

SPRING 1

Catalogue	Date	Type	Mag	Size	Comments
LYNX					
5 Lyn	Jan 26	T*	5.3 9.8 7.9	K4III 31" 96"	R06:26.8 D+58:25 SAO25733
12 Lyn	Jan 31	T*	5.4 6.0 7.3	A3V 1.7" 9"	R06:46.0 D+59:27 SAO25939 140ly
19 Lyn	Feb 10	Q*	5.5 6.5 10.9 8.9	B9V 15" B8V 74" 215"	R07:22.9 D+55:06 SAO26311
NGC2419	Feb 14	GC	10.4 *17	4'	R07:38.1 D+38:53 Intergalactic Wanderer
NGC2683 <i>SA(rs)b</i>	Mar 4	GX	9.8 12.9	9x3'	R08:52.7 D+33:25
NGC2782 <i>SAB(rs)a</i>	Mar 10	GX	11.6 14.1	3.8'x2.9'	R09:14.1 D+40:07
38 Lyn	Mar 11	D*	3.9 6.6	A1V 2.7" A4V	R09:18.8 D+36:48 SAO61391
Struve 1369	Mar 15	T*	7.0 8.0 8.7	25" 118"	R09:35.4 D+39:57 SAO42931
CANCER					
ζ-Canceri Struve1196	Feb 22	T*	5.6 6.0 6.2	F8V 1" F9V 6" G5V	R08:12.2 D+17:39 SAO97645 yellow
φ-Canceri Struve1223	Feb 26	D*	5.6 6.3	K5III 5" A3V	R08:26.8 D+26:56 SAO80187
Struve 1245	Mar 1	D*	6.0 7.2	F8V 10" G5V	R08:35.8 D+06:37 SAO116929
M44 <i>II2m</i>	Mar 2	OC	3.1 *6.3	95'	R08:40.1 D+19:59 Beehive Cluster 520ly
VZ Canceri	Mar 2	V*	7.2- 9.0	A7III – F2III	R08:40.9 D+09:49 SAO98035
ι ¹ -Canceri Struve1268	Mar 3	D*	4.2 6.6	G8III 31" A3V	R08:46.7 D+28:46 SAO80416 165ly orange, blue
M67 <i>II2m</i>	Mar 4	OC	6.9 *9.7	30'	R08:50.4 D+11:49 2,600ly
NGC2775 <i>SA(r)ab</i>	Mar 9	GX	10.3 13.1	4'	R09:10.3 D+07:02
PYXIS					
NGC2613	Mar 1	GX	10.5 13.2	7.6'x1.9'	R08:33.4 D-22:58
NGC2627	Mar 2	OC	8.4	11'	R08:37.3 D-29:57
h4166	Mar 8	D*	6.7 8.6	A0 13.7" A	R09:03.0 D-33:36

SPRING 2

Catalogue	Date	Type	Mag	Size	Comments
HYDRA					
M48 <i>I3r</i>	Feb 24	OC	5.8 *8.2	55'	R08:13.8 D-05:48 2,500ly
NGC2610	Feb 28	PN	12.8	37"	R08:33.4 D-16:09
ϵ -Hydrae	Mar 3	D*	3.3 6.8	FOV+KIII 3" F5	R08:47.0 D-06:25 SAO117112 150ly
NGC2713 <i>SB(rs)ab</i>	Mar 7	GX	11.8 <i>13.3</i>	3.7'x1.3'	R08:57.3 D+02:55
NGC2716 <i>(R)SB(r)0</i>	Mar 7	GX	11.8 <i>12.4</i>	1.6'x1.2'	R08:57.6 D+03:05
NGC2781 <i>(R)SAB(r)0</i>	Mar 9	GX	11.6 <i>13.2</i>	3'x1.7'	R09:11.5 D-14:49
NGC2784	Mar 10	GX	10.0 <i>12.7</i>	5.5'x2.4'	R09:12.3 D-24:10
NGC2811 <i>SB(r)0</i>	Mar 11	GX	11.3 <i>11.3</i>	1.9'x0.6'	R09:16.2 D-16:19
NGC2835	Mar 11	GX	10.4 <i>13.9</i>	6.3'x4.5'	R09:17.9 D-22:21
NGC2855 <i>SA(r)0</i>	Mar 12	GX	11.7 <i>14.0</i>	3.6'x2.8'	R09:21.5 D-11:55
NGC2889 <i>SA(s)bc</i>	Mar 14	GX	11.7 <i>12.9</i>	2'x1.7'	R09:27.2 D-11:38
NGC2907 <i>S0</i>	Mar 14	GX	11.7 <i>12.6</i>	2.1'x1.2'	R09:31.6 D-16:44
NGC2924 <i>SA0</i>	Mar 15	GX	12.0 <i>12.3</i>	1.3'x1.2'	R09:35.2 D-16:24
PK238+34.1 Abell 33	Mar 17	PN	12.4	4.5'	R09:39.1 D-02:48
NGC2962 <i>(R)SAB(rs)0</i>	Mar 17	GX	11.9 <i>13.6</i>	2.7'x2.0'	R09:40.9 D+05:10
NGC2986	Mar 18	GX	10.6 <i>13.3</i>	4.1'x3.4'	R09:44.3 D-21:17
NGC2992/3 <i>S0/10</i>	Mar 18	GX	12.2 <i>13.7</i>	4'x1.2'	R09:45.7 D-14:20
NGC3078	Mar 22	GX	11.0 <i>13.0</i>	3.0'x2.4'	R09:58.4 D-26:56
NGC3109	Mar 23	GX	9.8 <i>13.8</i>	10.0'x2.9'	R10:03.1 D-26:09
NGC3242	Mar 28	PN	8.6	16"	R10:24.8 D-18:38 2,900ly Ghost of Jupiter
NGC3309	Mar 31	GX	11.0 <i>13.7</i>	4.4'x3.1'	R10:36.6 D-27:31
NGC3311	Mar 31	GX	10.9 <i>13.6</i>	4.0'x3.6'	R10:36.7 D-27:32
U Hydrae	Mar 31	V*	4.7- 6.2		R10:37.6 D-13:23 Period 450d
NGC3585	Apr 9	GX	9.7 <i>13.2</i>	6.9'x4.2'	R11:13.3 D-26:45
NGC3621	Apr 11	GX	8.9 12.9	9.8'x4.6'	R11:18.3 D-32:49
NGC3717	Apr 13	GX	11.4 13.7	6.6'x1.5'	R11:31.5 D-30:19

