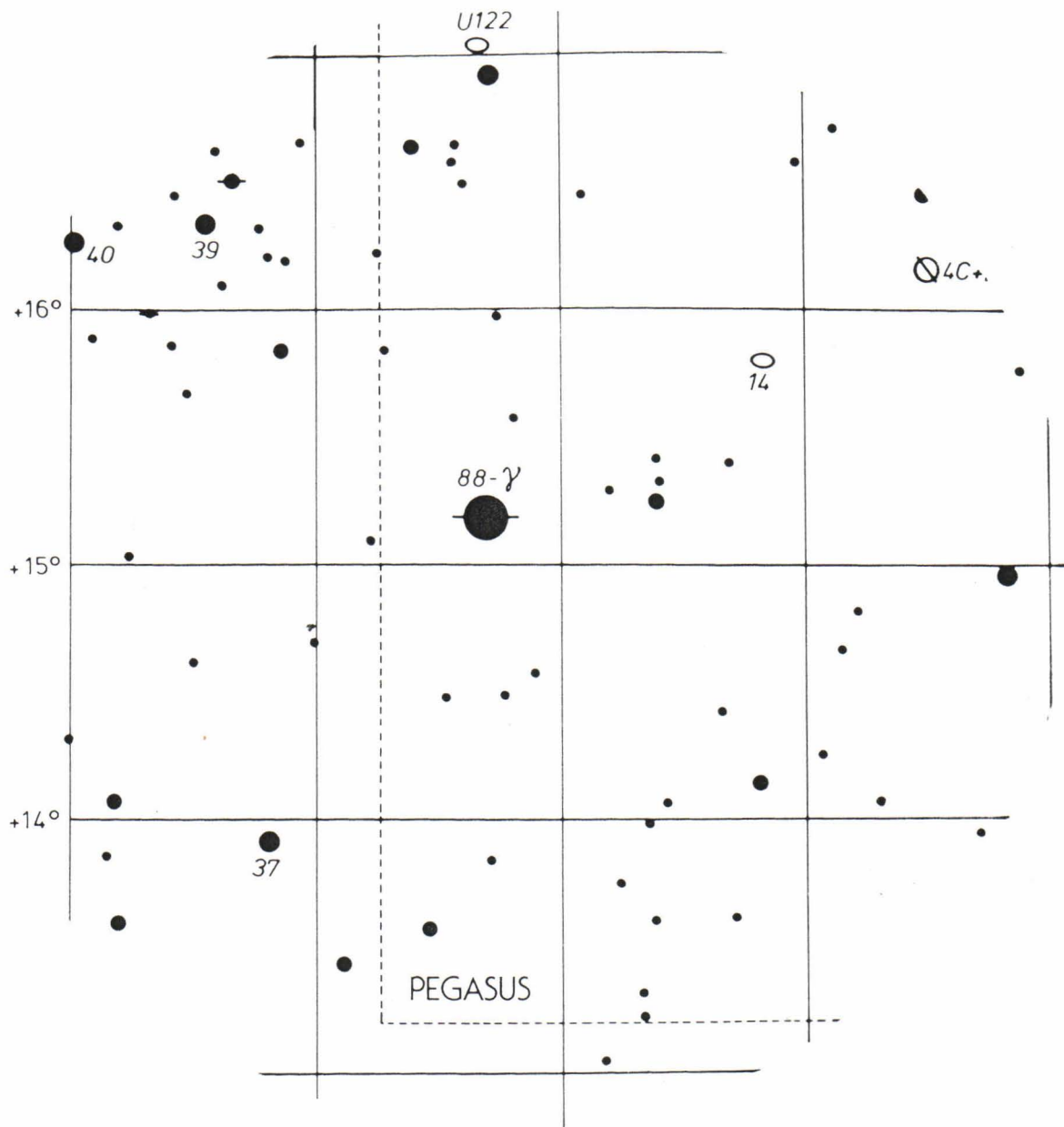


γ Pegasus
 RA: 0 12 27 Dec: 15 6 1
 Vmag = 2.83 B-V = -0.23

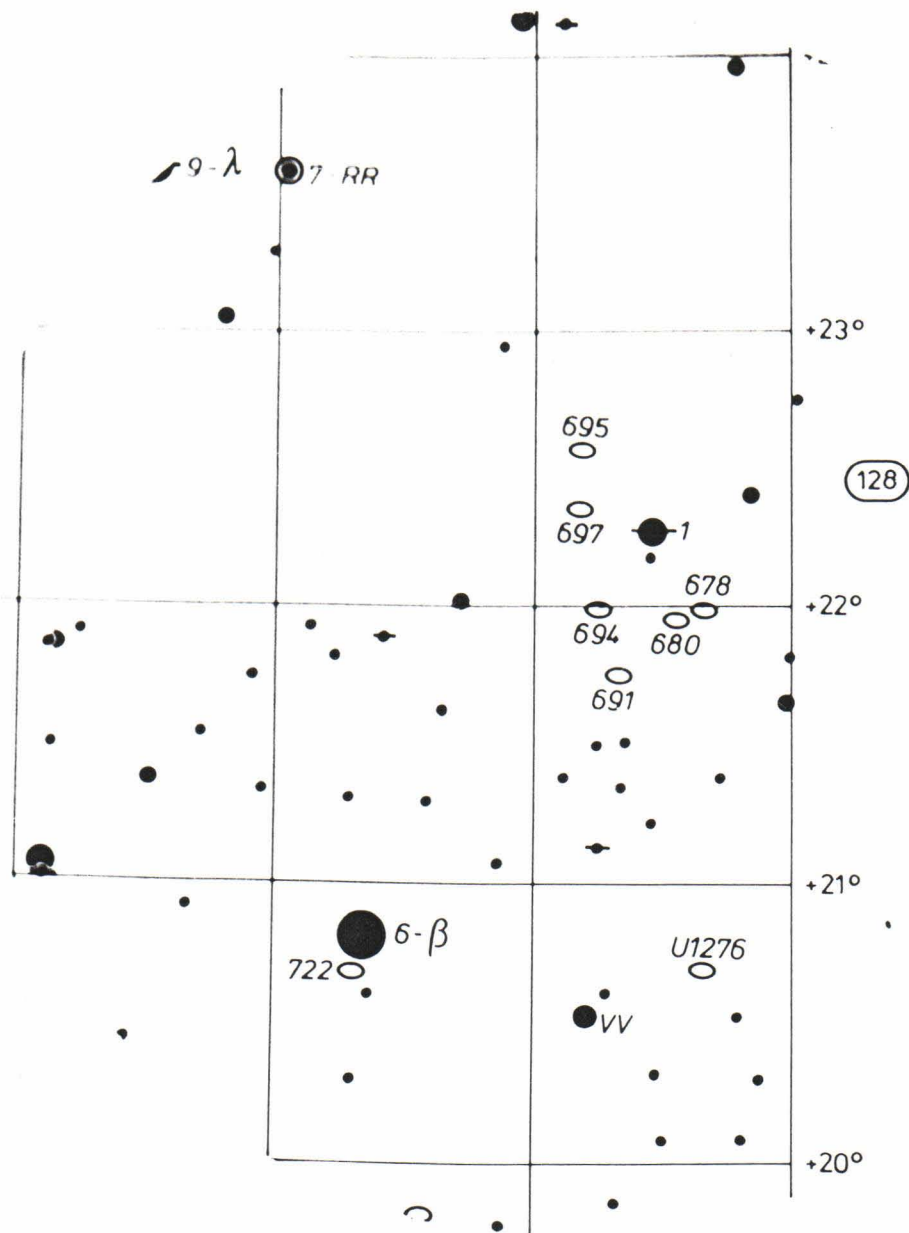


Location: South east corner of Great Square

SA 2000 —

U 2000 170

β Aries
 RA: 1 53 48 Dec: 20 44 10
 Vmag = 2.65 B-V = 0.13

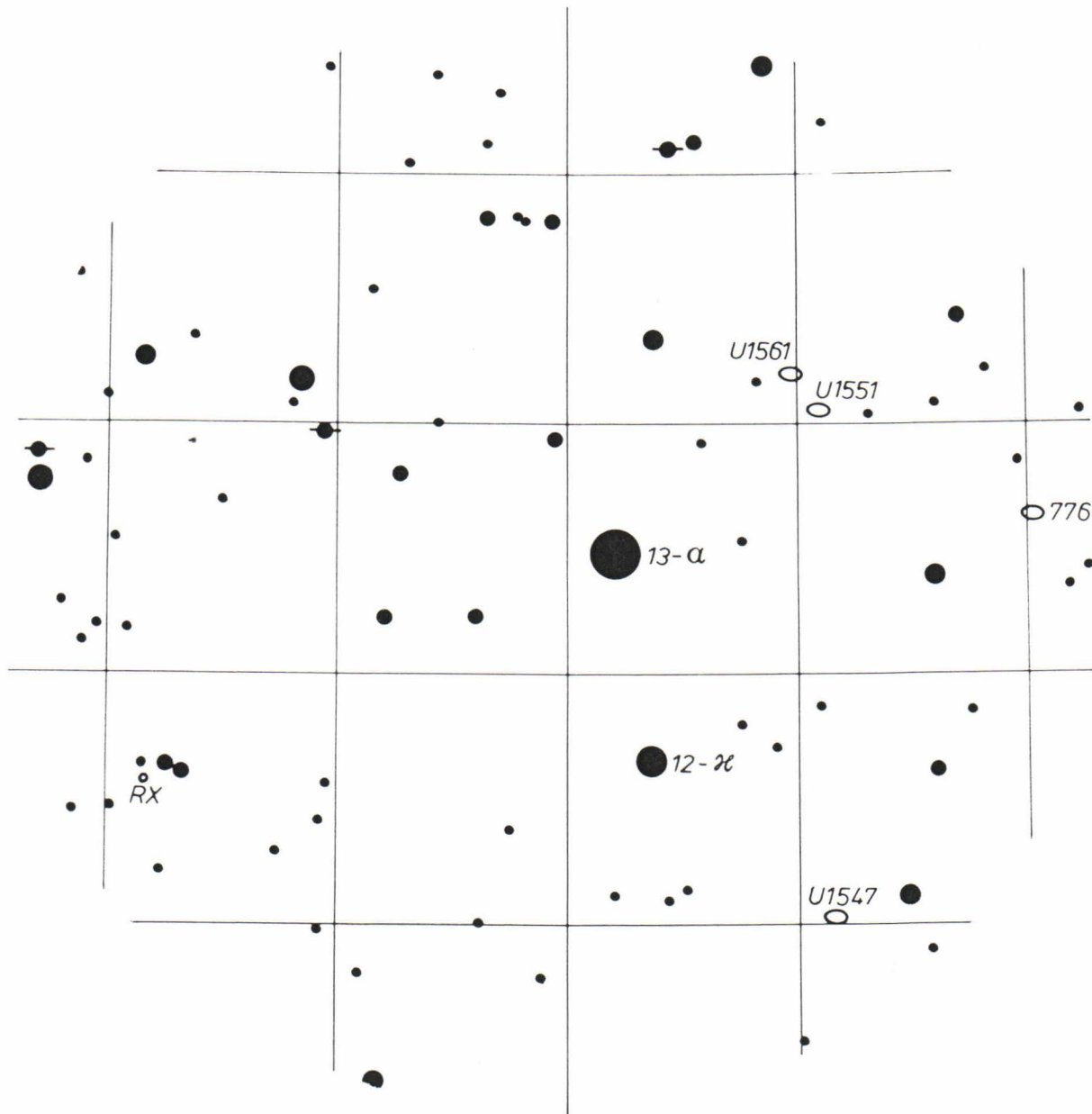


Location: North of α

