



# Hickson Catalog of Compact Groups of Galaxies

A Complete Observing Guide of All 100 Groups

Reiner Vogel 2009



### **Finder charts**

measure 20° (with 5° circle) and 4° (with 1° circle) and were made with *Cartes du Ciel* by Patrick Chevalley (<http://www.stargazing.net/astropc/>) using a catalog generated by Martin Schönball (<http://www.schoenball.de/>)

### **Images**

are DSS Images (blue plates, POSS II or SERCJ) and measure 20' by 20' ([http://archive.stsci.edu/cgi-bin/dss\\_plate\\_finder](http://archive.stsci.edu/cgi-bin/dss_plate_finder))

*DSS images copyright notice:*

The Digitized Sky Survey was produced at the Space Telescope Science Institute under U.S. Government grant NAG W-2166. The images of these surveys are based on photographic data obtained using the Oschin Schmidt Telescope on Palomar Mountain and the UK Schmidt Telescope. The plates were processed into the present compressed digital form with the permission of these institutions.

### **Galaxy Data**

are from Paul Hickson's webpage (<http://www.astro.ubc.ca/people/hickson/>), coordinates 1950.0, and CDS (<http://cdsweb.u-strasbg.fr>)

### **Group data**

are based on Paul Hickson's original data, group coordinates were transformed to 2000 using *Cartes du Ciel*, visual magnitudes are from Miles Paul's compilation (available on Jim Shield's webpage <http://www.astronomy-mall.com/Adventures.In.Deep.Space/hickcatalog.htm>)

A selection of the 32 most interesting Hickson Groups also for smaller telescopes can be found on <http://www.astronomy-mall.com/Adventures.In.Deep.Space/hicklist.htm>).

Downloaded at [www.reinervogel.net](http://www.reinervogel.net)

# Complete List of Groups

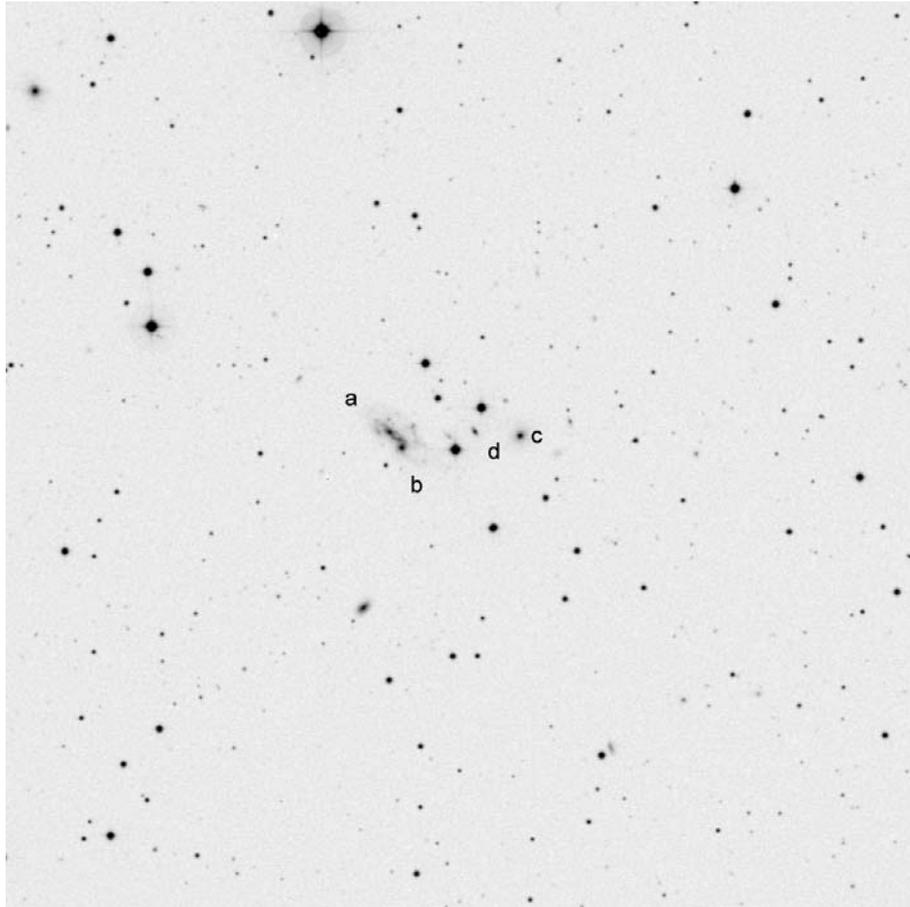
HCG	Const	RA (2000)	Dec	brightest member	mag	
1	And	00h 26m 01s	+25° 43'		14.4	
2	Psc	00h 31m 30s	+08° 26'		13.4	
3	Cet	00h 34m 12s	-07° 36'		14.7	
4	Cet	00h 34m 16s	-21° 27'		13.5	
5	Psc	00h 38m 55s	+07° 04'	NGC 190	14.6	
6	Cet	00h 39m 10s	-08° 24'		15.3	
7	Cet	00h 39m 24s	+00° 53'	NGC 192	12.6	**
8	And	00h 49m 37s	+23° 35'		14.5	
9	Cet	00h 54m 18s	-23° 33'		14.9	
10	And	01h 26m 08s	+34° 41'	NGC 536	12.6	**
11	Cet	01h 26m 35s	-23° 14'		13.0	
12	Cet	01h 27m 34s	-04° 40'		14.8	
13	Cet	01h 32m 23s	-07° 53'		14.6	
14	Cet	01h 59m 48s	-07° 02'		14.2	
15	Cet	02h 07m 39s	+02° 08'		14.3	*
16	Cet	02h 09m 34s	-10° 10'	NGC 835	12.8	**
17	Ari	02h 14m 07s	+13° 19'		16.5	
18	Ari	02h 39m 07s	+18° 23'		14.9	
19	Cet	02h 42m 46s	-12° 25'		14.0	
20	Ari	02h 44m 15s	+26° 06'		16.7	
21	Eri	02h 45m 18s	-17° 37'	NGC 1099	13.9	*
22	Eri	03h 03m 32s	-15° 41'	NGC 1199	12.2	
23	Eri	03h 06m 07s	-09° 35'	NGC 1214	14.3	*
24	Eri	03h 20m 19s	-10° 52'		14.9	
25	Cet	03h 20m 44s	-01° 03'		13.9	
26	Eri	03h 21m 55s	-13° 39'		15.6	
27	Eri	04h 19m 22s	-11° 43'		15.7	
28	Eri	04h 27m 20s	-10° 19'		15.3	
29	Eri	04h 34m 46s	-30° 33'		14.5	
30	Eri	04h 36m 29s	-02° 50'		12.9	*
31	Eri	05h 01m 37s	-04° 15'	NGC 1741	12.5	
32	Lep	05h 01m 43s	-15° 25'		13.8	
33	Tau	05h 10m 48s	+18° 02'		15.4	
34	Ori	05h 21m 48s	+06° 41'	NGC 1875	14.2	
35	Lyn	08h 45m 20s	+44° 31'		15.1	
36	Cnc	09h 09m 24s	+15° 48'	IC 528	14.5	
37	Cnc	09h 13m 36s	+30° 01'	NGC 2783	13.0	
38	Leo	09h 27m 39s	+12° 17'		14.8	*
39	Hya	09h 29m 29s	-01° 21'		16.6	
40	Hya	09h 38m 55s	-04° 51'		13.4	*
41	UMa	09h 57m 40s	+45° 14'		13.9	
42	Hya	10h 00m 22s	-19° 39'	NGC 3091	11.7	*
43	Sex	10h 11m 14s	-00° 02'		15.1	
44	Leo	10h 18m 01s	+21° 49'	NGC 3190	11.5	**
45	UMa	10h 19m 12s	+59° 07'		15.2	
46	Leo	10h 22m 02s	+17° 49'		16.1	
47	Leo	10h 25m 49s	+13° 44'		14.6	
48	Hya	10h 37m 49s	-27° 05'	IC 2597	13.2	
49	UMa	10h 56m 37s	+67° 11'		15.9	
50	UMa	11h 17m 07s	+54° 55'		18.4	

51	Leo	11h 22m 21s	+24° 18'	NGC 3651	13.9	*	
52	Leo	11h 26m 19s	+21° 05'		14.9		
53	Leo	11h 28m 59s	+20° 47'	NGC 3697	12.9		
54	Leo	11h 29m 16s	+20° 35'	IC 700	13.9		
55	Dra	11h 32m 08s	+70° 49'		15.4	*	
56	UMa	11h 32m 32s	+52° 57'		14.5	*	
57	Leo	11h 37m 51s	+21° 59'	NGC 3753	14.0	*	Copeland's Septet
58	Leo	11h 42m 12s	+10° 19'	NGC 3822	13.6	*	
59	Leo	11h 48m 26s	+12° 44'	IC 736	14.4		
60	UMa	12h 03m 06s	+51° 42'		15.0		
61	Com	12h 12m 24s	+29° 11'	NGC 4169	12.6	**	The Box
62	Vir	12h 53m 09s	-09° 13'	NGC 4759	13.4	*	
63	Cen	13h 02m 10s	-32° 46'		13.3		
64	Vir	13h 25m 44s	-03° 51'		14.7		
65	Hya	13h 29m 54s	-29° 30'		13.7		
66	UMa	13h 38m 34s	+57° 18'		15.4		
67	Vir	13h 49m 04s	-07° 12'	NGC 5306	12.7		
68	CVn	13h 53m 41s	+40° 20'	NGC 5353	11.8	**	
69	Boo	13h 55m 31s	+25° 04'		14.9		
70	CVn	14h 04m 13s	+33° 20'	IC 4369	14.5	*	
71	Boo	14h 11m 05s	+25° 29'	IC 4381	13.8		
72	Boo	14h 47m 56s	+19° 04'		13.9	*	
73	Boo	15h 02m 40s	+23° 21'	NGC 5829	13.3		
74	Ser	15h 19m 28s	+20° 54'	NGC 5910	14.1		
75	Ser	15h 21m 34s	+21° 11'		14.9		
76	Ser	15h 31m 42s	+07° 18'	NGC 5944	14.4	*	
77	Ser	15h 49m 17s	+21° 50'		15.2		
78	Dra	15h 48m 28s	+68° 12'		14.4		
79	Ser	15h 59m 13s	+20° 45'	NGC 6027	13.8	*	Seyfert's Sextet
80	Dra	15h 59m 12s	+65° 14'		14.8	*	
81	Her	16h 18m 13s	+12° 48'		16.3		
82	Her	16h 28m 22s	+32° 49'	NGC 6162	14.1	*	
83	Her	16h 35m 41s	+06° 16'		16.0		
84	UMi	16h 44m 08s	+77° 50'		14.7		
85	Dra	18h 50m 22s	+73° 21'		15.1		
86	Sgr	19h 51m 59s	-30° 50'		13.7	*	
87	Cap	20h 48m 12s	-19° 50'		14.0		
88	Aqr	20h 52m 23s	-05° 45'	NGC 6978	13.2	*	
89	Aqr	21h 20m 11s	-03° 55'		14.1		
90	PsA	22h 02m 06s	-31° 58'	NGC 7172	12.4	**	
91	PsA	22h 09m 13s	-27° 47'	NGC 7214	12.6		
92	Peg	22h 36m 01s	+33° 58'	NGC 7320	12.5	**	Stephan's Quintet
93	Peg	23h 15m 24s	+18° 59'	NGC 7550	12.6	*	
94	Peg	23h 17m 17s	+18° 43'	NGC 7578	13.9		
95	Peg	23h 19m 32s	+09° 30'	NGC 7609	14.4		
96	Peg	23h 27m 59s	+08° 46'	NGC 7674	13.5		
97	Psc	23h 47m 27s	-02° 18'	IC 5357	14.2	*	
98	Psc	23h 54m 13s	+00° 22'	NGC 7783	13.7		
99	Peg	00h 00m 44s	+28° 23'		14.0	*	
100	Peg	00h 01m 21s	+13° 08'	NGC 7803	13.7		

\* part of Jim Shield's selection of "32 interesting Hickson Groups"

\*\* unusually bright Hickson Groups being well accessible also in smaller telescopes

# Hickson 1 in Andromeda



pp

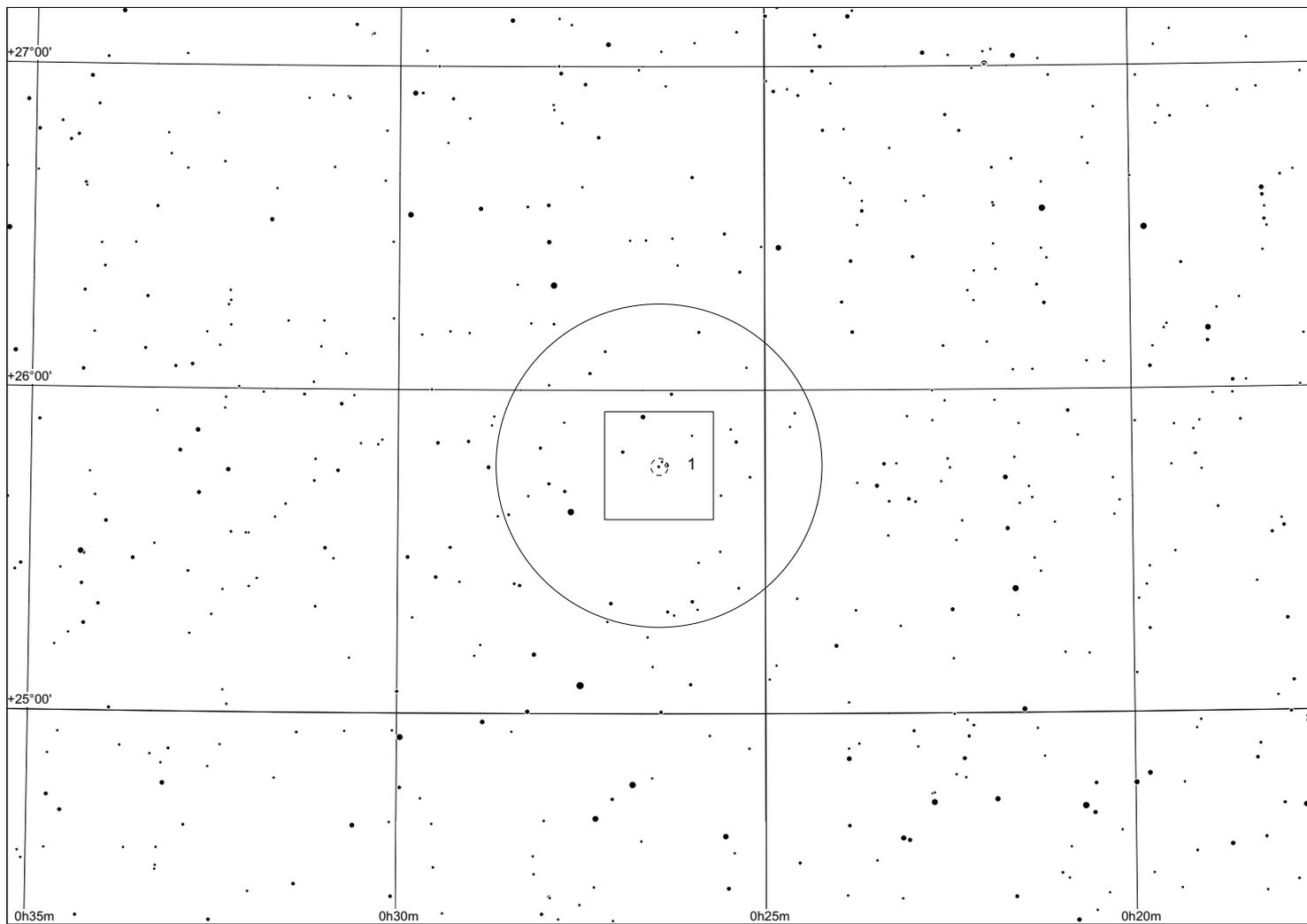
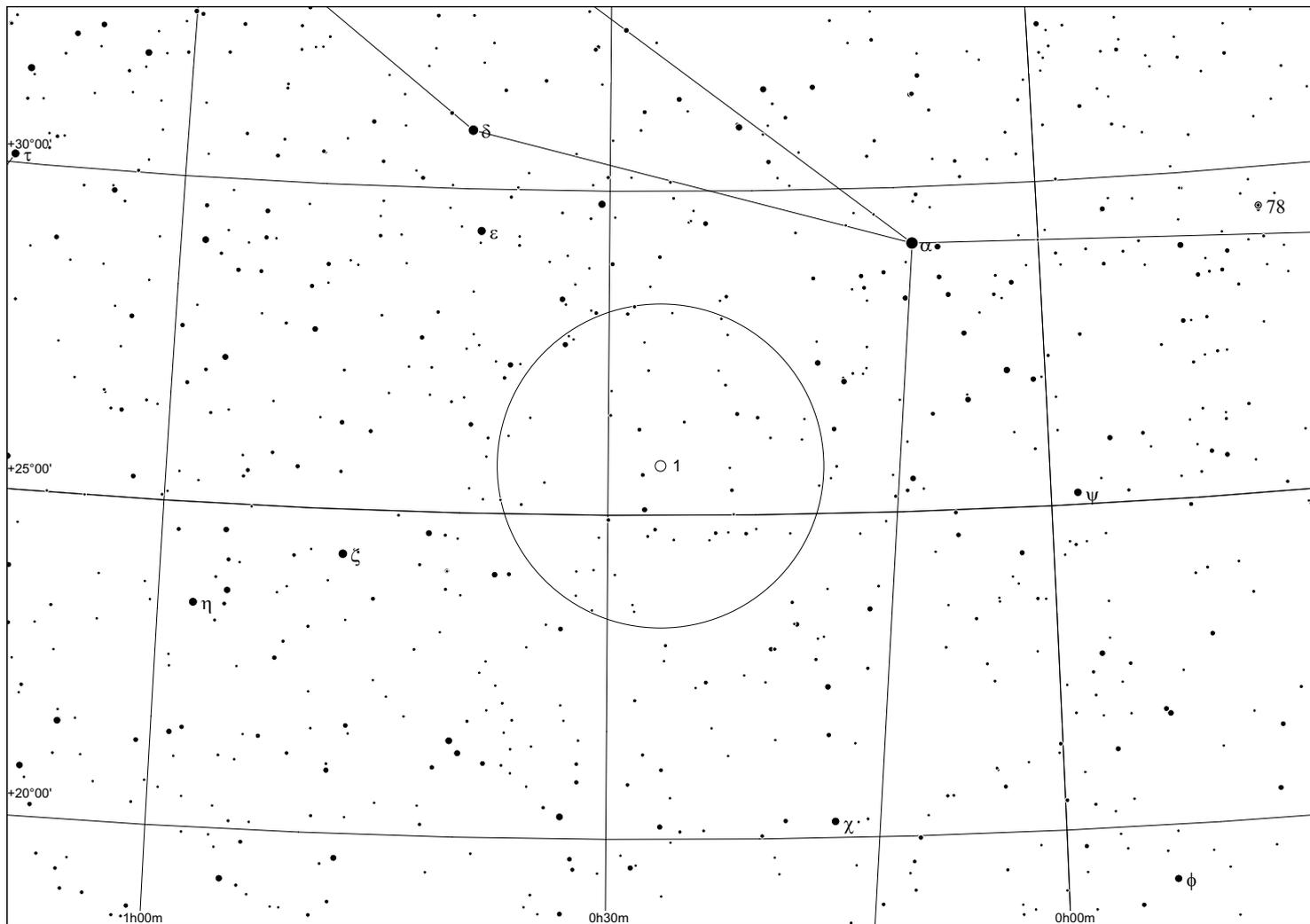
*HCG Const. coordinates (2000) bright. memb. mag*  
 1 And 00h 26m 01s +25° 43' 14.4

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 km/s	err km/s	C	names
01a	00 23 29.92	+25 26 53.9	37.60	26.90	Sc	7	15.02	0	55.00	13.33	2	87.70	1.29	14.87	14.43	0.20	10237	39	0	U248a
01b	00 23 28.77	+25 26 31.9	42.80	10.70	Im	12	15.68	0	32.50	13.85	2	65.70	1.36	15.96	15.04	0.10	10266	40	0	U248b
01c	00 23 17.29	+25 26 47.6	10.70	10.70	E0	0	16.21	0	23.80	14.15	0	51.60	1.69	15.89	15.57	0.10	10056	34	0	
01d	00 23 21.66	+25 26 53.4	8.50	4.80	S0	1	17.40	0	12.00	15.77	0	13.90	1.60	16.92	16.50	0.20	10120	47	0	

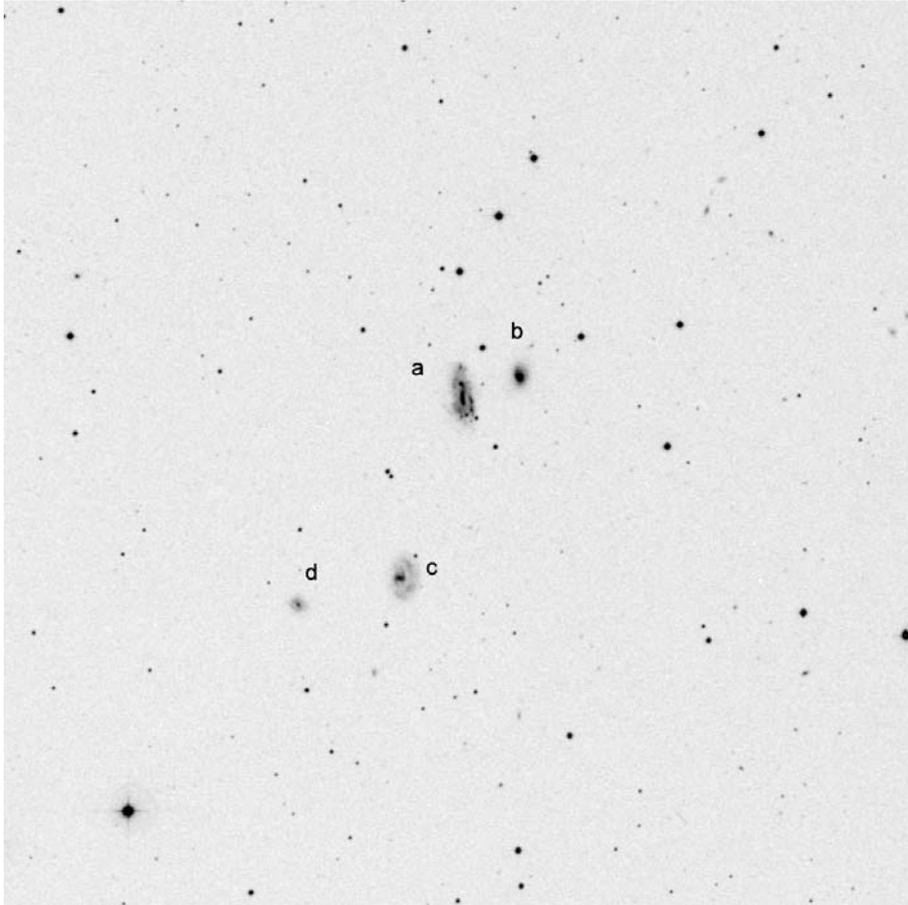
## Notes:

22" f/4: difficult group

*a* + *b* appear as a very weak elongated glow with indirect vision, sometimes seen as separated objects, *c* is smaller and easier, *d* not seen (7mm)



## Hickson 2 in Pisces

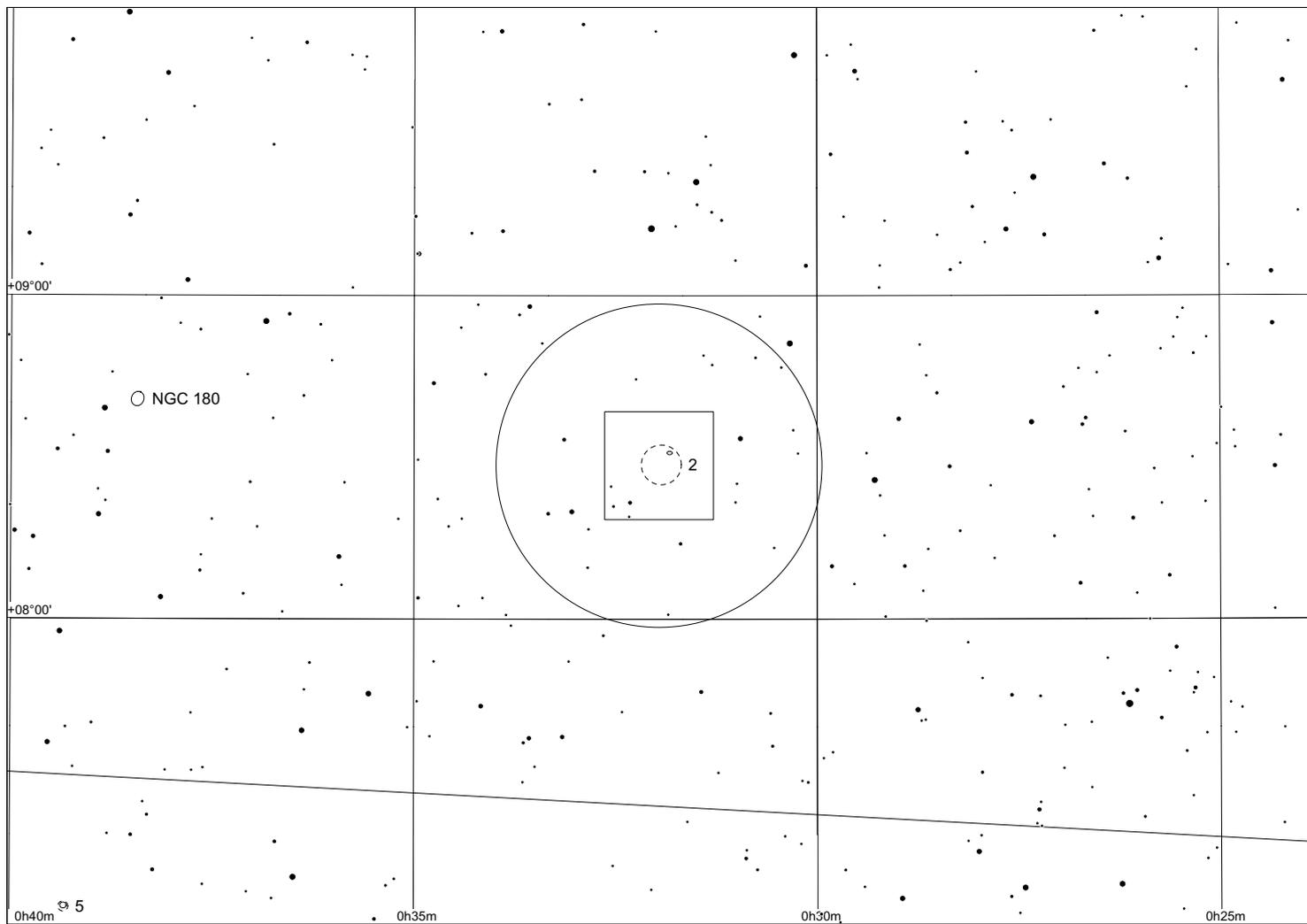
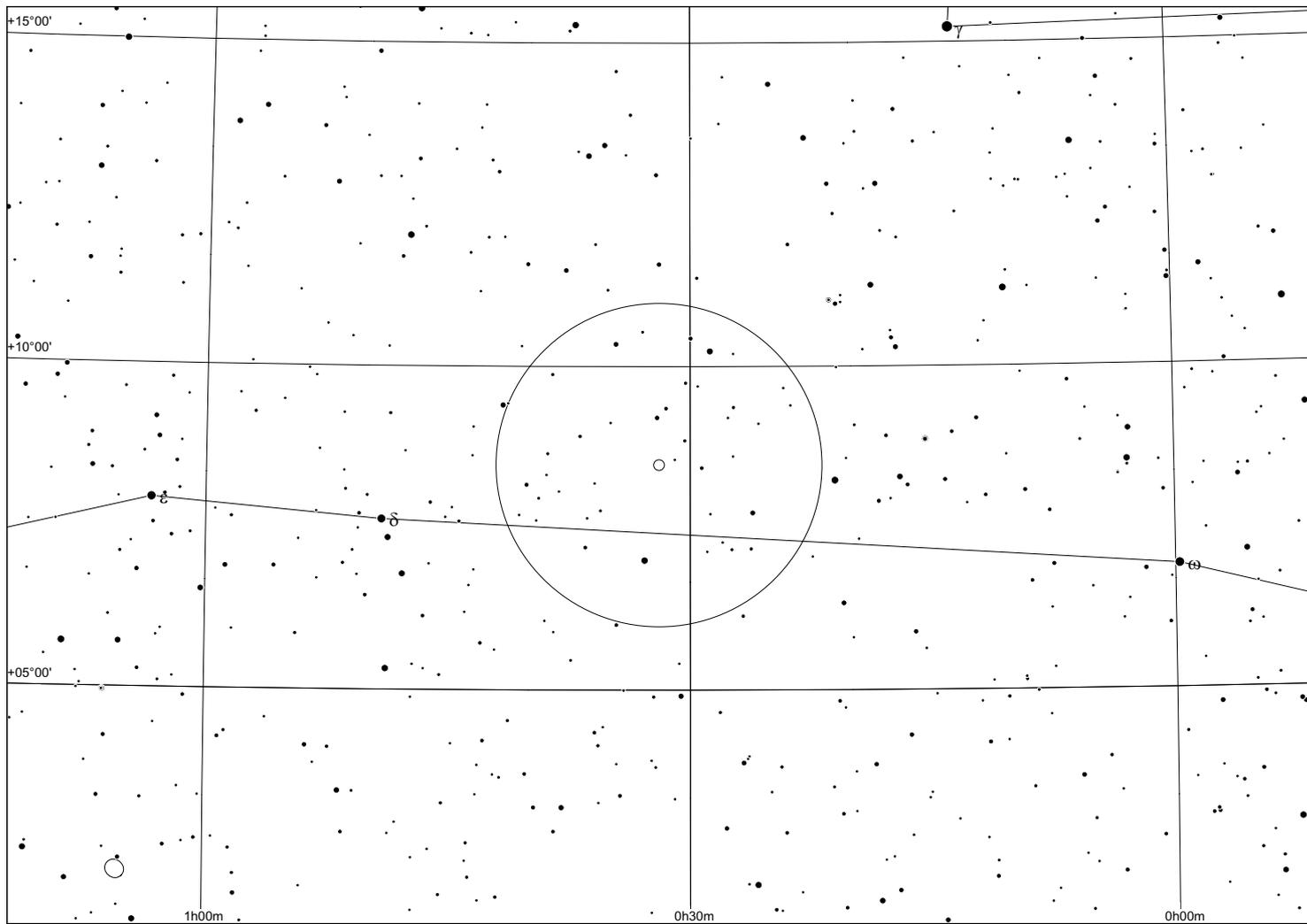


HCG Const. coordinates (2000) bright. memb. mag  
 2 Psc 00h 31m 30s +08° 26' 13.4

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		
02a	00 28 48.85	+08 11 32.0	40.50	19.70	SBd	9	14.02	0	60.70	13.10	0	67.50	0.88	13.84	13.35	0.10	4326	30	0	U312
02b	00 28 43.74	+08 11 57.0	21.20	18.40	cI	13	14.62	0	37.60	13.40	0	50.50	1.14	14.63	14.39	0.10	4366	34	0	Mk552,
MCG1-2-18																				
02c	00 28 54.32	+08 07 28.9	32.90	18.10	SBC	7	15.14	0	48.90	13.97	0	55.40	1.10	14.60	14.15	0.10	4235	34	0	U314
02d	00 29 03.31	+08 06 53.1	13.20	12.00	SBb	5	16.74	0	24.70	15.12	0	28.60	1.54	16.00	15.72	0.20	21340	85	0	U315

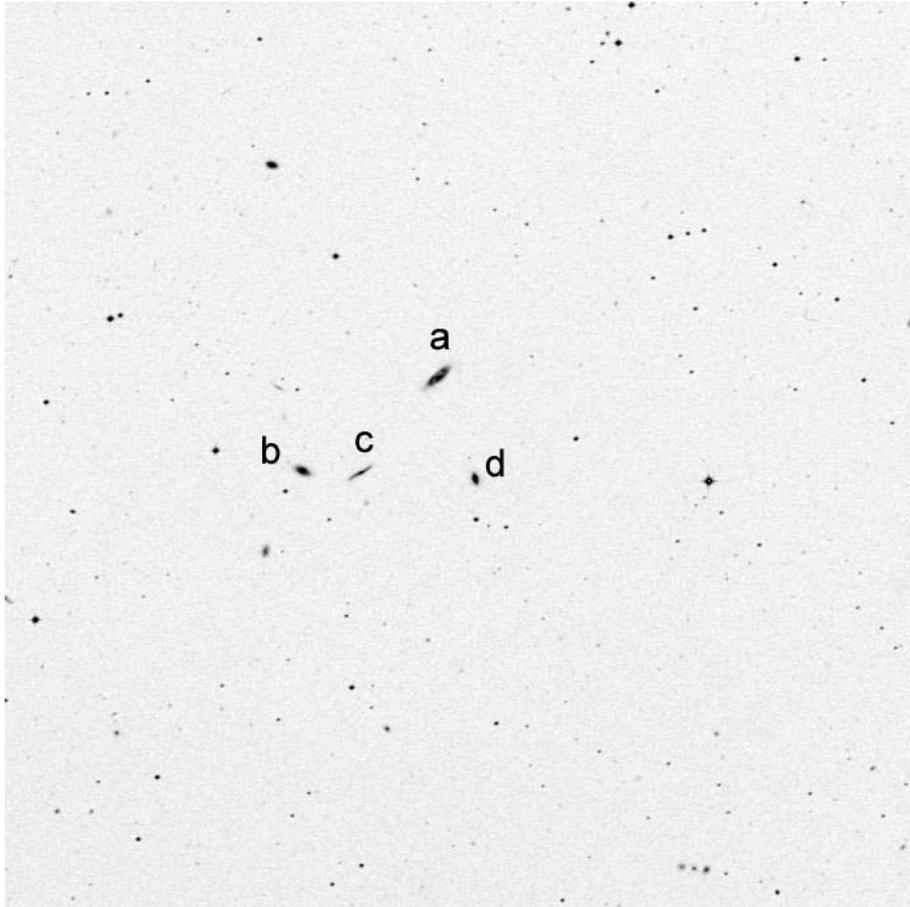
### Notes:

- 22" f/4: b is the most prominent with averted vision  
 a and c somewhat weaker  
 d was not seen, should be tried under better conditions





## Hickson 3 in Cetus



*HCG Const. coordinates (2000) bright. memb. mag*  
 3 Cet 00h 34m 12s -07° 36' 14.7

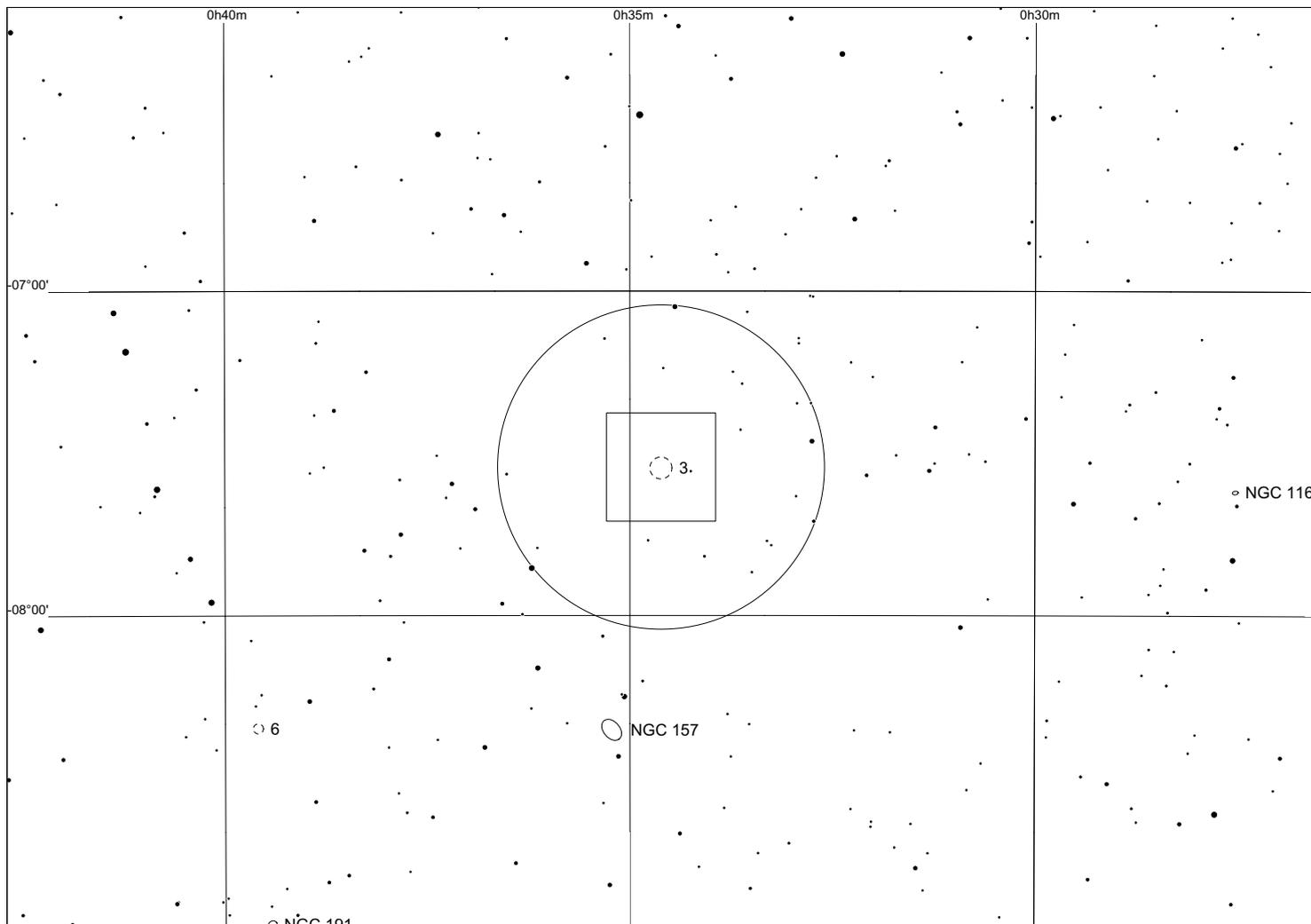
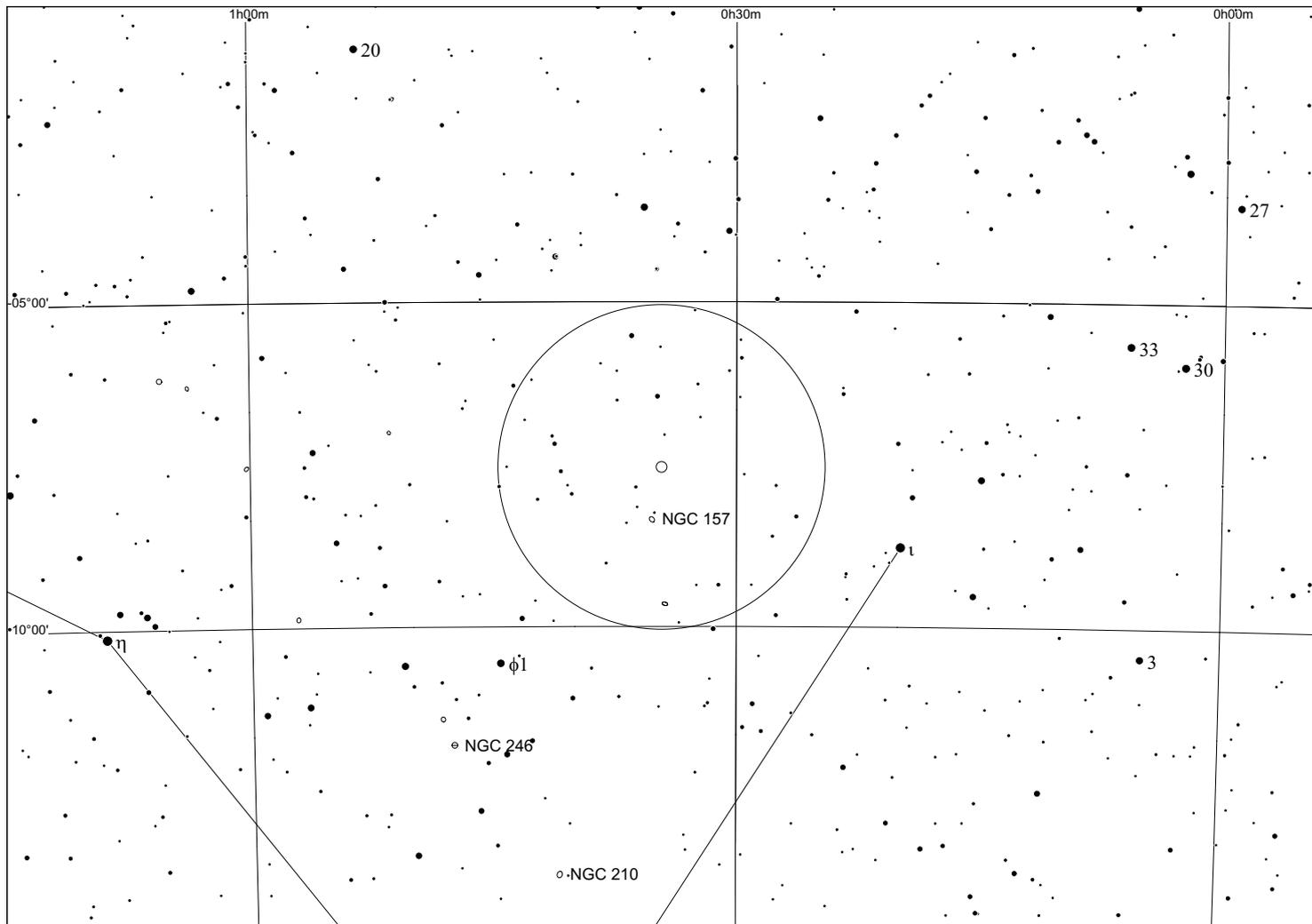
galaxy	ra (1950)	dec	a	b	type	T	B-I	C	D-B	R-I	C	D-R	B-R	B-T	B-TC	err	v_r	err	C	names
			"	"					"			"					km/s	km/s		
03a	00 31 40.70	-07 50 25.4	26.60	8.00	Sc	7	15.60	0	30.80	14.11	0	39.30	1.41	15.36	14.72	0.10	7302	51	0	
03b	00 31 52.61	-07 52 30.9	15.40	9.60	SB0a	2	15.76	0	24.40	14.00	0	31.70	1.71	15.64	15.28	0.10	7860	45	0	
03c	00 31 47.55	-07 52 32.8	23.70	6.40	Sd	9	16.75	0	19.80	15.27	0	26.20	1.37	16.54	15.87	0.10	11545	68	1	
03d	00 31 37.33	-07 52 39.9	13.10	9.70	S0	1	15.98	0	20.10	14.15	0	34.70	1.69	15.91	15.64	0.10	7804	30	0	

### Notes:

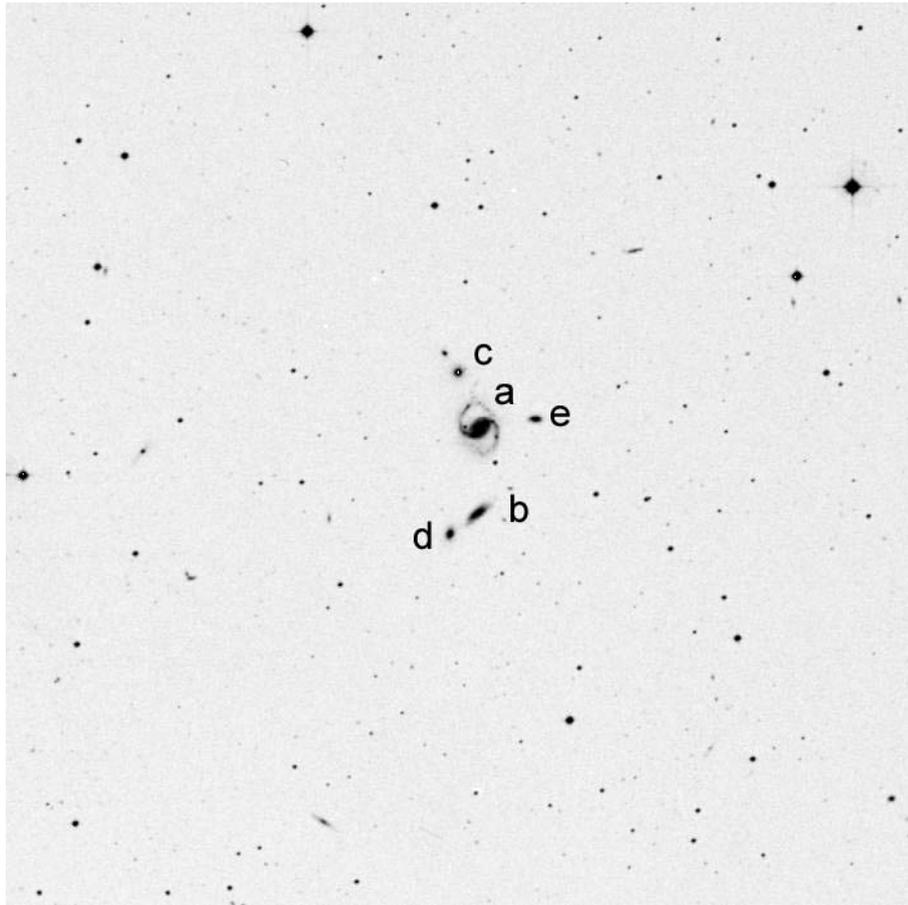
22"f/4 (24/10/2008): 7mm, loose group

a and b can be easily held directly

d is more difficult and c is the most difficult member, can be seen intermittently with averted vision



# Hickson 4 in Cetus



*HCG Const. coordinates (2000) bright. memb. mag*  
 4 Cet 00h 34m 16s -21° 27' 13.5

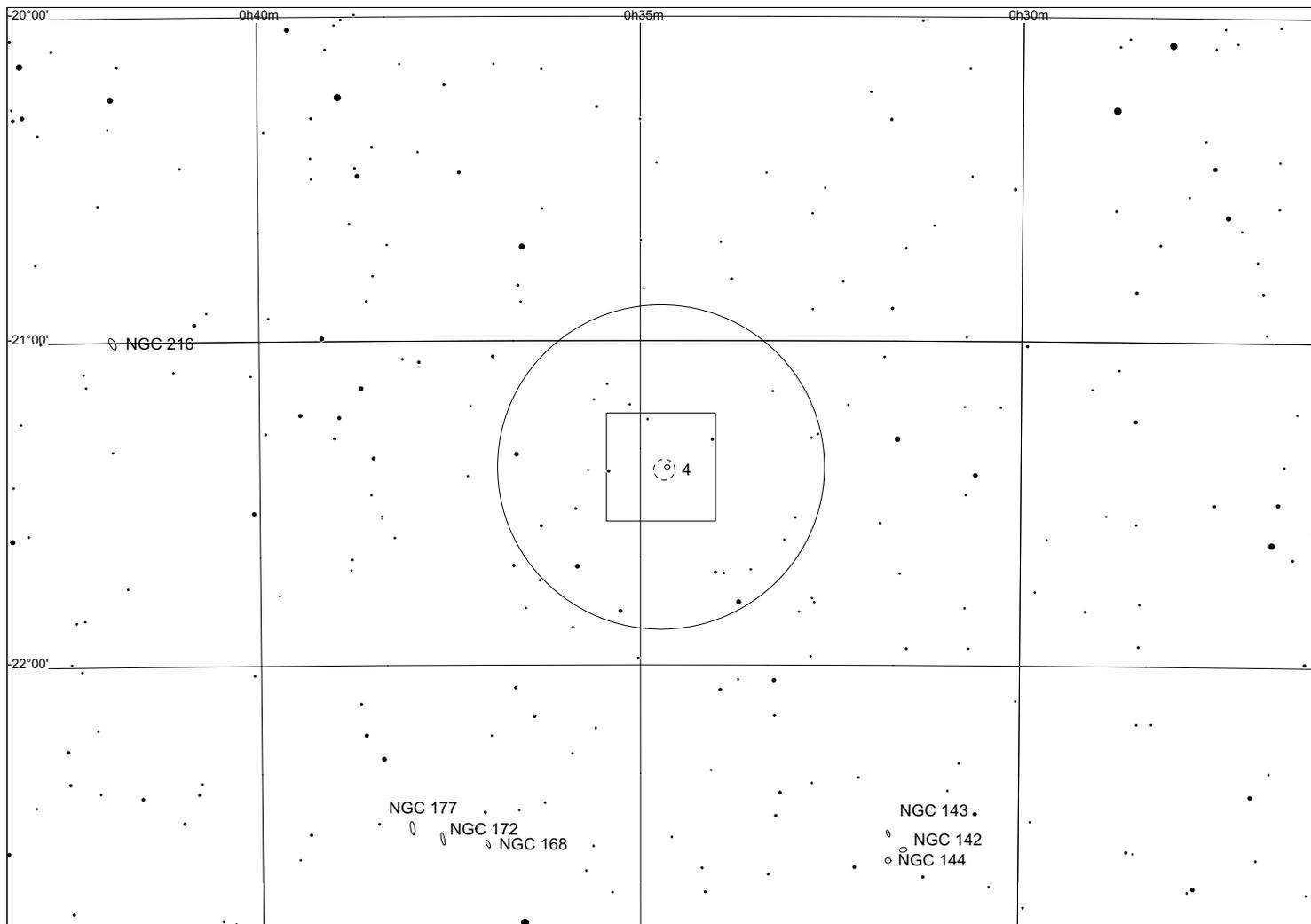
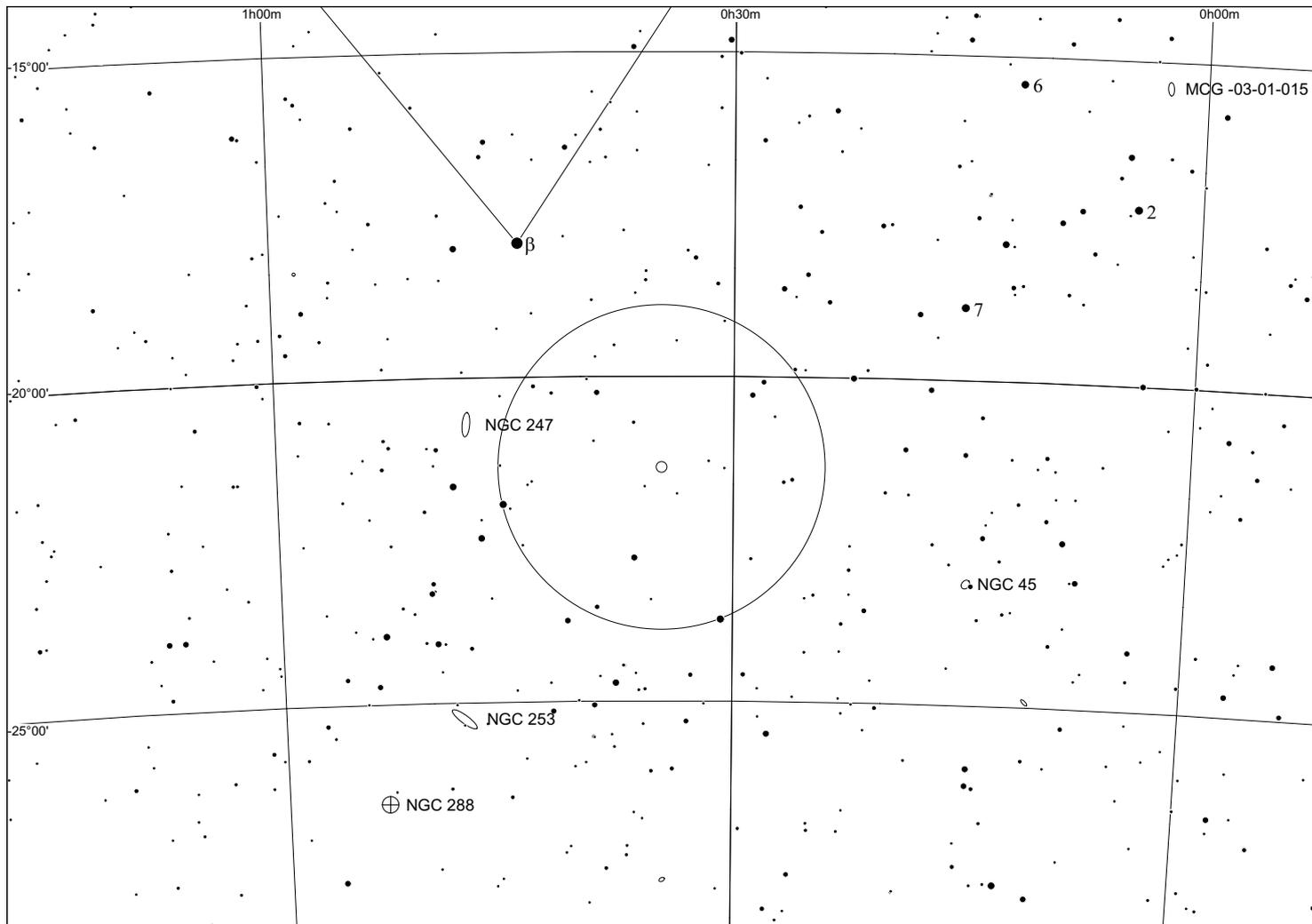
galaxy	ra (1950)	dec	a	b	type	T	B-I	C	D <sub>B</sub>	R-I	C	D <sub>R</sub>	B-R	B-T	B-TC	err	v <sub>r</sub>	err	C	names
			"	"					"			"					km/s	km/s		
04a	00 31 43.69	-21 42 50.9	41.10	33.50	Sc	7	13.80	0	67.50	12.71	0	75.20	1.01	13.78	13.50	0.10	8097	36	0	
04b	00 31 44.16	-21 44 44.8	24.20	9.10	Sc	7	15.70	0	30.90	14.62	0	34.00	1.03	15.52	14.97	0.20	7065	44	0	
04c	00 31 45.62	-21 41 36.2	12.80	10.00	E2	0	16.11	0	24.40	14.45	0	37.30	1.51	15.90	15.69	0.10	8863	74	1	
04d	00 31 46.77	-21 45 11.5	12.70	7.40	E4	0	16.12	0	20.50	14.86	0	26.40	1.19	15.68	15.47	0.10	8215	37	0	
04e	00 31 38.37	-21 42 41.1	12.90	9.40	Sab	4	16.61	0	19.00	15.26	0	21.30	1.31	16.37	16.05	0.10	18480	180	1	

## Notes:

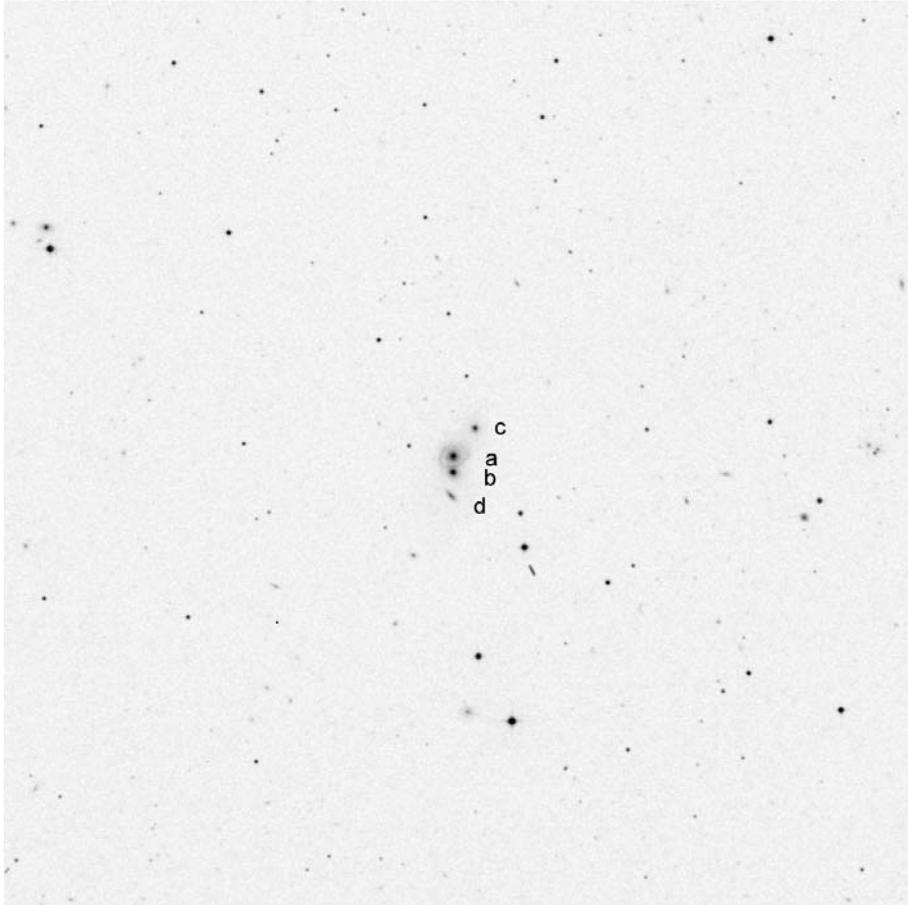
22"f/4 (24/10/2008): 7mm, a and b are can be held steadily

c only intermittently visible

splitting b and d is difficult, from time to time, two members were suspected, but not with certainty



# Hickson 5 in Pisces



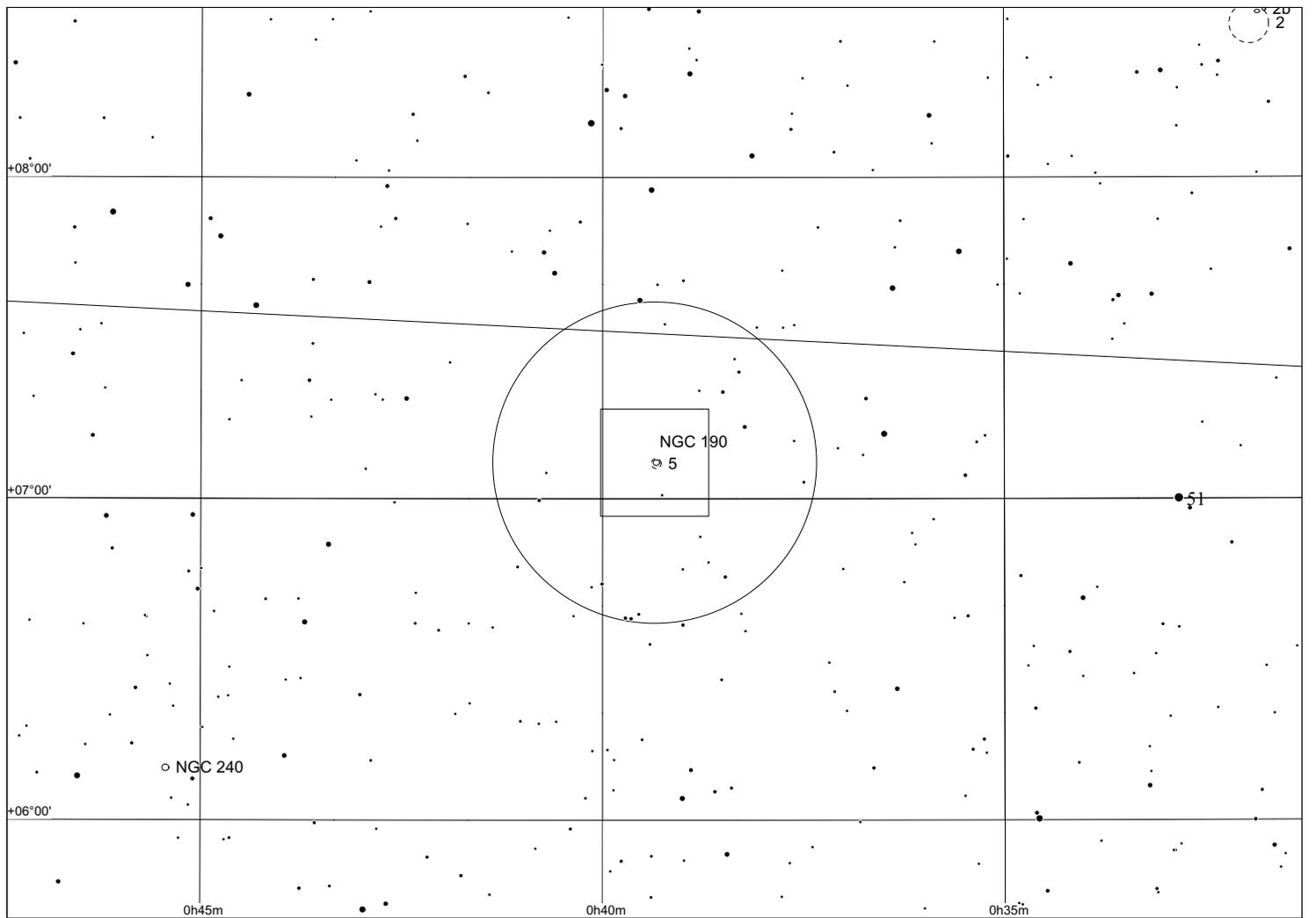
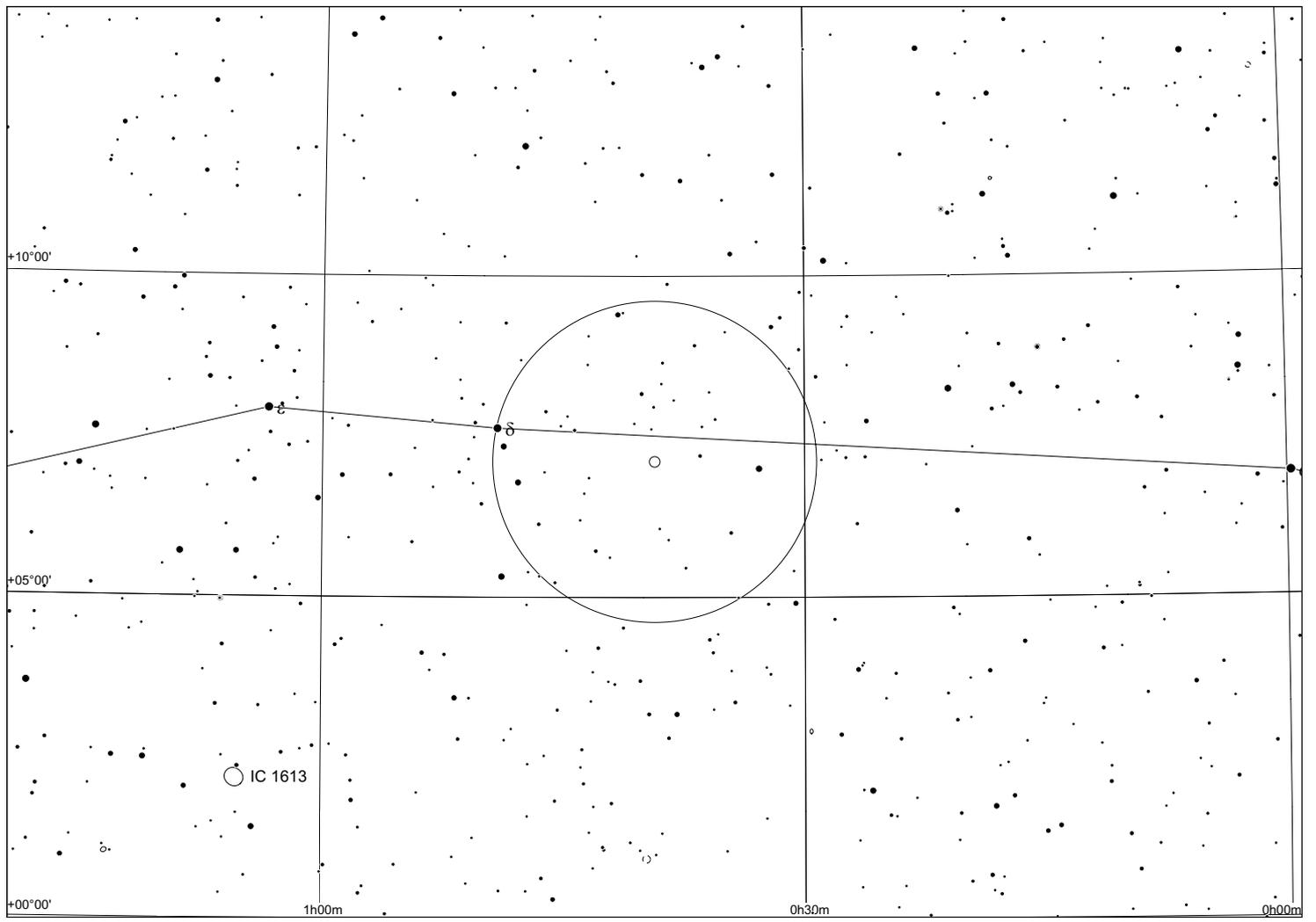
HCG Const. coordinates (2000) bright. memb. mag  
 5 Psc 00h 38m 55s +07° 04' NGC 190 14.6

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		
05a	00 36 19.61	+06 47 16.6	24.40	24.30	Sab	4	15.08	1	43.50	13.39	1	62.40	1.58	14.79	14.55	0.20	12147	34	0	N190N,
U397a																				
05b	00 36 19.62	+06 46 53.1	17.90	17.50	E0	0	15.99	1	28.20	13.70	1	49.20	2.03	15.76	15.52	0.20	12221	29	0	N190S,
U397b																				
05c	00 36 17.72	+06 47 52.8	15.10	13.40	S0	1	16.72	1	21.70	13.77	1	39.10	1.72	16.52	16.26	0.20	12489	47	0	
05d	00 36 19.90	+06 46 23.9	12.30	5.00	Sc	7	17.30	1	17.20	15.49	1	27.40	1.68	17.27	16.72	0.20	8215	37	1	

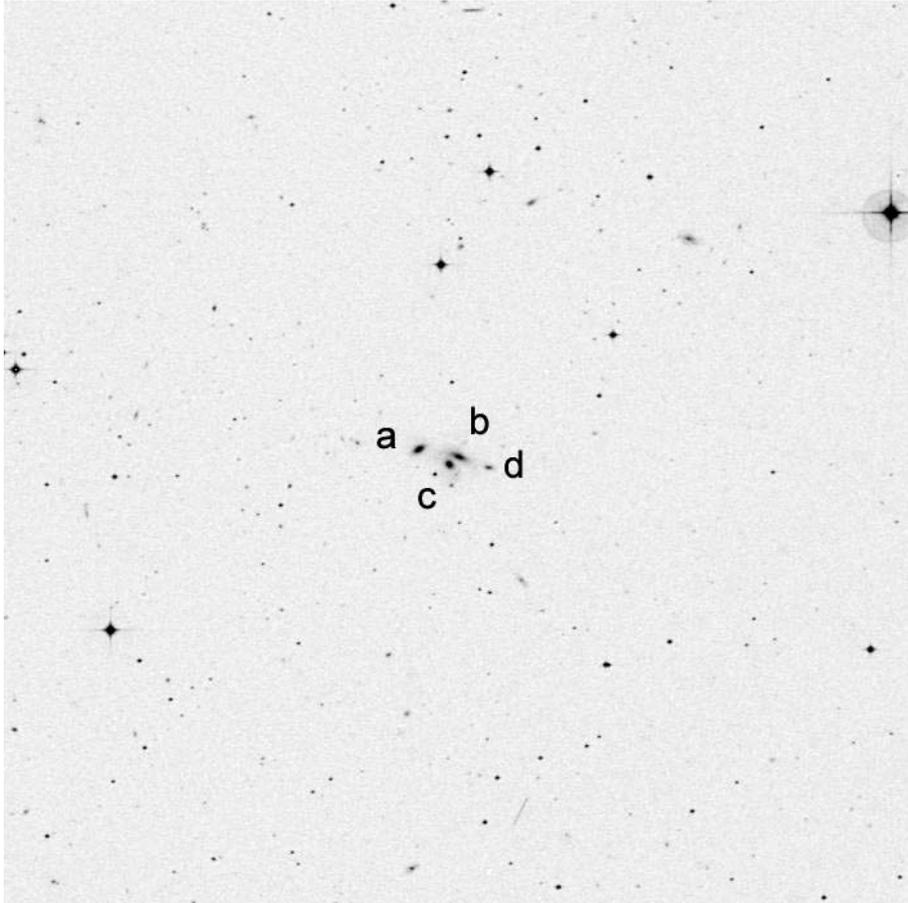
## Notes:

22" f/4: very difficult group

group was spotted and at some times separate components were resolved, probably a and b



# Hickson 6 in Cetus

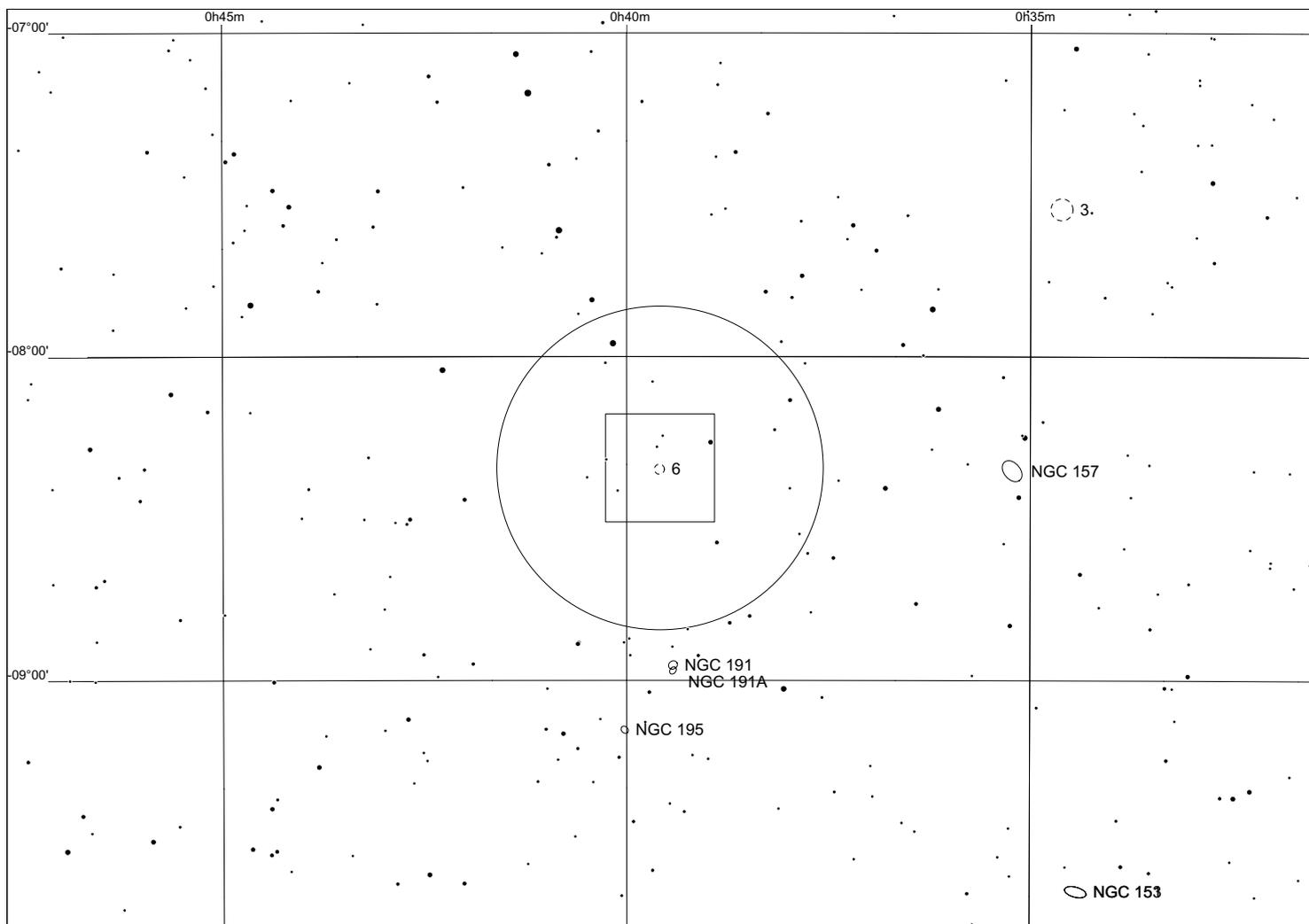
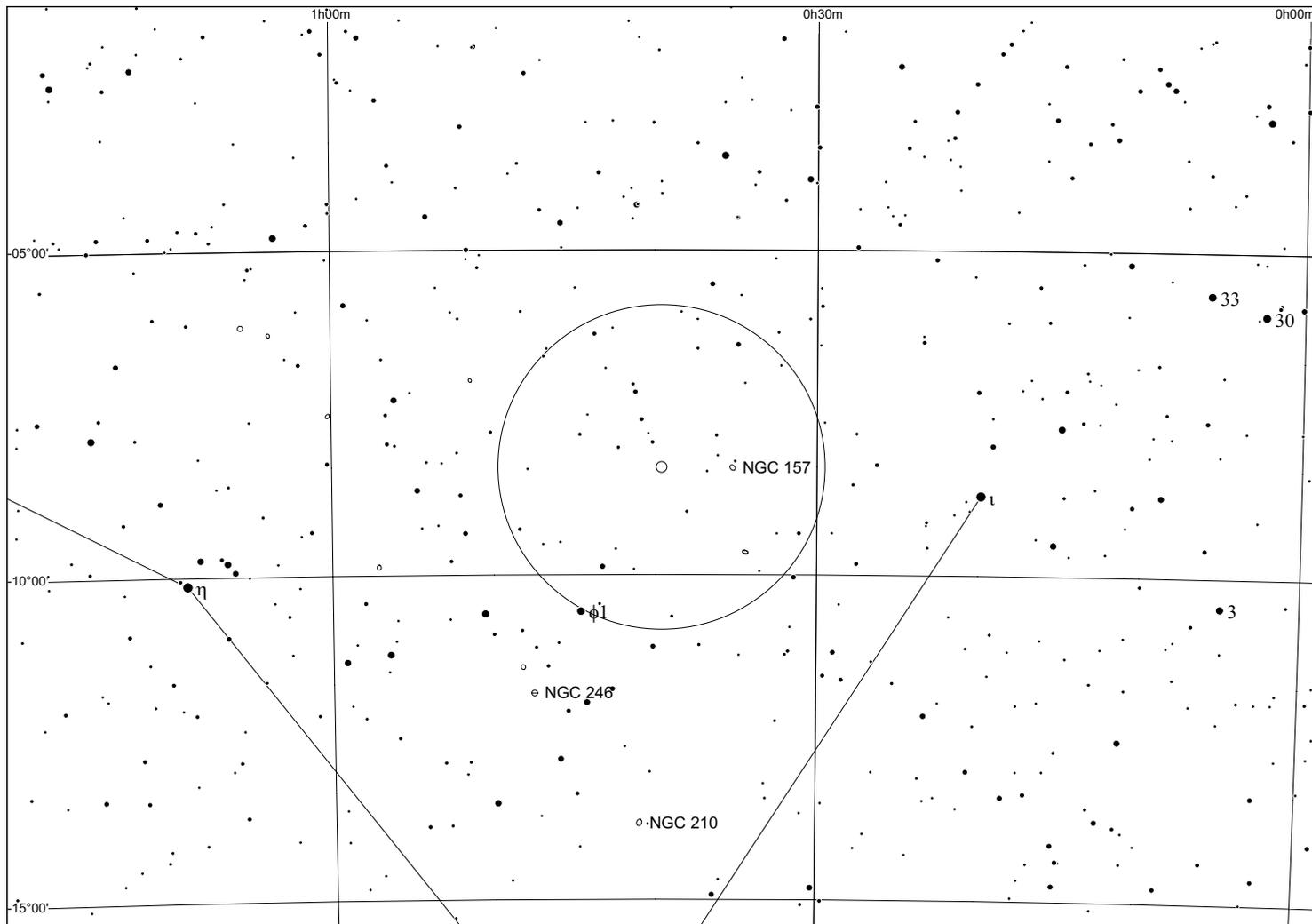


*HCG Const. coordinates (2000) bright. memb. mag*  
 6 Cet 00h 39m 10s -08° 24' 15.3

<i>galaxy</i>	<i>ra (1950)</i>	<i>dec</i>	<i>a</i>	<i>b</i>	<i>type</i>	<i>T</i>	<i>B_I</i>	<i>C</i>	<i>D_B</i>	<i>R_I</i>	<i>C</i>	<i>D_R</i>	<i>B-R</i>	<i>B_T</i>	<i>B_TC</i>	<i>err</i>	<i>v_r</i>	<i>err</i>	<i>C</i>	<i>names</i>
			"	"					"			"					km/s	km/s		
06a	00 36 41.70	-08 40 07.7	14.30	7.30	S0a	2	15.87	1	25.20	13.94	1	44.20	1.62	15.69	15.27	0.20	11669	52	1	
06b	00 36 38.10	-08 40 18.6	21.20	8.70	Sab	4	16.16	1	29.50	14.18	1	48.40	1.74	16.03	15.50	0.20	11377	61	0	
06c	00 36 38.98	-08 40 29.1	21.90	11.00	E5	0	15.97	1	27.10	14.09	1	44.70	1.64	15.59	15.37	0.20	10967	61	0	
06d	00 36 35.50	-08 40 32.7	9.00	4.80	Sbc	6	17.89	1	14.00	16.45	1	20.50	1.39	17.63	17.19	0.20	11434	62	0	

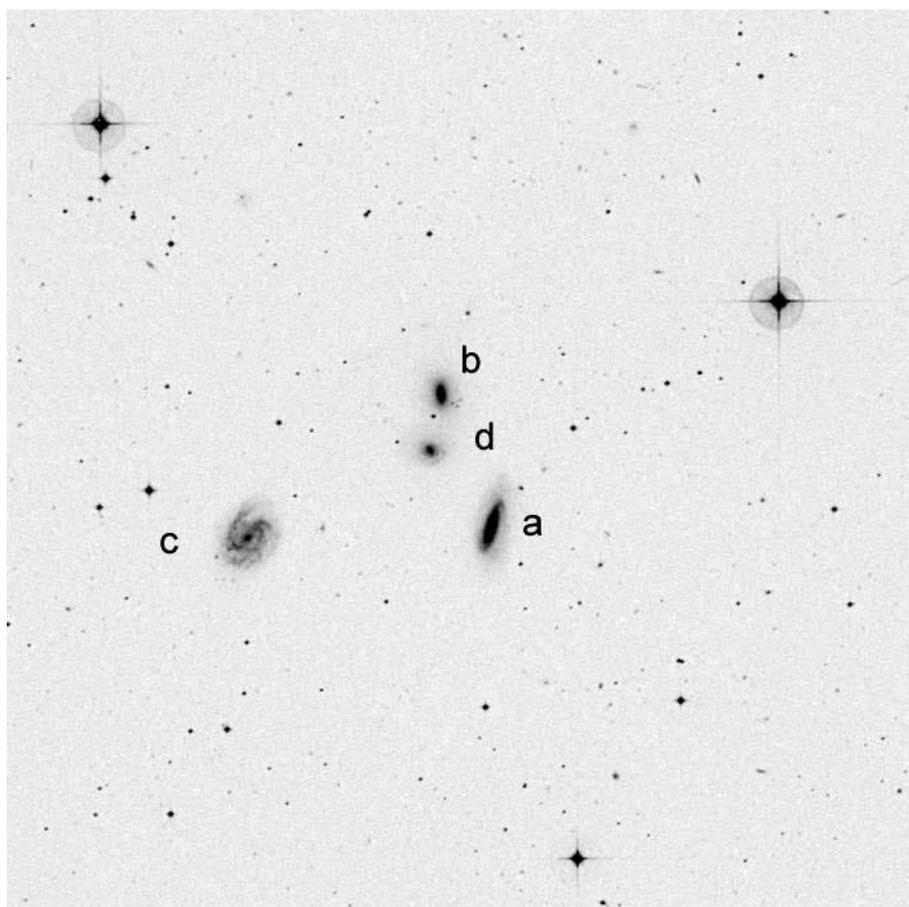
## Notes:

22"f/4 (24/10/2008): with 5mm, a is easy, can be held permanently,  
 b and c can be split steadily with averted vision  
 d was not seen (2 mag weaker)





## Hickson 7 in Cetus

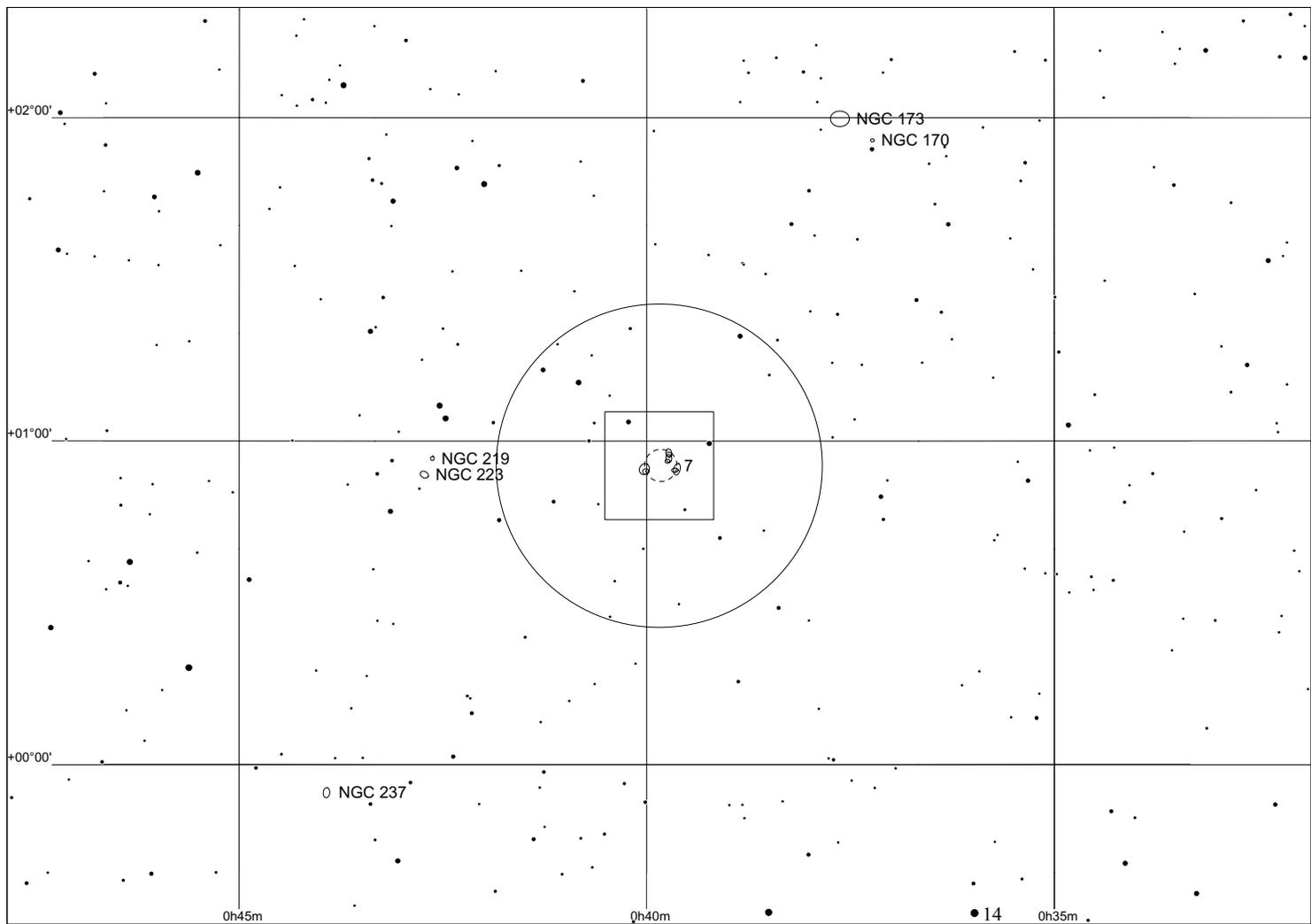
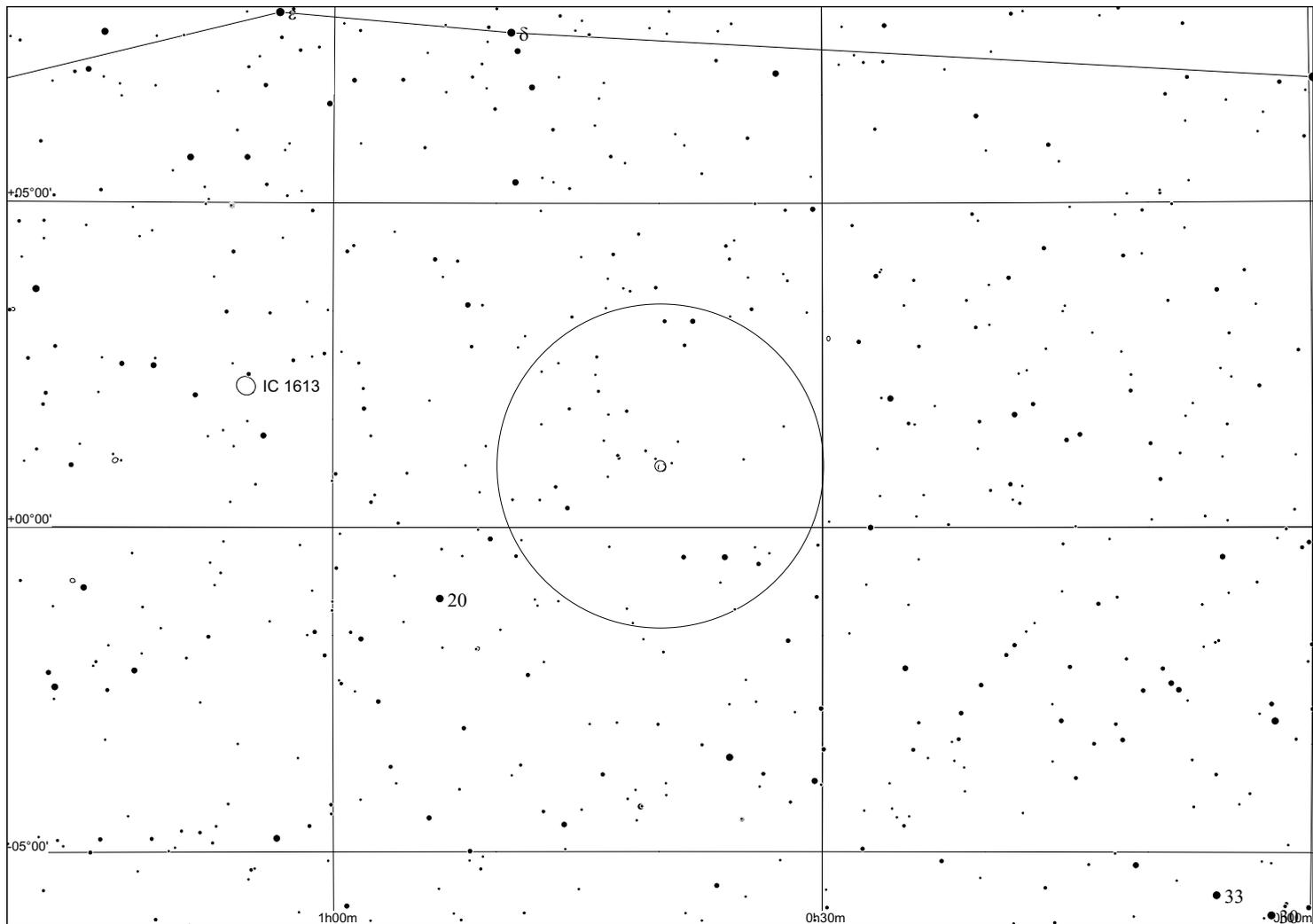


*HCG Const. coordinates (2000) bright. memb. mag*  
 7 Cet 00h 39m 24s +00° 53' NGC 192 12.6

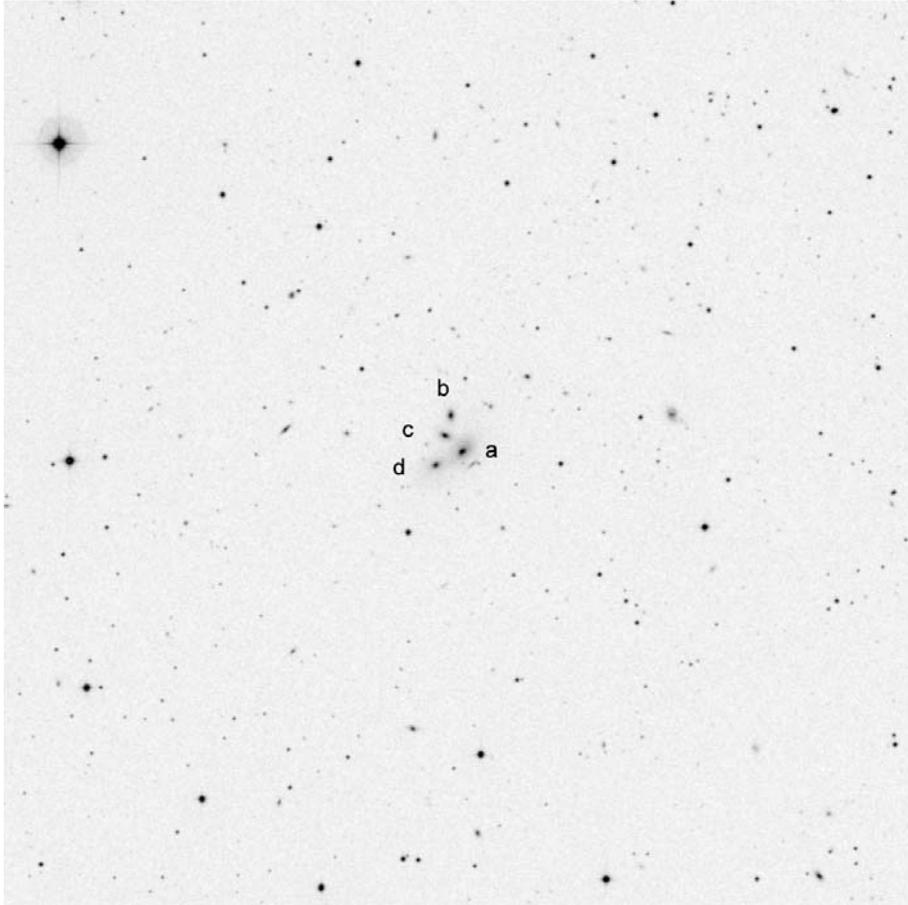
<i>galaxy</i>	<i>ra (1950)</i>	<i>dec</i>	<i>a</i> "	<i>b</i> "	<i>type</i>	<i>T</i>	<i>B-I</i>	<i>C</i>	<i>D<sub>B</sub></i> "	<i>R-I</i>	<i>C</i>	<i>D<sub>R</sub></i> "	<i>B-R</i>	<i>B-T</i>	<i>B-TC</i>	<i>err</i>	<i>v<sub>r</sub></i> km/s	<i>err</i> km/s	<i>C</i>	<i>names</i>
07a U401	00 36 39.66	+00 35 20.5	56.80	27.60	Sb	5	13.50	0	80.20	11.97	0	96.30	1.48	13.46	12.98	0.10	4210	20	0	N192,
07b U405	00 36 44.13	+00 38 17.3	40.10	29.20	SB0	1	13.94	0	69.80	12.40	0	92.20	1.44	14.02	13.74	0.20	4238	25	0	N196,
07c U419	00 37 01.15	+00 35 06.3	52.30	42.60	SBc	7	13.65	0	91.00	12.41	0	102.70	1.19	12.90	12.60	0.70	4366	36	0	N201,
07d U406	00 36 45.08	+00 37 00.8	38.30	27.90	SBc	7	14.85	0	59.30	13.39	0	83.80	1.12	15.11	14.77	0.20	4116	38	0	N197,

### Notes:

22" f/4: All four galaxies were observed. c appears large and diffuse, d is the weakest.



## Hickson 8 in Andromeda

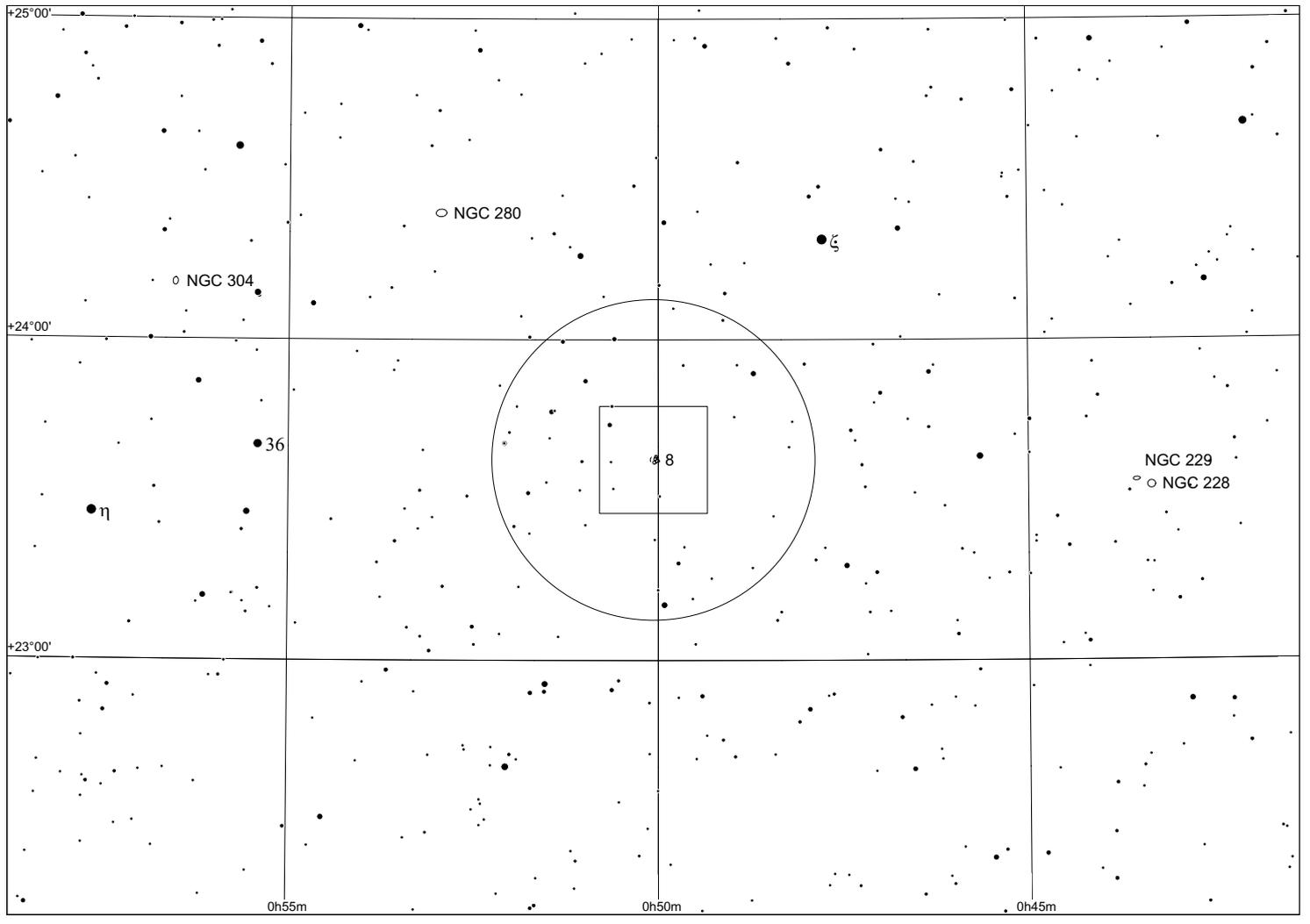
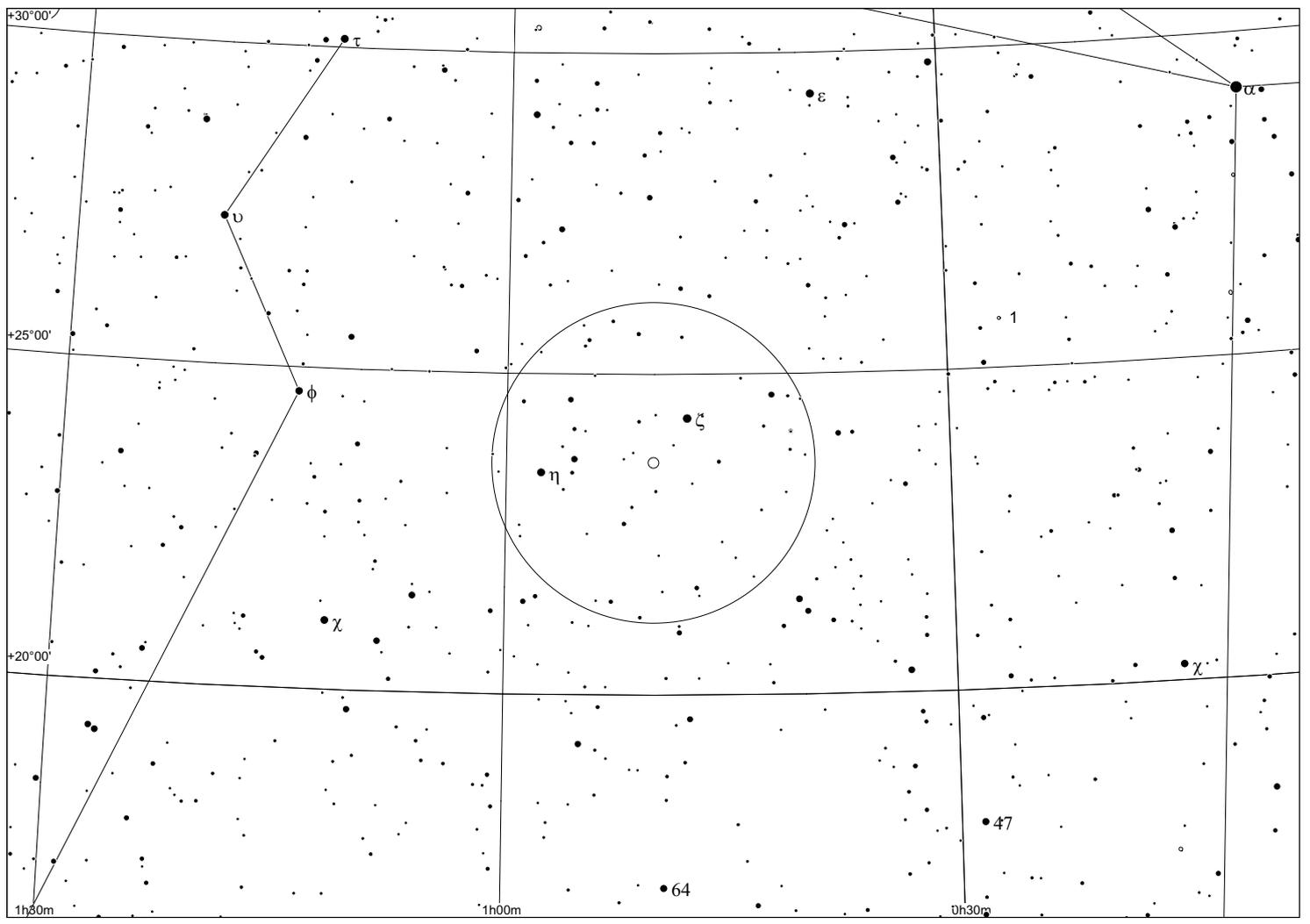


*HCG Const. coordinates (2000) bright. memb. mag*  
 8 And 00h 49m 37s +23° 35' 14.5

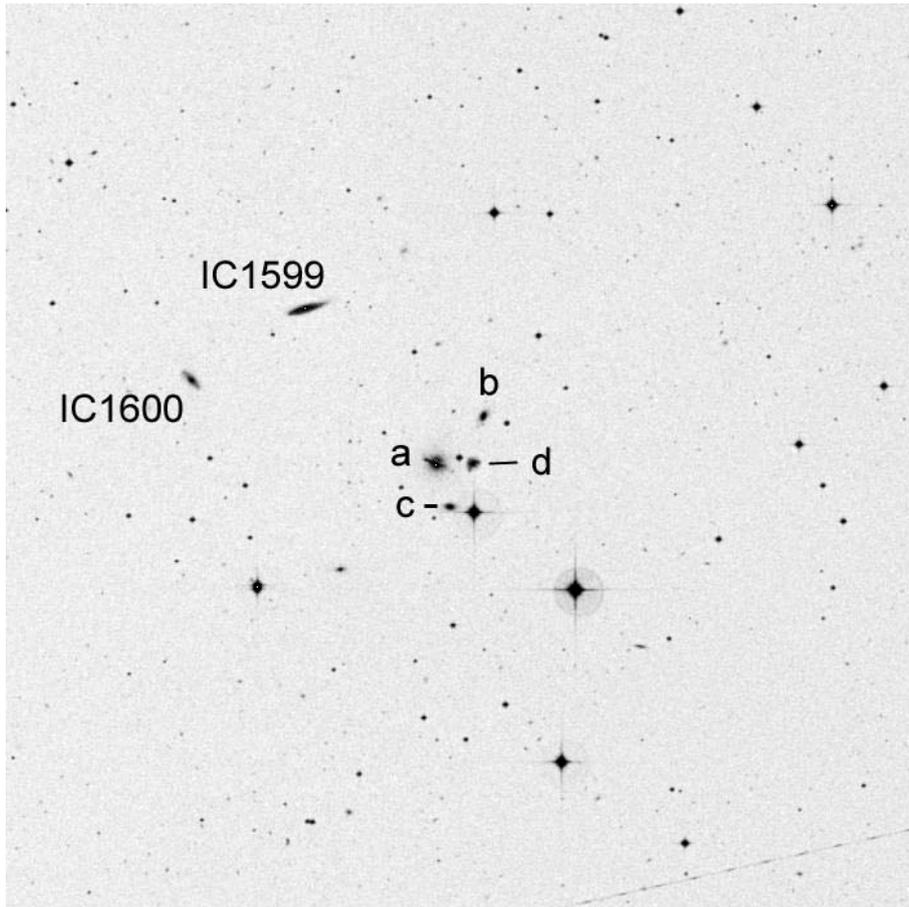
galaxy	ra (1950)	dec	a "	b "	type	T	B-I	C	D-B "	R-I	C	D-R "	B-R	B-T	B-TC	err	v_r km/s	err km/s	C	names
08a	00 46 54.48	+23 18 20.0	31.50	16.60	E5	0	15.50	1	13.70	13.23	1	88.60	1.76	14.80	14.50	0.50	16014	51	0	
08b	00 46 55.51	+23 19 08.2	14.70	8.80	S0	1	16.41	1	24.30	14.44	1	36.00	1.82	15.79	15.41	0.20	15966	38	0	
08c	00 46 56.12	+23 18 41.9	13.90	11.80	S0	1	16.31	1	25.90	14.28	1	43.30	1.81	15.65	15.33	0.20	17087	51	0	
08d	00 46 56.99	+23 18 02.7	15.60	13.10	S0	1	16.41	1	26.00	14.27	1	50.50	1.76	15.74	15.42	0.20	16341	39	0	

### Notes:

22" f/4: difficult group, several galaxies visible with averted vision, but very difficult to hold steadily, requires more time to pin down the individual members (7mm)



# Hickson 9 in Cetus

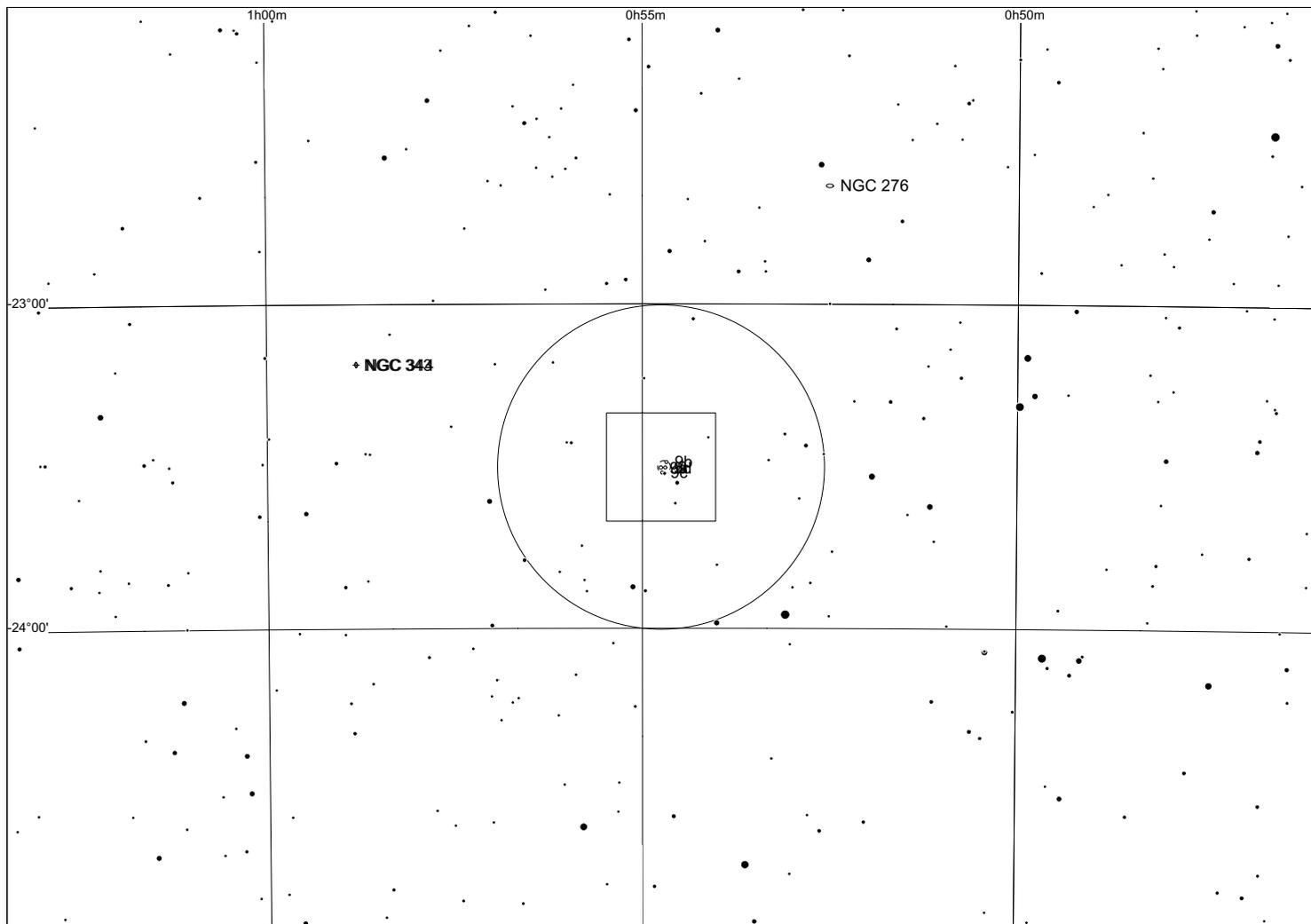
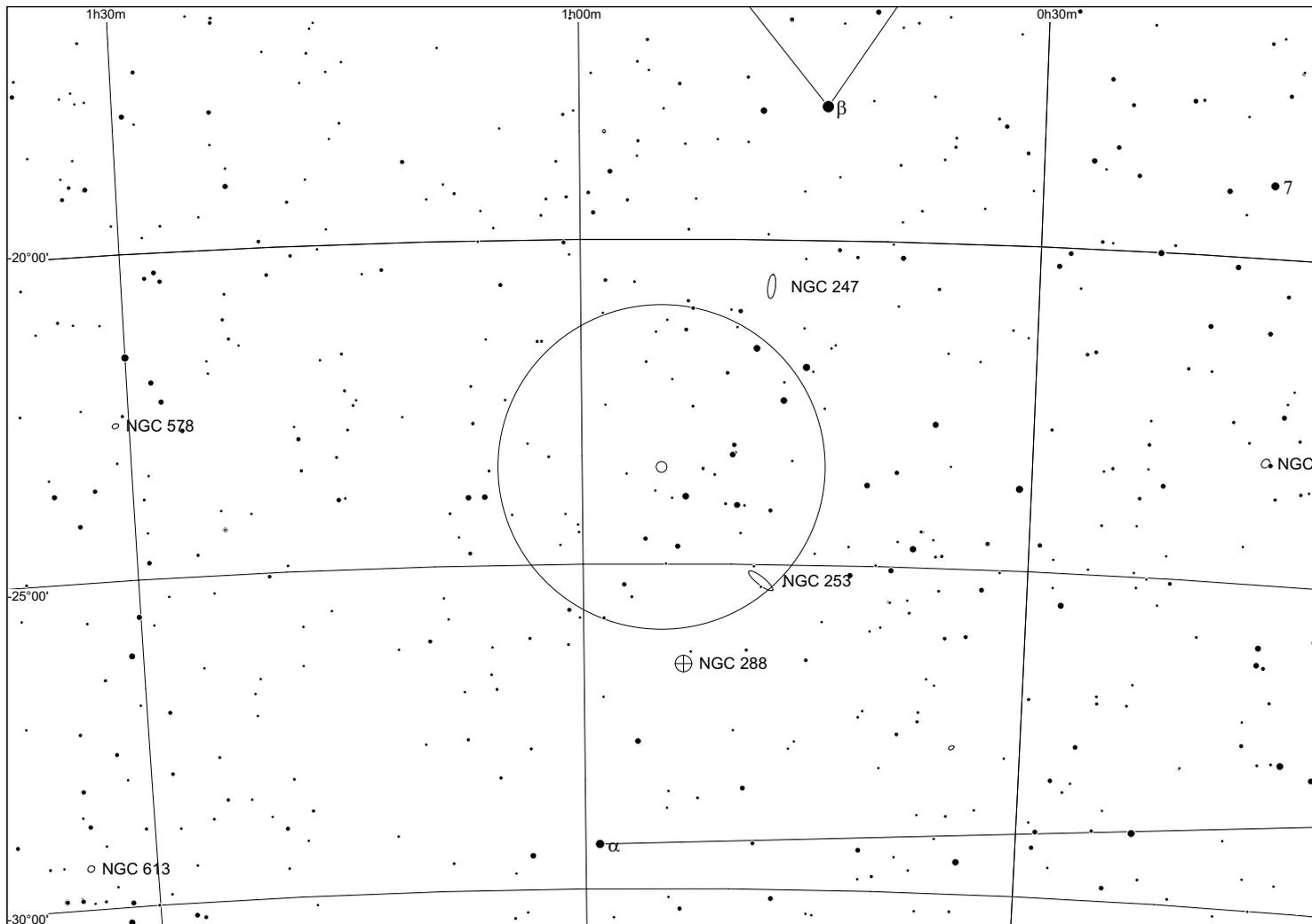


*HCG Const. coordinates (2000) bright. memb. mag*  
 9 Cet 00h 54m 18s -23° 33' 14.9

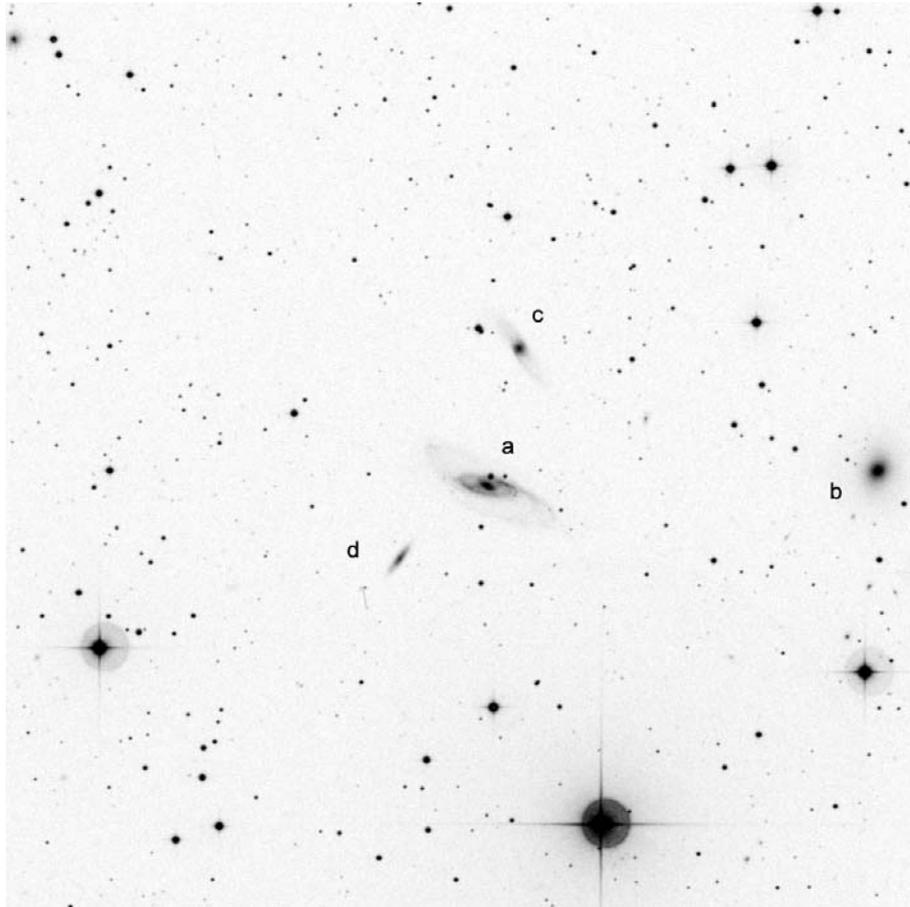
galaxy	ra (1950)	dec	a	b	type	T	B-I	C	D-B	R-I	C	D-R	B-R	B-T	B-TC	err	v_r	err	C	names
			"	"					"			"					km/s	km/s		
09a	00 51 53.57	-23 49 25.2	23.60	18.70	E2	0	15.59	1	38.60	13.55	1	70.60	1.60	15.10	14.89	0.20	20155	125	0	
09b	00 51 49.15	-23 48 23.1	11.10	7.90	S0	1	15.95	1	32.60	15.17	1	23.80	1.11	15.80	15.50	0.50	9406	150	1	
09c	00 51 52.51	-23 50 21.5	9.00	7.90	Sc	7	16.96	0	16.20	15.32	0	27.40	1.34	16.81	16.56	0.20	10300	192	0	
09d	00 51 50.06	-23 49 24.9	13.30	12.50	SBcd	8	16.69	0	16.90	15.38	0	21.10	1.09	16.72	16.49	0.20	17726	193	0	

## Notes:

22"f/4 (24/10/2008): 5mm, suboptimal conditions as group is already low in the haze, therefore difficult observation, a can be seen with difficulty



## Hickson 10 in Andromeda



*HCG Const. coordinates (2000) bright. memb. mag*  
 10 And 01h 26m 08s +34° 41' NGC 536 12.6

galaxy	ra (1950)	dec	a "	b "	type	T	B-I	C	D <sub>B</sub> "	R-I	C	D <sub>R</sub> "	B-R	B-T	B-TC	err	v <sub>r</sub> km/s	err km/s	C	names
10a	01 23 31.03	+34 26 33.3	104.80	35.90	SBb	5	13.49	0	93.60	11.81	0	123.90	1.56	13.36	12.62	0.10	5148	19	0	N536,
U1013																				
10b	01 22 50.05	+34 27 11.1	51.20	48.00	E1	0	13.35	0	97.30	11.68	0	127.30	1.57	13.07	12.70	0.10	4862	22	0	N529,
U995																				
10c	01 23 28.38	+34 29 40.1	55.40	12.90	Sc	7	14.98	0	49.20	13.23	0	63.60	1.66	14.94	14.07	0.10	4660	32	0	N531,
U1012																				
10d	01 23 40.43	+34 24 56.5	29.20	7.30	Scd	8	15.82	0	28.40	14.23	0	35.80	1.52	15.54	14.69	0.20	4620	40	0	N542

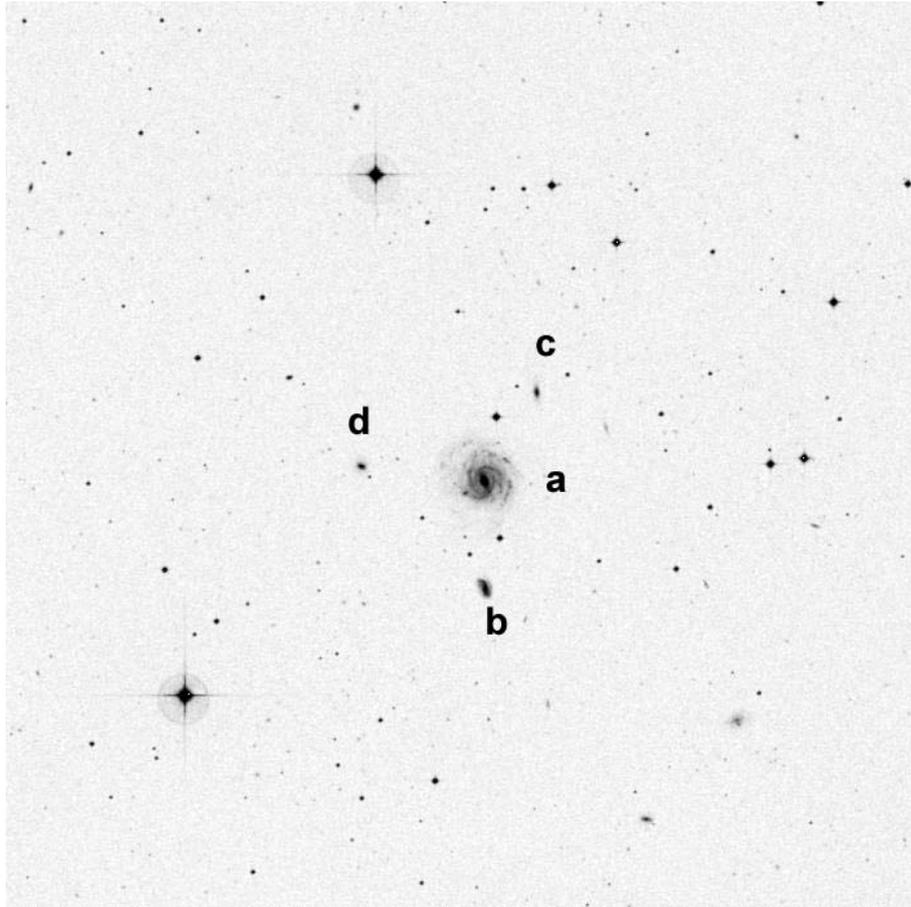
### Notes:

22" f/4: easy group of four galaxies that can already be identified with lower power, d elongated (13 mm)





# Hickson 11 in Cetus

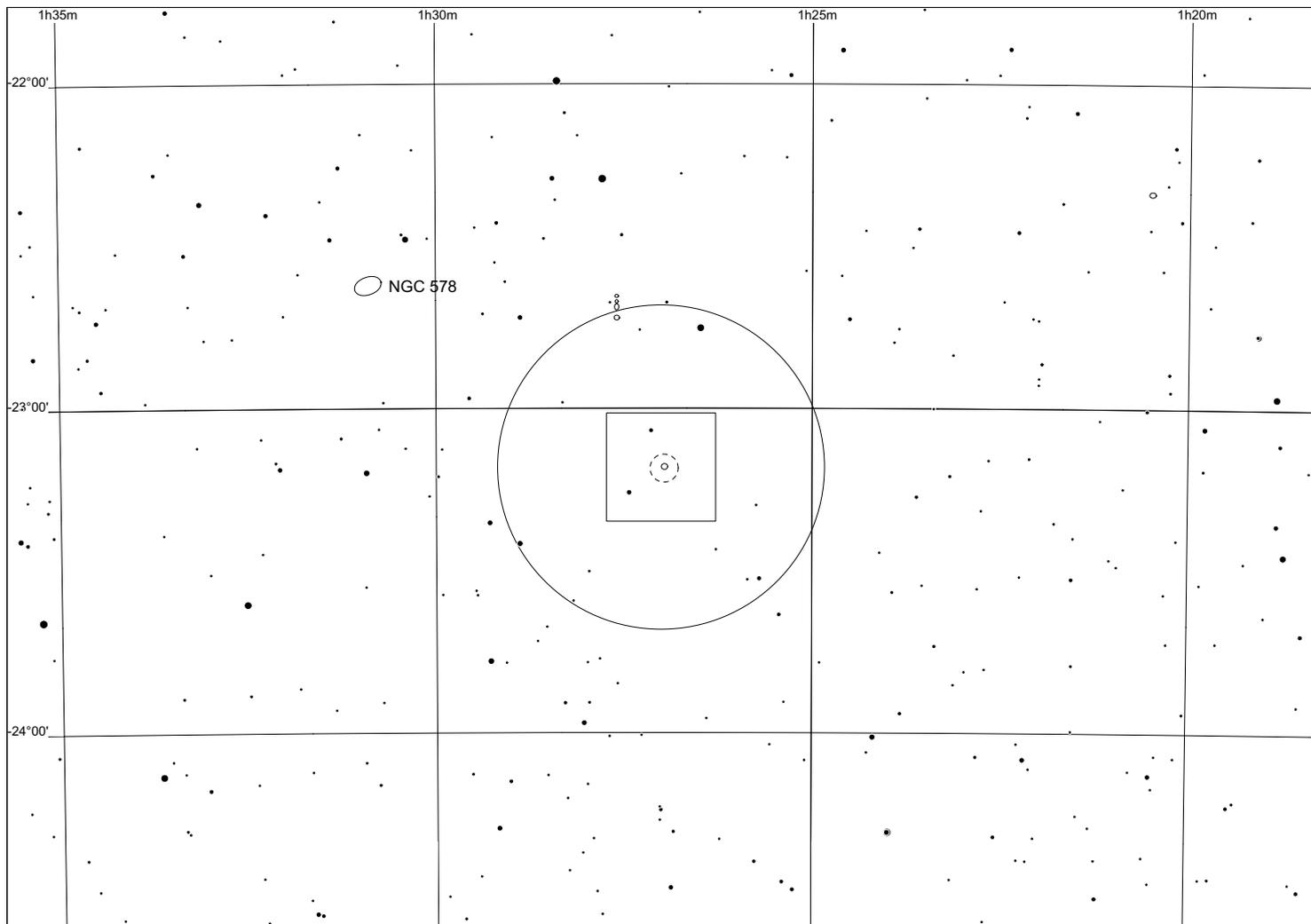
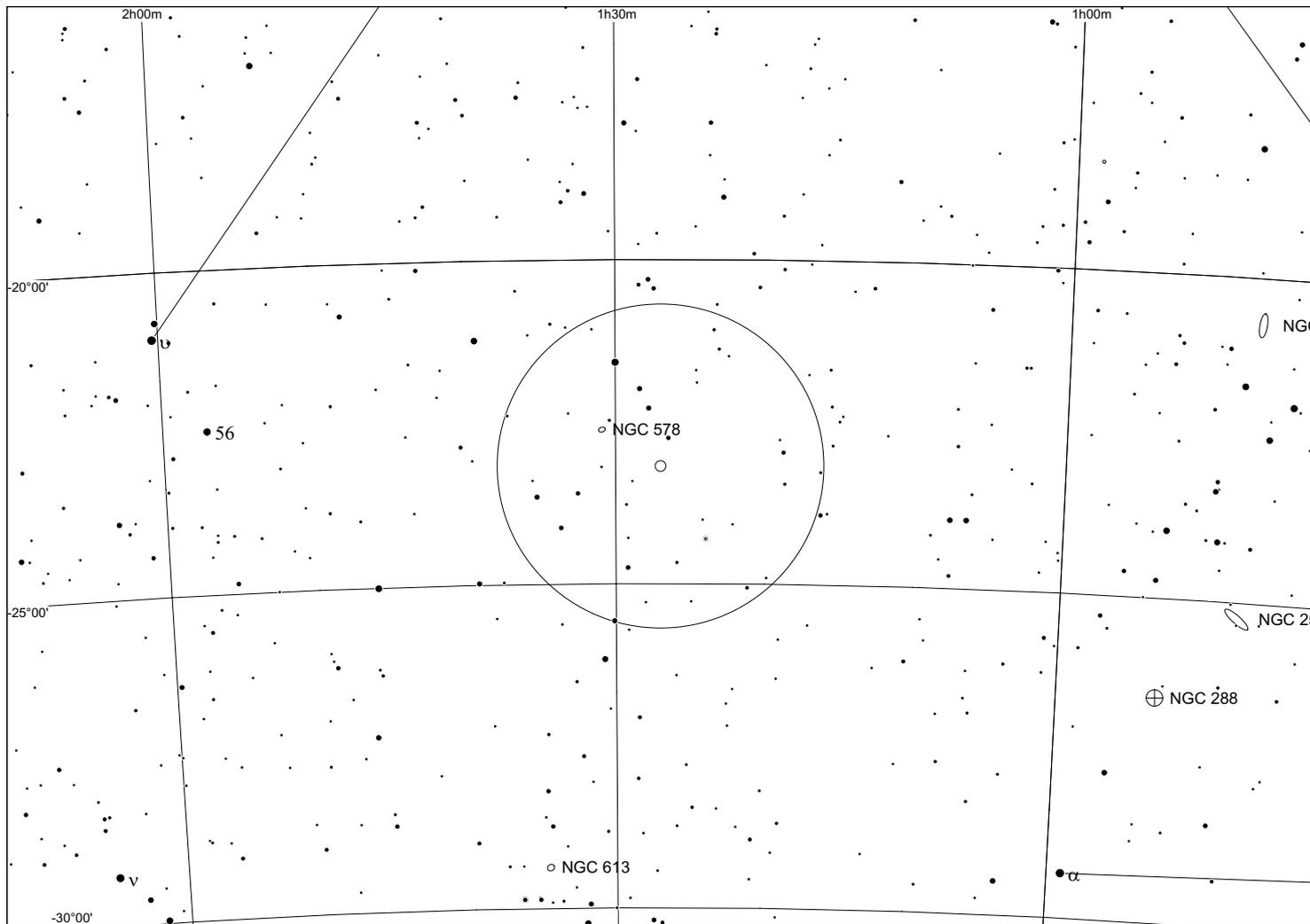


*HCG Const. coordinates (2000) bright. memb. mag*  
 11 Cet 01h 26m 35s -23° 14' 13.0

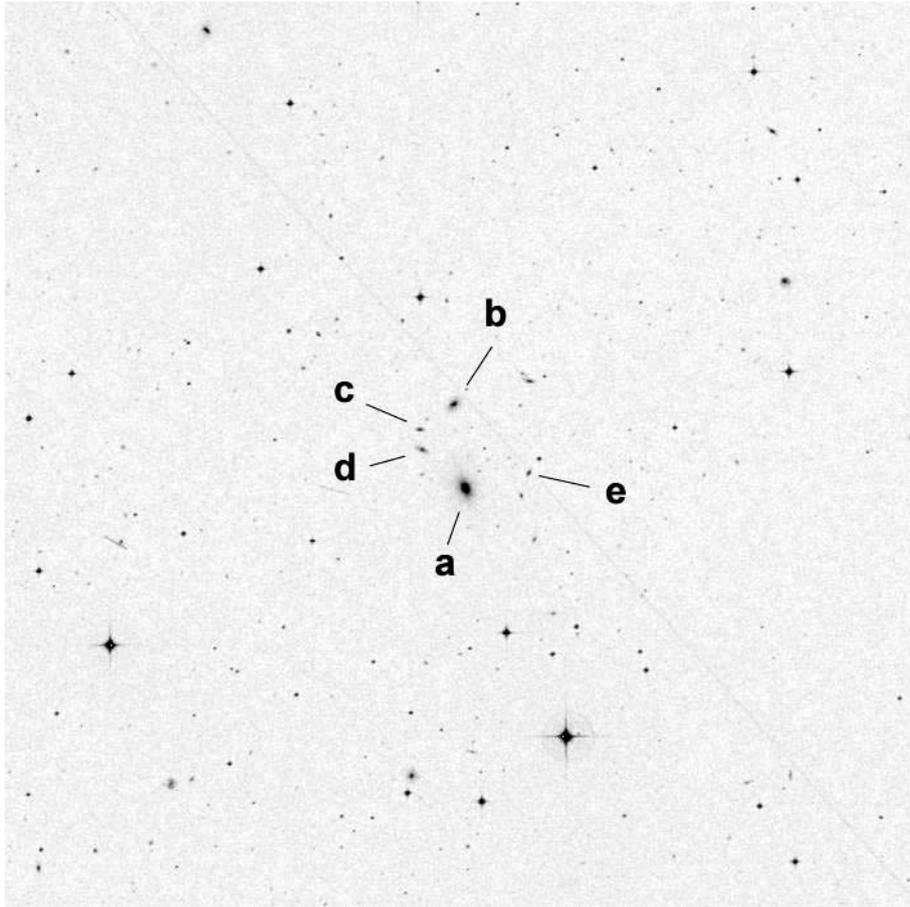
galaxy	ra (1950)	dec	a	b	type	T	B-I	C	D-B	R-I	C	D-R	B-R	B-T	B-TC	err	v_r	err	C	names
			"	"					"			"					km/s	km/s		
11a	01 24 10.80	-23 29 07.6	53.90	48.50	SBbc	6	13.65	0	91.90	12.37	0	107.30	1.22	13.21	12.97	0.20	5504	33	0	
11b	01 24 10.67	-23 31 29.8	15.60	11.20	SBC	7	15.93	0	26.50	14.75	0	28.50	1.15	15.62	15.30	0.20	13295	86	0	
11c	01 24 05.84	-23 27 11.0	11.60	5.80	Scd	8	17.26	0	17.80	15.99	0	19.90	1.20	17.01	16.56	0.10	12904	61	0	
11d	01 24 22.47	-23 28 50.0	9.60	7.60	SB0	1	16.86	0	18.30	15.37	0	24.40	1.39	16.80	16.55	0.10	9686	61	0	

## Notes:

22"f/4 (24/10/2008): 5mm, suboptimal conditions as group is already low in the haze  
 a is not difficult and pretty large, b can be seen as well without much difficulty



# Hickson 12 in Cetus

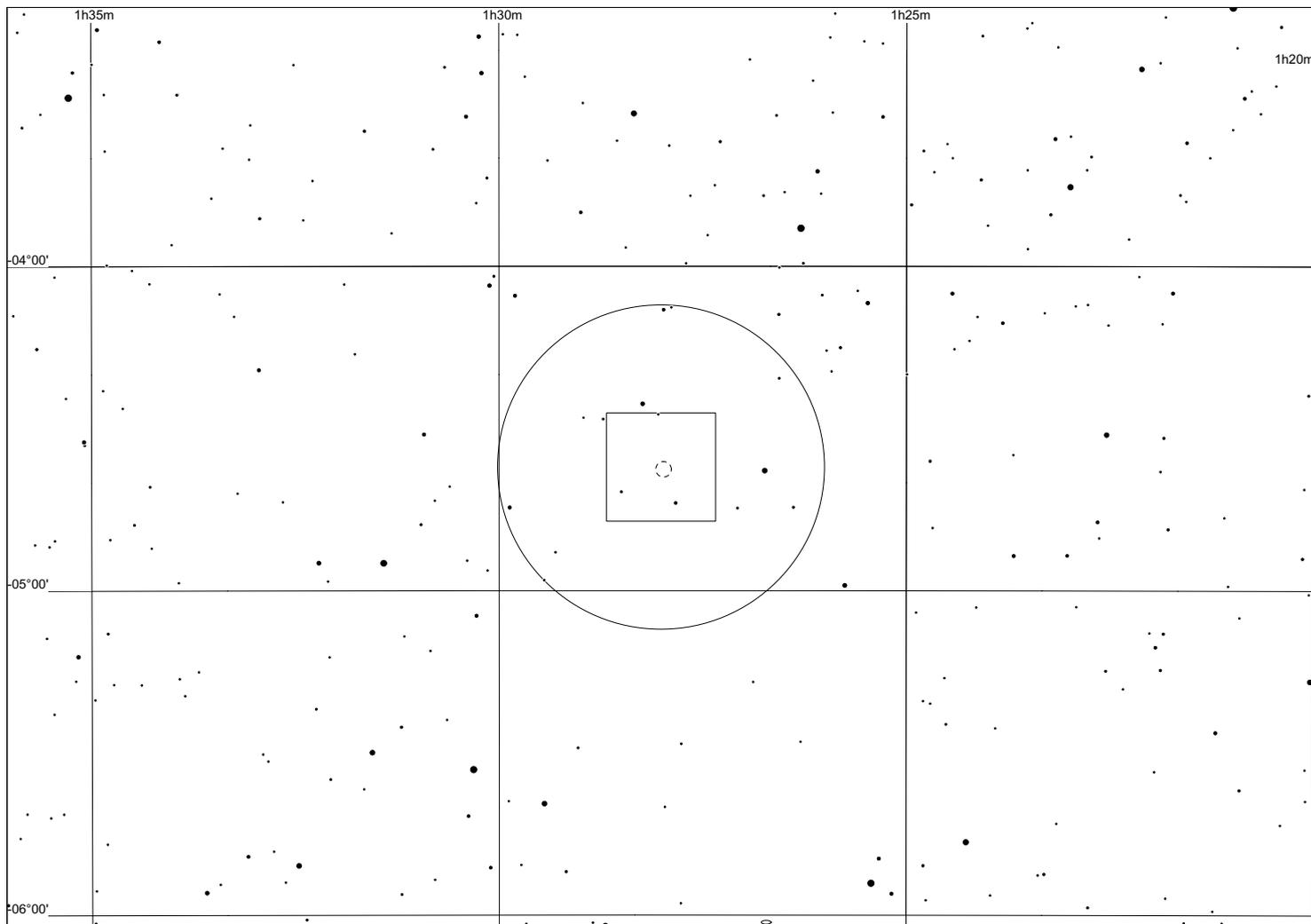
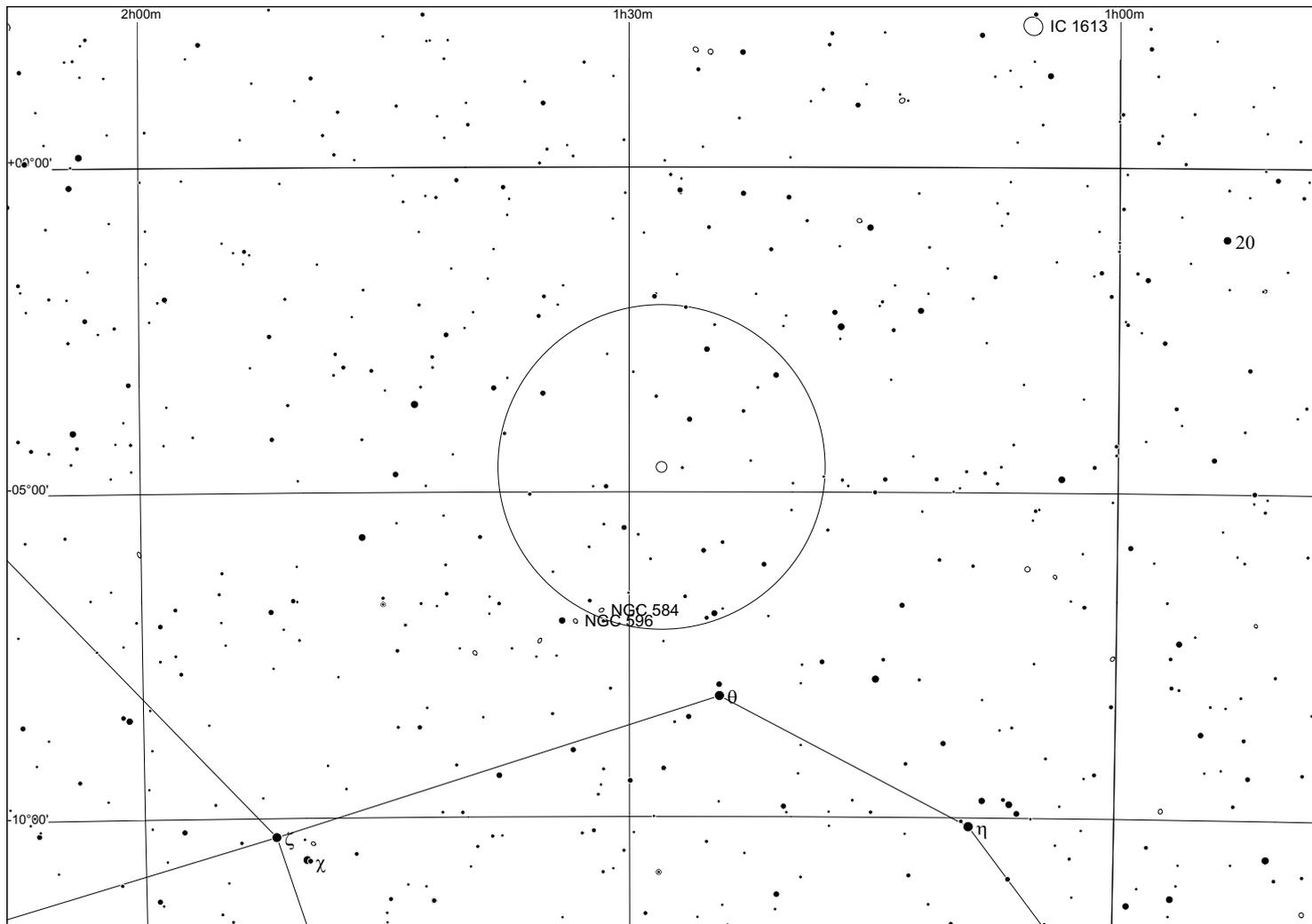


HCG Const. coordinates (2000) bright. memb. mag  
 12 Cet 01h 27m 34s -04° 40' 14.8

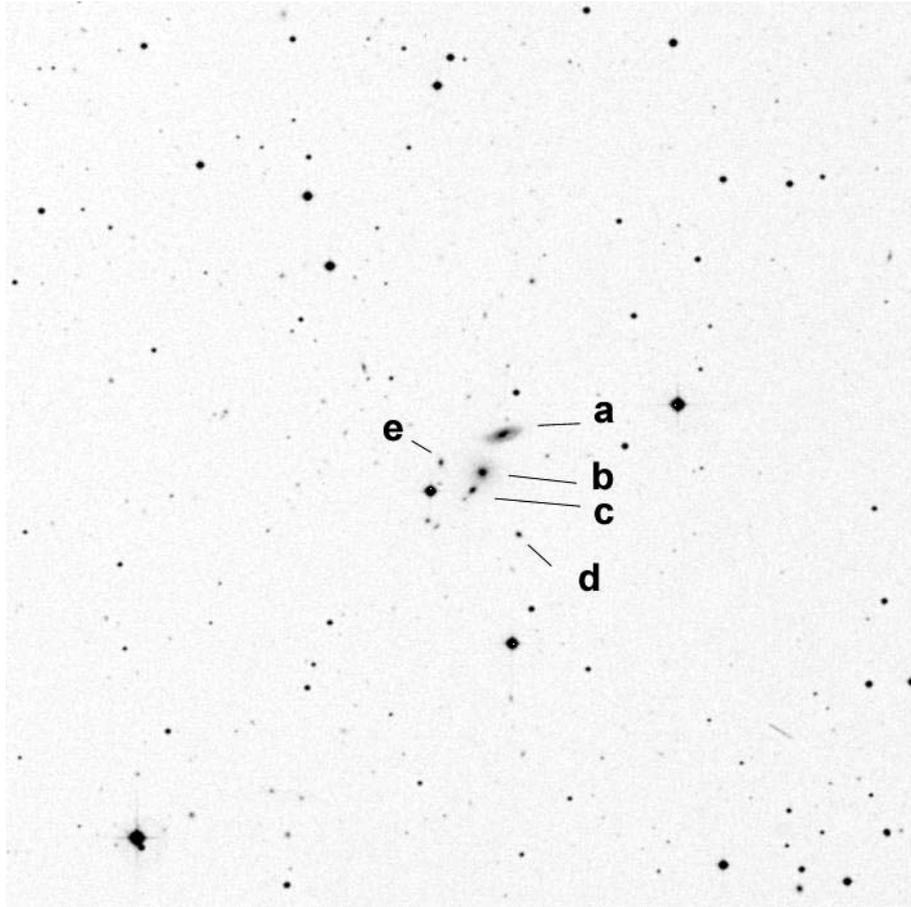
galaxy	ra (1950)	dec	a	b	type	T	B_I	C	D_B	R_I	C	D_R	B-R	B_T	B_TC	err	v_r	err	C	names
			"	"					"			"					km/s	km/s		
12a	01 25 01.78	-04 56 30.2	22.90	15.90	S0	1	15.25	0	37.80	13.37	0	61.40	1.71	15.09	14.82	0.10	14407	53	0	
12b	01 25 02.73	-04 54 39.7	18.70	11.60	SB0	1	16.82	0	19.60	14.96	0	26.50	1.76	16.58	16.29	0.20	14956	38	0	
12c	01 25 05.70	-04 55 12.6	12.00	5.40	S0	1	17.82	0	9.50	16.01	0	13.40	1.74	17.64	17.30	0.10	14569	66	0	
12d	01 25 05.46	-04 55 39.2	14.50	8.30	Sbc	6	18.16	0	12.80	16.14	0	21.70	1.74	17.61	17.21	0.20	14241	62	0	
12e	01 24 56.21	-04 56 11.0	6.80	4.60	S0	1	18.25	0	9.10	16.51	0	11.50	1.68	18.25	17.98	0.10	14469	62	0	