SPRING 3

Catalogue	Date	Type	Mag	Size	Comments
HYDRA					
N Hydrae	Apr 13	D*	5.8 5.9	F5 9" F5	R11:32.3 D-29:16 SAO179967
NGC3904	Apr 18	GX	10.8 <i>12.7</i>	3.1'x2.2'	R11:49.2 D-29:17
NGC3936	Apr 19	GX	11.8 13.2	4.9'x0.9'	R11:52.3 D-26:54
NGC4105	Apr 22	GX	10.4	3.7'x1.7'	R12:06.7 D-29:46
NGC4106		GX	10.6	4.0'x2.6'	R12:06.8 D-29:46
M68	May 1	GC	7.7	12'	R12:39.5 D-26:45
NGC5078	May 12	GX	10.6 <i>13.2</i>	4.8'x2.6'	R13:19.8 D-27:24
NGC5101	May 12	GX	10.4 <i>13.7</i>	6.0'x4.1'	R13:21.8 D-27:26
M83	May 16	GX	7.6 <i>13.2</i>	15.5'x13.0'	R13:37.0 D-29:52
ANTLIA					
ζ-Antlie	Mar 14	D*	6.2 7.1	8"	R09:29.9 D-26:35
NGC2997 <i>SA(s)c</i>	Mar 18	GX	9.3 <i>13.6</i>	10'x6.3'	R09:45.6 D-31:11
NGC3001 <i>SAB(rs)bc</i>	Mar 18	GX	11.4 <i>13.3</i>	3.1'x2.1'	R09:46.3 D-30:36
NGC3038 <i>SA(rs)b</i>	Mar 19	GX	11.7 <i>13.3</i>	3.0'x1.6'	R09:51.3 D-32:45
NGC3056 <i>SAB(rs)0</i>	Mar 20	GX	11.6 <i>12.5</i>	2.1'x1.4'	R09:54.5 D-28:18
NGC3100 <i>SAB0pec</i>	Mar 22	GX	11.2 <i>13.2</i>	3.5'x2.1'	R10:00.7 D-31:40
NGC3175 <i>SA(s)ab</i>	Mar 25	GX	11.3 <i>13.2</i>	5.0'x1.3'	R10:14.7 D-28:52
NGC3223	Mar 27	GX	11.0 <i>13.4</i>	4.0'x2.6'	R10:21.6 D-34:16
δ-Antlie	Mar 29	D*	5.6 9.6	11"	R10:29.6 D-30:36

SPRING 4

Catalogue	Date	Type	Mag	Size	Comments
LEO					
NGC2903 <i>SAB(rs)bc</i>	Mar 14	GX	9.0 <i>13.4</i>	13'x7'	R09:32.2 D+21:30 25Mly RM
NGC2964 <i>SAB(r)bc</i> & NGC2968 <i>IO</i>	Mar 17	GX	11.3 <i>13.1</i> 11.7	3'x2' 2'x2'	R09:42.9 D+31:51 R09:43.2 D+31:56
R Leonis	Mar 19	V*	4.4- 11.3	M8IIIe – M9.5IIIe	R09:47.6 D+11:26 SAO98769 LPV 312d red
α -Leonis	Mar 24	D*	1.4 7.7	B7V 177" K1V	R10:08.3 D+11:26 Regulus
NGC3185 <i>(R)SB(r)a</i>	Mar 25	GX	11.6 <i>12.8</i>	2'x'1	R10:17.6 D+21:41
NGC3190 <i>SA(s)a</i>	Mar 25	GX	11.2 <i>13.0</i>	4'x1.6'	R10:18.1 D+21:50 RM
NGC3193 <i>E2</i>	Mar 25	GX	10.9 <i>12.7</i>	2.5'x2.5'	R10:18.4 D+21:54 RM
γ -Leonis	Mar 27	D*	2.2 3.5	K0III 4.4" G7III	R10:20.0 D+19:50 Algieba 126ly golden, 620yr RM
NGC3226 <i>E2</i> NGC3227 <i>SAB(s)</i>	Mar 27	GX	11.4 <i>13.1</i> 10.3 <i>14.1</i>	2.5'x2.2' 7'x5'	R10:23.4 D+19:54 In contact R10:23.5 D+19:52
M95 <i>SB(r)b</i>	Apr 2	GX	9.7 <i>13.5</i>	7'x5'	R10:44.0 D+11:42 RM
NGC3367 <i>SB(rs)c</i>	Apr 2	GX	11.5 <i>12.9</i>	2'x2'	R10:46.6 D+13:45
M96 <i>SAB(rs)ab</i>	Apr 2	GX	9.2 <i>12.9</i>	7'x5'	R10:46.8 D+11:49 RM
NGC3377 <i>E5</i>	Apr 2	GX	10.4 <i>12.8</i>	4'x2.6'	R10:47.7 D+13:59
M105 <i>E1</i>	Apr 2	GX	9.3 <i>12.1</i>	5'x4'	R10:47.8 D+12:35 RM
NGC3384 <i>SB(s)0</i>	Apr 3	GX	10.0 <i>12.8</i>	6'x3'	R10:48.3 D+12:38 RM
NGC3389 <i>SA(s)c</i>	Apr 3	GX	11.9 <i>12.9</i>	2.7'x1'	R10:48.5 D+12:32 RM
NGC3412 <i>SB(s)0</i>	Apr 3	GX	10.5 <i>12.4</i>	3.3'x2'	R10:50.9 D+13:25
54 Leonis Struve1487	Apr 4	D*	4.5 6.3	A1V 6.5" A2V	R10:55.6 D+24:45 SAO81583 150ly blue, green
NGC3489 <i>SAB(rs)0</i>	Apr 6	GX	10.3 <i>12.2</i>	3.2'x2'	R11:00.3 D+13:54
NGC3521 <i>SA(s)b</i>	Apr 7	GX	9.2 <i>13.6</i>	11'x5'	R11:06.8 D+00:04 RM
NGC3593 <i>SA(s)0/a</i>	Apr 9	GX	10.9 <i>13.4</i>	5.3'x2.2'	R11:14.6 D+12:49
NGC3607 <i>SA(s)0</i>	Apr 10	GX	9.9 <i>12.9</i>	4.6'x4.1'	R11:16.9 D+18:03
NGC3607 <i>SA(s)0</i>	Apr 10	GX	9.9 <i>12.9</i>	5'x4'	R11:17.2 D+18:01 NGC3608 6' GX

