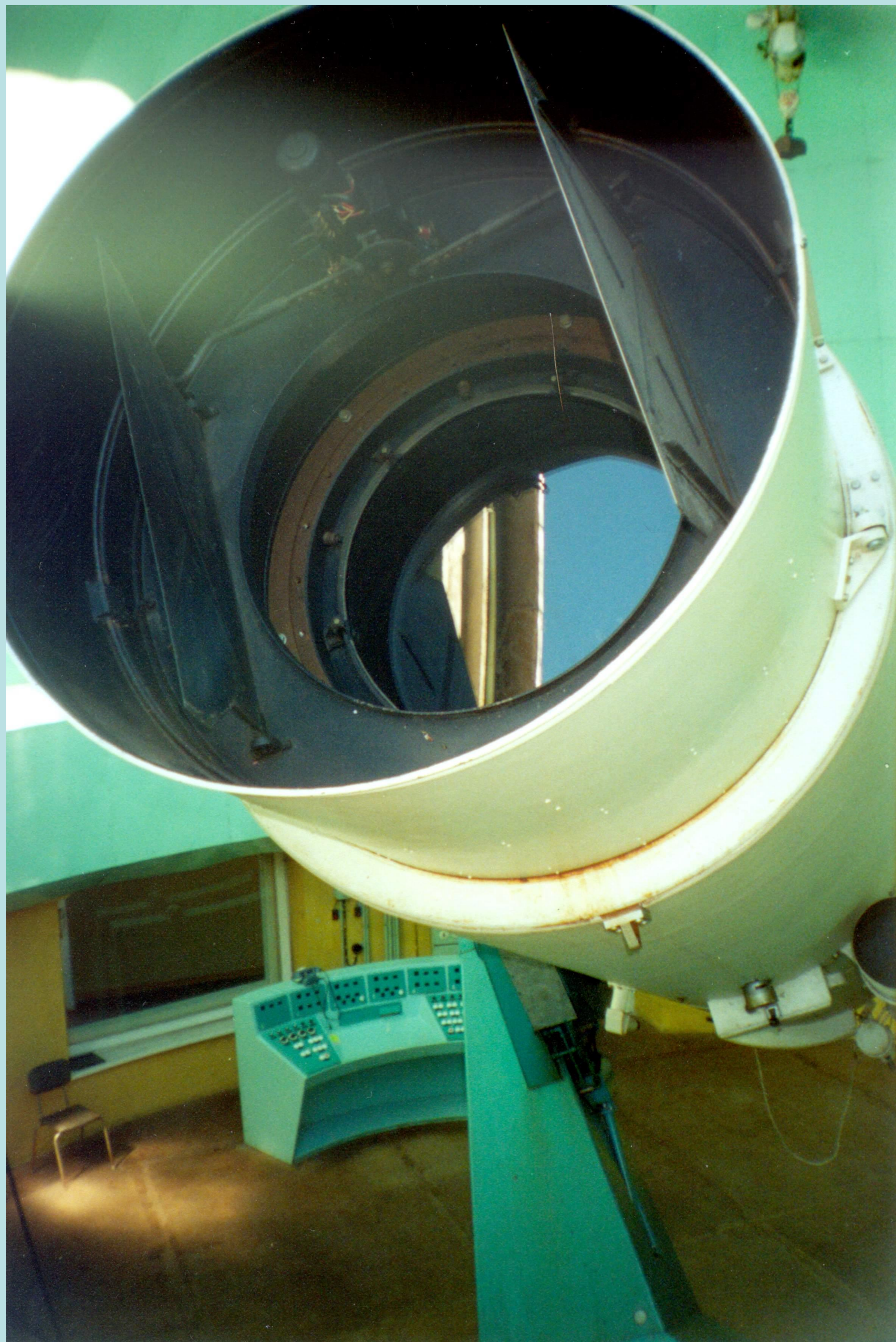


# Digitized Schmidt telescope data in the path of the International Virtual Observatory

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Schmidt telescope (80/120/240 cm) of the Astrophysical Observatory of the Institute of Astronomy near Baldone town.

