

UBV* photoelectric sequences in the celestial equatorial selected areas 92–115

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UBV photoelectric observations have been made of 642 stars in selected areas 92–115. The observing program was designed to provide new faint ***UBV*** standard stars on an internally consistent homogeneous system around the sky, easily accessible to large telescopes. These stars are nearly all within $\pm 1^{\circ}$ of the celestial equator. Of these stars, 335 have five or more observations. The majority of them are in the range $10.^m 5 < V < 12.^m 5$. Sixteen Feige and Giclas stars have been observed some 20 times each in order to provide additional faint blue ***UBV*** standard stars.

INTRODUCTION

A DISCUSSION of modern broad-band photometric systems has been given by Johnson (1963). The best known and the most widely used of these systems is the ***UBV*** system of Johnson and Morgan (1953). The stars upon which this system is based are tabulated in Johnson and Morgan (1953), Johnson and Harris (1954), and Johnson (1955, 1963). The stars which define the system are nearly all bright stars. The recent large body of southern hemisphere standards (Moreno, Moreno, Stock, Torres, and Wroblewski 1966) also consists of bright stars. The stars now recommended for use as ***UBV*** standard stars were redefined at the XIVth General Assembly of the International Astronomical Union to be those objects brighter than $V = 5.0$ mag between $\delta = \pm 10^{\circ}$; however, most of them are still brighter than desirable for the observing techniques and photometers used by most astronomers.

There exist, scattered around the sky, photoelectric sequences of fainter stars which are tied into the ***UBV*** system. Such sequences, more often than not, are located in galactic or globular star clusters. However, they really are not all on the same precise photometric system, as an intercomparison of two or more observer's data on a given cluster many times shows (see, for example, Landolt 1964); slight zero-point differences and color equation problems occur. Many times, sequences are defined only by one, two or three observations per star. Hence, one ought not use these sequences as secondary standard sequences for extension to fainter objects in extended programs *around* the sky.

There has been much discussion, both privately and in the literature (Blaauw 1955; Walker 1959; Stoy 1958, 1961; Greaves 1955), of the desirability of a faint sequence of standard stars distributed over the sky. Although a variety of useful photometric systems has been established in recent years, the broad-band

UBV system still has an important future role in astronomical research. Particularly is this true for the fainter objects to be observed with the big reflectors, where a well defined, widely adopted standard photometric system can be used to great advantage in the initial reconnaissance of faint celestial objects.

An attempt is made in this paper to provide a homogeneous set of ***UBV*** standard stars in the celestial equatorial Selected Areas. By so doing, astronomers in both hemispheres will have access to faint standard stars readily accessible to the largest telescopes. It is not claimed that this system is *a priori* better than other fine photoelectric sequences scattered in various regions about the celestial sphere. However, the stars observed herein were thoroughly tied together completely around the sky during many observing sessions from the same site, and using the same type of equipment throughout the duration of the observing program. Therefore, the system should be internally quite accurate and consistent.

I. THE PROGRAM

Nearly 100 nights under no more than quarter-moon skies were scheduled at the Kitt Peak National Observatories 36- and 16-in. telescopes over the three-year interval March 1969 through January 1972. Of these nights, 55 provided usable data on the ***UBV*** photometric system.

All of the observations were made with a refrigerated 1P21 photomultiplier operated at 800 v. Use of this somewhat-lower-than-normal operating voltage avoided fatigue effects in the photomultiplier and permitted use of all but the brightest of the ***UBV*** standard stars, as defined by Johnson (1963), at the 36-in. telescopes. In all instances, the integrated output was displayed on a Brown potentiometer. Virtually all of the observations were made with the same KPNO filter set (*V*, No. 232; *B*, No. 233; *U*, No. 315), including a sandwich ultraviolet-red filter for red leak monitoring. The kinds of filters used were Corning 3384 for *V*, Corning 5030+2mm Schott GG13 for *B*, and Schott UG2 for *U*.

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† Visiting Astronomer, 1969–72, at Kitt Peak National Observatory, which is operated by the Association of Universities for Research in Astronomy, Inc., under contract with the National Science Foundation.

TABLE I. *UBV* photoelectric magnitudes and color indices for selected area stars.

| Star | α (1975) | δ (1975) | <i>V</i> | <i>B</i> - <i>V</i> | <i>U</i> - <i>B</i> | <i>n</i> | <i>m</i> | Mean errors | | | BSD | Type | Note |
|---------|--|-----------------|----------|---------------------|---------------------|----------|----------|-------------|---------------------|---------------------|-----|------|------|
| | | | | | | | | <i>V</i> | <i>B</i> - <i>V</i> | <i>U</i> - <i>B</i> | | | |
| 92- 263 | 0 ^h 54 ^m 23 ^s | +0°28'11" | 10.79 | +1.05 | +0.86 | 15 | 7 | 0.023 | 0.008 | 0.027 | 445 | G5 | |
| 92- 276 | 0 55 10 | +0 33 46 | 12.04 | +0.63 | +0.08 | 13 | 6 | 0.020 | 0.014 | 0.019 | 457 | G0 | |
| 92- 282 | 0 55 30 | +0 30 22 | 12.96 | +0.32 | -0.04 | 13 | 7 | 0.029 | 0.027 | 0.022 | 462 | G: | |
| 92- 288 | 0 56 00 | +0 28 41 | 11.62 | +0.86 | +0.48 | 11 | 6 | 0.015 | 0.012 | 0.021 | 476 | G3 | |
| 92- 336 | 0 53 45 | +0 39 21 | 8.06 | +0.98 | +0.82 | 4 | 2 | 0.019 | 0.003 | 0.011 | 435 | G8 | |
| 92- 342 | 0 53 53 | +0 35 07 | 11.62 | +0.44 | -0.04 | 11 | 6 | 0.014 | 0.011 | 0.013 | 441 | F8 | |
| 92- 348 | 0 54 13 | +0 36 28 | 12.11 | +0.59 | +0.05 | 11 | 6 | 0.019 | 0.021 | 0.026 | 443 | G0 | |
| 92- 364 | 0 55 36 | +0 35 55 | 11.67 | +0.60 | -0.03 | 13 | 6 | 0.018 | 0.015 | 0.012 | 465 | G0 | |
| 92- 433 | 0 55 37 | +0 52 36 | 11.65 | +0.66 | +0.12 | 7 | 4 | 0.011 | 0.015 | 0.016 | 466 | G2 | |
| 92- 507 | 0 55 34 | +0 57 51 | 11.33 | +0.94 | +0.68 | 7 | 4 | 0.010 | 0.011 | 0.024 | 463 | G0 | |
| 92- 508 | 0 55 34 | +1 01 28 | 11.67 | +0.54 | -0.04 | 9 | 5 | 0.011 | 0.011 | 0.016 | 464 | F5 | |
| 92- 510 | 0 55 51 | +0 58 54 | 9.97 | +1.07 | +1.03 | 1 | 1 | ... | ... | ... | 473 | G5 | |
| 93- 12 | 1 51 39 | +0 06 32 | 11.18 | +0.42 | +0.01 | 2 | 1 | 0.006 | 0.012 | 0.007 | 197 | F4 | |
| 93- 24 | 1 52 46 | +0 03 19 | 10.18 | +0.68 | +0.15 | 2 | 1 | 0.004 | 0.001 | 0.002 | 216 | G3p | |
| 93- 30 | 1 53 09 | +0 02 50 | 11.47 | +0.55 | 0.00 | 2 | 1 | 0.001 | 0.006 | 0.008 | 224 | G2 | |
| 93- 35 | 1 53 40 | +0 06 14 | 11.75 | +0.53 | +0.02 | 2 | 1 | 0.012 | 0.001 | 0.013 | 231 | G0 | |
| 93- 37 | 1 53 43 | +0 05 00 | 9.46 | +0.44 | +0.02 | 2 | 1 | 0.002 | 0.006 | 0.006 | 233 | F2 | |
| 93- 101 | 1 52 01 | +0 15 02 | 9.72 | +0.65 | +0.14 | 2 | 1 | 0.005 | 0.009 | 0.001 | 201 | G2p | |
| 93- 103 | 1 52 04 | +0 15 53 | 8.81 | +1.18 | +1.16 | 2 | 1 | 0.001 | 0.001 | 0.000 | 203 | G8 | |
| 93- 179 | 1 51 07 | +0 25 06 | 11.07 | +0.63 | +0.14 | 8 | 4 | 0.012 | 0.016 | 0.010 | 475 | G2 | |
| 93- 180 | 1 51 10 | +0 24 55 | 11.24 | +0.65 | +0.07 | 9 | 4 | 0.009 | 0.007 | 0.014 | 447 | G2 | |
| 93- 241 | 1 54 02 | +0 29 12 | 9.39 | +0.85 | +0.42 | 6 | 3 | 0.014 | 0.006 | 0.010 | 541 | G2 | |
| 93- 312 | 1 52 57 | +0 39 00 | 12.00 | +0.59 | +0.05 | 15 | 8 | 0.015 | 0.019 | 0.010 | 507 | G2 | |
| 93- 317 | 1 53 21 | +0 35 40 | 11.55 | +0.50 | -0.04 | 15 | 8 | 0.018 | 0.026 | 0.015 | 519 | F8 | |
| 93- 326 | 1 53 33 | +0 39 44 | 9.56 | +0.45 | -0.03 | 9 | 4 | 0.011 | 0.006 | 0.010 | 527 | F6 | |
| 93- 332 | 1 53 46 | +0 32 52 | 9.79 | +0.51 | -0.02 | 6 | 3 | 0.012 | 0.013 | 0.015 | 534 | F8 | |
| 93- 333 | 1 53 48 | +0 38 24 | 12.00 | +0.84 | +0.46 | 17 | 9 | 0.019 | 0.016 | 0.030 | 535 | G5 | |
| 93- 350 | 1 54 41 | +0 39 05 | 10.26 | +0.47 | -0.06 | 8 | 4 | 0.014 | 0.017 | 0.007 | 562 | F5 | |
| 93- 351 | 1 54 43 | +0 39 54 | 10.93 | +0.59 | +0.08 | 6 | 3 | 0.012 | 0.009 | 0.014 | 563 | F6 | |
| 93- 375 | 1 51 01 | +0 44 53 | 10.69 | +0.45 | 0.00 | 2 | 1 | 0.008 | 0.006 | 0.003 | 474 | F6 | |
| 93- 395 | 1 52 27 | +0 50 19 | 11.64 | +0.67 | +0.09 | 7 | 4 | 0.014 | 0.008 | 0.018 | 503 | G2 | |
| 93- 405 | 1 53 03 | +0 47 58 | 12.19 | +0.50 | -0.03 | 9 | 5 | 0.018 | 0.017 | 0.021 | 511 | G0p | |
| 93- 407 | 1 53 20 | +0 46 28 | 11.96 | +0.87 | +0.58 | 19 | 9 | 0.020 | 0.017 | 0.027 | 518 | G3 | |
| 93- 417 | 1 53 44 | +0 45 34 | 11.92 | +0.75 | +0.25 | 17 | 8 | 0.022 | 0.013 | 0.026 | 532 | G1 | |
| 93- 422 | 1 54 03 | +0 51 47 | 12.11 | +0.60 | +0.08 | 2 | 1 | 0.013 | 0.006 | 0.015 | 543 | G0 | |
| 93- 424 | 1 54 09 | +0 49 23 | 11.62 | +1.08 | +0.95 | 14 | 6 | 0.010 | 0.017 | 0.034 | 548 | K2 | |
| 93- 484 | 1 51 54 | +0 53 00 | 12.26 | +0.50 | -0.03 | 13 | 7 | 0.019 | 0.021 | 0.029 | 489 | G3 | |
| 93- 488 | 1 52 15 | +0 53 32 | 12.16 | +0.57 | +0.04 | 1 | 1 | ... | ... | ... | 497 | G2 | |
| 93- 503 | 1 53 10 | +0 52 10 | 12.60 | +0.65 | +0.12 | 13 | 7 | 0.020 | 0.019 | 0.025 | 513 | G5 | |
| 93- 554 | 1 51 20 | +1 08 03 | 8.52 | +0.39 | -0.03 | 4 | 2 | 0.018 | 0.014 | 0.016 | 479 | F0 | |
| 93- 555 | 1 51 24 | +1 05 18 | 10.69 | +0.79 | +0.25 | 2 | 1 | 0.009 | 0.008 | 0.004 | 480 | G2p | 1 |
| 94- 6 | 2 52 08 | -0 05 08 | 9.54 | +1.08 | +0.85 | 4 | 2 | 0.028 | 0.013 | 0.013 | 210 | G6 | |
| 94- 11 | 2 52 21 | -0 02 50 | 9.12 | +1.05 | +0.77 | 4 | 2 | 0.013 | 0.008 | 0.028 | 216 | G5 | |
| 94- 32 | 2 53 30 | -0 09 01 | 6.52 | +1.05 | +0.88 | 7 | 4 | 0.007 | 0.009 | 0.016 | 229 | G4 | |
| 94- 86 | 2 56 43 | -0 10 43 | 11.52 | +0.77 | +0.33 | 4 | 2 | 0.018 | 0.017 | 0.011 | 281 | G1 | |
| 94- 90 | 2 56 59 | -0 07 32 | 11.89 | +0.66 | +0.09 | 4 | 2 | 0.016 | 0.024 | 0.022 | 285 | G1 | |
| 94- 155 | 2 56 47 | +0 04 41 | 11.67 | +0.50 | +0.02 | 4 | 2 | 0.008 | 0.014 | 0.014 | 282 | G0 | |
| 94- 163 | 2 57 06 | +0 02 37 | 12.35 | +0.60 | +0.08 | 6 | 3 | 0.023 | 0.016 | 0.027 | 286 | F9 | |
| 94- 168 | 2 52 13 | +0 15 39 | 11.82 | +1.03 | +0.76 | 8 | 3 | 0.024 | 0.011 | 0.046 | 213 | K2 | 2 |
| 94- 171 | 2 52 22 | +0 11 13 | 12.65 | +0.82 | +0.27 | 4 | 2 | 0.031 | 0.019 | 0.034 | 217 | G5 | |
| 94- 188 | 2 53 00 | +0 13 22 | 11.77 | +1.02 | +0.85 | 4 | 2 | 0.009 | 0.008 | 0.027 | 225 | G5 | |
| 94- 228 | 2 55 08 | +0 14 02 | 10.49 | +0.41 | -0.02 | 1 | 1 | ... | ... | ... | 257 | F2p | |
| 94- 236 | 2 55 36 | +0 13 52 | 10.48 | +1.23 | +1.20 | 3 | 2 | 0.020 | 0.004 | 0.008 | 262 | K3 | |
| 94- 242 | 2 56 05 | +0 12 38 | 11.73 | +0.30 | +0.08 | 10 | 5 | 0.014 | 0.008 | 0.005 | 268 | A5 | |
| 94- 251 | 2 56 30 | +0 10 04 | 11.21 | +1.21 | +1.24 | 11 | 6 | 0.010 | 0.008 | 0.033 | 278 | K2 | |
| 94- 293 | 2 53 57 | +0 20 14 | 7.02 | +1.13 | +1.12 | 7 | 4 | 0.014 | 0.011 | 0.015 | 470 | G5 | |
| 94- 296 | 2 54 03 | +0 22 11 | 12.26 | +0.74 | +0.24 | 11 | 6 | 0.017 | 0.024 | 0.031 | 476 | G3 | |
| 94- 297 | 2 54 05 | +0 22 02 | 12.08 | +0.75 | +0.27 | 9 | 5 | 0.019 | 0.014 | 0.016 | 477 | G5 | |
| 94- 300 | 2 54 18 | +0 23 45 | 11.53 | +1.10 | +1.01 | 11 | 5 | 0.016 | 0.015 | 0.028 | 484 | K2 | |
| 94- 305 | 2 54 39 | +0 24 55 | 8.89 | +1.42 | +1.60 | 7 | 4 | 0.014 | 0.009 | 0.039 | 490 | K5 | |
| 94- 308 | 2 54 57 | +0 25 16 | 8.74 | +0.50 | 0.00 | 7 | 4 | 0.010 | 0.008 | 0.010 | 498 | F7p | |
| 94- 319 | 2 55 54 | +0 20 54 | 6.62 | +0.32 | +0.04 | 7 | 4 | 0.009 | 0.005 | 0.008 | 514 | F0 | |
| 94- 328 | 2 56 22 | +0 27 56 | 10.05 | +0.74 | +0.28 | 2 | 1 | 0.008 | 0.004 | 0.006 | 530 | G3 | |
| 94- 342 | 2 57 12 | +0 20 16 | 9.03 | +1.00 | +0.73 | 7 | 4 | 0.019 | 0.010 | 0.018 | 544 | K0 | |
| 94- 392 | 2 54 49 | +0 28 46 | 11.04 | +0.68 | +0.14 | 1 | 1 | ... | ... | ... | 494 | G1 | |
| 94- 394 | 2 54 57 | +0 29 09 | 12.26 | +0.55 | -0.04 | 11 | 5 | 0.019 | 0.022 | 0.026 | 499 | | |

TABLE I (*continued*)

| Star | α (1975) | δ (1975) | V | $B - V$ | $U - B$ | n | m | Mean errors | | | BSD | Type | Note |
|---------|--|-----------------|-------|---------------------|---------------------|-----|-----|---------------------|---------------------|---------------------|------|------|------|
| | | | | | | | | V | $B - V$ | $U - B$ | | | |
| 94- 401 | 2 ^h 55 ^m 14 ^s | +0°34'05" | 14.32 | +0 ^m .62 | +0 ^m .14 | 2 | 1 | 0 ^m .023 | 0 ^m .019 | 0 ^m .053 | | | |
| 94- 402 | 2 55 14 | +0 36 39 | 12.89 | +0.60 | +0.09 | 9 | 4 | 0.024 | 0.021 | 0.039 | 505 | (G0) | 3 |
| 94- 406 | 2 55 24 | +0 35 26 | 12.34 | +0.56 | 0.00 | 9 | 4 | 0.017 | 0.014 | 0.028 | 506 | G3 | |
| 94- 596 | 2 56 06 | +0 52 23 | 10.72 | +0.77 | +0.38 | 2 | 1 | 0.002 | 0.004 | 0.007 | 518 | G7 | |
| 94- 597 | 2 56 08 | +0 53 59 | 10.85 | +0.79 | +0.46 | 2 | 1 | 0.002 | 0.003 | 0.006 | 522 | G5 | |
| 94- 699 | 2 56 50 | +1 01 20 | 11.44 | +0.53 | +0.04 | 2 | 1 | 0.009 | 0.004 | 0.000 | 538 | G0 | |
| 94- 702 | 2 56 56 | +1 04 55 | 11.60 | +1.41 | +1.63 | 6 | 3 | 0.013 | 0.020 | 0.039 | 541 | G5 | |
| 95- 15 | 3 51 23 | -0 09 47 | 11.32 | +0.71 | +0.15 | 6 | 3 | 0.010 | 0.013 | 0.015 | 263 | G0 | |
| 95- 16 | 3 51 24 | -0 09 31 | 14.22 | +1.36 | +1.0 | 4 | 1 | 0.044 | 0.016 | 0.3 | | | |
| 95- 19 | 3 51 28 | -0 11 26 | 11.73 | +0.64 | +0.08 | 6 | 3 | 0.014 | 0.011 | 0.013 | 265 | G2 | |
| 95- 52 | 3 52 57 | -0 12 43 | 9.57 | +0.53 | +0.06 | 10 | 5 | 0.020 | 0.014 | 0.012 | 284 | F6 | 4 |
| 95- 66 | 3 53 50 | -0 13 52 | 12.87 | +0.70 | +0.09 | 8 | 4 | 0.035 | 0.031 | 0.058 | 297 | G2 | |
| 95- 68 | 3 53 59 | -0 12 32 | 12.79 | +0.76 | +0.14 | 2 | 1 | 0.011 | 0.001 | 0.023 | 301 | G3 | |
| 95- 73 | 3 54 14 | -0 14 49 | 12.31 | +0.71 | +0.18 | 8 | 4 | 0.013 | 0.014 | 0.027 | 304 | G5 | |
| 95- 74 | 3 54 14 | -0 13 33 | 11.53 | +1.12 | +0.71 | 8 | 4 | 0.017 | 0.012 | 0.021 | 305 | G5 | |
| 95- 91 | 3 51 16 | -0 06 22 | 10.36 | +0.56 | +0.02 | 2 | 1 | 0.001 | 0.003 | 0.010 | 260 | G0 | |
| 95- 96 | 3 51 37 | -0 04 07 | 10.00 | +0.15 | +0.06 | 6 | 3 | 0.013 | 0.008 | 0.017 | 267 | B9 | |
| 95- 132 | 3 53 34 | +0 00 59 | 12.05 | +0.44 | +0.29 | 13 | 7 | 0.017 | 0.019 | 0.018 | 291 | G0: | |
| 95- 134 | 3 53 36 | -0 03 43 | 8.61 | +0.46 | +0.04 | 7 | 4 | 0.006 | 0.005 | 0.011 | 293 | F0p | |
| 95- 146 | 3 54 21 | -0 04 19 | 11.26 | +1.24 | +0.99 | 4 | 2 | 0.015 | 0.014 | 0.039 | 307 | G8 | 3 |
| 95- 149 | 3 54 27 | +0 02 45 | 10.93 | +1.57 | +1.56 | 7 | 4 | 0.014 | 0.017 | 0.035 | 308 | K4 | |
| 95- 206 | 3 52 59 | +0 12 59 | 8.73 | +0.50 | +0.01 | 6 | 3 | 0.012 | 0.008 | 0.011 | 285 | F8 | |
| 95- 218 | 3 53 33 | +0 05 46 | 12.08 | +0.71 | +0.22 | 13 | 7 | 0.018 | 0.020 | 0.020 | 290 | G0 | |
| 95- 233 | 3 54 39 | +0 08 08 | 11.00 | +0.68 | +0.17 | 3 | 2 | 0.006 | 0.014 | 0.002 | 309 | G2:p | |
| 95- 236 | 3 54 56 | +0 04 24 | 11.48 | +0.73 | +0.18 | 11 | 6 | 0.014 | 0.010 | 0.030 | 311 | G2 | |
| 95- 249 | 3 51 48 | +0 22 36 | 11.53 | +0.60 | +0.04 | 4 | 2 | 0.016 | 0.016 | 0.035 | 452 | F7 | |
| 95- 301 | 3 51 24 | +0 26 53 | 11.21 | +1.29 | +1.30 | 10 | 5 | 0.006 | 0.015 | 0.028 | 445 | G5 | |
| 95- 302 | 3 51 25 | +0 26 53 | 11.68 | +0.84 | +0.48 | 6 | 3 | 0.008 | 0.008 | 0.013 | 446 | G5 | |
| 95- 313 | 3 52 10 | +0 32 08 | 11.44 | +1.47 | +1.43 | 6 | 3 | 0.009 | 0.008 | 0.053 | 460 | K5 | |
| 95- 338 | 3 54 14 | +0 29 46 | 12.33 | +0.65 | +0.08 | 2 | 1 | 0.006 | 0.006 | 0.001 | 480 | G3 | |
| 95- 374 | 3 52 09 | +0 39 22 | 12.37 | +1.06 | +0.73 | 2 | 1 | 0.018 | 0.023 | 0.007 | 459 | K5 | |
| 95- 379 | 3 52 51 | +0 34 14 | 10.41 | +0.68 | +0.17 | 2 | 1 | 0.006 | 0.005 | 0.012 | 471 | G0 | |
| 95- 402 | 3 54 51 | +0 38 22 | 9.45 | +0.48 | +0.18 | 6 | 3 | 0.009 | 0.005 | 0.009 | 486 | A8 | |
| 96- 21 | 4 49 59 | -0 17 20 | 12.17 | +0.49 | -0.02 | 8 | 3 | 0.012 | 0.011 | 0.020 | 534 | G2 | |
| 96- 25 | 4 50 04 | -0 15 31 | 12.30 | +0.41 | +0.02 | 4 | 2 | 0.007 | 0.008 | 0.029 | 536 | G0 | |
| 96- 36 | 4 50 26 | -0 12 41 | 10.60 | +0.25 | +0.10 | 6 | 3 | 0.009 | 0.013 | 0.010 | 559 | A3 | |
| 96- 51 | 4 50 43 | -0 12 55 | 10.64 | +0.52 | +0.06 | 4 | 2 | 0.009 | 0.005 | 0.006 | 571 | G1 | |
| 96- 83 | 4 51 42 | -0 17 10 | 11.72 | +0.18 | +0.17 | 4 | 2 | 0.003 | 0.009 | 0.016 | 602 | A3 | |
| 96- 90 | 4 51 53 | -0 20 13 | 11.59 | +0.44 | +0.03 | 4 | 2 | 0.014 | 0.015 | 0.010 | 609 | F8 | |
| 96- 167 | 4 49 56 | -0 10 20 | 10.90 | +0.62 | +0.17 | 4 | 2 | 0.002 | 0.006 | 0.007 | 533 | F2 | |
| 96- 171 | 4 50 06 | -0 11 32 | 11.04 | +0.49 | +0.08 | 4 | 2 | 0.009 | 0.006 | 0.005 | 538 | G0 | |
| 96- 180 | 4 50 24 | -0 07 44 | 8.94 | +1.06 | +0.85 | 8 | 4 | 0.014 | 0.012 | 0.013 | 557 | G8 | |
| 96- 192 | 4 50 54 | -0 08 02 | 10.88 | +0.35 | 0.00 | 4 | 2 | 0.005 | 0.005 | 0.013 | 578 | A8 | |
| 96- 219 | 4 51 34 | -0 04 21 | 11.49 | +0.51 | -0.01 | 4 | 2 | 0.016 | 0.013 | 0.004 | 598 | G0 | |
| 96- 235 | 4 52 02 | -0 07 29 | 11.13 | +1.08 | +0.89 | 8 | 3 | 0.010 | 0.011 | 0.025 | 614 | G8 | |
| 96- 321 | 4 49 34 | +0 03 14 | 10.59 | +0.43 | -0.02 | 2 | 1 | 0.005 | 0.014 | 0.001 | 511 | F8 | |
| 96- 329 | 4 49 43 | +0 03 47 | 9.23 | +0.32 | +0.07 | 6 | 3 | 0.005 | 0.009 | 0.010 | 521 | A8 | |
| 96- 376 | 4 50 41 | -0 01 07 | 11.76 | +0.69 | +0.18 | 2 | 1 | 0.011 | 0.004 | 0.001 | 569 | G0 | |
| 96- 382 | 4 50 52 | +0 00 20 | 8.50 | +1.03 | +0.82 | 5 | 3 | 0.007 | 0.005 | 0.008 | 576 | G8 | |
| 96- 393 | 4 51 13 | -0 00 20 | 9.66 | +0.59 | +0.05 | 4 | 2 | 0.006 | 0.005 | 0.014 | 586 | G1 | |
| 96- 405 | 4 51 32 | +0 05 05 | 10.67 | +1.30 | +1.49 | 6 | 3 | 0.008 | 0.005 | 0.030 | 596 | K0 | |
| 96- 406 | 4 51 33 | +0 04 37 | 9.31 | +0.21 | +0.14 | 6 | 3 | 0.018 | 0.014 | 0.009 | 597 | A5p | |
| 96- 409 | 4 51 42 | +0 06 38 | 13.80 | +0.53 | -0.02 | 4 | 1 | 0.024 | 0.026 | 0.052 | 599 | | |
| 96- 449 | 4 52 30 | -0 01 46 | 11.88 | +0.66 | +0.10 | 2 | 1 | 0.001 | 0.003 | 0.020 | 640 | G3 | |
| 96- 452 | 4 52 36 | +0 01 22 | 11.52 | +0.72 | +0.20 | 2 | 1 | 0.005 | 0.029 | 0.000 | 641 | K0 | |
| 96- 517 | 4 50 03 | +0 13 20 | 11.43 | +0.63 | +0.14 | 2 | 1 | 0.001 | 0.004 | 0.021 | 1069 | F8 | |
| 96- 541 | 4 50 35 | +0 11 46 | 11.25 | +0.43 | -0.03 | 2 | 1 | 0.039 | 0.037 | 0.011 | 1087 | G2 | |
| 96- 549 | 4 50 50 | +0 11 53 | 10.98 | +1.22 | +1.21 | 2 | 1 | 0.005 | 0.014 | 0.016 | 1099 | K2 | |
| 96- 615 | 4 52 19 | +0 12 47 | 9.39 | +1.09 | +0.93 | 4 | 2 | 0.011 | 0.009 | 0.031 | 1165 | K2 | |
| 96- 727 | 4 51 04 | +0 18 03 | 10.66 | +1.11 | +0.95 | 2 | 1 | 0.006 | 0.004 | 0.011 | 1111 | G3 | |
| 96- 736 | 4 51 18 | +0 19 40 | 11.92 | +0.44 | +0.17 | 10 | 4 | 0.020 | 0.015 | 0.015 | 1128 | F-G | |
| 96- 737 | 4 51 18 | +0 20 02 | 11.72 | +1.34 | +1.10 | 10 | 4 | 0.024 | 0.013 | 0.029 | 1129 | K0 | |
| 96- 748 | 4 51 35 | +0 23 12 | 11.68 | +0.76 | +0.29 | 8 | 3 | 0.007 | 0.010 | 0.019 | 1138 | G6 | |
| 96- 753 | 4 51 42 | +0 22 02 | 11.42 | +0.99 | +0.60 | 1 | 1 | ... | ... | ... | 1144 | | |

TABLE I (continued)

| Star | α (1975) | δ (1975) | V | $B - V$ | $U - B$ | n | m | Mean errors | | | BSD | Type | Note |
|---------|--|-----------------|-------|---------|---------|-----|-----|-------------|---------|---------|------|------|------|
| | | | | | | | | V | $B - V$ | $U - B$ | | | |
| 96- 764 | 4 ^h 51 ^m 56 ^s | +0°22'28" | 9.27 | +0.43 | +0.05 | 4 | 2 | 0.007 | 0.004 | 0.007 | 1151 | F5 | |
| 96- 767 | 4 52 02 | +0 21 14 | 11.68 | +0.96 | +0.78 | 11 | 5 | 0.019 | 0.013 | 0.016 | 1154 | G8 | |
| 96- 837 | 4 53 34 | +0 25 44 | 5.99 | -0.12 | -0.56 | 1 | 1 | ... | ... | ... | 1203 | B5 | |
| 97- 18 | 5 55 18 | -0 13 03 | 11.92 | +0.55 | +0.01 | 4 | 2 | 0.019 | 0.022 | 0.022 | 393 | F8 | |
| 97- 19 | 5 55 20 | -0 10 26 | 12.26 | +0.61 | +0.06 | 4 | 2 | 0.007 | 0.002 | 0.014 | 394 | F9 | |
| 97- 75 | 5 56 38 | -0 09 35 | 11.48 | +1.86 | +2.10 | 6 | 2 | 0.015 | 0.013 | 0.108 | 424 | K0 | 5 |
| 97- 111 | 5 57 23 | -0 10 34 | 11.99 | +0.59 | +0.35 | 2 | 1 | 0.004 | 0.011 | 0.010 | 450 | A5 | |
| 97- 142 | 5 55 28 | -0 06 54 | 11.47 | +0.50 | -0.04 | 2 | 1 | 0.005 | 0.001 | 0.024 | 398 | G0 | |
| 97- 189 | 5 56 36 | -0 04 20 | 10.45 | +0.54 | +0.34 | 3 | 2 | 0.033 | 0.020 | 0.022 | 423 | A1 | |
| 97- 191 | 5 56 40 | -0 07 58 | 14.11 | +0.78 | +0.51 | 2 | 1 | 0.001 | 0.030 | 0.044 | | | |
| 97- 196 | 5 56 47 | -0 07 53 | 12.65 | +0.62 | +0.07 | 7 | 2 | 0.035 | 0.018 | 0.032 | 432 | G0 | 6 |
| 97- 200 | 5 56 53 | -0 03 39 | 10.20 | +0.55 | -0.01 | 3 | 2 | 0.025 | 0.009 | 0.011 | 434 | F5 | |
| 97- 210 | 5 57 01 | -0 04 49 | 12.11 | +0.80 | +0.45 | 6 | 3 | 0.015 | 0.021 | 0.029 | 440 | A5 | |
| 97- 219 | 5 57 19 | -0 07 01 | 12.87 | +0.64 | +0.12 | 4 | 2 | 0.022 | 0.013 | 0.055 | 448 | G7 | |
| 97- 222 | 5 57 21 | -0 04 57 | 11.60 | +1.30 | +0.86 | 8 | 4 | 0.022 | 0.018 | 0.041 | 449 | K0 | |
| 97- 224 | 5 57 27 | -0 05 17 | 14.12 | +0.89 | +0.34 | 4 | 2 | 0.017 | 0.045 | 0.080 | | | |
| 97- 225 | 5 57 28 | -0 04 50 | 10.22 | +0.44 | -0.03 | 5 | 3 | 0.013 | 0.005 | 0.015 | 452 | F5 | |
| 97- 230 | 5 55 00 | +0 09 26 | 9.23 | +0.58 | +0.06 | 7 | 4 | 0.014 | 0.012 | 0.008 | 718 | G1 | |
| 97- 249 | 5 55 51 | +0 01 04 | 11.74 | +0.65 | +0.12 | 14 | 7 | 0.010 | 0.011 | 0.027 | 730 | G2 | |
| 97- 252 | 5 55 53 | +0 02 32 | 11.77 | +0.59 | +0.07 | 5 | 3 | 0.020 | 0.018 | 0.012 | 733 | G5 | |
| 97- 257 | 5 56 09 | +0 01 34 | 6.90 | 0.00 | -0.14 | 6 | 3 | 0.010 | 0.004 | 0.006 | 737 | A0 | |
| 97- 284 | 5 57 08 | +0 05 07 | 10.79 | +1.36 | +1.09 | 2 | 1 | 0.009 | 0.015 | 0.001 | 757 | G8 | |
| 97- 288 | 5 57 13 | +0 06 37 | 10.87 | +0.60 | +0.13 | 2 | 1 | 0.007 | 0.006 | 0.011 | 759 | G2 | |
| 97- 308 | 5 55 02 | +0 15 43 | 10.44 | +0.59 | +0.06 | 5 | 3 | 0.016 | 0.013 | 0.021 | 719 | G0 | |
| 97- 311 | 5 55 07 | +0 12 50 | 10.21 | +0.60 | +0.42 | 7 | 4 | 0.017 | 0.011 | 0.020 | 722 | A1 | |
| 97- 319 | 5 55 19 | +0 15 19 | 11.71 | +0.95 | +0.77 | 4 | 2 | 0.010 | 0.008 | 0.031 | 724 | G5 | |
| 97- 327 | 5 55 38 | +0 13 07 | 12.18 | +0.55 | -0.01 | 4 | 2 | 0.018 | 0.019 | 0.021 | 726 | F8 | |
| 97- 345 | 5 56 09 | +0 20 19 | 11.61 | +1.64 | +1.69 | 12 | 4 | 0.014 | 0.014 | 0.136 | | | 7 |
| 97- 346 | 5 56 10 | +0 13 14 | 9.27 | +0.60 | +0.11 | 9 | 5 | 0.015 | 0.016 | 0.007 | 739 | G3P | |
| 97- 351 | 5 56 20 | +0 13 35 | 9.79 | +0.20 | +0.07 | 9 | 5 | 0.009 | 0.008 | 0.010 | 743 | A0 | |
| 97- 366 | 5 56 52 | +0 18 24 | 10.17 | +0.90 | +0.54 | 6 | 3 | 0.024 | 0.011 | 0.019 | 751 | G5 | 8 |
| 97- 368 | 5 56 58 | +0 16 56 | 10.15 | +0.86 | +0.47 | 5 | 3 | 0.017 | 0.008 | 0.013 | 755 | G6: | |
| 97- 369 | 5 56 59 | +0 13 02 | 11.00 | +0.70 | +0.25 | 2 | 1 | 0.020 | 0.013 | 0.013 | 756 | G4: | |
| 98- 185 | 6 50 45 | -0 25 30 | 10.55 | +0.20 | +0.10 | 3 | 2 | 0.018 | 0.017 | 0.010 | 1833 | A1 | |
| 98- 193 | 6 50 47 | -0 25 26 | 10.03 | +1.18 | +1.18 | 3 | 2 | 0.009 | 0.012 | 0.003 | 1836 | G8 | |
| 98- 211 | 6 50 53 | -0 27 26 | 12.02 | +0.30 | +0.23 | 2 | 1 | 0.007 | 0.004 | 0.020 | 1850 | A6 | |
| 98- 265 | 6 51 12 | -0 30 28 | 10.94 | +0.23 | +0.19 | 4 | 2 | 0.013 | 0.005 | 0.004 | 1884 | A1 | |
| 98- 313 | 6 51 29 | -0 34 07 | 11.07 | +0.66 | +0.17 | 2 | 1 | 0.001 | 0.001 | 0.006 | 1905 | G0 | |
| 98- 320 | 6 51 31 | -0 34 41 | 9.19 | +1.15 | +1.14 | 4 | 2 | 0.012 | 0.004 | 0.014 | 1908 | G8 | |
| 98- 334 | 6 51 34 | -0 31 28 | 10.27 | +0.06 | +0.02 | 4 | 2 | 0.008 | 0.005 | 0.008 | 1914 | A3 | |
| 98- 365 | 6 51 44 | -0 33 33 | 11.80 | +0.18 | +0.11 | 2 | 1 | 0.004 | 0.002 | 0.010 | 1938 | A5 | |
| 98- 398 | 6 51 57 | -0 27 53 | 10.61 | +0.02 | -0.05 | 4 | 2 | 0.008 | 0.006 | 0.009 | 1977 | A1 | |
| 98- 402 | 6 51 57 | -0 31 27 | 11.66 | +0.12 | +0.11 | 2 | 1 | 0.005 | 0.010 | 0.003 | 1978 | A3: | |
| 98- 428 | 6 52 03 | -0 27 28 | 12.15 | +0.36 | +0.05 | 2 | 1 | 0.004 | 0.006 | 0.008 | 1986 | F5 | |
| 98- 455 | 6 52 12 | -0 33 27 | 11.00 | +0.46 | +0.03 | 2 | 1 | 0.011 | 0.008 | 0.009 | 1997 | F6 | |
| 98- 600 | 6 50 28 | -0 23 44 | 11.11 | +0.57 | +0.05 | 1 | 1 | ... | ... | ... | 1794 | G1 | |
| 98- 607 | 6 50 31 | -0 24 36 | 11.15 | +0.16 | -0.09 | 1 | 1 | ... | ... | ... | 1801 | A2 | |
| 98- 613 | 6 50 32 | -0 24 40 | 11.81 | +0.17 | +0.05 | 5 | 3 | 0.013 | 0.009 | 0.009 | 1805 | A2 | |
| 98- 632 | 6 50 38 | -0 24 10 | 11.54 | +0.15 | -0.02 | 3 | 2 | 0.015 | 0.008 | 0.014 | 1815 | A1 | |
| 98- 648 | 6 50 47 | -0 17 48 | 12.98 | +0.76 | +0.15 | 5 | 3 | 0.071 | 0.037 | 0.038 | | | 9 |
| 98- 650 | 6 50 48 | -0 17 48 | 12.26 | +0.16 | +0.09 | 9 | 4 | 0.014 | 0.017 | 0.023 | 1842 | | |
| 98- 653 | 6 50 48 | -0 16 27 | 9.55 | -0.01 | -0.12 | 3 | 2 | 0.001 | 0.009 | 0.010 | 1843 | A0 | |
| 98- 667 | 6 50 54 | -0 15 50 | 8.39 | +0.02 | -0.34 | 3 | 2 | 0.006 | 0.004 | 0.007 | 1852 | B9 | |
| 98- 670 | 6 50 55 | -0 17 25 | 11.97 | +1.37 | +1.41 | 11 | 4 | 0.023 | 0.031 | 0.156 | | | 7 |
| 98- 671 | 6 50 55 | -0 16 30 | 13.40 | +0.98 | +0.68 | 11 | 4 | 0.037 | 0.036 | 0.168 | | | |
| 98- 676 | 6 50 57 | -0 17 29 | 13.08 | +1.18 | +0.65 | 1 | 1 | ... | ... | ... | | | |
| 98- 682 | 6 51 00 | -0 17 50 | 13.70 | +0.70 | +0.14 | 2 | 1 | 0.041 | 0.064 | 0.001 | | | |
| 98- 685 | 6 51 02 | -0 18 27 | 11.96 | +0.46 | +0.11 | 9 | 4 | 0.021 | 0.024 | 0.027 | 1862 | G3 | |
| 98- 696 | 6 51 05 | -0 19 44 | 12.24 | +0.43 | +0.24 | 1 | 1 | ... | ... | ... | 1872 | A5 | |
| 98- 712 | 6 51 13 | -0 18 25 | 11.60 | +0.16 | -0.08 | 5 | 2 | 0.014 | 0.016 | 0.012 | 1886 | A0 | |
| 98- 724 | 6 51 21 | -0 17 29 | 11.12 | +1.10 | +0.95 | 1 | 1 | ... | ... | ... | 1892 | G8 | |
| 98- 975 | 6 50 14 | -0 09 35 | 12.04 | +0.40 | +0.03 | 1 | 1 | ... | ... | ... | 1772 | F4 | |
| 98- 978 | 6 50 17 | -0 09 38 | 10.59 | +0.61 | +0.11 | 1 | 1 | ... | ... | ... | 1777 | G3 | |
| 99- 6 | 7 52 17 | -0 45 38 | 11.05 | +1.26 | +1.25 | 2 | 1 | 0.001 | 0.006 | 0.004 | 1133 | G7: | |
| 99- 8 | 7 52 18 | -0 48 14 | 11.53 | +0.76 | +0.31 | 2 | 1 | 0.001 | 0.004 | 0.020 | 1136 | G6 | |