SA 2000 — U 2000 —

Note: NGC 722 to the south

α Aries
 RA: 2 6 18 Dec: 23 23 36
 Vmag=2.00 B-V=1.15

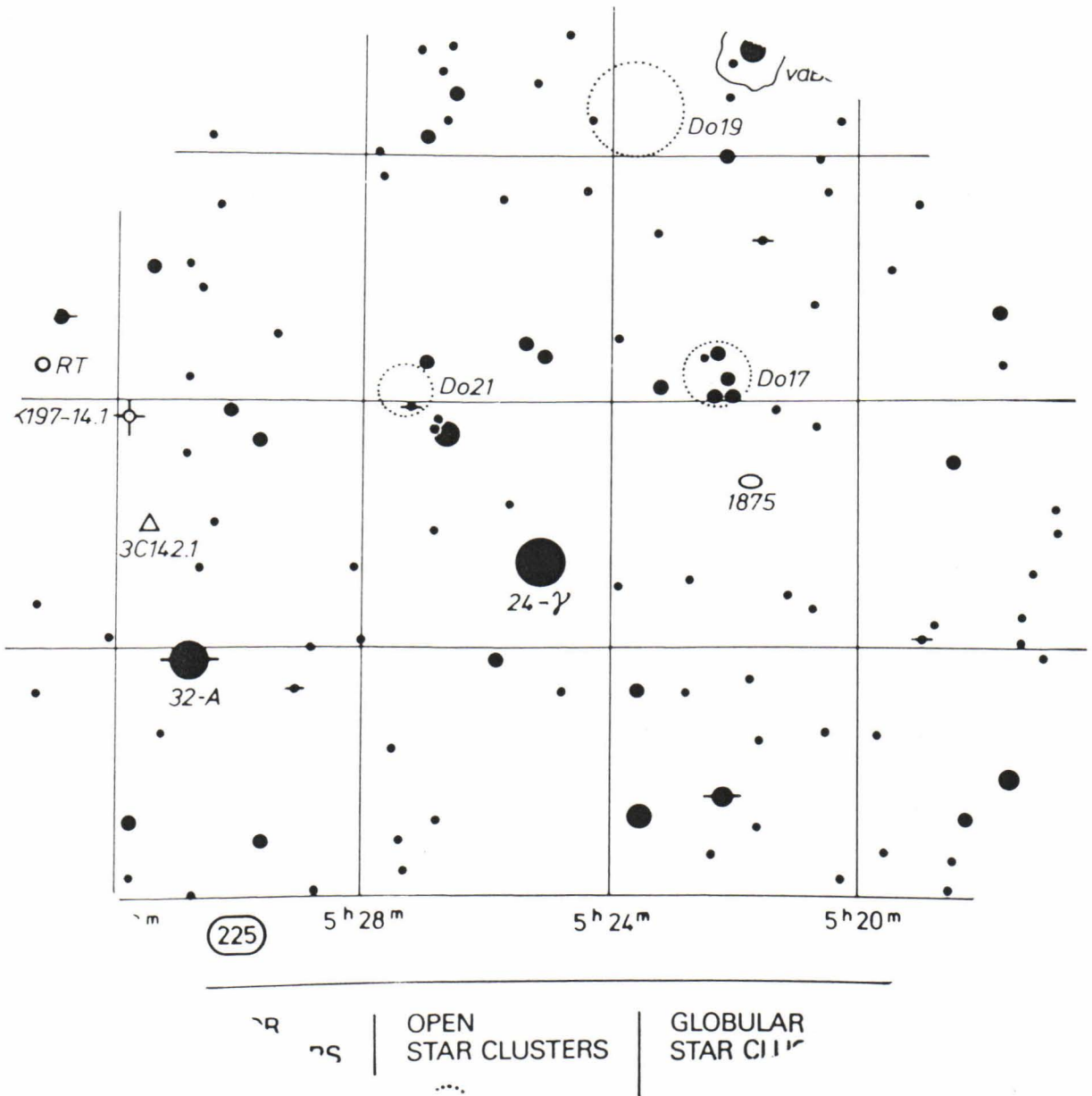


Location: Brightest star in Aries, South of β
 SA 2000 — U 2000 129

γ Orion

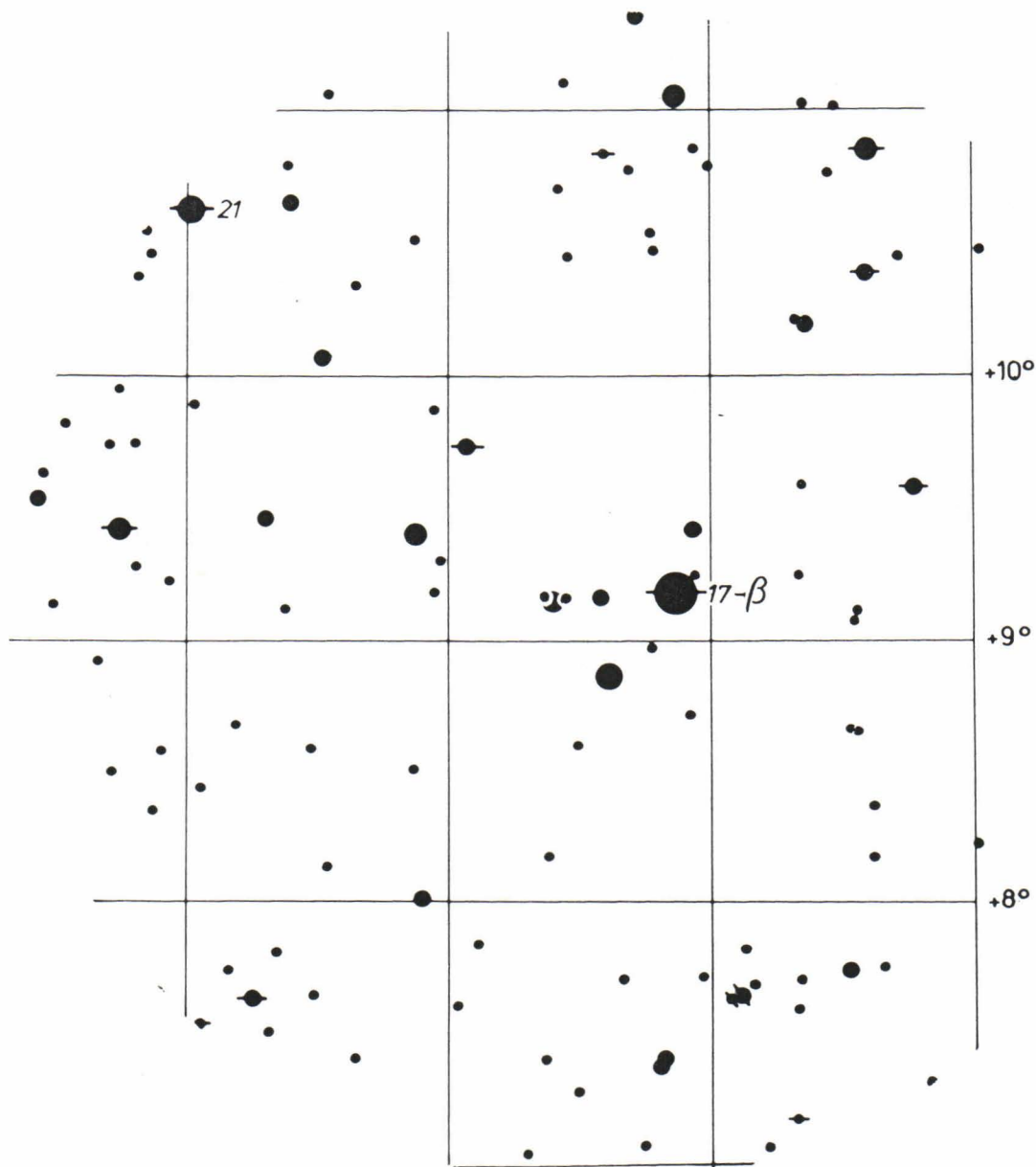


RA: 5 24 19 Dec: 6 20 13
 Vmag=1.64 B-V=-0.23



