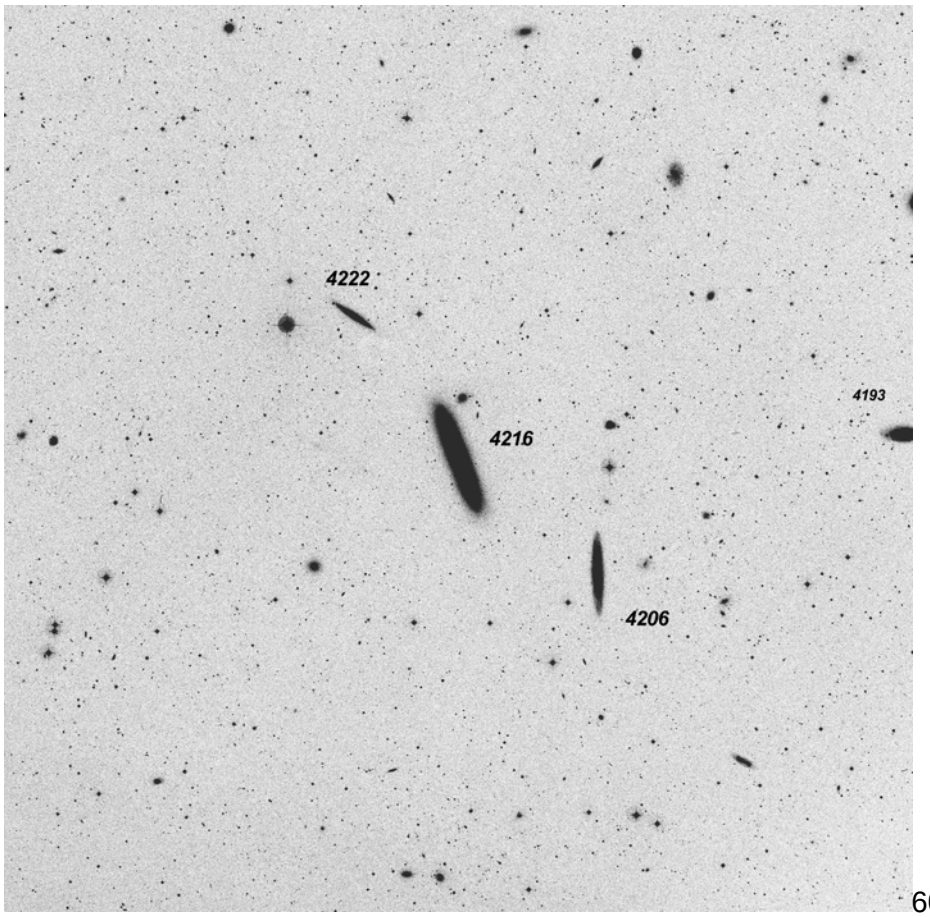
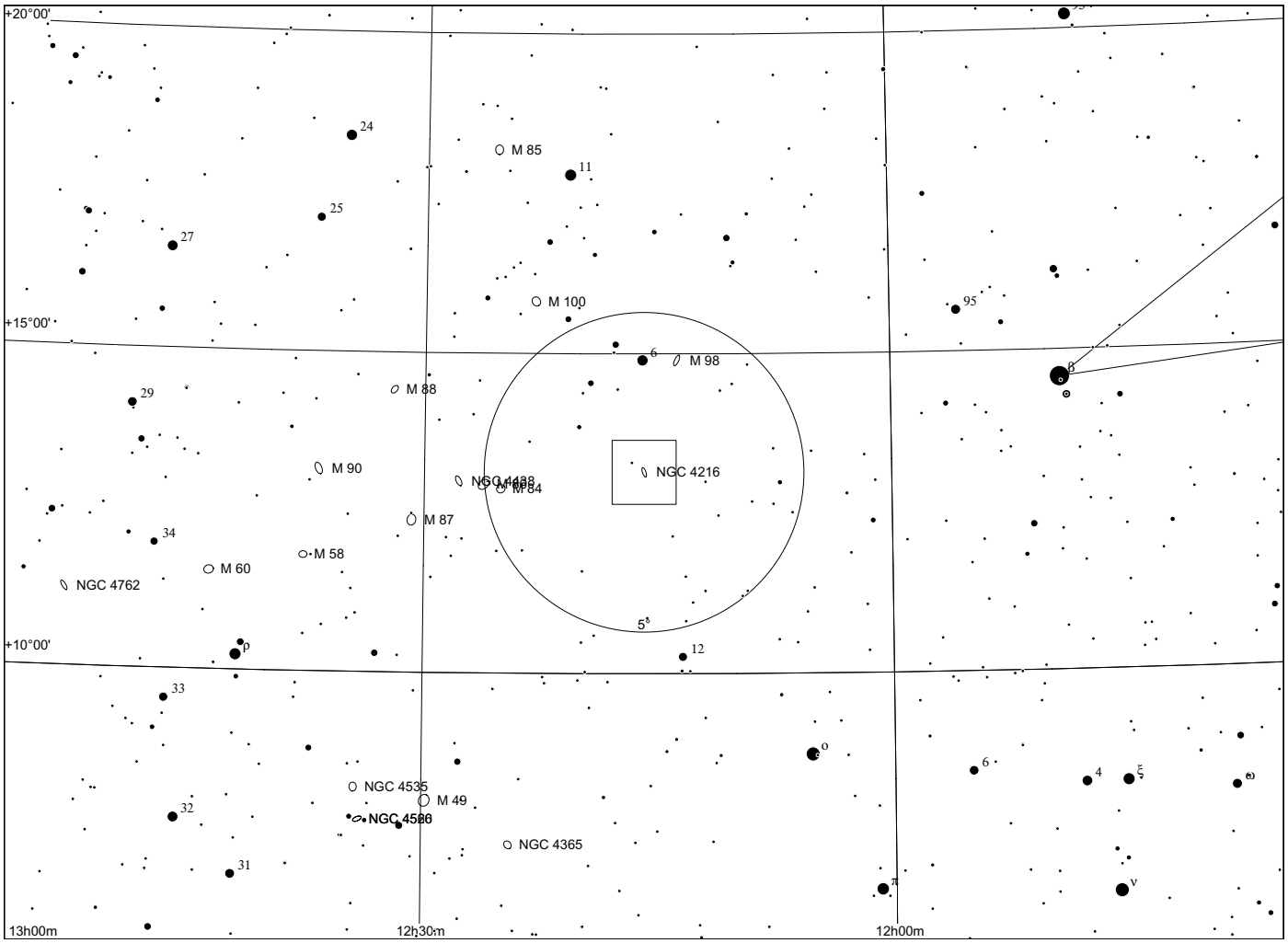
NGC 4216 and friends in Virgo

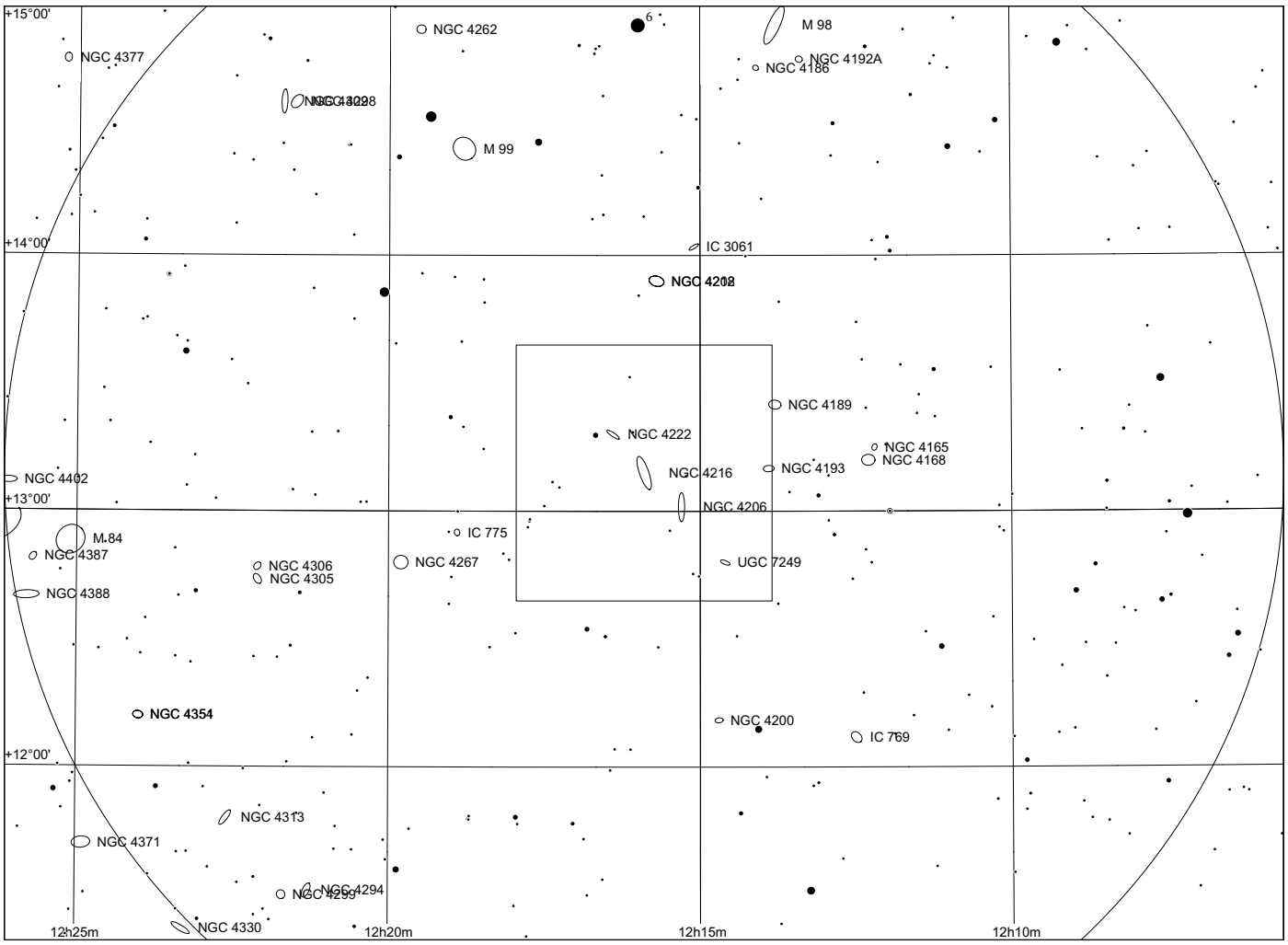


60x60

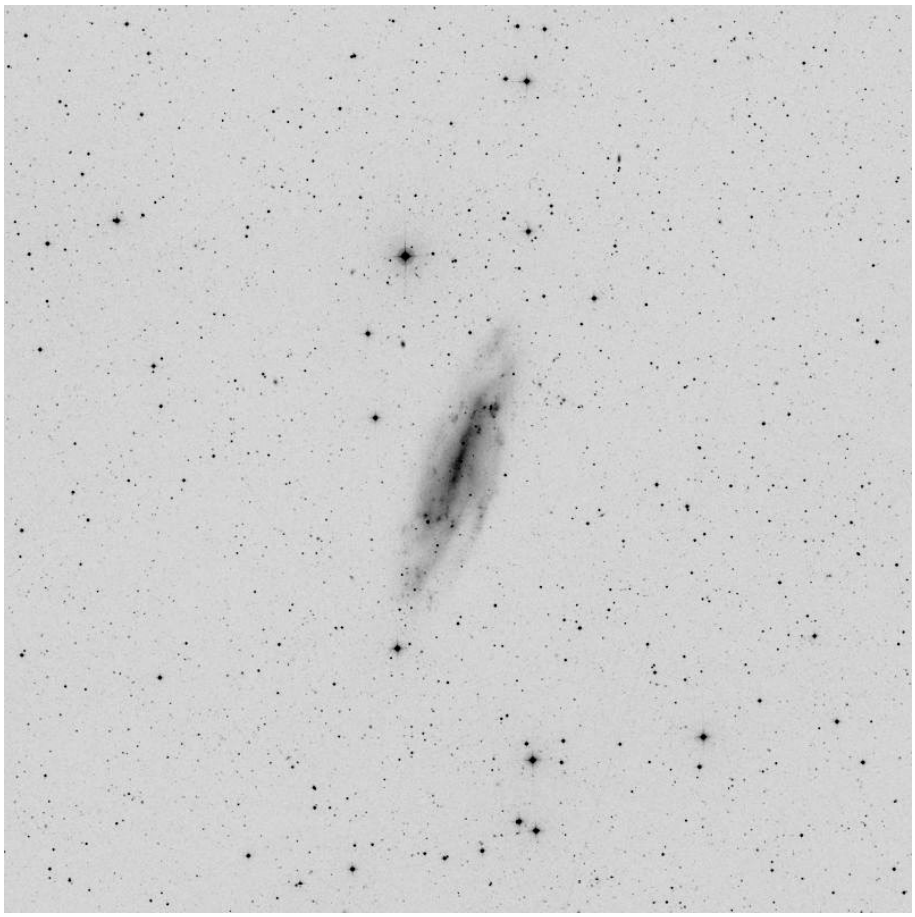
	other	RA	Dek	comments
NGC 4216		12 15 54	+13 08 58	

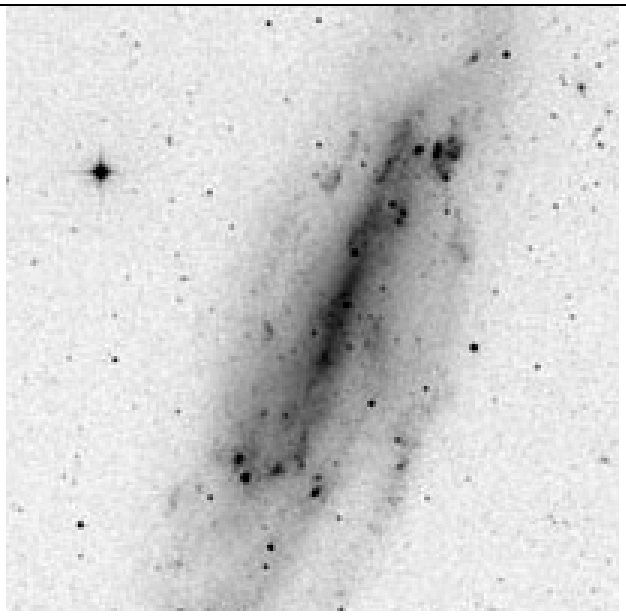
Observing notes:


+20°00'
+15°00'
+10°00'
13h00m
12h30m
12h00m
M 85
M 100
M 98
M 88
M 90
M 84
M 87
M 58
M 60
NGC 4216
NGC 4762
NGC 4535
M 49
NGC 4526
NGC 4365
24
25
27
11
95
29
34
33
32
31
12
6
5
4

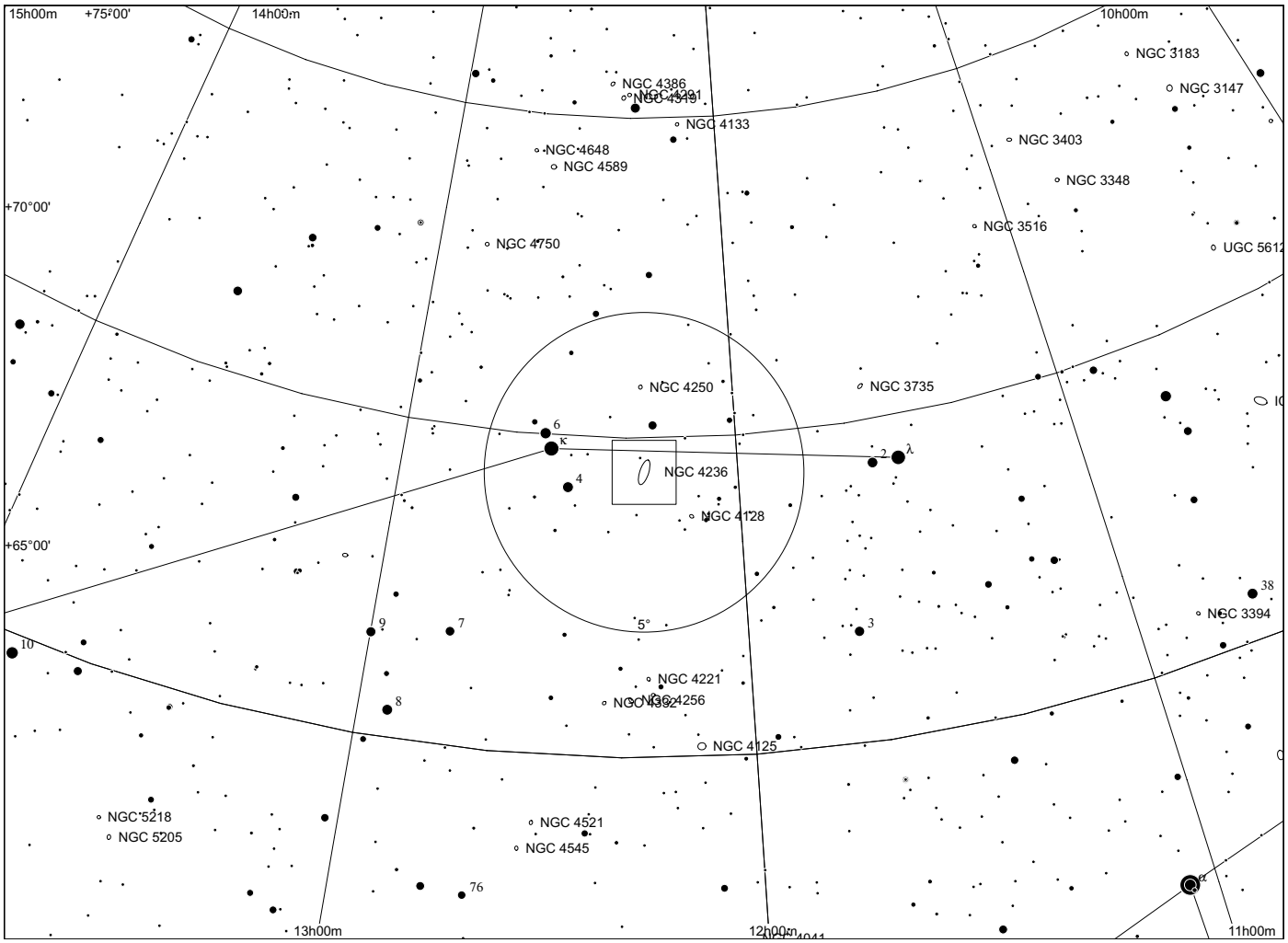

+15°00'
+14°00'
+13°00'
+12°00'
12h25m
12h20m
12h15m
12h10m
NGC 4377
NGC 4262
M 98
NGC 4192A
NGC 4186
M 99
IC 3061
NGC 4189
NGC 4222
NGC 4165
NGC 4168
NGC 4216
NGC 4193
NGC 4206
NGC 4402
M 84
NGC 4387
IC 775
NGC 4306
NGC 4305
NGC 4267
UGC 7249
NGC 4388
NGC 4354
NGC 4200
IC 769
NGC 4313
NGC 4371
NGC 4294
NGC 4330
6

