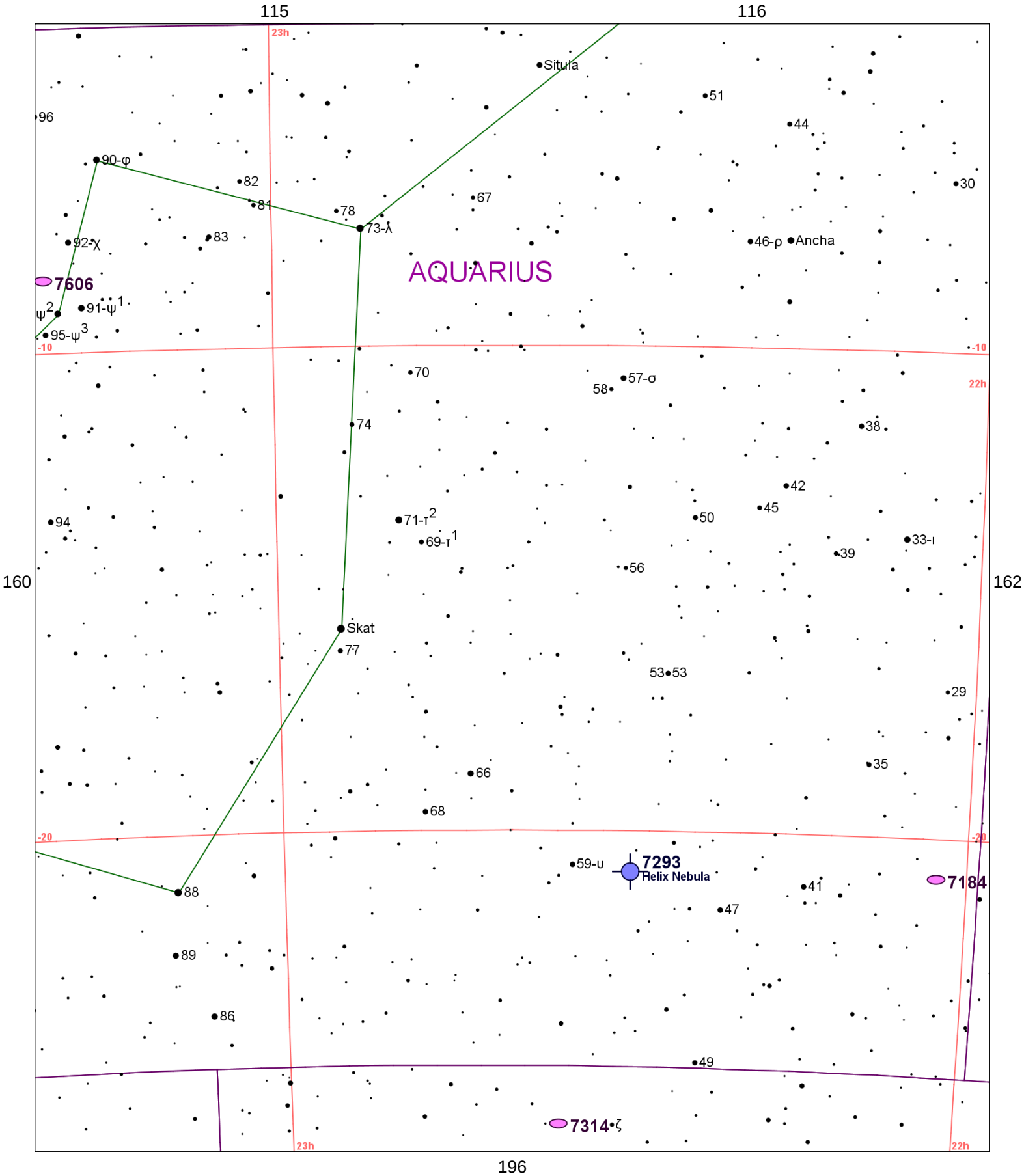
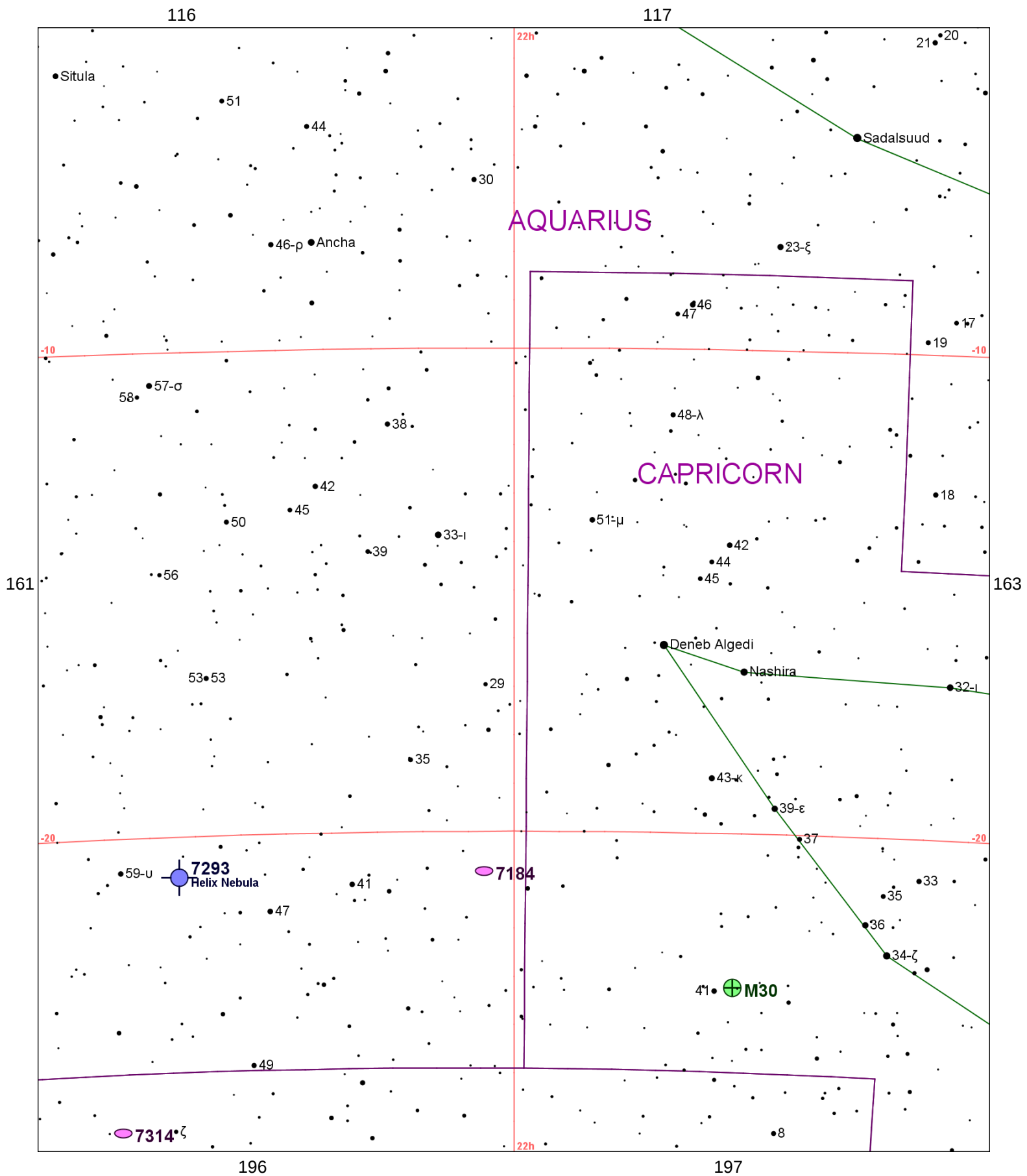
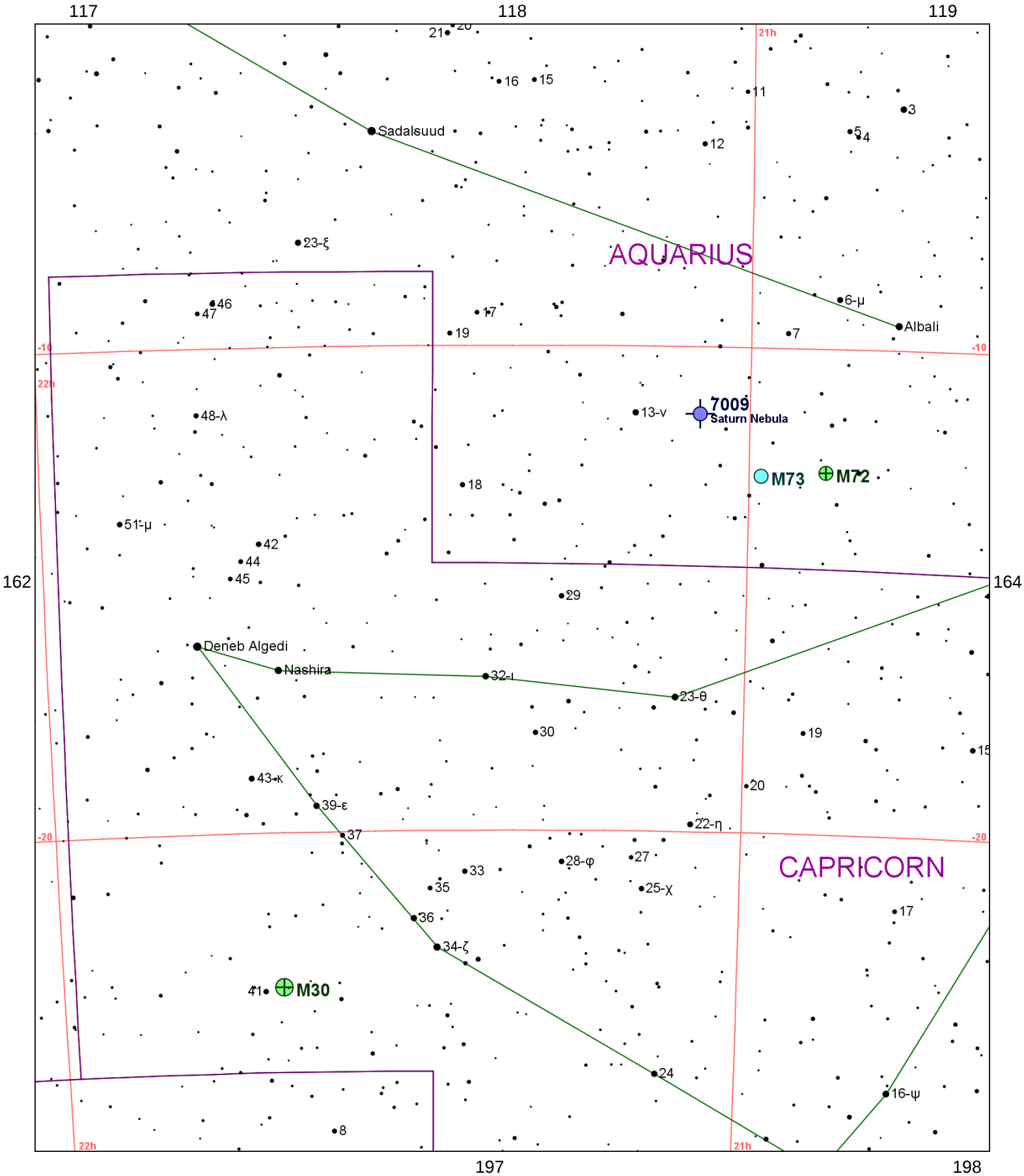




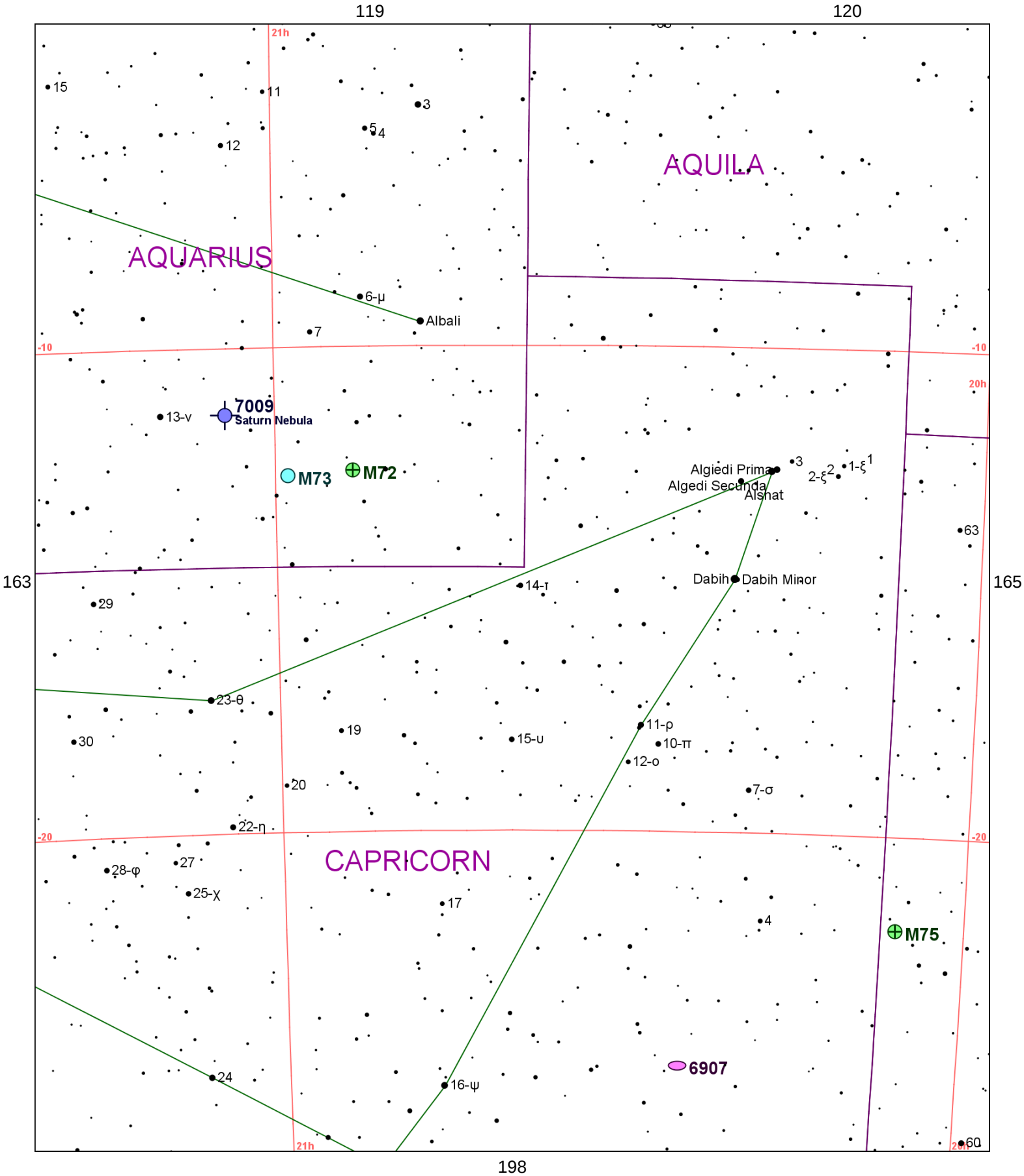
| Chart 161    |   |        |      |      |                                                           |           |            |     |    |    |   |         |   |
|--------------|---|--------|------|------|-----------------------------------------------------------|-----------|------------|-----|----|----|---|---------|---|
| Name         | M | Const. | Mag. | Type | Size                                                      | R.A.      | Decl.      | C   | R  | S  | O | # Stars | B |
| Common       |   |        |      |      | Notes                                                     |           |            |     |    |    |   |         |   |
| NGC 7184     |   | AQR    | 10.9 | GAL  | 5.9m x 1.3m                                               | 22h 02.7m | -20° 49.0' |     |    |    | O |         |   |
|              |   |        |      |      | pB,pL,mE64,bet 3*,er - H II 1;With Saturn-like inner ring |           |            |     |    |    |   |         |   |
| NGC 7293     |   | AQR    | 6.3  | PN   | 960s x 720s                                               | 22h 29.6m | -20° 50.0' | C63 | R2 | S5 | O |         |   |
| Helix Nebula |   |        |      |      | !,pF,vL,E or biN - low surf brightness                    |           |            |     |    |    |   |         |   |
| NGC 7314     |   | PSA    | 11.0 | GAL  | 4.6m x 2m                                                 | 22h 35.8m | -26° 03.0' |     |    |    |   |         |   |
|              |   |        |      |      | cF,L,mE0,vIbM                                             |           |            |     |    |    |   |         |   |
| NGC 7606     |   | AQR    | 10.8 | GAL  | 4.2m x 2.3m                                               | 23h 19.1m | -8° 29.0'  |     |    |    |   |         |   |
|              |   |        |      |      | pF,cL,pmE0 - H I 104                                      |           |            |     |    |    |   |         |   |



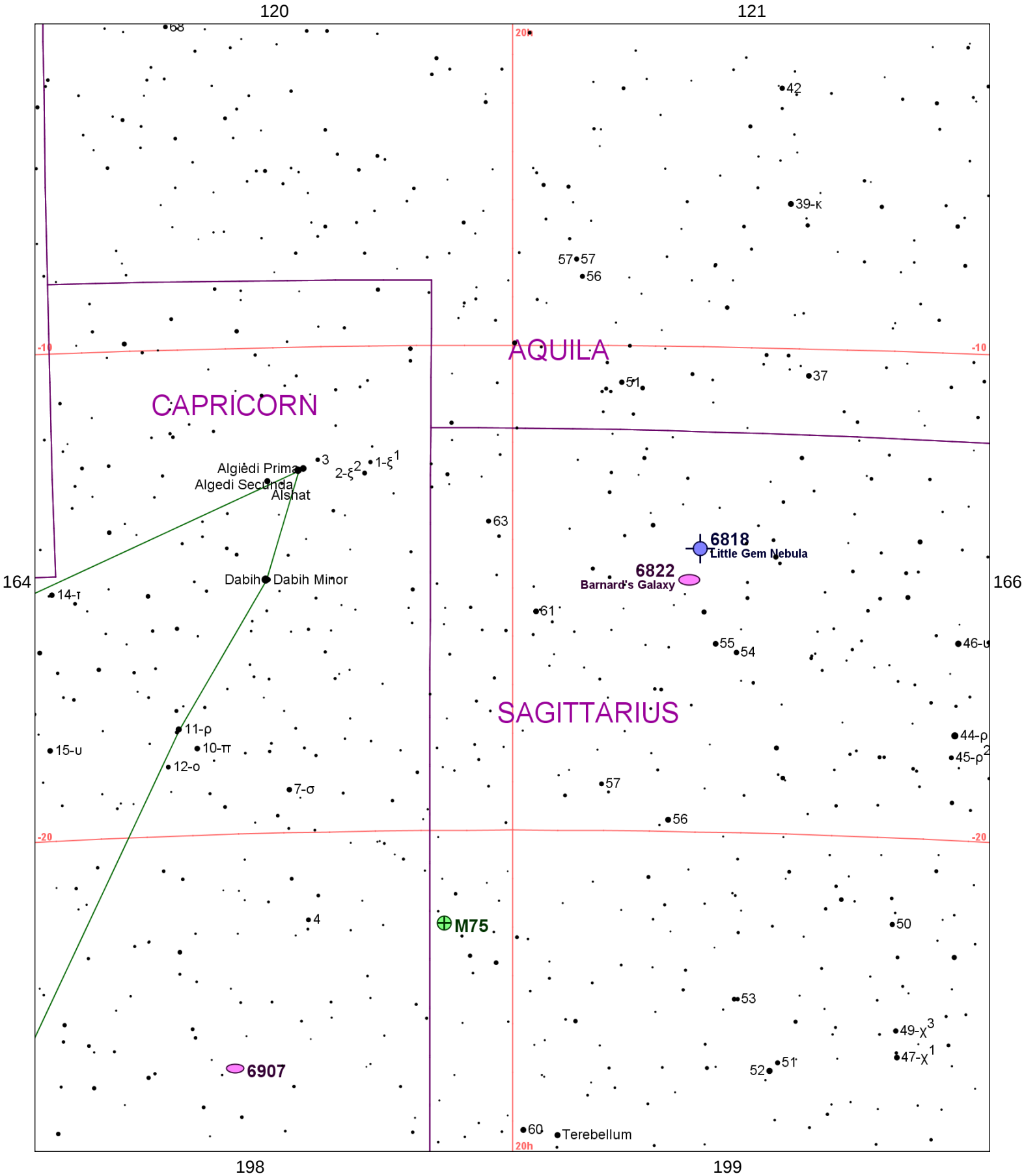
| Chart 162    |     |        |      |      |                                                                   |           |            |     |    |    |   |         |   |
|--------------|-----|--------|------|------|-------------------------------------------------------------------|-----------|------------|-----|----|----|---|---------|---|
| Name         | M   | Const. | Mag. | Type | Size                                                              | R.A.      | Decl.      | C   | R  | S  | O | # Stars | B |
| Common       |     |        |      |      | Notes                                                             |           |            |     |    |    |   |         |   |
| NGC 7099     | M30 | CAP    | 7.5  | GC   | 8.9m                                                              | 21h 40.4m | -23° 11.0' |     |    |    | O |         | B |
|              |     |        |      |      | !,B,L,IE,gpmB,st 12...16 - Wm. Herschel saw very elliptical shape |           |            |     |    |    |   |         |   |
| NGC 7184     |     | AQR    | 10.9 | GAL  | 5.9m x 1.3m                                                       | 22h 02.7m | -20° 49.0' |     |    |    | O |         |   |
|              |     |        |      |      | pB,pL,mE64,bet 3*,er - H II 1;With Saturn-like inner ring         |           |            |     |    |    |   |         |   |
| NGC 7293     |     | AQR    | 6.3  | PN   | 960s x 720s                                                       | 22h 29.6m | -20° 50.0' | C63 | R2 | S5 | O |         |   |
| Helix Nebula |     |        |      |      | !,pF,vL,E or biN - low surf brightness                            |           |            |     |    |    |   |         |   |
| NGC 7314     |     | PSA    | 11.0 | GAL  | 4.6m x 2m                                                         | 22h 35.8m | -26° 03.0' |     |    |    |   |         |   |
|              |     |        |      |      | cF,L,mE0,vlbM                                                     |           |            |     |    |    |   |         |   |



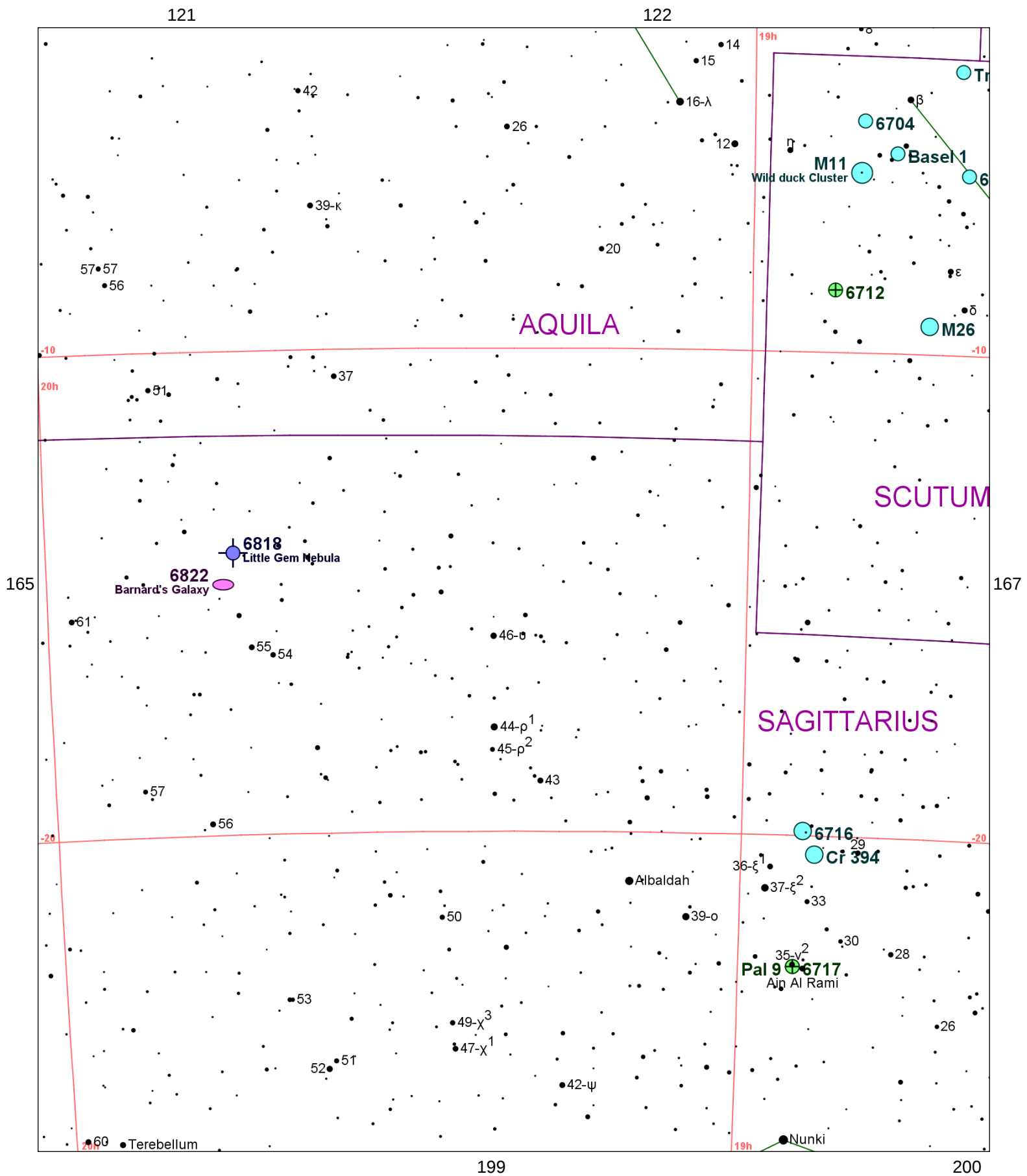
| Chart 163     |     |        |      |      |                                                                             |           |            |     |    |    |   |         |   |
|---------------|-----|--------|------|------|-----------------------------------------------------------------------------|-----------|------------|-----|----|----|---|---------|---|
| Name          | M   | Const. | Mag. | Type | Size                                                                        | R.A.      | Decl.      | C   | R  | S  | O | # Stars | B |
| Common        |     |        |      |      | Notes                                                                       |           |            |     |    |    |   |         |   |
| NGC 6981      | M72 | AQR    | 9.4  | GC   | 5.9m                                                                        | 20h 53.5m | -12° 32.0' |     |    |    | O |         |   |
|               |     |        |      |      | pB,pL,R,gmCM,rrr - 3 deg WSW of NGC 7009                                    |           |            |     |    |    |   |         |   |
| NGC 6994      | M73 | AQR    | 8.9  | OC   | 2.8m                                                                        | 20h 59.0m | -12° 38.0' |     |    |    | O | 4       |   |
|               |     |        |      |      | Cl,eP,vlC,No neb - 4 or 5 10th mag stars;Messier saw neby but there is none |           |            |     |    |    |   |         |   |
| NGC 7009      |     | AQR    | 8.3  | PN   | 28s x 23s                                                                   | 21h 04.2m | -11° 22.0' | C55 | R1 | S4 | O |         |   |
| Saturn Nebula |     |        |      |      | !!! vB,S,elliptic - H IV 1;bright blue-green disk                           |           |            |     |    |    |   |         |   |
| NGC 7099      | M30 | CAP    | 7.5  | GC   | 8.9m                                                                        | 21h 40.4m | -23° 11.0' |     |    |    | O |         | B |
|               |     |        |      |      | !,B,L,IE,gpmbM,st 12...16 - Wm. Herschel saw very elliptical shape          |           |            |     |    |    |   |         |   |



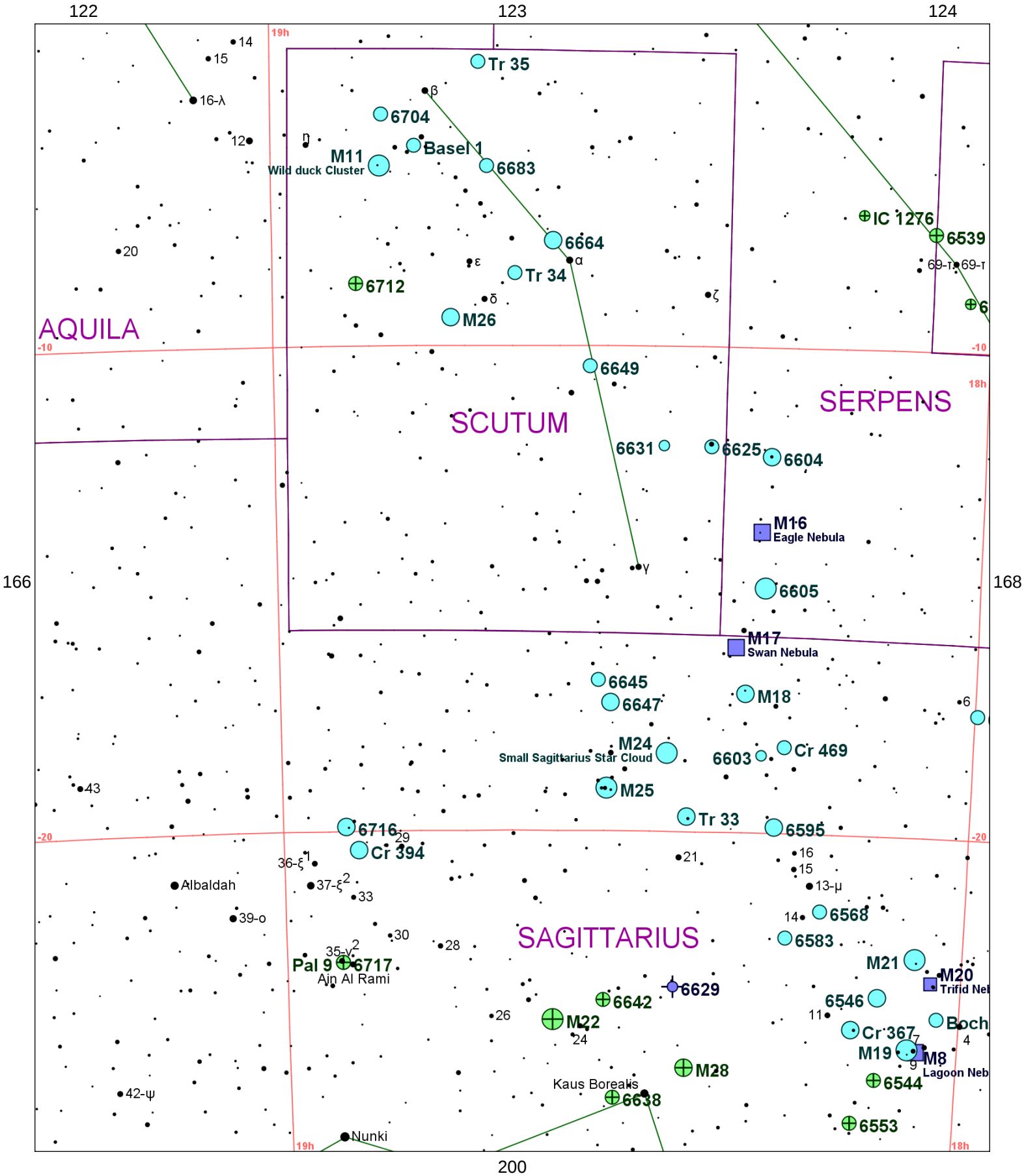
| Chart 164     |     |        |      |      |                                                                             |           |            |     |    |    |   |         |   |
|---------------|-----|--------|------|------|-----------------------------------------------------------------------------|-----------|------------|-----|----|----|---|---------|---|
| Name          | M   | Const. | Mag. | Type | Size                                                                        | R.A.      | Decl.      | C   | R  | S  | O | # Stars | B |