PHOTOELECTRIC SEQUENCES

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TABLE I (*continued*)

| Star | α (1975) | δ (1975) | <i>V</i> | <i>B</i> - <i>V</i> | <i>U</i> - <i>B</i> | <i>n</i> | <i>m</i> | Mean errors | | | BSD | Type | Note |
|----------|--|-----------------|----------|---------------------|---------------------|----------|----------|--------------------|---------------------|---------------------|------|-------|------|
| | | | | | | | | <i>V</i> | <i>B</i> - <i>V</i> | <i>U</i> - <i>B</i> | | | |
| 99- 12 | 7 ^h 52 ^m 26 ^s | -0°45'10" | 12.37 | +0 ^m 46 | -0 ^m 03 | 2 | 1 | 0 ^m 004 | 0 ^m 008 | 0 ^m 007 | 1141 | | |
| 99- 14 | 7 52 29 | -0 44 51 | 12.54 | +0.88 | +0.46 | 2 | 1 | 0.004 | 0.018 | 0.037 | 1144 | G-K | |
| 99- 35 | 7 53 02 | -0 47 37 | 10.74 | +0.41 | -0.07 | 1 | 1 | ... | ... | ... | 1173 | F7 | |
| 99- 54 | 7 53 44 | -0 43 49 | 11.32 | +0.68 | +0.26 | 2 | 1 | 0.000 | 0.001 | 0.023 | 1216 | G5 | |
| 99- 59 | 7 53 51 | -0 43 14 | 11.59 | +0.69 | +0.30 | 2 | 1 | 0.006 | 0.011 | 0.031 | 1220 | G5 | |
| 99- 90 | 7 54 40 | -0 49 17 | 10.24 | +0.53 | +0.07 | 2 | 1 | 0.000 | 0.001 | 0.001 | 1261 | G2 | |
| 99- 93 | 7 54 41 | -0 48 37 | 12.24 | +0.47 | -0.03 | 6 | 2 | 0.014 | 0.017 | 0.012 | 1262 | F7:: | |
| 99- 99 | 7 54 46 | -0 46 18 | 12.03 | +0.54 | +0.07 | 2 | 1 | 0.004 | 0.002 | 0.003 | 1268 | F8 | |
| 99- 103 | 7 54 48 | -0 48 58 | 11.68 | +0.30 | +0.07 | 2 | 1 | 0.011 | 0.011 | 0.042 | 1271 | F0 | |
| 99- 107 | 7 52 14 | -0 41 18 | 12.32 | +0.55 | +0.02 | 2 | 1 | 0.009 | 0.001 | 0.002 | 1129 | G2 | |
| 99- 172 | 7 53 26 | -0 33 27 | 8.81 | +0.05 | +0.04 | 6 | 4 | 0.009 | 0.006 | 0.007 | 1196 | A1 | |
| 99- 185 | 7 53 36 | -0 41 25 | 8.35 | +1.09 | +0.98 | 5 | 3 | 0.024 | 0.010 | 0.005 | 1210 | K0 | 10 |
| 99- 250 | 7 52 22 | -0 27 50 | 12.05 | +0.92 | +0.55 | 9 | 4 | 0.017 | 0.011 | 0.024 | 1137 | G3 | |
| 99- 258 | 7 52 37 | -0 29 13 | 10.99 | +0.85 | +0.58 | 1 | 1 | ... | ... | ... | 1150 | G6 | |
| 99- 267 | 7 52 47 | -0 25 45 | 12.30 | +0.58 | +0.06 | 5 | 3 | 0.021 | 0.010 | 0.019 | 1158 | G6 | |
| 99- 288 | 7 53 21 | -0 24 14 | 11.46 | +1.10 | +0.97 | 9 | 4 | 0.015 | 0.020 | 0.025 | 1187 | K3 | |
| 99- 294 | 7 53 27 | -0 23 48 | 12.16 | +0.50 | -0.01 | 9 | 4 | 0.016 | 0.013 | 0.013 | 1197 | G0 | |
| 99- 296 | 7 53 30 | -0 25 37 | 8.44 | +1.19 | +1.27 | 6 | 4 | 0.018 | 0.006 | 0.016 | 1201 | K1 | |
| 99- 358 | 7 52 41 | -0 18 10 | 9.59 | +0.79 | +0.51 | 4 | 3 | 0.020 | 0.009 | 0.011 | 1152 | G3 | |
| 99- 362 | 7 52 45 | -0 19 38 | 10.80 | +1.14 | +1.10 | 1 | 1 | ... | ... | ... | 1156 | K2 | |
| 99- 366 | 7 52 52 | -0 20 47 | 11.50 | +0.16 | +0.07 | 6 | 4 | 0.011 | 0.013 | 0.012 | 1162 | A4 | |
| 99- 367 | 7 52 55 | -0 21 38 | 11.14 | +1.00 | +0.82 | 5 | 2 | 0.009 | 0.022 | 0.017 | 1166 | K2 | |
| 99- 375 | 7 53 13 | -0 20 27 | 12.35 | +0.25 | +0.07 | 5 | 3 | 0.012 | 0.015 | 0.020 | 1182 | A8 | |
| 99- 408 | 7 53 56 | -0 21 32 | 9.81 | +0.41 | +0.04 | 5 | 3 | 0.020 | 0.008 | 0.015 | 1231 | F6 | |
| 99- 418 | 7 54 10 | -0 13 31 | 9.47 | -0.04 | -0.15 | 5 | 3 | 0.010 | 0.009 | 0.006 | 1240 | G2 | |
| 99- 438 | 7 54 37 | -0 12 50 | 9.40 | -0.15 | -0.71 | 5 | 3 | 0.013 | 0.008 | 0.015 | 1260 | B7 | |
| 99- 447 | 7 54 50 | -0 16 41 | 9.42 | -0.07 | -0.22 | 5 | 3 | 0.012 | 0.006 | 0.009 | 1272 | A0 | |
| 100- 39 | 8 51 54 | -0 46 58 | 10.47 | +0.43 | -0.05 | 2 | 1 | 0.005 | 0.001 | 0.010 | 555 | F5 | |
| 100- 51 | 8 52 24 | -0 46 59 | 11.13 | +0.16 | +0.04 | 2 | 1 | 0.001 | 0.001 | 0.001 | 572 | A4 | |
| 100- 61 | 8 52 43 | -0 49 40 | 12.72 | +0.65 | +0.11 | 2 | 1 | 0.017 | 0.030 | 0.044 | 583 | G5 | |
| 100- 95 | 8 53 37 | -0 52 22 | 8.90 | +0.80 | +0.38 | 4 | 2 | 0.022 | 0.009 | 0.012 | 612 | G5 | 11 |
| 100- 109 | 8 54 08 | -0 47 11 | 9.74 | +1.18 | +1.19 | 6 | 2 | 0.015 | 0.010 | 0.016 | 623 | G6 | |
| 100- 134 | 8 51 07 | -0 43 26 | 9.77 | +1.14 | +1.04 | 6 | 2 | 0.010 | 0.009 | 0.020 | 531 | K0 | |
| 100- 153 | 8 51 46 | -0 38 31 | 12.04 | +0.40 | +0.01 | 2 | 1 | 0.008 | 0.011 | 0.018 | 549 | F7 | |
| 100- 157 | 8 51 51 | -0 39 37 | 11.68 | +1.11 | +1.03 | 2 | 1 | 0.015 | 0.020 | 0.035 | 553 | K3 | |
| 100- 162 | 8 51 58 | -0 37 46 | 9.14 | +1.27 | +1.50 | 6 | 2 | 0.006 | 0.011 | 0.021 | 558 | K0 | |
| 100- 164 | 8 51 59 | -0 43 55 | 12.12 | +0.86 | +0.50 | 2 | 1 | 0.008 | 0.019 | 0.009 | 559 | G7 | |
| 100- 199 | 8 53 07 | -0 42 11 | 12.20 | +0.77 | +0.38 | 4 | 2 | 0.006 | 0.008 | 0.011 | 601 | G5 | |
| 100- 207 | 8 53 22 | -0 44 37 | 12.39 | +0.52 | +0.07 | 4 | 2 | 0.009 | 0.012 | 0.038 | 606 | G7 | |
| 100- 212 | 8 53 32 | -0 41 19 | 11.45 | +0.88 | +0.68 | 4 | 2 | 0.012 | 0.020 | 0.010 | 611 | G5 | |
| 100- 233 | 8 50 54 | -0 35 52 | 12.16 | +1.06 | +0.95 | 18 | 7 | 0.016 | 0.024 | 0.037 | 525 | K0 | |
| 100- 236 | 8 51 03 | -0 31 20 | 11.32 | +0.62 | +0.10 | 2 | 1 | 0.008 | 0.006 | 0.011 | 530 | G4 | |
| 100- 241 | 8 51 18 | -0 34 07 | 10.15 | +0.14 | +0.10 | 4 | 3 | 0.017 | 0.011 | 0.008 | 535 | A0 | |
| 100- 267 | 8 52 01 | -0 35 49 | 13.03 | +0.46 | -0.04 | 2 | 1 | 0.025 | 0.039 | 0.011 | | | |
| 100- 269 | 8 52 02 | -0 35 28 | 12.35 | +0.56 | -0.02 | 24 | 10 | 0.022 | 0.023 | 0.034 | 562 | G0: | |
| 100- 272 | 8 52 10 | -0 33 35 | 12.07 | +0.77 | +0.37 | 16 | 8 | 0.014 | 0.021 | 0.037 | 564 | K0 | |
| 100- 277 | 8 52 15 | -0 29 47 | 13.86 | +0.54 | -0.01 | 2 | 1 | 0.013 | 0.060 | 0.037 | 569 | F5 | 12 |
| 100- 280 | 8 52 19 | -0 30 58 | 11.80 | +0.50 | +0.01 | 16 | 8 | 0.013 | 0.011 | 0.017 | | | |
| 100- 285 | 8 52 28 | -0 28 35 | 13.56 | +1.06 | +1.2:: | 6 | 2 | 0.036 | 0.091 | 0.2 | | | |
| 100- 286 | 8 52 30 | -0 29 07 | 9.60 | +0.46 | -0.02 | 1 | 1 | ... | ... | ... | 574 | F3: | |
| 100- 287 | 8 52 30 | -0 29 01 | 9.30 | +0.46 | -0.04 | 1 | 1 | ... | ... | ... | 573 | F3: | |
| 100- 289 | 8 52 32 | -0 27 05 | 9.13 | +0.76 | +0.42 | 8 | 5 | 0.021 | 0.011 | 0.016 | 576 | G7 | 13 |
| 100- 297 | 8 52 42 | -0 30 59 | 8.42 | +1.11 | +1.08 | 4 | 2 | 0.006 | 0.011 | 0.008 | 582 | G8 | |
| 100- 322 | 8 53 27 | -0 36 56 | 8.79 | +0.40 | -0.07 | 4 | 2 | 0.010 | 0.004 | 0.009 | 608 | F3 | |
| 100- 357 | 8 51 14 | -0 22 06 | 9.64 | +1.02 | +0.86 | 4 | 2 | 0.007 | 0.010 | 0.029 | 533 | K0 | |
| 100- 394 | 8 52 38 | -0 26 37 | 11.37 | +1.31 | +1.44 | 6 | 2 | 0.002 | 0.008 | 0.028 | 580 | Ma | |
| 100- 606 | 8 51 41 | -0 03 47 | 8.65 | +0.04 | +0.08 | 4 | 2 | 0.013 | 0.005 | 0.020 | 915 | B9 | |
| 100- 607 | 8 51 41 | -0 06 41 | 10.06 | +0.49 | -0.01 | 4 | 2 | 0.007 | 0.010 | 0.004 | 914 | F9:: | |
| 101- 24 | 9 54 19 | -1 00 19 | 7.98 | +1.12 | +1.03 | 5 | 3 | 0.004 | 0.007 | 0.010 | 370 | g:K0 | |
| 101- 43 | 9 56 13 | -0 57 31 | 10.17 | +1.16 | +1.08 | 2 | 1 | 0.003 | 0.004 | 0.008 | 405 | gG8 | |
| 101- 56 | 9 56 45 | -0 59 23 | 11.89 | +0.43 | -0.04 | 14 | 4 | 0.011 | 0.011 | 0.018 | 415 | F5 | |
| 101- 57 | 9 56 48 | -0 54 11 | 11.58 | +0.78 | +0.42 | 12 | 4 | 0.013 | 0.018 | 0.025 | 416 | G3 | |
| 101- 58 | 9 56 48 | -1 01 07 | 12.48 | +0.91 | +0.44 | 2 | 1 | 0.003 | 0.003 | 0.030 | | | |
| 101- 88 | 9 53 25 | -0 45 12 | 11.25 | +0.97 | +0.64 | 2 | 1 | 0.001 | 0.007 | 0.002 | 348 | d::G5 | |
| 101- 95 | 9 53 50 | -0 44 02 | 10.51 | +0.51 | +0.04 | 3 | 2 | 0.009 | 0.002 | 0.013 | 359 | F7p | |

TABLE I (continued)

| Star | α (1975) | δ (1975) | <i>V</i> | <i>B</i> - <i>V</i> | <i>U</i> - <i>B</i> | <i>n</i> | <i>m</i> | Mean errors | | | BSD | Type | Note |
|----------|--|-----------------|----------|---------------------|---------------------|----------|----------|---------------------|---------------------|---------------------|-----|------|------|
| | | | | | | | | <i>V</i> | <i>B</i> - <i>V</i> | <i>U</i> - <i>B</i> | | | |
| 101- 102 | 9 ^h 54 ^m 28 ^s | -0°45'01" | 10.77 | +0 ^m .57 | +0 ^m .09 | 3 | 2 | 0 ^m .008 | 0 ^m .014 | 0 ^m .018 | 372 | F8 | |
| 101- 109 | 9 54 45 | -0 48 16 | 11.93 | +0.53 | +0.01 | 4 | 2 | 0.005 | 0.008 | 0.024 | 381 | G0 | |
| 101- 121 | 9 55 56 | -0 43 58 | 12.13 | +0.64 | +0.14 | 2 | 1 | 0.005 | 0.004 | 0.015 | 400 | G3 | |
| 101- 169 | 9 53 36 | -0 40 00 | 11.74 | +0.97 | +0.74 | 6 | 2 | 0.016 | 0.012 | 0.021 | 354 | G3 | |
| 101- 174 | 9 53 45 | -0 33 52 | 11.67 | +0.62 | +0.12 | 2 | 1 | 0.004 | 0.001 | 0.014 | 358 | G3 | |
| 101- 207 | 9 56 36 | -0 40 24 | 12.41 | +0.52 | -0.07 | 14 | 4 | 0.017 | 0.018 | 0.023 | 431 | F7 | |
| 101- 216 | 9 57 00 | -0 36 25 | 12.13 | +0.69 | +0.12 | 4 | 2 | 0.014 | 0.026 | 0.027 | 421 | G4 | |
| 101- 281 | 9 55 48 | -0 24 28 | 11.58 | +0.81 | +0.44 | 20 | 10 | 0.018 | 0.021 | 0.022 | 396 | | |
| 101- 282 | 9 55 48 | -0 22 50 | 10.00 | +0.42 | +0.01 | 7 | 5 | 0.011 | 0.010 | 0.013 | 397 | F2 | |
| 101- 308 | 9 52 55 | -0 20 22 | 10.54 | +0.56 | 0.00 | 5 | 4 | 0.011 | 0.013 | 0.015 | 632 | G0 | |
| 101- 311 | 9 53 18 | -0 17 10 | 8.23 | +0.26 | +0.01 | 7 | 5 | 0.007 | 0.009 | 0.008 | 646 | A3 | |
| 101- 315 | 9 53 34 | -0 20 21 | 11.25 | +1.15 | +1.07 | 10 | 4 | 0.013 | 0.017 | 0.014 | 654 | d:G7 | |
| 101- 316 | 9 53 35 | -0 11 25 | 11.55 | +0.50 | +0.04 | 14 | 7 | 0.014 | 0.015 | 0.025 | 655 | F7 | |
| 101- 321 | 9 54 17 | -0 11 39 | 12.85 | +0.65 | +0.14 | 10 | 6 | 0.020 | 0.022 | 0.032 | | | |
| 101- 324 | 9 54 40 | -0 16 05 | 9.74 | +1.15 | +1.14 | 7 | 5 | 0.017 | 0.017 | 0.008 | 680 | gK0 | |
| 101- 329 | 9 55 02 | -0 19 14 | 11.99 | +0.64 | +0.13 | 12 | 7 | 0.015 | 0.012 | 0.017 | 694 | G0 | |
| 101- 333 | 9 55 22 | -0 20 30 | 7.83 | +1.48 | +1.79 | 9 | 5 | 0.015 | 0.013 | 0.030 | 700 | g:K3 | |
| 101- 346 | 9 56 23 | -0 17 37 | 10.05 | +0.46 | -0.05 | 3 | 2 | 0.008 | 0.010 | 0.008 | 723 | F5 | |
| 101- 363 | 9 57 02 | -0 18 24 | 9.87 | +0.24 | +0.12 | 5 | 3 | 0.007 | 0.010 | 0.004 | 743 | A4 | |
| 101- 389 | 9 53 03 | -0 07 59 | 9.95 | +0.42 | +0.01 | 5 | 3 | 0.006 | 0.008 | 0.014 | 638 | F3 | |
| 101- 395 | 9 53 44 | -0 03 49 | 7.97 | +1.60 | +1.84 | 5 | 3 | 0.027 | 0.022 | 0.008 | 659 | g:Ma | 14 |
| 101- 481 | 9 54 38 | -0 00 22 | 10.05 | +0.38 | -0.04 | 3 | 2 | 0.002 | 0.003 | 0.009 | 678 | F5 | |
| 101- 484 | 9 54 47 | +0 04 32 | 8.99 | +0.35 | +0.04 | 5 | 3 | 0.004 | 0.007 | 0.010 | 685 | A8 | |
| 101- 497 | 9 56 08 | +0 01 01 | 8.31 | +1.41 | +1.66 | 5 | 3 | 0.008 | 0.012 | 0.017 | 712 | gK1 | |
| 102- 41 | 10 53 18 | -1 23 04 | 8.03 | +0.39 | -0.01 | 4 | 2 | 0.010 | 0.004 | 0.006 | 440 | F3p | |
| 102- 58 | 10 54 01 | -1 17 26 | 9.39 | +0.06 | +0.01 | 6 | 3 | 0.007 | 0.010 | 0.013 | 456 | B9 | |
| 102- 149 | 10 52 23 | -1 13 14 | 9.08 | +0.54 | +0.08 | 6 | 3 | 0.008 | 0.009 | 0.009 | 425 | g:F8 | |
| 102- 276 | 10 51 55 | -0 54 44 | 9.91 | +0.49 | -0.01 | 6 | 3 | 0.011 | 0.006 | 0.014 | 417 | F7 | |
| 102- 363 | 10 55 10 | -0 59 41 | 11.02 | +0.48 | -0.04 | 2 | 2 | 0.006 | 0.008 | 0.010 | 481 | A8 | |
| 102- 364 | 10 55 11 | -1 00 14 | 12.07 | +0.58 | +0.09 | 18 | 8 | 0.019 | 0.020 | 0.026 | 482 | G0 | |
| 102- 370 | 10 55 17 | -1 02 33 | 11.24 | +0.62 | +0.05 | 2 | 2 | 0.004 | 0.003 | 0.011 | 484 | G0 | |
| 102- 381 | 10 55 24 | -1 02 05 | 7.92 | +0.31 | +0.08 | 8 | 5 | 0.006 | 0.005 | 0.009 | 488 | A3 | |
| 102- 465 | 10 53 19 | -0 48 37 | 12.28 | +0.76 | +0.38 | 20 | 9 | 0.016 | 0.019 | 0.026 | 441 | G0: | |
| 102- 466 | 10 53 21 | -0 47 28 | 9.25 | +1.05 | +0.92 | 10 | 6 | 0.008 | 0.011 | 0.019 | 443 | K0 | |
| 102- 472 | 10 53 33 | -0 47 03 | 8.75 | +1.02 | +0.81 | 10 | 6 | 0.012 | 0.009 | 0.016 | 448 | gG6 | |
| 102- 505 | 10 54 41 | -0 52 07 | 8.82 | +0.48 | -0.06 | 8 | 4 | 0.014 | 0.005 | 0.019 | 470 | g:F6 | |
| 102- 616 | 10 53 31 | -0 43 52 | 12.27 | +0.47 | -0.07 | 20 | 9 | 0.017 | 0.016 | 0.018 | 446 | F8 | |
| 102- 620 | 10 53 49 | -0 40 19 | 10.06 | +1.10 | +1.05 | 8 | 4 | 0.014 | 0.019 | 0.061 | 453 | g:K5 | 15 |
| 102- 625 | 10 54 08 | -0 40 45 | 8.90 | +0.55 | +0.04 | 10 | 6 | 0.011 | 0.008 | 0.010 | 458 | g:F8 | |
| 102- 739 | 10 52 55 | -0 24 04 | 10.77 | +0.57 | +0.11 | 2 | 1 | 0.009 | 0.014 | 0.011 | 430 | G2 | |
| 102- 743 | 10 53 01 | -0 28 03 | 12.08 | +0.73 | +0.28 | 4 | 2 | 0.024 | 0.028 | 0.016 | 435 | G2 | |
| 102- 747 | 10 53 09 | -0 29 59 | 11.76 | +0.58 | +0.03 | 4 | 2 | 0.010 | 0.018 | 0.011 | 438 | G2 | |
| 102- 752 | 10 53 31 | -0 27 24 | 10.28 | +0.51 | -0.04 | 2 | 1 | 0.004 | 0.001 | 0.003 | 447 | F8 | |
| 102- 816 | 10 55 47 | -0 26 47 | 11.81 | +0.62 | +0.07 | 4 | 2 | 0.012 | 0.012 | 0.021 | 496 | G0 | |
| 102- 821 | 10 55 52 | -0 25 56 | 11.11 | +0.58 | +0.11 | 4 | 2 | 0.014 | 0.006 | 0.007 | 499 | G0 | |
| 102- 825 | 10 55 56 | -0 29 37 | 12.36 | +0.94 | +0.61 | 16 | 4 | 0.014 | 0.021 | 0.028 | 502 | G0 | |
| 102- 974 | 10 51 50 | -0 08 46 | 12.32 | +0.87 | +0.51 | 2 | 1 | 0.022 | 0.028 | 0.049 | 682 | K0 | |
| 102- 982 | 10 52 21 | -0 08 56 | 13.20 | +0.54 | 0.00 | 14 | 3 | 0.027 | 0.035 | 0.033 | 688 | G0 | |
| 102- 997 | 10 52 53 | -0 11 08 | 12.97 | +0.35 | +0.09 | 2 | 1 | 0.001 | 0.008 | 0.008 | 696 | G0: | |
| 102-1069 | 10 55 27 | -0 12 43 | 8.28 | +0.40 | -0.05 | 6 | 3 | 0.019 | 0.004 | 0.013 | 744 | F3 | |
| 102-1081 | 10 55 48 | -0 05 08 | 9.91 | +0.66 | +0.27 | 6 | 3 | 0.013 | 0.004 | 0.014 | 748 | gG2 | |
| 102-1085 | 10 55 52 | -0 10 37 | 6.88 | +0.42 | -0.01 | 6 | 3 | 0.014 | 0.002 | 0.012 | 750 | F4 | |
| 102-1091 | 10 56 10 | -0 06 49 | 9.64 | +0.46 | +0.03 | 6 | 3 | 0.015 | 0.007 | 0.014 | 757 | F6 | |
| 103- 38 | 11 52 45 | -1 04 05 | 10.70 | +0.46 | -0.01 | 4 | 2 | 0.008 | 0.013 | 0.007 | 175 | F8 | |
| 103- 42 | 11 52 58 | -1 03 43 | 11.52 | +0.76 | +0.36 | 2 | 1 | 0.001 | 0.003 | 0.010 | 177 | G5 | |
| 103- 44 | 11 52 59 | -1 00 11 | 12.18 | +0.73 | +0.28 | 2 | 1 | 0.008 | 0.019 | 0.021 | 178 | G8 | |
| 103- 65 | 11 54 19 | -0 55 49 | 10.11 | +0.52 | +0.02 | 2 | 1 | 0.004 | 0.011 | 0.010 | 199 | F9 | |
| 103- 95 | 11 56 07 | -0 57 14 | 10.72 | +1.18 | +1.18 | 2 | 1 | 0.002 | 0.000 | 0.013 | 215 | gG8 | |
| 103- 97 | 11 56 13 | -0 00 10 | 11.79 | +0.57 | +0.08 | 2 | 1 | 0.005 | 0.011 | 0.033 | 219 | G2 | |
| 103- 135 | 11 52 45 | -0 54 01 | 8.27 | +1.12 | +0.95 | 7 | 4 | 0.009 | 0.017 | 0.017 | 174 | gG7 | |
| 103- 194 | 11 55 48 | -0 53 44 | 12.30 | +0.70 | +0.23 | 2 | 1 | 0.002 | 0.016 | 0.017 | 210 | G7 | |
| 103- 200 | 11 56 01 | -0 53 27 | 11.32 | +0.68 | +0.01 | 2 | 1 | 0.006 | 0.018 | 0.006 | 212 | dG6 | |
| 103- 204 | 11 56 10 | -0 48 30 | 11.18 | +0.64 | +0.10 | 2 | 1 | 0.013 | 0.011 | 0.004 | 216 | d:G5 | |
| 103- 272 | 11 53 43 | -0 36 41 | 10.59 | +0.57 | +0.09 | 3 | 2 | 0.012 | 0.021 | 0.004 | 189 | d:G3 | |
| 103- 302 | 11 54 49 | -0 39 34 | 9.86 | +0.36 | -0.05 | 7 | 4 | 0.014 | 0.015 | 0.004 | 201 | F4 | |
| 103- 376 | 11 53 15 | -0 27 16 | 11.85 | +0.94 | +0.67 | 24 | 13 | 0.014 | 0.014 | 0.029 | 182 | K2 | |

TABLE I (continued)

| Star | α (1975) | δ (1975) | V | $B - V$ | $U - B$ | n | m | Mean errors | | | BSD | Type | Note |
|----------|---|-----------------|-------|---------|---------|-----|-----|-------------|---------|---------|-----|-------------|------|
| | | | | | | | | V | $B - V$ | $U - B$ | | | |
| 103- 462 | 11 ^h 52 ^m 42 ^s | -0°23'28" | 10.11 | +0.57 | +0.09 | 13 | 8 | 0.010 | 0.007 | 0.015 | 318 | G2 | |
| 103- 477 | 11 53 26 | -0 16 01 | 10.75 | +0.44 | -0.03 | 7 | 6 | 0.011 | 0.007 | 0.011 | 329 | F9 | |
| 103- 483 | 11 53 44 | -0 25 01 | 8.35 | +0.42 | +0.08 | 11 | 8 | 0.012 | 0.007 | 0.010 | 190 | F3 | |
| 103- 487 | 11 53 54 | -0 15 19 | 11.84 | +0.66 | +0.19 | 24 | 13 | 0.013 | 0.014 | 0.016 | 333 | G3 | |
| 103- 517 | 11 55 13 | -0 15 52 | 11.10 | +0.41 | -0.05 | 4 | 4 | 0.011 | 0.011 | 0.008 | 349 | F5 | |
| 103- 518 | 11 55 14 | -0 24 13 | 11.22 | +0.64 | +0.04 | 4 | 4 | 0.011 | 0.016 | 0.016 | 350 | G3 | |
| 103- 526 | 11 55 37 | -0 21 53 | 10.90 | +1.09 | +0.95 | 4 | 4 | 0.009 | 0.006 | 0.013 | 356 | g:G8 G8: | |
| 103- 528 | 11 55 43 | -0 17 41 | 11.80 | +0.58 | +0.01 | 24 | 13 | 0.013 | 0.013 | 0.017 | 357 | | |
| 103- 529 | 11 55 45 | -0 18 40 | 12.25 | +0.99 | +0.81 | 26 | 13 | 0.016 | 0.021 | 0.034 | 358 | | |
| 103- 561 | 11 52 18 | -0 10 40 | 10.09 | +0.49 | -0.04 | 3 | 2 | 0.007 | 0.015 | 0.007 | 316 | d:G3 | |
| 103- 603 | 11 54 15 | -0 12 19 | 11.55 | +0.45 | -0.04 | 21 | 11 | 0.008 | 0.011 | 0.015 | 338 | F9 | |
| 103- 626 | 11 55 29 | -0 14 54 | 11.84 | +0.42 | -0.05 | 24 | 13 | 0.013 | 0.017 | 0.022 | 353 | G1 | |
| 103- 646 | 11 56 03 | -0 12 41 | 12.47 | +0.71 | +0.23 | 28 | 13 | 0.020 | 0.021 | 0.031 | 362 | G5 | |
| 103- 692 | 11 53 01 | +0 04 08 | 10.41 | +0.40 | -0.04 | 3 | 2 | 0.010 | 0.010 | 0.014 | 324 | F6 | |
| 103- 724 | 11 54 23 | +0 03 41 | 10.06 | +0.50 | -0.01 | 3 | 2 | 0.002 | 0.002 | 0.016 | 340 | F8 | |
| 104- 134 | 12 40 33 | -0 47 39 | 10.92 | +0.99 | +0.85 | 2 | 1 | 0.005 | 0.013 | 0.046 | 290 | d:K2 | |
| 104- 216 | 12 39 56 | -0 35 43 | 10.94 | +0.73 | +0.22 | 2 | 2 | 0.009 | 0.001 | 0.003 | 280 | dG5 | |
| 104- 221 | 12 40 07 | -0 34 44 | 10.45 | +0.89 | +0.50 | 4 | 3 | 0.011 | 0.016 | 0.003 | 284 | dG5 | |
| 104- 306 | 12 39 47 | -0 28 58 | 9.36 | +1.59 | +1.67 | 10 | 6 | 0.029 | 0.013 | 0.048 | 275 | dK3 | |
| 104- 335 | 12 41 05 | -0 24 55 | 11.70 | +0.62 | +0.15 | 23 | 12 | 0.015 | 0.017 | 0.023 | 300 | G3 | |
| 104- 337 | 12 41 11 | -0 26 04 | 11.22 | +0.77 | +0.35 | 19 | 11 | 0.013 | 0.012 | 0.019 | 302 | dG8 | |
| 104- 368 | 12 42 43 | -0 27 05 | 10.88 | +0.96 | +0.61 | 2 | 2 | 0.006 | 0.000 | 0.008 | 332 | dG5 | |
| 104- 425 | 12 40 22 | -0 23 22 | 12.31 | +0.68 | +0.25 | 13 | 5 | 0.016 | 0.017 | 0.027 | | | |
| 104- 427 | 12 40 24 | -0 24 14 | 12.45 | +0.55 | +0.05 | 7 | 3 | 0.042 | 0.024 | 0.027 | 539 | F8 | |
| 104- 439 | 12 40 56 | -0 21 59 | 11.33 | +0.79 | +0.45 | 5 | 3 | 0.014 | 0.022 | 0.026 | 547 | dG8 | |
| 104- 444 | 12 41 04 | -0 24 16 | 13.27 | +0.70 | +0.34 | 2 | 1 | 0.020 | 0.014 | 0.021 | | | |
| 104- 453 | 12 41 29 | -0 17 19 | 12.24 | +0.77 | +0.27 | 16 | 6 | 0.014 | 0.016 | 0.023 | 562 | dG8 | |
| 104- 454 | 12 41 36 | -0 17 37 | 11.94 | +0.75 | +0.25 | 19 | 9 | 0.019 | 0.020 | 0.026 | 566 | dG8 | |
| 104- 461 | 12 41 50 | -0 24 09 | 9.72 | +0.48 | -0.03 | 12 | 7 | 0.020 | 0.019 | 0.013 | 571 | F7 | 16 |
| 104- 483 | 12 43 00 | -0 19 23 | 12.08 | +0.67 | +0.18 | 14 | 5 | 0.012 | 0.009 | 0.012 | 582 | dG8 | |
| 104- 490 | 12 43 17 | -0 17 41 | 12.58 | +0.52 | +0.06 | 18 | 5 | 0.015 | 0.017 | 0.033 | 584 | G3 | |
| 104- 540 | 12 40 39 | -0 14 38 | 10.82 | +0.87 | +0.52 | 2 | 2 | 0.010 | 0.011 | 0.046 | 543 | dK0 | |
| 104- 547 | 12 41 00 | -0 10 19 | 8.01 | +0.50 | +0.01 | 6 | 4 | 0.011 | 0.009 | 0.010 | 549 | F8 | |
| 104- 585 | 12 43 22 | -0 14 15 | 9.93 | +0.48 | +0.01 | 12 | 7 | 0.009 | 0.021 | 0.012 | 586 | F6 | |
| 104- 598 | 12 44 00 | -0 08 25 | 11.47 | +1.13 | +1.04 | 30 | 7 | 0.016 | 0.014 | 0.036 | 597 | d:K2 | |
| 104- 654 | 12 41 31 | -0 03 57 | 10.01 | +0.41 | -0.02 | 6 | 4 | 0.012 | 0.020 | 0.011 | 564 | F3 | |
| 105- 18 | 13 34 52 | -1 03 56 | 11.66 | +0.58 | +0.17 | 1 | 1 | ... | ... | ... | 263 | G2 | |
| 105- 28 | 13 35 27 | -1 08 01 | 8.35 | +1.04 | +0.86 | 7 | 4 | 0.011 | 0.013 | 0.012 | 276 | g:G9 G2 | |
| 105- 30 | 13 35 31 | -1 05 54 | 11.26 | +0.57 | +0.08 | 1 | 1 | ... | ... | ... | 279 | | |
| 105- 51 | 13 36 58 | -1 09 40 | 9.96 | +0.85 | +0.53 | 5 | 3 | 0.012 | 0.010 | 0.008 | 306 | dG9 | |
| 105- 56 | 13 37 25 | -1 06 35 | 9.97 | +0.65 | +0.15 | 7 | 4 | 0.011 | 0.013 | 0.008 | 312 | gG2 | |
| 105- 66 | 13 38 18 | -1 05 51 | 9.42 | +0.98 | +0.76 | 7 | 4 | 0.012 | 0.006 | 0.011 | 326 | g:G9 G0 | |
| 105- 131 | 13 36 00 | -1 02 23 | 12.30 | +0.64 | +0.09 | 1 | 1 | ... | ... | ... | 285 | | |
| 105- 135 | 13 36 19 | -0 56 31 | 11.28 | +0.65 | +0.05 | 1 | 1 | ... | ... | ... | 291 | G2 | |
| 105- 155 | 13 37 25 | -0 59 29 | 12.29 | +0.63 | +0.12 | 1 | 1 | ... | ... | ... | 313 | G0 | |
| 105- 165 | 13 37 50 | -0 59 25 | 11.63 | +0.46 | -0.02 | 7 | 3 | 0.015 | 0.022 | 0.017 | 320 | F8 | |
| 105- 174 | 13 38 24 | -1 00 41 | 12.04 | +0.94 | +0.60 | 1 | 1 | ... | ... | ... | 327 | G3 | |
| 105- 205 | 13 34 36 | -0 50 12 | 8.79 | +1.36 | +1.59 | 9 | 4 | 0.008 | 0.008 | 0.020 | 257 | dK4 | |
| 105- 214 | 13 34 59 | -0 48 07 | 7.06 | +0.53 | -0.01 | 9 | 4 | 0.009 | 0.008 | 0.005 | 264 | F8 | |
| 105- 216 | 13 35 02 | -0 46 34 | 11.52 | +0.96 | +0.68 | 5 | 2 | 0.016 | 0.009 | 0.021 | 265 | G: | |
| 105- 224 | 13 35 18 | -0 50 31 | 11.20 | +0.43 | -0.03 | 1 | 1 | ... | ... | ... | 270 | F8 | |
| 105- 227 | 13 35 26 | -0 48 35 | 11.03 | +0.55 | +0.06 | 1 | 1 | ... | ... | ... | 275 | F9 | |
| 105- 228 | 13 35 28 | -0 44 51 | 11.20 | +1.12 | +1.03 | 1 | 1 | ... | ... | ... | 277 | G3 | |
| 105- 249 | 13 36 46 | -0 43 02 | 10.32 | +1.16 | +1.22 | 1 | 1 | ... | ... | ... | 301 | g:K2 | |
| 105- 256 | 13 37 07 | -0 46 16 | 11.82 | +0.61 | +0.18 | 19 | 7 | 0.013 | 0.012 | 0.022 | 307 | | |
| 105- 257 | 13 37 08 | -0 52 23 | 9.14 | +0.49 | +0.02 | 3 | 2 | 0.003 | 0.013 | 0.008 | 308 | G0 | |
| 105- 262 | 13 37 26 | -0 51 43 | 11.58 | +0.70 | +0.24 | 1 | 1 | ... | ... | ... | 314 | F9 | |
| 105- 307 | 13 34 27 | -0 34 58 | 12.05 | +0.69 | +0.22 | 1 | 1 | ... | ... | ... | 256 | G0 | |
| 105- 350 | 13 37 14 | -0 41 37 | 10.75 | +0.67 | +0.21 | 1 | 1 | ... | ... | ... | 310 | G0 | |
| 105- 359 | 13 37 34 | -0 38 41 | 11.73 | +0.55 | -0.02 | 20 | 9 | 0.016 | 0.014 | 0.024 | 317 | F8 | |
| 105- 405 | 13 34 43 | -0 26 57 | 8.31 | +1.52 | +1.90 | 8 | 4 | 0.013 | 0.008 | 0.019 | 260 | dK3 | |
| 105- 411 | 13 35 06 | -0 26 20 | 10.62 | +0.95 | +0.62 | 2 | 2 | 0.014 | 0.010 | 0.008 | 267 | G2p | |
| 105- 436 | 13 36 00 | -0 31 46 | 11.58 | +0.61 | 0.00 | 17 | 10 | 0.009 | 0.015 | 0.021 | 286 | F8 | |
| 105- 437 | 13 36 00 | -0 30 18 | 12.55 | +0.24 | +0.08 | 6 | 3 | 0.015 | 0.029 | 0.025 | 287 | G-F | |