For more than 35 years (1967-2001) 25000 direct and objective prism photos, were obtained. The size of photos are 24 x 24 cm and their cover the field of 4° 46' in diameter.

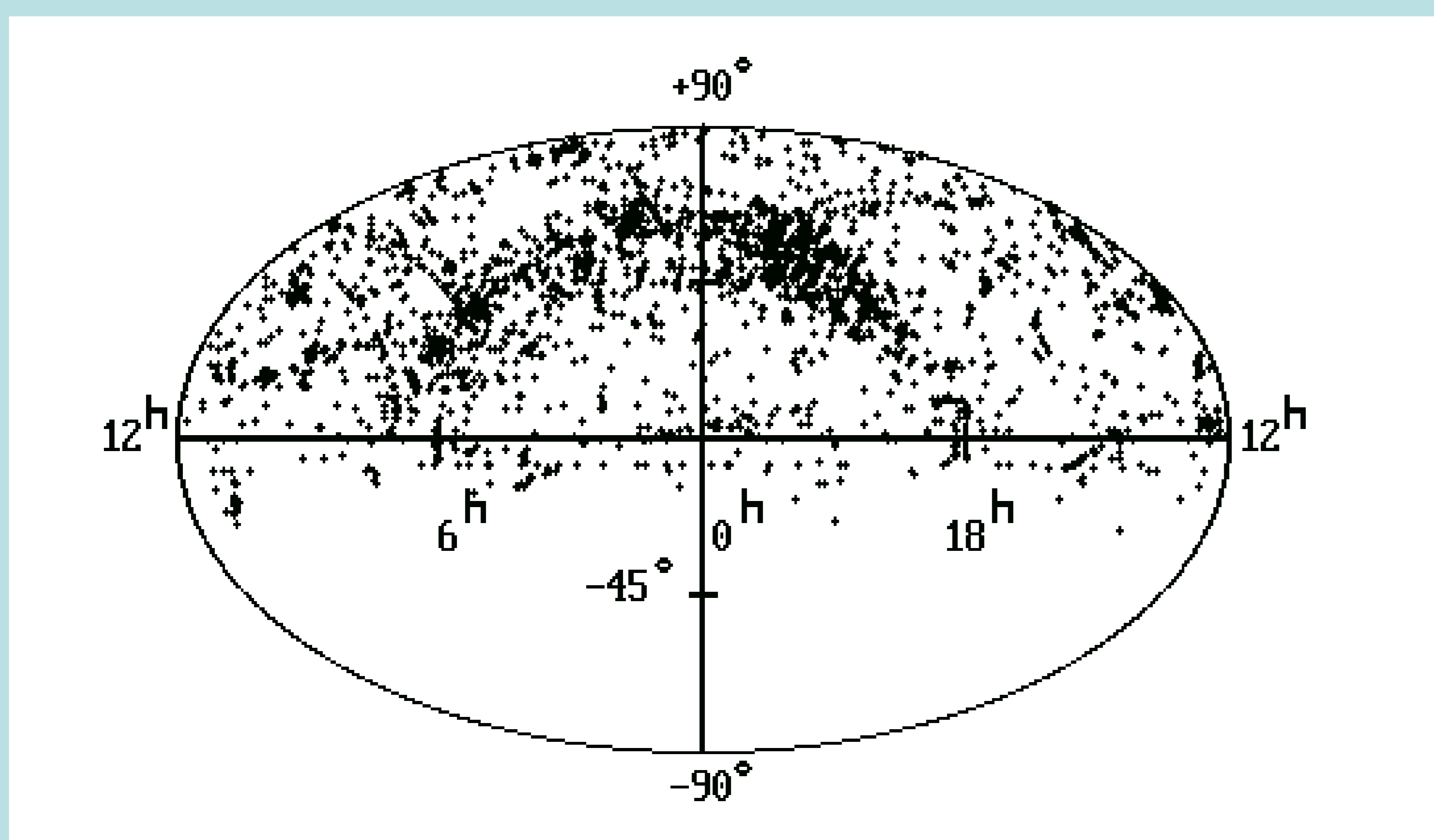
The digitization process was begun at 2012 with flat bed scanners Epson Expression 10000XL and Epson Expression 11000XL.