| Common        |     |        |      |      | Notes                                                                       |           |            |     |    |    |   |         |   |
| NGC 6864      | M75 | SGR    | 8.6  | GC   | 6.0m                                                                        | 20h 06.1m | -21° 55.0' |     |    |    | O |         | B |
|               |     |        |      |      | B,pL,R,vmbMBN,rr - * mags 17...                                             |           |            |     |    |    |   |         |   |
| NGC 6907      |     | CAP    | 11.2 | GAL  | 3.4m x 2.6m                                                                 | 20h 25.1m | -24° 49.0' |     |    |    | O |         |   |
|               |     |        |      |      | cF,cL,vIE,vglbM,3st p - H III 141;S shaped spiral                           |           |            |     |    |    |   |         |   |
| NGC 6981      | M72 | AQR    | 9.4  | GC   | 5.9m                                                                        | 20h 53.5m | -12° 32.0' |     |    |    | O |         |   |
|               |     |        |      |      | pB,pL,R,gmCM,rrr - 3 deg WSW of NGC 7009                                    |           |            |     |    |    |   |         |   |
| NGC 6994      | M73 | AQR    | 8.9  | OC   | 2.8m                                                                        | 20h 59.0m | -12° 38.0' |     |    |    | O | 4       |   |
|               |     |        |      |      | Cl,eP,vIC,No neb - 4 or 5 10th mag stars;Messier saw neby but there is none |           |            |     |    |    |   |         |   |
| NGC 7009      |     | AQR    | 8.3  | PN   | 28s x 23s                                                                   | 21h 04.2m | -11° 22.0' | C55 | R1 | S4 | O |         |   |
| Saturn Nebula |     |        |      |      | !!! vB,S,elliptic - H IV 1;bright blue-green disk                           |           |            |     |    |    |   |         |   |



| Chart 165         |     |        |      |      |                                                   |           |            |     |      |     |   |         |   |
|-------------------|-----|--------|------|------|---------------------------------------------------|-----------|------------|-----|------|-----|---|---------|---|
| Name              | M   | Const. | Mag. | Type | Size                                              | R.A.      | Decl.      | C   | R    | S   | O | # Stars | B |
| Common            |     |        |      |      | Notes                                             |           |            |     |      |     |   |         |   |
| NGC 6818          |     | SGR    | 10.0 | PN   | 22s x 15s                                         | 19h 44.0m | -14° 09.0' |     | R104 | S91 | O |         |   |
| Little Gem Nebula |     |        |      |      | B,vS,R - H IV 51;PK25-17.1                        |           |            |     |      |     |   |         |   |
| NGC 6822          |     | SGR    | 8.8  | GAL  | 15.4m x 14.2m                                     | 19h 44.9m | -14° 48.0' | C57 |      |     | O |         |   |
| Barnard's Galaxy  |     |        |      |      | vF,L,E,Dif - IC 1308 =HII region in NGC 6822      |           |            |     |      |     |   |         |   |
| NGC 6864          | M75 | SGR    | 8.6  | GC   | 6.0m                                              | 20h 06.1m | -21° 55.0' |     |      |     | O |         | B |
|                   |     |        |      |      | B,pL,R,vmbMBN,rr - * mags 17...                   |           |            |     |      |     |   |         |   |
| NGC 6907          |     | CAP    | 11.2 | GAL  | 3.4m x 2.6m                                       | 20h 25.1m | -24° 49.0' |     |      |     | O |         |   |
|                   |     |        |      |      | cF,cL,vIE,vglbM,3st p - H III 141;S shaped spiral |           |            |     |      |     |   |         |   |

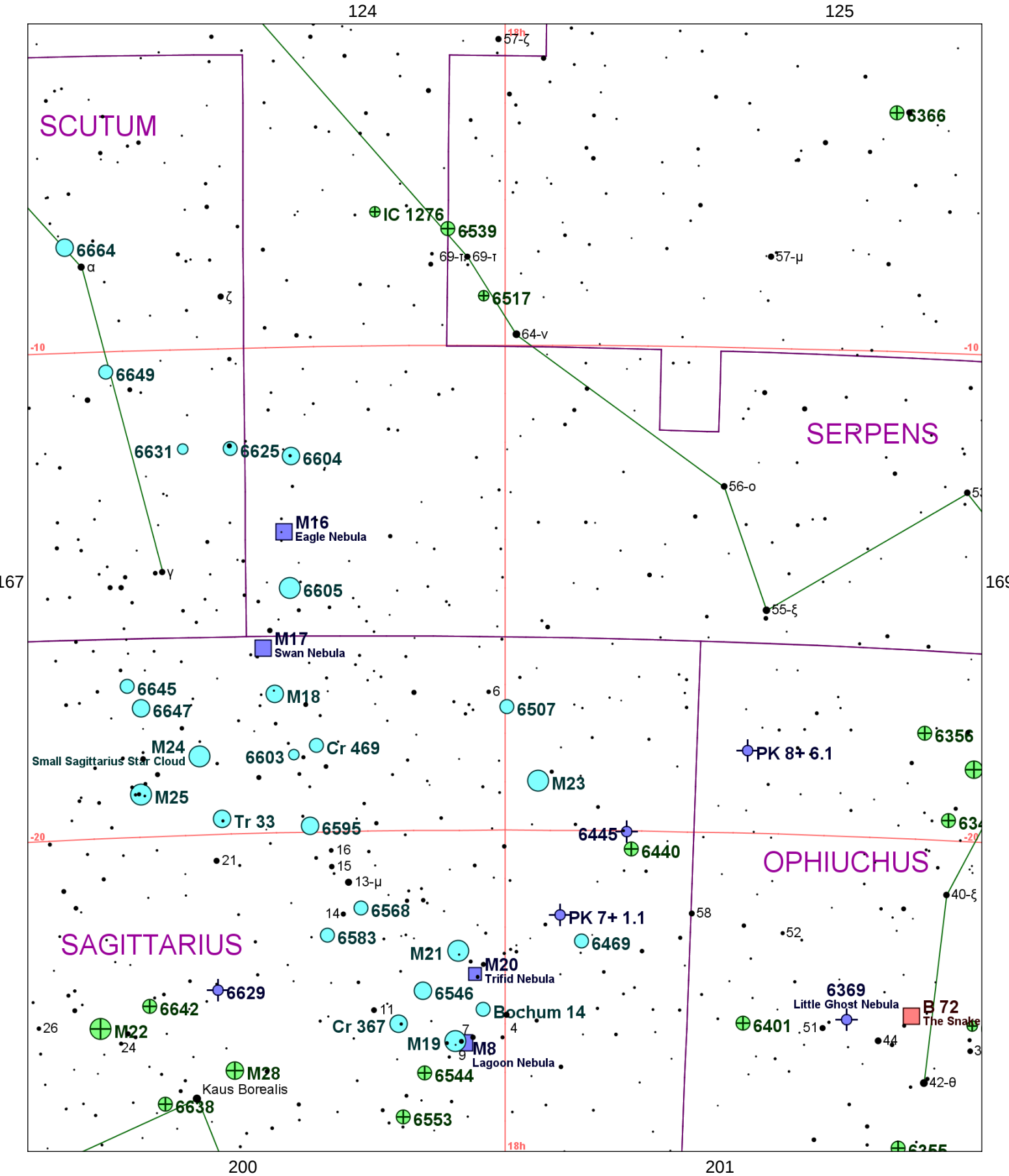


| Chart 166         |     |        |      |      |                                                                                    |           |            |     |      |     |   |         |   |
|-------------------|-----|--------|------|------|------------------------------------------------------------------------------------|-----------|------------|-----|------|-----|---|---------|---|
| Name              | M   | Const. | Mag. | Type | Size                                                                               | R.A.      | Decl.      | C   | R    | S   | O | # Stars | B |
| Common            |     |        |      |      | Notes                                                                              |           |            |     |      |     |   |         |   |
| Basel 1           |     | SCT    | 8.9  | OC   | 9.0m                                                                               | 18h 48.2m | -5° 51.0'  |     |      |     |   | 15      |   |
|                   |     |        |      |      | 13"-pF,pS,nC 12* and hazy background at 100X                                       |           |            |     |      |     |   |         |   |
| Cr 394            |     | SGR    | 6.3  | OC   | 22.0m                                                                              | 18h 53.5m | -20° 23.0' |     |      |     |   |         |   |
| NGC 6683          |     | SCT    | 9.4  | OC   | 11.0m                                                                              | 18h 42.2m | -6° 17.0'  |     |      |     |   | 20      |   |
|                   |     |        |      |      | Cl,vRi,vC,in Milky Way - Rich Milky Way field prob not true cluster                |           |            |     |      |     |   |         |   |
| NGC 6694          | M26 | SCT    | 8.0  | OC   | 15.0m                                                                              | 18h 45.2m | -9° 24.0'  |     |      |     | O | 30      | B |
|                   |     |        |      |      | Cl,cL,pRi,pC,st12..15 - Finderscope will show why Messier included it;70 * to 14 m |           |            |     |      |     |   |         |   |
| NGC 6704          |     | SCT    | 9.2  | OC   | 6.0m                                                                               | 18h 50.9m | -5° 12.0'  |     |      |     |   | 30      |   |
|                   |     |        |      |      | Cl,B,60st13                                                                        |           |            |     |      |     |   |         |   |
| NGC 6705          | M11 | SCT    | 5.8  | OC   | 14.0m                                                                              | 18h 51.1m | -6° 16.0'  |     |      |     | O | 500     | B |
| Wild duck Cluster |     |        |      |      | !!Cl,vB,L,iR,Ri,*9.. - 500 stars to 14th mag                                       |           |            |     |      |     |   |         |   |