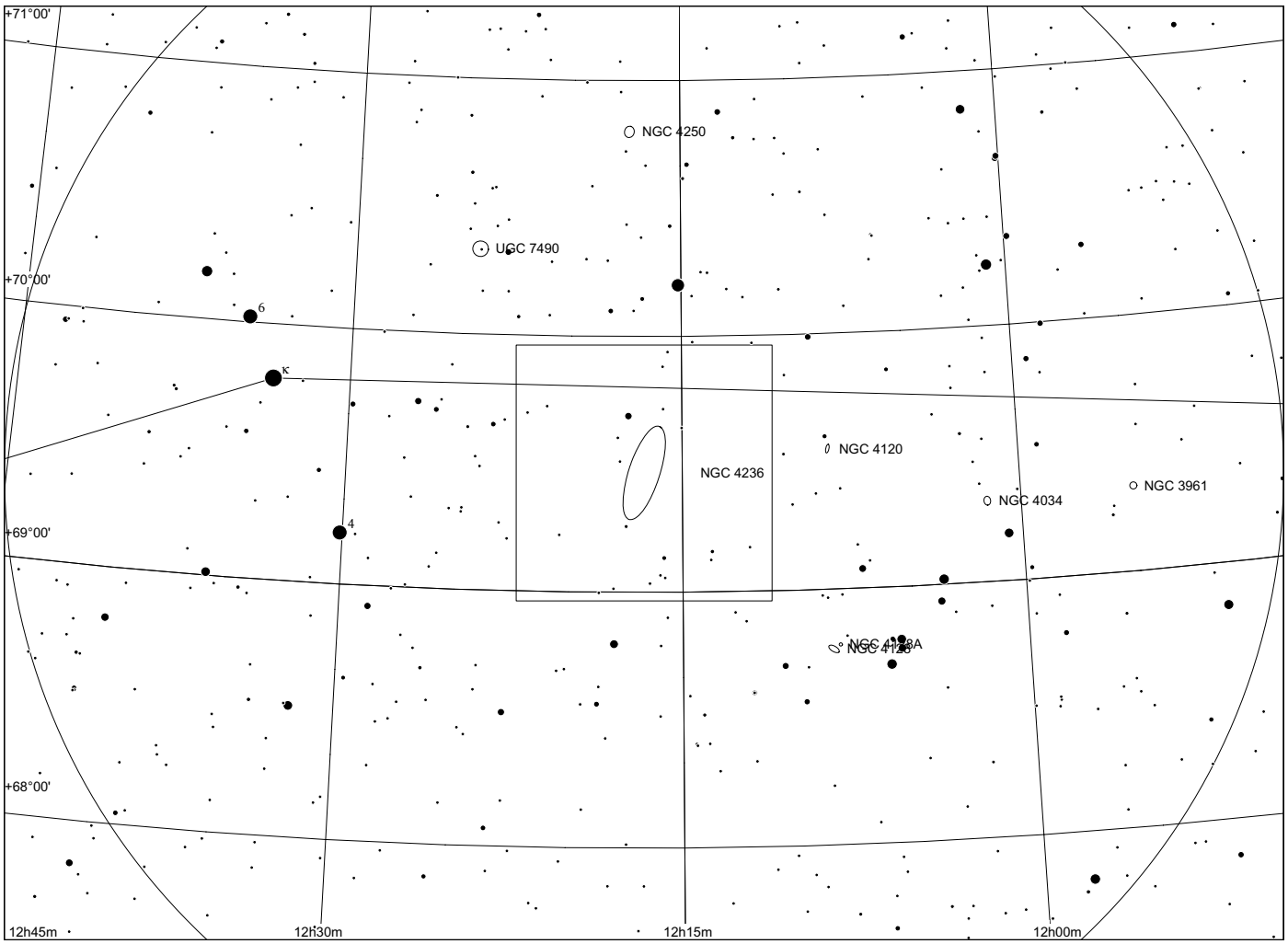
NGC 4236 in Draco



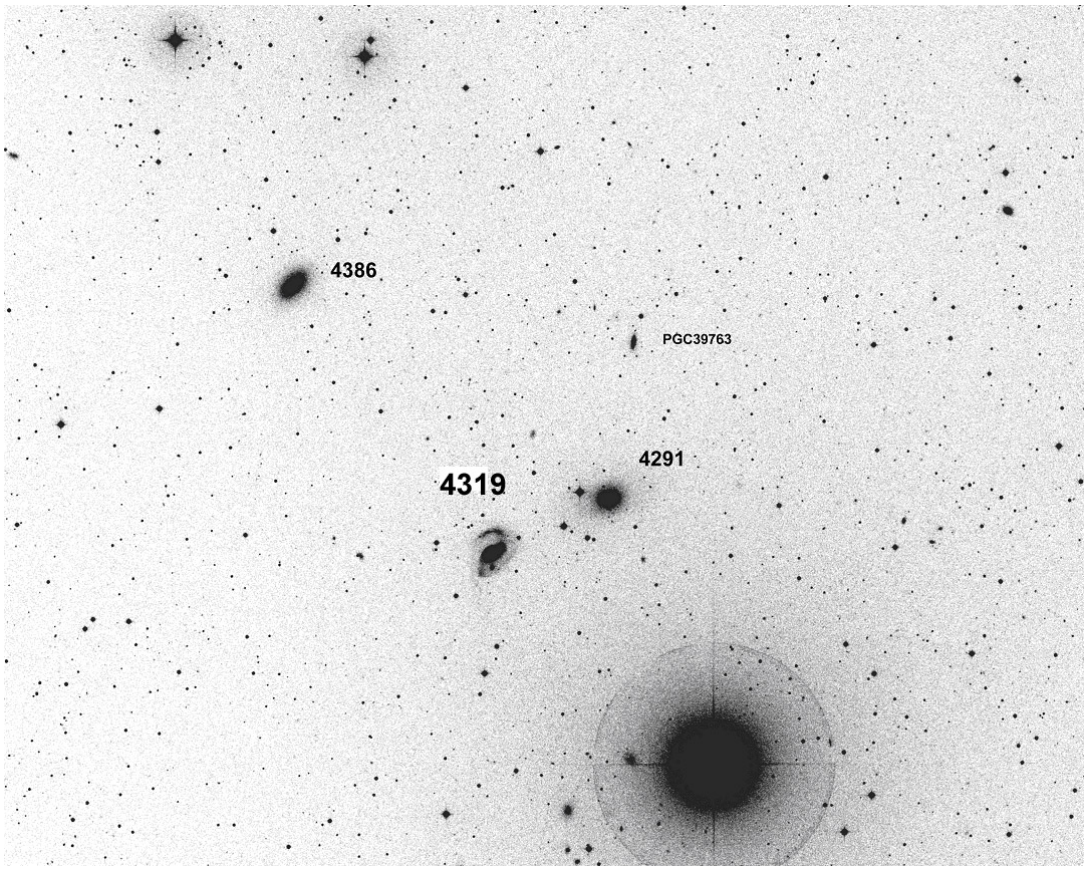


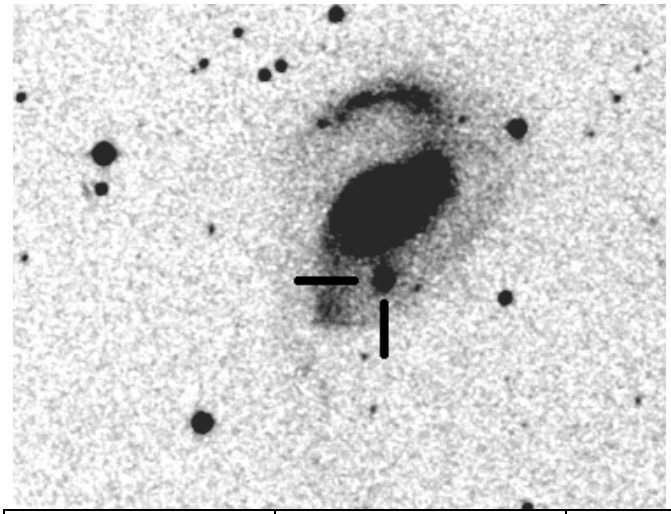
NGC 4236	12 16 41 +69 28 09	


15h00m
+75°00'
14h00m
10h00m
NGC 3183
NGC 3147
NGC 4386
NGC 4291
NGC 4340
NGC 4133
NGC 3403
NGC 4648
NGC 4589
NGC 3348
+70°00'
NGC 3516
NGC 4750
UGC 5612
NGC 4250
NGC 3735
6
κ
2
λ
4
NGC 4236
NGC 4128
+65°00'
38
NGC 3394
9
7
5°
3
10
NGC 4221
8
NGC 4392
NGC 4256
NGC 4125
NGC 5218
NGC 5205
NGC 4521
NGC 4545
76
α
13h00m
12h00m
11h00m


+71°00'
NGC 4250
UGC 7490
+70°00'
6
κ
NGC 4120
NGC 4236
NGC 4034
NGC 3961
+69°00'
4
NGC 4128A
NGC 4126
+68°00'
12h45m
12h30m
12h15m
12h00m

Markarian 205 in Draco

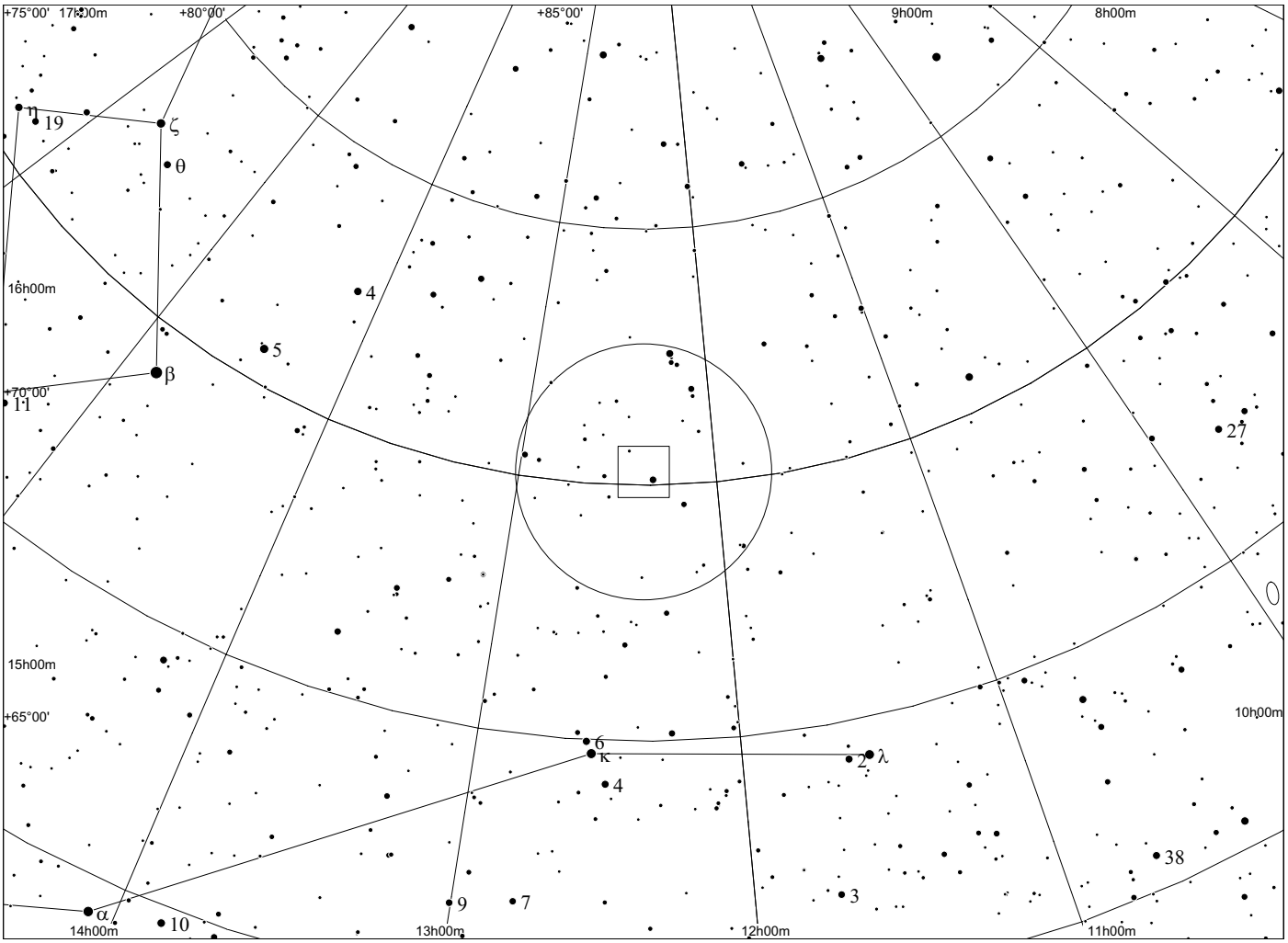


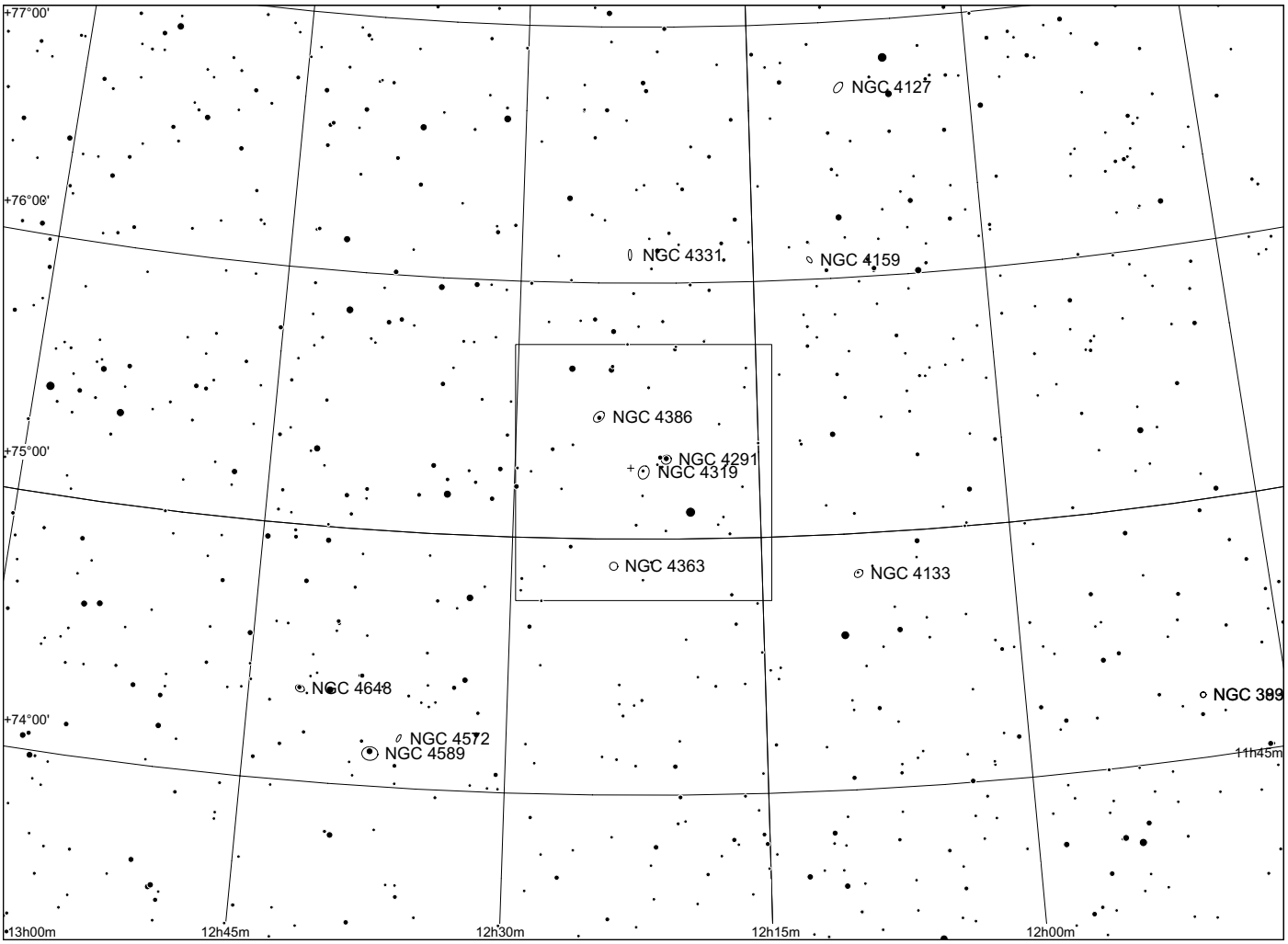


	other	RA	Dek	comments
Mrk 205	**bei NGC4319**	12 21 43	+75 19 21	Quasar

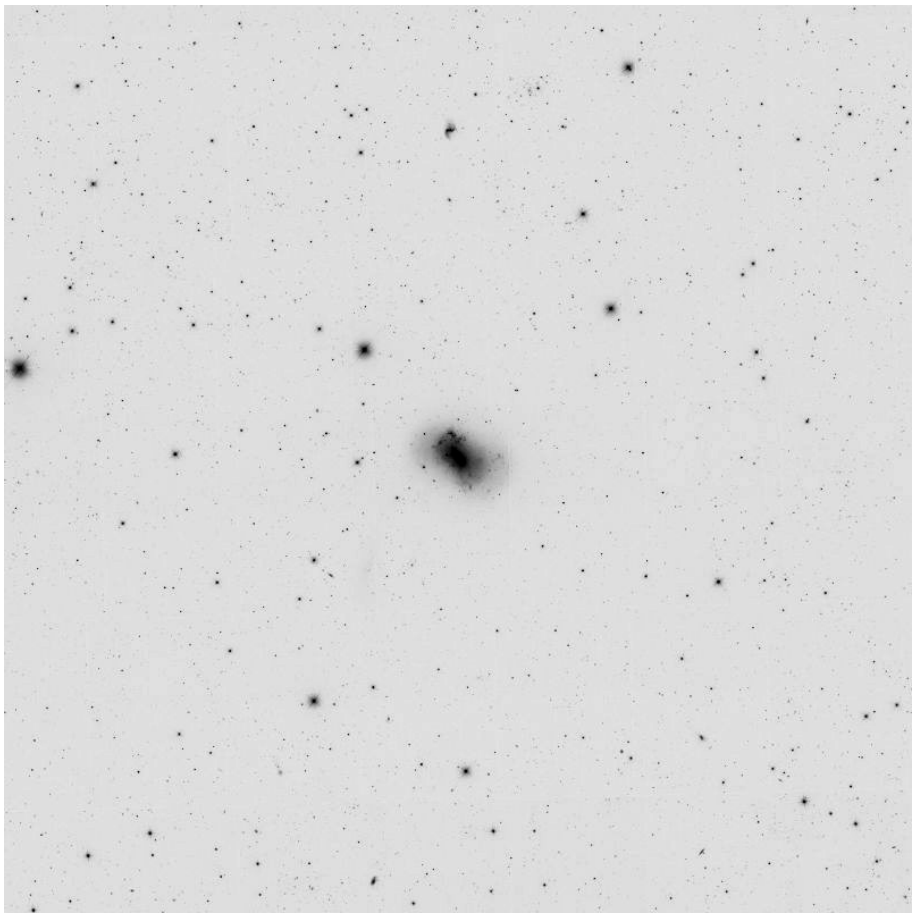
Mrk 205 ist ein geschichtsträchtiges Objekt. Trotz der extrem unterschiedlichen Rotverschiebungen von Mrk 205 und NGC4319 vermutete Halton Arp eine "Materiebrücke" zwischen beiden. Diese hättet bedeutet, dass beide Objekte nahe beieinander stehen müssen. Arp verfolgte die Hypothese, dass die hohe Rotverschiebung der Quasare nicht auf ihrer Entfernung beruhte, sondern dass sie aus Galaxien ausgestoßene Objekte sind und die Rotverschiebung ihrer Spektren andere Ursachen habe (z.B. Gravitation). Damit stand er im krassen Widerspruch zur damaligen wissenschaftlichen Community, allen voran Allan Sandage, was zu einigen Fehden zwischen den Anhängern der verschiedenen Sichtweisen führte.

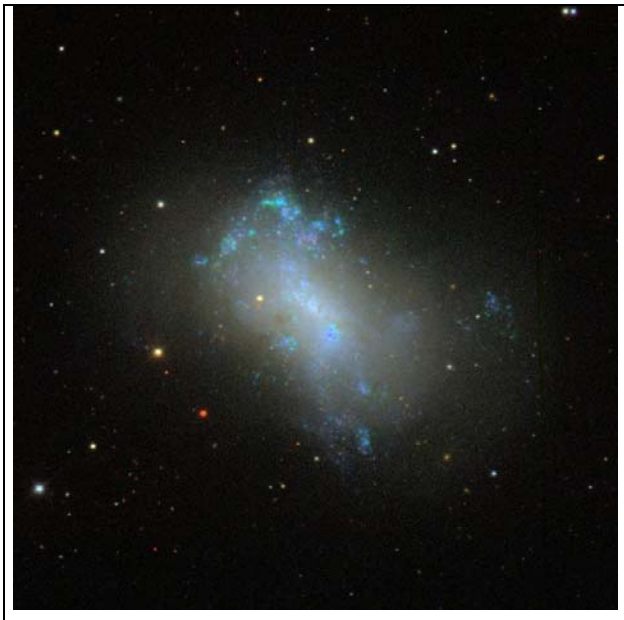
Mrk 205 ist nicht einfach, ist aber schon mit 14" gut indirekt zu sehen.

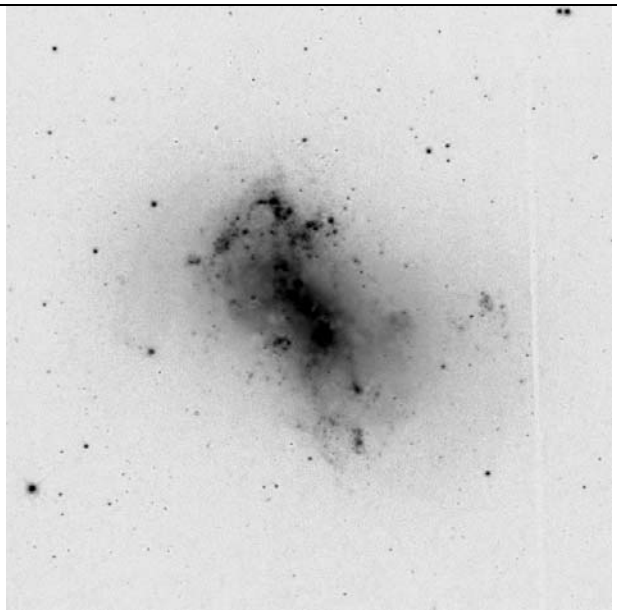

+75°00'
17h00m
+80°00'
+85°00'
9h00m
8h00m
η
19
ζ
θ
16h00m
4
5
β
+70°00'
11
27
15h00m
+65°00'
10h00m
6
κ
2
λ
4
38
3
9
7
α
10
14h00m
13h00m
12h00m
11h00m


+77°00'
NGC 4127
+76°00'
NGC 4331
NGC 4159
NGC 4386
+75°00'
NGC 4291
NGC 4319
NGC 4363
NGC 4133
NGC 4648
NGC 389
+74°00'
NGC 4572
NGC 4589
11h45m
13h00m
12h45m
12h30m
12h15m
12h00m

