

AD-A051 304

NAVAL RESEARCH LAB WASHINGTON D C
S201 CATALOG OF FAR-ULTRAVIOLET OBJECTS. (U)

F/6 3/2

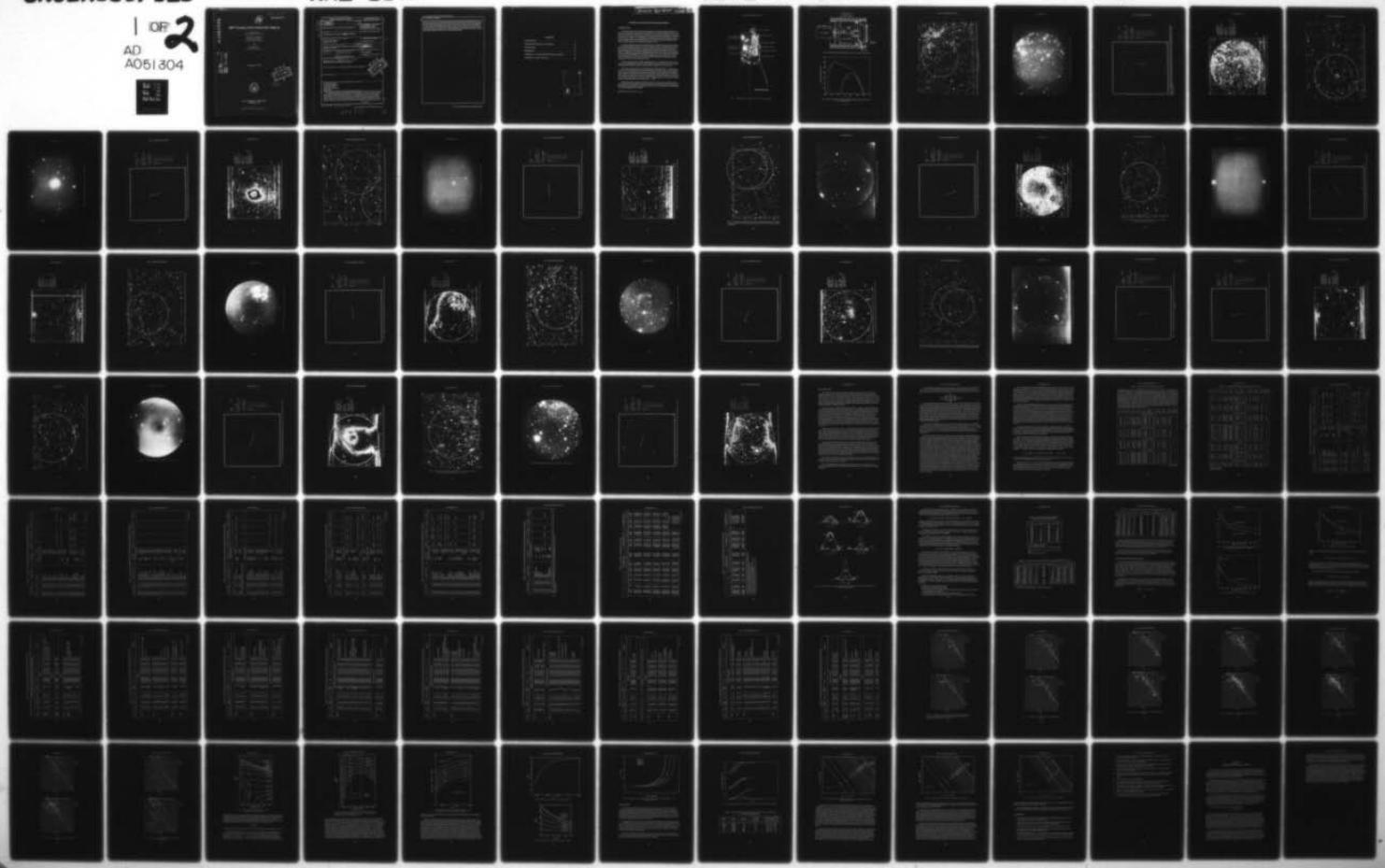
JAN 78 T PAGE, G R CARRUTHERS, R E HILL

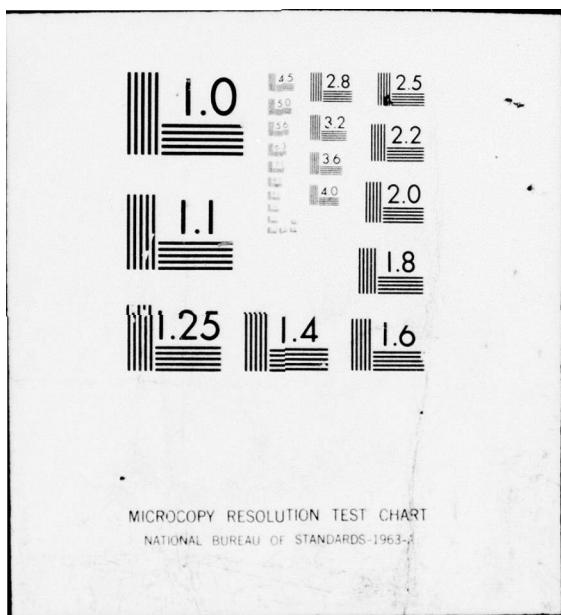
NRL-8173 SBIE-AD-E000 117

NL

UNCLASSIFIED

1 OR 2
AD
A051304





AD A 051304

AD E000

NRL Repor

12
f

S201 Catalog of Far-Ultraviolet Object

THORNTON PAGE
NASA, Johnson Space Center

GEORGE R. CARRUTHERS
Space Science Division
Naval Research Laboratory

and

RICHARD HILL
Lockheed Electronics Co.

AD No. _____
DDG FILE COPY

January 20, 1978



REND
M
36

NAVAL RESEARCH LABORATORY
Washington, D.C.

Approved for public release; distribution unlimited.

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER NRL Report 8173	2. GOVT ACCESSION NO. <i>(9)</i>	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) S201 CATALOG OF FAR-ULTRAVIOLET OBJECTS		5. TYPE OF REPORT & PERIOD COVERED Final report on one phase of a continuing NRL Problem.
6. AUTHOR(s) Thornton Page, George R. Carruthers and Richard E. Hill	7. CONTRACT OR GRANT NUMBER(s)	
8. PERFORMING ORGANIZATION NAME AND ADDRESS Naval Research Laboratory Washington, D.C. 20375	9. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS <i>See site-supplied data 16/2/75</i> NRL Problem A01-63	
10. CONTROLLING OFFICE NAME AND ADDRESS National Aeronautics and Space Administration, Headquarters Washington, D.C. 20546	11. REPORT DATE <i>(11) Jan 20 1978</i>	12. NUMBER OF PAGES 166
13. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office) <i>(12) 166 p. (16) RR03406 (17) RR0340642</i>	14. SECURITY CLASS. (of this report) UNCLASSIFIED	
15. DECLASSIFICATION/DOWNGRADING SCHEDULE		
16. DISTRIBUTION STATEMENT (of this Report) <i>(18) SBIE (19) AD-E000 117</i> Approved for public release, distribution unlimited.		
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)		
18. SUPPLEMENTARY NOTES		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number) Far ultraviolet radiation Astronomical instruments Astronomical cameras Astronomical spectroscopy Tables (data)		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) A catalog of star images was compiled from images obtained by an NRL Far-Ultraviolet Camera/Spectrograph (Experiment S201) operated from 21 to 23 April 1972 on the lunar surface during the Apollo-16 mission. These images were scanned on a microdensitometer, and the output recorded on magnetic tapes. A set of seven computer programs were written to process these recorded outputs in order to compile the catalog. The catalog is divided into 11 parts, covering ten fields in the sky (the Sagittarius field being covered by two parts), and each part is headed by a constellation name and the		

(Continued)

DD FORM 1 JAN 73 1473

EDITION OF 1 NOV 65 IS OBSOLETE
S/N 0102-014-6601

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

251950

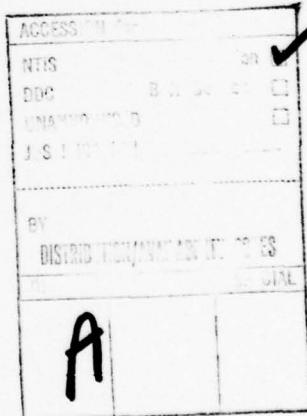
AB

20. ABSTRACT (Continued)

field center coordinates. The errors in position of the detected images are less than about 3 arc-min. Correlations are given with star numbers in the Smithsonian Astrophysical Observatory catalog. Values are given of the peak density and the density volume (a product of the number of pixels in the image and the density units above background in each pixel). The text includes a discussion of the photometry, corrections thereto due to threshold and saturation effects, and its comparison with theoretical expectation, stellar model atmospheres, and a generalized far-ultraviolet interstellar extinction law. The S201 catalog is also available on a single reel of seven-track magnetic tape.

CONTENTS

INTRODUCTION	1
COMPARISON WITH STELLAR MODELS	62
THE CATALOG	85
REFERENCES	89
APPENDIX A - STAR DETECTION Program for EXEC II	91
APPENDIX B - S201 Catalog Tape	93



THE S201 CATALOG OF FAR-ULTRAVIOLET OBJECTS

INTRODUCTION

The Naval Research Laboratory's Far-Ultraviolet Camera/Spectrograph (Experiment S201) was operated from 21 April to 23 April 1972 on the lunar surface during the Apollo-16 mission. A primary objective of this experiment was to obtain far-ultraviolet images and spectra of stars, nebulas, and extragalactic objects against the low sky background seen from the lunar surface. Figure 1 is a photograph of a training model of the instrument, illustrating its external features. The instrument was based on an electrographic Schmidt camera (Fig. 2). Further details of the instrument are given in Ref. 1.