## Notes:

22"f/4 (24/10/2008): with 7mm, a is quite easy  
 b can be held steadily after a while  
 c, d, and e were not observed



## Hickson 13 in Cetus

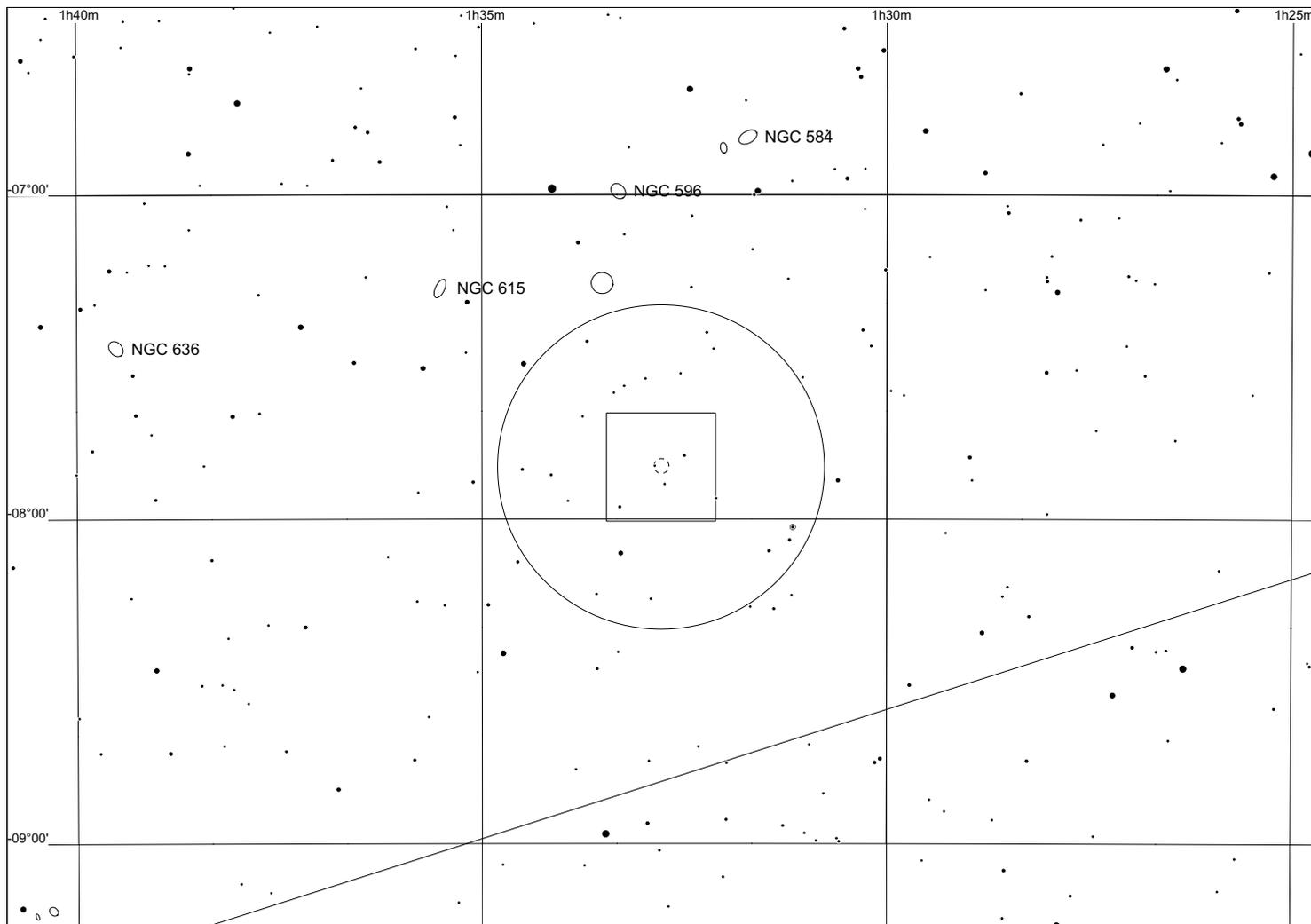
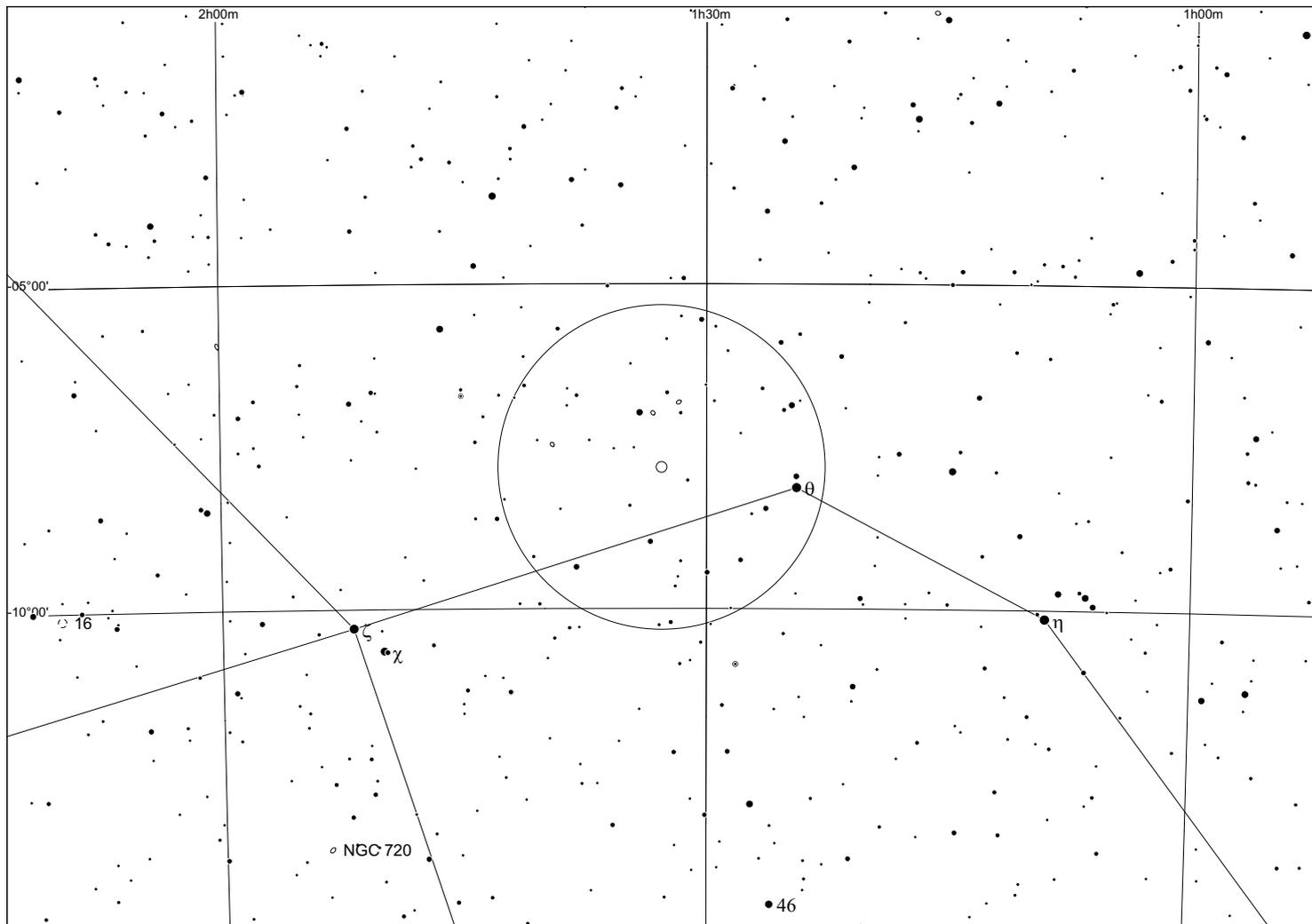


HCG Const. coordinates (2000) bright. memb. mag  
 13 Cet 01h 32m 23s -07° 53' 14.6

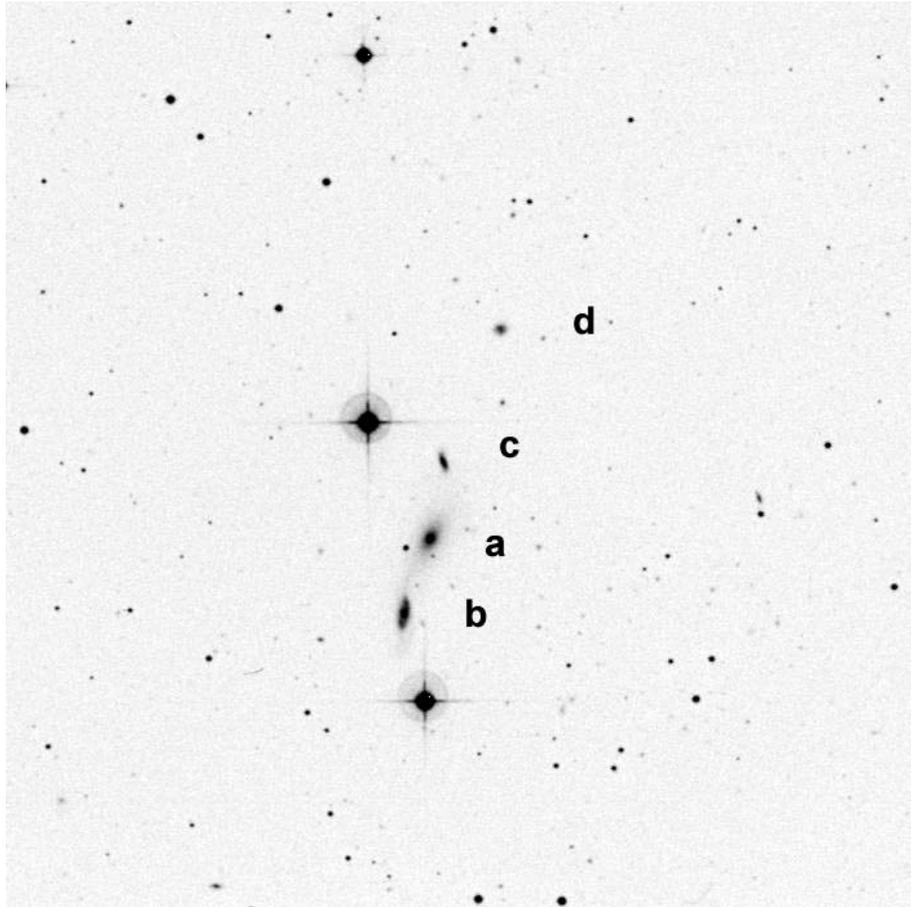
galaxy	ra (1950)	dec	a	b	type	T	B_I	C	D_B	R_I	C	D_R	B-R	B_T	B_TC	err	v_r	err	C	names
			"	"					"			"					km/s	km/s		
13a	01 29 50.52	-08 07 01.0	29.10	11.30	SBab	4	15.69	1	34.80	13.72	1	55.80	1.80	15.14	14.61	0.20	12469	42	0	
13b	01 29 52.38	-08 07 50.9	19.90	18.00	E0	0	15.97	1	33.70	13.86	1	57.30	1.80	15.45	15.25	0.20	12100	101	0	
13c	01 29 53.26	-08 08 14.4	10.80	5.80	S0	1	16.96	1	20.20	15.00	1	31.60	1.71	16.55	16.24	0.20	12240	105	0	
13d	01 29 49.24	-08 09 13.6	6.80	4.80	S0	1	17.69	0	10.50	15.99	0	13.50	1.64	17.73	17.47	0.10	12209	107	0	
13e	01 29 56.06	-08 07 37.2	9.10	5.00	S0	1	17.82	0	13.30	15.76	0	28.30	1.61	17.58	17.28	0.10	12593	61	0	

### Notes:

22"f/4 (24/10/2008): with 5mm, a and b can be held steadily with indirect vision,  
 c is difficult, can be seen only intermittently



# Hickson 14 in Cetus

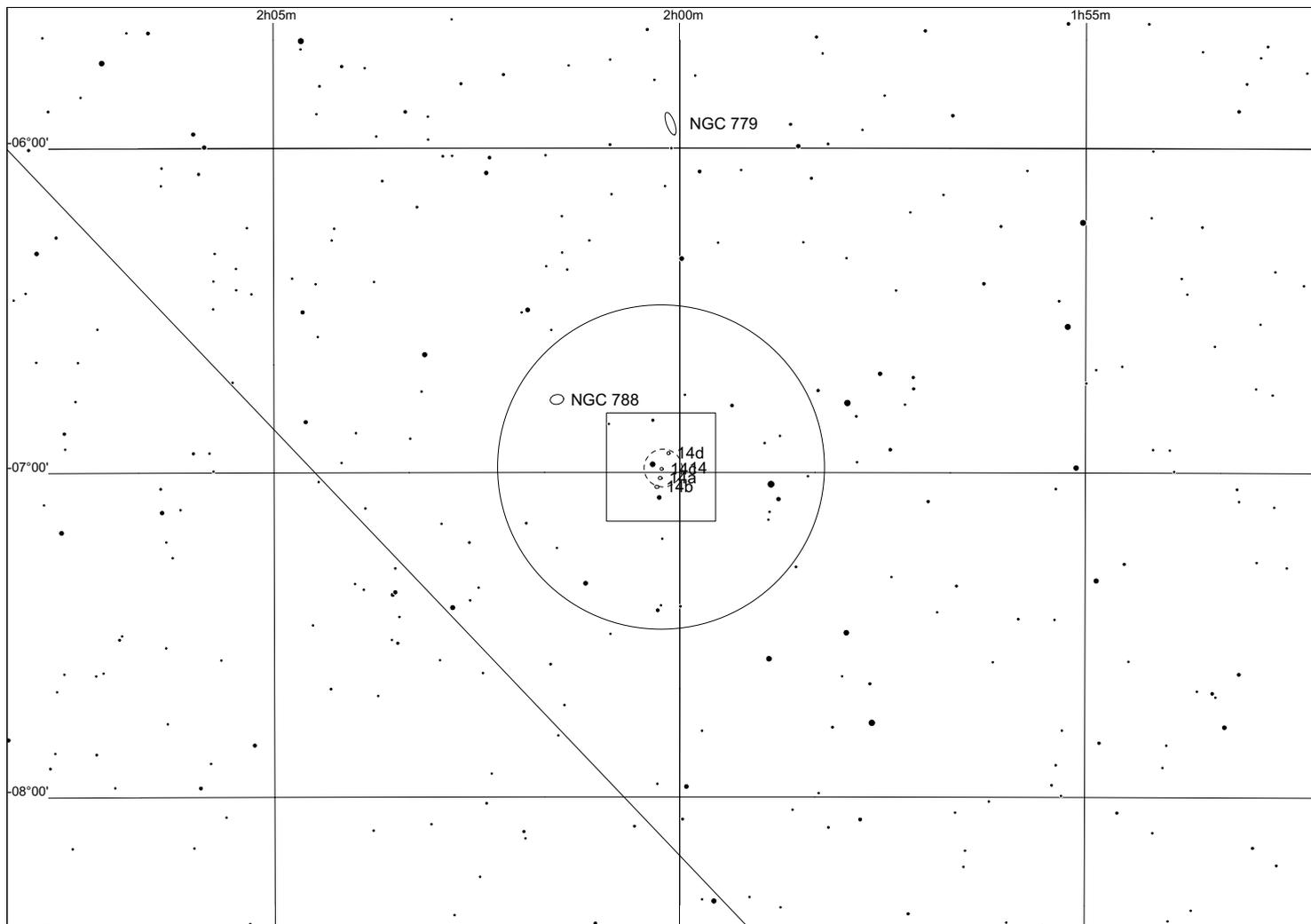
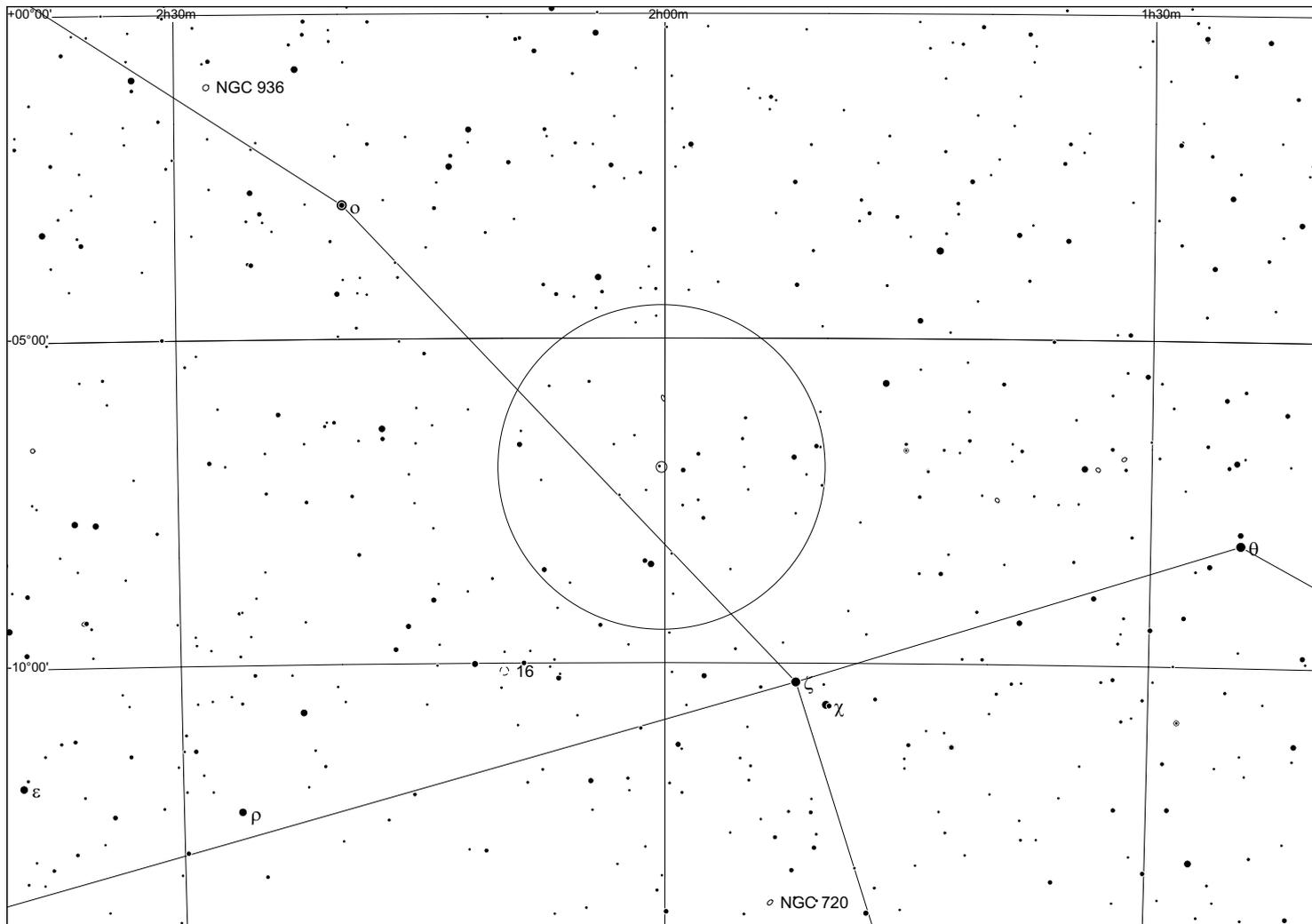


HCG Const. coordinates (2000) bright. memb. mag  
 14 Cet 01h 59m 48s -07° 02' 14.2

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		
14a	01 57 22.66	-07 19 42.5	26.80	11.60	Sb	5	15.67	2	32.00	13.67	2	49.80	1.86	15.26	14.77	0.20	5929	35	0	
14b	01 57 20.23	-07 18 04.0	30.80	16.70	E5	0	15.18	2	51.90	13.51	2	66.40	1.54	14.37	14.17	0.20	5365	28	0	
14c	01 57 19.08	-07 16 22.1	18.00	7.30	Sbc	6	17.68	2	15.90	15.58	2	21.80	1.94	17.10	16.58	0.20	5145	37	0	
14d	01 57 13.95	-07 13 28.5	13.20	10.70	Sd	9	16.98	0	21.20	15.73	0	25.60	1.15	16.43	16.16	0.20	8416	58	0	

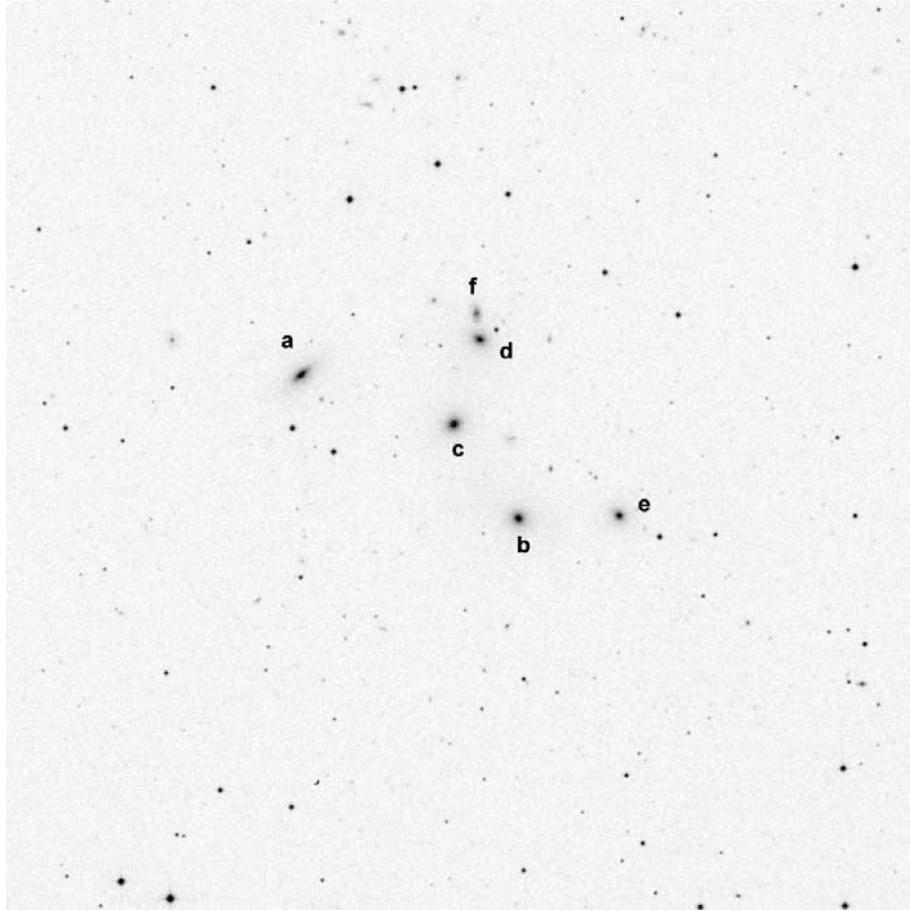
## Notes:

22"f/4 (24/10/2008): with 5mm, a and b are relatively easy to see steadily,  
 c is somewhat more difficult  
 d was suspected every once in a while, uncertain





# Hickson 15 in Cetus

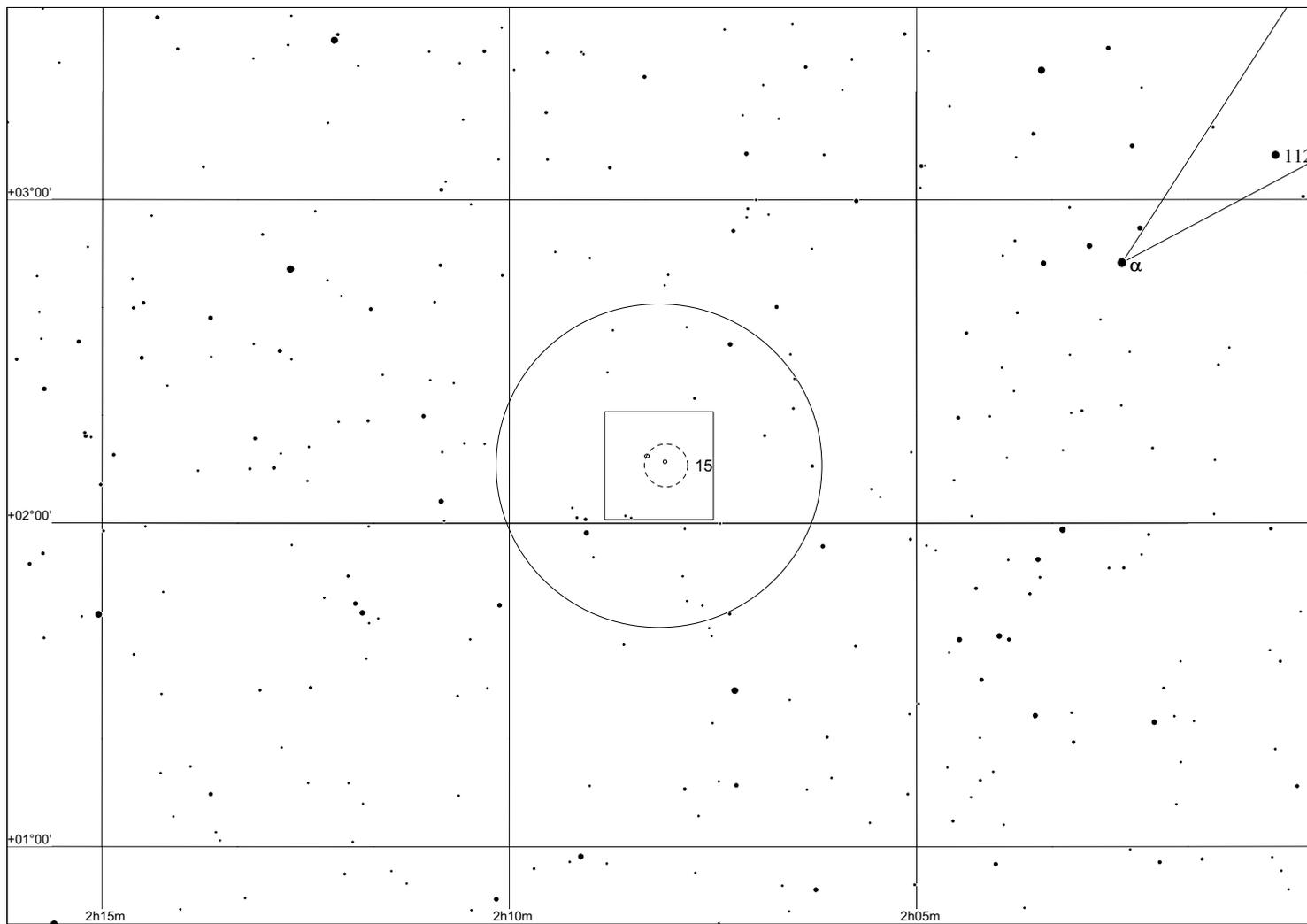
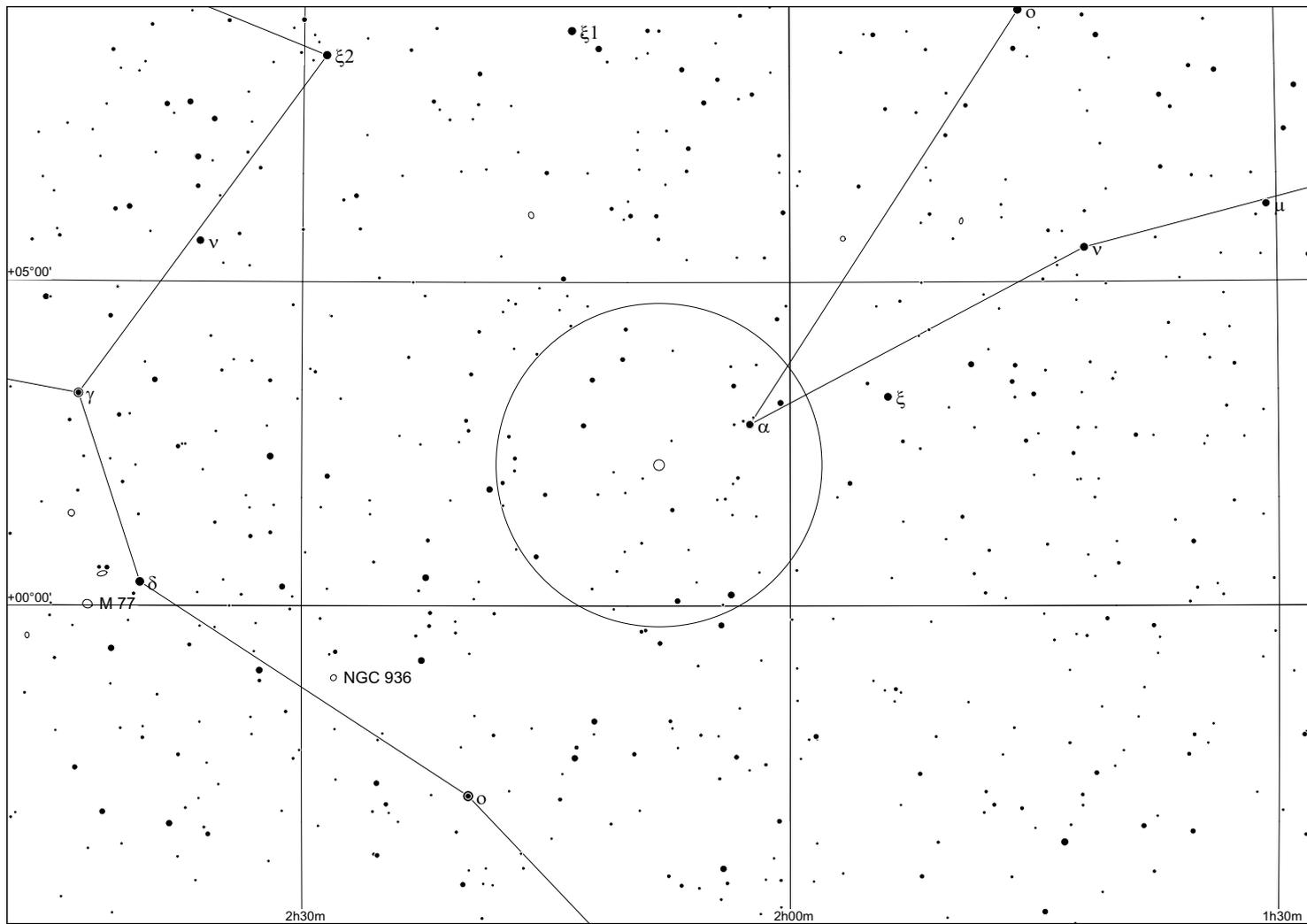


*HCG Const. coordinates (2000) bright. memb. mag*  
 15 Cet 02h 07m 39s +02° 08' 14.3

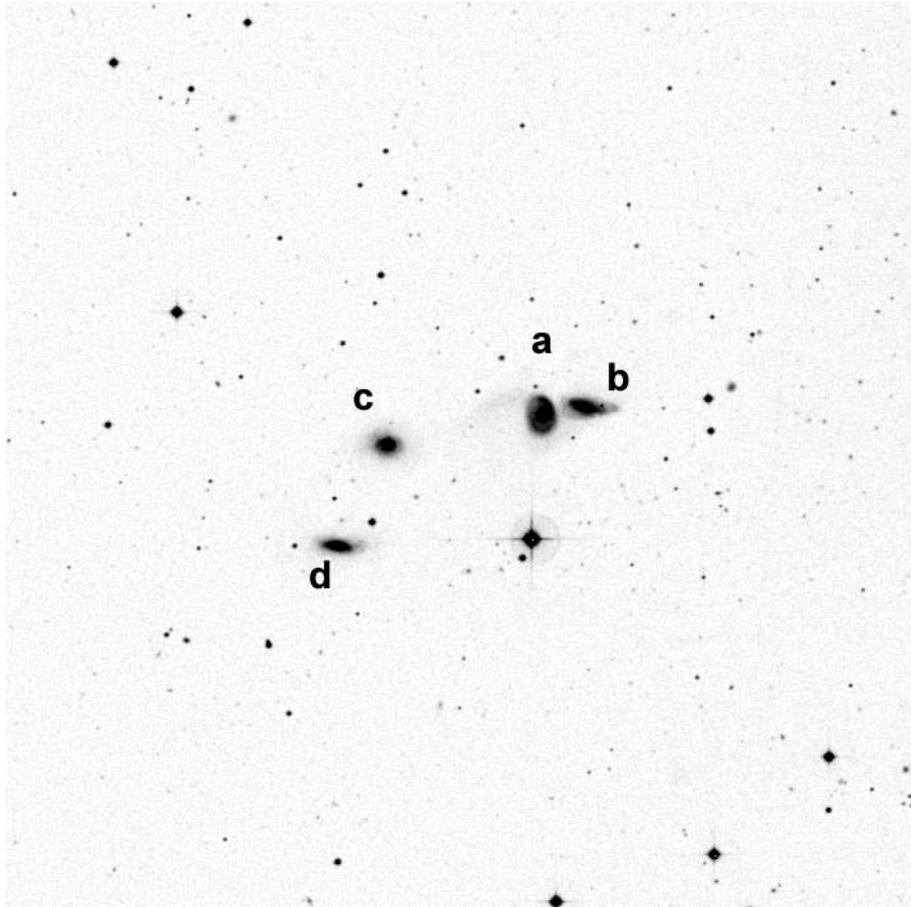
<i>galaxy</i>	<i>ra (1950)</i>	<i>dec</i>	<i>a</i>	<i>b</i>	<i>type</i>	<i>T</i>	<i>B_I</i>	<i>C</i>	<i>D_B</i>	<i>R_I</i>	<i>C</i>	<i>D_R</i>	<i>B-R</i>	<i>B_T</i>	<i>B_TC</i>	<i>err</i>	<i>v_r</i>	<i>err</i>	<i>C</i>	<i>names</i>
			"	"					"			"					<i>km/s</i>	<i>km/s</i>		
15a	02 05 18.02	+01 55 50.1	36.00	20.70	Sa	3	14.87	0	48.70	13.08	0	72.30	1.62	14.69	14.29	0.20	6967	30	0	U1624
15b	02 04 59.15	+01 52 40.8	25.60	25.60	E0	0	15.31	0	38.40	13.41	0	69.80	1.70	14.95	14.74	0.10	7117	36	0	U1617
15c	02 05 04.78	+01 54 45.3	24.50	24.10	E0	0	14.91	0	45.90	13.34	0	56.20	1.52	14.58	14.37	0.10	7222	30	0	U1620
15d	02 05 02.51	+01 56 37.0	24.10	18.90	E2	0	15.60	1	36.60	13.69	1	56.50	1.70	14.86	14.65	0.20	6244	36	0	U1618a
15e	02 04 50.39	+01 52 43.8	22.00	18.00	Sa	3	15.94	0	29.90	13.96	0	58.80	1.69	15.84	15.56	0.10	7197	32	0	U1617
15f	02 05 02.85	+01 57 11.2	16.80	10.00	Sbc	6	16.73	1	25.70	15.35	1	34.10	1.30	16.13	15.74	0.20	6242	102	0	U1618b

## Notes:

14" f/5: Four out of five were observed (except f), all requiring indirect vision, e and d being the weakest. Small star interferes with observation of e.



# Hickson 16 in Cetus

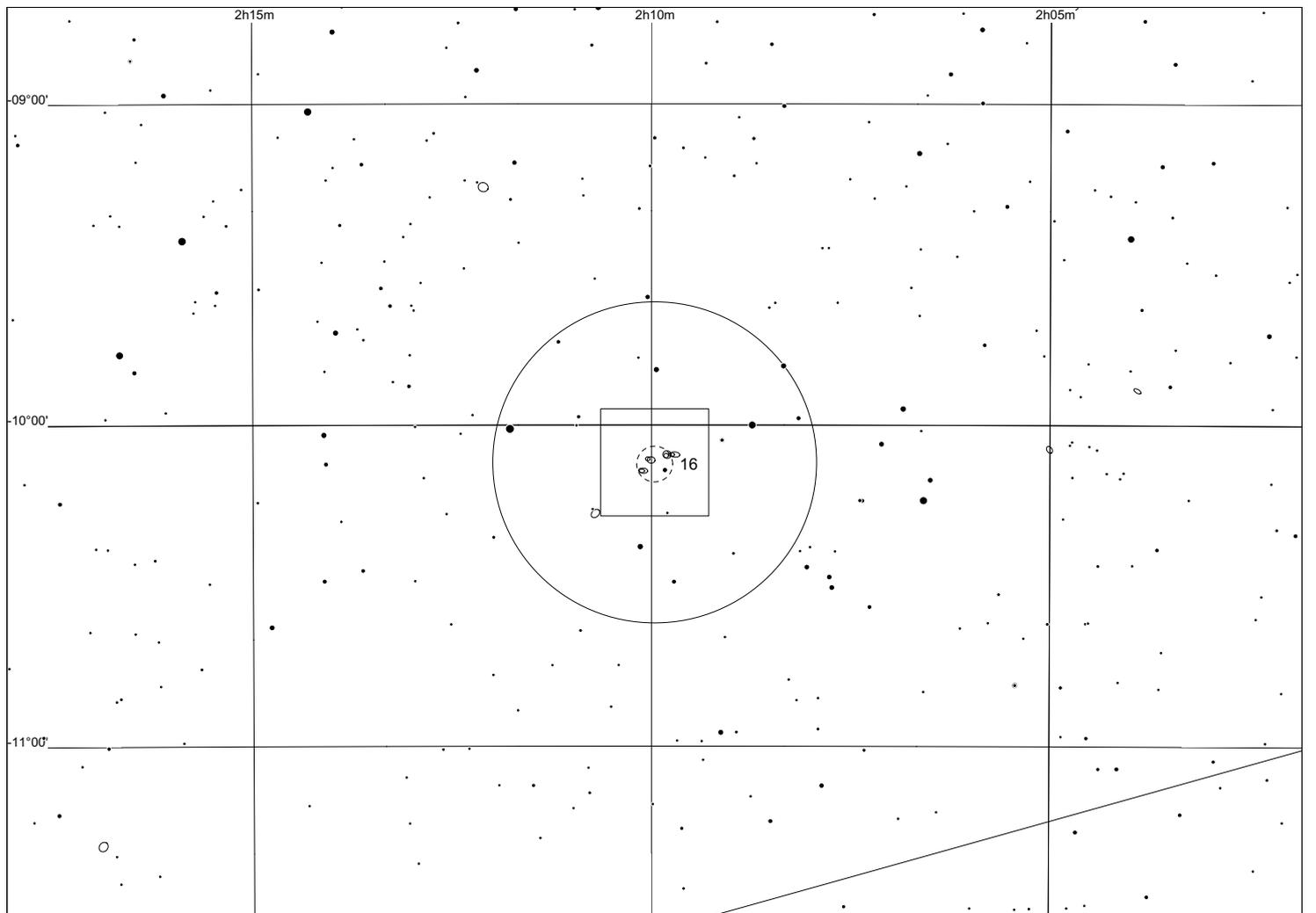
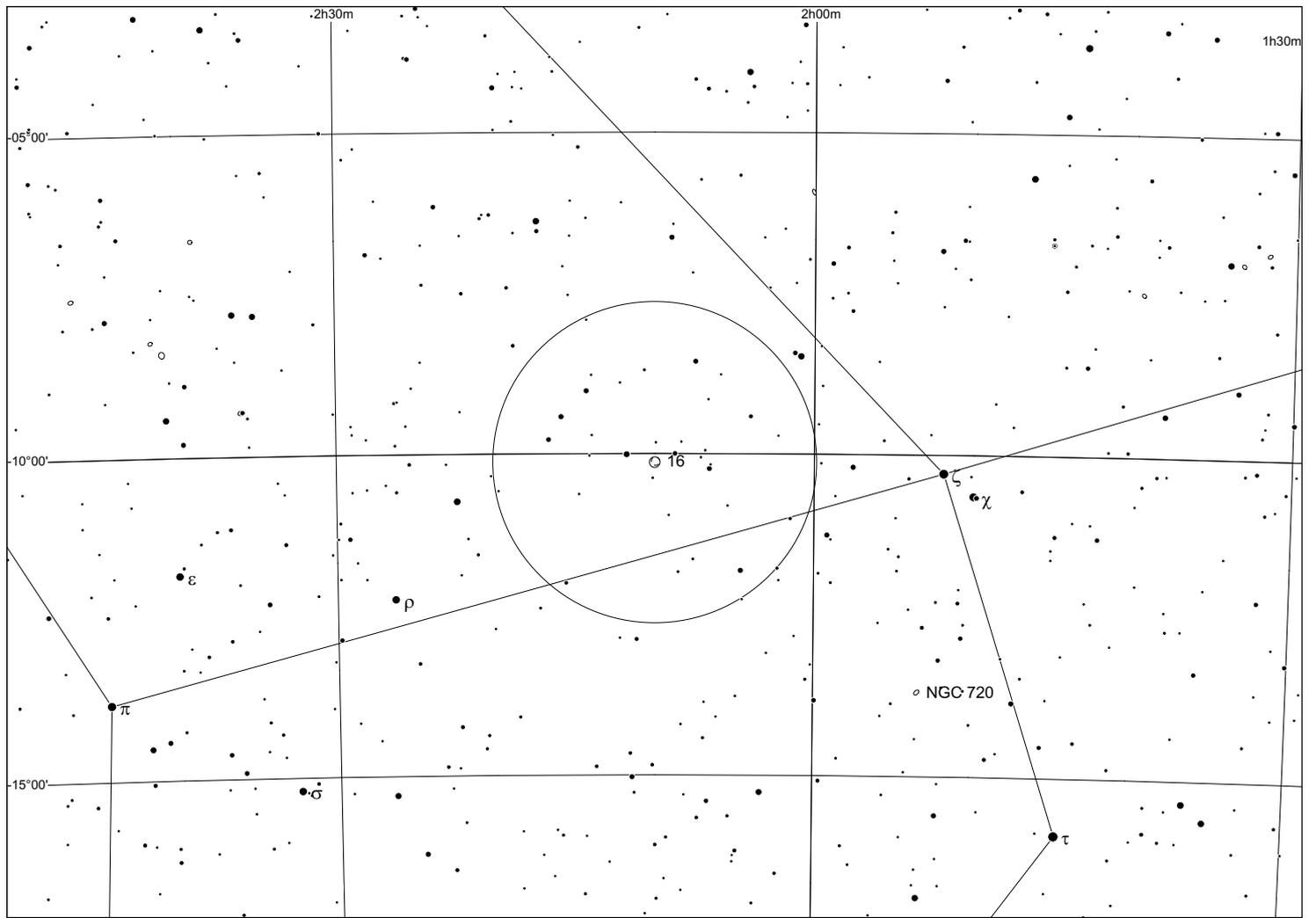


*HCG Const. coordinates (2000) bright. memb. mag*  
 16 Cet 02h 09m 34s -10° 10' NGC 835 12.8

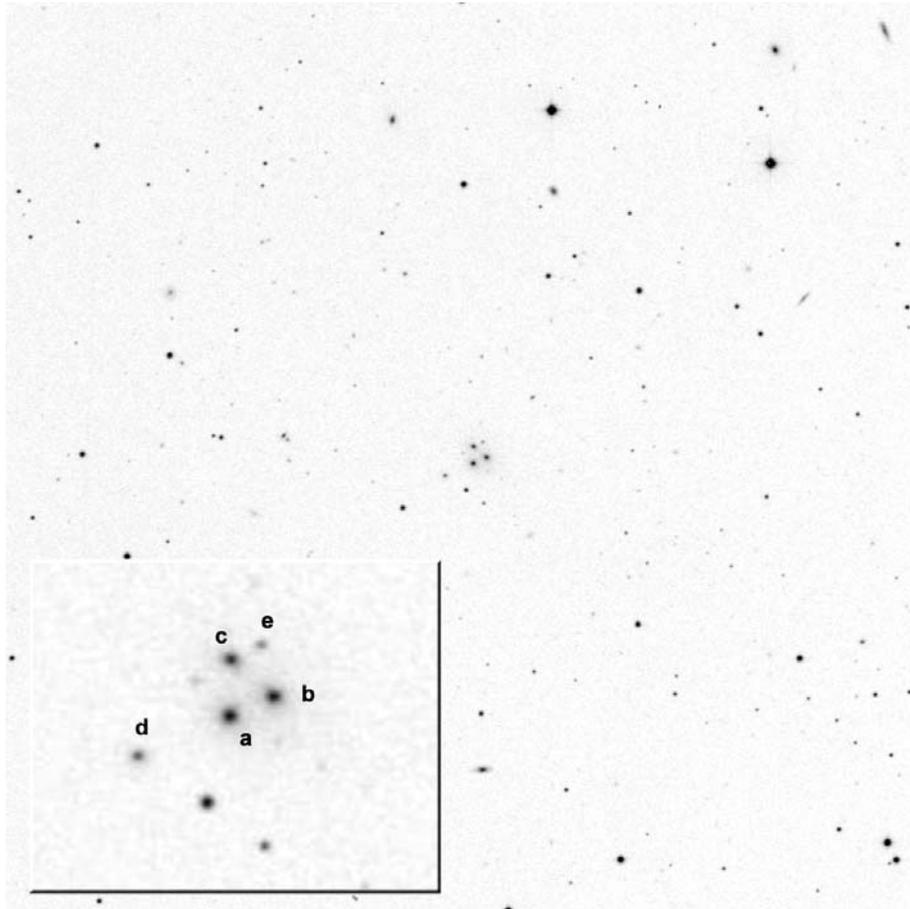
galaxy	ra (1950)	dec	a	b	type	T	B-I	C	D-B	R-I	C	D-R	B-R	B-T	B-TC	err	v_r	err	C	names
			"	"					"			"					km/s	km/s		
16a Mk1021	02 06 57.41	-10 22 20.0	34.90	32.60	SBab	4	13.05	1	77.10	12.24	1	75.40	0.82	12.99	12.76	0.15	4152	39	0	N835,
16b	02 06 53.32	-10 22 08.9	49.40	23.10	Sab	4	13.83	1	61.30	12.75	1	60.90	1.07	13.74	13.27	0.15	3977	25	0	N833
16c Mk1022	02 07 11.25	-10 22 56.0	31.50	25.10	Im	12	13.72	0	58.90	12.65	0	68.30	1.04	13.40	13.10	0.08	3851	36	0	N838,
16d	02 07 15.60	-10 25 11.1	41.10	22.00	Im	7	13.98	0	63.50	12.70	0	64.90	1.29	13.90	13.42	0.09	3847	44	0	N839

## Notes:

14" f/5: very nice group of four bright galaxies. Easy already in smaller telescopes.



# Hickson 17 in Aries



HCG Const. coordinates (2000) bright. memb. mag  
 17 Ari 02h 14m 07s +13° 19' 16.5

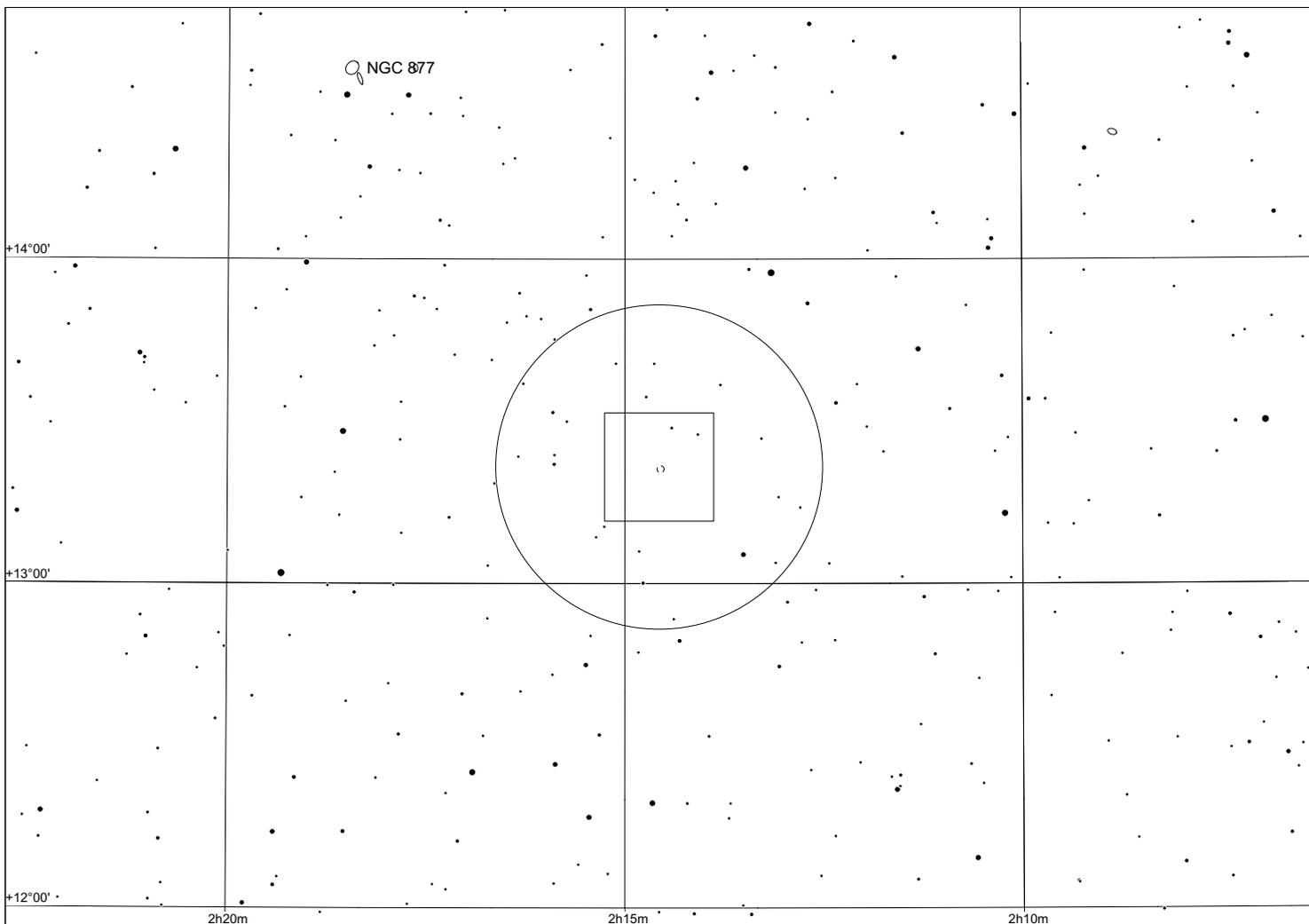
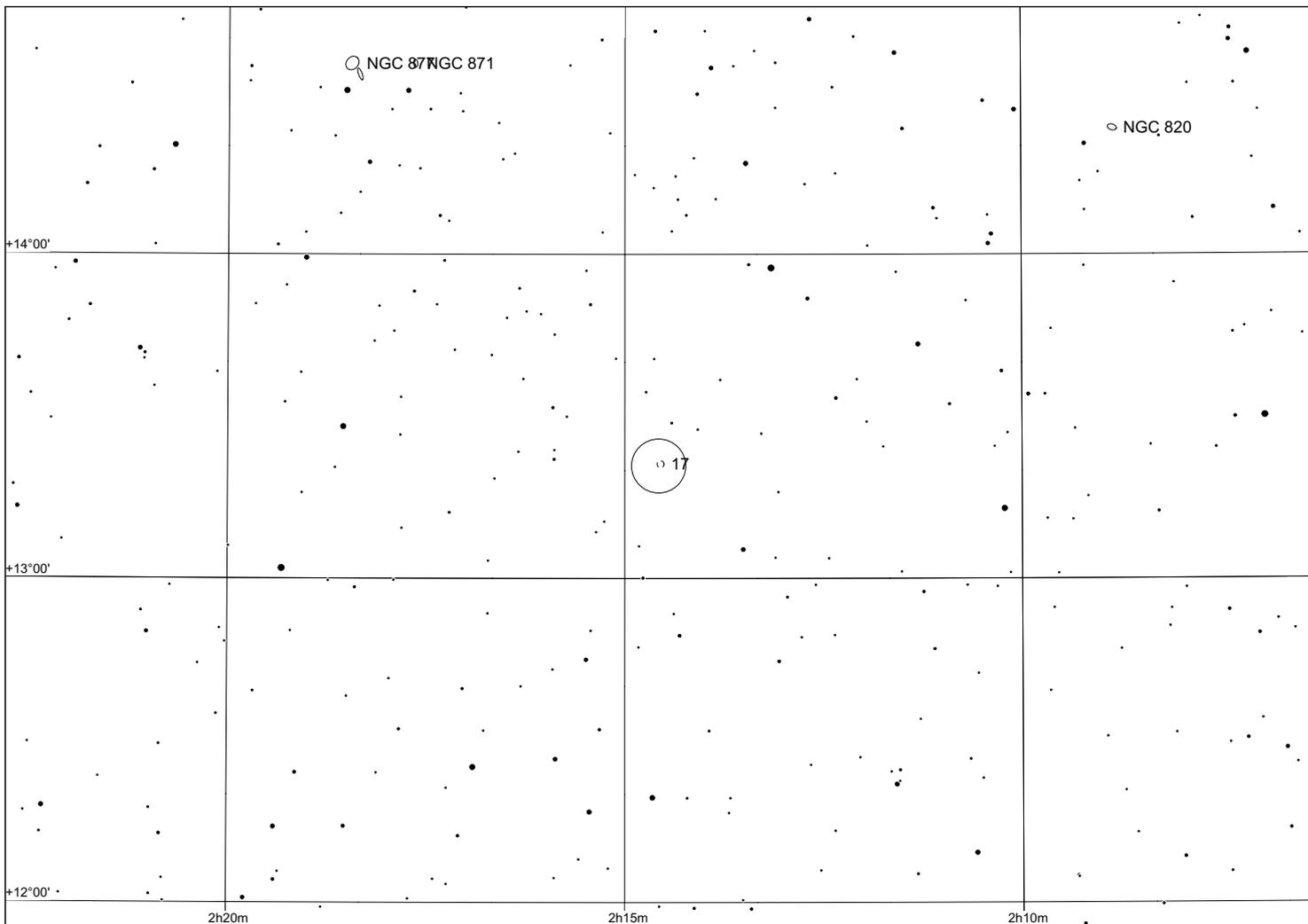
galaxy	ra (1950)	dec	a	b	type	T	B_I	C	D_B	R_I	C	D_R	B-R	B_T	B_TC	err	v_r	err	C	names
			"	"					"			"					km/s	km/s		
17a	02 11 22.80	+13 04 41.0	10.70	10.30	E0	0	17.15	1	18.60	14.70	1	49.20	1.88	16.75	16.52	0.20	18228	44	0	
17b	02 11 21.40	+13 04 48.7	9.00	8.90	E0	0	17.28	1	17.80	14.70	1	50.90	1.92	16.82	16.59	0.20	17904	48	0	
17c	02 11 22.77	+13 05 03.9	8.10	6.10	S0	1	17.76	1	14.30	15.32	1	34.70	1.91	17.73	17.45	0.20	18224	105	0	
17d	02 11 25.31	+13 04 24.8	4.30	4.10	S0	1	18.88	0	7.80	16.80	0	13.40	1.85	18.78	18.54	0.10	18124	107	0	
17e	02 11 21.88	+13 05 09.8	3.40	2.60	S0	1	19.55	0	6.20	17.40	0	11.10	1.90	19.26	18.98	0.20	17976	142	1	

## Notes:

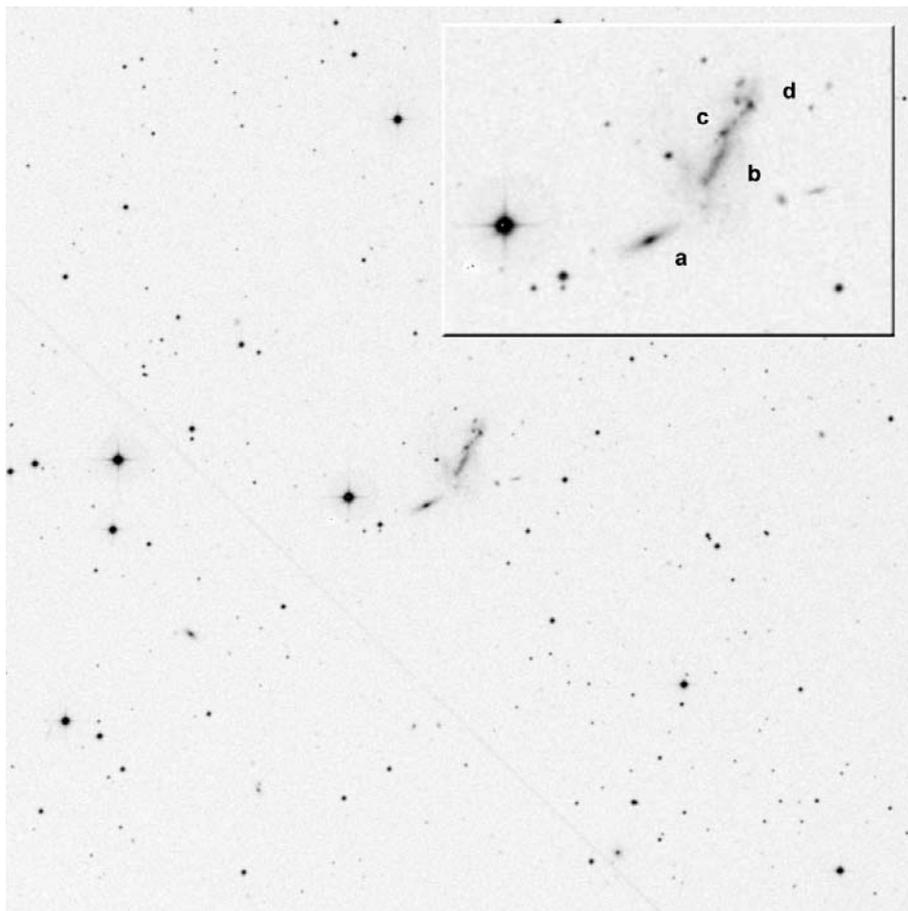
22"f/4 (24/10/2008): 5mm, very difficult group

star ~1.5' SE of group can be held steadily, the same for the star directly SSE of group after a while

the group itself proved very difficult and could be picked up only a few times as a feeble "something", no individual group members were discerned.



## Hickson 18 in Aries



HCG Const. coordinates (2000) bright. memb. mag  
 18 Ari 02h 39m 07s +18° 23' 14.9

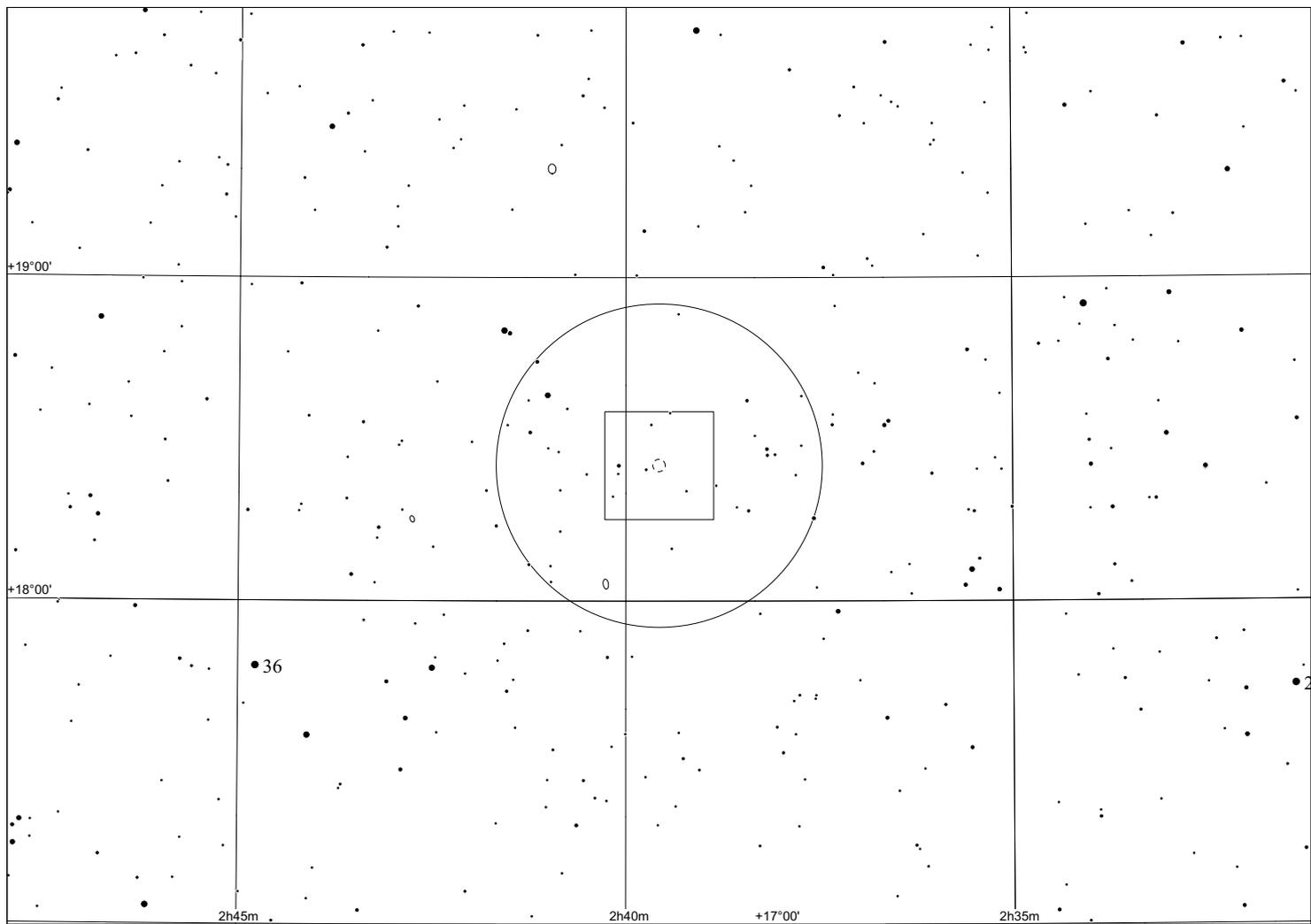
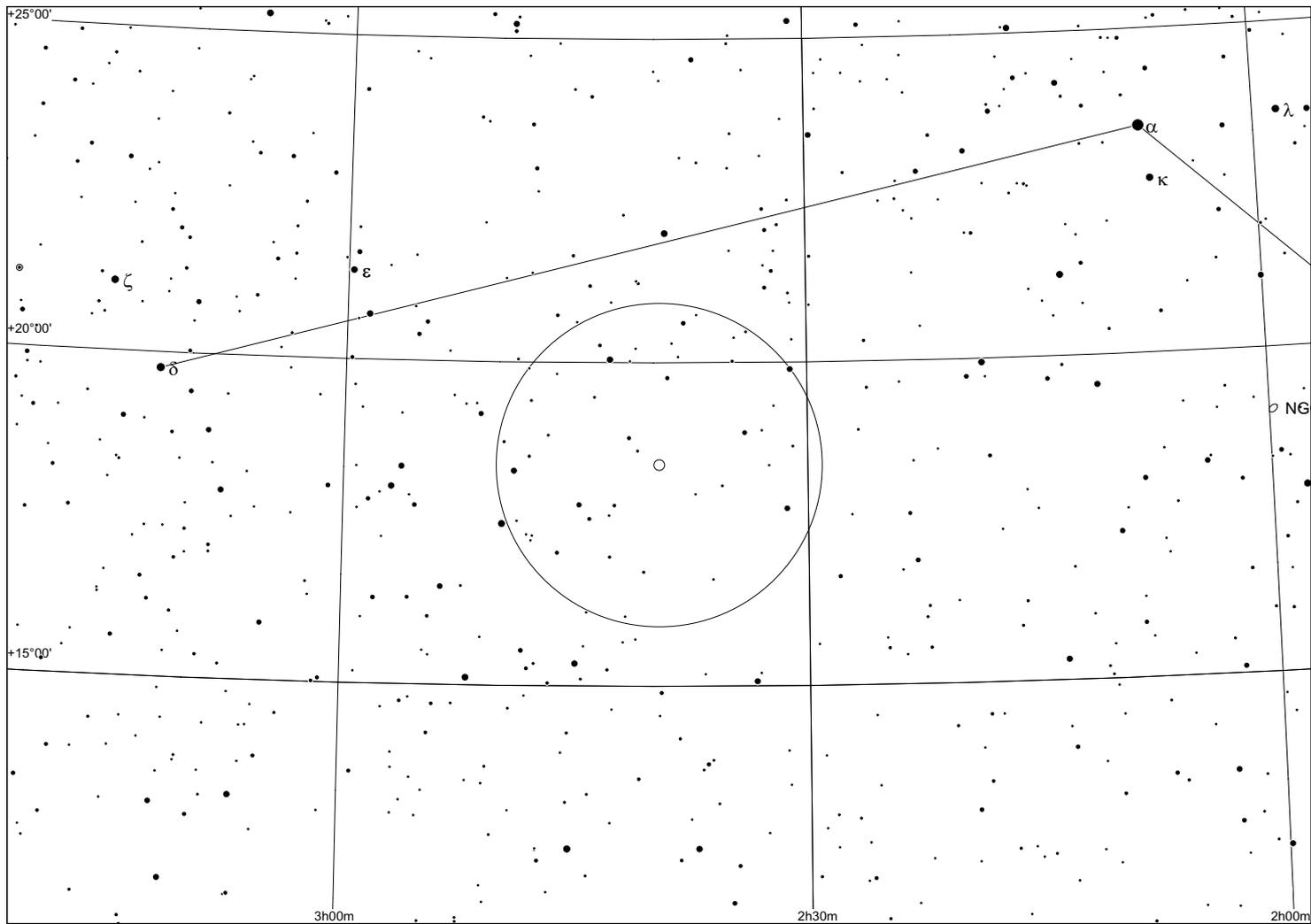
galaxy	ra (1950)	dec	a	b	type	T	B-I	C	D-B	R-I	C	D-R	B-R	B-T	B-TC	err	v_r	err	C	names
			"	"					"			"					km/s	km/s		
18a	02 36 21.72	+18 09 08.5	33.90	10.80	S0a	2	15.62	1	42.20	14.11	1	45.50	1.42	15.61	15.01	0.20	10019	47	0	
18b	02 36 18.47	+18 10 04.1	50.00	26.80	Im	12	15.57	1	47.10	14.34	1	59.20	0.98	15.50	14.90	0.70	0	0	0	U2140a
18c	02 36 18.20	+18 10 24.5	22.80	13.70	Im	12	16.24	1	30.10	15.25	1	35.80	0.82	16.09	15.61	0.20	4143	37	0	U2140b
18d	02 36 16.95	+18 10 43.9	21.60	18.30	Im	12	15.73	1	37.80	15.03	1	38.20	0.71	15.43	15.10	0.20	4067	58	0	2140c

### Notes:

22"f/4 (25/10/2008): 7mm, partially unresolved group

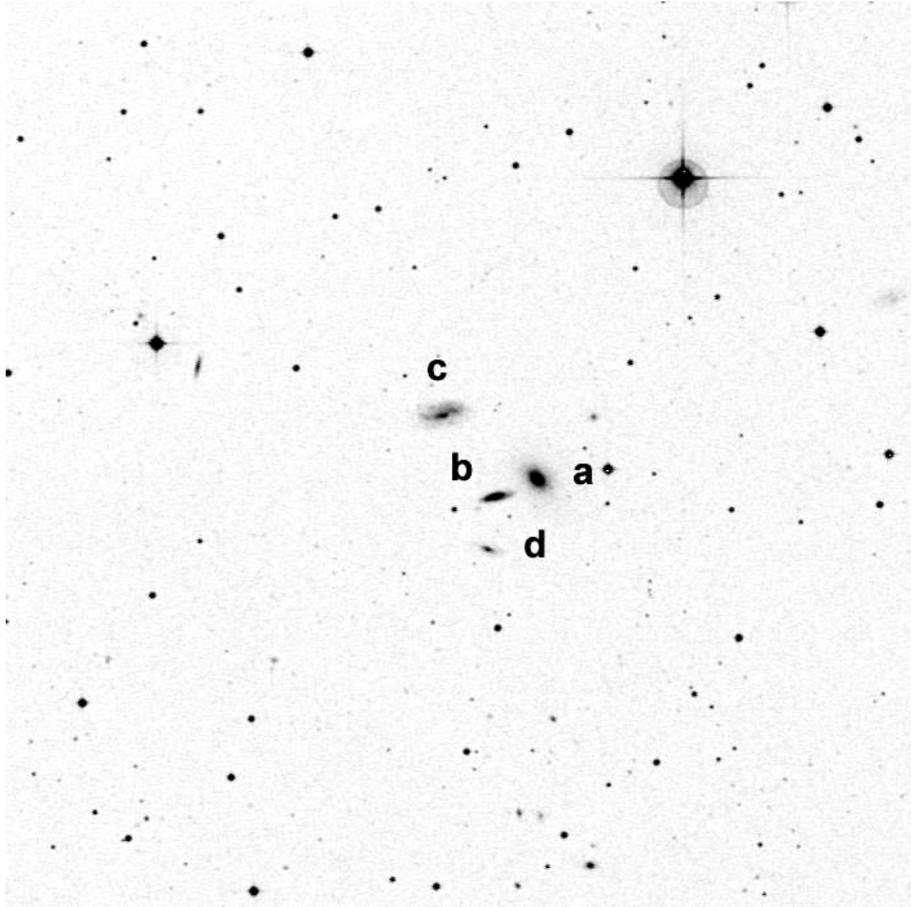
a is relatively easy, elongated

rest of the group appears as a difficult elongated patch, individual members not being resolved





# Hickson 19 in Cetus

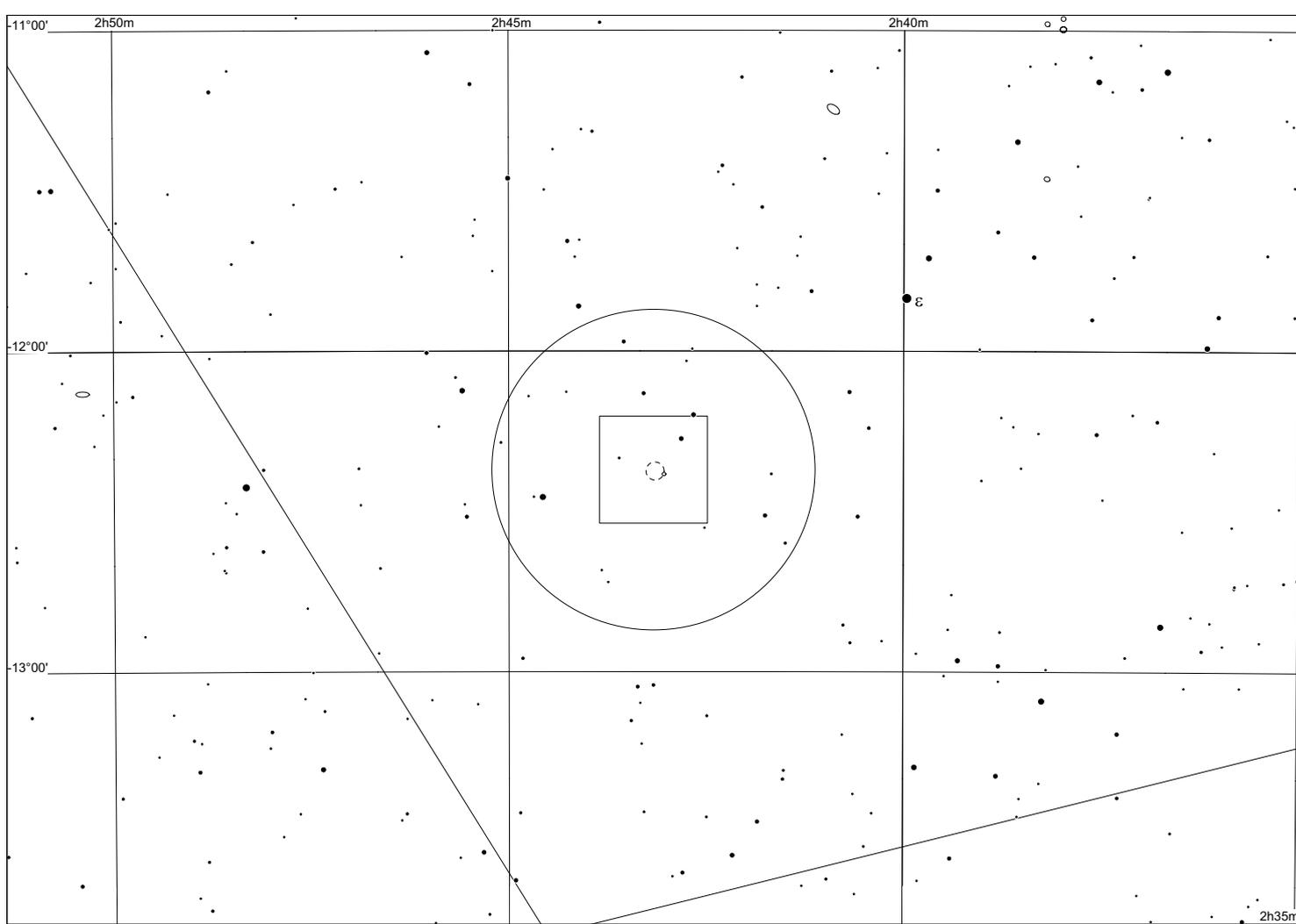
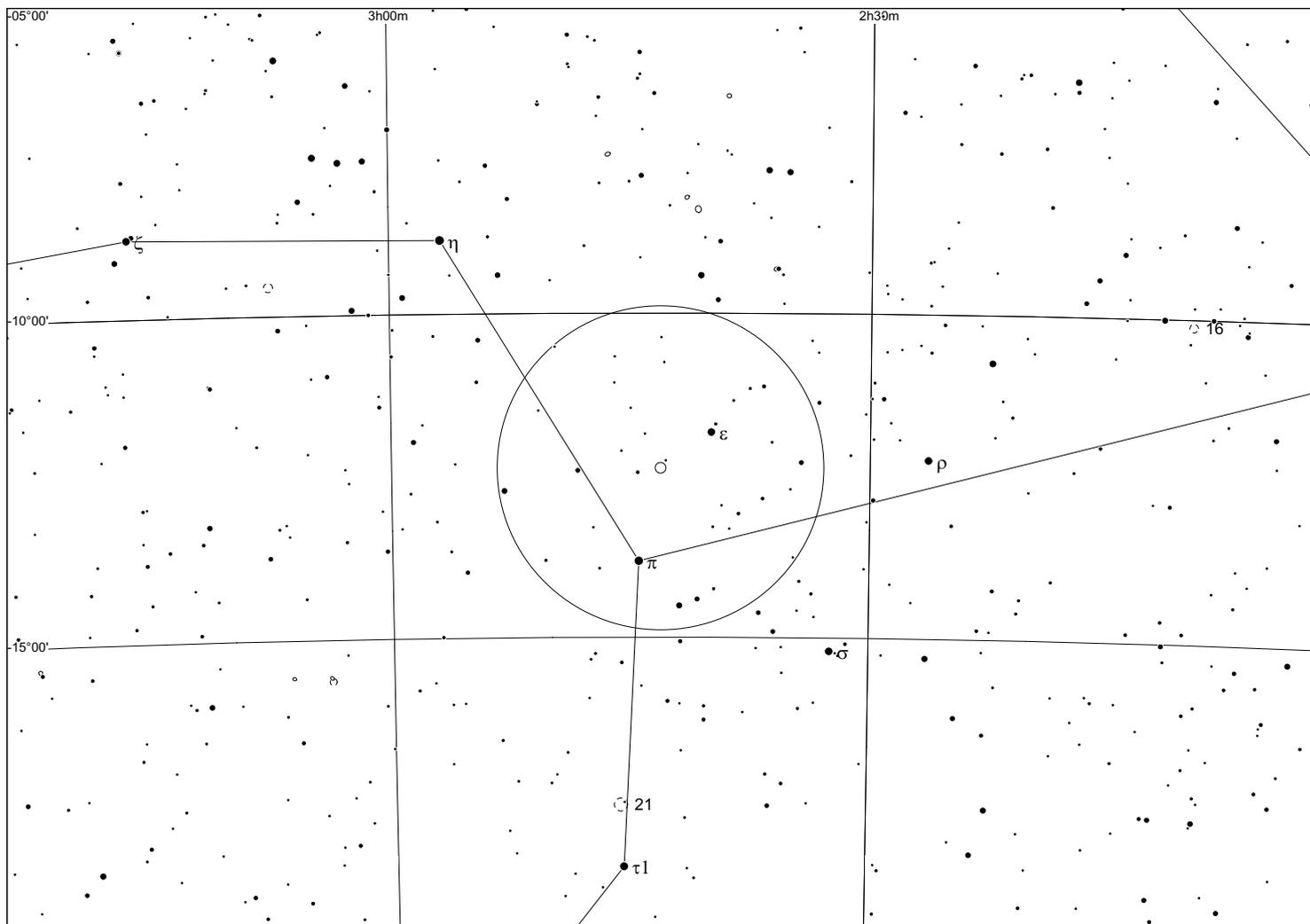


HCG Const. coordinates (2000) bright. memb. mag  
 19 Cet 02h 42m 46s -12° 25' 14.0

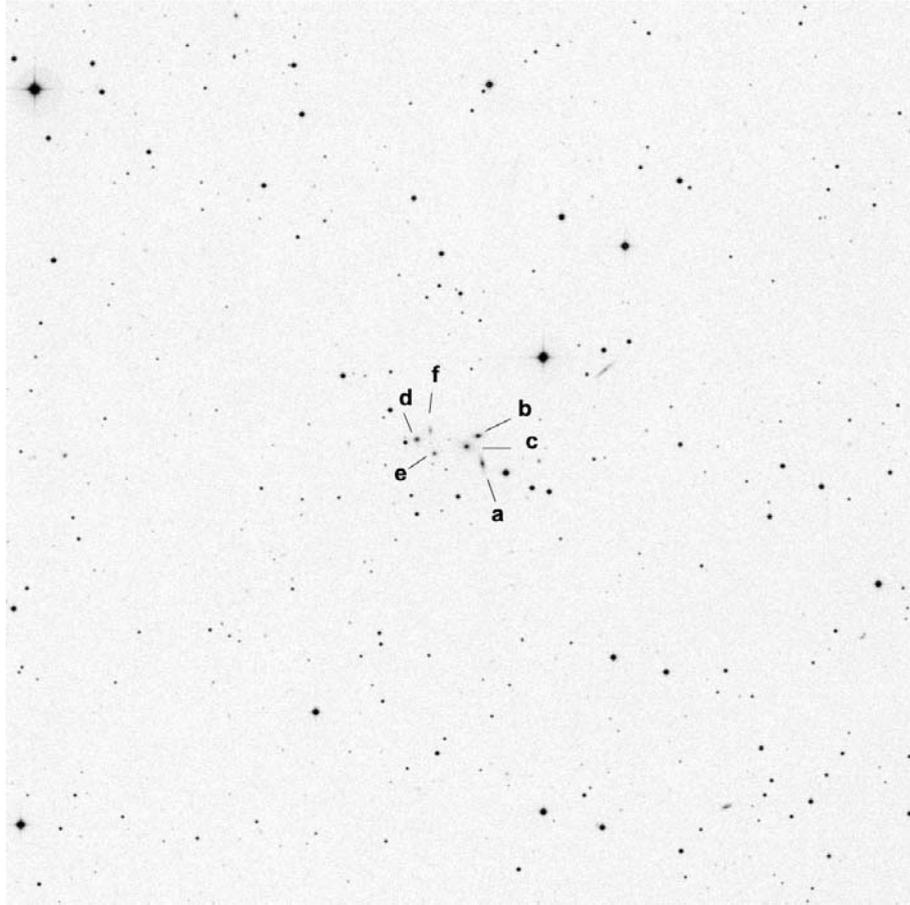
galaxy	ra (1950)	dec	a	b	type	T	B-I	C	D-B	R-I	C	D-R	B-R	B-T	B-TC	err	v_r	err	C	names
			"	"					"			"					km/s	km/s		
19a	02 40 14.26	-12 38 00.4	26.20	20.40	E2	0	14.51	1	46.10	12.85	1	68.90	1.56	14.23	14.00	0.20	4279	25	0	
19b	02 40 17.99	-12 38 23.6	24.10	7.80	Scd	8	15.79	1	28.50	14.44	1	34.40	1.28	15.86	15.24	0.20	4210	25	0	
19c	02 40 22.67	-12 36 35.6	32.40	14.50	Sdm	10	15.58	0	45.80	14.25	0	58.50	1.12	14.97	14.46	0.10	0	0	0	
19d	02 40 18.66	-12 39 33.5	13.40	6.50	SBb	5	17.71	0	15.50	15.87	0	23.80	1.60	17.13	16.65	0.10	0	0	0	

## Notes:

22"f/4 (25/10/2008): with 7mm a is relatively easy to hold steadily  
 b can also be held with indirect vision  
 c is more difficult (probably due to its low sb), can be seen only intermittently  
 d was not observed



## Hickson 20 in Aries



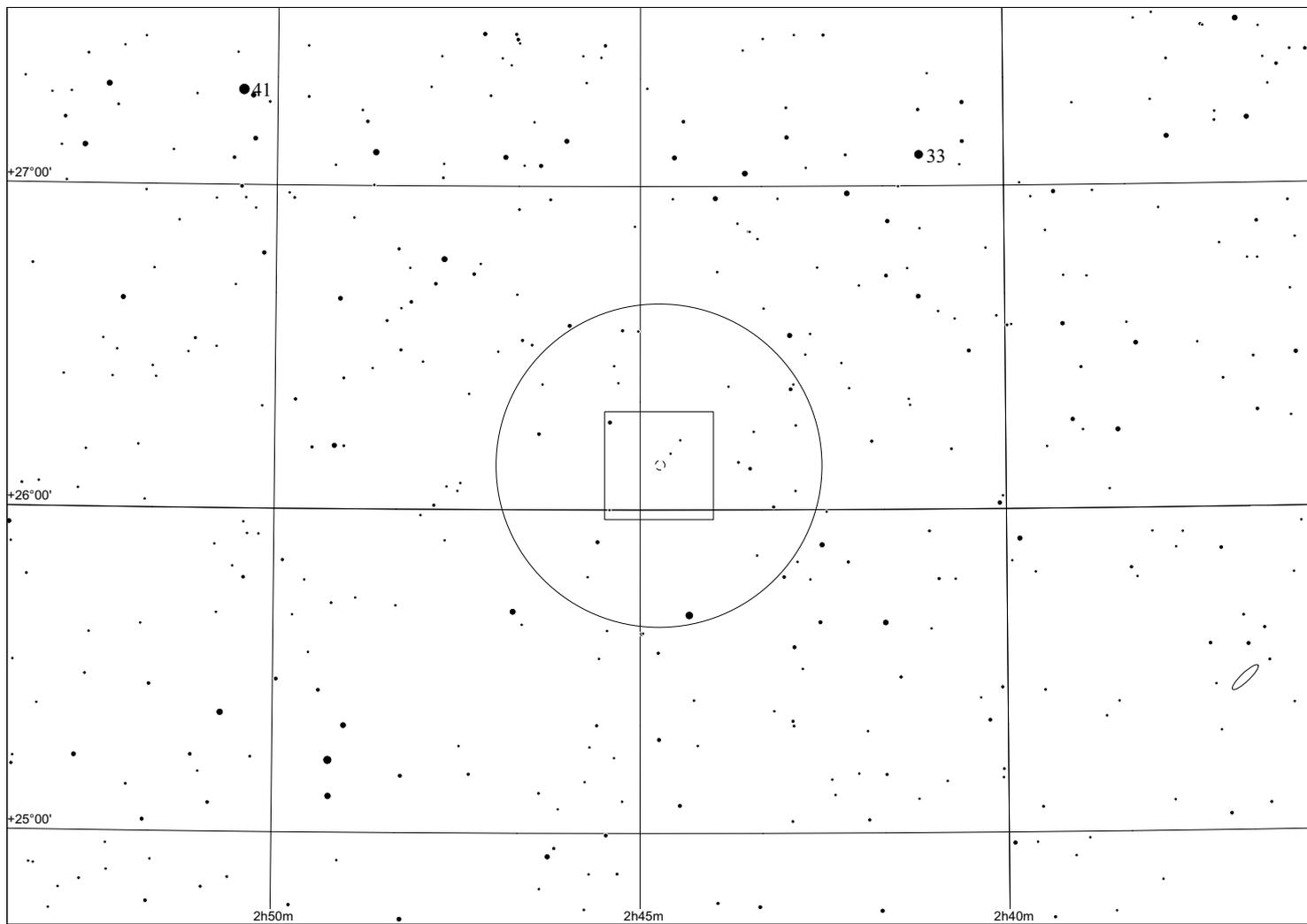
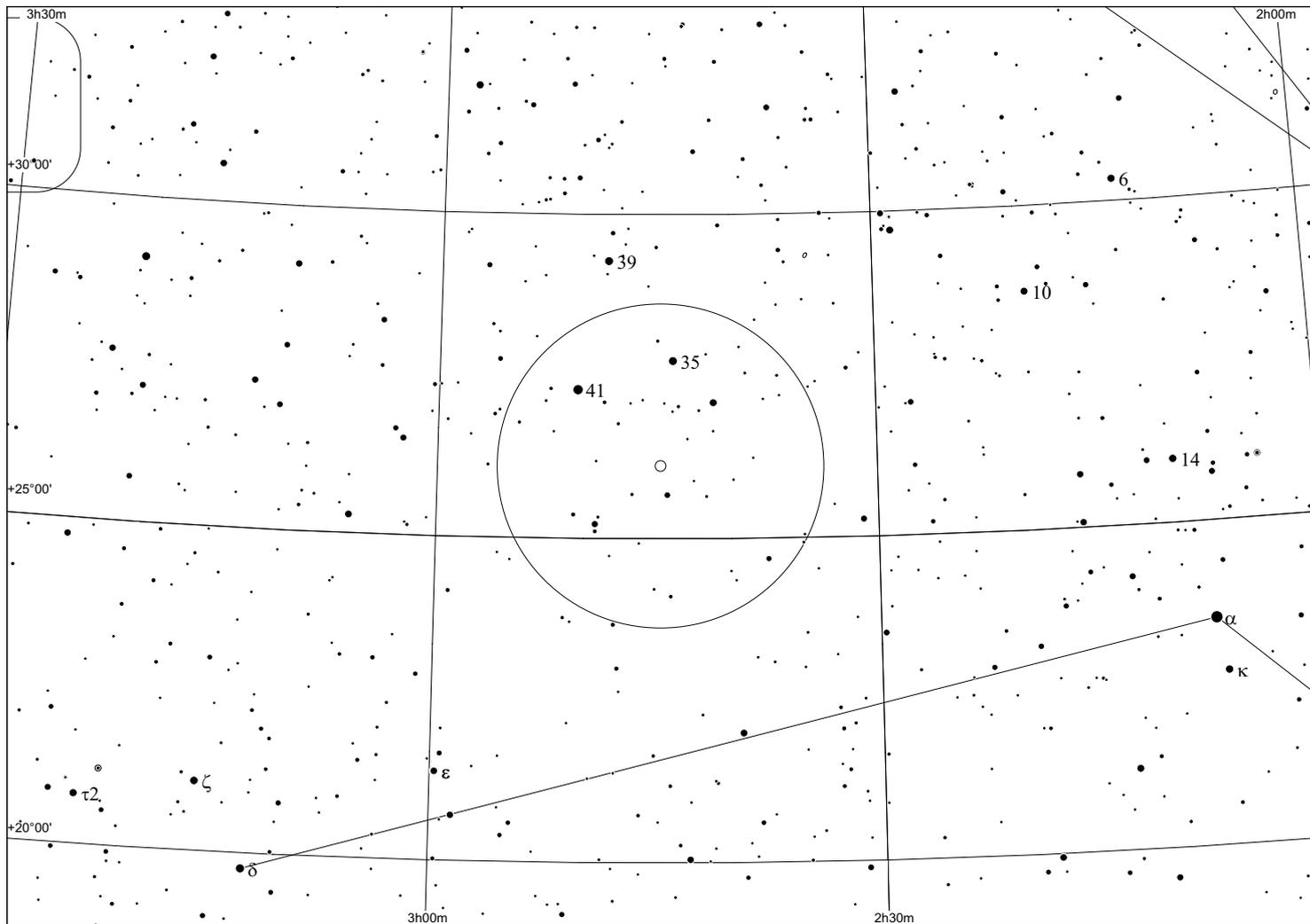
HCG Const. coordinates (2000) bright. memb. mag  
 20 Ari 02h 44m 15s +26° 06' 16.7

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		
20a	02 41 17.08	+25 53 17.1	14.50	5.50	S0	1	17.43	1	16.20	15.26	1	29.90	1.85	17.17	16.70	0.20	14477	45	0	
20b	02 41 17.58	+25 53 54.7	9.40	5.00	E5	0	17.46	1	14.00	15.21	1	27.70	1.87	17.03	16.73	0.20	14424	42	0	
20c	02 41 18.64	+25 53 40.0	9.20	8.50	E1	0	17.36	1	17.60	15.18	1	33.70	1.83	16.94	16.64	0.20	15032	45	0	
20d	02 41 23.50	+25 53 49.0	7.40	6.20	S0a	2	17.88	1	13.30	16.01	1	19.20	1.75	17.72	17.37	0.20	10561	61	0	
20e	02 41 21.90	+25 53 30.4	5.40	4.10	E2	0	18.53	1	9.50	16.60	1	12.60	1.84	17.99	17.69	0.20	14312	49	0	
20f	02 41 22.19	+25 54 00.6	6.30	3.00	S0a	2	19.54	1	6.10	17.36	1	10.20	1.75	18.77	18.25	0.20	14280	62	0	

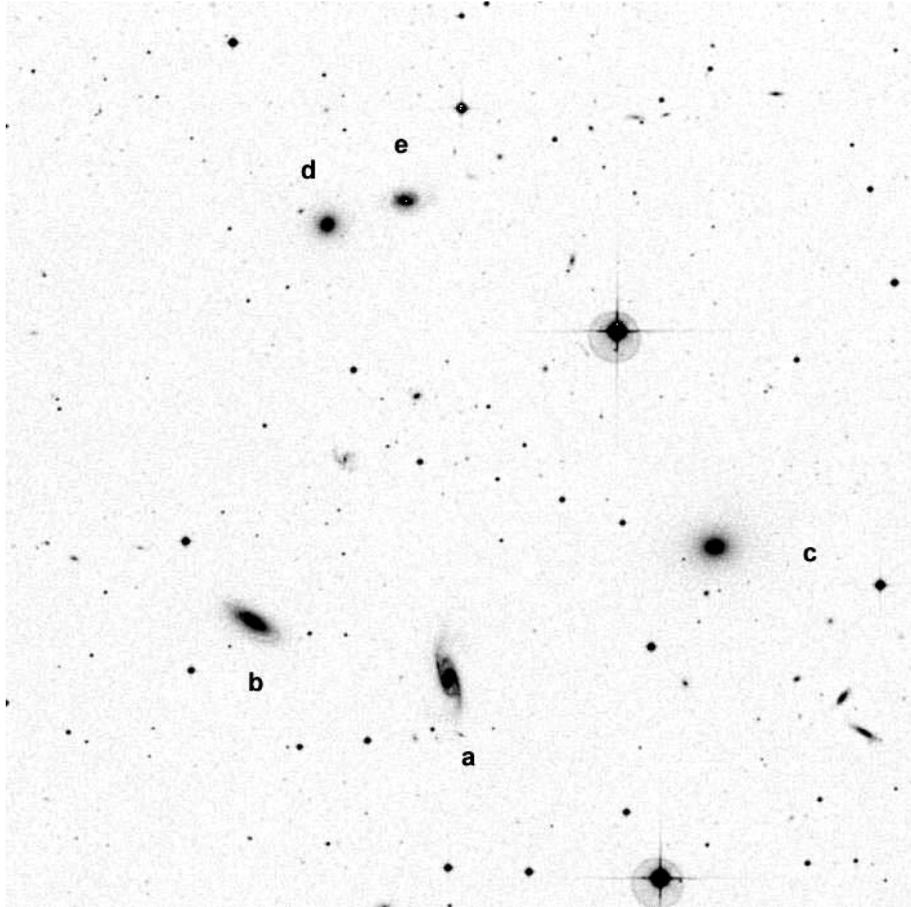
### Notes:

22"f/4 (25/10/2008): this is an extremely difficult group with very dim members

with 5mm after extended observing, something was seen at the position of b/c , but only intermittently, cannot be held steadily



# Hickson 21 in Eridanus

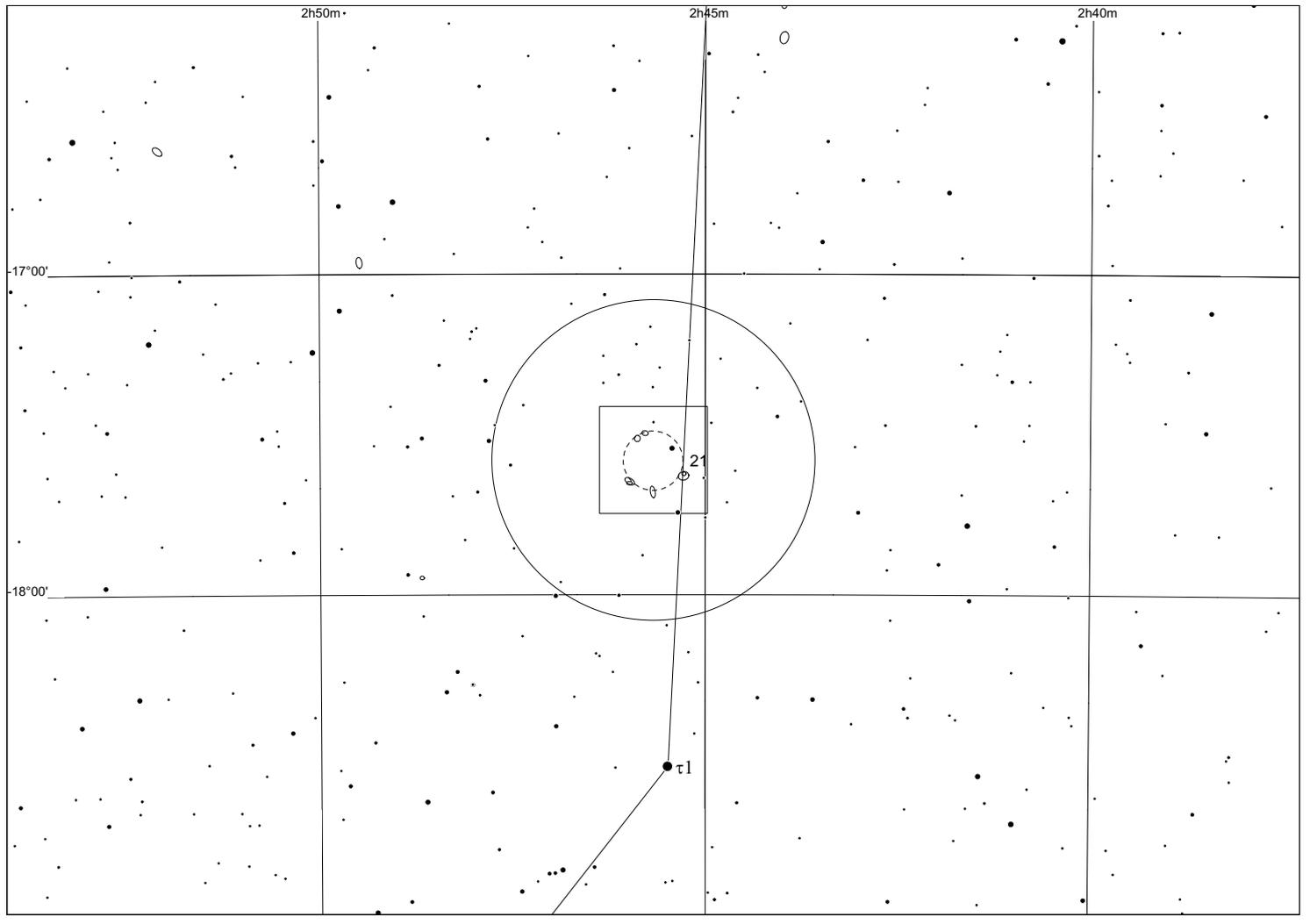
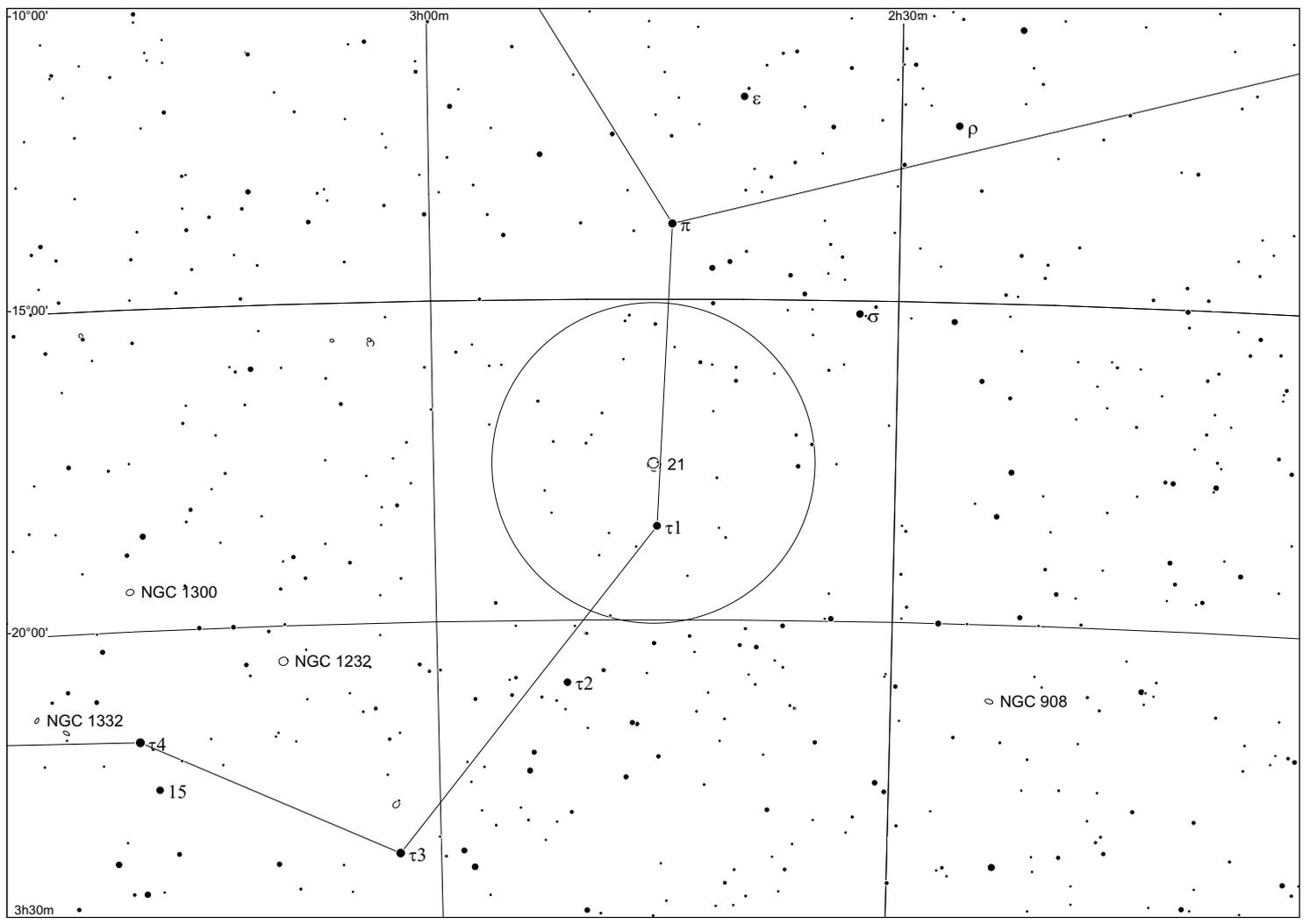


*HCG Const. coordinates (2000) bright. memb. mag*  
 21 Eri 02h 45m 18s -17° 37' NGC 1099 13.9

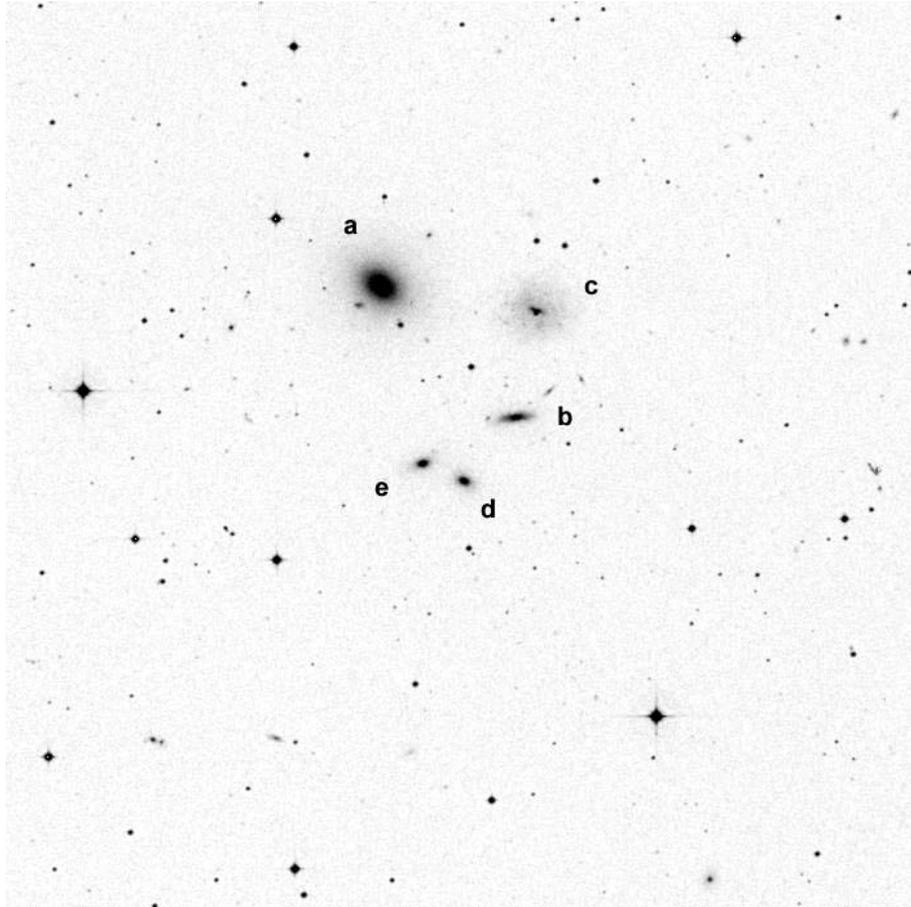
galaxy	ra (1950)	dec	a	b	type	T	B_I	C	D_B	R_I	C	D_R	B-R	B_T	B_TC	err	v_r	err	C	names
			"	"					"			"					km/s	km/s		
21a	02 42 58.42	-17 55 07.5	44.80	13.20	Sc	7	15.29	3	44.90	13.14	3	77.00	1.87	14.79	14.13	0.20	7614	29	0	
21b	02 43 16.59	-17 53 56.5	45.90	19.10	Sab	4	14.69	3	54.40	12.64	3	82.60	1.89	14.39	13.85	0.20	7568	35	0	
21c	02 42 34.04	-17 52 12.8	29.20	26.80	E1	0	14.88	3	50.60	12.66	3	95.30	1.62	14.34	14.10	0.20	7356	31	0	
21d	02 43 09.92	-17 45 09.5	18.00	15.00	E2	0	15.96	3	30.60	14.17	3	44.60	1.62	15.42	15.18	0.20	8835	48	0	
21e	02 43 02.86	-17 44 37.0	17.40	14.70	SB0a	2	16.34	3	28.80	14.58	3	39.60	1.62	16.10	15.81	0.20	8843	61	0	

## Notes:

14" f/5: all five members are already distinct with 13 mm, easy group.



# Hickson 22 in Eridanus



HCG Const. coordinates (2000) bright. memb. mag  
 22 Eri 03h 03m 32s -15° 41' NGC 1199 12.2

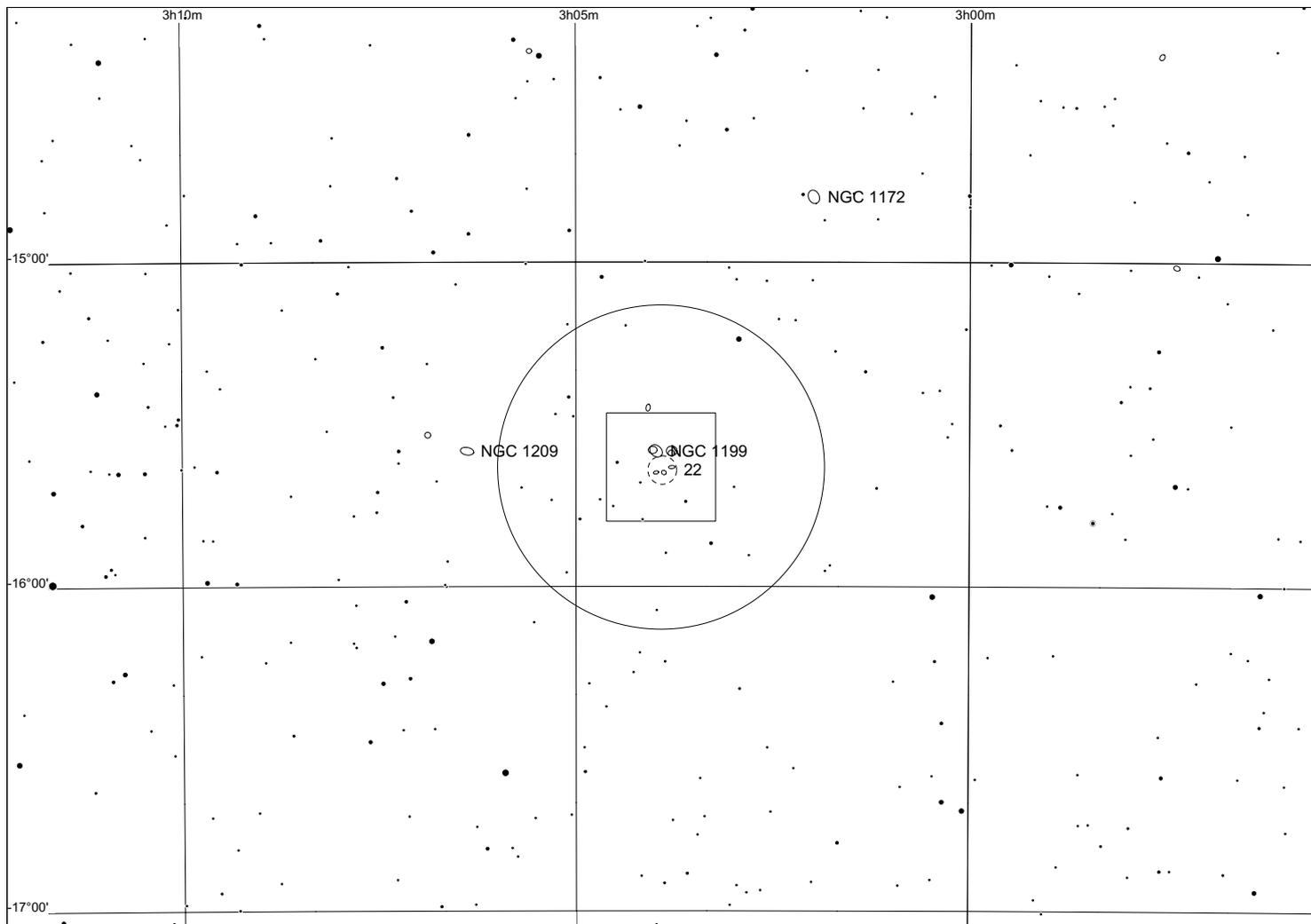
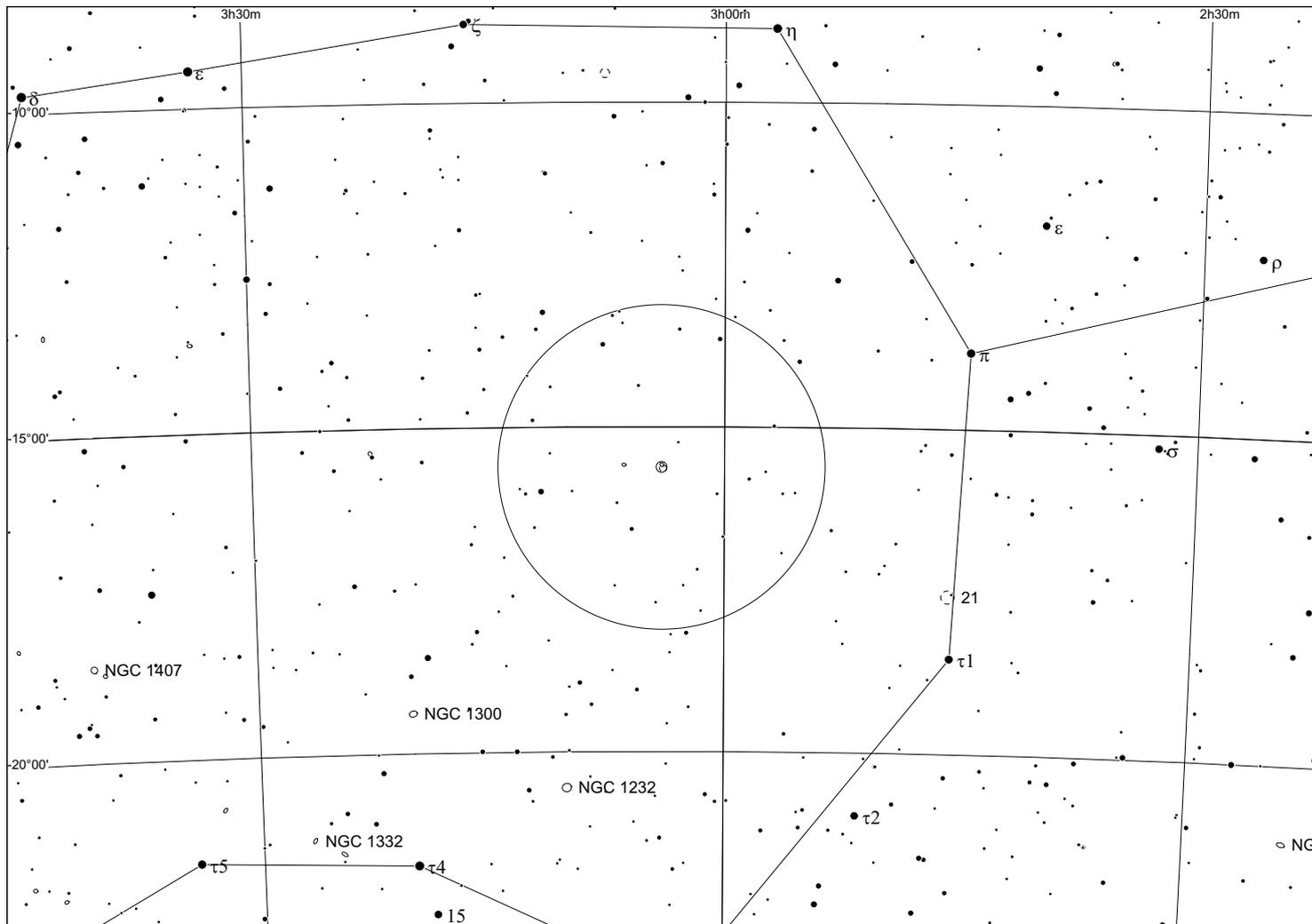
galaxy	ra (1950)	dec	a	b	type	T	B_I	C	D_B	R_I	C	D_R	B-R	B_T	B_TC	err	v_r	err	C	names
			"	"					"			"					km/s	km/s		
22a	03 01 18.22	-15 48 30.4	79.80	62.50	E2	0	12.78	0	111.20	10.95	0	172.20	1.62	12.49	12.24	0.13	2705	22	0	N1199
22b	03 01 05.95	-15 51 24.5	30.60	12.40	Sa	3	15.32	0	38.40	13.64	0	57.50	1.52	15.04	14.47	0.10	2625	38	0	
22c	03 01 04.02	-15 49 05.8	52.20	47.30	SBcd	8	14.55	0	81.40	13.19	0	99.00	1.20	14.20	13.90	0.70	2728	60	0	
22d	03 01 10.73	-15 52 49.8	23.30	15.70	E3	0	15.60	1	34.30	13.70	1	55.40	1.71	15.22	14.97	0.20	9342	45	0	
22e	03 01 14.52	-15 52 25.3	25.80	13.00	E5	0	15.68	1	31.50	13.84	1	49.70	1.65	15.37	15.12	0.20	9506	49	0	

## Notes:

22"f/4 (25/10/2008): 7mm, a is superbright

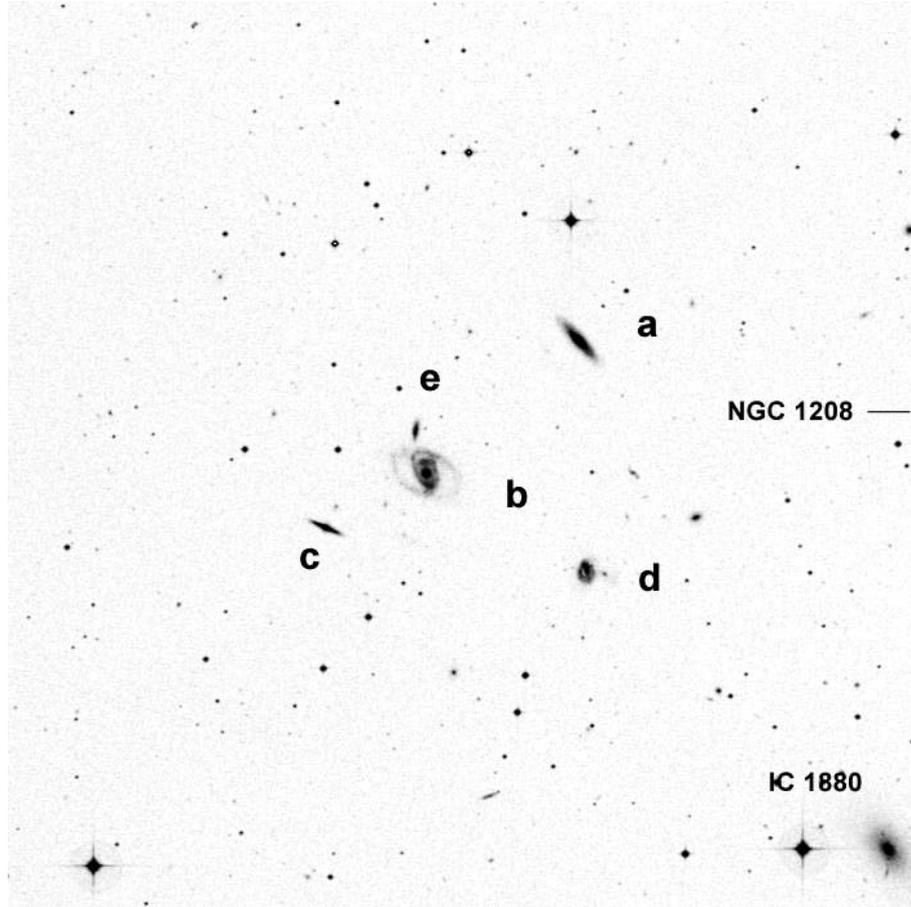
b, d, and e can be observed steadily without problem

c is more difficult and could be seen only intermittently





# Hickson 23 in Eridanus

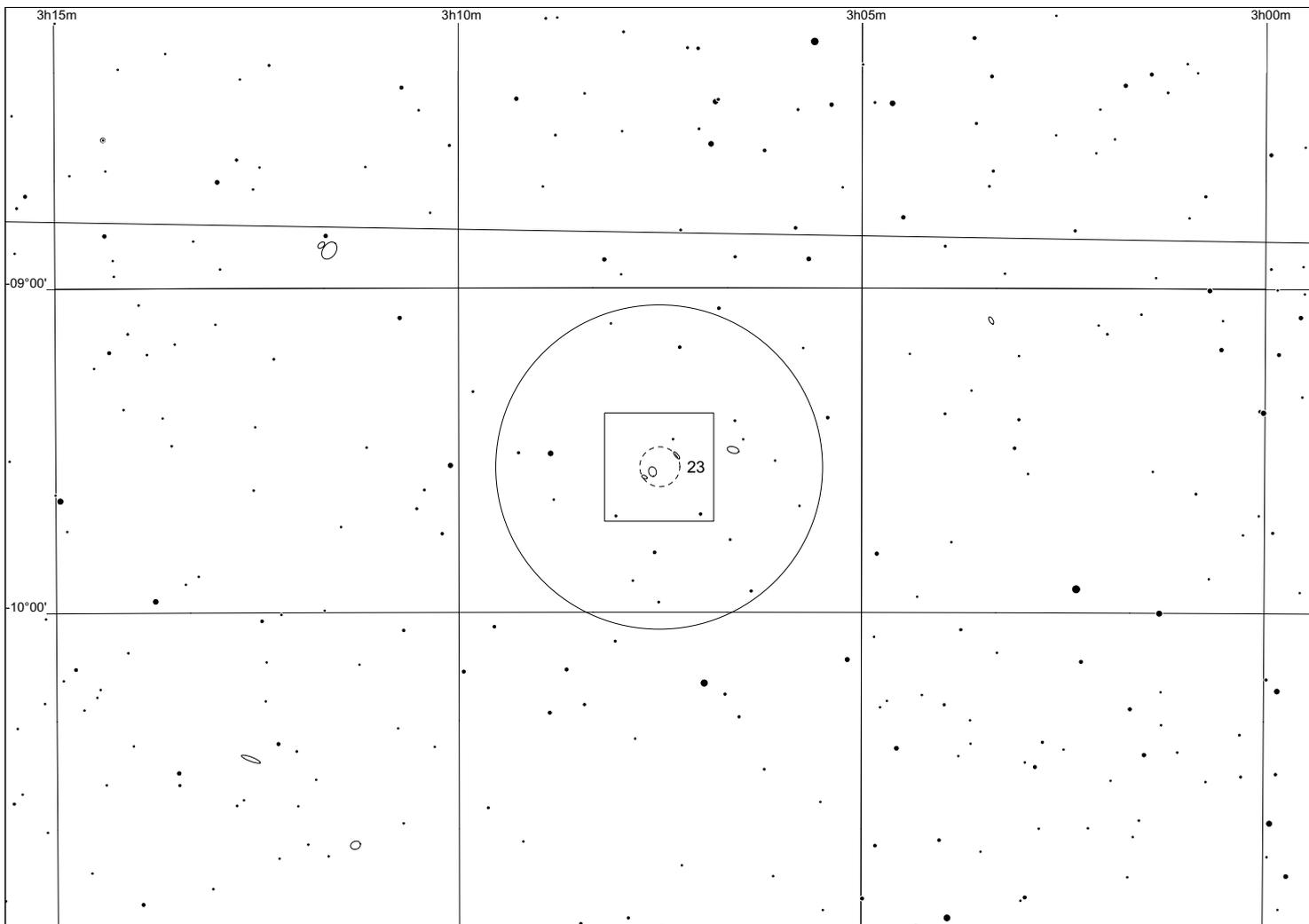
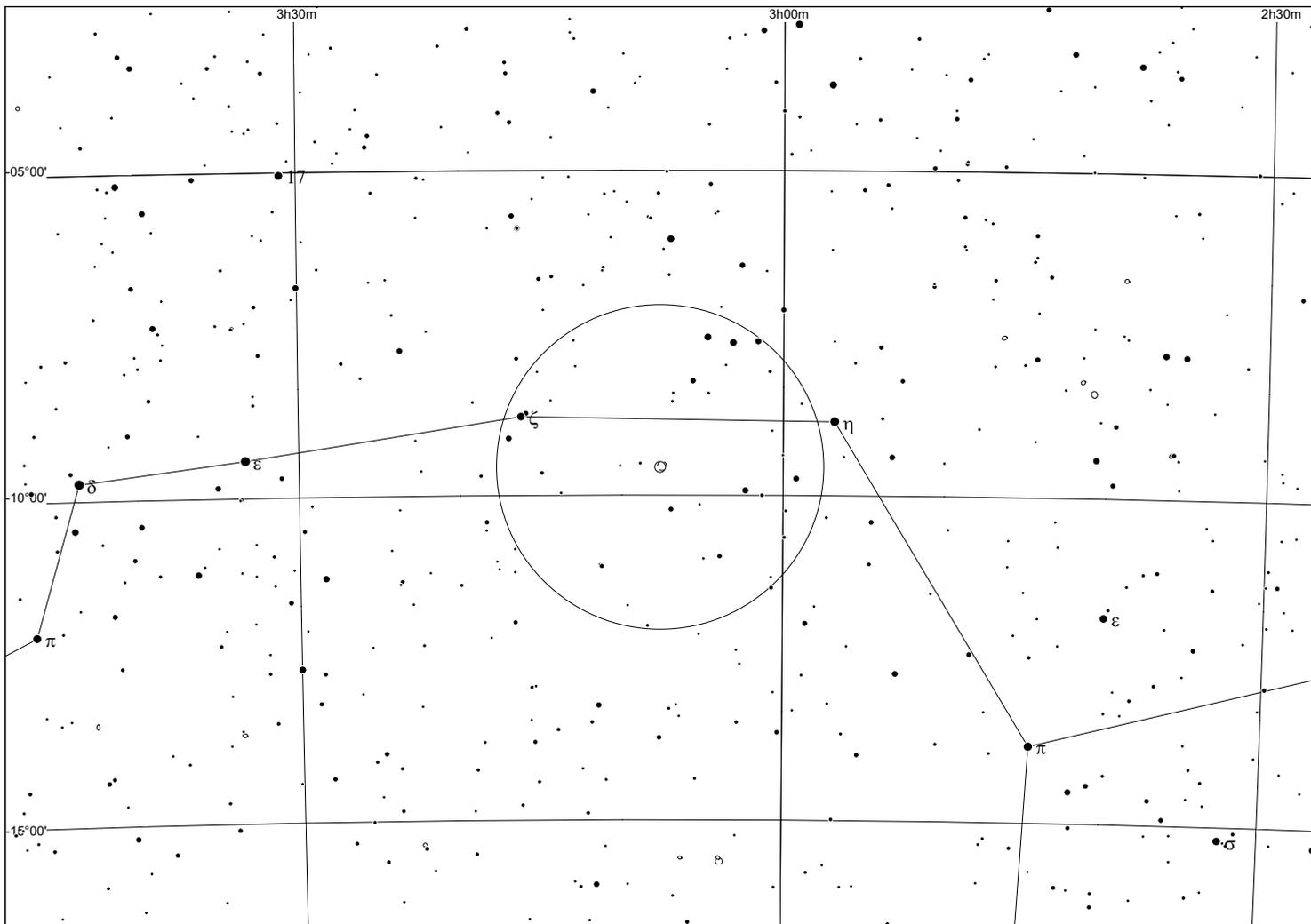


HCG Const. coordinates (2000) bright. memb. mag  
 23 Eri 03h 06m 07s -09° 35' NGC 1214 14.3

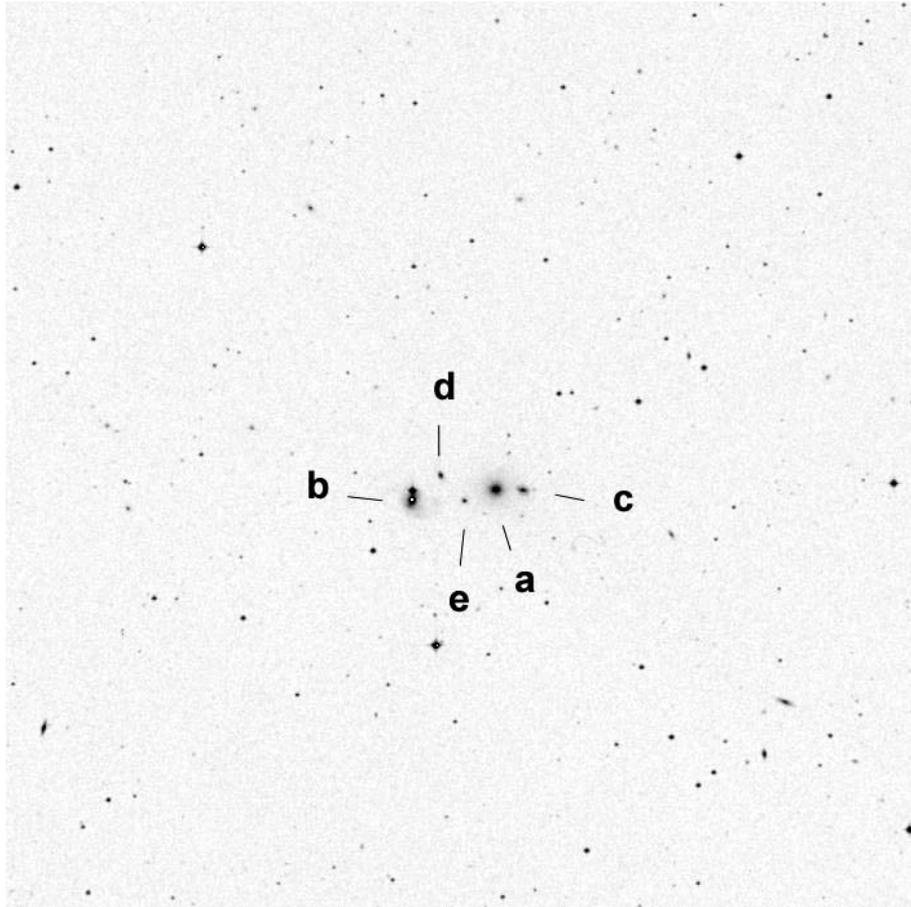
galaxy	ra (1950)	dec	a	b	type	T	B-I	C	D-B	R-I	C	D-R	B-R	B-T	B-TC	err	v_r	err	C	names
			"	"					"			"					km/s	km/s		
23a	03 04 30.36	-09 44 09.5	37.20	11.90	Sab	4	15.13	3	36.70	13.45	3	50.10	1.59	14.96	14.32	0.20	4798	37	0	N1214
23b	03 04 44.07	-09 47 06.1	46.10	28.70	SBc	7	15.14	3	48.70	13.41	3	64.40	1.59	14.83	14.42	0.20	4921	30	0	N1215
23c	03 04 53.01	-09 48 17.5	23.20	6.80	S0	1	16.00	3	19.40	13.67	3	32.30	2.25	15.98	15.52	0.20	5016	97	0	N1216
23d	03 04 29.78	-09 49 17.2	19.30	15.20	Sd	9	16.66	3	26.70	15.19	3	35.10	1.28	16.30	16.00	0.50	4562	54	0	
23e	03 04 44.94	-09 46 09.0	12.10	5.50	Sm	11	17.77	3	15.60	16.09	3	21.00	1.52	17.59	17.03	0.20	10150	60	0	

## Notes:

22" f/4: Four out of five galaxies were observed (except e). c appears as a very thin streak.