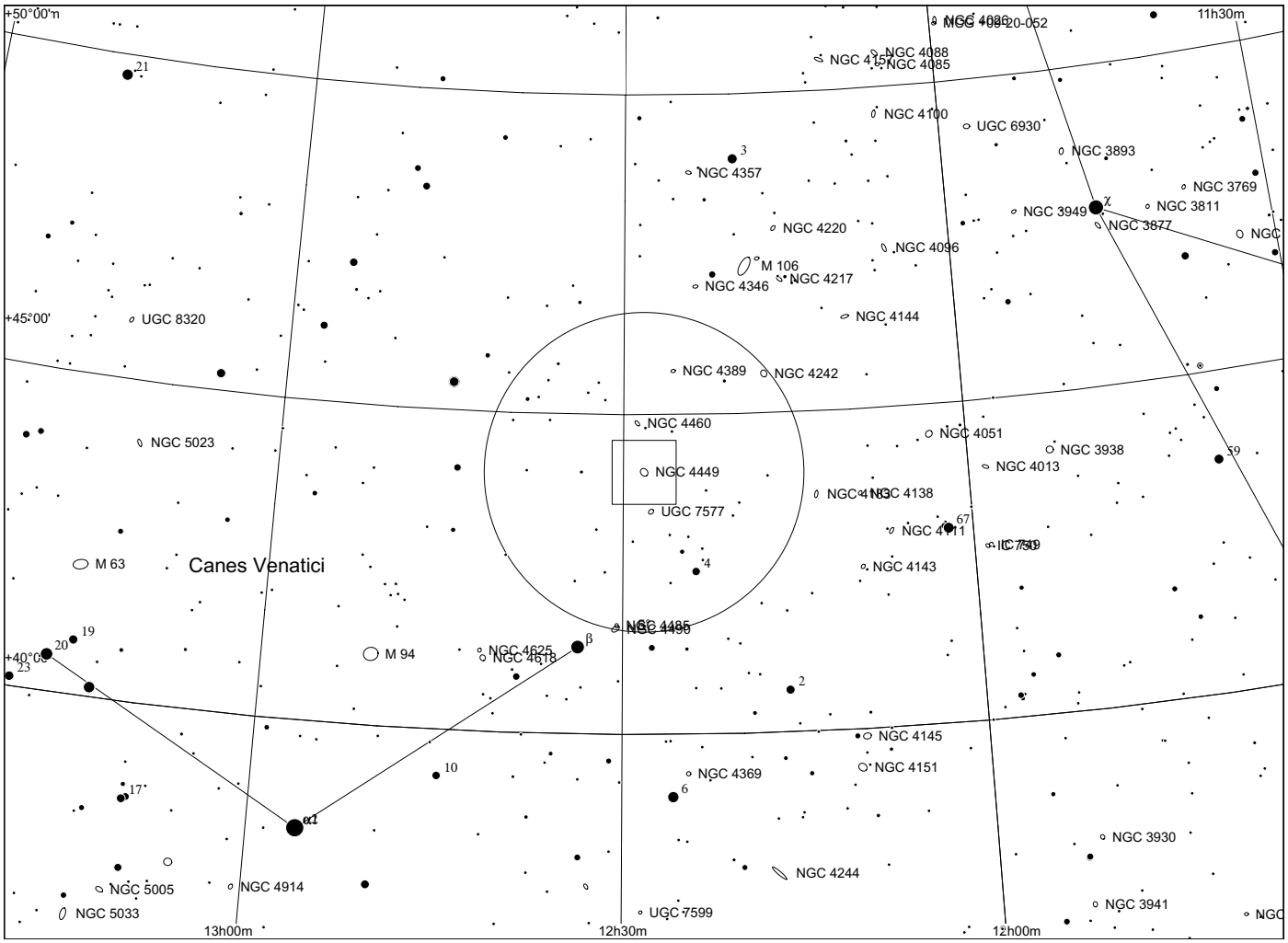
NGC 4449 in Canes Venatici

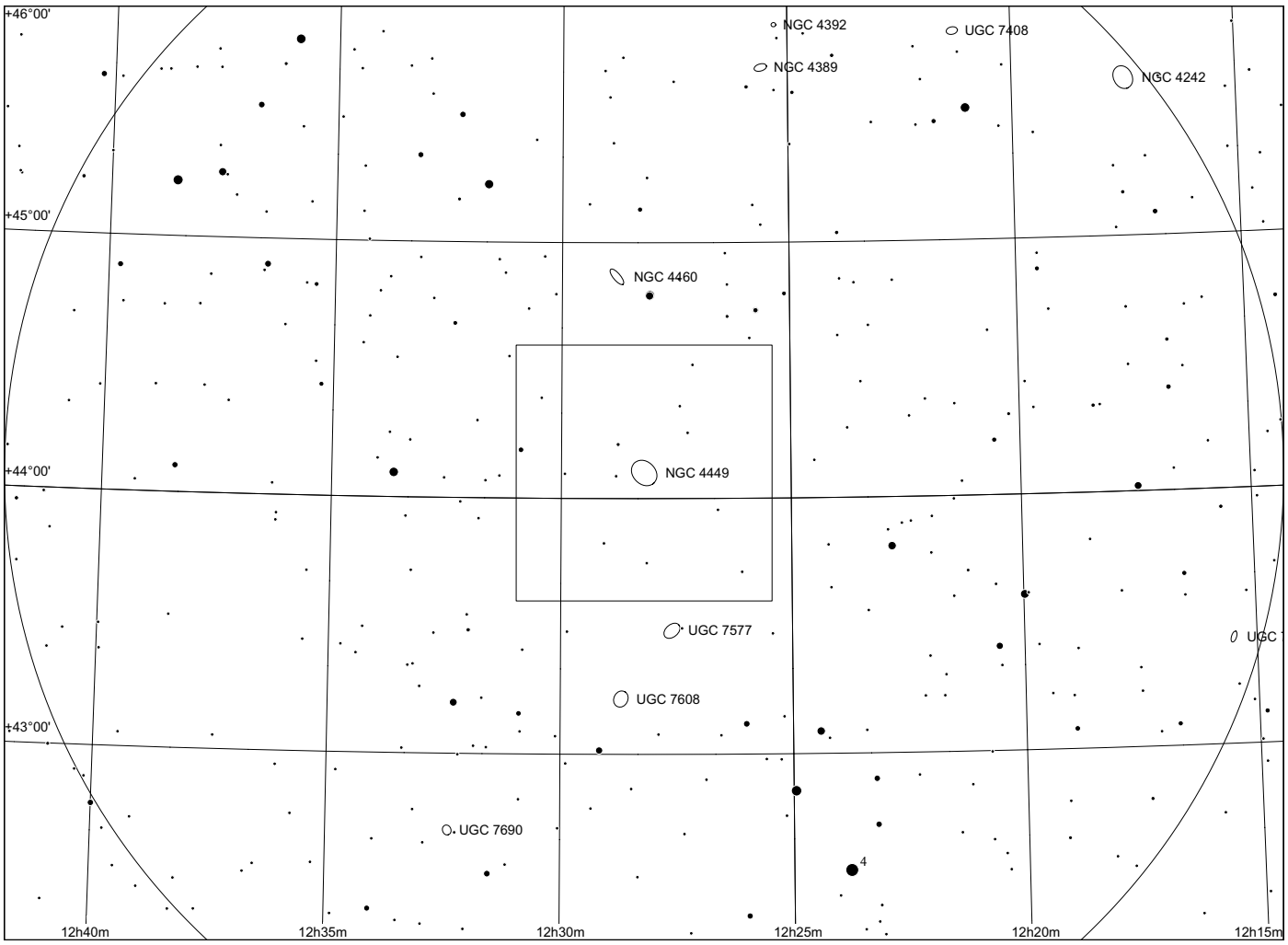




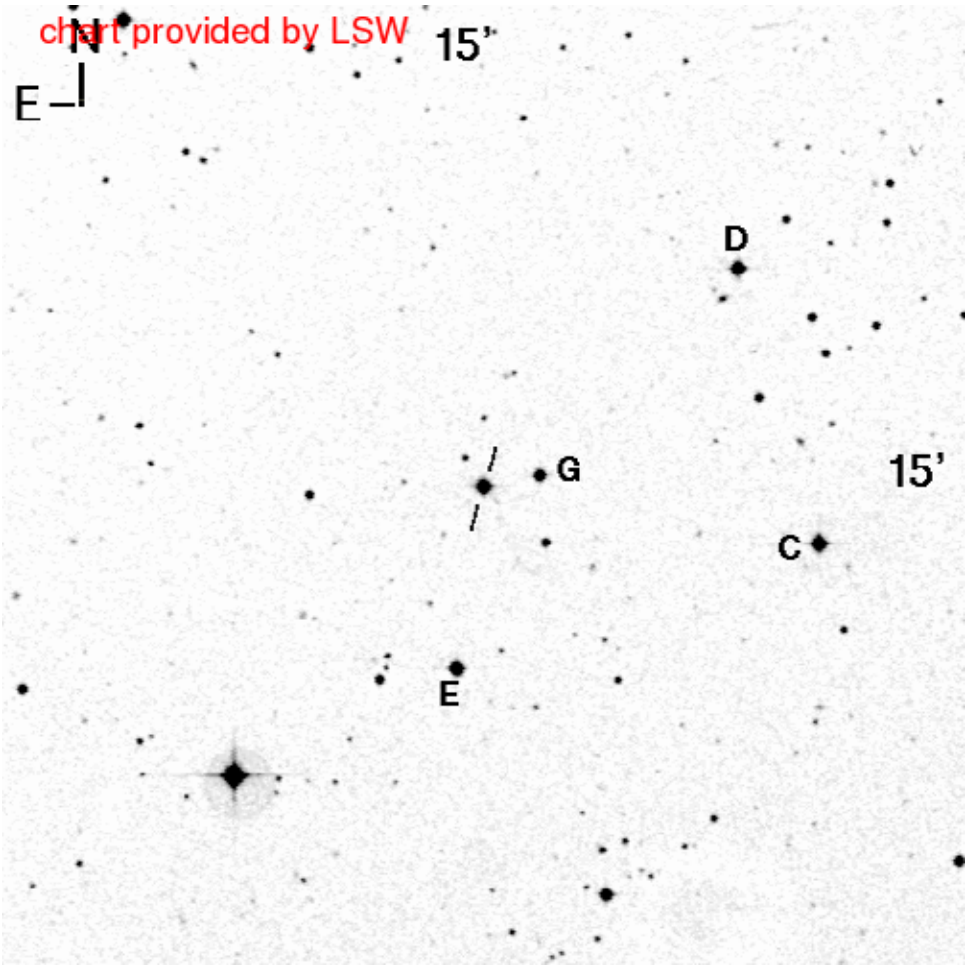


NGC 4449	12 28 11 +44 05 33

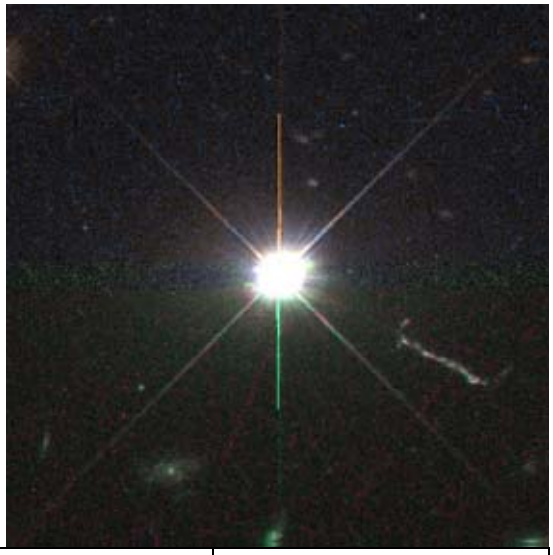

+50°00'm
11h30m
NGC 4088
NGC 4085
NGC 4100
UGC 6930
NGC 3893
NGC 4357
NGC 3769
NGC 3811
NGC 3949
NGC 3877
NGC 4220
NGC 4096
M 106
NGC 4346
NGC 4217
+45°00'
UGC 8320
NGC 4144
NGC 4389
NGC 4242
NGC 4460
NGC 5023
NGC 4051
NGC 3938
NGC 4013
NGC 4449
NGC 4138
UGC 7577
NGC 4411
M 63
Canes Venatici
NGC 4143
NGC 4485
NGC 4490
M 94
NGC 4625
NGC 4618
+40°00'
NGC 4145
NGC 4151
NGC 4369
NGC 3930
NGC 4244
NGC 5005
NGC 4914
NGC 5033
UGC 7599
NGC 3941
13h00m
12h30m
12h00m


+46°00'
NGC 4392
UGC 7408
NGC 4389
NGC 4242
+45°00'
NGC 4460
+44°00'
NGC 4449
UGC 7577
UGC 7608
+43°00'
UGC 7690
12h40m
12h35m
12h30m
12h25m
12h20m
12h15m

3C 273 in Virgo

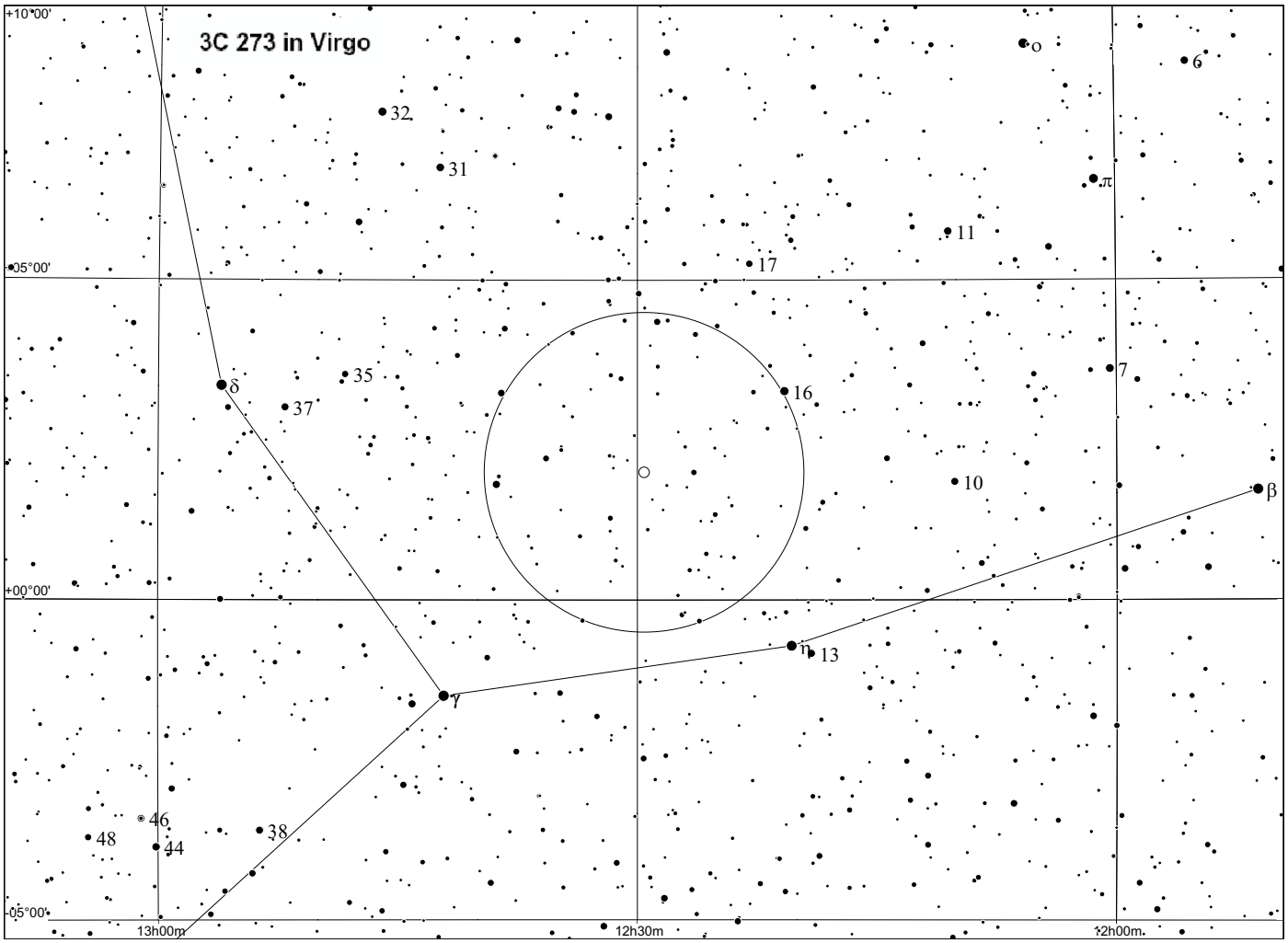


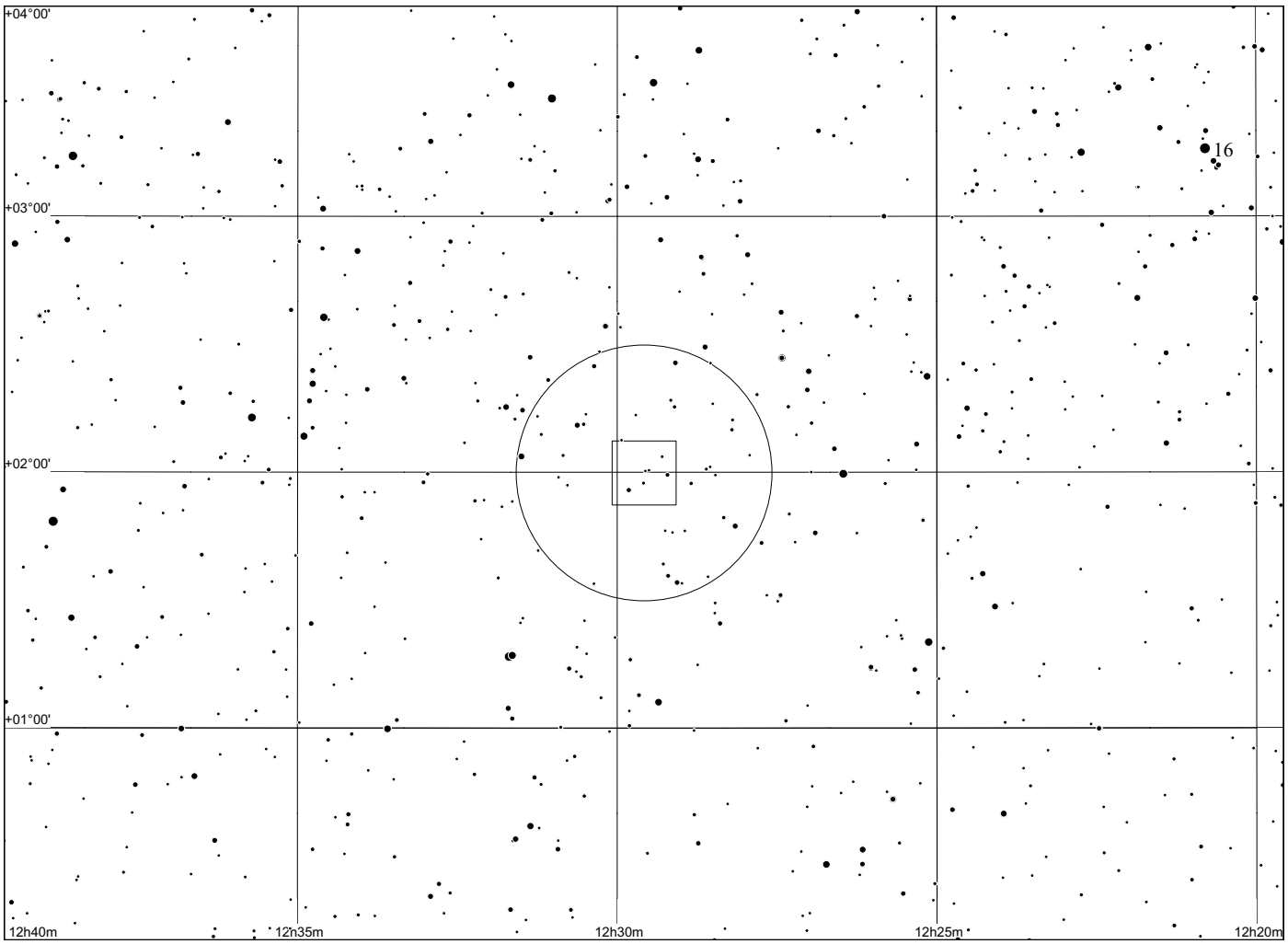
star	B	V	R
C	12.85(0.05)	11.87(0.04)	11.30(0.04)
D	13.17(0.05)	12.68(0.04)	12.31(0.04)
E	13.33(0.07)	12.69(0.04)	12.27(0.05)
G	14.12(0.05)	13.56(0.05)	13.16(0.05)



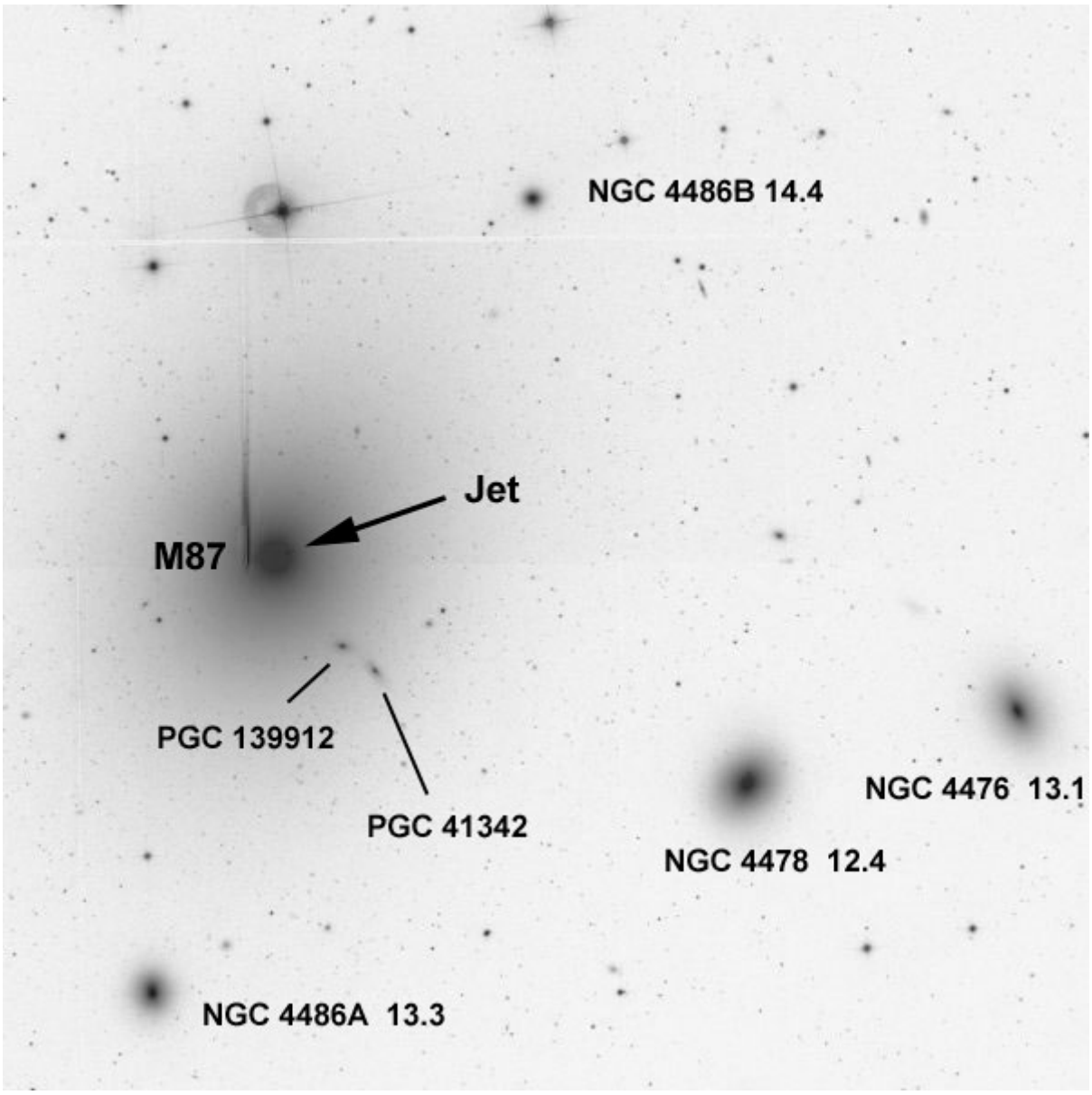
	other	RA	Dek	comments
3C 273		12 29 06	+02 03 08	first QSO

3C273 war der erste Quasar, bei dem das Spektrum von Maarten Schmidt als extrem rotverschoben erkannt wurde (was Allen Sandage, dem Nachfolger von Hubble an Palomar, ziemlich düpierte). Quasar sind Galaxien mit extrem hellen Kernen, in denen Materie auf eine Akkretionsscheibe um ein zentrales Schwarzes Lock stürzt. 3C273 hat eine Rotverschiebung von 0.158 und ist 2.4 Milliarden Lichtjahre entfernt.