The direct-imagery frames from the S201 camera covered 20°-diameter circular fields of view and had limiting resolution of about 2 arc-min at field center, degrading to about 4 arc-min near the edges. Exposures of 1, 3, and 10 min were taken with a LiF corrector on the electrographic Schmidt camera (designated ILi exposures, wavelength range 1050 to 1600 Å), followed by exposures of 3, 10, and 30 min with a CaF₂ corrector (designated ICa exposures, wavelength range 1250 to 1600 Å). Figure 3 shows as a function of wavelength the overall detection efficiency of the camera in these two modes of operation. In some cases the sequence was cut short, with the result that the last exposure was less than the maximum of 10 min for ILi or 30 min for ICa.

The ILi exposures include a diffuse background due to interplanetary Lyman- α emission [2]. This background produced a rather high fog level on the 3-min ILi exposures and made nearly all 10-min ILi exposures unusable due to saturation of the emulsion.

The camera was pointed at ten preselected target fields (Figs. 4a, 5a, ..., 13a) during the 48 hr it was deployed, and it obtained 185 photos and spectra. These included fields of view in and out of the galactic plane, allowing a sampling of both galactic and extragalactic objects. Both the target selection and the observing time on each were largely constrained by the mission time-line, the location of the landing site (9°00'S, 15°31'E), and the position of the camera in the shadow of the lunar module. Negative prints of the best direct-imagery frames for each target are shown in Figs. 4b, 5b, ..., 13b.

Preliminary results of experiment S201 were given in Ref. 4; other published papers have given details of the imagery and spectrography of the terrestrial upper atmosphere and geocorona [2, 5, 6], imagery of nebulosities in Cygnus [7], and imagery and spectrography of the Large Magellanic Cloud [8-10].

Manuscript submitted September 23, 1977.

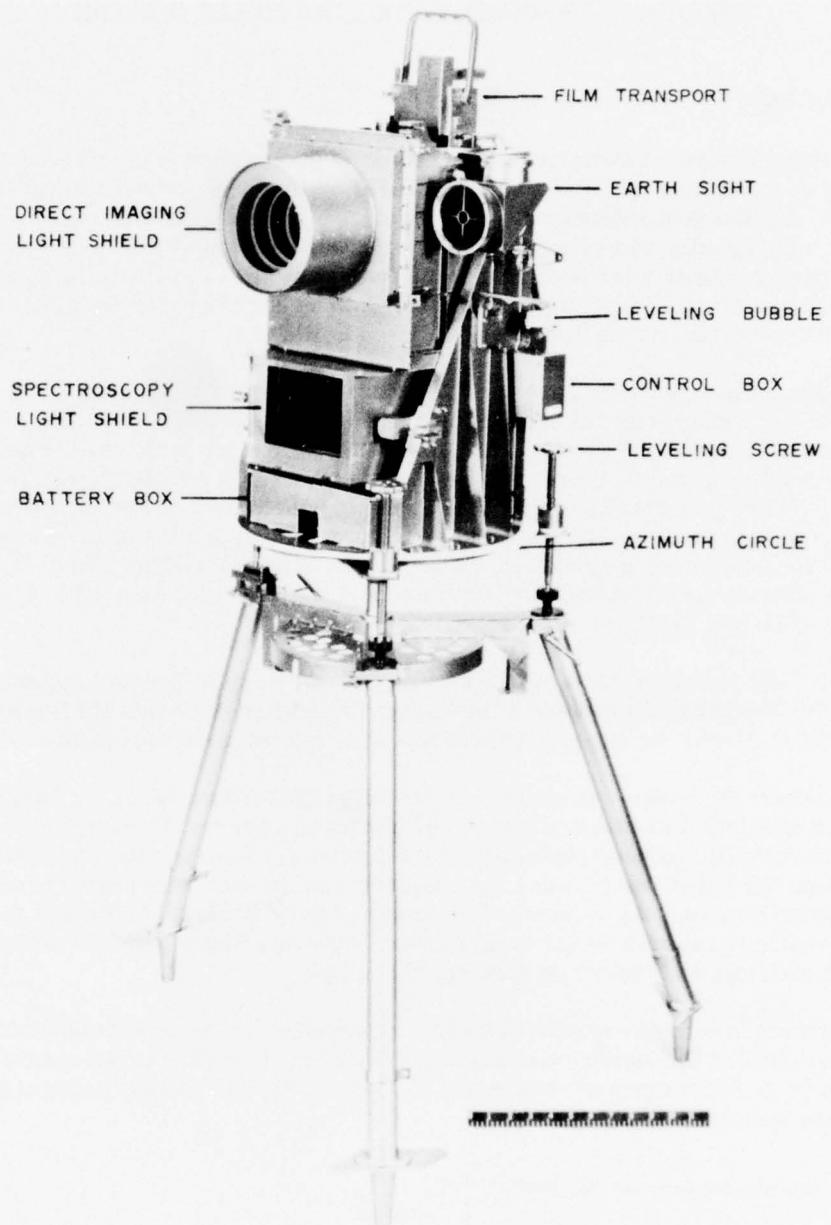


Fig. 1 — Training model of the NRL far-ultraviolet camera/spectrograph

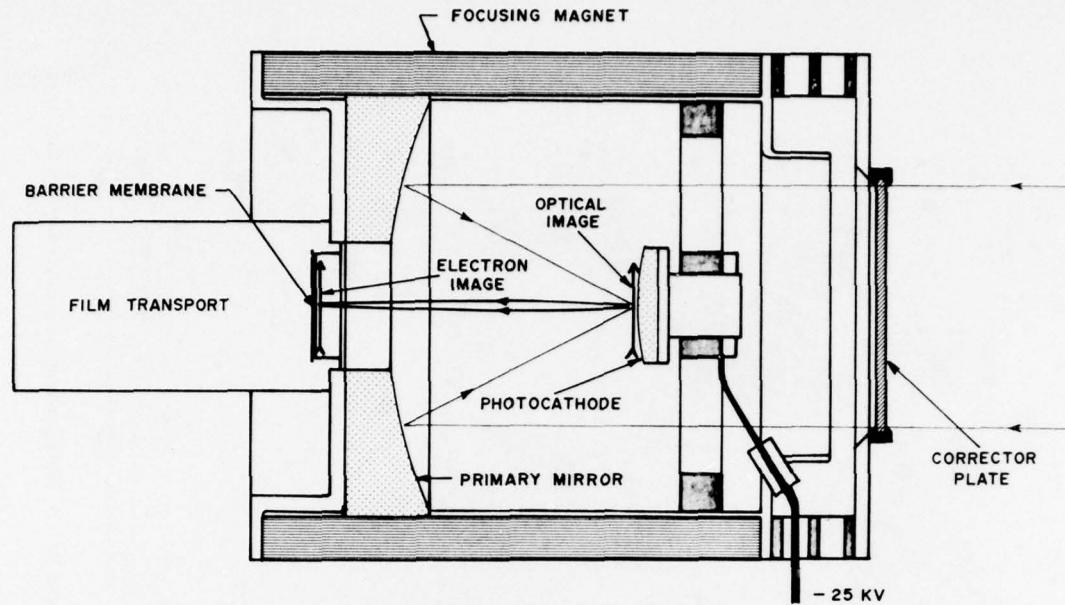
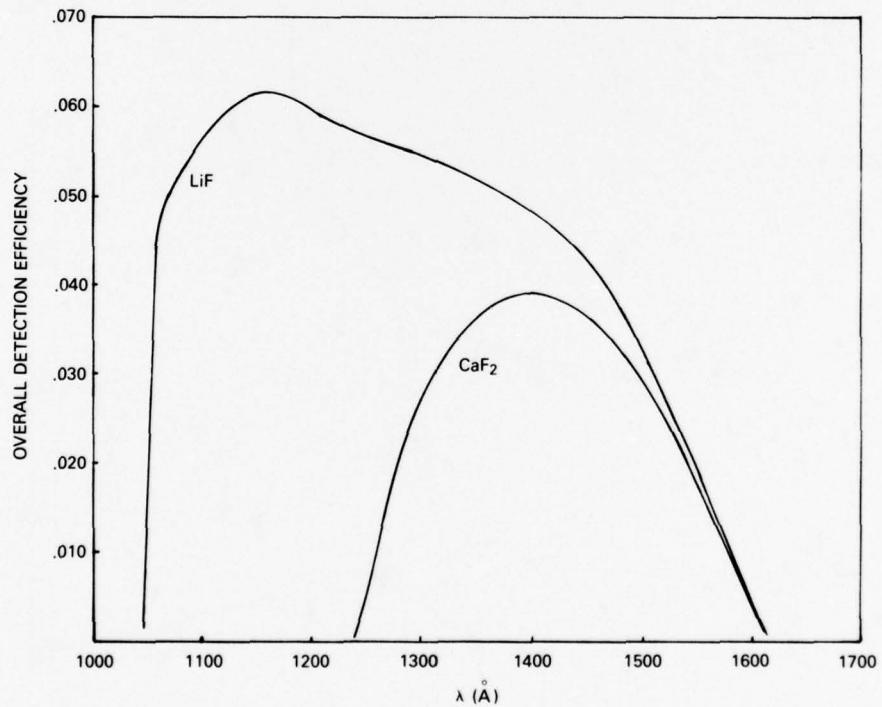


Fig. 2 — Diagram of electrographic Schmidt camera, illustrating operating principle

Fig. 3 — Detection efficiency of the camera in direct imaging mode, with a LiF corrector and a CaF_2 corrector