SPRING 5

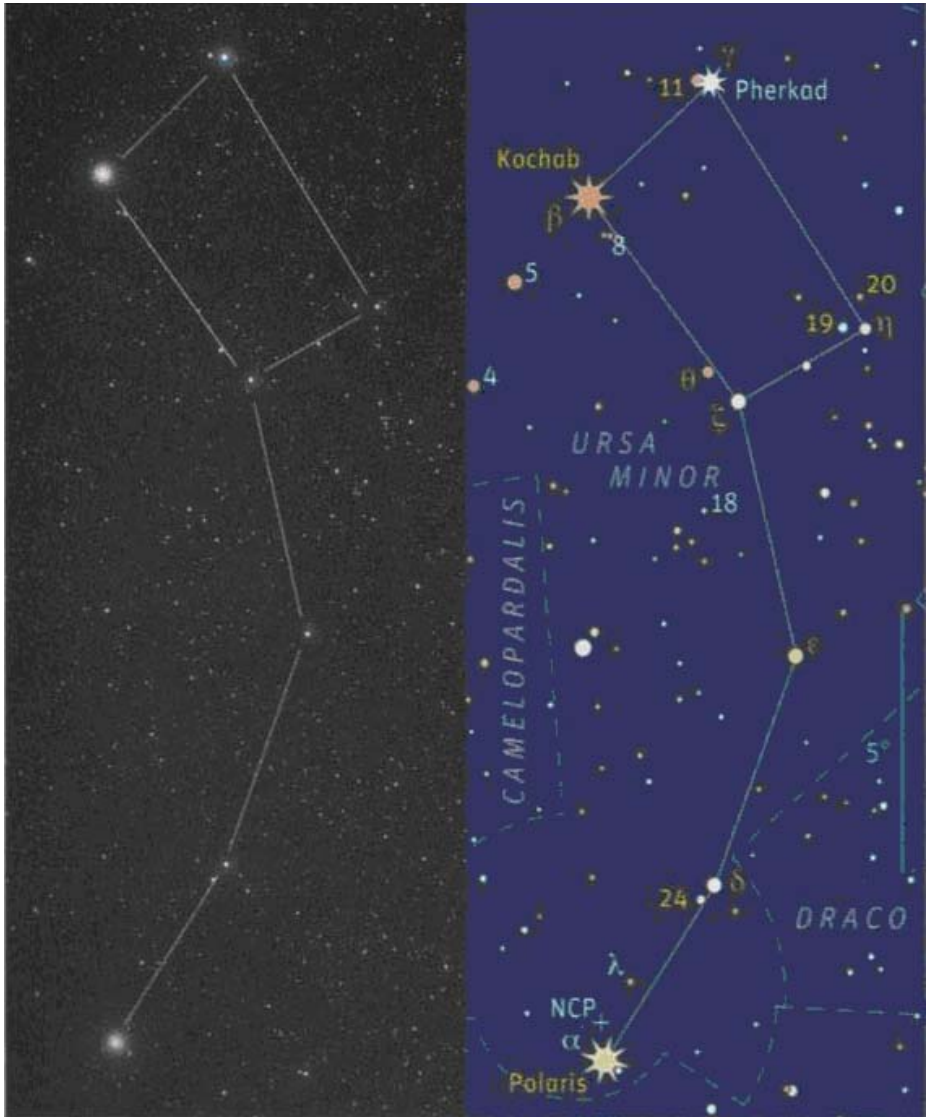
Catalogue	Date	Type	Mag	Size	Comments
LEO					
M65 <i>SAB(rs)a</i>	Apr 11	GX	9.3 <i>12.4</i>	8.7'x2.2'	R11:18.9 D+13:05 29Mly RM
NGC3626 <i>(R)SA(rs)0</i>	Apr 11	GX	11.0 <i>12.5</i>	2.6'x1.8'	R11:20.1 D+18:21
M66 <i>SAB(s)b</i>	Apr 11	GX	9.3 <i>12.5</i>	8.2'x3.9'	R11:20.2 D+12:59 25Mly RM
NGC3628 <i>Sb</i>	Apr 11	GX	10.0 <i>13.7</i>	14'x4'	R11:20.3 D+13:36 32Mly RM
NGC3684 <i>SA(rs)bc</i>	Apr 12	GX	11.4 <i>13.3</i>	3.2'x2.2'	R11:27.2 D+17:02
NGC3686 <i>SB(s)bc</i>	Apr 12	GX	11.3 <i>13.2</i>	2.8'x2.3'	R11:27.7 D+17:13
NGC3705 <i>SAB(r)ab</i>	Apr 13	GX	11.1 <i>13.3</i>	4.6'x2'	R11:30.1 D+09:17
88 Leonis Struve1547	Apr 13	D*	6.4 8.4	G0V 15"	R11:31.7 D+14:22 SAO99648
90 Leonis Struve1552	Apr 14	T*	6.0 7.3 8.7	B4V 3.3" 6.3"	R11:34.7 D+16:48 SAO99673
NGC3810 <i>SA(rs)c</i>	Apr 16	GX	10.8 <i>13.1</i>	3.8'x2.6'	R11:41.0 D+11:28

Catalogue	Date	Type	Mag	Size	Comments
LEO MINOR					
NGC2859 <i>(R)SB(r)0</i>	Mar 13	GX	11.0 <i>13.9</i>	4'x3'	R09:24.3 D+34:31
R Leo Min.	Mar 18	V*	6.3- 13.2	M8IIIe – M9.5e	R09:45.6 D+34:31 SAO98769 Per 372d, Oct beg. '05 max
NGC3245 <i>SA(r)0</i>	Mar 29	GX	11.0 <i>1</i>	2'x1' <i>12.5</i>	R10:27.3 D+28:30
NGC3254 <i>SA(s)bc</i>	Mar 29	GX	11.7 <i>13.7</i>	5'x1.4'	R10:29.3 D+29:30
NGC3277 <i>SA(r)ab</i>	Mar 30	GX	11.7 <i>13.1</i>	2'x2'	R10:32.9 D+28:31
NGC3294 <i>SA(s)c</i>	Mar 31	GX	11.8 <i>13.6</i>	3.5'x1.7'	R10:36.3 D+37:20
NGC3344 <i>(R)SAB(r)bc</i>	Apr 2	GX	9.9 <i>13.8</i>	6'	R10:43.5 D+24:55
NGC3414 <i>S0</i>	Apr 3	GX	11.0 <i>13.1</i>	3.2'x2.7'	R10:51.3 D+27:19
NGC3432 <i>SB(s)m</i>	Apr 3	GX	11.2 <i>13.9</i>	7'x2'	R10:52.5 D+36:37
NGC3486 <i>SAB(r)c</i>	Apr 6	GX	10.5 <i>14.1</i>	7'x5'	R11:00.4 D+28:58
NGC3504 <i>(R)SAB(s)ab</i>	Apr 6	GX	10.9 <i>12.6</i>	2.3'x2.3'	R11:03.2 D+27:58

SPRING 6

Catalogue	Date	Type	Mag	Size	Comments
URSA MINOR					
α -Urs. Mi.	any	D*	2.1 9.0	F8V 18'' F3B	R02:31.8 D+89:16 Polaris 430ly
h2682	May 17	T*	6.7 9.7 9.0	26'' 46''	R13:40.7 D+76:51
π -Urs. Mi.	Jun 13	D*	6.6 7.3	31''	R15:29.2 D+80:27
δ -UMi	Jul 14	*	4.4	A1V	R17:32.2 D+86:35 SAO2937 180ly
24 UMi	Jul 14	*	5.8	A2	R17:30.8 D+86:58 SAO2940 155ly
ϵ -UMi	Jul 2	*	4.2	G5III	R16:46.0 D+82:02 SAO2770 350ly
ζ -UMi	Jun 17	*	4.3	A3V	R15:44.1 D+77:48 SAO8328 375ly
θ -UMi	Jun 13	*	5.0	K5III	R15:31.6 D+77:21 SAO8274 800ly
η -UMi	Jun 25	*	5.0	F5V	R16:17.5 D+75:45 SAO8470 97ly
19 UMi	Jun 23	*	5.5	B8V	R16:10.8 D+75:53 SAO8446 660ly
20 UMi	Jun 24	*	6.4	K2IV	R16:12.5 D+75:13 SAO8452 760ly
γ -UMi Pherkad	Jun 11	*	3.0	A3III	R15:20.7 D+71:50 SAO8220 480ly
11 UMi	Jun 10	*	5.0	K4III	R15:17.1 D+71:49 SAO8207 390ly
Kochab β -UMi	May 19	*	2.0	K4III	R14:50.7 D+74:09 125ly