Location: Bellatrix (Shoulder of Orion)
 SA 2000 _____
 U 2000 180

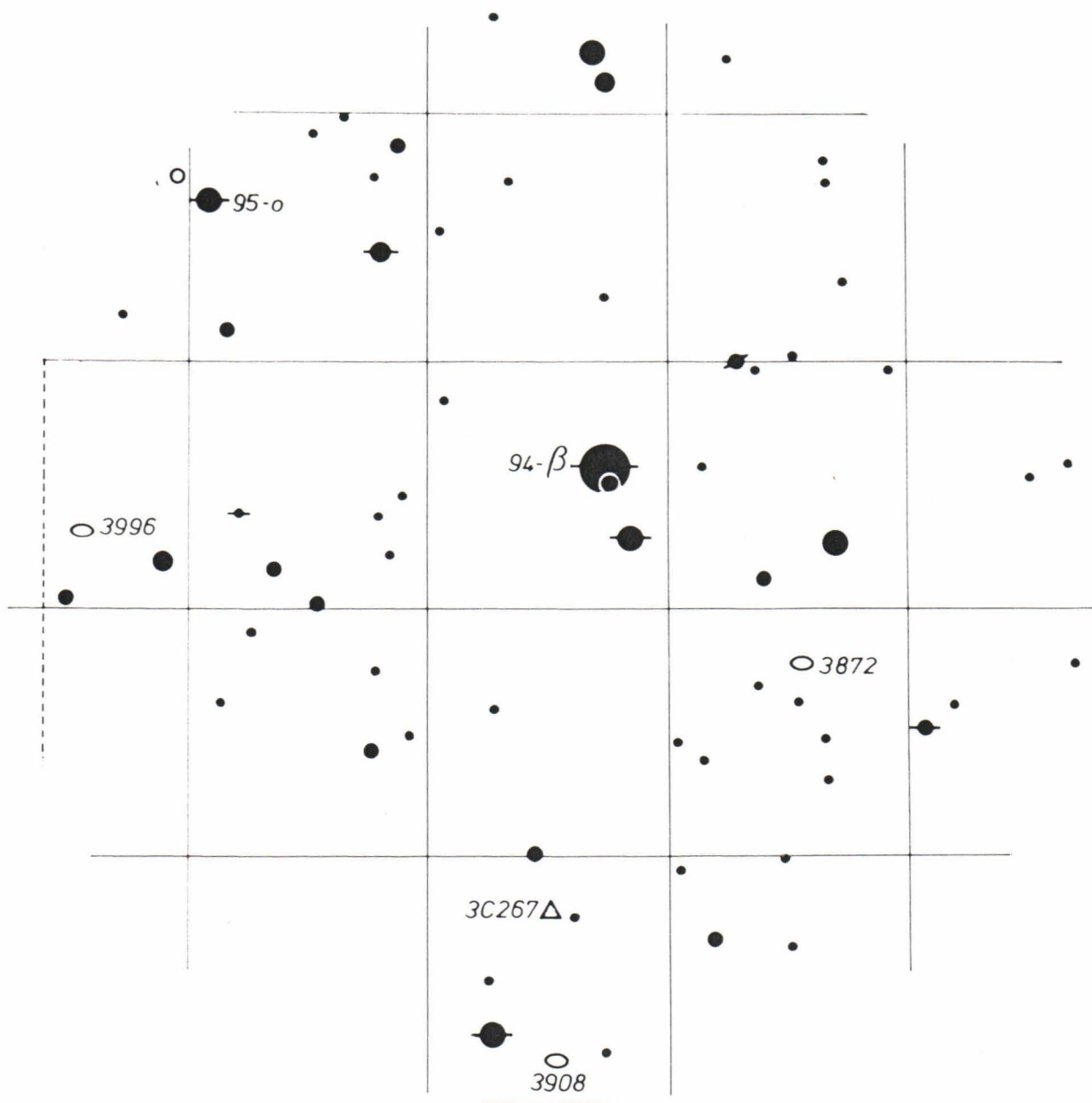
β Cancer
RA: 8 15 42 Dec: 9 13 58
Vmag= 3.52 B-V= 1.48



Location: Closest to Procyon
SA2000 — U2000 186

Note: Nearby Field Stars

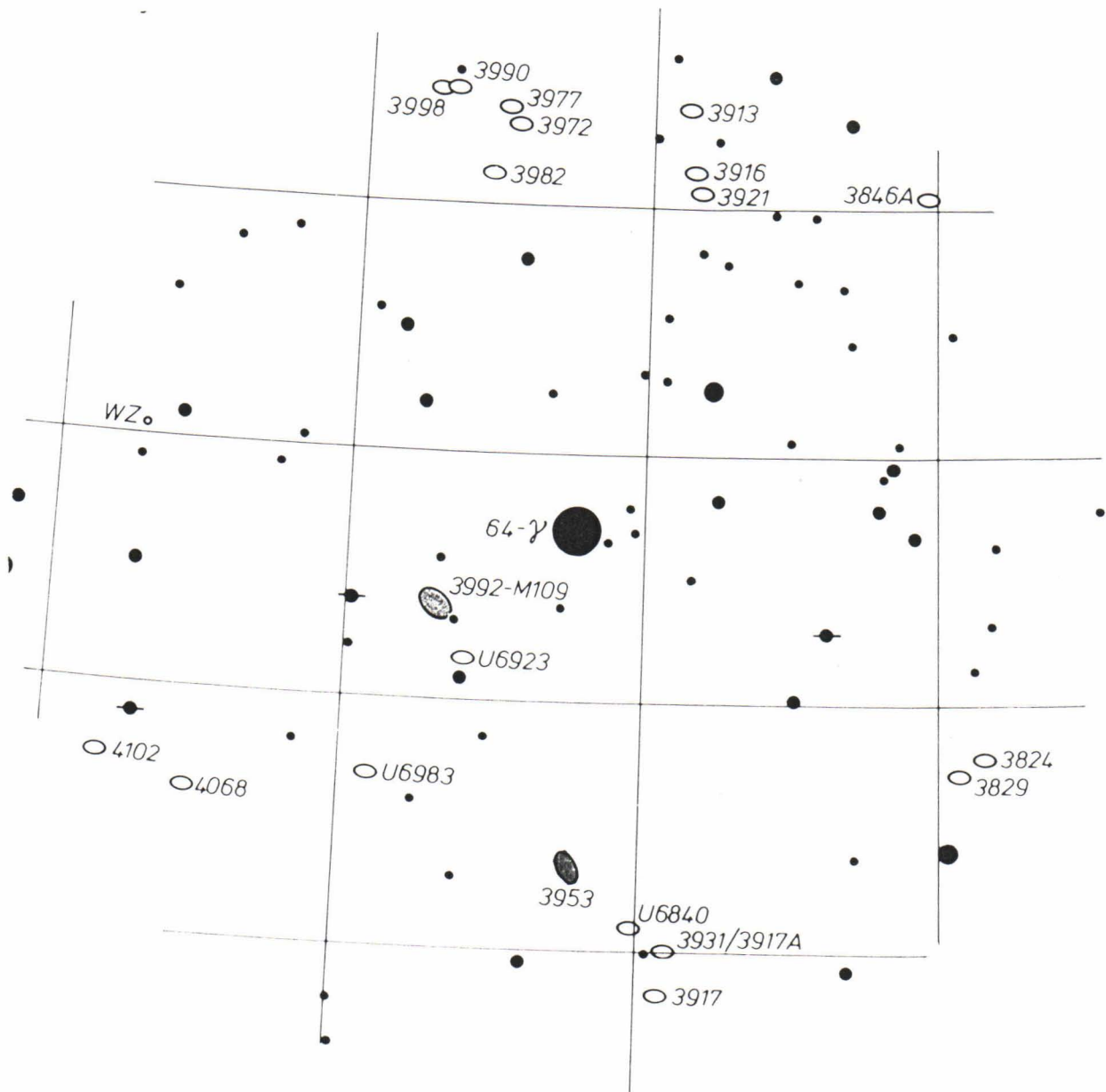
β Leo
 RA: 11 48 18 Dec: 14 39 25
 Vmag = 2.14 B-V = 0.09