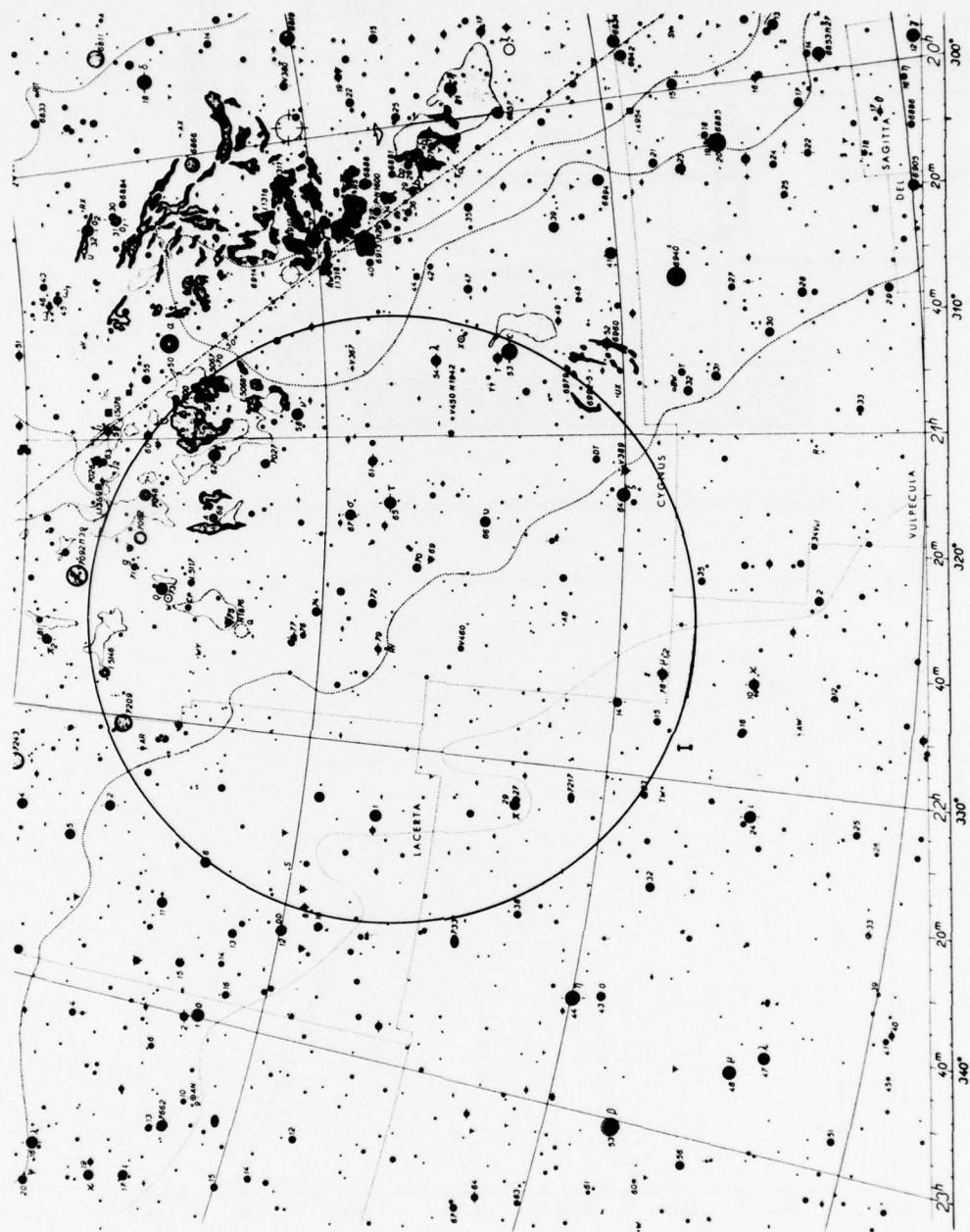


Fig. 4a — Preselected target field (Cygnus). Figures 4a, 5a, ..., 13a are adapted from Ref. 3. The approximate area covered by the S201 pointing is shown by the circle.

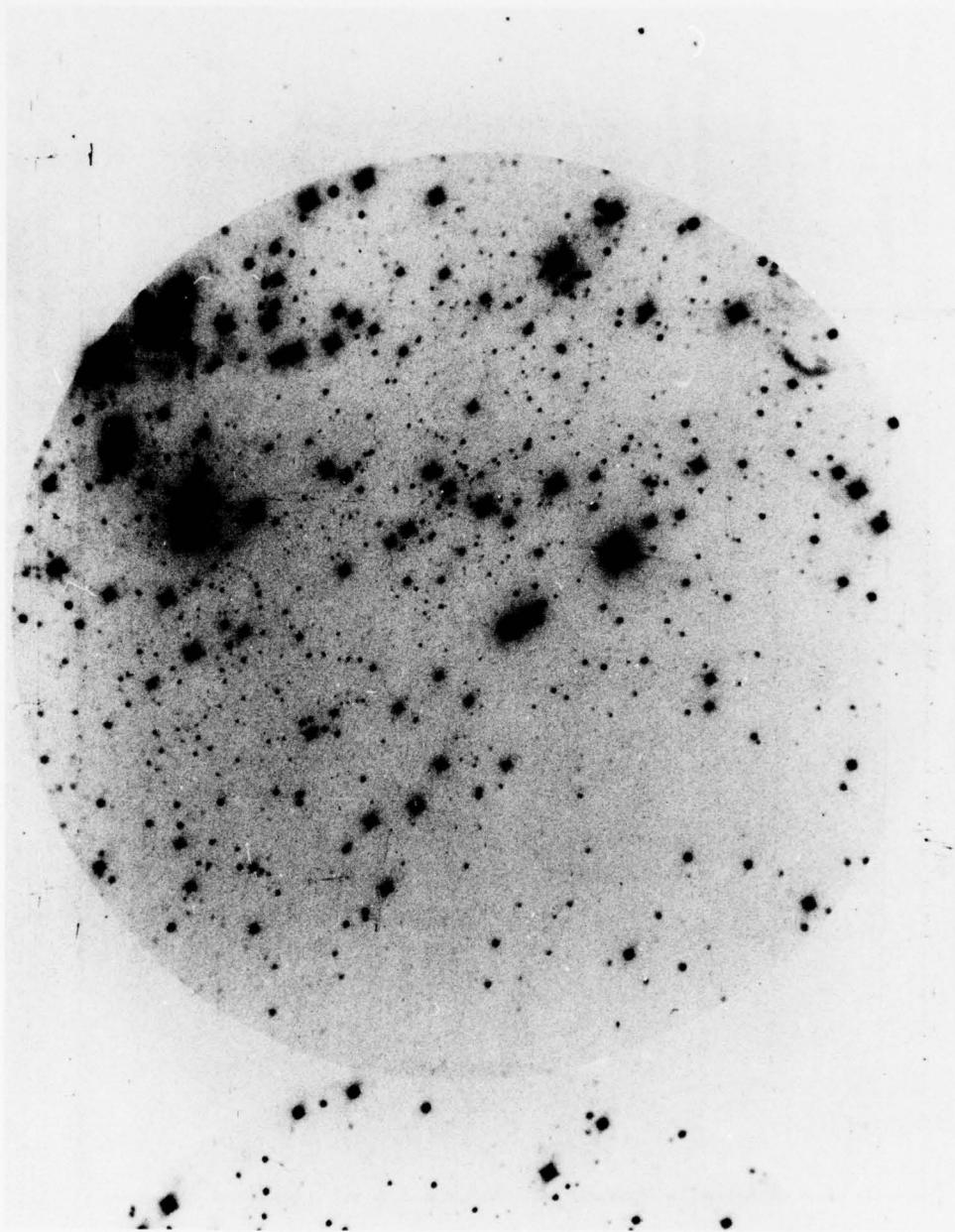


Fig. 4b - S201 starfield photograph (frame A27, ICa, exposure time 10-min)

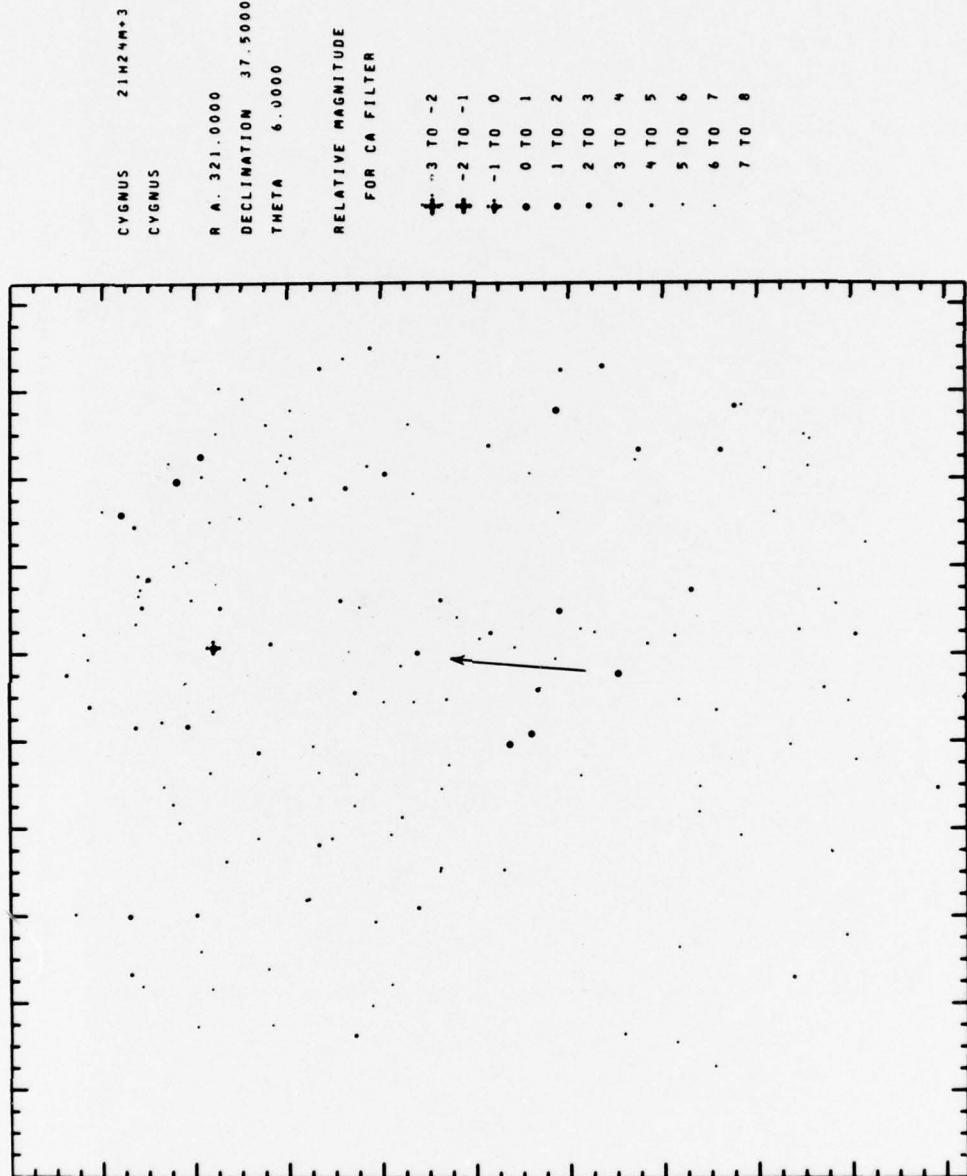


Fig. 4c — Smithsonian Astrophysical Observatory (SAO) star plot of area covered by the S201 image of Fig. 4b. North direction is indicated by arrow. Relative magnitudes are computed from SAO spectral classes and S201 camera response as explained in the text.