TABLE I (continued)

| Star | α (1975) | δ (1975) | V | $B - V$ | $U - B$ | n | m | Mean errors | | | BSD | Type | Note |
|----------|---|-----------------|-------|---------------------|---------------------|-----|-----|--------------------|--------------------|--------------------|-----|------|------|
| | | | | | | | | V | $B - V$ | $U - B$ | | | |
| 105- 447 | 13 ^h 36 ^m 25 ^s | -0°29'14'' | 13.13 | +0 ^m .56 | +0 ⁰ .06 | 1 | 1 | ... | ... | ... | 293 | G3 | |
| 105- 448 | 13 36 31 | -0 29 54 | 9.18 | +0.24 | +0.02 | 7 | 5 | 0 ^m 010 | 0 ^m 008 | 0 ^m 007 | 294 | A1 | |
| 105- 456 | 13 36 56 | -0 27 59 | 10.26 | +0.41 | -0.03 | 7 | 5 | 0.008 | 0.008 | 0.016 | 305 | A8 | |
| 105- 496 | 13 39 04 | -0 27 55 | 11.33 | +0.31 | +0.06 | 2 | 2 | 0.016 | 0.001 | 0.002 | 332 | A1 | |
| 105- 505 | 13 34 08 | -0 15 59 | 10.29 | +1.42 | +1.16 | 1 | 1 | ... | ... | ... | 466 | dK7 | |
| 105- 513 | 13 34 41 | -0 13 47 | 12.14 | +0.67 | +0.21 | 3 | 2 | 0.013 | 0.011 | 0.039 | 474 | G0 | |
| 105- 563 | 13 36 45 | -0 21 37 | 11.22 | +0.53 | -0.05 | 2 | 2 | 0.016 | 0.014 | 0.002 | 499 | F8 | |
| 105- 577 | 13 37 47 | -0 22 04 | 11.49 | +0.72 | +0.26 | 7 | 4 | 0.012 | 0.009 | 0.038 | 516 | G0 | 17 |
| 105- 584 | 13 38 11 | -0 15 28 | 10.58 | +0.54 | -0.08 | 4 | 3 | 0.004 | 0.007 | 0.010 | 525 | G0 | |
| 105- 595 | 13 38 41 | -0 21 14 | 11.62 | +0.69 | +0.19 | 12 | 7 | 0.012 | 0.010 | 0.020 | 532 | G0 | |
| 105- 599 | 13 38 46 | -0 19 56 | 11.70 | +0.62 | +0.08 | 13 | 7 | 0.025 | 0.019 | 0.019 | 534 | F8 | 18 |
| 105- 600 | 13 38 58 | -0 21 46 | 11.84 | +0.56 | +0.08 | 13 | 7 | 0.017 | 0.016 | 0.013 | 537 | F8p | |
| 105- 663 | 13 36 13 | -0 05 38 | 8.78 | +0.36 | +0.02 | 7 | 3 | 0.010 | 0.011 | 0.007 | 492 | A8 | |
| 105- 693 | 13 37 50 | -0 12 11 | 11.88 | +0.61 | +0.10 | 2 | 2 | 0.020 | 0.019 | 0.010 | 518 | G0 | |
| 105- 697 | 13 38 02 | -0 11 19 | 11.84 | +0.91 | +0.73 | 4 | 3 | 0.012 | 0.014 | 0.001 | 523 | G0 | |
| 105- 759 | 13 36 22 | -0 02 20 | 10.54 | +0.63 | +0.10 | 1 | 1 | ... | ... | ... | 496 | G0 | |
| 105- 788 | 13 37 39 | +0 06 45 | 11.28 | +0.46 | 0.00 | 1 | 1 | ... | ... | ... | 512 | F2 | |
| 105- 792 | 13 37 45 | -0 02 01 | 10.73 | +1.34 | +1.55 | 1 | 1 | ... | ... | ... | 515 | dK4 | |
| 105- 815 | 13 38 47 | +0 05 25 | 11.44 | +0.39 | -0.23 | 13 | 5 | 0.009 | 0.021 | 0.019 | 535 | A5p | |
| 106- 401 | 14 40 27 | -0 36 02 | 10.44 | +0.72 | +0.39 | 1 | 1 | ... | ... | ... | 251 | G2 | |
| 106- 411 | 14 40 42 | -0 32 43 | 9.27 | +0.41 | +0.08 | 1 | 1 | ... | ... | ... | 254 | F0 | |
| 106- 427 | 14 41 18 | -0 32 29 | 10.28 | +0.68 | +0.22 | 1 | 1 | ... | ... | ... | 265 | dG2 | |
| 106- 431 | 14 41 27 | -0 33 27 | 10.15 | +0.71 | +0.15 | 1 | 1 | ... | ... | ... | 267 | dG3 | |
| 106- 485 | 14 42 57 | -0 30 48 | 9.47 | +0.38 | -0.04 | 7 | 4 | 0.013 | 0.007 | 0.007 | 292 | F0 | |
| 106- 542 | 14 39 30 | -0 25 50 | 10.58 | +0.50 | +0.03 | 5 | 4 | 0.008 | 0.007 | 0.015 | 237 | F7 | |
| 106- 545 | 14 39 33 | -0 23 32 | 14.05 | +0.64 | +0.2 | 6 | 2 | 0.045 | 0.045 | 0.1 | | | |
| 106- 548 | 14 39 38 | -0 22 51 | 13.48 | +1.05 | +0.87 | 18 | 5 | 0.036 | 0.031 | 0.15 | | | 19 |
| 106- 550 | 14 39 39 | -0 21 29 | 13.21 | +0.99 | +0.70 | 28 | 7 | 0.022 | 0.031 | 0.081 | | | 20 |
| 106- 553 | 14 39 41 | -0 21 20 | 13.34 | +0.68 | +0.21 | 26 | 7 | 0.021 | 0.026 | 0.033 | | | |
| 106- 573 | 14 40 20 | -0 28 31 | 11.02 | +1.02 | +0.80 | 7 | 5 | 0.024 | 0.021 | 0.025 | 248 | G3 | |
| 106- 575 | 14 40 22 | -0 19 39 | 9.35 | +1.30 | +1.48 | 12 | 7 | 0.019 | 0.013 | 0.030 | 249 | g:K2 | |
| 106- 588 | 14 40 53 | -0 19 44 | 11.78 | +1.09 | +0.94 | 25 | 10 | 0.017 | 0.023 | 0.039 | 257 | G5 | 21 |
| 106- 653 | 14 37 43 | -0 13 28 | 9.66 | +0.57 | +0.03 | 2 | 1 | 0.001 | 0.004 | 0.001 | 439 | F9 | |
| 106- 700 | 14 39 35 | -0 17 13 | 9.78 | +1.35 | +1.55 | 9 | 5 | 0.016 | 0.012 | 0.030 | 473 | d:K2 | |
| 106- 702 | 14 39 38 | -0 10 45 | 10.60 | +0.49 | -0.02 | 5 | 4 | 0.012 | 0.008 | 0.011 | 477 | F7 | |
| 106- 728 | 14 40 30 | -0 14 55 | 12.27 | +0.55 | 0.00 | 12 | 7 | 0.018 | 0.019 | 0.027 | 498 | F8 | |
| 106- 777 | 14 42 12 | -0 15 44 | 9.66 | +0.56 | +0.04 | 3 | 2 | 0.011 | 0.005 | 0.012 | 526 | F8 | |
| 106- 834 | 14 38 12 | -0 08 26 | 9.09 | +0.70 | +0.30 | 9 | 6 | 0.010 | 0.008 | 0.010 | 446 | dG9 | |
| 106- 841 | 14 38 19 | -0 00 32 | 11.04 | +0.57 | +0.02 | 3 | 3 | 0.015 | 0.004 | 0.011 | 447 | G0 | |
| 106- 863 | 14 39 08 | -0 06 46 | 10.60 | +0.54 | +0.03 | 7 | 5 | 0.017 | 0.015 | 0.025 | 468 | F7 | |
| 106- 869 | 14 39 19 | -0 03 54 | 12.06 | +0.82 | +0.51 | 9 | 6 | 0.011 | 0.019 | 0.024 | 470 | F8 | |
| 106- 902 | 14 40 29 | -0 00 20 | 11.77 | +0.99 | +0.80 | 9 | 4 | 0.018 | 0.015 | 0.025 | 496 | G7 | |
| 106-1024 | 14 38 50 | +0 08 10 | 11.56 | +0.31 | +0.04 | 2 | 1 | 0.006 | 0.023 | 0.006 | 459 | A6 | |
| 106-1042 | 14 39 21 | +0 01 00 | 11.61 | +0.84 | +0.41 | 7 | 5 | 0.008 | 0.010 | 0.017 | 471 | G2 | |
| 106-1133 | 14 42 14 | +0 03 38 | 9.91 | +0.62 | +0.07 | 2 | 1 | 0.004 | 0.008 | 0.015 | 528 | dG2p | |
| 106-1146 | 14 42 30 | +0 09 16 | 9.10 | +0.62 | +0.10 | 3 | 2 | 0.003 | 0.005 | 0.011 | 531 | dG2 | |
| 106-1187 | 14 38 21 | +0 17 34 | 10.51 | +0.90 | +0.67 | 2 | 1 | 0.011 | 0.018 | 0.012 | 449 | dG6 | |
| 106-1198 | 14 38 44 | +0 17 25 | 10.13 | +0.90 | +0.58 | 2 | 1 | 0.002 | 0.001 | 0.004 | 457 | dG7 | |
| 106-1250 | 14 40 10 | +0 12 39 | 8.12 | +1.02 | +0.85 | 5 | 3 | 0.018 | 0.008 | 0.022 | 486 | gK0 | |
| 106-1310 | 14 42 07 | +0 12 09 | 10.81 | +0.46 | -0.04 | 2 | 1 | 0.001 | 0.007 | 0.002 | 524 | F6 | |
| 107- 35 | 15 36 11 | -0 48 12 | 7.78 | +1.28 | +1.31 | 2 | 1 | 0.007 | 0.011 | 0.018 | 218 | gG8 | |
| 107- 131 | 15 39 07 | -0 49 54 | 8.07 | +1.12 | +0.94 | 2 | 1 | 0.001 | 0.015 | 0.021 | 269 | gG5 | |
| 107- 298 | 15 35 17 | -0 28 44 | 6.52 | +0.72 | +0.44 | 2 | 1 | 0.002 | 0.005 | 0.000 | 203 | F6 | |
| 107- 347 | 15 37 19 | -0 31 04 | 9.44 | +1.29 | +1.30 | 5 | 3 | 0.012 | 0.014 | 0.026 | 234 | d:G8 | |
| 107- 351 | 15 37 29 | -0 27 15 | 12.34 | +0.56 | +0.01 | 15 | 7 | 0.015 | 0.022 | 0.020 | 237 | G1 | |
| 107- 365 | 15 38 12 | -0 24 43 | 11.60 | +1.10 | +0.83 | 21 | 8 | 0.010 | 0.012 | 0.025 | 250 | G7 | |
| 107- 442 | 15 36 55 | -0 20 52 | 11.14 | +1.30 | +1.38 | 1 | 1 | ... | ... | ... | 229 | gG8 | |
| 107- 452 | 15 37 20 | -0 18 33 | 11.04 | +1.07 | +0.84 | 1 | 1 | ... | ... | ... | 235 | g:G5 | |
| 107- 465 | 15 38 03 | -0 20 36 | 11.60 | +0.55 | +0.06 | 17 | 7 | 0.029 | 0.023 | 0.014 | 248 | G1 | |
| 107- 469 | 15 38 22 | -0 21 46 | 12.17 | +0.58 | +0.06 | 11 | 5 | 0.022 | 0.027 | 0.024 | 254 | G0 | |
| 107- 473 | 15 38 36 | -0 14 59 | 10.21 | +1.09 | +0.89 | 4 | 3 | 0.007 | 0.010 | 0.032 | 259 | g:G6 | |
| 107- 484 | 15 39 00 | -0 16 25 | 11.32 | +1.24 | +1.27 | 17 | 5 | 0.011 | 0.008 | 0.026 | 267 | g:G8 | |
| 107- 544 | 15 35 32 | -0 10 16 | 9.04 | +0.39 | +0.14 | 2 | 1 | 0.004 | 0.001 | 0.014 | 427 | A5 | |
| 107- 585 | 15 37 18 | -0 13 14 | 10.62 | +1.19 | +1.18 | 1 | 1 | ... | ... | ... | 449 | g:G7 | |
| 107- 595 | 15 37 46 | -0 13 44 | 7.51 | +0.55 | +0.06 | 7 | 5 | 0.008 | 0.009 | 0.010 | 457 | G1 | |

PHOTOELECTRIC SEQUENCES

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TABLE I (continued)

| Star | α (1975) | δ (1975) | <i>V</i> | <i>B</i> - <i>V</i> | <i>U</i> - <i>B</i> | <i>n</i> | <i>m</i> | Mean errors | | | BSD | Type | Note |
|----------|---|-----------------|----------|---------------------|---------------------|----------|----------|---------------------|---------------------|---------------------|-----|-------|------|
| | | | | | | | | <i>V</i> | <i>B</i> - <i>V</i> | <i>U</i> - <i>B</i> | | | |
| 107- 596 | 15 ^h 37 ^m 46 ^s | -0°09'01" | 11.39 | +0 ^m .56 | +0 ^m .04 | 2 | 2 | 0 ^m .004 | 0 ^m .001 | 0 ^m .016 | 458 | F8 | |
| 107- 602 | 15 38 02 | -0 10 39 | 12.12 | +0.97 | +0.61 | 21 | 8 | 0.016 | 0.023 | 0.030 | 463 | G7 | |
| 107- 609 | 15 38 14 | -0 12 37 | 10.51 | +1.10 | +0.92 | 2 | 2 | 0.002 | 0.000 | 0.021 | 465 | g:G4 | |
| 107- 619 | 15 38 34 | -0 13 15 | 12.12 | +0.62 | +0.06 | 19 | 8 | 0.015 | 0.017 | 0.027 | 469 | F7:: | |
| 107- 641 | 15 39 37 | -0 11 13 | 11.08 | +0.50 | +0.05 | 1 | 1 | ... | ... | ... | 475 | F9 | |
| 107- 684 | 15 36 00 | -0 04 53 | 8.43 | +0.63 | +0.08 | 4 | 2 | 0.003 | 0.003 | 0.009 | 431 | G0 | |
| 107- 847 | 15 37 03 | +0 12 57 | 10.25 | +1.07 | +0.81 | 2 | 2 | 0.004 | 0.018 | 0.026 | 445 | g::G5 | |
| 107- 862 | 15 37 39 | +0 14 38 | 11.23 | +0.55 | +0.06 | 2 | 2 | 0.001 | 0.010 | 0.006 | 454 | G0 | |
| 107- 871 | 15 38 00 | +0 13 42 | 12.48 | +0.65 | +0.12 | 10 | 5 | 0.017 | 0.017 | 0.028 | 462 | G5 | |
| 107- 969 | 15 36 09 | +0 20 39 | 12.60 | +0.59 | +0.04 | 1 | 1 | ... | ... | ... | 434 | F8:: | |
| 107- 970 | 15 36 09 | +0 23 27 | 10.98 | +1.61 | +1.69 | 1 | 1 | ... | ... | ... | 435 | K3 | |
| 107- 990 | 15 36 44 | +0 24 04 | 9.56 | +0.49 | 0.00 | 5 | 4 | 0.019 | 0.020 | 0.012 | 439 | F7 | |
| 107- 991 | 15 36 50 | +0 21 12 | 12.10 | +1.08 | +0.79 | 10 | 4 | 0.016 | 0.024 | 0.057 | 442 | G8 | 22 |
| 107- 998 | 15 37 00 | +0 20 14 | 10.44 | +0.63 | +0.16 | 3 | 3 | 0.003 | 0.008 | 0.007 | 443 | dG3 | |
| 107-1006 | 15 37 17 | +0 19 13 | 11.72 | +0.76 | +0.30 | 3 | 2 | 0.014 | 0.014 | 0.016 | 450 | G3 | |
| 107-1014 | 15 37 43 | +0 20 22 | 12.11 | +0.55 | 0.00 | 6 | 4 | 0.022 | 0.018 | 0.012 | 456 | F7 | |
| 107-1020 | 15 37 48 | +0 19 53 | 11.84 | +0.48 | 0.00 | 10 | 5 | 0.010 | 0.014 | 0.013 | 459 | F3 | |
| 108- 170 | 16 36 11 | -0 42 58 | 10.05 | +0.54 | +0.07 | 1 | 1 | ... | ... | ... | 535 | G0 | |
| 108- 468 | 16 35 37 | -0 29 31 | 12.07 | +0.69 | +0.16 | 5 | 3 | 0.008 | 0.011 | 0.023 | 518 | F9 | |
| 108- 475 | 16 35 43 | -0 31 41 | 11.32 | +1.37 | +1.49 | 9 | 4 | 0.021 | 0.014 | 0.031 | 523 | K0 | |
| 108- 512 | 16 36 04 | -0 36 42 | 10.72 | +1.24 | +1.17 | 1 | 1 | ... | ... | ... | 532 | G8 | |
| 108- 551 | 16 36 30 | -0 30 08 | 10.72 | +0.17 | +0.16 | 4 | 3 | 0.014 | 0.019 | 0.021 | 543 | A0 | |
| 108- 570 | 16 36 47 | -0 32 09 | 12.12 | +0.52 | +0.11 | 9 | 4 | 0.017 | 0.017 | 0.028 | 553 | F6 | |
| 108- 646 | 16 37 48 | -0 32 49 | 10.81 | +0.58 | +0.08 | 1 | 1 | ... | ... | ... | 568 | F5 | |
| 108- 702 | 16 34 41 | -0 21 44 | 8.21 | +0.56 | +0.05 | 5 | 4 | 0.010 | 0.007 | 0.019 | 501 | F6 | |
| 108- 719 | 16 34 54 | -0 22 31 | 12.71 | +1.00 | +0.67 | 27 | 11 | 0.025 | 0.029 | 0.039 | | | 23 |
| 108- 727 | 16 34 57 | -0 22 33 | 12.73 | +0.70 | +0.23 | 26 | 10 | 0.028 | 0.028 | 0.031 | 507 | G0 | 23 |
| 108- 728 | 16 34 58 | -0 22 40 | 13.65 | +0.96 | +0.56 | 11 | 7 | 0.026 | 0.023 | 0.15: | | | 24 |
| 108- 827 | 16 36 05 | -0 21 43 | 7.97 | +1.30 | +1.42 | 6 | 4 | 0.018 | 0.006 | 0.012 | 533 | G8 | |
| 108- 870 | 16 36 29 | -0 25 27 | 11.86 | +1.22 | +1.14 | 13 | 4 | 0.014 | 0.011 | 0.025 | 541 | G2 | |
| 108- 872 | 16 36 33 | -0 19 23 | 11.92 | +0.84 | +0.37 | 10 | 5 | 0.021 | 0.019 | 0.020 | 545 | G3 | |
| 108- 941 | 16 37 32 | -0 22 16 | 11.77 | +1.00 | +0.64 | 11 | 5 | 0.018 | 0.014 | 0.026 | 561 | G5 | |
| 108- 981 | 16 38 00 | -0 22 13 | 12.05 | +0.47 | +0.23 | 11 | 5 | 0.015 | 0.025 | 0.021 | 574 | F4 | |
| 108- 984 | 16 38 01 | -0 23 46 | 10.44 | +0.54 | +0.03 | 3 | 2 | 0.004 | 0.007 | 0.008 | 575 | F9 | |
| 108- 985 | 16 38 01 | -0 24 32 | 13.02 | +1.03 | +0.59 | 2 | 1 | 0.014 | 0.018 | 0.008 | | | |
| 108-1061 | 16 34 56 | -0 17 06 | 11.43 | +1.36 | +1.52 | 6 | 3 | 0.010 | 0.014 | 0.043 | 506 | K0 | |
| 108-1123 | 16 35 39 | -0 13 17 | 10.89 | +0.59 | +0.10 | 1 | 1 | ... | ... | ... | 520 | G0 | |
| 108-1332 | 16 34 04 | -0 01 05 | 9.20 | +0.39 | +0.07 | 1 | 1 | ... | ... | ... | 823 | A9 | |
| 108-1361 | 16 34 26 | +0 00 06 | 11.39 | +1.10 | +0.95 | 5 | 2 | 0.015 | 0.022 | 0.035 | 832 | G7 | |
| 108-1372 | 16 34 33 | +0 00 06 | 11.69 | +0.67 | +0.12 | 1 | 1 | ... | ... | ... | 836 | G2 | |
| 108-1491 | 16 35 57 | +0 00 18 | 9.05 | +0.97 | +0.64 | 3 | 2 | 0.019 | 0.012 | 0.020 | 871 | G5 | |
| 108-1535 | 16 36 16 | -0 01 32 | 12.34 | +0.52 | +0.04 | 1 | 1 | ... | ... | ... | 878 | G0 | |
| 108-1749 | 16 34 32 | +0 09 58 | 11.24 | +1.29 | +1.44 | 1 | 1 | ... | ... | ... | 835 | K3 | |
| 108-1775 | 16 34 51 | +0 08 08 | 12.20 | +0.61 | +0.02 | 1 | 1 | ... | ... | ... | 841 | G1 | |
| 108-1848 | 16 35 41 | +0 08 55 | 11.70 | +0.57 | +0.06 | 1 | 1 | ... | ... | ... | 864 | G0 | |
| 108-1863 | 16 35 56 | +0 05 32 | 12.21 | +0.81 | +0.35 | 1 | 1 | ... | ... | ... | 870 | G5 | |
| 108-1911 | 16 36 30 | +0 05 44 | 8.04 | +0.77 | +0.41 | 3 | 2 | 0.013 | 0.003 | 0.009 | 886 | G3 | |
| 108-1918 | 16 36 33 | +0 02 20 | 11.38 | +1.43 | +1.72 | 9 | 3 | 0.011 | 0.015 | 0.036 | 887 | Ma | 23 |
| 108-1959 | 16 36 53 | +0 06 48 | 12.50 | +0.54 | +0.03 | 1 | 1 | ... | ... | ... | 898 | G0 | |
| 108-1986 | 16 37 13 | +0 06 44 | 12.16 | +0.40 | +0.12 | 1 | 1 | ... | ... | ... | 908 | F9 | |
| 109- 71 | 17 42 49 | -0 24 23 | 11.48 | +0.32 | +0.15 | 6 | 3 | 0.013 | 0.015 | 0.013 | 553 | A0 | |
| 109- 84 | 17 42 52 | -0 31 53 | 10.38 | +0.69 | +0.15 | 1 | 1 | ... | ... | ... | 556 | G0 | |
| 109- 197 | 17 43 44 | -0 25 55 | 10.59 | +1.14 | +0.80 | 4 | 3 | 0.012 | 0.008 | 0.022 | 582 | dG7 | |
| 109- 199 | 17 43 45 | -0 28 54 | 10.97 | +1.74 | +1.90 | 7 | 3 | 0.012 | 0.017 | 0.10: | 583 | dG5 | 24 |
| 109- 231 | 17 44 03 | -0 25 17 | 9.34 | +1.46 | +1.61 | 14 | 7 | 0.019 | 0.011 | 0.030 | 588 | g:K3 | |
| 109- 243 | 17 44 10 | -0 25 25 | 11.96 | +0.60 | +0.32 | 8 | 4 | 0.019 | 0.023 | 0.022 | 597 | F0 | |
| 109- 255 | 17 44 16 | -0 22 39 | 11.16 | +0.92 | +0.59 | 2 | 2 | 0.005 | 0.003 | 0.007 | 598 | dG8 | |
| 109- 375 | 17 42 52 | -0 17 29 | 11.33 | +0.83 | +0.26 | 2 | 2 | 0.001 | 0.001 | 0.009 | 557 | F8 | |
| 109- 381 | 17 42 55 | -0 19 57 | 11.71 | +0.72 | +0.20 | 10 | 5 | 0.019 | 0.014 | 0.026 | 558 | G0: | |
| 109- 396 | 17 43 03 | -0 15 34 | 11.33 | +0.84 | +0.28 | 2 | 2 | 0.019 | 0.031 | 0.013 | 562 | dG4 | |
| 109- 537 | 17 44 25 | -0 21 02 | 10.36 | +0.62 | +0.22 | 7 | 4 | 0.018 | 0.017 | 0.021 | 602 | F3p | |
| 109- 747 | 17 43 34 | -0 07 31 | 8.48 | +0.30 | +0.22 | 8 | 5 | 0.010 | 0.007 | 0.011 | 577 | B9 | |
| 108- 949 | 17 42 56 | -0 01 52 | 12.85 | +0.78 | +0.35 | 19 | 8 | 0.017 | 0.020 | 0.043 | 916 | | 23 |
| 109- 954 | 17 42 58 | -0 01 41 | 12.44 | +1.30 | +0.94 | 25 | 8 | 0.024 | 0.025 | 0.065 | 917 | | 24 |
| 109- 956 | 17 43 00 | -0 01 56 | 14.63 | +1.29: | +0.78:: | 10 | 4 | 0.044 | 0.10: | 0.5 :: | | | |

TABLE I (continued)

| Star | α (1975) | δ (1975) | V | $B - V$ | $U - B$ | n | m | Mean errors | | | BSD | Type | Note |
|----------|-----------------------------------|-----------------------------------|-------|---------------------|---------------------|-----|-----|--------------------|--------------------|--------------------|------|--------|------|
| | | | | | | | | V | $B - V$ | $U - B$ | | | |
| 109- 959 | 17 ⁴³ 01 ⁰¹ | -0 ⁰¹ 29 ⁰⁰ | 12.79 | +0 ⁰⁰ 92 | +0 ⁰⁰ 42 | 21 | 8 | 0 ⁰⁰ 25 | 0 ⁰⁰ 28 | 0 ⁰⁰ 56 | 919 | | |
| 109-1082 | 17 44 12 | +0 04 52 | 9.02 | +0.80 | +0.35 | 5 | 3 | 0.013 | 0.018 | 0.024 | 949 | gG2 | |
| 110- 135 | 18 40 20 | -0 06 39 | 11.07 | +0.74 | +0.30 | 2 | 1 | 0.006 | 0.005 | 0.013 | 335 | d::G5 | |
| 110- 144 | 18 41 13 | -0 06 20 | 11.95 | +0.72 | +0.27 | 6 | 3 | 0.019 | 0.020 | 0.017 | 361 | dG5: | |
| 110- 248 | 18 40 43 | +0 01 49 | 10.86 | +0.68 | +0.50 | 2 | 1 | 0.017 | 0.027 | 0.014 | 346 | A2 | |
| 110- 249 | 18 40 50 | -0 05 04 | 12.36 | +0.72 | +0.15 | 6 | 3 | 0.030 | 0.025 | 0.036 | 351 | d:G5 | |
| 110- 289 | 18 42 02 | +0 03 40 | 11.30 | +0.77 | +0.30 | 2 | 1 | 0.000 | 0.004 | 0.002 | 384 | F8 | |
| 110- 340 | 18 40 12 | +0 13 53 | 10.04 | +0.30 | +0.10 | 4 | 2 | 0.006 | 0.017 | 0.005 | 624 | A5 | |
| 110- 352 | 18 41 00 | +0 09 39 | 11.35 | +0.57 | +0.09 | 8 | 4 | 0.024 | 0.016 | 0.027 | 645 | | |
| 110- 353 | 18 41 00 | +0 07 48 | 8.46 | +1.98 | +2.28 | 16 | 7 | 0.014 | 0.011 | 0.035 | 646 | d:K3: | |
| 110- 441 | 18 42 17 | +0 18 07 | 11.12 | +0.54 | +0.13 | 10 | 5 | 0.016 | 0.020 | 0.031 | 679 | G1 | |
| 110- 450 | 18 42 35 | +0 21 24 | 11.60 | +0.94 | +0.65 | 12 | 6 | 0.017 | 0.020 | 0.024 | 688 | A-F | |
| 110- 471 | 18 40 11 | +0 32 26 | 7.48 | +1.43 | +1.74 | 4 | 1 | 0.003 | 0.009 | 0.015 | 623 | K2 | |
| 110- 499 | 18 41 51 | +0 26 28 | 11.75 | +1.01 | +0.60 | 22 | 11 | 0.013 | 0.015 | 0.030 | 666 | F5 | |
| 110- 502 | 18 41 54 | +0 26 08 | 12.36 | +2.27 | +2.22 | 40 | 12 | 0.026 | 0.066 | 0.9 :: | | | 25 |
| 110- 503 | 18 41 55 | +0 28 10 | 11.79 | +0.68 | +0.47 | 18 | 9 | 0.011 | 0.012 | 0.027 | 667 | A0 | |
| 110- 506 | 18 42 03 | +0 28 53 | 11.35 | +0.56 | +0.05 | 10 | 5 | 0.030 | 0.013 | 0.020 | 671 | F5 | |
| 110- 507 | 18 42 03 | +0 27 53 | 12.44 | +1.15 | +0.94 | 2 | 1 | 0.021 | 0.022 | 0.075 | 670 | | |
| 110- 529 | 18 42 43 | +0 25 20 | 11.41 | +0.76 | +0.22 | 14 | 7 | 0.010 | 0.018 | 0.023 | 690 | G0: | |
| 111- 669 | 19 35 19 | +0 06 23 | 12.11 | +0.88 | +0.44 | 2 | 1 | 0.007 | 0.006 | 0.013 | 563 | dG5 | |
| 111- 710 | 19 35 36 | +0 04 19 | 11.86 | +0.74 | +0.18 | 8 | 4 | 0.019 | 0.014 | 0.022 | 575 | G0 | |
| 111- 717 | 19 35 38 | +0 04 08 | 8.54 | +0.43 | +0.20 | 4 | 2 | 0.007 | 0.004 | 0.006 | 577 | F0 | |
| 111- 733 | 19 35 43 | +0 04 53 | 9.18 | +0.30 | +0.18 | 4 | 2 | 0.012 | 0.008 | 0.007 | 580 | A0p | |
| 111- 773 | 19 35 59 | +0 07 34 | 8.98 | +0.20 | -0.20 | 6 | 3 | 0.008 | 0.006 | 0.014 | 591 | B9 | |
| 111- 775 | 19 35 59 | +0 08 40 | 10.77 | +1.74 | +2.04 | 10 | 5 | 0.021 | 0.015 | 0.038 | 593 | | 23 |
| 111-1342 | 19 35 58 | +0 12 33 | 9.22 | +1.69 | +1.78 | 4 | 2 | 0.008 | 0.008 | 0.089 | 1105 | g::K2: | |
| 111-1496 | 19 37 05 | +0 17 16 | 7.22 | +0.28 | +0.12 | 8 | 3 | 0.005 | 0.005 | 0.008 | 1157 | A3 | |
| 111-1835 | 19 35 33 | +0 26 55 | 10.68 | +0.62 | +0.35 | 2 | 1 | 0.002 | 0.010 | 0.005 | 1090 | F2p | |
| 111-1925 | 19 36 12 | +0 21 35 | 12.40 | +0.40 | +0.22 | 26 | 12 | 0.022 | 0.033 | 0.027 | 1111 | A3 | |
| 111-1965 | 19 36 25 | +0 23 25 | 11.44 | +1.70 | +1.84 | 32 | 13 | 0.020 | 0.018 | 0.088 | 1120 | dK2 | 26 |
| 111-1969 | 19 36 27 | +0 22 22 | 10.41 | +1.93 | +2.30 | 14 | 6 | 0.003 | 0.021 | 0.052 | 1121 | d:K8 | 26 |
| 111-2009 | 19 36 38 | +0 23 02 | 10.60 | +0.90 | +0.52 | 10 | 5 | 0.012 | 0.017 | 0.017 | 1126 | g::G5 | |
| 111-2036 | 19 36 46 | +0 23 01 | 12.45 | +0.79 | +0.22 | 20 | 10 | 0.020 | 0.023 | 0.027 | 1139 | G2 | |
| 111-2039 | 19 36 48 | +0 28 46 | 12.40 | +1.37 | +1.22 | 2 | 1 | 0.001 | 0.018 | 0.114 | 1140 | d::K2 | |
| 111-2088 | 19 37 05 | +0 27 34 | 13.17 | +1.60 | +1.67 | 2 | 1 | 0.035 | 0.021 | 0.016 | | | |
| 111-2093 | 19 37 07 | +0 27 58 | 12.56 | +0.63 | +0.27 | 14 | 6 | 0.032 | 0.031 | 0.050 | 1159 | G0 | |
| 111-2188 | 19 37 48 | +0 30 02 | 11.61 | +1.35 | +1.15 | 4 | 2 | 0.005 | 0.012 | 0.079 | 1181 | dG5 | |
| 111-2522 | 19 35 48 | +0 34 09 | 9.70 | +0.17 | -0.37 | 4 | 2 | 0.024 | 0.019 | 0.016 | 1098 | B8 | 27 |
| 111-2864 | 19 37 31 | +0 32 53 | 8.29 | +1.69 | +2.07 | 6 | 2 | 0.017 | 0.017 | 0.027 | 1174 | g:K5 | |
| 112- 223 | 20 40 58 | +0 03 36 | 11.43 | +0.46 | +0.02 | 12 | 6 | 0.014 | 0.014 | 0.017 | 759 | A5 | |
| 112- 233 | 20 41 03 | +0 06 02 | 11.86 | +0.51 | +0.04 | 6 | 2 | 0.009 | 0.010 | 0.029 | 768 | F7 | |
| 112- 250 | 20 41 10 | +0 02 17 | 12.09 | +0.54 | 0.00 | 12 | 6 | 0.018 | 0.011 | 0.029 | 771 | G0 | |
| 112- 275 | 20 41 19 | +0 01 55 | 9.91 | +1.21 | +1.30 | 6 | 3 | 0.007 | 0.018 | 0.028 | 782 | G8 | |
| 112- 595 | 20 40 01 | +0 11 05 | 11.36 | +1.60 | +2.06 | 10 | 4 | 0.025 | 0.031 | 0.058 | 706 | K8 | |
| 112- 636 | 20 40 18 | +0 11 09 | 9.85 | +0.70 | +0.12 | 2 | 1 | 0.013 | 0.015 | 0.001 | 715 | G3 | |
| 112- 640 | 20 40 19 | +0 14 46 | 10.36 | +0.50 | -0.02 | 10 | 5 | 0.012 | 0.025 | 0.011 | 717 | F7 | |
| 112- 654 | 20 40 24 | +0 08 39 | 10.77 | +0.45 | -0.06 | 2 | 1 | 0.002 | 0.008 | 0.009 | 719 | F3 | |
| 112- 704 | 20 40 45 | +0 13 46 | 11.46 | +1.52 | +1.72 | 16 | 8 | 0.019 | 0.020 | 0.044 | 744 | G: | |
| 112- 712 | 20 40 49 | +0 10 31 | 11.66 | +0.41 | +0.03 | 2 | 1 | 0.006 | 0.010 | 0.014 | 749 | F3 | |
| 112- 805 | 20 41 29 | +0 10 42 | 12.08 | +0.15 | +0.14 | 8 | 3 | 0.011 | 0.009 | 0.020 | 791 | A0 | |
| 112- 810 | 20 41 33 | +0 11 40 | 10.58 | +1.16 | +1.10 | 4 | 2 | 0.008 | 0.005 | 0.013 | 797 | G8 | |
| 112- 822 | 20 41 38 | +0 09 38 | 11.56 | +1.04 | +0.88 | 6 | 3 | 0.010 | 0.009 | 0.021 | 801 | G7 | |
| 112-1181 | 20 40 37 | +0 20 11 | 12.03 | +0.71 | +0.25 | 10 | 5 | 0.014 | 0.025 | 0.026 | 1574 | F7 | |
| 112-1212 | 20 40 51 | +0 17 42 | 13.07 | +0.62 | +0.00 | 18 | 8 | 0.026 | 0.030 | 0.024 | 1595 | F-G | |
| 112-1242 | 20 41 07 | +0 21 19 | 9.10 | +0.42 | +0.02 | 8 | 4 | 0.017 | 0.007 | 0.014 | 1612 | F3 | |
| 112-1253 | 20 41 11 | +0 19 13 | 11.46 | +0.42 | +0.09 | 14 | 7 | 0.017 | 0.016 | 0.018 | 1625 | F0 | |
| 112-1258 | 20 41 14 | +0 18 59 | 11.48 | +0.42 | +0.10 | 14 | 7 | 0.014 | 0.013 | 0.023 | 1626 | F3 | |
| 112-1333 | 20 41 55 | +0 20 53 | 9.99 | +0.62 | +0.09 | 2 | 1 | 0.001 | 0.001 | 0.017 | 1678 | G0 | |
| 112-1370 | 20 42 16 | +0 22 43 | 8.80 | +0.13 | +0.09 | 2 | 1 | 0.006 | 0.001 | 0.006 | 1699 | B9 | |
| 113- 259 | 21 40 27 | +0 10 45 | 11.75 | +1.20 | +1.22 | 8 | 4 | 0.029 | 0.017 | 0.061 | 381 | K | 28 |
| 113- 267 | 21 40 39 | +0 13 52 | 7.66 | +0.48 | +0.02 | 4 | 2 | 0.019 | 0.003 | 0.009 | 385 | F8 | |
| 113- 269 | 21 40 44 | +0 10 50 | 9.47 | +1.10 | +1.04 | 4 | 2 | 0.016 | 0.017 | 0.010 | 386 | gK4 | |
| 113- 274 | 21 41 10 | +0 19 53 | 8.83 | +0.48 | +0.01 | 8 | 4 | 0.011 | 0.013 | 0.007 | 394 | F5 | |
| 113- 276 | 21 41 10 | +0 19 29 | 9.08 | +0.64 | +0.18 | 6 | 3 | 0.015 | 0.012 | 0.009 | 395 | G0: | |
| 113- 339 | 21 39 39 | +0 21 06 | 12.25 | +0.58 | -0.01 | 11 | 6 | 0.019 | 0.010 | 0.026 | 717 | G0 | |