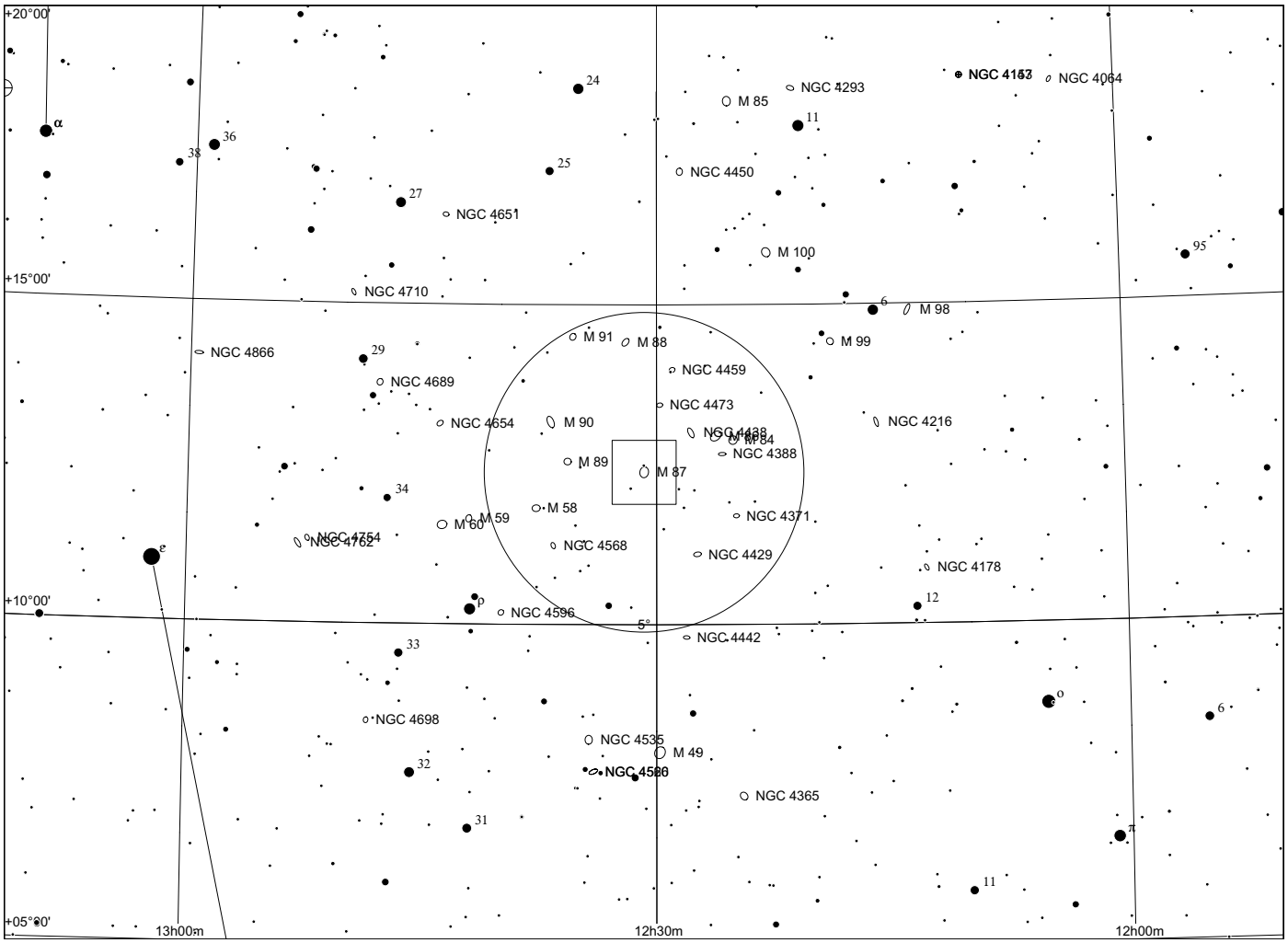

3C 273 in Virgo
+10°00'
05°00'
+00°00'
05°00'
13h00m
12h30m
12h00m
o
6
32
31
π
11
17
δ
35
37
16
7
10
β
η
13
γ
46
48
44
38

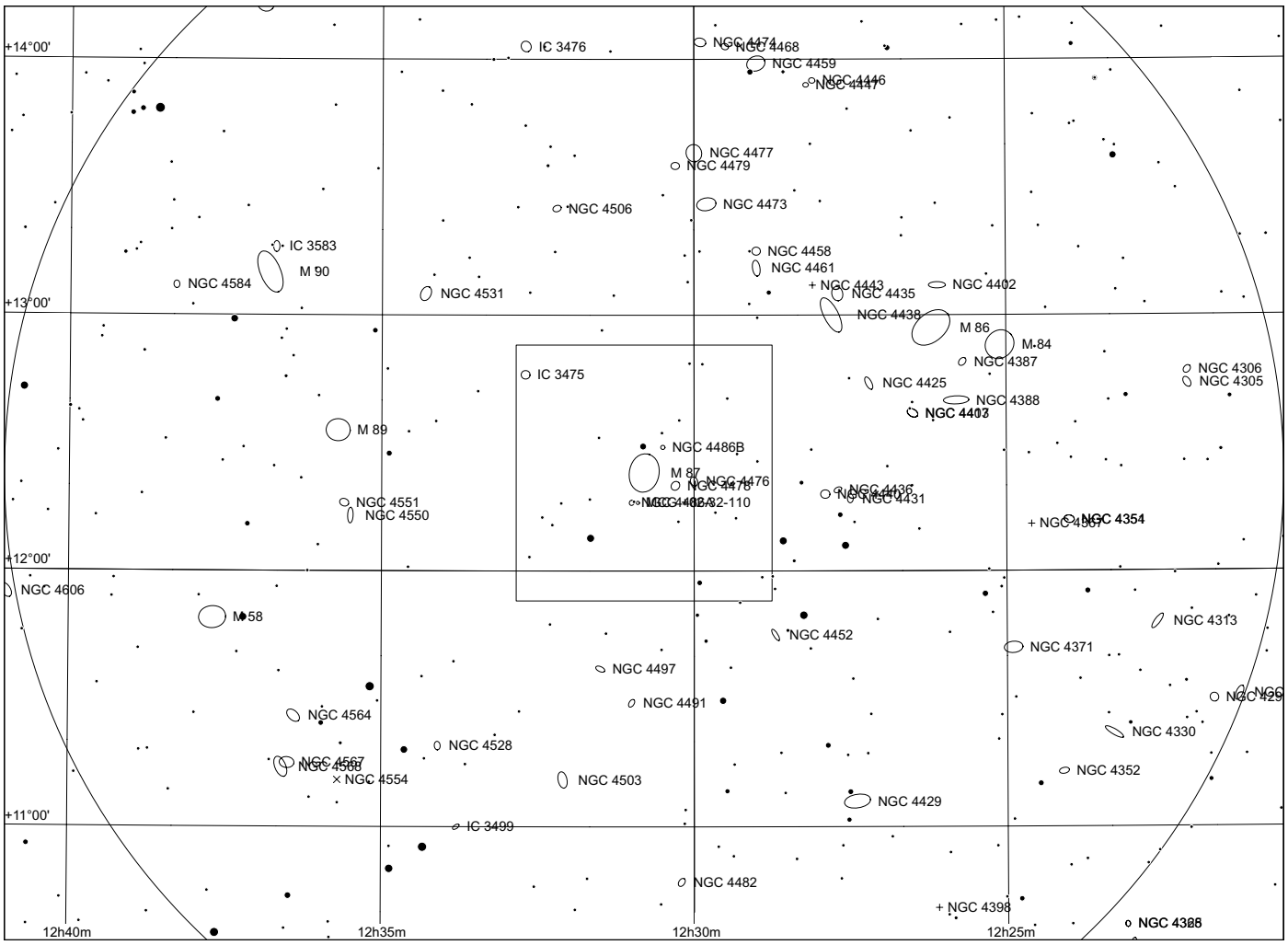

+04°00'
+03°00'
+02°00'
+01°00'
16
12h40m
12h35m
12h30m
12h25m
12h20m

M87 in Virgo

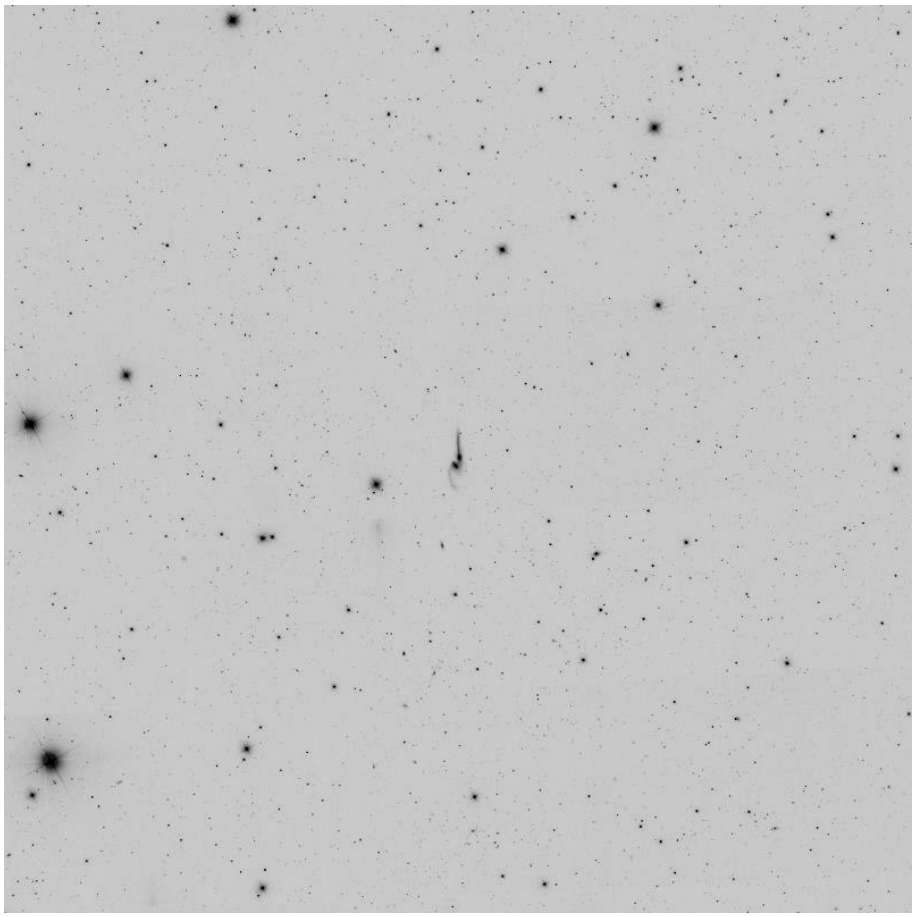


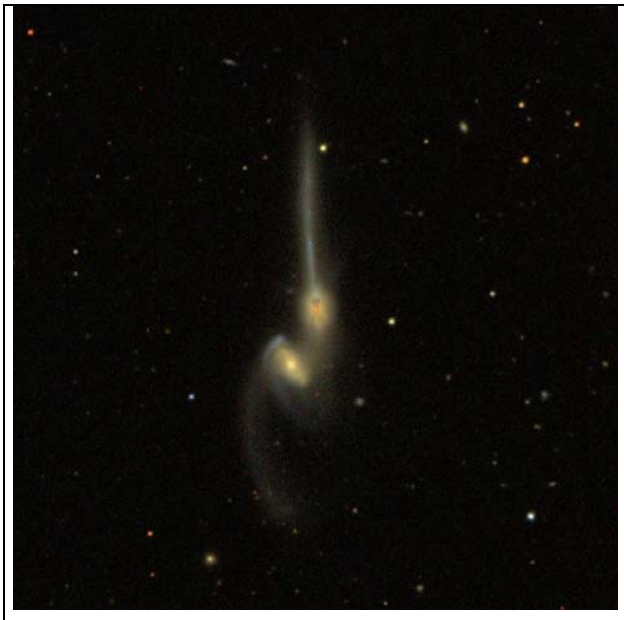
M87	12 30 49 +12 23 28	

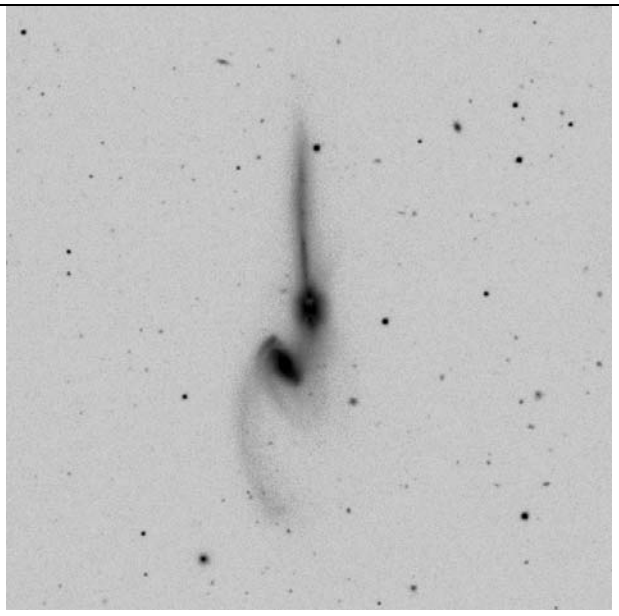

+20°00'
+15°00'
+10°00'
+05°00'
13h00m
12h30m
12h00m
NGC 4157
NGC 4064
NGC 4293
M 85
NGC 4450
NGC 4651
M 100
NGC 4710
M 98
NGC 4866
M 91
M 88
M 99
NGC 4459
NGC 4689
NGC 4473
NGC 4654
M 90
NGC 4216
NGC 4438
M 84
NGC 4388
M 89
M 87
M 58
M 59
M 60
NGC 4754
NGC 4762
NGC 4568
NGC 4371
NGC 4429
NGC 4178
NGC 4596
NGC 4442
NGC 4698
NGC 4535
M 49
NGC 4365


+14°00'
+13°00'
+12°00'
+11°00'
12h40m
12h35m
12h30m
12h25m
IC 3476
NGC 4474
NGC 4468
NGC 4459
NGC 4446
NGC 4447
NGC 4477
NGC 4479
NGC 4506
NGC 4473
IC 3583
M 90
NGC 4584
NGC 4531
NGC 4458
NGC 4461
NGC 4443
NGC 4435
NGC 4402
NGC 4438
M 86
M 84
NGC 4387
IC 3475
NGC 4425
NGC 4306
NGC 4305
NGC 4388
M 89
NGC 4486B
M 87
NGC 4476
NGC 4478
NGC 4436
NGC 4431
NGC 4551
NGC 4550
NGC 4354
NGC 4606
M 58
NGC 4452
NGC 4313
NGC 4371
NGC 4497
NGC 4491
NGC 4564
NGC 4330
NGC 4528
NGC 4567
NGC 4568
NGC 4554
NGC 4503
NGC 4352
NGC 4429
IC 3499
NGC 4482
NGC 4388

