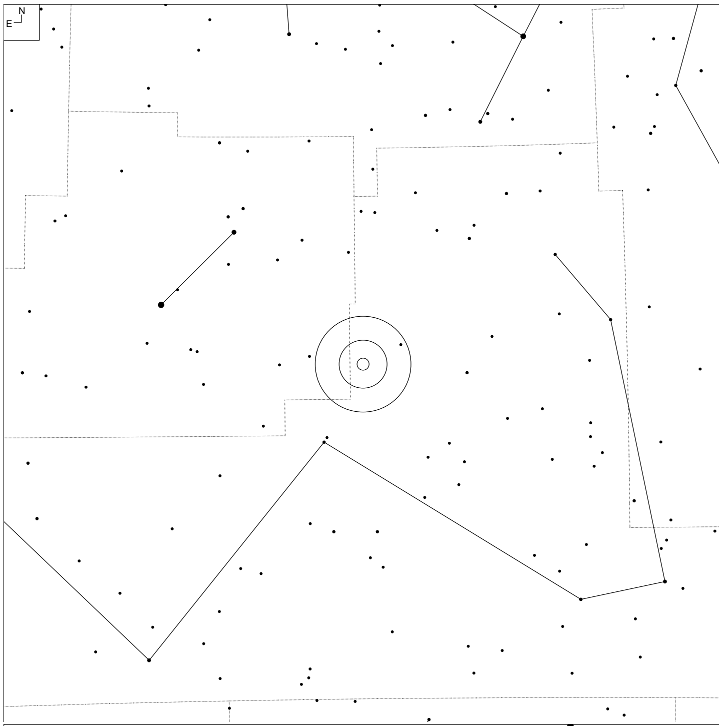


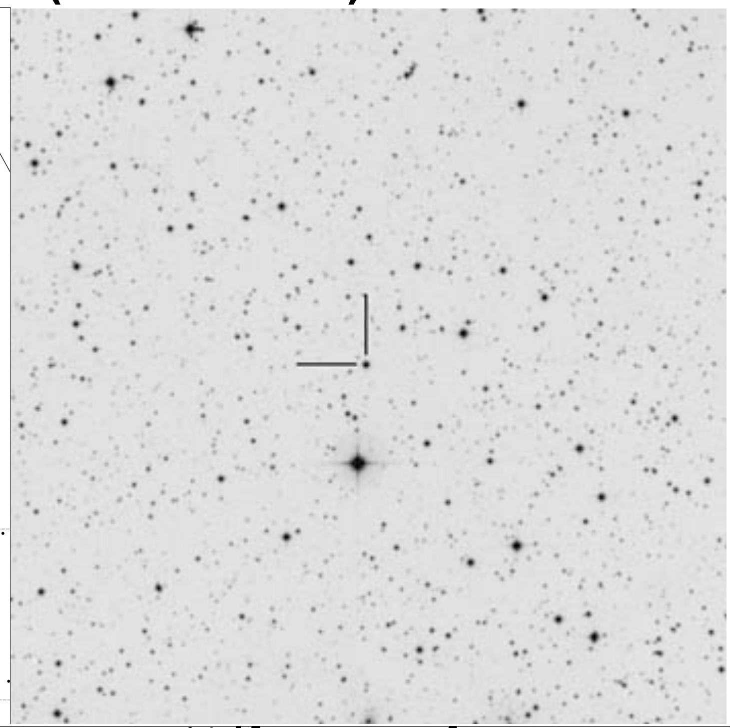


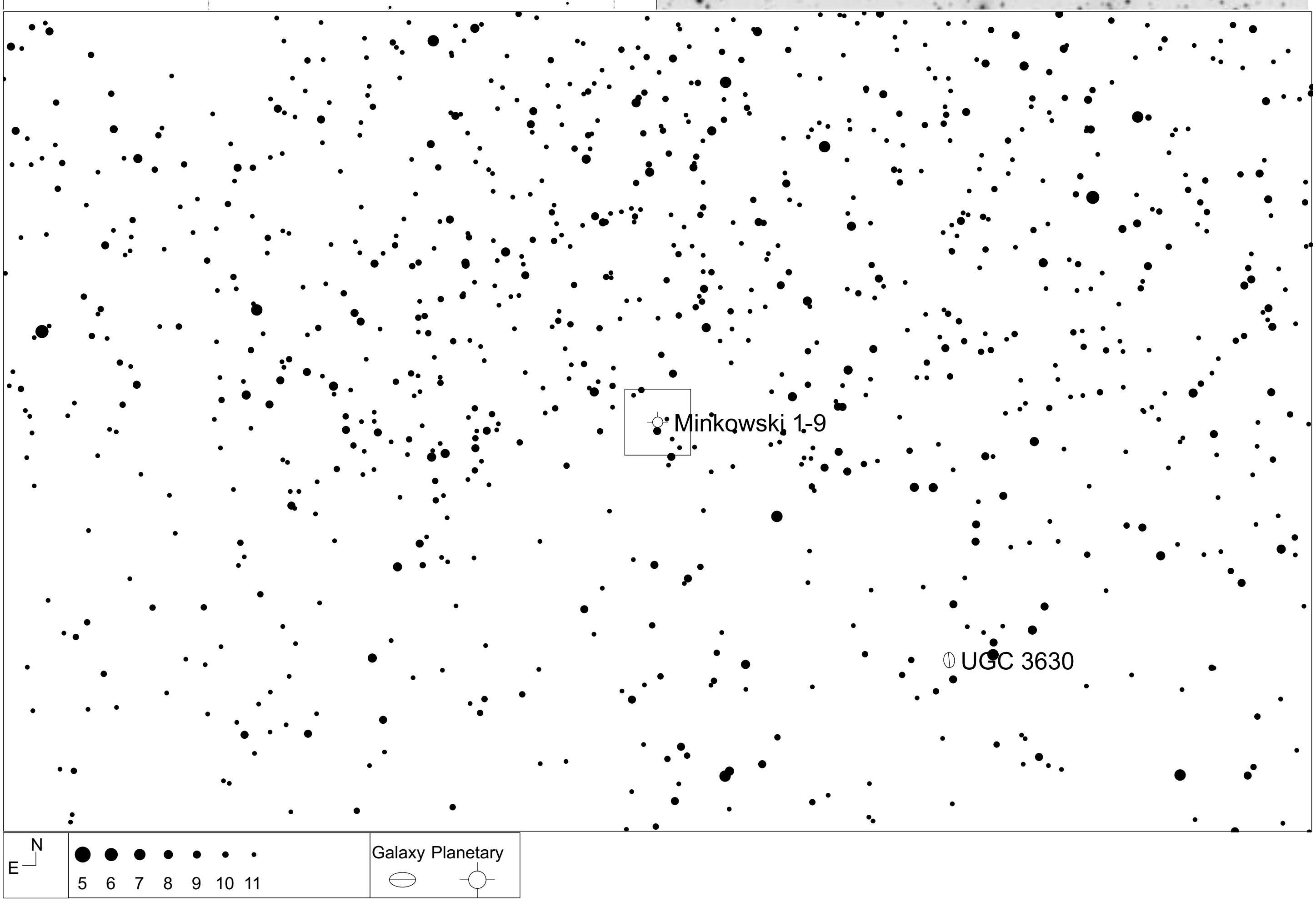


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 210+1.1	-	06 53 33.8	+03 08 26	14.5v	21.3	18”

Minkowski 1-9 (Monoceros)

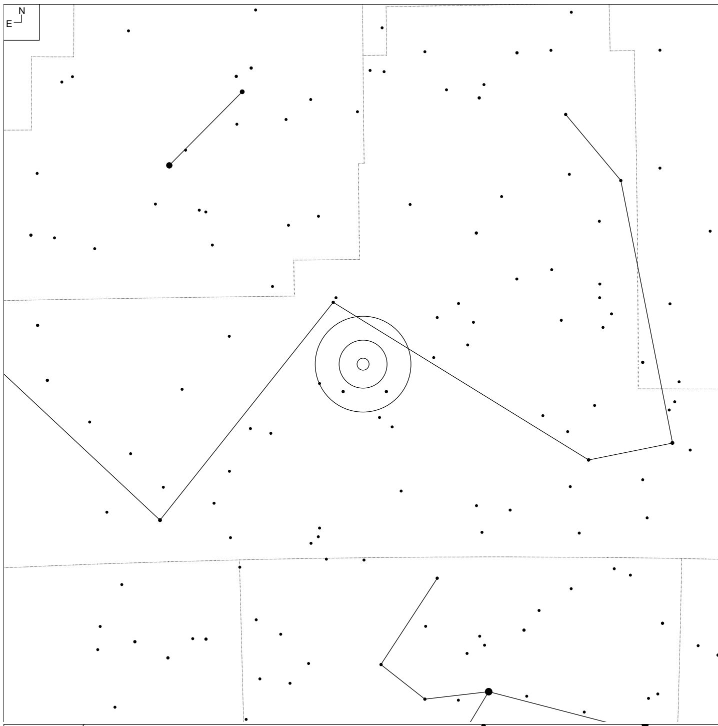


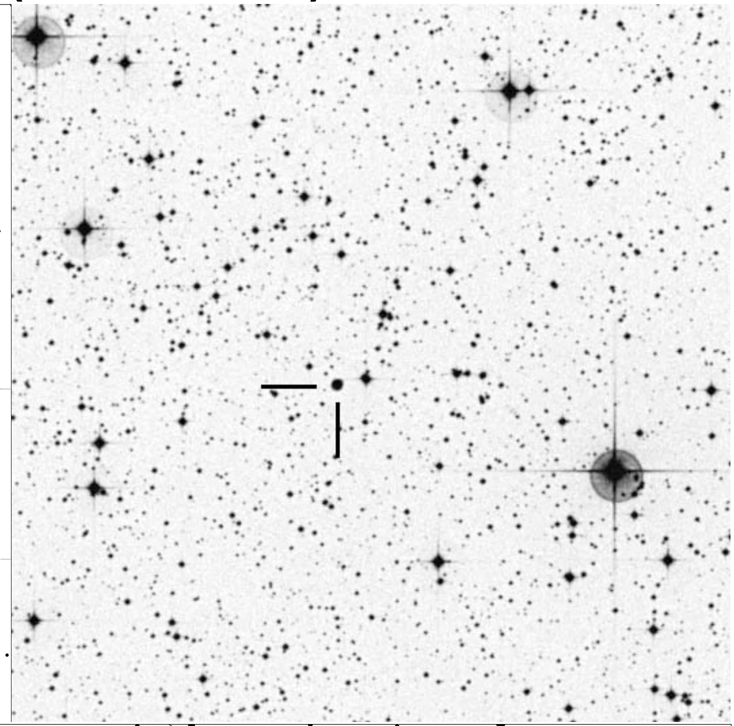


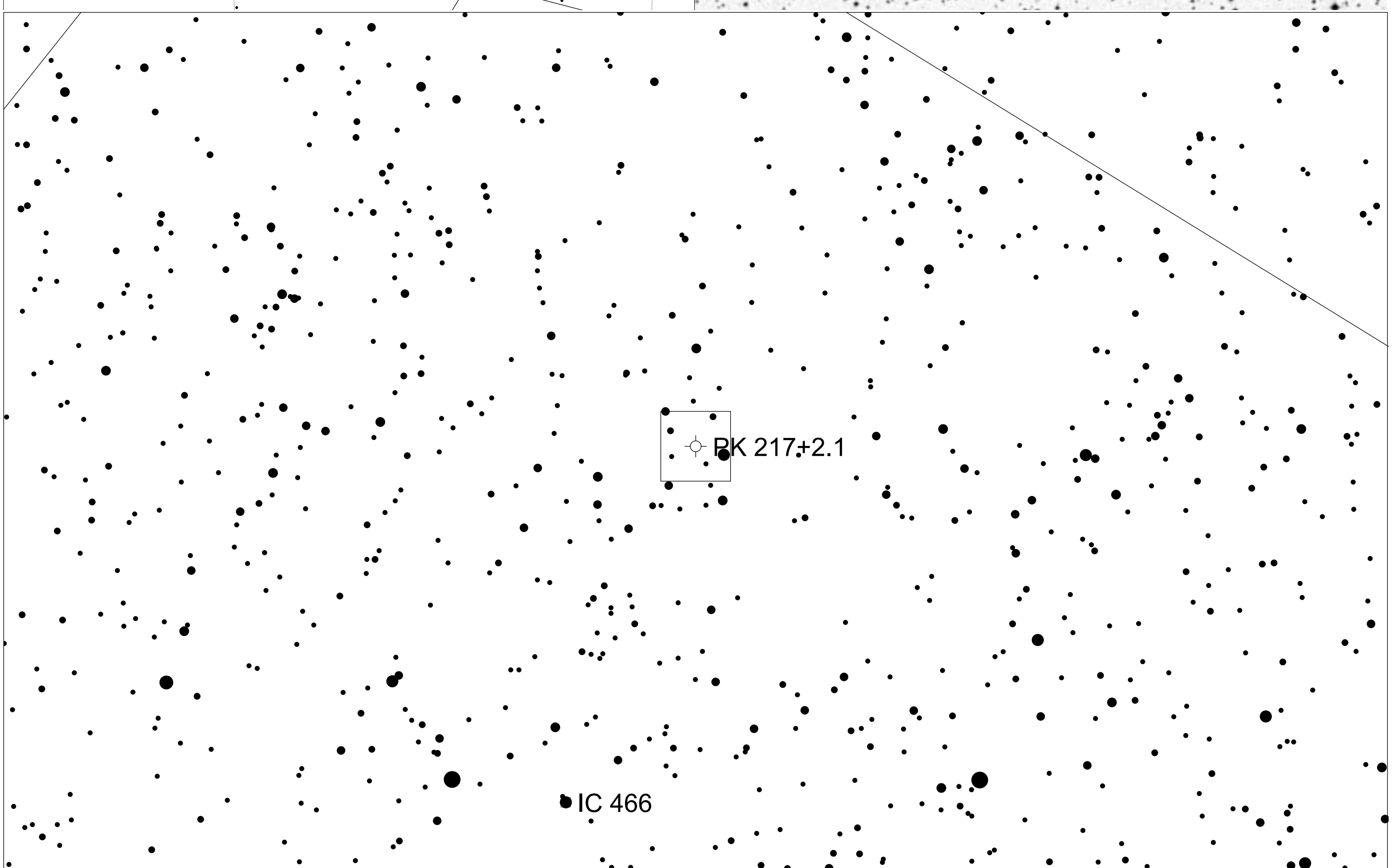


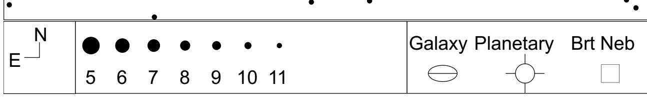
Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 212+4.1	1	07 05 19.3	+02 46 56	13.3p	15.6	12”

PK 217+2.1 (Monoceros)



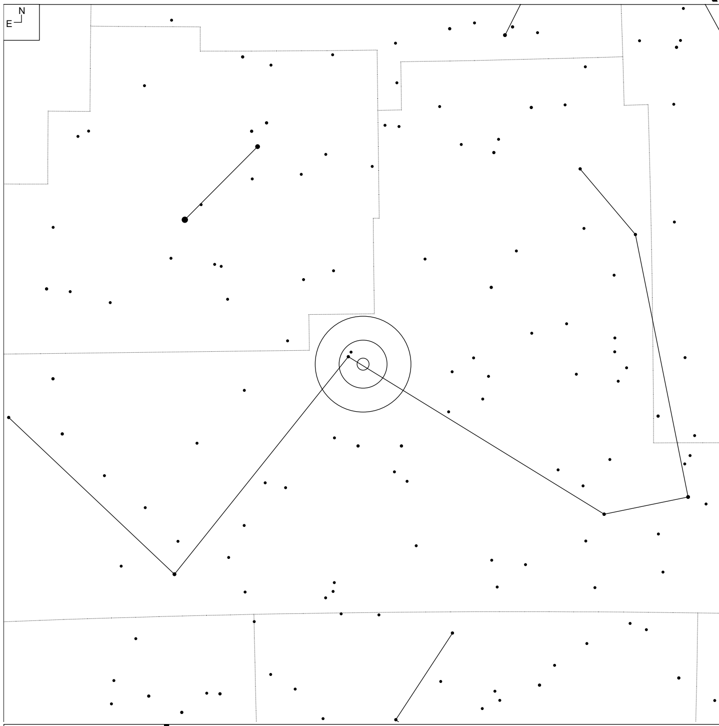


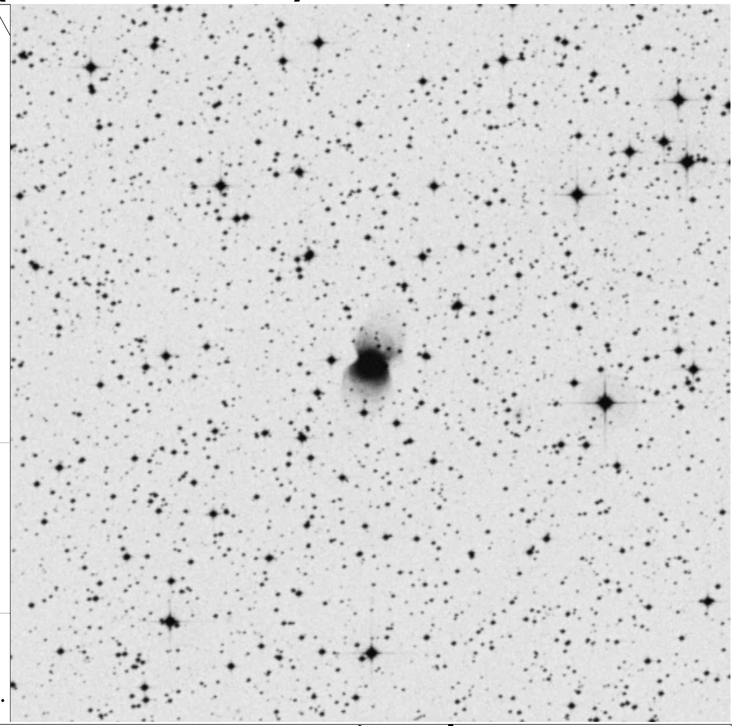


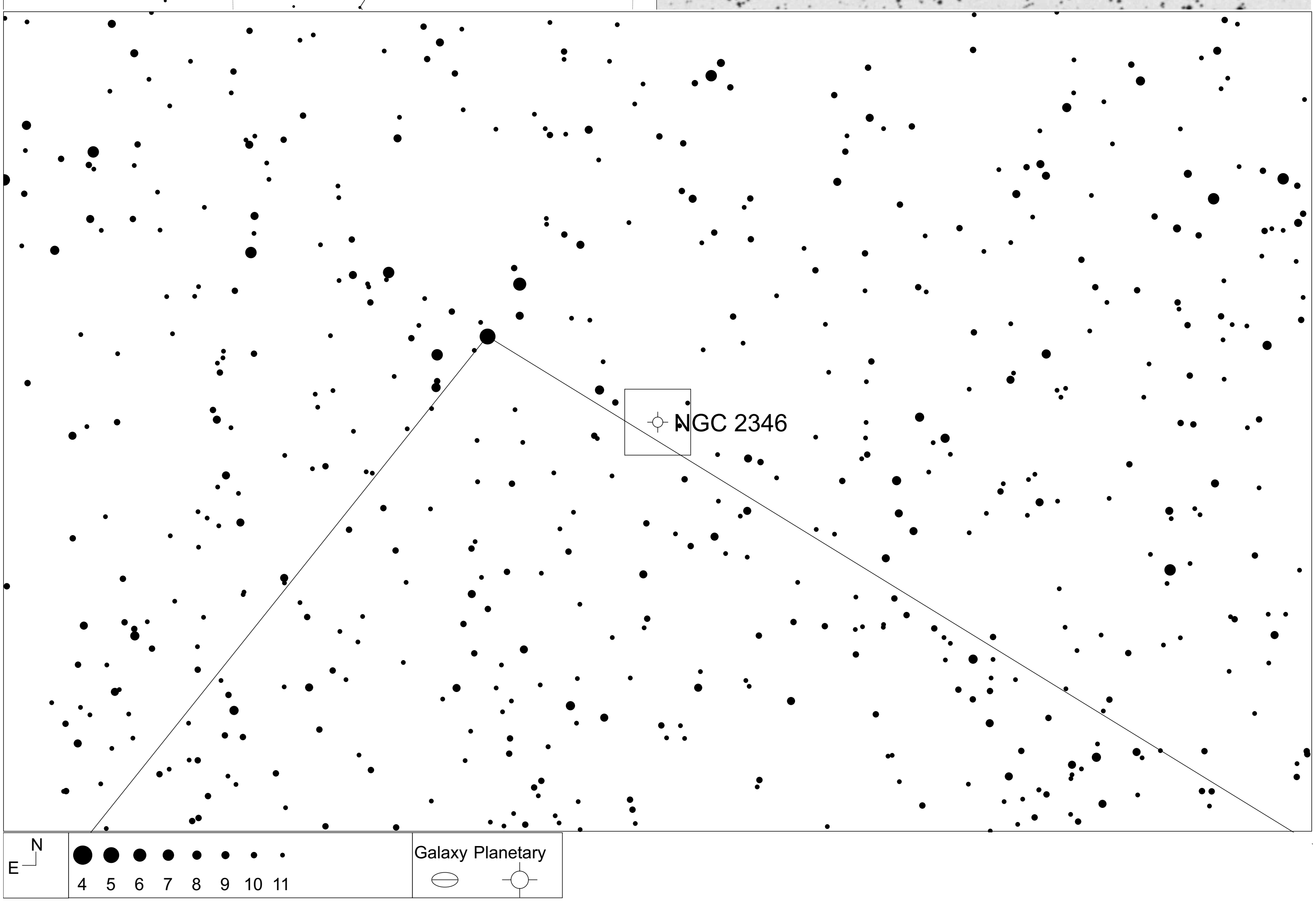


Other ID	Type	RA	Dec	Mag	* Mag	Size
Steph 3-1	3	07 06 51.0	-03 05 10	14.5v	>21	15”

NGC 2346 (Monoceros)

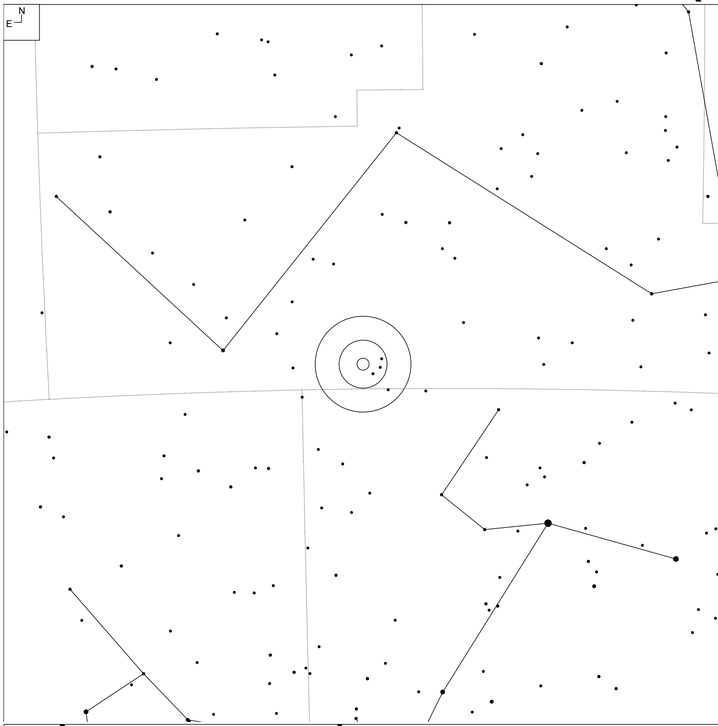


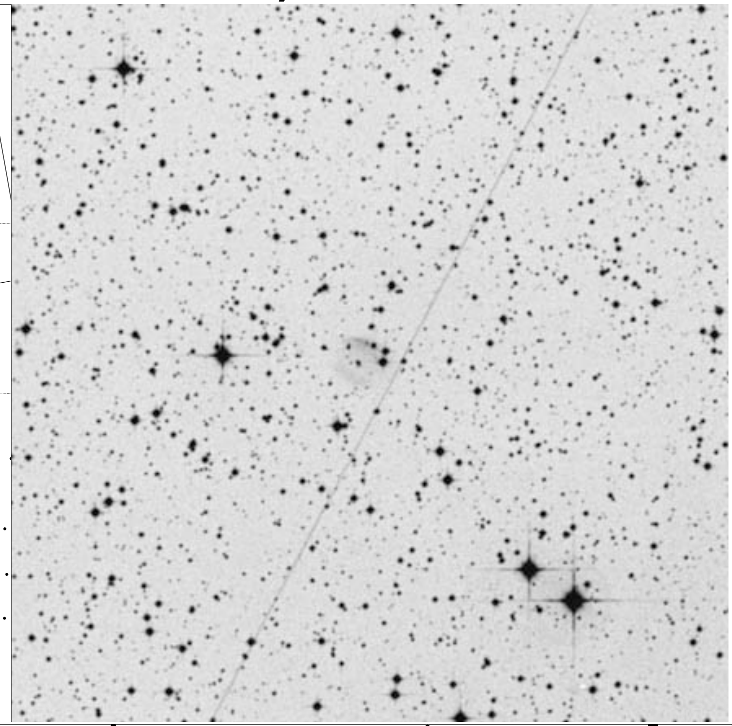


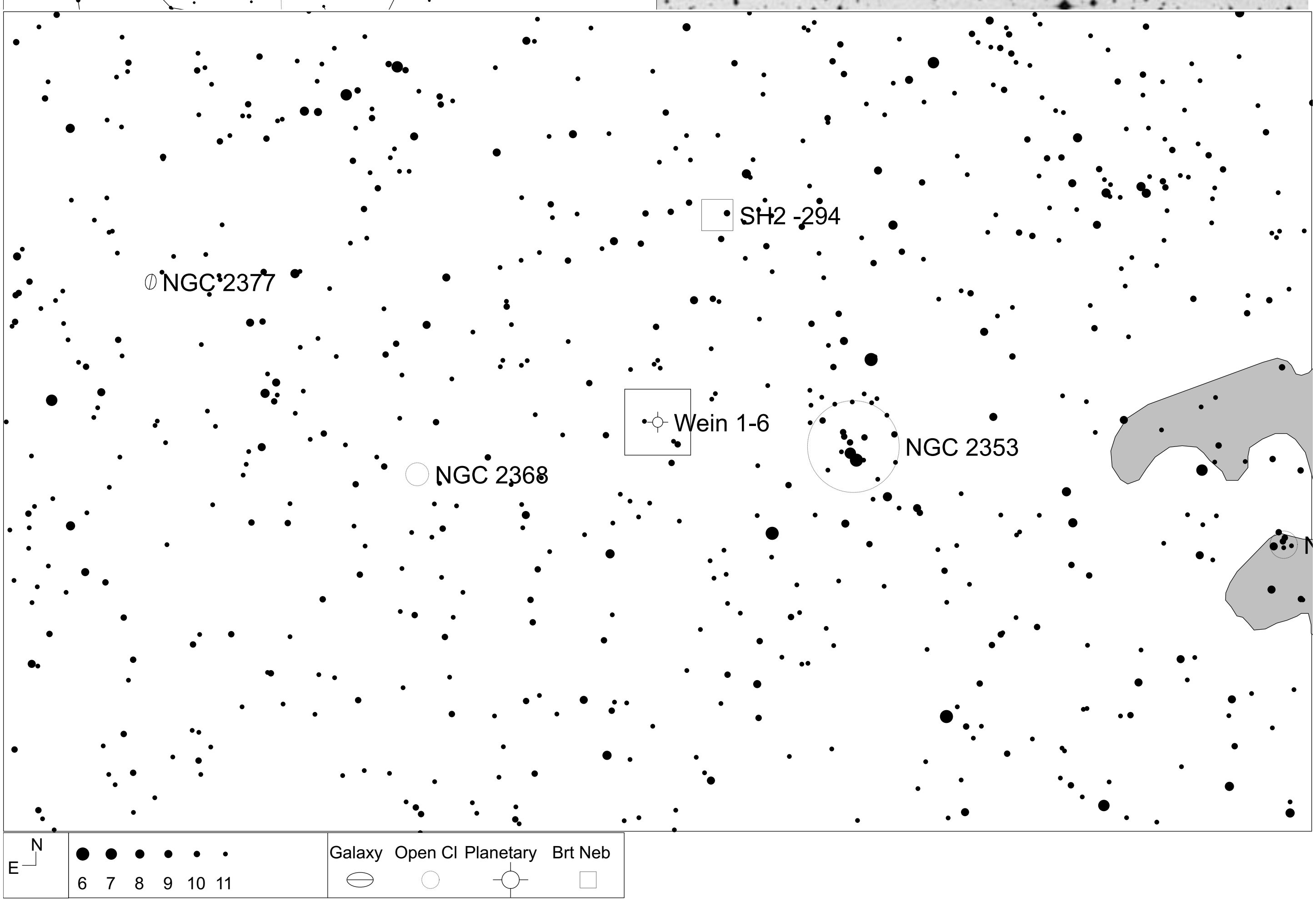


Other ID	Type	RA	Dec	Mag	* Mag	Size
Minkowski 1-10	3b+4	07 09 22.4	-00 48 24	11.6v	11.4	120”

Wein 1-6 (Monoceros)

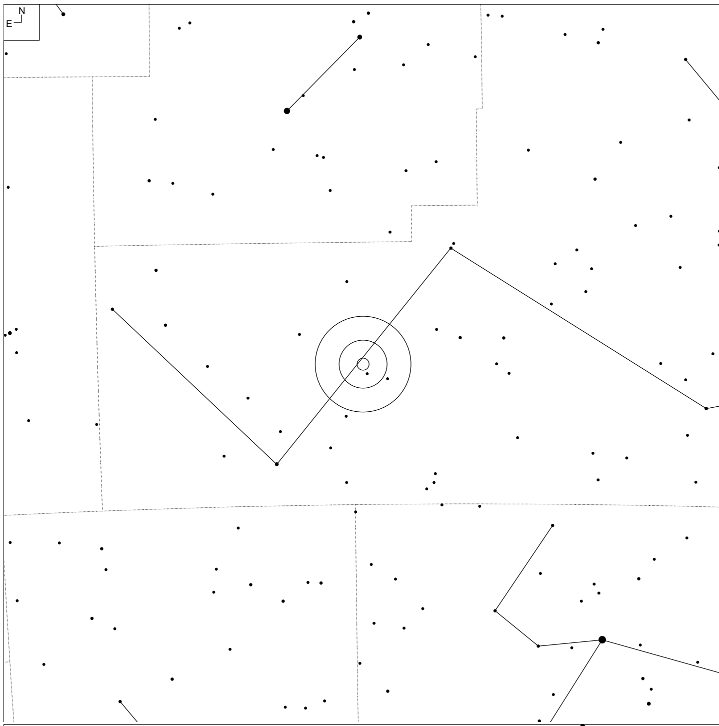


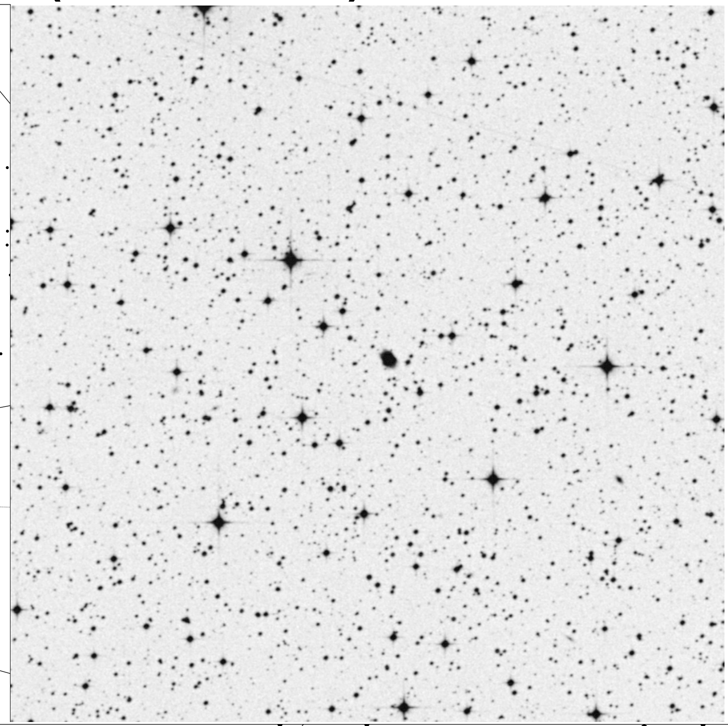


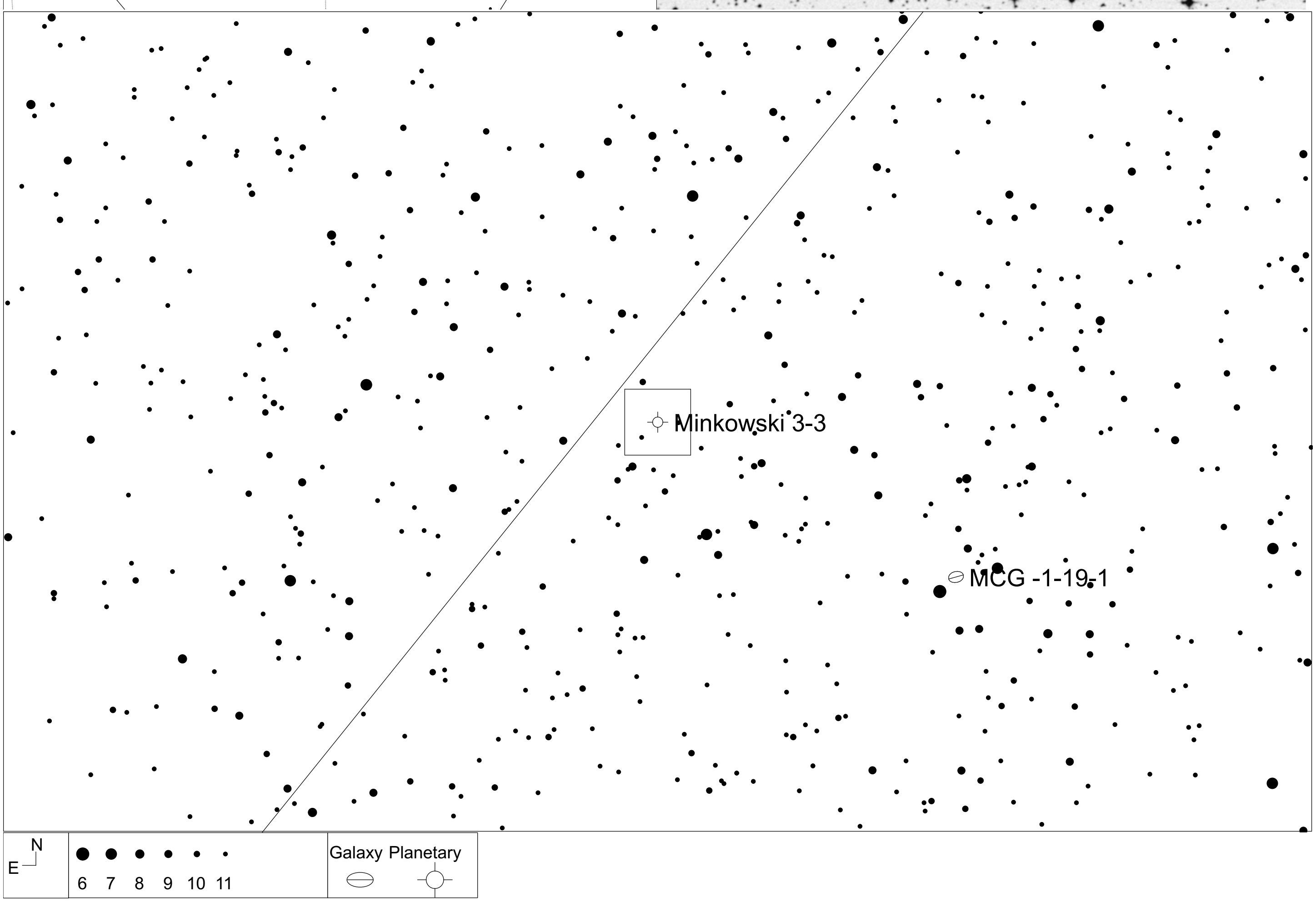


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 224+1.1	-	07 17 25.5	-10 10 39	-	16.8	62”

Minkowski 3-3 (Monoceros)

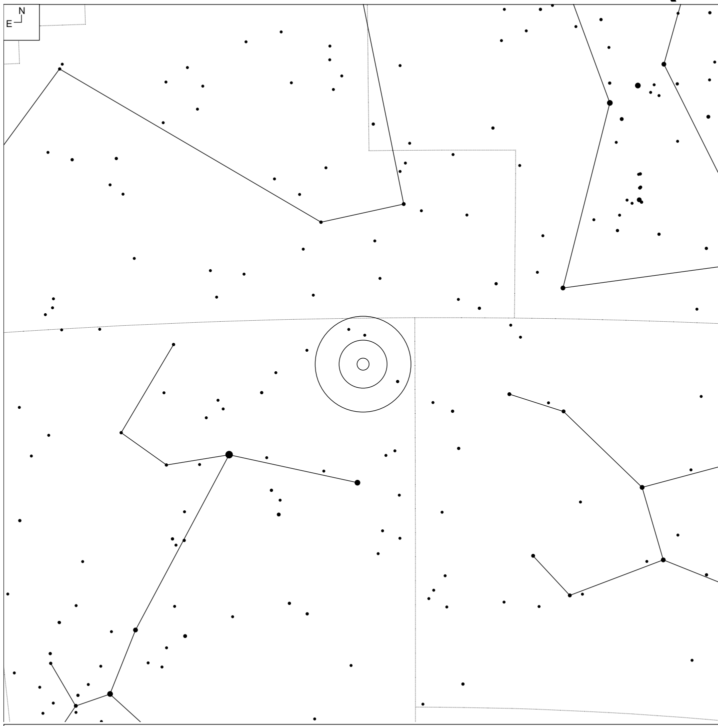


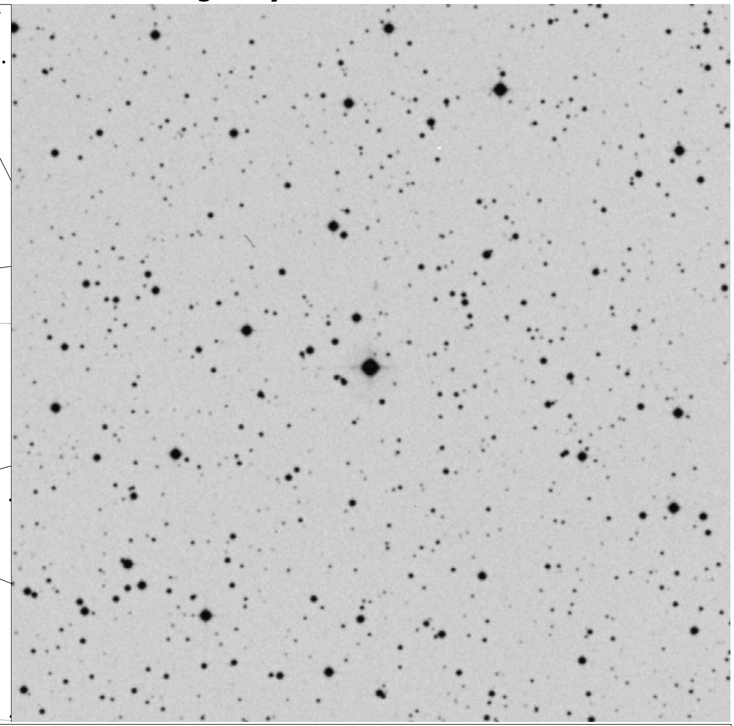


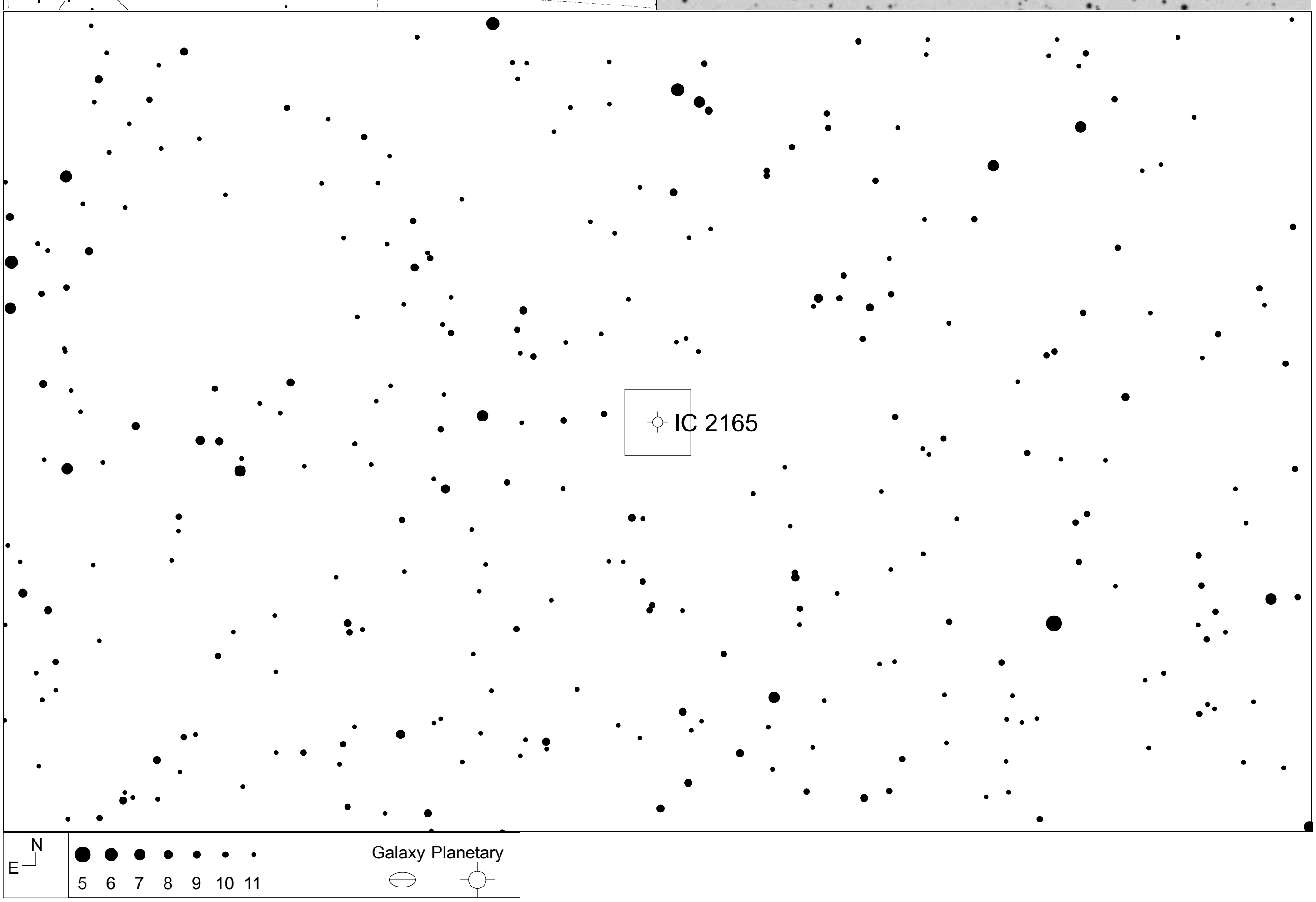


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 221+5.1	4	07 26 34.2	-05 21 52	14.8v	-	12”

IC 2165 (Canis Major)

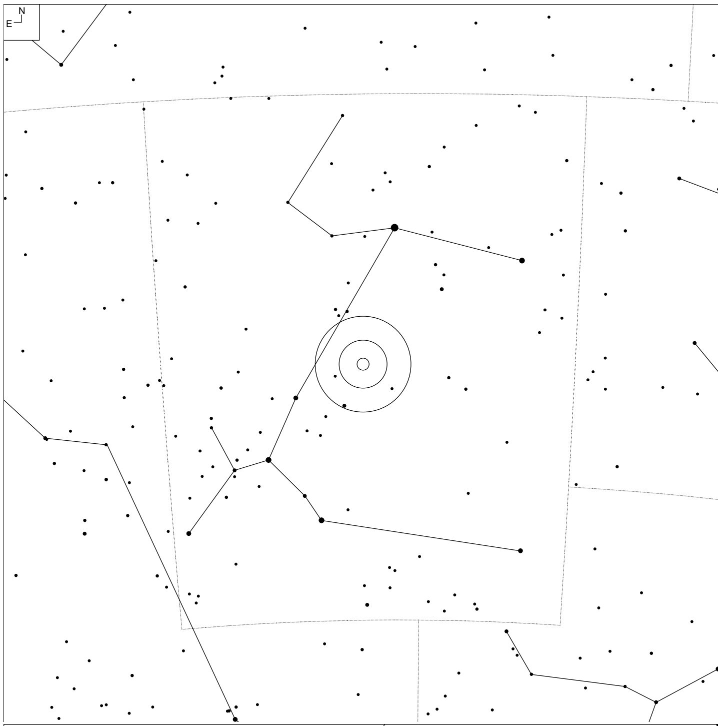


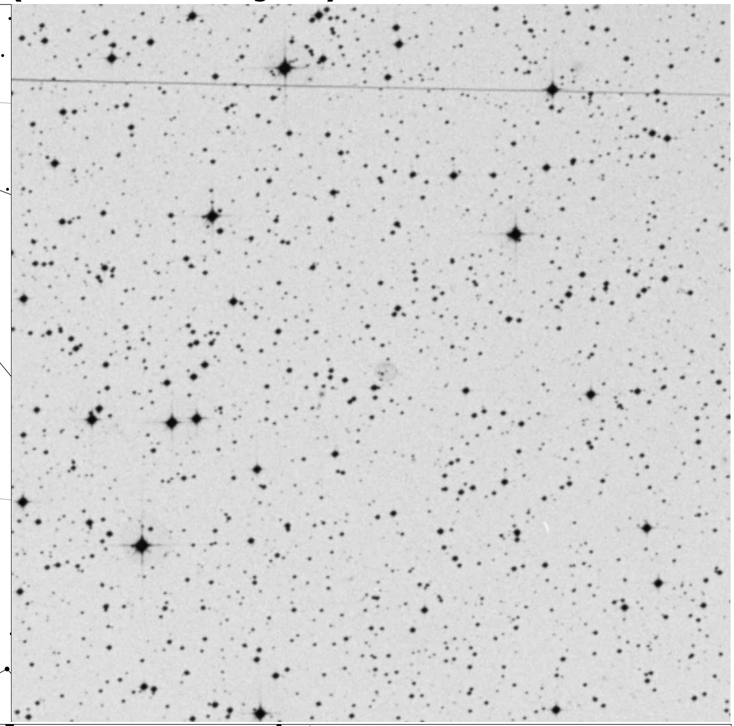


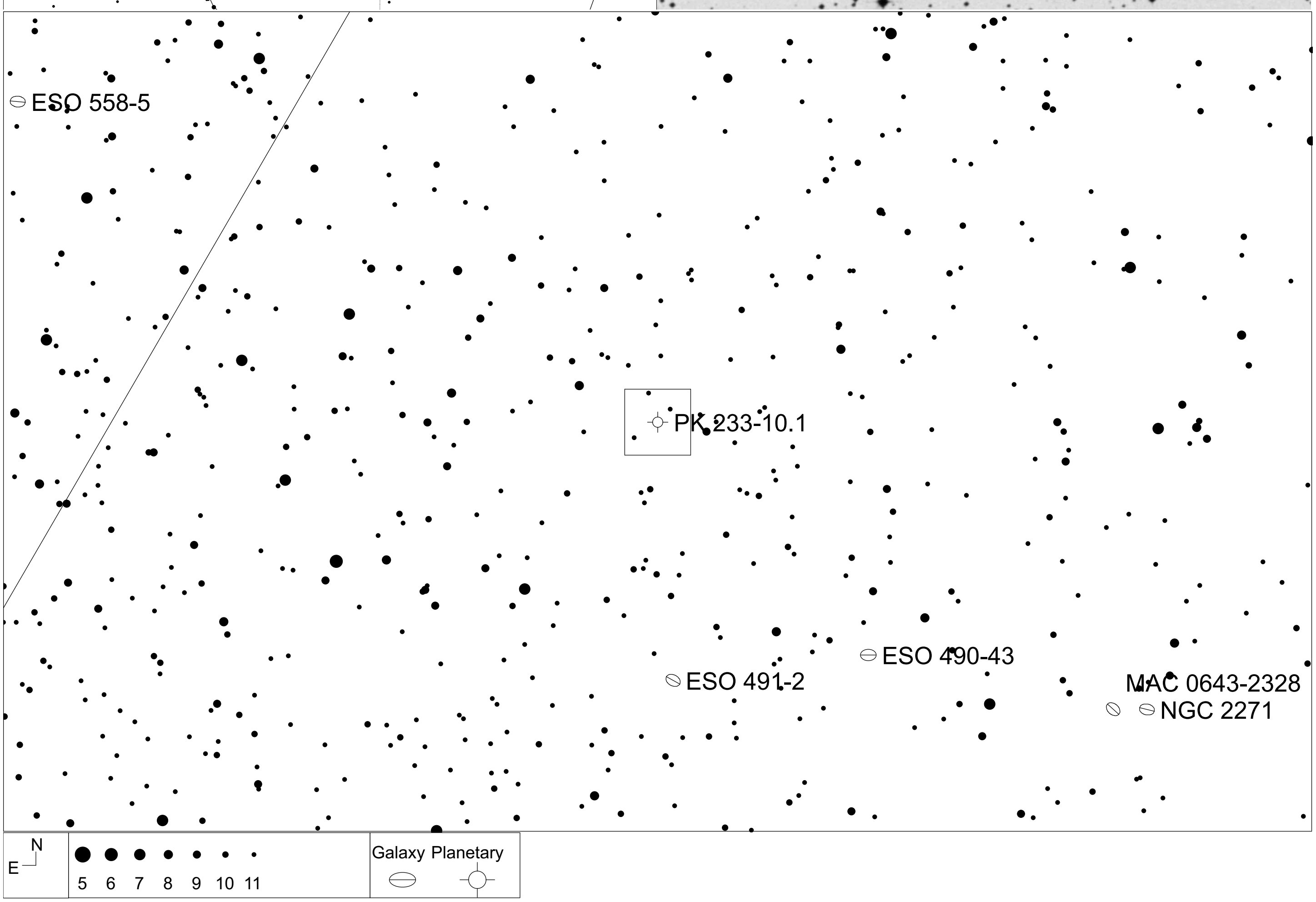


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 221-12.1	3b	06 21 42.7	-12 59 14	10.5v	17.9	9.0”

PK 233-10.1 (Canis Major)

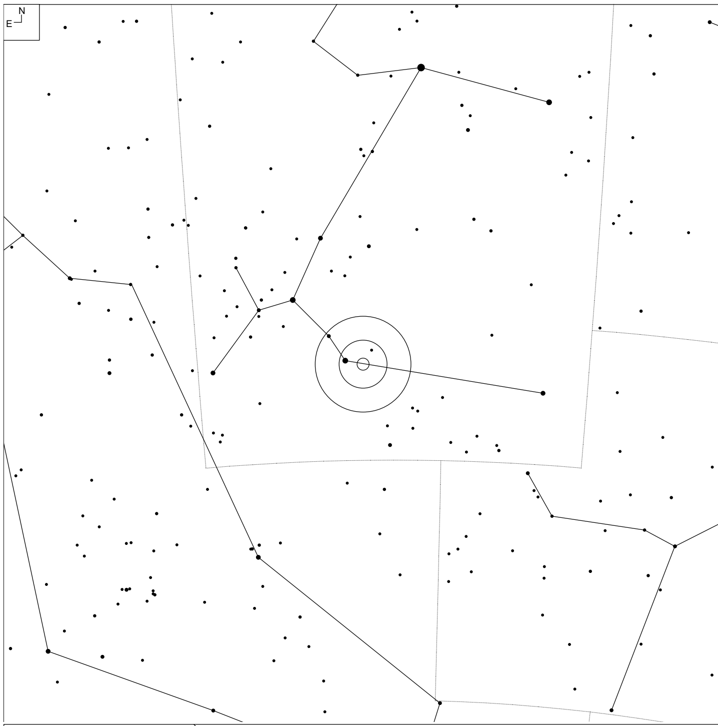


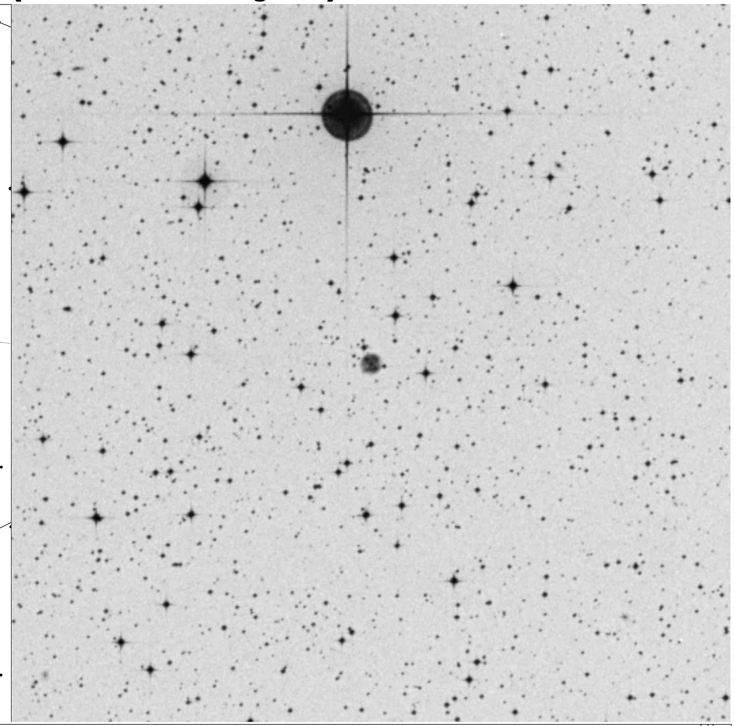


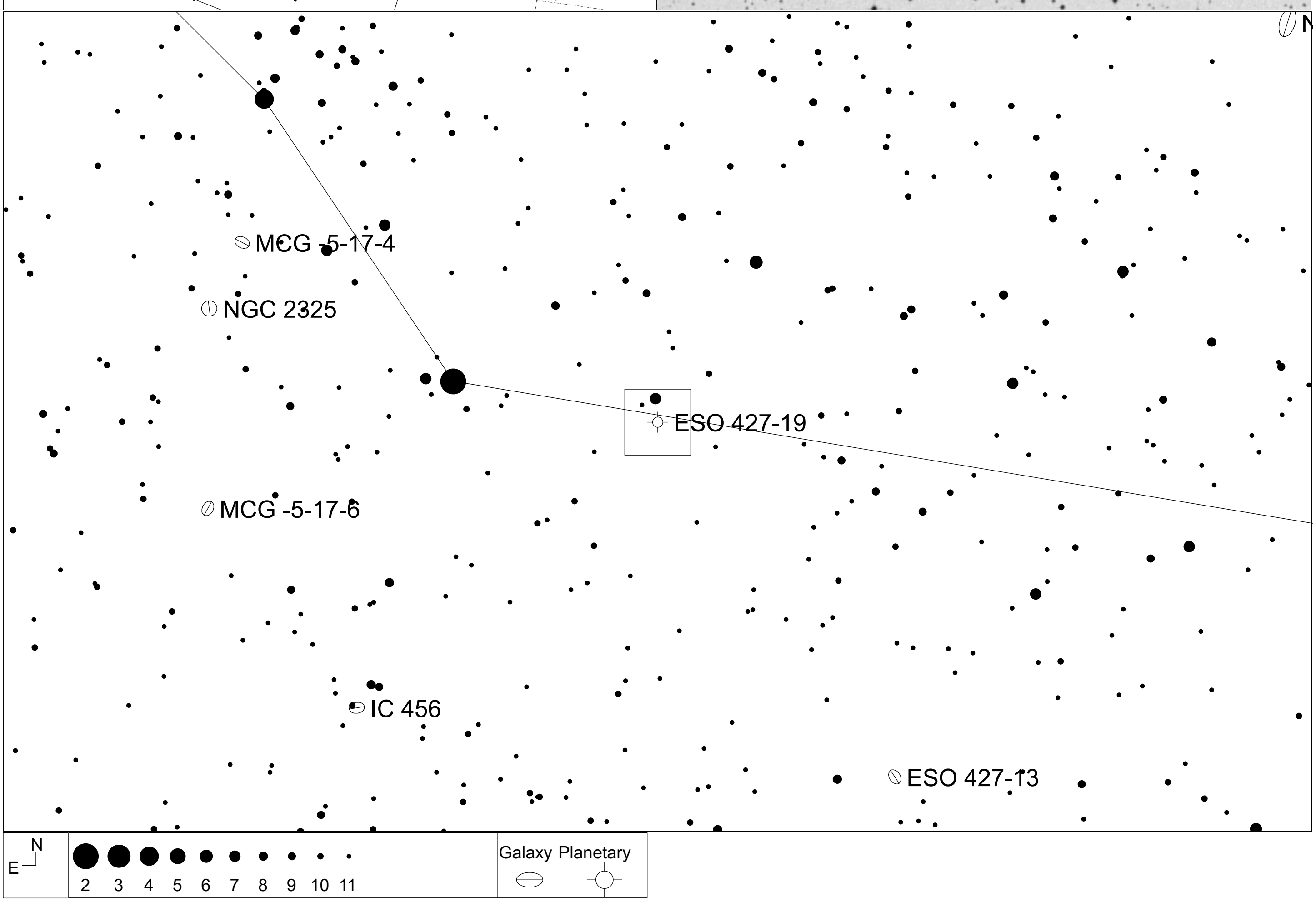


Other ID	Type	RA	Dec	Mag	* Mag	Size
-	4	06 50 40.7	-22 26 15	16.3p	-	55”

PK 239-12.1 (Canis Major)

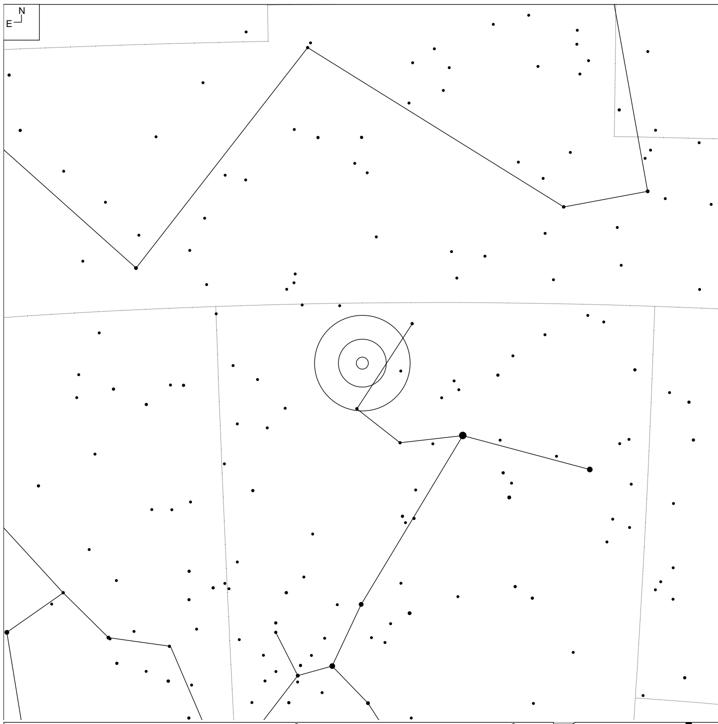


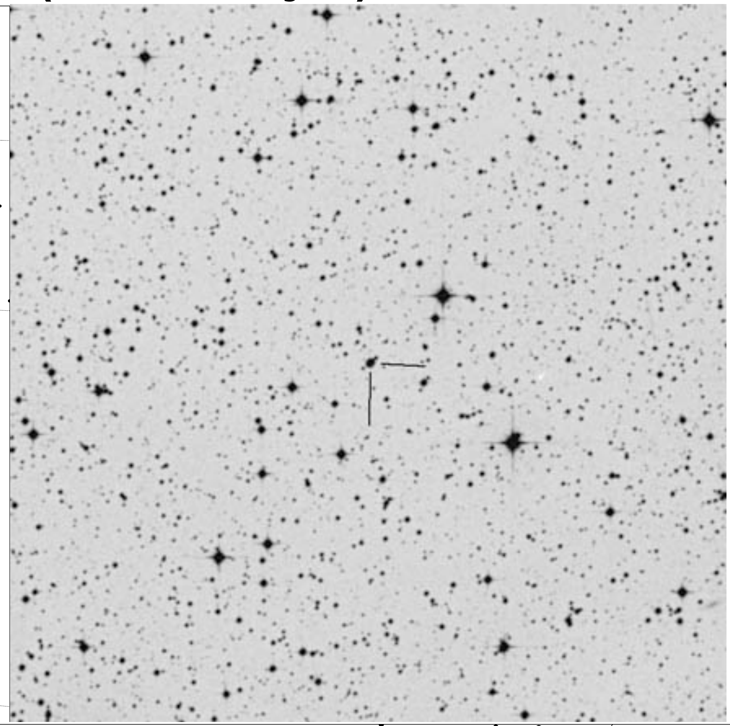


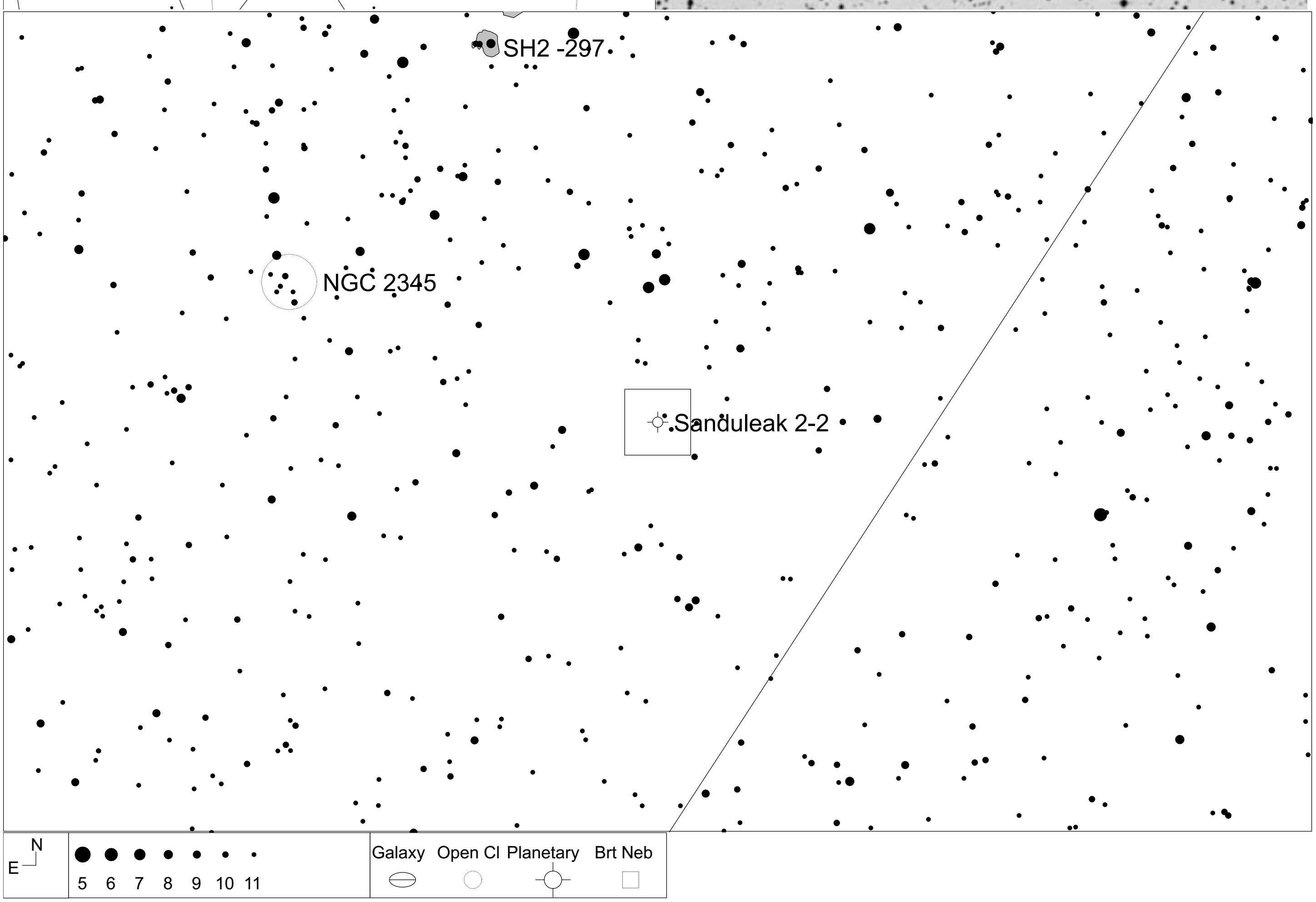


Other ID	Type	RA	Dec	Mag	* Mag	Size
ESO 427-19	-	06 55 12.3	-29 07 28	15.1p	19.0	24”

Sanduleak 2-2 (Canis Major)

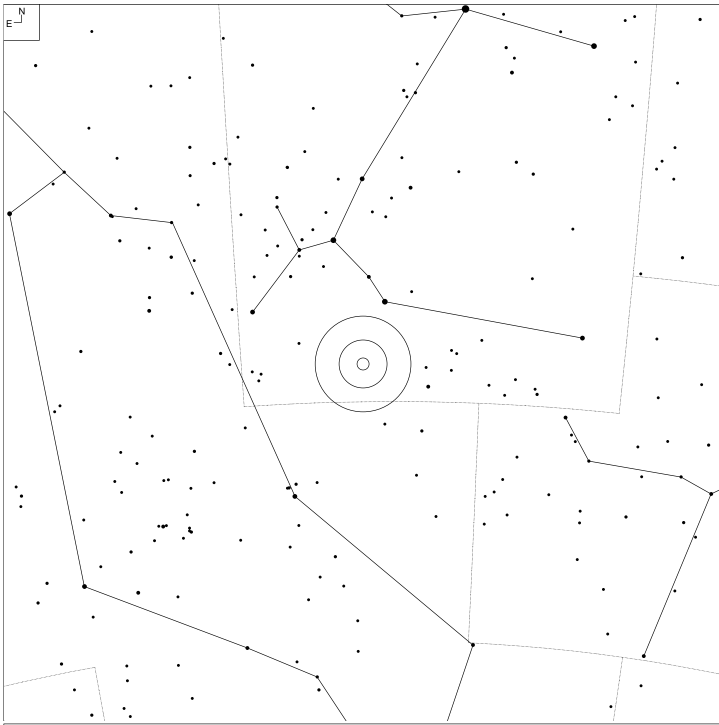


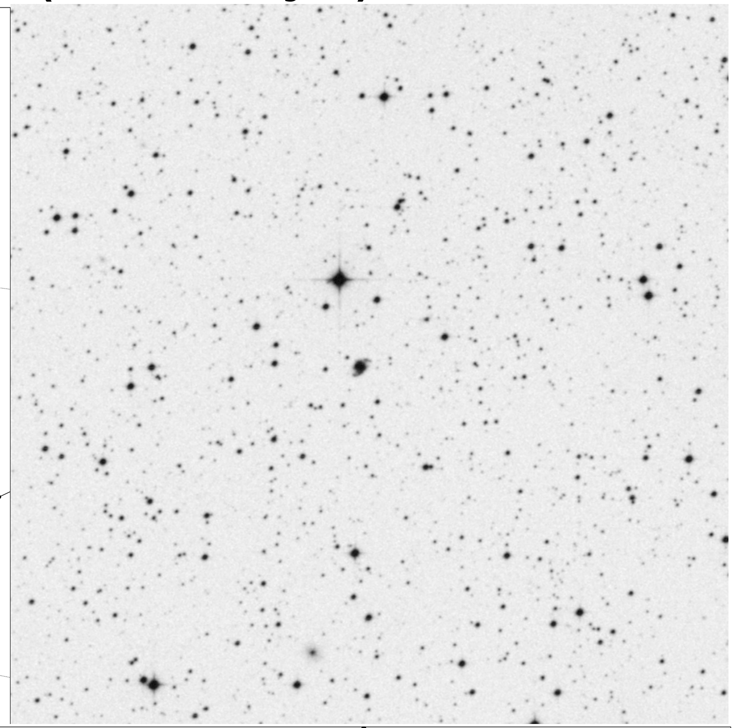


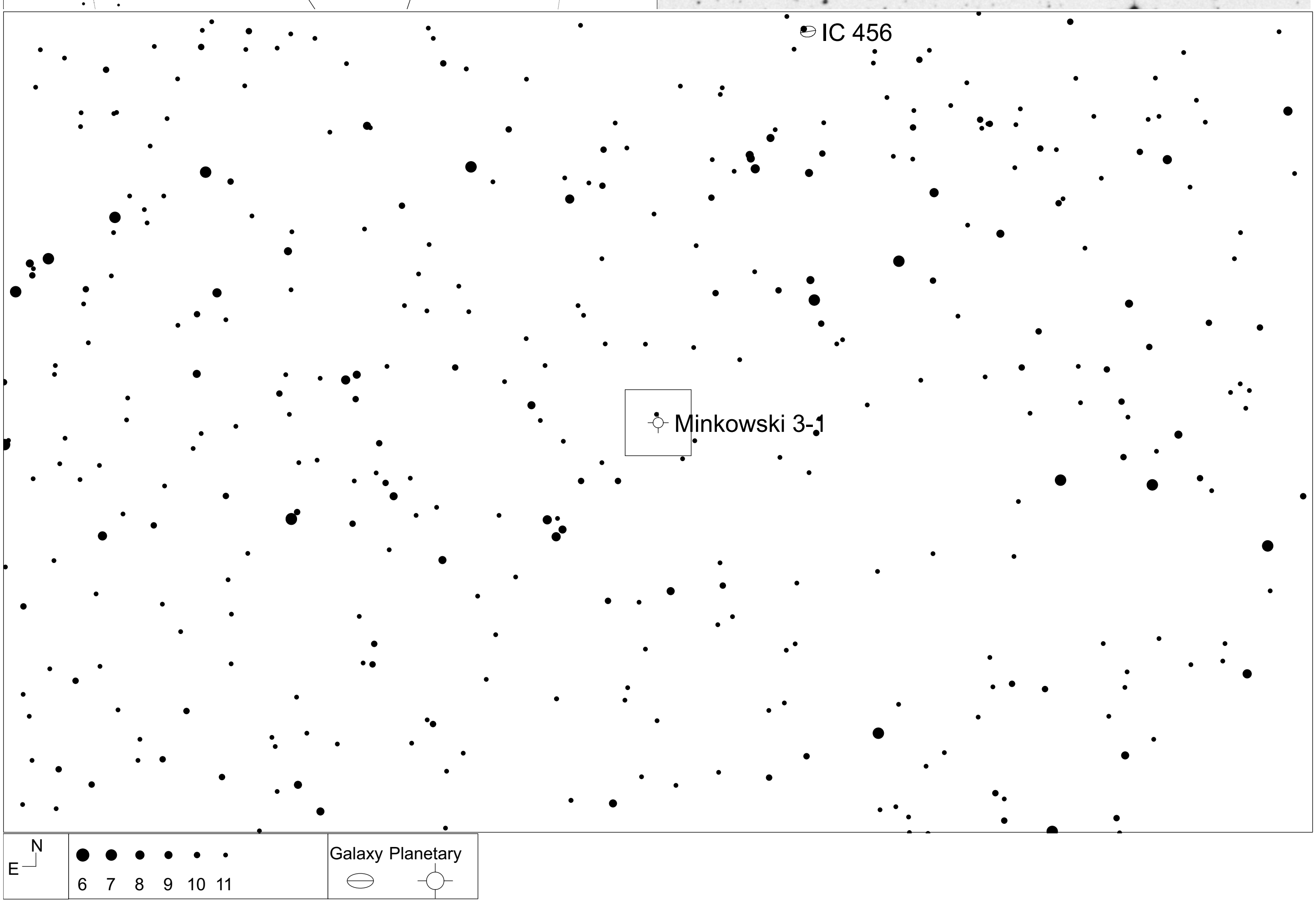


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 226-3.1	-	07 02 46.9	-13 42 37	13.3p	16.2	10”

Minkowski 3-1 (Canis Major)

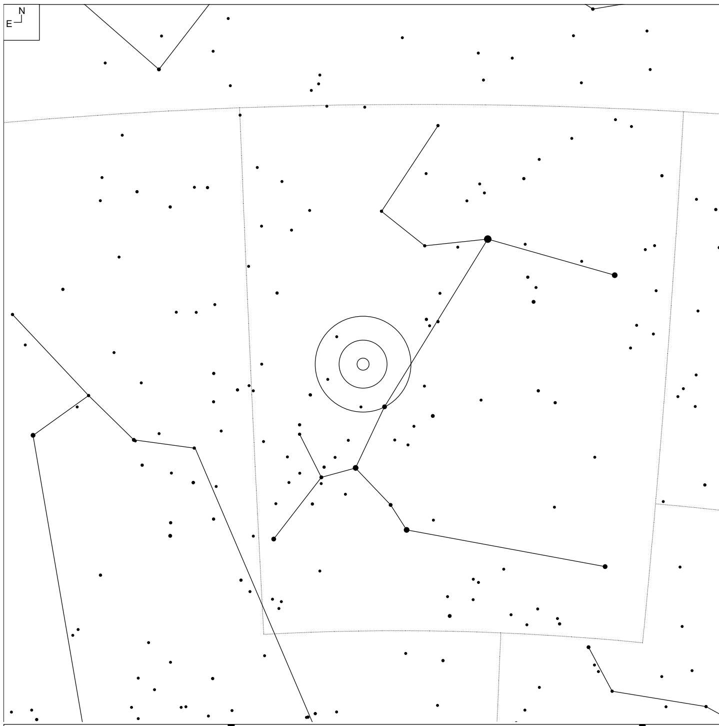


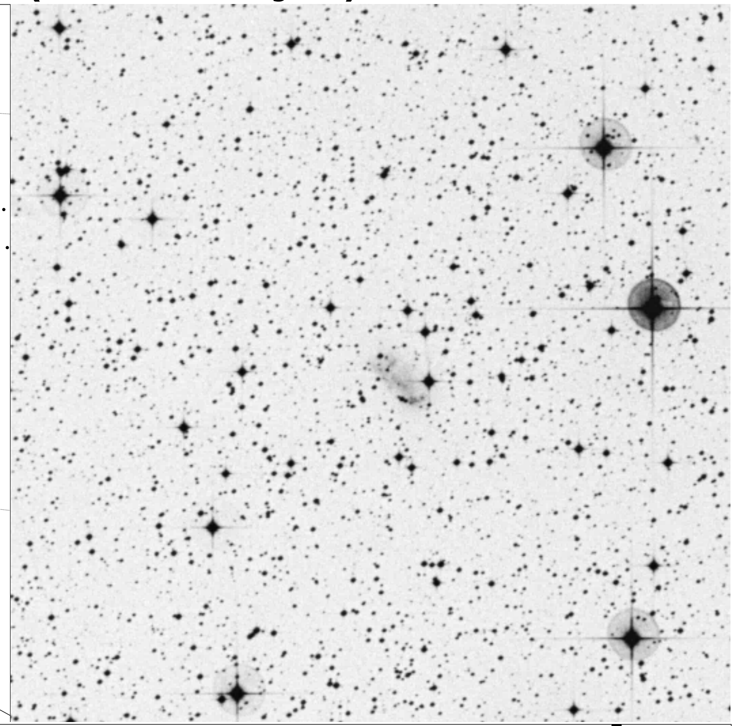


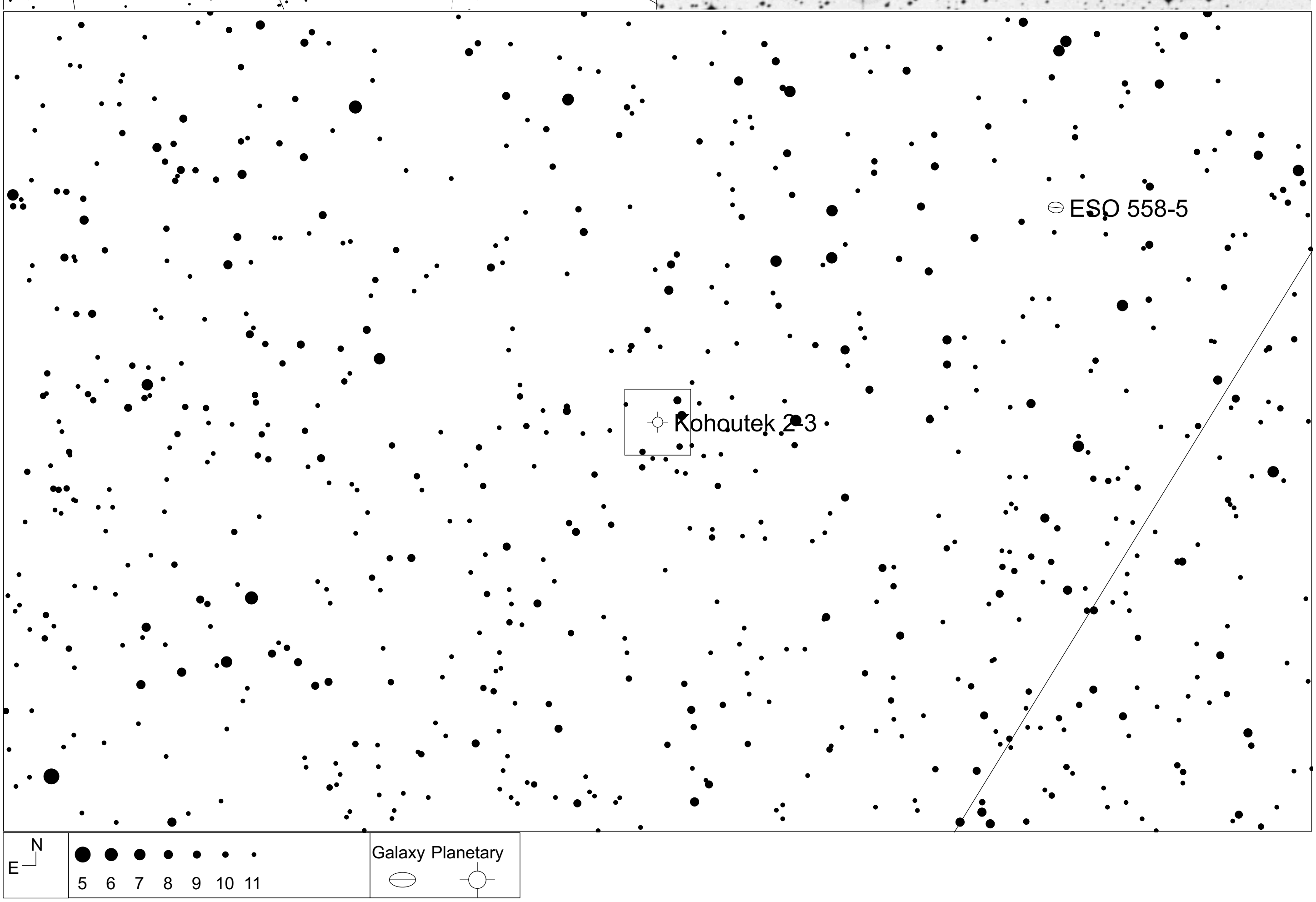


Other ID	Type	RA	Dec	Mag	* Mag	Size
Henize 2-1	?+6	07 02 49.8	-31 35 30	12.3v	15.5	30 x 20”

Kohoutek 2-3 (Canis Major)

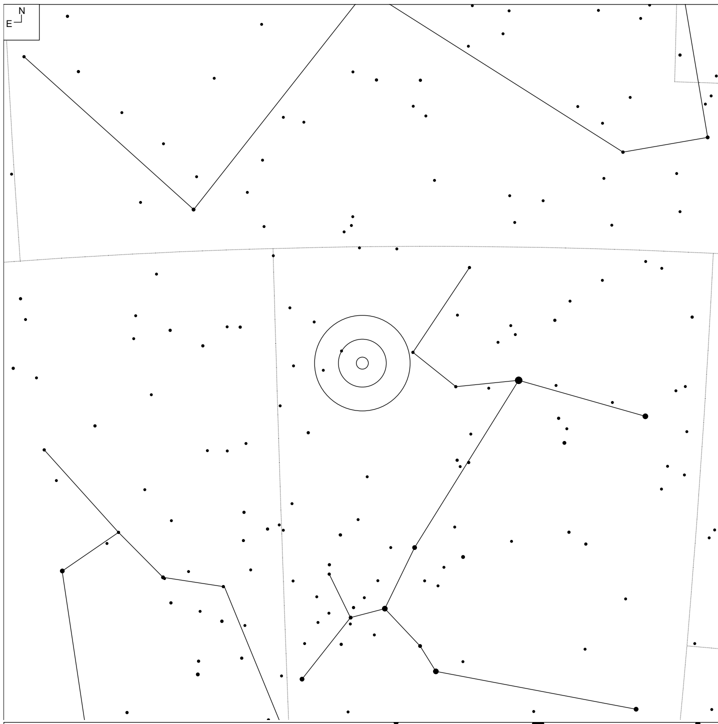


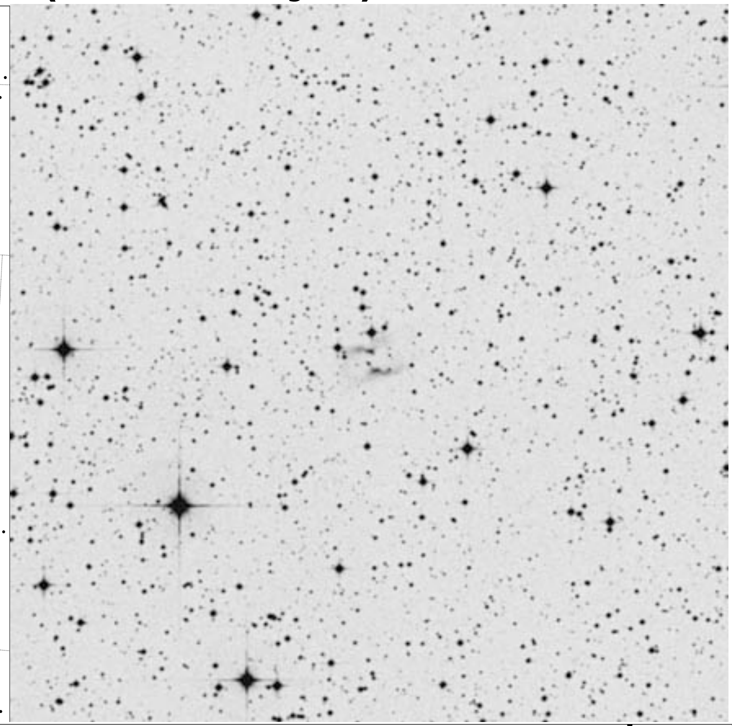


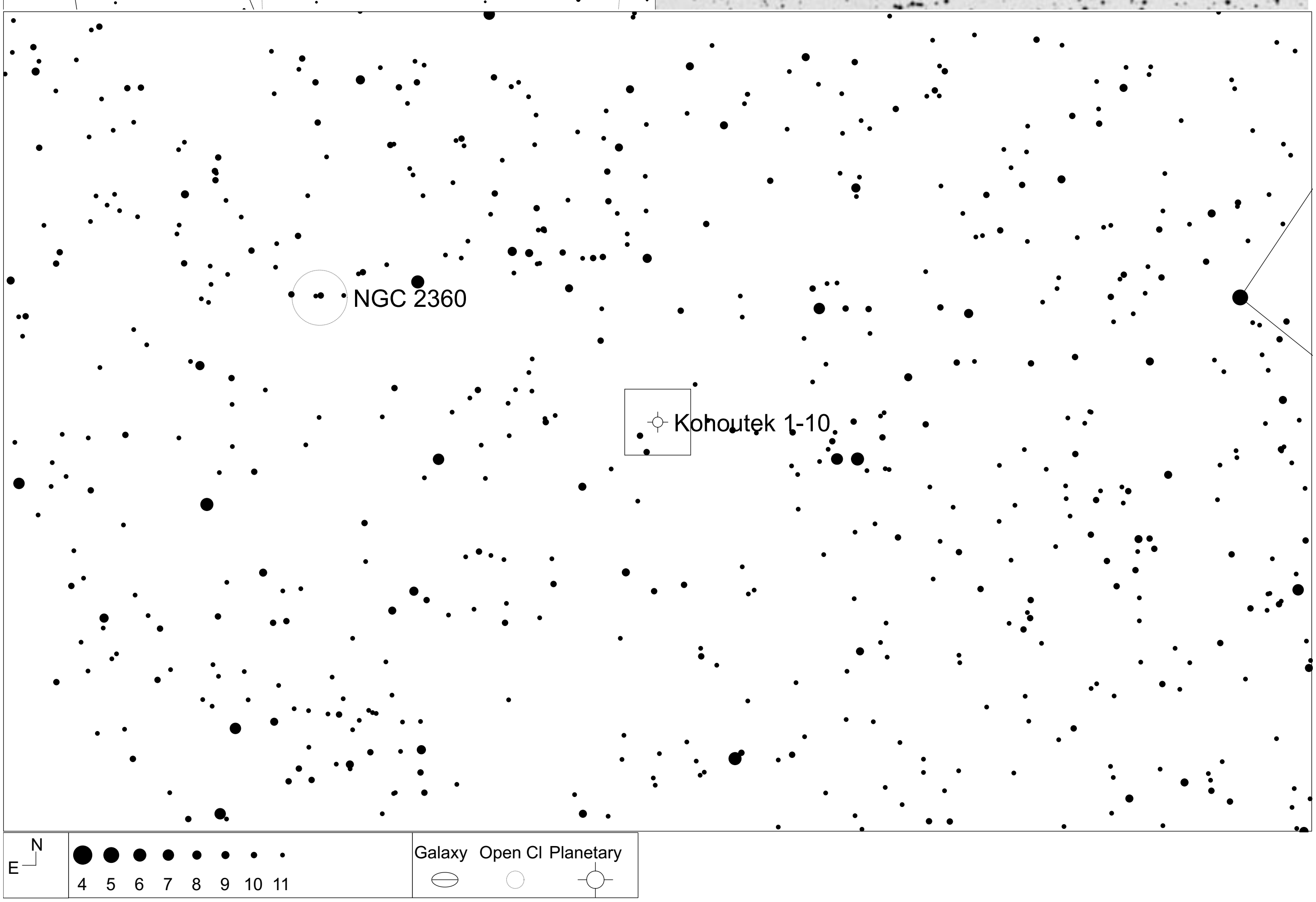


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 234-6.1	3	07 06 57.7	-22 02 21	14.5v	21.0	90 x 40”

Kohoutek 1-10 (Canis Major)

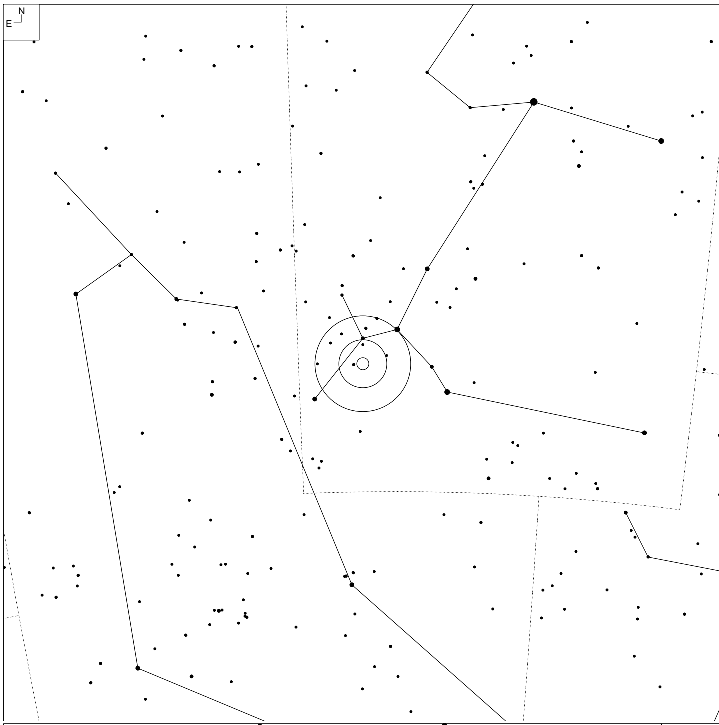


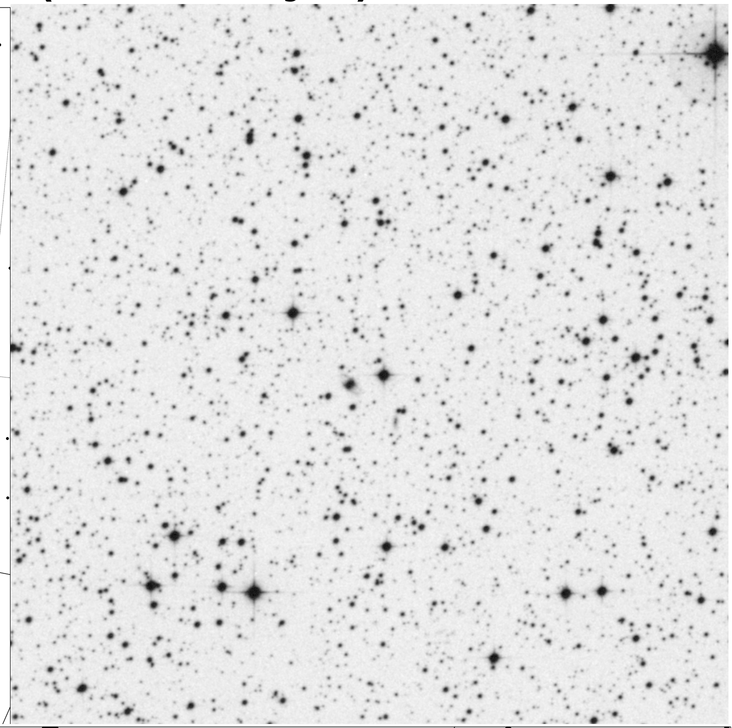


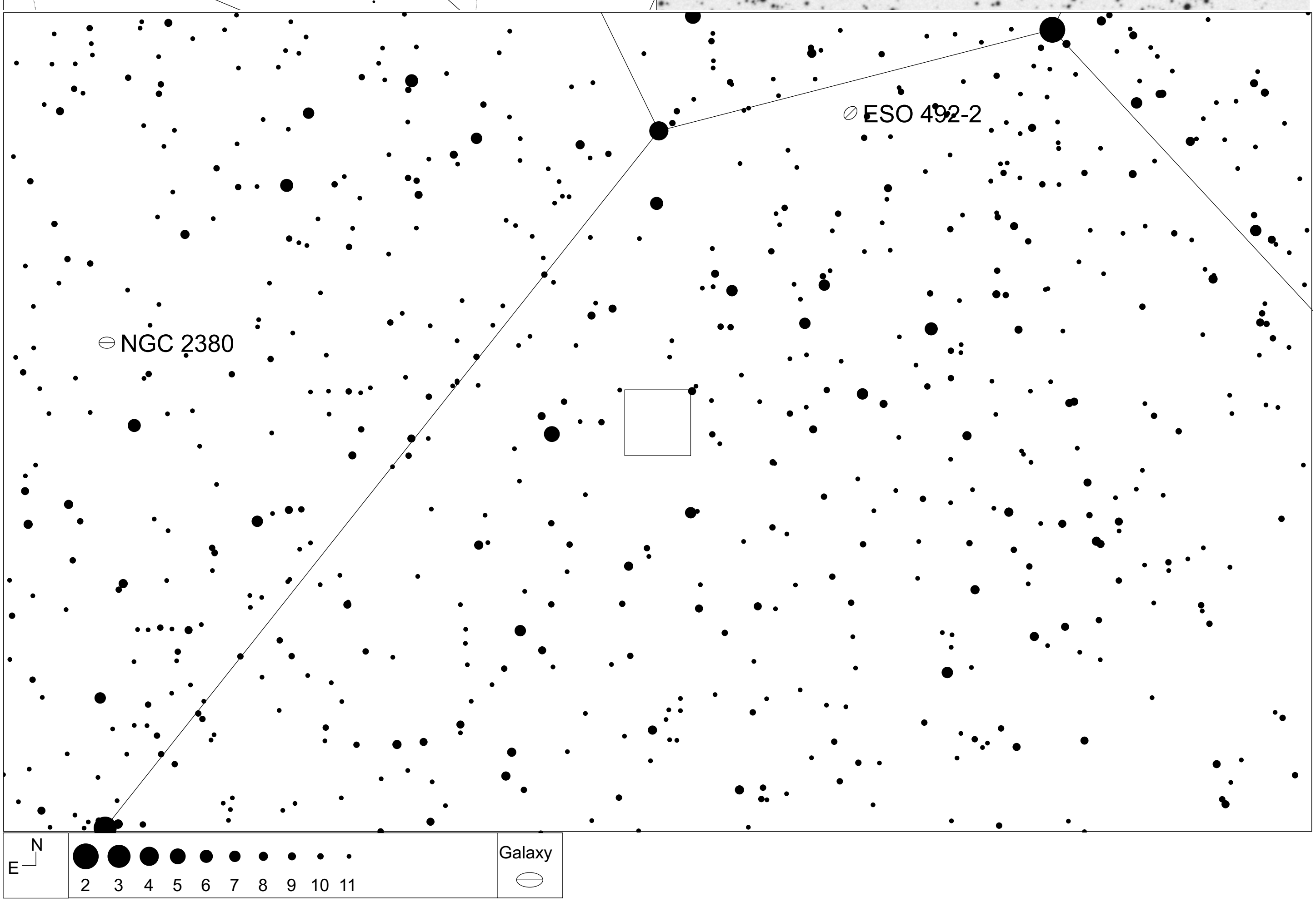


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 229.6-2.7	3b	07 12 35.9	-16 06 02	-	21.0	90 x 54”

Minkowski 3-2 (Canis Major)

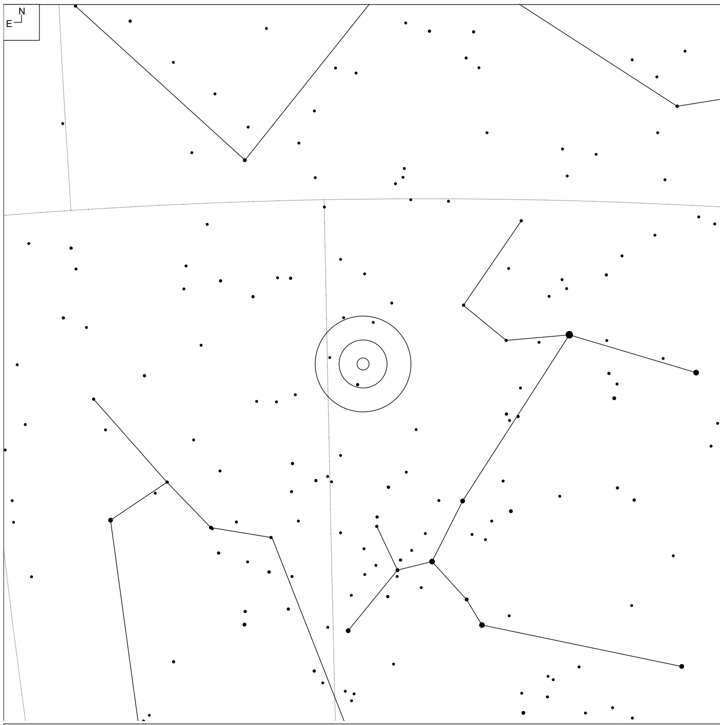


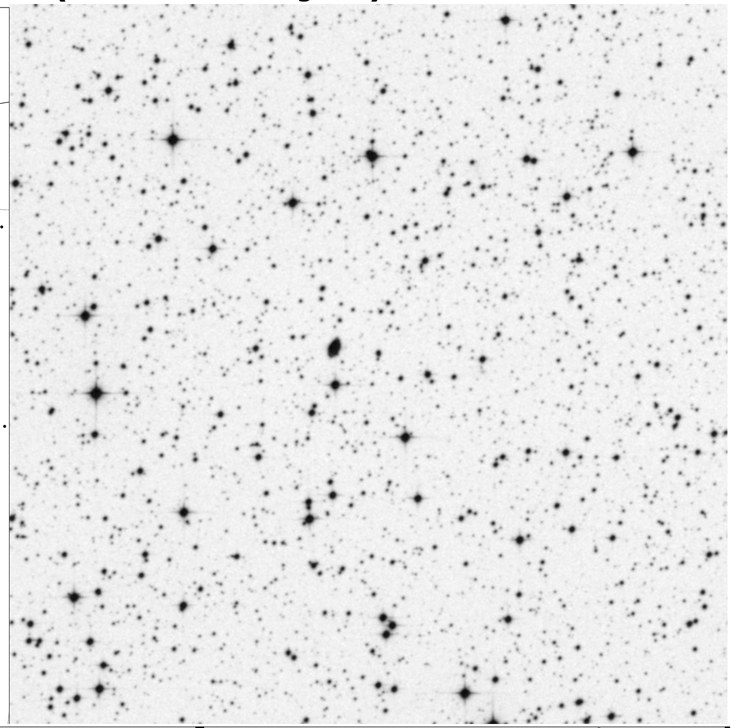


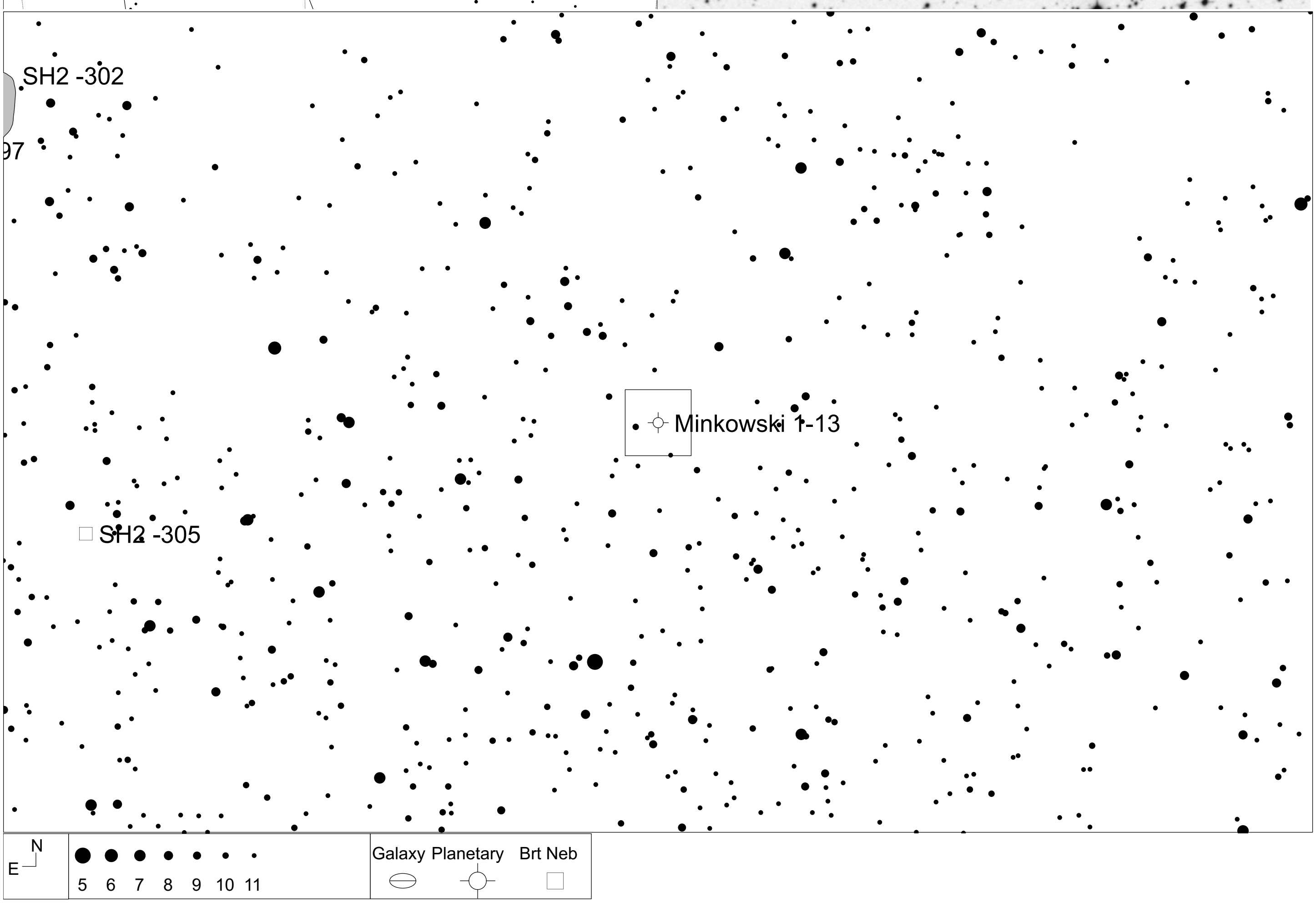


Other ID	Type	RA	Dec	Mag	* Mag	Size
Henize 2-2	3b	07 14 49.8	-27 50 24	14.7v	21.1	8”

Minkowski 1-13 (Canis Major)

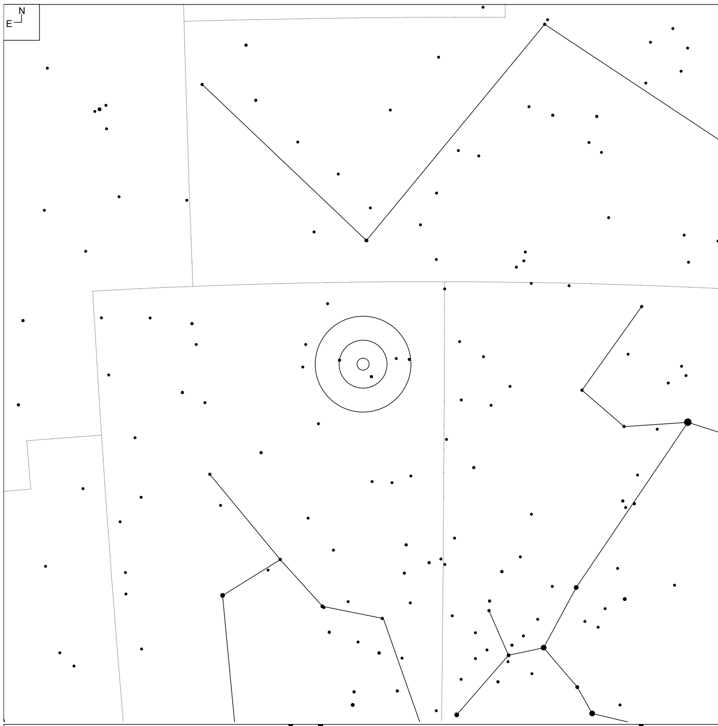


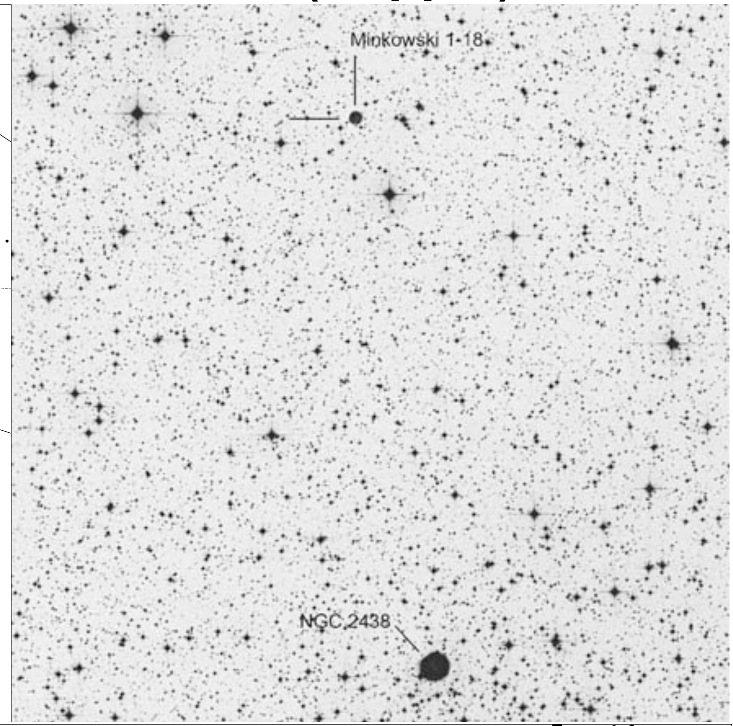


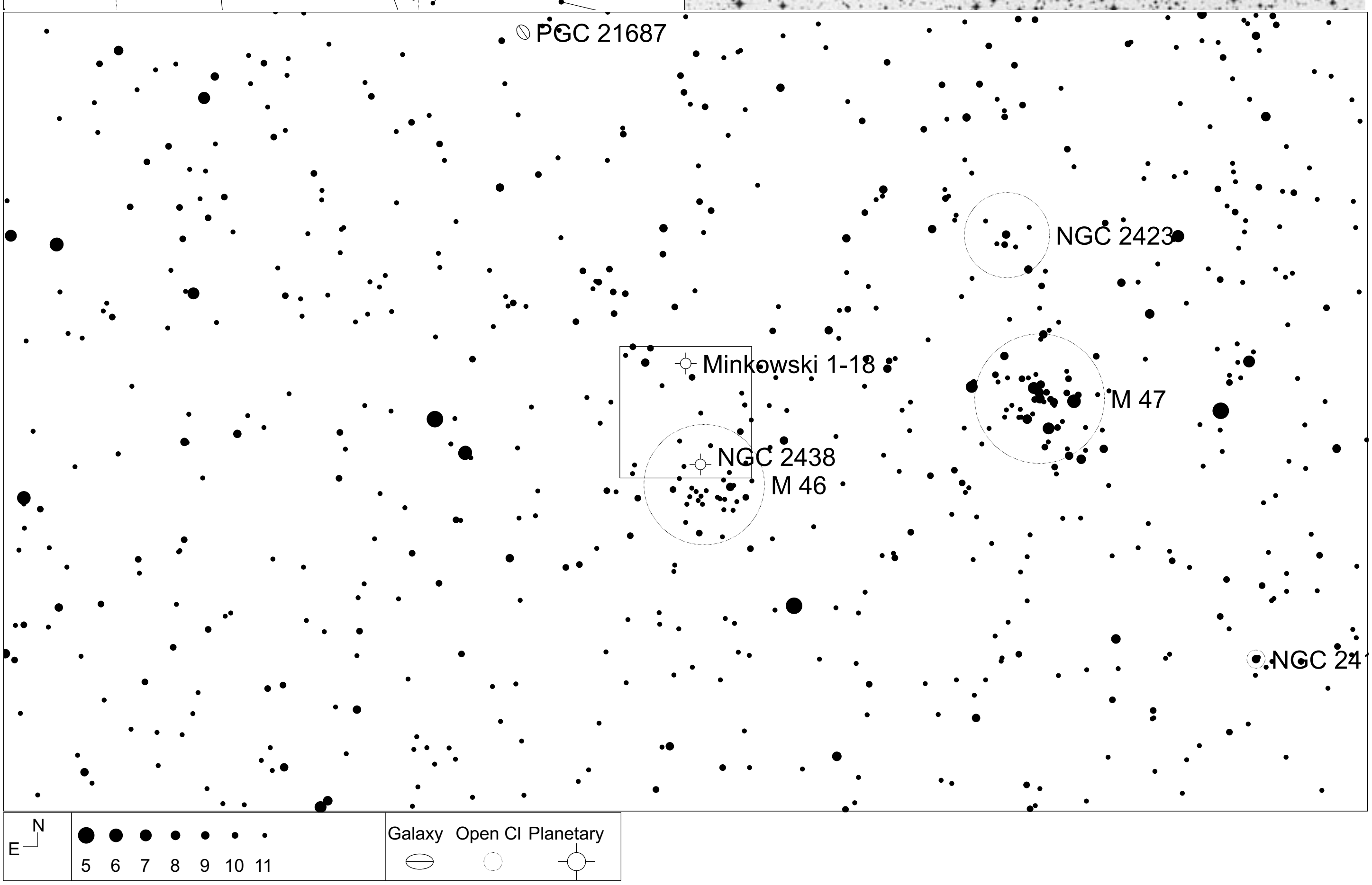


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 232-1.1	-	07 21 14.9	-18 08 37	12.6v	-	42x30”

NGC 2438 and Minkowski 1-18 (Puppis)

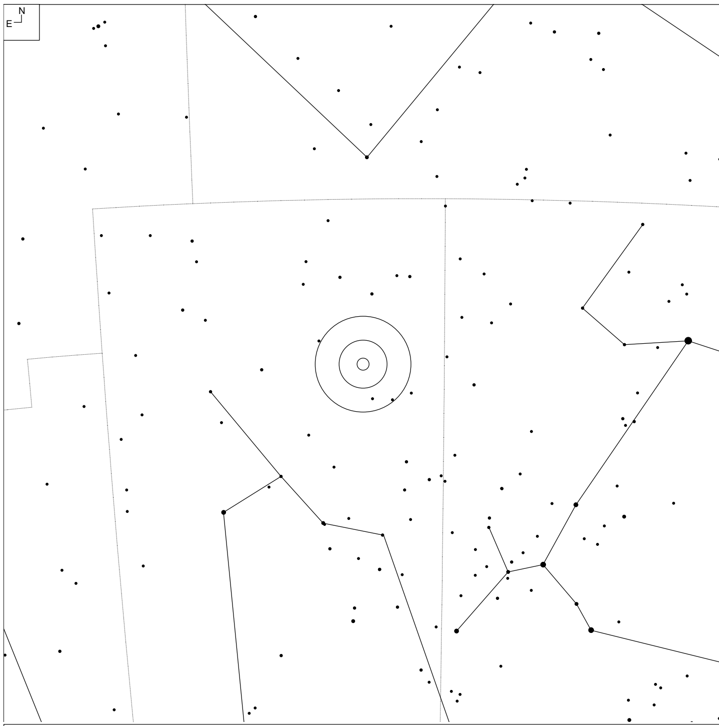


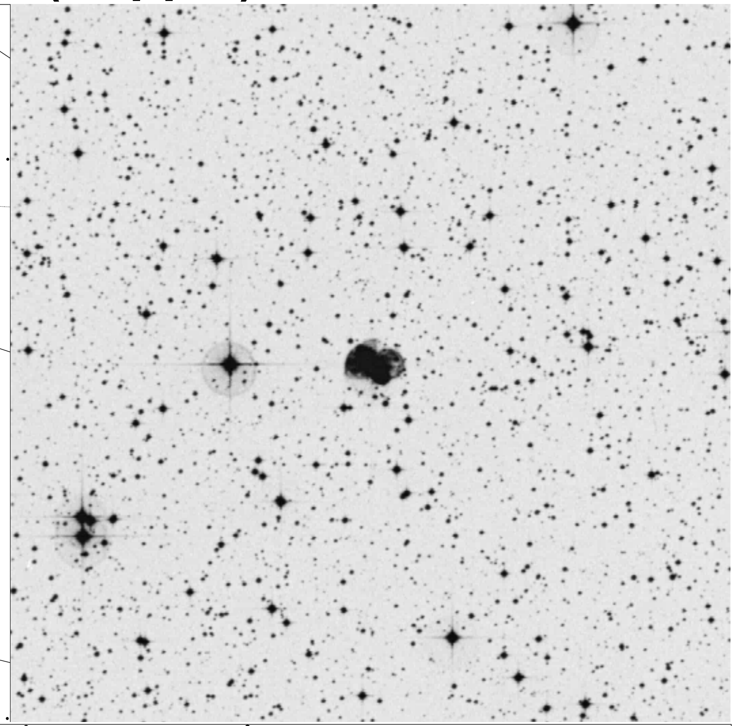


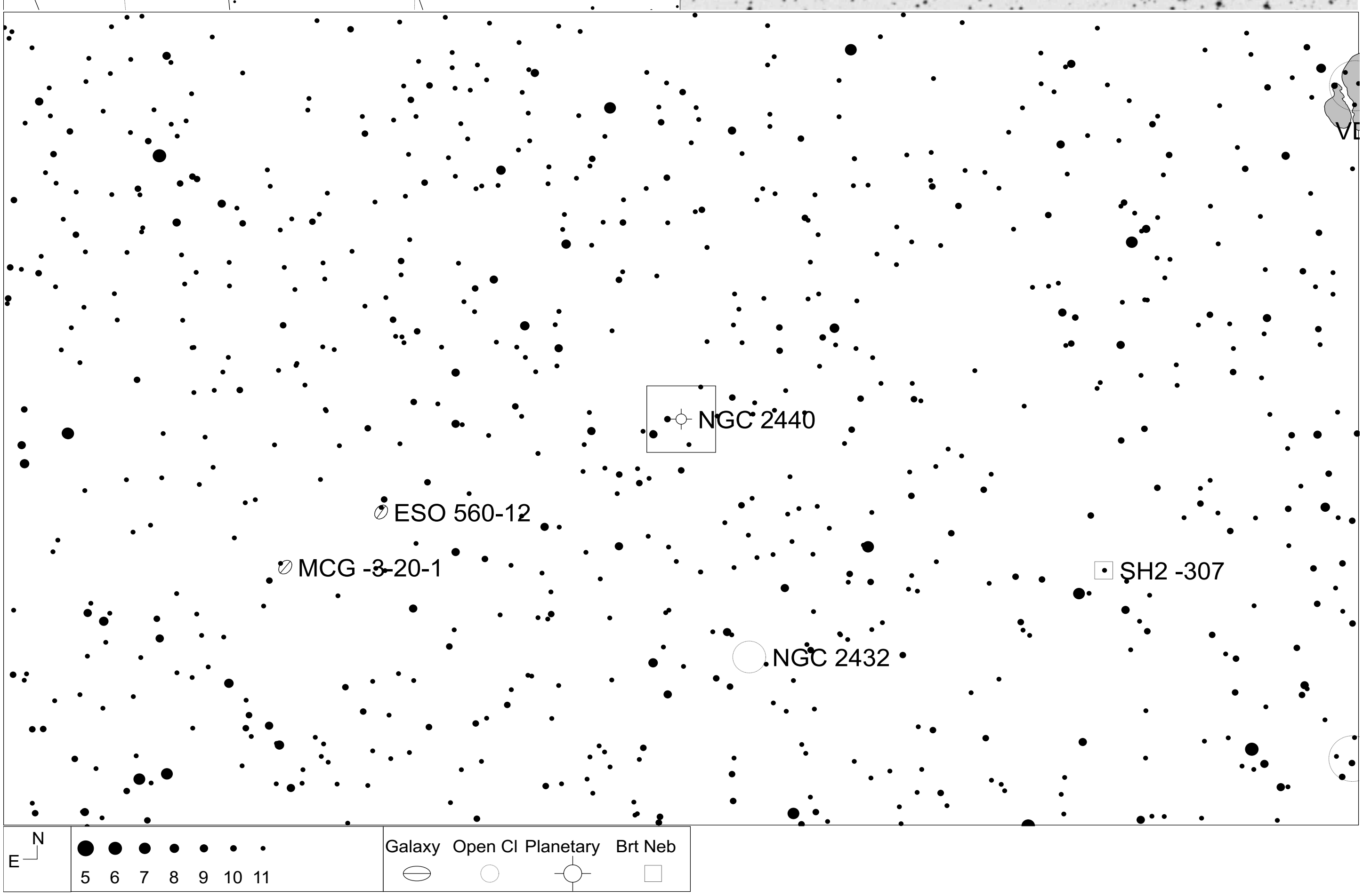


ID	Type	RA	Dec	Mag	* Mag	Size
NGC 2438	4+2	07 41 50.4	-14 44 06	10.8v	17.7	64”
Minkowski 1-18	2b	07 42 04.2	-14 21 19	15.0v	20.9	32”

NGC 2440 (Puppis)



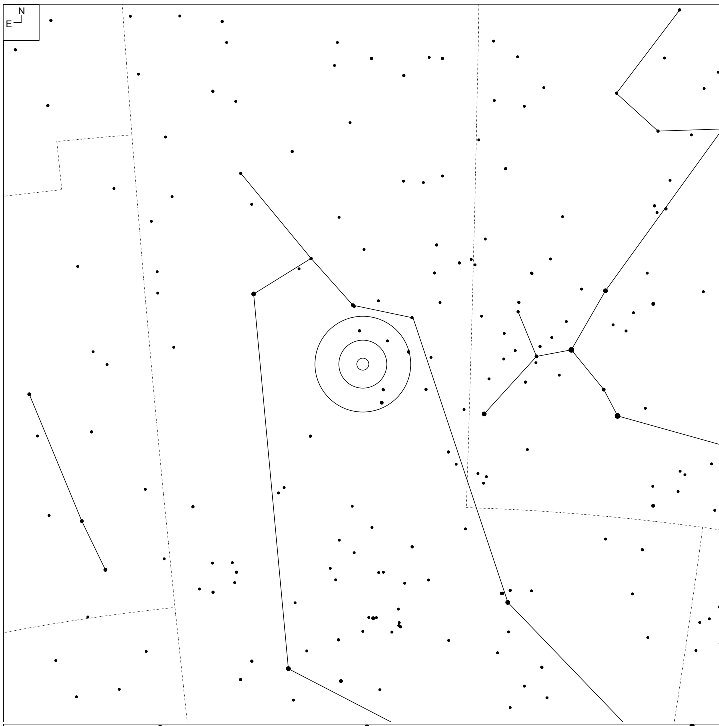


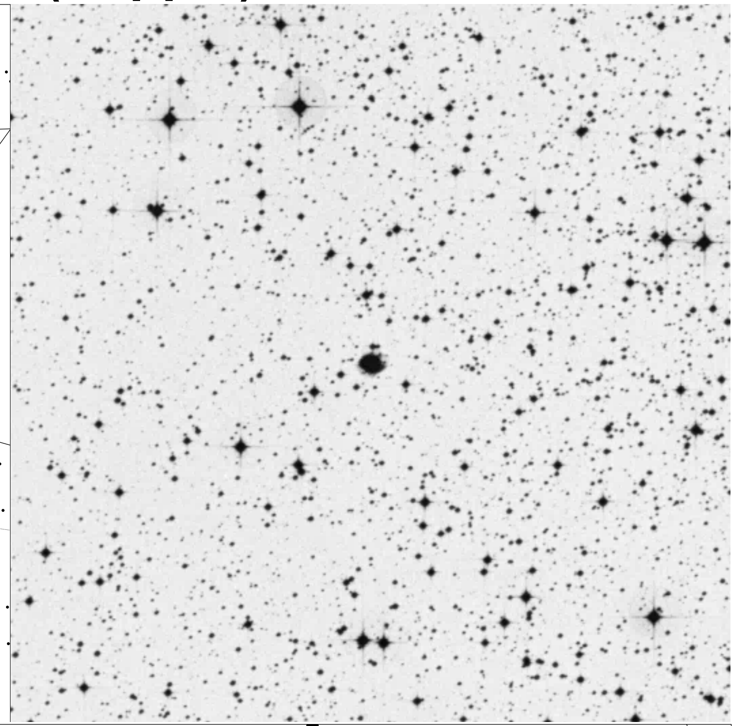


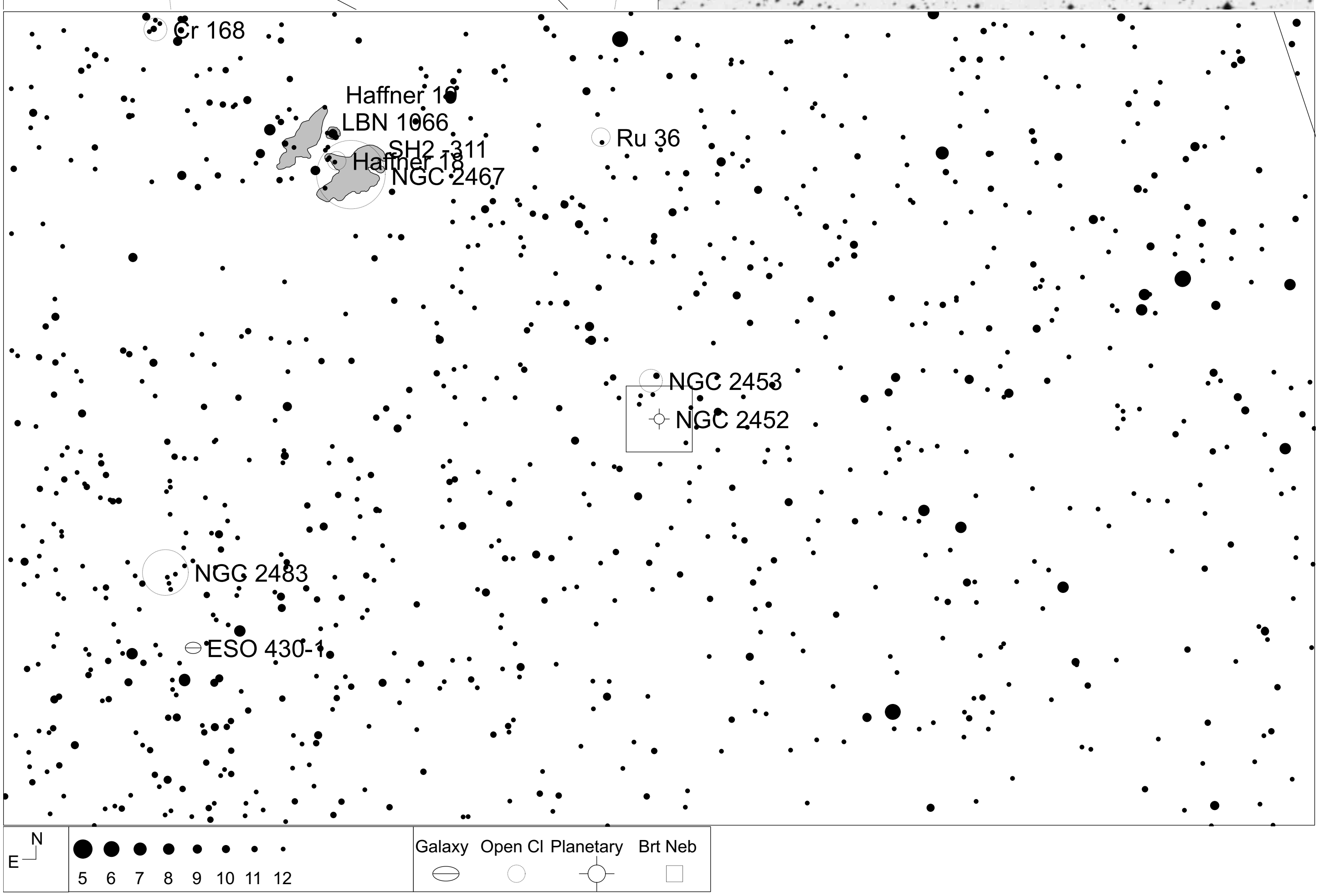
Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 234+2.1	5+3	07 41 55.4	-18 12 31	9.4v	17.6	70”

Bipolar halo requires large aperture and magnification to show structure.

NGC 2452 (Puppis)

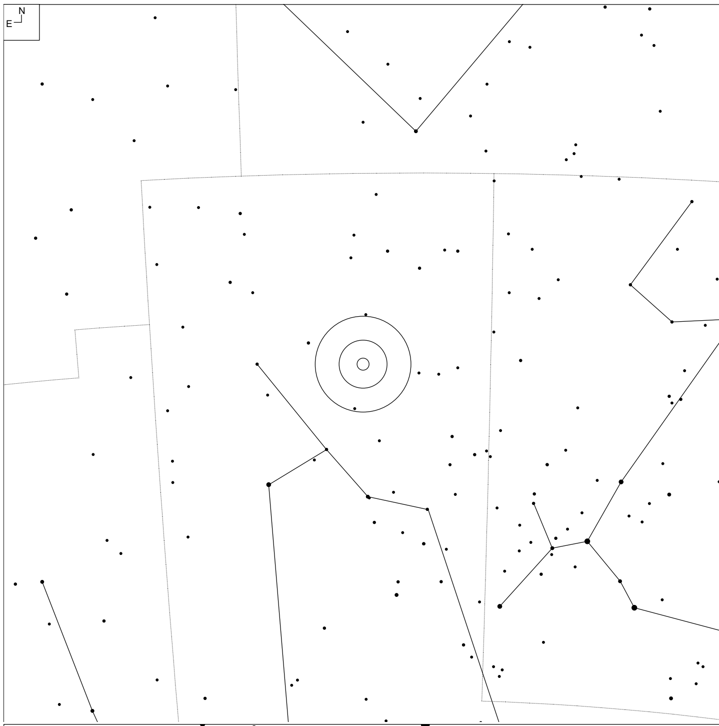


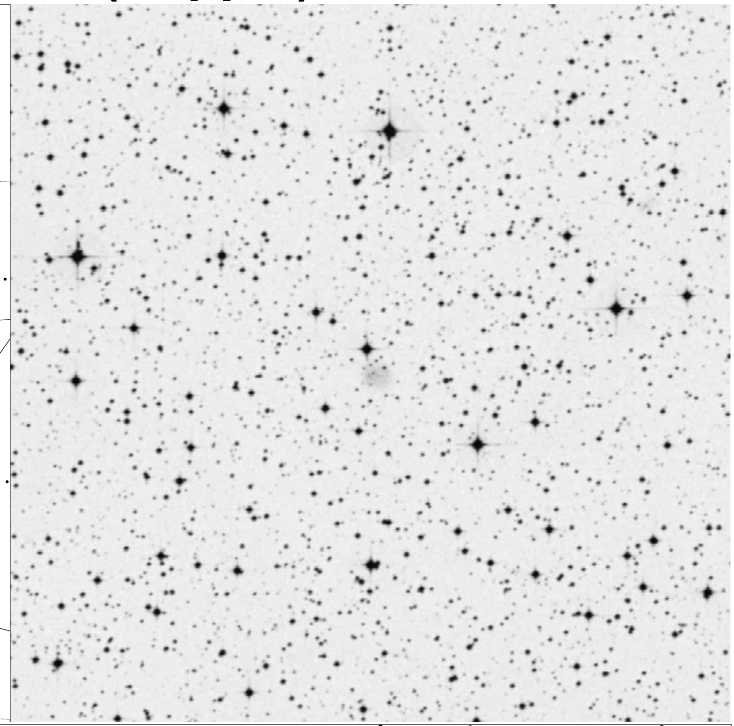


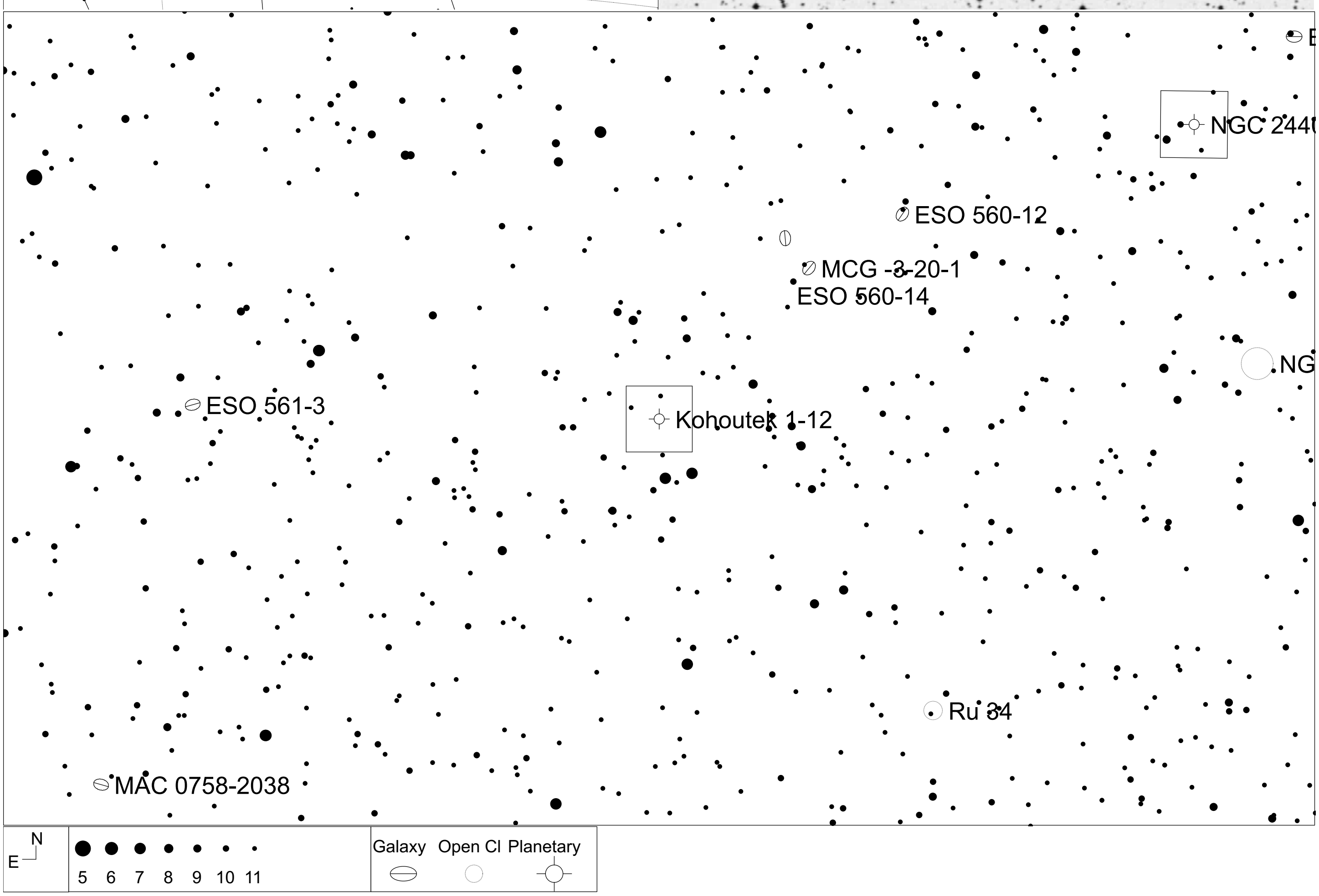


Other ID	Type	RA	Dec	Mag	* Mag	Size
Henize 2-4	4+3	07 47 26.5	-27 20 09	12.0v	17.7	30”

Kohoutek 1-12 (Puppis)

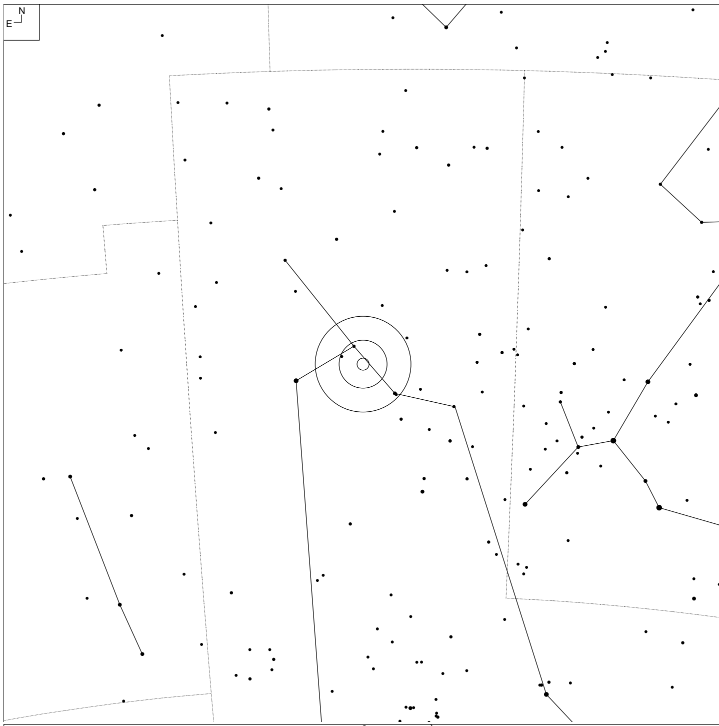


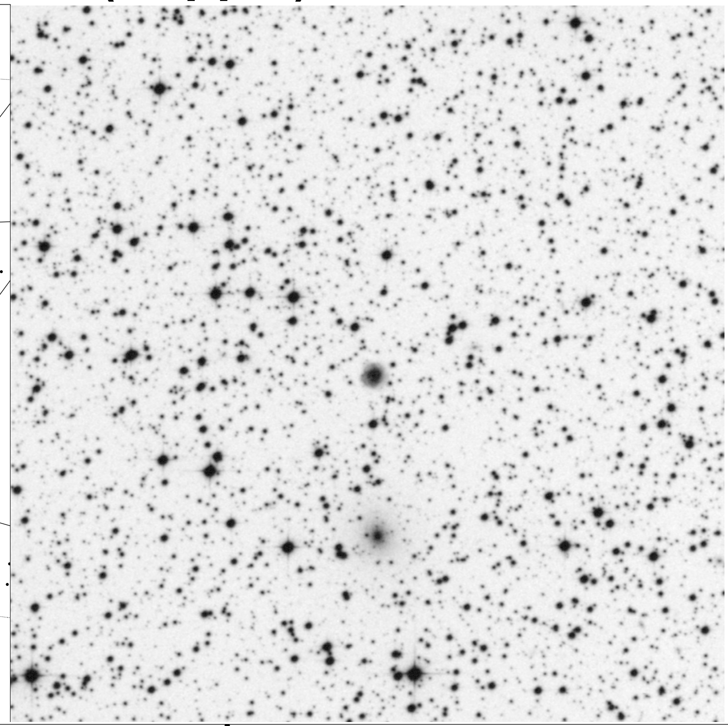


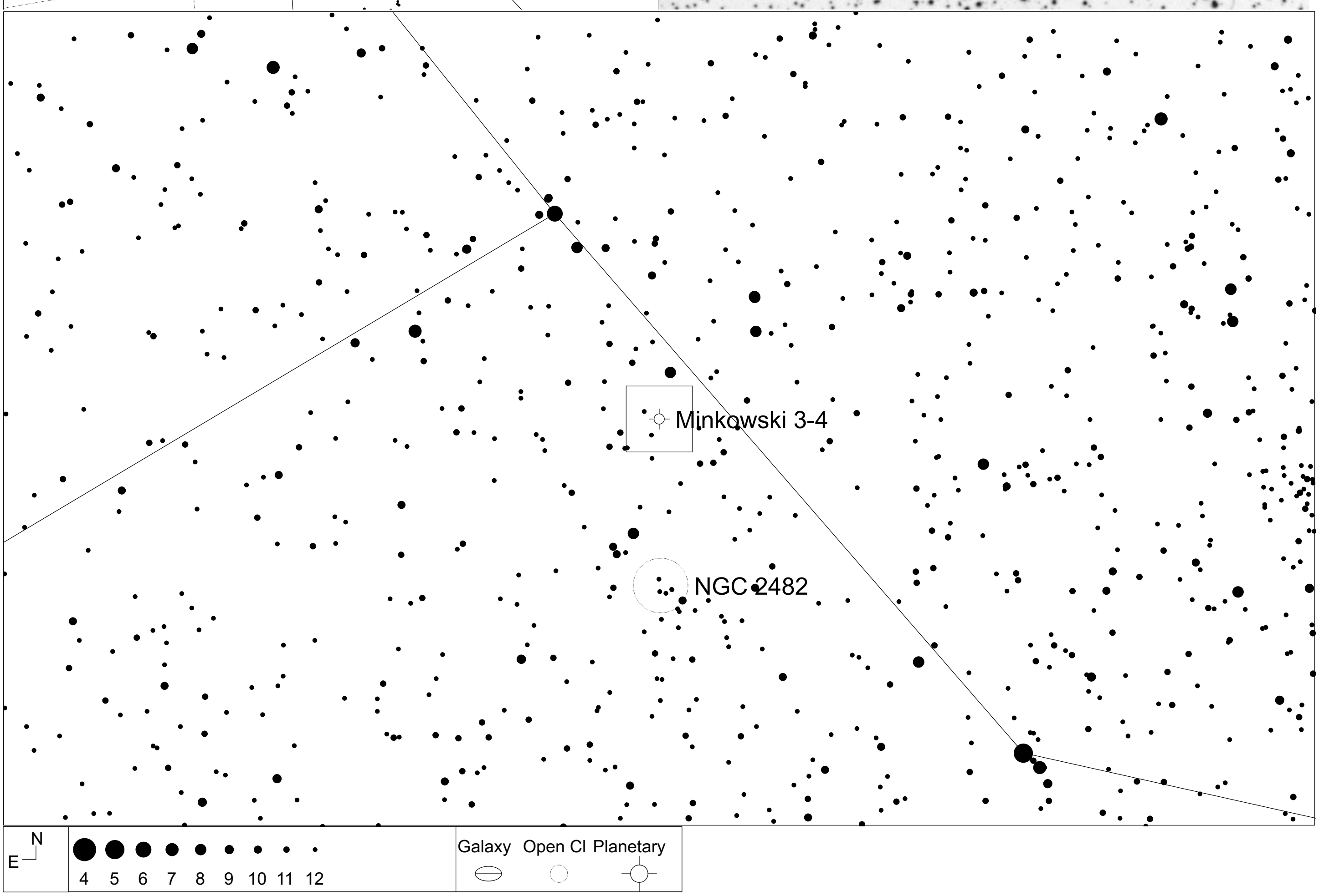


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 236+3.1	2	07 50 11.6	-19 18 16	15.9p	21.0	42”

Minkowski 3-4 (Puppis)

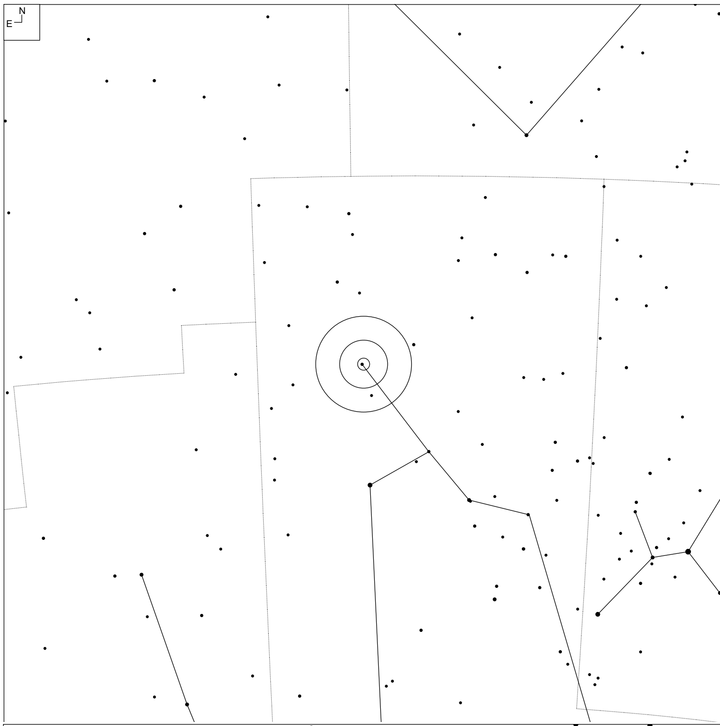


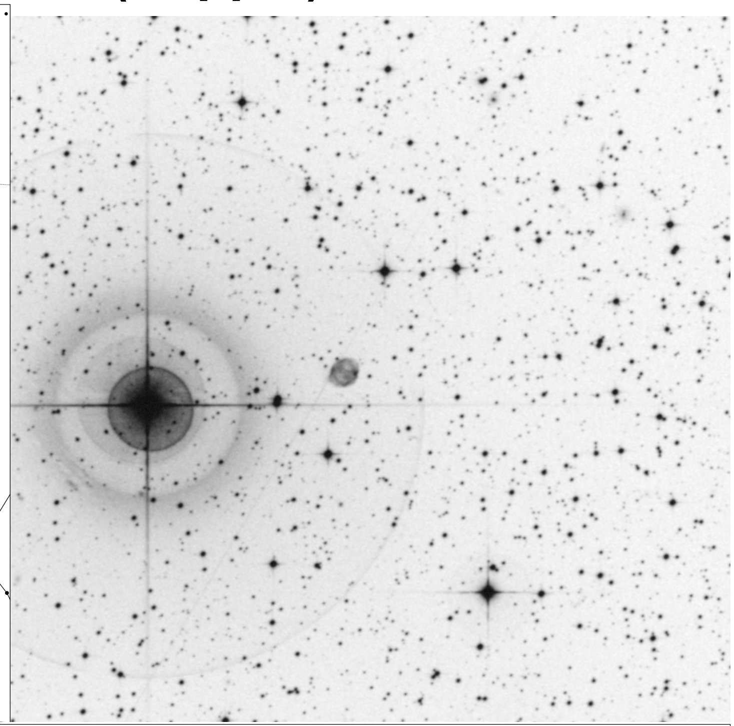


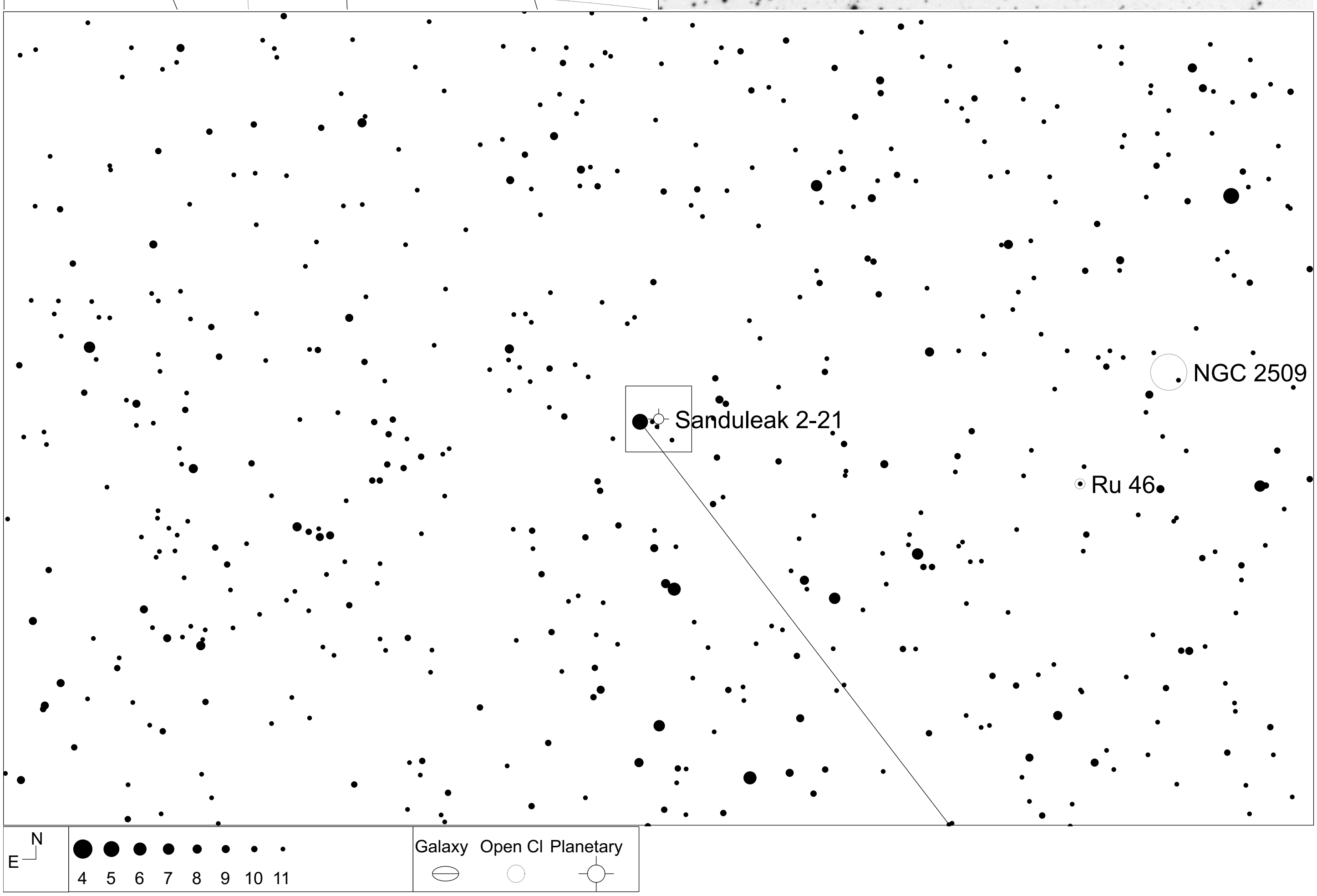


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 241+2.1	4	07 55 11.4	-23 38 13	11.8p	15.7	20”

Sanduleak 2-21 (Puppis)

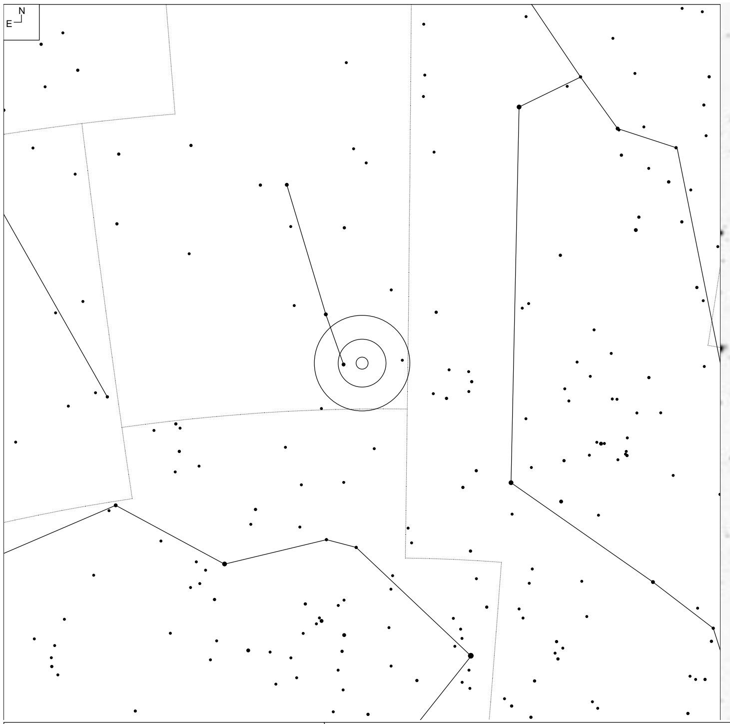


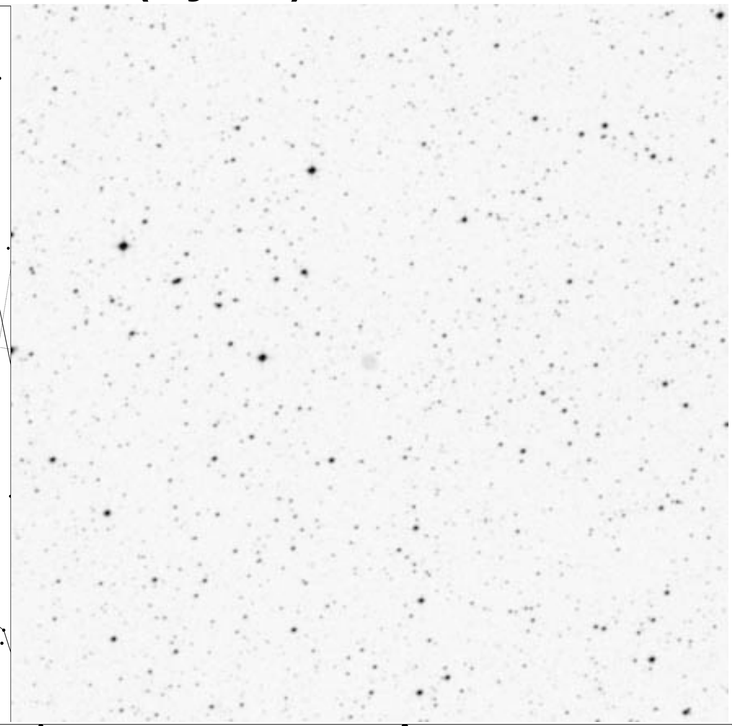


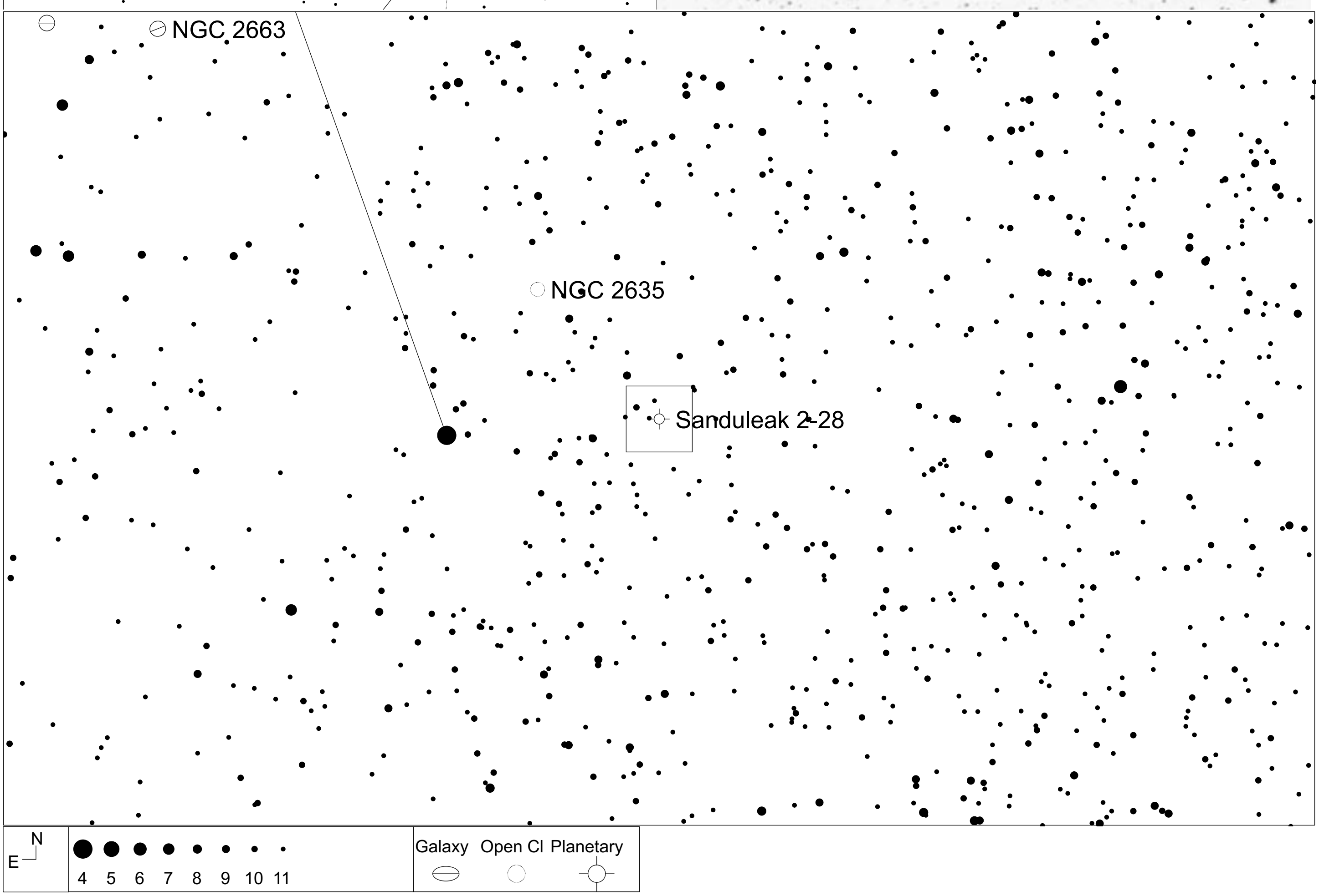


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 238+7.2	-	08 08 44.1	-19 14 01	13.6p	-	40”

Sanduleak 2-28 (Pyxis)

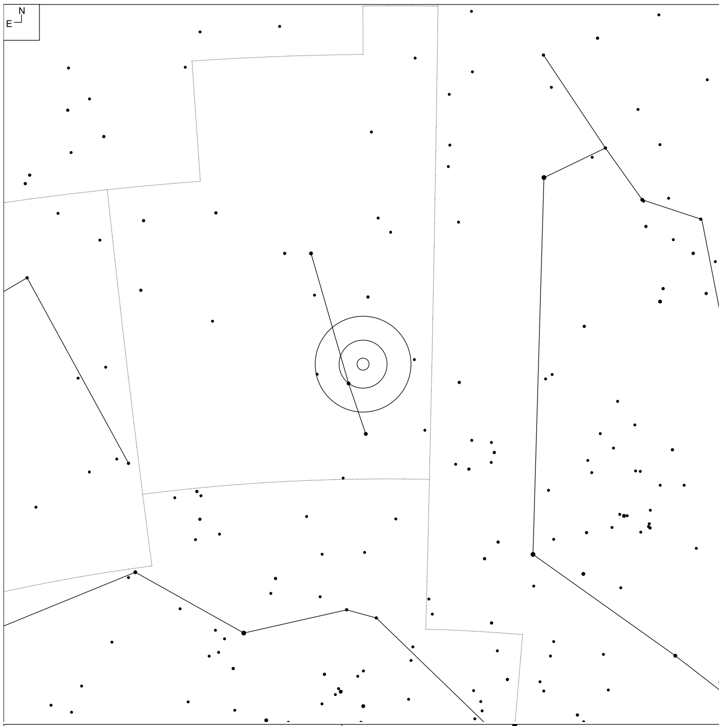


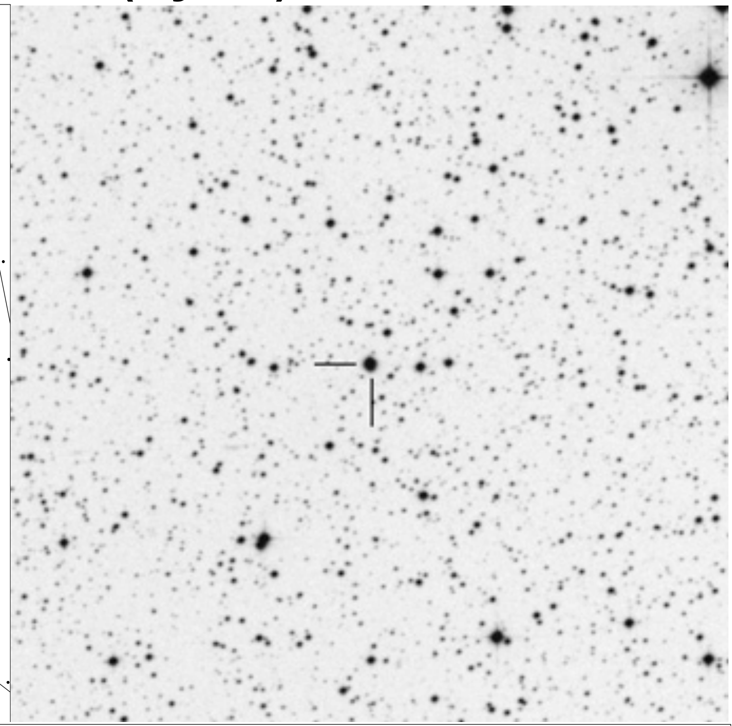


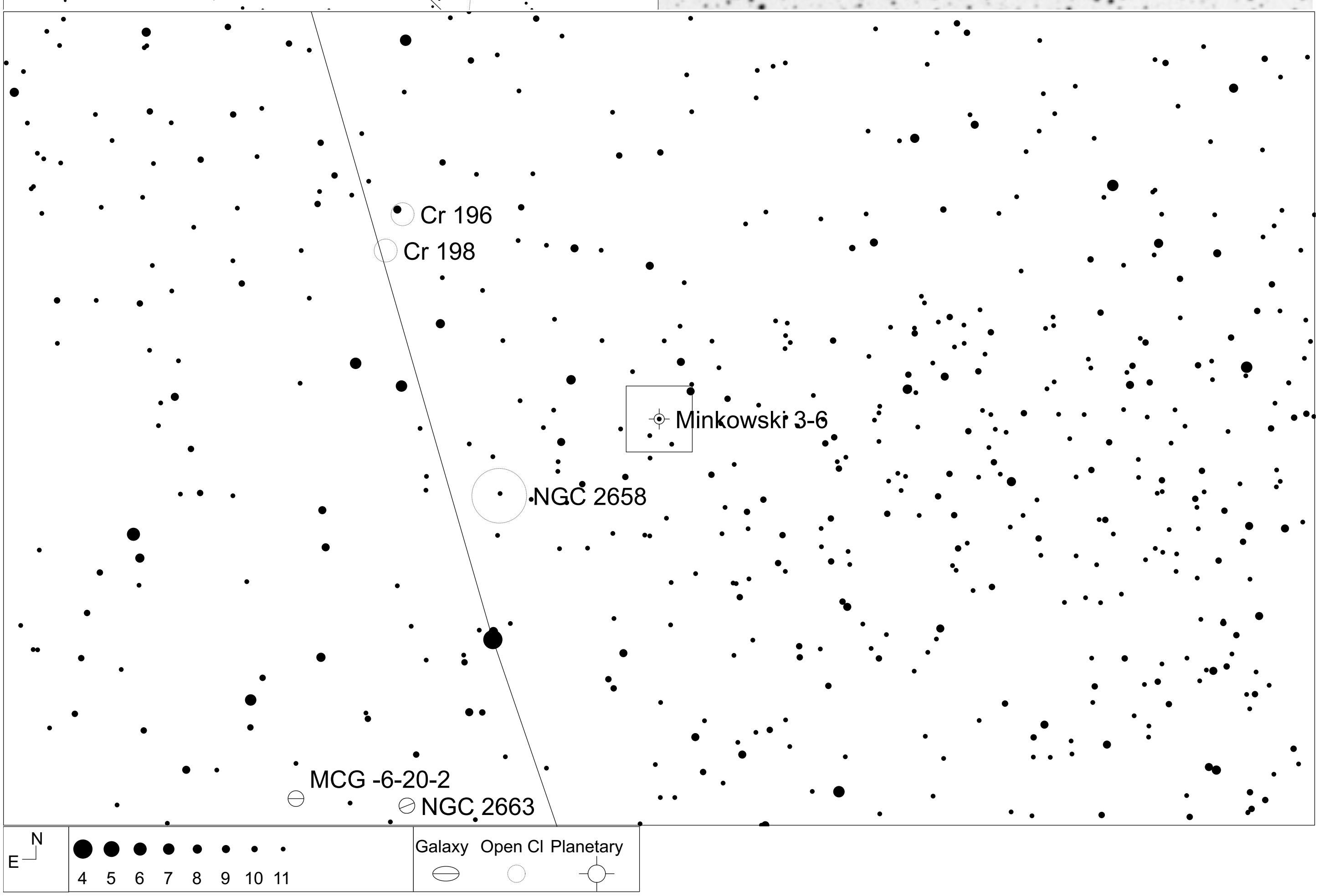


Other ID	Type	RA	Dec	Mag	* Mag	Size
Wray 16-22	-	08 36 16.4	-35 15 04	-	-	20”

Minkowski 3-6 (Pyxis)

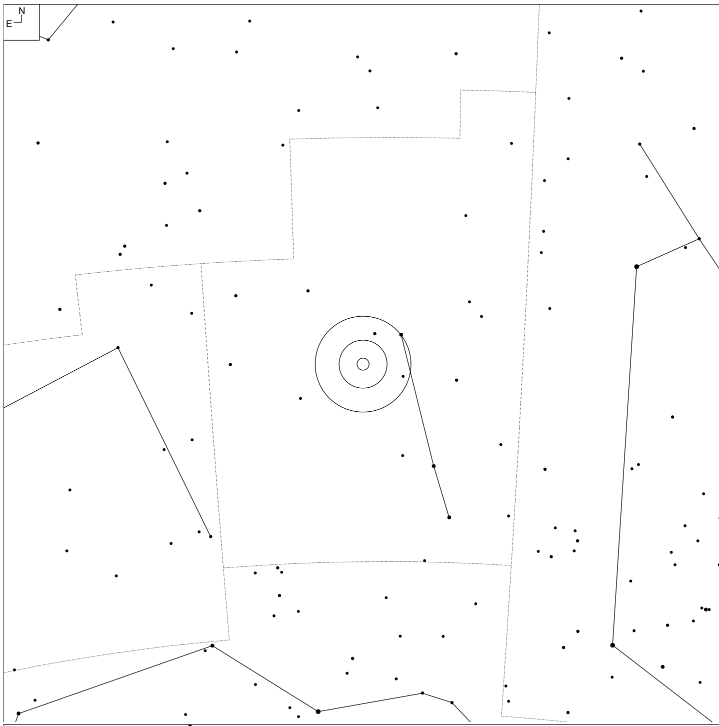


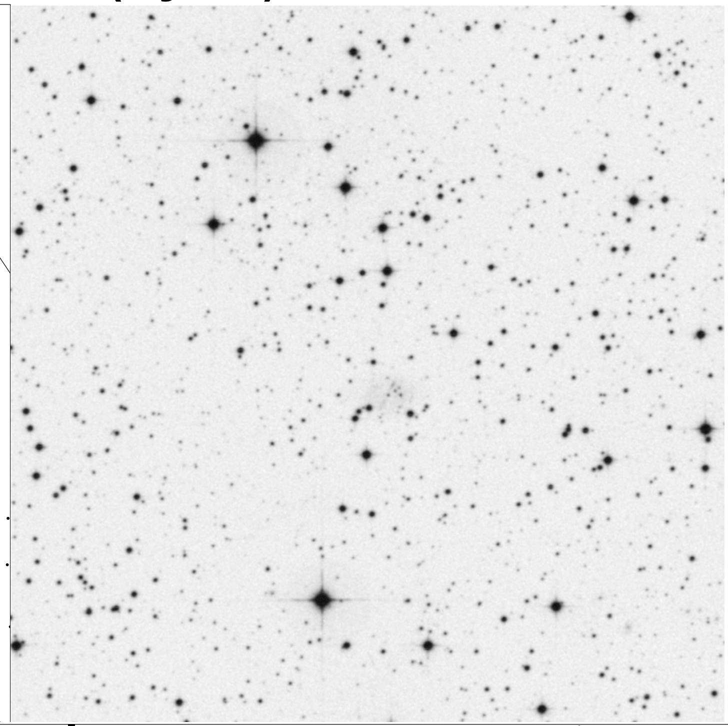


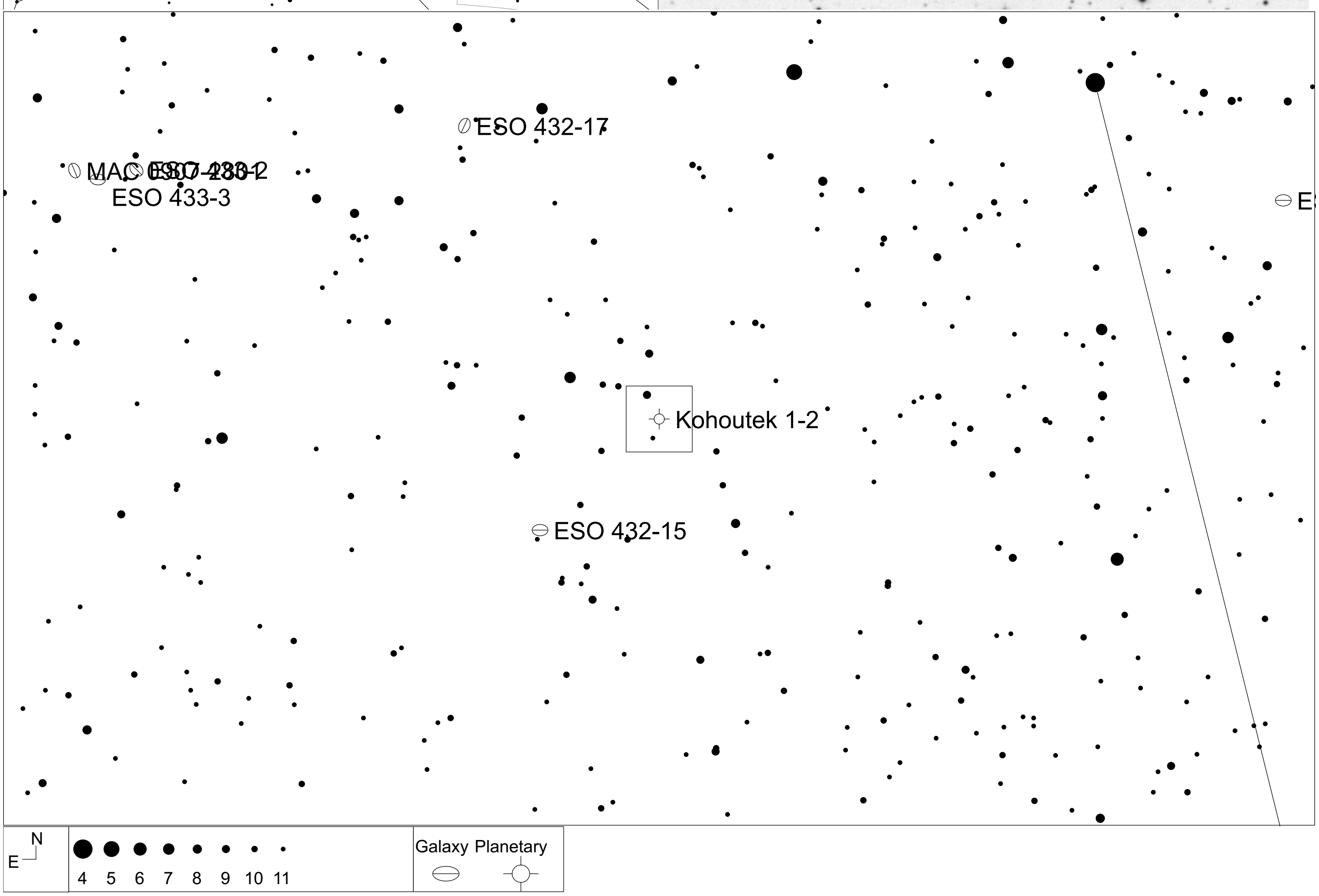


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 254+5.1	2a	08 40 40.3	-32 22 34	10.9v	13.9	19”

Kohoutek 1-2 (Pyxis)

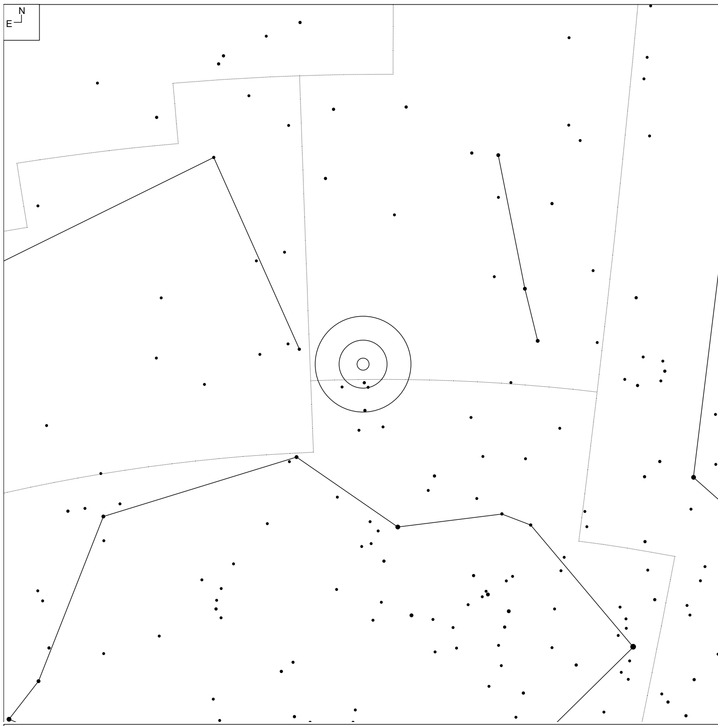


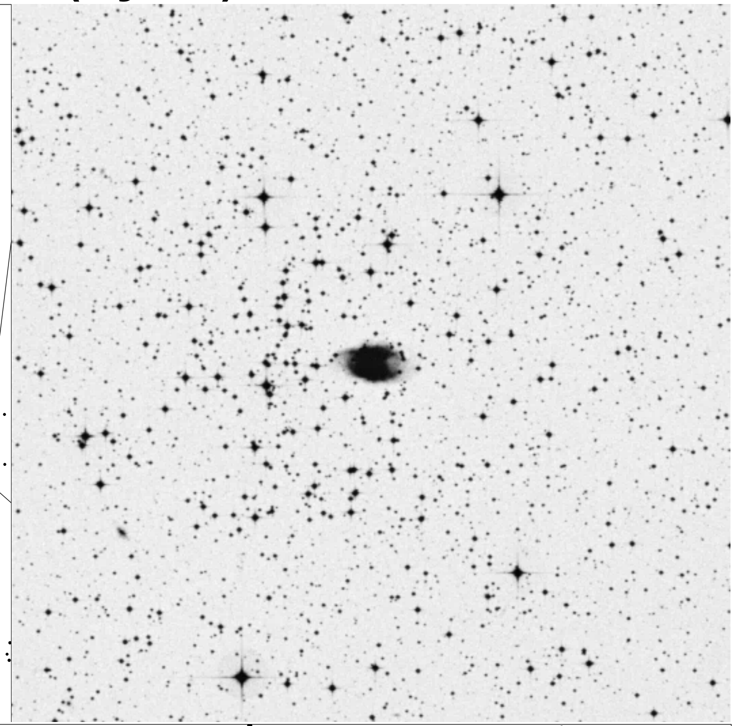


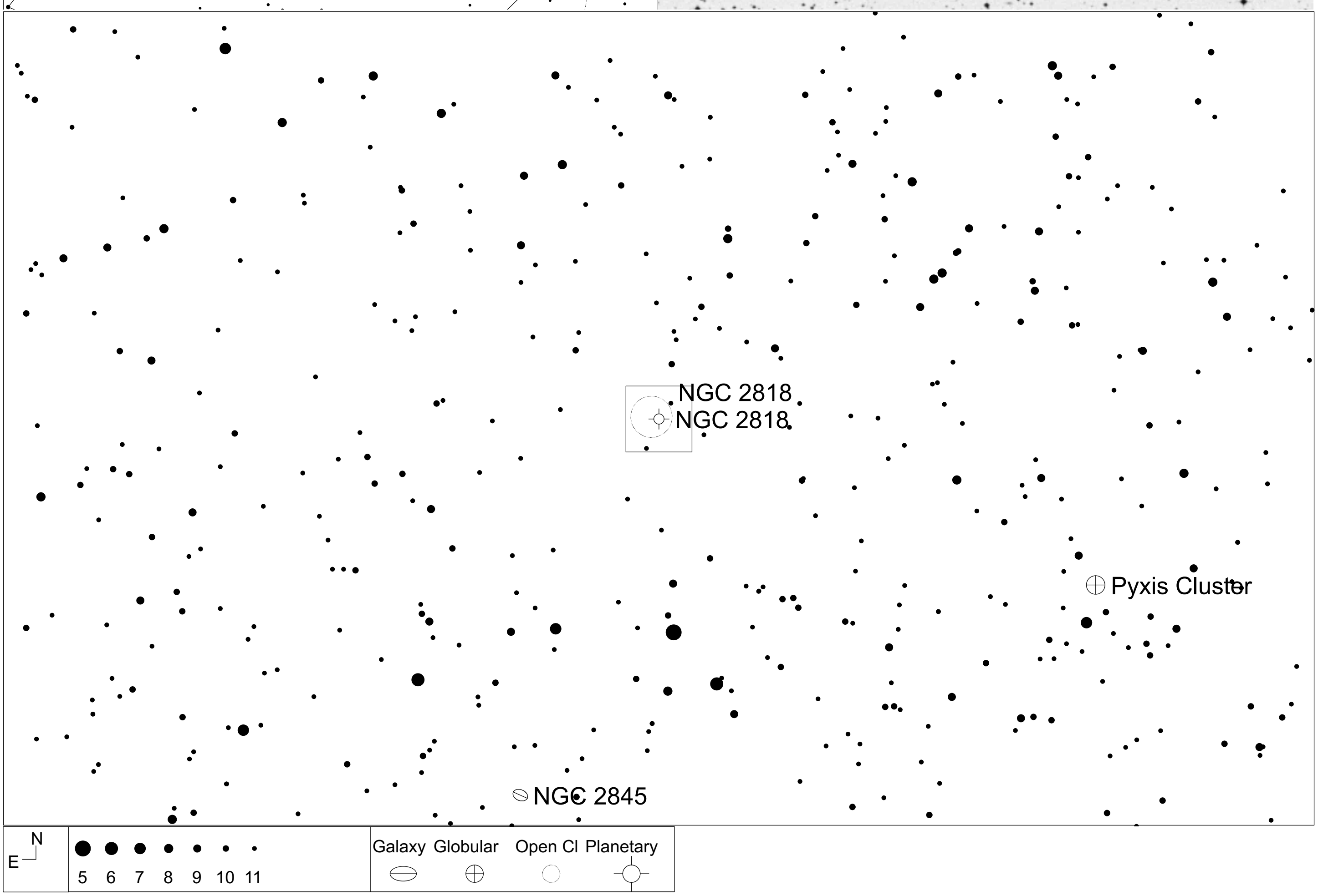


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 253+10.1	2	08 57 45.9	-28 57 36	15.3p	16.6	58”

NGC 2818 (Pyxis)

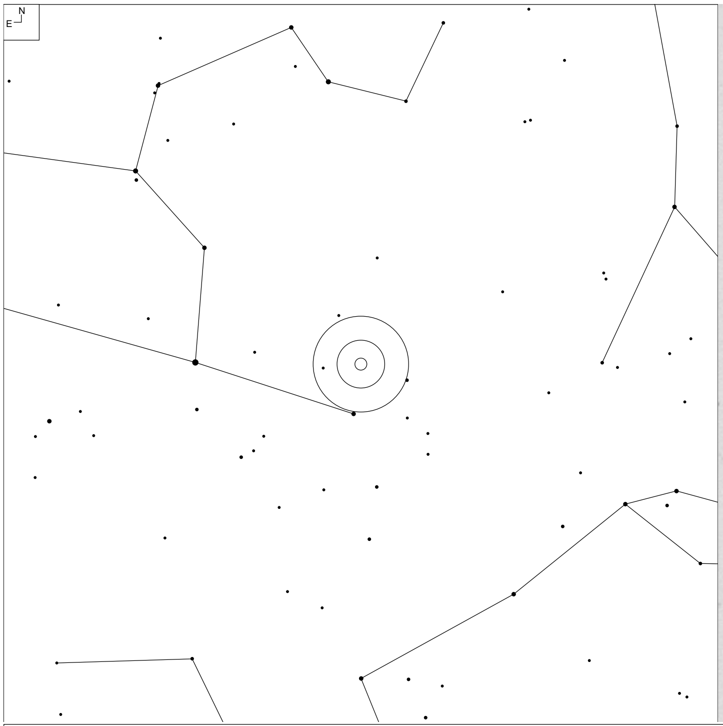


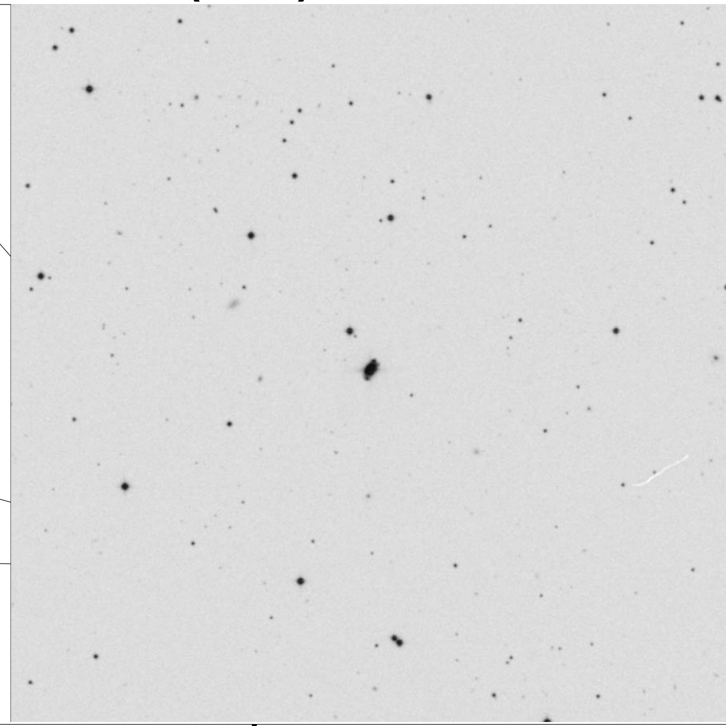


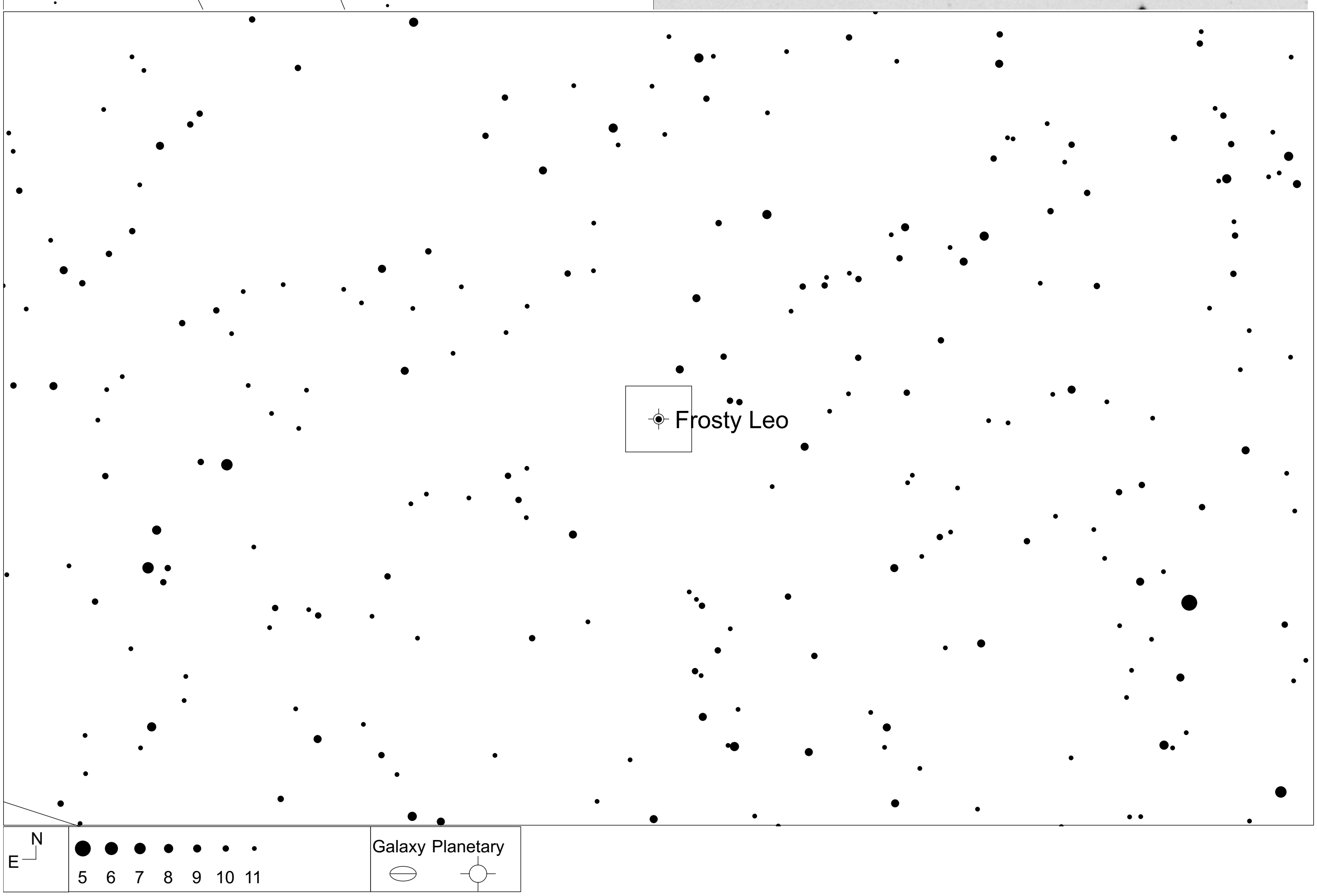


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 261+8.1	3b	09 16 01.5	-36 37 37	11.6v	19.4	93 x 55”

IRAS 09371+1212 (Leo)

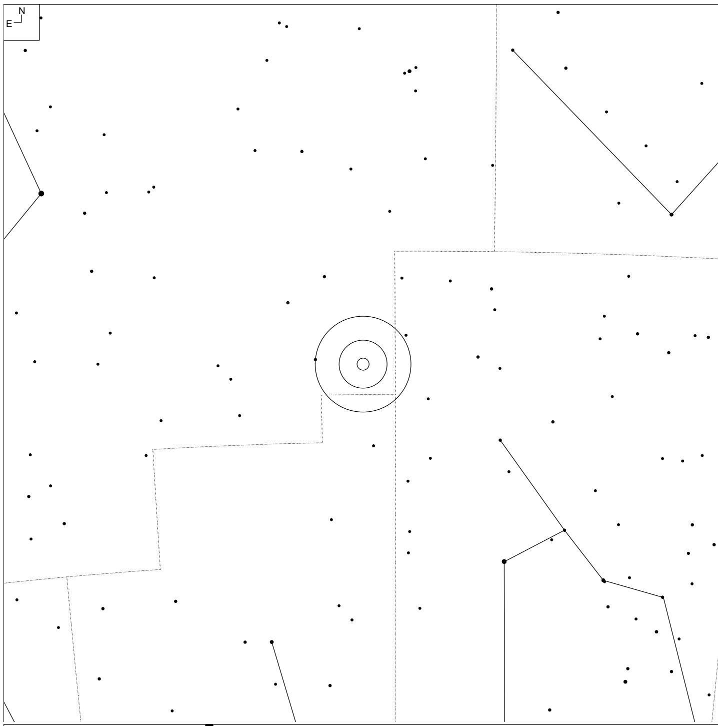


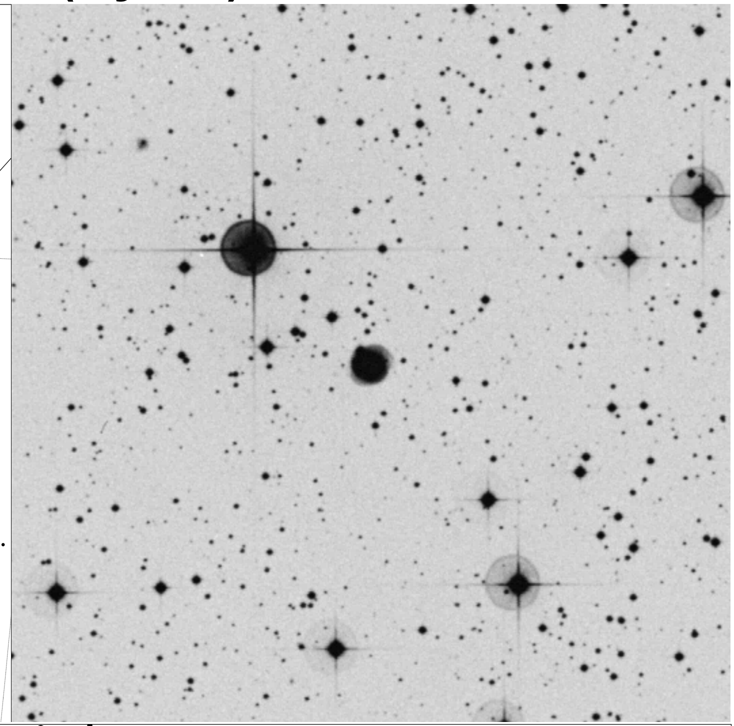


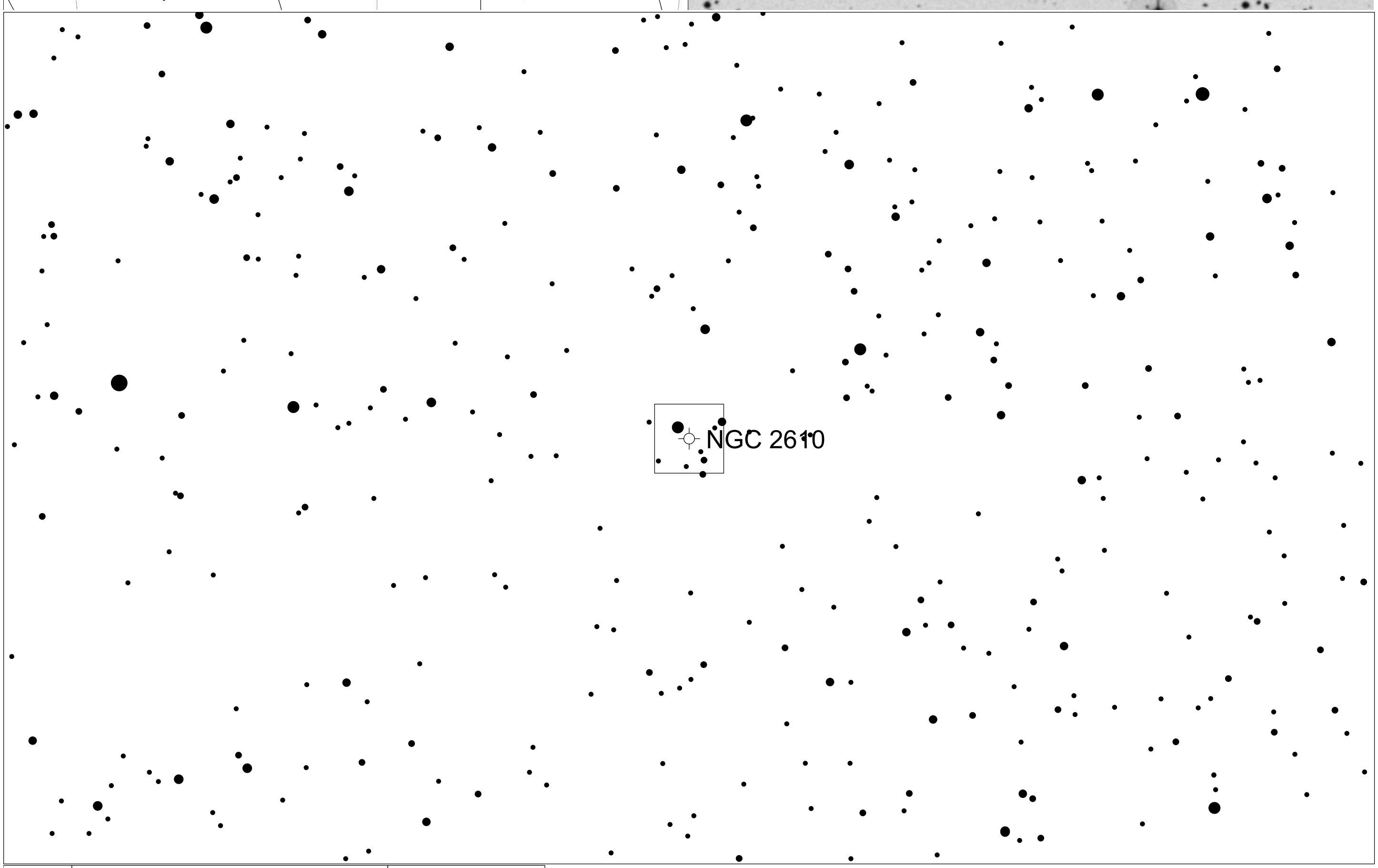


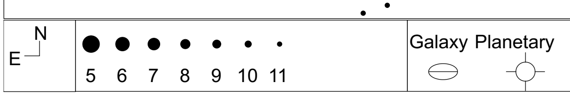
Other ID	Type	RA	Dec	Mag	* Mag	Size
Frosty Leo	Proto	09 39 54	+11 59 00	10.5	11	12”

NGC 2610 (Hydra)



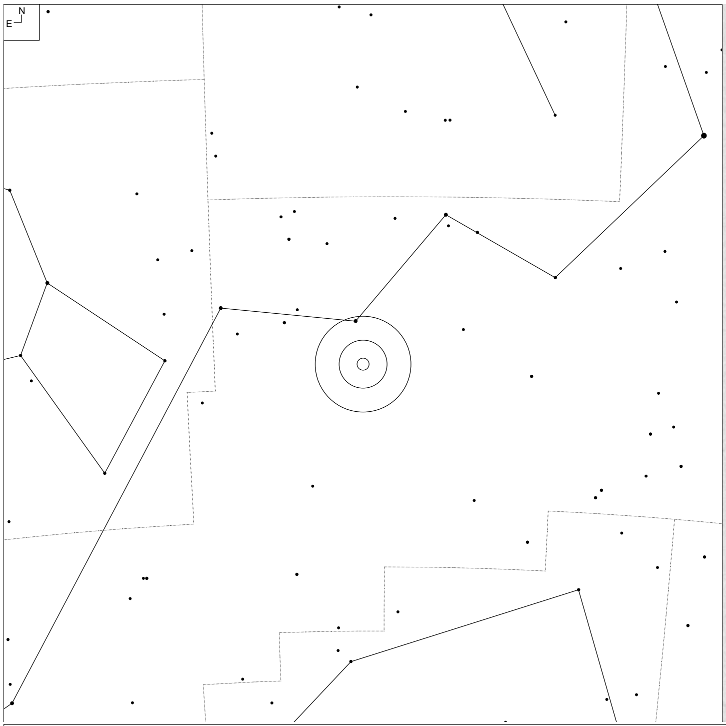


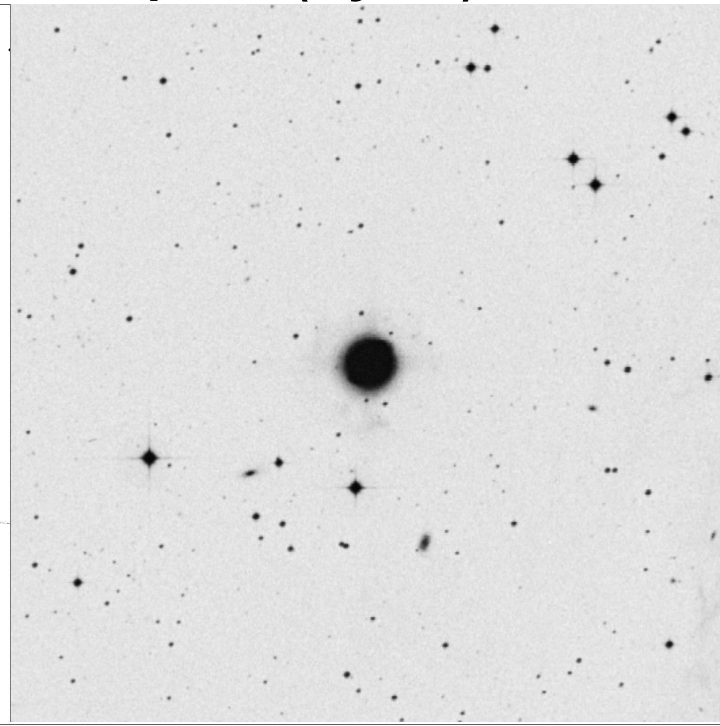


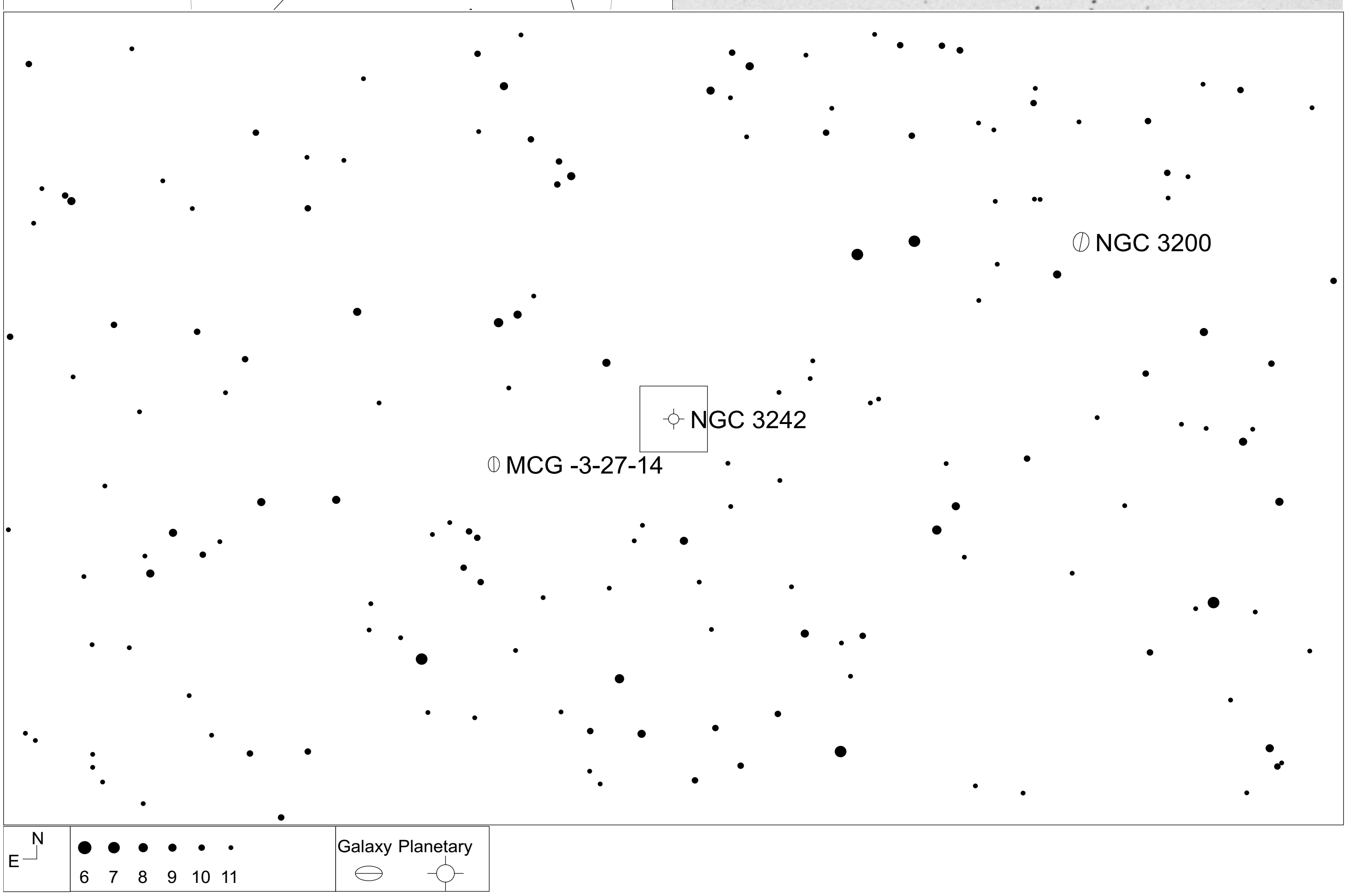


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 239+13.1	4+2	08 33 23.4	-16 08 58	12.7v	15.9	58”

NGC 3242 – Ghost of Jupiter (Hydra)



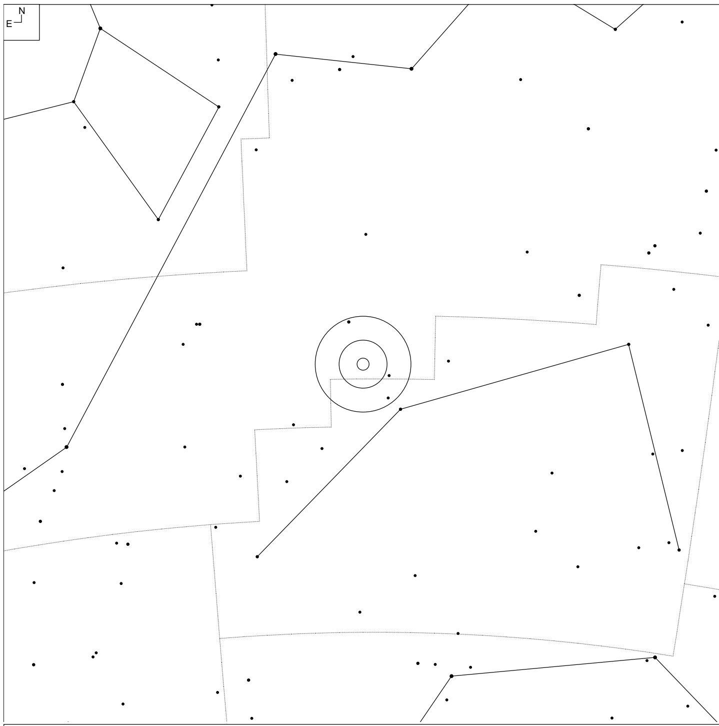


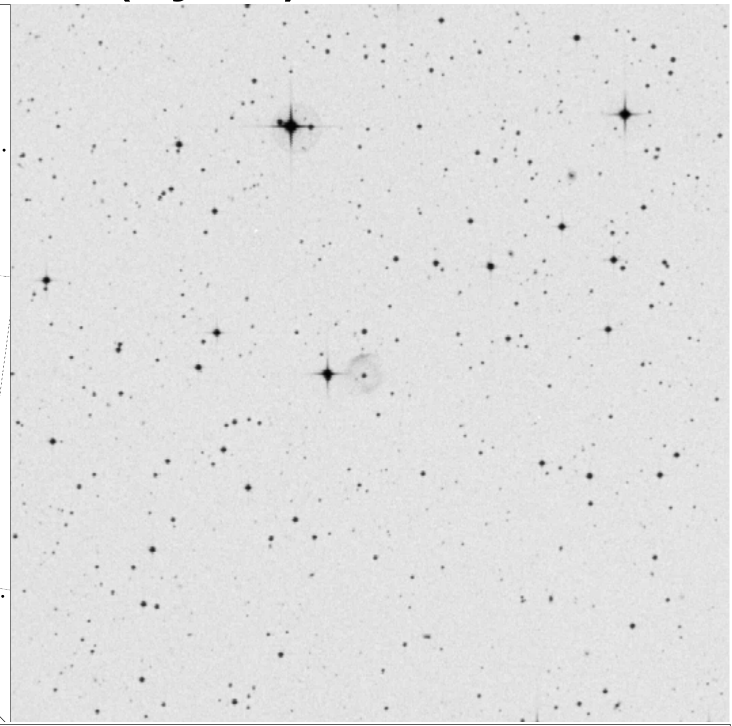


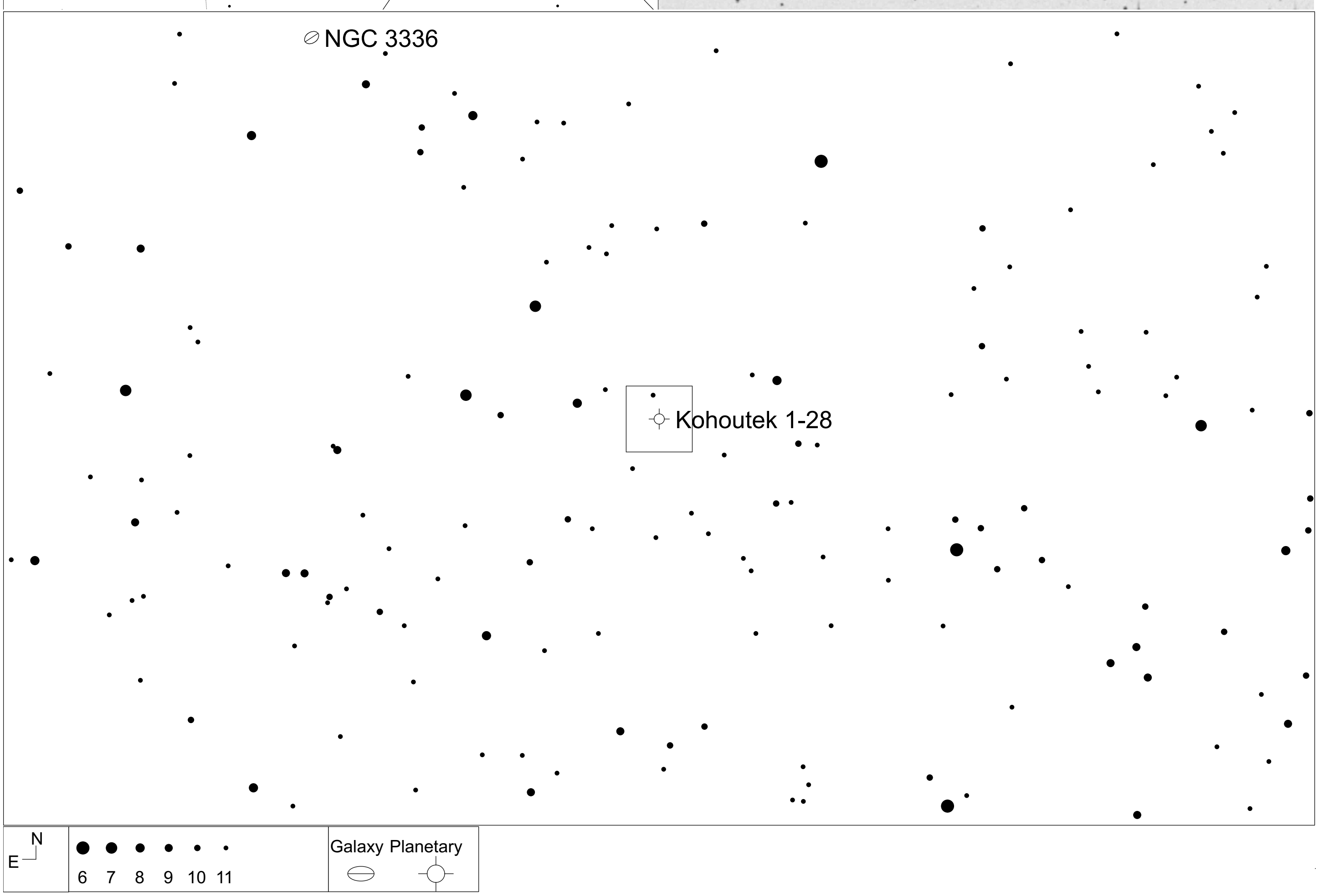
Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 261+32.1	4+3b	10 24 46.2	-18 38 34	7.7v	13.3	75”

Extension - Easy even without O-III filter. Filament `12’ WSW need large aperture.