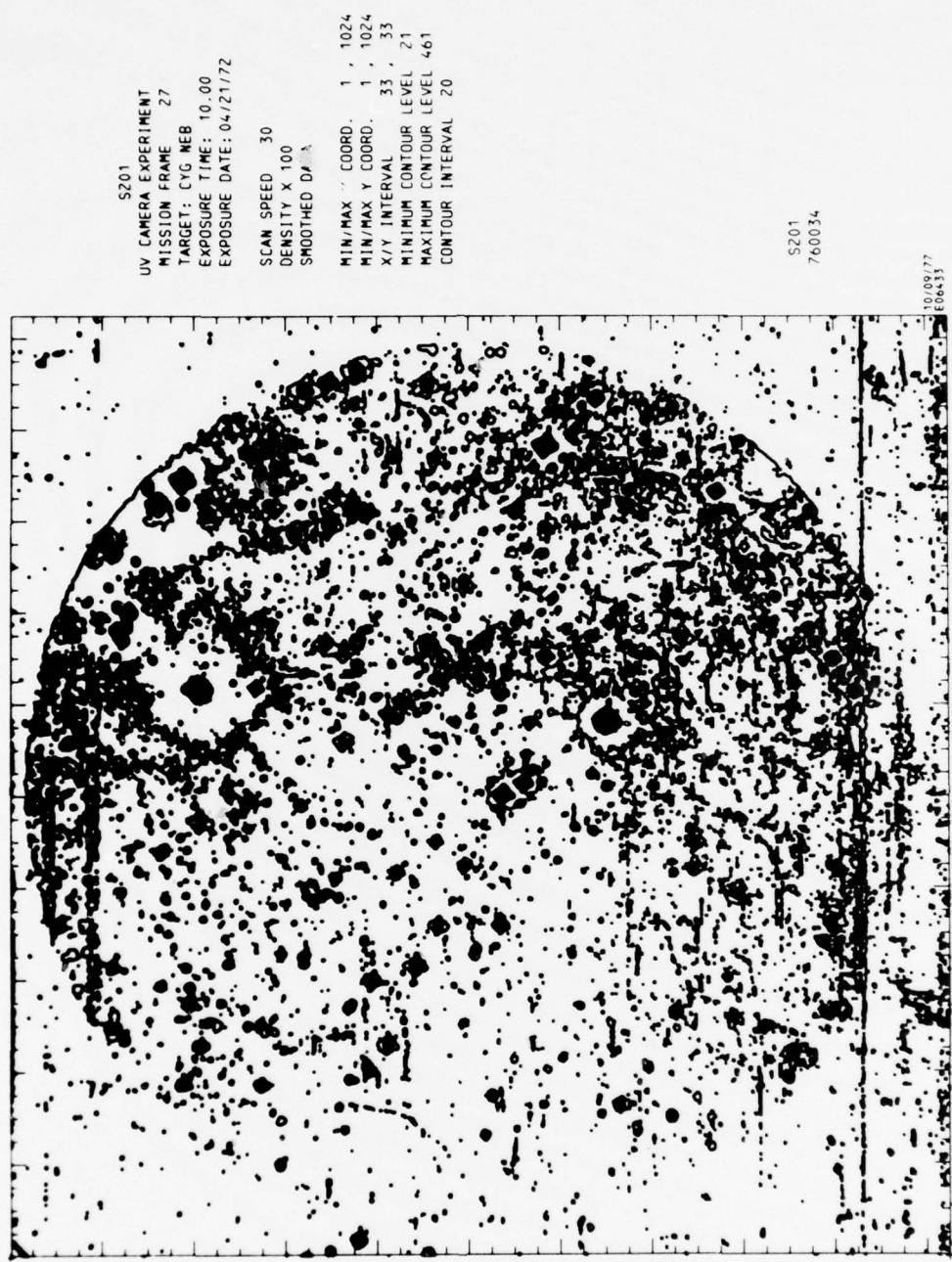


Fig. 4d — Sample isodensity contour plot. Orientation is the same as in Figs. 4b and 4c.

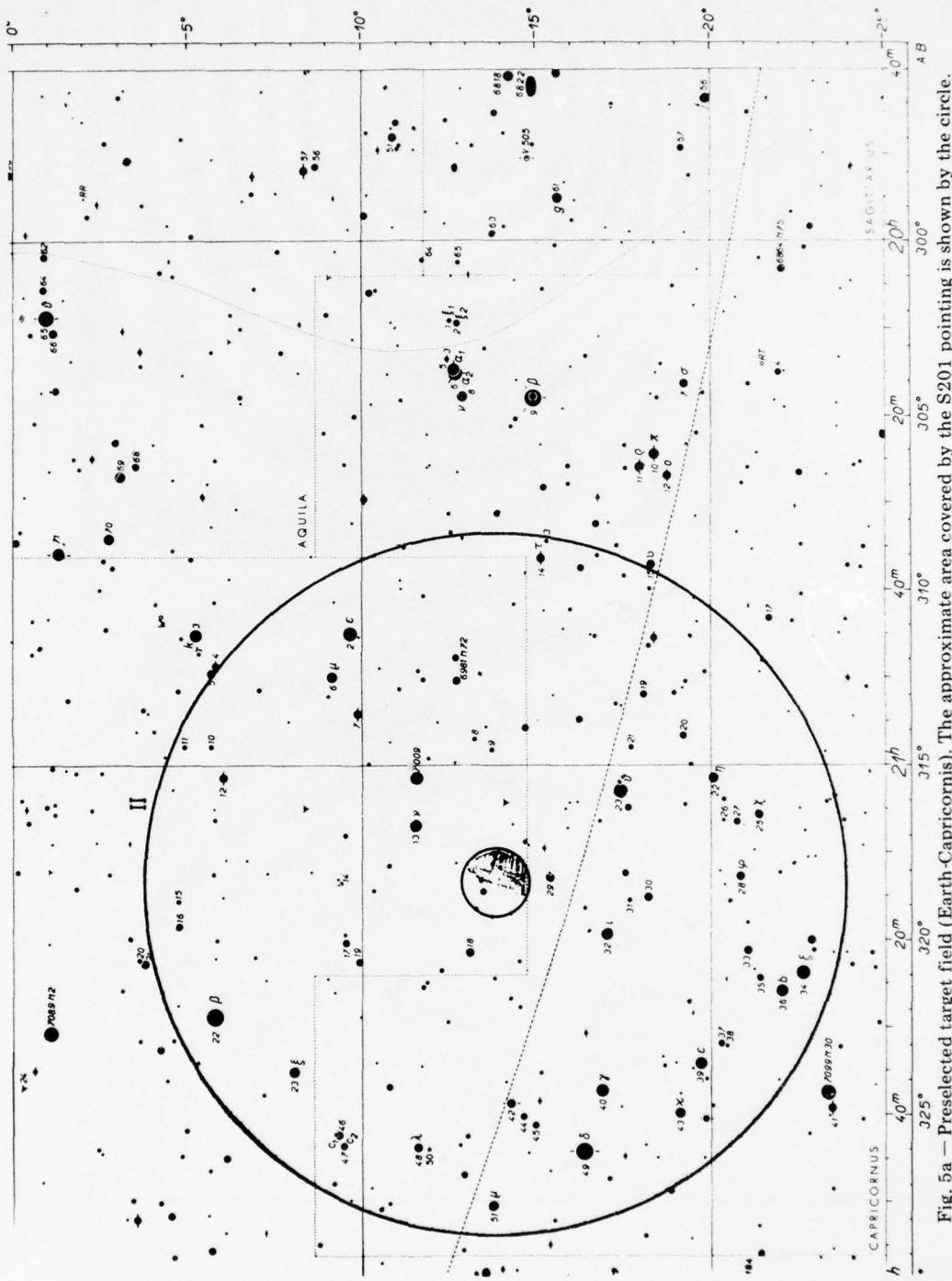


Fig. 5a – Preslected target field (Earth-Capricornis). The approximate area covered by the S201 pointing is shown by the circle.