Location: Denebola, Lion's rear
 SA 2000 _____ u2000 192

Note: Close field star to the south

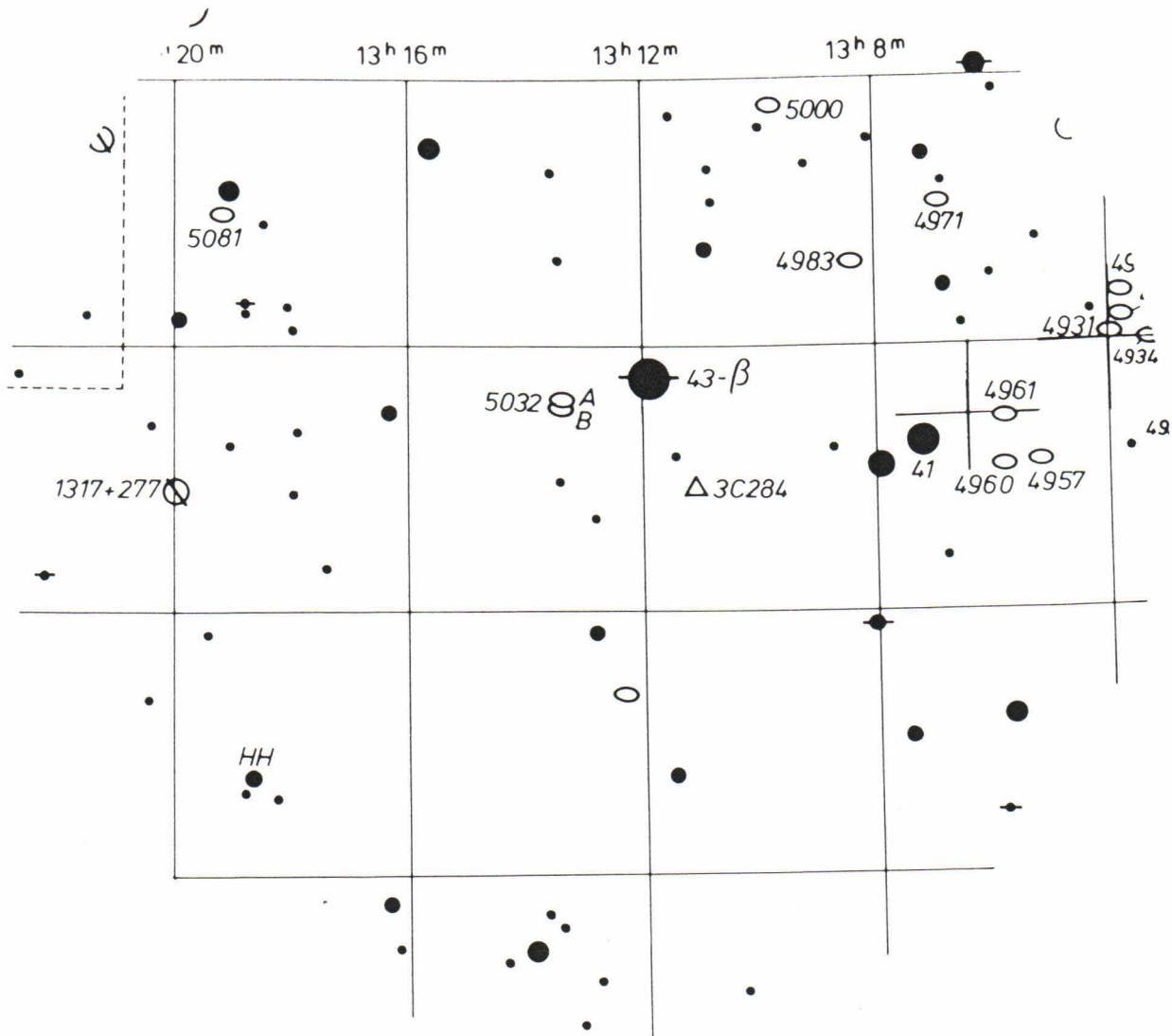
γ Ursa Major
 RA: 11 53 2 Dec: 53 46 40
 Vmag = 2.44 B-V = 0.00



Location: Bottom of bowl, closest to the handle
 SA 2000 — U 2000 47
 Note: Faint triangle of stars to the West