## Hickson 24 in Eridanus



HCG Const. coordinates (2000) bright. memb. mag  
 24 Eri 03h 20m 19s -10° 52' 14.9

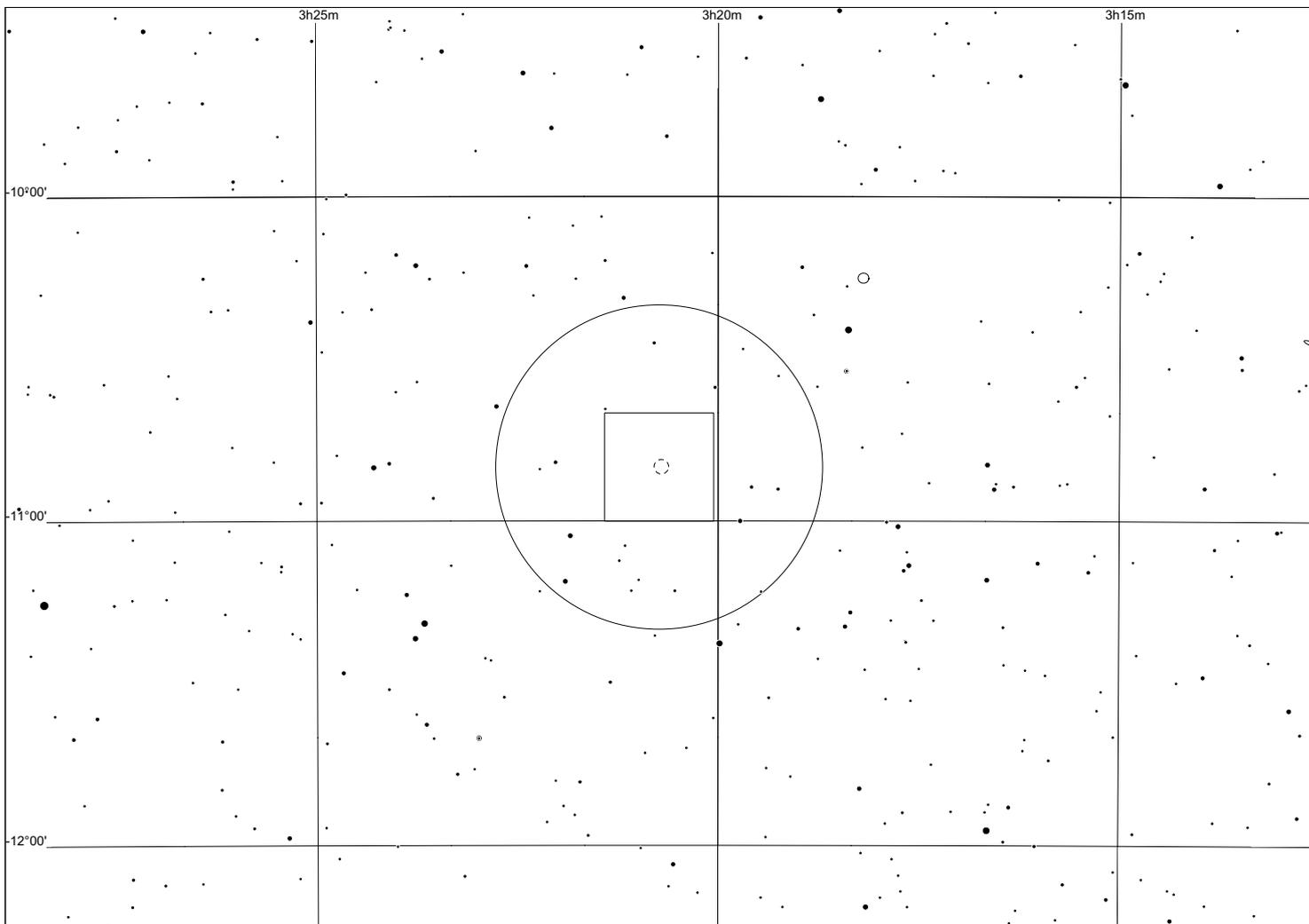
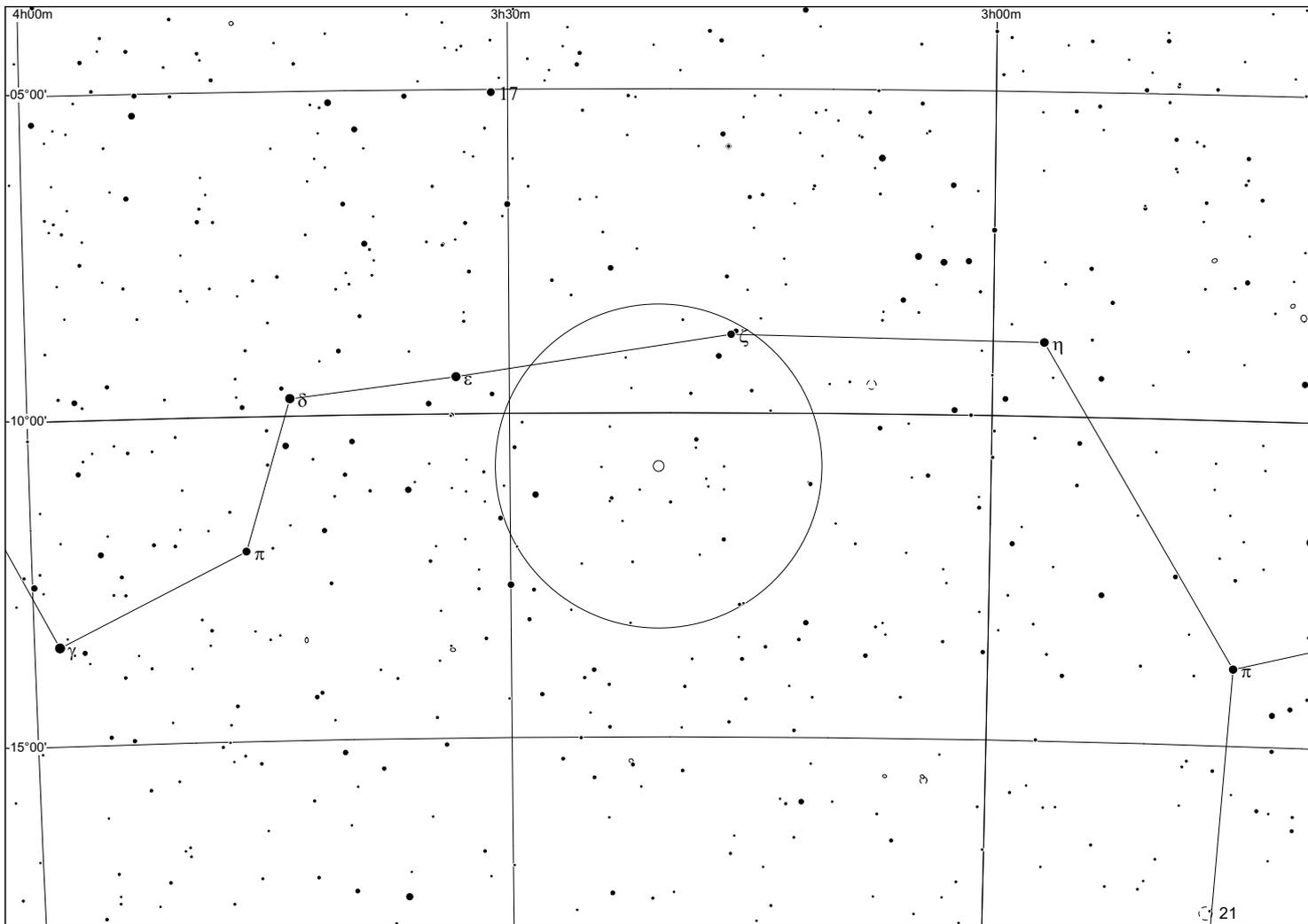
galaxy	ra (1950)	dec	a	b	type	T	B-I	C	D-B	R-I	C	D-R	B-R	B-T	B-TC	err	v_r	err	C	names
			"	"					"			"					km/s	km/s		
24a	03 17 51.42	-11 02 35.0	18.70	17.70	S0	1	15.89	1	34.00	13.81	1	63.20	1.69	15.51	15.23	0.20	9248	41	0	
24b	03 17 58.94	-11 02 49.5	22.60	16.70	SBa	3	15.60	0	38.70	13.94	0	48.90	1.54	15.26	14.89	0.20	9137	44	0	
24c	03 17 48.95	-11 02 35.4	12.00	8.30	SB0	1	17.26	1	19.60	15.35	1	30.90	1.61	16.93	16.60	0.20	9283	109	0	
24d	03 17 56.24	-11 02 16.4	6.50	4.70	S0a	2	17.95	0	11.00	16.25	0	16.00	1.61	17.83	17.46	0.10	8779	61	0	
24e	03 17 54.31	-11 02 49.1	4.70	4.60	E0	0	18.30	1	9.50	16.45	1	14.50	1.63	17.91	17.64	0.20	9323	61	0	

### Notes:

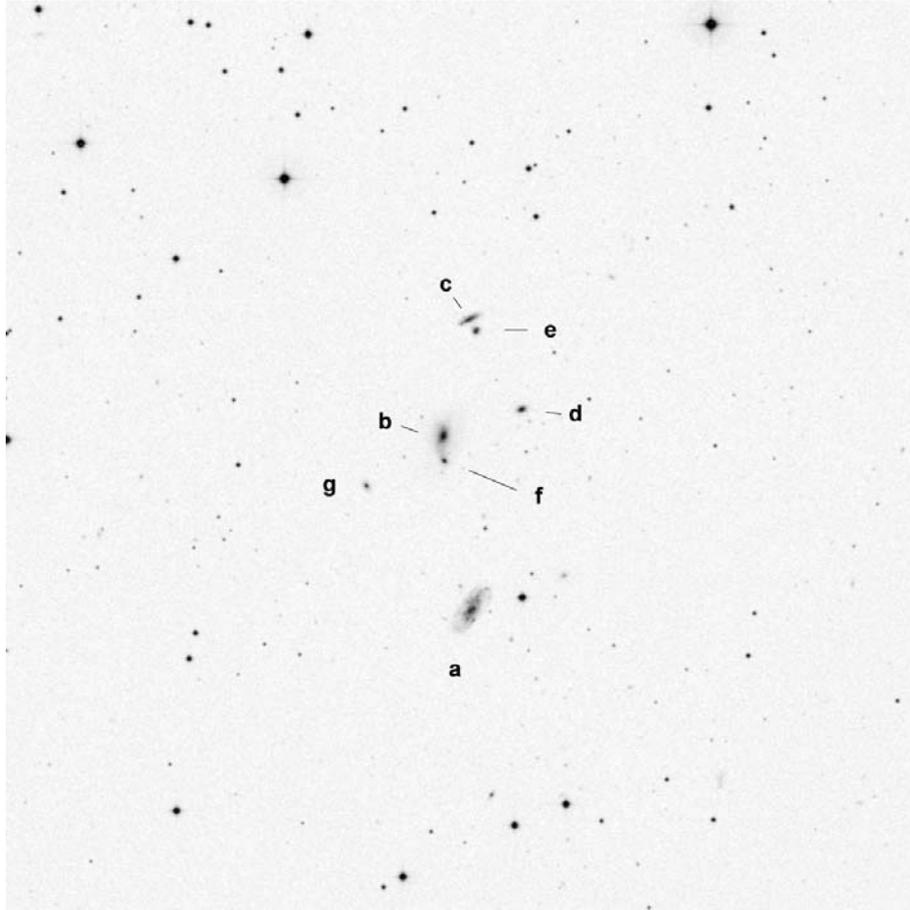
22"f/4 (25/10/2008): difficult group

b is the easiest member, can be held permanently with averted vision and 5 mm

a/c were not resolved as individual members, cannot be held steadily



## Hickson 25 in Cetus

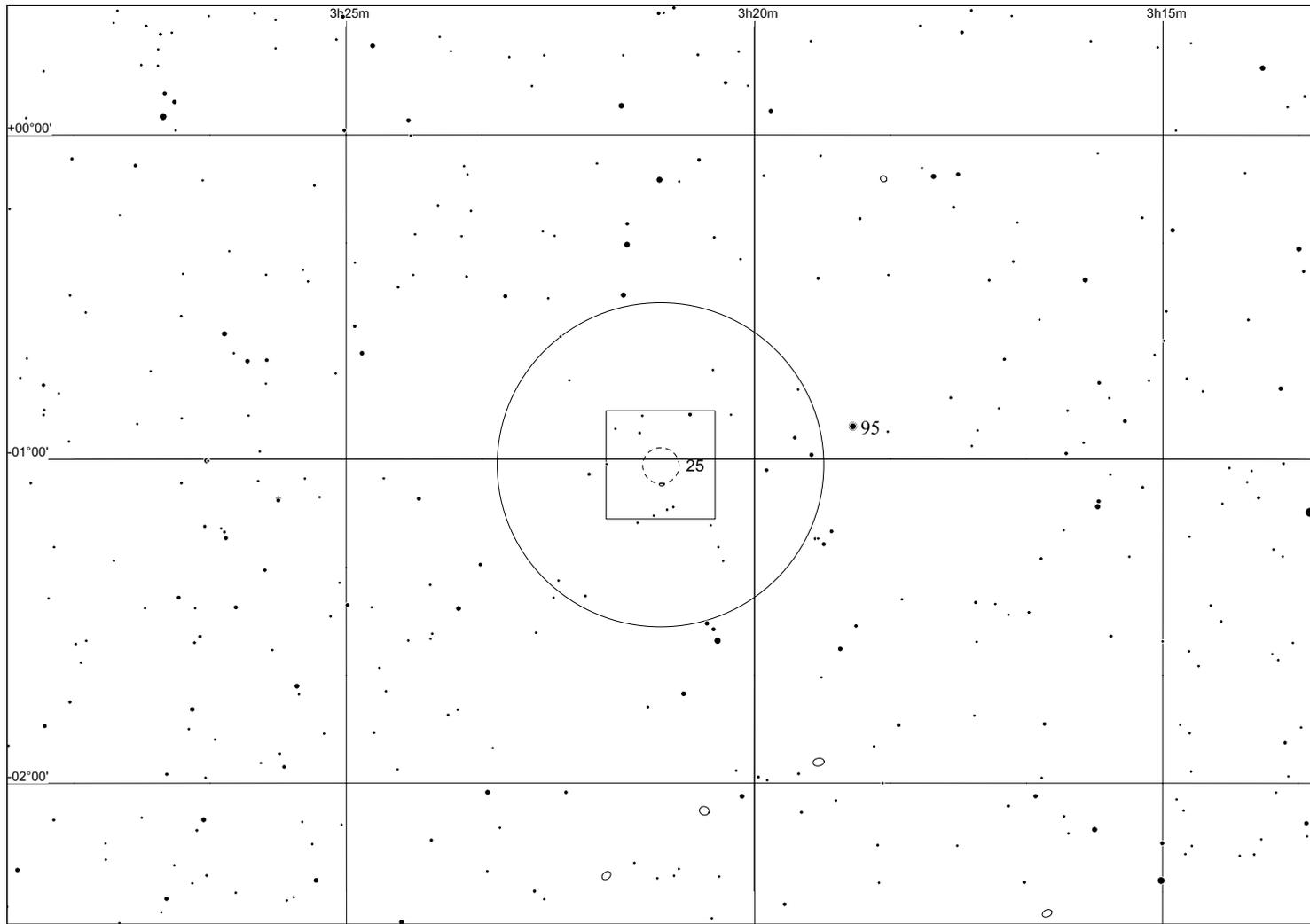
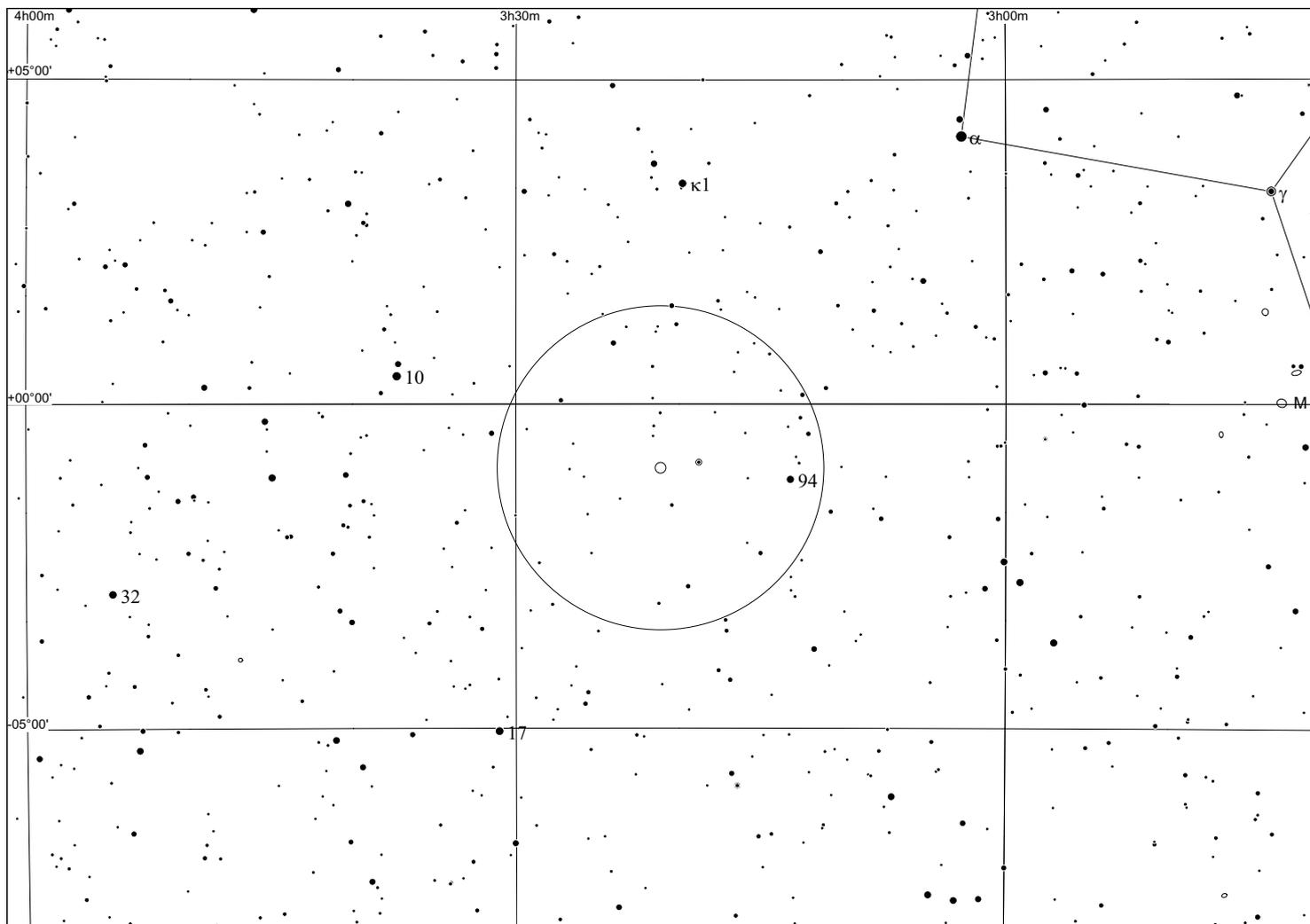


*HCG Const. coordinates (2000) bright. memb. mag*  
 25 Cet 03h 20m 44s -01° 03' 13.9

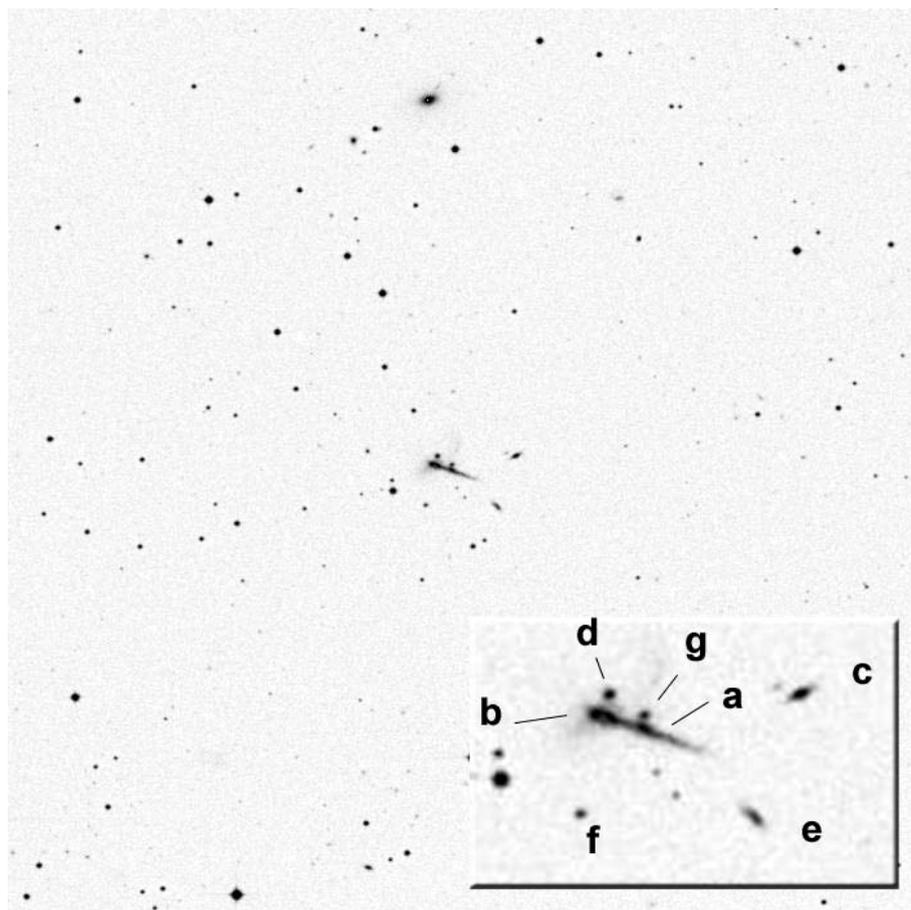
galaxy	ra (1950)	dec	a	b	type	T	B_I	C	D_B	R_I	C	D_R	B-R	B_T	B_TC	err	v_r	err	C	names
			"	"					"			"					km/s	km/s		
25a	03 18 10.47	-01 17 19.8	38.40	17.50	SBc	7	14.70	0	51.10	13.63	0	54.30	1.05	14.39	13.86	0.10	6285	30	0	U2690
25b	03 18 12.86	-01 13 27.5	29.00	19.10	SBa	3	15.15	1	41.20	12.33	1	54.50	1.75	14.85	14.45	0.20	6408	35	0	U2691a
25c	03 18 10.57	-01 10 55.3	22.30	8.80	Sb	5	16.10	1	23.90	14.60	1	27.90	1.46	15.93	15.35	0.20	10864	61	0	
25d	03 18 06.07	-01 12 53.8	9.80	7.00	S0	1	16.36	0	16.60	14.58	0	21.00	1.46	16.24	15.92	0.10	6401	36	0	
25e	03 18 10.04	-01 11 09.7	9.30	8.70	Sdm	10	16.67	1	17.00	15.38	1	19.30	1.25	16.17	15.89	0.20	10965	38	0	
25f	03 18 12.82	-01 14 01.3	11.10	9.90	S0	1	16.66	1	18.80	14.96	1	29.20	1.52	17.26	16.98	0.20	6279	37	0	U2691b
25g	03 18 19.60	-01 14 34.1	8.70	6.20	S0	1	17.38	0	13.70	15.60	0	17.80	1.70	17.25	16.93	0.10	12179	26	0	

### Notes:

22"f/4 (08.09.2008): a with very low surface brightness and triangle of galaxies b, c, and d  
 b and f could be split



## Hickson 26 in Eridanus

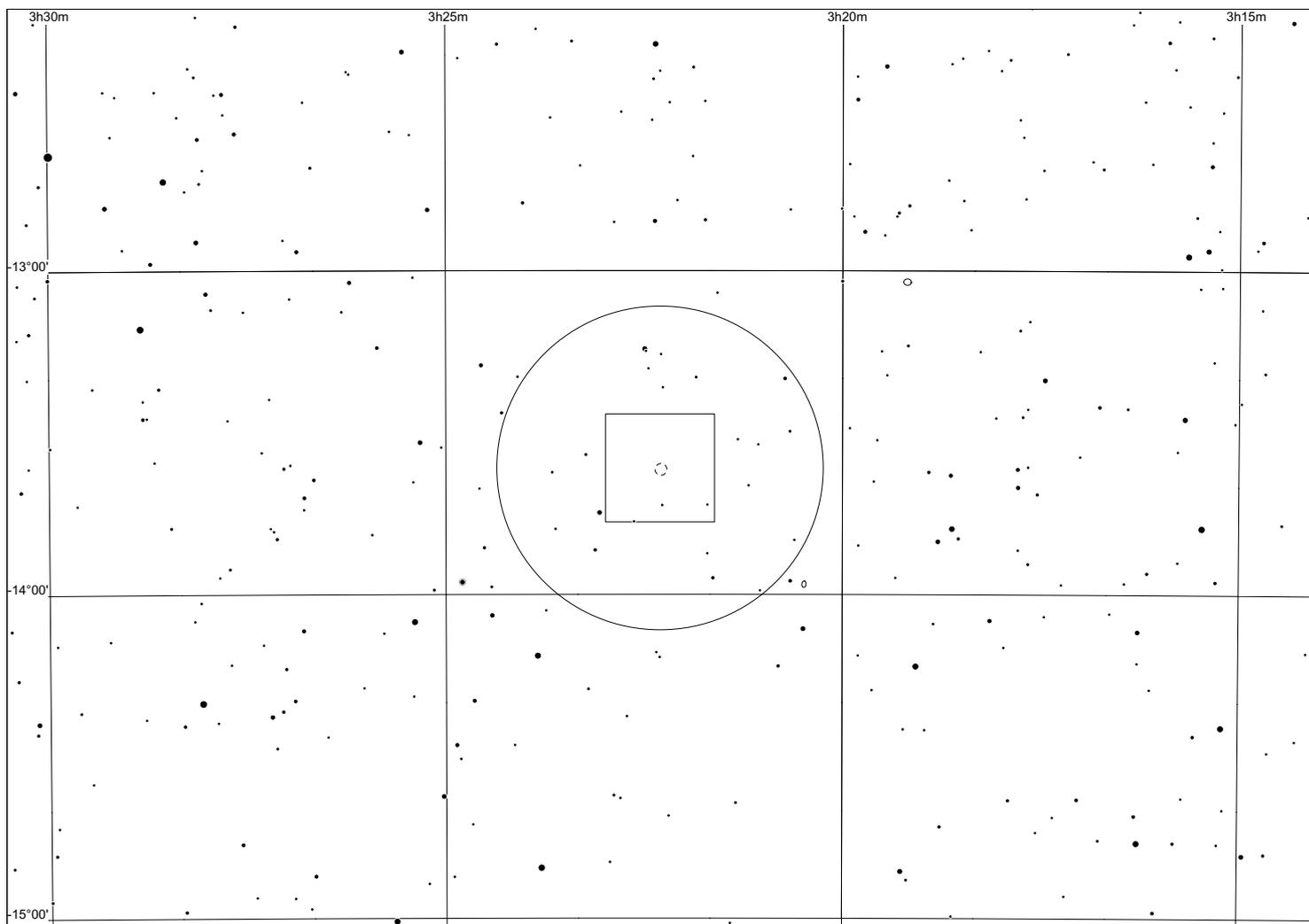
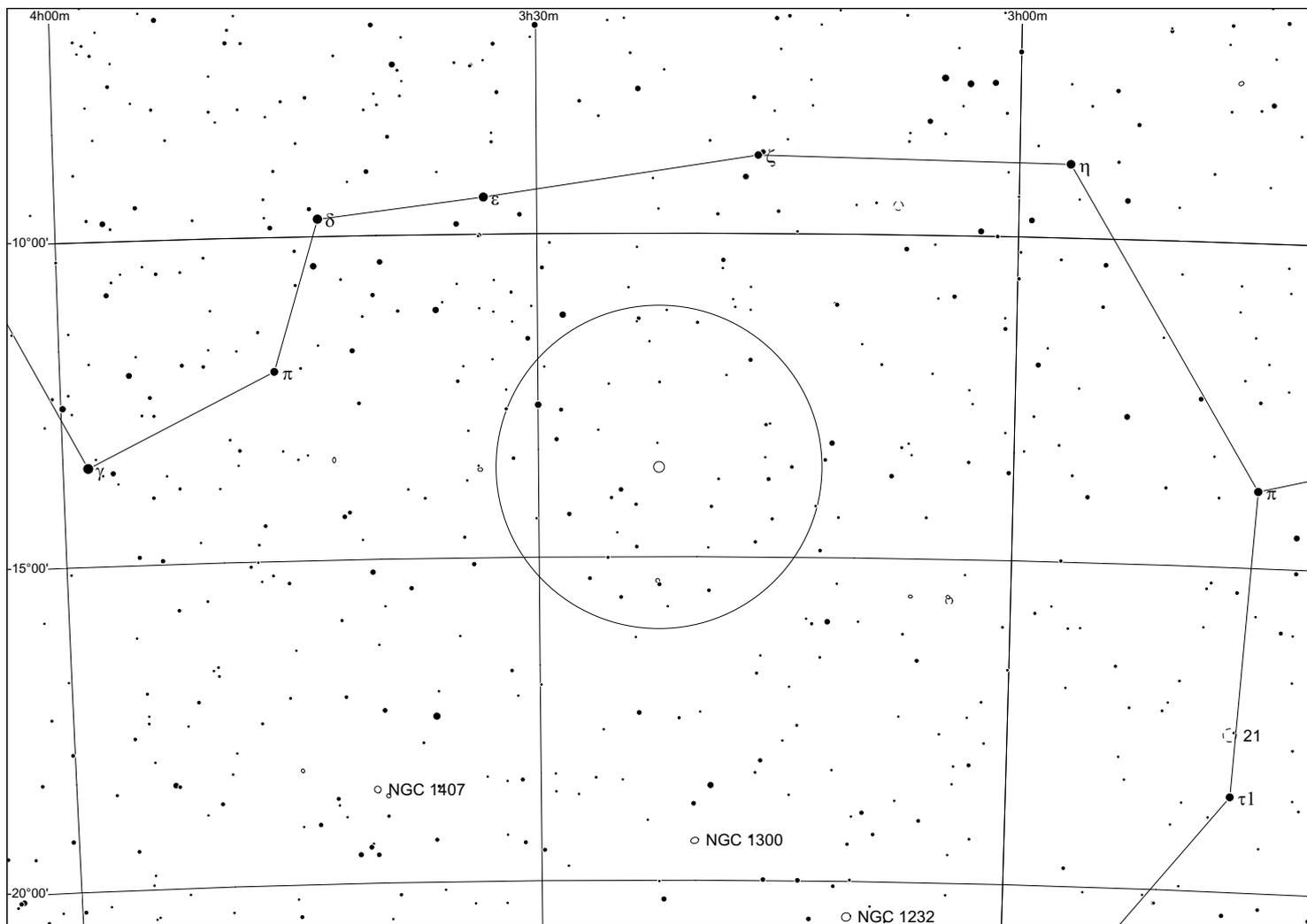


HCG Const. coordinates (2000) bright. memb. mag  
 26 Eri 03h 21m 55s -13° 39' 15.6

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 km/s	err km/s	C	names
26a	03 19 34.10	-13 49 44.9	32.00	5.80	Scd	8	17.34	1	20.10	15.93	1	27.80	0.75	17.00	16.10	0.70	9678	50	0	
26b	03 19 35.95	-13 49 36.0	19.50	9.60	E0	0	16.74	1	21.10	15.46	1	25.10	1.30	15.88	15.61	0.20	9332	39	0	
26c	03 19 28.35	-13 49 26.1	9.60	4.40	S0	1	17.61	0	11.90	16.46	0	13.70	1.10	17.51	17.10	0.10	9618	62	0	
26d	03 19 35.34	-13 49 25.3	5.60	5.00	cI	13	16.94	1	17.30	16.77	1	13.90	0.54	16.08	15.81	0.20	9133	62	0	
26e	03 19 29.94	-13 50 35.1	10.50	3.50	Im	12	18.34	0	11.40	17.57	0	12.90	0.66	17.80	17.05	0.10	9623	50	0	
26f	03 19 36.40	-13 50 31.8	5.40	3.70	cI	13	18.93	0	7.30	18.57	0	7.30	0.36	18.95	18.68	0.10	9626	46	0	
26g	03 19 34.03	-13 49 37.3	5.90	5.00	S0	1	18.48	1	11.80	17.61	1	11.20	1.03	17.70	17.40	0.70	9293	62	0	

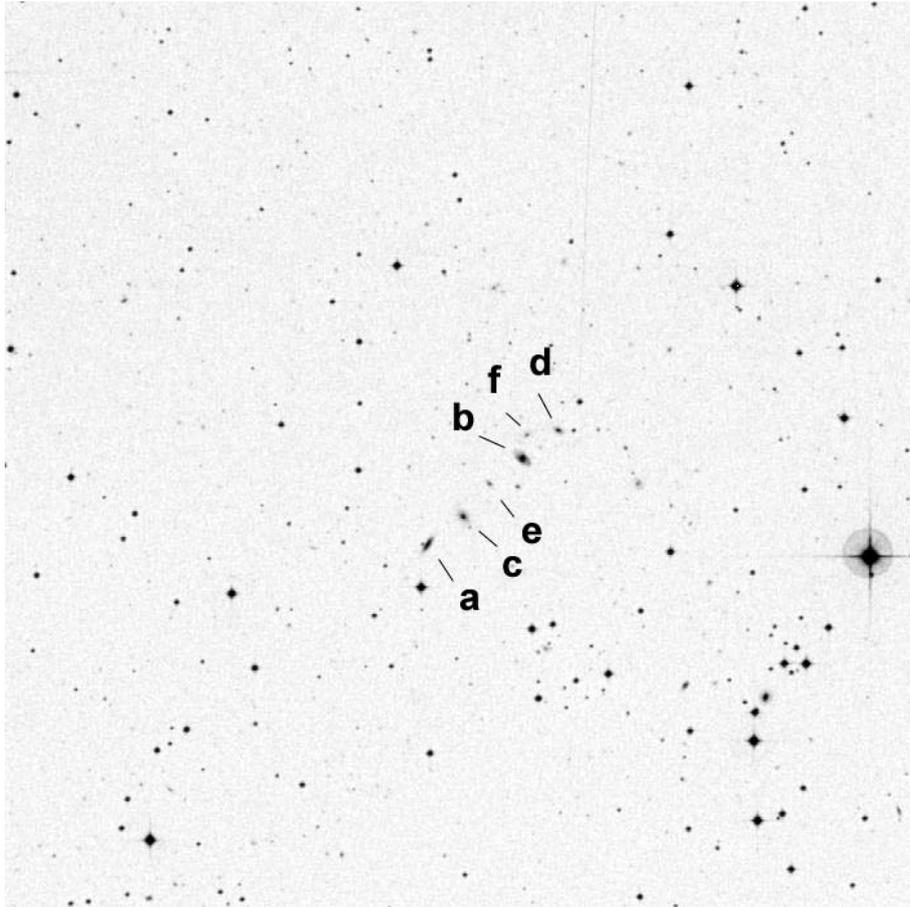
### Notes:

22"f/4 (08.09.2008): tight group close to star, no definite splitting into individual members





# Hickson 27 in Eridanus

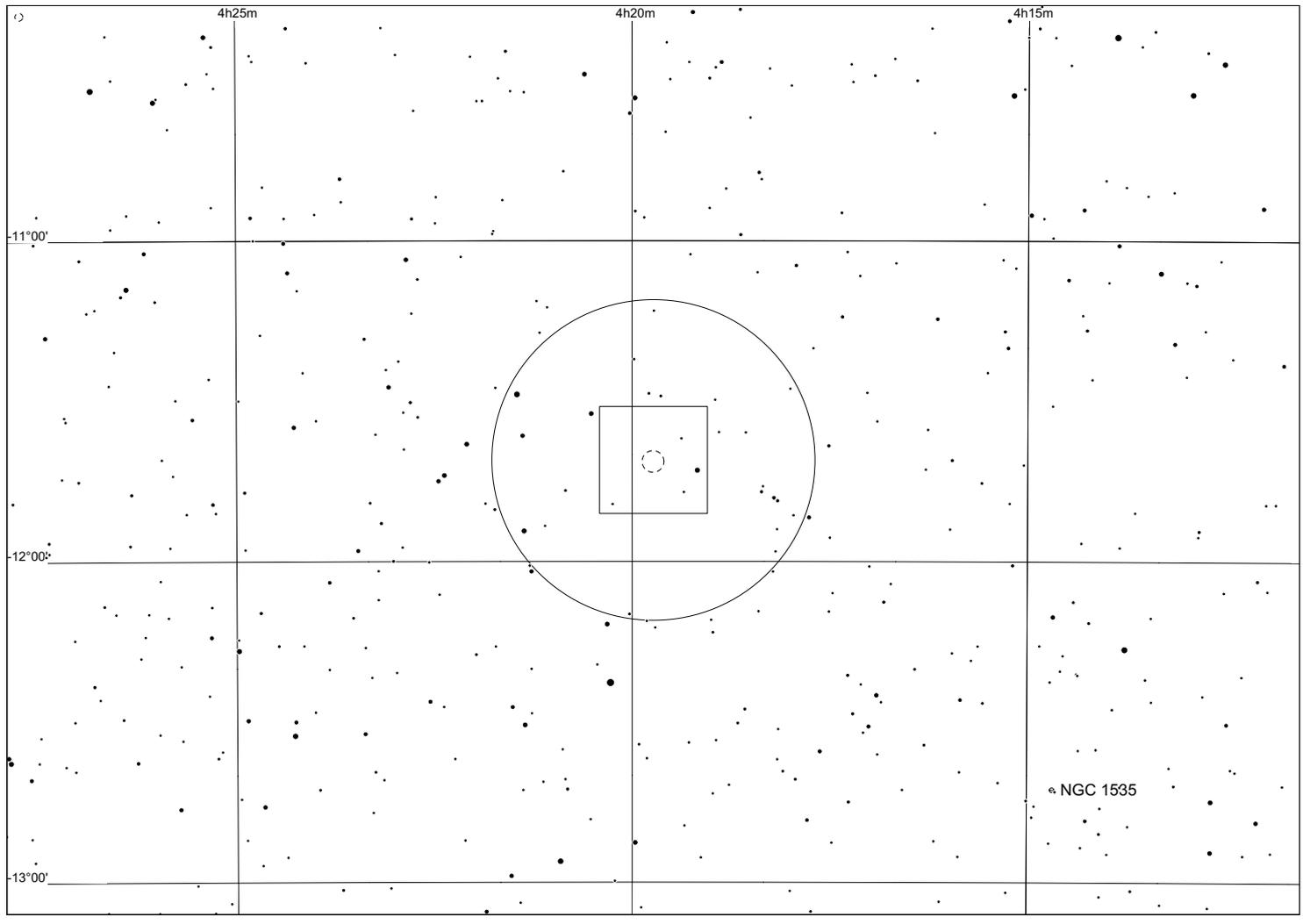
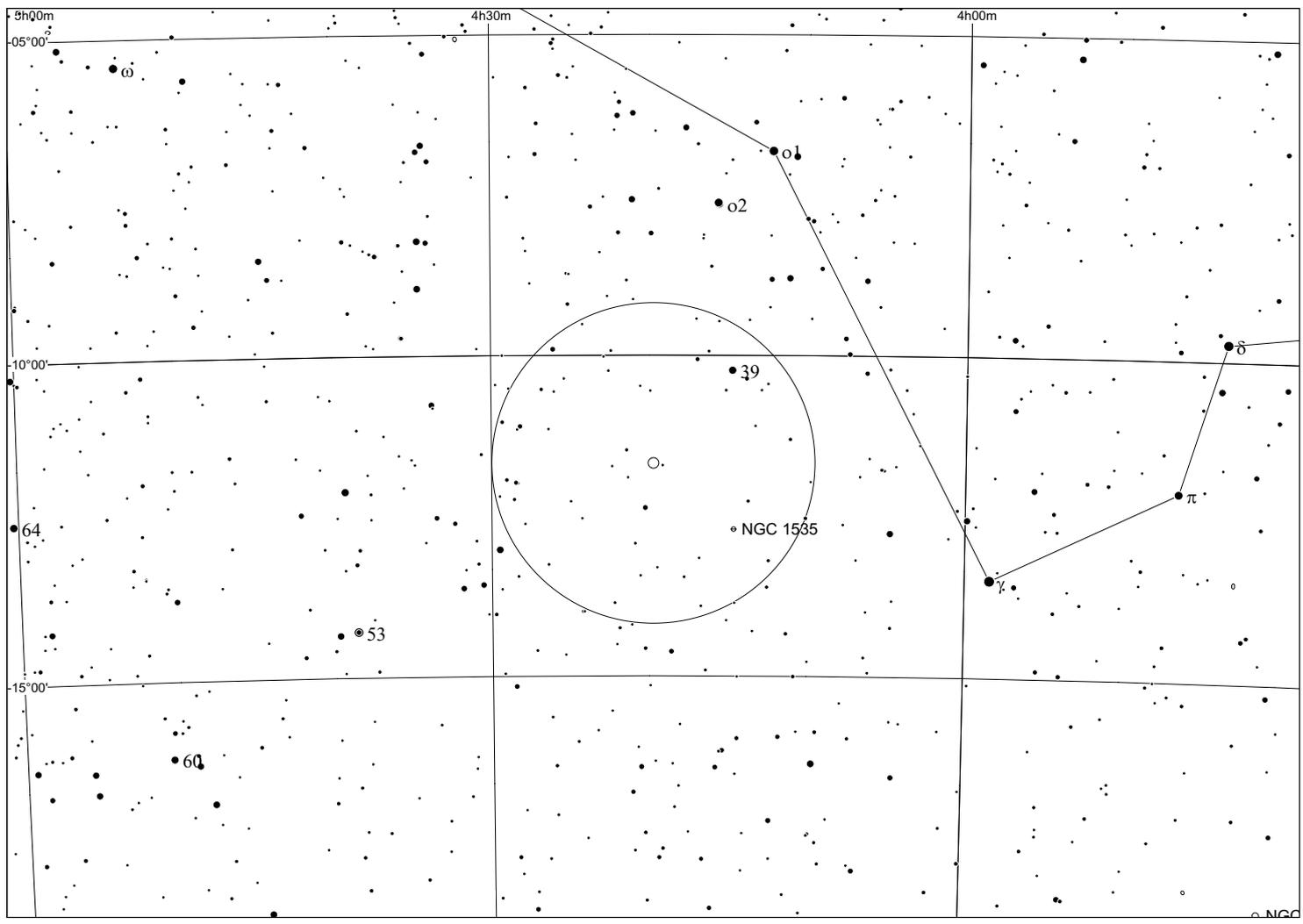


HCG Const. coordinates (2000) bright. memb. mag  
 27 Eri 04h 19m 22s -11° 43' 15.7

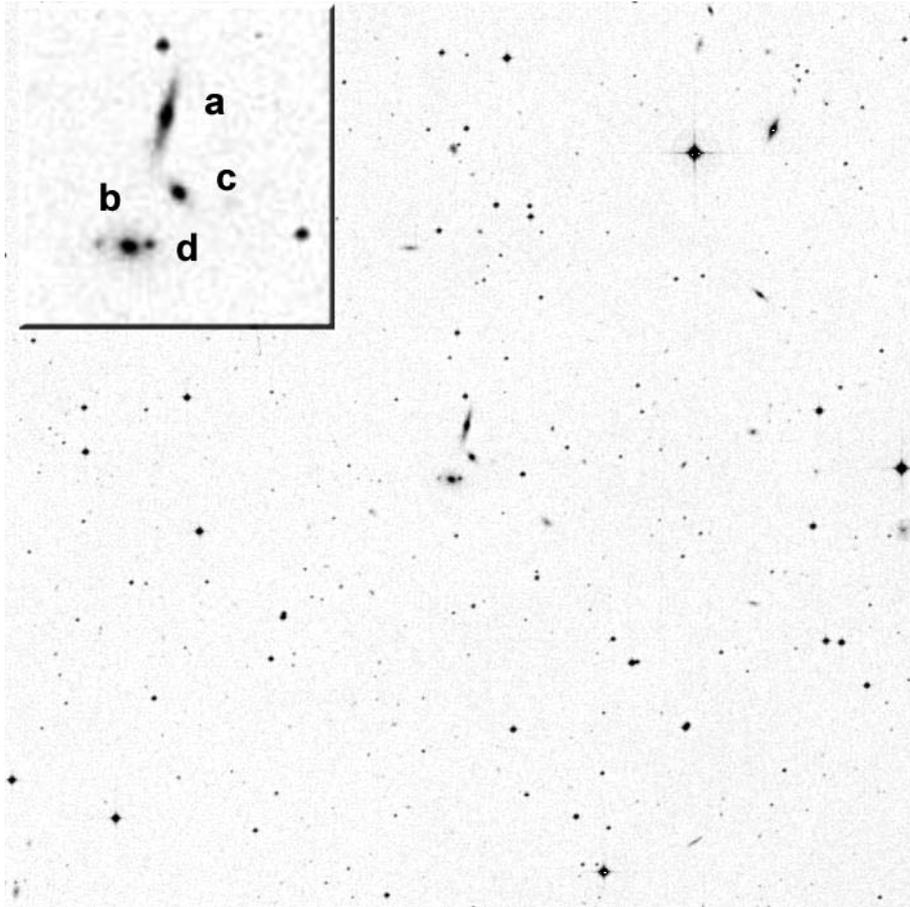
galaxy	ra (1950)	dec	a	b	type	T	B_I	C	D_B	R_I	C	D_R	B-R	B_T	B_TC	err	v_r	err	C	names
			"	"					"			"					km/s	km/s		
27a	04 17 05.85	-11 51 11.0	15.60	5.90	Sb	5	17.01	0	17.50	15.23	0	22.50	1.71	16.77	16.06	0.10	18340	62	0	
27b	04 16 57.47	-11 49 17.7	13.80	8.50	SbC	7	16.58	0	21.70	15.28	0	23.10	1.29	16.25	15.71	0.10	18530	61	0	
27c	04 17 02.75	-11 50 34.3	11.10	8.00	Sa	3	17.50	0	16.00	15.47	0	23.60	1.89	17.26	16.78	0.10	26352	62	0	
27d	04 16 54.25	-11 48 40.6	8.30	4.50	S0a	2	18.02	0	12.20	16.14	0	17.50	1.74	17.80	17.25	0.10	26256	62	0	
27e	04 17 00.39	-11 49 51.3	2.80	2.80	S0	1	19.22	0	8.00	17.18	0	11.10	1.90	18.40	18.00	0.50	26044	115	0	
27f	04 16 57.07	-11 48 48.7	5.00	3.90	S0	1	19.46	0	7.20	17.10	0	14.50	1.86	18.50	18.10	0.70	26100	134	2	

## Notes:

22"f/4 (25/10/2008): extremely difficult group  
 a and b were suspected at times, uncertain observation



## Hickson 28 in Eridanus



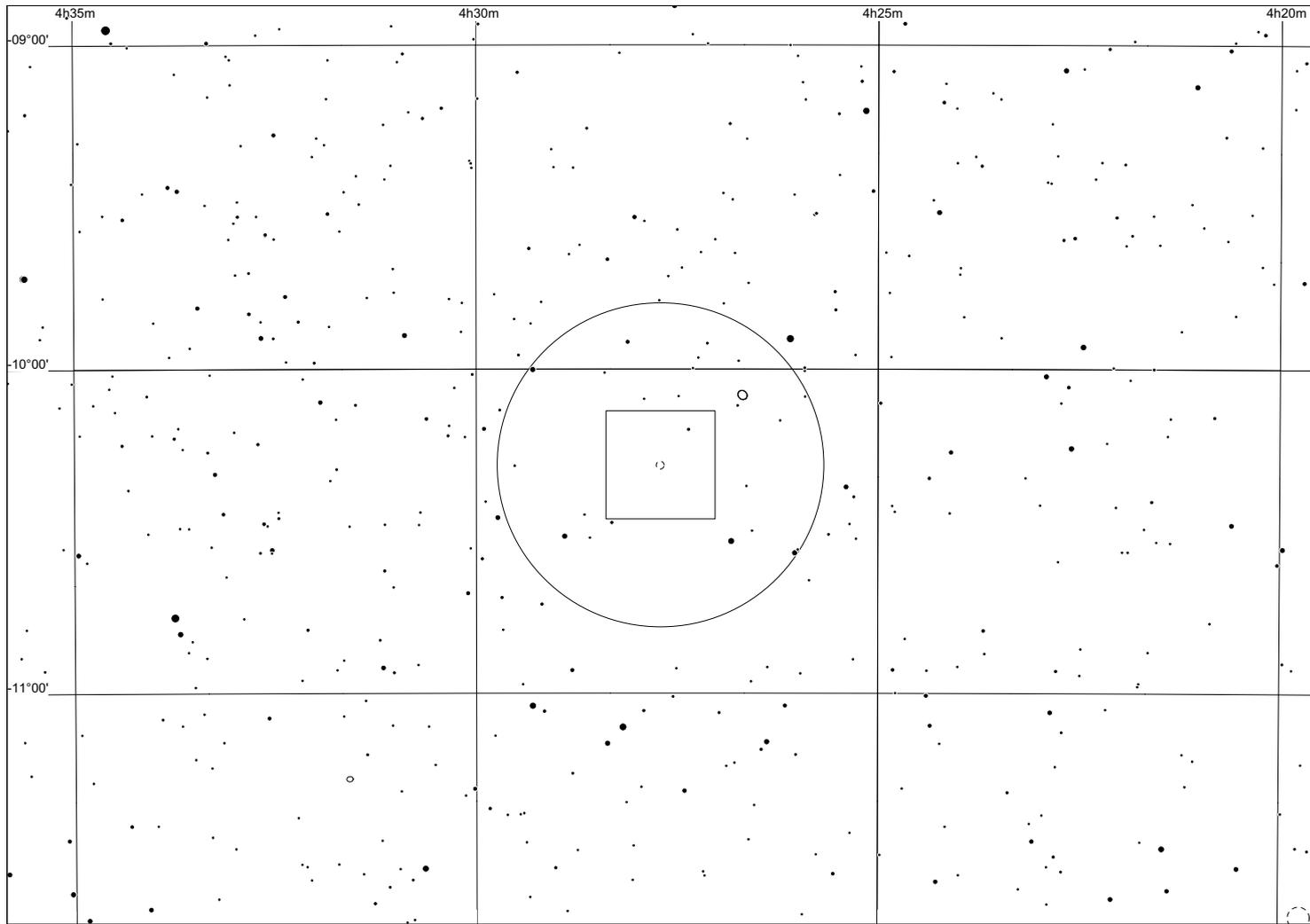
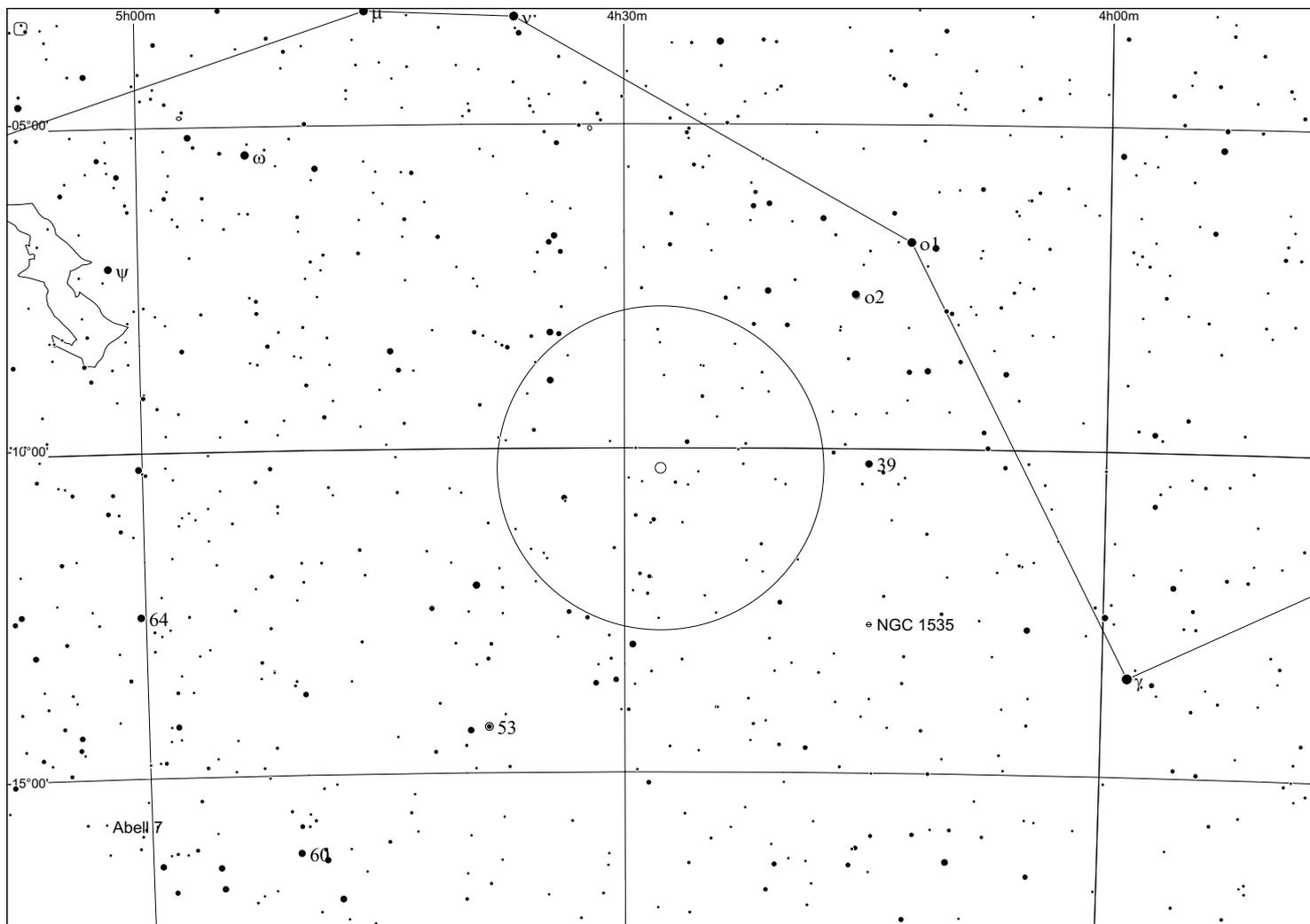
HCG Const. coordinates (2000) bright. memb. mag  
 28 Eri 04h 27m 20s -10° 19' 15.3

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		
28a	04 24 56.04	-10 25 01.7	25.70	5.70	Sb	5	16.31	0	25.80	14.91	0	31.20	1.33	16.24	15.33	0.10	11441	26	0	
28b	04 24 57.48	-10 26 13.5	21.40	11.10	E5	0	16.24	0	27.00	15.10	0	27.70	1.19	15.70	15.31	0.10	11489	23	0	
28c	04 24 55.67	-10 25 43.9	10.80	6.50	S0	1	16.67	0	17.30	15.35	0	21.20	1.26	16.24	15.76	0.10	11290	26	0	
28d	04 24 56.65	-10 26 11.7	5.80	5.80	Sdm	10	18.42	0	13.90	16.76	0	18.00	1.15	17.80	17.40	0.70	30205	63	0	

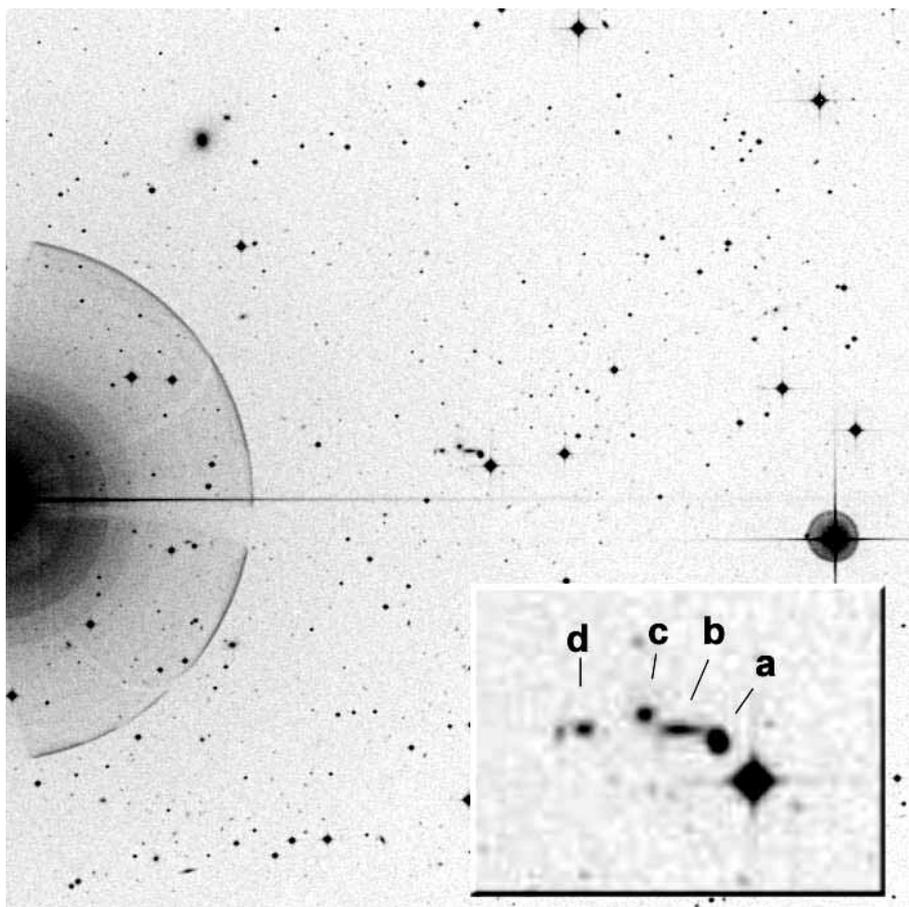
### Notes:

22"f/4 (25/10/2008): extremely difficult group

some brightening was suspected at the position of b/d at times, uncertain observation



## Hickson 29 in Eridanus



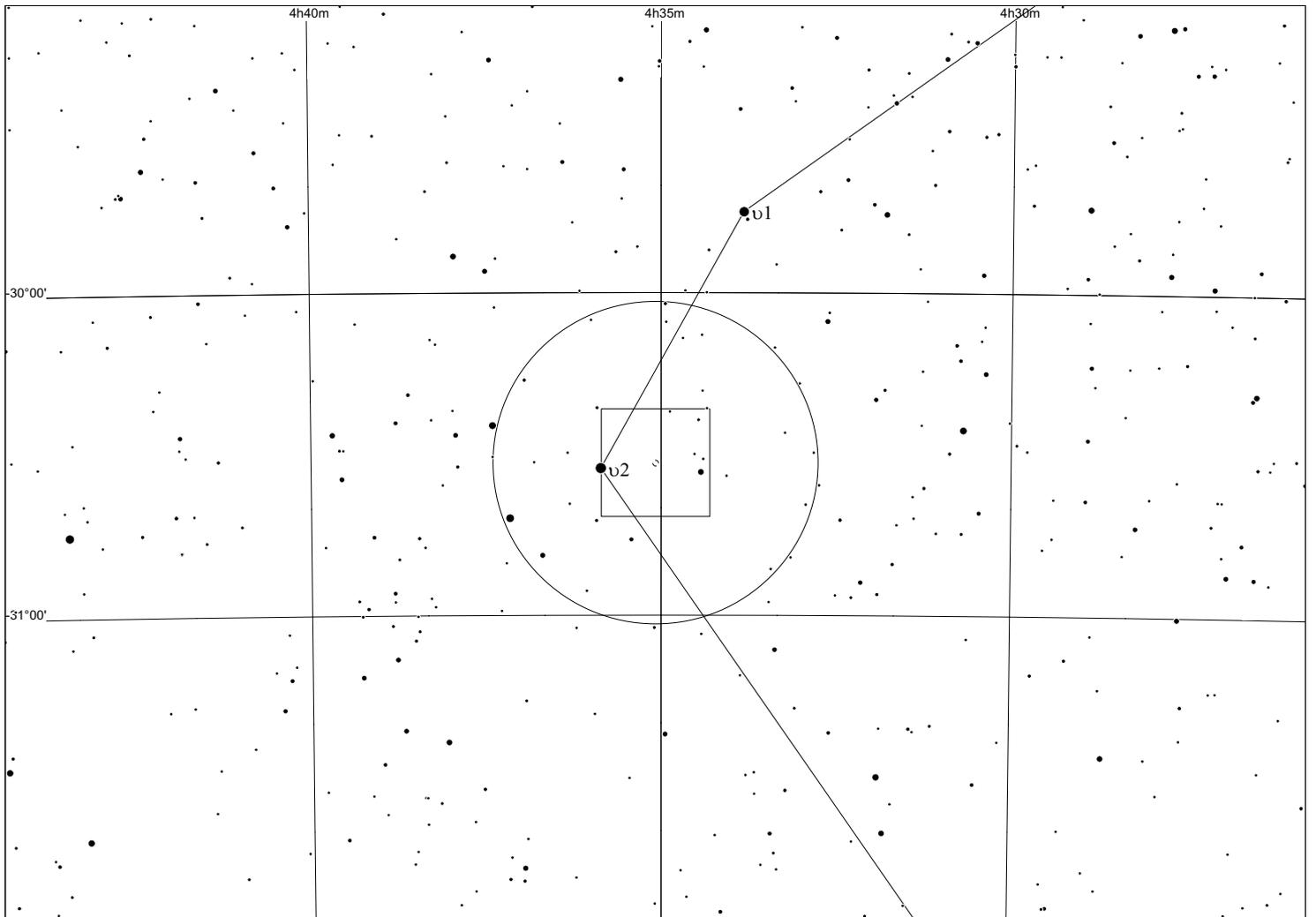
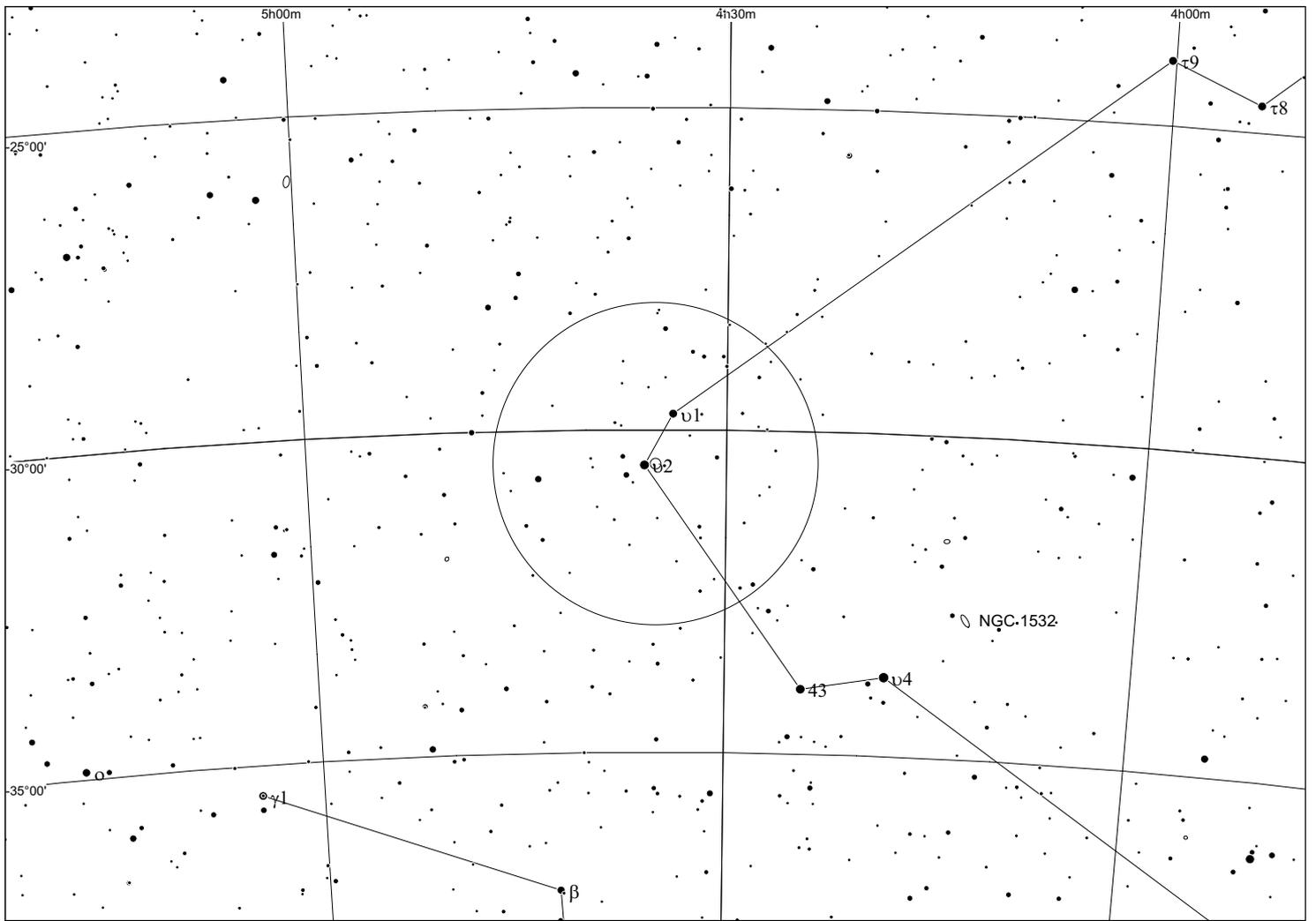
*HCG Const. coordinates (2000) bright. memb. mag*  
 29 Eri 04h 34m 46s -30° 33' 14.5

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		
29a	04 32 46.53	-30 38 50.1	9.40	7.00	cI	13	15.24	2	32.70	15.16	2	21.90	0.67	14.84	14.49	0.20	13328	46	0	
29b	04 32 47.81	-30 38 45.0	10.00	5.80	S0	1	18.66	0	14.10	16.77	2	16.90	1.91	17.50	17.00	0.50	30824	64	0	
29c	04 32 48.70	-30 38 38.9	8.20	6.20	E2	0	18.25	0	12.00	16.67	0	18.90	1.51	17.75	17.40	0.20	31669	64	0	
29d	04 32 50.45	-30 38 45.0	5.00	5.00	SB0	1	18.90	0	9.40	17.36	0	12.20	1.48	18.70	18.35	0.20	31714	63	0	

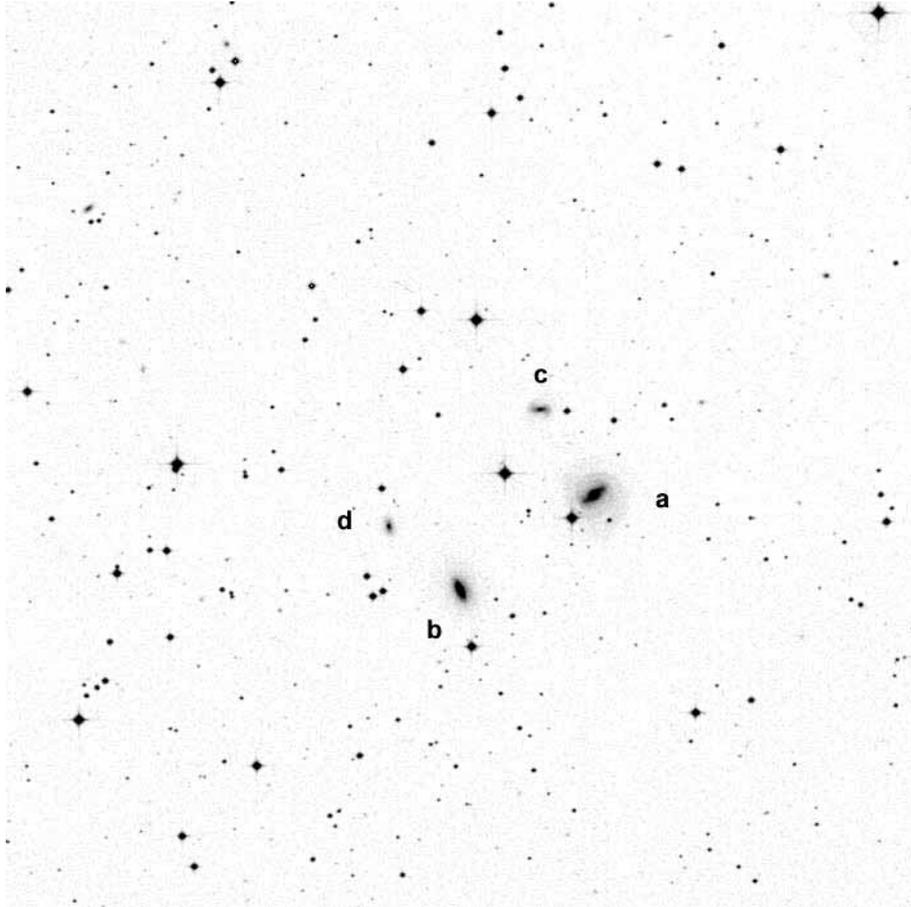
### Notes:

22"f/4 (01/2009): very low altitude with still good transparency, but mediocre seeing.

With 7mm, all stars are bloated, a/b appears indirectly as a diffuse object next to star. No further details.



# Hickson 30 in Eridanus

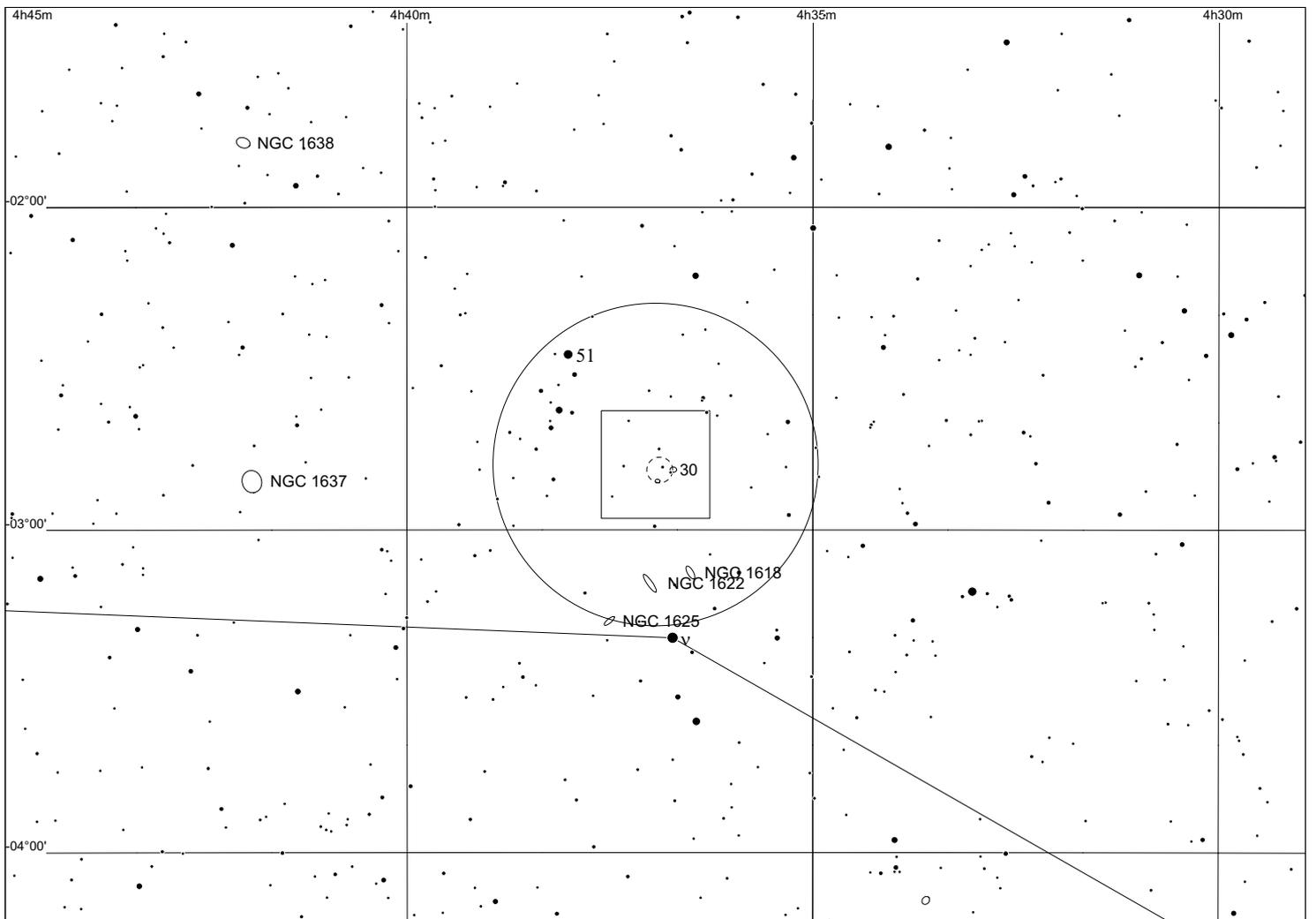
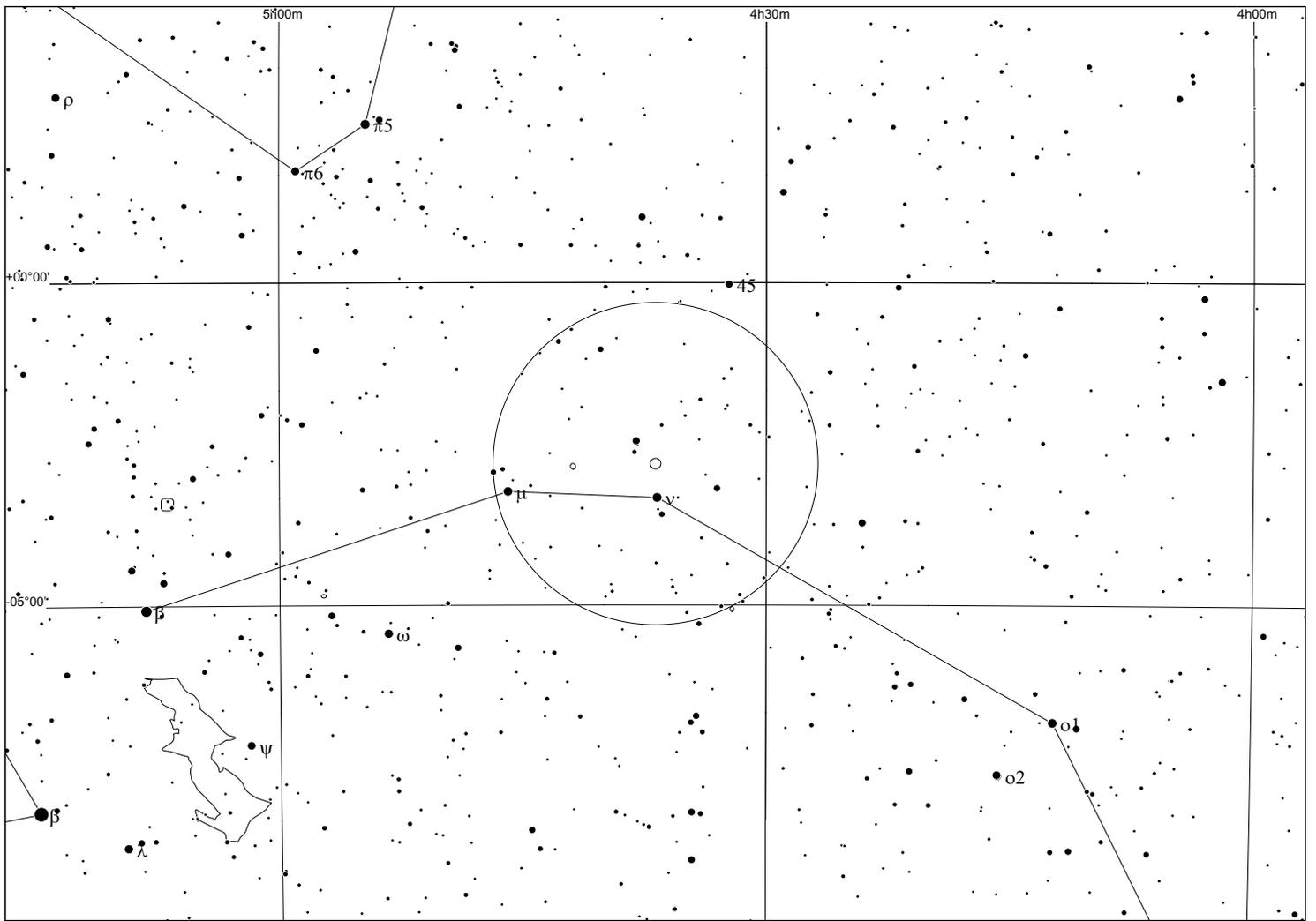


HCG Const. coordinates (2000) bright. memb. mag  
 30 Eri 04h 36m 29s -02° 50' 12.9

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		
30a	04 33 47.98	-02 55 55.7	55.50	40.50	SBa	3	13.79	2	87.80	11.29	2	170.90	2.11	13.41	12.87	0.20	4697	20	0	
30b	04 33 59.72	-02 58 01.9	36.50	23.50	Sa	3	14.33	0	59.70	12.59	0	82.10	1.63	14.23	13.65	0.10	4625	24	0	
30c	04 33 52.64	-02 54 02.2	17.30	12.50	SBbc	6	15.87	0	39.30	14.70	0	40.90	1.12	15.60	15.06	0.10	4508	38	1	
30d	04 34 06.07	-02 56 36.7	15.40	10.20	S0	1	16.76	0	22.90	15.05	0	32.80	1.53	16.19	15.69	0.10	4666	49	0	

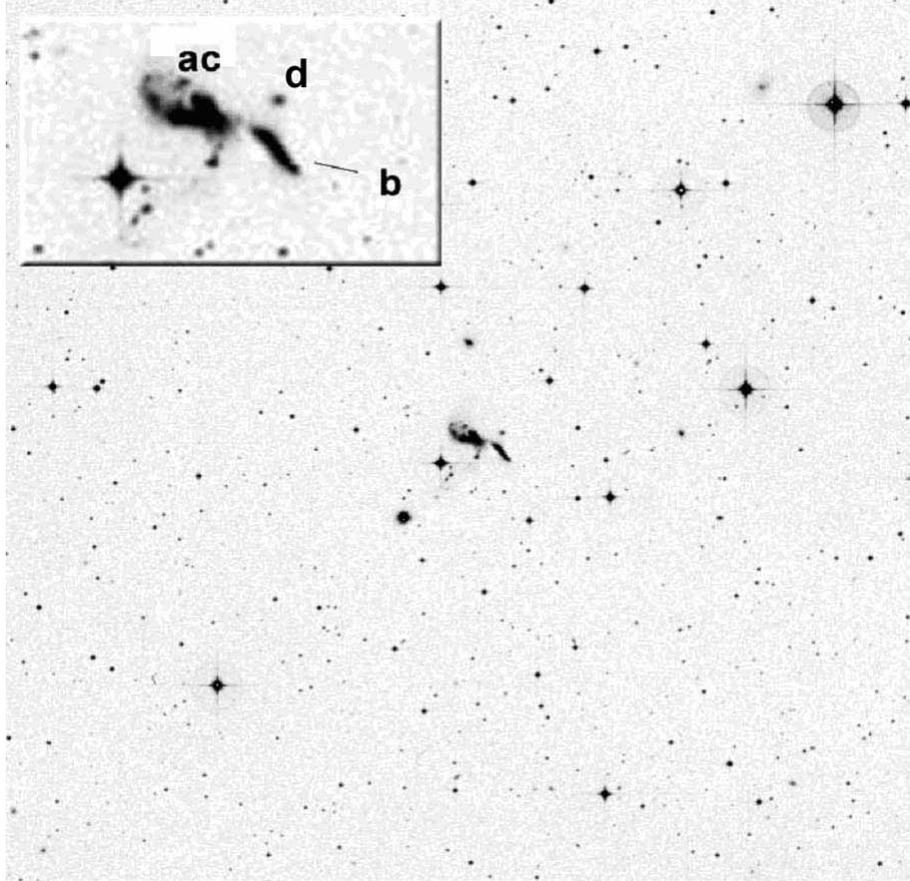
## Notes:

22"f/4 (01/2009): a and b are very obvious and elongated  
 c only indirectly, but steadily  
 d is more difficult, only fleetingly  
 to the south of the group is a group of 3 edge on galaxies (even better than HCG30  
 ☺)





## Hickson 31 in Eridanus



HCG Const. coordinates (2000) bright. memb. mag  
 31 Eri 05h 01m 37s -04° 15' NGC 1741 12.5

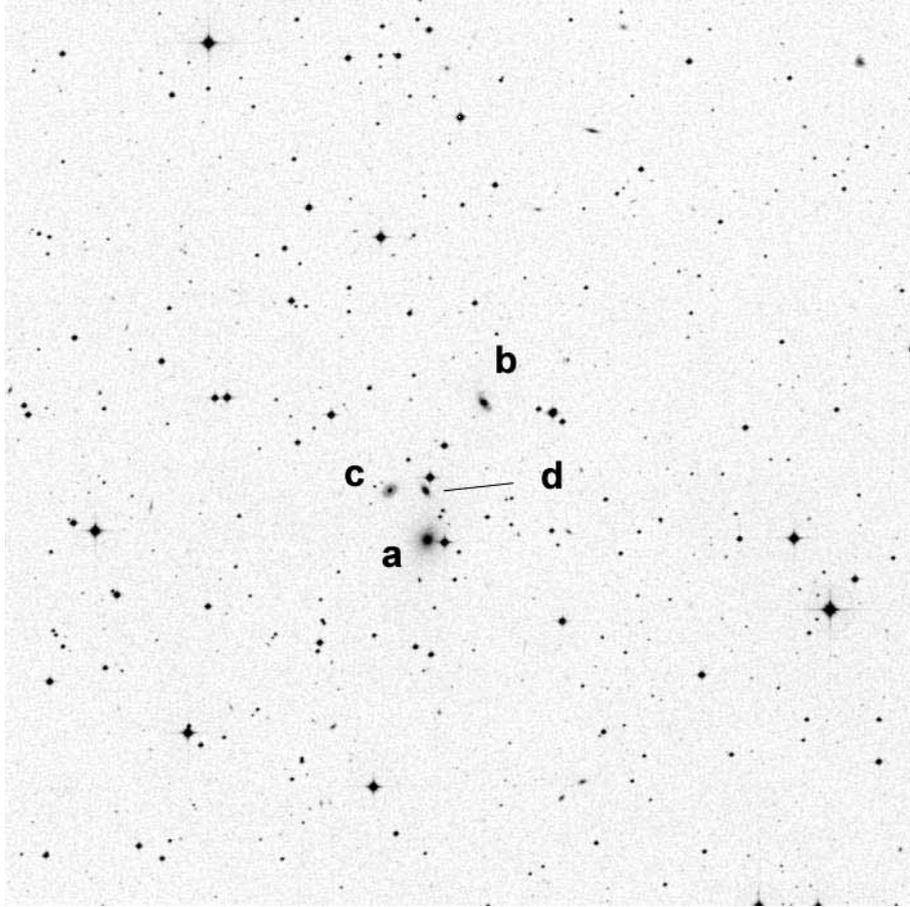
galaxy	ra (1950)	dec	a	b	type	T	B-I	C	D <sub>B</sub>	R-I	C	D <sub>R</sub>	B-R	B <sub>T</sub>	B <sub>TC</sub>	err	v <sub>r</sub>	err	C	names
			"	"					"			"					km/s	km/s		
31a	04 59 09.86	-04 19 51.8	32.30	19.90	Sdm	10	15.62	2	33.60	14.43	2	40.20	1.13	15.52	14.83	0.20	4042	44	0	N1741
31b	04 59 06.53	-04 20 08.4	26.10	13.70	Sm	11	15.35	2	31.50	14.73	2	30.20	0.70	15.09	14.31	0.20	4171	43	0	
31c	04 59 08.91	-04 19 45.5	18.30	7.00	Im	12	13.44	2	74.50	12.76	2	74.10	0.82	13.40	12.50	0.50	4068	34	0	Mk1089
31d	04 59 06.54	-04 19 42.2	5.40	4.50	Sbc	6	18.53	0	10.60	17.06	0	13.20	1.34	17.86	17.27	0.10	26900	65	0	

### Notes:

- 22"f/4 (01/2009):
- distinct group
  - with 7 mm a/c appears directly as a structured object, though not resolved
  - b is weaker, elongated with indirect vision
  - there is an additional small galaxy equidistal on the other side of the nearby star



# Hickson 32 in Lepus

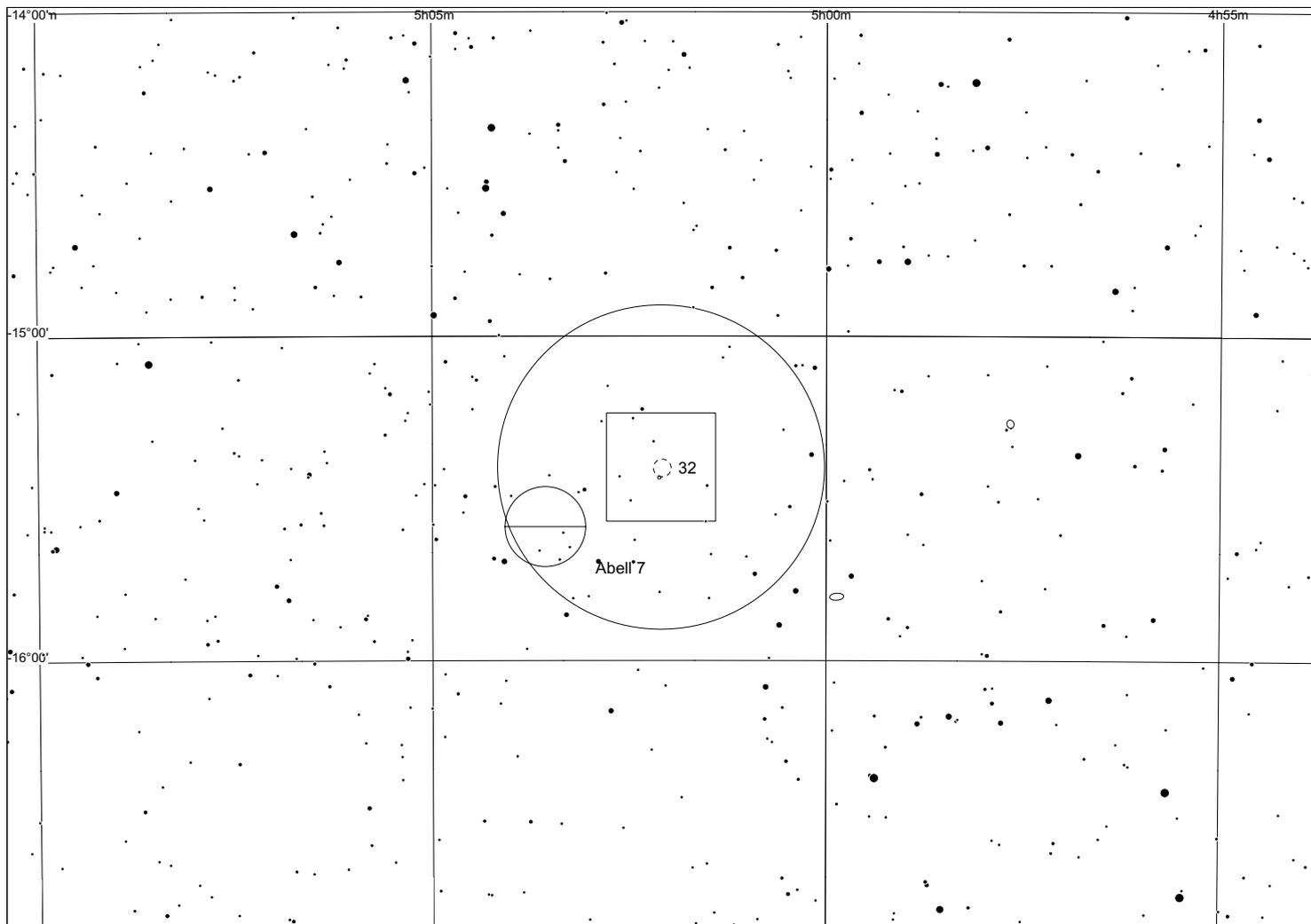
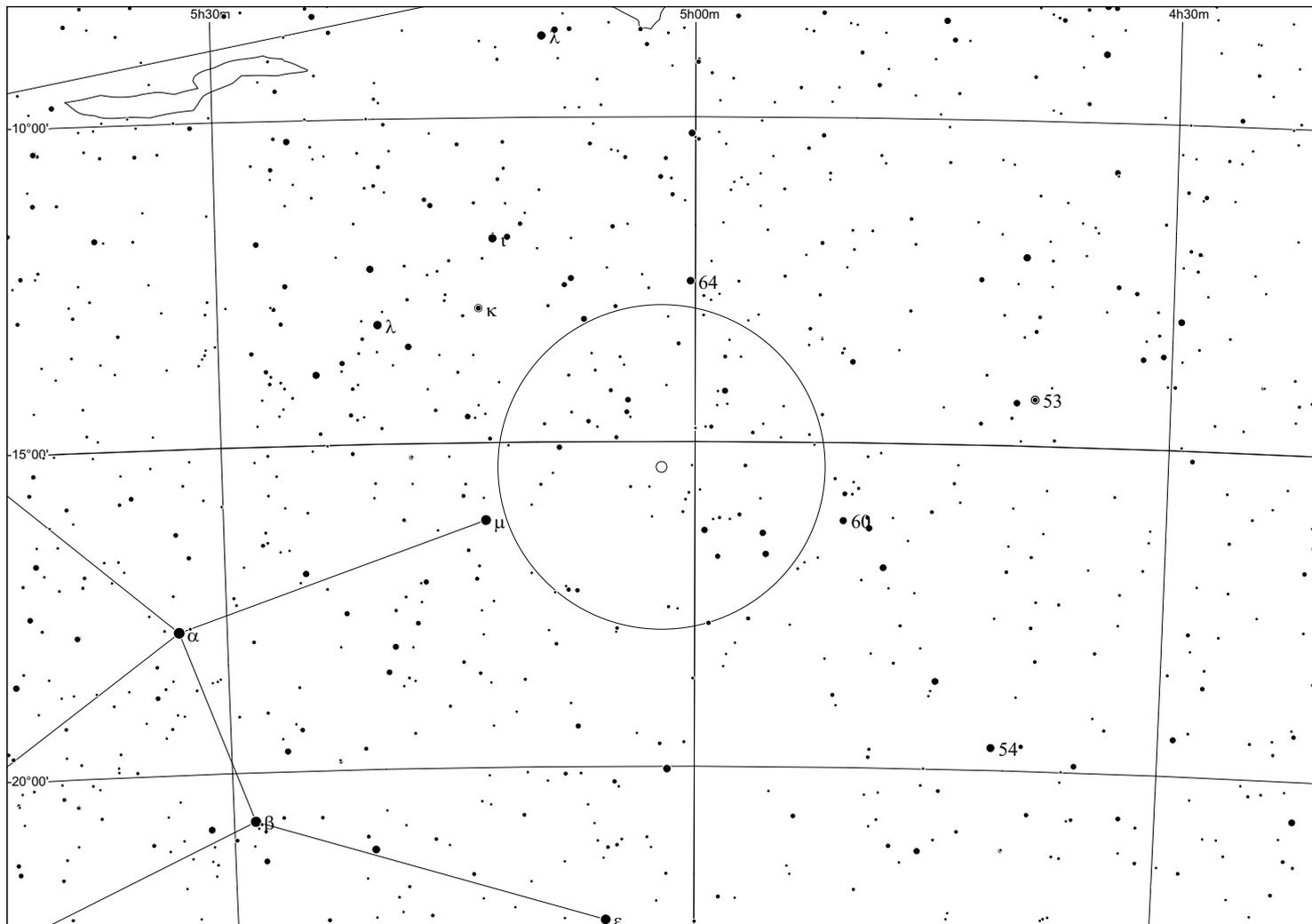


HCG Const. coordinates (2000) bright. memb. mag  
 32 Lep 05h 01m 43s -15° 25' 13.8

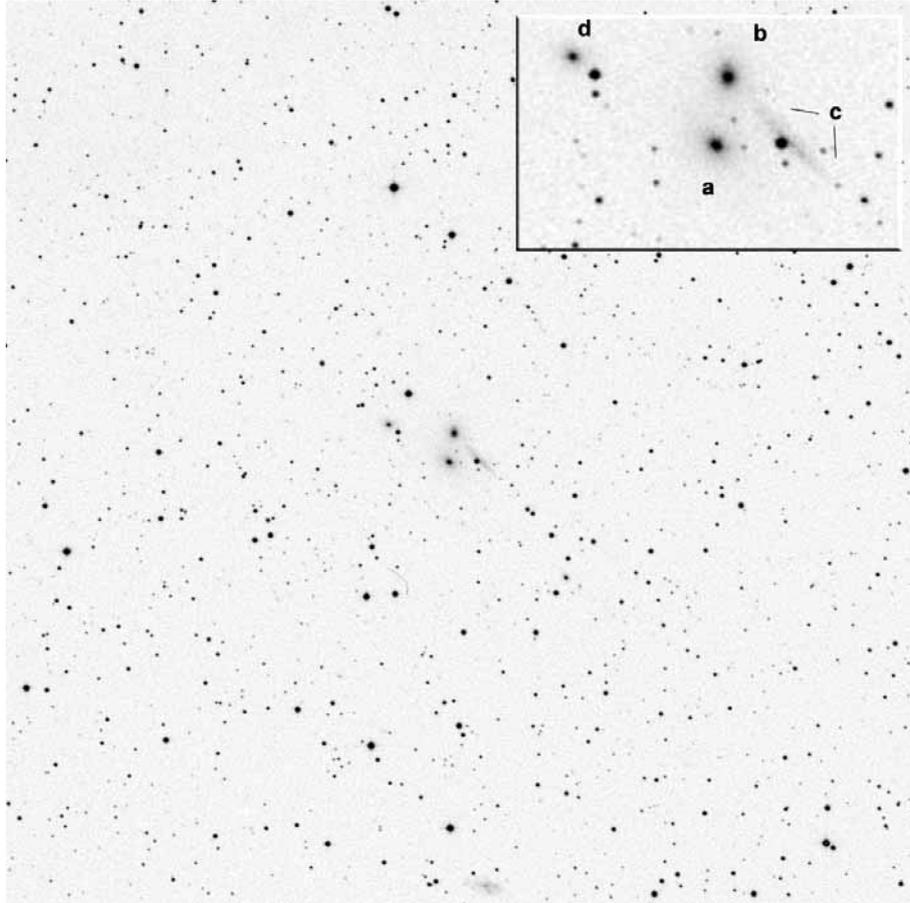
galaxy	ra (1950)	dec	a	b	type	T	B_I	C	D_B	R_I	C	D_R	B-R	B_T	B_TC	err	v_r	err	C	names
			"	"					"			"					km/s	km/s		
32a	04 59 29.38	-15 31 12.8	18.90	15.30	E2	0	14.72	4	62.50	13.23	2	73.50	1.44	14.30	13.80	0.70	12547	38	0	
32b	04 59 24.22	-15 28 11.6	16.10	6.70	SB0	1	16.07	0	33.60	14.56	0	36.50	1.47	15.91	15.28	0.10	12125	57	0	
32c	04 59 32.77	-15 30 07.0	13.70	8.70	S0a	2	17.12	2	20.90	15.23	4	28.50	1.73	16.60	16.00	0.70	11984	49	1	
32d	04 59 29.58	-15 30 07.8	13.70	7.30	S0	1	17.59	4	12.30	15.76	2	16.70	1.76	17.33	16.74	0.20	12313	52	1	

## Notes:

22"f/4 (01/2009): difficult group  
 a and b can be held steadily with indirect vision  
 c is more difficult, observation of d is uncertain



# Hickson 33 in Taurus

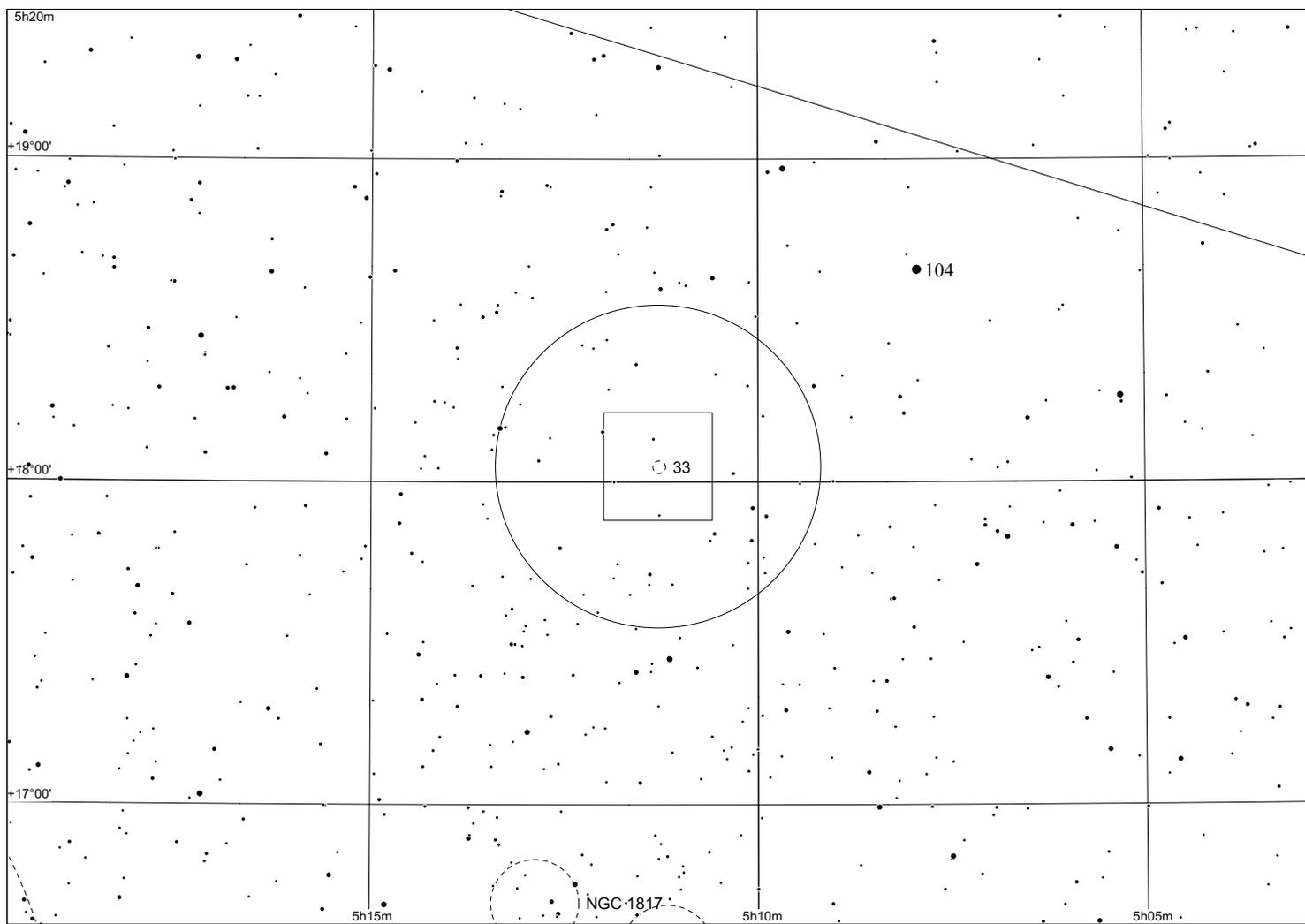
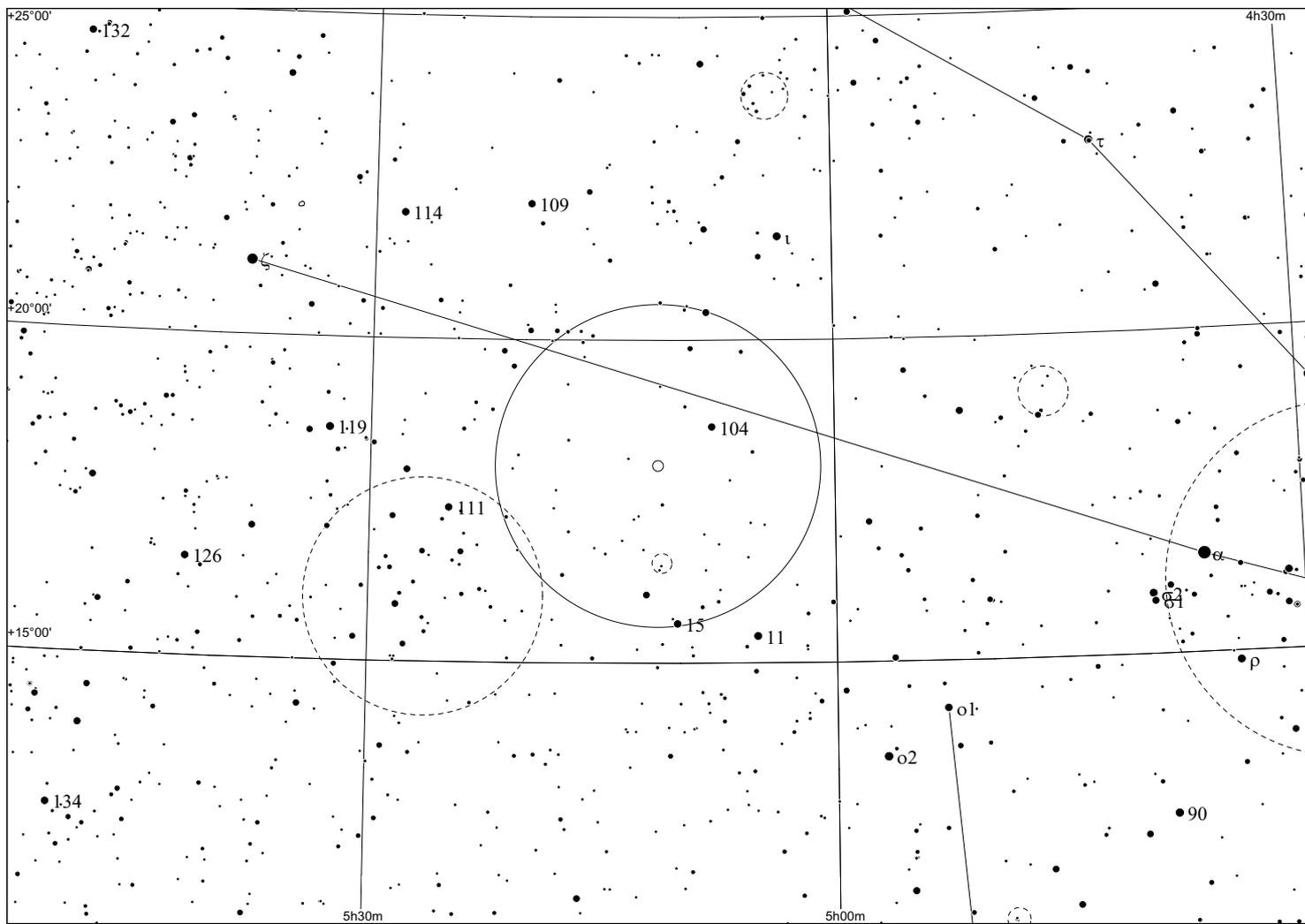


*HCG Const. coordinates (2000) bright. memb. mag*  
 33 Tau 05h 10m 48s +18° 02' 15.4

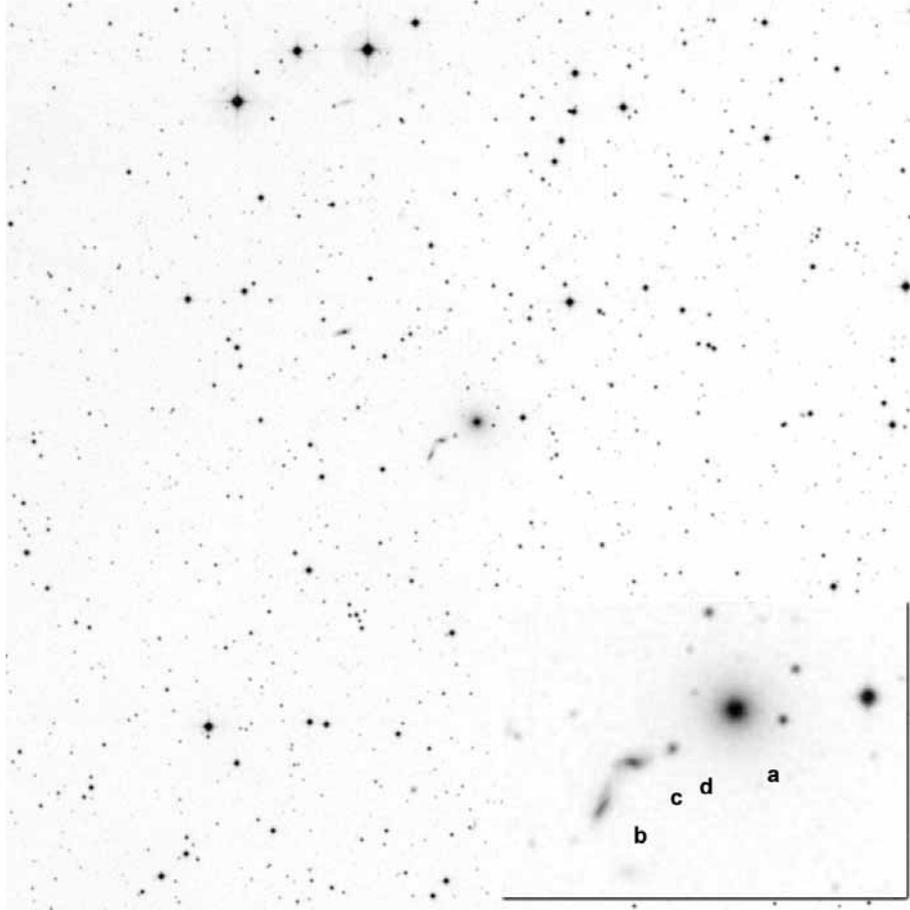
<i>galaxy</i>	<i>ra (1950)</i>	<i>dec</i>	<i>a</i>	<i>b</i>	<i>type</i>	<i>T</i>	<i>B_I</i>	<i>C</i>	<i>D_B</i>	<i>R_I</i>	<i>C</i>	<i>D_R</i>	<i>B-R</i>	<i>B_T</i>	<i>B_TC</i>	<i>err</i>	<i>v_r</i>	<i>err</i>	<i>C</i>	<i>names</i>
			"	"					"			"					<i>km/s</i>	<i>km/s</i>		
33a	05 07 53.09	+17 57 27.5	11.10	10.10	E1	0	16.89	4	21.80	13.69	1	67.90	2.34	16.15	15.35	0.20	7570	41	0	
33b	05 07 52.73	+17 58 06.7	15.90	10.00	E4	0	16.94	4	19.50	13.69	1	70.30	2.31	16.21	15.41	0.20	8006	21	0	
33c	05 07 50.29	+17 57 30.5	23.30	6.70	Sd	9	18.06	4	18.70	14.85	1	55.30	2.32	17.70	16.40	0.70	7823	47	1	
33d	05 07 58.66	+17 58 19.2	7.20	7.20	E0	0	18.42	4	8.60	15.37	4	27.90	2.20	17.53	16.73	0.20	7767	37	0	

**Notes:**

22"f/4 (01/2009): with 7 mm, a and b can be held steadily with averted vision  
 d was seen only intermittently, c was not observed (I did not spend much time on trying)



## Hickson 34 in Orion

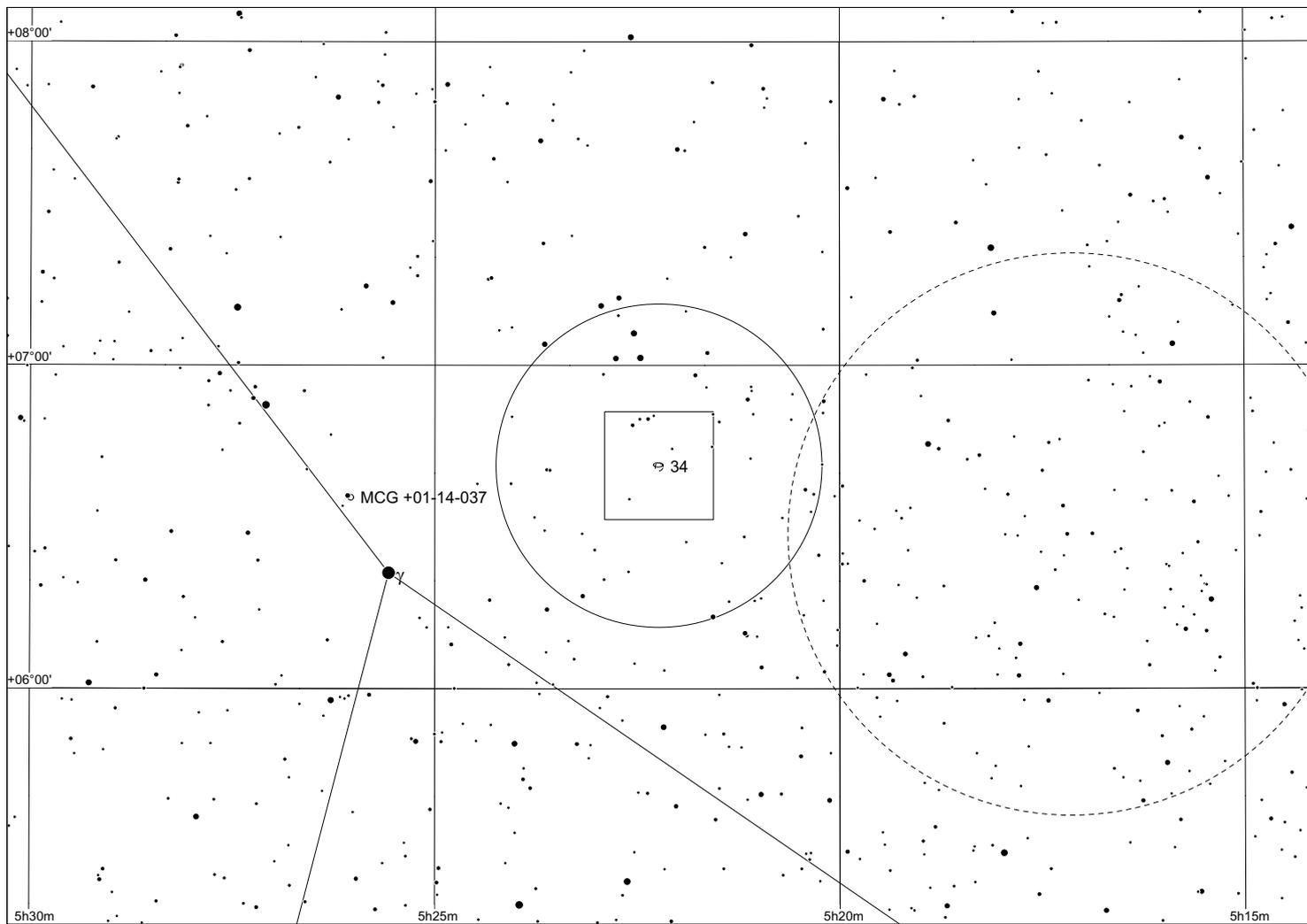
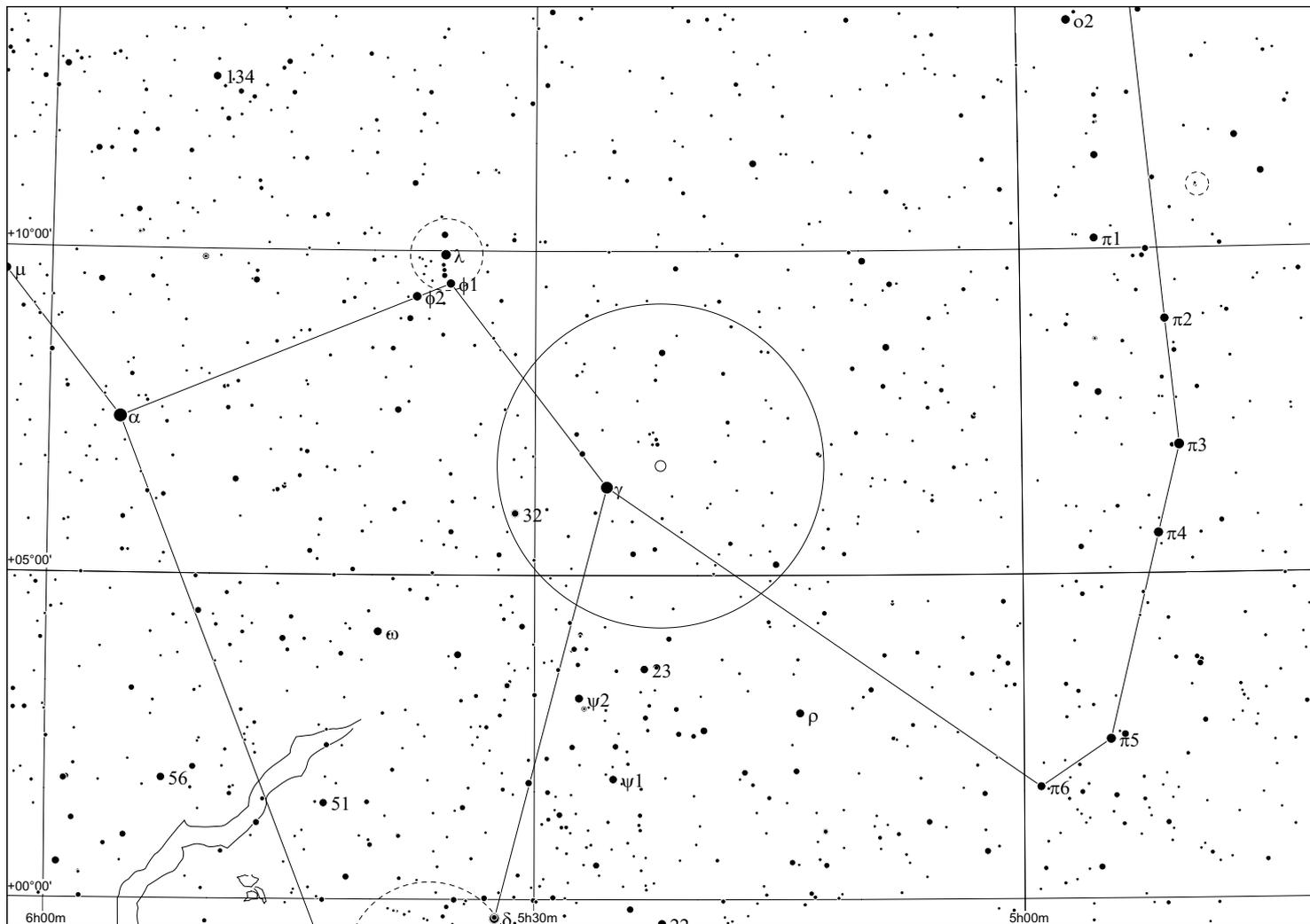


*HCG Const. coordinates (2000) bright. memb. mag*  
 34 Ori 05h 21m 48s +06° 41' NGC 1875 14.2

<i>galaxy</i>	<i>ra (1950)</i>	<i>dec</i>	<i>a</i>	<i>b</i>	<i>type</i>	<i>T</i>	<i>B_I</i>	<i>C</i>	<i>D_B</i>	<i>R_I</i>	<i>C</i>	<i>D_R</i>	<i>B-R</i>	<i>B_T</i>	<i>B_TC</i>	<i>err</i>	<i>v_r</i>	<i>err</i>	<i>C</i>	<i>names</i>
			"	"					"			"					<i>km/s</i>	<i>km/s</i>		
34a	05 19 04.51	+06 38 27.5	19.60	16.10	E2	0	14.89	4	61.20	12.23	2	130.30	2.11	14.90	14.20	0.50	8997	31	0	N1875
34b	05 19 08.49	+06 37 43.6	8.50	3.70	Sd	9	17.41	4	22.20	14.77	2	45.00	2.11	17.60	16.56	0.20	9620	40	0	
34c	05 19 07.55	+06 38 02.7	11.20	5.80	Sbd	9	17.10	4	24.60	15.15	2	41.80	1.58	17.26	16.28	0.20	9392	40	0	
34d	05 19 06.33	+06 38 08.9	4.50	3.00	S0	1	18.29	4	13.20	15.64	2	28.50	2.08	18.40	17.57	0.20	8817	66	1	

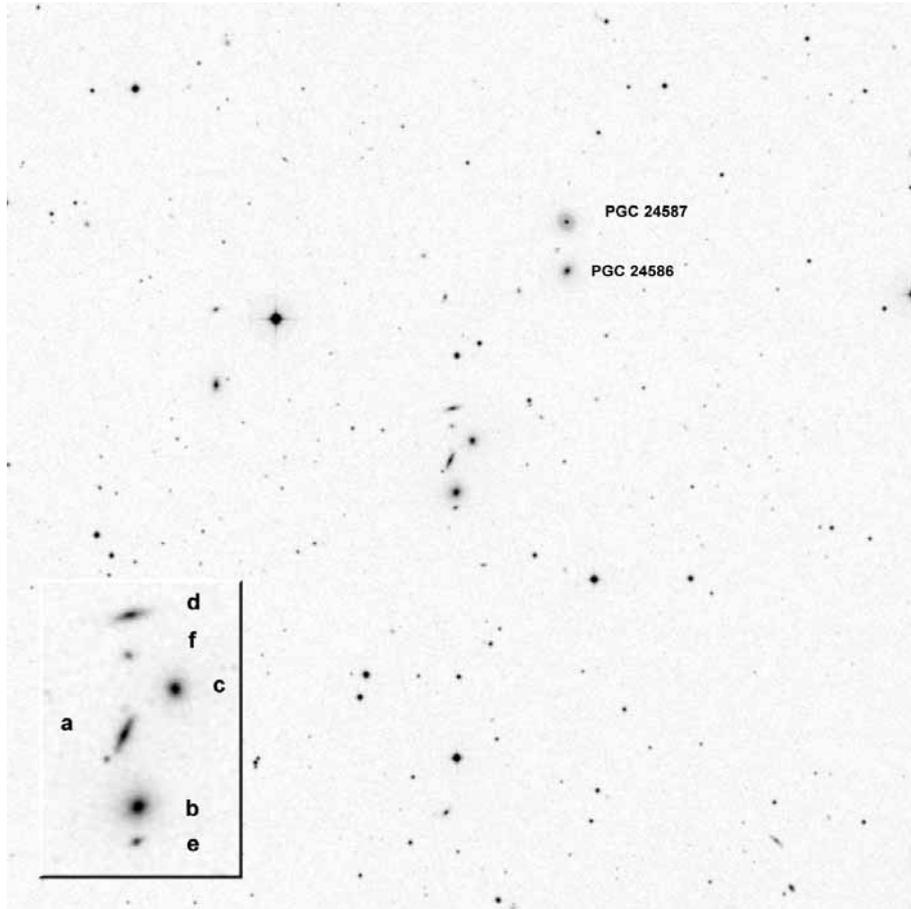
### Notes:

22"f/4 (01/2009): with 7 mm, a is not difficult with averted vision, though the rest of the group could not be observed. Seeing was only modest, needs to be re-observed under better conditions.





# Hickson 35 in Lynx

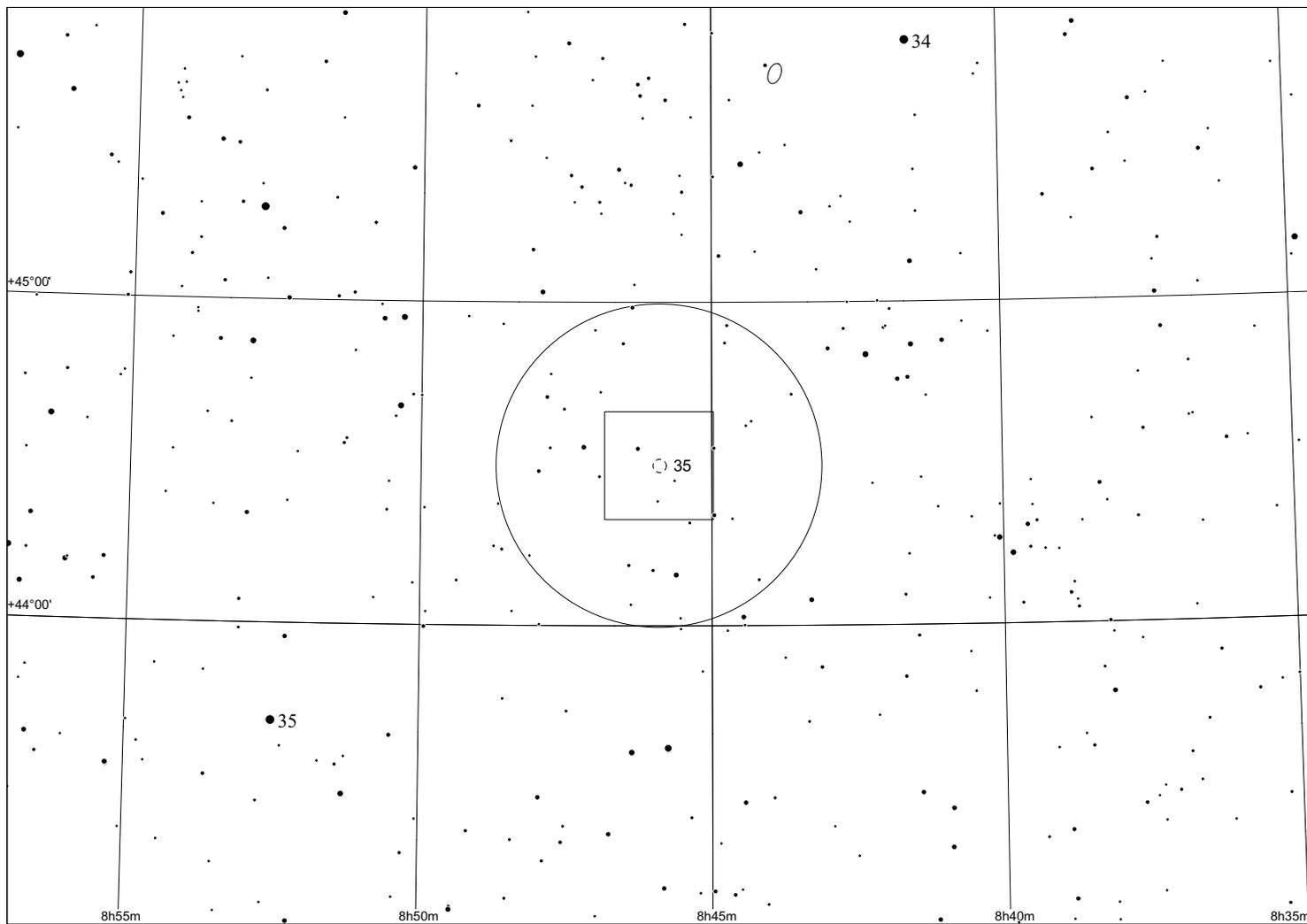
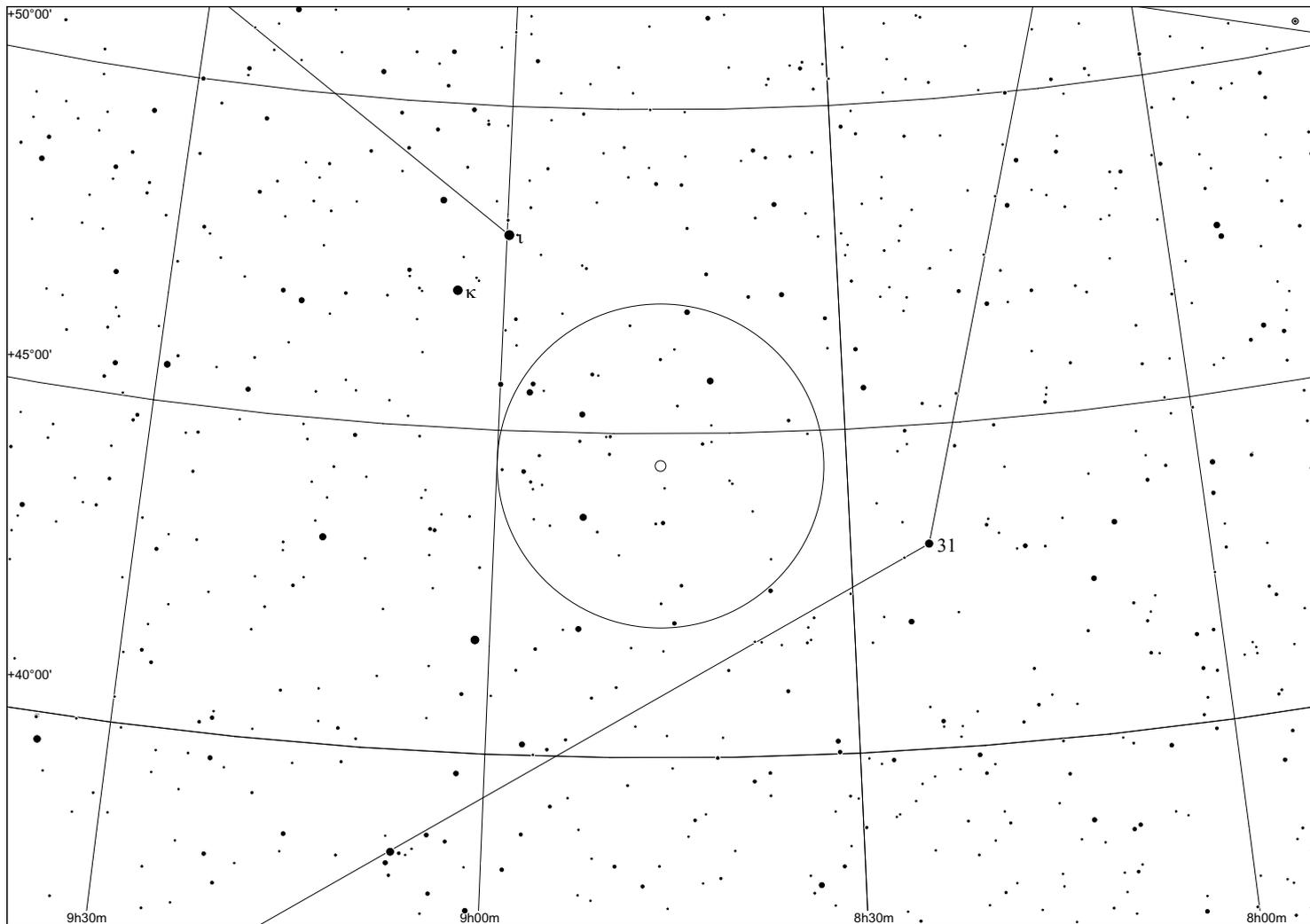


*HCG Const. coordinates (2000) bright. memb. mag*  
 35 Lyn 08h 45m 20s +44° 31' 15.1

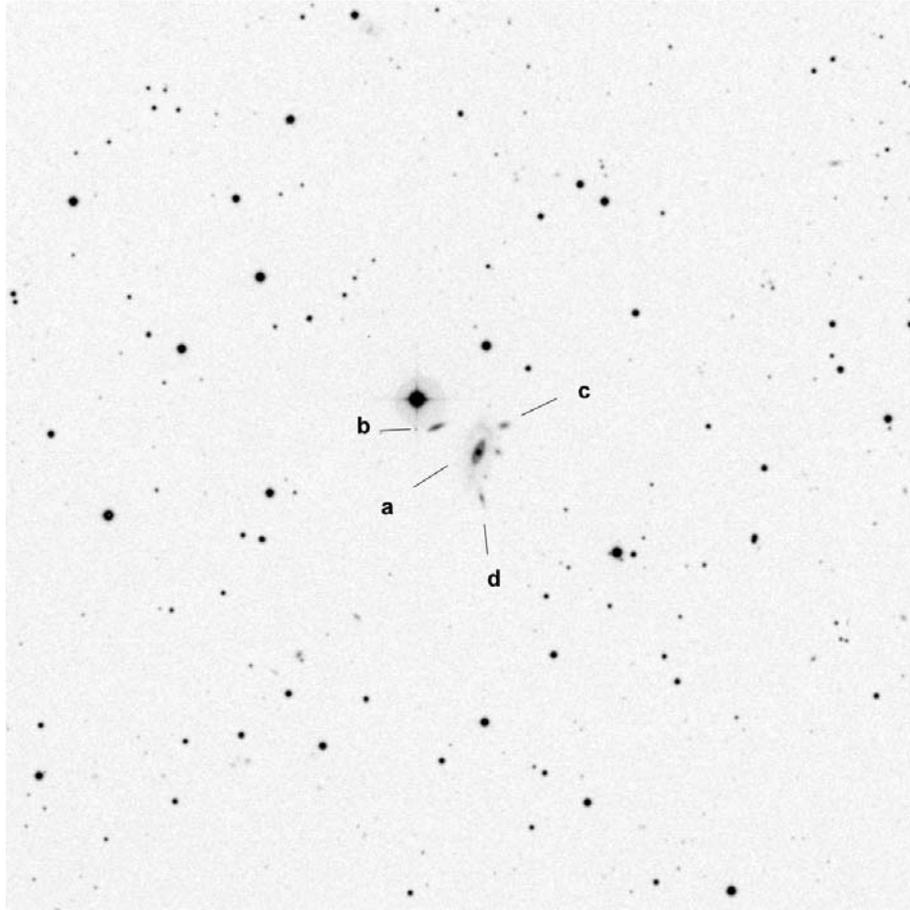
galaxy	ra (1950)	dec	a	b	type	T	B_I	C	D_B	R_I	C	D_R	B-R	B_T	B_TC	err	v_r	err	C	names
			"	"					"			"					km/s	km/s		
35a	08 41 57.67	+44 42 10.5	14.40	6.10	S0	1	16.24	1	24.70	14.46	1	34.70	1.69	16.03	15.56	0.20	15919	38	0	
35b	08 41 57.08	+44 41 29.0	15.80	13.70	E1	0	15.80	1	35.20	14.45	1	39.10	1.36	15.45	15.13	0.20	16338	32	0	
35c	08 41 54.89	+44 42 35.7	10.40	9.10	E1	0	16.36	1	23.30	14.05	1	51.70	1.91	16.01	15.69	0.20	16357	39	0	
35d	08 41 57.11	+44 43 19.0	11.60	5.00	Sb	5	17.13	4	19.50	16.18	4	39.40	1.89	17.42	16.81	0.20	15798	40	0	
35e	08 41 57.16	+44 41 08.4	5.90	3.50	S0	1	17.72	1	12.70	16.04	1	17.20	1.61	17.46	17.05	0.20	16773	57	0	
35f	08 41 57.31	+44 42 56.0	4.10	3.70	E1	0	18.71	4	9.90	16.42	4	24.80	1.86	18.44	18.12	0.20	16330	62	0	

## Notes:

22"f/4 (01/2009): This is a difficult group. The core of the group can be discerned and is split every now and then into a triangle of three members (a, b, and c)



# Hickson 36 in Cancer

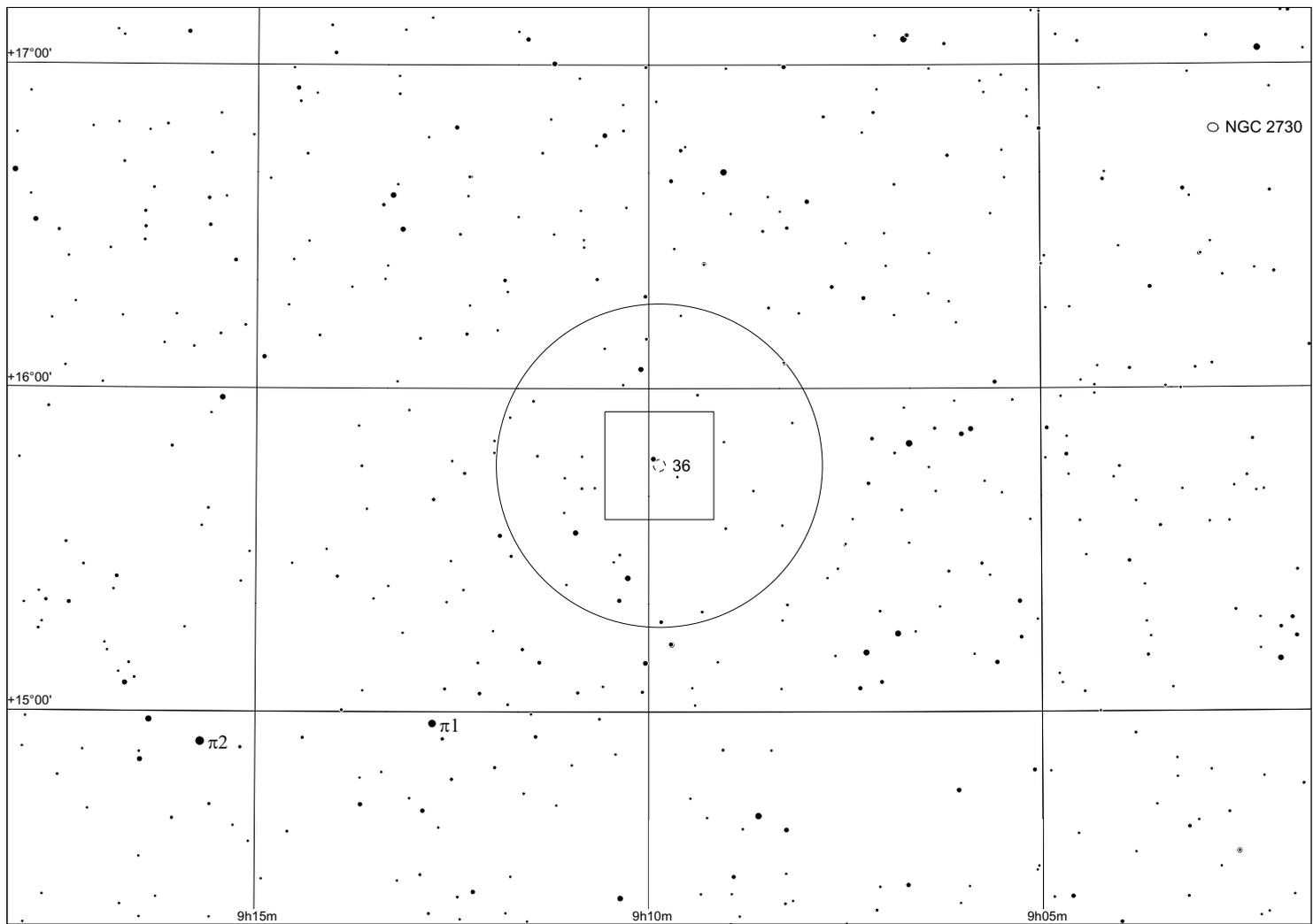
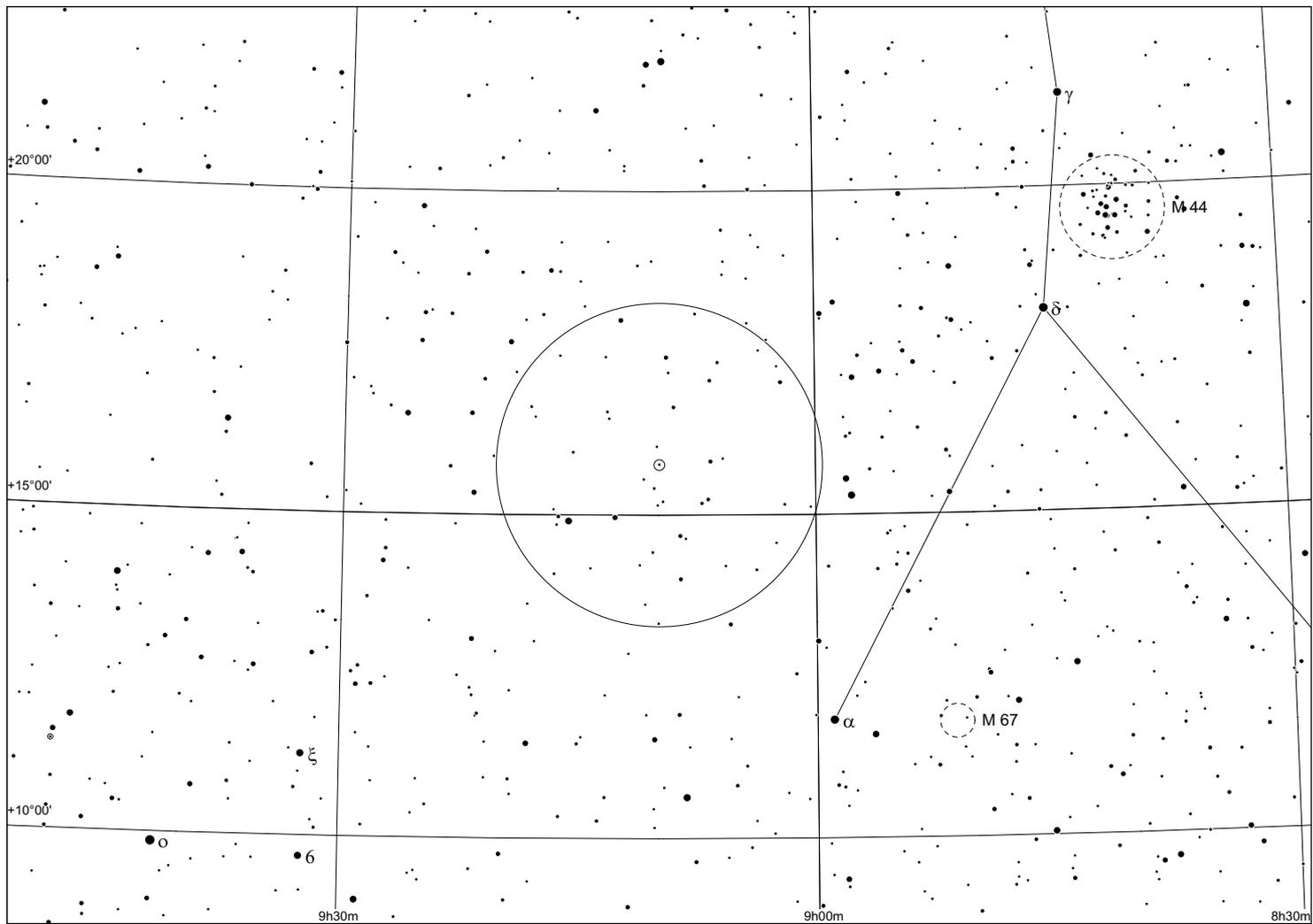


*HCG Const. coordinates (2000) bright. memb. mag*  
 36 Cnc 09h 09m 24s +15° 48' IC 528 14.5

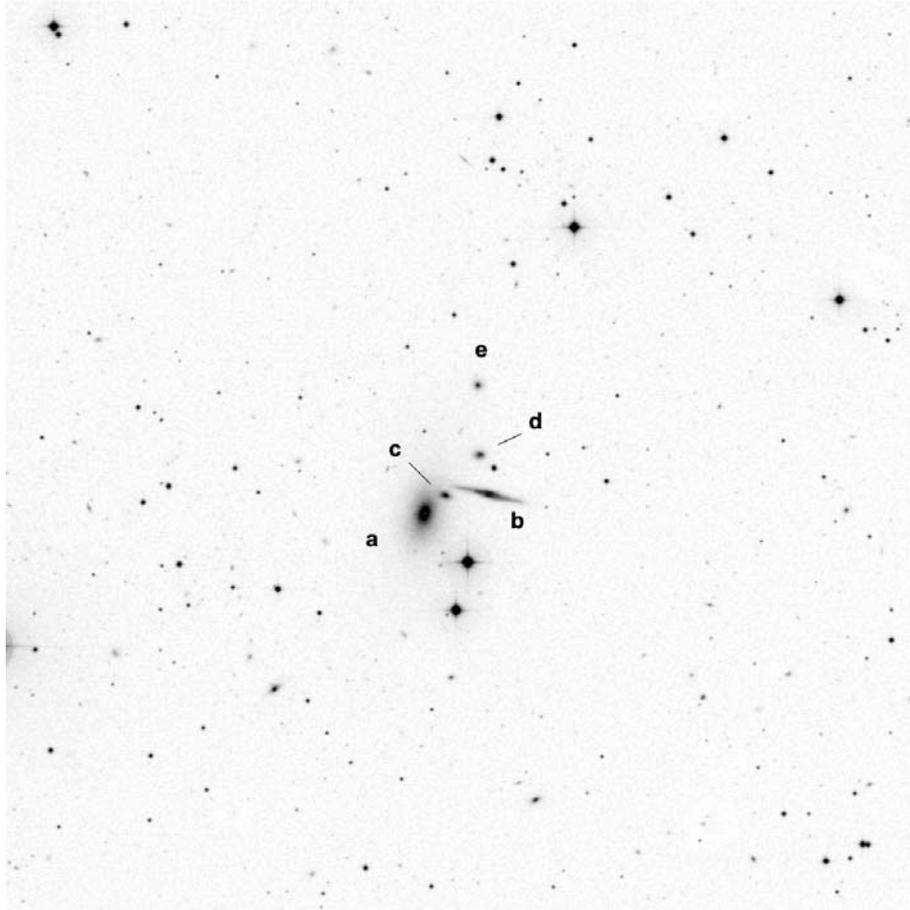
galaxy	ra (1950)	dec	a	b	type	T	B_I	C	D_B	R_I	C	D_R	B-R	B_T	B_TC	err	v_r	err	C	names
			"	"					"			"					km/s	km/s		
36a	09 06 35.82	+15 59 58.0	38.00	17.50	Sb	5	15.14	2	35.70	13.53	2	51.70	1.50	15.04	14.50	0.20	3808	29	0	I528,
Mk1225, U4811																				
36b	09 06 39.75	+16 00 30.8	14.30	5.00	Sc	7	16.86	2	15.70	15.61	2	17.70	1.21	16.61	15.98	0.20	6333	41	0	
36c	09 06 33.61	+16 00 33.6	9.20	6.50	Scd	8	17.61	2	13.80	16.37	2	16.60	1.16	17.25	16.86	0.20	8635	45	0	
36d	09 06 35.57	+15 58 57.2	15.10	4.10	Sbc	6	17.85	2	13.40	16.23	2	17.40	1.51	17.80	17.08	0.20	15668	62	0	

## Notes:

22" f/4, moon (3 days): a: easily seen with averted vision, b: more difficult, but definitely seen, neighboring star interferes, c/d: not seriously tried



# Hickson 37 in Cancer

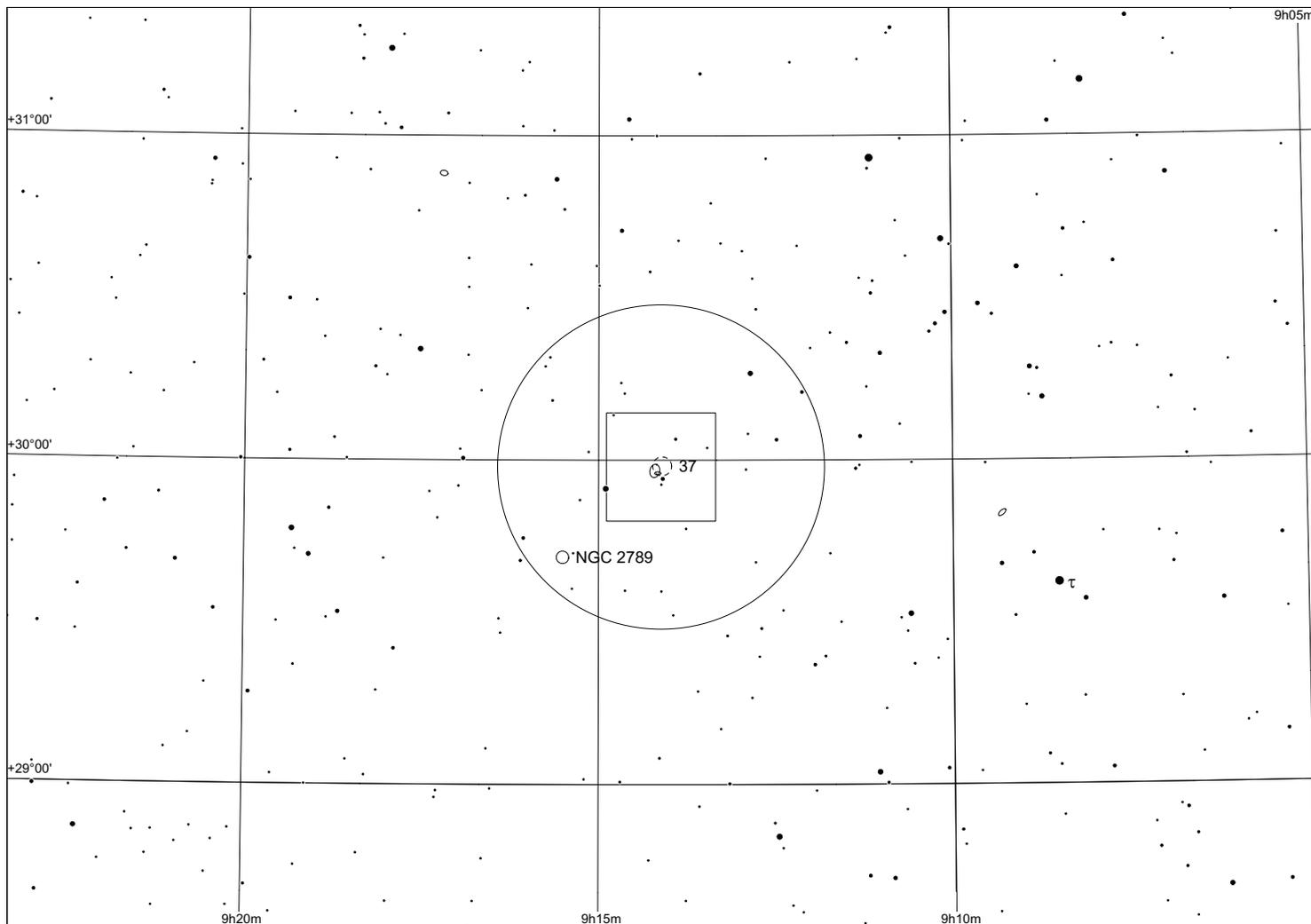
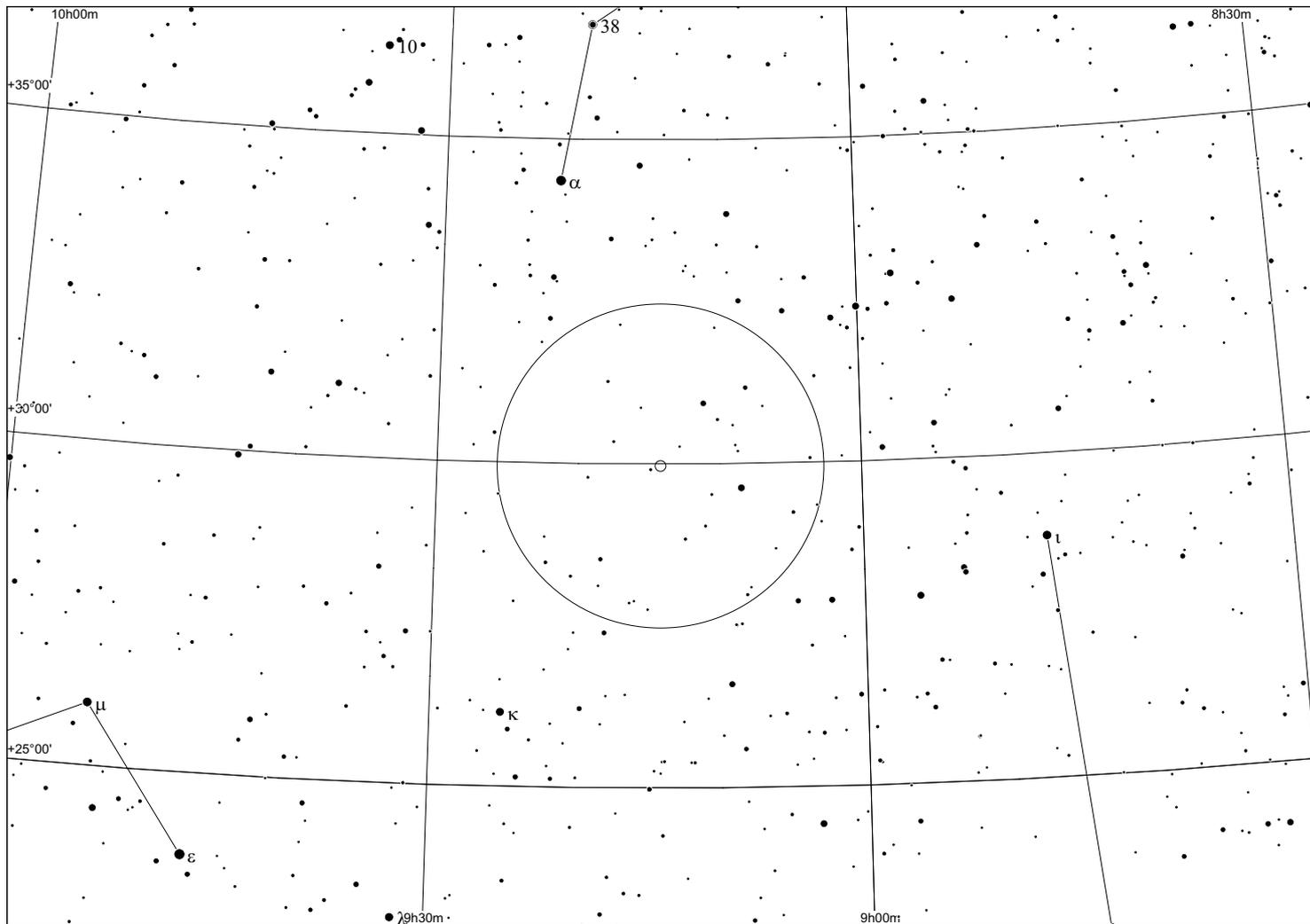


*HCG Const. coordinates (2000) bright. memb. mag*  
 37 Cnc 09h 13m 36s +30° 01' NGC 2783 13.0

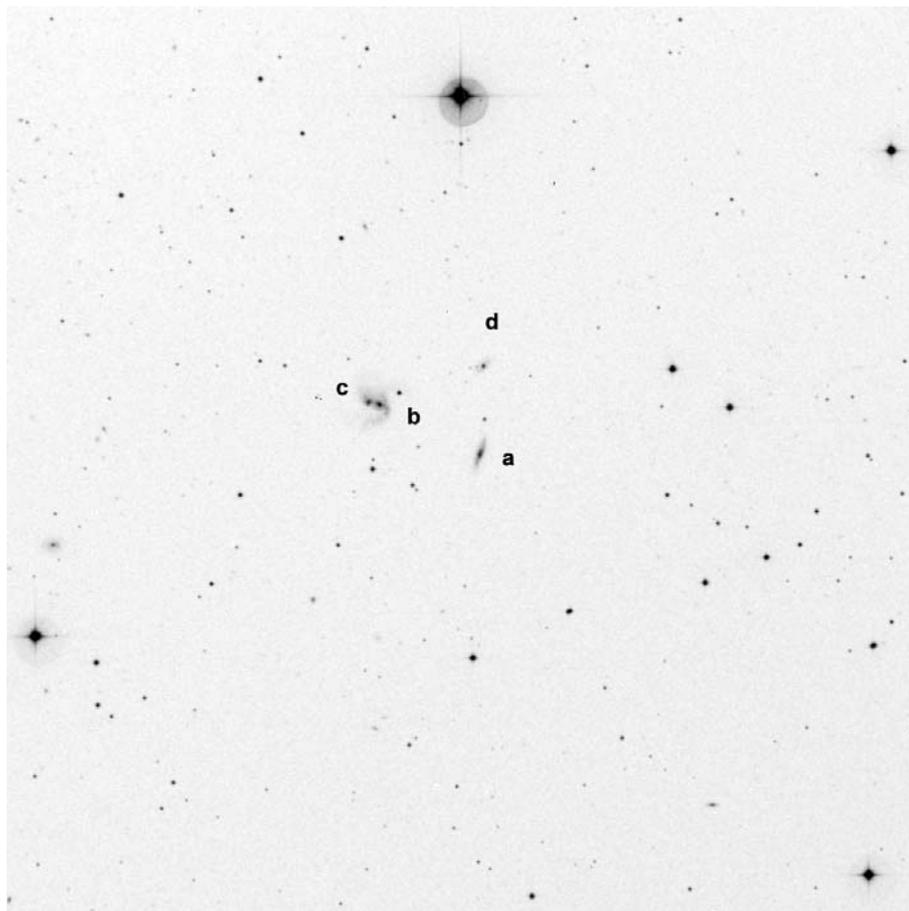
galaxy	ra (1950)	dec	a	b	type	T	B_I	C	D_B	R_I	C	D_R	B-R	B_T	B_TC	err	v_r	err	C	names
			"	"					"			"					km/s	km/s		
37a	09 10 39.82	+30 11 57.9	51.90	8.60	E7	0	13.92	1	67.00	12.05	1	94.50	1.79	13.23	12.97	0.20	6745	20	0	N2783,
U4859																				
37b	09 10 32.96	+30 12 24.0	48.40	28.10	Sbc	6	15.51	1	40.80	13.33	1	57.20	1.99	14.95	14.50	0.20	6741	34	0	U4856
37c	09 10 37.59	+30 12 23.4	11.90	8.70	S0a	2	16.51	1	24.20	14.44	1	38.40	1.76	15.93	15.57	0.20	7357	41	0	
37d	09 10 34.19	+30 13 16.8	12.00	9.50	SBdm	10	16.41	0	26.10	15.87	0	23.80	0.51	16.21	15.87	0.20	6207	50	1	
37e	09 10 34.34	+30 14 48.0	9.10	9.10	E0	0	17.01	0	18.70	15.97	0	23.80	1.02	16.47	16.21	0.10	6363	20	0	

## Notes:

22" f/4, moon (3 days): very obvious group, a: very prominent, b: indirectly, very elongated, c: more difficult, definitely separated from a, d/e: tried, but not seen