TABLE I (*continued*)

| Star | α (1975) | δ (1975) | V | $B - V$ | $U - B$ | n | m | Mean errors | | | BSD | Type | Note |
|----------|---|-----------------|-------|--------------------|--------------------|-----|-----|--------------------|--------------------|--------------------|-----|------|------|
| | | | | | | | | V | $B - V$ | $U - B$ | | | |
| 113- 342 | 21 ^h 39 ^m 43 ^s | +0°20'43" | 10.90 | +1 ^m 01 | +0 ^m 69 | 3 | 2 | 0 ^m 008 | 0 ^m 004 | 0 ^m 015 | 719 | G2 | |
| 113- 440 | 21 39 18 | +0 34 55 | 11.81 | +0.64 | +0.19 | 3 | 2 | 0.005 | 0.008 | 0.018 | 707 | G0 | |
| 113- 442 | 21 39 23 | +0 37 53 | 9.62 | +1.16 | +1.27 | 4 | 2 | 0.009 | 0.014 | 0.027 | 711 | d:K2 | |
| 113- 443 | 21 39 24 | +0 32 41 | 11.96 | +0.52 | +0.01 | 11 | 5 | 0.018 | 0.020 | 0.023 | 712 | G | |
| 113- 453 | 21 39 38 | +0 31 06 | 10.14 | +0.95 | +0.58 | 9 | 5 | 0.024 | 0.009 | 0.018 | 715 | G5 | 29 |
| 113- 459 | 21 39 58 | +0 36 12 | 12.13 | +0.51 | +0.00 | 13 | 6 | 0.015 | 0.020 | 0.024 | 731 | G0 | |
| 113- 466 | 21 40 11 | +0 33 22 | 10.00 | +0.46 | 0.00 | 13 | 7 | 0.012 | 0.013 | 0.011 | 734 | F0 | |
| 113- 475 | 21 40 34 | +0 32 26 | 10.30 | +1.07 | +0.84 | 11 | 6 | 0.018 | 0.009 | 0.028 | 744 | G5 | |
| 113- 488 | 21 41 04 | +0 33 30 | 10.16 | +0.70 | +0.23 | 5 | 3 | 0.020 | 0.013 | 0.011 | 756 | dG5 | |
| 113- 492 | 21 41 11 | +0 31 28 | 12.18 | +0.56 | +0.02 | 12 | 6 | 0.030 | 0.018 | 0.017 | 758 | F8: | |
| 113- 493 | 21 41 12 | +0 31 17 | 11.77 | +0.80 | +0.38 | 12 | 6 | 0.027 | 0.023 | 0.018 | 759 | F5: | |
| 113- 495 | 21 41 13 | +0 31 14 | 12.44 | +0.95 | +0.54 | 11 | 6 | 0.020 | 0.018 | 0.030 | 761 | G: | |
| 114- 42 | 22 40 21 | -0 00 56 | 9.09 | +1.23 | +1.26 | 2 | 1 | 0.002 | 0.009 | 0.010 | 351 | gK2 | |
| 114- 69 | 22 41 26 | -0 03 35 | 9.73 | +0.36 | +0.11 | 2 | 1 | 0.006 | 0.000 | 0.005 | 384 | F0 | |
| 114- 151 | 22 40 17 | +0 12 54 | 10.66 | +0.75 | +0.29 | 2 | 1 | 0.007 | 0.016 | 0.009 | 347 | G3 | |
| 114- 172 | 22 41 32 | +0 06 01 | 6.98 | +0.32 | +0.09 | 2 | 1 | 0.010 | 0.015 | 0.003 | 389 | A8 | |
| 114- 176 | 22 41 53 | +0 13 23 | 9.24 | +1.50 | +1.81 | 2 | 1 | 0.006 | 0.011 | 0.031 | 399 | gMa | |
| 114- 223 | 22 39 14 | +0 23 16 | 10.62 | +0.57 | +0.04 | 2 | 1 | 0.002 | 0.001 | 0.021 | 321 | G0 | |
| 114- 236 | 22 40 03 | +0 20 56 | 10.48 | +0.63 | +0.10 | 2 | 1 | 0.012 | 0.020 | 0.016 | 340 | G1 | |
| 114- 252 | 22 40 45 | +0 21 08 | 10.82 | +0.52 | +0.01 | 2 | 1 | 0.008 | 0.021 | 0.011 | 367 | G1 | |
| 114- 272 | 22 41 40 | +0 16 28 | 7.74 | +0.86 | +0.46 | 4 | 2 | 0.009 | 0.012 | 0.006 | 391 | gG5 | |
| 114- 353 | 22 40 18 | +0 31 35 | 10.11 | +0.44 | -0.09 | 2 | 1 | 0.011 | 0.014 | 0.010 | 699 | F5 | |
| 114- 446 | 22 39 47 | +0 38 13 | 12.07 | +0.74 | +0.25 | 9 | 5 | 0.020 | 0.018 | 0.027 | 690 | dG6 | |
| 114- 473 | 22 41 07 | +0 38 23 | 8.52 | +1.01 | +0.80 | 6 | 3 | 0.003 | 0.019 | 0.008 | 720 | gG7p | |
| 114- 527 | 22 39 08 | +0 51 11 | 11.14 | +1.04 | +0.94 | 1 | 1 | ... | ... | ... | 675 | d:K2 | |
| 114- 531 | 22 39 20 | +0 44 06 | 12.09 | +0.73 | +0.20 | 13 | 7 | 0.015 | 0.014 | 0.025 | 680 | G2 | |
| 114- 548 | 22 40 20 | +0 51 15 | 11.60 | +1.37 | +1.56 | 18 | 8 | 0.015 | 0.014 | 0.026 | 702 | dK5 | |
| 114- 616 | 22 38 29 | +0 54 29 | 8.53 | +0.36 | +0.11 | 2 | 1 | 0.007 | 0.016 | 0.004 | 657 | A3p | |
| 114- 637 | 22 39 26 | +0 55 19 | 12.08 | +0.80 | +0.34 | 7 | 4 | 0.012 | 0.005 | 0.024 | 681 | F8 | |
| 114- 651 | 22 39 55 | +0 55 14 | 10.28 | +0.59 | +0.04 | 1 | 1 | ... | ... | ... | 692 | G2 | |
| 114- 654 | 22 40 09 | +1 02 20 | 11.83 | +0.66 | +0.20 | 13 | 6 | 0.013 | 0.014 | 0.018 | 695 | G2 | |
| 114- 670 | 22 40 53 | +1 02 25 | 11.10 | +1.22 | +1.20 | 5 | 3 | 0.005 | 0.004 | 0.033 | 714 | g:K5 | |
| 114- 750 | 22 40 28 | +1 04 46 | 11.92 | -0.04 | -0.37 | 23 | 10 | 0.021 | 0.022 | 0.014 | 706 | A2 | |
| 114- 755 | 22 40 51 | +1 08 57 | 10.92 | +0.57 | -0.03 | 3 | 2 | 0.007 | 0.009 | 0.012 | 713 | G2 | |
| 114- 781 | 22 42 01 | +1 11 32 | 11.64 | +0.60 | +0.08 | 2 | 1 | 0.022 | 0.020 | 0.038 | 745 | G0 | |
| 114- 785 | 22 42 16 | +1 10 29 | 12.13 | +0.58 | +0.05 | 2 | 1 | 0.004 | 0.006 | 0.011 | 752 | F9 | |
| 114- 790 | 22 42 27 | +1 10 50 | 12.13 | +0.82 | +0.40 | 2 | 1 | 0.011 | 0.021 | 0.014 | 755 | dG5 | |
| 114- 803 | 22 43 14 | +1 08 22 | 12.49 | +0.75 | +0.18 | 2 | 1 | 0.010 | 0.004 | 0.006 | 771 | F8 | |
| 115- 268 | 23 41 13 | +0 43 51 | 12.50 | +0.63 | +0.07 | 6 | 3 | 0.013 | 0.019 | 0.054 | 326 | dG5 | 30 |
| 115- 271 | 23 41 24 | +0 36 50 | 9.70 | +0.62 | +0.11 | 8 | 4 | 0.013 | 0.007 | 0.016 | 330 | dG3 | |
| 115- 273 | 23 41 40 | +0 39 05 | 10.02 | +0.55 | +0.04 | 2 | 1 | 0.003 | 0.004 | 0.005 | 331 | F9 | |
| 115- 349 | 23 41 58 | +0 45 55 | 8.60 | +1.06 | +0.89 | 9 | 4 | 0.031 | 0.013 | 0.014 | 336 | gG8 | 31 |
| 115- 350 | 23 42 03 | +0 48 25 | 11.06 | +0.71 | +0.24 | 1 | 1 | ... | ... | ... | 337 | dG5 | |
| 115- 357 | 23 42 22 | +0 52 52 | 11.08 | +0.84 | +0.45 | 1 | 1 | ... | ... | ... | 342 | dG5 | |
| 115- 366 | 23 43 01 | +0 52 50 | 12.11 | +0.64 | +0.12 | 3 | 2 | 0.015 | 0.020 | 0.016 | 353 | dG3 | |
| 115- 403 | 23 40 11 | +1 01 49 | 10.11 | +0.54 | +0.03 | 1 | 1 | ... | ... | ... | 314 | F7 | |
| 115- 412 | 23 40 44 | +1 00 41 | 12.23 | +0.55 | -0.03 | 9 | 5 | 0.005 | 0.013 | 0.020 | 321 | dG5 | |
| 115- 416 | 23 41 00 | +0 57 16 | 10.92 | +0.48 | +0.02 | 5 | 3 | 0.002 | 0.013 | 0.014 | 323 | F7 | |
| 115- 420 | 23 41 19 | +0 57 38 | 11.17 | +0.48 | -0.03 | 5 | 3 | 0.009 | 0.002 | 0.007 | 327 | F4 | |
| 115- 427 | 23 41 57 | +0 58 26 | 8.86 | +1.17 | +1.13 | 6 | 3 | 0.008 | 0.007 | 0.005 | 335 | d:K1 | |
| 115- 440 | 23 42 39 | +0 57 43 | 11.26 | +0.84 | +0.44 | 5 | 3 | 0.011 | 0.013 | 0.009 | 348 | dG7 | |
| 115- 451 | 23 43 18 | +1 03 50 | 12.35 | +0.50 | -0.04 | 6 | 3 | 0.009 | 0.018 | 0.019 | 357 | dG5 | |
| 115- 486 | 23 40 16 | +1 08 25 | 12.48 | +0.49 | -0.04 | 13 | 7 | 0.013 | 0.024 | 0.022 | 316 | G5 | |
| 115- 516 | 23 42 58 | +1 05 53 | 10.43 | +1.03 | +0.75 | 6 | 3 | 0.006 | 0.008 | 0.022 | 352 | dG8 | |
| 115- 546 | 23 39 50 | +1 22 49 | 12.12 | +0.65 | +0.11 | 9 | 5 | 0.008 | 0.012 | 0.014 | 307 | dG5 | |
| 115- 552 | 23 40 11 | +1 15 20 | 10.91 | +0.52 | -0.06 | 1 | 1 | ... | ... | ... | 313 | F8 | |
| 115- 554 | 23 40 14 | +1 18 07 | 11.65 | +1.02 | +0.60 | 13 | 7 | 0.020 | 0.014 | 0.018 | 315 | dK2 | 32 |

Notes to Table I

- 0^m04 brighter in V in 1971 than one year earlier in 1970.
- Total range of 0^m1 in $(U - B)$ on night of 013171 U.T.; however, the average $(U - B)$ of +0.76 compares well with the value +0.77 of two different observing seasons. Therefore this object is usable as a standard.
- Same reasoning as Note 2.
- Total range in V was 0^m06 over 23-mo period.
- Total range in $(U - B)$ values is 0^m28; the average values for the two nights agree within 0^m09. There is large scatter since the star is so red.
- Total range in V was 0^m1 over 12-mo period.
- Large scatter in $(U - B)$ due to redness of star.
- Total range in V was 0^m06 over 12-mo period.
- Total range in V was 0^m2 over 11-mo period.

Notes to Table I (*continued*)

10. Total range in V was $0^m 06$ over 15-mo period.
11. Total range in V was $0^m 04$ over 12-mo period.
12. Apparently the faintness and redness of this star caused the very large scatter in the color indices.
13. Total range in V was $0^m 06$ over 35-mo period.
14. Total range in V was $0^m 06$ over 23-mo period.
15. The total overall range of $0^m 18$ in $(U - B)$ comes from large scatter in one night's observation. Intercomparison of average $(U - B)$ values from the four nights gives a mean error of 0.030.
16. Total range in V was $0^m 06$ over 35-mo period.
17. Total range in $(U - B)$ was $0^m 1$ over 28-mo period.
18. Total range in V was $0^m 1$ over 28-mo period.
19. The $(U - B)$ value became $0^m 25$ more blue over 14-mo period, changing from $(U - B) \sim 1.00$ to $(U - B) \sim 0.75$. Explanation unknown.
20. Large scatter in individual values due to faintness and redness of star.
21. Four large residuals in the $(U - B)$ data results mostly from observations taken on the night of 050271. These four observations average to virtually the same value as all 25 observations given together. This star can be used as a standard.
22. A scatter of $0^m 17$ in $(U - B)$ on the night of 062071 U.T. causes the large rms of 0.057. However, the average $(U - B)$ value from that night compares favorably with the other three nights. This object may be used as a standard.
23. Just marginally usable as a standard star; erratic scatter in $(U - B)$ data.
24. Just too much scatter in the $(U - B)$ to make the $(U - B)$ value useful as a standard.
25. In spite of strenuous efforts to make this very red star into a good standard, it is just too faint in the ultraviolet.
26. The high $(U - B)$ mean error results from several large residuals. With care and additional checking, the object may be a possible standard.
27. None of the observations were made under the most ideal atmospheric conditions.
28. Possible variable; the V magnitude steadily declined by $0^m 07$ over a four-day period in September 1971.
29. Five of the V measures were nearly the same, but three were fainter by $\sim 0^m 03$. Although the star is probably usable as a standard, additional observations should be made to make certain that it isn't a variable.
30. The $(U - B)$ value steadily became more blue by $\sim 0^m 1$ over 16-mo period.
31. Most of the observations were taken in poor seeing, hence the high mean error in V for a star this bright. The star probably is usable as a standard.
32. Inclusion of two measures $0^m 07$ fainter in V on one night would give $V = 11.66 \pm 0.033$.

Approximately 20 UBV standard stars of a wide color range were observed each night along with the program stars. UBV standards were observed at the beginning and end of each night, as well as periodically throughout the night; it proved convenient to observe them in groups of three or four. An attempt was made to always have as wide a color range as possible in each such small group of standard stars. The UBV standard stars were observed over a wider range of air mass than were the program stars. Most program star observations were obtained at less than 1.5 air masses.

The reduction of the observational data followed the precepts outlined by Schulte and Crawford (1961). Experience has shown that mean extinction coefficients provide the most consistent results. The extinction coefficient values adopted for the data reduction were: $k_1 = +0.080$, $k_2 = -0.030$, $k_3 = +0.340$, $k_4 = -0.020$, and $Q_y = +0.150$, where the notation follows Schulte and Crawford (1961).

All of the observations were reduced on the IBM 360-65 digital computer of the Louisiana State University Computer Research Center. The computer printout included, among other items, the observed *minus* catalog residual for each of the original UBV standard stars (Johnson 1963). All observations had been timed to better than the nearest minute via an Accutron clock in the dome. The residuals in V for each standard star were plotted against Universal Time. These plots permitted small corrections to be made to all V measures for the program stars. The corrections were normally no more than a few hundredths of a magnitude. The validity of this kind of correction is demonstrated by the fact that the observations made over a three-year period with four telescopes and different photocells all nicely interlock. The residuals for the $(B - V)$ and $(U - B)$ color indices were also

examined. If the color-index residuals showed a trend in a given night's standard star residuals, the night's data were not included in the final tabulation.

Table I contains the final magnitude and color indices for the 642 celestial equatorial Selected Area stars observed. Of these stars, 335 have five or more observations each. The star identification numbers have been taken from *Harvard Annals* Vol. 101 (Durchmusterung of Selected Areas). The coordinates given for the stars therein are for the 1900 equinox, and have been precessed up to the 1975 equinox for ease of use.

Columns 4, 5, and 6 in Table I give the magnitude and color indices on the UBV photometric system. Column 7 indicates the number of times, n , that each star was observed. Column 8 presents the number of different nights, m , that each star was observed. The mean error in the V , $(B - V)$, and $(U - B)$ values for a single observation is given in Columns 9, 10, and 11. Numbers in Column 12 are the *Bergedorfer Spektral Durchmusterung* (BSD) identification numbers; the Selected Area digits have been omitted, as they appear in the first column. Column 13 gives the BSD spectral types, and numbers in Column 14 refer to footnotes at the end of Table I. In general, any star whose mean errors are less than 0.030 mag may be used as a standard star. However, there are many stars of a wide range in color with errors much smaller than this upper limit, scattered around the celestial equator; hence, there are sufficient stars from which one can choose his standards. Additional useful information for many stars in Table I is listed in Appendix I.

Since the Selected Areas studied do not contain very blue stars, due to reddening in Selected Areas coincident with the Milky Way, and an apparent deficiency of blue stars in my sample in Selected Areas away from

TABLE II. Photoelectric photometry of selected Giclas and Feige stars.

| Star | α (1975) | δ (1975) | V | $B - V$ | $U - B$ | n | m | Mean errors | | | Note |
|----------|--|-----------------|-------|--------------------|--------------------|----|---|--------------------|--------------------|--------------------|------|
| | | | | | | | | V | $B - V$ | $U - B$ | |
| F 11 | 1 ^h 02 ^m 59 ^s | + 4°06'02" | 12.06 | -0 ^m 25 | -0 ^m 97 | 24 | 9 | 0 ^m 017 | 0 ^m 019 | 0 ^m 015 | |
| F 16 | 1 53 21 | - 6 53 38 | 12.41 | -0.02 | -0.02 | 22 | 8 | 0.014 | 0.013 | 0.016 | |
| F 22 | 2 29 01 | + 5 09 40 | 12.79 | -0.05 | -0.81 | 24 | 9 | 0.019 | 0.017 | 0.014 | |
| F 24 | 2 33 48 | + 3 37 33 | 12.42 | -0.21 | -1.18 | 22 | 9 | 0.022 | 0.017 | 0.019 | |
| GD 50 | 3 47 33 | - 1 02 55 | 14.05 | -0.28 | -1.19 | 32 | 7 | 0.024 | 0.037 | 0.024 | 1 |
| GD 71 | 5 51 00 | +15 53 03 | 13.04 | -0.24 | -1.11 | 20 | 5 | 0.025 | 0.026 | 0.013 | |
| GD 108 | 9 59 33 | - 7 26 19 | 13.56 | -0.23 | -0.91 | 6 | 1 | 0.027 | 0.026 | 0.015 | |
| G 162-66 | 10 32 29 | -11 33 56 | 13.00 | -0.16 | -0.99 | 24 | 7 | 0.024 | 0.026 | 0.021 | |
| G 163-27 | 10 56 22 | - 7 23 25 | 14.33 | +0.30 | -0.51 | 32 | 7 | 0.066 | 0.068 | 0.102 | 2 |
| G 163-50 | 11 06 44 | - 5 01 01 | 13.06 | +0.03 | -0.67 | 24 | 7 | 0.021 | 0.027 | 0.022 | |
| G 163-51 | 11 06 50 | - 5 05 25 | 12.53 | +1.51 | +1.19 | 24 | 5 | 0.015 | 0.028 | 0.055 | 3 |
| G 153-41 | 16 16 30 | -15 32 10 | 13.41 | -0.22 | -1.08 | 34 | 9 | 0.029 | 0.033 | 0.029 | 1 |
| G 21-15 | 18 26 00 | + 4 02 55 | 13.91 | +0.08 | -0.56 | 30 | 2 | 0.050 | 0.047 | 0.031 | 4 |
| G 93-48 | 21 51 09 | + 2 16 27 | 12.74 | -0.01 | -0.77 | 20 | 6 | 0.014 | 0.015 | 0.015 | |
| GD 246 | 23 11 05 | +10 38 52 | 13.10 | -0.32 | -1.20 | 20 | 7 | 0.029 | 0.025 | 0.009 | |
| F 108 | 23 14 53 | - 1 58 49 | 12.97 | -0.23 | -1.04 | 14 | 5 | 0.015 | 0.017 | 0.014 | |

Notes to Table II

1. Comparison of night-to-night color index values indicates that this star may be used as a standard.
2. G163-27 was just too faint.
3. G163-51 was too faint in U to permit $(U - B)$ to be very reliable.
4. The magnitudes and color indices differ by less than 0.02 mag when intercompared on a night-to-night average.

the galactic plane, blue star candidates near the celestial equator were chosen from the lists of Giclas, as studied by Eggen (1968), and from the work of Feige (1958, 1959). These blue objects average $V = 13^m0$, $(B - V) = -0^m18$, and $(U - B) = -0^m94$, and have been observed approximately 20 times each on several nights. Final magnitudes and color indices for the stars chosen as blue standards are located in Table II. These objects are not distributed as uniformly around the celestial equator as one would like, but were the blue objects nearest to the celestial equator known to the author. They do permit one to tie down the blue end of the transformation equation. Additional information concerning the Giclas and Feige stars, including many literature references, may be found in Appendix II.

II. THE FINDING CHARTS

The original finding charts that were used at the telescope were taken from the *Atlas of Harvard-Groningen Selected Areas* by A. Brun and H. Vehrenberg. However, these charts did not show enough faint stars to eliminate identification problems at the telescope for the fainter stars. If it were not for the fact that the Selected Area fields were many times split between two different prints, the *Palomar Sky Survey* would have been a good source for the published version of the finding charts.

To insure uniformity, it seemed best to make the finding charts all from the same instrument. Therefore, new photographs were taken of the 24 celestial equatorial Selected Areas with the 24-in. Curtis Schmidt telescope at Cerro Tololo Inter-American Observatory. Each exposure was of 10-min duration on a IIa-D Kodak Spectroscopic emulsion behind a Schott GG14

filter. The final printed charts show stars to $V \sim 16$ th magnitude. The sizes of the Selected Area fields vary somewhat, depending upon the crowding in each field; on the average, each finding chart is approximately one degree in diameter. The 24 Selected Area charts are given in Plates VII-XXX (pp. 989-1012).

For the convenience of the user, the 1900 equinox coordinates for the center of each celestial equatorial Selected Area are presented in Table III. The values for the annual precession in both right ascension and

TABLE III. Selected Areas at $\delta = 0^\circ$.

| SA | 1900 | | Yearly precession | |
|-----|--------------------------------|----------|-------------------|----------------|
| | α | δ | $\Delta\alpha$ | $\Delta\delta$ |
| 92 | 0 ^h 50 ^m | +0°10' | +3°07 | +19°56 |
| 93 | 1 50 | +0 20 | +3.07 | +17.80 |
| 94 | 2 51 | +0 10 | +3.07 | +14.72 |
| 95 | 3 50 | 0 00 | +3.07 | +10.84 |
| 96 | 4 48 | 0 00 | +3.07 | + 6.20 |
| 97 | 5 52 | 0 00 | +3.07 | + 0.68 |
| 98 | 6 47 | -0 10 | +3.07 | - 4.08 |
| 99 | 7 50 | -0 20 | +3.07 | - 9.24 |
| 100 | 8 49 | -0 10 | +3.07 | -13.44 |
| 101 | 9 52 | 0 00 | +3.07 | -17.00 |
| 102 | 10 50 | -0 20 | +3.07 | -19.12 |
| 103 | 11 50 | 0 00 | +3.07 | -20.04 |
| 104 | 12 38 | 0 00 | +3.07 | -19.76 |
| 105 | 13 33 | -0 10 | +3.07 | -18.44 |
| 106 | 14 37 | 0 00 | +3.07 | -15.56 |
| 107 | 15 34 | 0 00 | +3.07 | -11.92 |
| 108 | 16 32 | -0 10 | +3.07 | - 7.52 |
| 109 | 17 40 | -0 10 | +3.07 | - 1.80 |
| 110 | 18 37 | 0 00 | +3.07 | + 3.52 |
| 111 | 19 33 | +0 10 | +3.07 | + 7.92 |
| 112 | 20 37 | +0 10 | +3.07 | +12.72 |
| 113 | 21 37 | 0 00 | +3.07 | +16.28 |
| 114 | 22 37 | +0 10 | +3.07 | +18.72 |
| 115 | 23 38 | +0 20 | +3.07 | +19.96 |

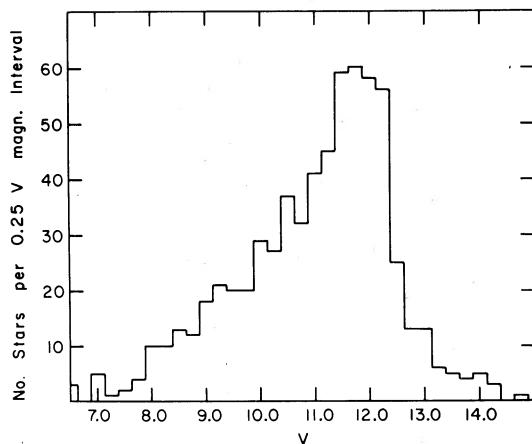


FIG. 1. The number of program stars observed in intervals of 0.25 V magnitude.

declination are given in the last two columns. Both the center coordinates and these annual precession values were taken from data given for each Selected Area by Seares, Kapteyn, and van Rhijn (1930).

The original finding charts for the Giclas stars may be found in various issues of the *Lowell Obs Bull.* Feige (1959) published finding charts for his blue stars in the *Astrophys. J.* These 16 objects are identified herein in Plates XXXI–XXXVIII (pp. 1013–1020), all having been reproduced from Palomar Sky Survey E-plates, for ease of visual identification.

The charts for the Giclas and Feige stars are reproduced here (a) for convenience to the user, and (b) because the author found that a finding chart covering a somewhat larger area of the sky greatly increased efficiency at the telescope insofar as star identification was concerned.

III. DISCUSSION

The distribution of the program stars in Tables I and II in the V magnitude is plotted in Fig. 1. Their distribution in the $(B-V)$ color index is illustrated in

Fig. 2. As is well known, there always seems to be a shortage of candidates for blue standard stars. And, it is difficult to get accurate $(U-B)$ measurements, in particular for the fainter red stars. However, enough stars have been measured sufficiently often to ensure a sufficient number of quality standards of all colors to be available anywhere around the celestial equator. All stars with five or more observations in Tables I and II and with mean errors less than 0.03 mag should be usable as standard stars. Five observations were thought sufficient to provide final accuracies commensurate with the accuracy of the magnitude and color indices of the stars in the original UBV system. Acceptance of stars with mean errors less than 0.03 mag as standard stars means that the corresponding probable errors are less than 0.02 mag, values more or less indicative both of the accuracy to which the UBV system is known and can be reproduced. Finally, some of the brighter stars measured only three or four times can be used as standards also, since their mean errors are low.

Four nights of reasonably good quality were chosen from the 55 nights which supplied data for inclusion in Tables I and II. For each night, twenty or so stars originally observed as program stars that particular night and suitable as standards based on criteria discussed above, were chosen from Tables I and II. The four nights were chosen to represent all seasons over the three-year observing period of the program. (They were not chosen to provide a good retrieval of the UBV system.) The UBV standard stars (Johnson 1963), which had been used to derive the input data for Tables I and II, were considered now to be unknown program stars. The data reduction was treated in the same manner as outlined in Sec. I in this paper. The object, of course, was to see if one could retrieve the UBV system via the new faint standard stars. The four nights' data contained 93 "original UBV standard stars," each observed only once per night, but some being observed on more than one night.

Figures 3 and 4 show the results, namely that the

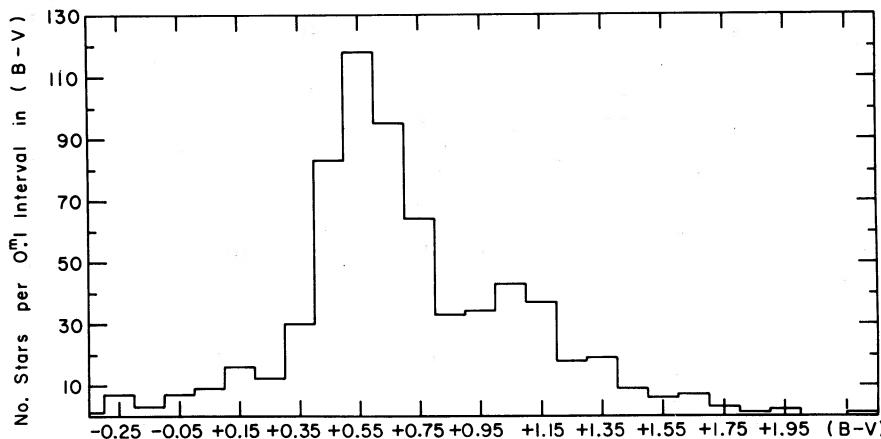


FIG. 2. The number of program stars observed in intervals of 0.1 in the $(B-V)$ color index.

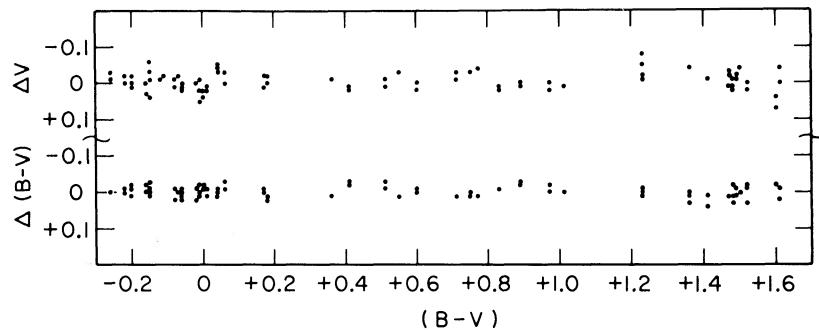


FIG. 3. A comparison of the retrieved V and $(B-V)$ photometry with the values cataloged by Johnson (1963).

new faint UBV standard stars seem to be properly tied into the original UBV photometric system, as defined by the stars listed by Johnson (1963). The delta quantities plotted on the ordinate in each figure are the retrieved V , $(B-V)$, and $(U-B)$ values for a given star *minus* the V , $(B-V)$, and $(U-B)$ values for that same star as given by Johnson (1963).

Given the values ΔV , $\Delta(B-V)$ and $\Delta(U-B)$ for the 93 "original UBV stars" observed on those nights, one finds that the difference between the UBV system as defined by Johnson (1963) and the UBV system as retrieved by the new faint standards is $\overline{\Delta V} = -0^m006 \pm 0^m003$ (m.e.), $\overline{\Delta(B-V)} = -0^m002 \pm 0^m002$ (m.e.) and $\overline{\Delta(U-B)} = +0^m003 \pm 0^m002$ (m.e.). Hence, the new faint UBV standards are on the original UBV photometric system.

Several of the stars in the present program have been observed by others. Priser (1966), in a paper wherein he established a homogeneous network of UBV standard stars in the northern celestial hemisphere,

has observed ten stars in SA 94, 100, 102, and 108 in common with objects in Table I. Comparison of his results and those herein show $\overline{\Delta V} = +0^m012 \pm 0^m003$ (m.e.), $\overline{\Delta(B-V)} = -0^m014 \pm 0^m004$, (m.e.), and $\overline{\Delta(U-B)} = -0^m036 \pm 0^m012$ (m.e.), in the sense $\Delta =$ Landolt *minus* Priser. The large difference in $(U-B)$ is due largely to one star, 102-505 = BD $-0^{\circ}2390$.

Pfleiderer *et al.* (1966) have observed 18 stars in SA 96, 100, 108, and 112 in common with objects in Table I. Comparison of their results with those in Table I shows $\overline{\Delta V} = +0^m021 \pm 0^m004$ (m.e.), $\overline{\Delta(B-V)} = -0^m023 \pm 0^m006$ (m.e.), and $\overline{\Delta(U-B)} = +0^m021 \pm 0^m004$ (m.e.), in the sense $\Delta =$ Landolt *minus* Pfleiderer *et al.*

Purgathofer (1969) established photoelectric sequences in SA 94 and SA 107. We have 15 and 10 stars in common in SA 94 and SA 107, respectively. A comparison of our results is as follows, where n is the number of stars in common, and Δ is in the sense $\Delta =$ Landolt *minus* Purgathofer:

| SA | n | $\overline{\Delta V} \pm$ m.e. | $\overline{\Delta(B-V)} \pm$ m.e. | $\overline{\Delta(U-B)} \pm$ m.e. |
|-----|-----|--------------------------------|-----------------------------------|-----------------------------------|
| 94 | 15 | $+0^m017 \pm 0^m003$ | $+0^m007 \pm 0^m005$ | $-0^m013 \pm 0^m003$ |
| 107 | 10 | $+0.020 \pm 0.006$ | -0.008 ± 0.006 | -0.024 ± 0.008 |

Actual close checking of our stars in common shows close agreement in SA 94, but rather more disagreement than one would like in SA 107.