β Coma Berenices
 RA: 13 11 12 Dec: 27 56 43
 Vmag = 4.28 B-V = 0.57

*



Location: Next to Coma gal cluster

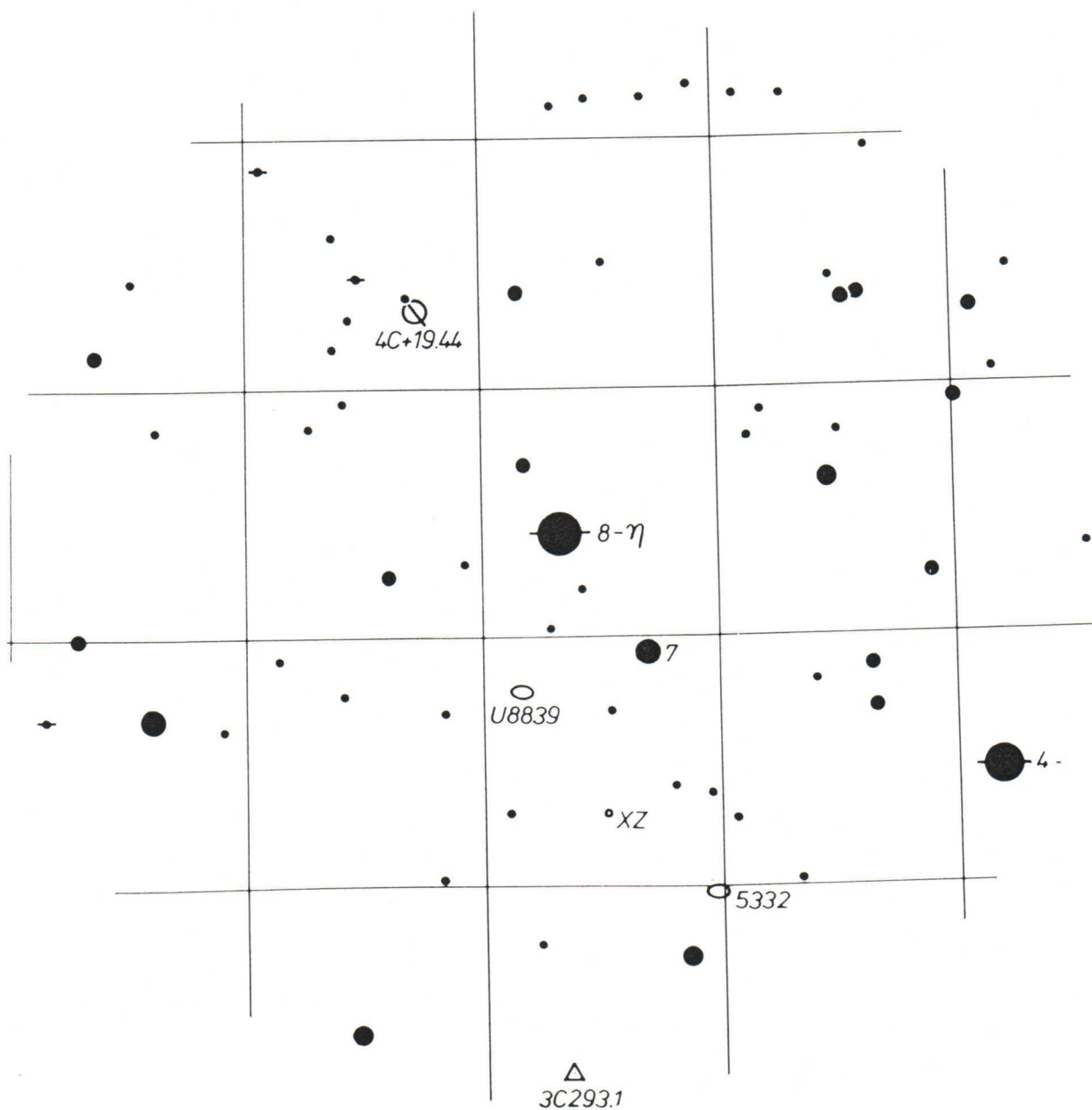
SA2000 _____

U2000 150

η Boötes



RA: 13 53 58 Dec: 18 28 33
Vmag = 2.69 B-V = 0.58



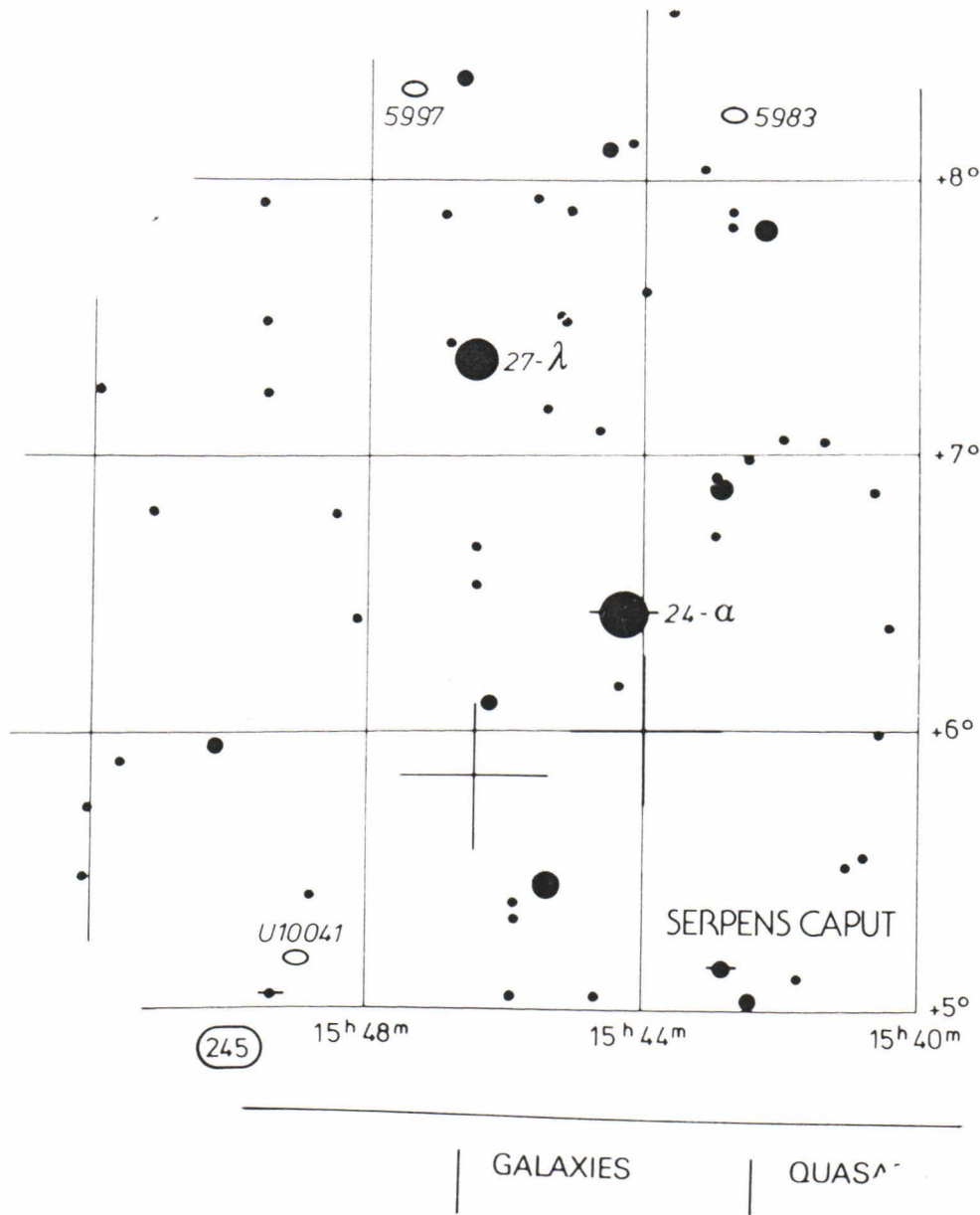
Location: Just west of Arcturus
SA2000 _____
u2000 151