Kohoutek 1-28 (Hydra)

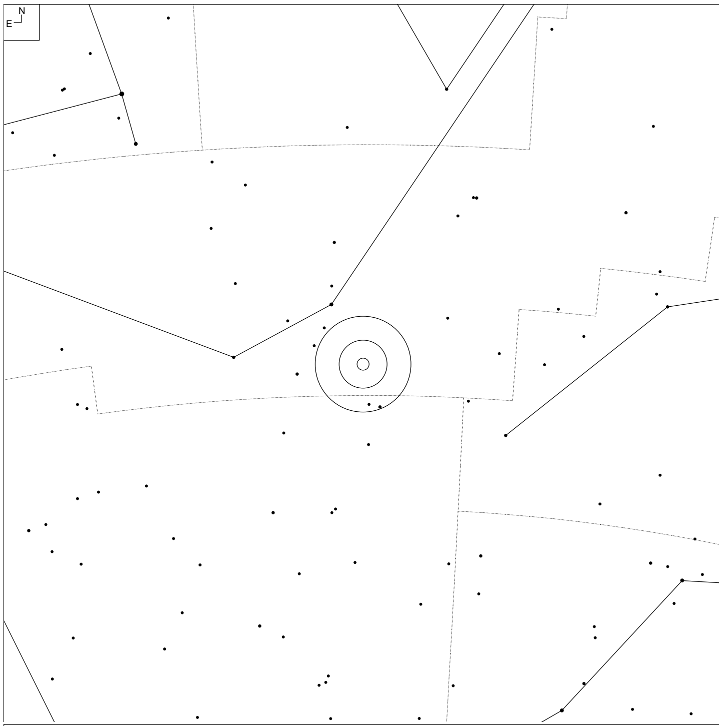


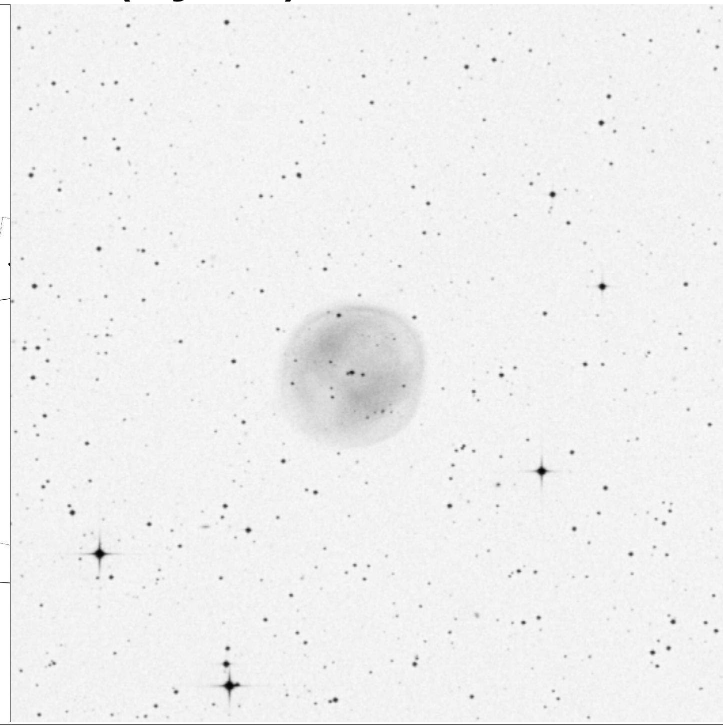


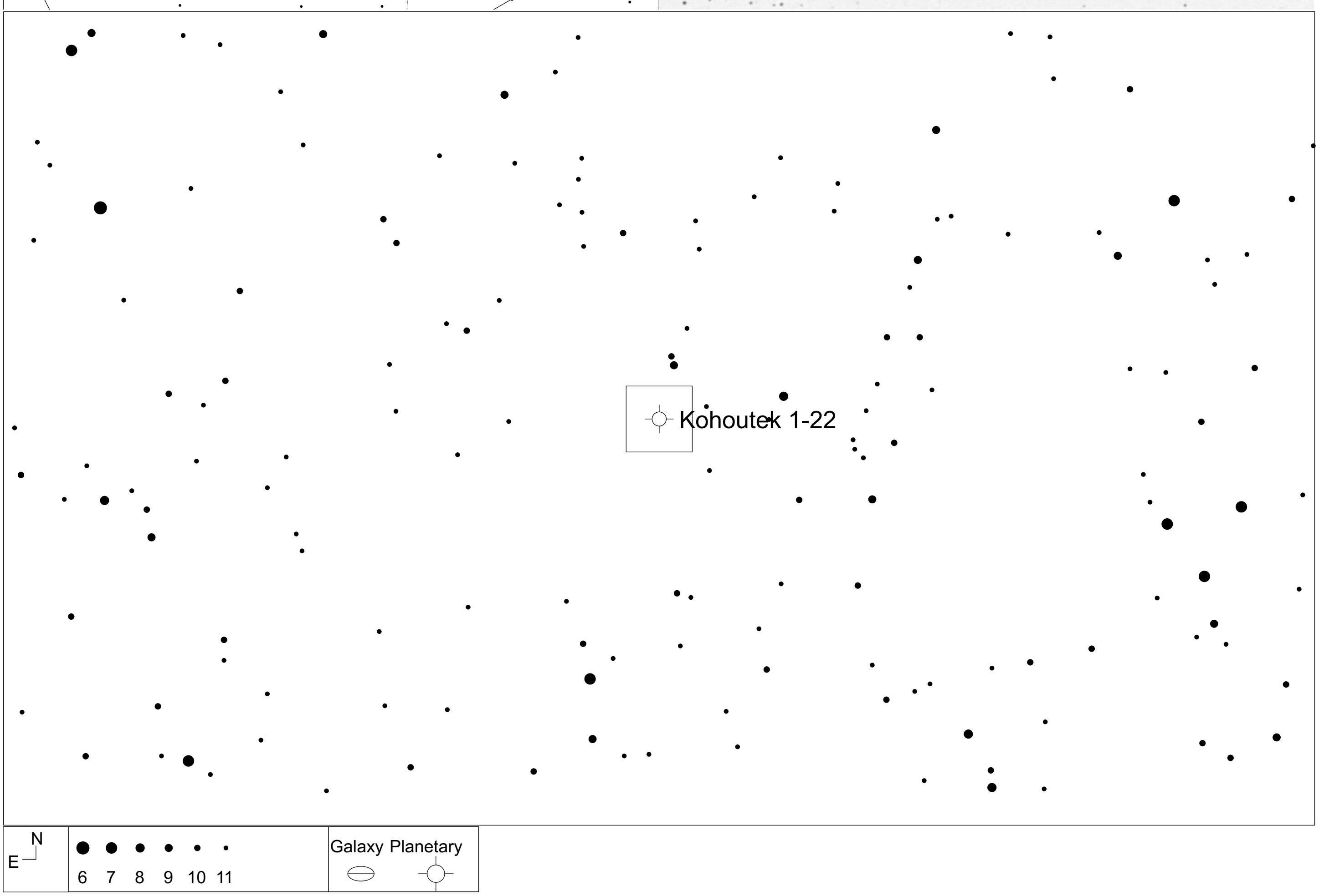


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 270+24.1	-	10 34 30.7	-29 11 16	14	16.7	54”

Kohoutek 1-22 (Hydra)

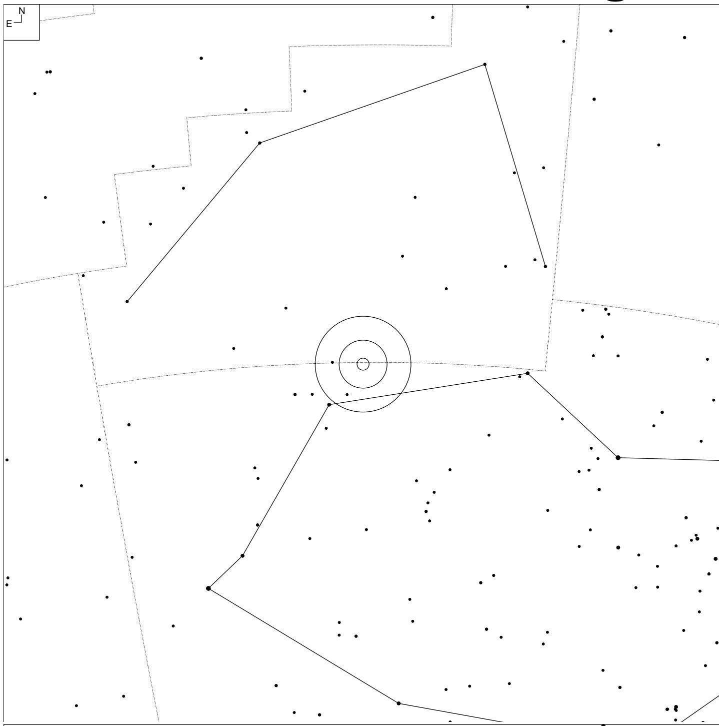


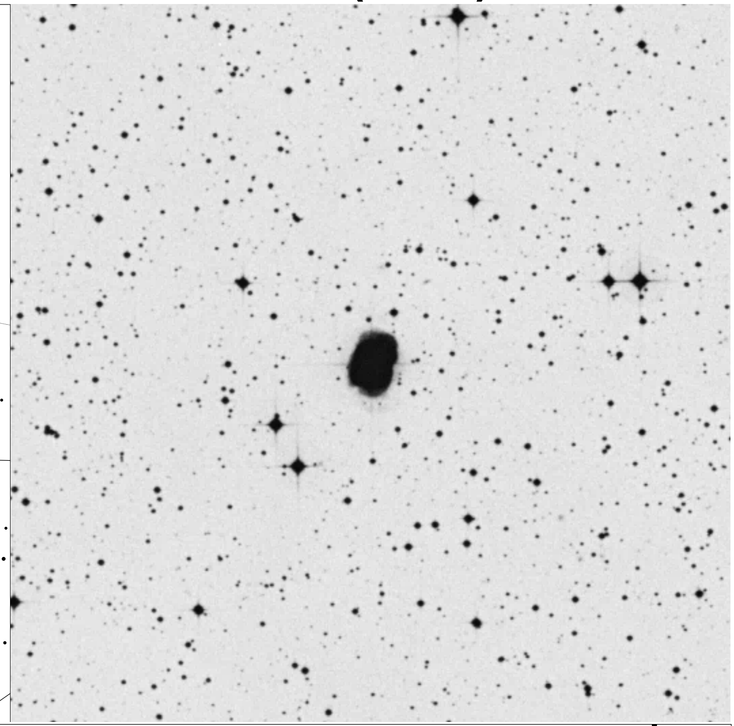


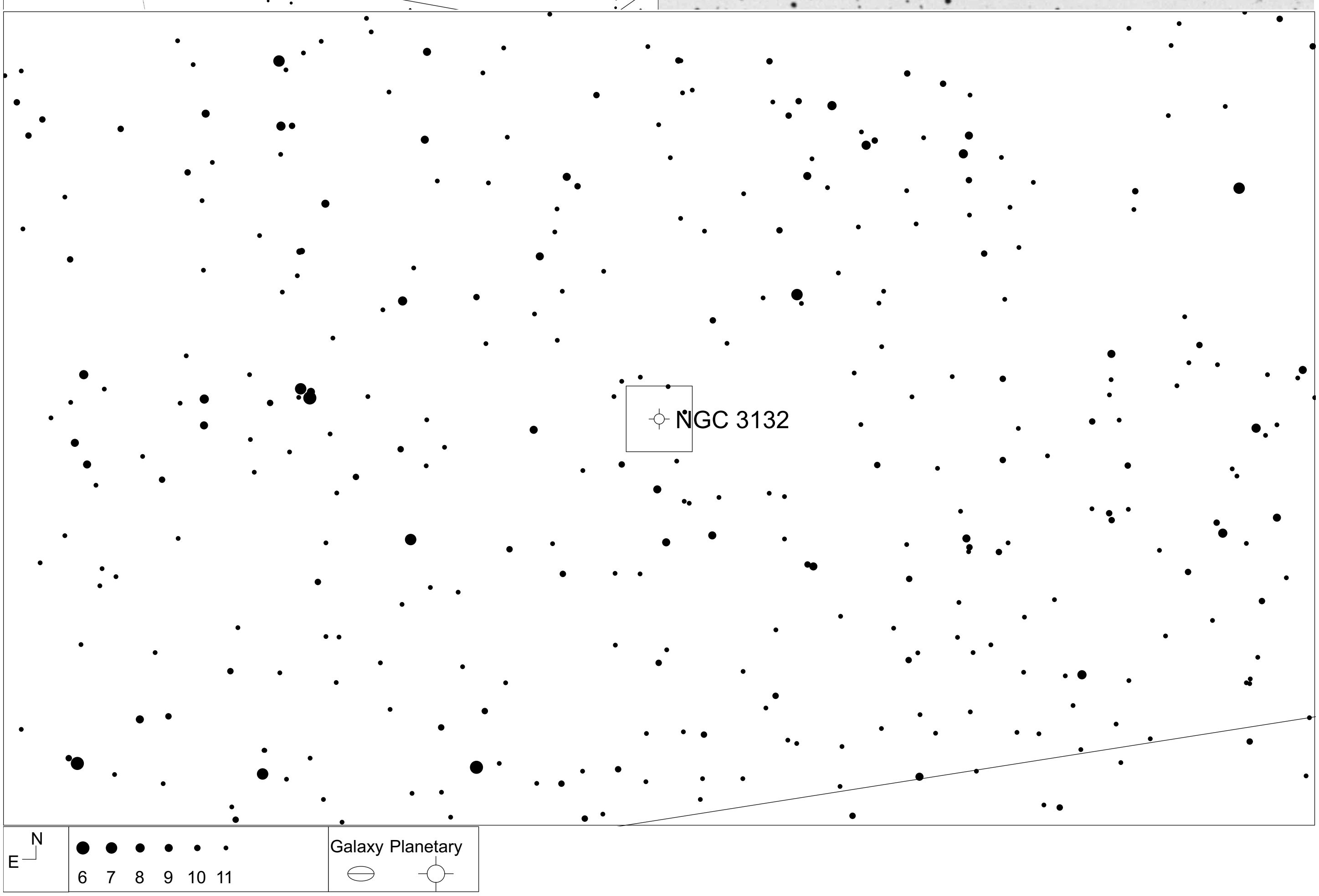


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 283+25.1	-	11 26 43.7	-34 22 18	12.1v	17.4	3.0’

NGC 3132 – Eight Burst Nebula (Vela)

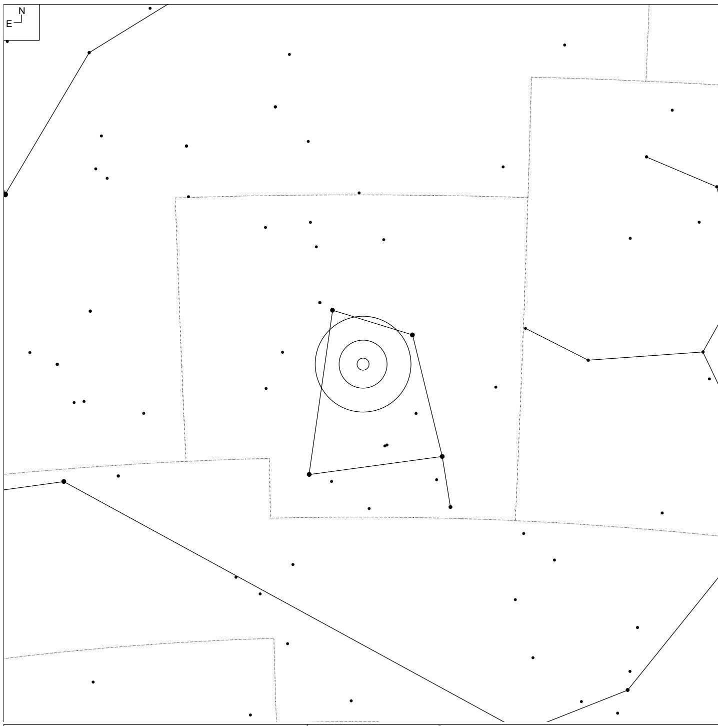


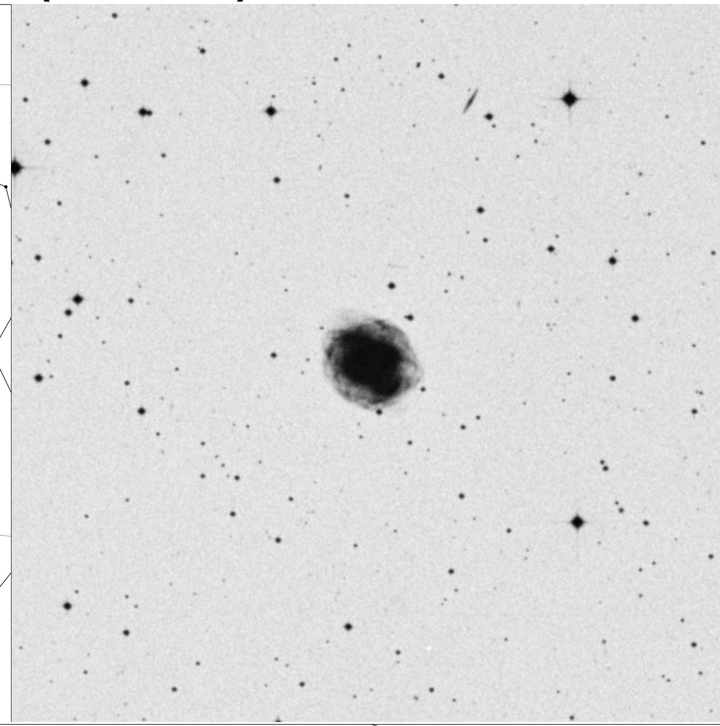


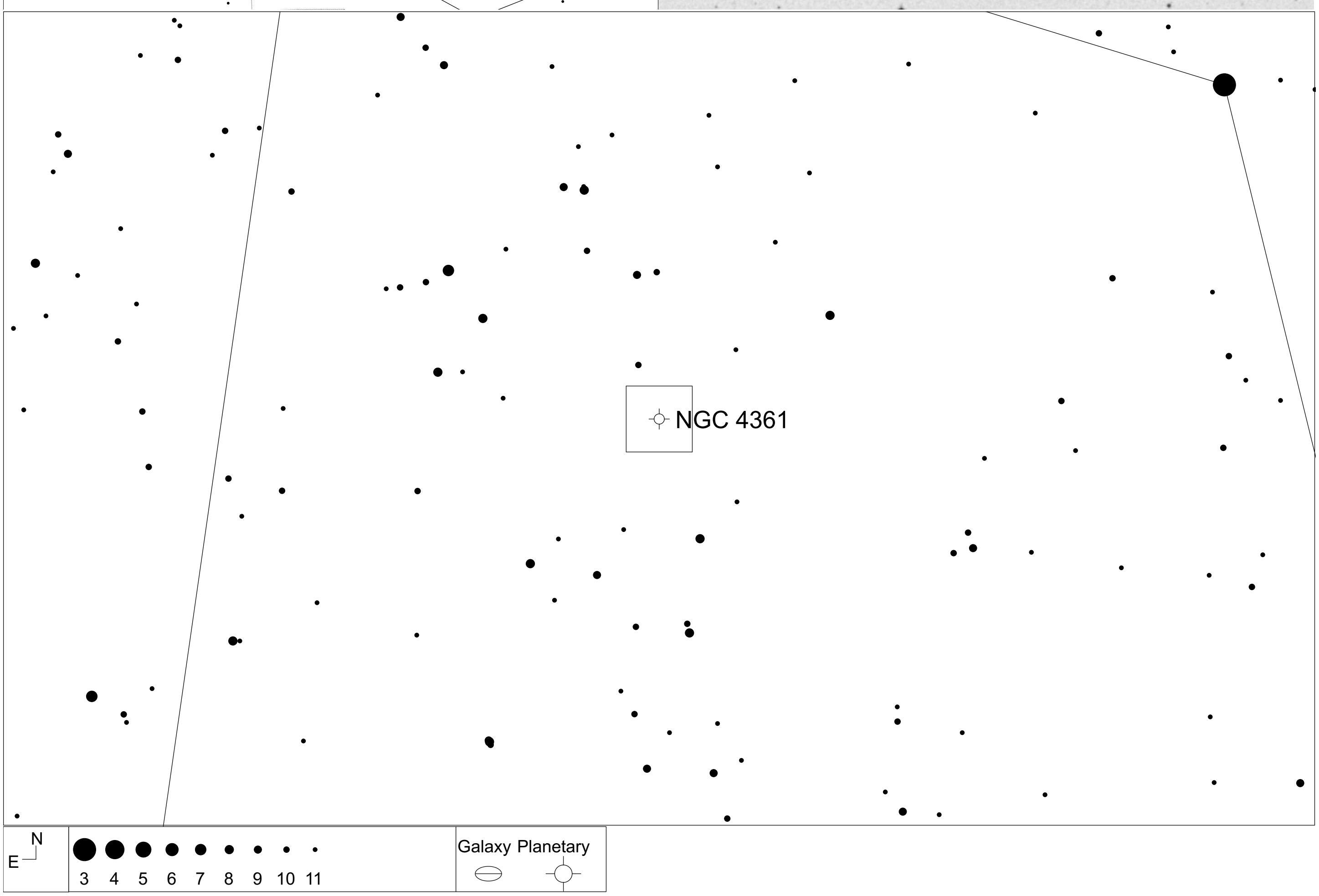


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 272+12.1	4+2	10 07 01.8	-40 26 09	9.2v	10.0	88 x 58”

NGC 4361 (Corvus)

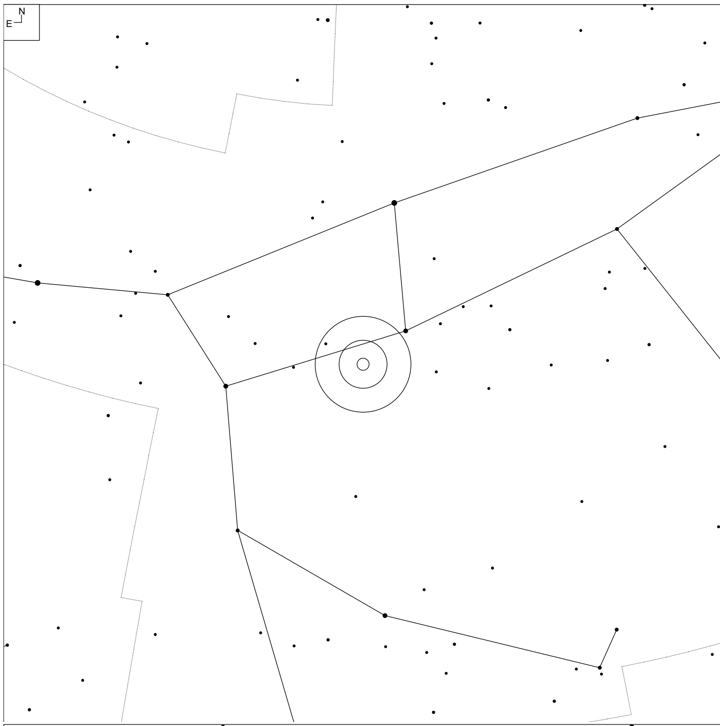


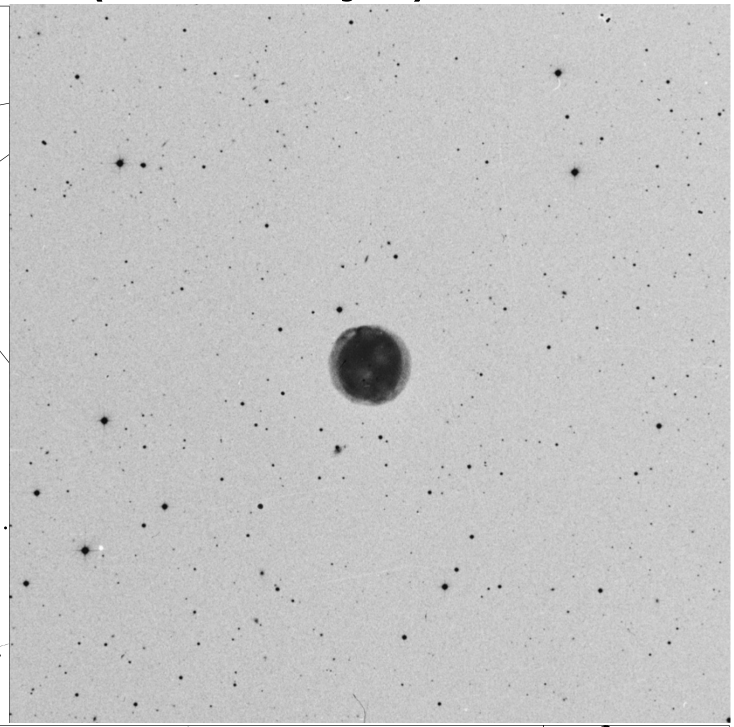


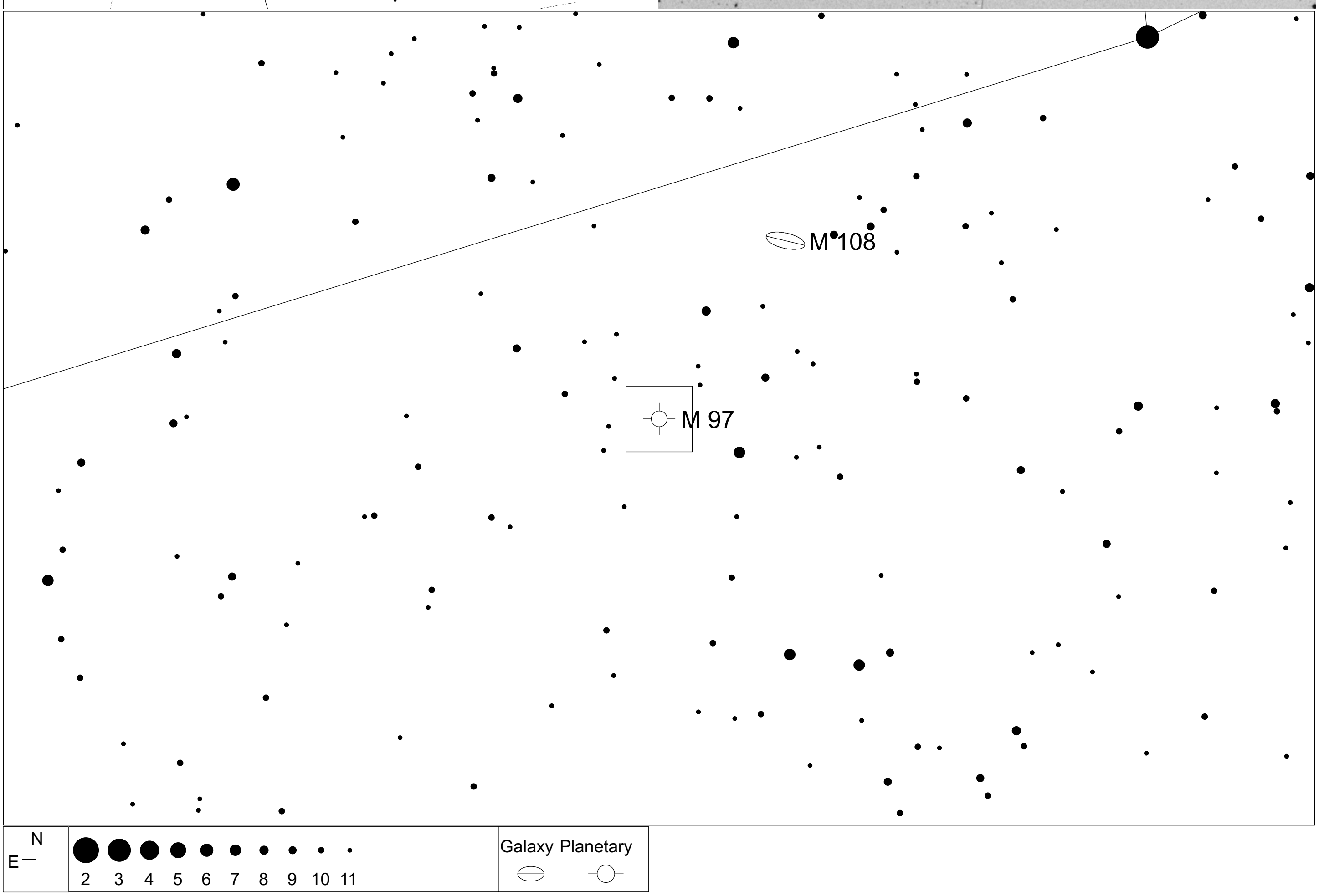


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 294+43.1	3a+2	12 24 30.8	-18 47 02	10.9v	13.2	118”

M-97 – Owl Nebula (URSA Major)

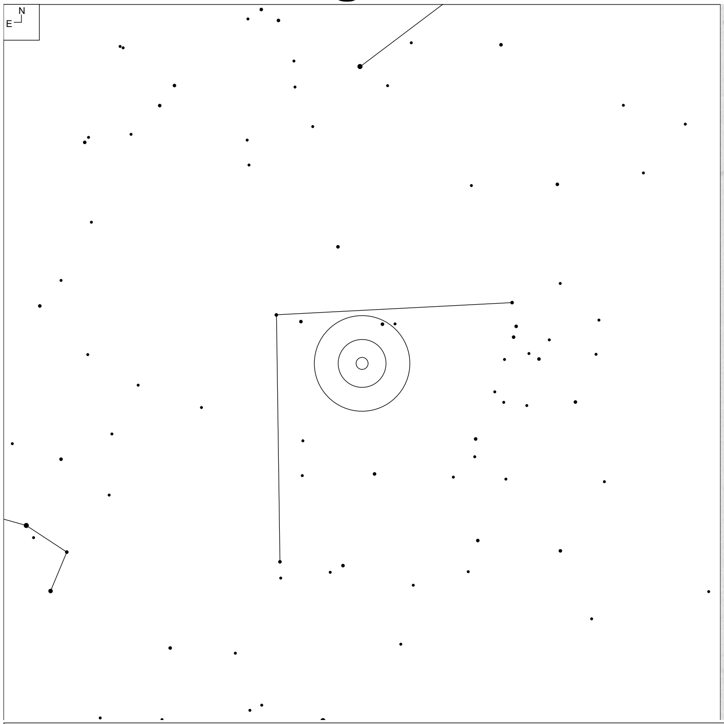


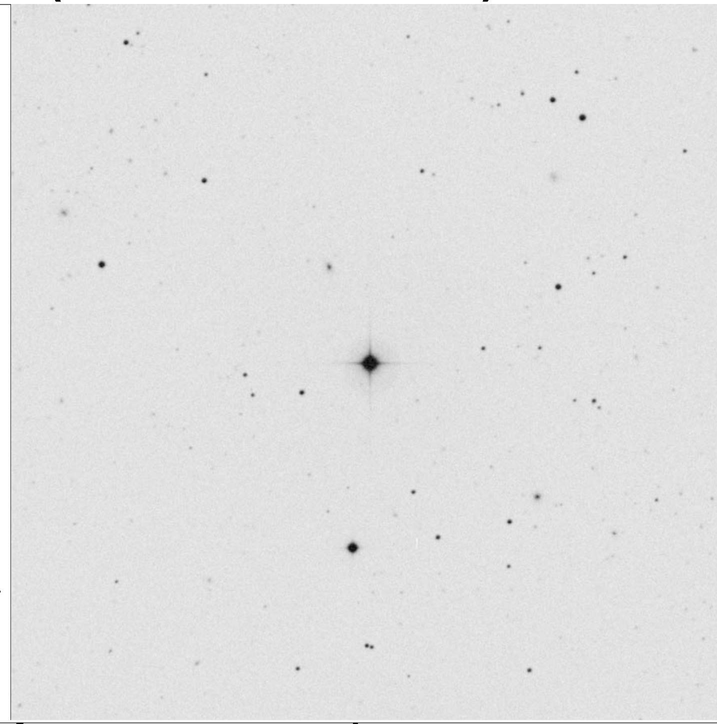


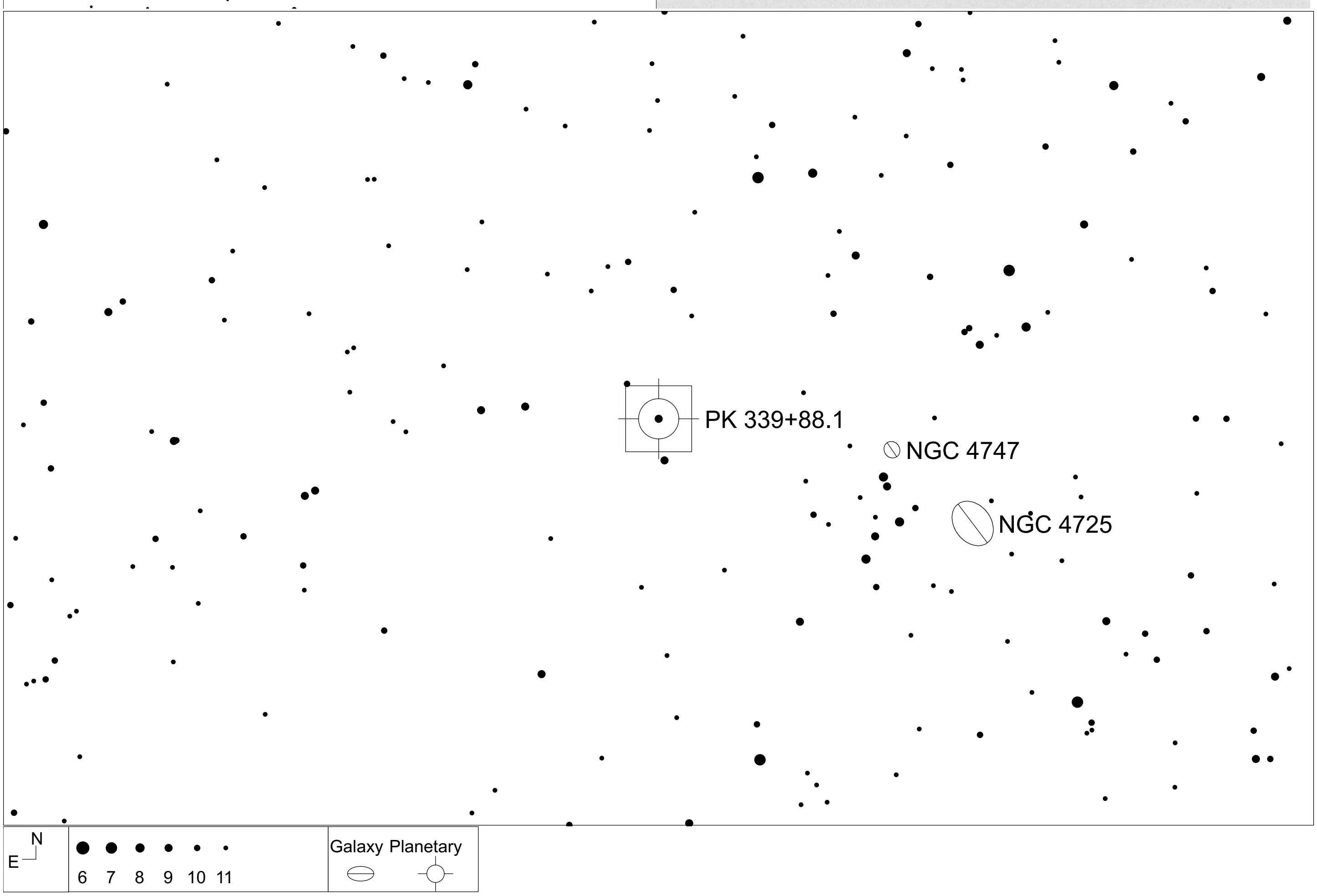


Other ID	Type	RA	Dec	Mag	* Mag	Size
NGC 3587	3a	11 14 47.8	+55 01 09	9.9v	16.0	3.4’

Longmore-Tritton 5 (Coma Berenices)

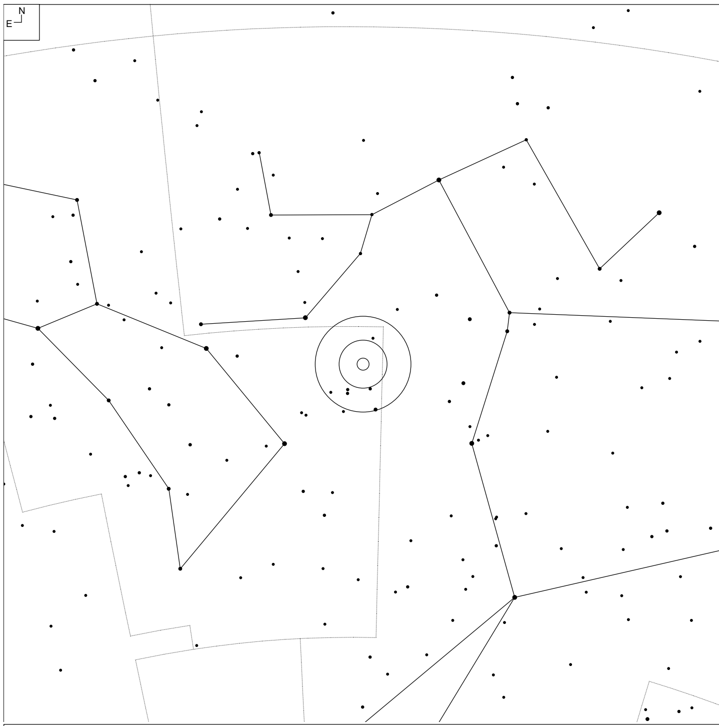


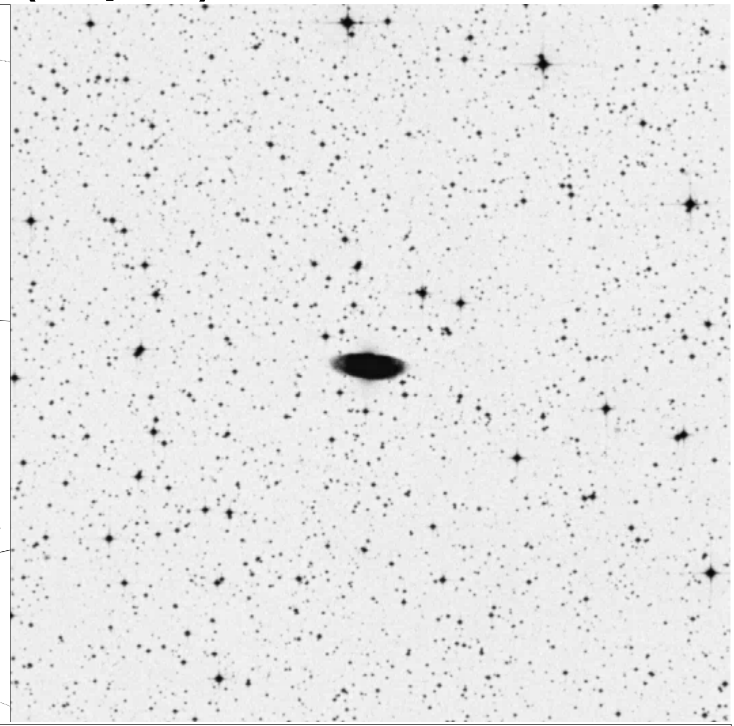


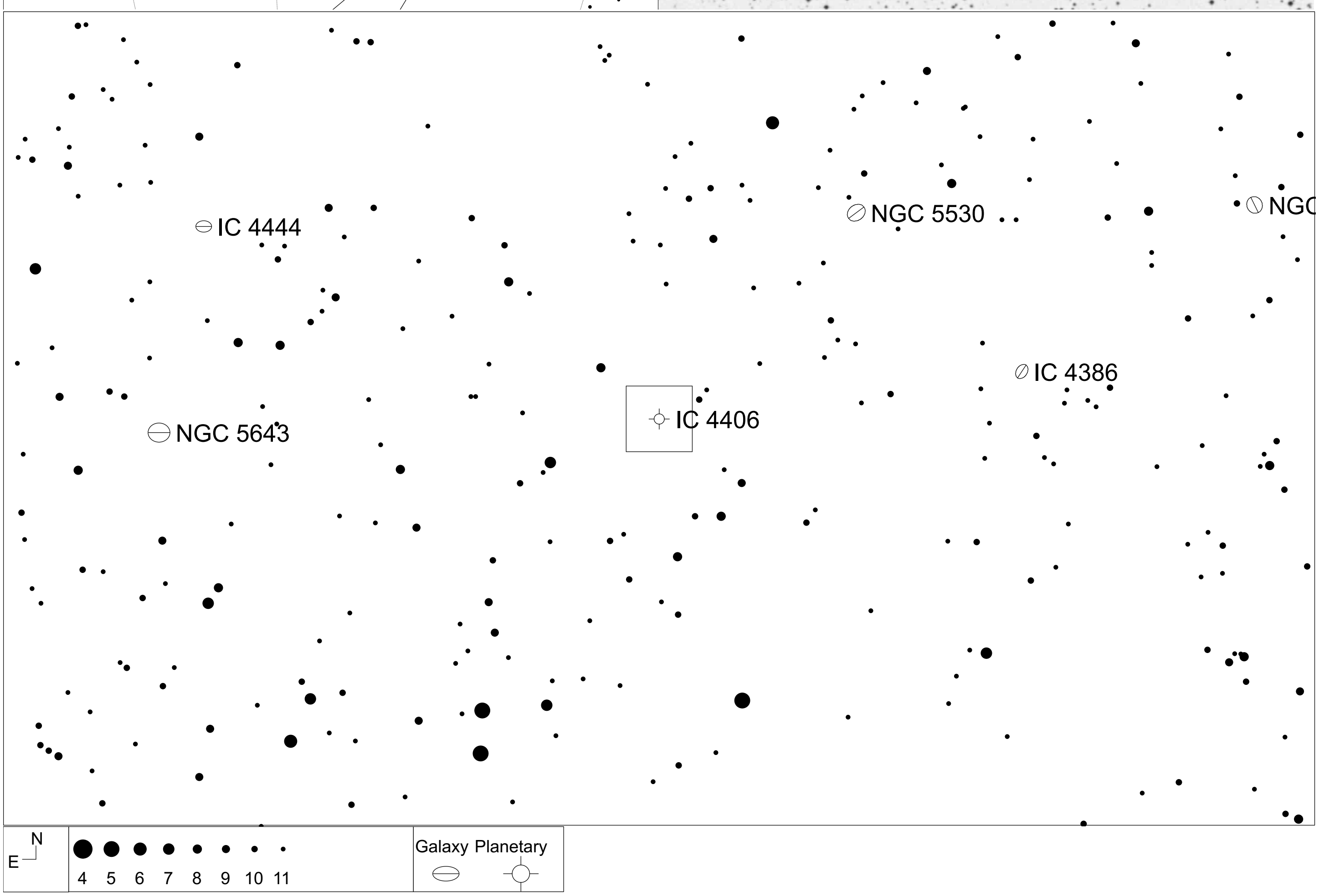


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 339+88.1	-	12 55 34	+25 53 31	-	14.9	8.8’

IC 4406 (Lupus)

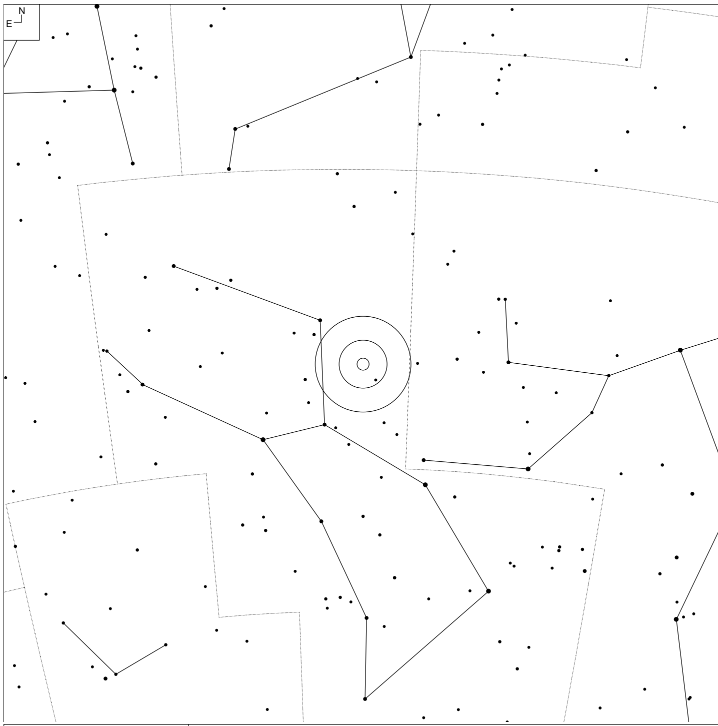


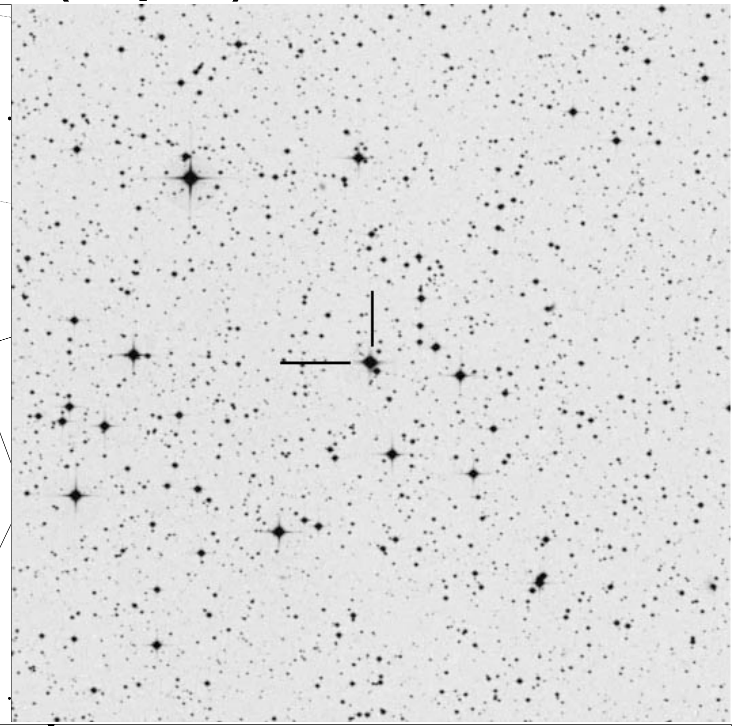


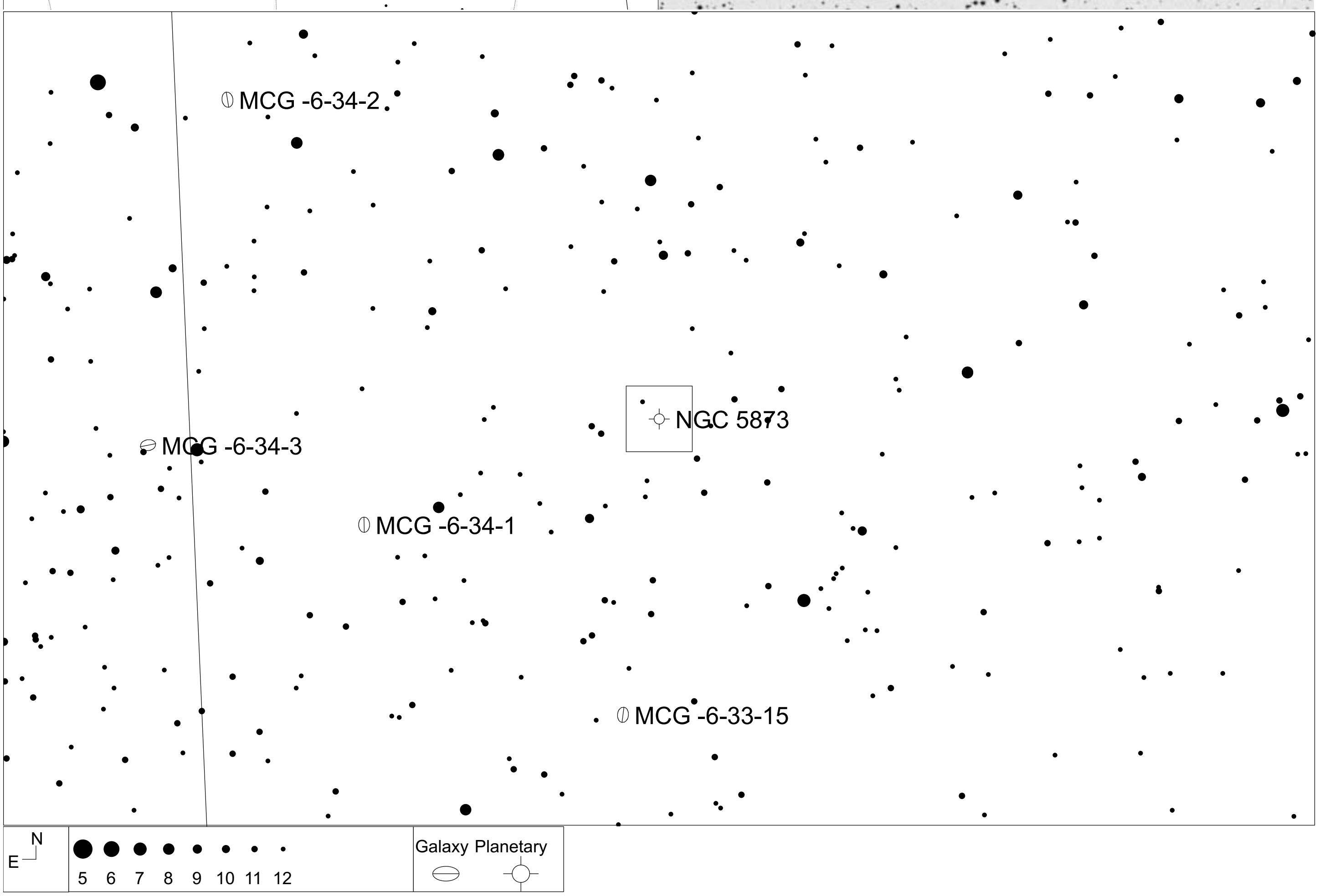


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 319+15.1	4+3	14 22 26.5	-44 09 05	10.2v	17.4	100x37”

NGC 5873 (Lupus)

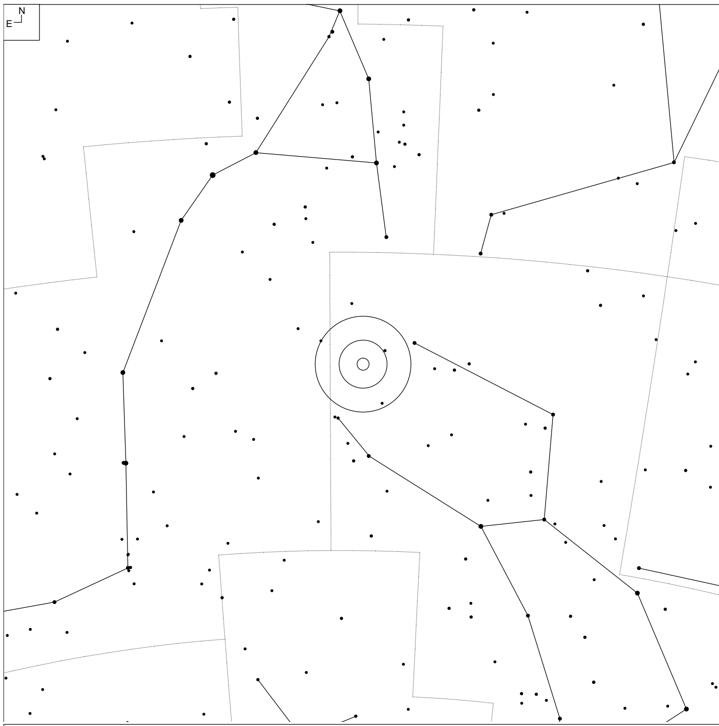


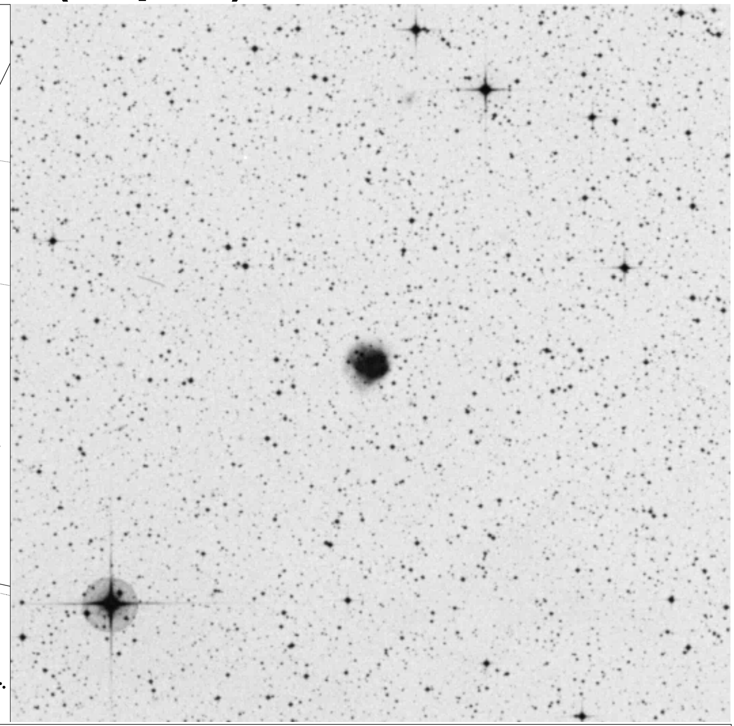


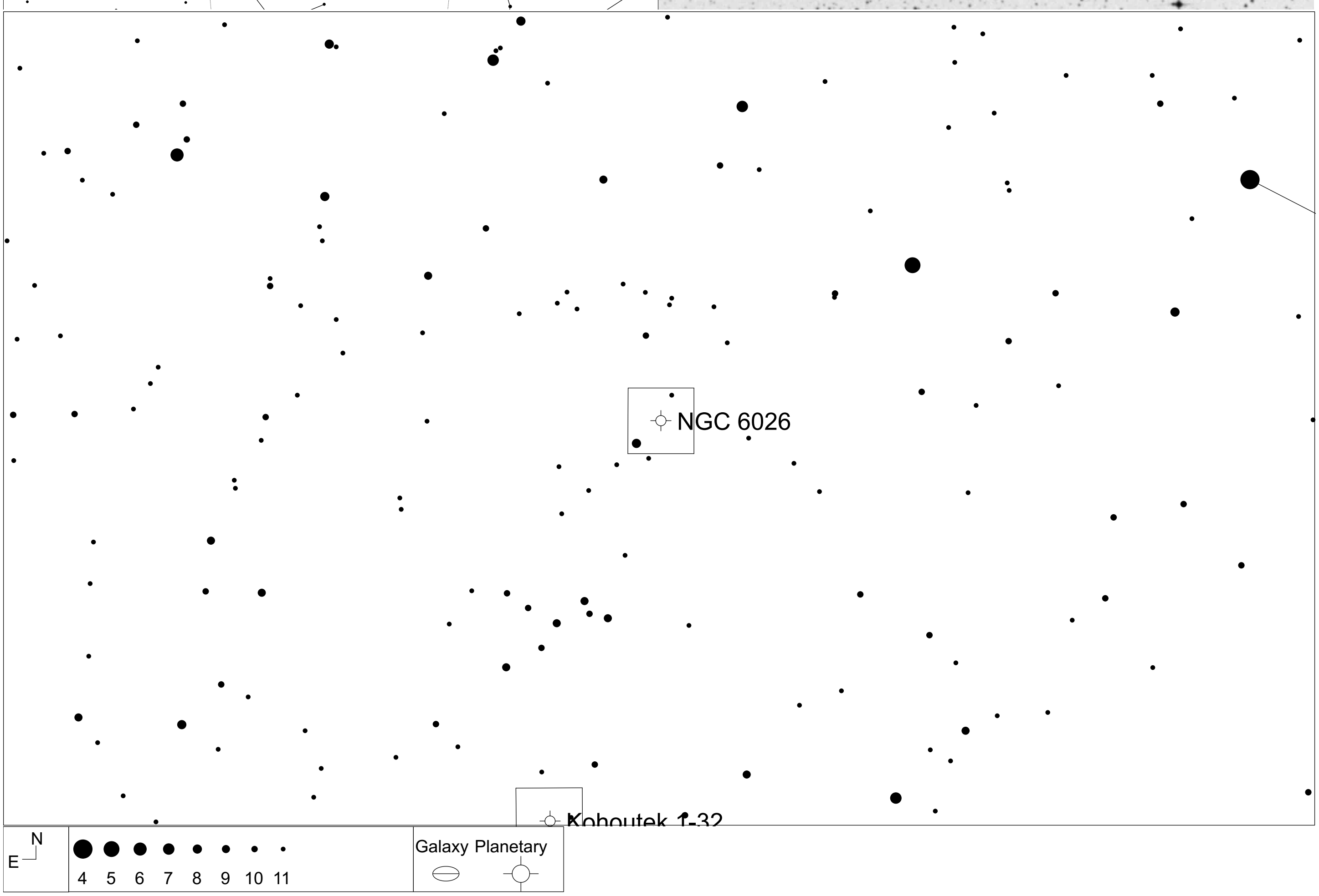


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 331+16.1	2	15 12 51.1	-38 07 33	11.0v	15.5	7”

NGC 6026 (Lupus)

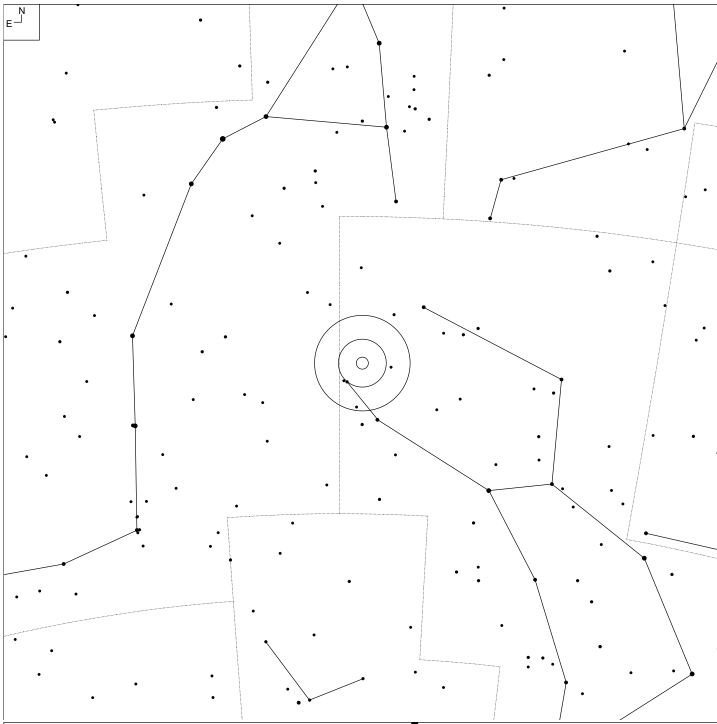


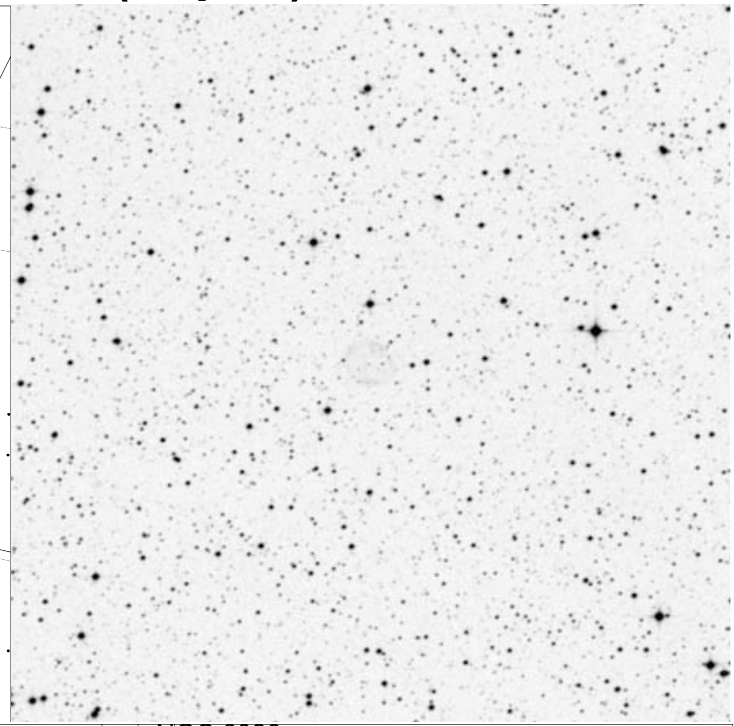


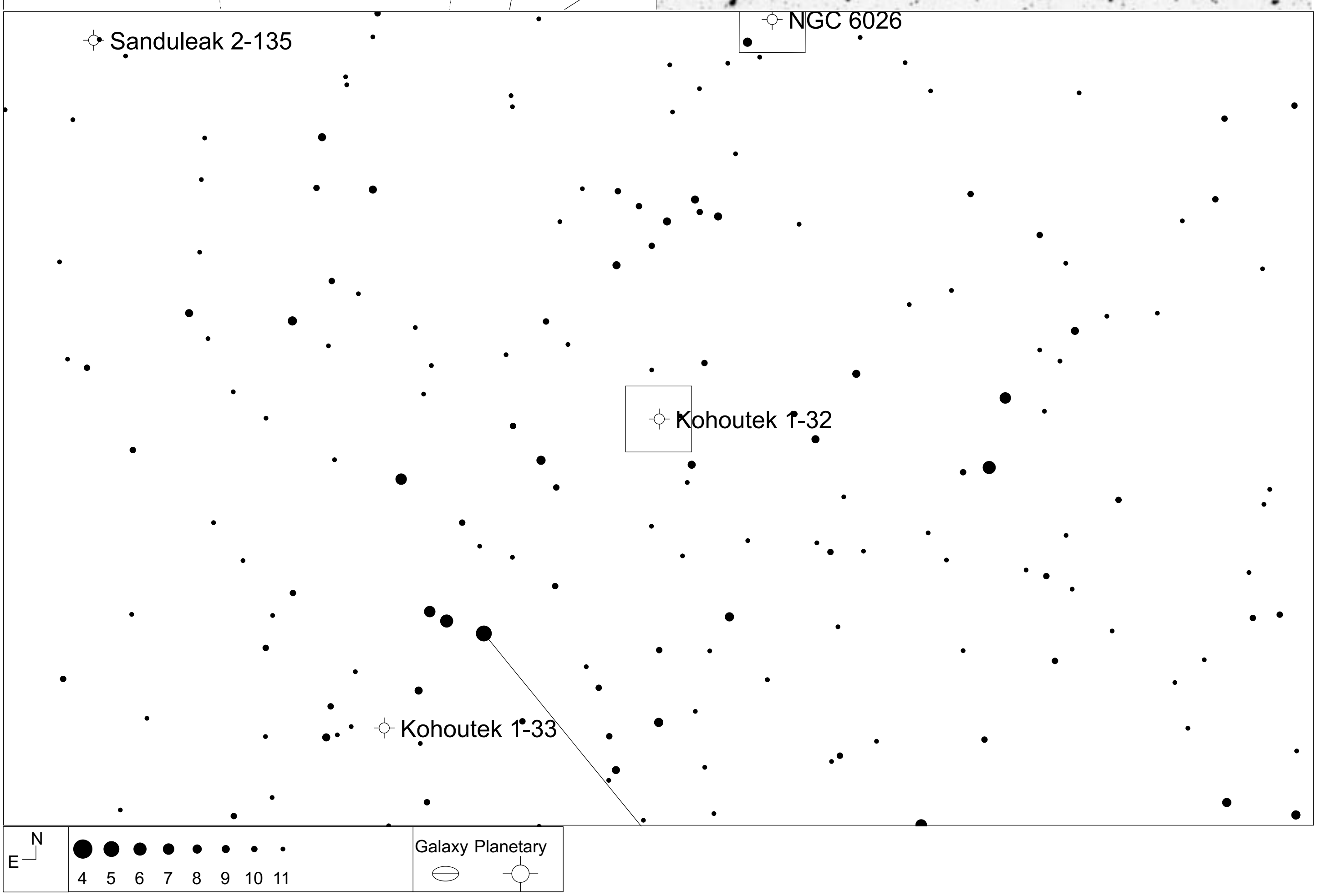


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 341+13.1	4	16 01 21.0	-34 32 36	12.9v	13.2	55”

Kohoutek 1-32 (Lupus)

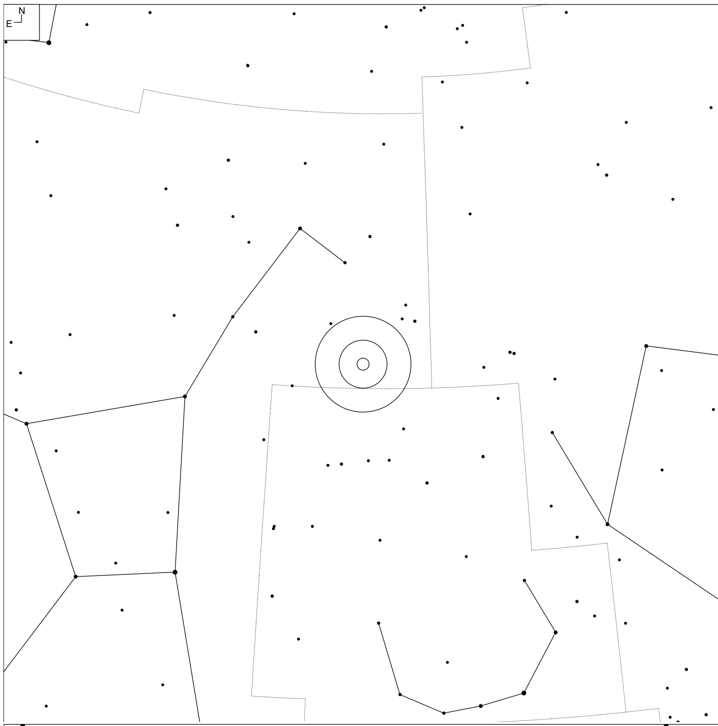


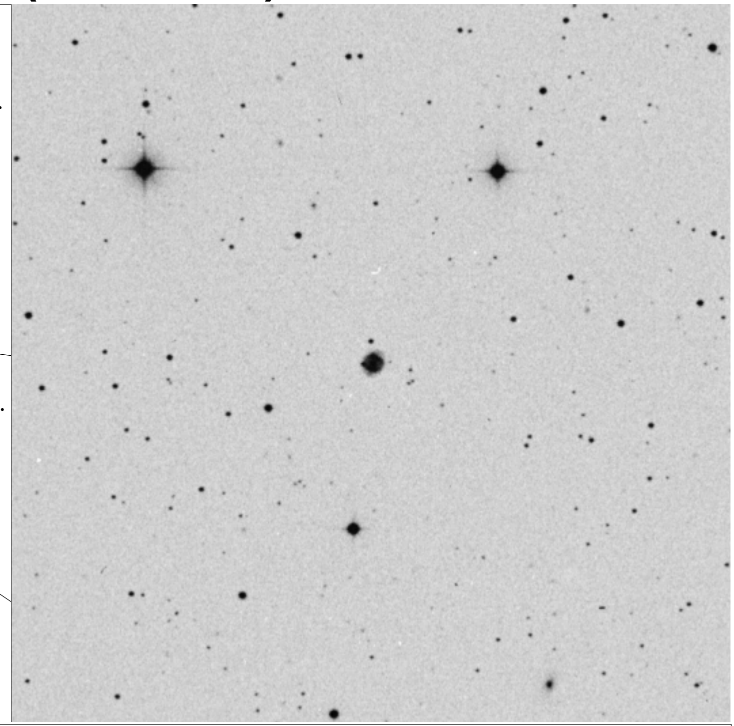


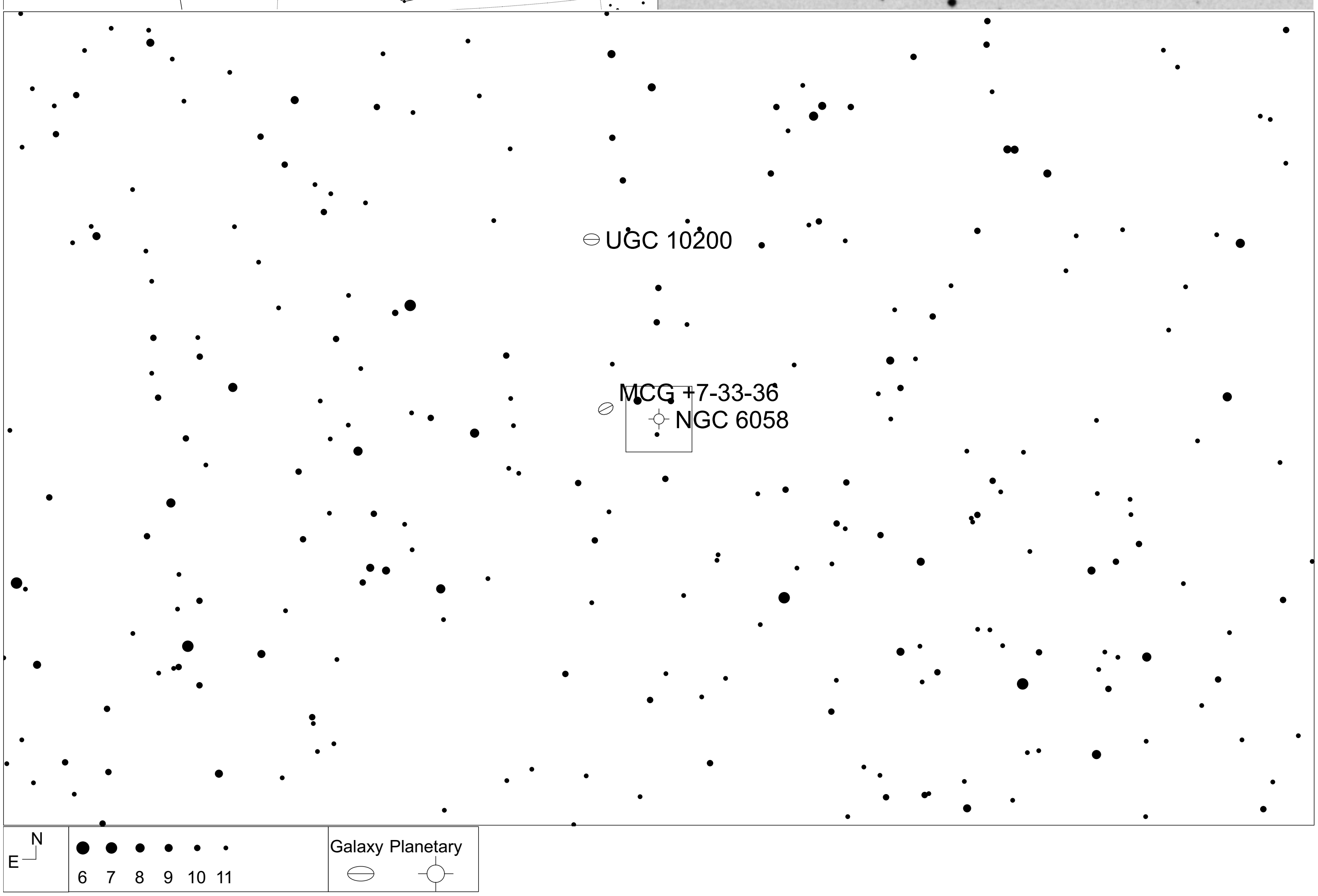


Other ID	Type	RA	Dec	Mag	* Mag	Size
Longmore 11	-	16 03 22.0	-36 00 54	-	19.0	60”

NGC 6058 (Hercules)

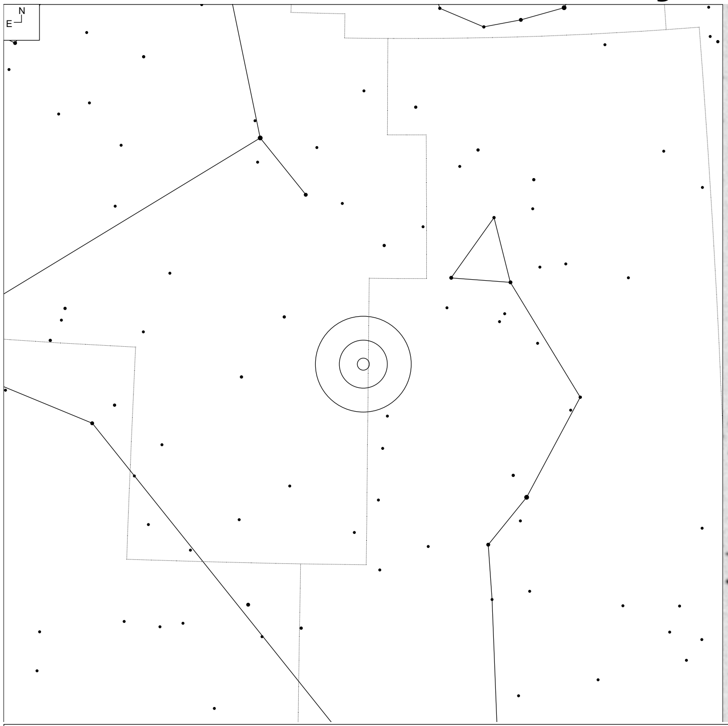


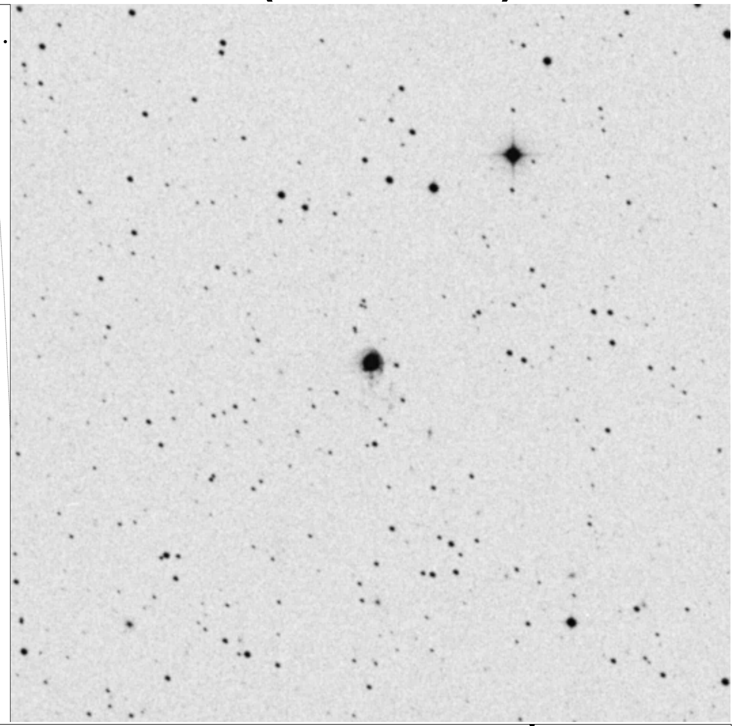


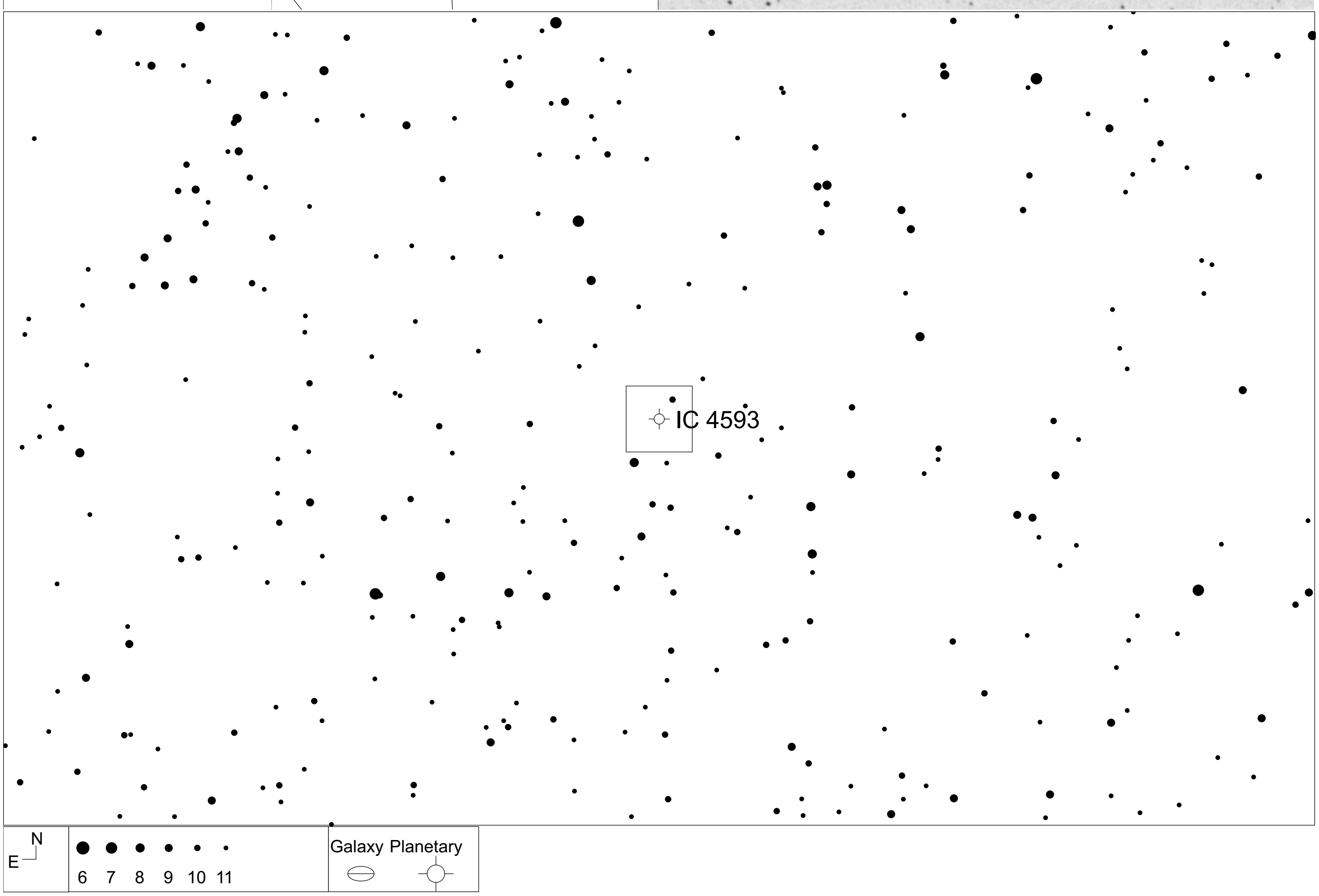


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 64+48.1	3+2	16 04 26.6	+40 40 59	12.9v	13.9	35”

IC 4593 – White Eyed Nebula (Hercules)

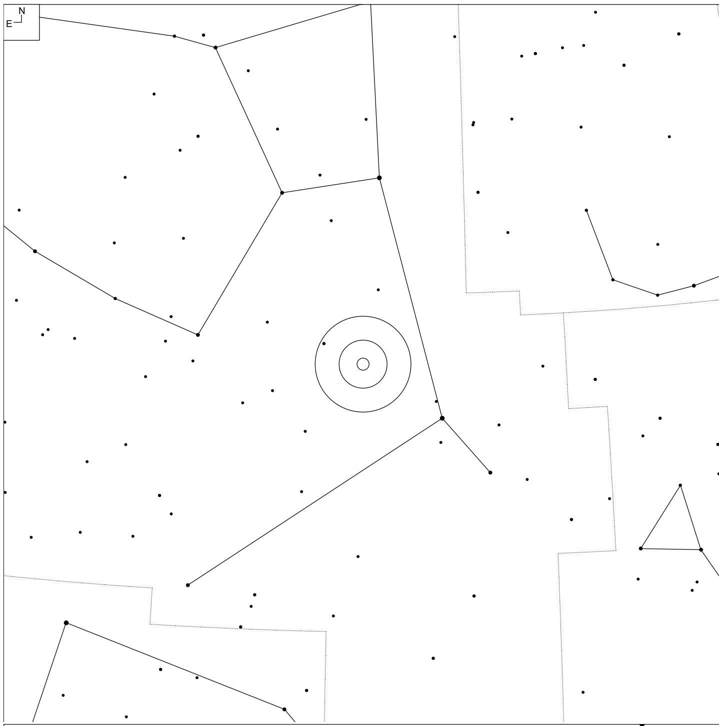


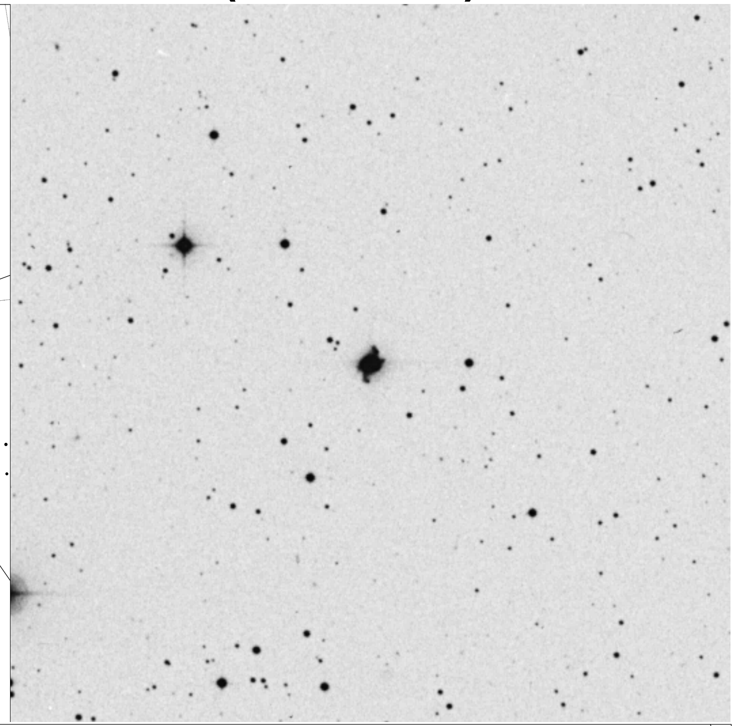


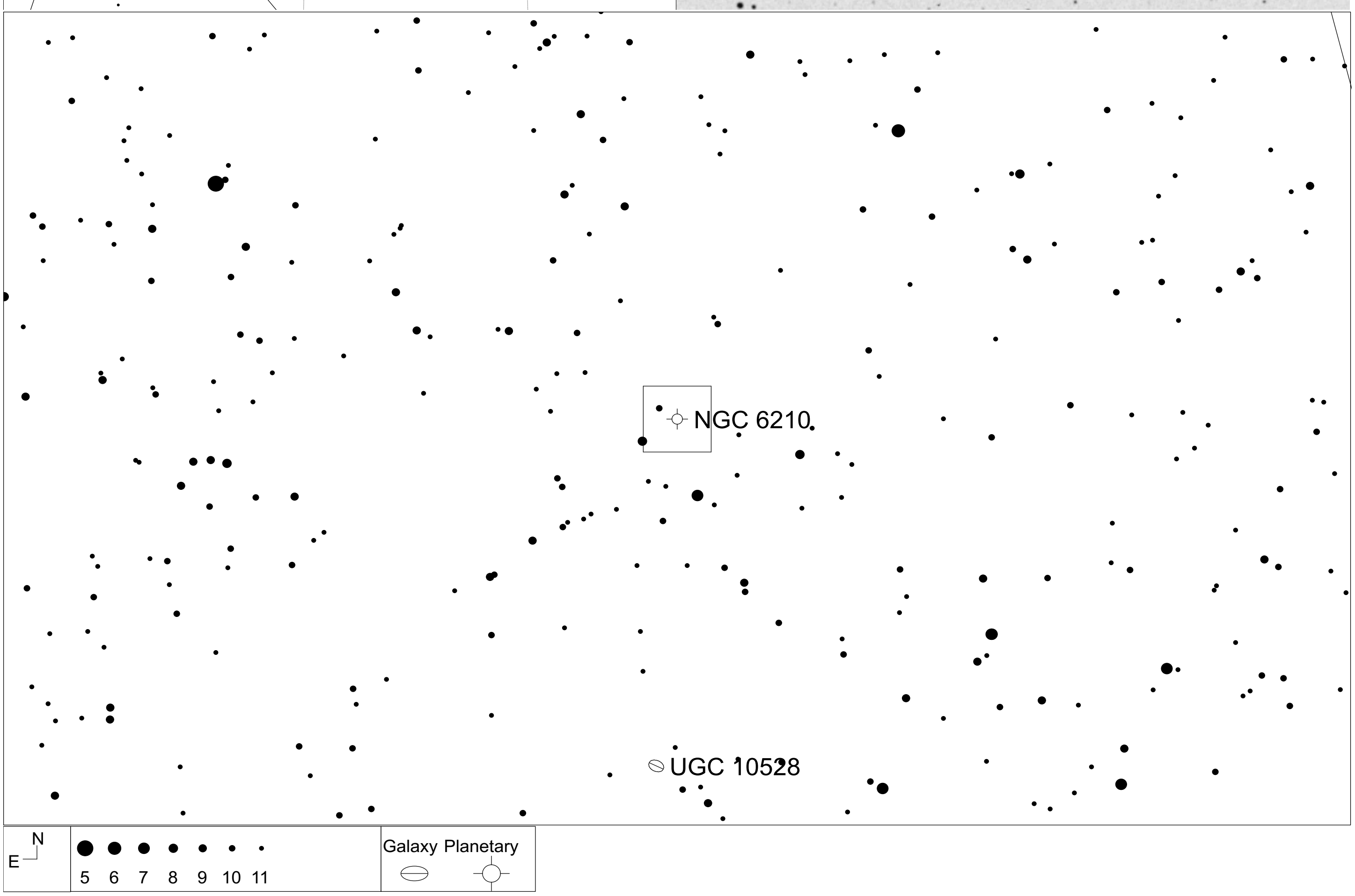


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 25+40.1	2+2	16 11 44.5	+12 04 17	10.7v	11.2	30”

NGC 6210 – Turtle Nebula (Hercules)



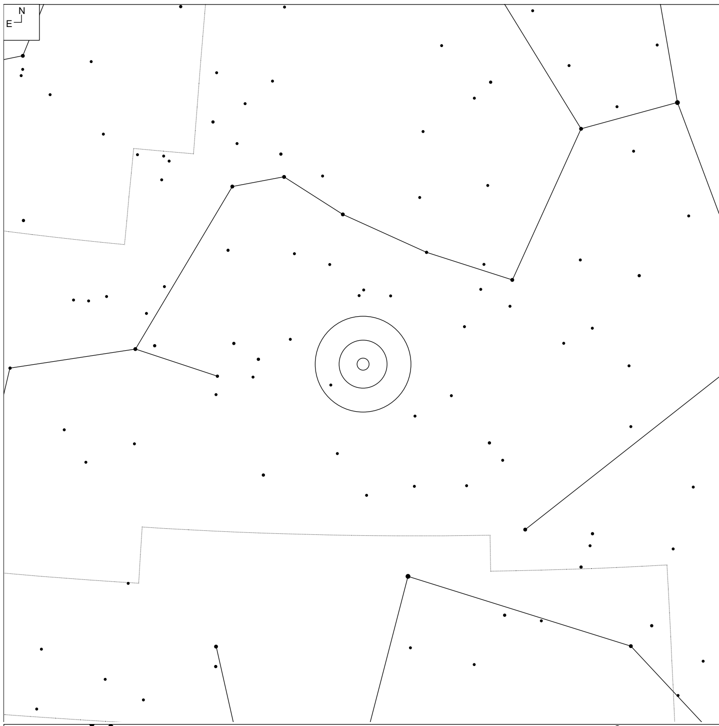


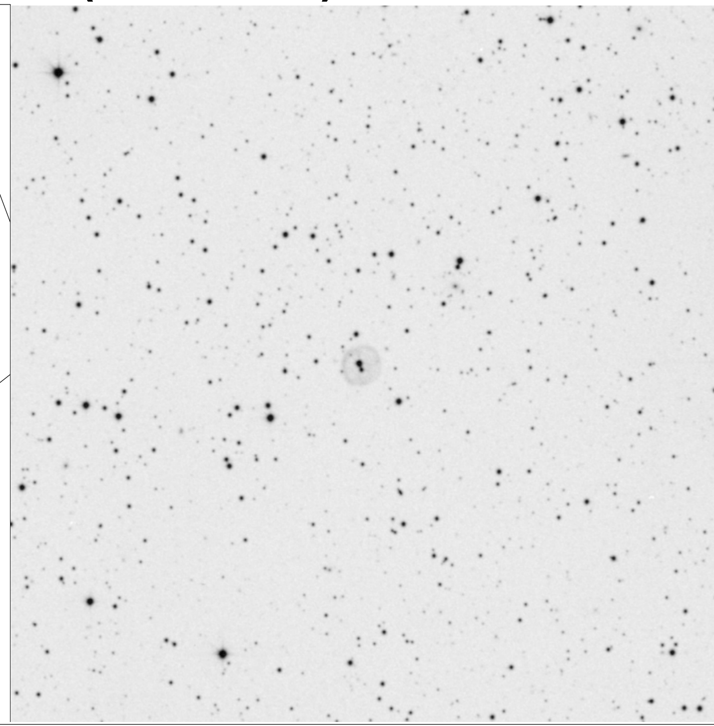


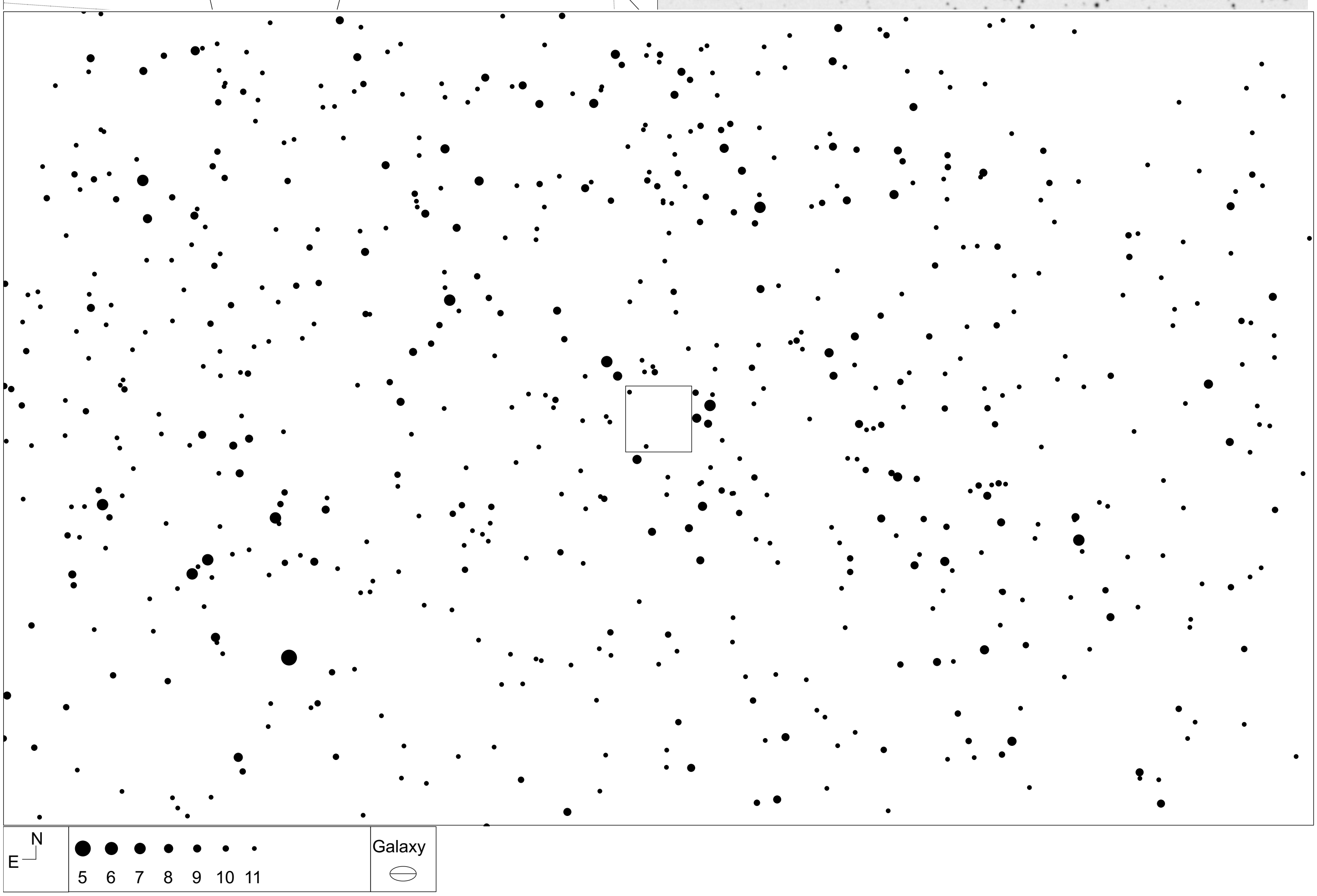
Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 43+37.1	2+3b	16 44 29.7	+23 47 58	8.8v	12.6	30”

Look for extended out halo to the north and west fringes.

Kohoutek 1-14 (Hercules)

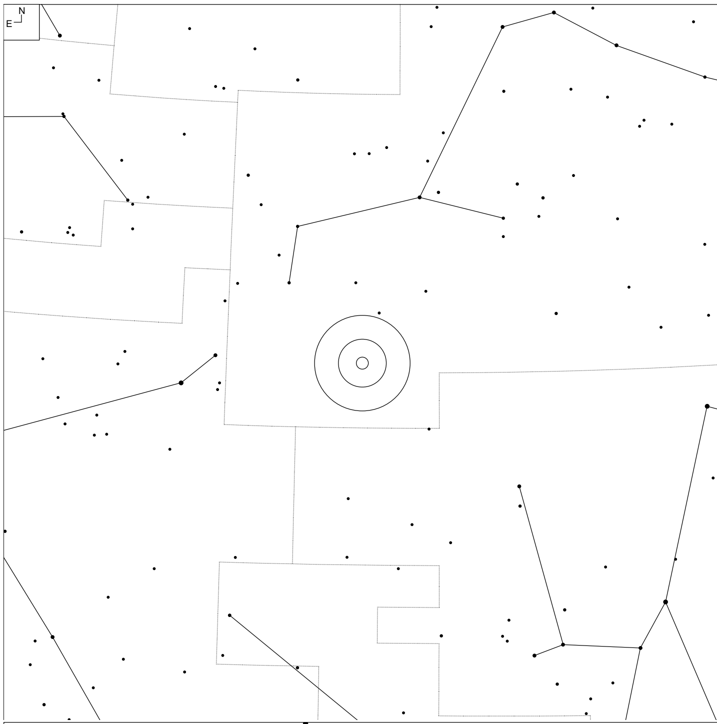


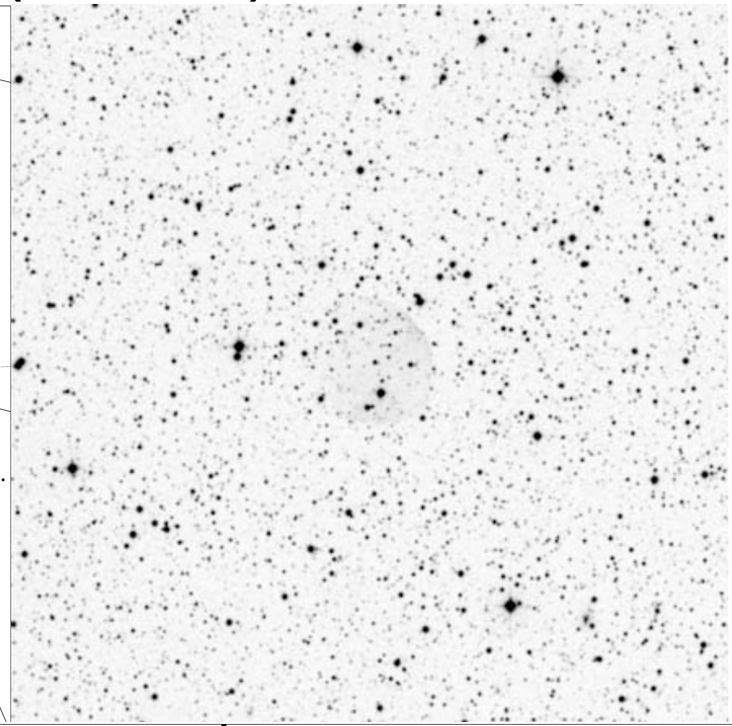


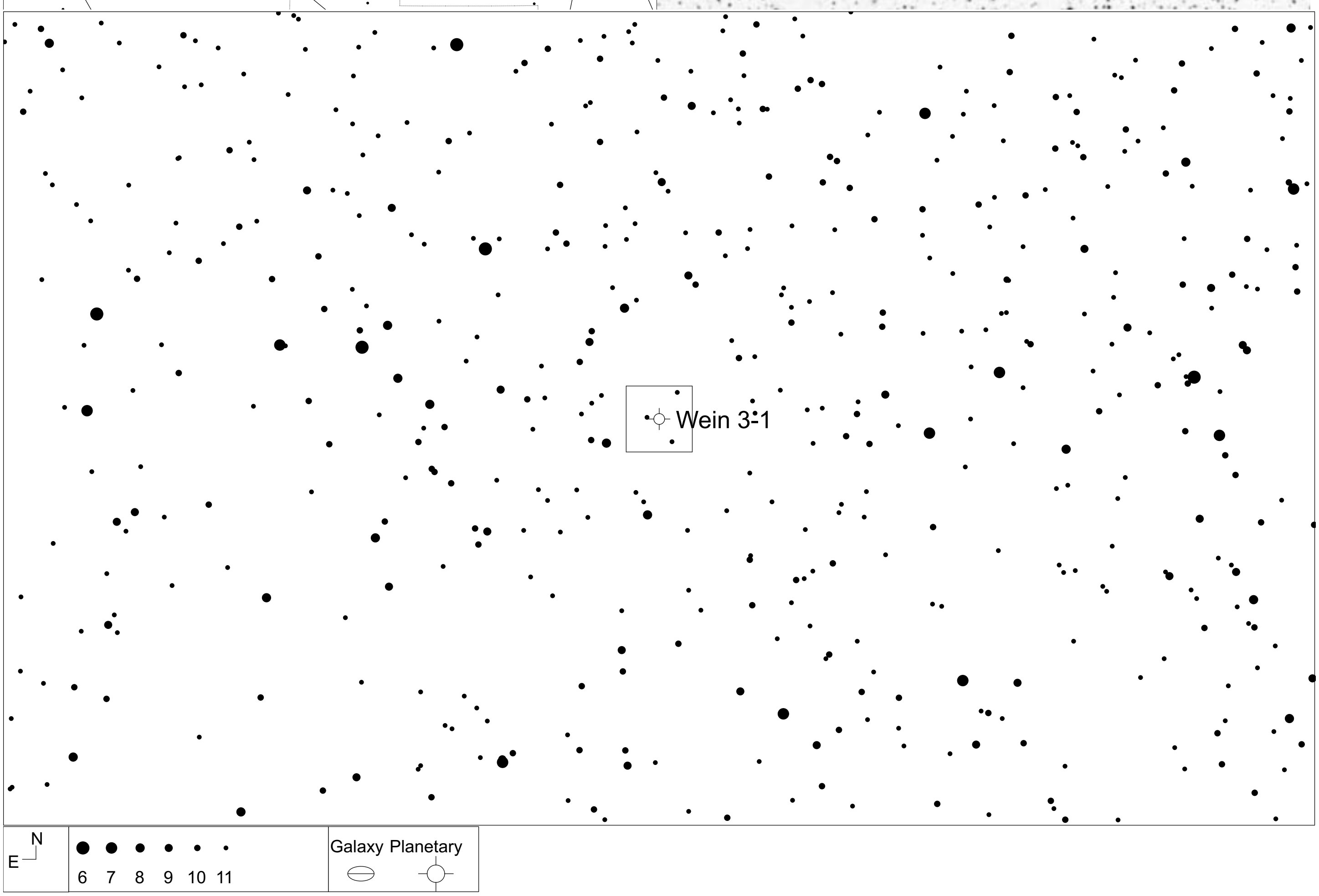


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 45+24.1	4	17 42 36.6	+21 27 01	15.1v	16.4	48”

Wein 3-1 (Hercules)

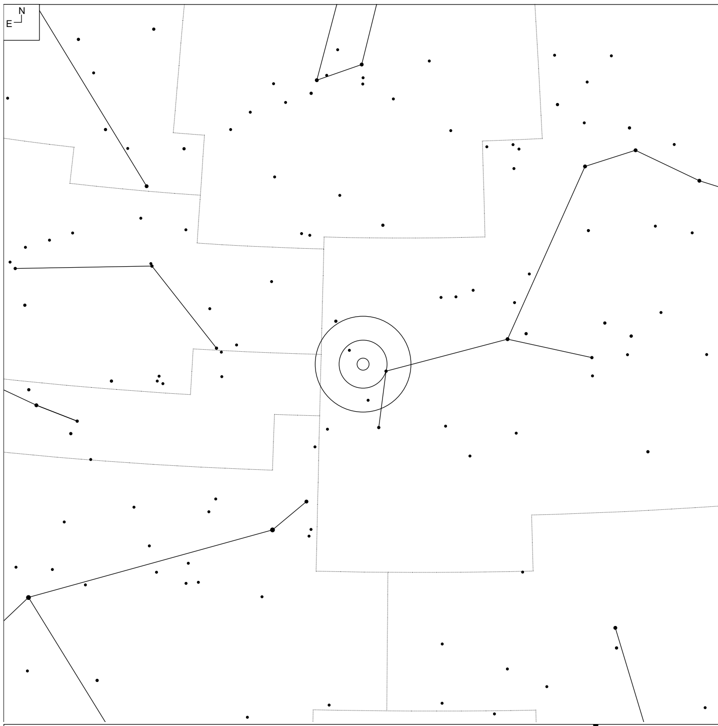


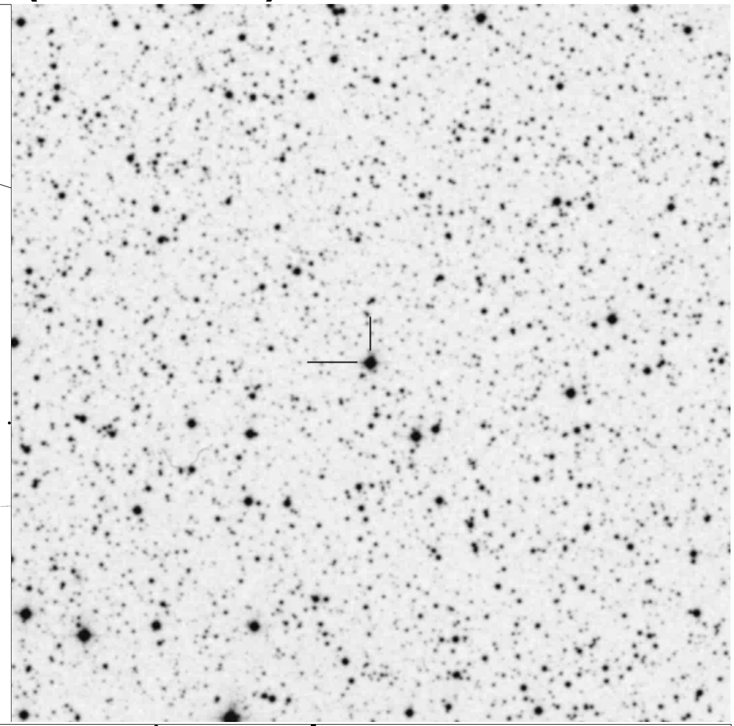


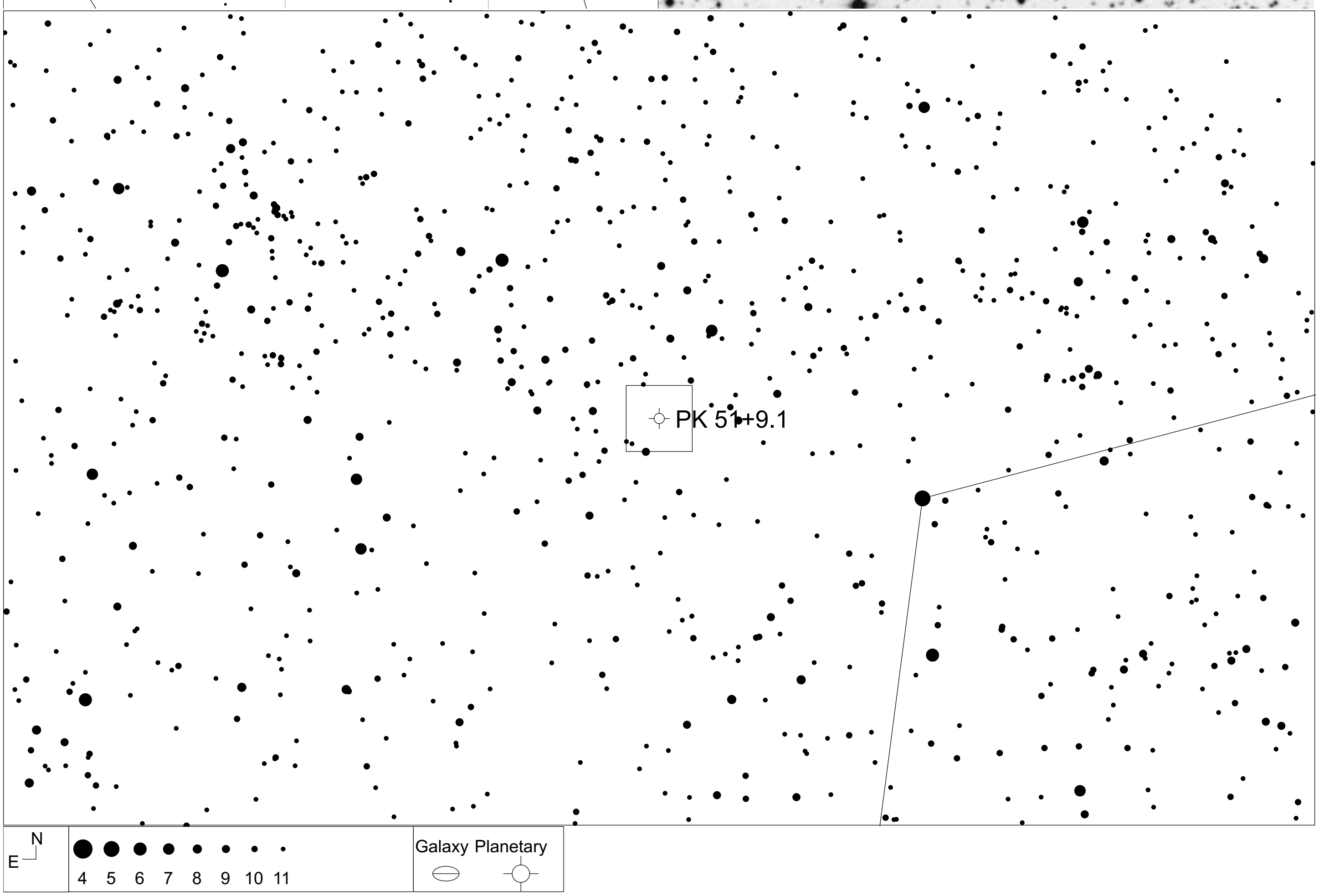


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 44+10.1	-	18 34 03.1	+14 49 17	-	-	2.3’

PK 51+9.1 (Hercules)

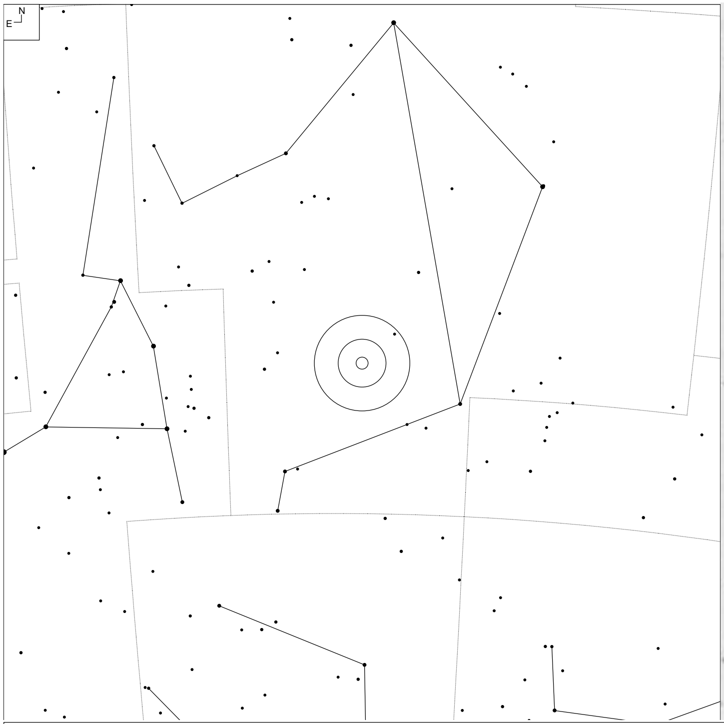


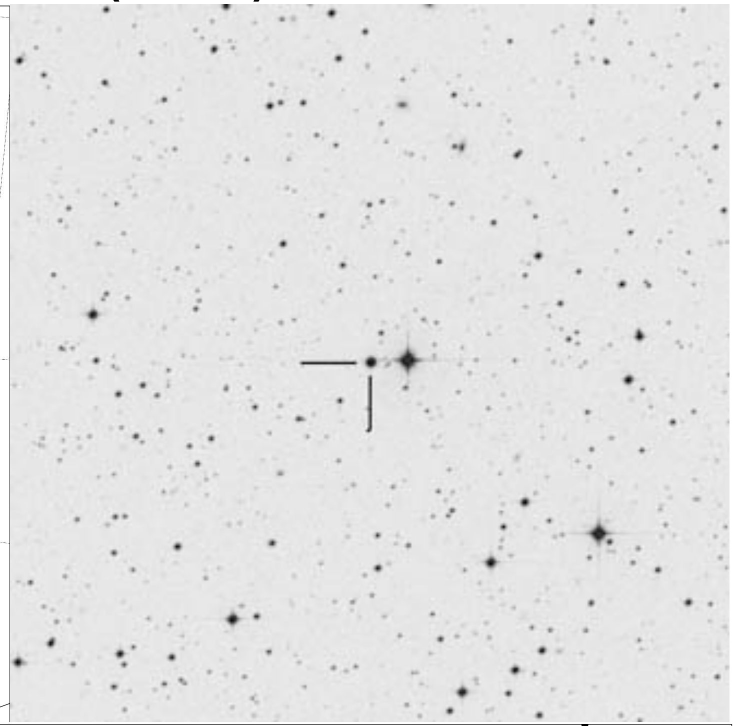


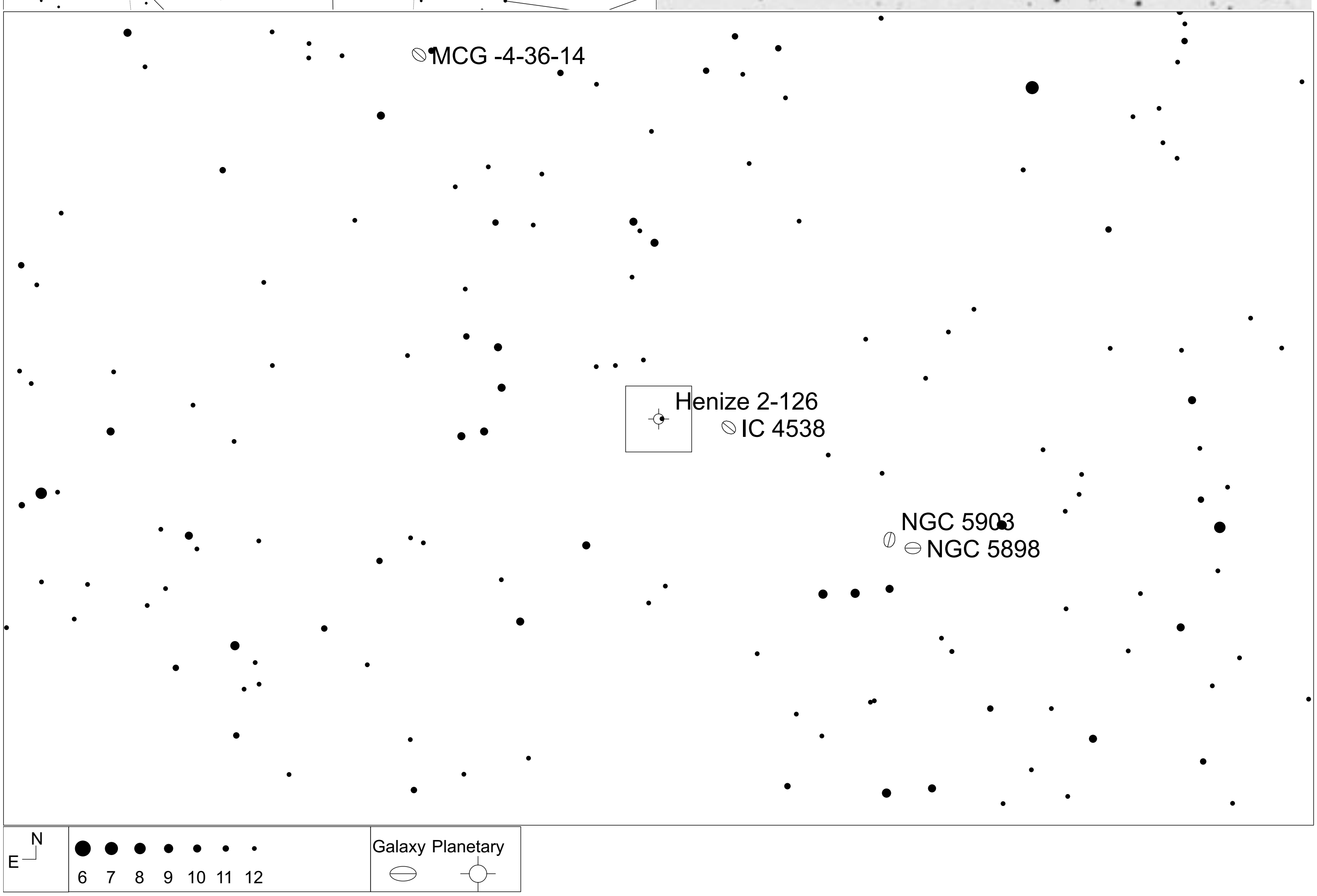


Other ID	Type	RA	Dec	Mag	* Mag	Size
-	-	18 49 47.6	+20 50 36	11.4v	13.3	3”

Henize 2-126 (Libra)

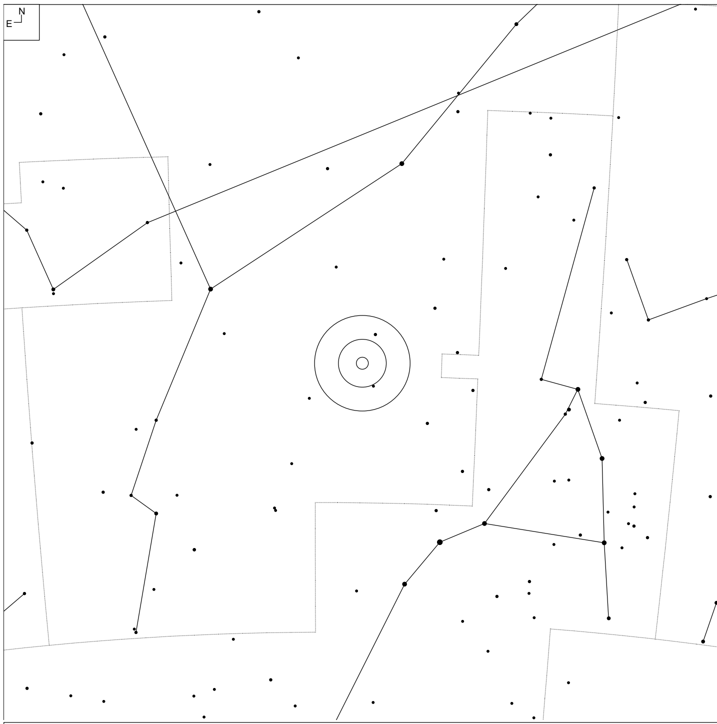


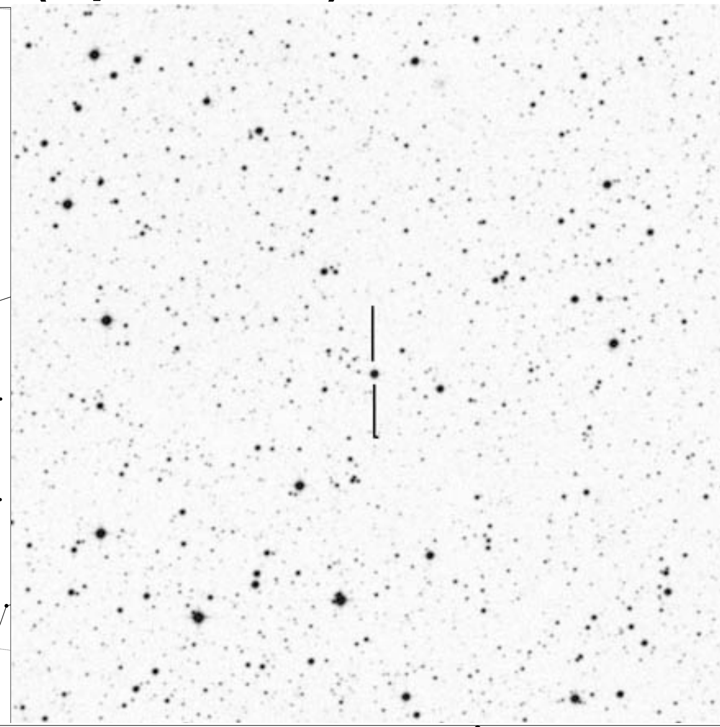


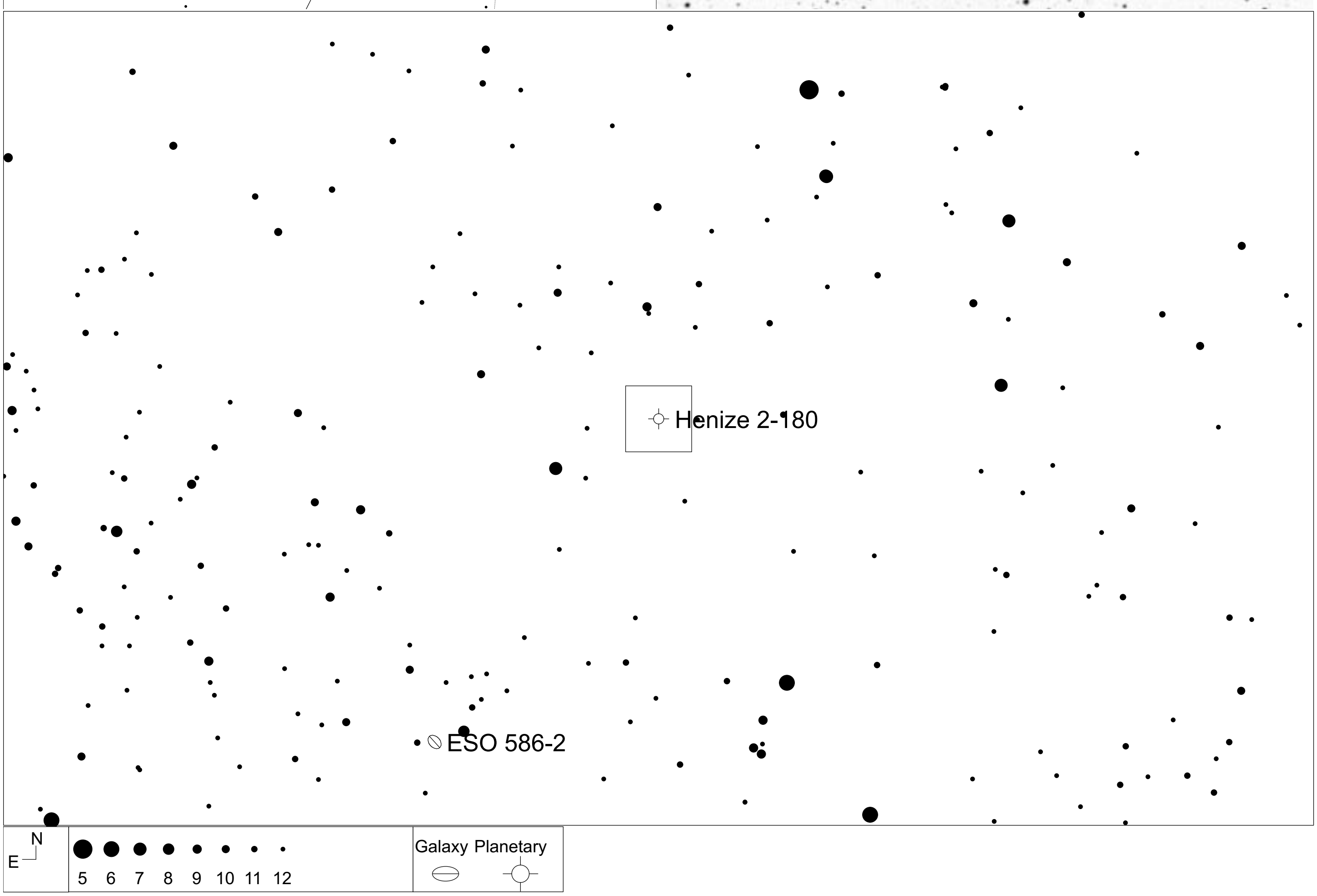


Other ID	Type	RA	Dec	Mag	* Mag	Size
Sanduleak 2-120	2	15 22 19.4	-23 37 33	11.6v	18.8	16”

Henize 2-180 (Ophiuchus)

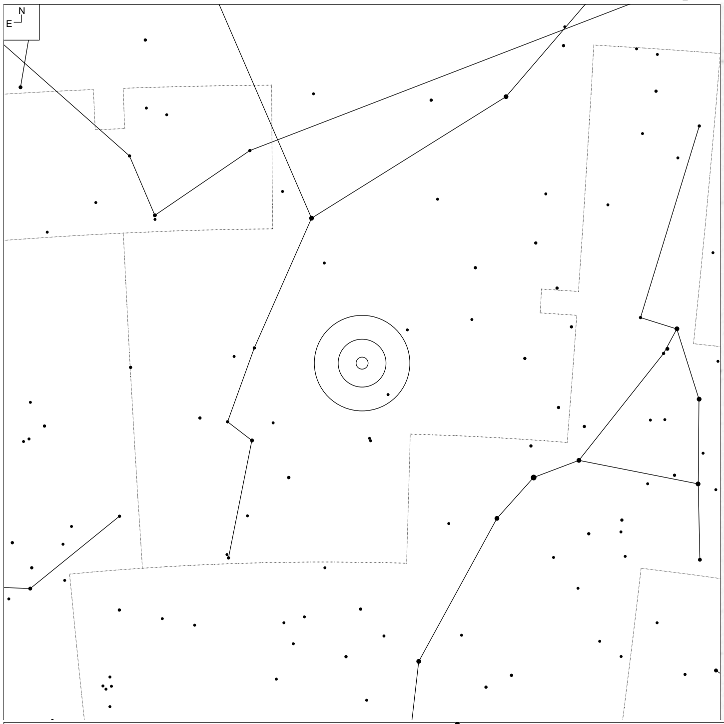


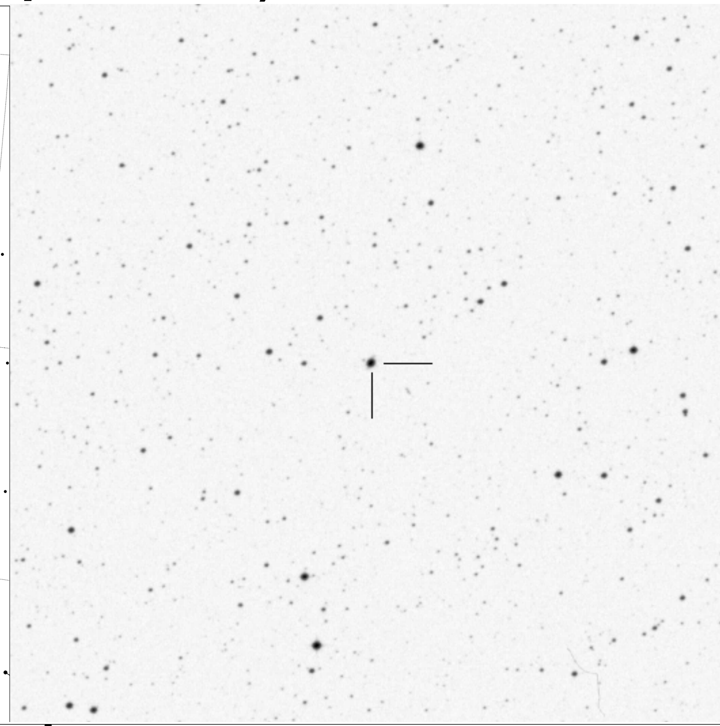


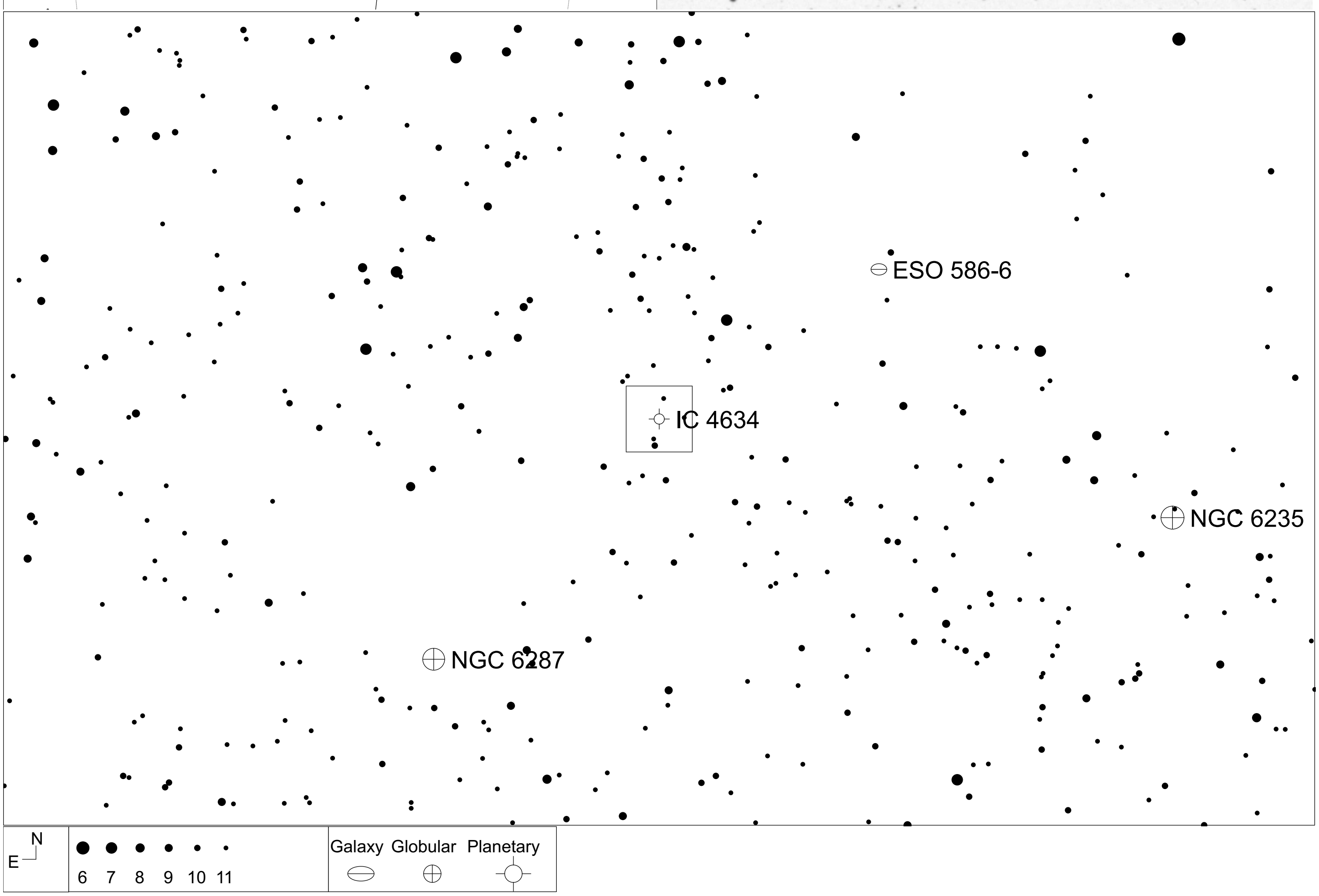


Other ID	Type	RA	Dec	Mag	* Mag	Size
Sanduleak 2-152	1	16 43 53.9	-18 57 14	14.4	15.2	12”

IC 4634 (Ophiuchus)

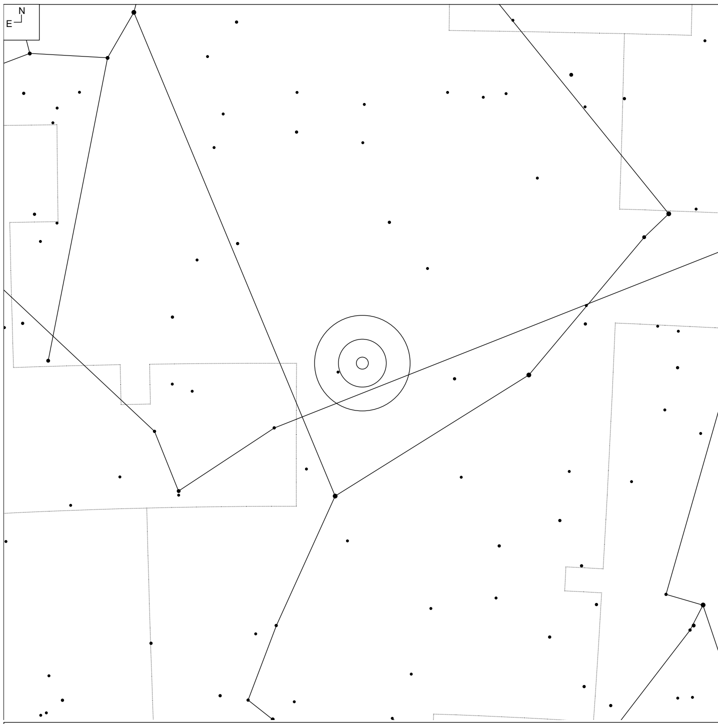


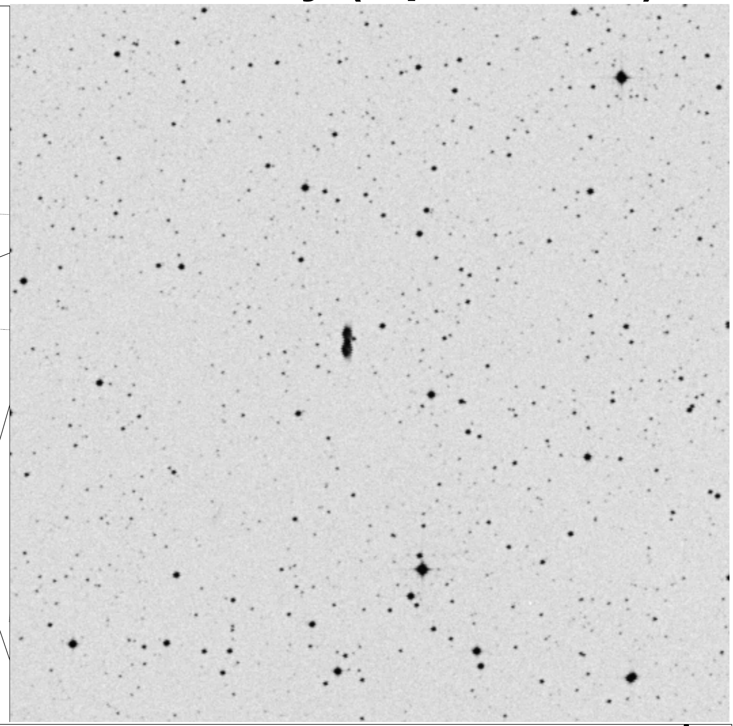


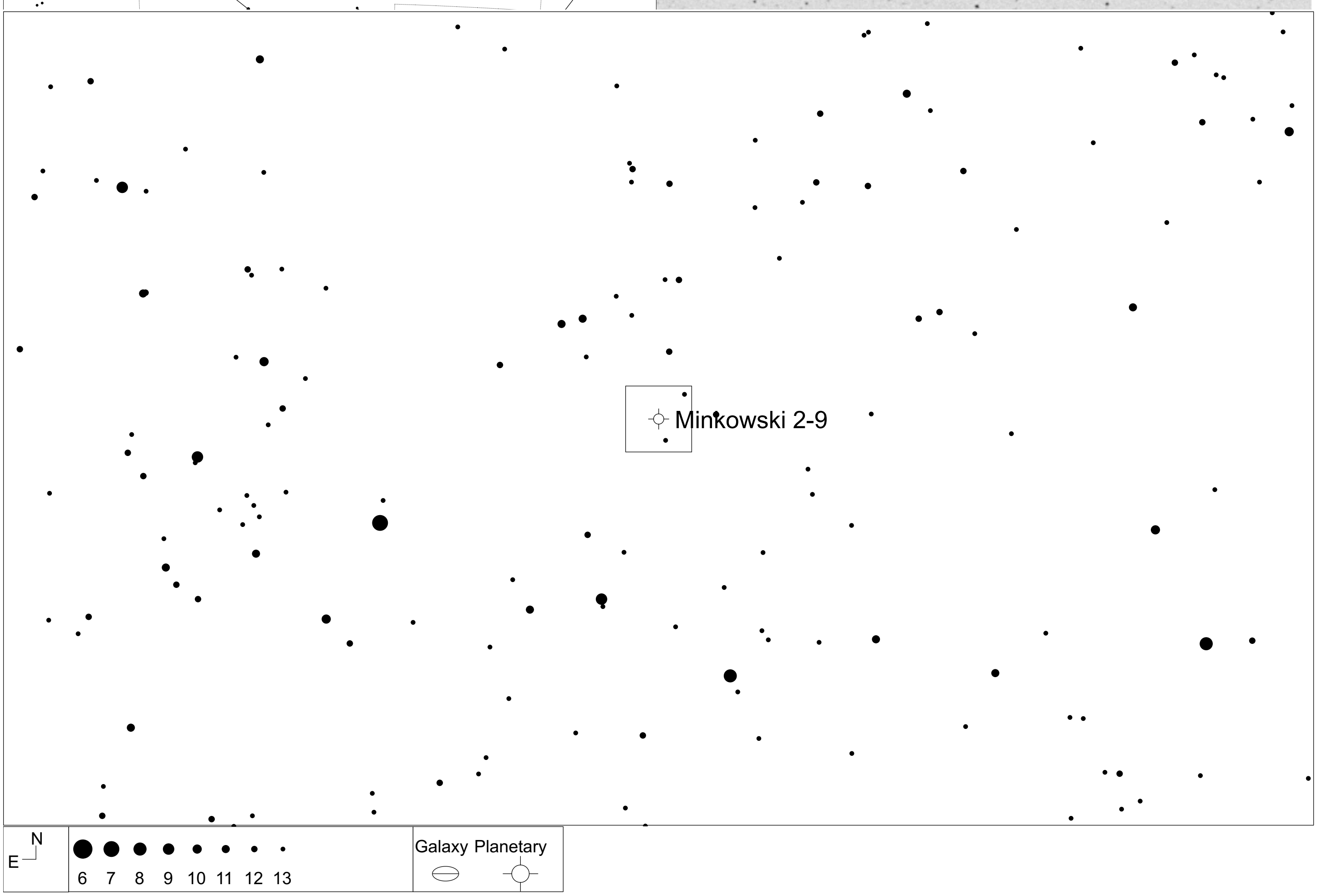


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 0+12.1	2a+3	17 01 33.8	-21 49 34	10.9v	13.9	12”

Minkowski 2-9 – Minkowski's Butterfly (Ophiuchus)

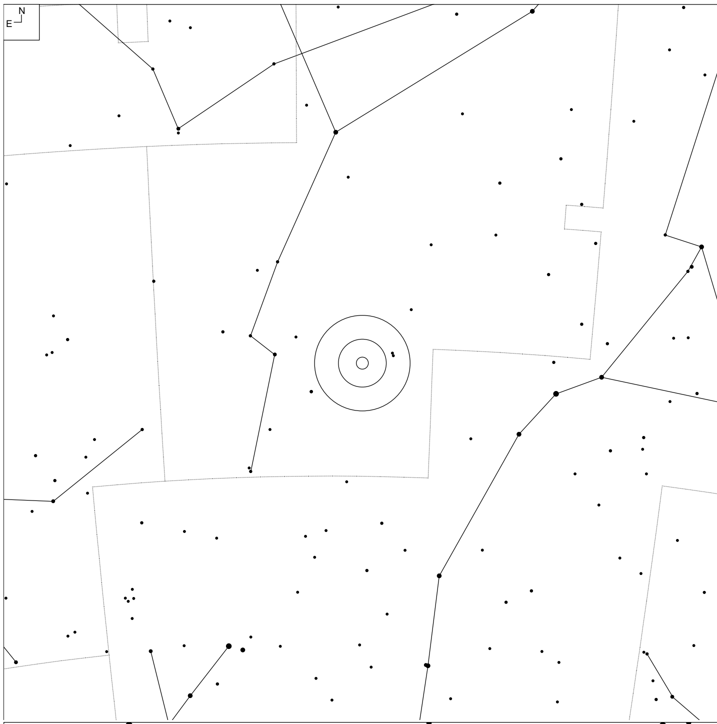


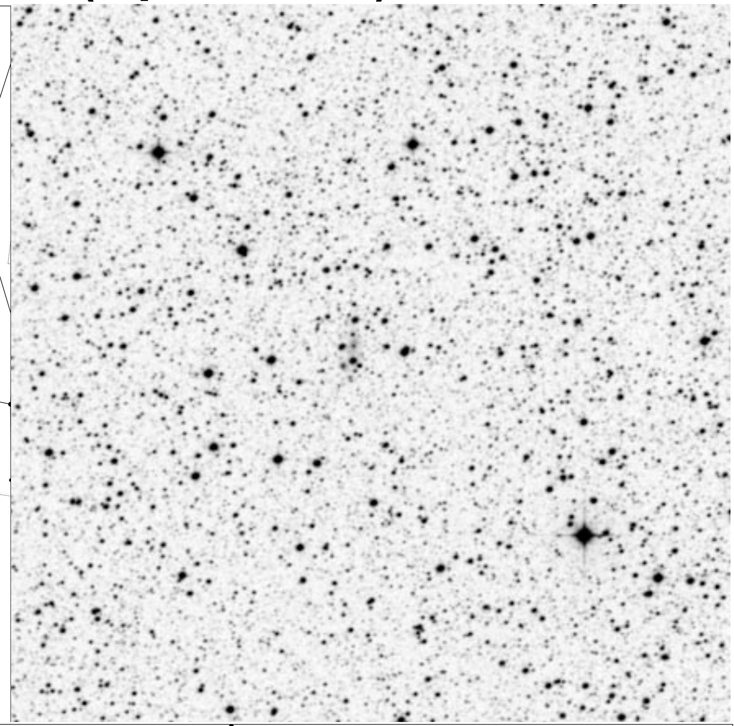


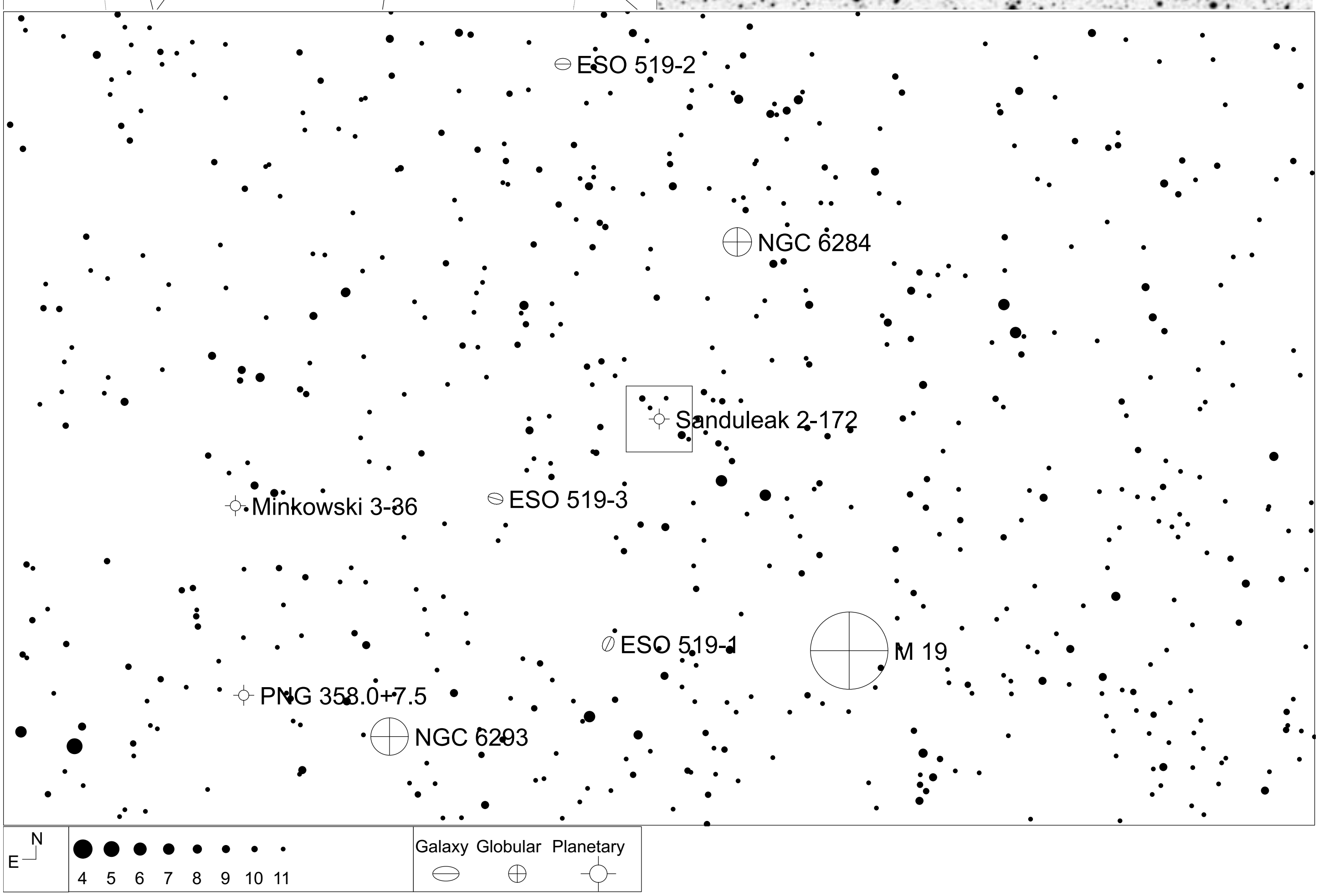


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 10+18.2	?+6	17 05 37.9	-10 08 32	14.6v	15.6	50 x 20”

Sanduleak 2-172 (Ophiuchus)

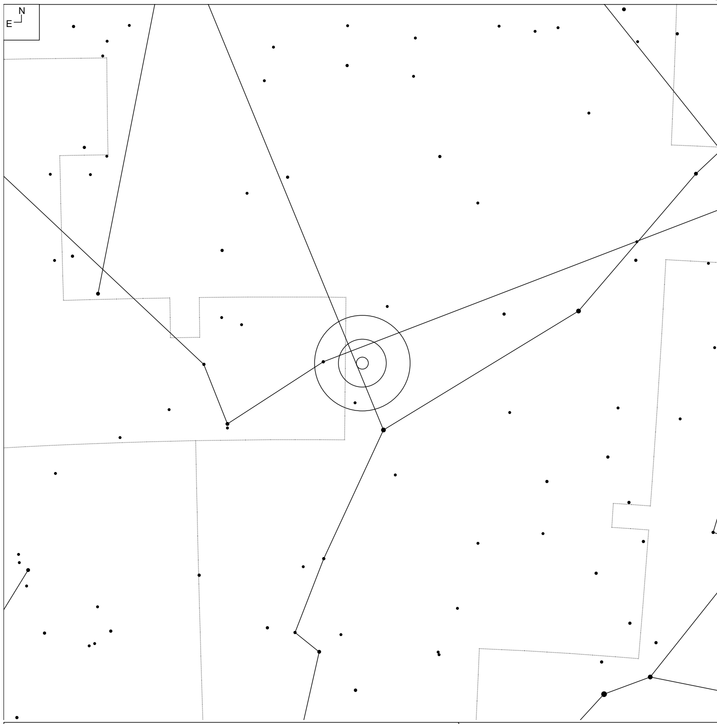


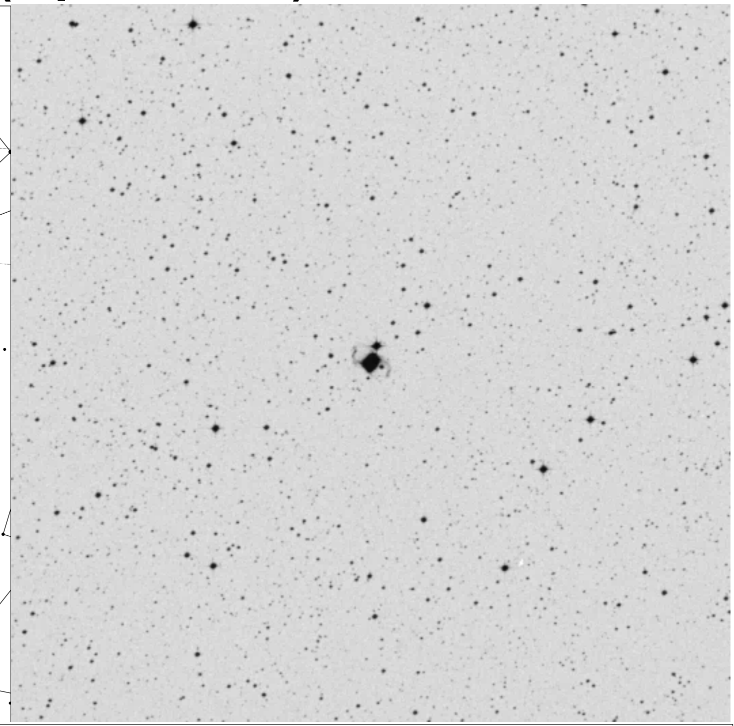


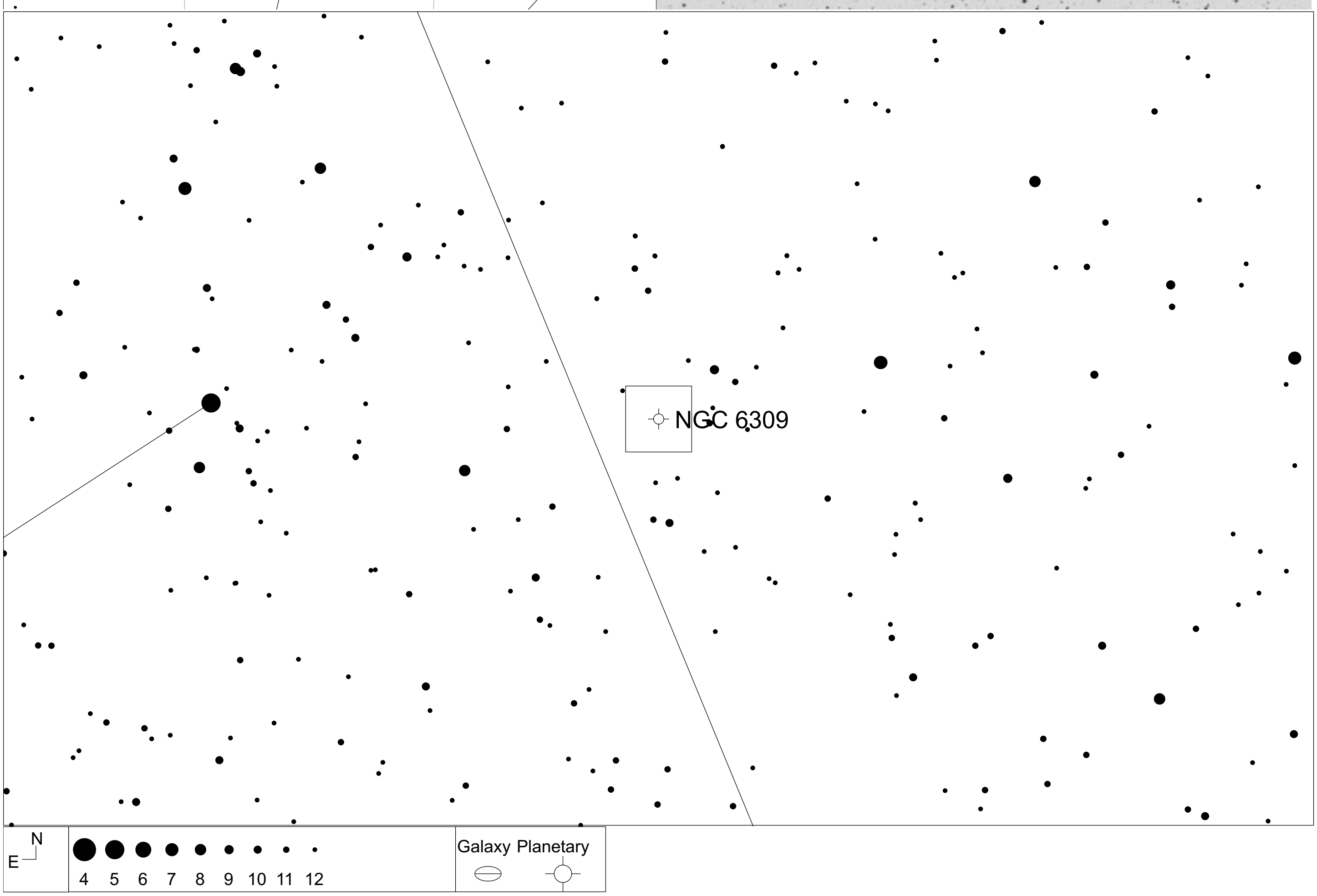


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 358+9.1	-	17 05 44.6	-25 25 02	14.9	17.8	10”

NGC 6309 (Ophiuchus)

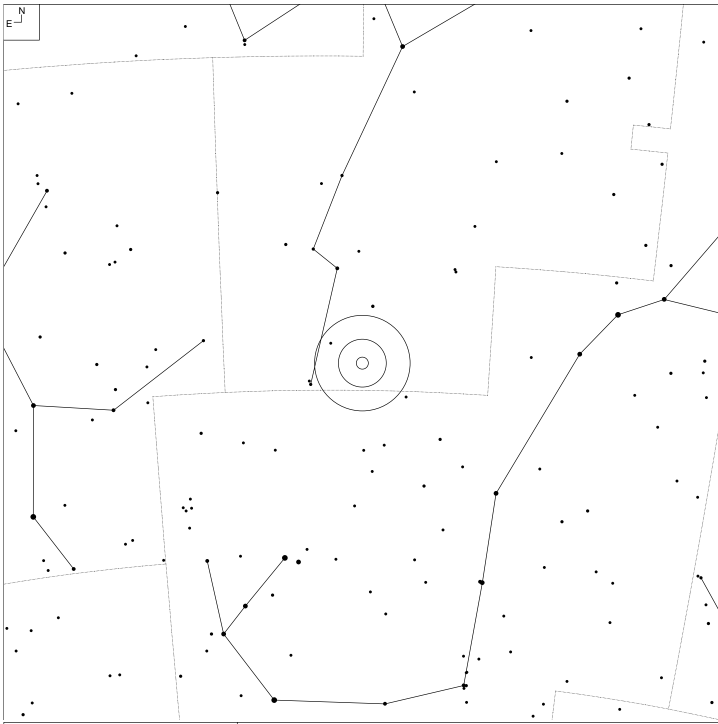


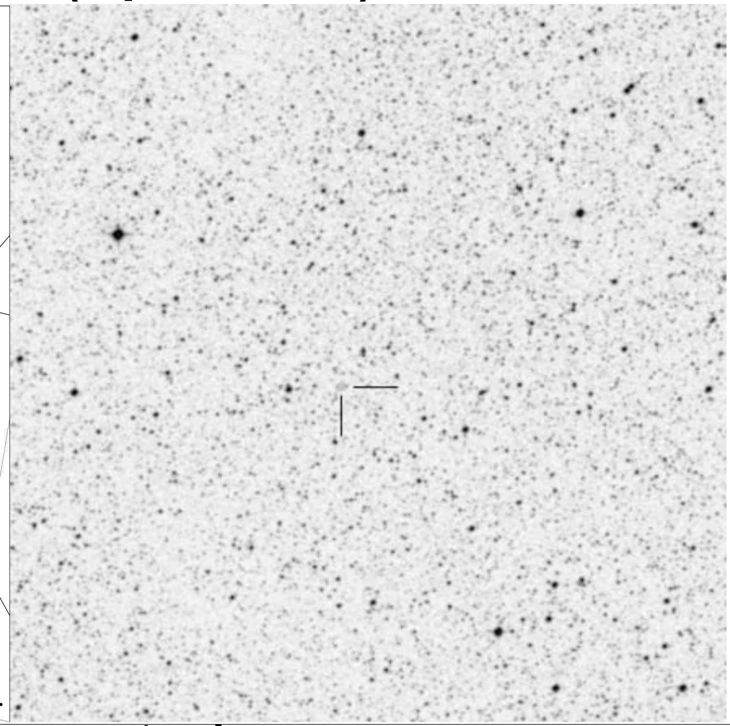


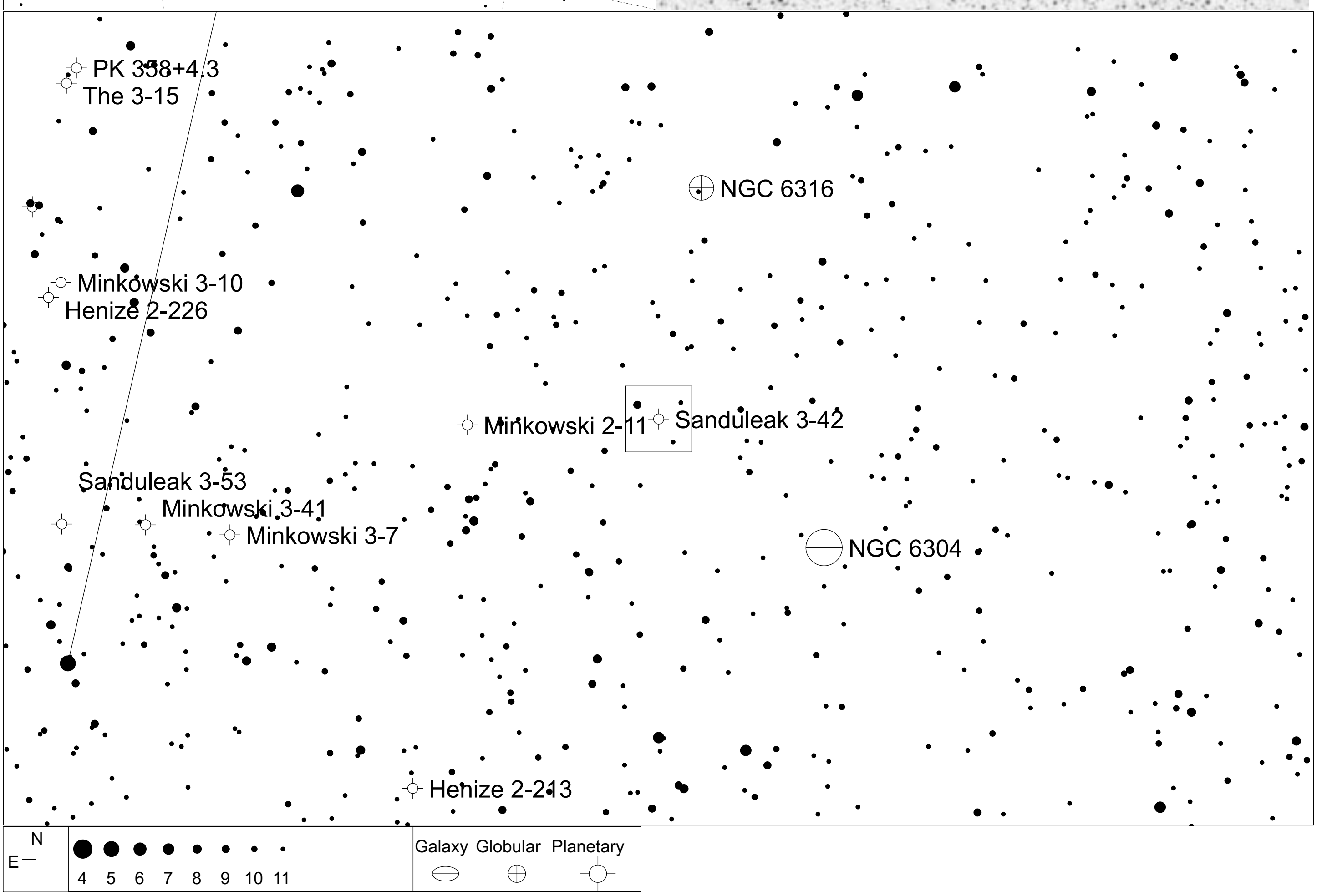


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 9+14.1	3b+6	17 14 04.5	-12 54 41	11.5v	16.5	21x12”

Sanduleak 3-42 (Ophiuchus)

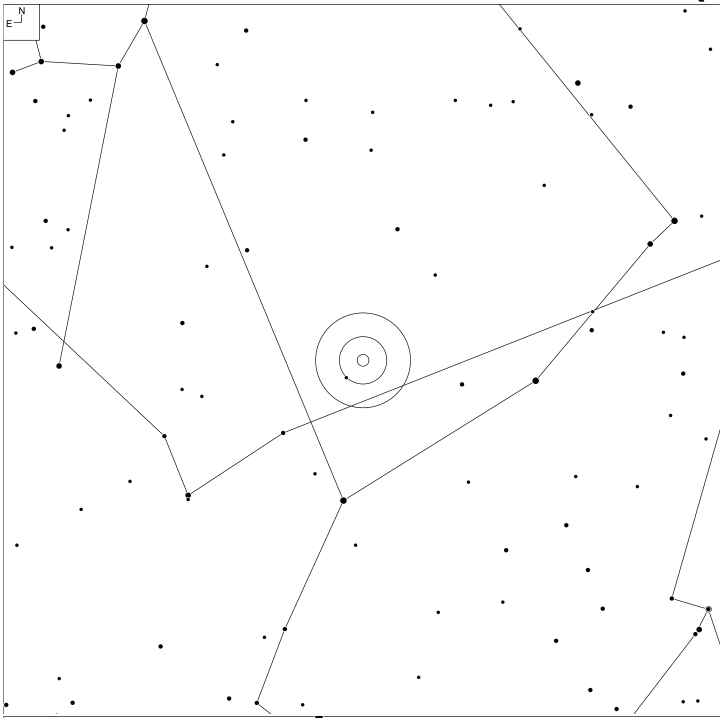


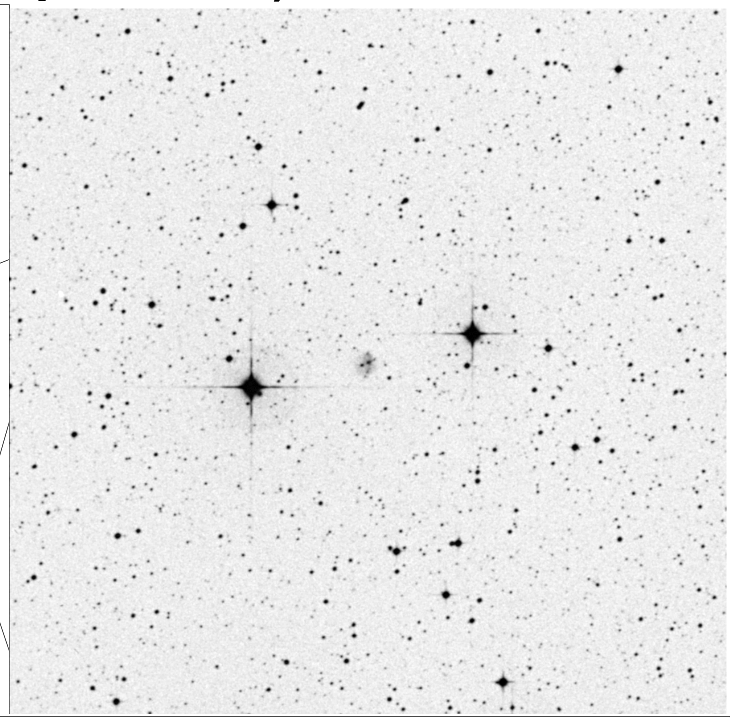


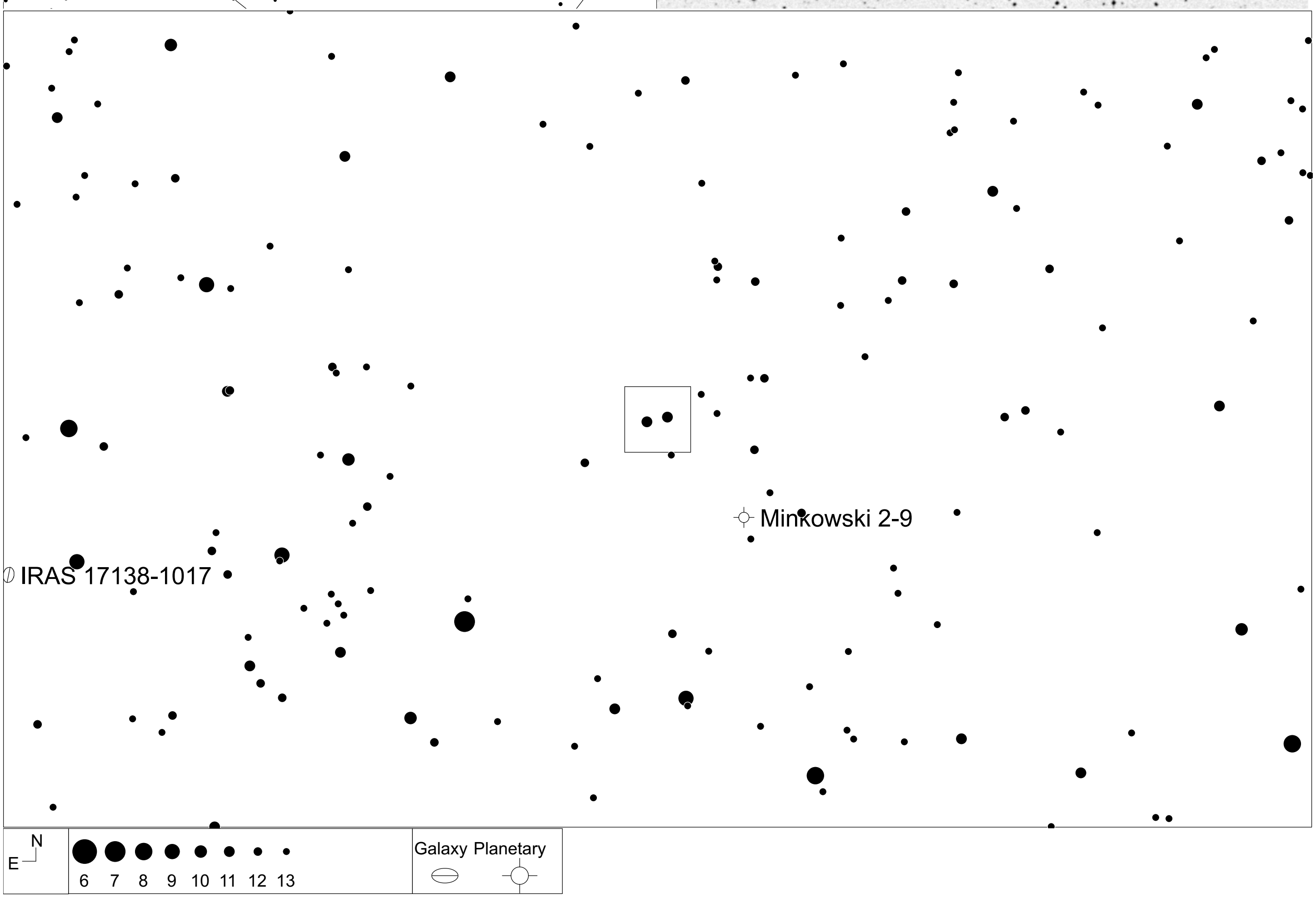


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 356+5.1	-	17 17 20.3	-28 59 27	16.4p	-	17”

DHW 1-2 (Ophiuchus)

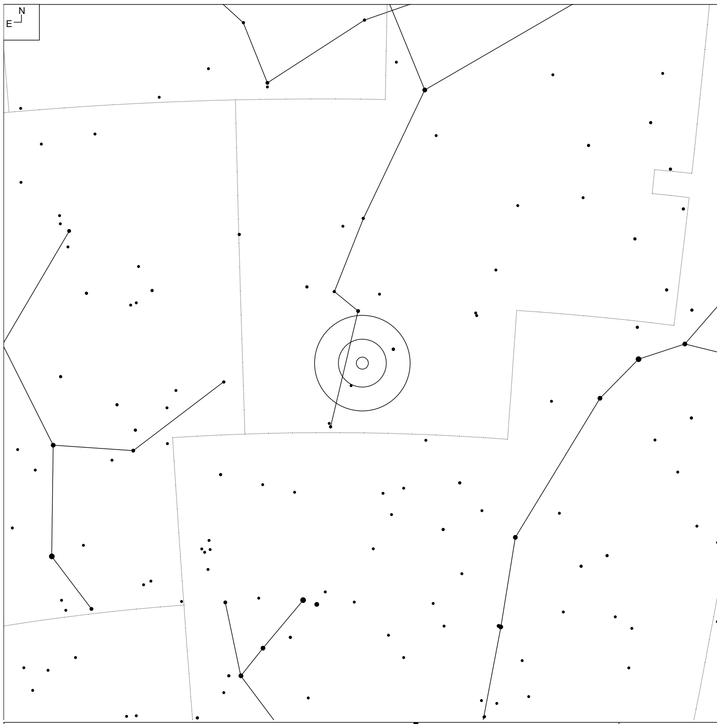


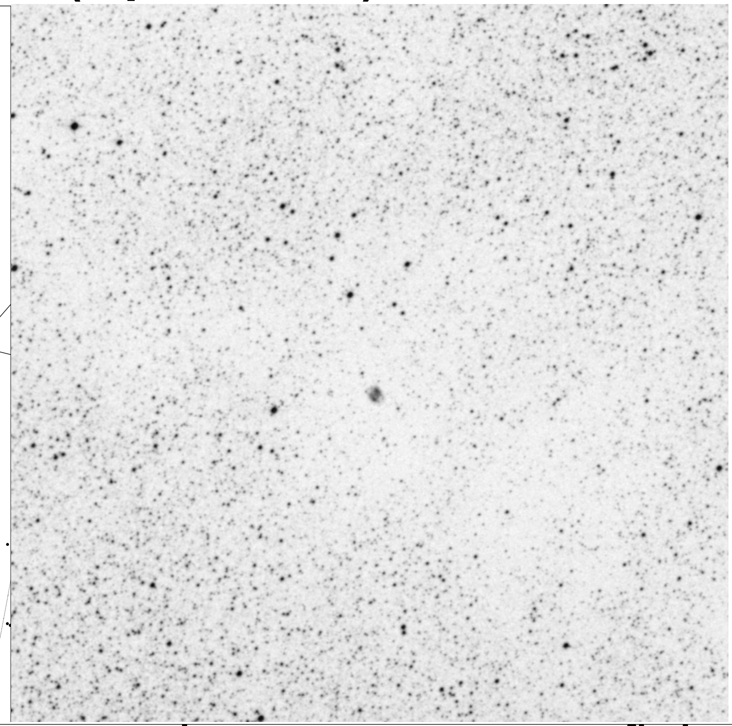


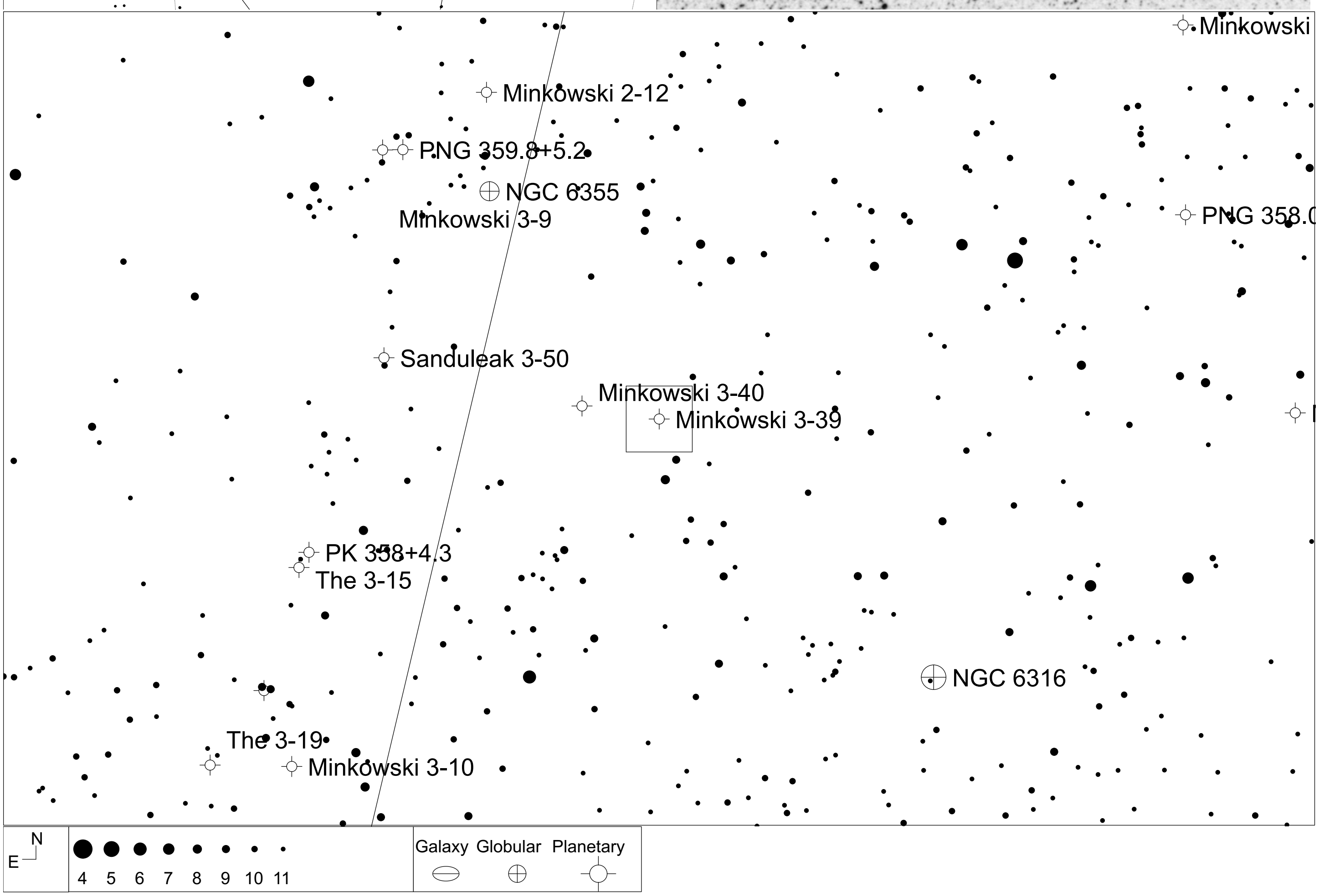


Other ID	Type	RA	Dec	Mag	* Mag	Size
	-	17 06 55.0	-09 46 59	-	-	30 x 20”

Minkowski 3-39 (Ophiuchus)

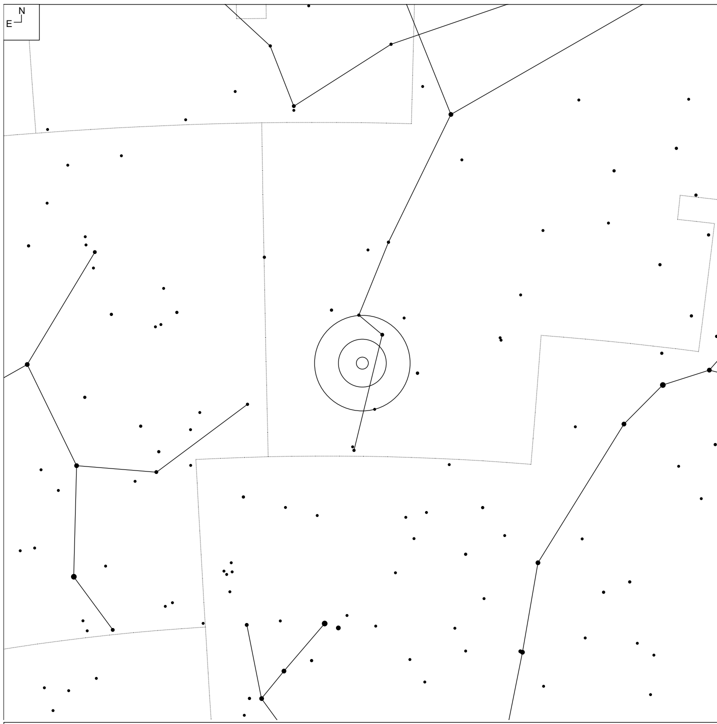


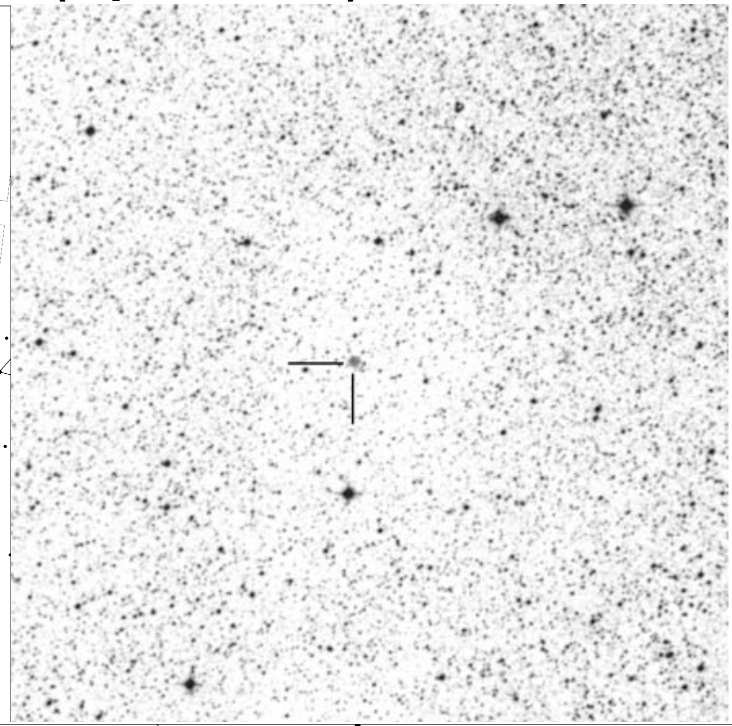


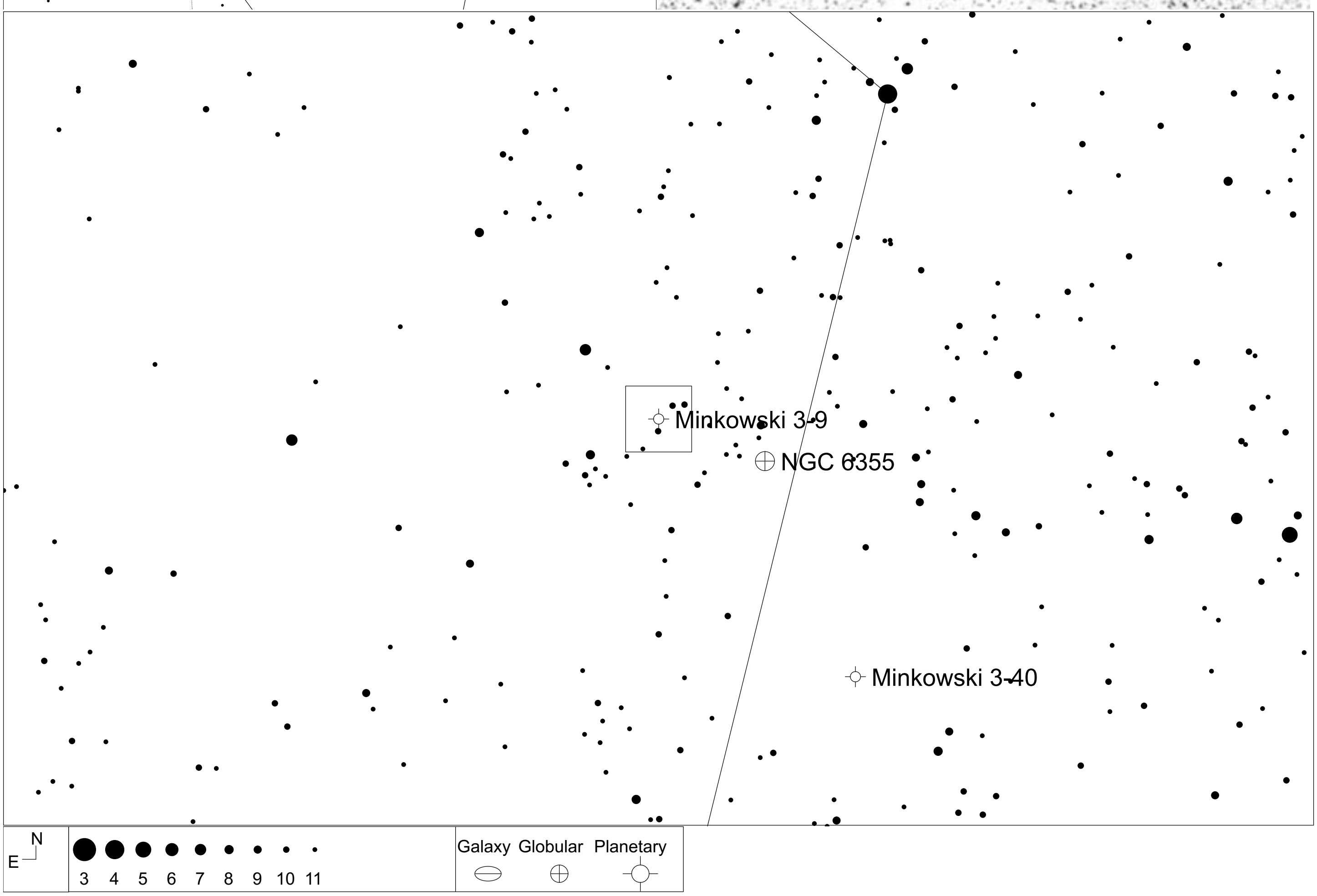


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 358+5.1	3+2	17 21 11.7	-27 11 37	15.2v	-	18”

Minkowski 3-9 (Ophiuchus)

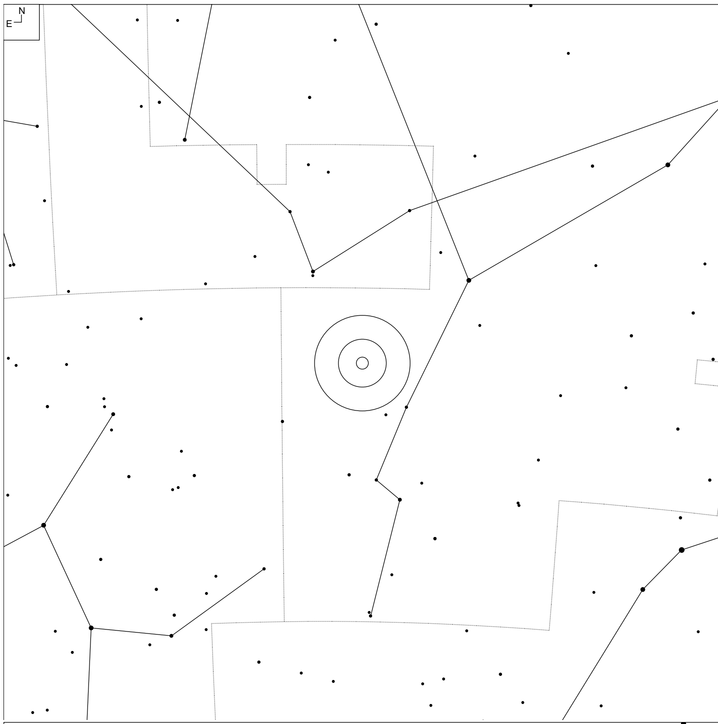


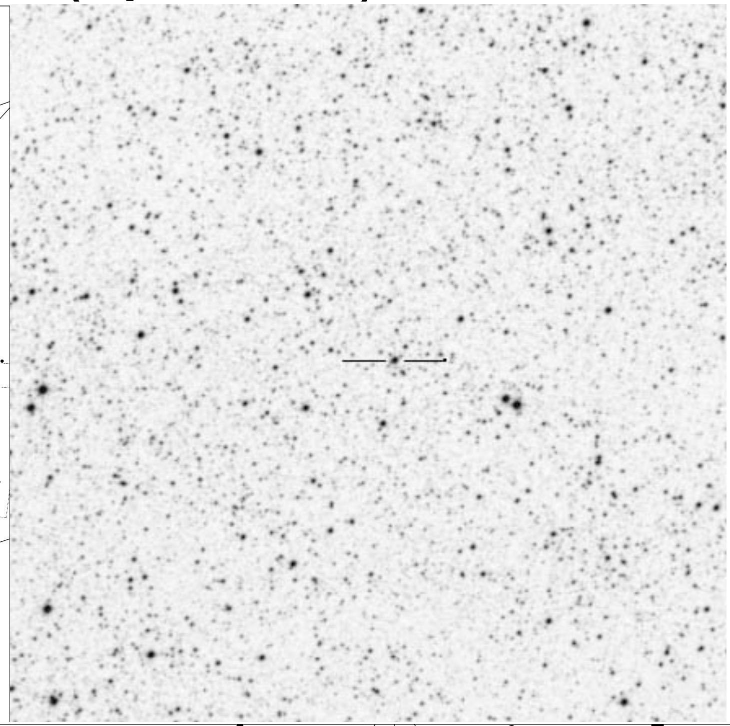


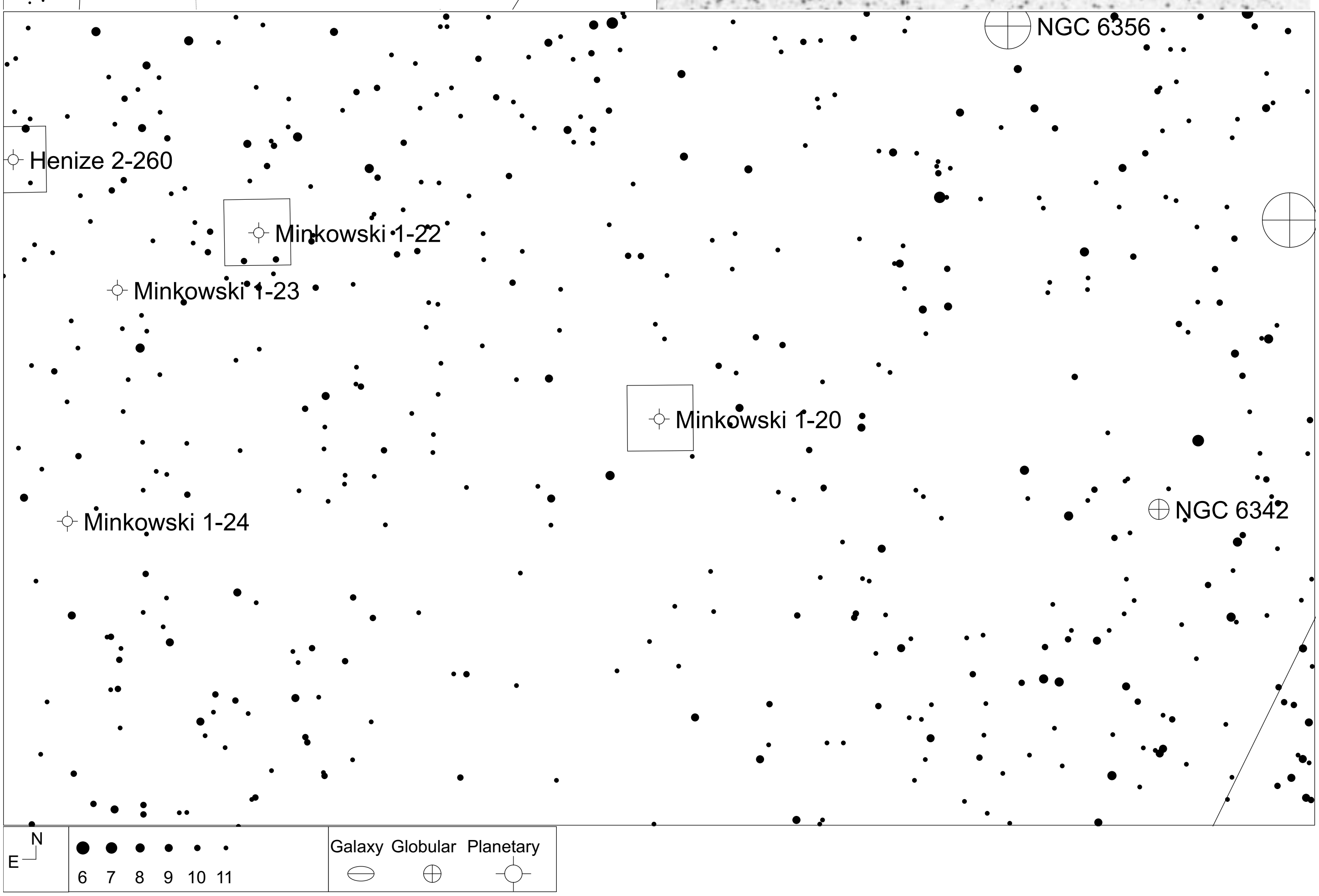


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 359+5.2	3	17 25 43.4	-26 11 56	15.0v	18.8	17”

Minkowski 1-20 (Ophiuchus)

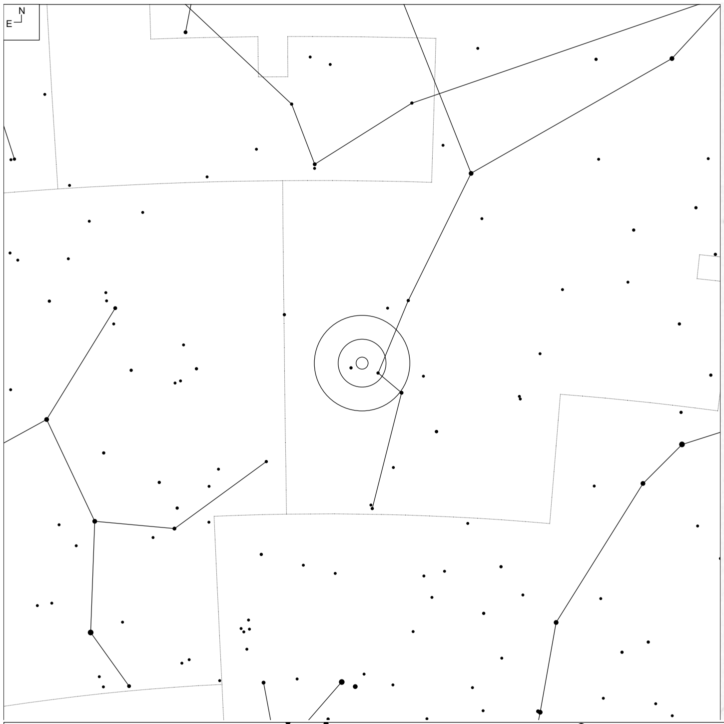


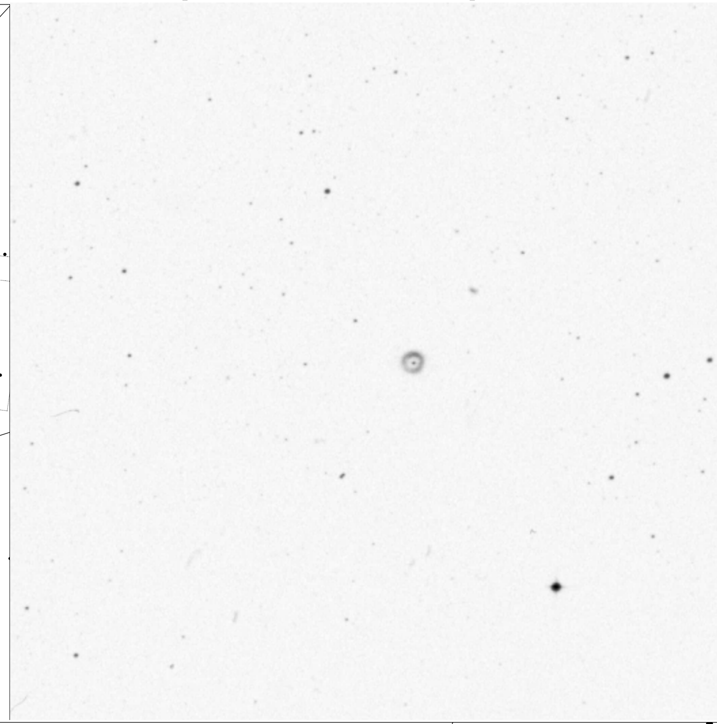


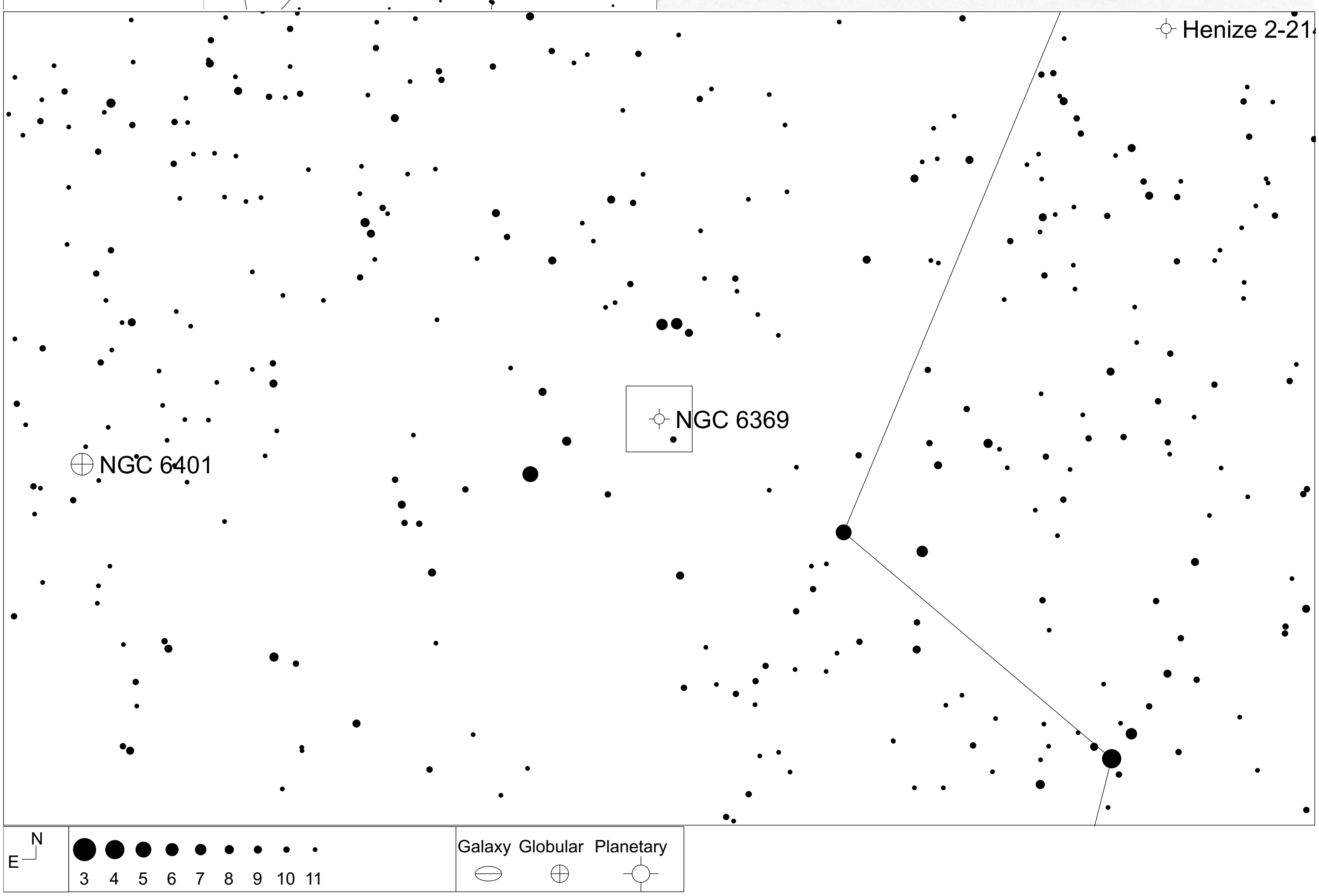


Other ID	Type	RA	Dec	Mag	* Mag	Size
Henize 2-235	1	17 28 57.7	-19 15 53	13.4p	17.1	7”

NGC 6369 – Little Ghost (Ophiuchus)

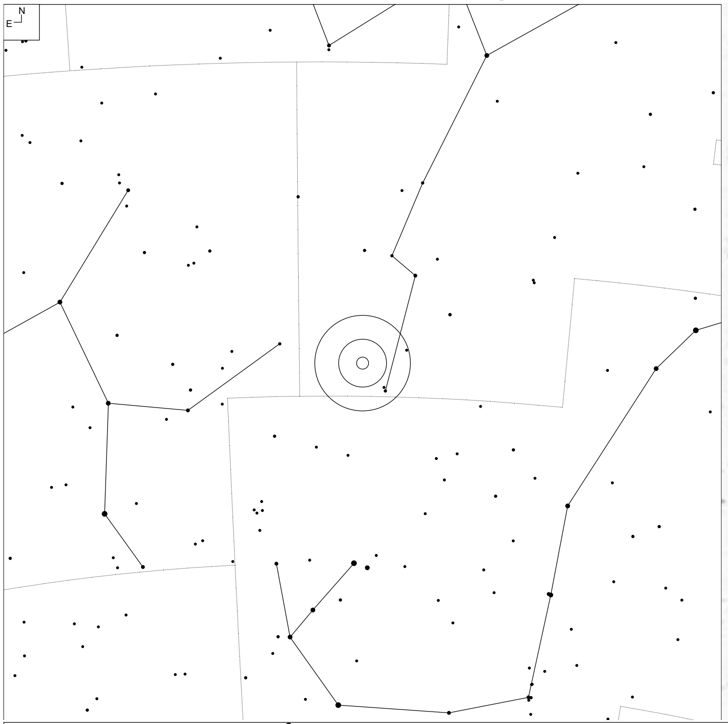


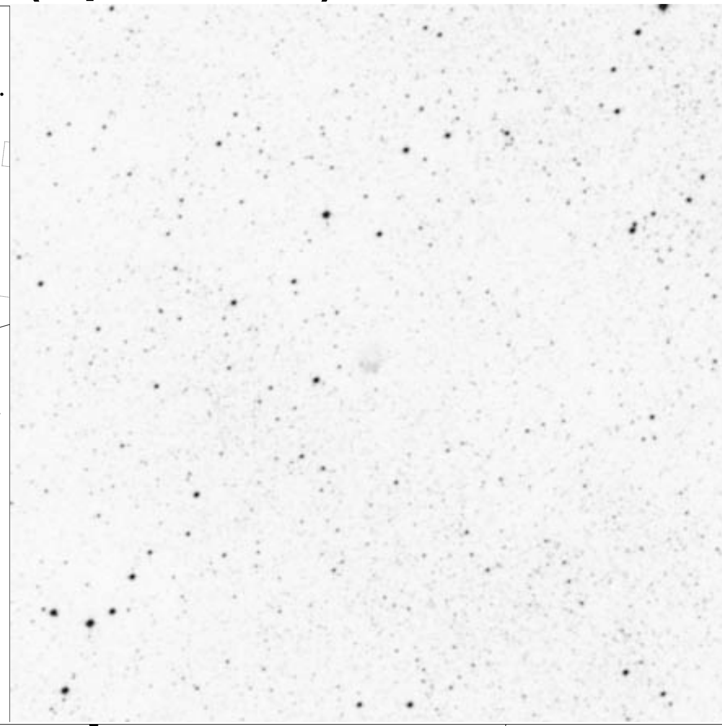


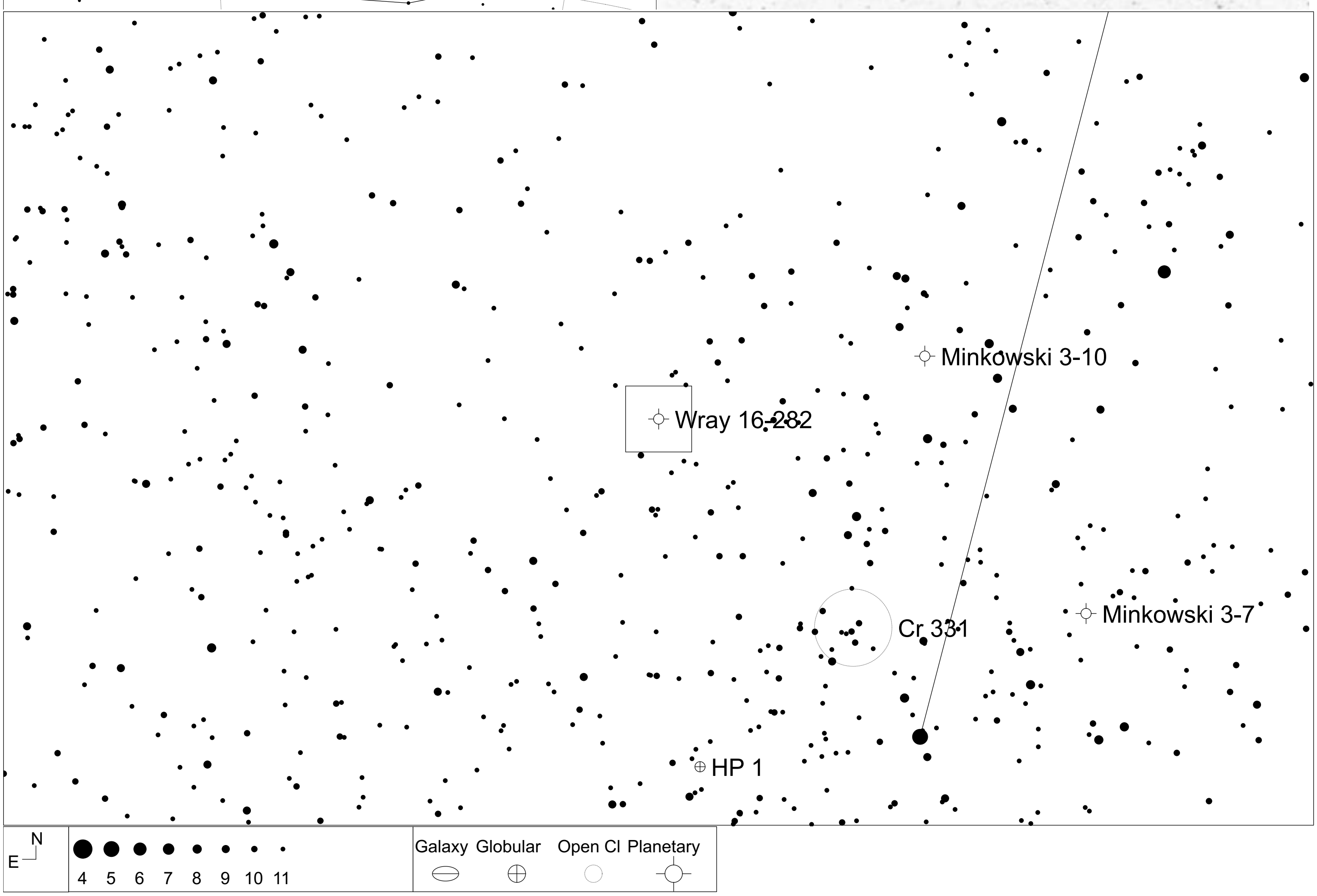


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 2+5.1	4+2	17 29 20.5	-23 45 34	11.4v	15.9	38”

Wray 16-282 (Ophiuchus)

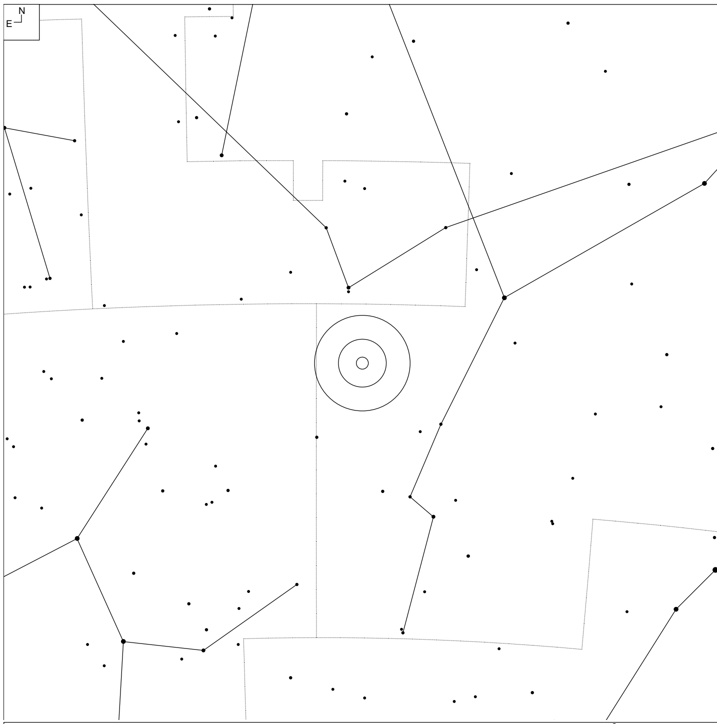


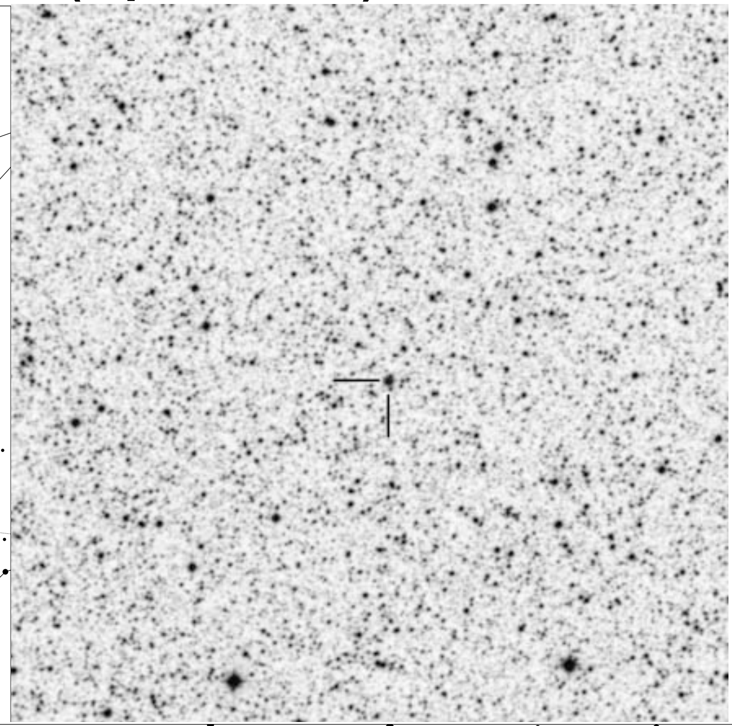


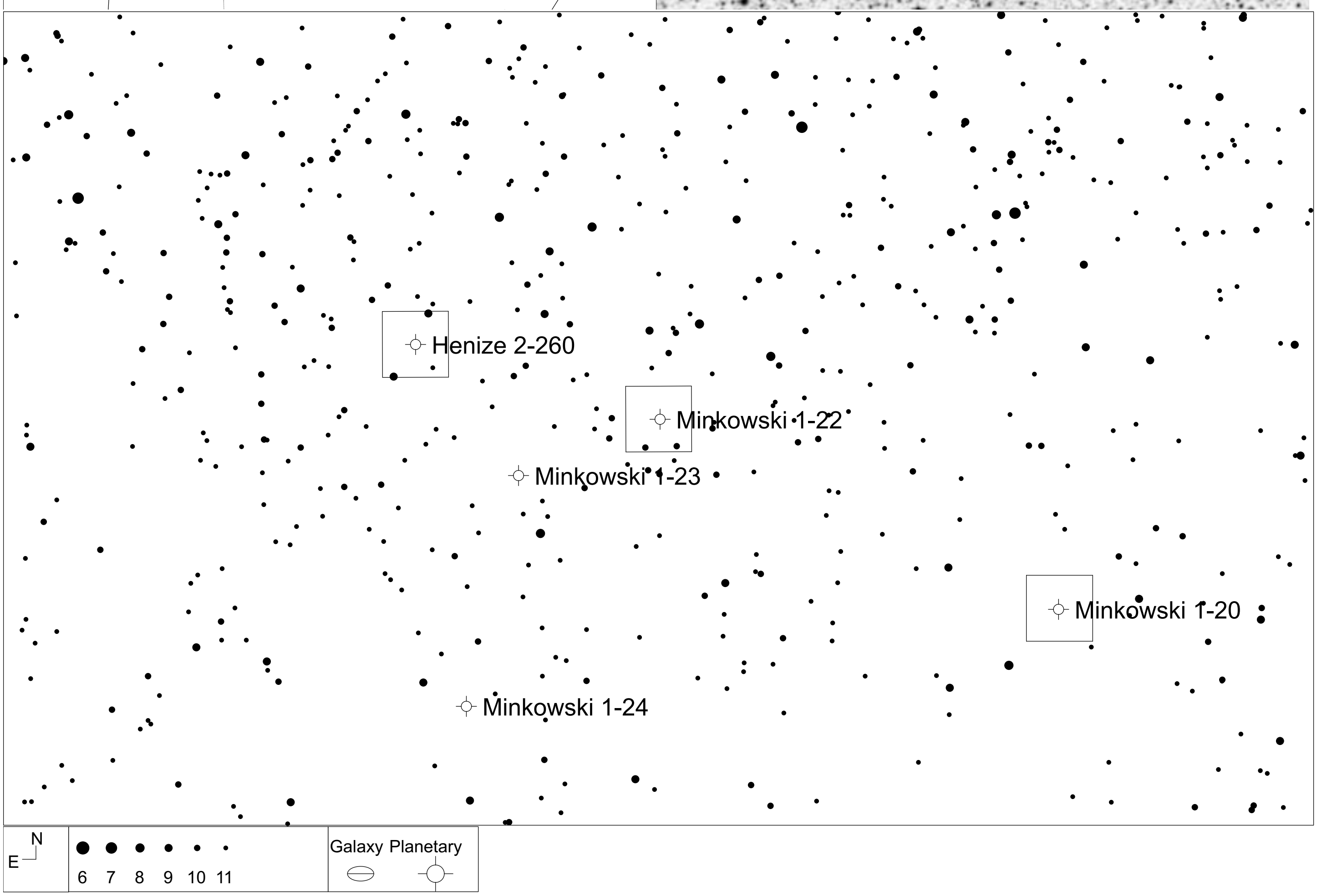


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 358+2.5	3	17 31 47.3	-28 42 04	14.9p	-	37”

Minkowski 1-22 (Ophiuchus)

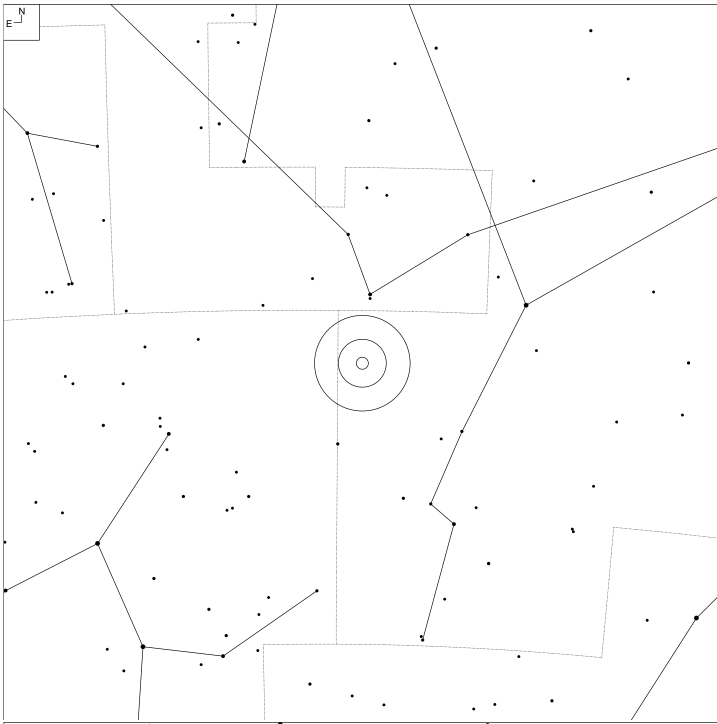


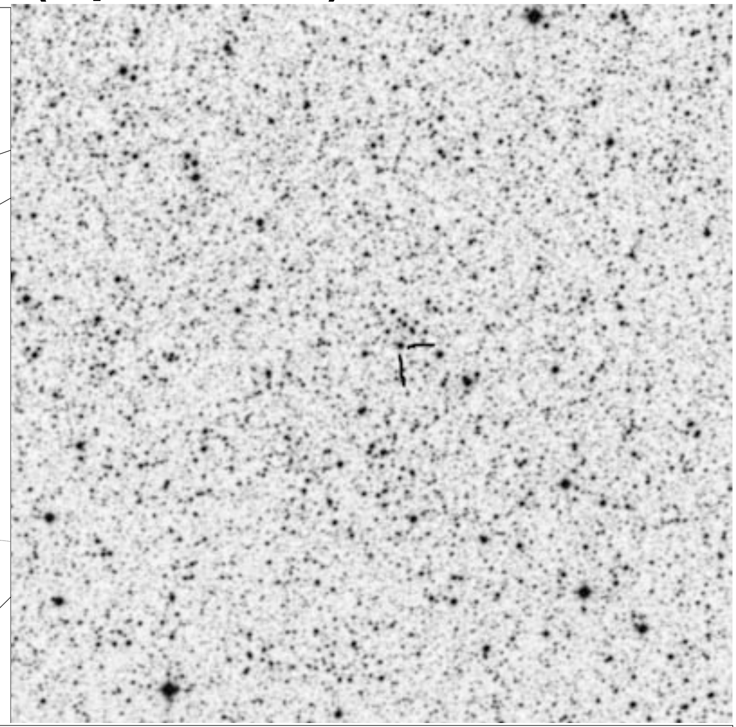


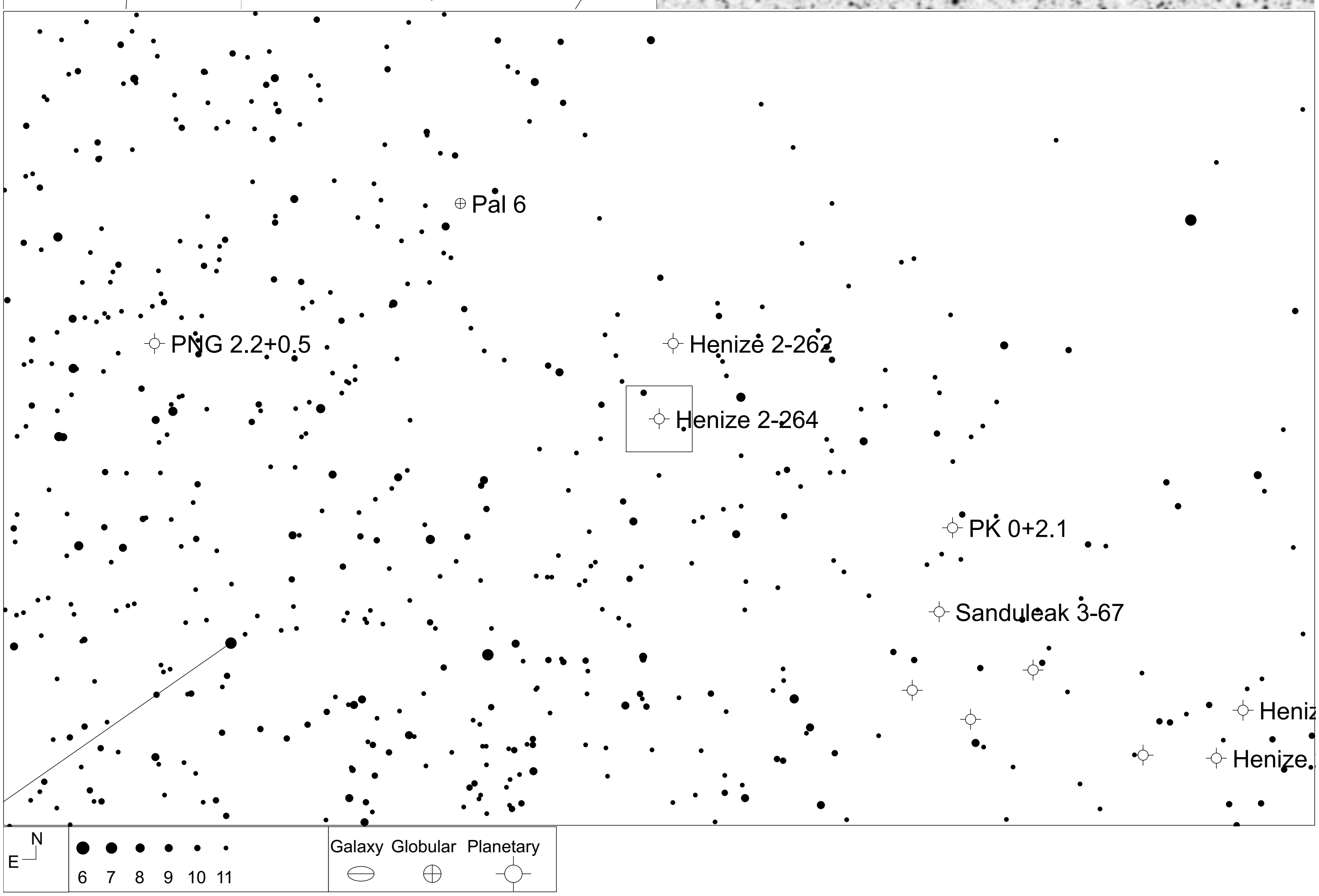


Other ID	Type	RA	Dec	Mag	* Mag	Size
Henize 2-252	4	17 35 10.1	-18 34 20	13.3p	-	9”

Henize 2-260 (Ophiuchus)

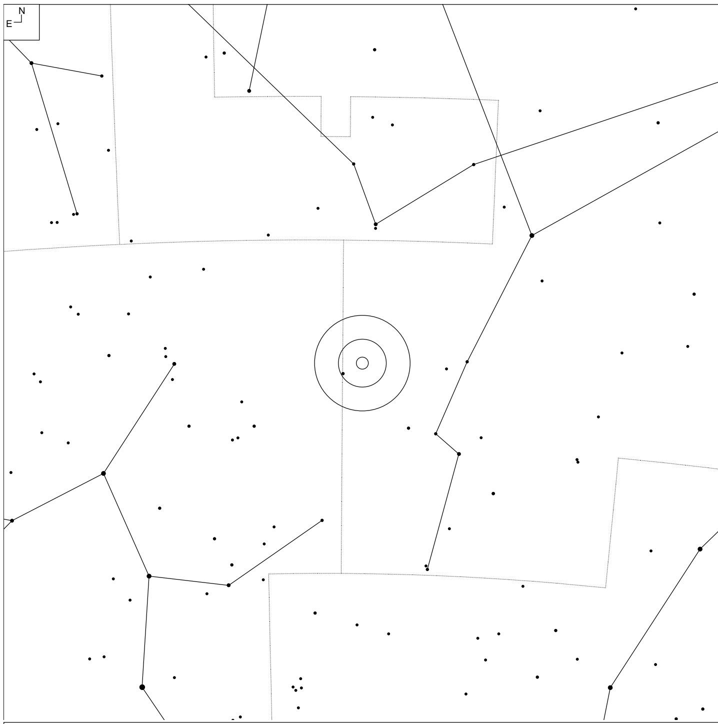


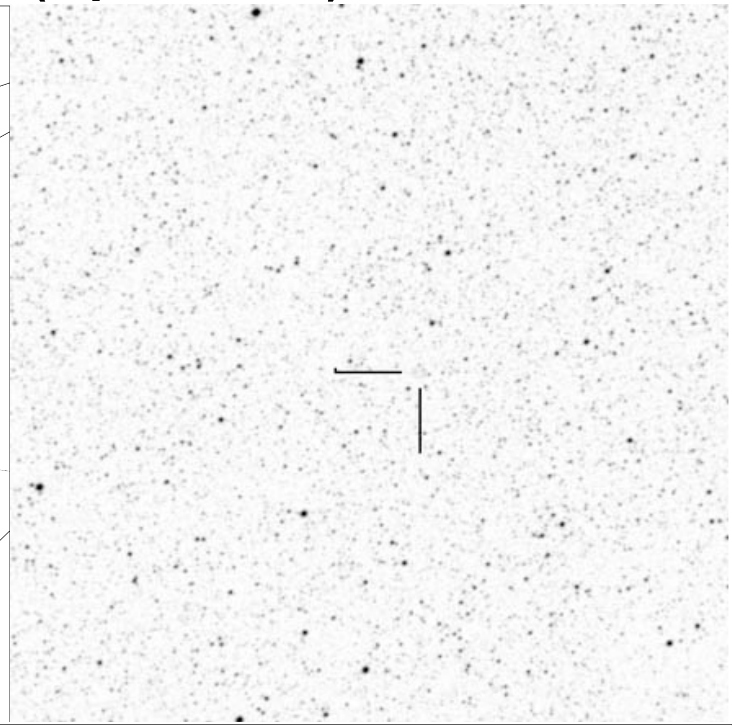


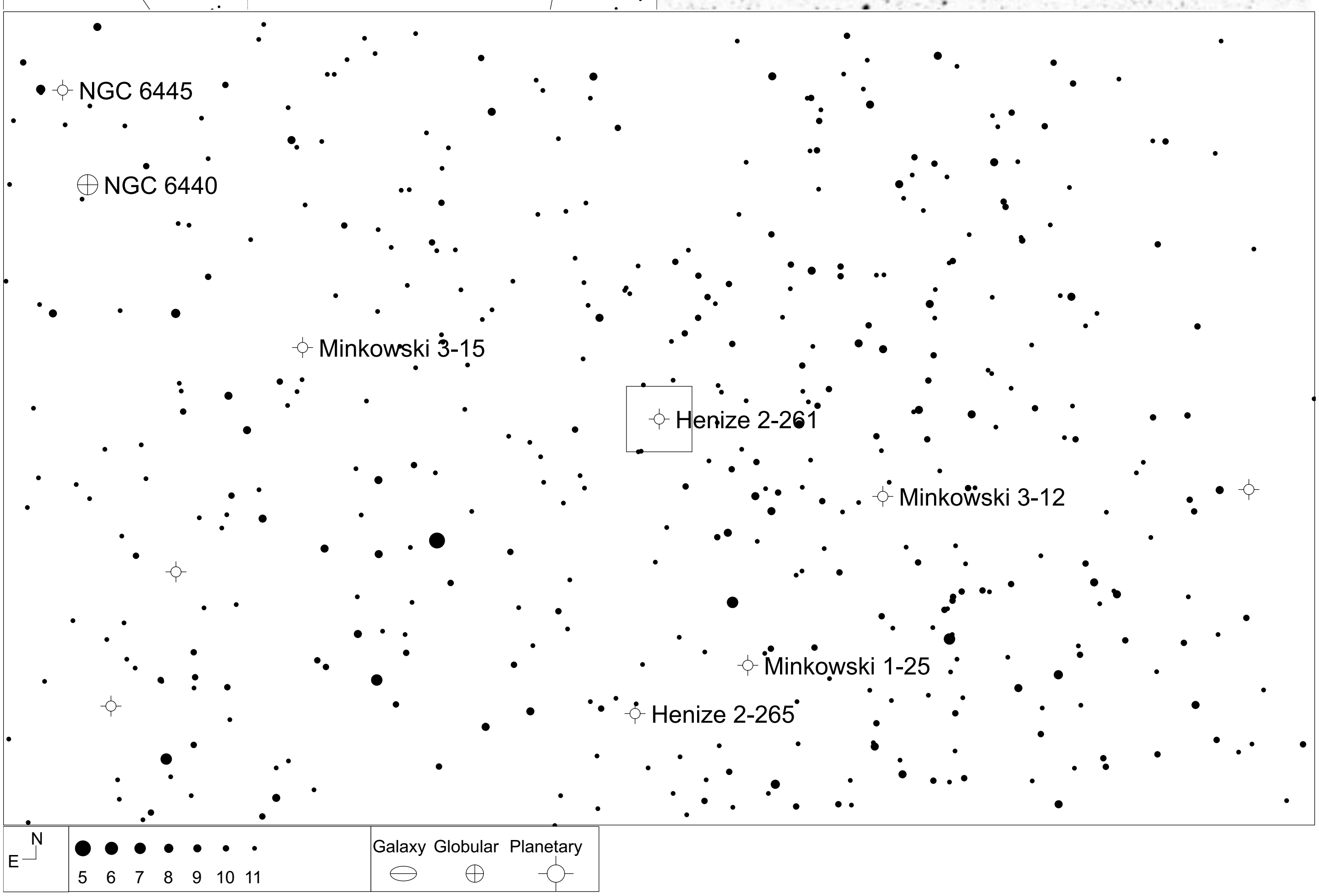


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 8+6.1	-	17 38 57.4	-18 17 35	11.0v	14.2	10”

Henize 2-261 (Ophiuchus)

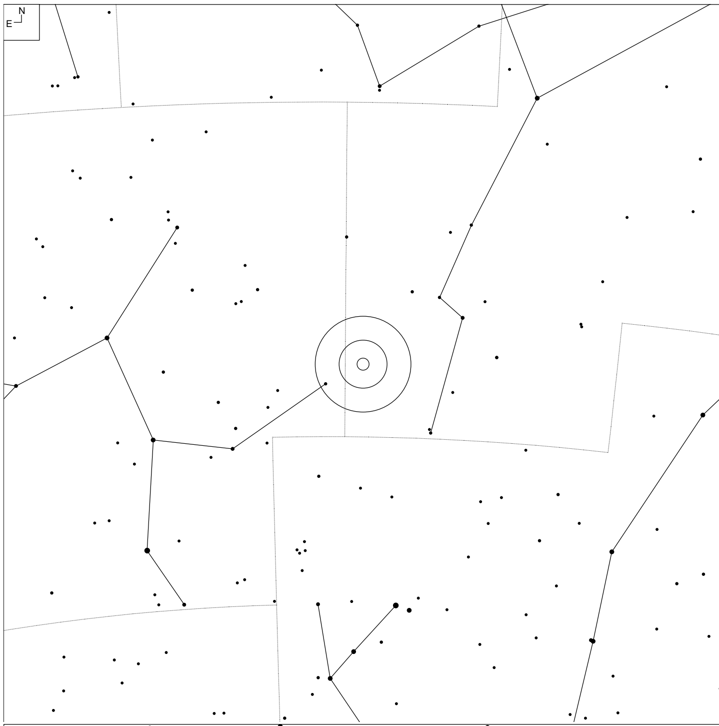


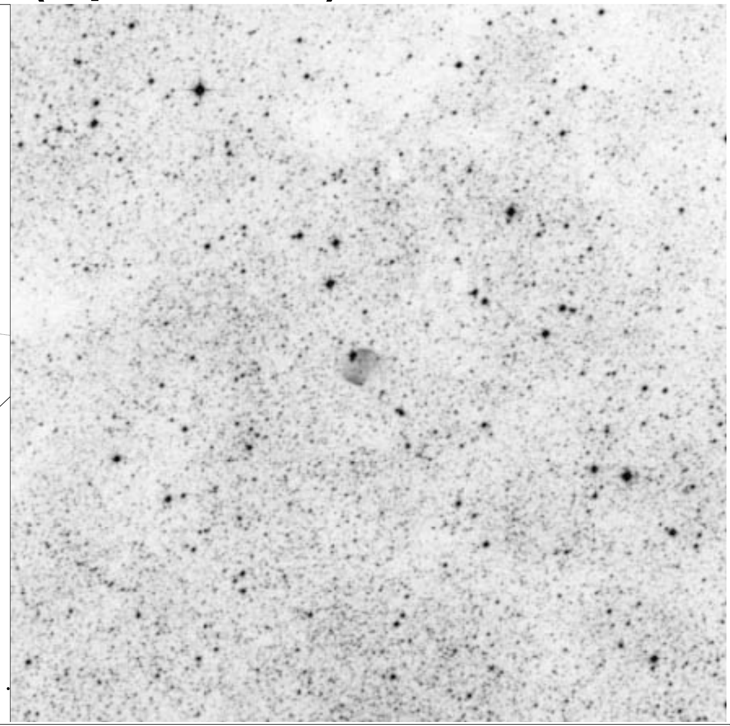


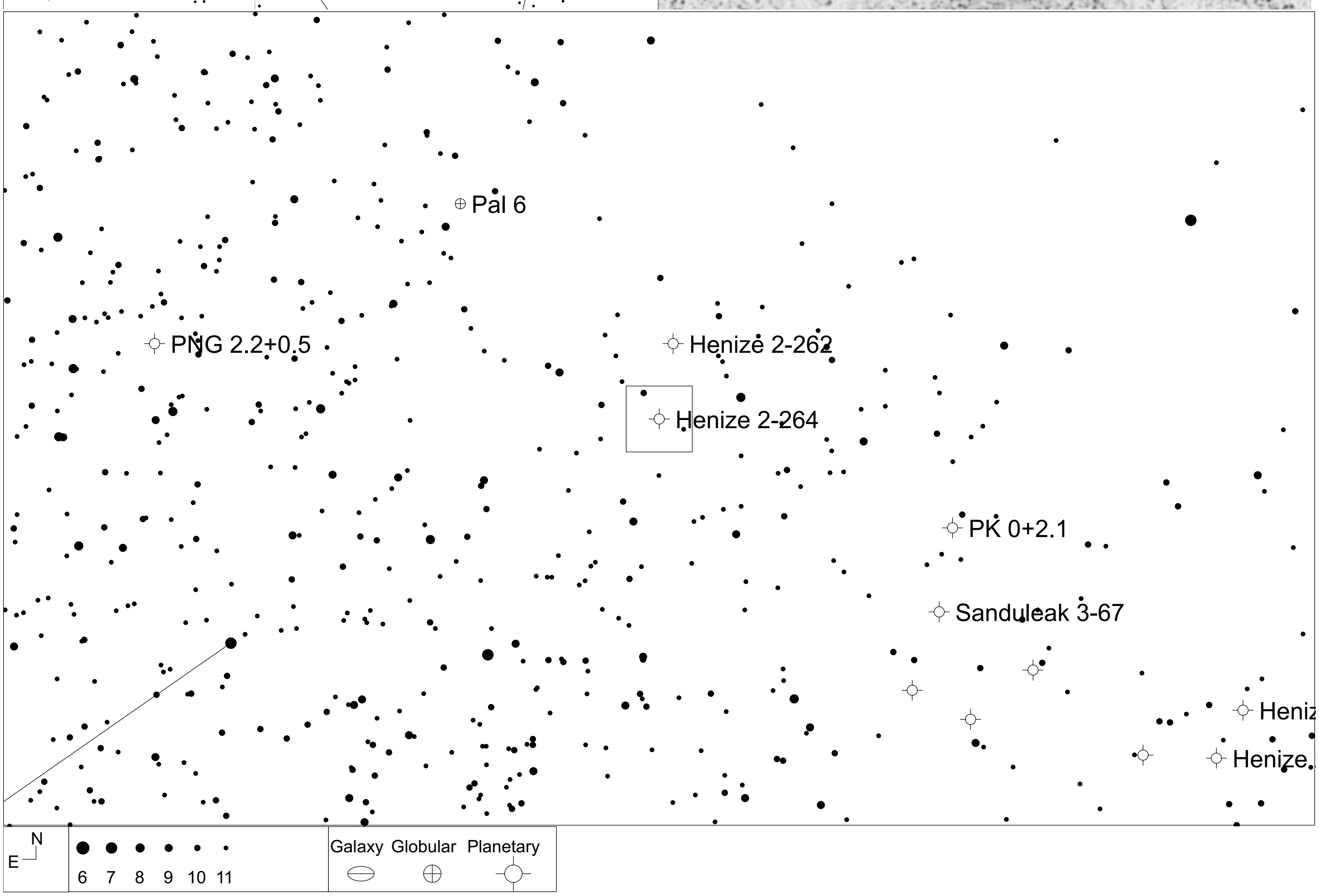


Other ID	Type	RA	Dec	Mag	* Mag	Size
Sanduleak 2-226	3	17 39 54.8	-21 14 14	15.3p	-	17”

Henize 2-264 (Ophiuchus)

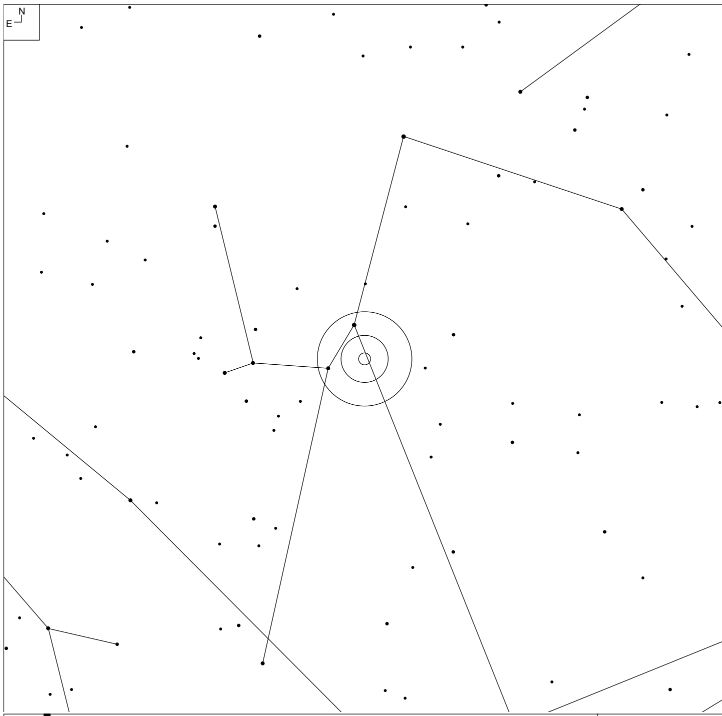


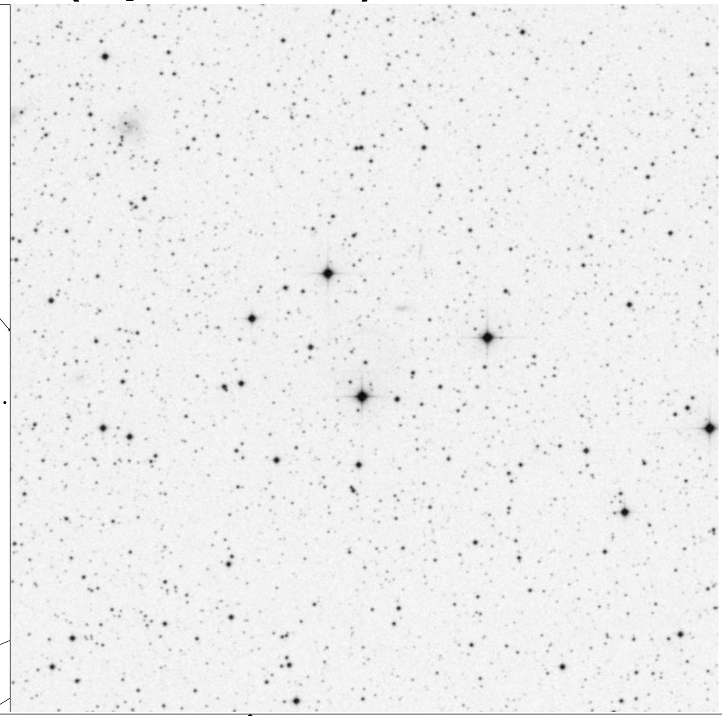


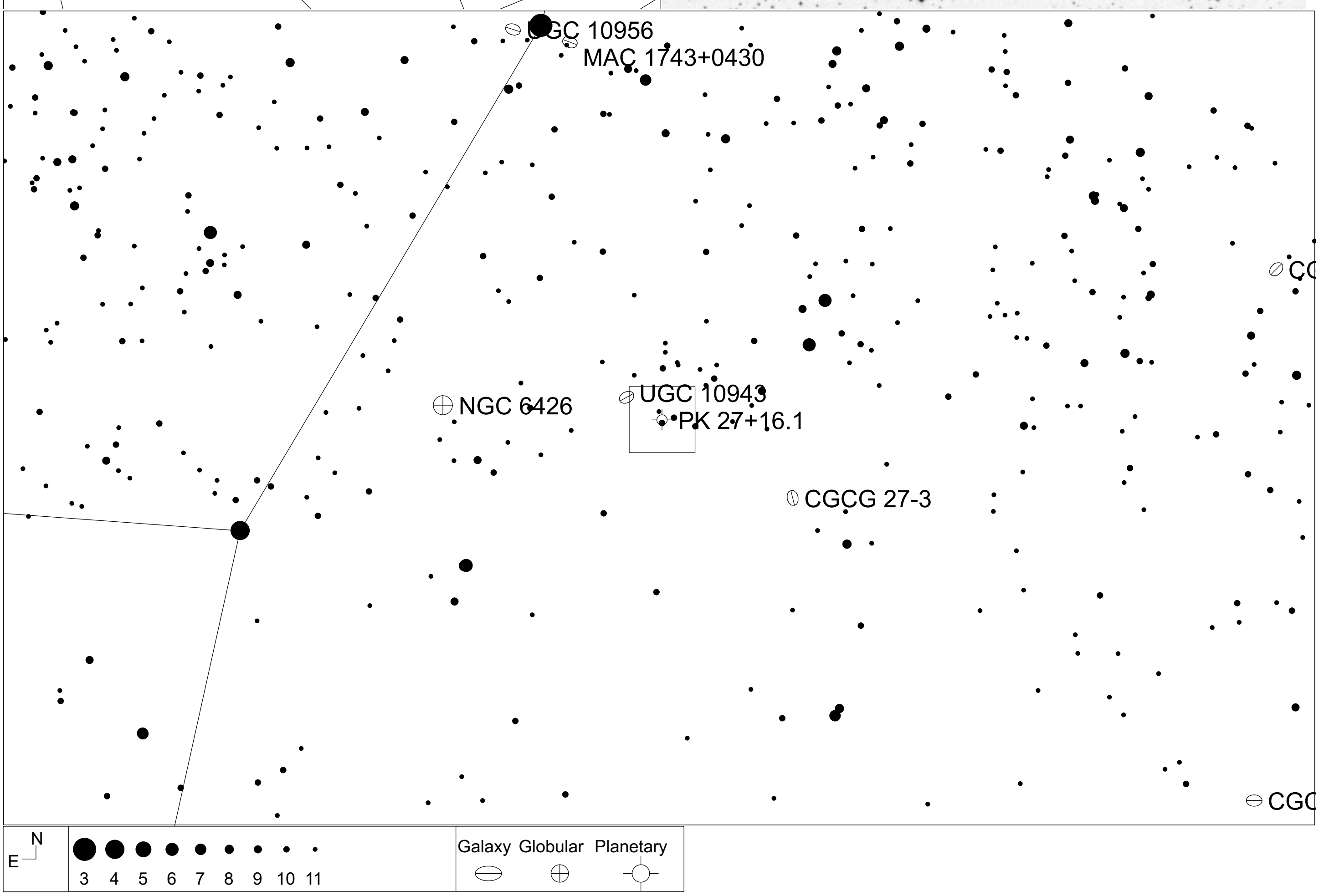


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 1+1.1	3	17 40 26.8	-27 01 03	-	20.3	37”