| NGC 6712          |     | SCT    | 8.2  | GC   | 4.3m                                                                               | 18h 53.1m | -8° 42.0'  |     | R94  | S87 | O |         |   |
|                   |     |        |      |      | pB,vL,irr,rrr - H I 47                                                             |           |            |     |      |     |   |         |   |
| NGC 6716          |     | SGR    | 7.5  | OC   | 7.0m                                                                               | 18h 54.6m | -19° 54.0' |     |      |     |   | 20      | B |
|                   |     |        |      |      | Cl,pRi,st9...13                                                                    |           |            |     |      |     |   |         |   |
| NGC 6717          |     | SGR    | 9.3  | GC   | 3.9m                                                                               | 18h 55.1m | -22° 42.0' |     |      |     |   |         |   |
|                   |     |        |      |      | F,S,rr,Cl+neb - H III 143                                                          |           |            |     |      |     |   |         |   |
| NGC 6818          |     | SGR    | 10.0 | PN   | 22s x 15s                                                                          | 19h 44.0m | -14° 09.0' |     | R104 | S91 | O |         |   |
| Little Gem Nebula |     |        |      |      | B,vS,R - H IV 51;PK25-17.1                                                         |           |            |     |      |     |   |         |   |
| NGC 6822          |     | SGR    | 8.8  | GAL  | 15.4m x 14.2m                                                                      | 19h 44.9m | -14° 48.0' | C57 |      |     | O |         |   |
| Barnard's Galaxy  |     |        |      |      | vF,L,E,Dif - IC 1308 =HII region in NGC 6822                                       |           |            |     |      |     |   |         |   |
| Pal 9             |     | SGR    | 9.2  | GC   | 3.9m                                                                               | 18h 55.1m | -22° 42.0' |     |      |     |   |         |   |
| Tr 35             |     | SCT    | 9.2  | OC   | 9.0m                                                                               | 18h 42.9m | -4° 08.0'  |     |      |     |   | 35      |   |



| Chart 167                    |     |        |      |      |                                                                                        |           |            |   |   |   |   |         |   |
|------------------------------|-----|--------|------|------|----------------------------------------------------------------------------------------|-----------|------------|---|---|---|---|---------|---|
| Name                         | M   | Const. | Mag. | Type | Size                                                                                   | R.A.      | Decl.      | C | R | S | O | # Stars | B |
| Common                       |     |        |      |      | Notes                                                                                  |           |            |   |   |   |   |         |   |
| Basel 1                      |     | SCT    | 8.9  | OC   | 9.0m                                                                                   | 18h 48.2m | -5° 51.0'  |   |   |   |   | 15      |   |
|                              |     |        |      |      | 13"-pF,pS,nC 12* and hazy background at 100X                                           |           |            |   |   |   |   |         |   |
| Bochum 14                    |     | SGR    | 9.3  | OC   |                                                                                        | 18h 02.0m | -23° 42.0' |   |   |   |   | 10      |   |
| Cr 367                       |     | SGR    | 6.4  | OC   | 37.0m                                                                                  | 18h 09.6m | -23° 59.0' |   |   |   |   | 30      |   |
| Cr 394                       |     | SGR    | 6.3  | OC   | 22.0m                                                                                  | 18h 53.5m | -20° 23.0' |   |   |   |   |         |   |
| Cr 469                       |     | SGR    | 9.1  | OC   | 5.0m                                                                                   | 18h 16.4m | -18° 13.0' |   |   |   |   | 10      |   |
| IC 1276                      |     | SER    | 10.3 | GC   | 7.1m                                                                                   | 18h 10.8m | -7° 13.0'  |   |   |   |   |         |   |
|                              |     |        |      |      | eeF,vL,v difficult,D* close p                                                          |           |            |   |   |   |   |         |   |
| IC 4715                      | M24 | SGR    | 3.1  | OC   | 95m x 35m                                                                              | 18h 26.6m | -18° 23.0' |   |   |   | O |         | B |
| Small Sagittarius Star Cloud |     |        |      |      | eeL cloud of st and neb - sev dark neb and NGC 6603 invl                               |           |            |   |   |   |   |         |   |
| IC 4725                      | M25 | SGR    | 4.6  | OC   | 29m                                                                                    | 18h 31.8m | -19° 07.0' |   |   |   | O | 30      | B |
|                              |     |        |      |      | Cl,pC - Contains U Sgr;Stars mags 6...10                                               |           |            |   |   |   |   |         |   |
| NGC 6507                     |     | SGR    | 9.6  | OC   | 7.0m                                                                                   | 17h 59.8m | -17° 27.0' |   |   |   |   | 35      |   |
|                              |     |        |      |      | Cl,pS,IRi,IC - H VIII 53                                                               |           |            |   |   |   |   |         |   |
| NGC 6514                     | M20 | SGR    | 6.3  | DN   | 28.0m                                                                                  | 18h 02.7m | -22° 58.0' |   |   |   | O | 67      |   |
| Trifid Nebula                |     |        |      |      | vB,vL,Trifid,D* inv - sev dark lanes;H IV 41 & V 10;D* HN 40 invl                      |           |            |   |   |   |   |         |   |
| NGC 6517                     |     | OPH    | 10.3 | GC   | 1m                                                                                     | 18h 01.8m | -8° 58.0'  |   |   |   |   |         |   |
|                              |     |        |      |      | pB,pL,R,rr - H II 199                                                                  |           |            |   |   |   |   |         |   |
| NGC 6523                     | M8  | SGR    | 5.0  | DN   | 45m x 30m                                                                              | 18h 03.7m | -24° 23.0' |   |   |   | O |         | B |