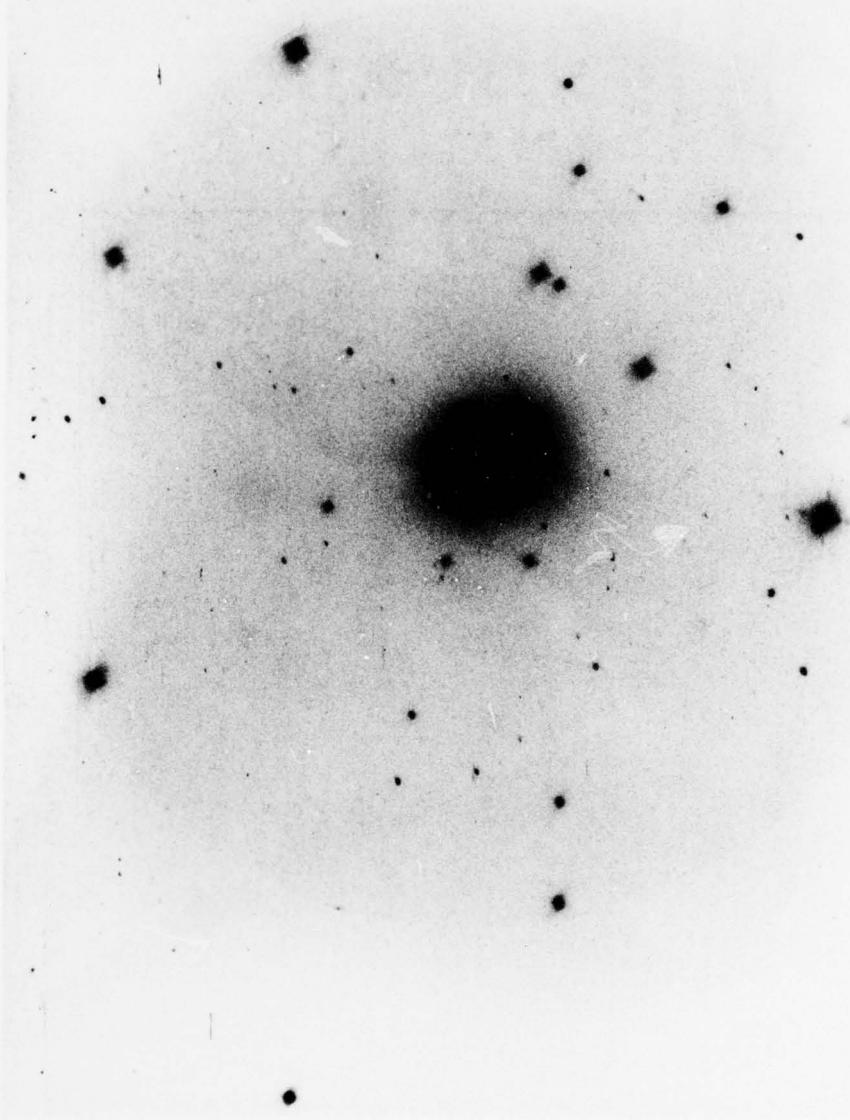


Fig. 5b - S201 starfield photograph (frame A45, ICa, 10-min exposure)

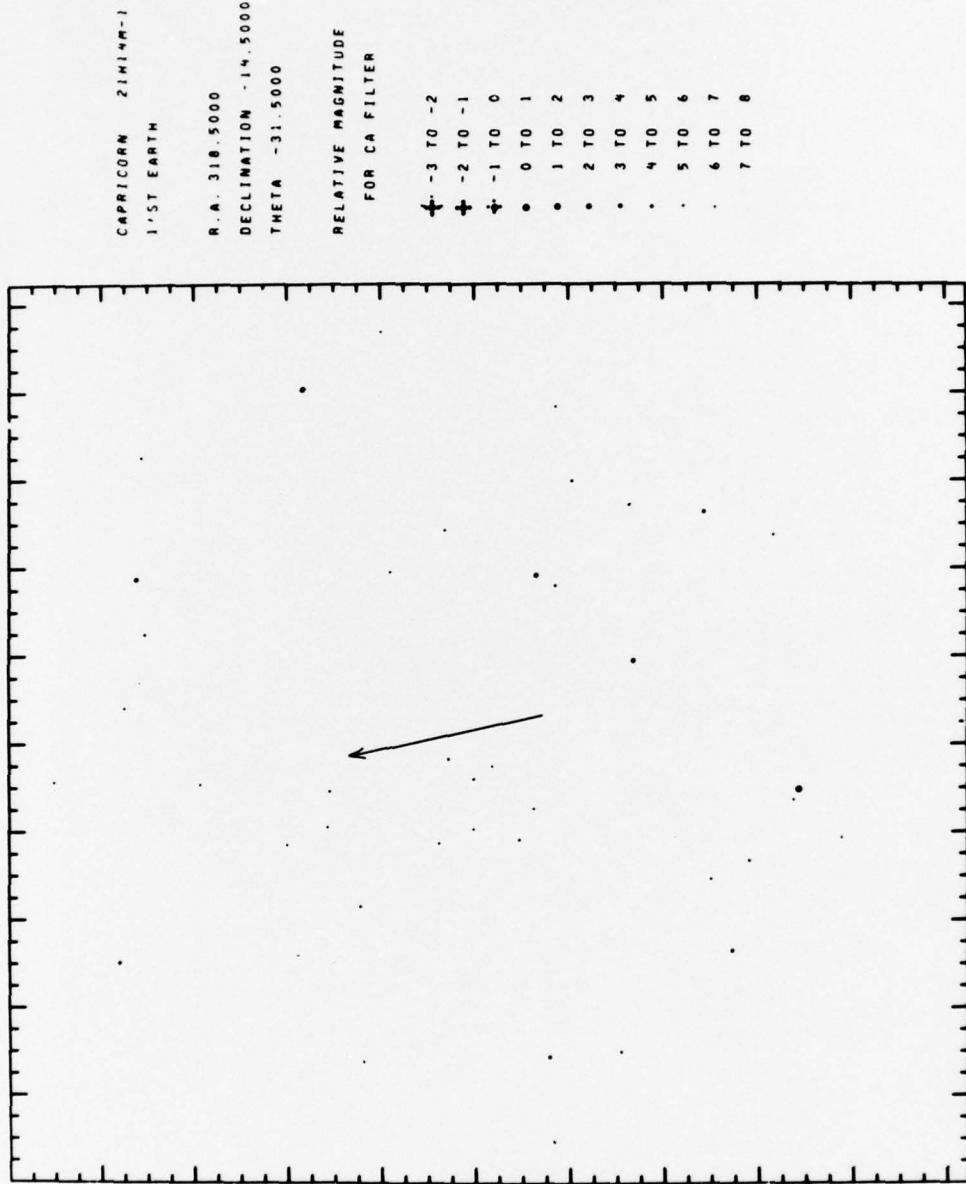


Fig. 5c — Smithsonian Astrophysical Observatory (SAO) star plot of area covered by the S201 image of Fig. 5b

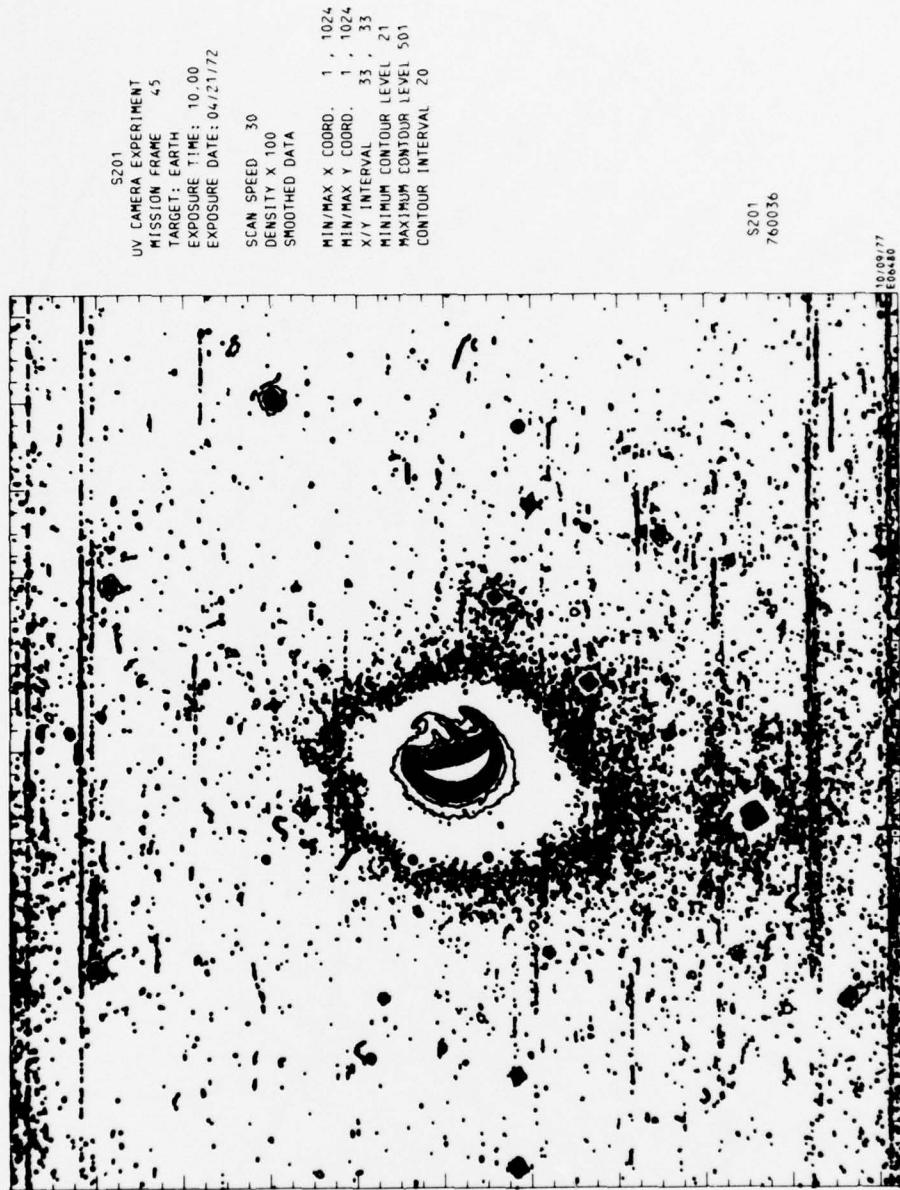


Fig. 5d — Sample isodensity contour plot. Orientation is the same as in Figs. 5b and 5c.