PNG 027.6+16.9 (Ophiuchus)

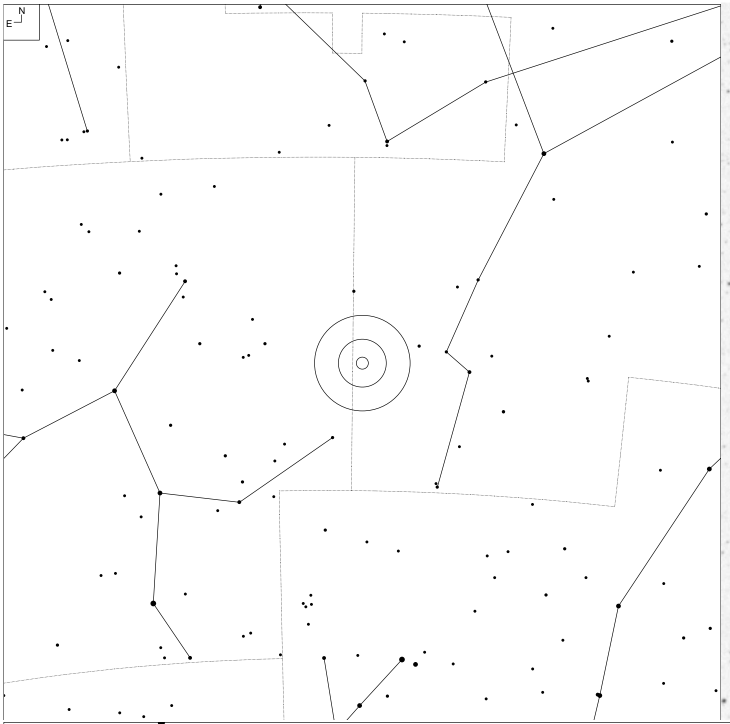


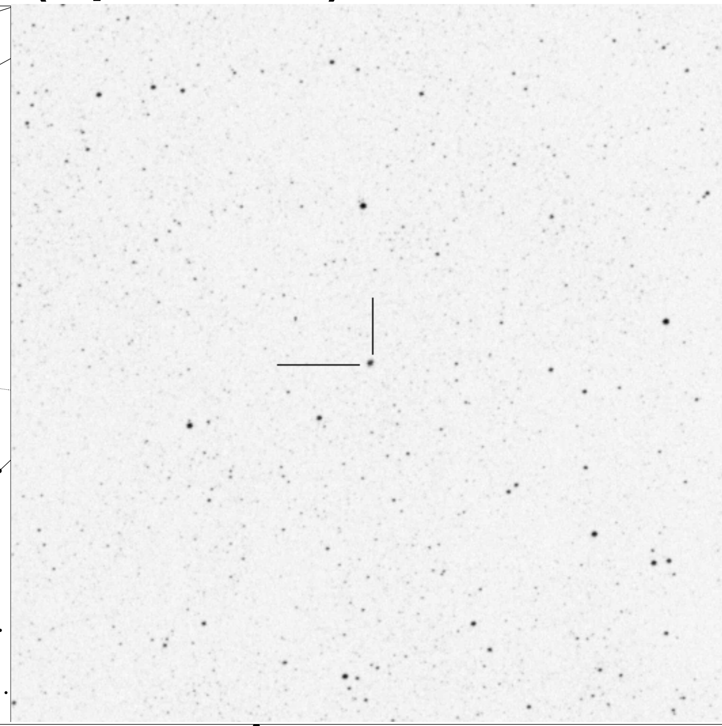


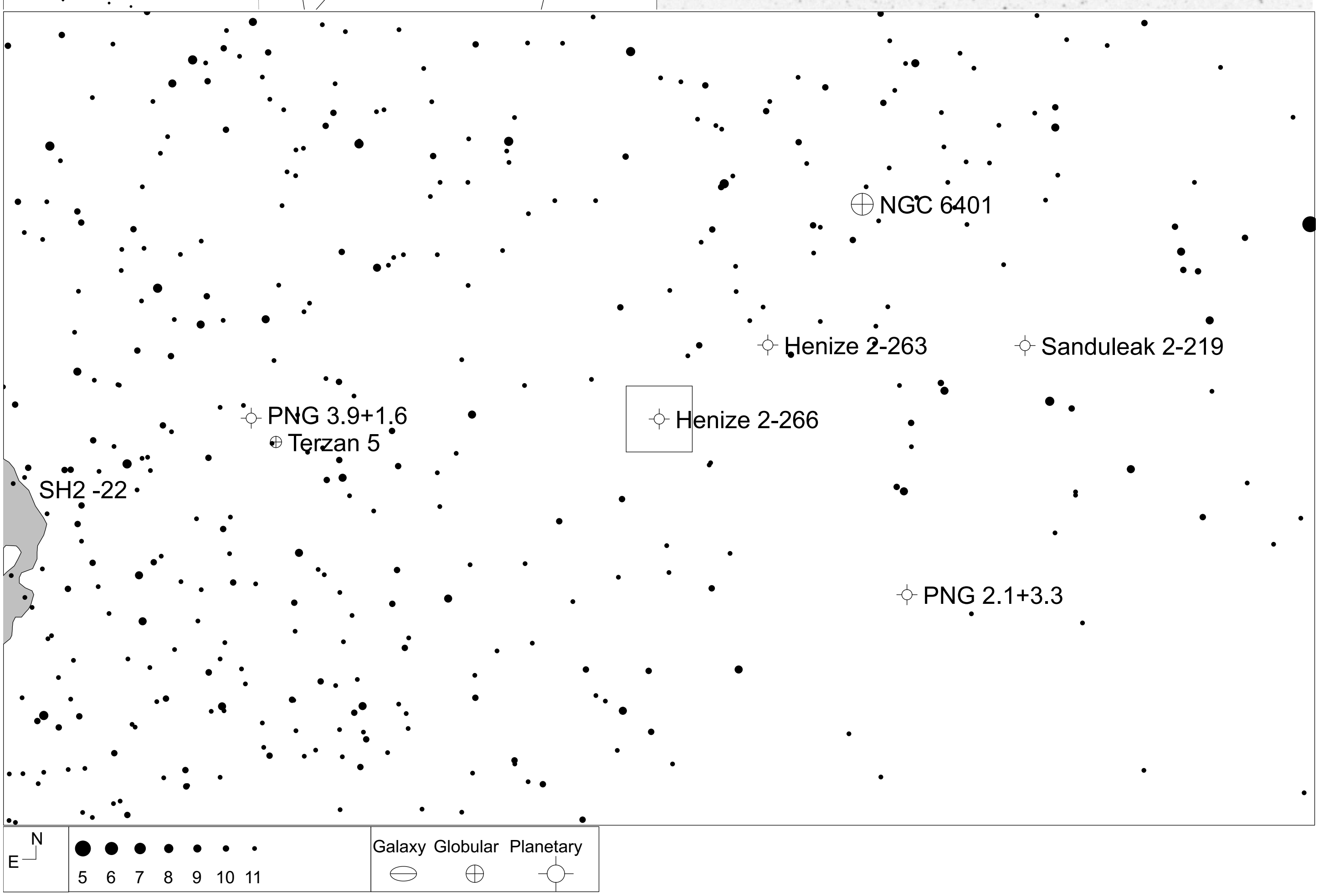


Other ID	Type	RA	Dec	Mag	* Mag	Size
		17 41 41	+03 07 02	16.3p	14.9	94”

Henize 2-266 (Ophiuchus)

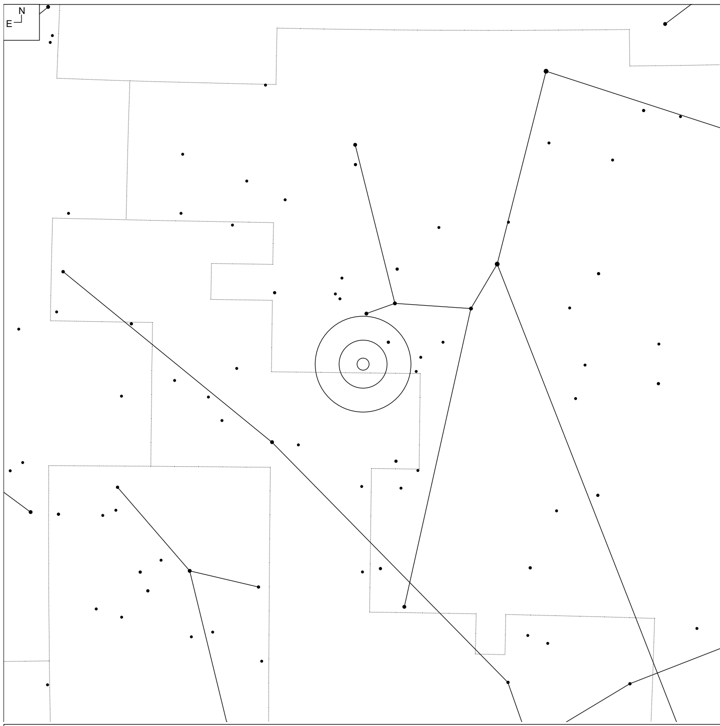


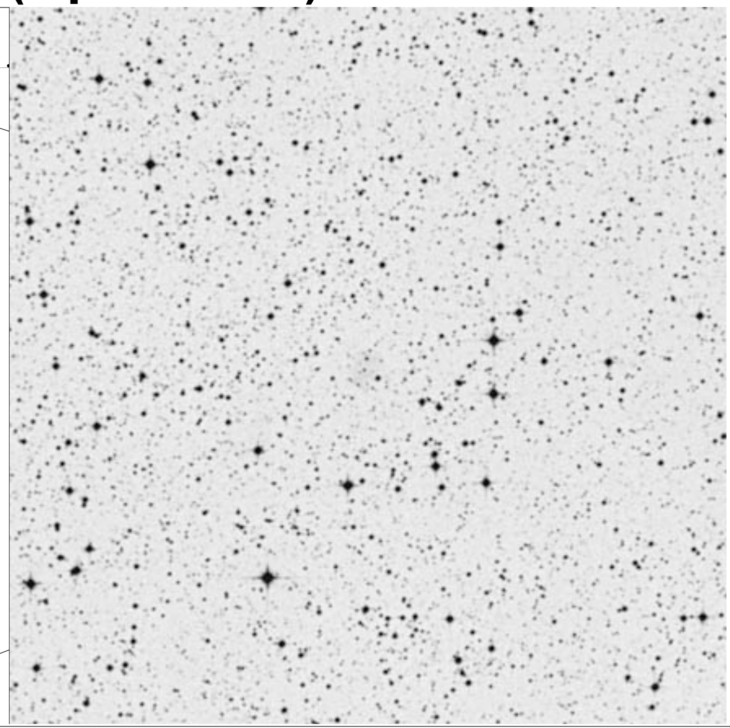


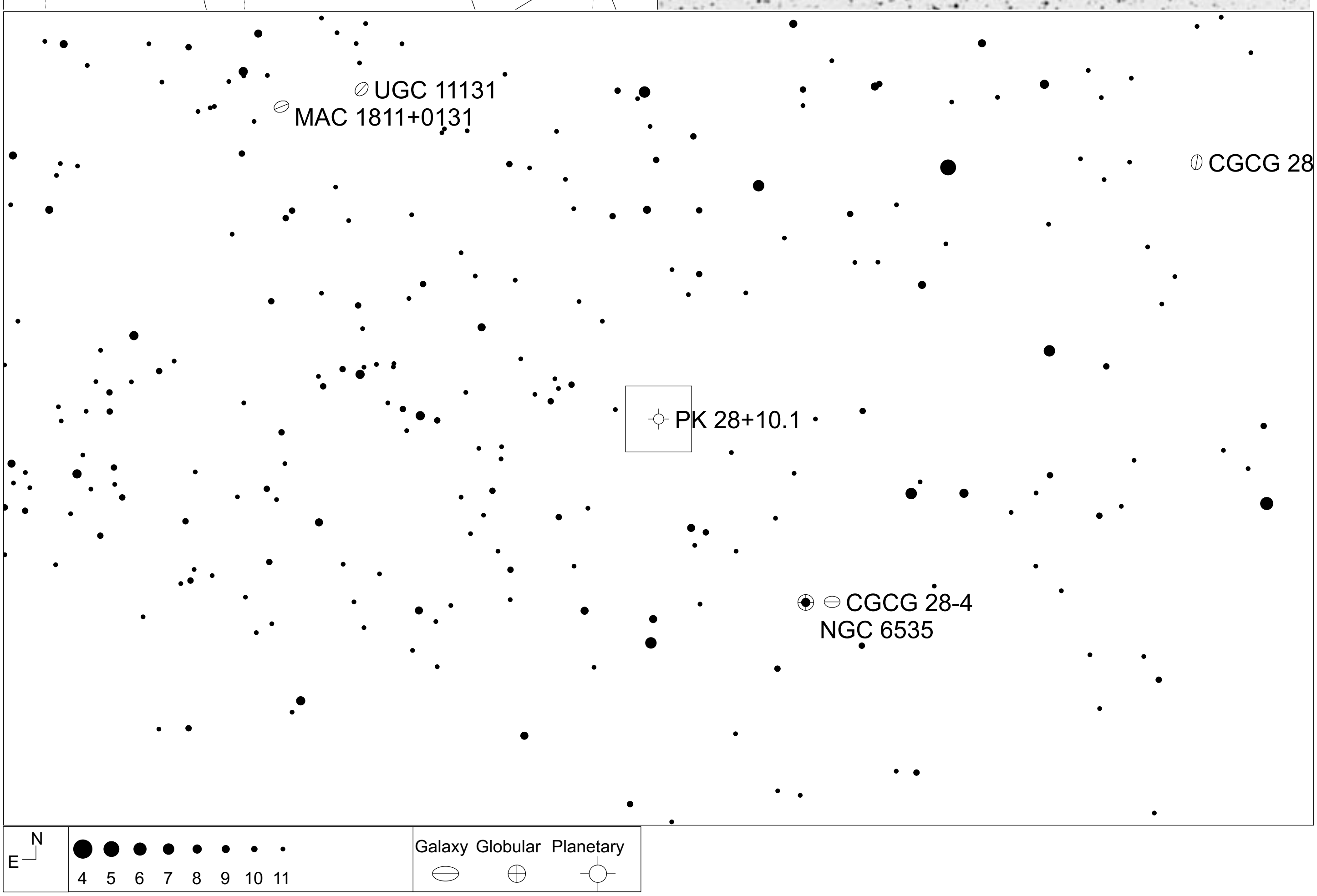


Other ID	Type	RA	Dec	Mag	* Mag	Size
Sanduleak 2-228	3b	17 41 52.8	-24 42 08	13.0v	17.0	6”

PK 28+10.1 (Ophiuchus)

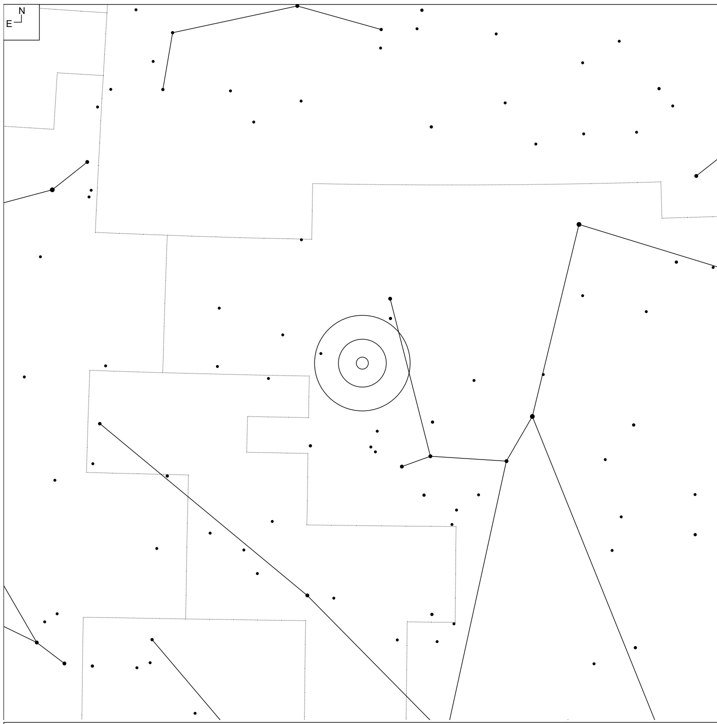


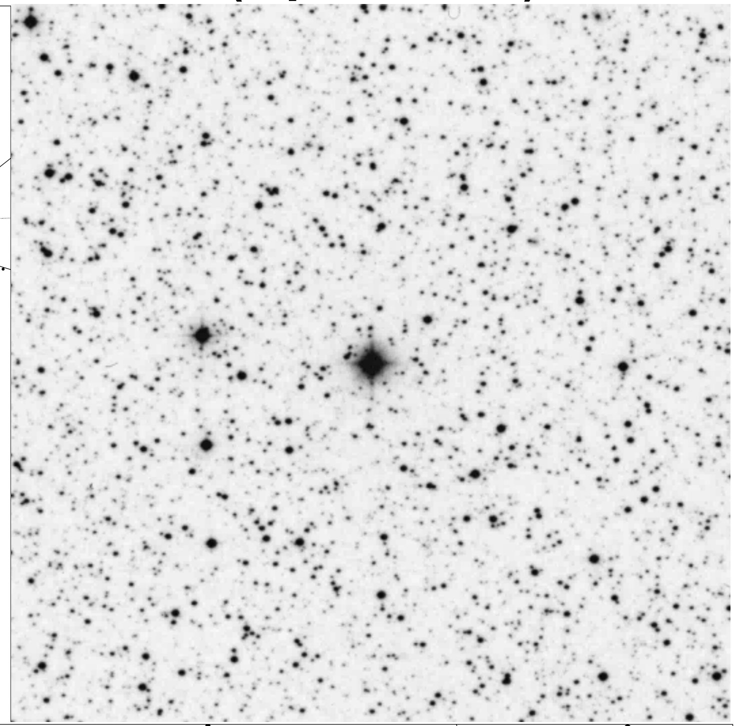


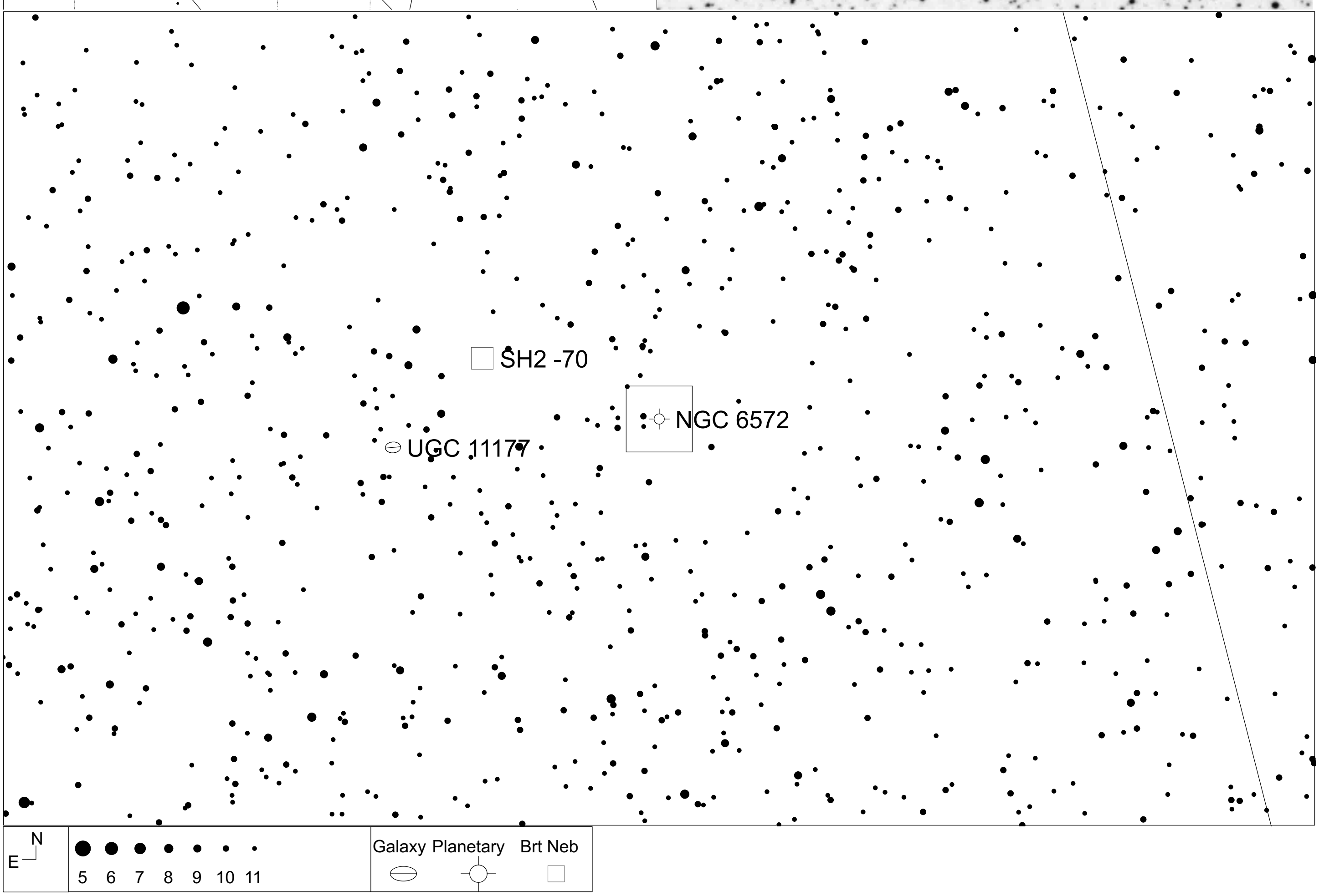


Other ID	Type	RA	Dec	Mag	* Mag	Size
-	-	18 06 00.5	+00 22 42	16.8p	16.8	36”

NGC 6572 – Emerald Nebula (Ophiuchus)

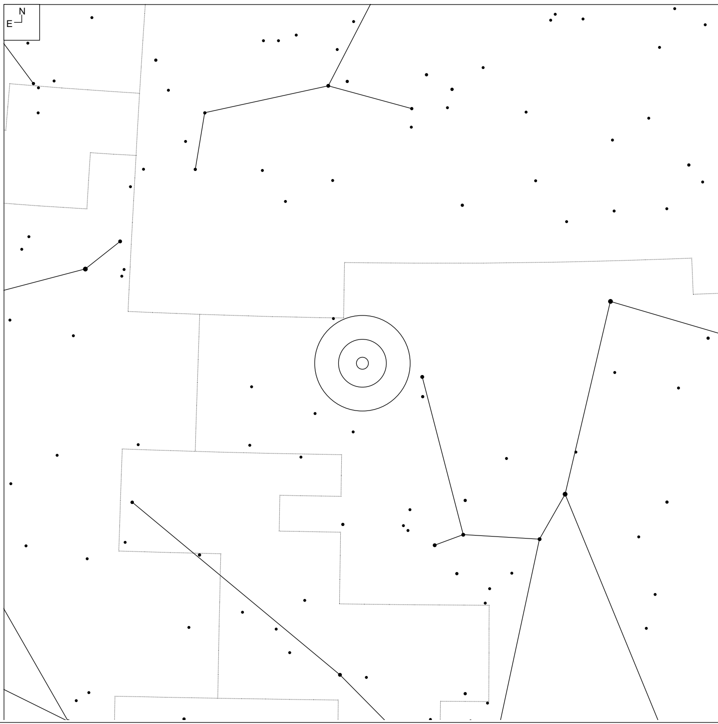


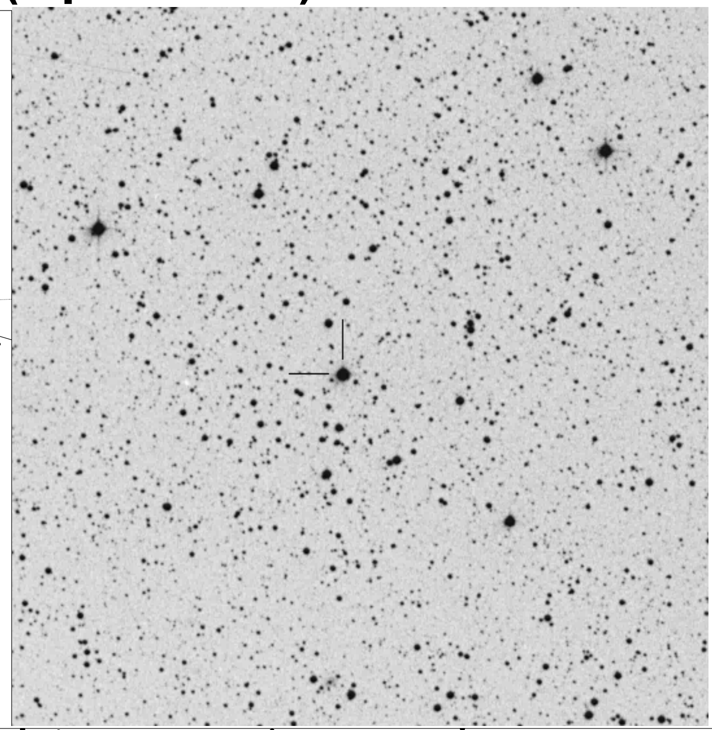


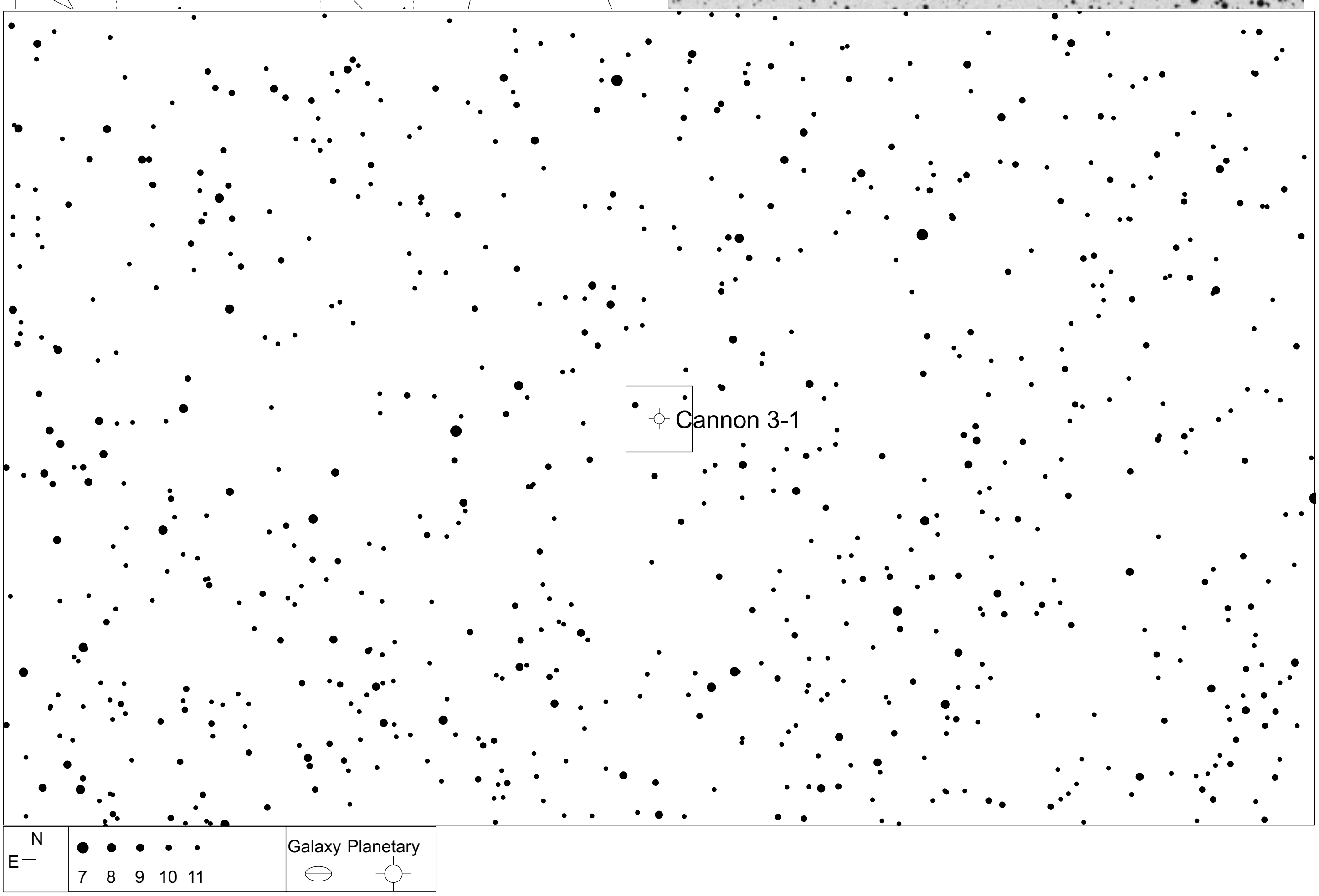


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 34+11.1	2a	18 12 06.4	+06 51 11	8.1v	13.1	11”

Cannon 3-1 (Ophiuchus)

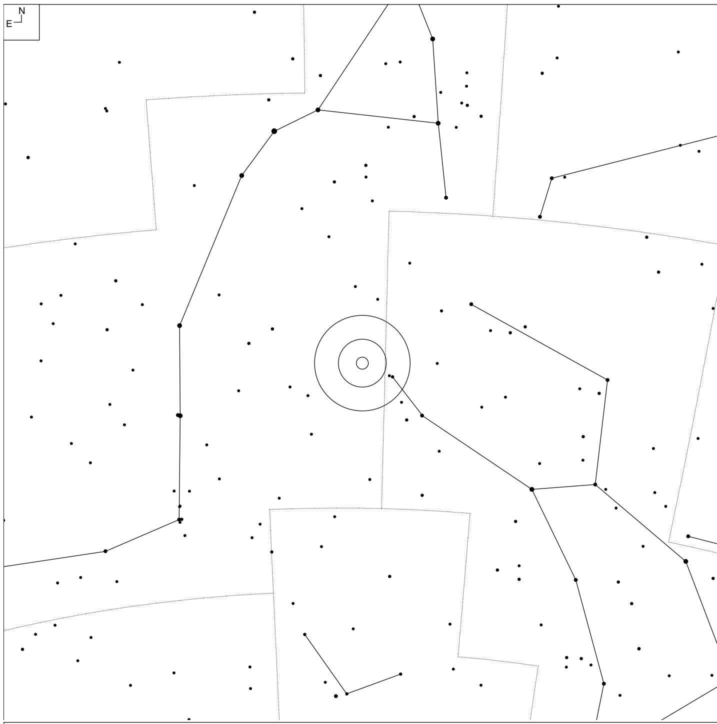


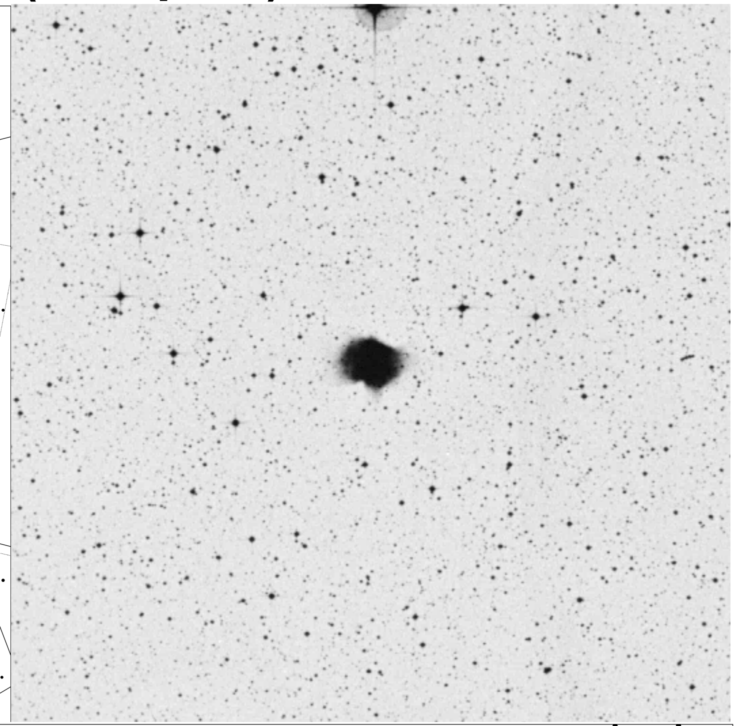


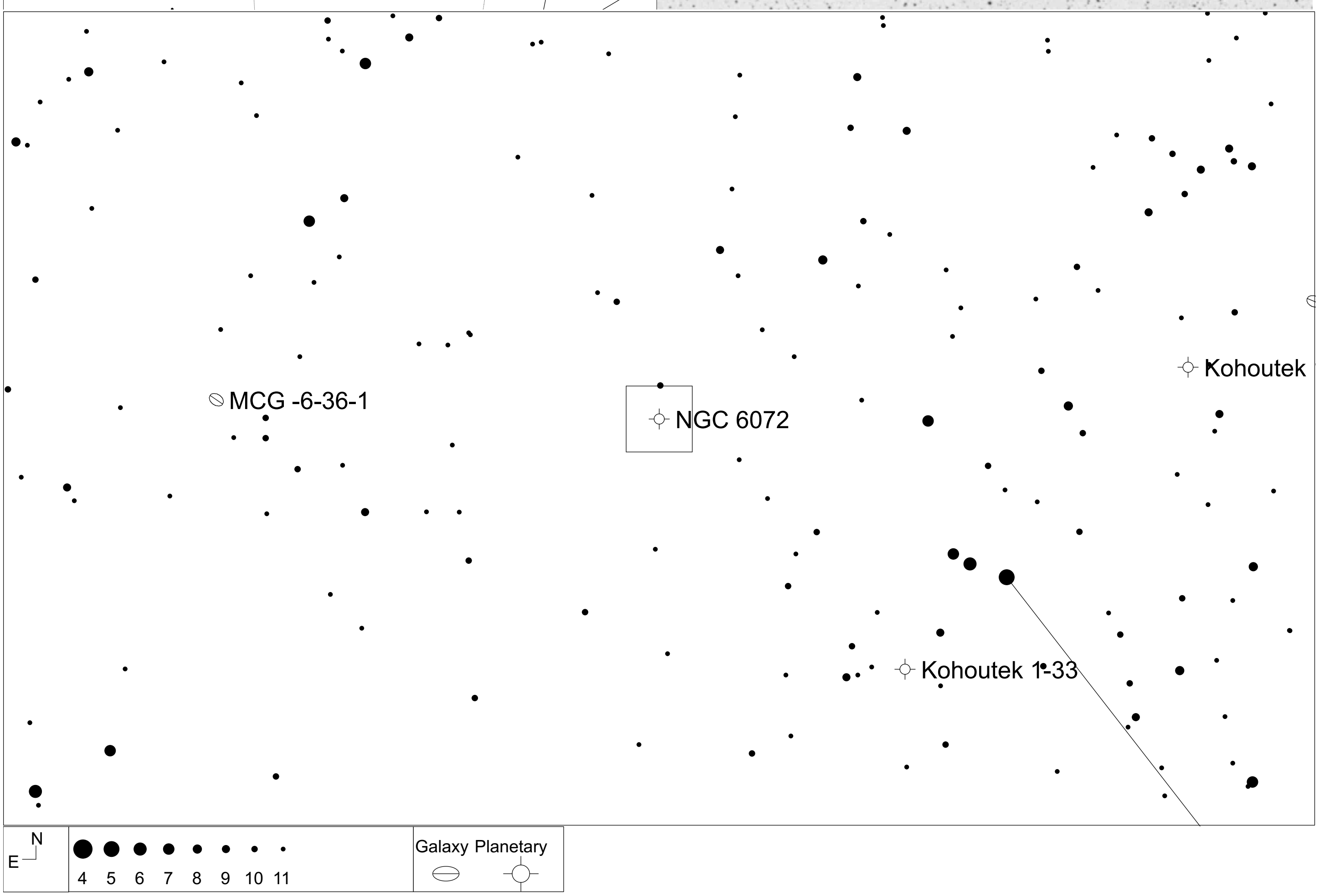


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 38+12.1	2	18 17 34.2	+10 09 01	12.4p	12.5	5”

NGC 6072 (Scorpius)

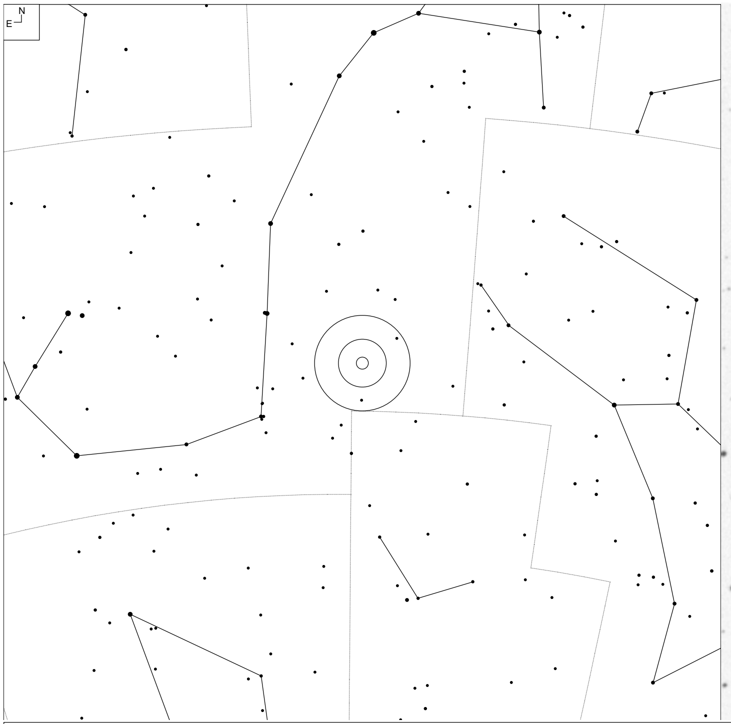


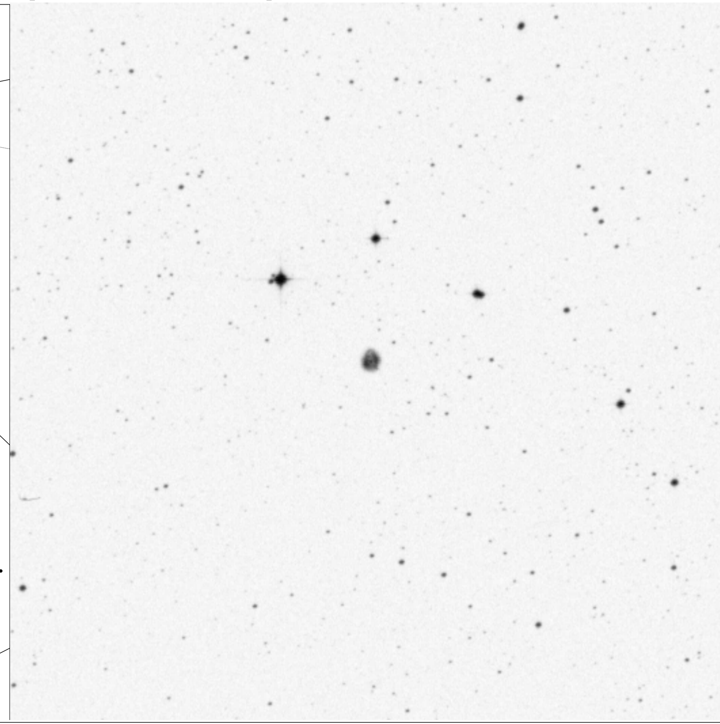


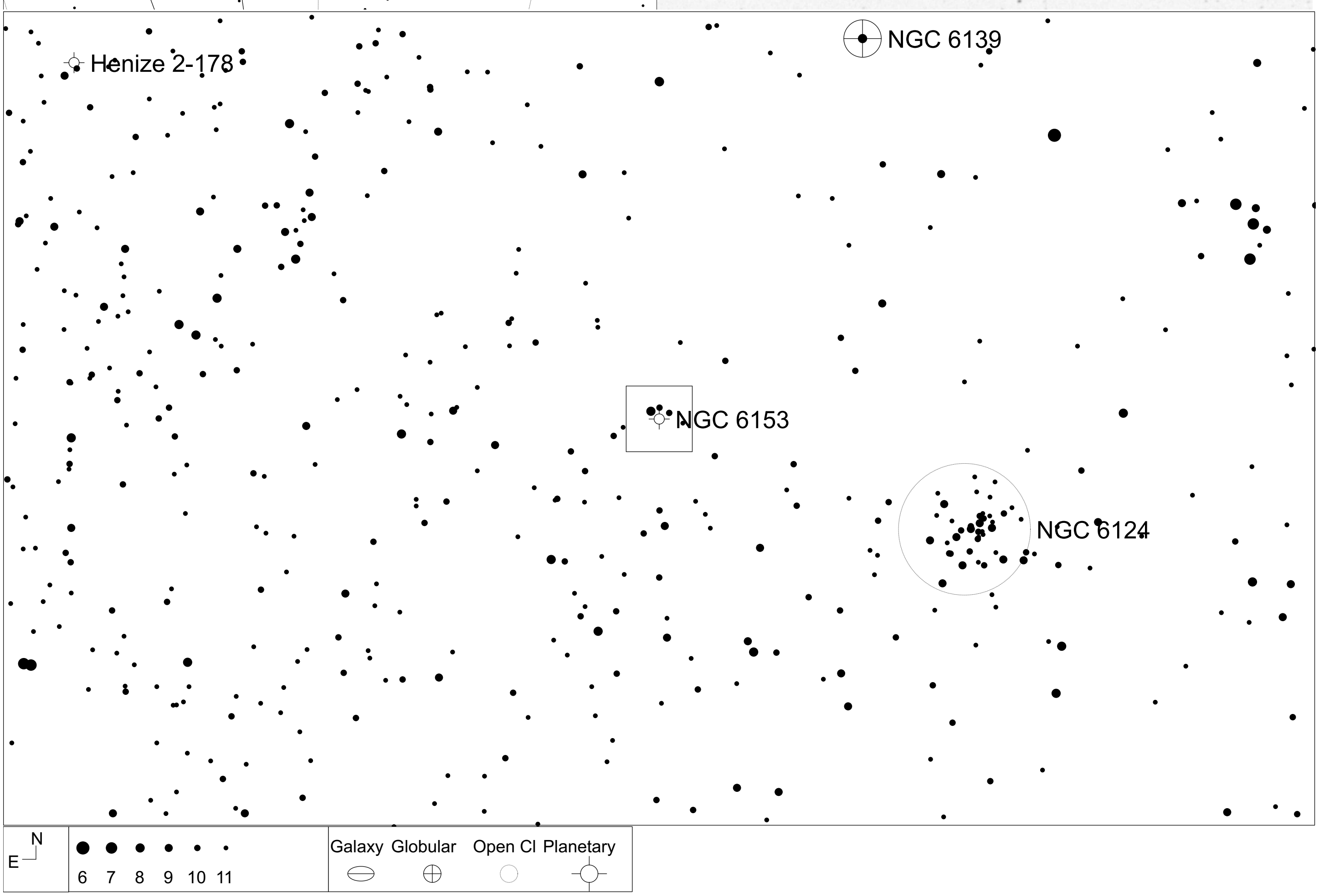


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 342-10.1	3a	16 12 58.3	-36 13 48	11.7v	19.3	98 x 72”

NGC 6153 (Scorpius)

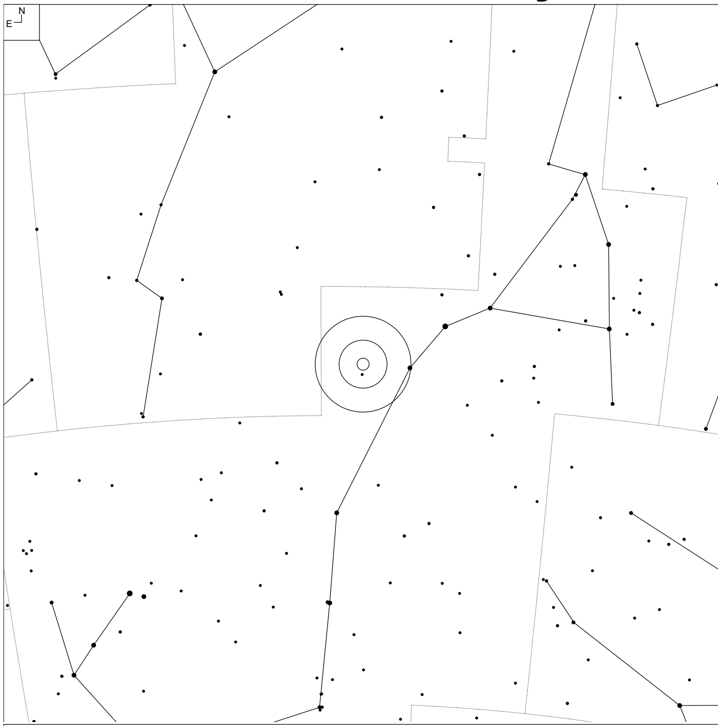


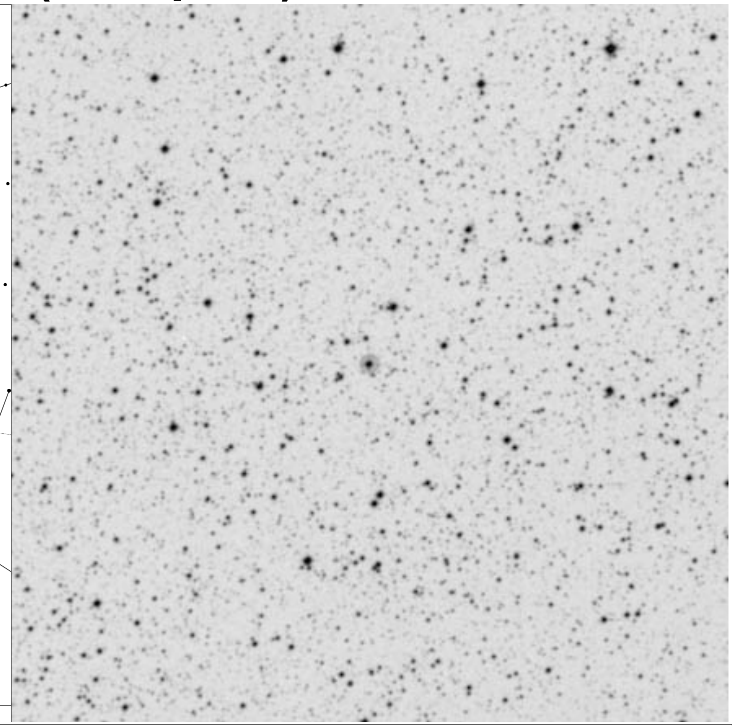


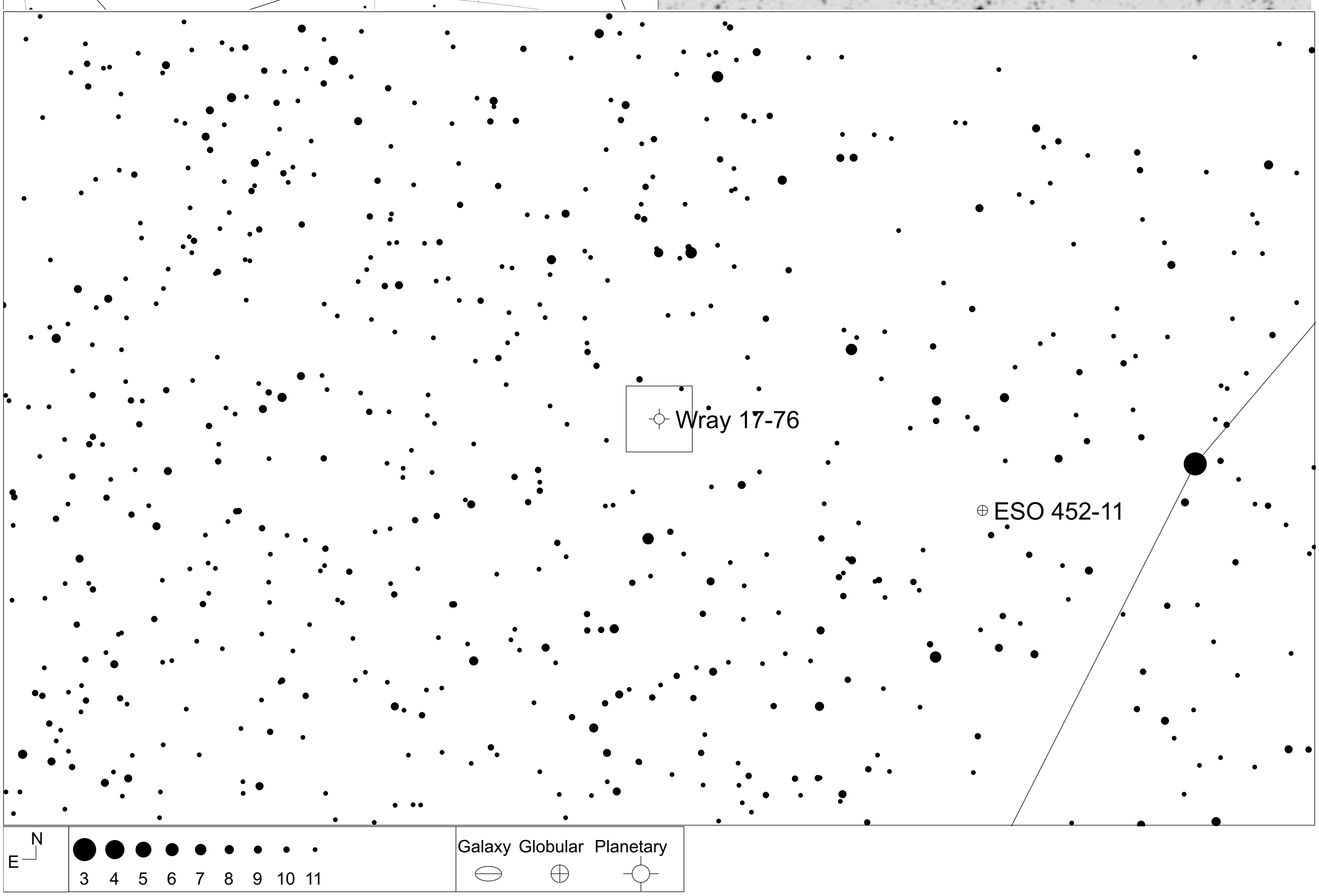


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 341+5.1	4	16 31 30.6	-40 15 12	10.9v	16.1	24”

Wray 17-76 (Scorpius)

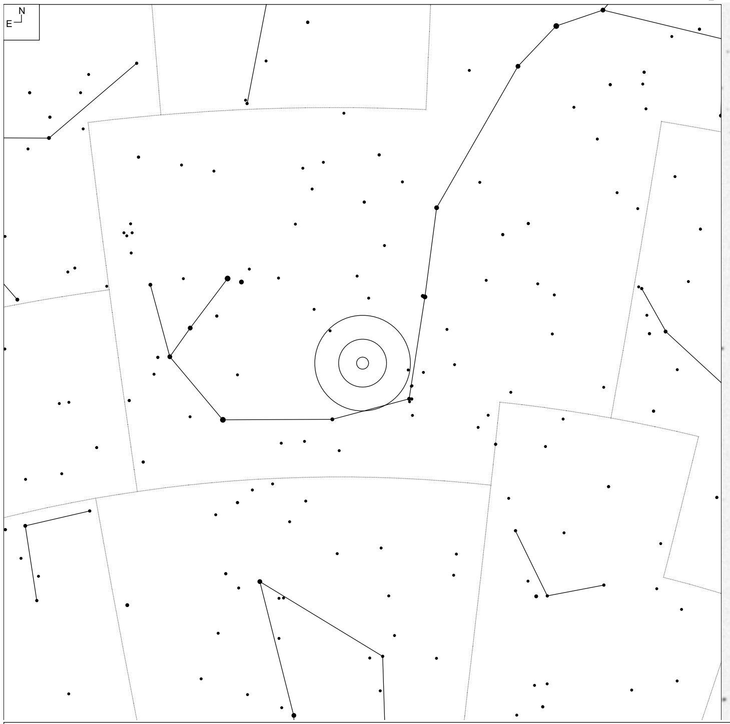


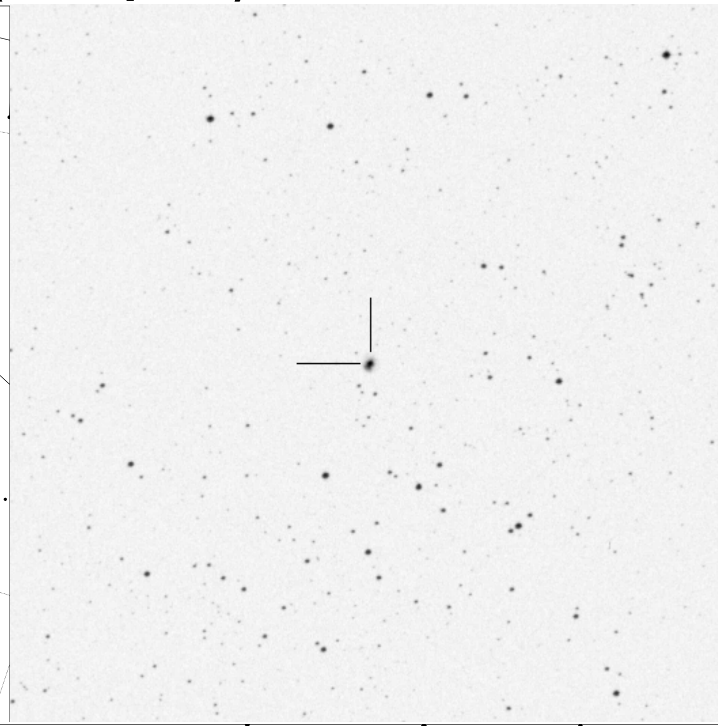


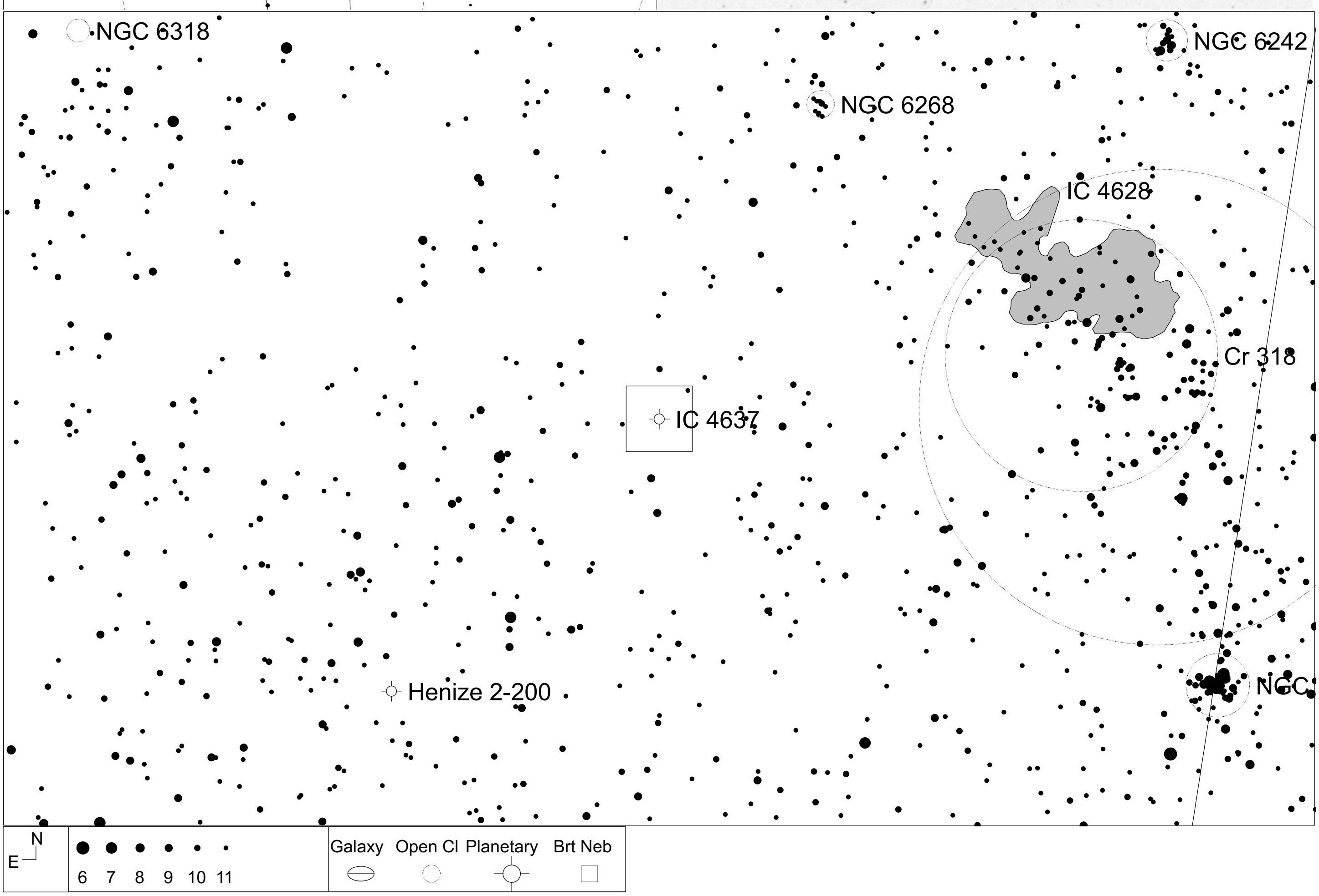


Other ID	Type	RA	Dec	Mag	* Mag	Size
Kohoutek 2-16	-	16 44 49.1	-28 04 06	11.0IR	12.7	23”

IC 4637 (Scorpius)

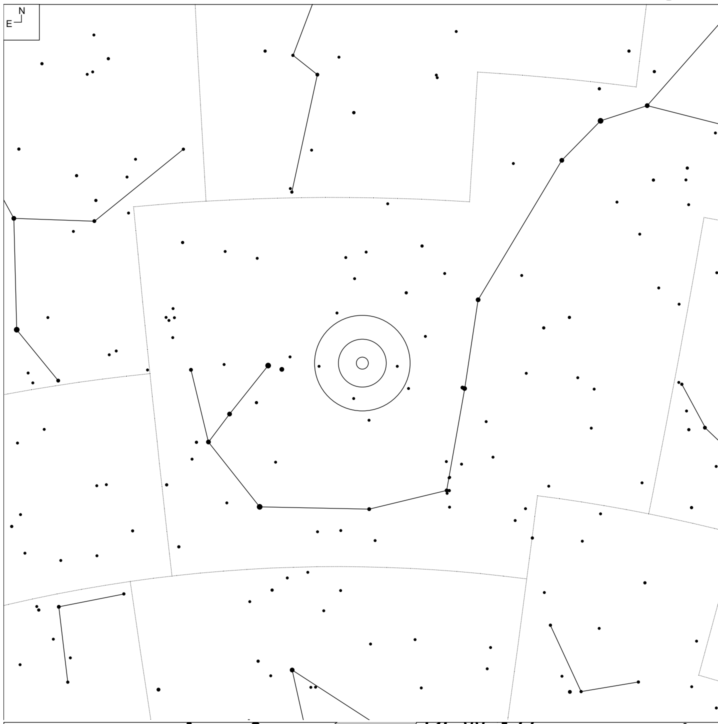


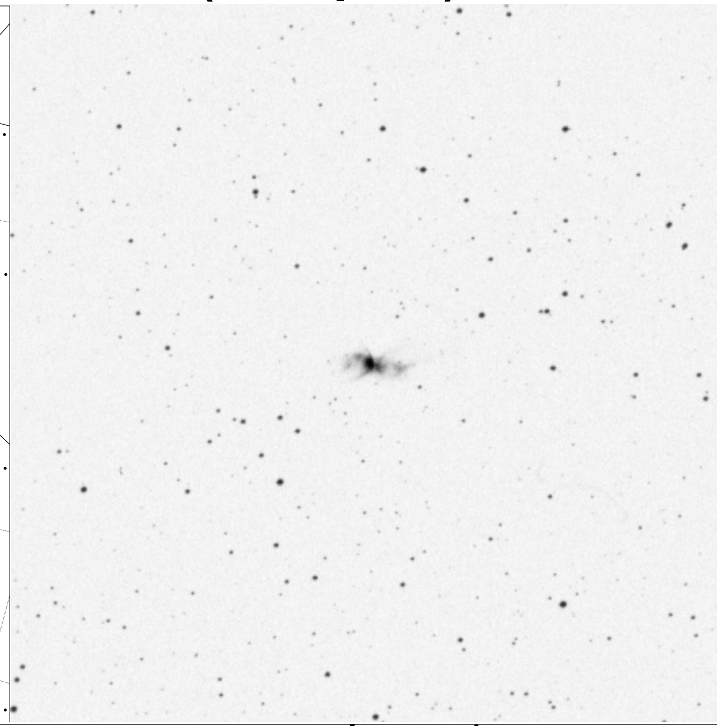


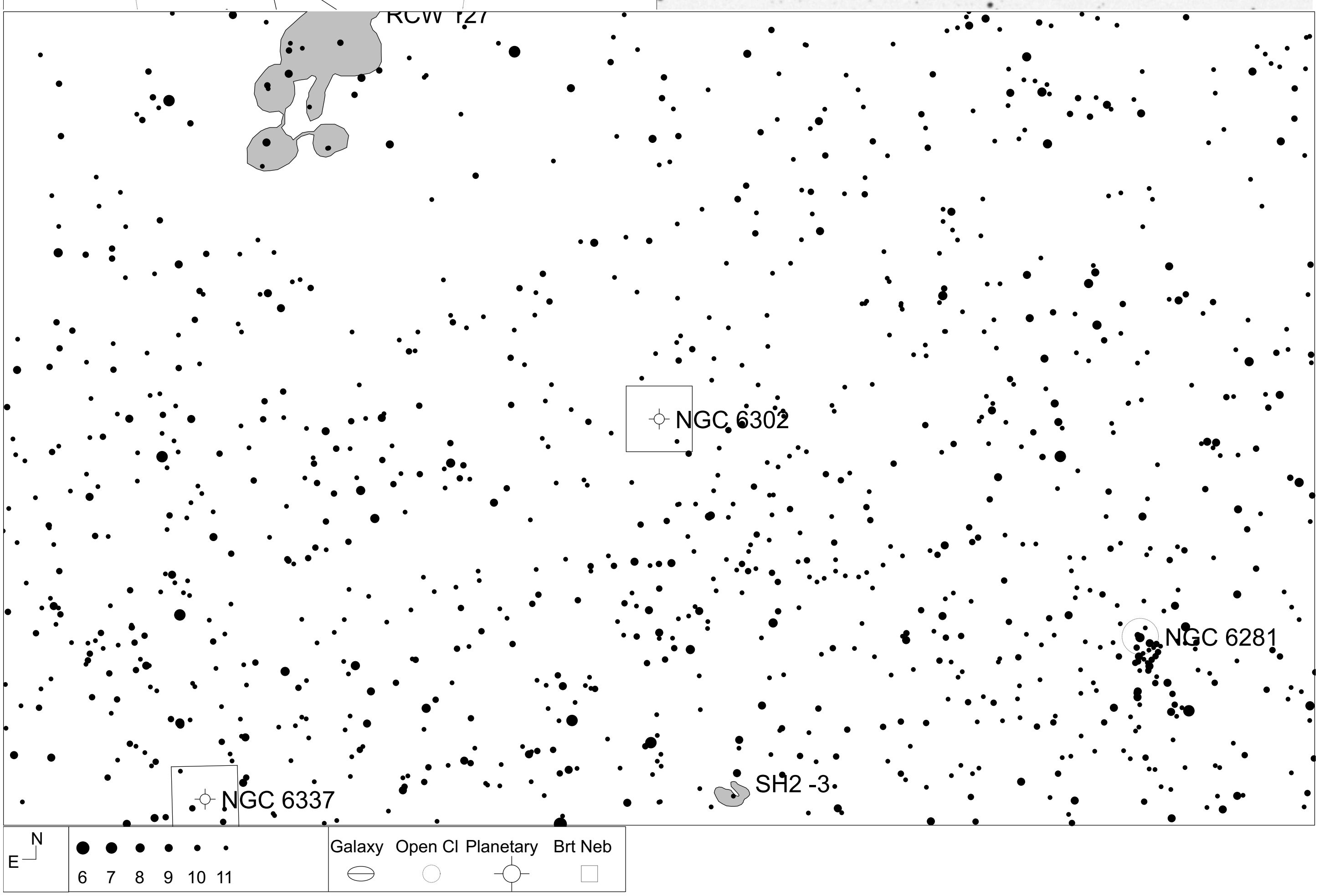


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 345+0.1	3	17 05 10.5	-40 53 09	12.5v	12.5	19”

NGC 6302 – Bug Nebula (Scorpius)

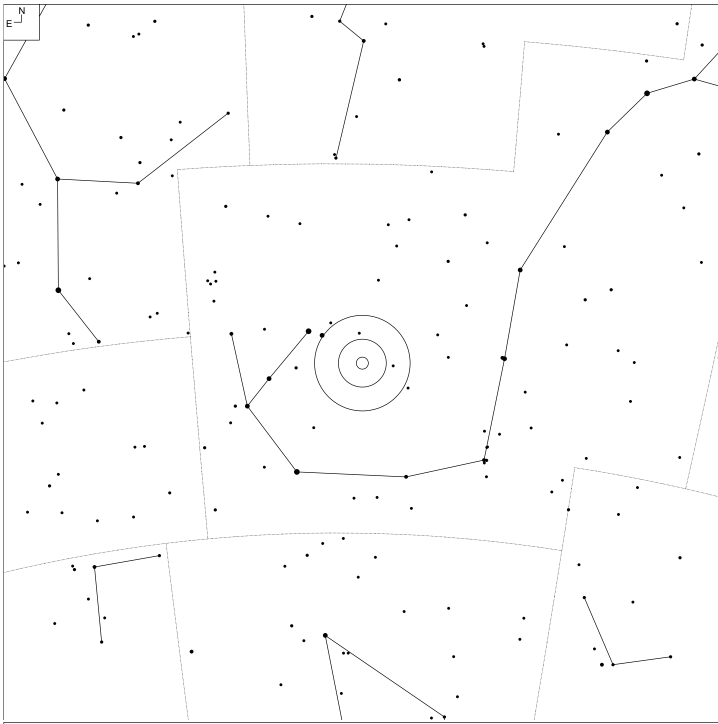


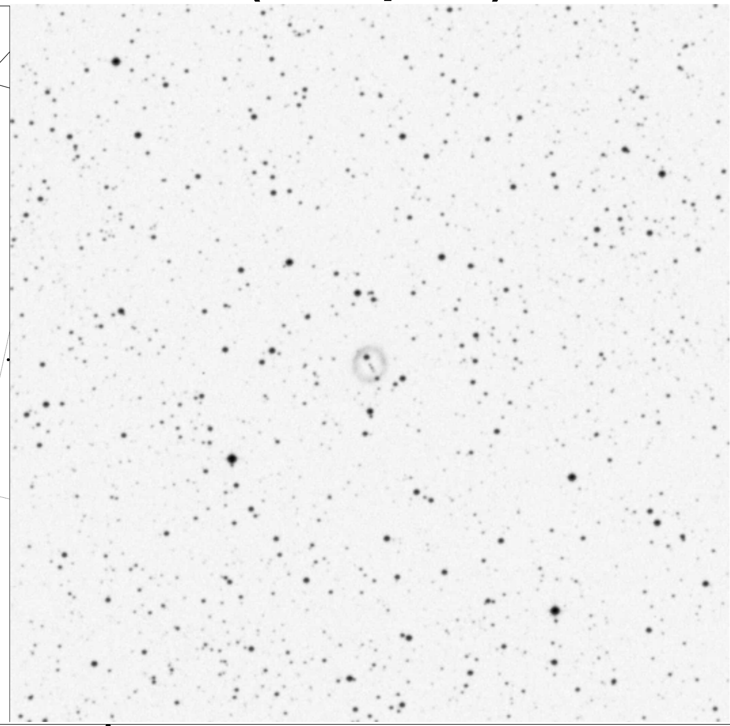


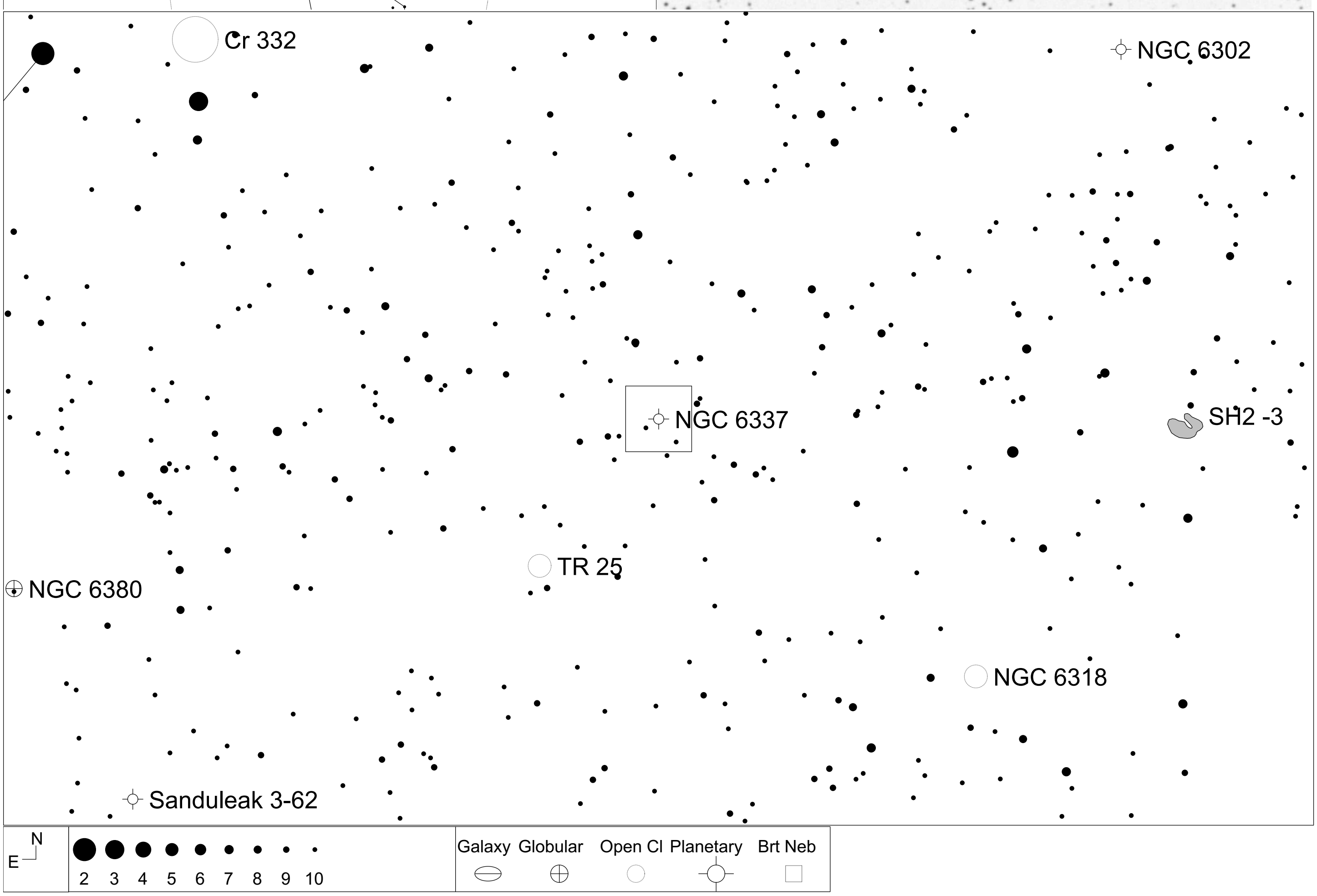


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 349+1.1	6	17 13 44.3	-37 06 13	9.6v	21.1	83x24”

NGC 6337 – Cheerio Nebula (Scorpius)

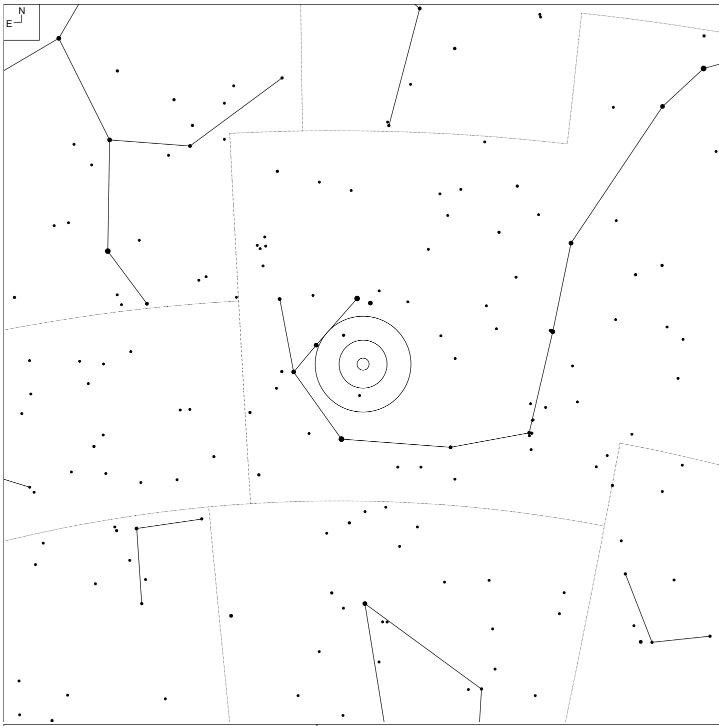


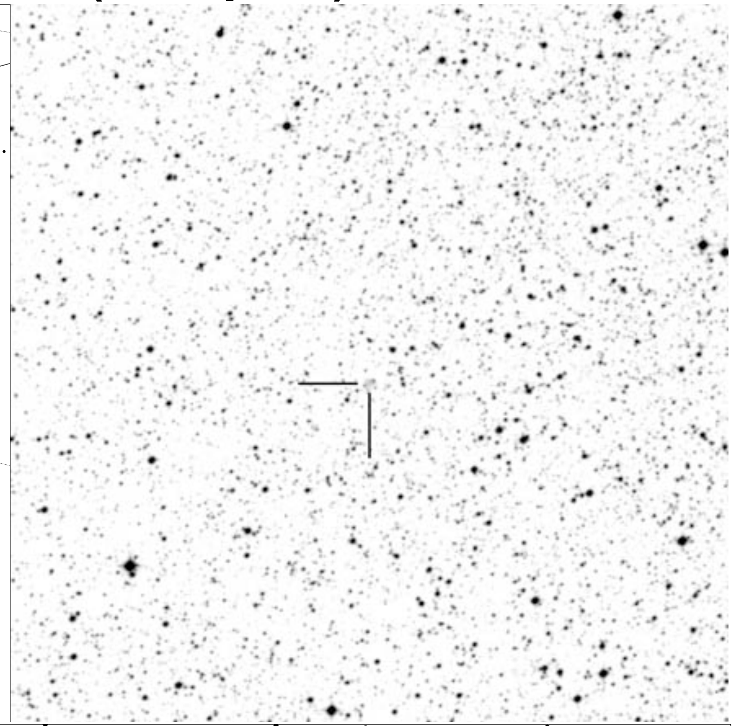


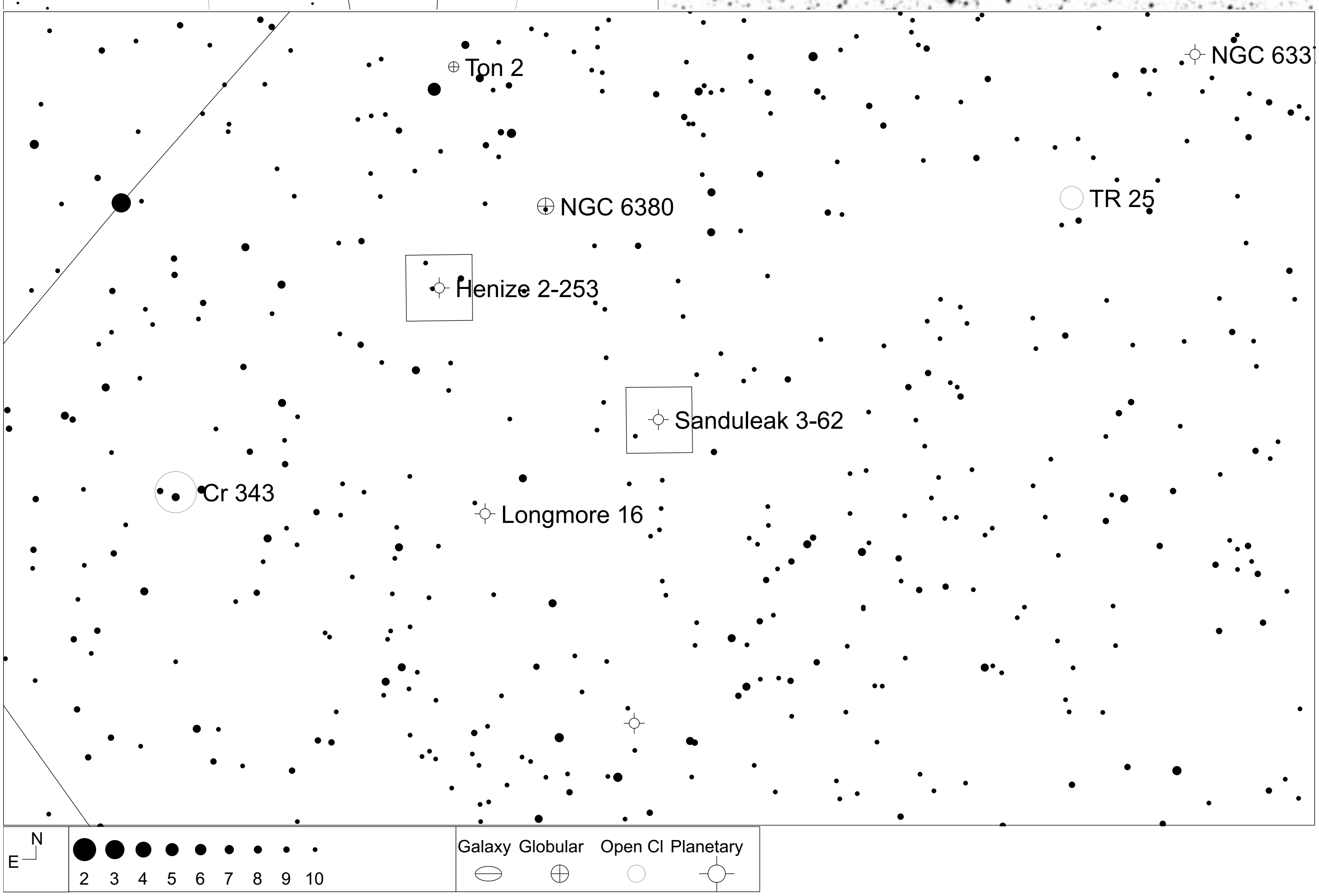


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 349-1.1	4	17 22 15.6	-38 29 02	12.3v	14.9	51”

Sanduleak 3-62 (Scorpius)

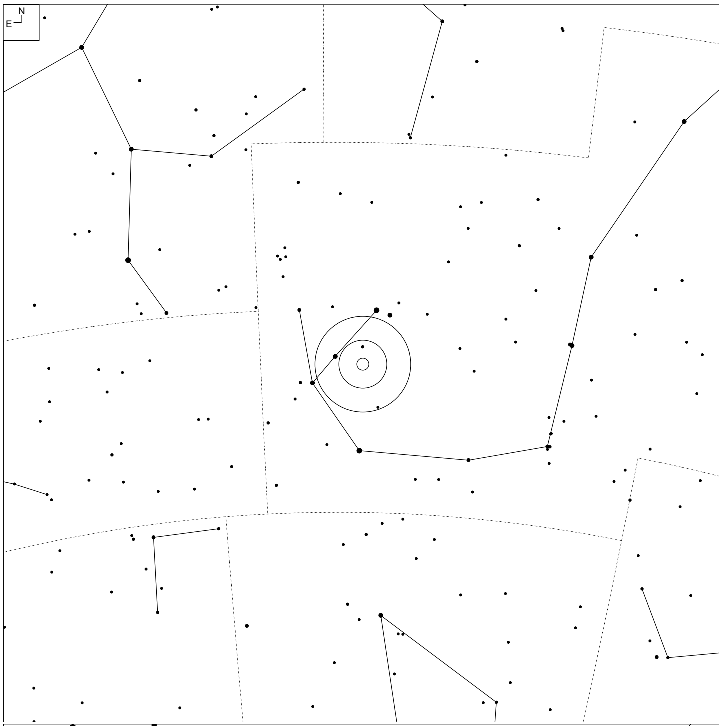


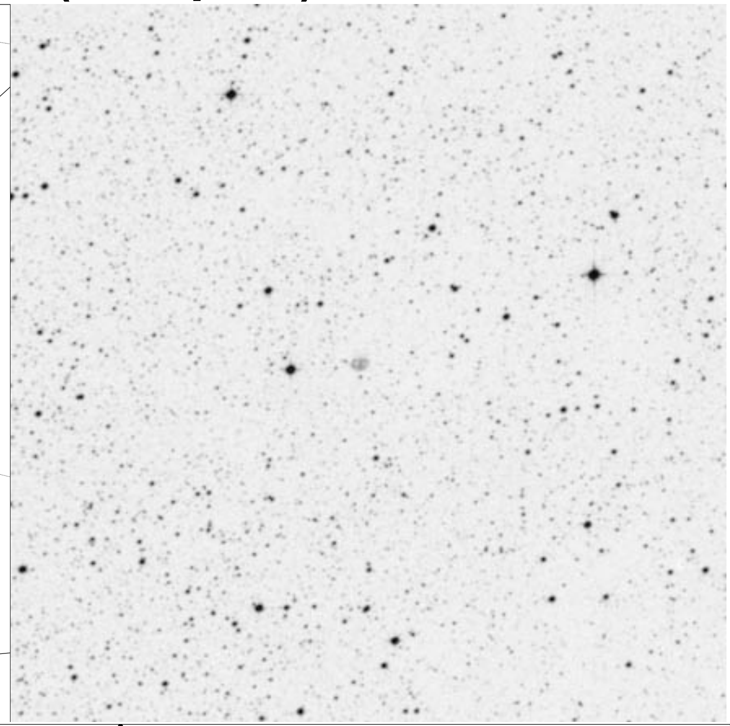


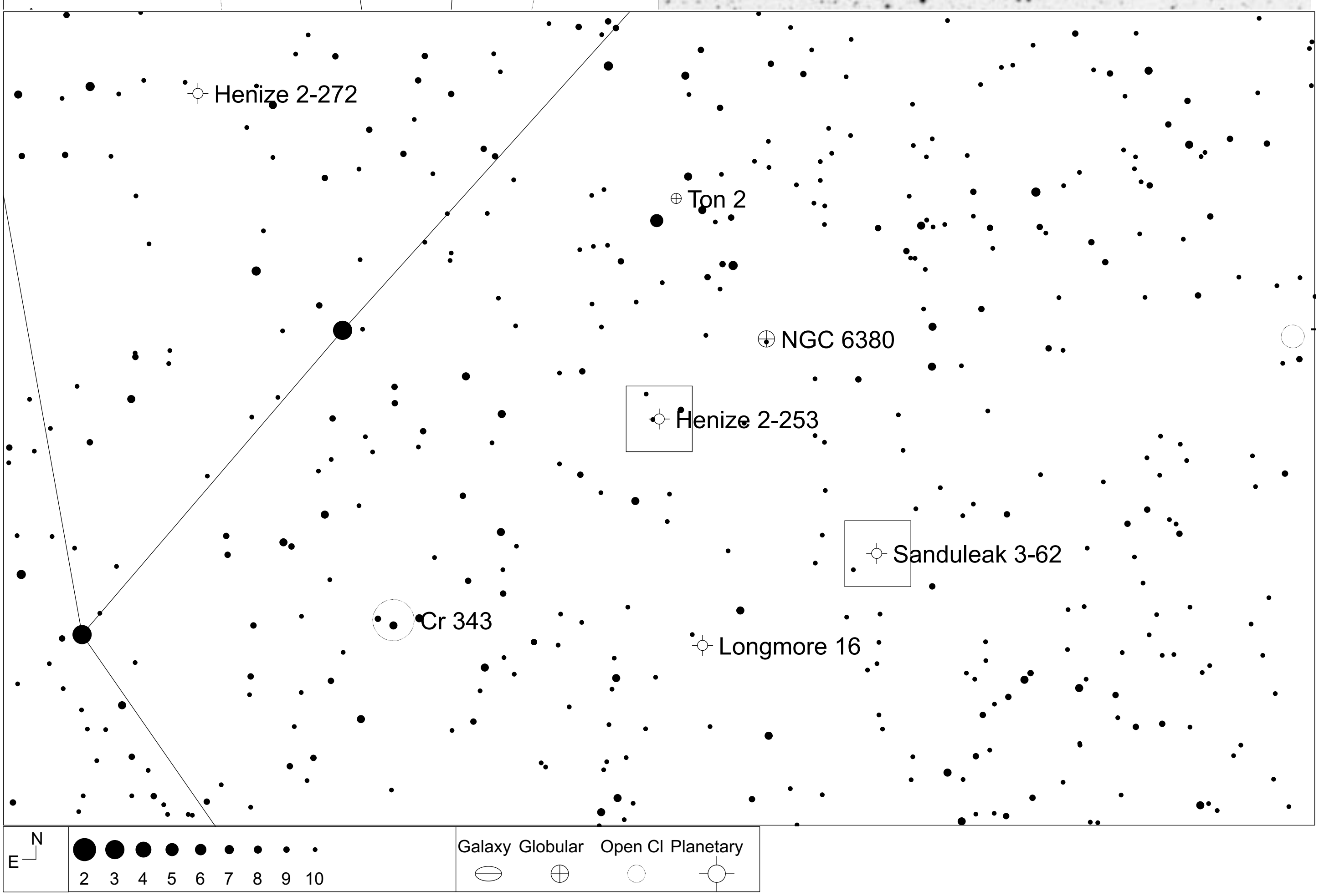


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 349-3.1	-	17 32 20.0	-39 51 23	15.8p	-	20”

Henize 2-253 (Scorpius)

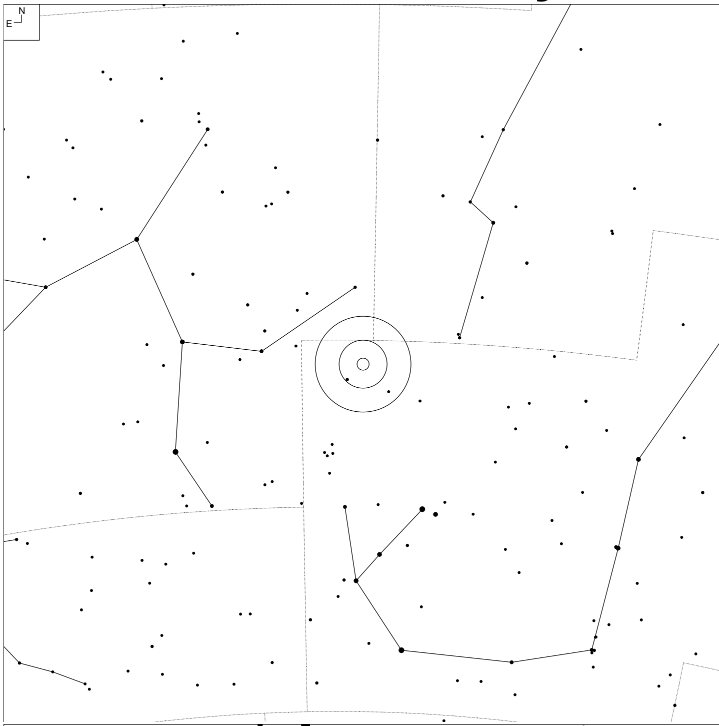


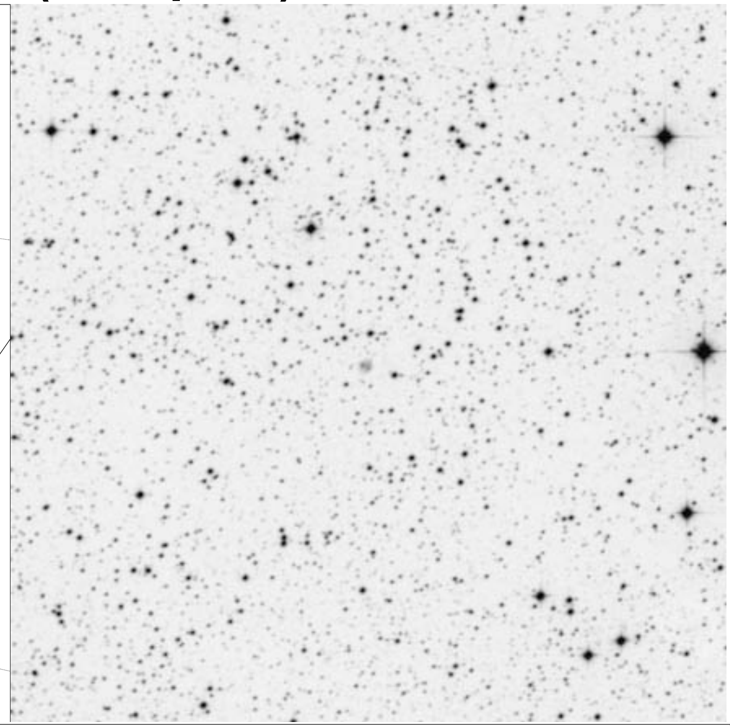


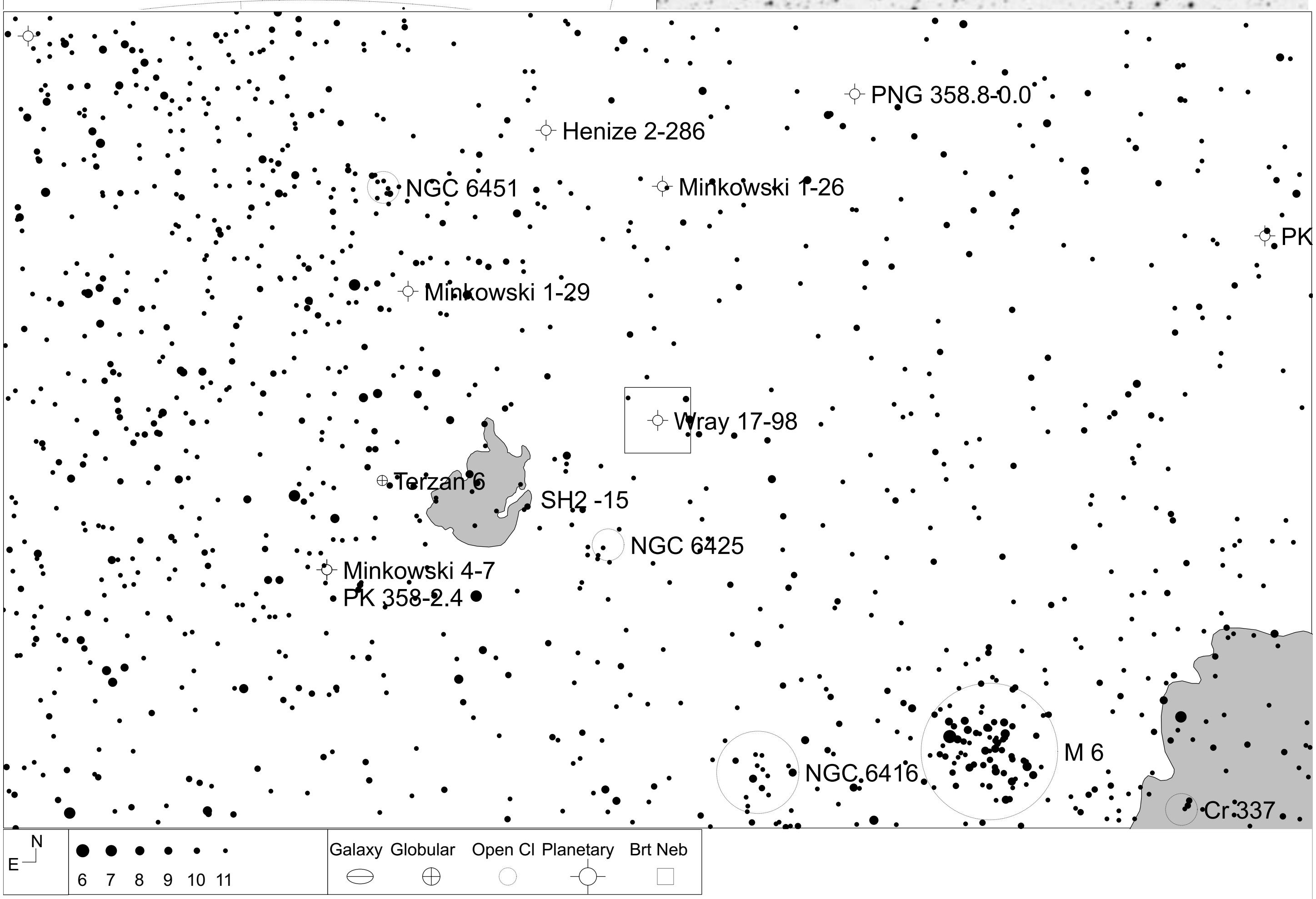


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 350-3.1	4	17 36 29.8	-39 21 57	14.4p	-	18”

Wray 17-98 (Scorpius)

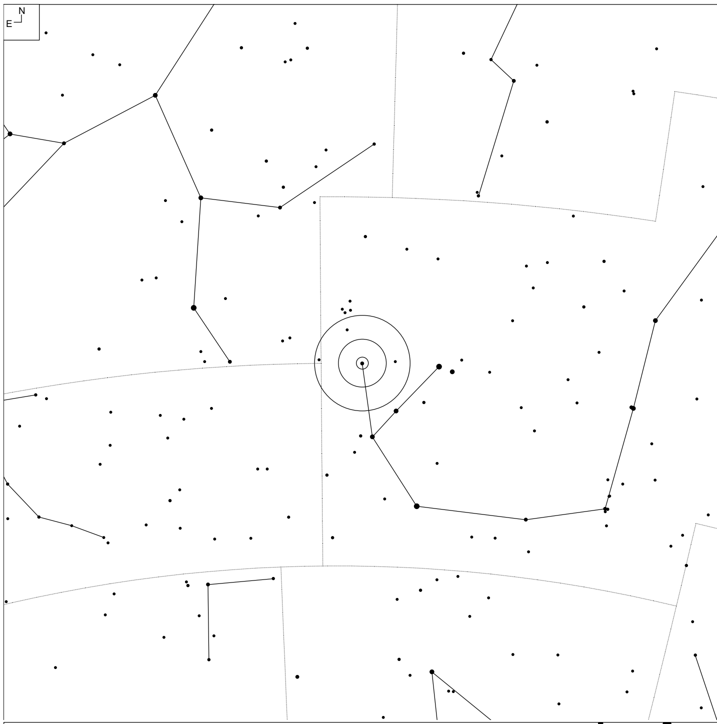


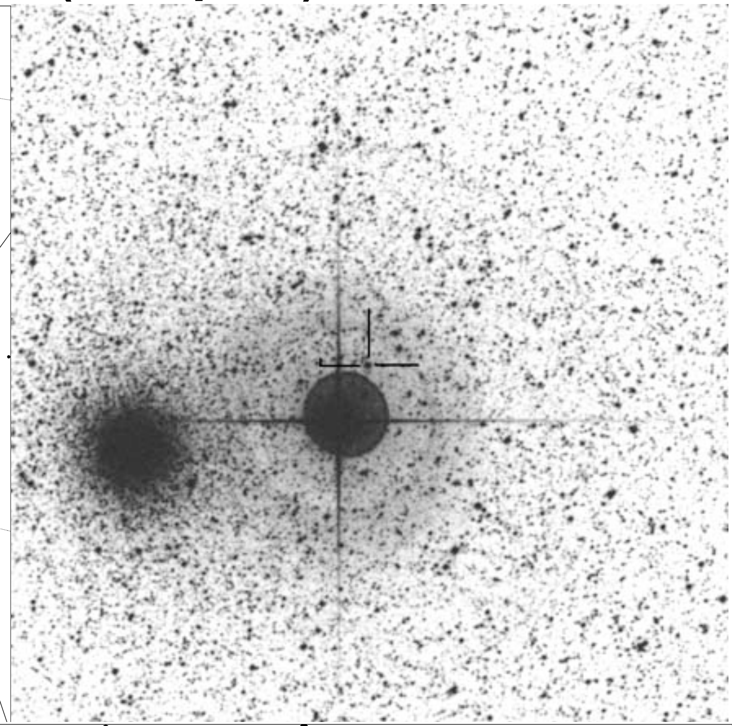


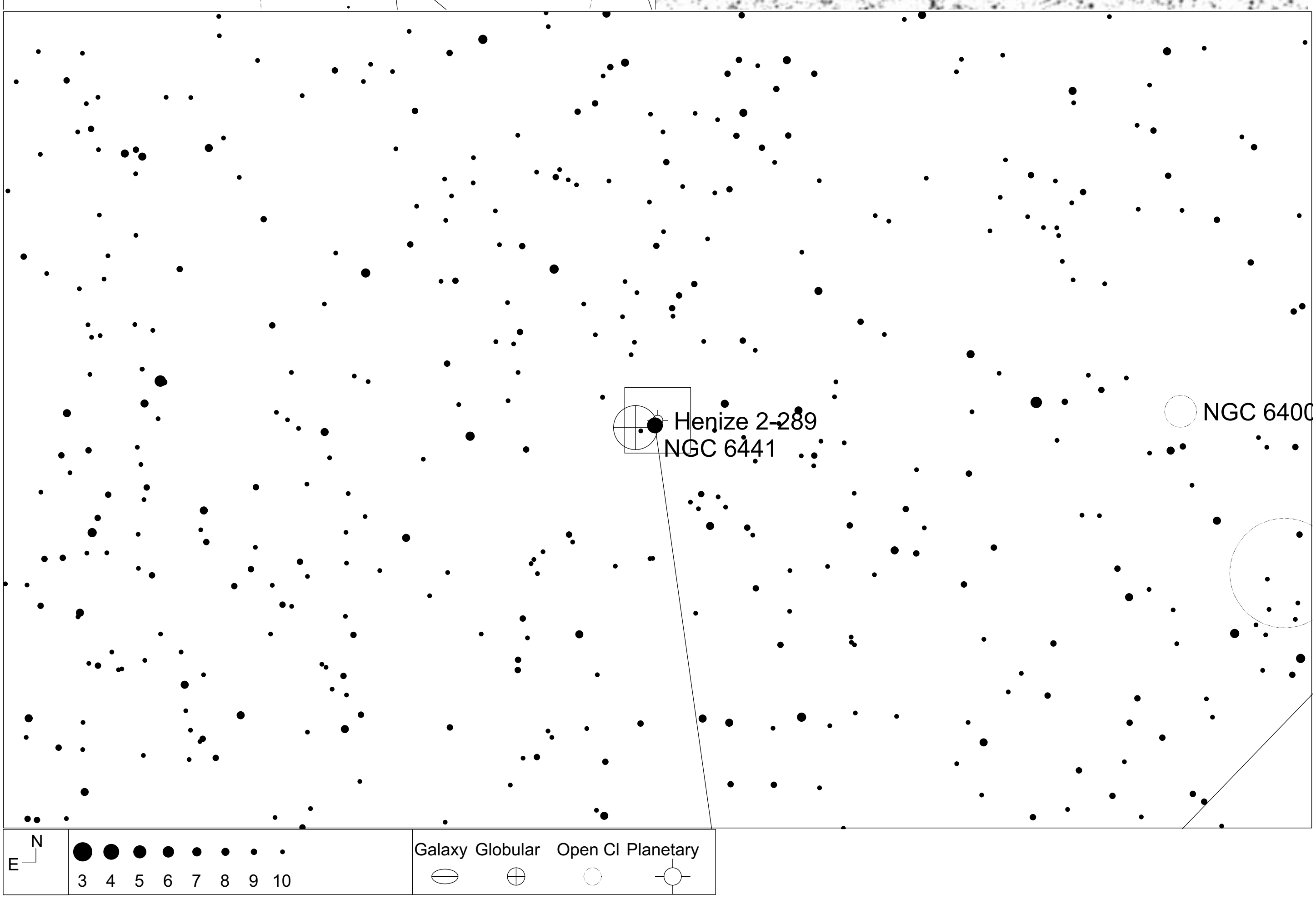


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 358-1.1	3+2	17 46 02.5	-31 03 36	-	-	13”

Henize 2-289 (Scorpius)

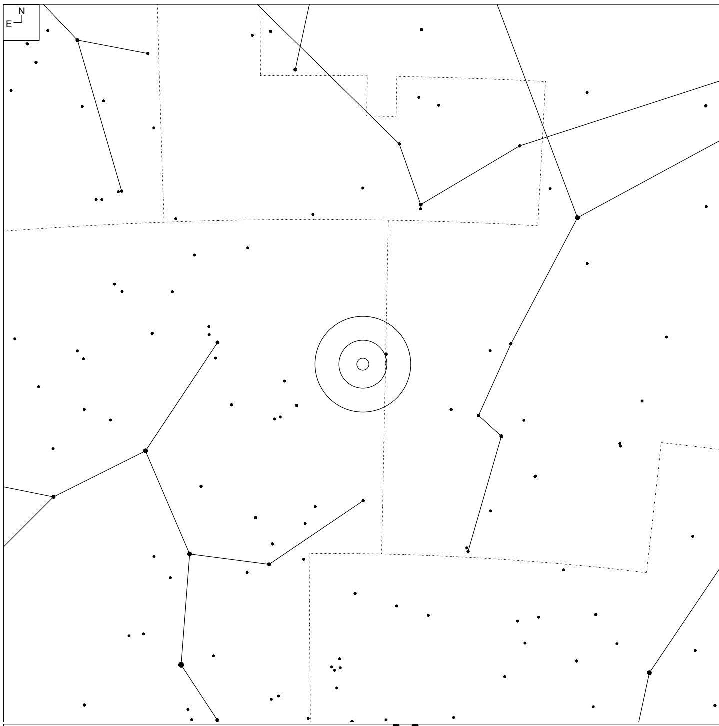


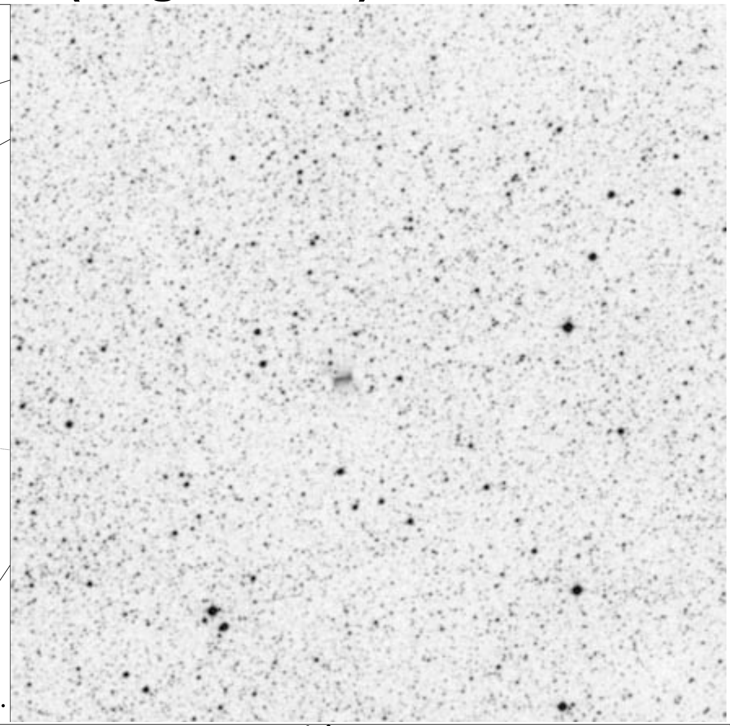


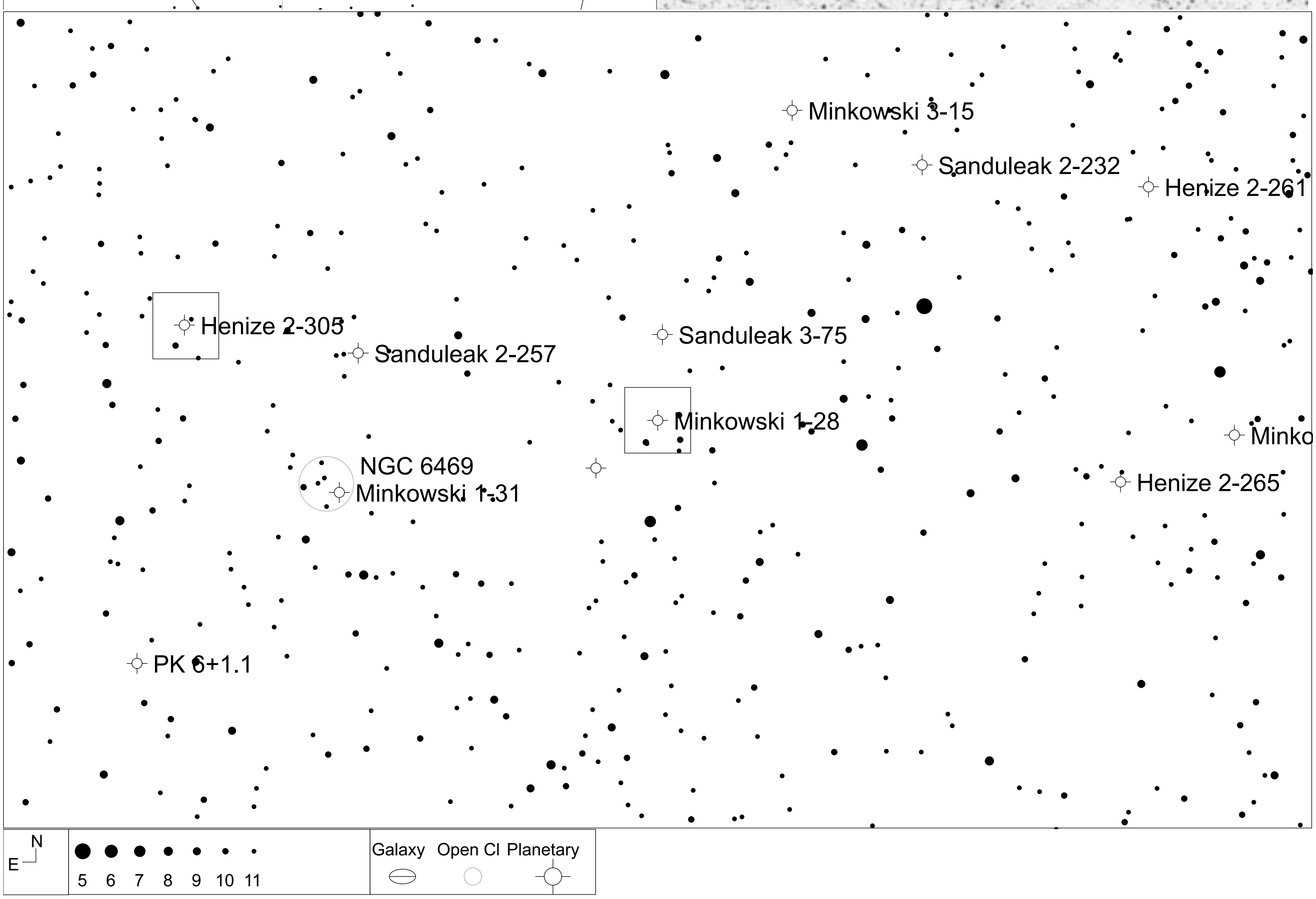


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 353.5-4.9	-	17 49 48.2	-37 01 28	12.0p	16.8	10”

Minkowski 1-28 (Sagittarius)

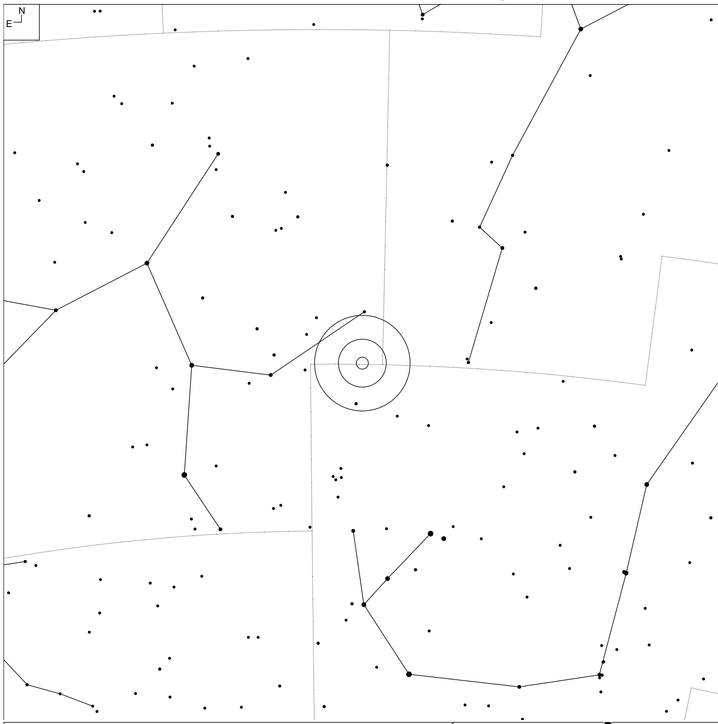


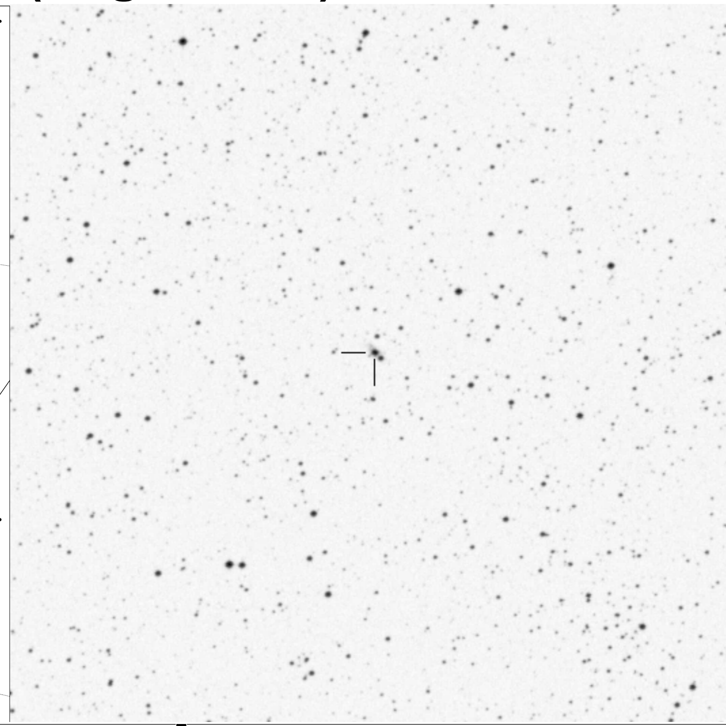


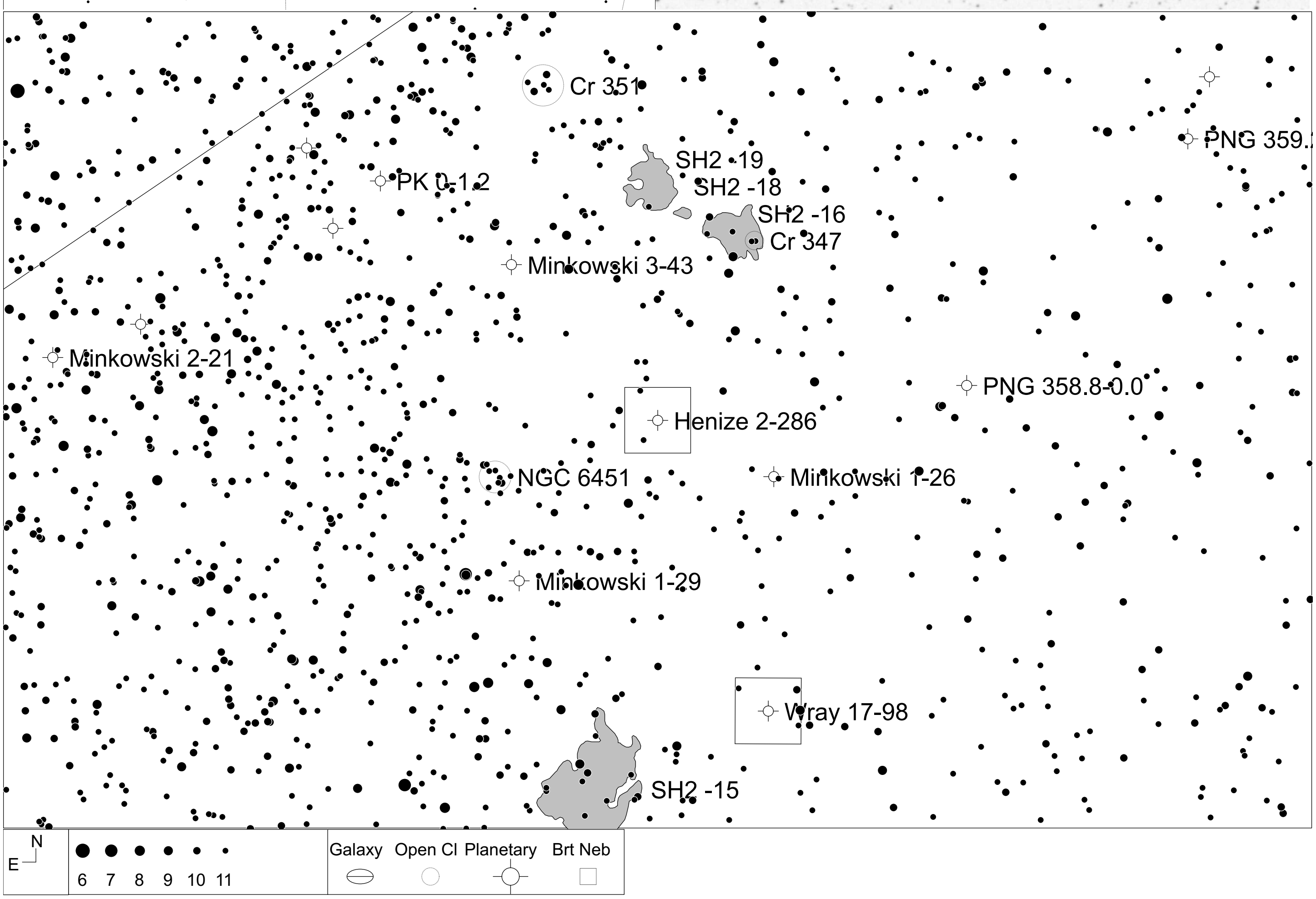


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 6+3.2	3+6	17 47 38.4	-22 06 20	16.8p	20.8	15”

Wray 16-310 (Sagittarius)

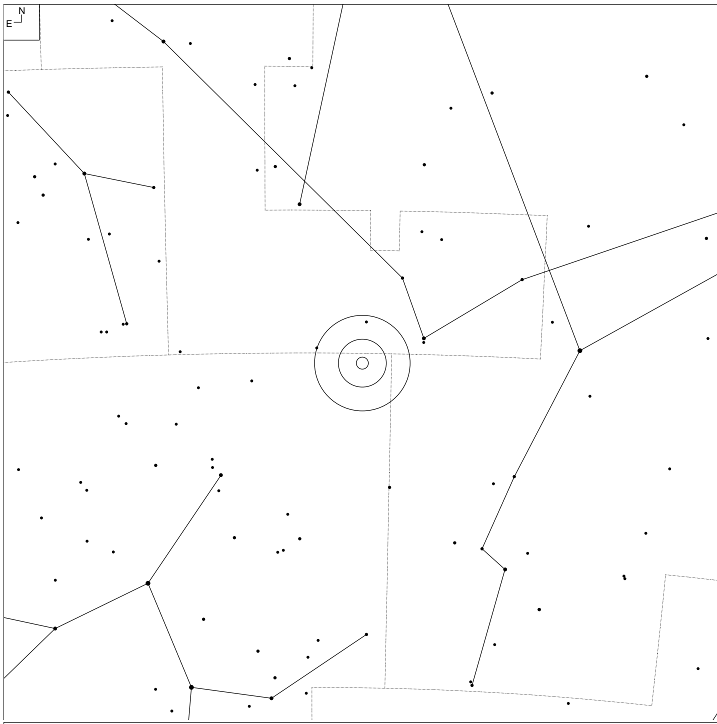


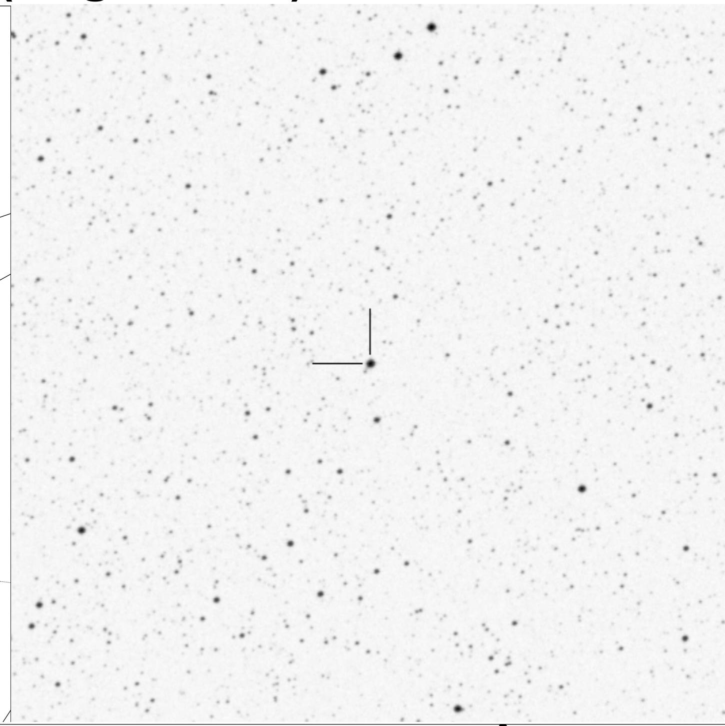


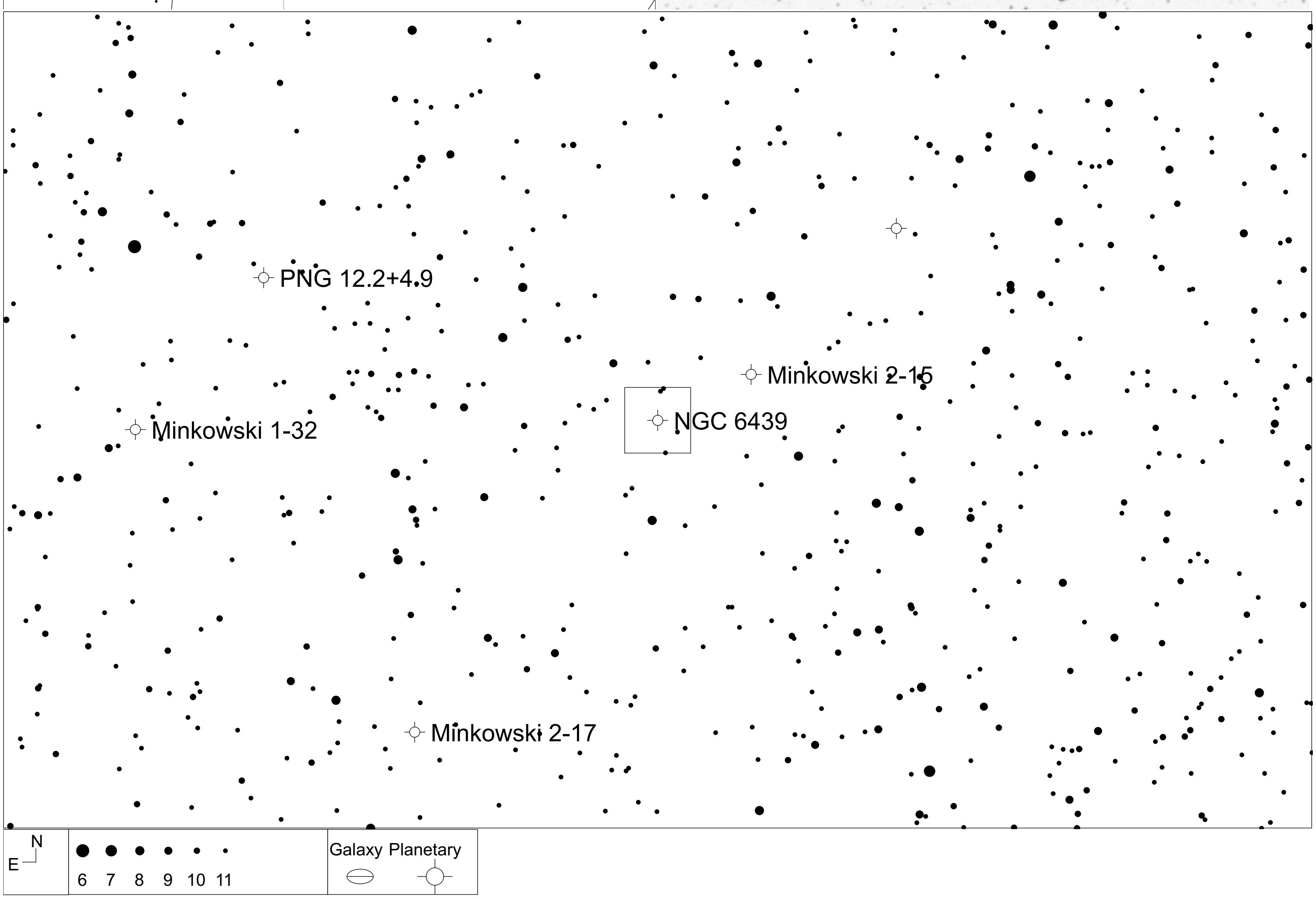


Other ID	Type	RA	Dec	Mag	* Mag	Size
Henize 2-286	2+6	17 47 56.2	-29 59 40	11.8v	18.6	3”

NGC 6439 (Sagittarius)

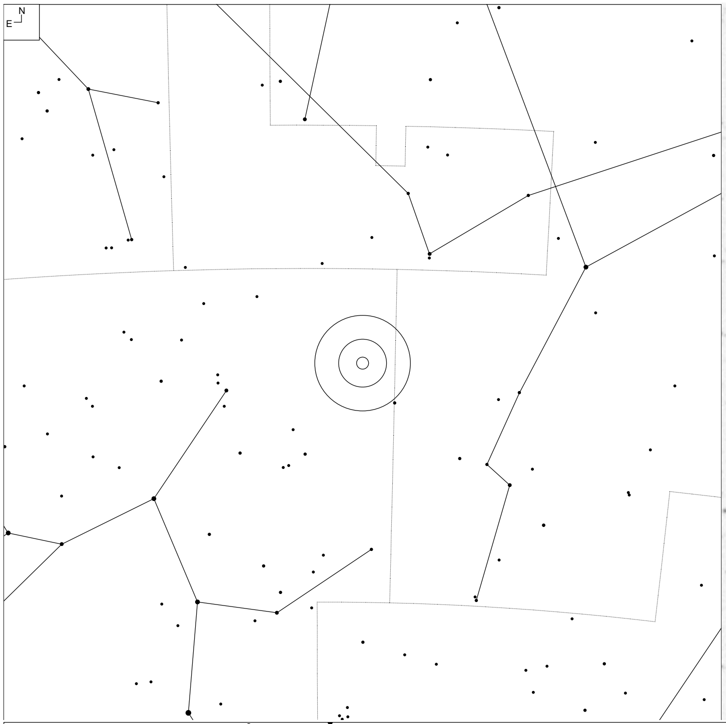


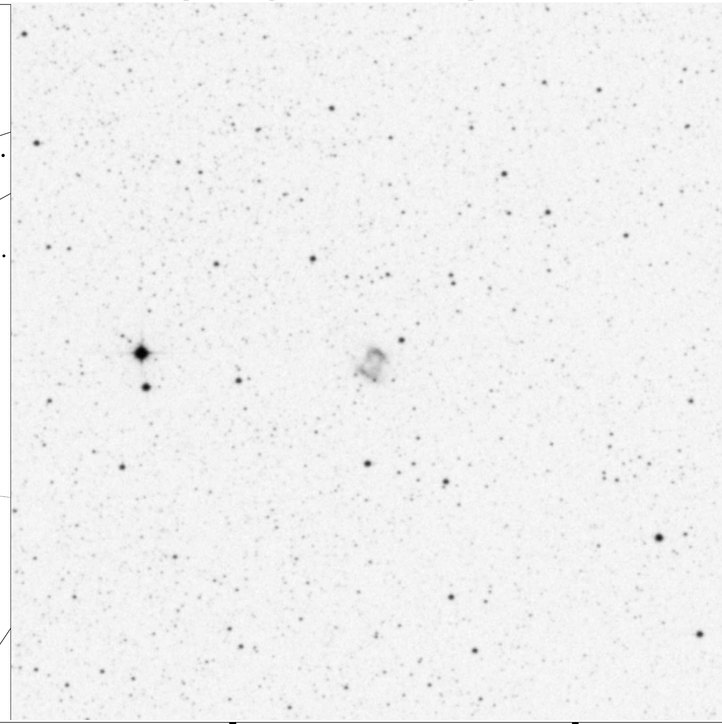


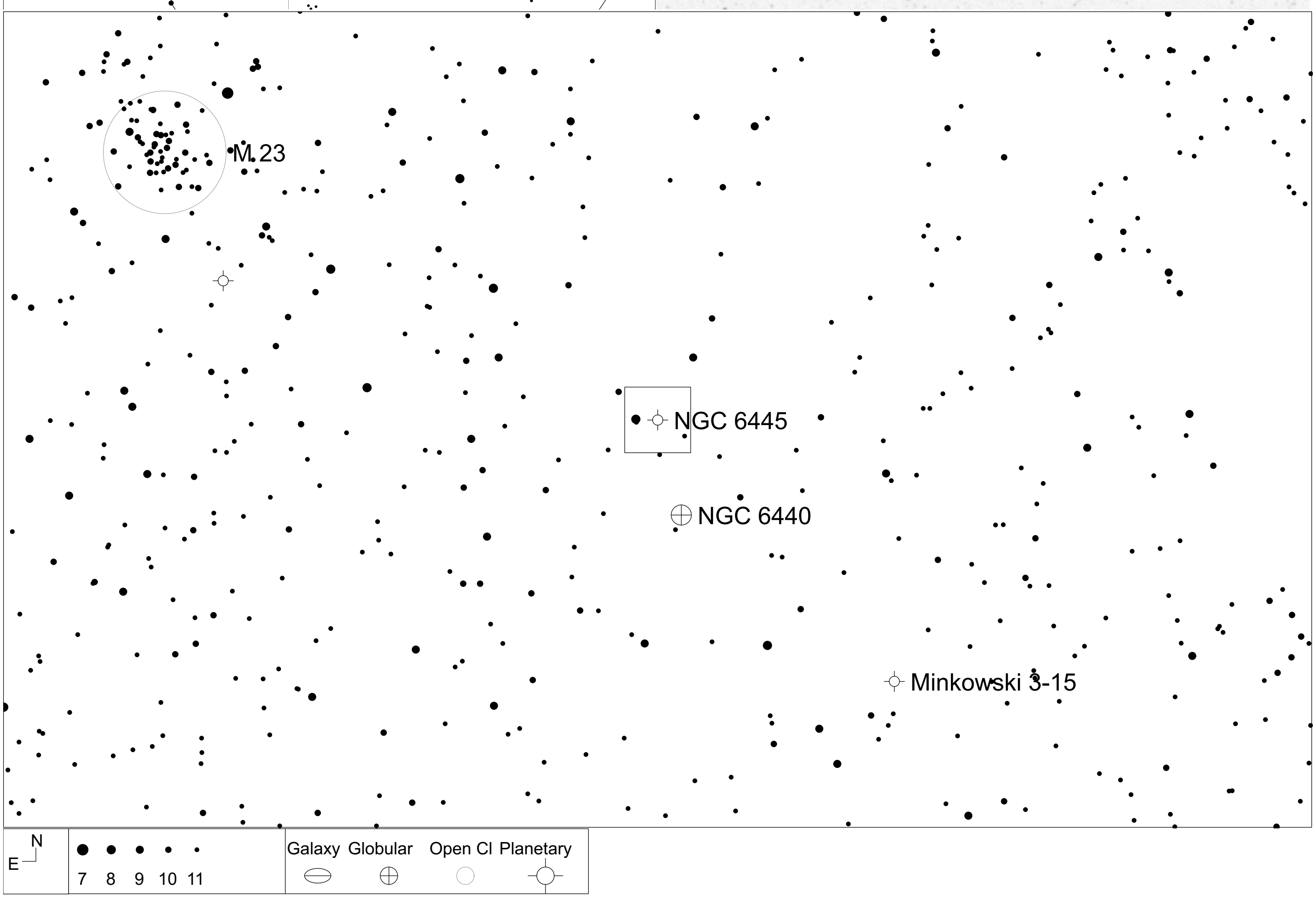


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 11+5.1	2a	17 48 20.3	-16 27 35	12.6v	20.2	5”

NGC 6445 – Box Nebula (Sagittarius)

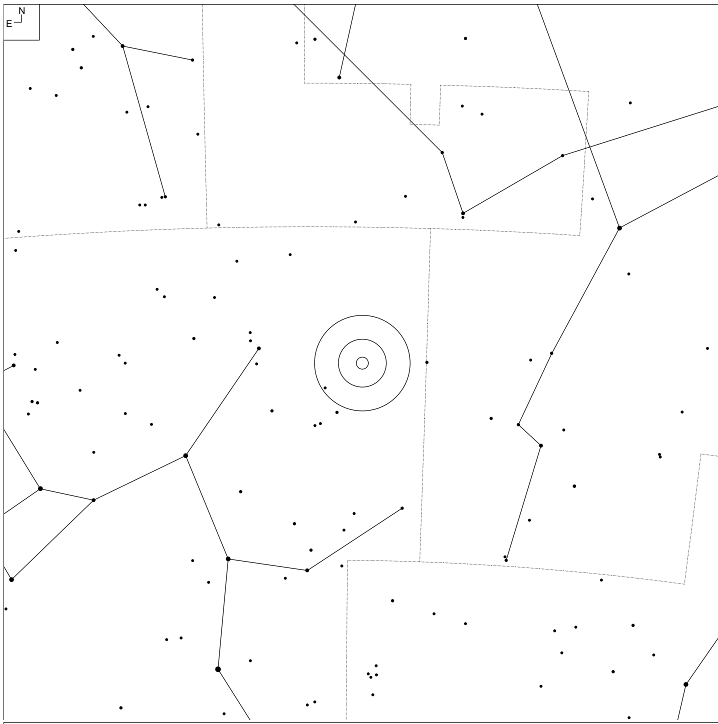


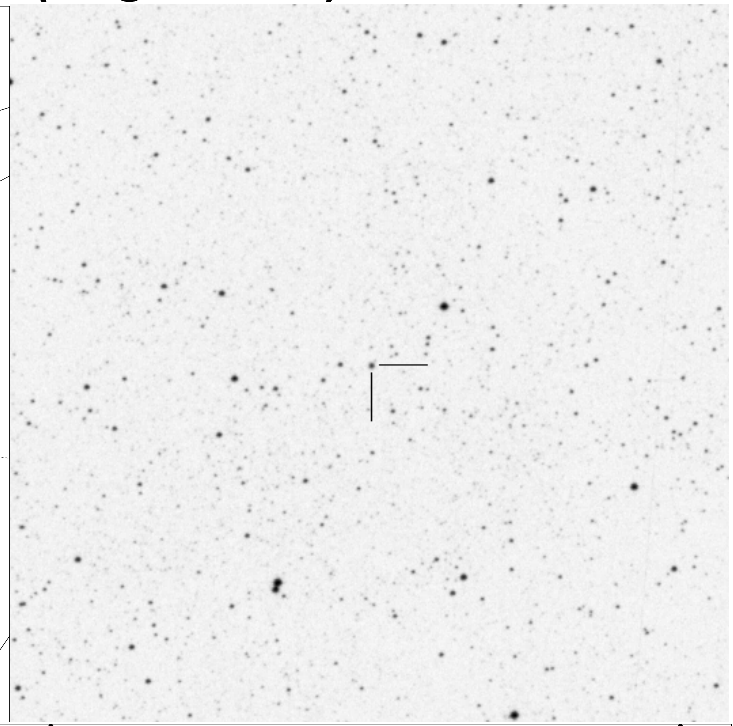


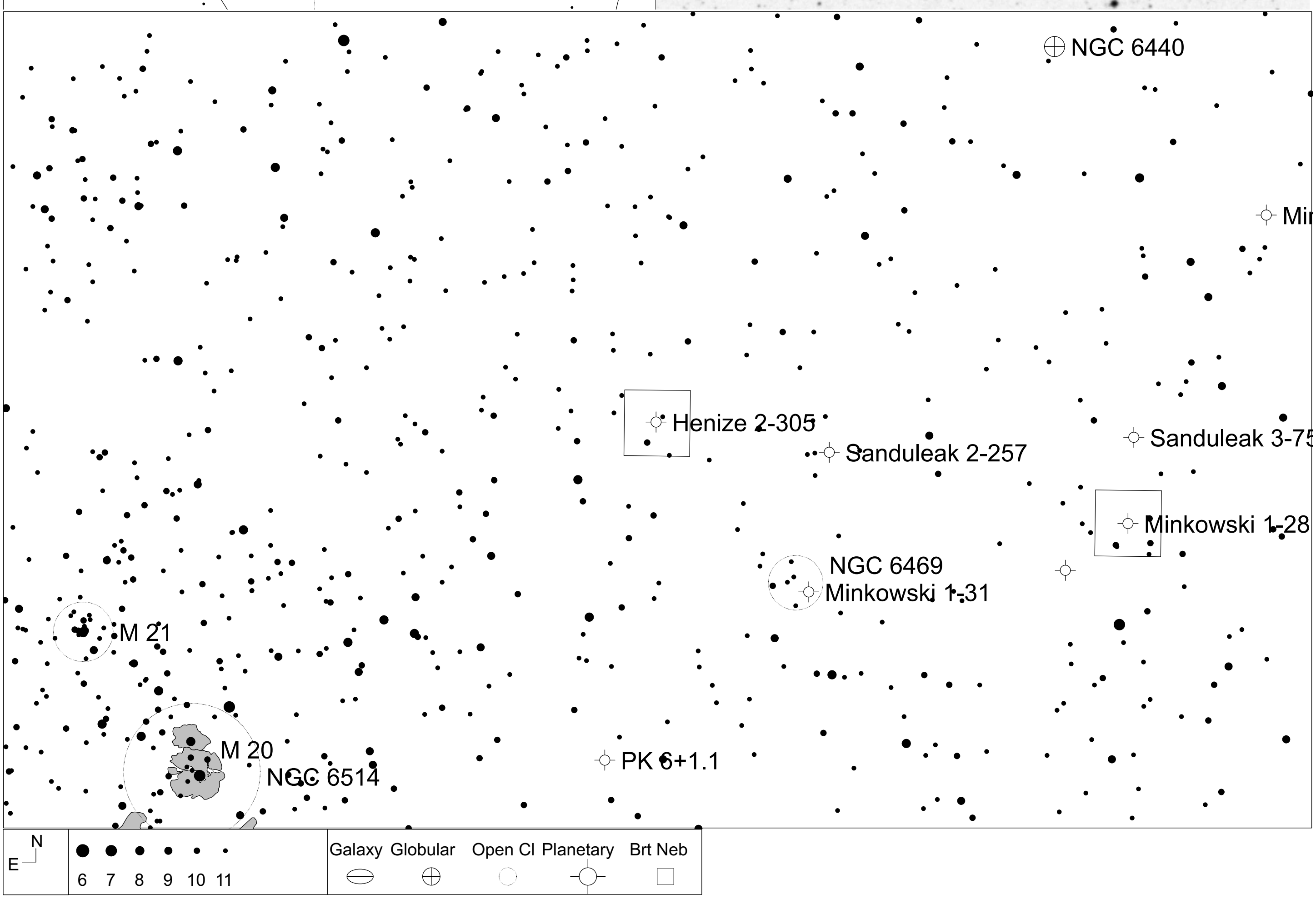


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 8-3.1	3b+3	17 49 14.9	-20 00 36	11.2v	19.0	38x29”

Henize 2-305 (Sagittarius)

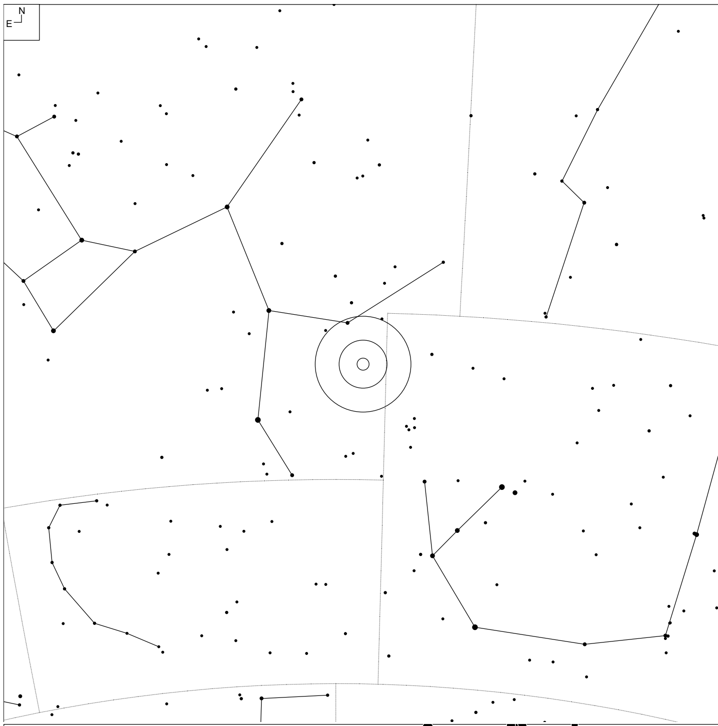


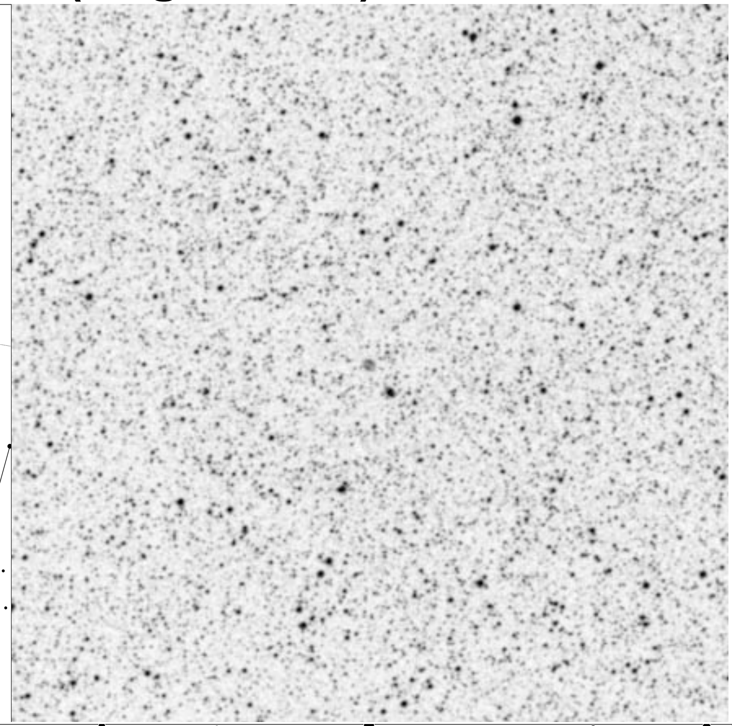


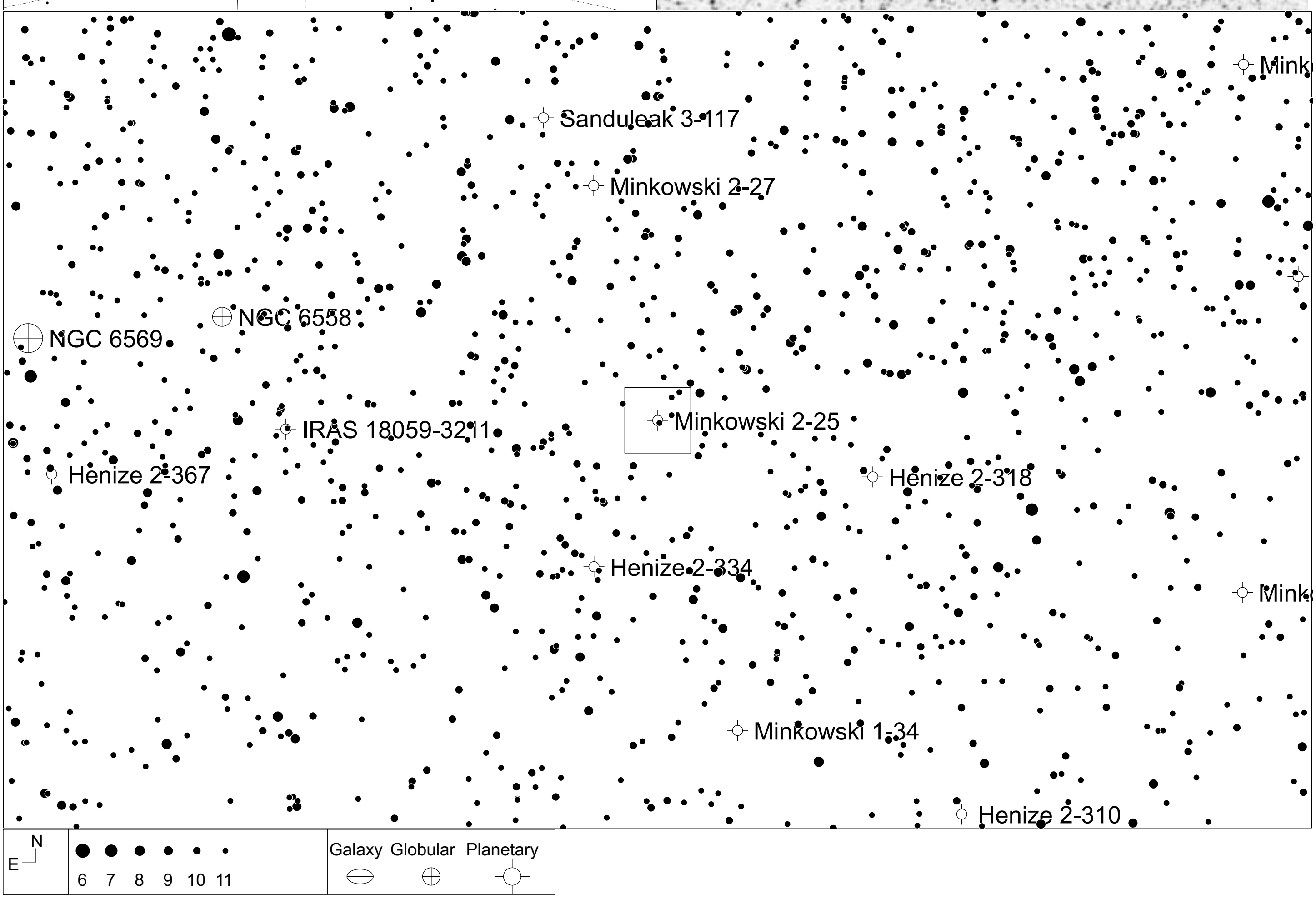


Other ID	Type	RA	Dec	Mag	* Mag	Size
IC 4670	2	17 55 07.0	-21 44 40	12.0v	14.7	5”

Minkowski 2-25 (Sagittarius)

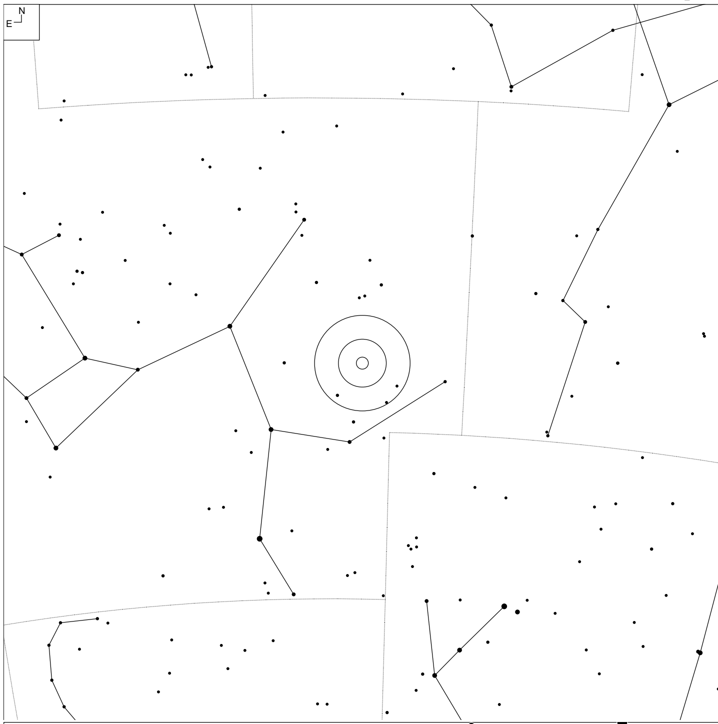


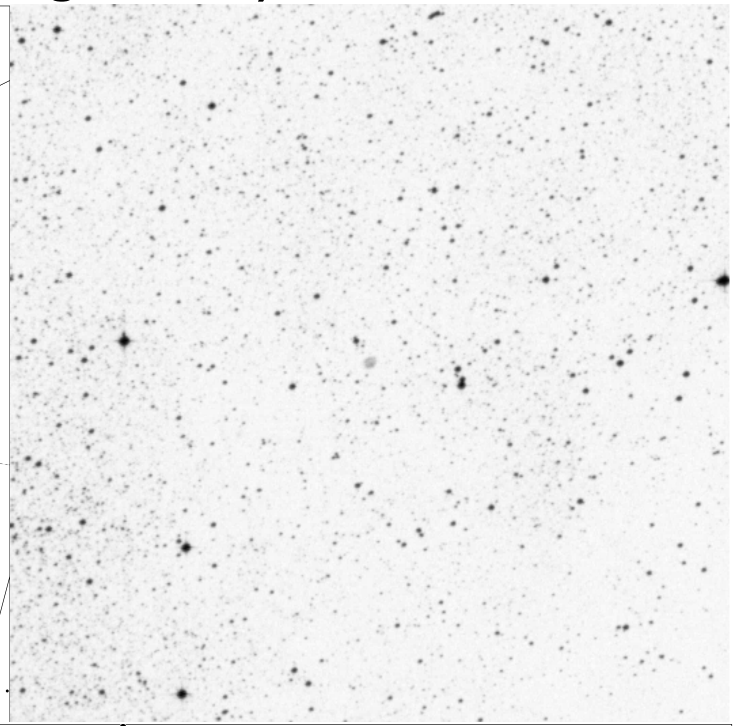


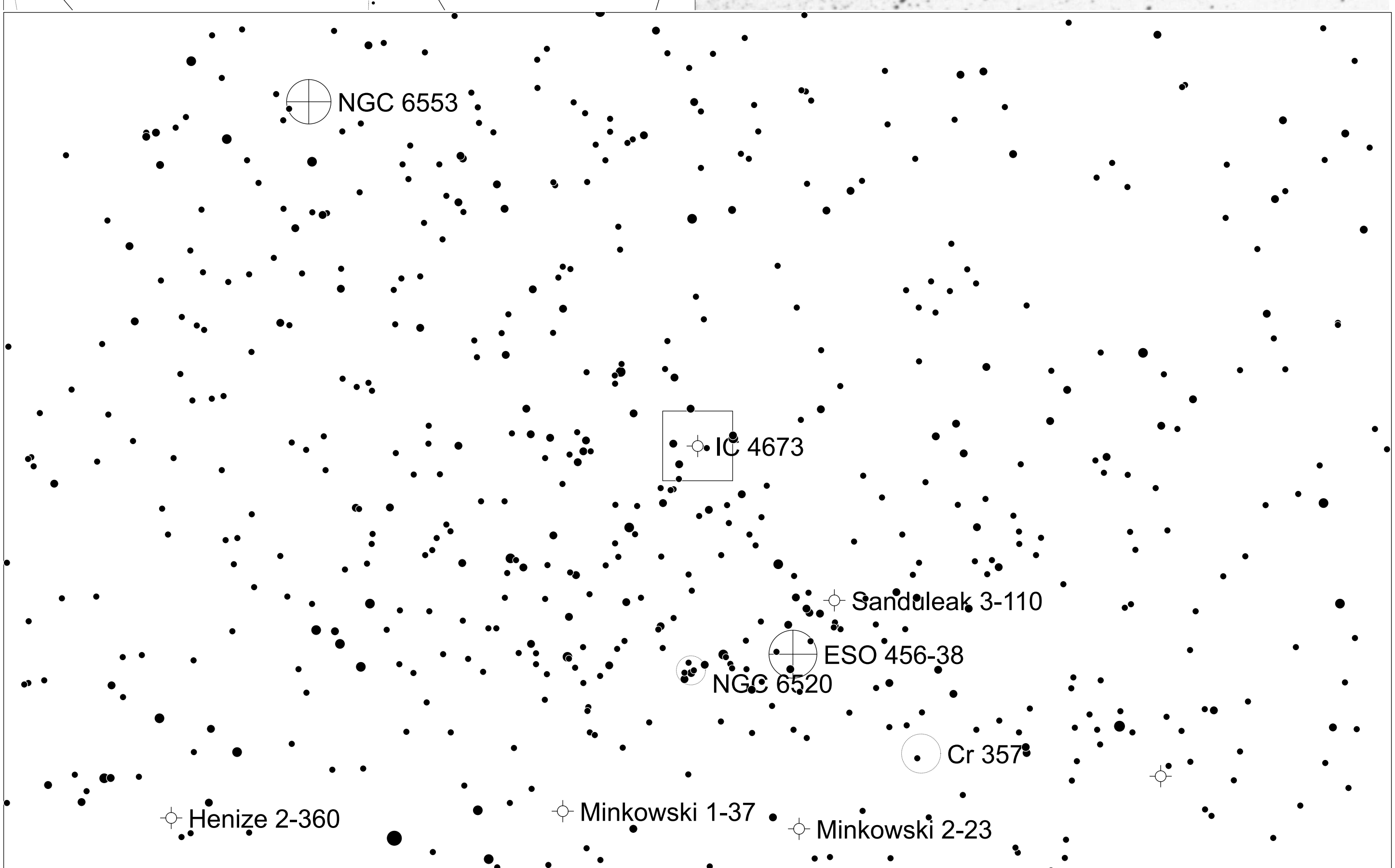


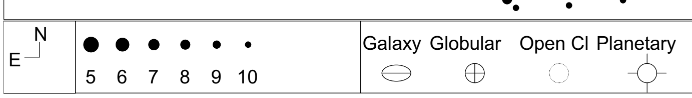
Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 359-4.3	3	18 02 46.5	-32 09 28	15.0p	-	14”

IC 4673 (Sagittarius)



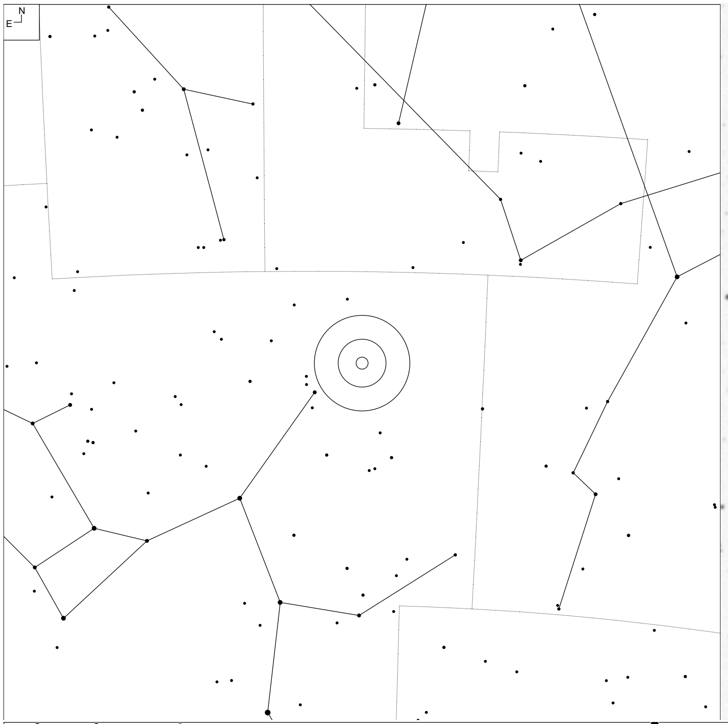


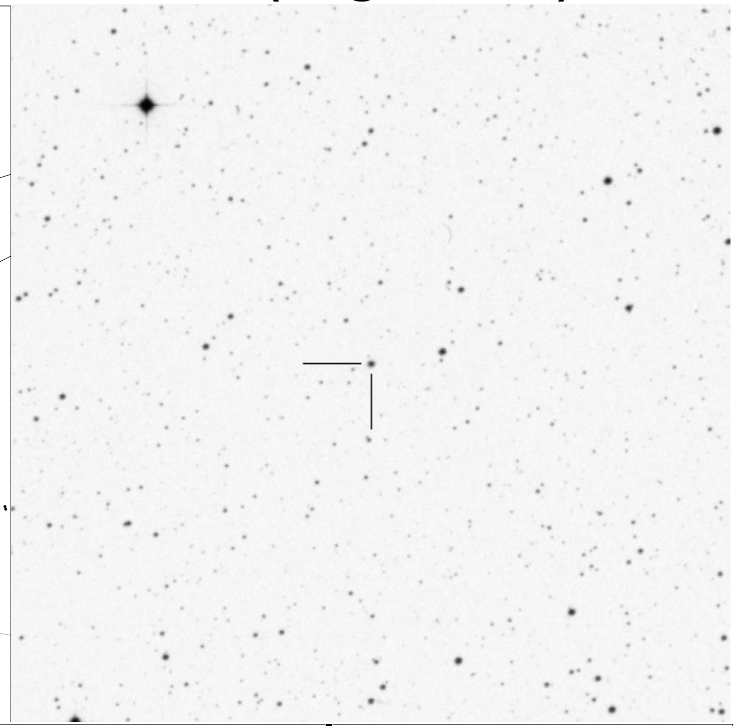


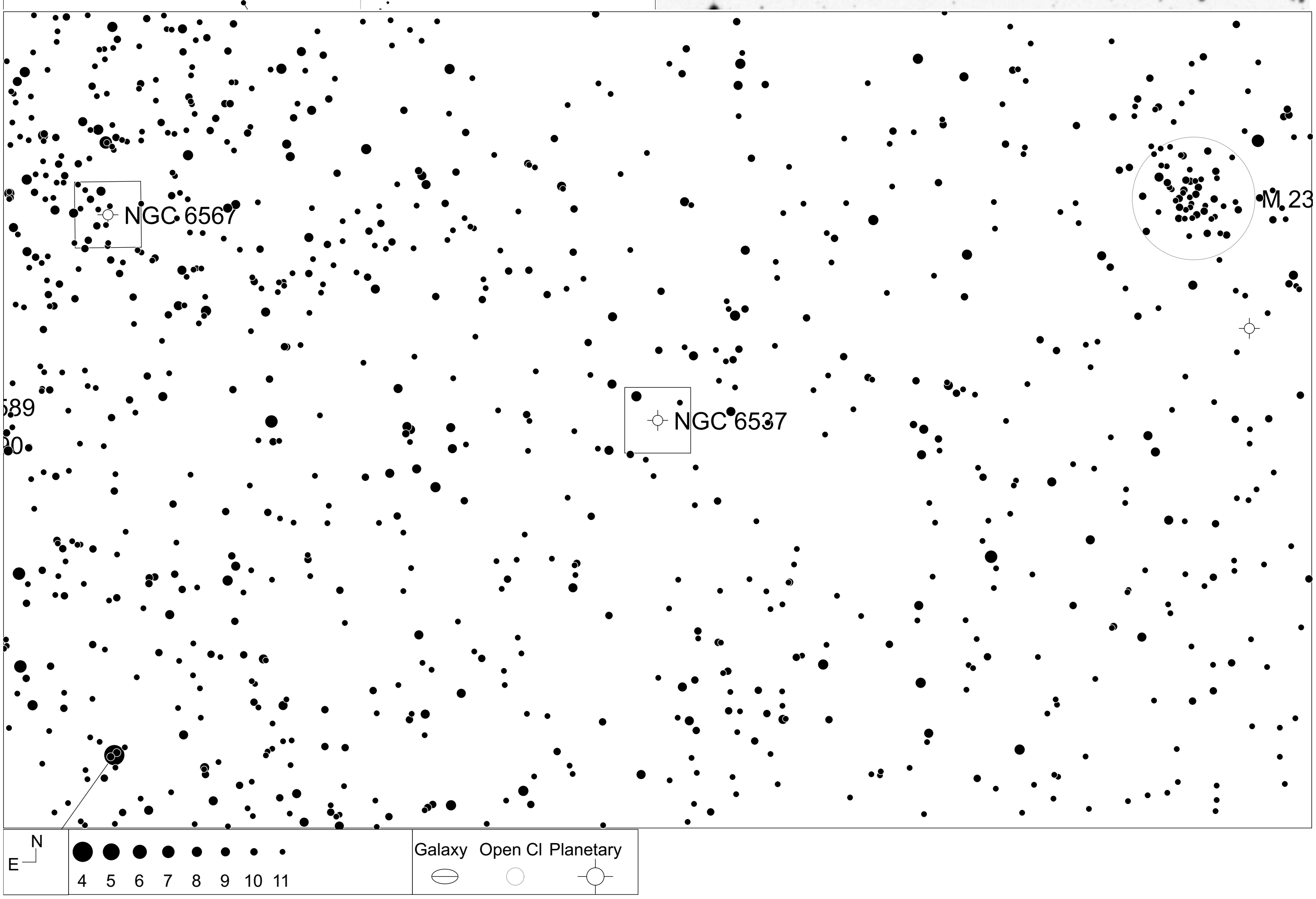


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 3-2.3	4	18 03 18.5	-27 06 22	13.0v	17.6	16”

NGC 6537 – Red Spider Nebula (Sagittarius)

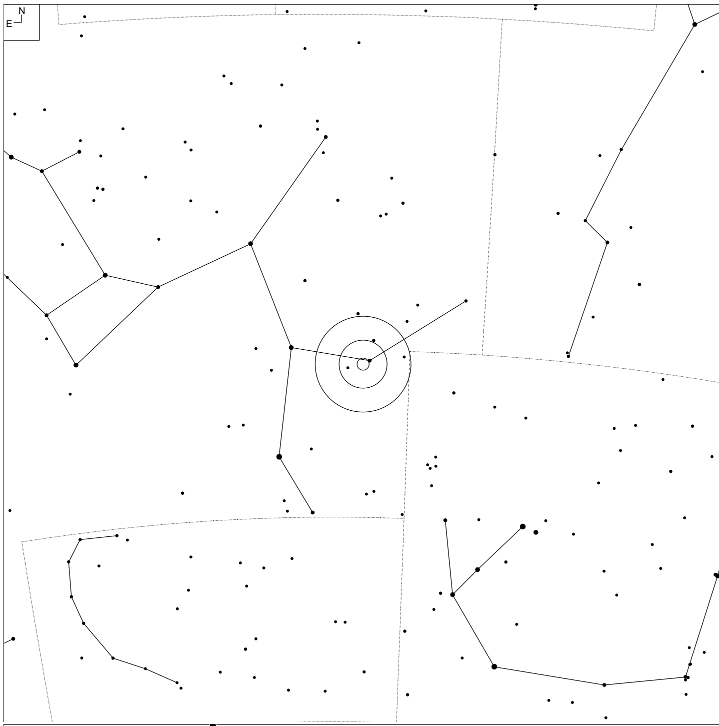


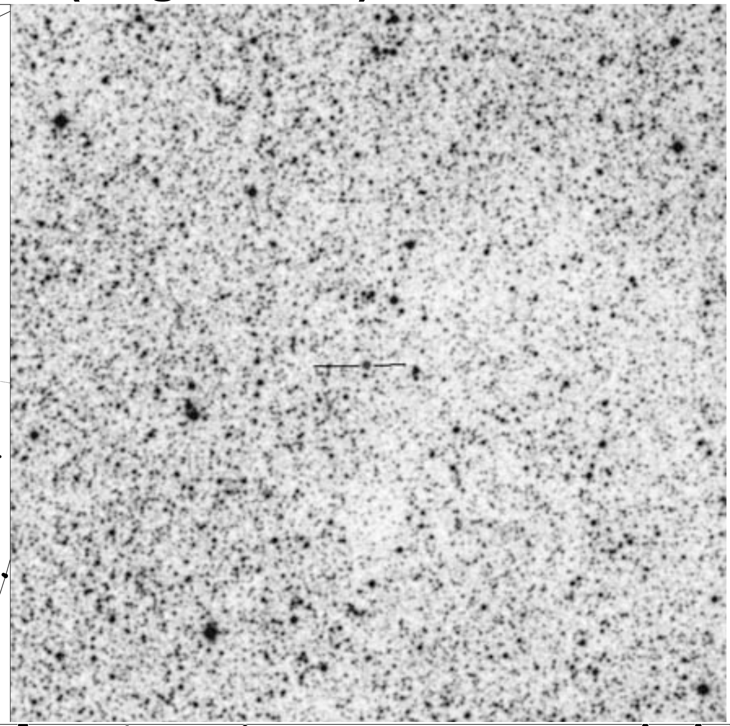


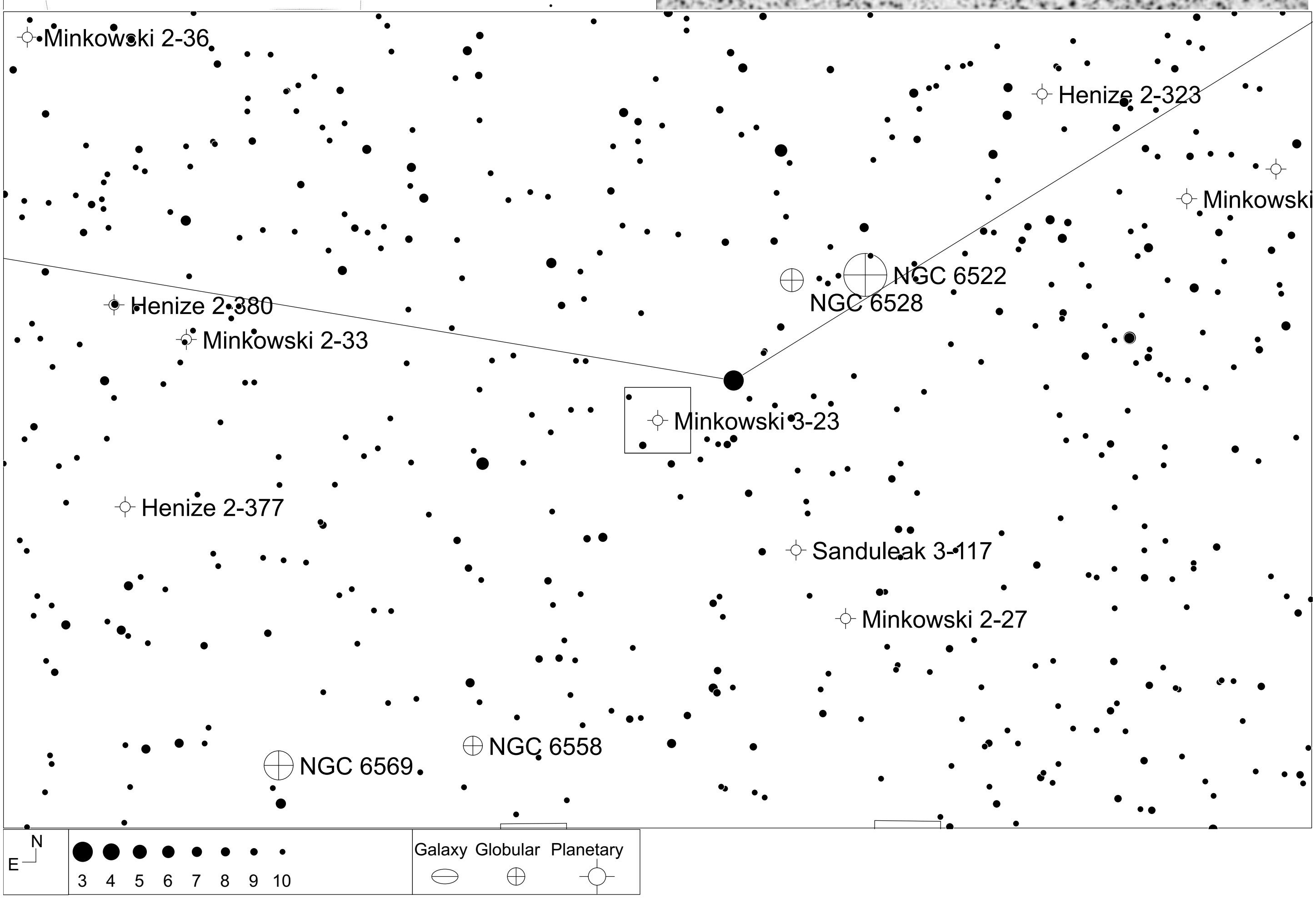


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 10+0.1	2a+6	18 05 13.1	-19 50 35	11.6v	18.8	10”

Minkowski 3-23 (Sagittarius)

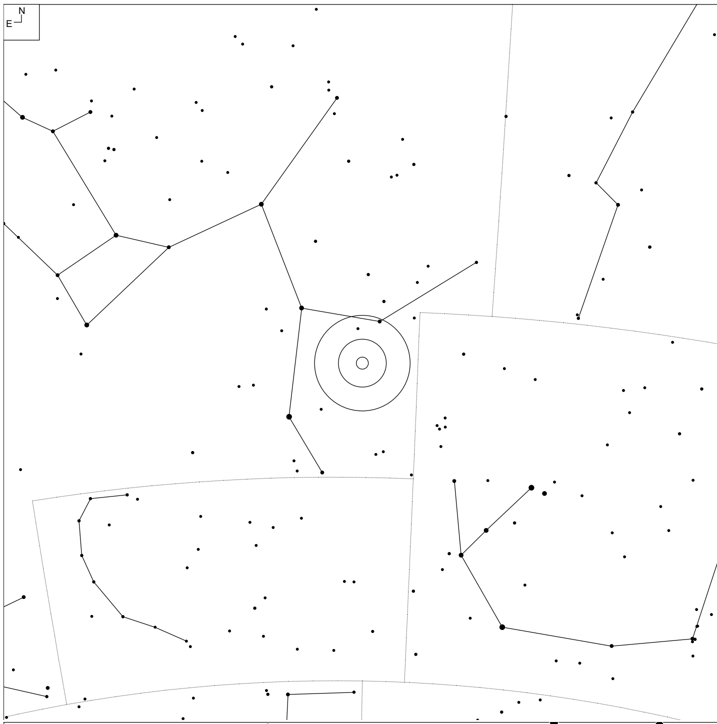


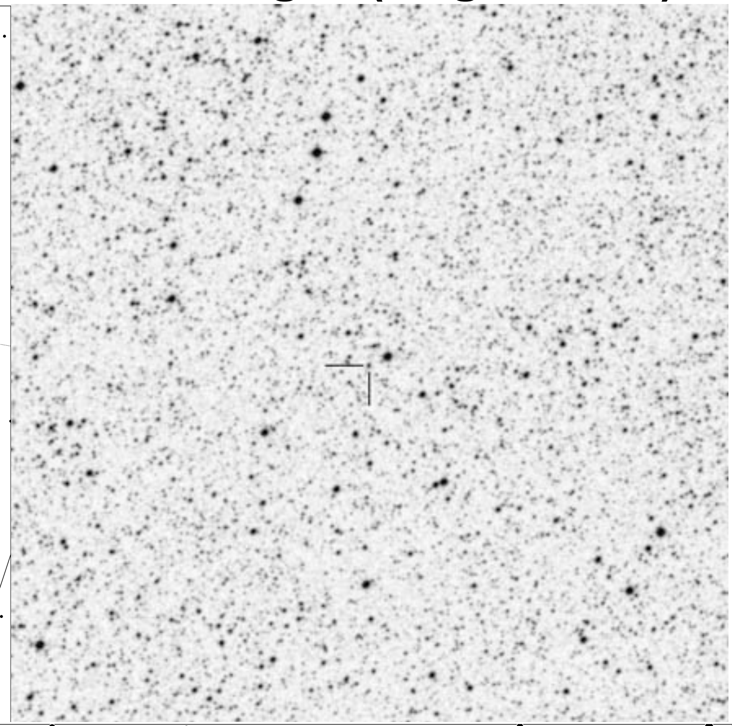


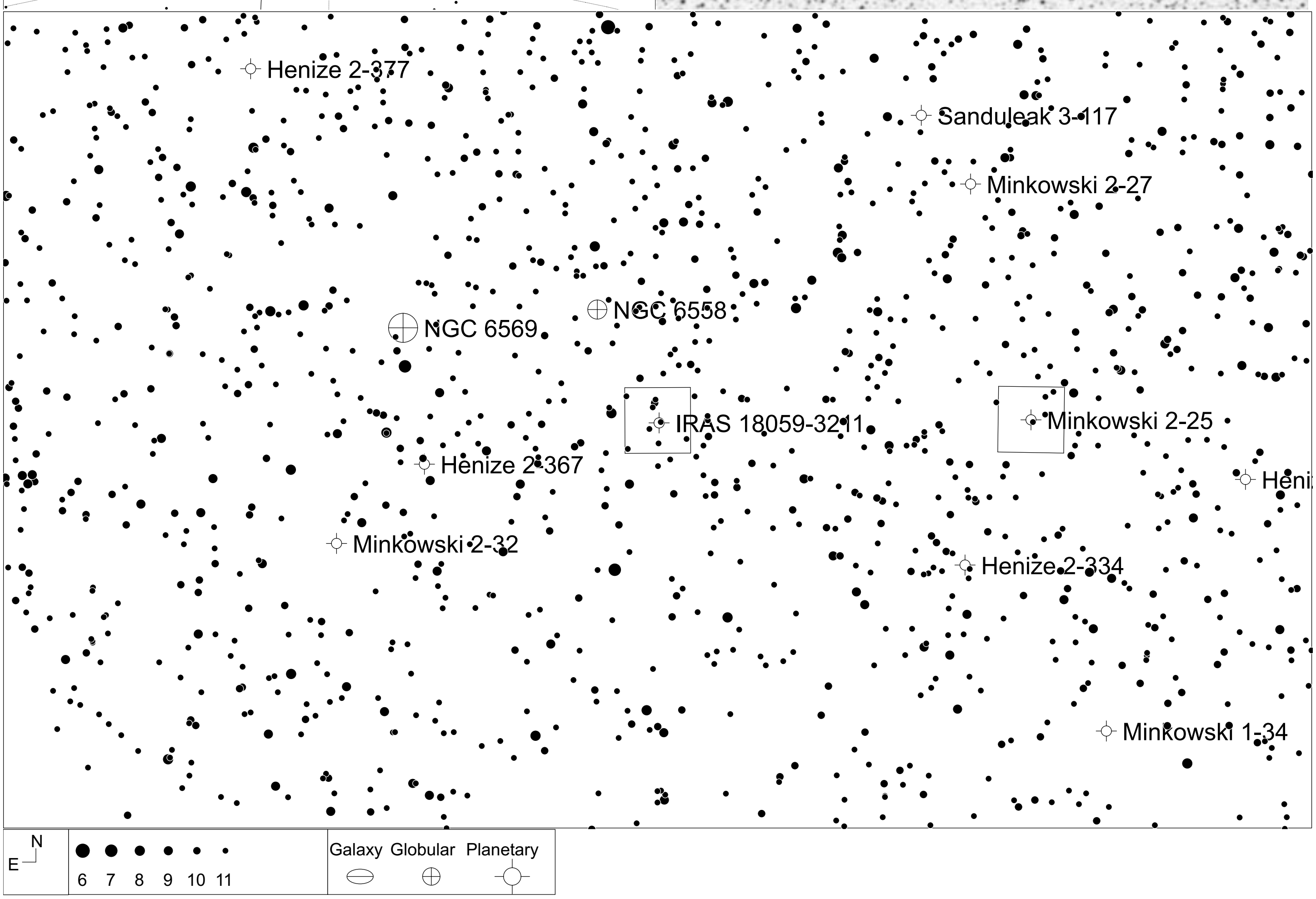


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 0-4.2	2	18 07 06.1	-30 34 17	13.8p	-	11”

IRAS 18059-3211 – Gomez's Hamburger (Sagittarius)

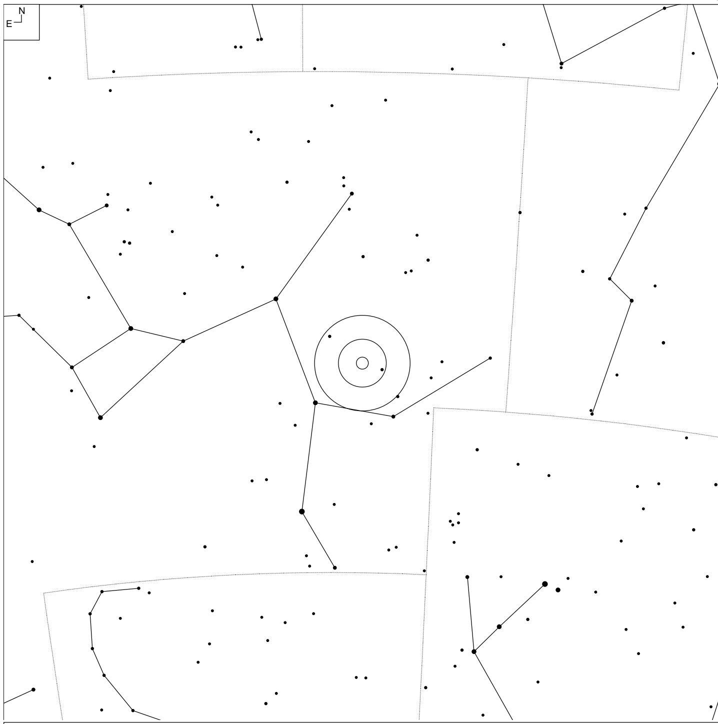


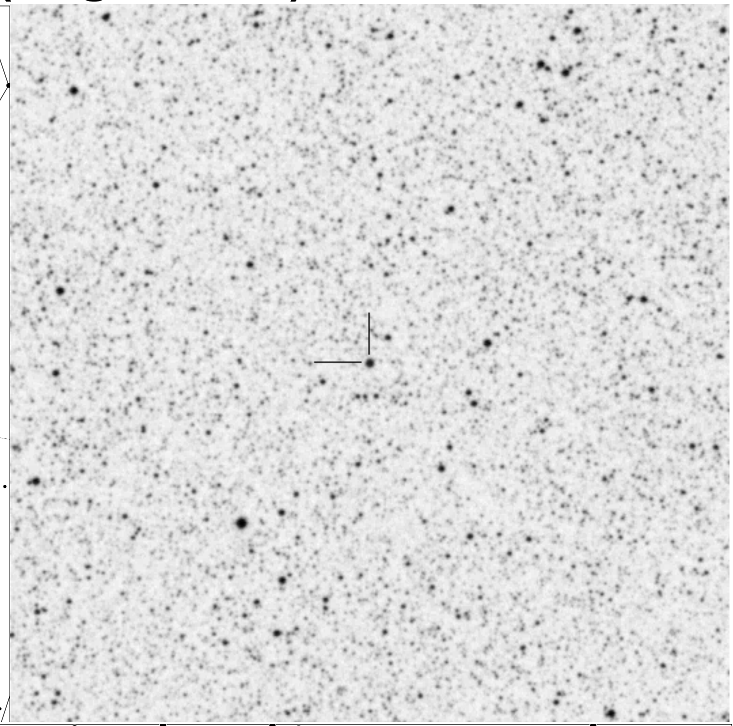


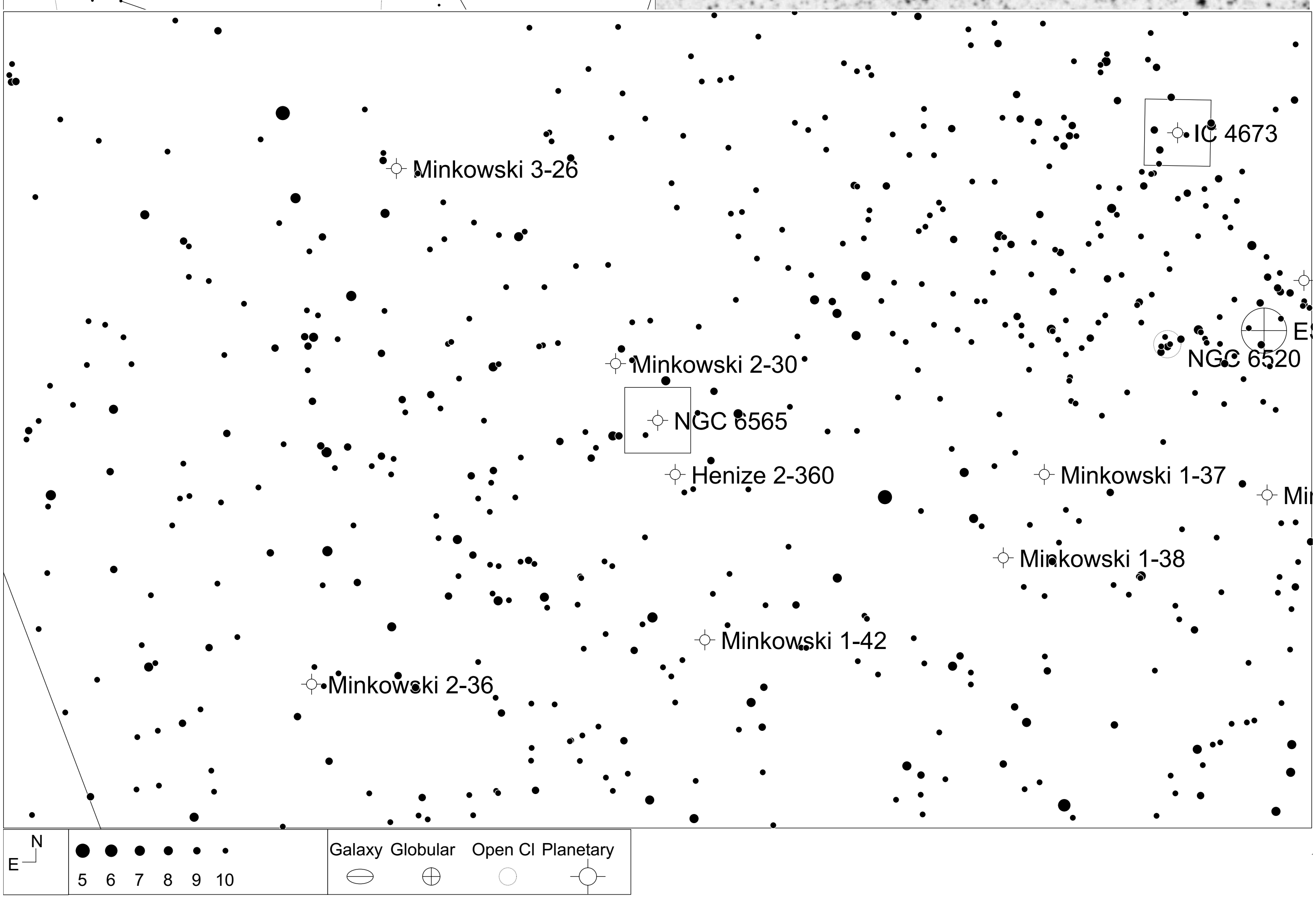


Other ID	Type	RA	Dec	Mag	* Mag	Size
-	-	18 09 13.3	-32 10 48	14.0v	-	6x4"

NGC 6565 (Sagittarius)

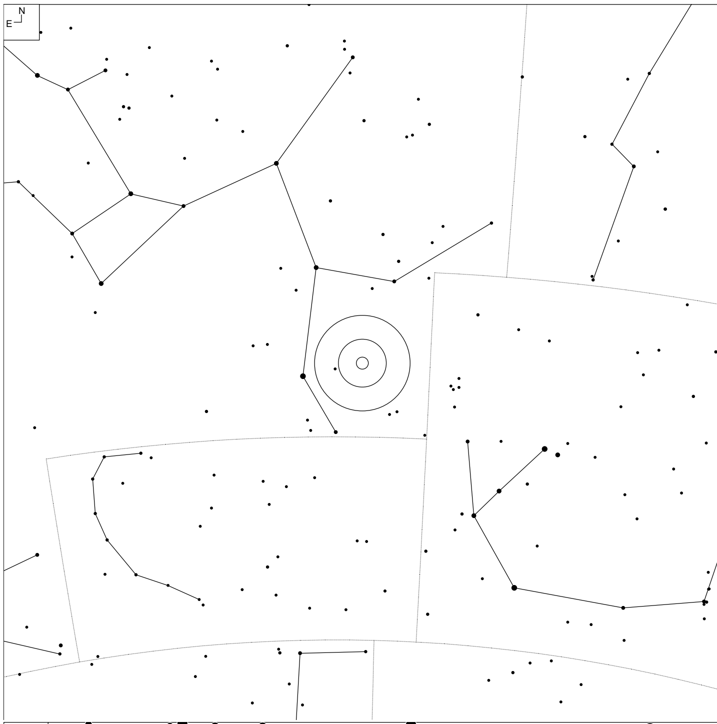


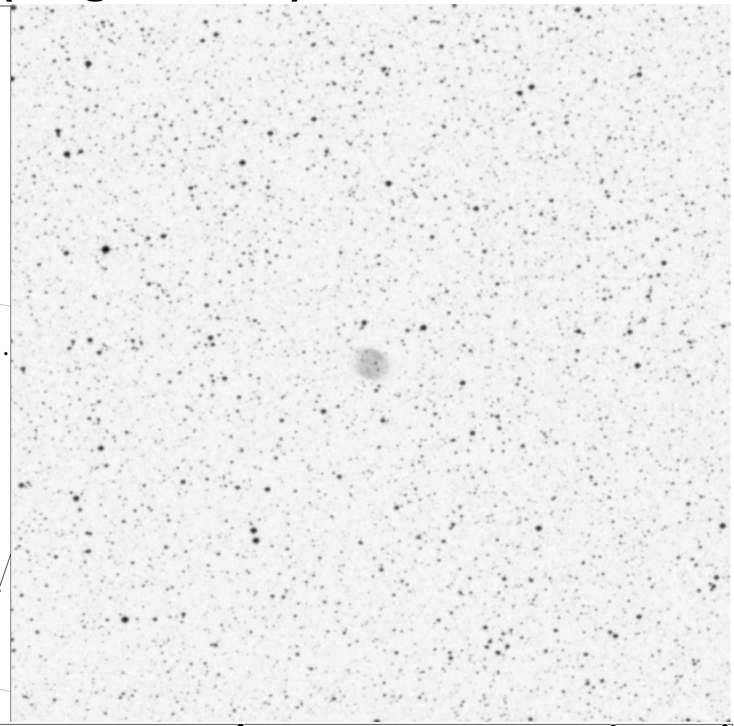


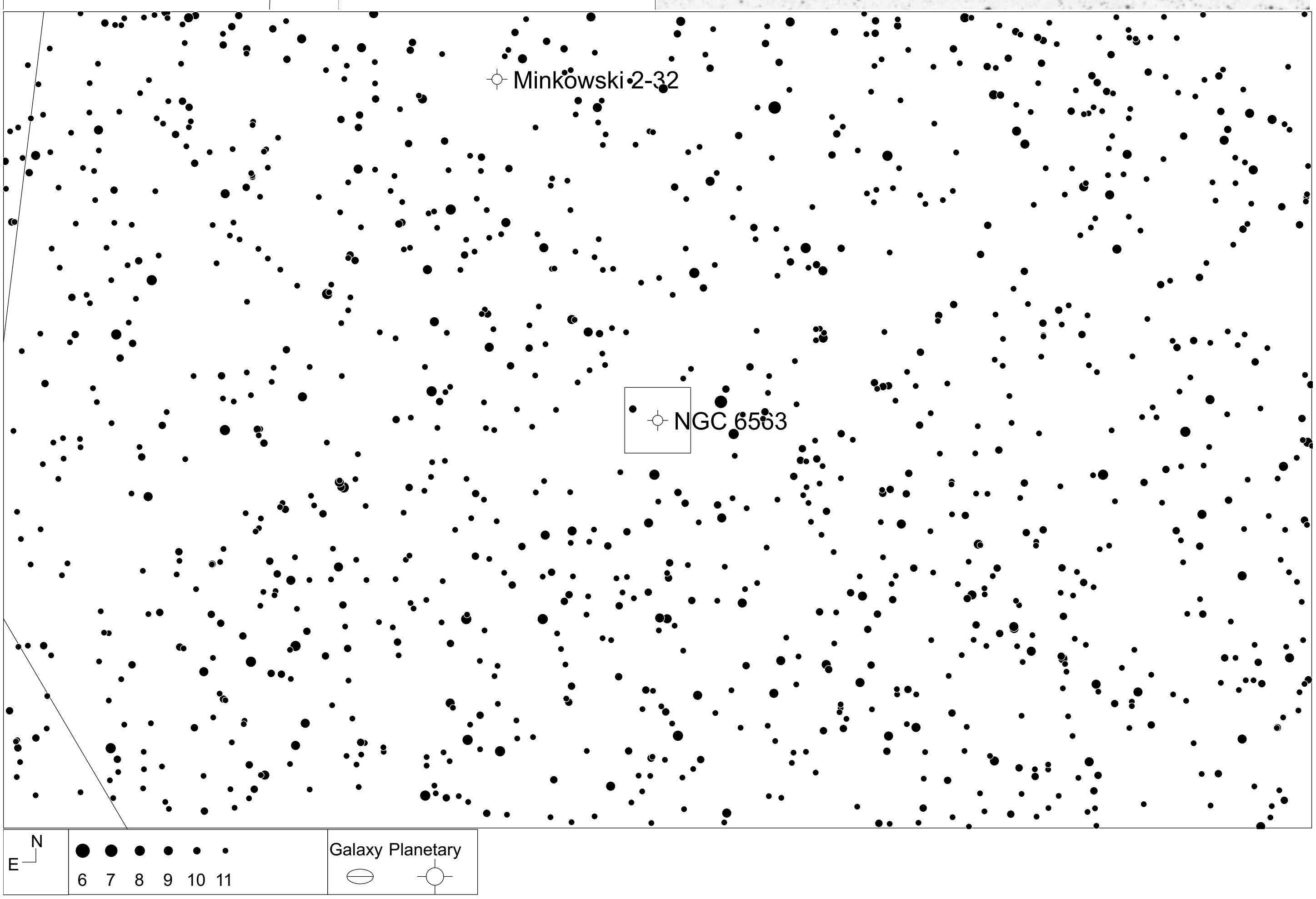


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 3-4.5	4	18 11 52.6	-28 10 42	11.6v	18.5	14”

NGC 6563 (Sagittarius)

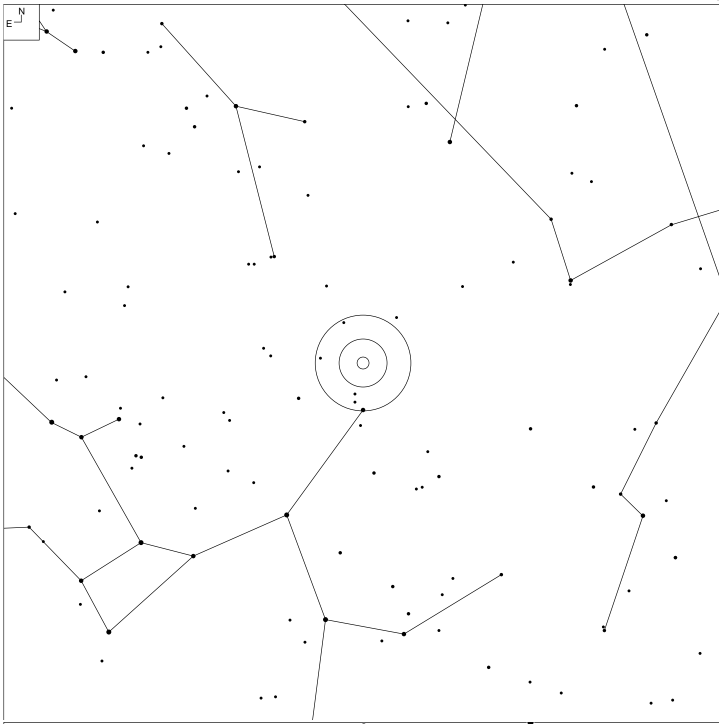


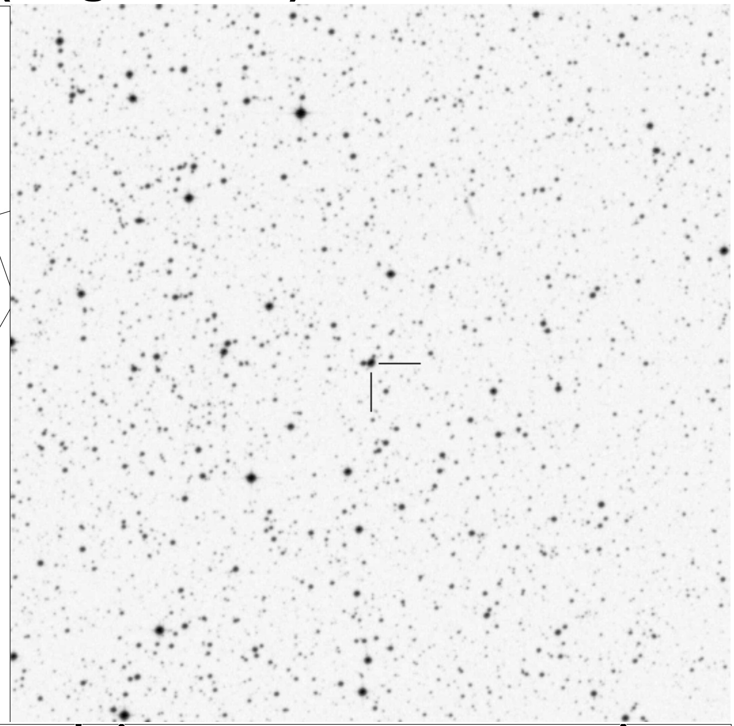


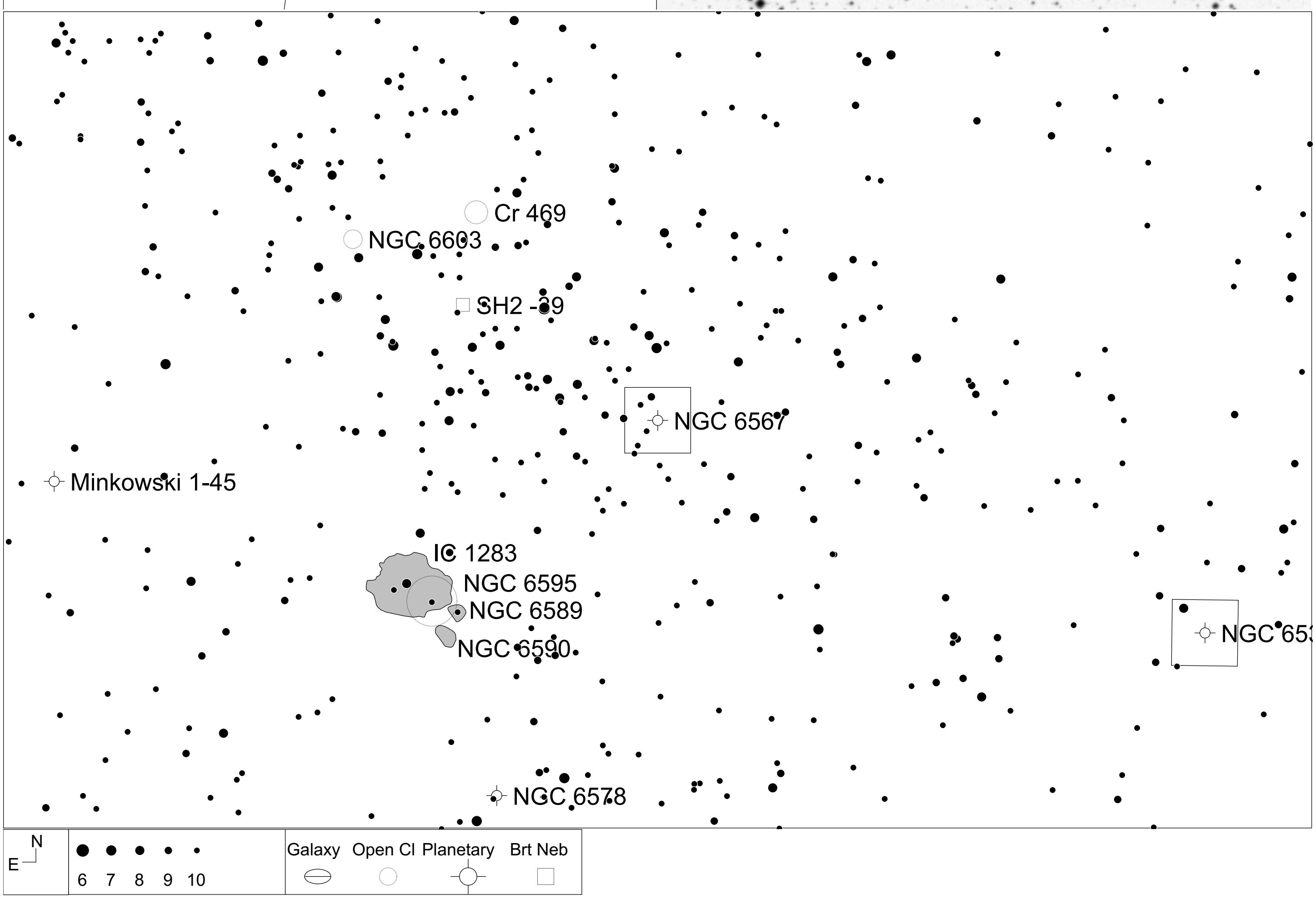


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 358-7.1	3a	18 12 02.5	-33 52 06	11.0v	17.3	50x37”

NGC 6567 (Sagittarius)

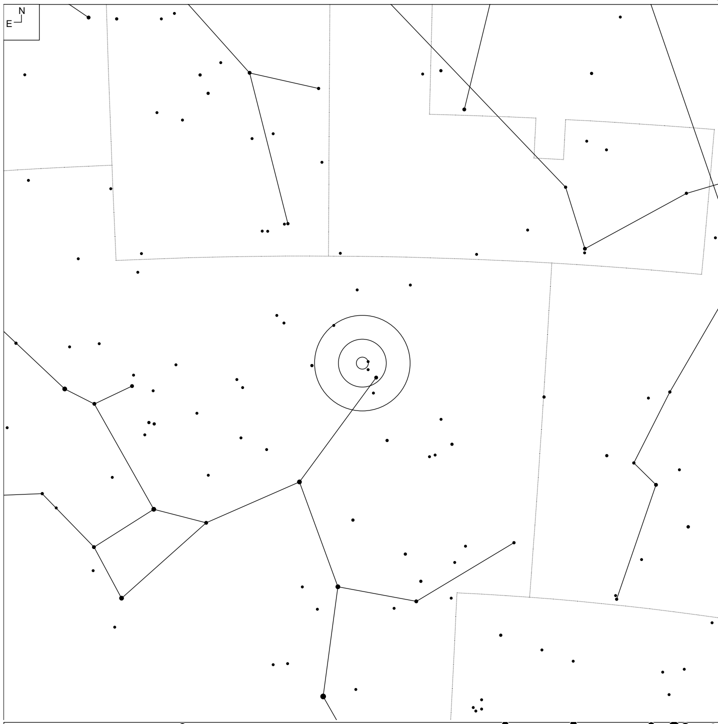


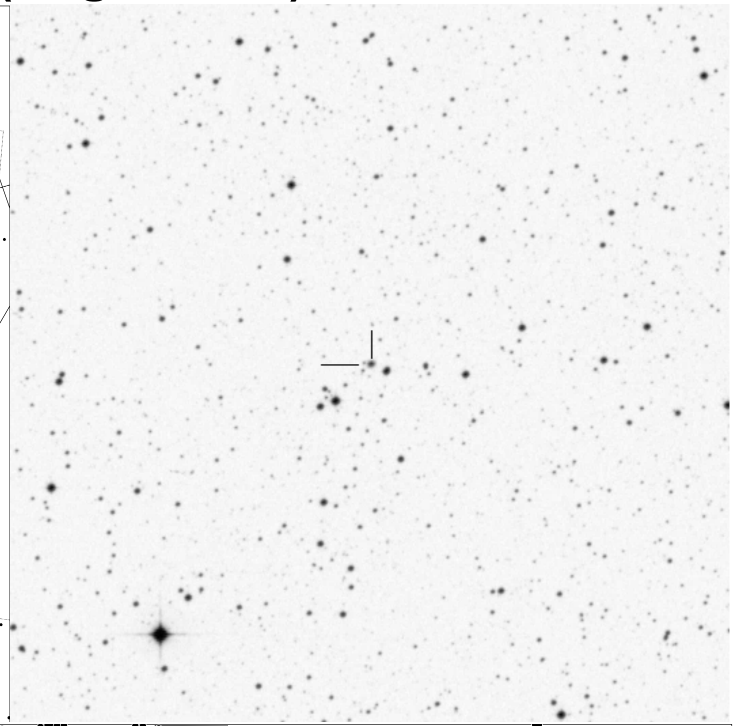


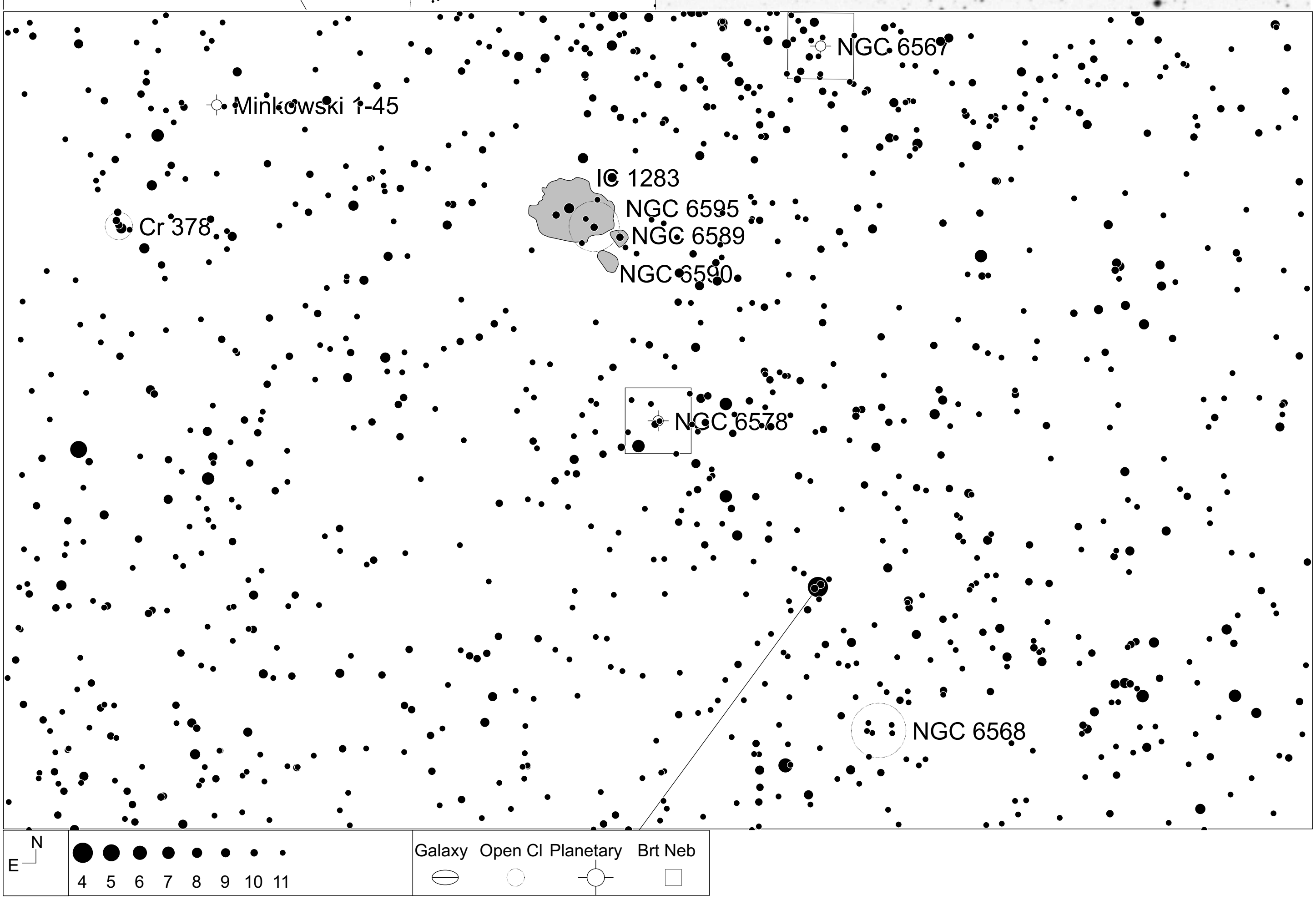


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 11-0.2	2a+3	18 13 45.2	-19 04 33	11.0v	14.4	12”

NGC 6578 (Sagittarius)

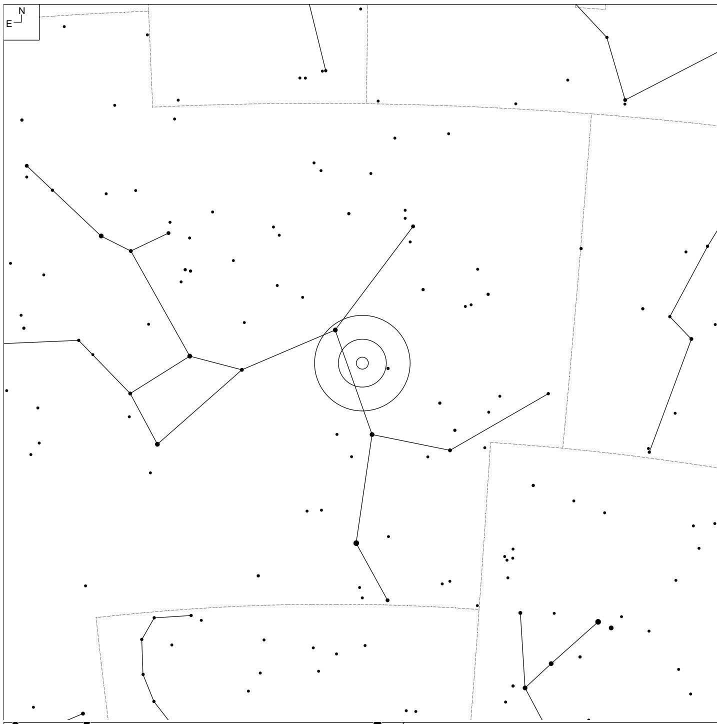


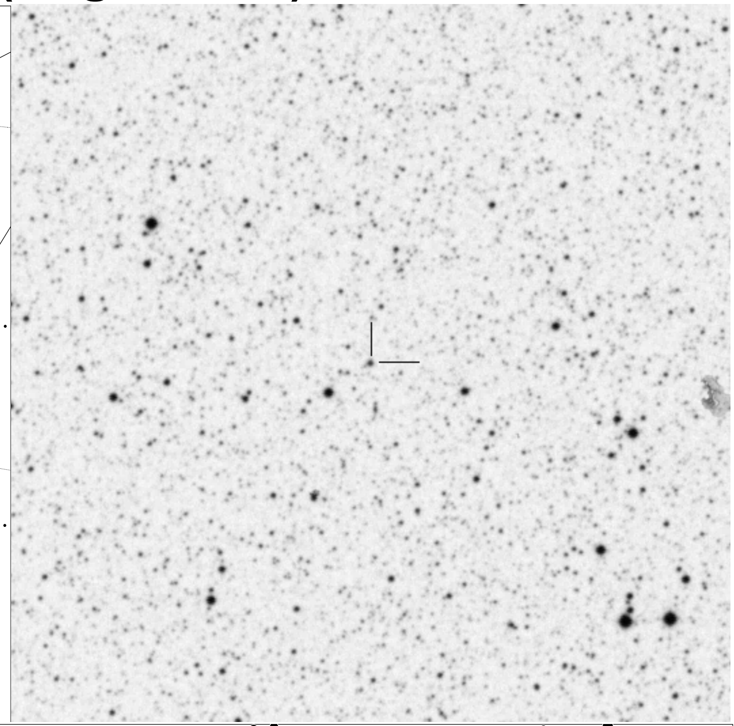


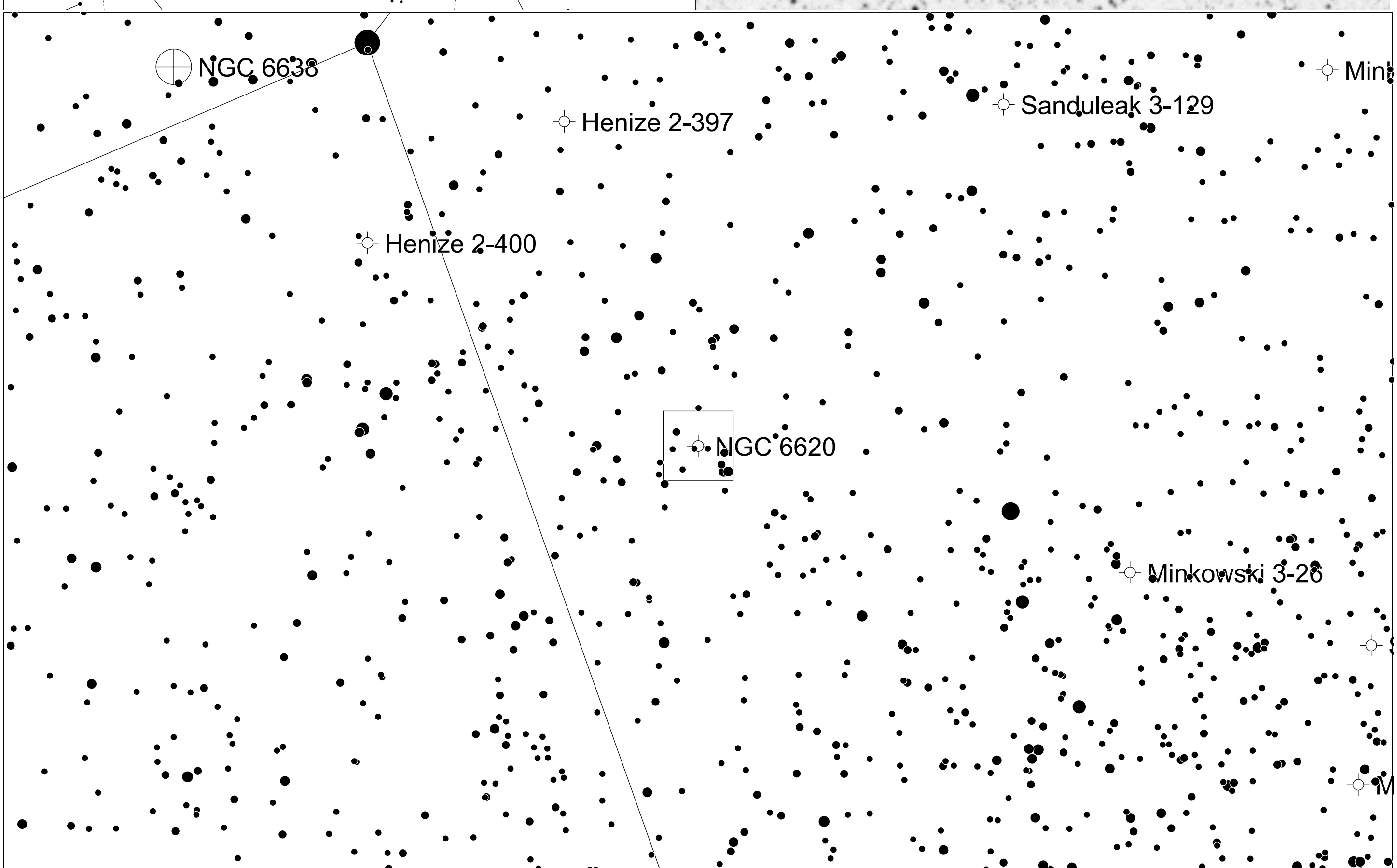


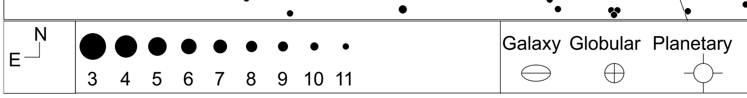
Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 10-1.1	2a	18 16 16.6	-20 27 03	12.9v	15.8	9”

NGC 6620 (Sagittarius)



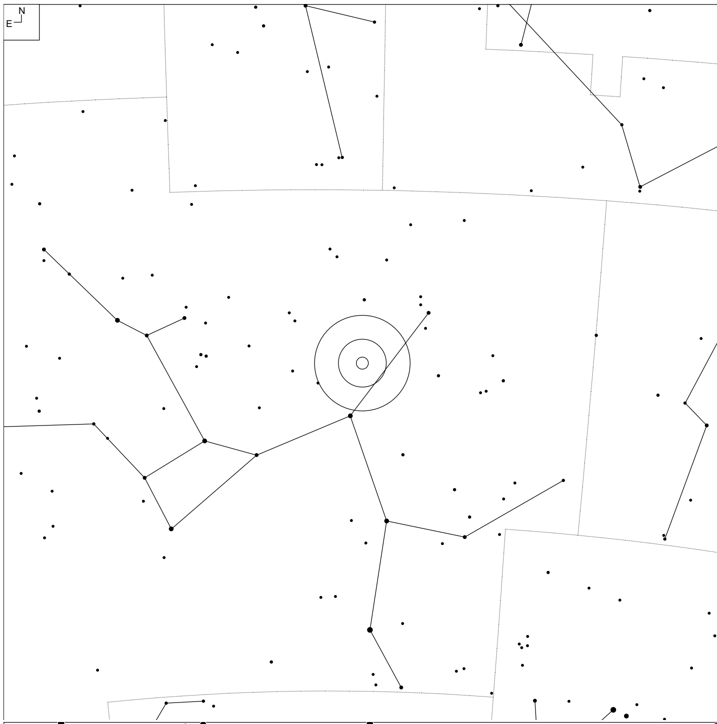


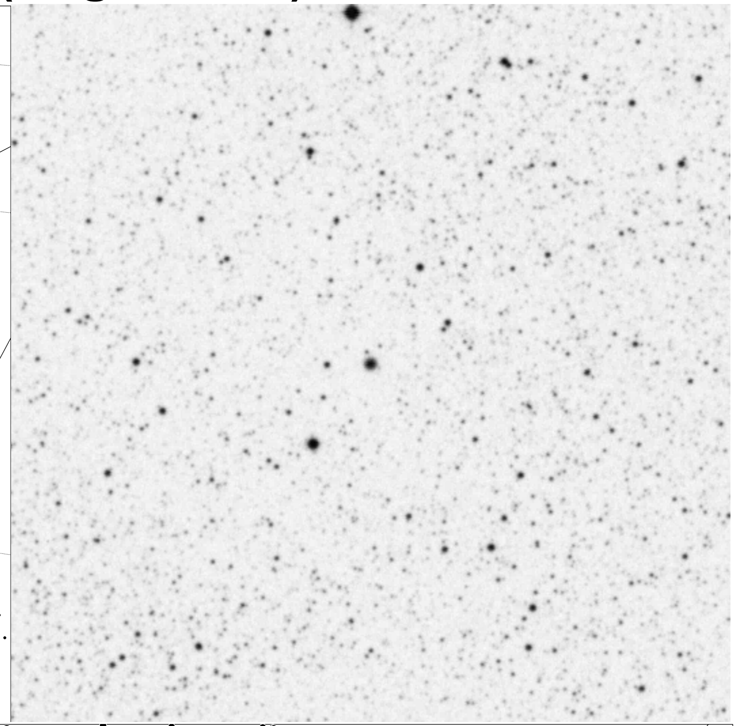


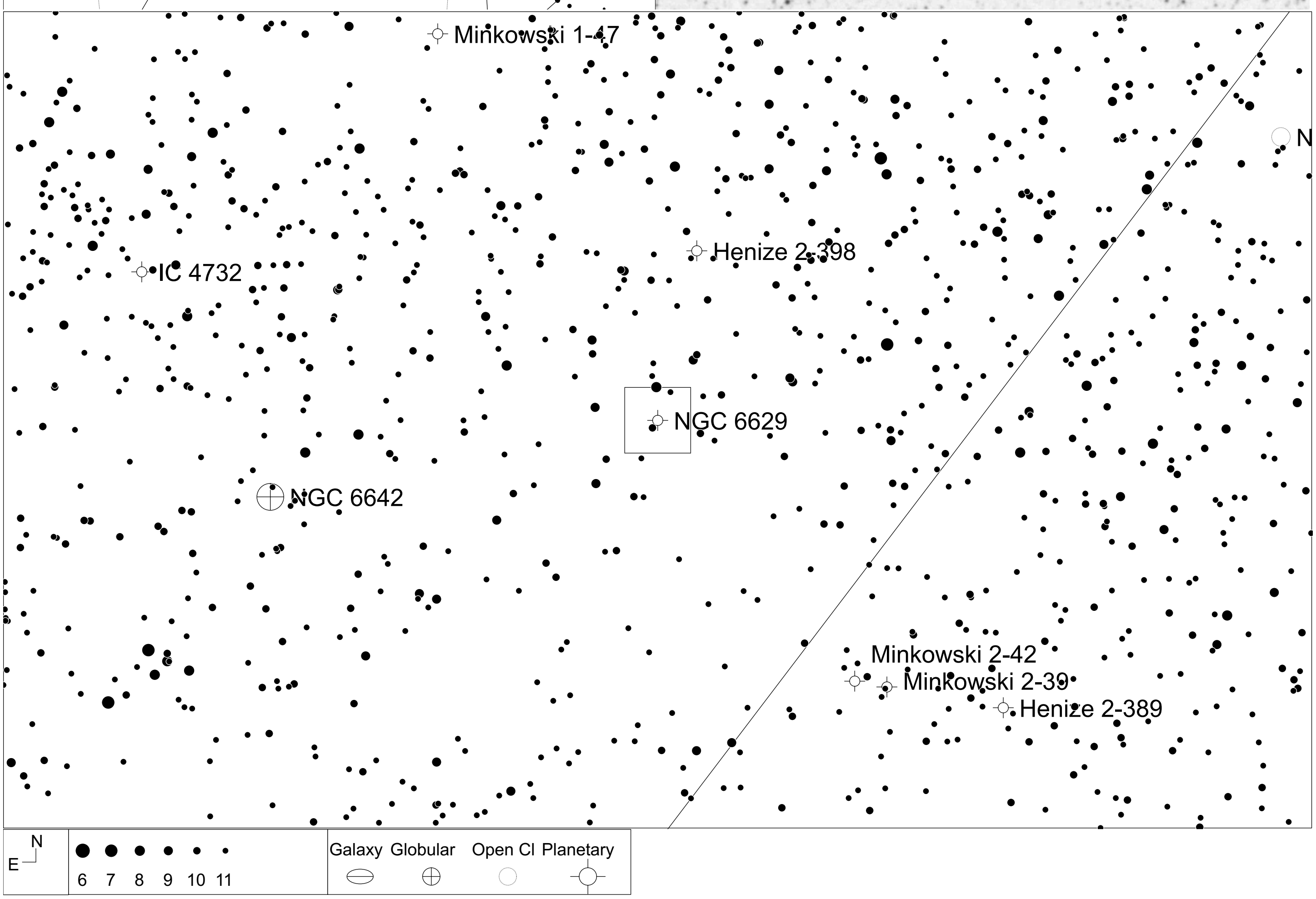


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 5-6.1	2b	18 22 54.3	-26 49 18	12.7v	19.6	8”

NGC 6629 (Sagittarius)