α Serpens Caput

*

RA: 15 43 31 Dec: 6 28 18

Vmag = 2.65 B-V = 1.17



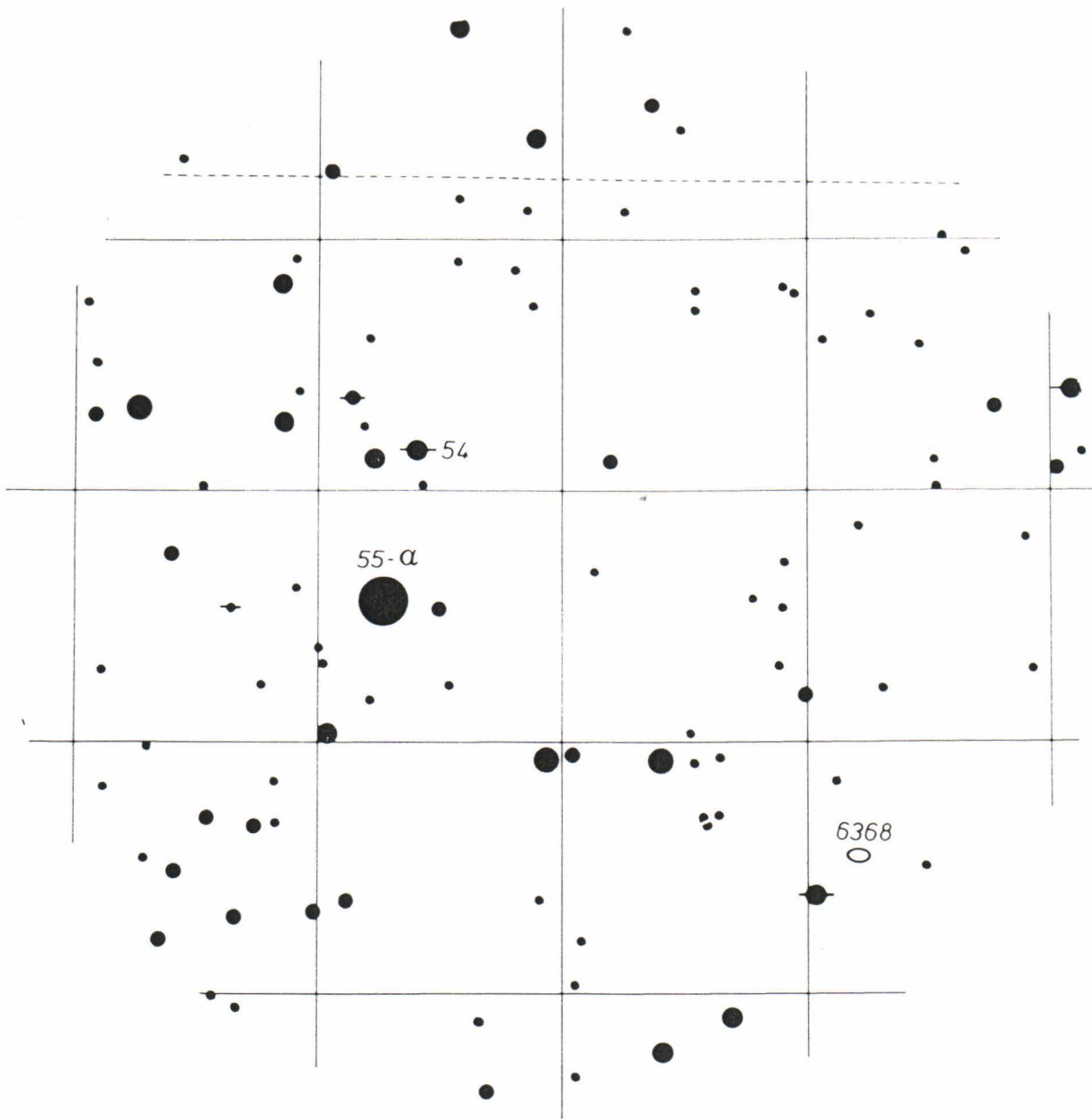
Location: Brightest star in the neck

SA 2000

U 2000 200

α Ophiuchus
 RA: 17 34 13 Dec: 12 34 20
 Vmag = 2.08 B - V = 0.15

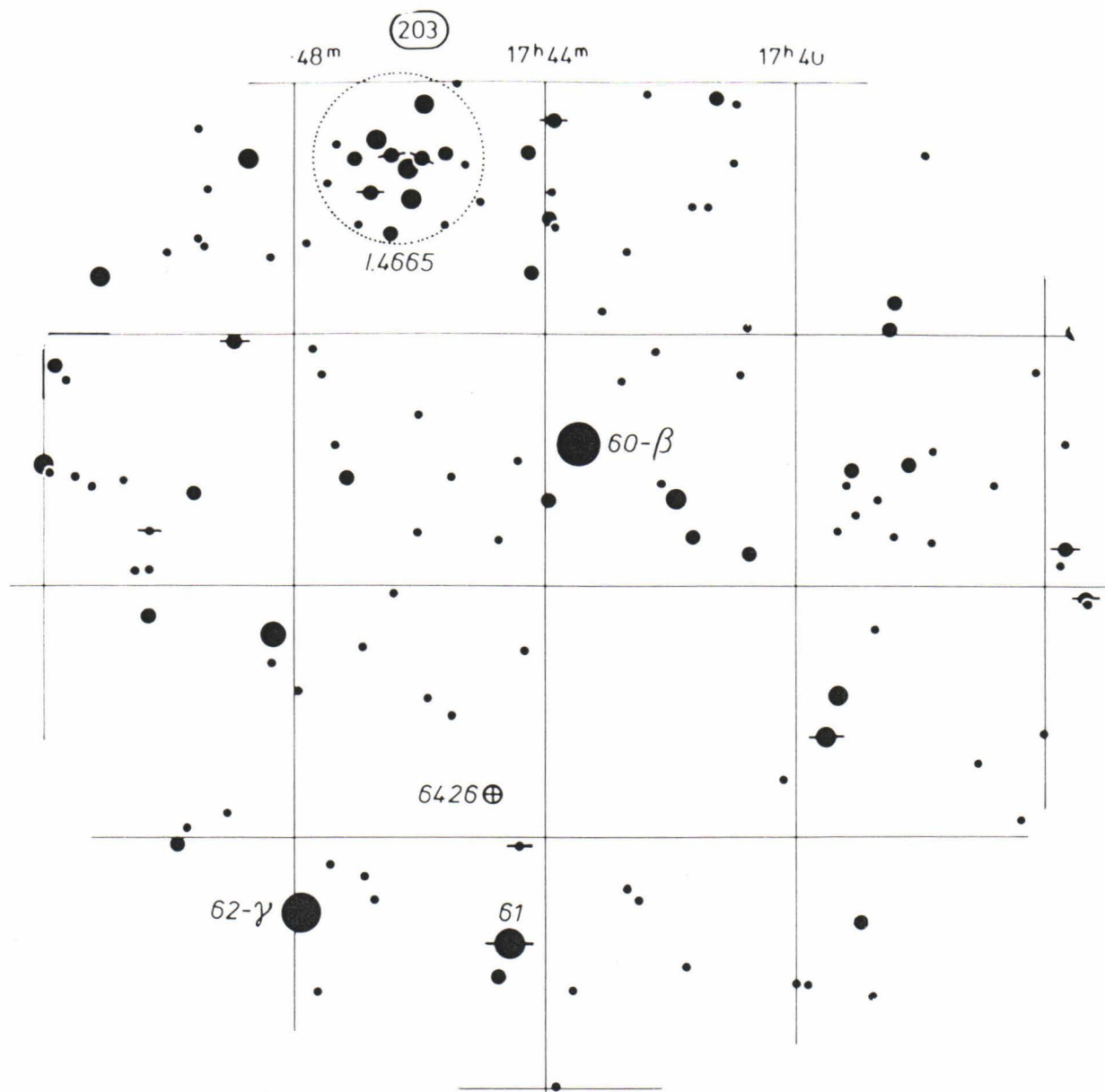
*



Location: Top of Main body
 SA 2000 _____ U 2000 203

β Ophiuchus
 RA: 17 42 43 Dec: 43 16
 Vmag = 2.77 B-V = 1.16

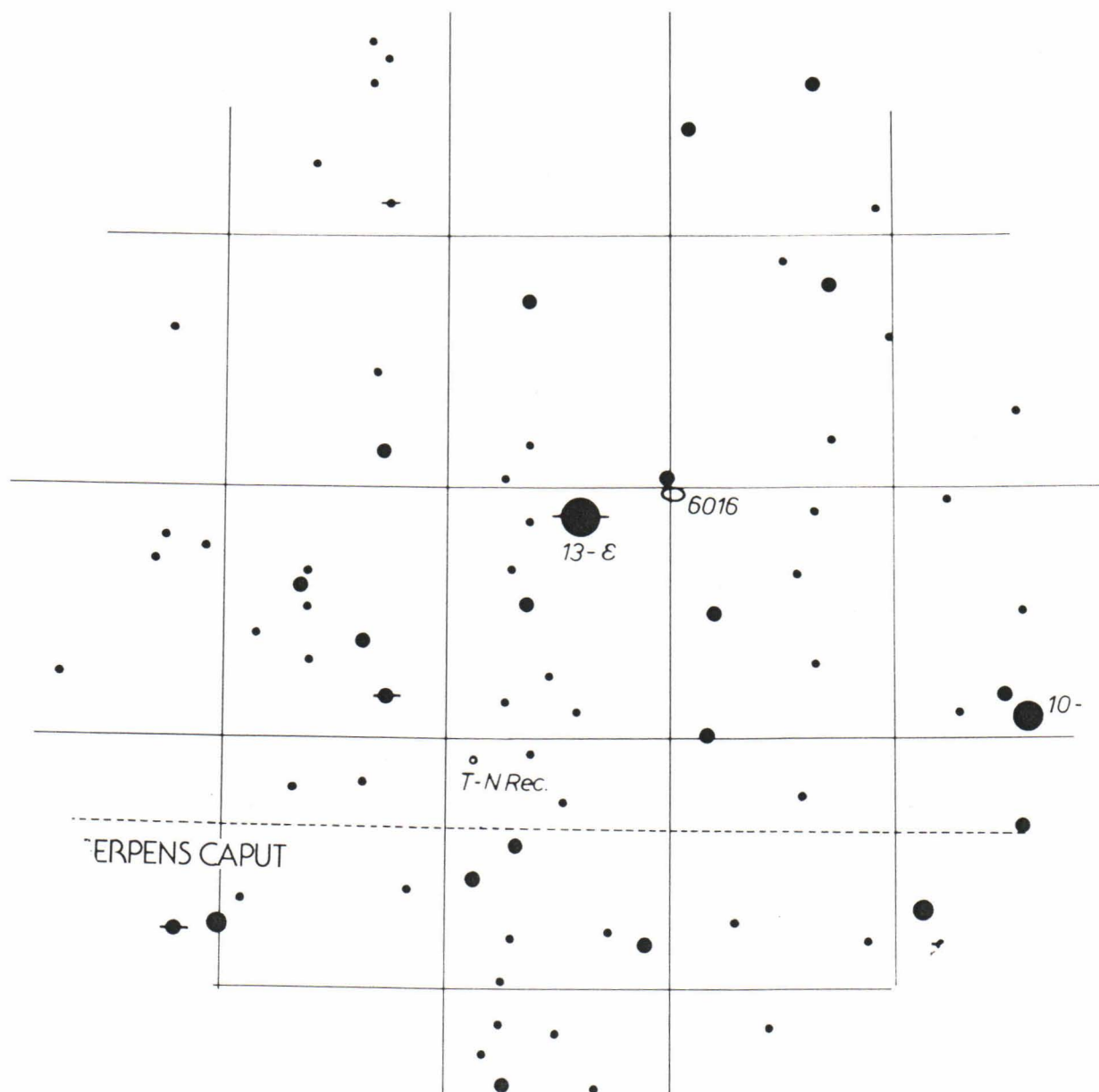
*



Location: East Corner of main body
 SA 2000 _____ UZ000 248

ϵ Corona Borealis
 RA: 15 56 58 Dec: 26 55 16
 Vmag= 4.15 B-V=1.23

*



Location: East side of crown

SA 2000 —

u 2000 155

WORKSHEET FOR CALCULATING INSTRUMENT CONSTANT (Q) AND EXTINCTION COEFFICIENT(Kv)

DATE :MAR 27, 1995JULIAN DT: 86

TIME(MST)							COUNTS			
HR MIN	STAR	FILT	SCAL	T	Z <		St+S+D	S+D	D	COMMENTS
NOT OBS	XI2 CET									
LST= 11.8										
H= 9.31										
		V	10	10	124		0	0	0	
NOT OBS	RHO CET									
LST= 11.8										
H= 9.35										
		V	10	10	139		0	0	0	
NOT OBS	UPSILON									
LST= 11.8	PSC									
H= 10.4										
		V	10	10	117		0	0	0	
20 47	ZETA ARI						1674	990	504	IN ZODIACAL LIGHT
LST= 8.6							1674	998		
H= 5.37							1653	1002		
		V	10	10	71		1667	996.67	504	

20 54	THETA LEP						1805	768	505	
LST= 8.72							1775	757		
H= 2.64							1778	762		
		V	10	10	60		1786	762.33	505	
21 4	2 LYN						2179	695	504	
LST= 8.89							2127	697		
H= 2.59							2145	699		
		V	10	10	37		2150.3	697	504	
21 37	26 UMA						2146	657	505	
LST= 9.44							2118	652		
H= 23.9							2132	650		
		V	10	10	20		2132	653	505	
21 42	SIGMA LEO						2751	701	504	
LST= 9.52							2790	698		
H= 22.2							2810	695		
		V	10	10	36		2783.7	698	504	
21 46	23 CMB						1720	673	504	
LST= 9.59							1732	679		
H= 21							1737	671		

			V	10	10	40	1729.7	674.33	504	
21	51	ALPHA SEX					2078	667	505	
LST=	9.67						2079	669		
H=	23.6						2111	673		
			V	10	10	33	2089.3	669.67	505	
21	55	BETA CRT					1957	694	504	
LST=	9.74						1944	699		
H=	22.6						1923	703		
			V	10	10	58	1941.3	698.67	504	
NOT OBS.		SIGMA HER								
LST=	11.8									
H=	19.2									
			V	10	10	54	0	0	0	
NOT OBS.		DELTA UMA								
LST=	11.8									
H=	18.1									
			V	10	10	58	0	0	0	
NOT OBS.		68 OPH								
LST=	11.8									
H=	17.7									
			V	10	10	93	0	0	0	

RA	DEC	VMAG	B-V	STARCT	v(inst)	AirMass	V-v	Kv	AMAG	Q	SMAG
HR	MIN	DEG	MIN	(d)							

LST= 9.589124 DDR= 0.4

	23 CMB	12	34	22	43	4.81	0	1055.333	-7.55847	1.313943	12.36847	0.222748	5.102679	12.66115	21.98754
GD=	28.85														
GST=	17.19269														
GSTC=	17.19269														
LST=	9.672685	DDR=-0.0													
	ALPHA SEX	10	7	0	-18	4.49	-0.04	1419.667	-7.88047	1.189491	12.37047	0.222748	4.754957	12.63542	21.99855
GD=	28.91667														
GST=	17.25953														
GSTC=	17.25953														
LST=	9.739534	DDR=-0.4													
	BETA CRT	11	11	-22	-45	4.48	0.03	1242.667	-7.73589	1.909695	12.21589	0.222748	4.905381	12.64127	21.82268
GD=	7														
GST=	-4.71714														
GSTC=	19.28286														
LST=	11.76286	DDR= 1.2													
	SIGMA HER	16	34	68	48	4.2	-0.02	0	ERR	1.703764	ERR	0.222748	4.579511	ERR	ERR
GD=	7														
GST=	-4.71714														
GSTC=	19.28286														
LST=	11.76286	DDR=1.51													
	DELTA UMI	17	37	86	36	4.35	0.01	0	ERR	1.890125	ERR	0.222748	4.771022	ERR	ERR
GD=	7														
GST=	-4.71714														
GSTC=	19.28286														
LST=	11.76286	DDR=0.02													
	68 OPH	18	1	1	18	4.47	0.04	0	ERR	-22.5276	ERR	0.222748	-0.54798	ERR	ERR