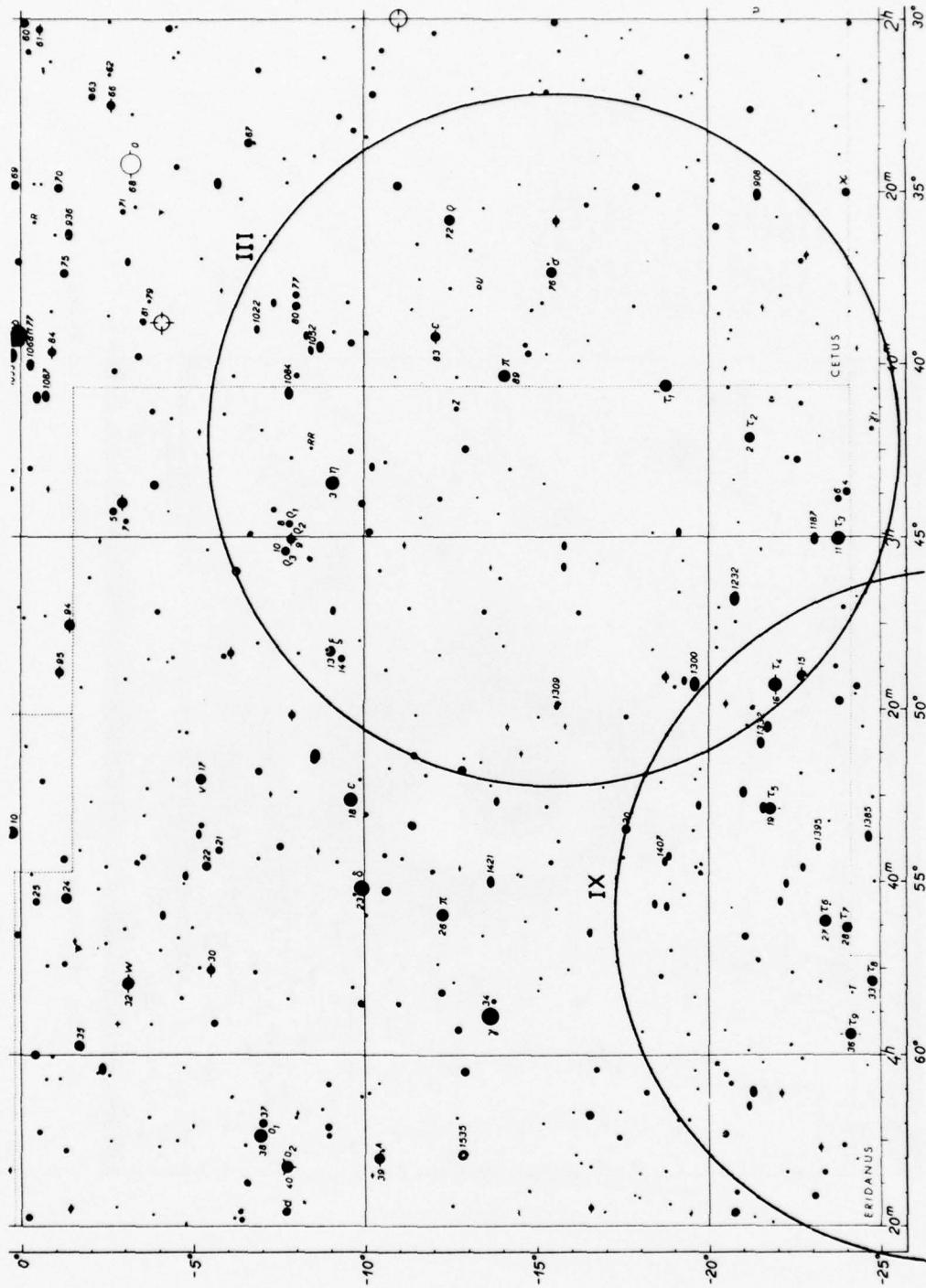


Fig. 6a — Preselected target field (Cetus-N 1068). The approximate area covered by the S201 pointing is shown by the circle.

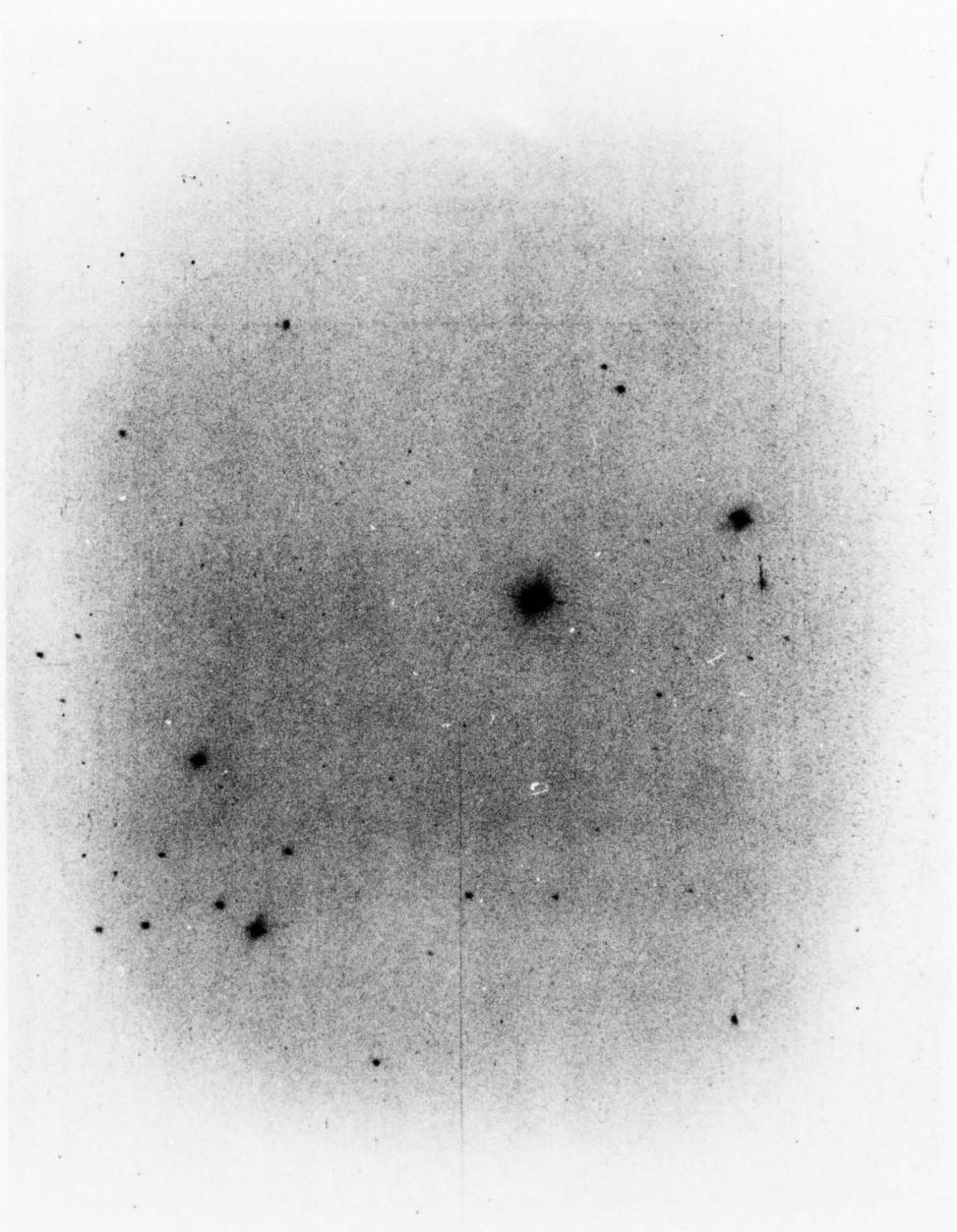


Fig. 6b — S201 starfield photograph (frame A63, ICa, 10-min exposure)

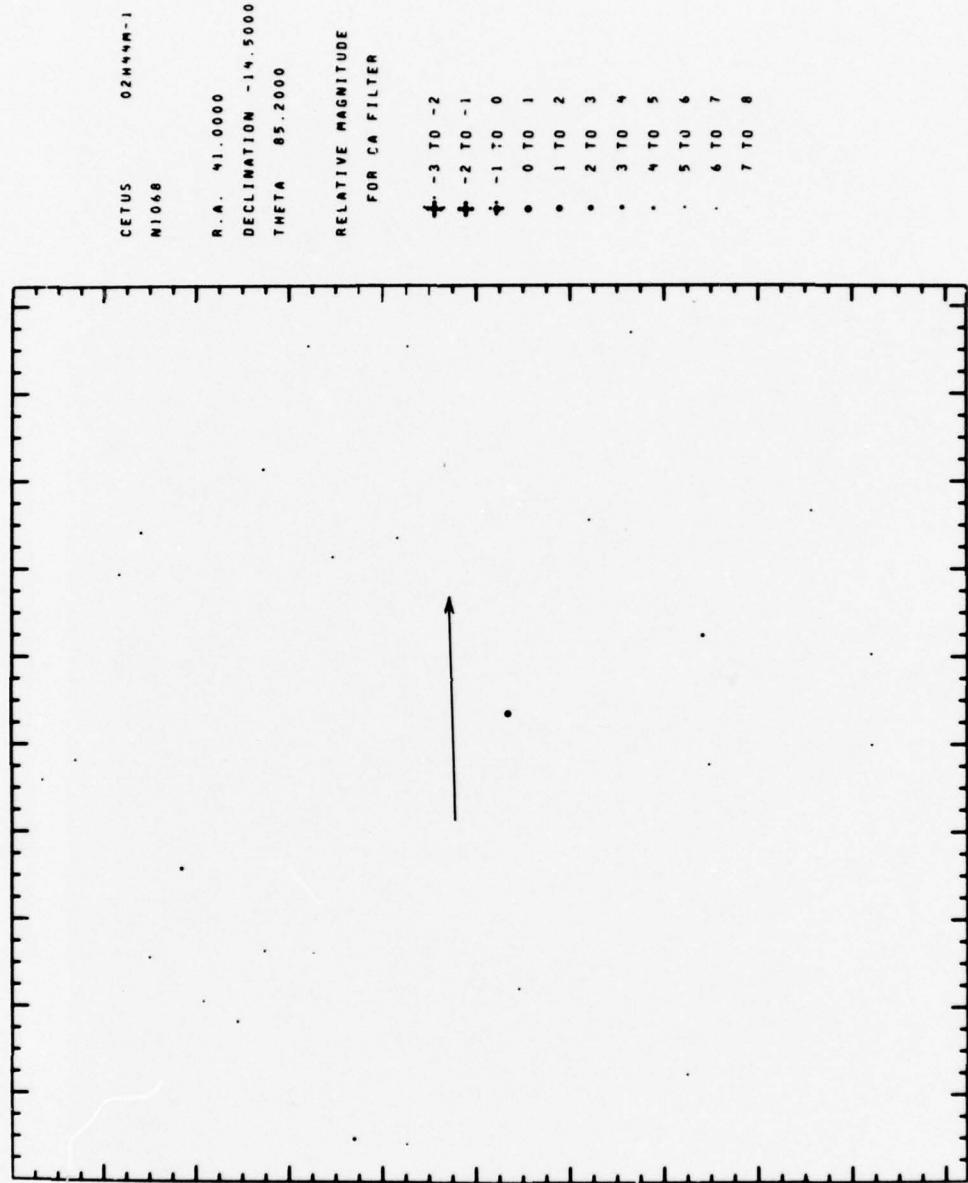


Fig. 6c — Smithsonian Astrophysical Observatory (SAO) star plot of area covered by the S201 image of Fig. 6b