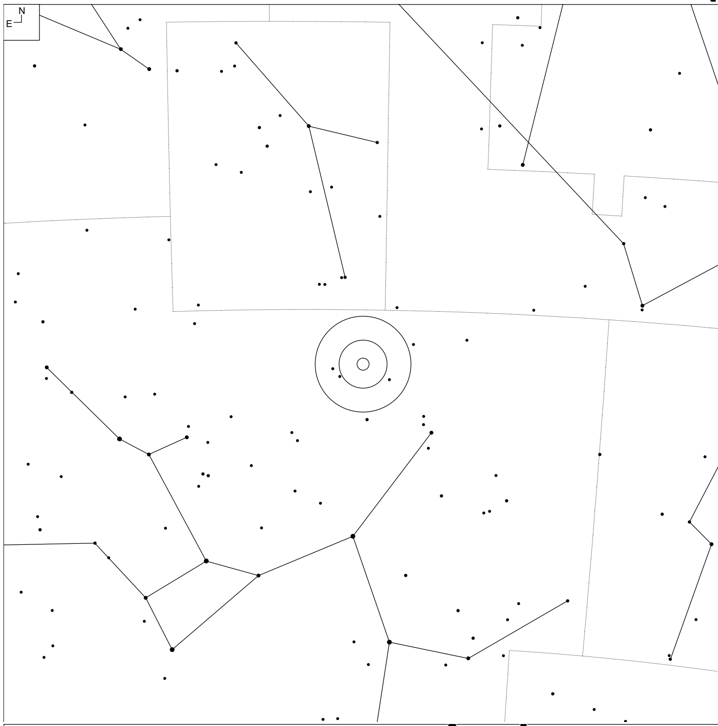


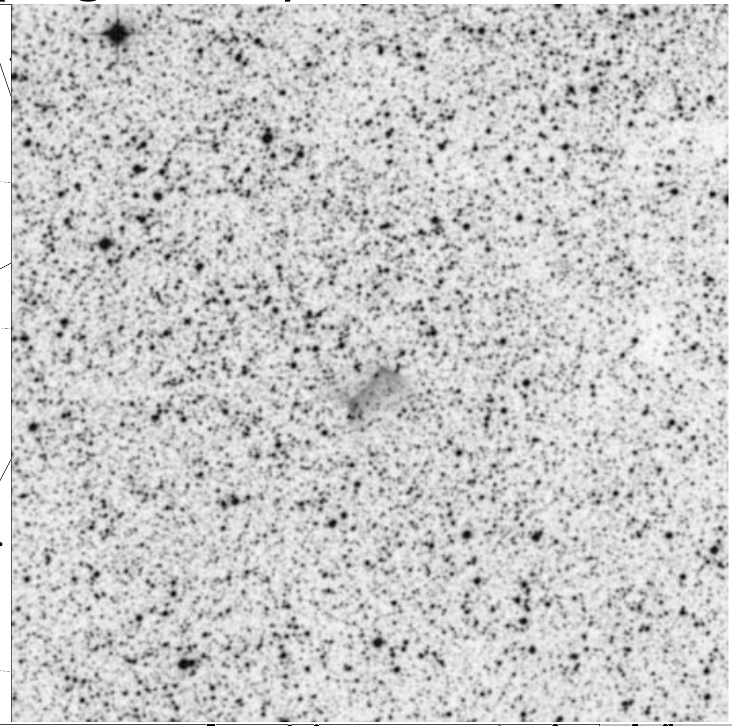


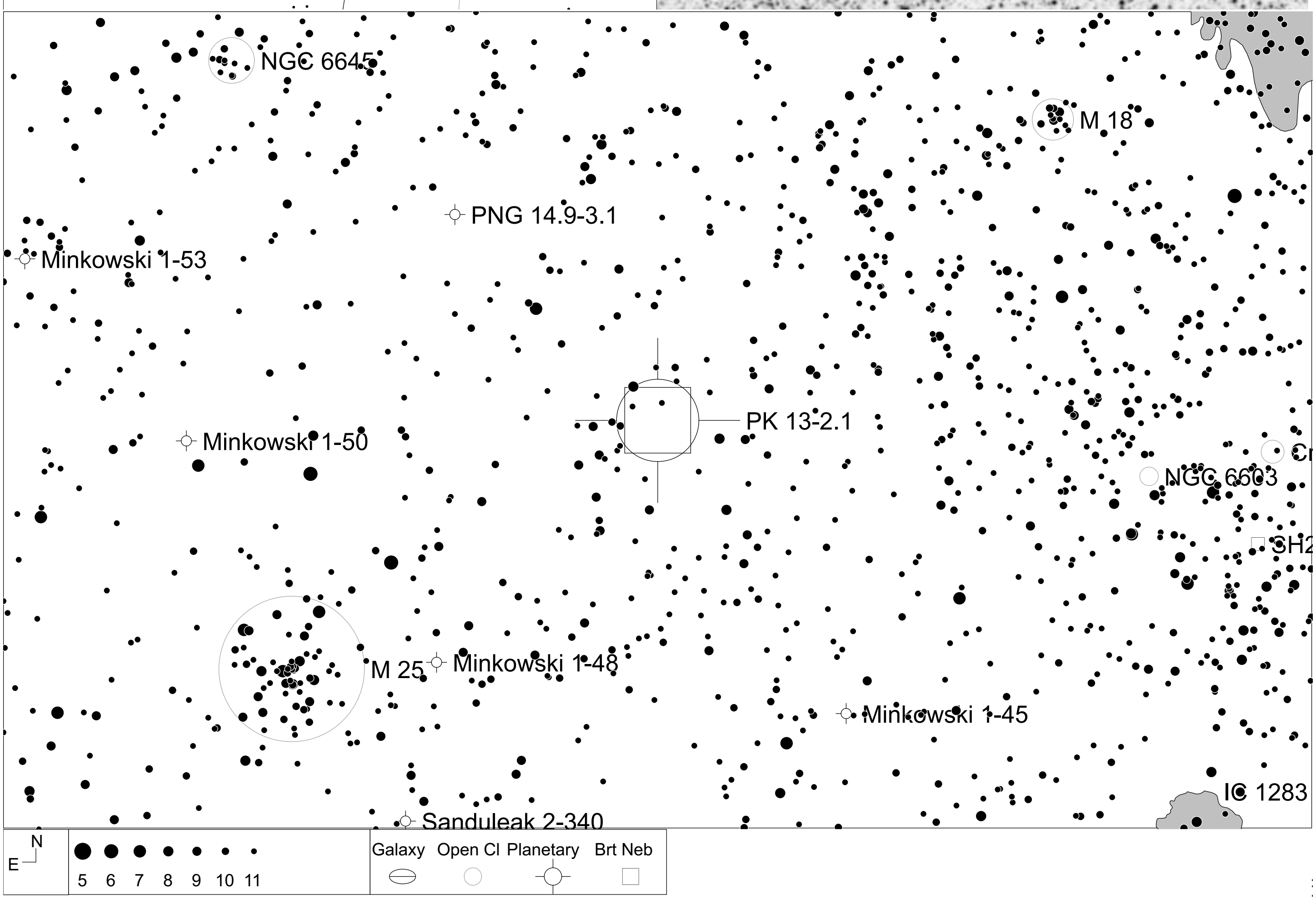


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 9-5.1	2a	18 25 42.4	-23 12 10	11.3v	12.9	16”

PK 13-2.1 (Sagittarius)

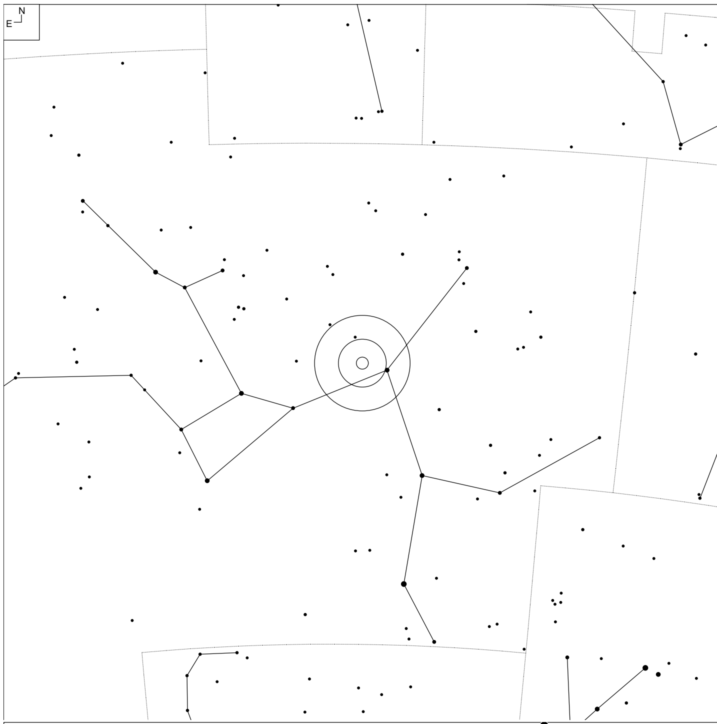


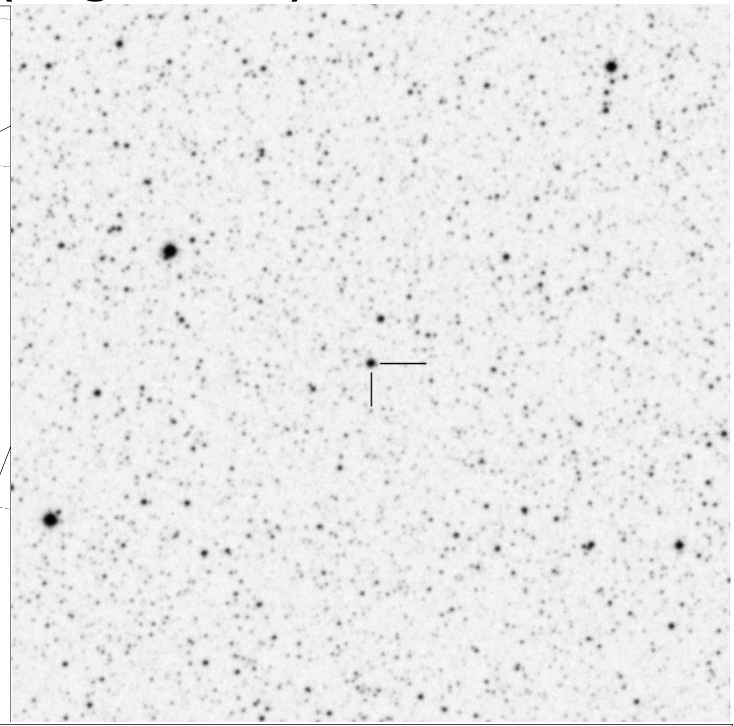


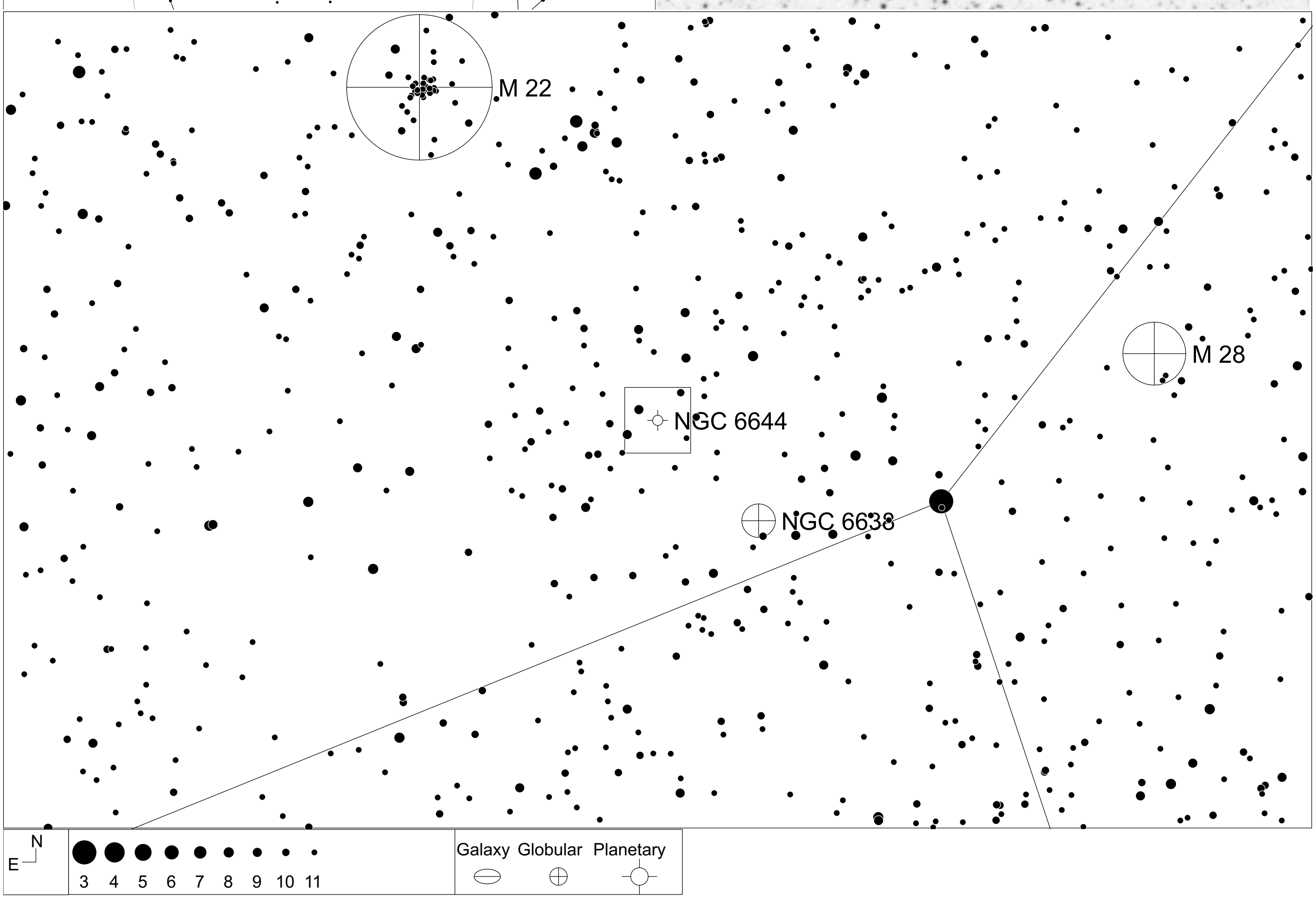


Other ID	Type	RA	Dec	Mag	* Mag	Size
-	-	18 26 03.9	-18 12 37	15.2	-	18’

NGC 6644 (Sagittarius)

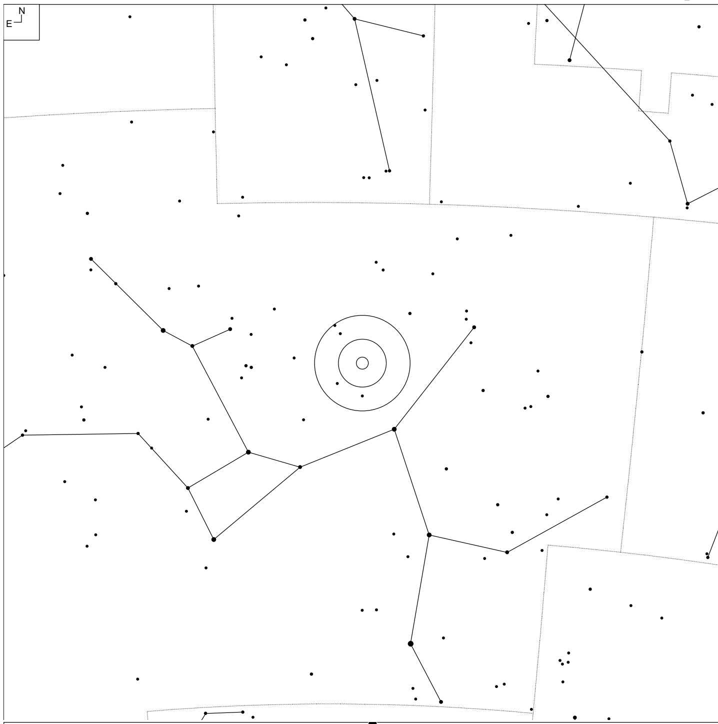


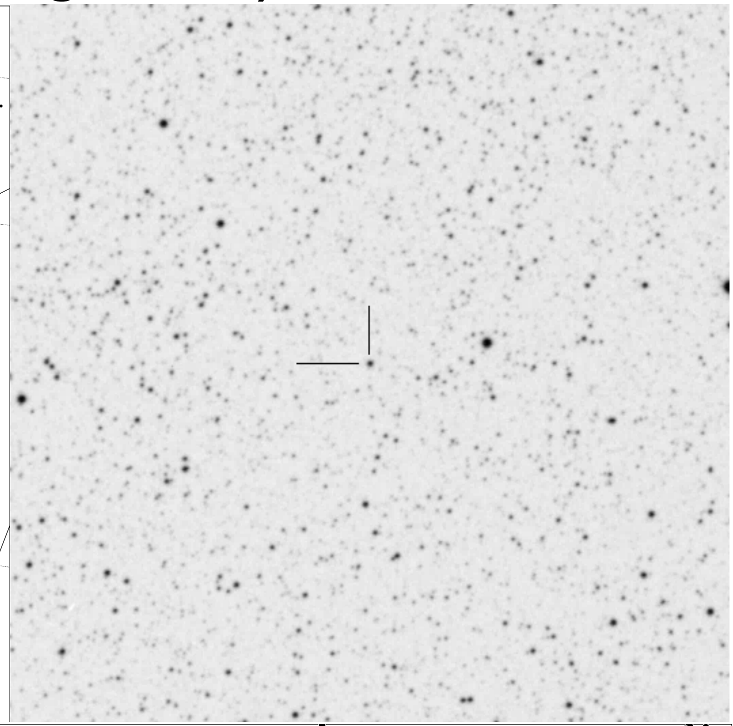


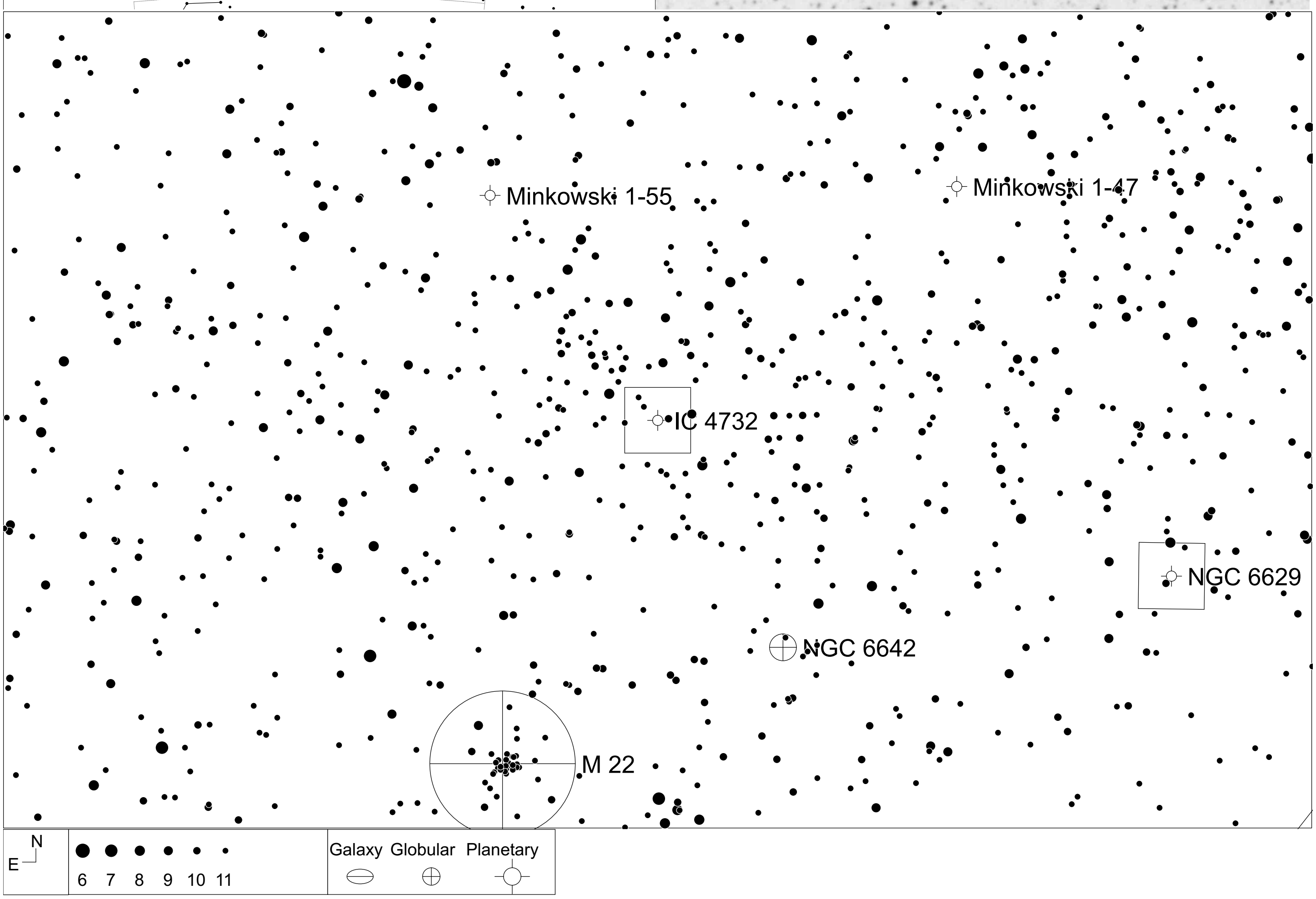


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 8-7.2	2	18 32 34.7	-25 07 44	10.7v	15.6	3”

IC 4732 (Sagittarius)

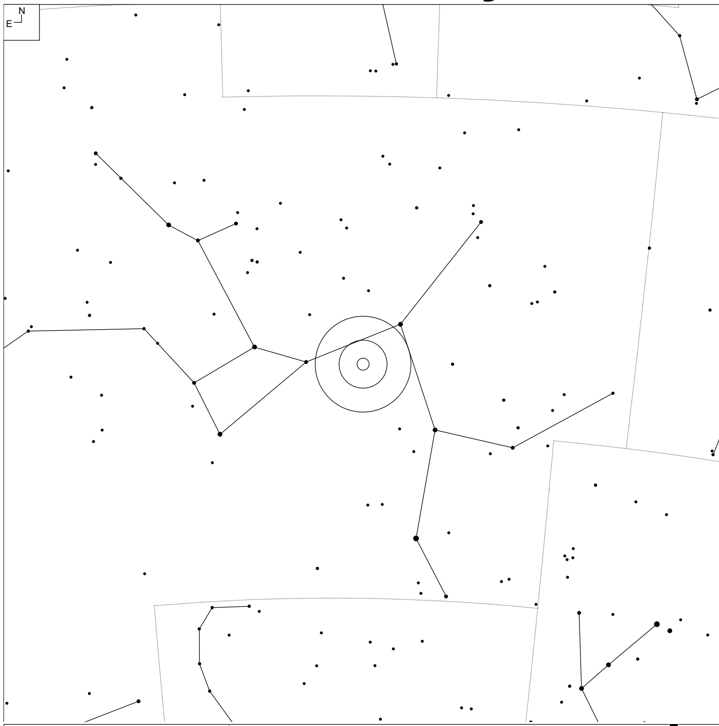


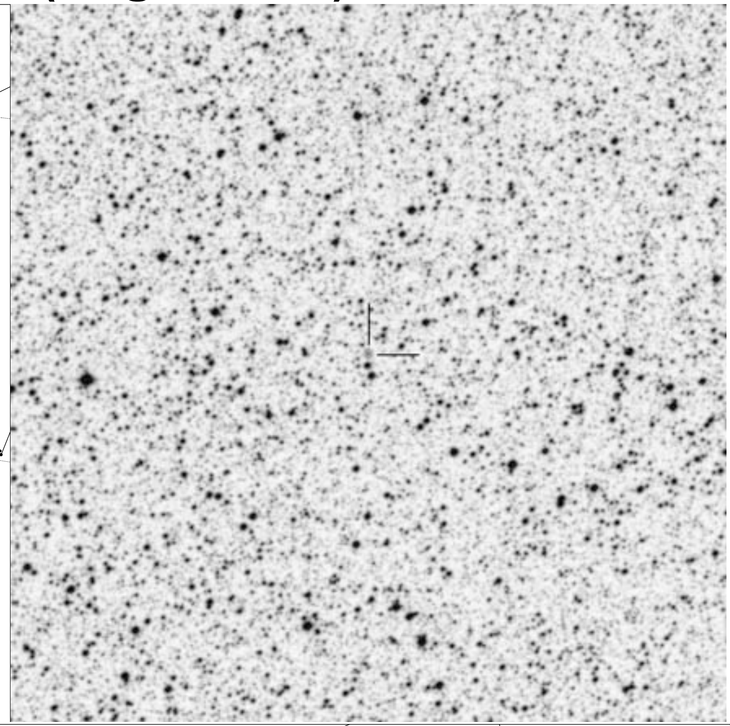


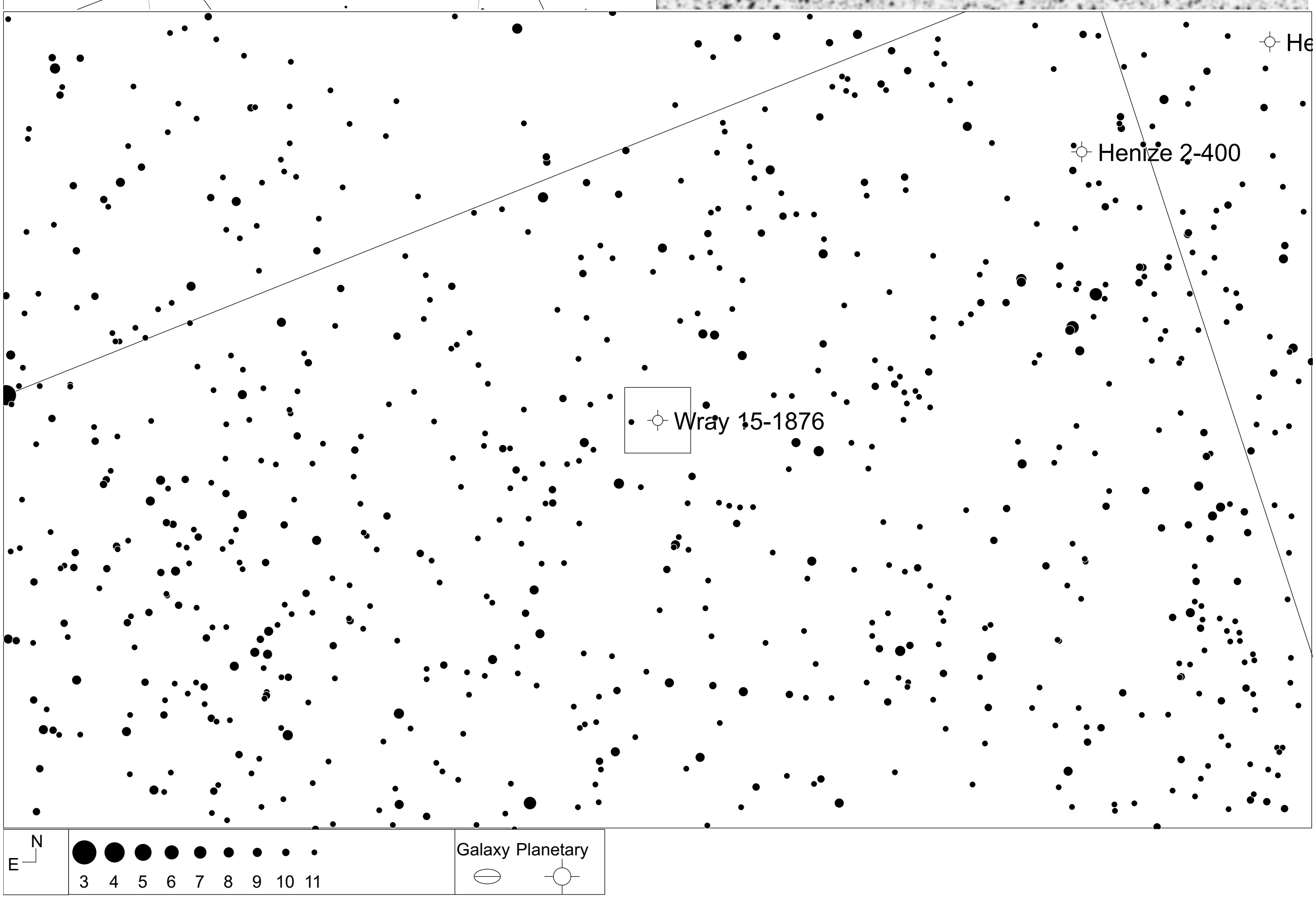


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 10-6.1	1	18 33 54.6	-22 38 41	12.1v	16.2	10”

Wray 15-1876 (Sagittarius)

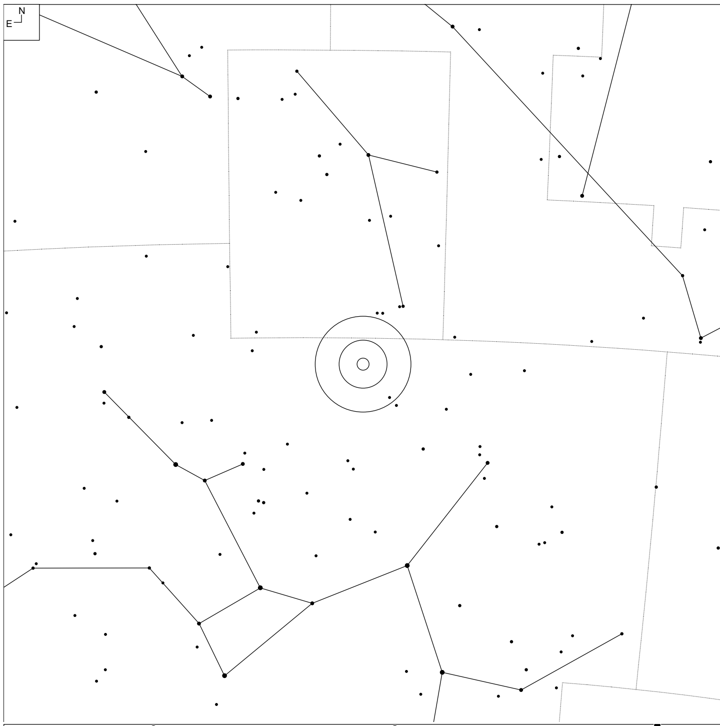


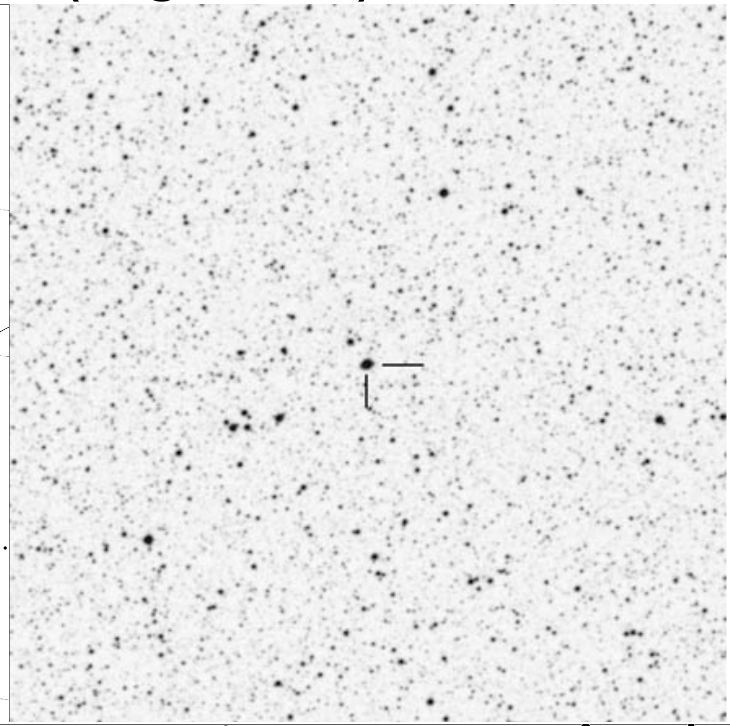


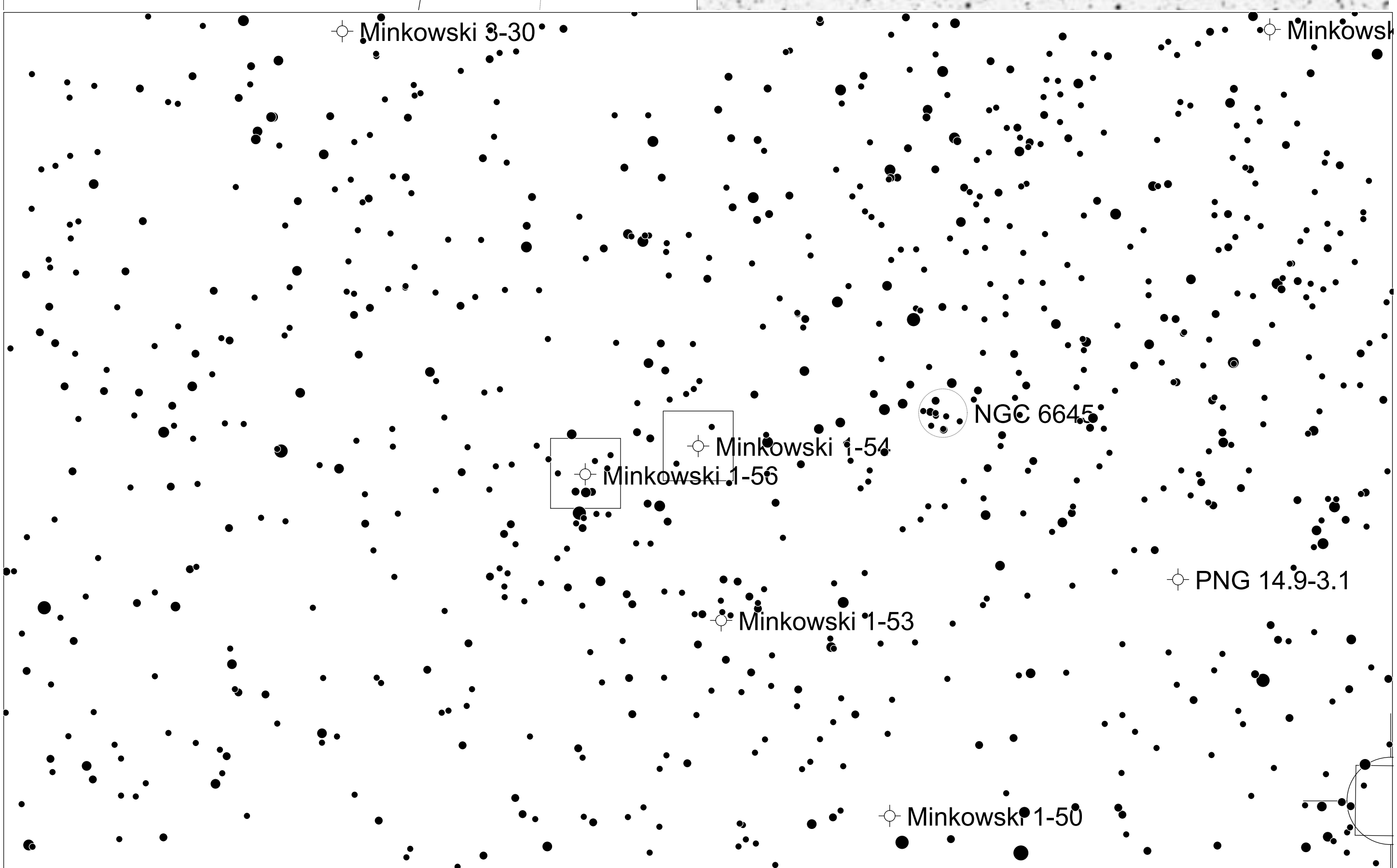


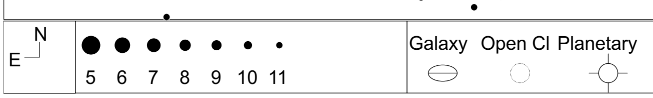
Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 6-8.1	-	18 34 55.4	-27 06 32	15.2p	18.0	13”

Minkowski 1-54 (Sagittarius)



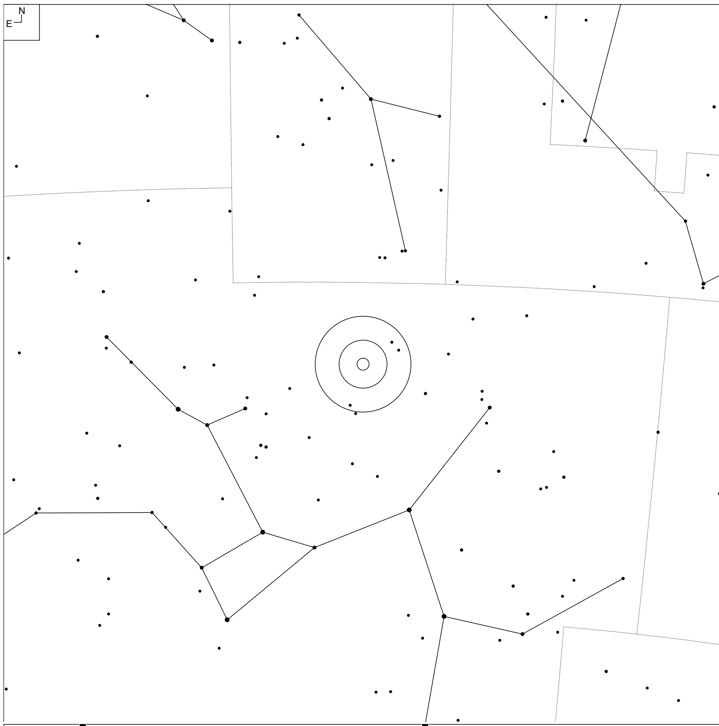


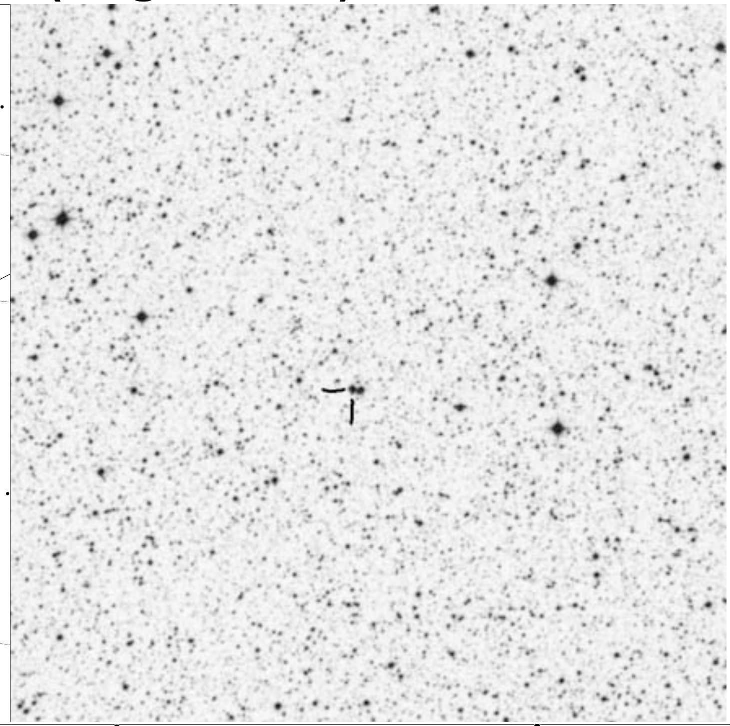


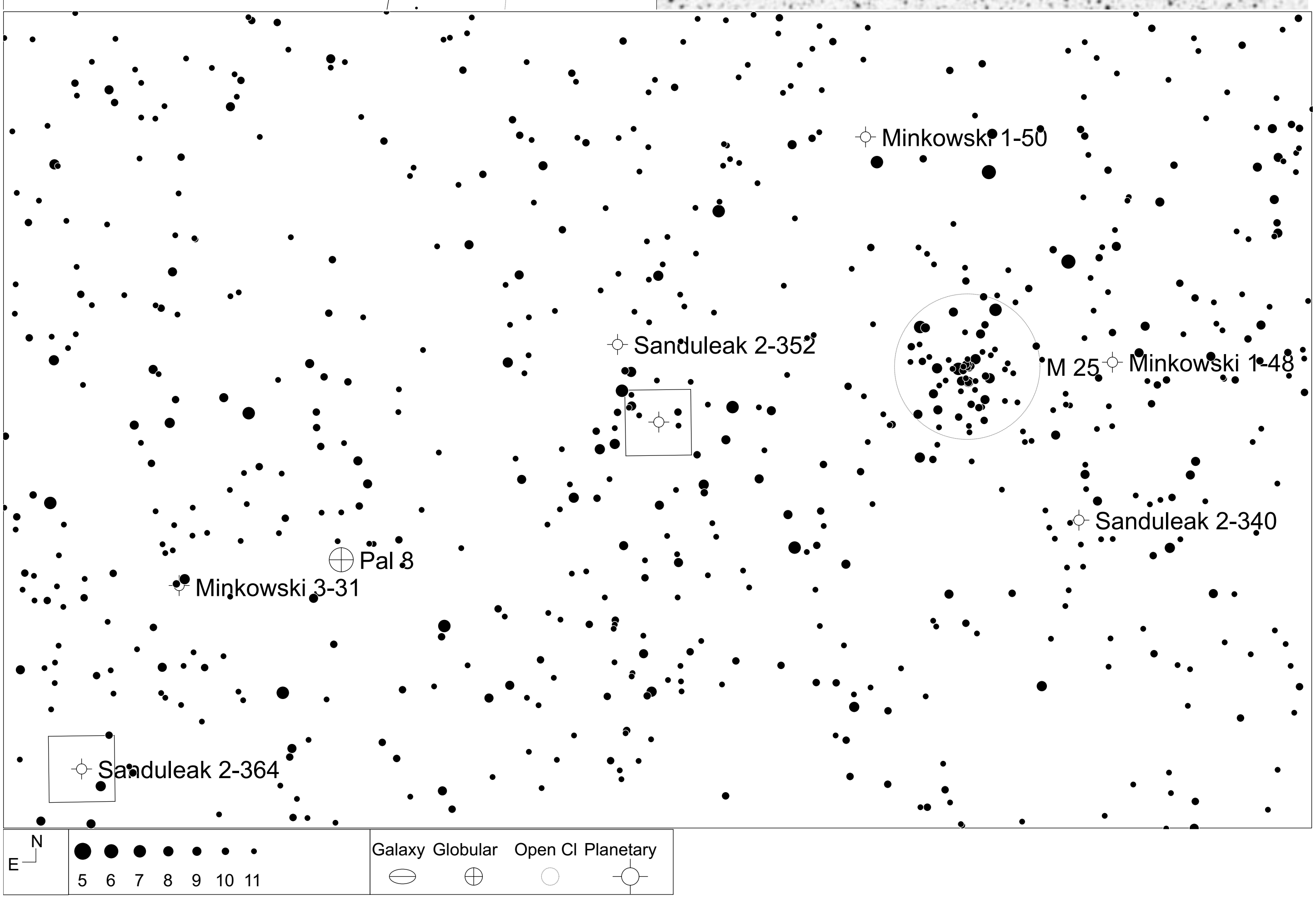


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 16-4.1	3	18 36 08.3	-16 59 57	12.5p	-	13”

Henize 3-1716 (Sagittarius)

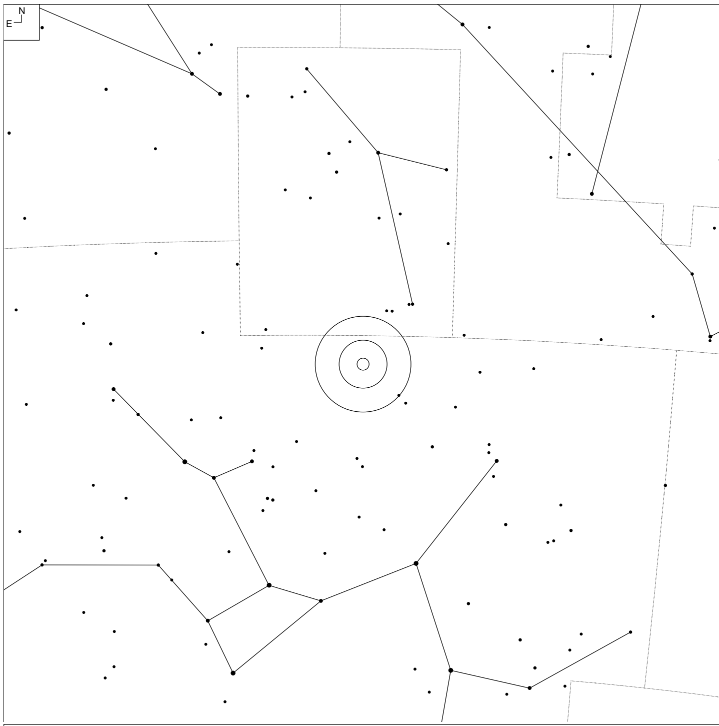


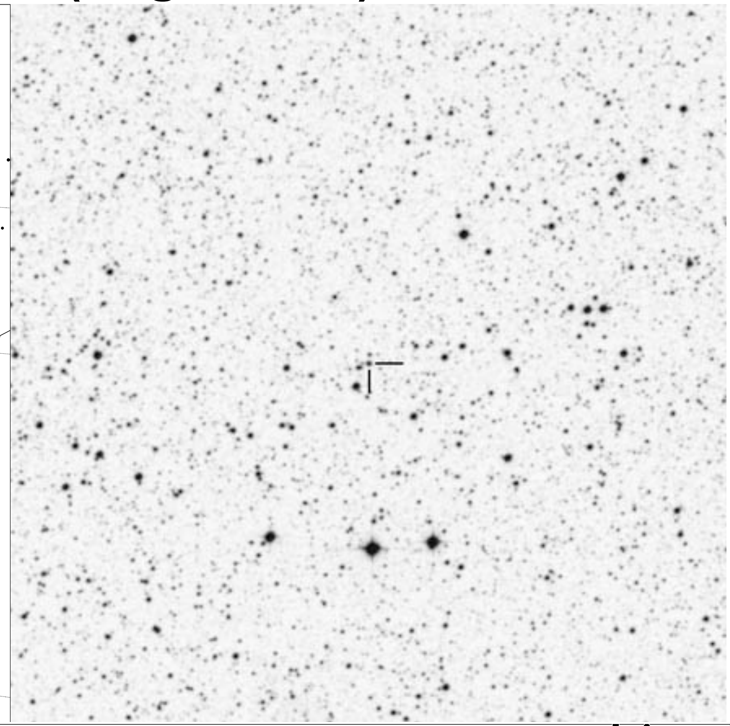


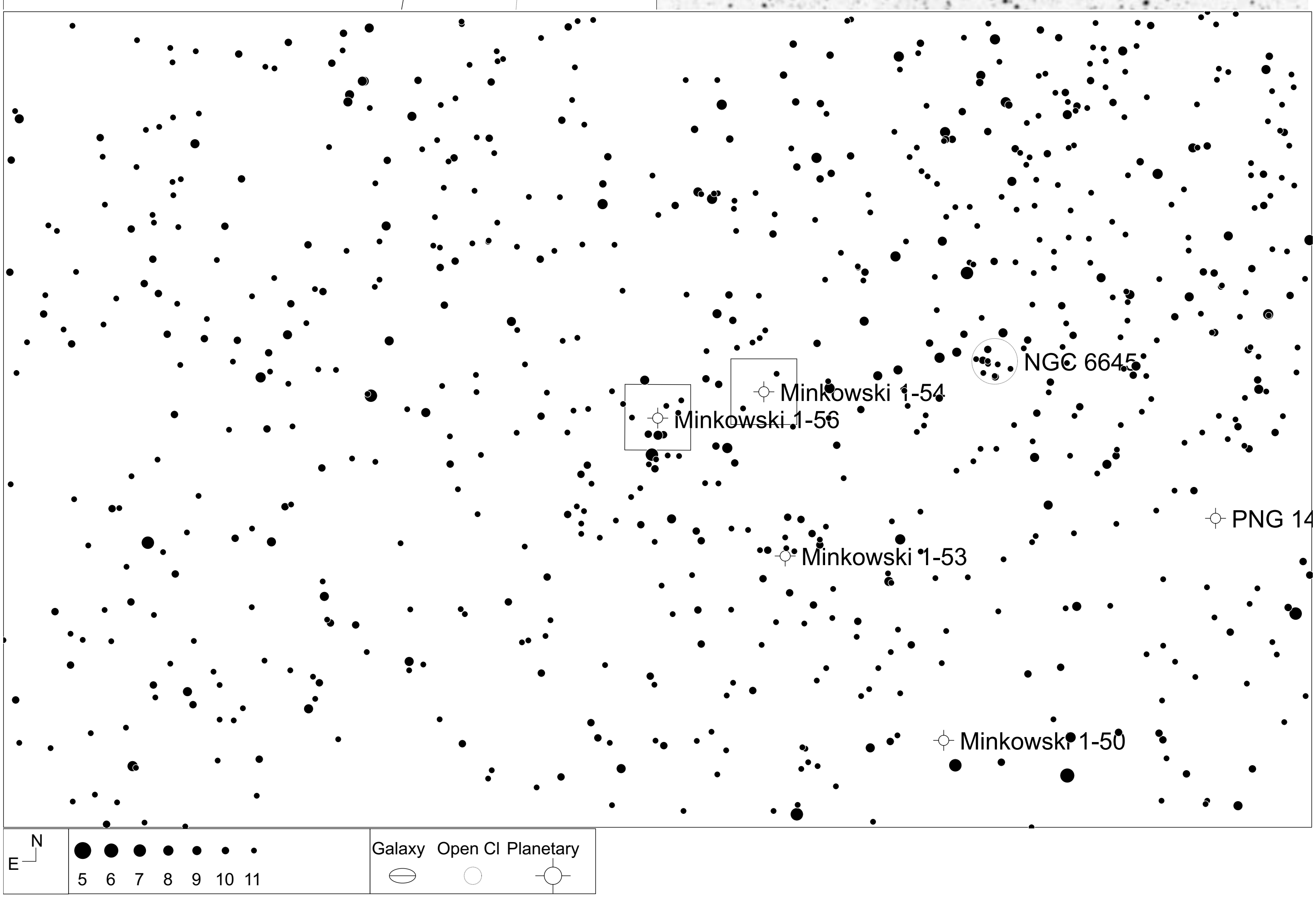


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 14-5.1	-	18 36 32.3	-19 19 29	15.1p	13.2	-

Minkowski 1-56 (Sagittarius)

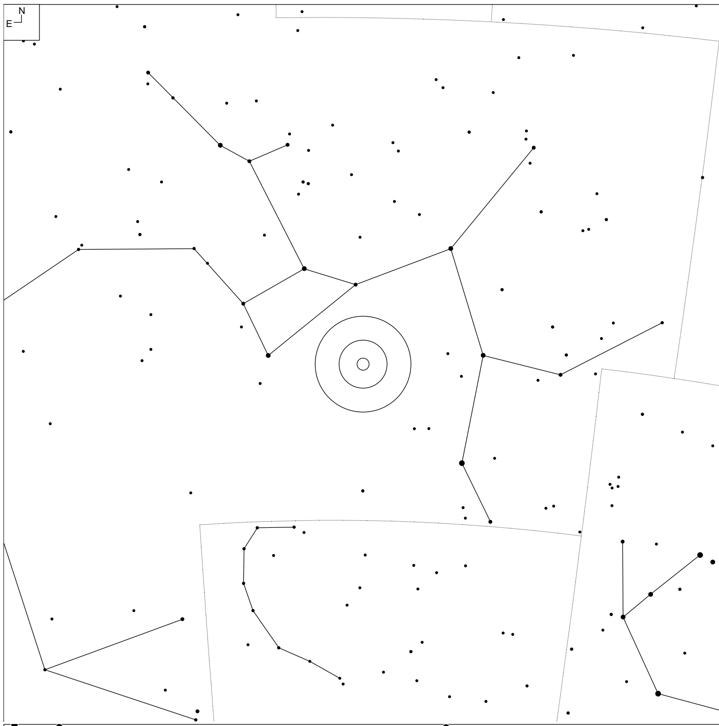


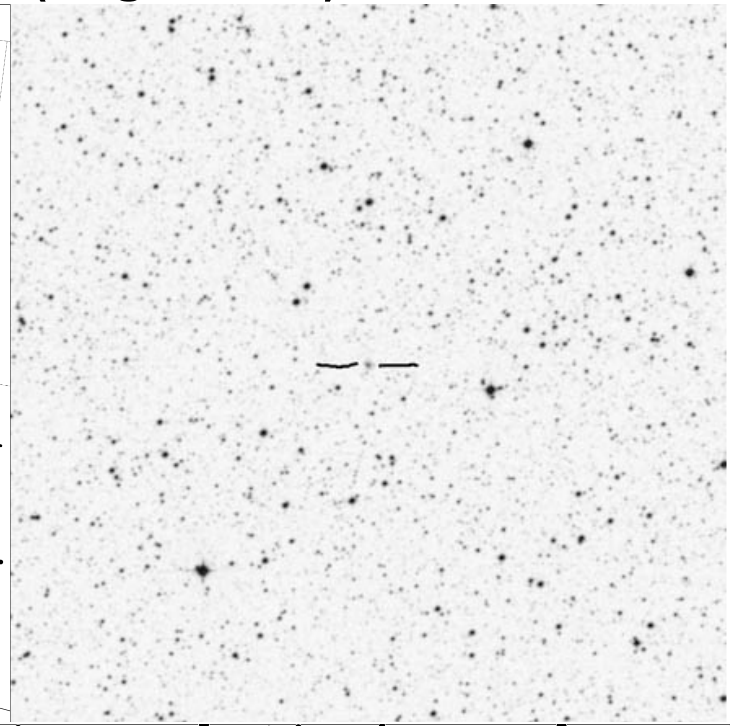


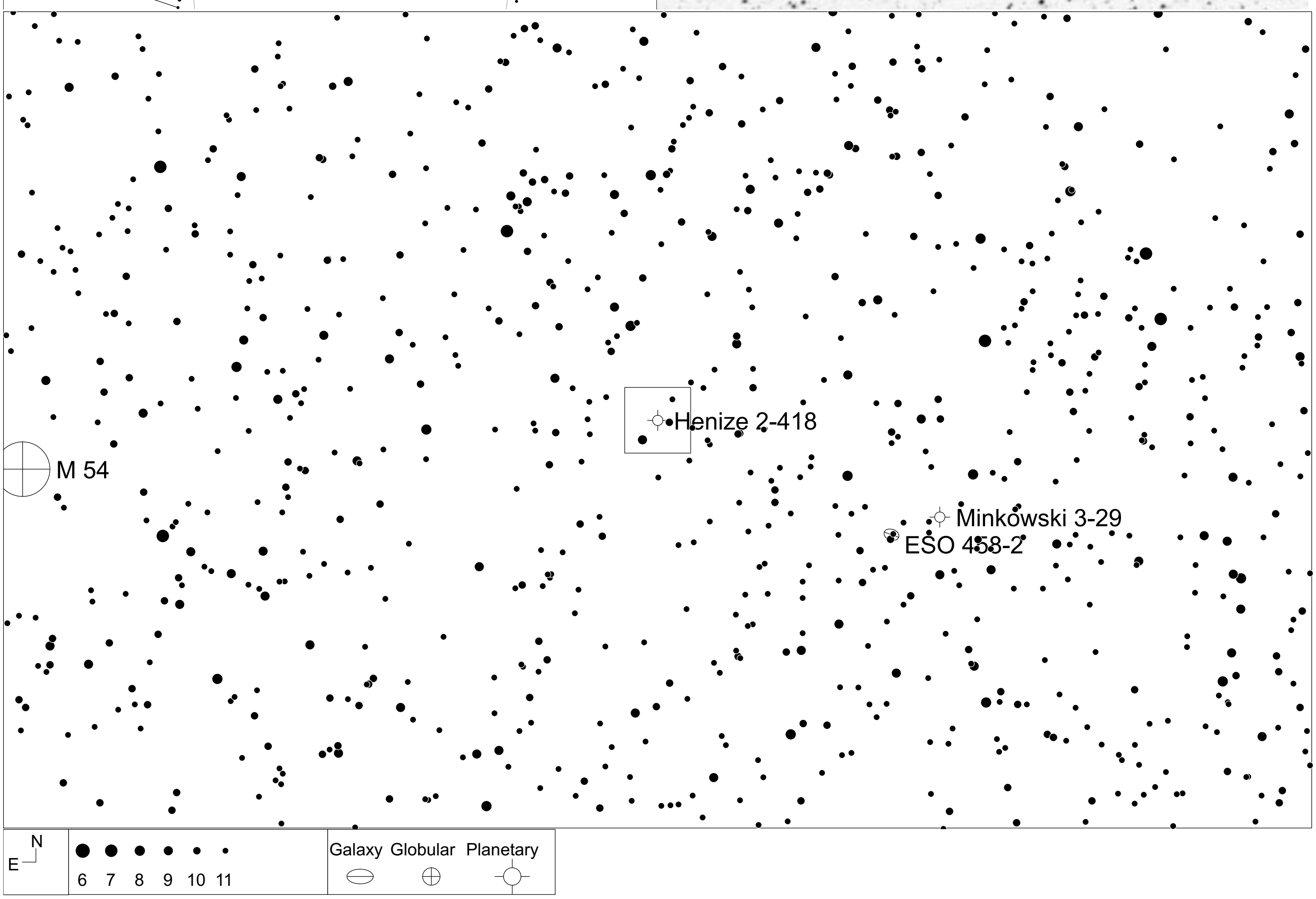


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 16-4.2	1	18 37 46.3	-17 05 47	13.3p	16.2	10”

Henize 2-418 (Sagittarius)

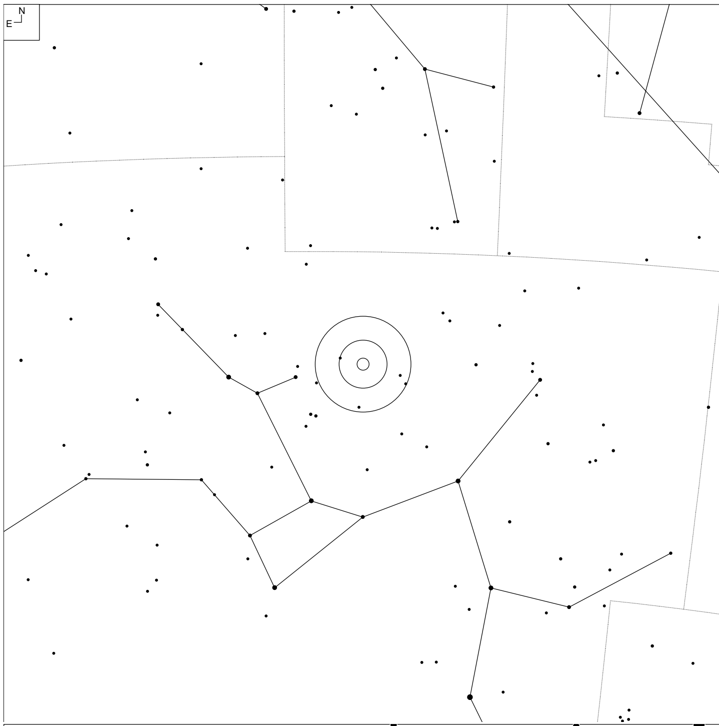


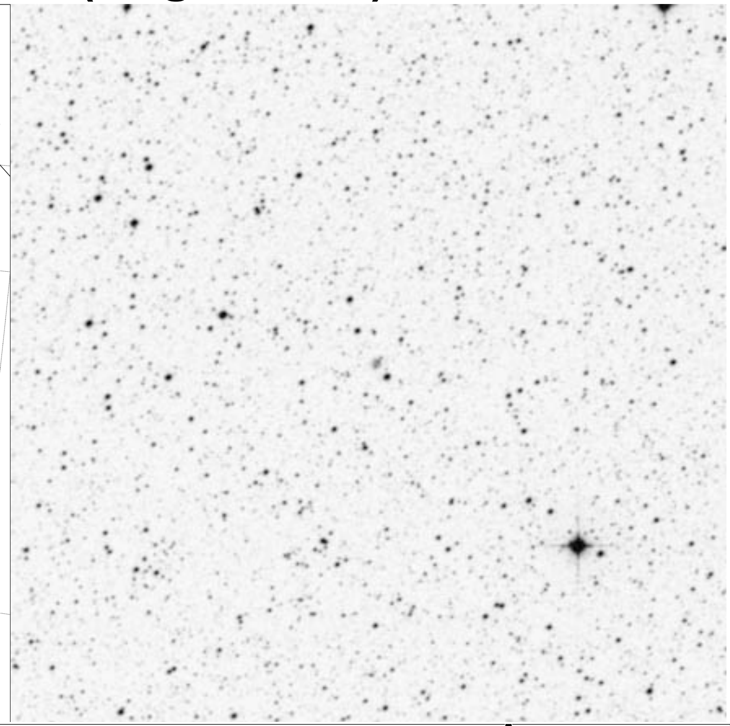


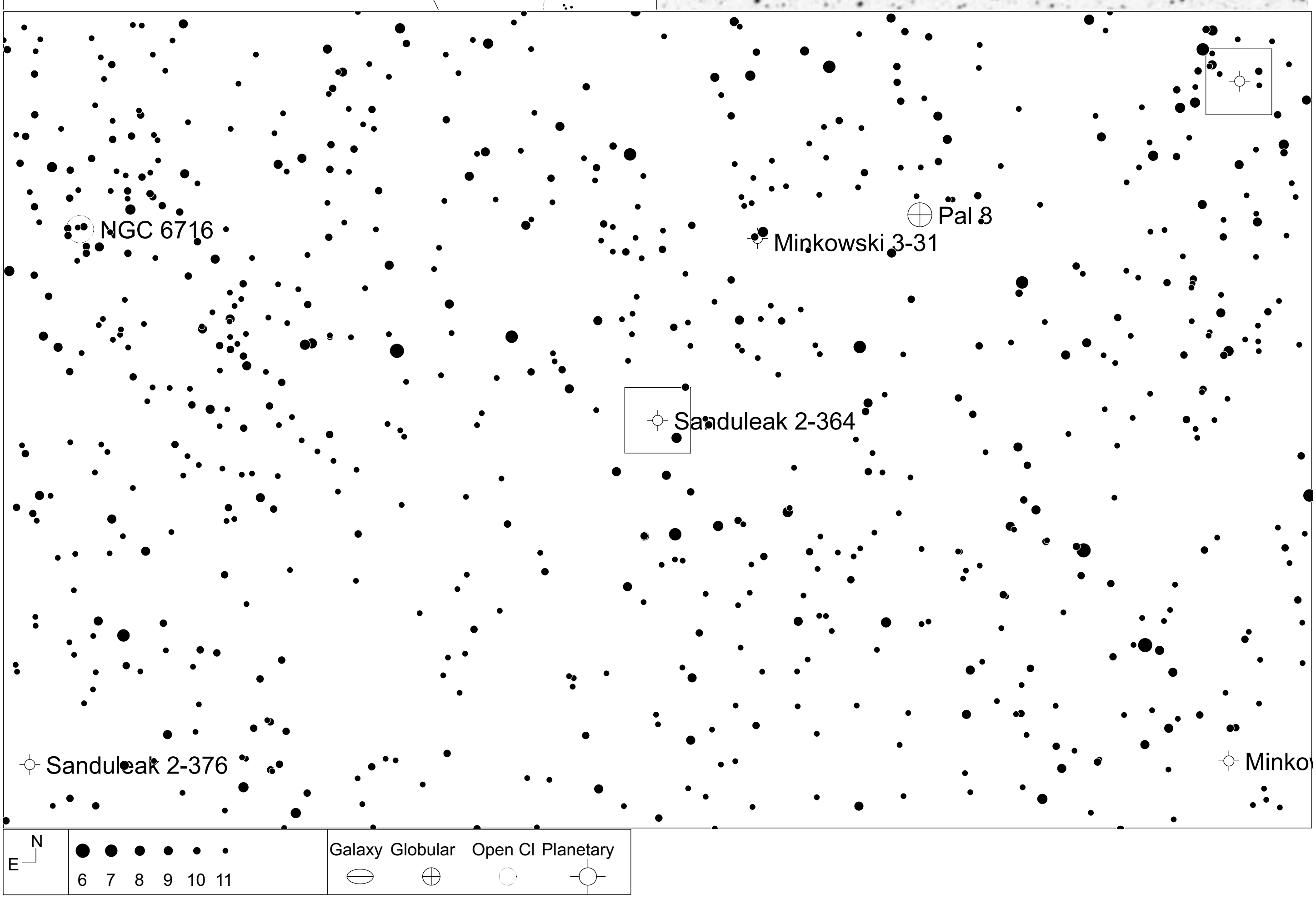


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 4-11.2	-	18 44 14.6	-30 19 36	15.1	15.6	13”

Sanduleak 2-364 (Sagittarius)

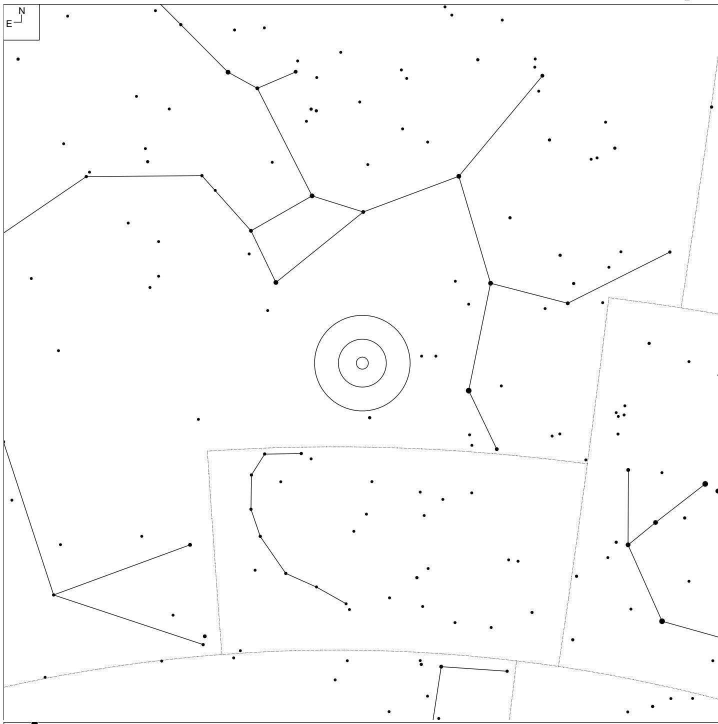


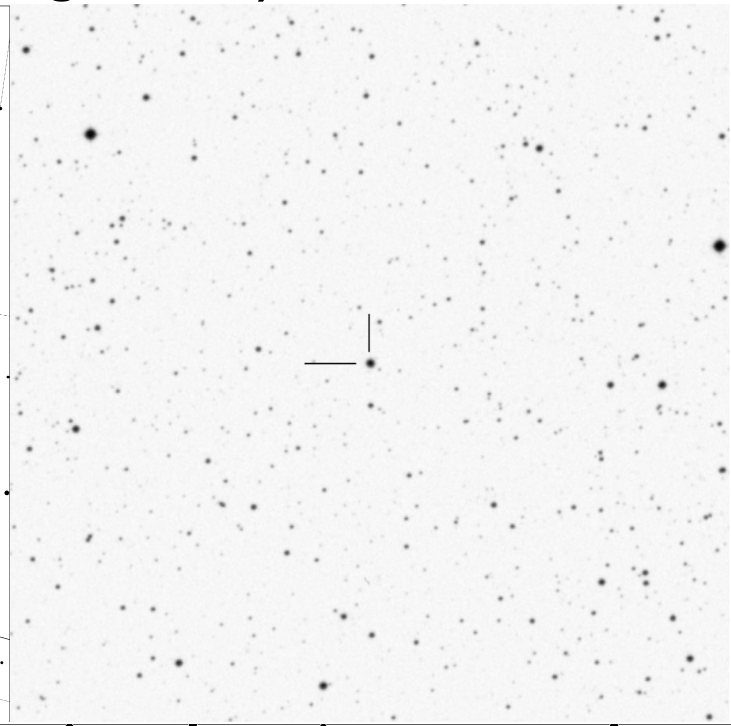


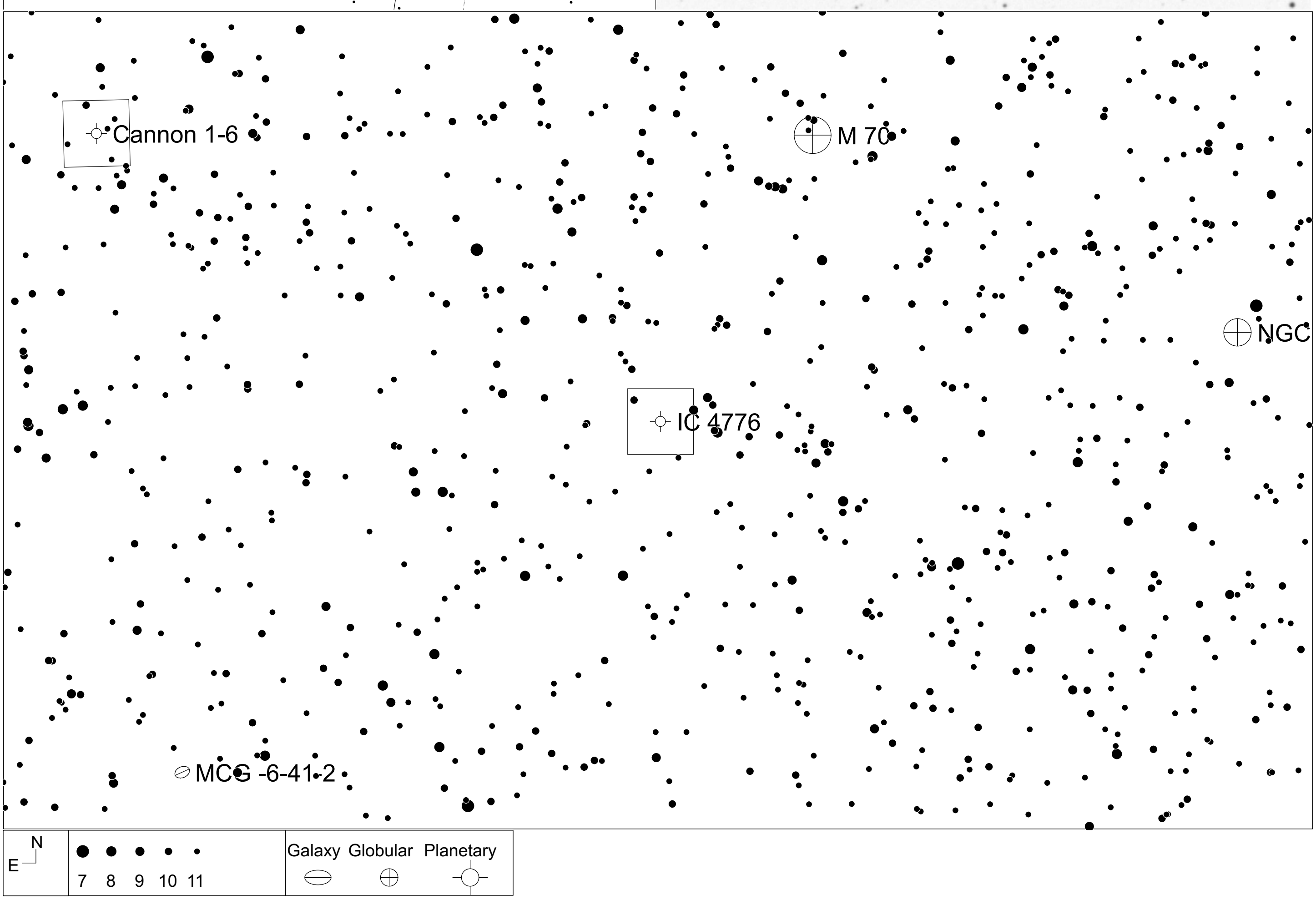


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 13-7.1	?+3	18 45 35.2	-20 34 59	13.9p	18.4	13”

IC 4776 (Sagittarius)

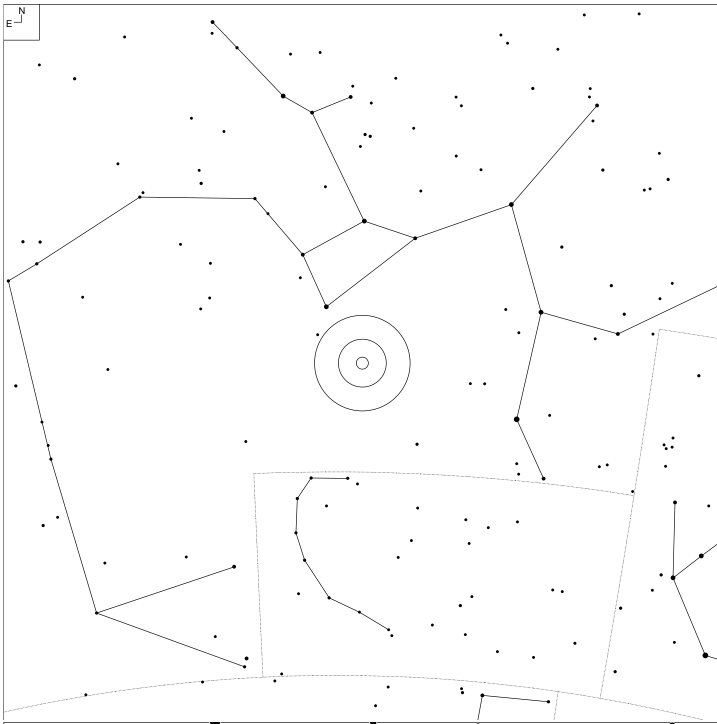


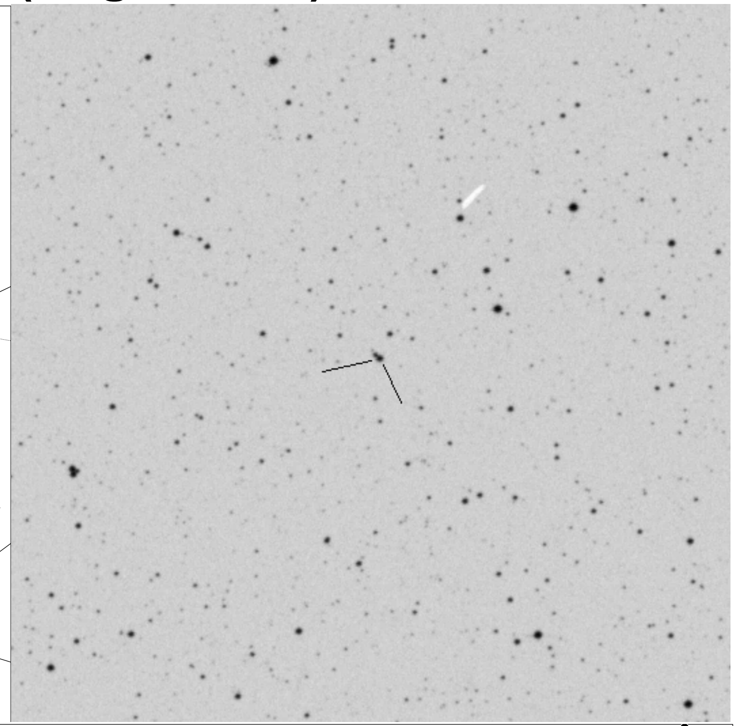


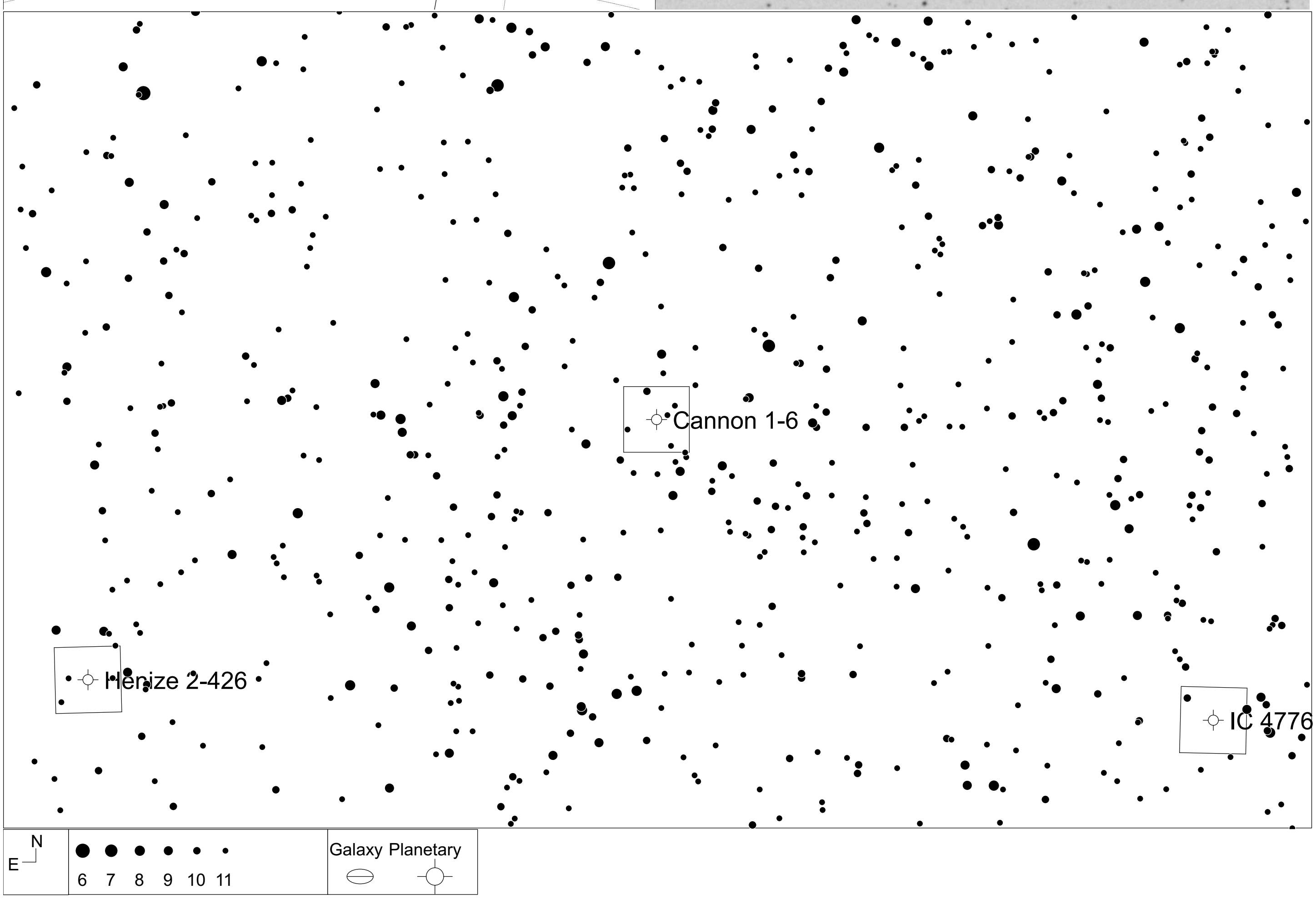


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 2-13.1	2a	18 45 50.9	-33 20 36	10.8v	14.1	8”

Cannon 1-6 (Sagittarius)

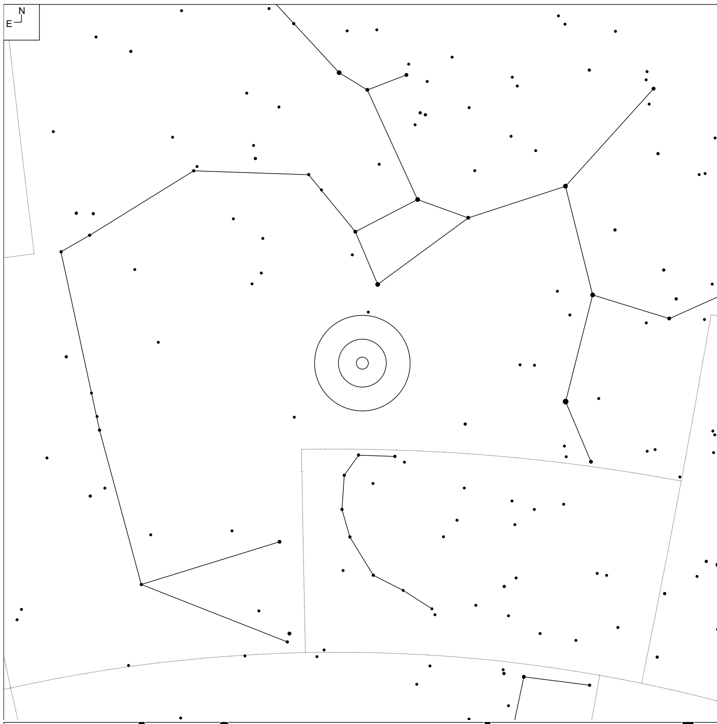


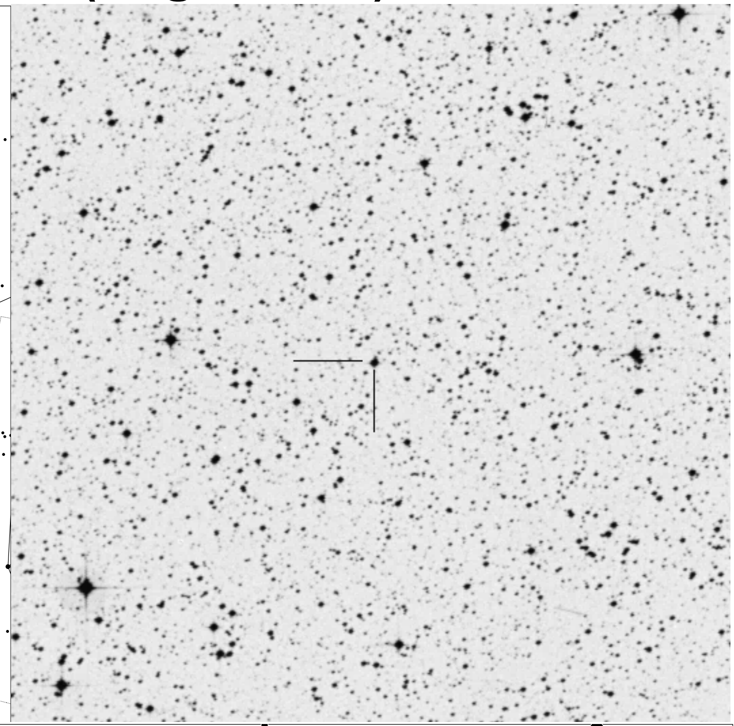


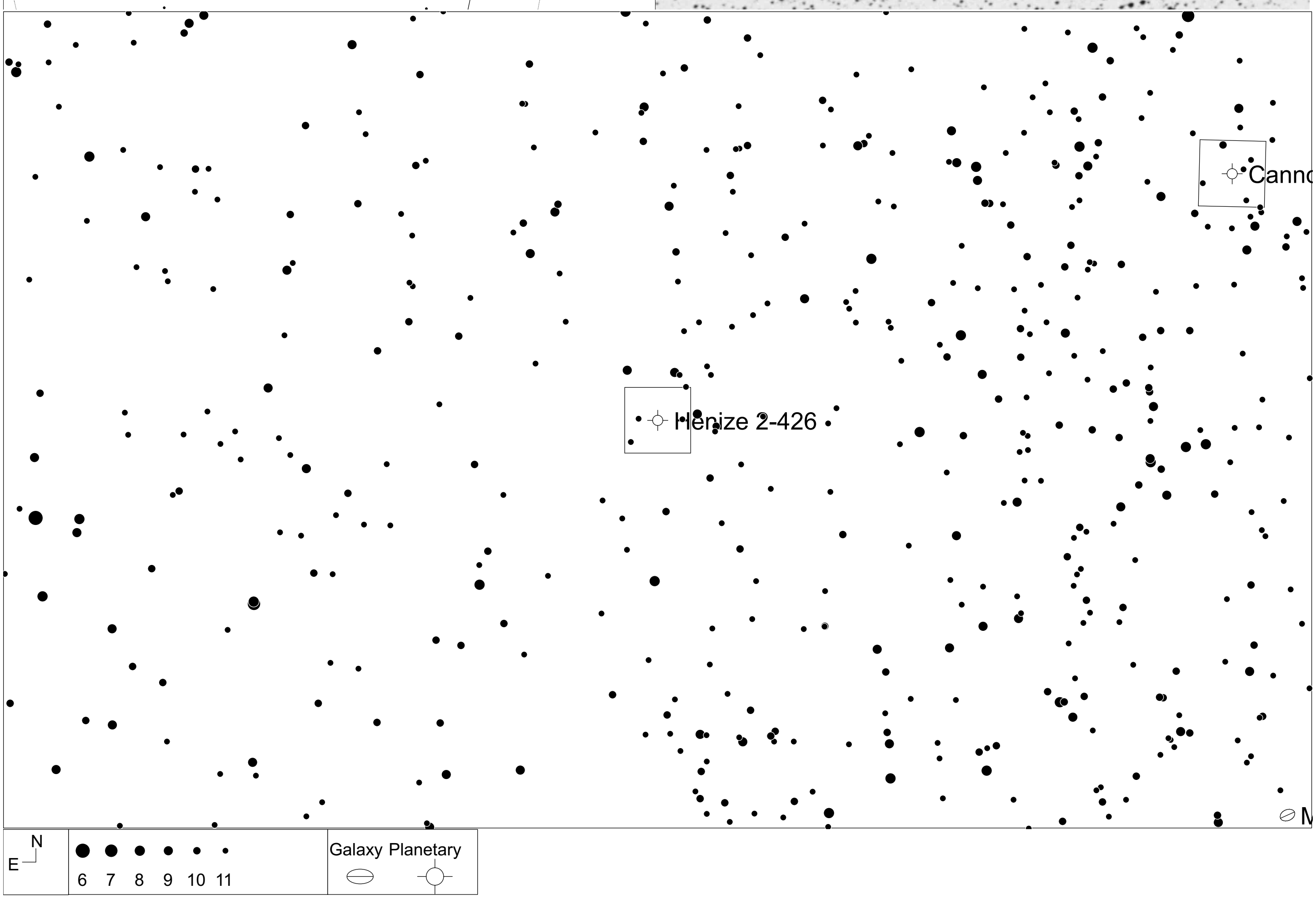


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 3-14.1	2	18 55 37.8	-32 15 48	10.9p	13.9	4”

Sanduleak 2-381 (Sagittarius)

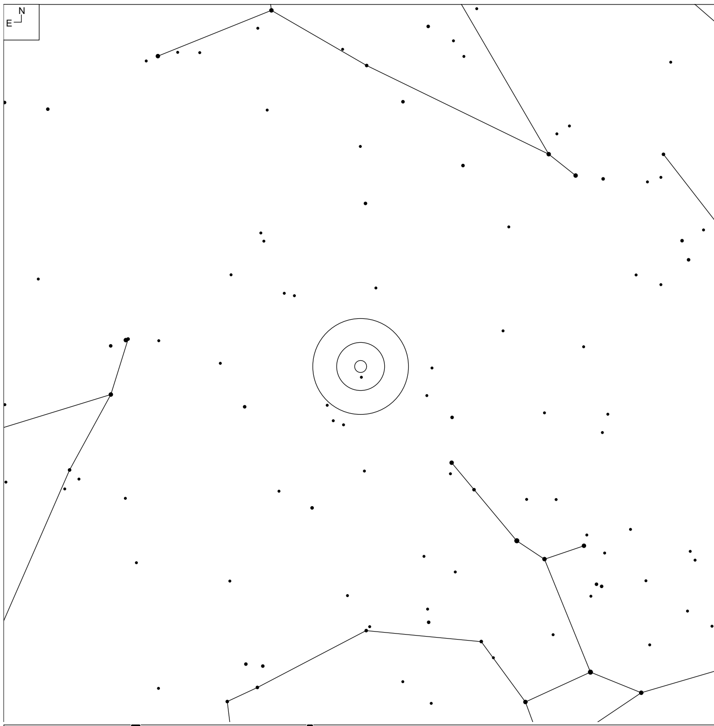


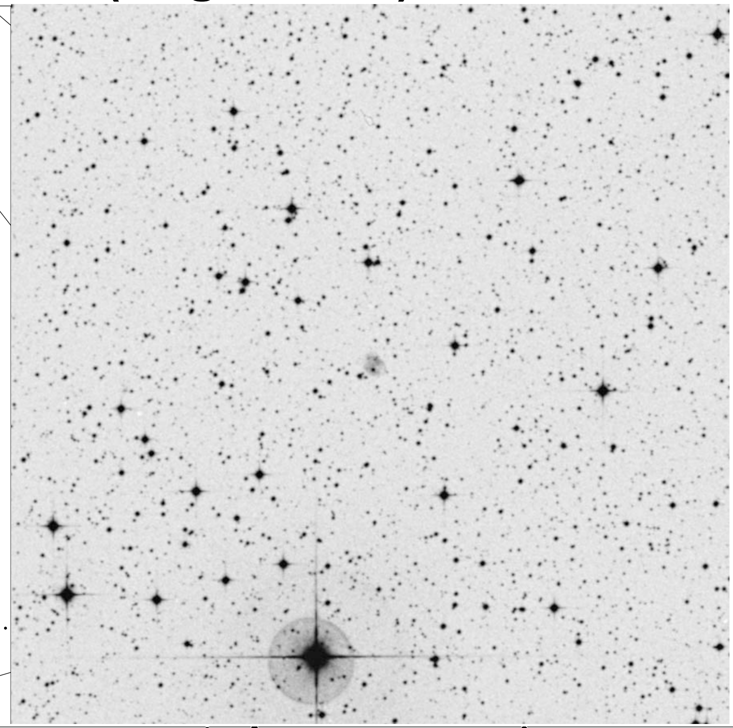


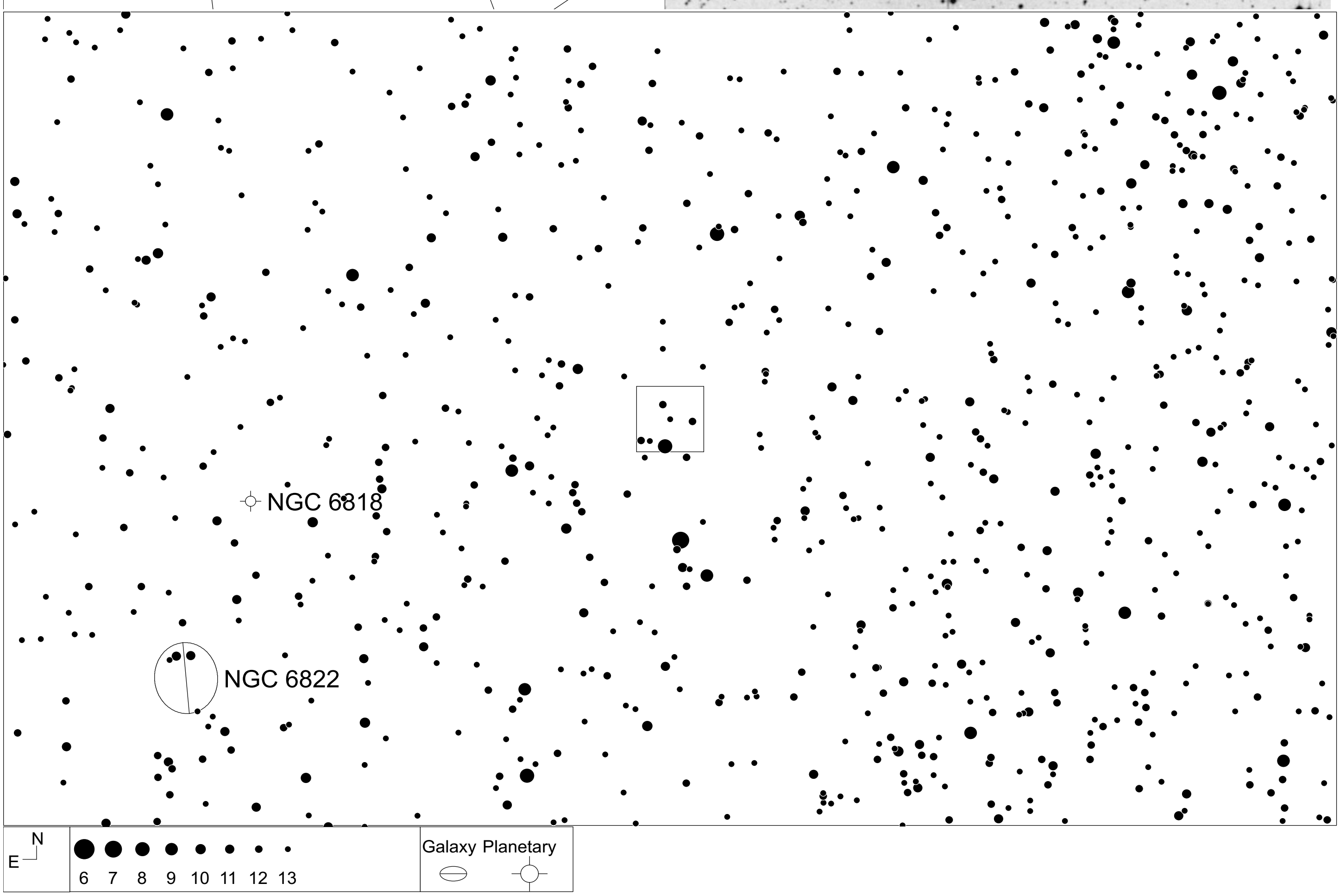


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 3-17.1	2	19 05 35.9	-33 11 37	12.5v	-	5”

“PNe Candidate 1” (Sagittarius)



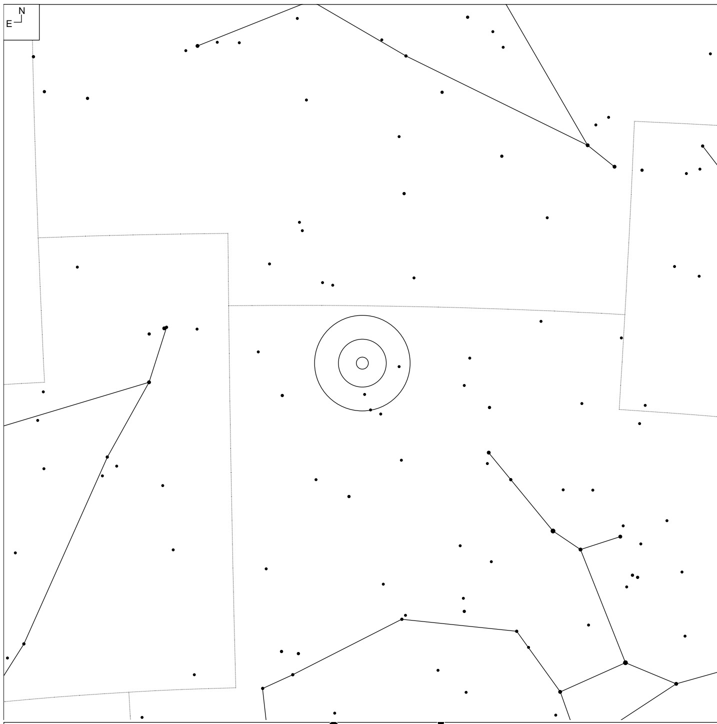


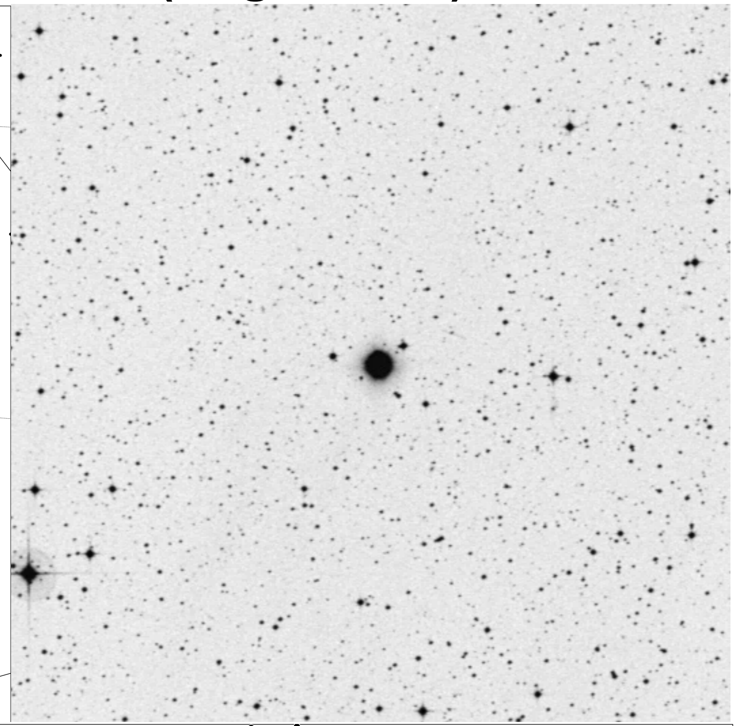


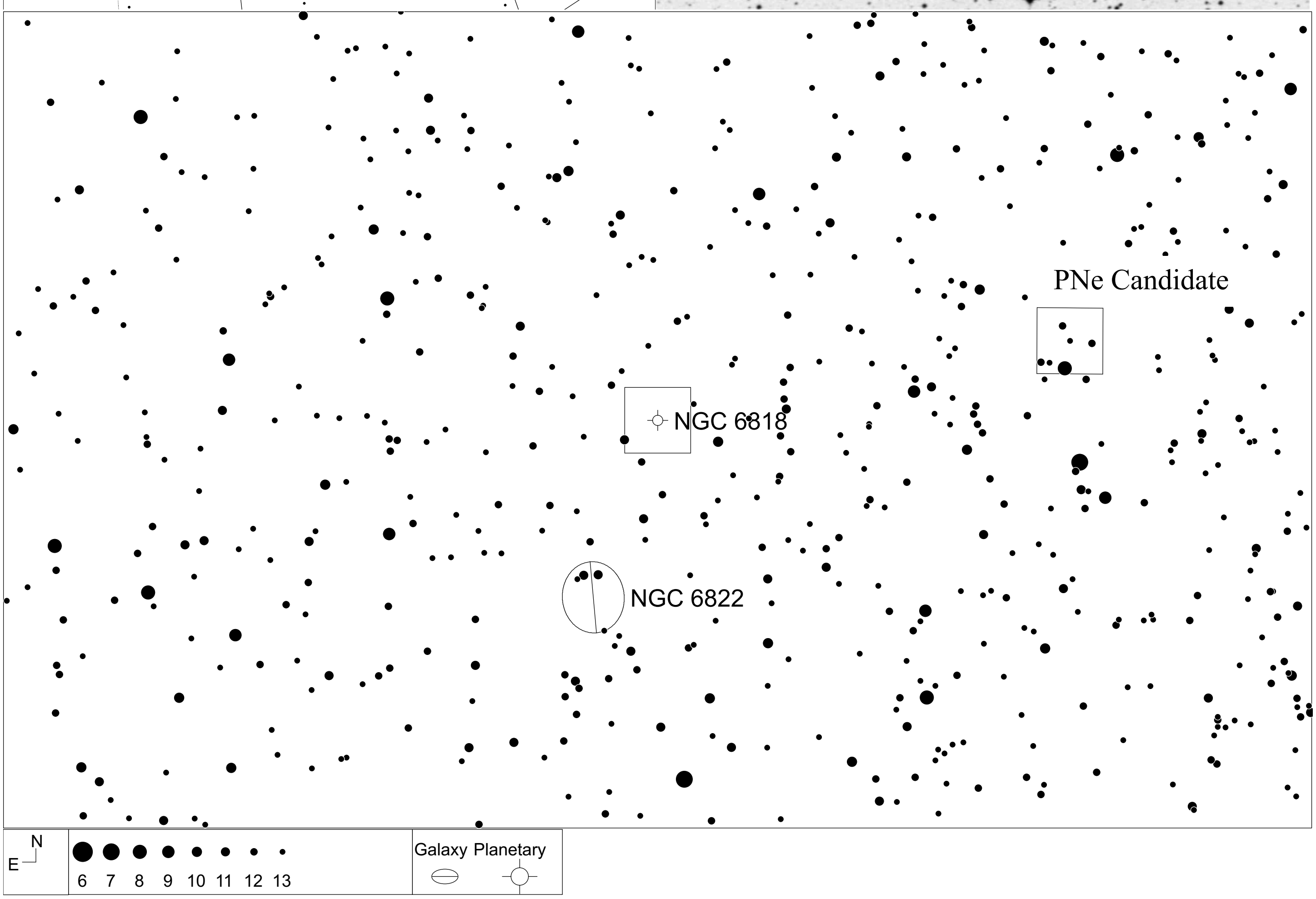
Other ID	Type	RA	Dec	Mag	* Mag	Size
		19 37 44	-13 51 20	-	-	34”

This candidate was posted by Matthias Kronberger on AmAstro July 27, 2009

NGC 6818 – Little Gem (Sagittarius)

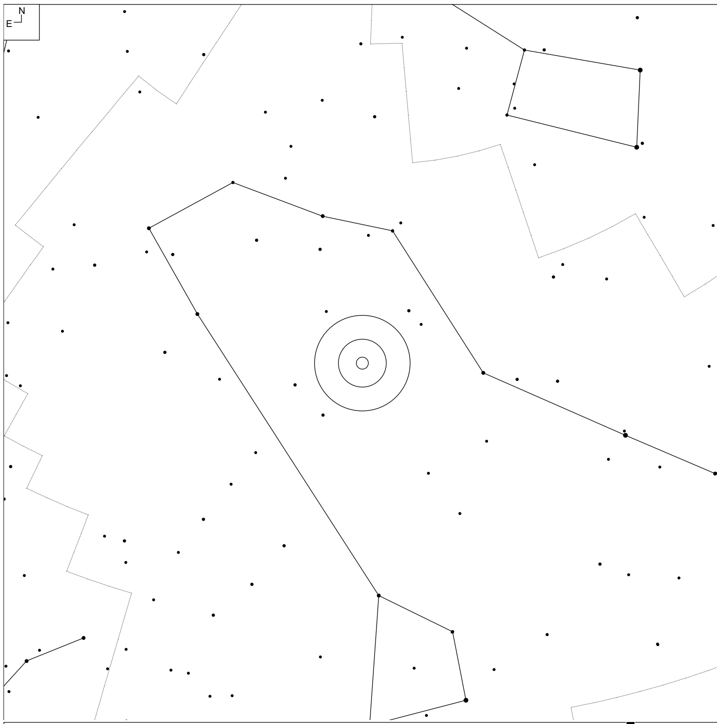


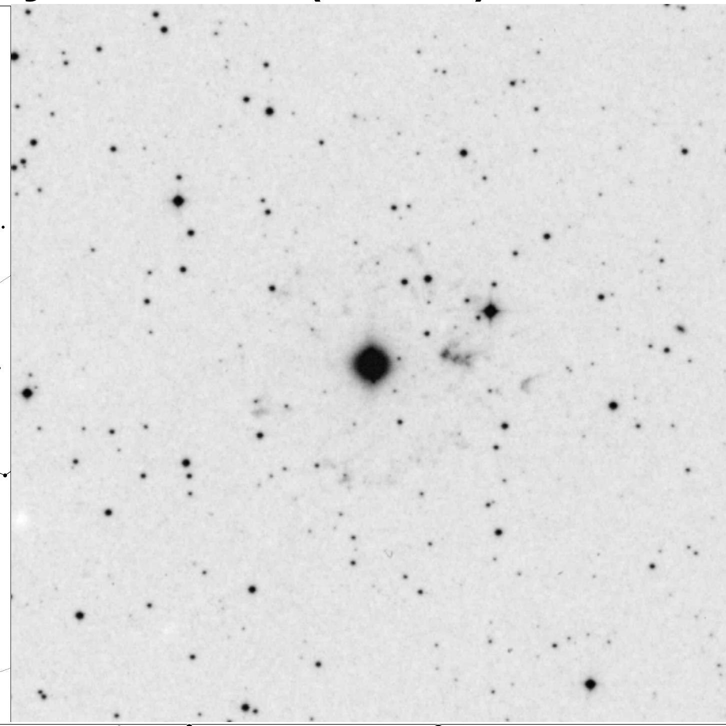


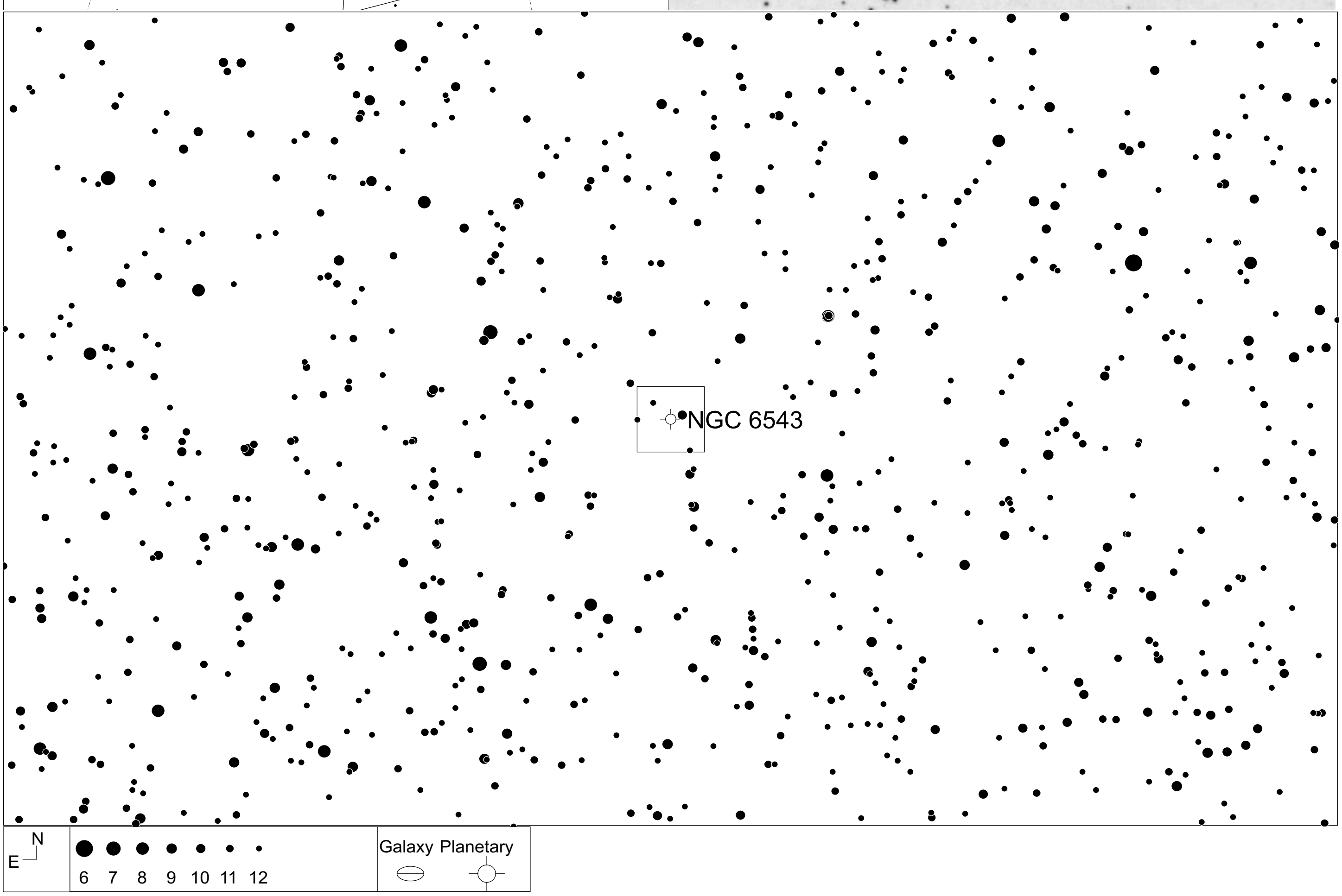


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 25-17.1	4	19 43 57.8	-14 09 10	8.8v	16.9	48”

NGC 6543 – Cat’s Eye Nebula (Draco)



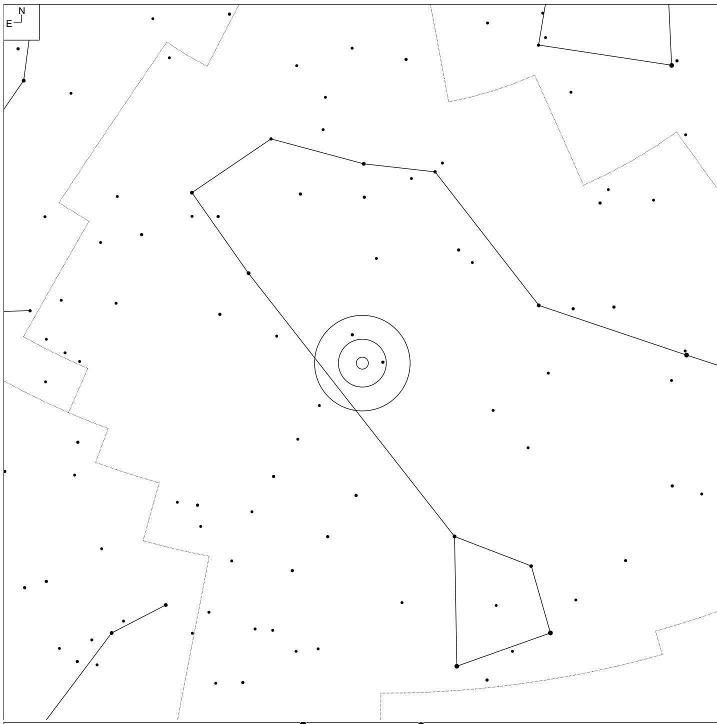


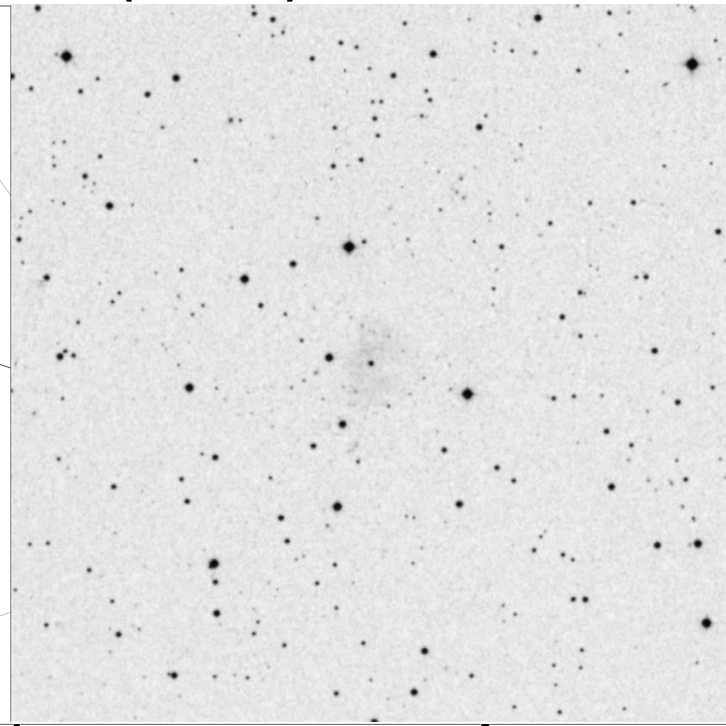


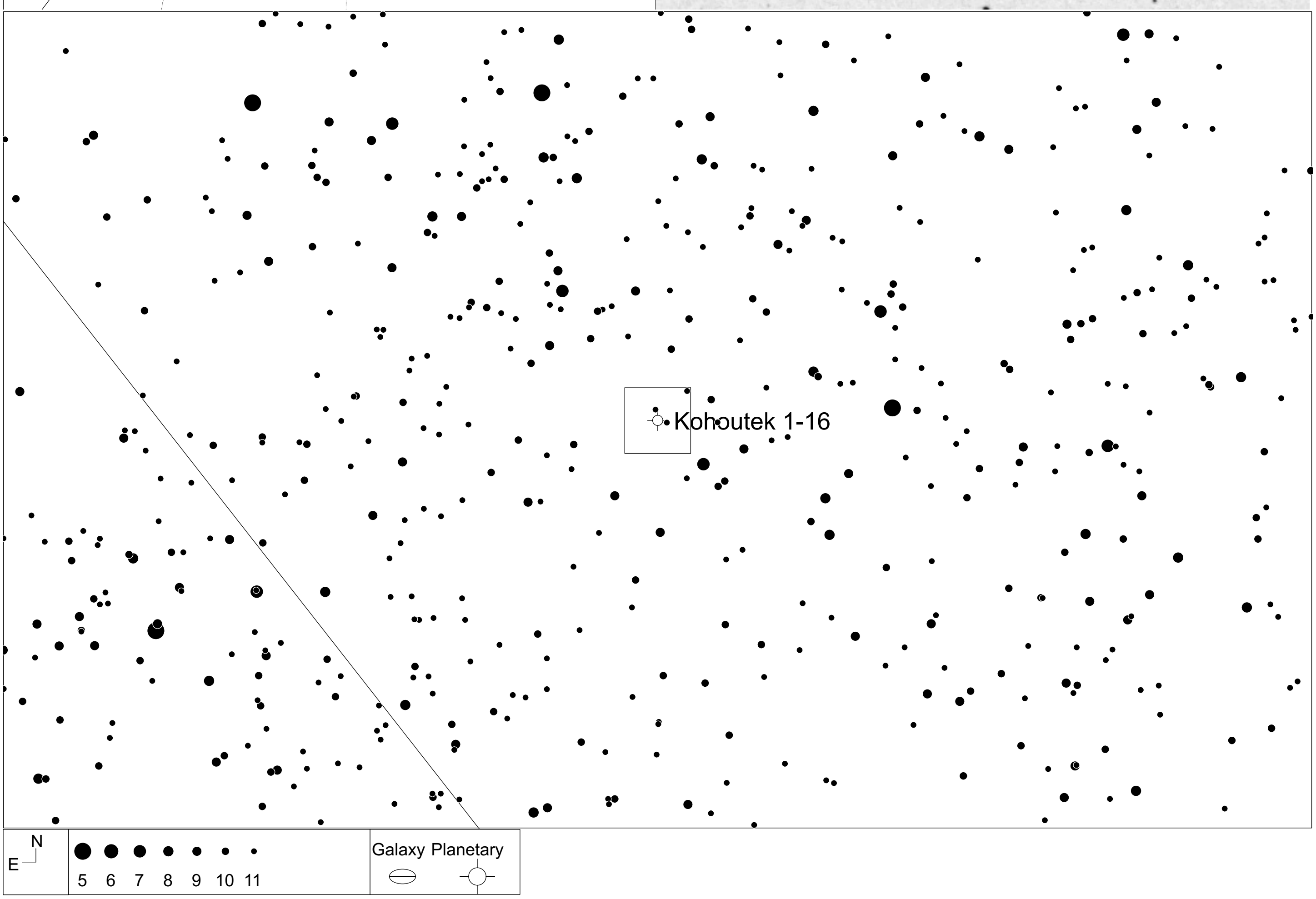
Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 96+29.1	3a+2	17 58 33.5	+66 37 59	8.1v	11.1	23x18”

Look for the extension to the west.

Kohoutek 1-16 (Draco)

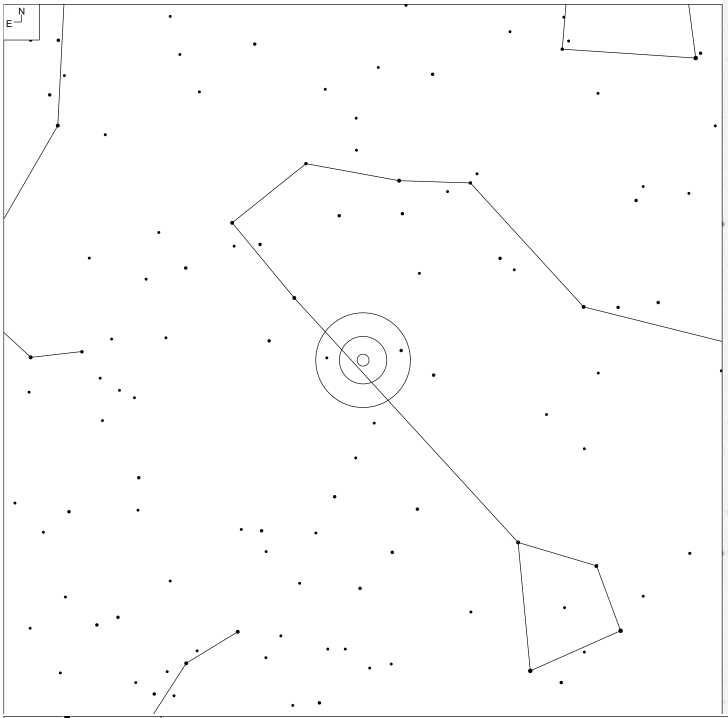


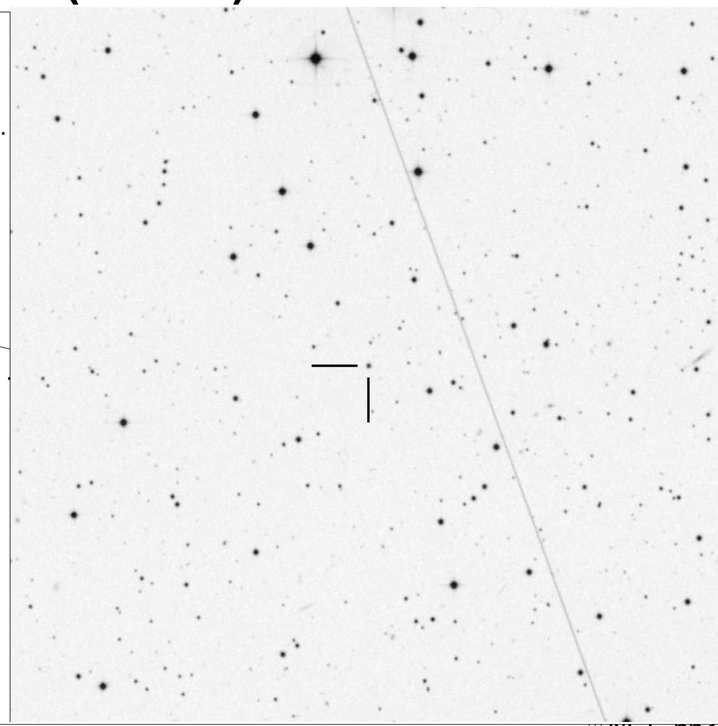


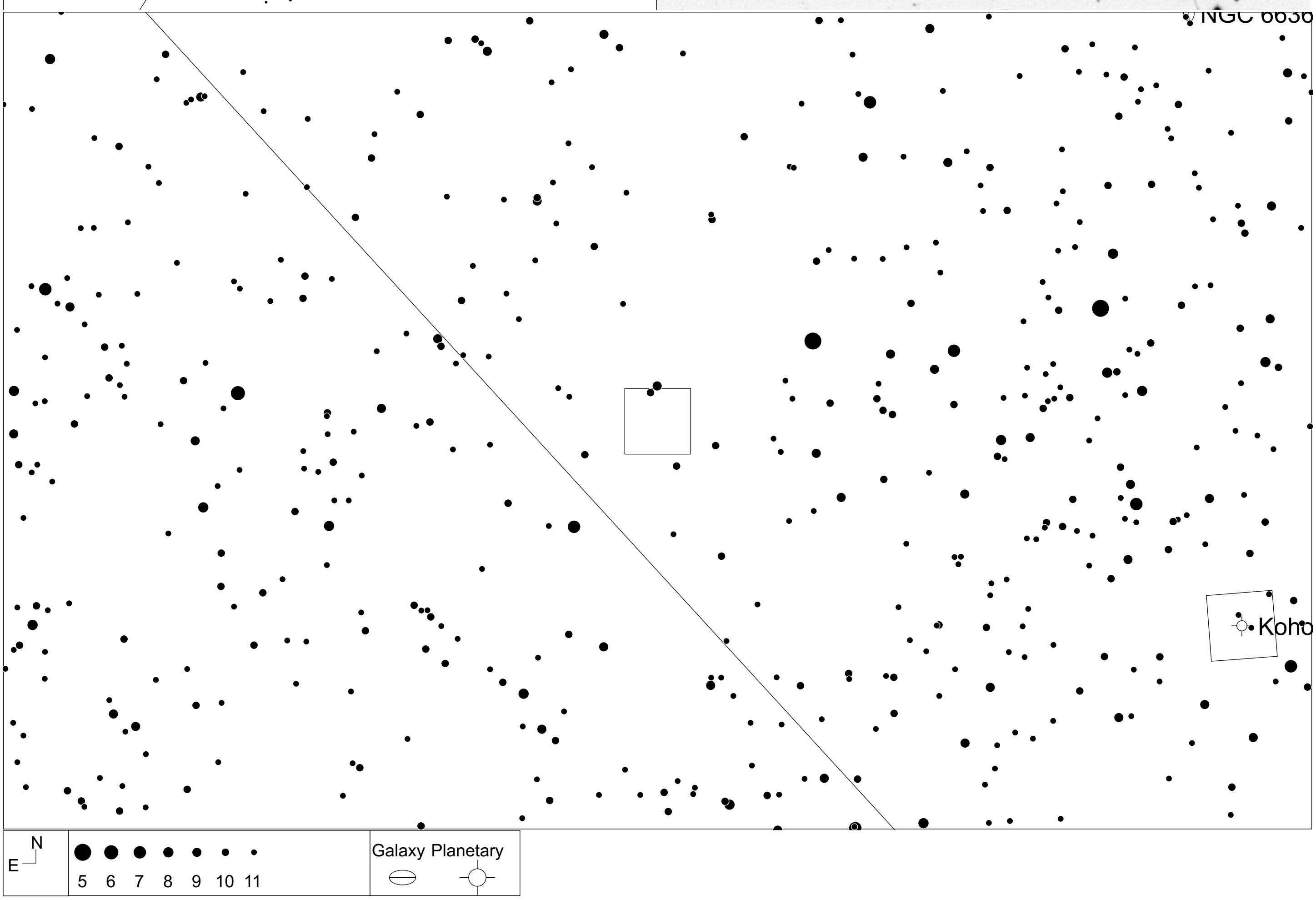


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 94+27.1	3	18 21 52.2	+64 21 53	14.2v	15.0	1.9’

Sweet Pea (Draco)

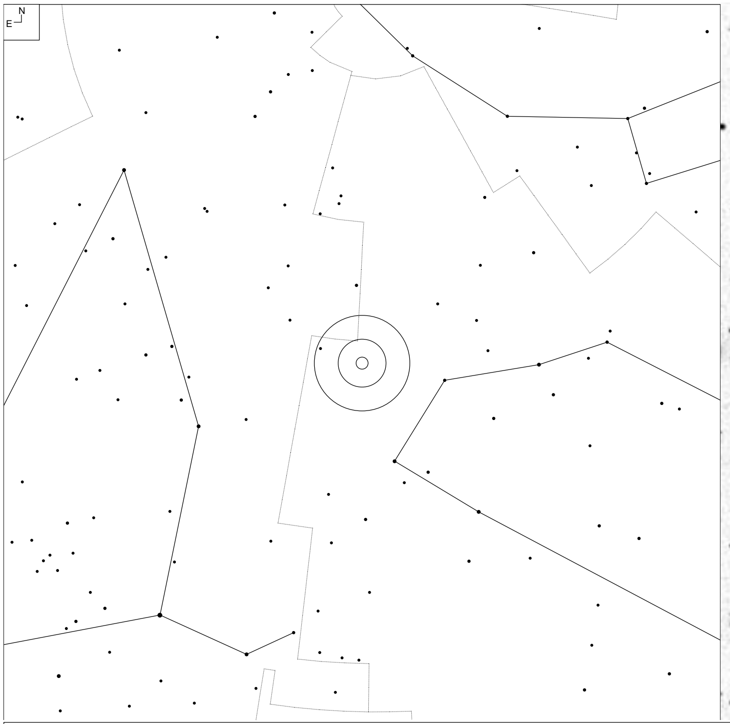


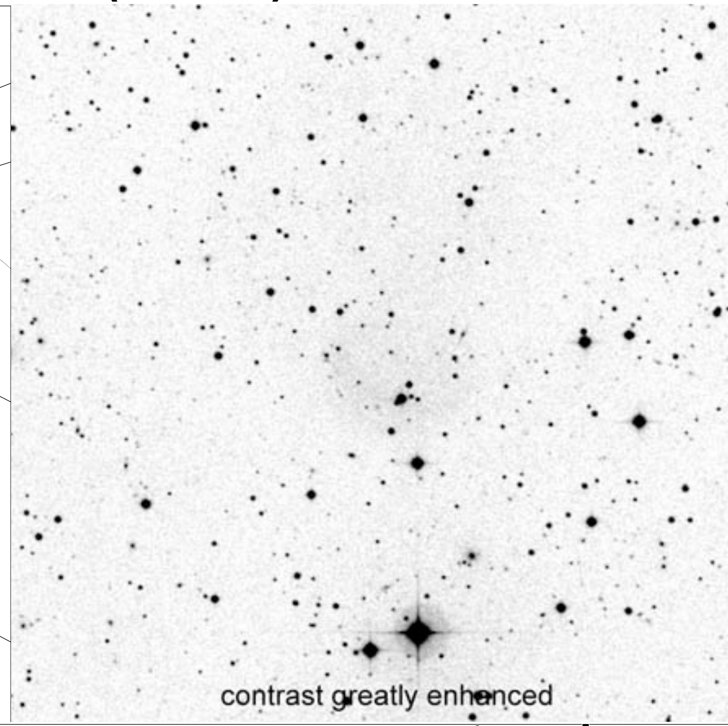


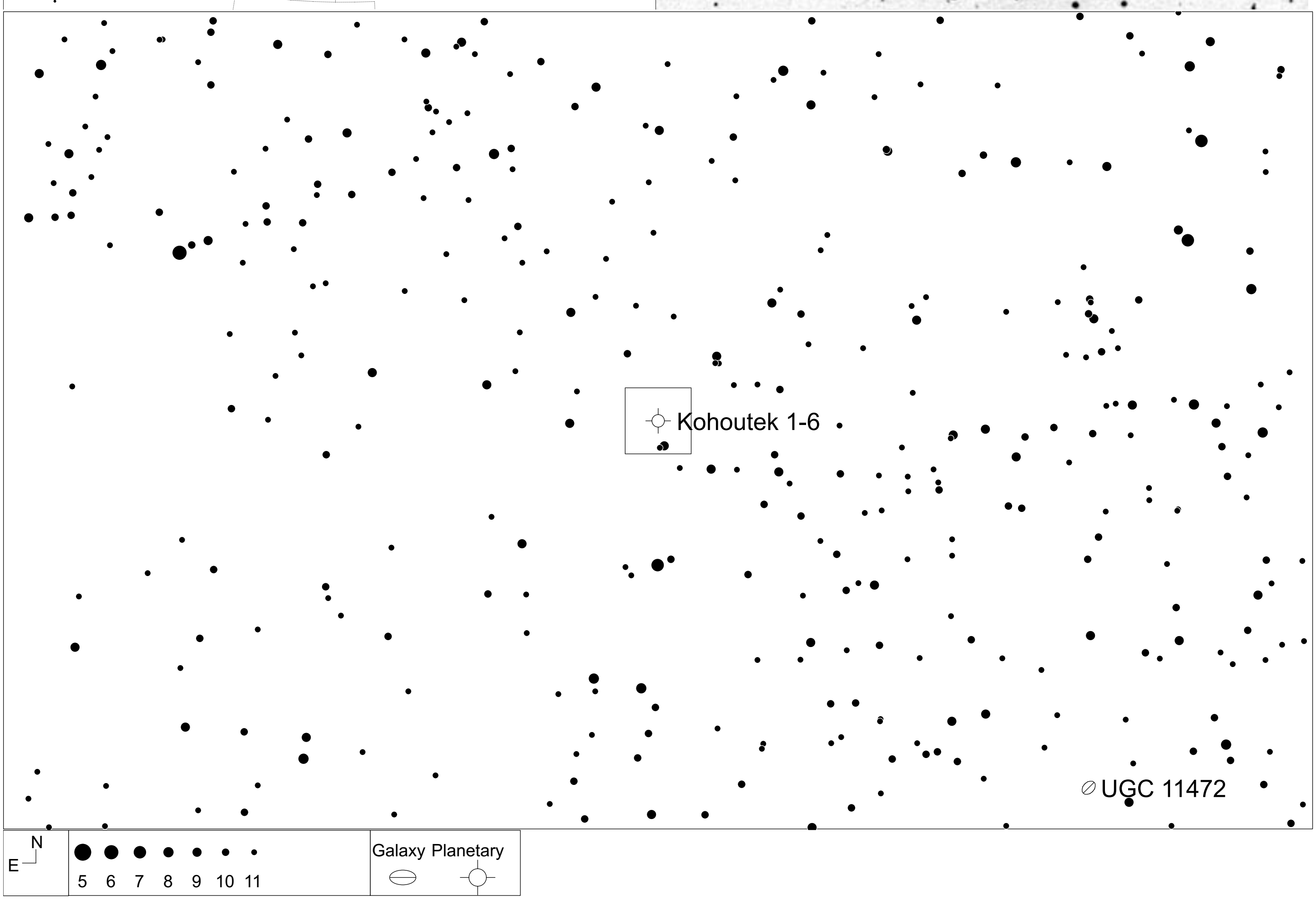


Other ID	Type	RA	Dec	Mag	* Mag	Size
		18 41 41.9	+65 11 58			< 5”

Kohoutek 1-6 (Draco)

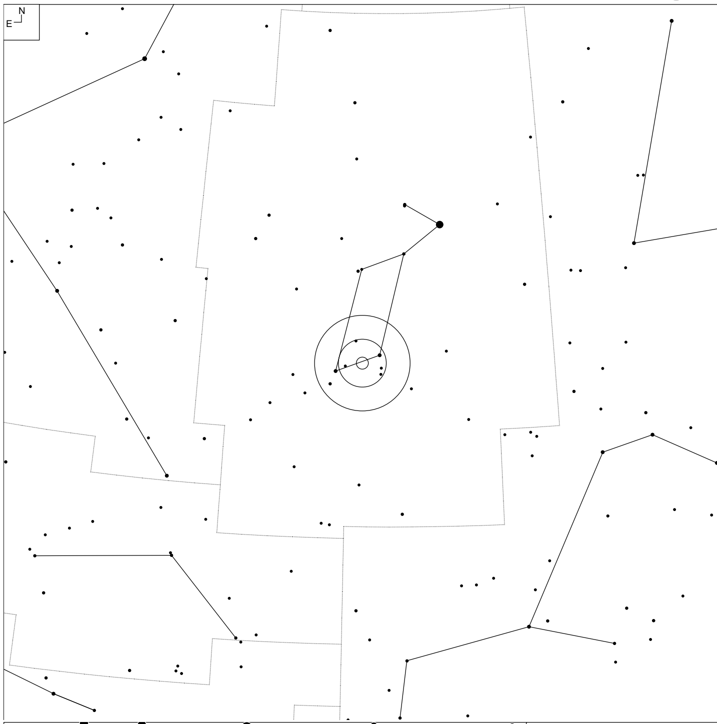


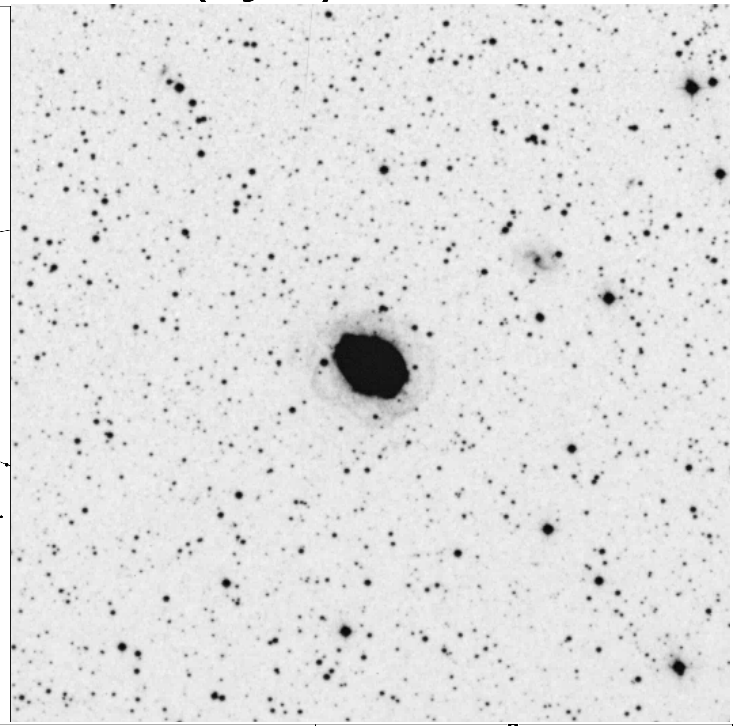


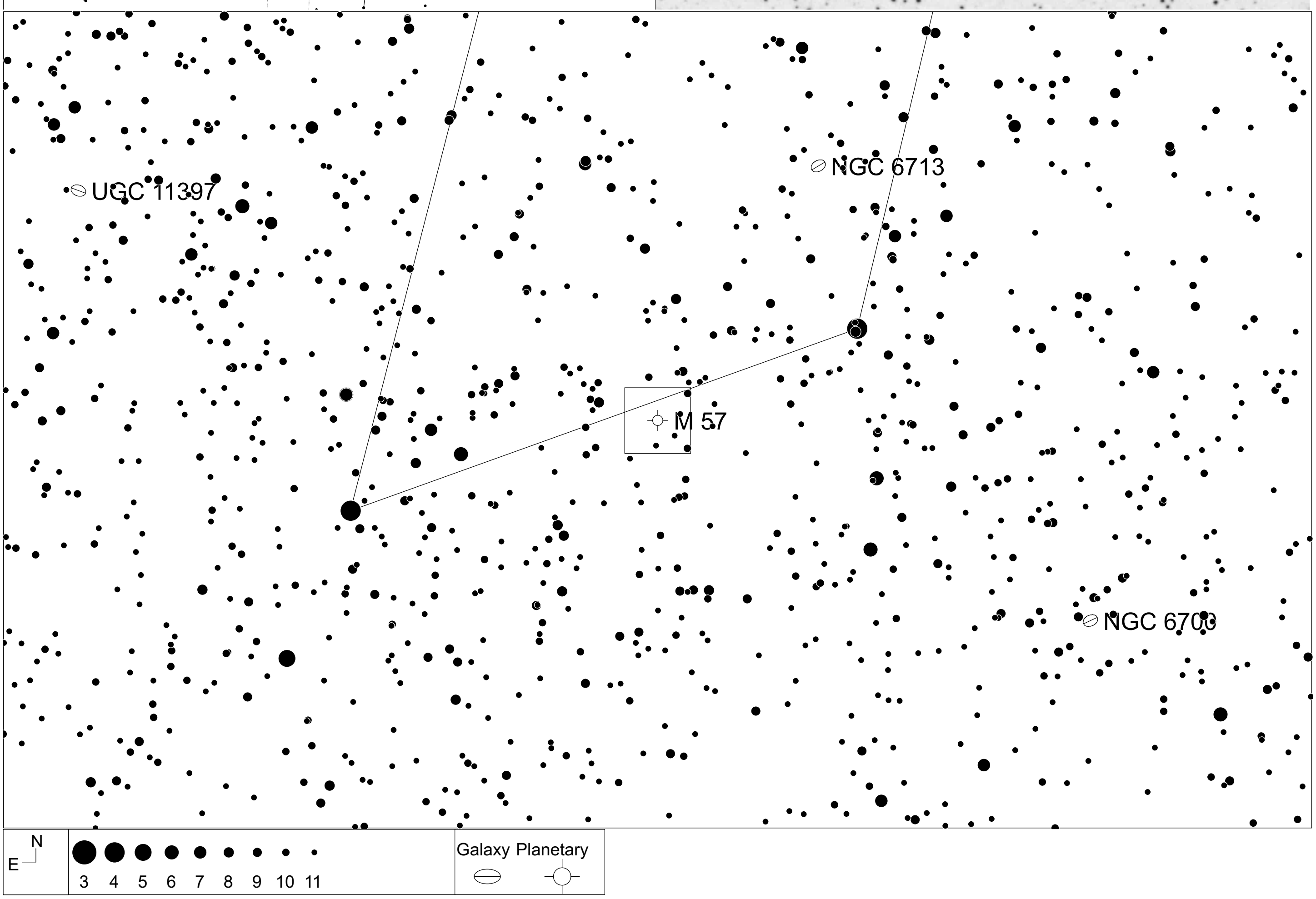


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 107+21.1	2	20 04 24.9	+74 26 17	-	17.6	2.7’

M-57 – Ring Nebula (Lyra)

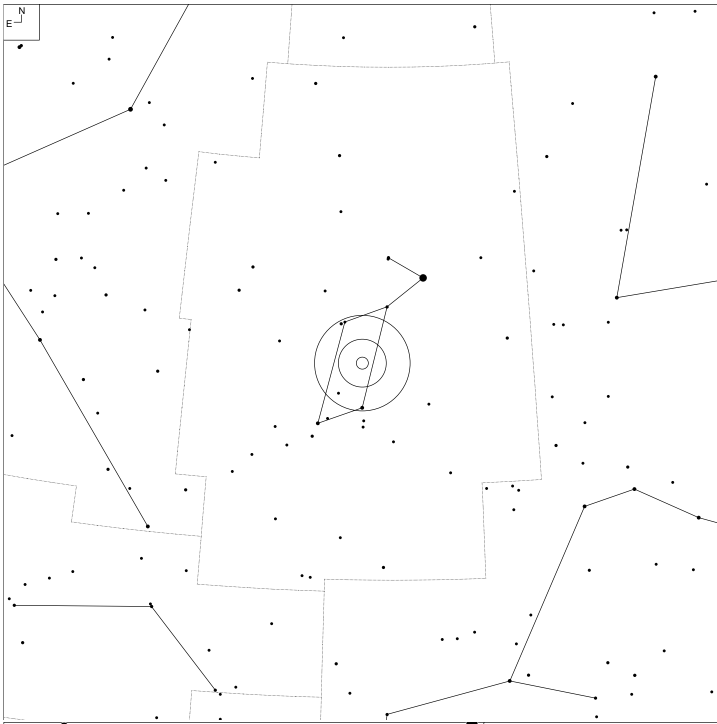


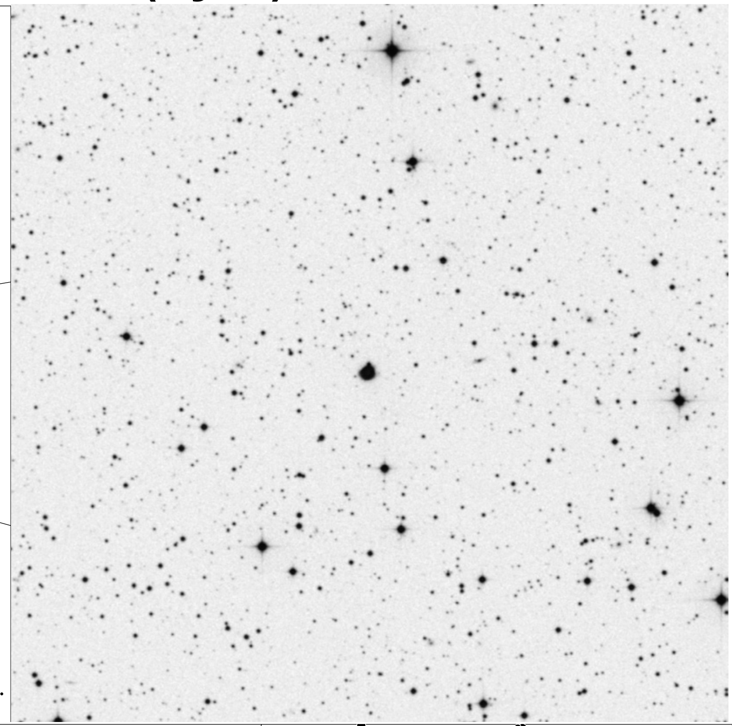


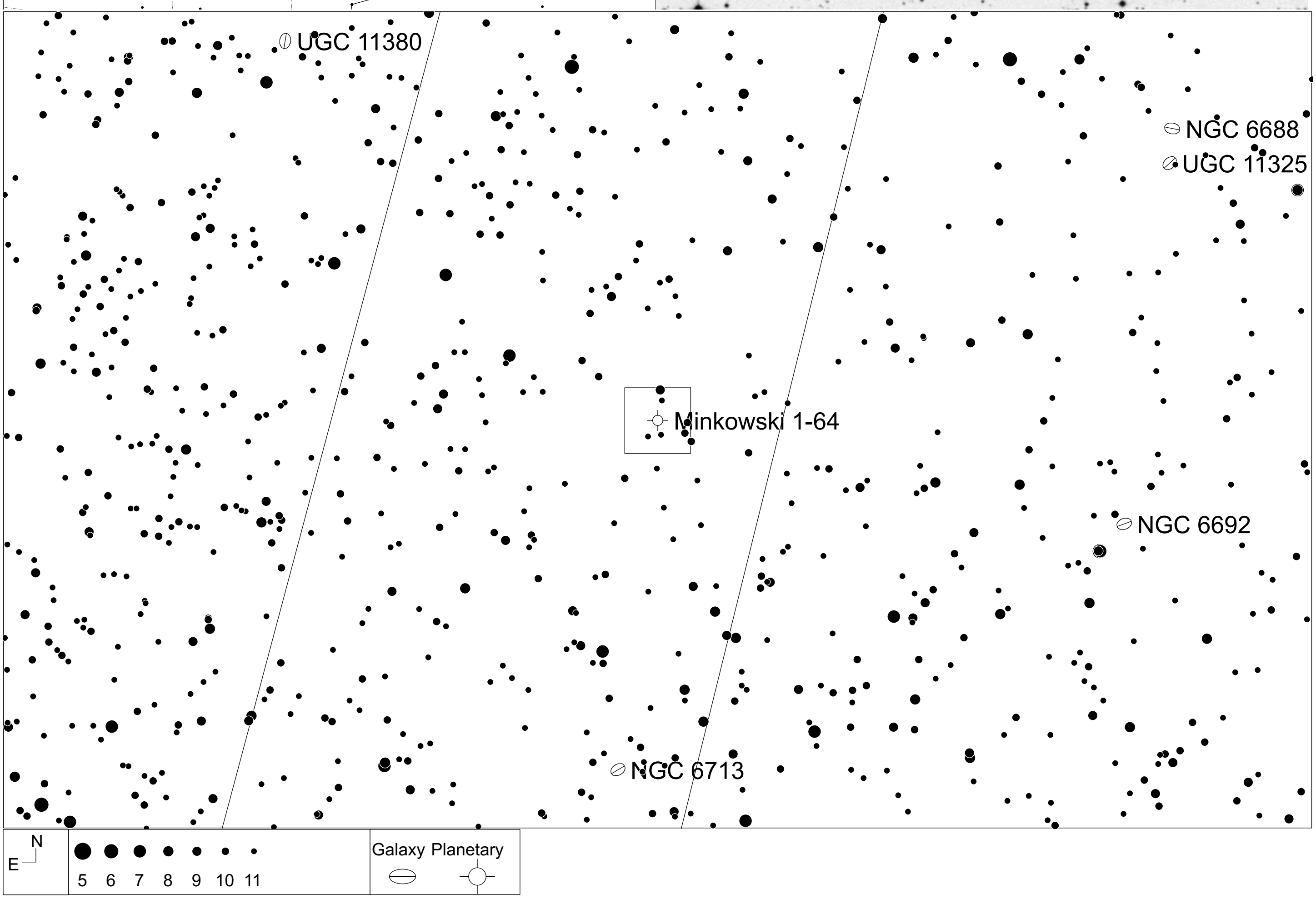


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 63+13.1	4+3	18 53 35.2	+33 01 44	8.8v	14.7	1.8 x 1.4’

Minkowski 1-64 (Lyra)

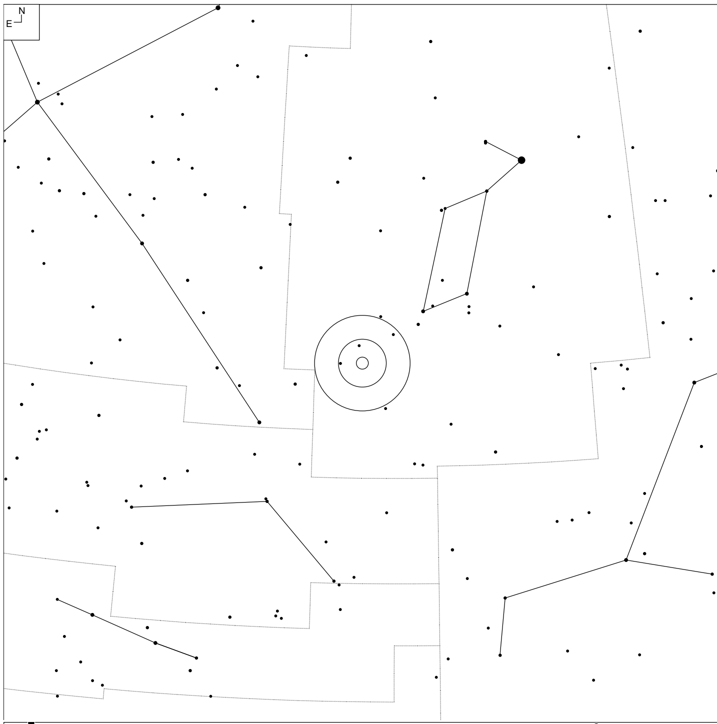


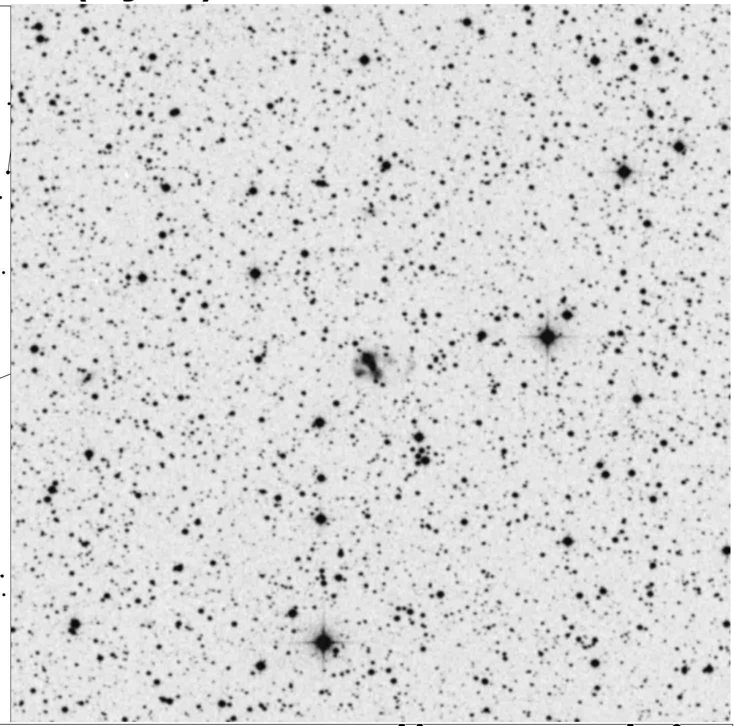


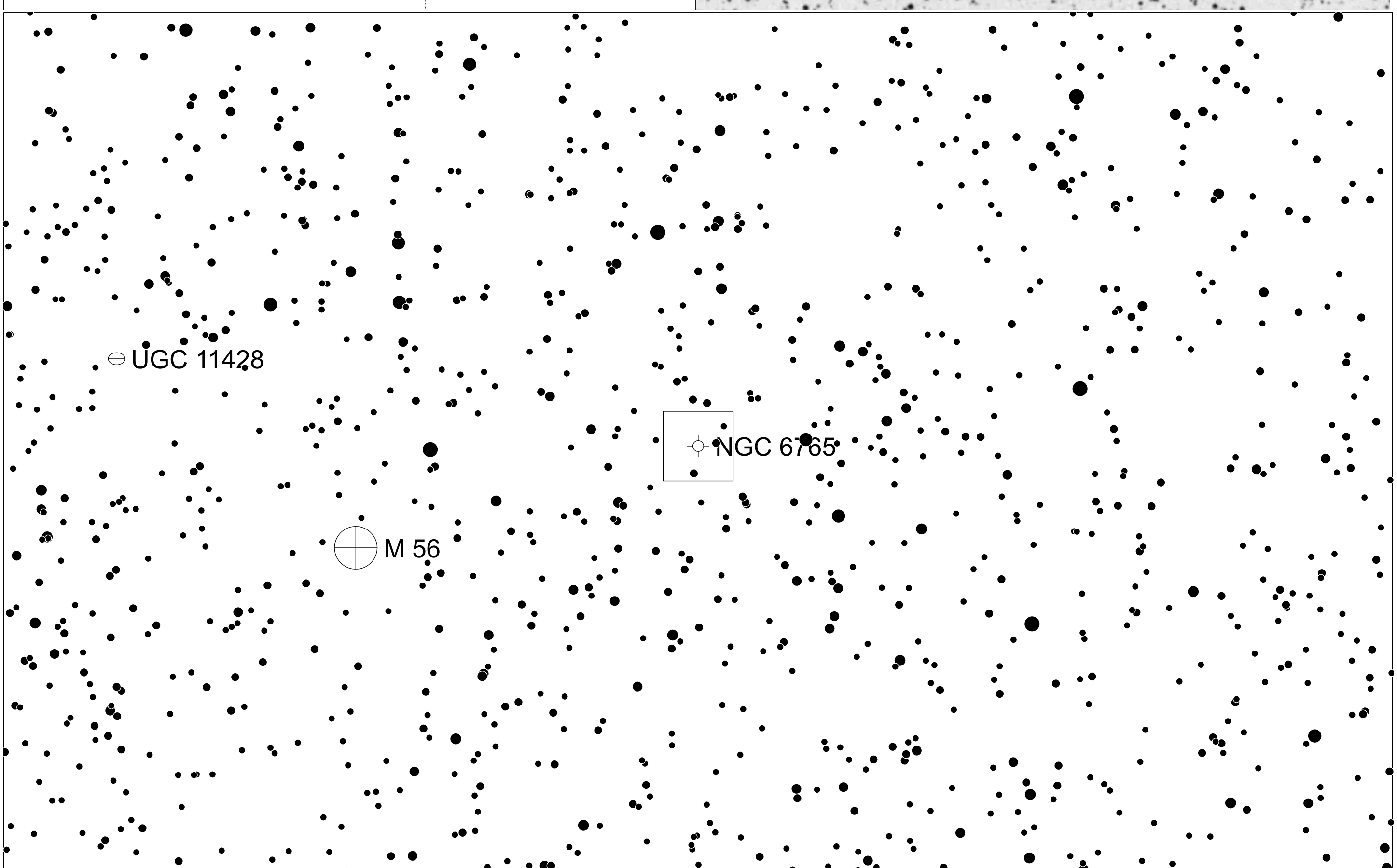


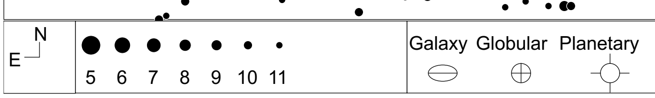
Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 64+15.1	4	18 50 02.3	+35 14 33	13.3v	-	24”

NGC 6765 (Lyra)



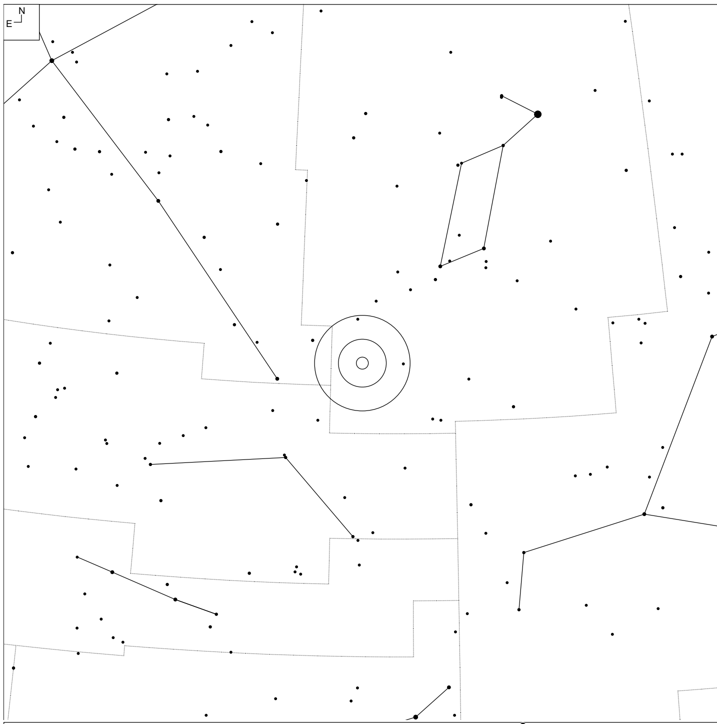


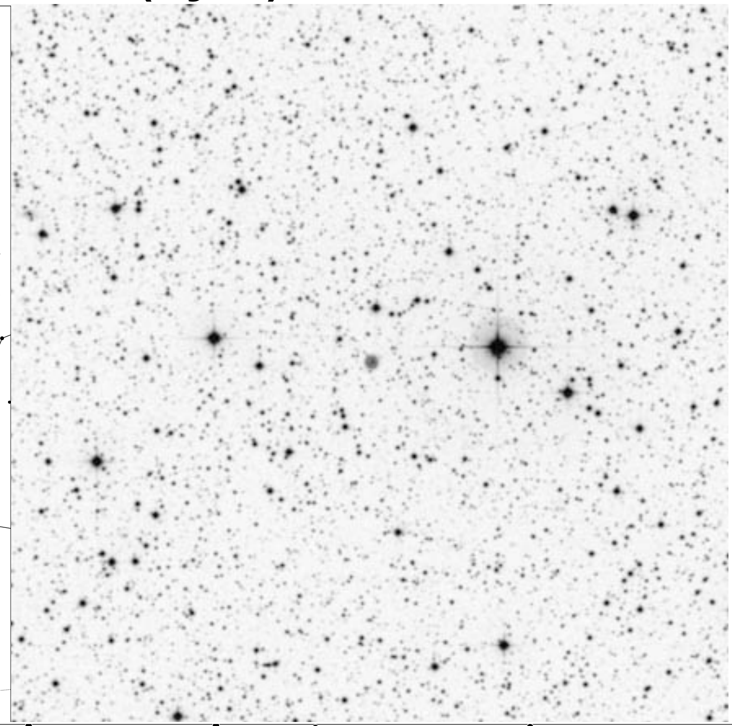


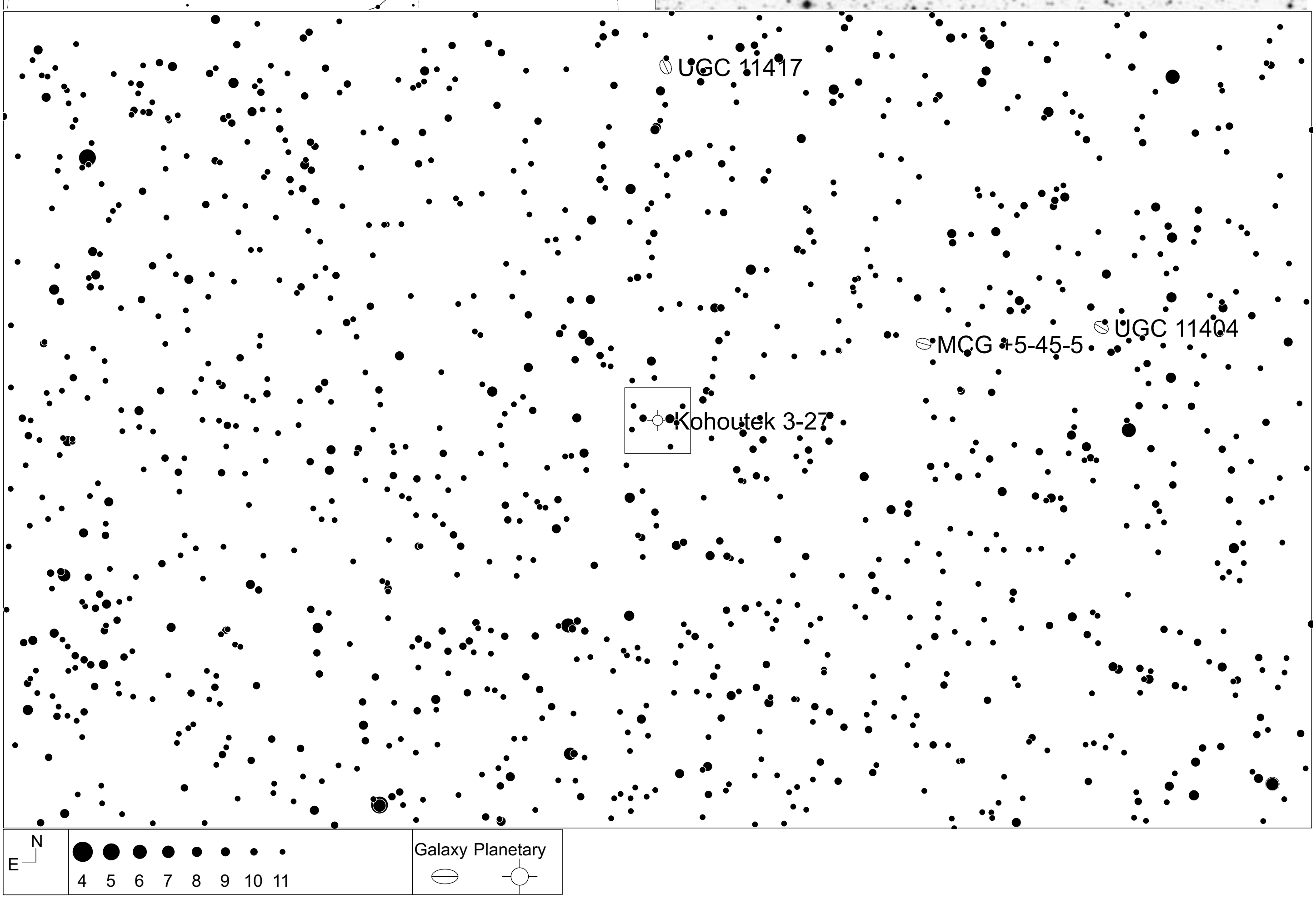


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 62+9.1	5	19 11 06.8	+30 32 39	12.9v	16.0	40”

Kohoutek 3-27 (Lyra)

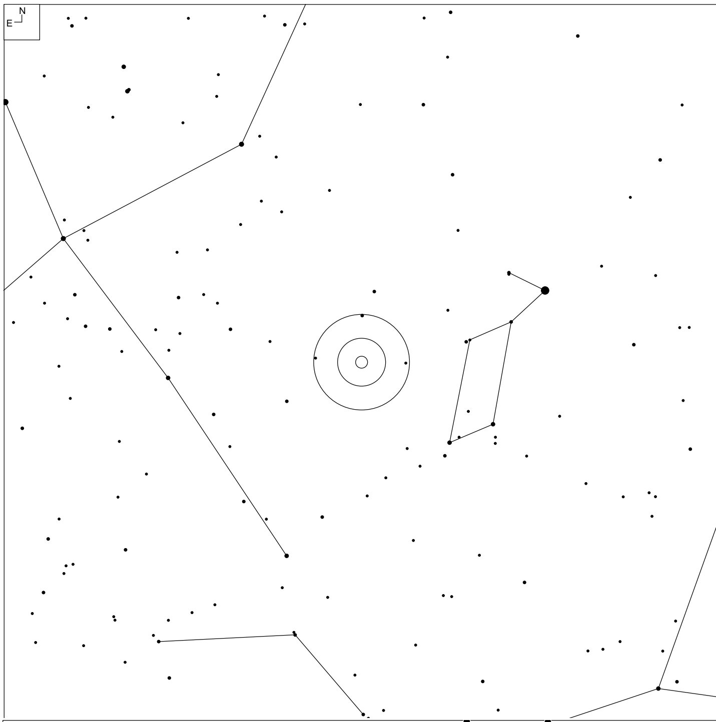


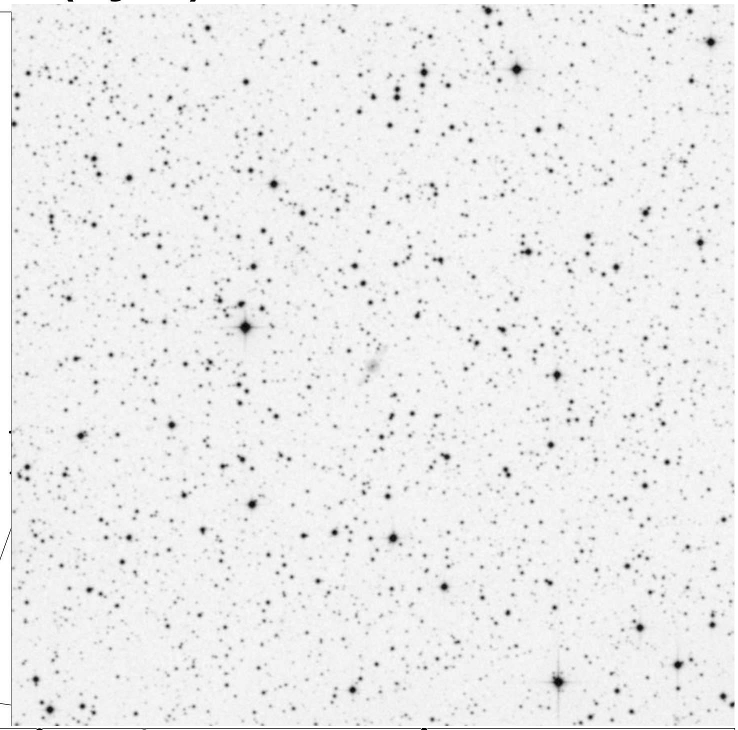


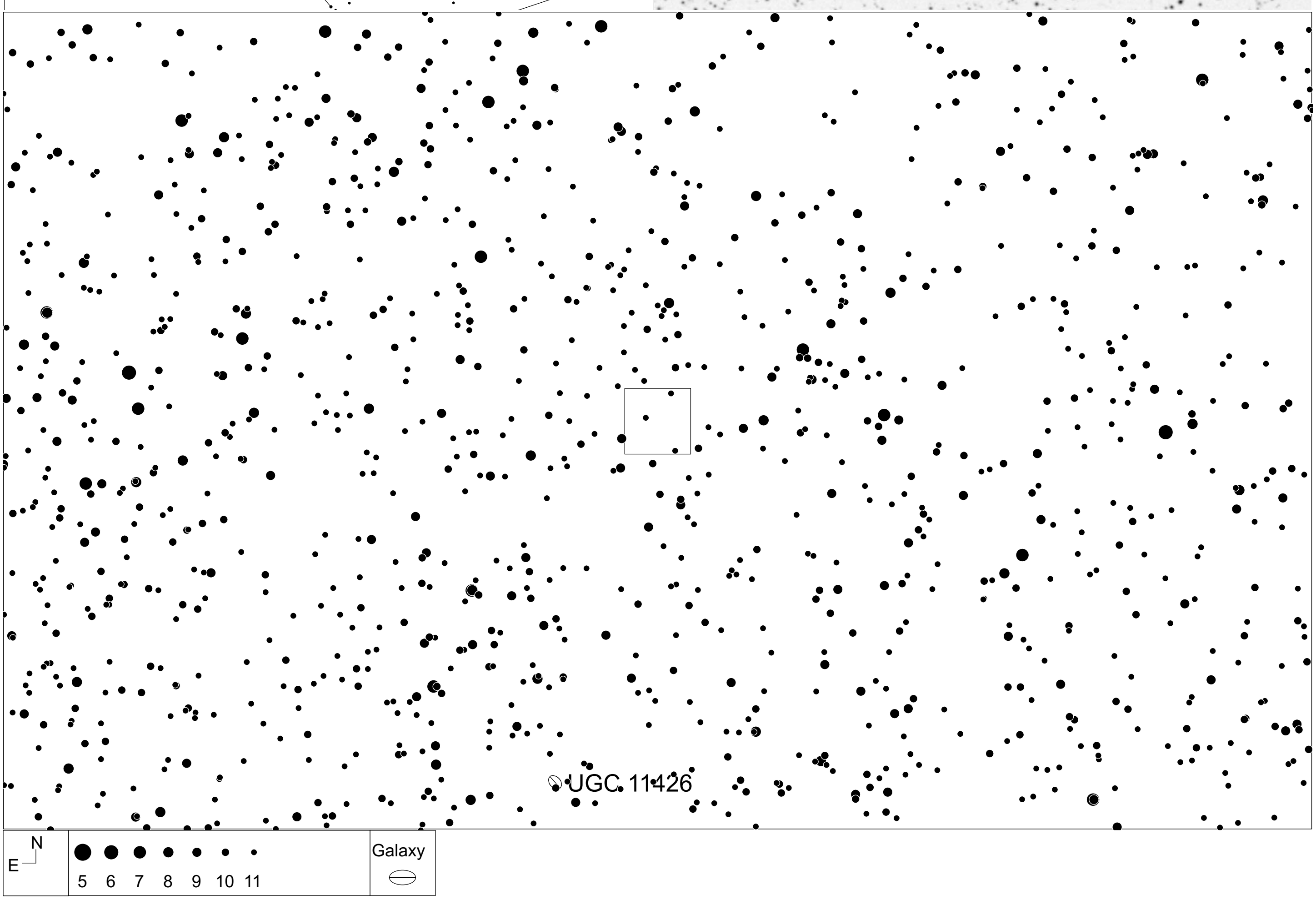


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 61+8.1	-	19 14 30.2	+28 40 43	14.9p	17.2	16”

Ethos 1 (Lyra)

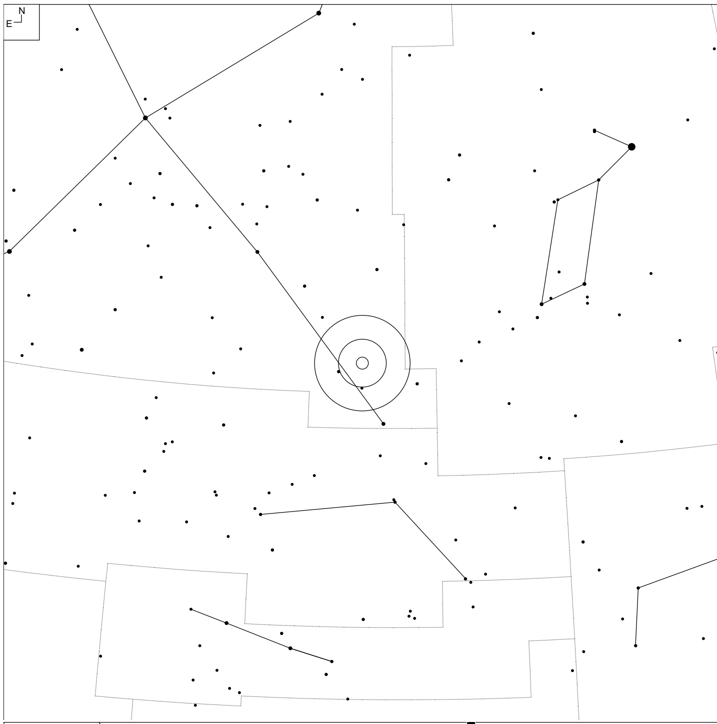


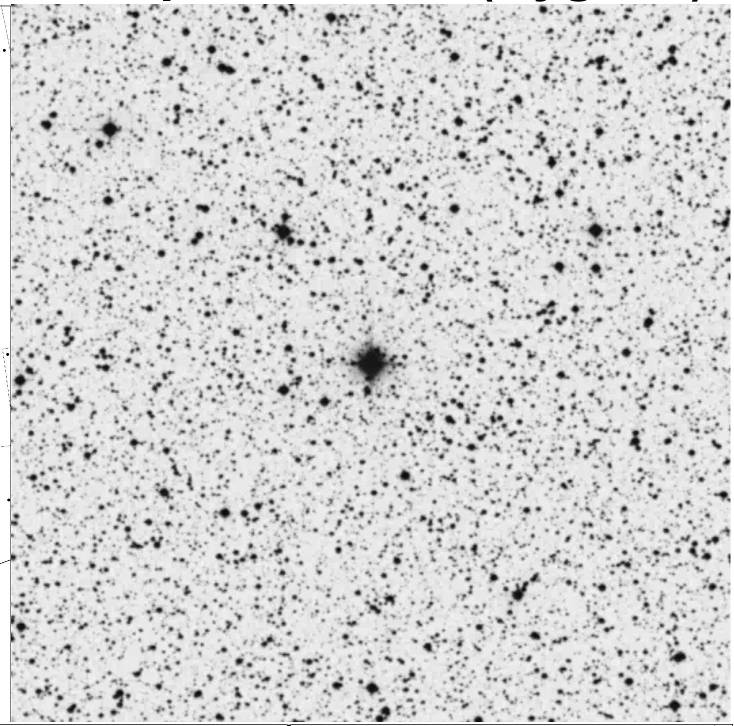


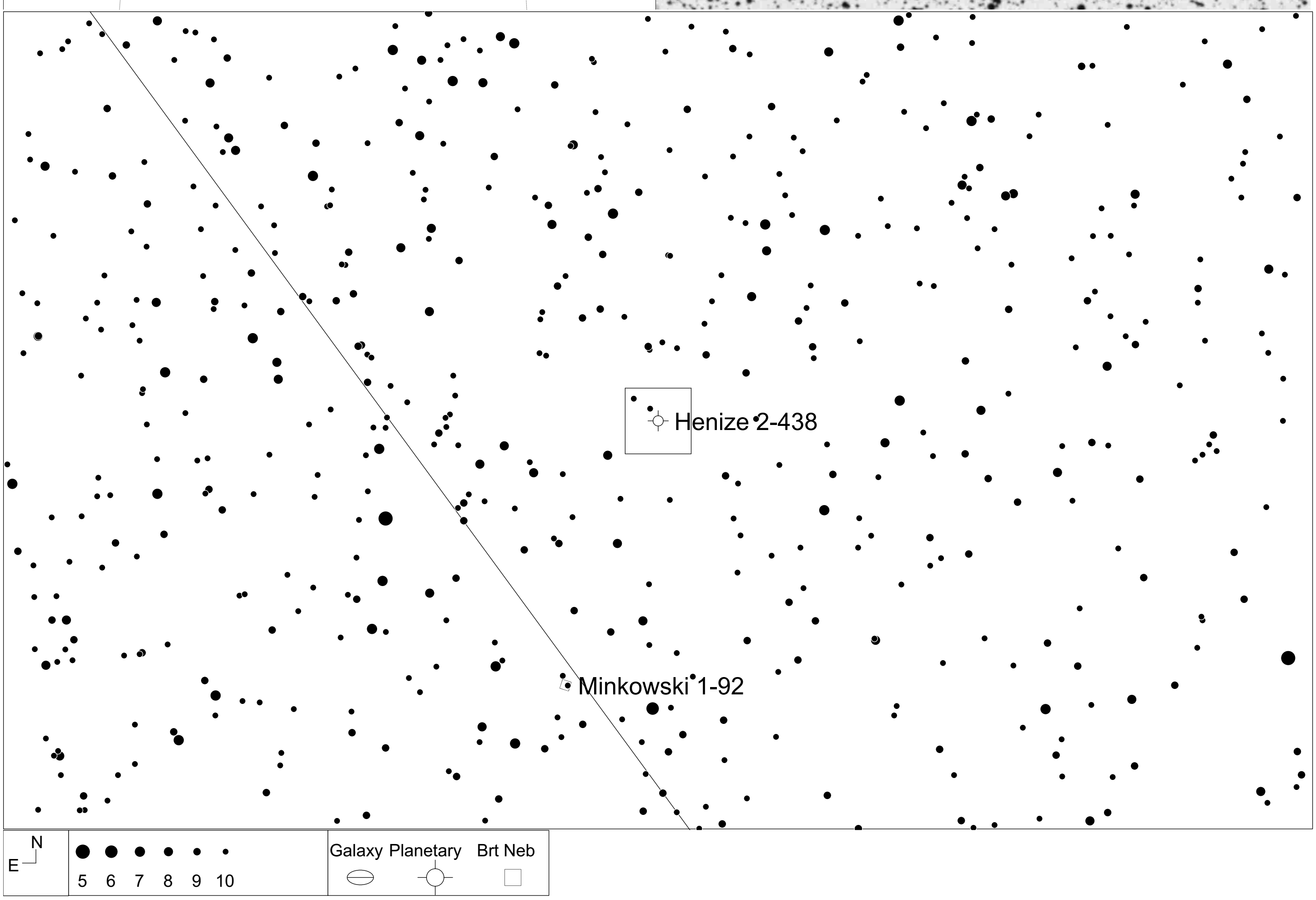


Other ID	Type	RA	Dec	Mag	* Mag	Size
IRAS F19147+3604	-	19 16 31.5	+36 09 48	-	~17.6	60 x 20”

Henize 2-438 = BD +30 3639 Campbell's Star (Cygnus)

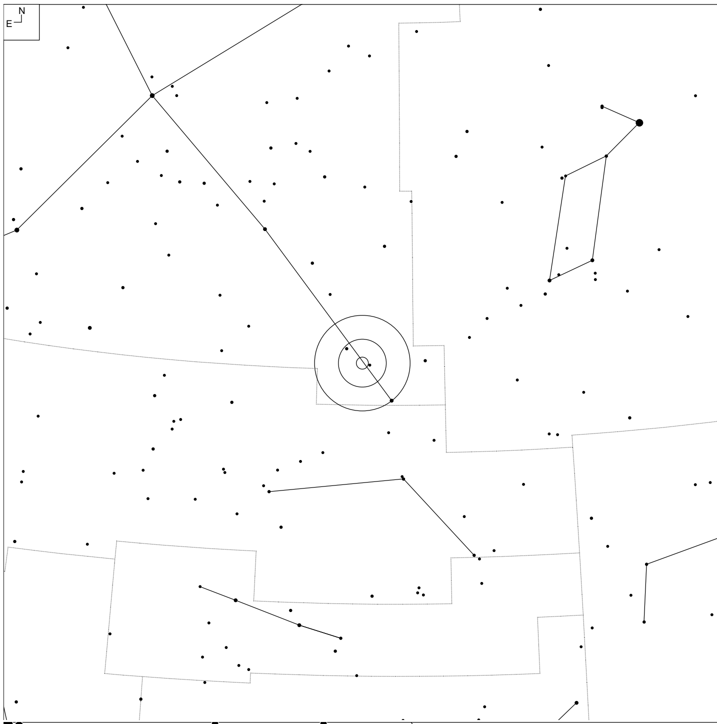


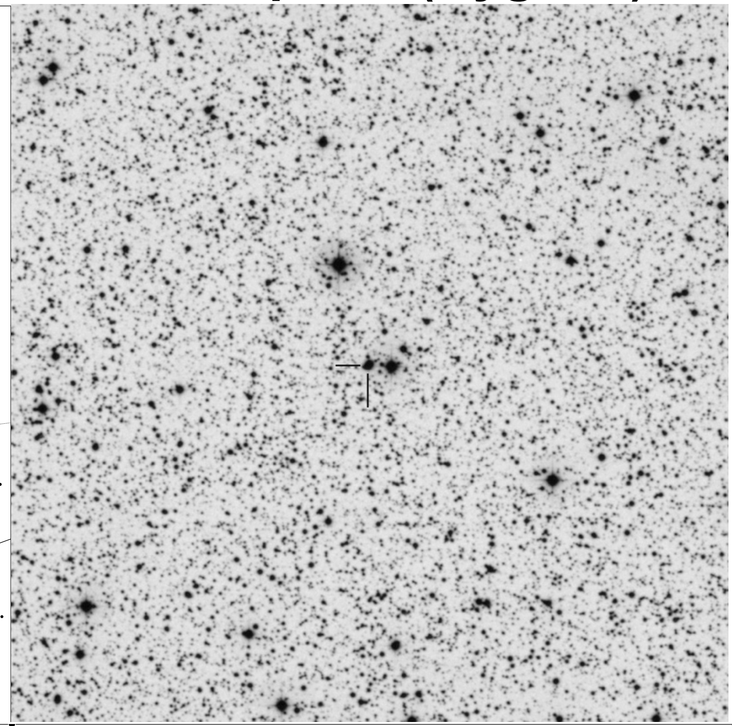


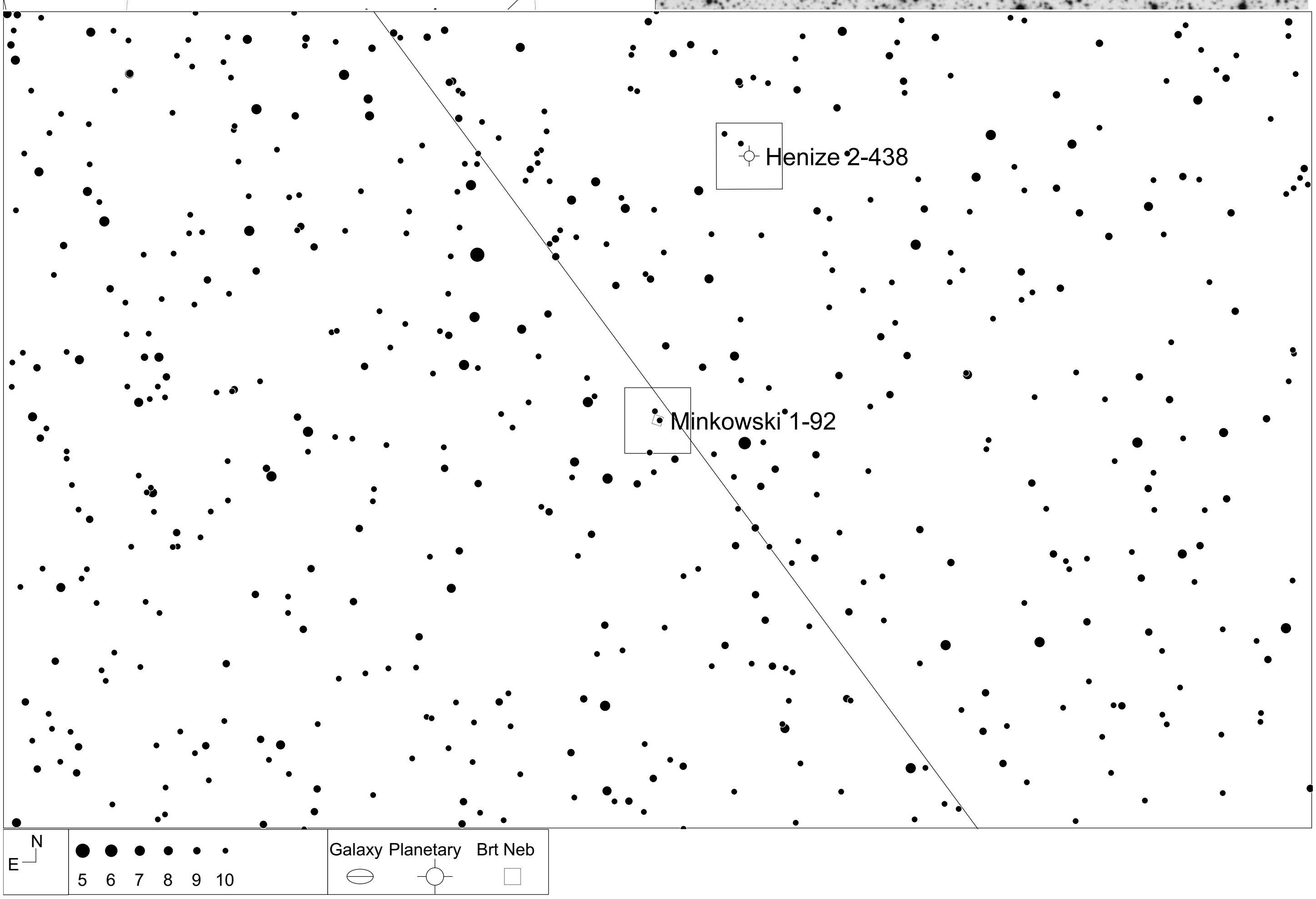


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 64+5.1	4	19 34 45.2	+30 31 01	11.3v	10.0	3"

Minkowski 1-92 – Minkowski's Footprint (Cygnus)

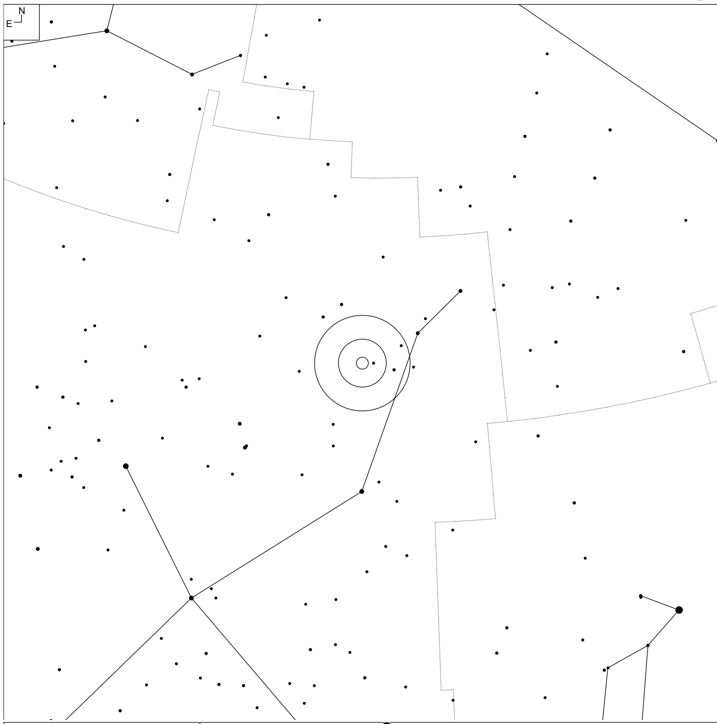


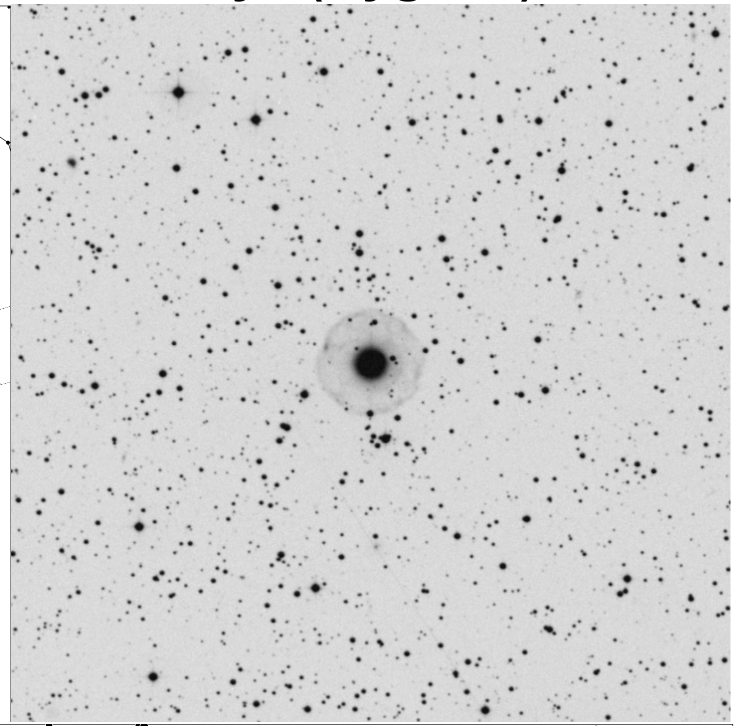


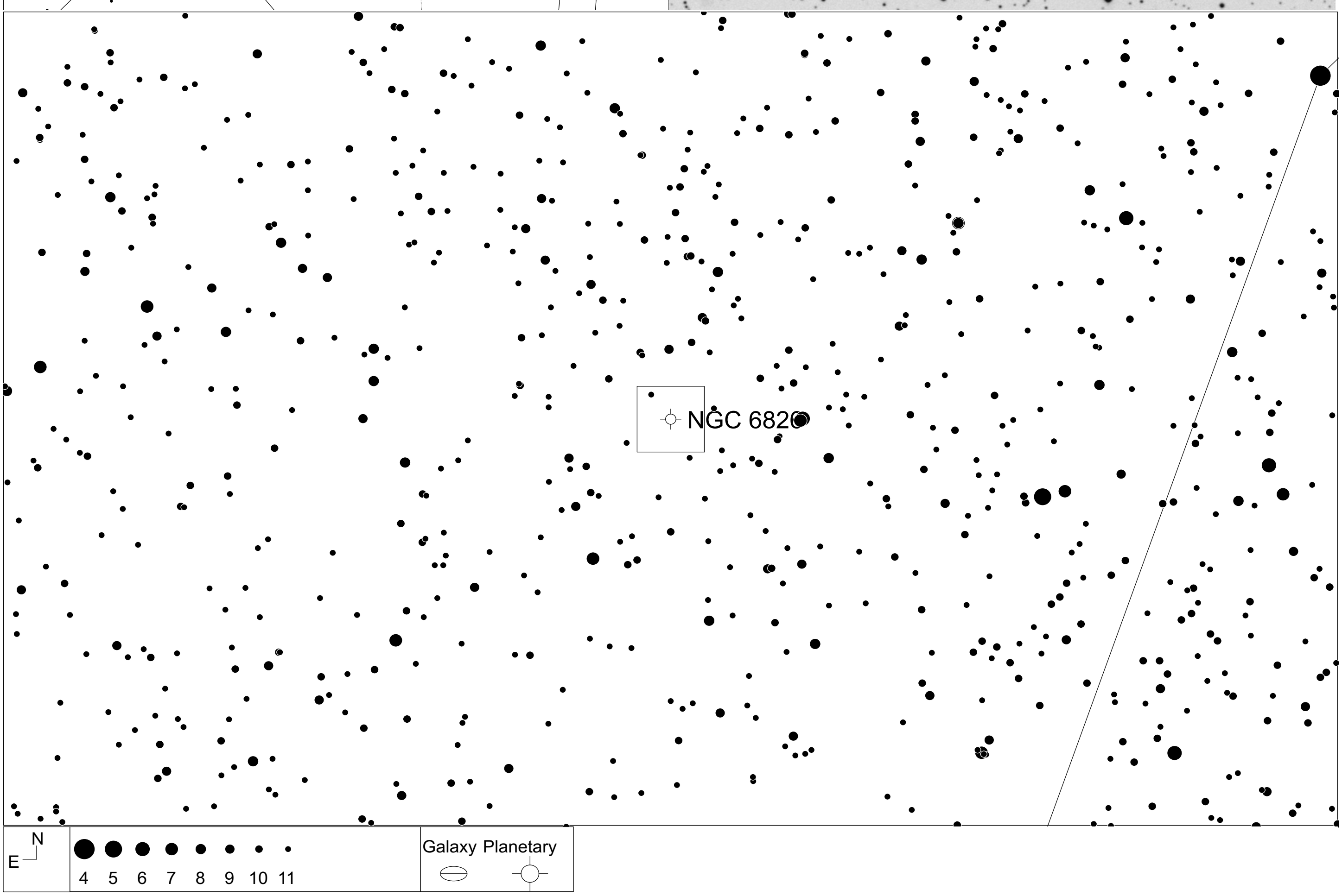


Other ID	Type	RA	Dec	Mag	* Mag	Size
-	-	19 36 18.9	+29 32 51	11.7v	-	20 x 4”

NGC 6826 – Blinking Planetary (Cygnus)



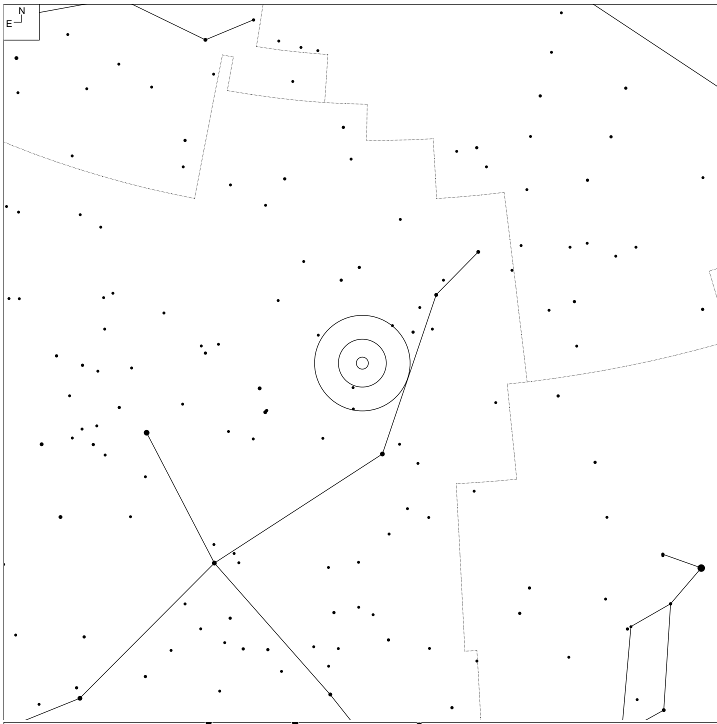


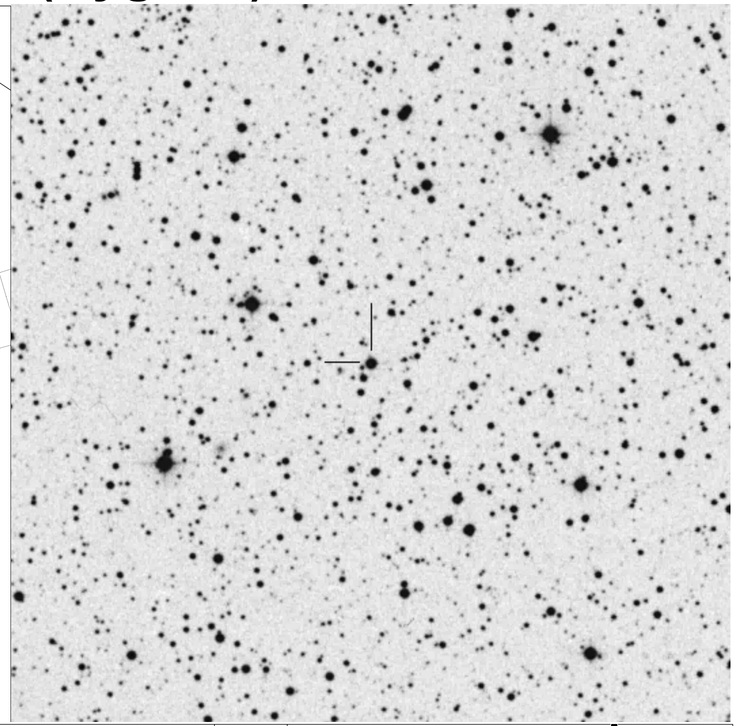


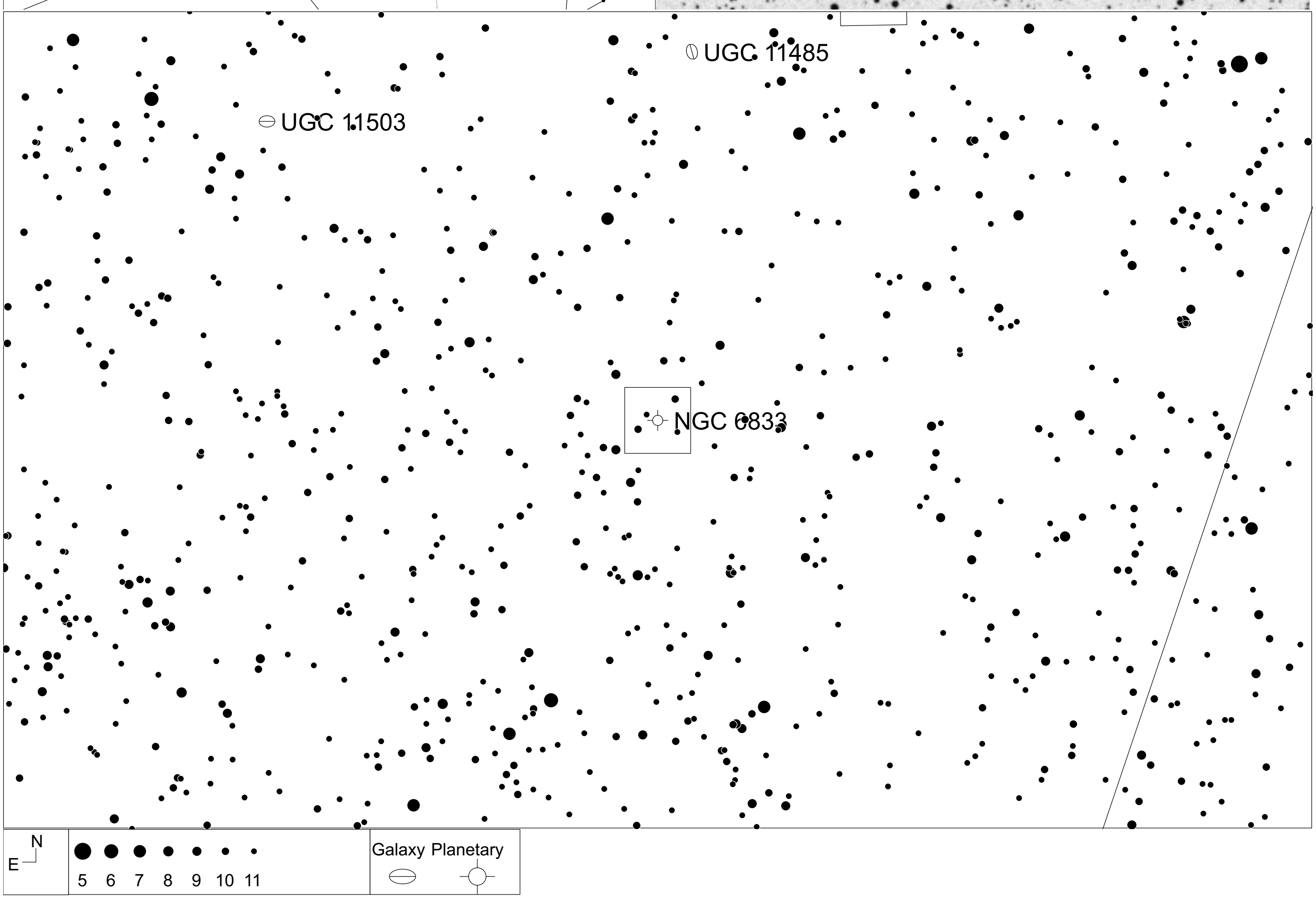
Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 83+12.1	3a+2	19 44 48.2	+50 31 31	8.8v	10.4	38”

Extension has slight variations of brightness. More prominent on east side.