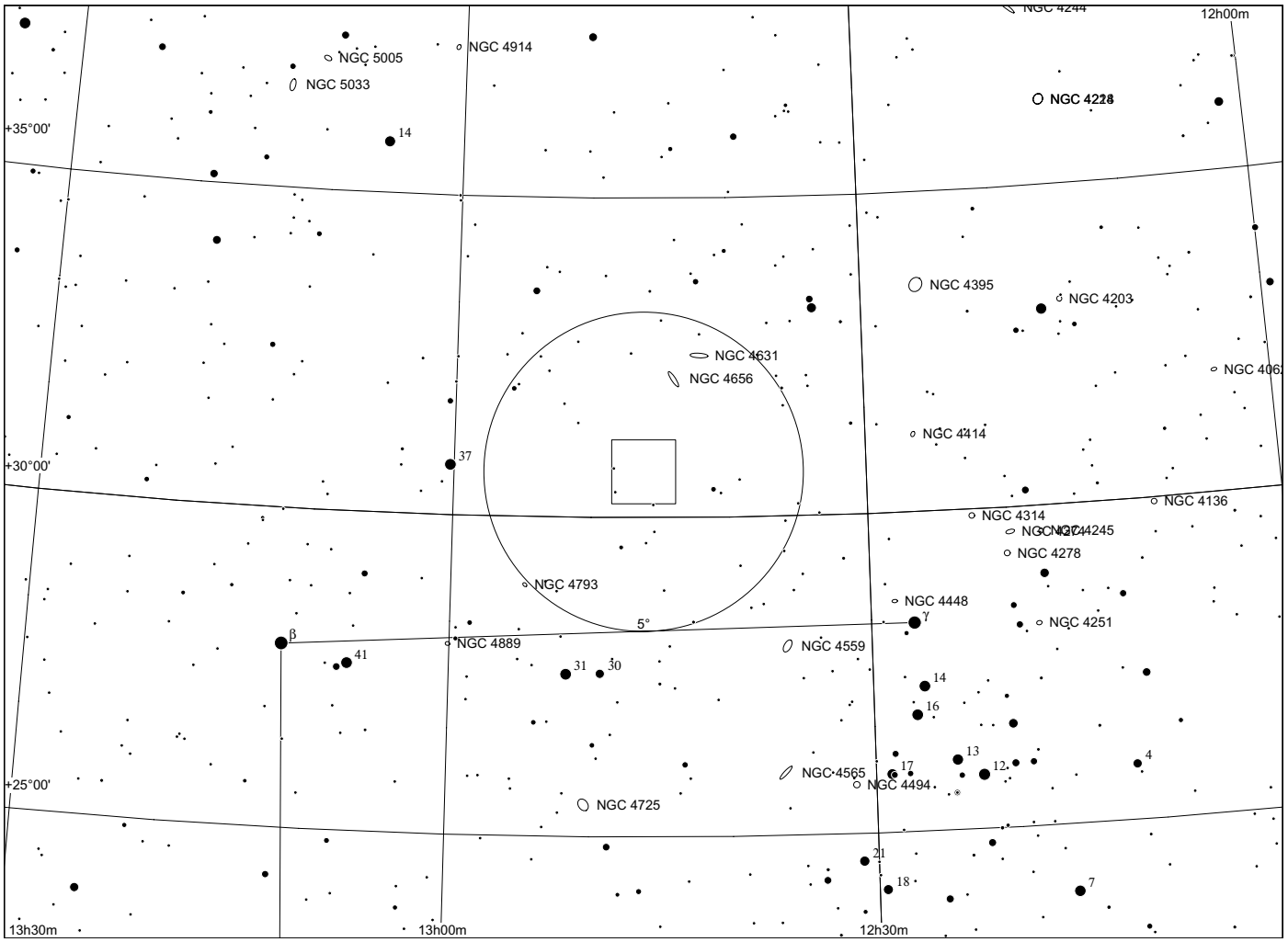
NGC 4676 in Coma Berenices

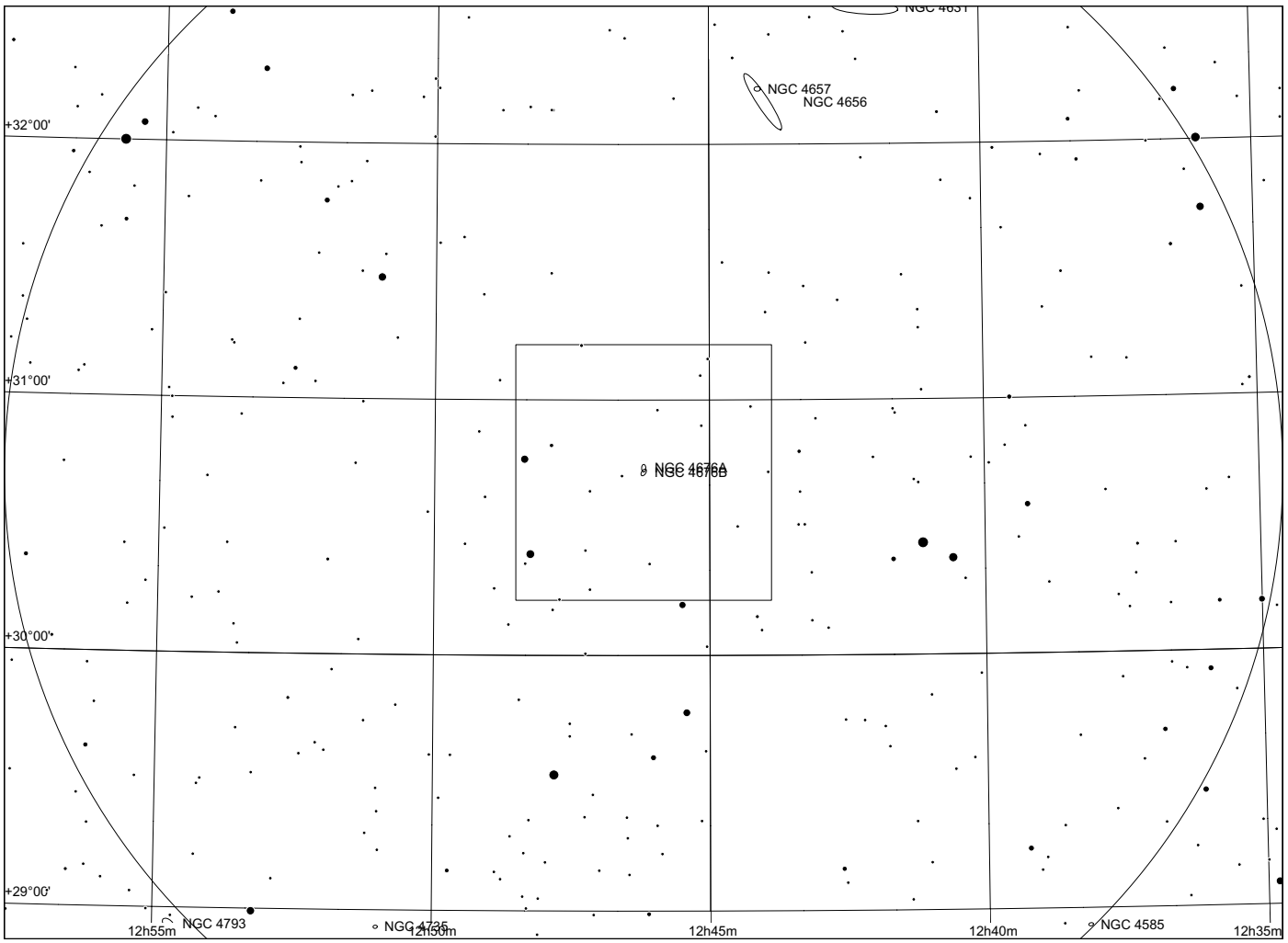




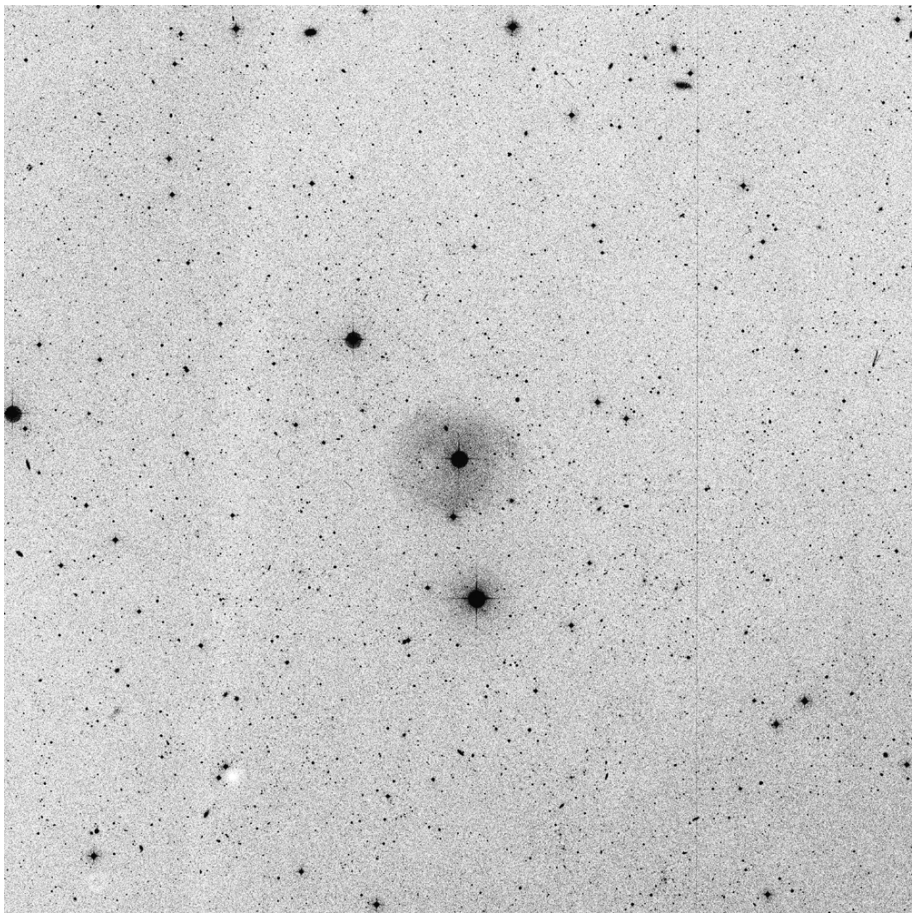


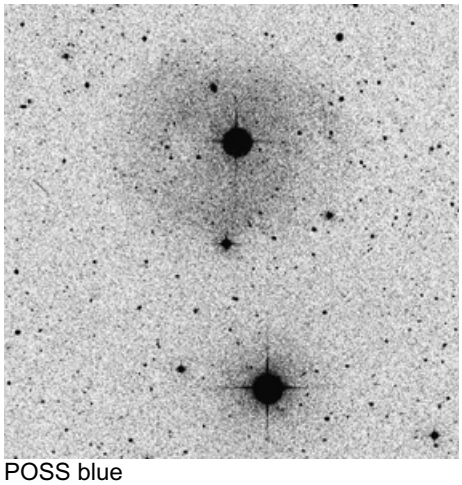
NGC 4676	12 46 00 +30 44 00	The Mice


12h00m
NGC 4244
NGC 5005
NGC 4914
NGC 5033
NGC 4228
+35°00'
14
NGC 4395
NGC 4203
NGC 4631
NGC 4656
NGC 4062
NGC 4414
+30°00'
37
NGC 4136
NGC 4314
NGC 4245
NGC 4278
NGC 4793
NGC 4448
5°
γ
NGC 4251
β
NGC 4889
NGC 4559
41
31
30
14
16
13
4
17
12
NGC 4565
NGC 4494
+25°00'
NGC 4725
21
18
7
13h30m
13h00m
12h30m

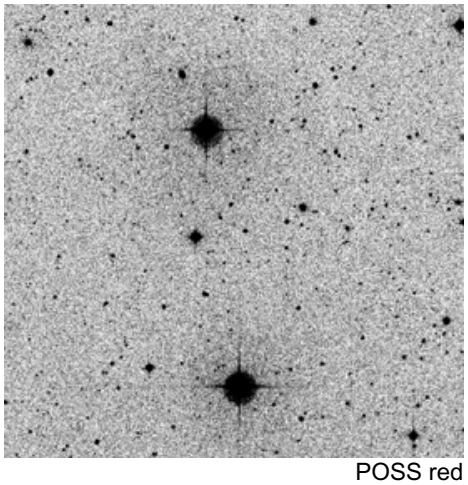

NGC 4631
NGC 4657
NGC 4656
+32°00'
+31°00'
NGC 4676A
NGC 4676B
+30°00'
+29°00'
NGC 4793
NGC 4736
NGC 4585
12h55m
12h50m
12h45m
12h40m
12h35m

Longmore-Tritton (LoTr) 5 in Coma Berenices





POSS blue

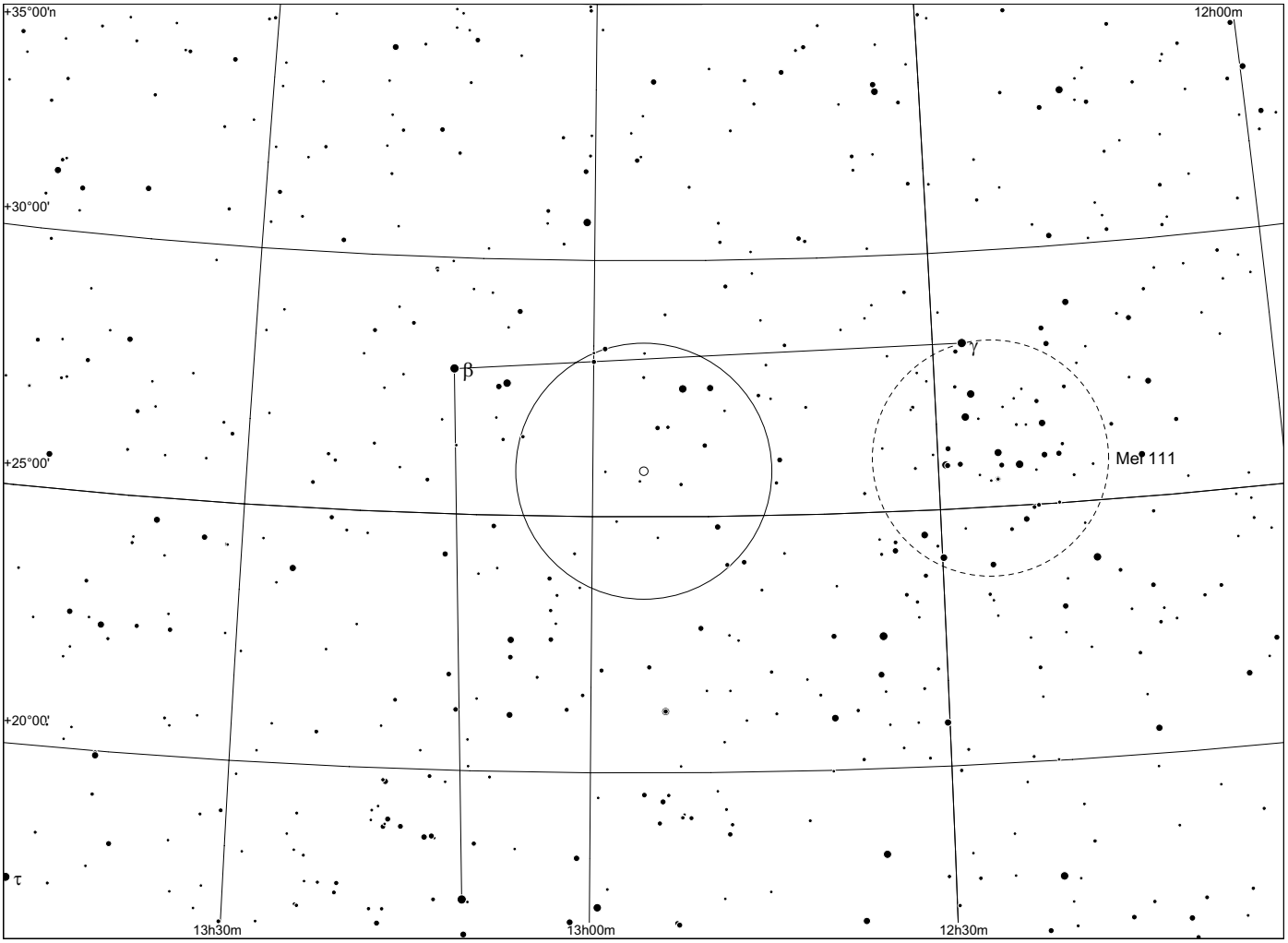


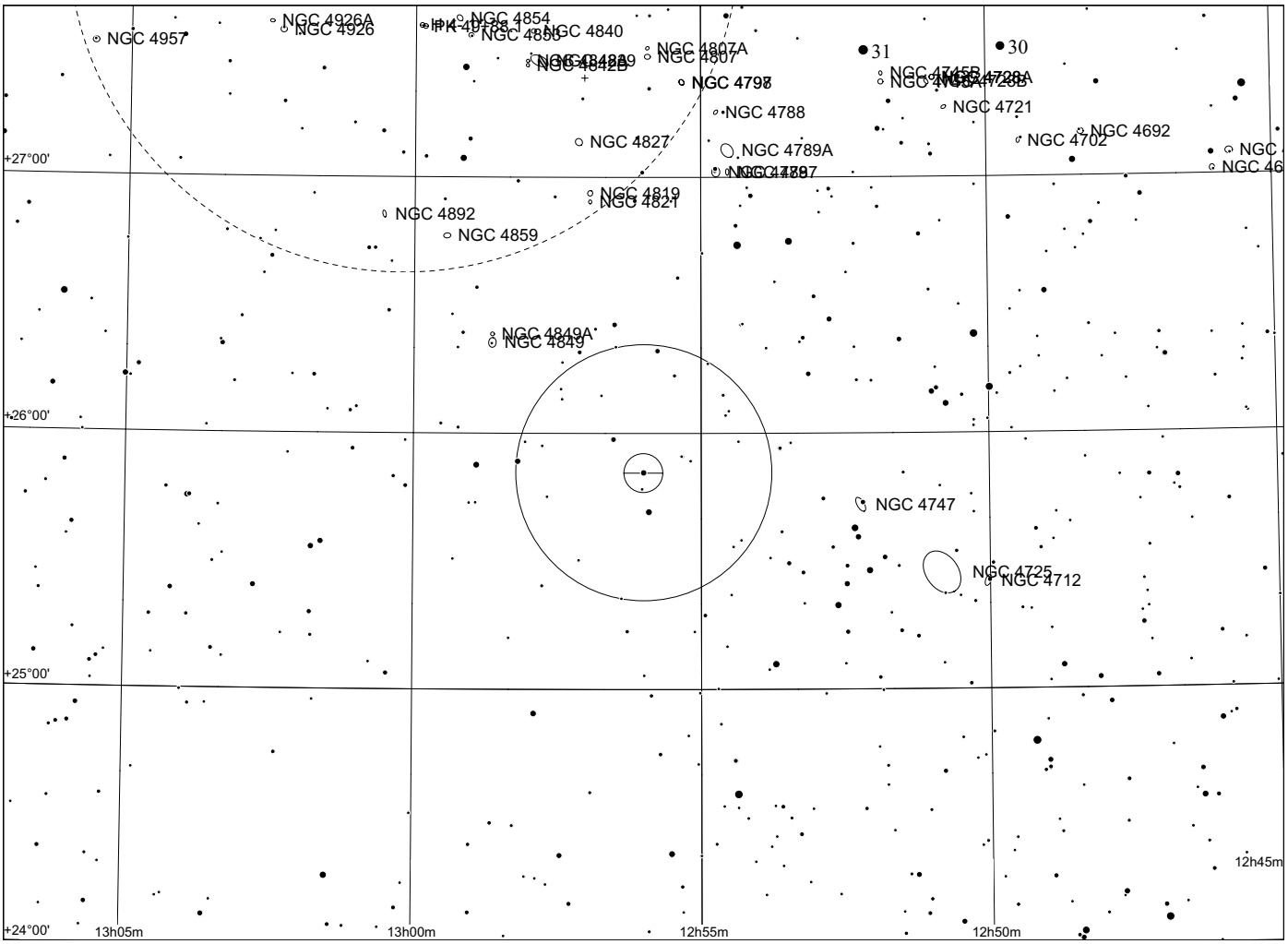
POSS red

	RA	dec	diam [']	other	visibility on POSS II
LoTr 5	12h 55 34	+25 53 28	9* 8		good on blue, very faint on red

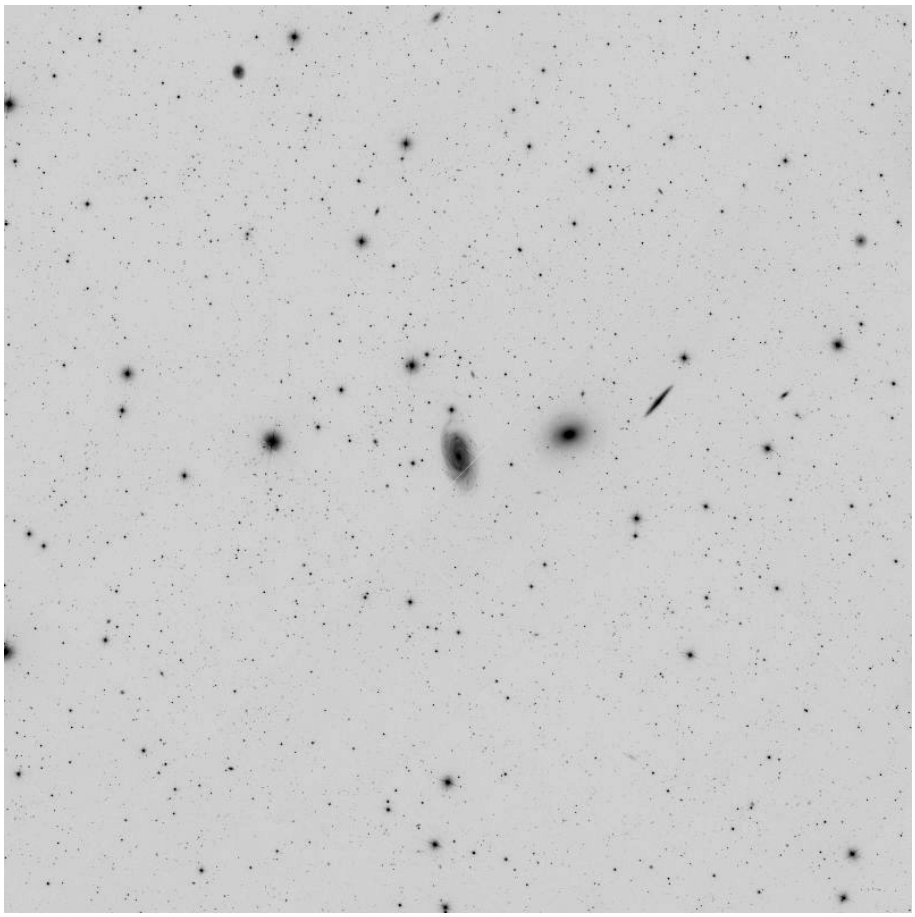
Observing notes:

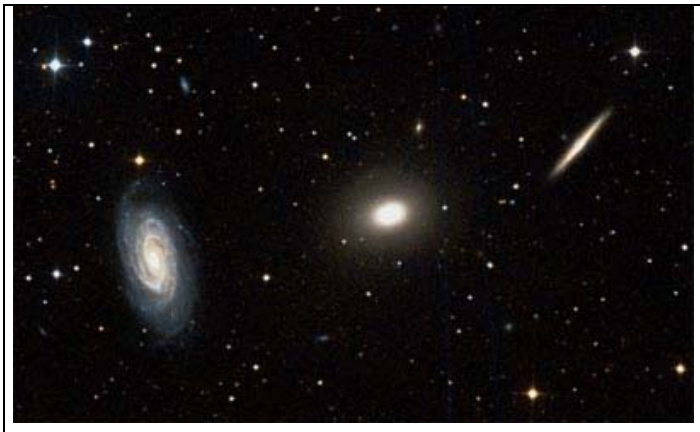
22" f/4.5
Successfully observed several times with OIII filtering. Not overly difficult. LoTr 5 shows a faint disk with relatively well defined boundary to the S, coinciding with the small star between the CS and the brighter star to the S. Also visible with UHC with somewhat lower contrast.

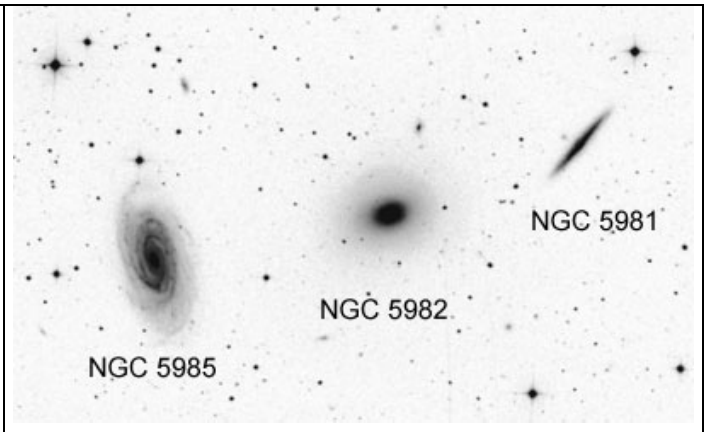

+35°00'n
12h00m
+30°00'
β
γ
+25°00'
Mel 111
+20°00'
τ
13h30m
13h00m
12h30m


NGC 4926A
NGC 4926
NGC 4957
NGC 4854
NGC 4850
NGC 4840
NGC 4807A
NGC 4807
31
30
NGC 4745B
NGC 4728A
NGC 4728B
NGC 4721
NGC 4788
NGC 4789A
NGC 4702
NGC 4692
+27°00'
NGC 4827
NGC 4819
NGC 4821
NGC 4892
NGC 4859
NGC 4849A
NGC 4849
NGC 4747
NGC 4725
NGC 4712
+26°00'
+25°00'
12h45m
+24°00'
13h05m
13h00m
12h55m
12h50m