SPRING 7



SPRING 8

Catalogue	Date	Type	Mag	Size	Comments
URSA MAJOR					
NGC2639 <i>(R)SA(r)a</i>	Mar 3	GX	11.7 <i>12.5</i>	1.8'x1.4'	R08:43.6 D+50:12
NGC2654 <i>SBab</i>	Mar 4	GX	11.8 <i>12.7</i>	3.8'x0.7'	R08:49.2 D+60:13
NGC2681 <i>(R)SAB(rs)0</i>	Mar 5	GX	10.3 <i>12.9</i>	3.5'x3.5'	R08:53.5 D+51:19
NGC2685 <i>(R)SB0</i>	Mar 6	GX	11.3 <i>13.6</i>	4.3'x2.3'	R08:55.6 D+58.44
NGC2693 <i>E3</i>	Mar 7	GX	11.9 <i>12.7</i>	1.8'x1.4'	R08:57.0 D+51:21
NGC2742 <i>?</i>	Mar 8	GX	11.4 <i>13.0</i>	3'x1.6'	R09:07.6 D+60:29
NGC2768 <i>E6</i>	Mar 9	GX	9.9 <i>13.0</i>	6.6'x3.2'	R09:11.6 D+60:02
NGC2787 <i>SB(r)0</i>	Mar 12	GX	10.8 <i>12.9</i>	3.5'x2.4'	R09:19.3 D+69:12
NGC2841 <i>SA(r)b</i>	Mar 12	GX	9.3 <i>12.4</i>	6.8'x3.3'	R09:22.0 D+50:58
NGC2880 <i>SB0</i>	Mar 14	GX	11.5 <i>12.9</i>	2.4'x1.4'	R09:29.6 D+62:30
NGC2950 <i>(R)SB(r)0</i>	Mar 17	GX	10.9 <i>13.0</i>	3.3'x2.4'	R09:42.6 D+58:51
NGC2976 <i>SAC</i>	Mar 18	GX	10.2 <i>12.9</i>	5'x3'	R09:47.3 D+67:55
NGC2985 <i>(R)SA(rs)ab</i>	Mar 19	GX	11.0 <i>13.0</i>	3.9'x3'	R09:50.4 D+72:17
M81 <i>SA(s)ab</i>	Mar 20	GX	7.0 <i>13.0</i>	24'x13'	R09:55.6 D+69:04 13Mly RM
M82 <i>IO</i>	Mar 20	GX	8.4 <i>12.8</i>	11'x5'	R09:55.8 D+69:41 13Mly RM
NGC3079 <i>SB(s)c</i>	Mar 22	GX	10.6 <i>13.4</i>	8'x1.5'	R10:02.0 D+55:41
NGC3077 <i>IO</i>	Mar 22	GX	9.9 <i>13.1</i>	5.5'x4.1'	R10:03.3 D+68:44
NGC3184 <i>SAB(rs)bc</i>	Mar 27	GX	10.0 <i>14.0</i>	7.8'x7.2'	R10:18.3 D+41:25
NGC3198 <i>SB(rs)c</i>	Mar 27	GX	10.3 <i>13.9</i>	9.2'x3.5'	R10:19.9 D+45:33
NGC3259 <i>SAB(rs)bc</i>	Mar 29	GX	12.1 <i>12.8</i>	2.1'x1.1'	R10:32.6 D+65:03
NGC3310 <i>SAB(r)bc</i>	Apr 1	GX	10.8 <i>13.3</i>	3.5'x3.2'	R10:38.7 D+53:30
NGC3348 <i>E0</i>	Apr 2	GX	11.2 <i>12.5</i>	2'x2'	R10:47.2 D+72:50
NGC3359 <i>SB(rs)c</i>	Apr 2	GX	10.6 <i>14.2</i>	7.3'x4.4'	R10:46.6 D+63:13
M108 <i>SB(s)cd</i>	Apr 8	GX	10.1 <i>13.0</i>	8'x3'	R11:11.5 D+55:40 45Mly RM
M97	Apr 9	PN	9.9	194''	R11:14.8 D+55:01 2,600ly Owl Nebula RM

SPRING 9

Catalogue	Date	Type	Mag	Size	Comments
URSA MAJOR					
ξ -UMa 53-UMa	Apr 10	D*	4.3 4.8	G0V 1.8" G0V	R11:18.2 D+31:32 SAO62484 26ly, 60yrs
NGC3610 <i>E5</i>	Apr 11	GX	10.8 <i>13.2</i>	3.2'x3.2'	R11:18.4 D+58:47
NGC3613 <i>E6</i>	Apr 11	GX	10.9 <i>12.8</i>	3.4'x1.9'	R11:18.6 D+58:00
NGC3631 <i>SA(s)c</i>	Apr 11	GX	10.4 <i>13.8</i>	5.5'x4.6'	R11:21.0 D+53:10
NGC3665 <i>SA(s)0</i>	Apr 12	GX	10.8 <i>13.3</i>	3.5'x3.1'	R11:24.7 D+38:46
NGC3675 <i>SA(s)b</i>	Apr 12	GX	10.2 <i>13.3</i>	6.2'x3.2'	R11:26.1 D+43:35
NGC3718 <i>SB(s)a</i> NGC3729 <i>SB(r)a</i>	Apr 13	GX	10.8 <i>14.8</i> 11.4 <i>13.4</i>	9'x4' 3'x2'	R11:32.6 D+53:04 R11:33.8 D+53:08
NGC3726 <i>SAB(r)c</i>	Apr 13	GX	10.4 <i>13.6</i>	5.6'x3.8'	R11:33.3 D+47:02
NGC3738 <i>Im</i>	Apr 14	GX	11.7 <i>14.0</i>	3.2'x2.8'	R11:35.8 D+54:31
NGC3769 <i>SB(r)b</i>	Apr 15	GX	11.8 <i>12.7</i>	3'x0.9'	R11:37.7 D+47:54
NGC3877 <i>SA(s)c</i>	Apr 17	GX	11.0 <i>12.7</i>	5.1'x1.1'	R11:46.1 D+47:30
NGC3893 <i>SAB(rs)c</i>	Apr 18	GX	10.5 <i>12.8</i>	4.2'x2.3'	R11:48.6 D+48:43
NGC3898 <i>SA(s)ab</i>	Apr 18	GX	10.7 <i>12.5</i>	3.3'x1.9'	R11:49.2 D+56:05
NGC3941 <i>SB(s)0</i>	Apr 18	GX	10.3 <i>12.6</i>	3.7'x2.6'	R11:52.9 D+36:59
NGC3945 <i>(R)SB(rs)0</i>	Apr 19	GX	11.0 <i>14.0</i>	5'x2'	R11:53.2 D+60:41
NGC3953 <i>SB(r)bc</i>	Apr 19	GX	10.1 <i>13.1</i>	6'x3.2'	R11:53.8 D+52:20
M109 <i>SB(rs)bc</i>	Apr 20	GX	9.8 <i>13.5</i>	8'x5'	R11:57.6 D+53:23 55Mly
NGC4026 <i>S0</i>	Apr 21	GX	10.8 <i>12.5</i>	5'x1'	R11:59.4 D+50:58
NGC4036 <i>S0</i>	Apr 21	GX	10.7 <i>12.7</i>	3.8'x1.9'	R12:01.4 D+61:54
NGC4041 <i>SA(rs)bc</i>	Apr 21	GX	11.3 <i>13.2</i>	2.6'x2.6'	R12:02.2 D+62:08
NGC4051 <i>SAB(rs)bc</i>	Apr 21	GX	10.2 <i>13.5</i>	5.5'x4.6'	R12:03.2 D+44:32
NGC4062 <i>SA(s)c</i>	Apr 22	GX	11.1 <i>13.3</i>	4.4'x1.9'	R12:04.1 D+31:54
NGC4085 <i>SAB(s)c</i> NGC4088 <i>SAB(rs)bc</i>	Apr 22	GX GX	12.4 <i>13.0</i> 10.6 <i>13.0</i>	2.5'x0.8' 5.4'x2.1'	R12:05.4 D+50:21 R12:05.6 D+50:33