REGRESSION

starAIRMASS V-v

1	-1.77461	ERR	Regression Output:
2	-1.3272	ERR Instrument Constant	12.64851
3	-2.20984	ERR Std Err of Y Est	0.012236
4	3.131566	11.95573 R Squared	0.994674
5	2.013746	12.1954 No. of Observations	8
6	1.260433	12.37591 Degrees of Freedom	6
7	1.066156	12.42492	
8	1.238403	12.35811 Extinction Coef.	-0.22275
9	1.313943	12.36847 Std Err of Coef.	0.006654
10	1.189491	12.37047	
11	1.909695	12.21589	
12	1.703764	ERR	
13	1.890125	ERR	
14	-22.5276	ERR	

SYSTEMATIC SKY GLOW SURVEY MARCH 27-28, 1995

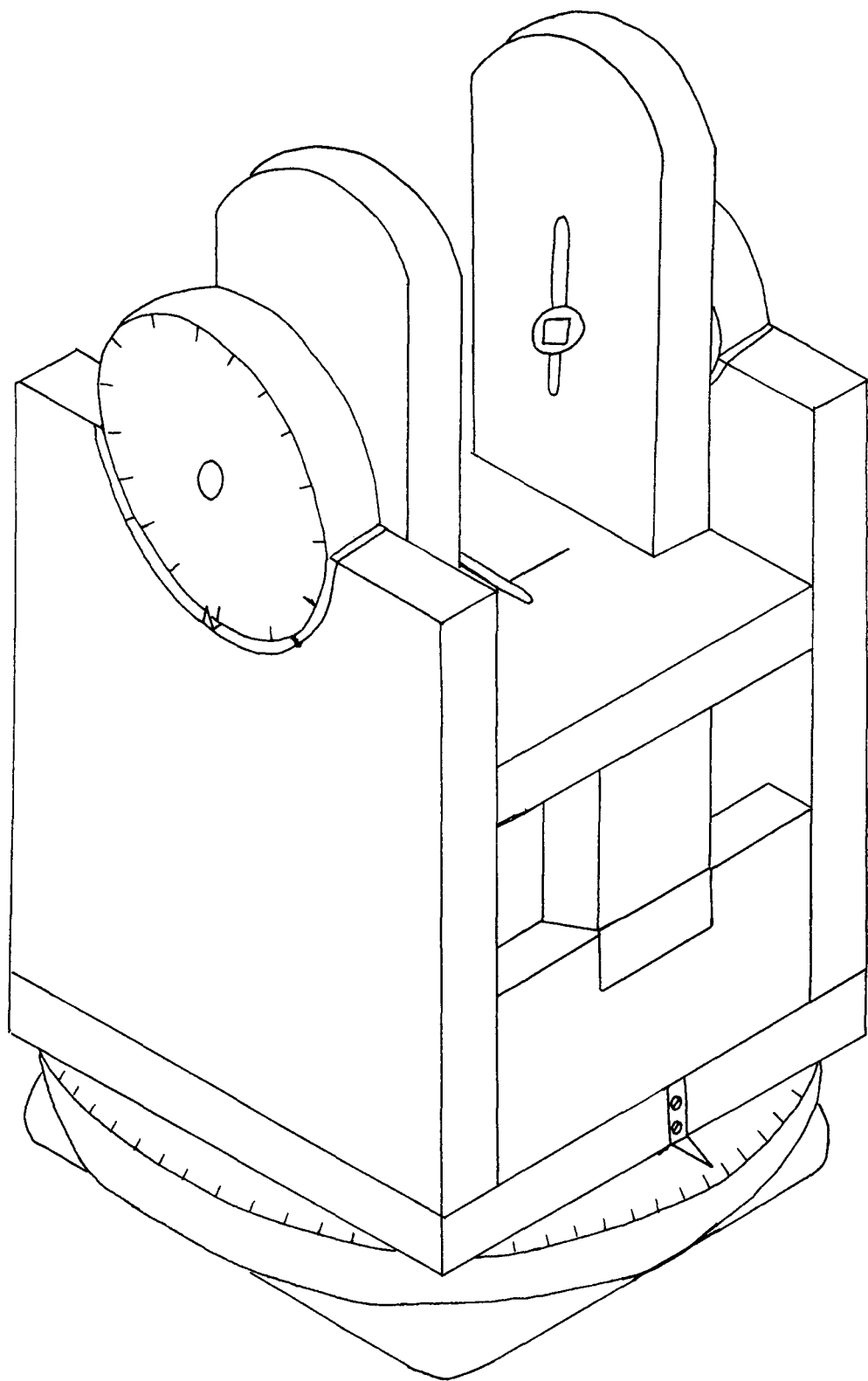
INSTRUMENT CONSTANT = 12.64851

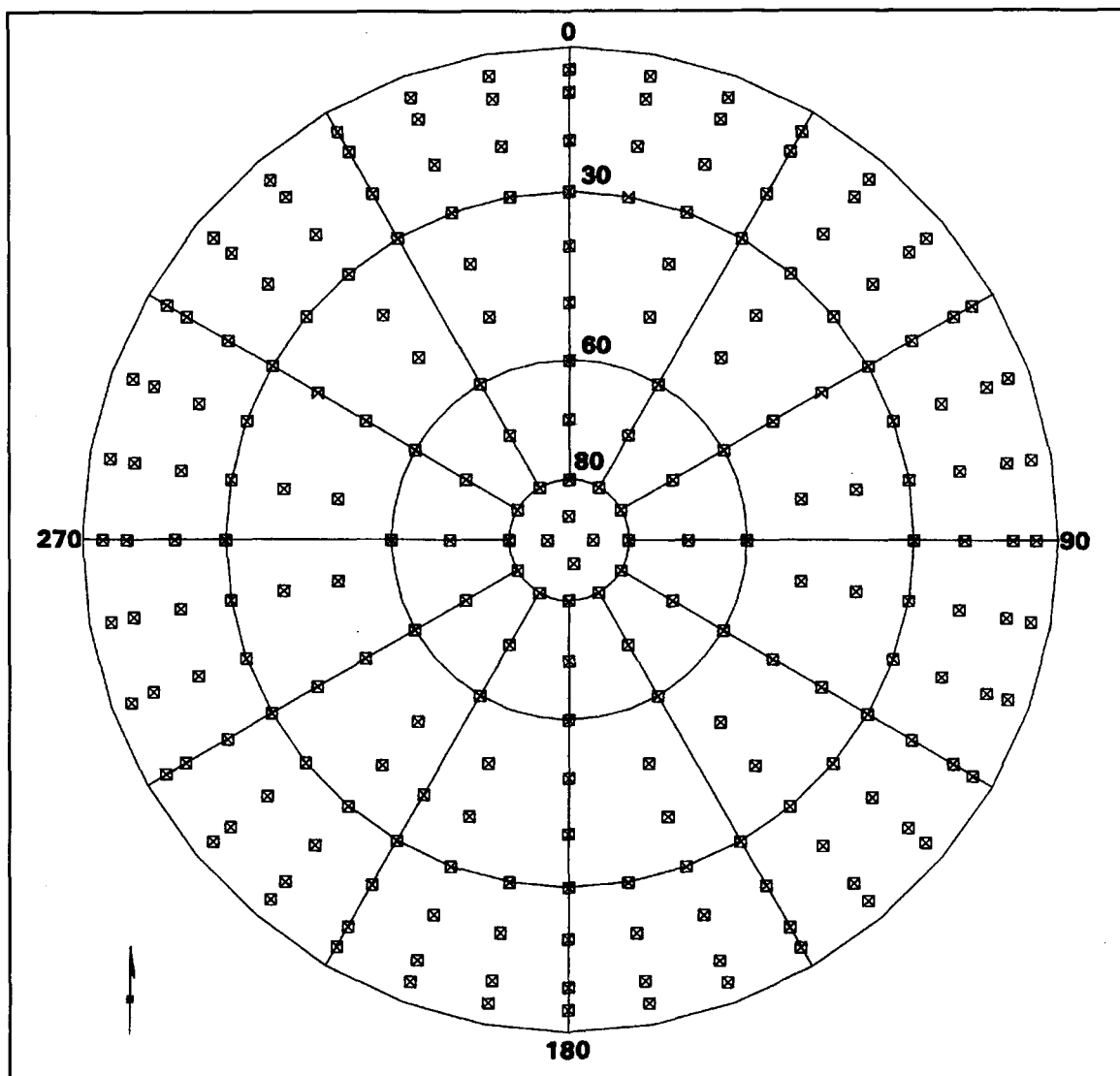
AZIMUTH	ALTITUDE	SKY 1	SKY 2	SKY 3	S+D (AVG OF 3)	D	M ($Q - (2.5 * \log((S+D)-D)) + 14.90464$)
0	5	844	842	833	839.6667	506	21.24487
0	10	823	825	819	822.3333	506	21.30279
0	20	741	743	748	744	505	21.60716
0	30	701	703	748	717.3333	505	21.7356
0	40	663	662	665	663.3333	506	22.0611
0	50	657	656	653	655.3333	505	22.11051
0	60	644	645	641	643.3333	505	22.20083
0	70	651	655	648	651.3333	506	22.14724
0	80	662	664	660	662	505	22.0634
10	5	925	927	926	926	506	20.99503 PHOENIX GLOW
10	10	838	844	844	842	505	21.23408
10	20	734	726	734	731.3333	505	21.66628
10	30	691	693	694	692.6667	505	21.86968
10	40	657	661	660	659.3333	506	22.08906
10	50	669	664	668	667	505	22.02936
10	60	642	643	643	642.6667	506	22.21399
10	70	637	638	639	638	505	22.24352
10	80	645	645	643	644.3333	506	22.20083
20	5	1174	1173	1172	1173	505	20.49121
20	10	890	884	893	889	506	21.09515
20	20	755	751	756	754	505	21.56265
20	30	688	687	680	685	505	21.91497
20	40	670	669	681	673.3333	505	21.98772
20	50	649	650	648	649	505	22.15724
20	60	660	656	656	657.3333	506	22.10331
20	70	650	659	653	654	506	22.1275
20	80	649	649	647	648.3333	506	22.16988
30	5	1214	1207	1228	1216.333	505	20.42297 MIDDLE OF PHOENIX GLOW
30	10	862	859	865	862	505	21.17148
30	20	729	717	731	725.6667	505	21.69381
30	30	702	697	700	699.6667	505	21.82992
30	40	667	670	662	666.3333	505	22.03384
30	50	648	652	646	648.6667	505	22.15976
30	60	644	639	648	643.6667	506	22.20608
30	70	635	630	636	633.6667	505	22.27948
30	80	686	685	695	688.6667	506	21.899
40	5	903	884	896	894.3333	506	21.08014
40	10	809	820	828	819	504	21.30737
40	20	710	714	714	712.6667	506	21.76497
40	30	680	670	676	675.3333	505	21.9749
40	40	653	661	655	656.3333	506	22.11051
40	50	641	634	644	639.6667	505	22.23
40	60	628	629	627	628	506	22.33725