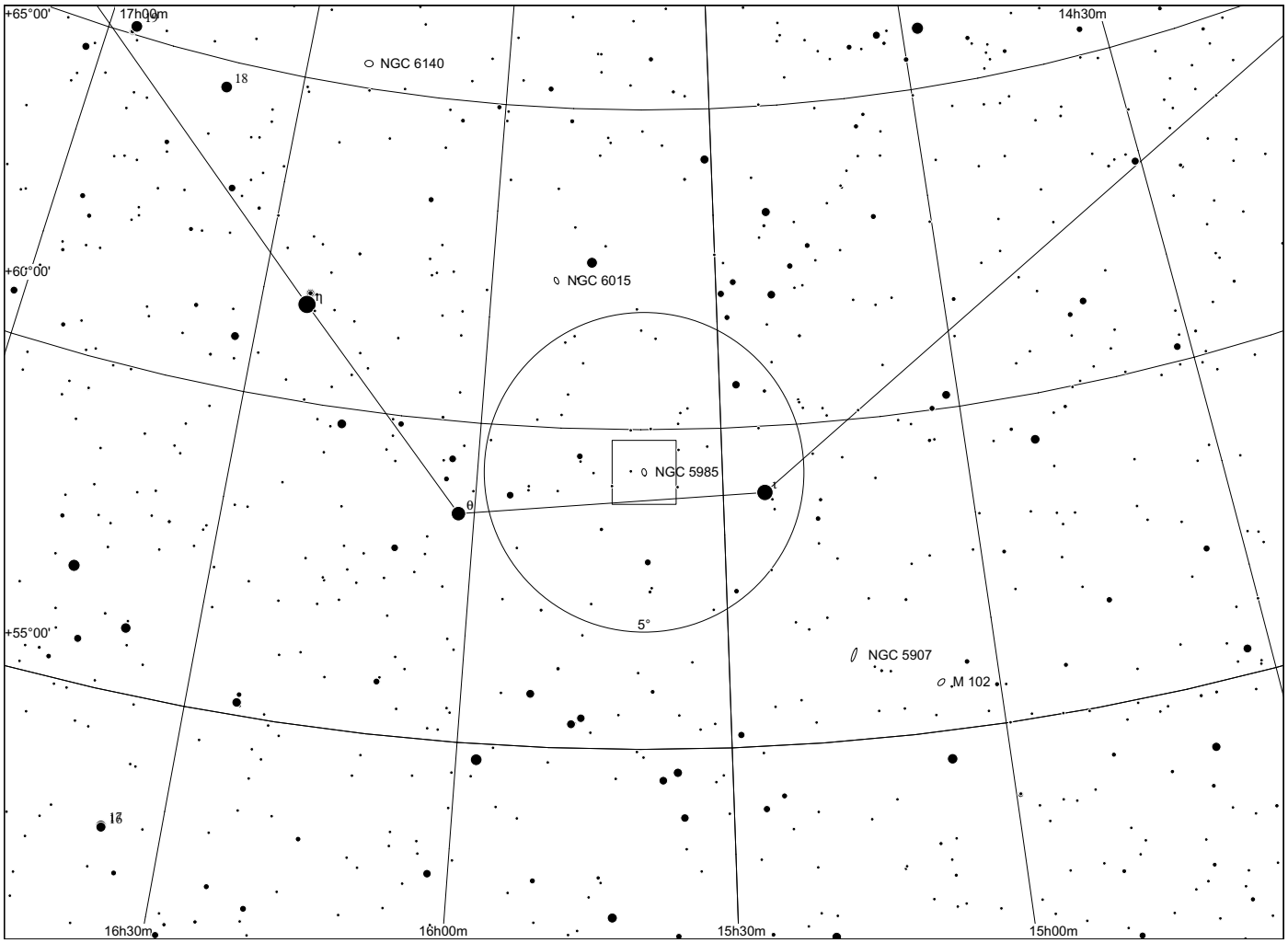
Draco Triplet in Draco

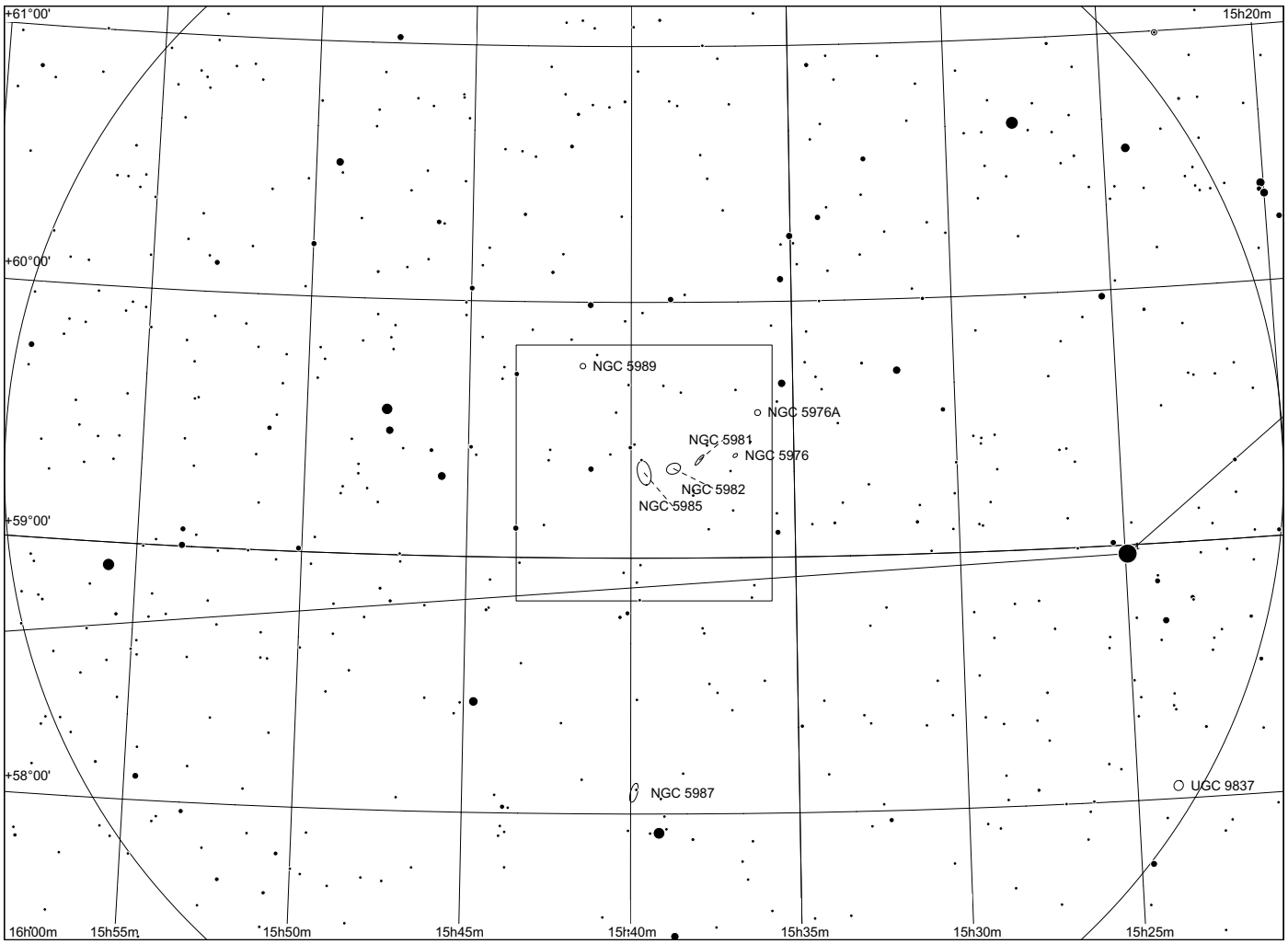




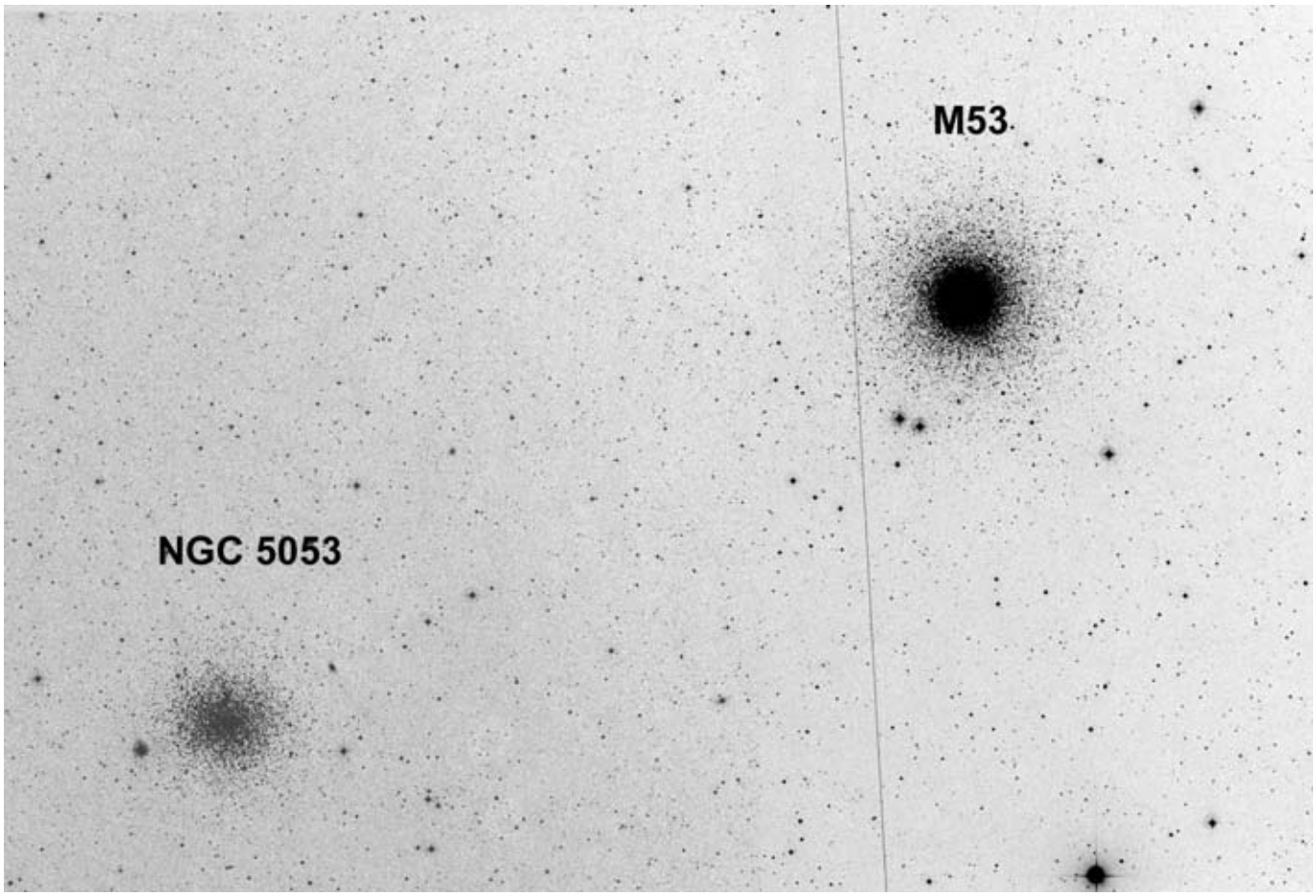


NGC 5985	13 08 12 +41 40 34	


+65°00'
17h00m
14h30m
NGC 6140
18
+60°00'
NGC 6015
NGC 5985
θ
5°
+55°00'
NGC 5907
M 102
17
16h30m
16h00m
15h30m
15h00m


+61°00'
15h20m
+60°00'
NGC 5989
NGC 5976A
NGC 5981
NGC 5976
NGC 5982
NGC 5985
+59°00'
+58°00'
NGC 5987
UGC 9837
16h00m
15h55m
15h50m
15h45m
15h40m
15h35m
15h30m
15h25m

M53 / NGC5053 in Ophiuchus

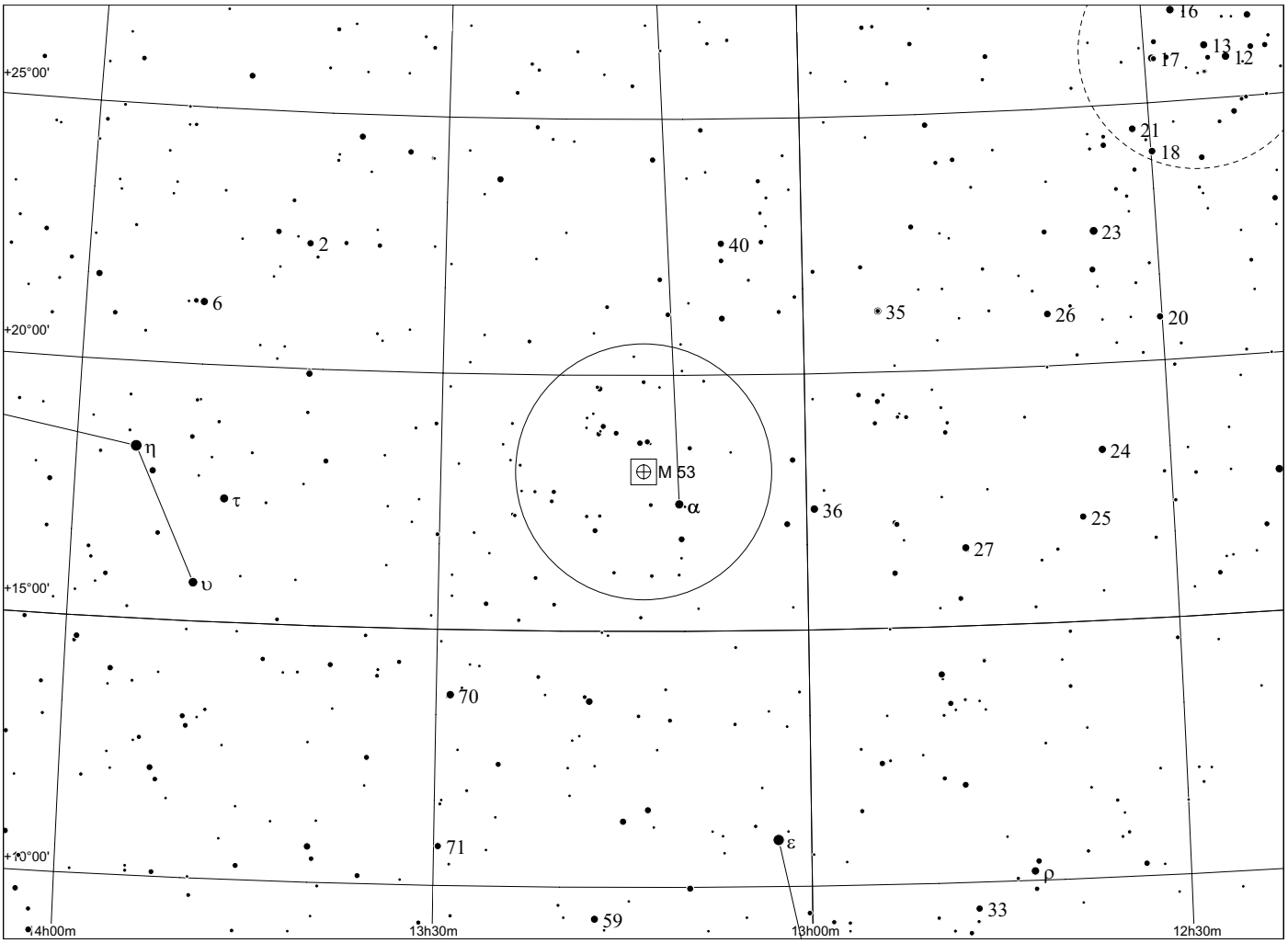


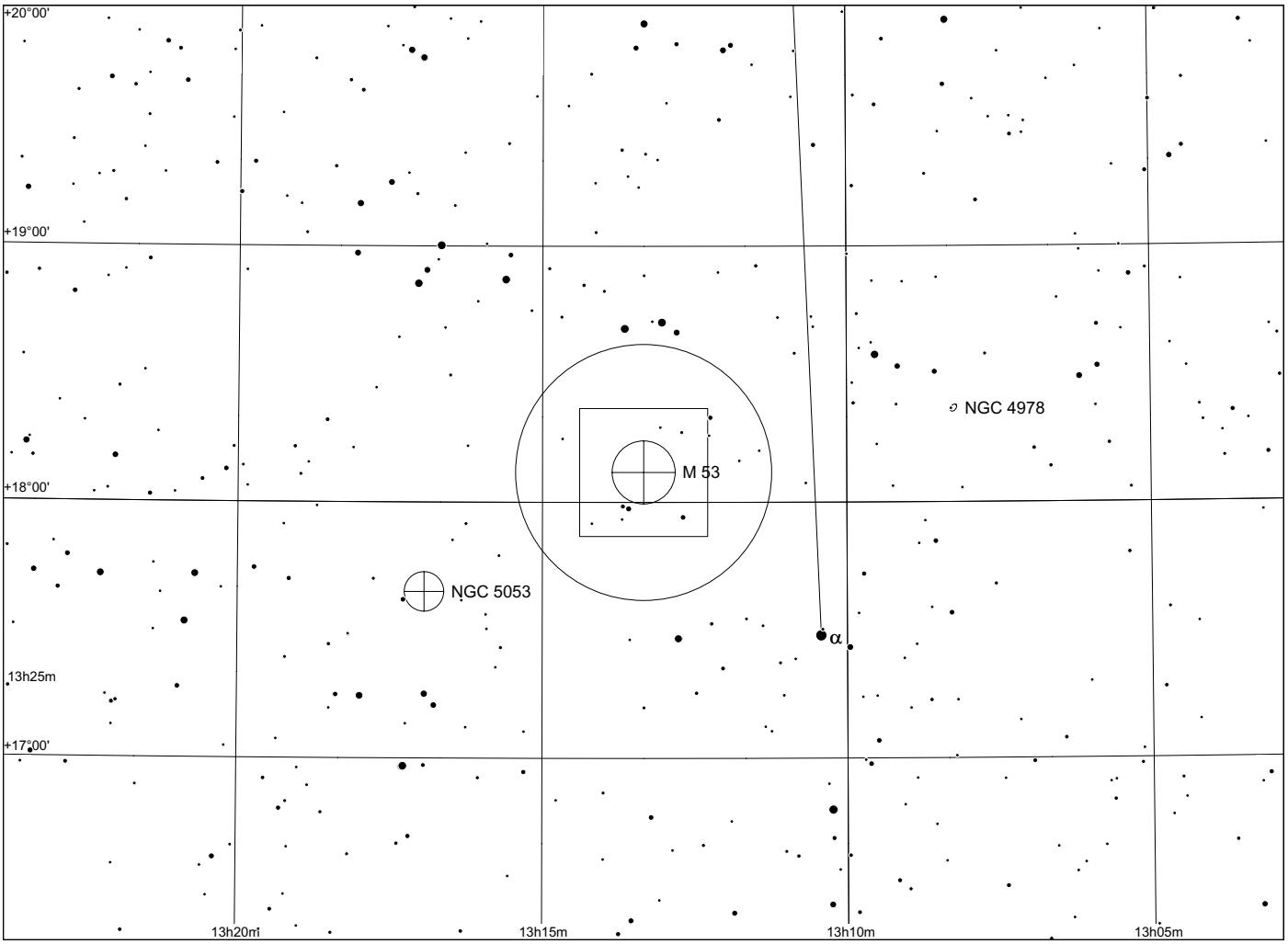
120x60 blue

	other	RA	Dek	comments
M53		13h 13	+18 10	class V
NGC5053				class XI

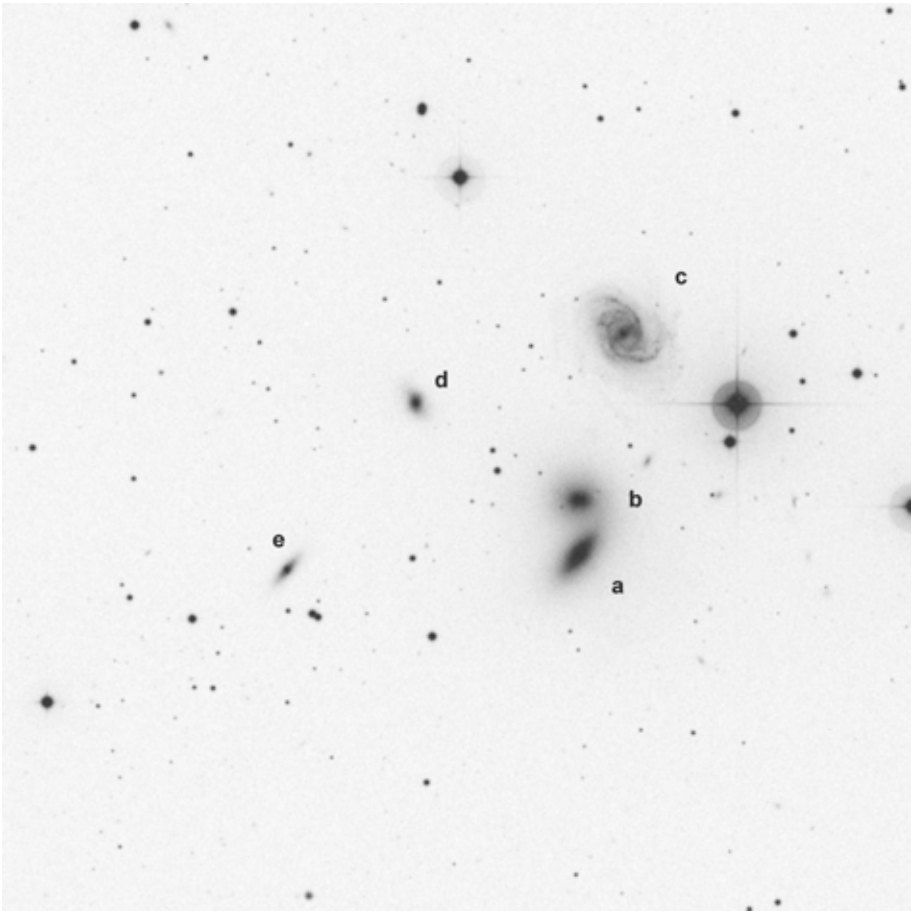
Zwei extrem unterschiedliche Kugelsternhaufen, die sehr eng beieinander stehen. Beide Kugelsternhaufen sind etwa 60 000 Lichtjahre entfernt, liegen also auch real nahe beieinander. Ihr unterschiedliches Erscheinungsbild beruht also auf ihrer unterschiedlichen Struktur und nicht auf unterschiedlicher Entfernung.

M53 ist ein schon recht stark konzentriert (Klasse V in der von I (stark konzentriert) bis XII (locker) reichenden Klassifizierung von Kugelsternhaufen), währen 5053 nur Klasse XI erreicht. 5053 ist erheblich schwieriger als er auf der POSS Aufnahme erscheint! Er hat 9m8, besitzt etwa 3500 Sterne, von denen die hellsten 13m8 erreichen. "Normale" Kugelsternhaufen besitzen mehrere 100 000 Sterne.