NGC 6833 (Cygnus)

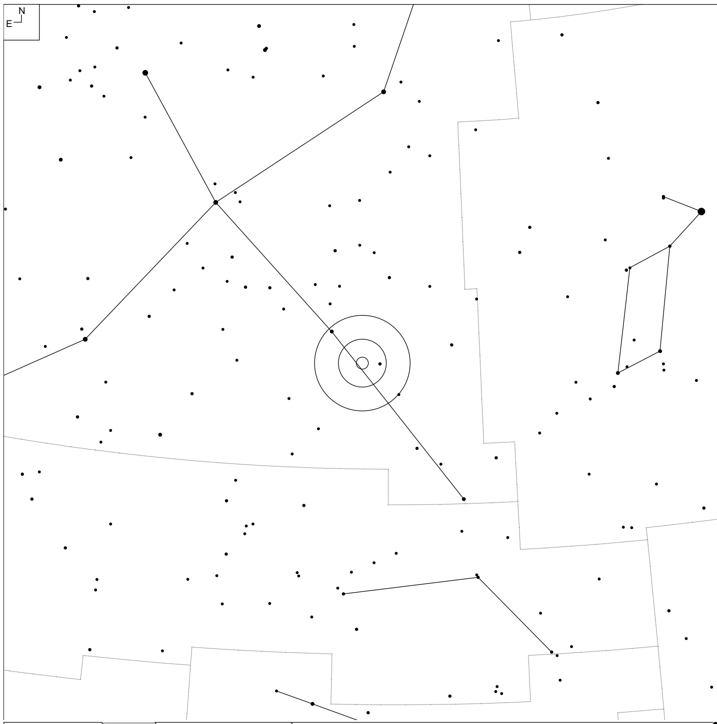


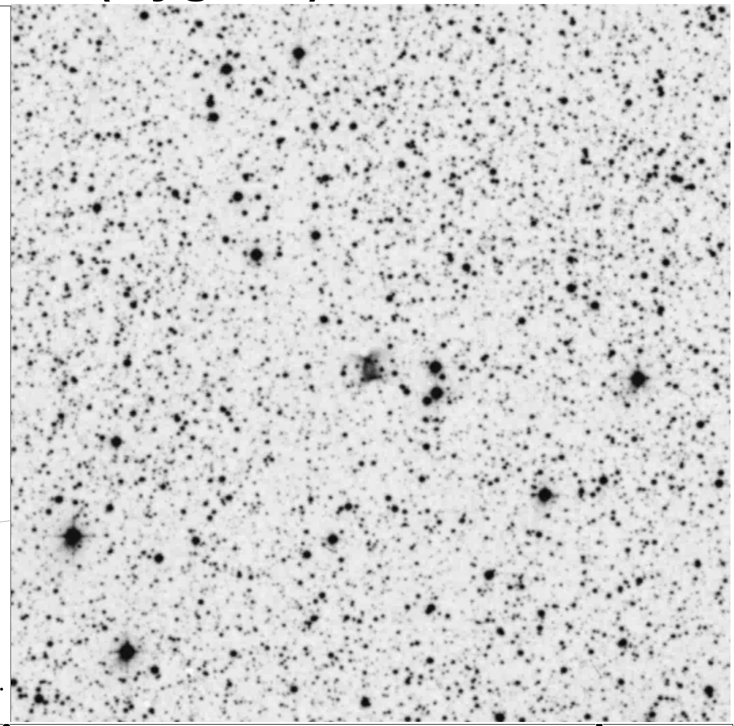


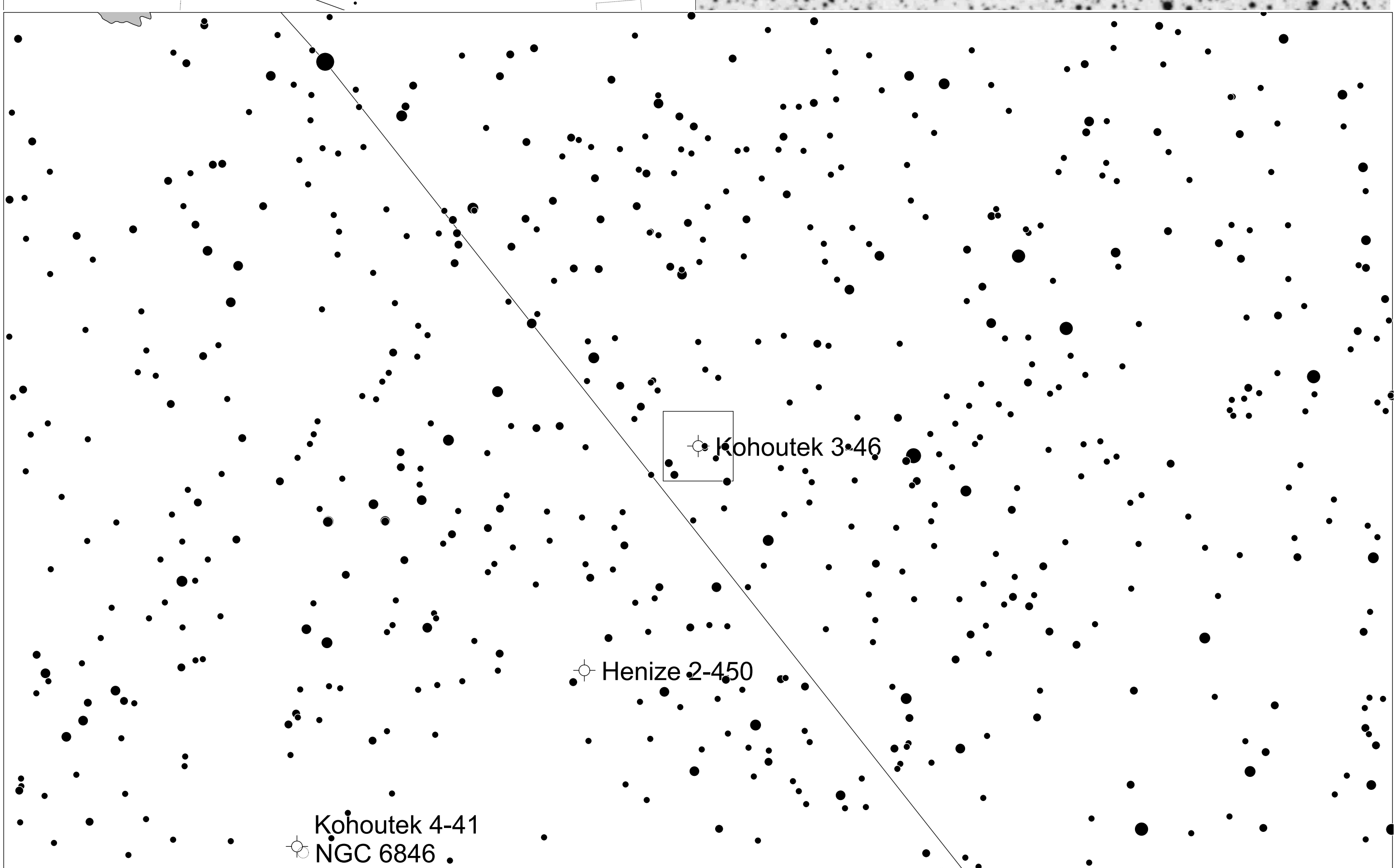


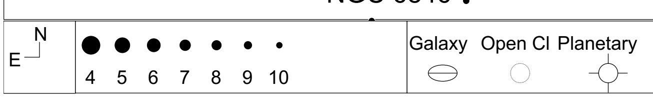
Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 82+11.1	2	19 49 46.7	+48 57 38	12.1v	14.8	2”

Kohoutek 3-46 (Cygnus)



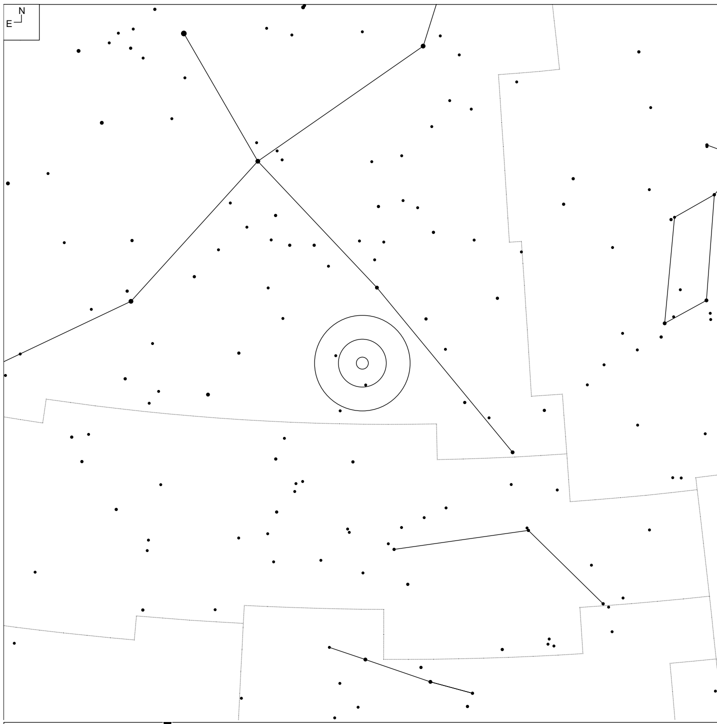


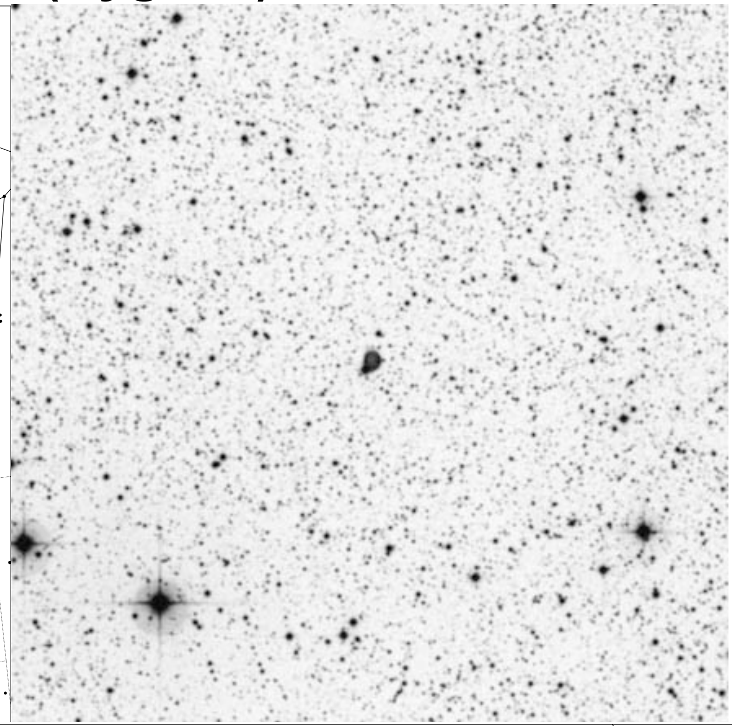


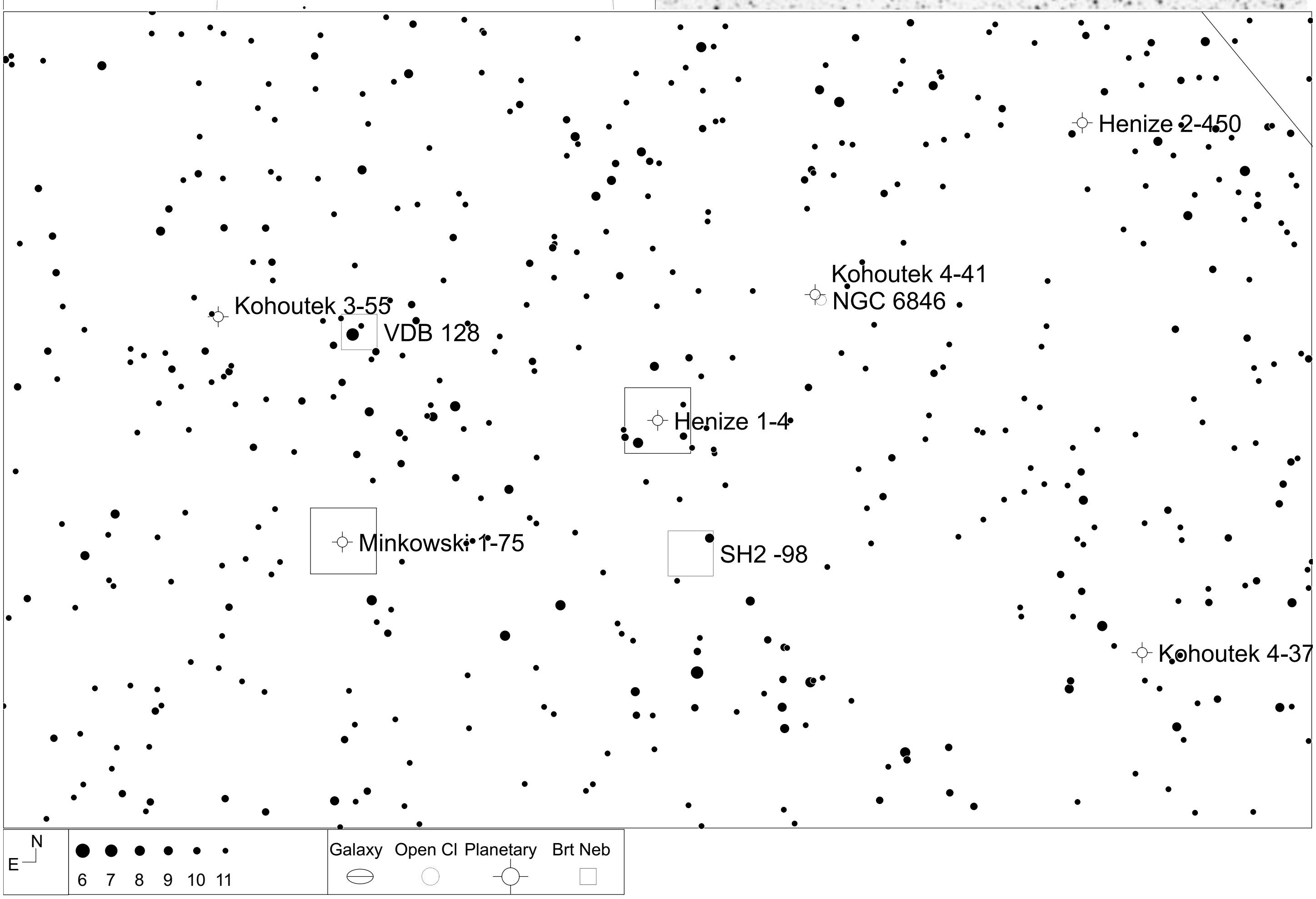


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 69+3.1	3b+6	19 50 00.3	+33 45 53	16.4p	14.8	32x17”

Henize 1-4 (Cygnus)

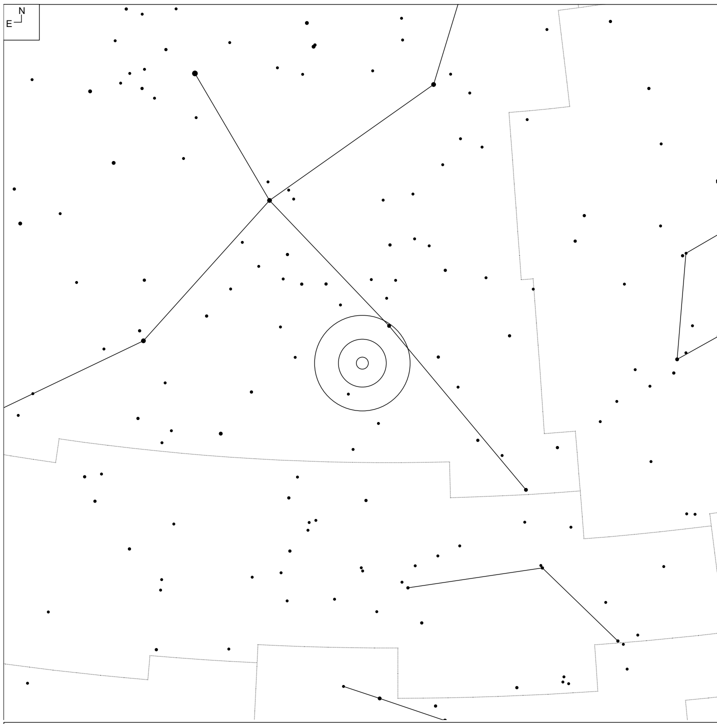


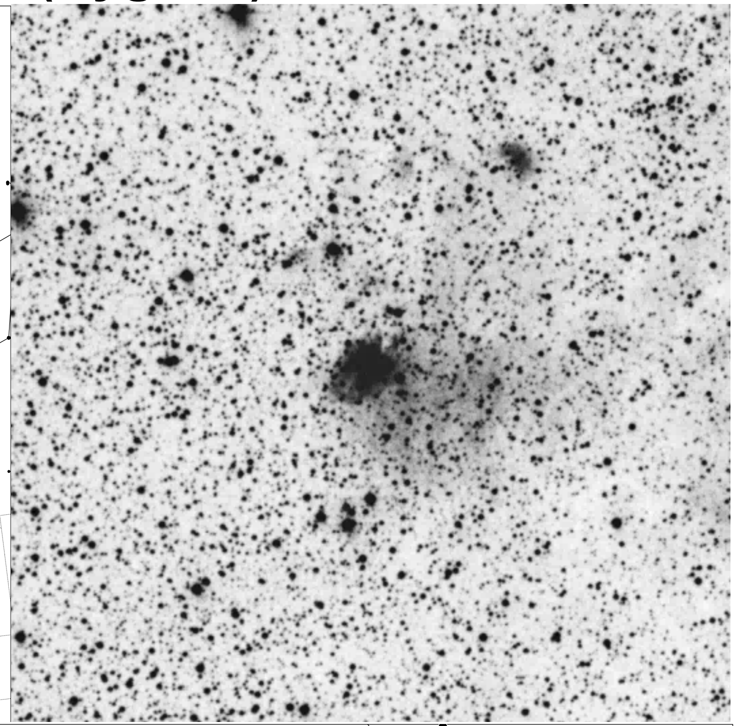


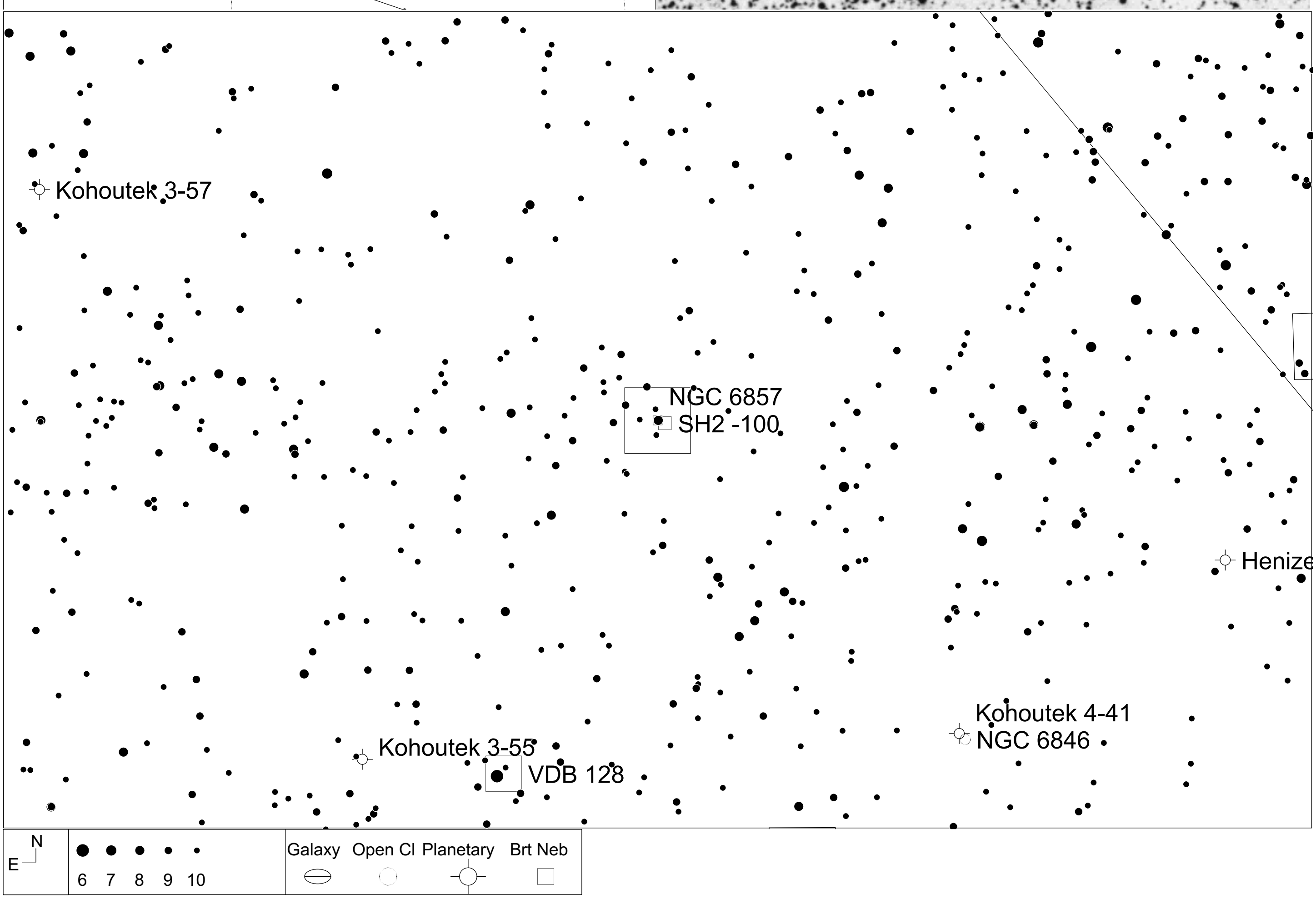


Other ID	Type	RA	Dec	Mag	* Mag	Size
Henize 2-453	3b	19 59 18.5	+31 54 34	14.1	21.1	22”

NGC 6857 (Cygnus)

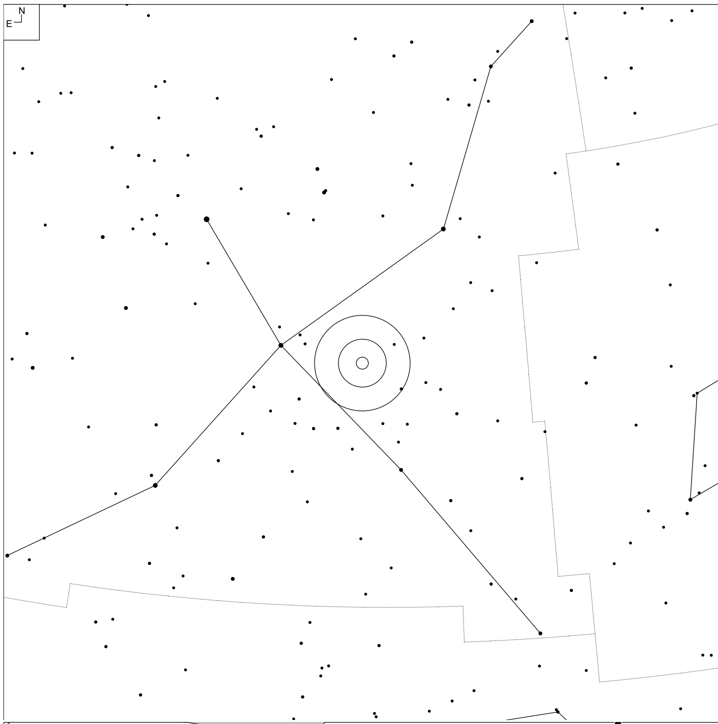


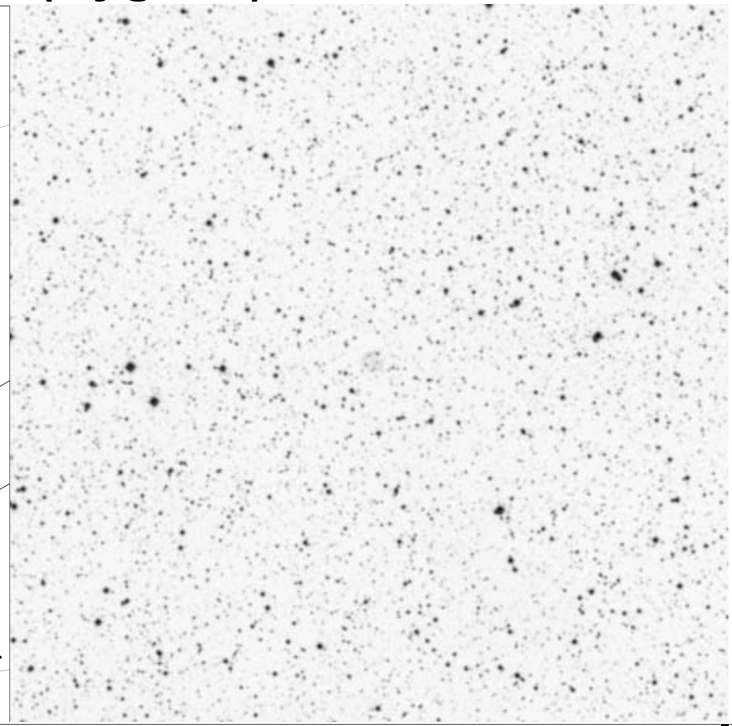


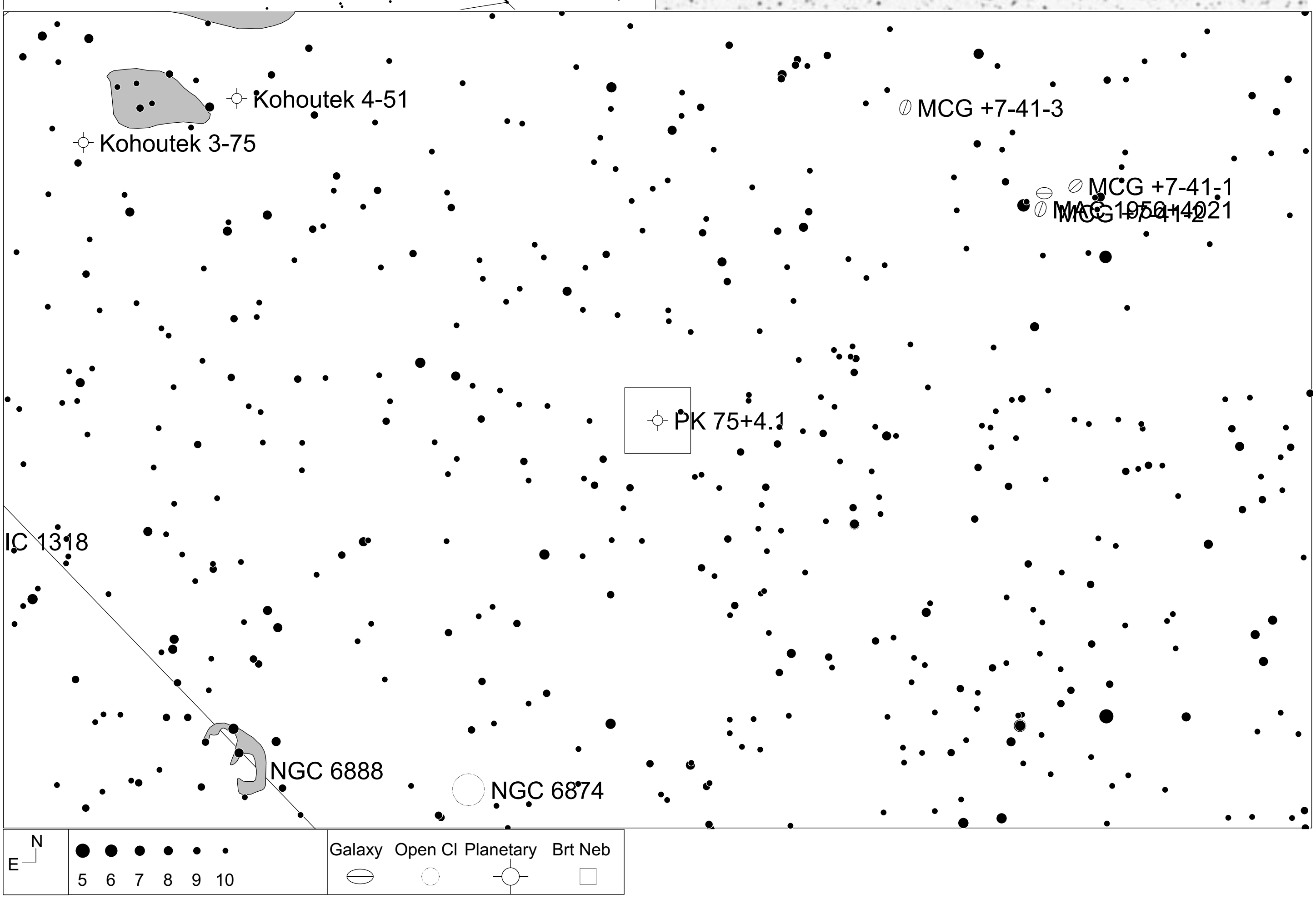


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 70+1.2	?	20 01 48.7	+33 31 32	11.4p	13.3	40”

PK 75+4.1 (Cygnus)

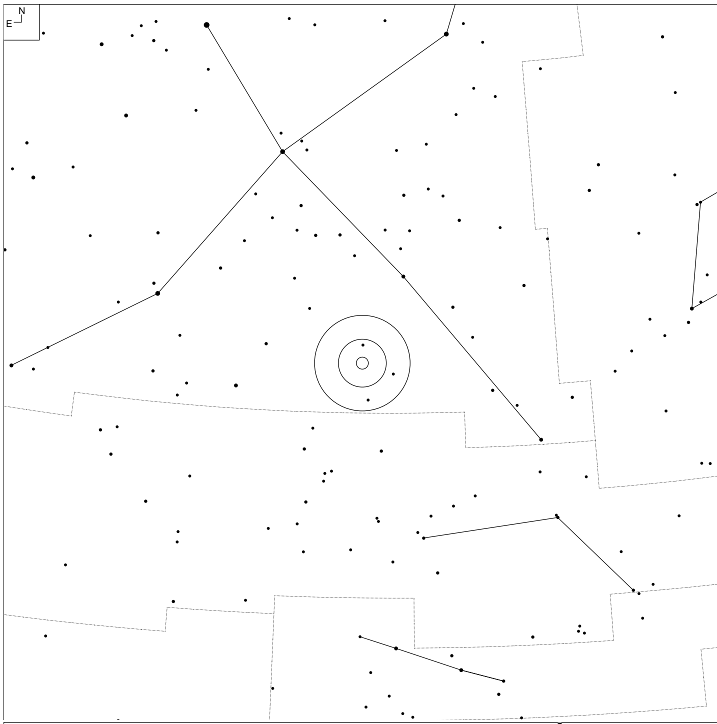


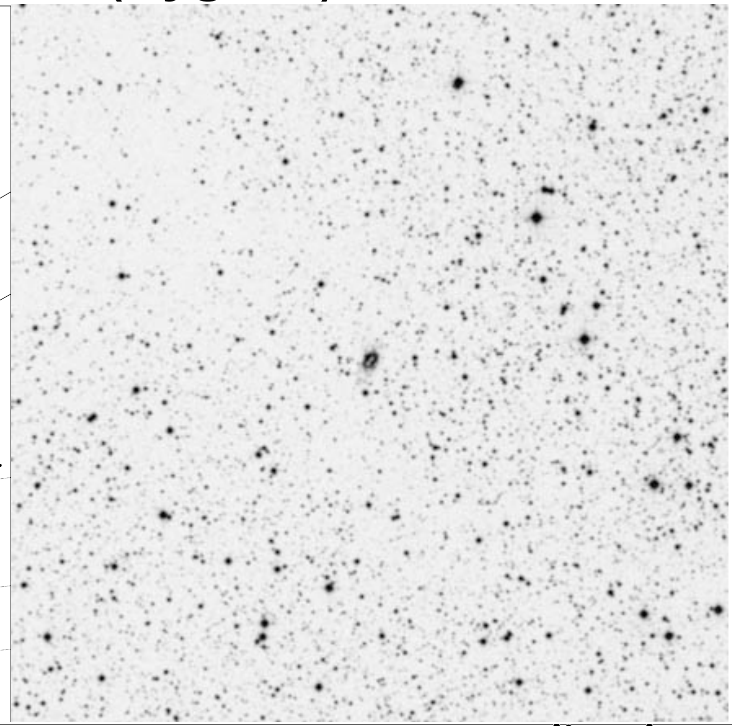


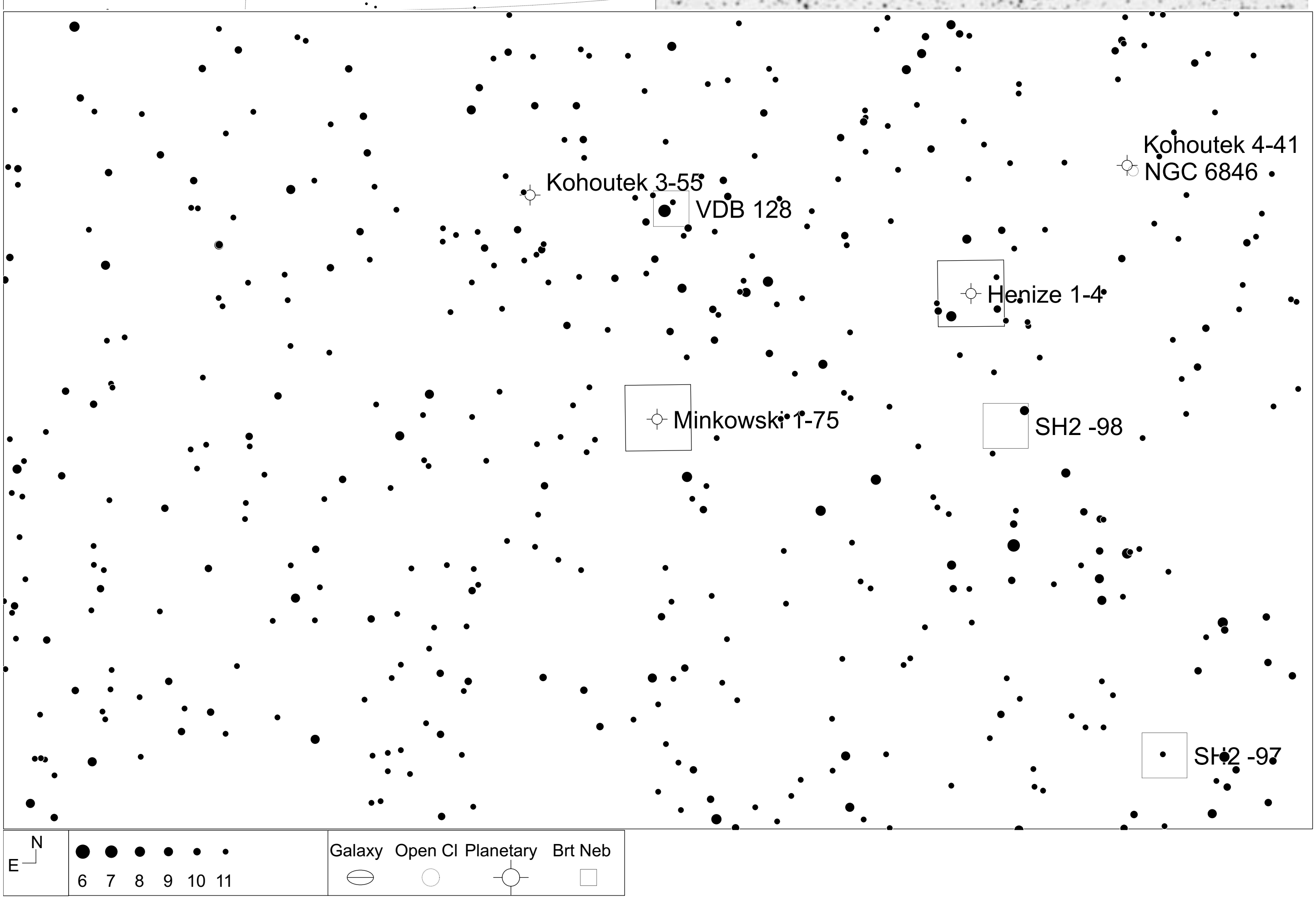


Other ID	Type	RA	Dec	Mag	* Mag	Size
-	3b	20 04 16.4	+39 35 30	16.0	-	28”

Minkowski 1-75 (Cygnus)

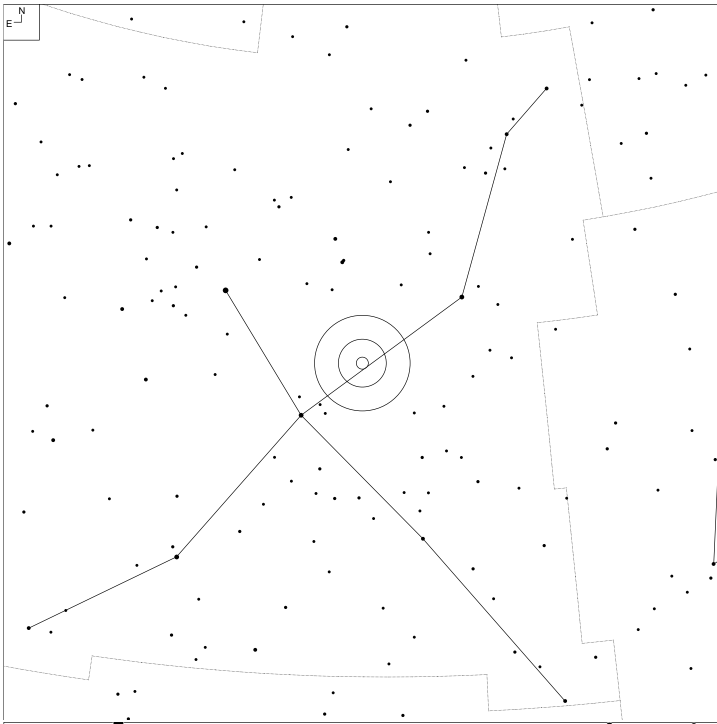


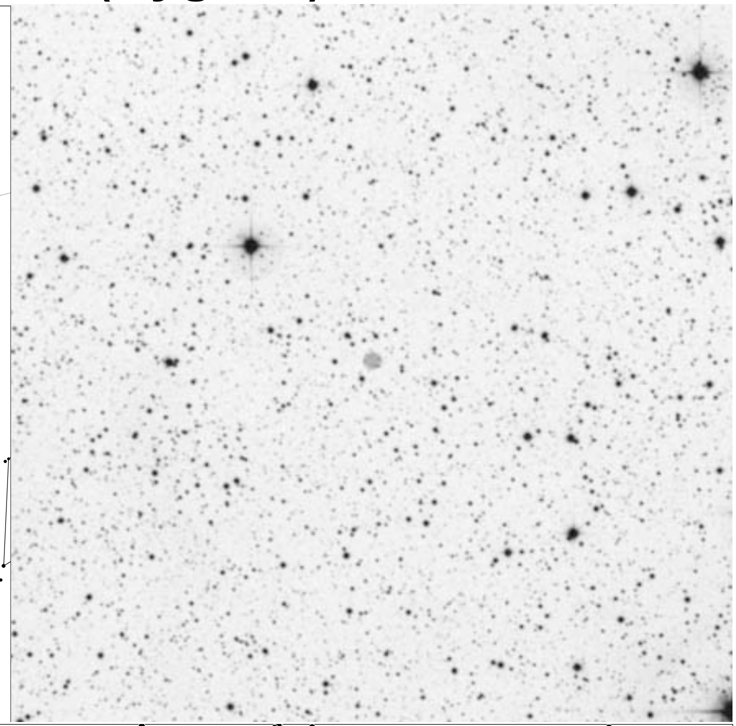


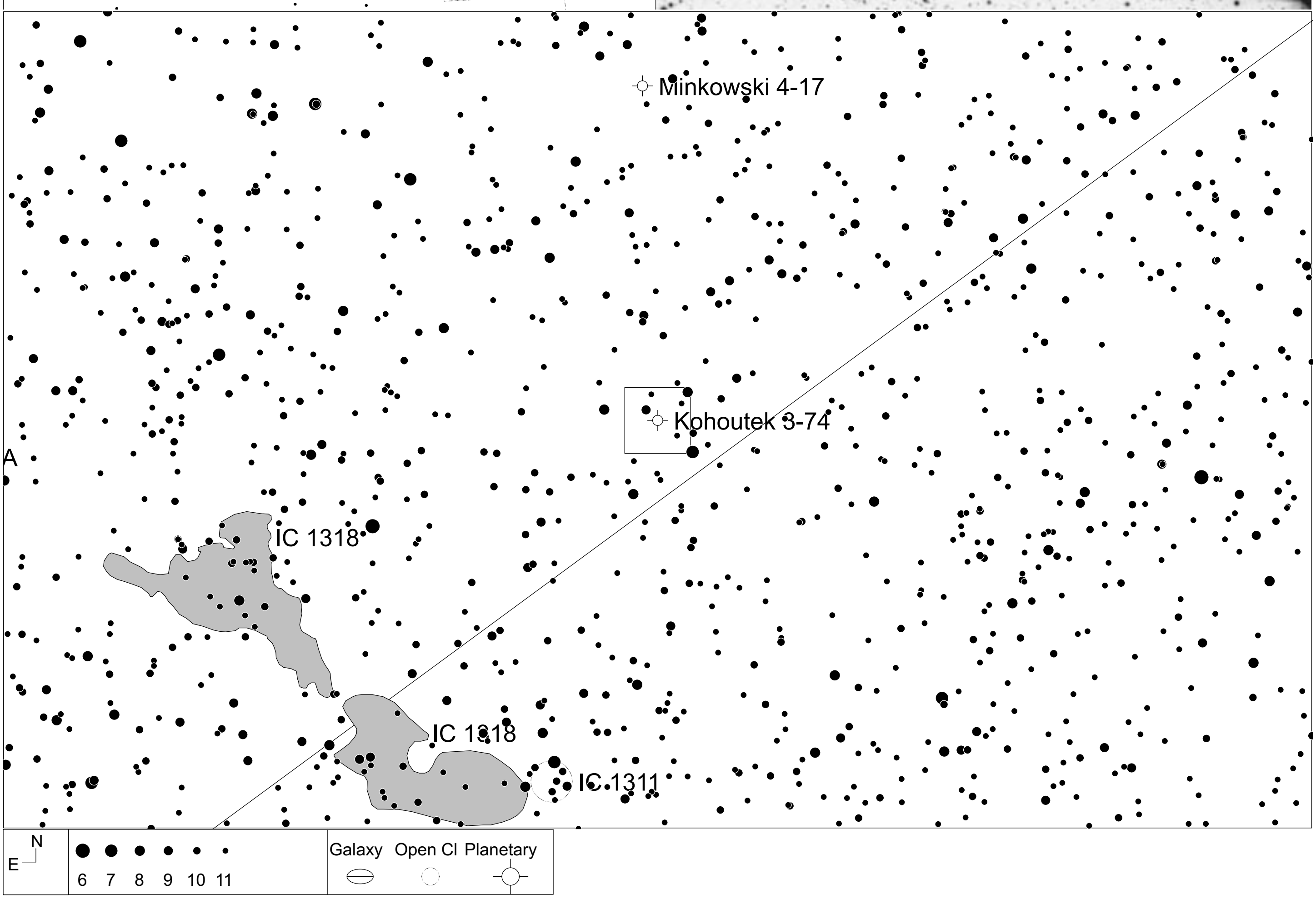


Other ID	Type	RA	Dec	Mag	* Mag	Size
Henize 2-454	3b+6	20 04 44.1	+31 27 20	16.0v	21.0	42”

Kohoutek 3-74 (Cygnus)

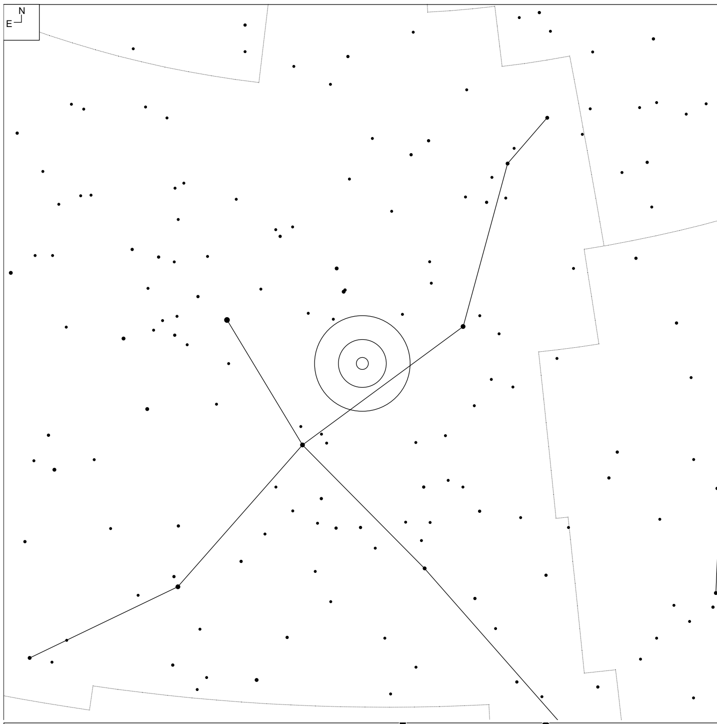


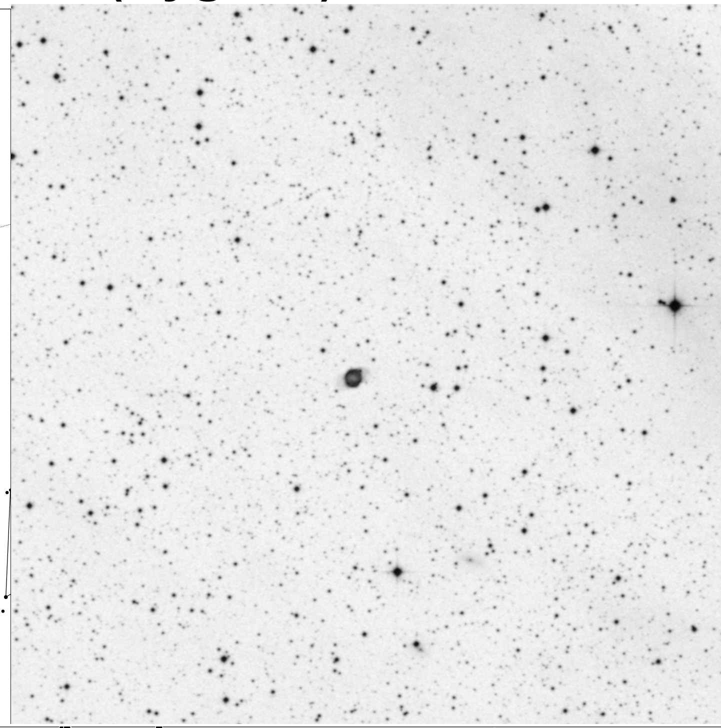


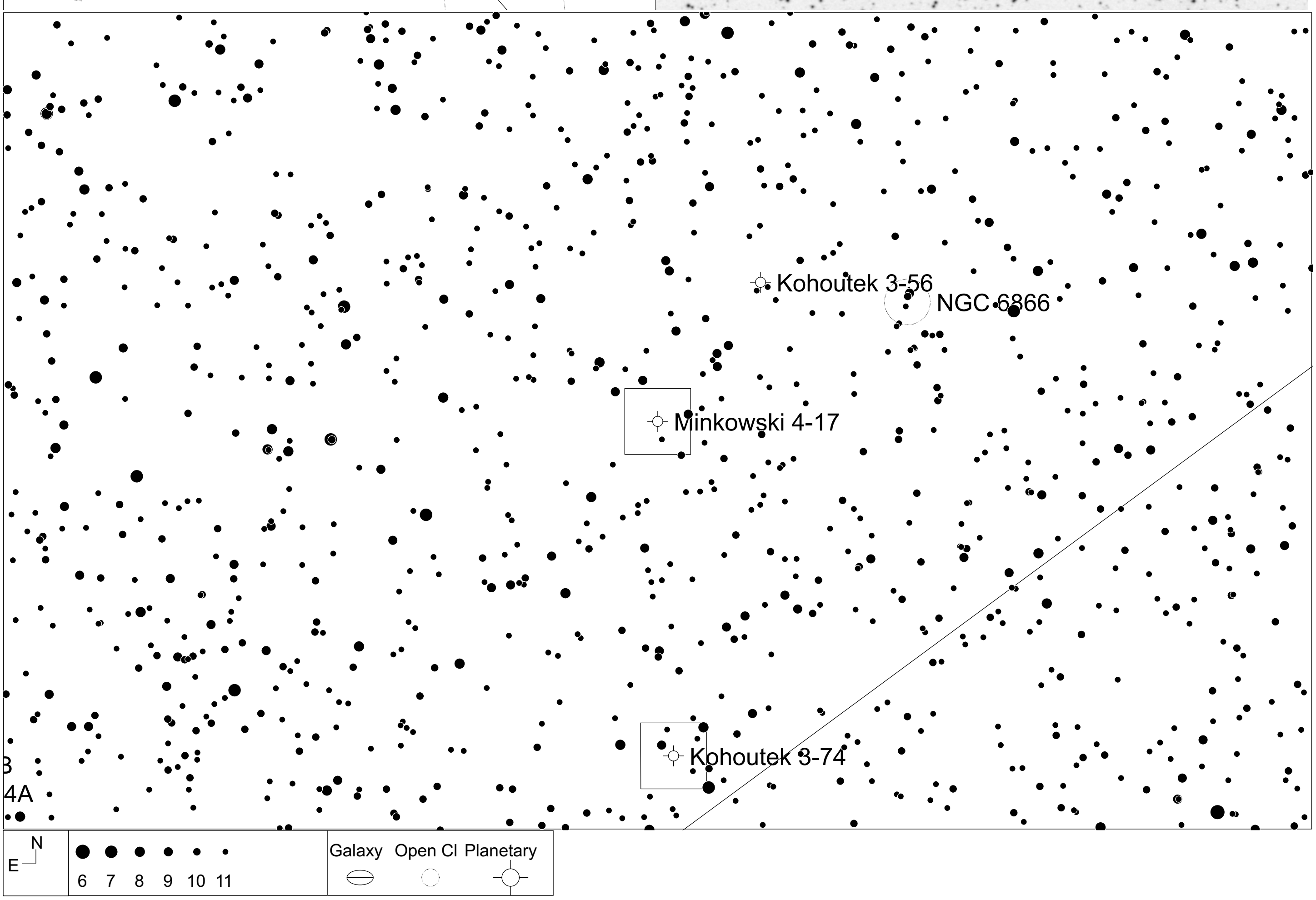


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 84+9.1	-	20 08 43.1	+42 30 05	16.1p	-	20”

Minkowski 4-17 (Cygnus)

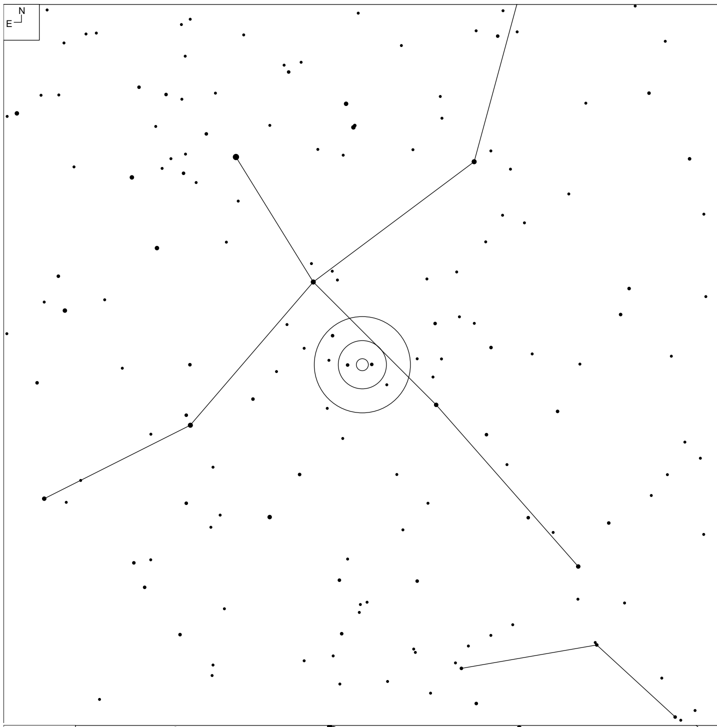


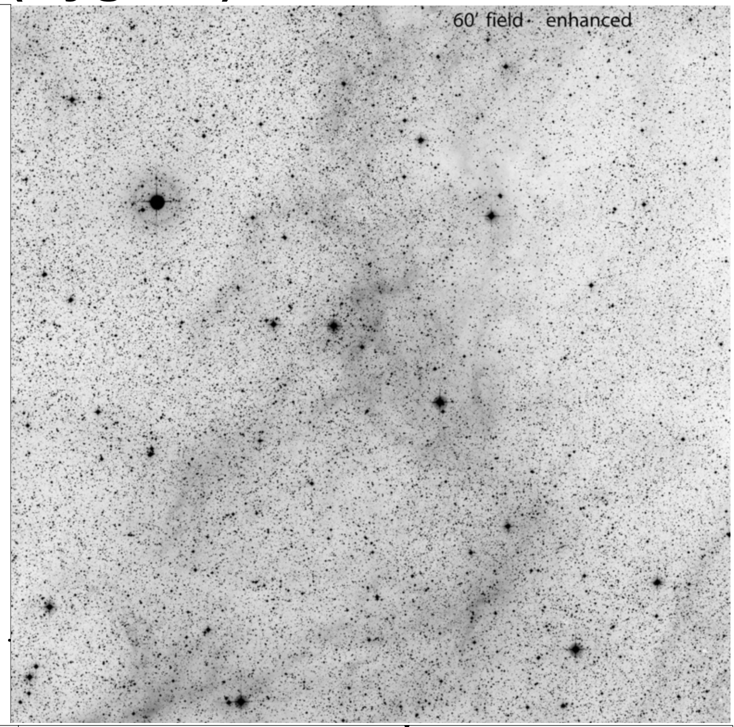


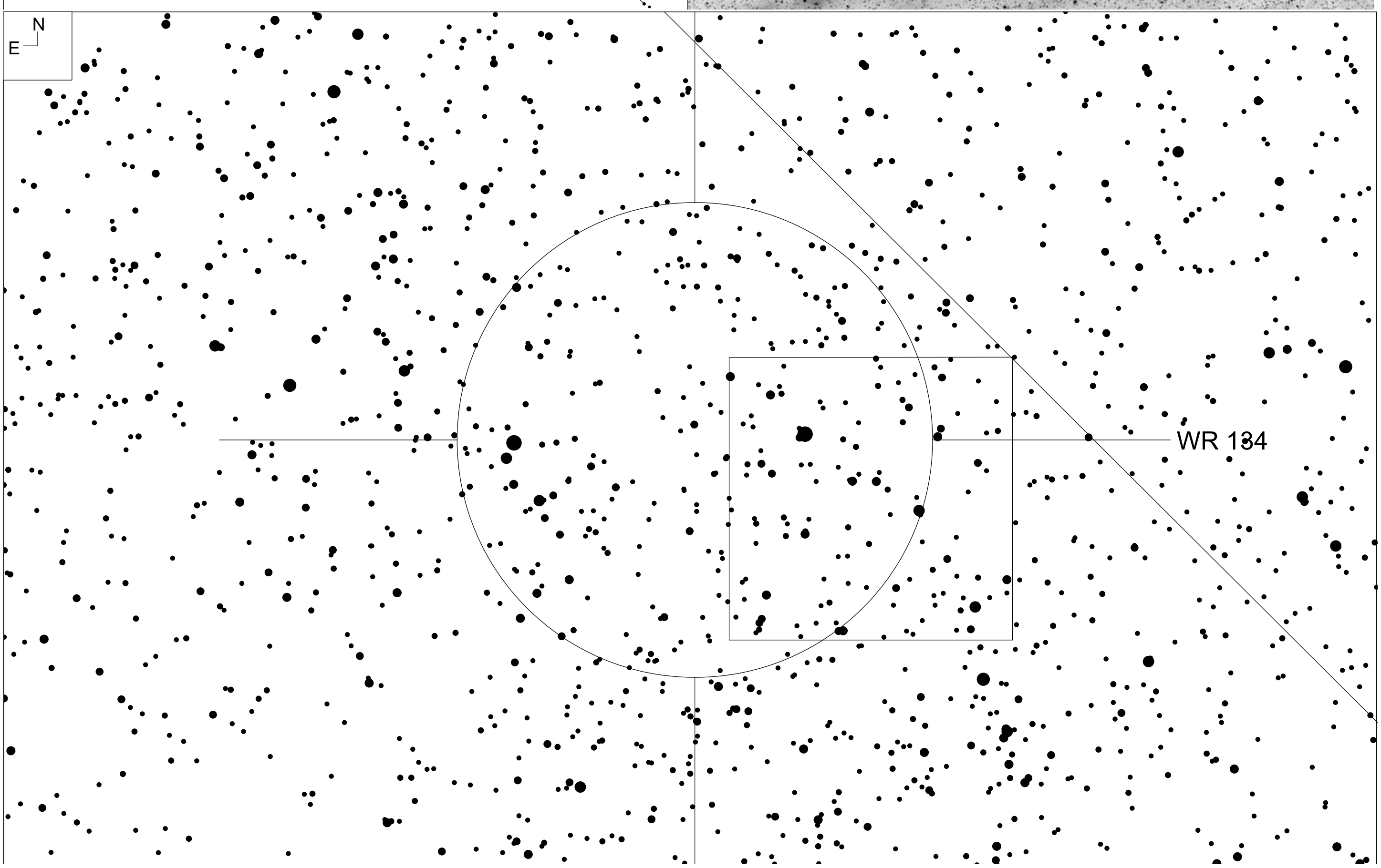


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 79+5.1	4+2	20 09 02.0	+43 43 42	13.7v	-	23x21”

WR 134 (Cygnus)



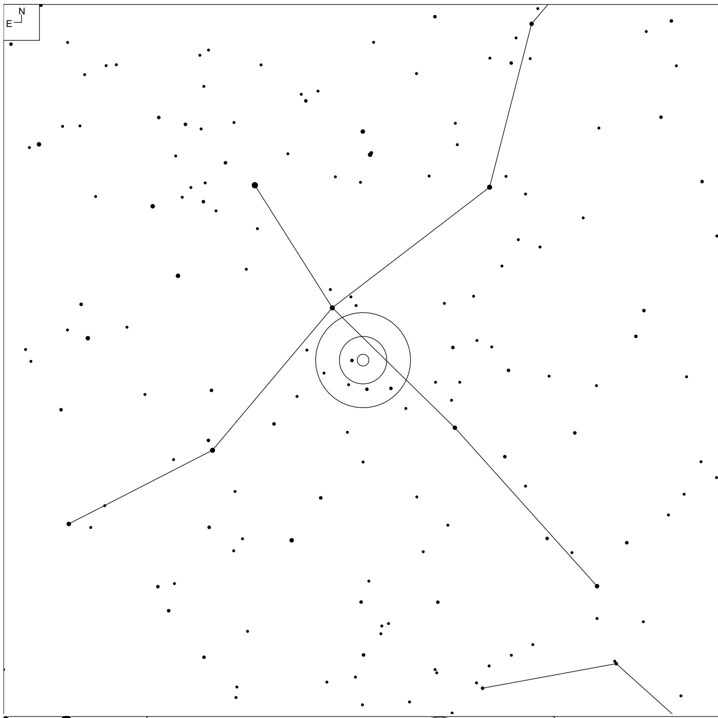


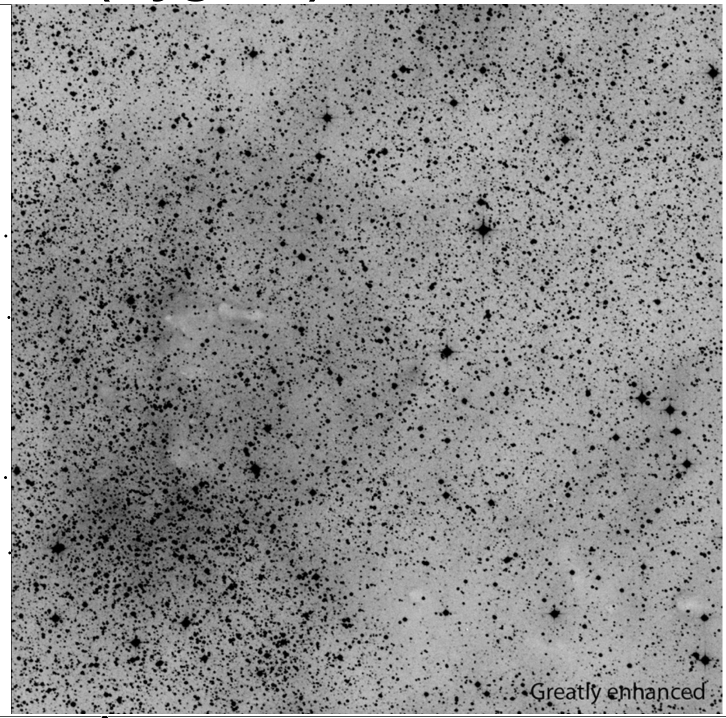


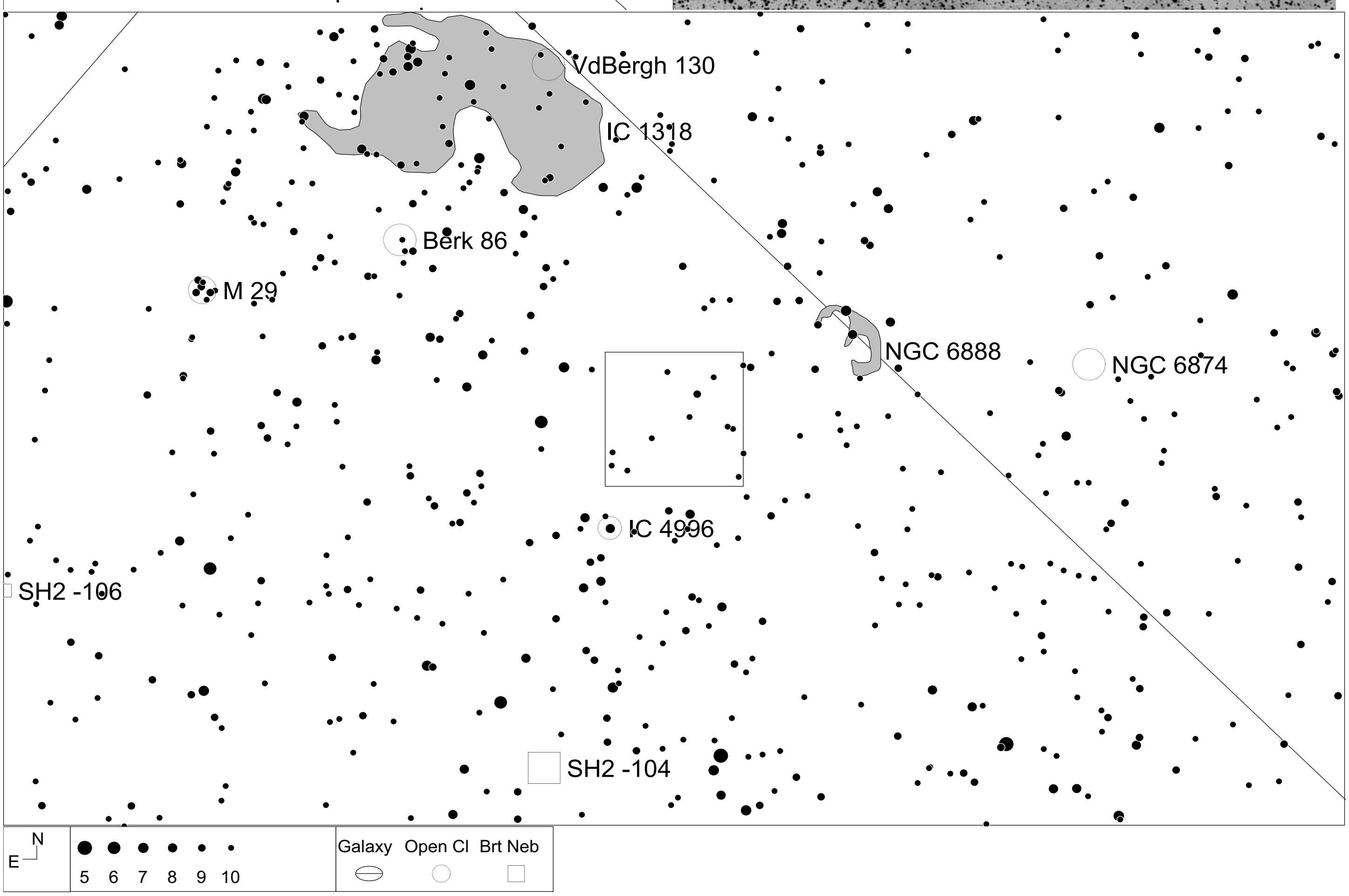
Field shows the brightest part.

Other ID	Type	RA	Dec	Mag	* Mag	Size
		20 09.4	+36 08			100’

PN G075.5+1.7 (Cygnus)



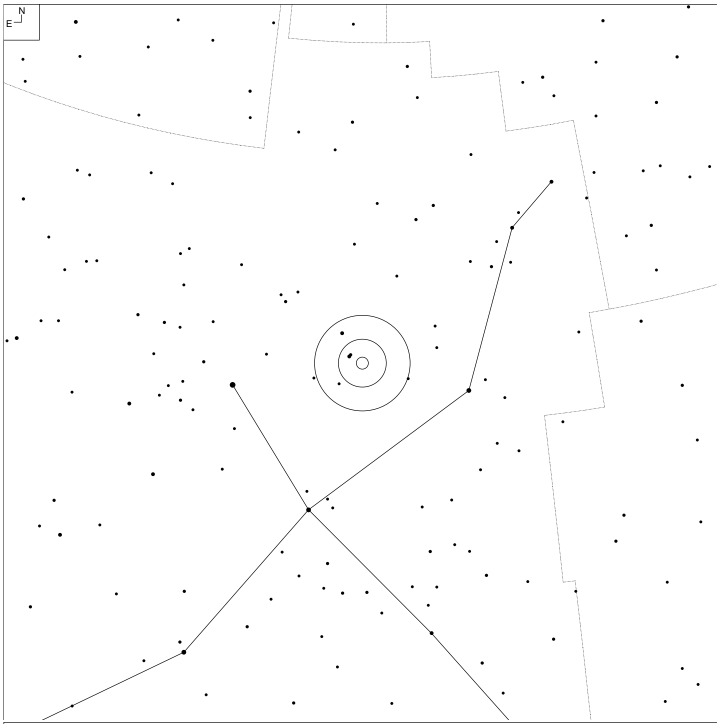


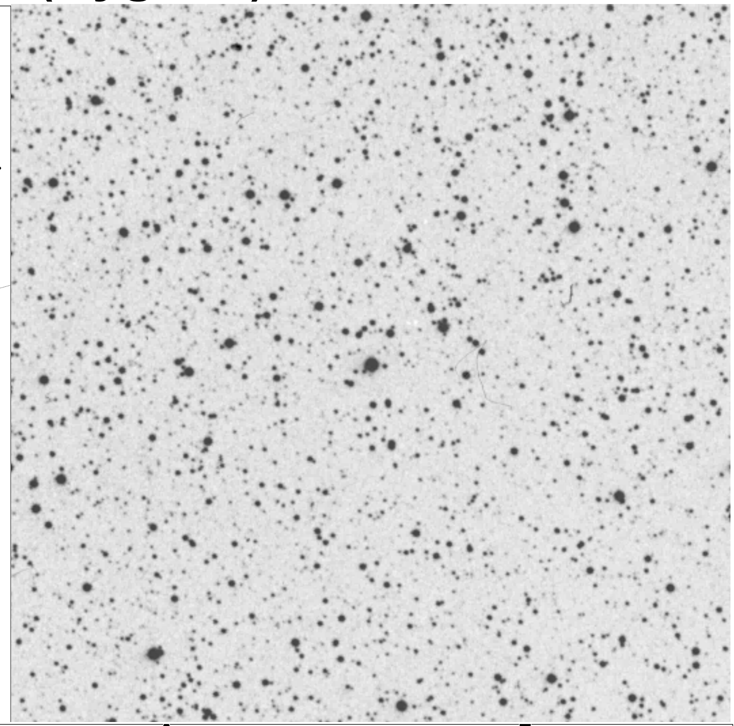


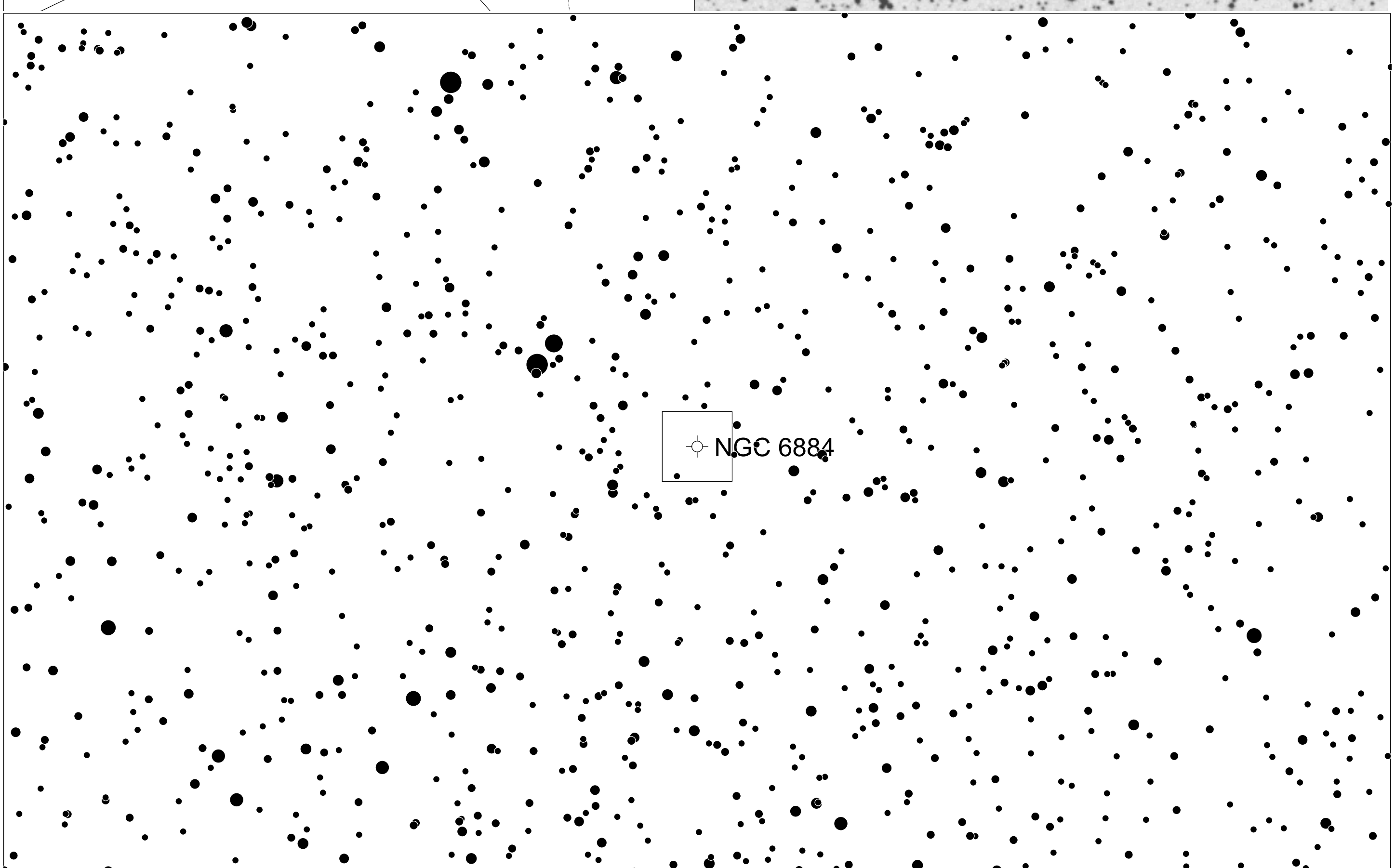
Other ID	Type	RA	Dec	Mag	* Mag	Size
		20 15 22	+38 02 43	-	19	240”

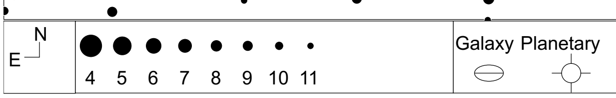
Newly discovered planetary by Dave Jurasevich (www.starimager.com/)

NGC 6884 (Cygnus)



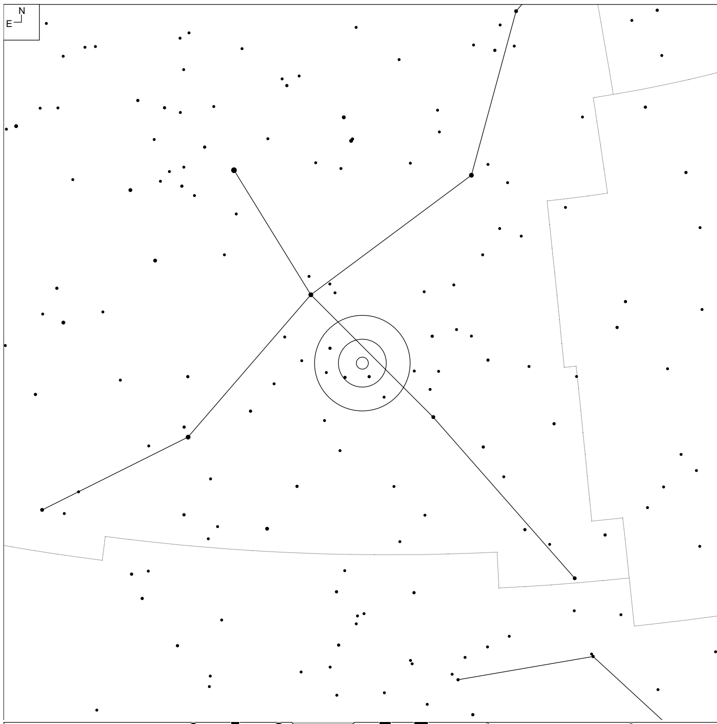


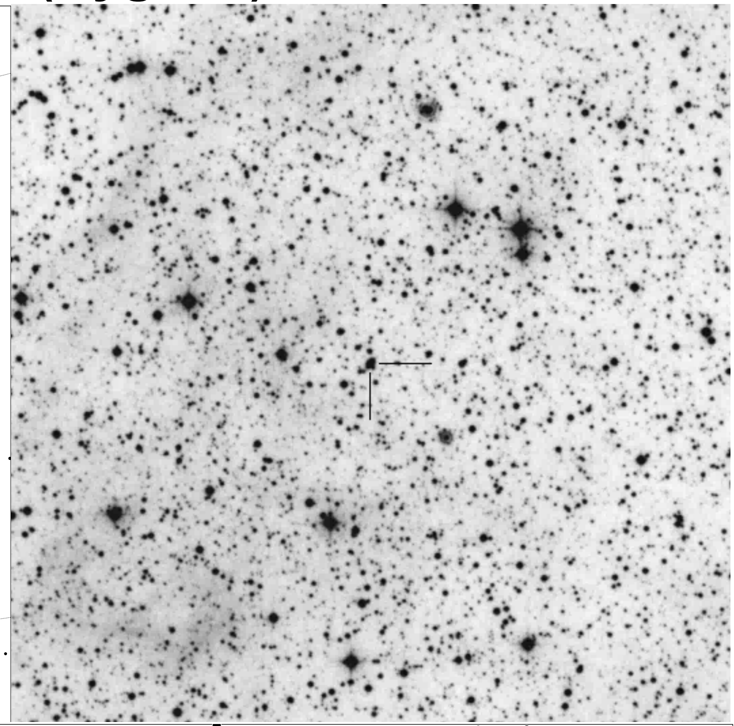


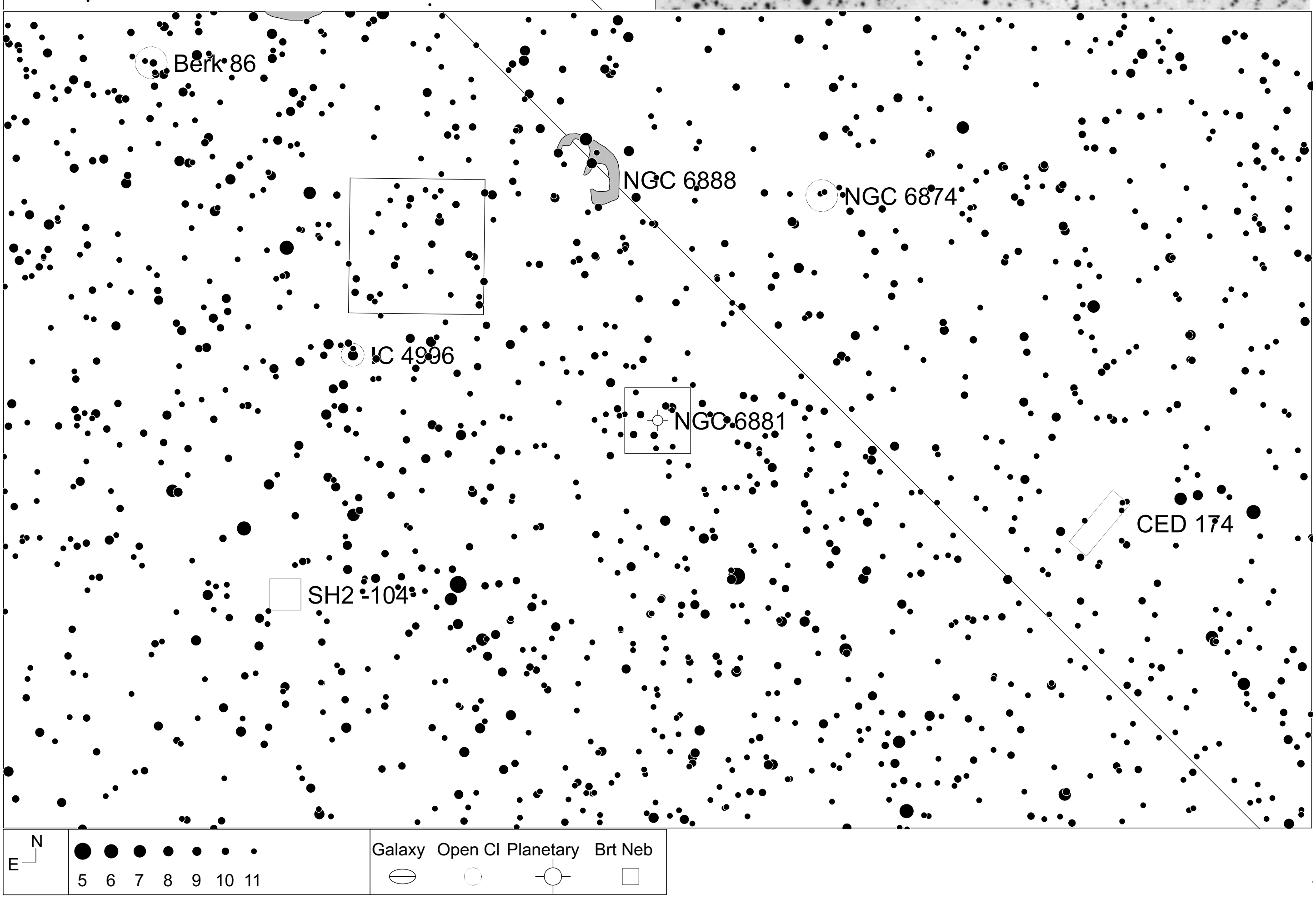


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 82+7.1	2b	20 10 23.8	+46 27 38	10.9v	15.8	6”

NGC 6881 (Cygnus)

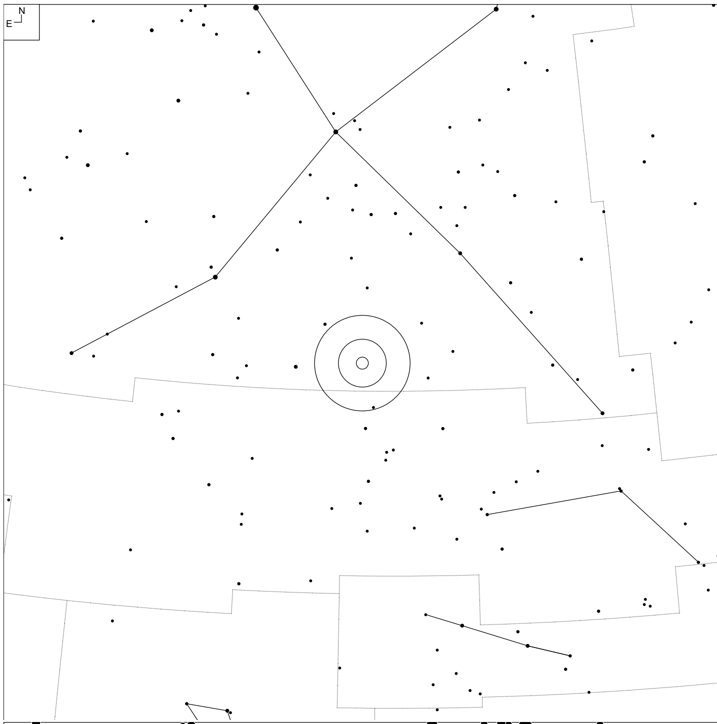


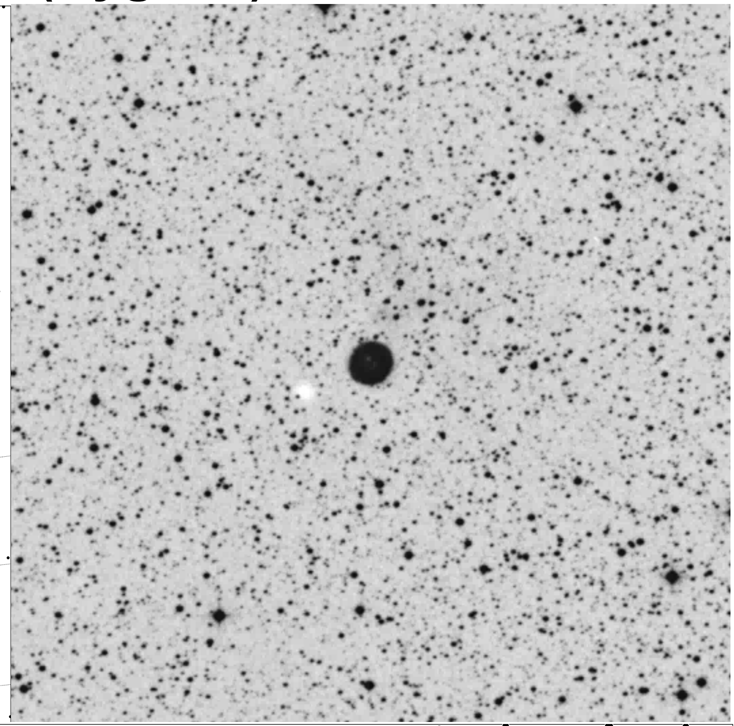


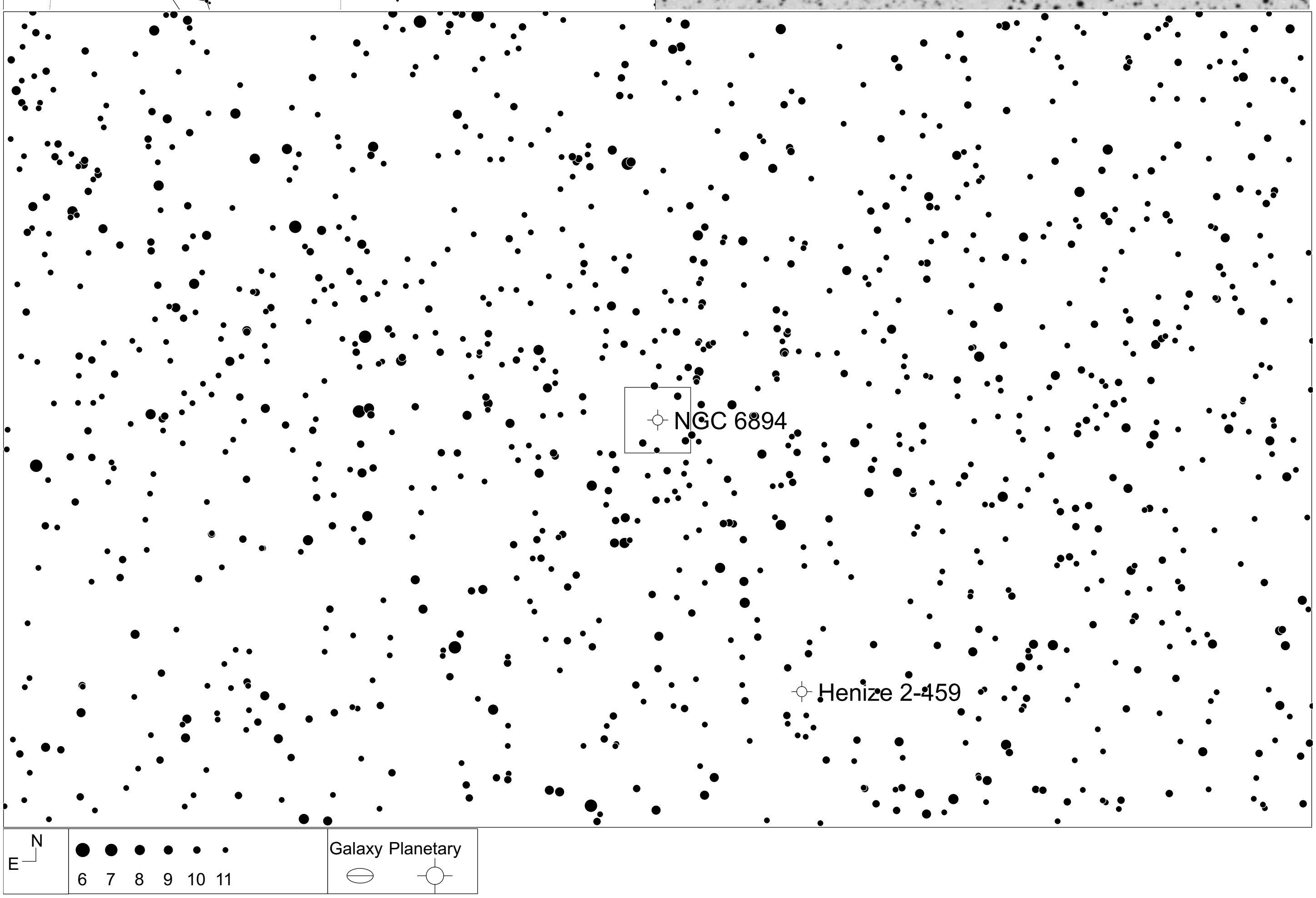


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 74+2.1	2a+3	20 10 52.5	+37 24 41	13.9v	18.6	6”

NGC 6894 (Cygnus)

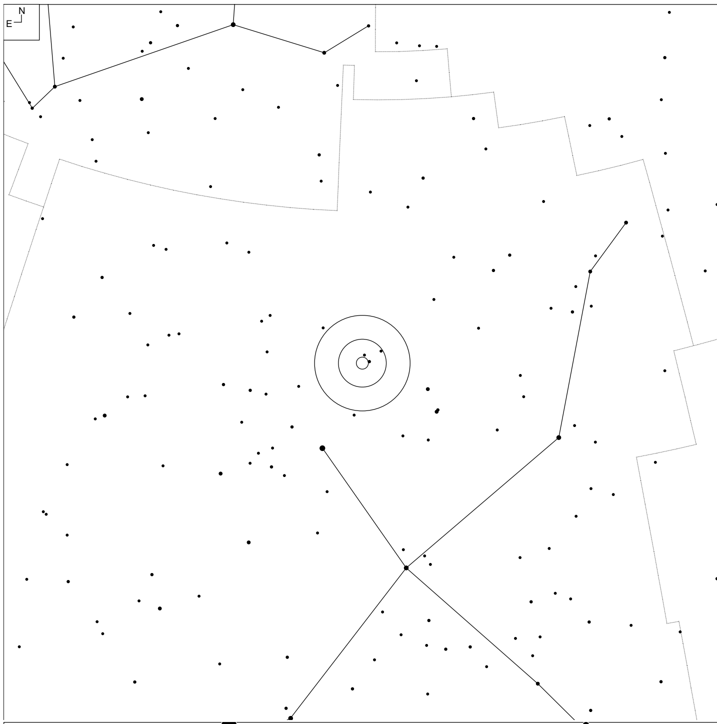


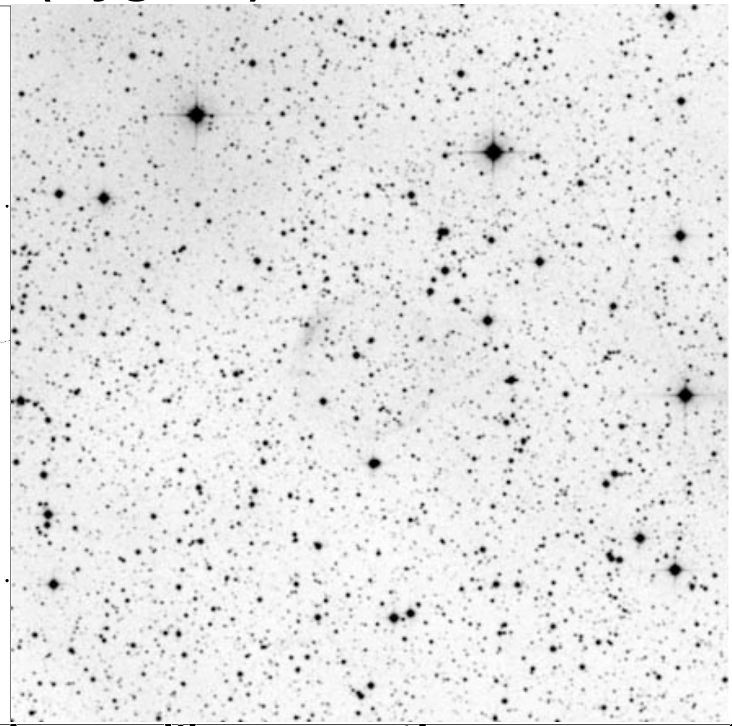


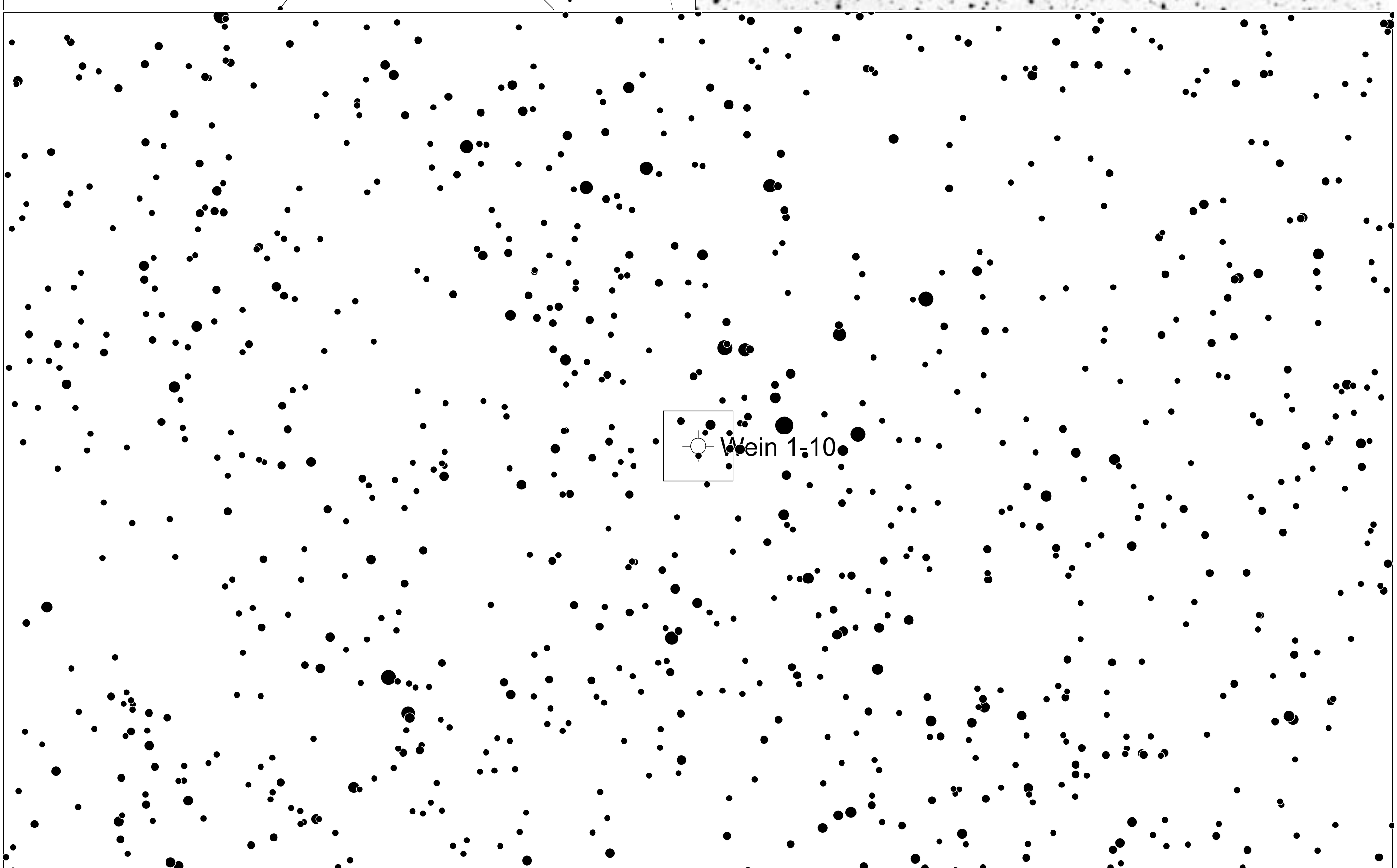


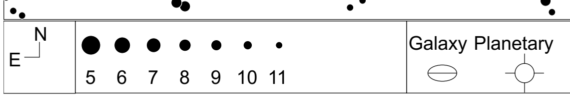
Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 69-2.1	4+2	20 16 24.0	+30 33 51	12.3v	18.1	60”

Wein 1-10 (Cygnus)



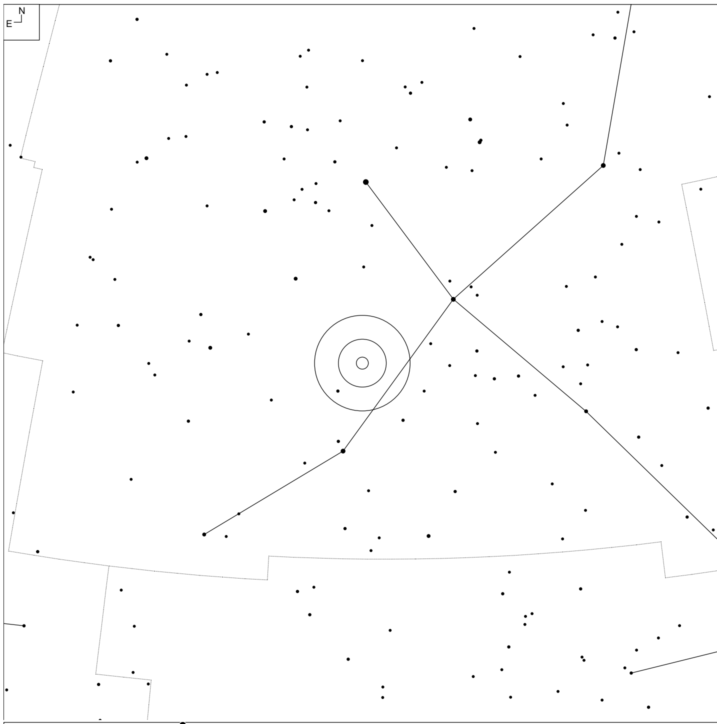


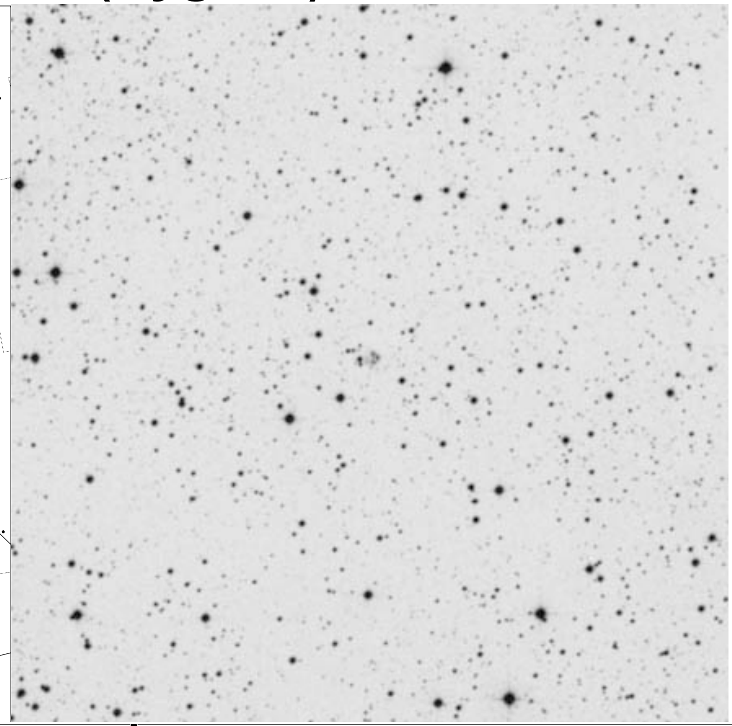


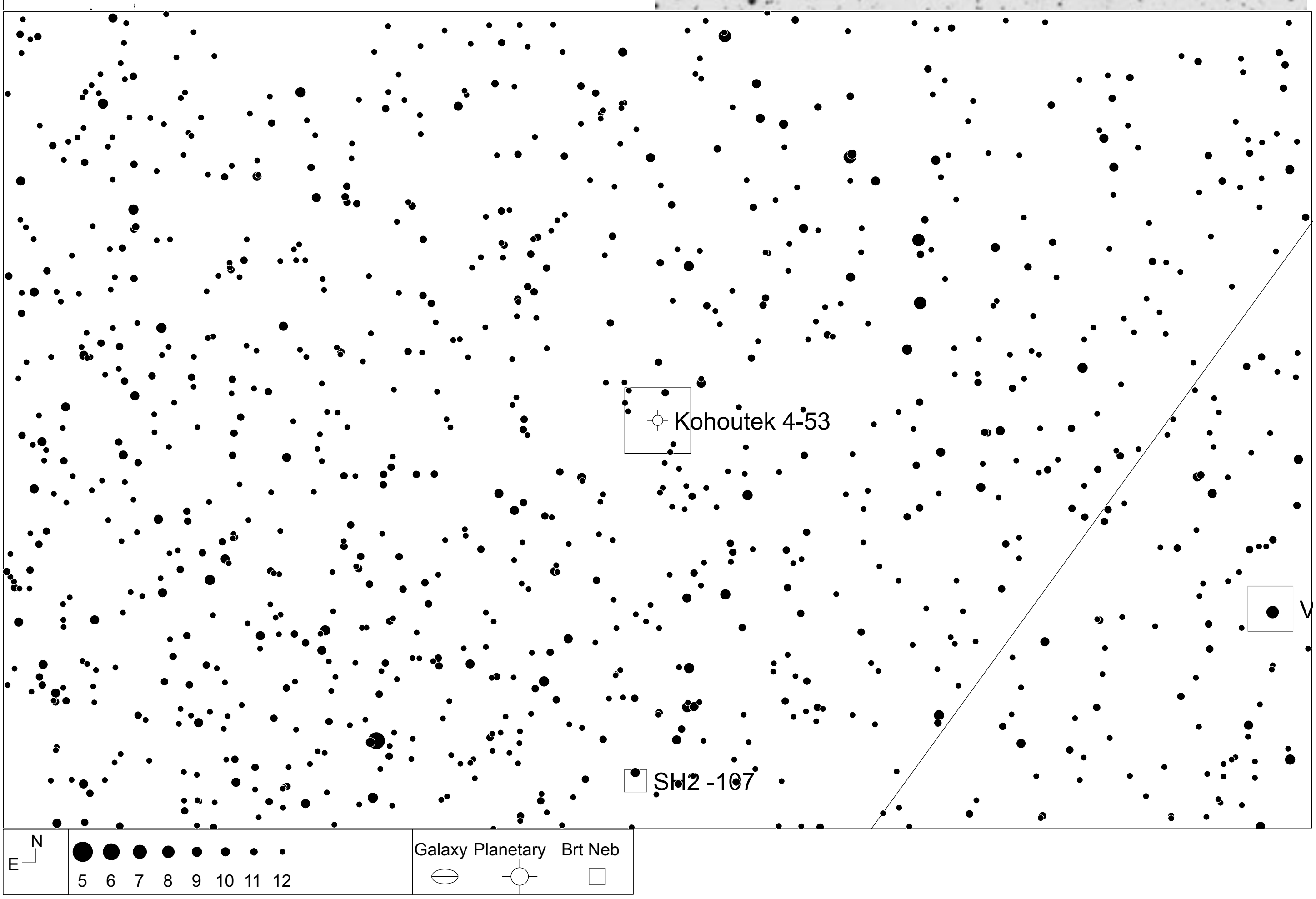


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 86+5.1	-	20 31 52.4	+48 52 51	15.1v	18.1	3.2’

Kohoutek 4-53 (Cygnus)

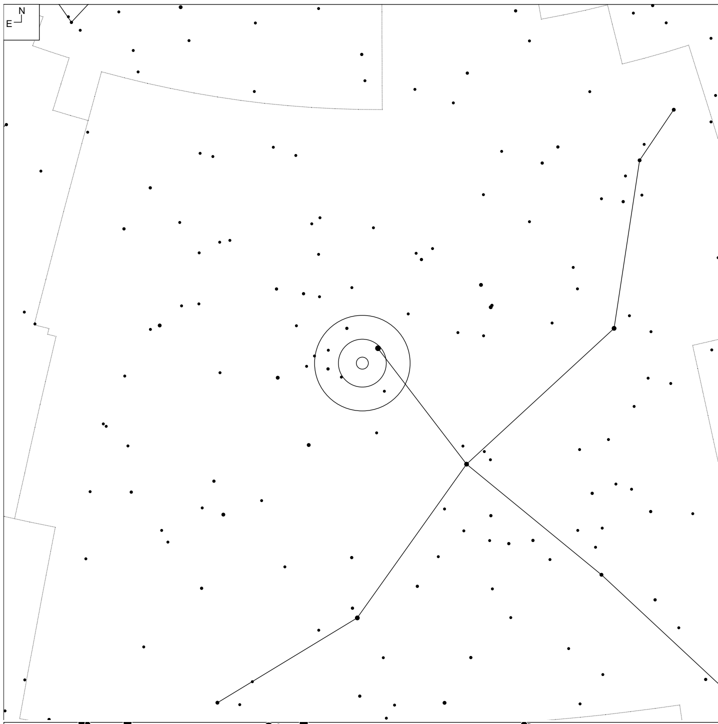


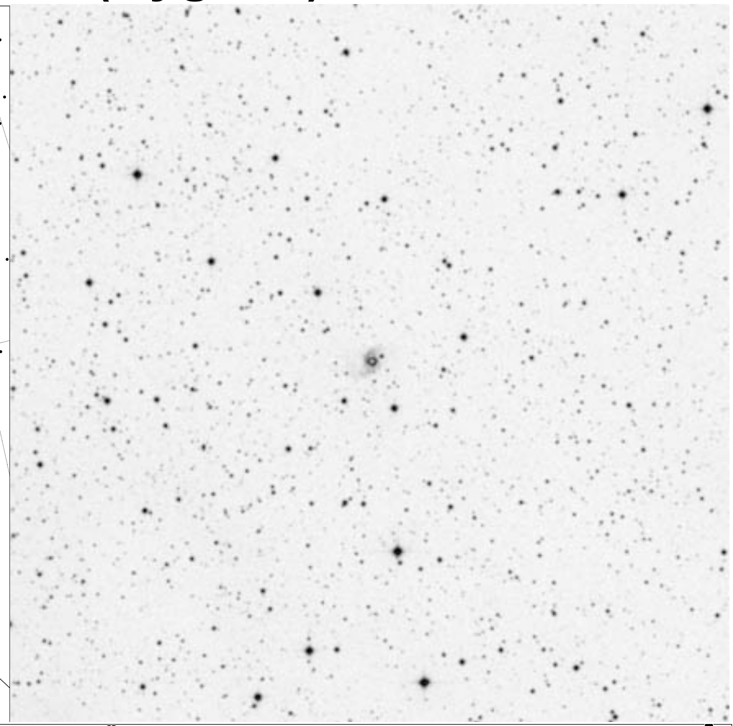


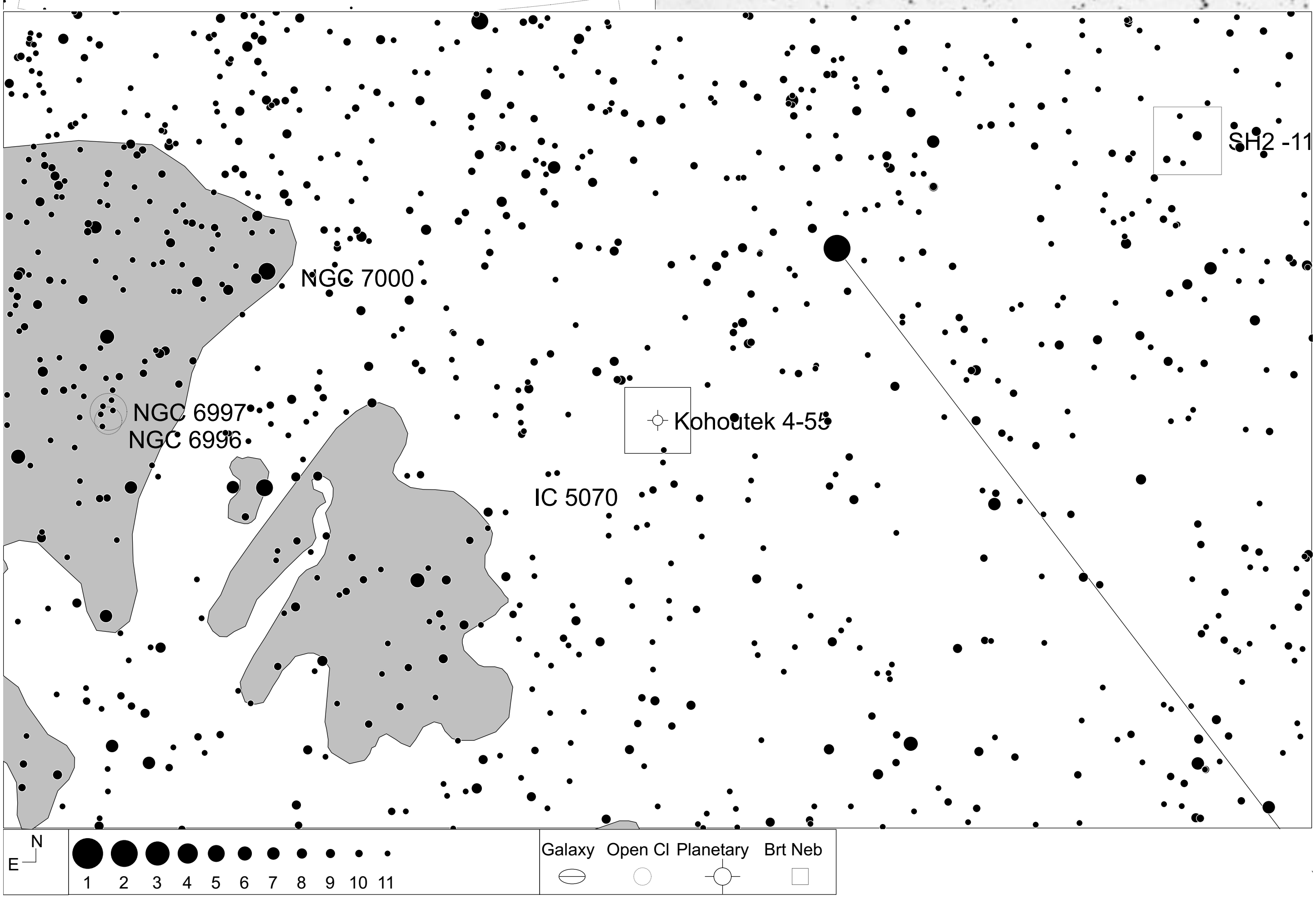


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 78.3-2.7	-	20 42 16.5	+37 40 22	16.0p	-	20”

Kohoutek 4-55 (Cygnus)

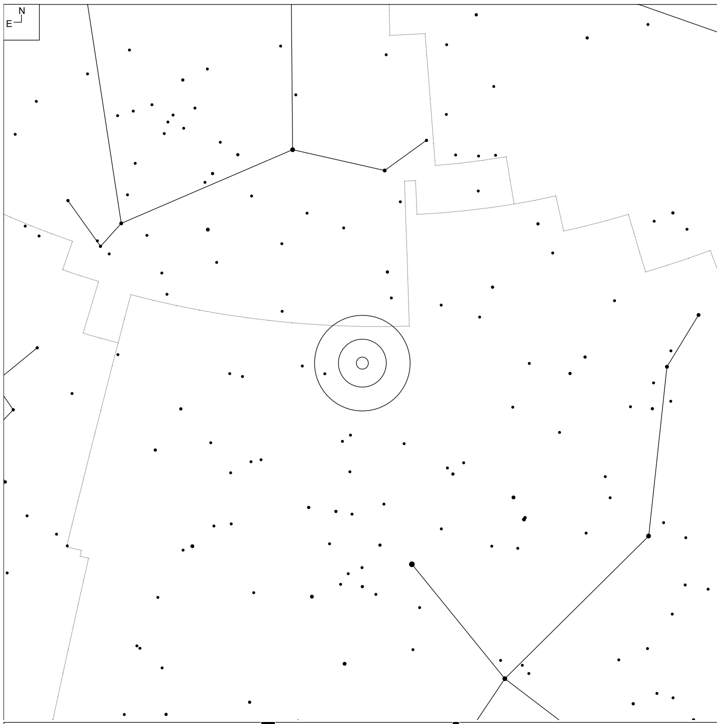


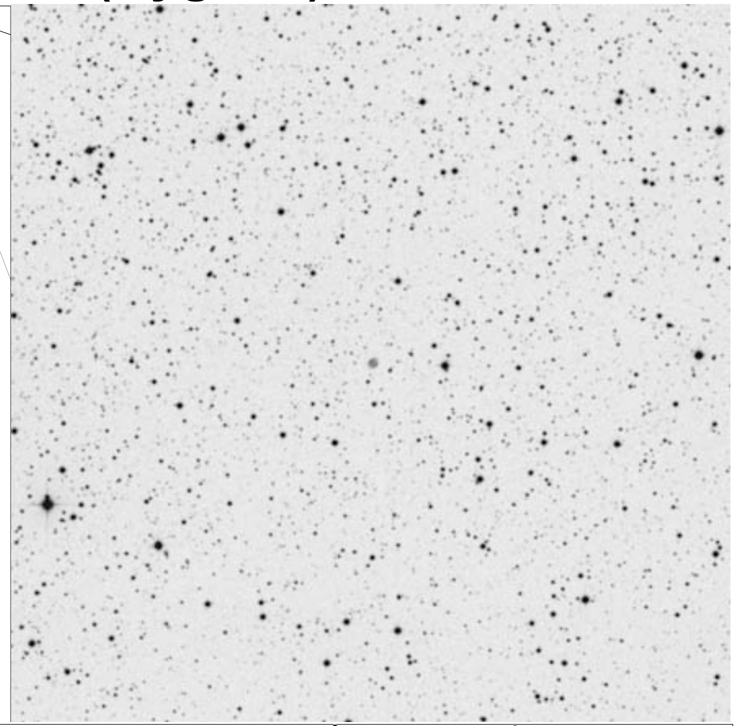


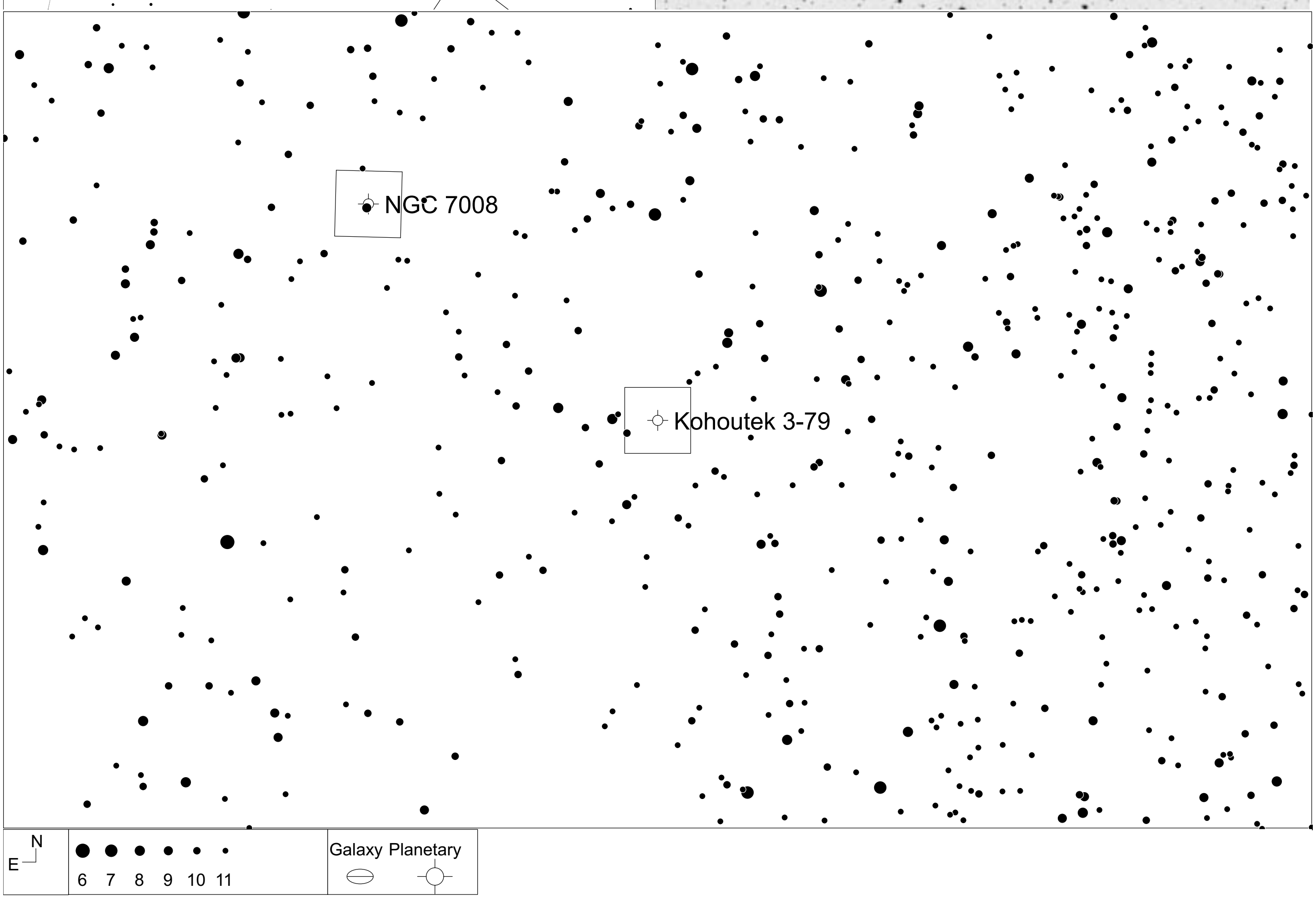


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 84+1.1	-	20 45 10.2	+44 39 10	-	-	27”

Kohoutek 3-79 (Cygnus)

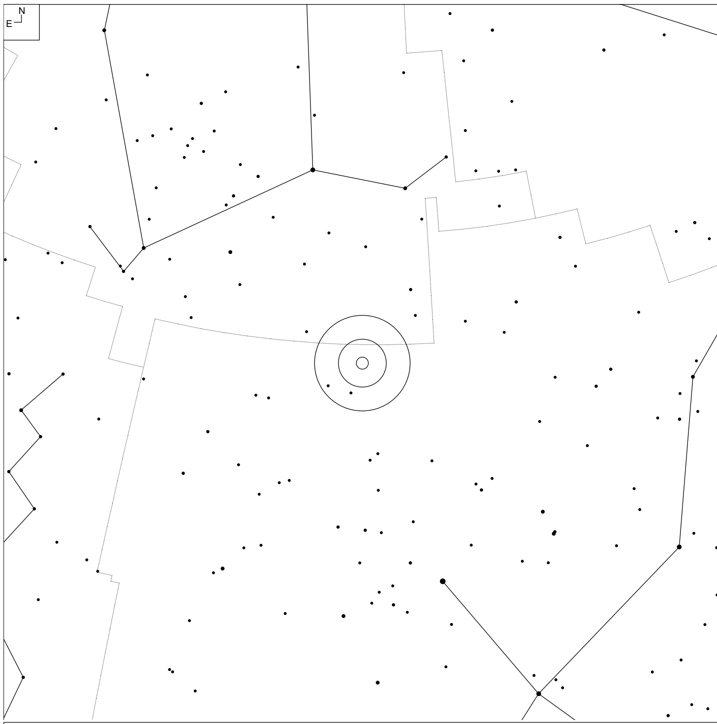


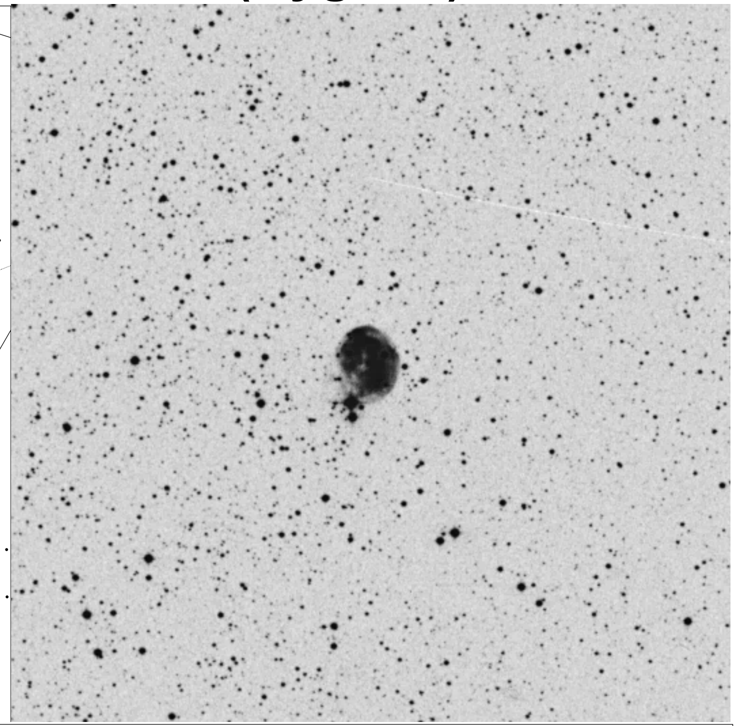


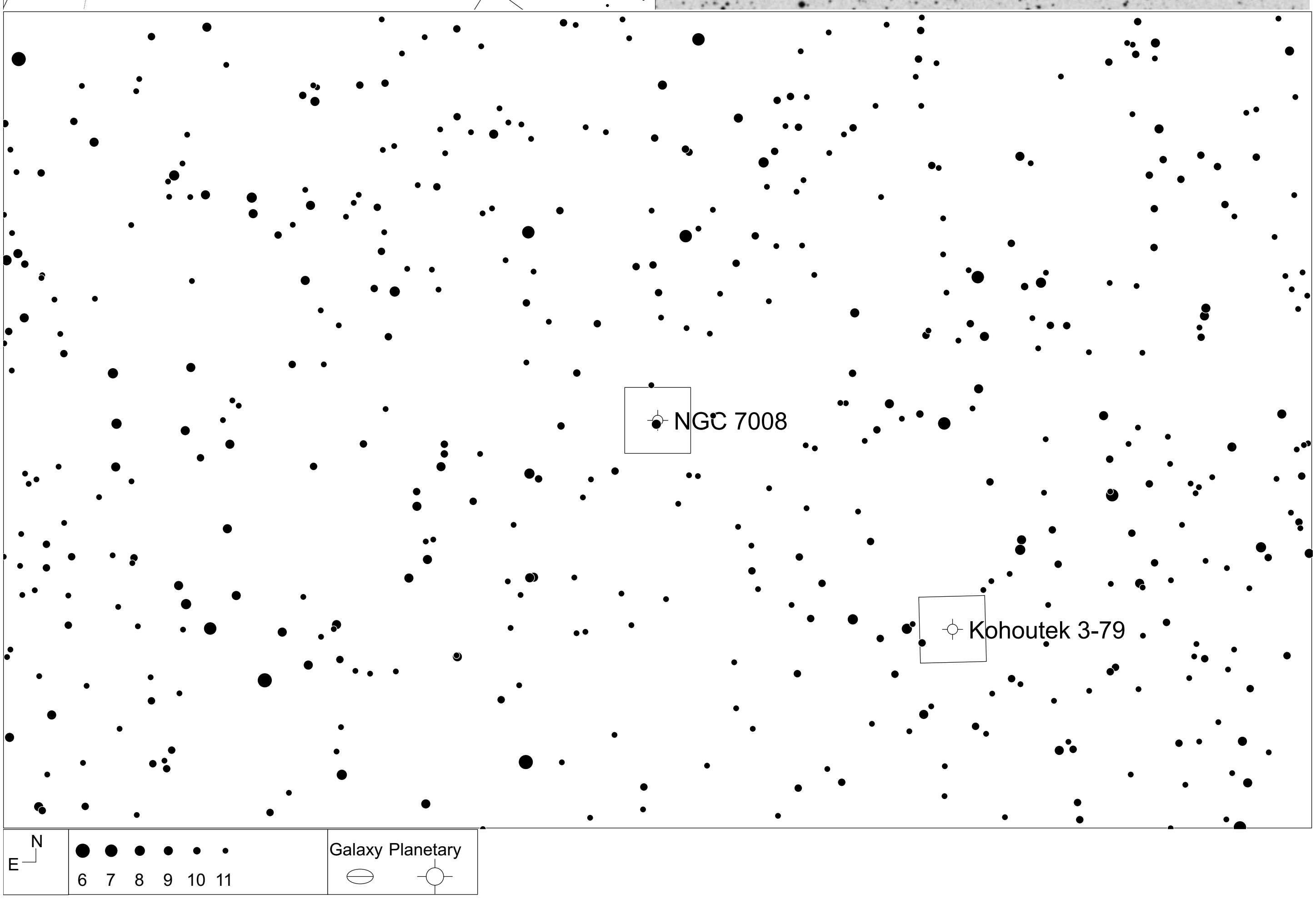


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 92+5.1	-	20 53 13.8	+53 45 42	17.8p	-	12”

NGC 7008 – Fetus Nebula (Cygnus)

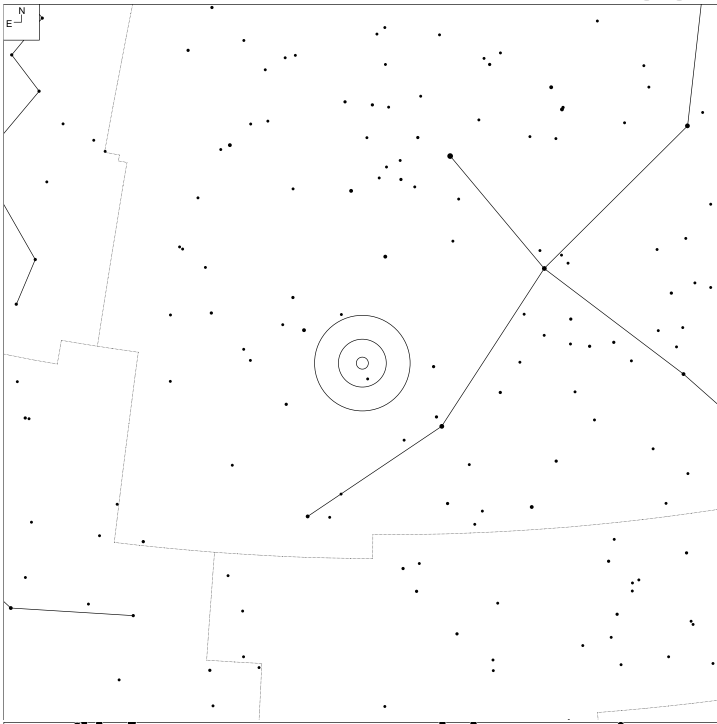


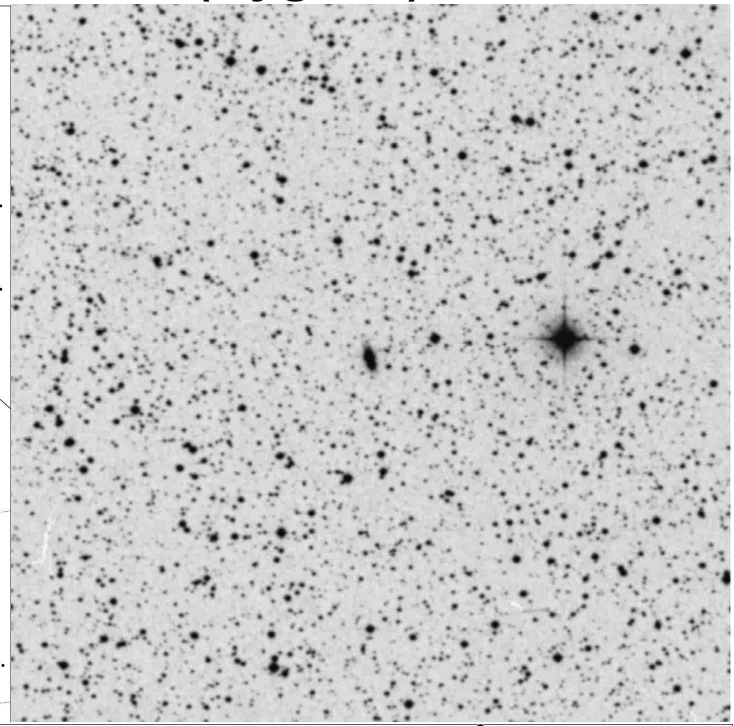


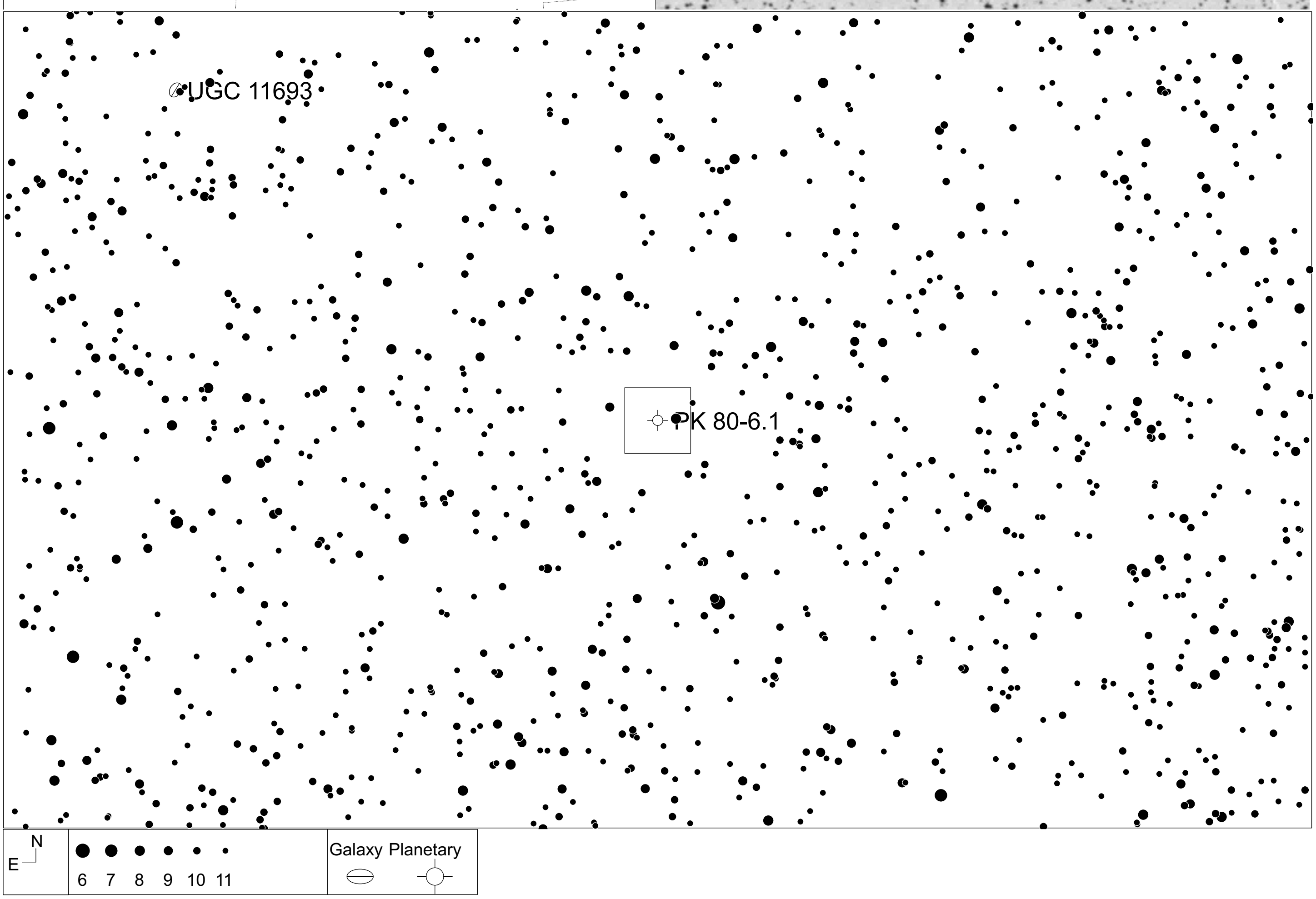


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 93+5.2	3	21 00 33.1	+54 32 32	10.7v	13.2	86”

PK 80-6.1 - Egg Nebula (Cygnus)

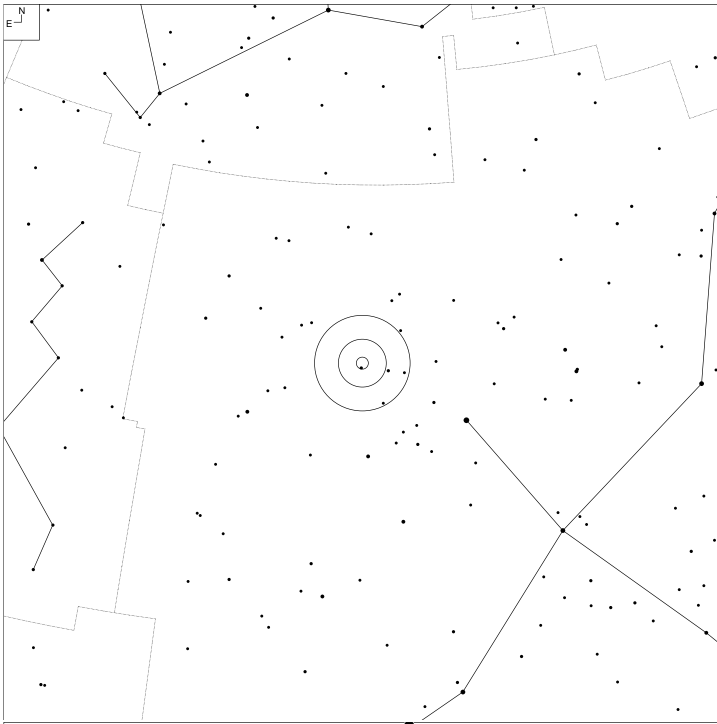


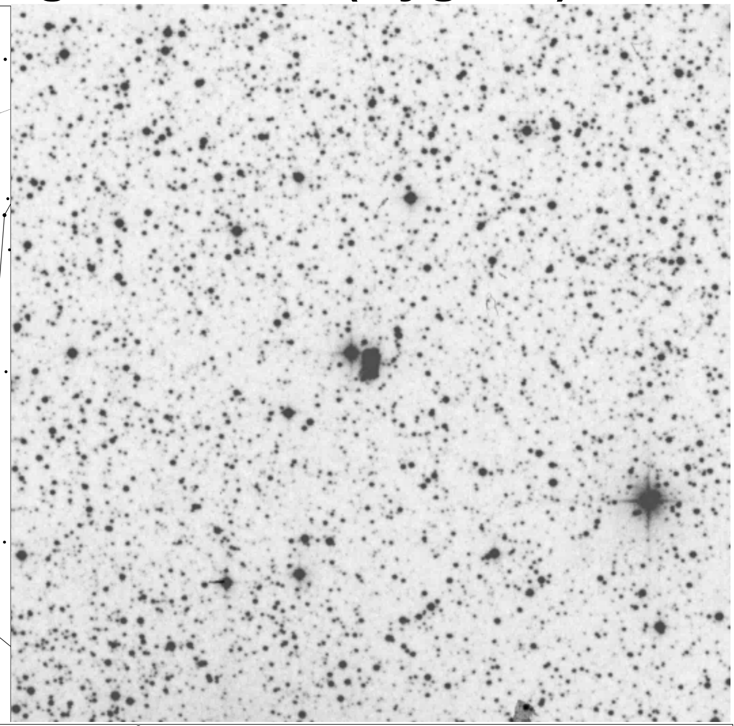


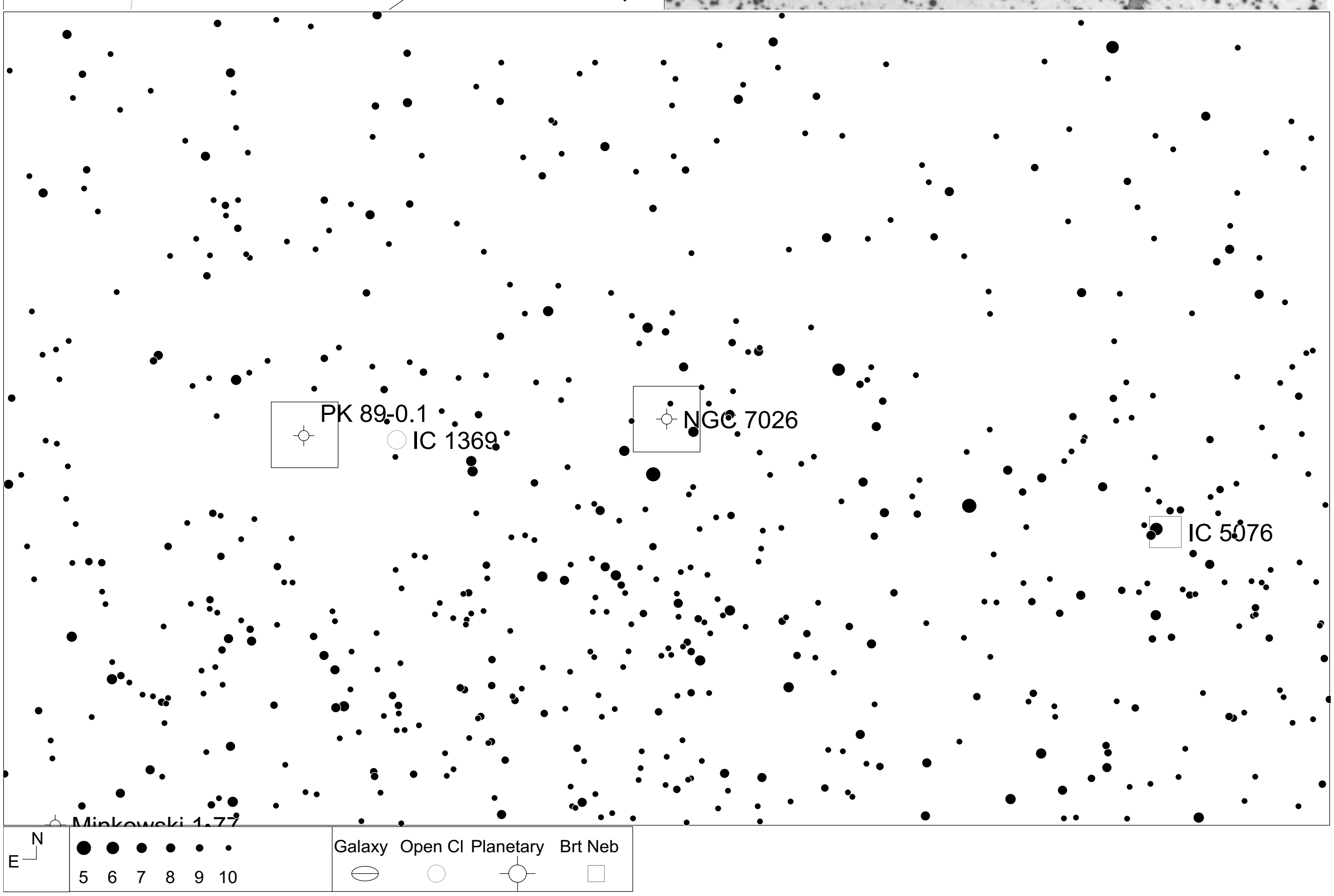


Other ID	Type	RA	Dec	Mag	* Mag	Size
CRL 2688	Proto	21 02 18.7	+36 41 40	13.5p	-	1.0 x 0.5’

NGC 7026 – Cheeseburger Nebula (Cygnus)



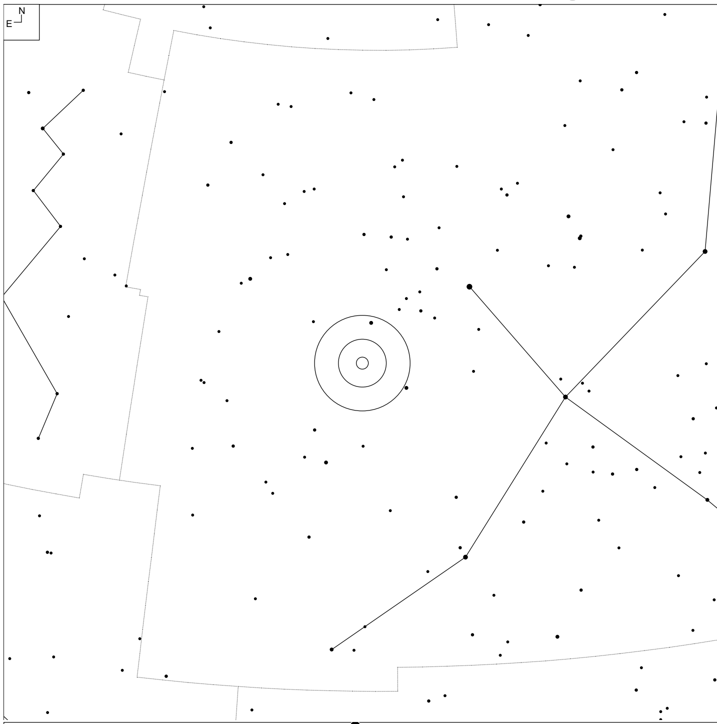


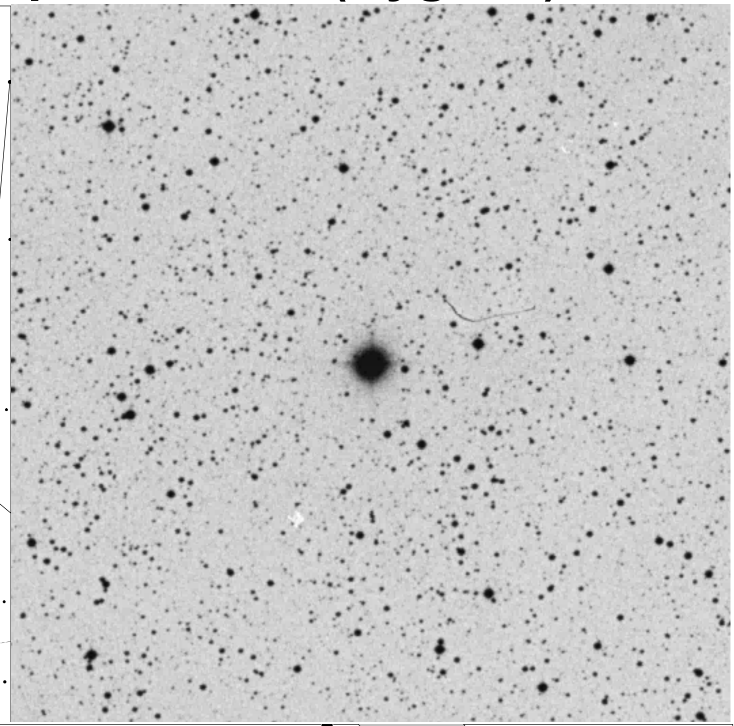


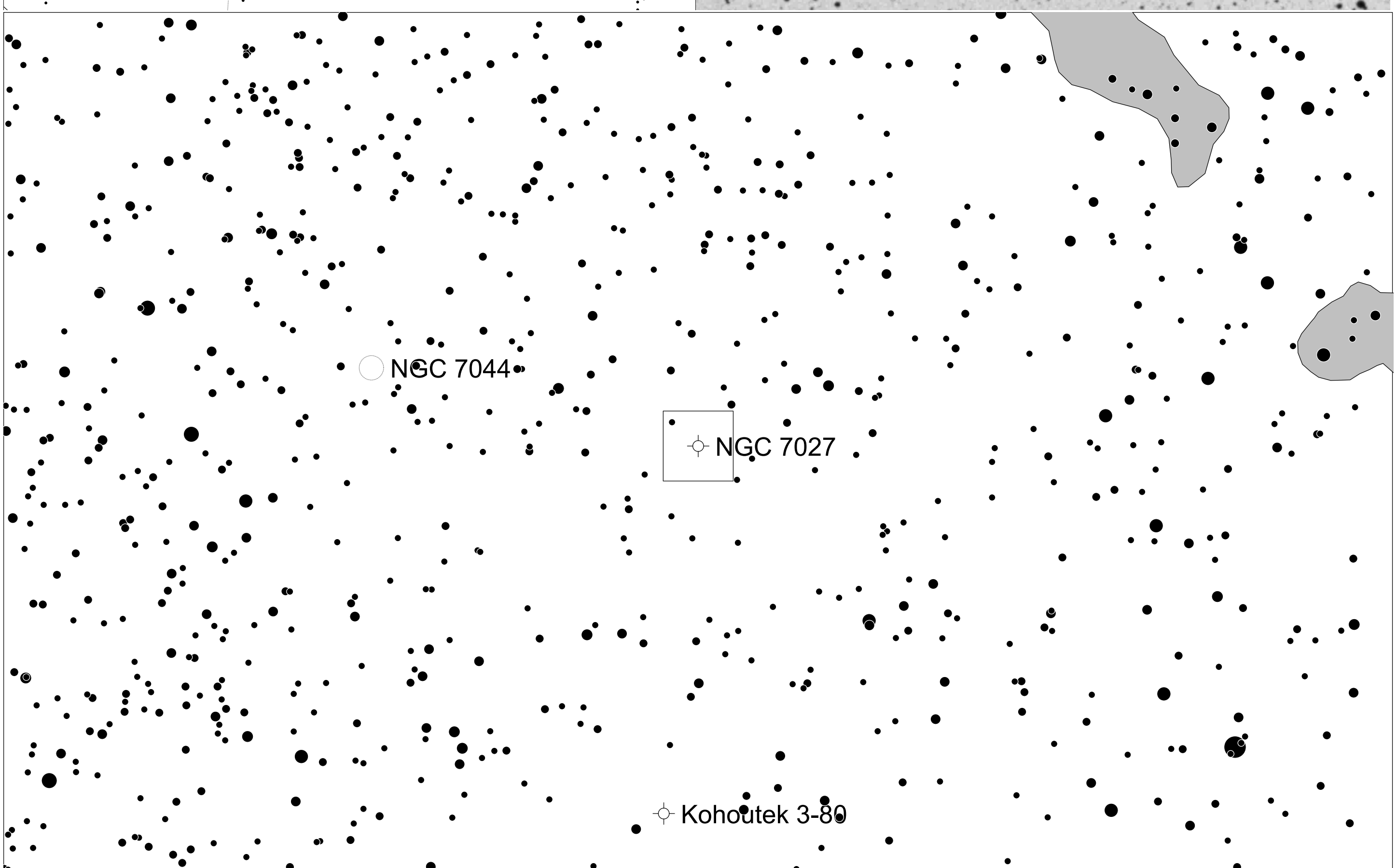
Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 89+0.1	3a	21 06 18.5	+47 51 08	10.9v	14.2	40”

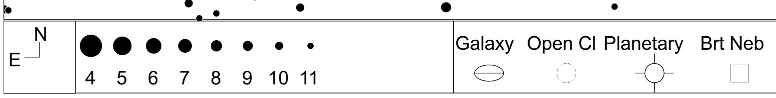
Bi-polar halo with lobes extending NW and SE. Visible without O-II filter.

NGC 7027 – Magic Carpet Nebula (Cygnus)



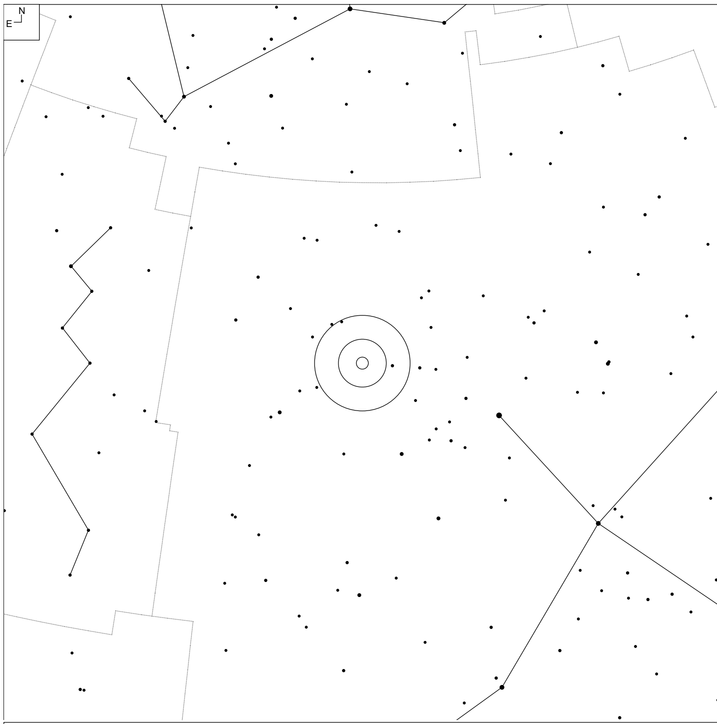


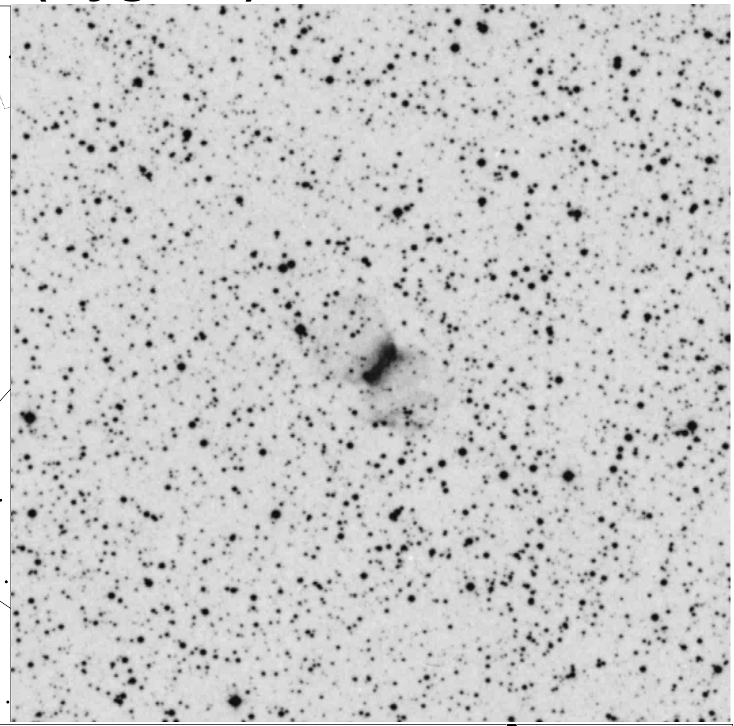


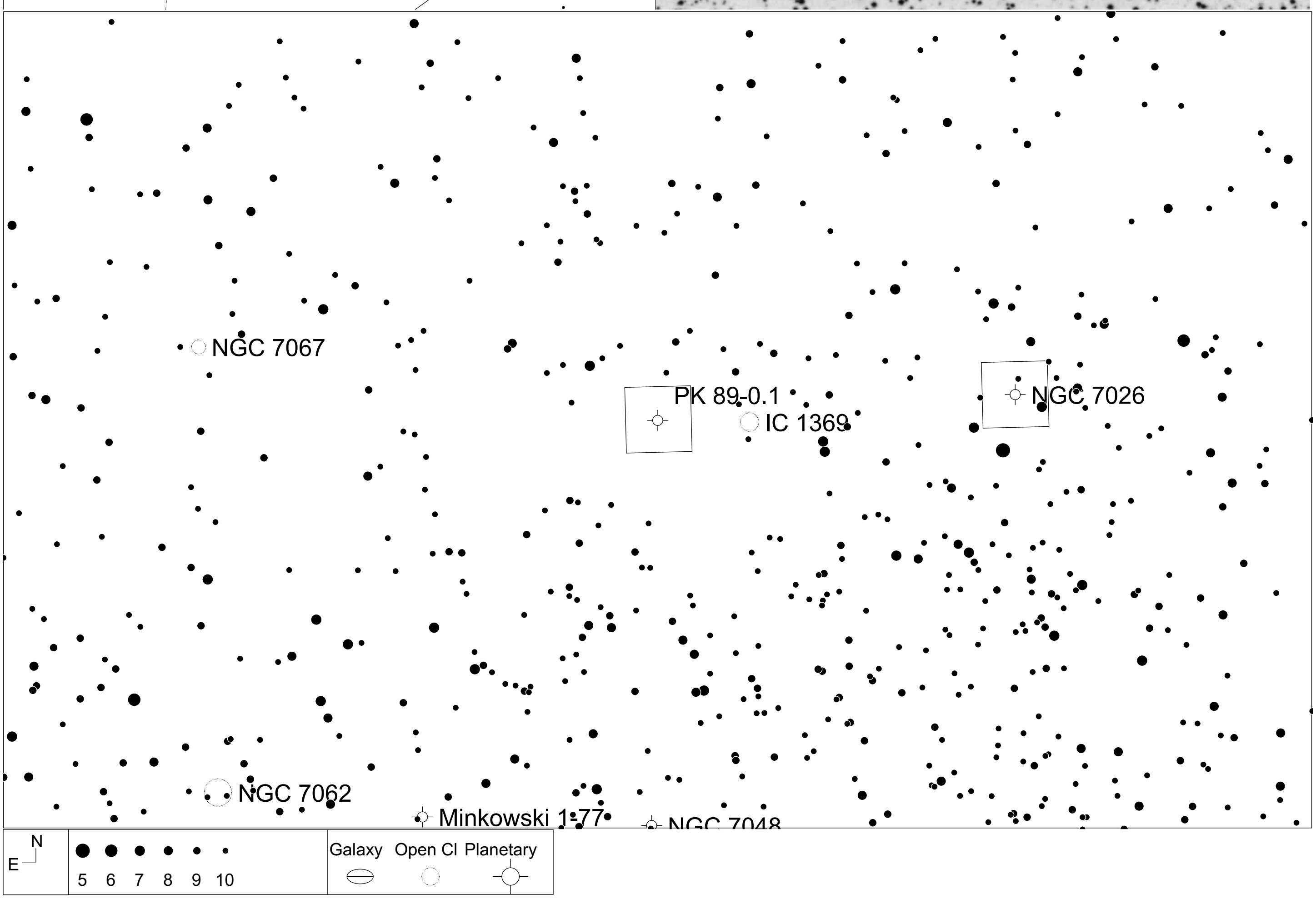


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 84-3.1	3a	21 07 01.8	+42 14 07	8.5v	16.3	60”

PK 89-0.1 (Cygnus)

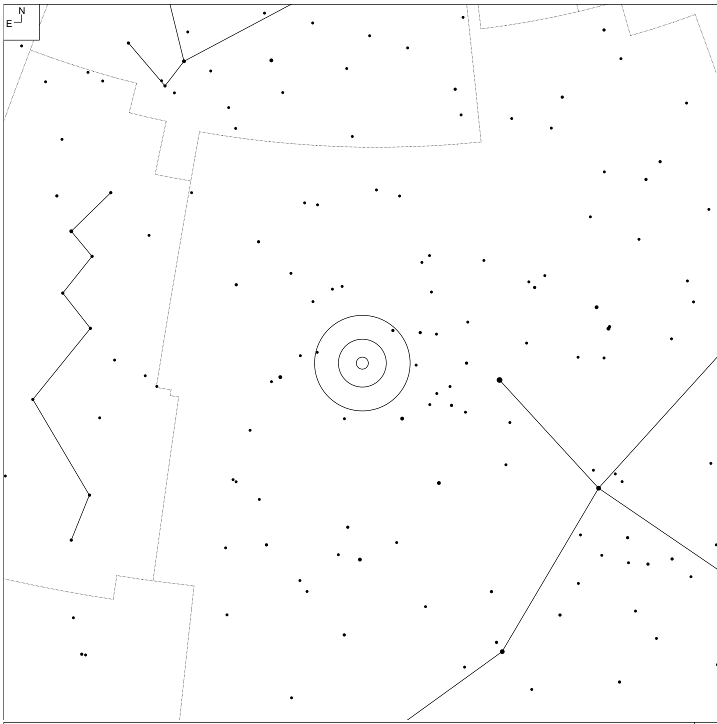


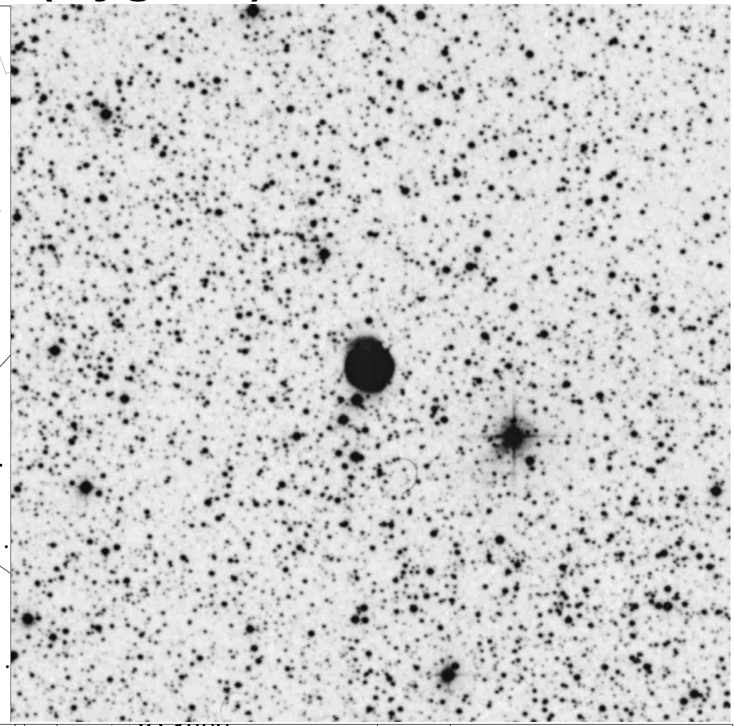


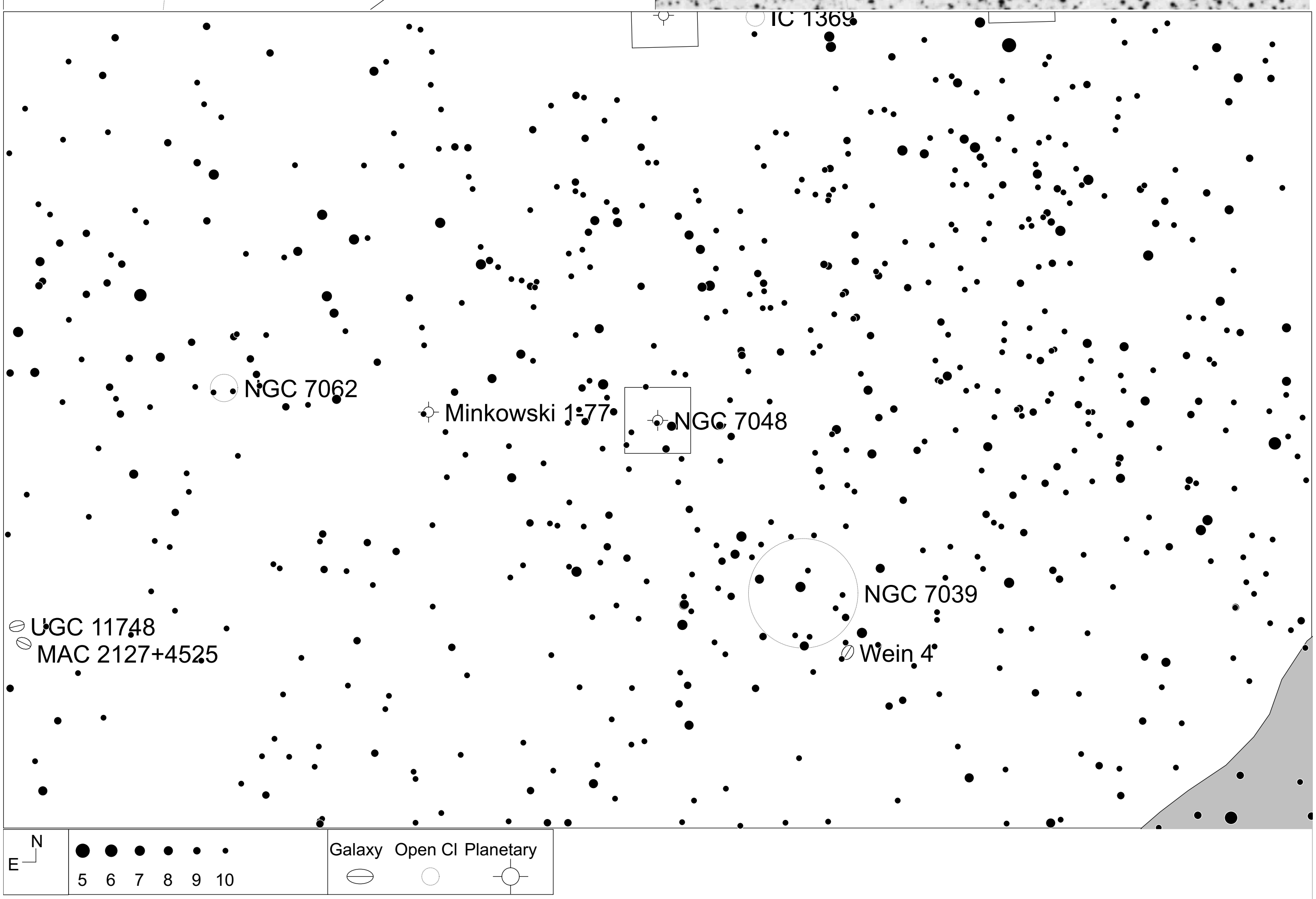


Other ID	Type	RA	Dec	Mag	* Mag	Size
Sharpless 1-89	3a	21 14 07.5	+47 46 26	12.1v	19.7	64 x 28”

NGC 7048 (Cygnus)

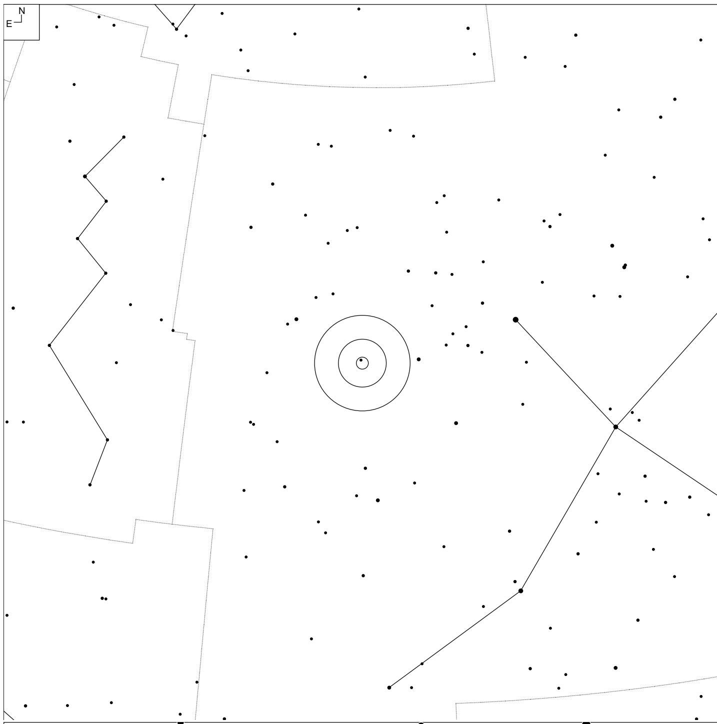


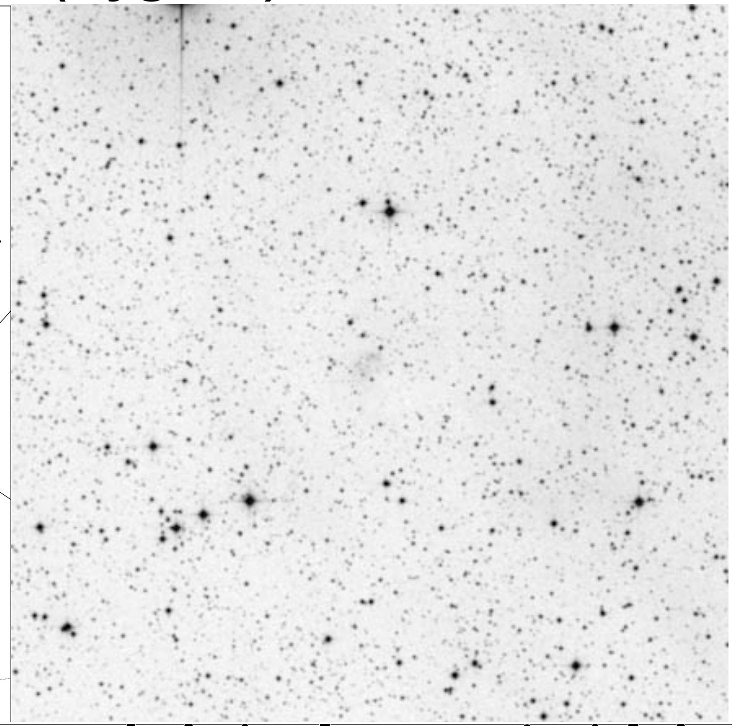


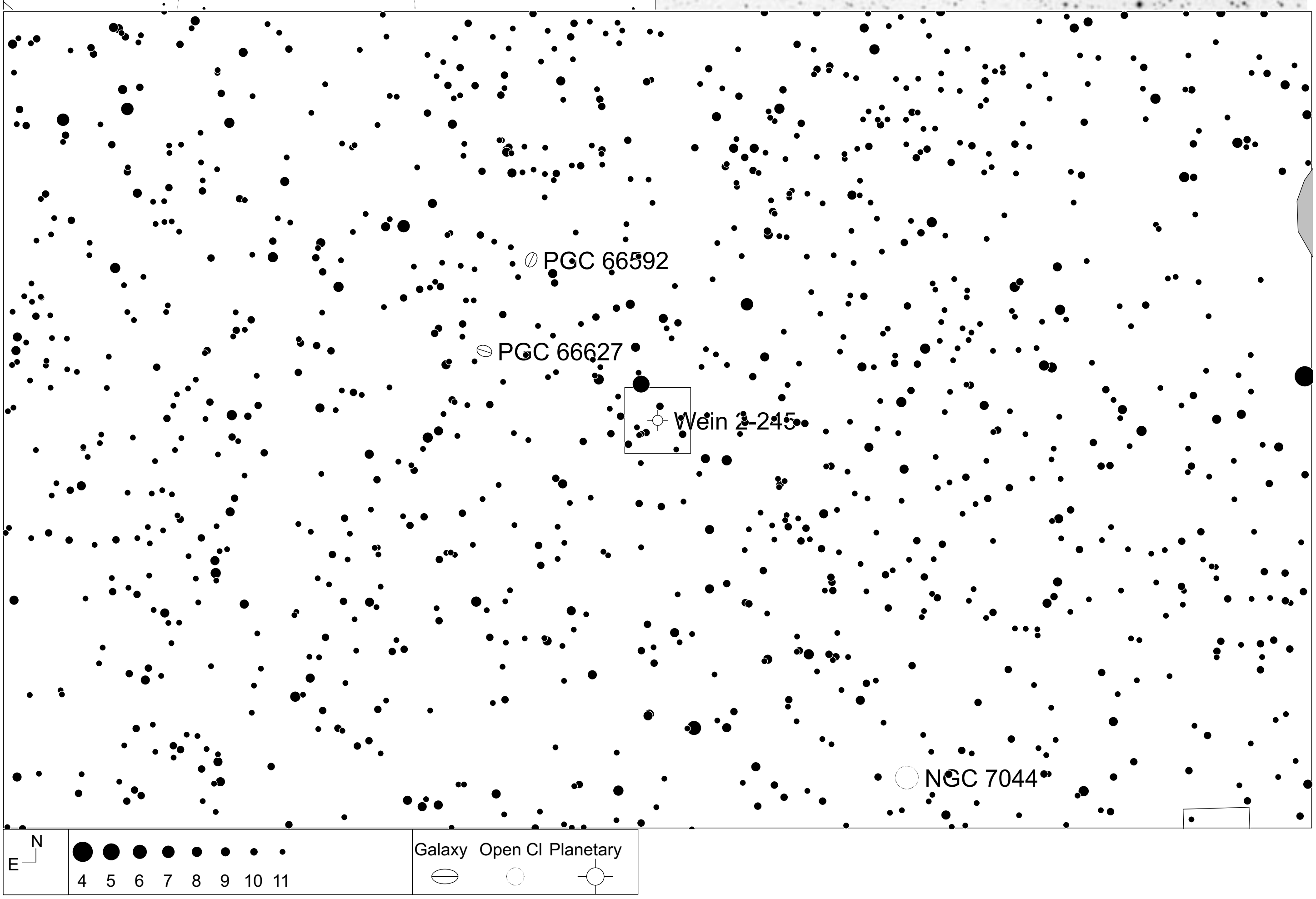


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 88-1.1	3b	21 14 15.3	+46 17 15	12.1v	19.1	61”

Wein 2-245 (Cygnus)

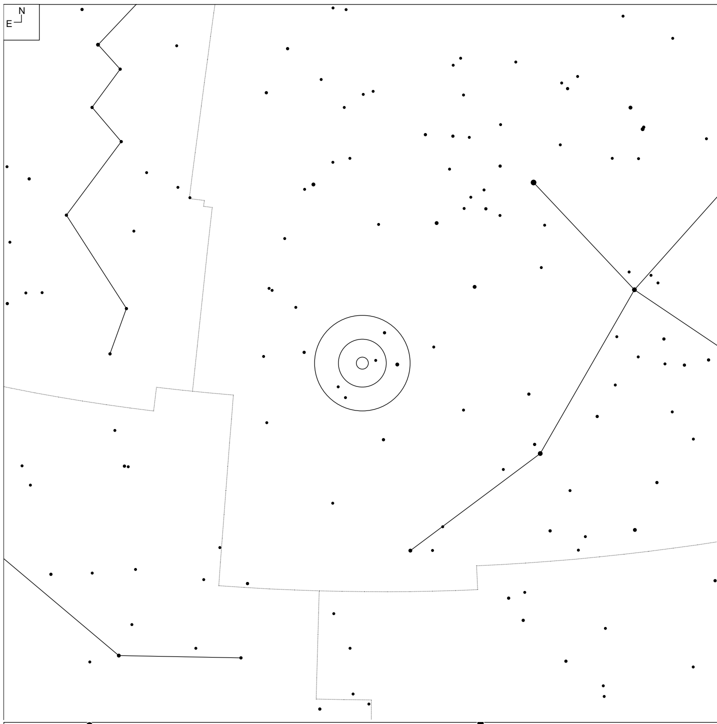


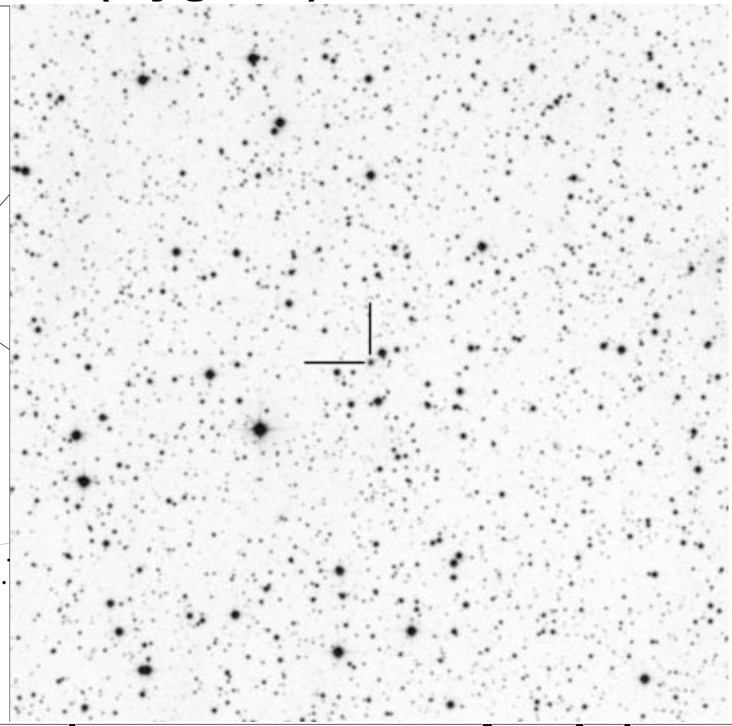


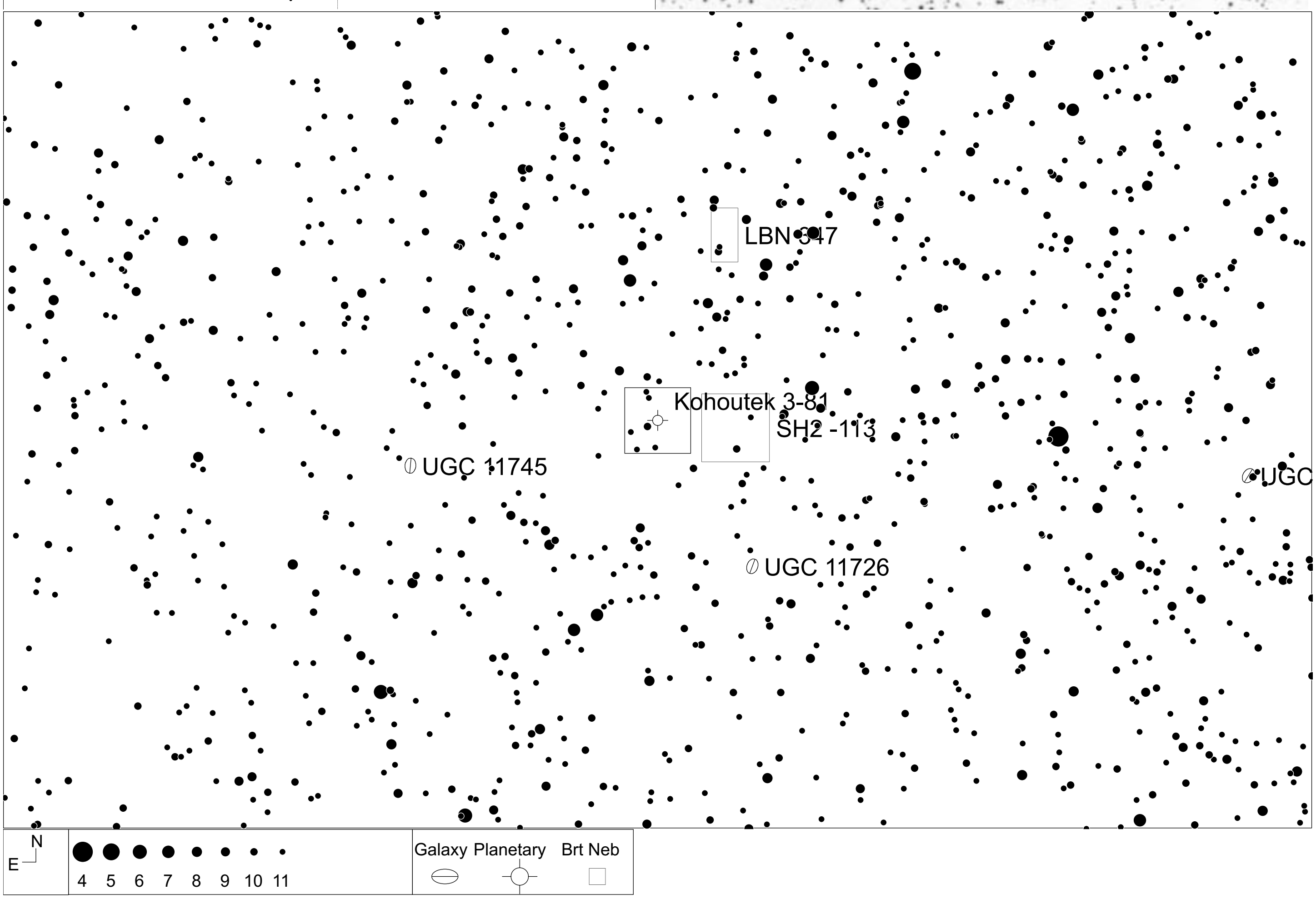


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 87-3.1	-	21 18 06.9	+43 48 46	-	-	35”

Kohoutek 3-81 (Cygnus)

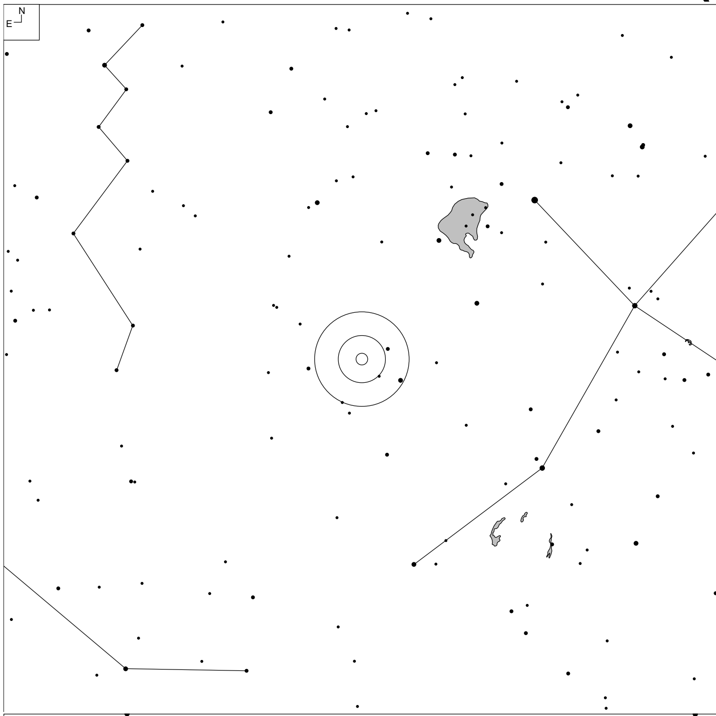


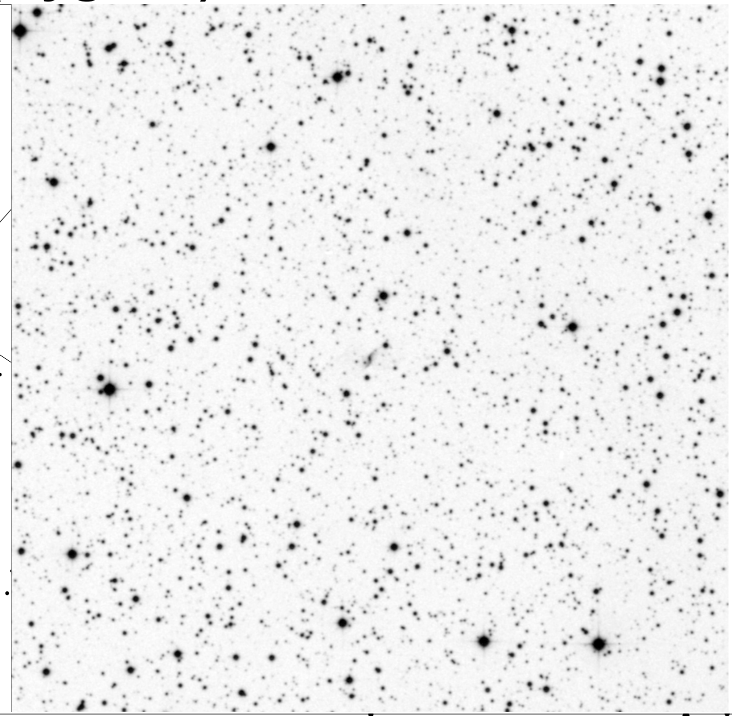


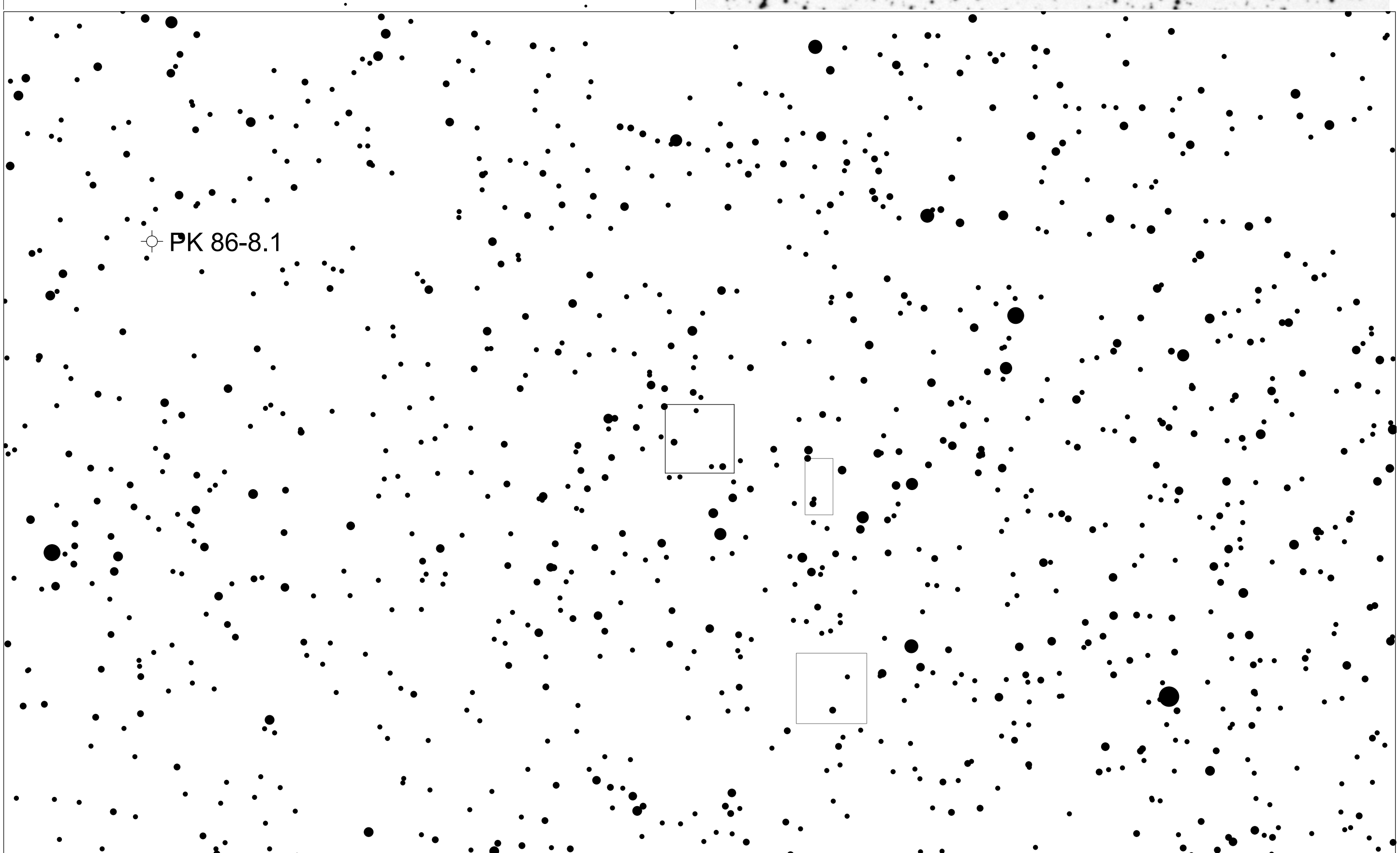


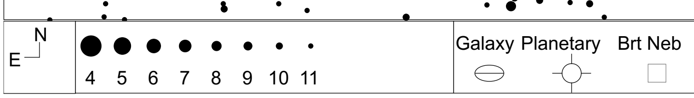
Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 83-8.1	-	21 22 15.5	+38 07 13	15.4p	15.7	10”

Kn 26 (Cygnus)



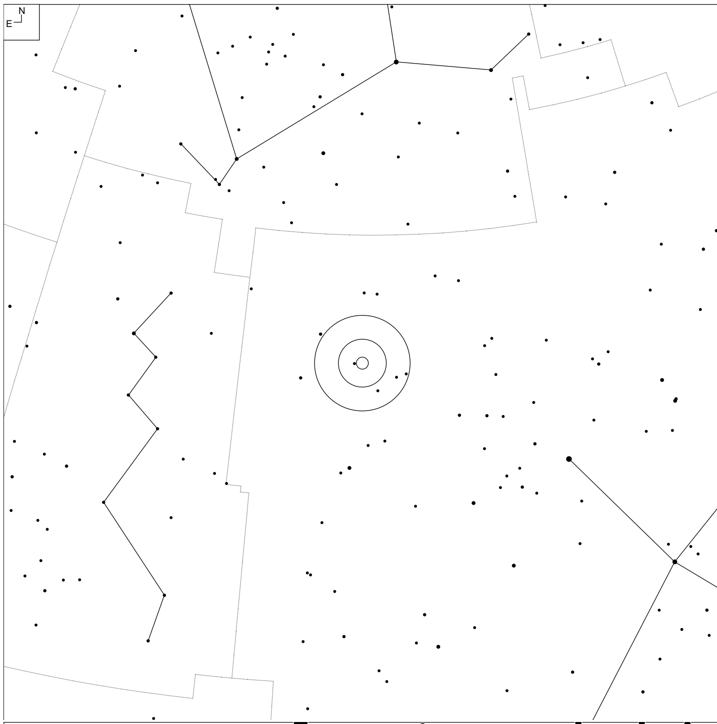


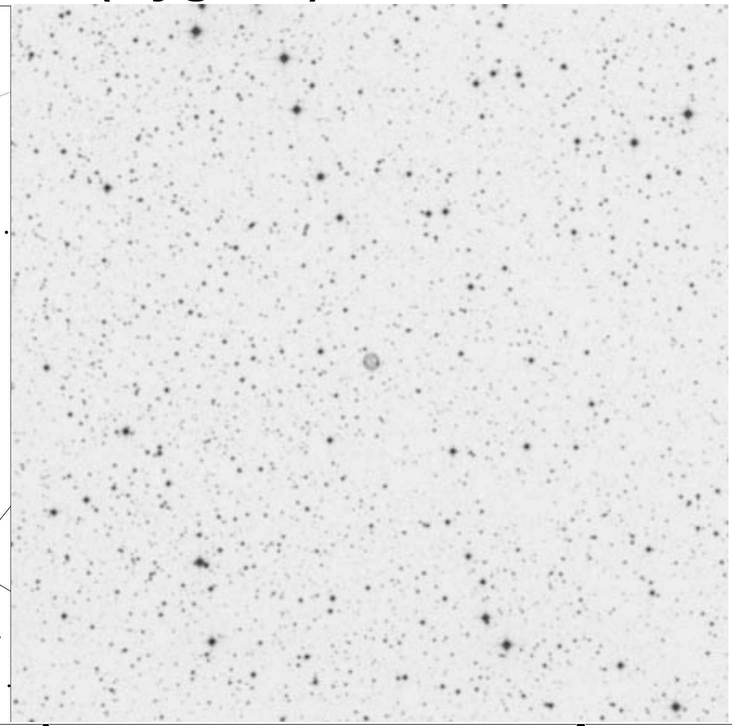


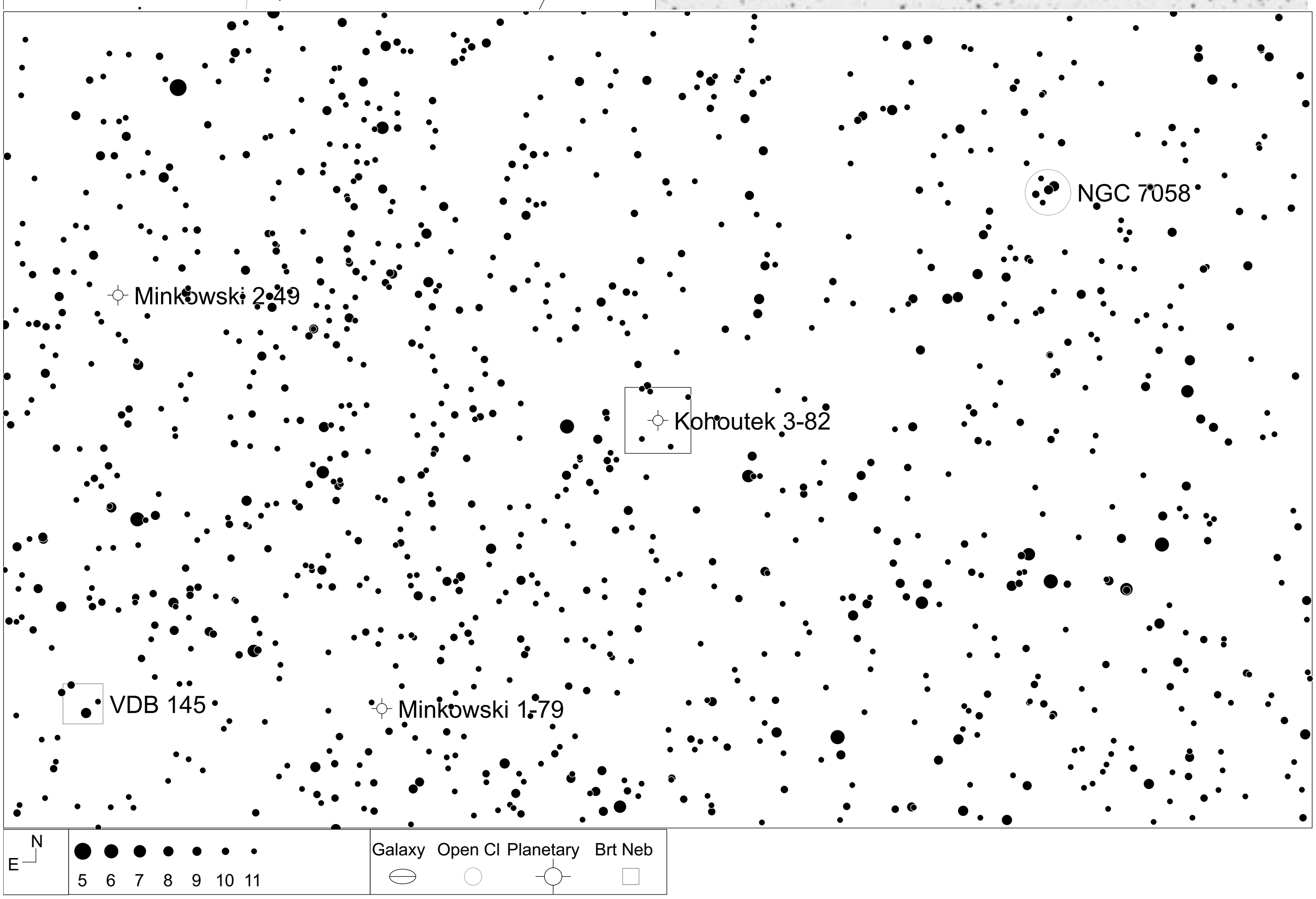


Other ID	Type	RA	Dec	Mag	* Mag	Size
PNG084.7–08.0	-	21 23 09.3	+38 58 13	-	-	~50 x 25”-

Kohoutek 3-82 (Cygnus)

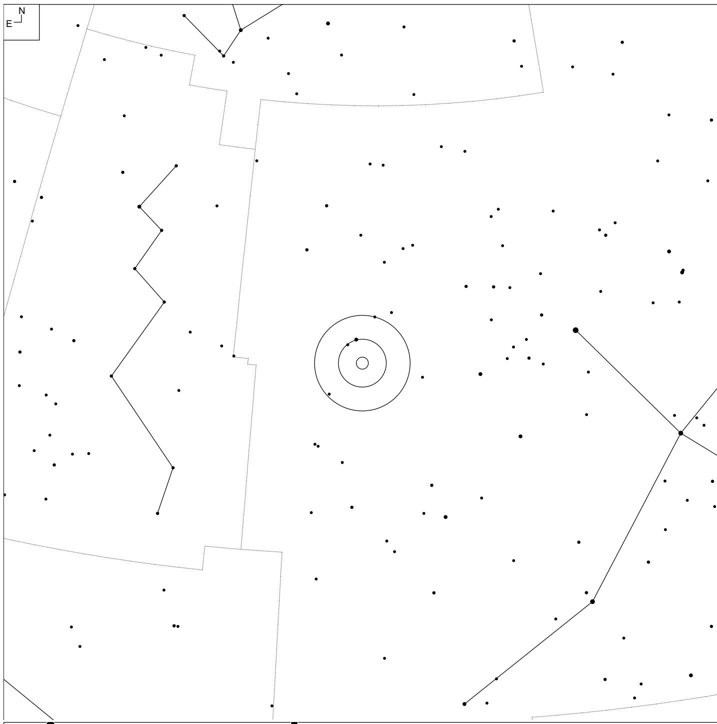


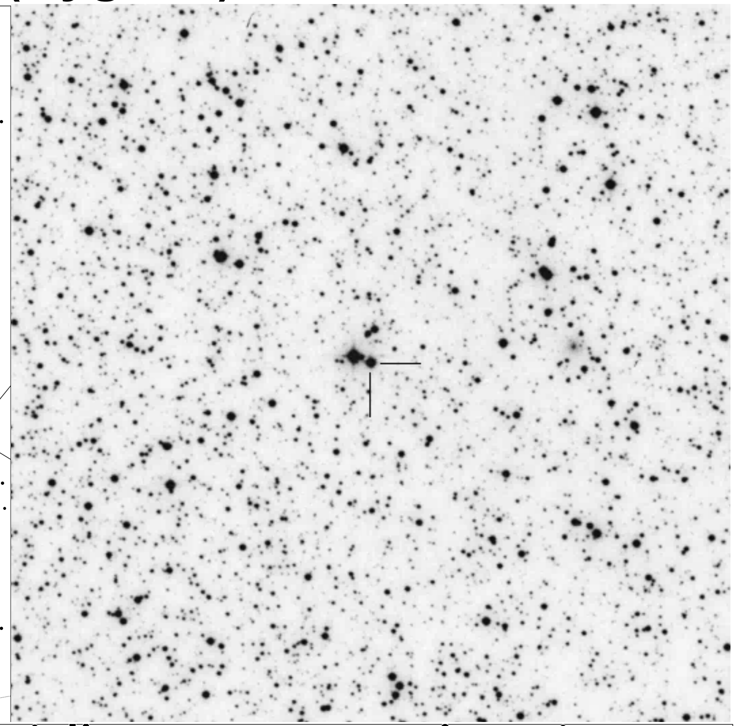


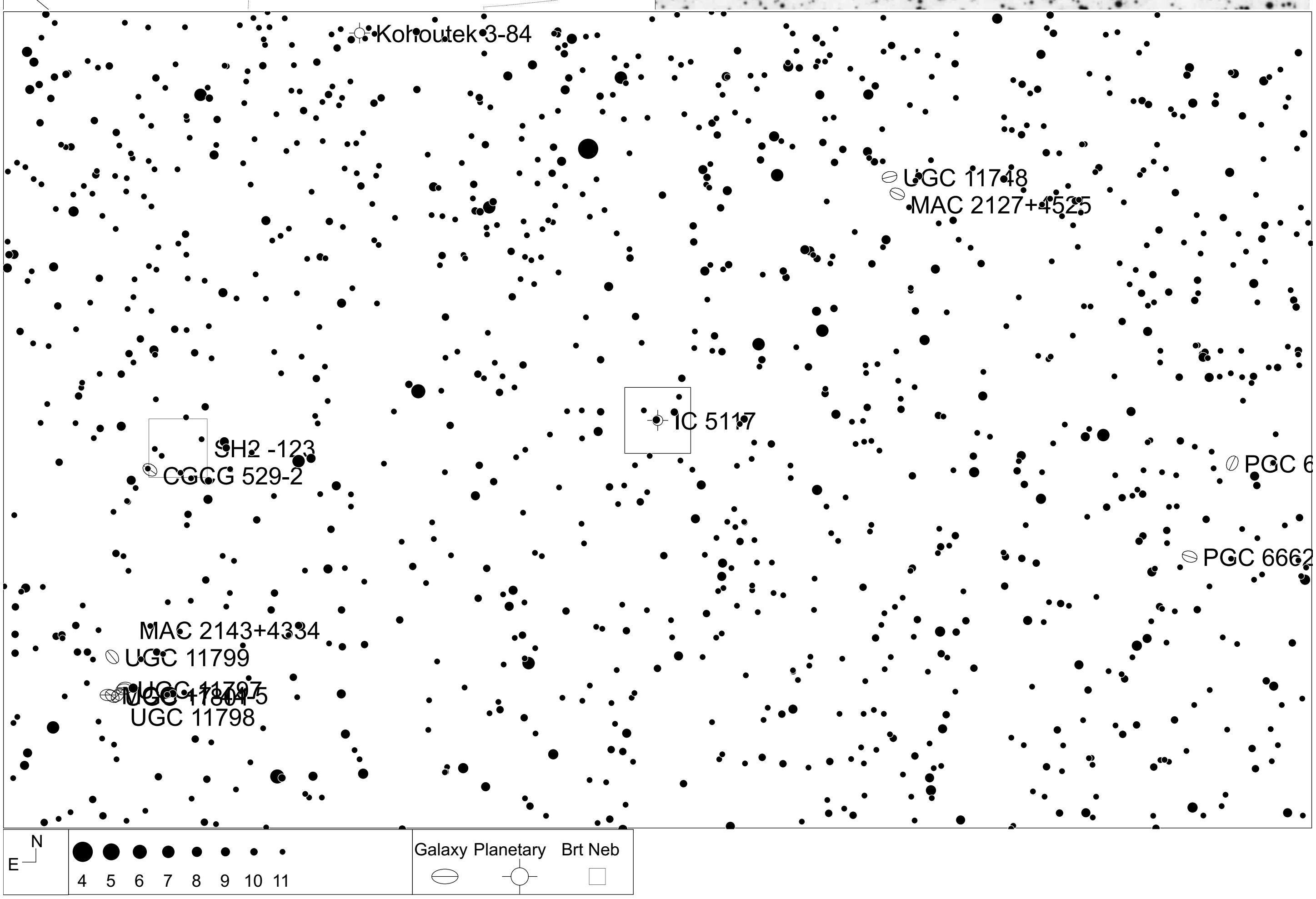


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 93-0.1	-	21 30 51.8	+50 00 05	16.0p	19.5	24”

IC 5117 (Cygnus)

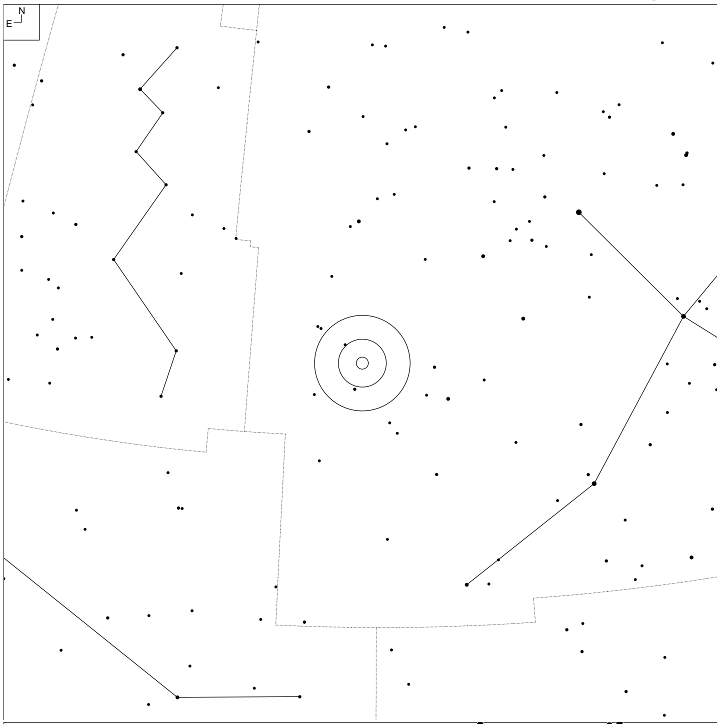


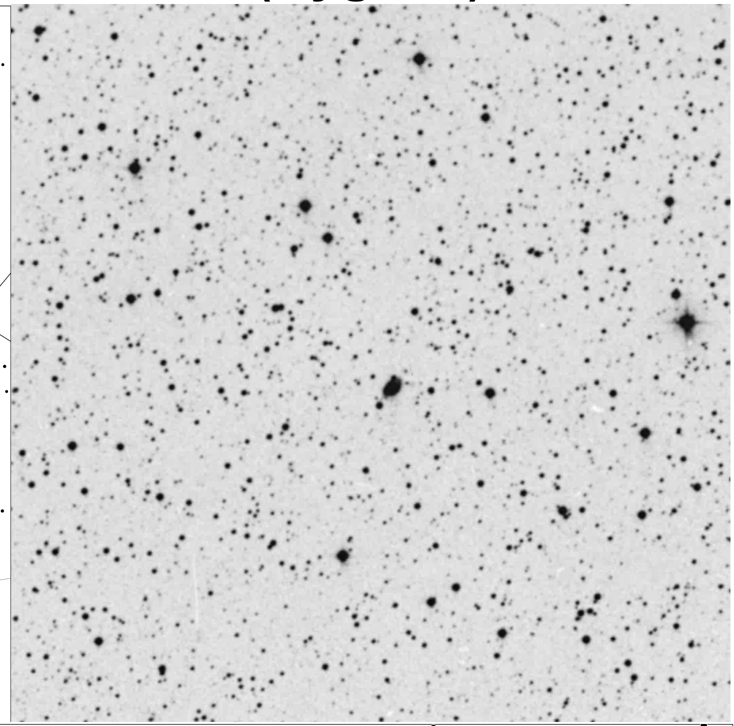


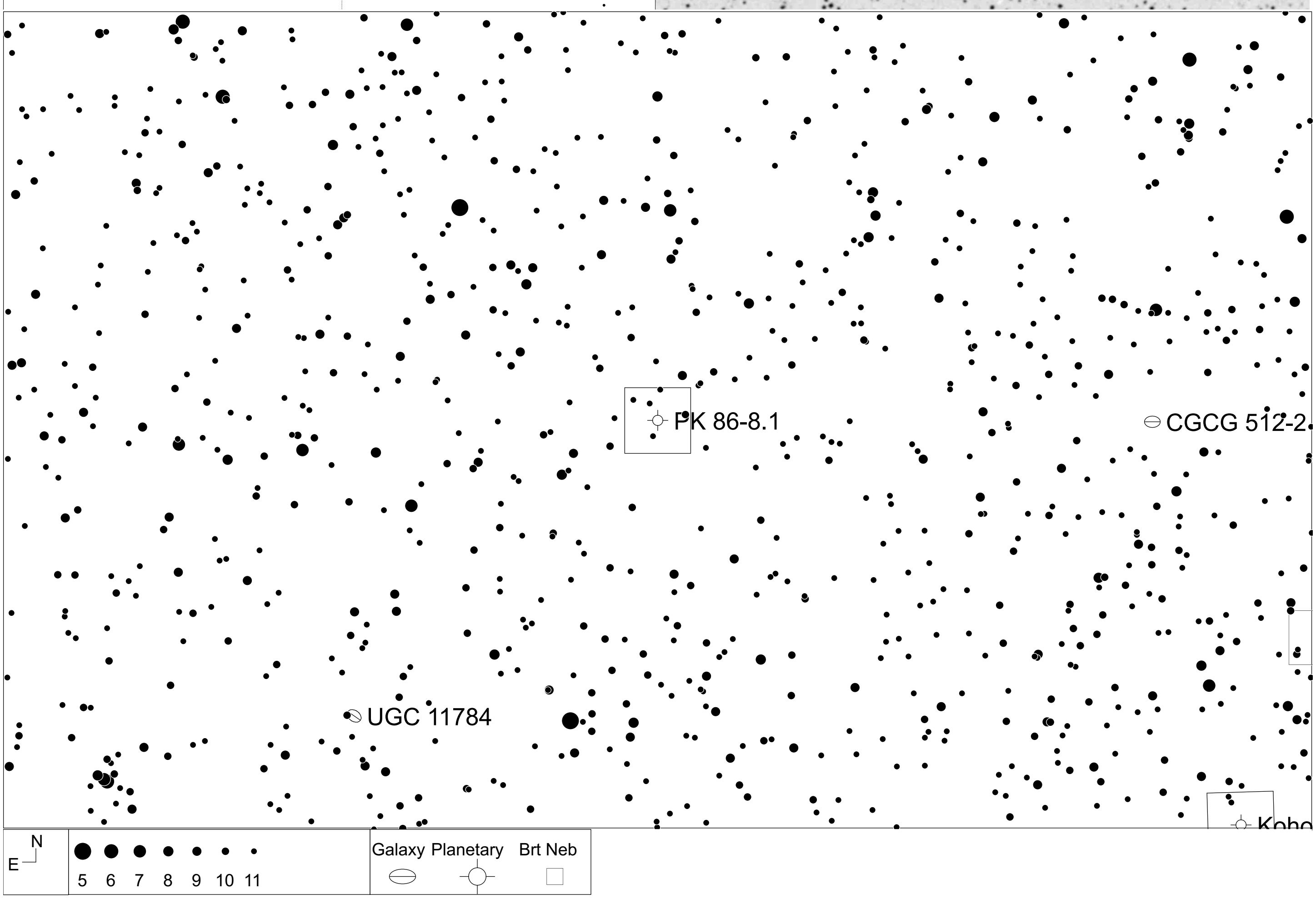


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 89-5.1	2	21 32 31.1	+44 35 47	11.5v	16.7	6”

PK 86-8.1 – Baby Dumbbell (Cygnus)

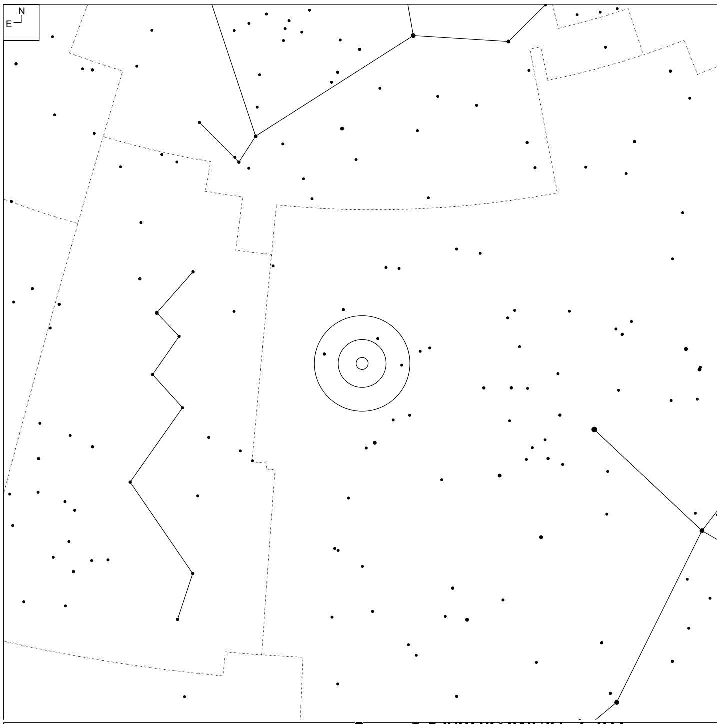


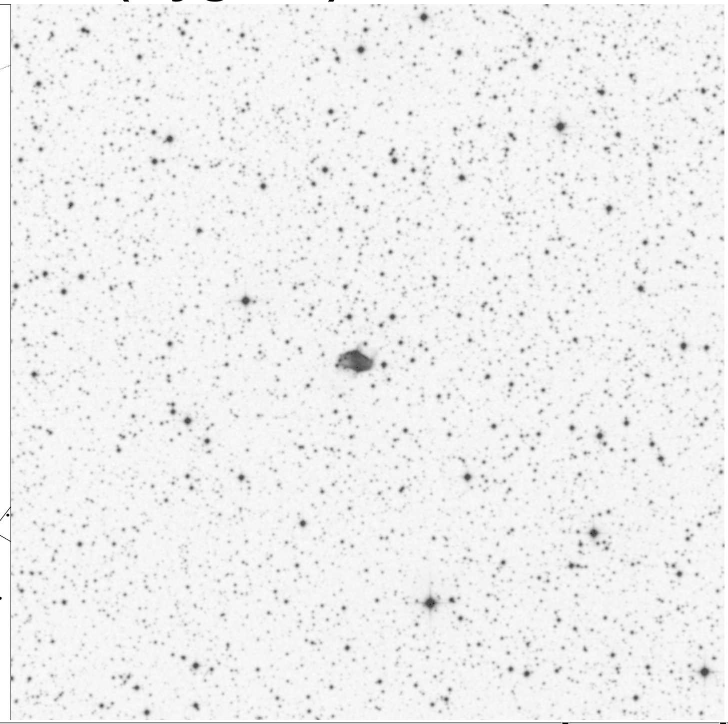


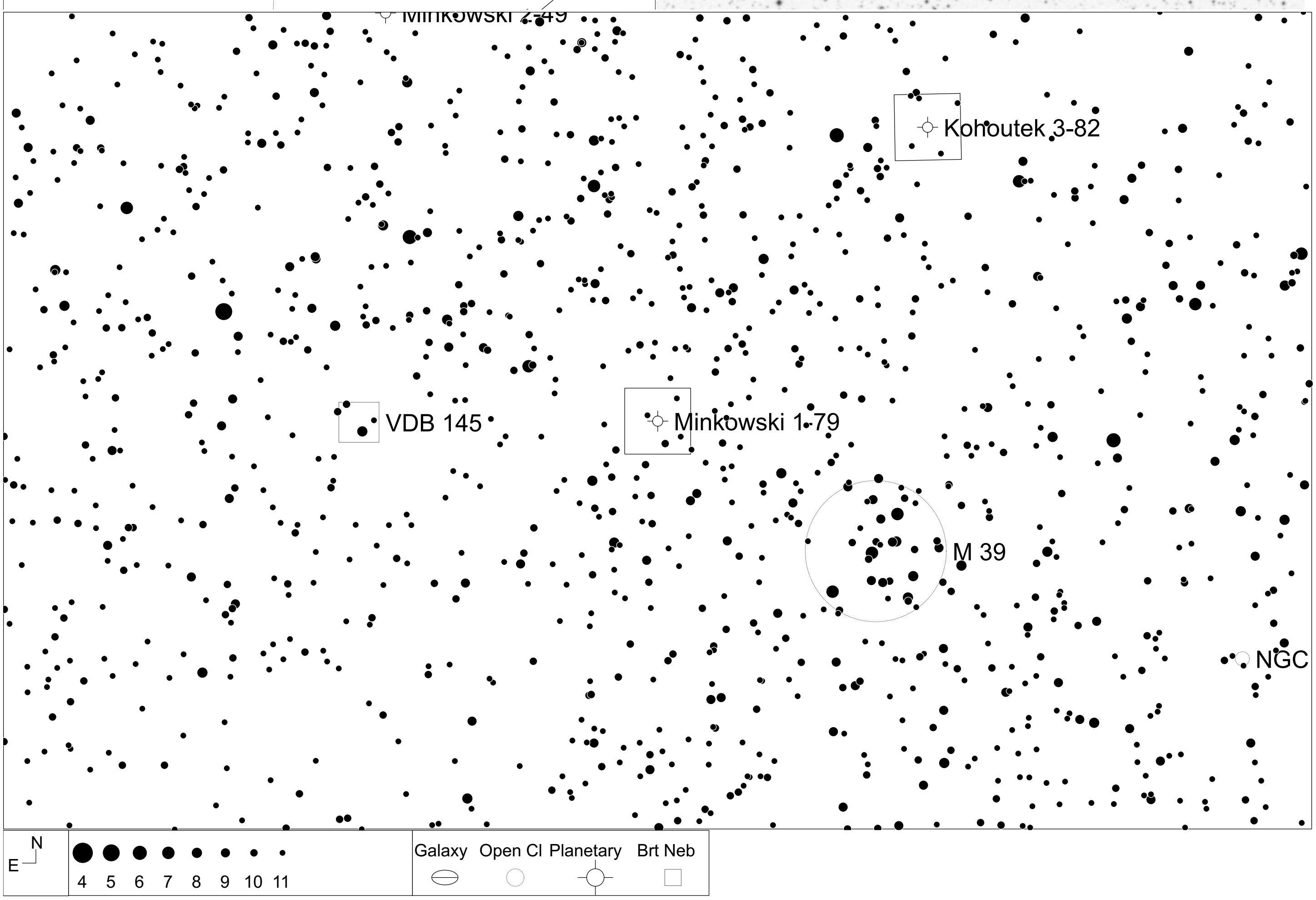


Other ID	Type	RA	Dec	Mag	* Mag	Size
Hu 1-2	2	21 33 08.2	+39 38 12	12.0v	17.3	32 x 20”

Minkowski 1-79 (Cygnus)

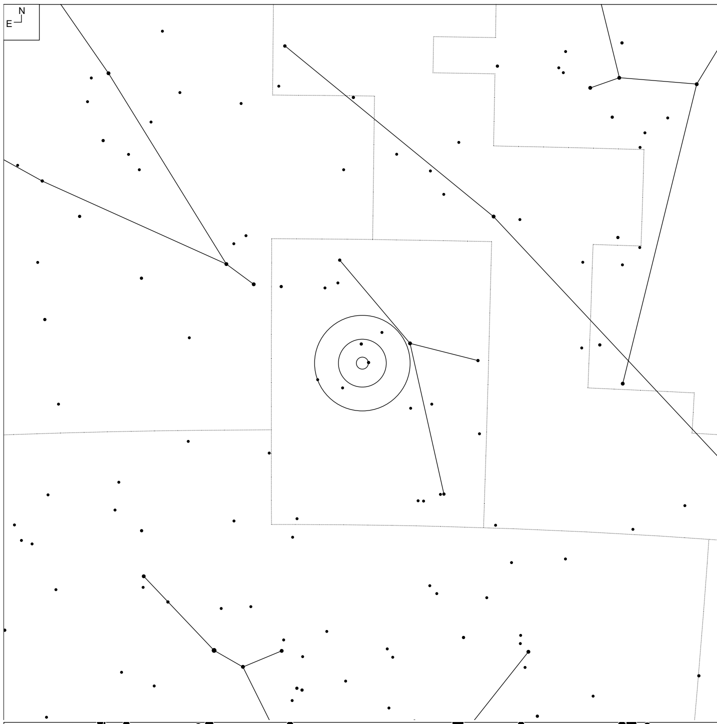


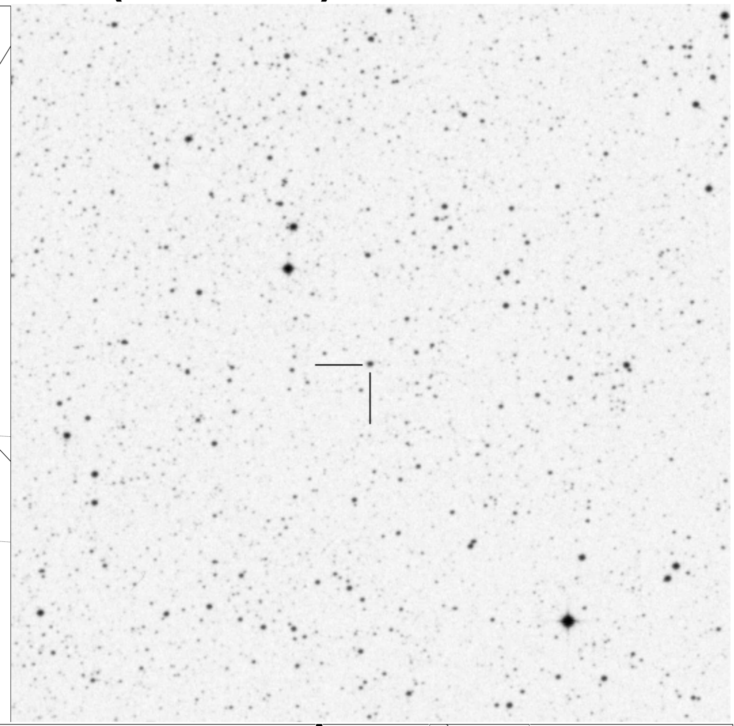


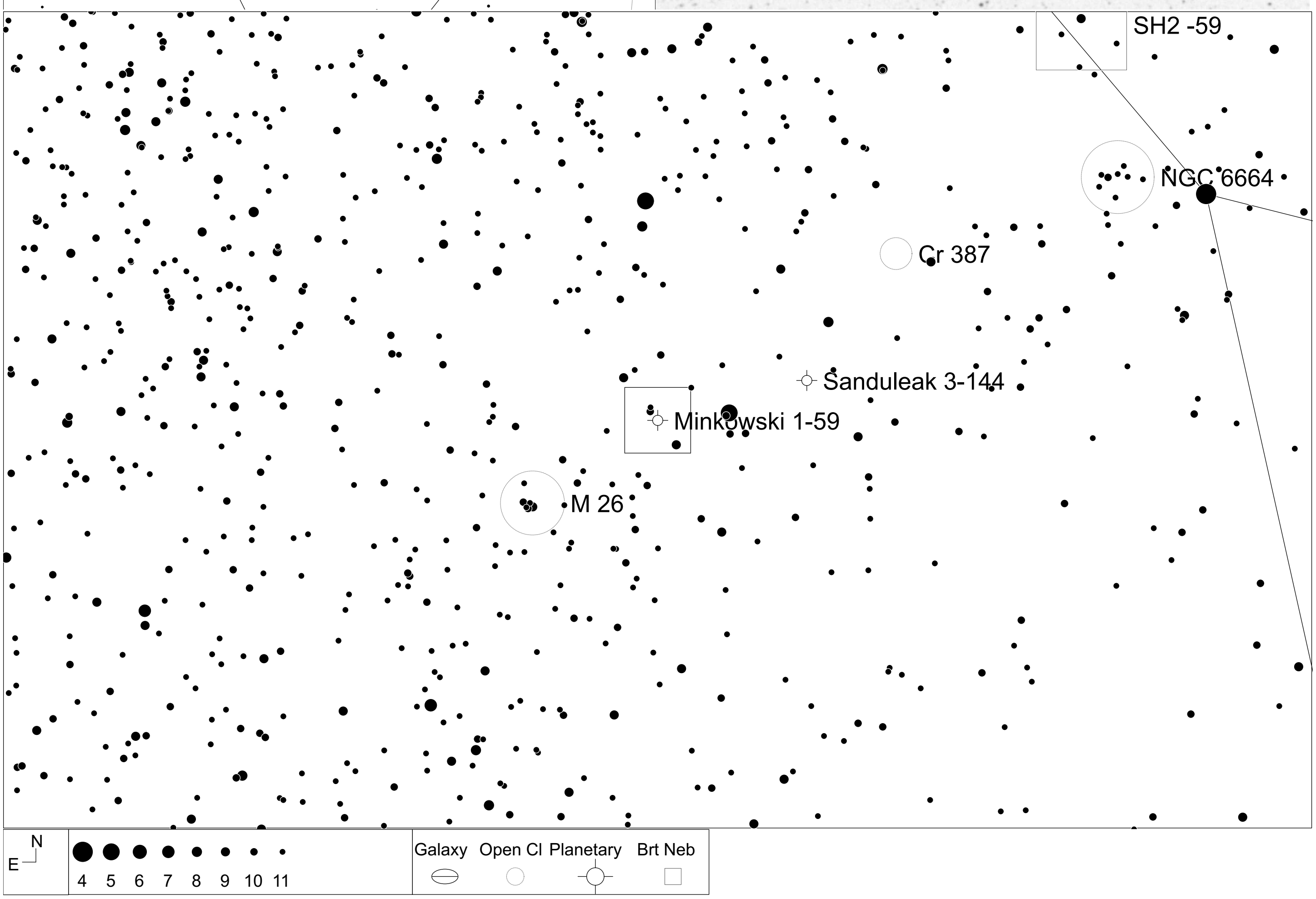


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 93+2.1	4	21 37 01.6	+48 56 00	13.2v	19.1	60 x 42”

Minkowski 1-59 (Scutum)

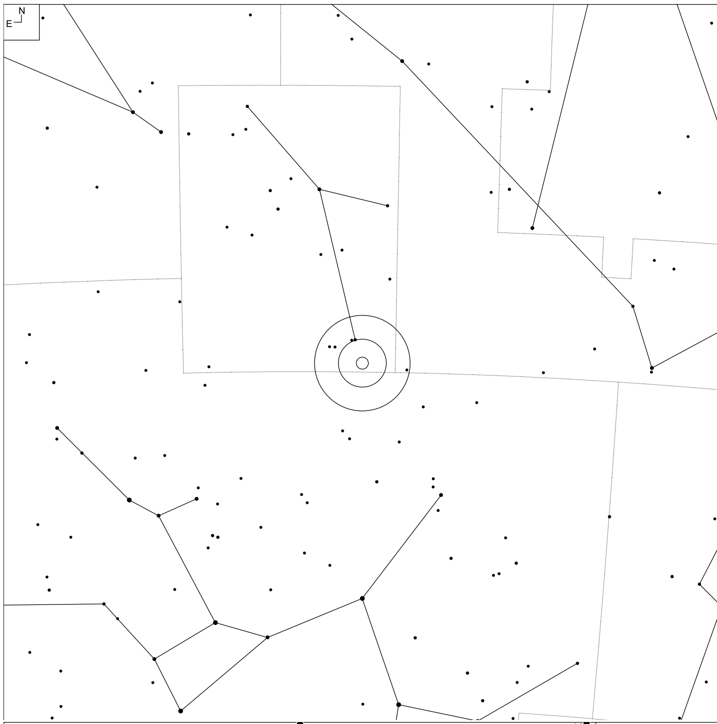


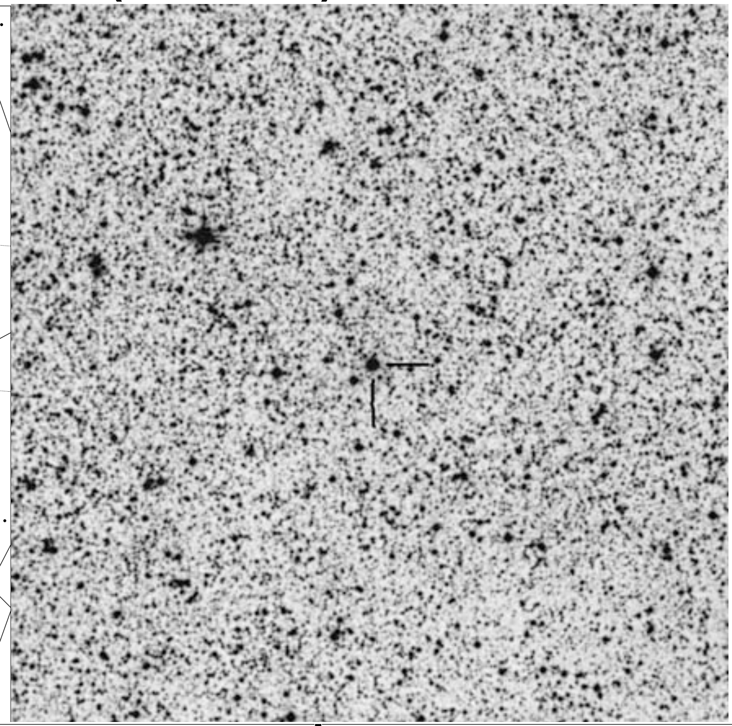


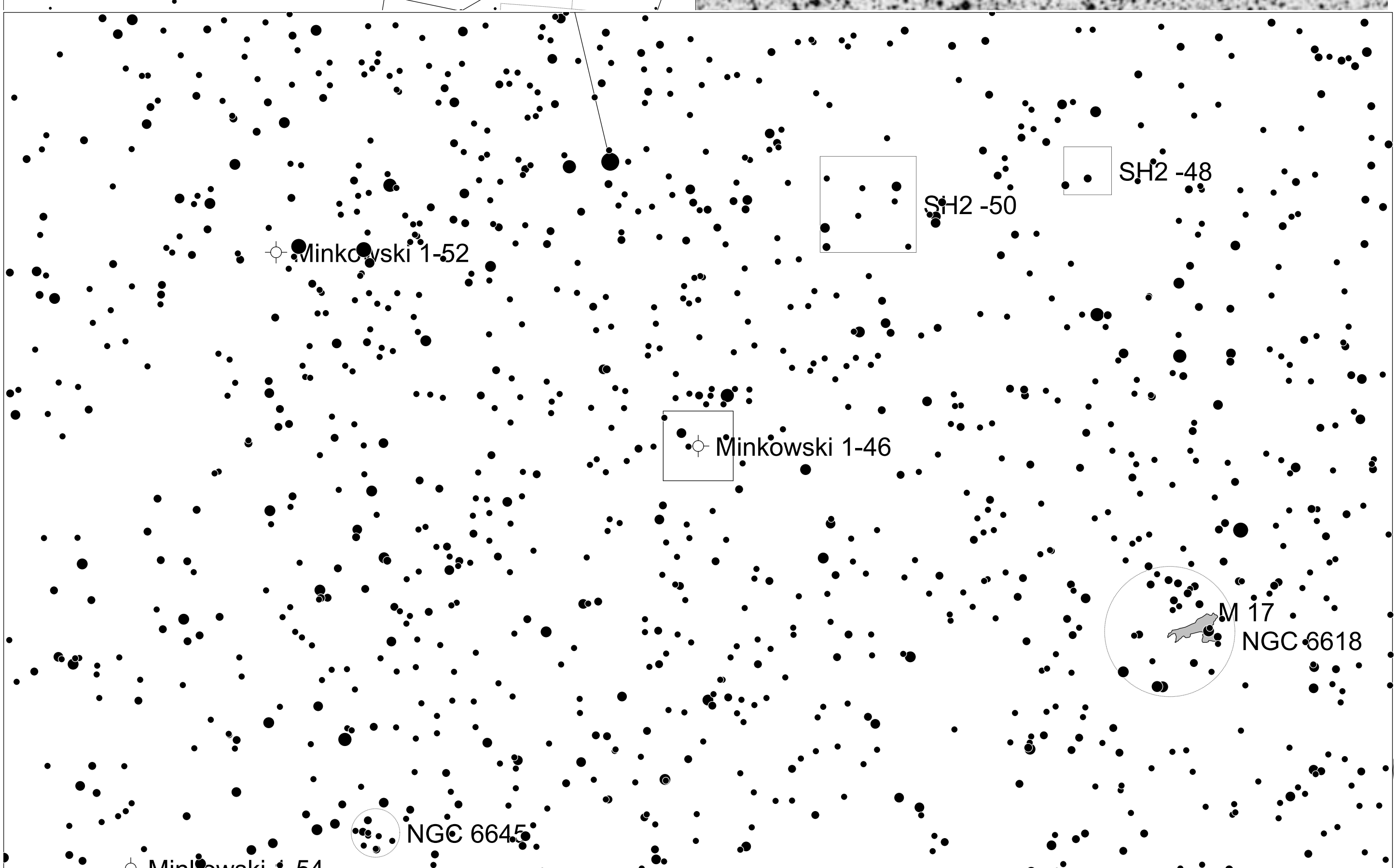


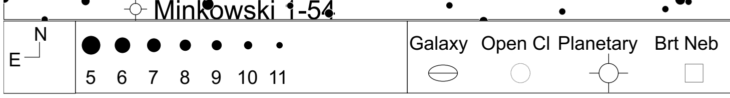
Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 23-2.1	2	18 43 20.2	-09 04 49	12.5v	-	5”

Minkowski 1-46 (Scutum)



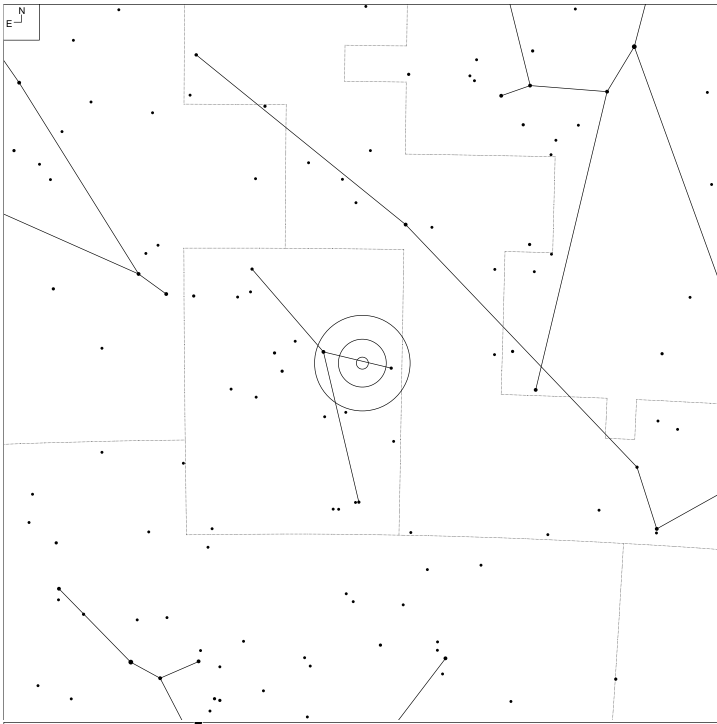


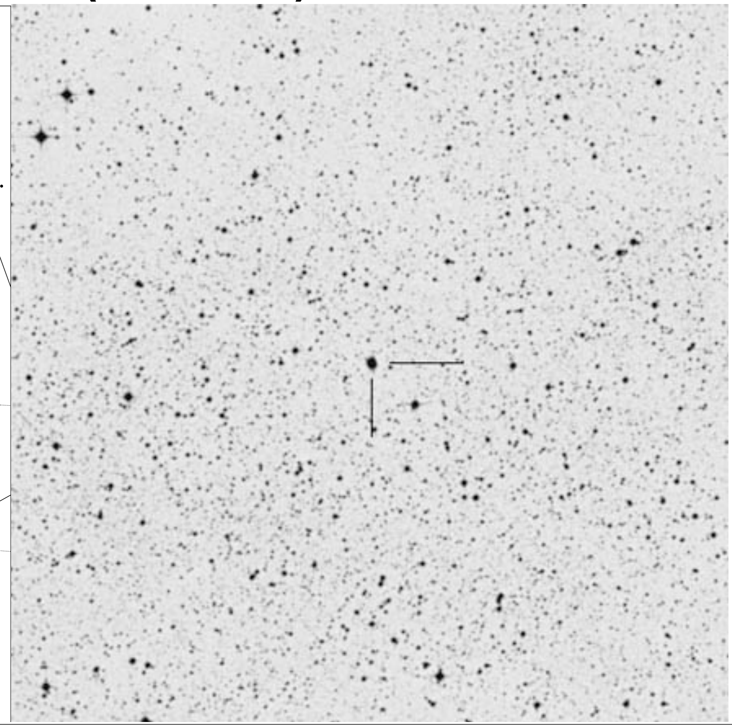


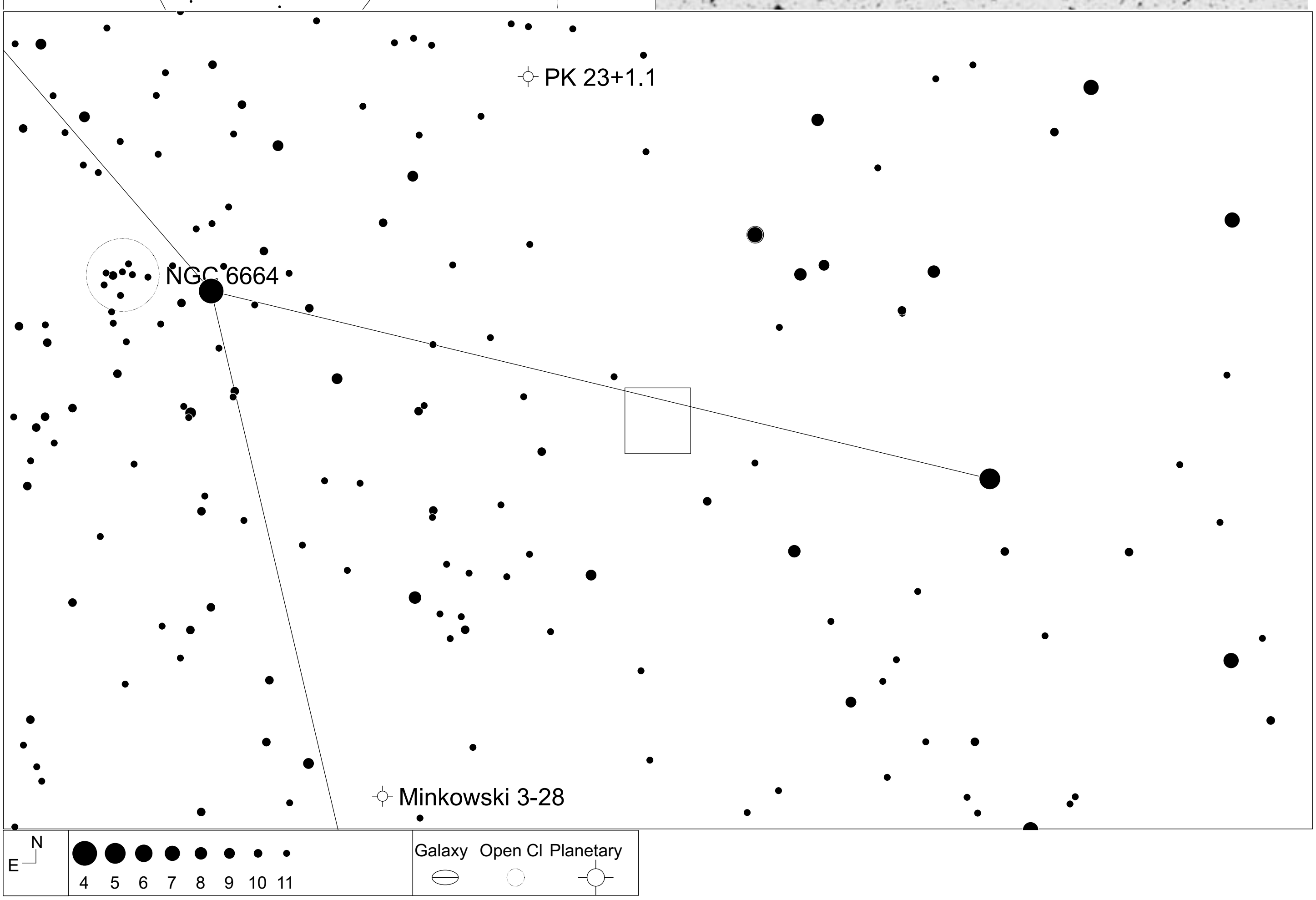


Other ID	Type	RA	Dec	Mag	* Mag	Size
Henize 2-401	4+2	18 27 56.3	-15 32 55	14.6p	12.8	11”

PNG 22.5+1.0 (Scutum)

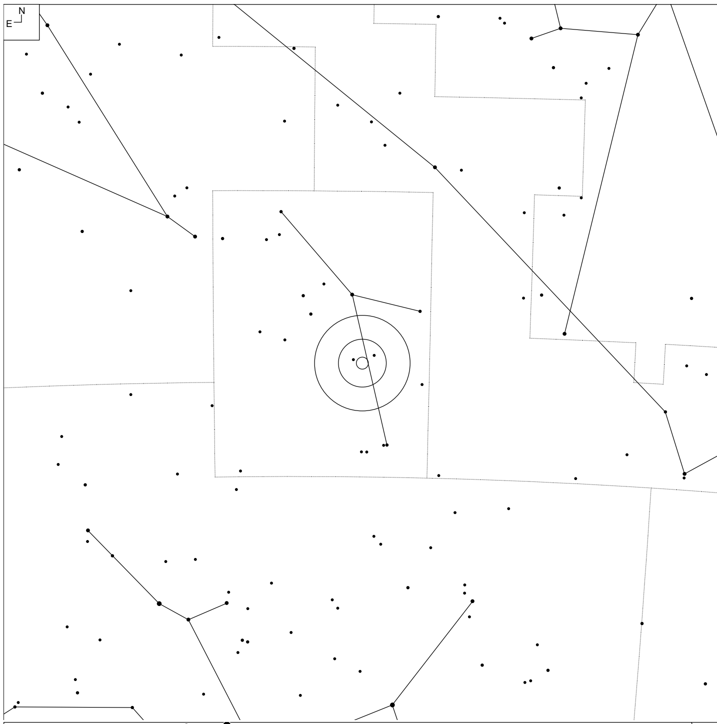


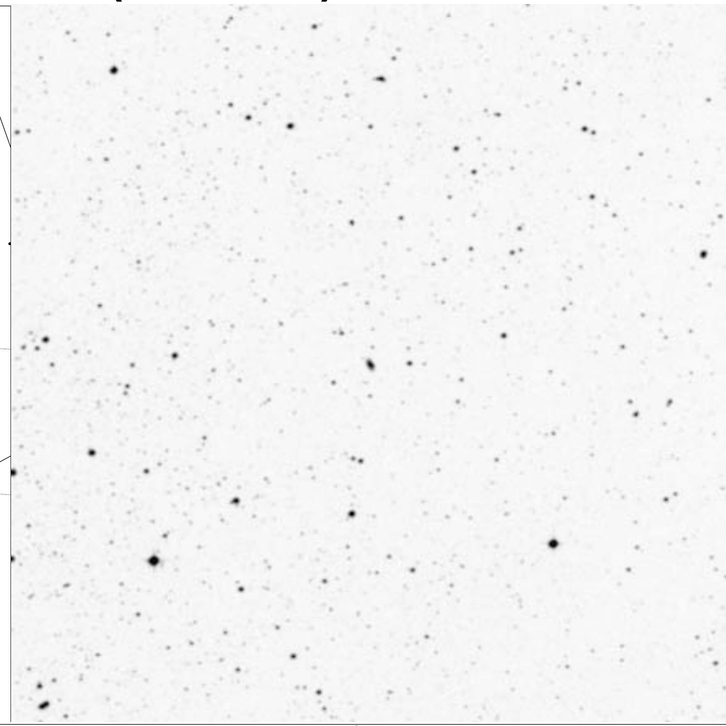


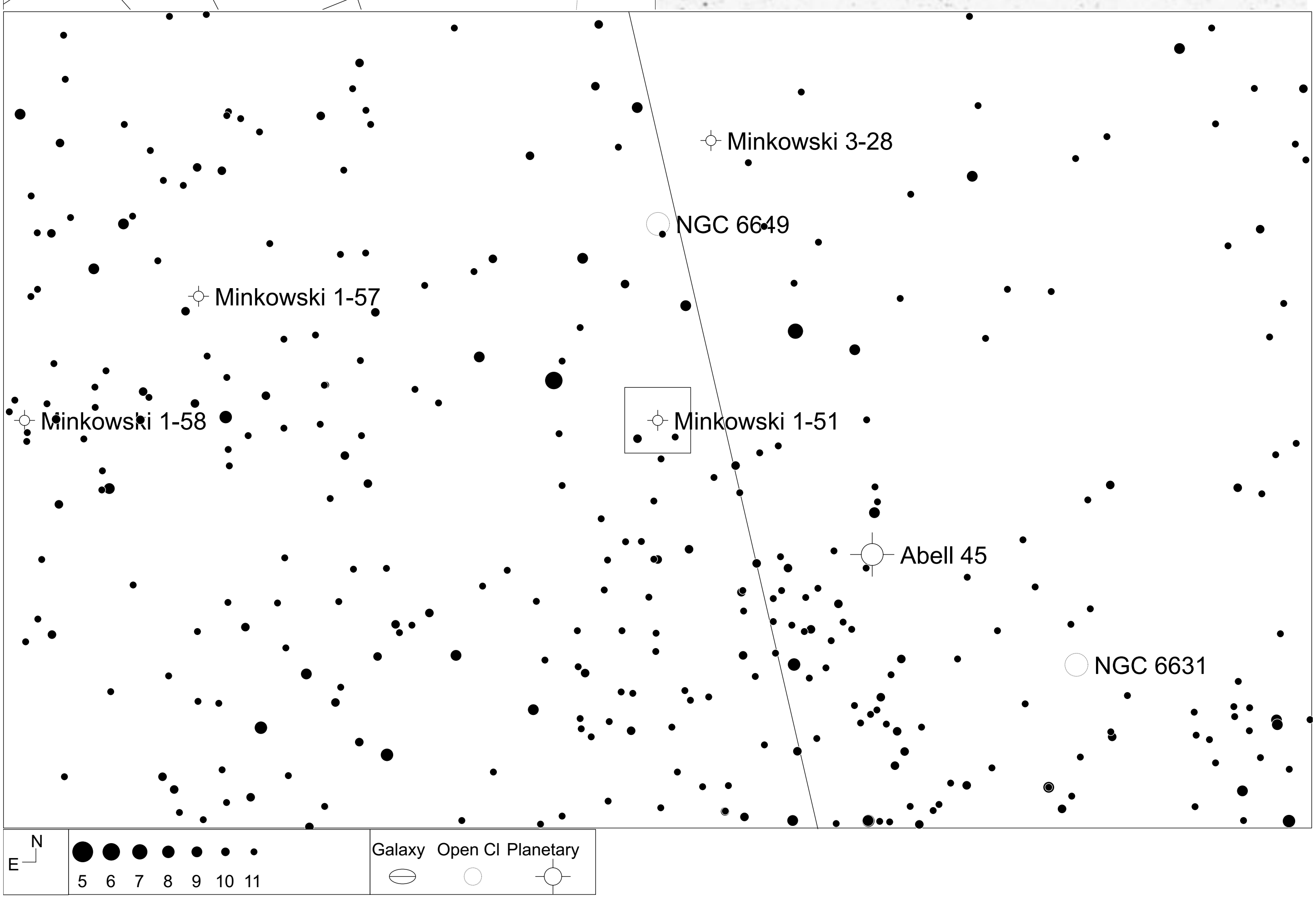


Other ID	Type	RA	Dec	Mag	* Mag	Size
-	-	18 28 35.4	-08 43 24	18.0p	-	17”

Minkowski 1-51 (Scutum)

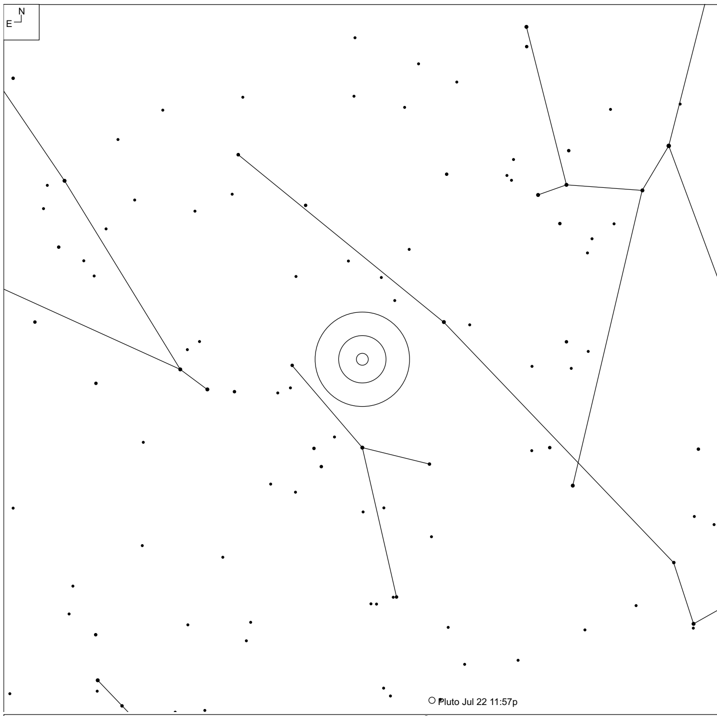


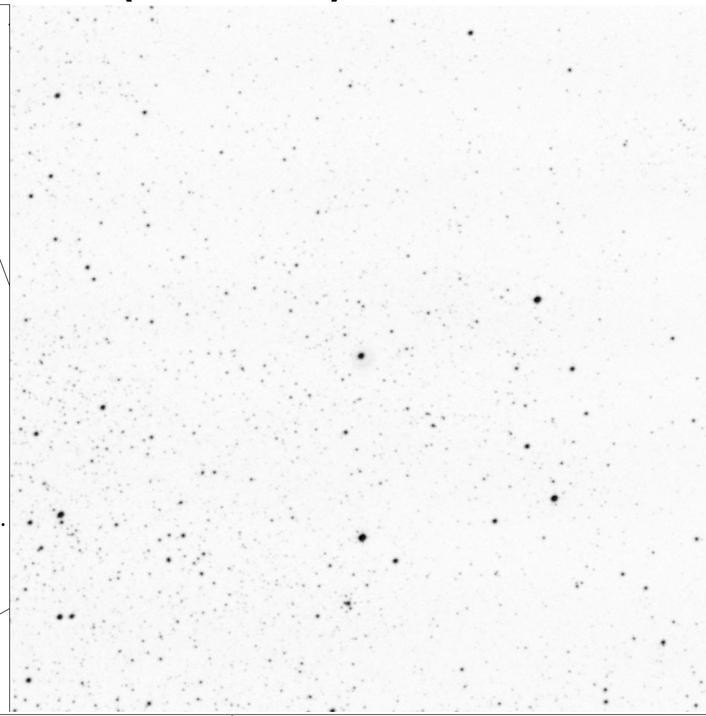


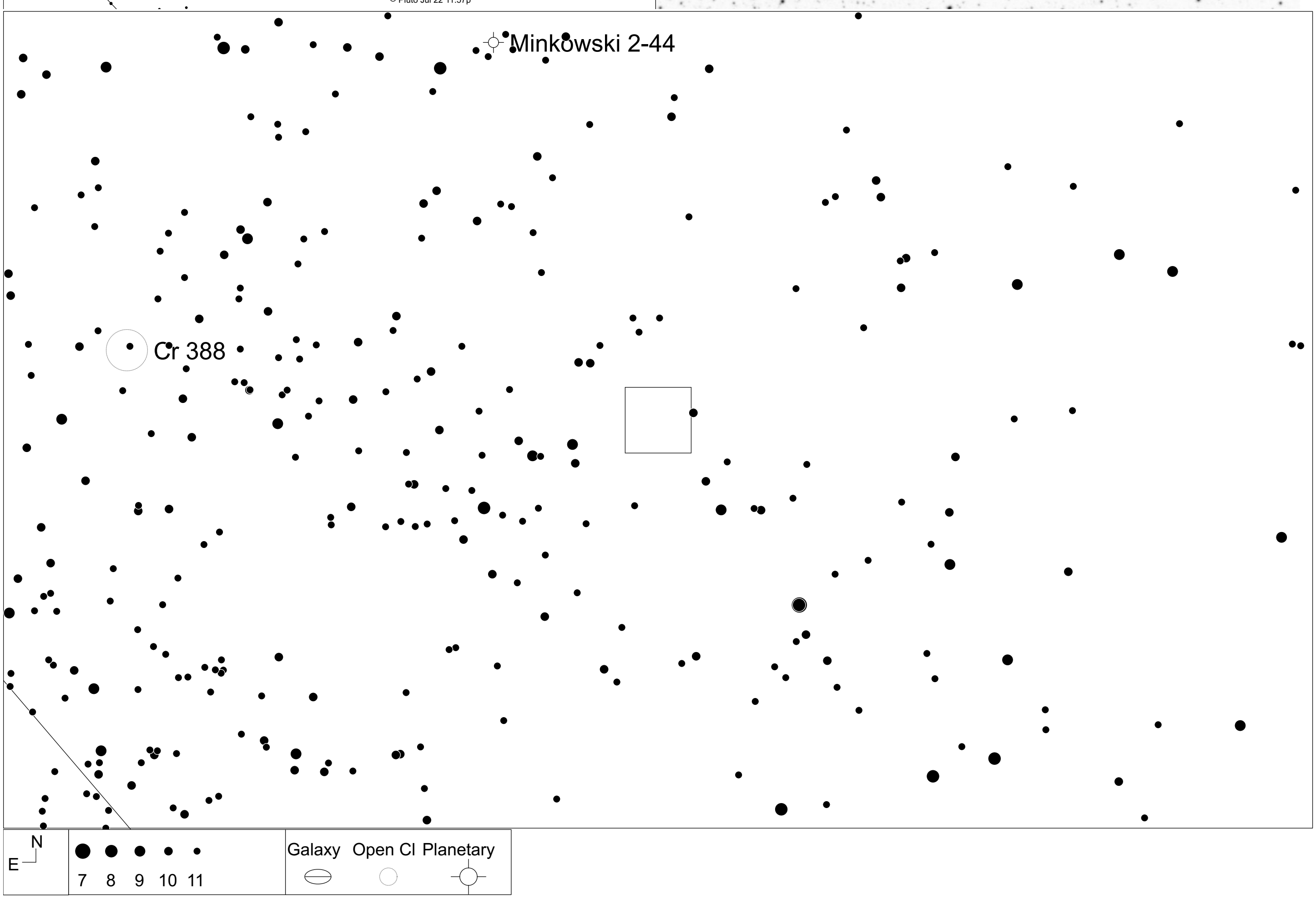


Other ID	Type	RA	Dec	Mag	* Mag	Size
Henize 2-411	3	18 33 29.0	-11 07 26	16.7p	-	10”