A paper by Epps (1972), giving photometric results for various objects observed during a site testing program, contains several stars in common with those in Table I. A comparison of our results is as follows, where n is the number of stars in common, and Δ is in the sense $\Delta =$ Landolt *minus* Epps:

| SA | n | $\overline{\Delta V} \pm$ m.e. | $\overline{\Delta(B-V)} \pm$ m.e. | $\overline{\Delta(U-B)} \pm$ m.e. |
|-----|-----|--------------------------------|-----------------------------------|-----------------------------------|
| 94 | 5 | $-0^m006 \pm 0^m005$ | $+0^m012 \pm 0^m005$ | $+0^m020 \pm 0^m009$ |
| 111 | 7 | -0.010 ± 0.008 | $+0.006 \pm 0.009$ | -0.018 ± 0.011 |
| 113 | 6 | $+0.005 \pm 0.007$ | -0.015 ± 0.006 | -0.010 ± 0.019 |

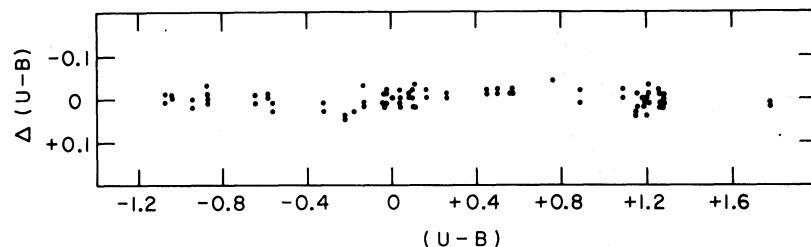


FIG. 4. A comparison of the retrieved $(U-B)$ color index with the values cataloged by Johnson (1963).

A color term is present in the relationship between our $(U-B)$ values; it is especially apparent in SA 113.

Finally, Eggen (1968) has published magnitudes and color indices for many Giclas and Feige stars. We have 15 Giclas and Feige stars in common. An intercomparison of our results shows $\bar{V} = +0^m033 \pm 0^m016$ (m.e.), $\Delta(B-V) = -0^m006 \pm 0^m011$ (m.e.), and $\Delta(U-B) = +0^m013 \pm 0^m007$ (m.e.), in the sense Landolt minus Eggen. The differences are larger than one might expect and occur since Eggen usually measured each star once.

The Michigan Curtis Schmidt telescope at the Cerro Tololo Inter-American Observatory has been used together with a 4° prism to obtain objective-prism spectra in the celestial equatorial Selected Areas. The observing program is almost completed, and hopefully will be finished within the year. More accurate spectral types will then be available for the stars in Table I. One will also be able to make comments about the color excess in each Selected Area. If all goes well, the spectroscopic portion of the program will be completed during the next 18 months.

ACKNOWLEDGMENTS

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APPENDIX I

Stars are identified in other star catalogs for the convenience of the users. Proper motions for a majority of the program stars have been given by Knox-Shaw and Barrett (1934), and are not reproduced here. Many radial velocities may be found in Wilson (1953) and in Abt and Biggs (1972). Additional photometric information may be located in the *Photoelectric Catalogue* of Blanco *et al.* (1968). Information in the *Bergedorfer*

TABLE IA. Additional identifications and references for Selected Area stars.

| BSD | BD | HD | Remarks |
|--------|--------|-------|---|
| 92-276 | +0°145 | | |
| 336 | +0°142 | 5319 | |
| 510 | +0°147 | | |
| 93- 24 | -0°290 | | |
| 35 | -0°292 | 11708 | |
| 101 | -0°288 | 11532 | |
| 179 | -0°286 | | |
| 180 | -0°287 | | |
| 241 | -0°294 | | |
| 312 | +0°304 | | |
| 326 | +0°307 | | |
| 332 | -0°293 | | |
| 350 | +0°311 | | Rossiter 5186 (Ref. 1). |
| 351 | | | Rossiter 5186 (Ref. 1). |
| 375 | +0°301 | | |
| 417 | +0°309 | | |
| 554 | +0°302 | 11457 | |
| 94- 6 | -0°446 | | |
| 11 | -0°447 | | |
| 32 | -0°450 | 18145 | AGK2 -0°312 = GC 3496; sp.cl. G8 II and r.v. +11 km/sec (Ref. 2) |
| 228 | -0°459 | | |
| 293 | -0°451 | 18175 | AGK2 +0°244; sp. cl. K0II and r.v. -37 km/sec (Ref 2). |

TABLE IA (*continued*)

| BSD | BD | HD | Remarks |
|--------|---------|---------|---|
| 296: | | | BSD notes dbl. with BSD 94-477 |
| 297: | | | BSD notes dbl. with BSD 94-476 |
| 305 | -0°454 | | pe. ptm. (Ref. 3); BSD notes H δ in em. in 1930 |
| 308 | -0°457 | 18286 | AGK2 +0°245 = RST 4753 (Ref. 4), pe. ptm. (Ref. 3); sp.cl. F3 V and r.v. +7 km/sec (Ref. 2) |
| 319 | -0°460 | 18369 | AGK2 +0°247 = GC 3594; sp.cl. A5Ib and r.v. -2 km/sec (Ref. 2) |
| 328 | -0°463 | | |
| 342 | -0°465 | 18496 | BSD notes sp.var., G8 to K2 |
| 392 | -0°455 | | |
| 597 | +0°485 | | |
| 95- 52 | -0°616 | 24538 | |
| 91 | -0°612 | | |
| 96 | -0°613 | 24400 | |
| 134 | -0°618 | 24622 | r.v. +24 km/sec and sp.cl. F3 IV (Ref. 5) |
| 206 | -0°617 | 24537 | |
| 301 | | | Baillaud 969 (Ref. 1) |
| 302 | +0°669 | | Baillaud 969 (Ref. 1) |
| 379 | +0°673 | | |
| 402 | +0°678 | 24749 | |
| 96-180 | -0°789 | | |
| 192 | -0°791 | | |
| 329 | -0°787 | 30838 | BSD suggests sp.comp. (A0 + G0?) |
| 382 | -0°790 | 30979 | |
| 393 | -0°792 | | pe. ptm. (Ref. 6) |
| 405 | | | BSD notes dbl. with BSD 96-597 |
| 406 | -0°793 | 31073 | pe. ptm. (Ref. 6); BSD notes dbl. with BSD 96-596 |
| 615 | +0°889 | | |
| 736 | | | BSD notes dbl. with BSD 96-1129 |
| 737 | | | BSD notes dbl. with BSD 96-1128 |
| 753 | | | BSD suggests possible sp.var. |
| 764 | +0°887 | | |
| 837 | +0°893 | 31331 | GC 5991 |
| 97- 18 | | | μ (Ref. 7) |
| 19 | | | μ (Ref. 7) |
| 75 | | | μ (Ref. 7) |
| 142 | | | μ (Ref. 7) |
| 189 | -0°1128 | | μ (Ref. 7) |
| 196 | | | μ (Ref. 7) |
| 200 | | -0°1129 | |
| 219 | | | μ (Ref. 7) |
| 222 | | | μ (Ref. 7) |
| 225 | -0°1130 | | μ (Ref. 7) |
| 230 | +0°1221 | 40008 | μ (Ref. 7) |
| 252 | | | μ (Ref. 7) |
| 257 | +0°1227 | 40210 | GC 7505 = ADS 4542 = Burnham 1190; μ (Ref. 7) |
| 284 | +0°1237 | | μ (Ref. 7) |
| 288 | +0°1238 | | μ (Ref. 7) |
| 308 | +0°1222 | | |
| 311 | +0°1223 | | μ (Ref. 7) |
| 319 | | | μ (Ref. 7) |
| 327 | | | μ (Ref. 7) |
| 346 | +0°1228 | | μ (Ref. 7) |
| 351 | +0°1231 | | μ (Ref. 7) |
| 366 | +0°1235 | | μ (Ref. 7) |

TABLE IA (*continued*)

| BSD | BD | HD | Remarks |
|----------|----------|-------|--|
| 368 | +0°1236? | | μ (Ref. 7); BSD notes that BD declination value is 10' too small |
| 369 | | | μ (Ref. 7) |
| 98-185 | -0°1466 | | μ (Ref. 7) |
| 211 | | | BSD notes dbl. with BSD 98-1852 |
| 313 | | | μ (Ref. 7) |
| 320 | -0°1471 | | |
| 334: | | | μ (Ref. 7); BSD notes dbl. with BSD 98-1911 |
| 398 | -0°1473 | | μ (Ref. 7) |
| 402: | | | μ (Ref. 7) |
| 428: | | | μ (Ref. 7) |
| 607: | | | μ (Ref. 7) |
| 613: | | | μ (Ref. 7) |
| 632: | | | μ (Ref. 7) |
| 653 | -0°1467 | 50188 | |
| 667 | -0°1468 | 50209 | μ (Ref. 7); BSD notes dbl. with BSD 98-1850 |
| 685: | | | μ (Ref. 7) |
| 978: | | | μ (Ref. 7) |
| 99- 90 | -0°1857 | | |
| 172 | -0°1853 | 64605 | |
| 185 | -0°1855 | 64652 | |
| 296 | -0°1854 | 64633 | |
| 358 | -0°1851 | | |
| 408 | -0°1856 | | |
| 438 | +0°2129 | 64854 | |
| 447 | +0°2131 | 64887 | |
| 100- 51: | | | pe. ptm. (Ref. 6) |
| 95 | -0°2089 | 76242 | |
| 109 | -0°2090 | | |
| 134 | -0°2080 | | |
| 162 | -0°2084 | | |
| 241 | -0°2081 | | |
| 286 | -0°2086 | | |
| 287 | -0°2086 | | |
| 289 | +0°2414 | | |
| 100-297 | -0°2087 | 76082 | GCRV 5854 (Ref. 8) = No. 2125 (Ref. 9); pe. pt.m (Ref. 3) |
| 322 | -0°2088 | 76208 | pe. ptm. (note error in sign in BD designation) (Refs. 3 and 6) |
| 357 | +0°2410 | | |
| 606 | +0°2412 | 75914 | pe. ptm. (Refs. 3 and 6) |
| 607 | +0°2413 | | |
| 101- 24 | -0°2270 | 85990 | |
| 95 | -0°2267 | | |
| 102 | -0°2271 | | |
| 282 | +0°2589 | | |
| 311 | +0°2581 | 85844 | |
| 324 | +0°2586 | | |
| 333 | +0°2588 | 86135 | |
| 346 | +0°2591 | | |
| 363 | +0°2593 | 86408 | |
| 389 | +0°2580 | | |
| 395 | +0°2582 | 85904 | |
| 481 | +0°2585 | | |
| 484 | +0°2587 | 86046 | |
| 497 | +0°2590 | 86279 | |
| 102- 41 | -0°2384 | 94500 | r.v. +16 km/sec and sp.cl. F4 IV, (Ref. 5) |
| 58 | -0°2388 | 94603 | pe. ptm. (Ref. 3) |

TABLE IA (*continued*)

| BSD | BD | HD | Remarks |
|---------|---------|--------|---------------------------------|
| 149 | -0°2382 | 94372 | |
| 276 | -0°2381 | | |
| 363: | | | BSD notes dbl. with BSD 102-482 |
| 364: | | | BSD notes dbl. with BSD 102-481 |
| 381 | -0°2392 | 94808 | pe. ptm. (Ref. 3) |
| 466 | -0°2385 | 94516 | |
| 472 | -0°2386 | 94538 | pe. ptm. (Ref. 3) |
| 505 | -0°2390 | 94706 | pe. ptm. (Ref. 3) |
| 620 | -0°2387 | | |
| 625 | -0°2389 | 94616 | |
| 752 | +0°2713 | | |
| 821: | | | BSD notes dbl. with BSD 102-500 |
| 1069 | +0°2716 | 94807 | |
| 1081 | +0°2717 | | |
| 1085 | +0°2718 | 94864 | |
| 1091 | +0°2721 | | |
| 103- 65 | -0°2511 | | |
| 135 | -0°2507 | 103341 | |
| 200 | -0°2513 | | |
| 204 | -0°2514 | | |
| 272 | +0°2857 | | |
| 302 | +0°2860 | 103646 | |
| 462 | +0°2854 | | |
| 477 | +0°2856 | | |
| 483 | +0°2858 | 103486 | |
| 526 | +0°2862 | | |
| 561 | +0°2853 | | |
| 692 | +0°2855 | | |
| 724 | +0°2859 | | |
| 104-216 | +0°2970 | | |
| 221 | +0°2971 | | |
| 306 | +0°2969 | 110281 | |
| 368 | +0°2978 | | |
| 461 | +0°2976 | | BSD notes dbl. with BSD 104-570 |
| 547 | +0°2972 | 110469 | |
| 585 | +0°2979 | 110803 | |
| 104-654 | +0°2973 | | |
| 105- 28 | -0°2713 | 118390 | |
| 51 | -0°2716 | | |
| 56 | -0°2719 | | |
| 66 | -0°2721 | 118850 | |
| 205 | -0°2708 | | |
| 214 | -0°2710 | 118330 | GC 18382 |
| 224 | -0°2711 | | |
| 227 | -0°2712 | | |
| 249 | -0°2715 | | |
| 257 | -0°2717 | 118671 | |
| 262 | -0°2720 | | |
| 350 | -0°2718 | | |
| 405 | +0°3075 | | |
| 411 | +0°3080 | | |
| 448 | +0°3084 | 118579 | |
| 456 | +0°3085 | | |
| 505 | +0°3077 | | |
| 584 | +0°3087 | | |
| 663 | +0°3082 | 118526 | |
| 759 | +0°3083 | | |
| 106-401 | -0°2856 | | |
| 411 | -0°2858 | 129313 | |

TABLE IA (*continued*)

| BSD | BD | HD | Remarks |
|----------|---------|--------|---|
| 427 | -0°2861 | | |
| 431 | -0°2862 | | |
| 485 | +0°3229 | 129727 | |
| 542 | +0°3221 | | |
| 575 | +0°3224 | | |
| 653 | +0°3214 | | |
| 700 | +0°3222 | | |
| 777 | +0°3226 | | |
| 834 | +0°3216 | 128866 | |
| 841 | +0°3217 | | |
| 1133 | +0°3227 | | |
| 1146 | +0°3228 | 129666 | |
| 1187 | +0°3218 | | |
| 1198 | +0°3220 | | |
| 1250 | +0°3223 | 129230 | |
| 1310 | +0°3225 | | |
| 107- 35 | -0°2990 | 139308 | |
| 131 | -0°2997 | 139840 | |
| 298 | -0°2988 | 139137 | GC 20980 |
| 347 | -0°2991 | 139513 | |
| 544 | +0°3379 | 139197 | |
| 585 | +0°3385 | | |
| 595 | +0°3387 | 139590 | |
| 609 | +0°3388 | | |
| 684 | +0°3381 | 139287 | |
| 847 | +0°3384 | | |
| 990 | +0°3382 | 139406 | |
| 998 | +0°3383 | | |
| 108-170 | -0°3149 | | pe. ptm. (Ref. 6) |
| 551 | -0°3152 | | pe. ptm. (Ref. 6) |
| 702 | -0°3143 | 149616 | pe. ptm. (Refs. 3 and 6) |
| 727: | | | BSD notes 14:th magn. comp. ~6'' distant |
| 827 | -0°3148 | 149845 | pe. ptm. (Ref. 6) |
| 984 | -0°3157 | | pe. ptm. (Ref. 6) |
| 1332 | +0°3552 | 149506 | |
| 1491 | +0°3554 | 149825 | |
| 108-1911 | +0°3555 | 149933 | GC 22356 = No. 3779 (Ref. 9); pe. ptm. (Ref. 6) |
| 109- 84 | -0°3350 | | |
| 231 | -0°3353 | | |
| 255: | | | BSD suggests star a sp.var. |
| 381 | -0°3351 | | |
| 537 | -0°3356 | | |
| 747 | -0°3352 | 161304 | |
| 1082 | +0°3766 | 161427 | |
| 110-135: | | | μ (Ref. 7) |
| 144: | | | μ (Ref. 7) |
| 248: | | | μ (Ref. 7) |
| 249: | | | μ (Ref. 7) |
| 289: | | | μ (Ref. 7), BSD suggests a sp. var., F2 to G2 |
| 340 | +0°3992 | 172652 | μ (Ref. 7); BSD suggests a sp. var., A2 to A8 |
| 352 | | | μ (Ref. 7) |
| 353 | +0°3995 | 172829 | HK Aq1 (Ref. 10); μ (Ref. 7); sp.cl. K5 III (Refs. 11 and 12) |
| 441: | | | μ (Ref. 7) |
| 450 | | | μ (Ref. 7) |
| 471 | +0°3993 | 172651 | μ (Ref. 7) |
| 499 | | | μ (Ref. 7); BSD note suggests sp.var., A5 to G5 |
| 503: | | | μ (Ref. 7) |
| 506: | | | μ (Ref. 7) |

TABLE IA (*continued*)

| BSD | BD | HD | Remarks |
|----------|---------|--------|--|
| 529: | | | μ (Ref. 7) |
| 111-669: | | | μ (Ref. 7) |
| 710: | | | μ (Ref. 7); BSD notes dbl. with BSD 111-577 |
| 717 | -0°3796 | 184965 | μ (Ref. 7); sp.cl. (Ref. 13) |
| 733 | -0°3797 | 184984 | μ (Ref. 7) |
| 773 | -0°3800 | 185025 | μ (Ref. 7) |
| 775: | | | μ (Ref. 7) |
| 1342 | -0°3798 | 185024 | μ (Ref. 7) |
| 1496 | +0°4265 | 185297 | GC 27160 = ADS 12708 = Burnham 249; μ (Ref. 7); BSD notes star a triple with BSD 111-1153 and BSD 111-1158 |
| 1835 | +0°4257 | | μ (Ref. 7) |
| 1925: | | | μ (Ref. 7) |
| 1965: | | | μ (Ref. 7) |
| 1969 | +0°4260 | | μ (Ref. 7) |
| 2009 | +0°4262 | | μ (Ref. 7) |
| 2036: | | | BSD notes dbl. with BSD 111-1138 |
| 2039: | | | μ (Ref. 7) |
| 2093: | | | μ (Ref. 7) |
| 2188: | | | μ (Ref. 7) |
| 2522 | +0°4259 | 185003 | μ (Ref. 7) |
| 2864 | +0°4266 | 185378 | μ (Ref. 7) |
| 112-275 | -0°4073 | | pe. ptm. (Ref. 6) |
| 636 | -0°4069 | | |
| 640 | -0°4070 | | pe. ptm. (Ref. 6) |
| 805: | | | pe. ptm. (Ref. 6) |
| 810: | | | pe. ptm. (Ref. 6) |
| 1242 | -0°4072 | 197232 | |
| 1333 | -0°4074 | | pe. ptm. (Ref. 6) |
| 1370 | -0°4076 | 197409 | pe. ptm. (Ref. 6) |
| 113-267 | -0°4249 | 206404 | GC 30371 = AGK2 +0°2729; sp.cl. F5 V, and r.v., +15 km/sec (Ref. 14) |
| 274 | -0°4251 | 206488 | STF 2817 (Ref. 1) |
| 276 | -0°4251 | 206488 | STF 2817 (Ref.1) |
| 342 | -0°4248 | | |
| 442 | +0°4763 | | |
| 113-466 | +0°4766 | | |
| 475 | +0°4767 | | |
| 488 | +0°4771 | | |
| 114- 42 | -0°4403 | 214924 | |
| 69 | -0°4405 | 215077 | GC 31688 |
| 172 | -0°4406 | 215093 | GC 31689 |
| 176 | -0°4408 | 215141 | classified M0 (Ref. 15) |
| 223 | -0°4398 | | |
| 236 | -0°4401 | 214885 | BSD notes dbl. with BSD 114-341 |
| 252 | -0°4404 | | BSD notes triple with BSD 114-364 and 114-366 |
| 272 | -0°4407 | 215110 | GC 31694 |
| 353 | -0°4402 | 214908 | |
| 473 | +0°4911 | 215044 | BSD notes dbl. with BSD 114-722 |
| 616: | | | BSD notes possible sp.var. |
| 637: | | | BSD notes dbl. with BSD 114-682 |
| 651 | +0°4909 | | |
| 755 | +0°4910 | | |
| 115-271 | -0°4557 | | |
| 273 | -0°4559 | | |
| 349 | +0°5039 | 222733 | |
| 403 | +0°5034 | | |
| 427 | +0°5038 | 222732 | BSD notes 13 ^m 4 comp. |
| 516 | +0°5040 | | |

References cited in Appendix I

1. Jeffers *et al.* 1963.
2. Duflot and Rebeirot 1966.
3. Priser 1966.
4. Rossiter 1955.
5. Moore and Paddock 1950.
6. Pfleiderer *et al.* 1966.
7. Meurers *et al.* 1962.
8. Wilson 1953.
9. Jenkins 1963.
10. Kurochkin 1958.
11. Herbig 1960.
12. Wenzel 1951.
13. Bertaude 1958.
14. Lanoe 1966.
15. Barbier 1966.

Spektral Durchmusterung (BSD) footnotes for several stars has been reproduced herein, also. Abbreviations used in Appendix I are as follows: Ref.=reference; sp. cl.=spectral classification; r.v.=radial velocity; dbl.=double; em.=emission; pe. ptm.=photoelectric photometry; comp.=companion; μ =proper motion; sp. comp.=spectroscopic companion; sp. var.=spectrum variable.

APPENDIX II

Additional information about the Feige and Giclas stars has been gleaned from the literature for the convenience of the user, and is presented in this appendix. Eggen and Greenstein (1955) tabulate various observational quantities for many of these objects. All GD-star coordinates were taken from Giclas *et al.* (1965); the Feige star coordinates were taken from Feige (1958).

Feige 11—Spectral types have been given as follows: A0p (Feige 1958); sdB? (Klemola 1962); Bp (Greenstein 1966). Luyten (1959) gives $\mu=0''.03$. Eggen (1968) found $V_E=12.06$, $(B-V)=-0.26$, and $(U-B)=-1.02$.

Feige 16—Spectral type A0 by Klemola (1962). Proper motion of $0''.02$ by Luyten (1959). Eggen (1968) found $V_E=12.47$, $(B-V)=-0.02$, and $(U-B)=-0.03$.

Feige 22—Spectral type DA by Greenstein (1966). Proper motion $\sim 0''.1$ (Luyten 1959). Color excess $E_{B-V}=+0.22$ (Eggen and Sandage 1965). Photometric parallax of $0''.044$, tangential velocity 10 km/sec, and $V_E=12.65$, $(B-V)=-0.06$, and $(U-B)=-0.83$ (Eggen 1968).

Feige 24—Spectral type DAe by Greenstein (1966), with additional comments on spectra by Eggen and Greenstein (1965). Proper motion $0''.08$ (Luyten 1959). Eggen (1968) gives $V_E=12.30$, $(B-V)=-0.25$ and $(U-B)=-1.23$.

GD 50—Proper motion $\sim 0''.2$ (Giclas *et al.* 1965). Eggen (1968) found $V_E=13.98$, $(B-V)=-0.16$, and $(U-B)=-1.16$.

GD 71—Also LTT 11733=L1243-36 (Luyten 1961). Proper motion $\sim 0''.3$ (Giclas *et al.* 1965). Spectral type

sd0, $V_E=13.06$, $(B-V)=-0.25$, and $(U-B)=-1.16$, as listed by Eggen (1968).

GD 108—Proper motion $\sim 0''.1$ (Giclas *et al.* 1965). Spectral type sdB?, $V_E=13.57$, $(B-V)=-0.21$, and $(U-B)=-0.91$, as listed by Eggen (1968).

G162-66—Also L825-14=LTT 3870 (Luyten 1957), who gives $\mu=0''.31$. See Eggen and Greenstein (1965) for additional information. Eggen (1968) gives $V_E=12.97$, $(B-V)=-0.15$, and $(U-B)=-1.02$. Coordinates from Giclas *et al.* (1964a).

G163-27—Also LFT 753 (Luyten 1955)=L898-25, who gives $\mu=0''.82$. See Eggen and Greenstein (1965). Eggen (1968) gives $V_E=14.28$, $(B-V)=+0.32$, and $(U-B)=-0.51$. Coordinates from Giclas *et al.* (1964a).

G163-50—Also LTT 4099=L970-30 (Luyten 1957), who gives $\mu=0''.43$. See Eggen and Greenstein (1965). Eggen (1968) gives $V_E=12.92$, $(B-V)=+0.09$, and $(U-B)=-0.69$. Coordinates from Giclas *et al.* (1964a).

G163-51—Also LTT 4100 (Luyten 1957). A common proper motion object with G163-50 (Giclas *et al.* 1964a).

G153-41—Also LTT 6497=L770-3 (Luyten 1957)=Ost-596 (Oosterhoff 1936). Coordinates from Giclas *et al.* (1964b), who give $\mu=0''.27$. Eggen (1968) has $V_E=13.42$, $(B-V)=-0.21$, and $(U-B)=-1.04$. See Eggen and Greenstein (1965).

G21-15—Also Ross 137 (Ross 1926). Giclas *et al.* (1959) give $\mu=0''.41$ and coordinates. See Eggen and Greenstein (1965). Eggen (1968) lists $V_E=13.90$, $(B-V)=+0.05$, and $(U-B)=-0.55$. A known white dwarf.

G93-48—Coordinates and $\mu=0''.33$ by Giclas *et al.* (1961). Eggen lists $V_E=12.77$, $(B-V)=0.00$, and $(U-B)=-0.78$. See Eggen and Greenstein (1965).

GD 246—Also BPM 97895 (Luyten 1963). Estimated $\mu\sim 0''.2$ (Giclas *et al.* 1965). Spectral type sd0 and $V_E=13.11$, $(B-V)=-0.32$, and $(U-B)=-1.23$ by Eggen (1968).

Feige 108—Spectral type DAs (Greenstein 1966); additional comments on spectrum by Eggen and Greenstein (1965). Luyten (1959) gives $\mu=0''.02$. Eggen (1968) lists $V_E=12.90$, $(B-V)=-0.28$, and $(U-B)=-1.06$.

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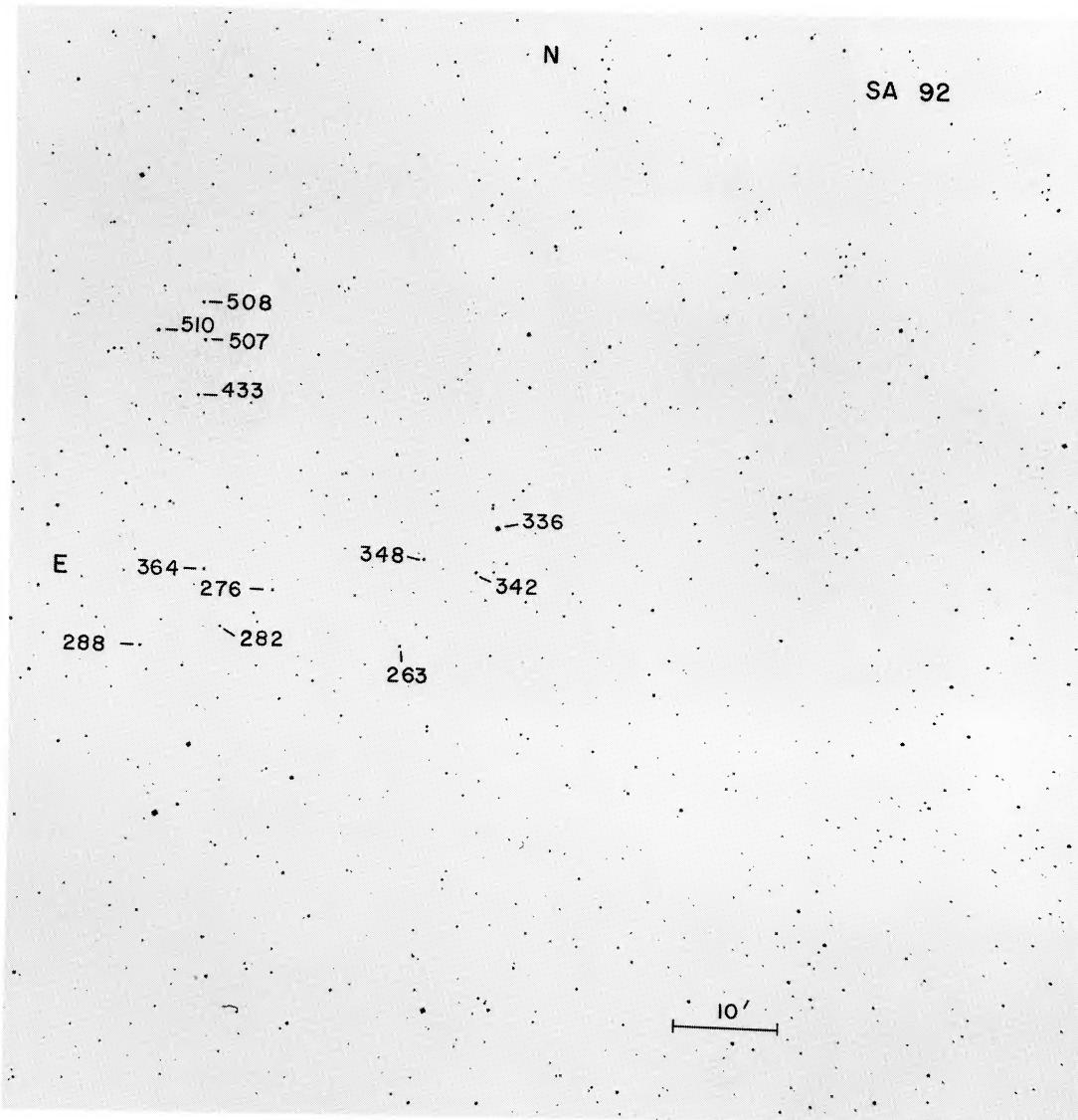


PLATE VII (Landolt, p. 959). The field of Selected Area 92. The central star is 92-336 = BD +0°142 = HD 5319.

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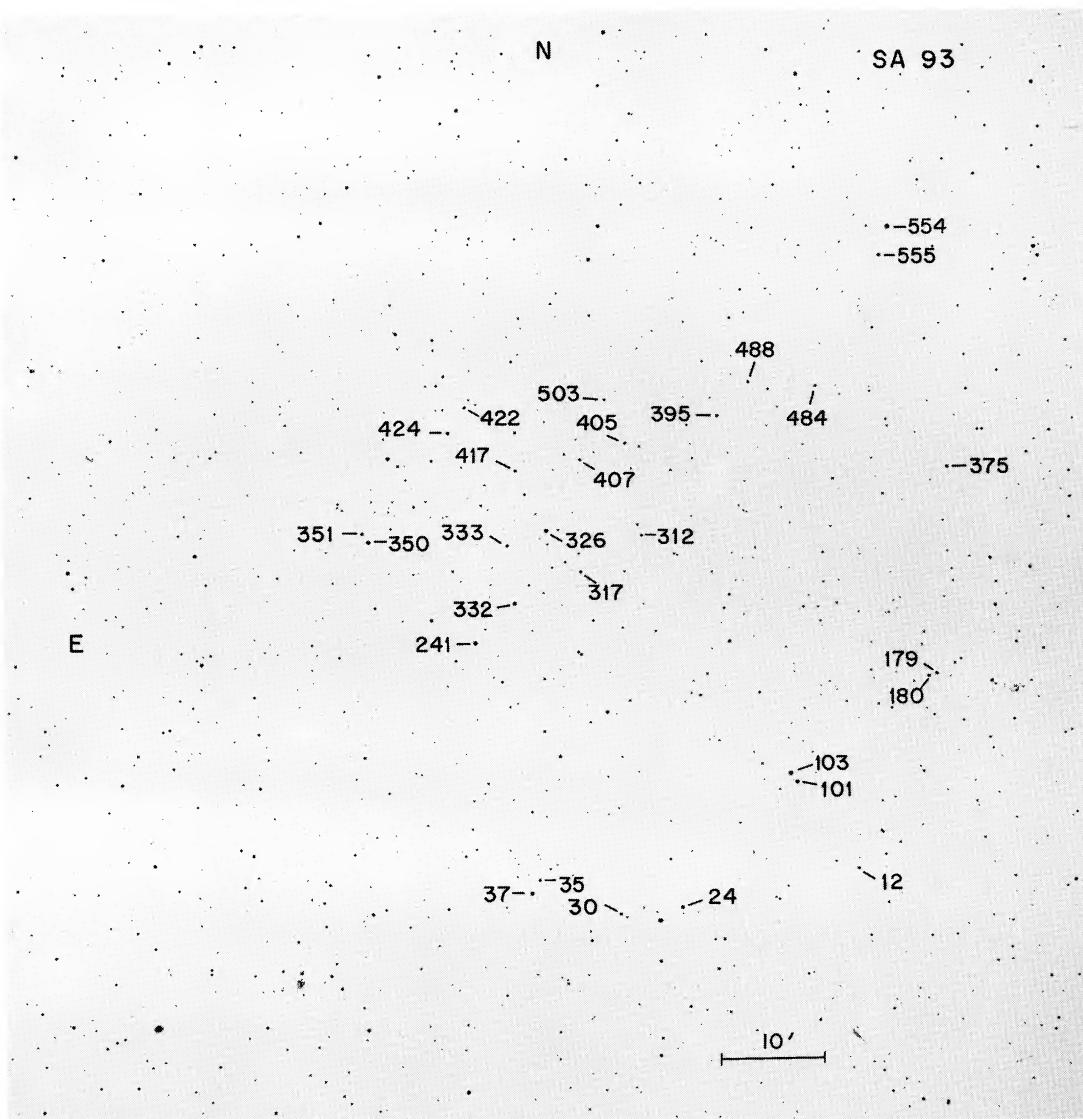


PLATE VIII (Landolt, p. 959). The field of Selected Area 93. The central star is 93-326 = BD +0°307.

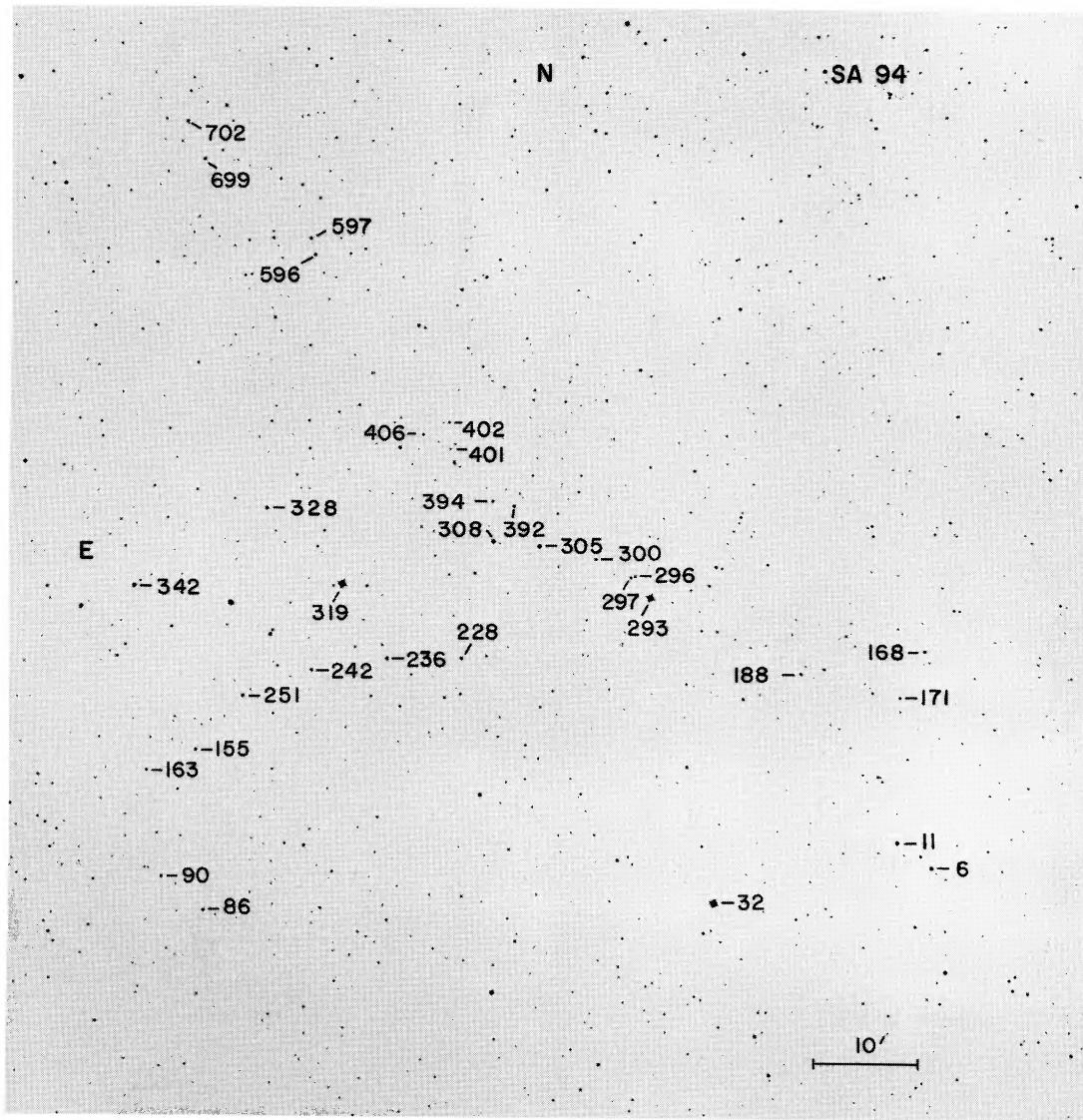
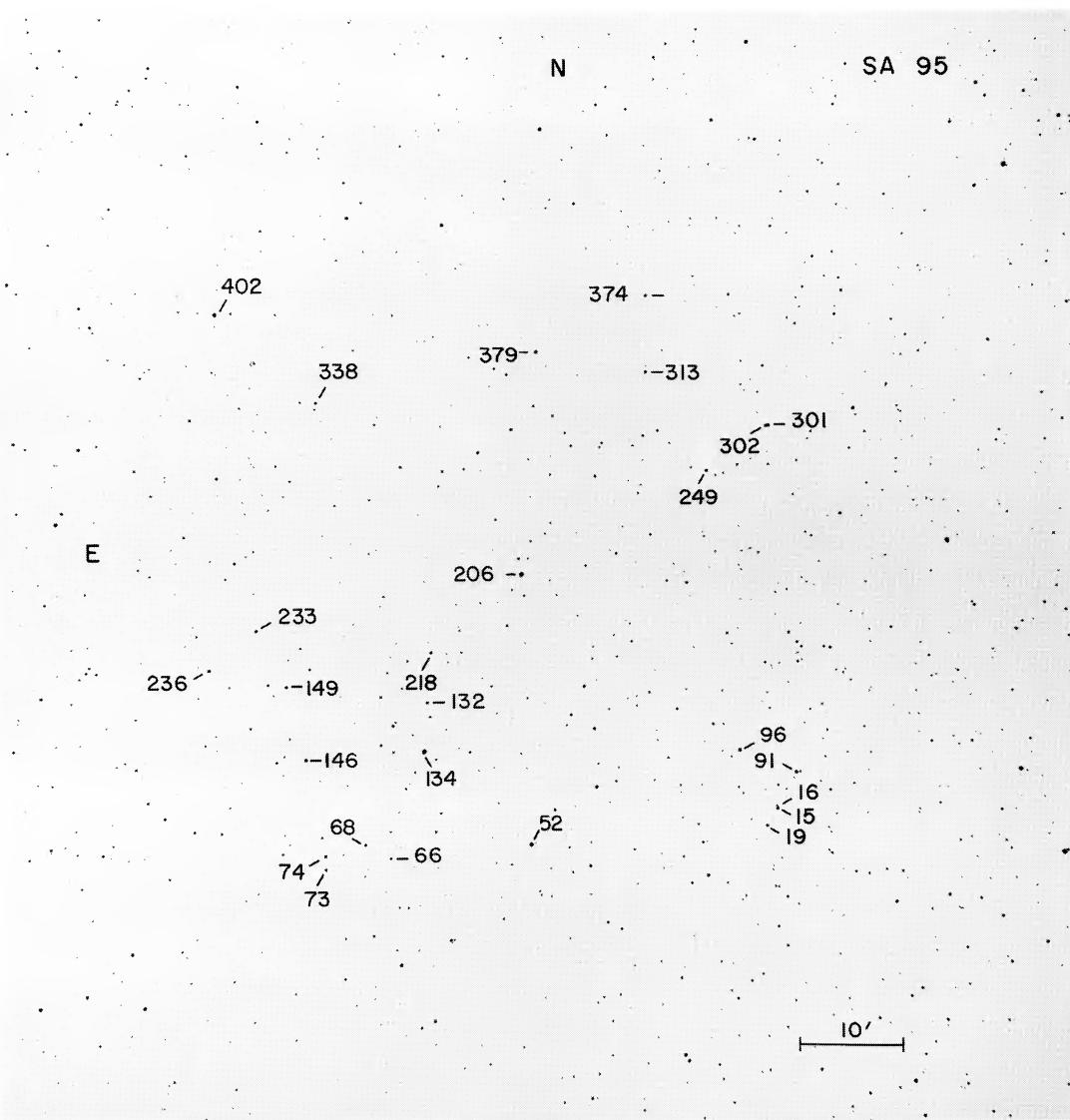


PLATE IX (Landolt, p. 959). The field of Selected Area 94. The central star is 94-305 = BD -0°454. The bright star 94-319 is GC 3594 ($V = 6^m62$).