+25°00'
+20°00'
+15°00'
+10°00'
14h00m
13h30m
13h00m
12h30m
M 53
α
η
τ
υ
ε
ρ
2
6
40
35
26
23
20
24
36
25
27
70
71
59
33
16
17
13
12
21
18


+20°00'
+19°00'
+18°00'
+17°00'
13h25m
13h20m
13h15m
13h10m
13h05m
M 53
NGC 4978
NGC 5053
α

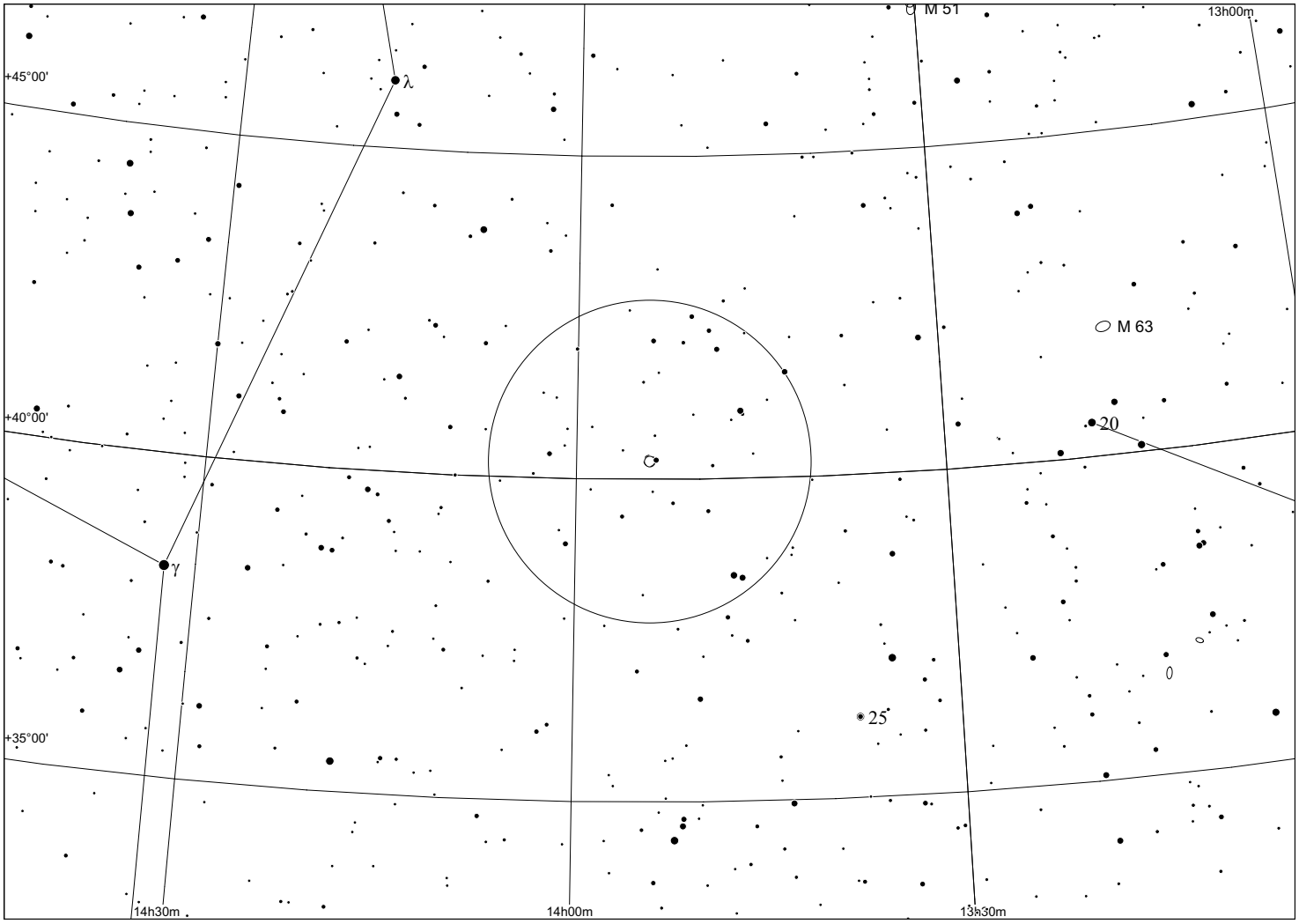
Hickson 68 in Canes Venatici

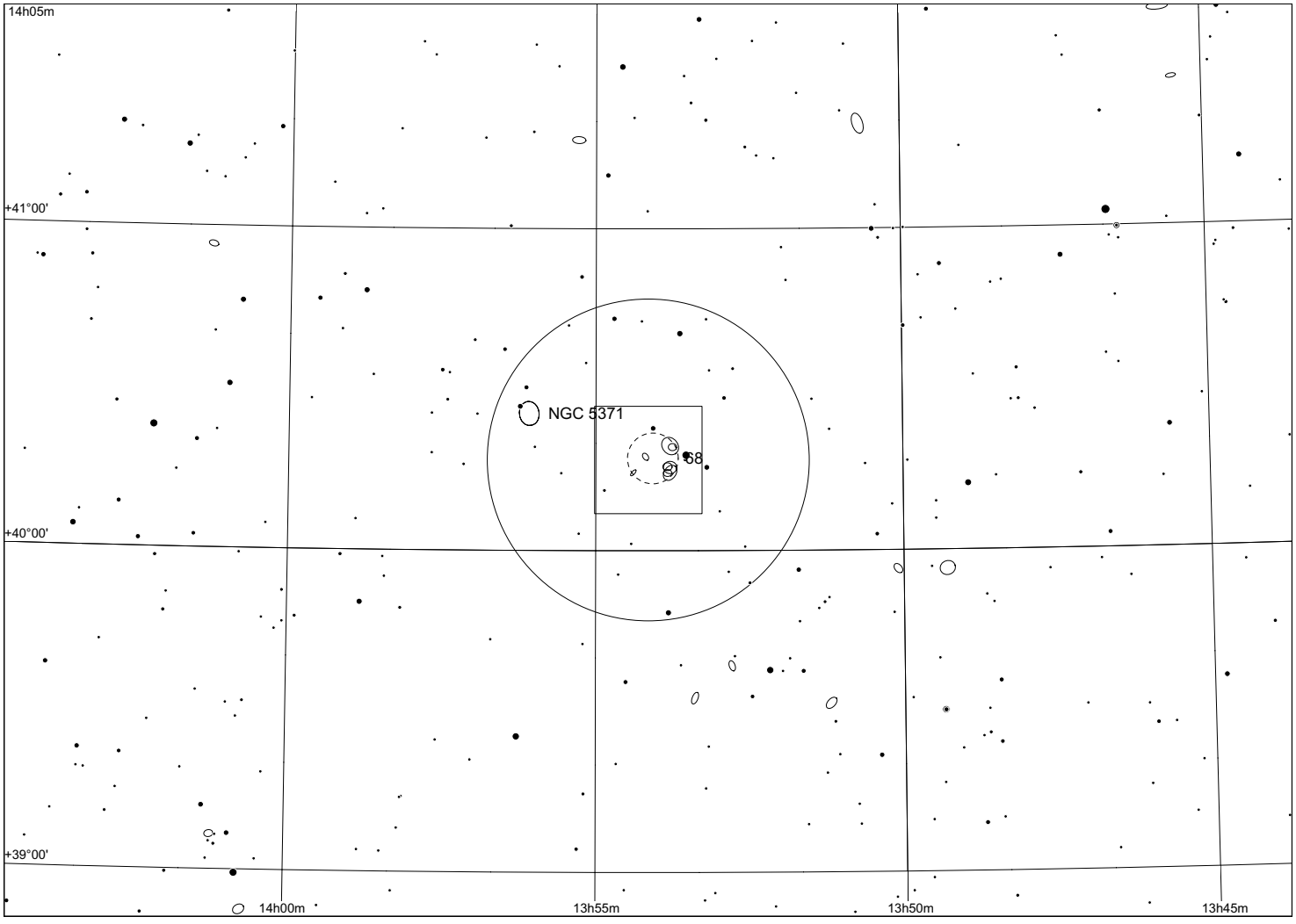


HCG	*Const.*	*coordinates (2000)*		*bright. memb.*	*mag*
68	CVn	13h 53m 41s	+40° 20'	NGC 5353	11.8

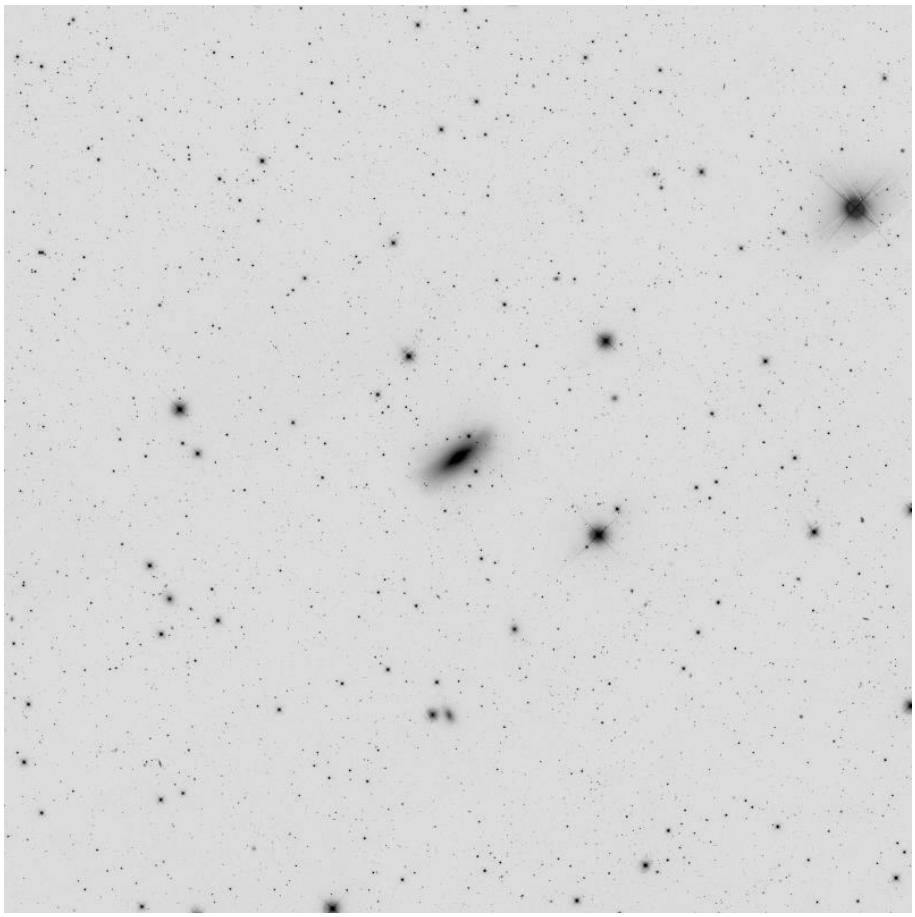
galaxy	*ra (1950)*	*dec*	*a*	*b*	*type*	*T*	*B_I*	*C*	*D_B*	*R_I*	*C*	*D_R*	*B-R*	*B_T*	*B_TC*	*err*	*v_r*	*err*	*C*	*names*
			″	″					″			″					*km/s*	*km/s*		
68a	13 51 19.59	+40 31 42.5	77.40	59.90	S0	1	12.04	1	112.30	10.19	1	197.30	1.63	12.08	11.84	0.08	2162	27	0	N5353, U8813
68b	13 51 19.70	+40 32 52.8	86.40	71.10	E2	0	12.52	1	114.30	10.56	1	234.10	1.63	12.44	12.24	0.06	2635	23	0	N5354, U8814
68c	13 51 14.81	+40 36 32.0	76.70	61.90	SBbc	6	12.11	2	134.30	10.90	2	166.40	1.10	12.20	11.93	0.20	2313	38	0	N5350, Mk1485, U8810
68d	13 51 38.79	+40 35 00.5	31.10	21.80	E3	0	14.27	0	52.80	12.97	0	54.40	1.30	13.93	13.73	0.10	2408	29	0	N5355, U8819
68e	13 51 52.87	+40 31 06.8	35.20	15.50	S0	1	14.74	0	43.70	13.27	0	56.40	1.40	14.56	14.22	0.10	2401	27	0	N5358, U8826

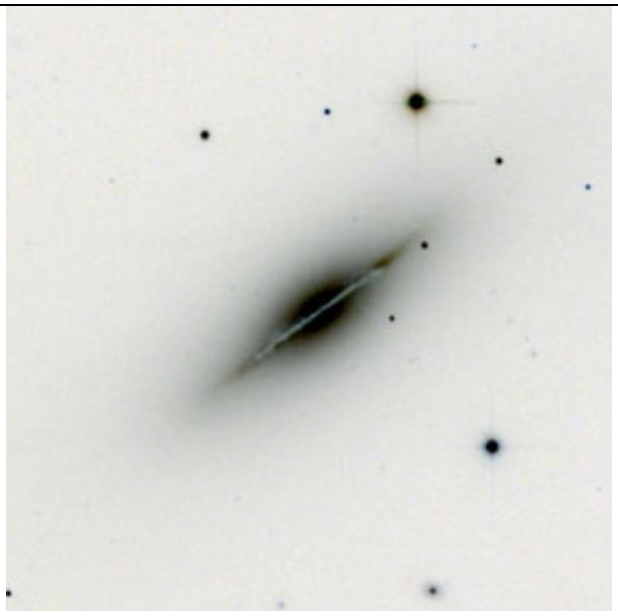
Zusammen mit HCG 44 im Kopf des Löwen ist HCG 68 die hellste Hickson Gruppe mit e als schwierigster Einzelgalaxie. c besitzt ein Halo, das in großen Teleskopen strukturiert ist. NGC 5371 ist eine helle Spirale 30' ENE von HCG 68.


M 51
13h00m
+45°00'
λ
M 63
+40°00'
20
γ
25
+35°00'
14h30m
14h00m
13h30m

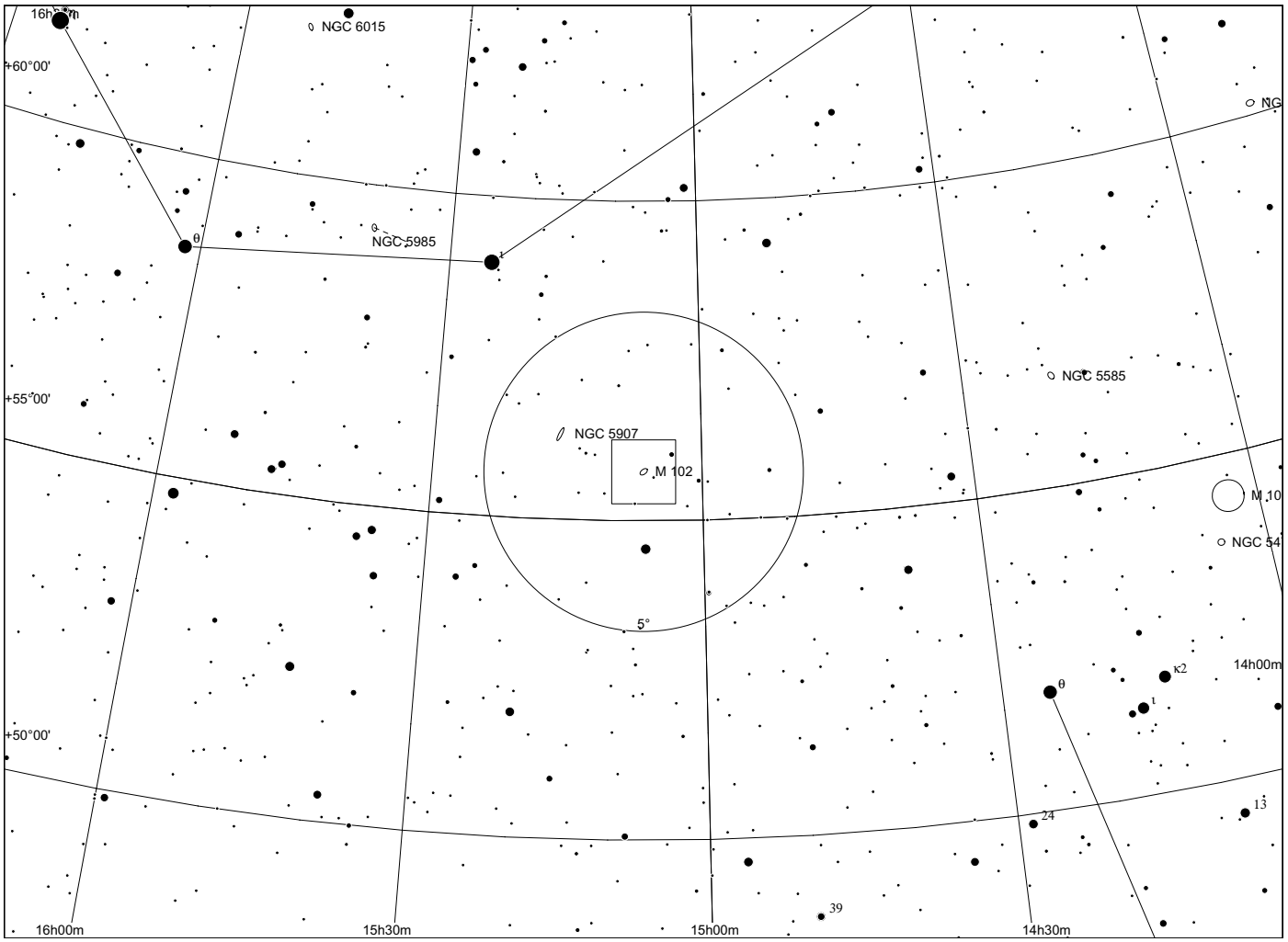

14h05m
+41°00'
NGC 5371
68
+40°00'
+39°00'
14h00m
13h55m
13h50m
13h45m

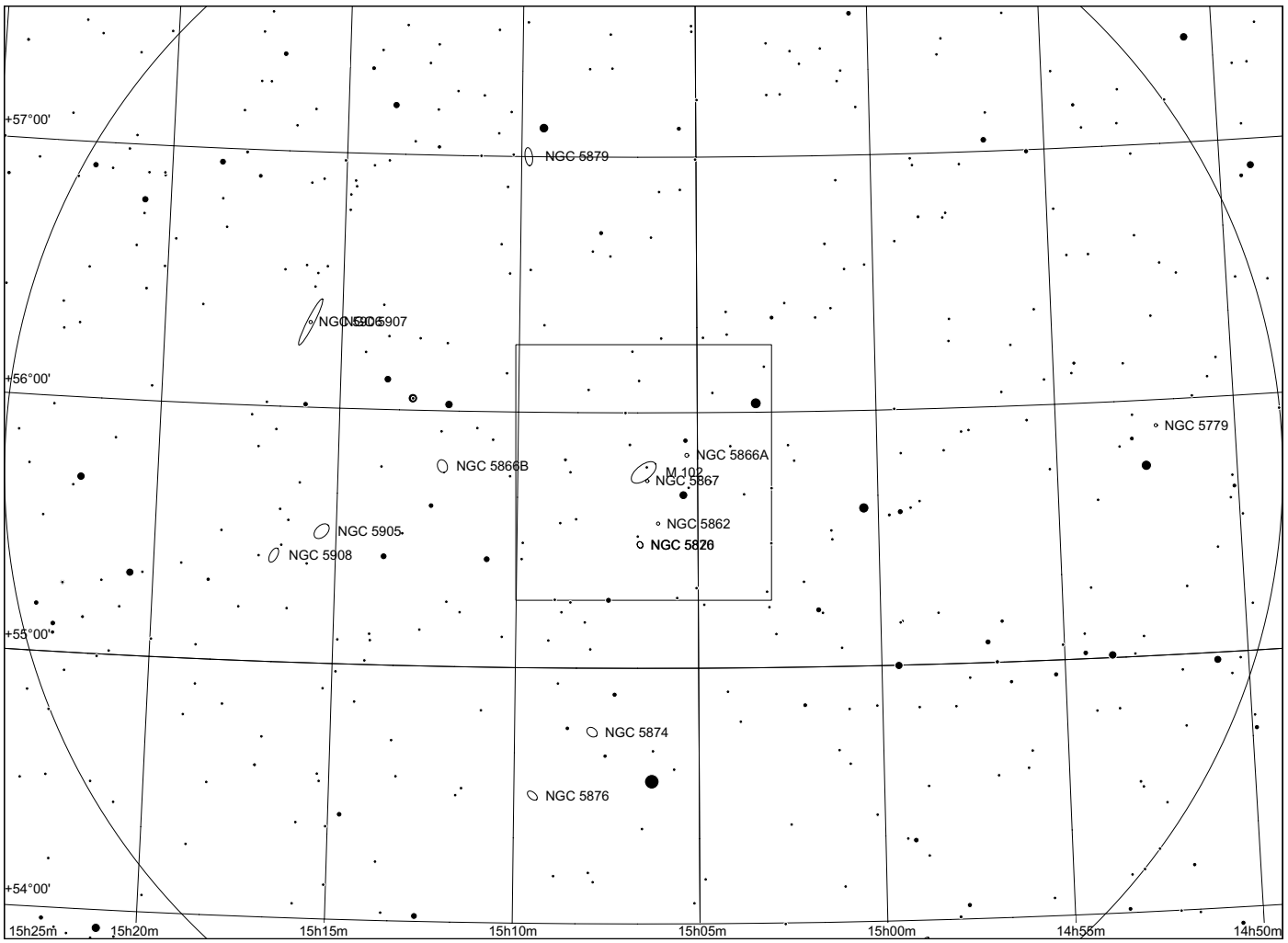
M102 in Draco



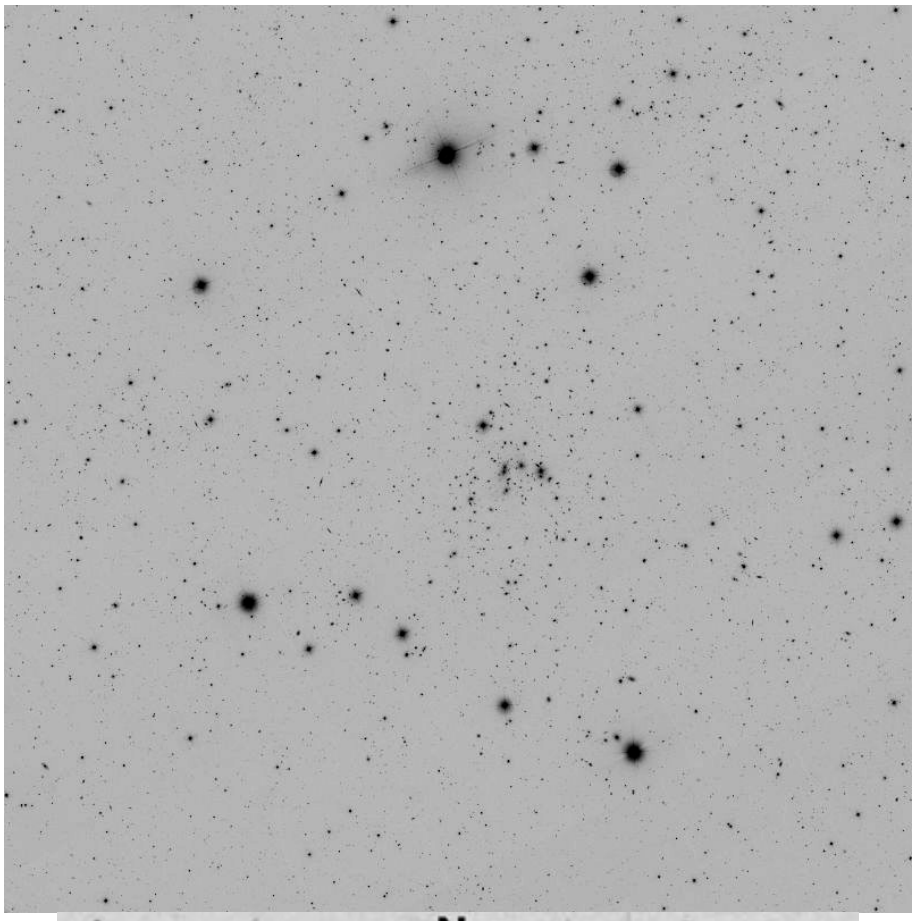


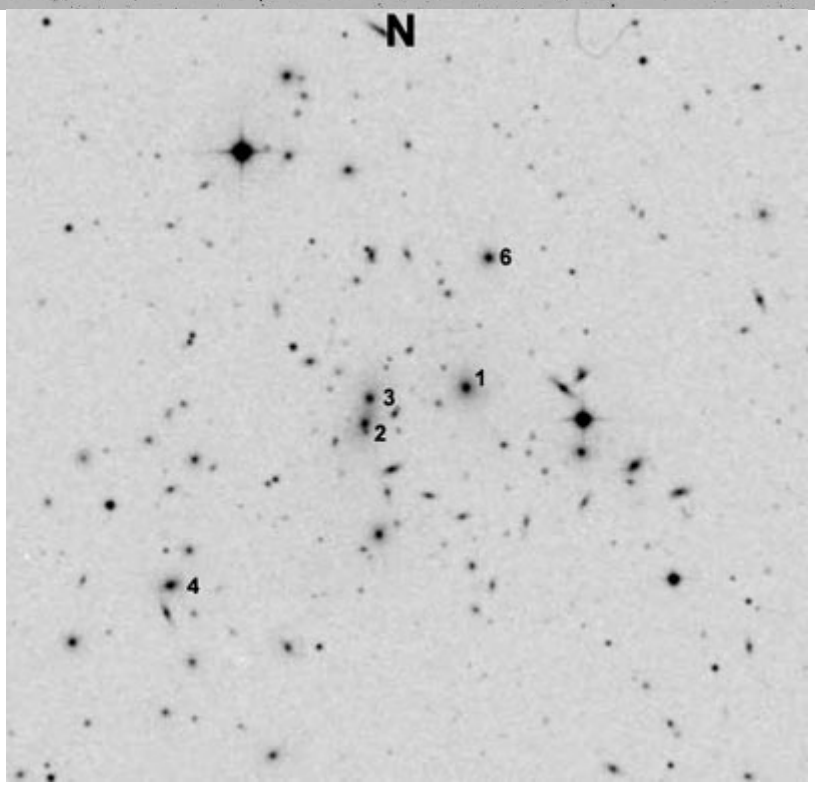
M102	15 06 29 +55 45 47	NGC 5866


16h00m
NGC 6015
+60°00'
θ
ι
NGC 5985
NGC 5585
+55°00'
NGC 5907
M 102
5°
M 10
NGC 54
κ2
14h00m
θ
1
+50°00'
24
13
39
16h00m
15h30m
15h00m
14h30m