## Hickson 38 in Leo

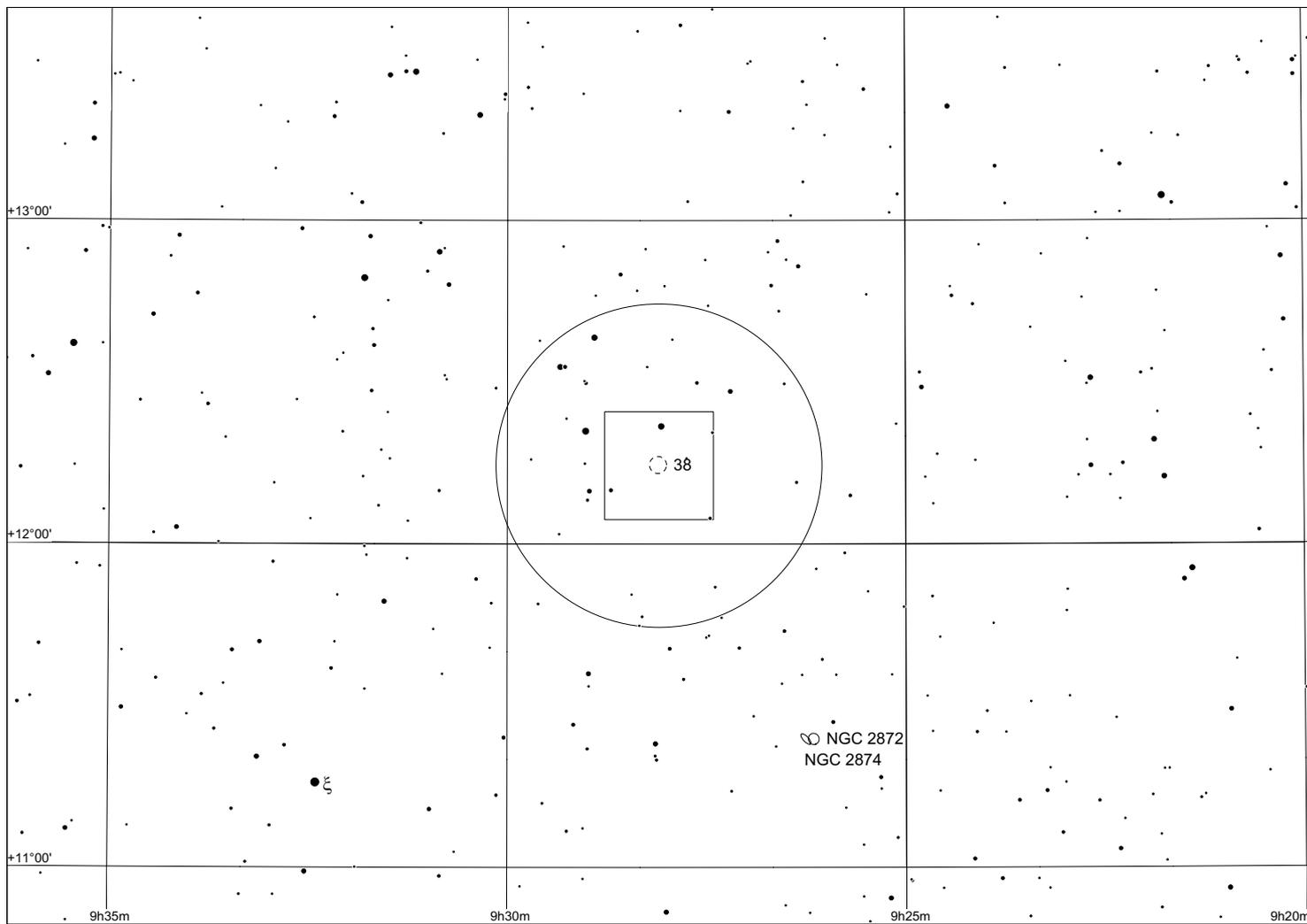
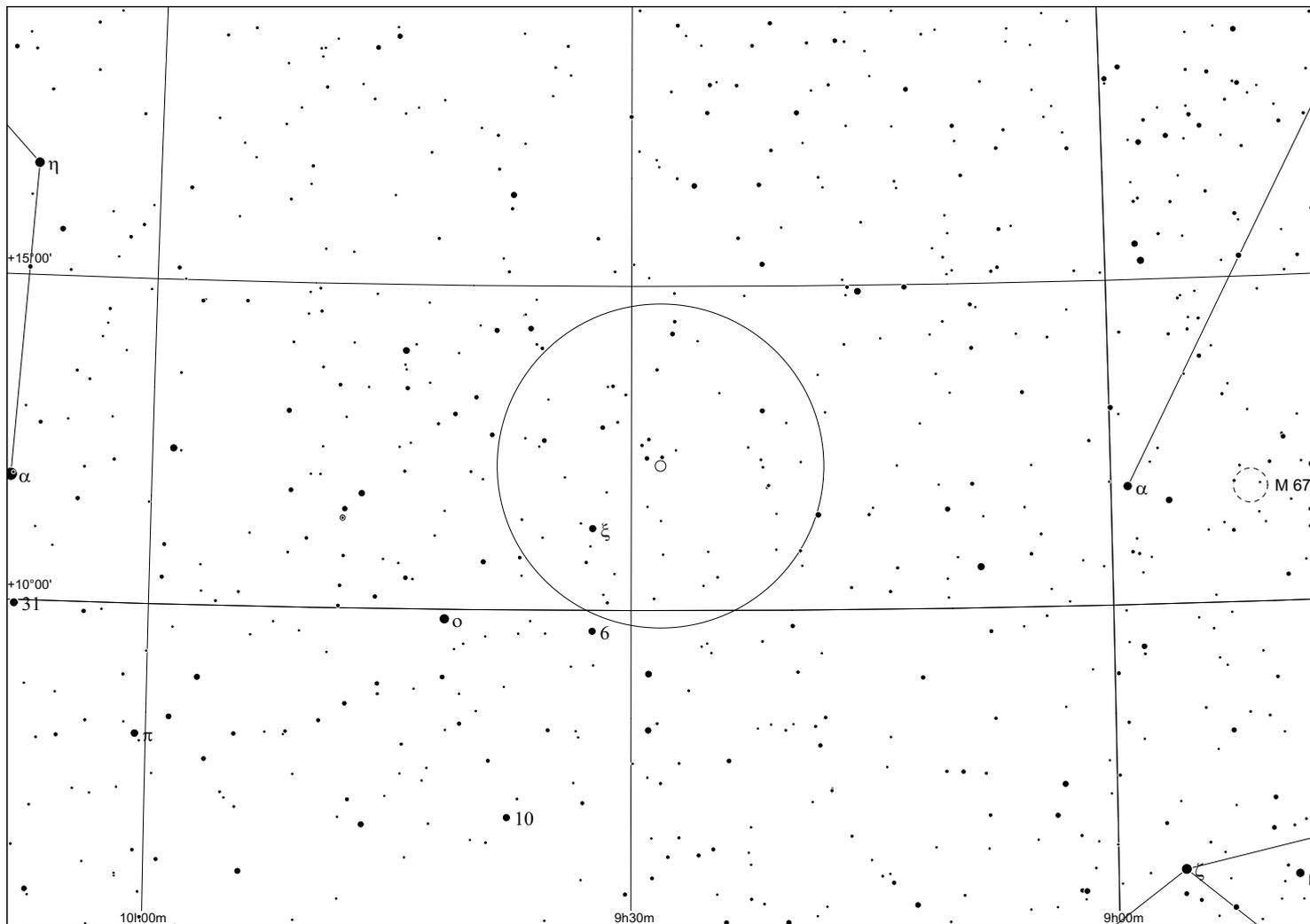


*HCG Const. coordinates (2000) bright. memb. mag*  
 38 Leo 09h 27m 39s +12° 17' 14.8

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		
38a	09 24 51.80	+12 29 14.1	22.10	8.60	Sbc	6	16.13	0	27.40	14.53	0	31.60	1.55	15.83	15.25	0.10	8760	75	0	
38b	09 25 00.74	+12 30 19.2	30.00	17.60	SBd	9	15.43	1	38.40	13.87	1	53.20	1.39	15.20	14.76	0.20	8739	42	0	U5044a
38c	09 25 01.64	+12 30 21.8	21.80	9.30	Im	12	16.09	1	33.40	14.62	1	32.90	1.52	16.01	15.39	0.20	8770	89	0	U5044b
38d	09 24 51.42	+12 31 09.4	13.10	5.50	SBa	3	17.30	0	17.10	15.53	0	21.50	1.69	17.15	16.60	0.20	24282	62	0	

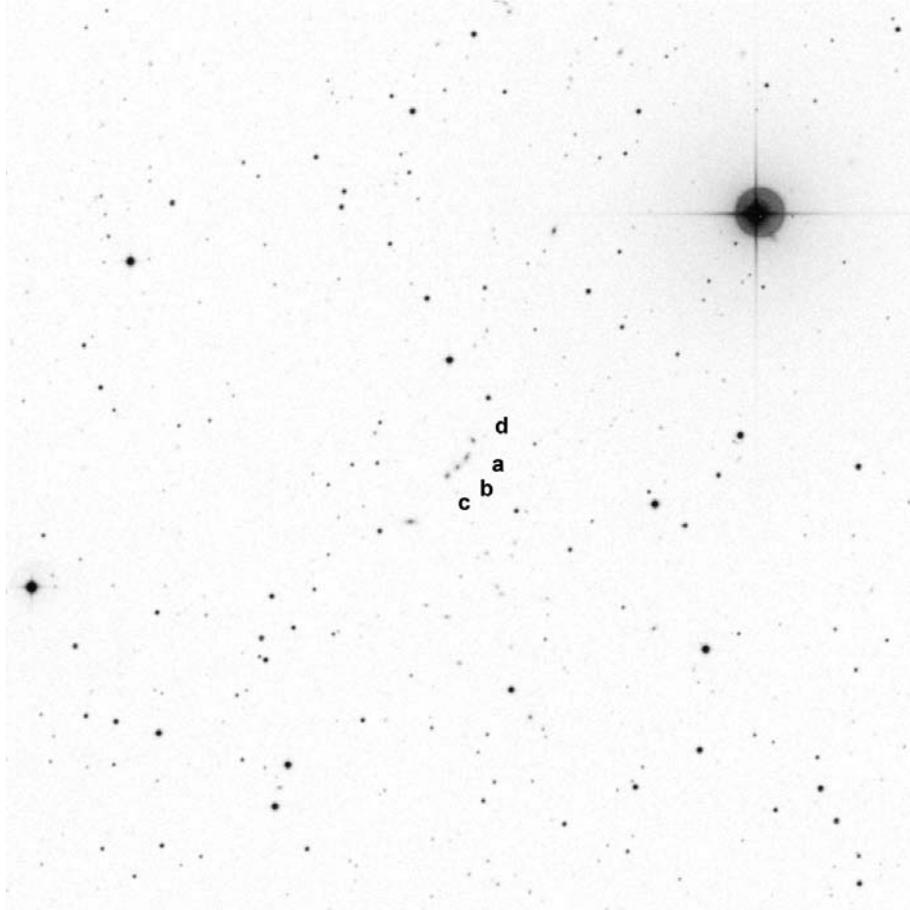
### Notes:

22" f/4 (only moderate transparency and seeing): a prominent, b/c appears elongated, not definitely separated, d not seen





# Hickson 39 in Hydra



*HCG Const. coordinates (2000) bright. memb. mag*  
 39 Hya 09h 29m 29s -01° 21' 16.6

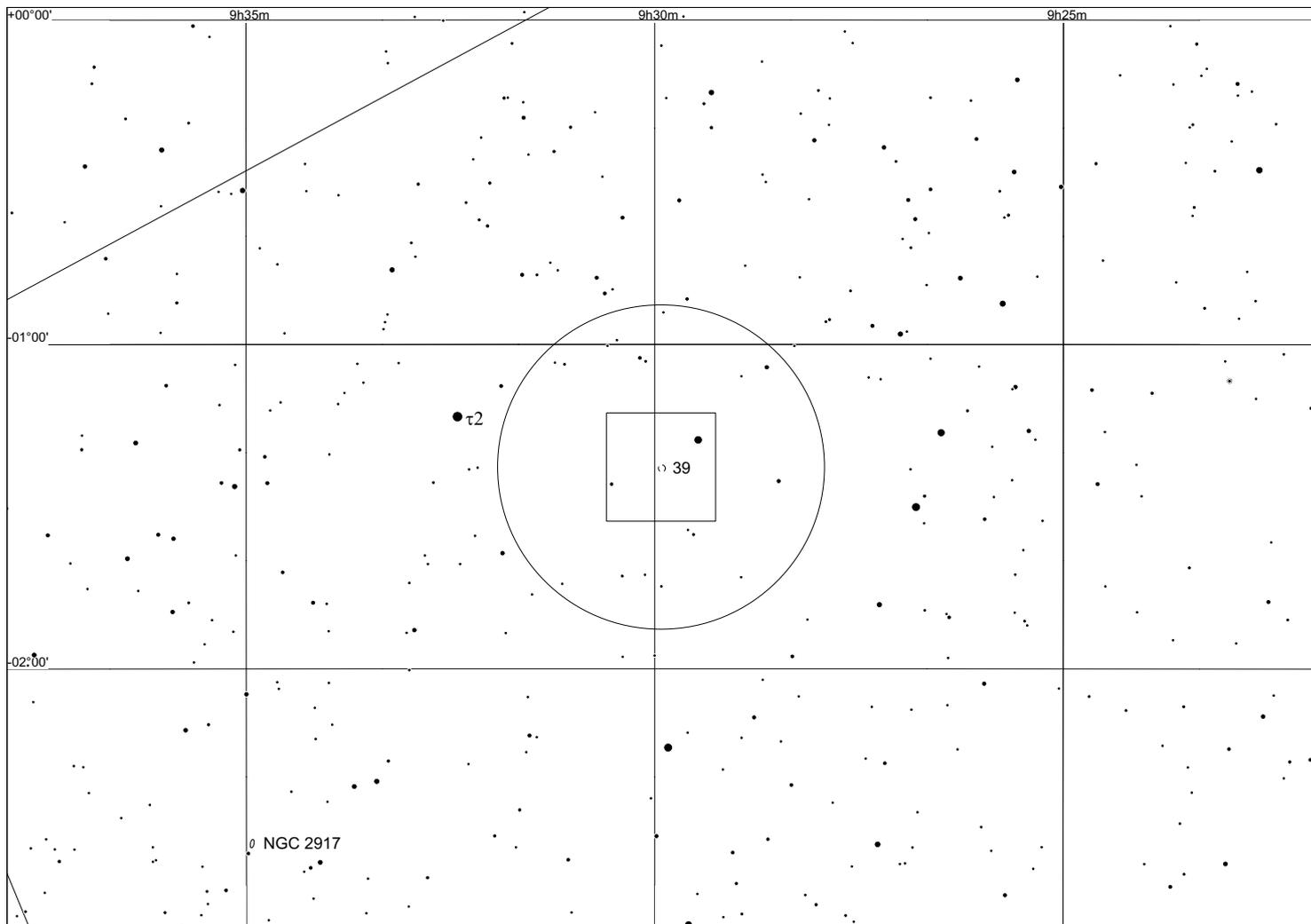
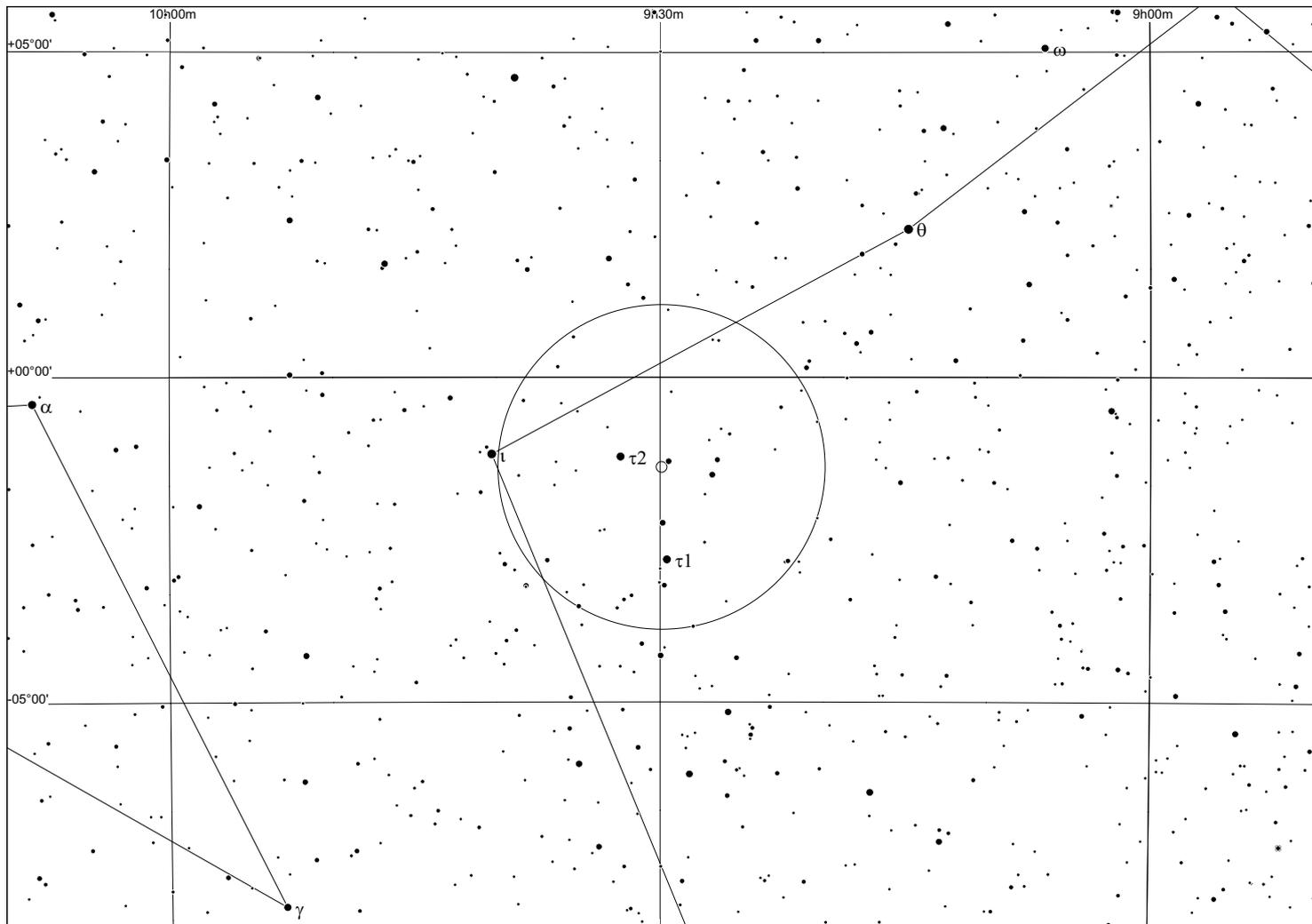
galaxy	ra (1950)	dec	a	b	type	T	B_I	C	D_B	R_I	C	D_R	B-R	B_T	B_TC	err	v_r	err	C	names
			"	"					"			"					km/s	km/s		
39a	09 26 54.92	-01 07 34.2	10.50	8.20	Sb	5	17.42	1	18.70	15.74	1	20.50	1.76	16.94	16.58	0.20	21119	52	0	
39b	09 26 55.81	-01 07 47.8	7.90	5.60	S0	1	17.63	1	14.70	15.95	1	17.50	1.65	17.53	17.20	0.20	21176	61	1	
39c	09 26 56.74	-01 07 59.4	7.90	5.50	Sc	7	17.57	0	14.00	16.18	0	16.30	1.32	17.34	16.94	0.10	20667	35	0	
39d	09 26 54.39	-01 07 12.4	7.00	4.70	S0	1	17.87	0	12.30	16.17	0	15.00	1.65	17.66	17.32	0.10	21048	37	0	

## Notes:

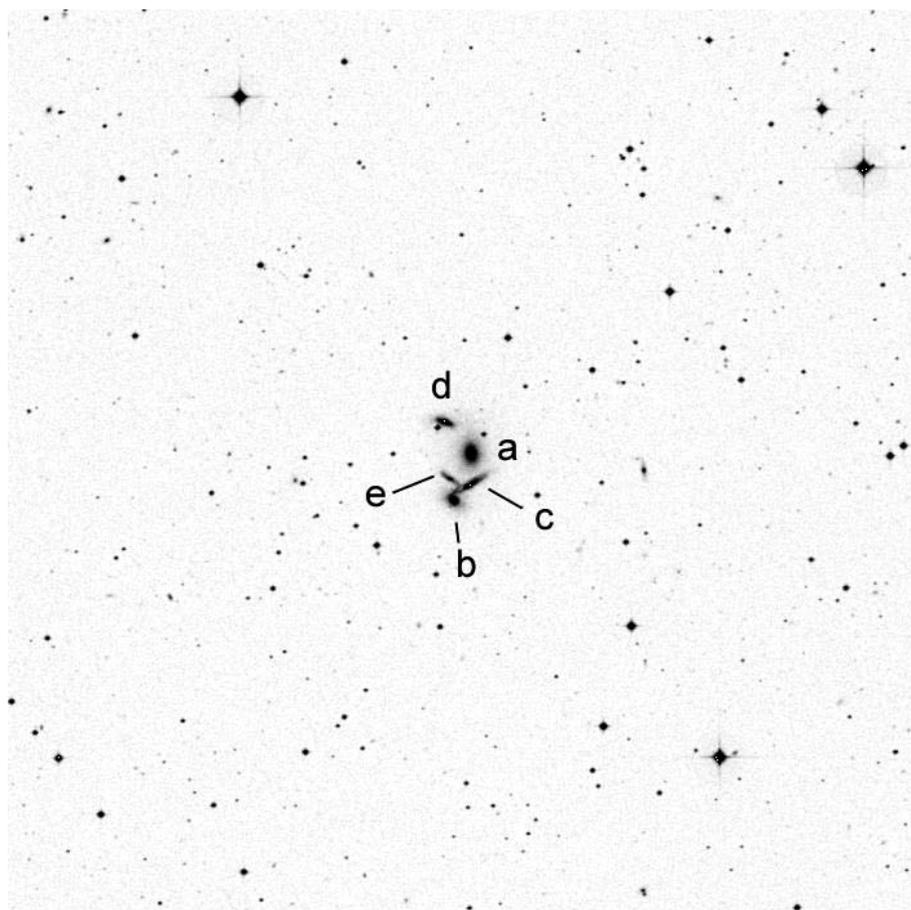
22" f/4.5 (03/2009) moderate seeing: extremely difficult group, star field allows to precisely pinpoint the location, nothing to see at first sight

after some time some a fleeting object was suspected with 7mm with averted vision and only intermittently, but could not be held. Could be the b/c or a/b/c, as judged from its location. Uncertain observation.

Same impression was confirmed the next day.



## Hickson 40 in Hydra

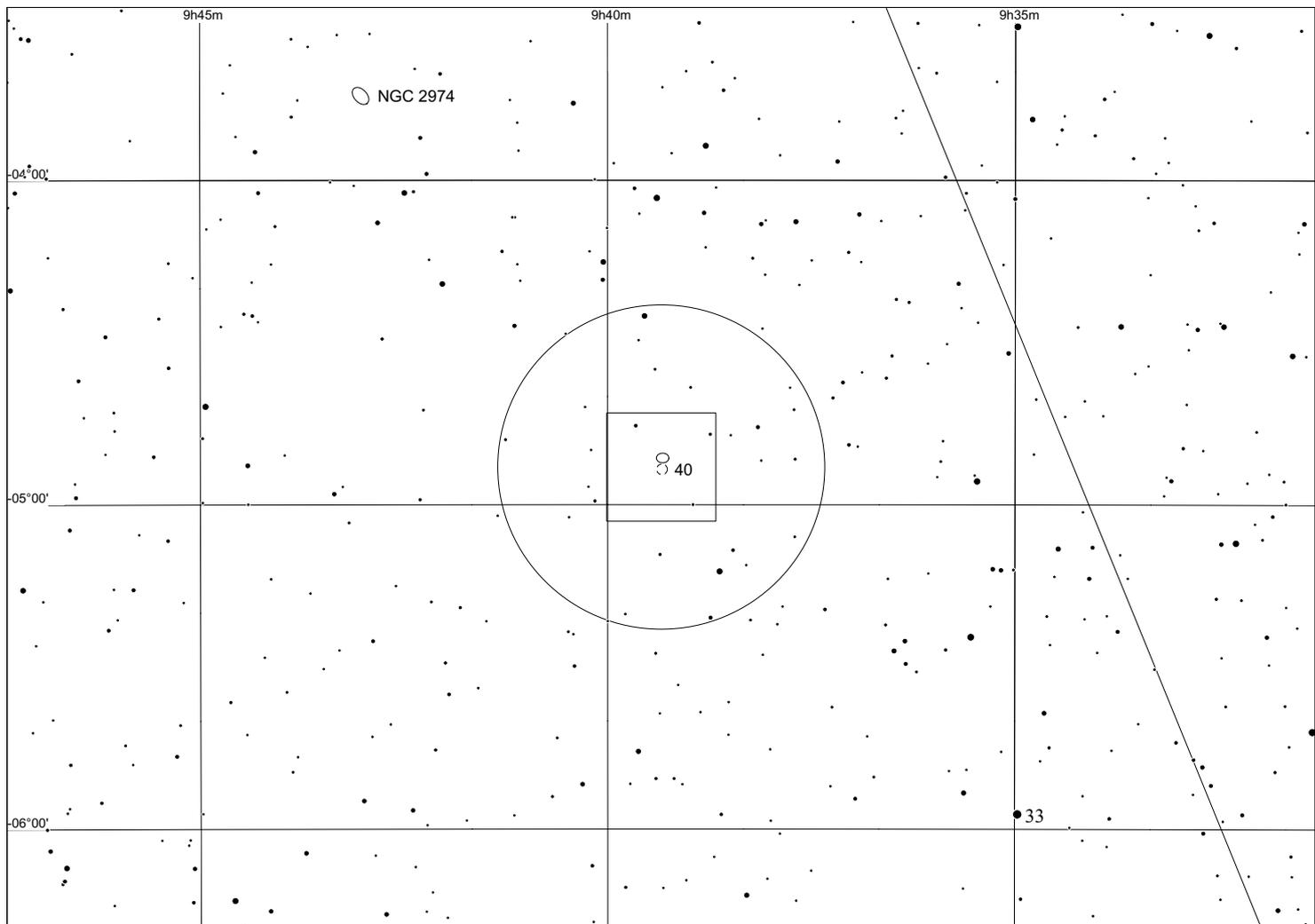
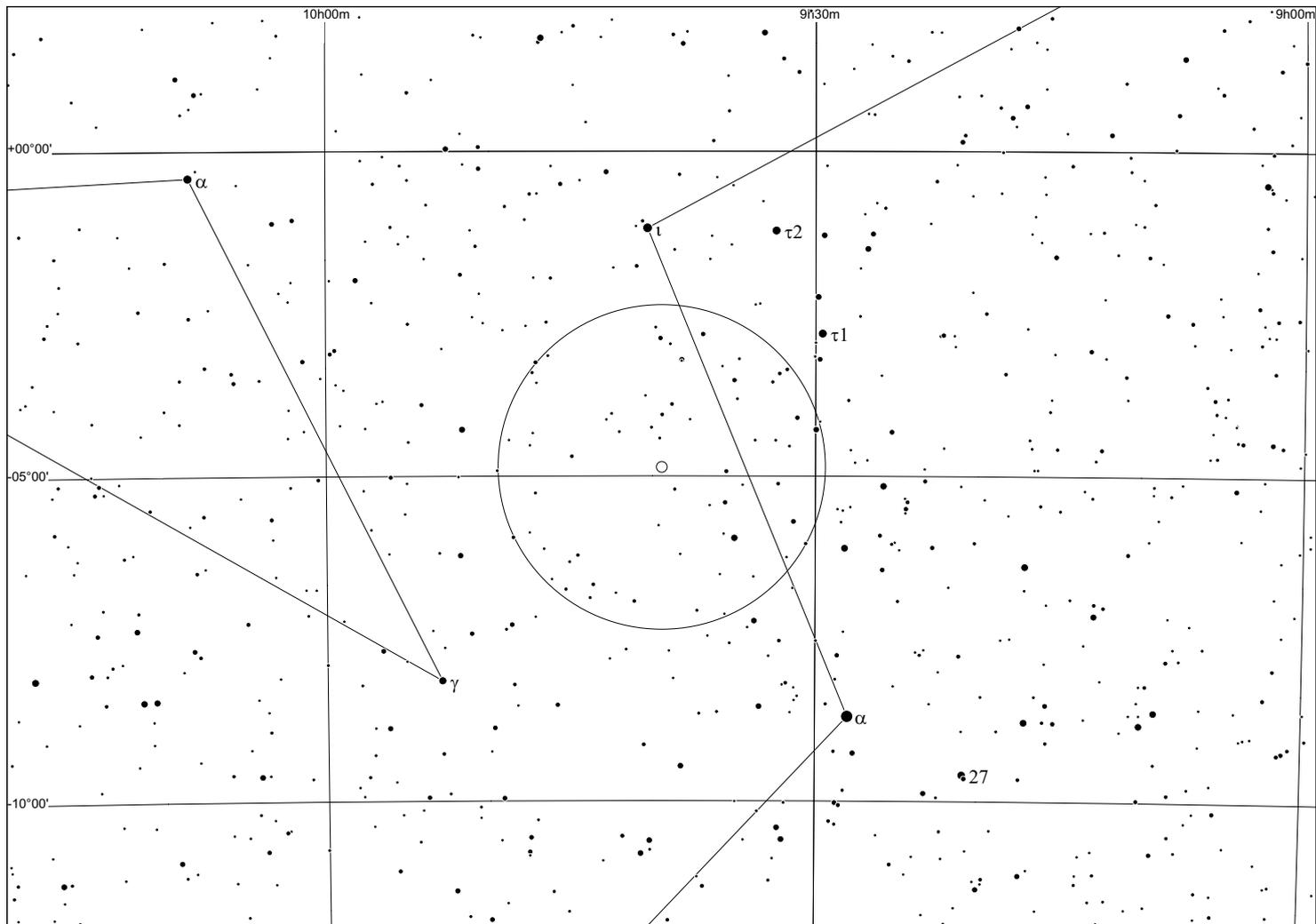


*HCG Const. coordinates (2000) bright. memb. mag*  
 40 Hya 09h 38m 55s -04° 51' 13.4

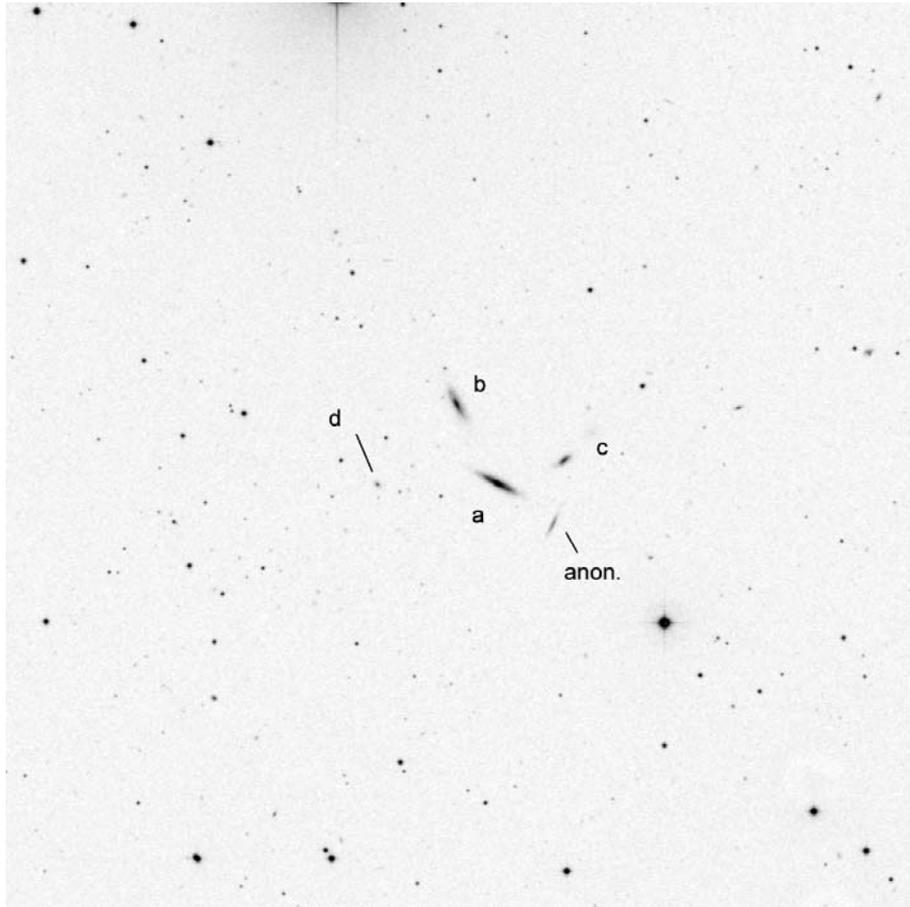
<i>galaxy</i>	<i>ra (1950)</i>	<i>dec</i>	<i>a</i> "	<i>b</i> "	<i>type</i>	<i>T</i>	<i>B-I</i>	<i>C</i>	<i>D-B</i> "	<i>R-I</i>	<i>C</i>	<i>D-R</i> "	<i>B-R</i>	<i>B-T</i>	<i>B-TC</i>	<i>err</i>	<i>v_r</i> km/s	<i>err</i> km/s	<i>C</i>	<i>names</i>
40a	09 36 23.02	-04 37 21.5	32.90	24.30	E3	0	14.09	1	65.30	12.18	1	94.10	1.75	13.70	13.44	0.20	6628	27	0	
40b	09 36 24.55	-04 38 22.8	18.70	14.60	S0	1	15.19	1	39.50	13.24	1	56.70	1.84	14.89	14.58	0.20	6842	27	0	
40c	09 36 22.70	-04 37 58.7	36.90	9.60	Sbc	6	15.82	1	36.50	13.66	1	58.20	2.00	15.88	15.15	0.20	6890	21	0	
40d	09 36 25.26	-04 36 39.4	23.90	11.00	SBa	3	15.20	1	41.00	13.54	1	53.80	1.56	15.06	14.53	0.20	6492	21	0	
40e	09 36 24.95	-04 37 52.8	17.80	6.20	Sc	7	17.36	1	17.80	15.41	1	27.40	1.84	17.32	16.69	0.20	6625	49	0	

### Notes:

22" f/4 (only moderate transparency and seeing): a, b, and d could be splitted, E not definitely seen, c could be splitted from b intermittently indirectly



# Hickson 41 in Ursa Major

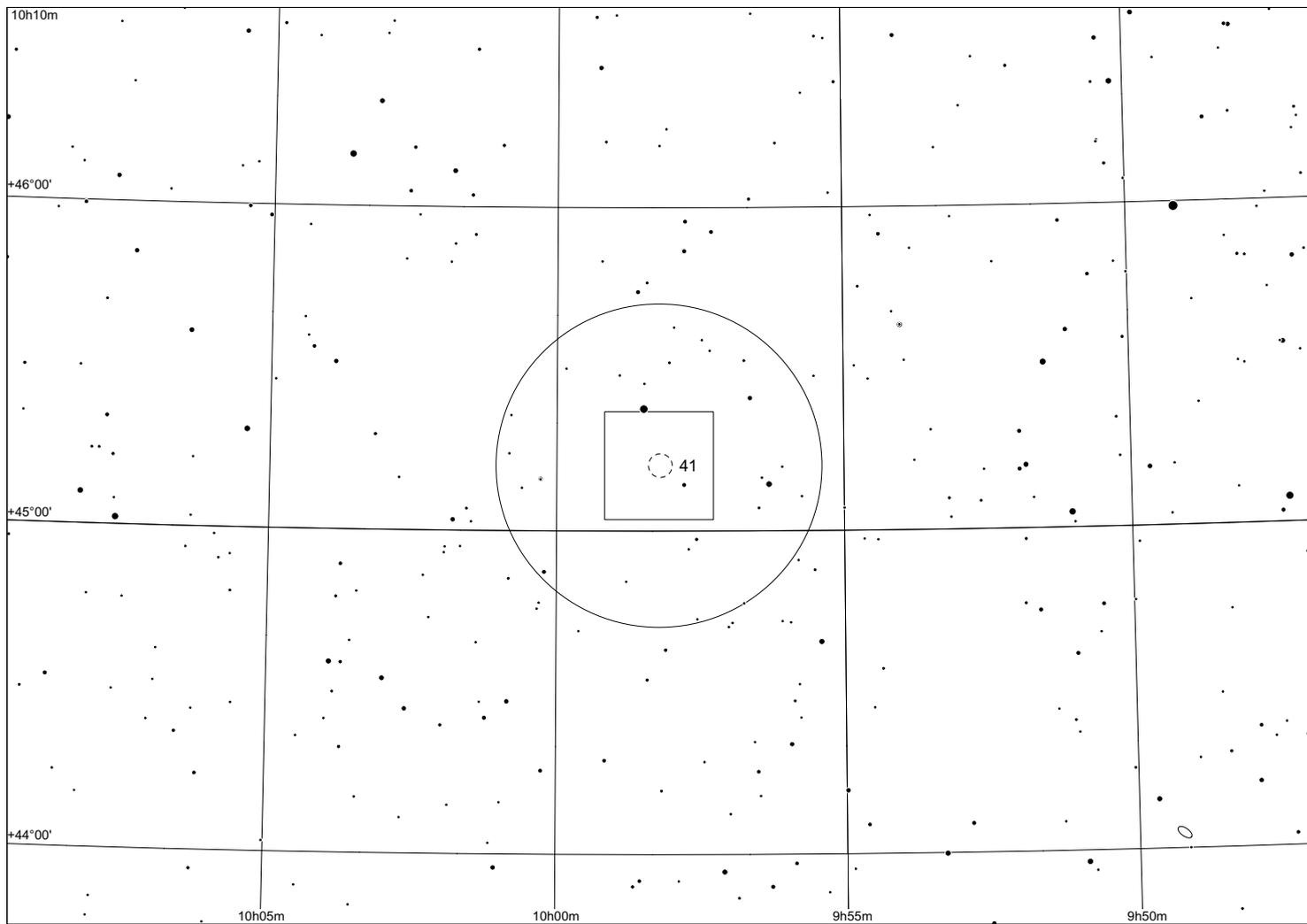
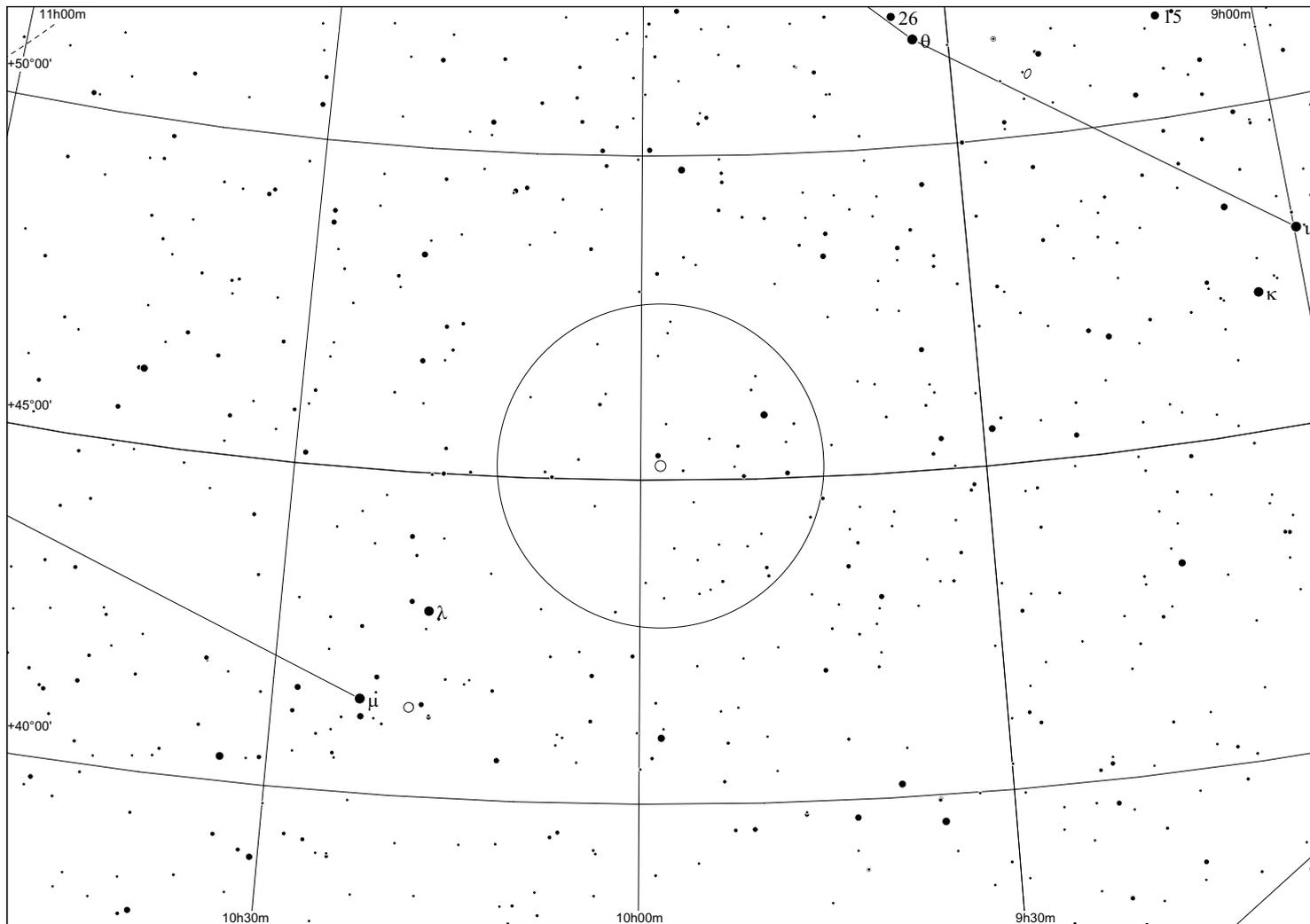


HCG Const. coordinates (2000) bright. memb. mag  
 41 UMa 09h 57m 40s +45° 14' 13.9

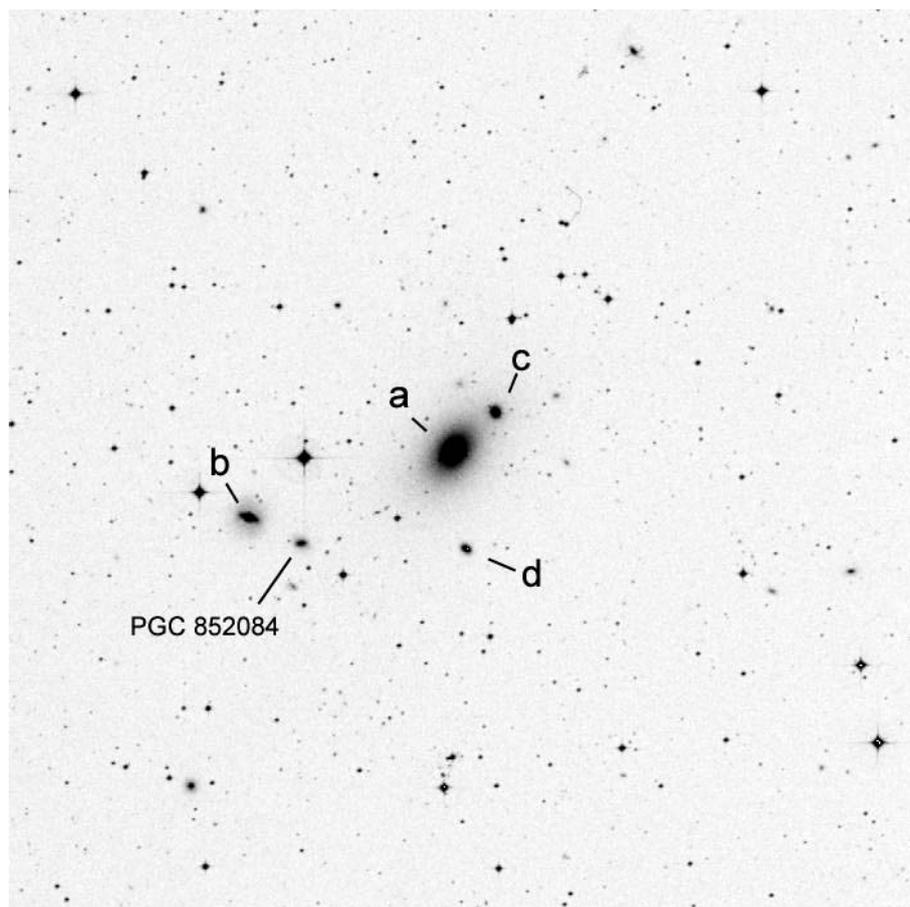
galaxy	ra (1950)	dec	a "	b "	type	T	B-I	C	D-B "	R-I	C	D-R "	B-R	B-T	B-TC	err	v_r km/s	err km/s	C	names
41a	09 54 27.50	+45 28 05.3	35.20	9.60	Sab	4	14.70	0	37.70	13.16	0	46.40	1.49	14.59	13.88	0.10	3751	27	0	U5345
41b	09 54 32.68	+45 29 50.4	32.60	10.30	Sab	4	15.44	0	37.30	13.91	0	52.20	1.38	15.11	14.45	0.10	7241	34	0	U5346
41c	09 54 19.23	+45 28 36.9	16.90	7.90	Sb	5	16.63	0	20.20	15.31	0	23.40	1.28	16.36	15.84	0.10	9717	40	0	
41d	09 54 42.49	+45 28 01.5	8.30	4.70	S0	1	18.21	0	11.00	16.41	0	14.10	1.71	18.13	17.77	0.20	4431	67	0	

## Notes:

22" f/4: a: prominent with direct v., nice edge on galaxy, b: somewhat weaker, also very elongated, c only indirect, less elongated than b, d: sometimes suspected, not definitely seen, two neighboring stars could be seen steadily



## Hickson 42 in Hydra

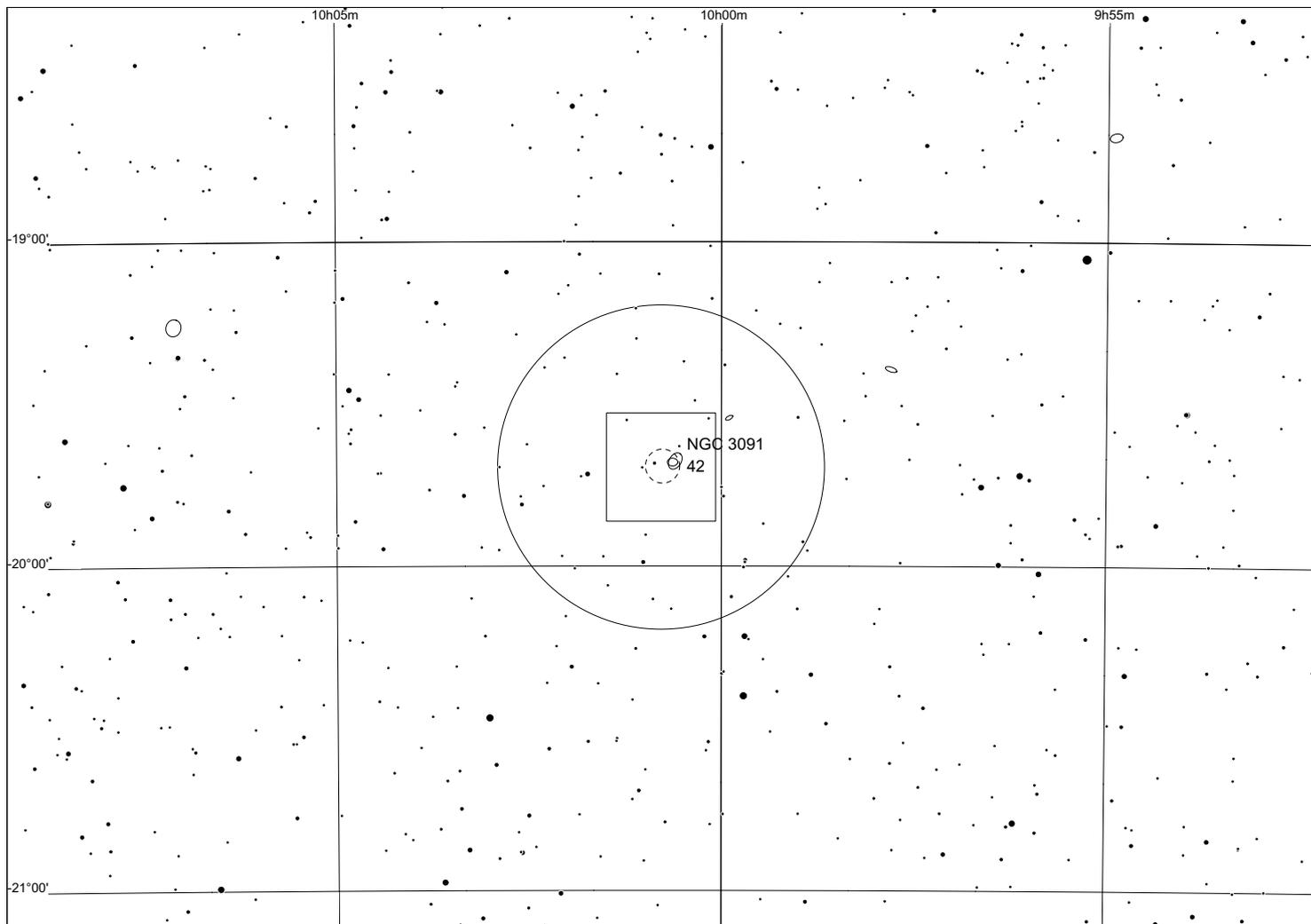
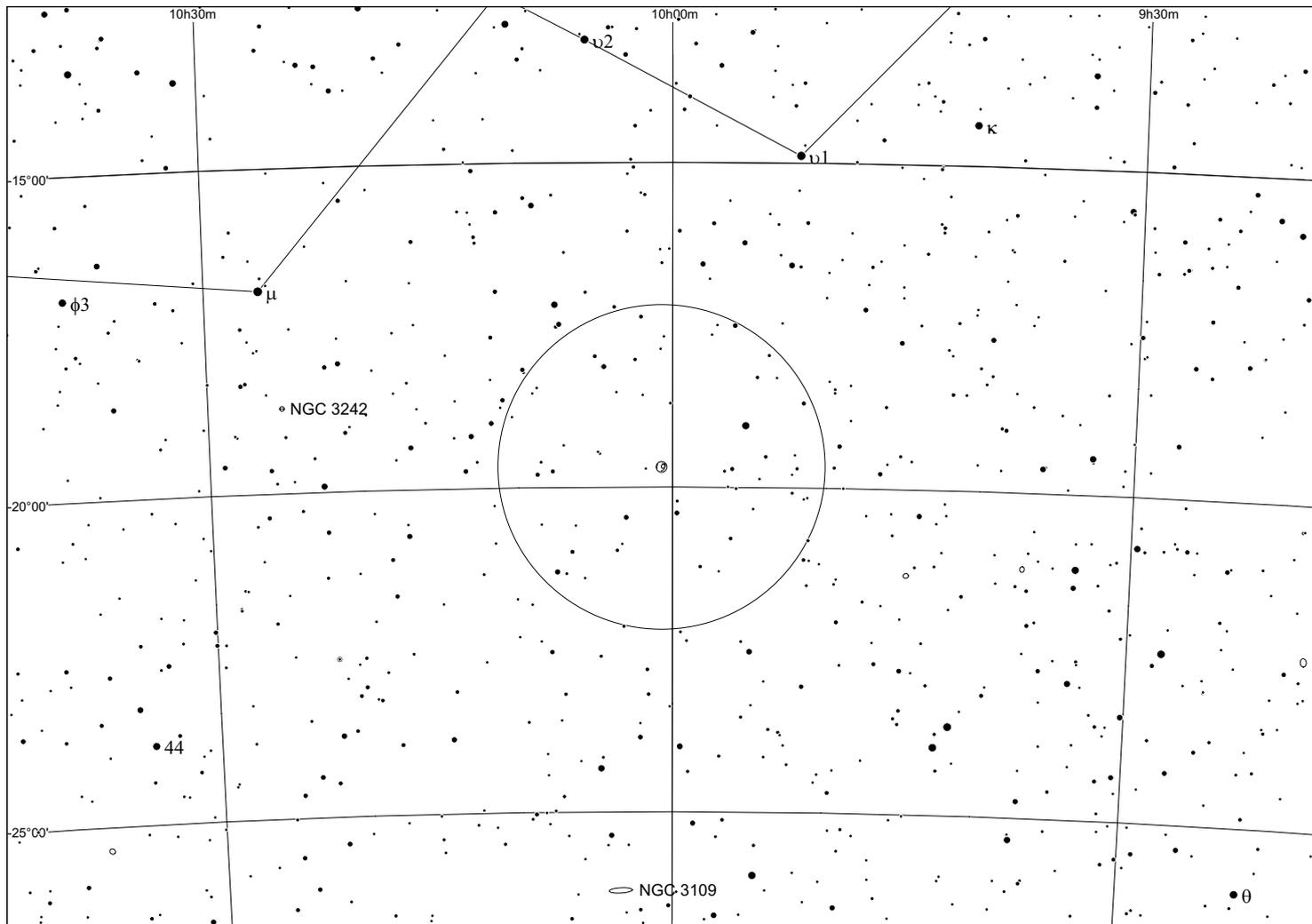


*HCG Const. coordinates (2000) bright. memb. mag*  
 42 Hya 10h 00m 22s -19° 39' NGC 3091 11.7

galaxy	ra (1950)	dec	a "	b "	type	T	B-I	C	D <sub>B</sub> "	R-I	C	D <sub>R</sub> "	B-R	B-T	B-TC	err	v <sub>r</sub> km/s	err km/s	C	names
42a	09 57 52.29	-19 23 45.5	97.10	69.20	E3	0	12.34	1	135.40	10.31	1	210.30	1.56	11.98	11.69	0.20	3625	32	0	N3091
42b	09 58 11.38	-19 25 16.8	27.20	26.30	SB0	1	14.52	0	59.10	13.03	0	64.00	1.47	14.48	14.18	0.20	4198	28	0	
42c	09 57 48.44	-19 22 54.3	21.80	17.90	E2	0	14.56	1	41.20	12.86	1	51.80	1.74	14.21	13.92	0.20	4005	31	0	
42d	09 57 51.10	-19 25 55.8	13.30	10.70	E2	0	16.54	0	19.80	14.73	0	27.40	1.72	16.13	15.84	0.20	4076	48	0	

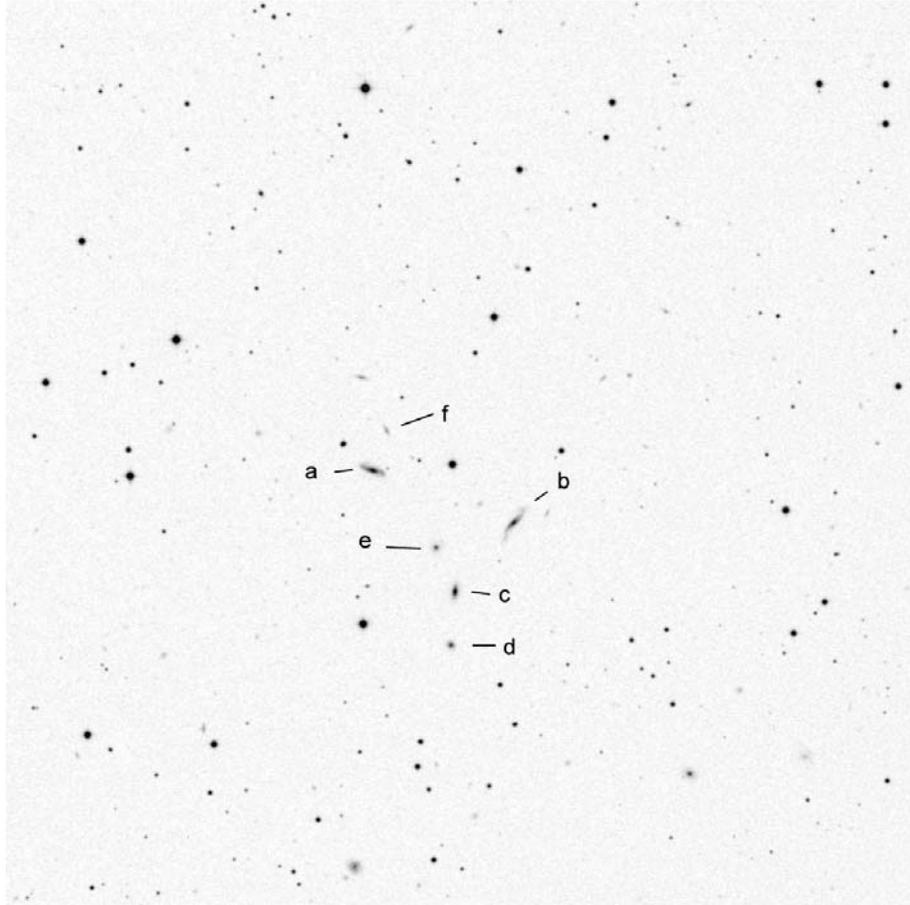
Notes:

22" f/4: a: very obvious, b: with direct vision, slightly elongated, c/d: with direct v.





## Hickson 33 in Sextans

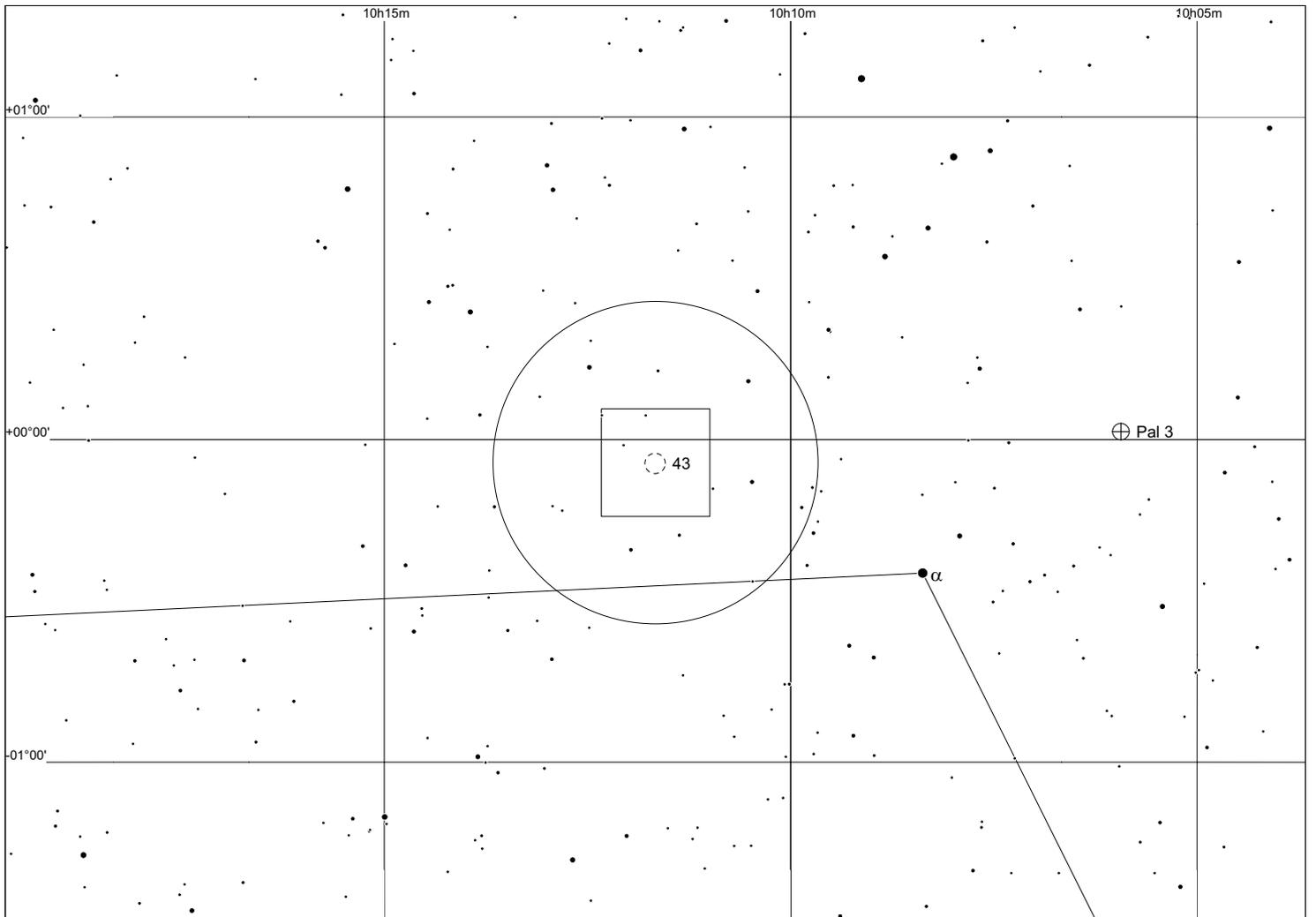
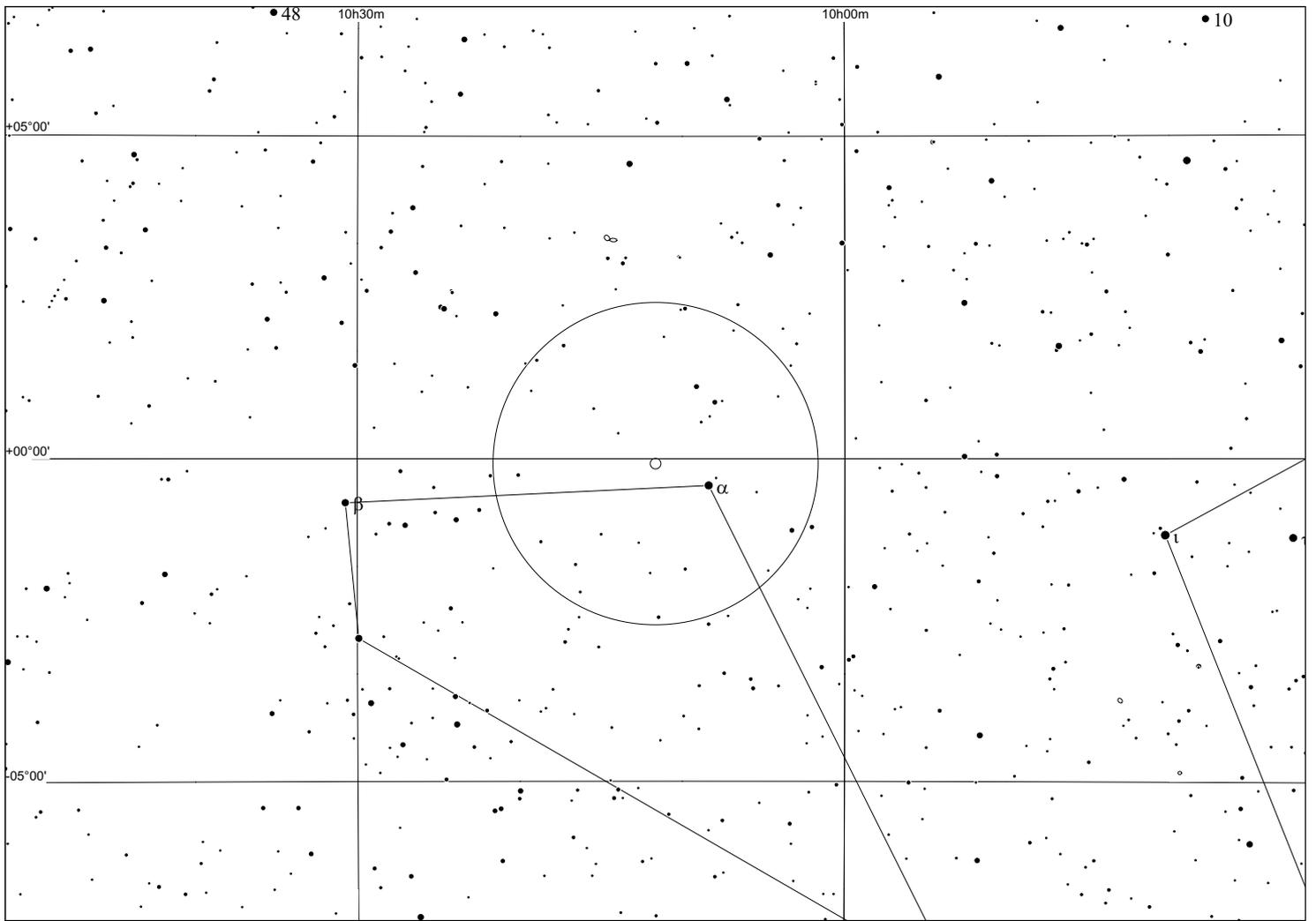


HCG Const. coordinates (2000) bright. memb. mag  
 43 Sex 10h 11m 14s -00° 02' 15.1

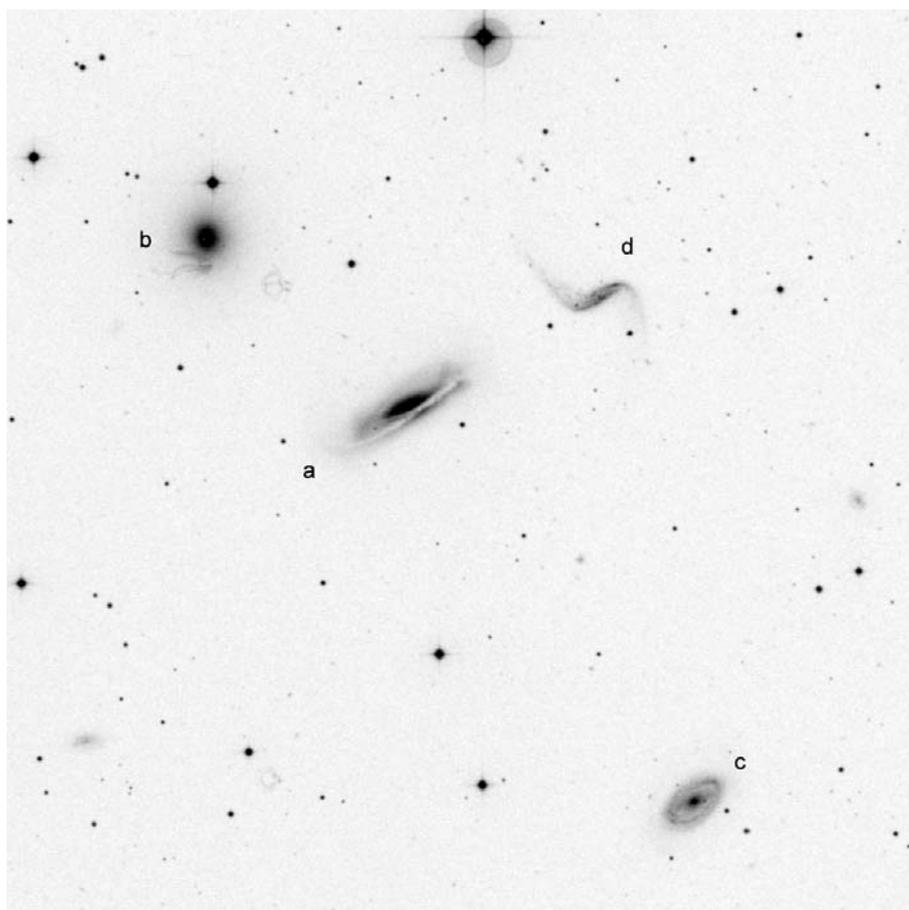
galaxy	ra (1950)	dec	a	b	type	T	B-I	C	D <sub>B</sub>	R-I	C	D <sub>R</sub>	B-R	B-T	B-TC	err	v <sub>r</sub>	err	C	names
			"	"					"			"					km/s	km/s		
43a	10 08 46.08	+00 13 25.6	21.10	8.10	Sb	5	15.94	0	27.00	14.40	0	32.90	1.48	15.69	15.13	0.10	10163	38	0	
43b	10 08 33.79	+00 12 15.6	30.20	5.50	SBcd	8	16.25	0	25.80	14.76	0	35.80	1.36	16.00	15.18	0.10	10087	35	0	
43c	10 08 38.87	+00 10 44.7	15.00	8.30	SB0	1	16.27	0	20.40	14.51	0	30.20	1.67	16.15	15.82	0.10	9916	33	0	
43d	10 08 39.23	+00 09 34.8	8.90	8.00	Sc	7	17.35	0	15.50	15.98	0	16.90	1.34	17.08	16.82	0.10	9630	37	0	
43e	10 08 40.56	+00 11 43.0	8.20	7.40	S0	1	17.80	0	14.90	15.79	0	22.10	1.82	17.40	17.20	0.50	9636	68	1	
43f	10 08 44.85	+00 14 18.3	21.20	5.90	Sbc	6	18.63	0	10.70	17.16	0	14.10	1.27	17.94	17.27	0.10	19505	64	0	

### Notes:

22" f/4: very difficult group, at first sight no definitive galaxy, only after extended observation, four of the six galaxies could be definitely discerned, a and b: elongated, c and d: definitely seen, e: sometimes suspected, could not be held



## Hickson 44 in Leo

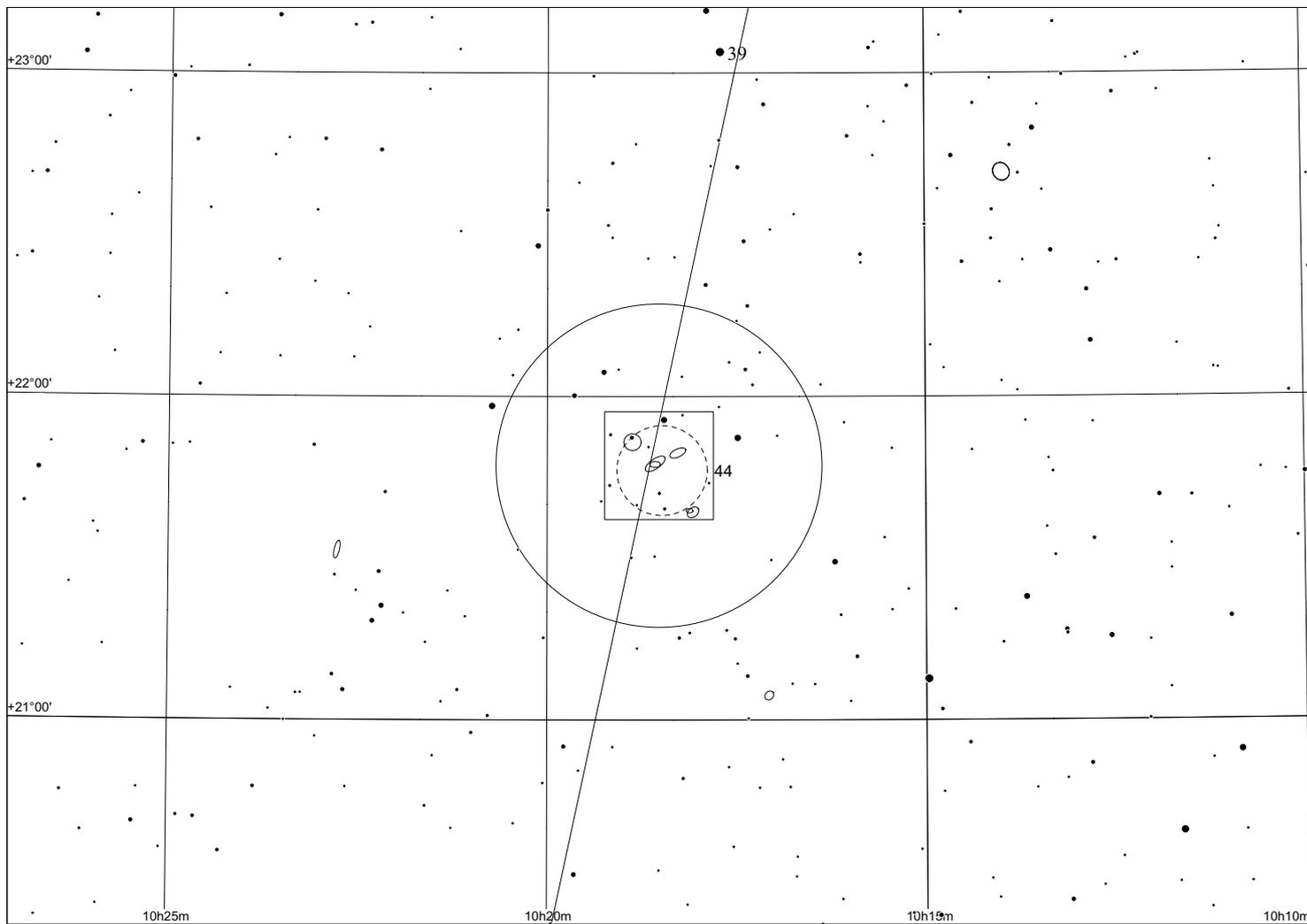
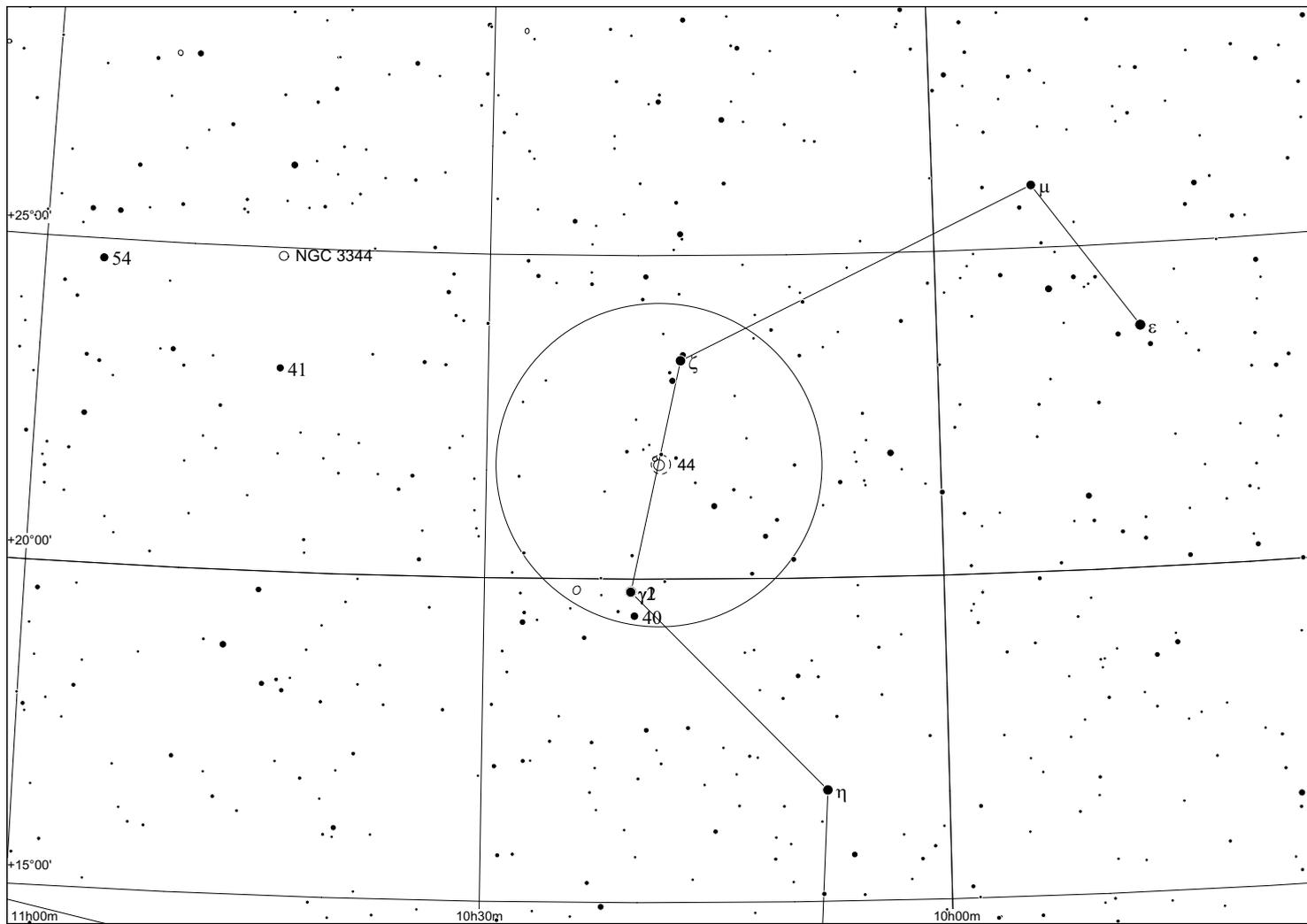


*HCG Const. coordinates (2000) bright. memb. mag*  
 44 Leo 10h 18m 01s +21° 49' NGC 3190 11.5

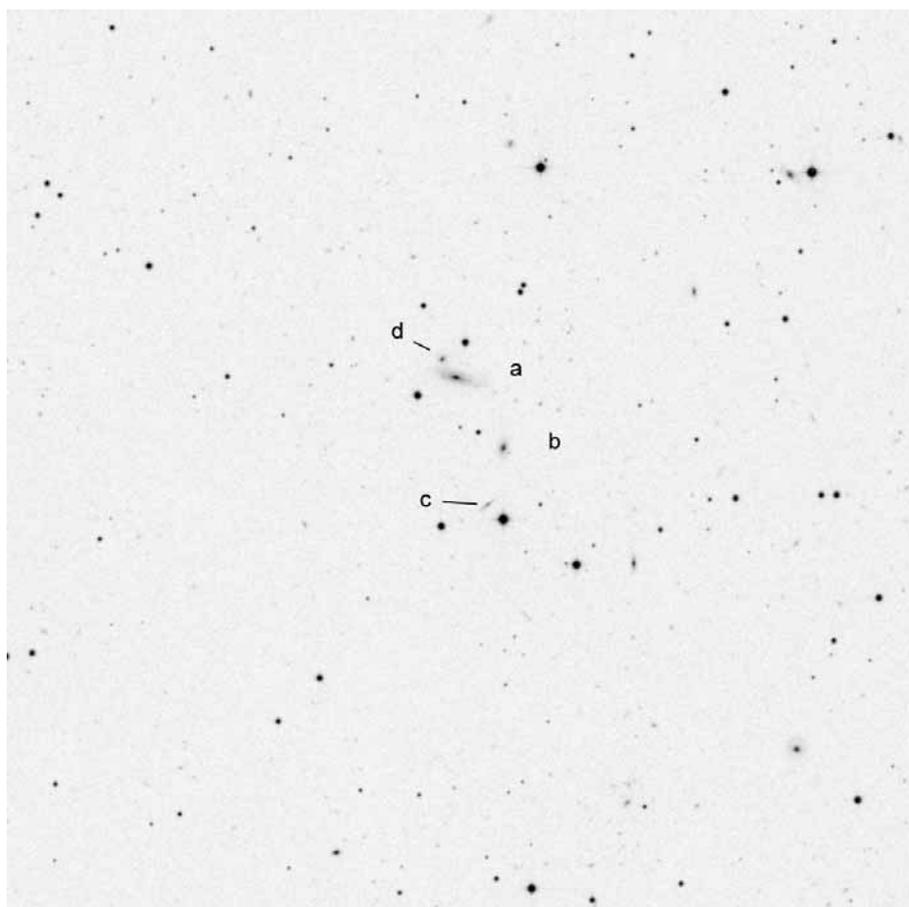
galaxy	ra (1950)	dec	a	b	type	T	B-I	C	D-B	R-I	C	D-R	B-R	B-T	B-TC	err	v_r	err	C	names
			"	"					"			"					km/s	km/s		
44a	10 15 20.64	+22 04 54.9	100.70	47.30	Sa	3	12.43	3	130.50	11.14	3	141.40	1.28	11.99	11.52	0.05	1293	24	0	N3189,
U5559																				
44b	10 15 39.55	+22 08 36.8	53.00	44.40	E2	0	14.21	3	65.50	12.19	3	136.50	1.69	11.83	11.62	0.04	1378	19	0	N3193,
U5562																				
44c	10 14 53.29	+21 56 18.8	56.80	33.40	SBc	7	13.35	3	91.50	12.37	3	95.40	0.97	12.94	12.55	0.06	1218	14	0	N3185,
U5554																				
44d	10 15 02.47	22 07 25.4	67.70	27.40	Sd	9	14.28	3	70.30	14.06	3	66.40	0.26	13.61	13.09	0.07	1579	91	0	N3187,
U5556																				

### Notes:

22" f/4: one of the Hickson showpieces also for smaller apertures, very nice group a: dust lane seen as a sharp edge, b: featureless elliptical, c: with wide halo, d: by far the weakest, very elongated



## Hickson 45 in Ursa Major



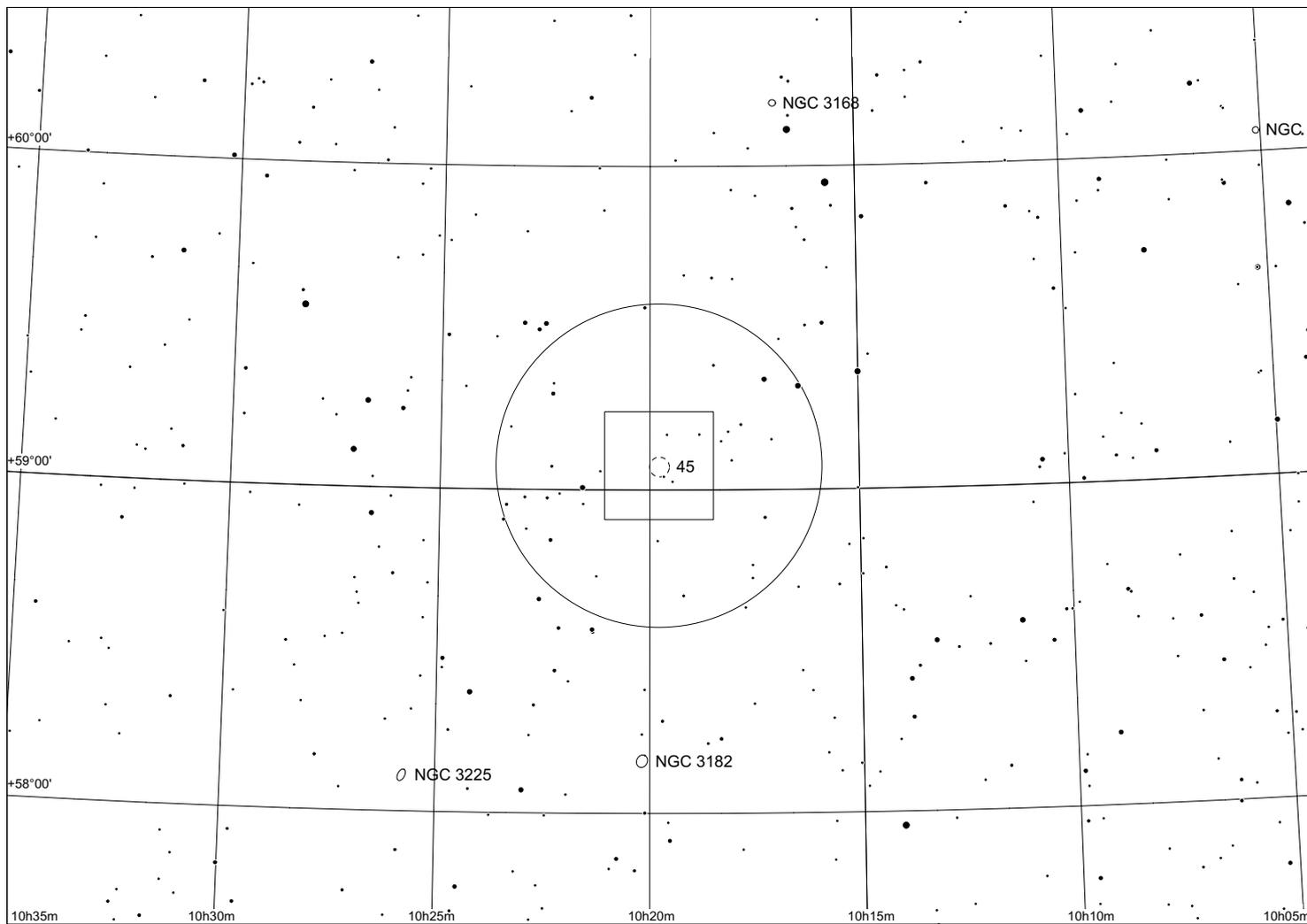
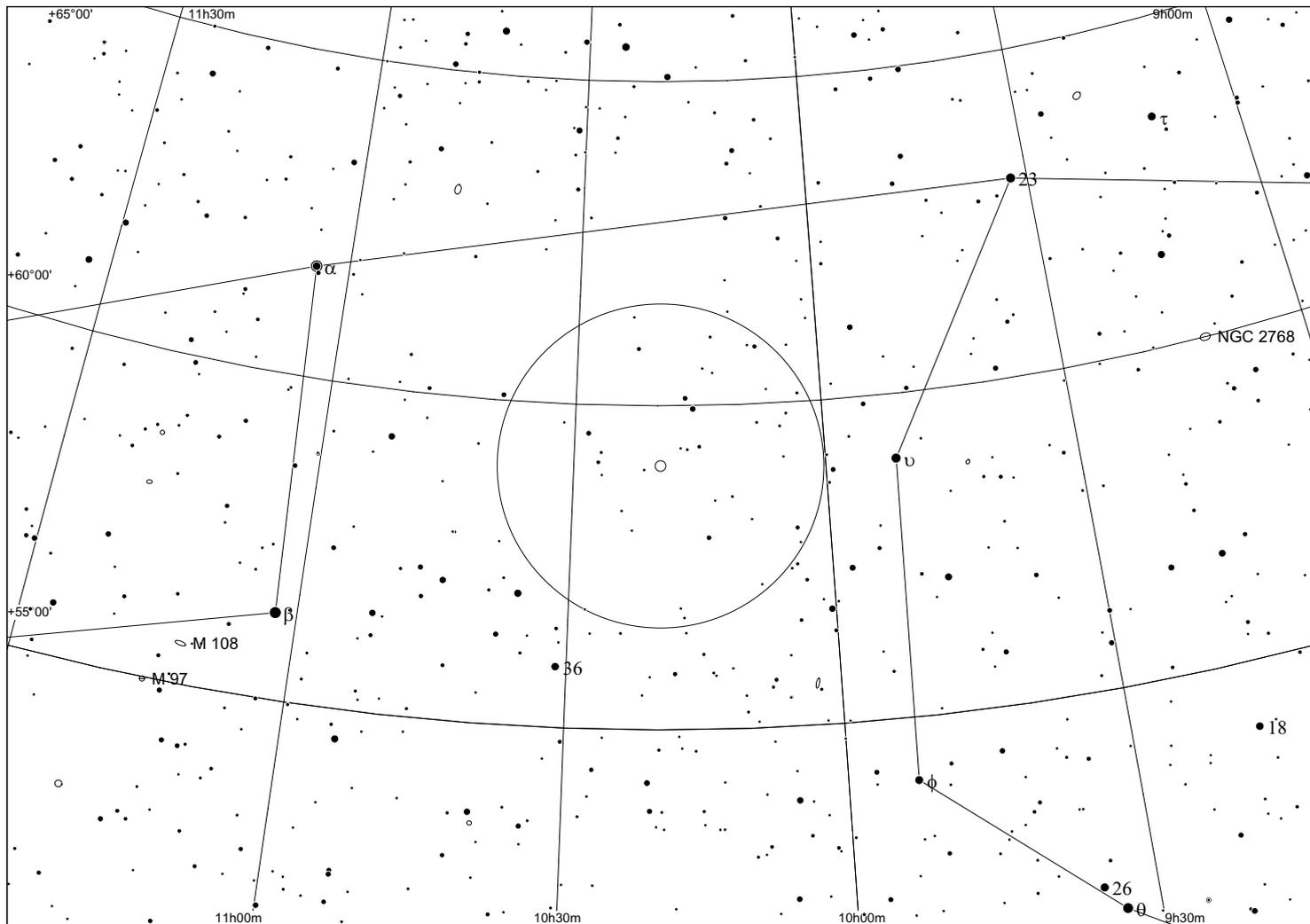
*HCG Const. coordinates (2000) bright. memb. mag*  
 45 UMa 10h 19m 12s +59° 07' 15.2

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		
45a	10 15 51.41	+59 22 54.4	41.40	13.50	Sa	3	15.87	0	38.40	14.14	0	56.10	1.57	15.90	15.20	0.50	21811	34	0	U5564
45b	10 15 43.07	+59 21 22.4	11.40	9.40	S0a	2	16.95	0	21.30	15.33	0	23.20	1.59	17.59	17.24	0.10	22195	29	0	
45c	10 15 45.68	+59 20 06.5	12.50	2.90	Sc	7	18.34	0	11.50	16.78	0	13.10	1.40	18.40	17.60	0.70	21799	72	0	
45d	10 15 53.97	+59 23 18.3	8.50	5.20	S0	1	17.81	0	13.90	16.07	0	19.90	1.63	17.63	17.26	0.10	20735	43	0	

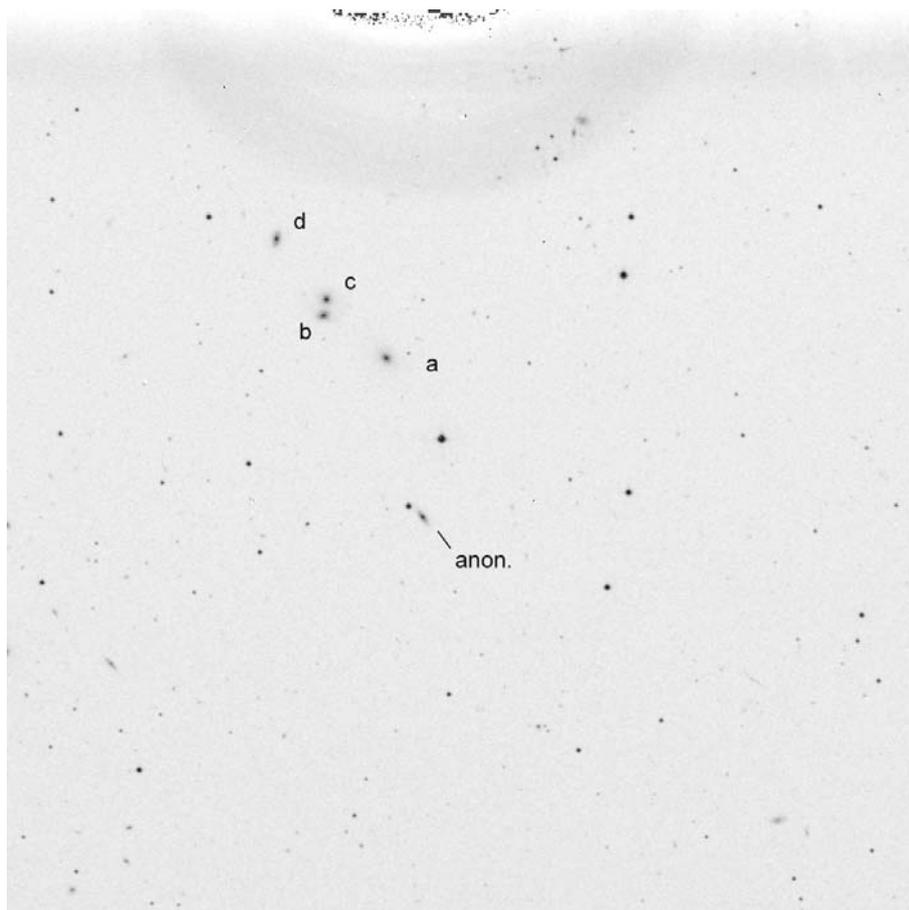
### Notes:

22"f/4 (01/2009): This is a very difficult group

according to the catalog, a should be quite bright, yet spread over an extended area. Even with indirect vision, it is a threshold object during this night. B could not be seen, the star next to it was already at the limit.



## Hickson 46 in Leo

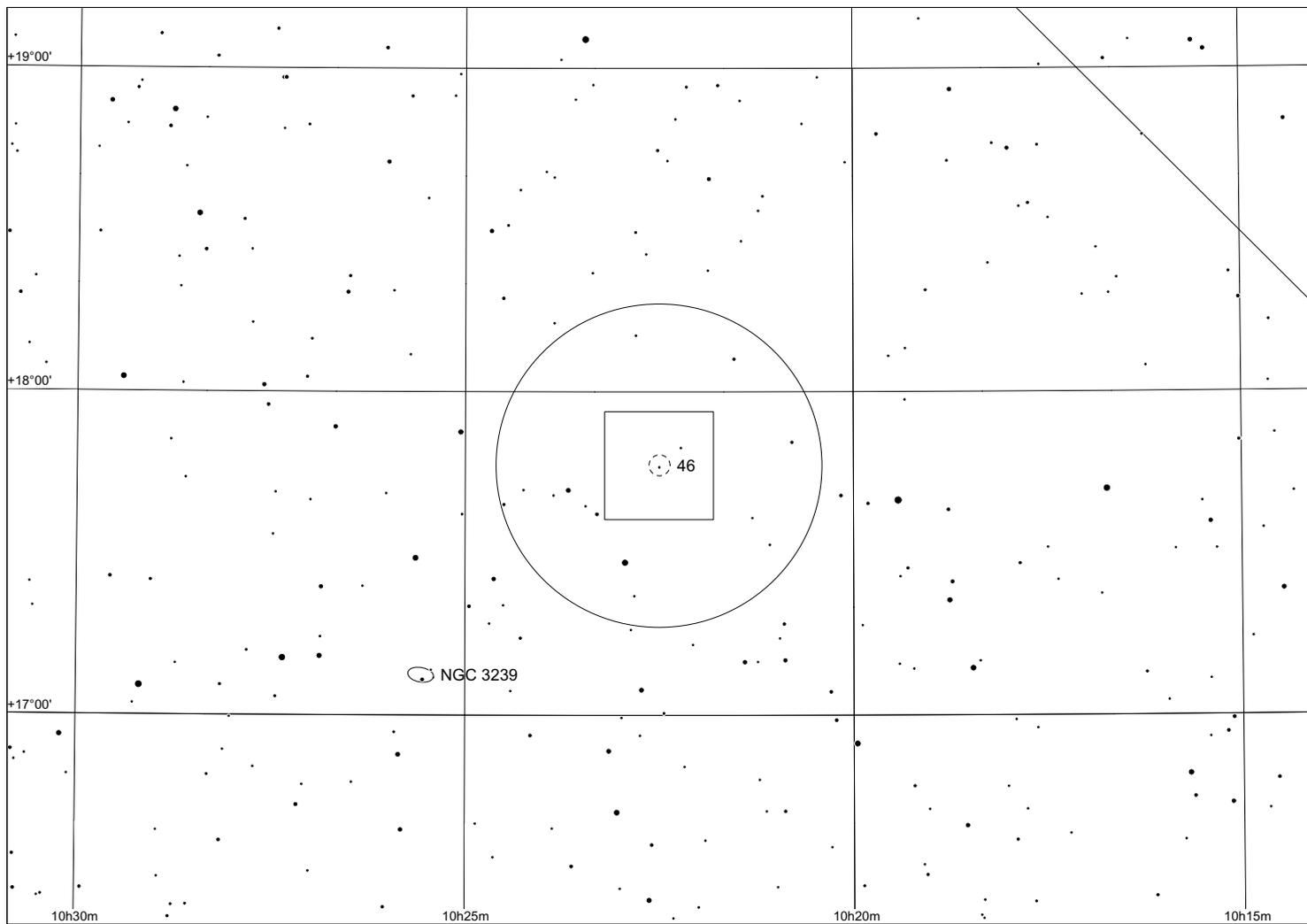
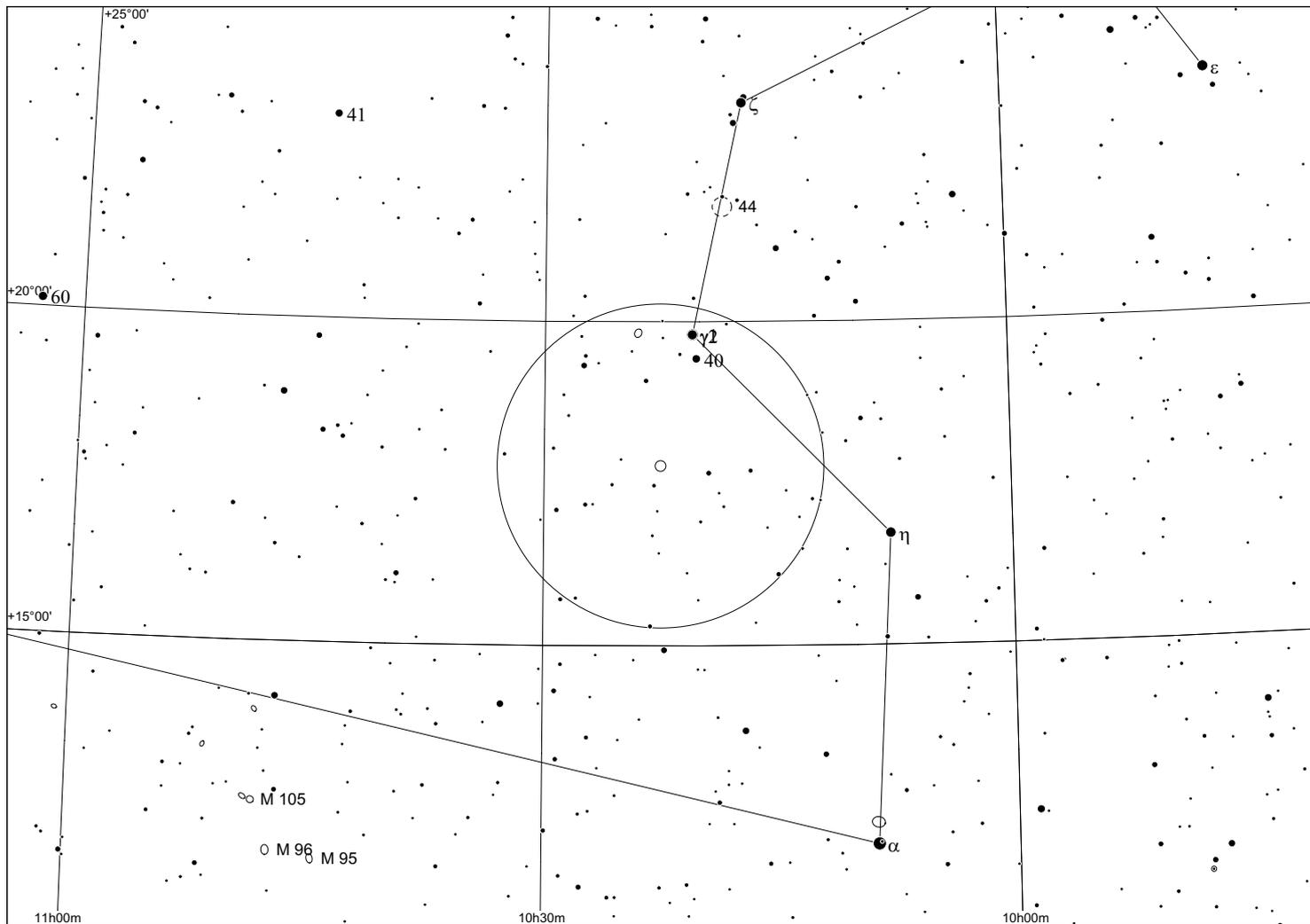


HCG Const. coordinates (2000) bright. memb. mag  
 46 Leo 10h 22m 02s +17° 49 16.1

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 km/s	err km/s	C	names
46a	10 19 24.39	+18 05 26.8	10.90	8.00	E3	0	16.83	3	17.80	15.08	3	31.90	1.34	16.61	16.40	0.20	8201	35	0	
46b	10 19 30.12	+18 06 22.0	9.50	7.80	S0	1	16.95	3	16.50	15.29	3	26.40	1.40	16.52	16.28	0.20	8571	36	0	
46c	10 19 29.87	+18 06 44.7	7.80	6.90	E1	0	16.81	3	14.90	15.17	3	24.50	1.39	16.34	16.13	0.20	7906	42	0	
46d	10 19 34.36	+18 08 04.6	12.50	7.50	SB0	1	16.81	3	19.10	15.02	3	27.10	1.68	16.41	16.11	0.20	7703	33	0	

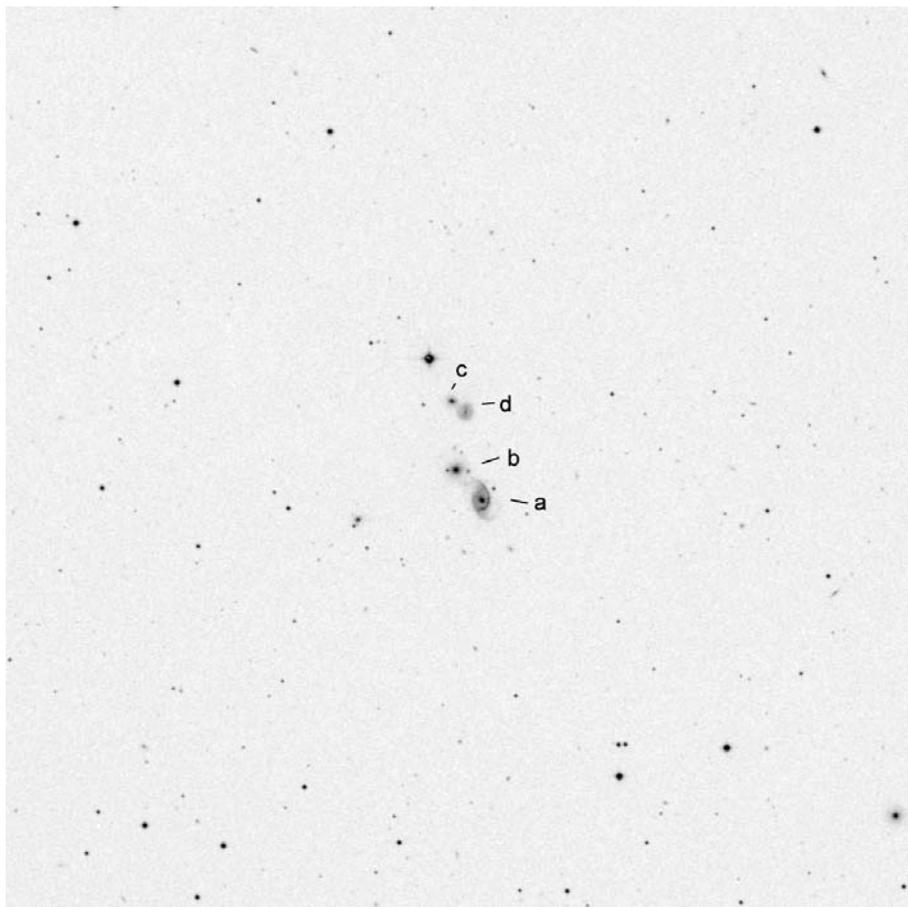
### Notes:

22" f/4: four galaxies grouped between two stars, all of them appear distinct with averted vision, b and c form close pair that could be separated with 6 mm (360x)





## Hickson 47 in Leo

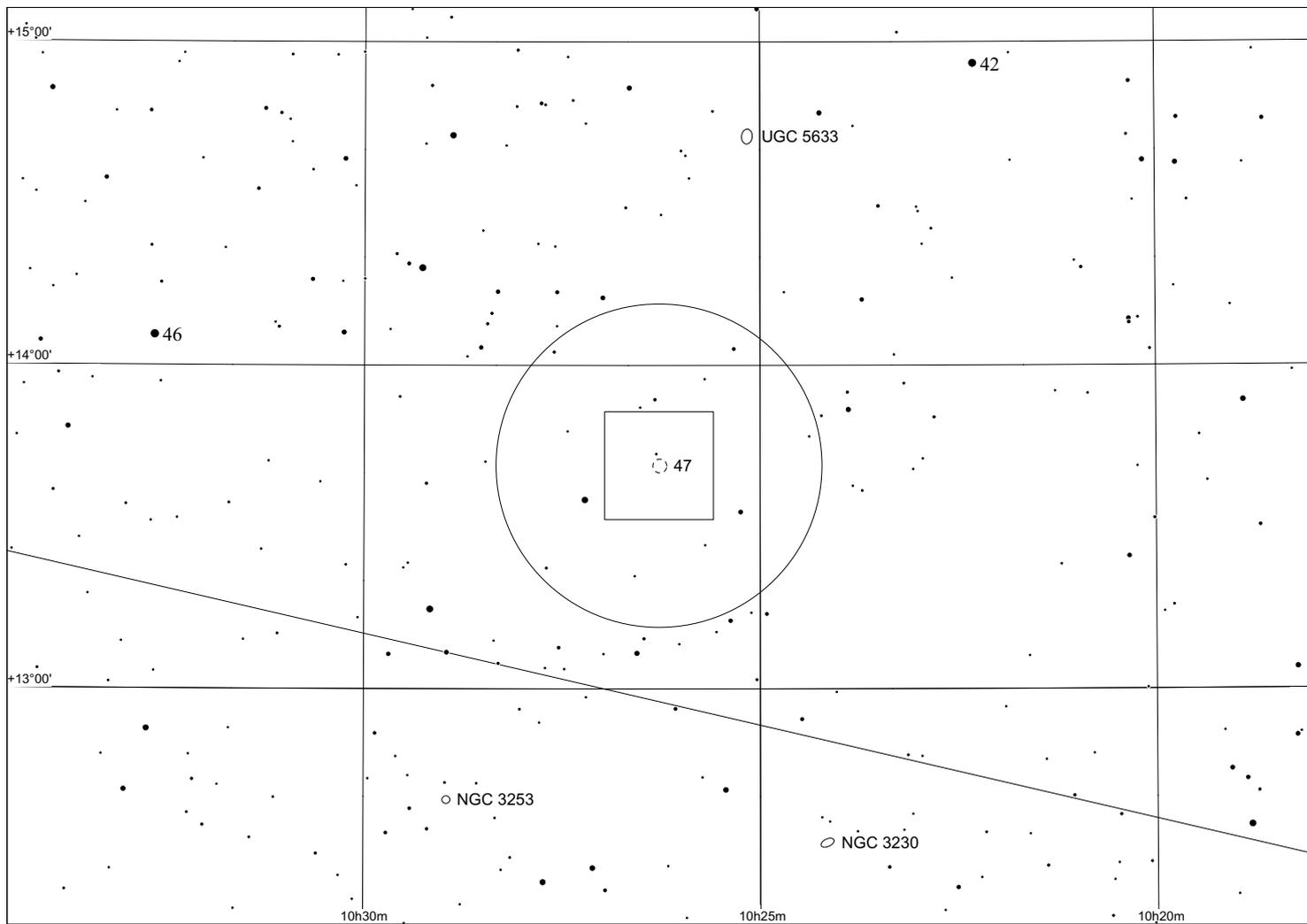
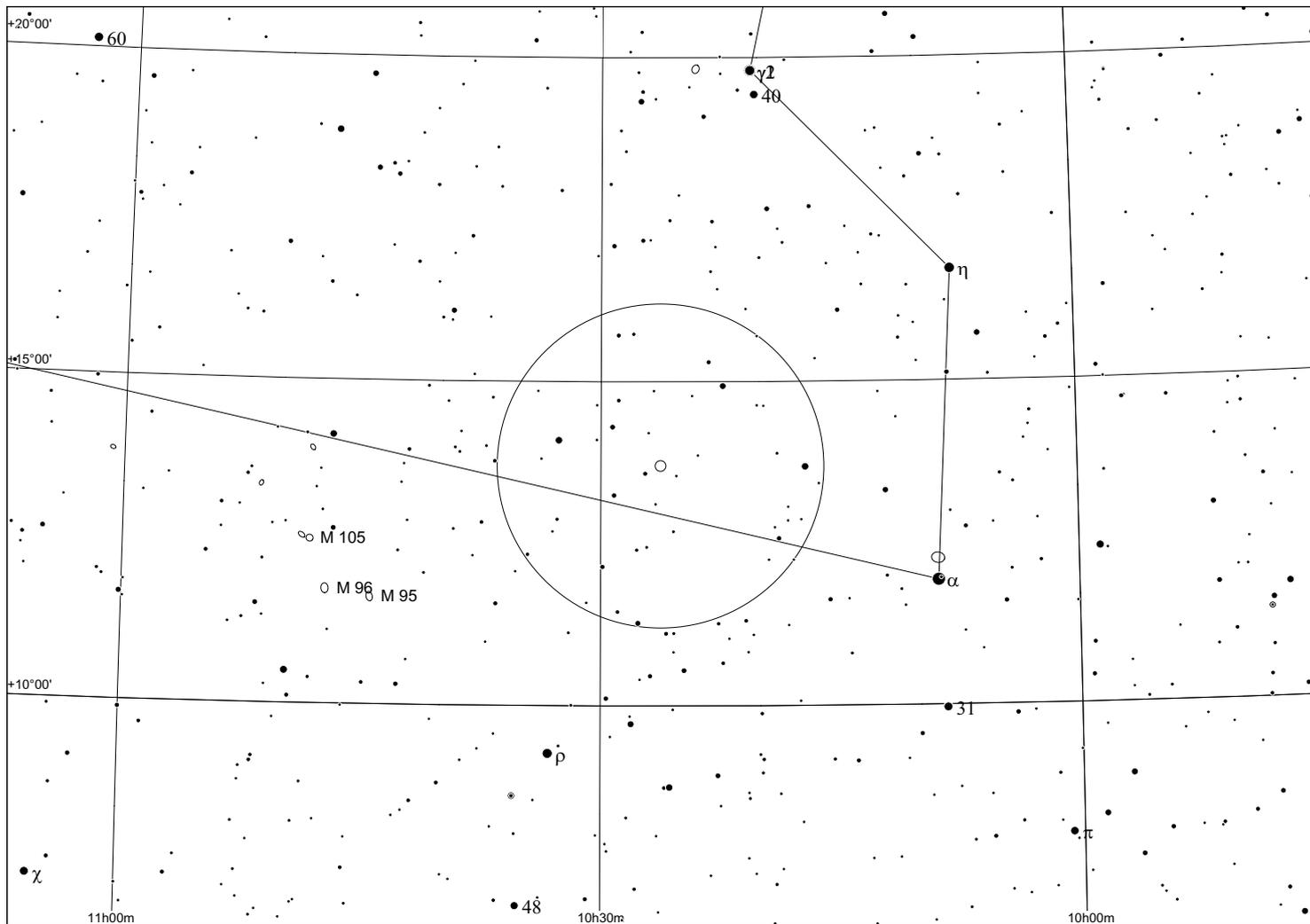


HCG Const. coordinates (2000) bright. memb. mag  
 47 Leo 10h 25m 49s +13° 44' 14.6

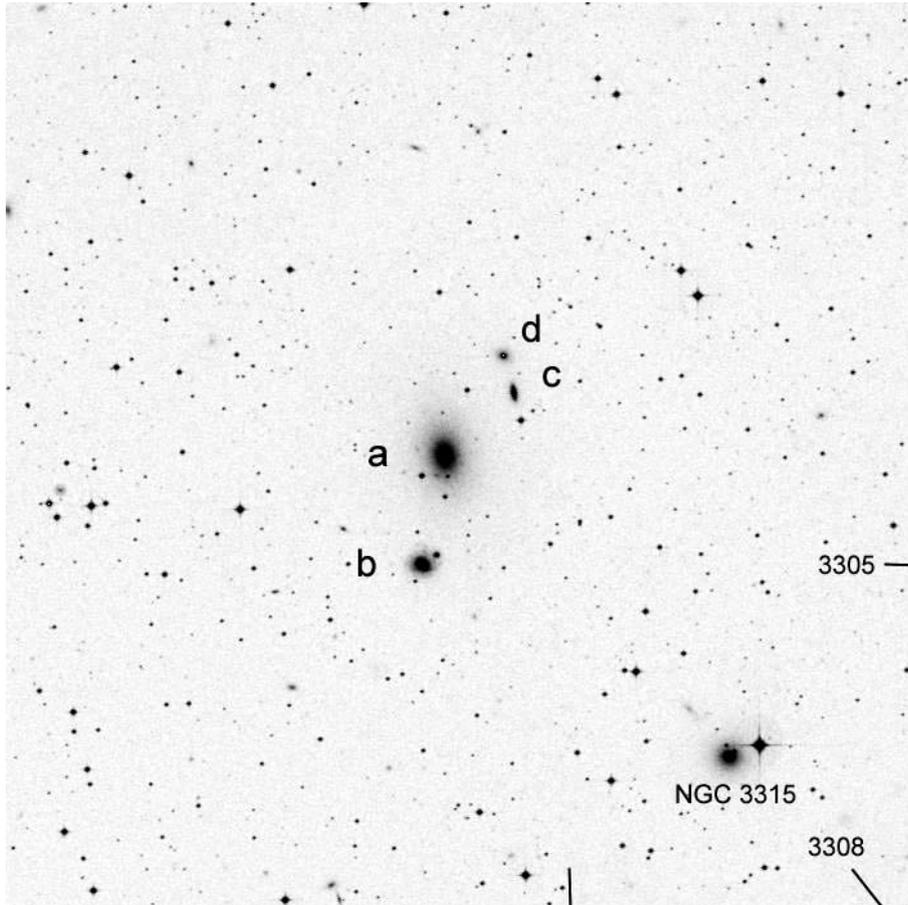
galaxy	ra (1950)	dec	a	b	type	T	B-I	C	D-B	R-I	C	D-R	B-R	B-T	B-TC	err	v_r	err	C	names
			"	"					"			"					km/s	km/s		
47a	10 23 05.93	+13 58 17.0	26.30	17.90	SBb	5	15.29	1	40.30	13.56	1	56.30	1.59	14.95	14.61	0.20	9581	31	0	U5644
47b	10 23 08.23	+13 58 56.9	17.90	12.80	E3	0	16.28	1	25.70	14.26	1	37.00	1.86	15.88	15.67	0.20	9487	32	0	
47c	10 23 08.66	+14 00 27.4	9.20	8.30	Sc	7	17.58	1	18.50	16.33	1	18.20	1.10	16.87	16.63	0.20	9529	50	0	
47d	10 23 07.45	+14 00 11.5	13.70	10.70	Sd	9	17.16	1	21.80	15.99	1	27.10	1.11	16.50	16.20	0.70	9471	56	0	

### Notes:

22" f/4: obvious group close to a moderately bright star, a and b: very obvious already with direct vision, c/d: seen with difficulty indirectly, not separated



# Hickson 48 in Hydra

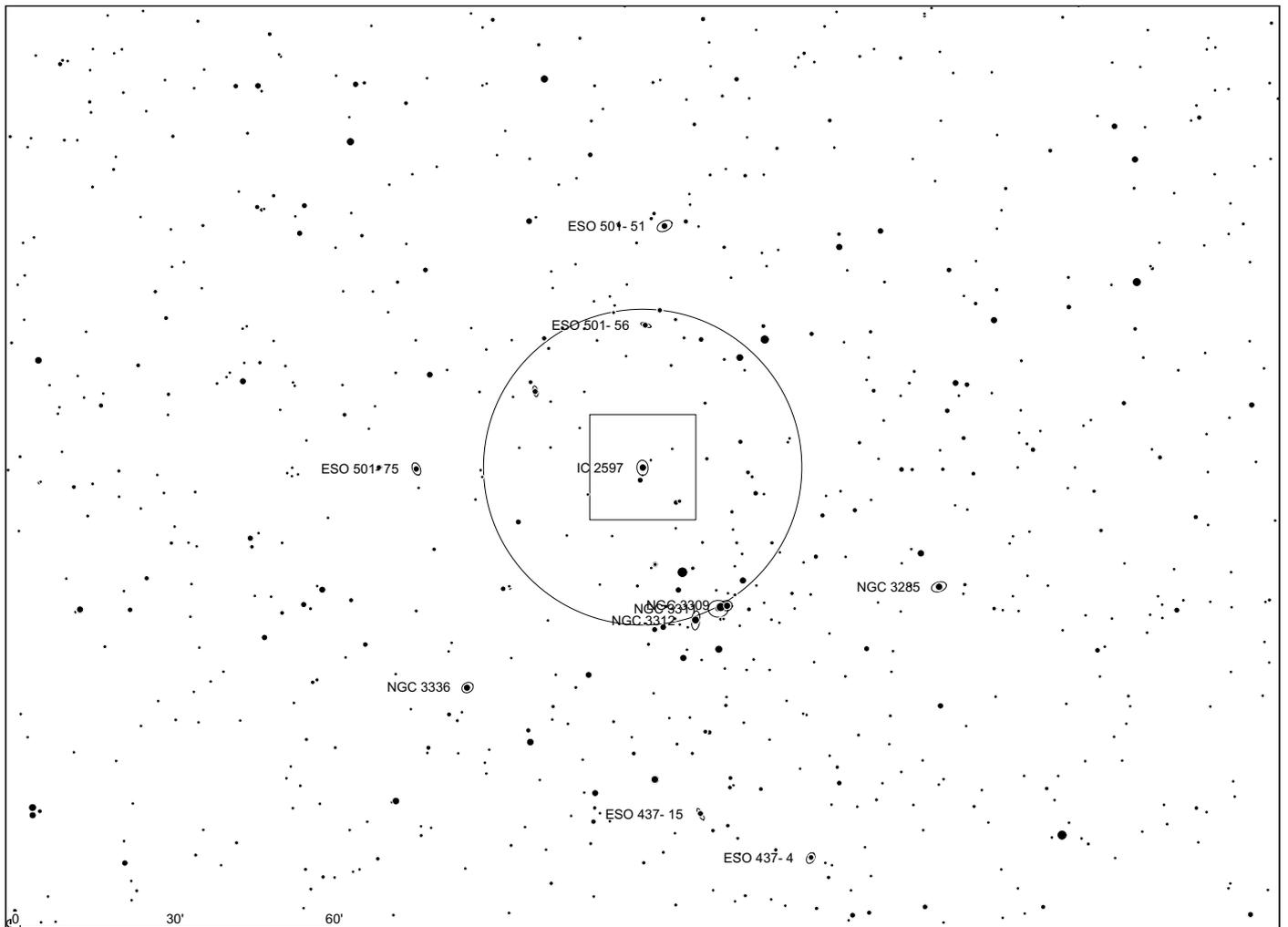
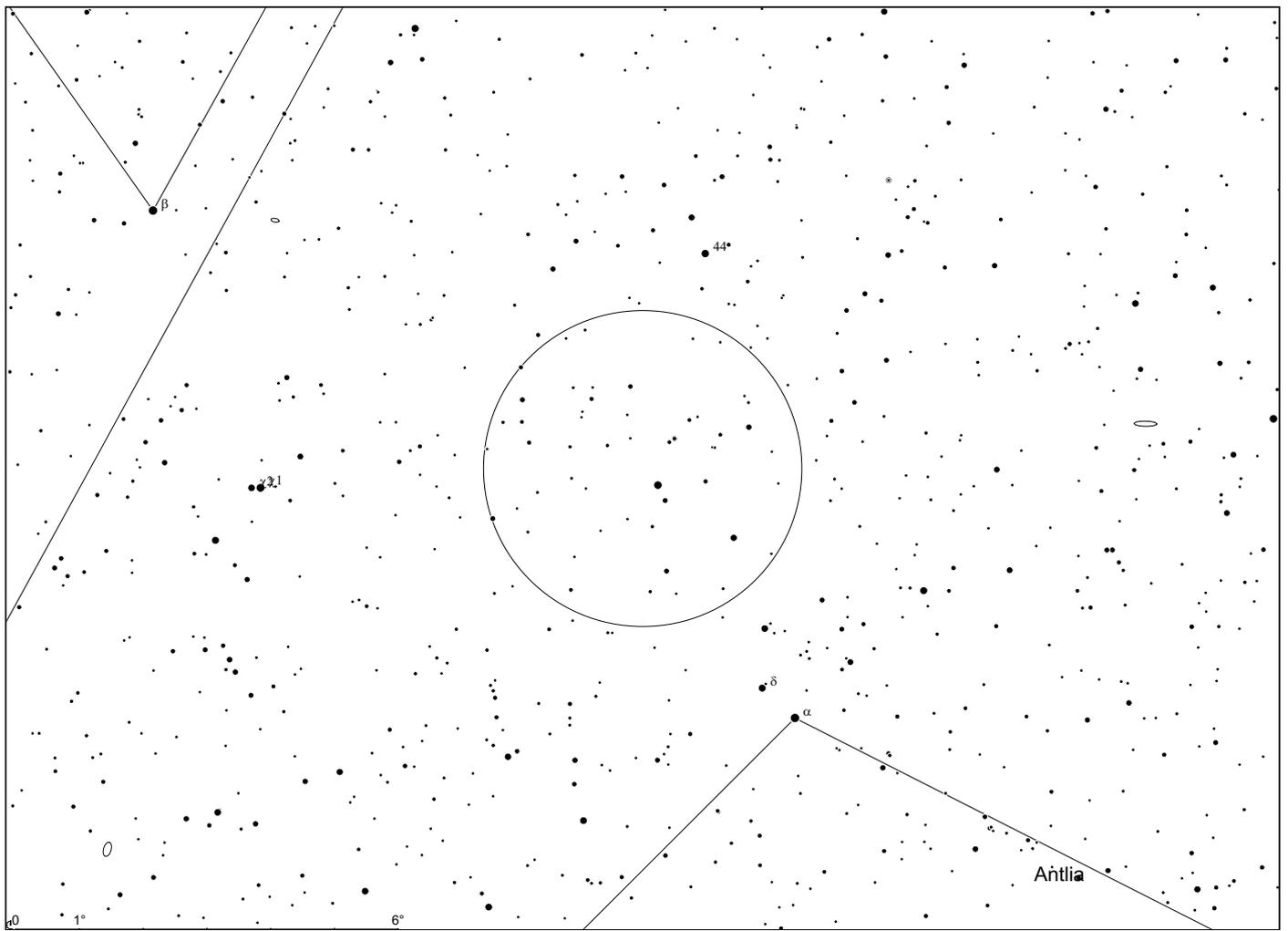


HCG Const. coordinates (2000) bright. memb. mag  
 48 Hya 10h 37m 49s -27° 05' IC 2597 13.2

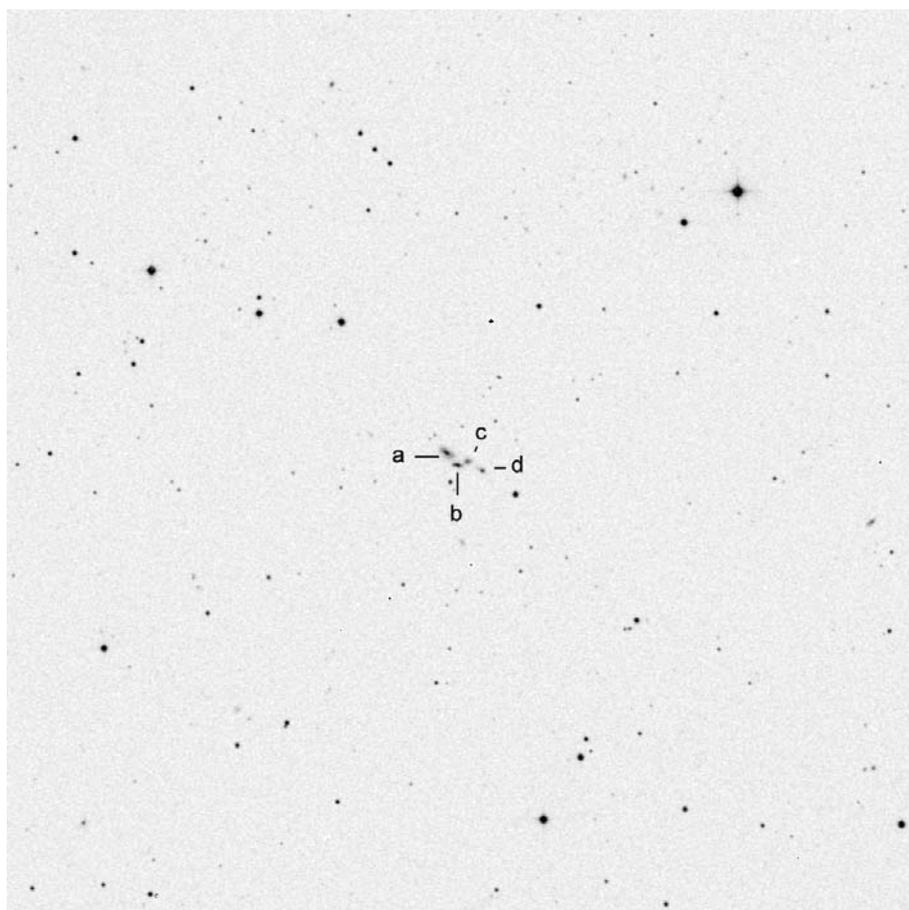
galaxy	ra (1950)	dec	a	b	type	T	B_I	C	D_B	R_I	C	D_R	B-R	B_T	B_TC	err	v_r	err	C	names
			"	"					"			"					km/s	km/s		
48a	10 35 25.58	-26 49 13.1	45.70	35.10	E2	0	14.02	3	81.30	12.39	3	103.00	1.54	13.50	13.21	0.20	3014	48	0	I2597
48b	10 35 27.90	-26 51 41.5	22.00	20.40	Sc	7	15.11	3	44.10	14.26	3	41.60	0.87	14.95	14.63	0.20	2385	51	0	
48c	10 35 18.89	-26 47 51.2	15.40	6.80	S0a	2	16.52	3	20.70	14.75	3	27.20	1.71	16.36	15.82	0.20	4203	36	0	
48d	10 35 19.93	-26 47 02.1	8.80	7.50	E1	0	17.48	3	15.70	15.62	3	23.30	1.68	16.99	16.70	0.20	3045	139	0	

## Notes:

22" f/4: very low object, both seeing and transparency are poor at this elevation. Still, a and b are easily spotted. Interesting field of galaxies also beyond this group (Hydra I cluster)



## Hickson 49 in Ursa Major

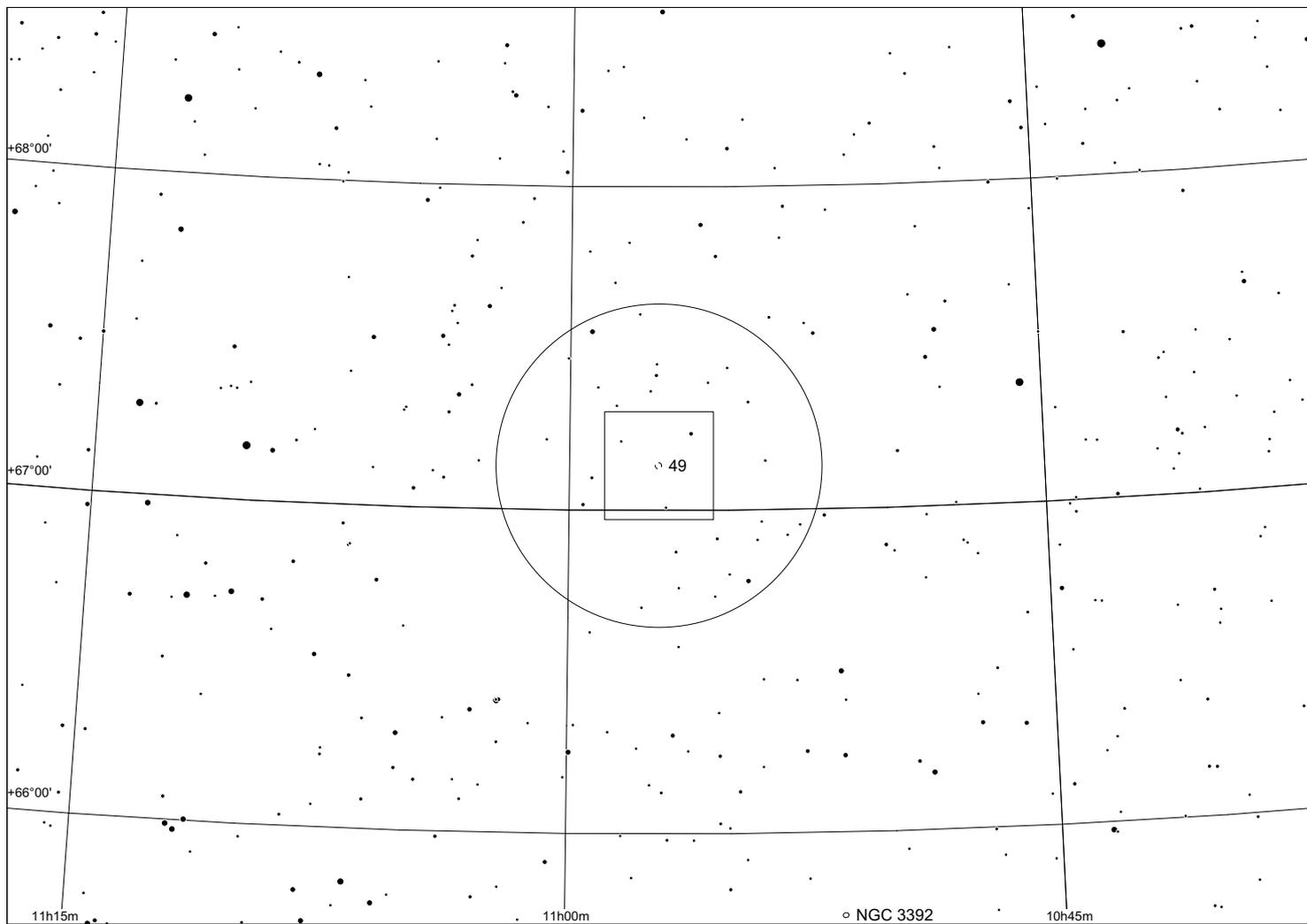
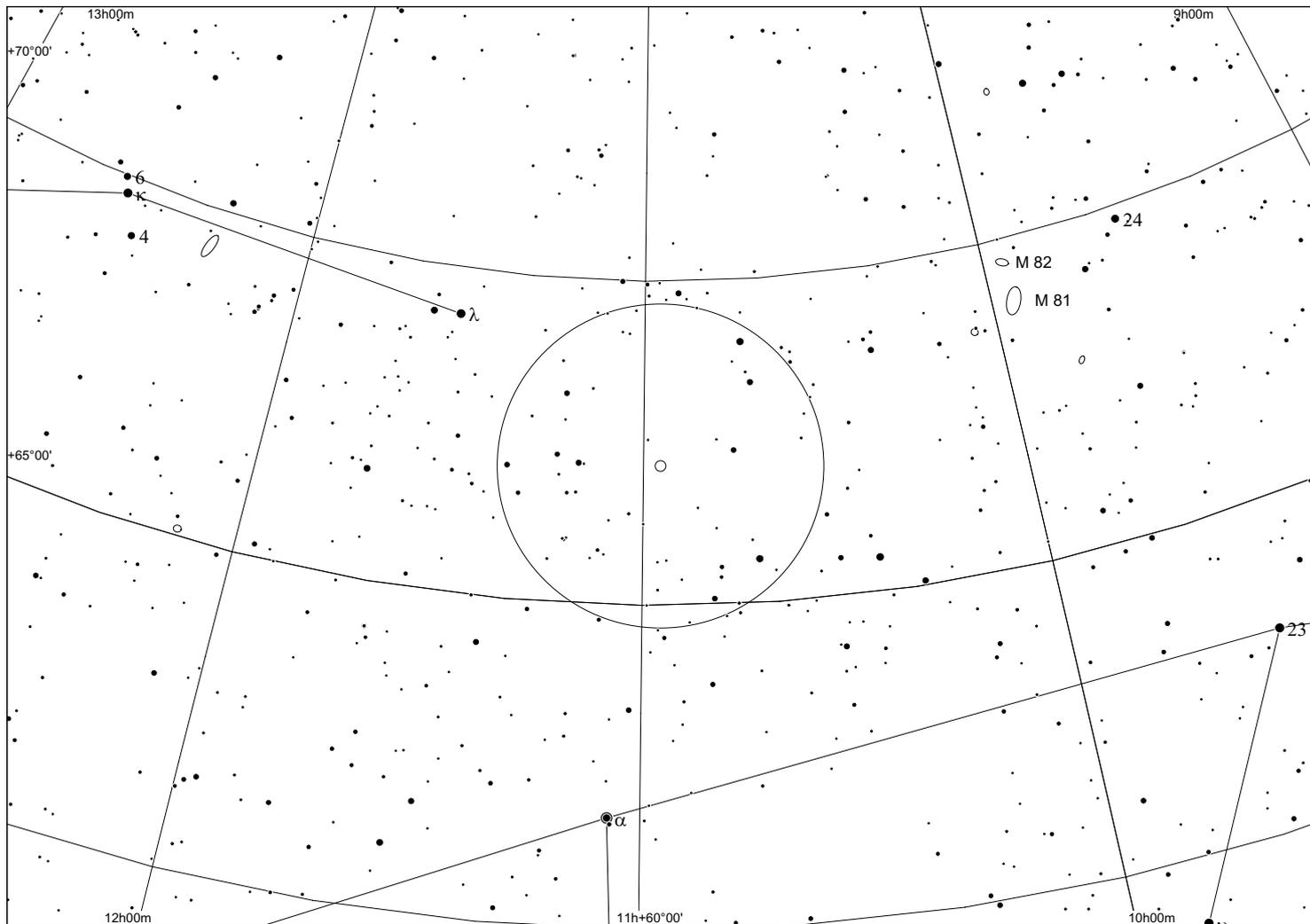


*HCG Const. coordinates (2000) bright. memb. mag*  
 49 UMa 10h 56m 37s +67° 11' 15.9

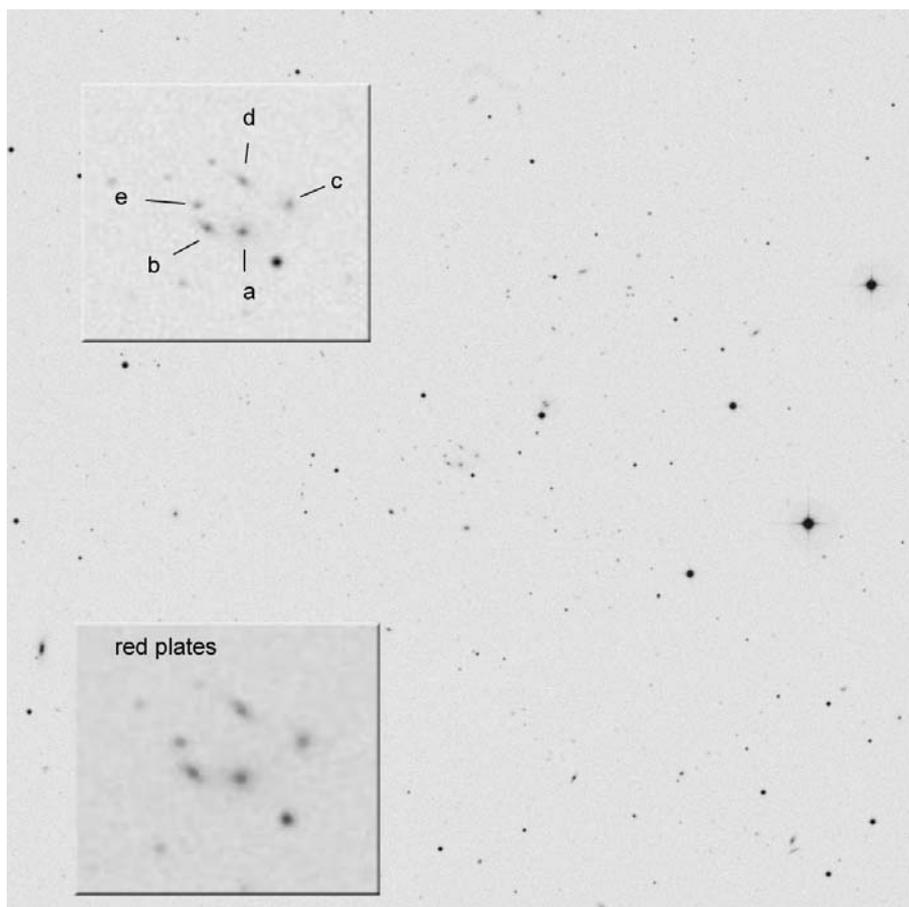
galaxy	ra (1950)	dec	a "	b "	type	T	B-I	C	D-B "	R-I	C	D-R "	B-R	B-T	B-TC	err	v_r km/s	err km/s	C	names
49a	10 53 23.11	+67 27 08.5	14.30	13.30	Scd	8	16.32	1	21.60	14.92	1	40.00	1.04	16.19	15.87	0.20	9939	36	0	
49b	10 53 20.72	+67 26 50.9	13.20	8.70	Sd	9	16.76	1	15.90	15.47	1	28.80	0.90	16.74	16.30	0.20	9930	51	0	
49c	10 53 18.20	+67 26 54.3	10.10	7.90	Im	12	17.67	1	13.70	16.24	1	23.80	1.06	17.58	17.18	0.20	9926	60	0	
49d	10 53 14.95	+67 26 42.9	10.20	6.70	E5	0	17.33	1	11.80	16.00	1	22.20	0.97	17.28	16.99	0.20	10010	72	0	

### Notes:

22" f/4.5: with 5mm, the entire group is not that difficult and appears as an unresolved clump of galaxies that can be seen steadily with averted vision. Resolution into single galaxies, however, is very difficult. The star to the south west is fairly bright, the star directly south of the group can be seen most of the time.