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PLATE X (Landolt, p. 959). The field of Selected Area 95. The central star is 95-206 = BD $-0^{\circ}617$ = HD 24537.

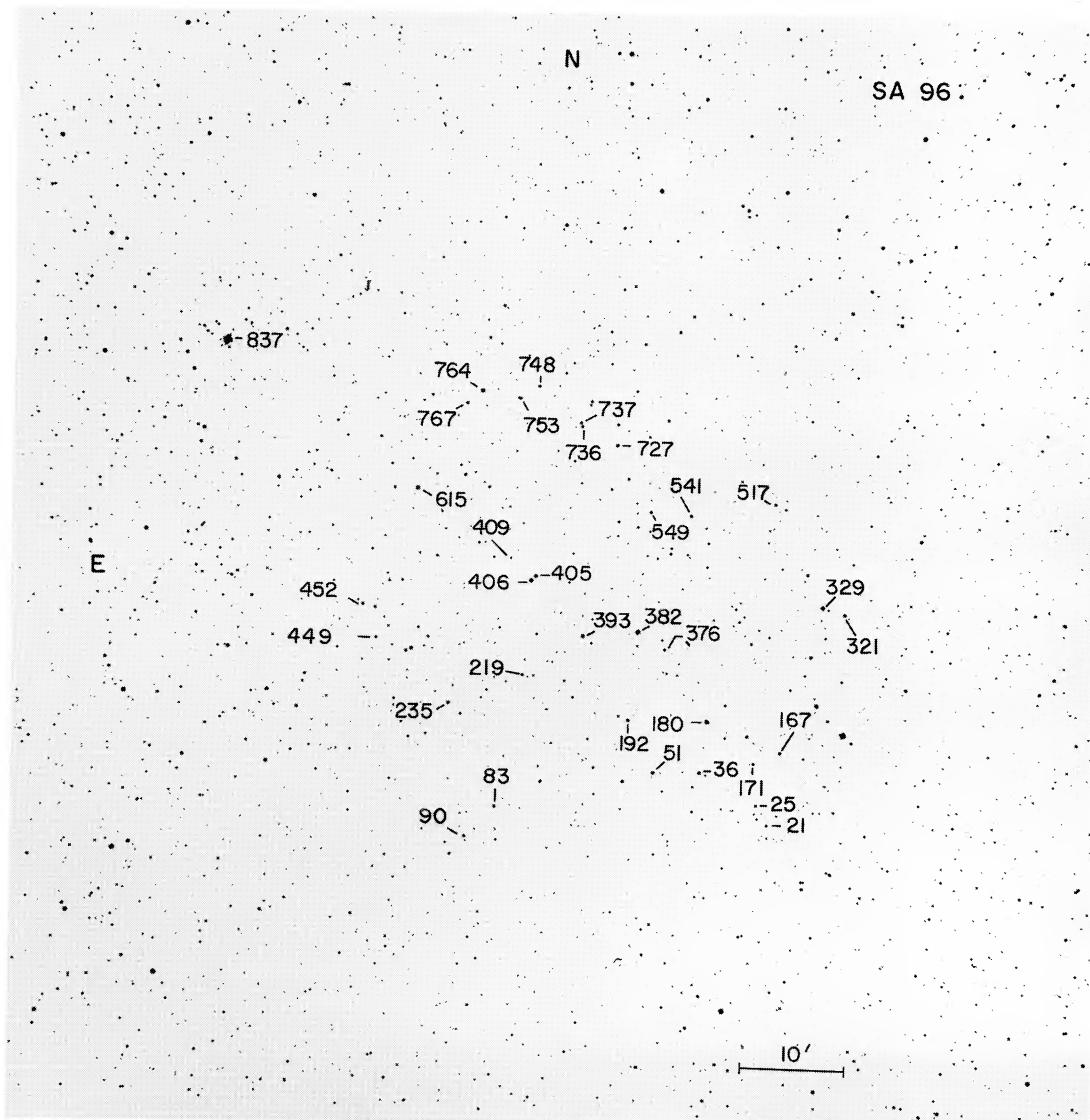


PLATE XI (Landolt, p. 959). The field of Selected Area 96. The central star is 96-406 = BD $-0^{\circ}793$ = HD 31073. The bright star 96-837 is CG 5991 ($V = 5^m99$) = HR 1574.

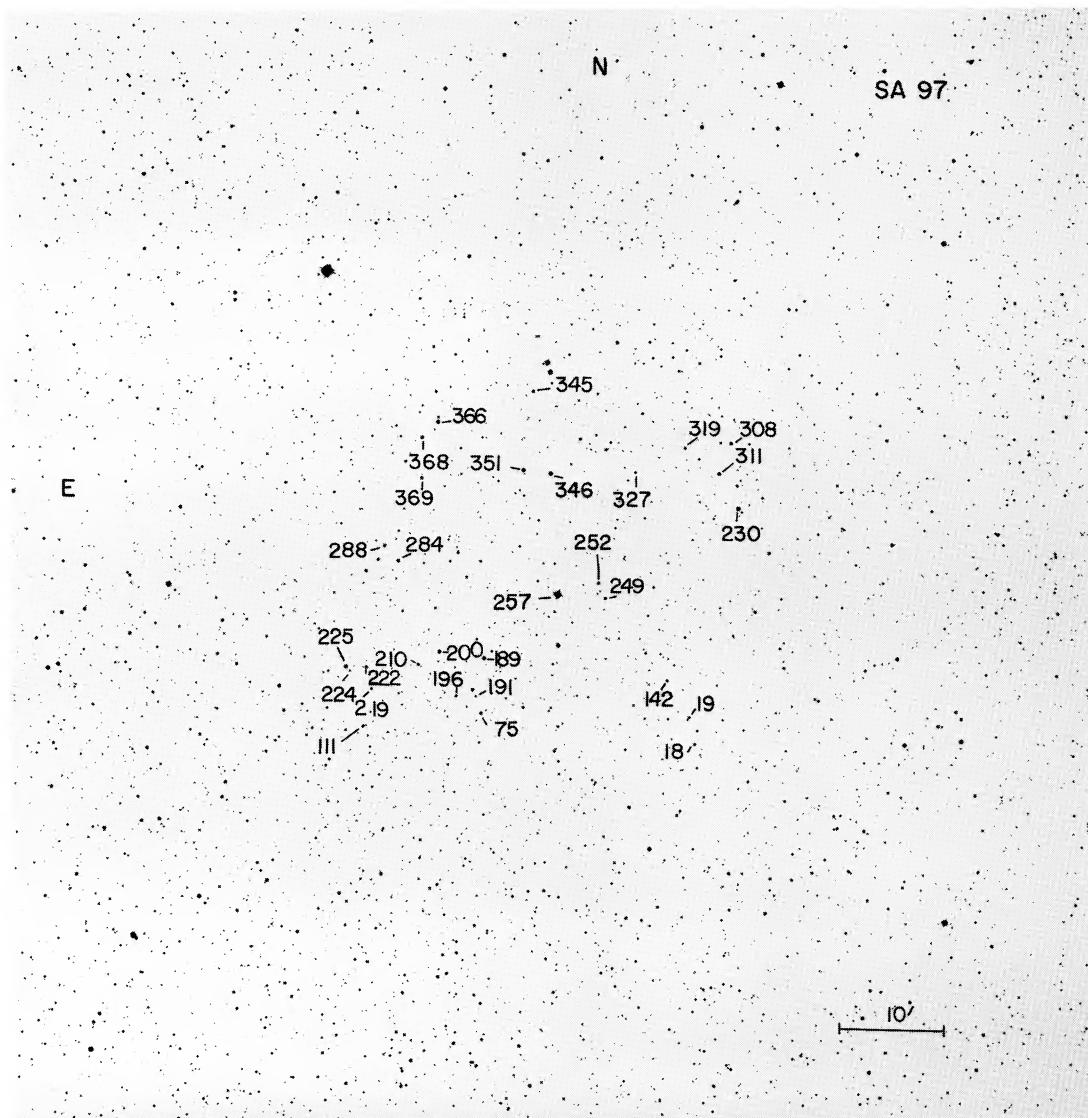


PLATE XII (Landolt, p. 959). The field of Selected Area 97. The central star is 97-257 = BD +0°1227 = GC 7505.
The very bright star in the upper left corner of the chart is HR 2103 = 60 Orionis.

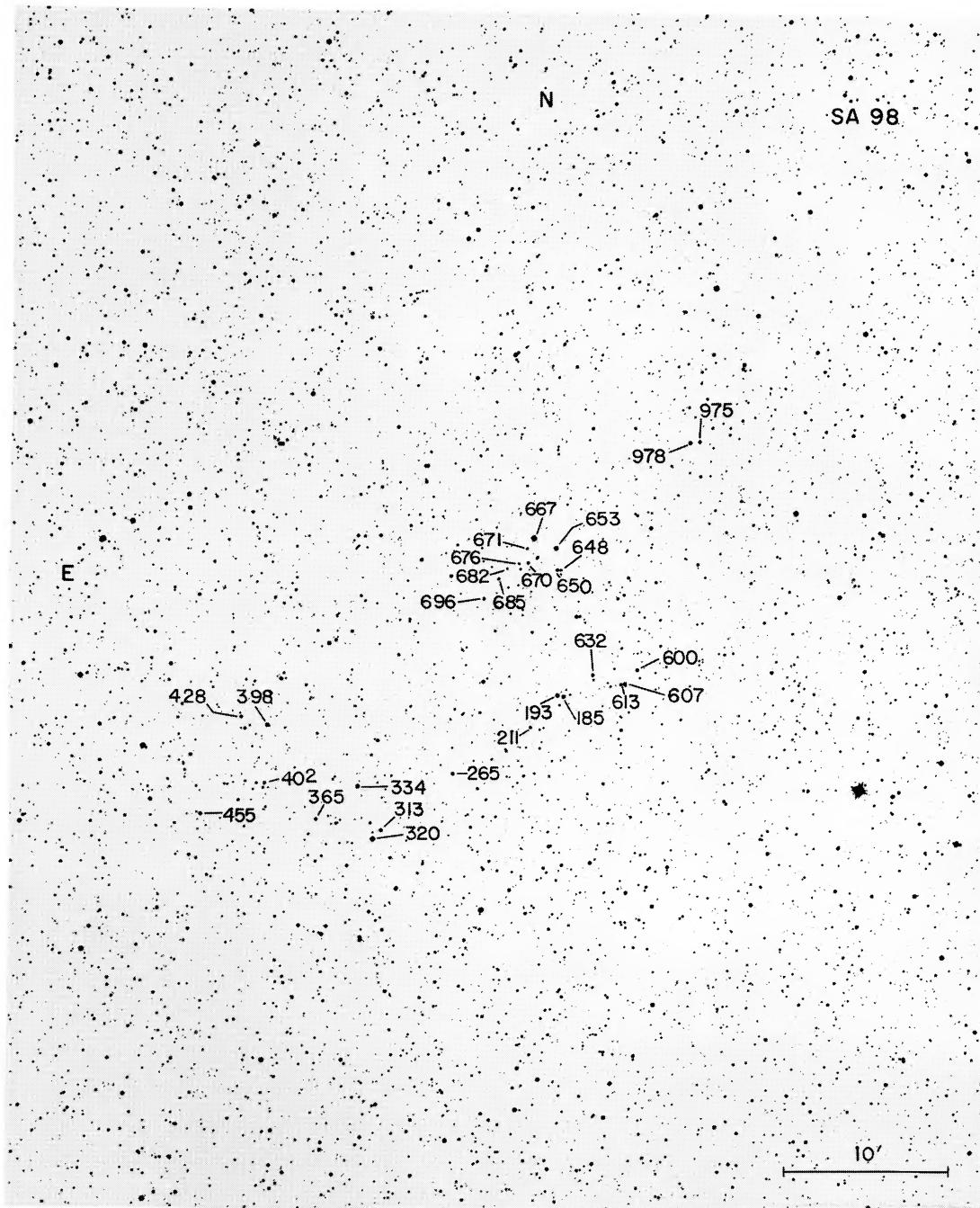


PLATE XIII (Landolt, p. 959). The field of Selected Area 98. The central star is 98-667 = BD $-0^{\circ}1468$ = HD 50209. The very bright star near the right edge of the field is HR 2530.

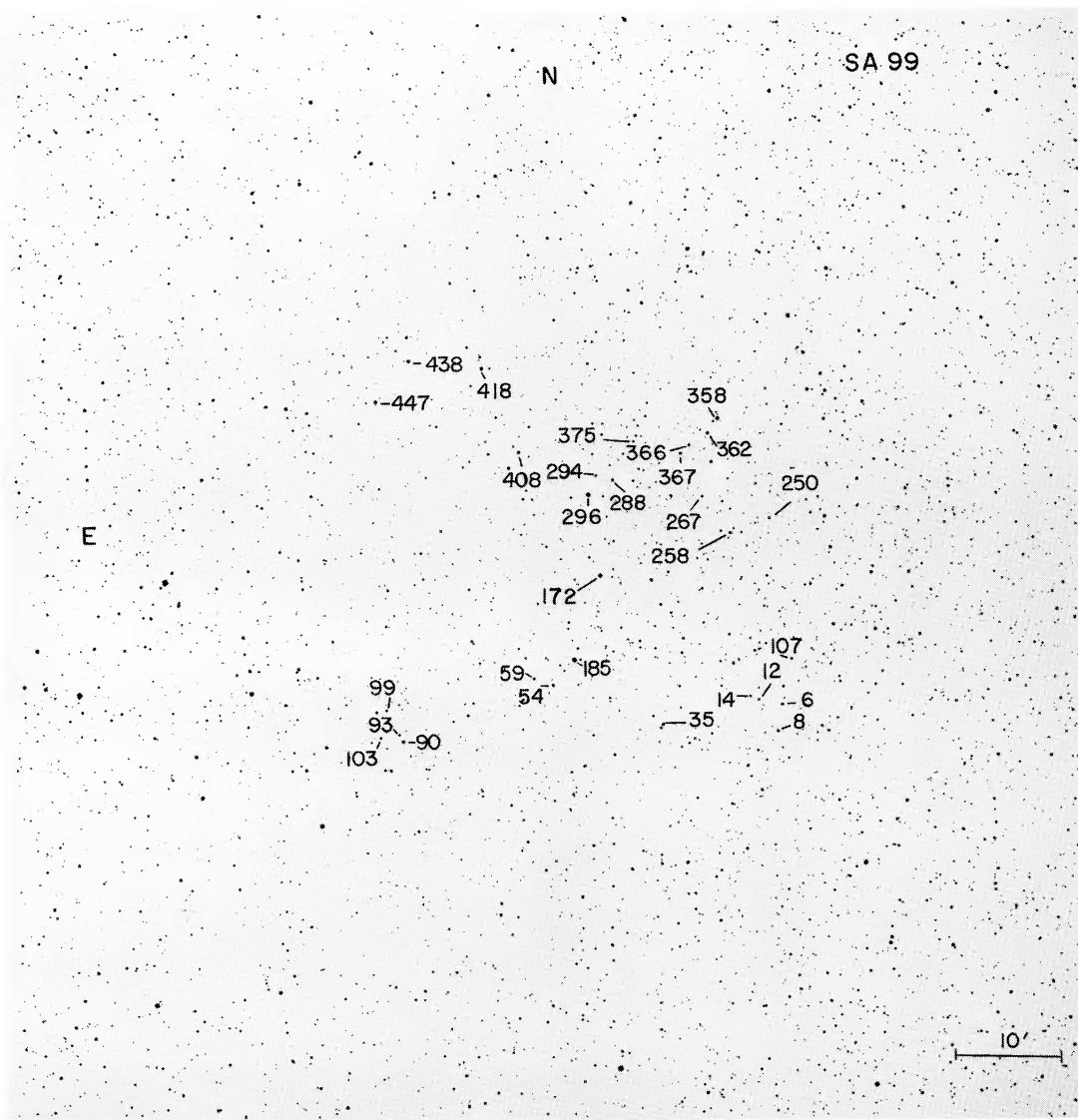


PLATE XIV (Landolt, p. 959). The field of Selected Area 99. The central star is 99-172 = BD $-0^{\circ}1853$ = HD 64605.

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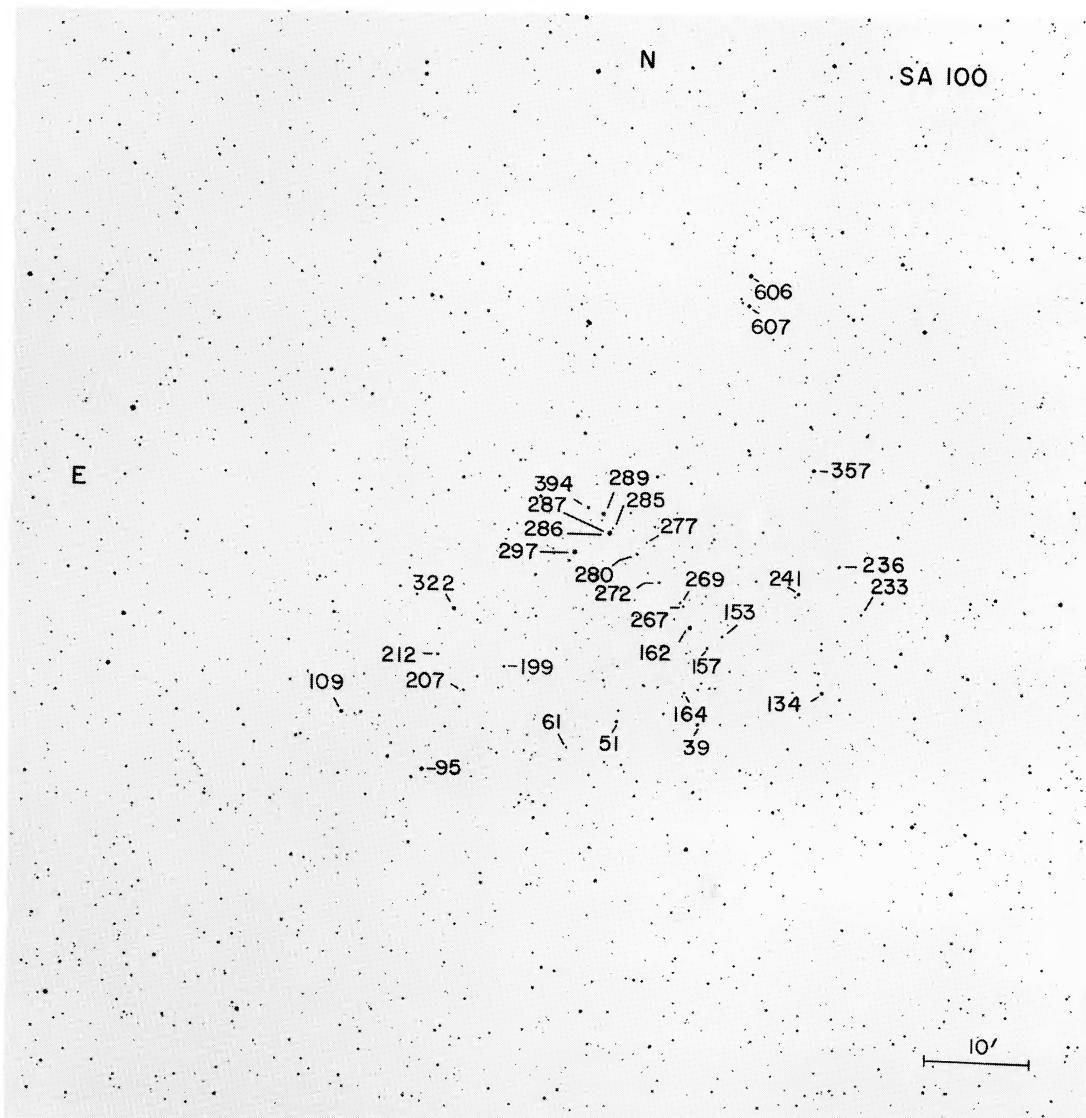


PLATE XV (Landolt, p. 959). The field of Selected Area 100. The central star is 100-297 = BD $-0^{\circ}2087$ = HD 76082.

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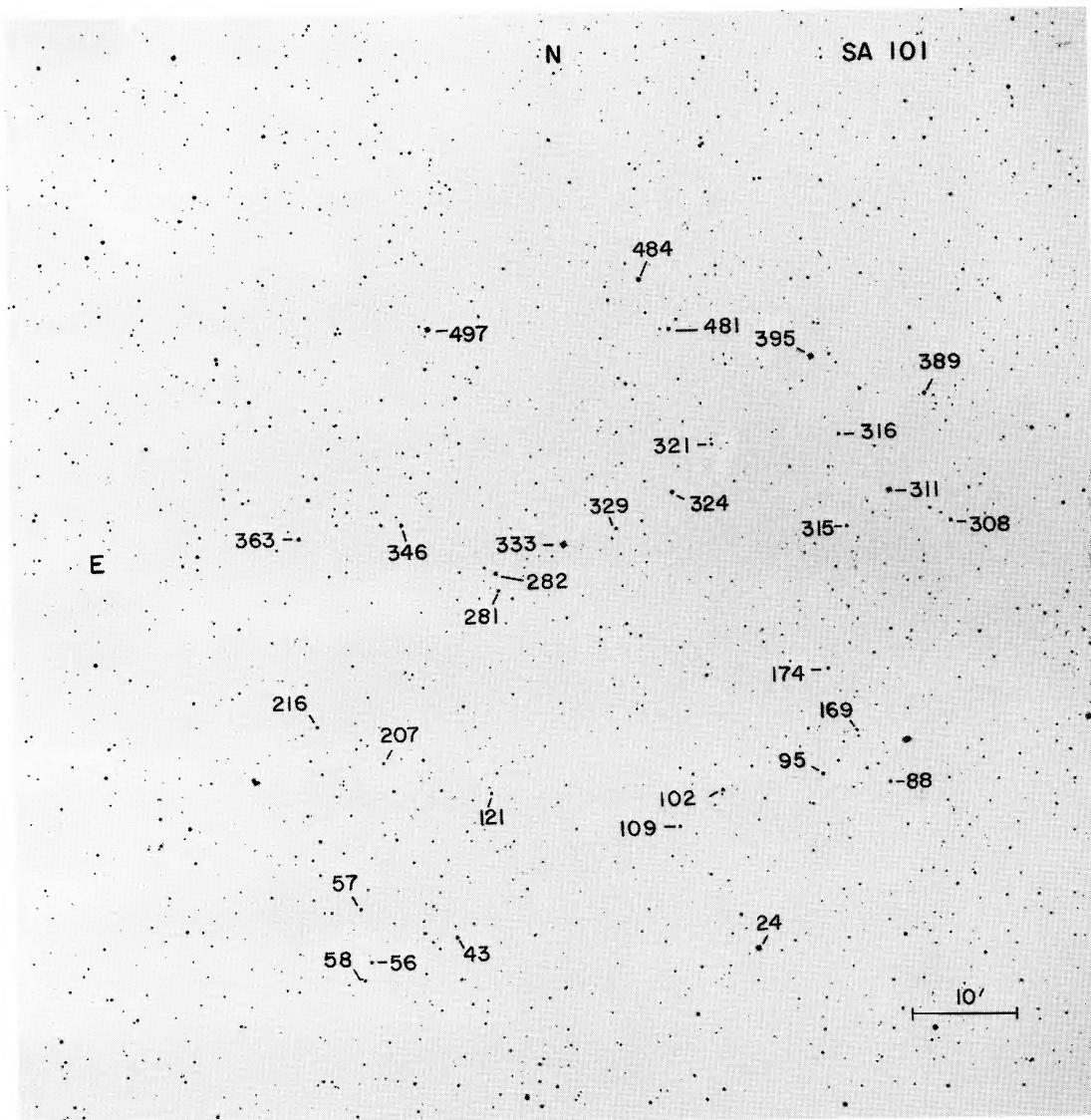


PLATE XVI (Landolt, p. 959). The field of Selected Area 101. The central star is 101-333 = BD +0°2588 = HD 86135.

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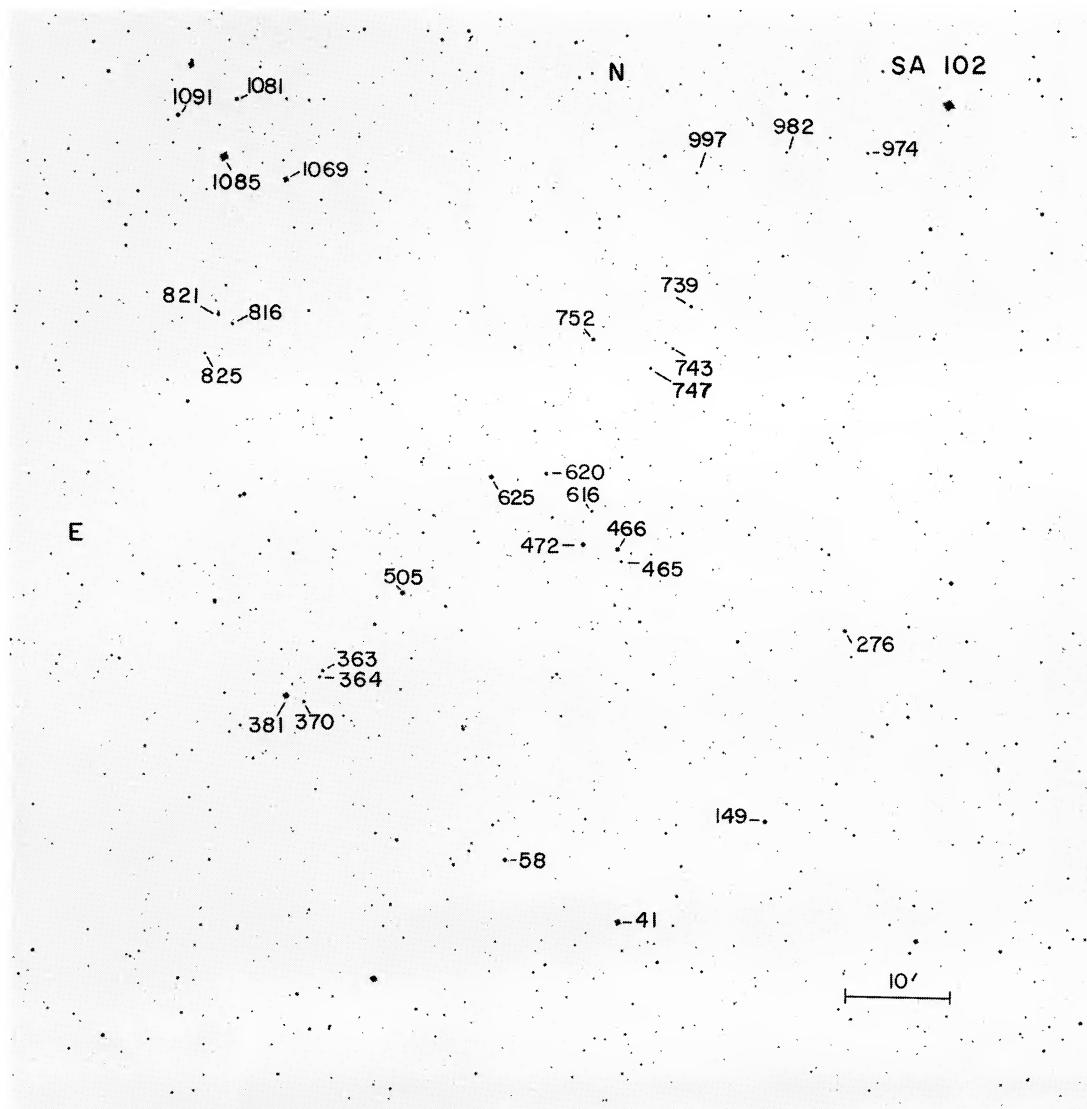


PLATE XVII (Landolt, p. 959). The field of Selected Area 102. The central star is 102-625 = BD $-0^{\circ}2389$ = HD 94616. Star 102-1085 is GC 15053, and the bright star northwest of 102-974 is HR 4245.

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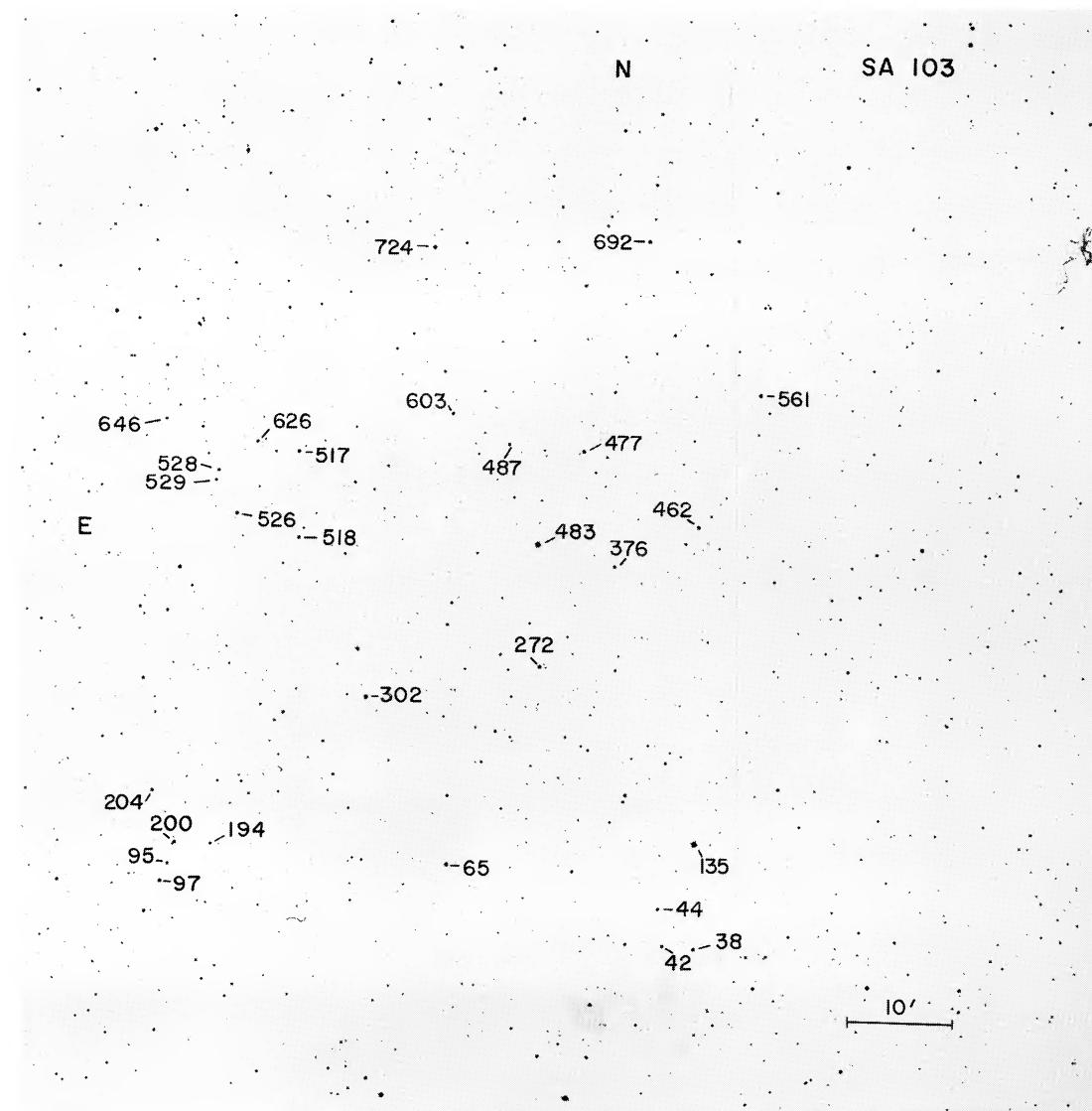


PLATE XVIII (Landolt, p. 959). The field of Selected Area 103. The central star is 103-483 = BD +0°2858 = HD 103486.

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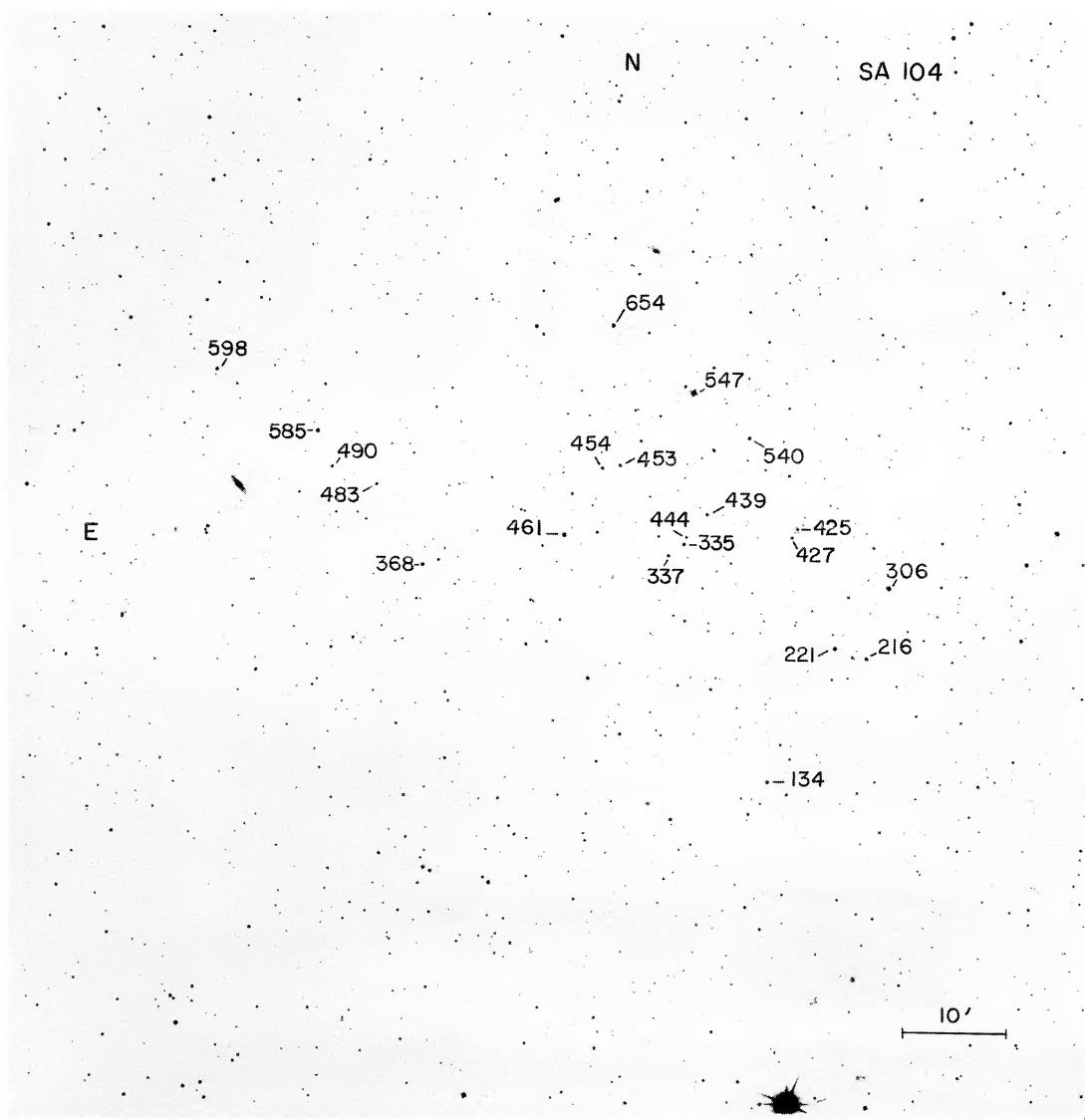


PLATE XIX (Landolt, p. 959). The field of Selected Area 104. The central star is 104-461 = BD +0°2976.
The bright star at the bottom edge of the field is HR 4825 = γ Virginis.