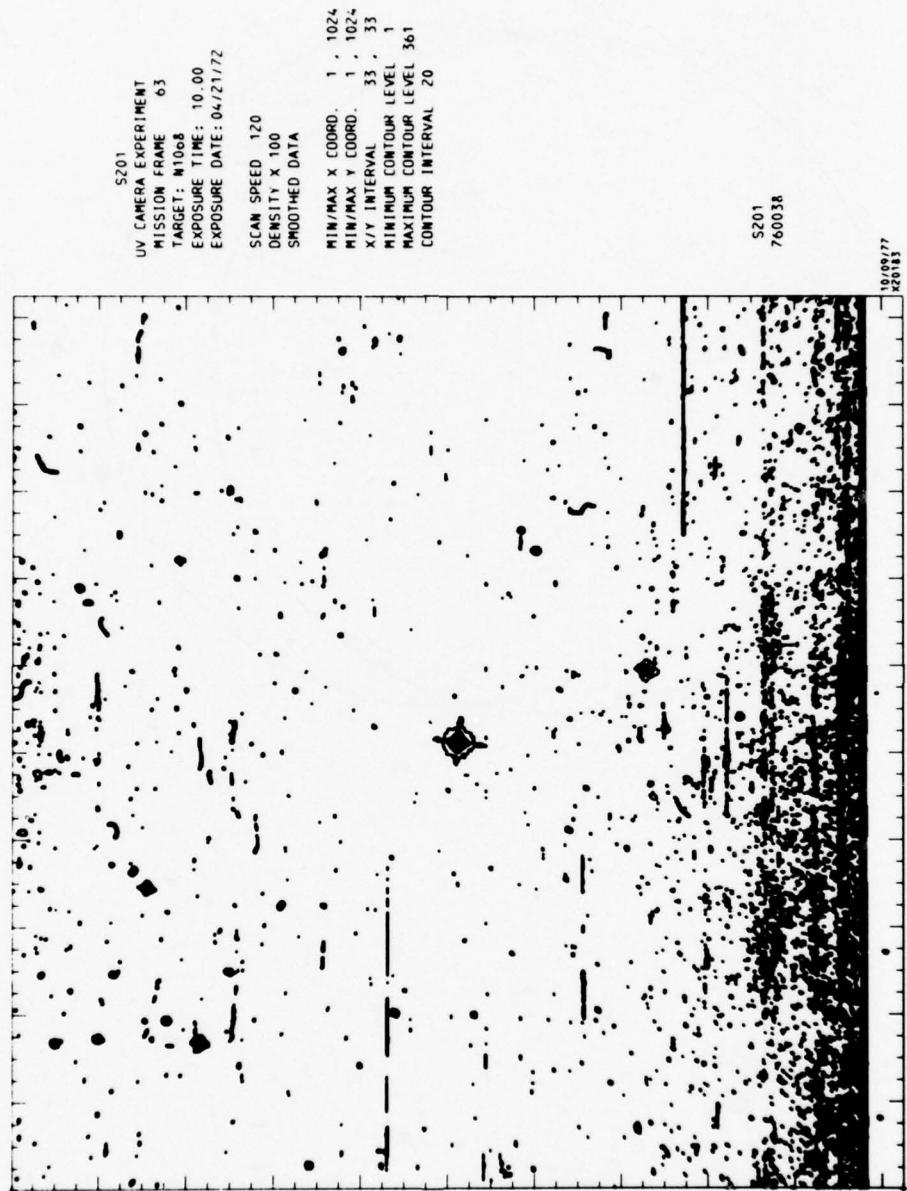


Fig. 6d — Sample isodensity contour plot. Orientation is the same as in Figs. 6b and 6c.

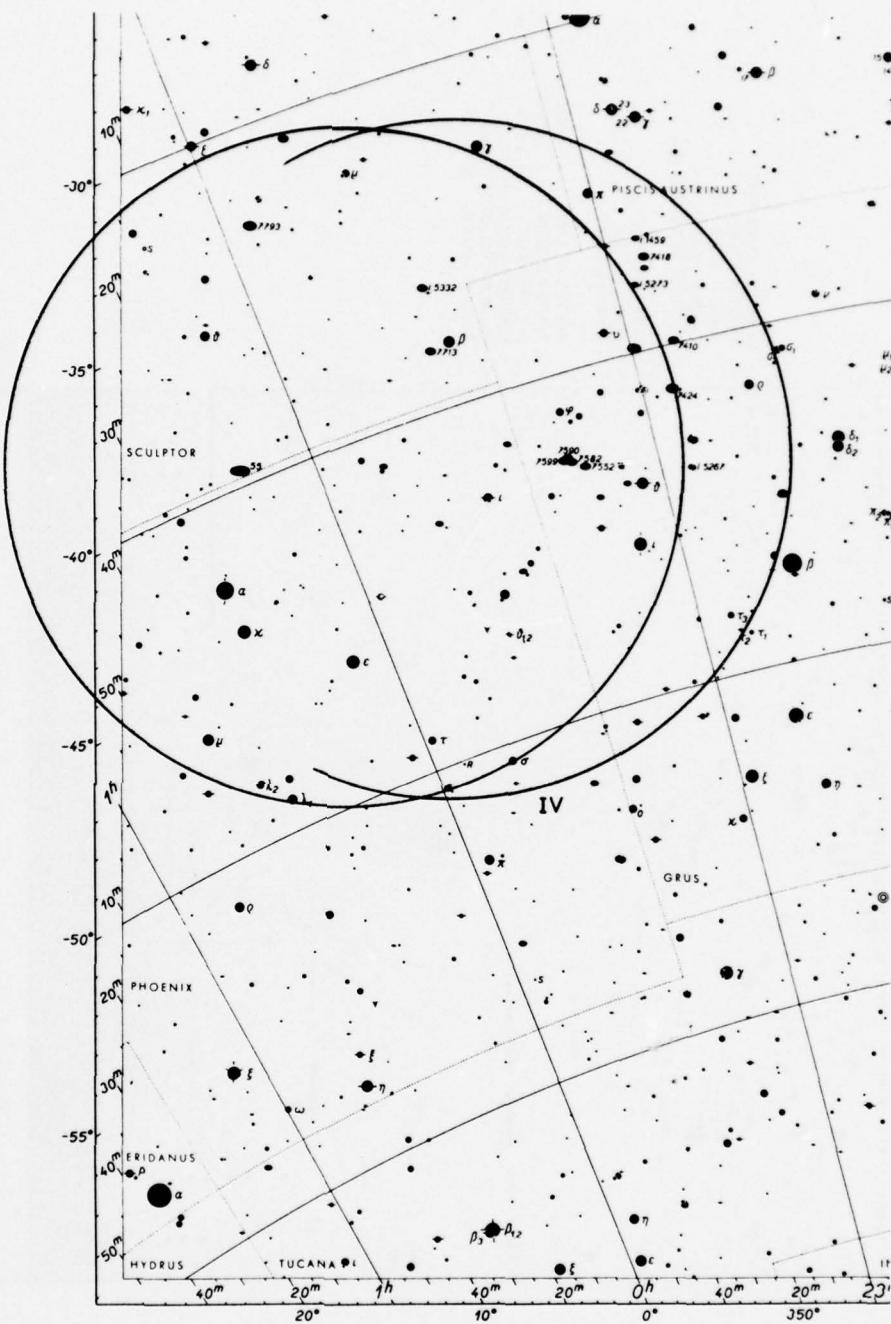


Fig. 7a — Preselected target field (Grus-N55). Two overlapping fields shown. The approximate area covered by the S201 pointing is shown by the two circles (beginning and ending of sequence).