## Hickson 50 in Ursa Major



HCG Const. coordinates (2000) bright. memb. mag  
 50 UMA 11h 17m 07s +54° 55' 18.4

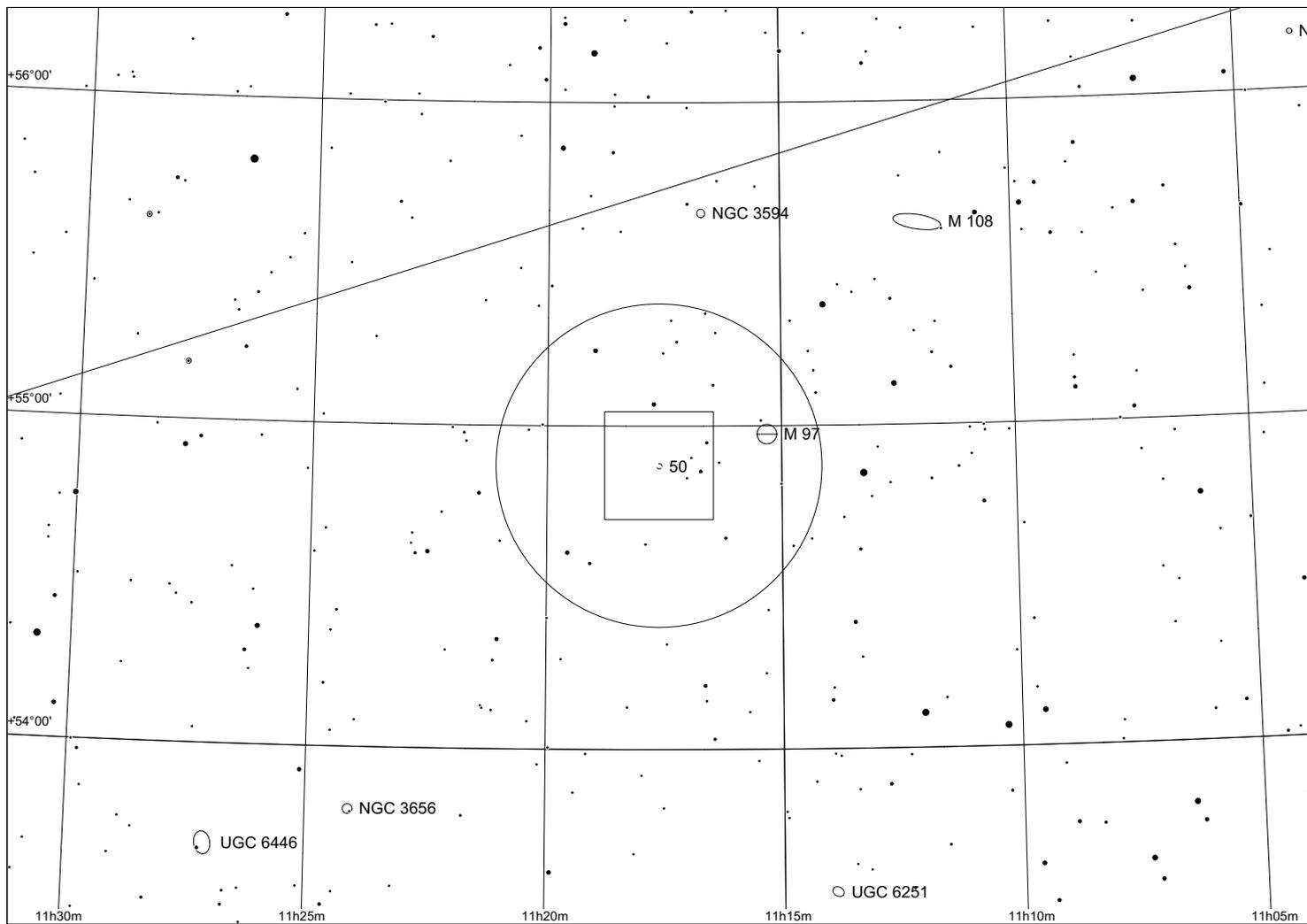
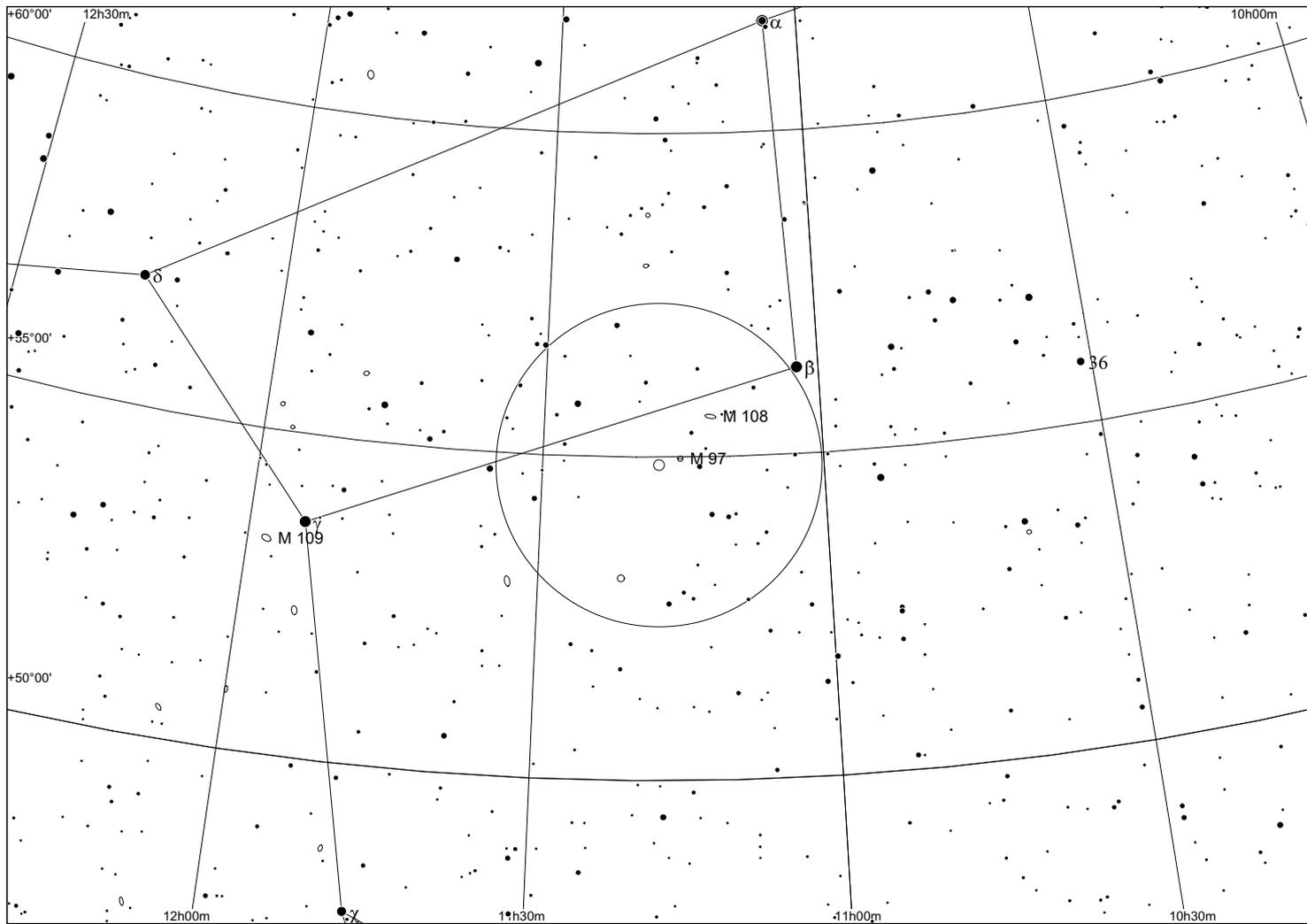
galaxy	ra (1950)	dec	a	b	type	T	B_I	C	D_B	R_I	C	D_R	B-R	B_T	B_TC	err	v_r	err	C	names
			"	"					"			"					km/s	km/s		
50a	11 14 14.37	+55 11 23.2	5.90	5.80	E0	0	19.08	1	9.20	16.20	1	23.10	2.17	18.70	18.40	0.50	41870	118	0	
50b	11 14 16.31	+55 11 25.0	8.20	4.40	SB0	1	19.15	1	9.00	16.46	1	19.60	2.14	18.90	18.50	0.70	41170	111	0	
50c	11 14 12.11	+55 11 37.3	4.50	4.10	S0	1	19.92	1	7.10	17.19	1	15.70	2.14	19.60	19.30	0.50	41398	62	0	
50d	11 14 14.53	+55 11 46.8	7.30	4.10	S0	1	19.83	1	7.10	17.02	1	15.80	2.25	19.50	19.20	0.70	42546	62	0	
50e	11 14 16.93	+55 11 34.6	4.30	2.90	S0	1	20.32	1	5.40	17.64	1	12.00	2.13	20.00	19.70	0.70	41650	62	0	

### Notes:

22" f/4: This is by far the most difficult group in the Hickson Catalog! There are positive observations with 30" and up. Here are my own (negative) notes:

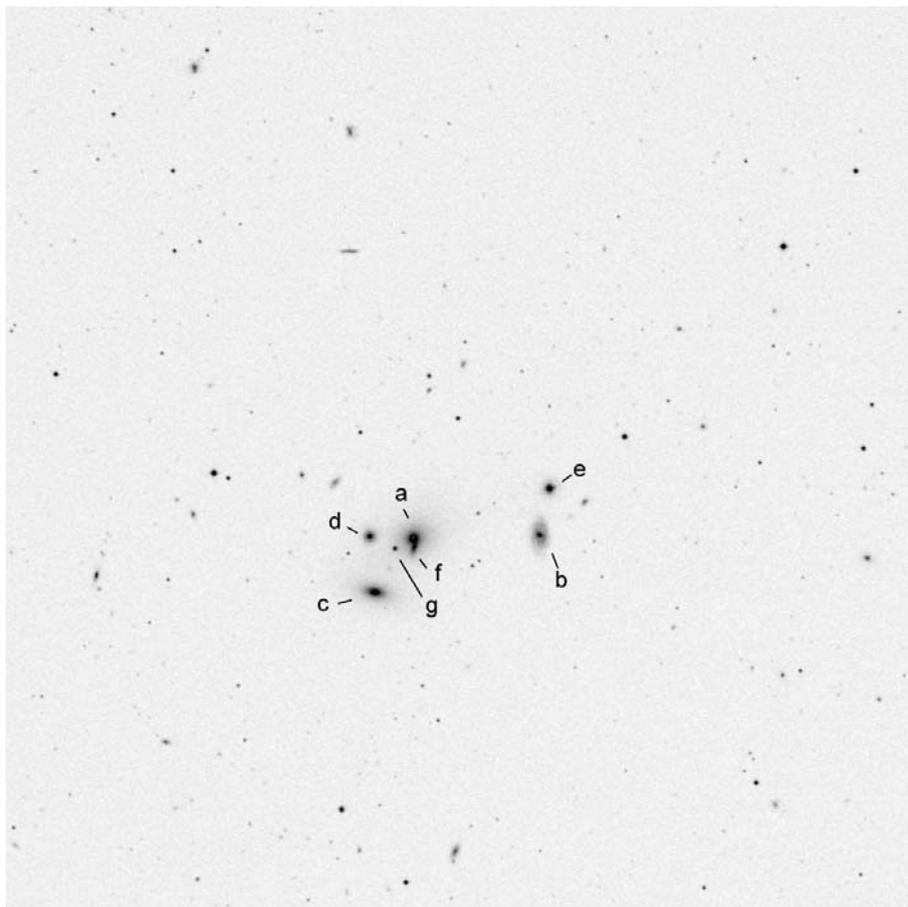
(2008) Star at the southwest border seen intermittently with indirect vision, no galaxies seen, did not try to push it excessively

(03/2009) upon re-observation with 500x (f/4.5, 5mm) with both good seeing and good transparency, the star pattern leading to HCG50 could be held steadily and also the star immediately SW of the group could be held about 50% of the time with indirect vision. I spent about 20minutes with this object to see how far I could get. Twice, a stellar object "twinkled" at the position of b (which is \*not\* the brightest member) over time. Well, this happens every once in a while if you stare extendedly into apparently empty dark space and belongs to the category "averted imagination" :-)





## Hickson 51 in Leo



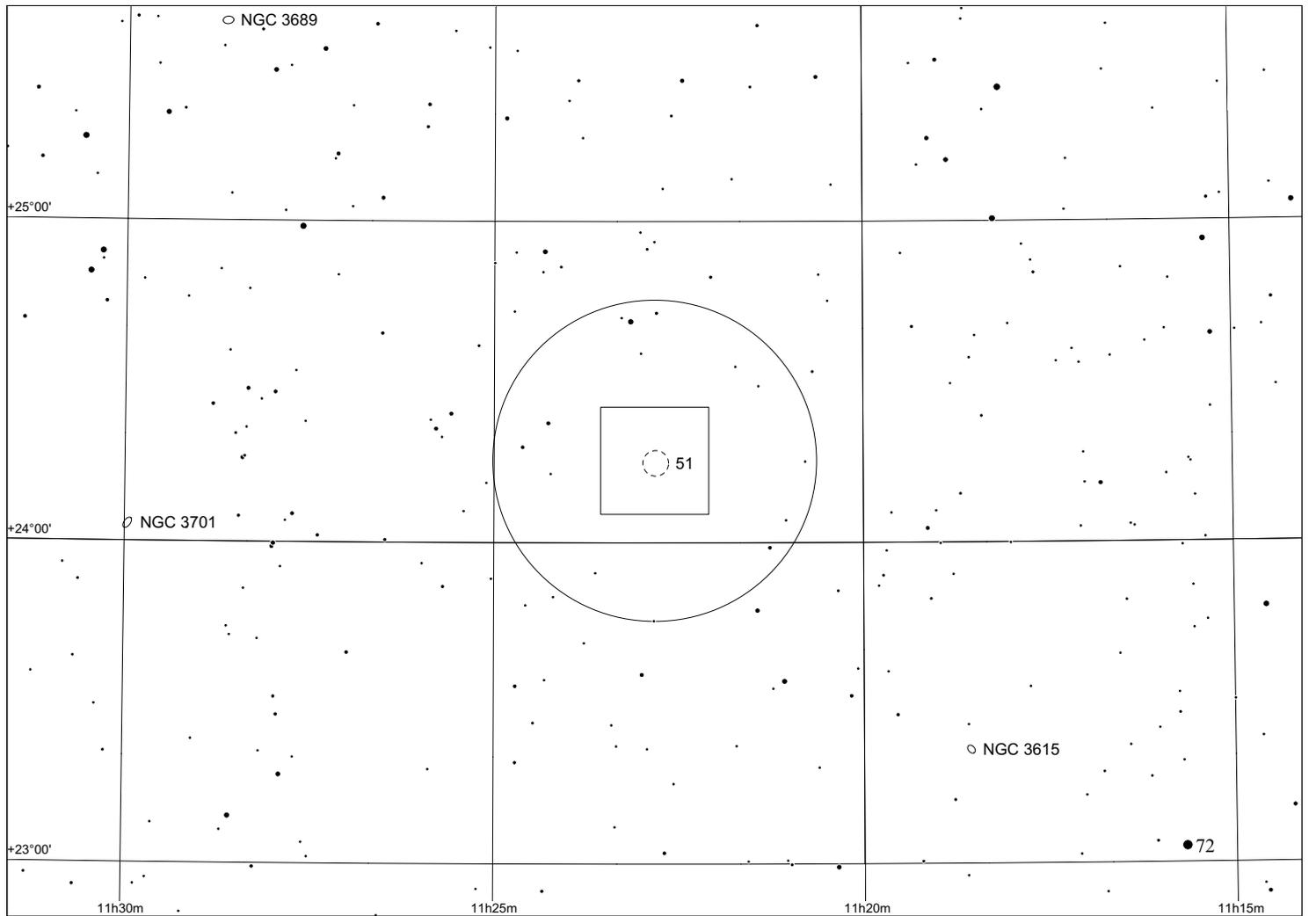
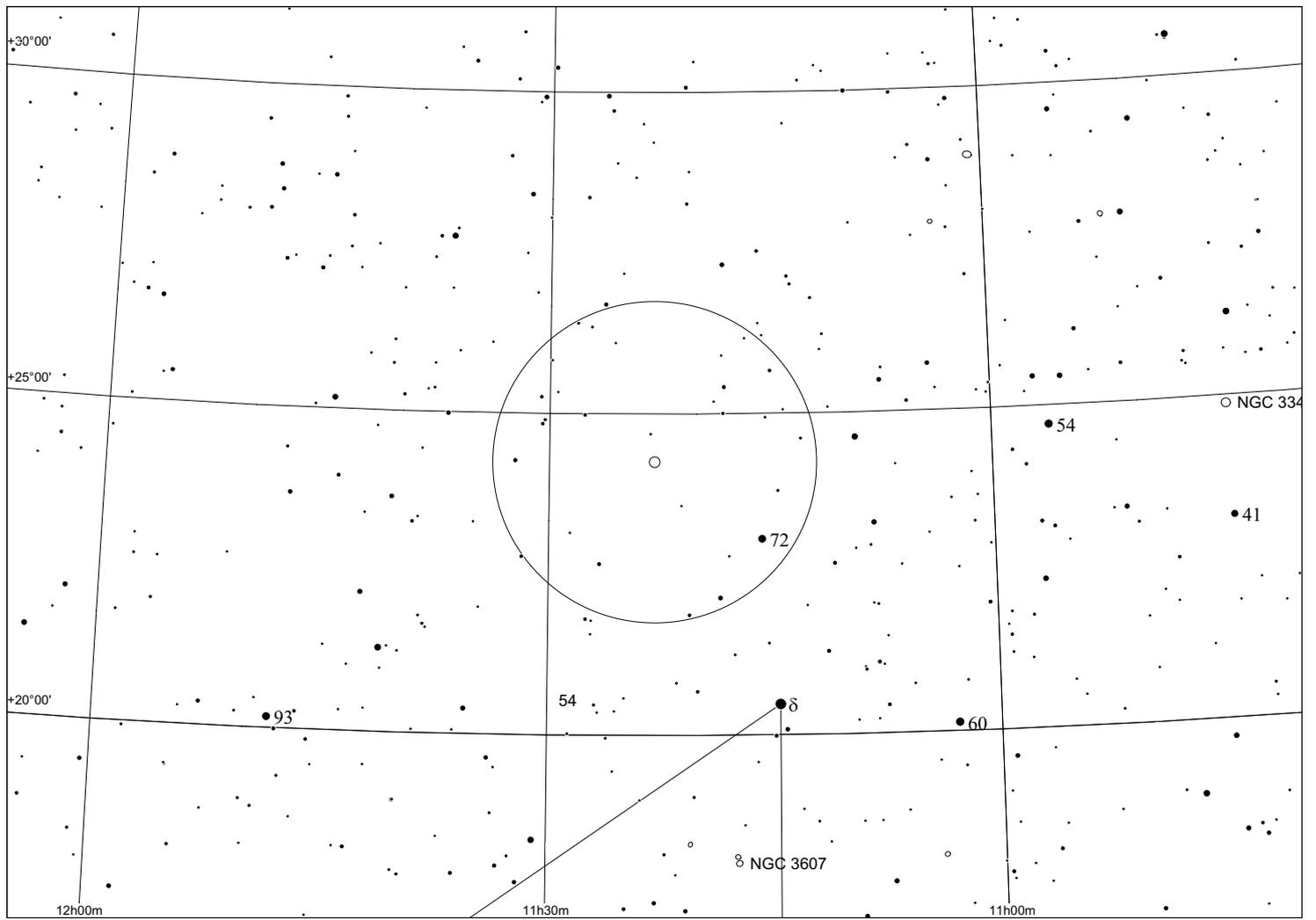
HCG Const. coordinates (2000) bright. memb. mag  
 51 Leo 11h 22m 21s +24° 18' NGC 3651 13.9

galaxy	ra (1950)	dec	a "	b "	type	T	B-I	C	D <sub>B</sub> "	R-I	C	D <sub>R</sub> "	B-R	B <sub>T</sub>	B <sub>TC</sub>	err	v <sub>r</sub> km/s	err km/s	C	names
51a	11 19 47.57	+24 34 23.1	40.00	37.00	E1	0	14.49	1	58.50	12.68	1	79.00	1.68	14.08	13.89	0.20	7696	34	0	N3651,
U6388																				
51b	11 19 35.51	+24 34 25.1	28.80	16.10	SBbc	6	15.69	0	26.10	13.78	0	49.10	1.51	15.67	15.28	0.10	8183	62	0	
51c	11 19 51.42	+24 33 12.2	34.40	22.90	S0	1	14.76	1	52.40	12.30	1	102.80	1.67	14.43	14.17	0.20	8902	20	0	N3653
51d	11 19 51.90	+24 34 25.8	16.40	14.90	Sa	3	15.81	1	30.30	12.97	1	74.10	1.47	15.40	15.18	0.20	7529	32	0	
51e	11 19 34.58	+24 35 27.4	20.30	16.50	E2	0	15.41	0	40.70	13.87	0	41.20	1.55	15.00	14.81	0.20	7700	23	0	
51f	11 19 47.72	+24 34 04.4	17.00	8.50	S0	1	15.40	1	43.90	13.67	1	65.80	1.56	15.10	14.79	0.20	7532	30	0	
51g	11 19 49.49	+24 34 09.6	7.00	5.70	cI	13	16.34	1	19.70	15.03	1	22.50	1.27	15.92	15.73	0.20	0	0	0	

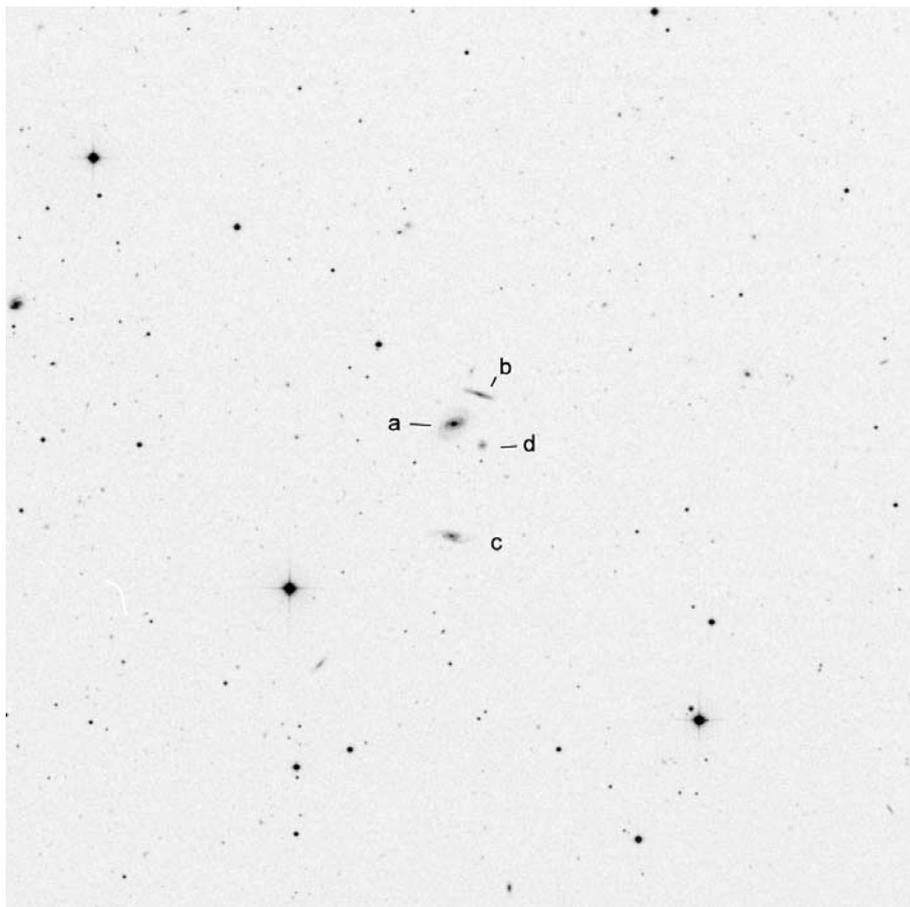
### Notes:

22" f/4: a,c,d trio is easily seen, a appears as an elongated blob (merged with f), b and e: with indirect v., easy to separate, g: not seen

Easier than I had it in mind from earlier observations with my 14".



## Hickson 52 in Leo



*HCG Const. coordinates (2000) bright. memb. mag*  
 52 Leo 11h 26m 19s +21° 05' 14.9

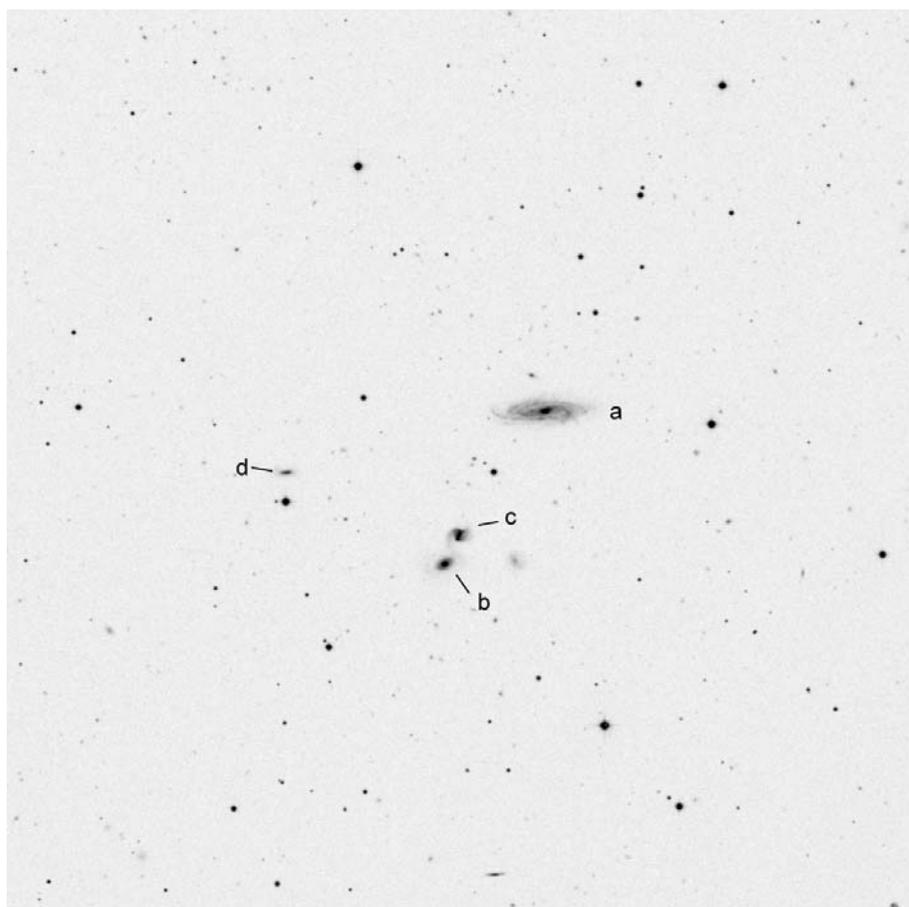
<i>galaxy</i>	<i>ra (1950)</i>	<i>dec</i>	<i>a</i> "	<i>b</i> "	<i>type</i>	<i>T</i>	<i>B-I</i>	<i>C</i>	<i>D<sub>B</sub></i> "	<i>R-I</i>	<i>C</i>	<i>D<sub>R</sub></i> "	<i>B-R</i>	<i>B-T</i>	<i>B-TC</i>	<i>err</i>	<i>v<sub>r</sub></i> km/s	<i>err</i> km/s	<i>C</i>	<i>names</i>
52a	11 23 41.32	+21 22 16.2	24.90	14.30	SBab	4	15.54	0	38.90	13.88	0	47.90	1.57	15.28	14.90	0.10	12979	38	0	
52b	11 23 38.86	+21 22 54.9	21.00	4.70	Sc	7	16.83	0	21.20	15.24	0	25.30	1.53	16.37	15.66	0.20	13040	73	0	
52c	11 23 41.59	+21 19 47.4	23.80	7.90	Scd	8	16.68	0	23.70	15.41	0	28.90	1.17	16.26	15.69	0.20	12630	61	0	
52d	11 23 38.68	+21 21 47.3	8.20	6.10	Sdm	10	17.70	0	15.60	16.68	0	17.30	0.97	17.05	16.76	0.20	6293	65	0	

### Notes:

22" f/4: a and c are relatively easy and can be seen steadily with indirect vision. b was only suspected.



## Hickson 53 in Leo



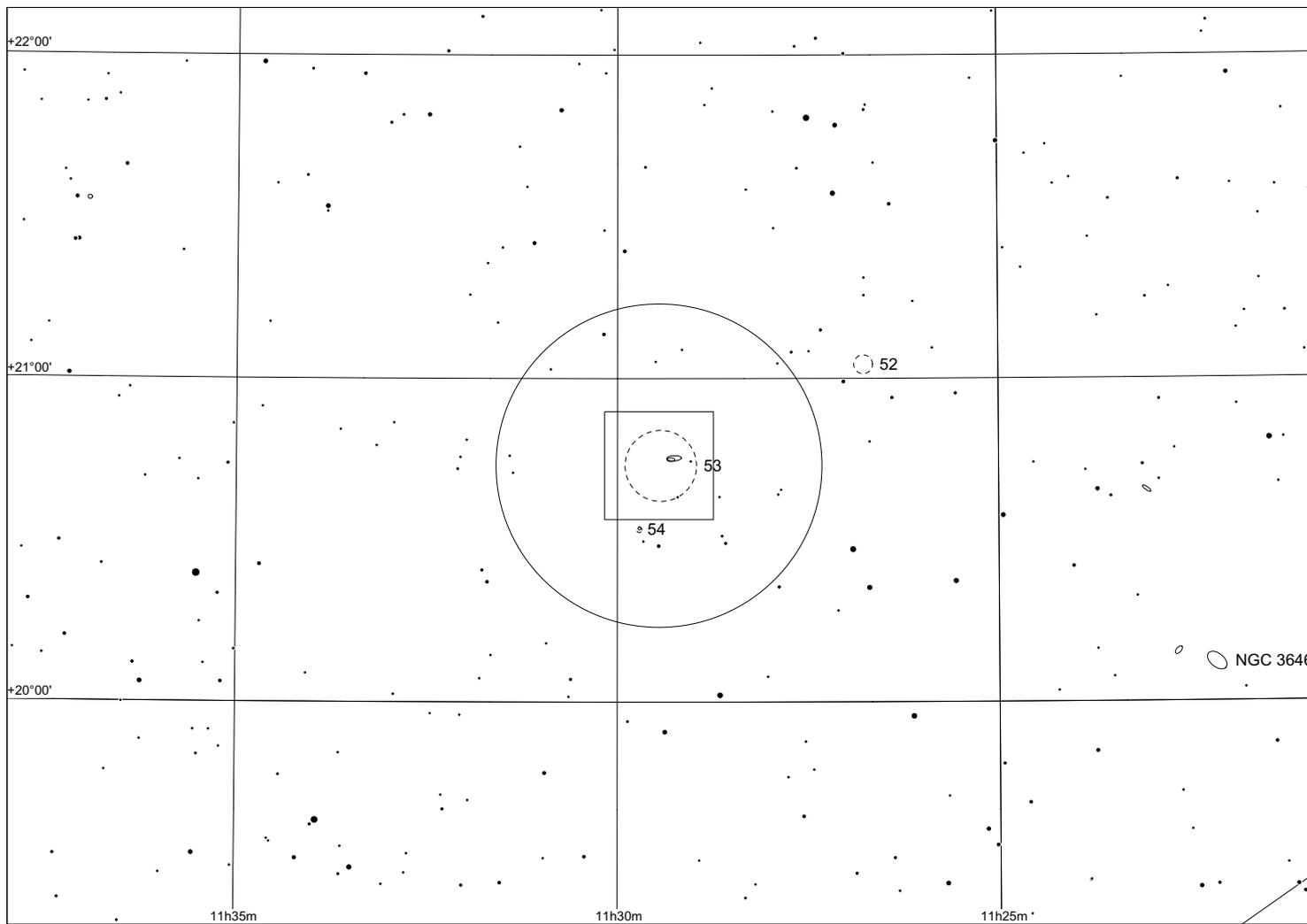
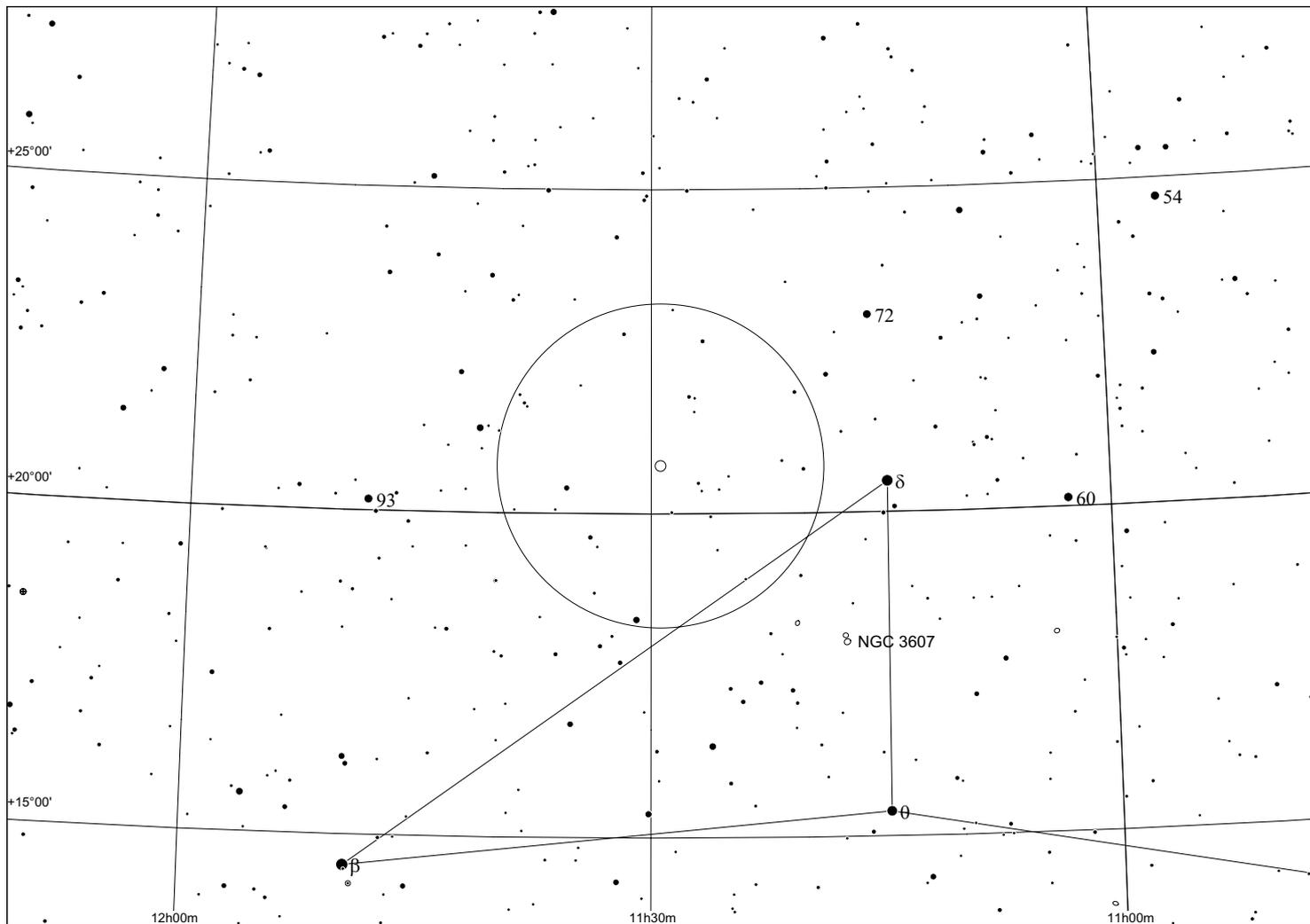
HCG Const. coordinates (2000) bright. memb. mag  
 53 Leo 11h 28m 59s +20° 47' NGC 3697 12.9

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		
53a	11 26 13.01	+21 04 15.3	69.60	23.40	SBbc	6	13.87	0	75.30	12.52	0	86.30	1.30	13.48	12.91	0.20	6261	31	0	N3697,
U6479																				
53b	11 26 22.67	+21 00 54.2	24.50	14.30	S0	1	15.11	1	35.20	13.44	1	46.90	1.57	15.01	14.73	0.20	6166	81	0	
53c	11 26 21.21	+21 01 32.3	19.50	12.00	SBd	9	15.26	1	37.90	14.22	1	43.60	1.00	15.17	14.81	0.20	6060	50	0	Mk1296
53d	11 26 37.44	+21 02 57.3	14.80	8.20	Sc	7	16.78	0	21.50	15.44	0	26.60	1.22	16.66	16.27	0.10	9070	174	2	

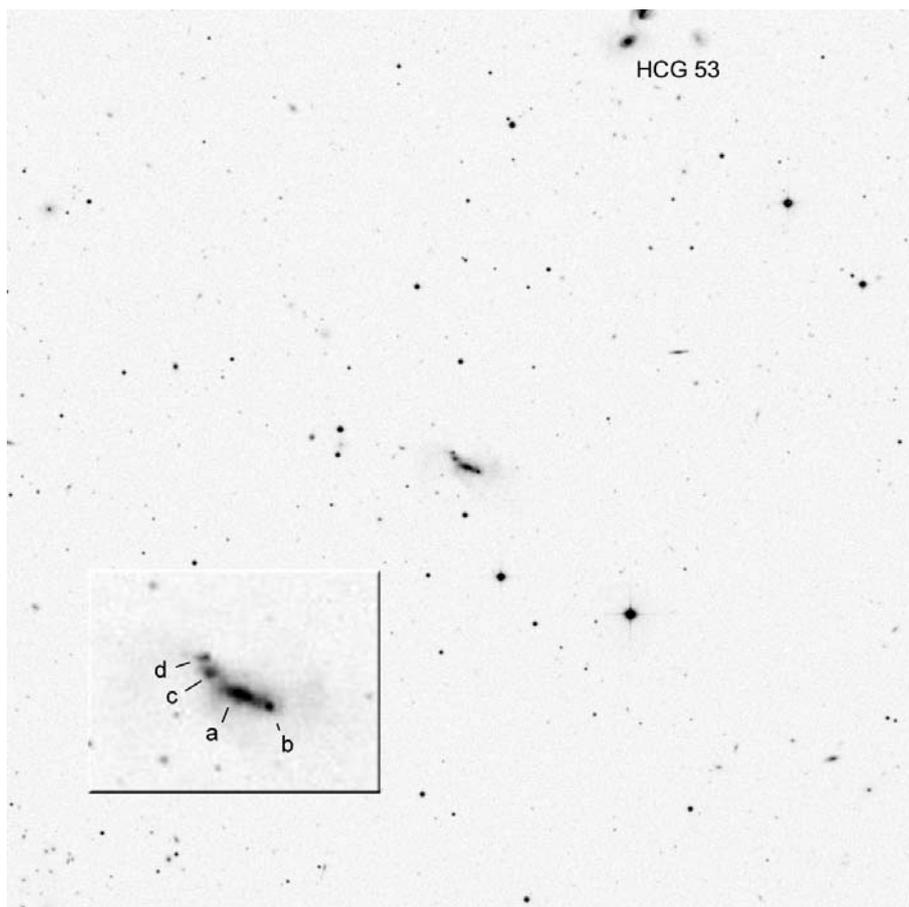
### Notes:

22" f/4: a: elongated, large, and bright galaxy, b and c: small blobs, with direct v. with 7 mm, d: very difficult, seen intermittently with indirect v., nearby star is distracting

HCG 54 is nearby



## Hickson 54 in Leo

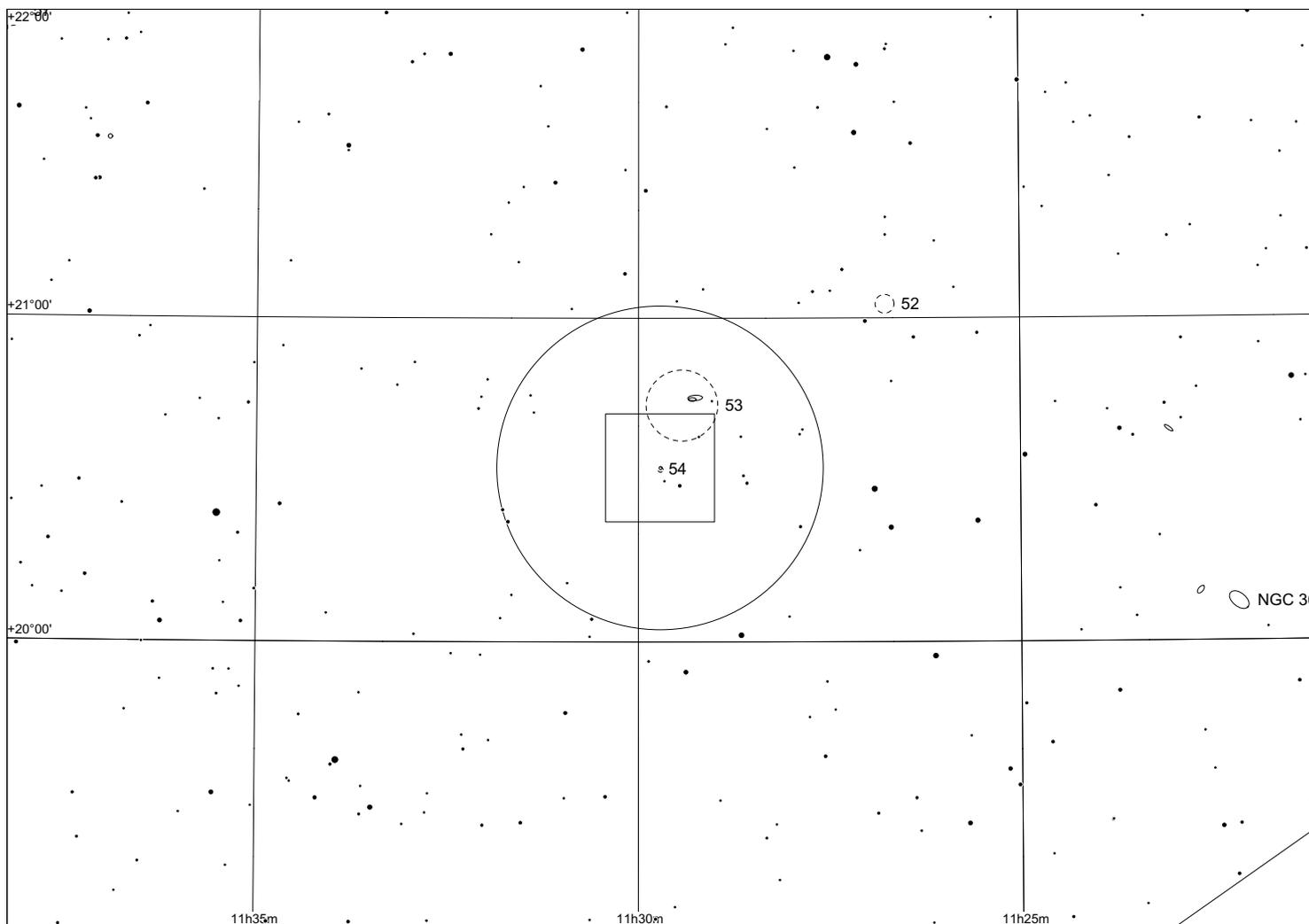
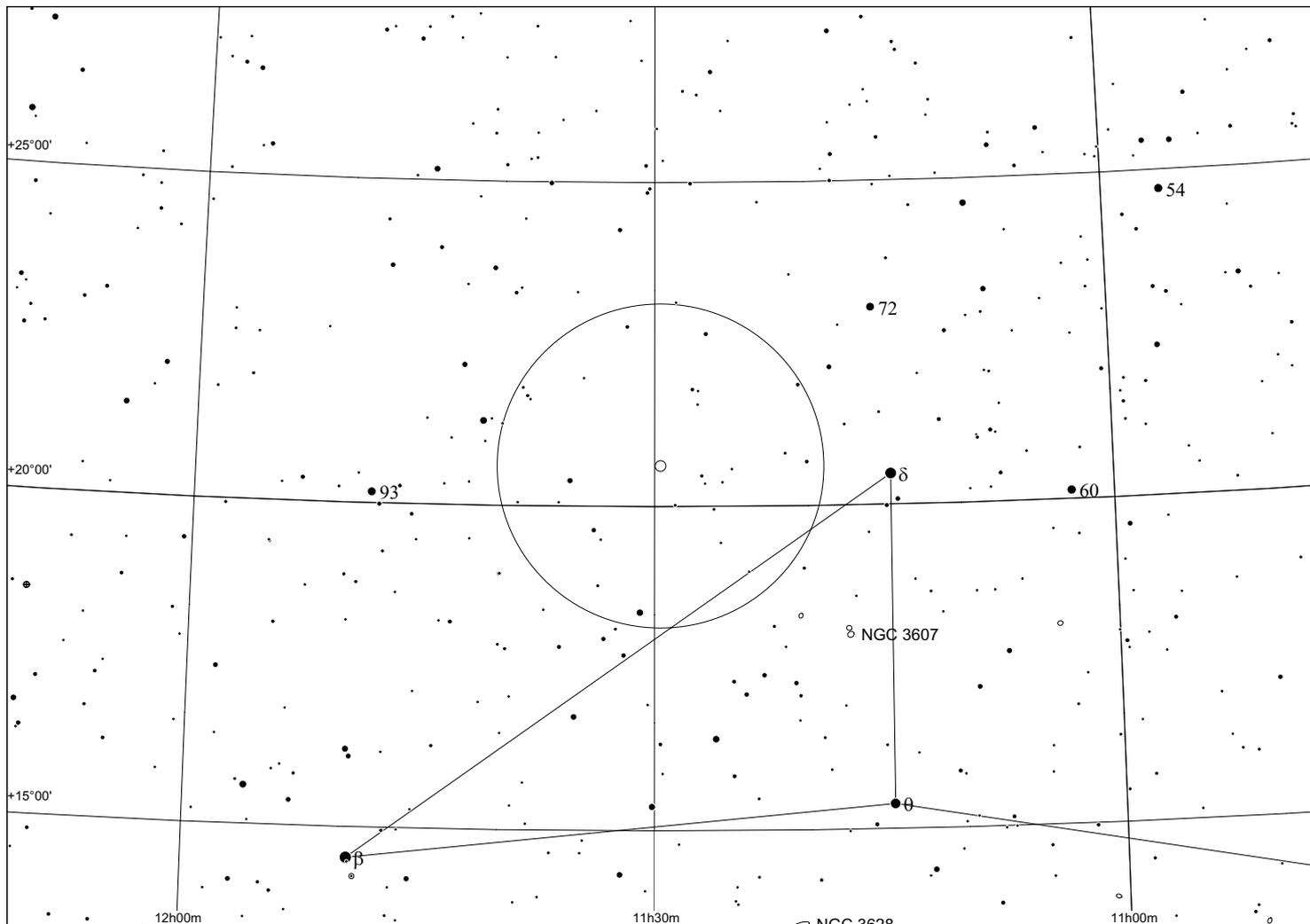


*HCG Const. coordinates (2000) bright. memb. mag*  
 54 Leo 11h 29m 16s +20° 35' IC 700 13.9

<i>galaxy</i>	<i>ra (1950)</i>	<i>dec</i>	<i>a</i> "	<i>b</i> "	<i>type</i>	<i>T</i>	<i>B-I</i>	<i>C</i>	<i>D<sub>B</sub></i> "	<i>R-I</i>	<i>C</i>	<i>D<sub>R</sub></i> "	<i>B-R</i>	<i>B-T</i>	<i>B-TC</i>	<i>err</i>	<i>v<sub>r</sub></i> km/s	<i>err</i> km/s	<i>C</i>	<i>names</i>
54a	11 26 37.92	+20 51 33.2	11.60	11.60	Sdm	10	14.16	1	44.90	13.94	1	63.20	0.88	14.05	13.86	0.20	1397	46	0	I700,
U6487																				
54b	11 26 36.80	+20 51 25.7	5.70	3.90	Im	12	16.38	1	22.70	15.55	1	28.70	0.70	16.43	16.08	0.20	1412	33	0	
54c	11 26 39.01	+20 51 43.6	4.80	4.40	Im	12	17.05	1	20.50	16.24	1	26.10	0.65	17.00	16.80	0.70	1420	35	0	
54d	11 26 39.25	20 51 51.3	5.40	2.50	Im	12	18.26	1	11.90	17.85	1	13.10	0.53	18.54	18.02	0.20	1670	50	0	

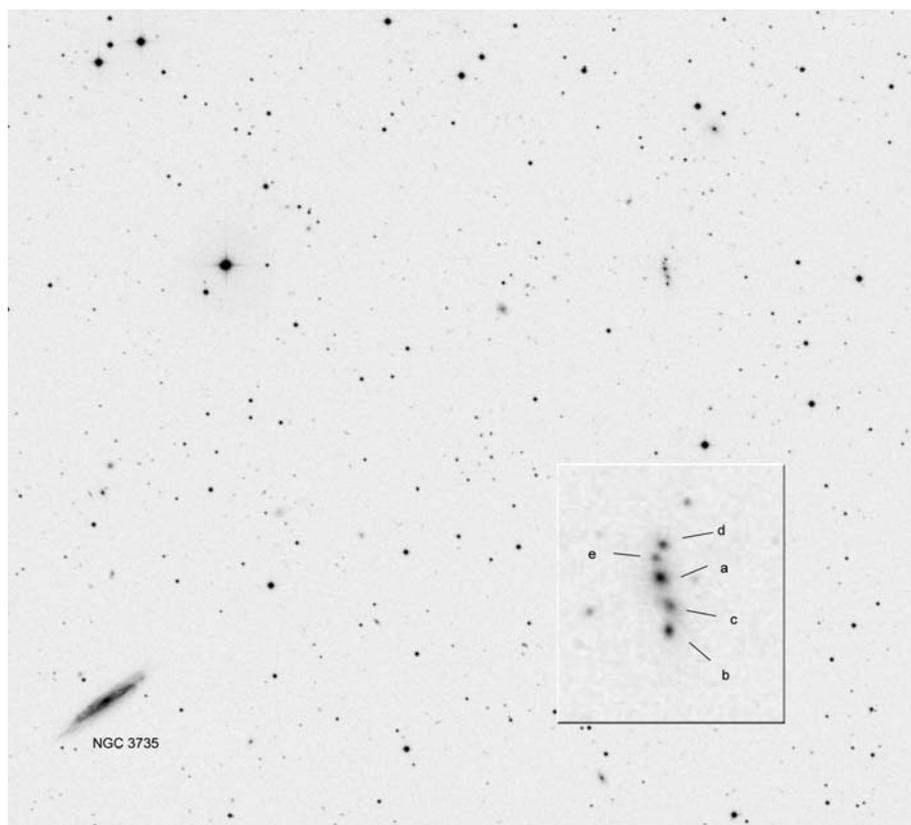
### Notes:

22" f/4: very compact and fascinating group near HCG 53, forms a small arc that is obvious with indirect vision already with 24 mm. With 7 mm, small knots are seen intermittently that could not be held steadily. These knots are probably the single galaxies a and b, more difficult than HCG 55





## Hickson 55 in Draco

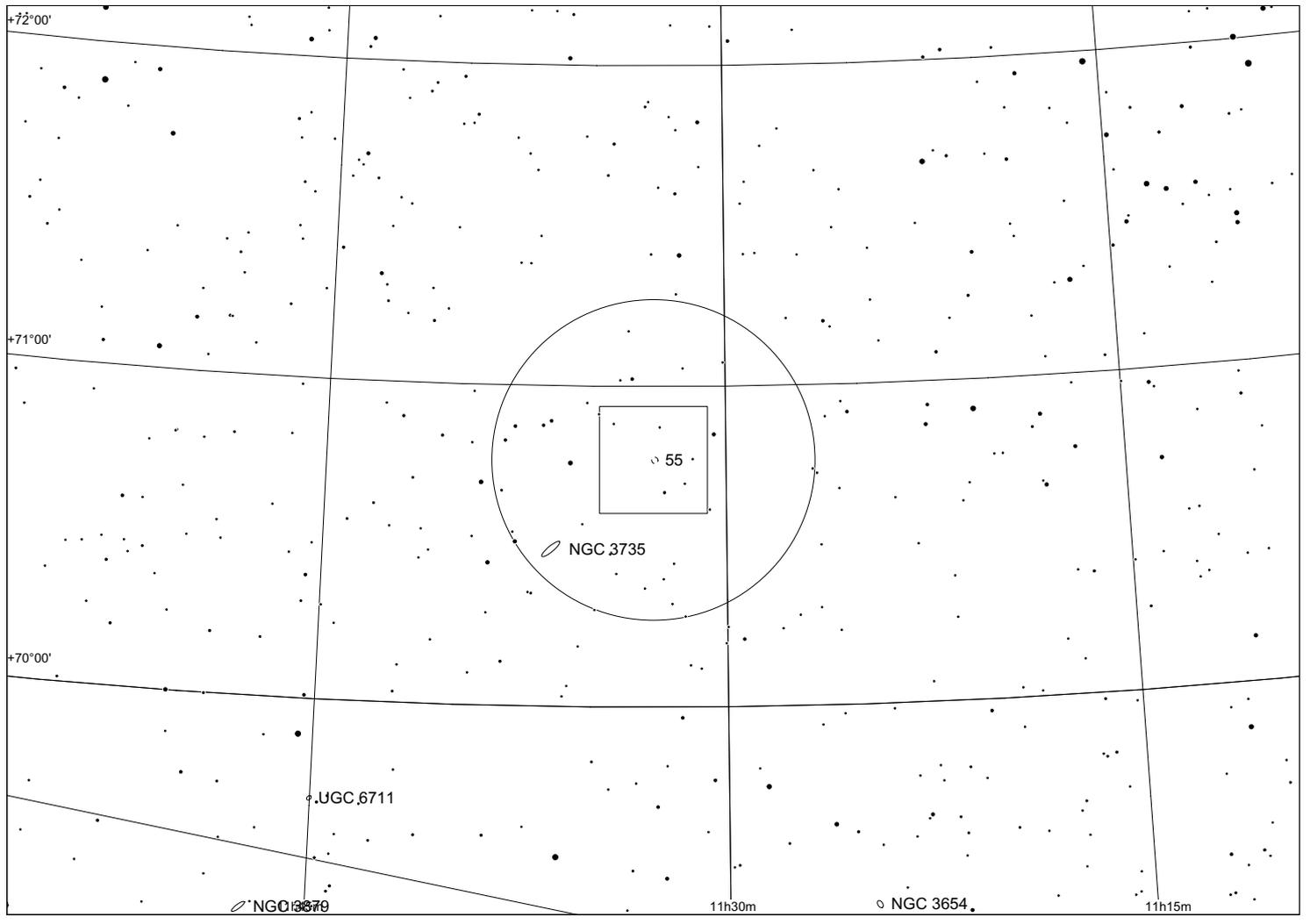
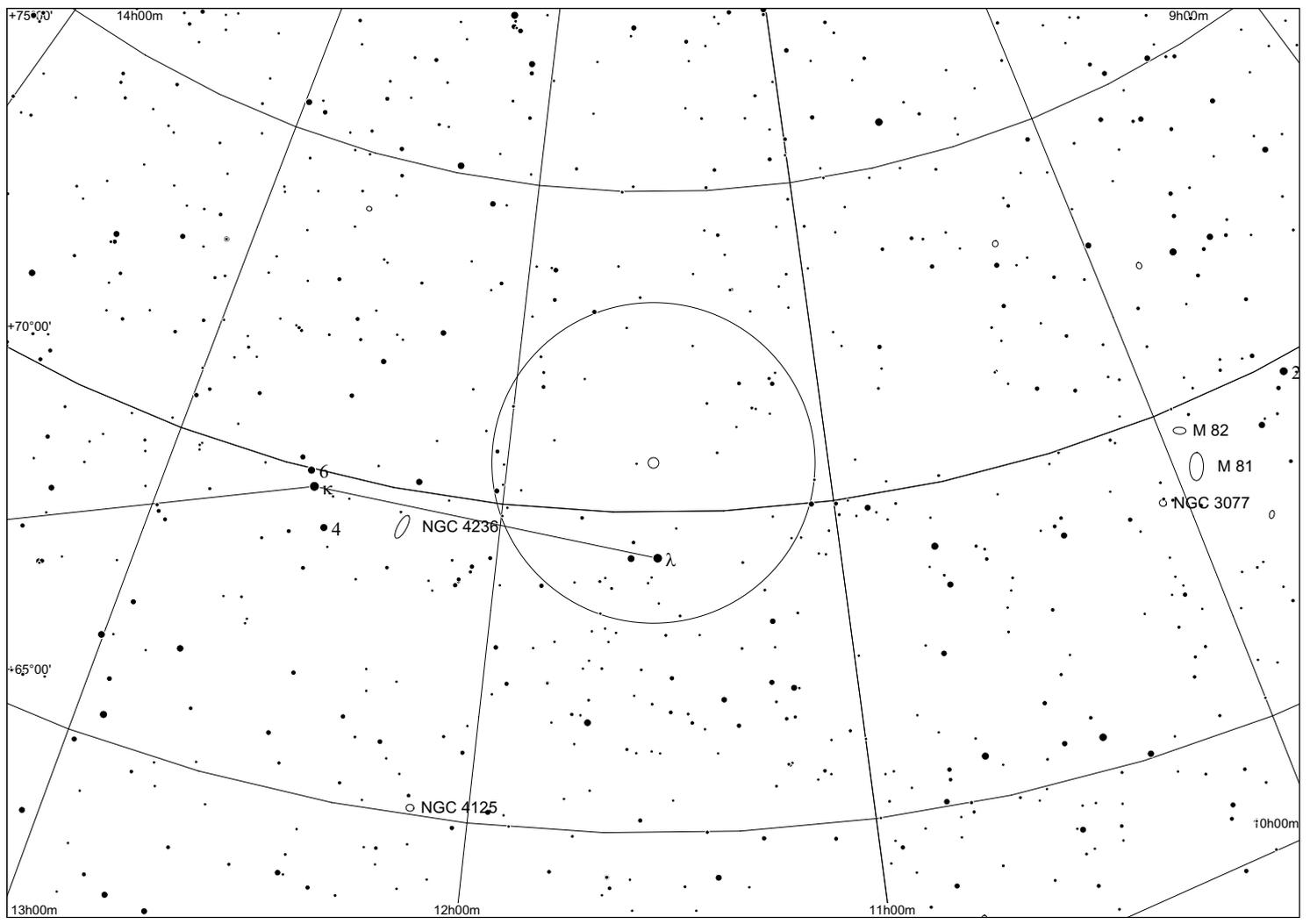


*HCG Const. coordinates (2000) bright. memb. mag*  
 55 Dra 11h 32m 08s +70° 49' 15.4

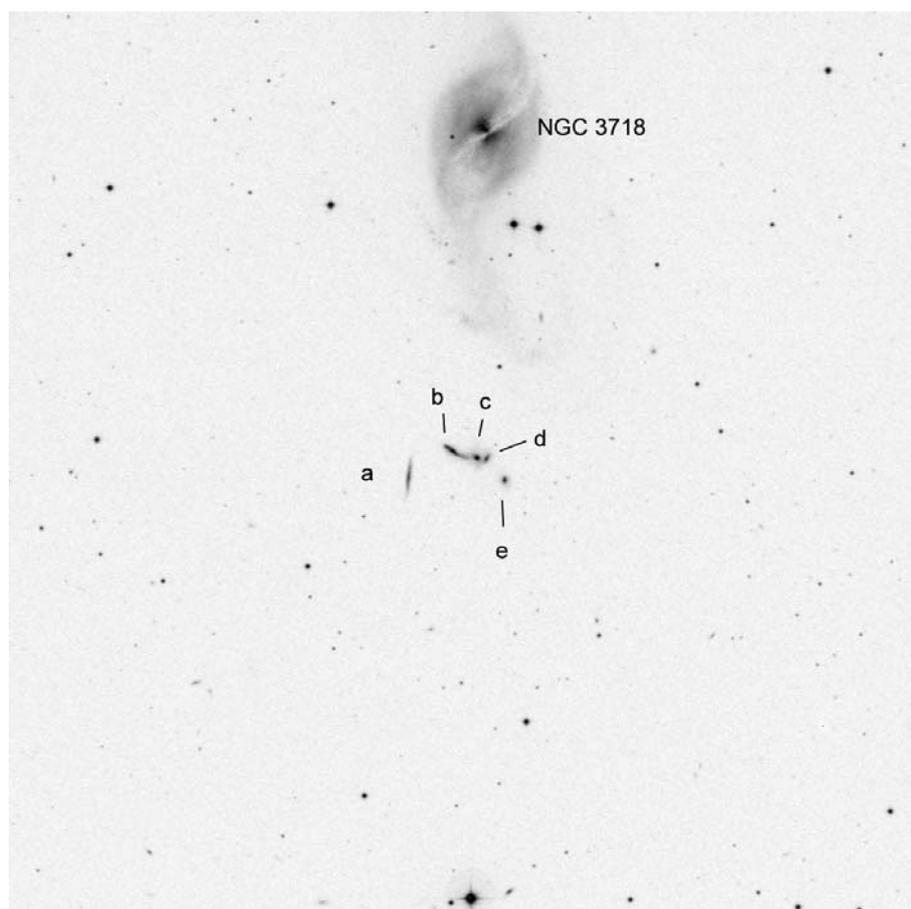
galaxy	ra (1950)	dec	a "	b "	type	T	B_I	C	D_B "	R_I	C	D_R "	B-R	B_T	B_TC	err	v_r km/s	err km/s	C	names
55a	11 29 08.44	+71 05 29.4	13.20	12.90	E0	0	16.25	1	23.10	14.36	1	38.80	1.67	15.71	15.43	0.20	15820	100	0	U6514
55b	11 29 06.99	+71 04 57.4	7.90	7.00	S0	1	16.88	1	15.90	15.00	1	26.10	1.68	16.37	16.06	0.20	15690	100	0	U6514
55c	11 29 07.19	+71 05 13.4	17.20	11.30	E3	0	17.43	1	18.80	15.31	1	32.80	1.83	16.88	16.60	0.20	15480	100	0	U6514
55d	11 29 08.38	+71 05 50.8	8.20	6.60	E2	0	17.63	1	12.60	15.62	1	20.50	1.81	17.09	16.81	0.20	16070	100	0	U6514
55e	11 29 09.09	+71 05 41.5	6.60	5.00	Sc	7	18.03	1	15.30	16.52	1	18.70	1.35	17.44	17.06	0.20	36880	100	0	U6514

### Notes:

22" f/4: one of the highlights of the Hickson catalog, though not easy. Starting from NGC 3735, the chain is quite obvious with indirect vision, though difficult to split into single galaxies. After extended observation three, sometimes four knots could be separated with averted vision, but could not be held steadily. Very difficult group that is nevertheless worth the effort of trying to get to your limits



## Hickson 56 in Ursa Major



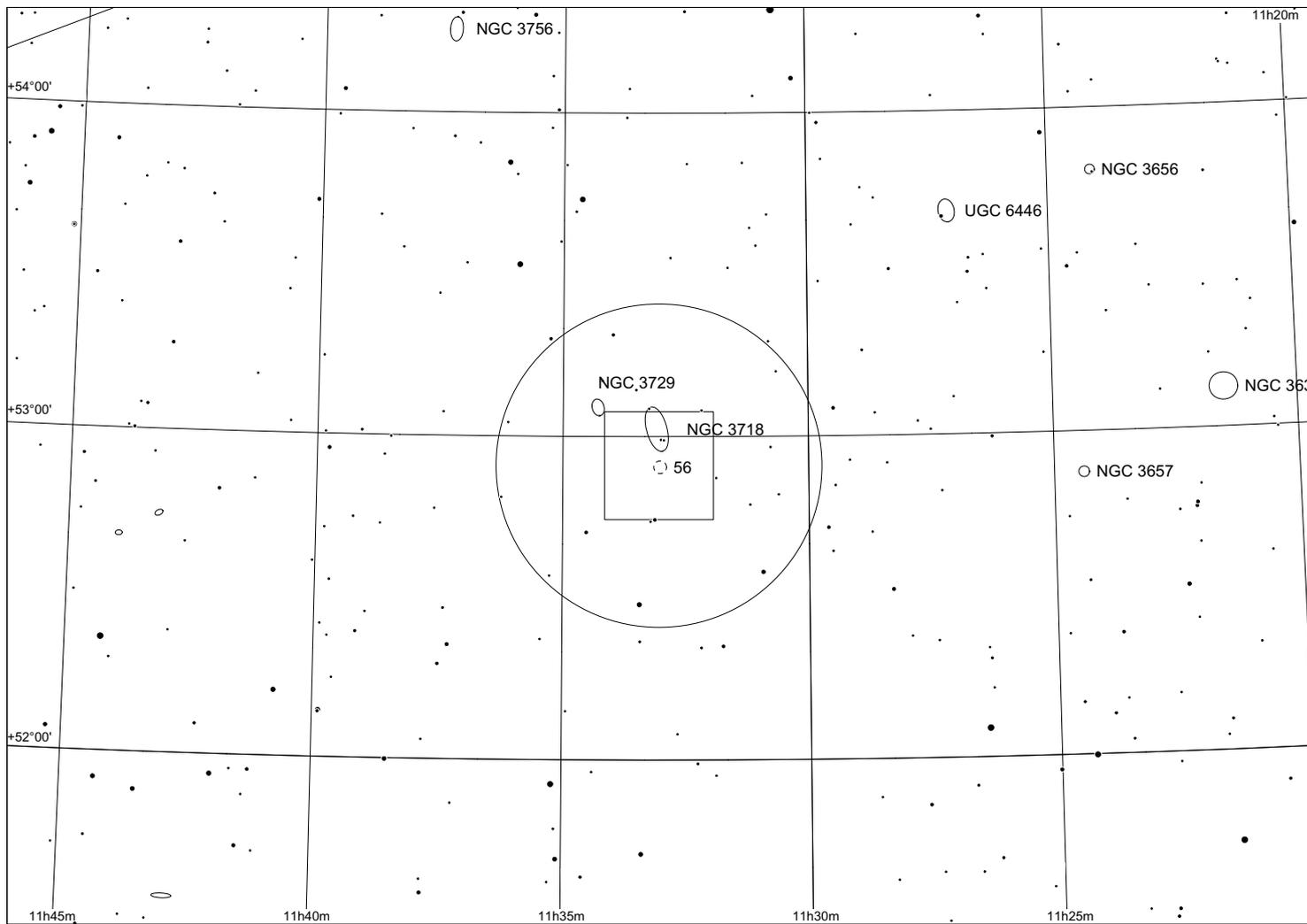
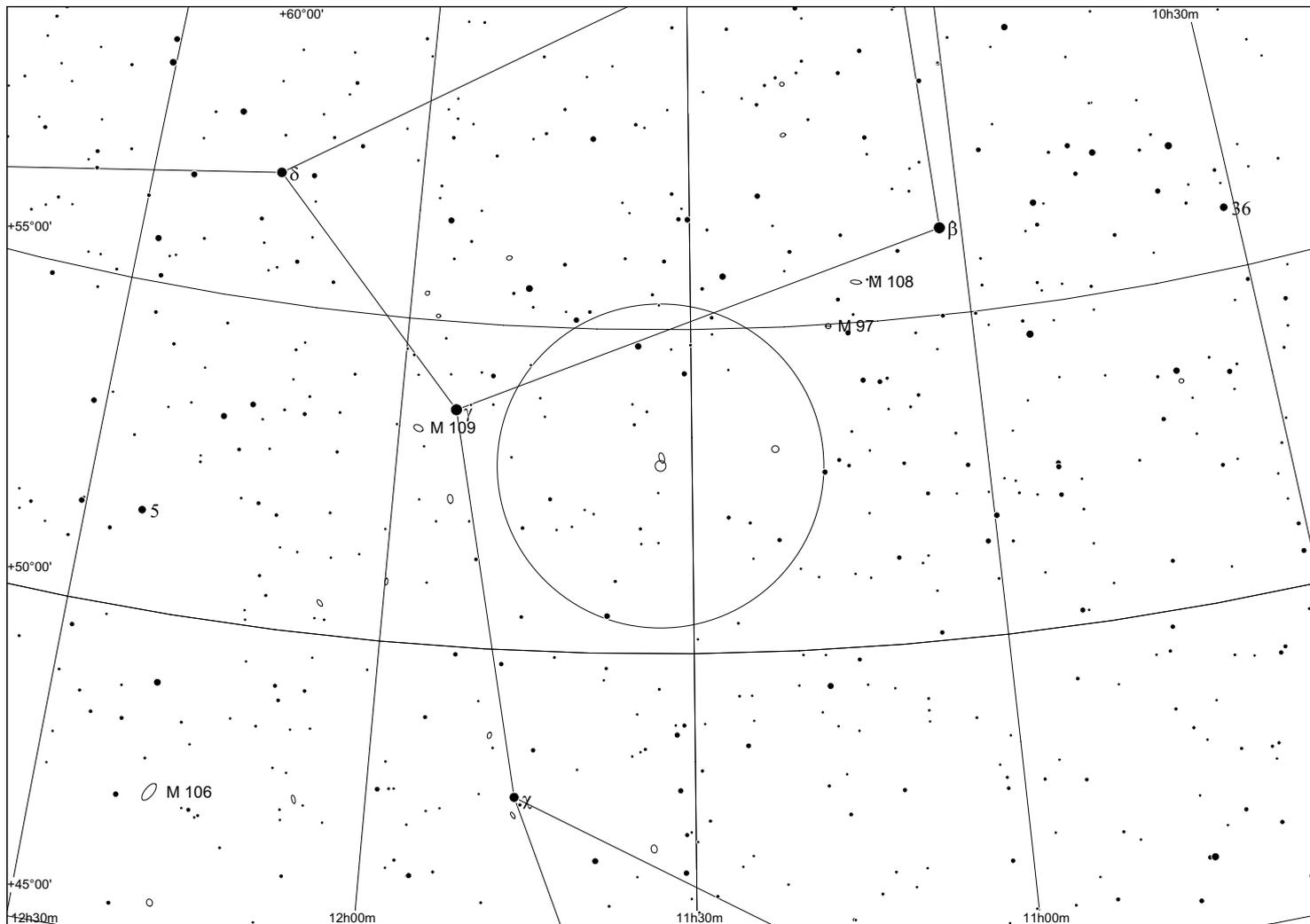
*HCG Const. coordinates (2000) bright. memb. mag*  
 56 UMa 11h 32m 32s +52° 57' 14.5

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		
56a	11 30 01.85	53 13 01.5	27.90	7.00	Sc	7	16.36	0	24.30	14.81	0	27.10	1.51	15.96	15.24	0.20	8245	35	0	Mk176
56b	11 29 55.61	+53 13 36.0	17.10	10.40	SB0	1	15.00	1	33.60	13.52	1	41.20	1.43	14.83	14.50	0.20	7919	38	0	U6257
56c	11 29 51.83	+53 13 25.4	18.40	14.00	S0	1	15.87	1	23.70	14.27	1	30.70	1.52	15.66	15.37	0.20	8110	28	0	U6257
56d	11 29 50.42	+53 13 24.2	12.50	7.90	S0	1	17.01	1	18.70	15.32	1	24.40	1.62	16.84	16.52	0.20	8346	56	0	U6257
56e	11 29 47.85	+53 12 55.3	12.50	9.50	S0	1	16.54	0	20.30	15.19	0	29.30	1.20	16.52	16.23	0.10	7924	63	0	

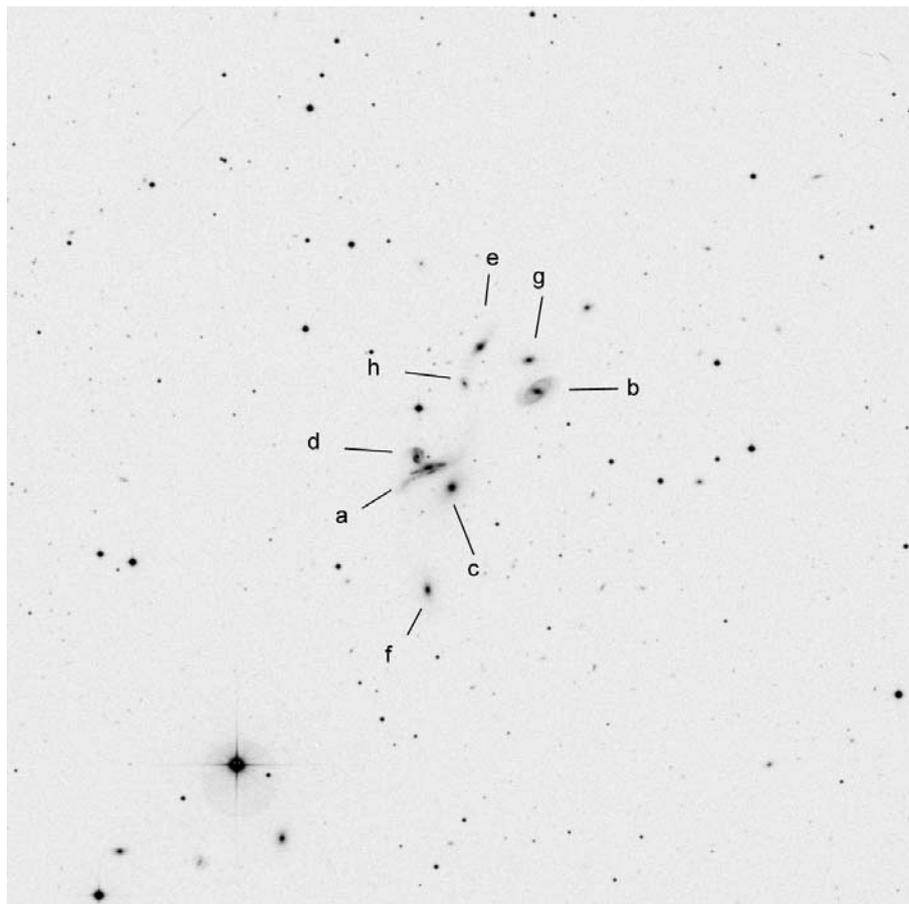
### Notes:

22" f/4: This is one of the prototypical Hickson groups. Easy to find near NGC 3718, appears as weak string already with smaller telescopes. The string can be separated into three knots, b, c/d, and e (somewhat offset), sometimes (good conditions) c and d appear separate as well. a is the most difficult, appears as an elongated glow with indirect vision, no distinct bright nucleus and thus much weaker than expected from the POSS plate.

Earlier observations with my 14" revealed no complete resolution of the chain, though knots were sometimes visible. a was not seen with 14".



## Hickson 57 in Leo

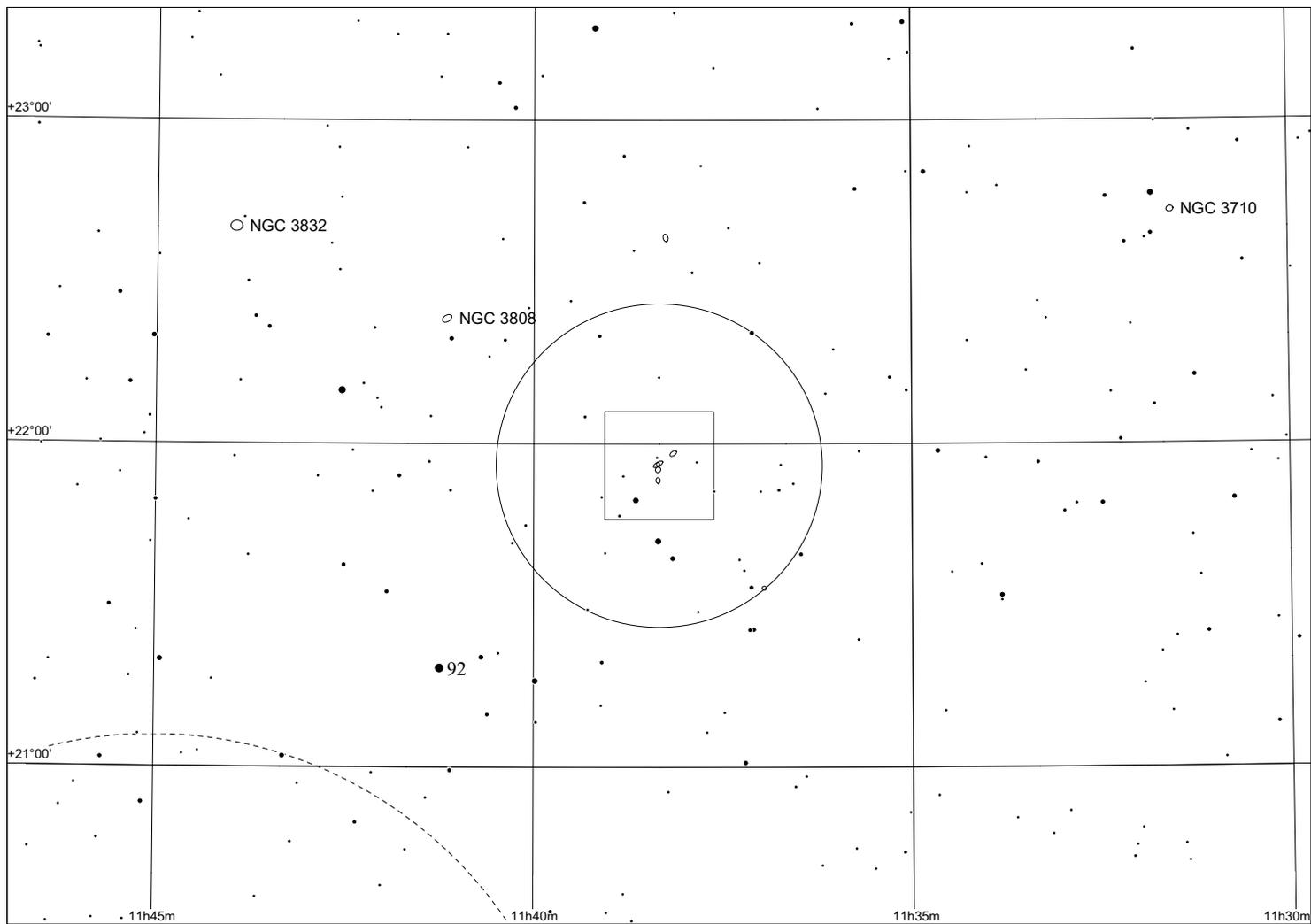
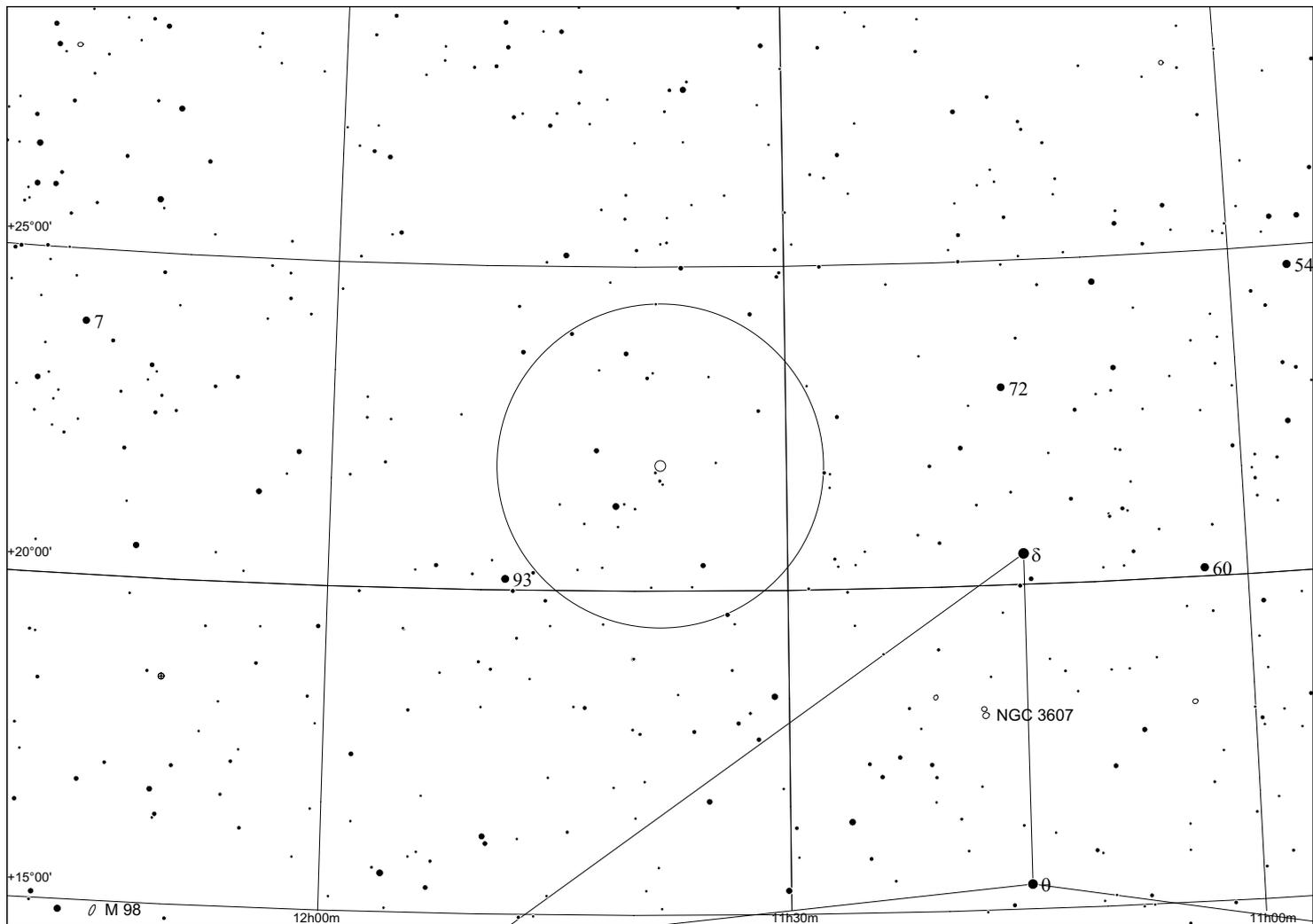


HCG Const. coordinates (2000) bright. memb. mag  
 57 Leo 11h 37m 51s +21° 59' NGC 3753 14.0 Copeland's  
 Septet

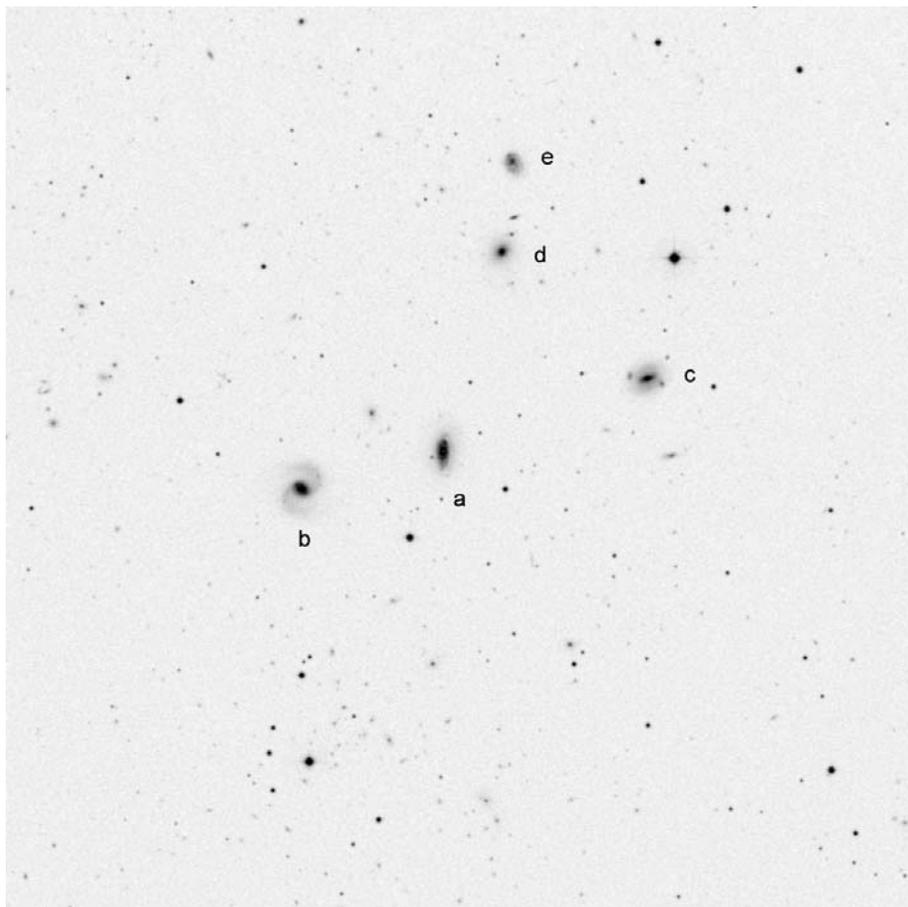
galaxy	ra (1950)	dec	a	b	type	T	B_I	C	D_B	R_I	C	D_R	B-R	B_T	B_TC	err	v_r	err	C	names
			"	"					"			"					km/s	km/s		
57a	11 35 17.26	+22 15 27.9	51.50	19.10	Sb	5	14.66	1	56.60	12.74	1	81.10	1.73	14.52	13.99	0.20	8727	31	0	N3753,
U6602a																				
57b	11 35 07.13	+22 17 10.4	30.00	18.90	SBb	5	15.15	0	43.50	13.45	0	53.70	1.55	14.67	14.32	0.20	9022	20	0	N3746,
U6597																				
57c	11 35 15.23	+22 15 02.7	27.40	21.00	E3	0	15.23	1	35.10	13.52	1	49.10	1.57	14.82	14.63	0.20	9081	36	0	N3750
57d	11 35 18.60	+22 15 45.2	17.30	15.50	SBc	7	15.20	1	44.30	14.06	1	47.40	1.26	14.74	14.51	0.20	8977	41	0	N3754
57e	11 35 12.63	+22 18 09.6	18.00	9.10	S0a	2	15.91	0	43.50	14.10	0	36.50	1.71	15.76	15.37	0.10	8992	105	0	N3748
57f	11 35 17.57	+22 12 46.8	20.80	12.00	E4	0	15.23	0	48.00	14.07	0	53.80	1.07	15.41	15.22	0.10	9594	105	0	N3751
57g	11 35 08.06	+22 17 51.8	13.40	7.90	SB0	1	16.35	0	16.40	14.56	0	14.60	1.65	16.12	15.84	0.10	9416	105	0	N3745
57h	11 35 14.16	+22 17 19.6	10.00	8.50	SBb	5	17.38	0	16.70	15.75	0	20.60	1.53	16.99	16.75	0.10	0	0	0	

### Notes:

22" f/4: Copeland's septett is one of the showpieces of the Hickson catalog, less difficult than Seyfert's sextett. Seven out of eight galaxies seen, h was not seen. The galaxies form two distinct groups with f standing apart. The individual galaxies could be easily split with 6 mm and could be held steadily with indirect vision. This is certainly one of the most fascinating Hickson groups.



## Hickson 58 in Leo

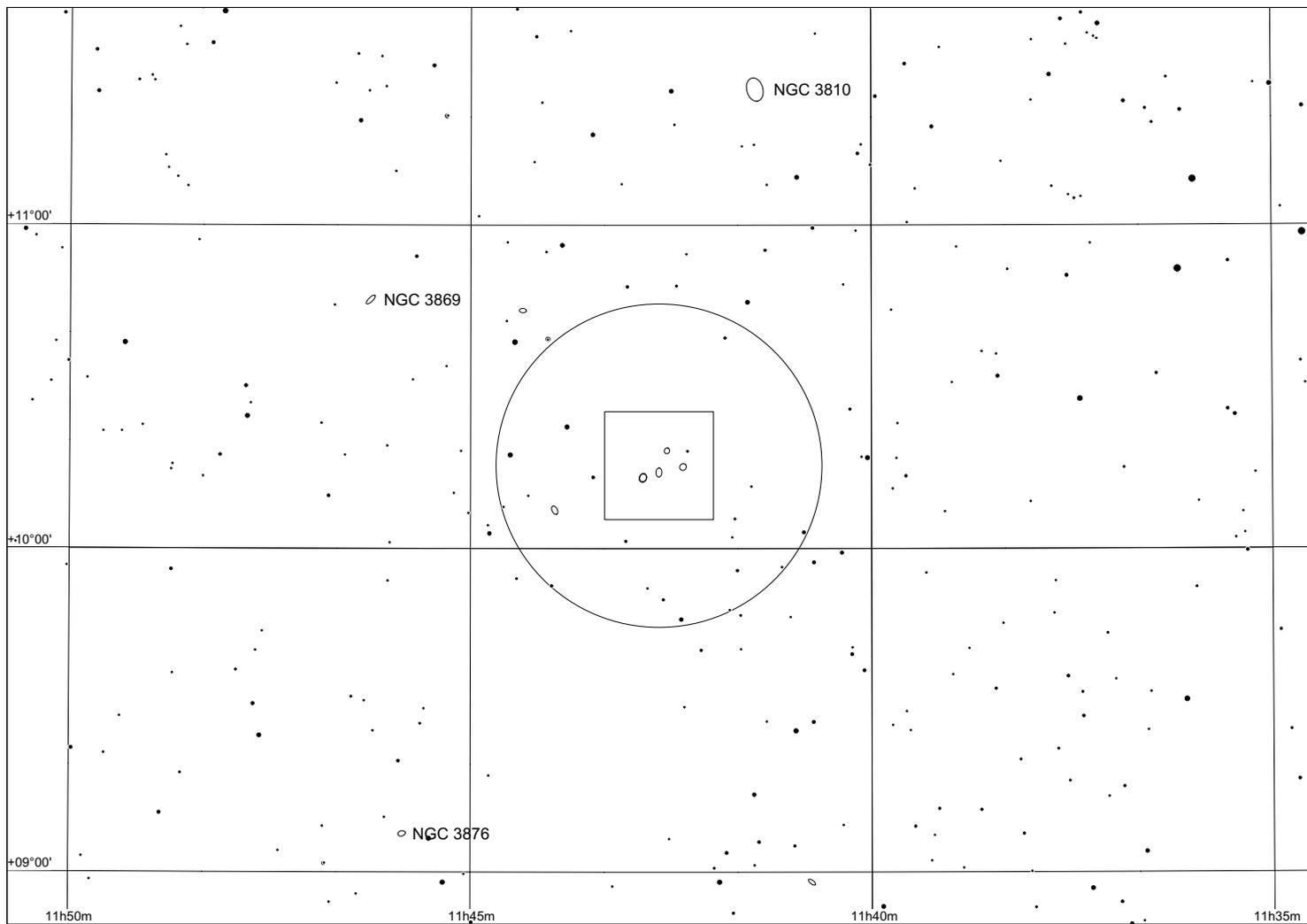
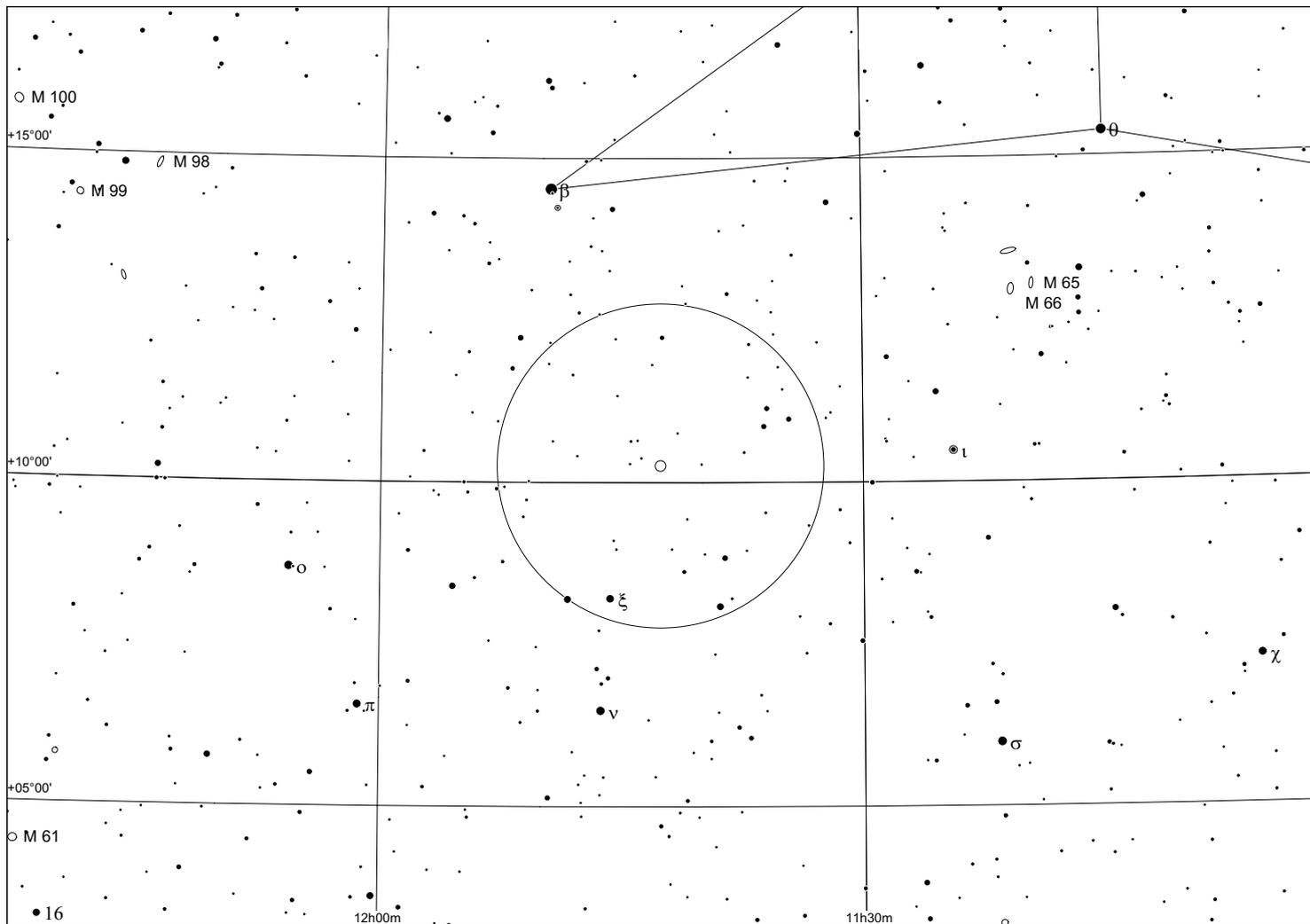


*HCG Const. coordinates (2000) bright. memb. mag*  
 58 Leo 11h 42m 12s +10° 19' NGC 3822 13.6

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 <sub>r</sub>	err	C	names
			"	"					"			"					km/s	km/s		
58a	11 39 36.31	10 33 18.4	36.70	24.00	Sb	5	14.28	3	58.20	12.97	3	55.70	1.31	13.89	13.56	0.20				
U6661																				
58b	11 39 48.82	+10 32 29.9	40.10	32.30	SBab	4	14.10	3	74.60	12.52	3	76.10	1.57	13.66	13.40	0.20	6503	17	0	N3825,
U6668																				
58c	11 39 18.38	10 34 53.3	30.60	22.40	SB0a	2	14.51	3	55.30	13.24	3	55.00	1.27	14.11	13.83	0.20	6103	19	0	N3817,
U6657																				
58d	11 39 31.13	+10 37 41.8	28.40	25.00	E1	0	15.14	3	43.10	13.62	3	48.80	1.48	14.67	14.49	0.20	6270	27	0	N3819
58e	11 39 30.06	+10 39 40.6	23.20	14.10	Sbc	6	15.59	3	32.50	14.33	3	37.40	1.20	15.21	14.86	0.20	6052	33	0	N3820

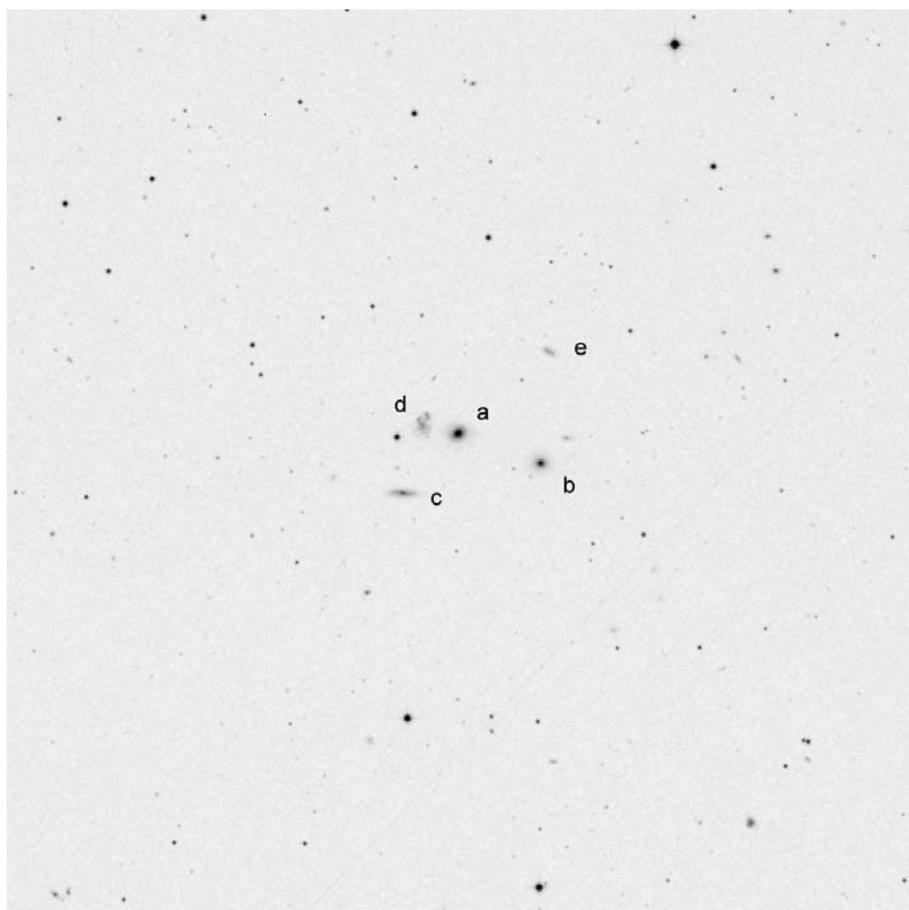
### Notes:

22" f/4: All five galaxies could be observed.





## Hickson 59 in Leo

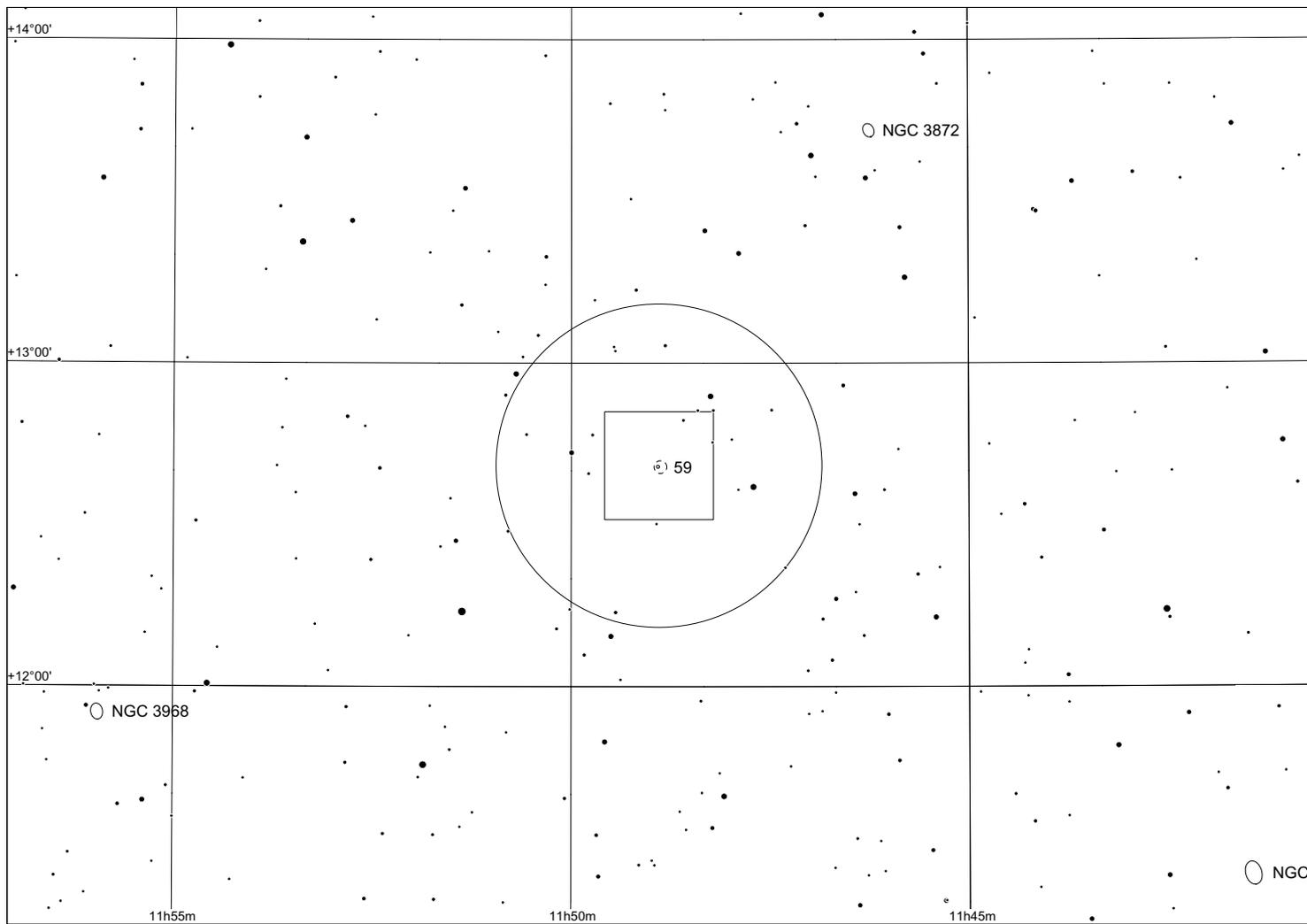
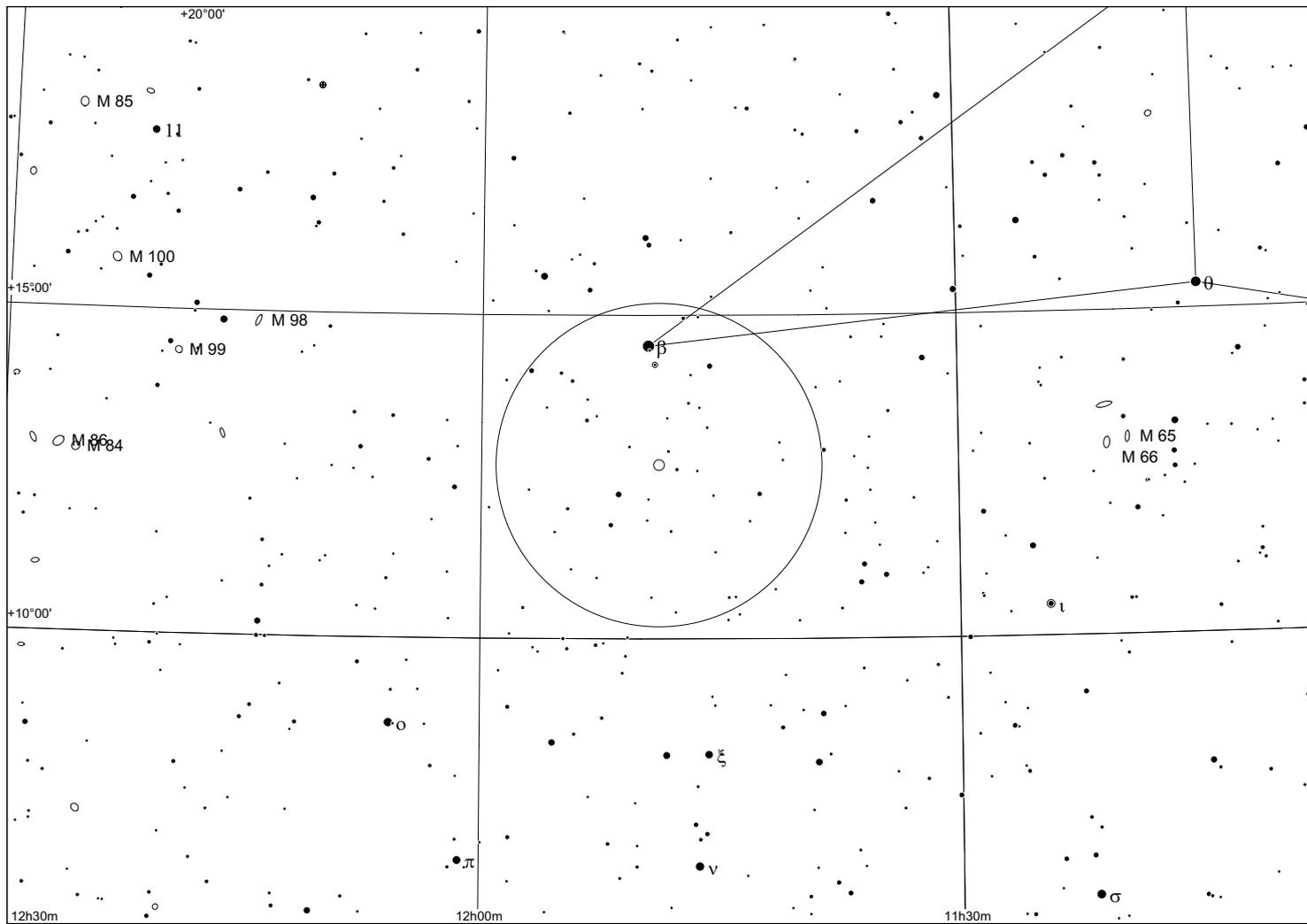


*HCG Const. coordinates (2000) bright. memb. mag*  
 59 Leo 11h 48m 26s +12° 44' IC 736 14.4

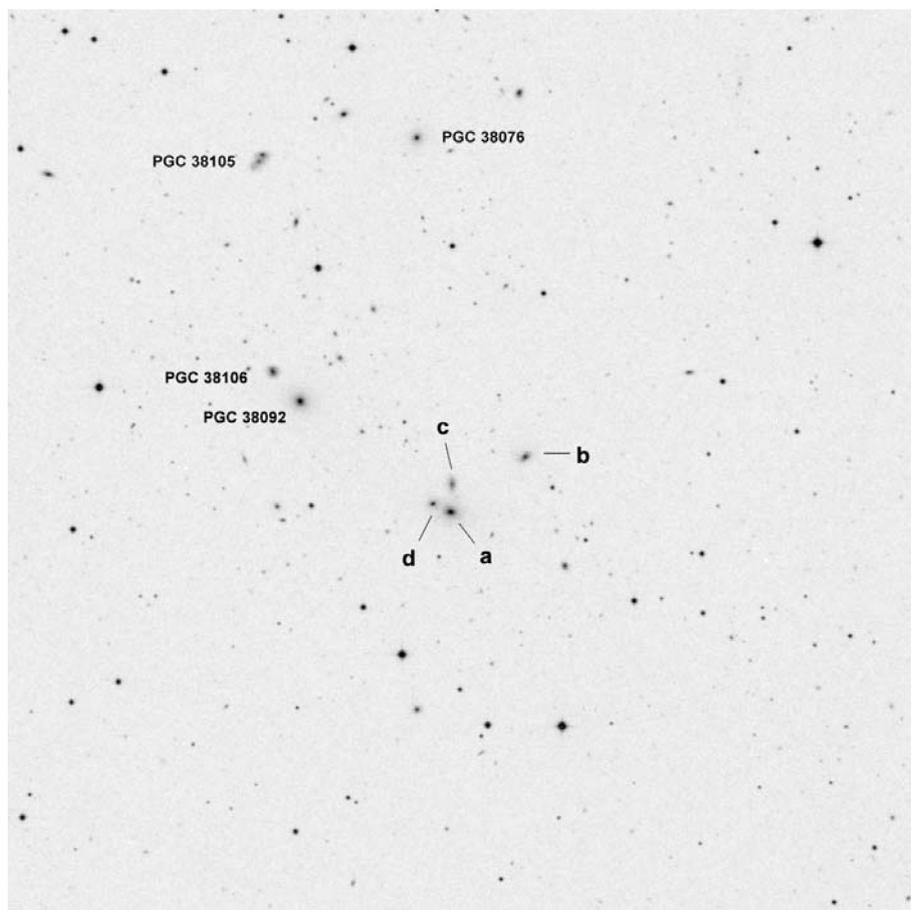
<i>galaxy</i>	<i>ra (1950)</i>	<i>dec</i>	<i>a</i> "	<i>b</i> "	<i>type</i>	<i>T</i>	<i>B-I</i>	<i>C</i>	<i>D-B</i> "	<i>R-I</i>	<i>C</i>	<i>D-R</i> "	<i>B-R</i>	<i>B-T</i>	<i>B-TC</i>	<i>err</i>	<i>v_r</i> km/s	<i>err</i> km/s	<i>C</i>	<i>names</i>
59a	11 45 52.91	+13 00 19.0	17.70	16.30	Sa	3	14.96	0	38.10	13.48	0	53.40	1.38	14.73	14.52	0.10	4109	31	0	I736
59b	11 45 45.55	+12 59 38.7	15.00	14.40	E0	0	15.92	1	29.10	14.22	1	42.20	1.55	15.38	15.20	0.20	3908	58	0	
59c	11 45 57.88	+12 58 59.5	24.70	7.00	Sc	7	16.04	1	32.80	15.05	1	32.60	1.03	15.00	14.40	0.50	4347	38	0	
59d	11 45 56.12	+13 00 27.9	17.70	11.50	Im	12	16.29	1	28.00	15.21	1	38.50	0.77	16.17	15.80	0.20	3866	36	0	I737
59e	11 45 44.88	+13 02 07.1	12.80	6.30	Scd	8	17.76	1	16.80	16.06	0	20.80	1.58	17.00	16.60	0.50	23700	240	0	

### Notes:

22" f/4.5: with 7mm, a and b are relatively easy and can be held steadily. c is more difficult and can be held about 50% of the time after having some time spent with it. d is very difficult, sometimes small condensations were suspected at the correct location, uncertain.



## Hickson 60 in Ursa major

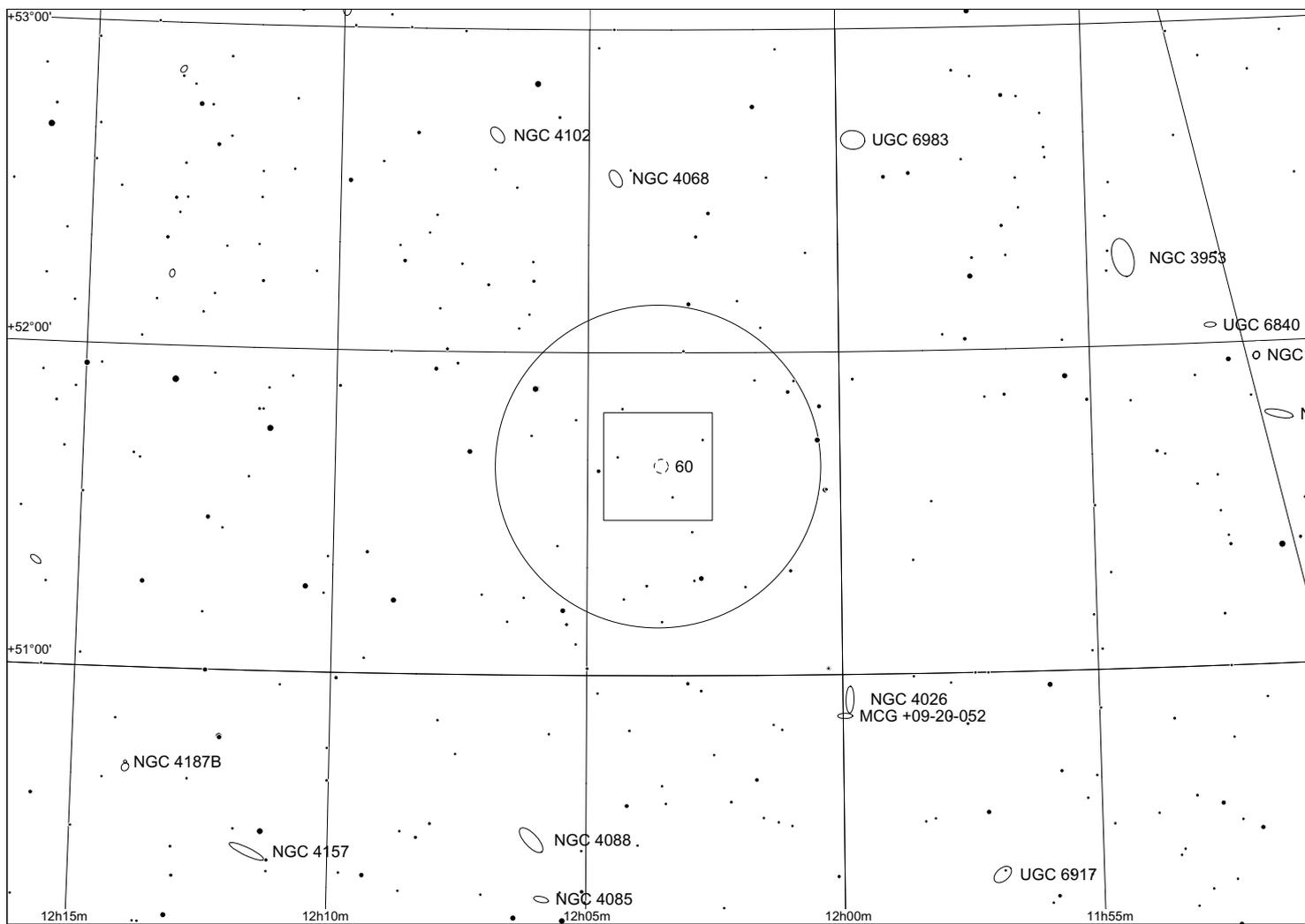
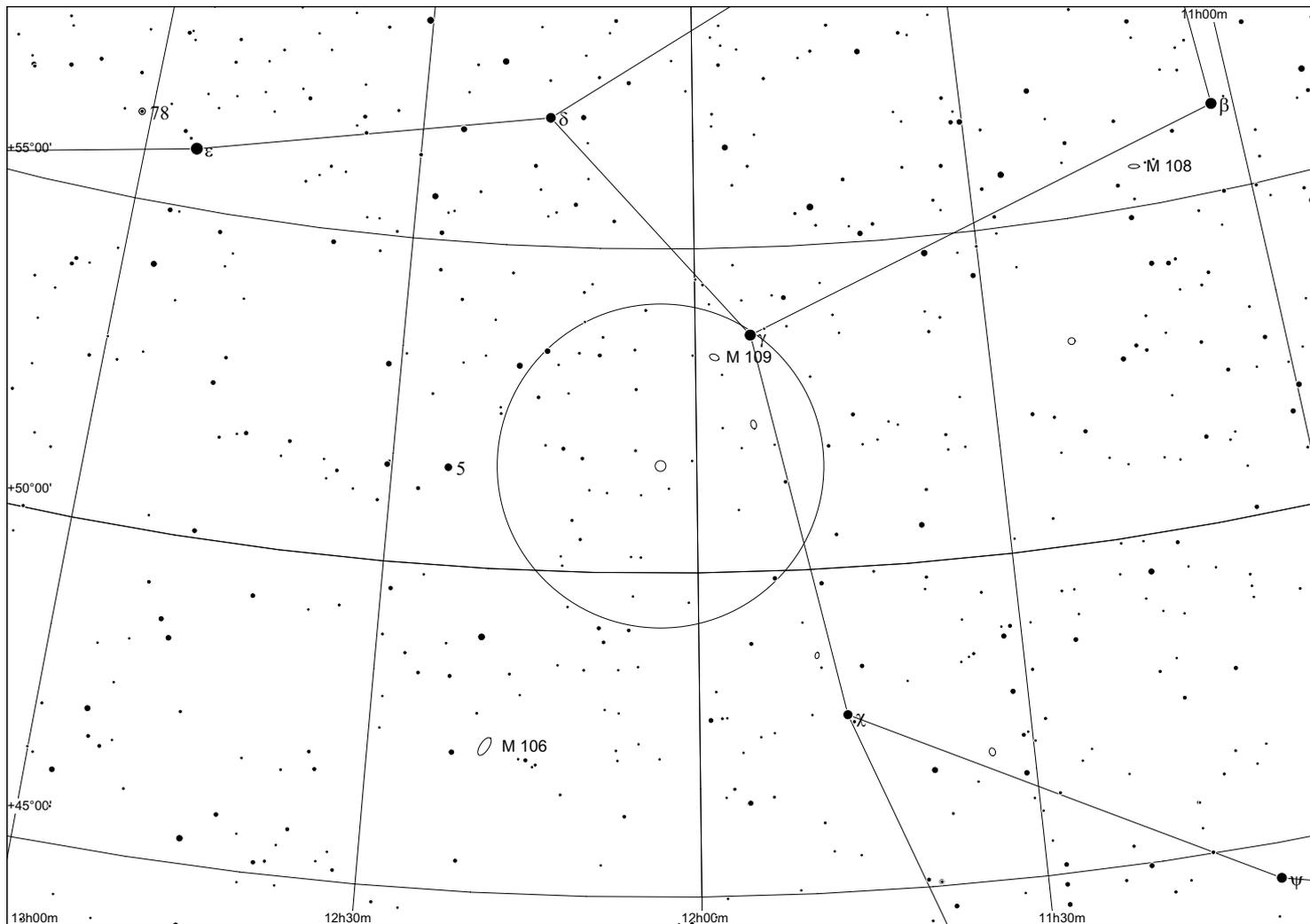


*HCG Const. coordinates (2000) bright. memb. mag*  
 60 UMa 12h 03m 06s +51° 42' 5.0

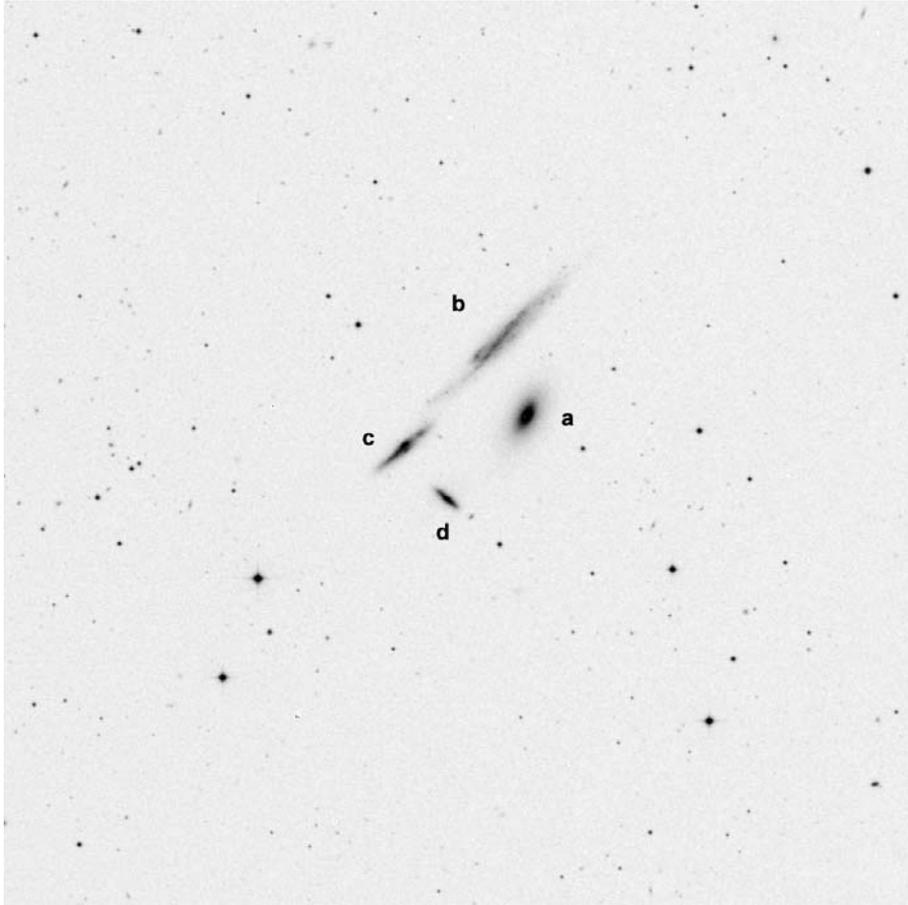
<i>galaxy</i>	<i>ra (1950)</i>	<i>dec</i>	<i>a</i> "	<i>b</i> "	<i>type</i>	<i>T</i>	<i>B-I</i>	<i>C</i>	<i>D-B</i> "	<i>R-I</i>	<i>C</i>	<i>D-R</i> "	<i>B-R</i>	<i>B-T</i>	<i>B-TC</i>	<i>err</i>	<i>v_r</i> km/s	<i>err</i> km/s	<i>C</i>	<i>names</i>
60a	12 00 34.23	+51 57 12.3	17.30	13.40	E2	0	16.08	0	31.60	14.14	1	45.50	1.76	15.27	15.04	0.20	19007	46	0	
60b	12 00 23.76	+51 58 24.5	11.30	7.00	E4	0	17.24	0	18.90	15.37	0	26.70	1.69	16.20	16.00	0.50	18318	90	1	
60c	12 00 34.00	+51 57 48.9	11.10	7.80	SBC	7	17.39	1	19.90	15.63	1	27.40	1.60	16.51	16.16	0.20	19277	180	0	
60d	12 00 36.85	+51 57 22.8	9.40	6.70	S0	1	17.20	1	19.50	15.41	1	26.80	1.61	16.45	16.16	0.20	18300	154	1	

### Notes:

22" f/4.5: with 7mm, difficult group , a/c/d as unresolved cluster that can be held quite steadily with averted vision, b is somewhat more difficult



# Hickson 61 in Coma Berenices

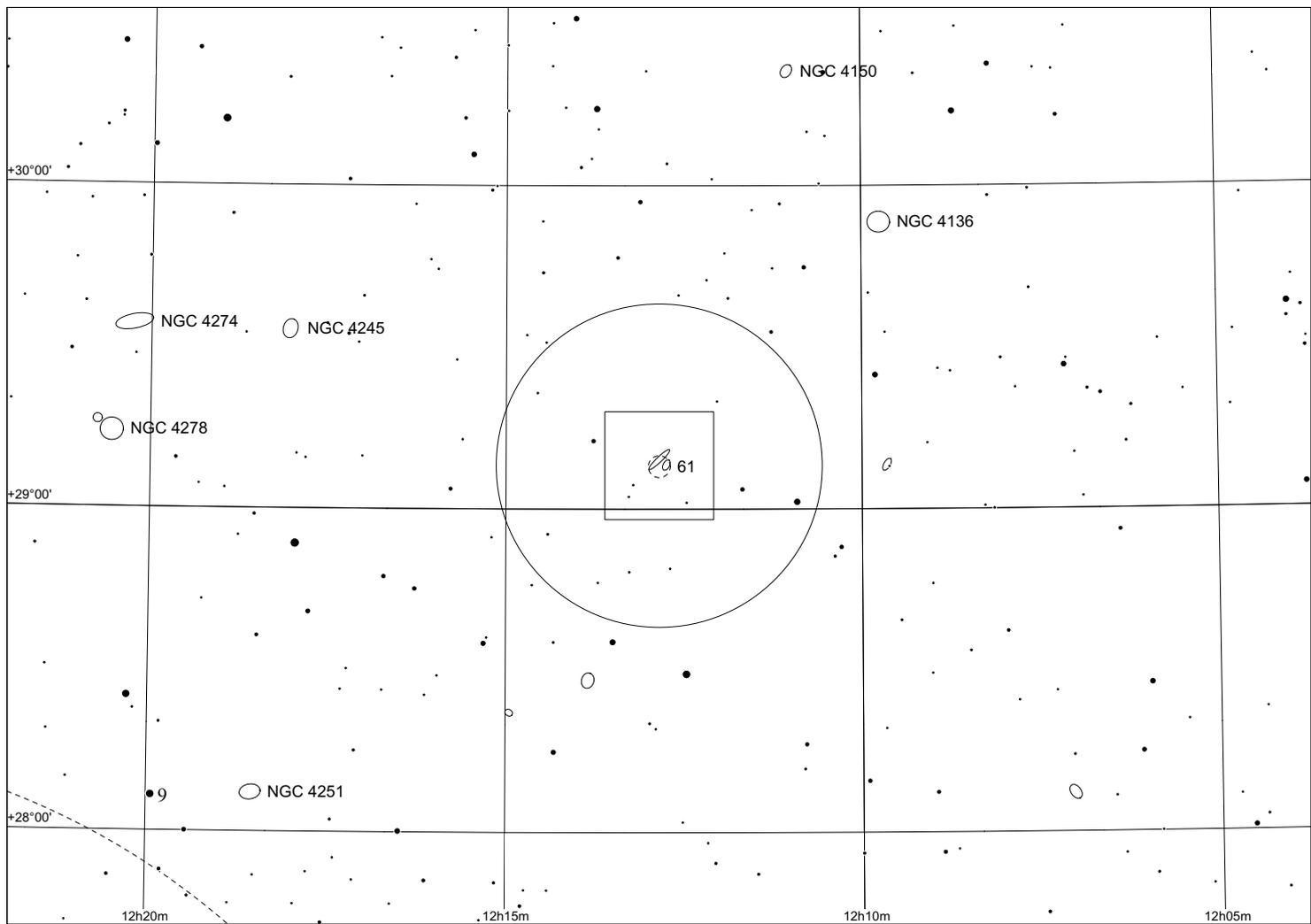
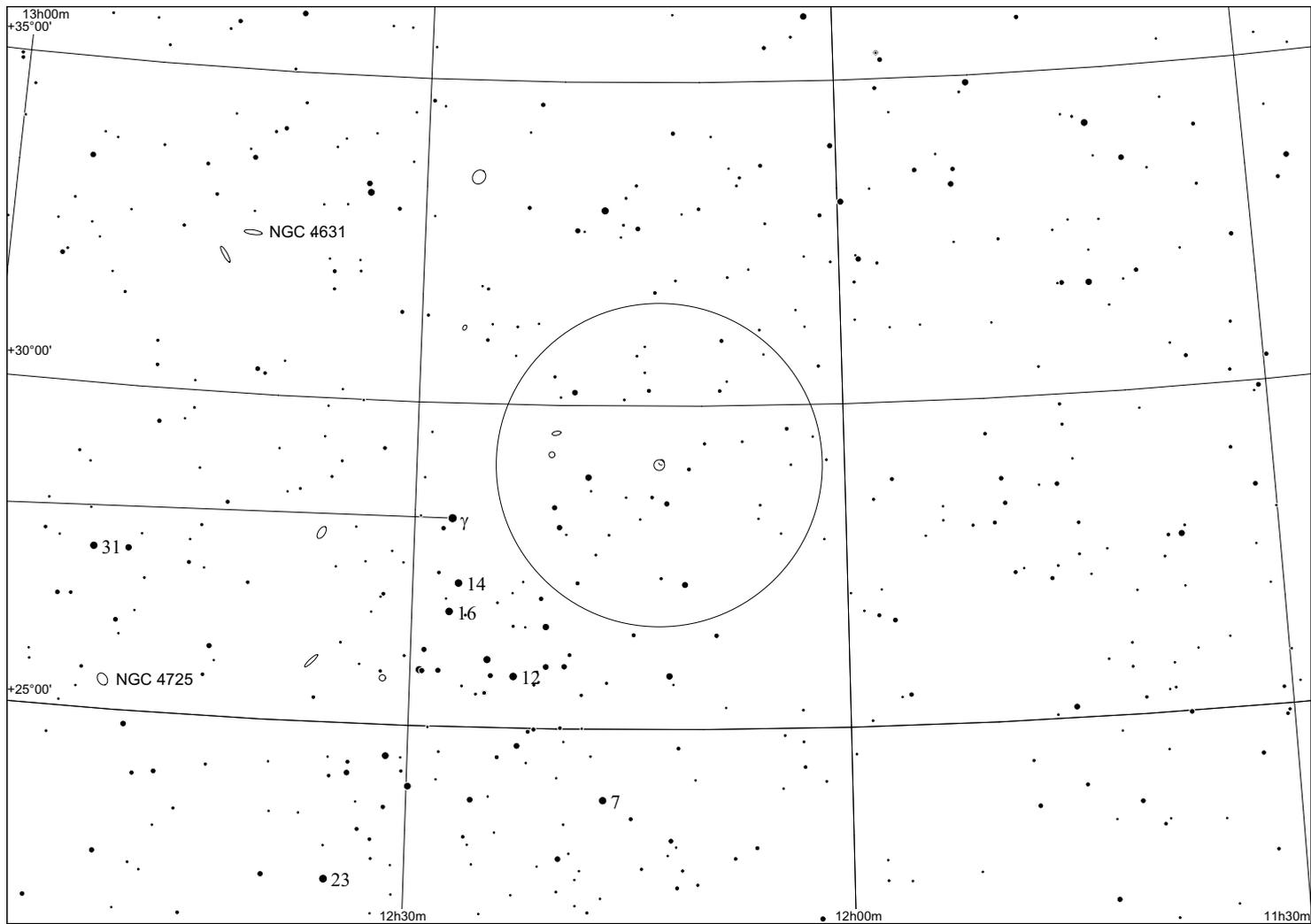


*HCG Const. coordinates (2000) bright. memb. mag*  
 61 Com 12h 12m 24s +29° 11' NGC 4169 12.6 The Box

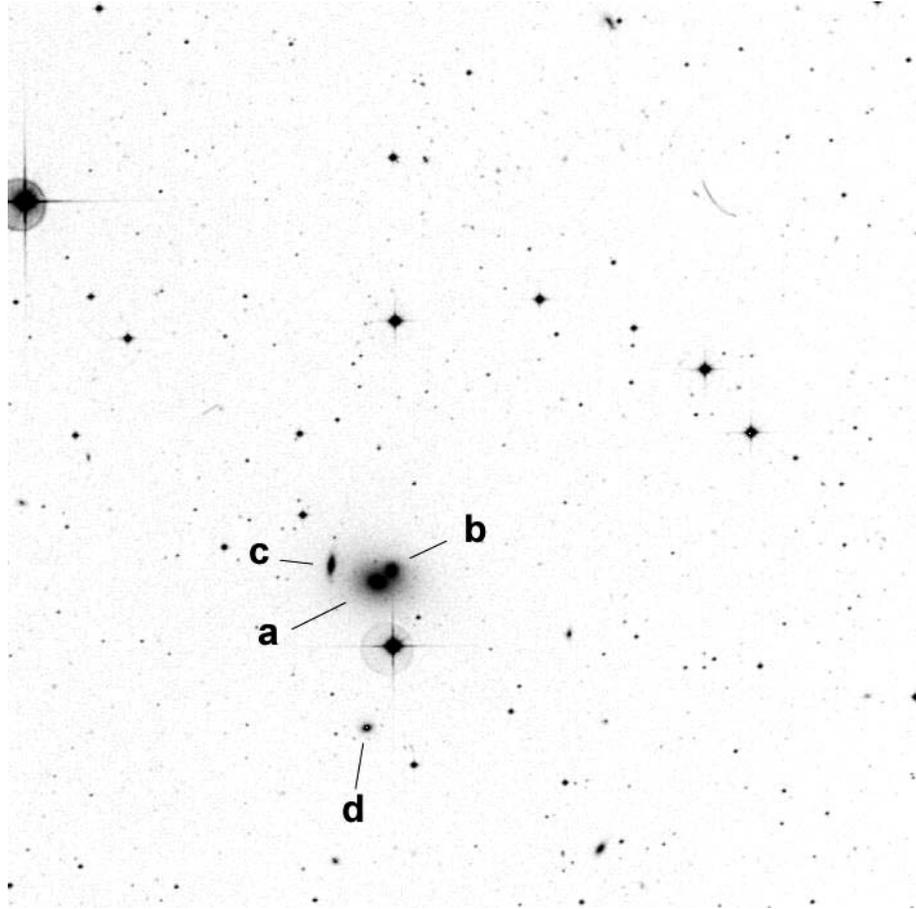
galaxy	ra (1950)	dec	a	b	type	T	B_I	C	D_B	R_I	C	D_R	B-R	B_T	B_TC	err	v_r	err	C	names
			"	"					"			"					km/s	km/s		
61a U7202	12 09 46.60	+29 27 28.2	54.30	33.70	S0a	2	13.20	0	89.70	11.67	0	101.10	1.50	13.15	12.82	0.10	3784	18	0	N4169,
61b U7204	12 09 48.31	+29 29 23.4	103.70	27.10	Im	12	13.73	1	91.30	12.81	1	98.80	0.94	13.36	12.59	0.20	1127	20	0	N4173,
61c U7211	12 09 59.03	+29 26 47.6	51.80	15.50	Sbc	6	14.31	0	57.40	12.71	0	68.00	1.56	14.14	13.53	0.10	3956	20	0	N4175,
61d Mk761, U7206	12 09 54.84	+29 25 37.7	25.60	13.70	S0	1	14.48	0	38.70	13.05	0	45.60	1.40	14.42	14.12	0.10	3980	30	0	N4174,

## Notes:

22" f/4: The Box, one of the few named Hickson groups. Not as bright as one would expect from the POSS plates, but still a showpiece. Easily seen also with my 14". b is the weakest of the four, extends well beyond the rectangle.



# Hickson 62 in Virgo

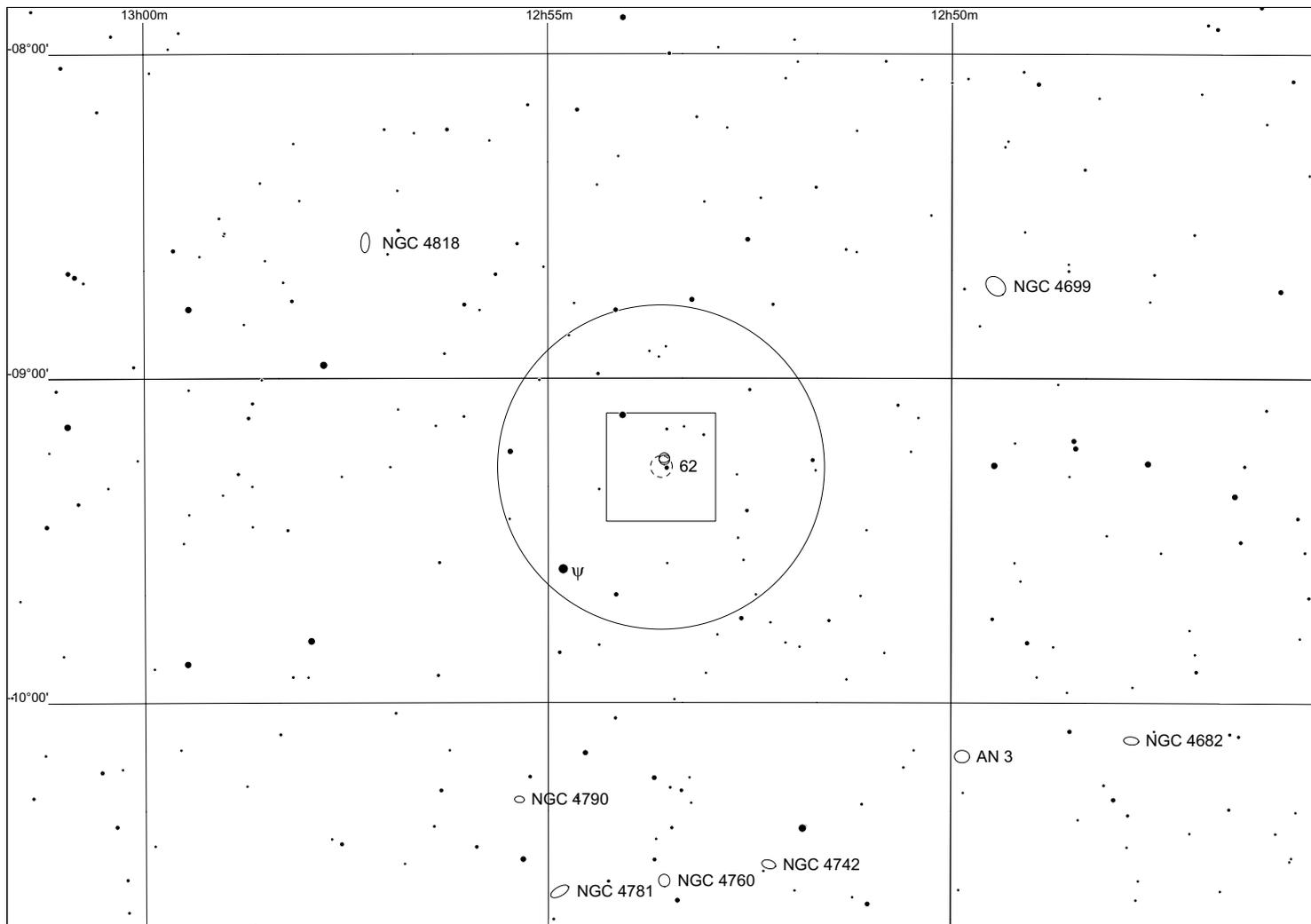
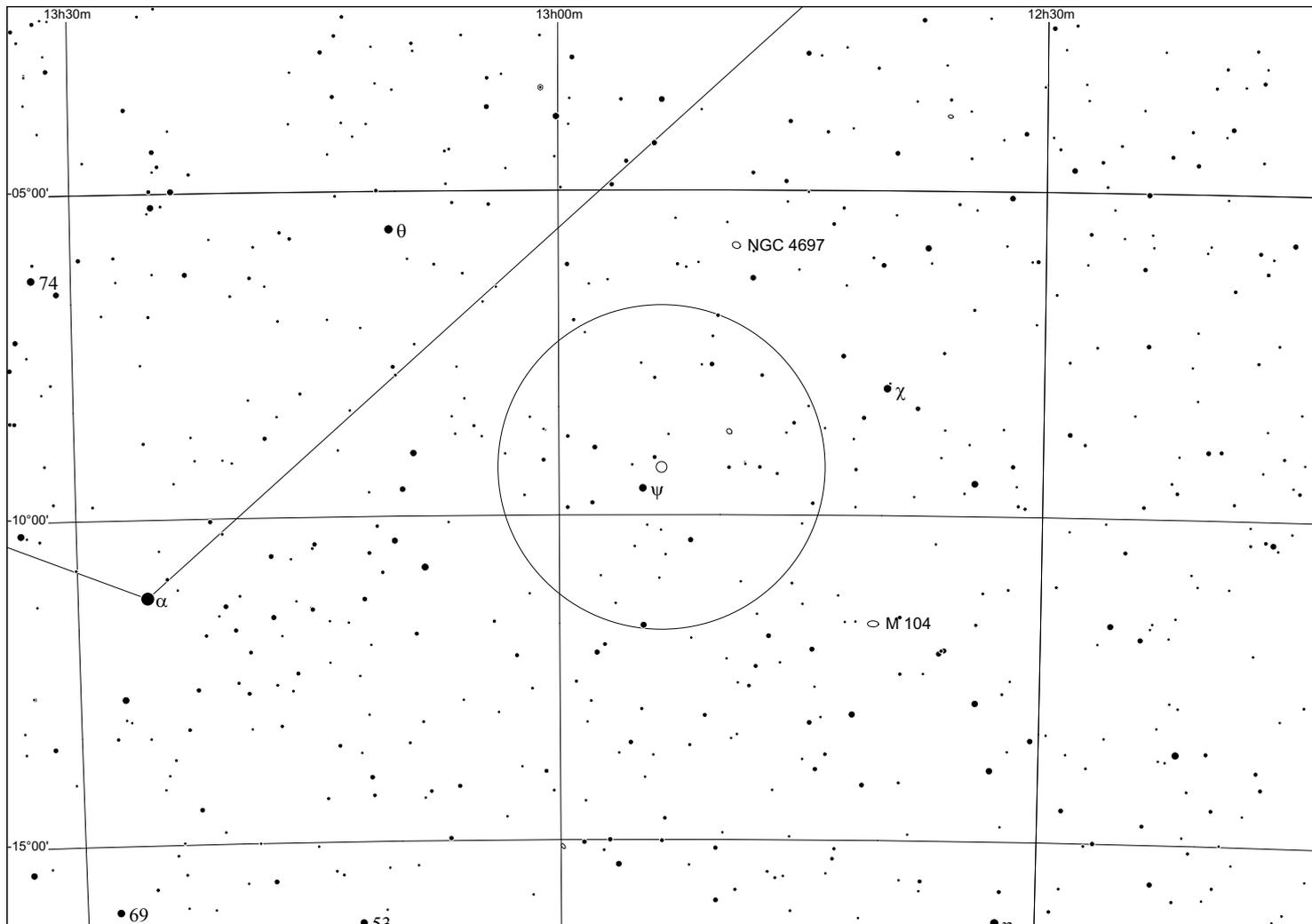


*HCG Const. coordinates (2000) bright. memb. mag*  
 62 Vir 12h 53m 09s -09° 13' NGC 4759 13.4

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		
62a	12 50 29.70	-08 55 59.7	52.30	34.30	E3	0	13.79	1	59.90	11.25	1	129.30	2.00	13.58	13.36	0.20	4355	38	0	
62b	12 50 28.32	-08 55 39.2	44.20	33.30	S0	1	14.21	1	42.90	12.04	1	99.90	1.71	14.03	13.76	0.20	3651	41	0	
62c	12 50 33.80	-08 55 36.4	24.60	12.30	S0	1	15.00	1	40.20	13.59	1	31.90	1.45	14.91	14.57	0.20	4359	37	0	
62d	12 50 30.62	-08 59 12.4	19.90	16.80	E2	0	16.30	0	19.70	14.11	0	52.80	1.71	16.03	15.81	0.10	4123	76	0	

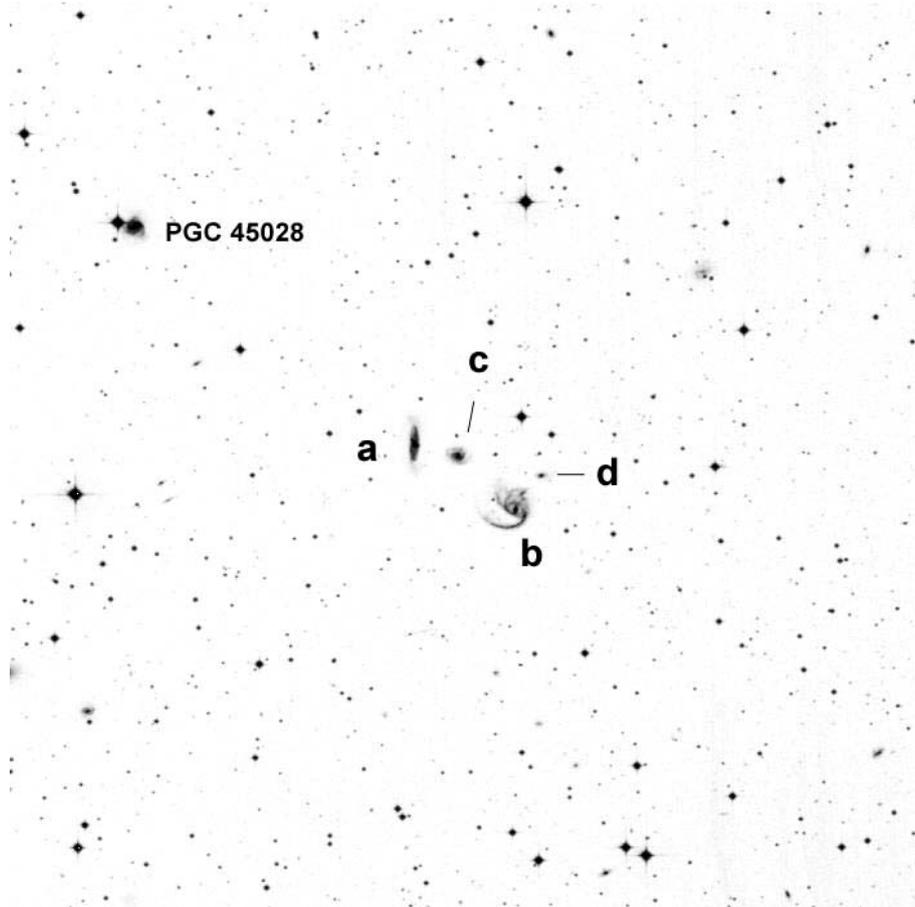
## Notes:

22" f/4: a and b form a bright couple that is easy to split with 9 mm. c is separate from this couple, elongated, d: the weakest member of the group, though not particularly difficult





# Hickson 63 in Centaurus

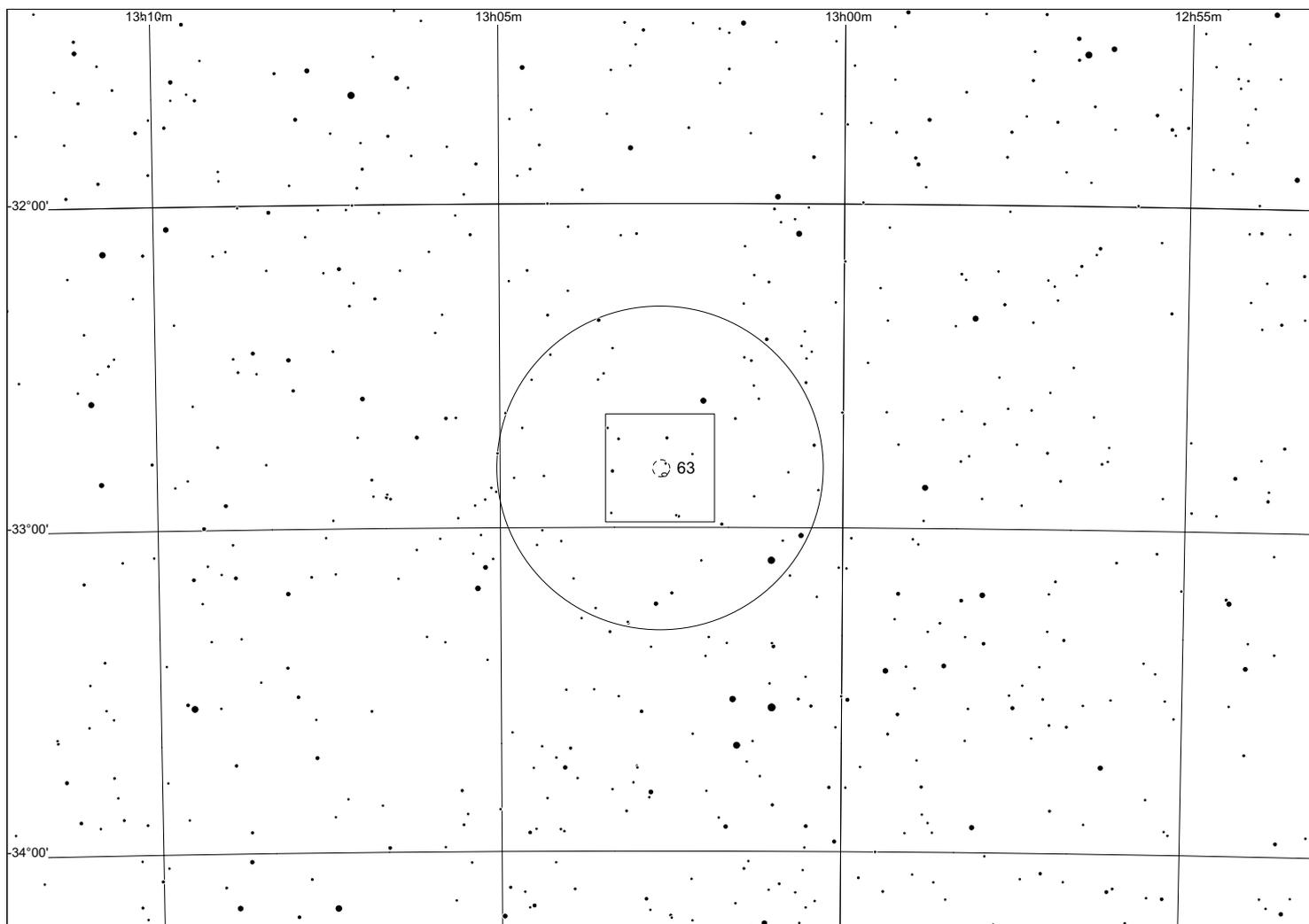
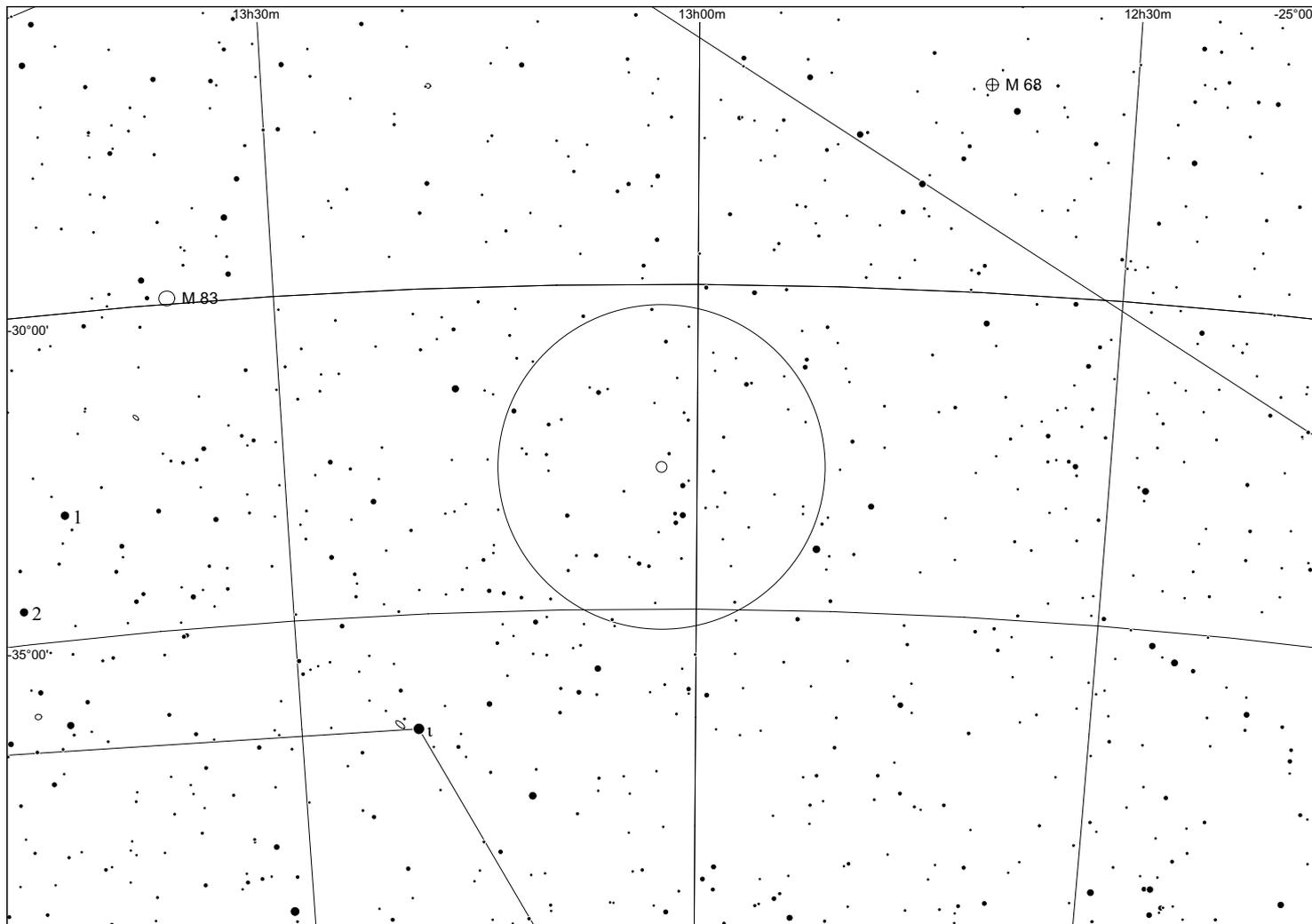


*HCG Const. coordinates (2000) bright. memb. mag*  
 63 Cen 13h 02m 10s -32° 46' 13.3

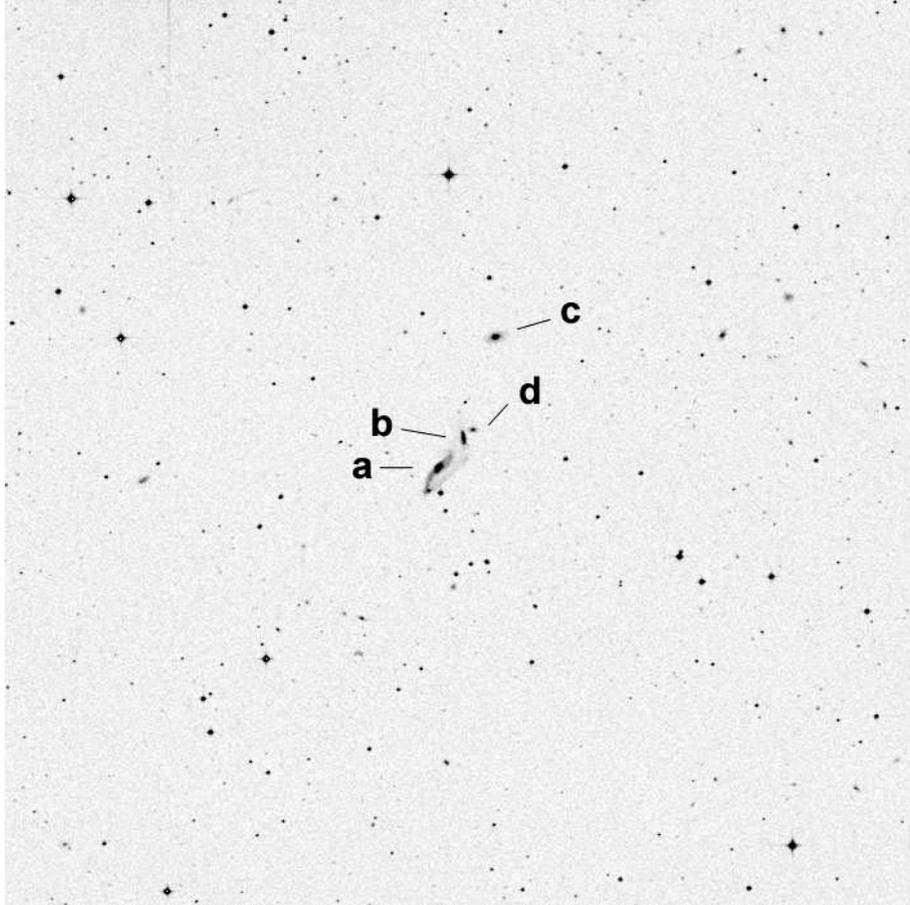
galaxy	ra (1950)	dec	a "	b "	type	T	B-I	C	D-B "	R-I	C	D-R "	B-R	B-T	B-TC	err	v_r km/s	err km/s	C	names
63a	12 59 32.64	-32 29 37.3	33.00	7.90	SBbc	6	15.03	3	44.40	13.49	3	57.80	1.43	14.80	13.97	0.20	5228	29	0	
63b	12 59 22.33	-32 31 07.6	41.70	22.30	SBC	7	14.47	3	60.40	14.07	3	59.50	0.41	13.82	13.27	0.20	9346	29	0	
63c	12 59 28.14	-32 29 55.0	16.60	14.90	SBC	7	15.66	3	34.80	14.54	3	36.60	1.10	15.27	14.90	0.20	9460	112	0	
63d	12 59 19.57	-32 30 23.4	8.90	6.60	Sc	7	17.51	3	15.30	16.44	3	20.70	0.83	17.23	16.79	0.20	9141	133	0	

## Notes:

22" f/4.5: (03/2009) 7mm. This is the first time that I observe a deep sky object in the centaur (from 48° northern latitude)! Transparency is really poor close to the horizon. In a first attempt the field stars could be made out, but not the galaxies. At a later time with somewhat better conditions, a and c could be seen after some effort as separate objects, with a being elongated. At a 10° higher elevation, this would probably be a fairly easy group.