PN G 027.0+01.5 (Scutum)

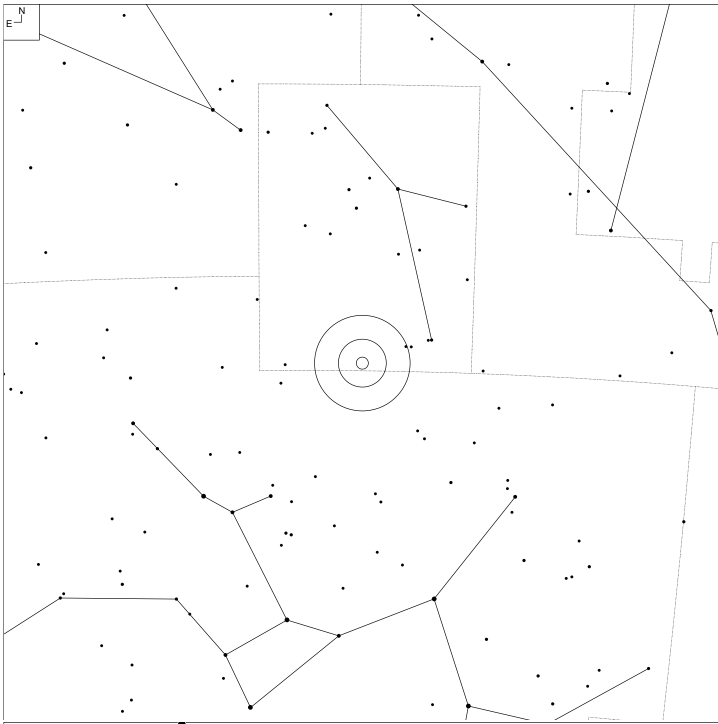


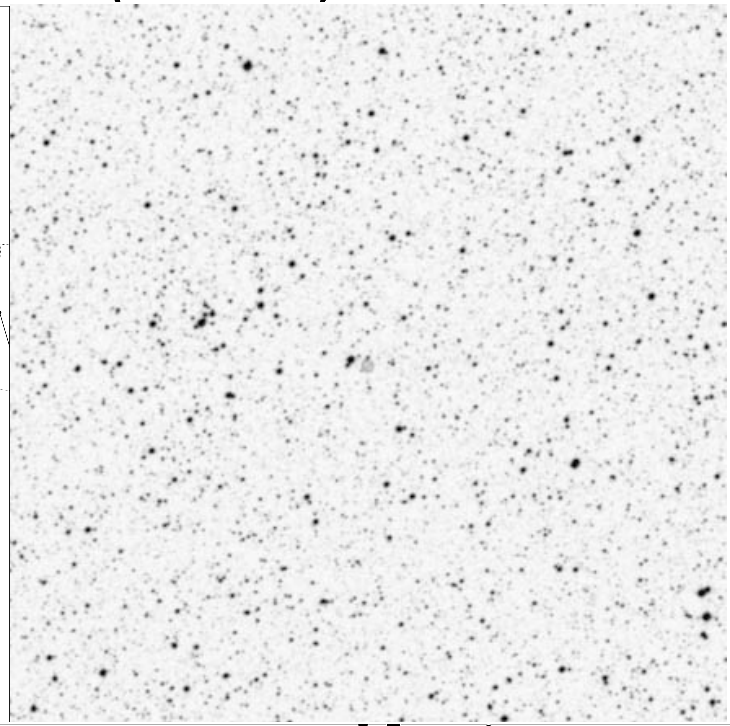


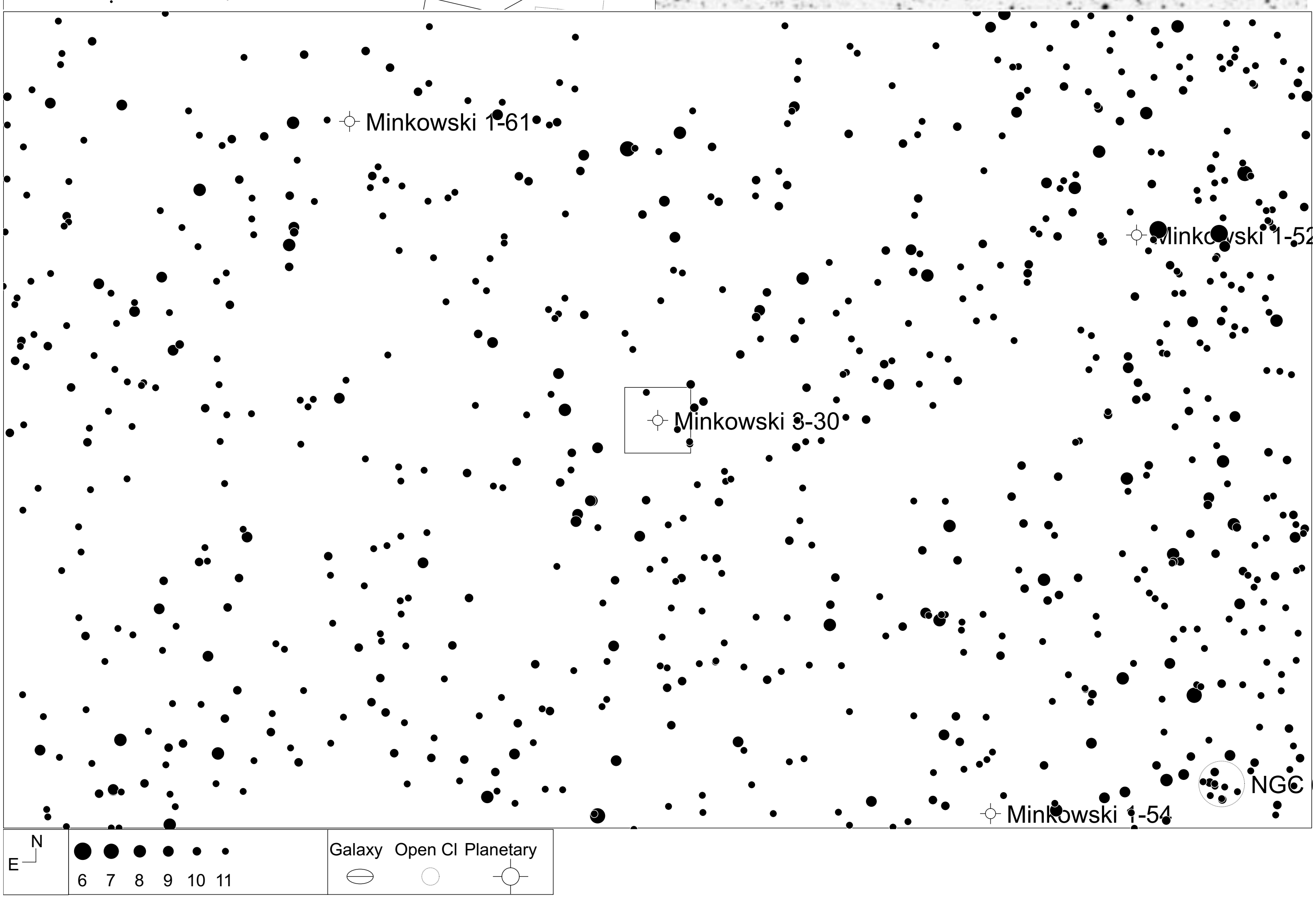


Other ID	Type	RA	Dec	Mag	* Mag	Size
		18 35 11.6	-04 29 06	-	-	32x25”

Minkowski 3-30 (Scutum)

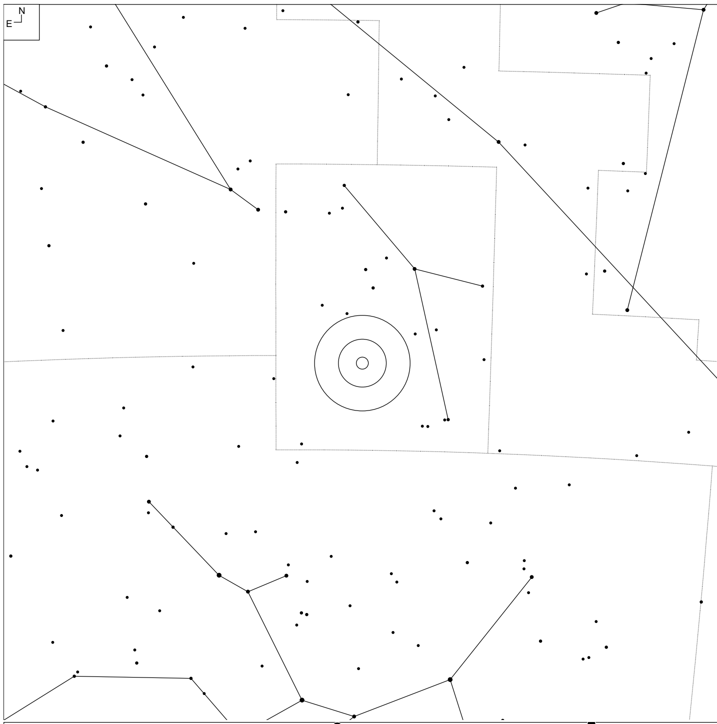


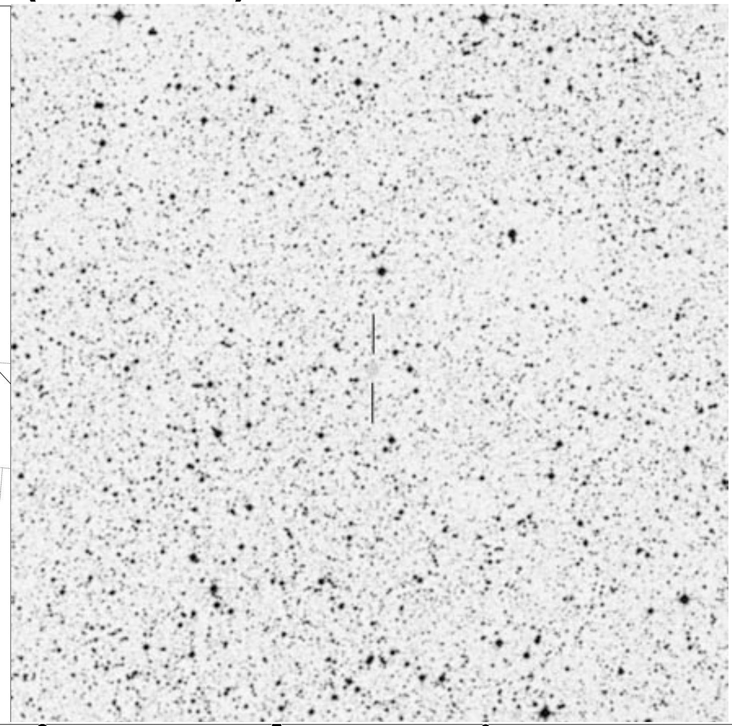


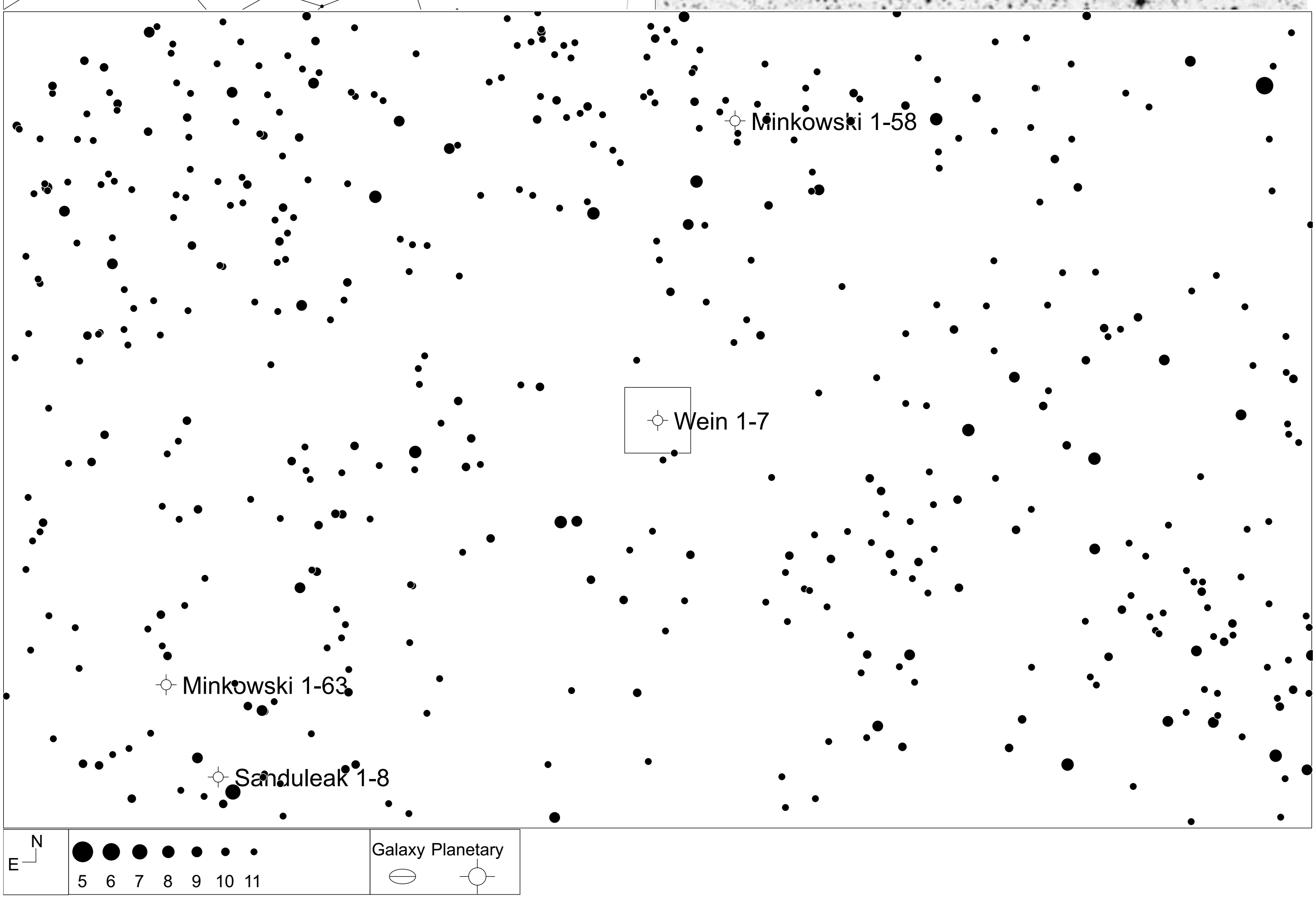


Other ID	Type	RA	Dec	Mag	* Mag	Size
Sanuleak 3-143	4	18 41 14.8	-15 33 39	14.6p	17.9	17”

Wein 1-7 (Scutum)

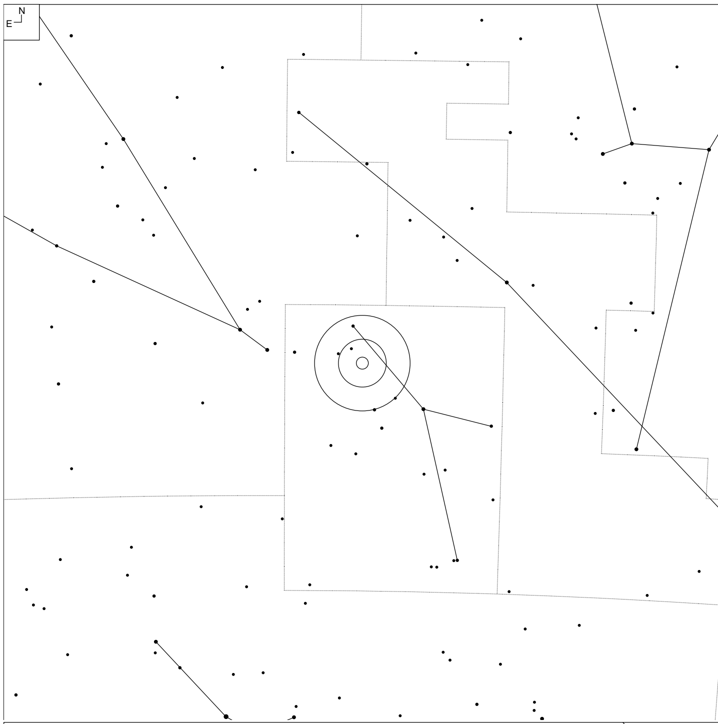


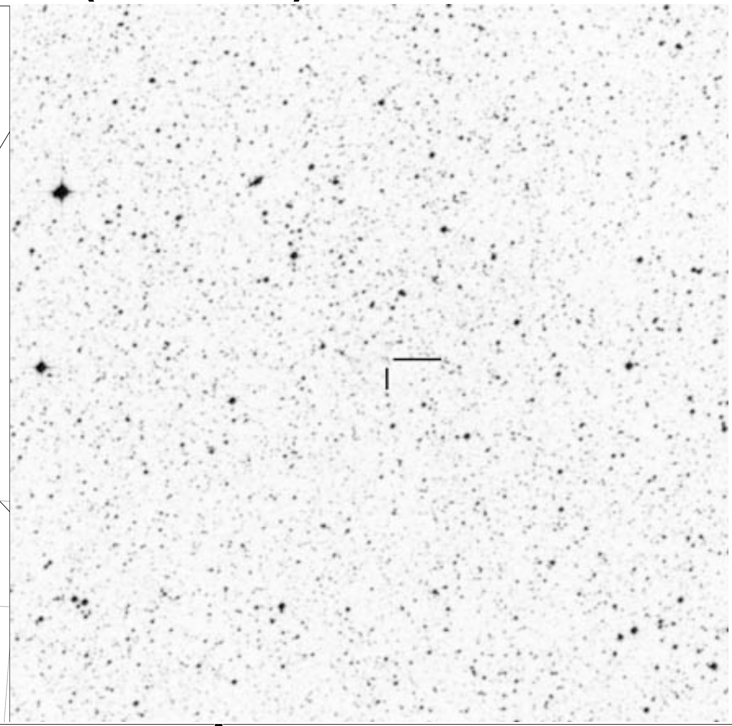


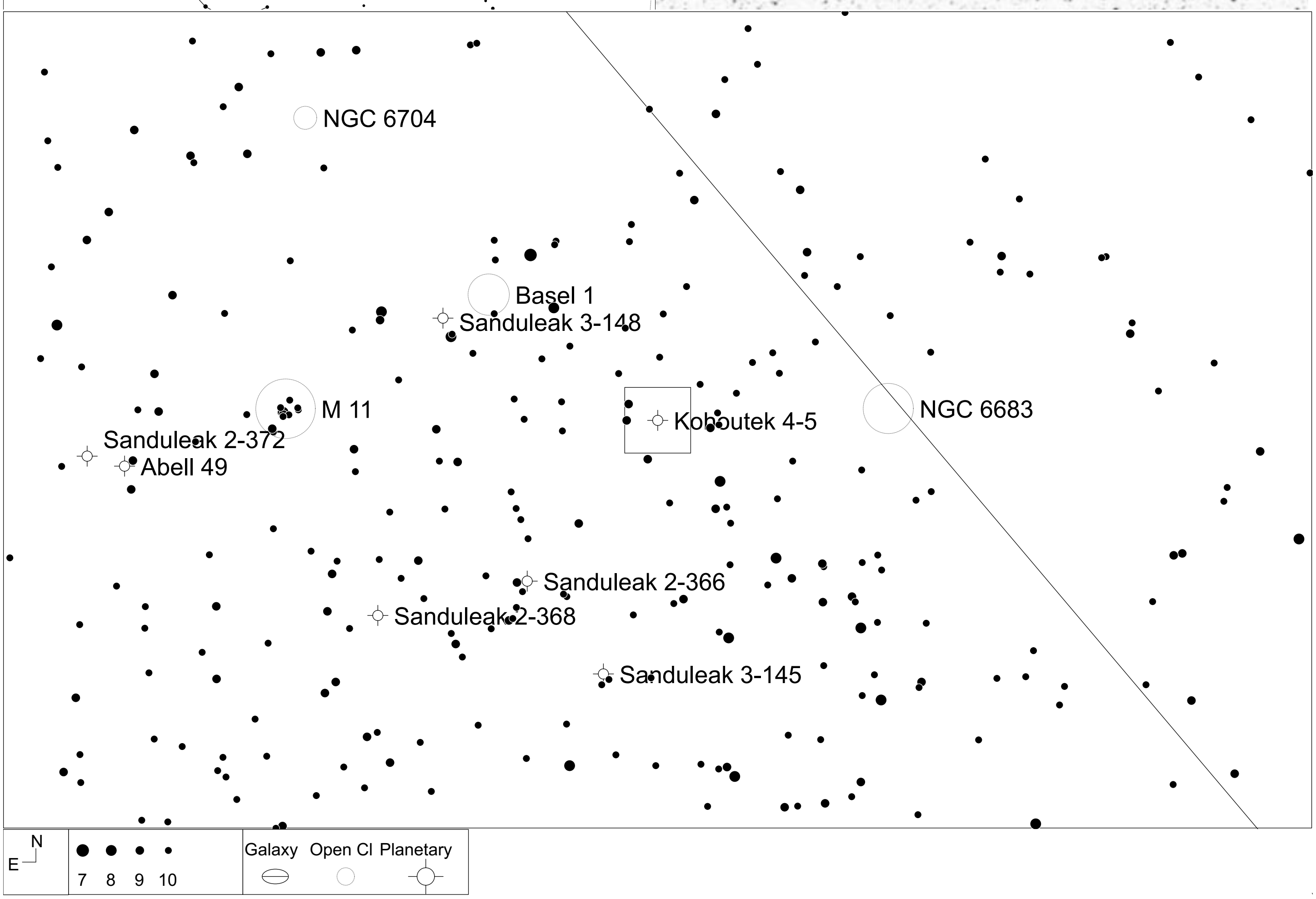


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 21-3.1	-	18 44 06.5	-12 12 50	-	21.0	17”

Kohoutek 4-5 (Scutum)

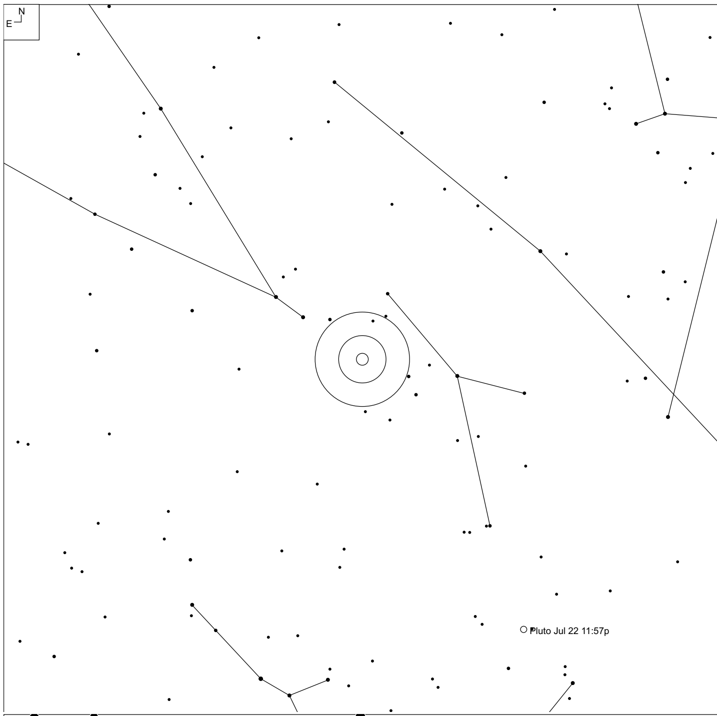


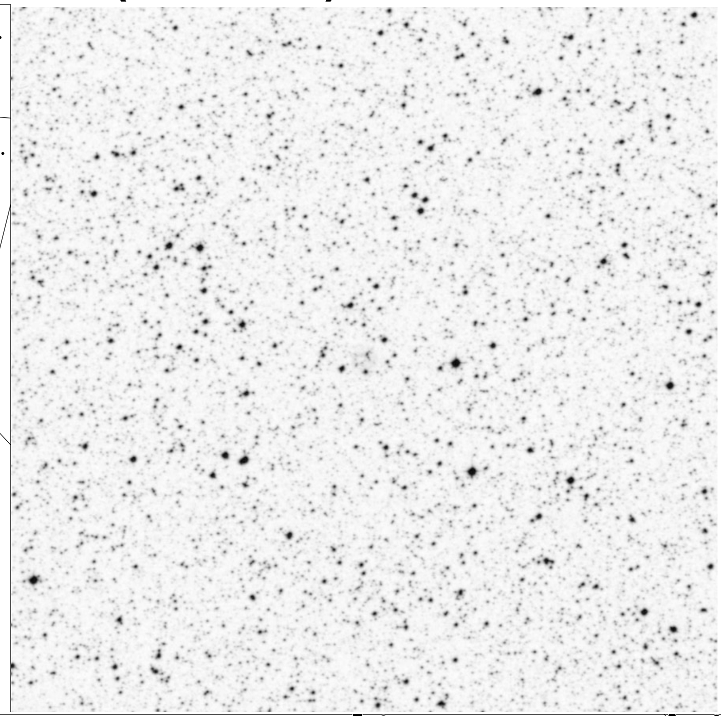


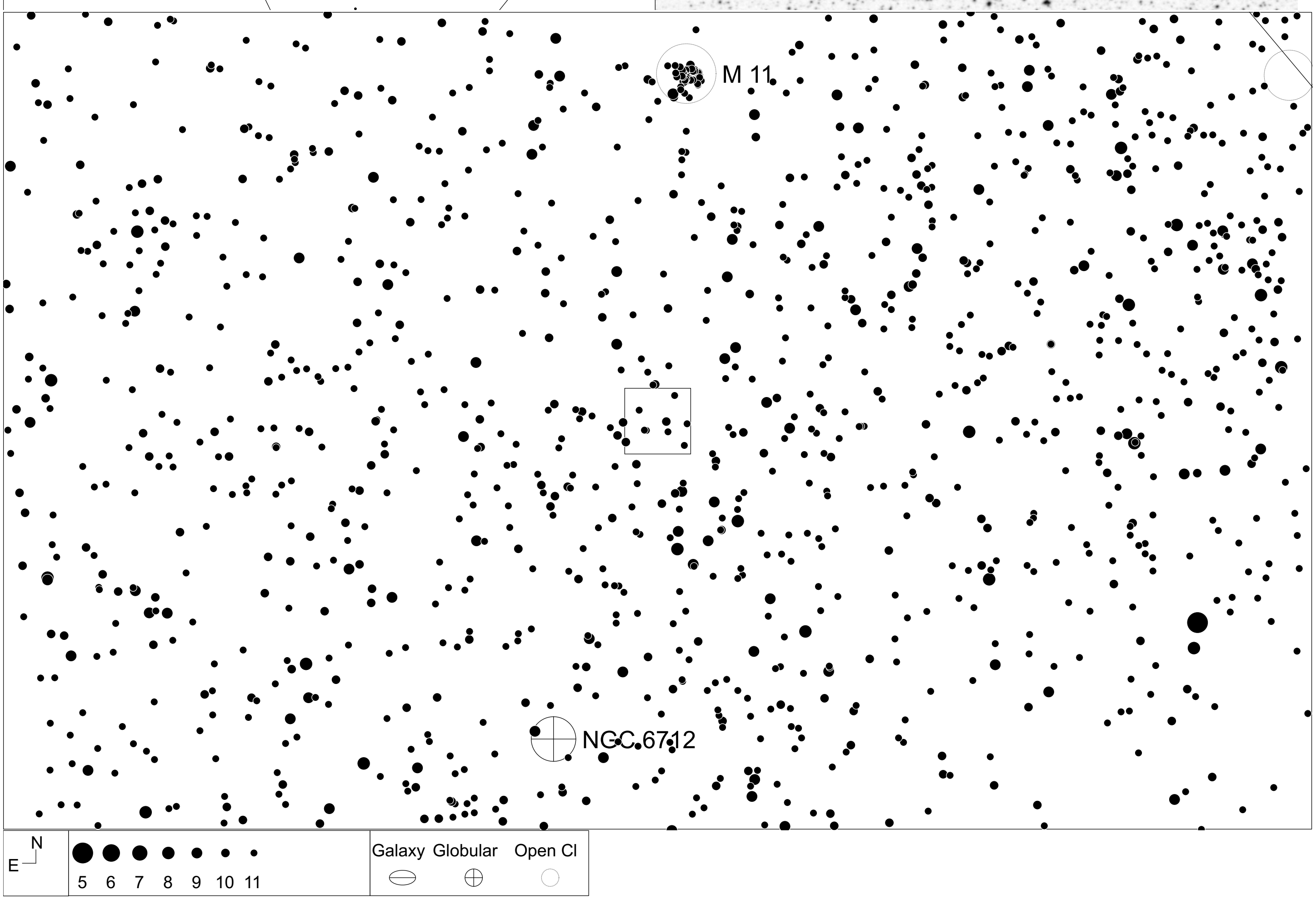


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 26-1.1	-	18 45 36.3	+06 18 43	15.7p	-	20”

PN G 026.2-03.4 (Scutum)

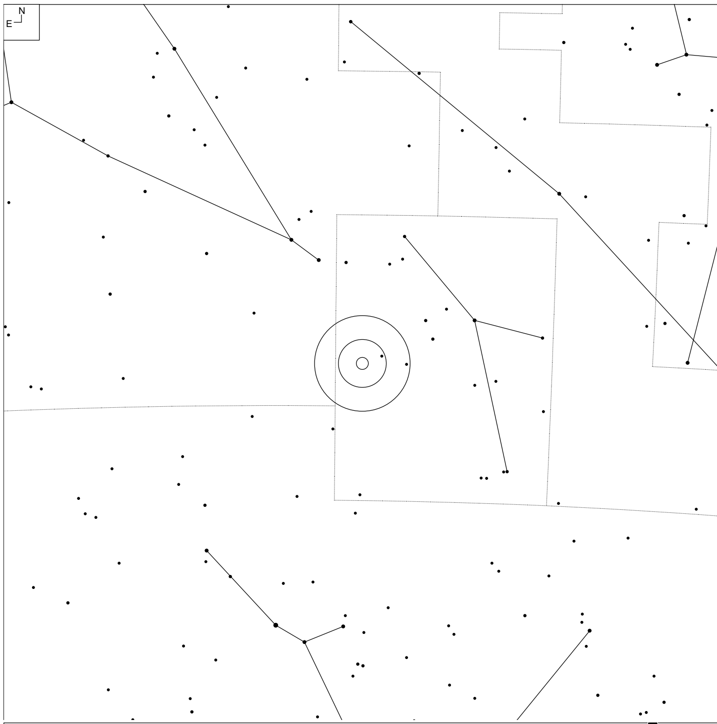


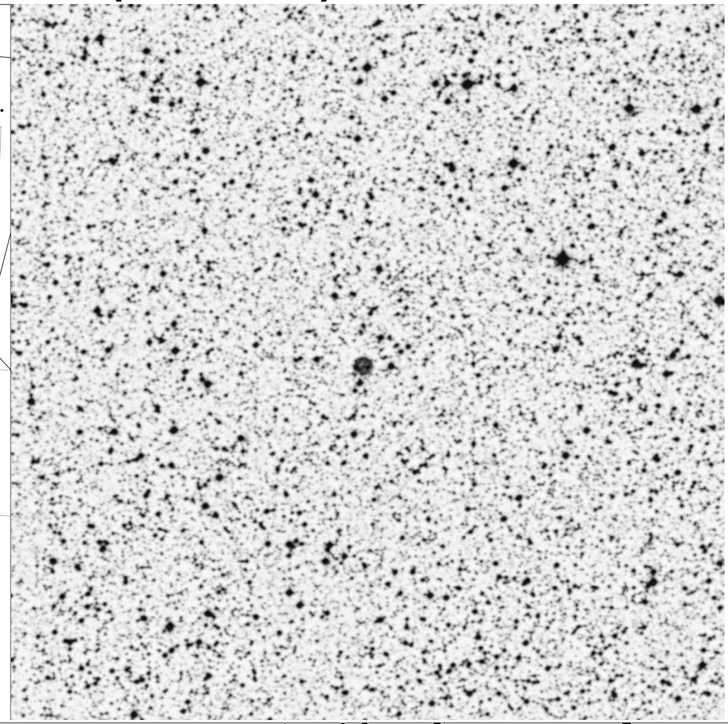


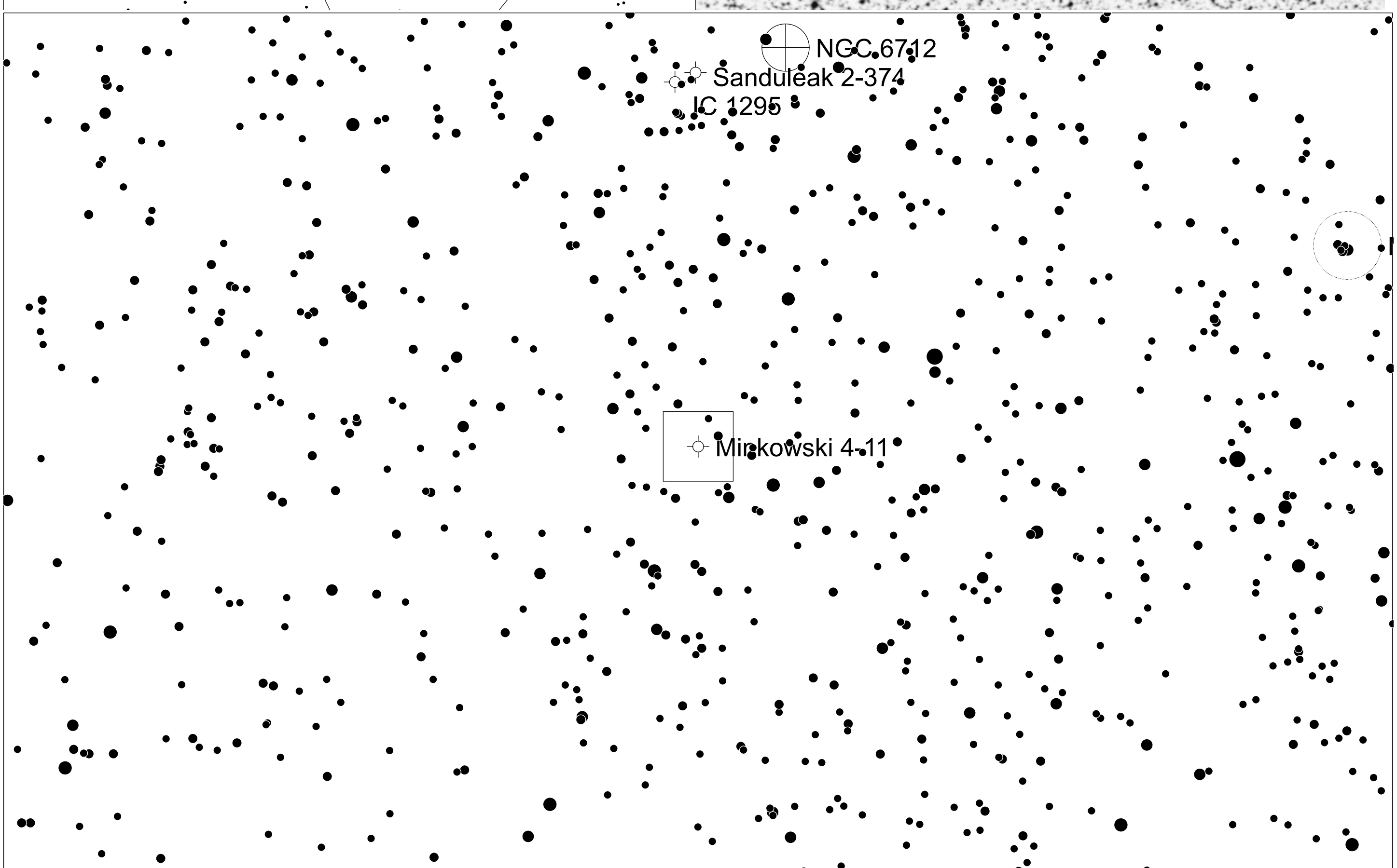


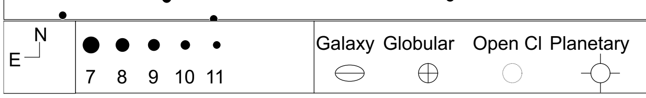
Other ID	Type	RA	Dec	Mag	* Mag	Size
		18 51 31.3	-07 32 29	-	-	38”

Minkowski 4-11 (Scutum)



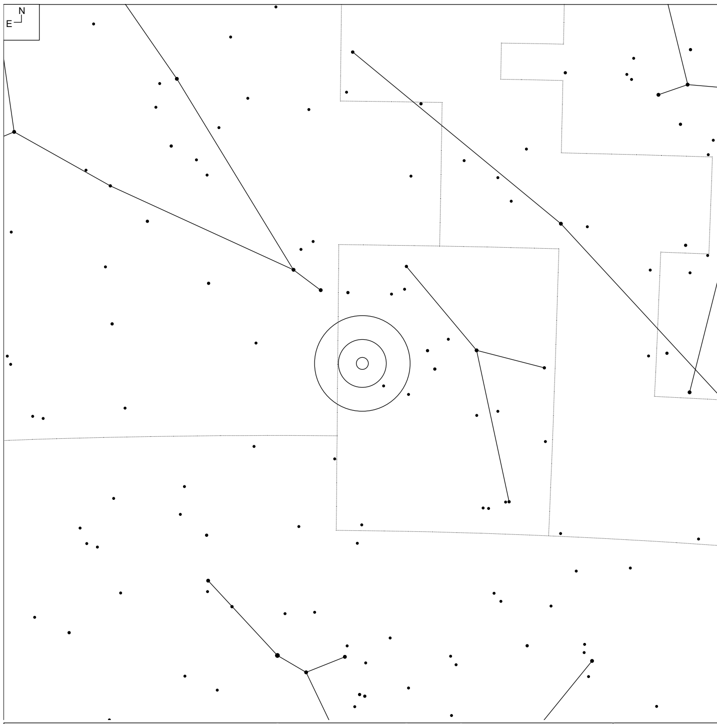


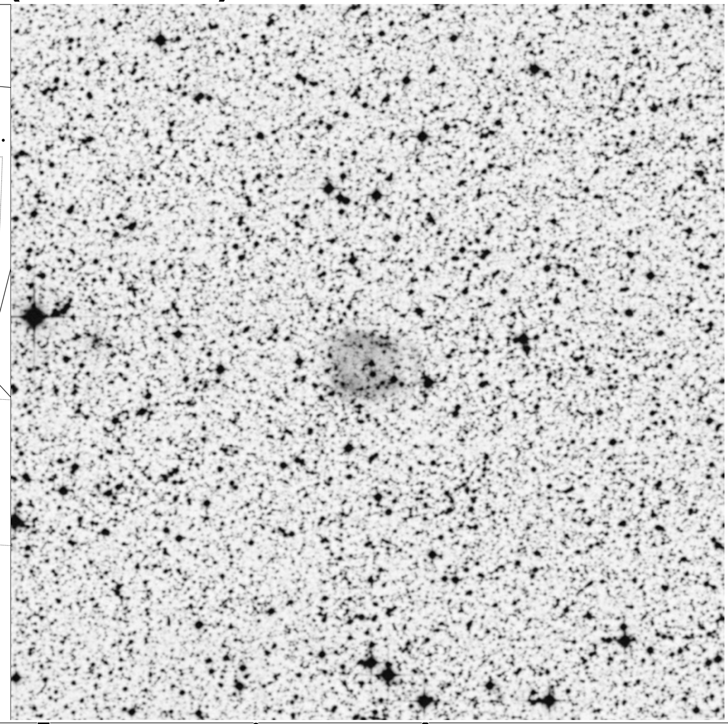


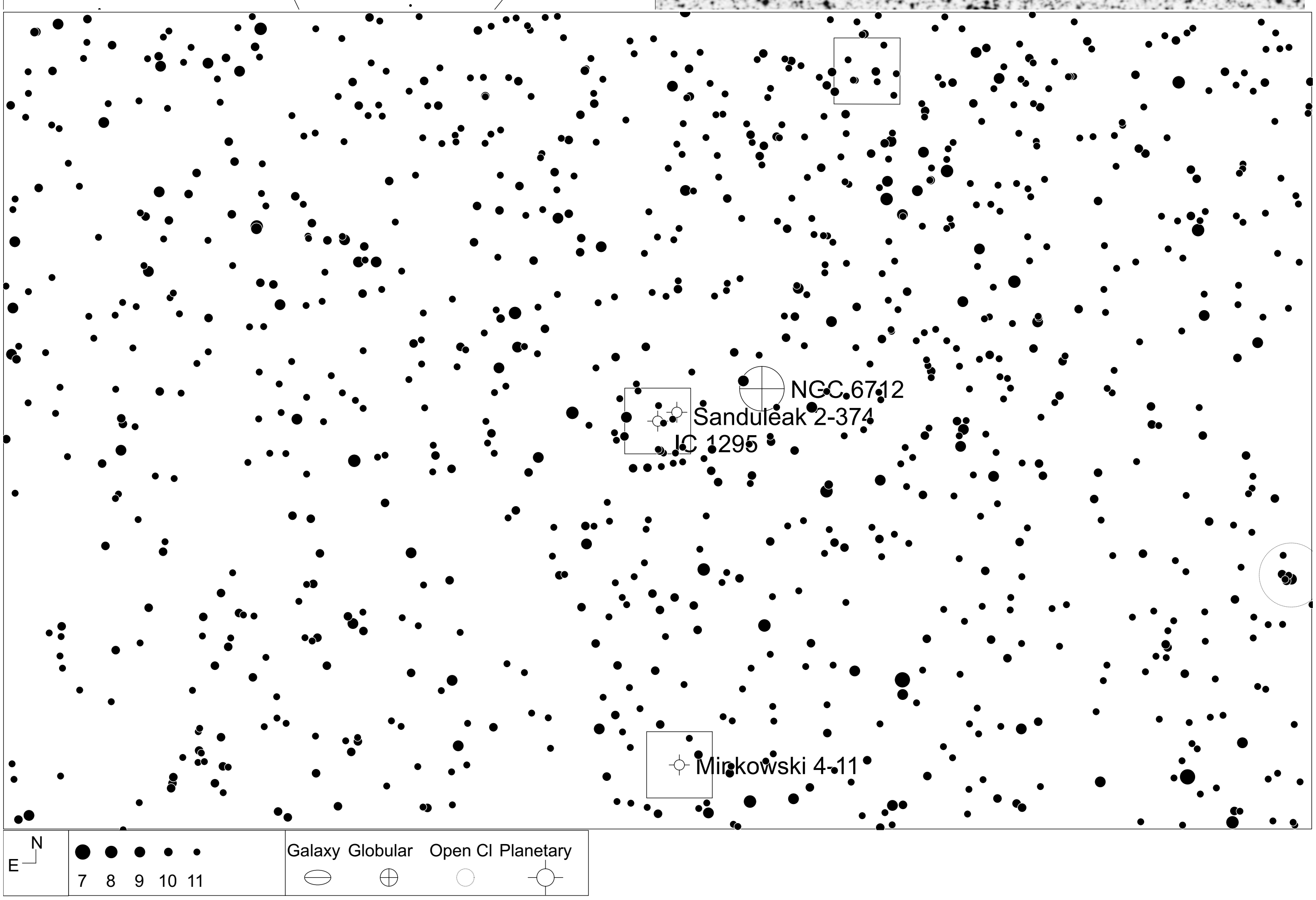


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 24-5.1	2	18 54 17.7	-10 05 10	13.8v	18.0	21”

IC 1295 (Scutum)

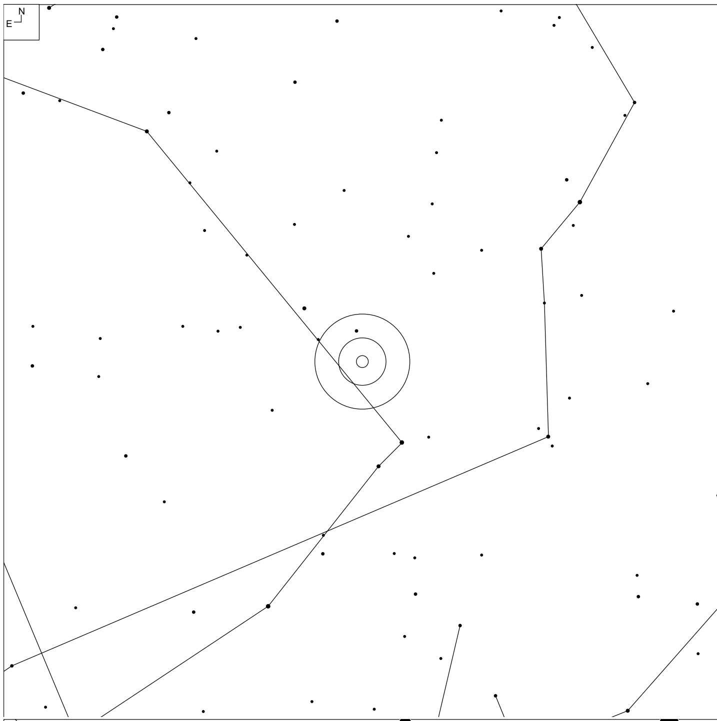


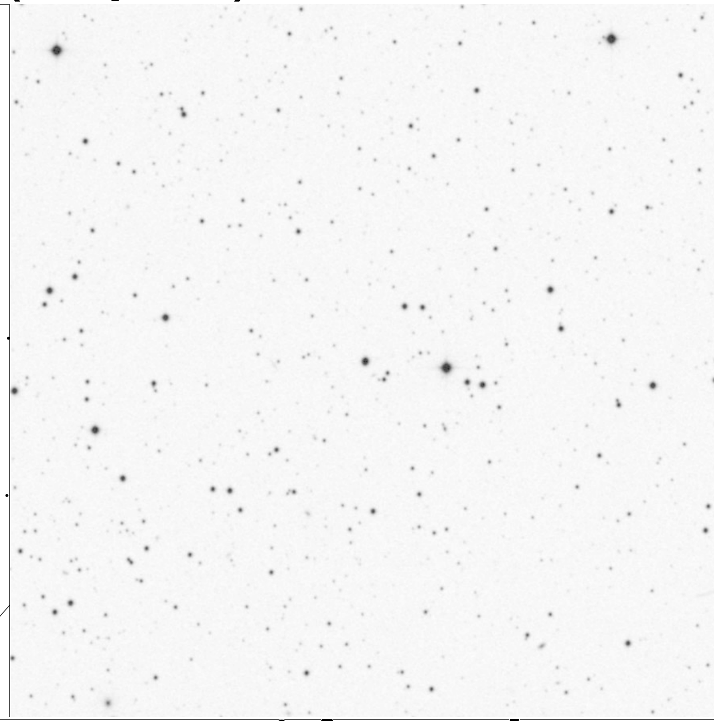


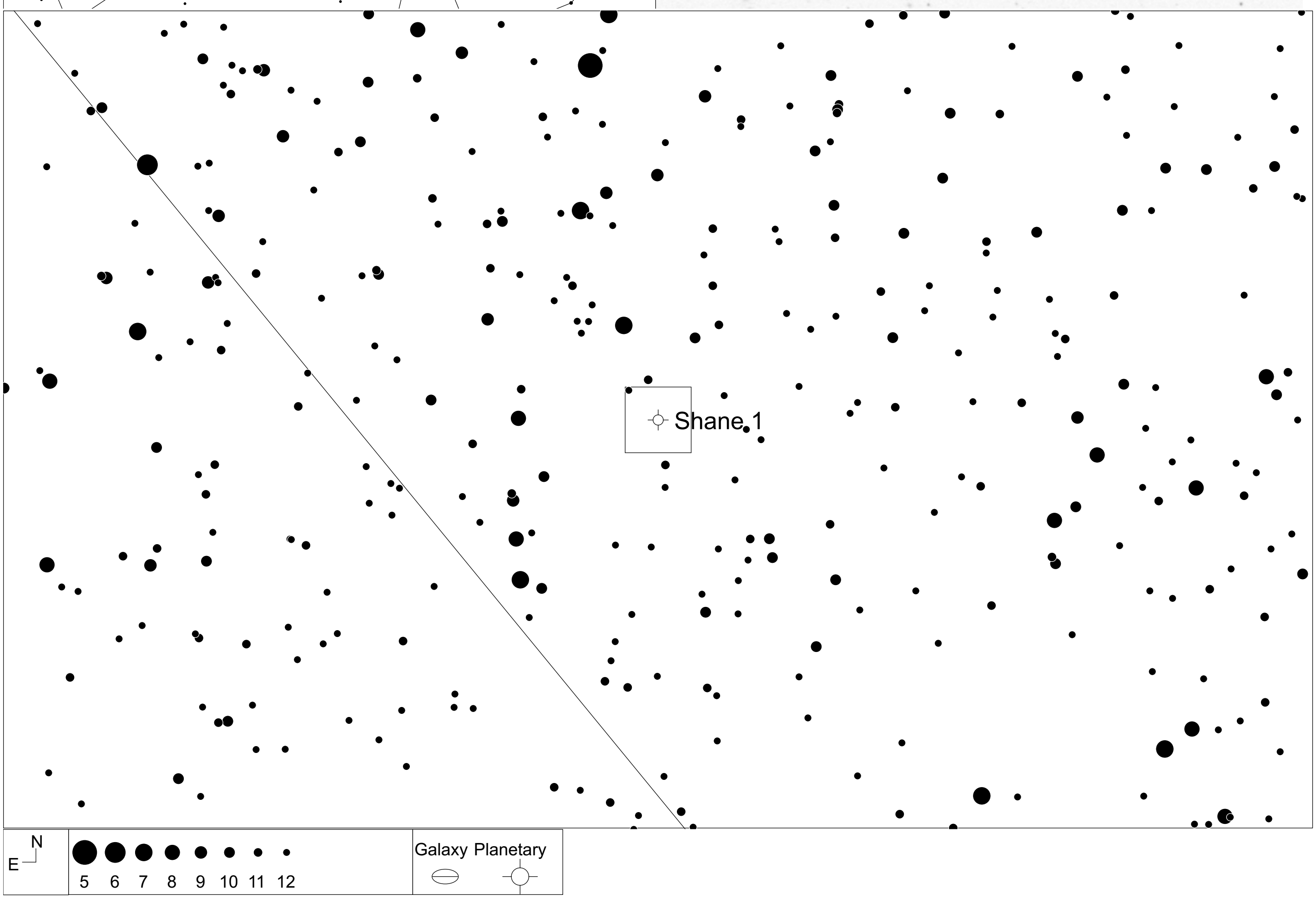


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 25-4.2	3b+2	18 54 37.2	-08 49 33	15.0p	15.	120x90”

Shane 1 (Serpens)

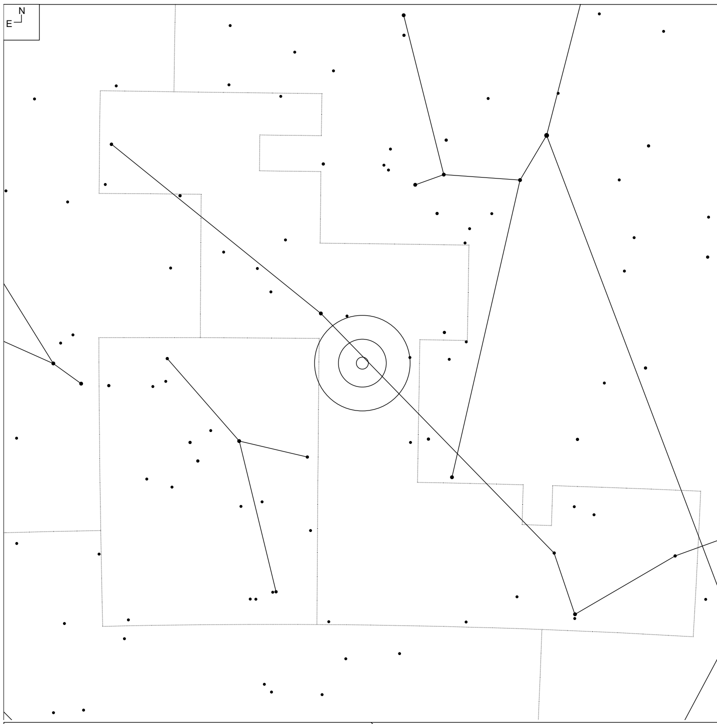


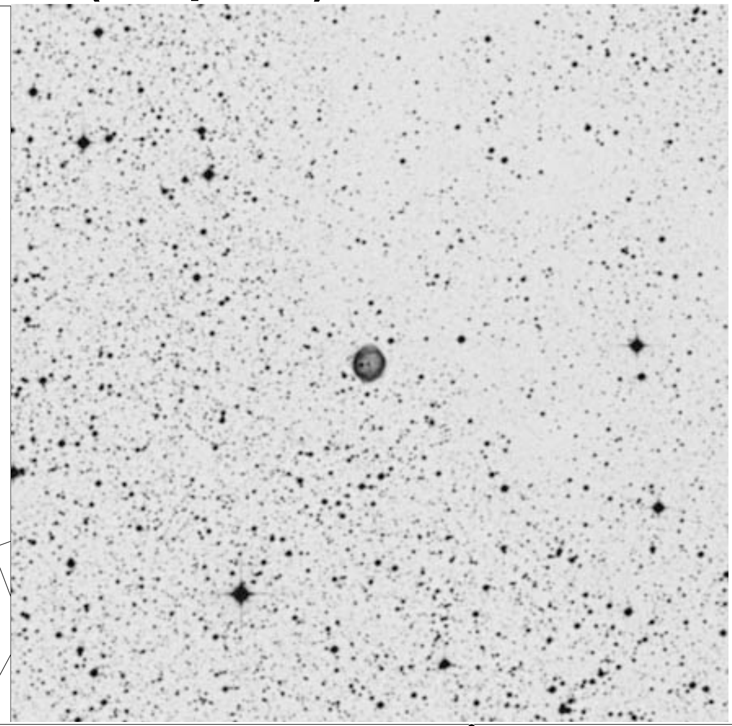


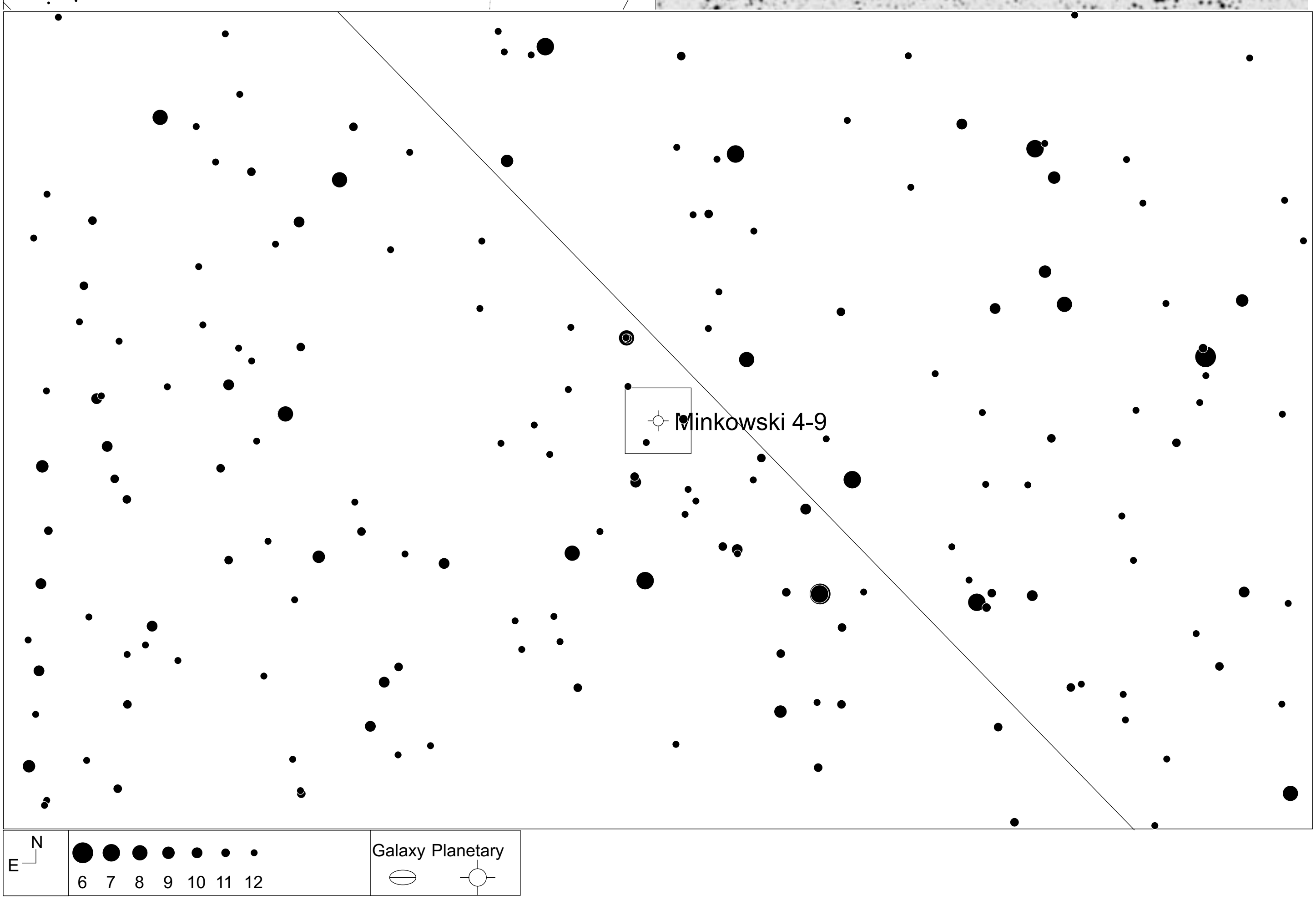


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 13.32.1	-	16 21 04.5	-00 16 12	12.8p	14.7	6”

Minkowski 4-9 (Serpens)

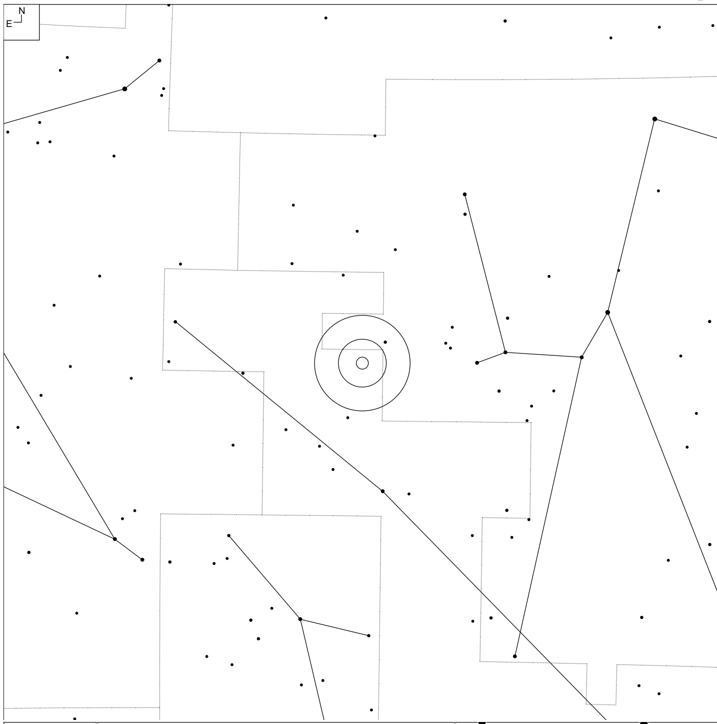


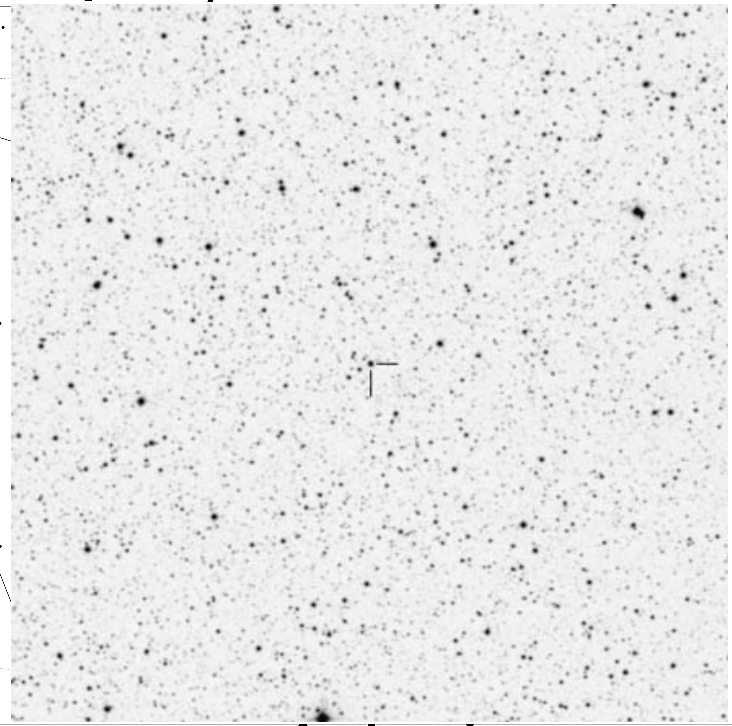


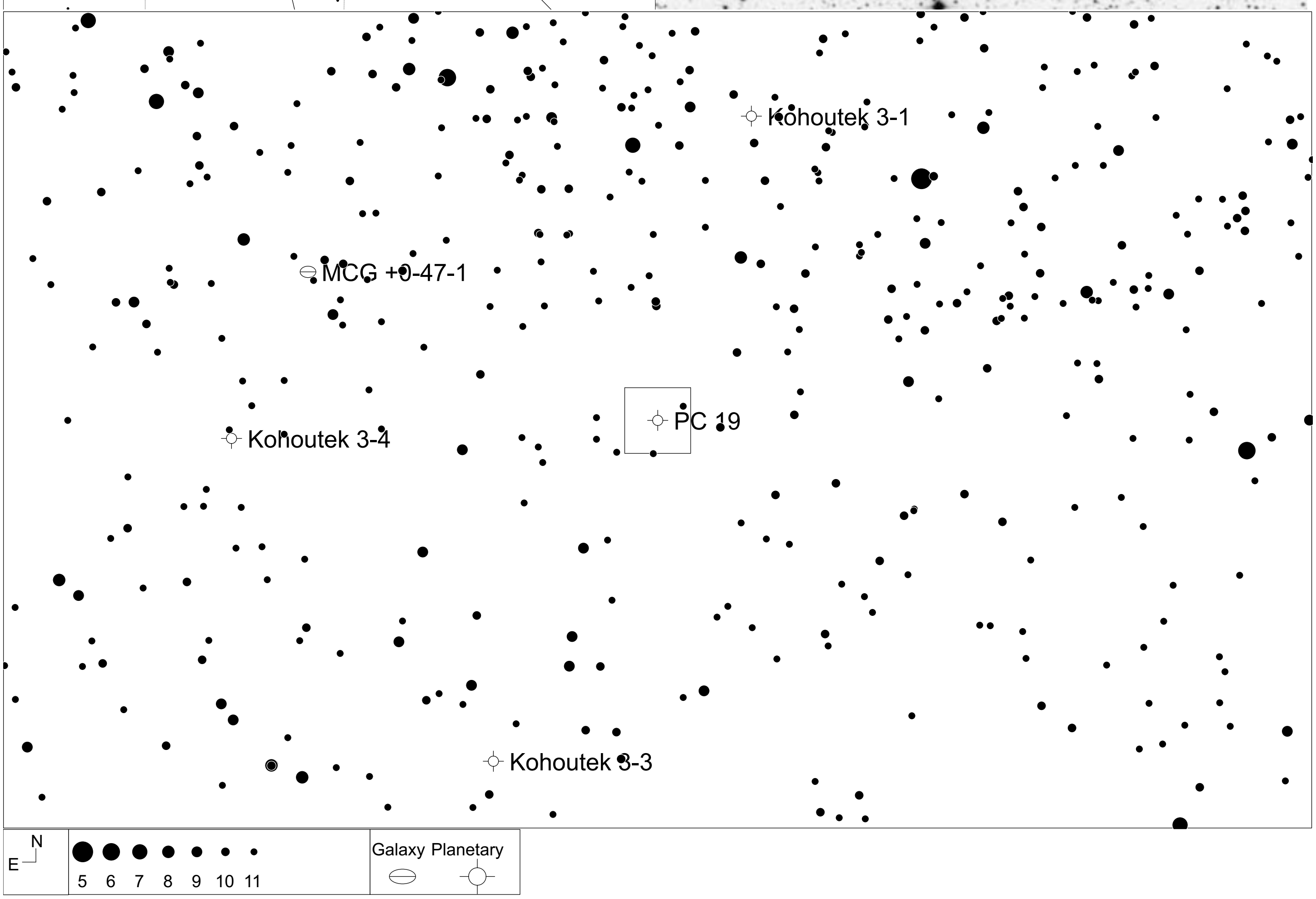


Other ID	Type	RA	Dec	Mag	* Mag	Size
Sanduleak 3-125	4	18 14 18.3	-04 59 22	16.0p	20.3	54”

PC 19 (Serpens)

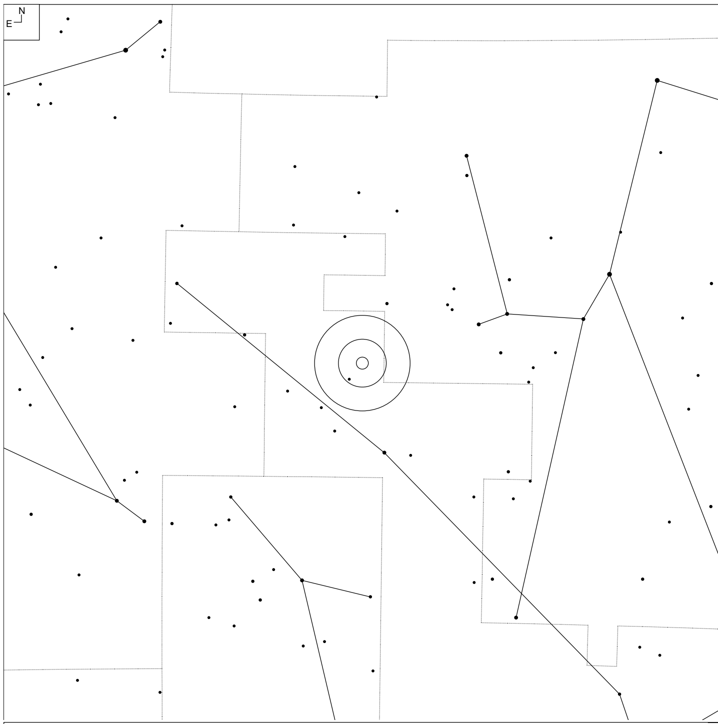


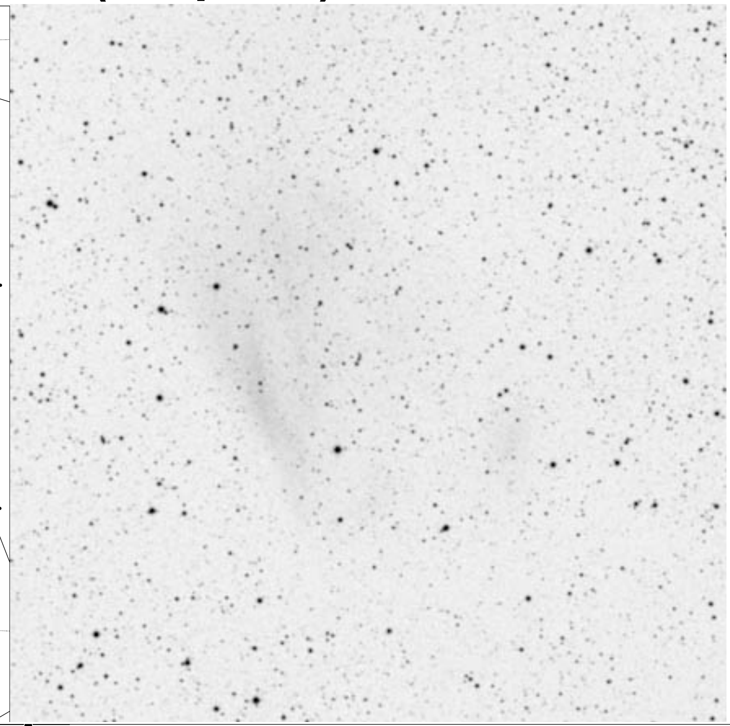


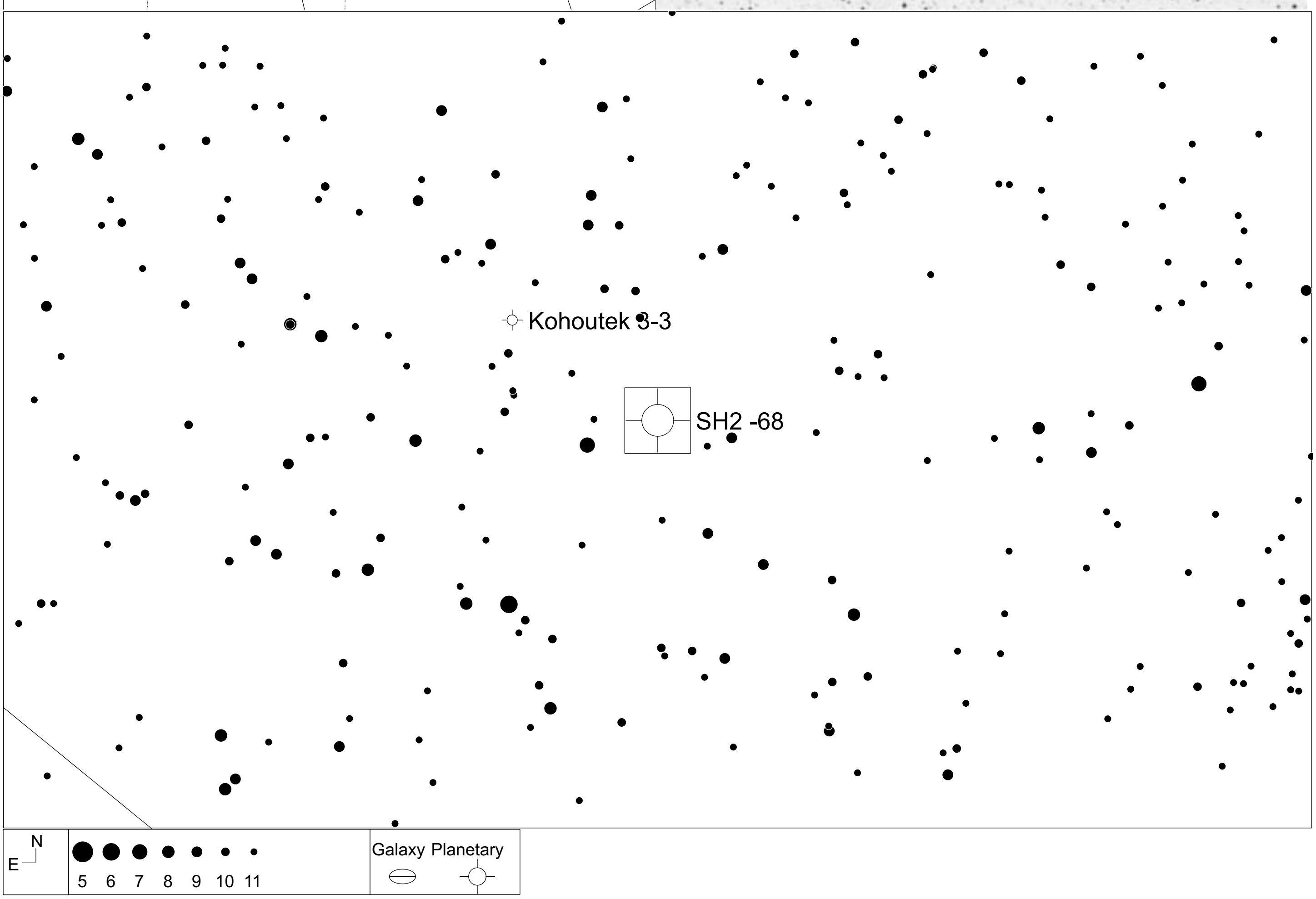


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 32+7.2	-	18 24 44.6	+02 29 27	12.1p	-	14”

Sharpless 2-68 (Serpens)

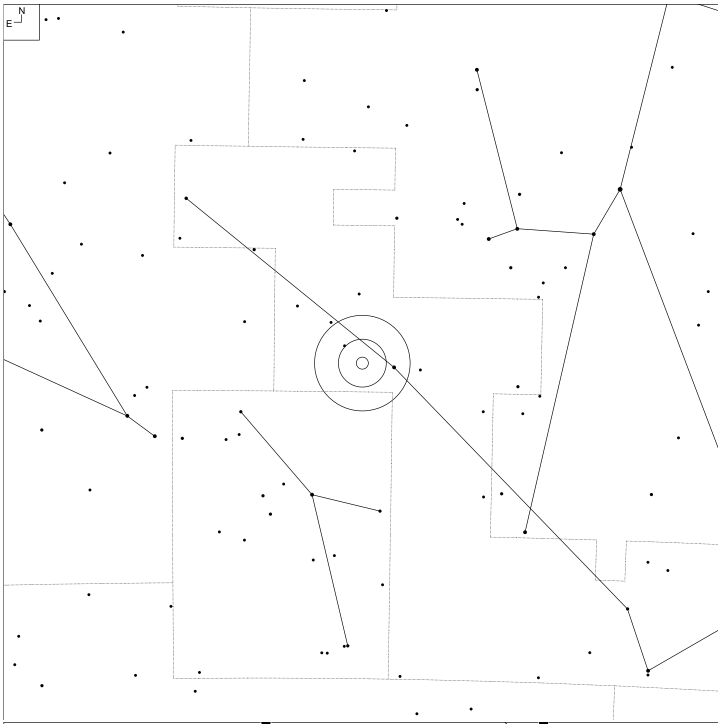


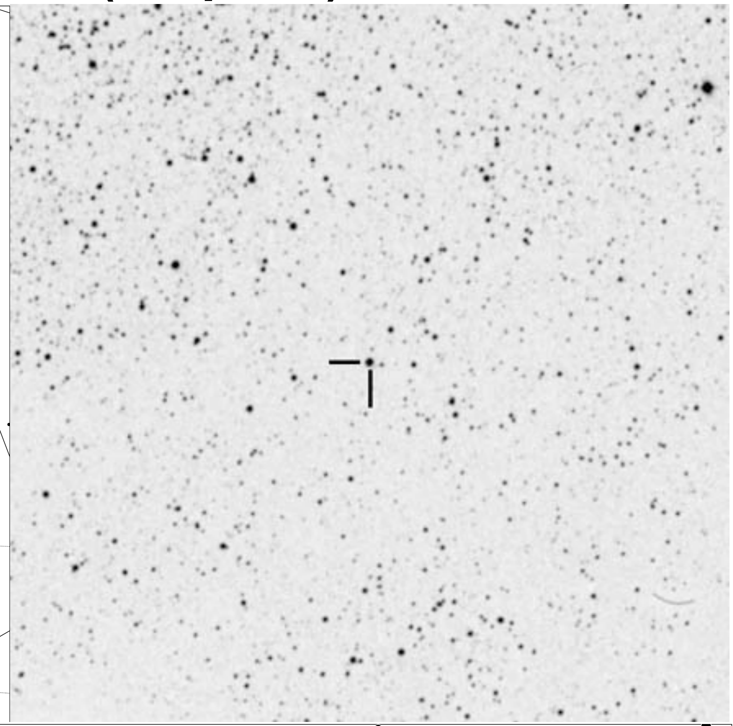


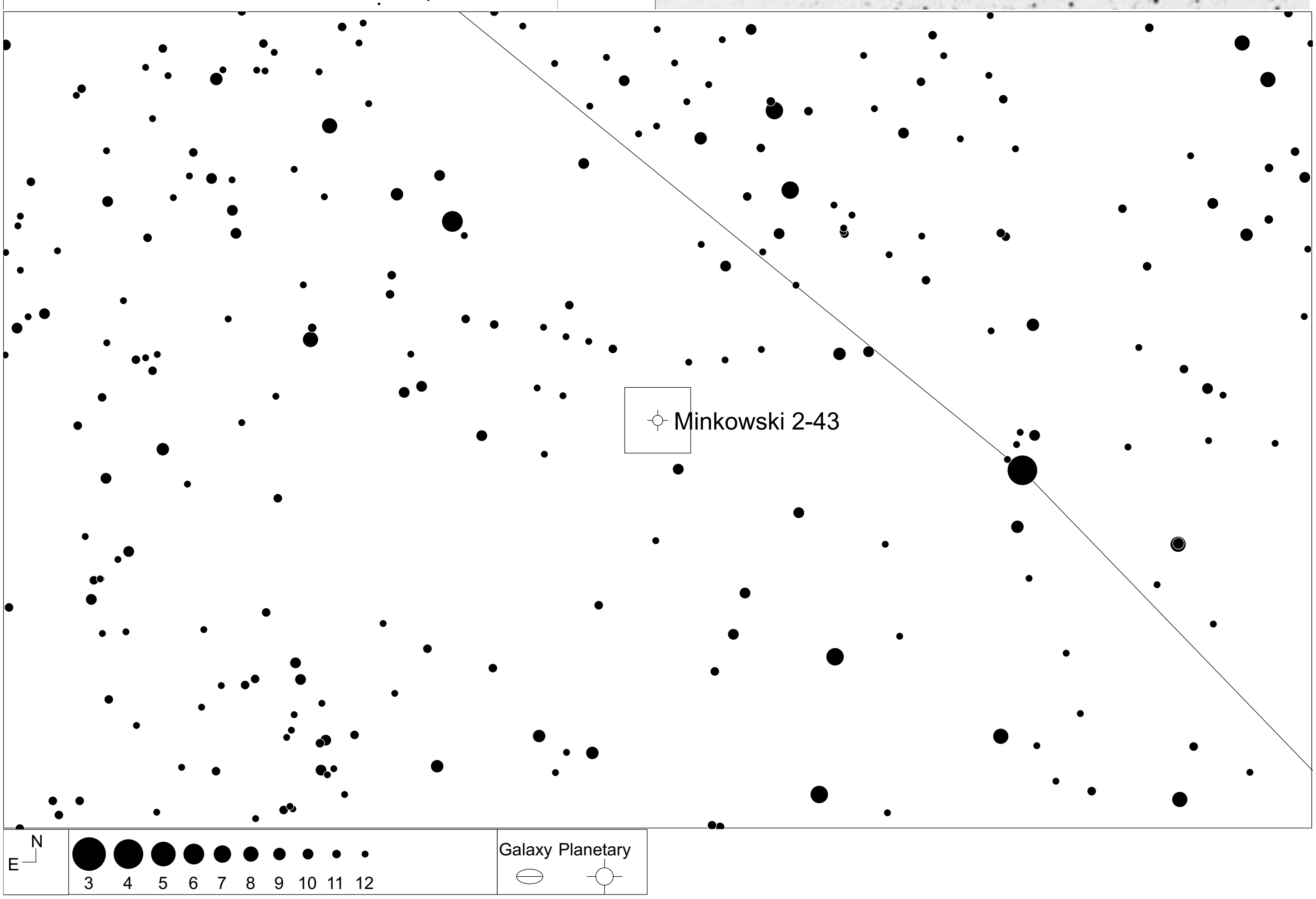


Other ID	Type	RA	Dec	Mag	* Mag	Size
LBN 93	-	18 25 01.3	+00 52 18	10.0v	16.0	7’

Minkowski 2-43 (Serpens)

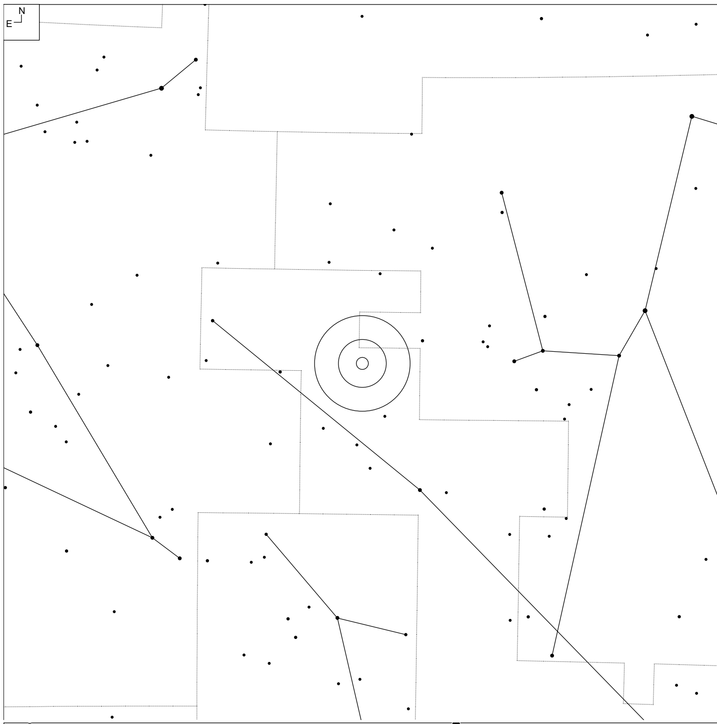


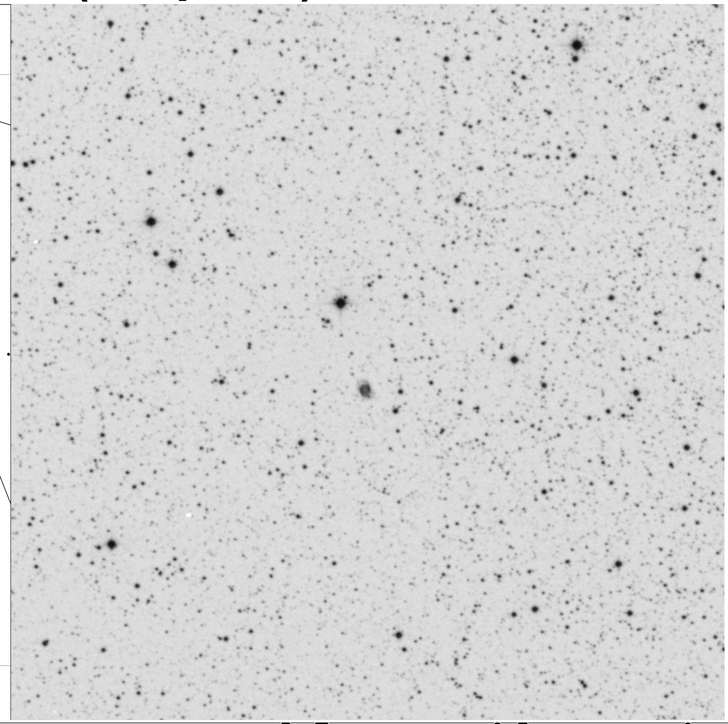


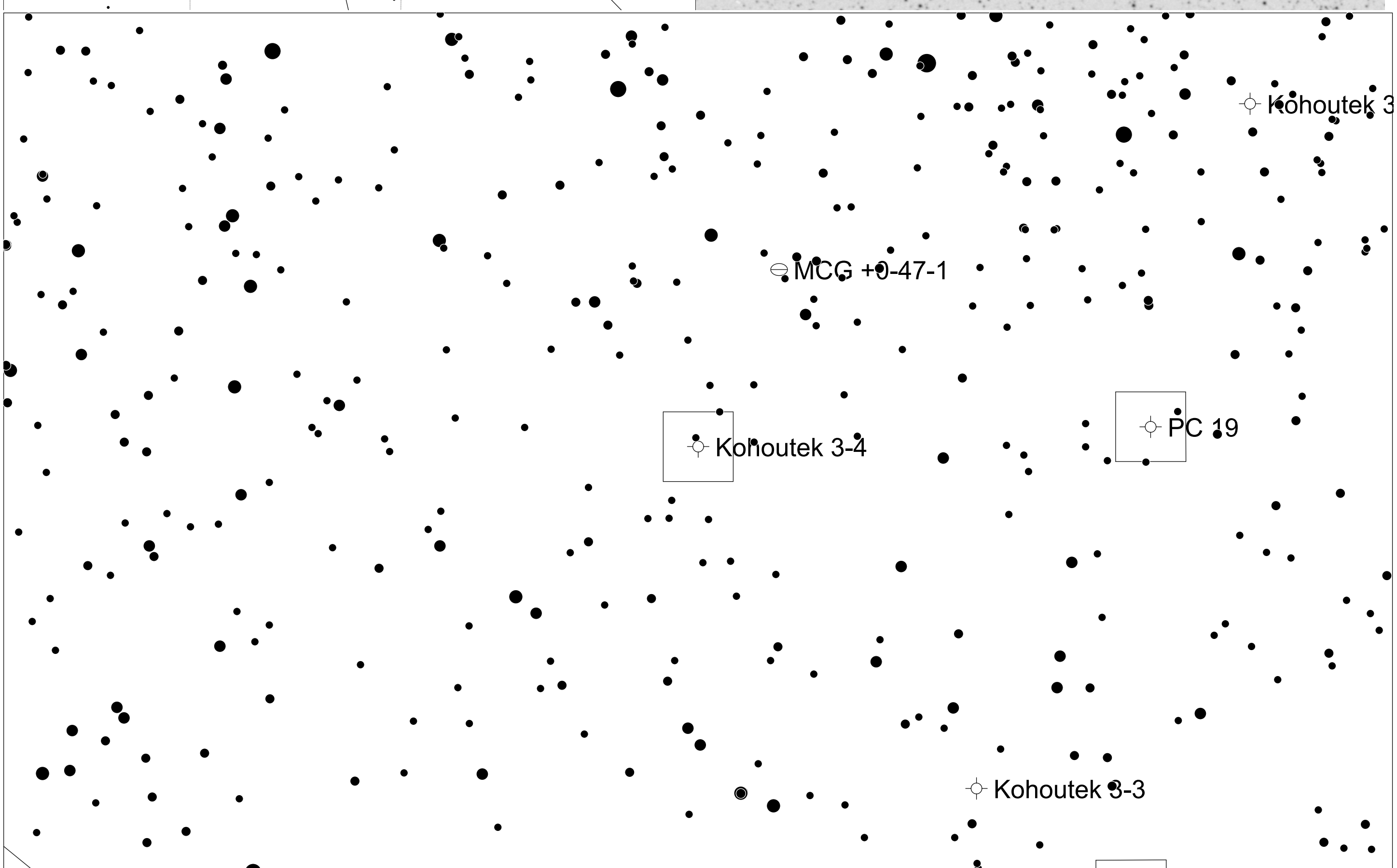


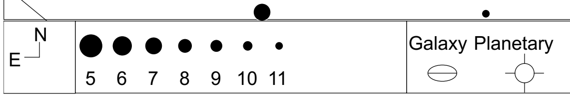
Other ID	Type	RA	Dec	Mag	* Mag	Size
Sanduleak 3-133	1	18 26 40.1	-02 42 58	16.8p	-	15”

Kohoutek 3-4 (Serpens)



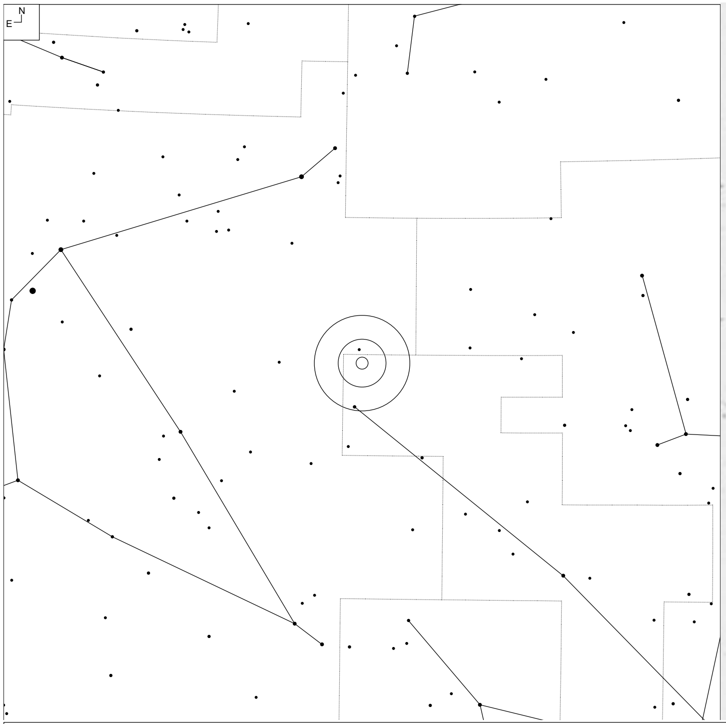


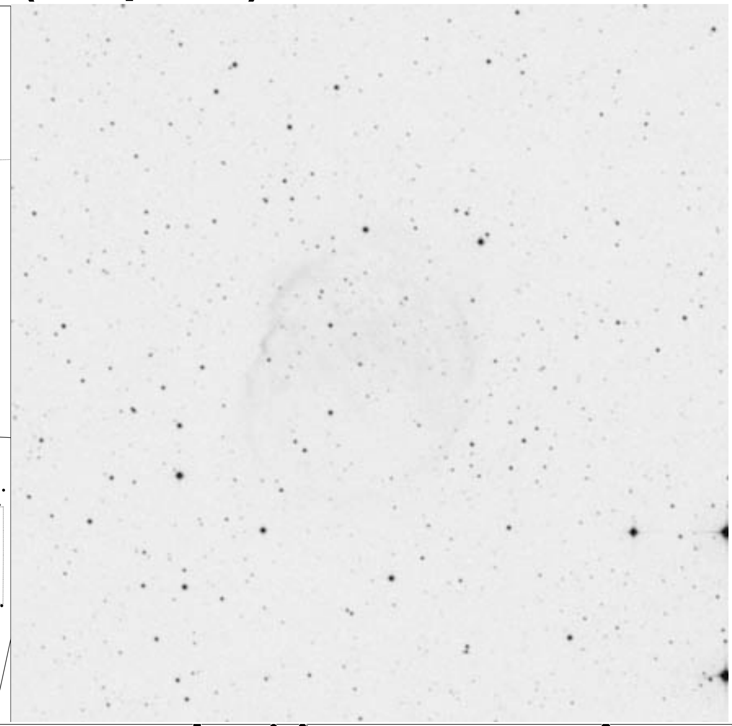


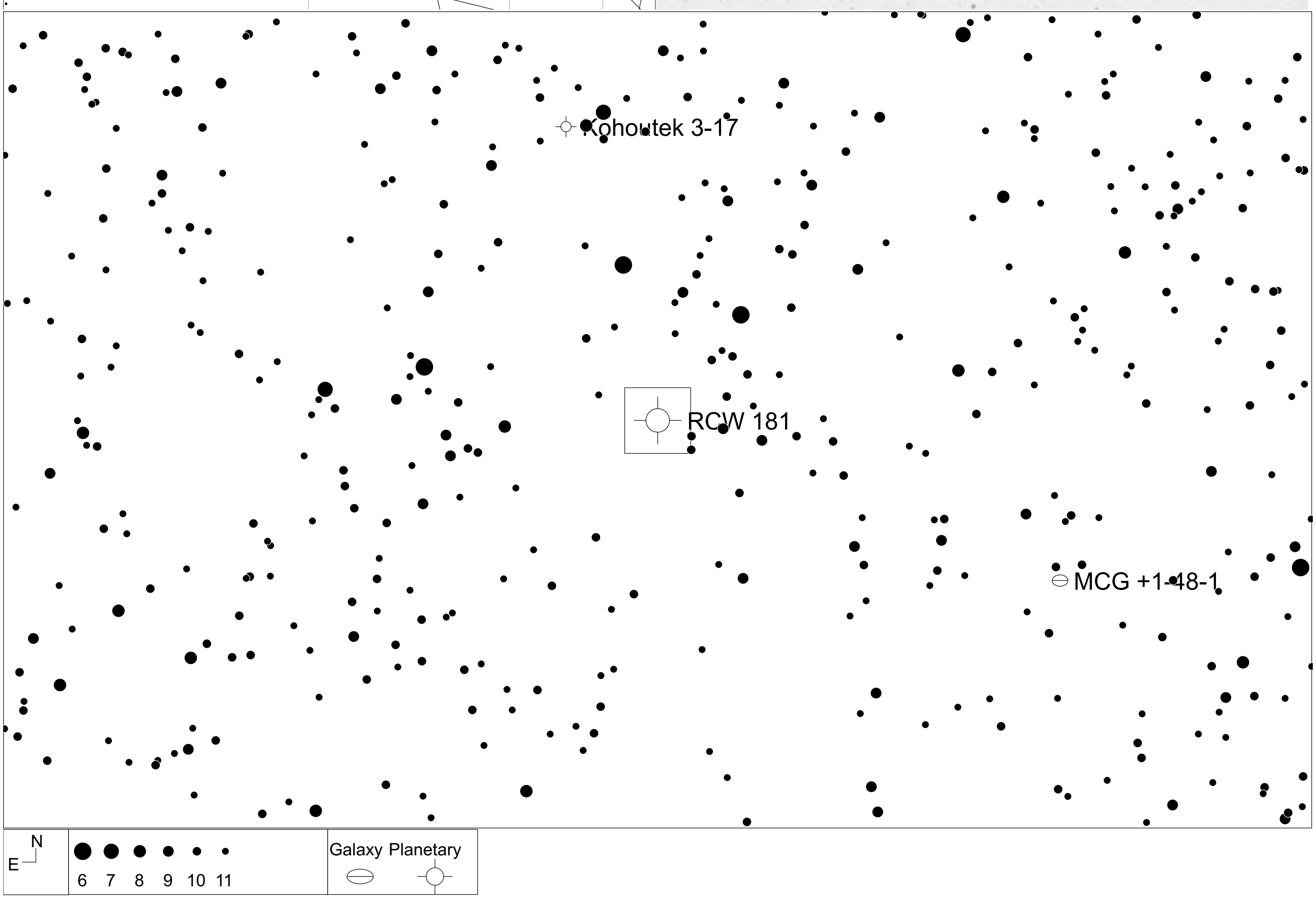


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 32+5.1	3b+2	18 31 00.3	+02 25 23	14.6v	-	20”

RCW 181 (Serpens)

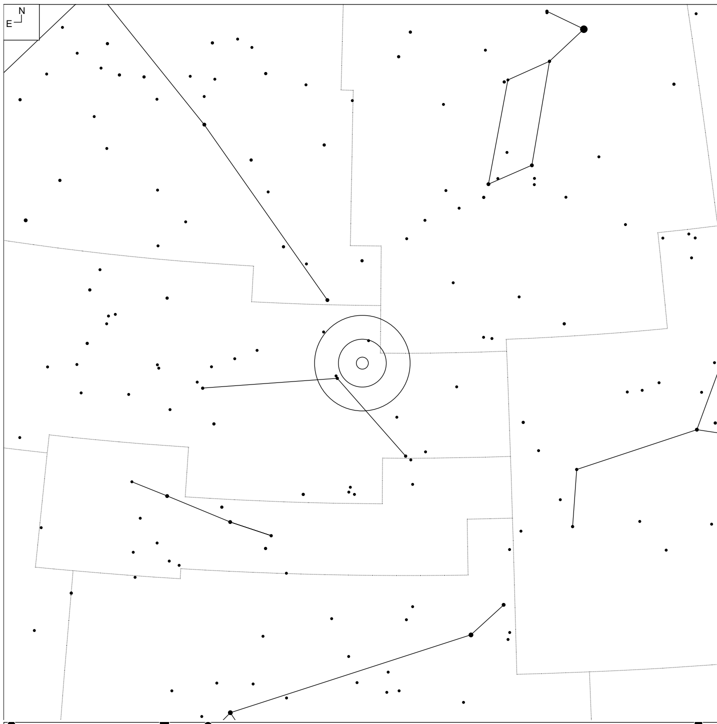


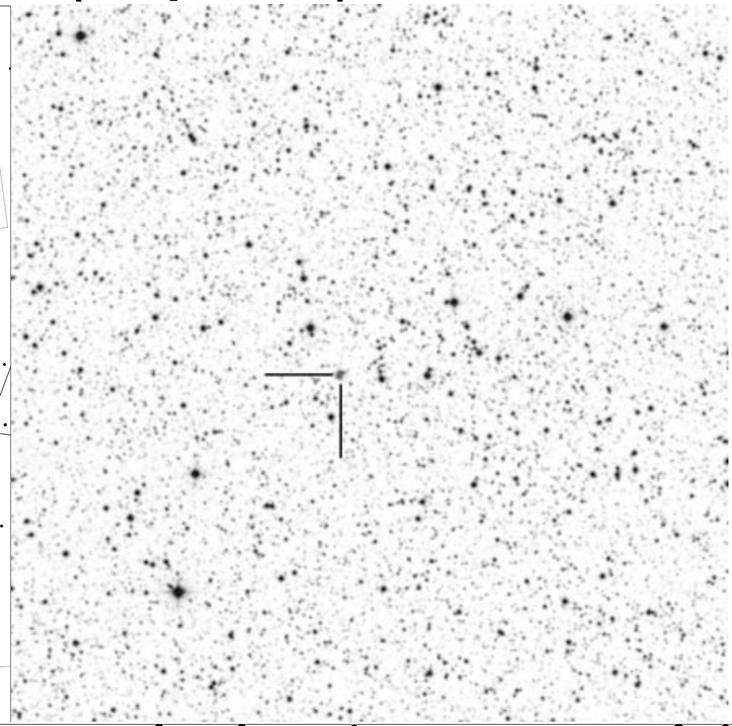


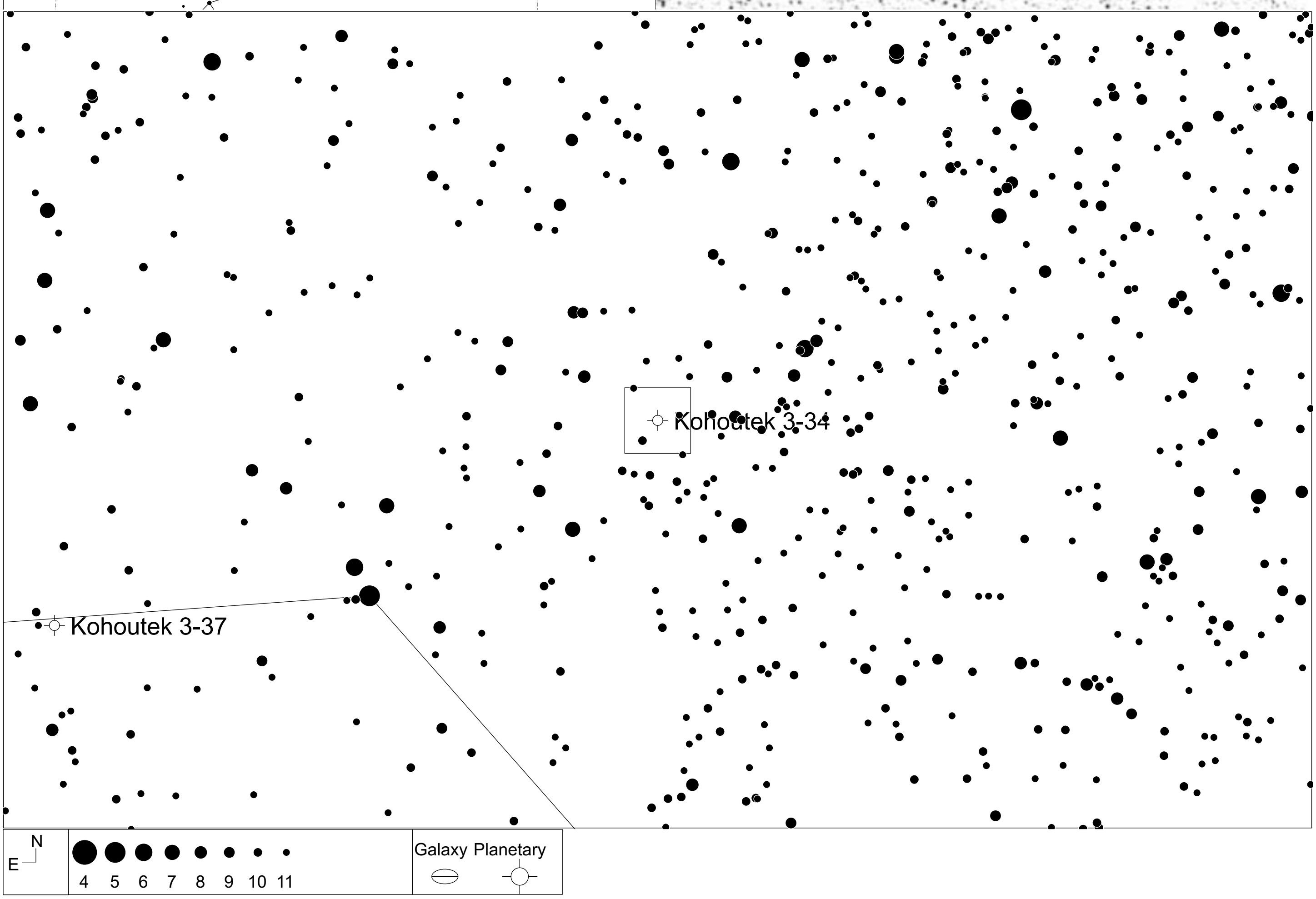


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 38+2.1	3b	18 54 56.9	+06 02 41	-	-	5.1’

Kohoutek 3-34 (Vulpecula)

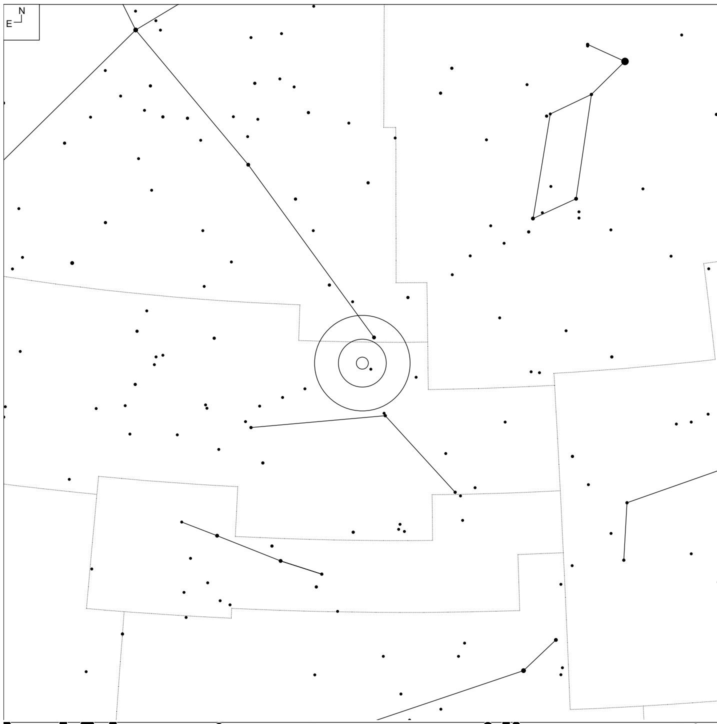


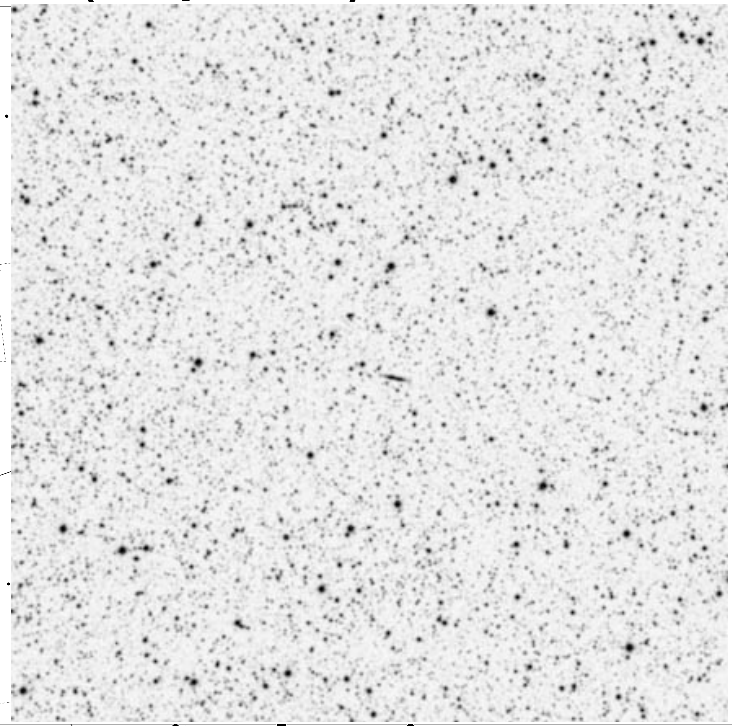


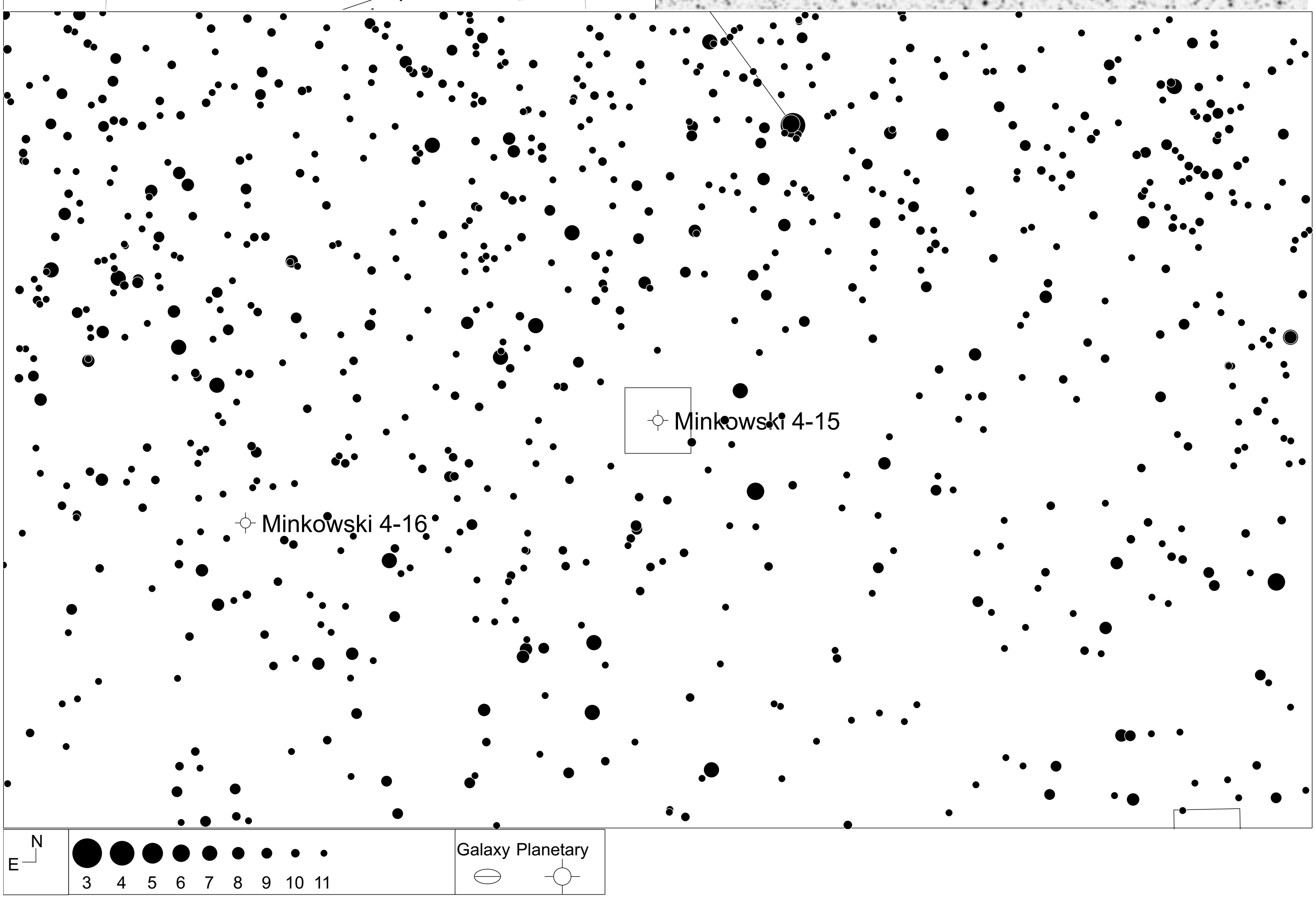


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 59+4.1	-	19 24 02.9	+25 18 47	15.8p	-	10”

Minkowski 4-15 (Vulpecula)

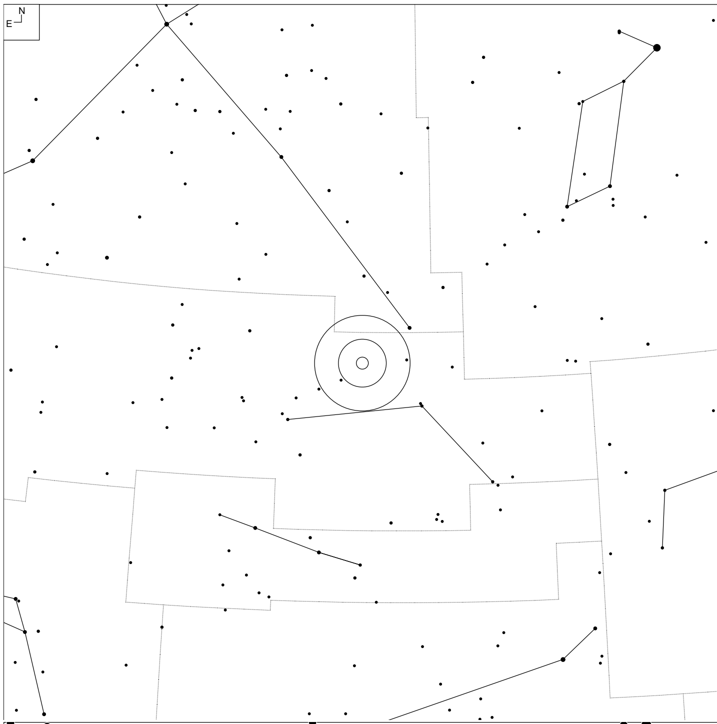


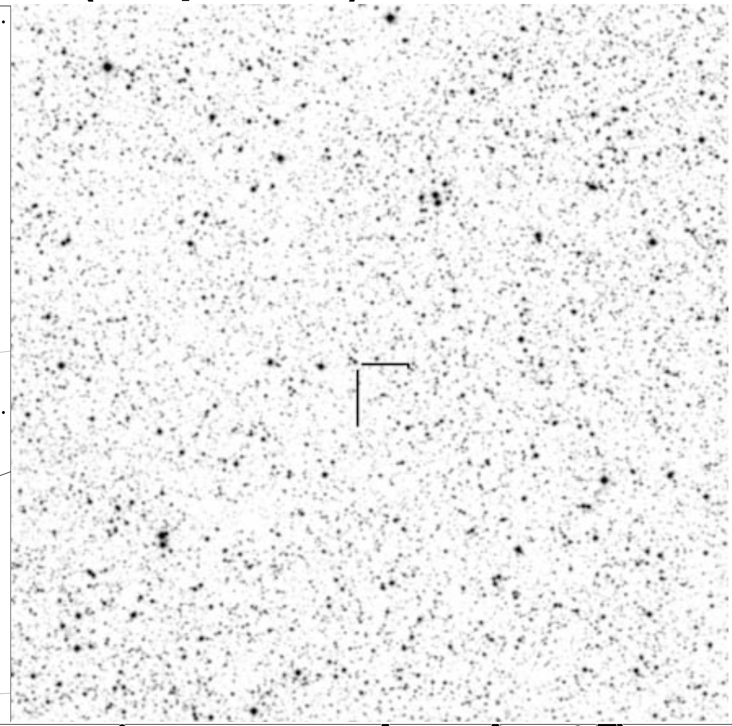


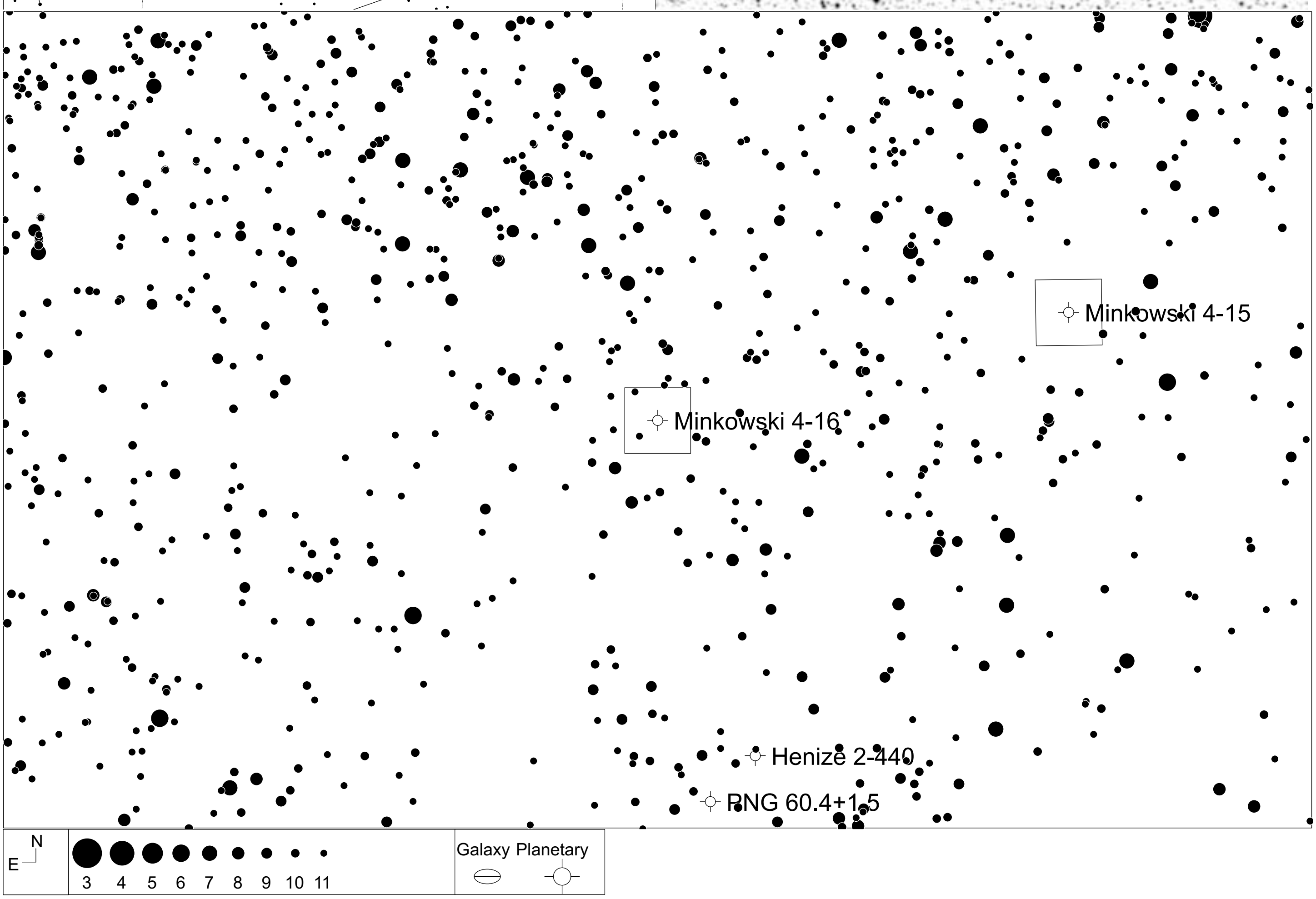


Other ID	Type	RA	Dec	Mag	* Mag	Size
Henize 2-437	6	19 32 57.8	+26 52 41	16.9p	-	35 x 7”

Minkowski 4-16 (Vulpecula)

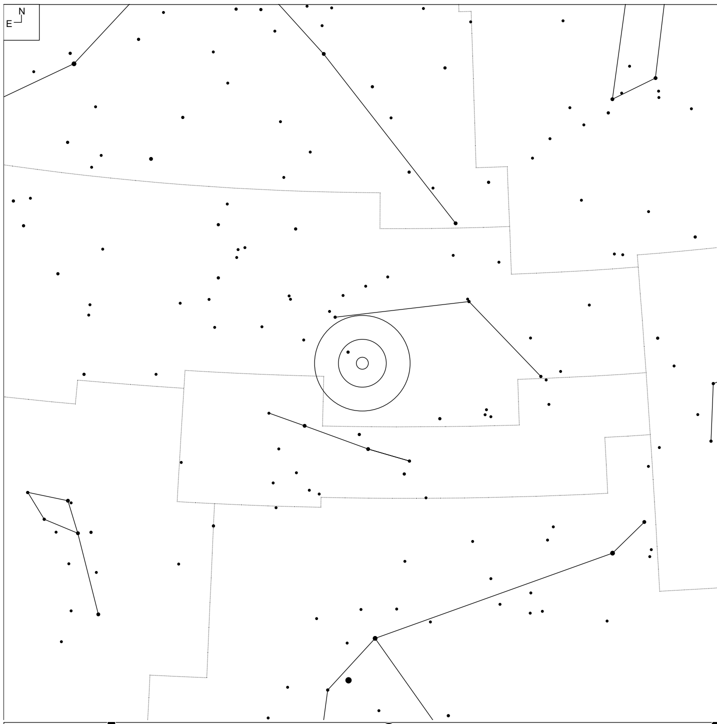


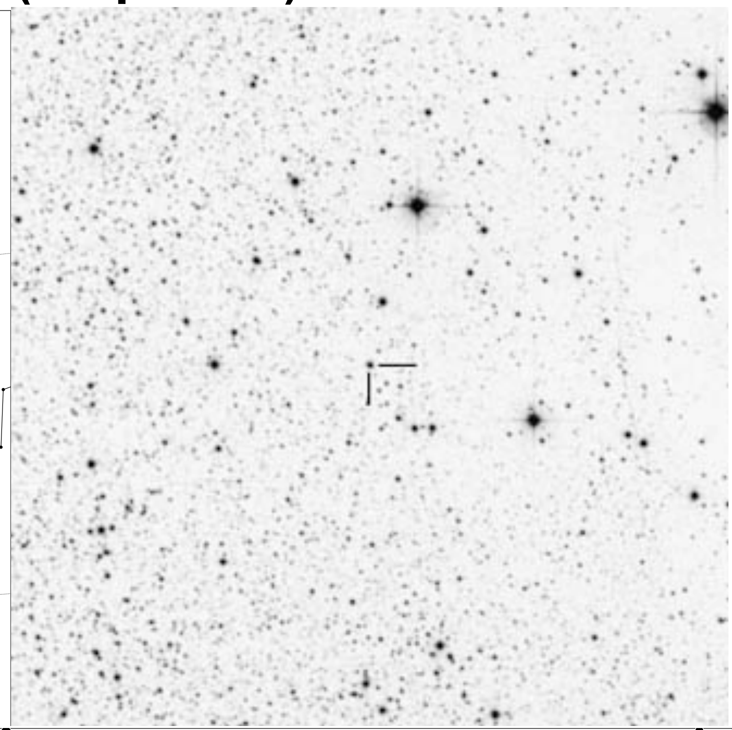


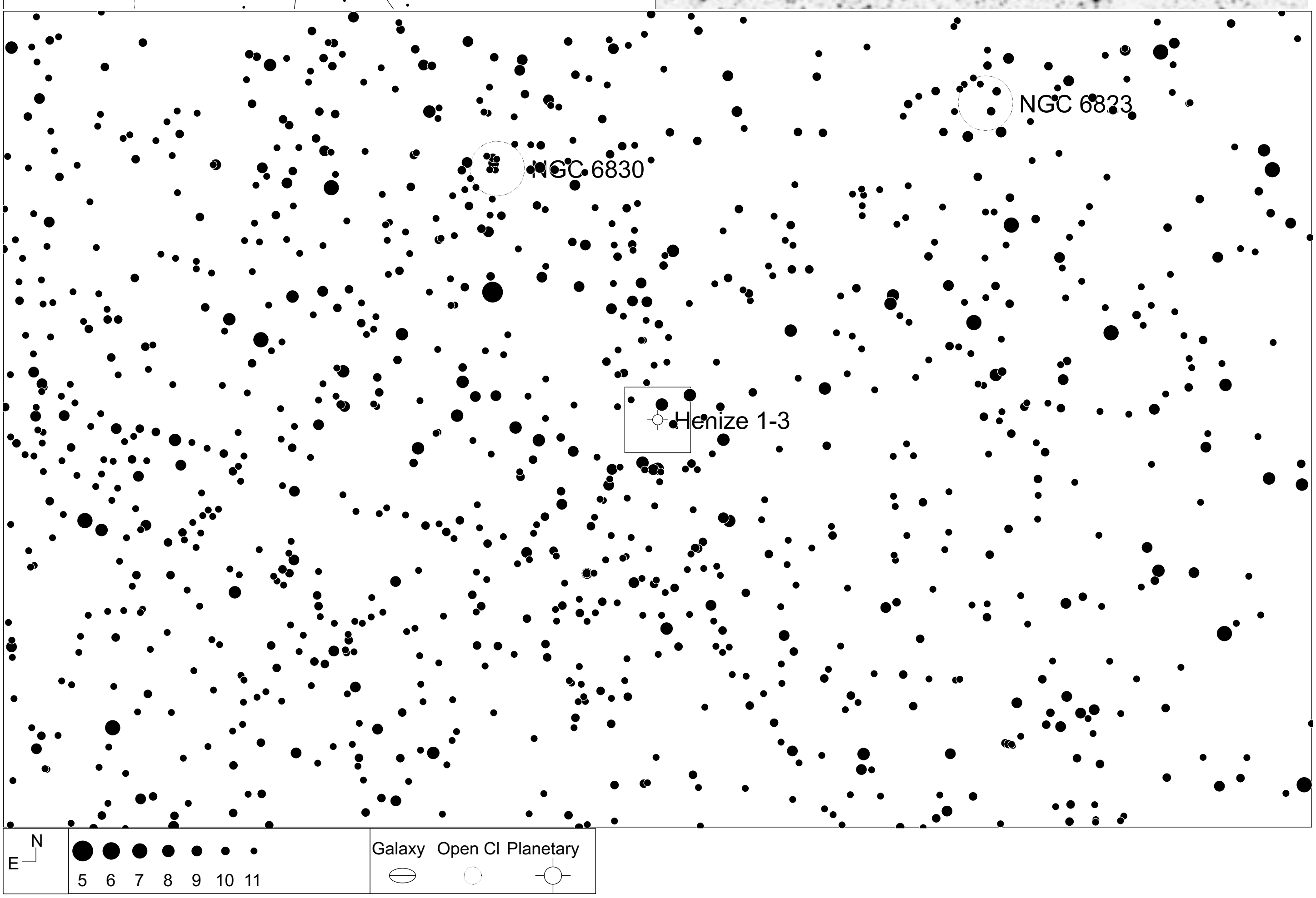


Other ID	Type	RA	Dec	Mag	* Mag	Size
Henize 2-442	-	19 39 43.5	+26 29 30	16.2	-	10”

Henize 1-3 (Vulpecula)

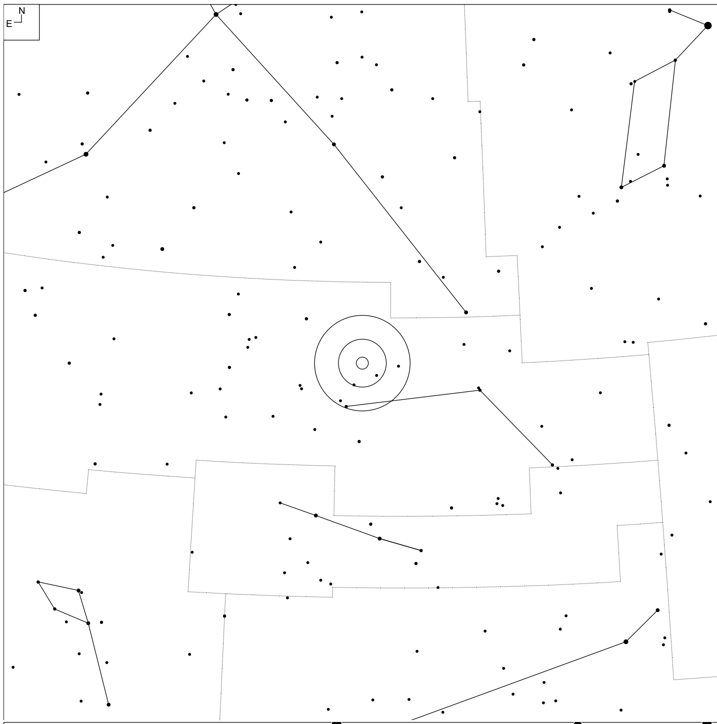


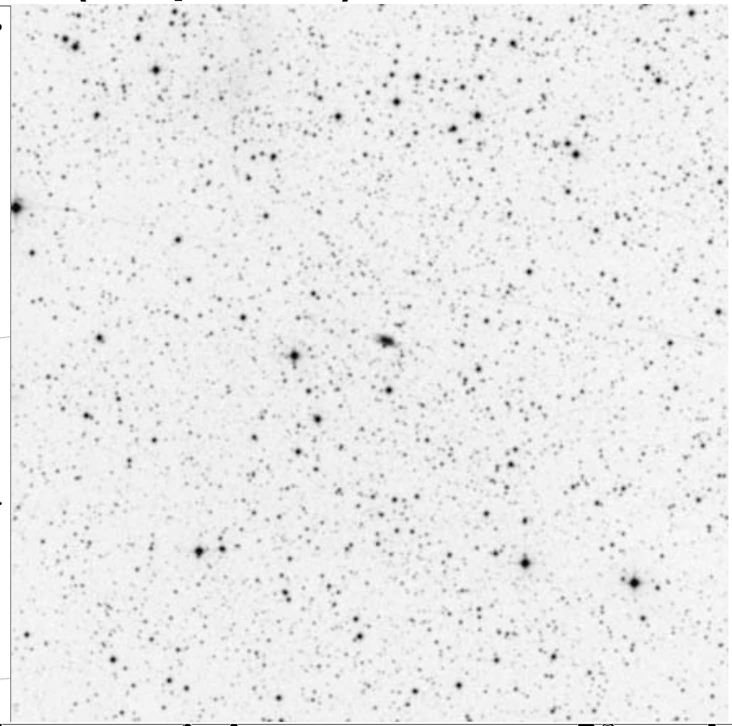


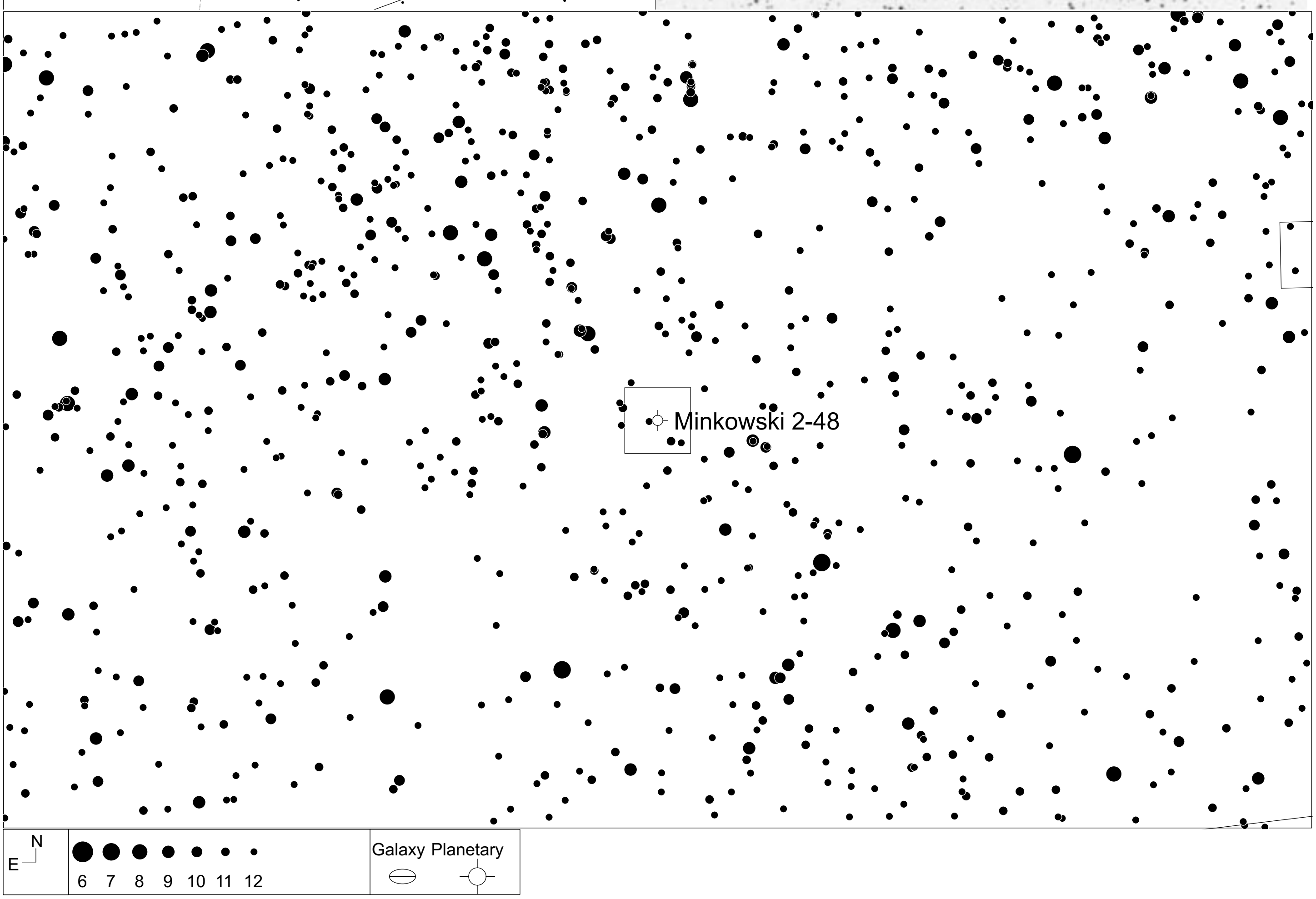


Other ID	Type	RA	Dec	Mag	* Mag	Size
Henize 2-448	2	19 48 26.4	+22 08 34	16.0	11.6	12”

Minkowski 2-48 (Vulpecula)

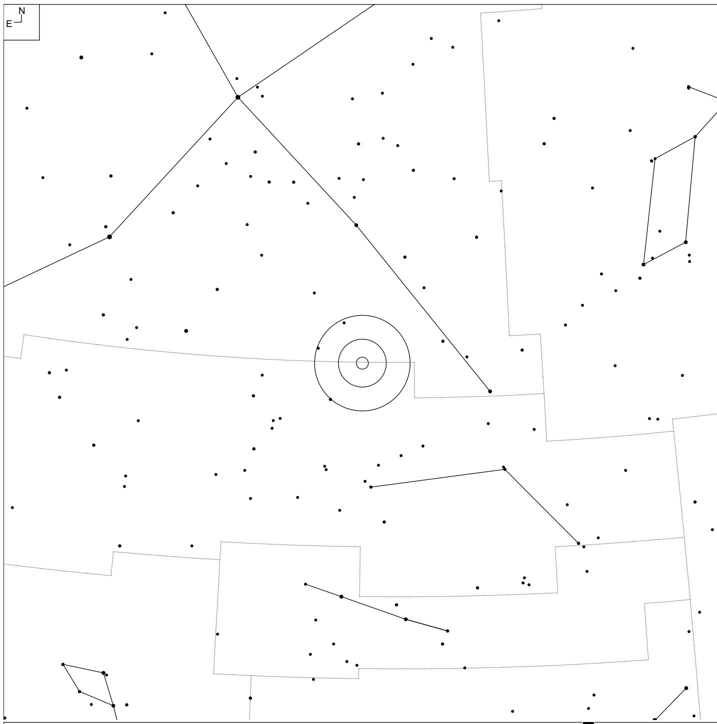


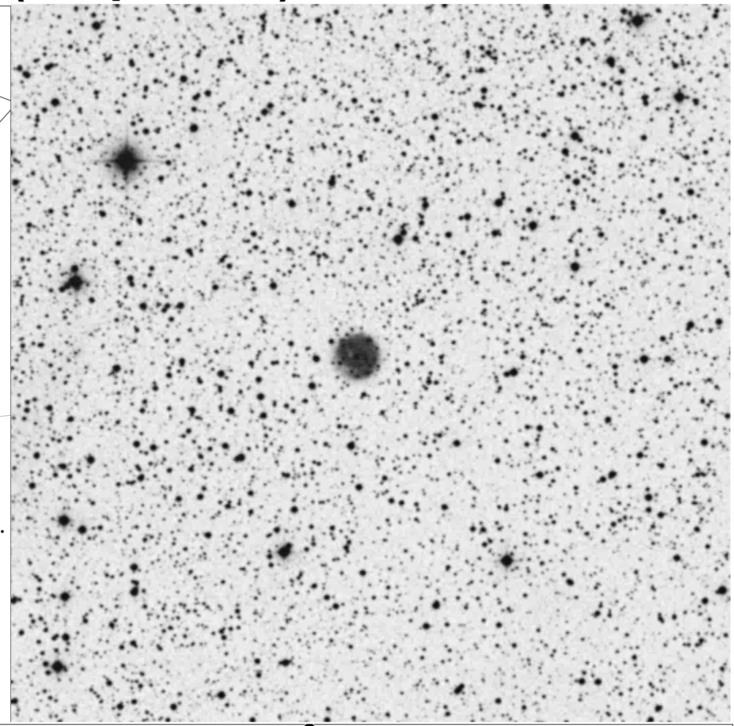


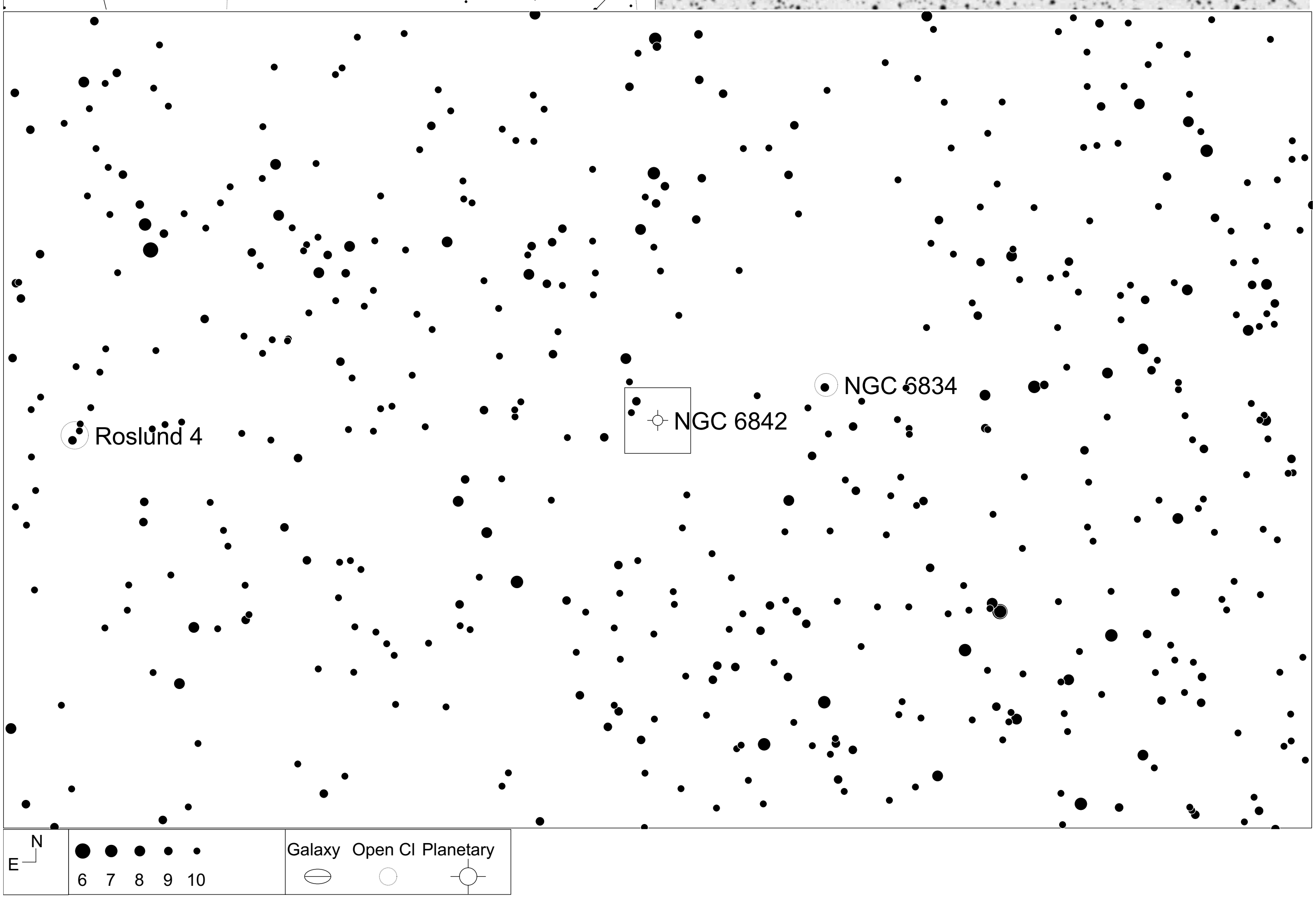


Other ID	Type	RA	Dec	Mag	* Mag	Size
Henize 2-449	3	19 50 28.6	+25 54 27	16.5p	-	29 x 13”

NGC 6842 (Vulpecula)

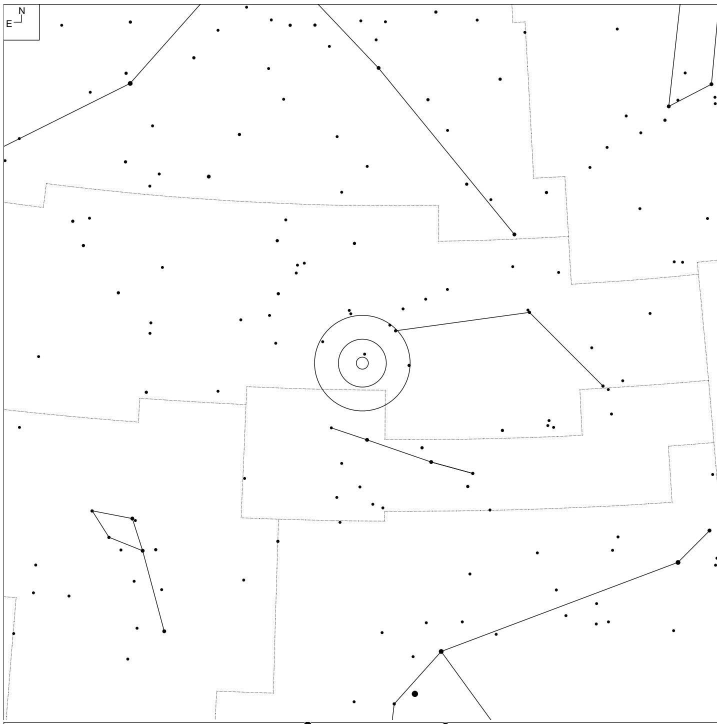


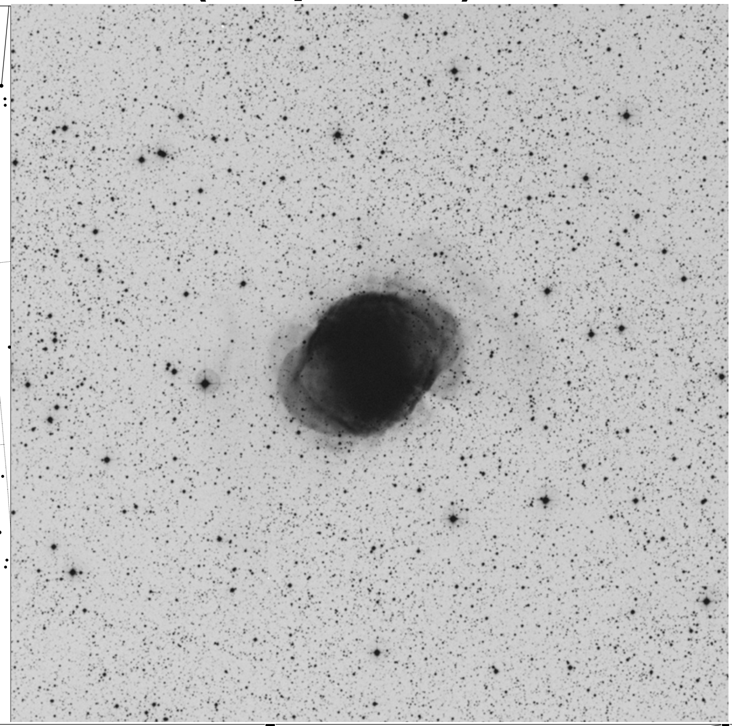


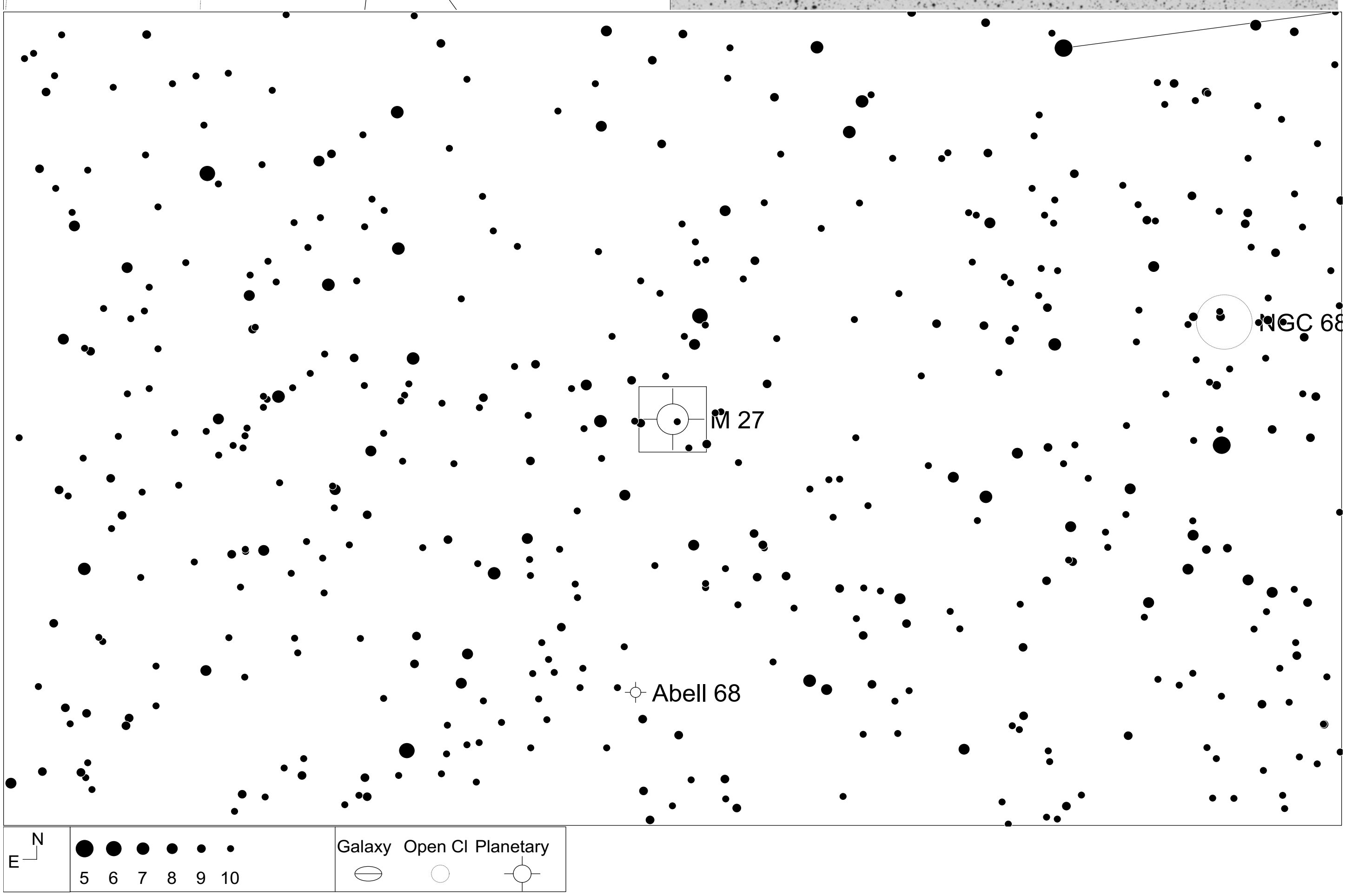


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 65-0.1	3b	19 55 02.4	-29 17 17	13.1v	16.2	57”

M-27 – Dumbbell Nebula (Vulpecula)



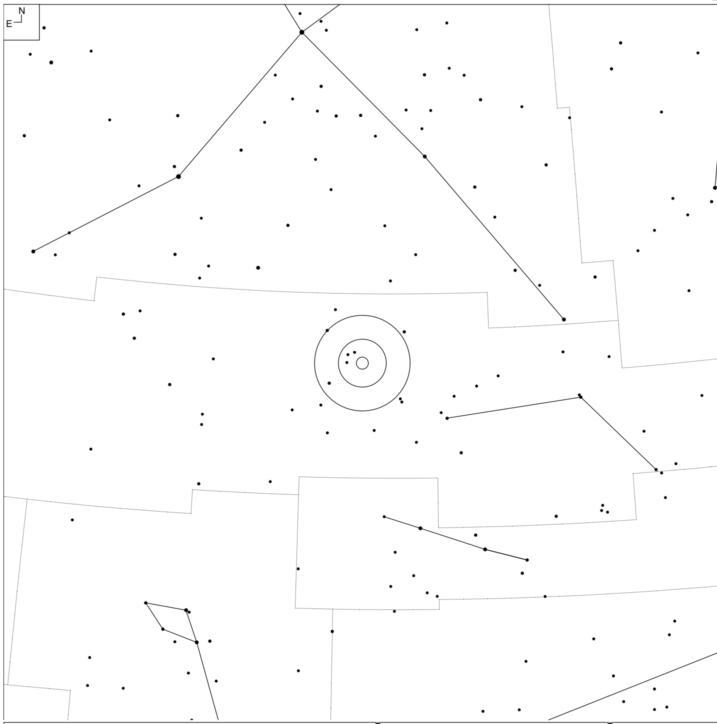


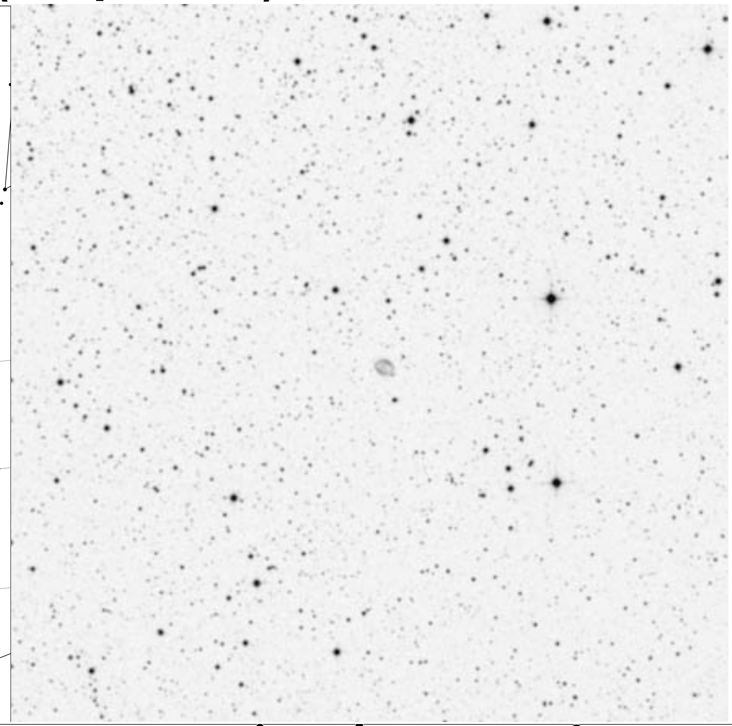


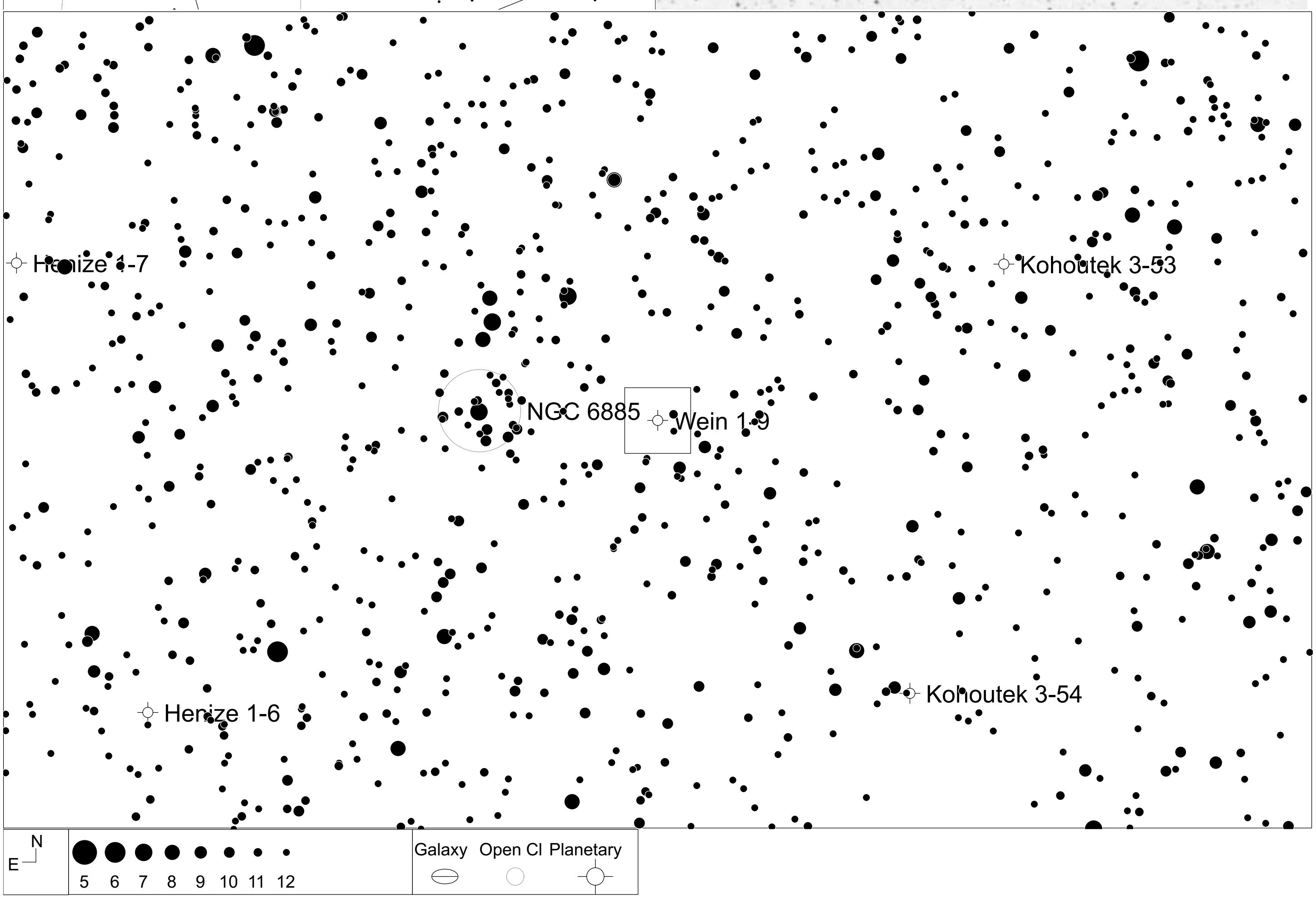
Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 60-3.1	3+2	19 59 36.1	+22 43 13	7.4v	13.8	6.7’

Extension needs large aperture. Knots on halo is visible.

Wein 1-9 (Vulpecula)

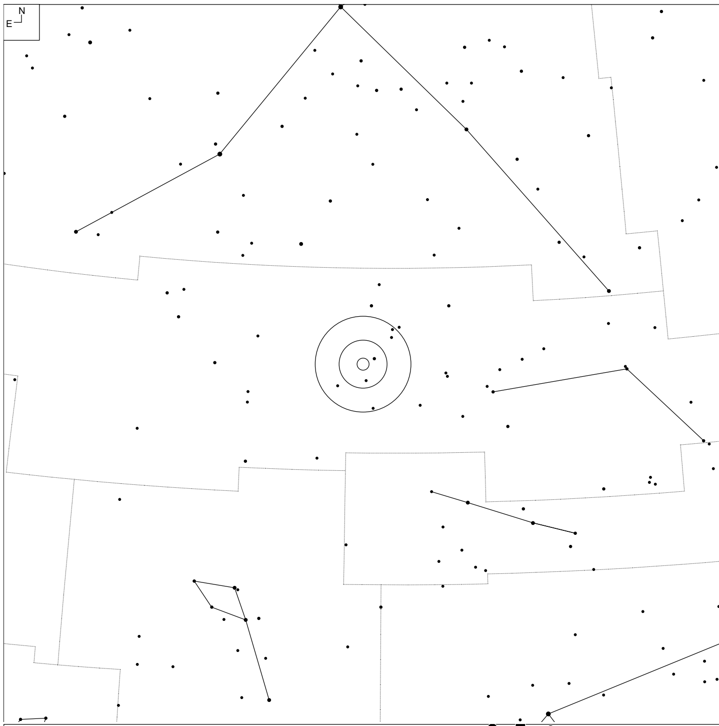


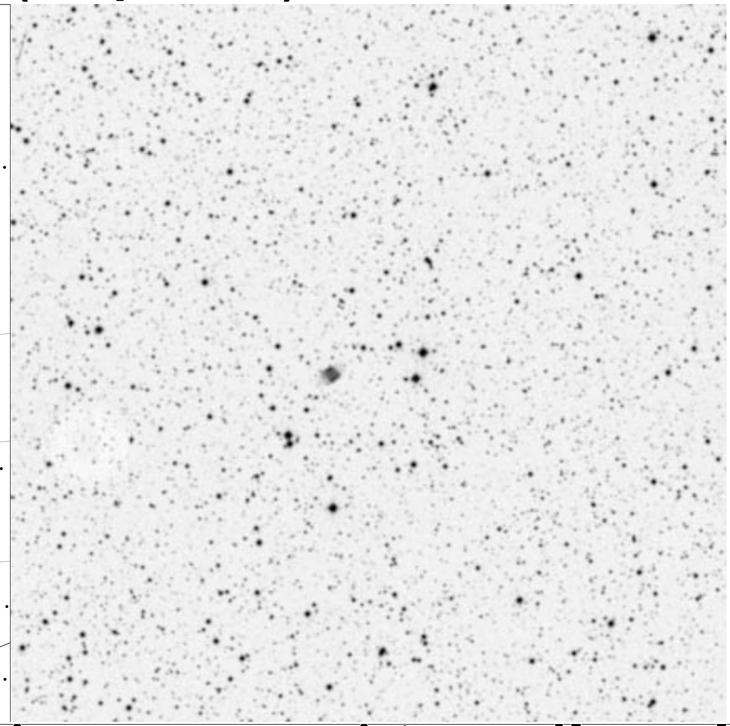


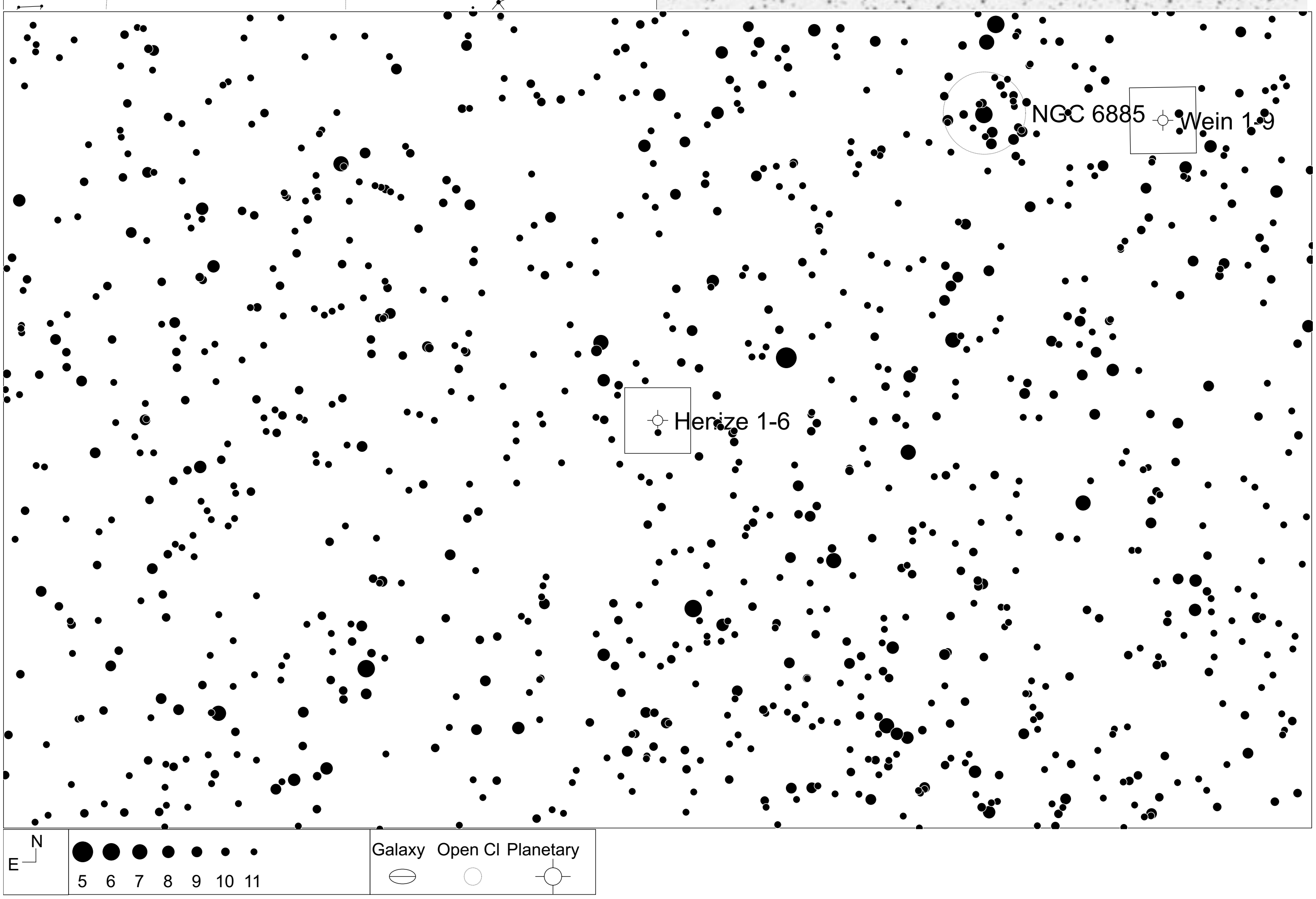


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 65-3.1	-	20 09 04.7	+26 26 55	-	21.0	24”

Henize 1-6 (Vulpecula)

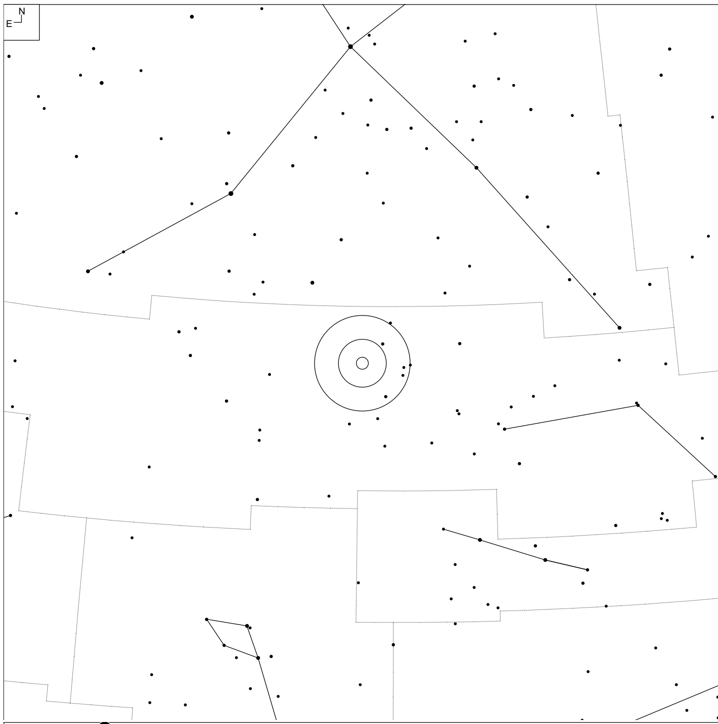


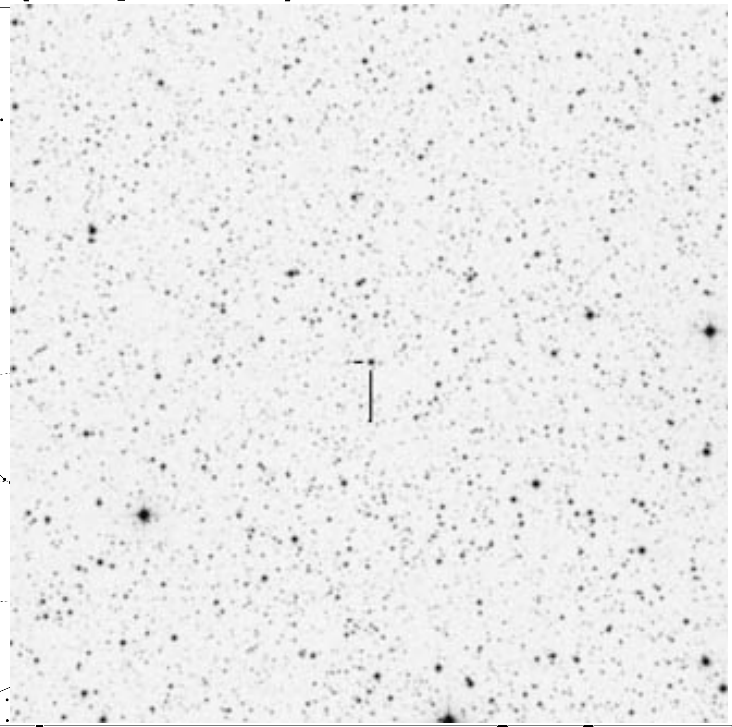


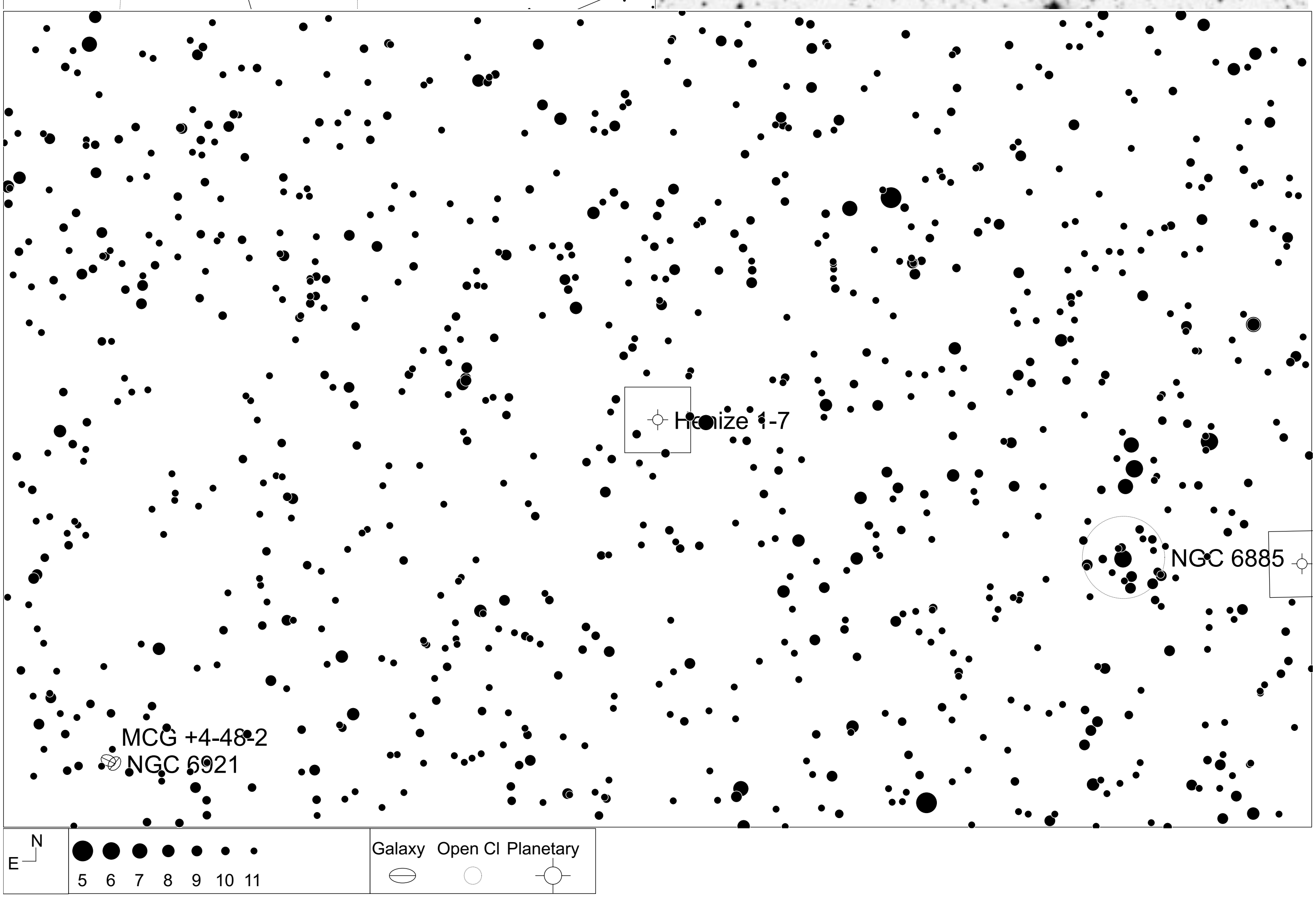


Other ID	Type	RA	Dec	Mag	* Mag	Size
Henize 2-462	3+2	20 17 21.5	+25 21 44	14.9p	-	24”

Henize 1-7 (Vulpecula)

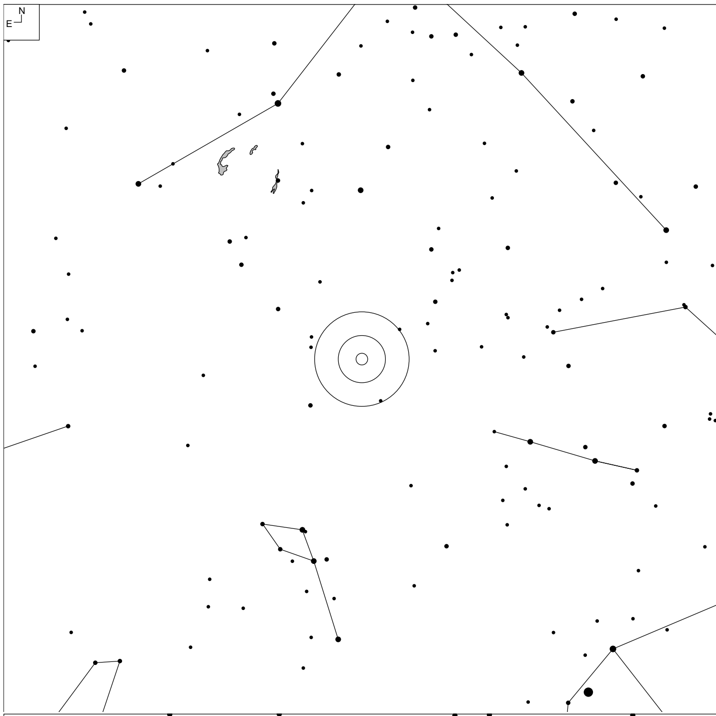


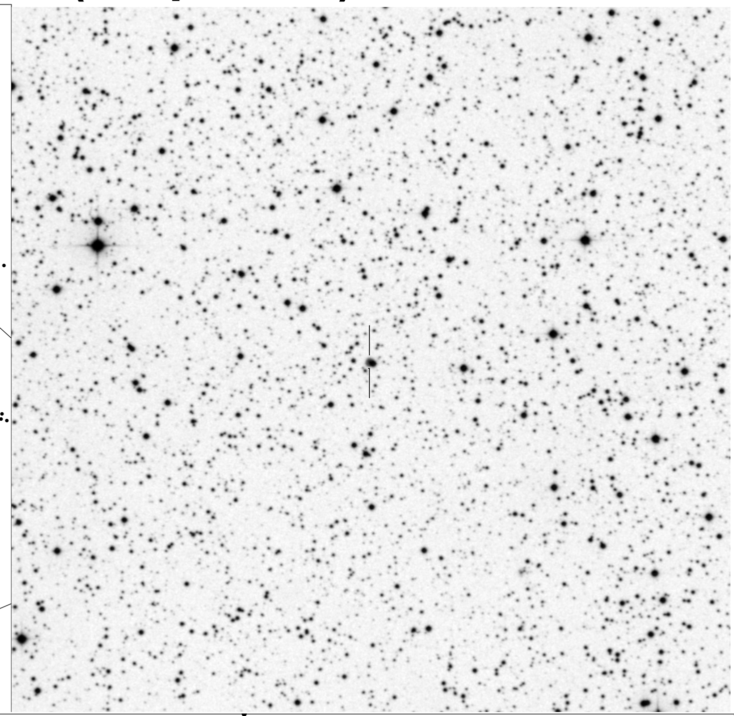


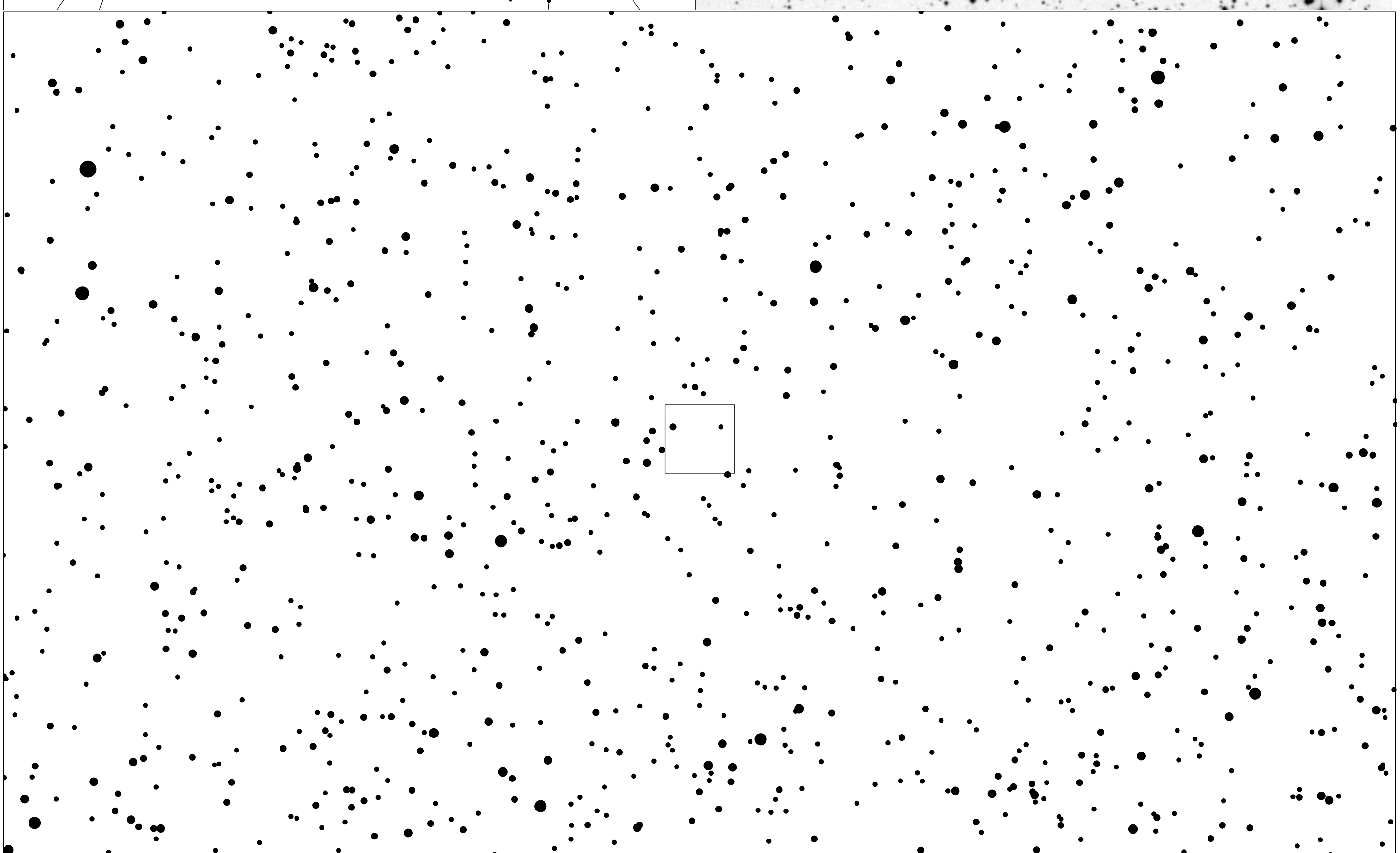


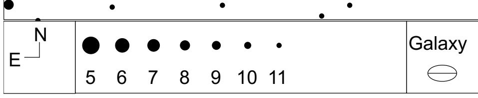
Other ID	Type	RA	Dec	Mag	* Mag	Size
Henize 2-463	-	20 19 38.3	+27 00 08	13.5p	-	5”

Little Blue Fox (Vulpecula)



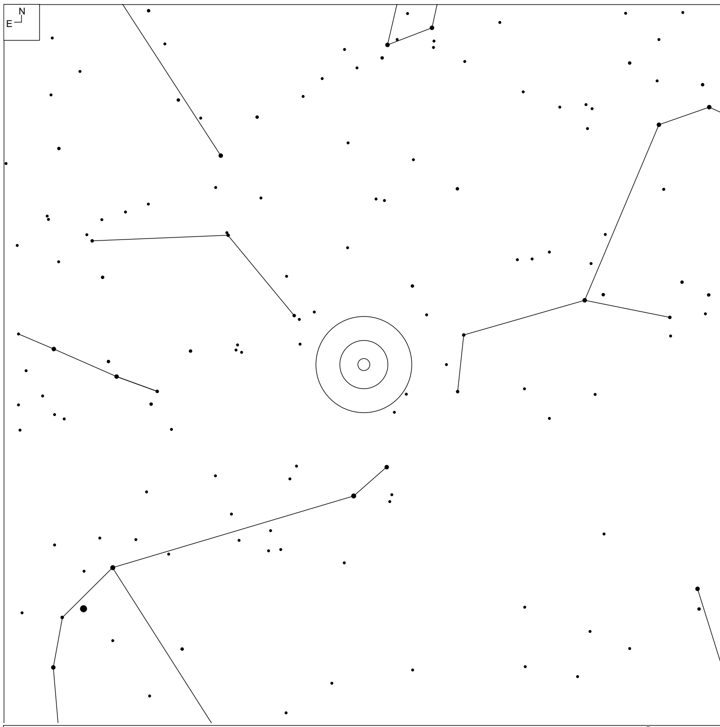


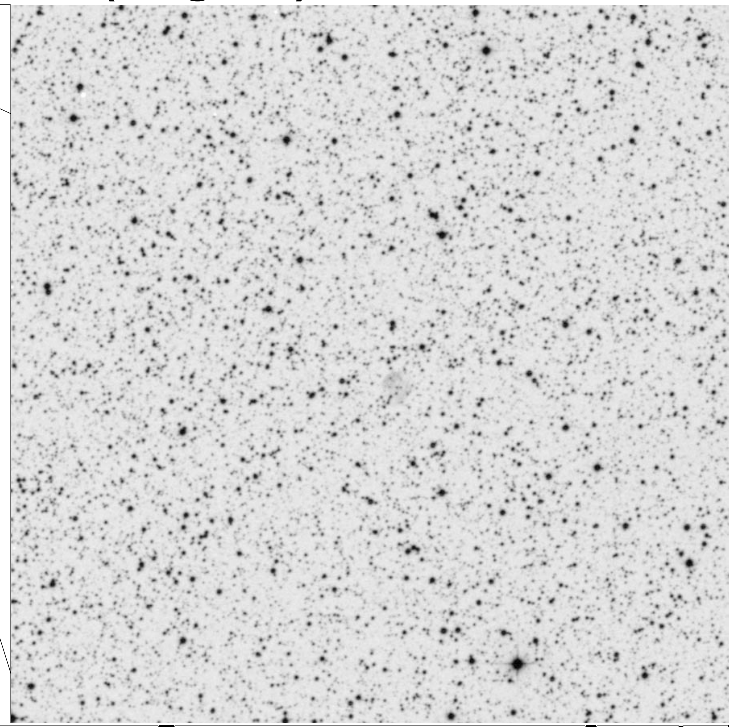


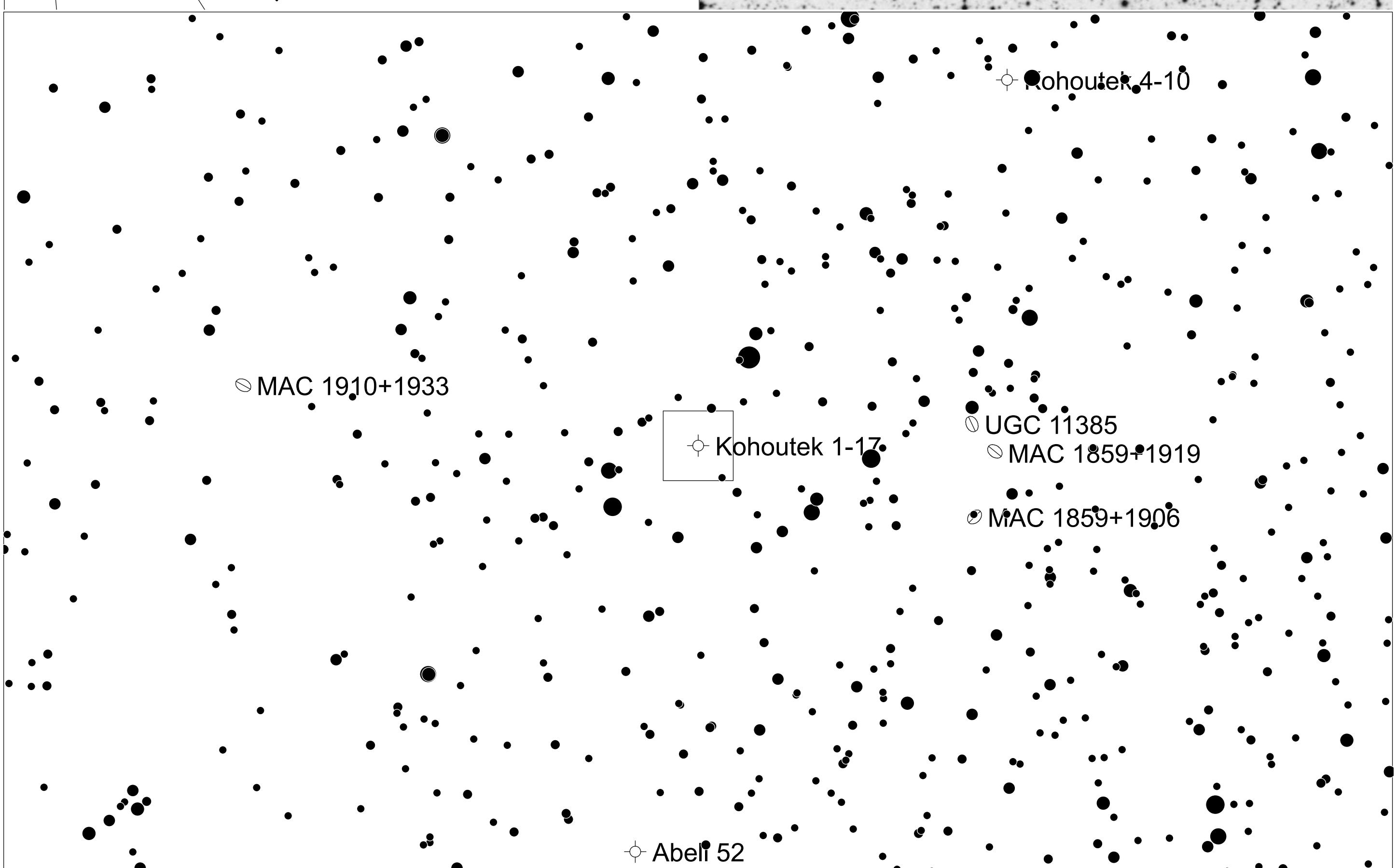


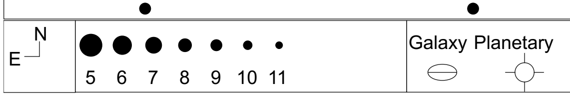
Other ID	Type	RA	Dec	Mag	* Mag	Size
	-	20 29 07.5	+23 11 12	-	-	17 x 13”

Kohoutek 1-17 (Sagitta)



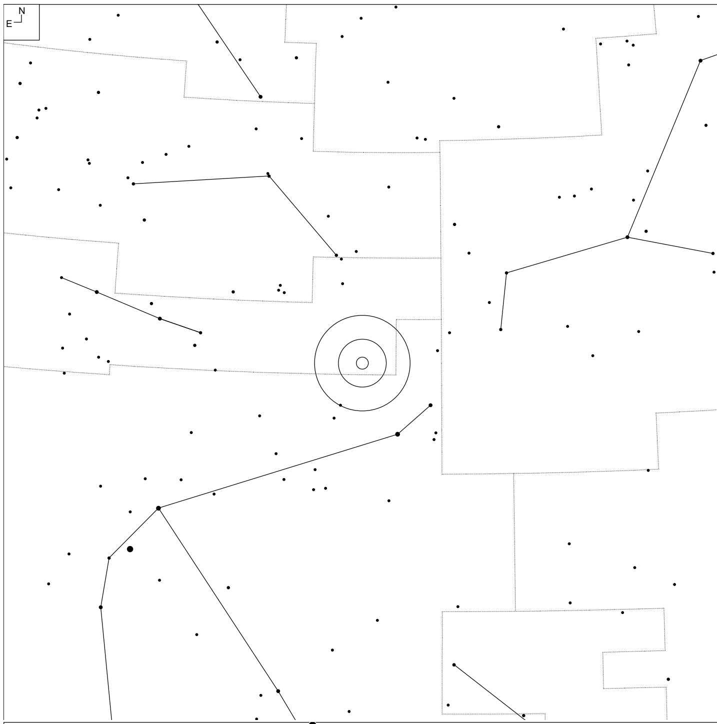


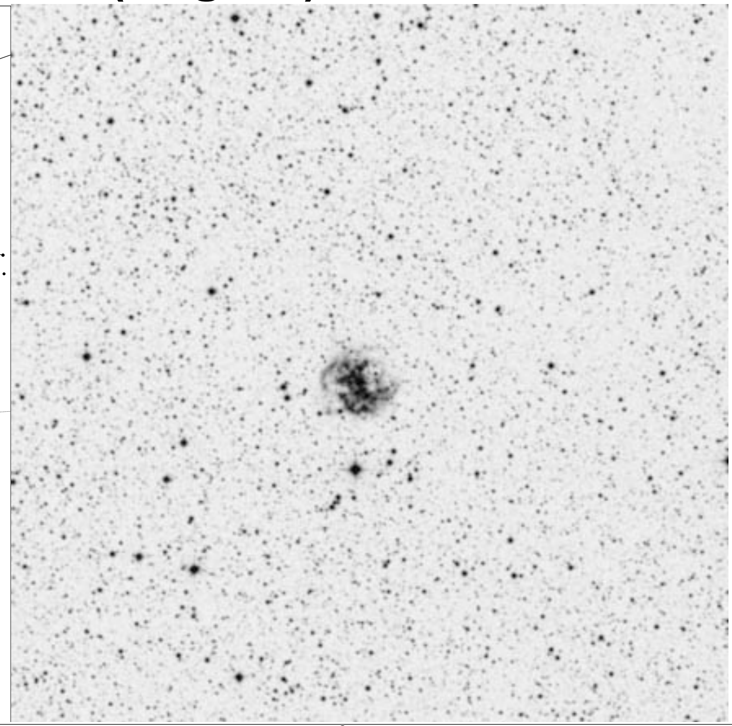


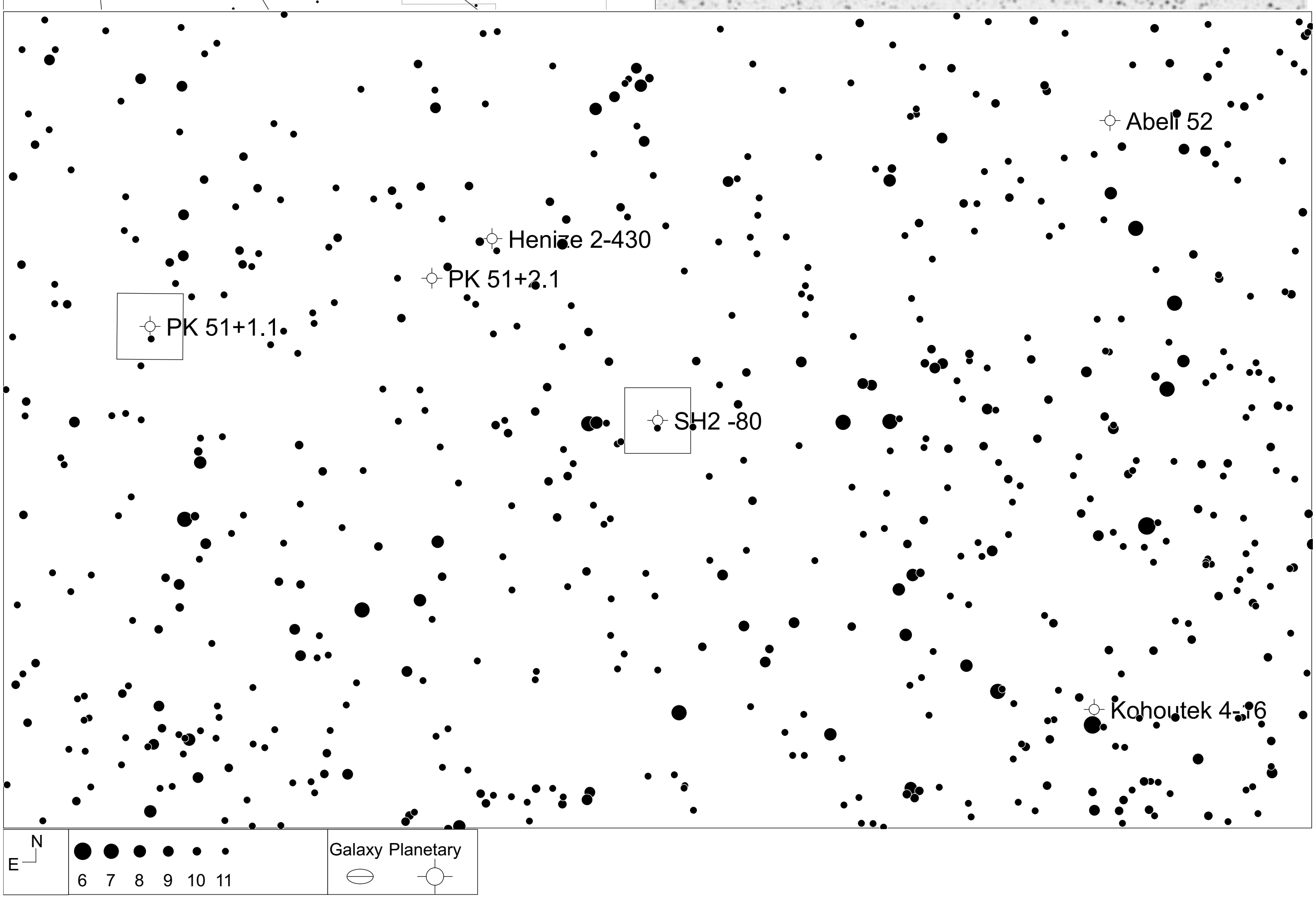


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 51+6.1	4	19 03 37.4	+19 21 21	16.6p	19.2	45”

Sharpless 2-80 (Sagitta)

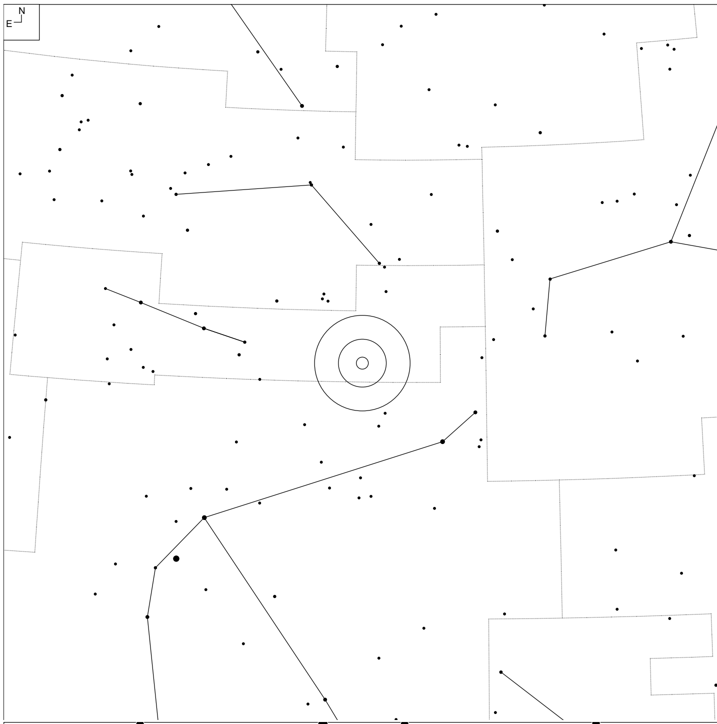


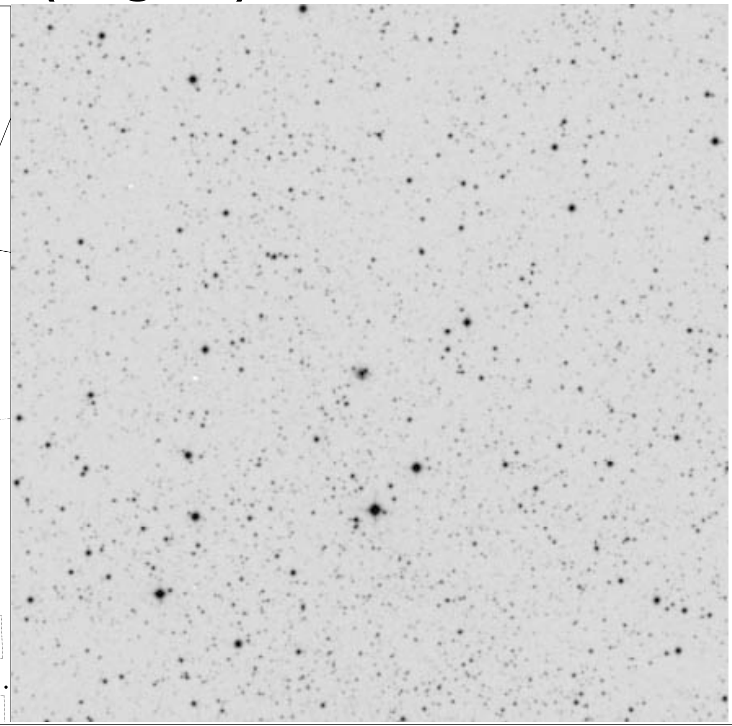


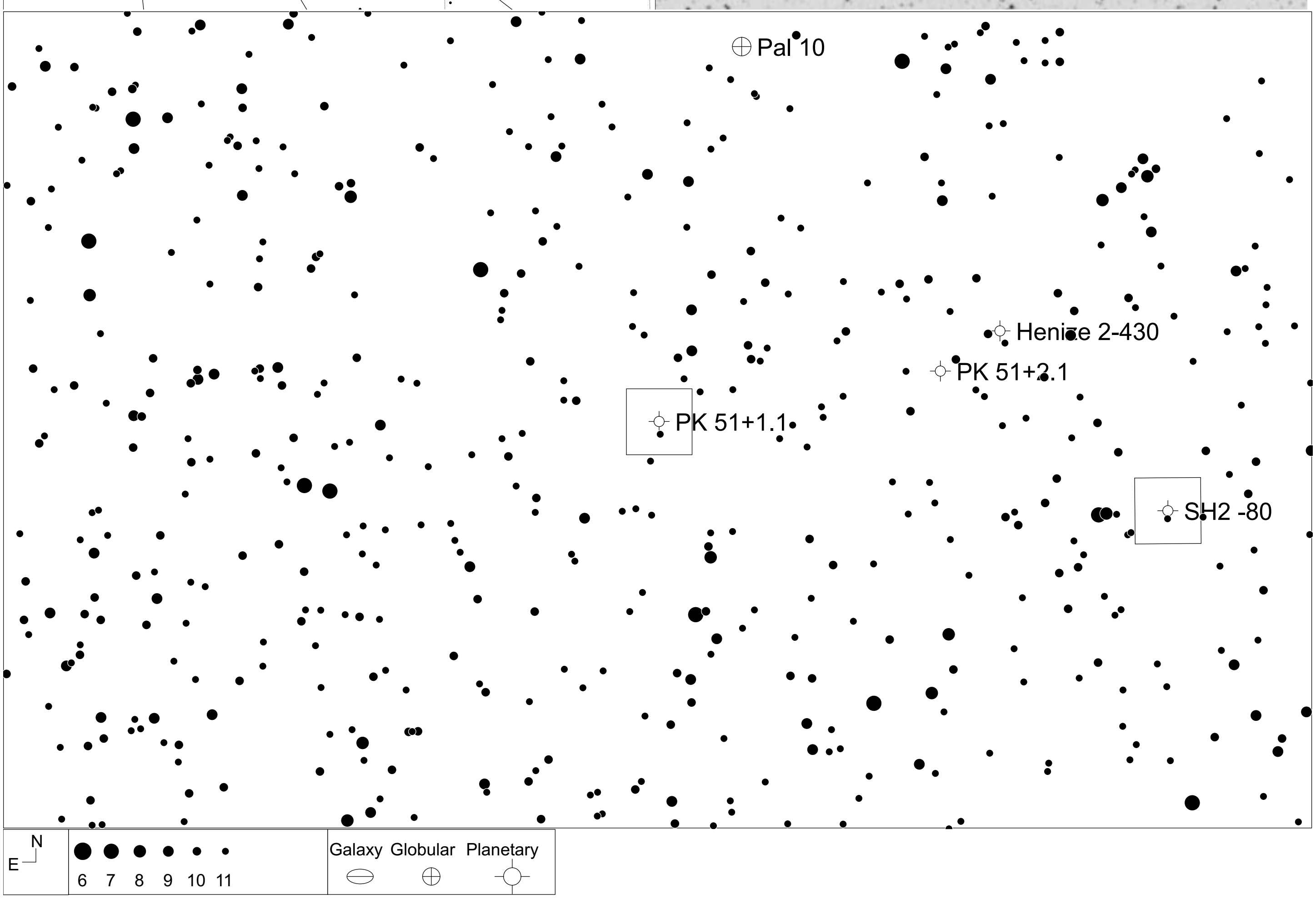


Other ID	Type	RA	Dec	Mag	* Mag	Size
Minkowski 1-67	-	19 11 30.9	+16 51 35	8.2IR	11.1	1.8’

PK 51+1.1 (Sagitta)

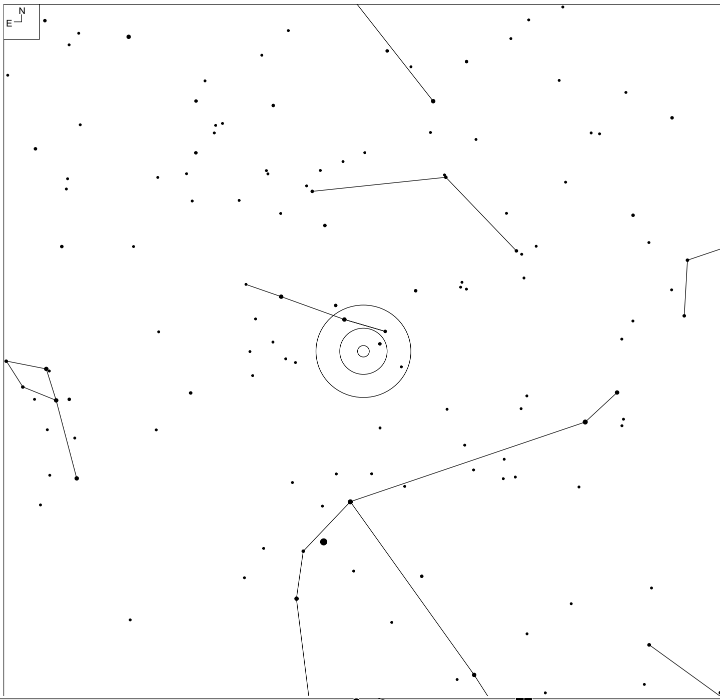


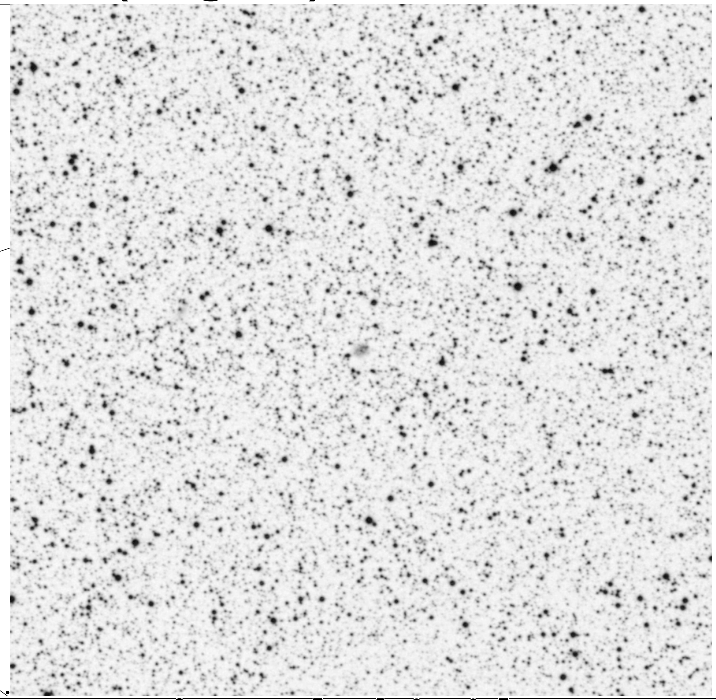


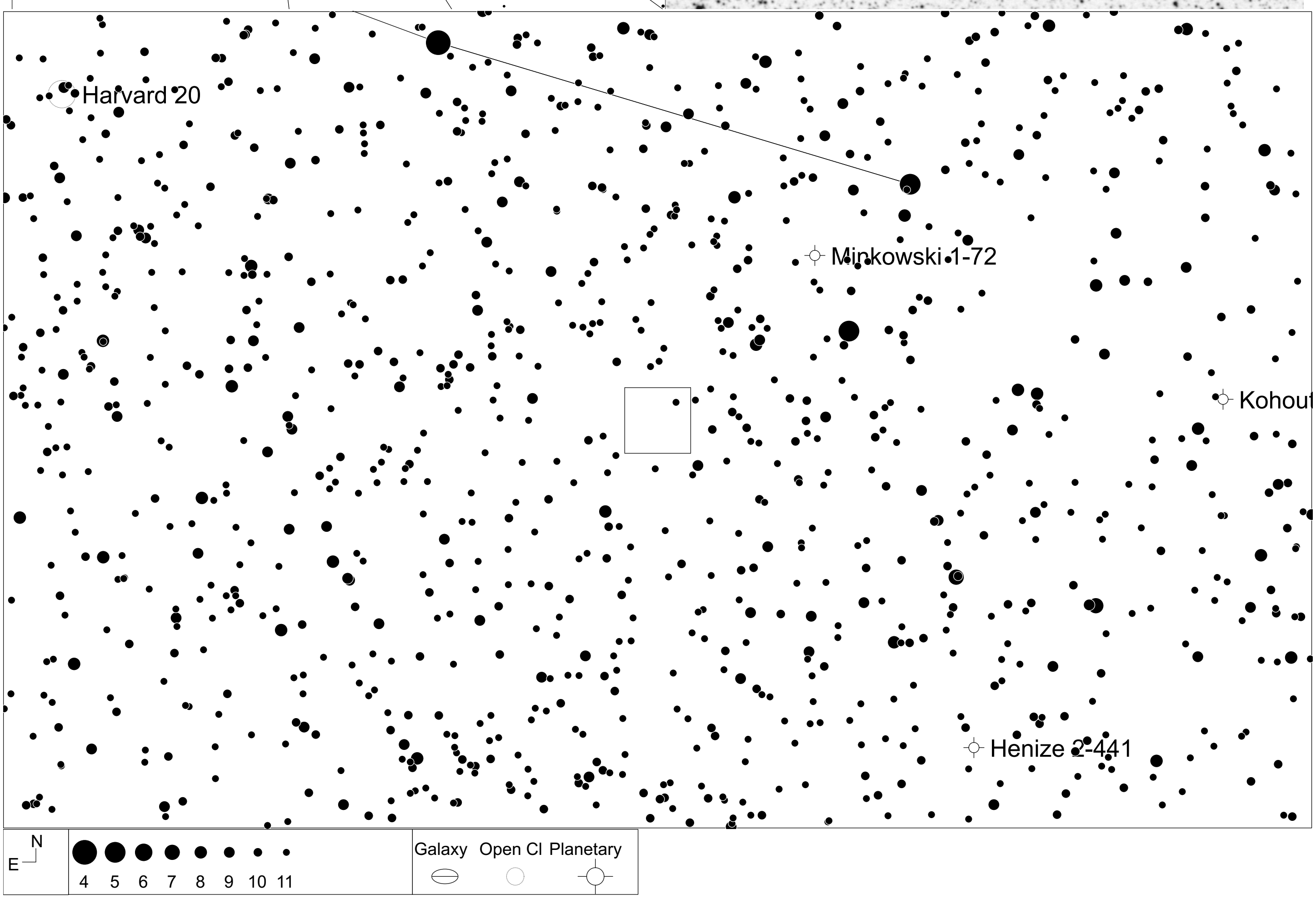


Other ID	Type	RA	Dec	Mag	* Mag	Size
-	4	19 19 18.8	+17 11 45	-	15.1	20”

Necklace Nebula (Sagitta)

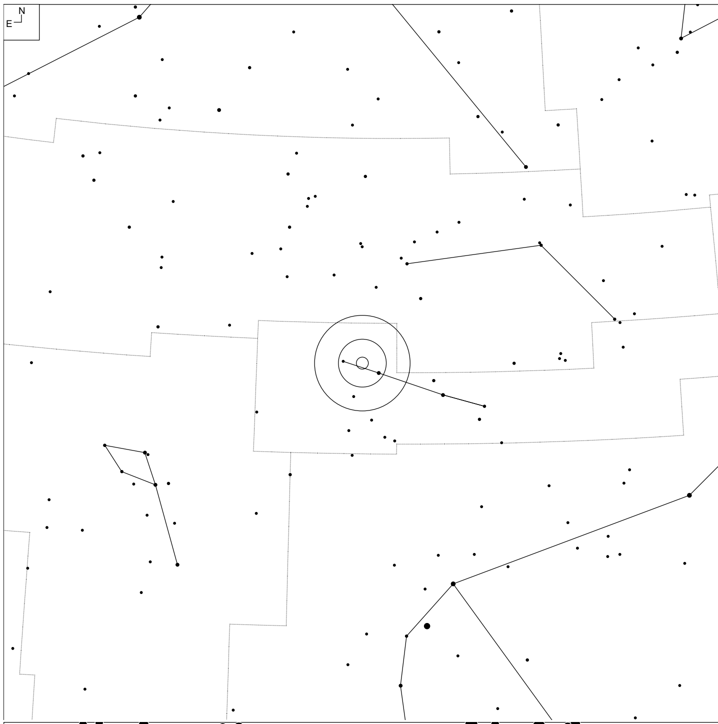


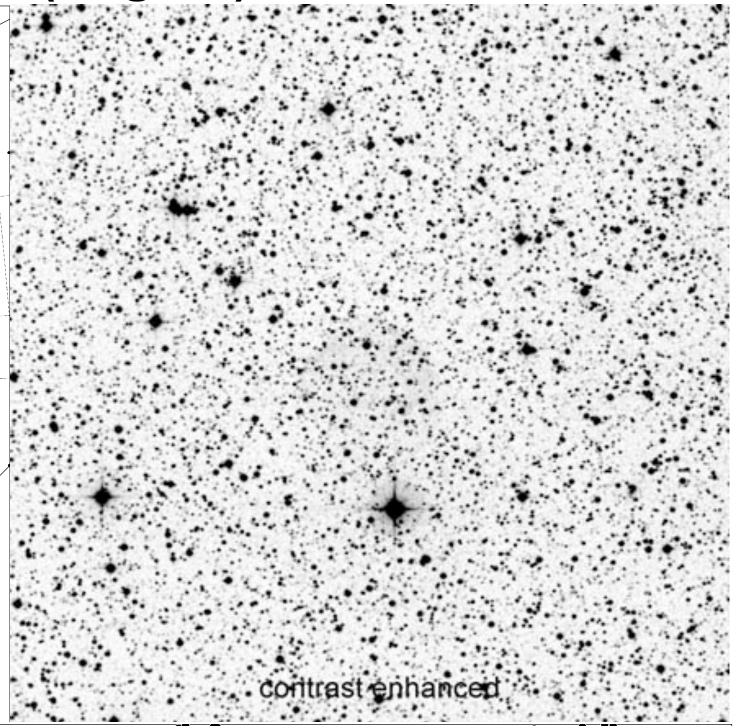


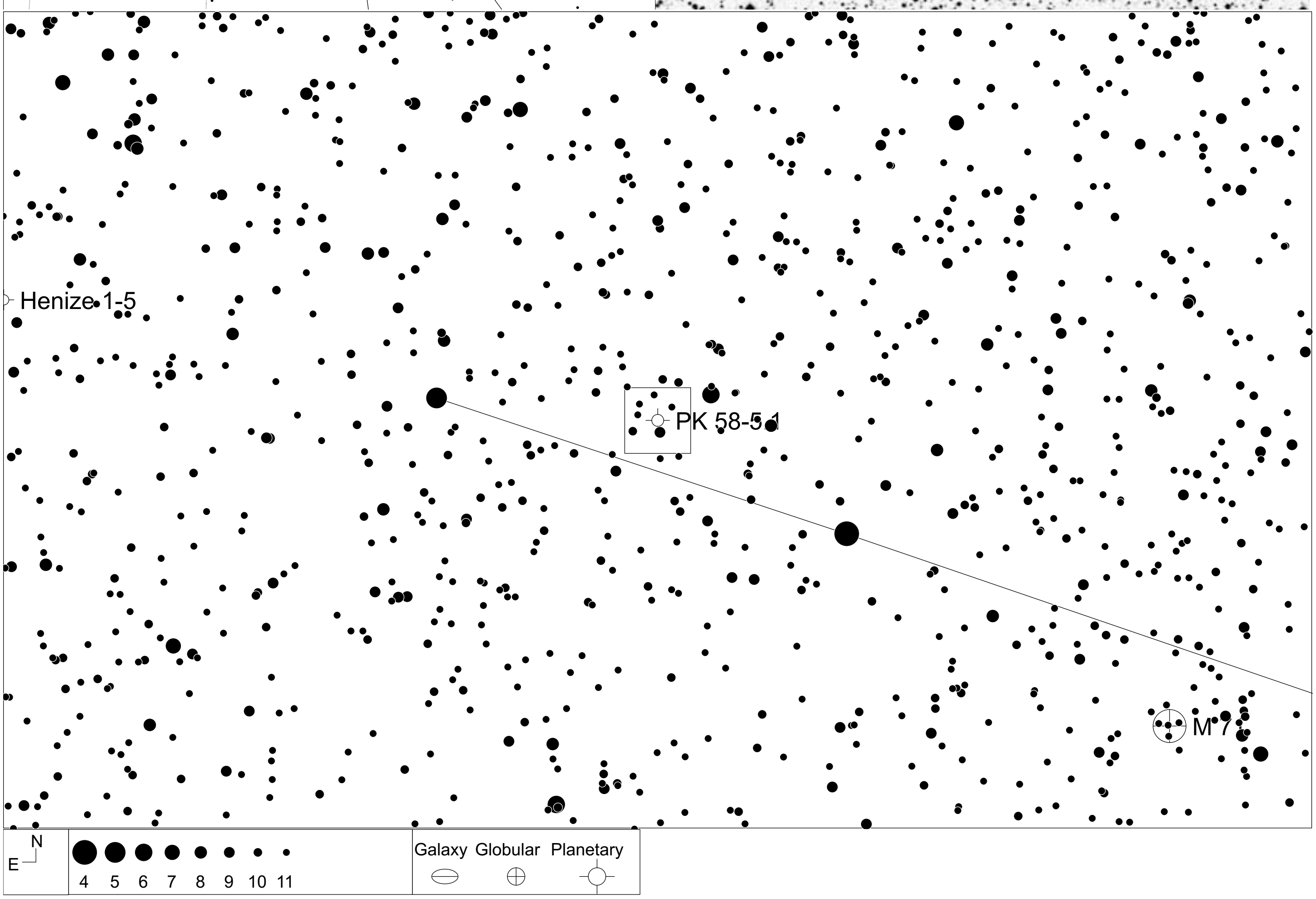


Other ID	Type	RA	Dec	Mag	* Mag	Size
-		19 43 59.5	+17 09 00	-		~25”

PK 58-5.1 (Sagitta)

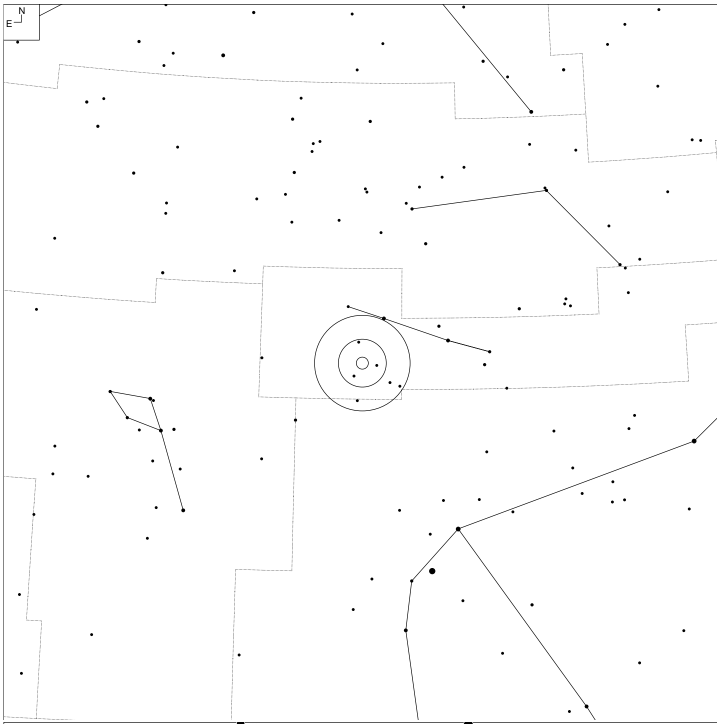


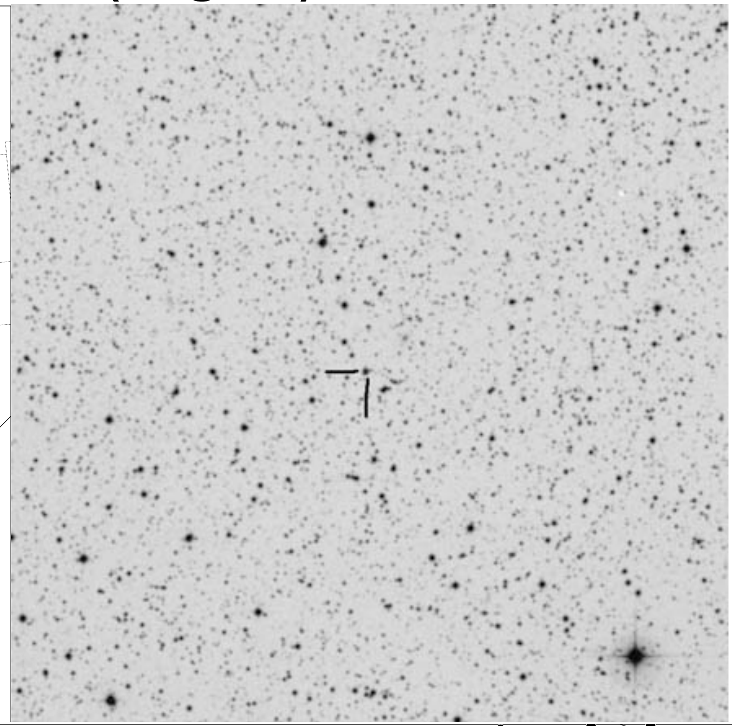


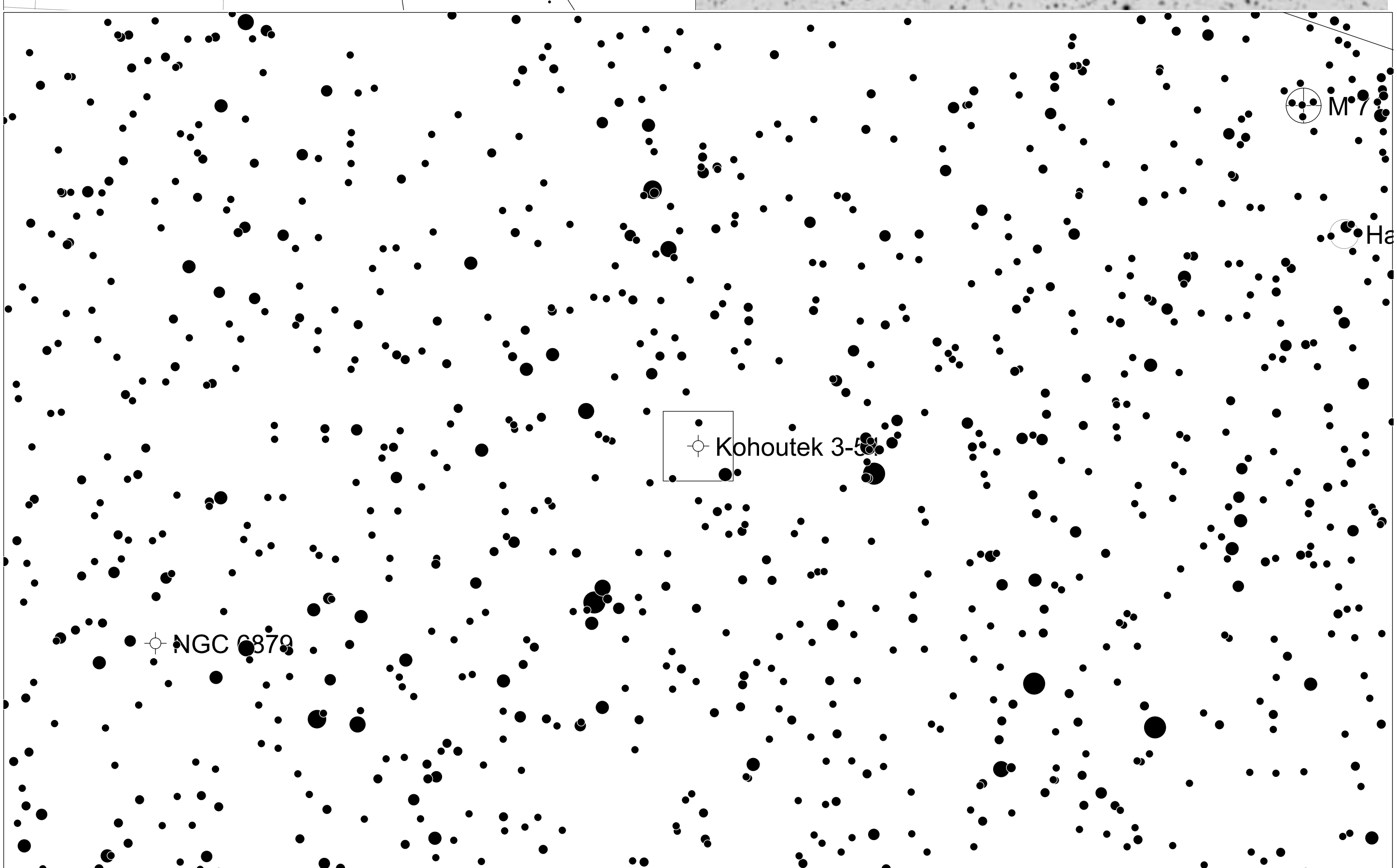


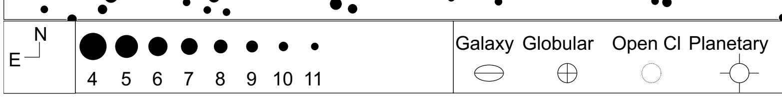
Other ID	Type	RA	Dec	Mag	* Mag	Size
-	-	20 01 42.1	+19 54 37	-	17.4	2.5’

Kohoutek 3-51 (Sagitta)