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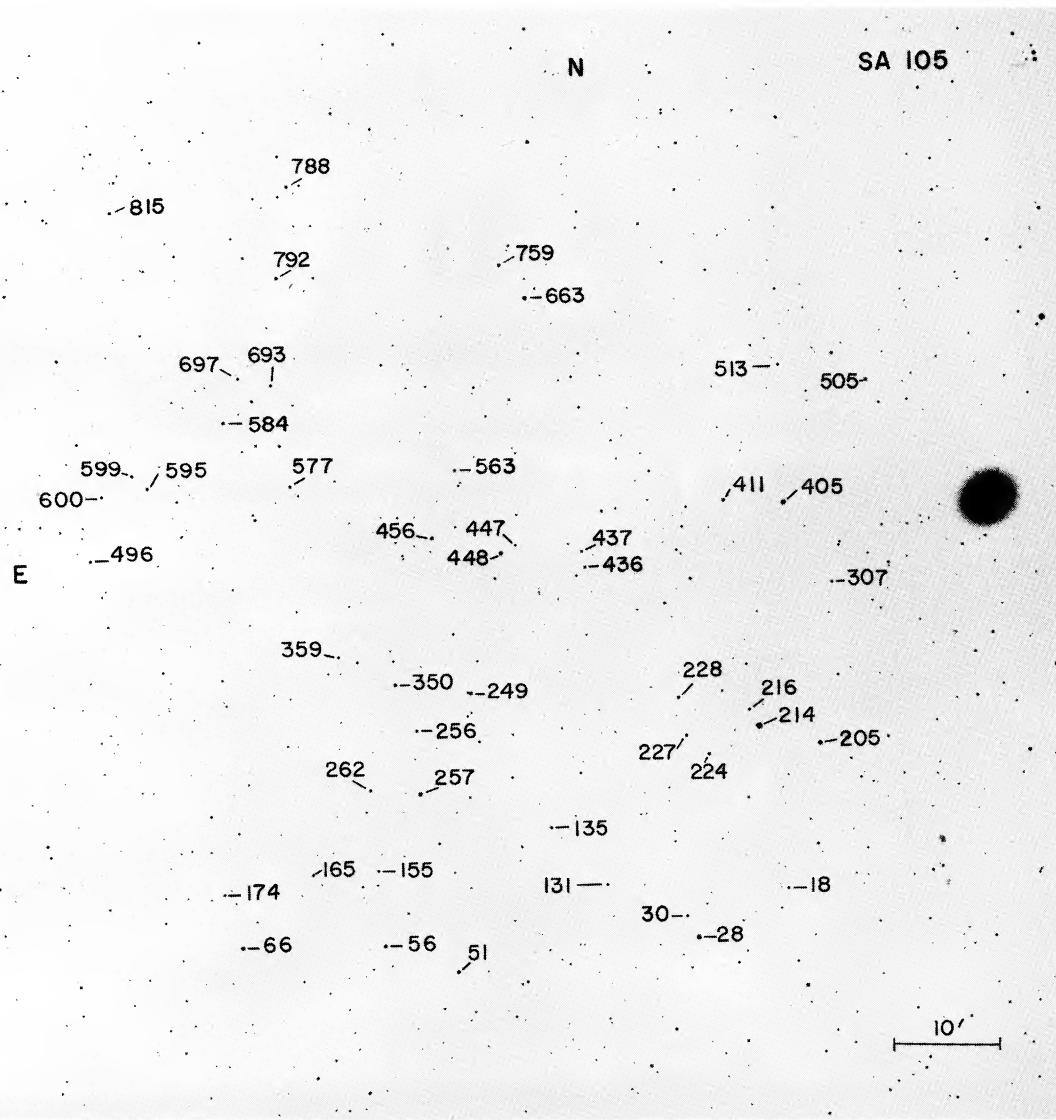


PLATE XX (Landolt, p. 959). The field of Selected Area 105. The central star is 105-448 = BD +0°3084 = HD 118579.
The bright star at the right edge of the field is HR 5107 = ζ Virginis.

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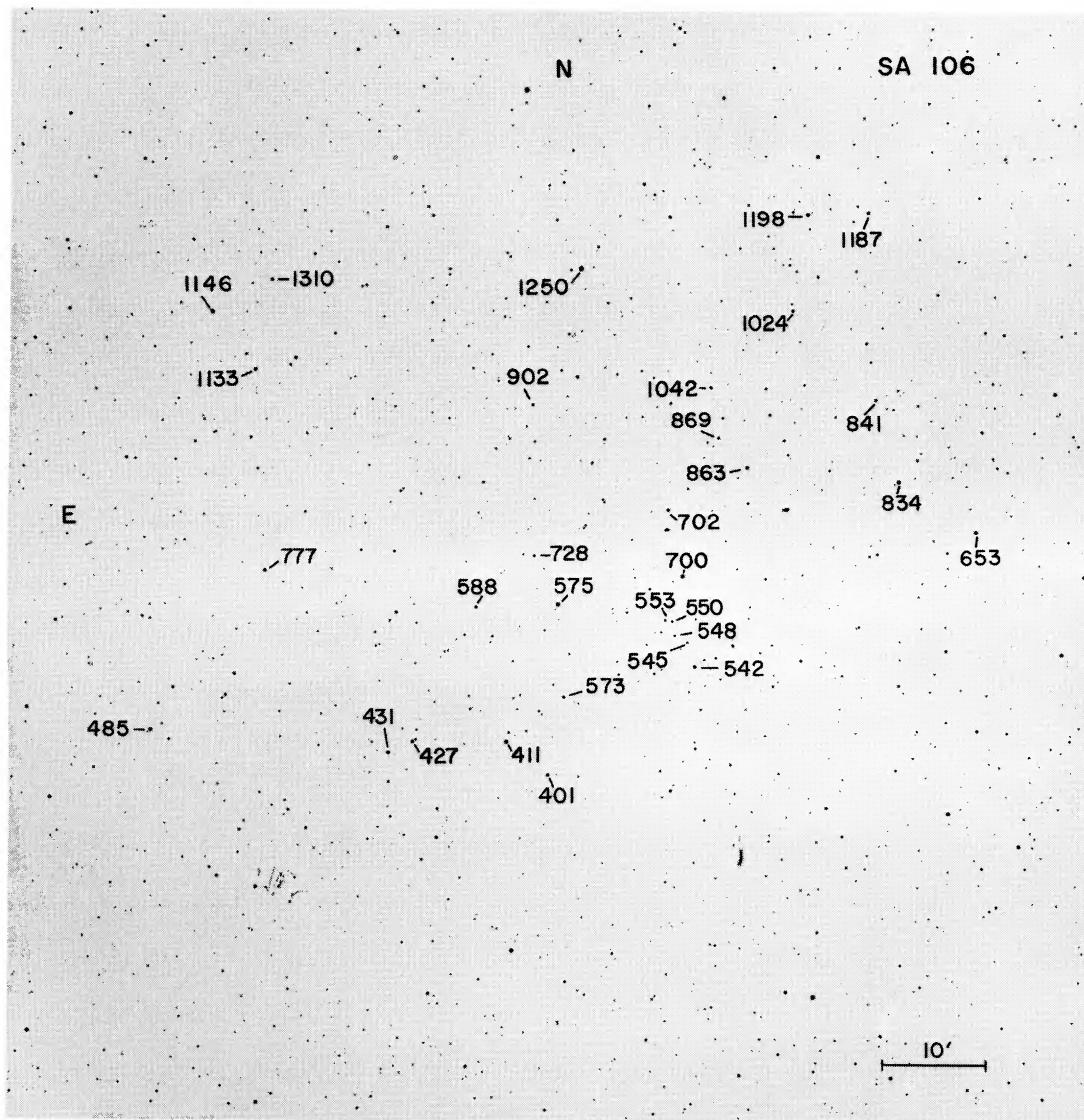


PLATE XXI (Landolt, p. 959). The field of Selected Area 106. The central star is 106-575 = BD +0°3224.

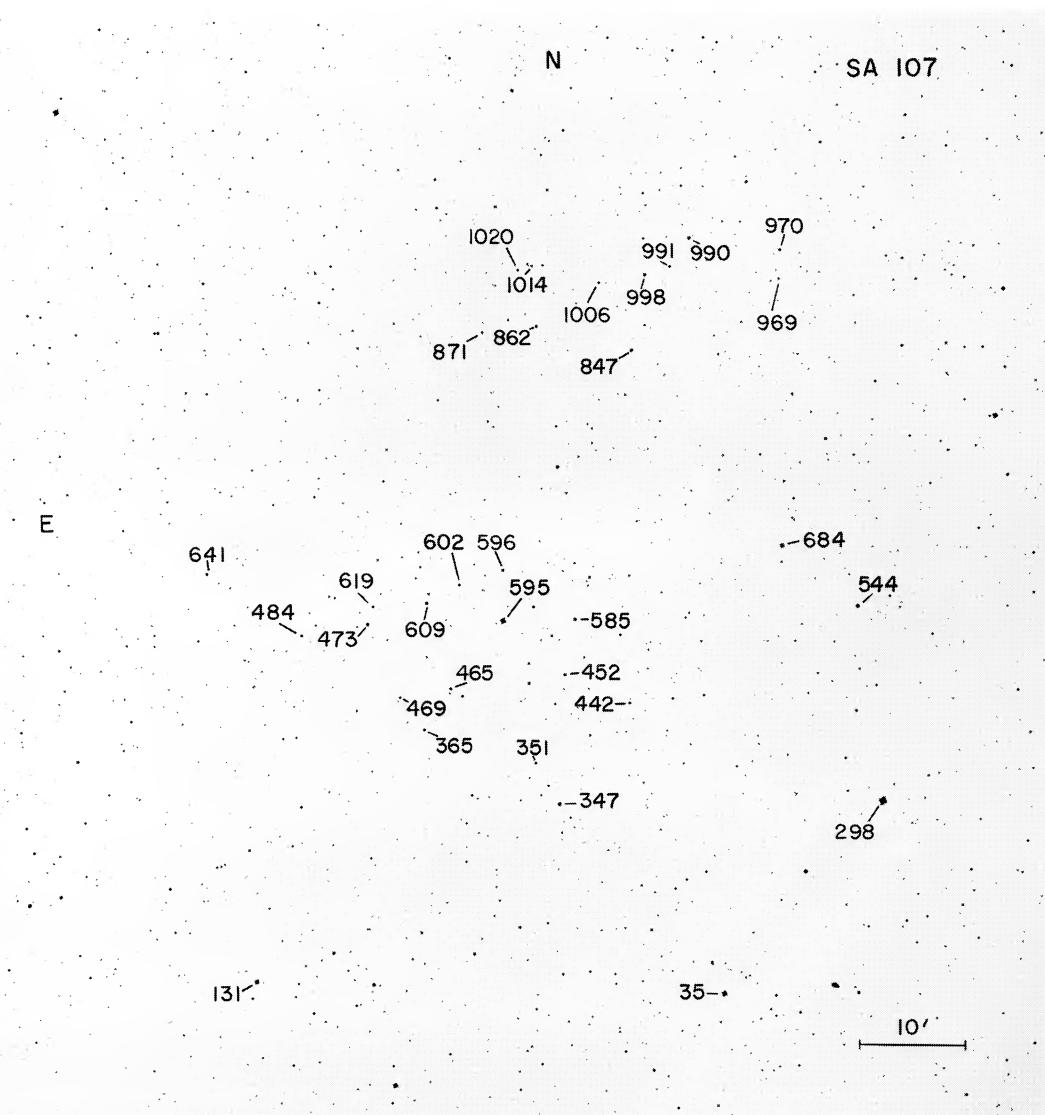


PLATE XXII (Landolt, p. 959). The field of Selected Area 107. The central star is 107-595 = BD +0°3387 = HD 139590.
The bright star 107-298 is GC 20980.

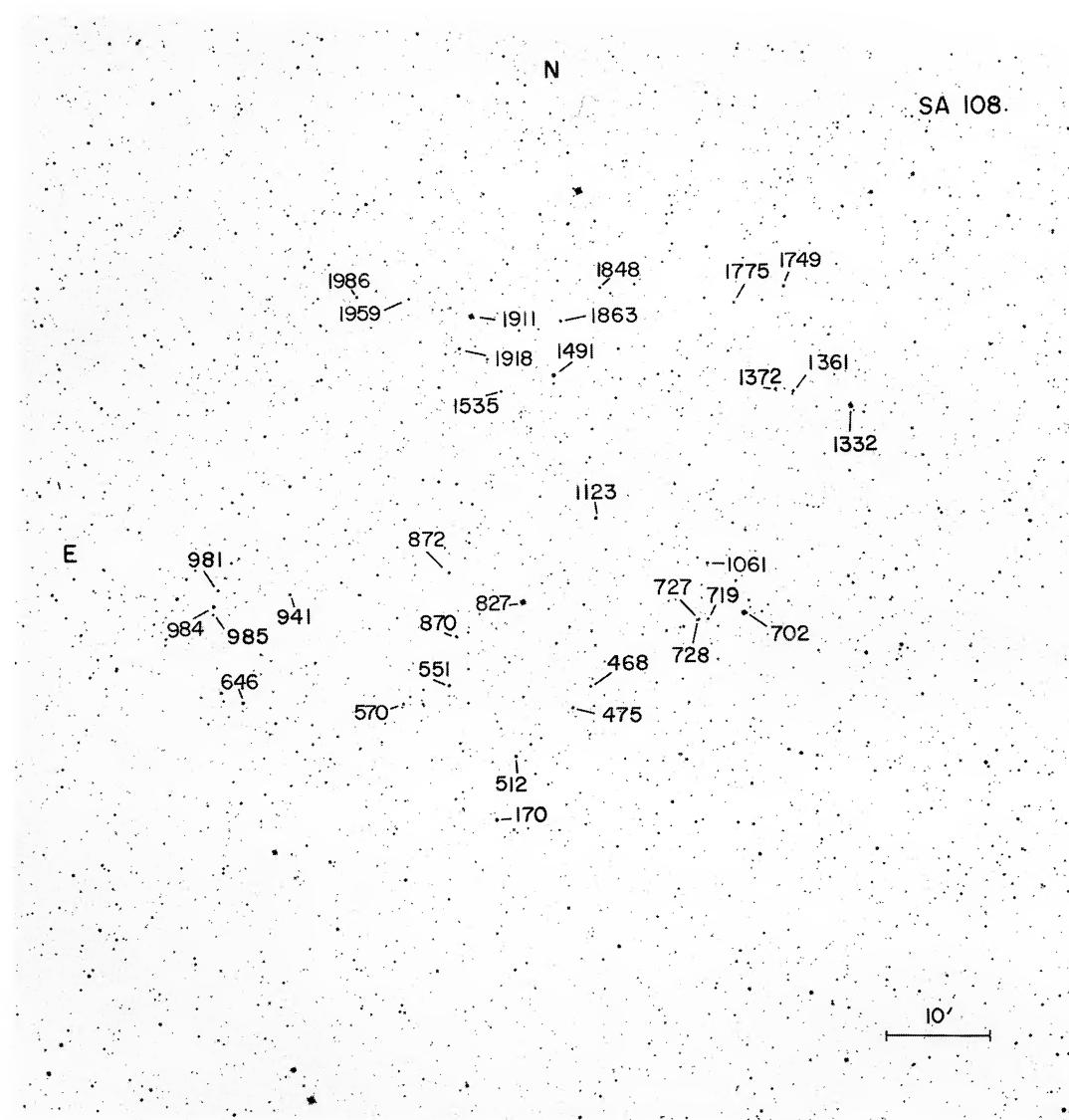


PLATE XXIII (Landolt, p. 959). The field of Selected Area 108. The central star is 108-827 = BD $-0^{\circ}3148$ = HD 149845.

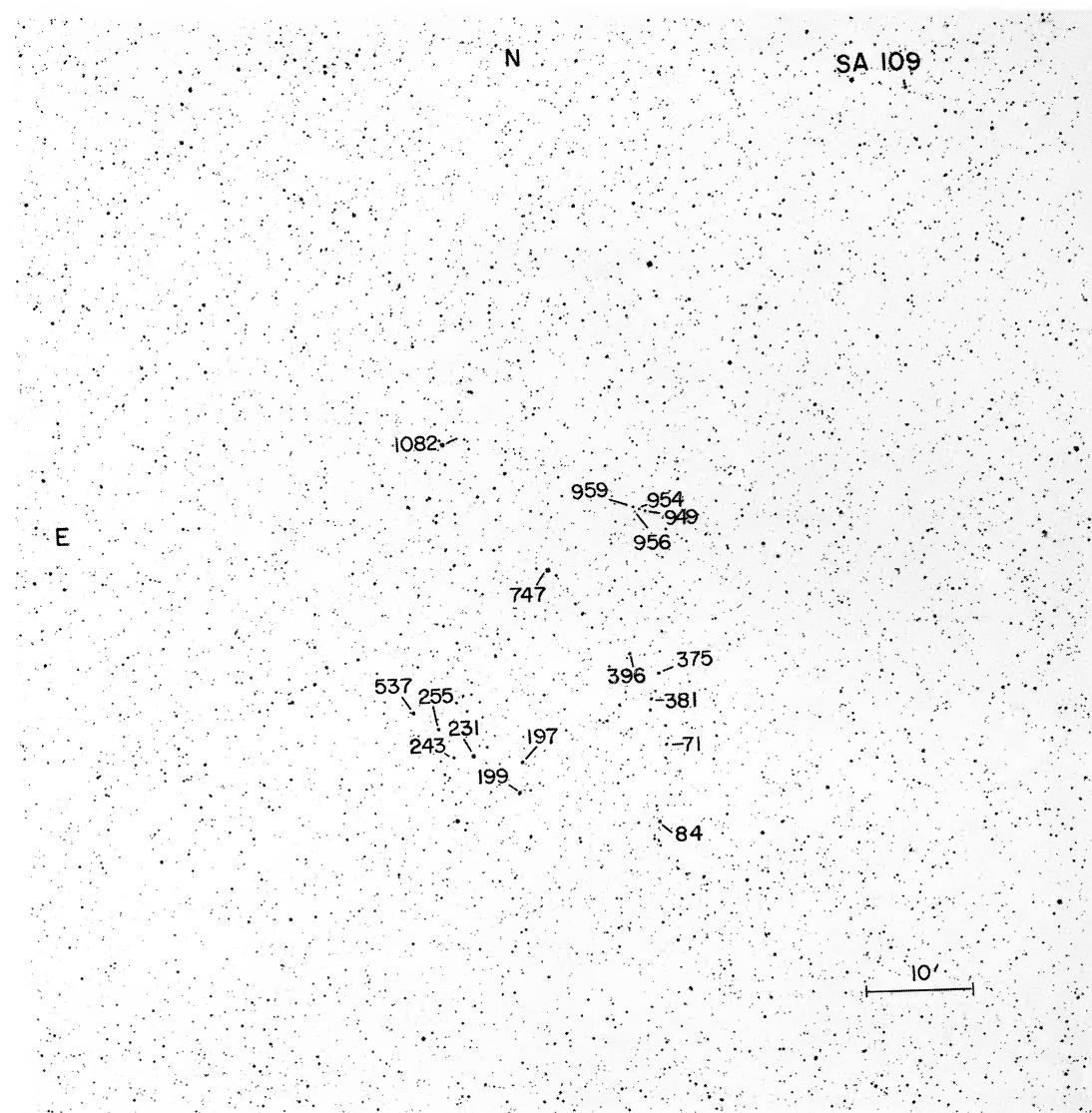


PLATE XXIV (Landolt, p. 959). The field of Selected Area 109. The central star is 109-747 = BD $-0^{\circ}3352$ = HD 161304.

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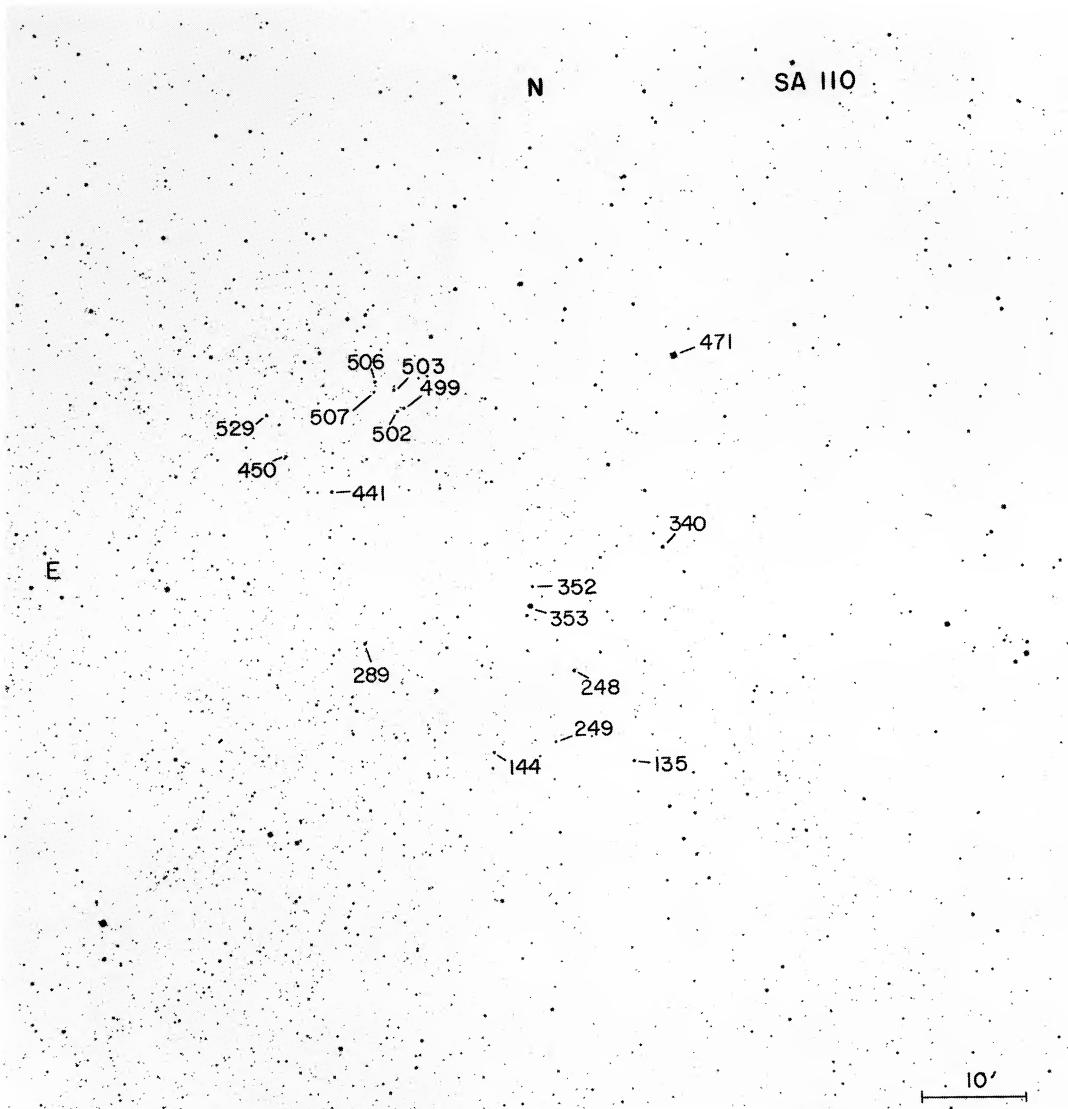


PLATE XXV (Landolt, p. 959). The field of Selected Area 110. The central star is 110-353 = BD +0°3995 = HD 172829 = HK Aq1. The bright star 110-471 is HD 172651.

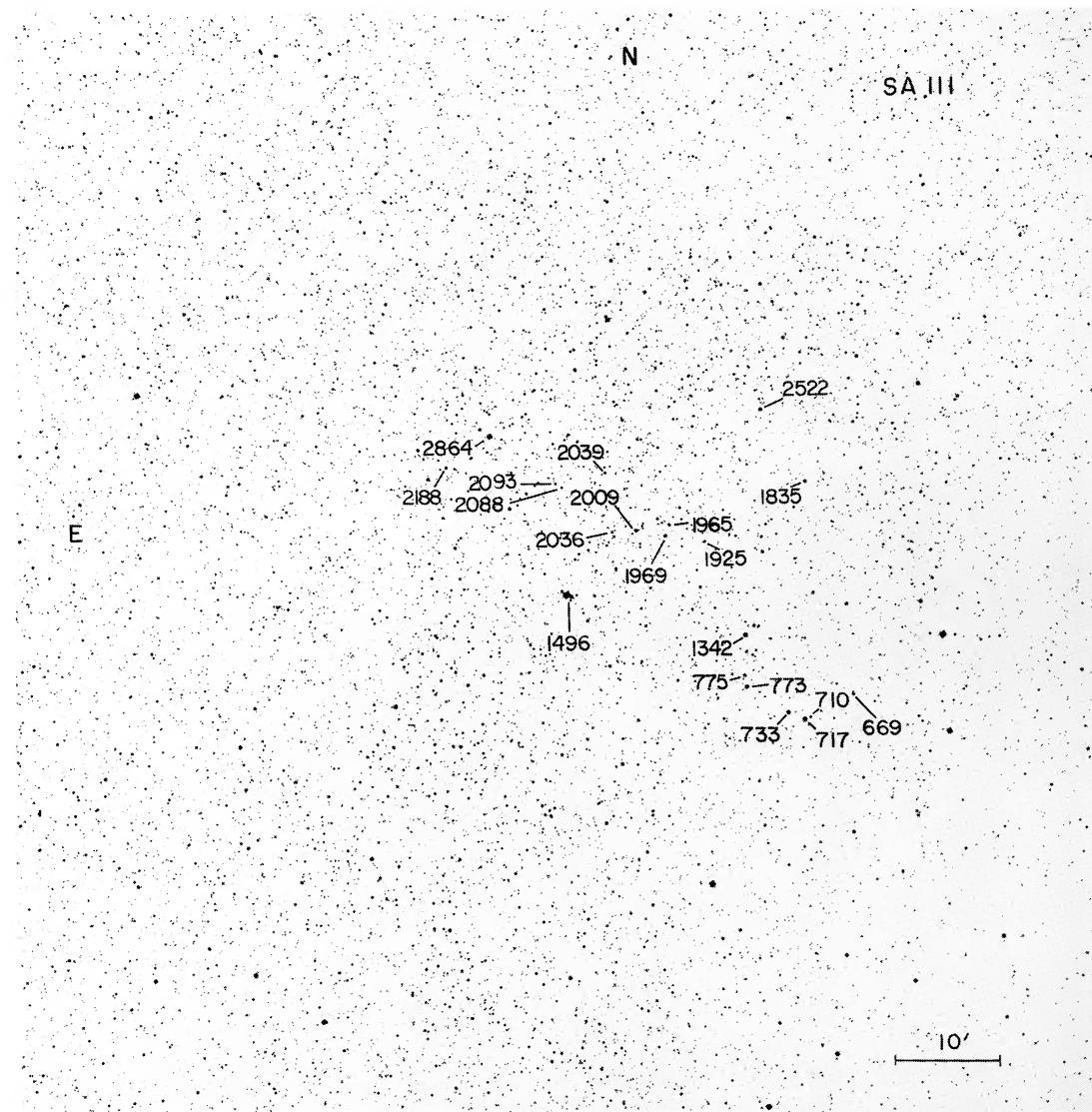


PLATE XXVI (Landolt, p. 959). The field of Selected Area 111. The central star is 111-1496 = BD +0°4265 = GC 27160

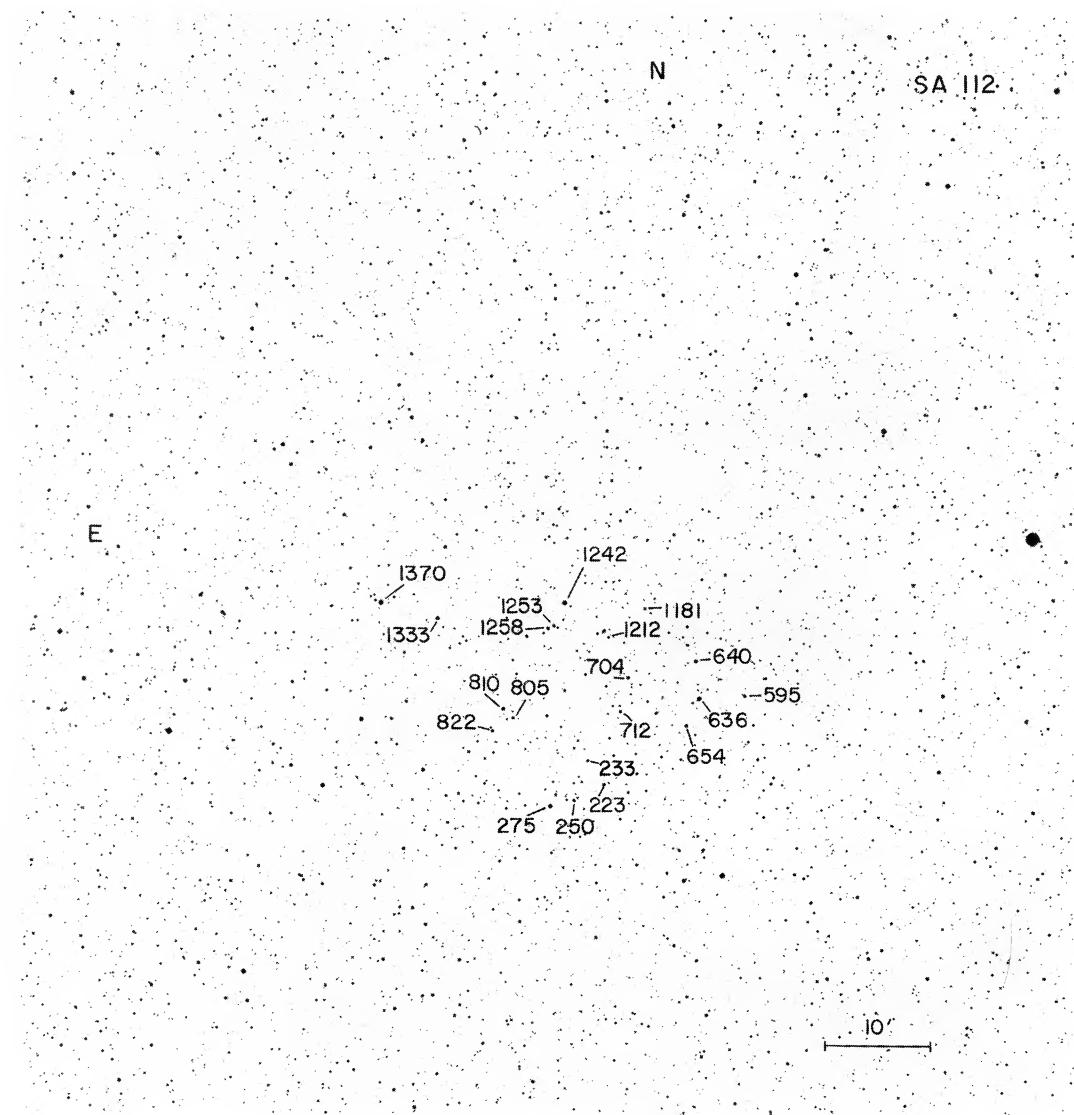


PLATE XXVII (Landolt, p. 959). The field of Selected Area 112. The central star is 112-1242 = BD $-0^{\circ}4072$ = HD 197232. The bright star at the right edge of the field is HR 7897 = 1 Aquarius.

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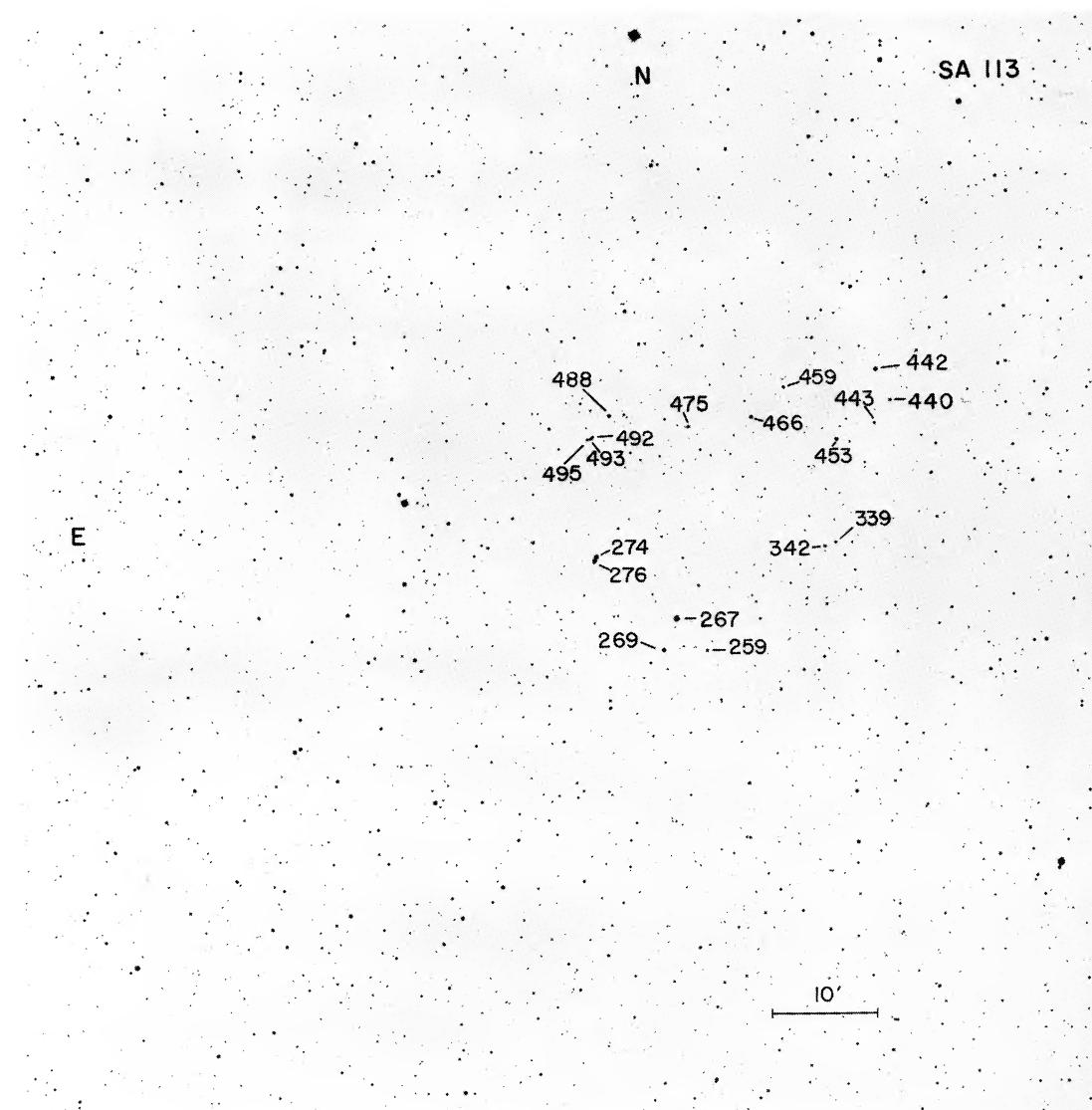


PLATE XXVIII (Landolt, p. 959). The field of Selected Area 113. The central star is 113-274 = BD -0°4251 = HD 206488. The bright star at the top edge of the field is HR 8287 = 26 Aquarius.