# Hickson 64 in Virgo

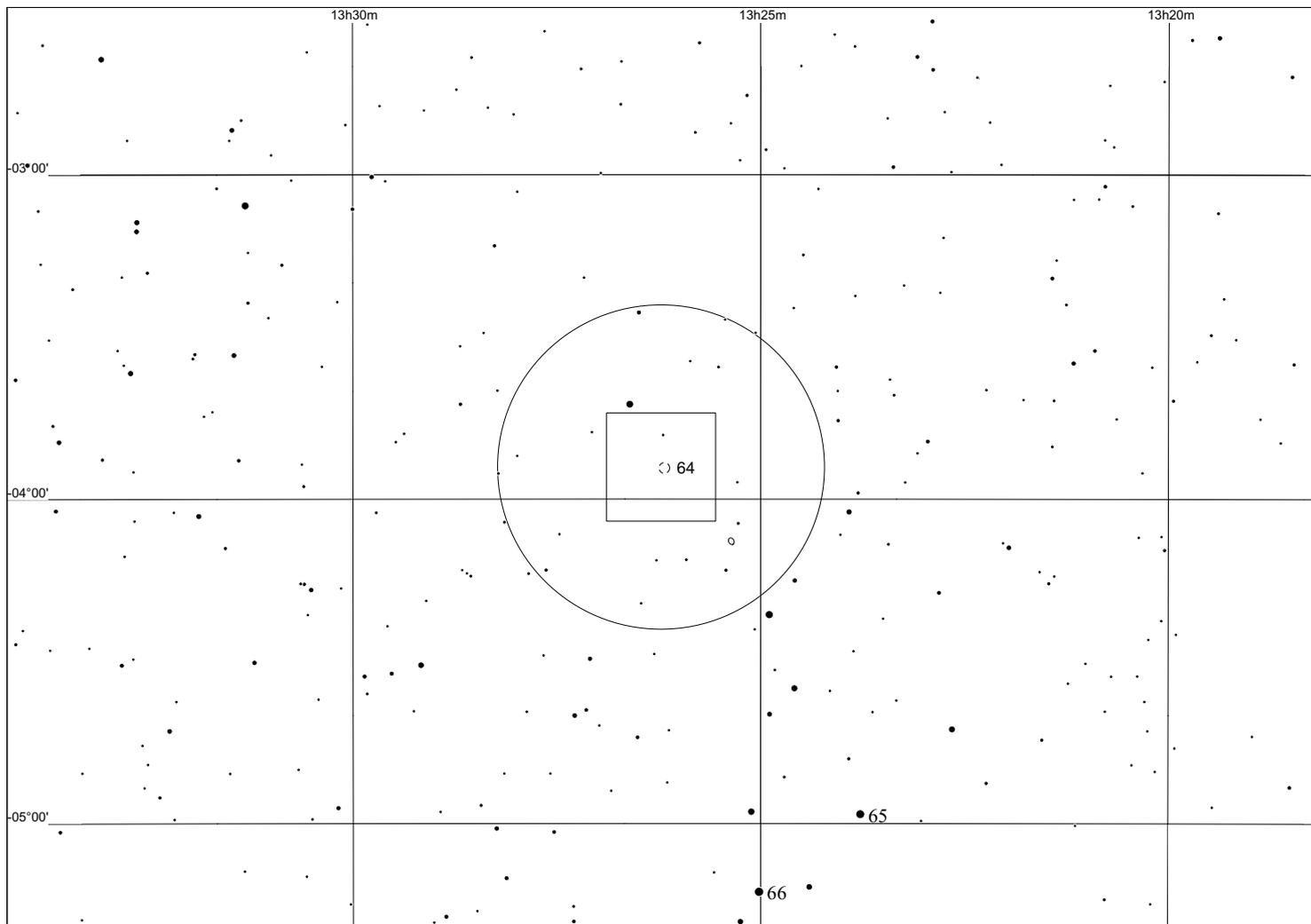
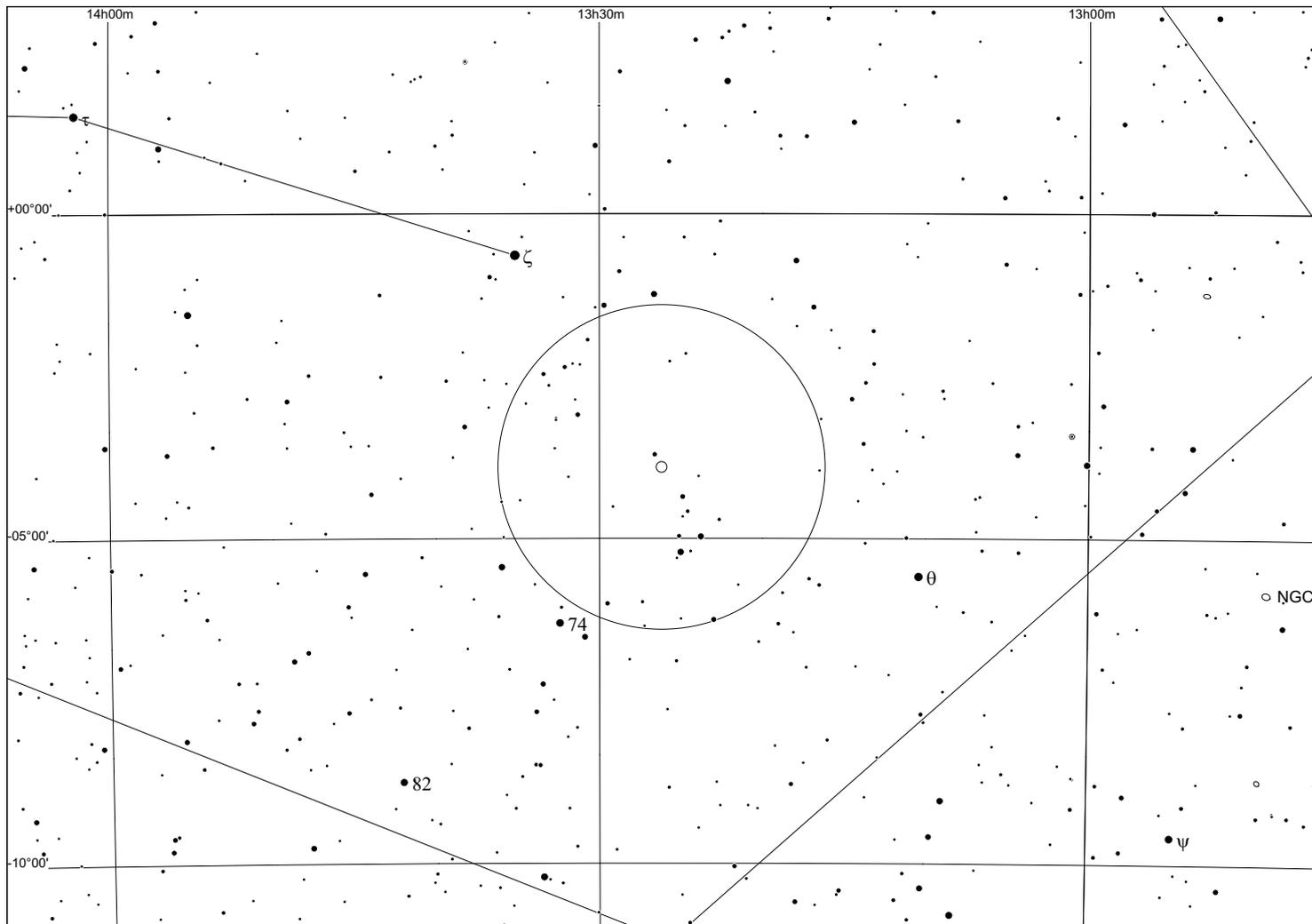


HCG Const. coordinates (2000) bright. memb. mag  
 64 Vir 13h 25m 44s -03° 51' 14.7

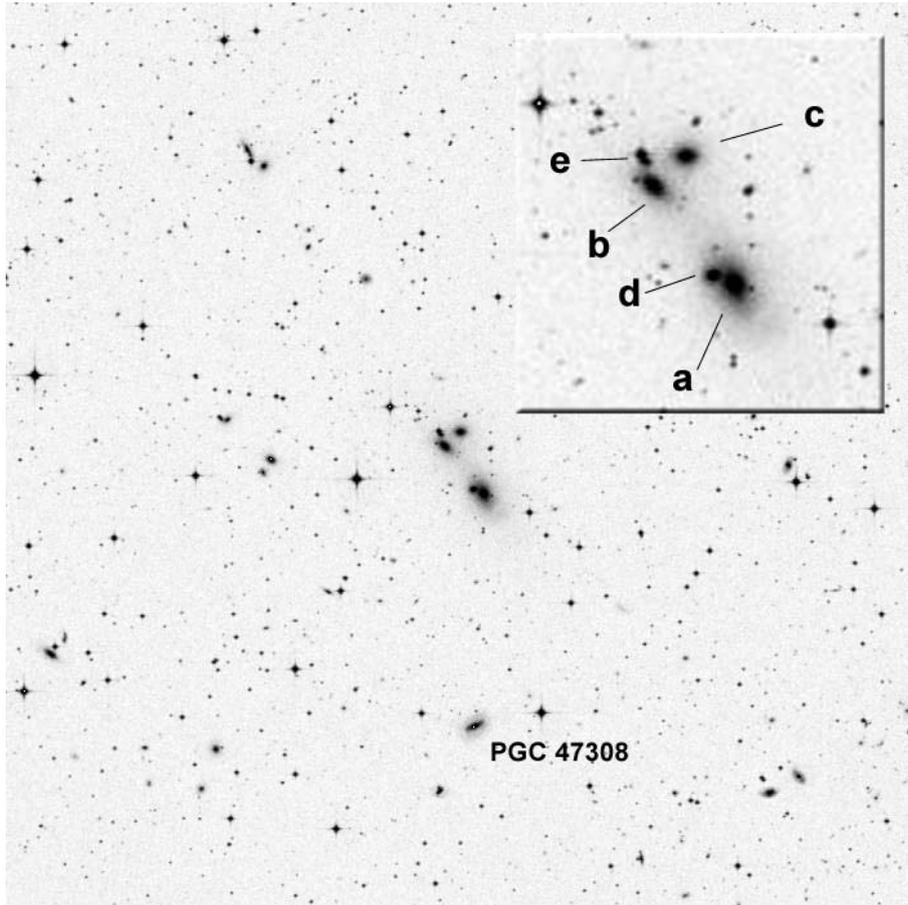
galaxy	ra (1950)	dec	a	b	type	T	B_I	C	D_B	R_I	C	D_R	B-R	B_T	B_TC	err	v_r	err	C	names
			"	"					"			"					km/s	km/s		
64a	13 23 09.87	-03 36 15.2	39.90	13.40	SBc	7	15.58	1	41.20	13.89	1	90.80	1.48	15.30	14.70	0.50	10596	46	0	
64b	13 23 07.61	-03 35 35.3	26.90	15.30	Scd	8	16.74	1	20.60	15.06	1	71.30	1.42	16.25	15.84	0.20	10723	32	0	
64c	13 23 04.24	-03 33 17.4	20.70	17.10	Sd	0	15.60	5	16.00	15.10	5	85.00	0.80	14.90	14.70	0.50	6147	76	0	
64d	13 23 06.78	-03 35 24.6	6.20	4.10	S0	1	17.98	1	11.80	16.36	1	65.10	1.42	17.48	17.19	0.20	11100	89	0	

Notes:

22" f/4: loose group with c and b as most distinct members, a is very weak, d was not seen



# Hickson 65 in Hydra

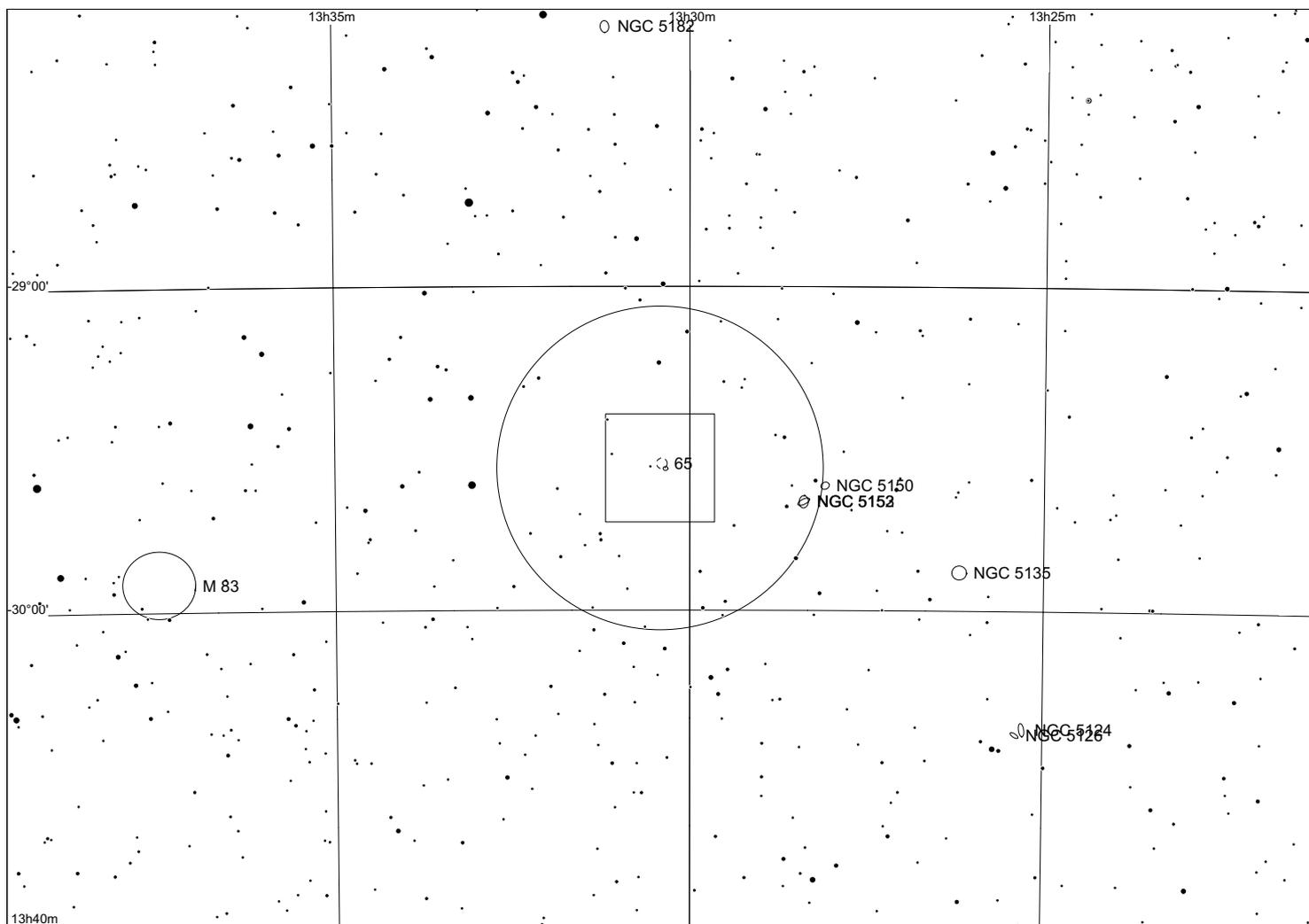
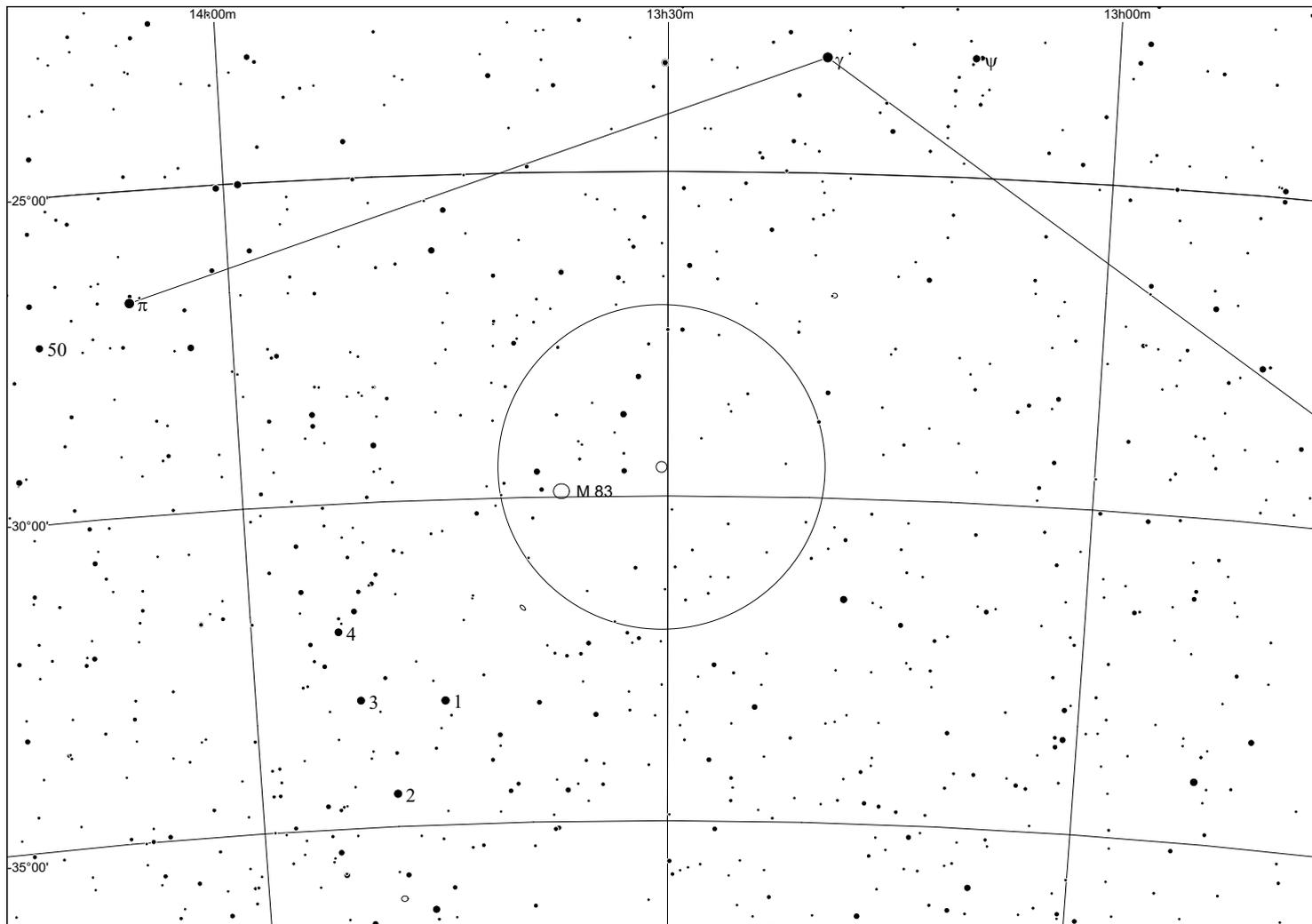


*HCG Const. coordinates (2000) bright. memb. mag*  
 65 Hya 13h 29m 54s -29° 30' 13.7

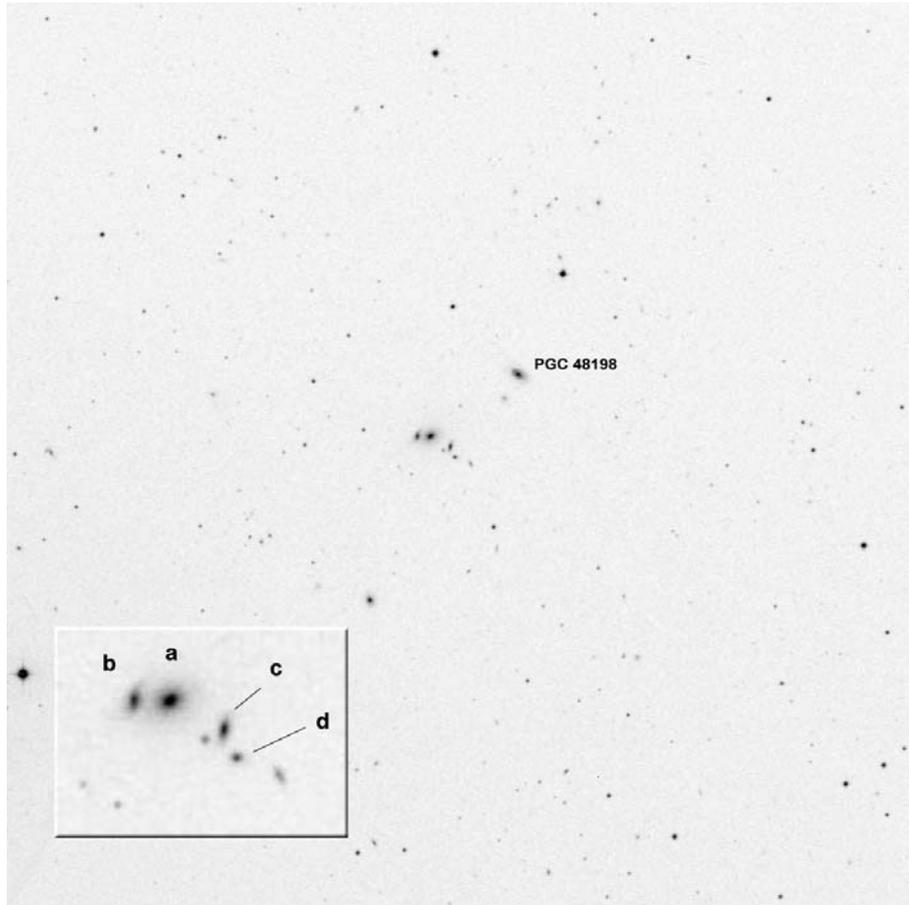
galaxy	ra (1950)	dec	a	b	type	T	B-I	C	D-B	R-I	C	D-R	B-R	B-T	B-TC	err	v_r	err	C	names
			"	"					"			"					km/s	km/s		
65a	13 27 02.96	-29 15 24.4	37.00	26.80	E3	0	14.67	0	57.70	12.88	1	77.20	1.59	14.03	13.71	0.10	14105	44	0	
65b	13 27 06.93	-29 14 21.9	27.40	11.90	S0	1	15.49	1	42.20	14.16	1	47.80	1.63	15.01	14.54	0.20	14700	55	1	
65c	13 27 05.38	-29 14 02.5	19.00	14.80	E2	0	15.79	1	34.80	13.70	1	58.00	1.66	15.15	14.83	0.20	14243	46	0	
65d	13 27 04.19	-29 15 18.7	10.00	7.00	E3	0	15.94	1	34.90	13.93	1	48.40	1.77	15.26	14.94	0.20	13733	27	0	
65e	13 27 07.51	-29 14 01.1	4.50	4.50	E0	0	17.01	1	23.40	15.66	1	27.20	1.43	15.37	15.05	0.20	14405	107	0	

## Notes:

22" f/4.5: 7mm. This is actually a really "fat" group, which becomes, however, very, very difficult due to its low elevation. At -30°dec, this is only about 10° above the horizon and the transparency gets really poor down there. Only the two major condensations could be made out (a/d and b/c/e) and could be split from each other without any further separation.



# Hickson 66 in Ursa major



*HCG Const. coordinates (2000) bright. memb. mag*  
 66 UMa 13h 38m 34s +57° 18' 15.4

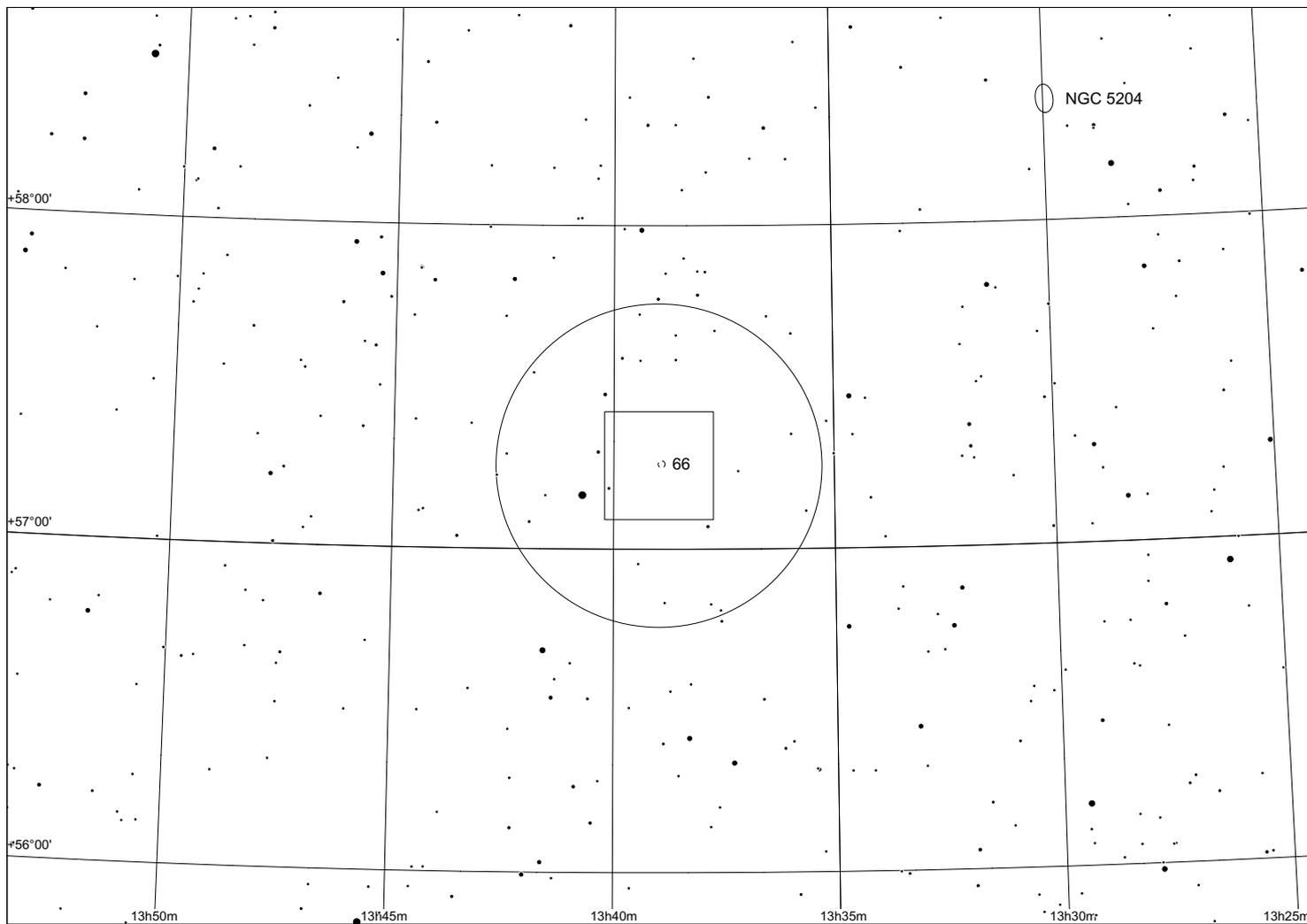
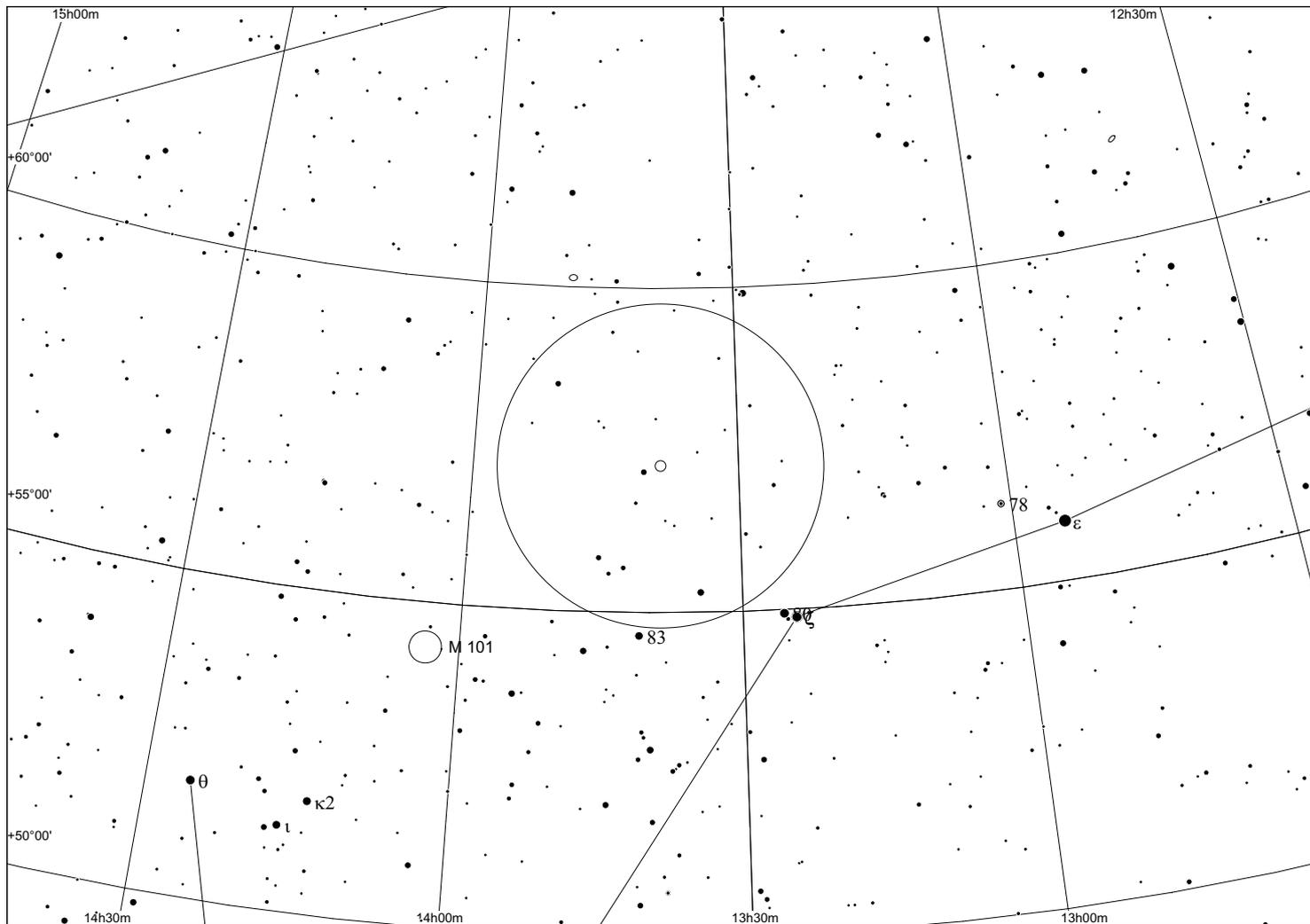
galaxy	ra (1950)	dec	a	b	type	T	B_I	C	D_B	R_I	C	D_R	B-R	B_T	B_TC	err	v_r	err	C	names
			"	"					"			"					km/s	km/s		
66a	13 36 48.38	+57 33 56.2	13.40	11.60	E1	0	16.15	1	26.60	14.15	1	43.90	1.78	15.58	15.38	0.20	20688	36	0	
66b	13 36 50.55	+57 33 56.6	12.80	5.90	S0	1	17.27	1	18.50	15.39	1	28.90	1.68	16.84	16.50	0.20	21472	64	0	
66c	13 36 45.16	+57 33 41.6	9.60	4.70	S0	1	17.16	1	15.80	15.32	1	24.40	1.67	16.72	16.39	0.20	20801	74	0	
66d	13 36 44.48	+57 33 27.7	5.00	4.20	E2	0	18.22	1	10.50	16.26	1	16.80	1.76	17.65	17.45	0.20	20850	76	0	

## Notes:

22" f/4: difficult, tight group

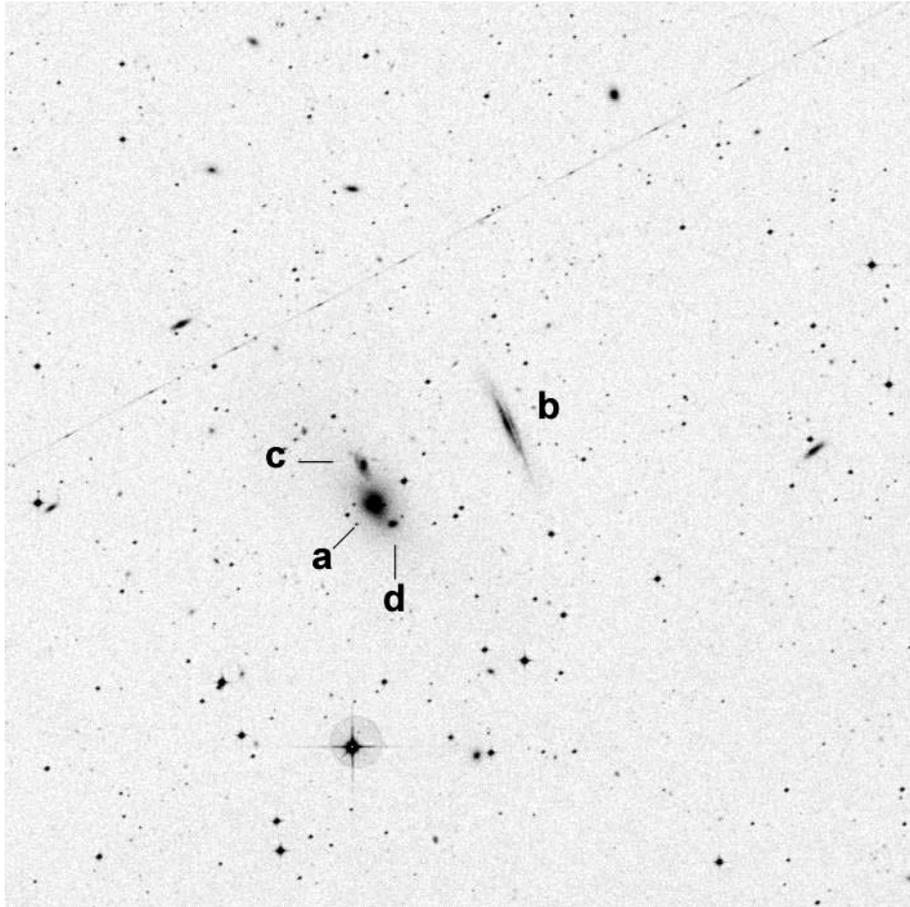
a/b form brightest part, a and b can be split with effort

c/d appear as a fainter extension that cannot be split into single components





# Hickson 67 in Virgo

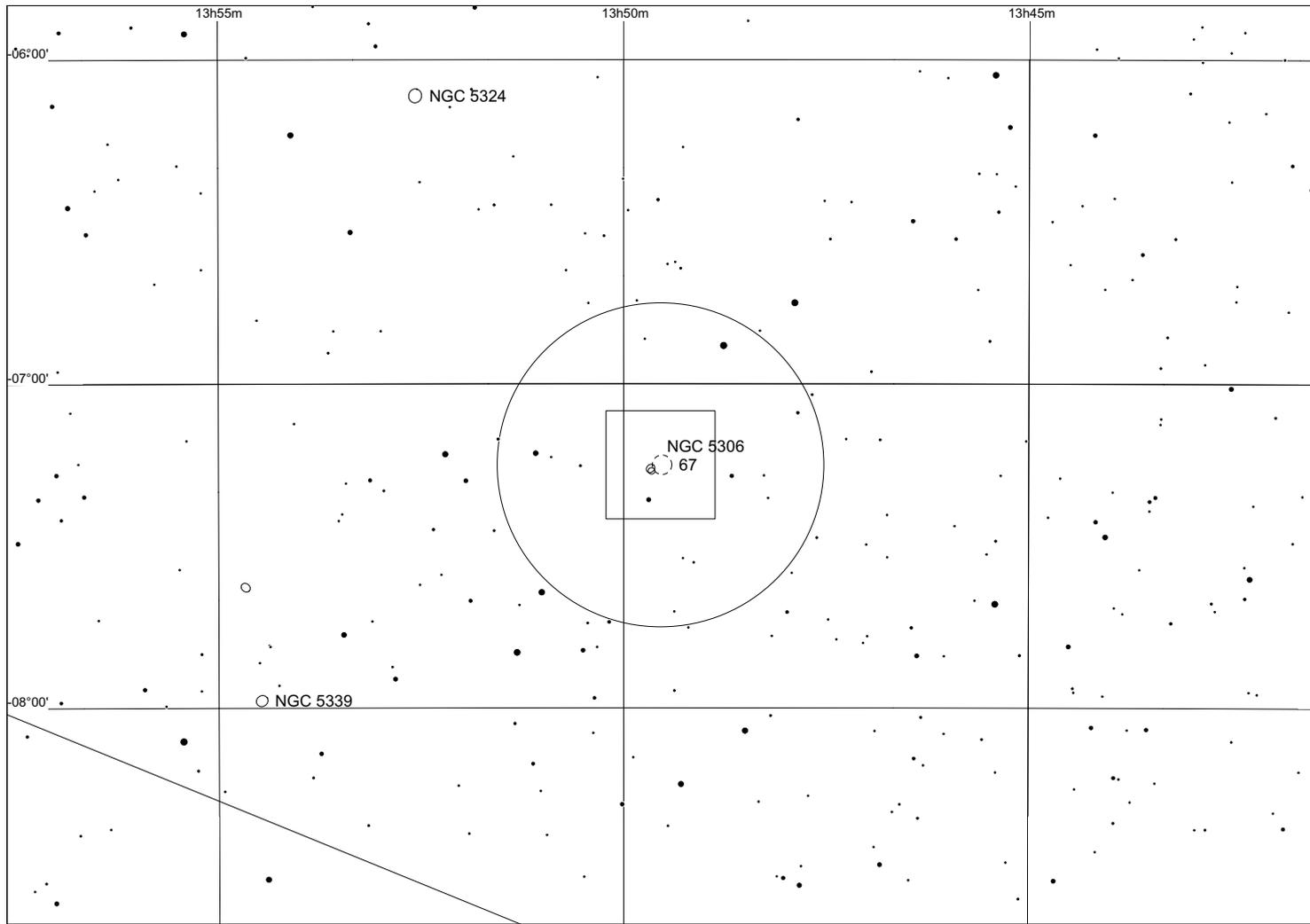
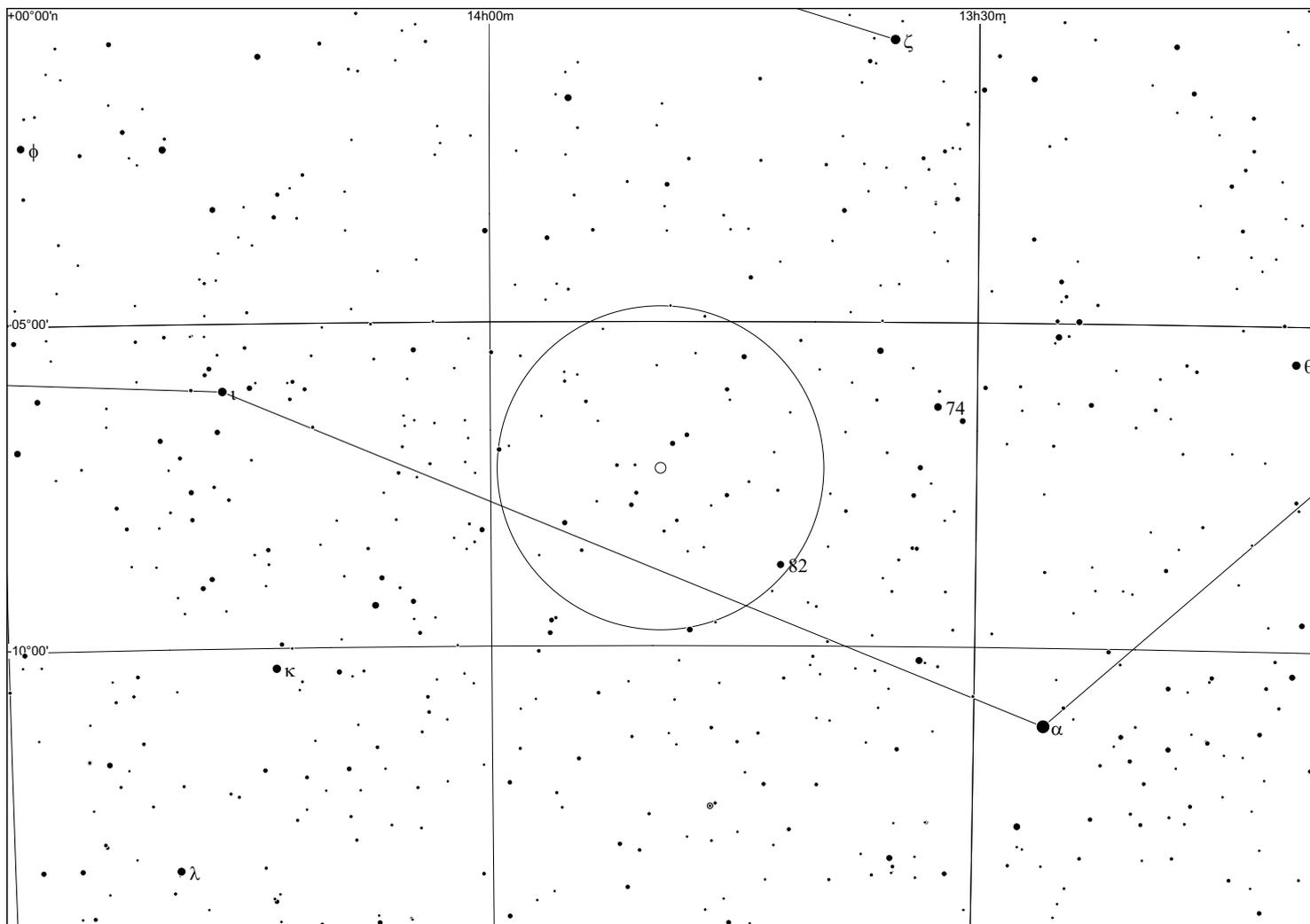


HCG Const. coordinates (2000) bright. memb. mag  
 67 Vir 13h 49m 04s -07° 12' NGC 5306 12.7

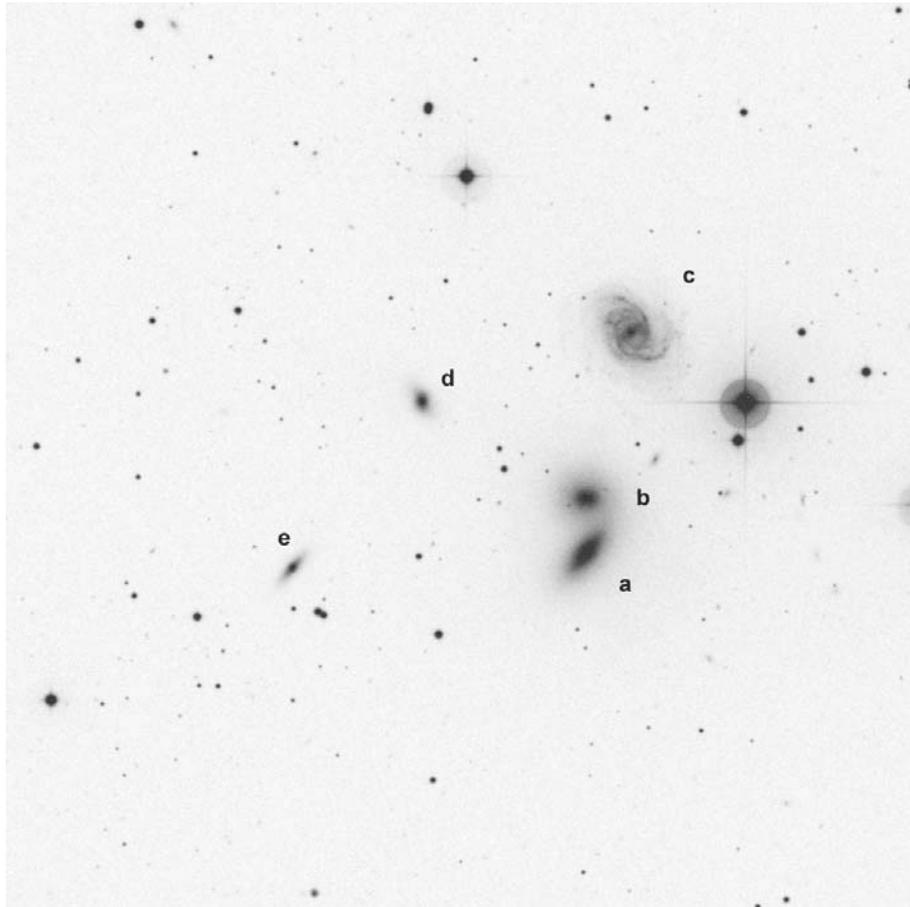
galaxy	ra (1950)	dec	a	b	type	T	B-I	C	D-B	R-I	C	D-R	B-R	B-T	B-TC	err	v_r	err	C	names
			"	"					"			"					km/s	km/s		
67a	13 46 33.78	-06 58 33.8	58.80	54.40	E1	0	13.43	1	86.90	11.73	1	115.50	1.59	12.97	12.74	0.20	7262	26	0	
67b	13 46 21.99	-06 56 50.7	68.40	12.30	Sc	7	15.26	0	48.10	14.64	0	42.20	1.75	14.71	13.89	0.20	7644	45	0	
67c	13 46 34.98	-06 57 40.8	19.90	14.40	Scd	8	15.83	1	38.70	14.21	1	39.90	1.30	15.40	15.06	0.20	7430	45	0	
67d	13 46 32.25	-06 59 01.0	16.50	9.80	S0	1	15.94	1	30.20	13.28	1	72.60	1.60	15.57	15.25	0.20	7071	43	0	

## Notes:

22" f/4 moon (3 days): a is easily seen with direct vision, b is more difficult, elongated, d and c are very difficult (the thin crescent of the 3 days old moon might be disturbing), d could be seen intermittently, c was only suspected a few times, c appears to be more difficult than d



## Hickson 68 in Canes Venatici

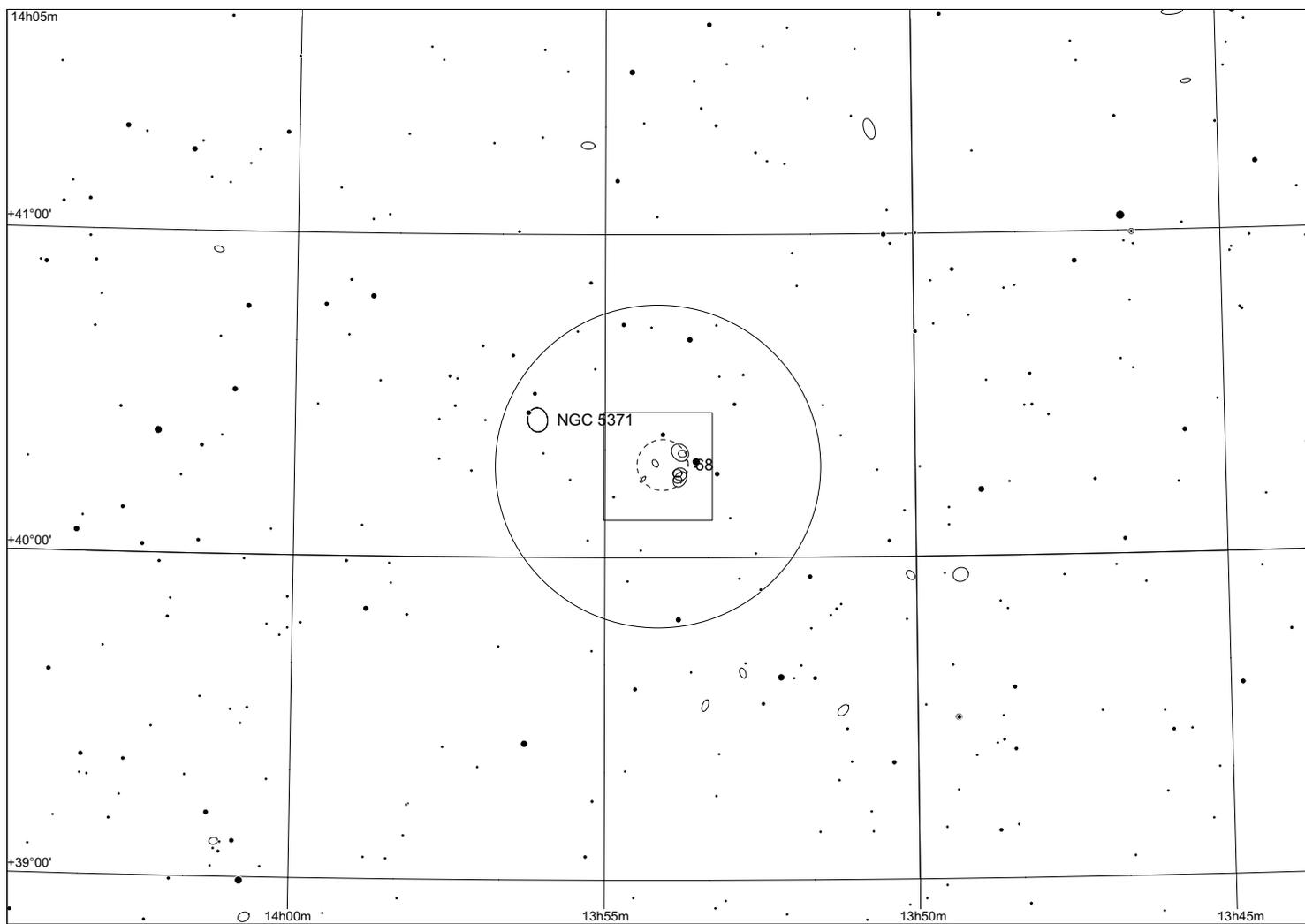
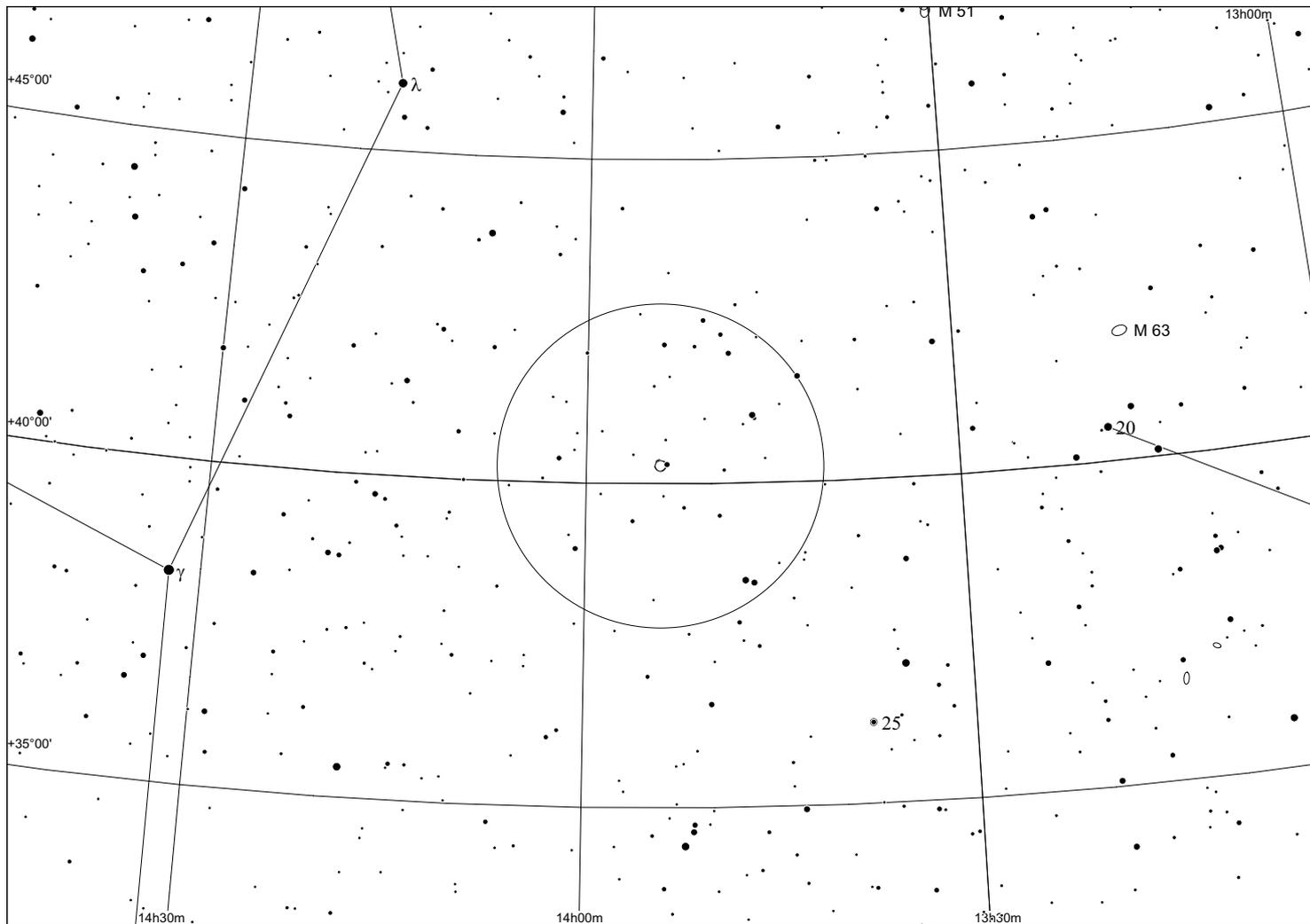


HCG Const. coordinates (2000) bright. memb. mag  
 68 CVn 13h 53m 41s +40° 20' NGC 5353 11.8

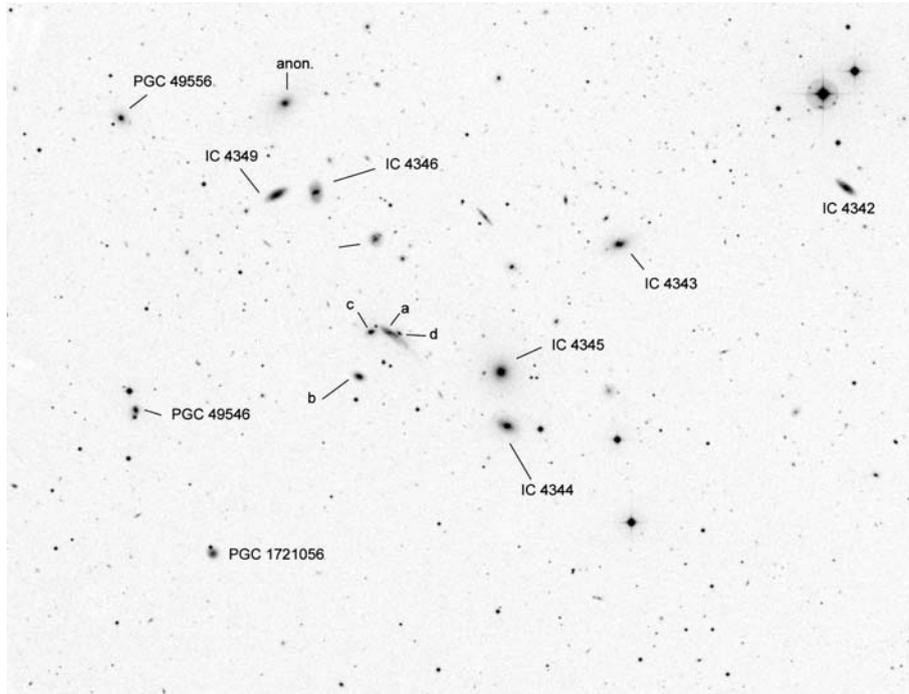
galaxy	ra (1950)	dec	a	b	type	T	B-I	C	D <sub>B</sub>	R-I	C	D <sub>R</sub>	B-R	B <sub>T</sub>	B <sub>TC</sub>	err	v <sub>r</sub>	err	C	names	
			"	"					"			"					km/s	km/s			
68a	13 51 19.59	+40 31 42.5	77.40	59.90	S0	1	12.04	1	112.30	10.19	1	197.30	1.63	12.08	11.84	0.08	2162	27	0	N5353,	
U8813																					
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																					

### Notes:

22" f/4: together with HCG 44 the brightest Hickson group. Beautiful group of 5 galaxies that are all prominent with e being the weakest. c has a wide halo that appears sometimes mottled. Don't miss NGC 5371, a nice spiral 30' ENE.



# Hickson 69 in Bootes

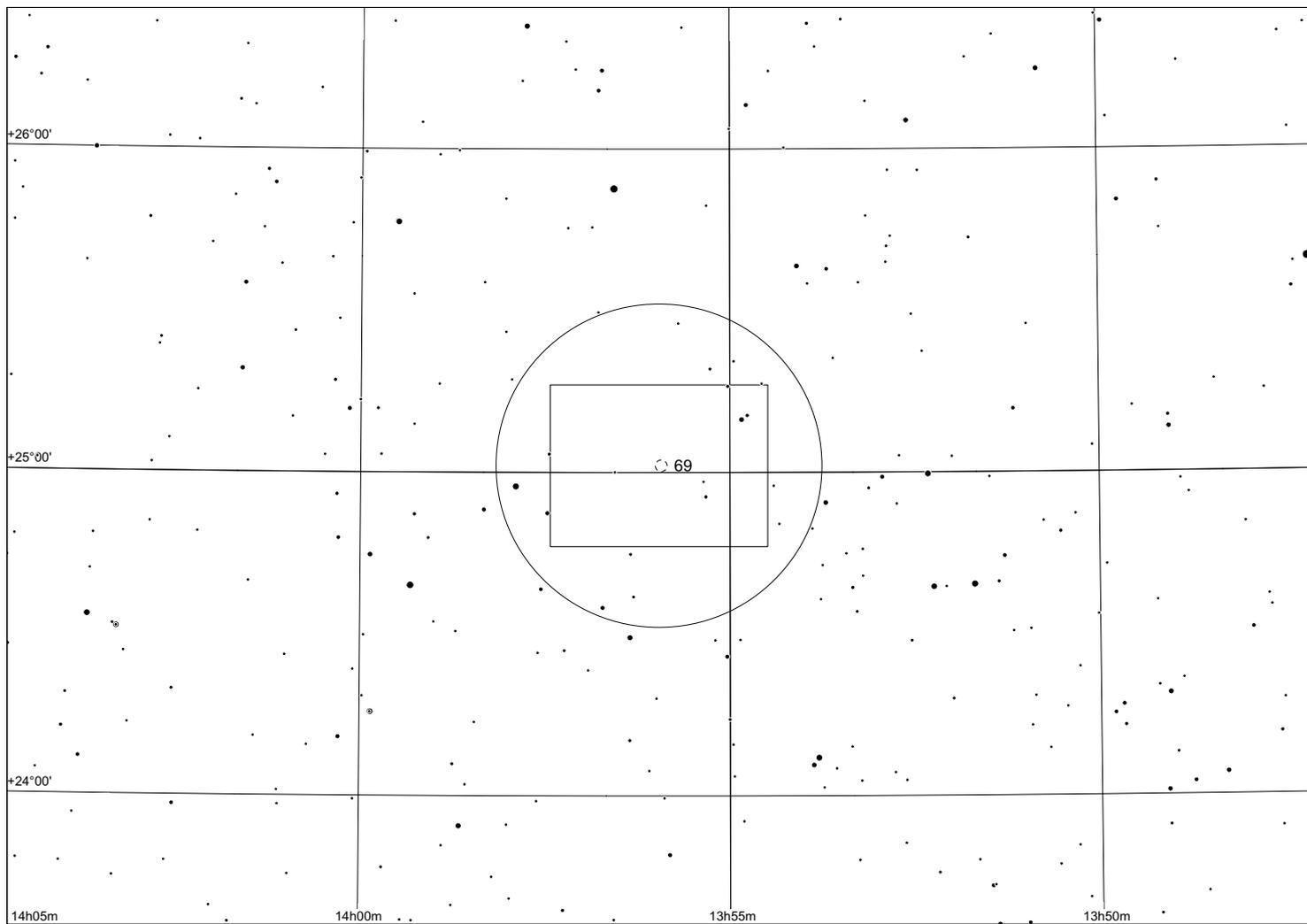
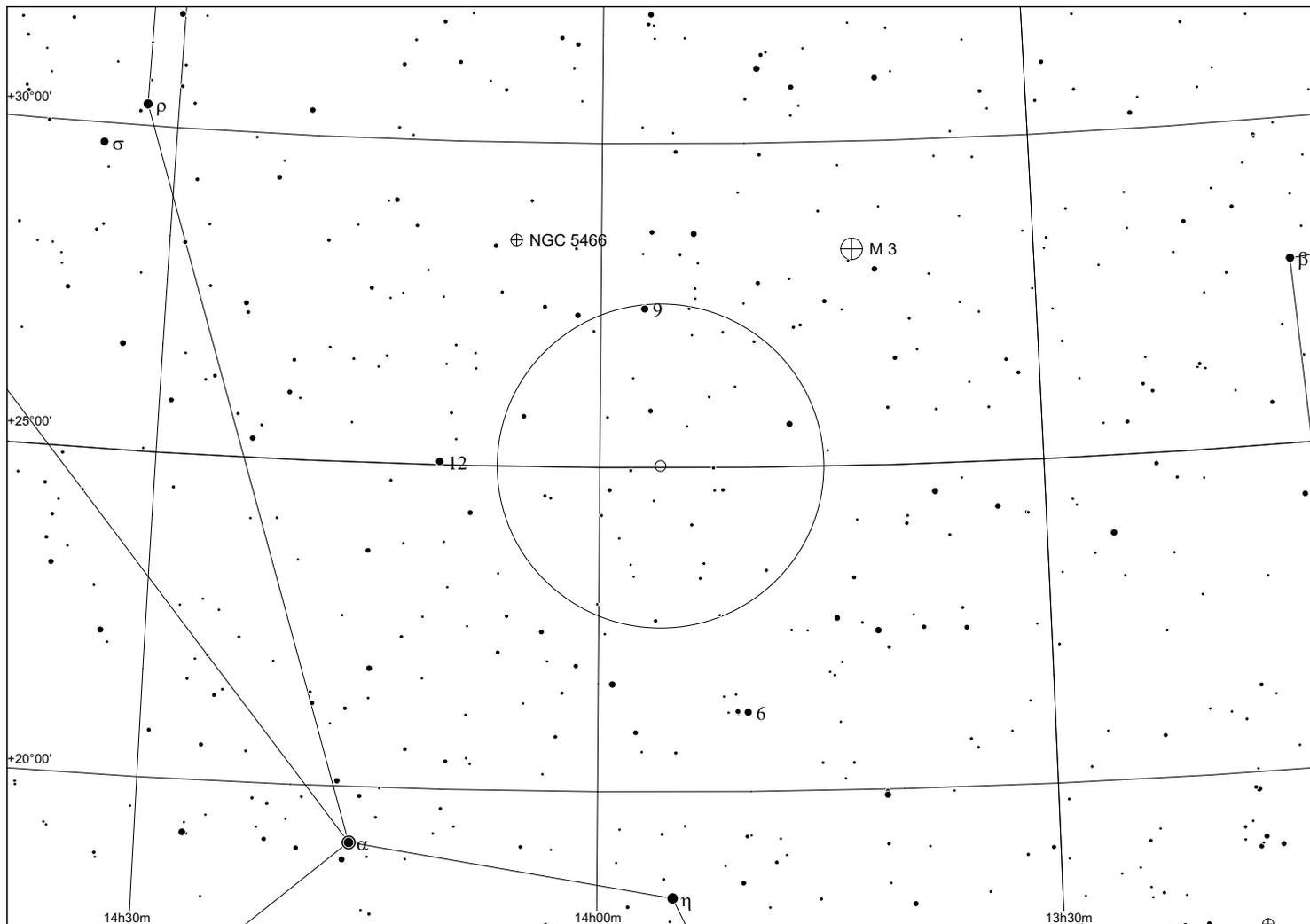


*HCG Const. coordinates (2000) bright. memb. mag*  
 69 Boo 13h 55m 31s +25° 04' 14.9

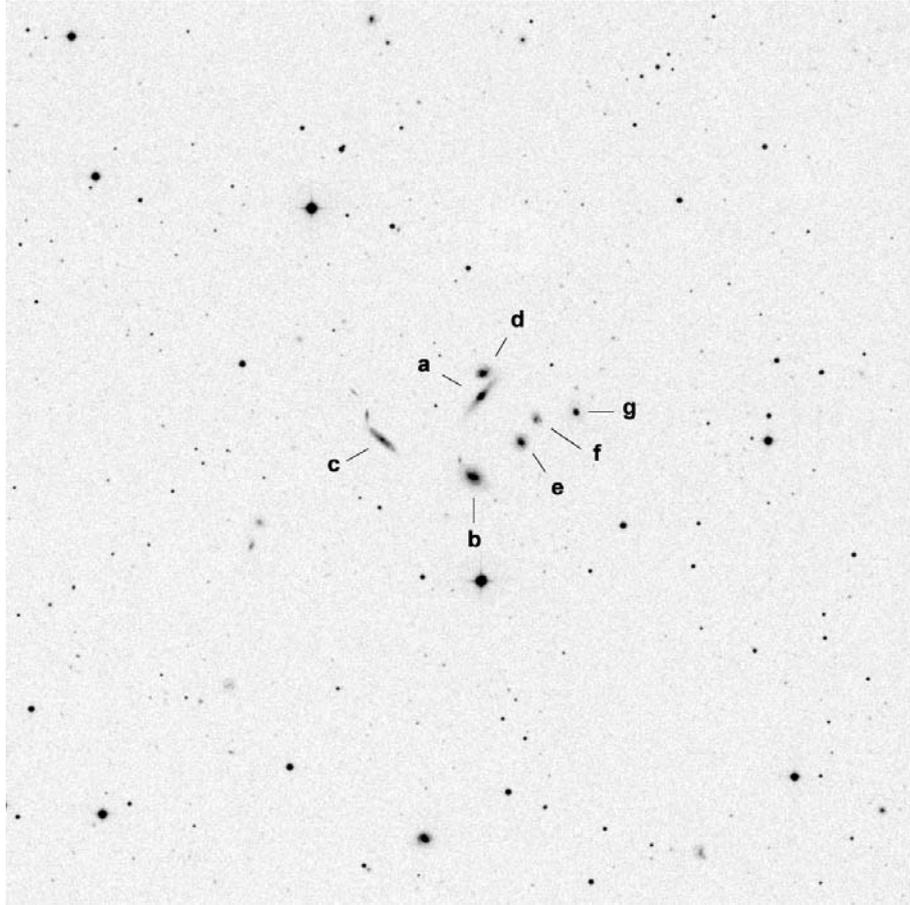
<i>galaxy</i>	<i>ra (1950)</i>	<i>dec</i>	<i>a</i>	<i>b</i>	<i>type</i>	<i>T</i>	<i>B_I</i>	<i>C</i>	<i>D_B</i>	<i>R_I</i>	<i>C</i>	<i>D_R</i>	<i>B-R</i>	<i>B_T</i>	<i>B_TC</i>	<i>err</i>	<i>v_r</i>	<i>err</i>	<i>C</i>	<i>names</i>
			"	"					"			"					km/s	km/s		
69a	13 53 11.13	+25 19 05.8	47.50	11.10	Sc	7	15.93	1	39.40	14.19	1	53.70	1.57	15.66	14.94	0.20	8856	48	0	U8842
69b	13 53 15.68	+25 17 38.2	14.80	11.30	SBb	5	16.09	0	23.80	14.52	0	31.10	1.49	15.90	15.59	0.10	8707	36	0	
69c	13 53 13.90	+25 19 07.2	13.40	11.00	S0	1	15.93	1	25.00	14.36	1	32.10	1.45	15.19	14.94	0.20	8546	44	0	U8842
69d	13 53 09.62	+25 19 04.7	10.80	7.00	SB0	1	17.04	1	18.10	15.40	1	24.10	1.51	16.35	16.06	0.20	9149	55	0	U8842

## Notes:

- 22" f/4: a nice field of galaxies surrounds this group, which is therefore not a very distinct target
- a, c, and neighboring star could be split, d was not resolved
- b is comparatively easy with averted visions
- nearby IC galaxies are a nice, brighter pair



# Hickson 70 in Canes Venatici

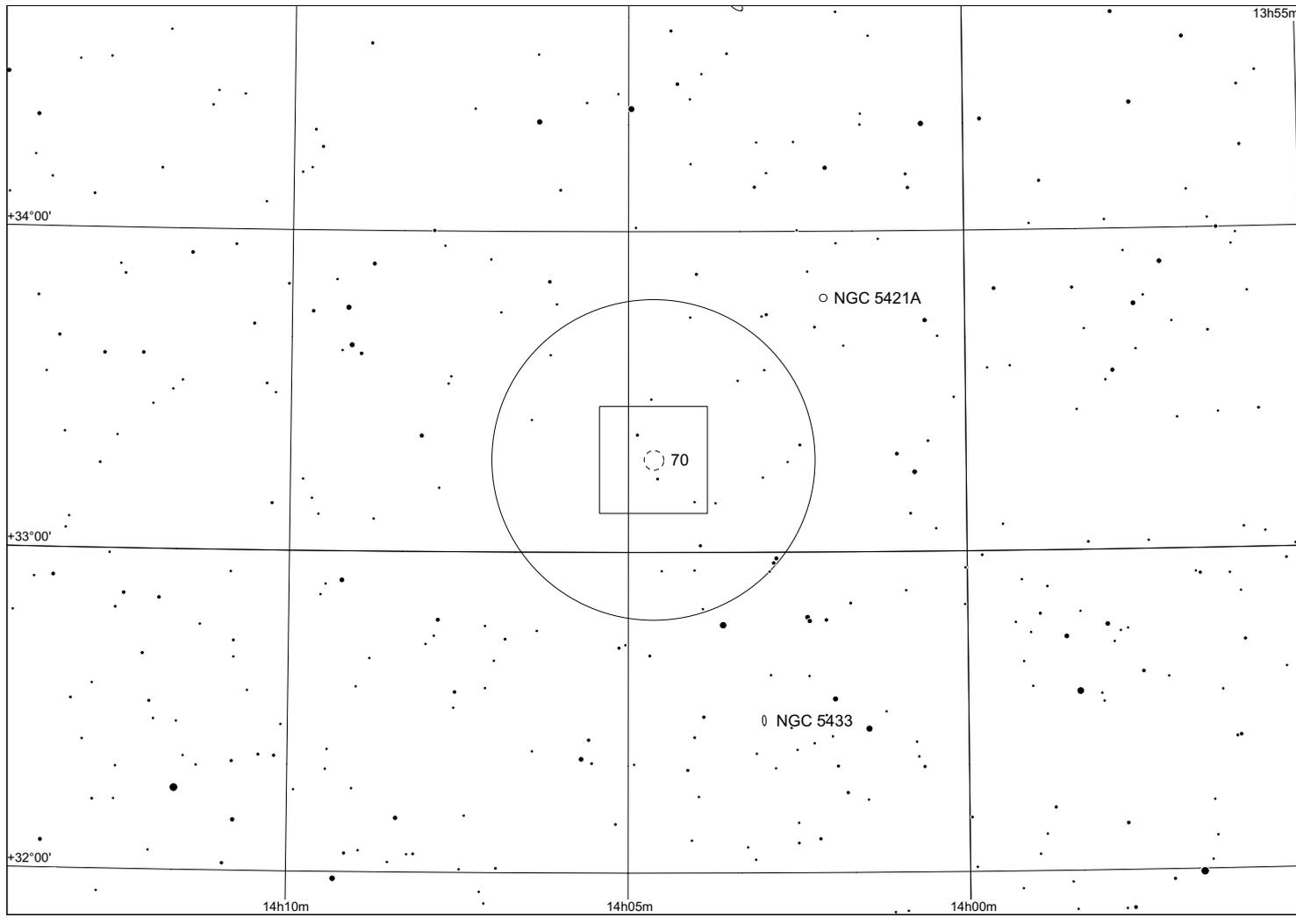
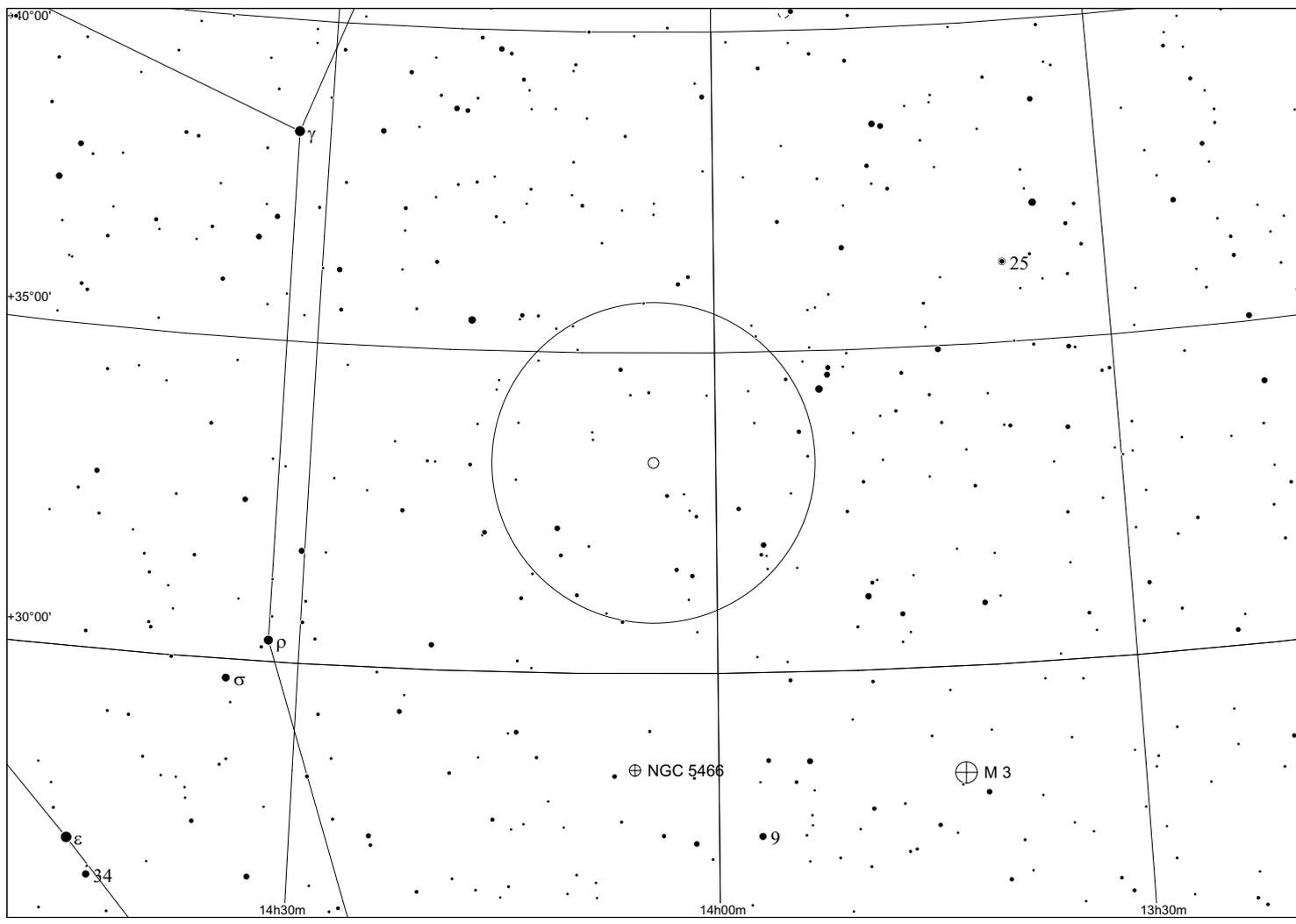


*HCG Const. coordinates (2000) bright. memb. mag*  
 70 CVn 14h 04m 13s +33° 20' IC 4371 14.5

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		
70a	14 01 59.15	+33 34 34.3	35.00	7.00	S0a	2	15.30	1	30.30	13.66	1	37.60	1.60	15.21	14.50	0.20	8238	25	0	
70b	14 01 59.88	+33 32 47.2	22.70	15.50	SBa	3	15.26	0	35.50	13.71	0	42.40	1.51	15.10	14.75	0.10	8198	47	0	I4371
70c	14 02 09.55	+33 33 36.2	25.60	7.30	Sbc	6	16.17	0	26.50	14.85	0	30.50	1.27	15.69	15.03	0.20	8079	48	0	
70d	14 01 59.00	+33 35 03.9	11.10	9.10	Sc	7	16.24	1	23.20	14.81	1	27.60	1.38	15.71	15.42	0.20	18846	49	0	I4370
70e	14 01 54.87	+33 33 33.7	12.80	11.90	Sbc	6	16.32	0	24.10	15.06	0	26.40	1.24	16.16	15.91	0.10	19117	55	0	I4369
70f	14 01 53.34	+33 34 03.7	7.90	6.40	SBb	5	17.25	0	17.40	16.36	0	18.20	0.88	16.69	16.40	0.20	19243	130	0	
70g	14 01 49.07	+33 34 13.4	7.20	6.40	Sa	3	16.43	0	16.70	14.93	0	24.30	1.39	16.65	16.39	0.10	19010	90	0	

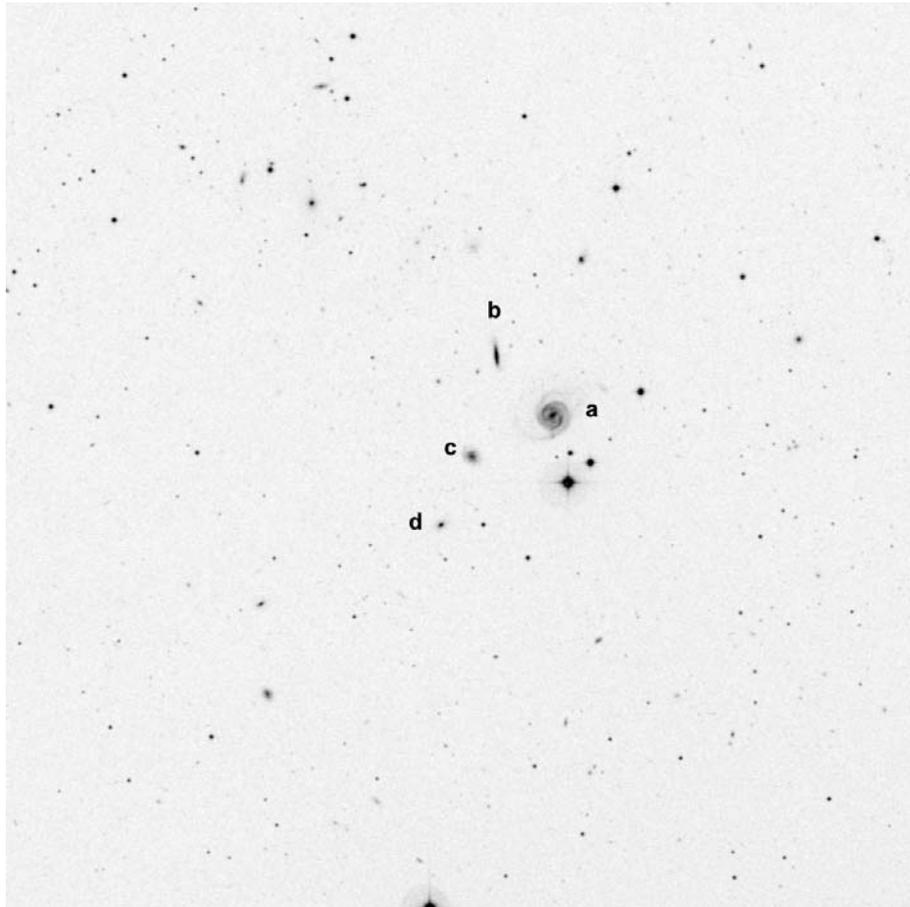
## Notes:

22" f/4: a and b appear as the most prominent members. d could be separated from a with averted vision. c and g seen intermittently with averted vision and 6 mm. e only suspected, f not seen.





# Hickson 71 in Bootes



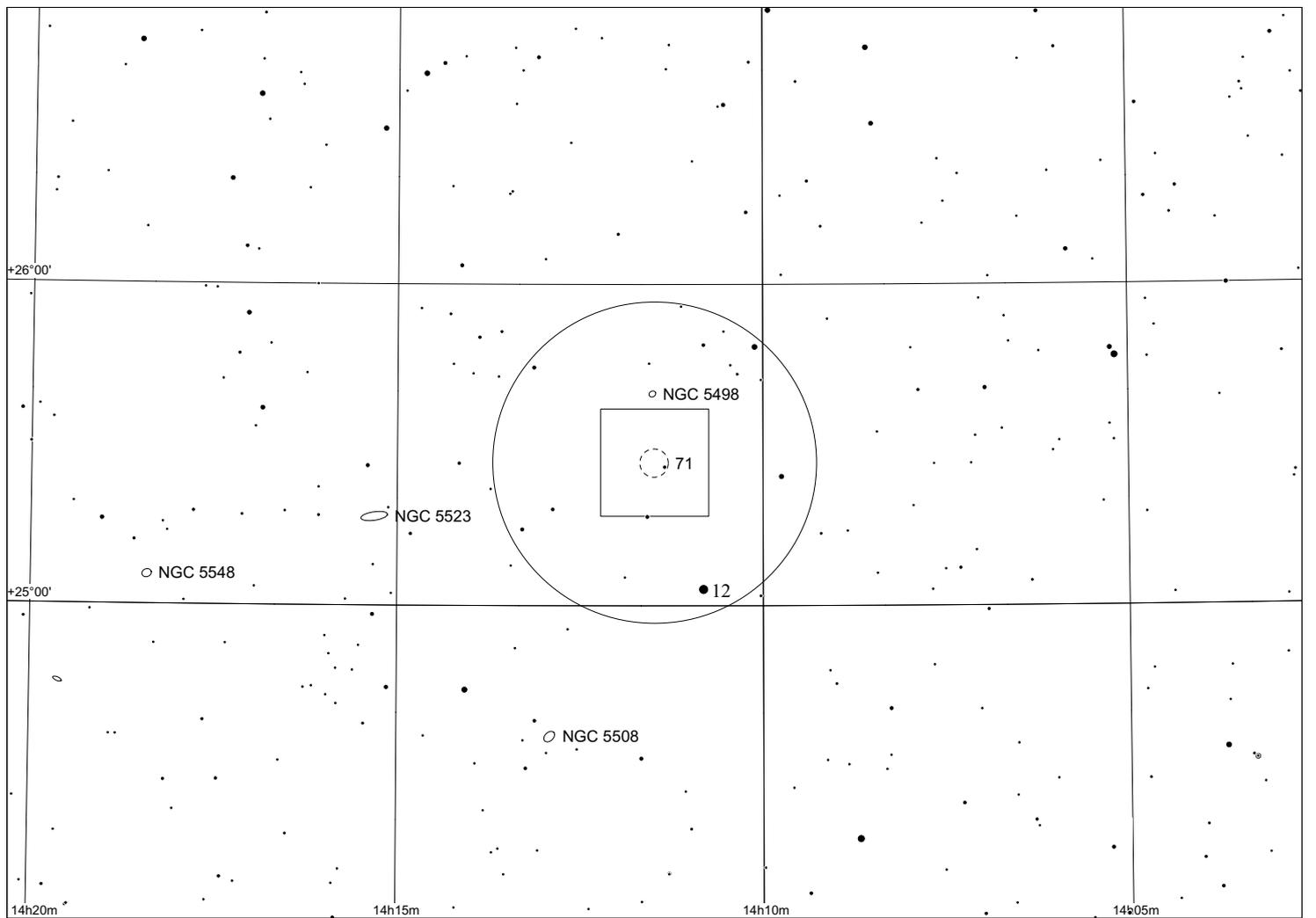
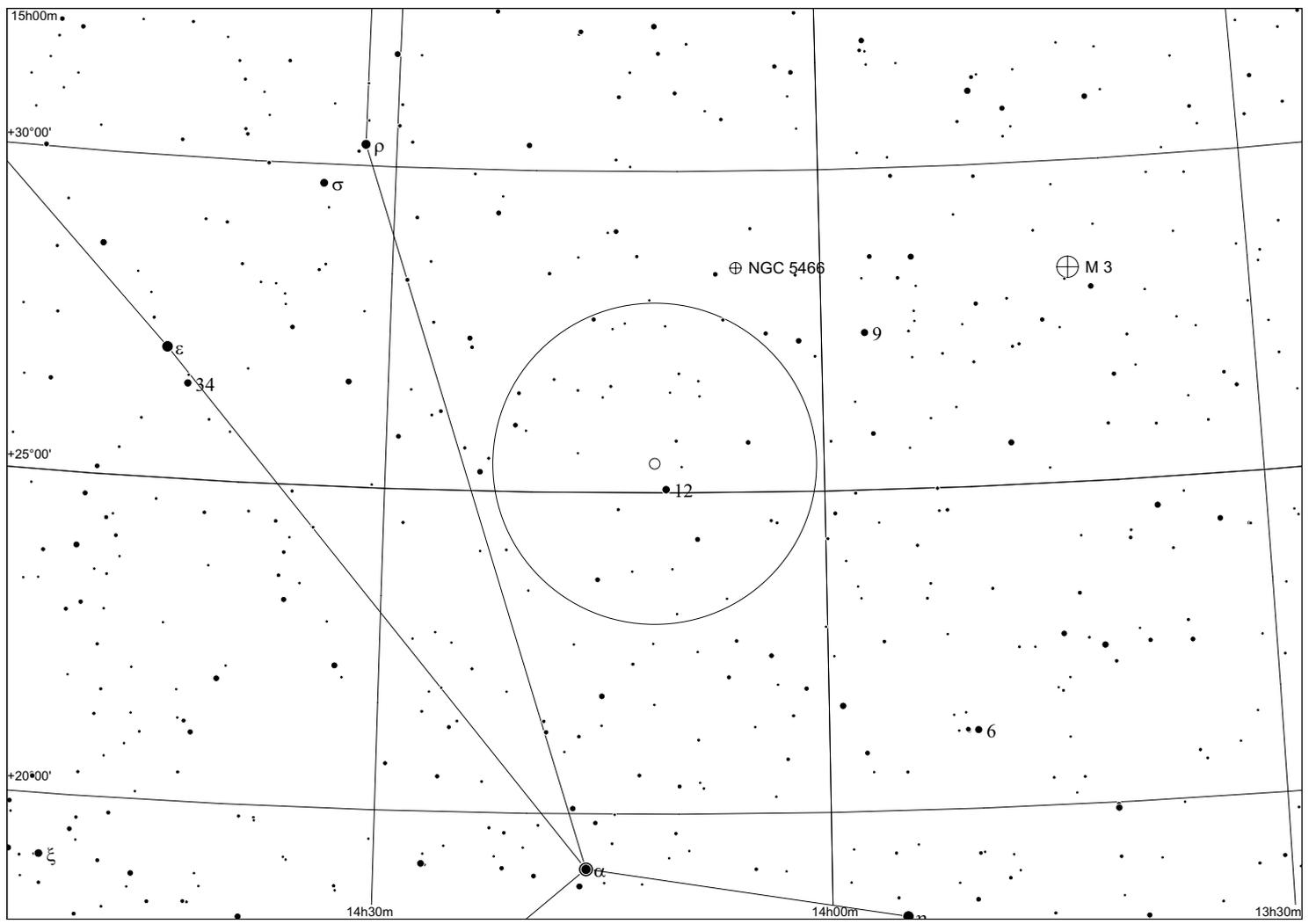
HCG Const. coordinates (2000) bright. memb. mag  
 71 Boo 14h 11m 05s +25° 29' IC 4381 13.8

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 km/s	err km/s	C	names
71a	14 08 40.48	+25 43 53.7	31.50	25.80	SBC	7	14.57	0	53.40	13.28	0	57.90	1.27	14.05	13.75	0.20	9320	17	0	I4381, U9073
71b	14 08 45.98	+25 45 16.1	18.10	5.40	Sb	5	15.56	0	22.60	14.21	0	25.80	1.33	15.55	14.90	0.10	9335	65	0	I4382
71c	14 08 48.59	25 43 02.5	13.70	9.90	SBC	7	16.43	0	25.20	15.44	0	26.00	0.97	15.90	15.56	0.10	8450	76	1	
71d	14 08 51.70	+25 41 32.9	7.90	5.40	S0	1	17.18	0	14.90	15.41	0	20.00	1.69	17.22	16.92	0.10	20590	103	1	

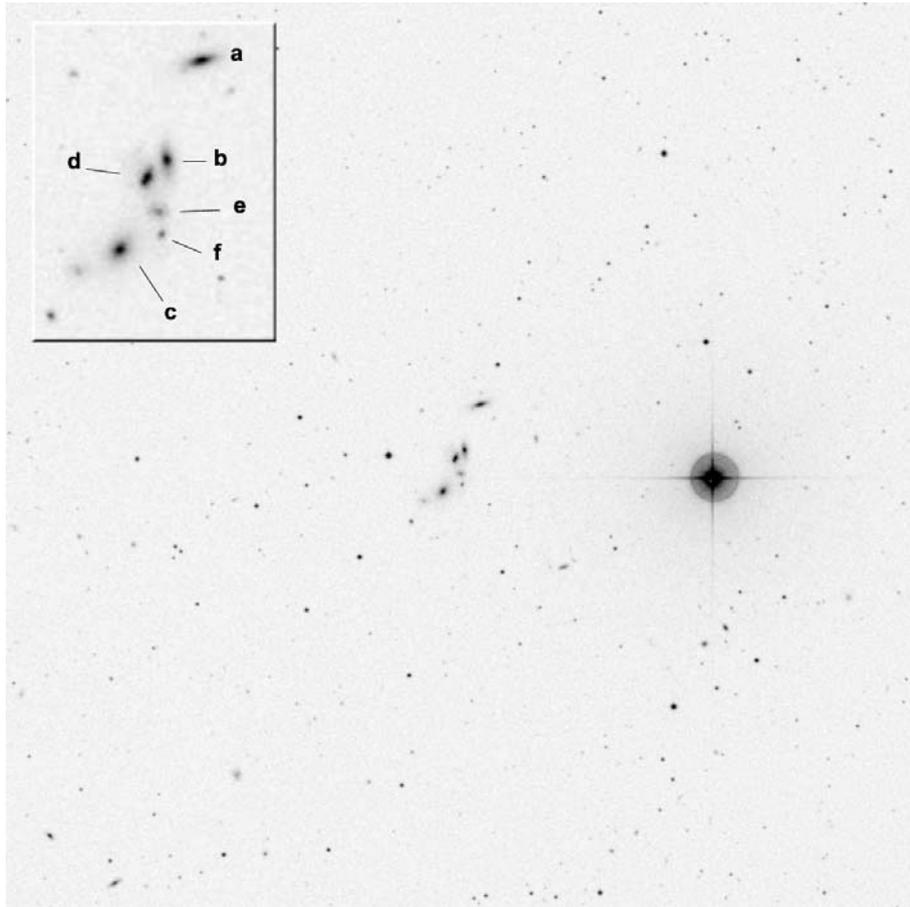
## Notes:

22" f/4: a and b can be steadily seen, a appears more extended, b elongated

c is seen intermittently with averted vision, d is even more difficult, but could be discerned at a few moments



# Hickson 72 in Bootes

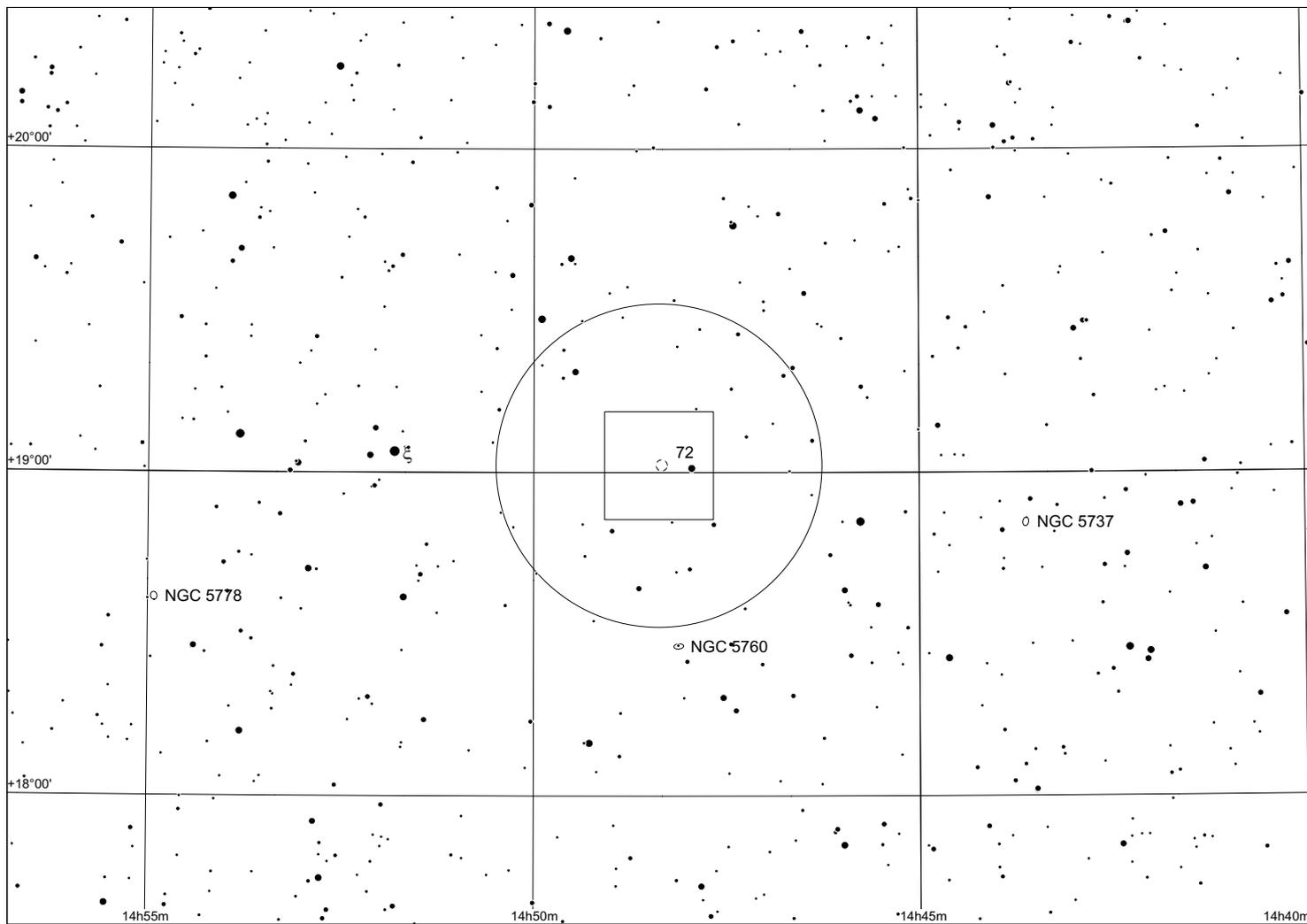
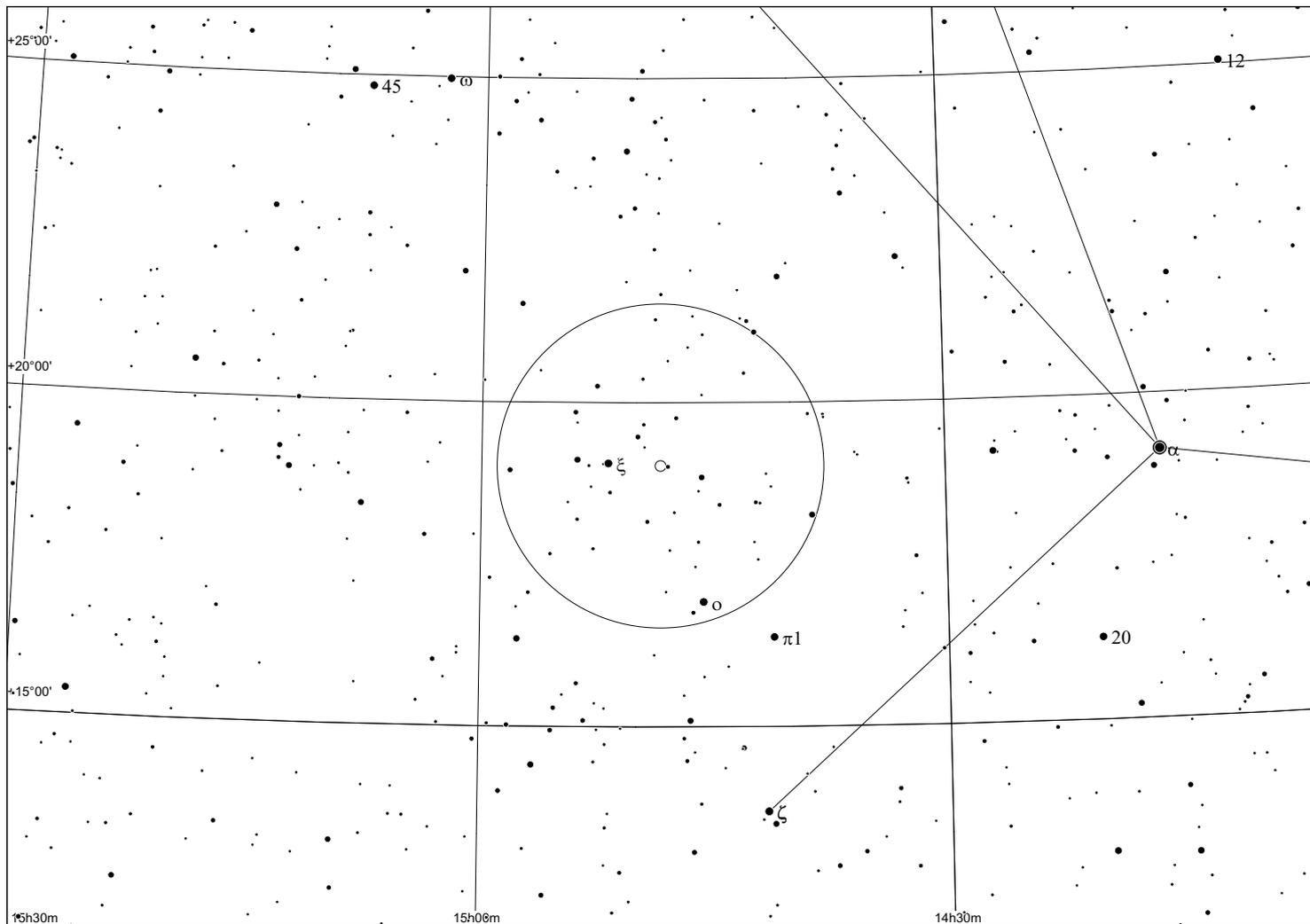


HCG Const. coordinates (2000) bright. memb. mag  
 72 Boo 14h 47m 56s +19° 04' 13.9

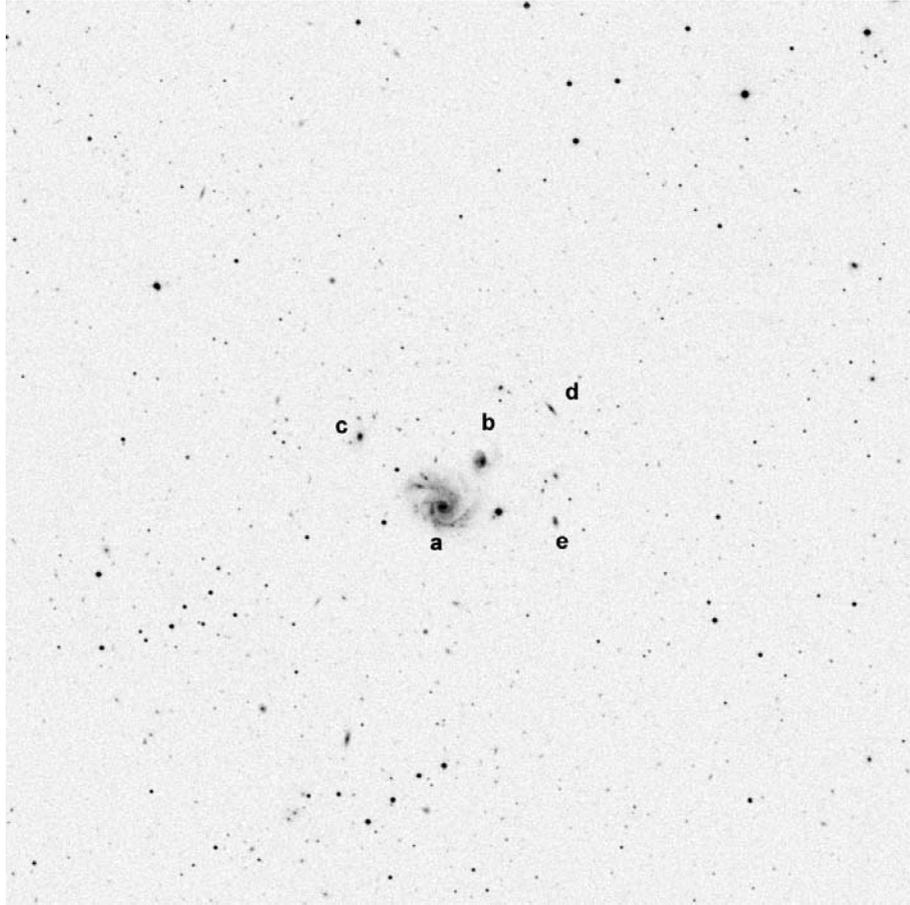
galaxy	ra (1950)	dec	a	b	type	T	B_I	C	D_B	R_I	C	D_R	B-R	B_T	B_TC	err	v_r	err	C	names
			"	"					"			"					km/s	km/s		
72a	14 45 35.17	+19 17 04.3	15.10	6.00	Sa	3	16.28	0	20.30	14.56	0	26.10	1.66	14.43	13.86	0.20	12506	36	0	
72b	14 45 36.56	+19 16 04.7	15.70	6.70	S0	1	16.14	1	27.40	14.43	1	37.70	1.57	15.88	15.48	0.20	12356	38	0	U9532
72c	14 45 38.57	+19 15 09.0	11.10	8.80	E2	0	16.12	1	30.30	14.44	1	40.60	1.54	15.72	15.47	0.20	13062	40	0	
72d	14 45 37.48	+19 15 52.3	12.00	7.40	SB0	1	16.30	1	26.60	14.32	1	37.20	1.86	15.98	15.64	0.20	12558	45	0	
72e	14 45 36.96	+19 15 32.1	7.40	7.40	Scd	8	18.56	1	13.60	17.20	1	16.10	1.19	18.00	17.80	0.50	24050	288	1	
72f	14 45 36.71	+19 15 19.0	9.10	6.00	S0	1	18.59	1	10.60	17.03	1	13.50	1.41	18.25	17.93	0.20	13950	103	0	

## Notes:

22" f/4: very compact group. a, b, c, and d could be split, b and d being the closest. e and f were not seen (mag 17+ objects).



# Hickson 73 in Bootes



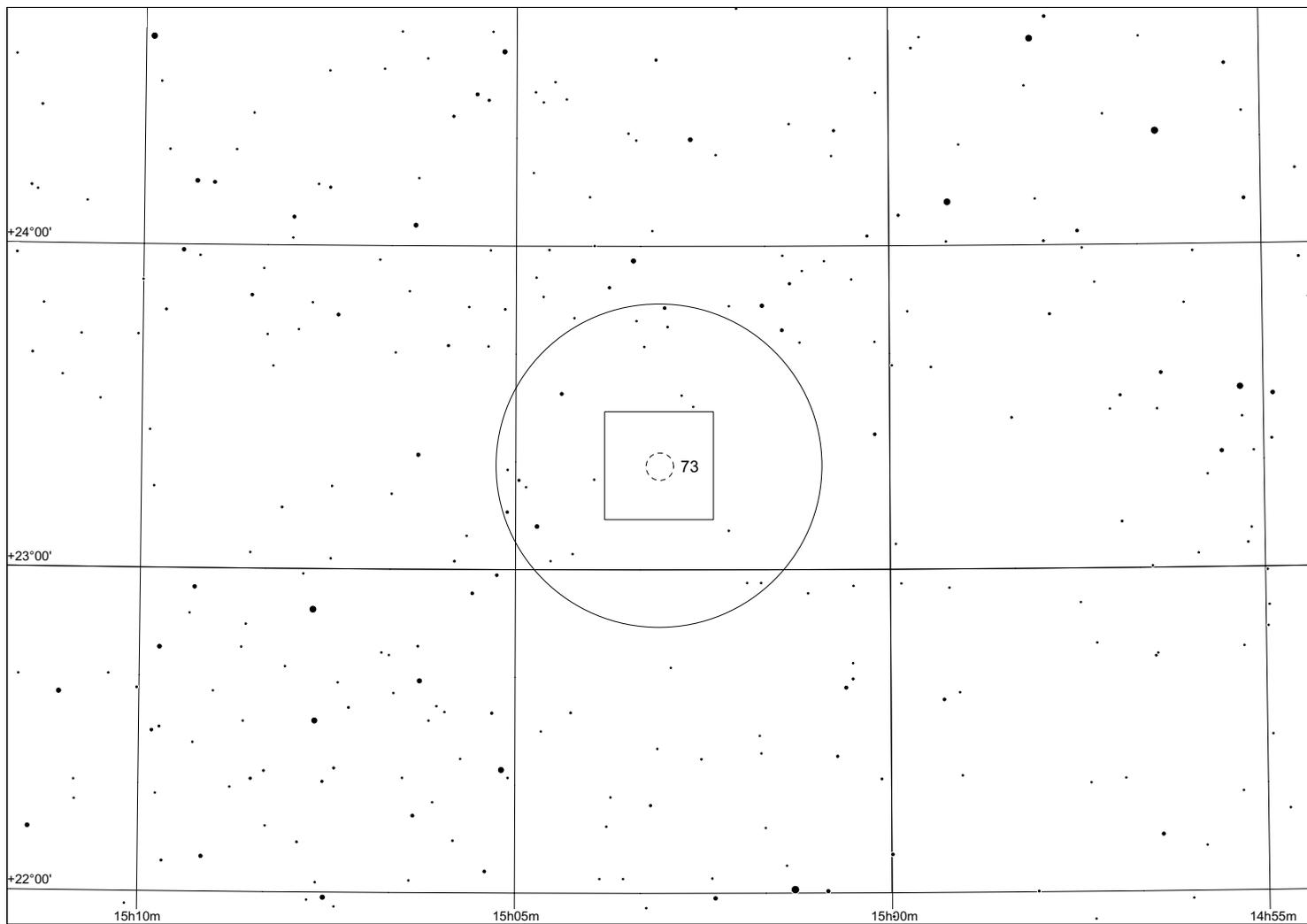
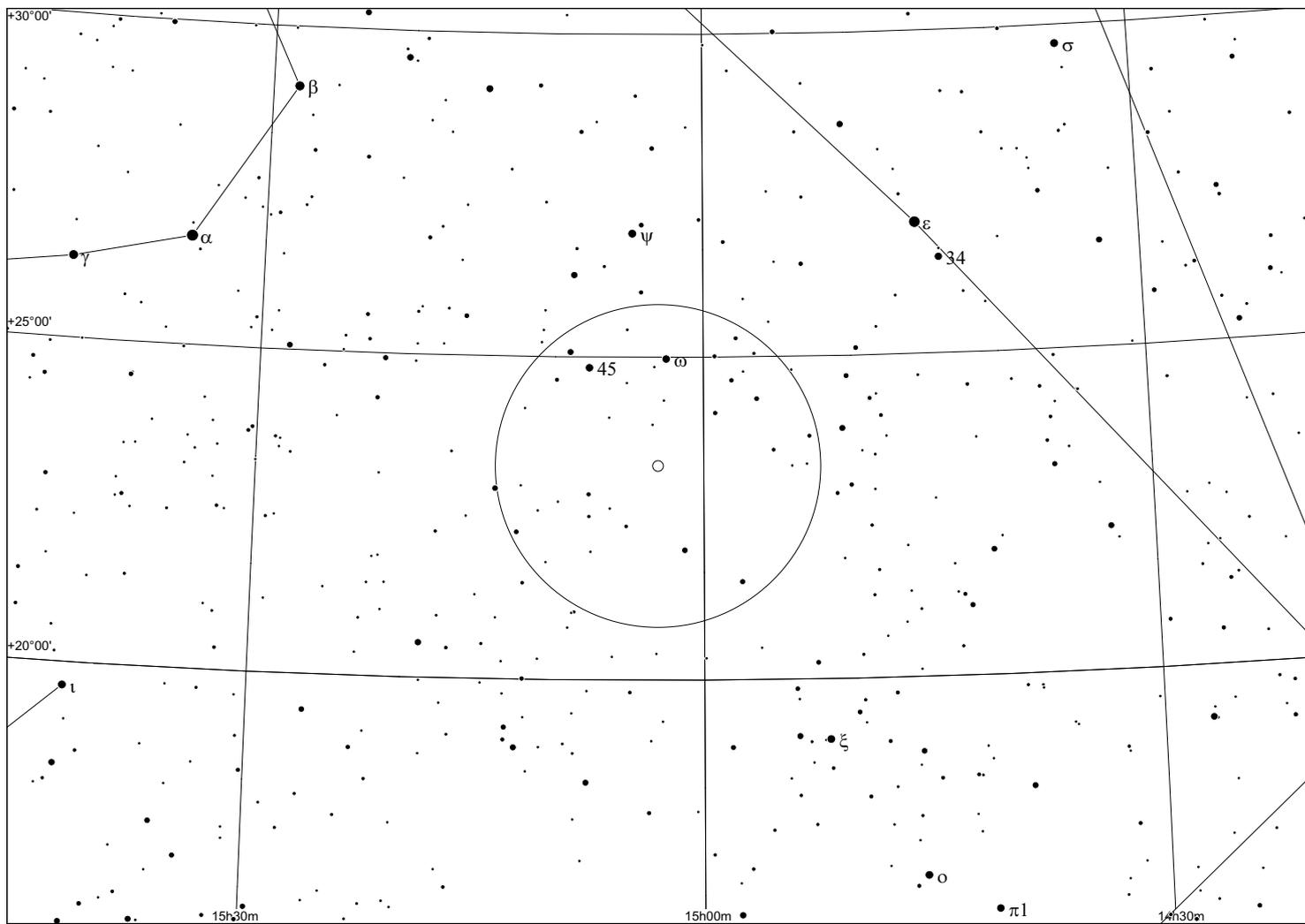
*HCG Const. coordinates (2000) bright. memb. mag*  
 73 Boo 15h 02m 40s +23° 21' NGC 5829 13.3

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		
73a	15 00 29.05	+23 31 40.5	41.50	30.80	Scd	8	14.14	0	76.30	12.93	0	89.20	1.13	13.68	13.30	0.10	5728	43	0	N5829,
U9673																				
73b	15 00 25.26	+23 32 39.7	11.40	8.70	Im	12	17.02	0	22.70	14.59	0	40.10	2.11	16.61	16.22	0.10	13600	107	0	
73c	15 00 36.95	+23 33 13.5	7.20	5.90	S0	1	17.00	0	16.20	15.10	0	26.70	1.70	16.94	16.63	0.10	13300	75	0	
73d	15 00 18.65	+23 33 50.1	9.40	3.00	Sb	5	18.66	0	9.90	16.13	0	16.90	2.25	18.22	17.55	0.10	13480	103	0	
73e	15 00 18.29	+23 31 20.0	9.10	5.40	Sd	9	17.92	0	12.20	16.65	0	14.10	1.20	17.52	17.07	0.20	28500	109	1	

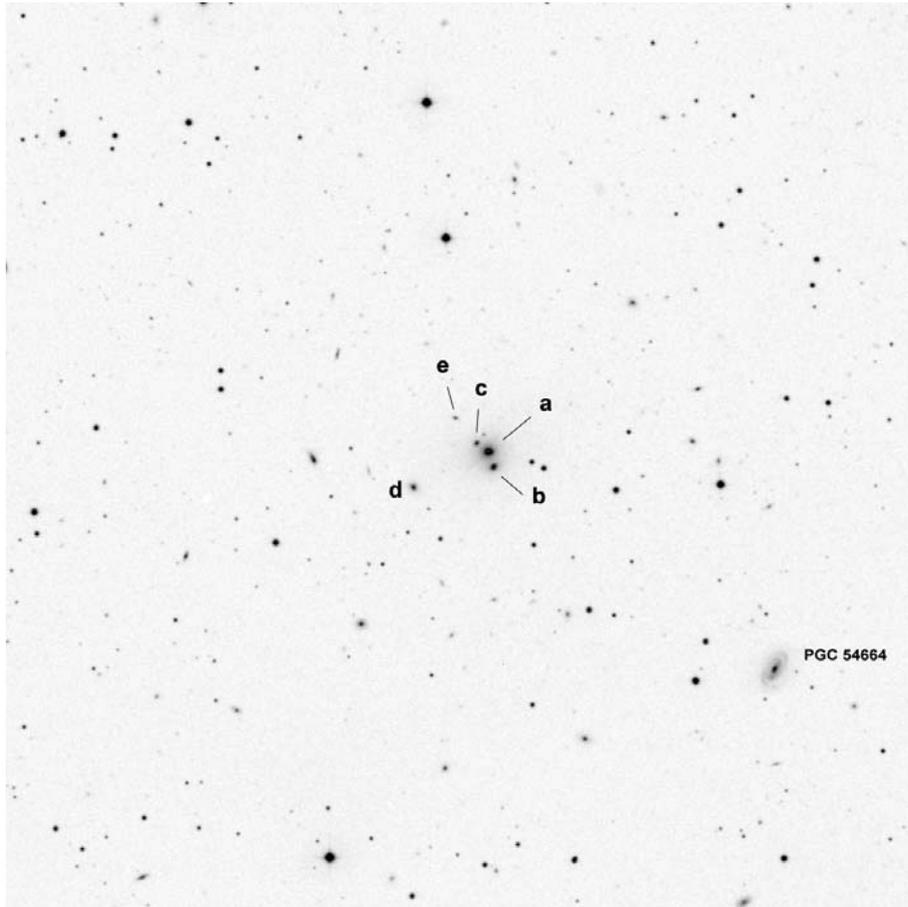
## Notes:

22" f/4: a is an extended low surface brightness object and more difficult than b, which is smaller and more distinct

c is more difficult, but could be seen with certainty, while d and e were not seen



# Hickson 74 in Serpens

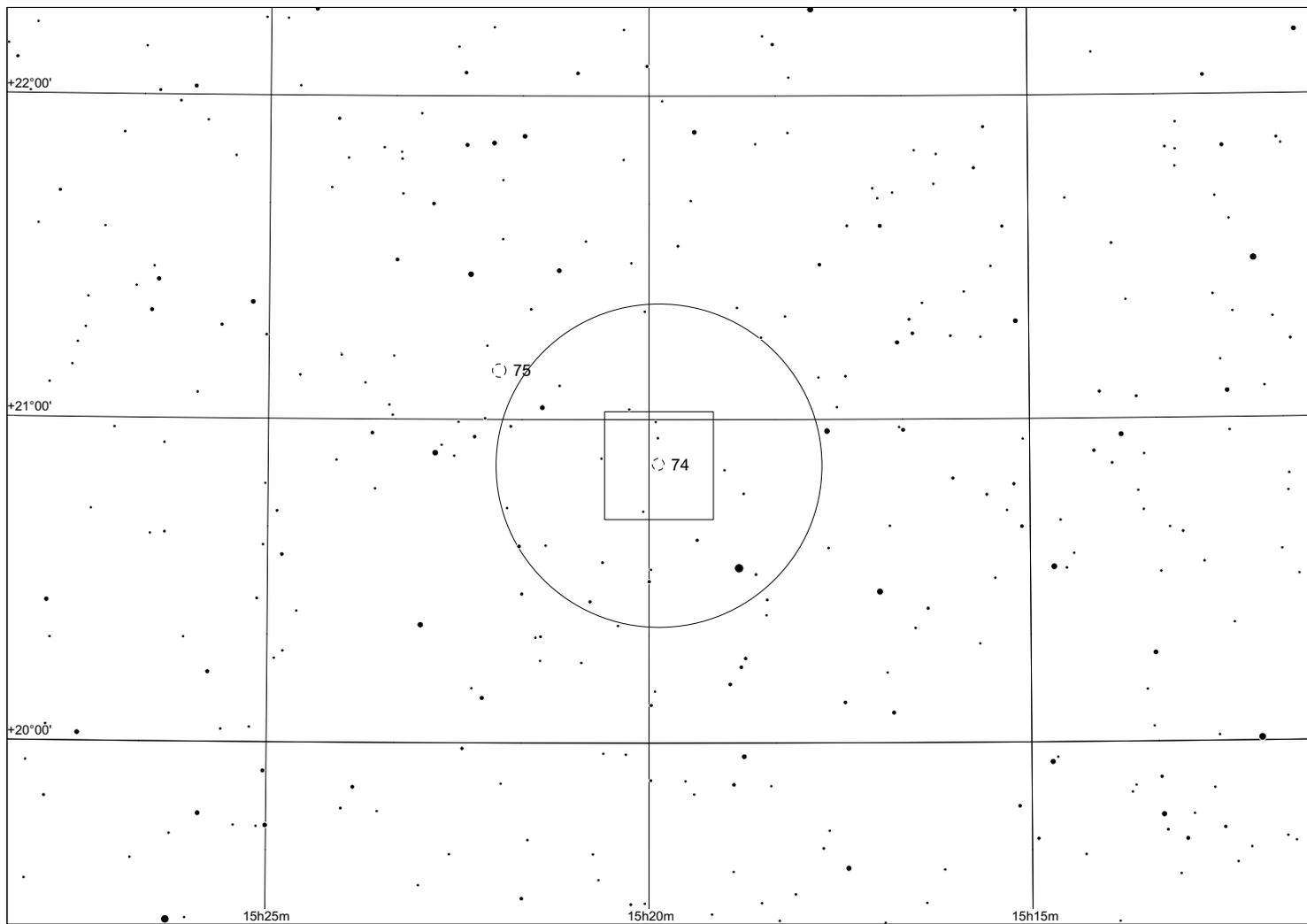
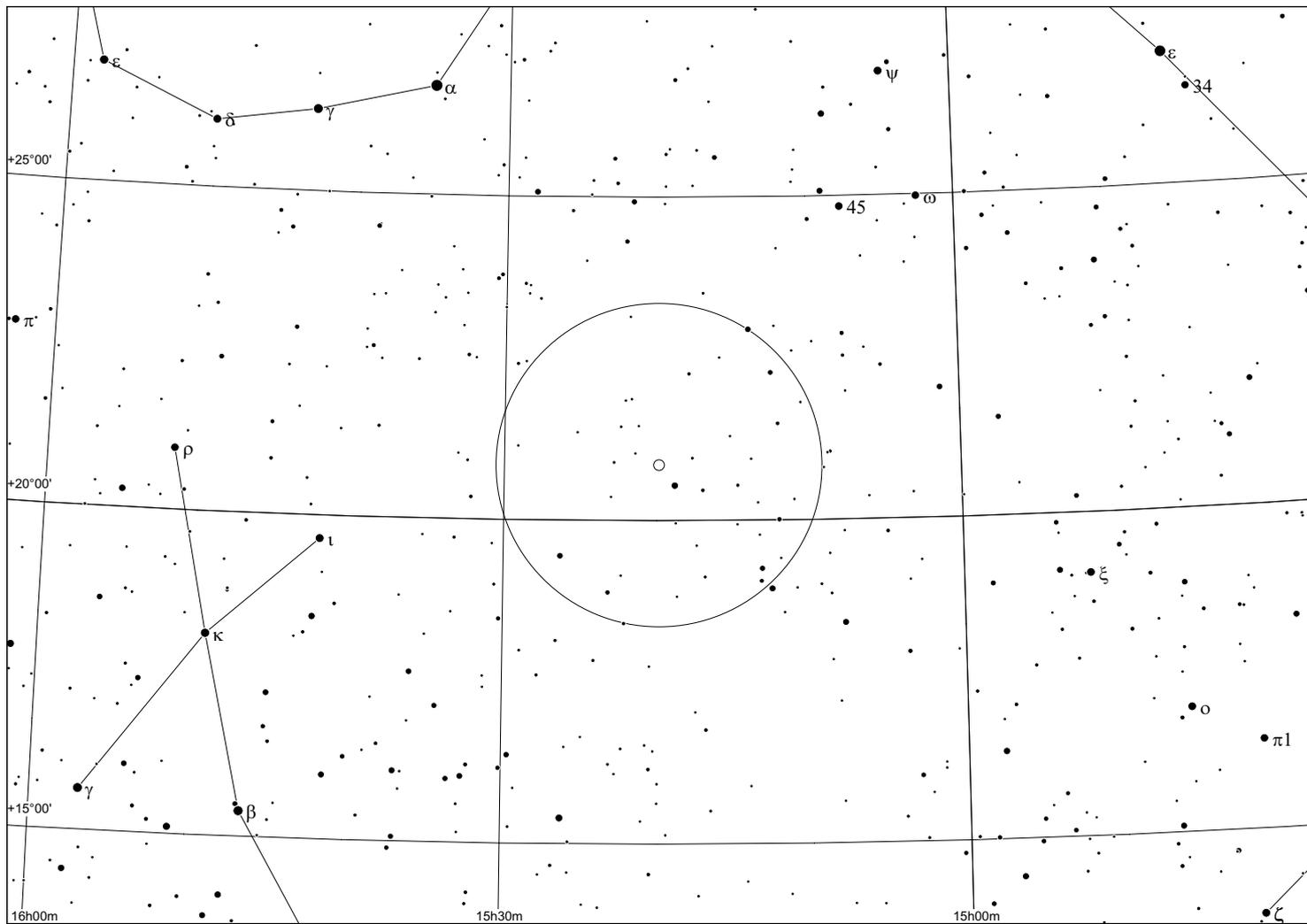


HCG Const. coordinates (2000) bright. memb. mag  
 74 Ser 15h 19m 28s +20° 54' NGC 5910 14.1

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		
74a	15 17 10.70	+21 04 34.1	24.70	23.00	E1	0	14.96	1	48.10	12.75	1	88.10	1.90	14.35	14.06	0.20	12255	30	0	
74b	15 17 10.16	+21 04 13.4	18.50	12.90	E3	0	15.97	1	28.20	13.79	1	51.00	1.88	15.36	15.07	0.20	12110	43	0	
74c	15 17 11.97	+21 04 46.3	13.50	9.00	S0	1	17.00	1	17.90	14.89	1	32.10	1.83	16.46	16.10	0.20	12266	43	0	
74d	15 17 17.80	+21 03 47.0	9.80	7.90	E2	0	17.06	0	17.40	15.02	0	28.20	1.85	16.61	16.32	0.10	11681	42	0	
74e	15 17 13.82	+21 05 18.5	5.90	3.80	S0	1	18.60	0	8.40	16.54	0	15.30	1.79	18.17	17.80	0.10	11489	97	0	

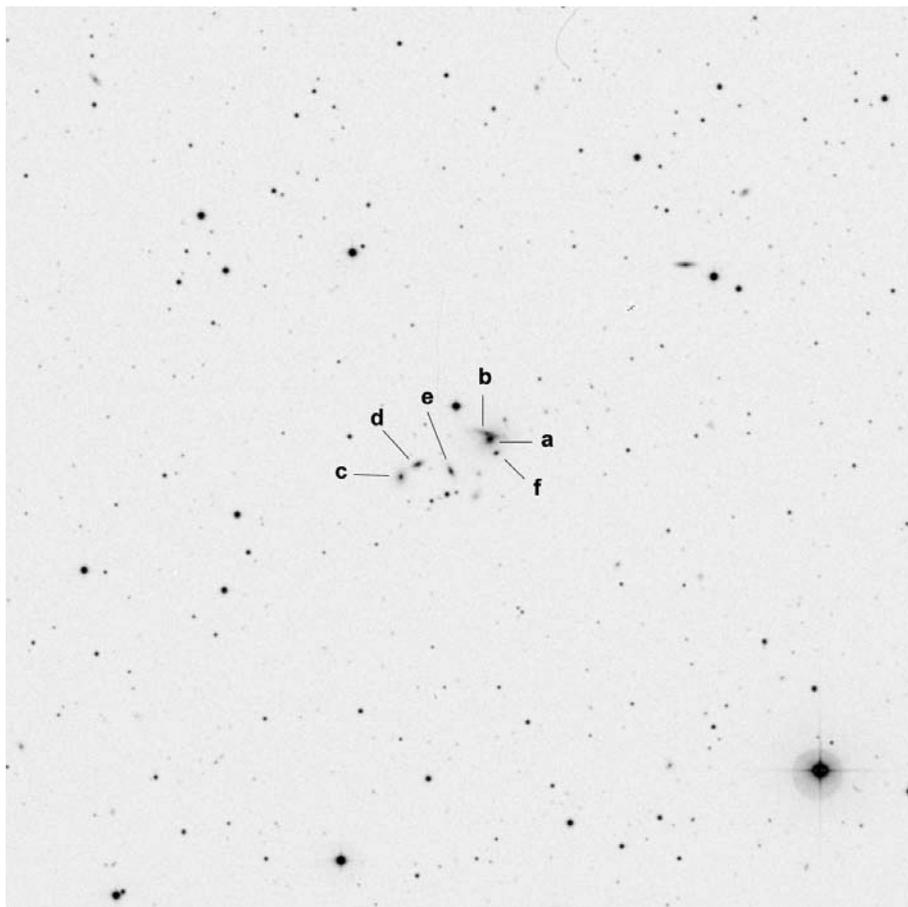
## Notes:

22" f/4: a and b form a close pair that can be split, c is not resolved  
 d could be seen intermittently, but could not be held steadily





## Hickson 75 in Serpens



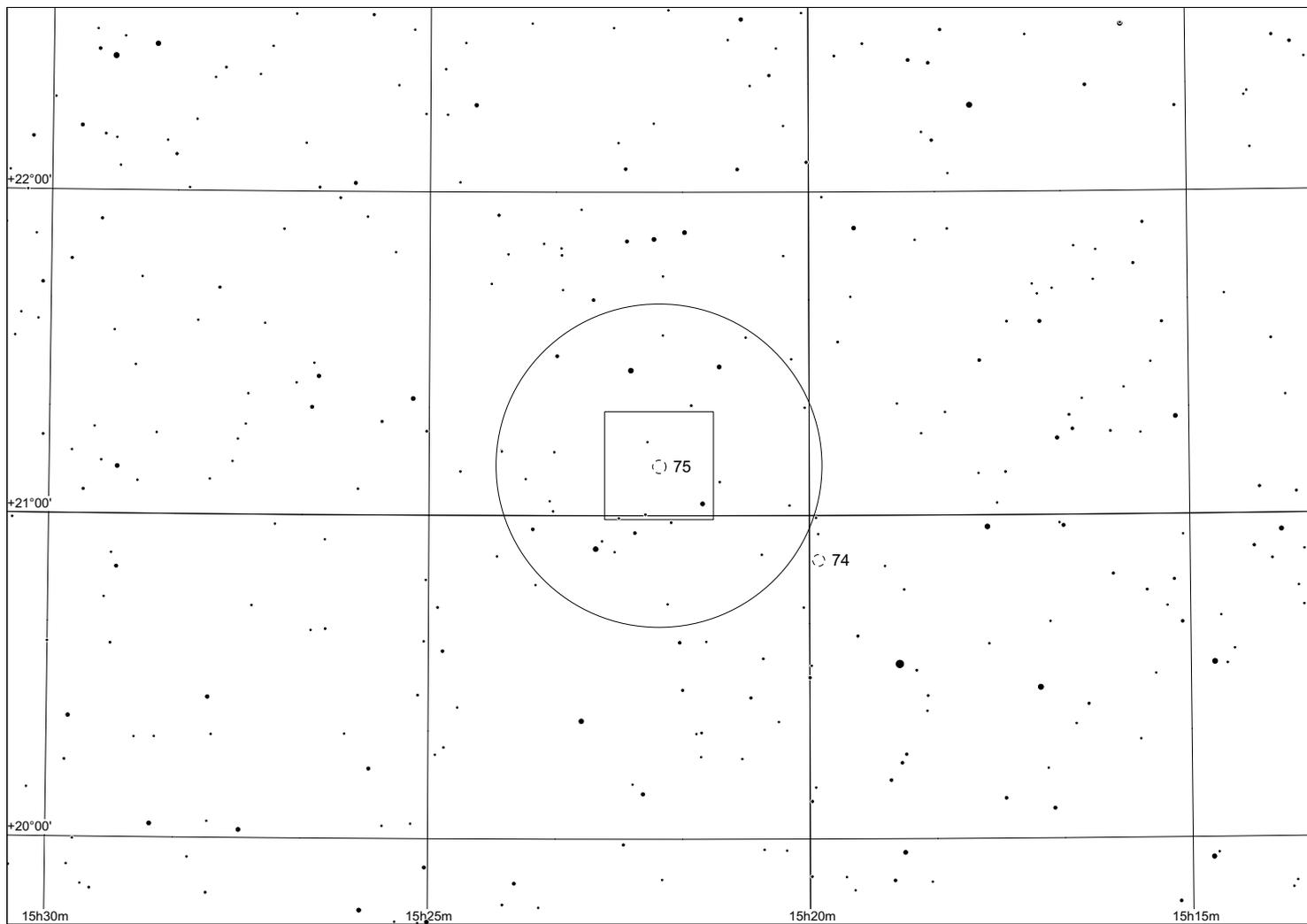
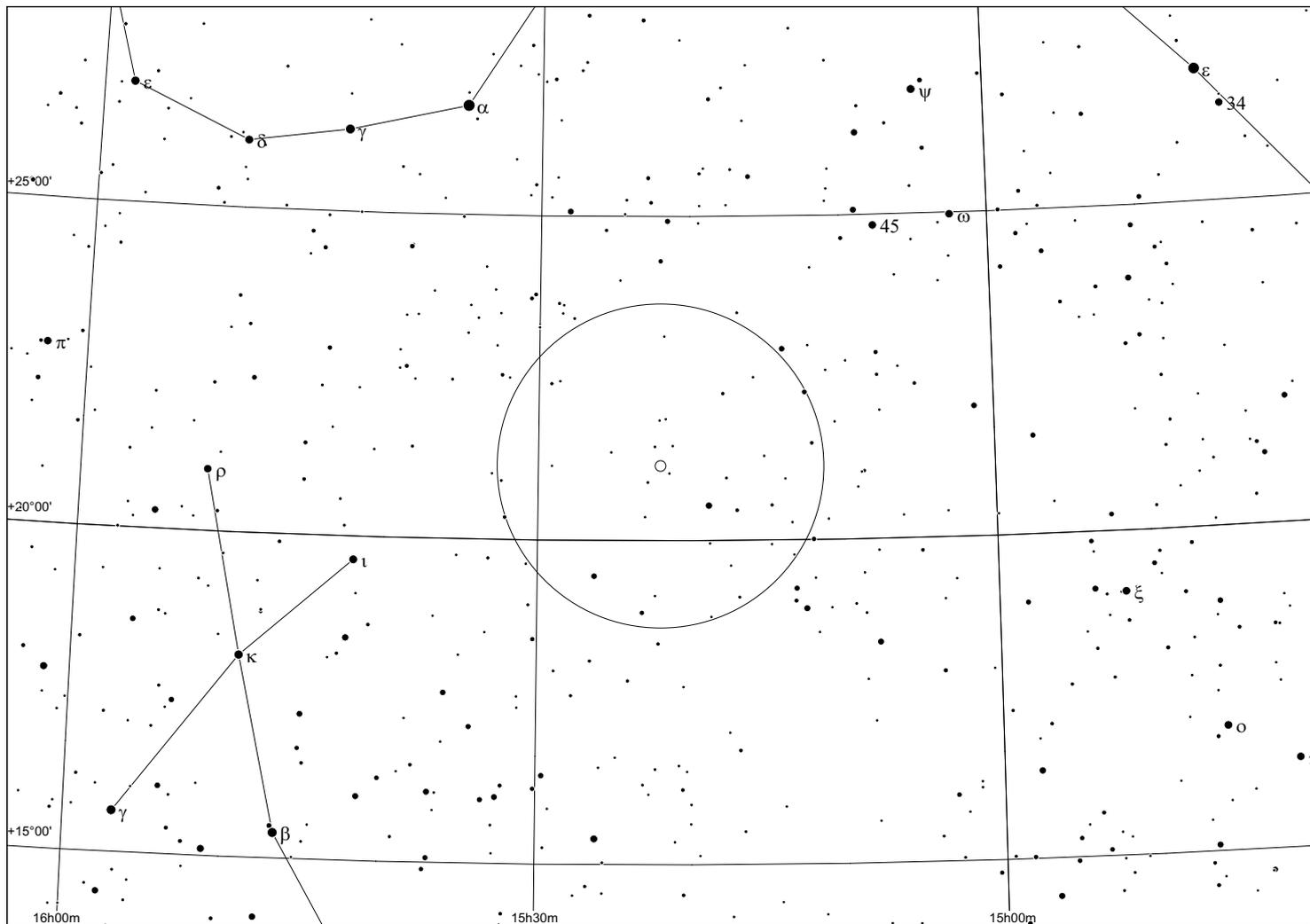
*HCG Const. coordinates (2000) bright. memb. mag*  
 75 Ser 15h 21m 34s +21° 11' 14.9

galaxy	ra (1950)	dec	a	b	type	T	B-I	C	D <sub>B</sub>	R-I	C	D <sub>R</sub>	B-R	B-T	B-TC	err	v <sub>r</sub>	err	C	names
			"	"					"			"					km/s	km/s		
75a	15 19 16.68	21 22 07.0	21.90	16.00	E4	0	15.32	1	36.90	13.49	1	50.10	1.96	15.50	15.20	0.50	12538	42	0	
75b	15 19 16.62	+21 22 15.6	19.00	5.20	Sb	5	17.93	1	14.80	15.36	1	26.90	1.96	15.60	14.90	0.70	12228	43	0	
75c	15 19 25.03	+21 21 18.8	10.50	7.00	S0	1	16.67	1	25.40	15.10	1	27.20	1.54	16.29	15.93	0.20	12292	56	0	
75d	15 19 23.46	+21 21 35.1	9.80	5.40	Sd	9	16.70	1	21.00	15.40	1	21.80	1.30	16.32	15.82	0.20	12334	42	0	
75e	15 19 20.32	+21 21 26.0	12.10	5.50	Sa	3	17.10	0	15.10	15.33	0	19.20	1.71	16.93	16.36	0.10	12300	300	0	
75f	15 19 16.09	+21 21 49.5	6.30	5.20	S0	1	17.33	1	13.10	15.57	1	19.00	1.76	16.99	16.66	0.20	13080	67	1	