40	70	657	654	651	654	505	22.12018
40	80	650	641	645	645.3333	506	22.19301
50	5	NA	NA	NA	0	NA	ERR BLOCKED BY A MOUNTAIN
50	10	761	759	769	763	505	21.5241
50	20	713	704	700	705.6667	505	21.79696
50	30	673	671	678	674	505	21.98343
50	40	671	661	665	665.6667	505	22.03834
50	50	640	643	645	642.6667	506	22.21399
50	60	634	634	636	634.6667	505	22.27108
50	70	627	634	628	629.6667	505	22.31377
50	80	638	638	633	636.3333	505	22.25721
60	5	NA	NA	NA	0	NA	ERR BLOCKED BY A MOUNTAIN
60	10	732	742	746	740	506	21.63011
60	20	682	701	710	697.6667	506	21.84678
60	30	670	666	671	669	506	22.02268
60	40	652	654	655	653.6667	505	22.12262
60	50	632	633	635	633.3333	506	22.29079
60	60	636	630	637	634.3333	506	22.2823
60	70	630	634	629	631	505	22.30222
60	80	639	641	640	640	505	22.22732
70	5	NA	NA	NA	0	NA	ERR BLOCKED BY A MOUNTAIN
70	10	744	741	734	739.6667	506	21.63166
70	20	701	700	713	704.6667	505	21.80239
70	30	662	664	664	663.3333	506	22.0611
70	40	655	658	666	659.6667	506	22.0867
70	50	641	644	641	642	505	22.21135
70	60	628	628	631	629	506	22.32839
70	70	634	626	634	631.3333	505	22.29936
70	80	630	632	636	632.6667	505	22.28796
80	5	NA	NA	NA	0	NA	ERR BLOCKED BY A MOUNTAIN
80	10	761	765	765	763.6667	506	21.5255
80	20	701	704	710	705	506	21.80602
80	30	688	671	674	677.6667	505	21.96013
80	40	698	701	693	697.3333	506	21.84867
80	50	644	640	642	642	505	22.21135
80	60	637	641	640	639.3333	505	22.23269
80	70	633	637	637	635.6667	505	22.26274
80	80	629	630	632	630.3333	506	22.31668
90	5	NA	NA	NA	0	NA	ERR BLOCKED BY A MOUNTAIN
90	10	751	759	753	754.3333	505	21.5612
90	20	722	719	720	720.3333	506	21.72543
90	30	680	676	680	678.6667	506	21.96013
90	40	660	657	659	658.6667	506	22.09379
90	50	648	653	648	649.6667	506	22.15976
90	60	638	639	650	642.3333	506	22.21664
90	70	657	654	652	654.3333	506	22.12505
90	80	631	643	638	637.3333	506	22.25721
100	5	NA	NA	NA	0	NA	ERR BLOCKED BY VEGETATION
100	10	747	747	750	748	505	21.58913

100	20	705	710	707 707.3333	505 21.78798
100	30	687	685	692 688	505 21.89702
100	40	667	661	662 663.3333	505 22.05422
100	50	650	653	653 652	505 22.13486
100	60	639	637	637 637.6667	505 22.24625
100	70	642	640	649 643.6667	505 22.19822
100	80	633	631	629 631	505 22.30222
110	5	NA	NA	NA 0	NA ERR BLOCKED BY MOUNTAIN
110	10	740	826	816 794	505 21.40091
110	20	718	804	806 776	506 21.47474
110	30	683	745	734 720.6667	505 21.71869
110	40	667	704	721 697.3333	505 21.84301
110	50	652	699	698 683	506 21.93322
110	60	640	660	654 651.3333	505 22.13979
110	70	643	654	653 650	506 22.15724
110	80	640	647	646 644.3333	506 22.20083
120	5	NA	NA	NA 0	NA ERR BLOCKED BY MOUNTAIN
120	10	781	779	767 775.6667	505 21.47206
120	20	731	740	726 732.3333	505 21.66149
120	30	698	697	696 697	506 21.85057
120	40	676	682	674 677.3333	506 21.96855
120	50	664	661	667 664	506 22.05651
120	60	639	643	643 641.6667	505 22.21399
120	70	648	643	643 644.6667	507 22.20608
120	80	632	634	630 632	506 22.30222
130	5	737	733	735 735	505 21.64883
130	10	785	783	784 784	507 21.44695 RICH MILKY WAY IN SCORPIUS
130	20	730	733	730 731	506 21.67269 MILKY WAY
130	30	711	717	713 713.6667	506 21.75973
130	40	679	671	697 682.3333	505 21.93117
130	50	682	677	687 682	505 21.93322
130	60	644	644	645 644.3333	507 22.20871
130	70	645	639	634 639.3333	506 22.2408
130	80	658	659	661 659.3333	505 22.082
140	5	705	709	715 709.6667	506 21.78085
140	10	764	770	774 769.3333	506 21.50189 MILKY WAY IN SCORPIUS
140	20	771	763	757 763.6667	505 21.5213
140	30	715	711	717 714.3333	506 21.75625
140	40	693	694	693 693.3333	505 21.86583
140	50	674	674	671 673	506 21.99636
140	60	649	646	648 647.6667	506 22.17498
140	70	645	650	644 646.3333	505 22.17754
140	80	631	631	632 631.3333	505 22.29936
150	5	706	705	705 705.3333	505 21.79877
150	10	746	743	751 746.6667	506 21.59961 MILKY WAY
150	20	748	744	741 744.3333	506 21.61019
150	30	756	754	759 756.3333	505 21.55252
150	40	699	699	700 699.3333	506 21.83738
150	50	680	678	682 680	506 21.95178

150	60	655	661	652	656	506 22.11292
150	70	666	664	658 662.6667		506 22.06571
150	80	629	632	634 631.6667		506 22.3051
160	5	726	723	727 725.3333		506 21.70039
160	10	778	781	775 778		507 21.47073
160	20	736	749	741 742		506 21.62087 MILKY WAY
160	30	734	737	731 734		505 21.65356 MILKY WAY
160	40	702	702	712 705.3333		506 21.8042
160	50	675	676	676 675.6667		506 21.97916
160	60	673	670	664 669		506 22.02268
160	70	657	661	651 656.3333		506 22.11051
160	80	635	641	646 640.6667		505 22.22197
170	5	747	741	745 744.3333		505 21.60564
170	10	771	766	764 767		506 21.51155
170	20	736	735	734 735		505 21.64883
170	30	708	709	702 706.3333		505 21.79336
170	40	701	702	698 700.3333		506 21.83178
170	50	674	670	672 672		505 21.99636
170	60	673	684	687 681.3333		506 21.94349
170	70	645	648	656 649.6667		506 22.15976
170	80	629	634	633 632		506 22.30222
220	5	1054	1041	1036 1043.667		506 20.72687
220	10	876	884	889 883		504 21.10655
220	20	837	833	838 836		503 21.24704
220	30	784	795	771 783.3333		505 21.44174 MILKY WAY IN CMA
220	40	898	886	874 886		505 21.10084 NEAR PLANE OF THE MILKY WAY
210	5	1068	1074	1066 1069.333		505 20.67431
210	10	903	914	907 908		505 21.03989
210	20	823	820	834 825.6667		504 21.28463
210	30	810	812	797 806.3333		505 21.35553 NEAR PLANE OF MILKY WAY
210	40	780	796	785 787		506 21.43138 MILKY WAY
200	5	919	917	931 922.3333		505 21.00194
200	10	886	897	893 892		505 21.08387
200	20	818	822	826 822		506 21.30393
200	30	834	837	834 835		505 21.25687 NEAR PLANE OF MILKY WAY
200	40	738	743	745 742		505 21.61628
0	86	669	665	664 666		505 22.03609
90	86	631	631	630 630.6667		506 22.31377
170	86	636	634	635 635		507 22.28513





Organ Pipe Cactus National Monument: Night Sky Brightness