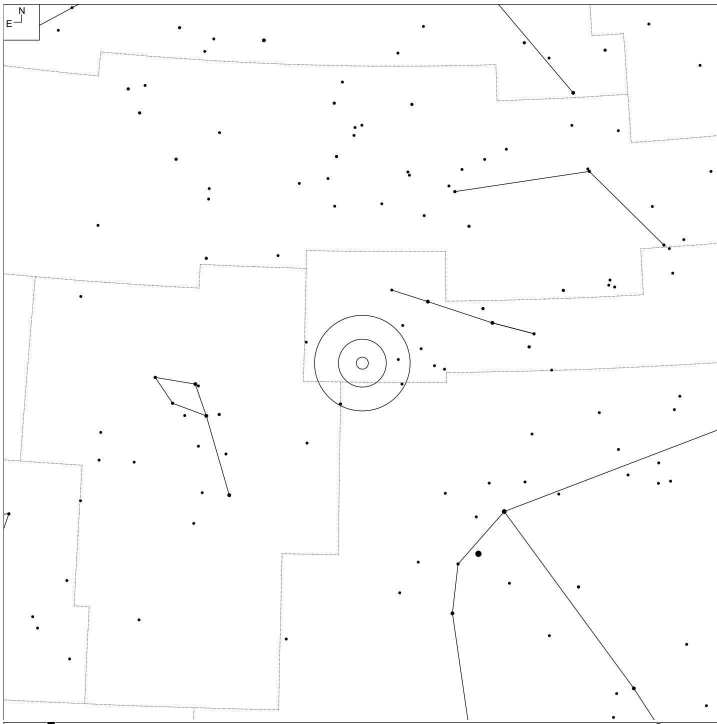


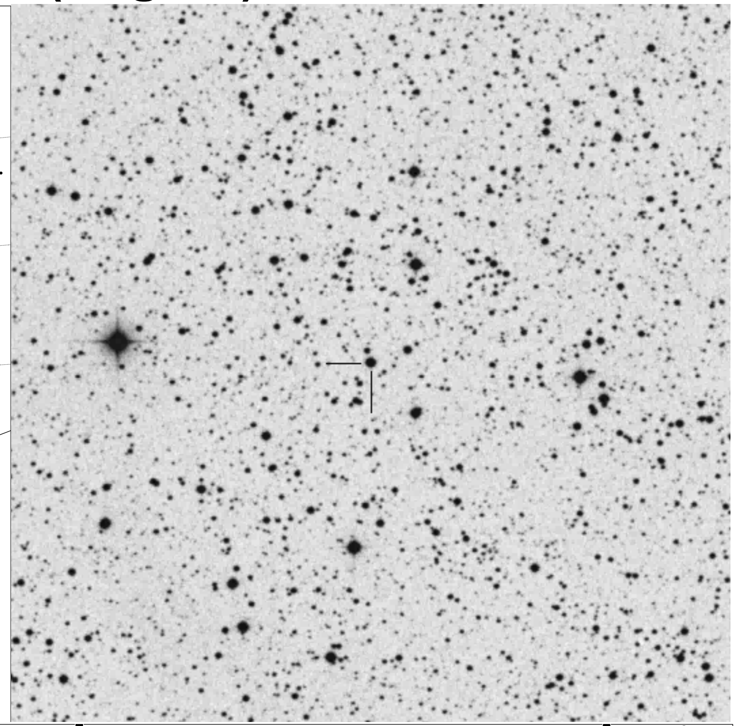


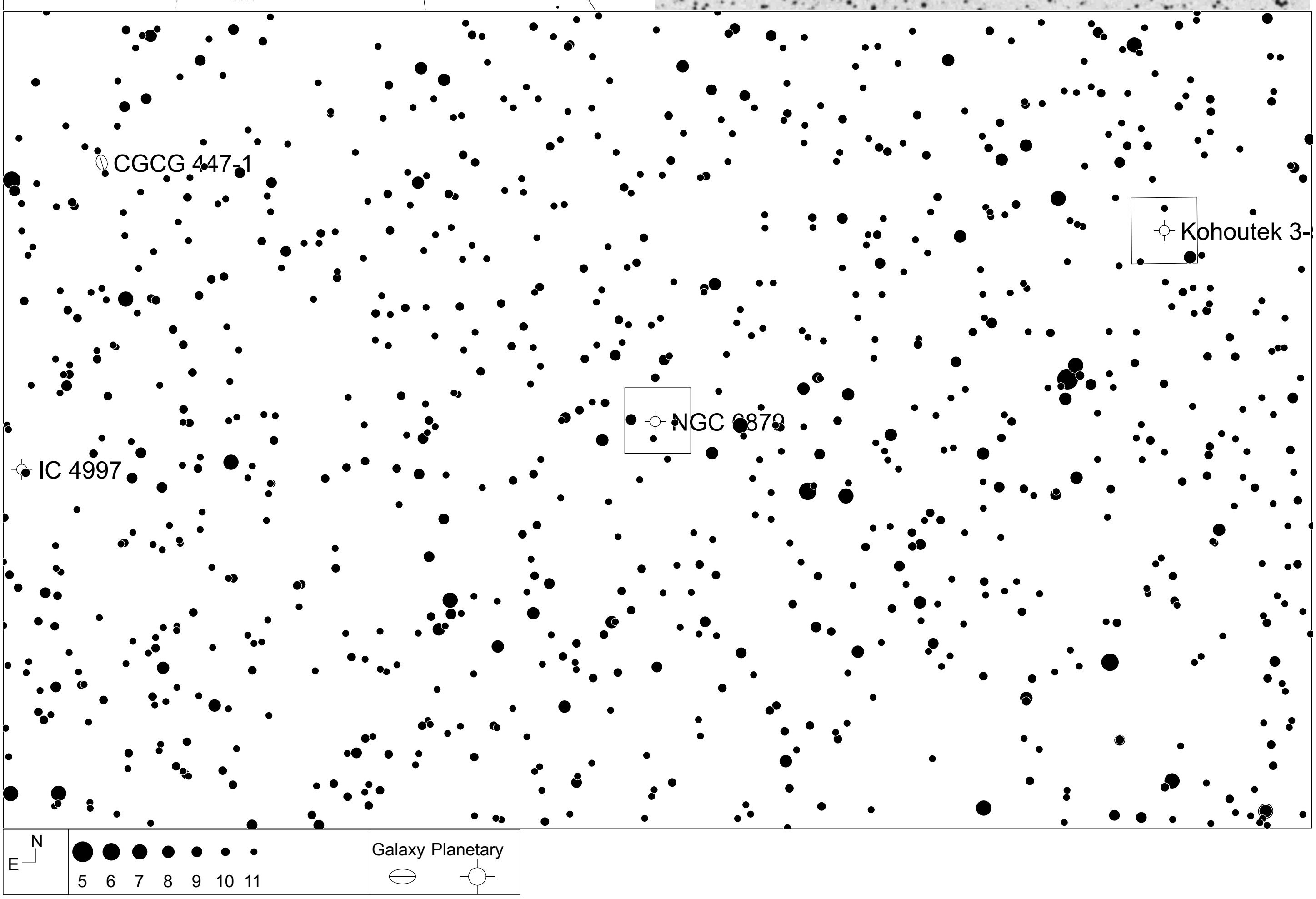


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 56-6.1	-	20 02 36.4	+17 36 50	14.7p	-	15”

NGC 6879 (Sagitta)

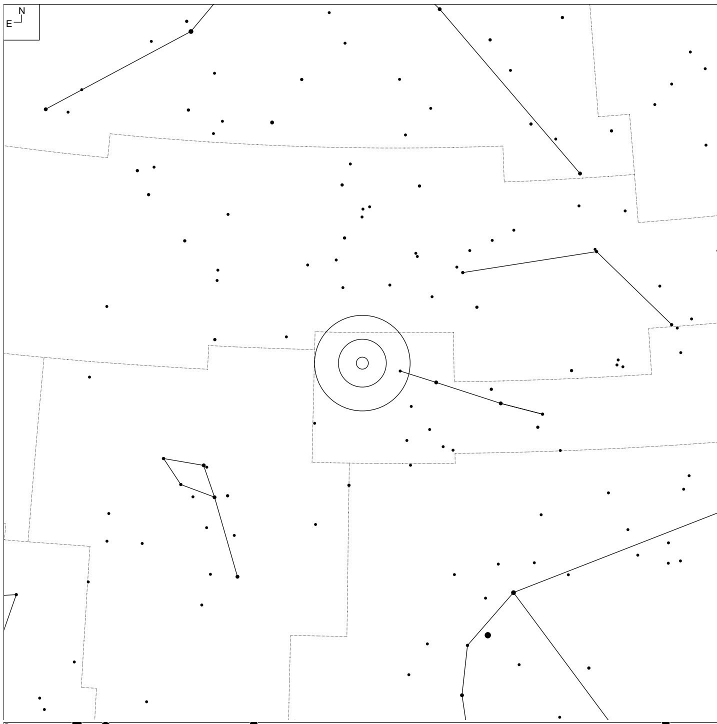


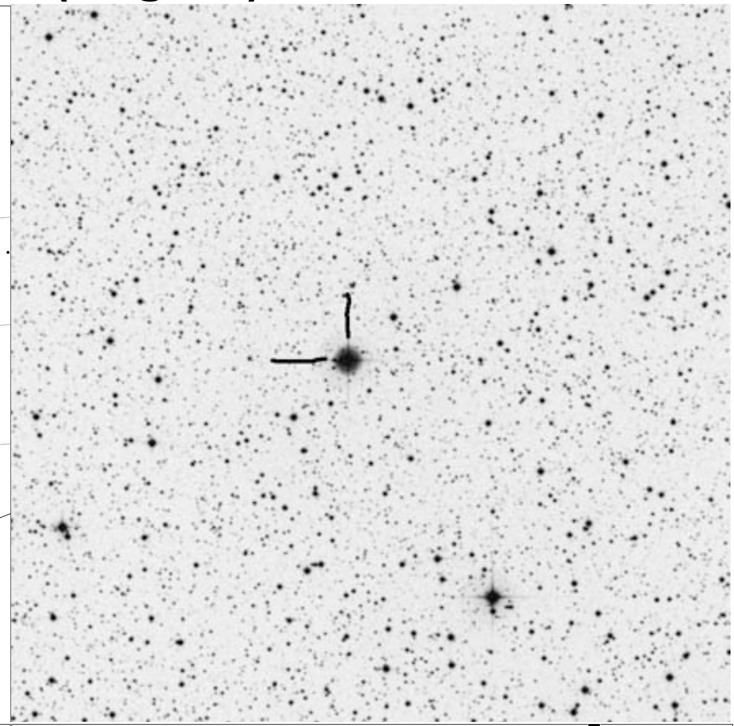


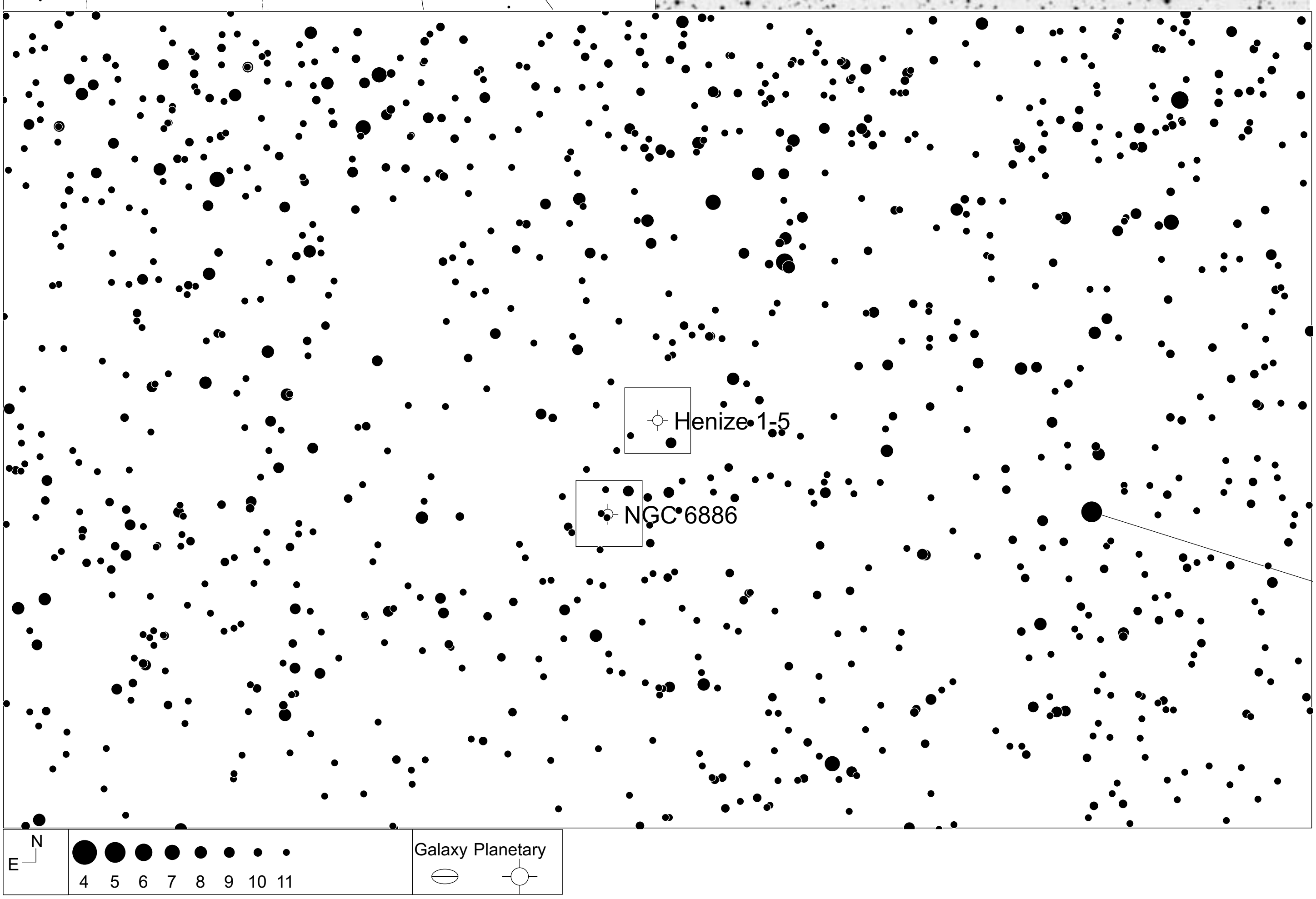


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 57-8.1	2a	20 10 26.8	+16 55 19	12.5v	14.8	8”

Henize 1-5 (Sagitta)

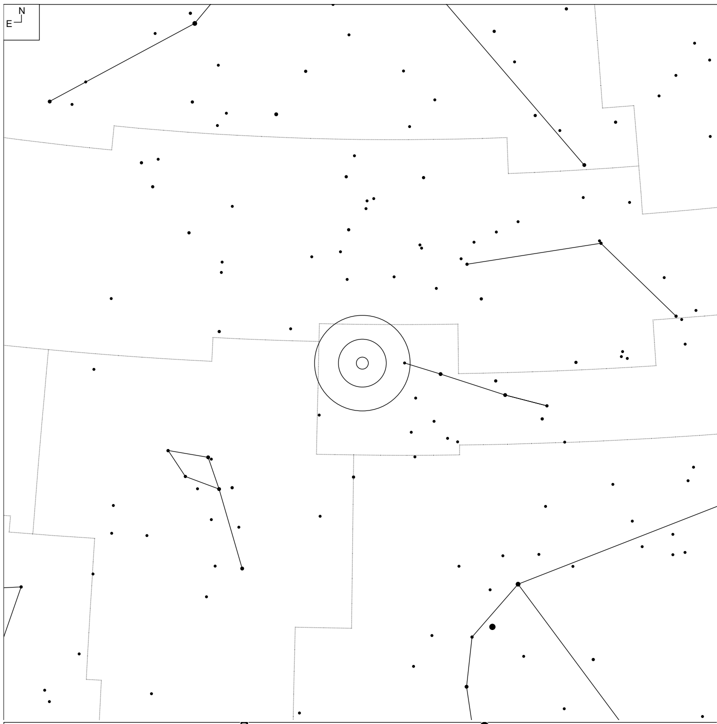


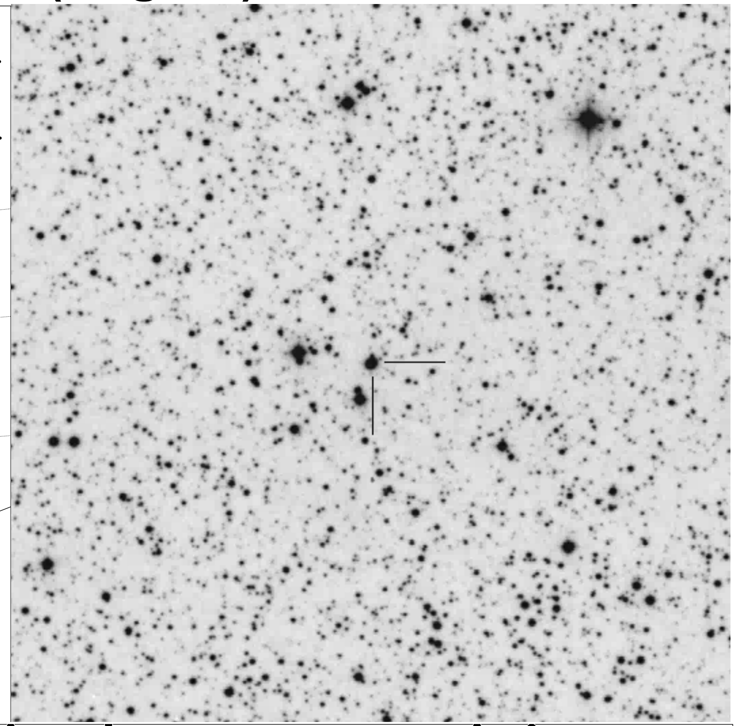


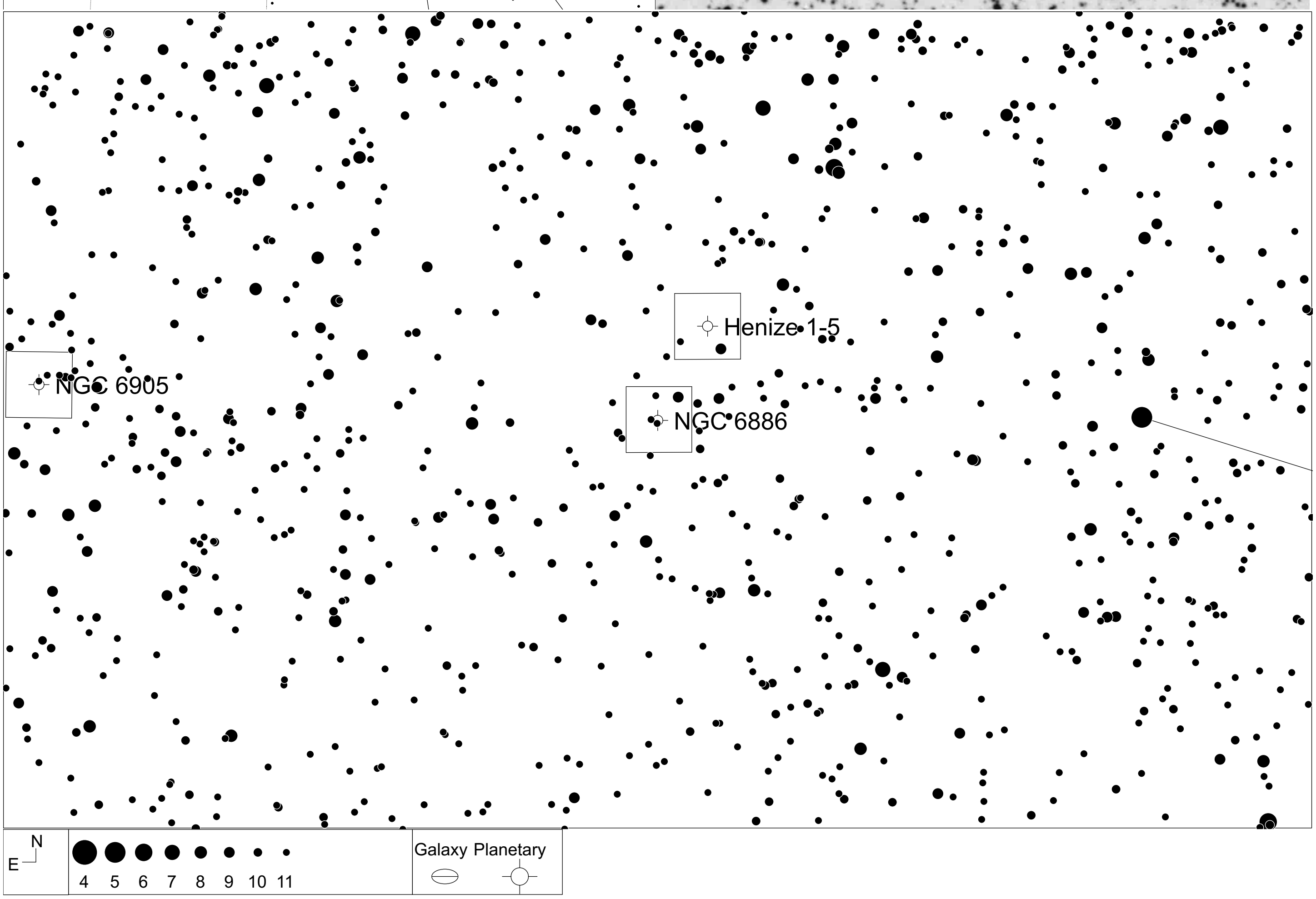


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 60-7.1	3+2	20 11 56.1	+20 20 04	16.2p	11.3	40”

NGC 6886 (Sagitta)

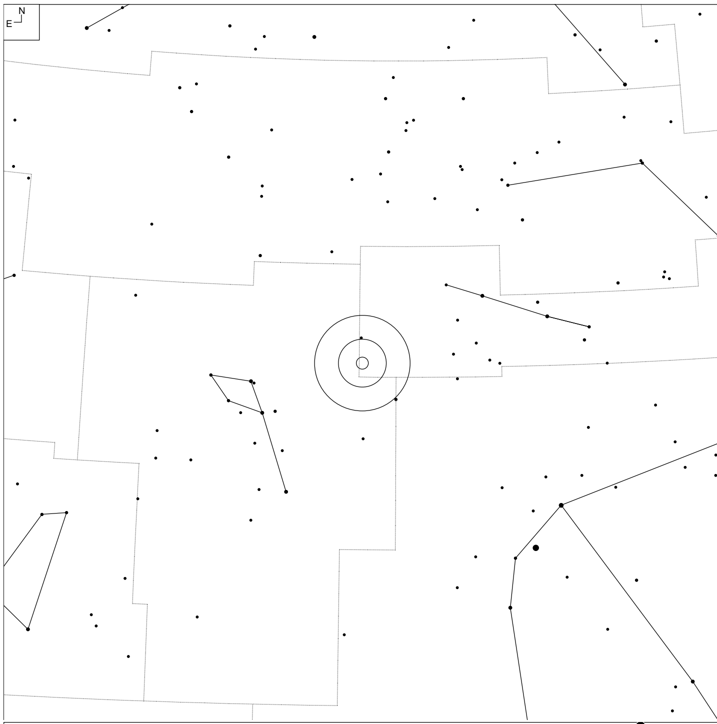


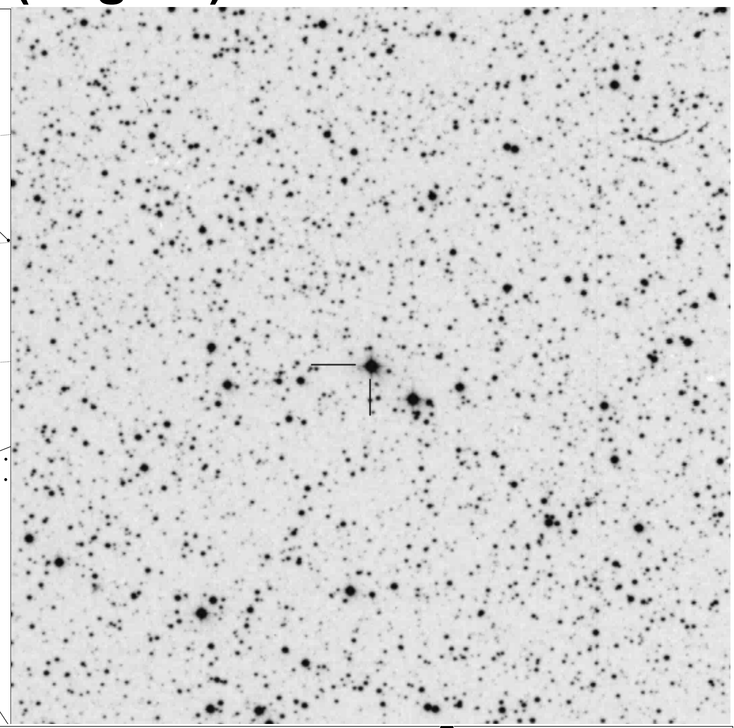


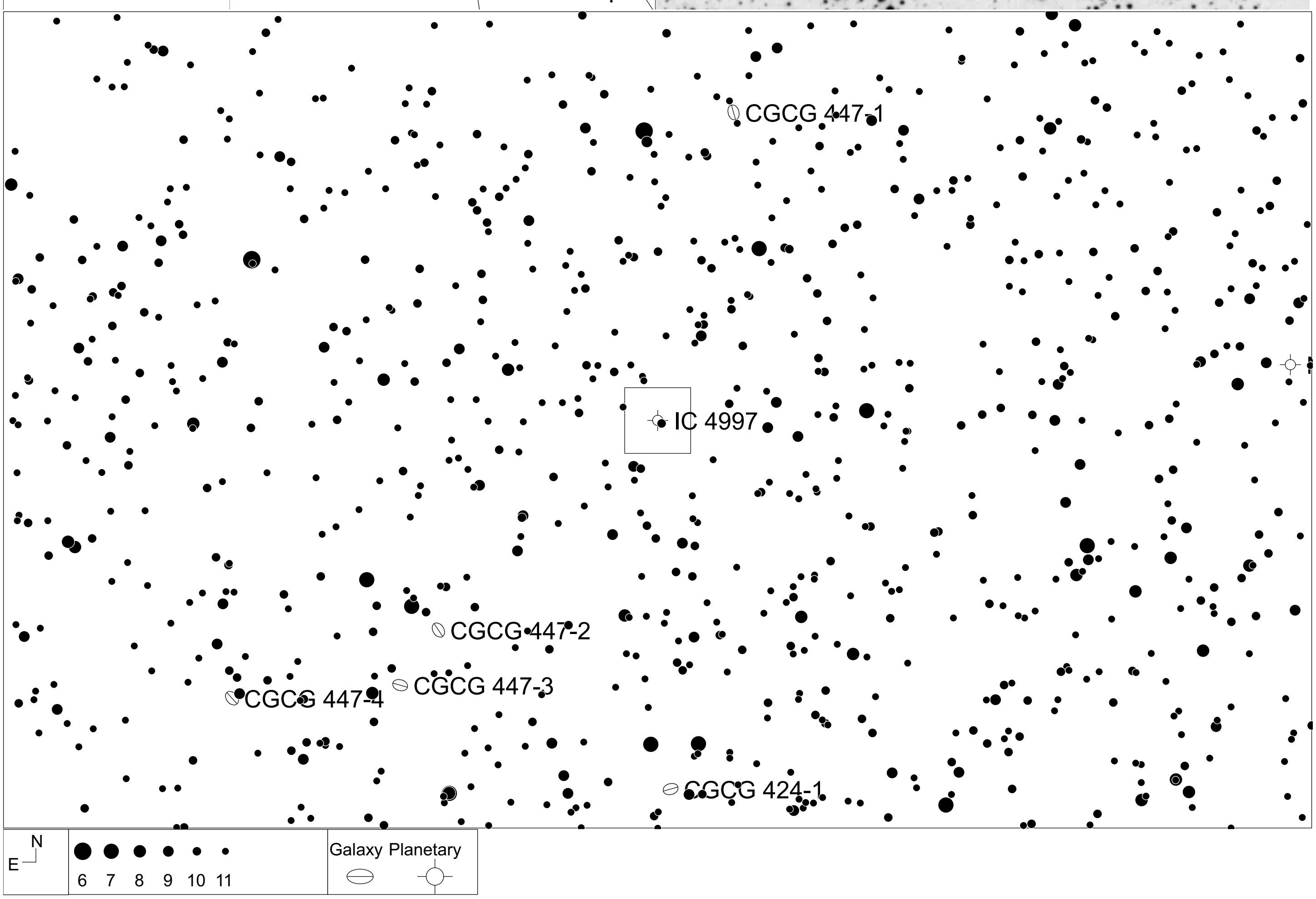


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 60-7.2	2+3	20 12 43.0	+19 59 20	11.4v	18.0	6”

IC 4997 (Sagitta)

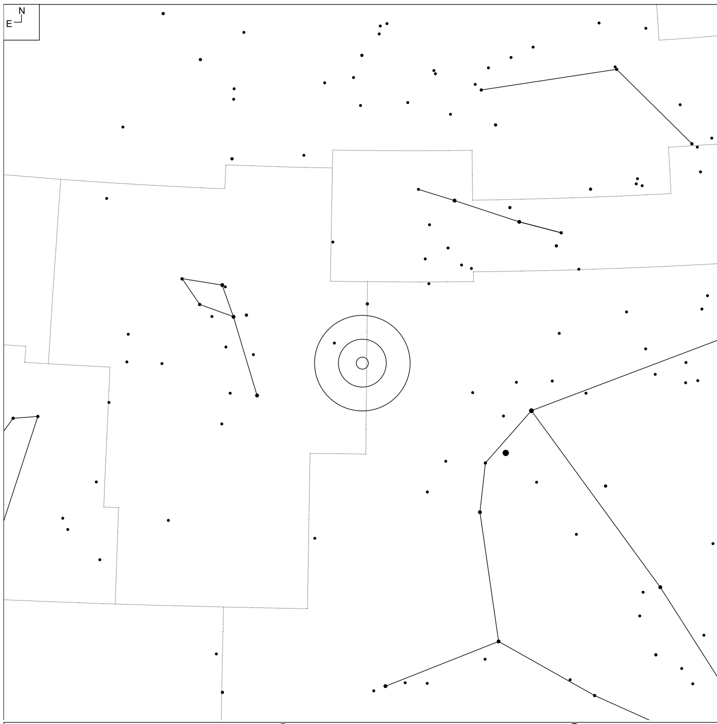


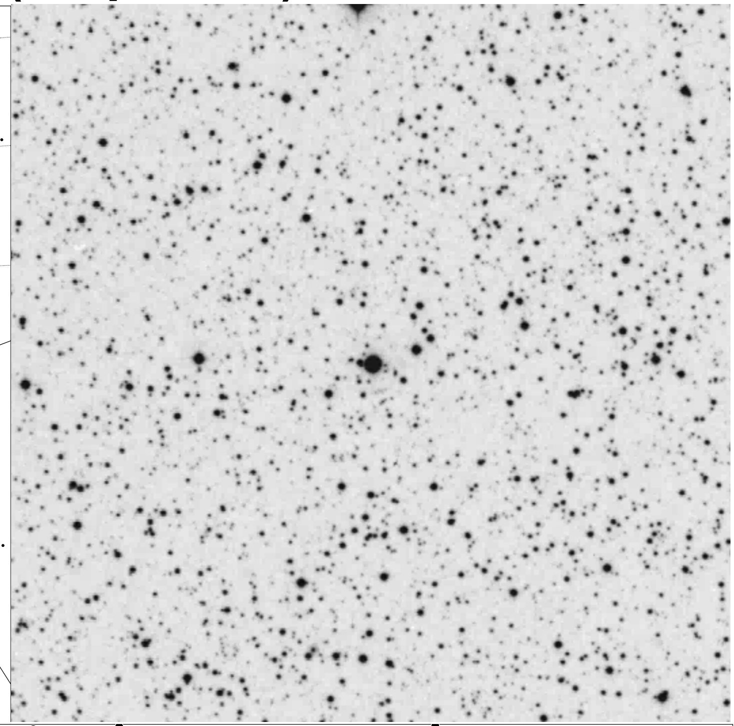


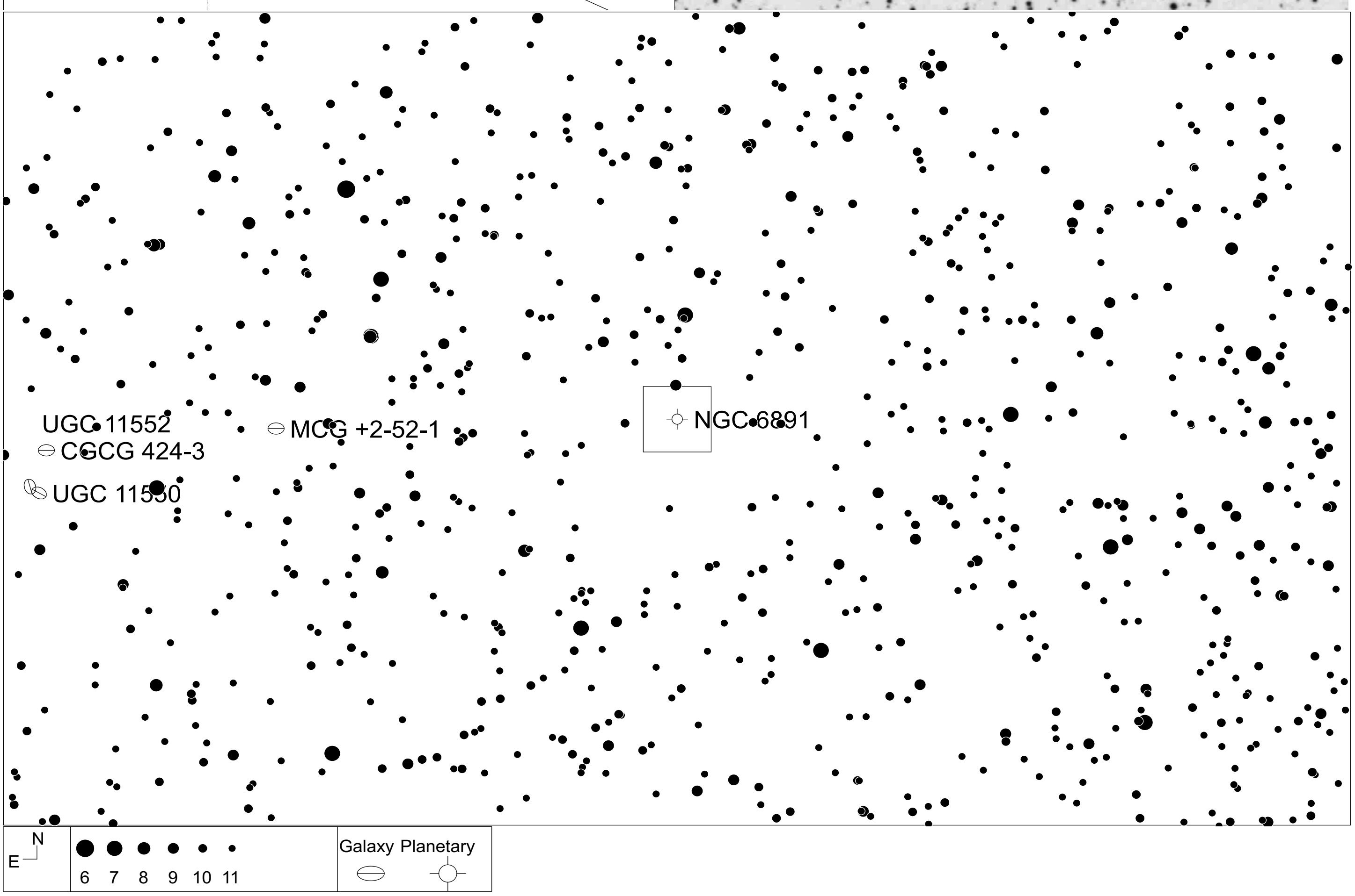


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 58-10.1	1	20 20 08.8	+16 43 52	10.5v	14.4	2”

NGC 6891 (Delphinus)



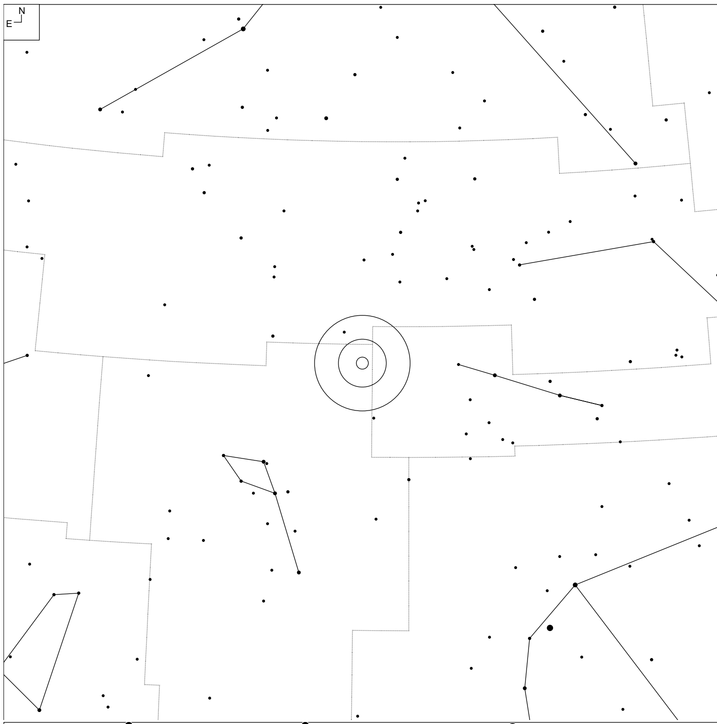


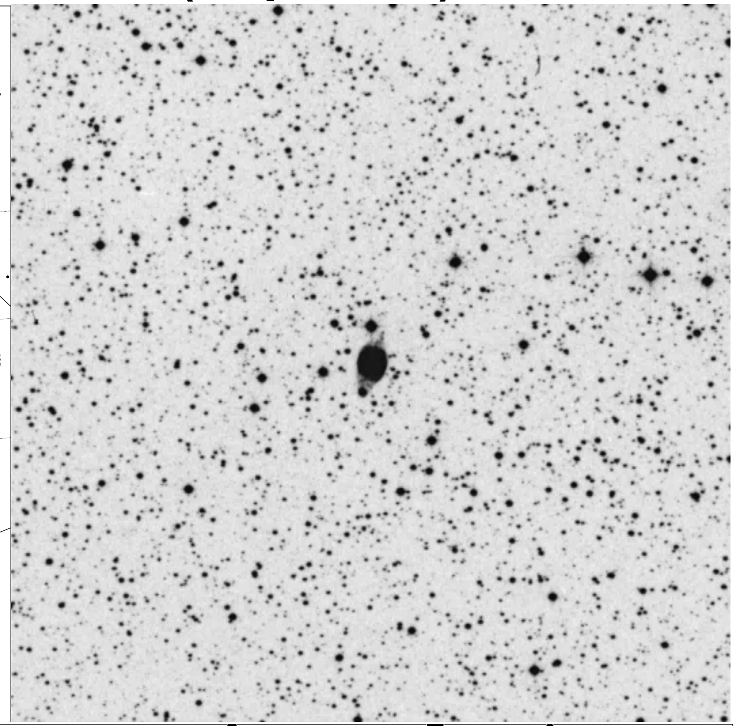


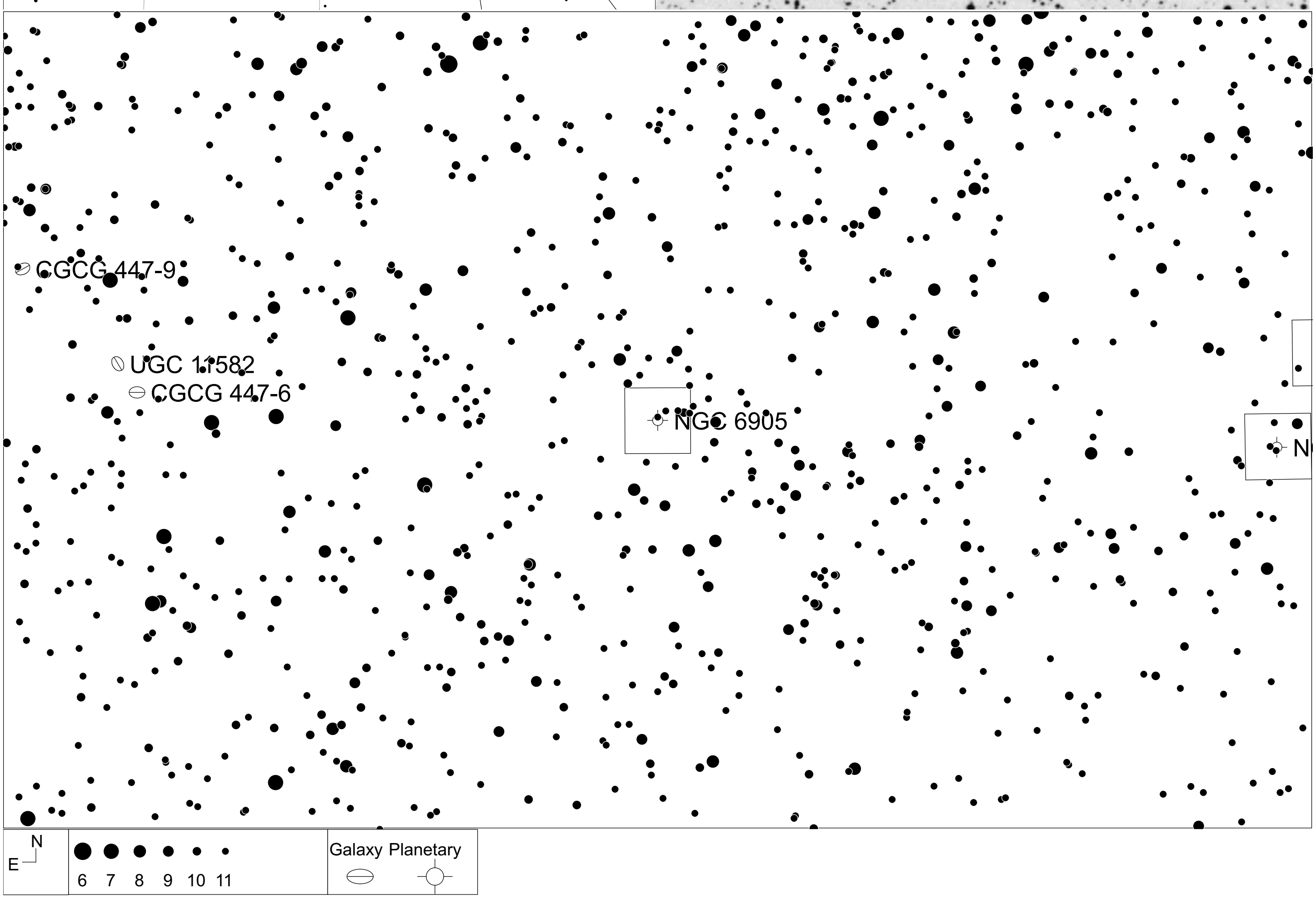
Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 54-12.1	2a+2b	20 20 08.8	+16 43 52	10.5v	12.4	12"

Extension requires moderately high powers. Check by blinking with O-III filter.

NGC 6905 – Blue Flash (Dephinus)

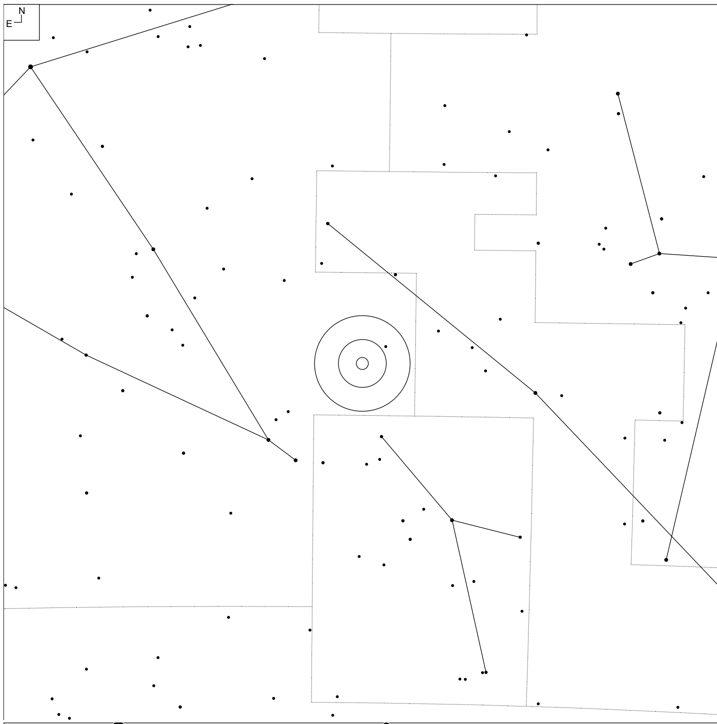


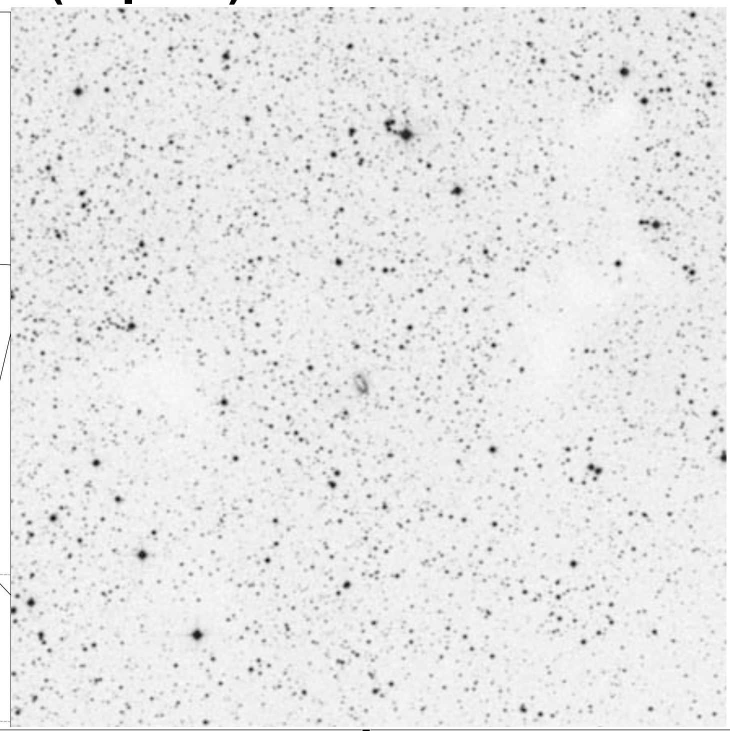


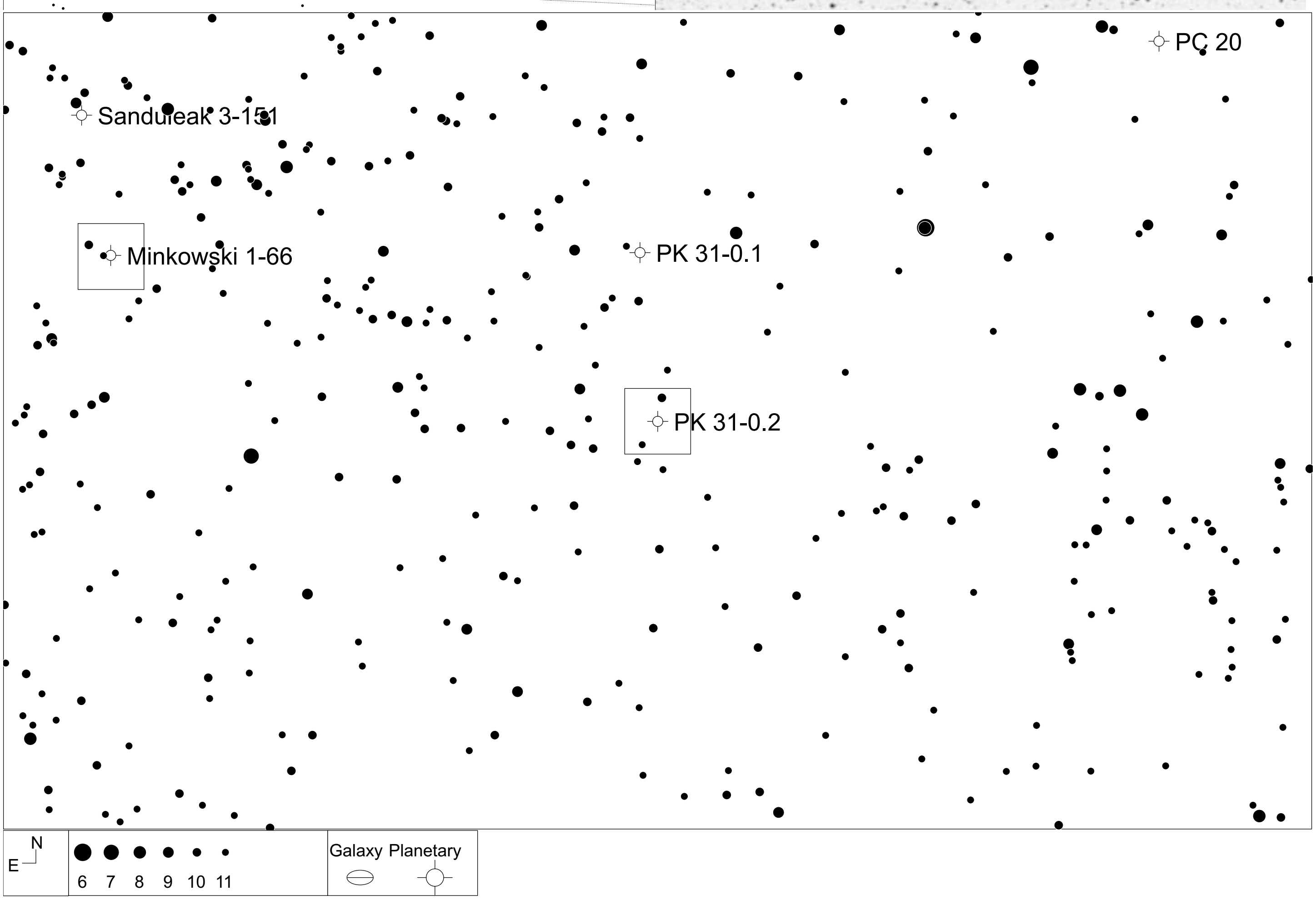


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 61-9.1	3+3	20 22 23.0	+20 06 16	11.1v	15.5	72 x 37”

PK 31-0.2 (Aquila)

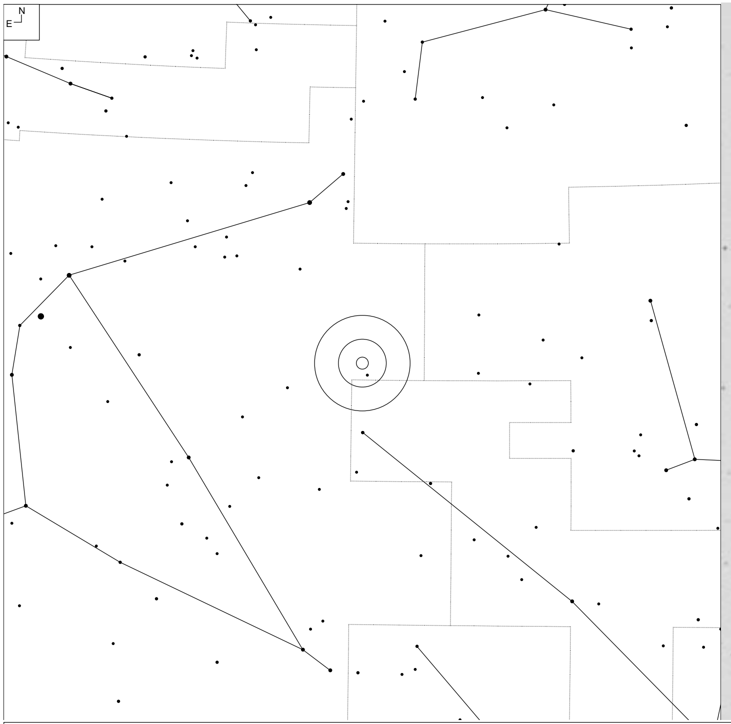


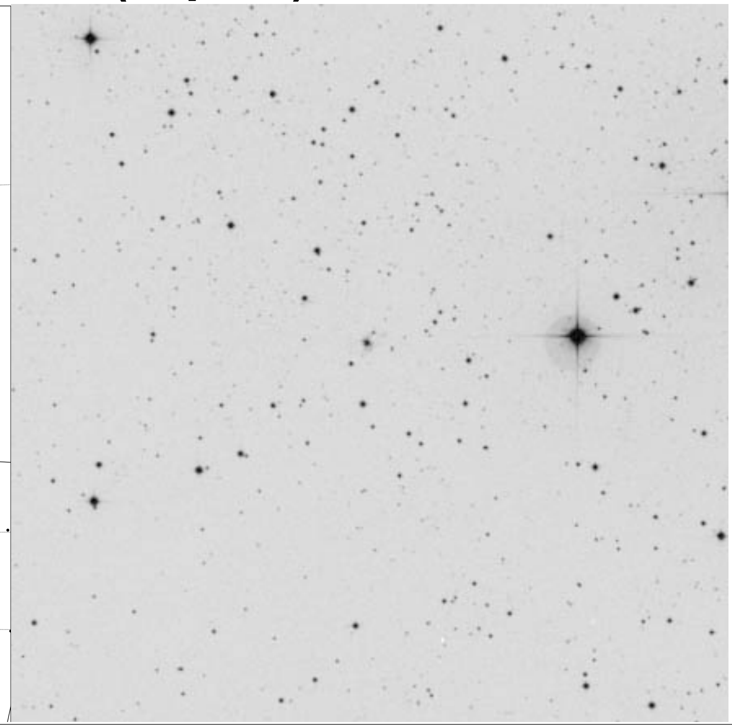


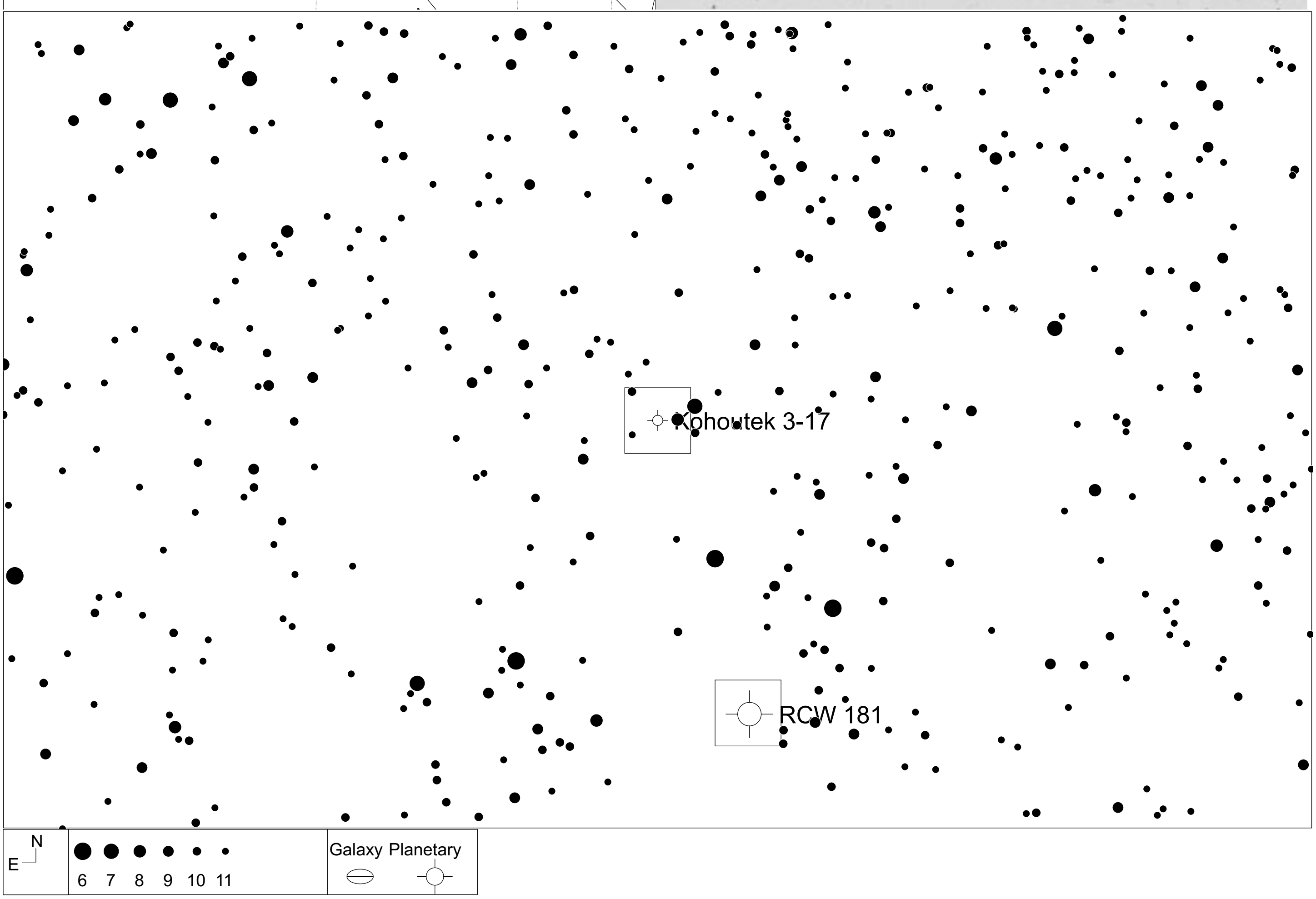


Other ID	Type	RA	Dec	Mag	* Mag	Size
-	-	18 50 24.6	-01 40 22	-	-	25”

Kohoutek 3-17 (Aquila)

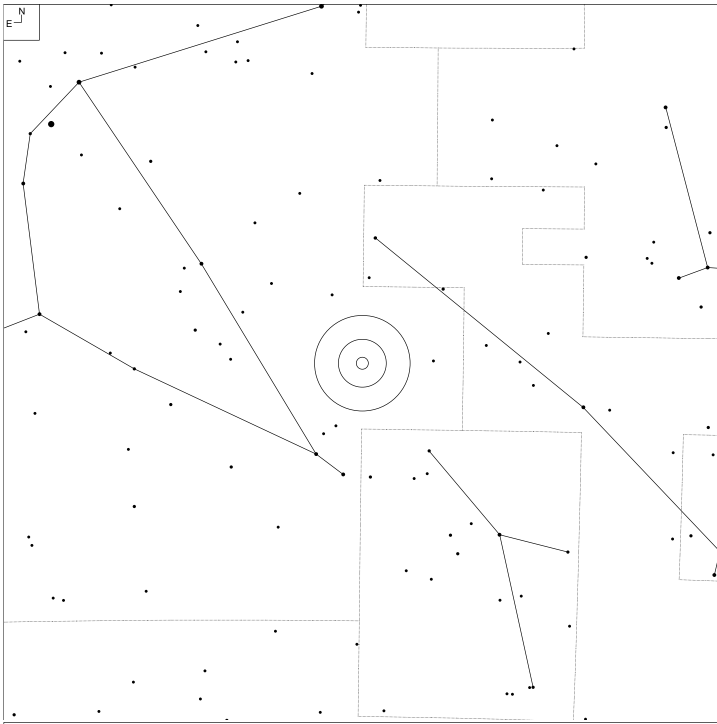


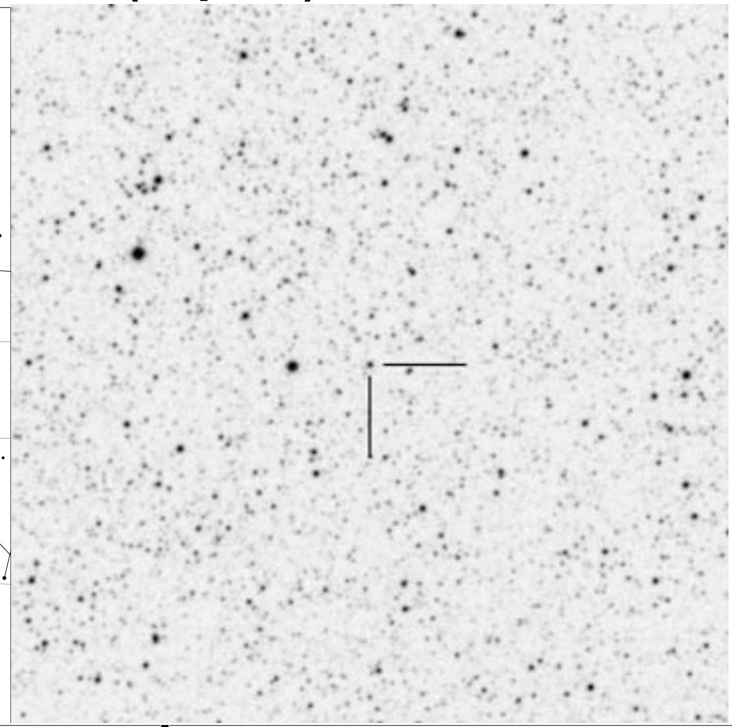


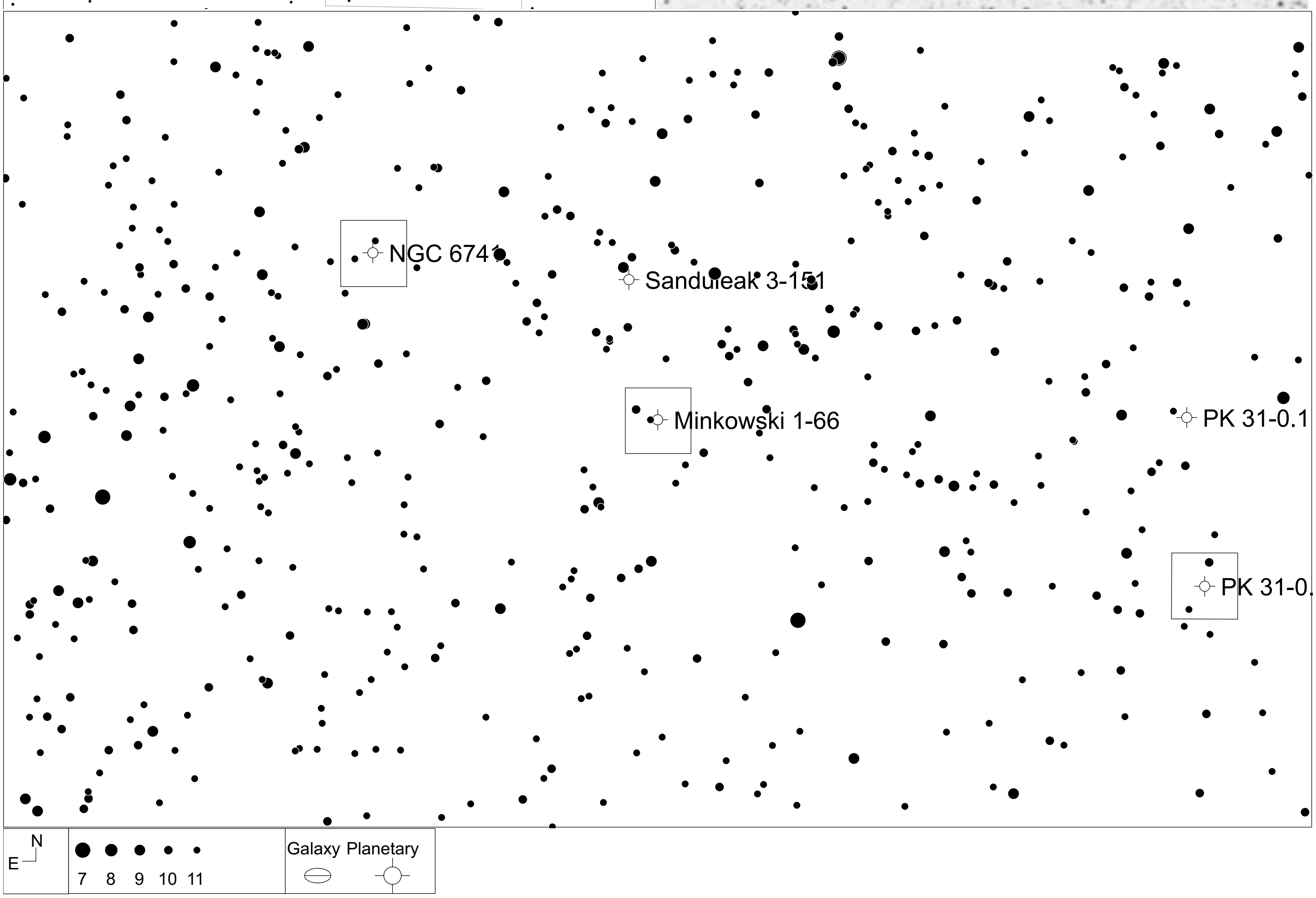


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 39+2.1	2	18 56 18.3	+07 07 22	-	-	15”

Minkowski 1-66 (Aquila)

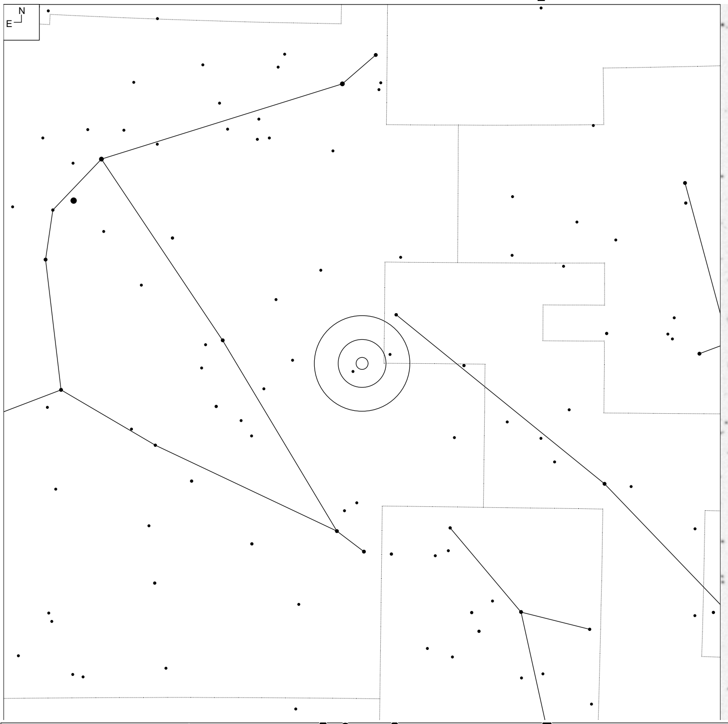


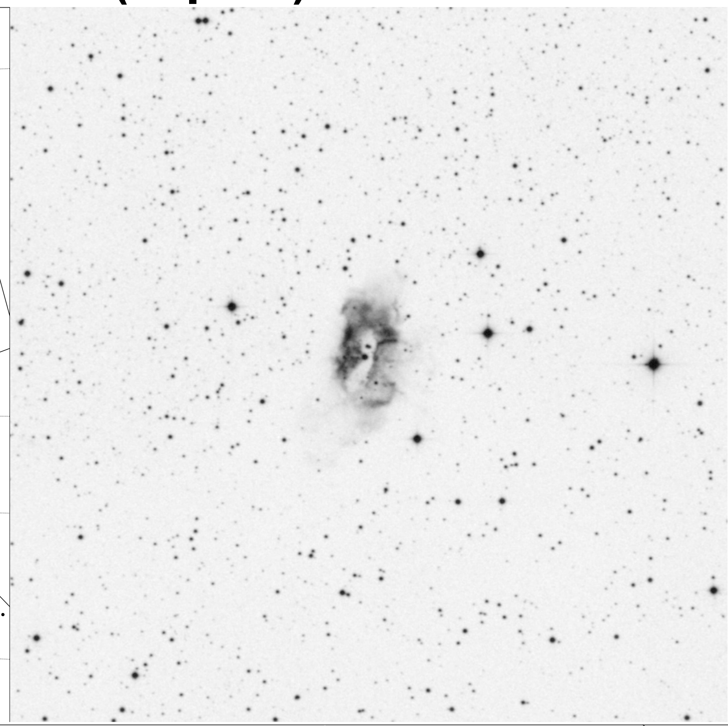


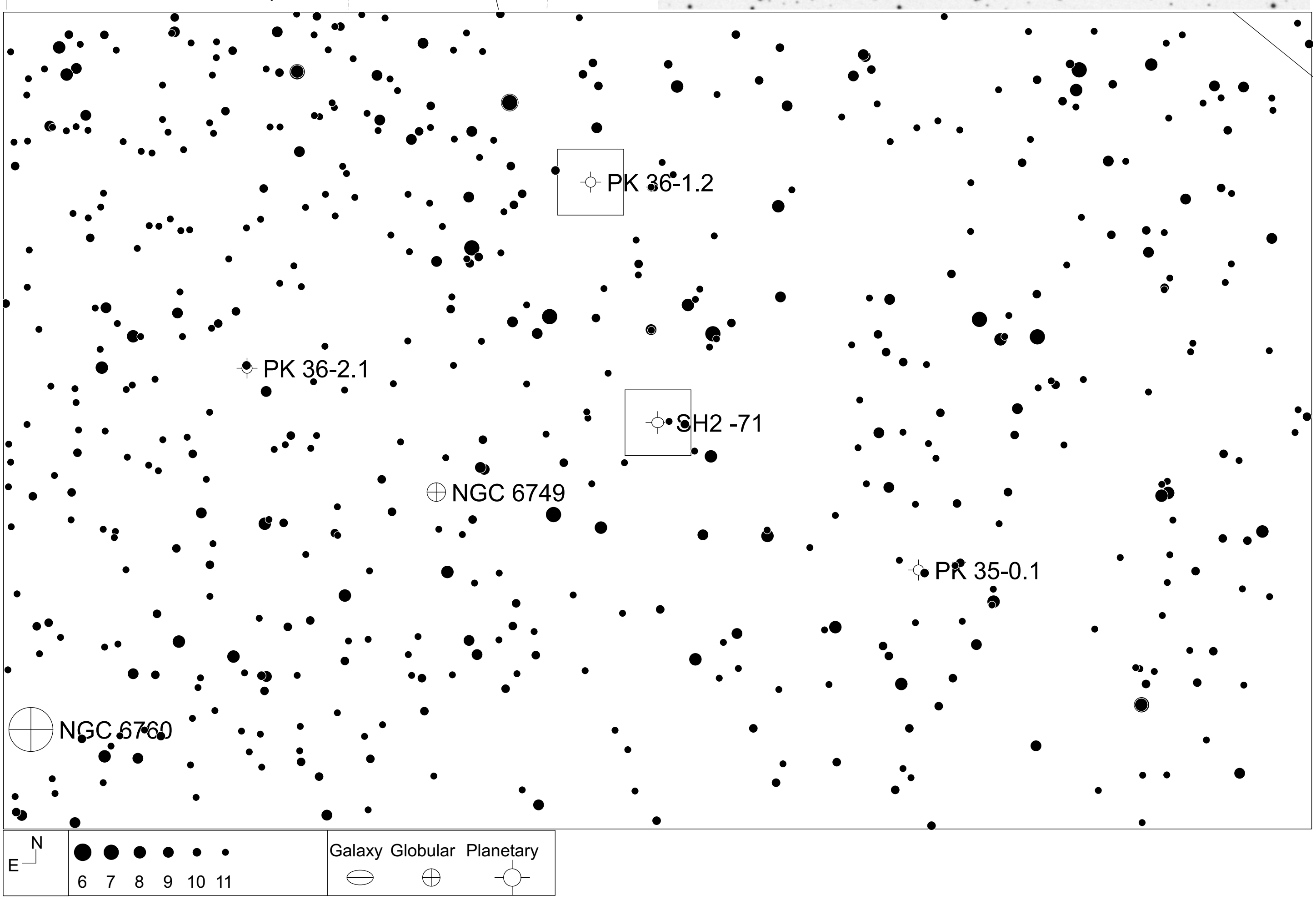


Other ID	Type	RA	Dec	Mag	* Mag	Size
Sanduleak 2-378	1	18 58 26.3	-01 03 46	13.2p	-	10”

Sharpless 2-71 (Aquila)

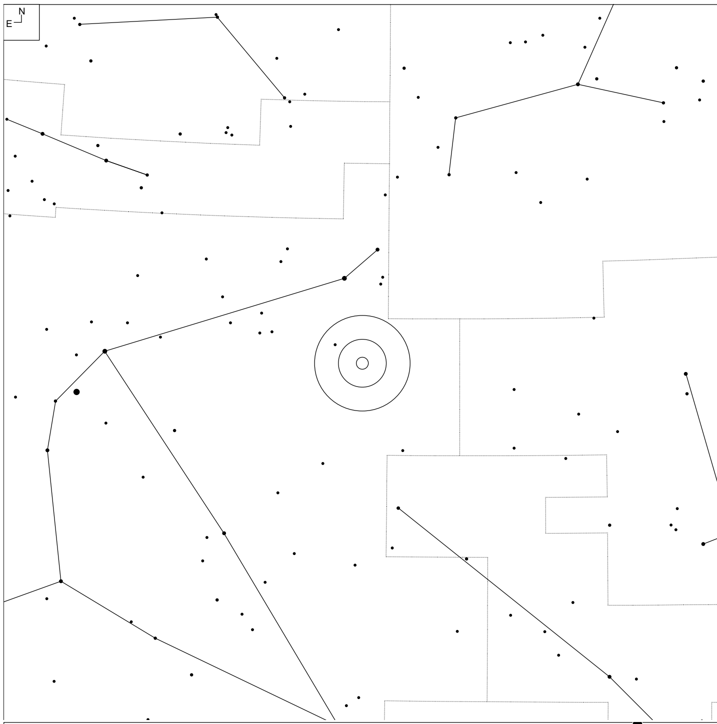


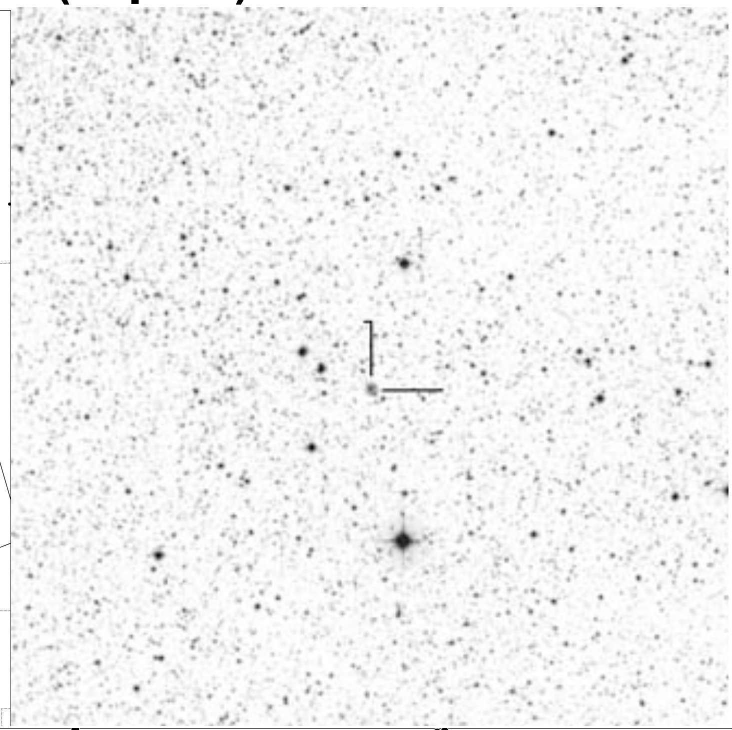


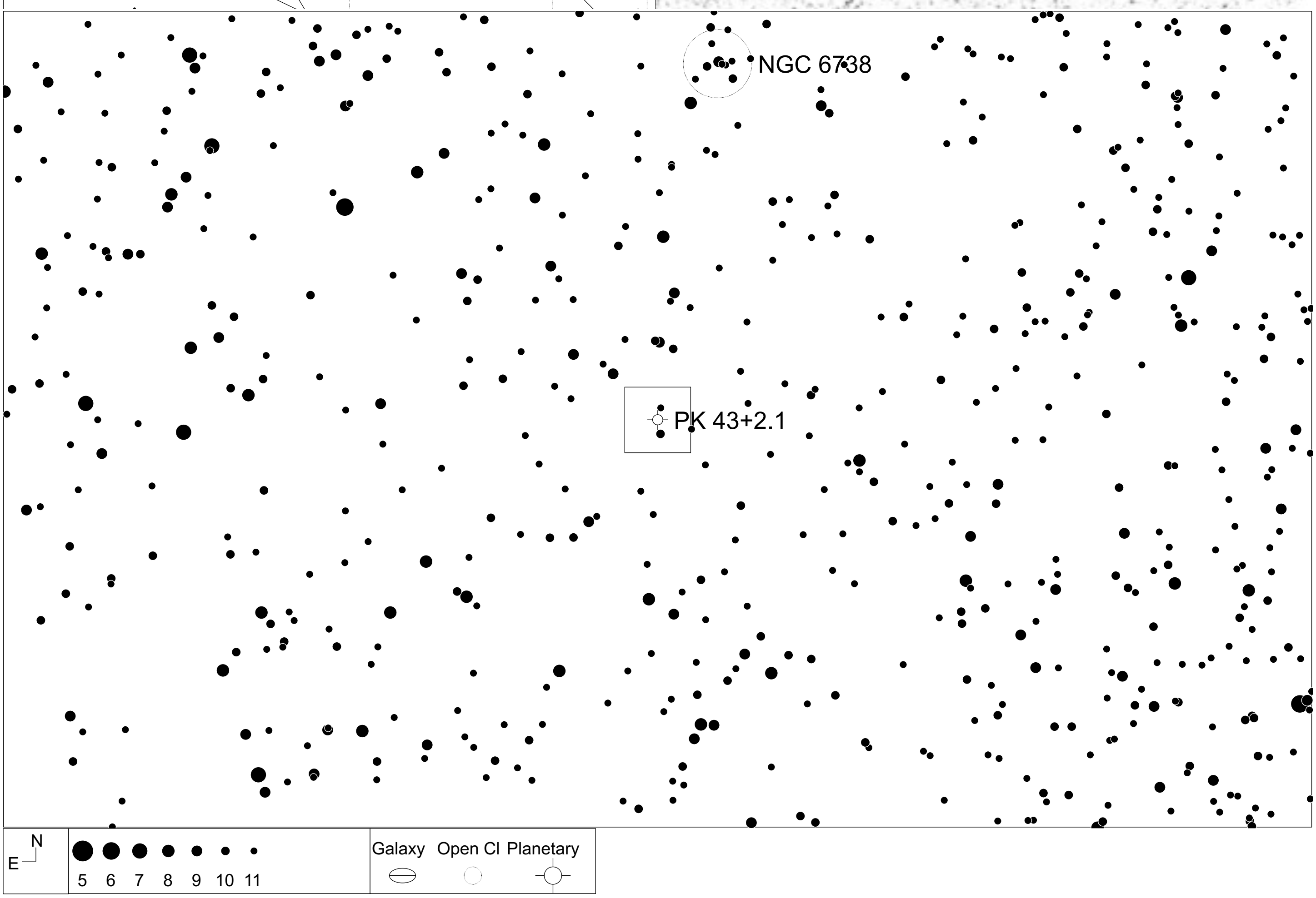


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 36-1.1	3b+3	19 02 00.0	+02 09 23	13.2v	13.8	2.6 x 1.5’

PK 43+2.1 (Aquila)

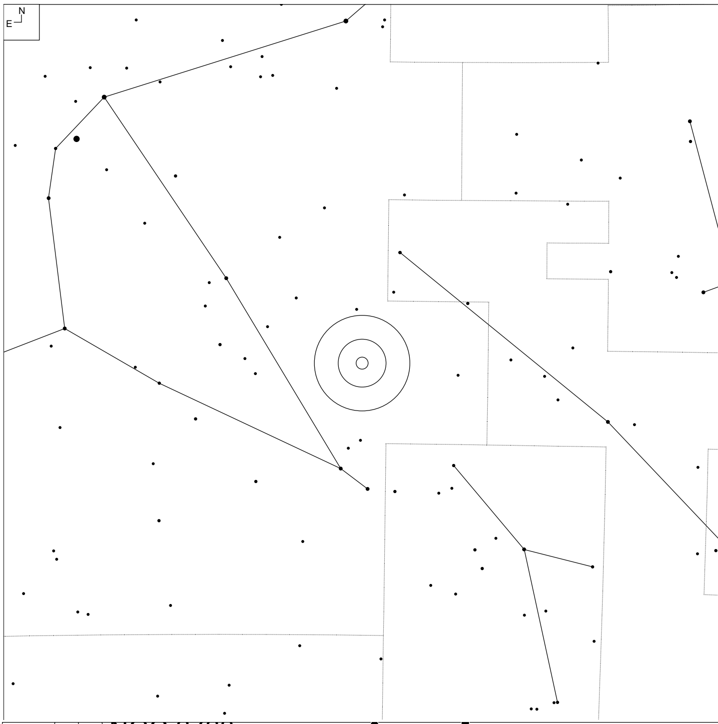


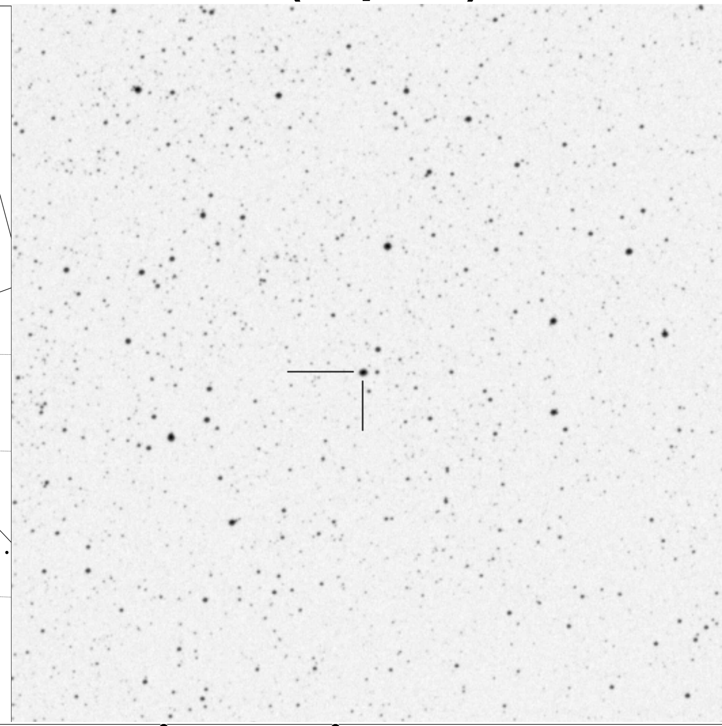


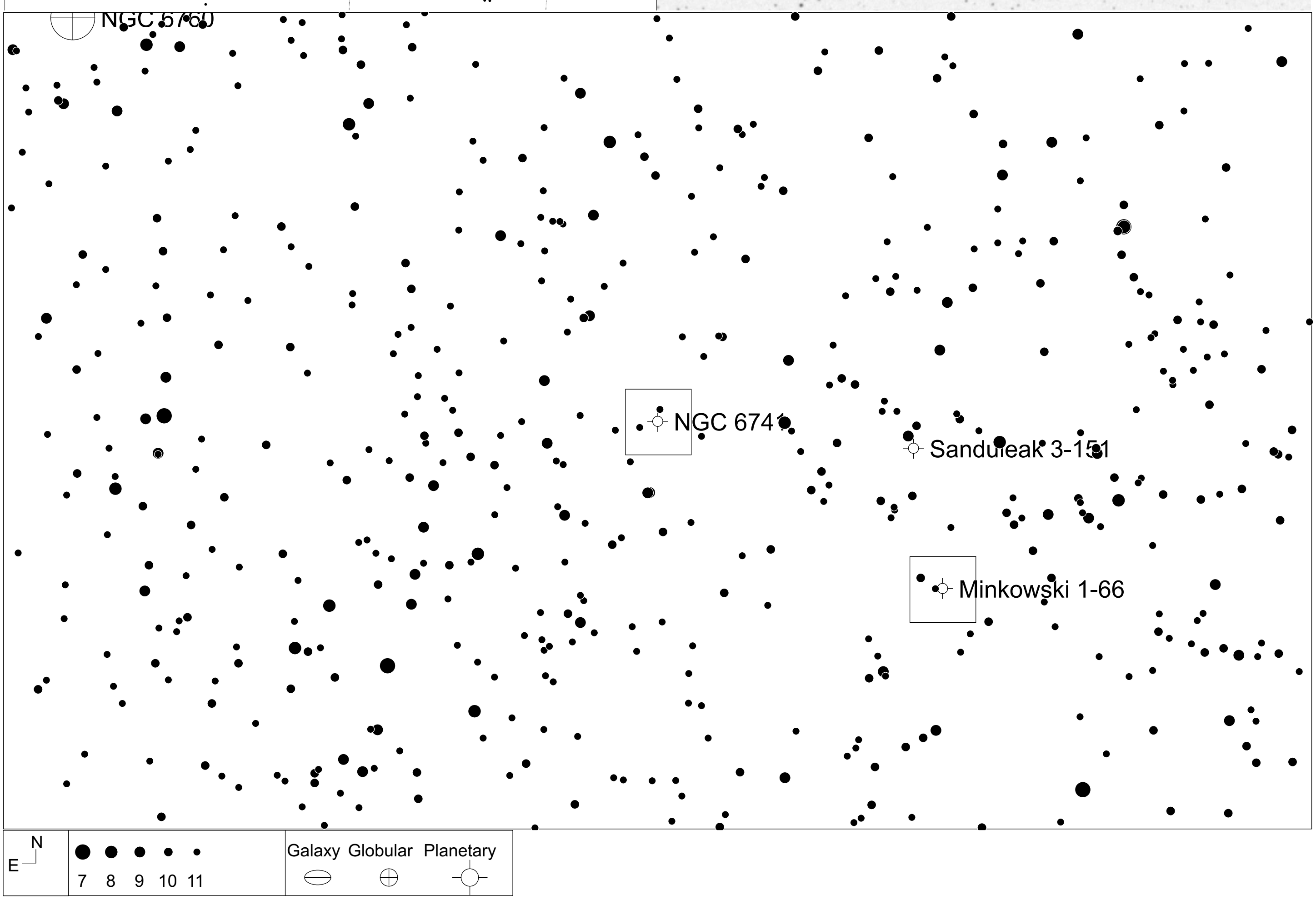


Other ID	Type	RA	Dec	Mag	* Mag	Size
-	-	19 02 17.8	+10 17 32	-	18.5	14”

NGC 6741 – Phantom Streak (Aquila)

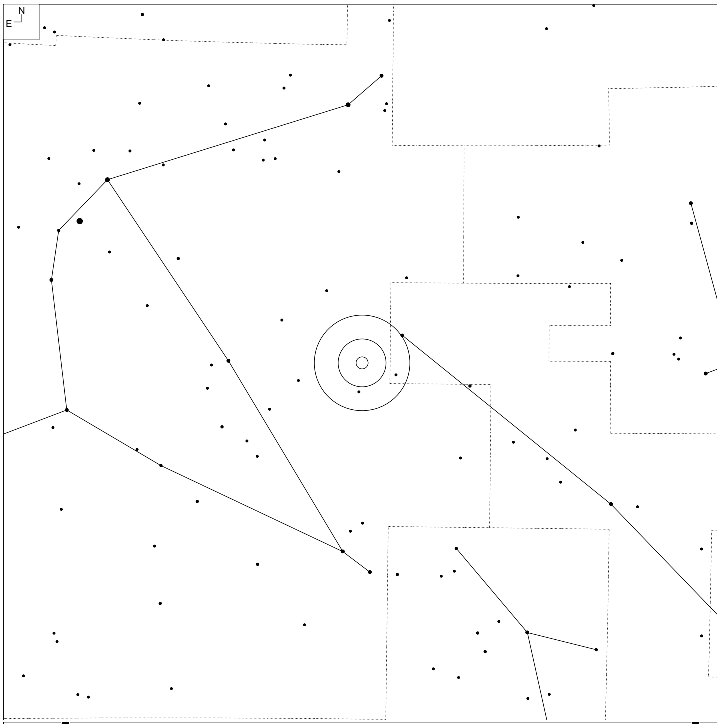


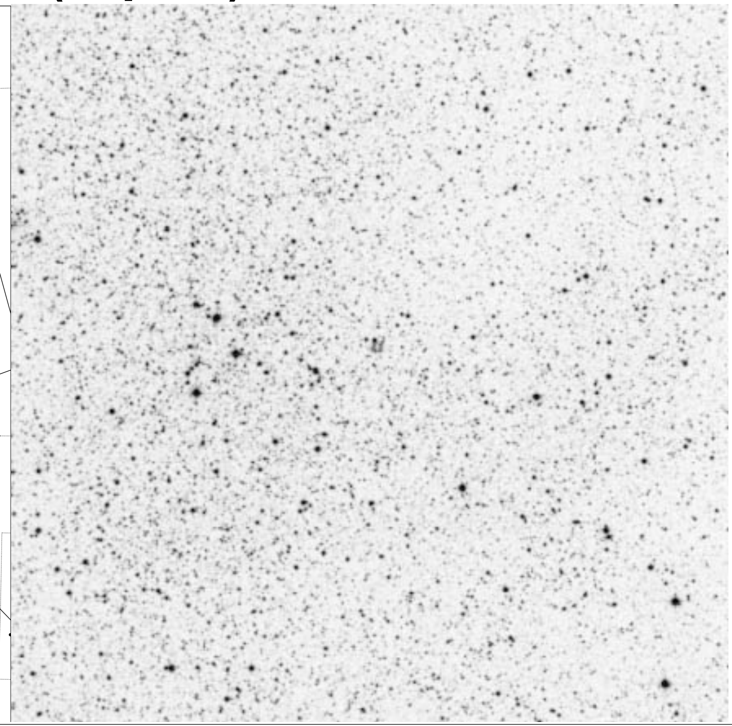


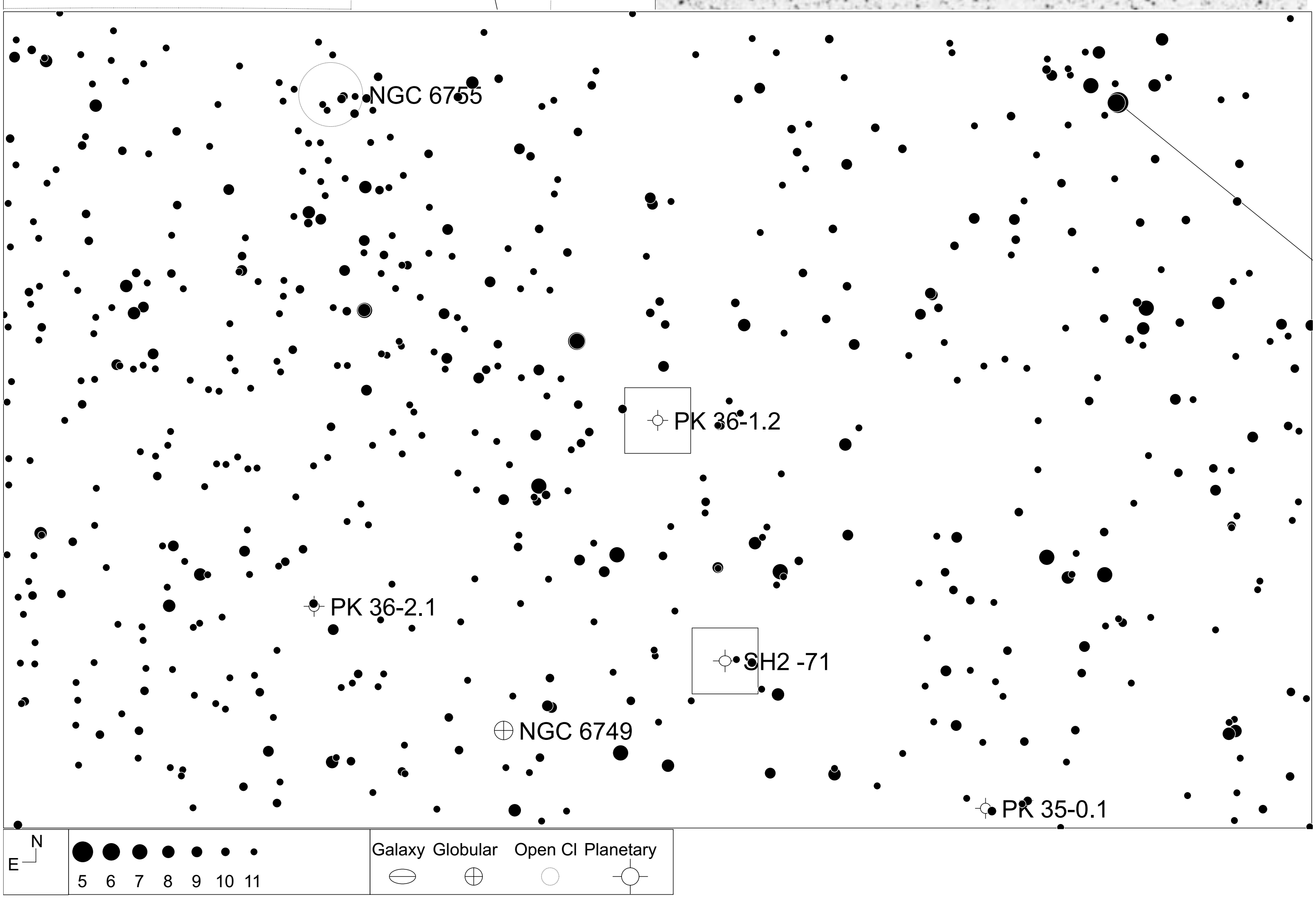


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 33-2.1	4	19 02 37.1	-00 26 57	11.5v	17.6	8”

PK 36-1.2 (Aquila)

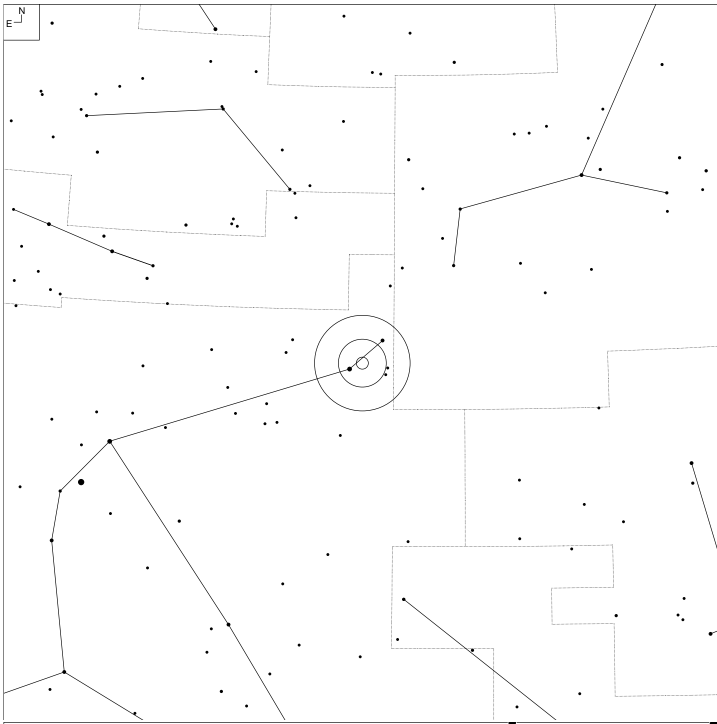


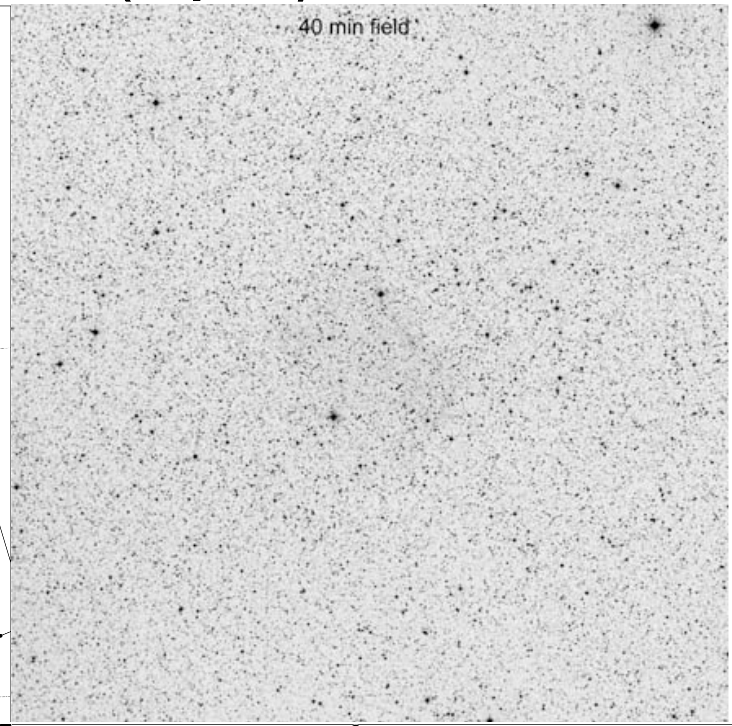


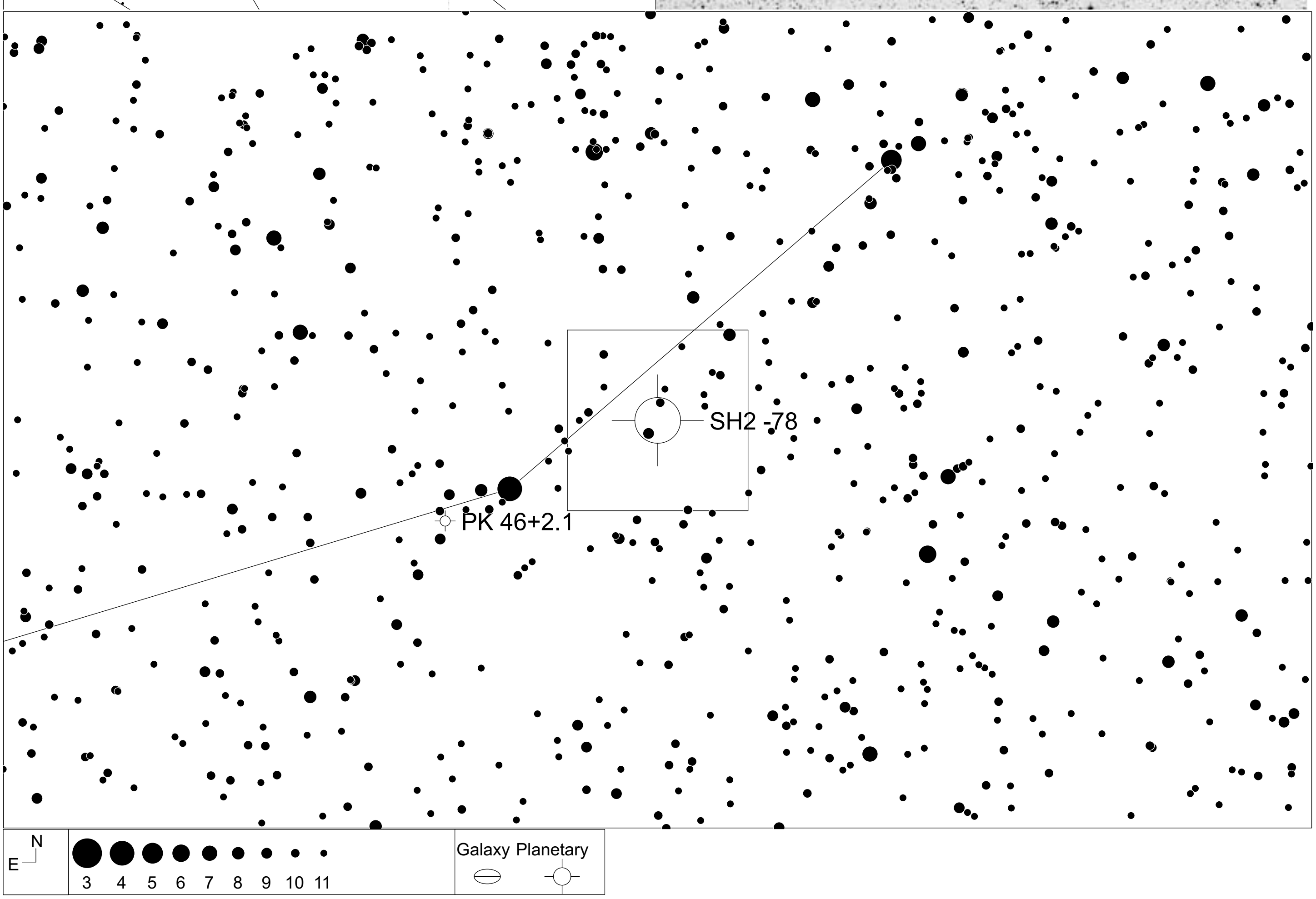


Other ID	Type	RA	Dec	Mag	* Mag	Size
-	-	19 02 59.4	+03 02 20	-	-	12”

Sharpless 2-78 (Aquila)

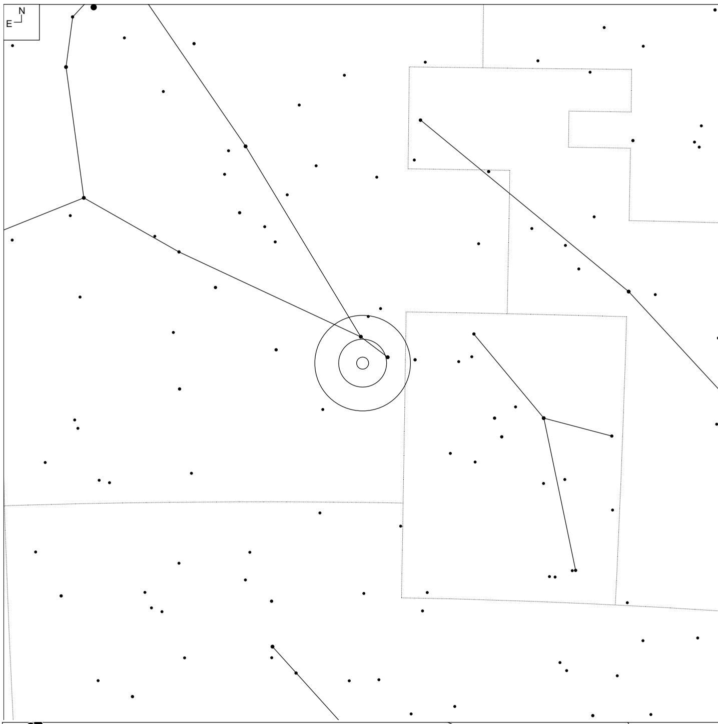


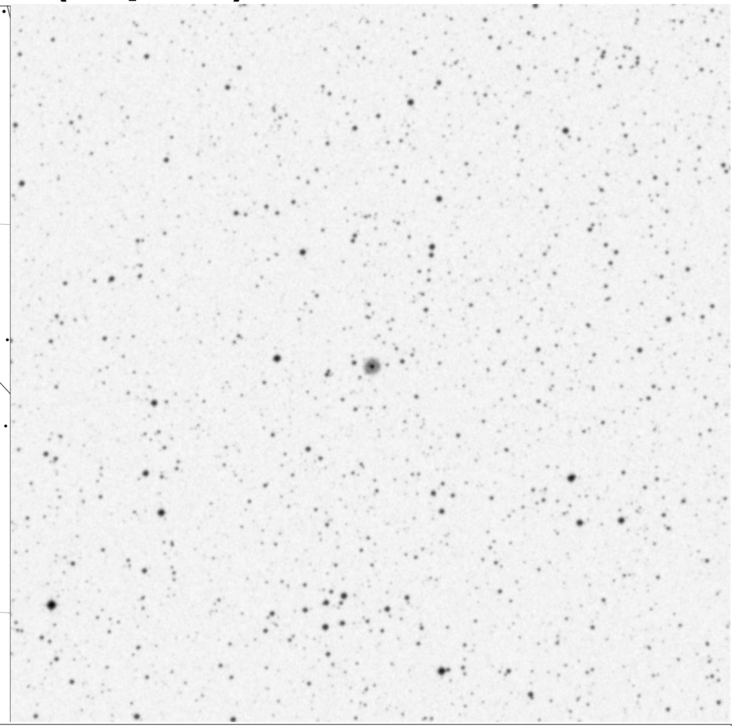


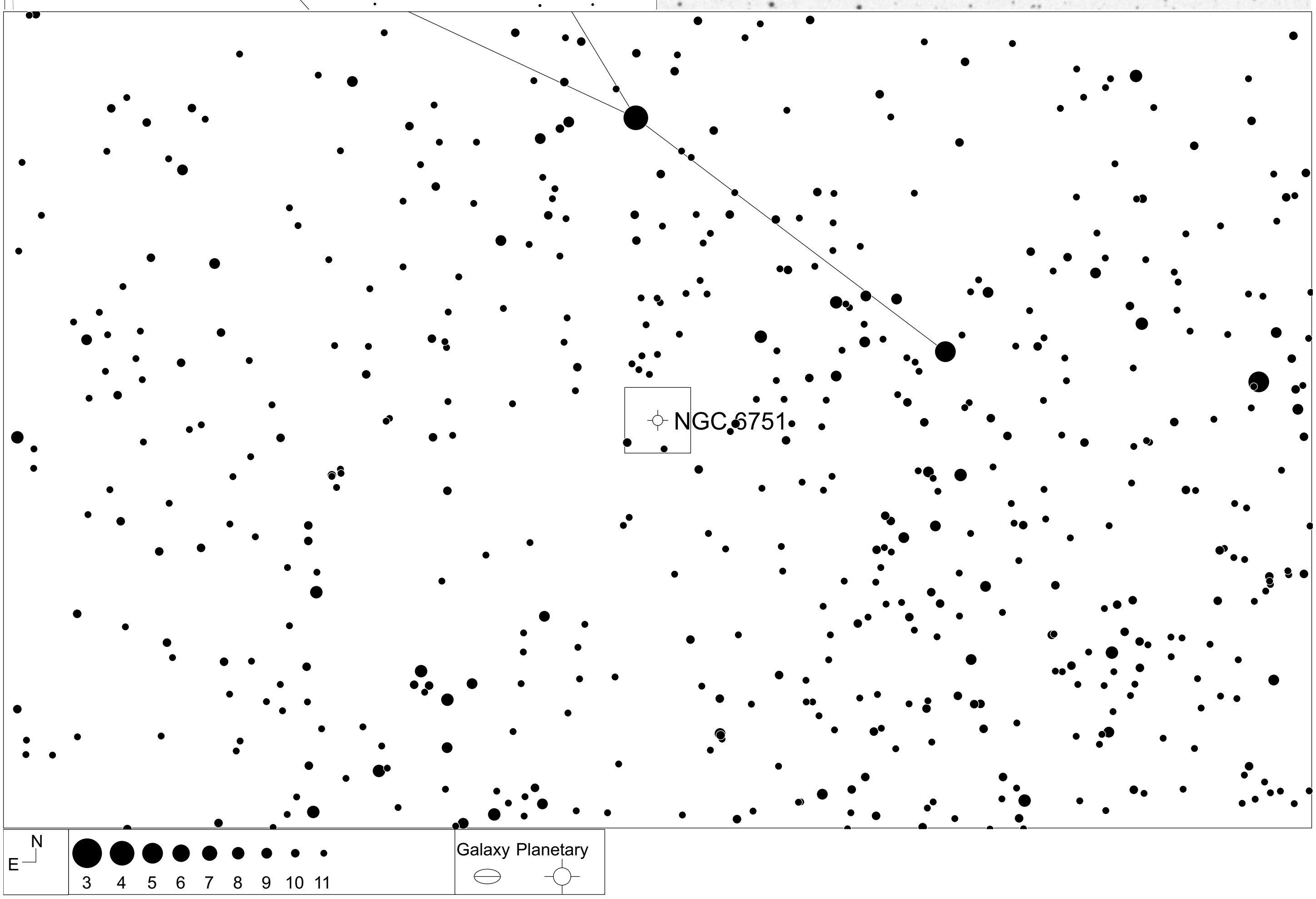


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 46+3.1	-	19 03 10.3	+14 06 56	-	17.7	10’

NGC 6751 (Aquila)

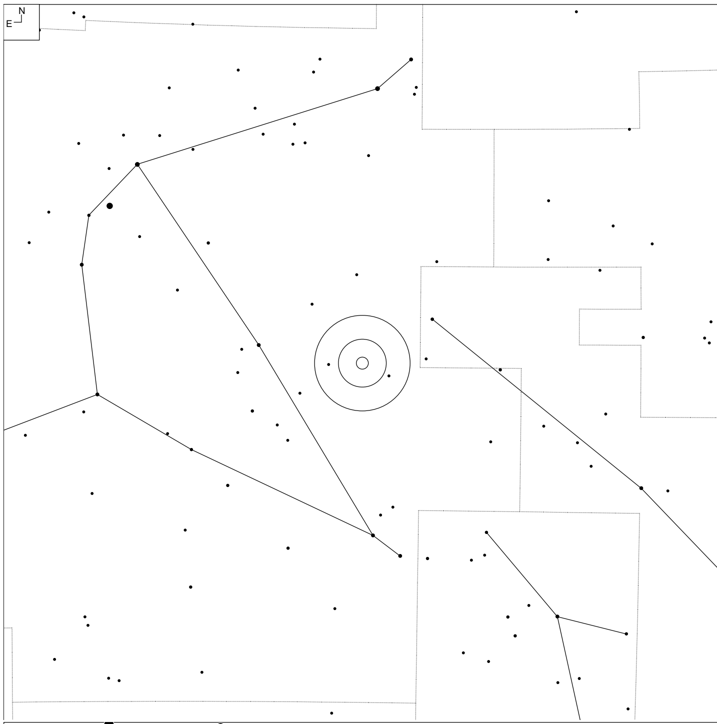


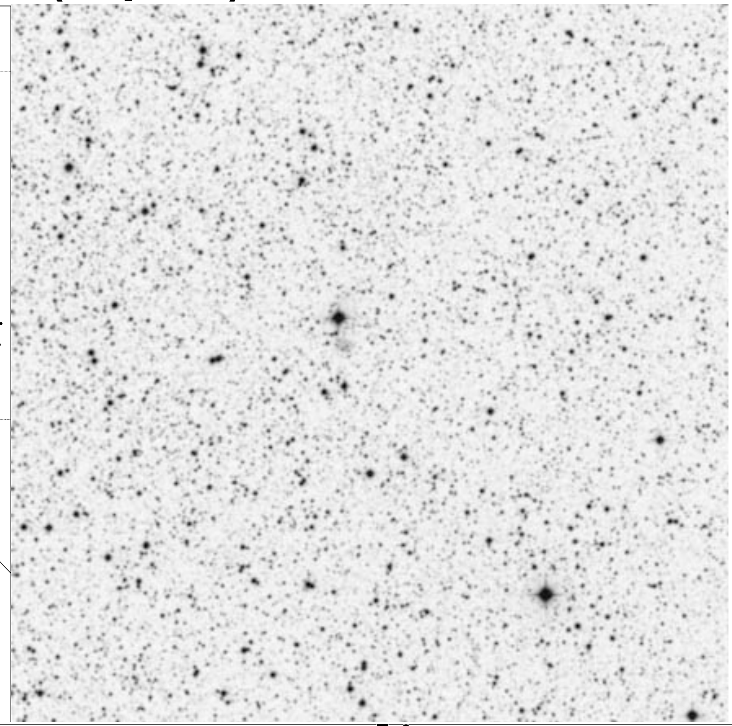


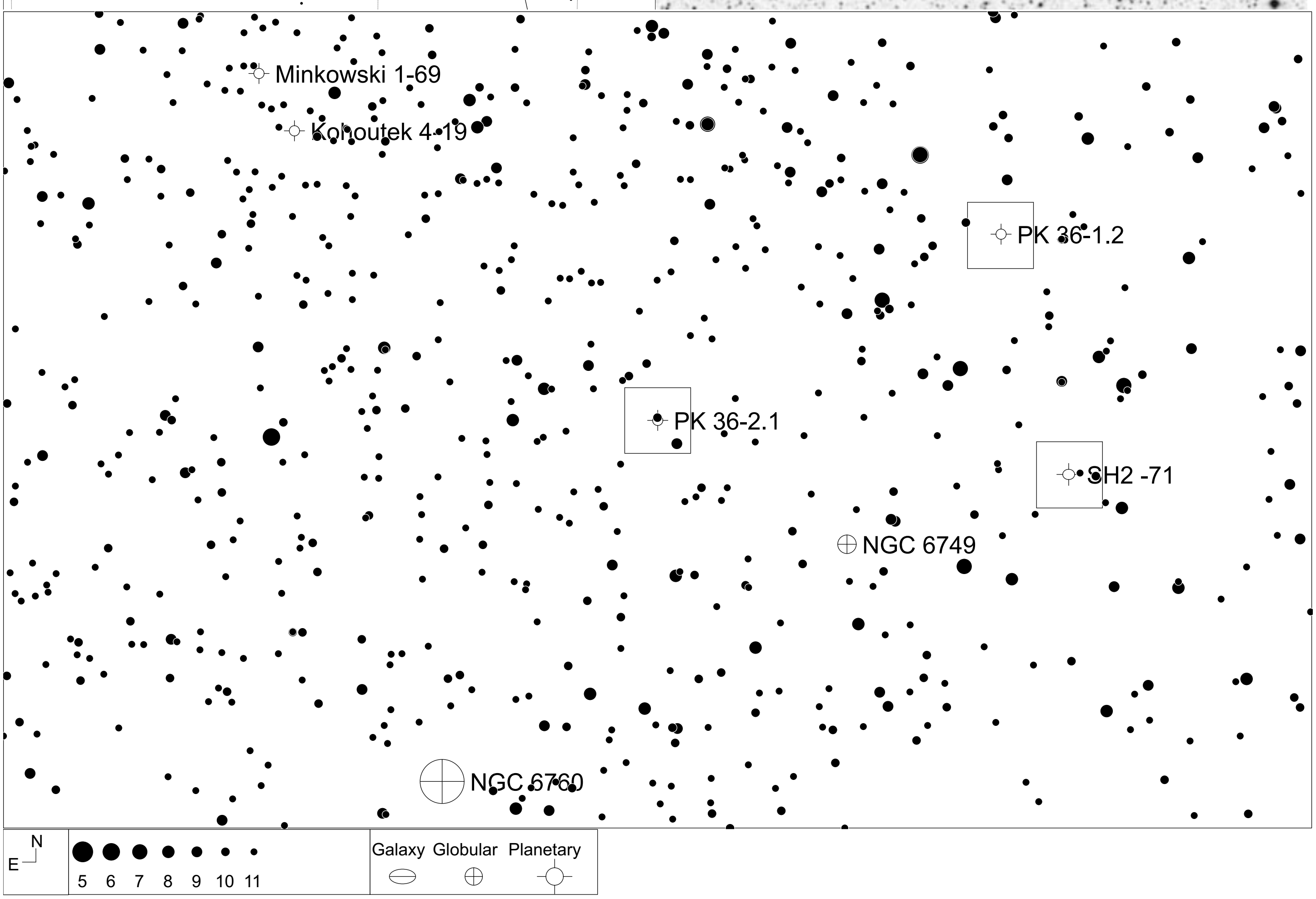


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 29-5.1	3	19 05 55.5	-05 59 33	11.9v	15.4	26”

PK 36-2.1 (Aquila)

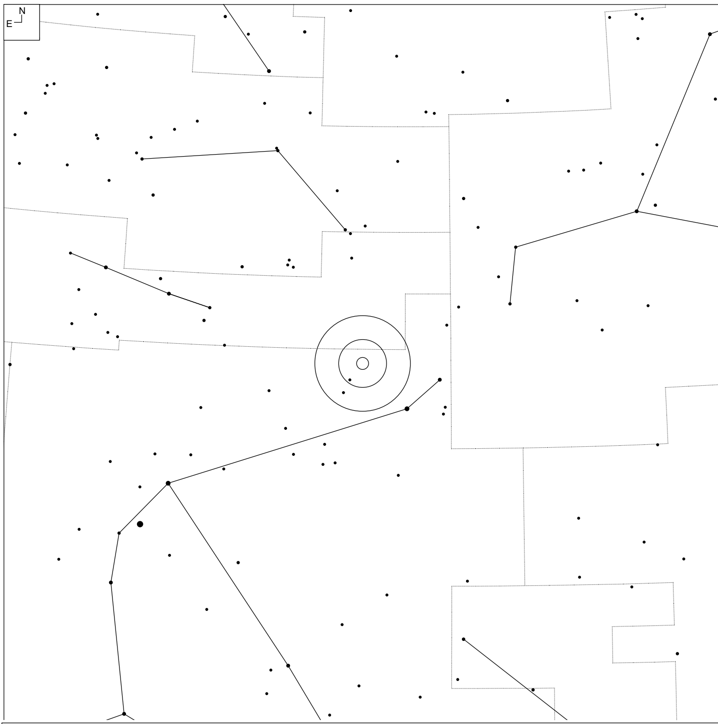


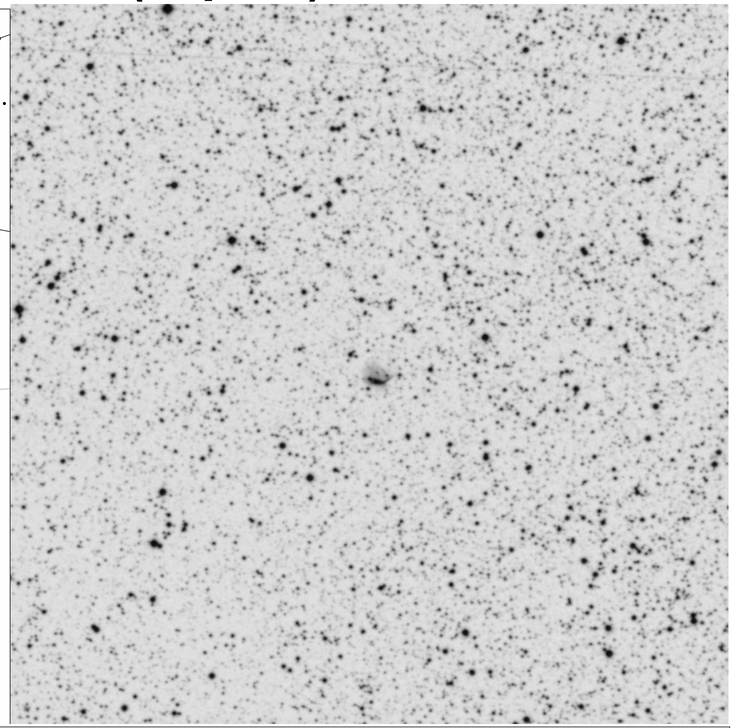


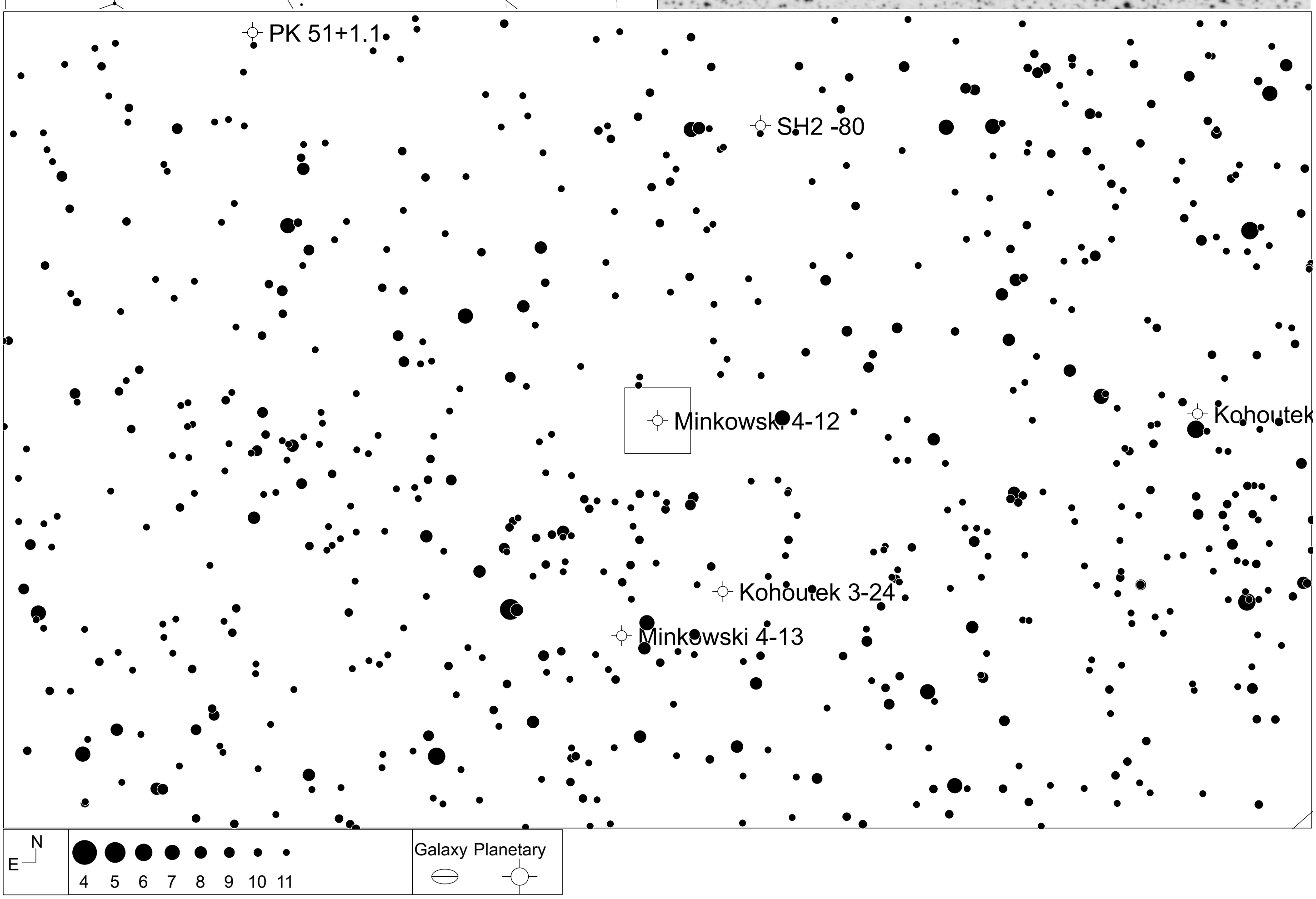


Other ID	Type	RA	Dec	Mag	* Mag	Size
-	-	19 08 02.2	+02 21 21	-	-	21”

Minkowski 4-12 (Aquila)

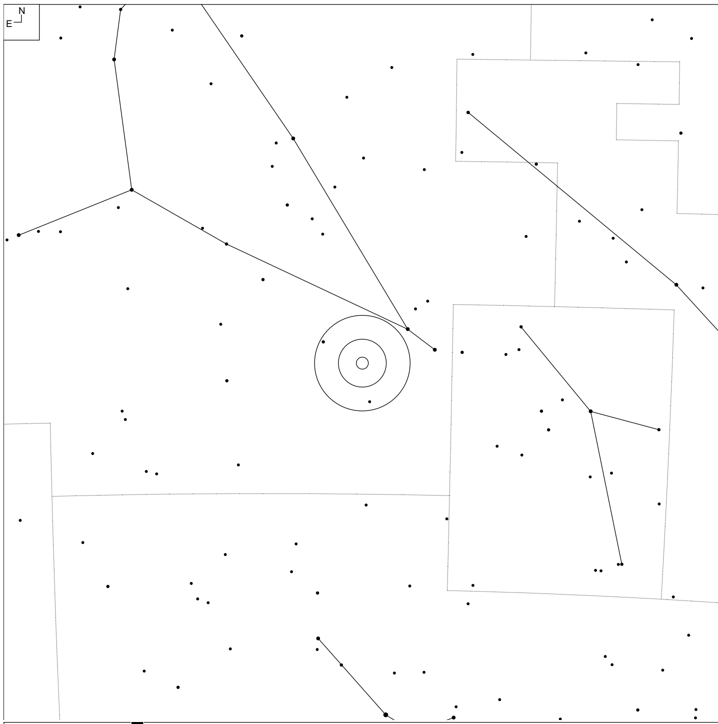


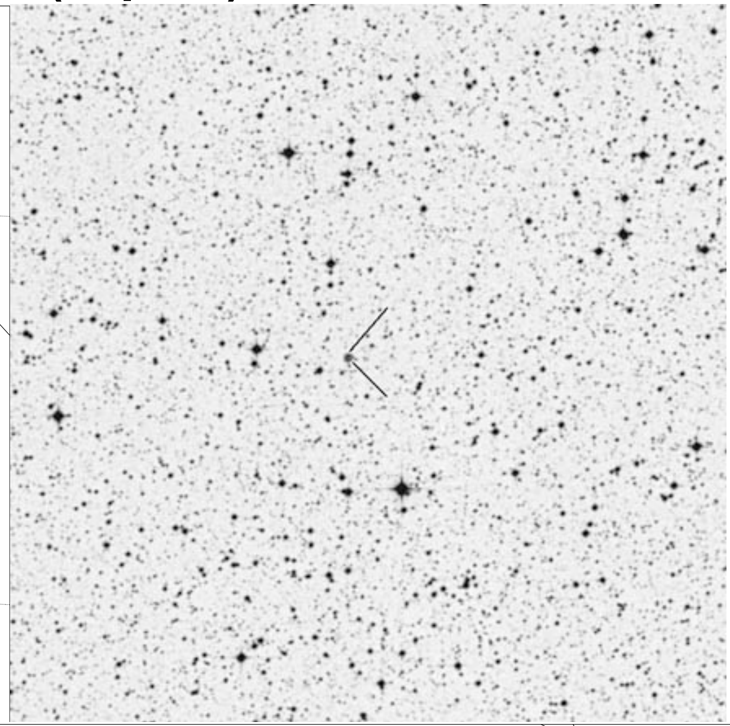


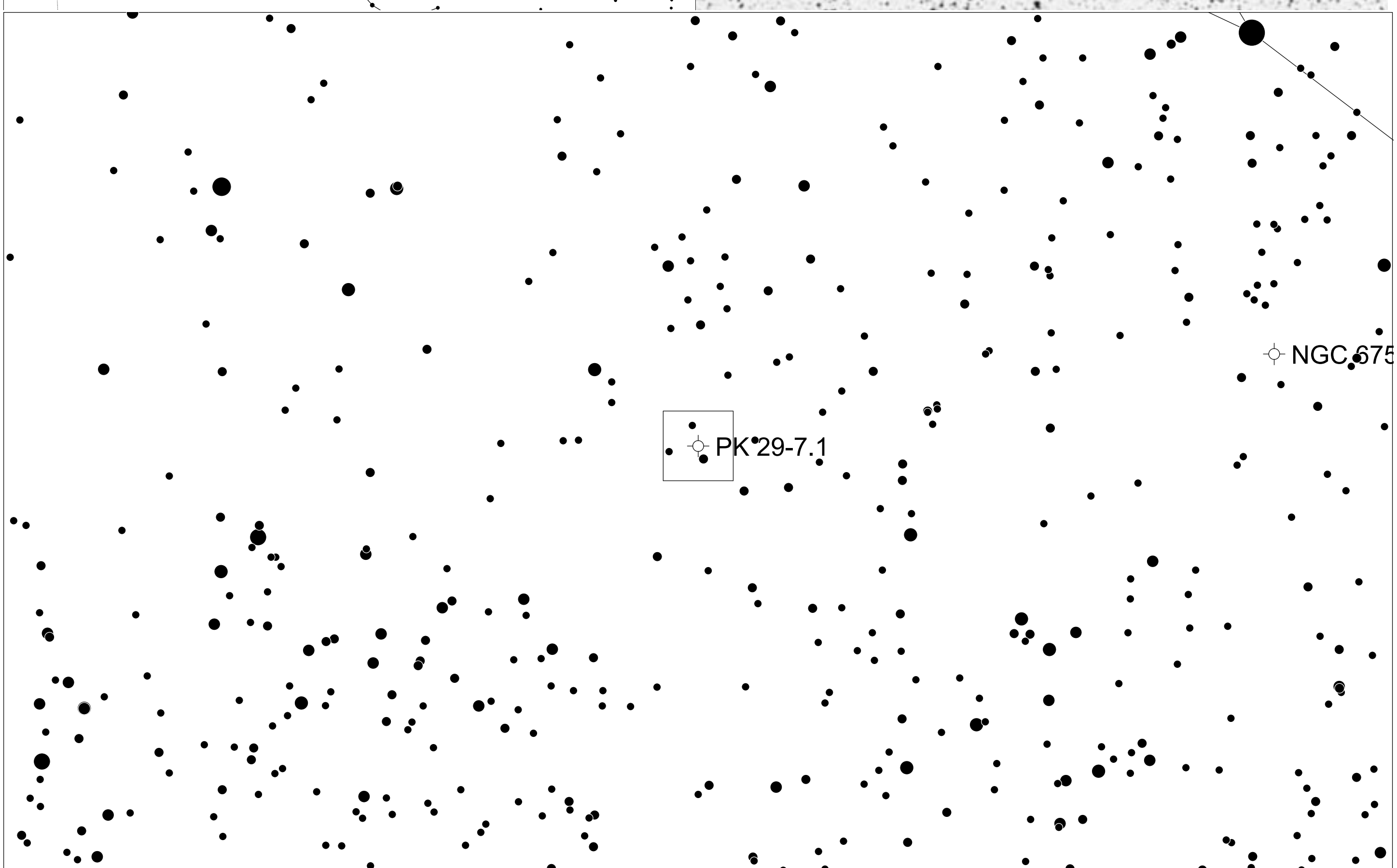


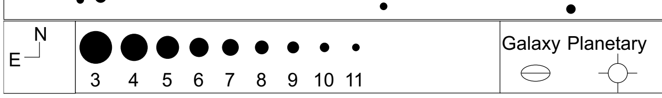
Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 49+2.1	4+2	19 13 05.5	+15 46 42	18.6p	-	9.0”

PK 29-7.1 (Aquila)



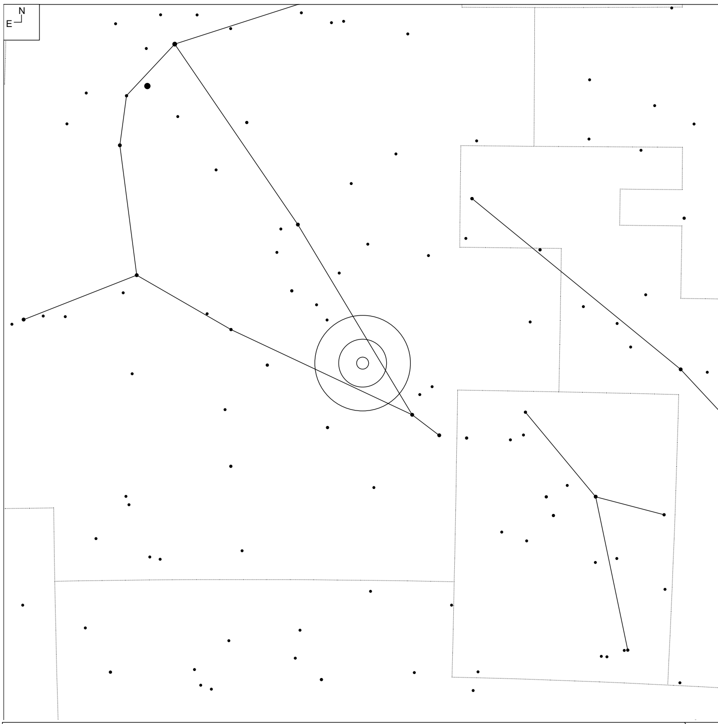


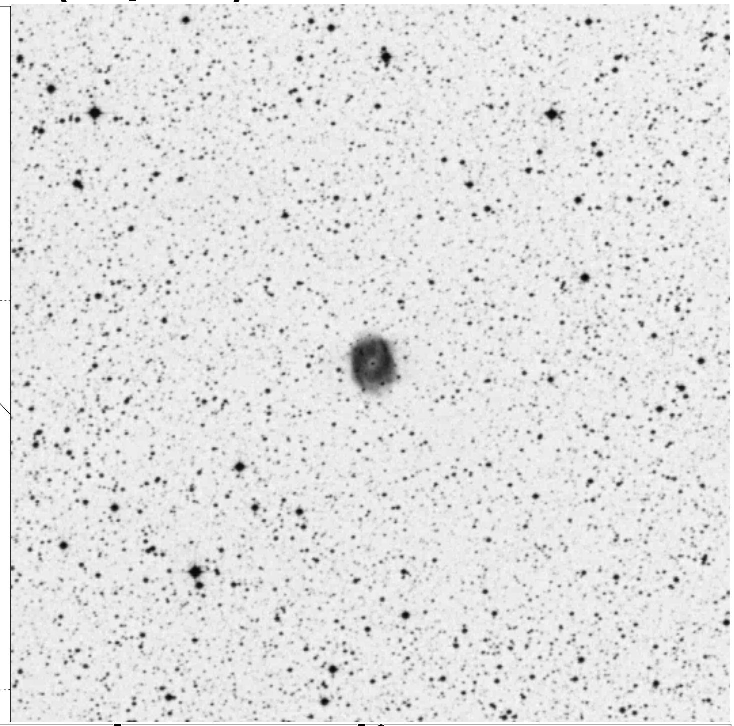


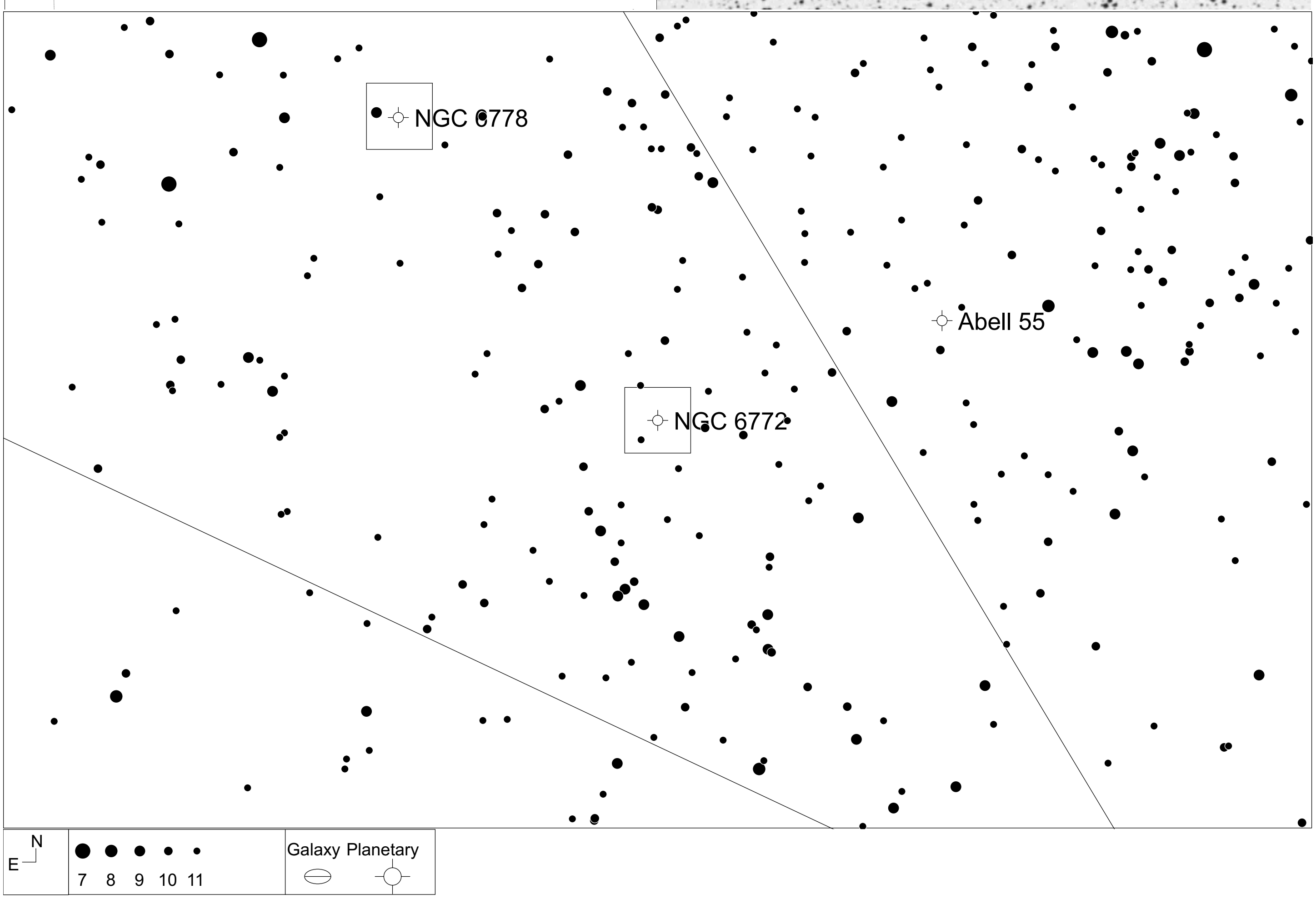


Other ID	Type	RA	Dec	Mag	* Mag	Size
-	-	19 13 55.7	+06 18 53	15.6p	-	14”

NGC 6772 (Aquila)

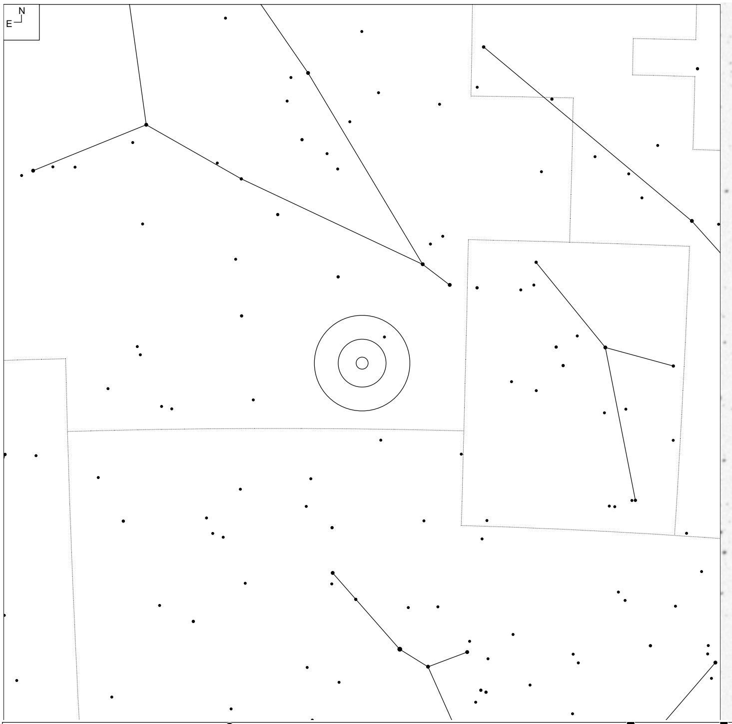


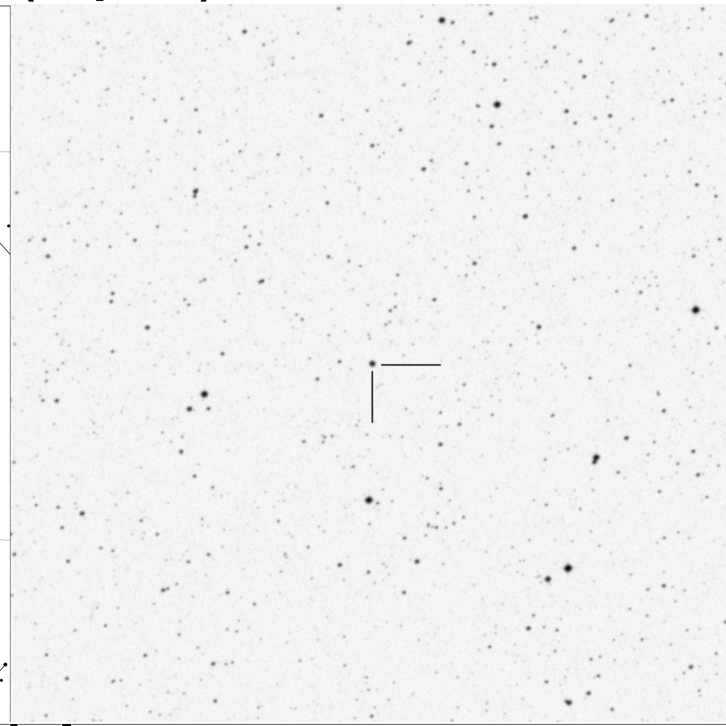


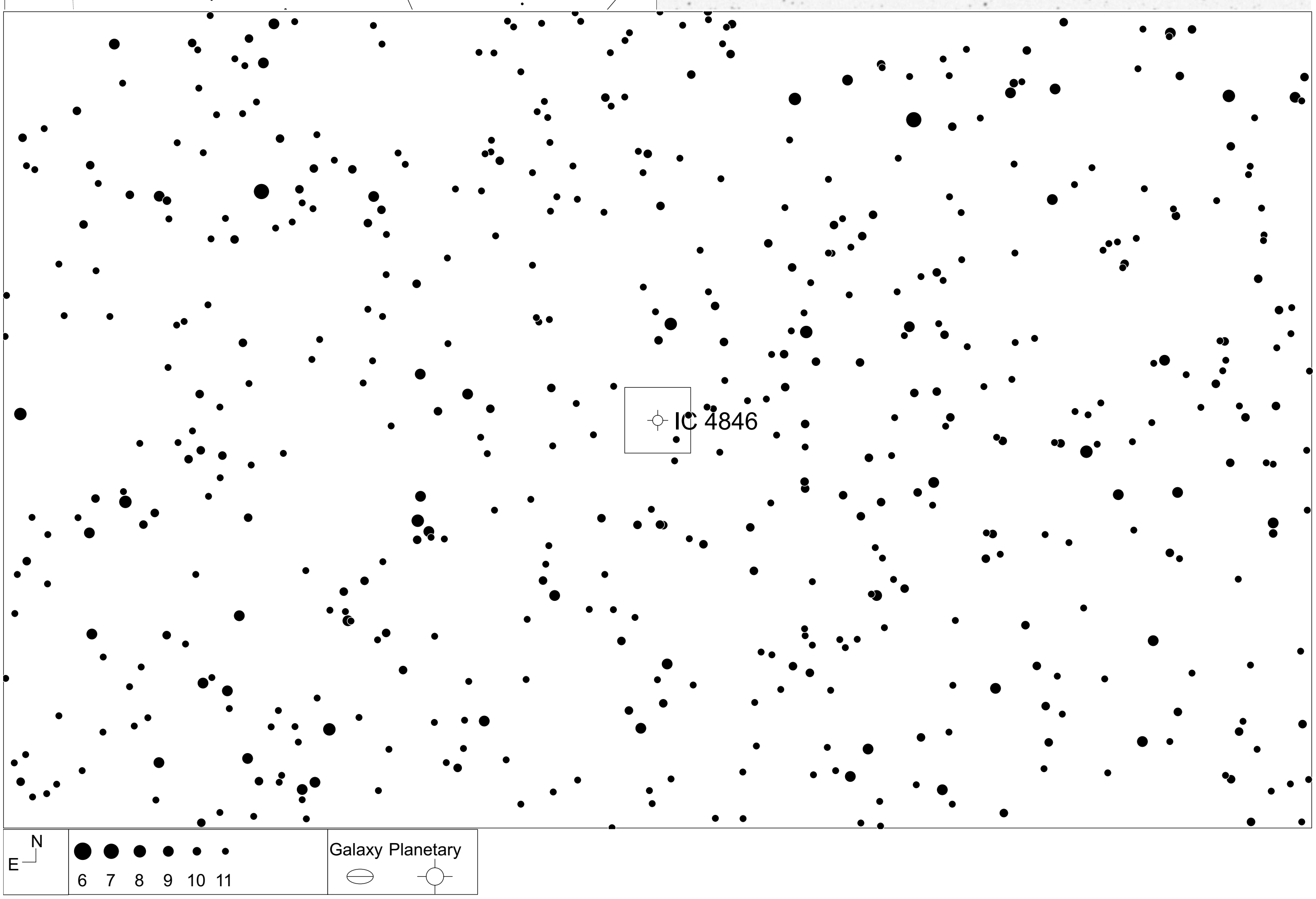


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 33-6.1	3b+2	19 14 36.4	-02 42 27	12.7v	18.6	84”

IC 4846 (Aquila)

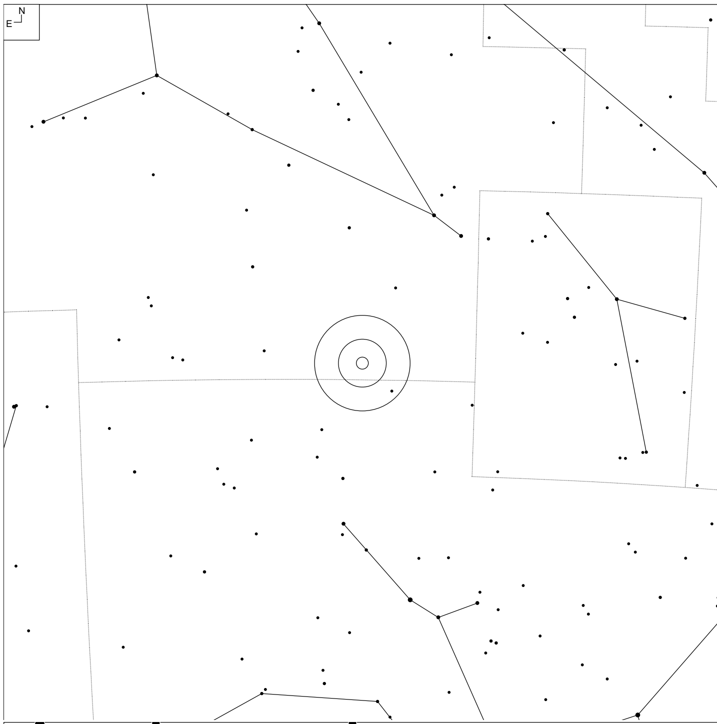


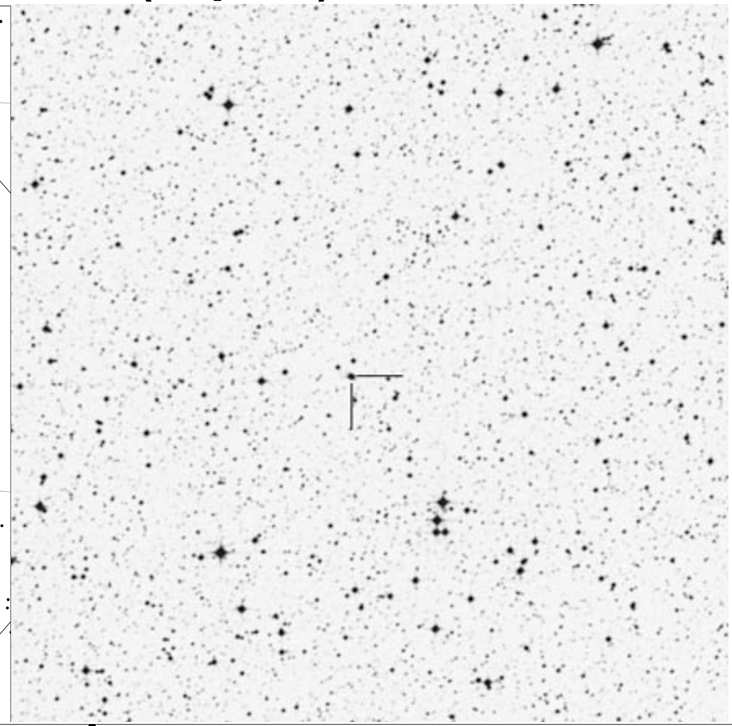


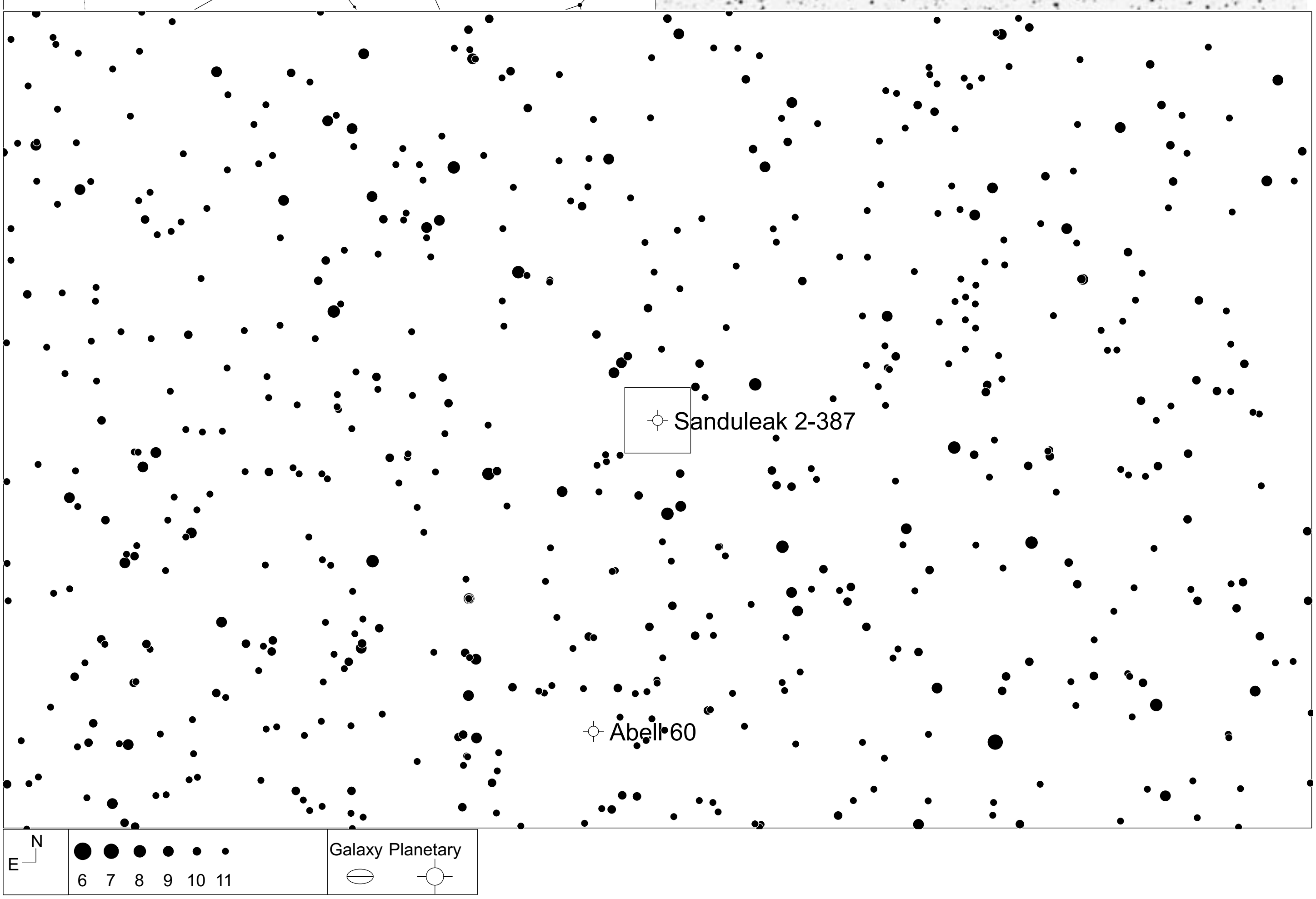


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 27-9.1	2	19 16 28.4	-09 02 38	11.9v	15.1	2”

Sanduleak 2-387 (Aquila)

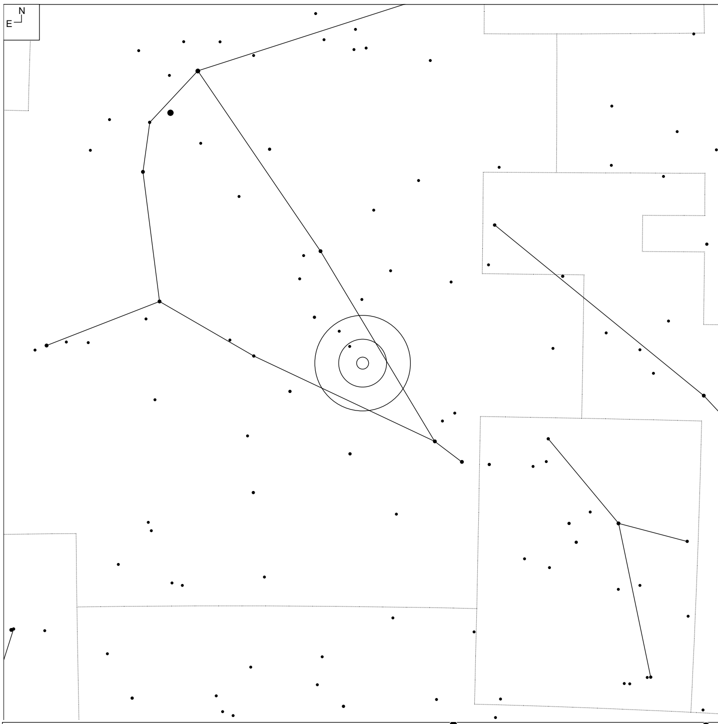


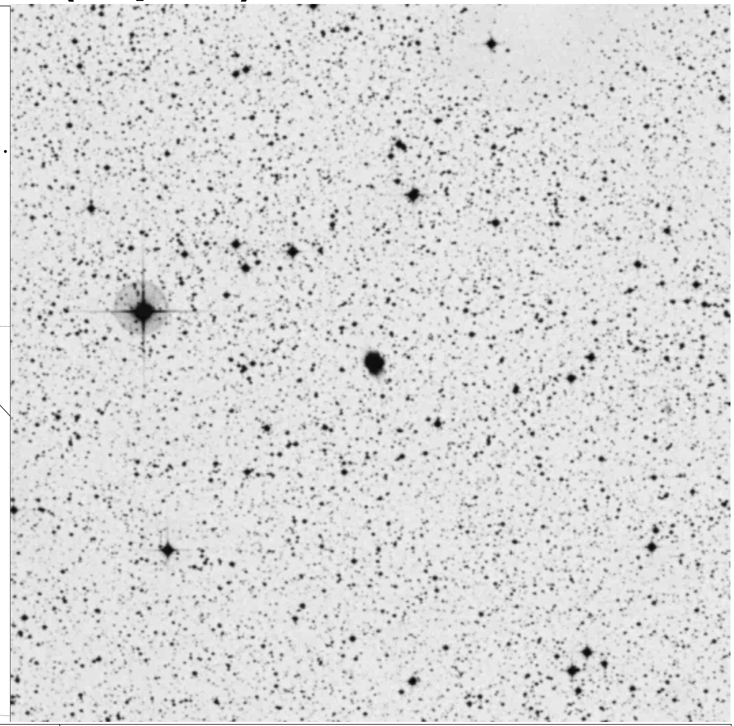


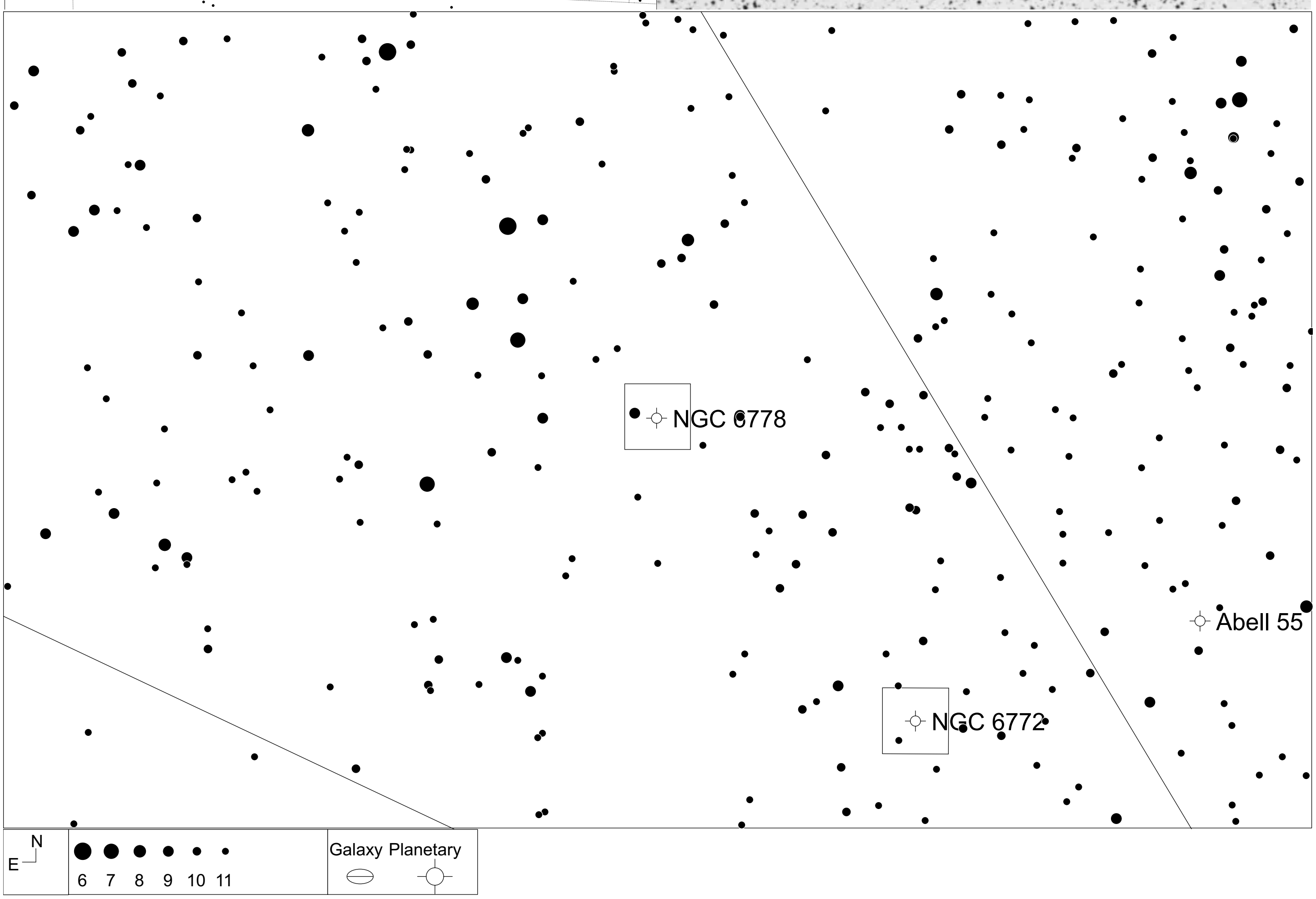


Other ID	Type	RA	Dec	Mag	* Mag	Size
Nassau 2	-	19 18 19.7	-11 06 17	13.3p	14.0	16”

NGC 6778   (Aquila)

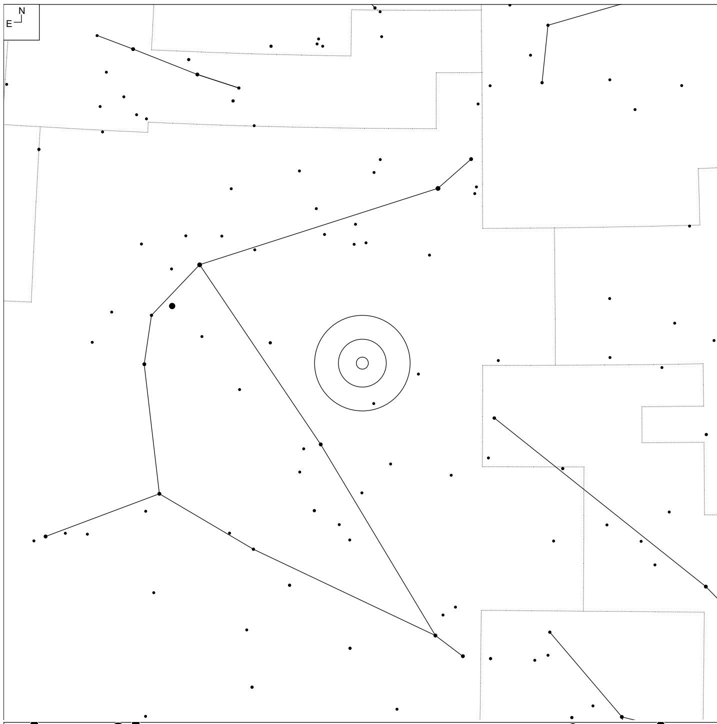


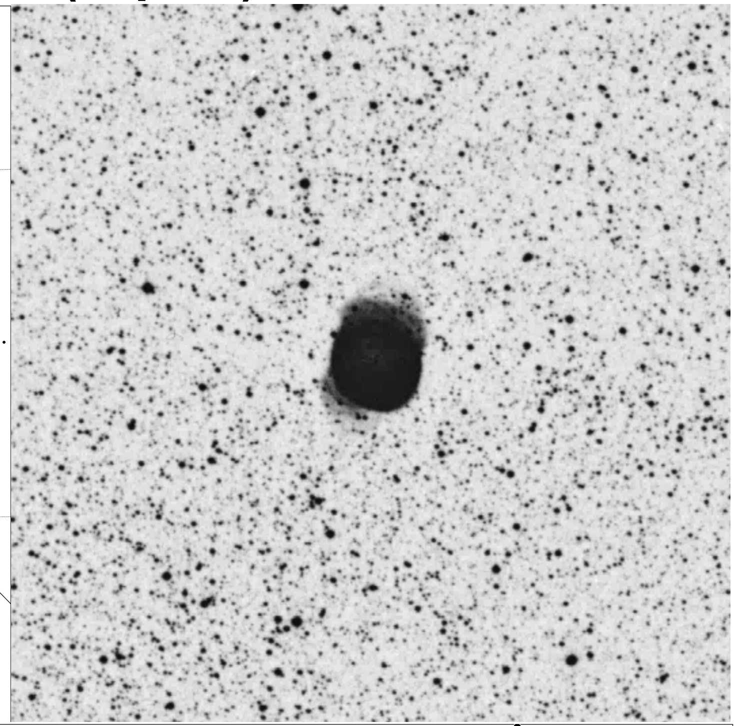


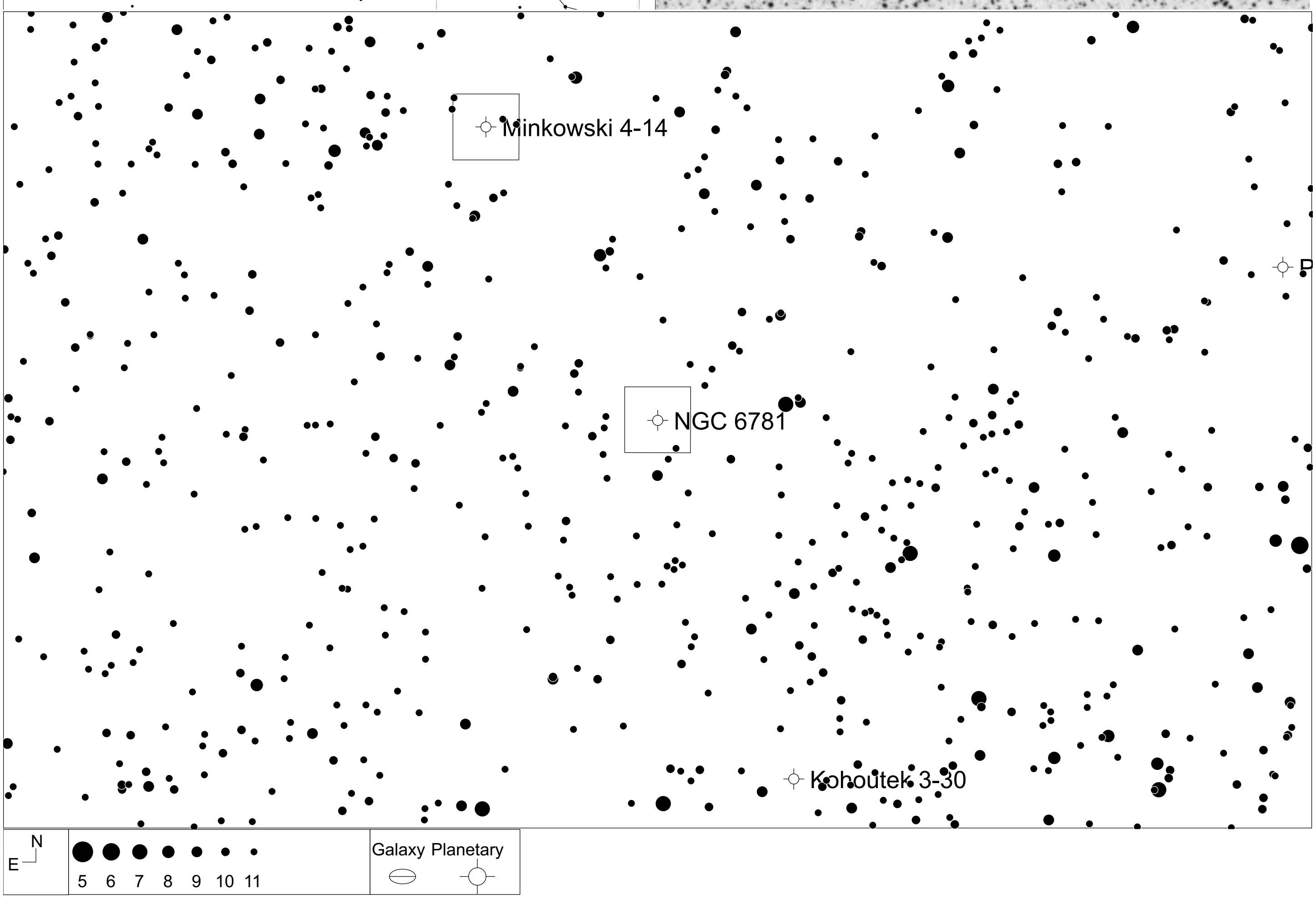


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 34-6.1	3+3	19 18 24.9	-01 35 46	12.3v	16.9	16”

NGC 6781 (Aquila)

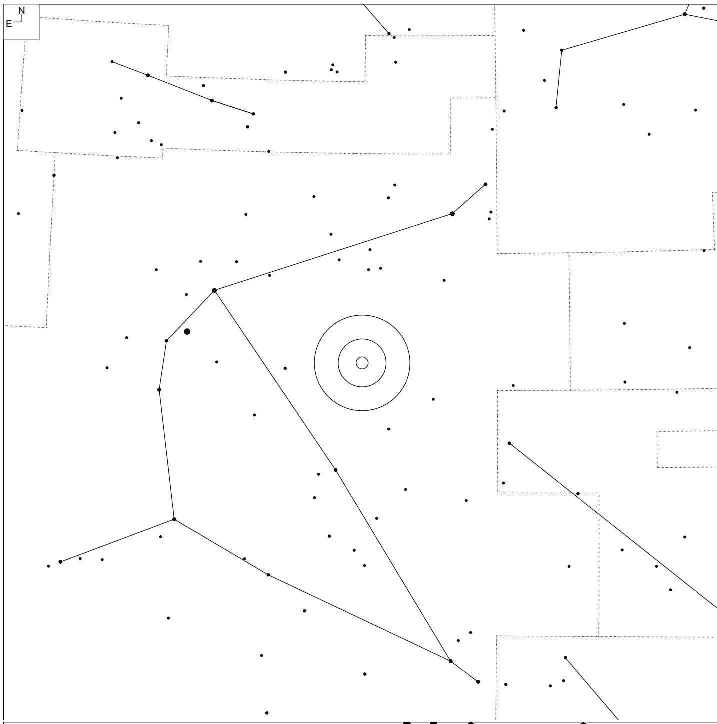


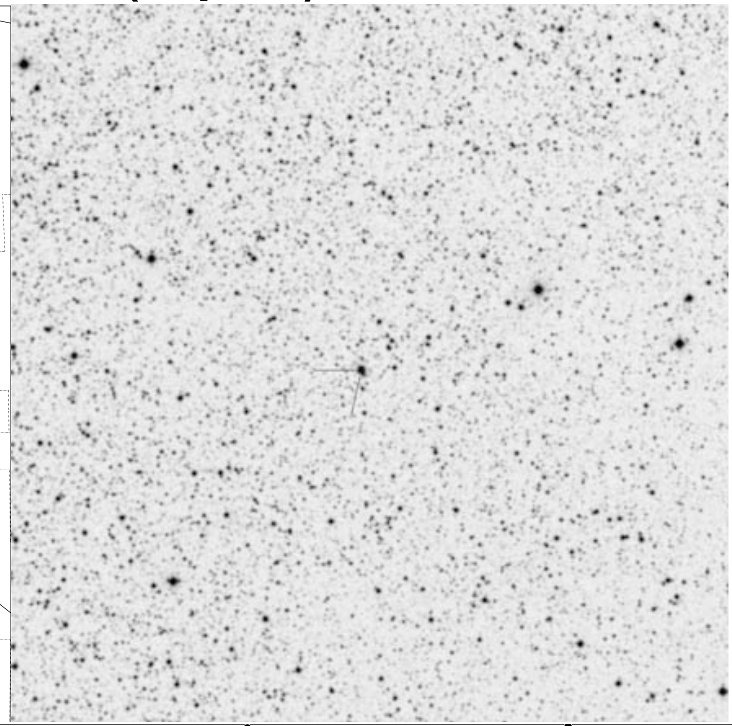


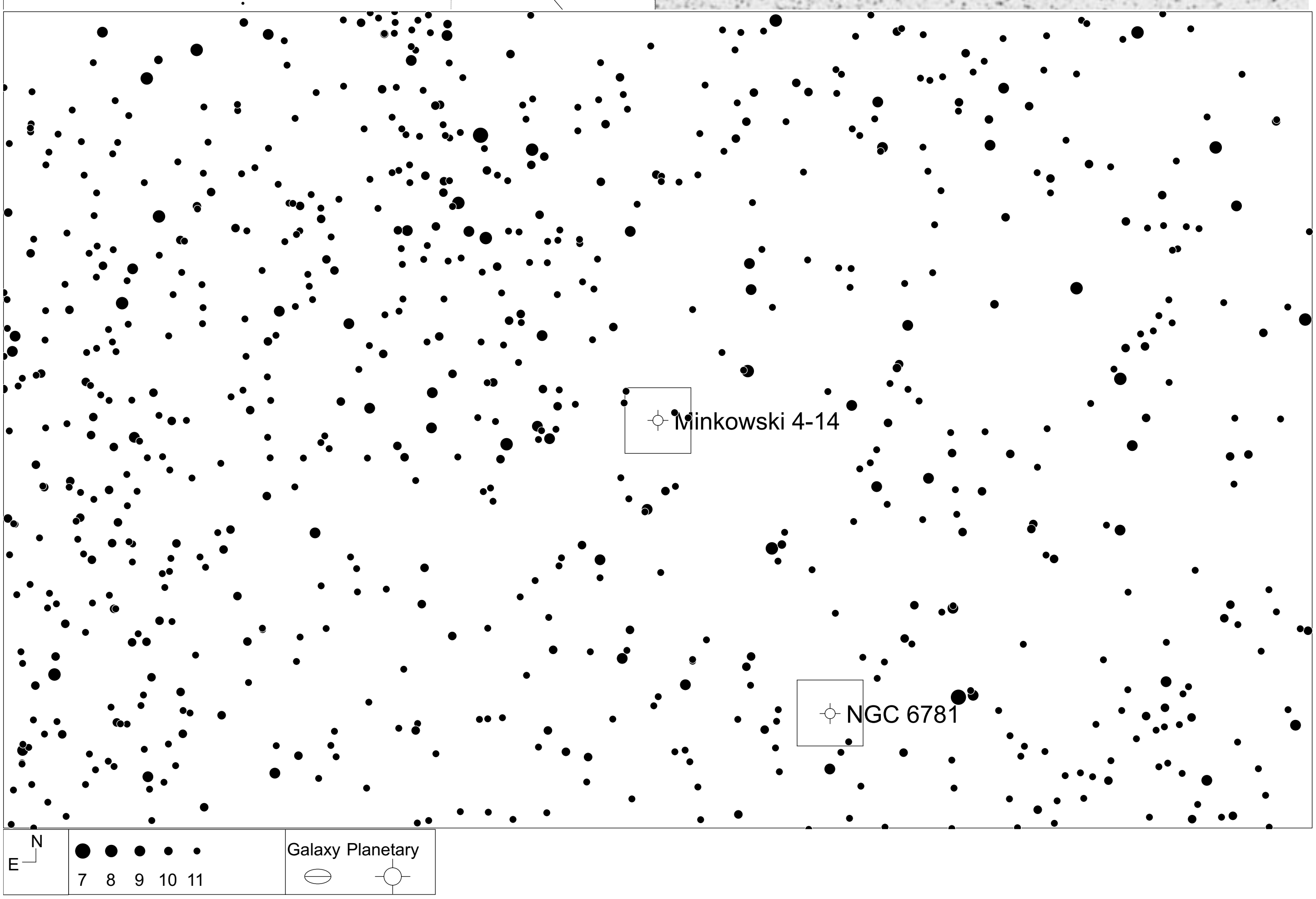


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 41-2.1	3+3	19 18 28.2	+06 32 15	11.4v	16.2	1.8’

Minkowski 4-14 (Aquila)

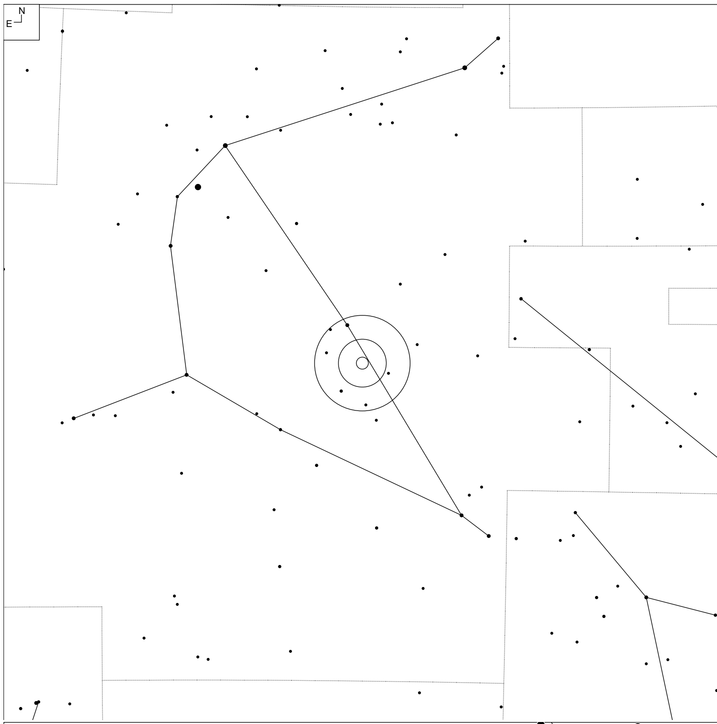


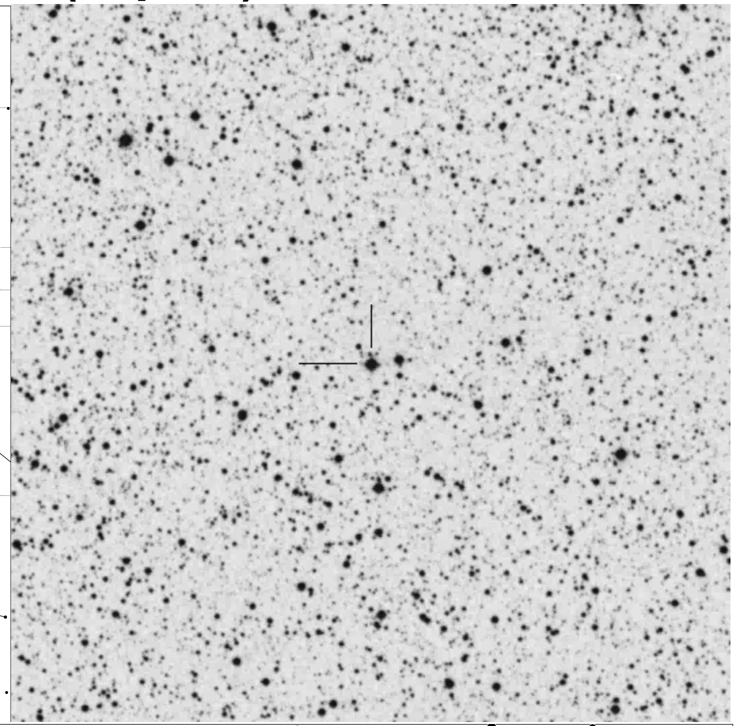


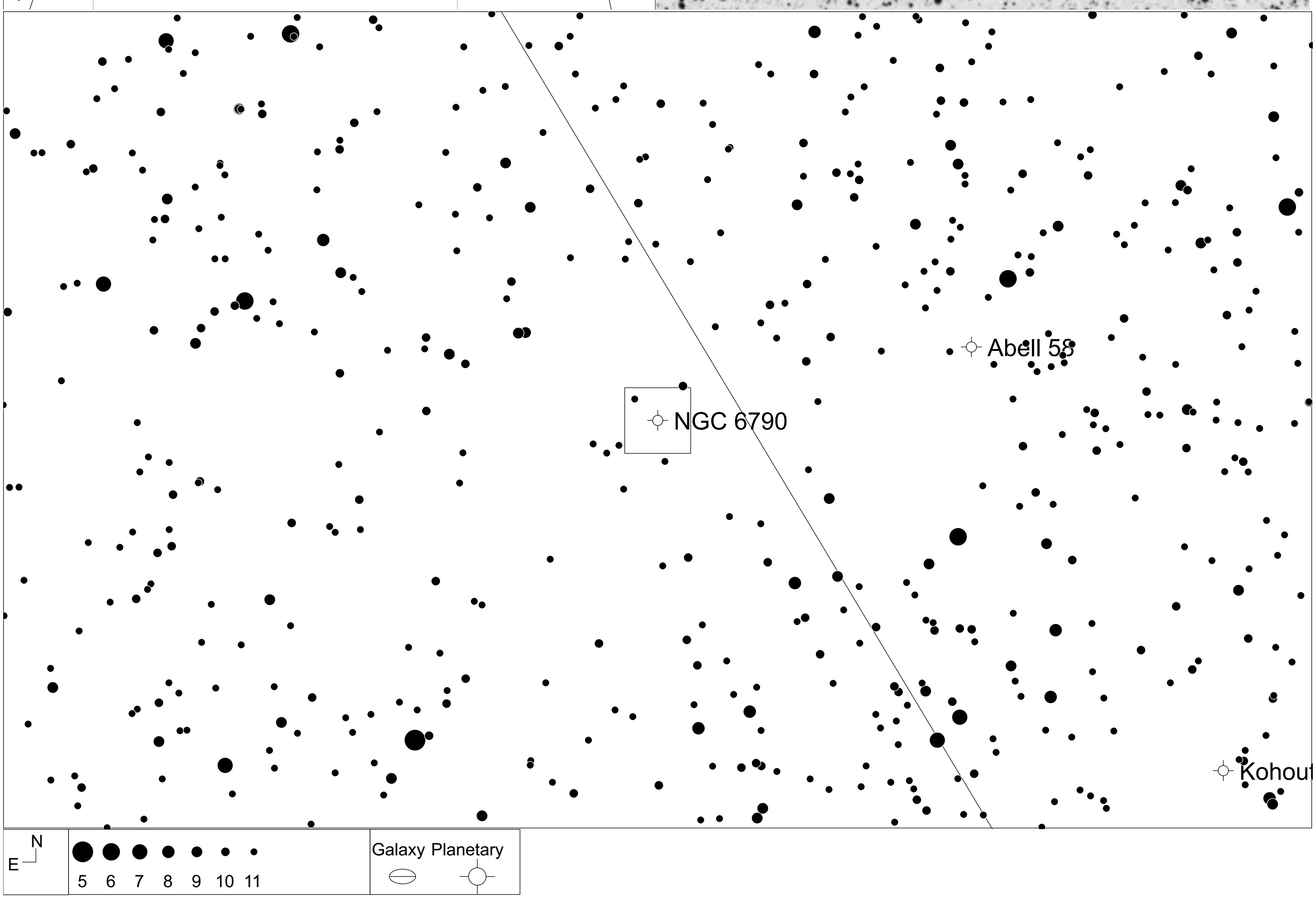


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 43.0-3.0	4+3	19 21 00.8	+07 36 50	14.8p	-	7”

NGC 6790   (Aquila)

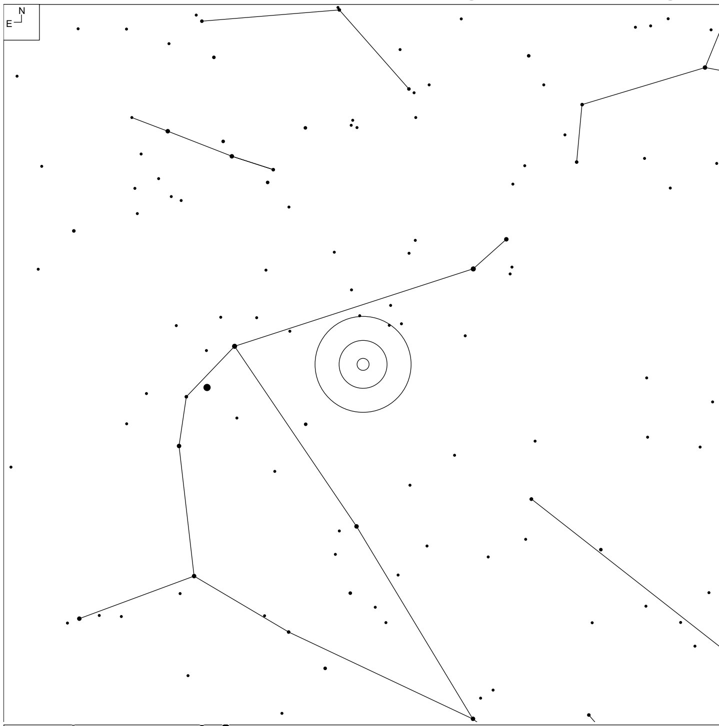


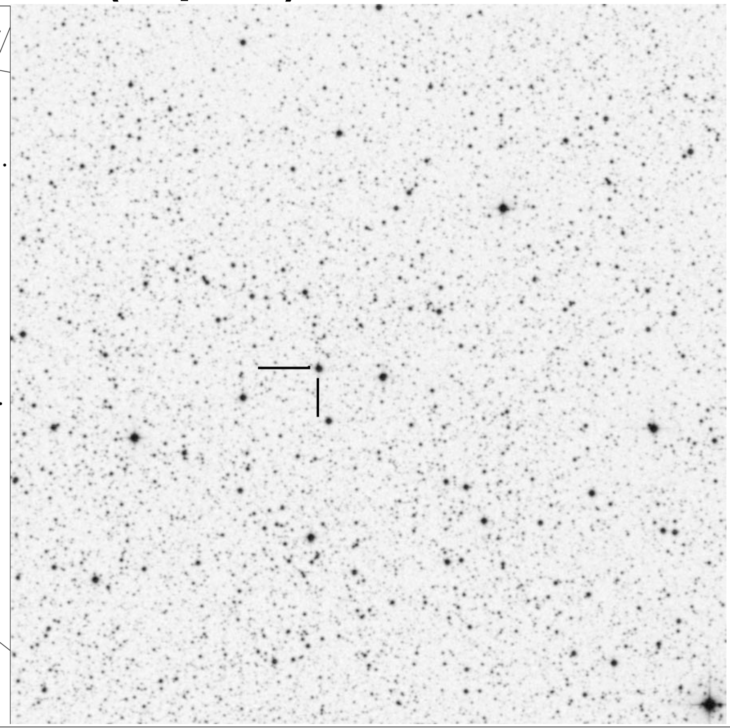


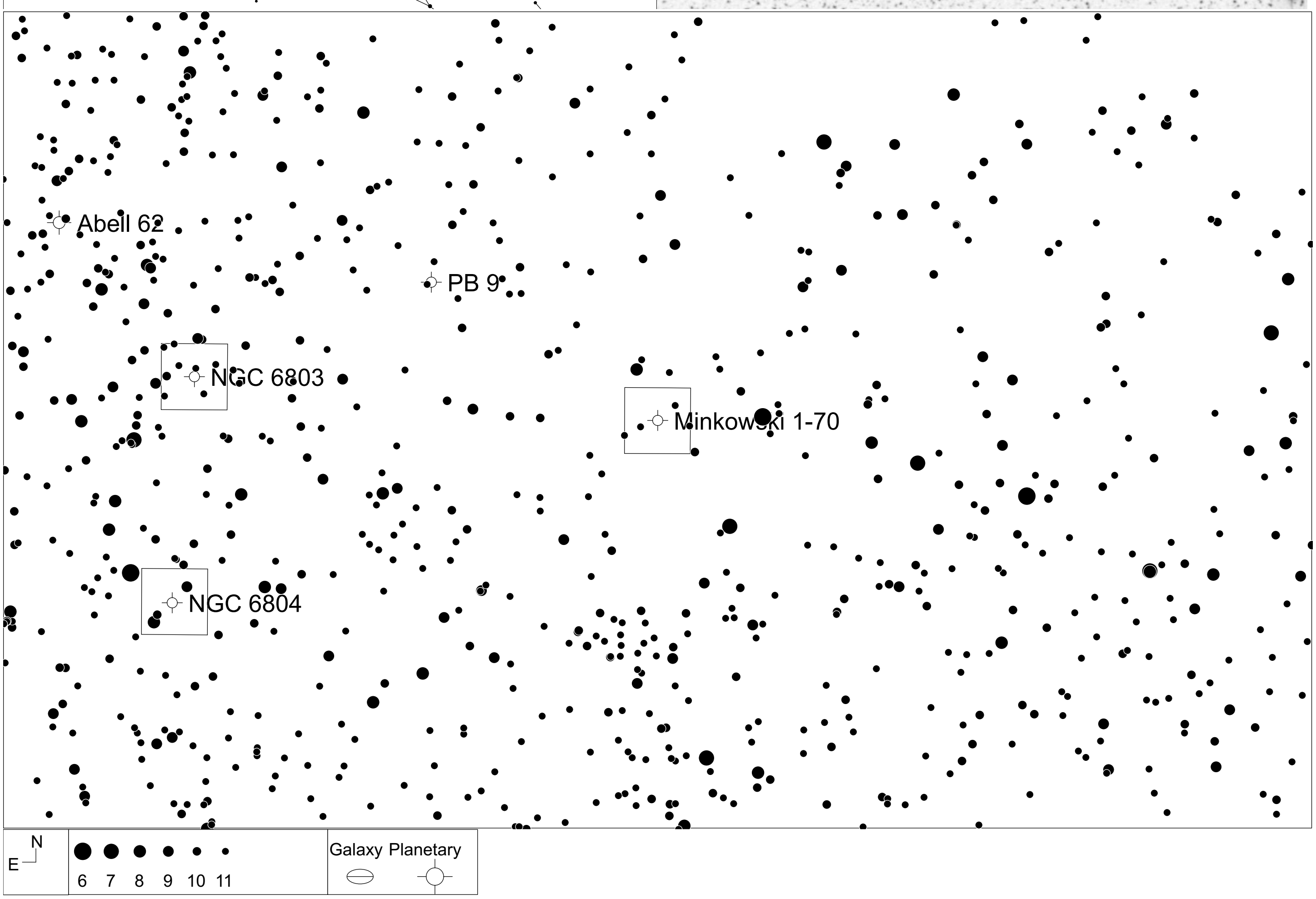


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 37-6.1	2	19 22 57.1	+01 30 44	10.5v	11.1	7”

Vyssotsky 2-2 (Aquila)

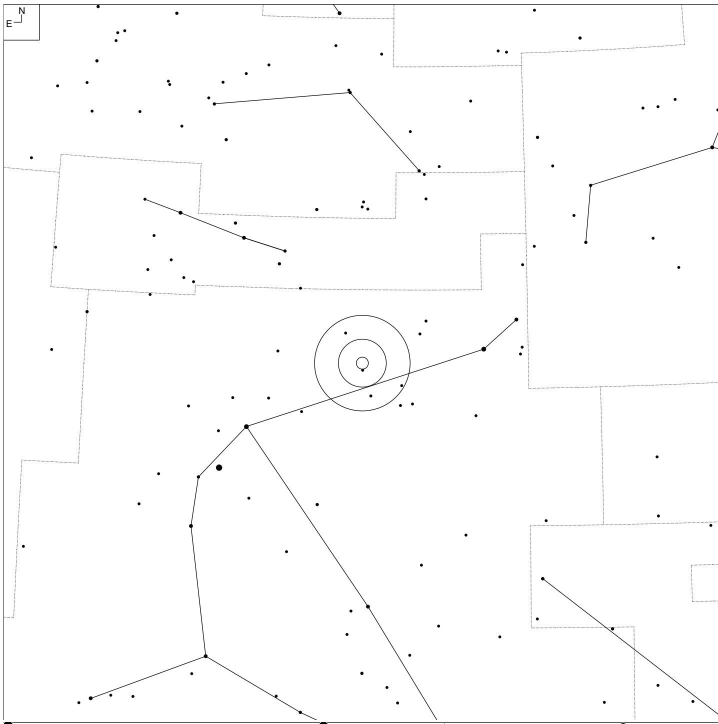


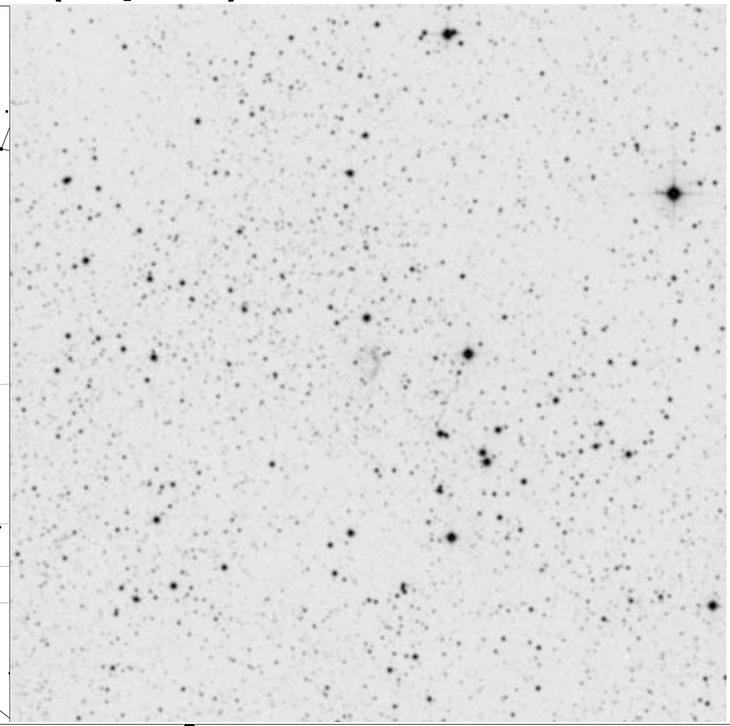


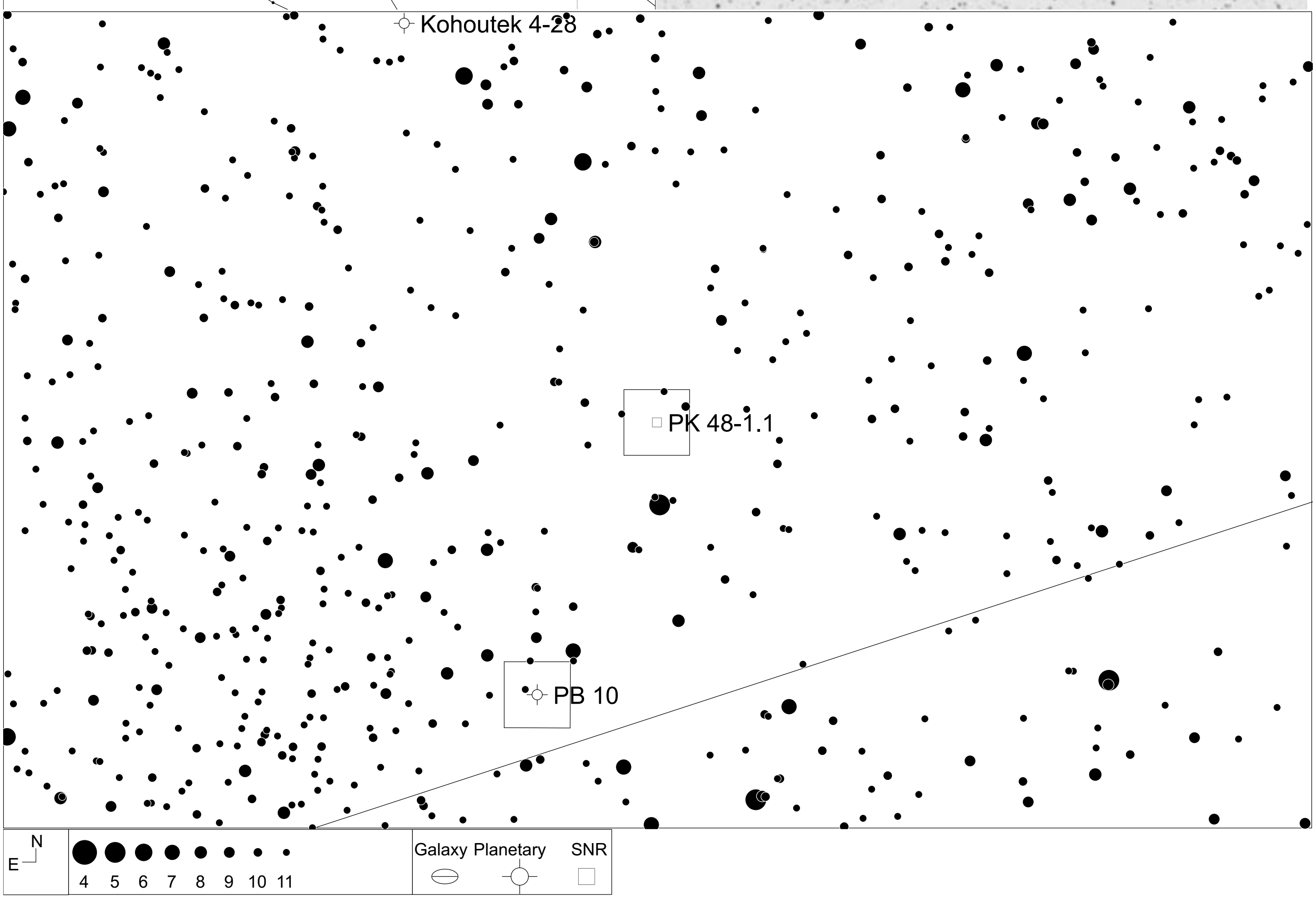


Other ID	Type	RA	Dec	Mag	* Mag	Size
Mink 1-70	1	19 24 23	+09 53.9	12.7	14.6	14”

PK 48-1.1 (Aquila)

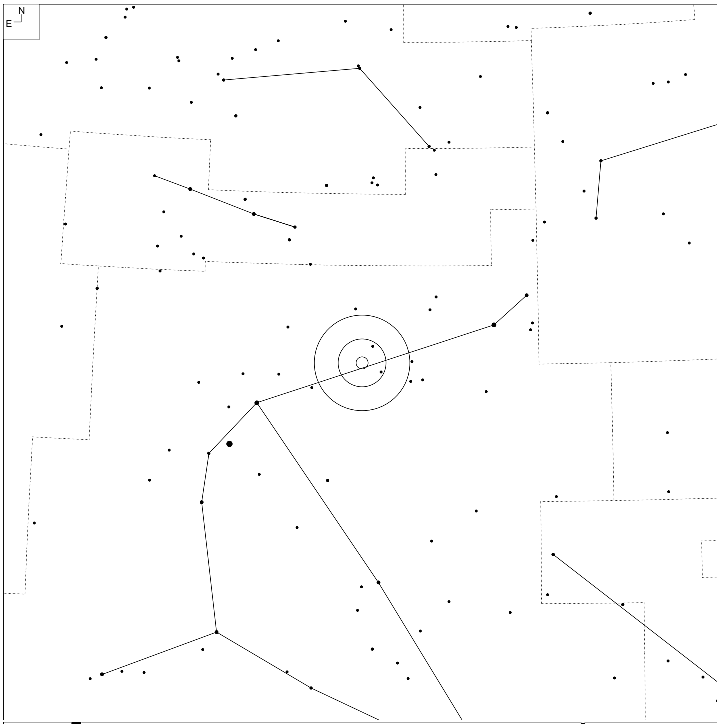


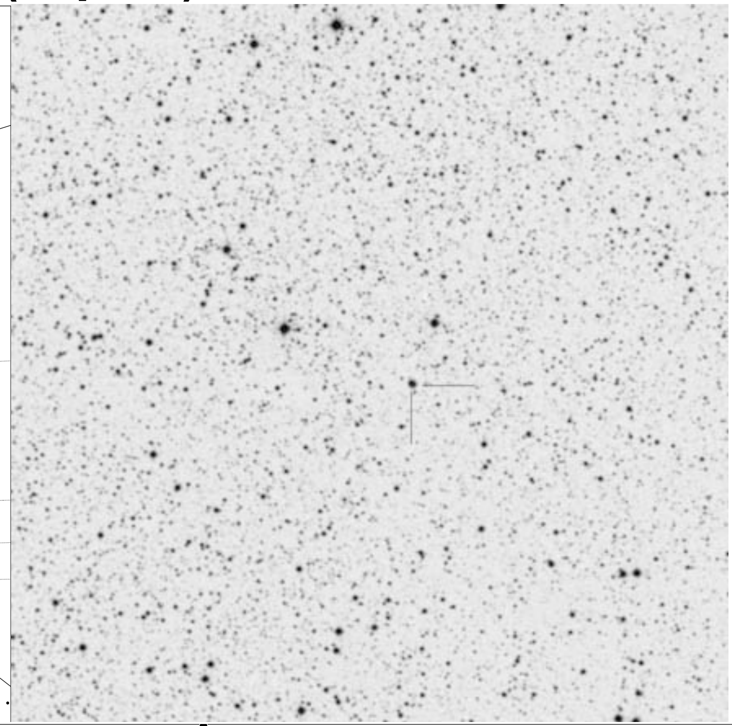


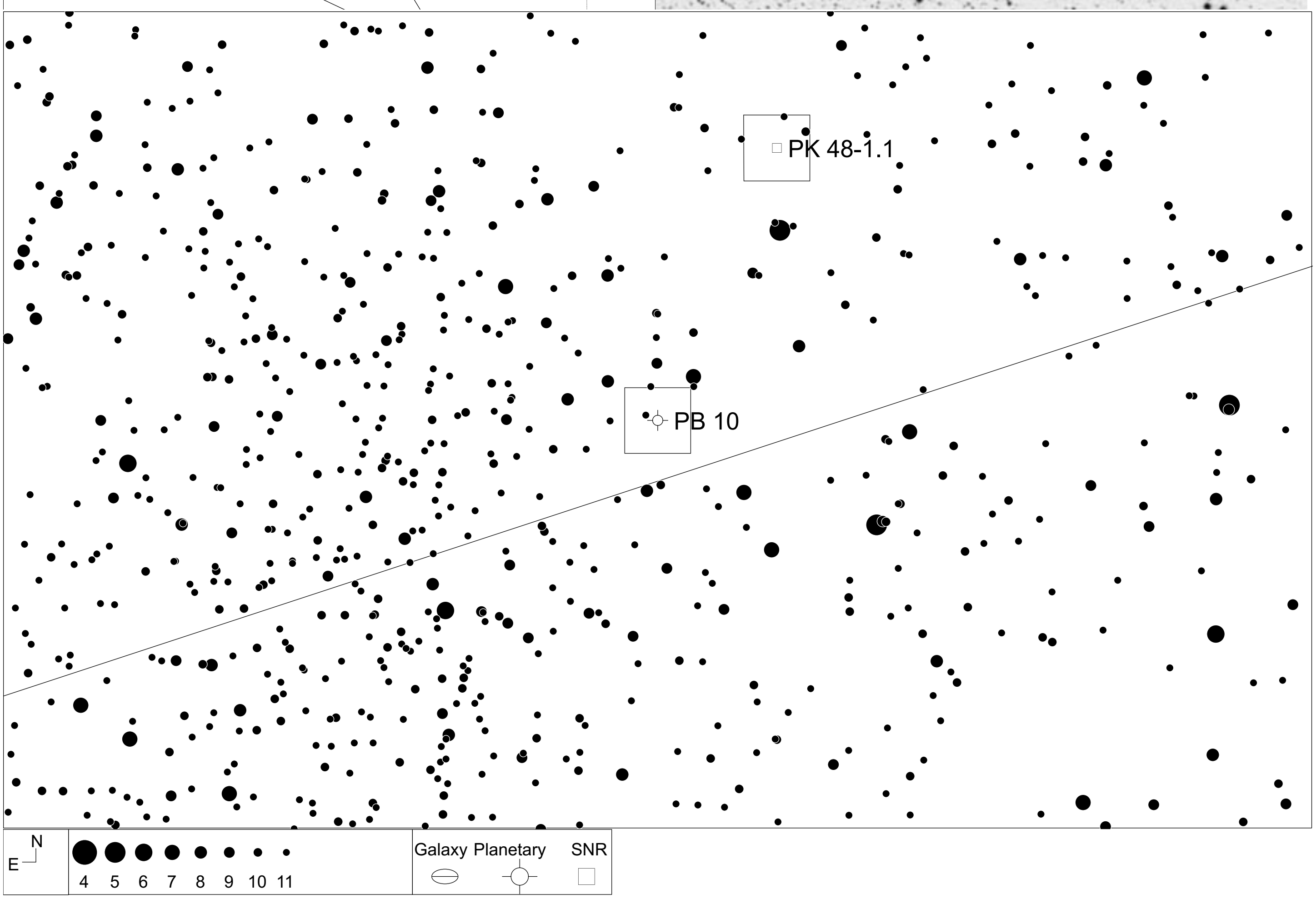


Other ID	Type	RA	Dec	Mag	* Mag	Size
-	SNR	19 26 26.7	+13 19 33	-	-	40”

PB 10 (Aquila)

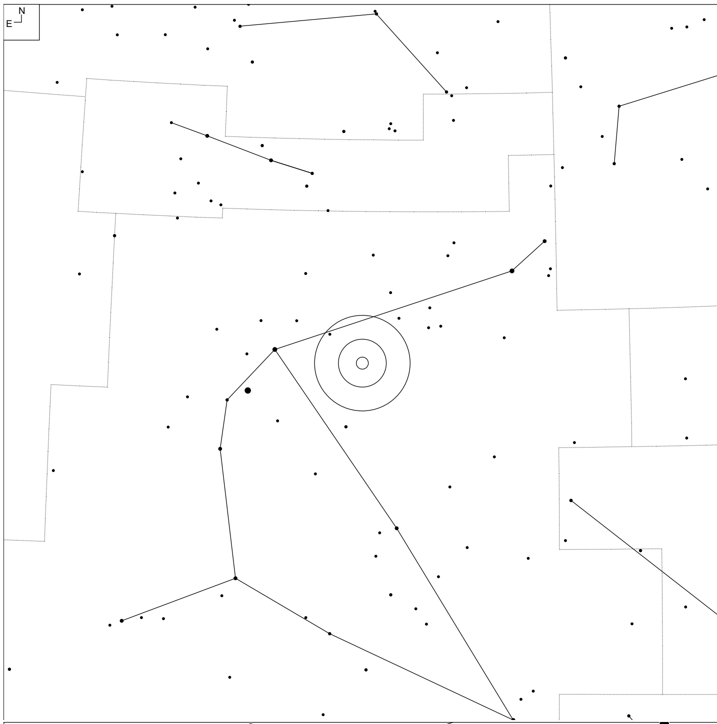


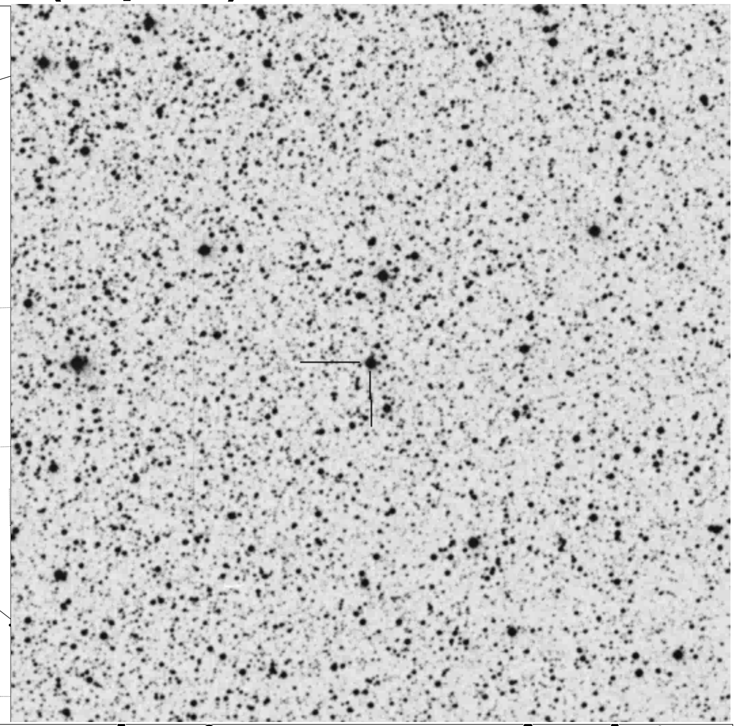


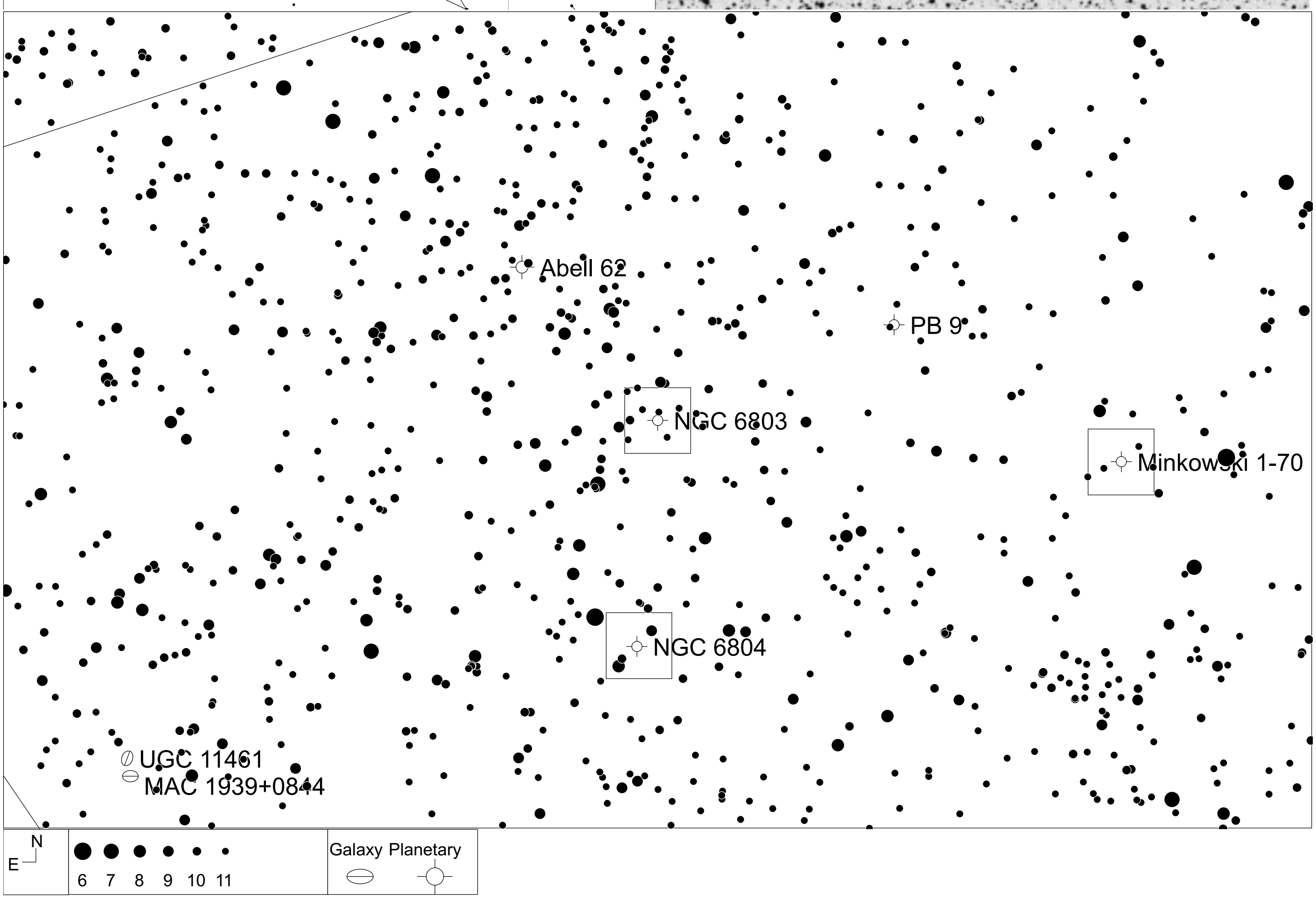


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 48-2.1	-	19 28 14.5	+12 19 35	14.8p	-	10”

NGC 6803 (Aquila)

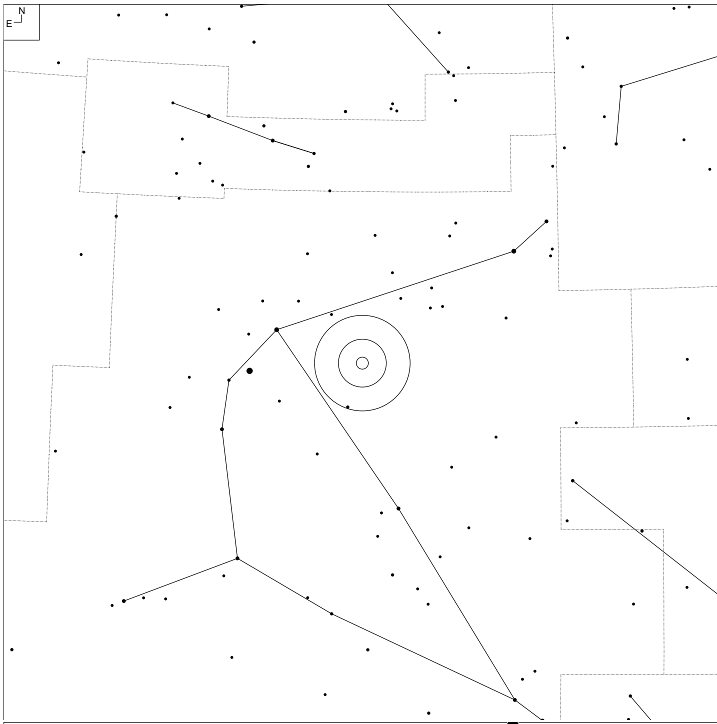


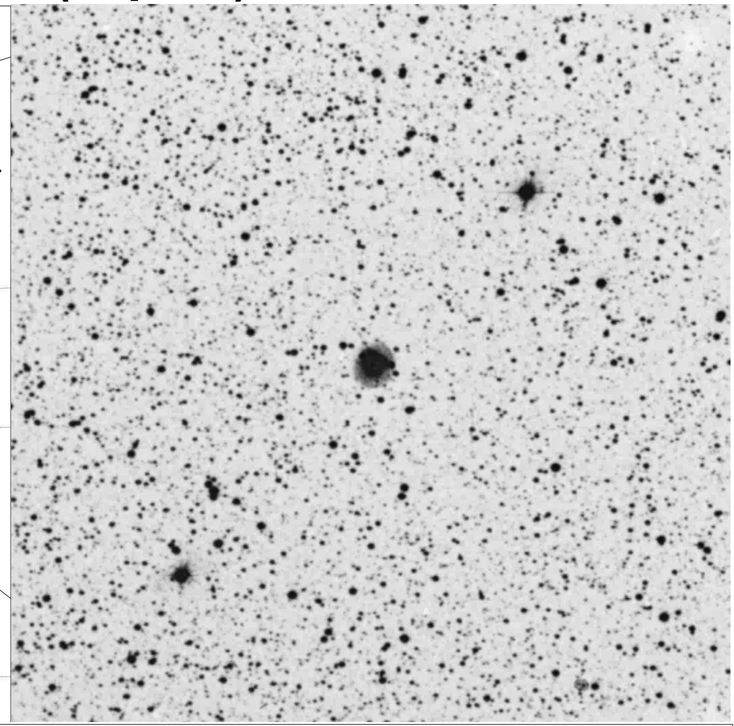


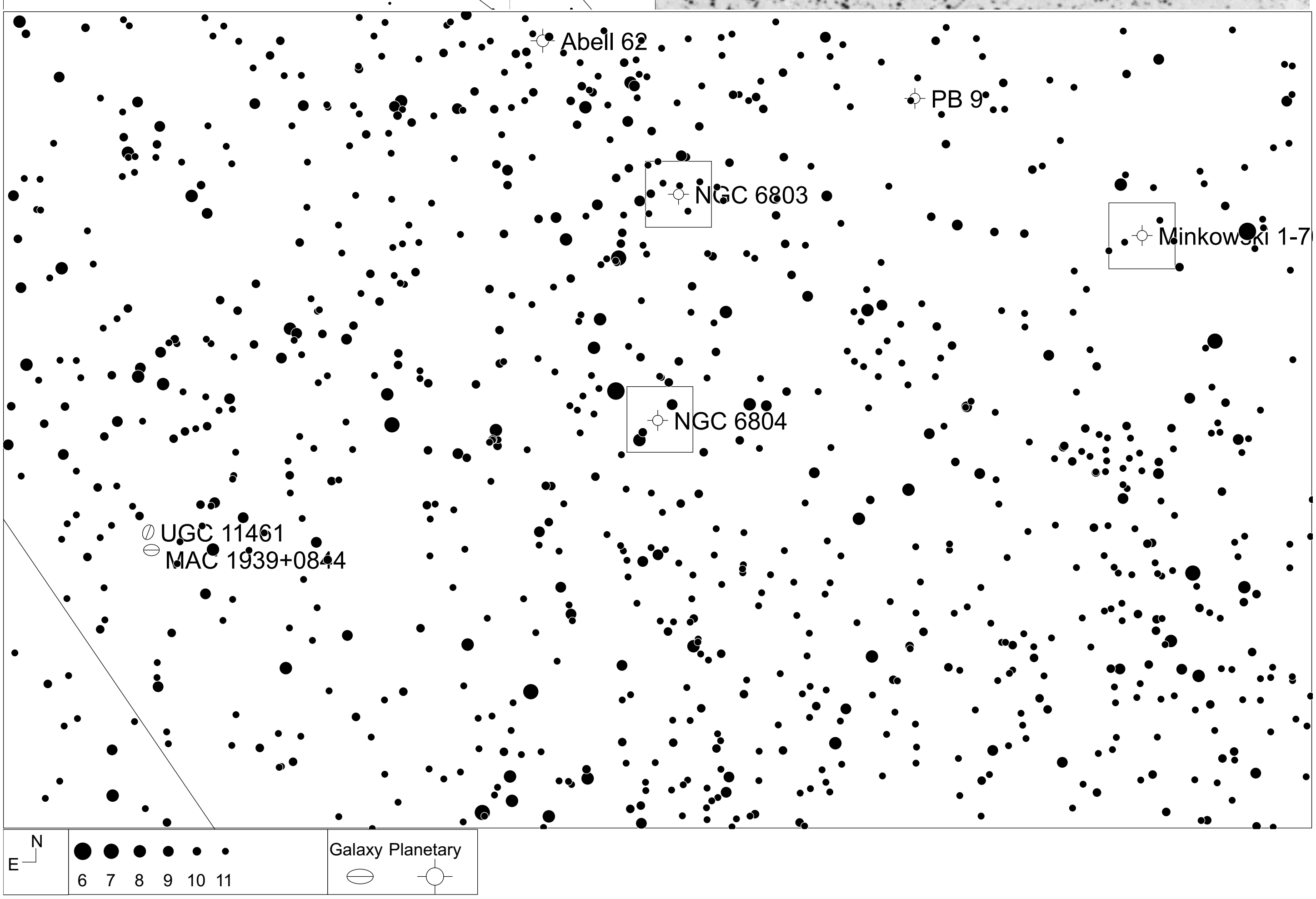


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 46-4.1	2a	19 31 16.6	+10 03 20	11.4v	15.2	6”

NGC 6804 (Aquila)

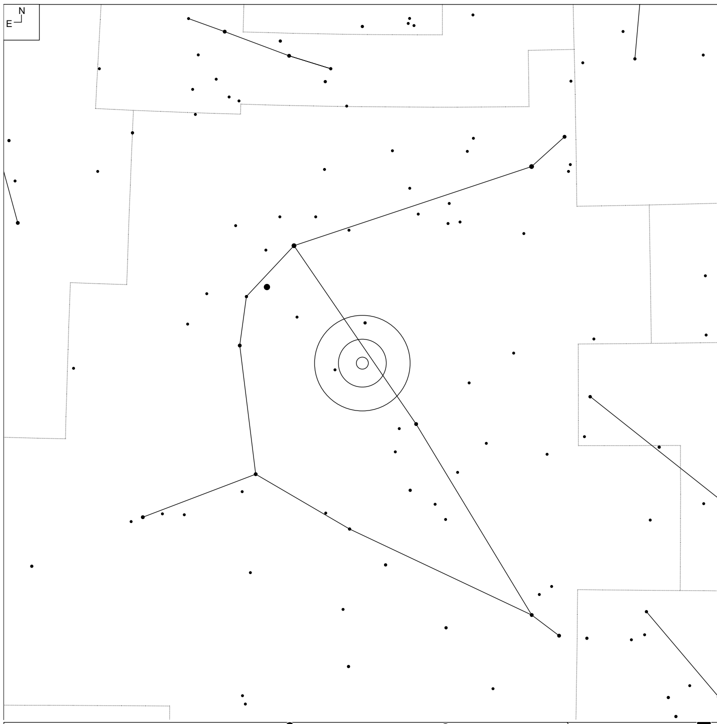


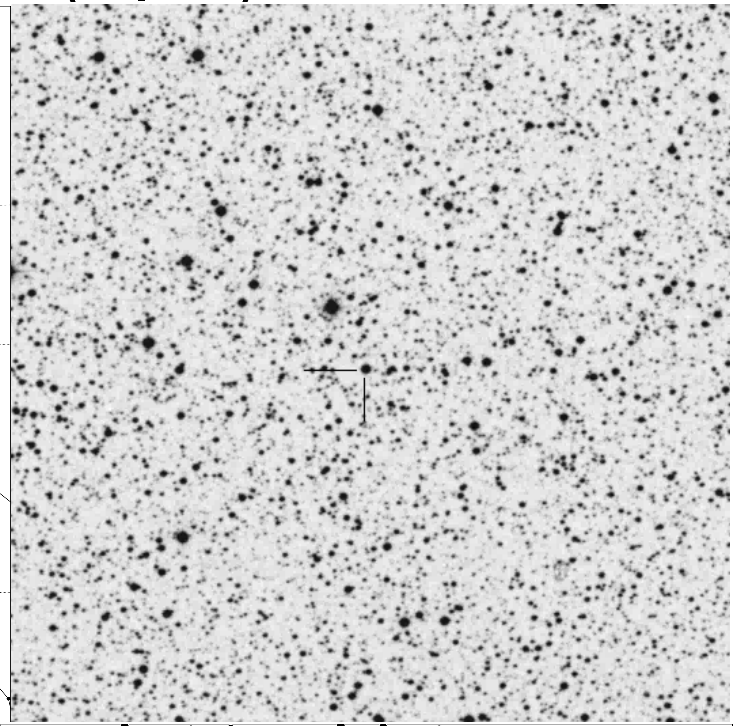


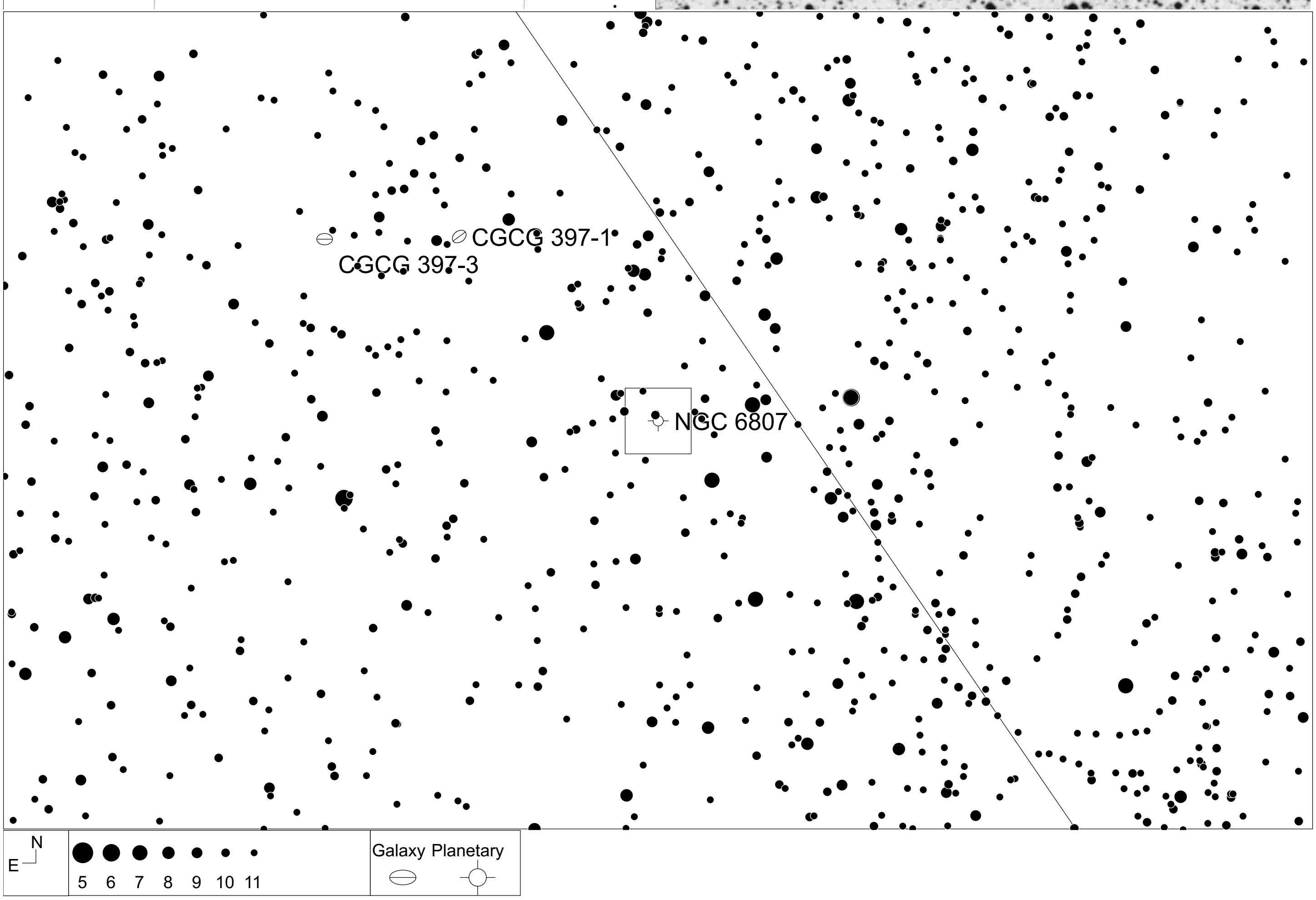


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 45-4.1	4+2	19 31 35.2	+09 13 31	12.2p	14.4	35”