| Lagoon Nebula                |     |        |      |      | !!!,vB,eL,eif,w L Cl - Cl NGC 6530 invl;dark lane crosses neb                          |           |            |   |   |   |   |         |   |
| NGC 6530                     | M19 | SGR    | 4.6  | OC   | 15.0m                                                                                  | 18h 04.5m | -24° 21.0' |   |   |   | O |         | B |
|                              |     |        |      |      | Cl,B,L,pRi,f M8 - In Lagoon nebula M8;25* mags 7...                                    |           |            |   |   |   |   |         |   |
| NGC 6531                     | M21 | SGR    | 5.9  | OC   | 13.0m                                                                                  | 18h 04.2m | -22° 29.0' |   |   |   | O | 70      |   |
|                              |     |        |      |      | Cl,pRi,IC,st9...12 - In Sgr OB1;36 members to 12th mag                                 |           |            |   |   |   |   |         |   |
| NGC 6539                     |     | SER    | 9.6  | GC   | 2.5m                                                                                   | 18h 04.8m | -7° 35.0'  |   |   |   |   |         |   |
|                              |     |        |      |      | vS,F - In heavily obscured area                                                        |           |            |   |   |   |   |         |   |
| NGC 6544                     |     | SGR    | 8.3  | GC   | 8.4m                                                                                   | 18h 07.3m | -25° 00.0' |   |   |   | O |         |   |
|                              |     |        |      |      | cF,pL,iR,r - H II 197                                                                  |           |            |   |   |   |   |         |   |
| NGC 6546                     |     | SGR    | 8.0  | OC   | 13.0m                                                                                  | 18h 07.4m | -23° 18.0' |   |   |   | O | 150     |   |
|                              |     |        |      |      | Cl,vL,vRi                                                                              |           |            |   |   |   |   |         |   |
| NGC 6553                     |     | SGR    | 8.3  | GC   | 3.2m                                                                                   | 18h 09.3m | -25° 54.0' |   |   |   |   |         |   |
|                              |     |        |      |      | F,L,IE,vglbM,rr - H IV 12;* mags 20...                                                 |           |            |   |   |   |   |         |   |
| NGC 6568                     |     | SGR    | 8.6  | OC   | 13.0m                                                                                  | 18h 12.8m | -21° 35.0' |   |   |   |   | 50      |   |
|                              |     |        |      |      | Cl,vL,IC - H VII 30                                                                    |           |            |   |   |   |   |         |   |
| NGC 6583                     |     | SGR    | 10.0 | OC   | 2.8m                                                                                   | 18h 15.8m | -22° 08.0' |   |   |   |   | 35      |   |
|                              |     |        |      |      | Cl,pRi,pC,cE,st13... - H VII 31                                                        |           |            |   |   |   |   |         |   |
| NGC 6595                     |     | SGR    | 7.0  | OC   | 11.0m                                                                                  | 18h 17.1m | -19° 52.0' |   |   |   |   | 30      |   |
|                              |     |        |      |      | F,pL,cE,** inv                                                                         |           |            |   |   |   |   |         |   |
| NGC 6603                     |     | SGR    | 11.1 | OC   | 5.0m                                                                                   | 18h 18.4m | -18° 24.0' |   |   |   | O | 100     |   |
|                              |     |        |      |      | Cl,vRi,vmC,R - Within star cloud Messier 24                                            |           |            |   |   |   |   |         |   |
| NGC 6604                     |     | SER    | 6.5  | OC   | 2.0m                                                                                   | 18h 18.1m | -12° 14.0' |   |   |   |   | 30      |   |
|                              |     |        |      |      | Cl,IRi,IC - H VIII 15;In Ser OB2?                                                      |           |            |   |   |   |   |         |   |
| NGC 6605                     |     | SER    | 6.0  | OC   |                                                                                        | 18h 18.4m | -14° 57.0' |   |   |   |   |         |   |
|                              |     |        |      |      | Cl,IRi,IC,st10...12 - H VIII 47;No cluster                                             |           |            |   |   |   |   |         |   |
| NGC 6611                     | M16 | SER    | 6.0  | DN   | 7m                                                                                     | 18h 18.8m | -13° 47.0' |   |   |   | O | 60      | B |
| Eagle Nebula                 |     |        |      |      | L,B,scattered Cl,neb invl - aka Star Queen Nebula; in Ser OB1;stars mags 8...          |           |            |   |   |   |   |         |   |
| NGC 6613                     | M18 | SGR    | 6.9  | OC   | 9.0m                                                                                   | 18h 19.9m | -17° 08.0' |   |   |   | O | 20      | B |
|                              |     |        |      |      | Cl,P,vIC - 12 * mag 9-10; 1 deg S of M17                                               |           |            |   |   |   |   |         |   |
| NGC 6618                     | M17 | SGR    | 6.0  | DN   | 11.0m                                                                                  | 18h 20.8m | -16° 11.0' |   |   |   | O | 40      | B |
| Swan Nebula                  |     |        |      |      | !!!,B,eL,eif,2 hooked - aka Omega Nebula, LobsterNebula, many F outer loops;use filter |           |            |   |   |   |   |         |   |
| NGC 6625                     |     | SCT    | 9.0  | OC   | 39m                                                                                    | 18h 23.2m | -12° 03.0' |   |   |   |   | 30      |   |
|                              |     |        |      |      | Cl,IC,IRi,st11...12                                                                    |           |            |   |   |   |   |         |   |
| NGC 6626                     | M28 | SGR    | 6.9  | GC   | 15m                                                                                    | 18h 24.5m | -24° 52.0' |   |   |   | O |         | B |