SPRING 10

Catalogue	Date	Type	Mag	Size	Comments
URSA MAJOR					
NGC4096 <i>SAB(rs)c</i>	Apr 22	GX	10.8 <i>13.3</i>	6.6'x1.6'	R12:06.6 D+47:29
NGC4100 <i>(R)SA(rs)bc</i>	Apr 22	GX	11.2 <i>13.4</i>	5.1'x1.8'	R12:06.2 D+49:35
NGC4102 <i>SAB(s)b</i>	Apr 22	GX	11.2 <i>12.8</i>	2.9'x1.8'	R12:06.4 D+52:43
NGC4144 <i>SAB(s)cd</i>	Apr 23	GX	11.6 <i>14.0</i>	6.3'x1.6'	R12:10.0 D+46:27
NGC4157 <i>SAB(s)b</i>	Apr 23	GX	11.3 <i>13.5</i>	7.1'x1.2'	R12:11.1 D+50:29
NGC4605 <i>SB(s)</i>	May 1	GX	10.0 <i>13.1</i>	5'x1'	R12:40.0 D+61:37
ζ-Urs. Ma. 79-UMa	May 13	D*	2.4 4.0 4.0	A2V 14" A1 709" A5V	R13:24.1 D+54:54 78ly Mizar Alcor
NGC5308 <i>S0</i>	May 18	GX	11.4 <i>11.3</i>	2.6'x0.4'	R13:47.0 D+60:58
NGC5322 <i>E3</i>	May 19	GX	10.2 <i>13.6</i>	6.1'x4.1'	R13:49.3 D+60:12
M101 <i>SAB(rs)cd</i>	May 22	GX	7.7 <i>14.8</i>	26'	R14:03.2 D+54:21 26Mly Pinwheel Galaxy RM
NGC5473 <i>SAB(s)0</i>	May 23	GX	11.4 <i>12.7</i>	2.2'x1.7'	R14:04.7 D+54:54 Close to M101

SPRING 11

Catalogue	Date	Type	Mag	Size	Comments
SEXTANS					
NGC2974 <i>SA(s)</i>	Mar 17	GX	10.8 <i>12.5</i>	3.4'	R09:42.6 D-03:42
NGC3115 <i>S0</i>	Mar 23	GX	9.1 <i>12.1</i>	8x3'	R10:05.2 D-07:43 Spindle Galaxy
NGC3166 <i>SAB(rs)0/a</i>	Mar 25	GX	10.6 <i>12.9</i>	4.6'x2.6'	R10:13.8 D+03:26
NGC3169 <i>SA(s)a</i>			10.2 <i>12.9</i>	5'x2.8'	R10:14.2 D+03:28
Struve 1441	Mar 29	D*	6.4 9.9	K5III 2.6" F6V	R10:31.0 D-07:38 SAO137614
35 Sex	Apr 2	D*	6.3 7.4	K3III 6.8" K0III	R10:43.3 D+04:45 SAO118449

Catalogue	Date	Type	Mag	Size	Comments
CRATER					
NGC3511	Apr 7	GX	11.0 <i>12.7</i>	5.5'x1.0'	R11:03.4 D-23:05
NGC3672	Apr 12	GX	11.4 <i>13.4</i>	3.9'x1.8'	R11:25.0 D-09:48
NGC3887	Apr 17	GX	10.6 <i>12.8</i>	3.5'x2.4'	R11:47.1 D-16:51
NGC3995	Apr 19	GX	11.3 <i>12.7</i>	3.7'x1.1'	R11:54.0 D-23:10
NGC3962	Apr 19	GX	10.7 <i>12.4</i>	2.6'x2.2'	R11:54.7 D-13:58

Catalogue	Date	Type	Mag	Size	Comments
CORVUS					
NGC4027	Apr 21	GX	11.2 <i>13.4</i>	3.8'x2.3'	R11:59.5 D-19:16
NGC4033 <i>SA0</i>	Apr 21	GX	11.8 <i>12.6</i>	2.2'x1.1'	R12:00.6 D-17:51
NGC4038 <i>SB</i>	Apr 21	GX	10.5 <i>13.7</i>	5.4'x3.9'	R12:01.9 D-18:52
NGC4039 <i>IB</i>			10.3 <i>13.0</i>	5.4'x2.5'	Ring-tail galaxy; Antennae
NGC4361	Apr 27	PN	10.3 <i>*13.2</i>	45"	R12:24.5 D-18:48
δ-Corvii h1435	Apr 28	D*	3.9 9.2	B9.5V 24"	R12:29.9 D-16:31 Algorab SAO157323
Struve 1669	May 1	D*	6.0 6.1	F5V 5.4" F5V	R12:41.3 D-13:01 SAO157448
NGC4782 <i>E/S0</i>	May 5	GX	11.7 <i>12.8</i>	1.8'x1.7'	R12:54.6 D-12:34
NGC4783 <i>S0</i>		GX	11.5 <i>12.6</i>	1.8'x1.7'	R12:54.6 D-12:33

SPRING 12

Catalogue	Date	Type	Mag	Size	Comments
VIRGO					
NGC4178 <i>SB(rs)dm</i>	Apr 23	GX	11.4 <i>13.5</i>	5'x1.6'	R12:12.8 D+10:52
NGC4179 <i>S0</i>	Apr 23	GX	11.0 <i>12.4</i>	3.9'x1.1'	R12:12.9 D+01:18
NGC4216 <i>SAB(s)b</i>	Apr 25	GX	10.0 <i>12.6</i>	7.8'x1.6'	R12:15.9 D+13:09
NGC4224 <i>SA(s)a</i>	Apr 25	GX	11.8 <i>12.1</i>	1.8'x0.8'	R12:16.6 D+07:28
NGC4235 <i>SA(s)a</i>	Apr 25	GX	11.6 <i>12.6</i>	3.6'x0.8'	R12:17.2 D+07:11
Struve 1627	Apr 26	D*	6.6 6.9	F2V 20" F3V	R12:18.2 D-03:57 SAO138704
NGC4273 <i>SB(s)c</i>	Apr 26	GX	11.9 <i>12.7</i>	2.3'x1.1'	R12:19.9 D+05:21
NGC4281 <i>S0</i>	Apr 26	GX	11.3 <i>12.4</i>	2.5'x1.3'	R12:20.4 D+05:23
M61 <i>SAB(rs)bc</i>	Apr 26	GX	9.7 <i>13.4</i>	6.0'x5.9'	R12:21.3 D+04:36
17 Virginis	Apr 26	D*	6.6 9.4	F8V 20"	R12:22.5 D+05:18 SAO119360
NGC4371 <i>SB(r)0</i>	Apr 27	GX	10.8 <i>13.2</i>	4.6'x2.2'	R12:24.9 D+11:42
M84 <i>E1</i>	Apr 27	GX	9.8 <i>12.3</i>	5'x4'	R12:25.1 D+12:53 RM
NGC4387	Apr 27	GX	12	1.7'x1.1'	R12:25.9 D+12:47 RM
NGC4388 <i>SA(s)b</i>	Apr 27	GX	11.0 <i>13.3</i>	5.7'x1.6'	R12:25.8 D+12:40
NGC4402 <i>Sb</i>	Apr 27	GX	11.8 <i>13.0</i>	3.5'x1'	R12:26.1 D+13:07
M86 <i>E3</i>	Apr 27	GX	8.2 <i>13.9</i>	7'x6'	R12:26.2 D+12:57 RM
NGC4417 <i>SB</i>	Apr 27	GX	11.1 <i>12.5</i>	3.2'x1.3'	R12:26.8 D+09:35
NGC4425 <i>SB0</i>	Apr 27	GX	11.8 <i>12.5</i>	2.7'x0.8'	R12:27.2 D+12:44
NGC4429 <i>SA(r)0</i>	Apr 27	GX	10.0 <i>12,8</i>	5.6'x2.6'	R12:27.4 D+11:07
NGC4435 <i>SB(s)0</i>	Apr 27	GX	10.8 <i>12.7</i>	3.2'x2.0'	R12:27.7 D+13:05
NGC4438 <i>SA(s)0</i>		GX	10.2 <i>13.8</i>	8.9'x3.6'	R12:27.8 D+13:01
NGC4442 <i>SB(s)0</i>	Apr 28	GX	10.4 <i>12.6</i>	4.6'x1.9'	R12:28.1 D+09:48
NGC4457 <i>(R)SAB(s)0</i>	Apr 28	GX	10.9 <i>13.0</i>	3.1'x6.1'	R12:29.0 D+03:34
3C 273	Apr 28	QS	12.8		R12:29.1 D+02:03 RM
M49 <i>E2</i>	Apr 28	GX	8.4 <i>12.7</i>	8.1'x7.1'	R12:29.8 D+08:00
M87 <i>E0</i>	Apr 28	GX	8.6 <i>12.7</i>	7'x7'	R12:30.8 D+12:24 RM