NGC 6807 (Aquila)

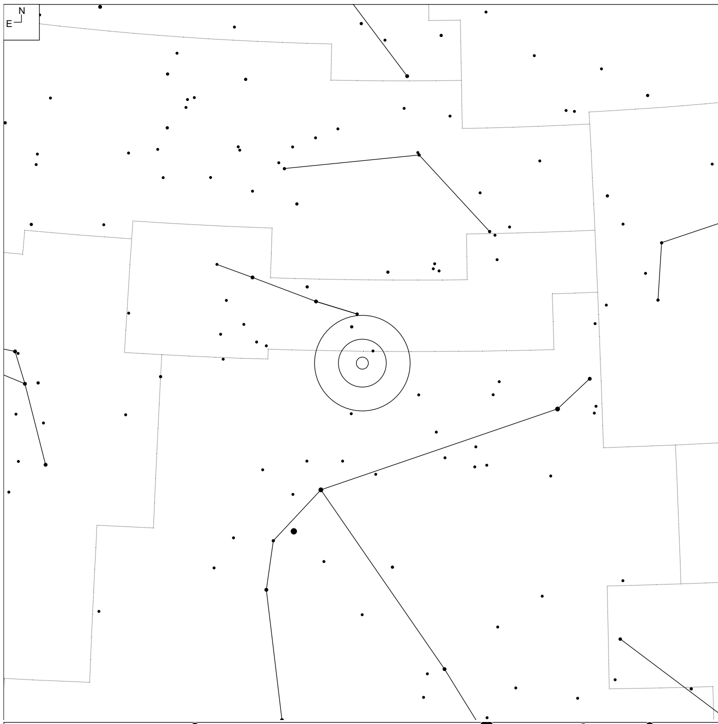


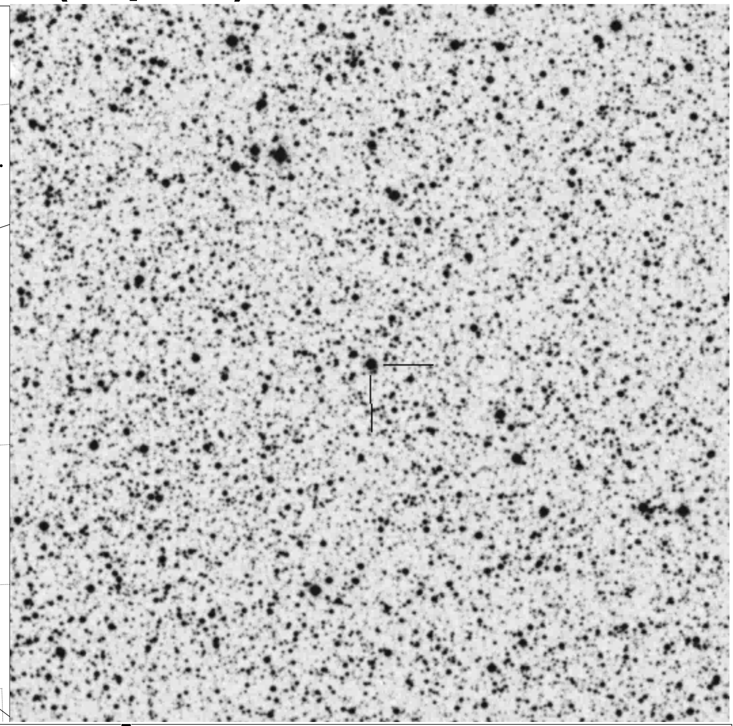


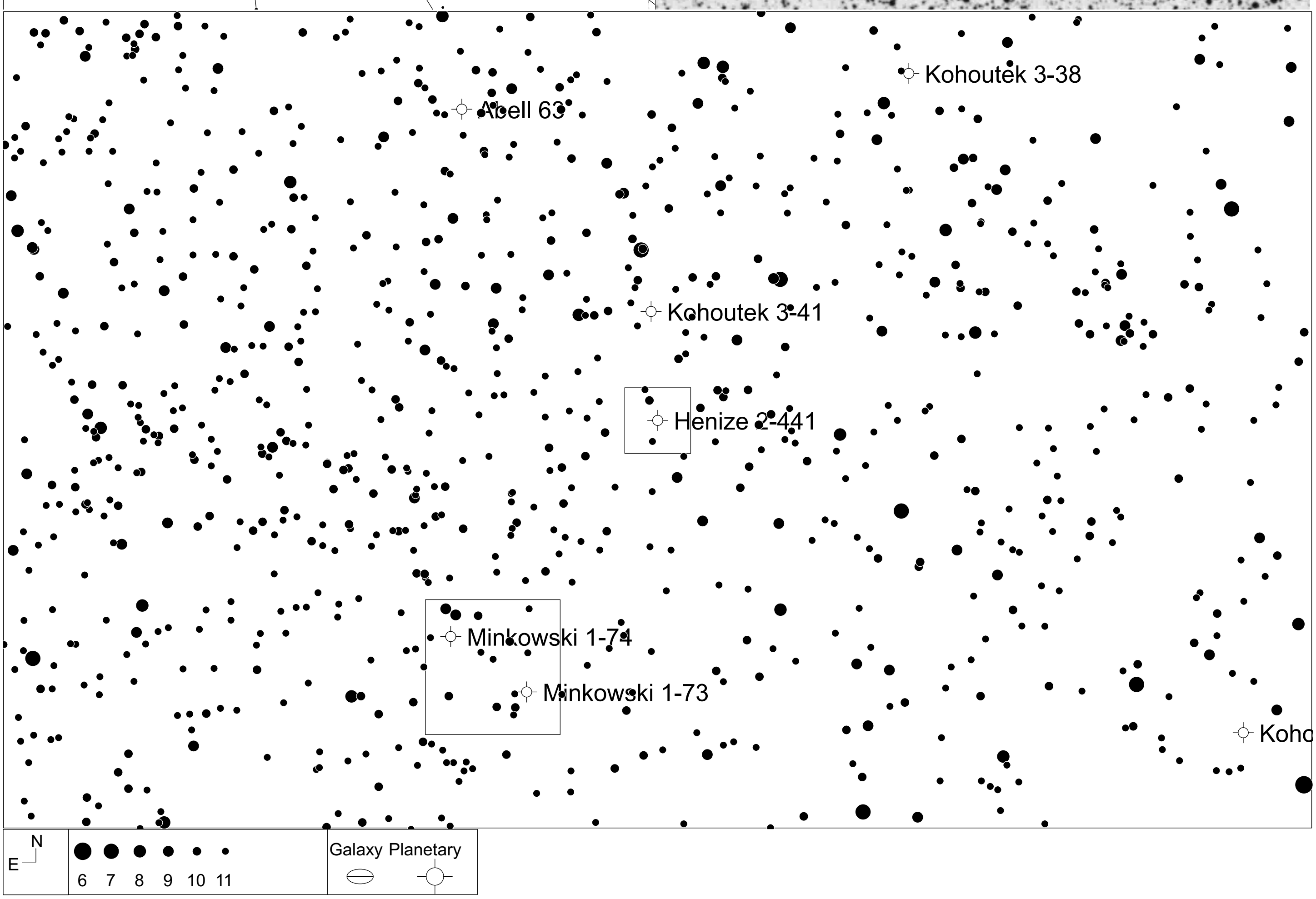


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 42-6.1	2	19 34 33.7	+05 41 01	12.0v	16.3	2”

Merrill 1-1 (Aquila)

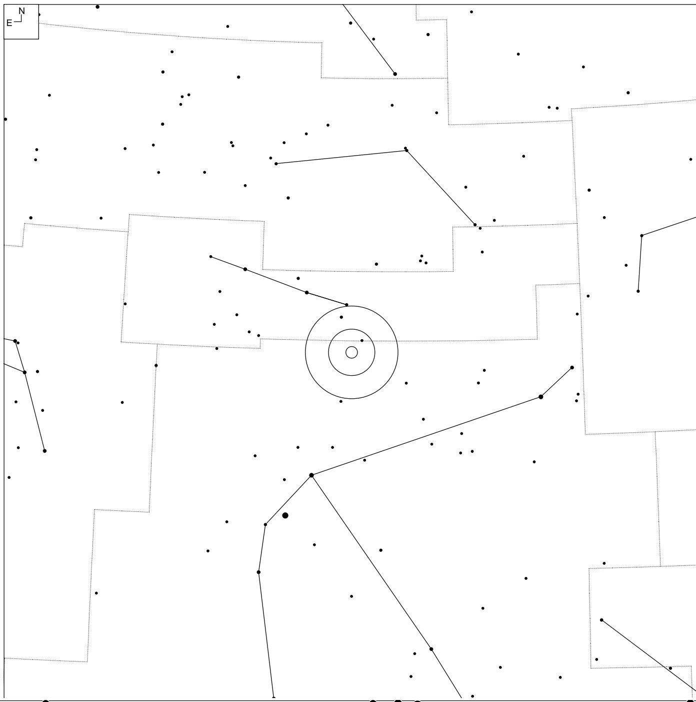


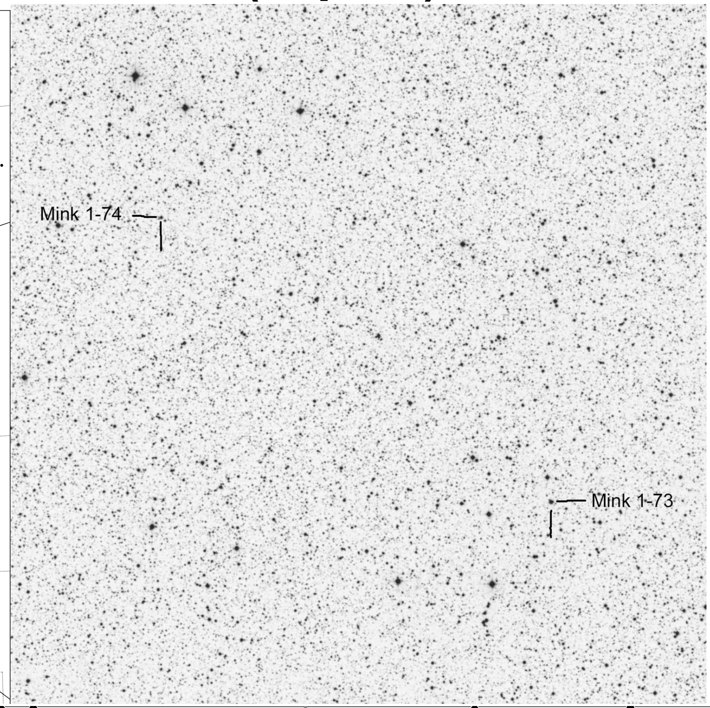


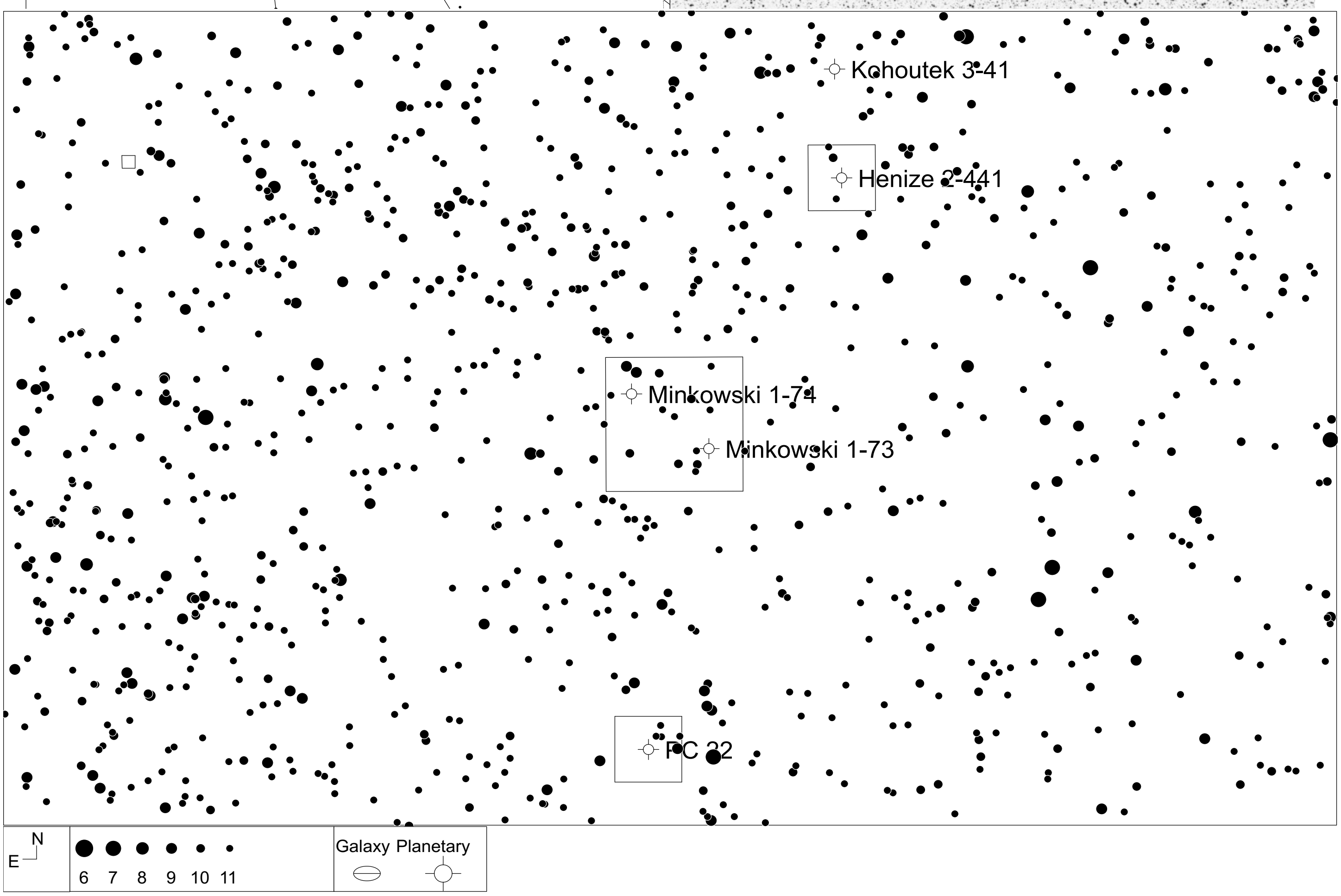


Other ID	Type	RA	Dec	Mag	* Mag	Size
Henize 2-441	4	19 39 09.9	+15 56 45	11.8v	14.1	8”

Minkowski 1-73 and 1-74 (Aquila)

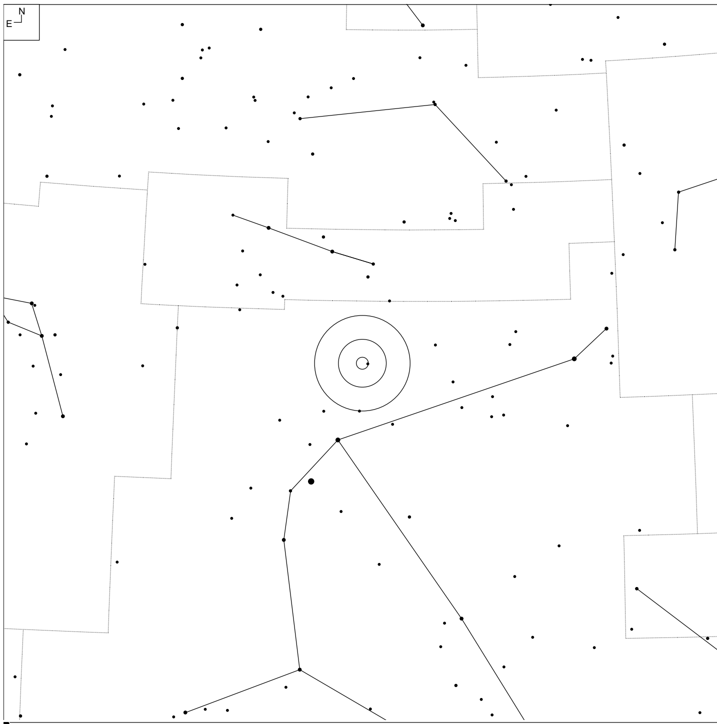


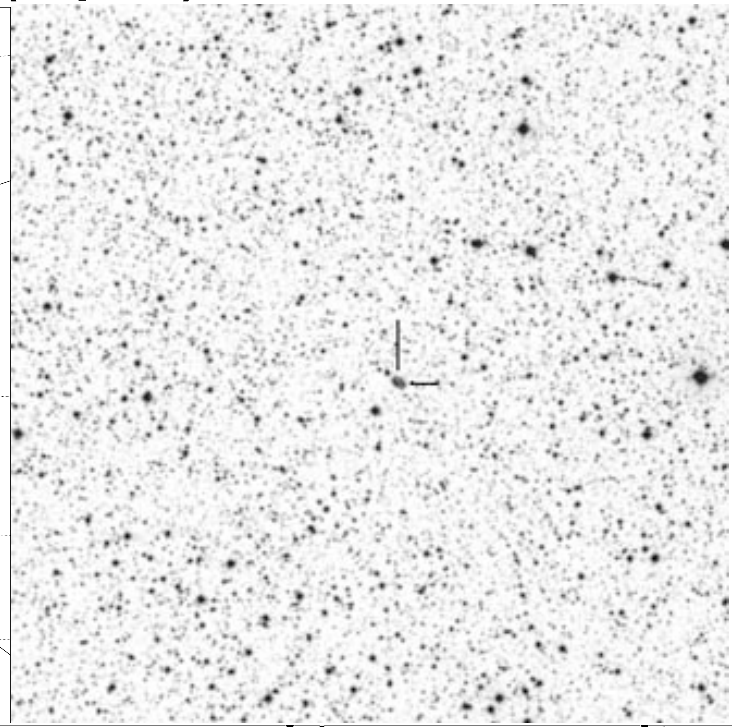


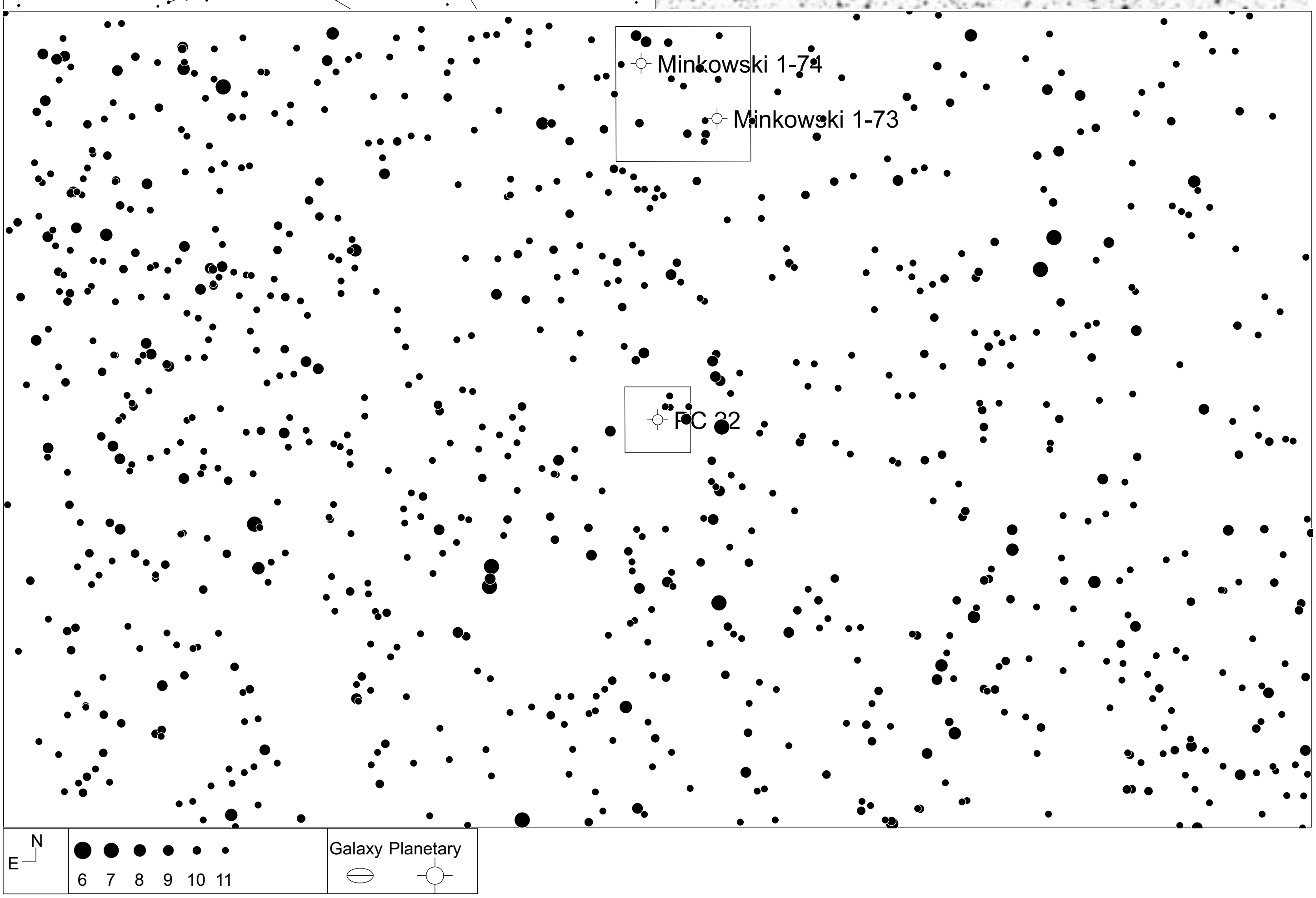


ID	Type	RA	Dec	Mag	* Mag	Size
Mink 1-73	2	19 41 09.4	+14 56 57	14.0v	14.5	5”
Mink 1-74	1	19 42 18.8	+15 09 06	12.9v	18.1	5”

PC 22 (Aquila)

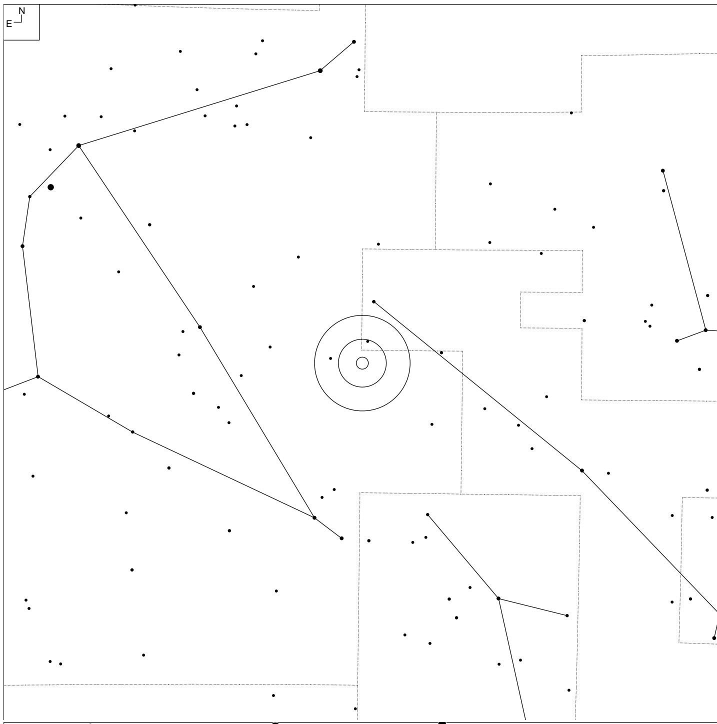


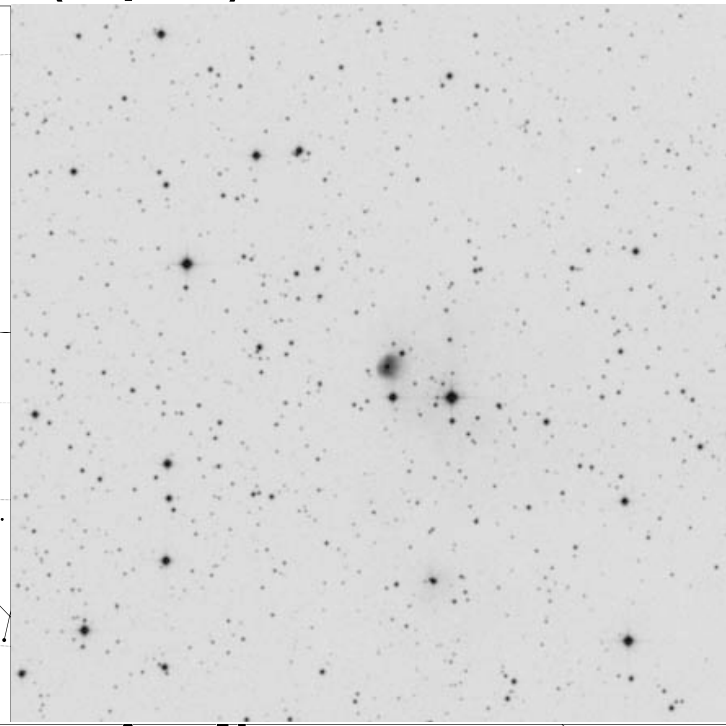


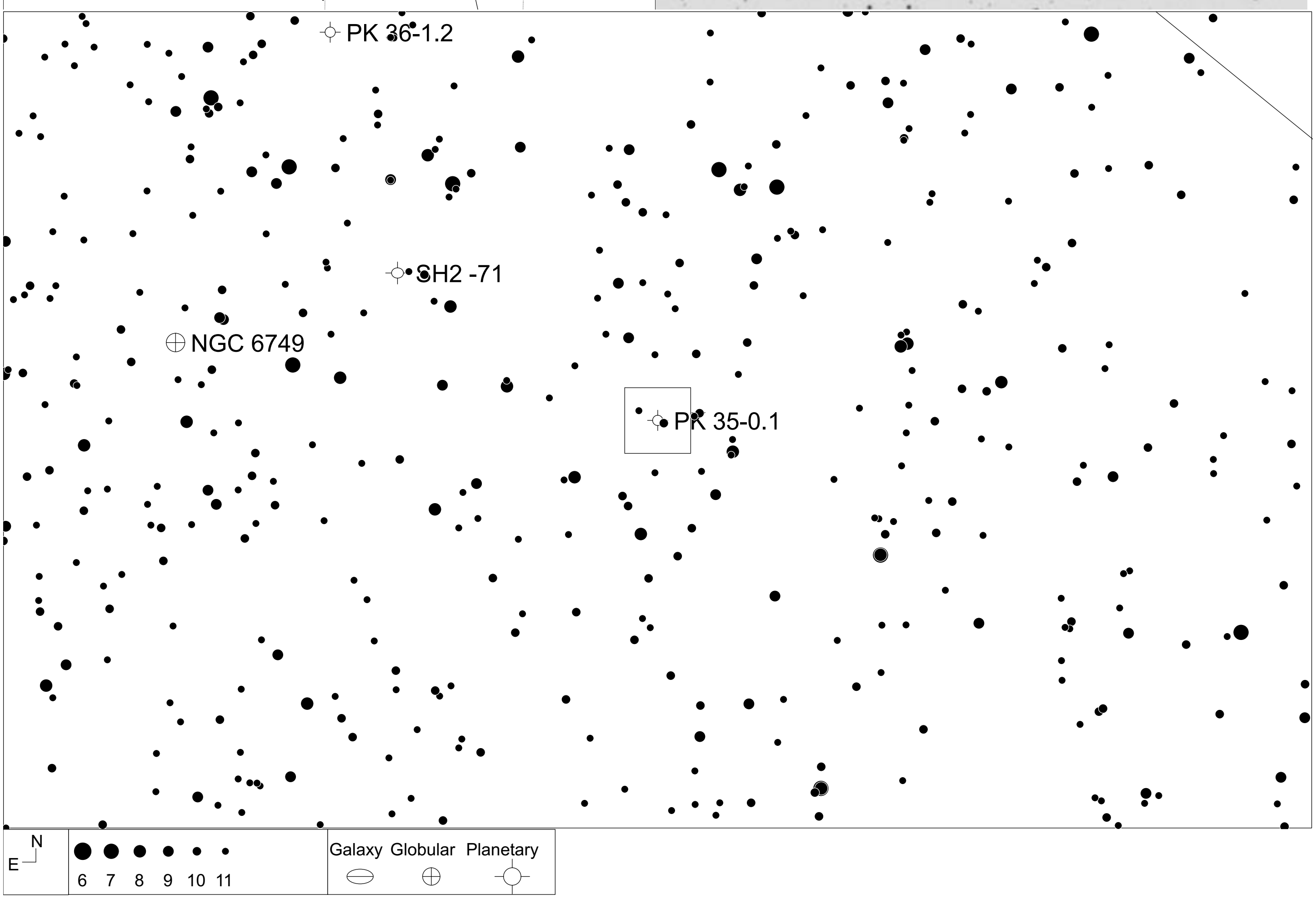


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 51-4.1	-	19 42 03.6	+13 50 35	14.4p	18.1	24 x 18”

PK 35-0.1 (Aquila)

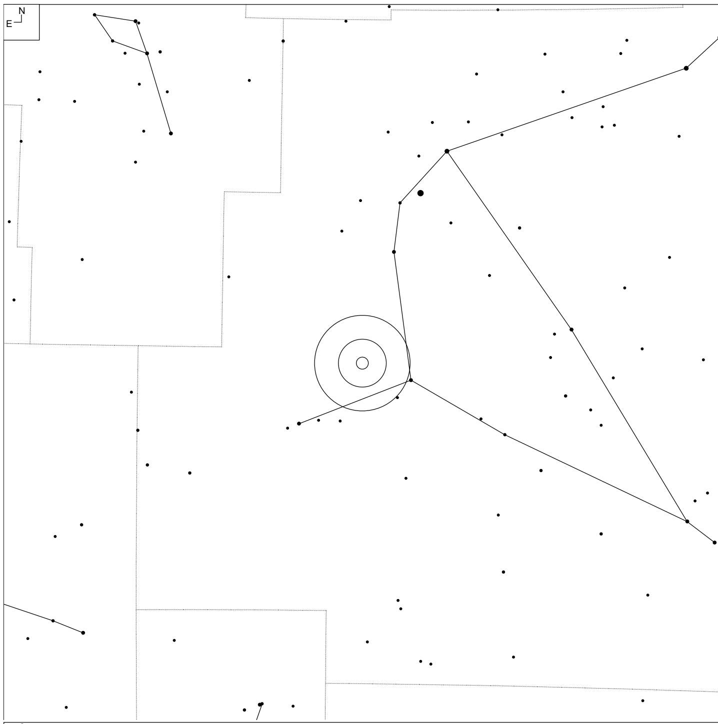


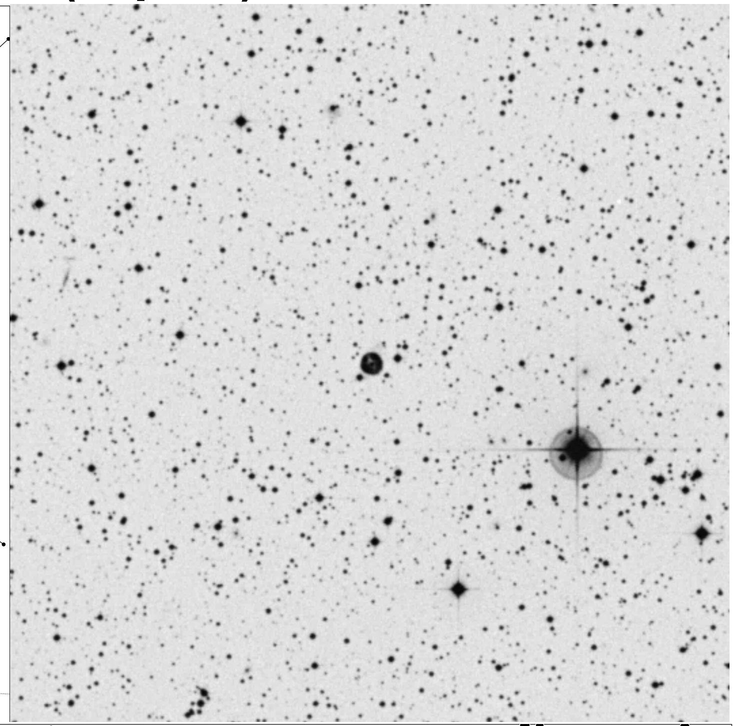


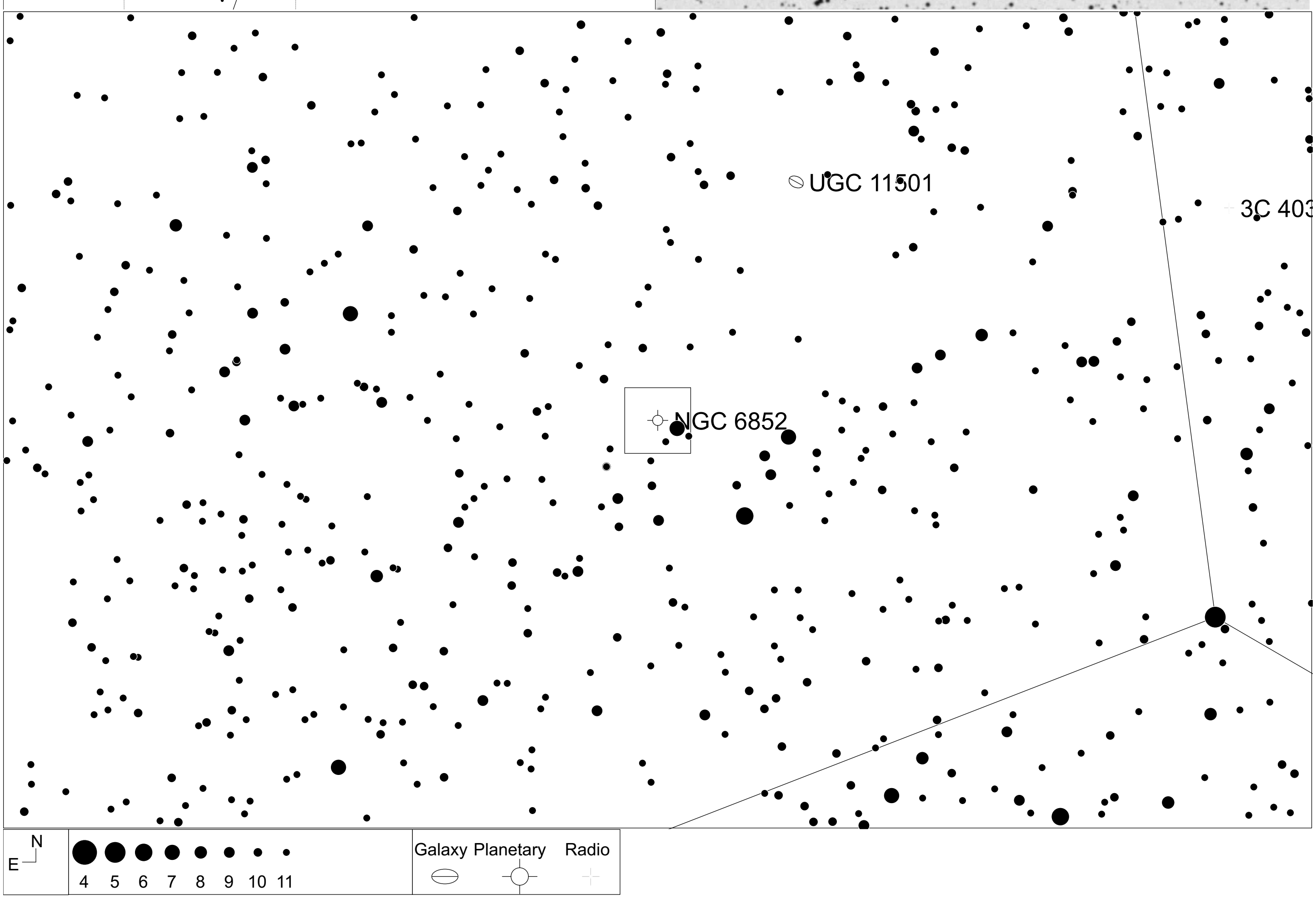


Other ID	Type	RA	Dec	Mag	* Mag	Size
-	-	18 58 10.6	+01 36 55	12.8IR	15.1	33”

NGC 6852 (Aquila)

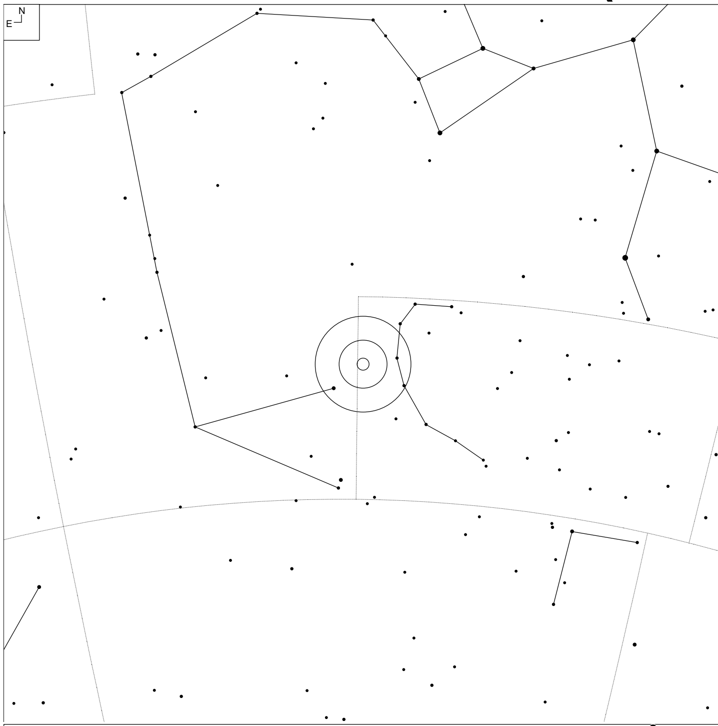


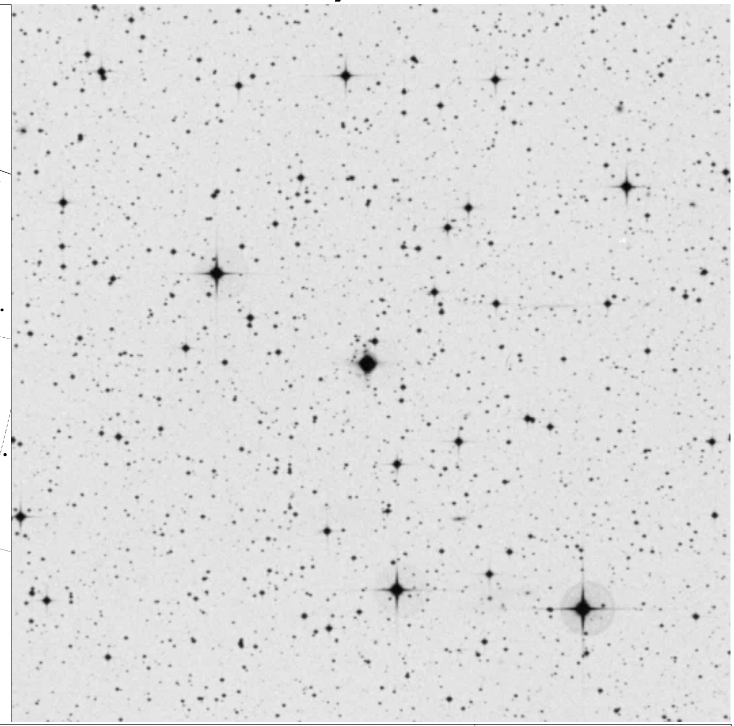


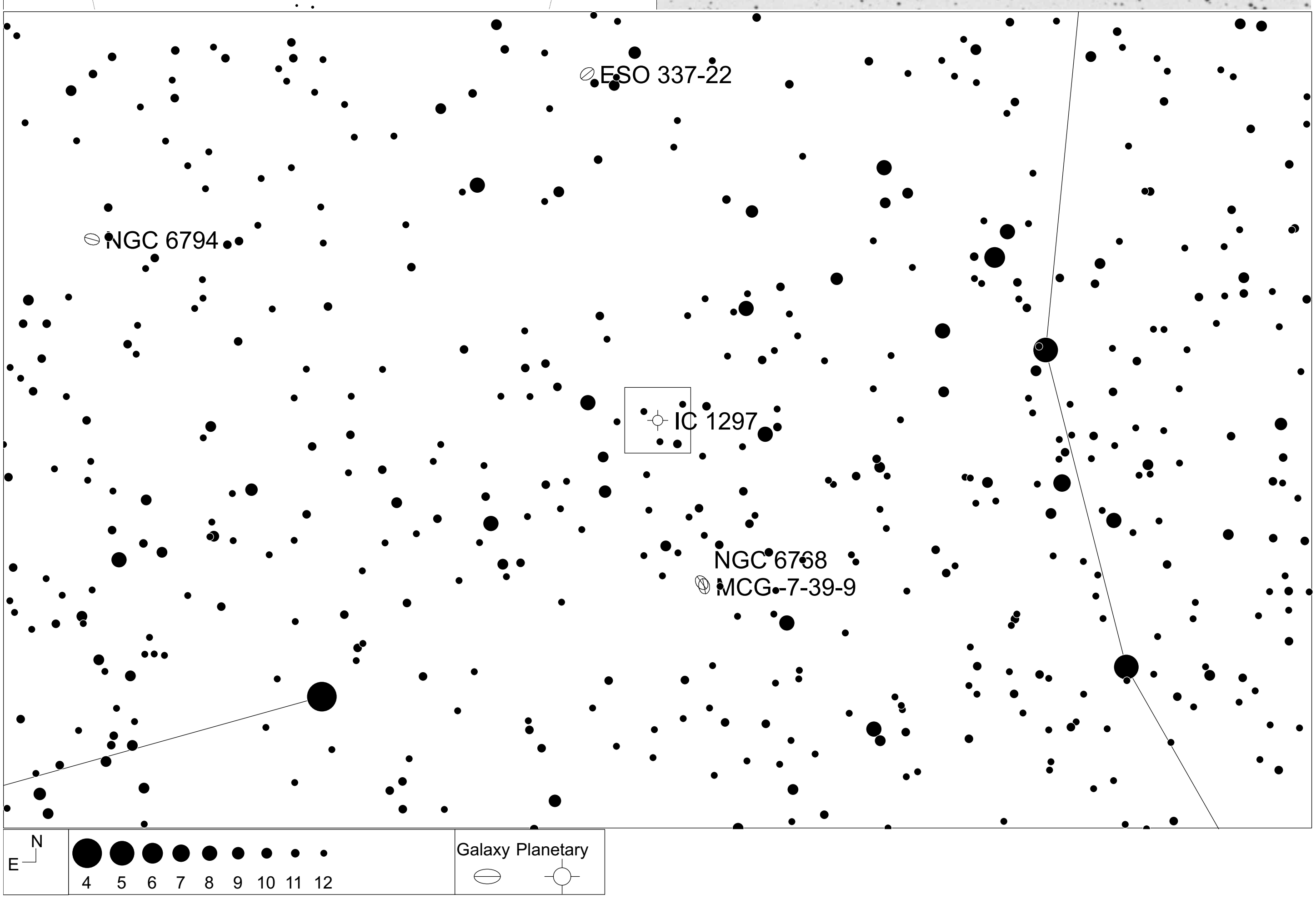


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 42-14.1	4	20 00 39.2	+01 43 41	12.6v	17.9	28”

IC 1297 (Corona Australis)

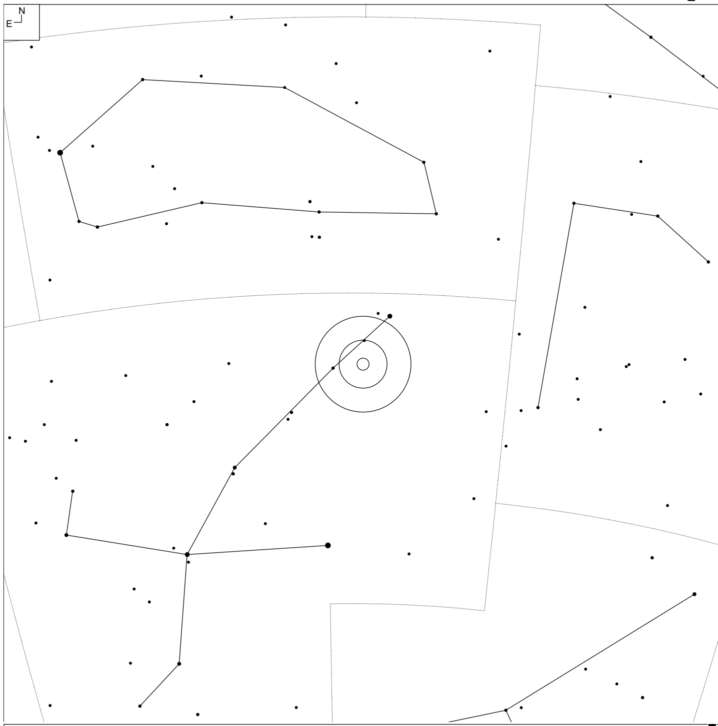


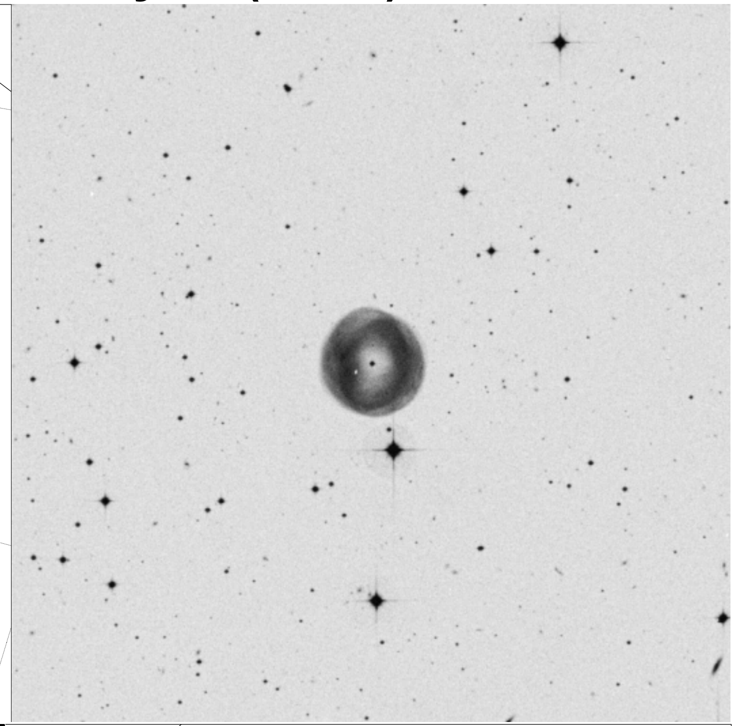


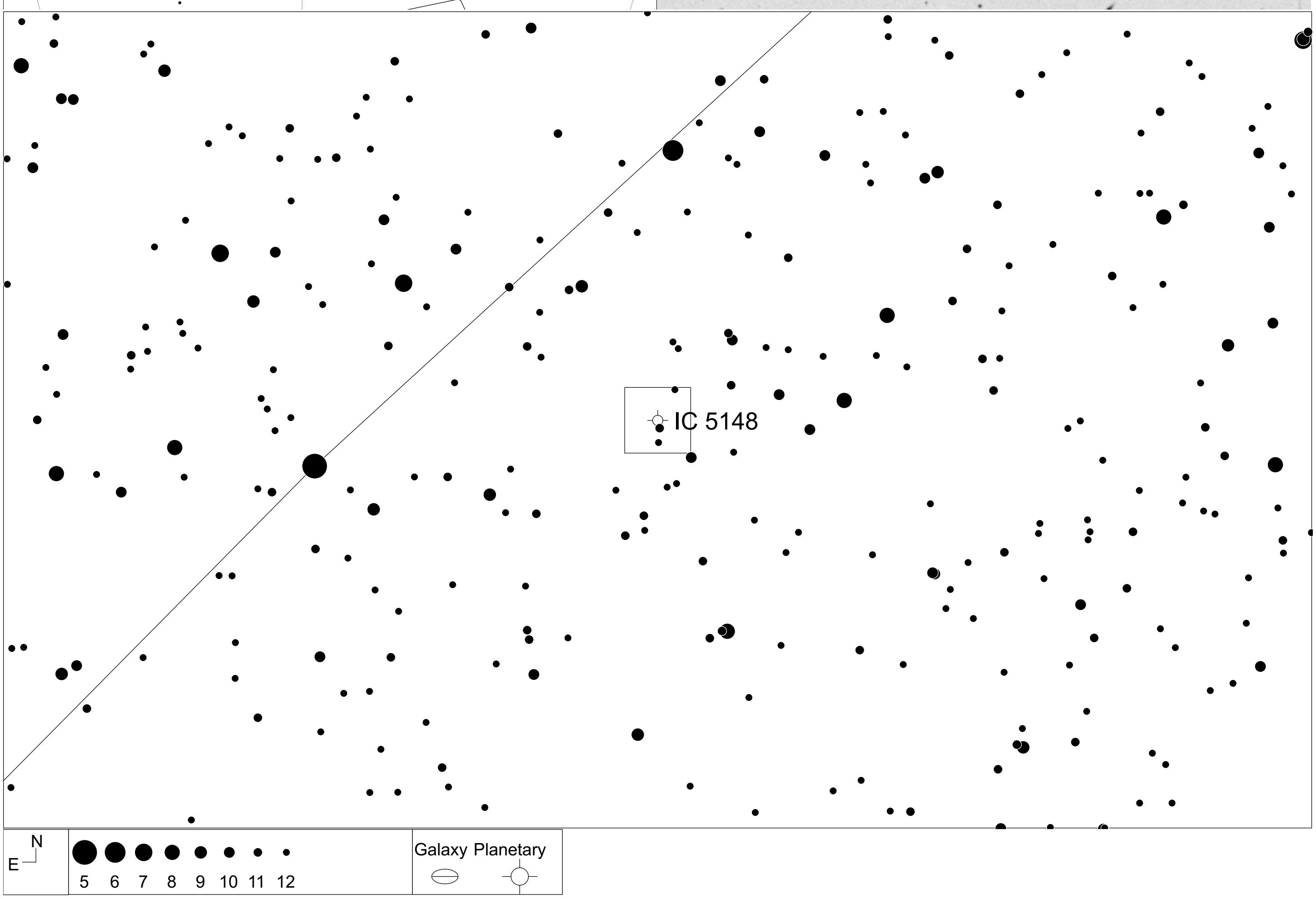


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 358-21.1	-	19 17 23.5	-39 36 48	10.7v	14.2	20”

IC 5148/50 – Spare Tyre (Grus)

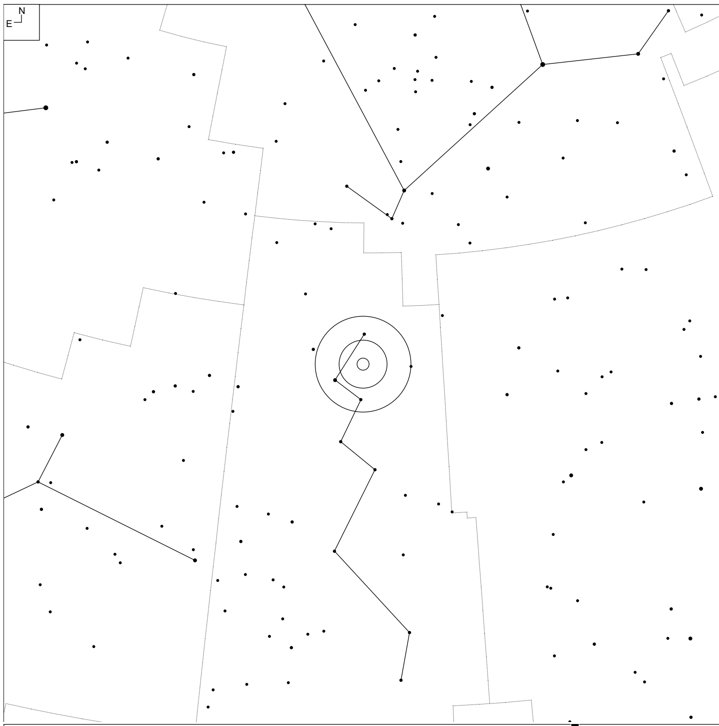


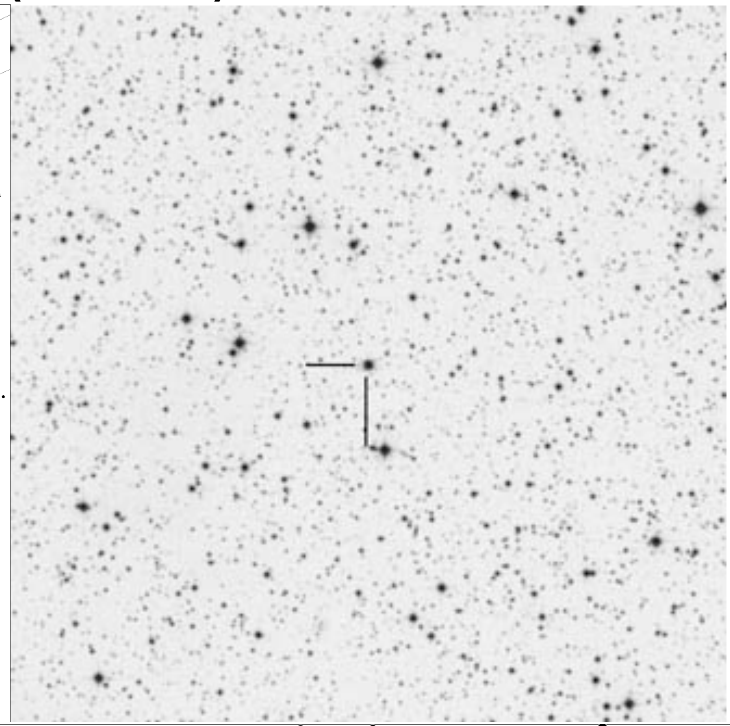


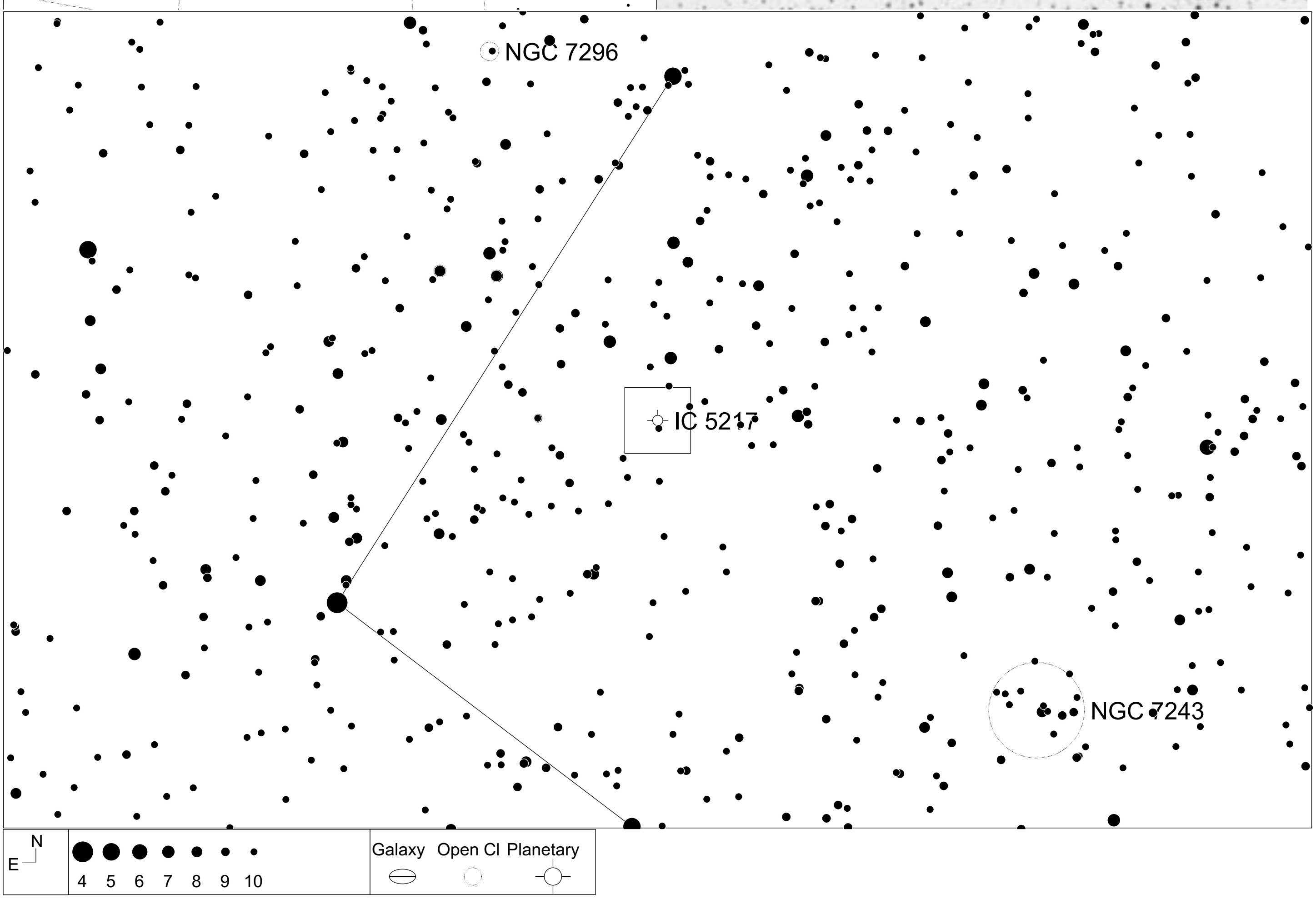


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 2-52.1	4	21 59 35.2	-39 23 09	12.9p	16.5	2.2’

IC 5217 (Lacerta)

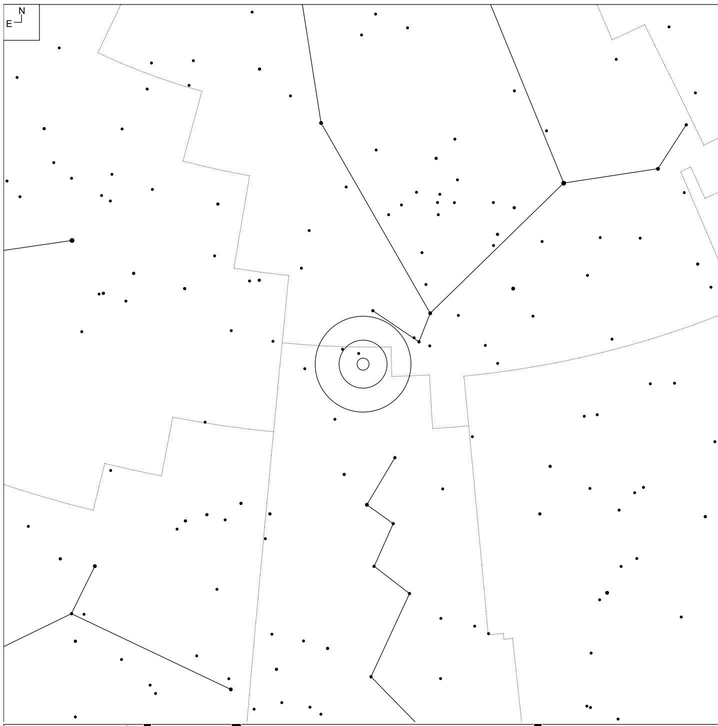


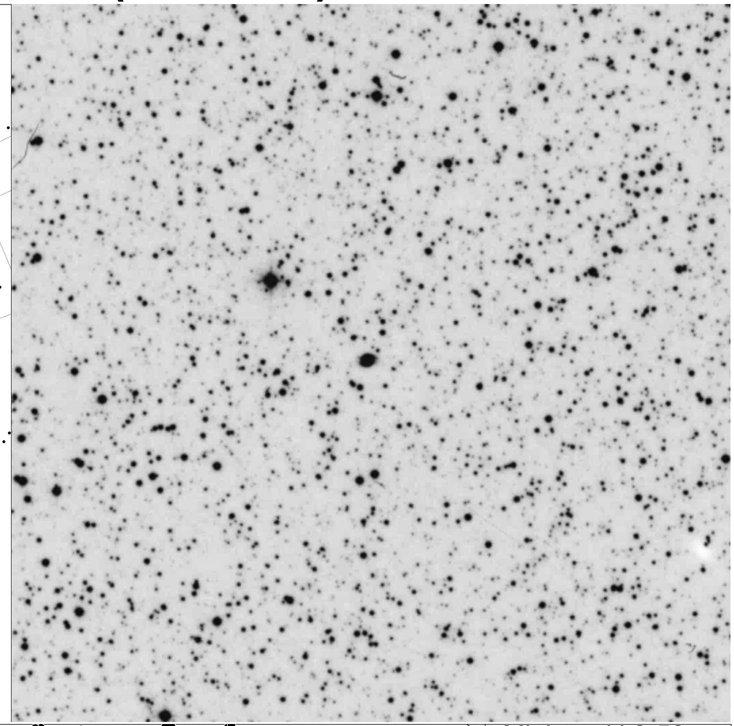


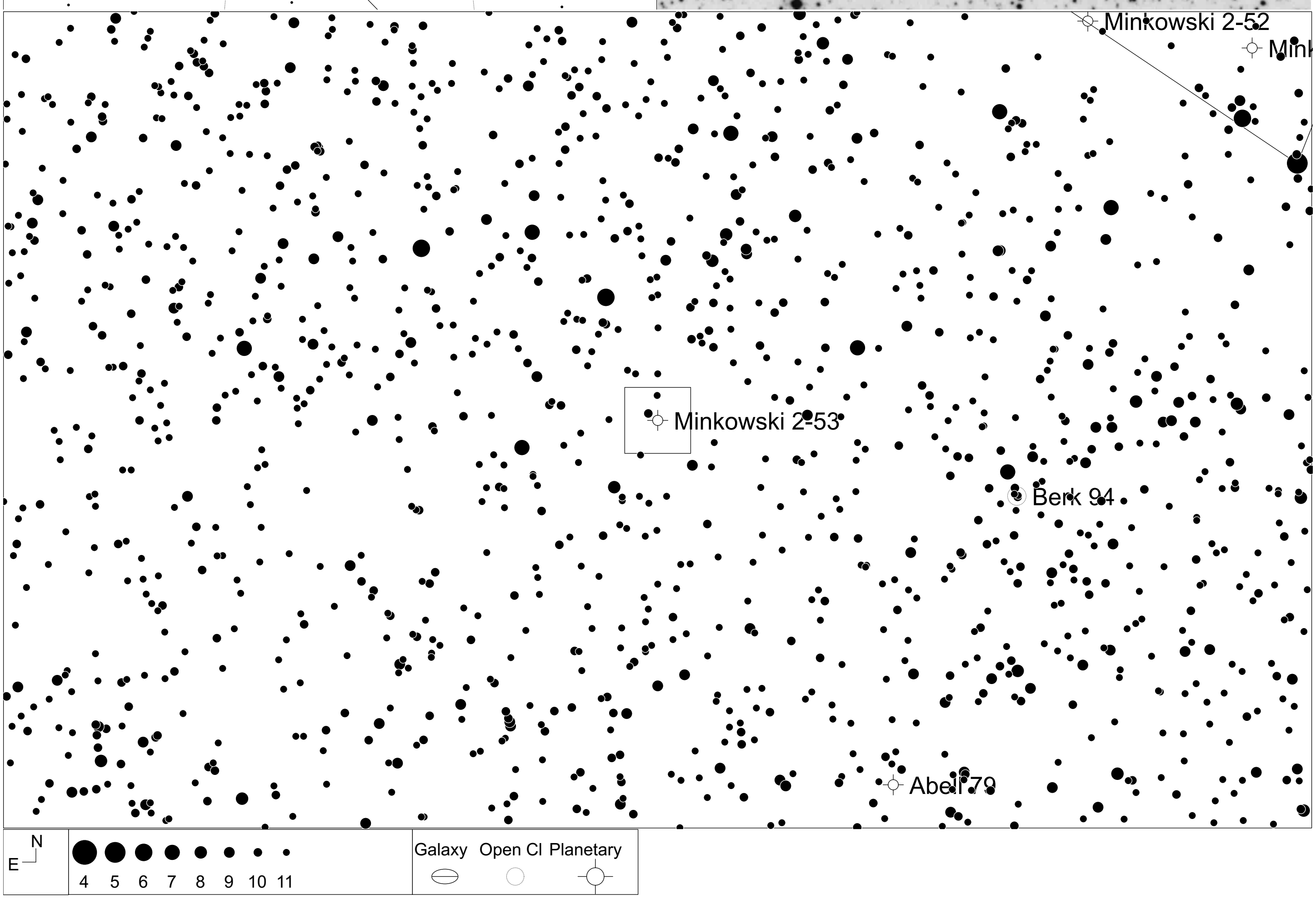


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 100-5.1	2	22 23 55.7	+50 58 00	11.3v	15.4	7”

Minkowski 2-53 (Lacerta)

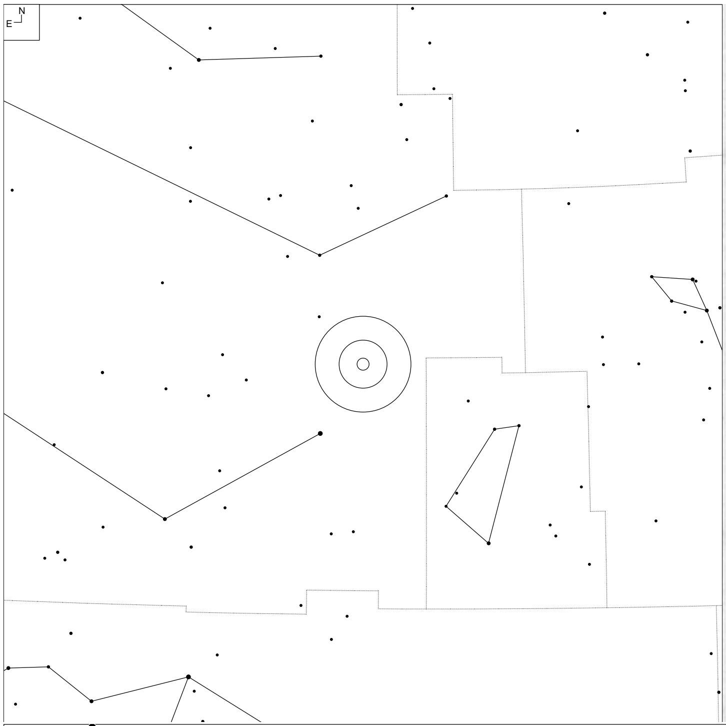


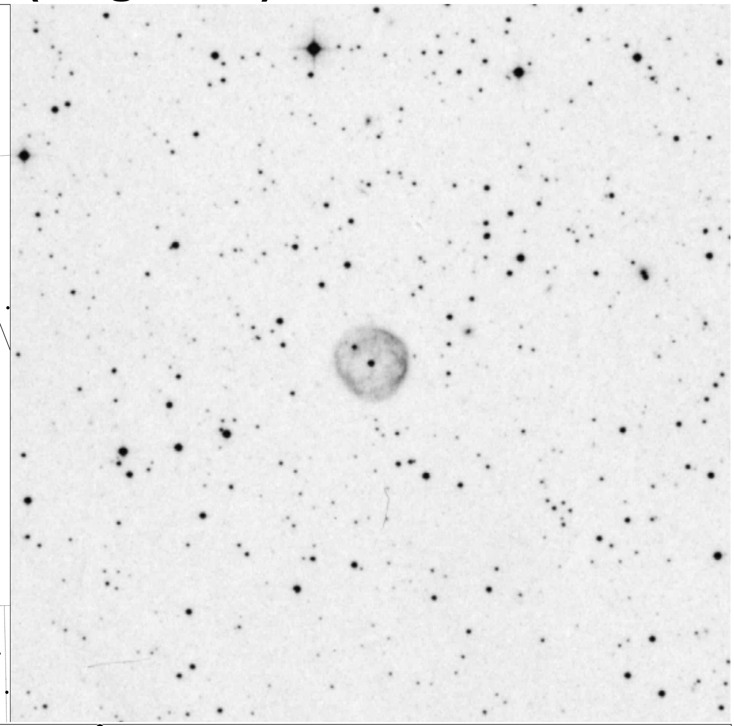


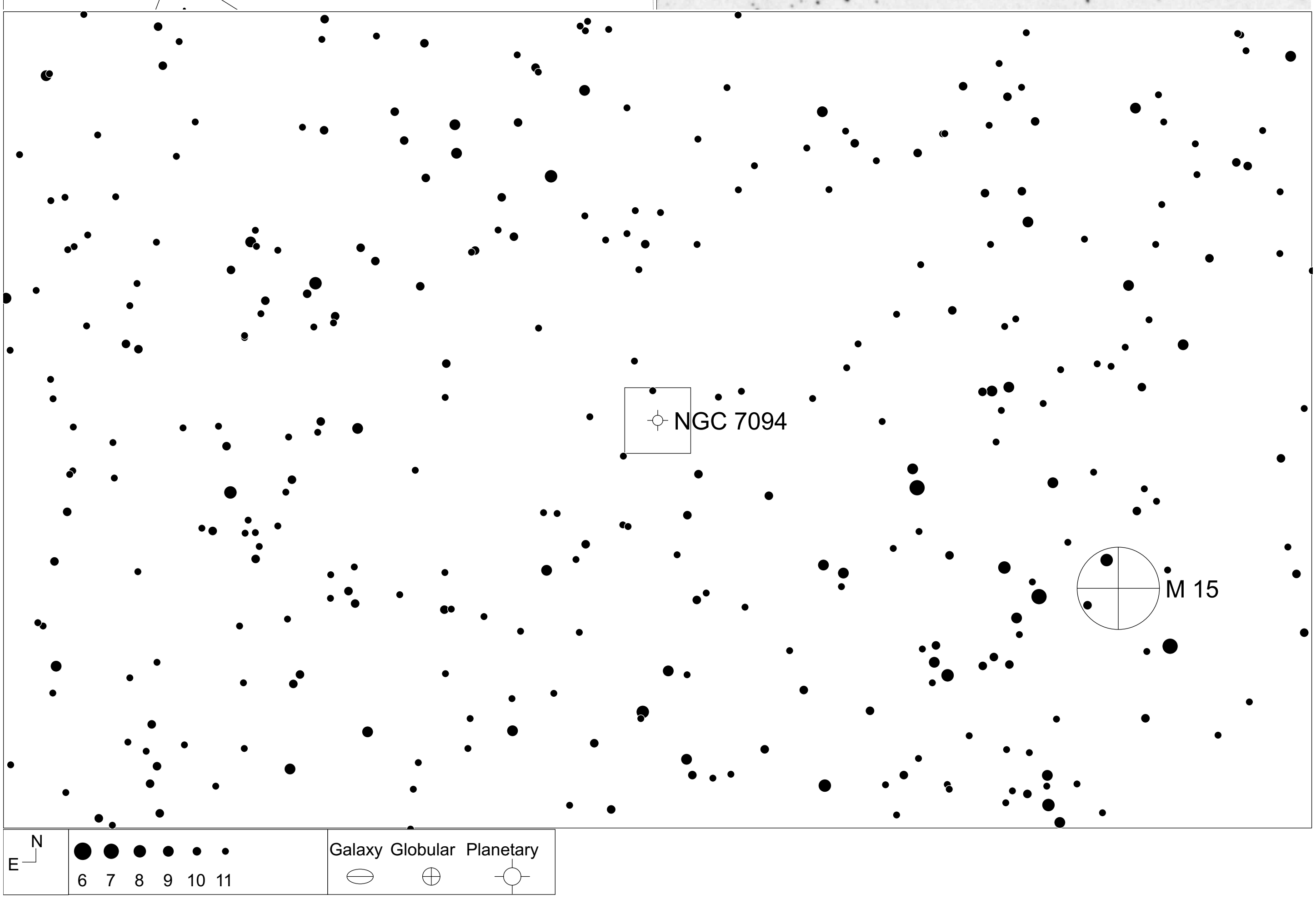


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 104-1.1	3b	22 32 17.6	+56 10 26	14.8v	21.2	23 x 17”

NGC 7094 (Pegasus)

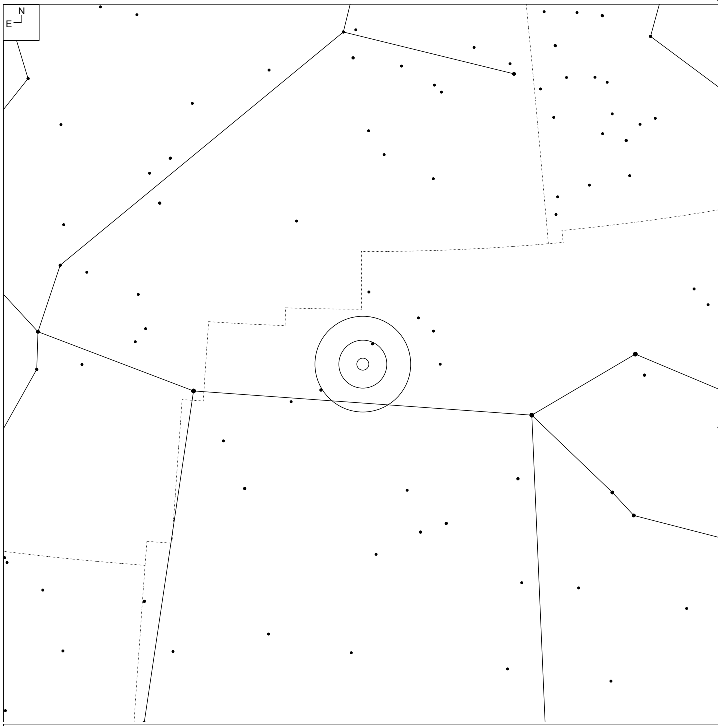


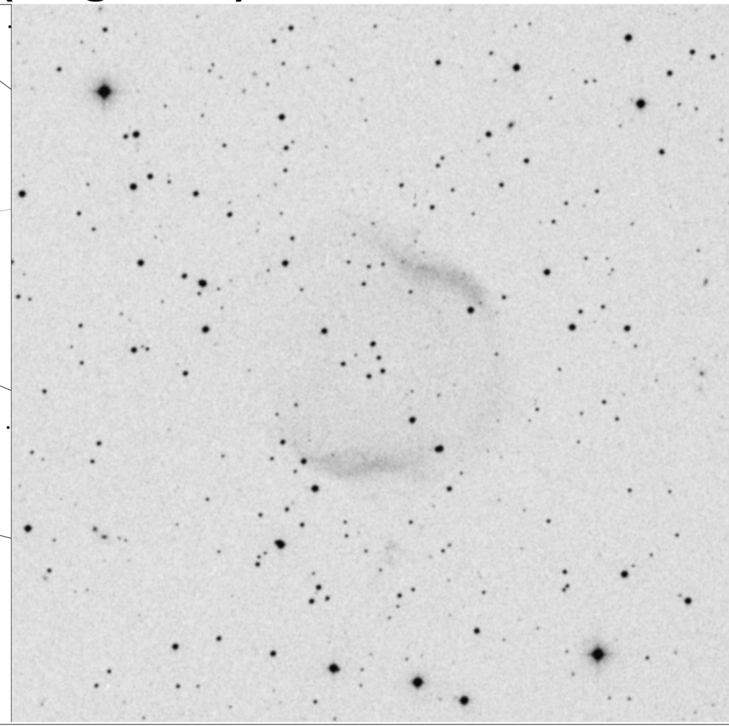


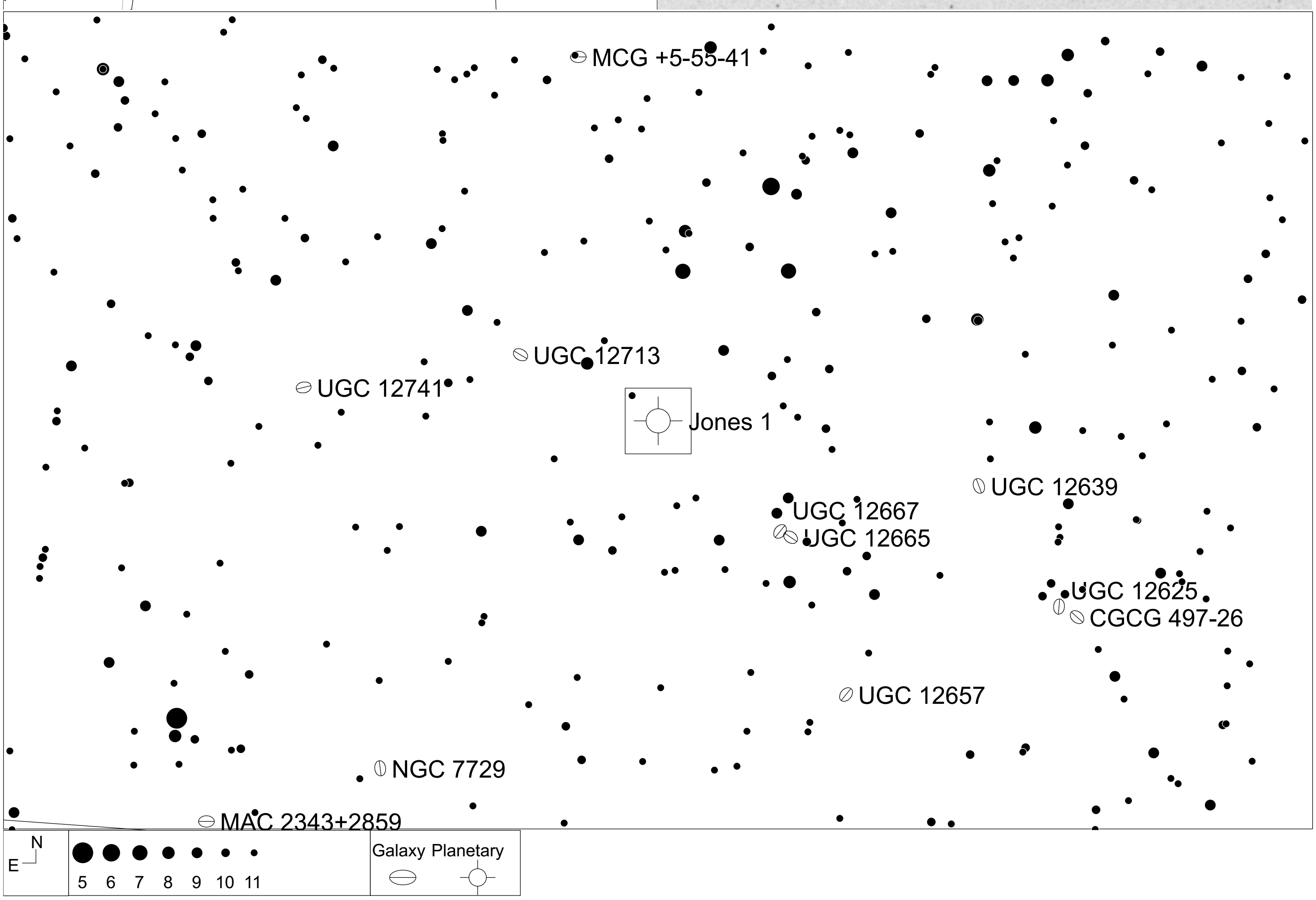


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 66-28.1	4	21 36 53.0	+12 47 19	13.4v	13.6	94”

Jones 1 (Pegasus)

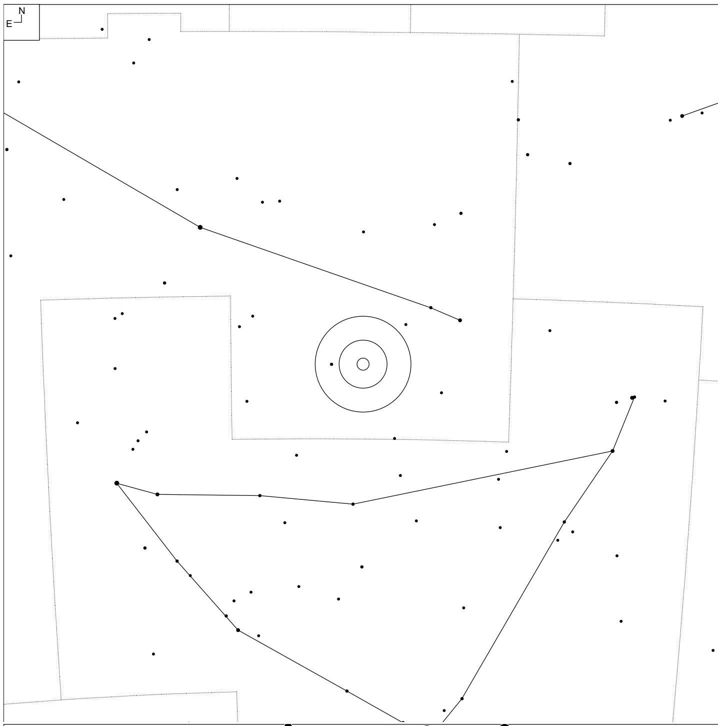


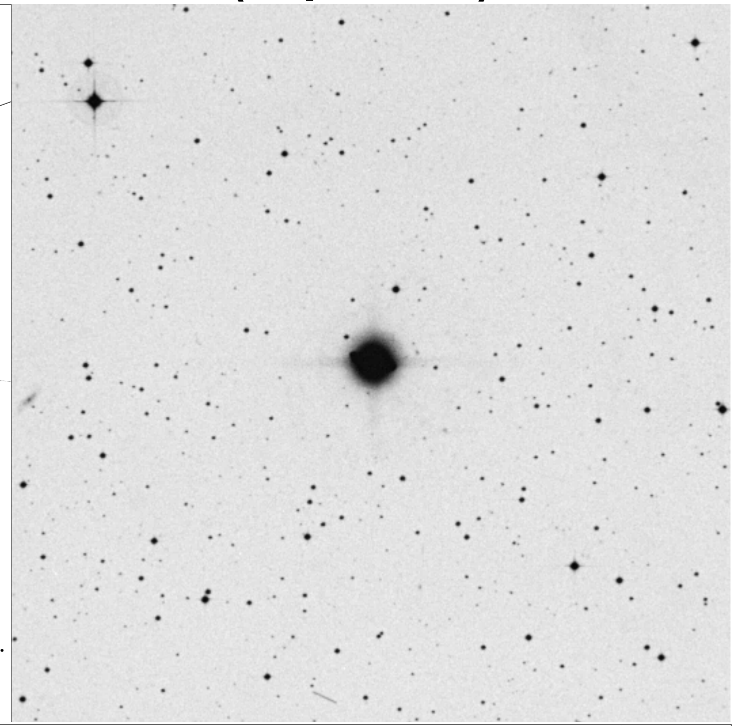


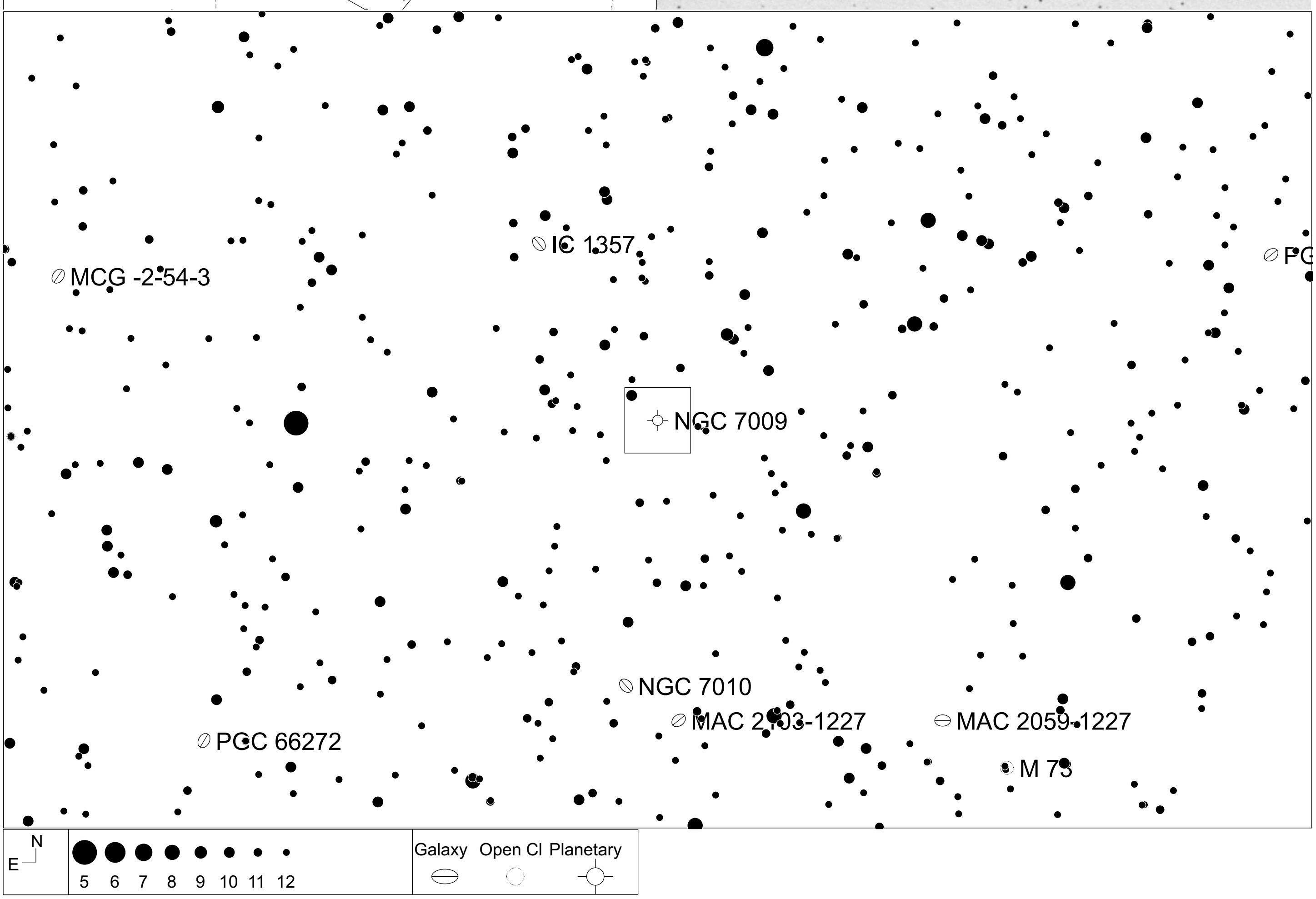


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 104-29.1	3b	23 35 53.6	+30 28 02	12.1v	16.1	5.3’

NGC 7009 – Saturn Nebula (Aquarius)

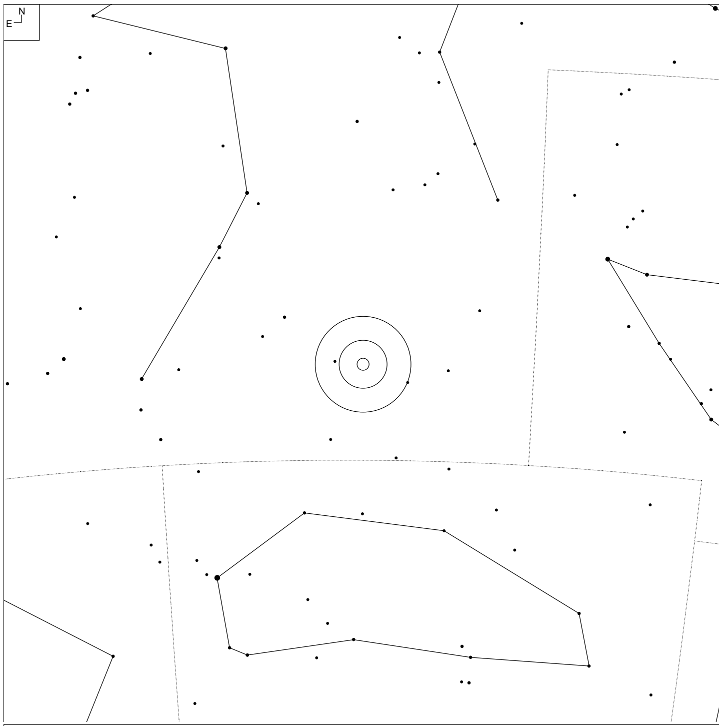


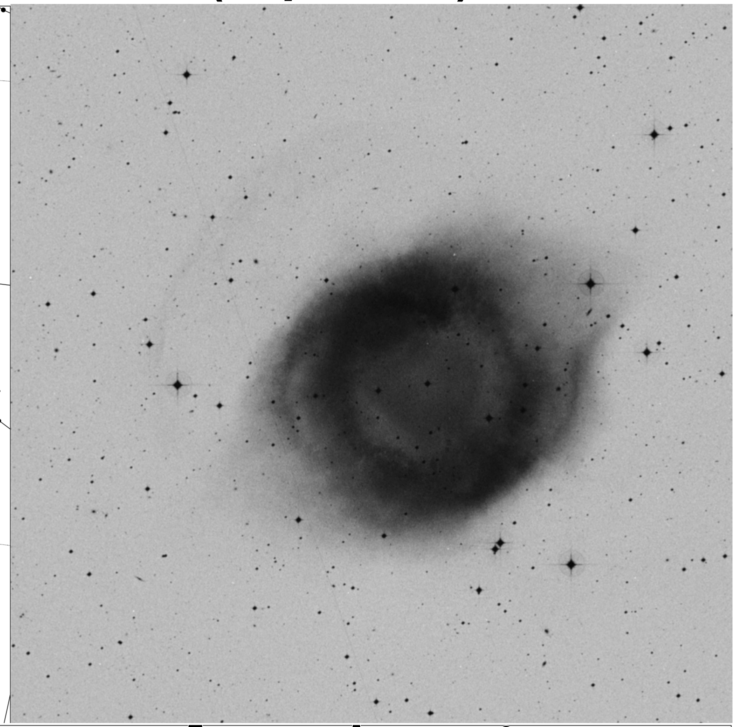


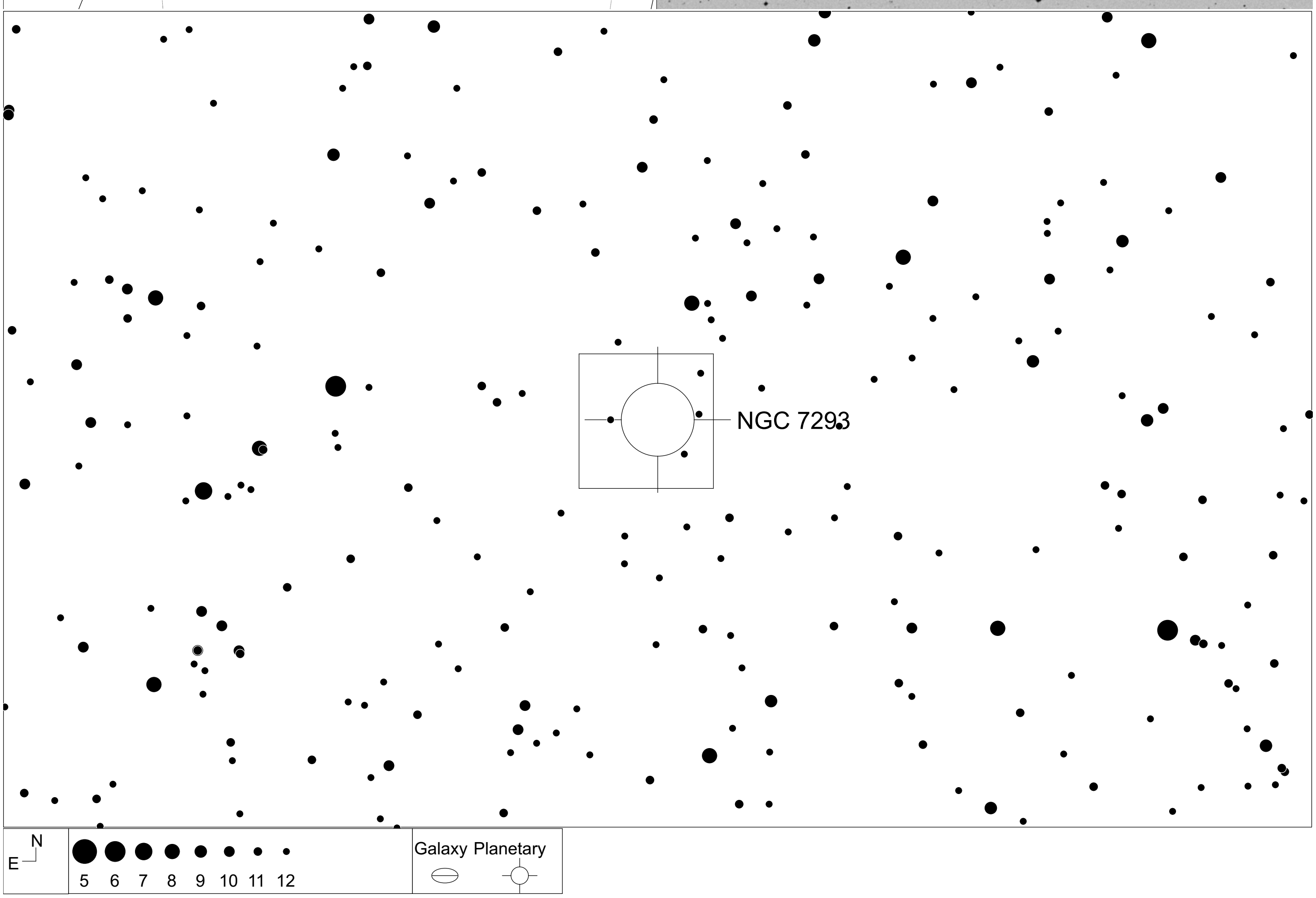


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 37-34.1	4+6	21 04 10.9	-11 21 49	8.0v	12.7	70”

NGC 7293 – Helix Nebula (Aquarius)

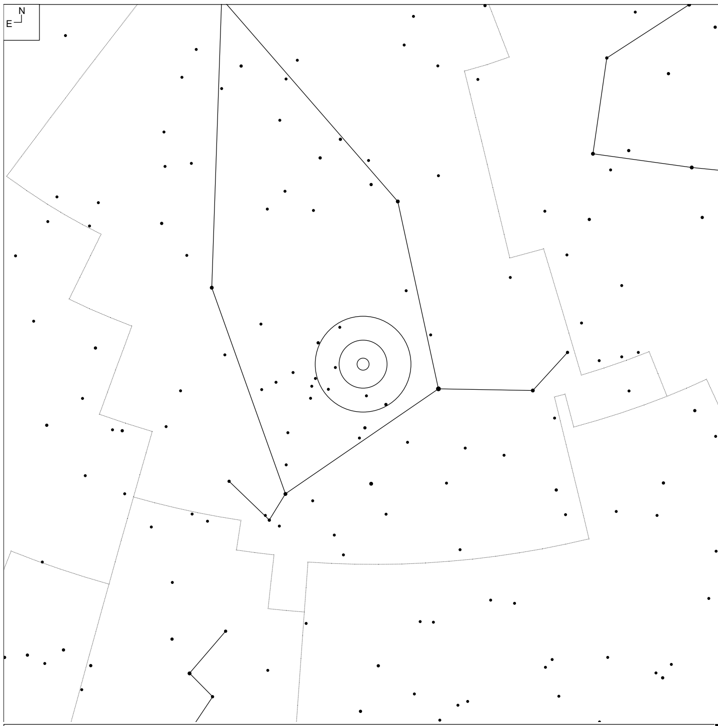


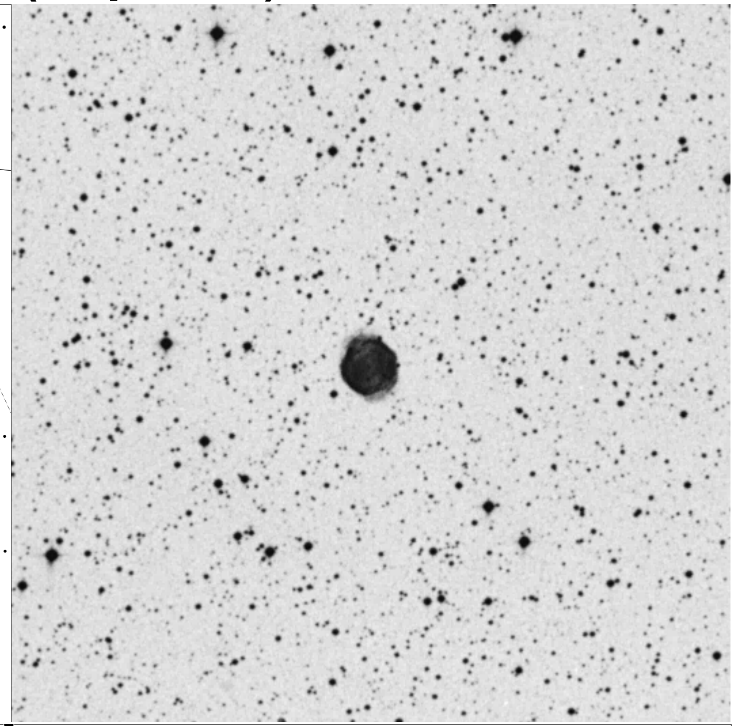


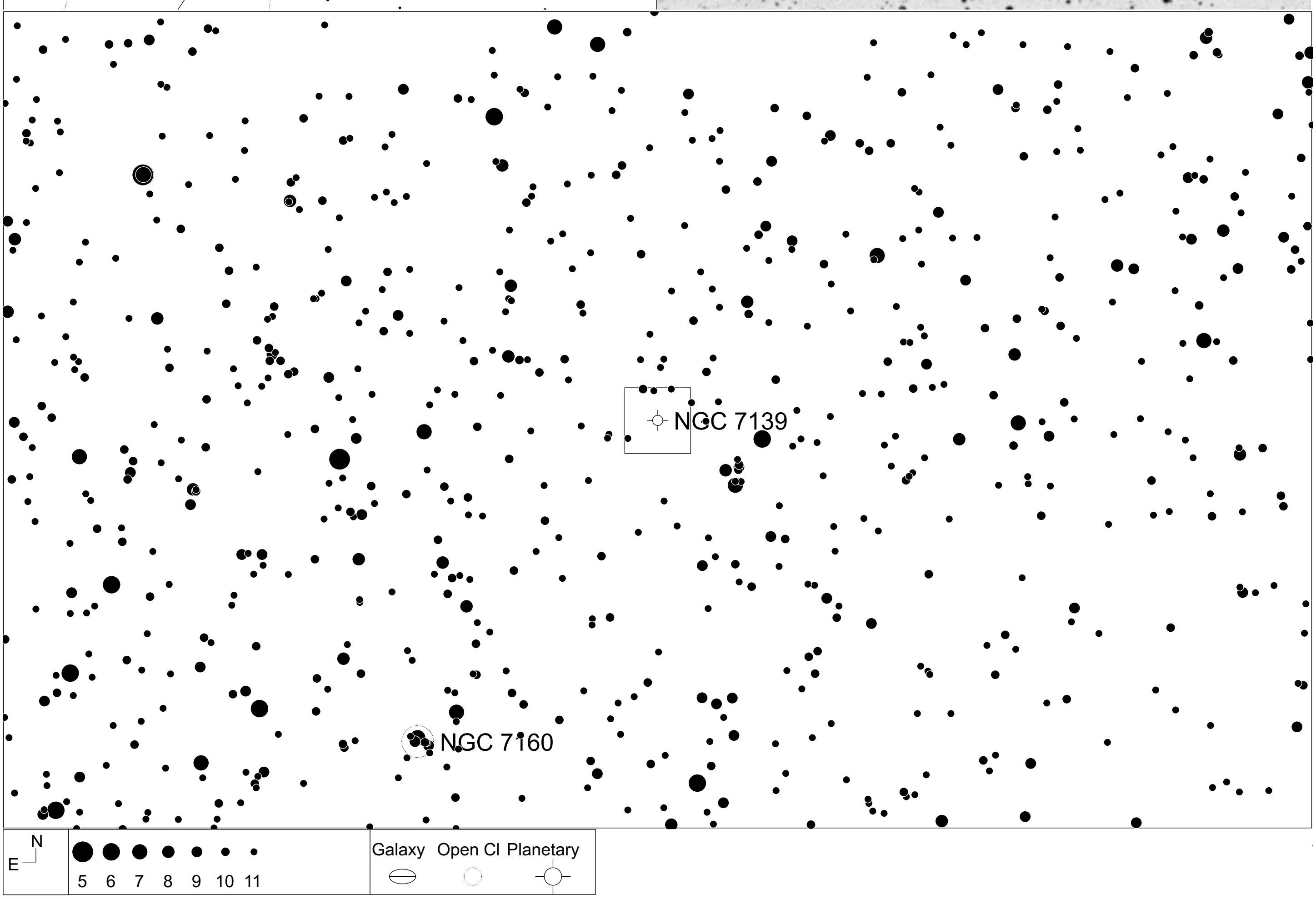


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 36-57.1	4+3	22 29 38.4	-20 50 12	7.3v	13.5	16’

NGC 7139 (Cepheus)

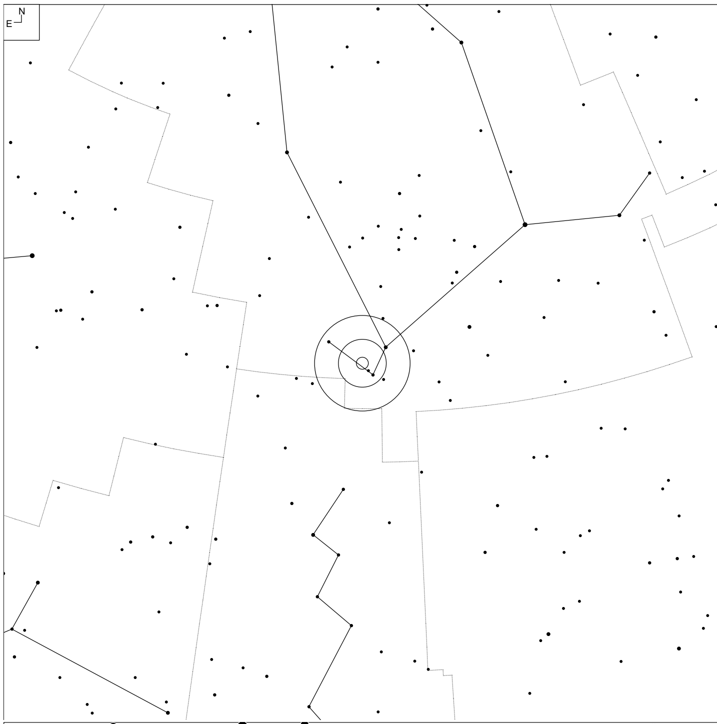


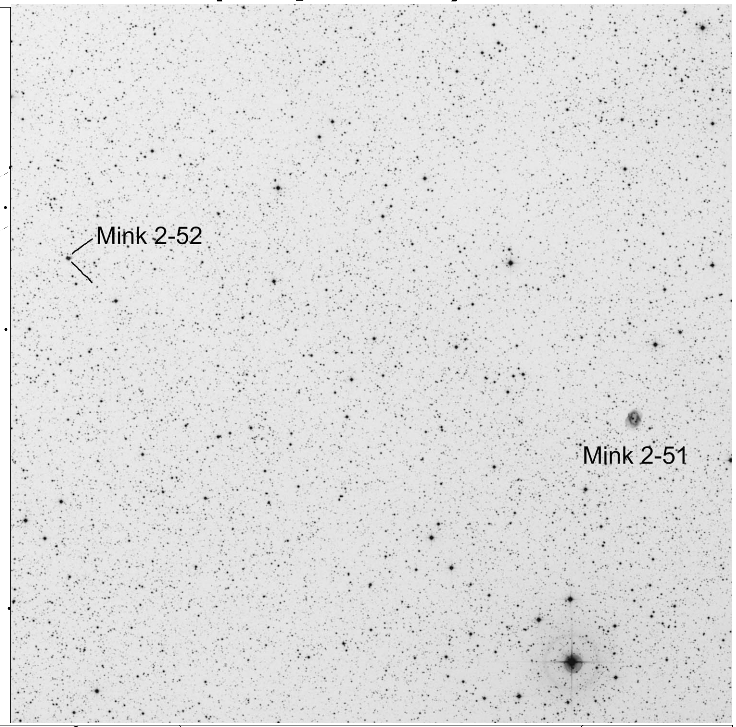


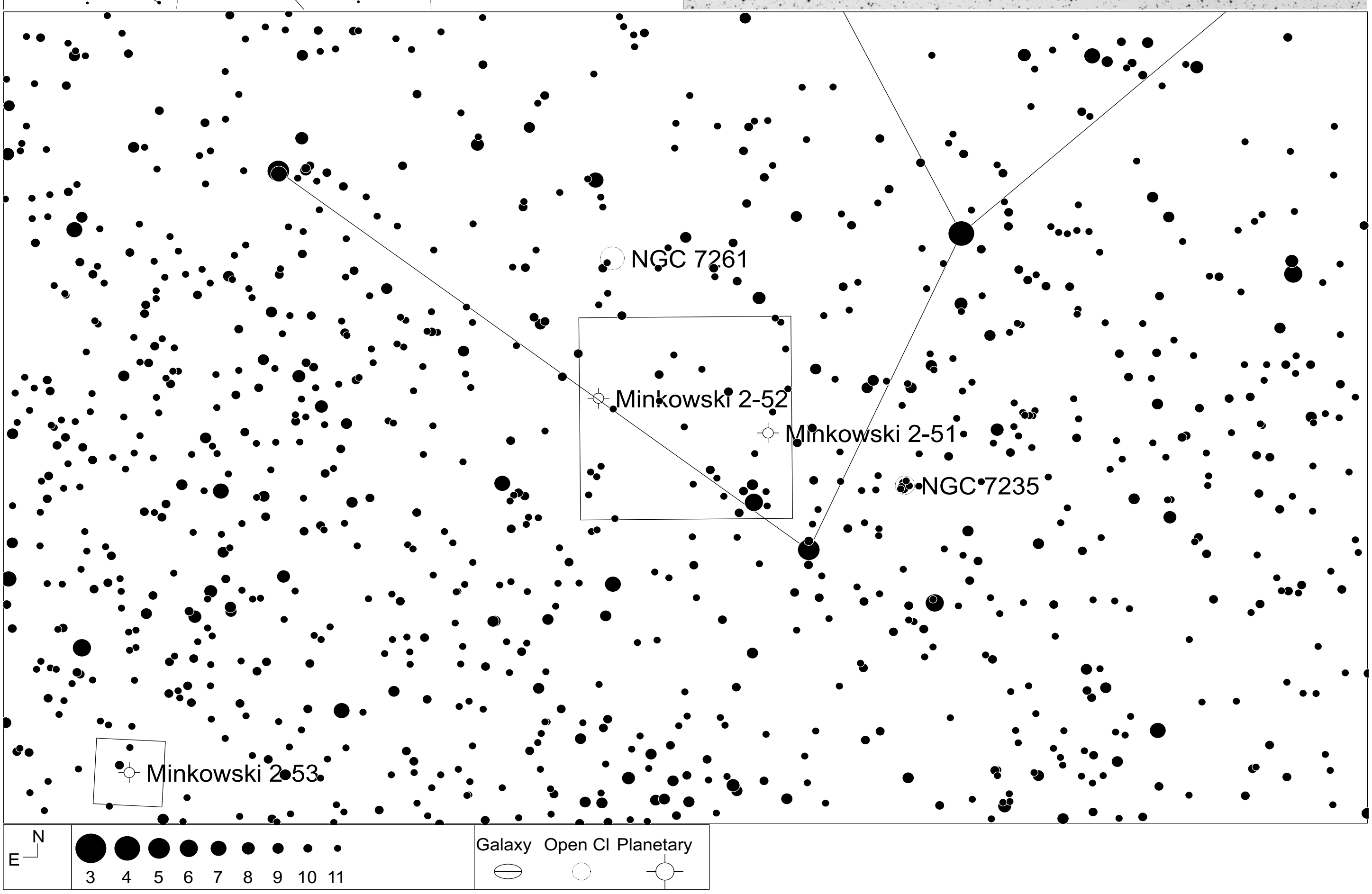


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 104+7.1	3b	21 46 08.6	+63 47 31	13.3v	18.1	77”

Minkowski 2-51 and 2-52 (Cepheus)

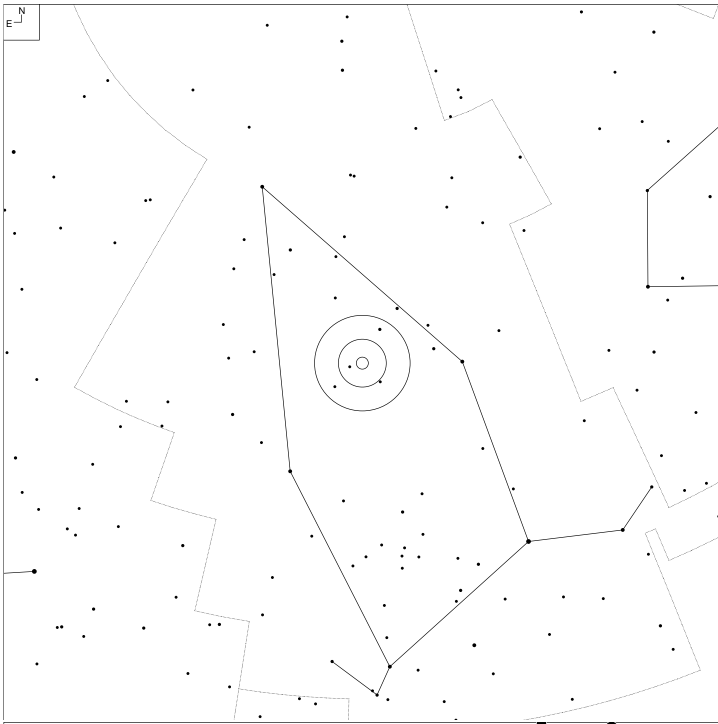


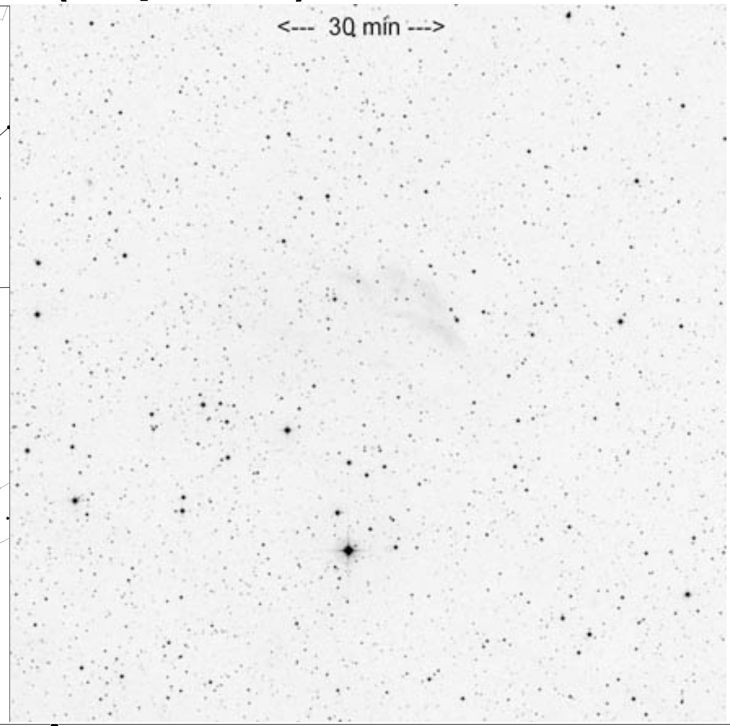


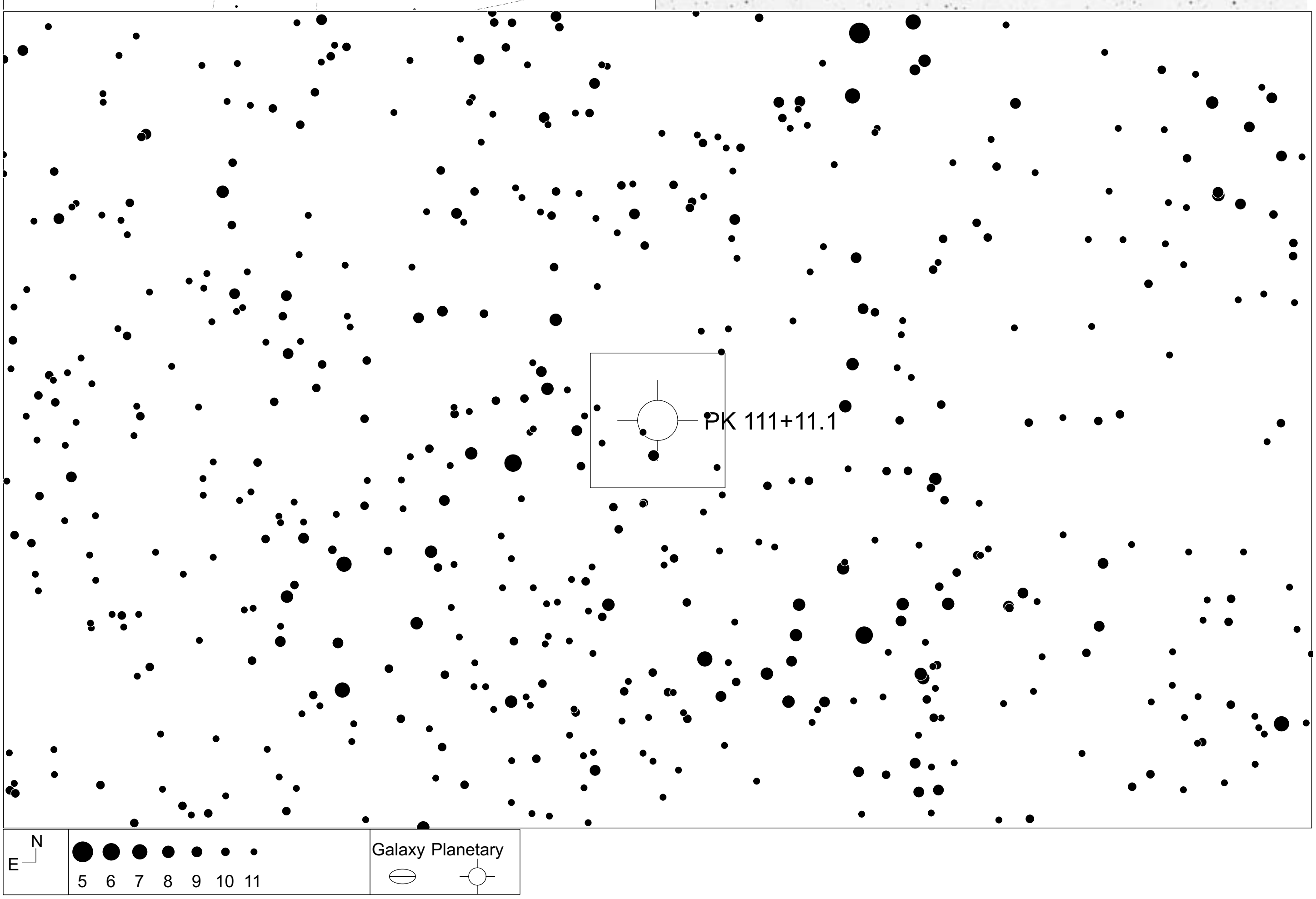


Other ID	Type	RA	Dec	Mag	* Mag	Size
Mink 2-51	2+3	22 16 03.8	+57 28 33	13.5v	20.4	72”
Mink 2-52	3	22 20 30.9	+57 36 18	15.3v	-	14”

PK 111+11.1 (Cepheus)

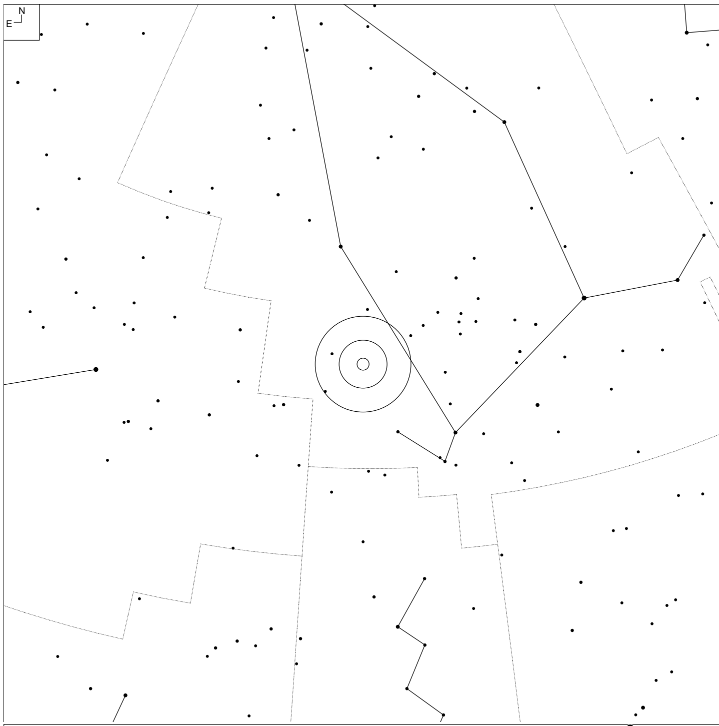


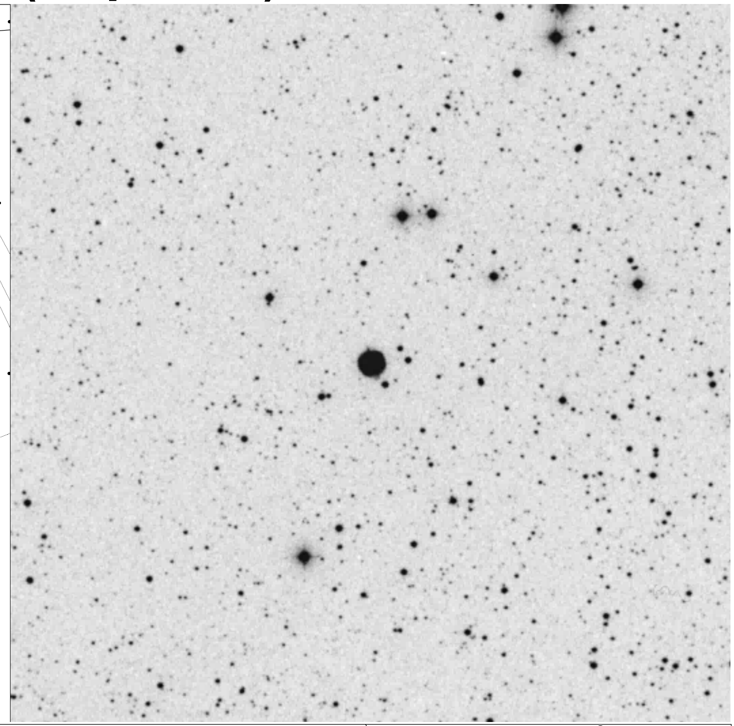


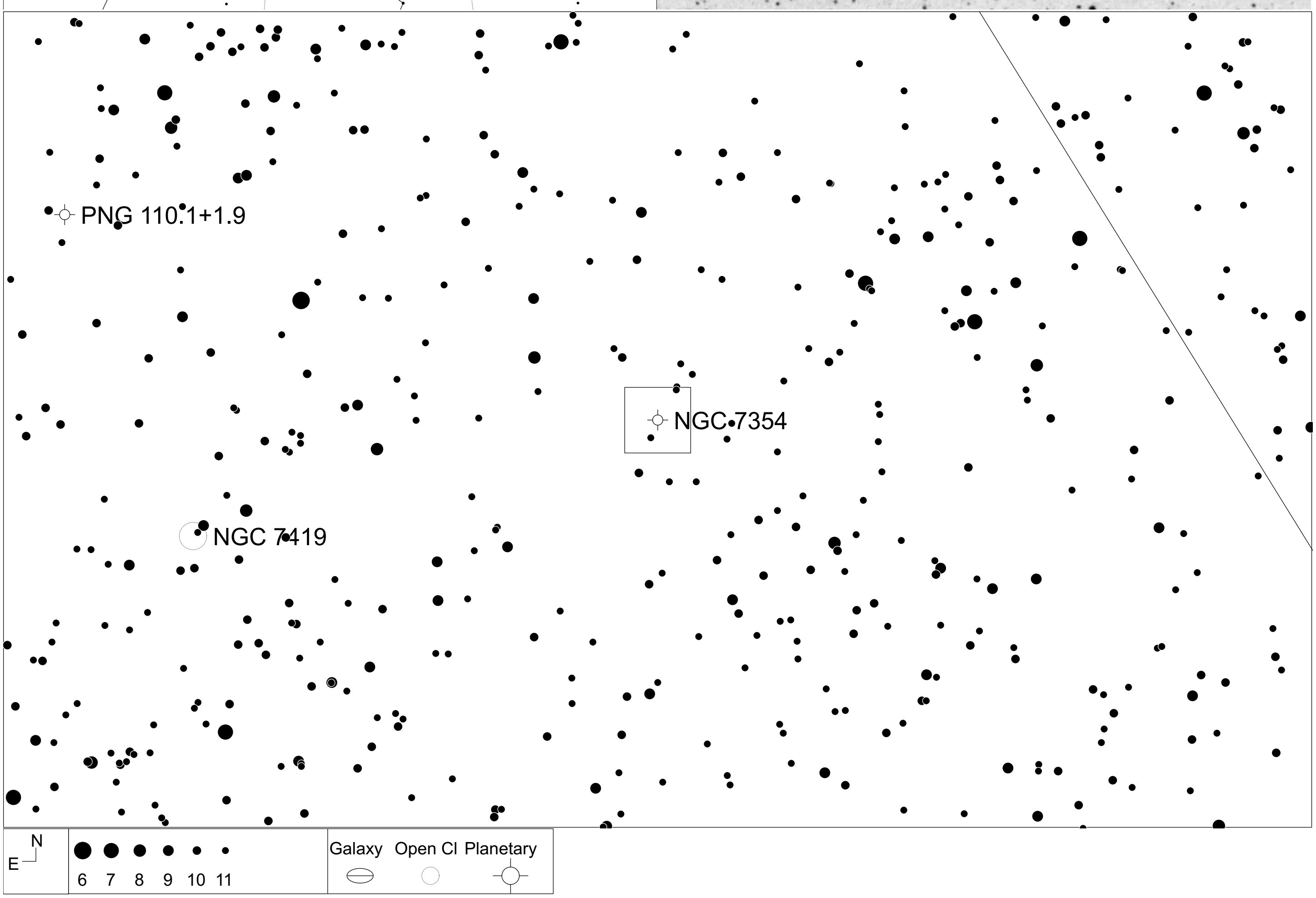


Other ID	Type	RA	Dec	Mag	* Mag	Size
-	-	22 19 33.9	+70 56 05	-	15.1	8.8’

NGC 7354 (Cepheus)

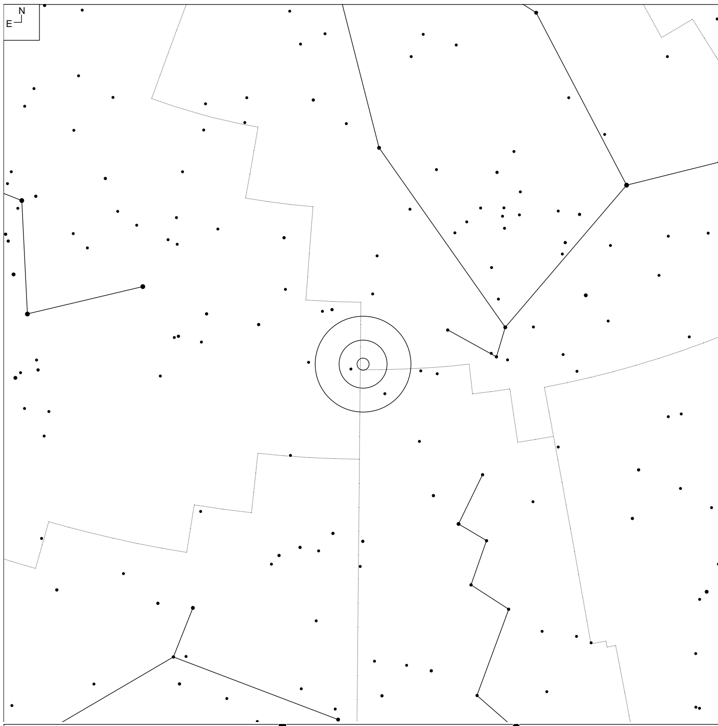


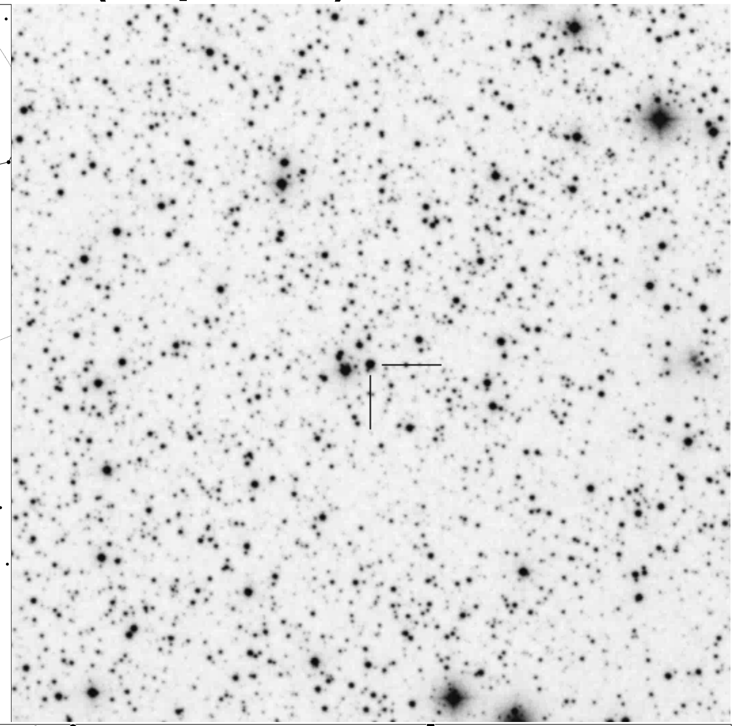


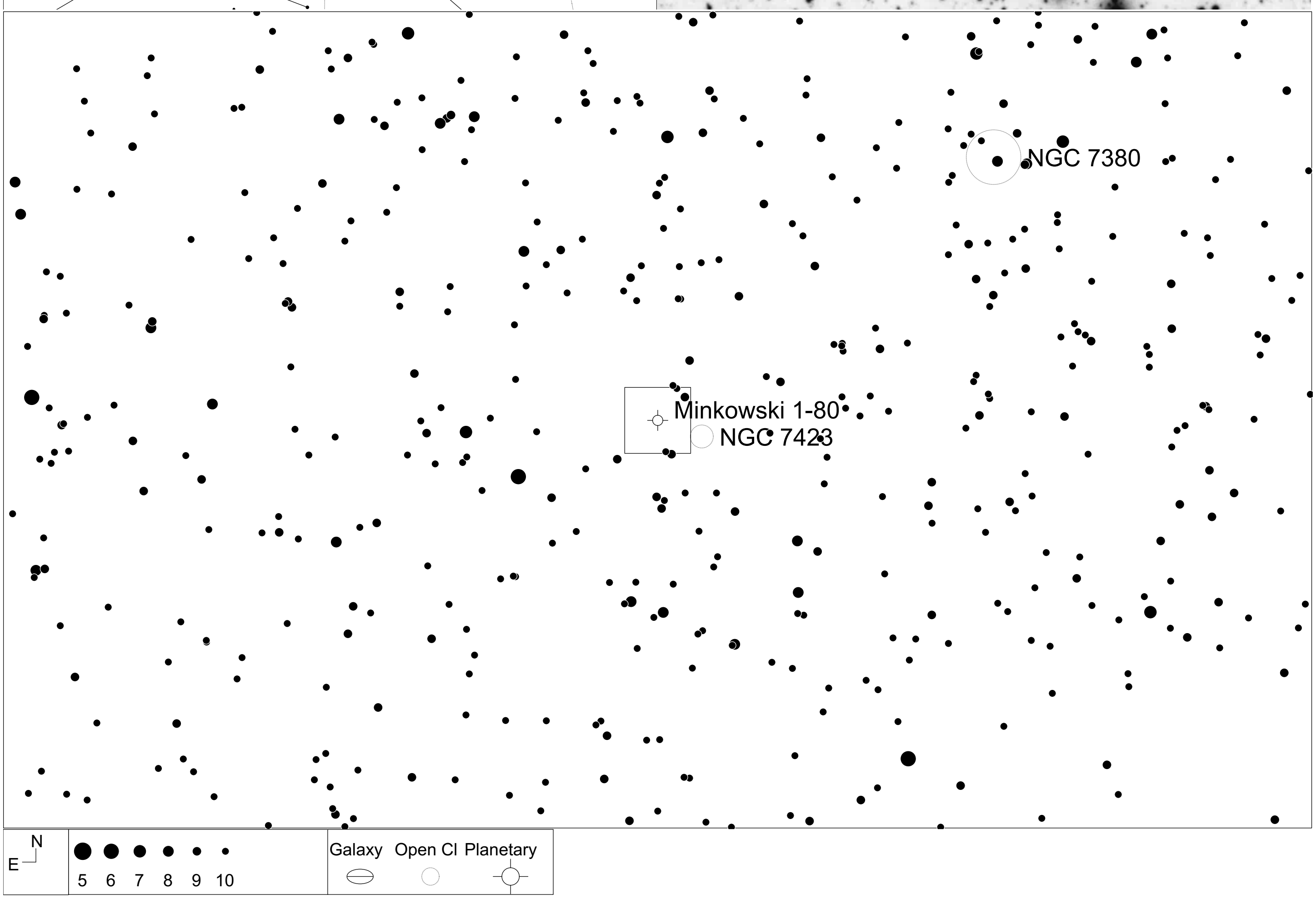


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 107+2.1	4+3b	22 40 20.1	+61 17 06	12.2v	16.1	36”

Minkowski 1-80 (Cepheus)

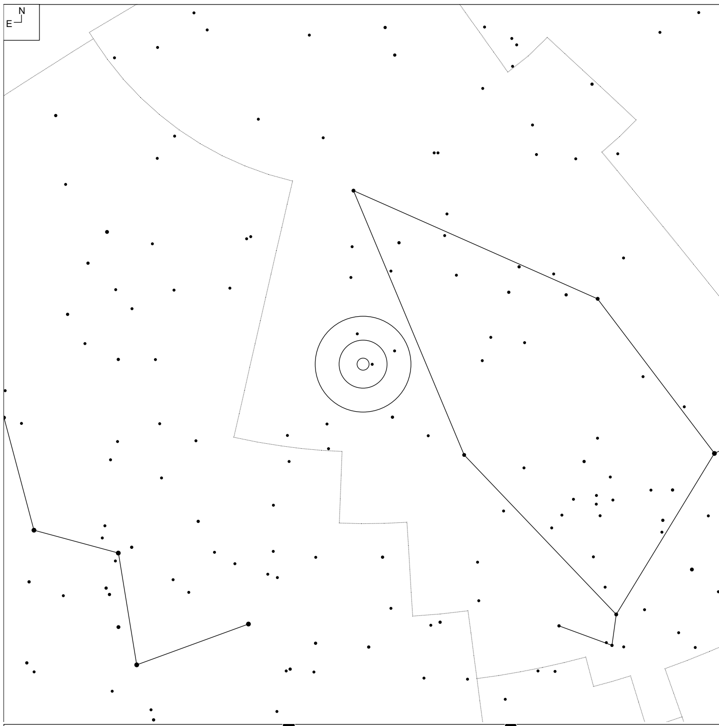


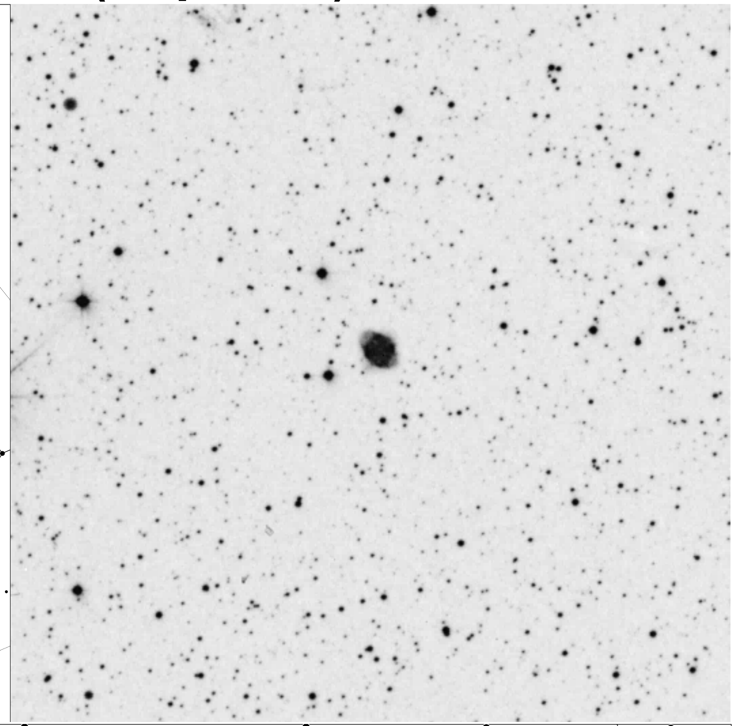


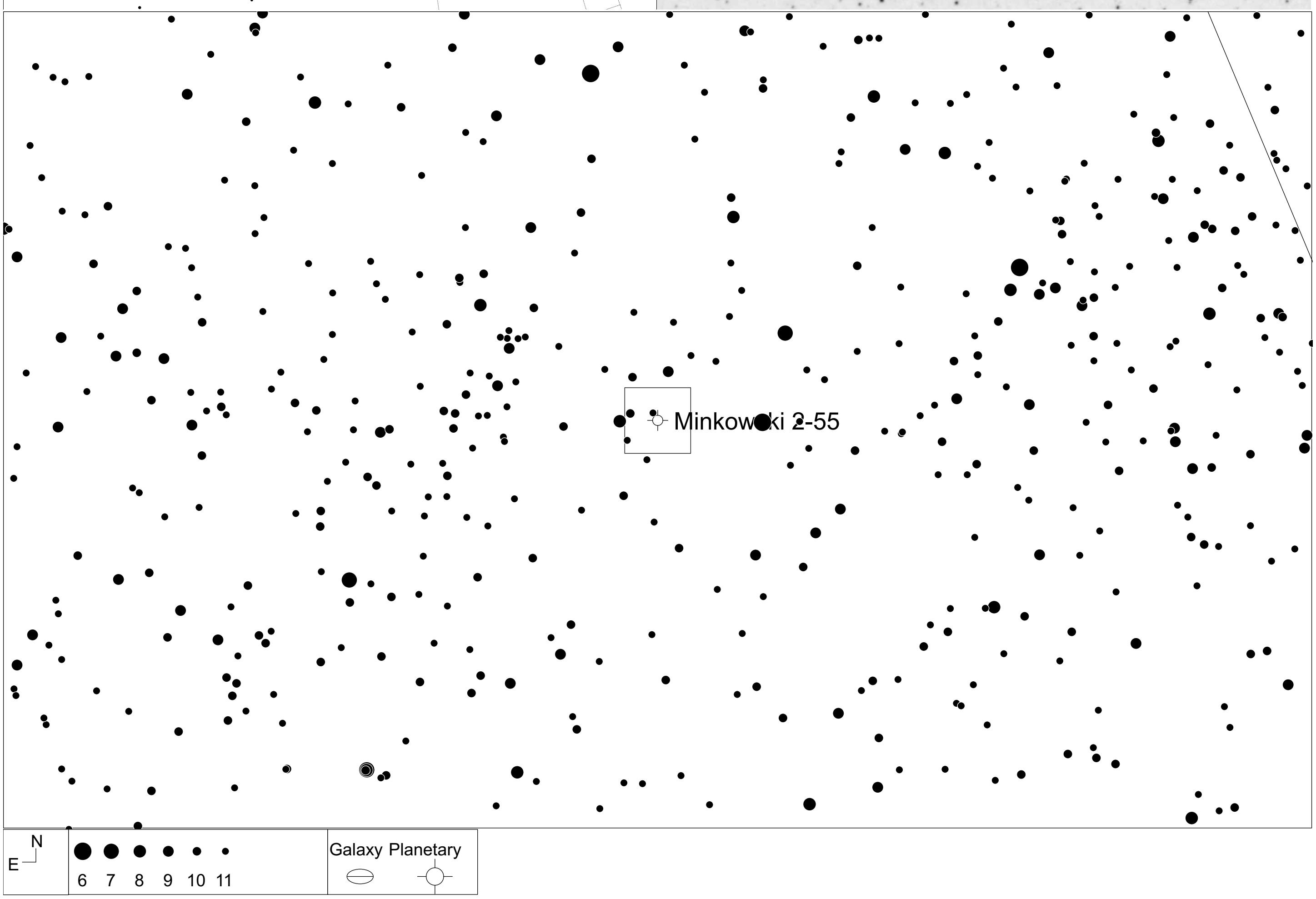


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 107-2.1	2	22 56 19.9	+57 09 20	14.0v	-	8”

Minkowski 2-55 (Cepheus)

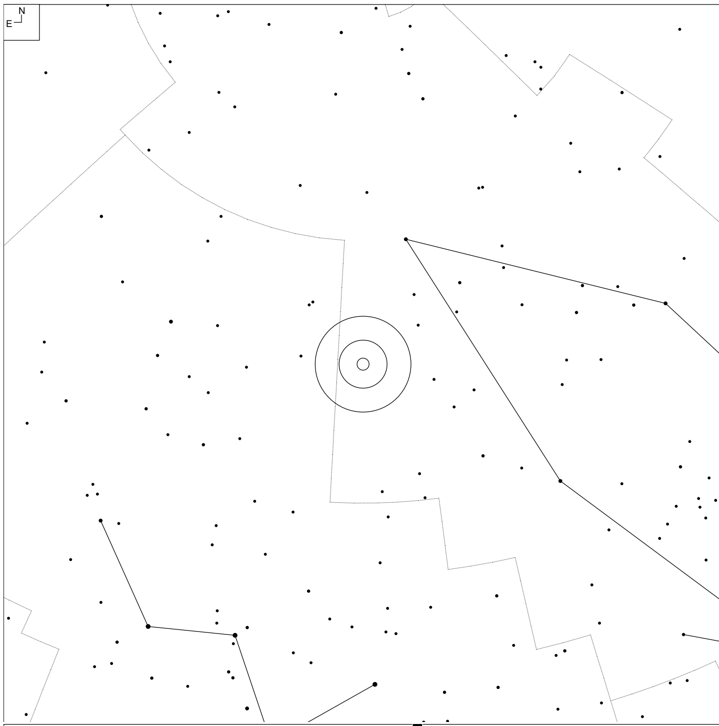


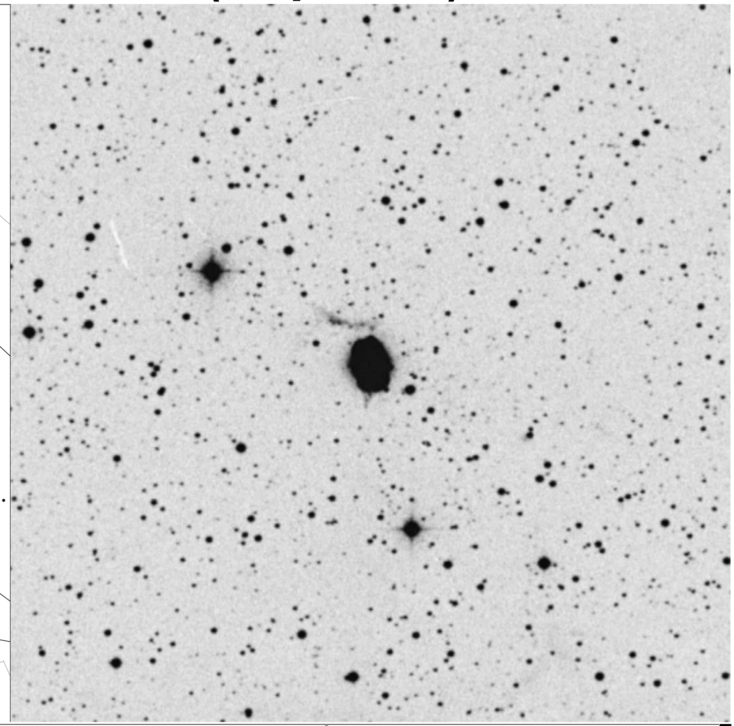


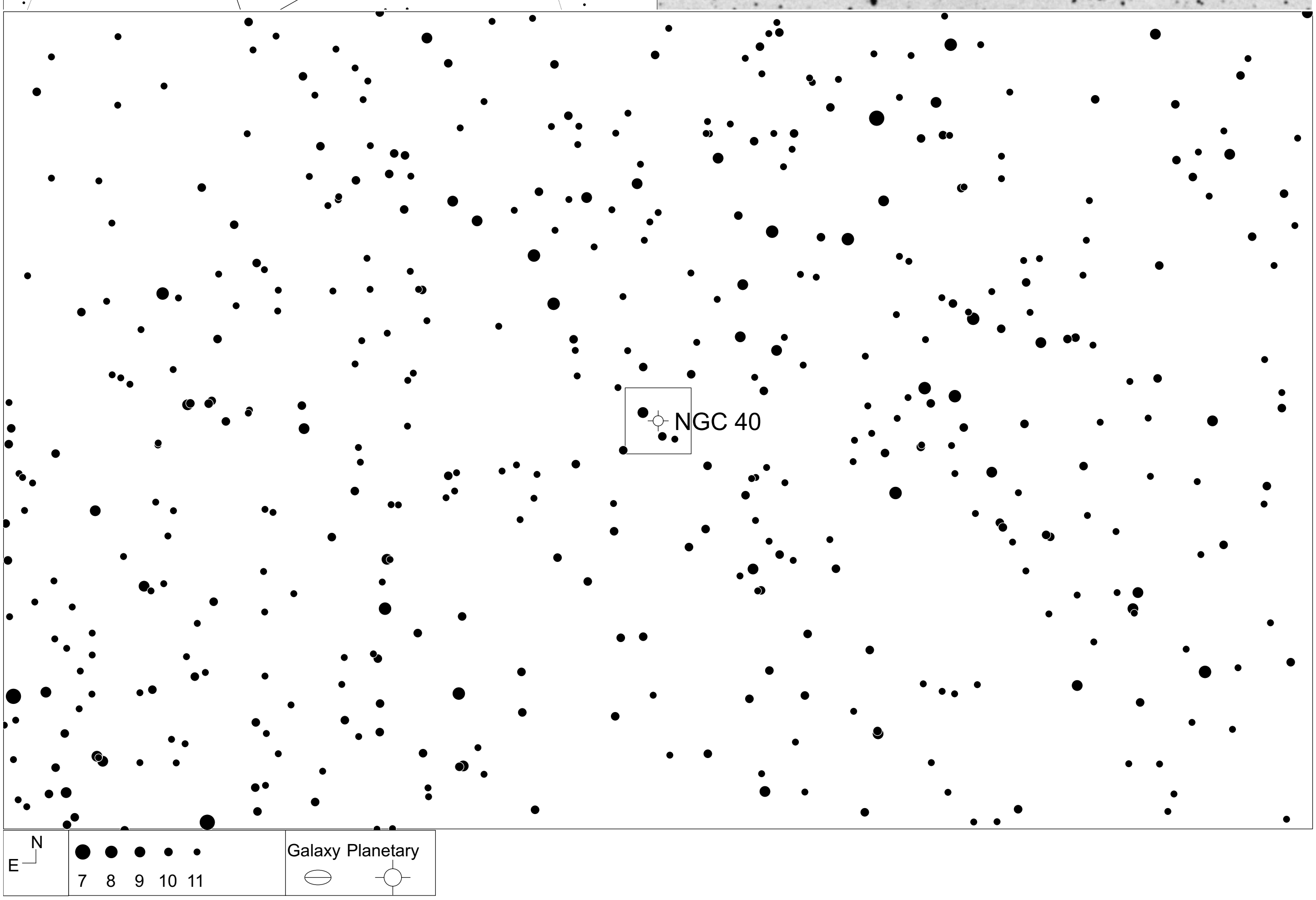


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 116+8.1	3	23 31 51.5	+70 22 16	14.2v	21.1	63 x 45”

NGC 40 – Bowtie Nebula (Cepheus)

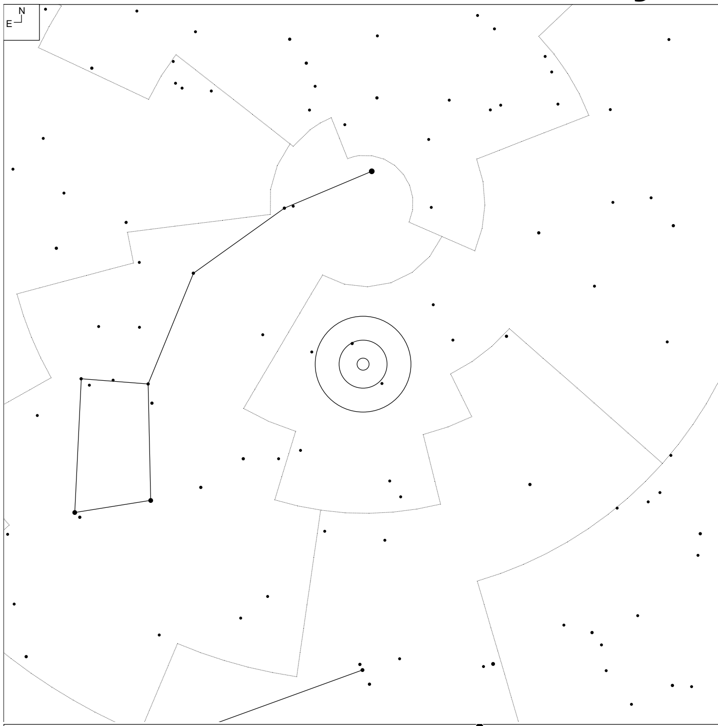


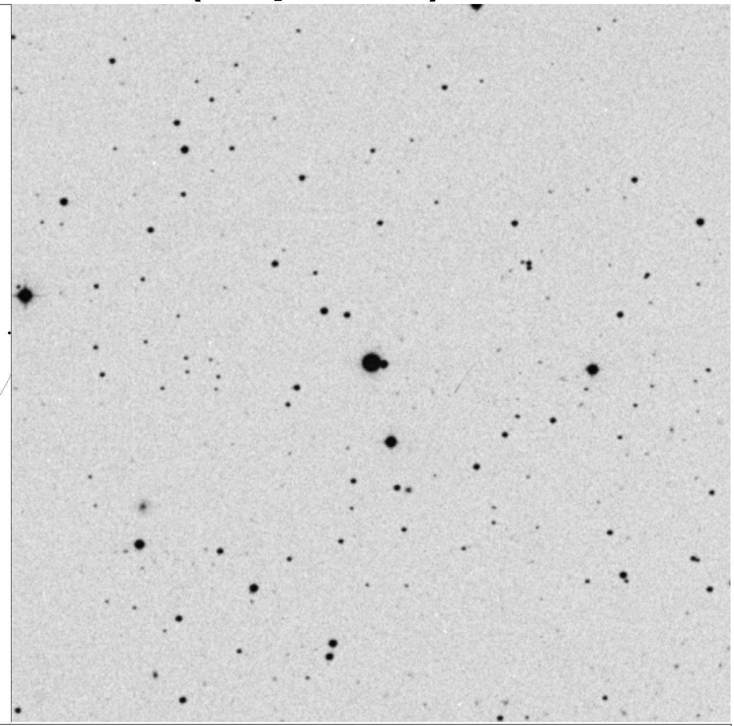


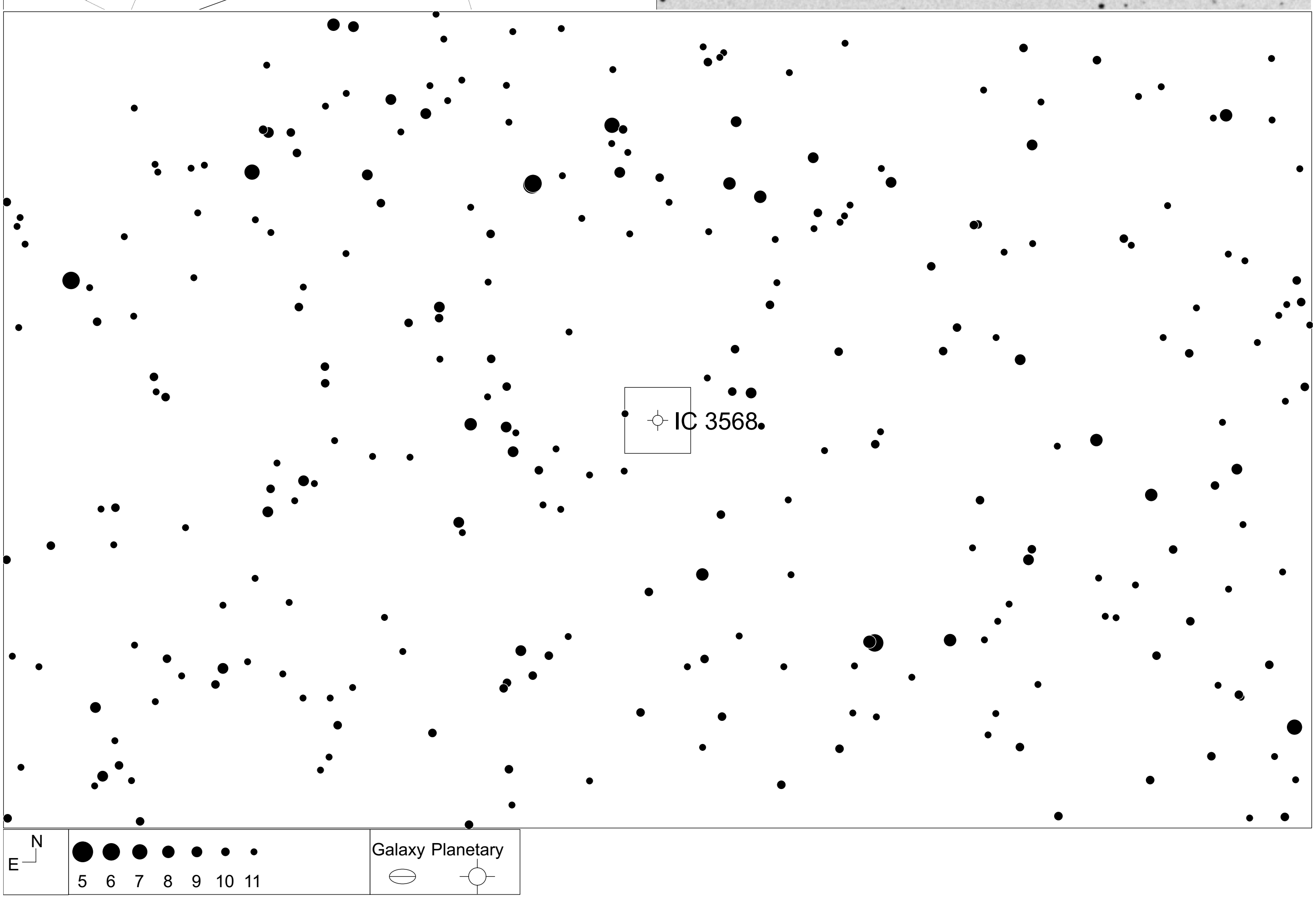


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 120+9.1	3b+3	00 13 00.9	+72 31 19	12.3v	11.5	70 x 60”

IC 3568 – Baby Eskimo (Cepheus)

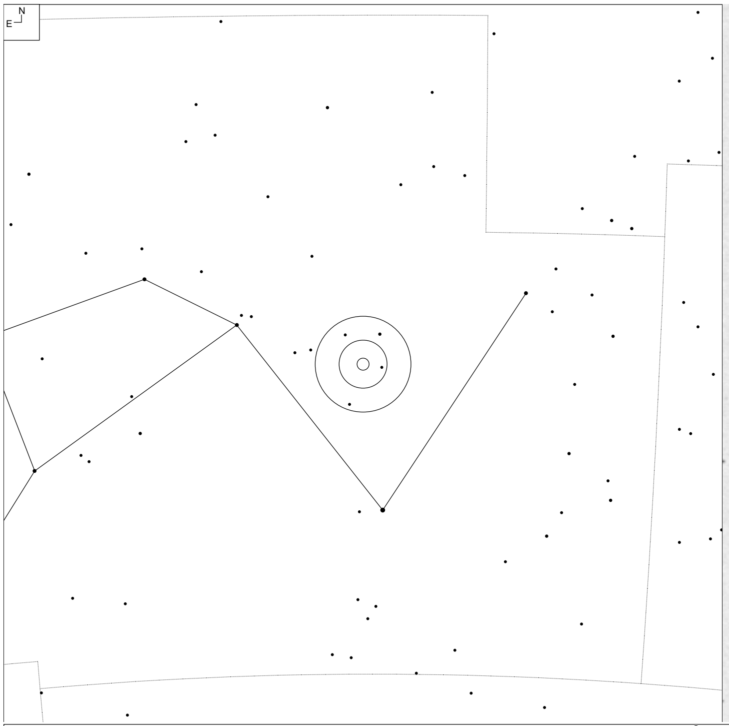


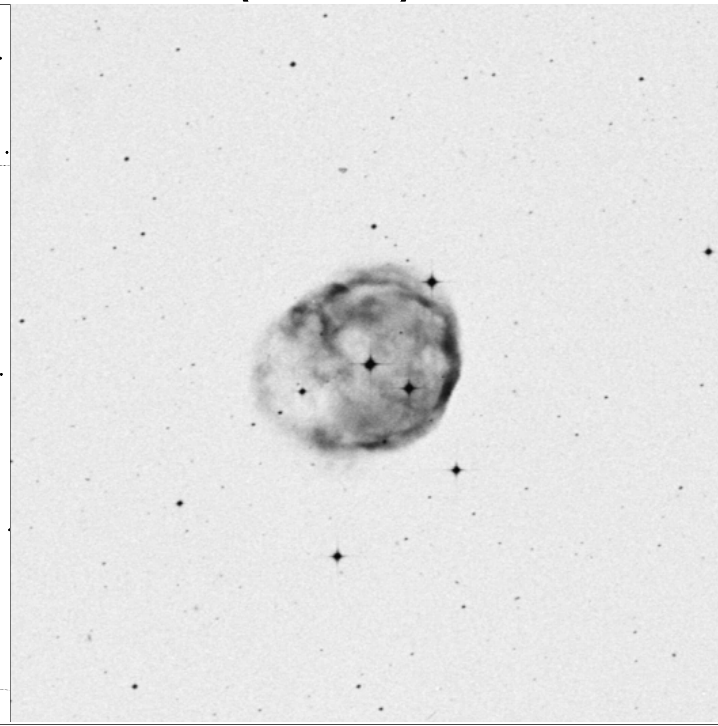


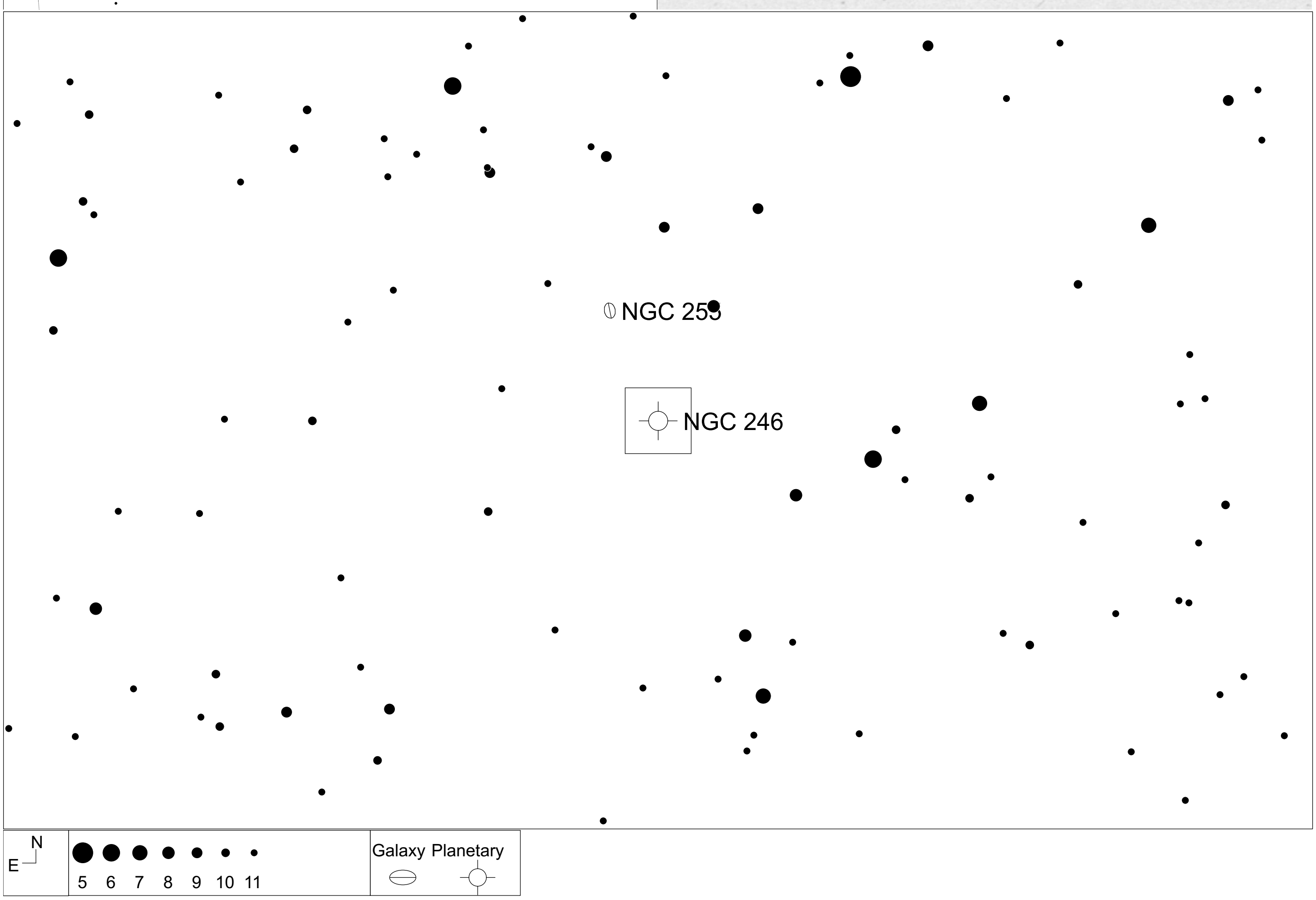


Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 123+34.1	2+2a	12 33 06.1	+82 33 48	10.6v	11.4	10”

NGC 246 – Skull Nebula (Cetus)







Other ID	Type	RA	Dec	Mag	* Mag	Size
PK 118-74.1	3b	00 47 03.6	-11 52 20	10.9v	11.9	4.1’

Planetary Nebulae Sorted by Object

Page	Object	Type	RA	Dec	Size	Mag	Mag*	Con
152	Cannon 3-1	2	18 17 34.2	+10 09 01	5"	12.4p	12.5	Oph
138	DHW 1-2	-	17 06 55.0	-09 46 59	30 x 20"	-	-	Oph
201	Ethos 1	-	19 16 31.5	+36 09 48	60 x 20"	-	17.6	Lyr
58	Haro 3-29	-	04 37 23.6	+25 02 36	25"	15.1v	18.6	Tau
72	Haro 3-75	-	05 40 45.1	+12 21 21	24"	13.9v	-	Ori
256	Henize 1-3	2	19 48 26.4	+22 08 34	12"	16.0	11.6	Vul
207	Henize 1-4	3b	19 59 18.5	+31 54 34	22"	14.1	21.1	Cyg
271	Henize 1-5	3+2	20 11 56.1	+20 20 04	40"	16.2p	11.3	Sge
261	Henize 1-6	3+2	20 17 21.5	+25 21 44	24"	14.9p	-	Vul
262	Henize 1-7	-	20 19 38.3	+27 00 08	5"	13.5p	-	Vul
131	Henize 2-126	2	15 22 19.4	-23 37 33	16"	11.6v	18.8	Lib
132	Henize 2-180	1	16 43 53.9	-18 57 14	12"	14.4	15.2	Oph
160	Henize 2-253	4	17 36 29.8	-39 21 57	18"	14.4p	-	Sco
145	Henize 2-260	-	17 38 57.4	-18 17 35	10"	11.0v	14.2	Oph
146	Henize 2-261	3	17 39 54.8	-21 14 14	17"	15.3p	-	Oph
147	Henize 2-264	3	17 40 26.8	-27 01 03	37"	-	20.3	Oph
149	Henize 2-266	3b	17 41 52.8	-24 42 08	6"	13.0v	17.0	Oph
164	Henize 2-286	2+4	17 47 56.2	-29 59 40	3"	11.8v	18.6	Sgr
162	Henize 2-289	-	17 49 48.2	-37 01 28	10"	12.0p	16.8	Sco
167	Henize 2-305	2	17 55 07.0	-21 44 40	5"	12.0v	14.7	Sgr
186	Henize 2-418	-	18 44 14.6	-30 19 36	13"	15.1	15.6	Sgr
202	Henize 2-438 (Campbell's Star)	4	19 34 45.2	+30 31 01	3"	11.3v	10.0	Cyg
184	Henize 3-1716	-	18 36 32.3	-19 19 29	-	15.1p	13.2	Sgr
34	Hubble 12	-	23 26 14.9	+58 10 53	1"	11.9v	13.8	Cas
245	IC 1295	3b+2	18 54 37.2	-08 49 33	120 x 90"	15.0p	15	Sct
306	IC 1297	-	19 17 23.5	-39 36 48	20"	10.7v	14.2	CrA
27	IC 1747	3b	01 57 36.0	+63 19 17	13"	12.0v	15.8	Cas
49	IC 2003	2	03 56 22.1	+33 52 27	9"	12.6p	15	Per
64	IC 2120	2	05 18 10.4	+37 33 28	60"	12	16.2	Aur
68	IC 2149	3b+1	05 56 24.0	+46 06 15	34 x 29"	10.6v	11.5	Aur
93	IC 2165	3b	06 21 42.7	-12 59 14	9.0"	10.5v	17.9	CMa
32	IC 289	4+2	03 10 19.7	+61 19 01	45 x 30	12.3p	15.9	Cas
48	IC 351	2a	03 47 33.1	+35 02 45	7"	11.9v	15.8	Per
321	IC 3568 (Baby Eskimo)	2+2a	12 33 06.1	+82 33 48	10"	10.6v	11.4	Cep
75	IC 418 (Raspberry Nebula)	4	05 27 28.2	-12 41 49	12"	9.3v	10.1	Lep
121	IC 4406 (Retina Nebula)	4+3	14 22 26.5	-44 09 05	100 x 37"	10.2v	17.4	Lup
77	IC 443	SNR	06 17 52.0	+22 46 00	27x7'	-	-	Gem
126	IC 4593 (White Eyed Pea Nebula)	2+2	16 11 44.5	+12 04 17	30"	10.7v	11.2	Her
133	IC 4634	2a+3	17 01 33.8	-21 49 34	12"	10.9v	13.9	Oph
156	IC 4637	3	17 05 10.5	-40 53 09	19"	12.5v	12.5	Sco
169	IC 4673	4	18 03 18.5	-27 06 22	16"	13.0v	17.6	Sgr
181	IC 4732	1	18 33 54.6	-22 38 41	10"	12.1v	16.2	Sgr
188	IC 4776	2a	18 45 50.9	-33 20 36	8"	10.8v	14.1	Sgr

Page	Object	Type	RA	Dec	Size	Mag	Mag*	Con
289	IC 4846	2	19 16 28.4	-09 02 38	2"	11.9v	15.1	Aql
273	IC 4997	1	20 20 08.8	+16 43 52	2"	10.5v	14.4	Sge
232	IC 5117	2	21 32 31.1	+44 35 47	6"	11.5v	16.7	Cyg
307	IC 5148/50 (Spare Tyre Neb.)	4	21 59 35.2	-39 23 09	2.2'	12.9p	16.5	Gru
308	IC 5217	2	22 23 55.7	+50 58 00	7"	11.3v	15.4	Lac
66	IPHAS J052708.2+383113	-	05 27 08.2	+38 31 13	30"		16?	Aur
112	IRAS 09371+1212 (Frosty Leo)	Proto	09 39 54	+11 59 00	12"	10.5	11	Leo
71	Jonckheere 320	2	05 05 34.3	+10 42 23	26 x 14"	11.9v	14.4	Ori
78	Jonckheere 900	3b+2	06 25 57.4	+17 47 26	9.0"	11.7v	17.8	Gem
311	Jones 1	3b	23 35 53.6	+30 28 02	5.3'	12.1v	16.1	Peg
230	Kn 26	-	21 23 09.3	+38 58 13	~50 x 25"	-	-	Cyg
39	Kn 58		02 12 27.0	+47 27 10	1.5'	-	-	And
110	Kohoutek 1-2	2	08 57 45.9	-28 57 36	58"	15.3p	16.6	Pyx
196	Kohoutek 1-6	2	20 04 24.9	+74 26 17	2.7'	-	17.6	Dra
99	Kohoutek 1-10	3b	07 12 35.9	-16 06 02	90 x 54"	-	21.0	CMa
105	Kohoutek 1-12	2	07 50 11.6	-19 18 16	42"	15.9p	21.0	Pup
128	Kohoutek 1-14	4	17 42 36.6	+21 27 01	48"	15.1v	16.4	Her
194	Kohoutek 1-16	3	18 21 52.2	+64 21 53	1.9'	14.2v	15.0	Dra
264	Kohoutek 1-17	4	19 03 37.4	+19 21 21	45"	16.6p	19.2	Sge
37	Kohoutek 1-20	4	23 39 10.7	+48 12 30	37 x 31"	16.5	20.7	And
116	Kohoutek 1-22	-	11 26 43.7	-34 22 18	3.0'	12.1v	17.4	Hya
115	Kohoutek 1-28	-	10 34 30.7	-29 11 16	54"	14	16.7	Hya
124	Kohoutek 1-32	-	16 03 22.0	-36 00 54	60"	-	19.0	Lup
62	Kohoutek 2-1	3	05 07 08.1	+30 49 26	2.2'	13.7p	18.8	Aur
86	Kohoutek 2-2	3	06 52 27.9	+09 57 40	6.2'	12.5p	15.0	Mon
98	Kohoutek 2-3	3	07 06 57.7	-22 02 21	90 x 40"	14.5v	21.0	CMa
251	Kohoutek 3-4	3b+2	18 31 00.3	+02 25 23	20"	14.6v	-	Ser
277	Kohoutek 3-17	2	18 56 18.3	+07 07 22	15"	-	-	Aql
200	Kohoutek 3-27	-	19 14 30.2	+28 40 43	16"	14.9p	17.2	Lyr
253	Kohoutek 3-34	-	19 24 02.9	+25 18 47	10"	15.8p	-	Vul
206	Kohoutek 3-46	3b+6	19 50 00.3	+33 45 53	32 x 17"	16.4p	14.8	Cyg
269	Kohoutek 3-51	-	20 02 36.4	+17 36 50	15"	14.7p	-	Sge
50	Kohoutek 3-64	-	04 13 27.4	+51 50 59	8"	16.9p	-	Per
84	Kohoutek 3-72	-	06 23 55.0	+05 30 11	11"	-	-	Mon
211	Kohoutek 3-74	-	20 08 43.1	+42 30 05	20"	16.1p	-	Cyg
221	Kohoutek 3-79	-	20 53 13.8	+53 45 42	12"	17.8p	-	Cyg
229	Kohoutek 3-81	-	21 22 15.5	+38 07 13	10"	15.4p	15.7	Cyg
231	Kohoutek 3-82	-	21 30 51.8	+50 00 05	24"	16.0p	19.5	Cyg
24	Kohoutek 3-90	-	01 24 58.9	+65 38 33	9"	16.0p	-	Cas
28	Kohoutek 3-91	-	01 58 35.7	+66 33 58	10"	20.9p	20.5	Cas
29	Kohoutek 3-92	-	02 03 41.5	+64 57 36	12"	16.7p	20.6	Cas
30	Kohoutek 3-93	-	02 26 30.3	+65 47 50	10"	17.6p	-	Cas
242	Kohoutek 4-5	-	18 45 36.3	+06 18 43	20"	15.7p	-	Sct
219	Kohoutek 4-53	-	20 42 16.5	+37 40 22	20"	16.0p	-	Cyg
220	Kohoutek 4-55	-	20 45 10.2	+44 39 10	27"	-	-	Cyg

Page	Object	Type	RA	Dec	Size	Mag	Mag*	Con
263	Little Blue Fox	-	20 29 07.5	+23 11 12	17 x 13"			Vul
120	Longmore-Tritton 5	-	12 55 34	+25 53 31	8.8'	-	14.9	Com
59	M-1 (Crab Nebula)	SNR	05 34 31.9	+22 01 00	6.0 x 4.0'	8.4	-	Tau
259	M-27 (Dumbbell Nebula)	3+2	19 59 36.1	+22 43 13	6.7'	7.4v	13.8	Vul
197	M-57 (Ring Nebula)	4+3	18 53 35.2	+33 01 44	1.8 x 1.4'	8.8v	14.7	Lyr
42	M-76 (Cork Nebula)	3+6	01 42 19.9	+51 34 35	167	10.1v	15.9	Per
119	M-97 (Owl Nebula)	3a	11 14 47.8	+55 01 09	3.4'	9.9v	16.0	UMa
301	Merrill 1-1	4	19 39 09.9	+15 56 45	8"	11.8v	14.1	Aql
38	Minkowski 1-1	-	01 37 19.6	+50 28 11	6"	14.1p	16.2	And
44	Minkowski 1-2	1	01 58 49.7	+52 53 47	18"	14.9p	13.4	Per
46	Minkowski 1-4	-	03 41 43.5	+52 16 57	4.0"	13.6p	16.7	Per
79	Minkowski 1-7	2	06 37 20.9	+24 00 37	32 x 15"	13.0v	19.6	Gem
87	Minkowski 1-8	-	06 53 33.8	+03 08 26	18"	14.5v	21.3	Mon
88	Minkowski 1-9	1	07 05 19.3	+02 46 56	12"	13.3p	15.6	Mon
101	Minkowski 1-13	-	07 21 14.9	-18 08 37	42 x 30"	12.6v	-	CMa
102	Minkowski 1-18	2b	07 42 04.2	-14 21 19	32"	15.0v	20.9	Pup
141	Minkowski 1-20	1	17 28 57.7	-19 15 53	7"	13.4p	17.1	Oph
144	Minkowski 1-22	4	17 35 10.1	-18 34 20	9"	13.3p	-	Oph
163	Minkowski 1-28	3+6	17 47 38.4	-22 06 20	15"	16.8p	20.8	Sgr
236	Minkowski 1-46	4+2	18 27 56.3	-15 32 55	11"	14.6p	12.8	Sct
238	Minkowski 1-51	3	18 33 29.0	-11 07 26	10"	16.7p	-	Sct
183	Minkowski 1-54	3	18 36 08.3	-16 59 57	13"	12.5p	-	Sgr
185	Minkowski 1-56	1	18 37 46.3	-17 05 47	10"	13.3p	16.2	Sgr
235	Minkowski 1-59	2	18 43 20.2	-09 04 49	5"	12.5v	-	Sct
198	Minkowski 1-64	4	18 50 02.3	+35 14 33	24"	13.3v	-	Lyr
278	Minkowski 1-66	1	18 58 26.3	-01 03 46	10"	13.2p	-	Aql
302	Minkowski 1-73	2	19 41 09.4	+14 56 57	5"	14.0v	14.5	Aql
302	Minkowski 1-74	1	19 42 18.8	+15 09 06	5"	12.9v	18.1	Aql
210	Minkowski 1-75	3b+6	20 04 44.1	+31 27 20	42"	16.0v	21.0	Cyg
234	Minkowski 1-79	4	21 37 01.6	+48 56 00	60 x 42"	13.2v	19.1	Cyg
318	Minkowski 1-80	2	22 56 19.9	+57 09 20	8"	14.0v	-	Cep
203	Minkowski 1-92 (Minkowski's Footprint)	-	19 36 18.9	+29 32 51	20 x 4"	11.7v	-	Cyg
55	Minkowski 2-2	3	04 13 15.2	+56 56 56	6"	14.0p	-	Cam
168	Minkowski 2-25	3	18 02 46.5	-32 09 28	14"	15.0p	-	Sgr
250	Minkowski 2-43	1	18 26 40.1	-02 42 58	15"	16.8p	-	Ser
257	Minkowski 2-48	3	19 50 28.6	+25 54 27	29 x 13"	16.5p	-	Vul
315	Minkowski 2-51	2+3	22 16 03.8	+57 28 33	72"	13.5v	20.4	Cep
315	Minkowski 2-52	3	22 20 30.9	+57 36 18	14"	15.3v	-	Cep
309	Minkowski 2-53	3b	22 32 17.6	+56 10 26	23 x 17"	14.8v	21.2	Lac
319	Minkowski 2-55	3	23 31 51.5	+70 22 16	63 x 45"	14.2v	21.1	Cep
134	Minkowski 2-9 (Minkowski's Butterfly)	?+6	17 05 37.9	-10 08 32	50 x 20"	14.6v	15.6	Oph
97	Minkowski 3-1	? + 6	07 02 49.8	-31 35 30	30 x 20"	12.3v	15.5	CMa
100	Minkowski 3-2	3b	07 14 49.8	-27 50 24	8"	14.7v	21.1	CMa
92	Minkowski 3-3	4	07 26 34.2	-05 21 52	12"	14.8v	-	Mon

Page	Object	Type	RA	Dec	Size	Mag	Mag*	Con
106	Minkowski 3-4	4	07 55 11.4	-23 38 13	20"	11.8p	15.7	Pup
109	Minkowski 3-6	2a	08 40 40.3	-32 22 34	19"	10.9v	13.9	Pyx
140	Minkowski 3-9	3	17 25 43.4	-26 11 56	17"	15.0v	18.8	Oph
171	Minkowski 3-23	2	18 07 06.1	-30 34 17	11"	13.8p	-	Sgr
240	Minkowski 3-30	4	18 41 14.8	-15 33 39	17"	14.6p	17.9	Sct
139	Minkowski 3-39	3+2	17 21 11.7	-27 11 37	18"	15.2v	-	Oph
247	Minkowski 4-9	4	18 14 18.3	-04 59 22	54"	16.0p	20.3	Ser
244	Minkowski 4-11	2	18 54 17.7	-10 05 10	21"	13.8v	18.0	Sct
286	Minkowski 4-12	4+2	19 13 05.5	+15 46 42	9"	18.6p	-	Aql
293	Minkowski 4-14	4+3	19 21 00.8	+07 36 50	7"	14.8p	-	Aql
254	Minkowski 4-15	6	19 32 57.8	+26 52 41	35 x 7"	16.9p	-	Vul
255	Minkowski 4-16	-	19 39 43.5	+26 29 30	10"	16.2	-	Vul
212	Minkowski 4-17	4+2	20 09 02.0	+43 43 42	23 x 21"	13.7v	-	Cyg
267	Necklace Nebula	-	19 43 59.5	+17 09 00	~25"	-	-	Sge
320	NGC 40 (Bowtie Nebula)	3b+3	00 13 00.9	+72 31 19	70 x 60"	12.3v	11.5	Cep
322	NGC 246 (Skull Nebula)	3b+3	00 47 03.6	-11 52 20	4.1'	10.9v	11.9	Cet
41	NGC 1360	3	03 33 15.4	-25 52 13	6.4'	9.4v	11.3	For
54	NGC 1501 (Oyster Nebula)	3	04 06 59.6	+60 55 11	52"	13.3p	14.2	Cam
57	NGC 1514 (Crystal Ball)	3+2	04 09 16.9	+30 46 34	1.9'	10.9v	9.4	Tau
53	NGC 1535 (Cleopatra's Eye)	4+2c	04 14 15.8	-12 44 21	60"	9.6v	12.1	Eri
73	NGC 2022	4+2	05 42 06.2	+09 05 13	35"	11.6v	15.8	Ori
69	NGC 2242	-	06 34 07.6	+44 46 37	22"	15.1p	17.6	Aur
90	NGC 2346 (Butterfly Nebula)	3b+4	07 09 22.4	-00 48 24	120"	11.6v	11.4	Mon
81	NGC 2371/2 (Double Bubble)	3a+2	07 25 34.8	+29 29 22	55"	11.2v	14.8	Gem
82	NGC 2392 (Eskimo Nebula)	3b+3b	07 29 11.0	+20 54 39	50"	9.1v	10.5	Gem
102	NGC 2438 (in M-46)	4	07 41 50.4	-14 44 06	64"	10.8v	17.7	Pup
103	NGC 2440	5+3	07 41 55.4	-18 12 31	54 x 20"	9.4v	17.6	Pup
104	NGC 2452	4+3	07 47 26.5	-27 20 09	30"	12.0v	17.7	Pup
113	NGC 2610	4+2	08 33 23.4	-16 08 58	58"	12.7v	15.9	Hya
111	NGC 2818	3b	09 16 01.5	-36 37 37	93 x 55"	11.6v	19.4	Pyx
117	NGC 3132 (Eight-burst)	4+2	10 07 01.8	-40 26 09	88 x 58"	9.2v	10	Vel
114	NGC 3242 (Ghost of Jupiter)	4+3b	10 24 46.2	-18 38 34	75"	7.7v	13.3	Hya
118	NGC 4361	3a+2	12 24 30.8	-18 47 02	118"	10.9v	13.2	Crv
122	NGC 5873	2	15 12 51.1	-38 07 33	7"	11.0v	15.5	Lup
123	NGC 6026	4	16 01 21.0	-34 32 36	55"	12.9v	13.2	Lup
125	NGC 6058	3+2	16 04 26.6	+40 40 59	35"	12.9v	13.9	Her
153	NGC 6072	3a	16 12 58.3	-36 13 48	98 x 72"	11.7v	19.3	Sco
154	NGC 6153	4	16 31 30.6	-40 15 12	24"	10.9v	16.1	Sco
127	NGC 6210 (Turtle Nebula)	2+3b	16 44 29.7	+23 47 58	30"	8.8v	12.6	Her
157	NGC 6302 (Bug Nebula)	6	17 13 44.3	-37 06 13	83 x 24"	9.6v	21.1	Sco
136	NGC 6309	3b+6	17 14 04.5	-12 54 41	21 x 12"	11.5v	16.5	Oph
158	NGC 6337 (Cheerio Nebula)	4	17 22 15.6	-38 29 02	51"	12.3v	14.9	Sco
142	NGC 6369 (Little Ghost)	4+2	17 29 20.5	-23 45 34	38"	11.4v	15.9	Oph
165	NGC 6439	2a	17 48 20.3	-16 27 35	5"	12.6v	20.2	Sgr
166	NGC 6445 (Box Nebula)	3b+3	17 49 14.9	-20 00 36	38 x 29"	11.2v	19.0	Sgr

Page	Object	Type	RA	Dec	Size	Mag	Mag*	Con
170	NGC 6537 (Red Spider Nebula)	2a+6	18 05 13.1	-19 50 35	10"	11.6v	18.8	Sgr
193	NGC 6543 (Cat's Eye Nebula)	3a+2	17 58 33.5	+66 37 59	23 x 18"	8.1v	11.1	Dra
174	NGC 6563	3a	18 12 02.5	-33 52 06	50 x 37"	11.0v	17.3	Sgr
173	NGC 6565	4	18 11 52.6	-28 10 42	14"	11.6v	18.5	Sgr
175	NGC 6567	2a+3	18 13 45.2	-19 04 33	12"	11.0v	14.4	Sgr
151	NGC 6572 (Emerald Nebula)	2a	18 12 06.4	+06 51 11	11"	8.1v	13.1	Oph
176	NGC 6578	2a	18 16 16.6	-20 27 03	9"	12.9v	15.8	Sgr
177	NGC 6620	2b	18 22 54.3	-26 49 18	8"	12.7v	19.6	Sgr
178	NGC 6629	2a	18 25 42.4	-23 12 10	16"	11.3v	12.9	Sgr
180	NGC 6644	2	18 32 34.7	-25 07 44	3"	10.7v	15.6	Sgr
281	NGC 6741 (Phantom Streak)	4	19 02 37.1	-00 26 57	8"	11.5v	17.6	Aql
284	NGC 6751	3	19 05 55.5	-05 59 33	26"	11.9	15.4	Aql
199	NGC 6765	5	19 11 06.8	+30 32 39	40"	12.9v	16.0	Lyr
288	NGC 6772	3b+2	19 14 36.4	-02 42 27	84"	12.7v	18.6	Aql
291	NGC 6778	3+3	19 18 24.9	-01 35 46	16"	12.3v	16.9	Aql
292	NGC 6781	3+3	19 18 28.2	+06 32 15	1.8'	11.4v	16.2	Aql
294	NGC 6790	2	19 22 57.1	+01 30 44	7"	10.5v	11.1	Aql
298	NGC 6803	2a	19 31 16.6	+10 03 20	6"	11.4v	15.2	Aql
299	NGC 6804	4+2	19 31 35.2	+09 13 31	35"	12.2p	14.4	Aql
300	NGC 6807	2	19 34 33.7	+05 41 01	2"	12.0v	16.3	Aql
192	NGC 6818 (Little Gem)	4	19 43 57.8	-14 09 10	48"	8.8v	16.9	Sgr
204	NGC 6826 (Blinking Planetary)	3a+2	19 44 48.2	+50 31 31	38"	8.8v	10.4	Cyg
205	NGC 6833	2	19 49 46.7	+48 57 38	2"	12.1v	14.8	Cyg
258	NGC 6842	3b	19 55 02.4	-29 17 17	57"	13.1v	16.2	Vul
305	NGC 6852	4	20 00 39.2	+01 43 41	28"	12.6v	17.9	Aql
208	NGC 6857	?	20 01 48.7	+33 31 32	40"	11.4p	13.3	Cyg
270	NGC 6879	2a	20 10 26.8	+16 55 19	8"	12.5v	14.8	Sge
216	NGC 6881	2a+3	20 10 52.5	+37 24 41	6"	13.9v	18.6	Cyg
215	NGC 6884	2b	20 10 23.8	+46 27 38	6"	10.9v	15.8	Cyg
272	NGC 6886	2+3	20 12 43.0	+19 59 20	6"	11.4v	18.0	Sge
274	NGC 6891	2a+2b	20 20 08.8	+16 43 52	12"	10.5v	12.4	Del
217	NGC 6894	4+2	20 16 24.0	+30 33 51	60"	12.3v	18.1	Cyg
275	NGC 6905 (Blue Flash)	3+3	20 22 23.0	+20 06 16	72 x 37"	11.1v	15.5	Del
222	NGC 7008 (Fetus Nebula)	3	21 00 33.1	+54 32 32	86"	10.7v	13.2	Cyg
312	NGC 7009 (Saturn Nebula)	4+6	21 04 10.9	-11 21 49	70"	8.0v	12.7	Aqr
224	NGC 7026 (Cheeseburger Neb.)	3a	21 06 18.5	+47 51 08	40"	10.9v	14.2	Cyg
225	NGC 7027 (Magic Carpet Neb.)	3a	21 07 01.8	+42 14 07	60"	8.5v	16.3	Cyg
227	NGC 7048	3b	21 14 15.3	+46 17 15	61"	12.1v	19.1	Cyg
310	NGC 7094	4	21 36 53.0	+12 47 19	94"	13.4v	13.6	Peg
314	NGC 7139	3b	21 46 08.6	+63 47 31	77"	13.3v	18.1	Cep
313	NGC 7293 (Helix Nebula)	4+3	22 29 38.4	-20 50 12	16'	7.3v	13.5	Aqr
317	NGC 7354	4+3b	22 40 20.1	+61 17 06	36"	12.2v	16.1	Cep
36	NGC 7662 (Blue Snowball)	4+3	23 25 53.9	+42 32 06	35"	8.3v	13.2	And
297	PB 10	-	19 28 14.5	+12 19 35	10"	14.8p	-	Aql
248	PC 19	-	18 24 44.6	+02 29 27	14"	12.1p	-	Ser

Page	Object	Type	RA	Dec	Size	Mag	Mag*	Con
303	PC 22	-	19 42 03.6	+13 50 35	24 x 18"	14.4p	18.1	Aql
76	PK 011+17.1	-	05 55 06.8	-22 54 02	2.2'			Lep
179	PK 013-2.1	-	18 26 03.9	-18 12 37	18'	15.2	-	Sgr
150	PK 028+10.1	-	18 06 00.5	+00 22 42	36"	16.8p	16.8	Oph
287	PK 029-7.1	-	19 13 55.7	+06 18 53	14"	15.6p	-	Aql
276	PK 031-0.2	-	18 50 24.6	-01 40 22	25"	-	-	Aql
304	PK 035-0.1	-	18 58 10.6	+01 36 55	33"	12.8IR	15.1	Aql
282	PK 036-1.2	-	19 02 59.4	+03 02 20	12"	-	-	Aql
285	PK 036-2.1	-	19 08 02.2	+02 21 21	21"	-	-	Aql
280	PK 043+2.1	-	19 02 17.8	+10 17 32	14"	-	18.5	Aql
296	PK 048-1.1	SNR	19 26 26.7	+13 19 33	40"	-	-	Aql
266	PK 051+1.1	4	19 19 18.8	+17 11 45	20"	-	15.1	Sge
130	PK 051+9.1	-	18 49 47.6	+20 50 36	3"	11.4v	13.3	Her
268	PK 058-5.1	-	20 01 42.1	+19 54 37	2.5'	-	17.4	Sge
209	PK 075+4.1	3b	20 04 16.4	+39 35 30	28"	16.0	-	Cyg
223	PK 080-6.1 (Egg Nebula)	proto	21 02 18.7	+36 41 40	1.0 x 0.5'	13.5p	-	Cyg
233	PK 086-8.1 (Baby Dumbell)	2	21 33 08.2	+39 38 12	32 x 20"	12.0v	17.3	Cyg
226	PK 089-0.1	3a	21 14 07.5	+47 46 26	64 x 28"	12.1v	19.7	Cyg
316	PK 111+11.1	-	22 19 33.9	+70 56 05	8.8'	-	15.1	Cep
16	PK 118+2.1	-	00 07 20.5	+64 57 21	2.1'	-	-	Cas
18	PK 119+0.1	-	00 19 58.8	+62 59 01	50 x 20"	14.7v	22.3	Cas
19	PK 119-6.1	2	00 28 15.7	+55 57 54	5"	12.3v	16.5	Cas
22	PK 121+00.1	-	00 40 21.6	+62 51 25	40"	15.4v	-	Cas
23	PK 124+10.1	SNR?	01 07 12.9	+73 32 57	270"	-	16.4	Cas
40	PK 125-47.1	-	00 59 53.7	+15 44 00	4.6'	-	-	Psc
43	PK 131-05.1	-	01 53 03.1	+56 24 17	24"	14.2v	18.0	Per
31	PK 136+5.1	SNR?	03 03 48.8	+64 53 28	8.3'	-	13.3	Cas
33	PK 138+4.1	-	03 11 02.1	+62 47 57	5.7'	-	12.6	Cas
45	PK 149-9.1	-	03 27 15.5	+45 24 20	9.0'	-	17.0	Per
47	PK 156-13.1	-	03 45 26.6	+37 48 53	34"	-	17.7	Per
70	PK 164+31.1 (Headphones Nebula)	4	07 57 51.7	+53 25 16	6.3'	12.1v	16.8	Lyn
56	PK 171-25.1	4	03 53 36.4	+19 29 39	48"	15.1v	17.2	Tau
60	PK 181+0.1	-	05 52 48.2	+28 05 57	65"	15.9	21.1	Tau
80	PK 192+7.1	-	06 40 09.5	+21 24 50	76	-	19	Gem
89	PK 217+2.1	-	07 06 51.0	-03 05 10	15"	14.5v	>21	Mon
83	PK 218-10.1	-	06 23 37.1	-10 13 24	94"	15.4p	16.2	Mon
94	PK 233-10.1	4	06 50 40.7	-22 26 15	55"	16.3p	-	CMa
95	PK 239-12.1	-	06 55 12.3	-29 07 28	24"	15.1p	19.0	CMa
172	PK 359-06.2 Gomez Hamburger	proto	18 09 13.3	-32 10 48	5.5 x 3.5"	14.0v	-	Sgr
243	PN G 026.2-03.4	-	18 51 31.3	-07 32 29	38"	-	-	Sct
239	PN G 027.0+01.5	-	18 35 11.6	-04 29 06	32 x 25"	-	-	Sct
214	PN G075.5+1.7 (Soap Bubble)	-	20 15 22	+38 02 43	240"	-	19	Cyg
191	Pne Candidate Jul 27, 2009		19 37 44	-13 51 20	34"	-	-	Sgr
148	PNG 027.6+16.9	-	17 41 41	+03 07 02	94"	16.3p	14.9	Oph
237	PNG 22.5+1.0	-	18 28 35.4	-08 43 24	17"	18.0p	-	Sct

Page	Object	Type	RA	Dec	Size	Mag	Mag*	Con
252	RCW 181	3b	18 54 56.9	+06 02 41	5.1'	-	-	Ser
135	Sanduleak 2-172	-	17 05 44.6	-25 25 02	10"	14.9	17.8	Oph
96	Sanduleak 2-2	-	07 02 46.9	-13 42 37	10"	13.3p	16.2	CMa
107	Sanduleak 2-21	-	08 08 44.1	-19 14 01	40"	13.6p	-	Pup
108	Sanduleak 2-28	-	08 36 16.4	-35 15 04	20"	-	-	Pyx
187	Sanduleak 2-364	?+3	18 45 35.2	-20 34 59	13"	13.9p	18.4	Sgr
189	Sanduleak 2-375	2	18 55 37.8	-32 15 48	4"	10.9p	13.9	Sgr
190	Sanduleak 2-381	2	19 05 35.9	-33 11 37	5"	12.5v	-	Sgr
290	Sanduleak 2-387	-	19 18 19.7	-11 06 17	16"	13.3p	14.0	Aql
137	Sanduleak 3-42	-	17 17 20.3	-28 59 27	17"	16.4p	-	Oph
159	Sanduleak 3-62	-	17 32 20.0	-39 51 23	20"	15.8p	-	Sco
246	Shane 1	-	16 21 04.5	-00 16 12	6"	12.8p	14.7	Ser
249	Sharpless 2-68	-	18 25 01.3	+00 52 18	7'	10.0v	16.0	Ser
279	Sharpless 2-71	3b+3	19 02 00.0	+02 09 23	2.6 x 1.5'	13.2v	13.8	Aql
283	Sharpless 2-78	-	19 03 10.3	+14 06 56	10.0'	-	17.7	Aql
265	Sharpless 2-80	-	19 11 30.9	+16 51 35	1.8'	8.2IR	11.1	Sge
20	Sharpless 2-176	-	00 31 53.6	+57 22 33	12.0'	-	18.1	Cas
25	Sharpless 2-188	-	01 30 30.0	+58 23 30	9.0'	-	17.4	Cas
51	Sharpless 2-216	3	04 45 35	+46 48.5	100'	-	-	Per
61	Sharpless 2-221	SNR	04 54 48.0	+46 41 00	25.3x9.2'	-	-	Aur
63	Sharpless 2-223	SNR	05 16 38.0	+42 04 00	60.0x7.0'	-	-	Aur
65	Sharpless 2-224	SNR	05 26 52.0	+42 58 00	30.5x17.5'	-	-	Aur
195	Sweet Pea		18 41 41.9	+65 11 58	<5	-	-	Dra
17	Vyssotsky 1-1	-	00 18 42.4	+53 52 18	5"	12.6p	14.1	Cas
295	Vyssotsky 2-2	1	19 24 23	+09 53.9	14"	12.7	14.6	Aql
35	Vyssotsky 2-3	2	23 22 58.1	+46 53 57	4"	13.9p	14.7	And
21	Wein 1-1	-	00 38 54.6	+66 23 47	24"	21.9p	21.0	Cas
52	Wein 1-2	-	04 46 42.9	+44 28 00	92"	-	20.8	Per
74	Wein 1-4	-	06 14 33.6	+07 34 29	40	-	21.1	Ori
85	Wein 1-5	-	06 41 34.7	-05 02 37	15"	17.9p	19.1	Mon
91	Wein 1-6	-	07 17 25.5	-10 10 39	62"	-	16.8	Mon
241	Wein 1-7	-	18 44 06.5	-12 12 50	17"	-	21.0	Sct
260	Wein 1-9	-	20 09 04.7	+26 26 55	24"	-	21.0	Vul
218	Wein 1-10	-	20 31 52.4	+48 52 51	3.2'	15.1v	18.1	Cyg
26	Wein 2-5	-	01 42 38.2	+60 10 06	3.3'	-	-	Cas
67	Wein 2-21	-	05 31 36.0	+28 58 39	10"	16.1p	-	Aur
228	Wein 2-245	-	21 18 06.9	+43 48 46	35"	-	-	Cyg
129	Wein 3-1	-	18 34 03.1	+14 49 17	2.3'	-	-	Her
213	WR 134	-	20 09.4	+36 08	100'	-	-	Cyg
182	Wray 15-1876	-	18 34 55.4	-27 06 32	13"	15.2p	18.0	Sgr
143	Wray 16-282	3	17 31 47.3	-28 42 04	37"	14.9p	-	Oph
155	Wray 17-76	-	16 44 49.1	-28 04 06	23"	11.0 IR	12.7	Sco
161	Wray 17-98	3+2	17 46 02.5	-31 03 36	13"	-	-	Sco

Astronomical League Requirements

Page	AL	Object	Type	RA	Dec	Size	Mag	Mag*	Con
27	*	IC 1747	3b	01 57 36.0	+63 19 17	13"	12.0v	15.8	Cas
32	*	IC 289	4+2	03 10 19.7	+61 19 01	45 x 30	12.3p	15.9	Cas
36	*	NGC 7662 (Blue Snowball)	4+3	23 25 53.9	+42 32 06	35"	8.3v	13.2	And
41	*	NGC 1360	3	03 33 15.4	-25 52 13	6.4'	9.4v	11.3	For
42	*	M-76 (Cork Nebula)	3+6	01 42 19.9	+51 34 35	167	10.1v	15.9	Per
48	*	IC 351	2a	03 47 33.1	+35 02 45	7"	11.9v	15.8	Per
49	*	IC 2003	2	03 56 22.1	+33 52 27	9"	12.6p	15	Per
51	*	Sharpless 2-216	3	04 45 35	+46 48.5	100'	-	-	Per
53	*	NGC 1535 (Cleopatra's Eye)	4+2c	04 14 15.8	-12 44 21	60"	9.6v	12.1	Eri
54	*	NGC 1501 (Oyster Nebula)	3	04 06 59.6	+60 55 11	52"	13.3p	14.2	Cam
57	*	NGC 1514 (Crystal Ball)	3+2	04 09 16.9	+30 46 34	1.9'	10.9v	9.4	Tau
68	*	IC 2149	3b+1	05 56 24.0	+46 06 15	34 x 29"	10.6v	11.5	Aur
70	*	PK 164+31.1 (Headphones Nebula)	4	07 57 51.7	+53 25 16	6.3'	12.1v	16.8	Lyn
71	*	Jonckheere 320	2	05 05 34.3	+10 42 23	26 x 14"	11.9v	14.4	Ori
73	*	NGC 2022	4+2	05 42 06.2	+09 05 13	35"	11.6v	15.8	Ori
75	*	IC 418 (Raspberry Nebula)	4	05 27 28.2	-12 41 49	12"	9.3v	10.1	Lep
78	*	Jonckheere 900	3b+2	06 25 57.4	+17 47 26	9.0"	11.7v	17.8	Gem
79	*	Minkowski 1-7	2	06 37 20.9	+24 00 37	32 x 15"	13.0v	19.6	Gem
81	*	NGC 2371/2 (Double Bubble)	3a+2	07 25 34.8	+29 29 22	55"	11.2v	14.8	Gem
82	*	NGC 2392 (Eskimo Nebula)	3b+3b	07 29 11.0	+20 54 39	50"	9.1v	10.5	Gem
90	*	NGC 2346 (Butterfly Nebula)	3b+4	07 09 22.4	-00 48 24	120"	11.6v	11.4	Mon
93	*	IC 2165	3b	06 21 42.7	-12 59 14	9.0"	10.5v	17.9	CMa
102	*	NGC 2438 (in M-46)	4	07 41 50.4	-14 44 06	64"	10.8v	17.7	Pup
103	*	NGC 2440	5+3	07 41 55.4	-18 12 31	54 x 20"	9.4v	17.6	Pup
104	*	NGC 2452	4+3	07 47 26.5	-27 20 09	30"	12.0v	17.7	Pup
109	*	Minkowski 3-6	2a	08 40 40.3	-32 22 34	19"	10.9v	13.9	Pyx
111	*	NGC 2818	3b	09 16 01.5	-36 37 37	93 x 55"	11.6v	19.4	Pyx
112	*	IRAS 09371+1212 (Frosty Leo)	Proto	09 39 54	+11 59 00	12"	10.5	11	Leo
113	*	NGC 2610	4+2	08 33 23.4	-16 08 58	58"	12.7v	15.9	Hya
114	*	NGC 3242 (Ghost of Jupiter)	4+3b	10 24 46.2	-18 38 34	75"	7.7v	13.3	Hya
117	*	NGC 3132 (Eight-burst)	4+2	10 07 01.8	-40 26 09	88 x 58"	9.2v	10	Vel
118	*	NGC 4361	3a+2	12 24 30.8	-18 47 02	118"	10.9v	13.2	Crv
119	*	M-97 (Owl Nebula)	3a	11 14 47.8	+55 01 09	3.4'	9.9v	16.0	UMa
122	*	NGC 5873	2	15 12 51.1	-38 07 33	7"	11.0v	15.5	Lup
123	*	NGC 6026	4	16 01 21.0	-34 32 36	55"	12.9v	13.2	Lup
125	*	NGC 6058	3+2	16 04 26.6	+40 40 59	35"	12.9v	13.9	Her
126	*	IC 4593 (White Eyed Pea Nebula)	2+2	16 11 44.5	+12 04 17	30"	10.7v	11.2	Her
127	*	NGC 6210 (Turtle Nebula)	2+3b	16 44 29.7	+23 47 58	30"	8.8v	12.6	Her
133	*	IC 4634	2a+3	17 01 33.8	-21 49 34	12"	10.9v	13.9	Oph
134	*	Minkowski 2-9 (Minkowski's Butterfly)	?+6	17 05 37.9	-10 08 32	50 x 20"	14.6v	15.6	Oph
136	*	NGC 6309 (Box Nebula)	3b+6	17 14 04.5	-12 54 41	21 x 12"	11.5v	16.5	Oph
142	*	NGC 6369 (Little Ghost)	4+2	17 29 20.5	-23 45 34	38"	11.4v	15.9	Oph

Page	AL	Object	Type	RA	Dec	Size	Mag	Mag*	Con
151	*	NGC 6572 (Emerald Nebula)	2a	18 12 06.4	+06 51 11	11"	8.1v	13.1	Oph
153	*	NGC 6072	3a	16 12 58.3	-36 13 48	98 x 72"	11.7v	19.3	Sco
154	*	NGC 6153	4	16 31 30.6	-40 15 12	24"	10.9v	16.1	Sco
157	*	NGC 6302 (Bug Nebula)	6	17 13 44.3	-37 06 13	83 x 24"	9.6v	21.1	Sco
158	*	NGC 6337 (Cheerio Nebula)	4	17 22 15.6	-38 29 02	51"	12.3v	14.9	Sco
166	*	NGC 6445 (Crescent Nebula)	3b+3	17 49 14.9	-20 00 36	38 x 29"	11.2v	19.0	Sgr
167	*	Henize 2-305	2	17 55 07.0	-21 44 40	5"	12.0v	14.7	Sgr
170	*	NGC 6537 (Red Spider Nebula)	2a+6	18 05 13.1	-19 50 35	10"	11.6v	18.8	Sgr
172	*	PK 359-06.2 Gomez Hamburger	proto	18 09 13.3	-32 10 48	5.5 x 3.5"	14.0v	-	Sgr
173	*	NGC 6565	4	18 11 52.6	-28 10 42	14"	11.6v	18.5	Sgr
174	*	NGC 6563	3a	18 12 02.5	-33 52 06	50 x 37"	11.0v	17.3	Sgr
175	*	NGC 6567	2a+3	18 13 45.2	-19 04 33	12"	11.0v	14.4	Sgr
176	*	NGC 6578	2a	18 16 16.6	-20 27 03	9"	12.9v	15.8	Sgr
177	*	NGC 6620	2b	18 22 54.3	-26 49 18	8"	12.7v	19.6	Sgr
178	*	NGC 6629	2a	18 25 42.4	-23 12 10	16"	11.3v	12.9	Sgr
180	*	NGC 6644	2	18 32 34.7	-25 07 44	3"	10.7v	15.6	Sgr
181	*	IC 4732	1	18 33 54.6	-22 38 41	10"	12.1v	16.2	Sgr
188	*	IC 4776	2a	18 45 50.9	-33 20 36	8"	10.8v	14.1	Sgr
192	*	NGC 6818 (Little Gem)	4	19 43 57.8	-14 09 10	48"	8.8v	16.9	Sgr
193	*	NGC 6543 (Cat’s Eye Nebula)	3a+2	17 58 33.5	+66 37 59	23 x 18"	8.1v	11.1	Dra
197	*	M-57 (Ring Nebula)	4+3	18 53 35.2	+33 01 44	1.8 x 1.4'	8.8v	14.7	Lyr
199	*	NGC 6765	5	19 11 06.8	+30 32 39	40"	12.9v	16.0	Lyr
202	*	Henize 2-438 (Campbell’s Star)	4	19 34 45.2	+30 31 01	3"	11.3v	10.0	Cyg
203	*	Minkowski 1-92 (Minkowski's Footprint)	-	19 36 18.9	+29 32 51	20 x 4"	11.7v	-	Cyg
204	*	NGC 6826 (Blinking Planetary)	3a+2	19 44 48.2	+50 31 31	38"	8.8v	10.4	Cyg
205	*	NGC 6833	2	19 49 46.7	+48 57 38	2"	12.1v	14.8	Cyg
215	*	NGC 6884	2b	20 10 23.8	+46 27 38	6"	10.9v	15.8	Cyg
216	*	NGC 6881	2a+3	20 10 52.5	+37 24 41	6"	13.9v	18.6	Cyg
217	*	NGC 6894	4+2	20 16 24.0	+30 33 51	60"	12.3v	18.1	Cyg
222	*	NGC 7008 (Fetus Nebula)	3	21 00 33.1	+54 32 32	86"	10.7v	13.2	Cyg
223	*	PK 080-6.1 (Egg Nebula)	proto	21 02 18.7	+36 41 40	1.0 x 0.5'	13.5p	-	Cyg
224	*	NGC 7026 (Cheeseburger Neb.)	3a	21 06 18.5	+47 51 08	40"	10.9v	14.2	Cyg
225	*	NGC 7027 (Magic Carpet Neb.)	3a	21 07 01.8	+42 14 07	60"	8.5v	16.3	Cyg
226	*	PK 089-0.1	3a	21 14 07.5	+47 46 26	64 x 28"	12.1v	19.7	Cyg
227	*	NGC 7048	3b	21 14 15.3	+46 17 15	61"	12.1v	19.1	Cyg
232	*	IC 5117	2	21 32 31.1	+44 35 47	6"	11.5v	16.7	Cyg
233	*	PK 086-8.1 (Baby Dumbell)	2	21 33 08.2	+39 38 12	32 x 20"	12.0v	17.3	Cyg
245	*	IC 1295	3b+2	18 54 37.2	-08 49 33	120 x 90"	15.0p	15	Sct
259	*	M-27 (Dumbbell Nebula)	3+2	19 59 36.1	+22 43 13	6.7'	7.4v	13.8	Vul
270	*	NGC 6879	2a	20 10 26.8	+16 55 19	8"	12.5v	14.8	Sge
272	*	NGC 6886	2+3	20 12 43.0	+19 59 20	6"	11.4v	18.0	Sge
273	*	IC 4997	1	20 20 08.8	+16 43 52	2"	10.5v	14.4	Sge
274	*	NGC 6891	2a+2b	20 20 08.8	+16 43 52	12"	10.5v	12.4	Del

Page	AL	Object	Type	RA	Dec	Size	Mag	Mag*	Con
275	*	NGC 6905 (Blue Flash)	3+3	20 22 23.0	+20 06 16	72 x 37"	11.1v	15.5	Del
279	*	Sharpless 2-71	3b+3	19 02 00.0	+02 09 23	2.6 x 1.5'	13.2v	13.8	Aql
281	*	NGC 6741 (Phantom Streak)	4	19 02 37.1	-00 26 57	8"	11.5v	17.6	Aql
284	*	NGC 6751	3	19 05 55.5	-05 59 33	26"	11.9	15.4	Aql
289	*	IC 4846	2	19 16 28.4	-09 02 38	2"	11.9v	15.1	Aql
291	*	NGC 6778	3+3	19 18 24.9	-01 35 46	16"	12.3v	16.9	Aql
292	*	NGC 6781	3+3	19 18 28.2	+06 32 15	1.8'	11.4v	16.2	Aql
294	*	NGC 6790	2	19 22 57.1	+01 30 44	7"	10.5v	11.1	Aql
295	*	Vyssotsky 2-2	1	19 24 23	+09 53.9	14"	12.7	14.6	Aql
298	*	NGC 6803	2a	19 31 16.6	+10 03 20	6"	11.4v	15.2	Aql
299	*	NGC 6804	4+2	19 31 35.2	+09 13 31	35"	12.2p	14.4	Aql
300	*	NGC 6807	2	19 34 33.7	+05 41 01	2"	12.0v	16.3	Aql
306	*	IC 1297	-	19 17 23.5	-39 36 48	20"	10.7v	14.2	CrA
308	*	IC 5217	2	22 23 55.7	+50 58 00	7"	11.3v	15.4	Lac
310	*	NGC 7094	4	21 36 53.0	+12 47 19	94"	13.4v	13.6	Peg
311	*	Jones 1	3b	23 35 53.6	+30 28 02	5.3'	12.1v	16.1	Peg
312	*	NGC 7009 (Saturn Nebula)	4+6	21 04 10.9	-11 21 49	70"	8.0v	12.7	Aqr
313	*	NGC 7293 (Helix Nebula)	4+3	22 29 38.4	-20 50 12	16'	7.3v	13.5	Aqr
317	*	NGC 7354	4+3b	22 40 20.1	+61 17 06	36"	12.2v	16.1	Cep
320	*	NGC 40 (Bowtie Nebula)	3b+3	00 13 00.9	+72 31 19	70 x 60"	12.3v	11.5	Cep
321	*	IC 3568 (Baby Eskimo)	2+2a	12 33 06.1	+82 33 48	10"	10.6v	11.4	Cep
322	*	NGC 246 (Skull Nebula)	3b+3	00 47 03.6	-11 52 20	4.1'	10.9v	11.9	Cet

Sorted by Common Name

Page	Object	Type	RA	Dec	Size	Mag	Mag*	Con
233	Baby Dumbell	2	21 33 08.2	+39 38 12	32 x 20"	12.0v	17.3	Cyg
321	Baby Eskimo	2+2a	12 33 06.1	+82 33 48	10"	10.6v	11.4	Cep
204	Blinking Planetary	3a+2	19 44 48.2	+50 31 31	38"	8.8v	10.4	Cyg
275	Blue Flash	3+3	20 22 23.0	+20 06 16	72 x 37"	11.1v	15.5	Del
36	Blue Snowball	4+3	23 25 53.9	+42 32 06	35"	8.3v	13.2	And
320	Bowtie Nebula	3b+3	00 13 00.9	+72 31 19	70 x 60"	12.3v	11.5	Cep
166	Box Nebula	3b+3	17 49 14.9	-20 00 36	38 x 29"	11.2v	19.0	Sgr
157	Bug Nebula	6	17 13 44.3	-37 06 13	83 x 24"	9.6v	21.1	Sco
90	Butterfly Nebula	3b+4	07 09 22.4	-00 48 24	120"	11.6v	11.4	Mon
202	Campbell’s Star	4	19 34 45.2	+30 31 01	3"	11.3v	10.0	Cyg
193	Cat’s Eye Nebula	3a+2	17 58 33.5	+66 37 59	23 x 18"	8.1v	11.1	Dra
158	Cheerio Nebula	4	17 22 15.6	-38 29 02	51"	12.3v	14.9	Sco
224	Cheeseburger Nebula	3a	21 06 18.5	+47 51 08	40"	10.9v	14.2	Cyg
53	Cleopatra's Eye	4+2c	04 14 15.8	-12 44 21	60"	9.6v	12.1	Eri
42	Cork Nebula	3+6	01 42 19.9	+51 34 35	167	10.1v	15.9	Per
59	Crab Nebula	SNR	05 34 31.9	+22 01 00	6.0 x 4.0'	8.4	-	Tau
57	Crystal Ball	3+2	04 09 16.9	+30 46 34	1.9'	10.9v	9.4	Tau
81	Double Bubble	3a+2	07 25 34.8	+29 29 22	55"	11.2v	14.8	Gem
259	Dumbbell Nebula	3+2	19 59 36.1	+22 43 13	6.7'	7.4v	13.8	Vul
223	Egg Nebula	proto	21 02 18.7	+36 41 40	1.0 x 0.5'	13.5p	-	Cyg
117	Eight Burst	4+2	10 07 01.8	-40 26 09	88 x 58"	9.2v	10	Vel
151	Emerald Nebula	2a	18 12 06.4	+06 51 11	11"	8.1v	13.1	Oph
82	Eskimo Nebula	3b+3b	07 29 11.0	+20 54 39	50"	9.1v	10.5	Gem
222	Fetus Nebula	3	21 00 33.1	+54 32 32	86"	10.7v	13.2	Cyg
112	Frosty Leo	Proto	09 39 54	+11 59 00	12"	10.5	11	Leo
114	Ghost of Jupiter	4+3b	10 24 46.2	-18 38 34	75"	7.7v	13.3	Hya
172	Gomez Hamburger	proto	18 09 13.3	-32 10 48	5.5 x 3.5"	14.0v	-	Sgr
313	Helix Nebula	4+3	22 29 38.4	-20 50 12	16'	7.3v	13.5	Aqr
192	Little Gem	4	19 43 57.8	-14 09 10	48"	8.8v	16.9	Sgr
142	Little Ghost	4+2	17 29 20.5	-23 45 34	38"	11.4v	15.9	Oph
225	Magic Carpet Nebula	3a	21 07 01.8	+42 14 07	60"	8.5v	16.3	Cyg
134	Minkowski's Butterfly	?+6	17 05 37.9	-10 08 32	50 x 20"	14.6v	15.6	Oph
203	Minkowski's Footprint	-	19 36 18.9	+29 32 51	20 x 4"	11.7v	-	Cyg
119	Owl Nebula	3a	11 14 47.8	+55 01 09	3.4'	9.9v	16.0	UMa
54	Oyster Nebula	3	04 06 59.6	+60 55 11	52"	13.3p	14.2	Cam
281	Phantom Streak	4	19 02 37.1	-00 26 57	8"	11.5v	17.6	Aql
75	Raspberry Nebula	4	05 27 28.2	-12 41 49	12"	9.3v	10.1	Lep
170	Red Spider Nebula	2a+6	18 05 13.1	-19 50 35	10"	11.6v	18.8	Sgr
121	Retina Nebula	4+3	14 22 26.5	-44 09 05	100 x 37"	10.2v	17.4	Lup
197	Ring Nebula	4+3	18 53 35.2	+33 01 44	1.8 x 1.4'	8.8v	14.7	Lyr
312	Saturn Nebula	4+6	21 04 10.9	-11 21 49	70"	8.0v	12.7	Aqr
322	Skull Nebula	3b+3	00 47 03.6	-11 52 20	4.1'	10.9v	11.9	Cet
214	Soap Bubble	-	20 15 22	+38 02 43	240"	-	19	Cyg
307	Spare Tyre Nebula	4	21 59 35.2	-39 23 09	2.2'	12.9p	16.5	Gru
127	Turtle Nebula	2+3b	16 44 29.7	+23 47 58	30"	8.8v	12.6	Her
126	White Eyed Pea Nebula	2+2	16 11 44.5	+12 04 17	30"	10.7v	11.2	Her

Additional Resources

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Goldstein, Alan. "Surveying Autumn's Planetaries" *Deep Sky*, Vol 20 (1987), 8-13

Gottlieb, Steve. "How to Observe Exploded Stars" *Astronomy* (Sep 2006), 64-67

Jakiel, Richard. "A Collection of Bipolar Planetary Nebulae" *Sky and Telescope* (Mar 2002), 108-110

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Kraljic, Frank. "Outer Halos of Planetary Nebulae" *Sky and Telescope* (Oct 2003), 111-114

Kratz, Dave. “Observing Planetary Nebulae” *Deep Sky*, Vol 6 (1984), 6-15

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Marling, Jack. “Summer’s Multitude of Planetaries” *Deep Sky*, Vol 17 (1986), 8-19

Marling, Jack. “M7 and Its Planetaries” *Deep Sky*, Vol 23 (1988), 10-17

Mitchell, Larry. “The Gentle Art of Sketching Planetary Nebulae” *Deep Sky*, Vol 33 (1991), 24-29

McNeil, Jay. “Summertime Planetaries Beyond the NGC” *Sky and Telescope* (Aug 1999), 122-124

McNeil, Jay. “More Planetaries Beyond the NGC” *Sky and Telescope* (Sep 1999), 124-126

Reddy, Francis. “What makes a Planetary Nebula” *Deep Sky*, Vol 6 (1984), 16-20

Websites

www.blackskies.org – Doug Snyder’s Planetary Observers site

www.deepskyforum.com - The premier Deep Sky forum where advanced deep sky observers converge and discuss various aspects of deep sky observing.

www.astronomy-mall.com/Adventures.In.Deep.Space/ - Great source of observing projects for all skill levels.

archive.stsci.edu/cgi-bin/dss_form - The STScI Digitized Sky Survey

skyserver.sdss3.org/dr8/en/tools/chart/chart.asp - SkyServer DR8 Tools for Visual Exploration (SDSS)

www.cloudynights.com – Great resource for like-minded amateurs discussing most aspects of the hobby.

Sources of Charts and Images

Charts by *Megastar version 5* Willmann-Bell Richmond, VA

archive.stsci.edu/dss/acknowledging.html - DSS images (Digital Sky Survey)

Revision History

Revision Date	Changes
Aug 30, 2009	Identified requirements for Astronomical League Planetary Nebulae list (AL on the indices and a separate list by itself) Added new objects • Longmore-Tritton 5 • Sharpless 2-216 (closest PNe to earth) • IRAS 09371+1212 (Frosty Leo) • Vyssotsky 2-2 • WR 134 – large PNe posted by Reiner on Cloudy Nights • PN G075.5+1.7 – new bubble PNe in Cygnus • New PNe candidate posted by Matthias on AmAstro 07/27/09
Sept 15, 2010	Added new objects • Kohoutek 1-17 - Corrected naked eye finder chart for NGC 6567
July 23, 2011	Added new objects • IPHAS J052708.2+383113 • Ethos 1 • Necklace Nebula • Shane 1 • PN G 026.2-03.4 • PN G 027.6+16.9 • Sweet Pea
April 1, 2013	Added new objects • Kn 58 • Kn 26 • DHW 1-2 • Little Blue Fox Significant enhancement to finder charts and formatting Added new table – sorted by common name
April 12, 2013	Added cover page
August 16, 2013	Corrected page numbers on page 334 Correct common name of NGC 6445 (Crescent to Box Nebula)
March 2024	Corrected “Other ID” to PK 107-2.1 on page 318. Minor edits. No other material changes.