|                              |     |        |      |      | vB,L,R,geCM,rrr - 45' NW from Lambda Sgr;* mags 14...                                  |           |            |   |   |   |   |         |   |
| NGC 6629                     |     | SGR    | 10.5 | PN   | 16s x 14s                                                                              | 18h 25.7m | -23° 12.0' |   |   |   | O |         |   |
|                              |     |        |      |      | pB,eeS,R                                                                               |           |            |   |   |   |   |         |   |
| NGC 6631                     |     | SCT    | 11.7 | OC   | 5.0m                                                                                   | 18h 27.2m | -12° 02.0' |   |   |   | O | 30      |   |

| Chart 167         |     |        |      |      |                                                                                     |           |            |   |     |     |   |         |   |
|-------------------|-----|--------|------|------|-------------------------------------------------------------------------------------|-----------|------------|---|-----|-----|---|---------|---|
| Name              | M   | Const. | Mag. | Type | Size                                                                                | R.A.      | Decl.      | C | R   | S   | O | # Stars | B |
| Common            |     |        |      |      | Notes                                                                               |           |            |   |     |     |   |         |   |
|                   |     |        |      |      | Cl,pL,pRi,st12...15                                                                 |           |            |   |     |     |   |         |   |
| NGC 6638          |     | SGR    | 9.2  | GC   | 2.2m                                                                                | 18h 30.9m | -25° 30.0' |   |     |     |   |         |   |
|                   |     |        |      |      | B,S,R,rr - H I 51                                                                   |           |            |   |     |     |   |         |   |
| NGC 6642          |     | SGR    | 8.8  | GC   | 0.8m                                                                                | 18h 31.9m | -23° 29.0' |   |     |     | O |         |   |
|                   |     |        |      |      | pB,pL,iR,gpmBM - H II 205;* mags 15....                                             |           |            |   |     |     |   |         |   |
| NGC 6645          |     | SGR    | 8.5  | OC   | 10.0m                                                                               | 18h 32.6m | -16° 53.0' |   |     |     | O | 40      |   |
|                   |     |        |      |      | Cl,pL,vRi,pC,st11...15 - H VI 23                                                    |           |            |   |     |     |   |         |   |
| NGC 6647          |     | SGR    | 8.0  | OC   |                                                                                     | 18h 31.5m | -17° 21.0' |   |     |     |   |         |   |
|                   |     |        |      |      | Cl,L,Ri,IC,st vS - H VIII 14                                                        |           |            |   |     |     |   |         |   |
| NGC 6649          |     | SCT    | 8.9  | OC   | 6.0m                                                                                | 18h 33.5m | -10° 24.0' |   |     |     |   | 50      |   |
|                   |     |        |      |      | Cl,P,IC,pS,*9,10,12 - With Cepheid V367 Sct & D* Struve 2325                        |           |            |   |     |     |   |         |   |
| NGC 6656          | M22 | SGR    | 5.1  | GC   | 24.0m                                                                               | 18h 36.4m | -23° 54.0' |   |     |     | O |         | B |
|                   |     |        |      |      | vB,vL,R,vRi,vmC - Stars mags 11....;one of finest globs                             |           |            |   |     |     |   |         |   |
| NGC 6664          |     | SCT    | 7.8  | OC   | 16m                                                                                 | 18h 36.6m | -7° 49.0'  |   |     |     |   | 50      |   |
|                   |     |        |      |      | Cl,L,pRi,vC - H VIII 12;Contains Cepheid variable EV Sct                            |           |            |   |     |     |   |         |   |
| NGC 6683          |     | SCT    | 9.4  | OC   | 11.0m                                                                               | 18h 42.2m | -6° 17.0'  |   |     |     |   | 20      |   |
|                   |     |        |      |      | Cl,vRi,vC,in Milky Way - Rich Milky Way field prob not true cluster                 |           |            |   |     |     |   |         |   |
| NGC 6694          | M26 | SCT    | 8.0  | OC   | 15.0m                                                                               | 18h 45.2m | -9° 24.0'  |   |     |     | O | 30      | B |
|                   |     |        |      |      | Cl,cL,pRi,pC,st12...15 - Finderscope will show why Messier included it;70 * to 14 m |           |            |   |     |     |   |         |   |
| NGC 6704          |     | SCT    | 9.2  | OC   | 6.0m                                                                                | 18h 50.9m | -5° 12.0'  |   |     |     |   | 30      |   |
|                   |     |        |      |      | Cl,B,60st13                                                                         |           |            |   |     |     |   |         |   |
| NGC 6705          | M11 | SCT    | 5.8  | OC   | 14.0m                                                                               | 18h 51.1m | -6° 16.0'  |   |     |     | O | 500     | B |
| Wild duck Cluster |     |        |      |      | !!Cl,vB,L,iR,Ri,*9.. - 500 stars to 14th mag                                        |           |            |   |     |     |   |         |   |
| NGC 6712          |     | SCT    | 8.2  | GC   | 4.3m                                                                                | 18h 53.1m | -8° 42.0'  |   | R94 | S87 | O |         |   |
|                   |     |        |      |      | pB,vL,irr,rrr - H I 47                                                              |           |            |   |     |     |   |         |   |
| NGC 6716          |     | SGR    | 7.5  | OC   | 7.0m                                                                                | 18h 54.6m | -19° 54.0' |   |     |     |   | 20      | B |
|                   |     |        |      |      | Cl,pRi,st9...13                                                                     |           |            |   |     |     |   |         |   |
| NGC 6717          |     | SGR    | 9.3  | GC   | 3.9m                                                                                | 18h 55.1m | -22° 42.0' |   |     |     |   |         |   |