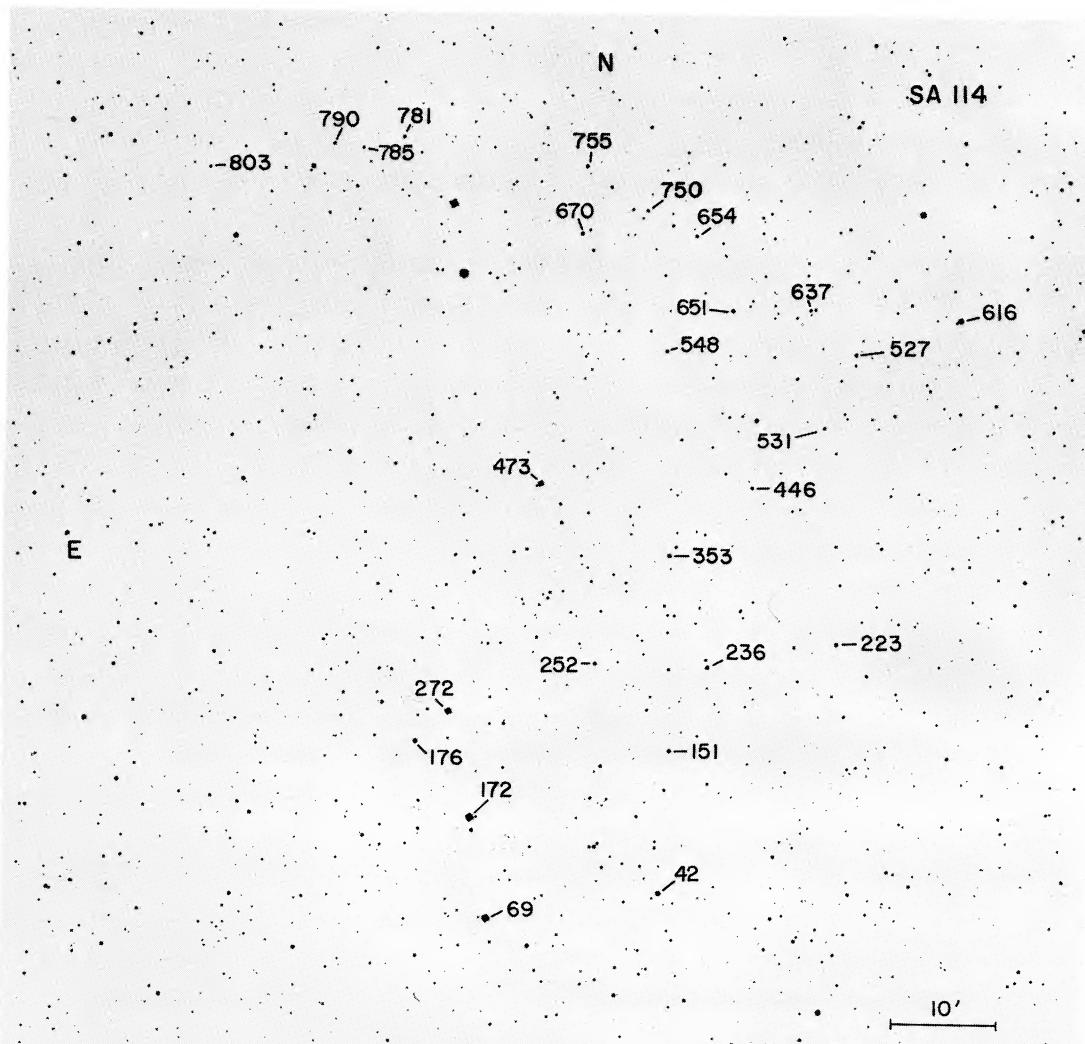


PLATE XXIX (Landolt, p. 959). The field of Selected Area 114. The central star is 114-473 = BD +0°4911 = HD 215044. The bright star between 114-785 and 114-670 is GC 31695. The black image just beneath GC 31695 is an emulsion defect incurred during the copying process.

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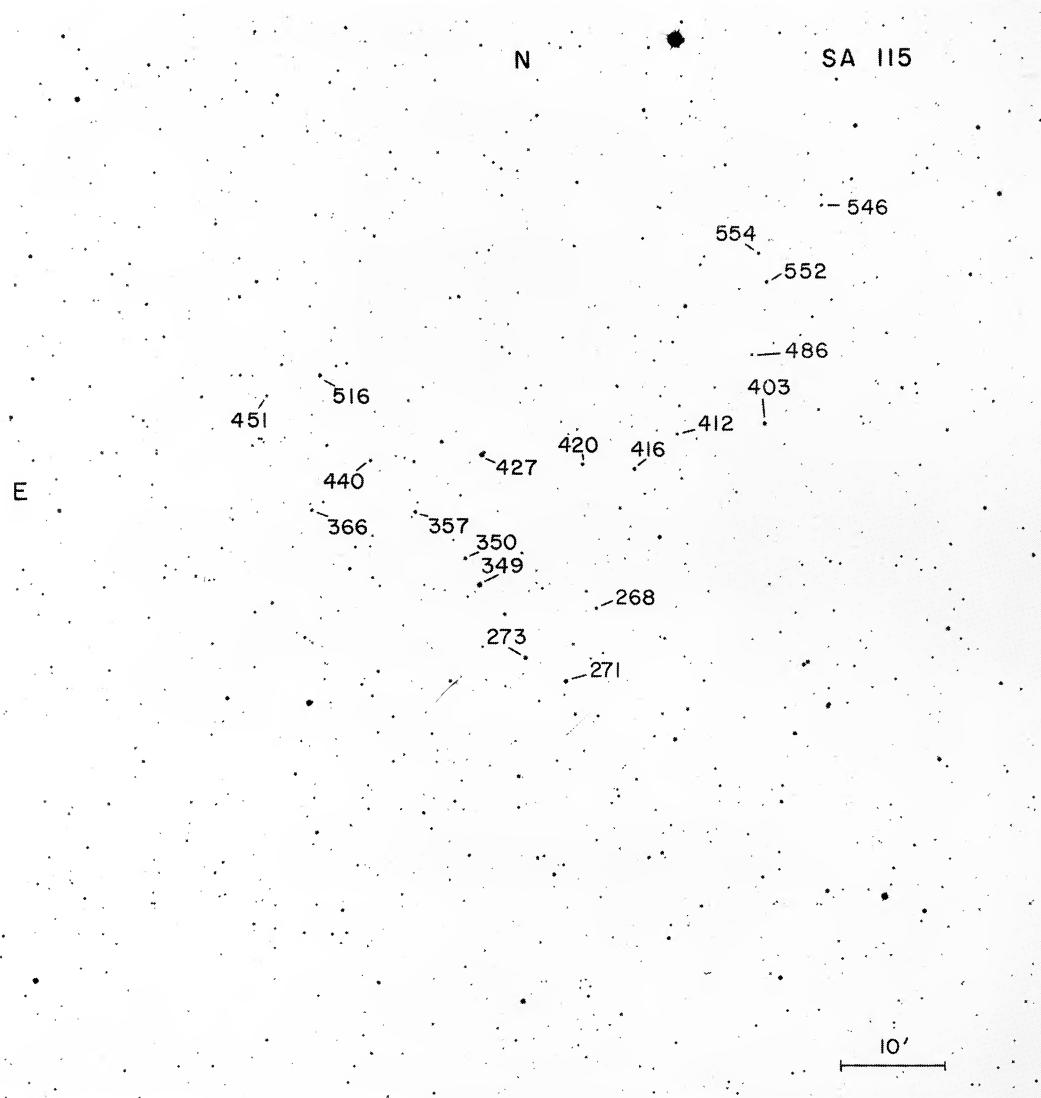
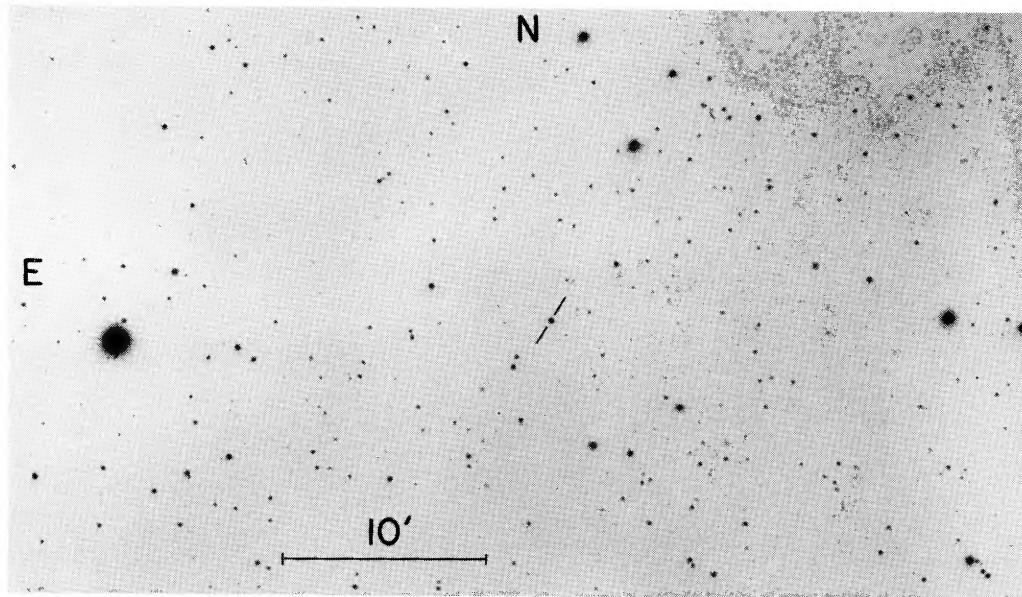
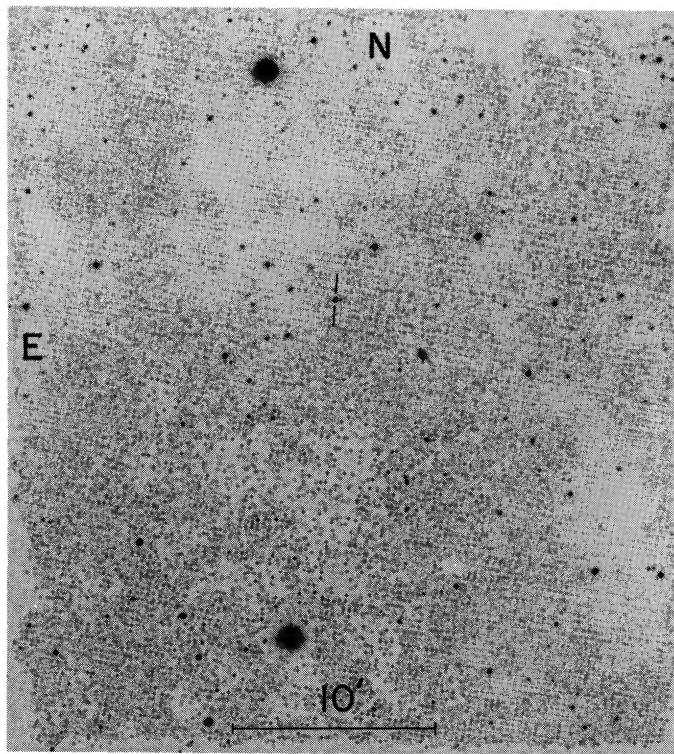


PLATE XXX (Landolt, p. 959). The field of Selected Area 115. The central star is 115-349 = BD +0°5039 = HD 222733.
The bright star near the top edge of the field is HR 8984 = λ Piscium.

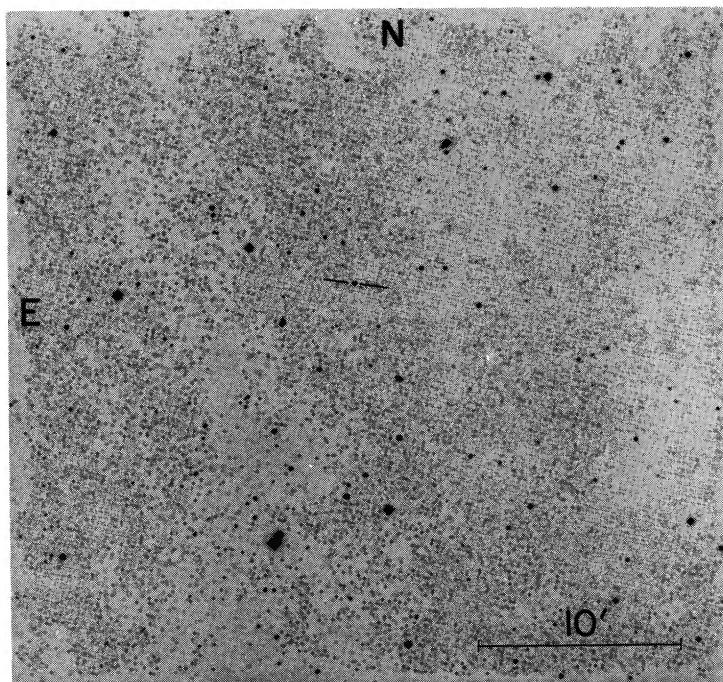


(a) Feige 11

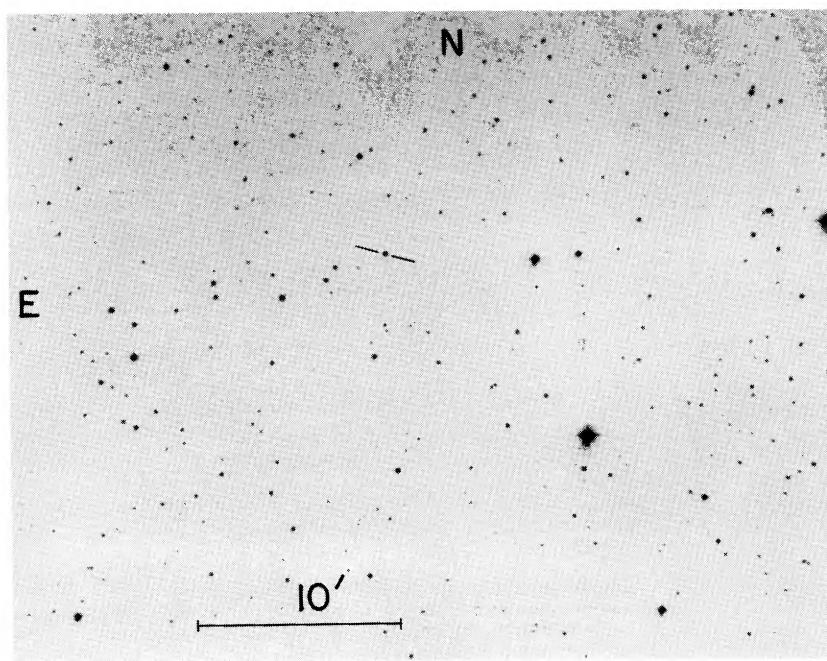


(b) Feige 16

PLATE XXXI (Landolt, p. 959). (a) The field of the star Feige 11. The bright star (\sim 8th mag) near the left edge of the field is BD $+3^{\circ}155$ = HD 6464. (b) The field for the star Feige 16. The top bright star (\sim 8.5 mag) is BD $-7^{\circ}319$ = HD 11699. The bottom bright star (\sim 9.0 th mag) is BD $-7^{\circ}318$ = HD 11700. © Copyright National Geographic Society-Palomar Observatory Sky Survey.

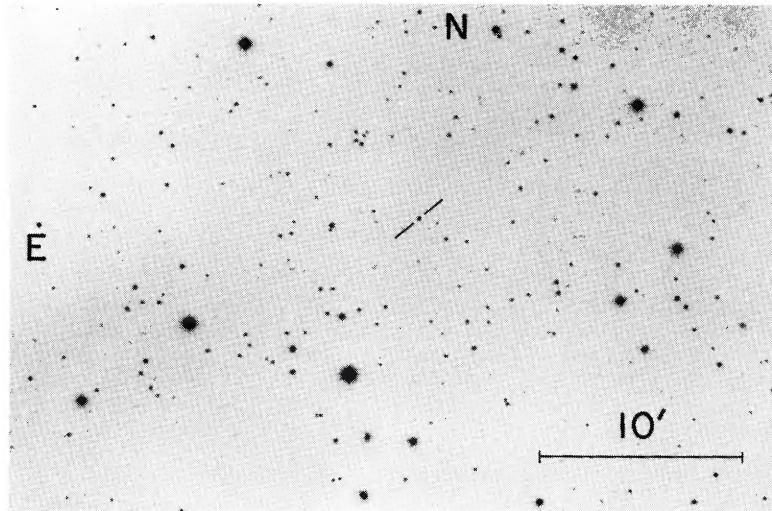


(a) Feige 22

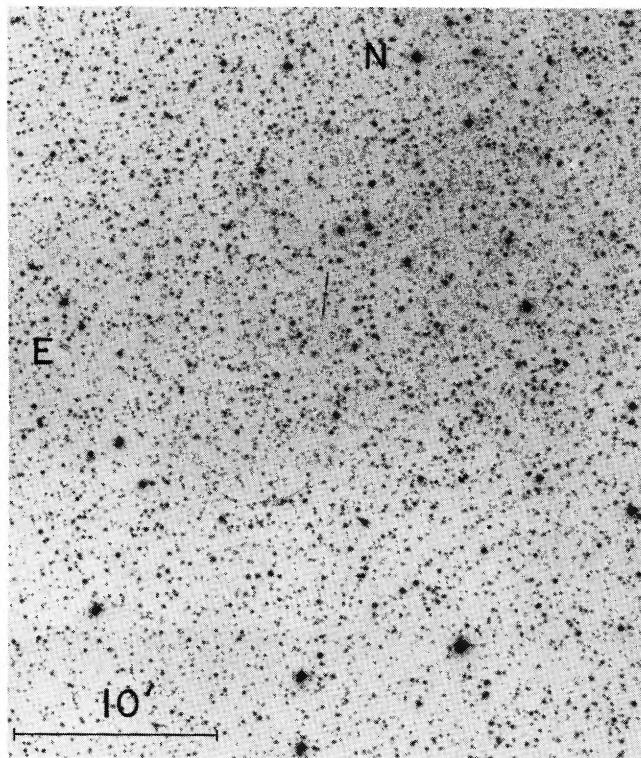


(b) Feige 24

PLATE XXXII (Landolt, p. 959). (a) The field for the star Feige 22, which lies between the two ~ 9.5 mag stars BD $+4^{\circ}406$ and BD $+4^{\circ}408$. (b) The field for the star Feige 24, which falls just to the left of the ~ 9.3 mag star BD $+3^{\circ}357$. © Copyright National Geographic Society-Palomar Observatory Sky Survey.



(a) GD 50



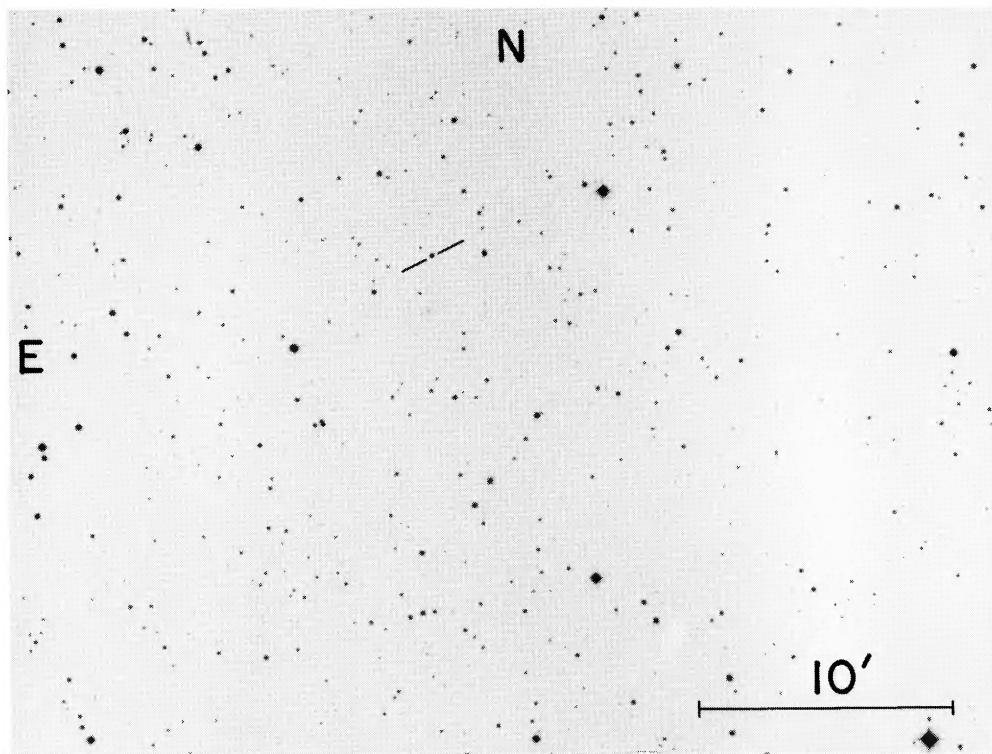
(b) GD 71

PLATE XXXIII (Landolt, p. 959). (a) The field for the star GD 50, which is approximately 8 arcmin north-northwest of the 9th mag star BD $-1^{\circ}537$. (b) The field for the star GD 71, which is approximately 3 arcmin south-southeast of the 9.5 mag star BD $+15^{\circ}961$. © Copyright National Geographic Society-Palomar Observatory Sky Survey.

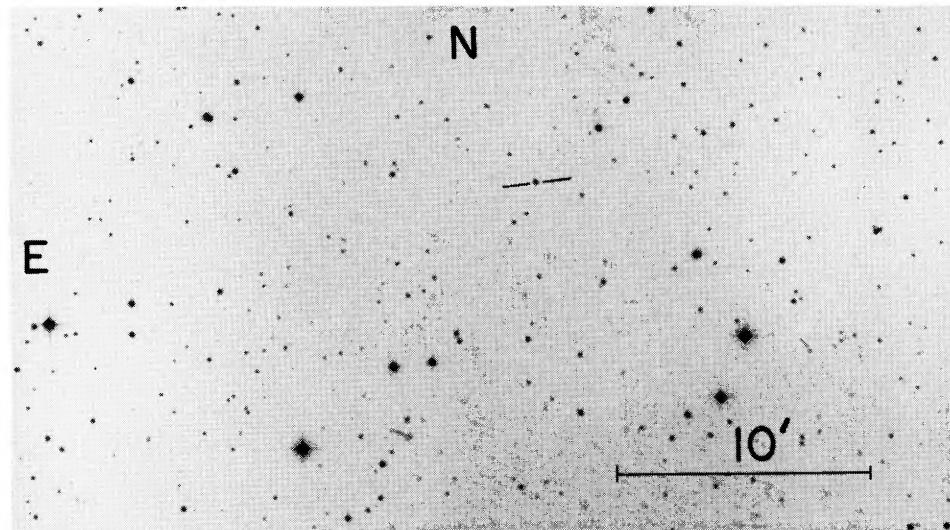
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(a) GD 108



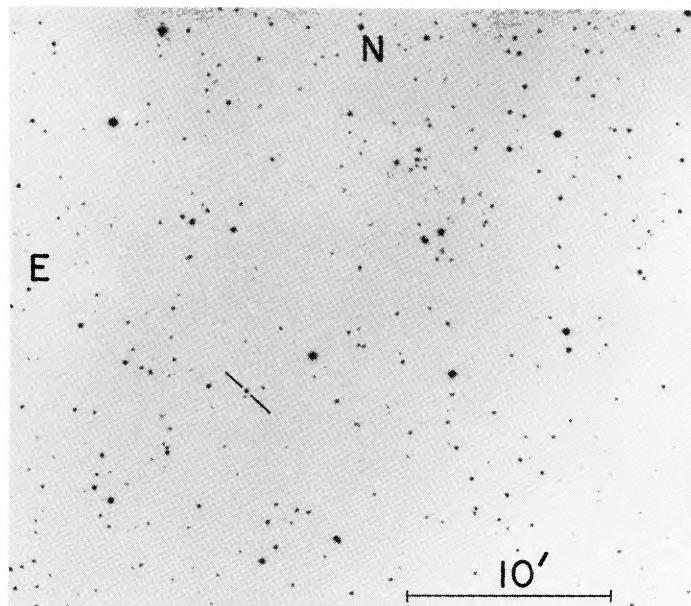
(b) G162-66

PLATE XXXIV (Landolt, p. 959). (a) The field for the star GD 108, which is approximately 7 arcmin east-southeast of BD $-6^{\circ}3055$. (b) The field for the star G162-66, which is northeast of the stars BD $-10^{\circ}3082$ and BD $-11^{\circ}2904$ by 7 and 10 arcmin, respectively.
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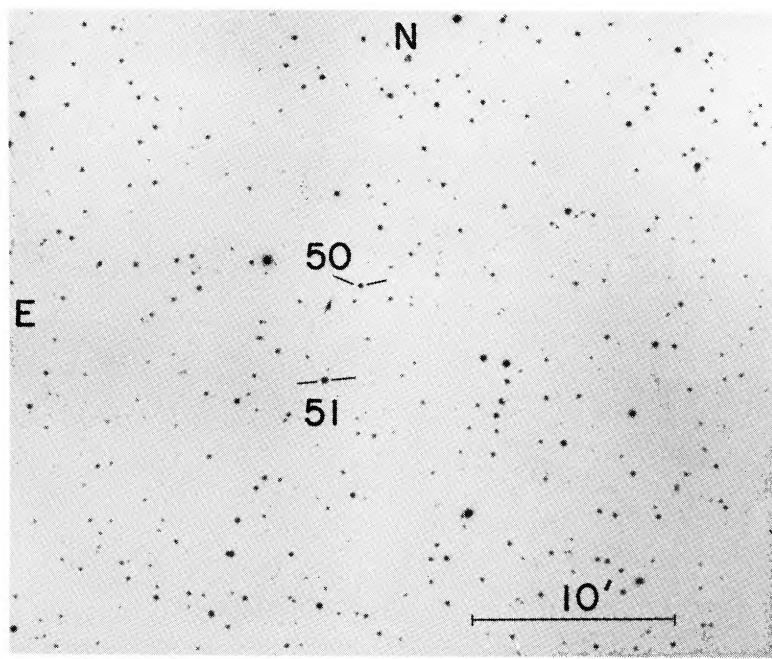
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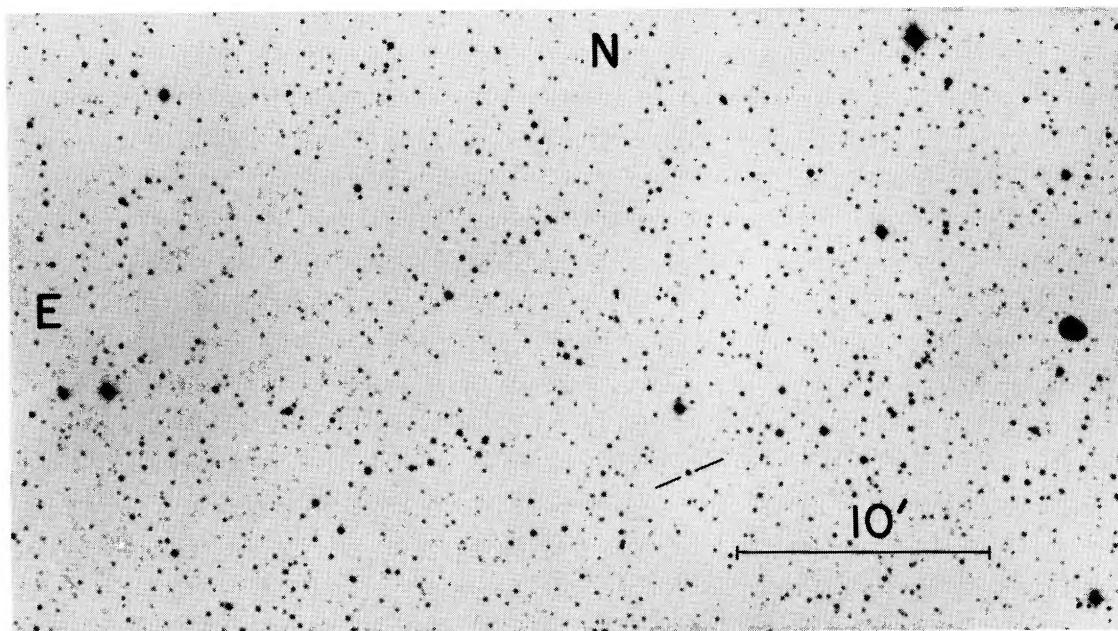


(a) G163-27

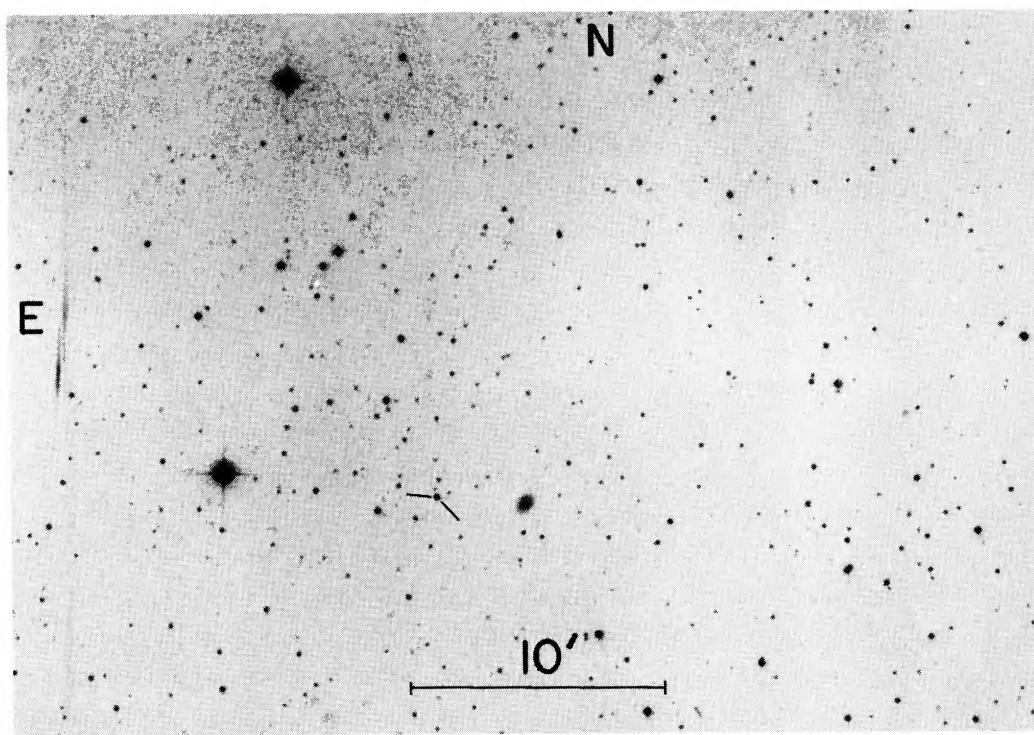


(b) G163-50, 51

PLATE XXXV (Landolt, p. 959). (a) The field for the star G163-27, which is approximately 4 arcmin southeast of BD $-6^{\circ}3271$. (b) The field for the stars G163-50 and G163-51; they lie approximately 9 min northeast of BD $-4^{\circ}3015$ and BD $-4^{\circ}3016$. © Copyright National Geographic Society-Palomar Observatory Sky Survey.



(a) G153 - 41



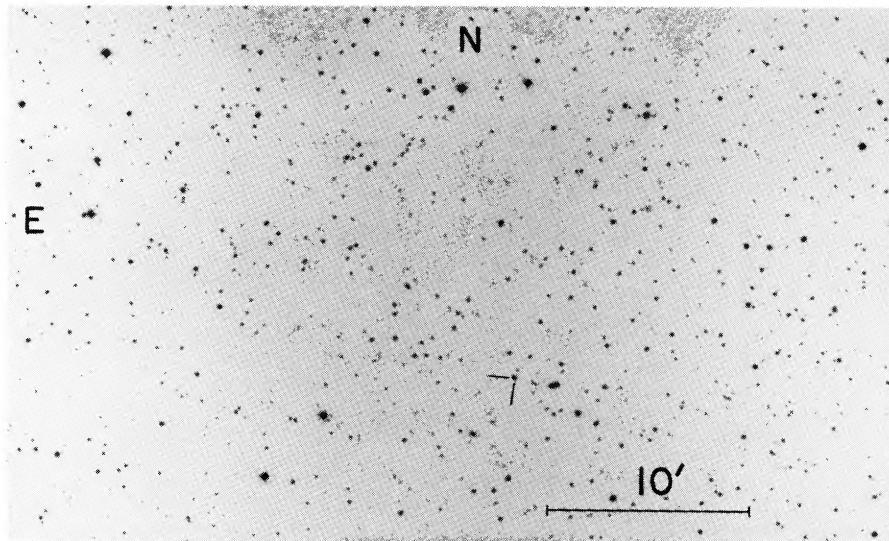
(b) Feige 108

PLATE XXXVI (Landolt, p. 959). (a) The field for the star G153-41, which is approximately 2.5 arcmin south of BD $-15^{\circ}4293$. The spot 16 arcmin northwest of G153-41 is a defect on the original Palomar Atlas Print. (b) The field for the star Feige 108, which is approximately 8 arcmin west of BD $-2^{\circ}5918$. © Copyright National Geographic Society-Palomar Observatory Sky Survey.

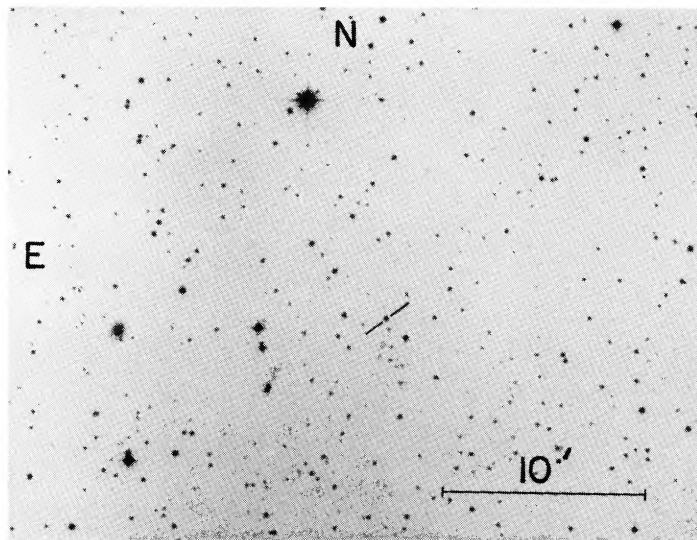


G21-15

PLATE XXXVII (Landolt, p. 959). The field for the star G21-15, which is approximately 11 arcmin northeast of BD +3°3713.
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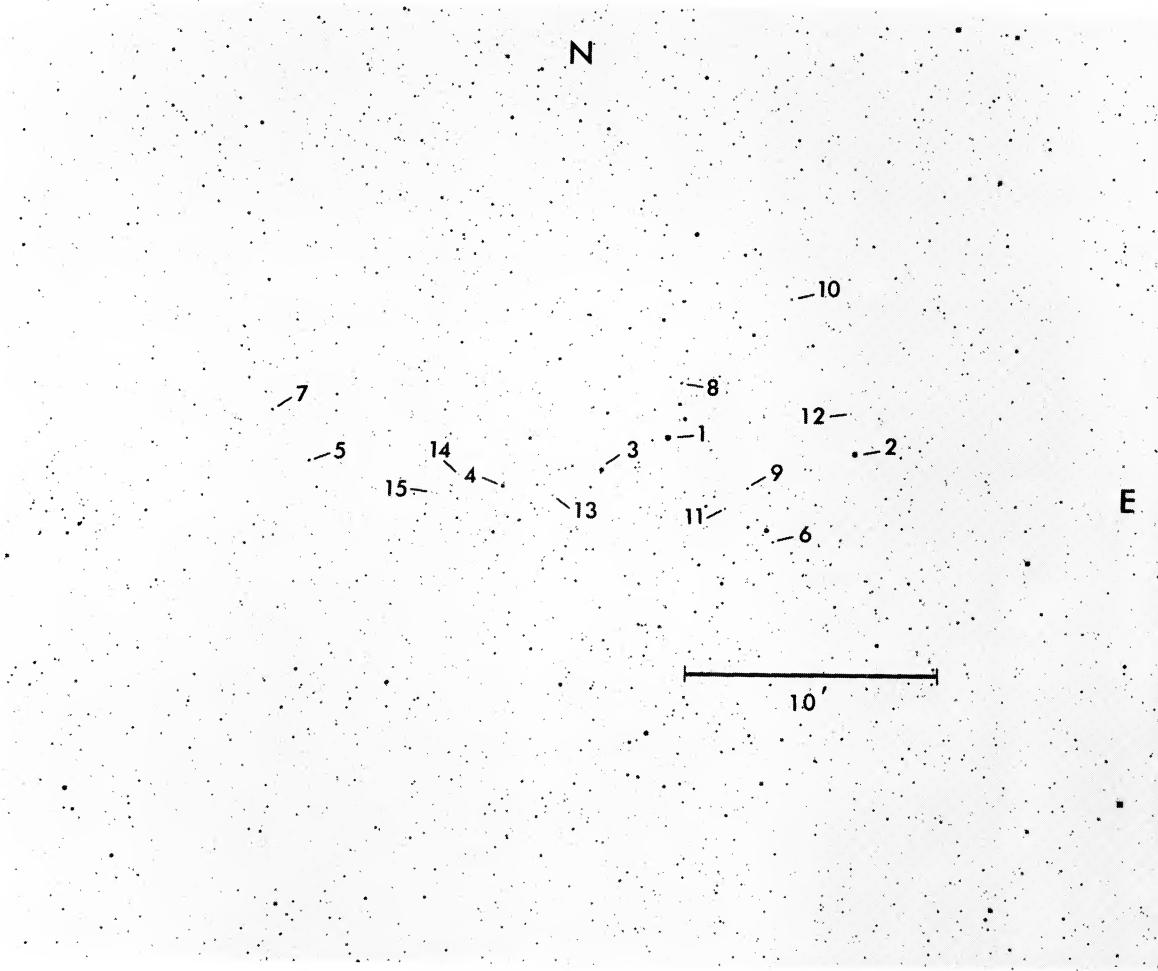


(a) G93 - 48



(b) GD 246

PLATE XXXVIII (Landolt, p. 959). (a) The field for the star G93-48, which is approximately 15 arcmin south-southwest of BD +1°4553. (b) The field for the star GD 246, which is approximately 15 arcmin northwest of BD +9°5179, and 12 arcmin south-southwest of BD +10°4899. © Copyright National Geographic Society-Palomar Observatory Sky Survey.

PLATE XXXIX (Bok *et al.*, p. 984). Norma I sequence stars, revised chart.