SPRING 13

Catalogue	Date	Type	Mag	Size	Comments
VIRGO					
NGC4503 <i>SB0</i>	Apr 28	GX	11.1 <i>12.9</i>	3.5'x1.8'	R12:32.1 D+11:11
NGC4526 <i>SAB(s)0</i>	Apr 29	GX	9.7 <i>12.8</i>	7.1'x2.9'	R12:34.0 D+07:42
NGC4527 <i>SAB(s)bc</i>	Apr 29	GX	10.5 <i>13.1</i>	6.0'x2.1'	R12:34.1 D+02:39
NGC4536 <i>SAB(rs)bc</i>	Apr 29	GX	10.6 <i>13.5</i>	6.4'x2.6'	R12:34.5 D+02:11
NGC4546 <i>SB0</i>	Apr 30	GX	10.3 <i>11.8</i>	3.2'x1.4'	R12:35.5 D-03:48
M89 <i>E</i>	Apr 30	GX	9.8 <i>12.3</i>	3.4'x3.4'	R12:35.7 D+12:33 RM
M90 <i>SAB(rs)ab</i>	Apr 30	GX	9.5 <i>13.6</i>	10.5x4.4'	R12:36.8 D+13:10 RM
M58 <i>SAB(rs)b</i>	May 1	GX	9.7 <i>13.0</i>	5.5'x4.6'	R12:37.7 D+11:49 RM
M104 <i>SA</i>	May 1	GX	8.3 <i>11.6</i>	7'x4'	R12:40.0 D-11:37 Sombrero Galaxy
NGC4596 <i>SB(r)0</i>	May 1	GX	10.4 <i>13.4</i>	4.6'x4.1'	R12:39.9 D+10:11
NGC4608 <i>SB(r)0</i>	May 1	GX	11.0 <i>13.2</i>	3'x3'	R12:41.2 D+10:29
M59 <i>E5</i>	May 1	GX	9.6 <i>12.5</i>	4.6'x3.6'	R12:42.0 D+11:39 RM
NGC4636 <i>E0</i>	May 1	GX	9.5 <i>13.3</i>	7'x5'	R12:42.8 D+02:41
NGC4643 <i>(R)SB(rs)0</i>	May 2	GX	10.8 <i>13.0</i>	3'x3'	R12:43.3 D+01:59
M60 <i>E2</i>	May 2	GX	8.8 <i>13.1</i>	7'x6'	R12:43.7 D+11:33 60Mly RM
NGC4647	May 2	GX	11.9	2.8'x2.3'	R12:43.8 D+11:33 RM
NGC4654 <i>SAB(rs)cd</i>	May 2	GX	10.5 <i>13.2</i>	4.9'x2.7'	R12:44.0 D+13:08
NGC4666 <i>Sbc</i>	May 2	GX	10.7 <i>12.4</i>	4.1'x1.3'	R12:45.1 D-00:28
NGC4691 <i>(R)SB(rs)0</i>	May 3	GX	11.1 <i>12.8</i>	2.6'x2.1'	R12:48.2 D-03:20
NGC4697 <i>SA0</i>	May 3	GX	9.2 <i>11.6</i>	4.4'x2.4'	R12:48.6 D-05:48
NGC4698 <i>SA(s)ab</i>	May 3	GX	10.6 <i>12.2</i>	3.2'x1.7'	R12:48.4 D+08:29
NGC4699 <i>Sab</i>	May 3	GX	9.5 <i>12.2</i>	4.4'x3.2'	R12:49.0 D-08:40
NGC4753 <i>I0</i>	May 4	GX	9.9 <i>12.2</i>	4.1'x2.3'	R12:52.4 d-01:12
NGC4754 <i>Sb(R)0</i>	May 4	GX	10.6 <i>13.1</i>	4.6'x2.6'	R12:52.3 D+11:19
NGC4762 <i>SB(r)0</i>	May 5	GX	10.3 <i>13.4</i>	9.1'x2.2'	R12:52.9 D+11:14
NGC4845 <i>Sab</i>	May 6	GX	11.2 <i>12.9</i>	4.8'x1.2'	R12:58.0 D+01:35

SPRING 14

Catalogue	Date	Type	Mag	Size	Comments
VIRGO					
NGC4856 <i>SB(s)0</i>	May 7	GX	10.5 <i>11.5</i>	3.1'x0.9'	R12:59.3 D-15:02
NGC4866 <i>SA(r)0</i>	May 7	GX	11.2 <i>13.1</i>	5.5'x1.2'	R12:59.5 R+14:10
NGC4900 <i>SB(rs)c</i>	May 7	GX	11.4 <i>13.0</i>	2.3'x2.3'	R13:00.6 D+02:30
NGC4958 <i>S0</i>	May 8	GX	10.7 <i>12.3</i>	3.6'x1.4'	R13:05.8 D-08:01
θ-Virginis	May 9	T*	4.4 9.4 10.4	A1V 7" 70"	R13:09.9 D-5:32 SAO139189
54 Virginis	May 10	D*	6.8 7.3	B9III 5.4"	R13:13.4 D-18:50 SAO157798
NGC5044 <i>E0</i>	May 11	GX	10.8 <i>13.1</i>	3'x3'	R13:15.4 D-16:23
NGC5147 <i>SB(s)c</i>	May 13	GX	11.8 <i>12.6</i>	1.6'x1.5'	R13:26.3 D+02:06
NGC5170 <i>Sbc</i>	May 14	GX	11.3 <i>13.5</i>	7.8'x1.1'	R13:29.8 D-17:57
NGC5230 <i>SA(s)c</i>	May 15	GX	12.1 <i>13.2</i>	1.9'x1.7'	R13:35.5 D+13:40
NGC5247 <i>SA(s)c</i>	May 16	GX	10.1 <i>13.0</i>	5.2'x3.2'	R13:38.1 D-17:53
84 Virginis	May 17	D*	5.5 7.9	K1III 3"	R13:43.1 D+03:32 SAO120082
Struve 1788	May 18	Q*	6.5 7.5 10.3 10.9	F8V 3.4" G0 128" 157"	R13:55.0 D-08:04 SAO139618
NGC5363 <i>I0</i>	May 21	GX	10.1 <i>12.9</i>	5.0'x3.2'	R13:56.1 D+05:15
NGC5566 <i>SB(r)ab</i>	May 27	GX	10.6 <i>13.1</i>	5.7'x2.1'	R14:20.3 D+03:56
φ-Virginis	May 29	T*	4.8 9.3 12.4	G2IV 4.8" 93"	R14:28.2 D-02:14 SAO139951
NGC5746 <i>SAb</i>	Jun 2	GX	10.3 <i>12.3</i>	6.8'x1'	R14:44.9 D+01:57
NGC5813 <i>SA0</i>	Jun 6	GX	10.5 <i>12.8</i>	3.4'x2.8'	R15:01.2 D+01:42
NGC5838 <i>SAB(s)0</i>	Jun 7	GX	10.9 <i>12.7</i>	3.5'x1.6'	R15:05.4 D+02:06
NGC5846 <i>E1</i>	Jun 7	GX	10.0 <i>12.3</i>	3'x3'	R15:06.4 D+01:36