|                   |     |        |      |      | F,S,rr,Cl+neb - H III 143                                                           |           |            |   |     |     |   |         |   |
| Pal 9             |     | SGR    | 9.2  | GC   | 3.9m                                                                                | 18h 55.1m | -22° 42.0' |   |     |     |   |         |   |
| Tr 33             |     | SGR    | 7.8  | OC   | 7.0m                                                                                | 18h 24.8m | -19° 41.0' |   |     |     |   | 20      |   |
| Tr 34             |     | SCT    | 8.6  | OC   | 8.0m                                                                                | 18h 39.8m | -8° 29.0'  |   |     |     |   | 40      |   |
| Tr 35             |     | SCT    | 9.2  | OC   | 9.0m                                                                                | 18h 42.9m | -4° 08.0'  |   |     |     |   | 35      |   |



| Chart 168                    |     |        |      |      |                                                                   |           |            |   |      |     |   |         |   |
|------------------------------|-----|--------|------|------|-------------------------------------------------------------------|-----------|------------|---|------|-----|---|---------|---|
| Name                         | M   | Const. | Mag. | Type | Size                                                              | R.A.      | Decl.      | C | R    | S   | O | # Stars | B |
| Common                       |     |        |      |      | Notes                                                             |           |            |   |      |     |   |         |   |
| B 72                         |     | OPH    |      | DN   | 30m                                                               | 17h 23.5m | -23° 38.0' |   |      |     |   |         |   |
| The Snake                    |     |        |      |      | 13"-pL,pDark,thin winding Dneb at 100X - 1.5 deg nnn Theta Oph    |           |            |   |      |     |   |         |   |
| Bochum 14                    |     | SGR    | 9.3  | OC   |                                                                   | 18h 02.0m | -23° 42.0' |   |      |     |   | 10      |   |
| Cr 367                       |     | SGR    | 6.4  | OC   | 37.0m                                                             | 18h 09.6m | -23° 59.0' |   |      |     |   | 30      |   |
| Cr 469                       |     | SGR    | 9.1  | OC   | 5.0m                                                              | 18h 16.4m | -18° 13.0' |   |      |     |   | 10      |   |
| IC 1276                      |     | SER    | 10.3 | GC   | 7.1m                                                              | 18h 10.8m | -7° 13.0'  |   |      |     |   |         |   |
|                              |     |        |      |      | eeF,vL,v difficult,D* close p                                     |           |            |   |      |     |   |         |   |
| IC 4715                      | M24 | SGR    | 3.1  | OC   | 95m x 35m                                                         | 18h 26.6m | -18° 23.0' |   |      |     | O |         | B |
| Small Sagittarius Star Cloud |     |        |      |      | eeL cloud of st and neb - sev dark neb and NGC 6603 invl          |           |            |   |      |     |   |         |   |
| IC 4725                      | M25 | SGR    | 4.6  | OC   | 29m                                                               | 18h 31.8m | -19° 07.0' |   |      |     | O | 30      | B |
|                              |     |        |      |      | Cl,pC - Contains U Sgr;Stars mags 6...10                          |           |            |   |      |     |   |         |   |
| NGC 6325                     |     | OPH    | 10.7 | GC   | 1.6m                                                              | 17h 18.0m | -23° 46.0' |   |      |     |   |         |   |
|                              |     |        |      |      | pF,L,R,rr                                                         |           |            |   |      |     |   |         |   |
| NGC 6333                     | M9  | OPH    | 7.9  | GC   | 5.5m                                                              | 17h 19.2m | -18° 31.0' |   |      |     | O |         | B |
|                              |     |        |      |      | B,L,R,eCM,rrr - Dark neb B64 prominent to west                    |           |            |   |      |     |   |         |   |
| NGC 6342                     |     | OPH    | 9.9  | GC   | 3.0m                                                              | 17h 21.2m | -19° 35.0' |   |      |     |   |         |   |
|                              |     |        |      |      | cB,pS,IE,eR - H I 149                                             |           |            |   |      |     |   |         |   |
| NGC 6355                     |     | OPH    | 9.6  | GC   | 6.1m                                                              | 17h 24.0m | -26° 21.0' |   |      |     |   |         |   |
|                              |     |        |      |      | cF,L,R,gbM,rrr - H I 46                                           |           |            |   |      |     |   |         |   |
| NGC 6356                     |     | OPH    | 8.4  | GC   | 3.5m                                                              | 17h 23.6m | -17° 49.0' |   |      |     |   |         |   |
|                              |     |        |      |      | vB,cL,vgvmbM,rrr - H I 48                                         |           |            |   |      |     |   |         |   |
| NGC 6366                     |     | OPH    | 10.0 | GC   | 5.8m                                                              | 17h 27.7m | -5° 05.0'  |   |      |     |   |         |   |
|                              |     |        |      |      | F,L,vlbM                                                          |           |            |   |      |     |   |         |   |
| NGC 6369                     |     | OPH    | 11.0 | PN   | 30s x 29s                                                         | 17h 29.3m | -23° 46.0' |   | R91  | S70 | O |         |   |
| Little Ghost Nebula          |     |        |      |      | Annular,pB,S,R                                                    |           |            |   |      |     |   |         |   |
| NGC 6401                     |     | OPH    | 9.5  | GC   | 1m                                                                | 17h 38.6m | -23° 55.0' |   |      |     |   |         |   |
|                              |     |        |      |      | pB,pL,R,*12F inv - H I 44                                         |           |            |   |      |     |   |         |   |
| NGC 6440                     |     | SGR    | 9.7  | GC   | 1.7m                                                              | 17h 48.9m | -20° 22.0' |   |      |     |   |         |   |