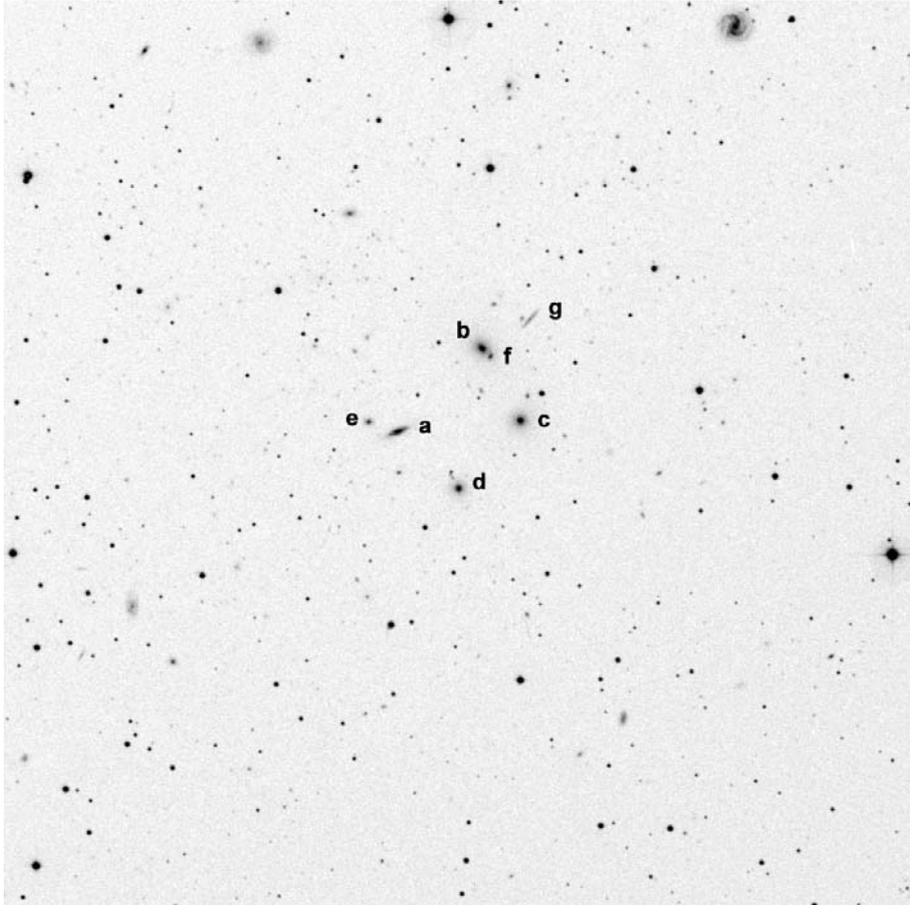
### Notes:

22" f/4: HCG 75 is very difficult group

a/b/f complex appears to consist of two condensations, c/d could be seen intermittently, but could not be split, e was seen as well only intermittently



# Hickson 76 in Serpens

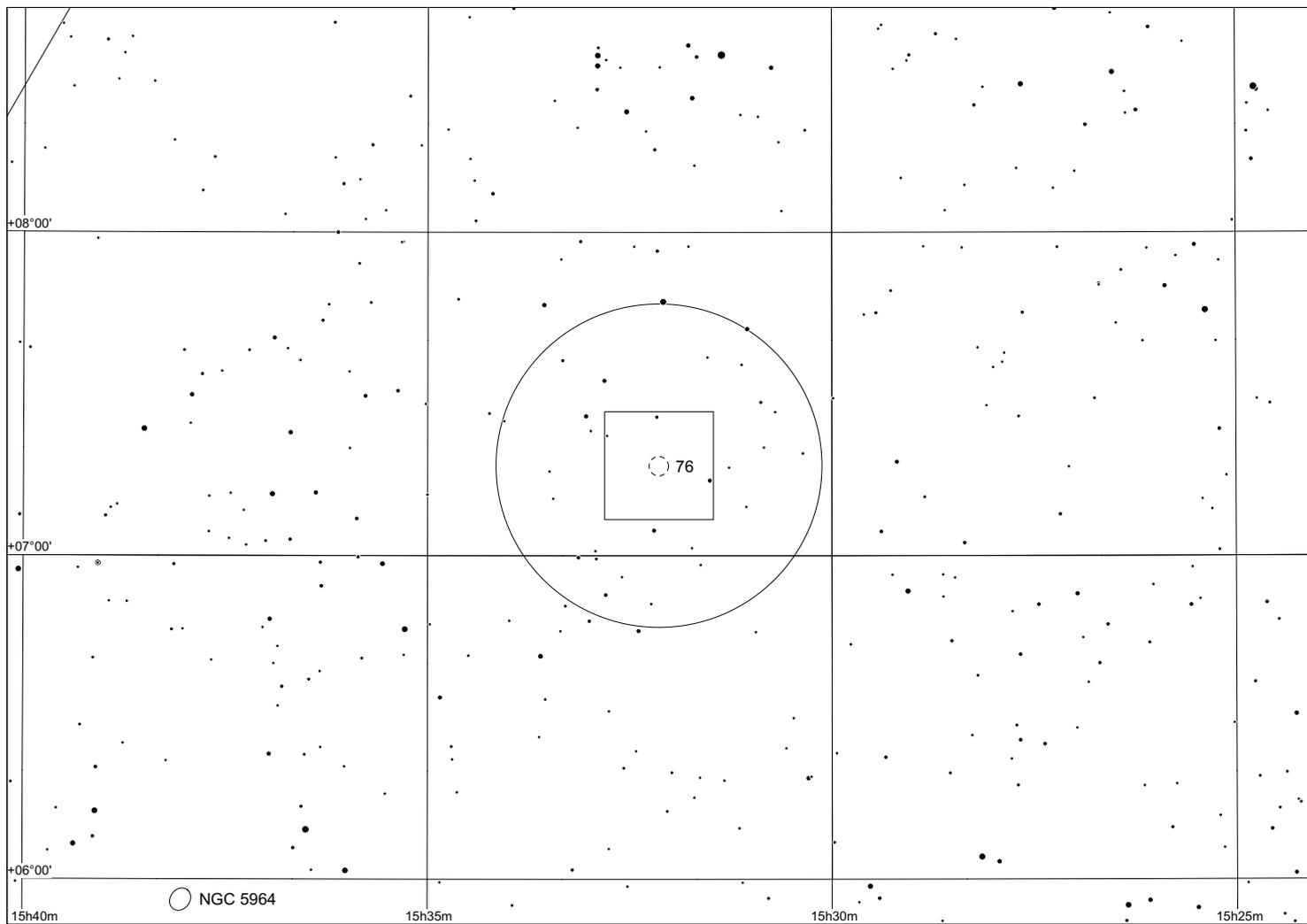
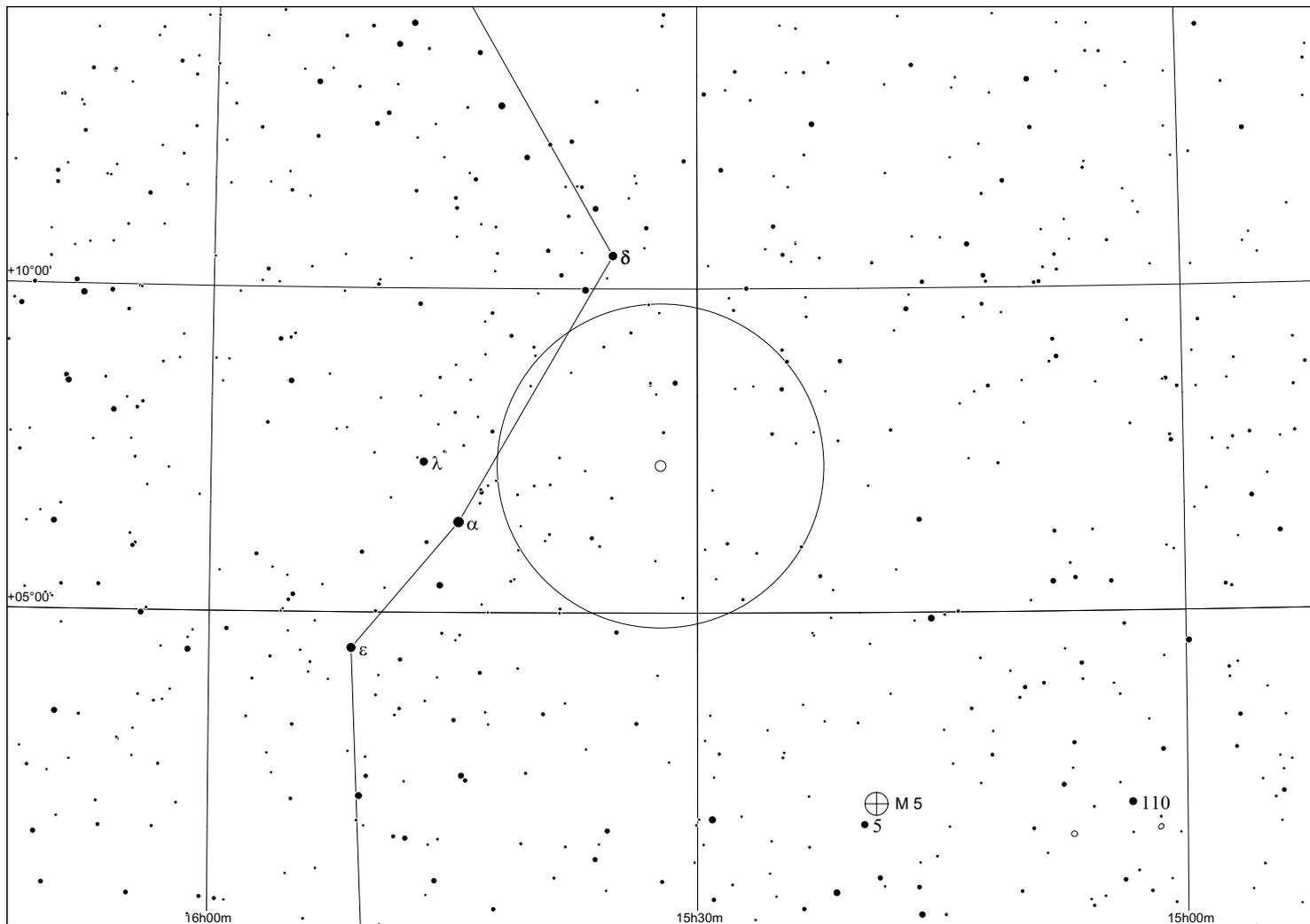


HCG Const. coordinates (2000) bright. memb. mag  
 76 Ser 15h 31m 42s +07° 18' NGC 5944 14.4

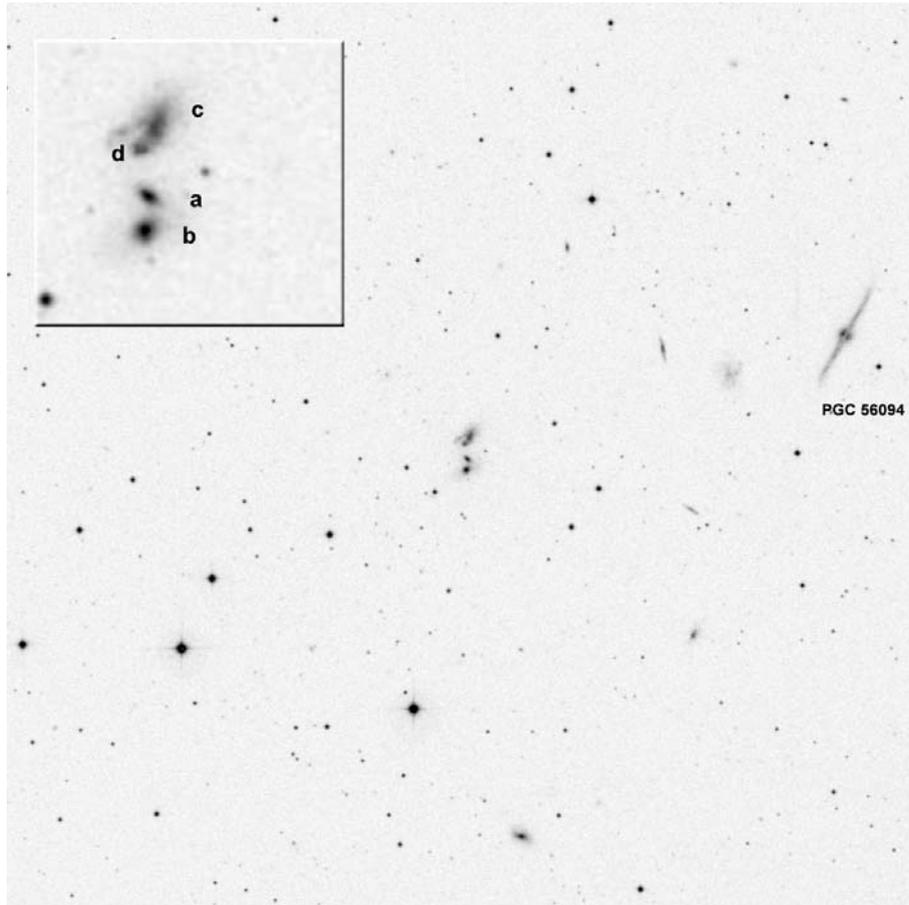
galaxy	ra (1950)	dec	a	b	type	T	B-I	C	D <sub>B</sub>	R-I	C	D <sub>R</sub>	B-R	B <sub>T</sub>	B <sub>TC</sub>	err	v <sub>r</sub>	err	C	names
			"	"					"			"					km/s	km/s		
76a	15 29 20.80	+07 28 35.3	24.00	6.30	Sa	3	16.01	0	24.20	14.14	0	33.70	1.79	15.84	15.08	0.10	10054	34	0	N5944
76b	15 29 13.51	+07 30 27.0	20.40	16.40	E2	0	15.23	1	41.10	13.54	1	57.20	1.56	14.74	14.44	0.20	10002	30	0	
76c	15 29 10.12	+07 28 51.2	21.20	20.20	E0	0	15.63	0	37.10	13.48	0	67.00	1.86	15.03	14.73	0.10	10663	29	0	N5941
76d	15 29 15.34	+07 27 19.5	17.30	14.80	E1	0	16.15	0	28.50	14.08	0	41.50	1.92	15.51	15.21	0.10	10150	33	0	N5942
76e	15 29 23.43	+07 28 46.9	8.20	7.40	SB0	1	17.35	0	15.90	15.71	0	20.10	1.55	16.96	16.65	0.10	10328	52	0	
76f	15 29 12.53	+07 30 15.0	14.20	9.60	S0	1	17.27	1	20.20	15.71	1	27.10	1.45	16.84	16.48	0.20	10216	90	0	
76g	15 29 08.99	+07 31 05.5	36.10	6.40	Sc	7	17.65	0	15.70	16.06	0	19.00	1.45	17.30	16.40	0.70	9843	81	0	

## Notes:

22" f/4: faint group. b and c appear to be the easiest members. a and d were seen with averted vision. All four form a rectangle and could be held steadily. e, f, and g were not seen/split. Don't miss the small spiral at the upper right corner



# Hickson 77 in Serpens



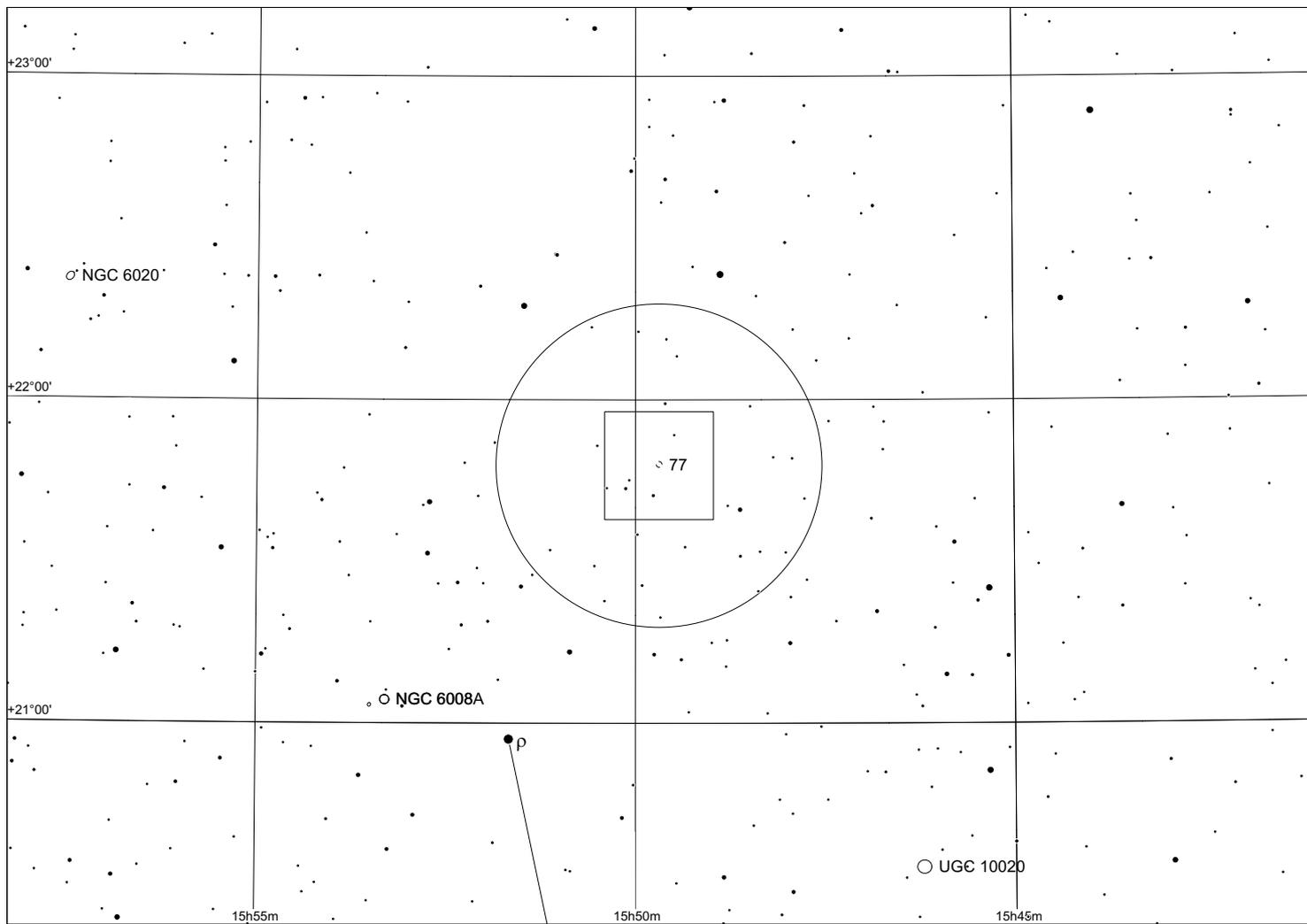
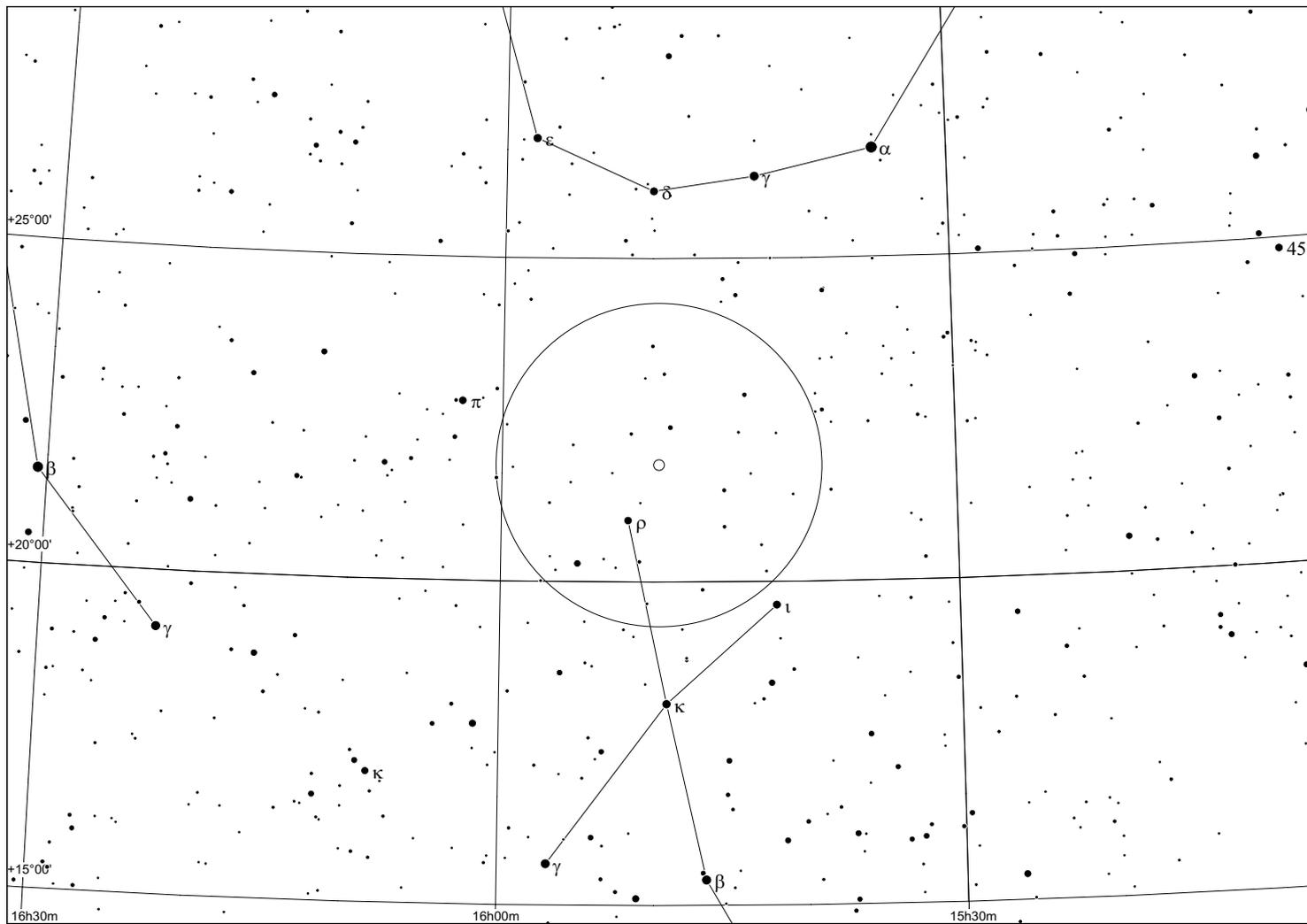
HCG Const. coordinates (2000) bright. memb. mag  
 77 Ser 15h 49m 17s +21° 50' 15.2

galaxy	ra (1950)	dec	a "	b "	type	T	B-I	C	D <sub>B</sub> "	R-I	C	D <sub>R</sub> "	B-R	B-T	B-TC	err	v <sub>r</sub> km/s	err km/s	C	names
77a	15 47 05.96	+21 58 12.0	26.00	18.40	S0	1	16.38	1	24.40	14.53	1	47.80	1.57	16.14	15.75	0.20	10508	56	0	U10049
77b	15 47 05.87	+21 58 27.4	22.10	13.70	S0	1	16.62	1	20.20	14.64	1	44.50	1.70	16.41	15.99	0.20	10690	69	0	U10049
77c	15 47 05.56	+21 58 56.3	32.40	16.10	Im	12	16.03	1	29.70	15.02	1	34.30	1.06	15.79	15.15	0.20	2200	76	0	U10049
77d	15 47 06.13	+21 58 45.8	11.20	7.70	Im	12	17.42	1	14.50	16.58	1	17.80	0.51	17.04	16.54	0.20	2250	63	0	U10049

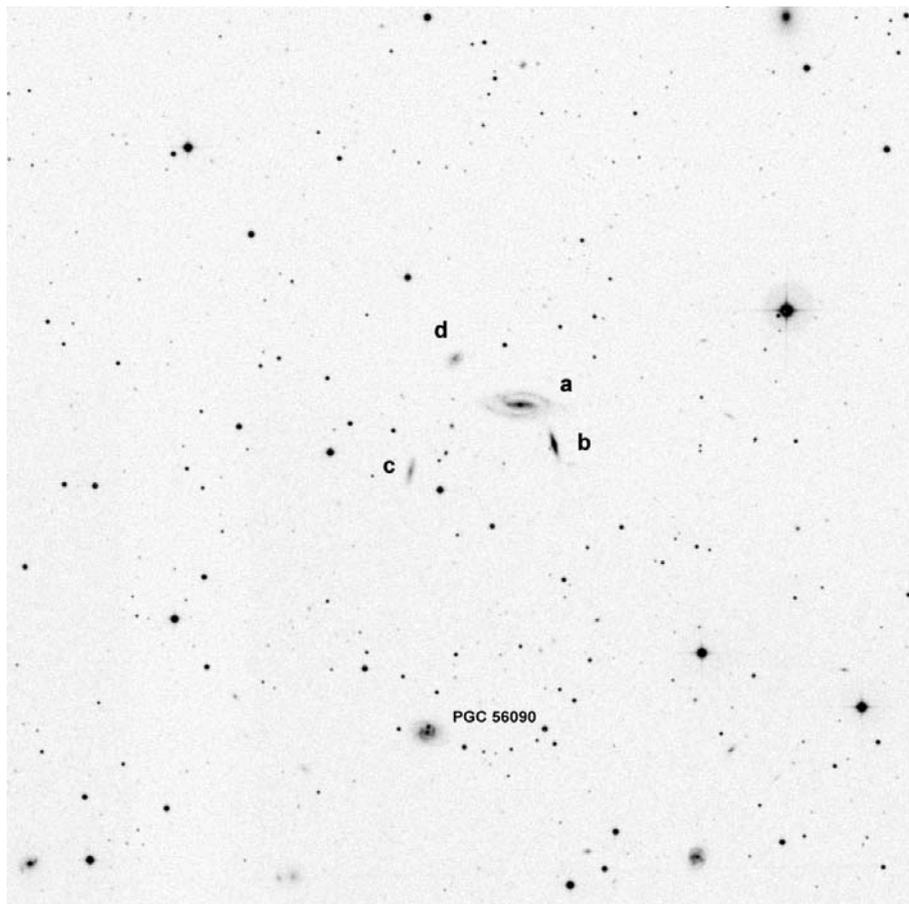
## Notes:

22" f/4: difficult group, short chain of galaxies next to two stars

using averted vision, often two and sometimes three condensations glimpsed with 7 mm



# Hickson 78 in Draco

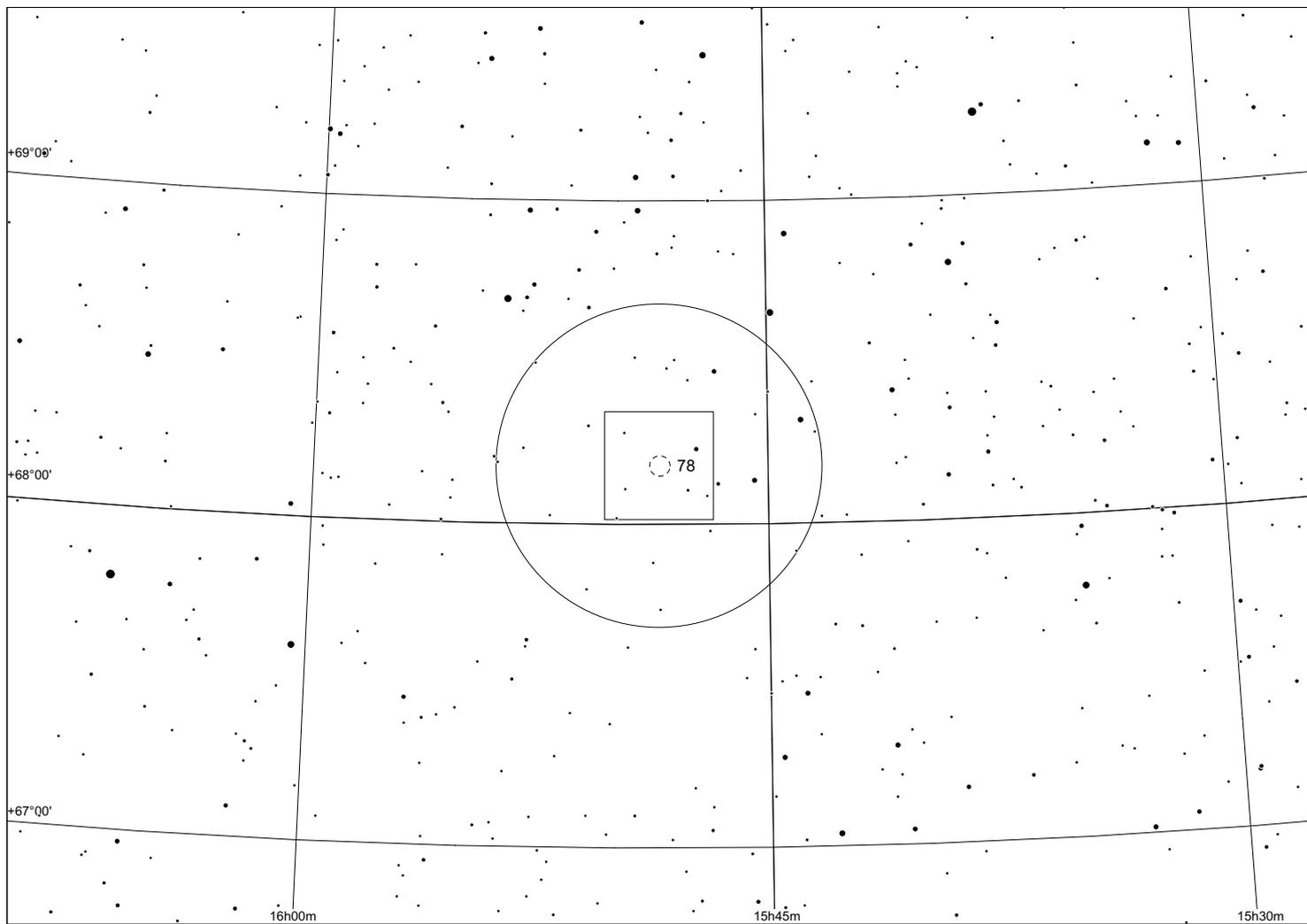
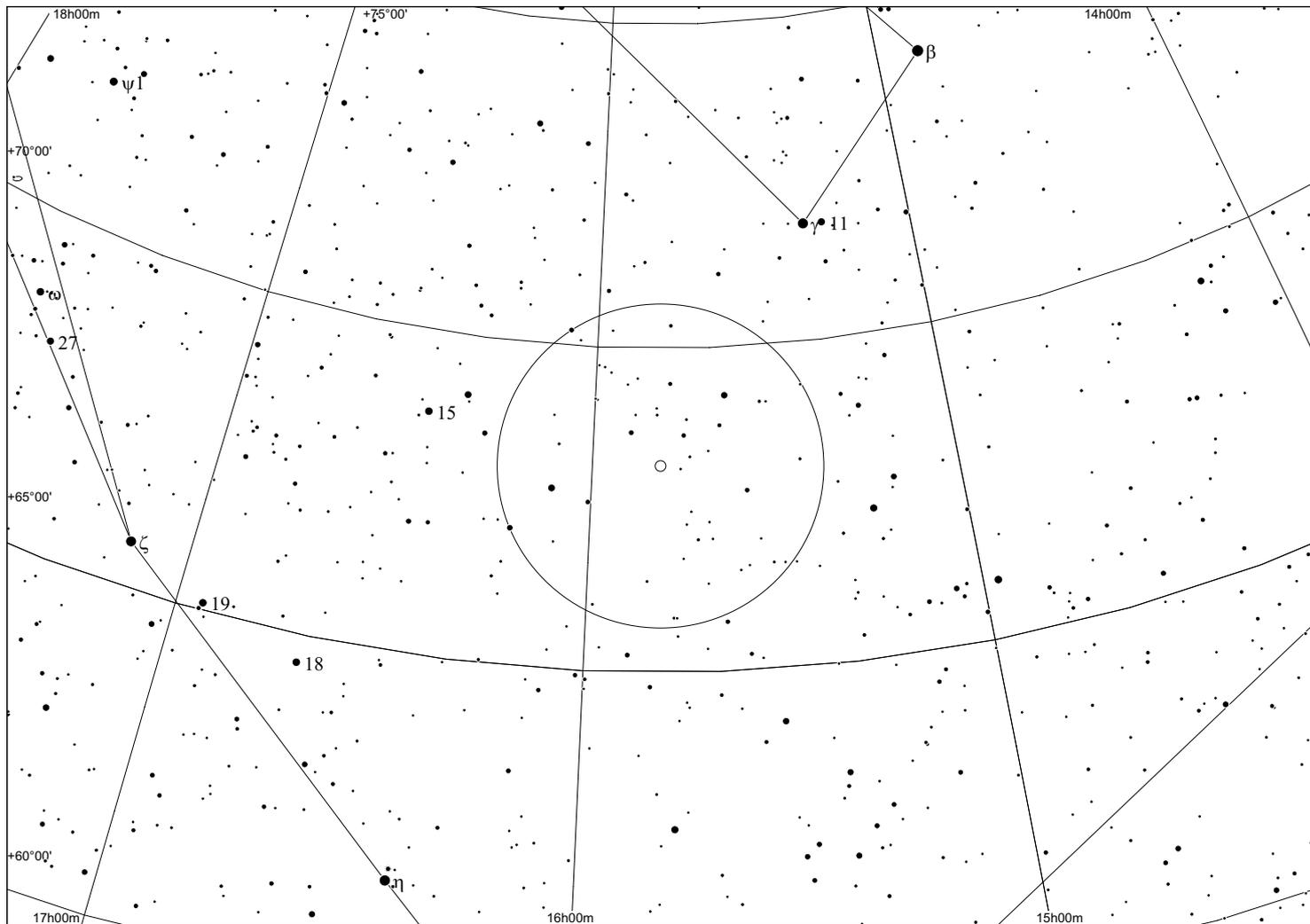


HCG Const. coordinates (2000) bright. memb. mag  
 78 Dra 15h 48m 28s +68° 12' 14.4

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		
78a	15 48 04.69	+68 22 19.2	41.60	18.50	SBb	5	15.01	0	51.10	12.49	0	64.40	1.42	14.87	14.35	0.20	8599	31	0	U10057
78b	15 47 55.63	+68 21 29.6	23.00	7.20	S0	1	15.12	0	25.20	13.66	0	34.70	1.41	15.05	14.61	0.10	9544	30	0	
78c	15 48 29.43	+68 20 41.5	15.30	4.20	S0	1	18.25	0	15.40	15.73	0	24.10	2.18	18.06	17.59	0.20	18200	281	1	
78d	15 48 20.52	+68 23 15.8	14.60	9.30	Sm	11	17.23	0	20.70	16.13	0	24.20	0.98	16.61	16.19	0.10	10000	187	1	

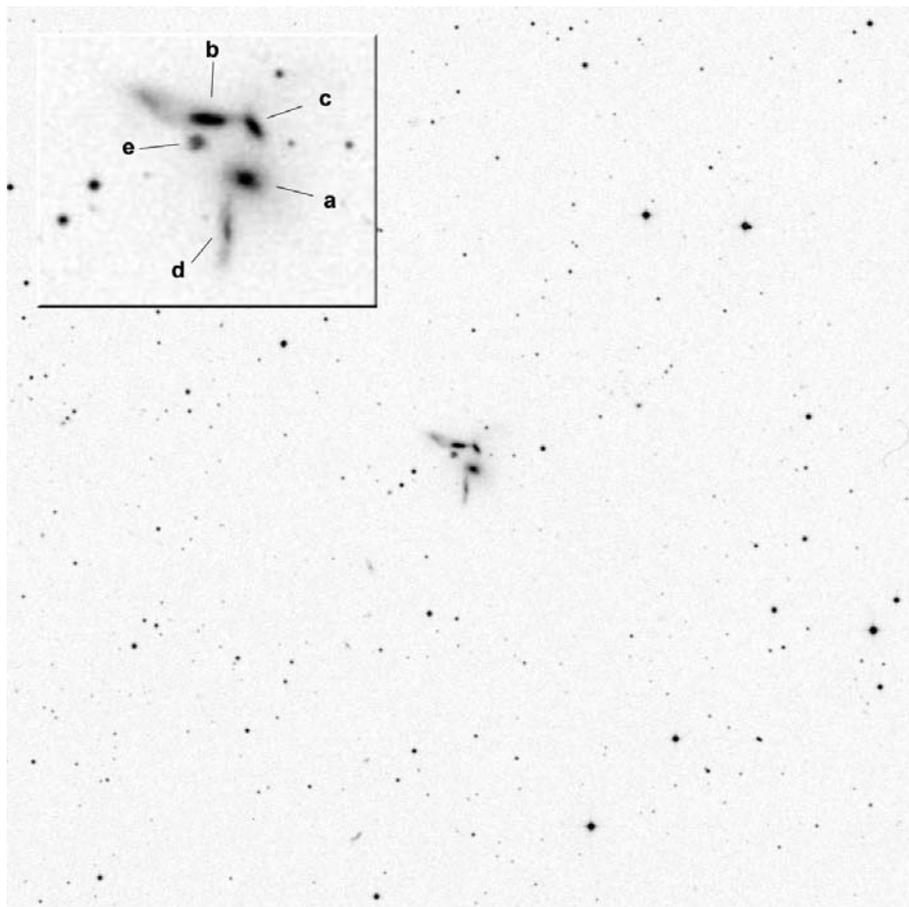
## Notes:

22" f/4: a and b are relatively easy targets and appear as extended glows, c and d were not seen





## Hickson 79 in Serpens



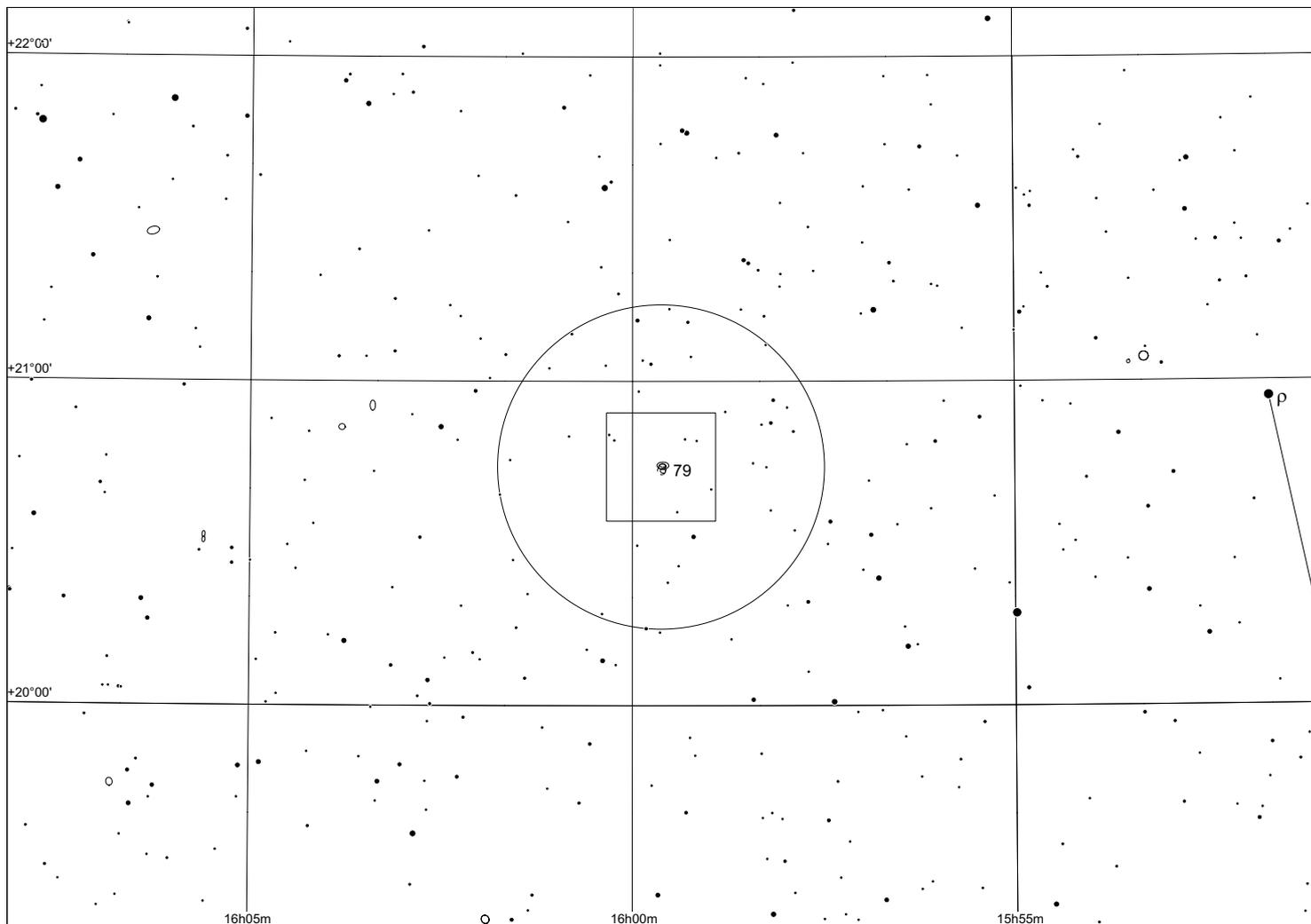
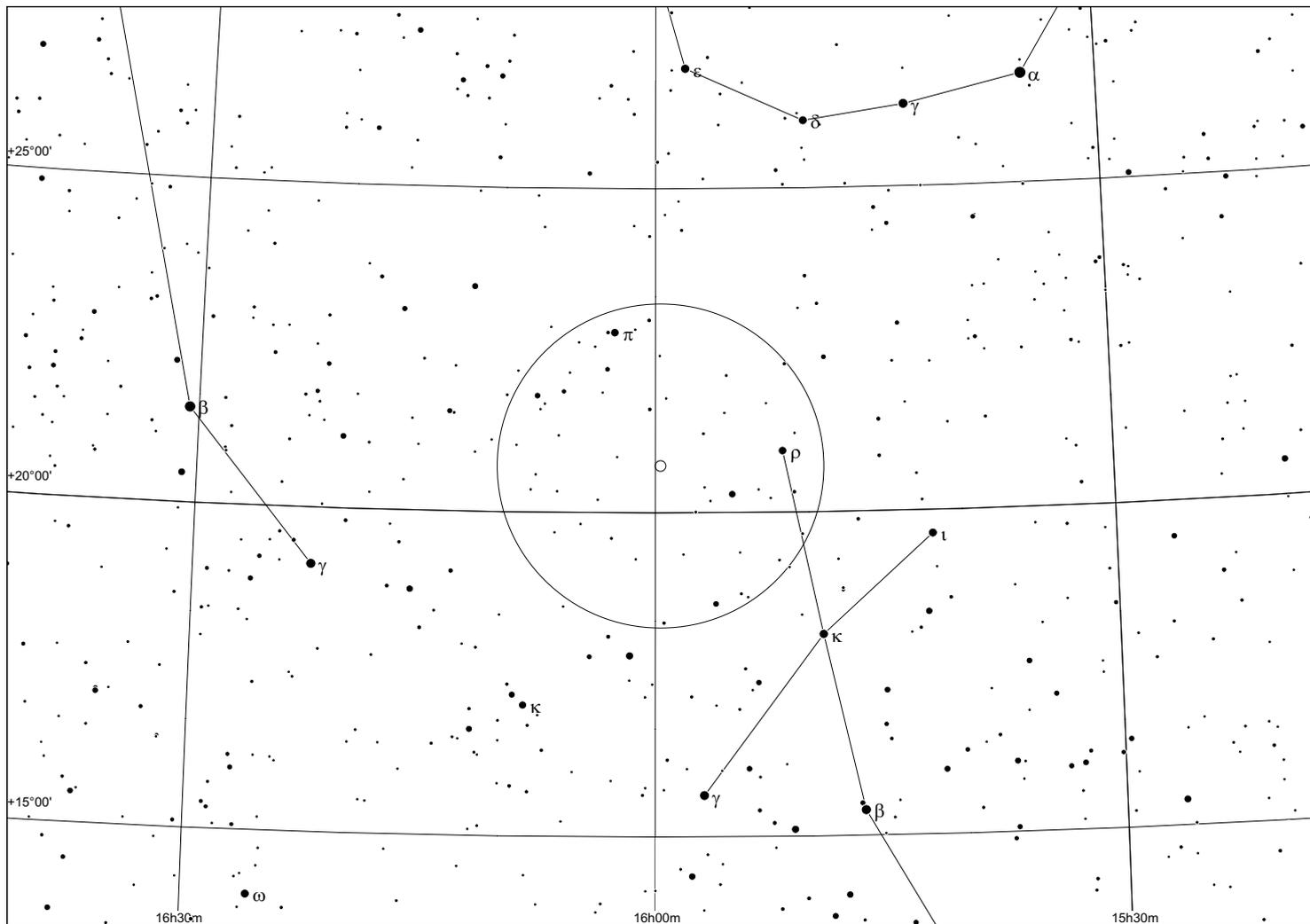
HCG Const. coordinates (2000) bright. memb. mag  
 79 Ser 15h 59m 13s +20° 45' NGC 6027 13.8 Seyfert's Sextet

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																				

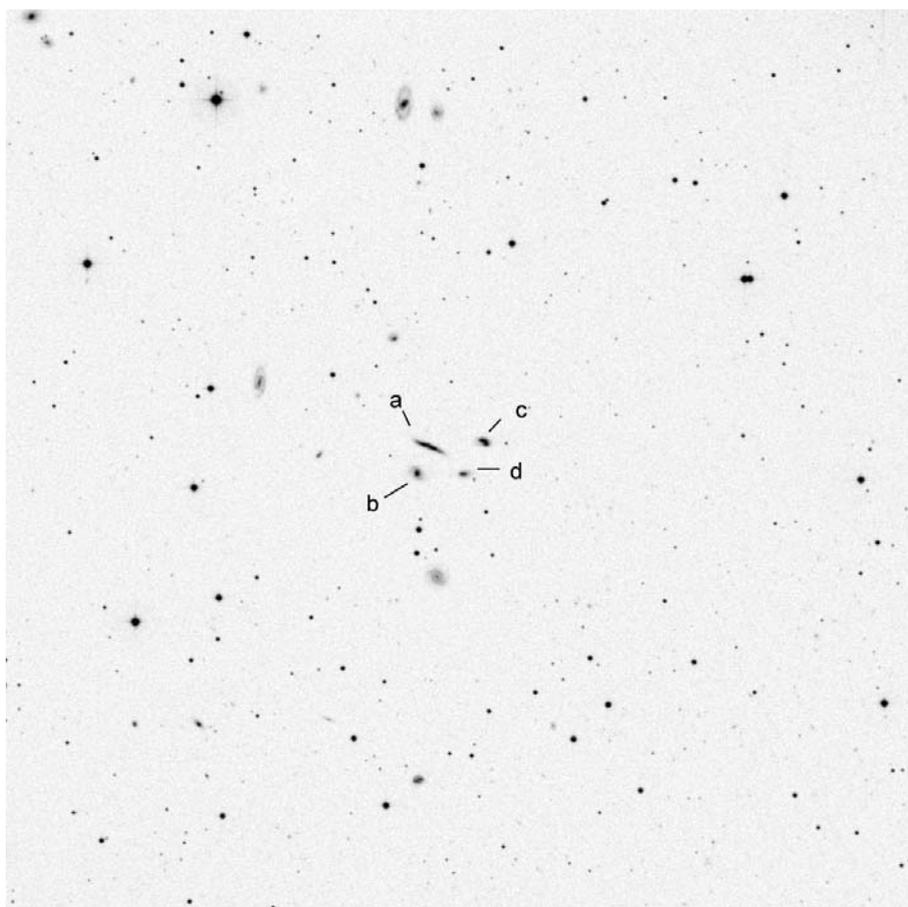
### Notes:

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.



## Hickson 80 in Draco

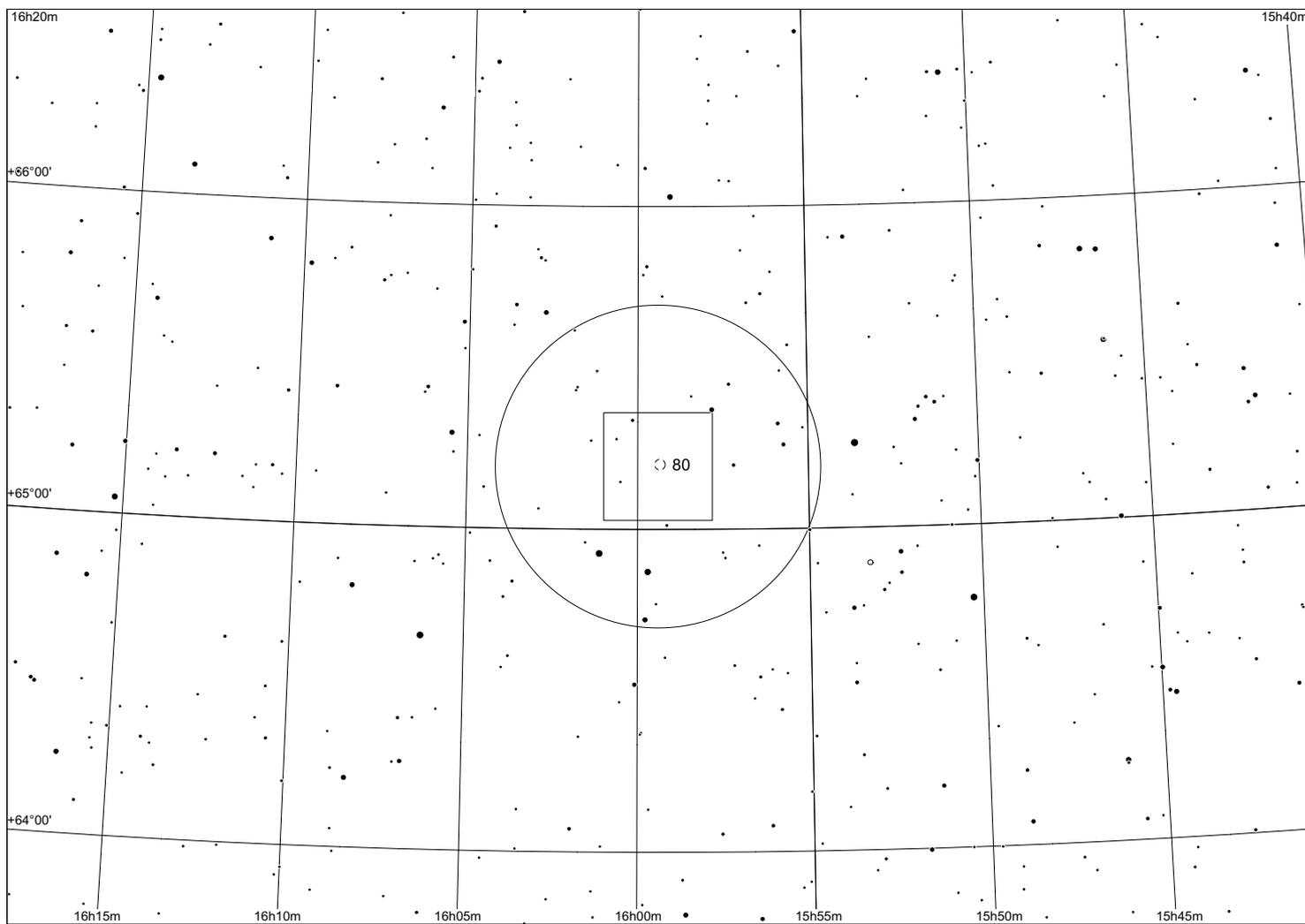
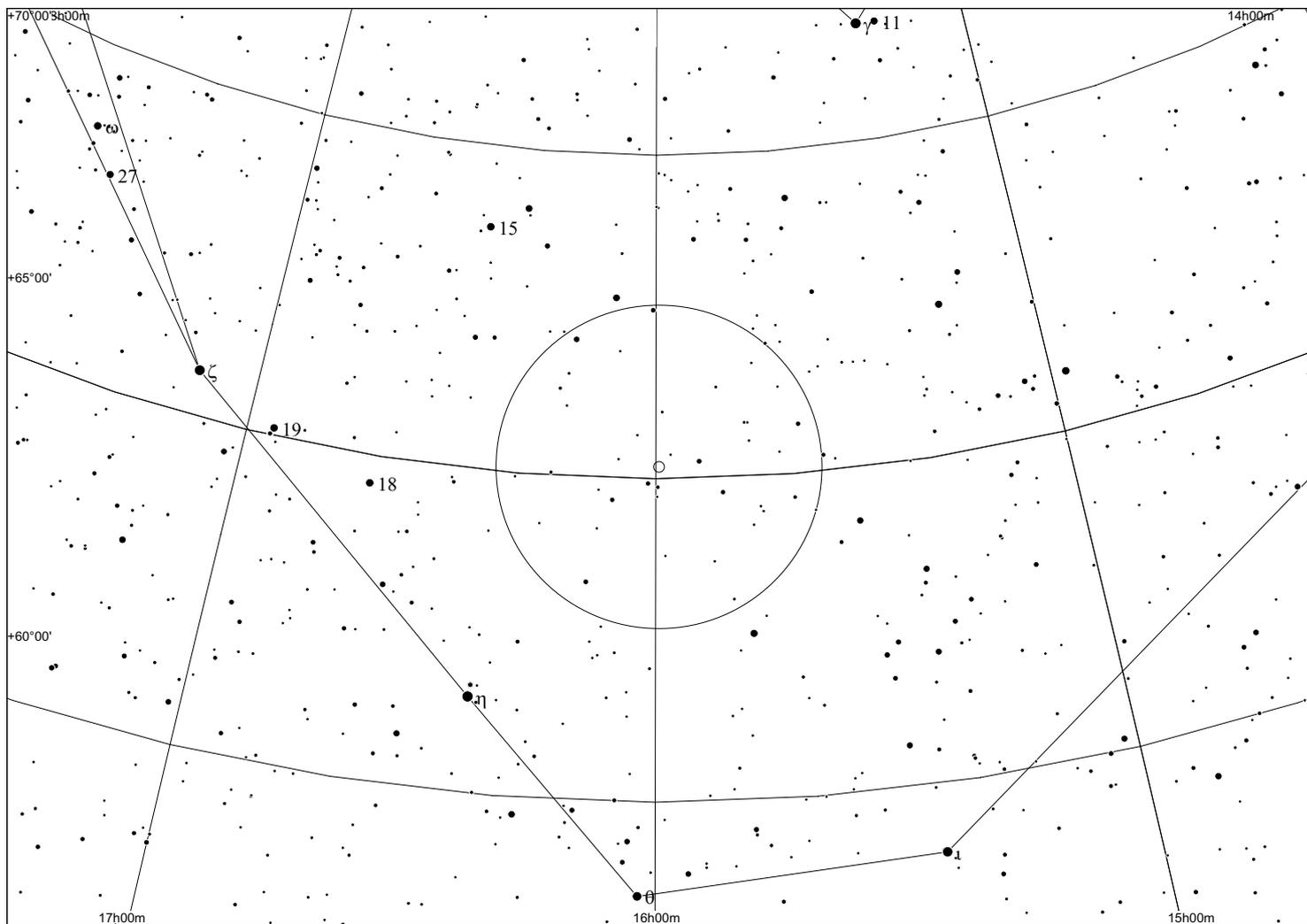


*HCG Const. coordinates (2000) bright. memb. mag*  
 80 Dra 15h 59m 12s +65° 14' 14.8

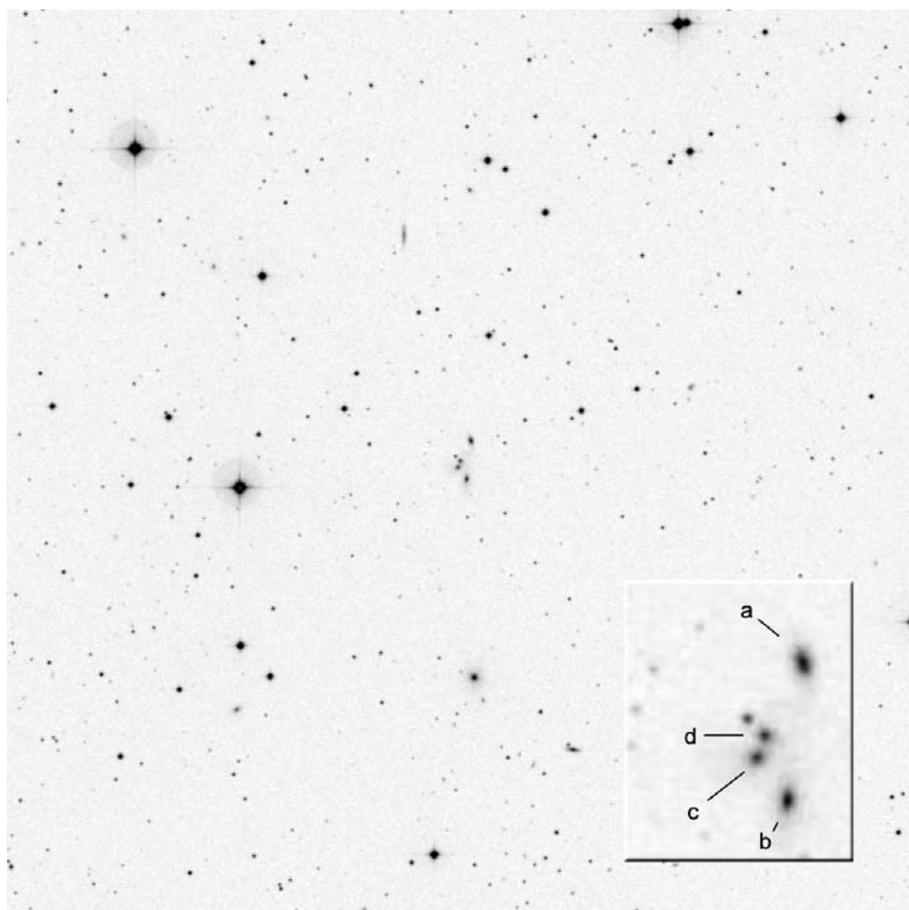
<i>galaxy</i>	<i>ra (1950)</i>	<i>dec</i>	<i>a</i>	<i>b</i>	<i>type</i>	<i>T</i>	<i>B_I</i>	<i>C</i>	<i>D_B</i>	<i>R_I</i>	<i>C</i>	<i>D_R</i>	<i>B-R</i>	<i>B_T</i>	<i>B_TC</i>	<i>err</i>	<i>v_r</i>	<i>err</i>	<i>C</i>	<i>names</i>
			"	"					"			"					<i>km/s</i>	<i>km/s</i>		
80a	15 58 50.69	+65 22 21.7	25.40	5.40	Sd	9	15.66	0	25.40	14.25	0	29.80	1.38	15.54	14.76	0.10	8963	45	0	
80b	15 58 53.14	+65 21 46.8	10.20	8.70	Sa	3	16.52	0	22.40	14.97	0	26.90	1.49	16.21	15.92	0.10	9584	39	0	
80c	15 58 38.98	+65 22 25.8	9.80	8.20	Im	12	16.23	0	21.00	15.24	0	26.60	0.89	16.15	15.83	0.10	9550	37	0	
80d	15 58 43.66	+65 21 44.0	13.60	5.40	Im	12	17.01	0	19.60	16.19	0	19.10	0.84	16.82	16.18	0.10	9108	54	0	

### Notes:

22" f/4: a appears very elongated with averted vision, b and c can be seen, but very weak, d was not seen



## Hickson 81 in Hercules

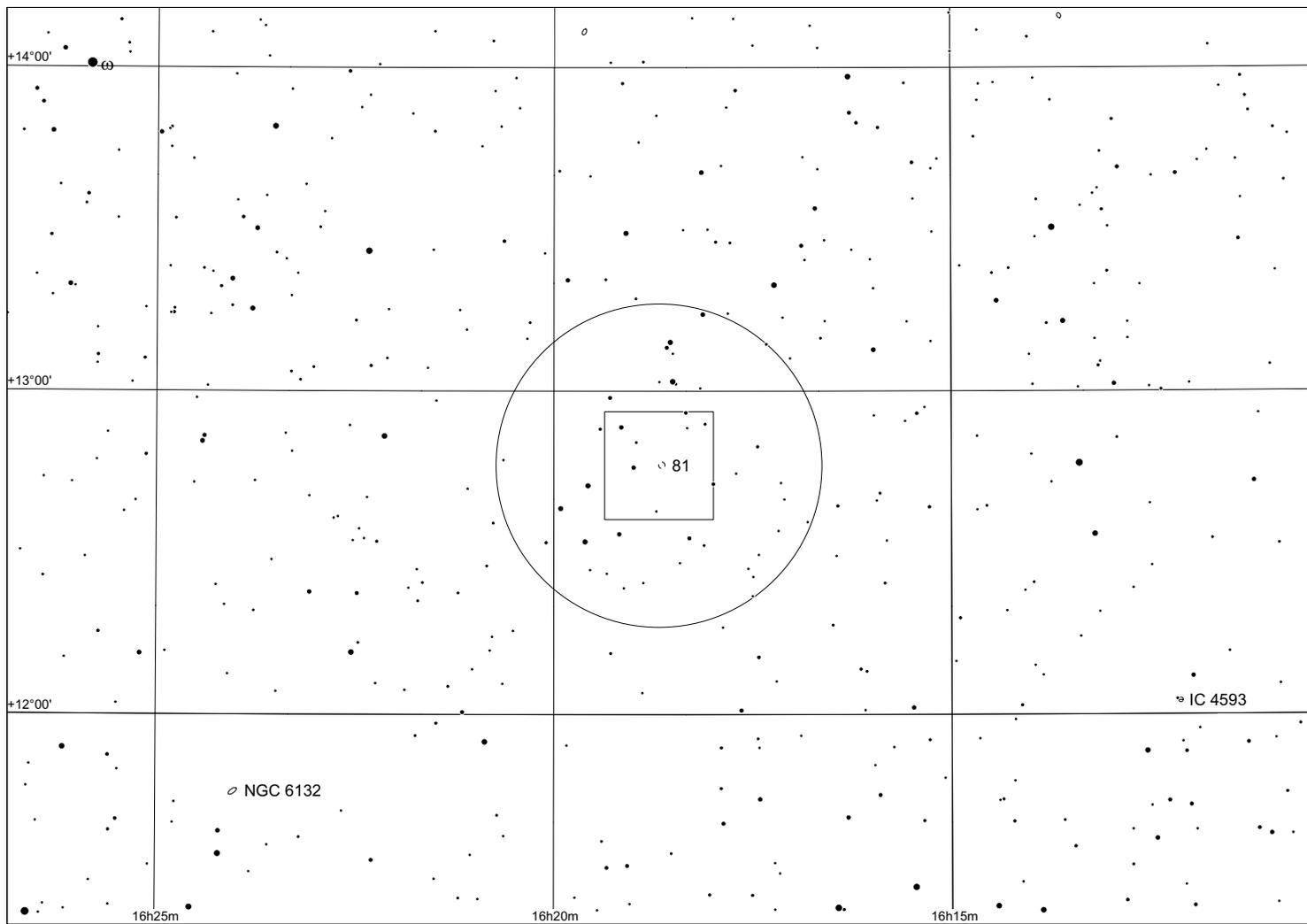
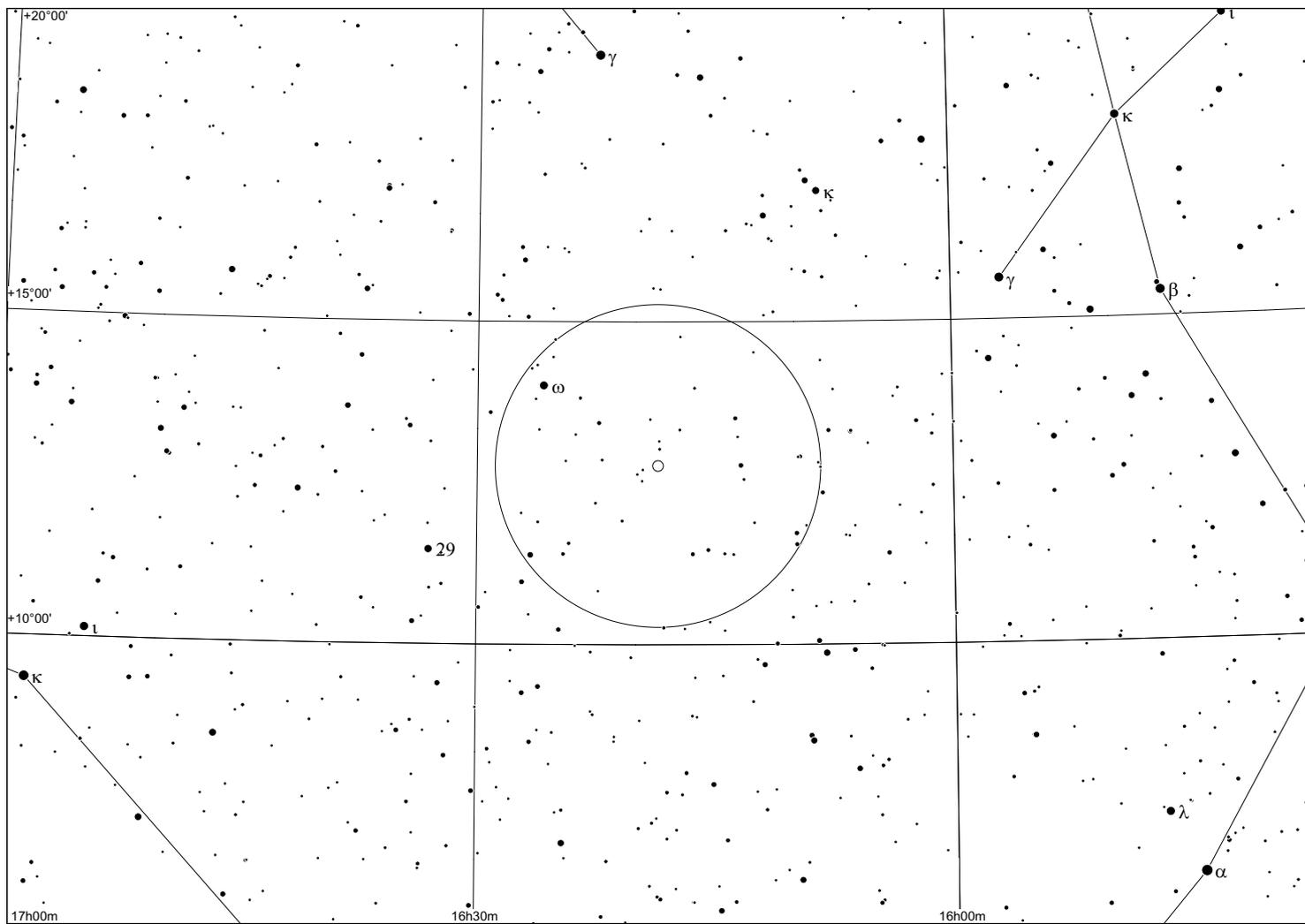


*HCG Const. coordinates (2000) bright. memb. mag*  
 81 Her 16h 18m 13s +12° 48' 16.3

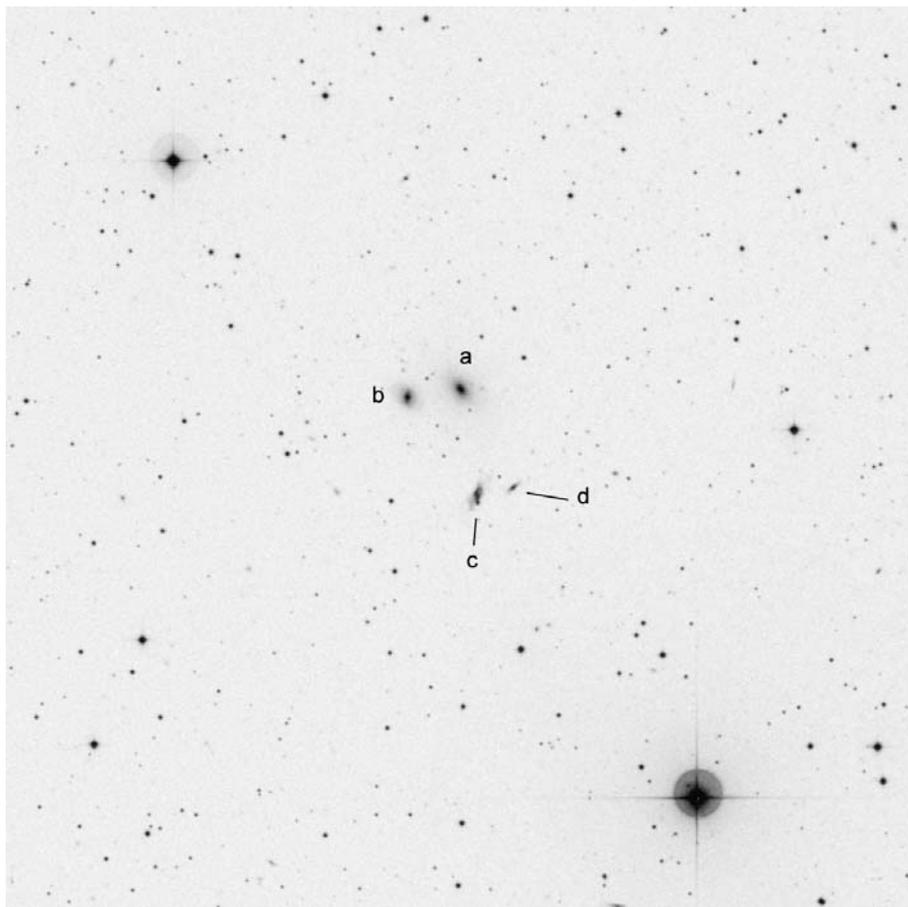
galaxy	ra (1950)	dec	a	b	type	T	B-I	C	D-B	R-I	C	D-R	B-R	B-T	B-TC	err	v_r	err	C	names
			"	"					"			"					km/s	km/s		
81a	16 15 53.62	+12 55 25.4	11.90	4.60	Sc	7	17.11	0	14.20	15.59	0	17.90	1.46	16.98	16.25	0.10	14676	46	0	U10319
81b	16 15 53.99	+12 54 35.1	11.70	5.40	S0	1	17.11	1	15.10	15.59	1	27.50	1.85	17.04	16.51	0.20	15150	94	0	U10319
81c	16 15 54.84	+12 54 50.5	12.60	6.80	S0	1	17.78	1	14.10	15.63	1	24.60	1.89	17.68	17.18	0.20	15050	96	0	U10319
81d	16 15 54.54	+12 54 59.3	7.80	6.90	S0a	2	17.74	1	12.50	15.61	1	22.80	1.87	17.57	17.14	0.20	14954	91	0	U10319

### Notes:

22" f/4: this is a very difficult group, sometimes detected with averted vision as a non-uniform, structured condensation



## Hickson 82 in Hercules

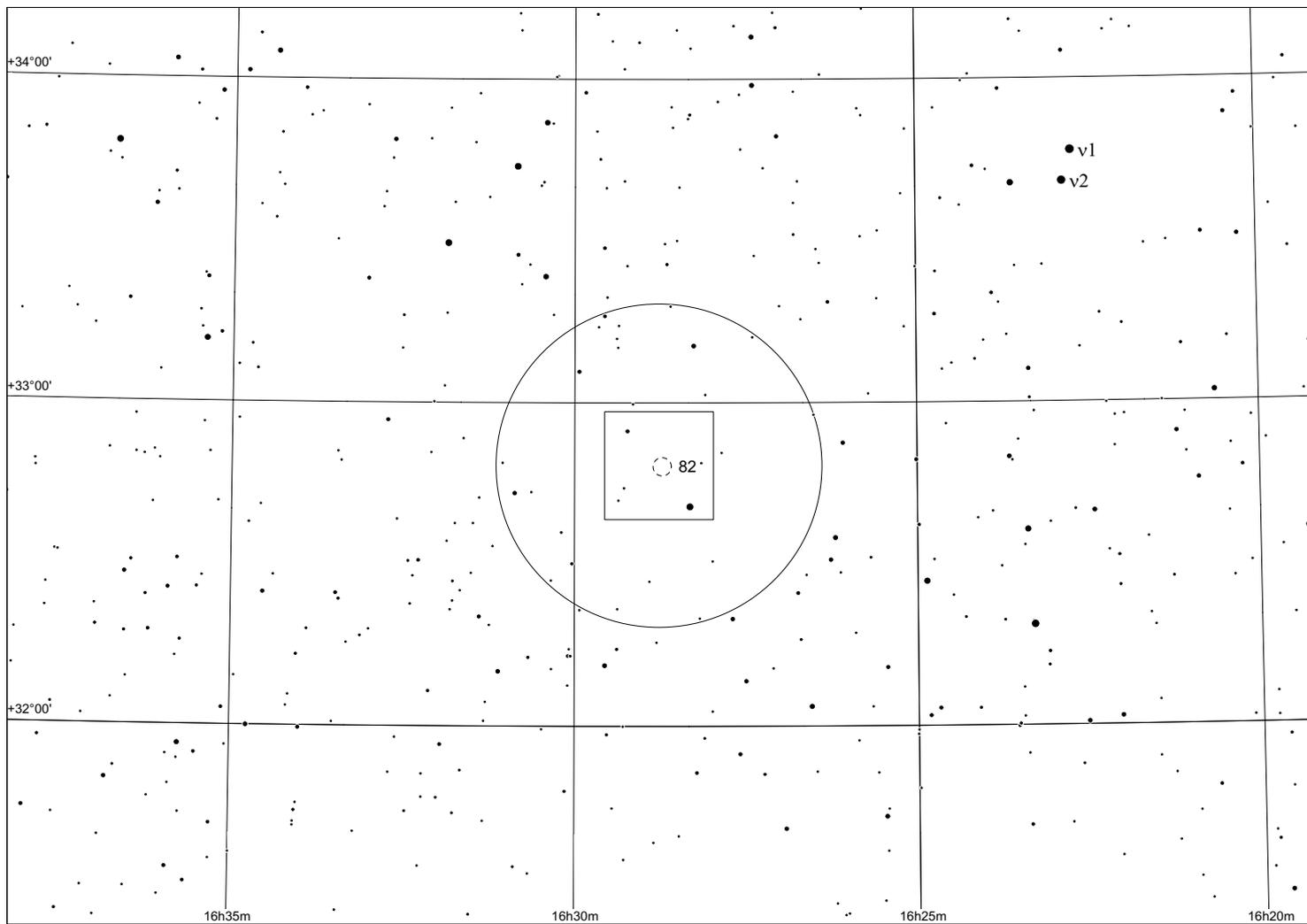
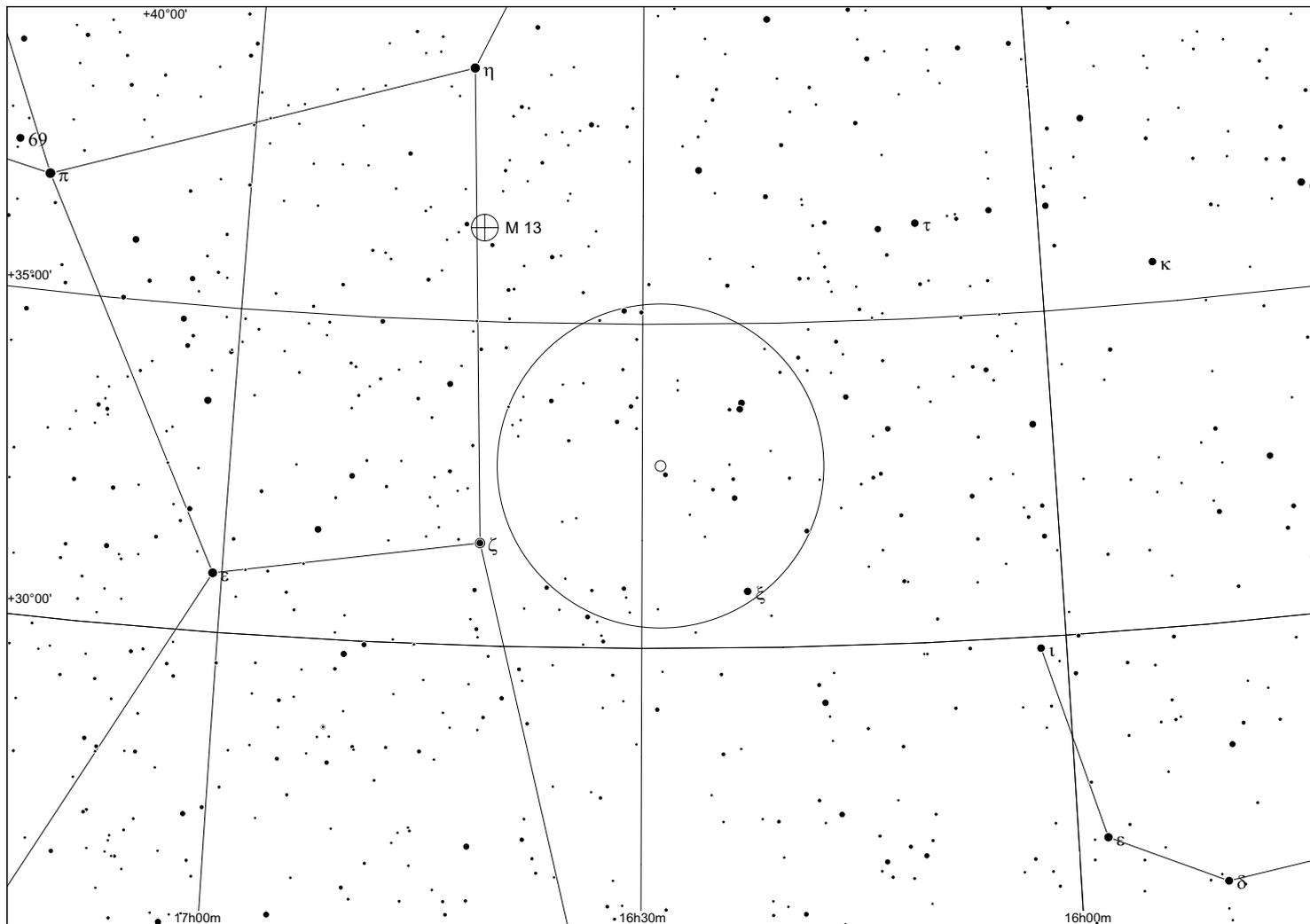


*HCG Const. coordinates (2000) bright. memb. mag*  
 82 Her 16h 28m 22s +32° 49' NGC 6162 14.1

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 <sub>r</sub>	err	C	names
			"	"					"			"					km/s	km/s		
82a	16 26 28.51	+32 57 31.0	24.80	16.90	E3	0	14.94	0	47.70	12.83	0	96.10	1.71	14.51	14.14	0.10	11177	30	0	N6162, U10403
82b	16 26 34.10	+32 57 18.5	24.80	14.70	SBa	3	15.41	0	40.30	13.66	0	49.90	1.67	15.18	14.62	0.10	10447	37	0	N6163
82c	16 26 26.60	+32 55 13.0	24.50	8.50	Im	12	15.74	0	32.90	14.53	0	34.00	1.21	15.61	14.78	0.10	10095	38	0	N6161
82d	16 26 22.92	+32 55 21.6	14.70	5.70	S0a	1	16.72	0	17.10	15.15	0	19.60	1.55	16.61	15.95	0.10	11685	46	0	

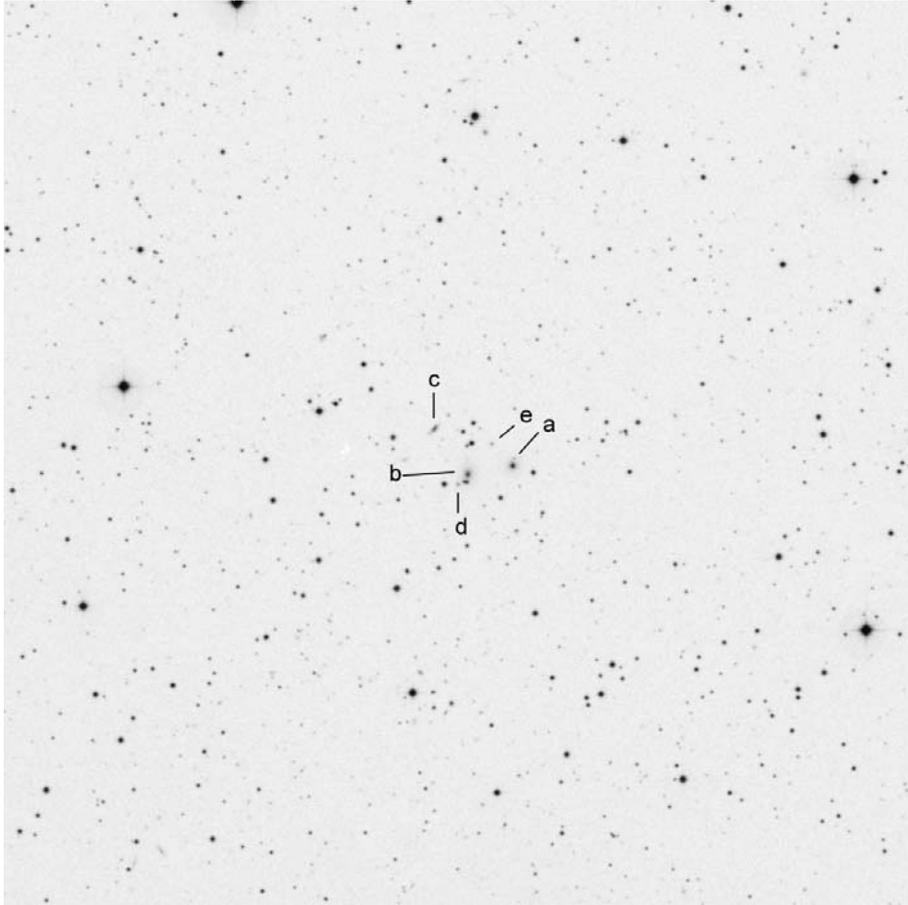
### Notes:

22" f/4: All four members were observed. a, b, and c have about same brightness. d is weaker, almost stellar, only with averted vision.





# Hickson 83 in Hercules



HCG Const. coordinates (2000) bright. memb. mag  
 83 Her 16h 35m 41s +06° 16' 16.0

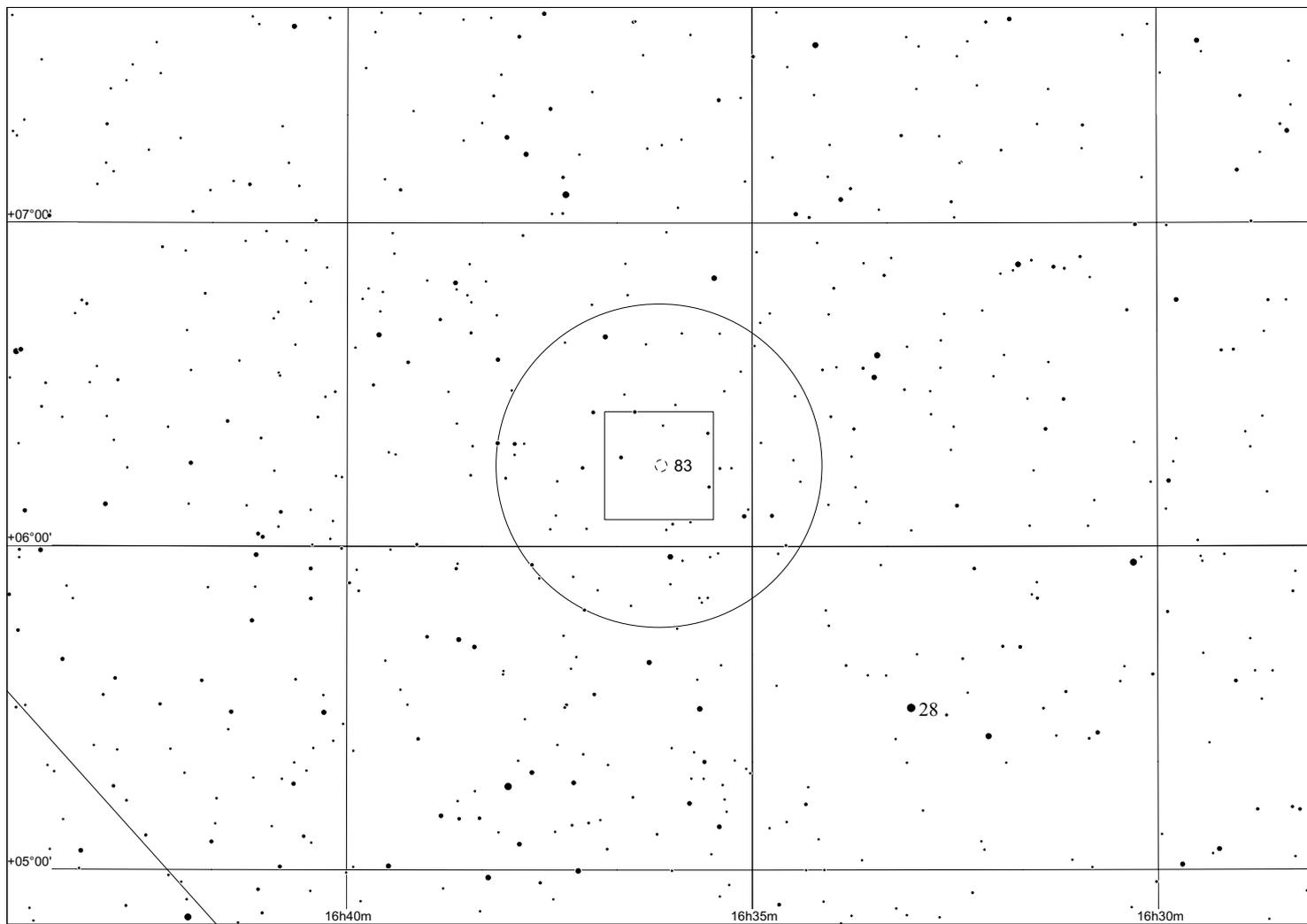
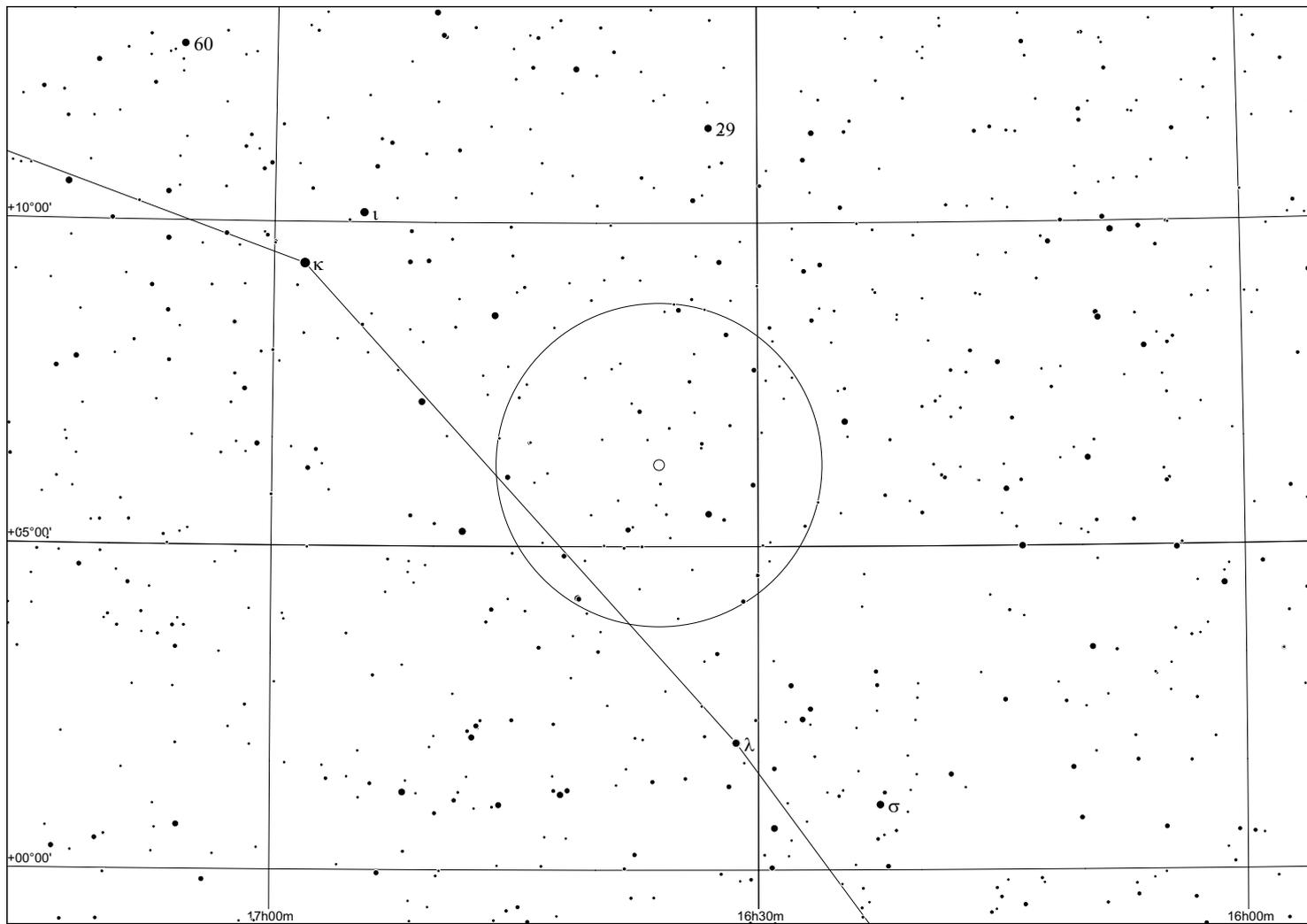
galaxy	ra (1950)	dec	a	b	type	T	B-I	C	D-B	R-I	C	D-R	B-R	B-T	B-TC	err	v_r	err	C	names
			"	"					"			"					km/s	km/s		
83a	16 33 09.41	+06 22 01.0	7.90	7.90	E0	0	16.83	0	16.90	14.90	0	27.80	1.76	16.45	15.99	0.10	15560	60	0	
83b	16 33 13.35	+06 21 50.0	8.90	7.00	E2	0	17.04	1	18.10	15.07	1	28.90	1.75	16.50	16.04	0.20	16442	69	0	
83c	16 33 16.31	+06 22 49.7	7.80	4.20	Scd	8	17.52	0	13.00	16.29	0	15.50	1.16	17.37	16.70	0.10	16520	133	0	
83d	16 33 14.19	+06 21 37.9	3.70	3.00	Sd	9	19.09	1	7.60	18.05	1	8.30	1.04	18.44	17.91	0.20	15500	133	1	
83e	16 33 11.25	+06 22 29.4	2.90	2.50	S0	1	19.44	0	6.60	17.51	0	10.50	1.69	18.90	18.40	0.50	15560	160	2	

## Notes:

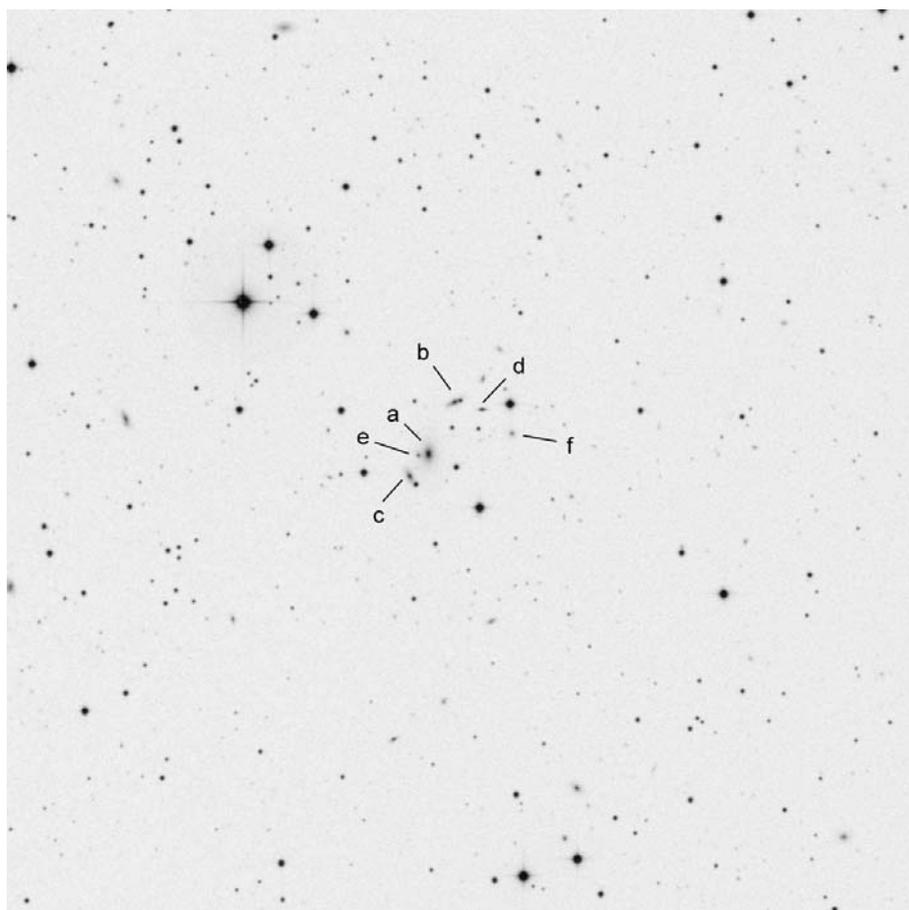
22" f/4: this is a quite difficult group

a can be held steadily with averted vision, b is very faint and is seen only intermittently

other members could not be observed



## Hickson 84 in Ursa minor

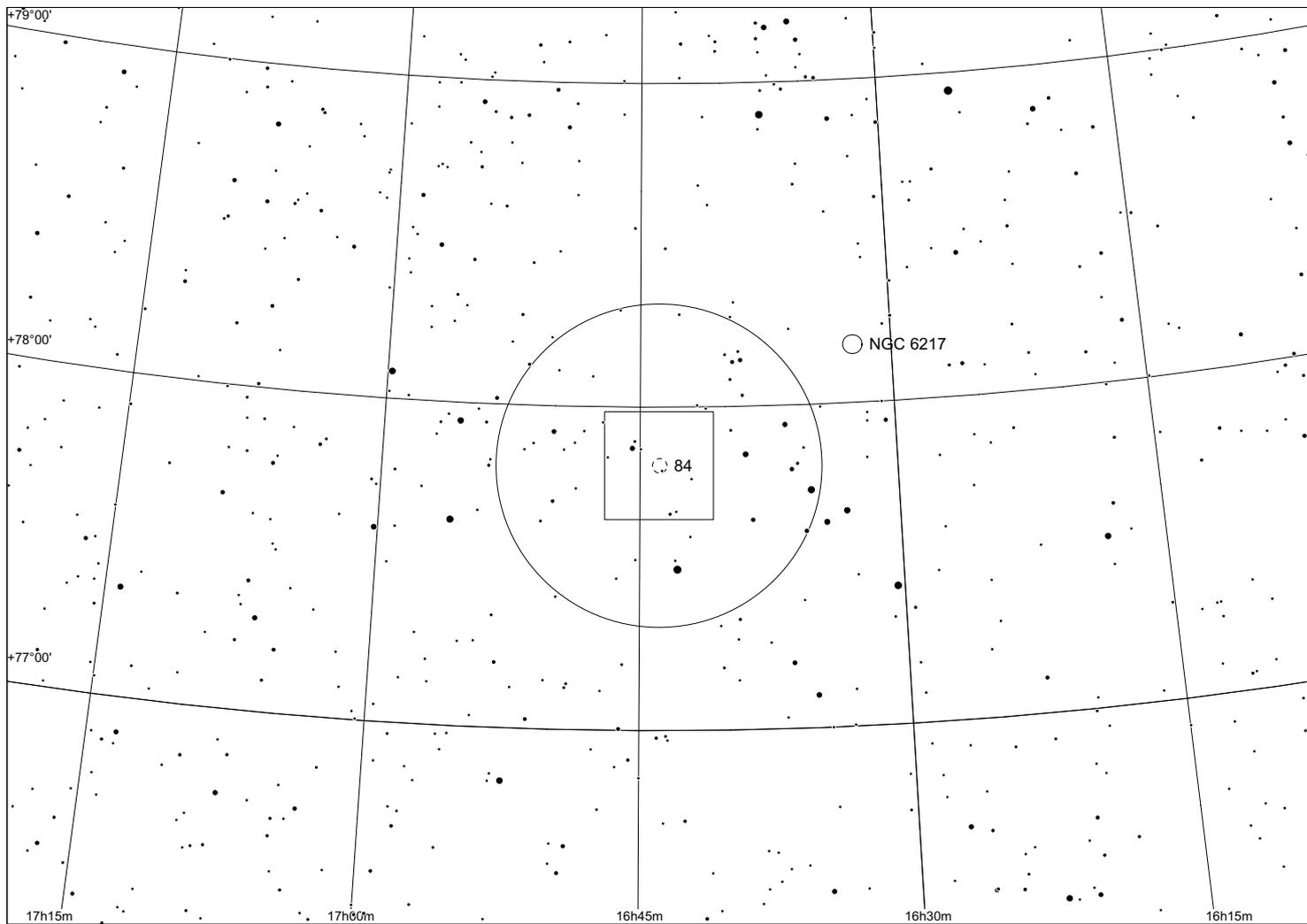
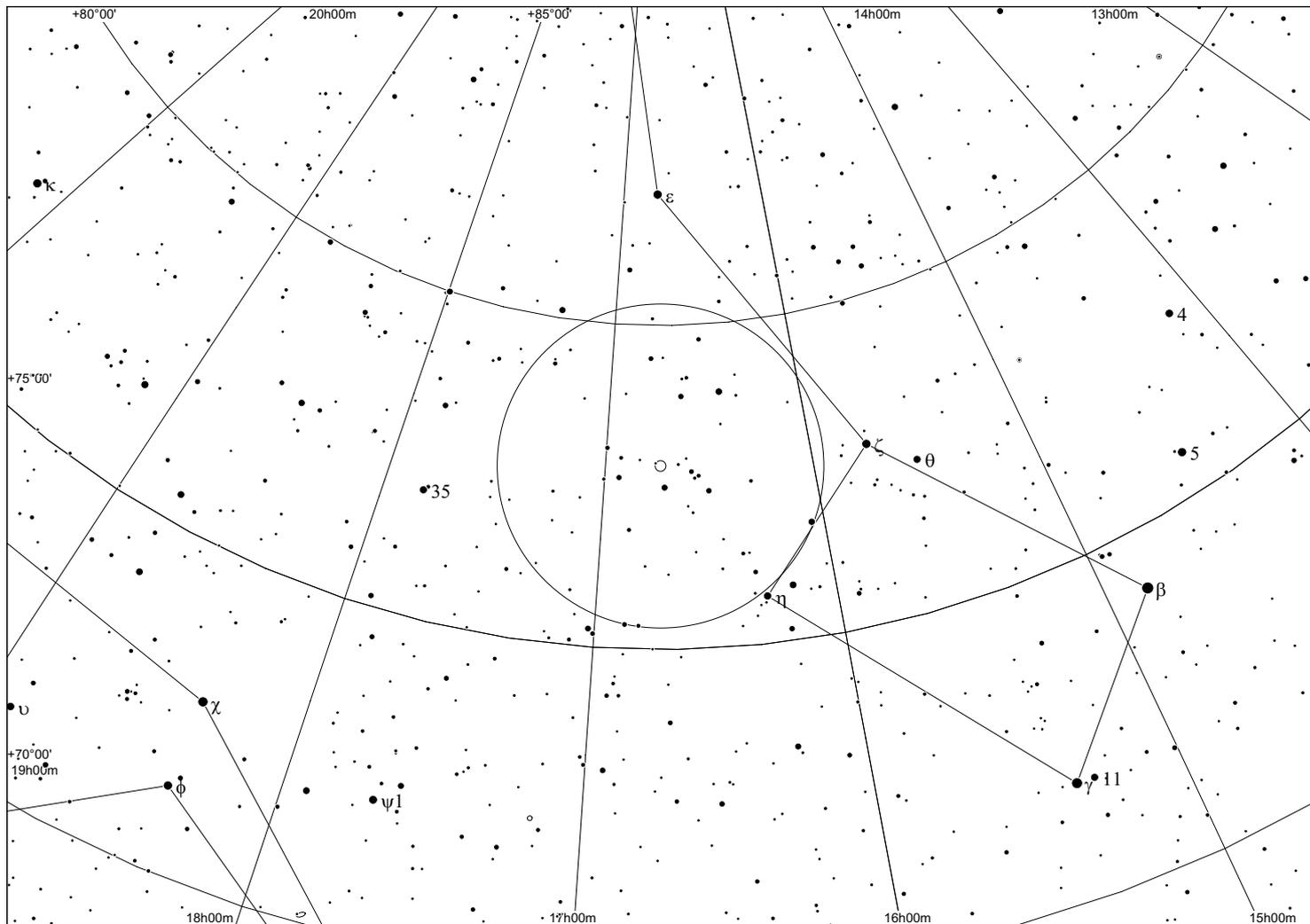


HCG Const. coordinates (2000) bright. memb. mag  
 84 UMi 16h 44m 08s +77° 50' 14.7

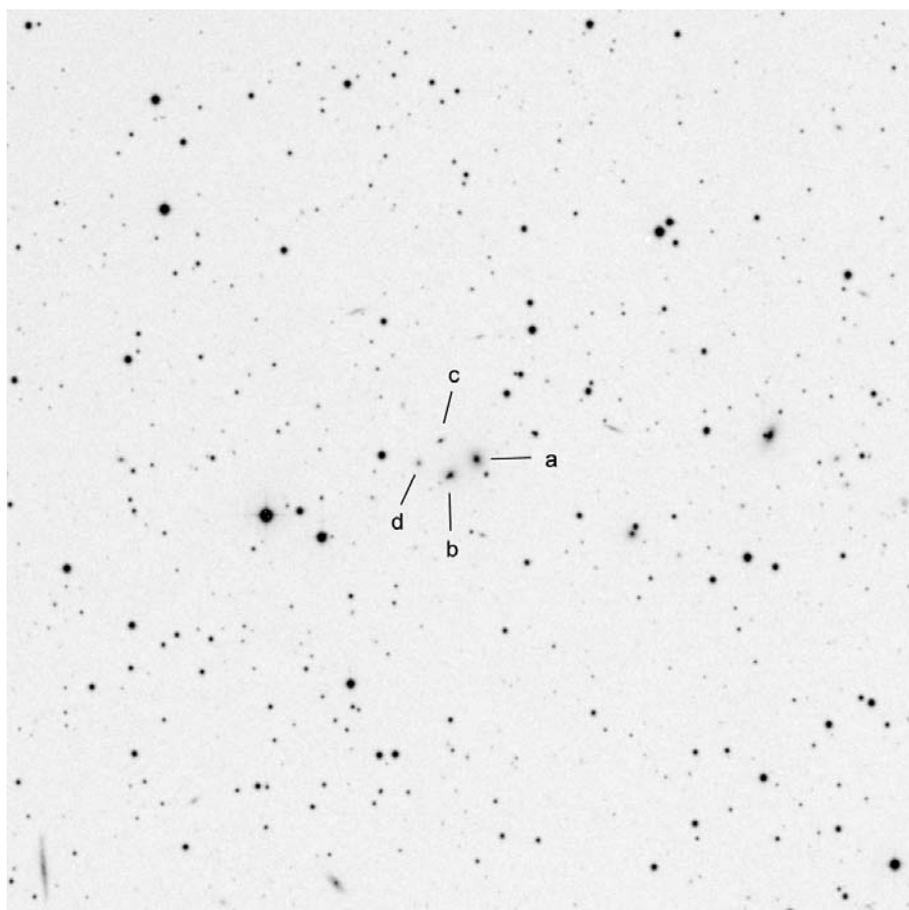
galaxy	ra (1950)	dec	a	b	type	T	B-I	C	D <sub>B</sub>	R-I	C	D <sub>R</sub>	B-R	B-T	B-TC	err	v <sub>r</sub>	err	C	names
			"	"					"			"					km/s	km/s		
84a	16 46 43.95	+77 55 38.8	17.80	14.70	E2	0	15.77	1	32.70	13.99	1	46.10	1.64	14.96	14.66	0.20	16654	61	0	
84b	16 46 35.59	+77 56 50.7	14.40	6.40	S0	1	16.86	0	17.60	14.97	0	25.70	1.77	16.54	16.10	0.10	16554	73	0	
84c	16 46 51.36	+77 55 07.8	14.90	7.40	Sa	3	16.82	1	21.70	15.09	1	29.80	1.60	16.21	15.67	0.20	16353	71	0	
84d	16 46 23.83	+77 56 44.4	8.20	4.60	S0	1	17.54	0	12.80	15.89	0	15.60	1.66	17.20	16.80	0.10	16800	92	0	
84e	16 46 48.57	+77 55 36.2	4.60	4.60	E0	0	18.00	1	13.80	16.28	1	18.30	1.62	17.19	16.89	0.20	16950	81	0	
84f	16 46 10.16	+77 56 16.3	6.10	6.10	E0	0	18.42	0	12.40	16.23	0	20.70	1.90	17.22	16.92	0.20	32500	100	0	

### Notes:

22" f/4: with 5 mm, c is observed next to a star, a and b are difficult, but could be seen with certainty



## Hickson 85 in Draco

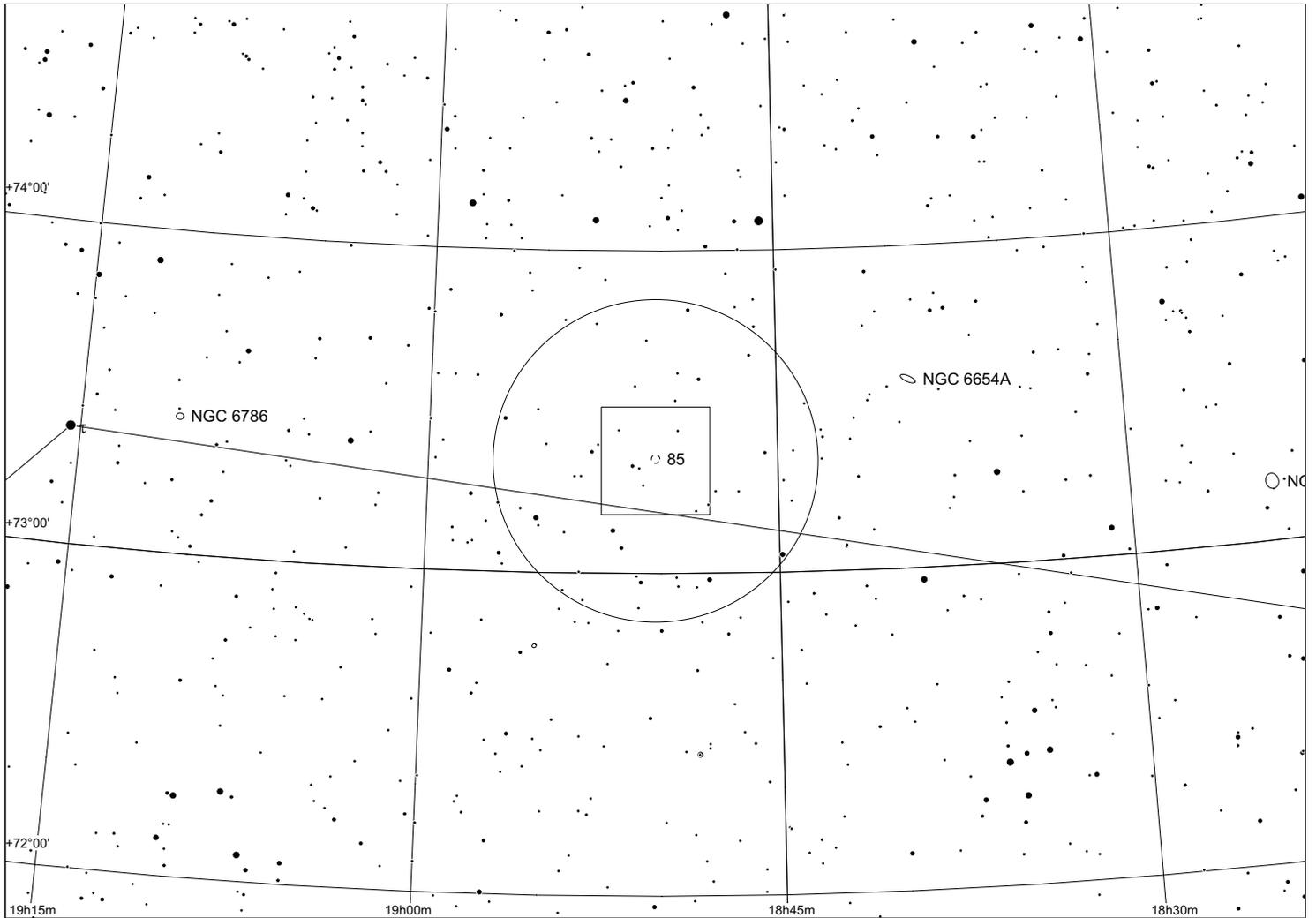
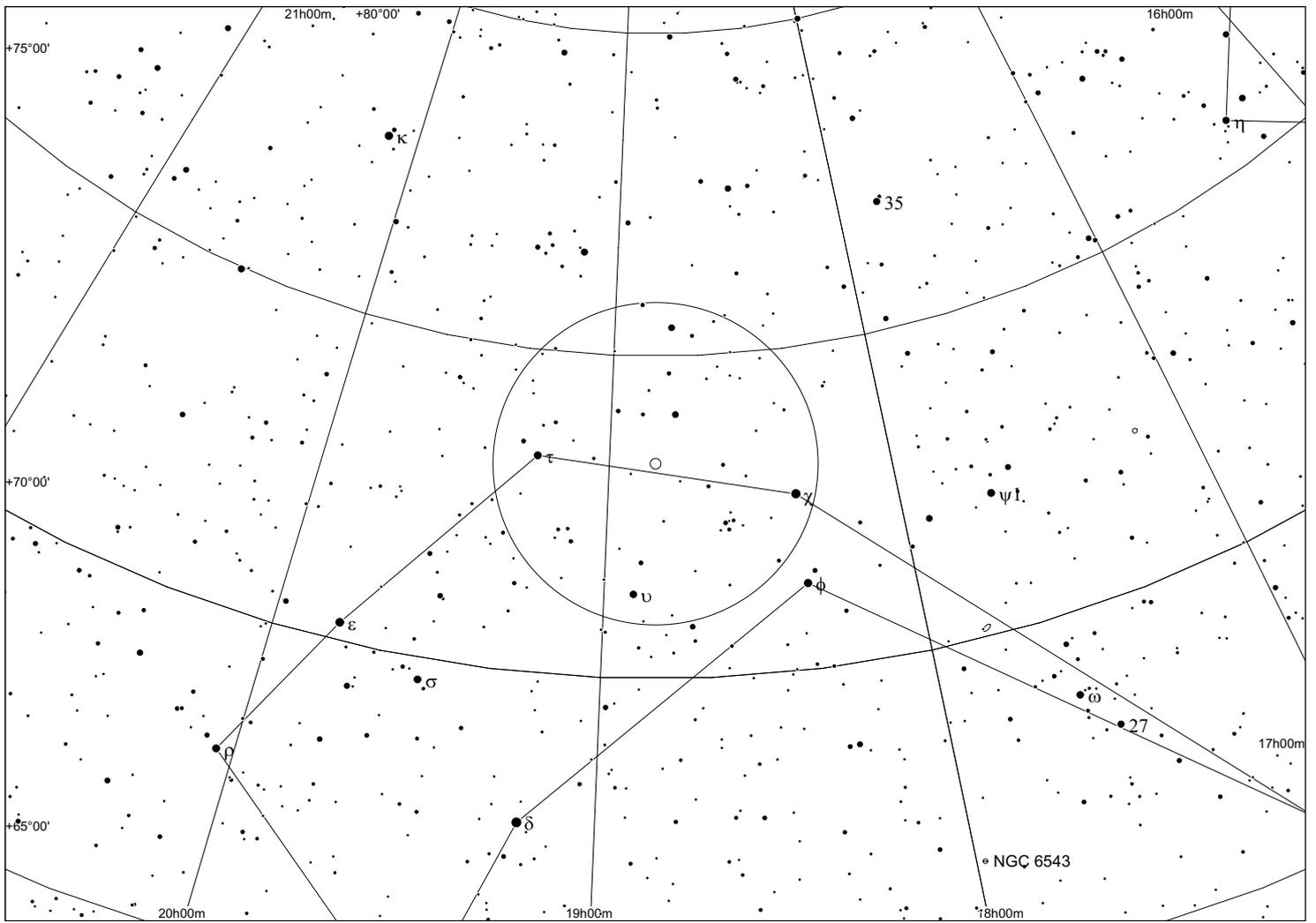


*HCG Const. coordinates (2000) bright. memb. mag*  
 85 Dra 18h 50m 22s +73° 21' 15.1

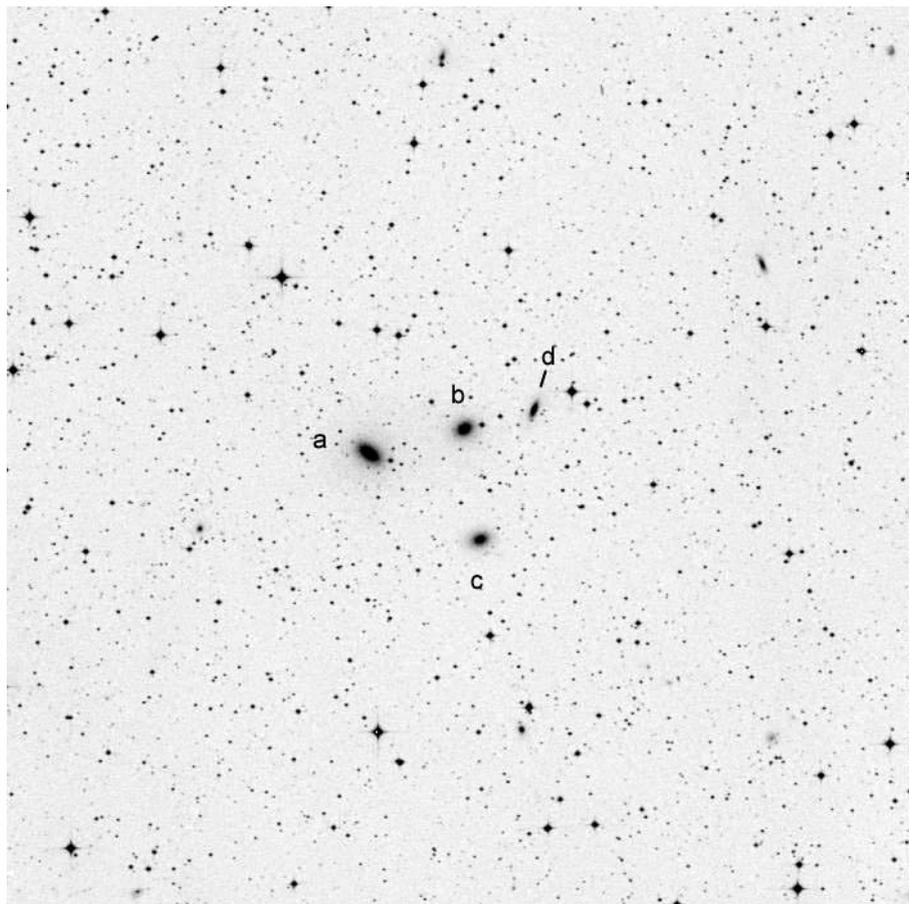
<i>galaxy</i>	<i>ra (1950)</i>	<i>dec</i>	<i>a</i> "	<i>b</i> "	<i>type</i>	<i>T</i>	<i>B-I</i>	<i>C</i>	<i>D-B</i> "	<i>R-I</i>	<i>C</i>	<i>D-R</i> "	<i>B-R</i>	<i>B-T</i>	<i>B-TC</i>	<i>err</i>	<i>v_r</i> km/s	<i>err</i> km/s	<i>C</i>	<i>names</i>
85a	18 51 21.97	+73 17 23.1	16.00	14.70	E1	0	15.77	1	28.70	13.73	1	51.00	1.82	15.47	15.12	0.20	11155	38	0	
85b	18 51 29.97	+73 17 00.7	13.10	12.30	E1	0	16.26	1	23.70	14.24	1	40.00	1.82	15.97	15.62	0.20	12122	36	0	
85c	18 51 33.22	+73 17 45.8	9.00	4.10	S0	1	17.65	0	10.30	15.69	0	15.80	1.85	17.47	16.98	0.10	11912	47	0	
85d	18 51 39.84	+73 17 14.6	6.70	6.40	E0	0	18.12	0	11.80	16.08	0	21.60	1.72	17.36	17.01	0.10	11900	96	0	

### Notes:

22" f/4: a and b can be held steadily with averted vision, c and d were not observed



## Hickson 86 in Sagittarius

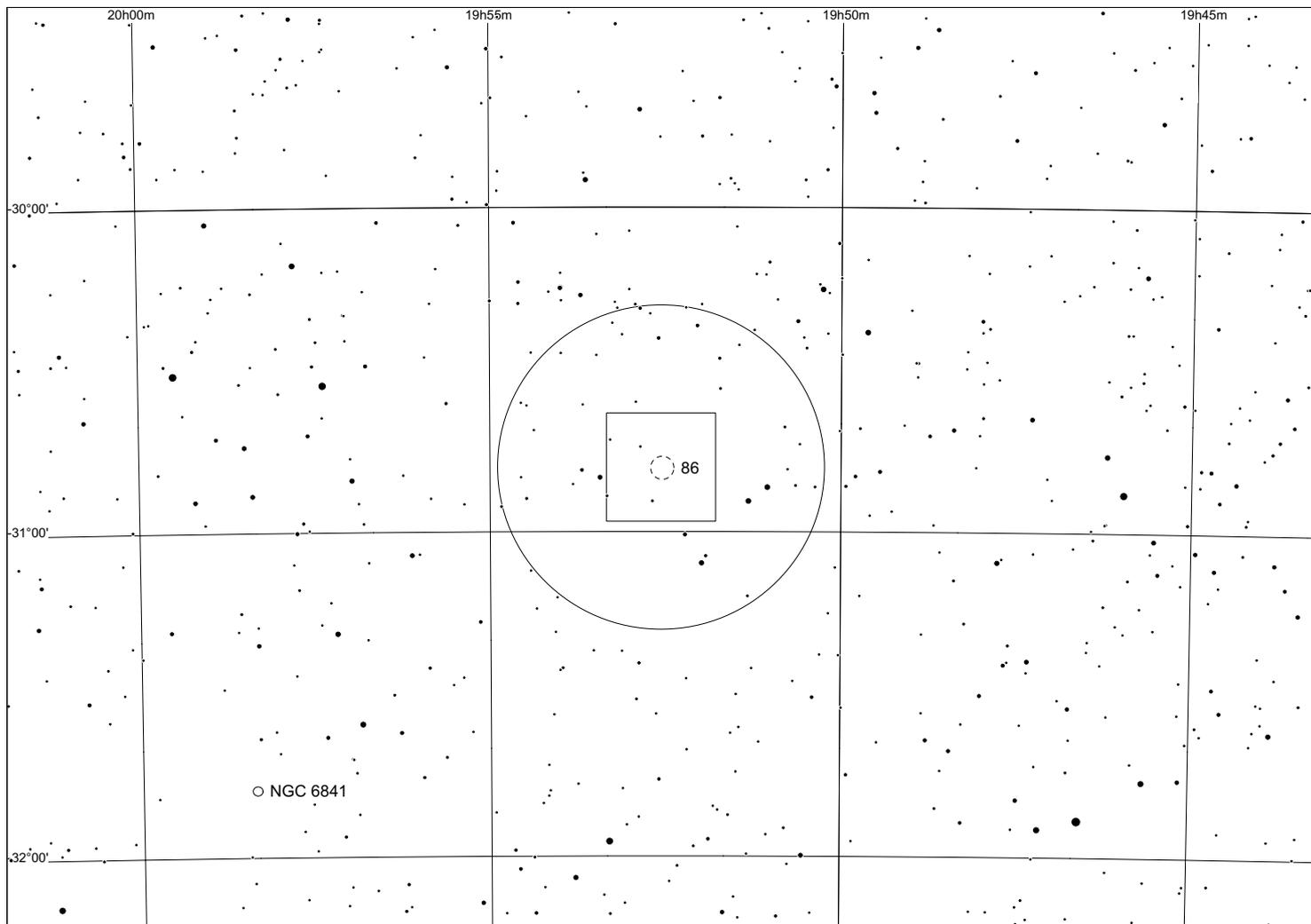
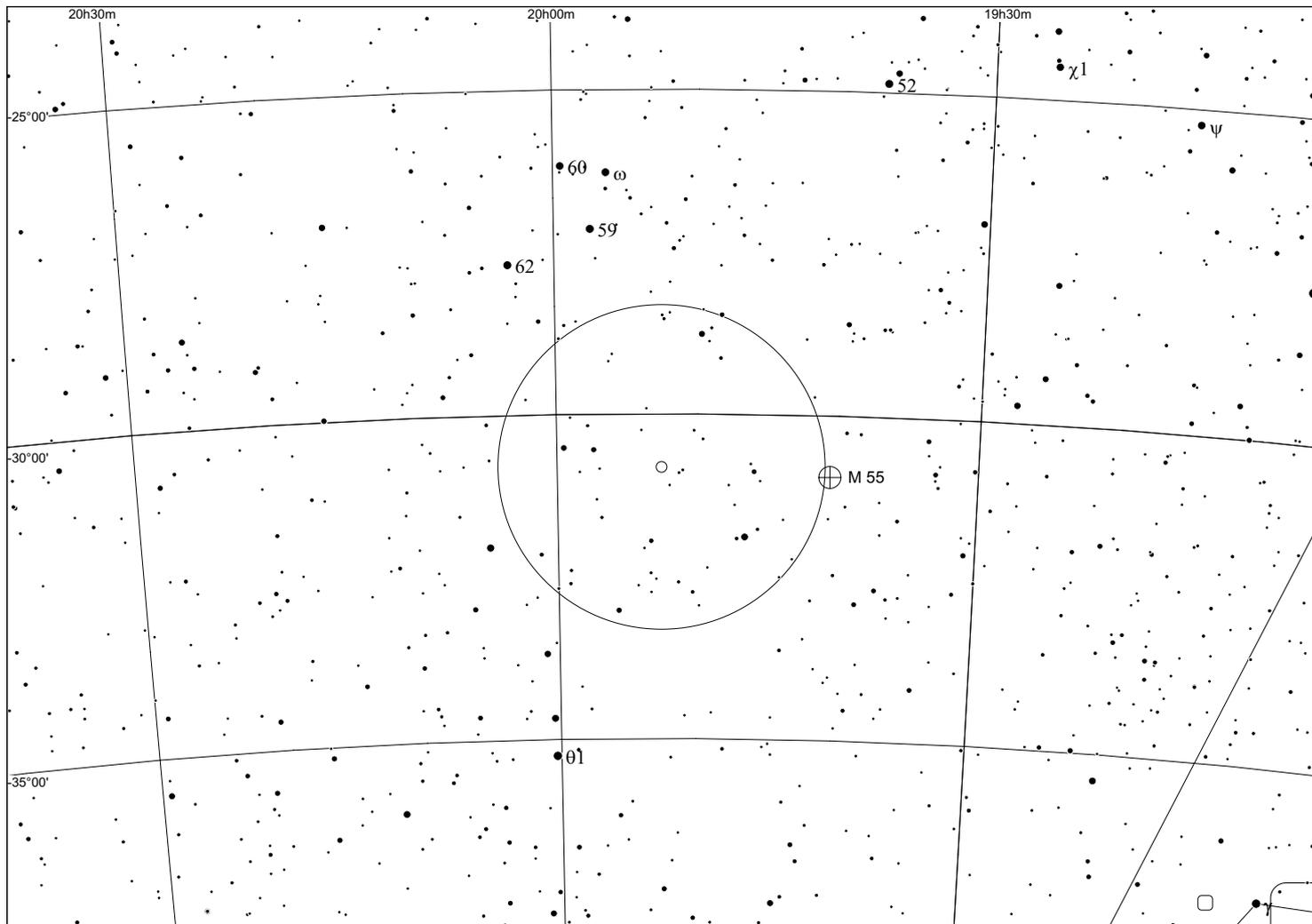


*HCG Const. coordinates (2000) bright. memb. mag*  
 86 Sgr 19h 51m 59s -30° 50' 13.7

<i>galaxy</i>	<i>ra (1950)</i>	<i>dec</i>	<i>a</i> "	<i>b</i> "	<i>type</i>	<i>T</i>	<i>B-I</i>	<i>C</i>	<i>D<sub>B</sub></i> "	<i>R-I</i>	<i>C</i>	<i>D<sub>R</sub></i> "	<i>B-R</i>	<i>B-T</i>	<i>B-TC</i>	<i>err</i>	<i>v<sub>r</sub></i> km/s	<i>err</i> km/s	<i>C</i>	<i>names</i>
86a	19 48 59.87	-30 57 10.7	25.40	20.30	E2	0	14.63	0	49.40	12.23	0	122.60	1.92	14.30	13.68	0.10	6174	39	0	
86b	19 48 50.03	-30 56 42.8	22.10	16.60	E2	0	15.13	0	39.00	13.00	0	68.30	1.92	14.80	14.18	0.10	6196	45	0	
86c	19 48 48.25	-30 59 09.3	17.20	13.30	SB0	1	16.08	0	29.00	13.64	0	48.90	2.20	15.72	15.06	0.10	5529	42	0	
86d	19 48 42.94	-30 56 15.3	18.70	9.60	S0	1	15.85	0	23.90	14.19	0	35.70	1.66	15.75	15.02	0.10	5916	50	0	

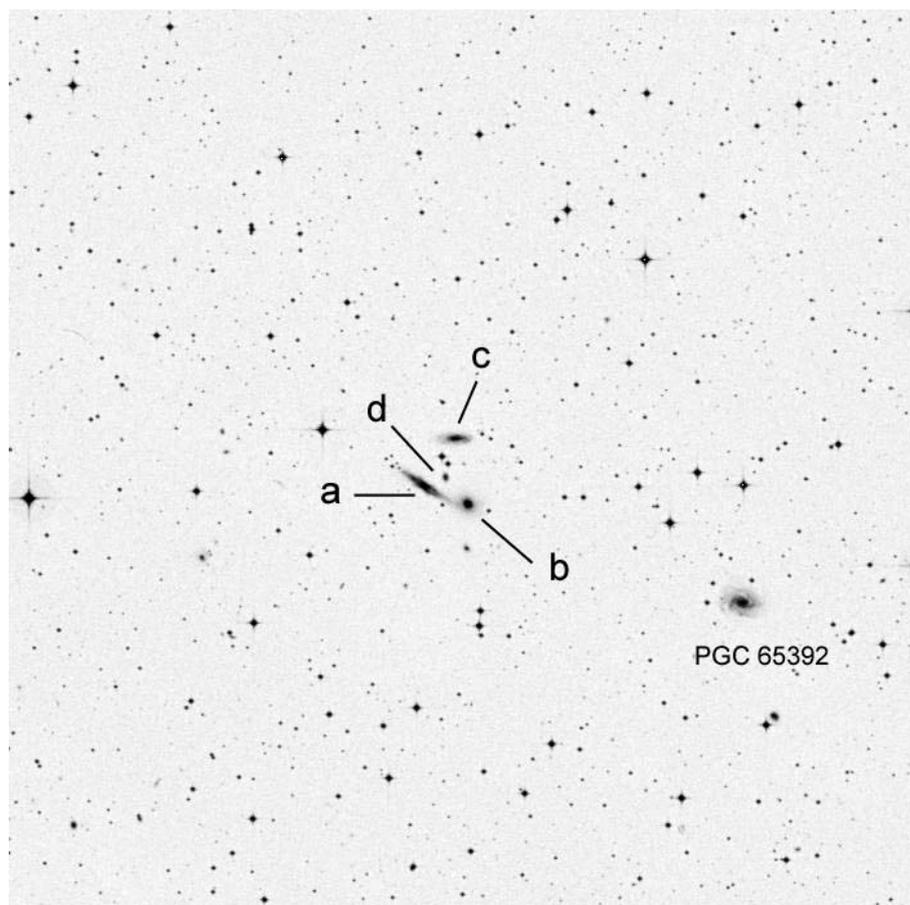
### Notes:

22"f/4 (06.08.2008): a and b are easy, c is very distinct as well, d is dimmer





## Hickson 87 in Capricornus

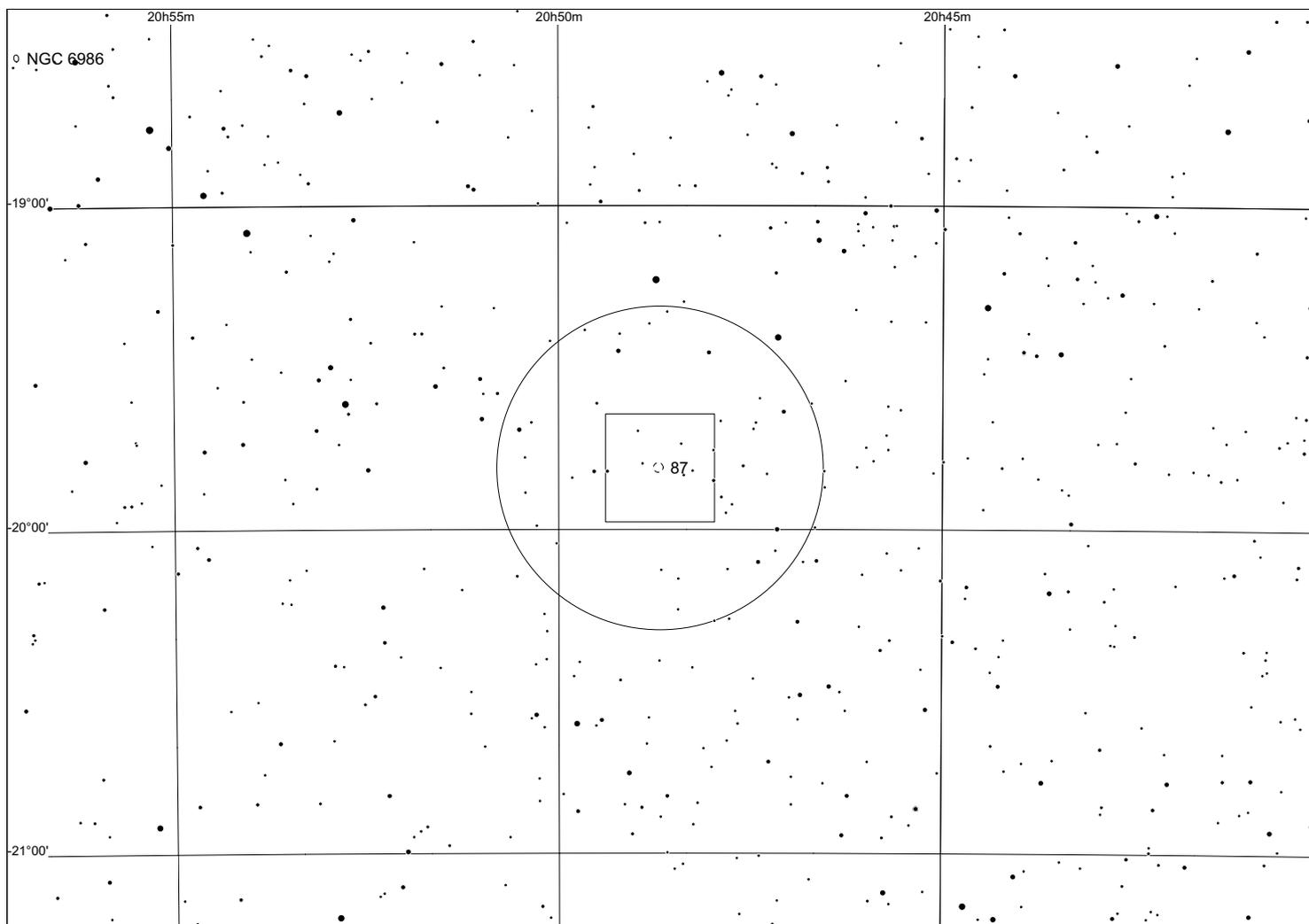
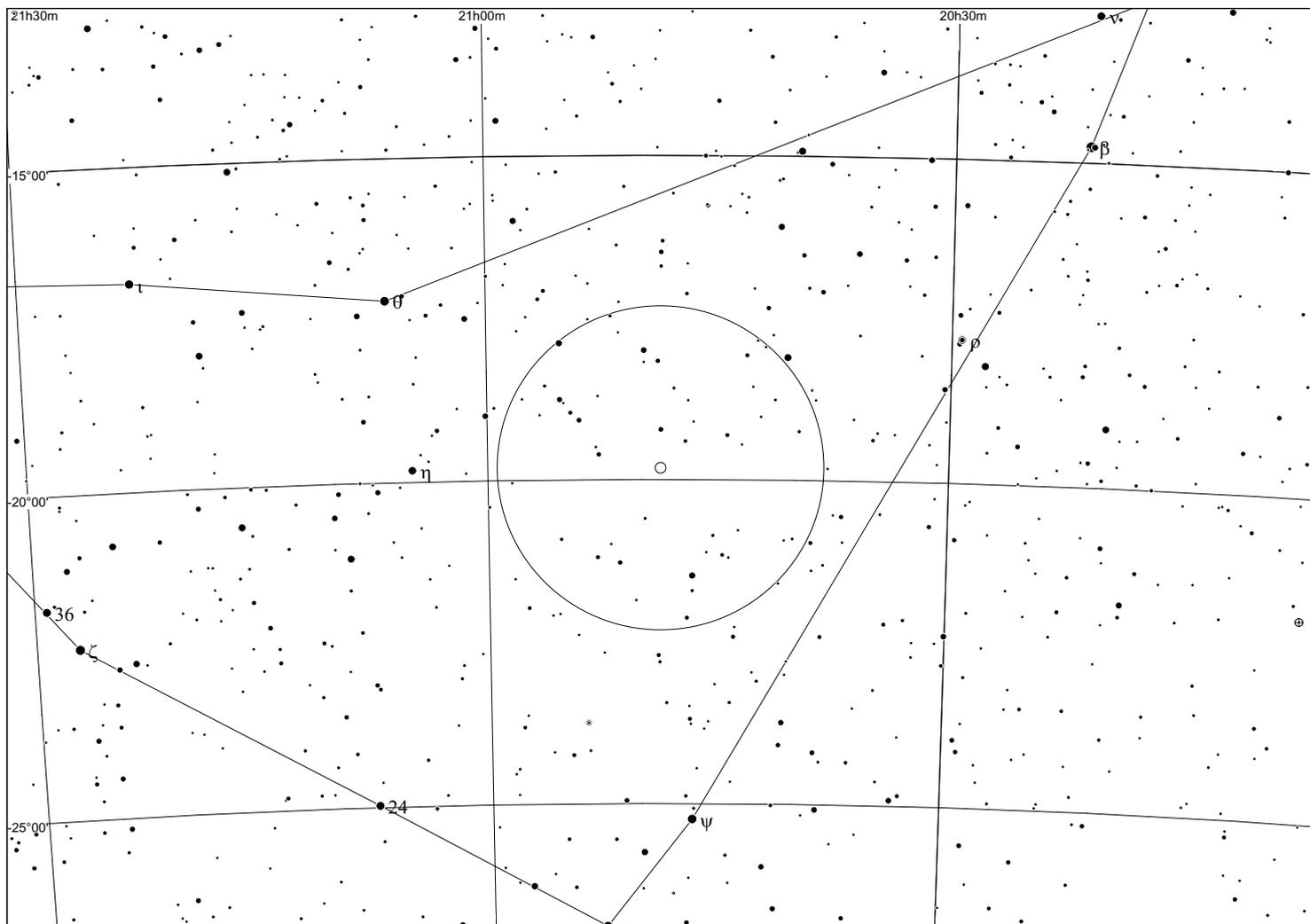


*HCG Const. coordinates (2000) bright. memb. mag*  
 87 Cap 20h 48m 12s -19° 50' 14.0

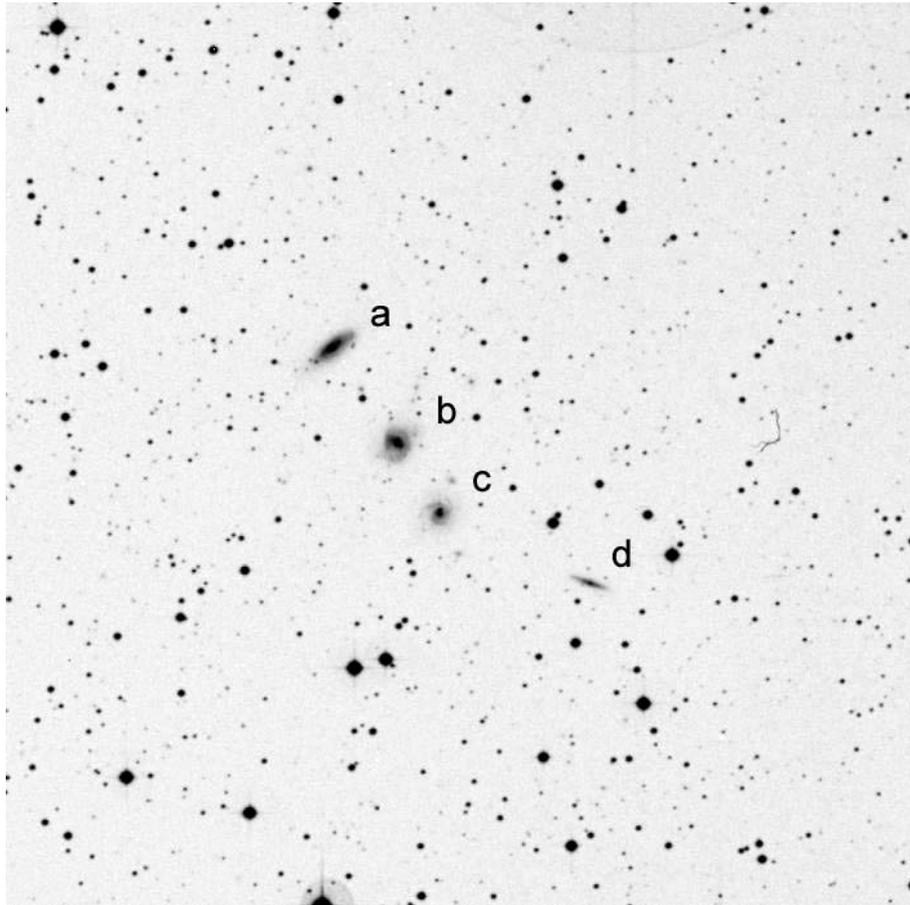
<i>galaxy</i>	<i>ra (1950)</i>	<i>dec</i>	<i>a</i> "	<i>b</i> "	<i>type</i>	<i>T</i>	<i>B-I</i>	<i>C</i>	<i>D-B</i> "	<i>R-I</i>	<i>C</i>	<i>D-R</i> "	<i>B-R</i>	<i>B-T</i>	<i>B-TC</i>	<i>err</i>	<i>v_r</i> km/s	<i>err</i> km/s	<i>C</i>	<i>names</i>
87a	20 45 23.03	-20 02 05.3	39.80	9.10	Sbc	6	15.41	0	39.70	13.29	0	62.50	1.86	14.95	13.97	0.20	8694	35	0	
87b	20 45 19.03	-20 02 29.8	17.50	14.10	S0	1	15.60	0	34.30	13.80	0	48.50	1.60	15.60	15.10	0.10	8972	65	1	
87c	20 45 20.15	-20 01 02.1	21.40	9.10	Sd	9	16.23	0	29.50	14.88	0	34.00	1.28	15.78	15.02	0.10	8920	133	1	
87d	20 45 21.05	-20 01 53.9	7.80	5.80	Sd	9	17.83	0	13.00	16.34	0	16.40	1.39	17.46	16.89	0.20	10200	160	1	

### Notes:

22" f/4: very small and difficult group, with 5 mm; a is the brightest, a and b can be well seen as individual condensations, c not definitely seen



## Hickson 88 in Aquarius

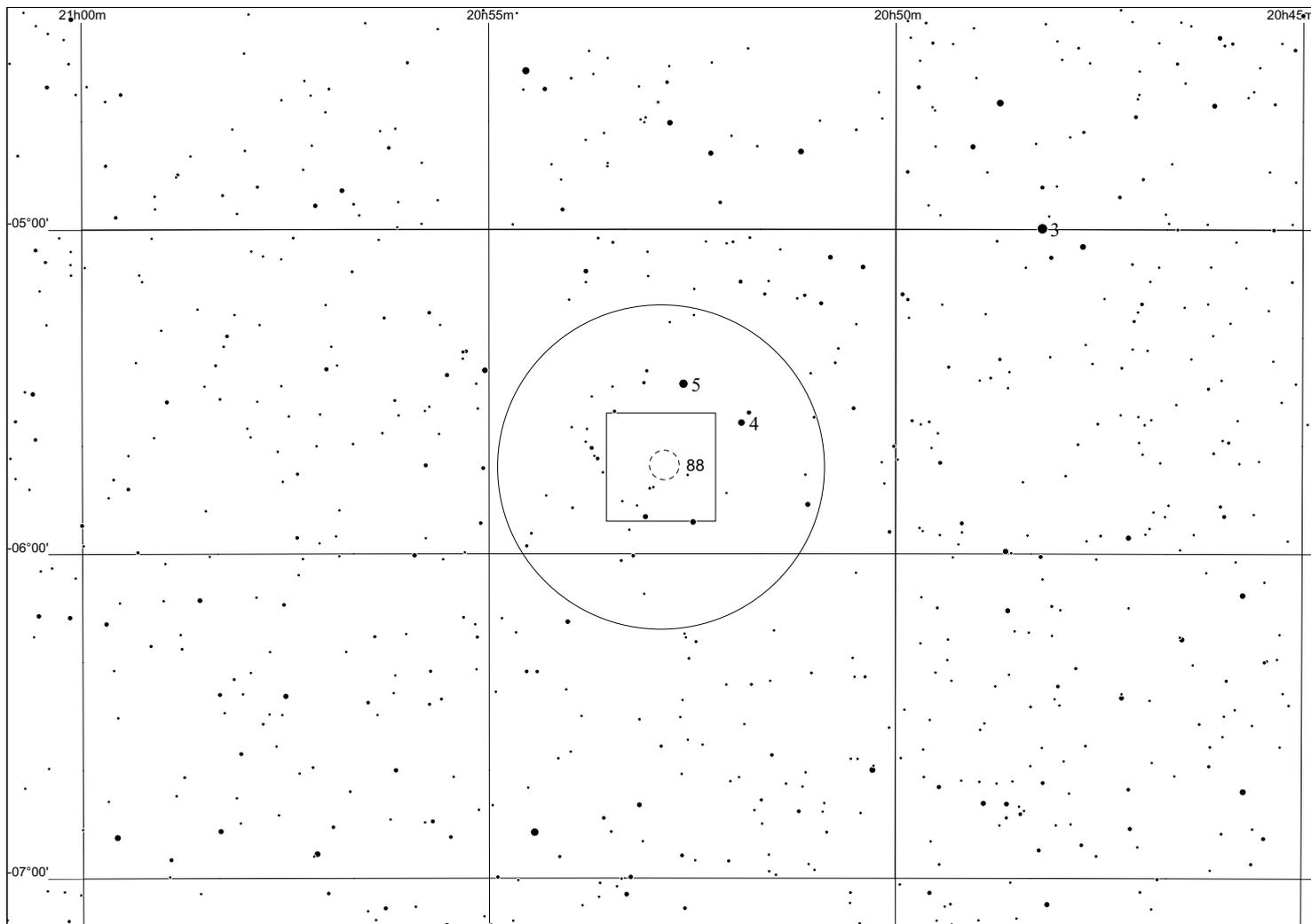
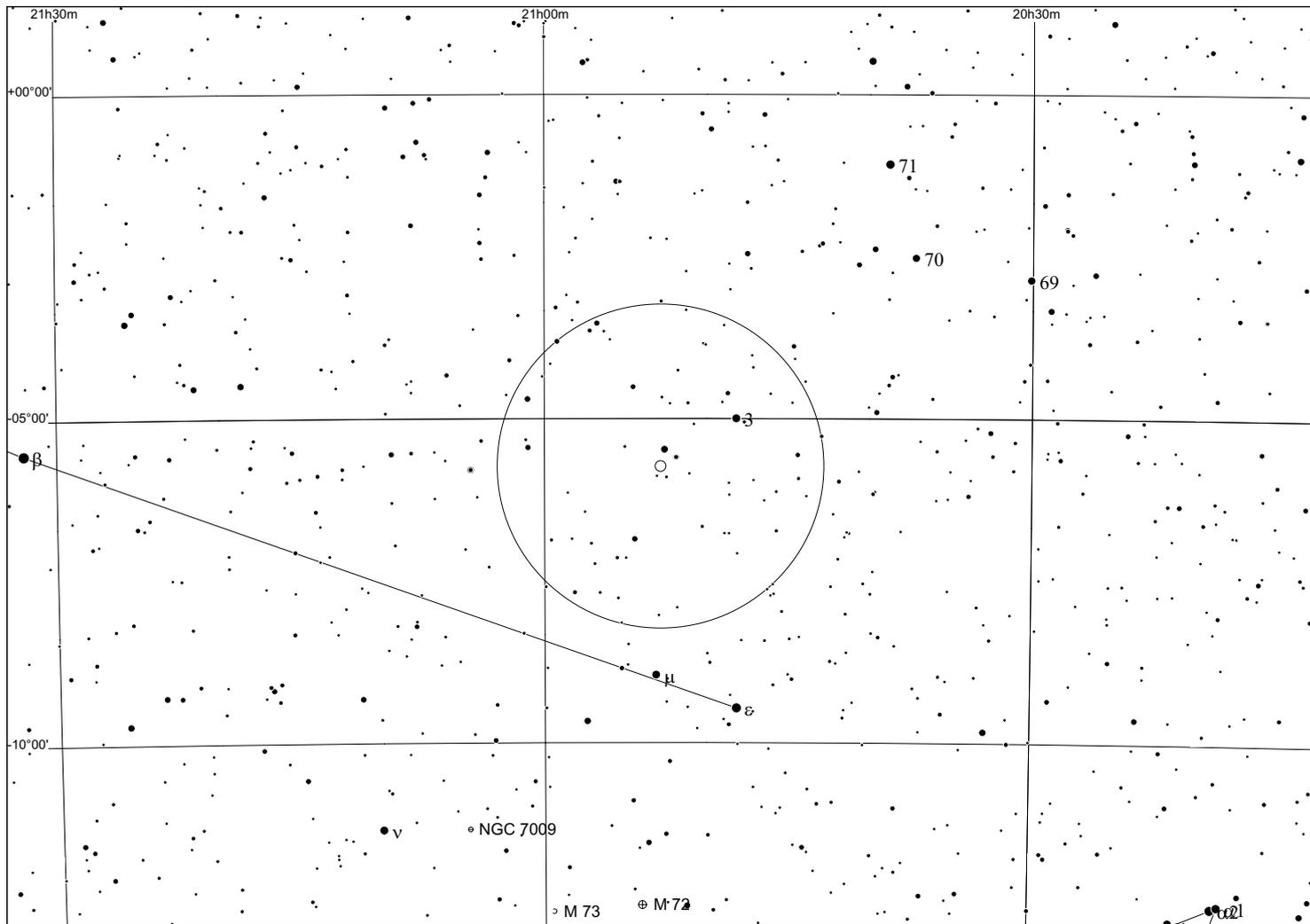


*HCG Const. coordinates (2000) bright. memb. mag*  
 88 Aqr 20h 52m 23s -05° 45' NGC 6978 13.2

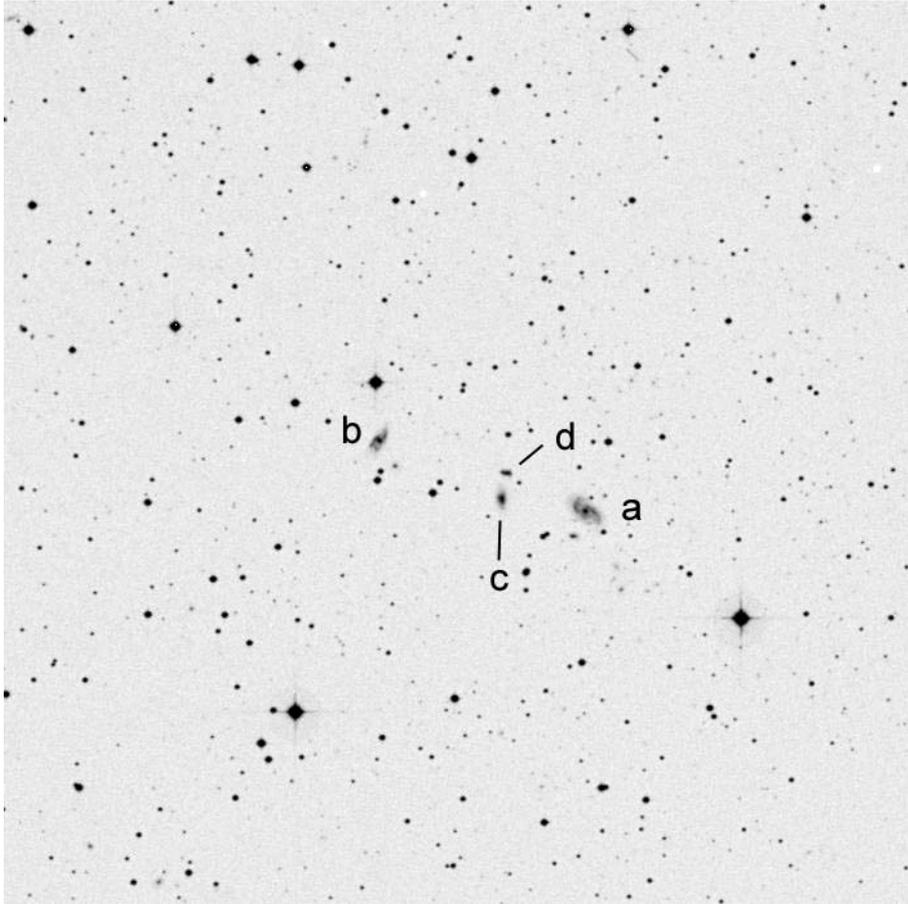
<i>galaxy</i>	<i>ra (1950)</i>	<i>dec</i>	<i>a</i> "	<i>b</i> "	<i>type</i>	<i>T</i>	<i>B-I</i>	<i>C</i>	<i>D<sub>B</sub></i> "	<i>R-I</i>	<i>C</i>	<i>D<sub>R</sub></i> "	<i>B-R</i>	<i>B-T</i>	<i>B-TC</i>	<i>err</i>	<i>v<sub>r</sub></i> km/s	<i>err</i> km/s	<i>C</i>	<i>names</i>
88a	20 49 56.55	-05 53 59.7	45.10	20.20	Sb	5	14.22	0	57.30	12.57	0	75.90	1.56	14.02	13.18	0.10	6033	25	0	N6978
88b	20 49 50.95	-05 56 08.5	34.00	26.50	SBb	5	14.28	0	62.20	12.69	0	75.50	1.51	13.88	13.24	0.10	6010	22	0	N6977
88c	20 49 47.18	-05 57 40.8	27.60	21.00	Sc	7	14.95	0	56.10	13.96	0	58.10	0.99	14.52	13.87	0.10	6083	26	0	N6976
88d	20 49 33.93	-05 59 12.7	32.70	8.50	Sc	7	15.96	0	30.60	14.60	0	34.40	1.31	15.52	14.49	0.20	6032	59	0	N6975

### Notes:

22" f/4: All four galaxies observed. a, b, and c form a nice linear chain. a and b can be seen directly as round glows, while c is much weaker, requiring indirect vision. d is located in a triangle of stars and is much more difficult to discern. This is the first Hickson group observed with my 22" Dobson during First Light night (the very first object with the coated mirror was M16).