SPRING 15

Catalogue	Date	Type	Mag	Size	Comments
COMA BERENICES					
NGC4064 <i>SB(s)a</i>	Apr 22	GX	11.4 <i>13.3</i>	3.8'x1.7'	R12:04.2 d+18:27
2 Coma Be. Struve1596	Apr 22	D*	5.9 7.4	F0V 3.7"	R12:04.2 D+21:28 SAO81123
NGC4147 <i>VI</i>	Apr 23	GC	10.2 <i>*14.5</i>	4'	R12:10.1 D+18:33 RM
NGC4150 <i>SA(r)0</i>	Apr 23	GX	11.6 <i>12.7</i>	2.1'x1.5'	R12:10.6 D+30:24
M98 <i>SAB(s)ab</i>	Apr 24	GX	10.1 <i>13.2</i>	10'x3'	R12:13.8 D+14:54
Struve 1615	Apr 24	D*	6.9 9.7	K1III 27" F8V	R12:14.1 D+32:47 SAO62904
NGC4203 <i>SAB0</i>	Apr 25	GX	10.9 <i>13.4</i>	3.5'x3.4'	R12:15.1 D+33:12
NGC4212 <i>SAc</i>	Apr 25	GX	11.2 <i>12.7</i>	2.7'x1.8'	R12:15.7 D+13:54
NGC4245 <i>SB(r)0</i>	Apr 26	GX	11.4 <i>13.7</i>	3.2'x3.0'	R12:17.6 D+29:36
NGC4251 <i>SBO</i>	Apr 26	GX	10.7 <i>12.8</i>	3.7'x2.1'	R12:18.1 D+28:10
M99 <i>SA(s)c</i>	Apr 26	GX	9.8 <i>13.0</i>	4.6'x4.3'	R12:18.8 D+14:25 RM
NGC4274 <i>(R)SB(r)ab</i>	Apr 26	GX	10.4 <i>13.3</i>	6.7'x2.5'	R12:19.8 D+29:37
NGC4278 <i>E1</i>	Apr 26	GX	10.2 <i>12.7</i>	3.5'	R12:20.1 D+29:17 NGC4283 ne gx
NGC4293 <i>(R)SB(s)0</i>	Apr 26	GX	10.4 <i>13.2</i>	5.3'x3.1	R12:21.2 D+18:23
NGC4298 <i>SA(rs)c</i>	Apr 26	GX	11.3 <i>12.8</i>	2.7'x1.6'	R12:21.5 D+14:36
NGC4302 <i>Sc</i>			11.6 <i>13.0</i>	4.7'x0.9'	R12:21.7 D+14:36
NGC4314 <i>SB(rs)a</i>	Apr 26	GX	10.6 <i>13.5</i>	4.2'	R12:22.6 D+29:53
M100 <i>SAB(s)bc</i>	Apr 26	GX	9.4 <i>13.0</i>	6.2'x5.3'	R12:22.9 D+15:49 RM
Collinder 256 / Melotte 111	Apr 27	OC	1.8 <i>*4.3</i>	275'	R12:25.0 D+26:00 290ly RM
NGC4377 <i>SA0</i>	Apr 27	GX	11.9 <i>12.4</i>	1.5'x1.2'	R12:25.2 D+14:46
NGC4382 <i>S0</i>	Apr 27	GX	11.7 <i>12.3</i>	1.5'x1.3'	R12:25.2 D+15:36
M85 <i>SA(s)0</i>	Apr 27	GX	9.1 <i>13.0</i>	7'x5'	R12:25.7 D+18:10 60Mly RM
NGC4394 <i>(R)SB(r)b</i>	Apr 27	GX	10.0 <i>13.3</i>	3.3'x3.1	R12:25.9 D+18:13 60Mly RM
NGC4414 <i>SA(rs)c</i>	Apr 27	GX	10.1 <i>12.8</i>	4.4'x3'	R12:26.4 D+31:13
NGC4448 <i>SB(r)ab</i>	Apr 28	GX	11.1 <i>12.7</i>	3.7'x1.4'	R12:28.2 D+28:37

SPRING 16

Catalogue	Date	Type	Mag	Size	Comments
COMA BERENICES					
NGC4450 <i>SA(s)ab</i>	Apr 28	GX	10.1 <i>13.0</i>	5'x3.4'	R12:28.8 D+17:03
NGC4494 <i>E1</i>	Apr 28	GX	9.7 <i>12.9</i>	5'x4'	R12:31.7 D+25:45
M88 <i>SA(rs)b</i>	Apr 28	GX	9.4 <i>12.6</i>	6'x3'	R12:32.3 D+14:23 RM
24 Coma Be. Struve1657	Apr 29	D*	5.2 6.8	K2III 20" A9V	R12:35.1 D+18:23 SAO10060 300ly orange, blue-green RM
M91 <i>SB(rs)b</i>	Apr 29	GX	10.1 <i>13.3</i>	5'x4'	R12:35.7 D+14:28
NGC4559 <i>SAB(rs)cd</i>	Apr 29	GX	9.6 <i>14.3</i>	12'x5'	R12:36.2 D+27:56 32Mly RM
NGC4565 <i>SA(s)b</i>	Apr 29	GX	9.6 <i>12.9</i>	14'x2'	R12:36.3 D+25:59 32Mly RM
NGC4689 <i>SA(rs)bc</i>	May 2	GX	10.9 <i>13.5</i>	3.7'x3.2'	R12:47.8 D+13:46
NGC4710 <i>SA(r)0</i>	May 3	GX	11.0 <i>12.5</i>	4'x1.2'	R12:49.6 D+15:10
NGC4725 <i>SAB(r)ab</i>	May 3	GX	9.3 <i>14.1</i>	11'x8'	R12:50.7 D+25:28 RM
35 Coma Be.	May 4	T*	5.1 7.2 9.1	G8III 1.2" F6V 29"	R12:53.3 D+21:14 SAO82550 320ly
M64 <i>(R)SA(rs)ab</i>	May 5	GX	8.5 <i>12.4</i>	9'x5'	R12:56.7 D+21:41 Black Eye Galaxy 19Mly RM
M53 <i>Class V</i>	May 9	GC	7.7 <i>*13.8</i>	13'	R13:12.9 D+18:20 60,000ly RM
NGC5053 <i>Class XI</i>	May 10	GC	9.9 <i>*14.0</i>	10.5'	R13:16.4 D+17:42 54,000ly RM
Burnham 800	May 11	T*	6.6 9.7 10.4	K1V 6.8" M1V 93"	R13:16.9 D+17:01 SAO100491

Catalogue	Date	Type	Mag	Size	Comments
CAMELOPARDALIS					
IC3568	Apr 28	PN	10.6 <i>*11</i>	>6"	R12:32.9 D+82:33
Struve 1694 32-Cam	May 3	D*	5.3 5.8	A1III 22" A0V	R12:49.3 D+83:24