|                              |     |        |      |      | pB,pL,R,bM - H I 150;* eF                                         |           |            |   |      |     |   |         |   |
| NGC 6445                     |     | SGR    | 13.0 | PN   | 35s x 30s                                                         | 17h 49.3m | -20° 01.0' |   | R102 | S89 | O |         |   |
|                              |     |        |      |      | pB,pS,R,gbM,r,*15 np - Little Gem                                 |           |            |   |      |     |   |         |   |
| NGC 6469                     |     | SGR    | 8.2  | OC   | 12.0m                                                             | 17h 53.2m | -22° 17.0' |   |      |     |   | 50      |   |
|                              |     |        |      |      | Cl,pRi,in Milky Way                                               |           |            |   |      |     |   |         |   |
| NGC 6494                     | M23 | SGR    | 5.5  | OC   | 27.0m                                                             | 17h 57.1m | -18° 59.0' |   |      |     | O | 150     | B |
|                              |     |        |      |      | Cl,B,vL,pRi,IC,*10.. - 100 members to 13th mag                    |           |            |   |      |     |   |         |   |
| NGC 6507                     |     | SGR    | 9.6  | OC   | 7.0m                                                              | 17h 59.8m | -17° 27.0' |   |      |     |   | 35      |   |
|                              |     |        |      |      | Cl,pS,lRi,IC - H VIII 53                                          |           |            |   |      |     |   |         |   |
| NGC 6514                     | M20 | SGR    | 6.3  | DN   | 28.0m                                                             | 18h 02.7m | -22° 58.0' |   |      |     | O | 67      |   |
| Trifid Nebula                |     |        |      |      | vB,vL,Trifid,D* inv - sev dark lanes;H IV 41 & V 10;D* HN 40 invl |           |            |   |      |     |   |         |   |
| NGC 6517                     |     | OPH    | 10.3 | GC   | 1m                                                                | 18h 01.8m | -8° 58.0'  |   |      |     |   |         |   |
|                              |     |        |      |      | pB,pL,R,rr - H II 199                                             |           |            |   |      |     |   |         |   |
| NGC 6523                     | M8  | SGR    | 5.0  | DN   | 45m x 30m                                                         | 18h 03.7m | -24° 23.0' |   |      |     | O |         | B |
| Lagoon Nebula                |     |        |      |      | !!!,vB,eL,eIF,w L Cl - Cl NGC 6530 invl;dark lane crosses neb     |           |            |   |      |     |   |         |   |
| NGC 6530                     | M19 | SGR    | 4.6  | OC   | 15.0m                                                             | 18h 04.5m | -24° 21.0' |   |      |     | O |         | B |
|                              |     |        |      |      | Cl,B,L,pRi,f M8 - In Lagoon nebula M8;25* mags 7...               |           |            |   |      |     |   |         |   |
| NGC 6531                     | M21 | SGR    | 5.9  | OC   | 13.0m                                                             | 18h 04.2m | -22° 29.0' |   |      |     | O | 70      |   |
|                              |     |        |      |      | Cl,pRi,IC,st9...12 - In Sgr OB1;36 members to 12th mag            |           |            |   |      |     |   |         |   |
| NGC 6539                     |     | SER    | 9.6  | GC   | 2.5m                                                              | 18h 04.8m | -7° 35.0'  |   |      |     |   |         |   |
|                              |     |        |      |      | vS,F - In heavily obscured area                                   |           |            |   |      |     |   |         |   |
| NGC 6544                     |     | SGR    | 8.3  | GC   | 8.4m                                                              | 18h 07.3m | -25° 00.0' |   |      |     | O |         |   |
|                              |     |        |      |      | cF,pL,iR,r - H II 197                                             |           |            |   |      |     |   |         |   |
| NGC 6546                     |     | SGR    | 8.0  | OC   | 13.0m                                                             | 18h 07.4m | -23° 18.0' |   |      |     | O | 150     |   |
|                              |     |        |      |      | Cl,vL,vRi                                                         |           |            |   |      |     |   |         |   |
| NGC 6553                     |     | SGR    | 8.3  | GC   | 3.2m                                                              | 18h 09.3m | -25° 54.0' |   |      |     |   |         |   |
|                              |     |        |      |      | F,L,IE,vglbM,rr - H IV 12;* mags 20...                            |           |            |   |      |     |   |         |   |
| NGC 6568                     |     | SGR    | 8.6  | OC   | 13.0m                                                             | 18h 12.8m | -21° 35.0' |   |      |     |   | 50      |   |
|                              |     |        |      |      | Cl,vL,IC - H VII 30                                               |           |            |   |      |     |   |         |   |

| Chart 168    |     |        |      |      |                                                                                        |           |            |   |   |   |   |         |   |
|--------------|-----|--------|------|------|----------------------------------------------------------------------------------------|-----------|------------|---|---|---|---|---------|---|
| Name         | M   | Const. | Mag. | Type | Size                                                                                   | R.A.      | Decl.      | C | R | S | O | # Stars | B |
| Common       |     |        |      |      | Notes                                                                                  |           |            |   |   |   |   |         |   |
| NGC 6583     |     | SGR    | 10.0 | OC   | 2.8m                                                                                   | 18h 15.8m | -22° 08.0' |   |   |   |   | 35      |   |
|              |     |        |      |      | Cl,pRi,pC,cE,st13... - H VII 31                                                        |           |            |   |   |   |   |         |   |
| NGC 6595     |     | SGR    | 7.0  | OC   | 11.0m                                                                                  | 18h 17.1m | -19° 52.0' |   |   |   |   | 30      |   |
|              |     |        |      |      | F,pL,cE,** inv                                                                         |           |            |   |   |   |   |         |   |