# Hickson 89 in Aquarius

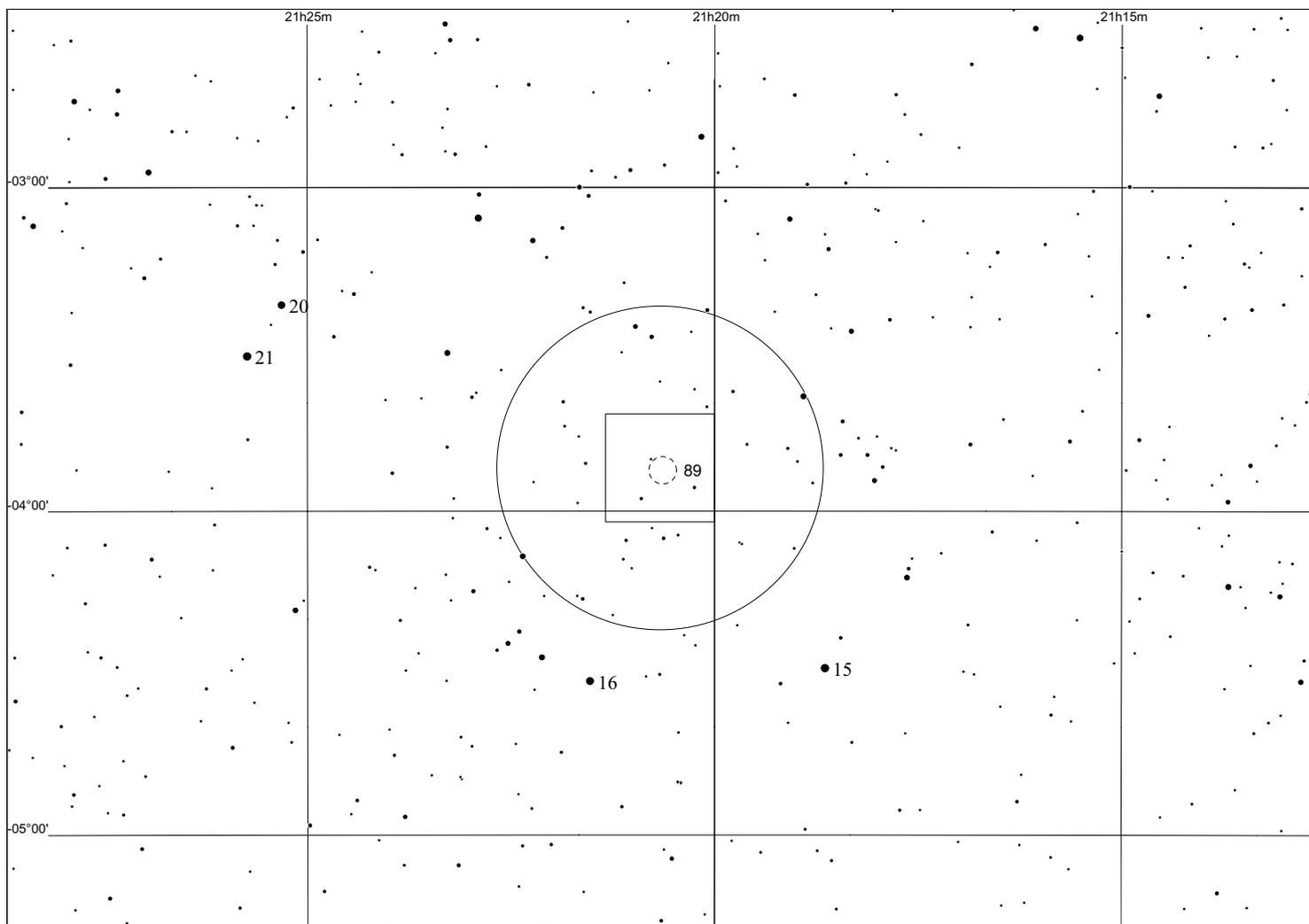
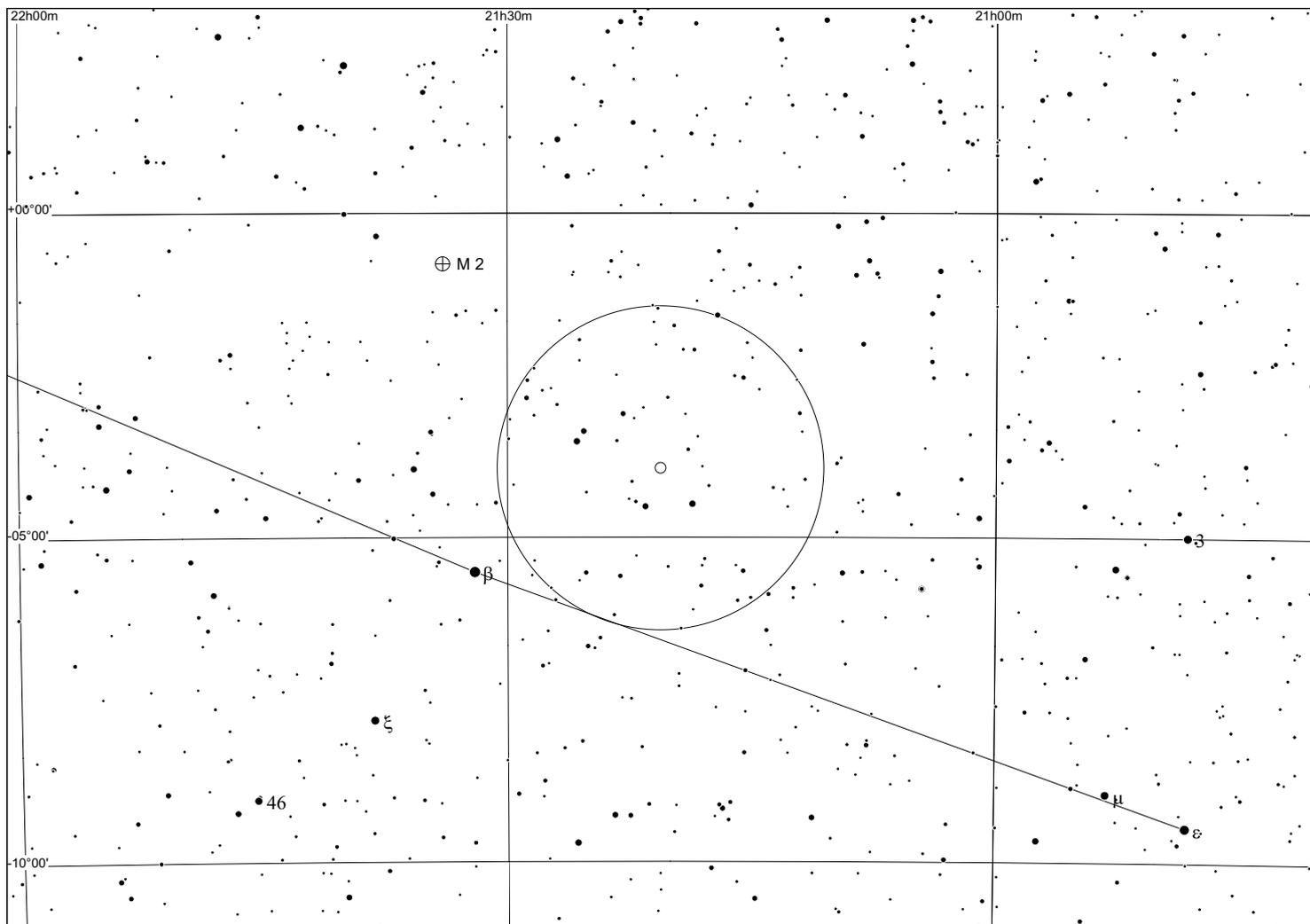


*HCG Const. coordinates (2000) bright. memb. mag*  
 89 Aqr 21h 20m 11s -03° 55' 14.1

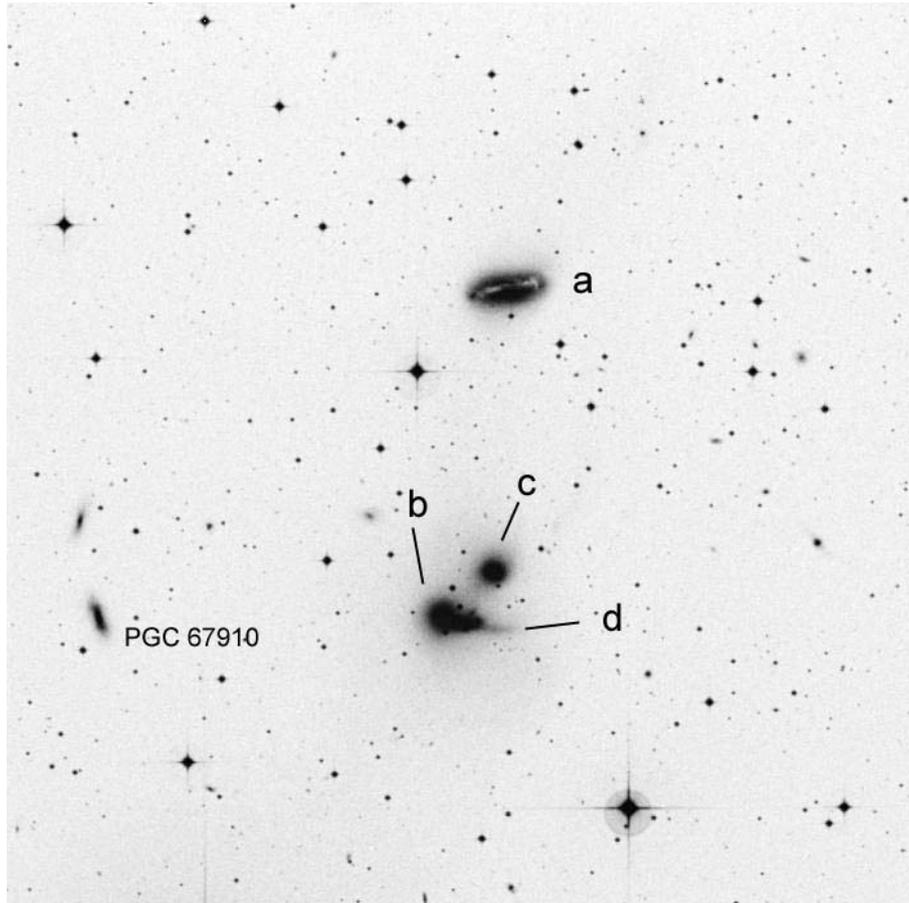
<i>galaxy</i>	<i>ra (1950)</i>	<i>dec</i>	<i>a</i> "	<i>b</i> "	<i>type</i>	<i>T</i>	<i>B-I</i>	<i>C</i>	<i>D<sub>B</sub></i> "	<i>R-I</i>	<i>C</i>	<i>D<sub>R</sub></i> "	<i>B-R</i>	<i>B-T</i>	<i>B-TC</i>	<i>err</i>	<i>v<sub>r</sub></i> km/s	<i>err</i> km/s	<i>C</i>	<i>names</i>
89a	21 17 24.26	-04 08 04.4	29.10	16.10	Sc	7	15.50	0	40.90	14.27	0	46.10	1.16	14.80	14.10	0.50	8850	61	0	
89b	21 17 42.47	-04 06 31.8	20.90	10.20	SBC	7	16.22	0	28.50	15.18	0	30.50	1.01	15.59	14.88	0.20	8985	45	0	
89c	21 17 31.59	-04 07 48.7	14.40	8.60	Scd	8	16.55	0	24.40	15.39	0	27.00	1.11	16.16	15.52	0.10	8872	40	0	
89d	21 17 31.21	-04 07 14.6	8.10	5.10	Sm	11	17.16	0	14.90	16.32	0	16.60	0.80	16.92	16.27	0.10	8857	32	0	

## Notes:

22" f/4: difficult group; with 7 mm, a and b very diffuse, seen only with indirect vision with effort, c/d sometimes suspected, not separated



## Hickson 90 in Pisces Austrinus



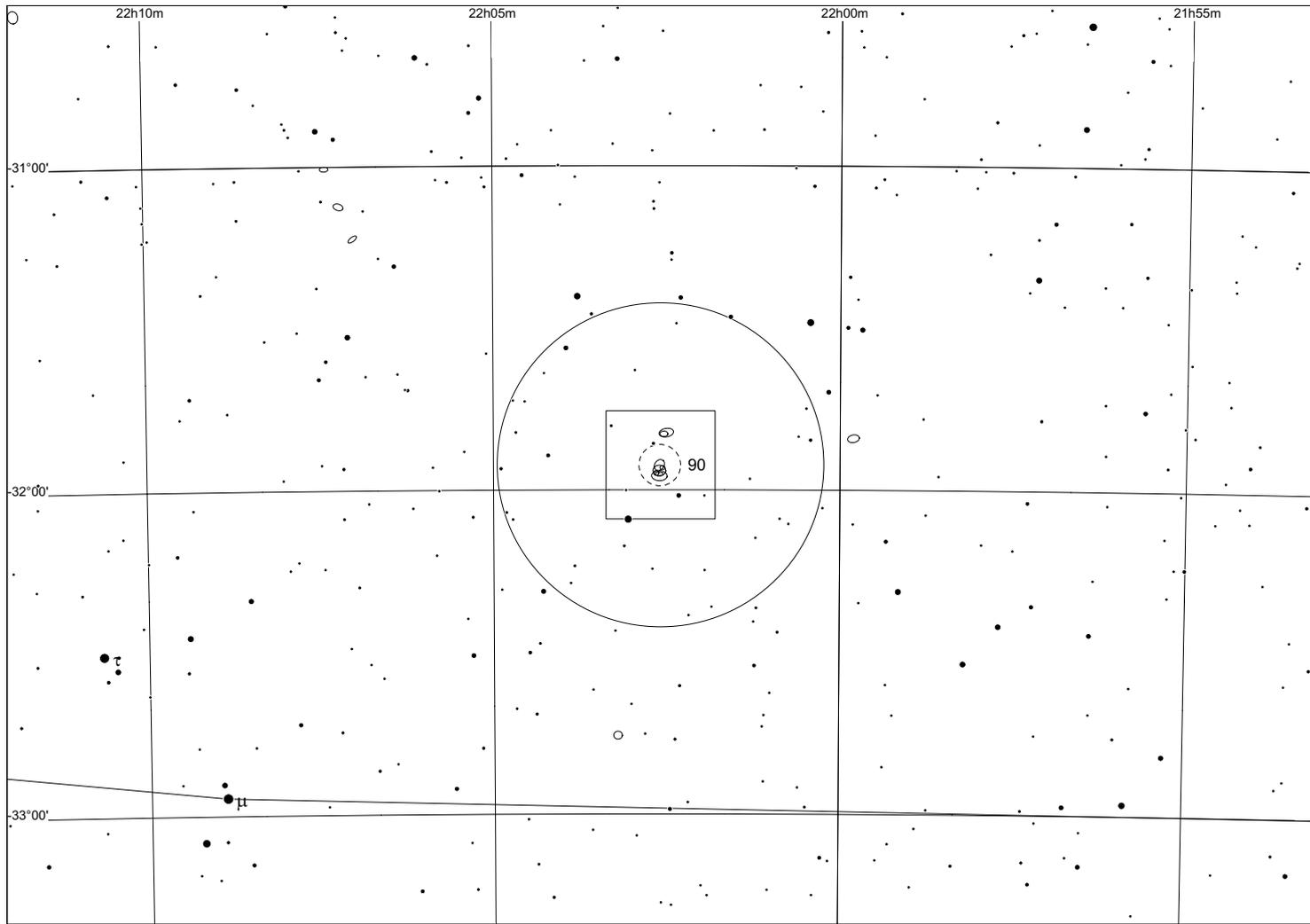
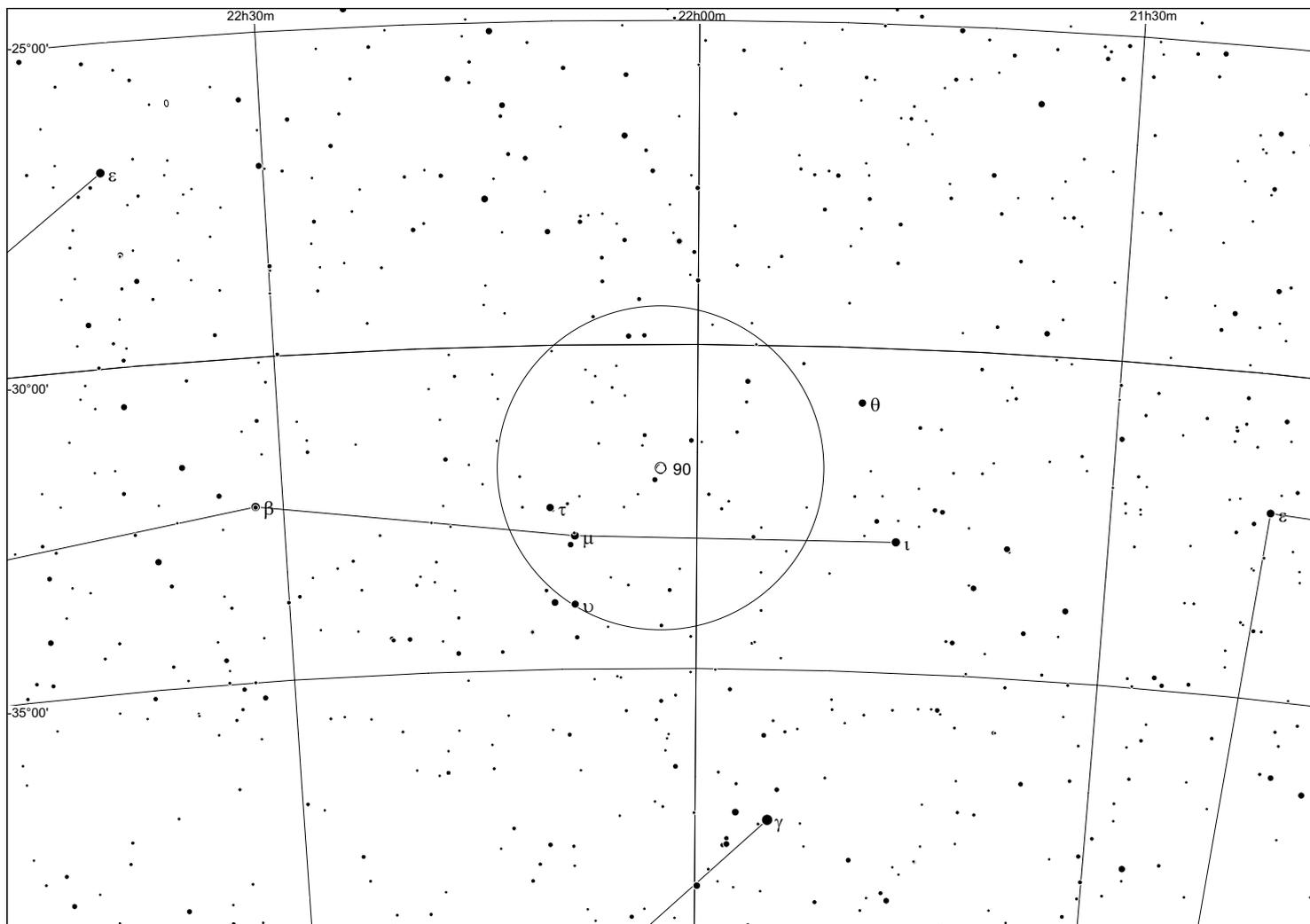
*HCG Const. coordinates (2000) bright. memb. mag*  
 90 PsA 22h 02m 06s -31° 58' NGC 7172 12.4

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		
90a	21 59 07.58	-32 06 41.9	71.80	43.20	Sa	3	13.13	0	95.10	11.48	0	112.00	1.60	12.84	12.36	0.07	2575	28	0	N7172
90b	21 59 14.08	-32 13 56.1	39.90	36.40	E0	0	12.66	1	86.90	10.89	1	135.70	1.64	12.88	12.57	0.13	2525	29	0	N7176
90c	21 59 08.78	-32 12 57.7	36.60	30.40	E0	0	14.03	1	47.20	11.25	1	173.50	2.23	13.04	12.73	0.06	2696	24	0	N7173
90d	21 59 11.60	-32 14 08.8	69.30	26.30	Im	12	14.37	1	55.00	12.13	1	98.80	1.83	13.54	12.81	0.15	2778	29	0	N7174

### Notes:

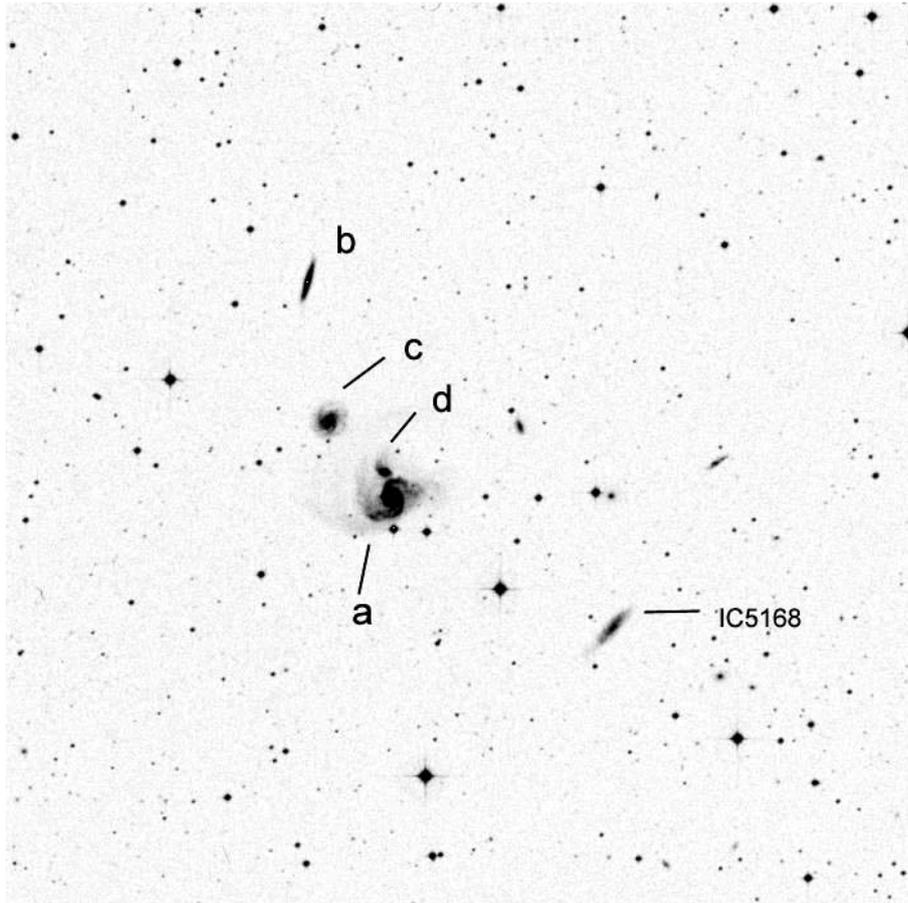
22" f/4: This group was observed only slightly above the horizon prior to setting. No detailed notes were taken.

08.09.2008: all four members could be observed, a has comparatively low surface brightness, b and c are more distinct, d and b could be split





## Hickson 91 in Pisces Austrinus

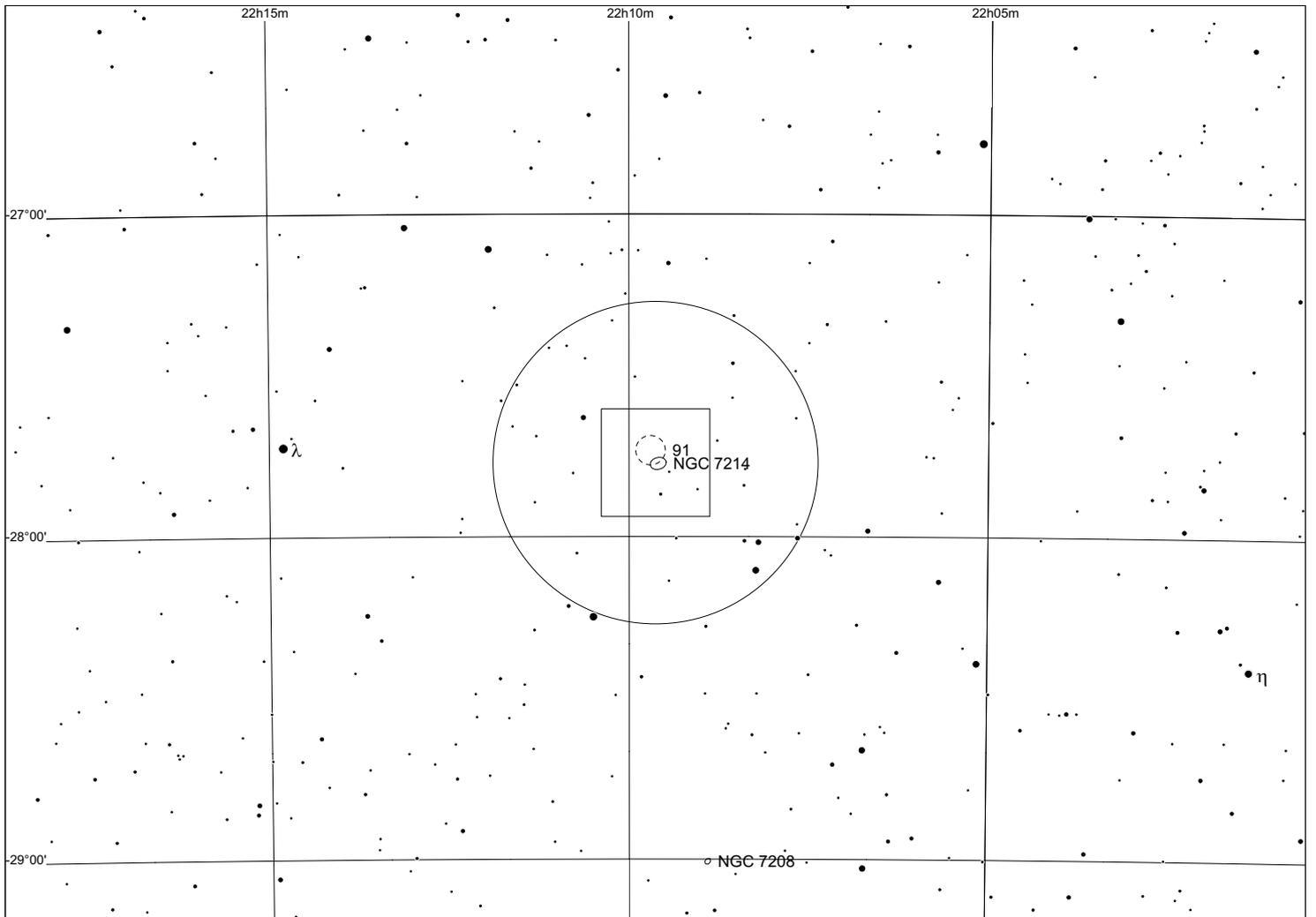
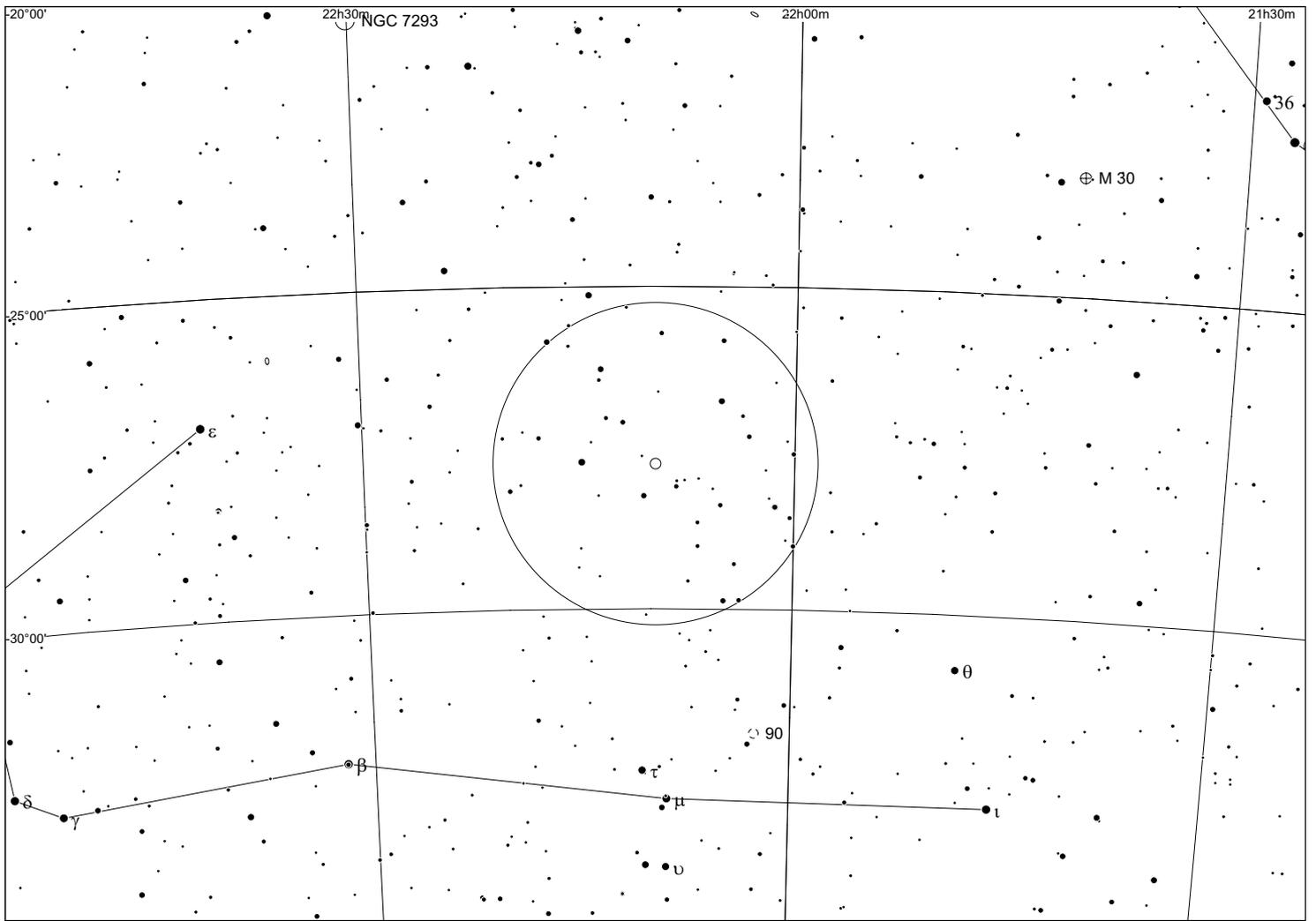


*HCG Const. coordinates (2000) bright. memb. mag*  
 91 PsA 22h 09m 13s -27° 47' NGC 7214 12.6

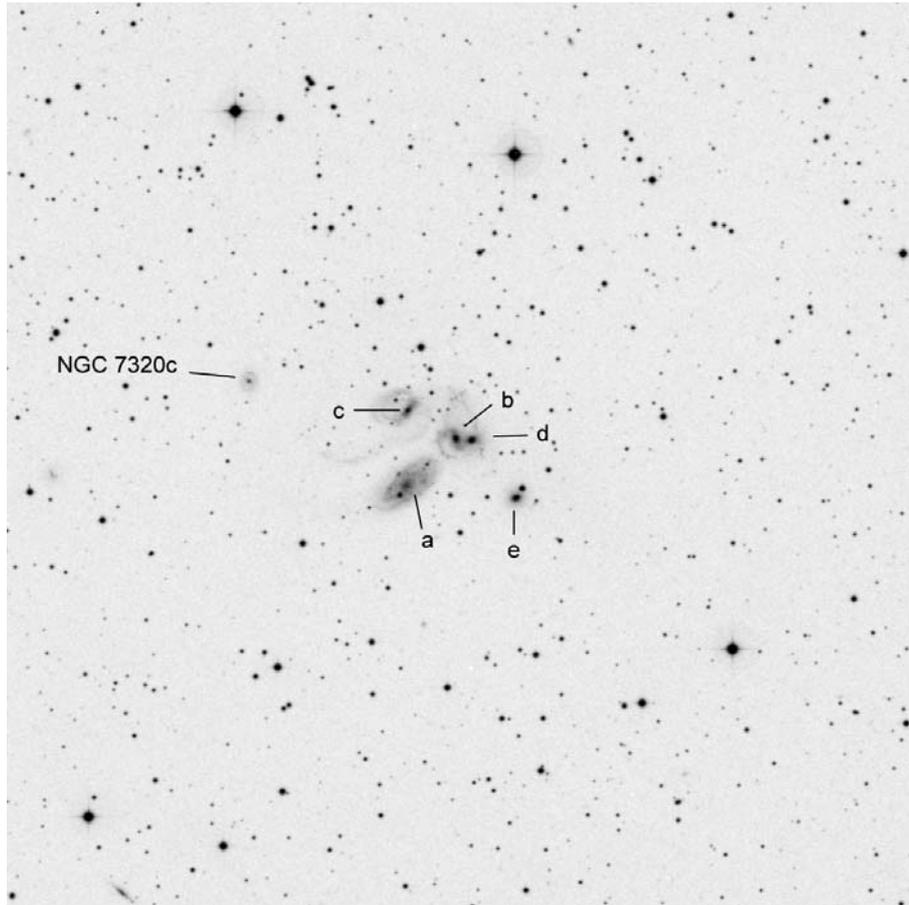
galaxy	ra (1950)	dec	a "	b "	type	T	B-I	C	D <sub>B</sub> "	R-I	C	D <sub>R</sub> "	B-R	B-T	B-TC	err	v <sub>r</sub> km/s	err km/s	C	names
91a	22 06 17.17	-28 03 19.9	43.20	35.00	SBC	7	13.57	1	77.20	12.43	1	94.90	1.09	13.00	12.62	0.13	6832	40	0	N7214
91b	22 06 26.02	-27 58 37.6	28.00	5.10	Sc	7	15.80	0	27.20	14.34	0	31.30	1.43	15.53	14.63	0.20	7196	66	0	
91c	22 06 23.70	-28 01 41.4	23.90	16.40	Sc	7	15.39	0	41.80	14.24	0	47.60	1.08	14.91	14.47	0.20	7319	49	0	
91d	22 06 18.12	-28 02 47.6	13.40	10.20	SBO	1	15.48	1	25.80	13.91	1	36.70	1.37	15.34	14.99	0.20	7195	41	0	

### Notes:

22"f/4 (08.09.2008): all four members were observed, a and d are easy to split, b appears as an elongated streak, c is the most difficult



## Hickson 92 in Pegasus



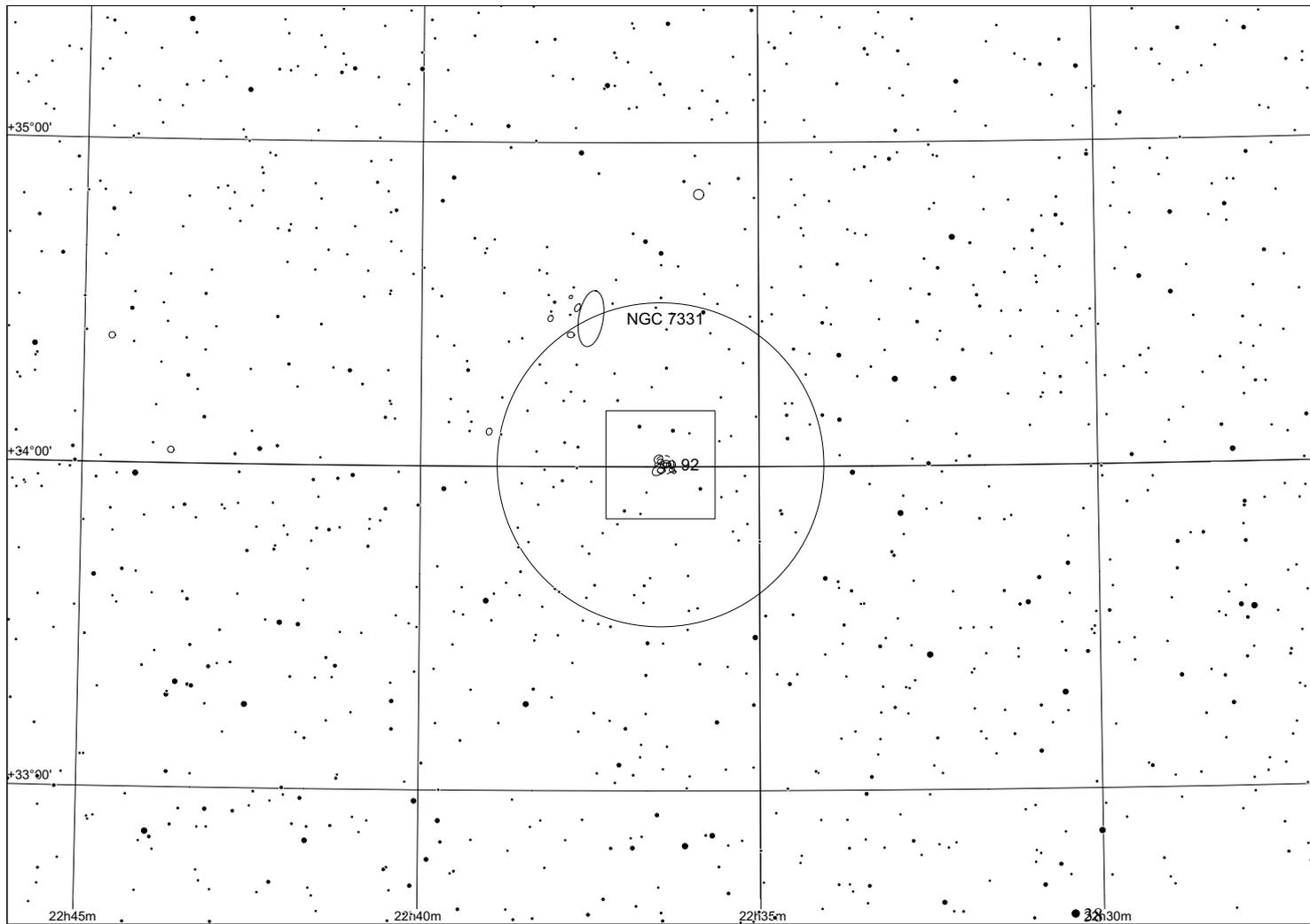
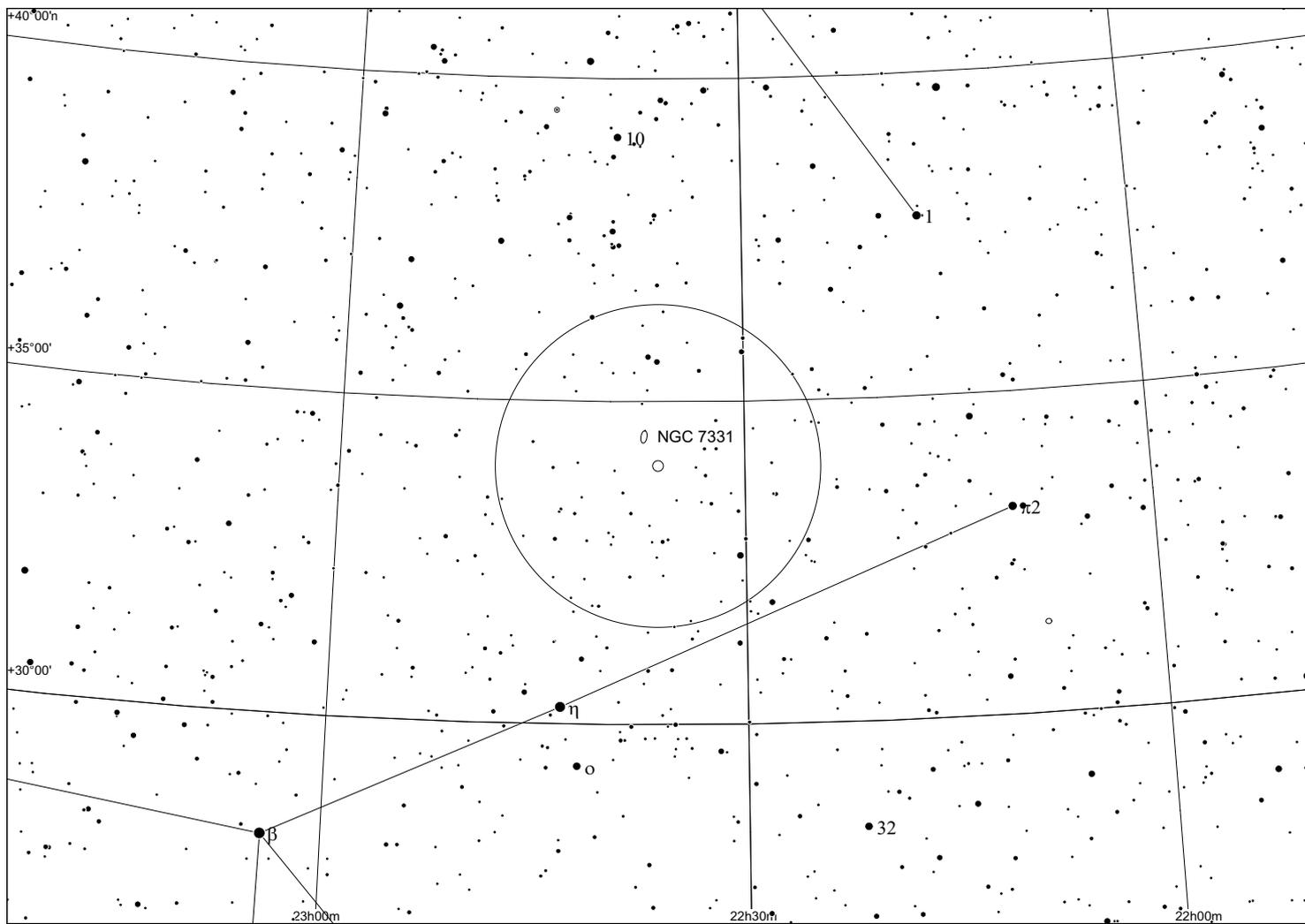
*HCG Const. coordinates (2000) bright. memb. mag*  
 92 Peg 22h 36m 01s +33° 58' NGC 7320 12.5 Stephan's  
 Quintet

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		
92a	22 33 45.95	+33 41 20.6	69.80	44.20	Sd	9	13.47	1	84.10	12.38	1	86.40	1.09	13.28	12.53	0.09	786	20	0	N7320,
U12101																				
92b	22 33 41.05	+33 42 23.7	66.60	32.90	Sbc	6	14.06	1	70.10	12.47	1	90.00	1.43	14.01	13.18	0.13	5774	24	0	
N7318B, U12100																				
92c	22 33 46.33	+33 42 57.4	52.80	41.50	Sbc	7	14.25	1	83.20	12.65	1	81.50	1.62	14.00	13.33	0.10	6764	28	0	N7319,
U12102																				
92d	22 33 39.40	+33 42 22.3	36.60	30.70	Sc	7	14.47	1	57.80	13.13	1	68.20	1.23	14.28	13.63	0.08	6630	23	0	
N7318A, U12099																				
92e	22 33 34.71	+33 41 07.0	22.90	21.20	E1	0	14.93	1	50.00	12.72	1	62.50	1.16	14.60	14.01	0.08	6599	26	0	N7317

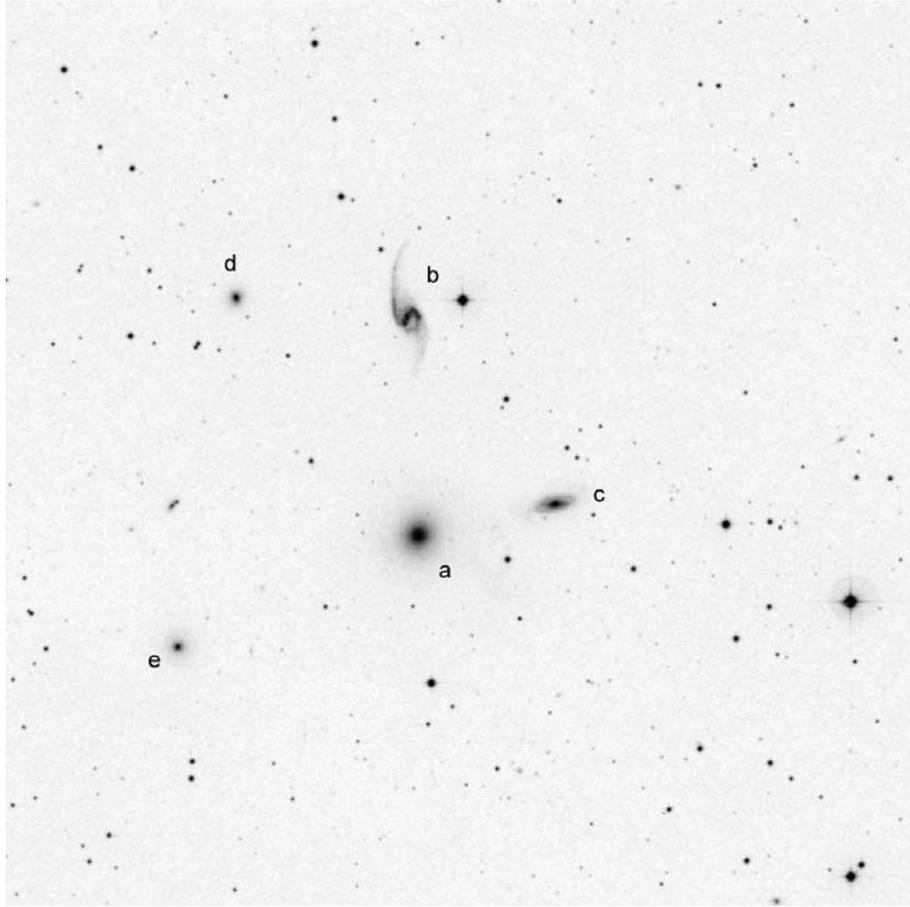
### Notes:

22" f/4: Famous Stephan's Quintet in Pegasus, near NGC 7331. All 5 can be seen, with b/d being the closest pair (more difficult to split in smaller scopes). A star is next to the nucleus of a and may be misidentified as the nucleus. I have not tried yet the sixth galaxy, NGC 7320c.

All five members were also identified with my 14". With 8" the group was detected as a fleeting glow only.



# Hickson 93 in Pegasus

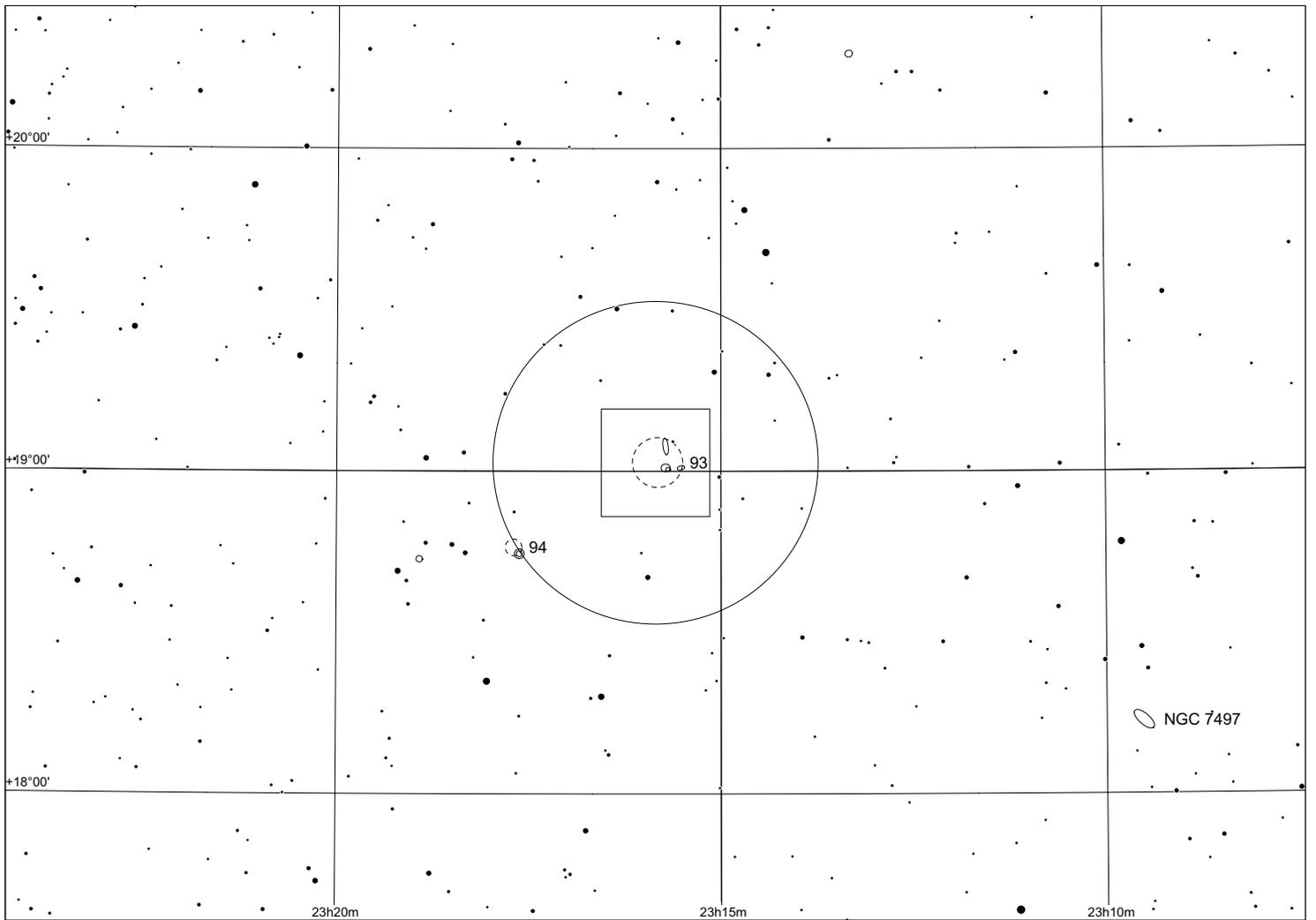
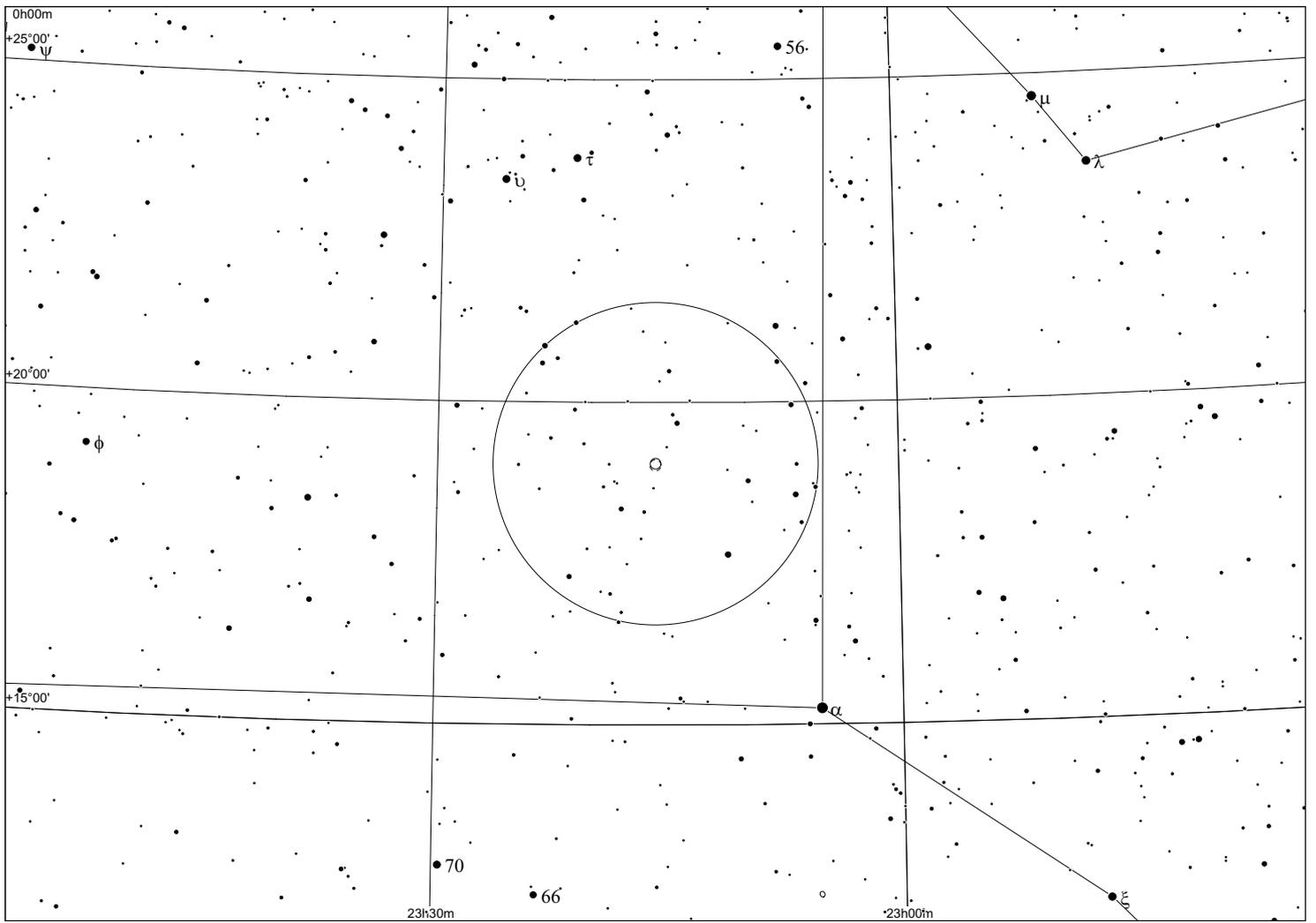


*HCG Const. coordinates (2000) bright. memb. mag*  
 93 Peg 23h 15m 24s +18° 59' NGC 7550 12.6

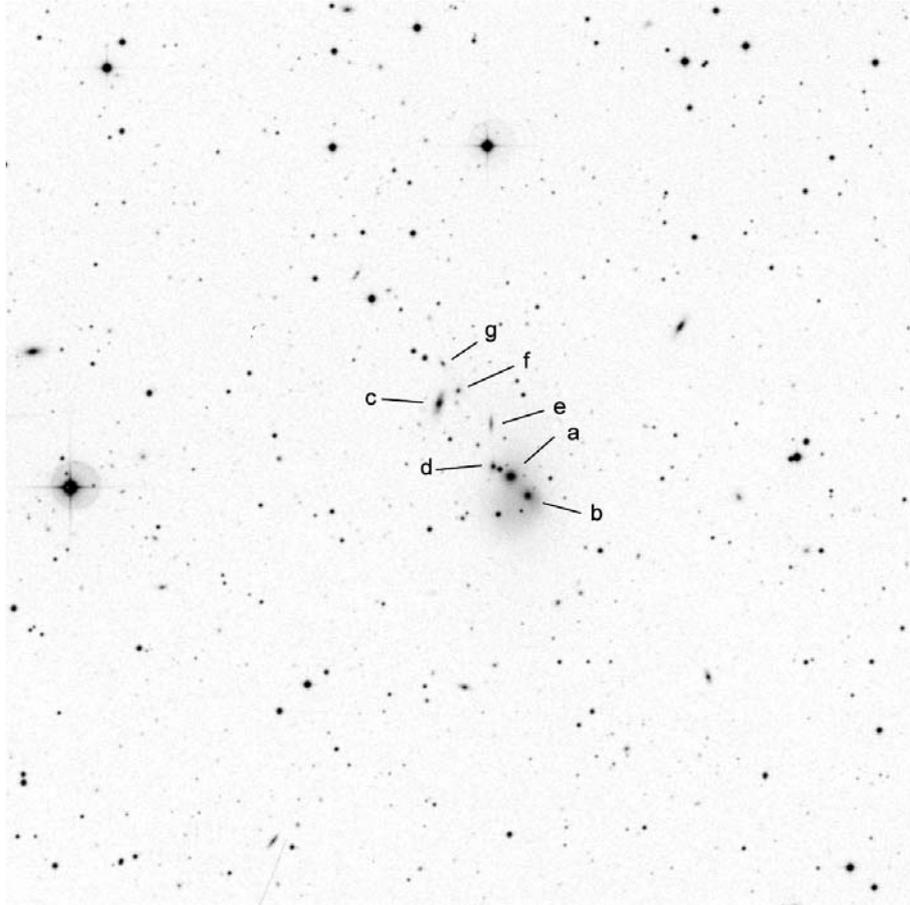
galaxy	ra (1950)	dec	a	b	type	T	B-I	C	D <sub>B</sub>	R-I	C	D <sub>R</sub>	B-R	B <sub>T</sub>	B <sub>TC</sub>	err	v <sub>r</sub>	err	C	names
			"	"					"			"					km/s	km/s		
93a U12456	23 12 46.80	+18 41 19.2	36.20	33.40	E1	0	13.48	0	95.90	11.85	0	104.70	1.60	12.95	12.61	0.10	5140	31	0	N7550,
93b U12457	23 12 48.00	+18 46 07.6	57.40	19.50	SBd	9	14.13	0	64.10	12.79	0	72.20	1.30	13.90	13.18	0.10	4672	38	0	N7594,
93c U12453	23 12 34.43	+18 42 01.3	35.90	15.90	SBa	3	14.87	0	41.40	12.92	0	68.30	1.79	14.56	13.94	0.10	5132	33	0	N7547,
93d	23 13 03.91	+18 46 30.1	16.90	16.50	SB0	1	15.85	0	27.60	13.90	0	41.30	1.83	15.61	15.27	0.10	5173	34	0	
93e	23 13 09.07	+18 38 47.9	27.10	21.80	Sa	3	16.02	0	30.10	13.85	0	55.00	1.87	15.82	15.40	0.10	8881	39	0	

## Notes:

22" f/4: very nice group, all five galaxies observed; a, b, and c with direct vision, d and e with averted vision, with e being the weakest.



# Hickson 94 in Pegasus

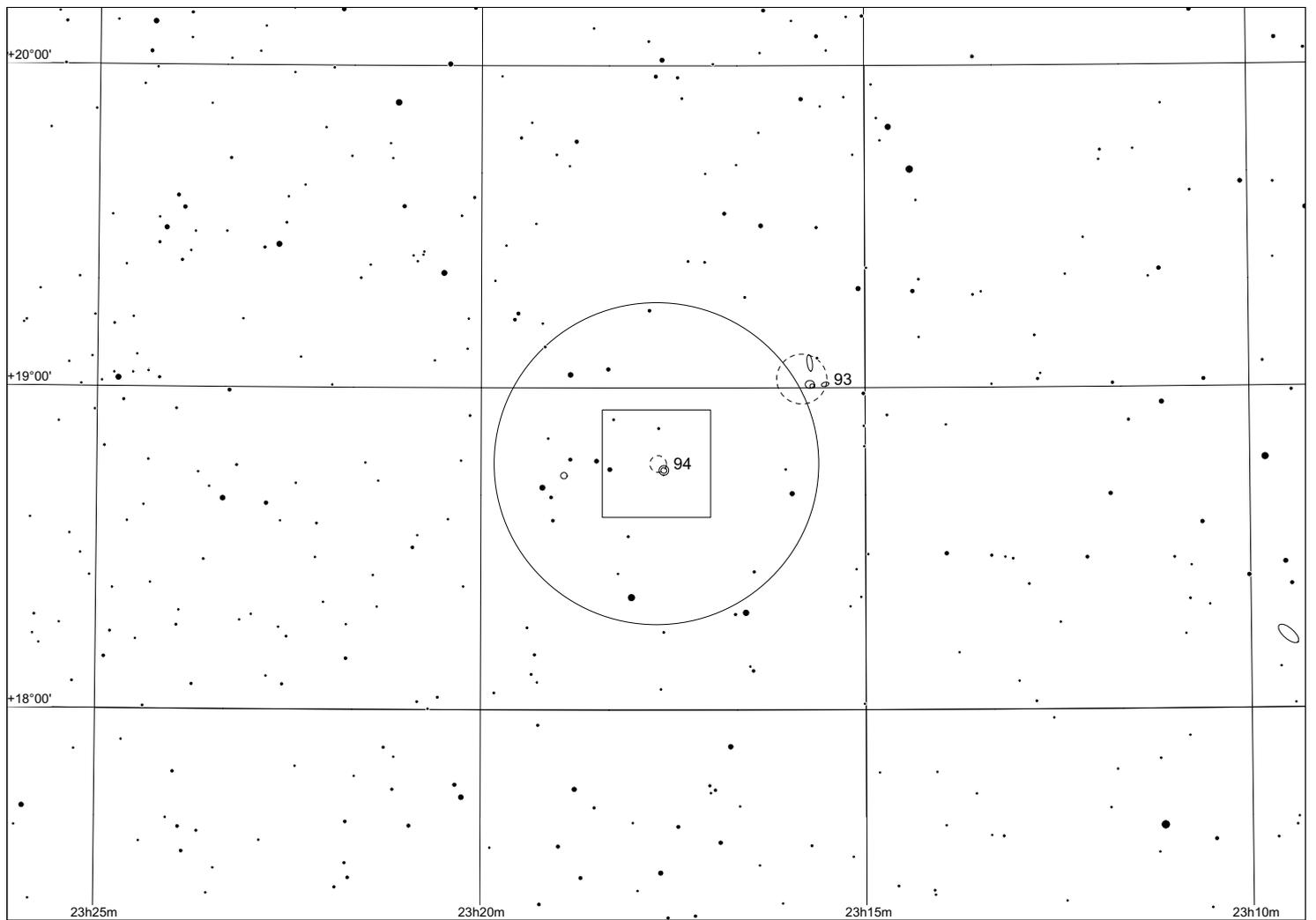
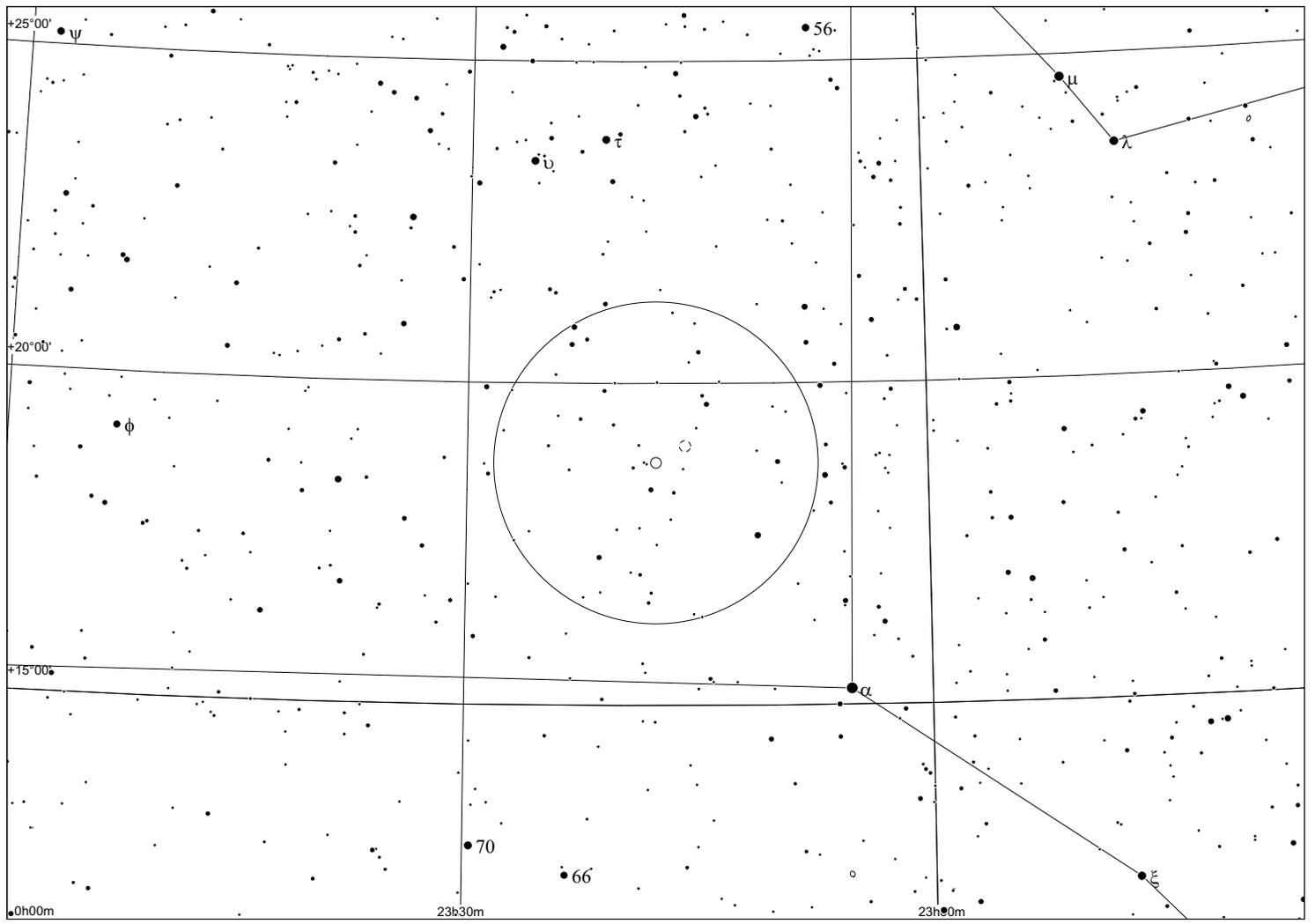


HCG Const. coordinates (2000) bright. memb. mag  
 94 Peg 23h 17m 17s +18° 43' NGC 7578 13.9

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 km/s	err km/s	C	names
94a	23 14 44.00	+18 26 04.4	25.90	23.90	E1	0	14.66	1	63.70	12.93	1	73.30	1.67	14.25	13.91	0.20	12040	42	0	
N7578B, U12477																				
94b	23 14 42.50	+18 25 39.5	17.30	12.80	E3	0	15.28	1	50.50	13.54	1	61.30	1.63	14.87	14.53	0.20	11974	37	0	
N7578A, U12478																				
94c	23 14 50.82	+18 27 39.7	20.10	8.60	S0	1	16.38	0	22.40	14.43	0	32.60	1.83	16.06	15.58	0.10	12120	52	0	
94d	23 14 45.75	+18 26 18.7	9.30	5.80	S0	1	16.52	1	26.70	14.80	1	31.40	1.65	16.21	15.79	0.20	13009	42	0	
94e	23 14 46.00	+18 27 12.1	14.80	3.70	Sd	9	18.15	0	12.10	16.37	0	15.80	1.66	17.72	16.90	0.20	12250	103	0	
94f	23 14 49.10	+18 27 57.0	7.00	5.00	S0	1	18.16	0	11.00	16.22	0	17.20	1.76	18.18	17.78	0.10	12920	108	0	
94g	23 14 50.51	+18 28 32.6	5.90	3.30	S0	1	18.57	0	8.40	16.64	0	13.10	1.76	18.40	17.96	0.10	13200	114	0	

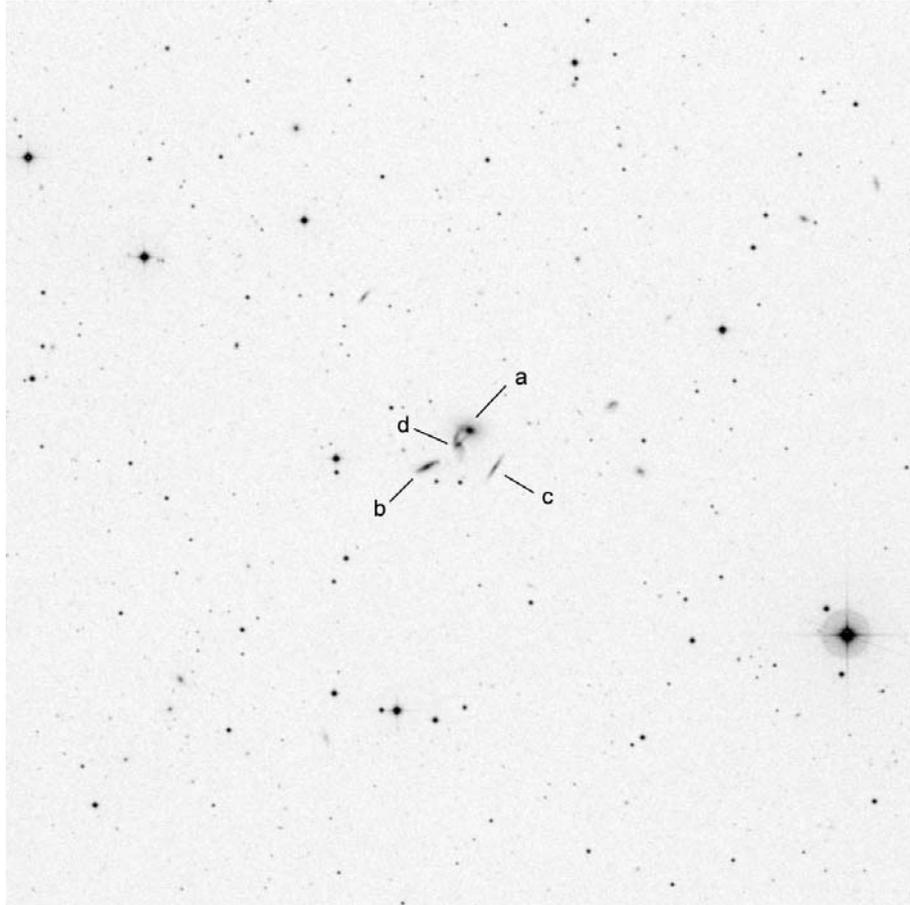
## Notes:

22" f/4: with 7 mm, a and b easy, but relatively close pair; d not seen, too close to star; c suspected, but not definitely





# Hickson 95 in Pegasus

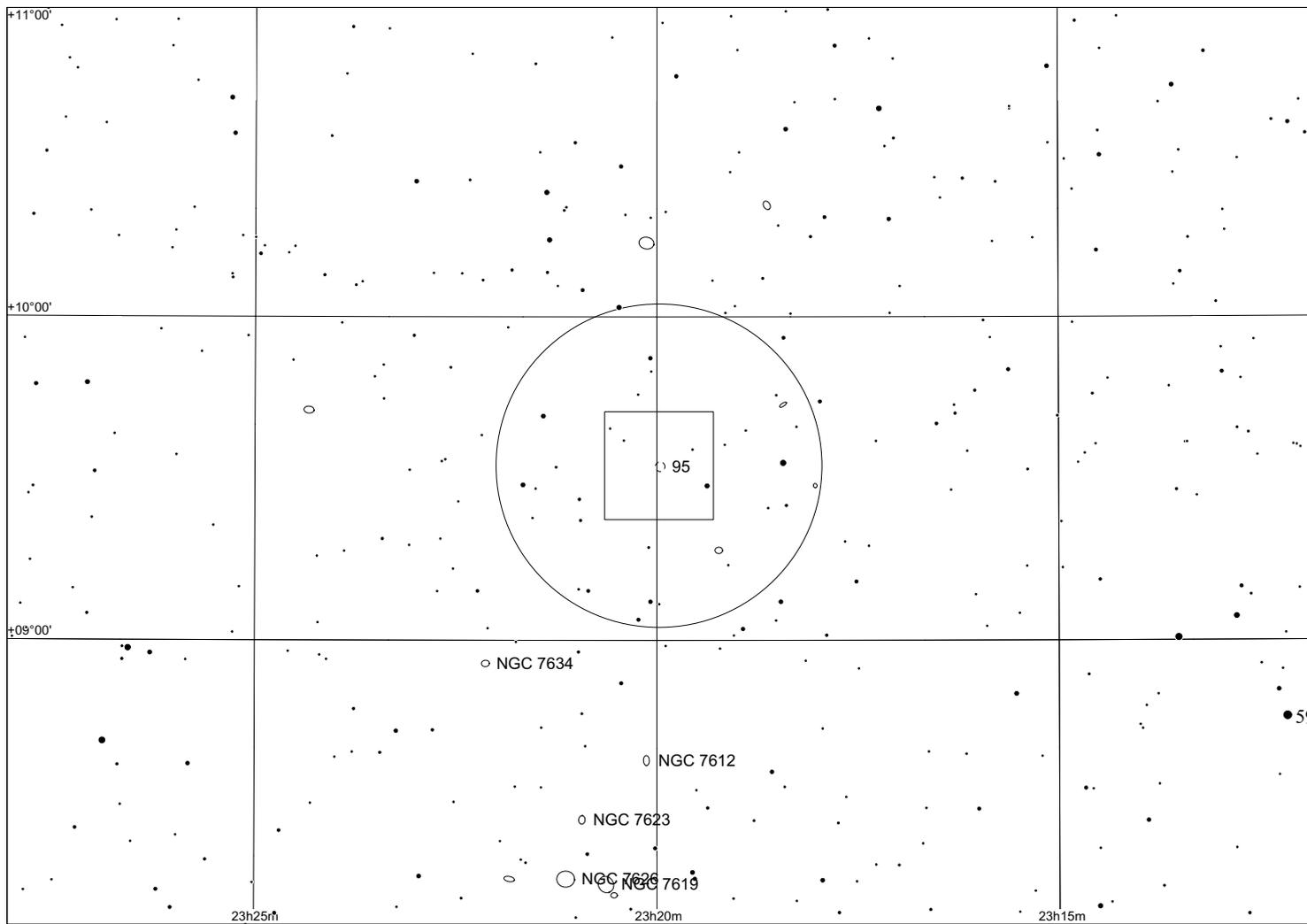
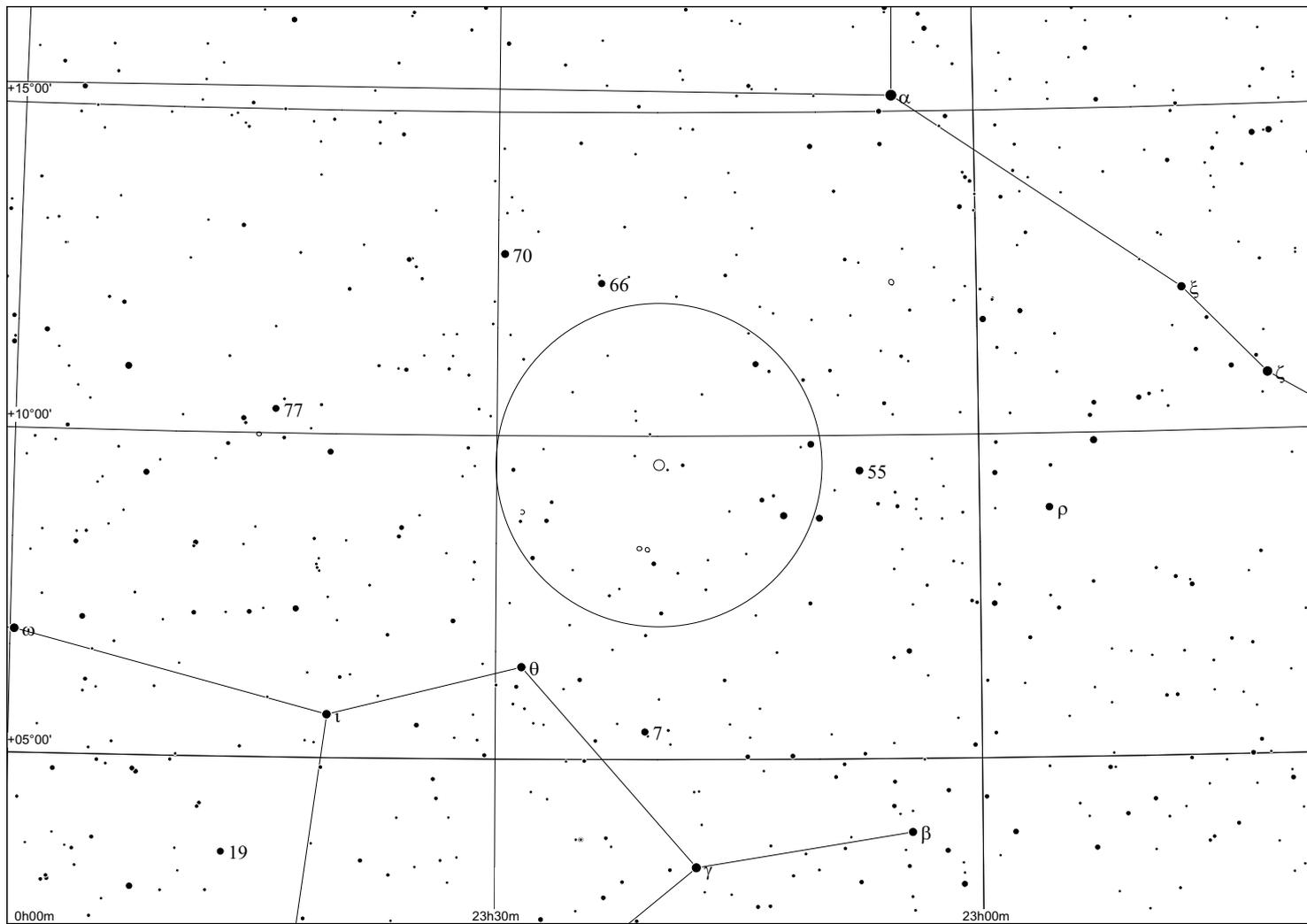


*HCG Const. coordinates (2000) bright. memb. mag*  
 95 Peg 23h 19m 32s +09° 30' NGC 7609 14.4

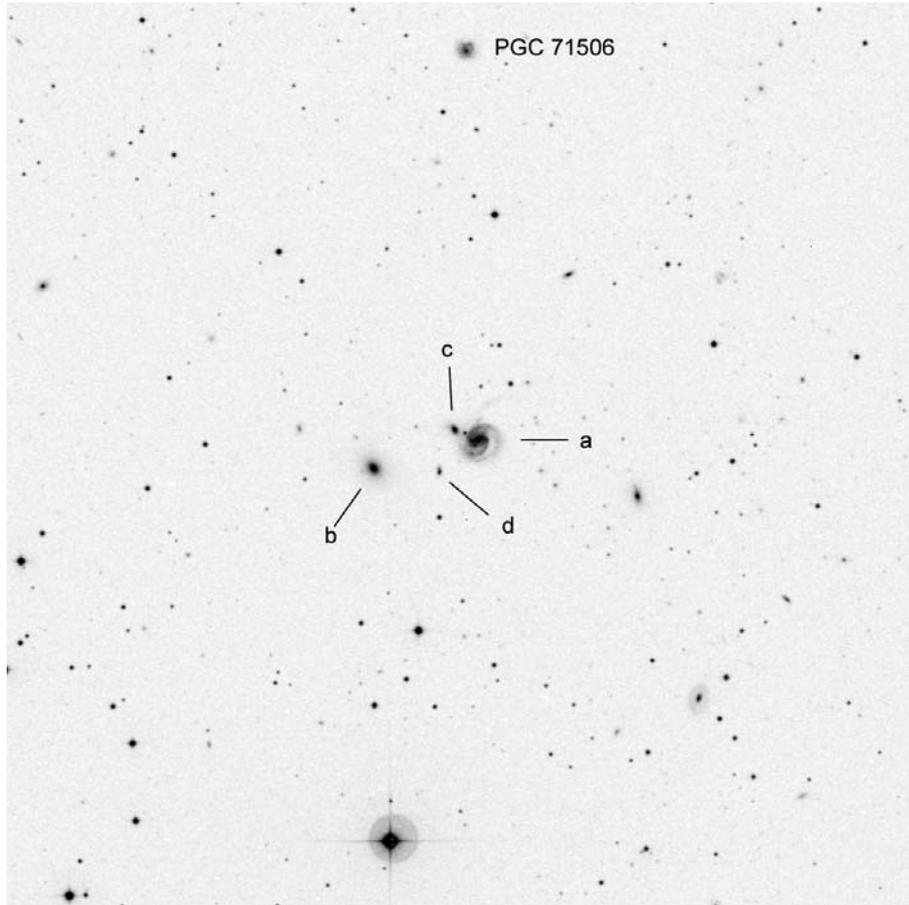
galaxy	ra (1950)	dec	a	b	type	T	B-I	C	D-B	R-I	C	D-R	B-R	B-T	B-TC	err	v_r	err	C	names
			"	"					"			"					km/s	km/s		
95a	23 16 58.17	+09 14 02.9	26.30	19.50	E3	0	15.23	1	37.30	13.43	1	49.10	1.70	14.71	14.42	0.20	11888	45	0	N7609
95b	23 17 02.04	+09 13 16.0	20.70	8.90	Scd	8	16.12	0	25.10	14.63	0	29.90	1.44	15.93	15.34	0.10	11637	48	0	
95c	23 16 59.31	+09 13 44.2	28.40	9.40	Sm	11	16.38	1	26.30	14.66	1	37.20	1.51	15.93	15.20	0.20	11562	40	0	
95d	23 16 56.13	+09 13 14.0	22.10	4.40	Sc	7	17.23	0	16.90	15.37	0	22.00	1.77	17.00	16.14	0.10	12350	97	0	

## Notes:

22" f/4: a/d as single knot, easy; b difficult, sometimes with indirect vision; c suspected, not definitely seen.



# Hickson 96 in Pegasus

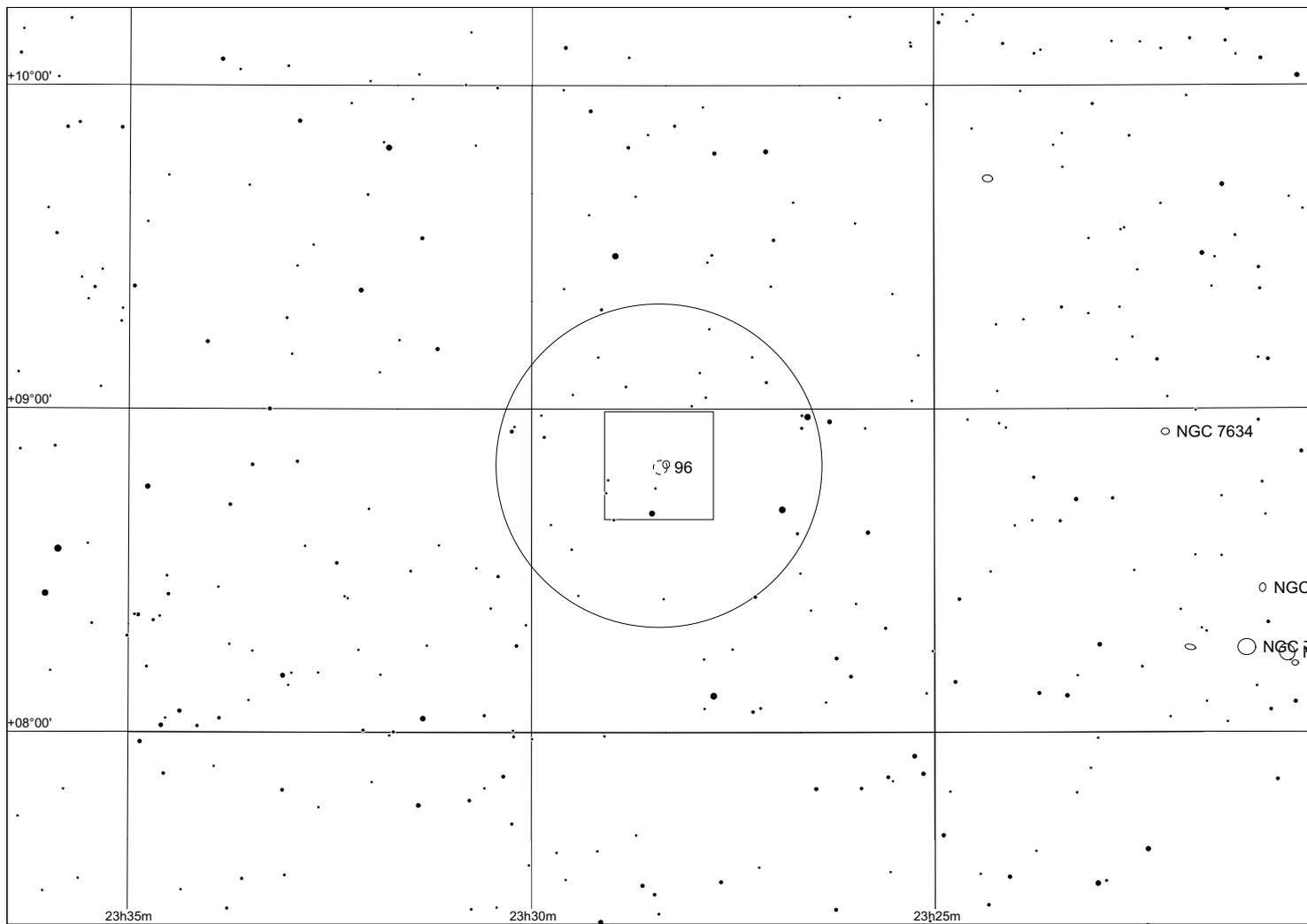
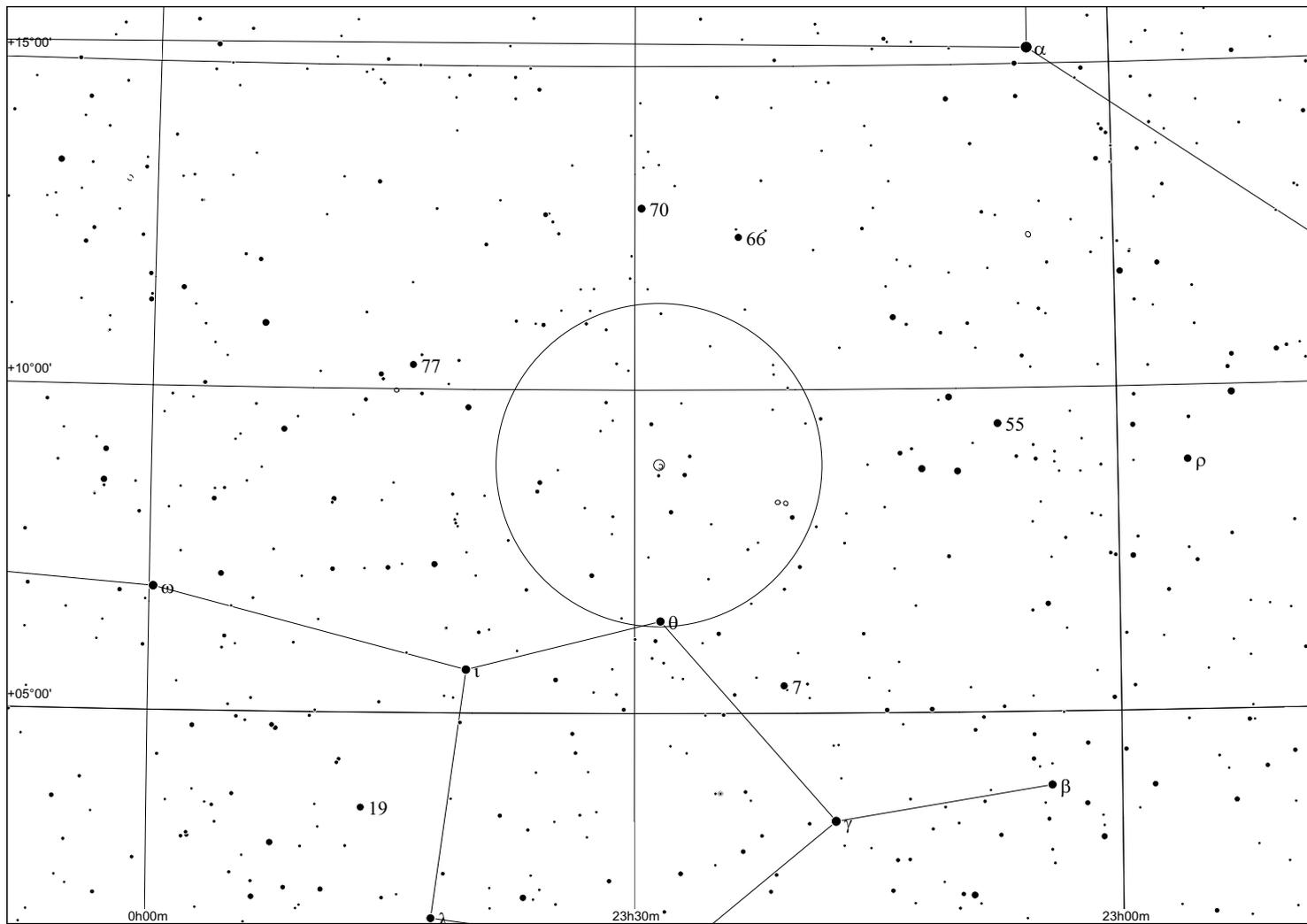


HCG Const. coordinates (2000) bright. memb. mag  
 96 Peg 23h 27m 59s +08° 46' NGC 7674 13.5

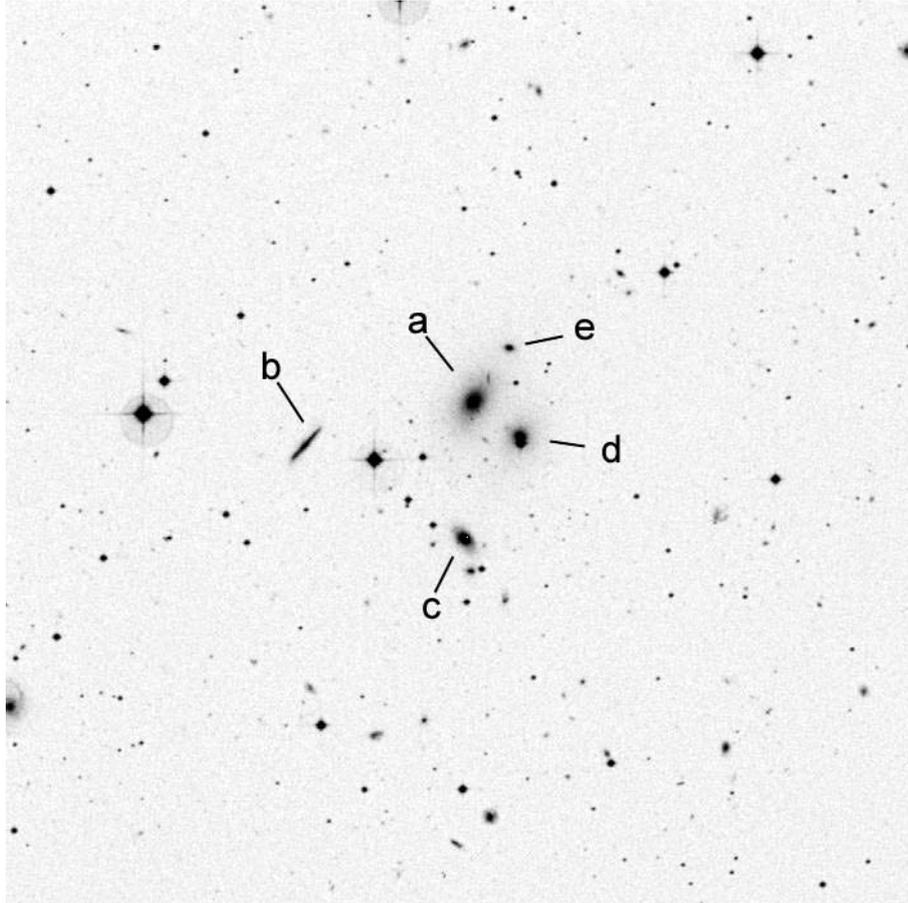
galaxy	ra (1950)	dec	a	b	type	T	B-I	C	D-B	R-I	C	D-R	B-R	B-T	B-TC	err	v <sub>r</sub>	err	C	names
			"	"					"			"					km/s	km/s		
96a	23 25 24.61	+08 30 09.9	33.30	30.60	Sc	7	14.01	1	61.60	12.64	1	73.80	1.33	13.84	13.53	0.20	8698	25	0	N7674,
Mk533, U12608																				
96b	23 25 33.75	+08 29 34.5	18.70	14.10	E2	0	15.04	0	39.70	13.20	0	60.70	1.68	14.77	14.49	0.10	8616	42	0	
96c	23 25 26.52	+08 30 26.4	12.20	8.80	Sa	3	16.10	1	19.80	14.38	1	26.10	1.61	16.09	15.69	0.20	8753	35	0	
96d	23 25 27.90	+08 29 30.7	6.60	3.70	Im	12	17.13	0	13.20	16.10	0	15.90	0.97	17.10	16.56	0.10	8975	57	0	

## Notes:

22" f/4: with 7 mm, a and b easy, c attached to a; d not seen



## Hickson 97 in Pisces

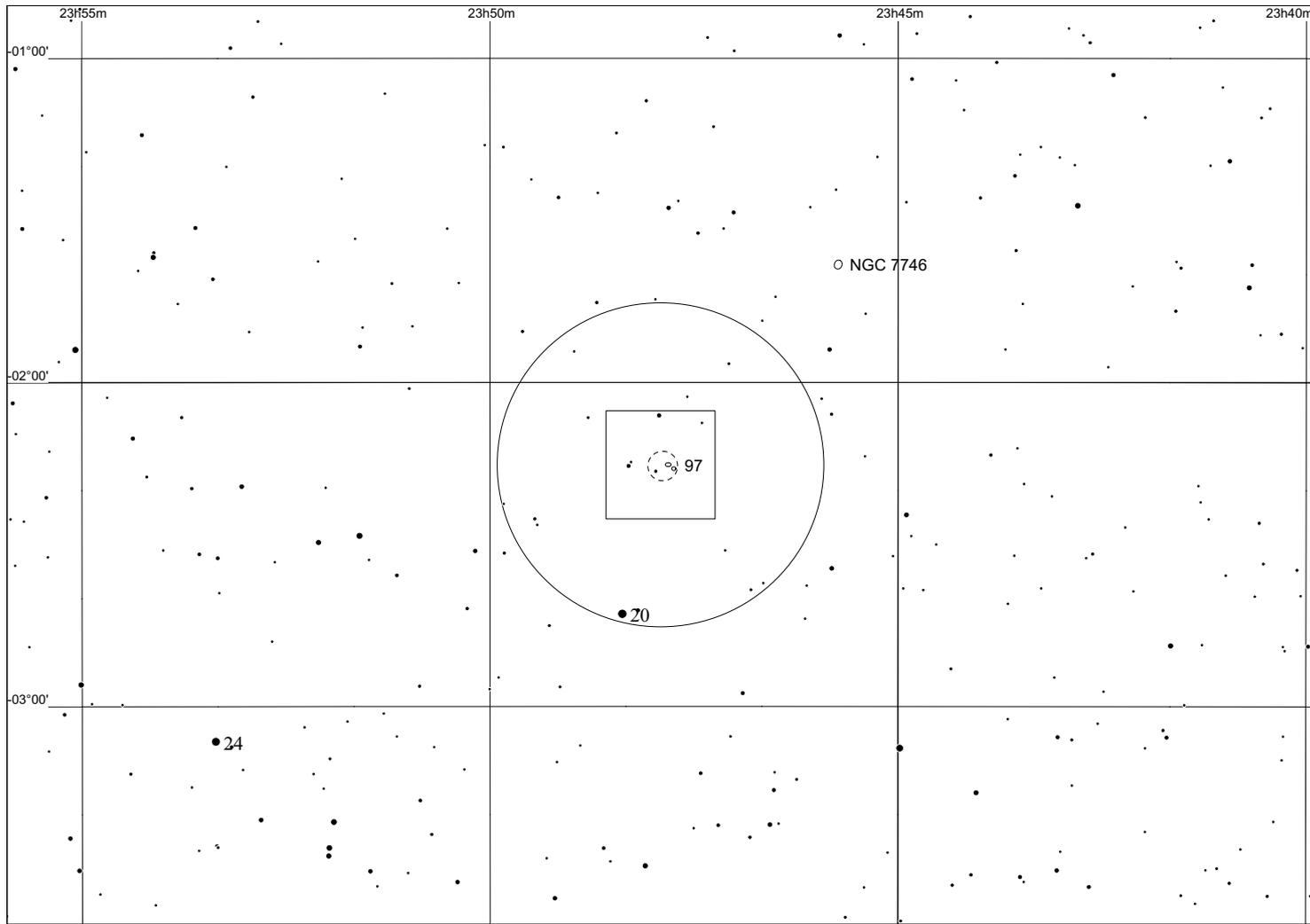
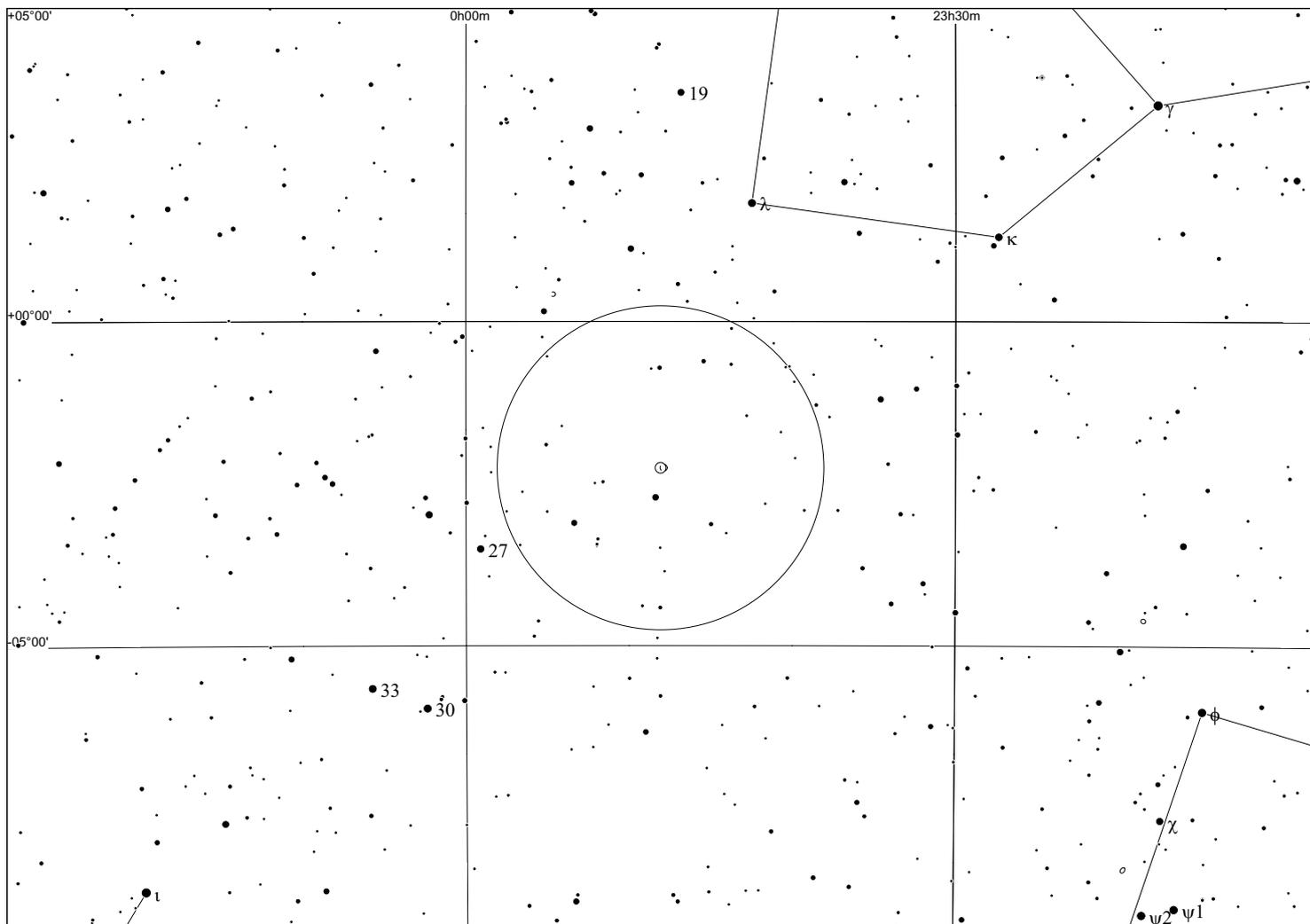


*HCG Const. coordinates (2000) bright. memb. mag*  
 97 Psc 23h 47m 27s -02° 18' IC 5357 14.2

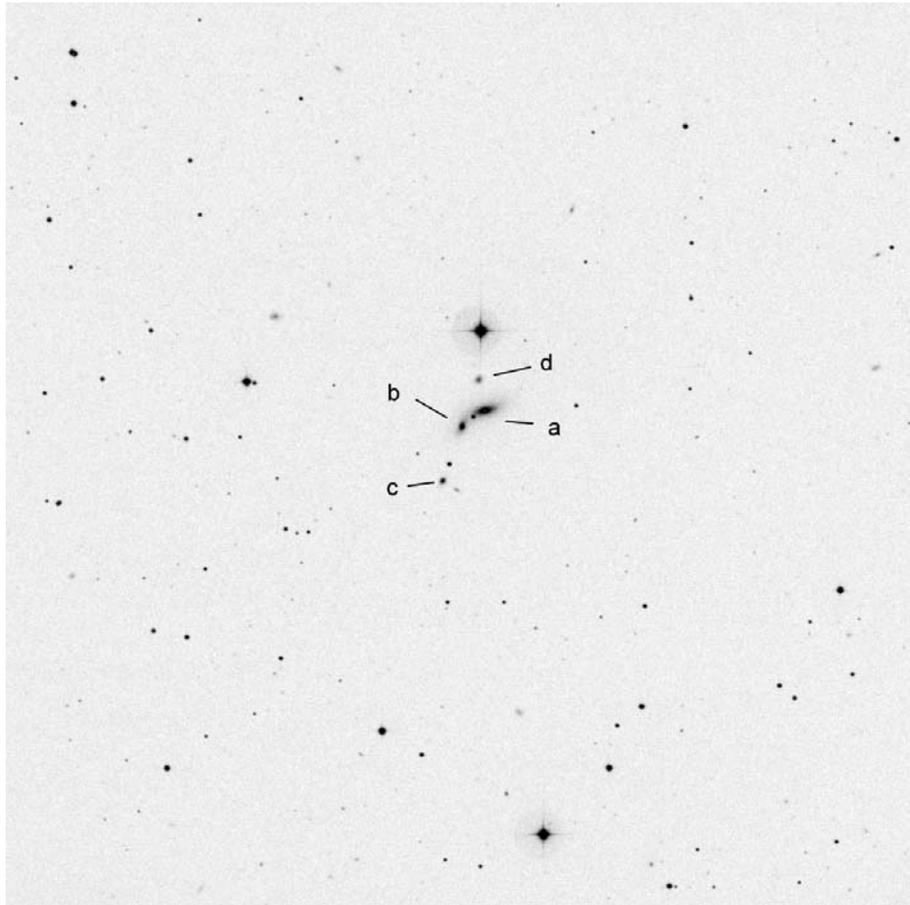
galaxy	ra (1950)	dec	a "	b "	type	T	B-I	C	D-B "	R-I	C	D-R "	B-R	B-T	B-TC	err	v_r km/s	err km/s	C	names
97a	23 44 49.08	-02 34 43.9	45.90	25.00	E5	0	14.27	1	68.90	12.75	1	115.80	1.76	14.41	14.16	0.20	6910	25	0	I5357
97b	23 45 03.87	-02 35 42.3	34.10	9.10	Sc	7	15.86	0	30.20	14.17	0	39.70	1.57	15.54	14.83	0.10	6940	72	0	I5359
97c	23 44 49.78	-02 37 45.6	23.30	14.80	Sa	3	15.11	0	35.50	13.51	0	48.90	1.51	14.95	14.54	0.10	5995	35	0	I5356
97d	23 44 44.94	-02 35 28.3	28.30	24.70	E1	0	14.95	0	41.90	12.66	1	105.40	1.50	14.70	14.45	0.10	6239	33	0	I5351
97e	23 44 45.87	-02 33 32.1	11.60	9.80	S0a	2	16.75	1	17.10	14.81	1	30.10	1.67	16.61	16.31	0.20	6579	45	0	

### Notes:

22" f/4: a, c, and d are prominent and can be seen with direct vision. b is much more difficult and can only be glimpsed with indirect vision.



## Hickson 98 in Pisces

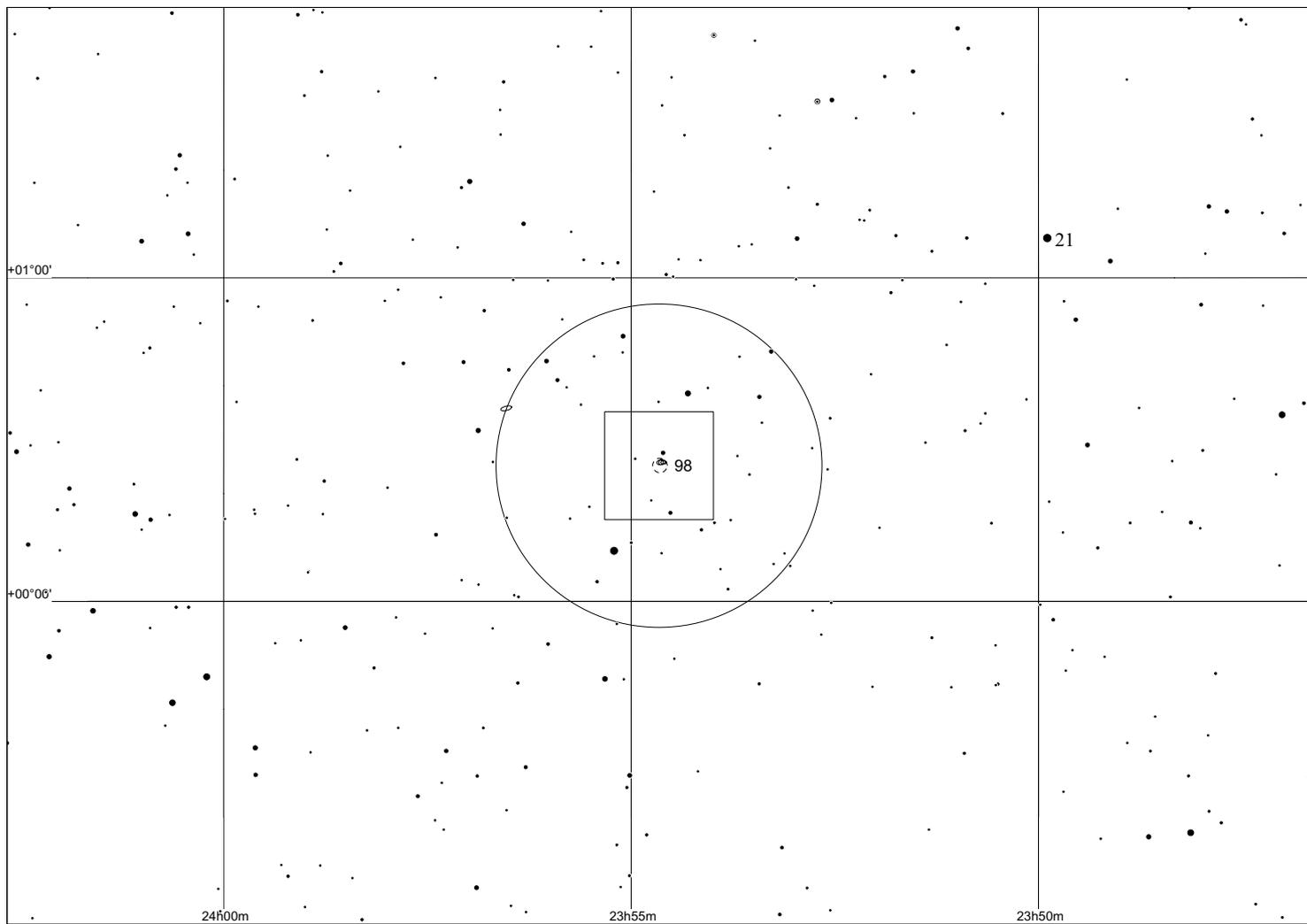
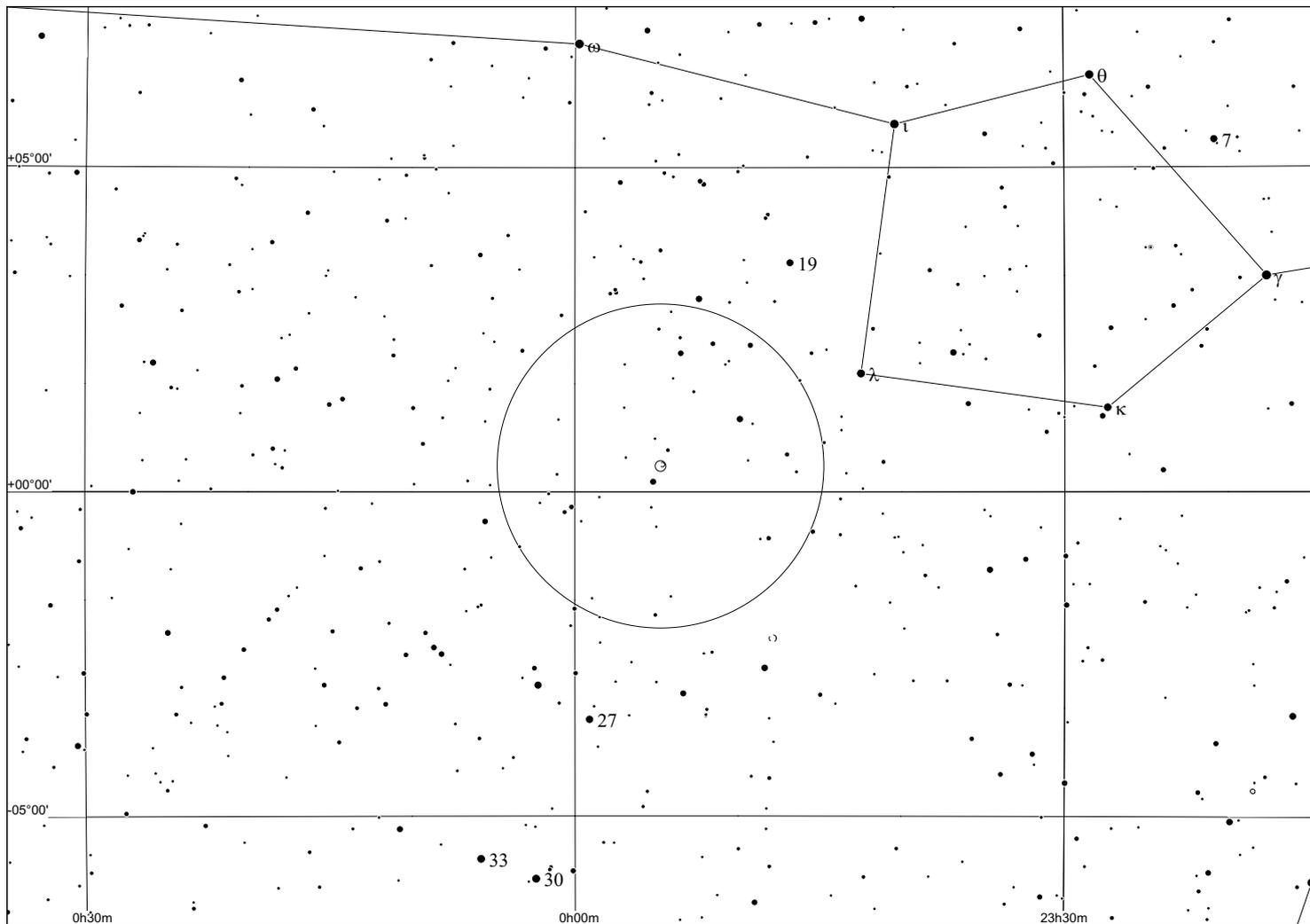


*HCG Const. coordinates (2000) bright. memb. mag*  
 98 Psc 23h 54m 13s +00° 22' NGC 7783 13.7

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		
98a	23 51 36.36	+00 06 16.3	45.80	22.10	SB0	1	14.14	1	65.40	12.43	1	85.30	1.60	14.04	13.67	0.20	7855	20	0	
N7783A, U12837a																				
98b	23 51 38.49	+00 05 54.1	21.30	15.40	S0	1	15.16	1	33.90	13.41	1	49.80	1.58	15.99	15.69	0.20	7959	26	0	
N7783B, U12837b																				
98c	23 51 40.14	+00 04 43.4	8.70	6.70	E2	0	16.59	0	15.40	14.85	0	25.40	1.62	16.42	16.17	0.10	8145	33	0	
98d	23 51 36.98	+00 06 56.9	8.20	8.20	Sc	7	16.94	0	15.30	15.93	0	16.40	1.00	17.46	17.21	0.10	14950	67	0	

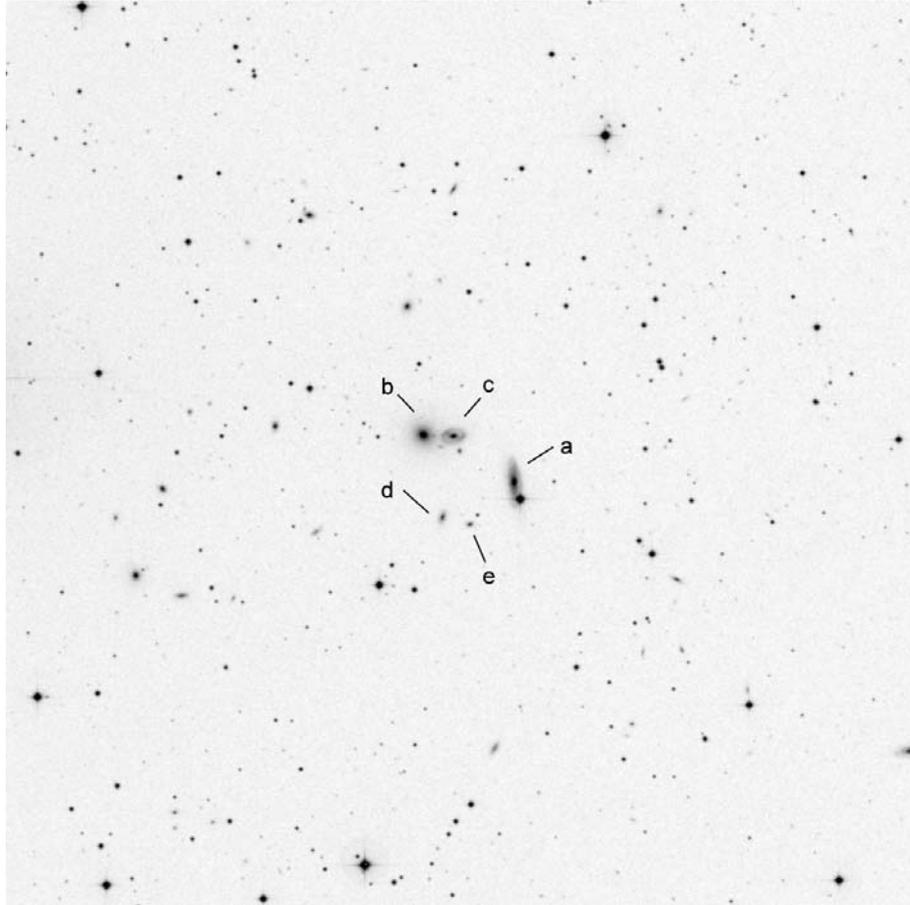
### Notes:

22" f/4: a and b bright, symmetrically arranged around star, c relatively easy with indirect vision, d not seen





# Hickson 99 in Pegasus

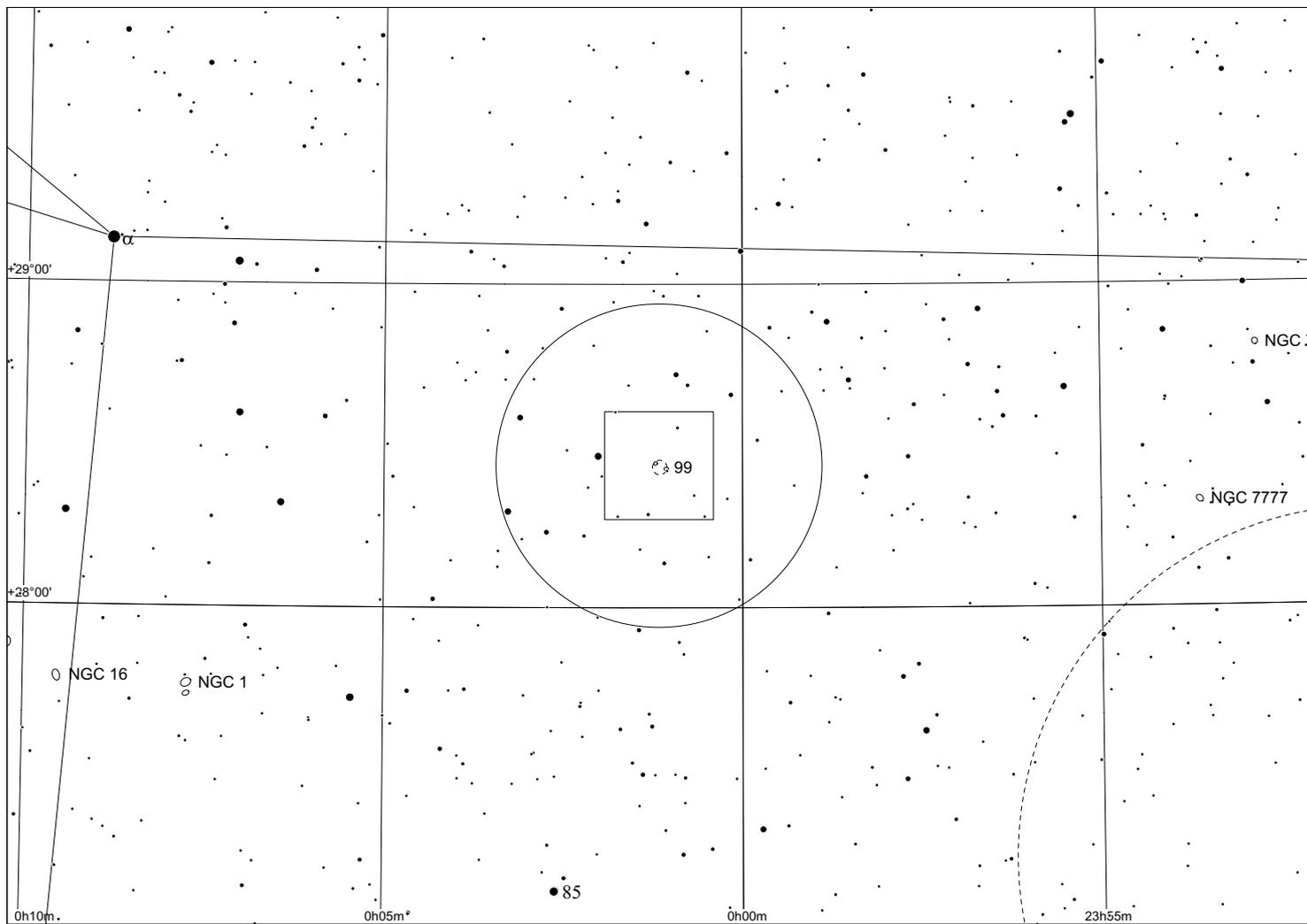
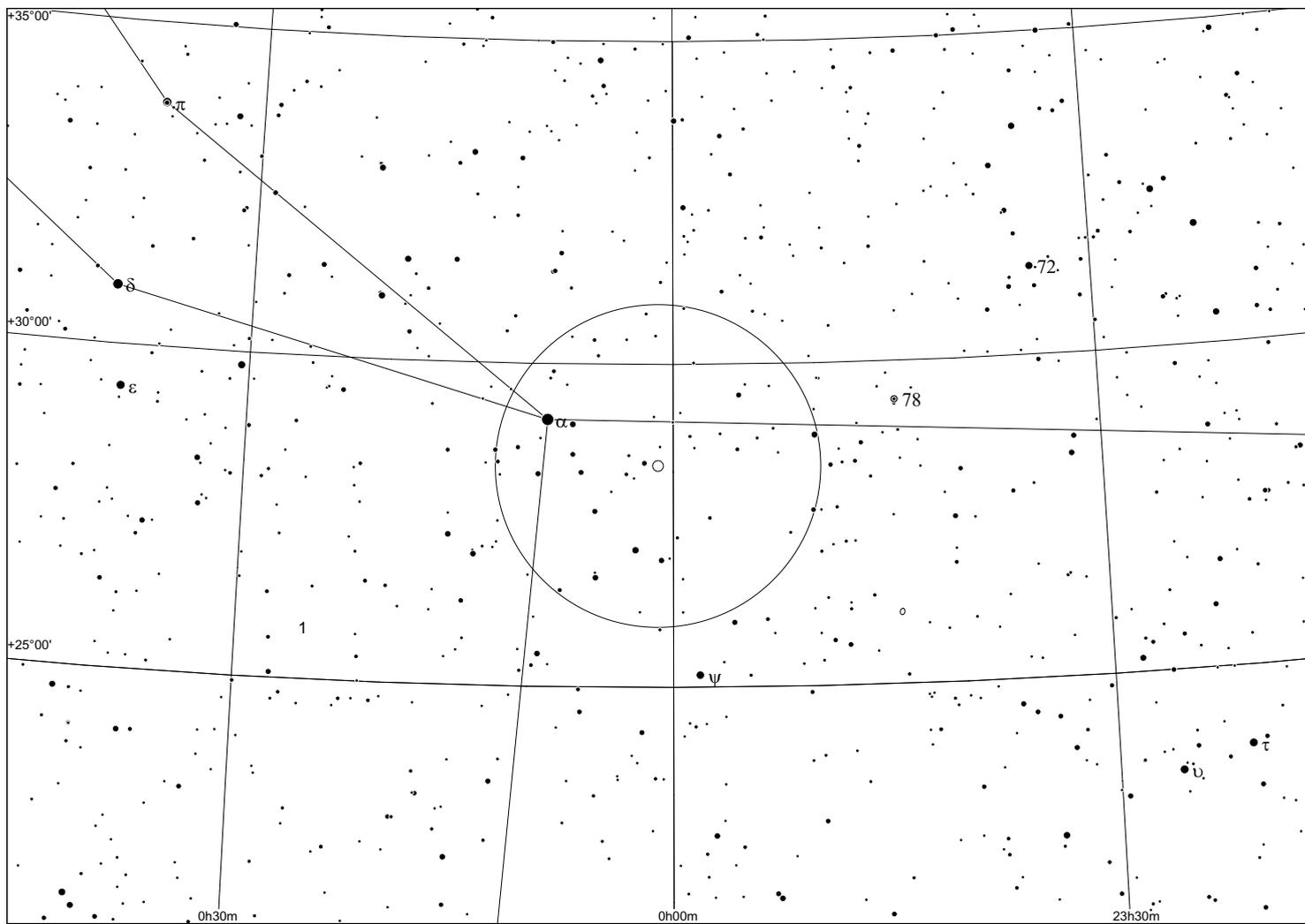


HCG Const. coordinates (2000) bright. memb. mag  
 99 Peg 00h 00m 44s +28° 23' 14.0

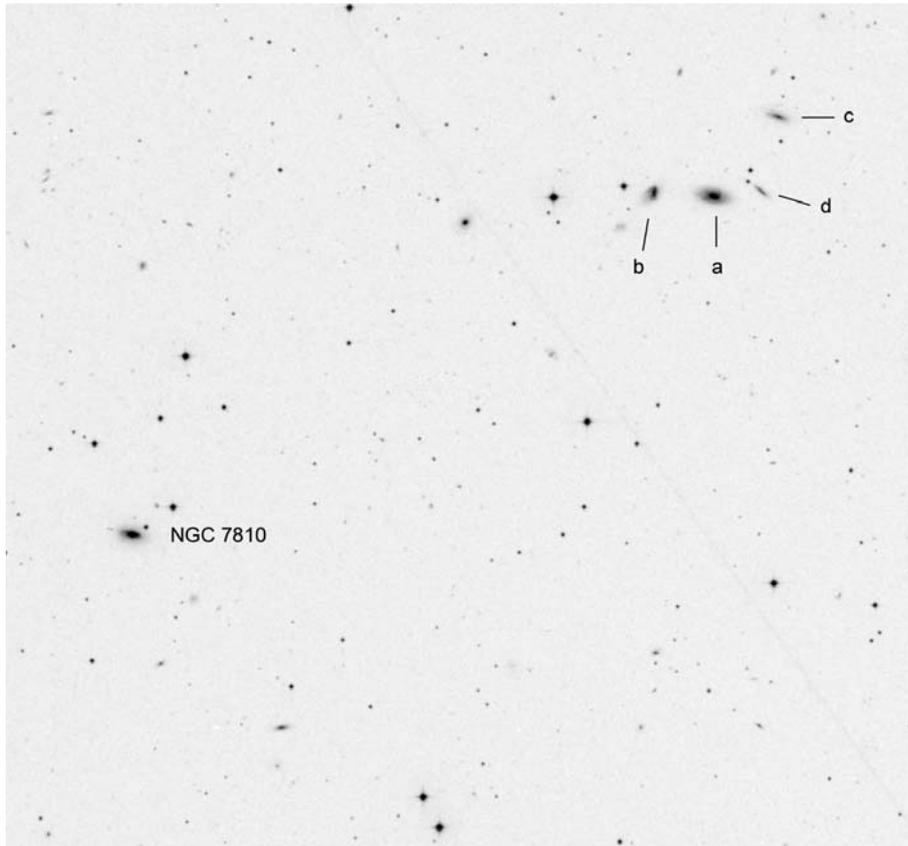
galaxy	ra (1950)	dec	a	b	type	T	B_I	C	D_B	R_I	C	D_R	B-R	B_T	B_TC	err	v_r	err	C	names
			"	"					"			"					km/s	km/s		
99a	23 58 04.56	+28 06 23.9	34.70	15.20	Sa	3	14.98	1	42.60	13.25	1	48.20	1.70	14.62	13.97	0.20	8705	20	0	U12897
99b	23 58 13.50	+28 07 24.7	24.80	22.10	E2	0	15.00	1	40.00	13.05	1	64.00	1.76	14.39	14.03	0.20	8846	30	0	U12899
99c	23 58 10.60	+28 07 23.0	9.40	6.10	SB0a	2	15.85	1	35.90	13.90	1	54.30	1.76	15.36	14.87	0.20	8216	34	0	
99d	23 58 11.69	+28 05 35.9	21.50	13.90	S0a	2	17.44	0	15.80	15.65	0	21.30	1.67	17.22	16.73	0.10	8643	82	0	
99e	23 58 08.92	+28 05 27.2	11.30	8.90	S0	1	17.84	0	11.10	16.07	0	16.00	1.65	17.68	17.28	0.10	9007	96	0	

## Notes:

22" f/4: a, b, and c are small but prominent and easy to observe. d and e were not seen.



# Hickson 100 in Pegasus



*HCG Const. coordinates (2000) bright. memb. mag*  
 100 Peg 00h 01m 21s +13° 08' NGC 7803 13.7

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		
100a	23 58 46.33	+12 49 57.2	33.20	19.00	Sb	5	14.20	0	48.90	12.62	0	61.70	1.53	14.13	13.66	0.10	5300	27	0	N7803,
U12906																				
100b	23 58 52.35	+12 50 03.8	17.30	15.70	Sm	11	15.40	0	33.00	14.28	0	38.80	1.05	15.21	14.90	0.10	5253	37	0	Mk0934
100c	23 58 39.75	+12 51 56.1	22.10	9.60	Sbc	7	16.01	0	31.40	15.46	0	31.30	1.23	15.78	15.22	0.10	5461	38	0	
100d	23 58 41.00	+12 50 03.3	16.00	6.10	Scd	8	16.97	0	19.30	14.67	0	40.20	1.18	16.58	15.97	0.10	0	0	0	

## Notes:

- 22" f/4:
- a distinct blob with indirect vision
  - b relatively large, but very diffuse, indirect
  - c small, d not seen with certainty, two stars are disturbing