SPRING 17

Catalogue	Date	Type	Mag	Size	Comments
CANES VENATICI					
NGC4111 <i>SA(r)0</i>	Apr 22	GX	10.7 <i>12.1</i>	4.4'x1'	R12:07.1 D+43:04
NGC4138 <i>SA(r)0</i>	Apr 23	GX	11.3 <i>13.0</i>	2.9'x1.8'	R12:09.5 D+43:41
NGC4145 <i>SAB(rs)d</i>	Apr 23	GX	11.3 <i>14.6</i>	6.0'x4.0'	R12:10.0 D+39:53
NGC4151 <i>(R)SAB(rs)ab</i>	Apr 23	GX	10.8 <i>14.5</i>	6.4'x5.5'	R12:10.5 D+39:24
NGC4214 <i>IAB(S)m</i>	Apr 25	GX	9.8 <i>14.4</i>	10'x8.3'	R12:15.6 D=36:20
NGC4217 <i>Sb</i>	Apr 25	GX	11.2 <i>13.2</i>	5'x1.5'	R12:15.8 D+47:06
2 CVn Struve1622	Apr 25	D*	5.8 8.1	M1III 11.4" F7V	R12:16.1 D+40:40 SAO44097
NGC4242 <i>SAB(s)d</i>	Apr 26	GX	10.8 <i>13.8</i>	5.2'x3.5'	R12:17.5 D+45:37
NGC4244 <i>SA(s)cd</i>	Apr 26	GX	10.4 <i>14.2</i>	17'x2.2'	R12:17.5 D+37:49
M106 <i>SAB(s)bc</i>	Apr 26	GX	8.0 <i>13.8</i>	18'x8.4'	R12:19.0 D+47:18 RM
NGC4346 <i>S0</i>	Apr 27	GX	11.1 <i>12.6</i>	3.2'x1.4'	R12:23.5 D+47:00
NGC4369 <i>(R)SA(rs)a</i>	Apr 27	GX	11.7 <i>13.2</i>	2.2'x2.2'	R12:24.6 D+39:23
NGC4449 <i>IBm</i>	Apr 28	GX	9.4 <i>12.8</i>	5.5'x4.1'	R12:28.5 D+44:04
NGC4485 <i>IB(s)m</i>	Apr 28	GX	12.0 <i>13.8</i>	2.7'x2.3'	R12:30.5 D+41:42
NGC4490 <i>SB(s)d</i>			9.8 <i>13.0</i>	6.4'x3.3'	R12:30.6 D+41:38
Upgren 1	Apr 29	OC	?	14'	R12:35.0 D+36:18 390ly , 1.6ly lg
NGC4631 <i>SB(s)d</i>	May 1	GX	9.0 <i>13.3</i>	15'x3.3'	R12:42.4 D+32:31
Y CVn	May 2	V*	4.8 - 6.4	C5,4J(N3)	R12:45.1 D+45:26 SAO44317 Red variable
NGC4656-7 <i>SB(s)m</i>	May 2	GX	10.5 <i>14.8</i>	15'x3'	R12:44.0 D+32:10
M94 <i>(R)SA(r)ab</i>	May 3	GX	8.2 <i>13.5</i>	13'x11'	R12:59.9 D+41:07 RM
α -CVn	May 5	D*	2.9 5.4	B9-A0p 19" F0V	R12:56.0 D+38:19 Cor Caroli 110ly blue, white RM
NGC5005 <i>SAB(rs)bc</i>	May 9	GX	9.8 <i>12.7</i>	5.8'x2.8'	R13:10.9 D+37:03
NGC5033 <i>SA(s)c</i>	May 10	GX	10.2 <i>14.4</i>	10'x5.1'	R13:13.4 D+36:36
M63 <i>SA(rs)bc</i>	May 13	GX	8.6 <i>13.6</i>	12'x8'	R13:15.8 D+42:02 37Mly RM
M51 <i>SA(s)bc</i>	May 14	GX	8.4 <i>12.6</i>	8.2x6.9'	R13:29.9 D+47:12 Whirlpool Galaxy 37Mly RM

SPRING 18

Catalogue	Date	Type	Mag	Size	Comments
CANES VENATICI					
NGC5198 <i>E1</i>	May 14	GX	11.8 <i>12.9</i>	2.0'x1.7'	R13:30.2 D+46:40
M3 <i>Class VI</i>	May 17	GC	6.4 <i>*13</i>	16'	R13:42.2 D+28:23 32,000ly RM
NGC5273 <i>SA(s)0</i>	May 17	GX	11.6 <i>13.5</i>	2.8'x2.4'	R13:42.1 D+35:39
NGC5350 <i>SB(r)b</i>	May 20	GX	11.4 <i>13.4</i>	3.1'x2.5'	R13:53.4 D+40:22
NGC5353 <i>S0</i>	May 20	GX	11.0 <i>12.7</i>	2.8'x1.9'	R13:53.5 D+40:17
NGC5354 <i>SA(r)b</i>			11.4 <i>12.8</i>	2.2'x2.0'	R13:53.5 D+40:18
NGC5371 <i>SAB(rs)bc</i>	May 20	GX	10.8 <i>13.3</i>	4.1'x3.2'	R13:55.7 D+40:28
NGC5377 <i>(R)SB(s)a</i>	May 21	GX	11.3 <i>13.6</i>	4.1'x2.3'	R13:56.3 D+47:14
NGC5383 <i>(R)SB(rs)b</i>	May 21	GX	11.4 <i>13.4</i>	3.2'x2.2'	R13:57.1 D+41:51
NGC5395 <i>SA(s)b</i>	May 22	GX	11.4 <i>12.5</i>	2.7'x1.2'	R13:58.6 D+37:25
CENTAURUS					
NGC5102	May 12	GX	8.8 <i>12.6</i>	9.8'x4.0'	R13:22.0 D-36:38
NGC5253	May 17	GX	10.2 <i>12.7</i>	5.1'x2.3'	R13:39.9 D-31:39
NGC5419	May 23	GX	10.8 <i>13.4</i>	3.9'x3.2'	R14:03.7 D-33:59

SPRING 19

Catalogue	Date	Type	Mag	Size	Comments
DRACO (SPRING)					
NGC3147 <i>SA(rs)bc</i>	Mar 26	GX	10.6 <i>13.5</i>	4.3'x3.7'	R10:16.9 D+73:24
NGC3403 <i>SAbc</i>	Apr 4	GX	12.2 <i>13.6</i>	3.2'x1.4'	R10:53.9 D+73:41
NGC3735 <i>SAC</i>	Apr 15	GX	11.8 <i>13.0</i>	3.9'x0.9'	R11:36.0 D+70:32
NGC4125 <i>E6</i>	Apr 23	GX	9.7 <i>13.3</i>	6.1'x5.1'	R12:08.1 D+65:11
NGC4128 <i>SA0</i>	Apr 23	GX	12.0 <i>12.8</i>	2.5'x1.0'	R12:08.5 D+68:46
NGC4250 <i>SAB(r)0</i>	Apr 25	GX	11.8 <i>13.2</i>	2.3'x1.8'	R12:17.4 D+70:48
NGC4256 <i>SA(s)b</i>	Apr 26	GX	11.9 <i>13.0</i>	4.1'x0.8'	R12:18.7 D+65:54
NGC4291 <i>E</i>	Apr 26	GX	11.5 <i>12.6</i>	2.0'x1.7'	R12:20.3 D+75:22
NGC4319 <i>SB(r)ab</i>	Apr 26	GX	11.9 <i>13.7</i>	2.8'x2.1'	R12:21.7 D+75:19
NGC4386 <i>SAB0</i>	Apr 27	GX	11.7 <i>13.3</i>	2.8'x1.8'	R12:24.5 D+75:32
NGC4589 <i>E2</i>	Apr 30	GX	10.7 <i>12.9</i>	3.0'x2.7'	R12:37.4 D+74:12
NGC4648 <i>E3</i>	May 1	GX	12.0 <i>12.8</i>	1.7'x1.3'	R12:41.8 D+74:25
NGC4750 <i>(R)SA(rs)ab</i>	May 3	GX	11.2 <i>12.6</i>	2.1'x2.0'	R12:50.1 D+72:52