To the end of 2013 were scanned 4000 photo plates. The files of the digitized photos are saved on the external HDD. File formats TIFF and FITS are used to store the photos.

Next step would be copy the image files and electronic catalogue on the servers of the University of Latvia, create tools to analyze and visualization, make the website for using those tools through Internet in online mode. Doing it we need to follow the standards of the International Virtual Observatory Alliance, to provide astronomers with the seamless and transparent framework of the Latvian Virtual observatory.

To the end of digitization process foreign astronomers have access to those files via web. After it will be possible on ftp link ([ftp.e-spiets.lv](ftp://e-spiets.lv)) using FileZilla or other ftp programs. The structure and contents of data base of Baldone archive of photos was discribed in paper by Alksnis et al. (Baltic Astronomy, Vol. 7, No. 4, 529-547, 1998).



The distribution of direct astrophotos of the archive on the celestial sphere.

The most frequently photographed sky objects (direct photos).

| Object    | n    | Object     | n   | Object      | n   | Object        | n  |
|-----------|------|------------|-----|-------------|-----|---------------|----|
| CT6       | 3131 | KL Cyg     | 180 | 174,-7      | 107 | RU Vir        | 68 |
| M31       | 665  | 90,-7      | 178 | 174,0       | 107 | CRL 3116      | 67 |
| Tr 2      | 594  | 178,-7     | 175 | 174,+3.5    | 106 | 82,+3.5       | 66 |
| DY Per    | 415  | NGC 7789   | 174 | 90,+1.3     | 105 | Dol 2         | 64 |
| BC 56     | 345  | IRC+20370  | 173 | NGC 457     | 103 | IC 1848       | 62 |
| NGC 1245  | 319  | Com Halley | 171 | SS Vir      | 98  | Plato         | 62 |
| NGC 1664  | 287  | NGC 7419   | 169 | BM Gem      | 96  | 82,-3.5       | 58 |
| 90,-3.5   | 281  | V CrB      | 165 | NGC 1528    | 94  | NML Tau       | 56 |
| IRC+10216 | 263  | T Dra      | 144 | NGC 1817    | 91  | 82,-7         | 56 |
| NGC 7063  | 258  | IC 5146    | 142 | 174,-3.5    | 91  | NGC 7654      | 55 |
| Stock 4   | 255  | 174,+7     | 139 | CITS        | 90  | V Cyg         | 54 |
| 86,-7     | 254  | 94,+3.5    | 133 | 94,-10.5    | 89  | EU And        | 54 |
| AFGL 2881 | 246  | 94,0       | 133 | NGC 2251    | 88  | CT Vul        | 52 |
| NGC 6871  | 243  | 94,-7      | 129 | NP Her      | 84  | WX Cyg        | 51 |
| NGC 7128  | 231  | 90,+3.5    | 126 | T Cnc+X Cnc | 84  | 82,-10.5      | 51 |
| 94,-3.5   | 227  | NGC 1893   | 124 | Gal. II     | 77  | Gal. I        | 50 |
| 86,-7     | 226  | 90,0       | 124 | U Cyg       | 74  | NGC 2129      | 49 |
| 86,0      | 220  | NGC 7092   | 123 | Nova Cyg    | 73  | 86,-10.5      | 49 |
| 178,-7    | 215  | 86,+10.5   | 121 | U Lyr       | 72  | Np Her+Ton2   | 47 |
| 86,-3.5   | 213  | 90,-7      | 120 | NGC 659     | 72  | Com.Austin    | 47 |
| 178,+3.5  | 204  | 94,+10.5   | 119 | OW Aql      | 71  | 90,-10.5      | 46 |
| 178,0     | 203  | CT Lac     | 118 | 82,-7       | 69  | Com.Hale-Bopp | 46 |
| 86,+3.5   | 201  | 94,-7      | 114 | CITS+1245   | 69  | IRC+40070     | 45 |
| CT6-SAS4  | 199  | 92,+6.5    | 114 | 82,-0       | 69  | Com.Crommelin | 45 |
| 178,-3.5  | 184  | MQ Cyg     | 110 | NGC 7031    | 68  | RY Dra        | 43 |