| NGC 6603     |     | SGR    | 11.1 | OC   | 5.0m                                                                                   | 18h 18.4m | -18° 24.0' |   |   |   | O | 100     |   |
|              |     |        |      |      | Cl,vRi,vmC,R - Within star cloud Messier 24                                            |           |            |   |   |   |   |         |   |
| NGC 6604     |     | SER    | 6.5  | OC   | 2.0m                                                                                   | 18h 18.1m | -12° 14.0' |   |   |   |   | 30      |   |
|              |     |        |      |      | Cl,IRi,IC - H VIII 15;In Ser OB2?                                                      |           |            |   |   |   |   |         |   |
| NGC 6605     |     | SER    | 6.0  | OC   |                                                                                        | 18h 18.4m | -14° 57.0' |   |   |   |   |         |   |
|              |     |        |      |      | Cl,IRi,IC,st10...12 - H VIII 47;No cluster                                             |           |            |   |   |   |   |         |   |
| NGC 6611     | M16 | SER    | 6.0  | DN   | 7m                                                                                     | 18h 18.8m | -13° 47.0' |   |   |   | O | 60      | B |
| Eagle Nebula |     |        |      |      | L,B,scattered Cl,neb invl - aka Star Queen Nebula; in Ser OB1;stars mags 8...          |           |            |   |   |   |   |         |   |
| NGC 6613     | M18 | SGR    | 6.9  | OC   | 9.0m                                                                                   | 18h 19.9m | -17° 08.0' |   |   |   | O | 20      | B |
|              |     |        |      |      | Cl,P,vIC - 12 * mag 9-10; 1 deg S of M17                                               |           |            |   |   |   |   |         |   |
| NGC 6618     | M17 | SGR    | 6.0  | DN   | 11.0m                                                                                  | 18h 20.8m | -16° 11.0' |   |   |   | O | 40      | B |
| Swan Nebula  |     |        |      |      | !!!,B,eL,eIF,2 hooked - aka Omega Nebula, LobsterNebula, many F outer loops;use filter |           |            |   |   |   |   |         |   |
| NGC 6625     |     | SCT    | 9.0  | OC   | 39m                                                                                    | 18h 23.2m | -12° 03.0' |   |   |   |   | 30      |   |
|              |     |        |      |      | Cl,IC,IRi,st11...12                                                                    |           |            |   |   |   |   |         |   |
| NGC 6626     | M28 | SGR    | 6.9  | GC   | 15m                                                                                    | 18h 24.5m | -24° 52.0' |   |   |   | O |         | B |
|              |     |        |      |      | vB,L,R,geCM,rrr - 45' NW from Lambda Sgr;* mags 14...                                  |           |            |   |   |   |   |         |   |
| NGC 6629     |     | SGR    | 10.5 | PN   | 16s x 14s                                                                              | 18h 25.7m | -23° 12.0' |   |   |   | O |         |   |
|              |     |        |      |      | pB,eeS,R                                                                               |           |            |   |   |   |   |         |   |
| NGC 6631     |     | SCT    | 11.7 | OC   | 5.0m                                                                                   | 18h 27.2m | -12° 02.0' |   |   |   | O | 30      |   |
|              |     |        |      |      | Cl,pL,pRi,st12...15                                                                    |           |            |   |   |   |   |         |   |
| NGC 6638     |     | SGR    | 9.2  | GC   | 2.2m                                                                                   | 18h 30.9m | -25° 30.0' |   |   |   |   |         |   |
|              |     |        |      |      | B,S,R,rr - H I 51                                                                      |           |            |   |   |   |   |         |   |
| NGC 6642     |     | SGR    | 8.8  | GC   | 0.8m                                                                                   | 18h 31.9m | -23° 29.0' |   |   |   | O |         |   |
|              |     |        |      |      | pB,pL,iR,gpmBM - H II 205;* mags 15....                                                |           |            |   |   |   |   |         |   |
| NGC 6645     |     | SGR    | 8.5  | OC   | 10.0m                                                                                  | 18h 32.6m | -16° 53.0' |   |   |   | O | 40      |   |
|              |     |        |      |      | Cl,pL,vRi,pC,st11...15 - H VI 23                                                       |           |            |   |   |   |   |         |   |
| NGC 6647     |     | SGR    | 8.0  | OC   |                                                                                        | 18h 31.5m | -17° 21.0' |   |   |   |   |         |   |
|              |     |        |      |      | Cl,L,Ri,IC,st vS - H VIII 14                                                           |           |            |   |   |   |   |         |   |
| NGC 6649     |     | SCT    | 8.9  | OC   | 6.0m                                                                                   | 18h 33.5m | -10° 24.0' |   |   |   |   | 50      |   |
|              |     |        |      |      | Cl,P,IC,pS,*9,10,12 - With Cepheid V367 Sct & D* Struve 2325                           |           |            |   |   |   |   |         |   |
| NGC 6656     | M22 | SGR    | 5.1  | GC   | 24.0m                                                                                  | 18h 36.4m | -23° 54.0' |   |   |   | O |         | B |
|              |     |        |      |      | vB,vL,R,vRi,vmC - Stars mags 11....;one of finest globs                                |           |            |   |   |   |   |         |   |
| NGC 6664     |     | SCT    | 7.8  | OC   | 16m                                                                                    | 18h 36.6m | -7° 49.0'  |   |   |   |   | 50      |   |
|              |     |        |      |      | Cl,L,pRi,vIC - H VIII 12;Contains Cepheid variable EV Sct                              |           |            |   |   |   |   |         |   |
| PK 7+ 1.1    |     | SGR    | 11.0 | PN   | 6.6s                                                                                   | 17h 55.1m | -21° 45.0' |   |   |   |   |         |   |
| PK 8+ 6.1    |     | OPH    | 11.0 | PN   | <10s                                                                                   | 17h 38.9m | -18° 18.0' |   |   |   |   |         |   |
| Tr 33        |     | SGR    | 7.8  | OC   | 7.0m                                                                                   | 18h 24.8m | -19° 41.0' |   |   |   |   | 20      |   |