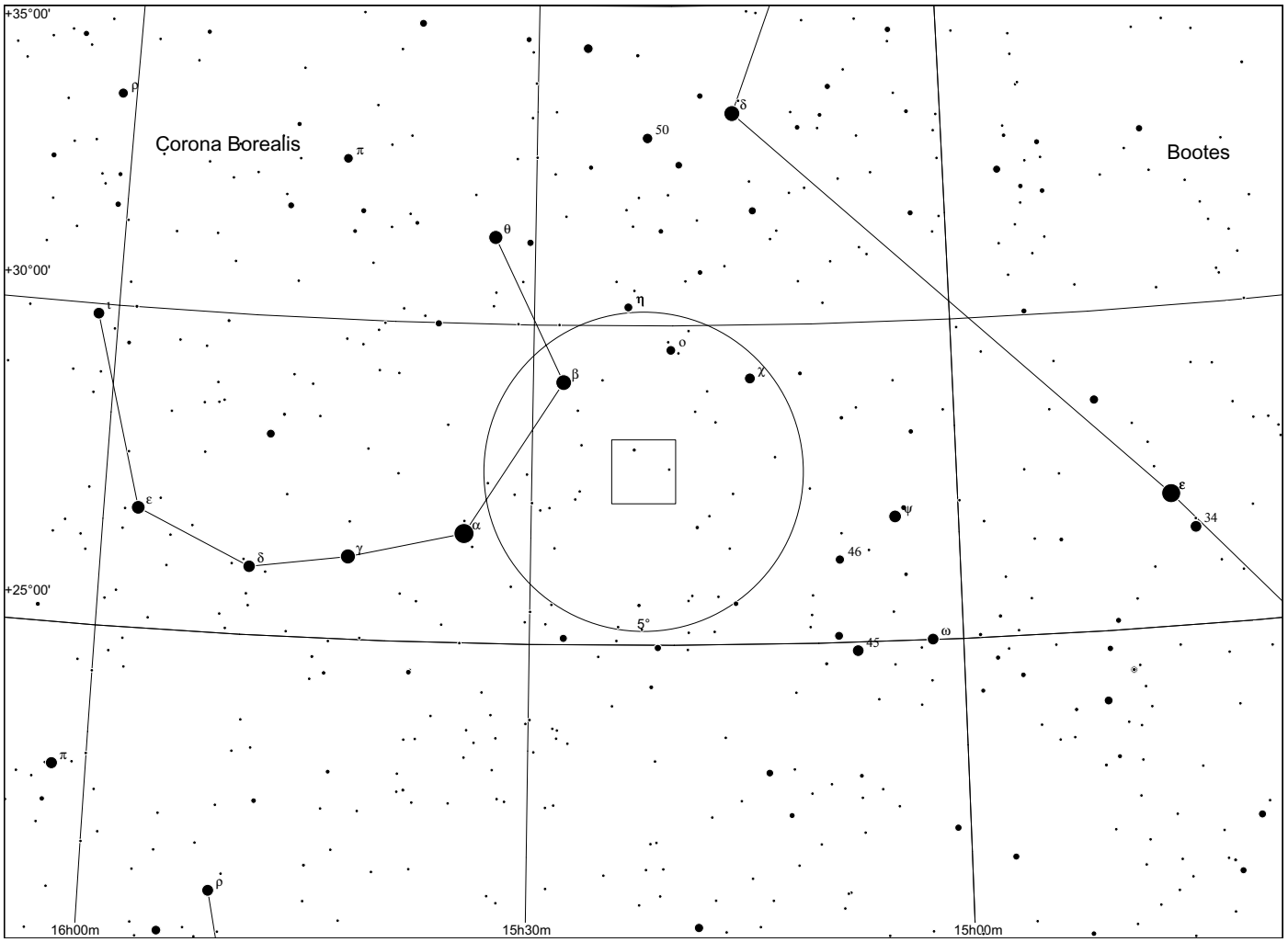

+57°00'
NGC 5879
+56°00'
NGC 5907
NGC 5779
NGC 5866A
NGC 5866B
M 102
NGC 5867
NGC 5905
NGC 5862
NGC 5908
NGC 5870
+55°00'
NGC 5874
NGC 5876
+54°00'
15h25m
15h20m
15h15m
15h10m
15h05m
15h00m
14h55m
14h50m

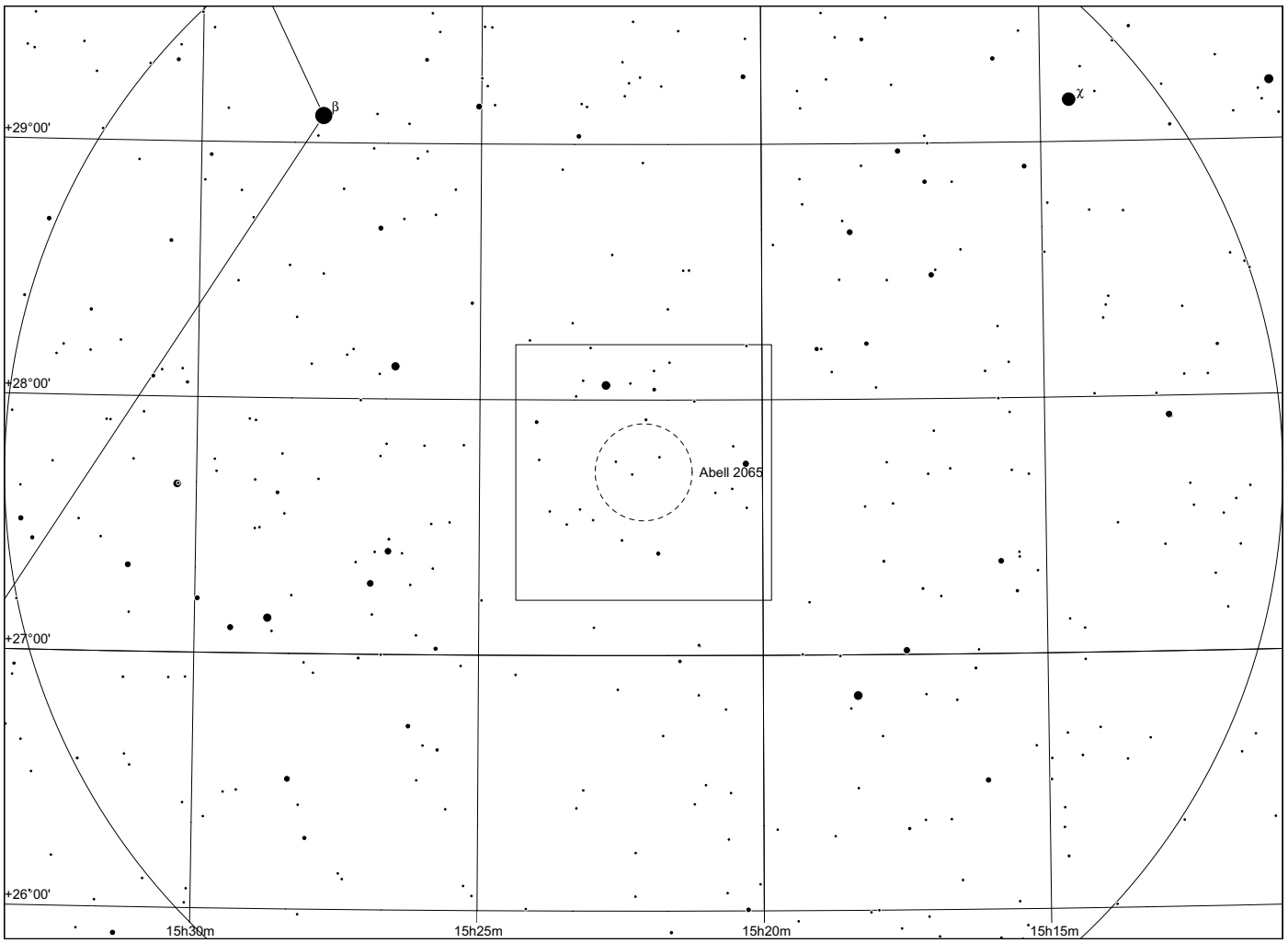
AGC 2065 in Corona Borealis



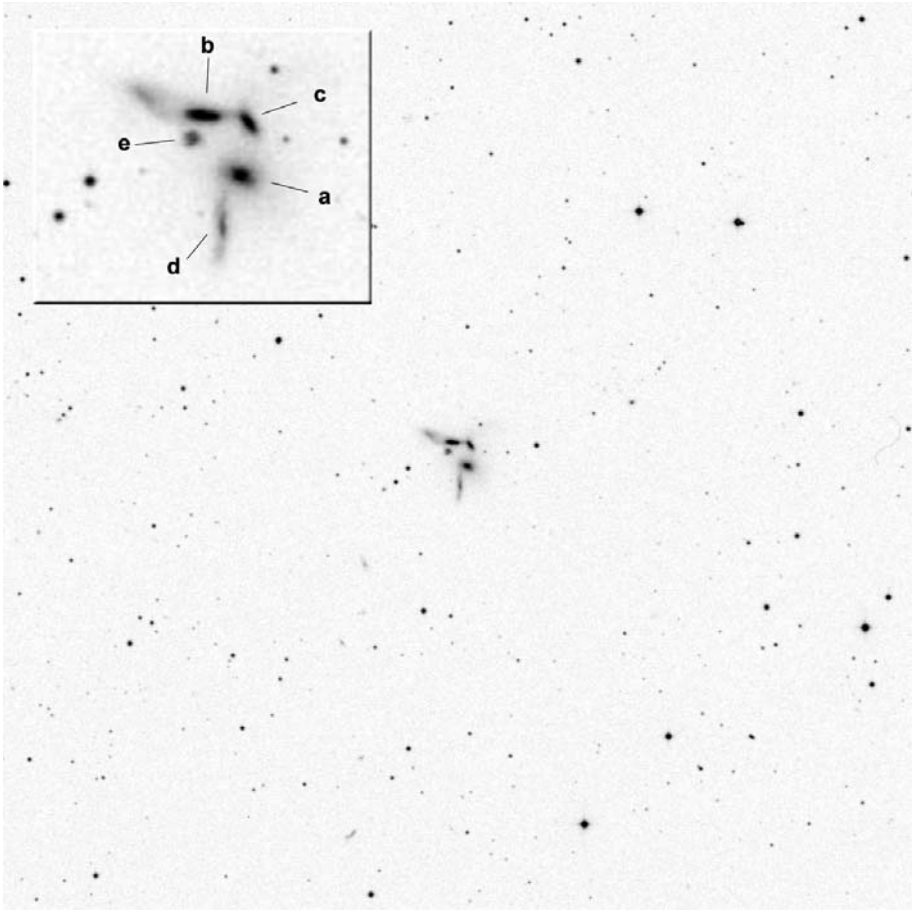


AGC 2065	15 22 42 +27 43 21	


Corona Borealis
Bootes
+35°00'
+30°00'
+25°00'
16h00m
15h30m
15h00m
ρ
π
δ
50
θ
η
ι
ο
β
χ
ε
α
γ
δ
ε
34
ψ
46
ω
45
5°
π
ρ


+29°00'
+28°00'
+27°00'
+26°00'
15h30m
15h25m
15h20m
15h15m
β
χ
Abell 2065

Hickson 79 in Serpens



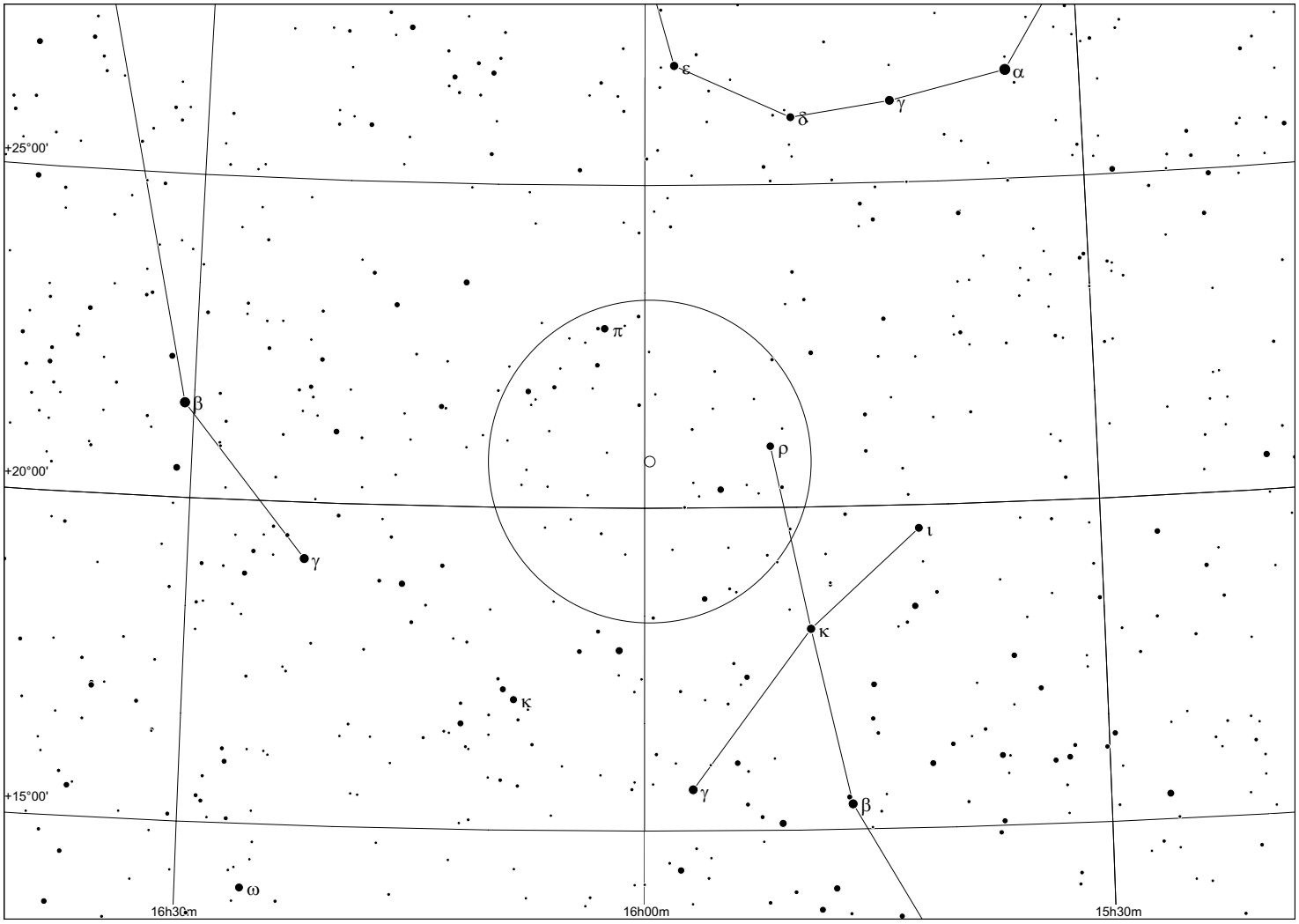
HCG	*Const.*	*coordinates (2000)*	*bright. memb. mag*	
79	Ser	15h 59m 13s +20° 45'	NGC 6027 13.8	Seyfert's Sextet

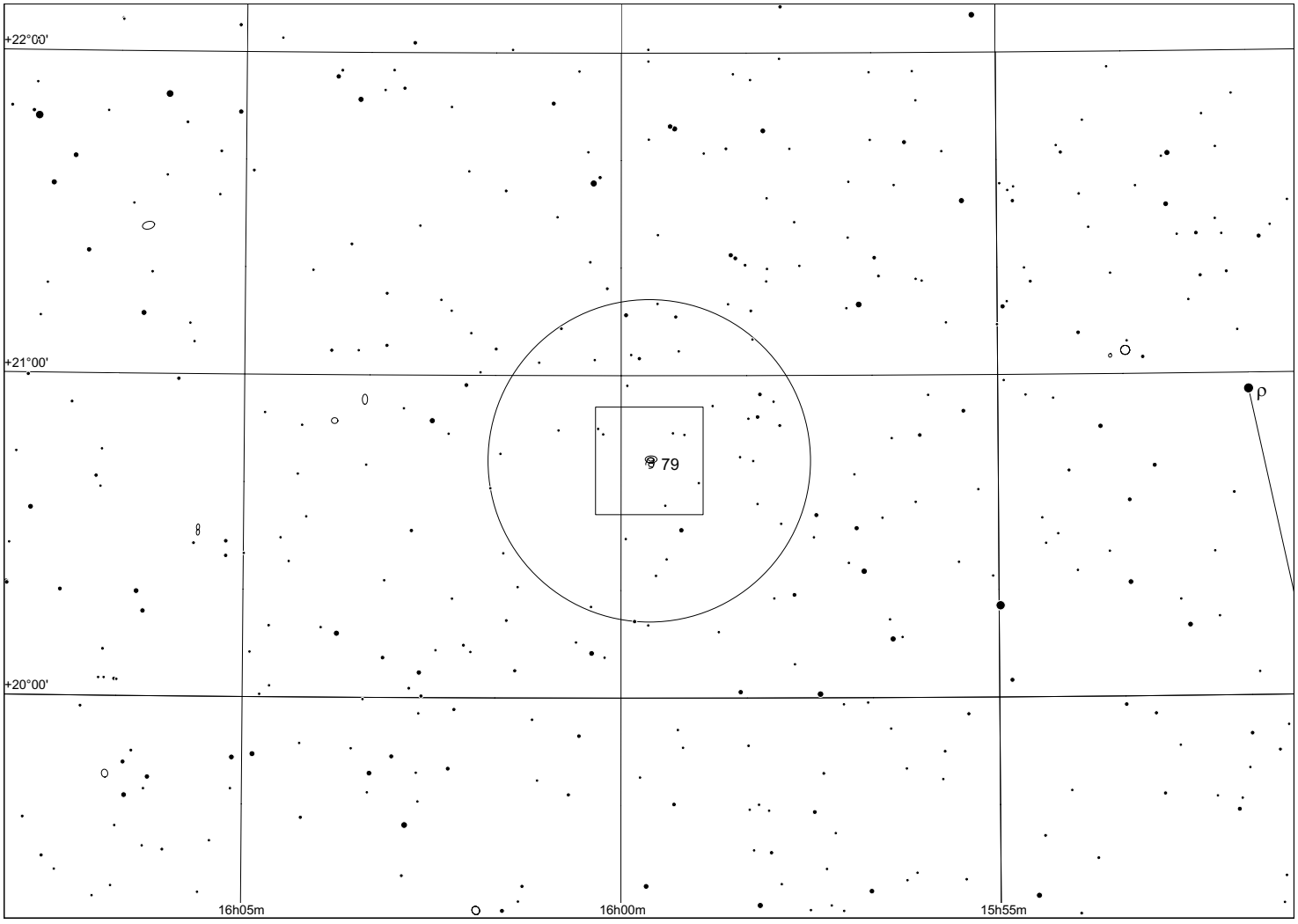
galaxy	*ra (1950)*	*dec*	*a*	*b*	*type*	*T*	*B_I*	*C*	*D_B*	*R_I*	*C*	*D_R*	*B-R*	*B_T*	*B_TC*	*err*	*v_r*	*err*	*C*	*names*
			"	"					"			"					km/s	km/s		
79a	15 56 59.59	+20 53 43.2	50.20	48.60	E0	0	15.12	1	44.70	13.46	1	50.50	1.60	14.70	14.35	0.20	4292	35	0	N6027, U10116
79b	15 57 00.80	+20 54 15.4	60.50	44.10	S0	1	14.55	1	43.00	13.07	1	46.90	1.44	14.19	13.78	0.20	4446	25	0	N6027, U10116
79c	15 56 59.14	+20 54 09.8	40.30	26.10	S0	1	15.48	1	33.80	14.21	1	35.70	1.27	15.15	14.72	0.20	4146	50	0	N6027, U10116
79d	15 57 00.18	+20 53 15.5	28.10	12.30	Sdm	10	16.89	1	23.50	16.74	1	16.10	0.85	16.51	15.87	0.20	4503	43	0	N6027, U10116
79e	15 57 01.31	+20 54 01.5	11.10	8.60	Scd	8	16.61	1	25.10	15.31	1	26.50	1.32	16.31	15.87	0.20	19809	50	0	N6027, U10116

Notes:

22" f/4: Famous Seyfert's sextet, being actually a quintet with the sixth member being probably a tidal plume of b. This is an extremely challenging group requiring aperture and high magnification. It is the prototype of the extremely tight members of Hickson's catalog.

HCG 79 appears as a horseshoe-shaped glow of about 2' diameter. The group can be separated intermittently into three individual knots (a, c, and b) using 360x, still it is difficult to pin down their precise location permanently.


+25°00'
+20°00'
+15°00'
16h30m
16h00m
15h30m
ε
α
δ
γ
π
β
ρ
ι
κ
γ
κ
γ
β
ω


+22°00'
+21°00'
+20°00'
79
ρ
16h05m
16h00m
15h55m