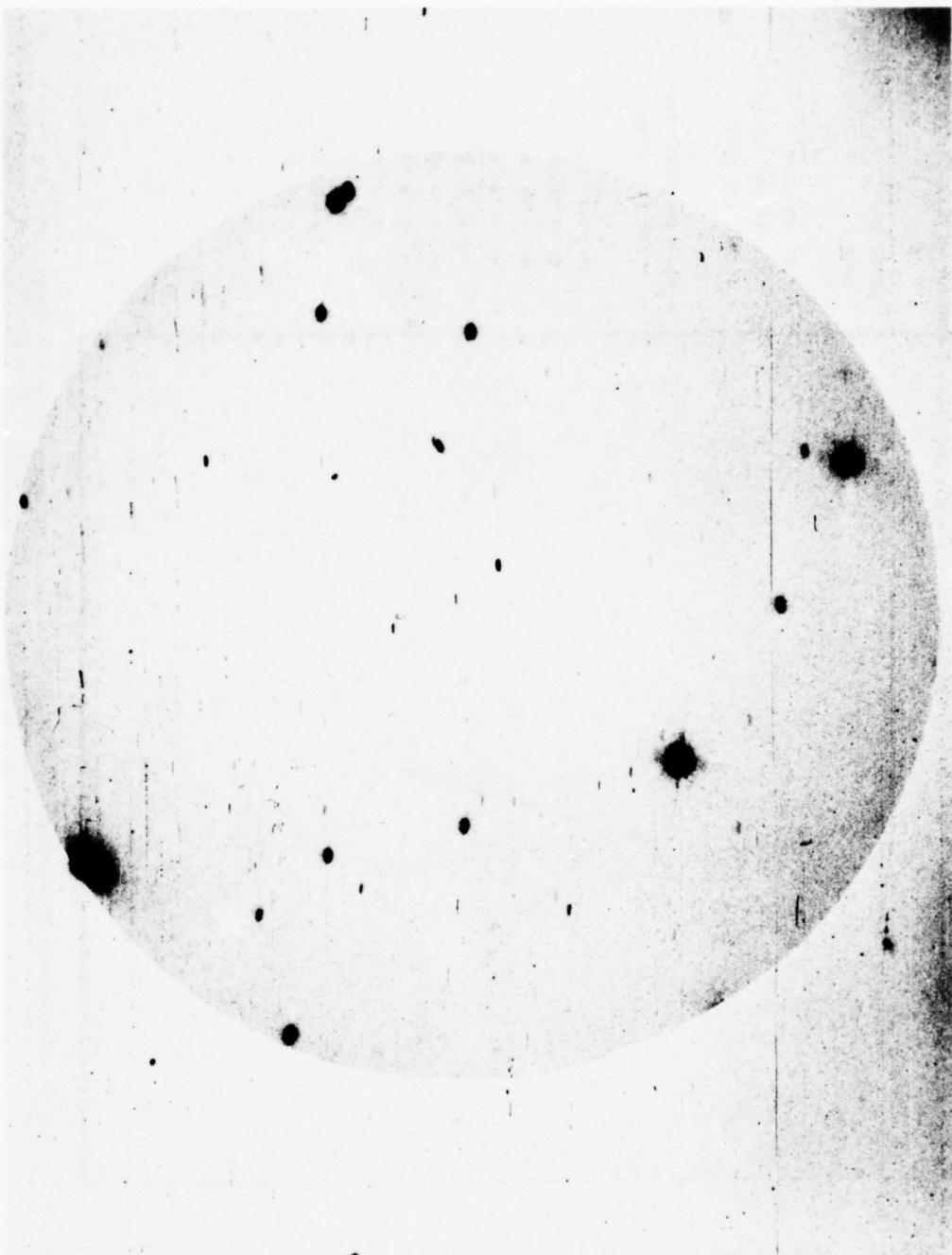


Fig. 7b - S201 starfield photograph (frame A94, ICa, 30-min exposure)

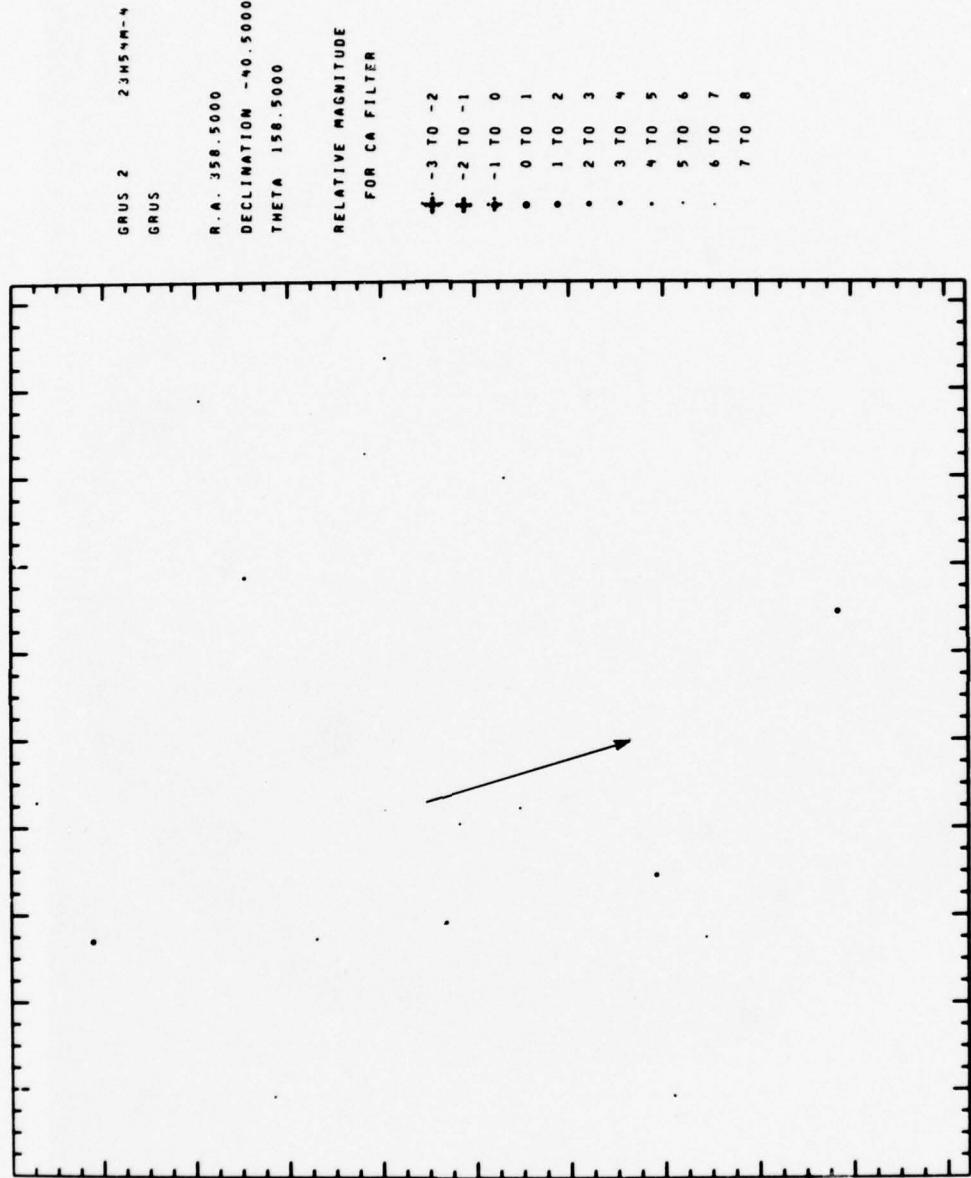


Fig. 7c — Smithsonian Astrophysical Observatory (SAO) star plot of area covered by the S201 image of Fig. 7b

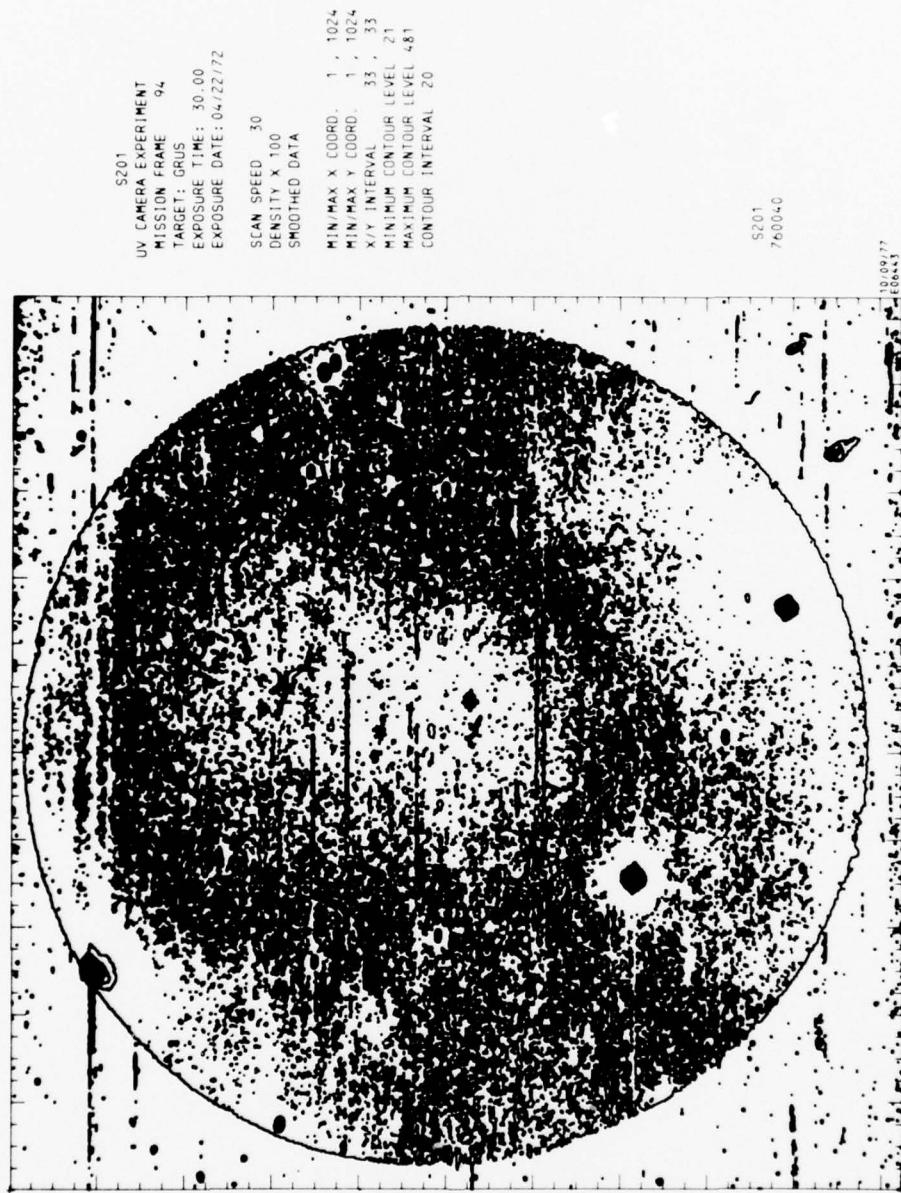


Fig. 7d — Sample isodensity contour plot. Orientation is the same as in Fig. 7b and 7c.

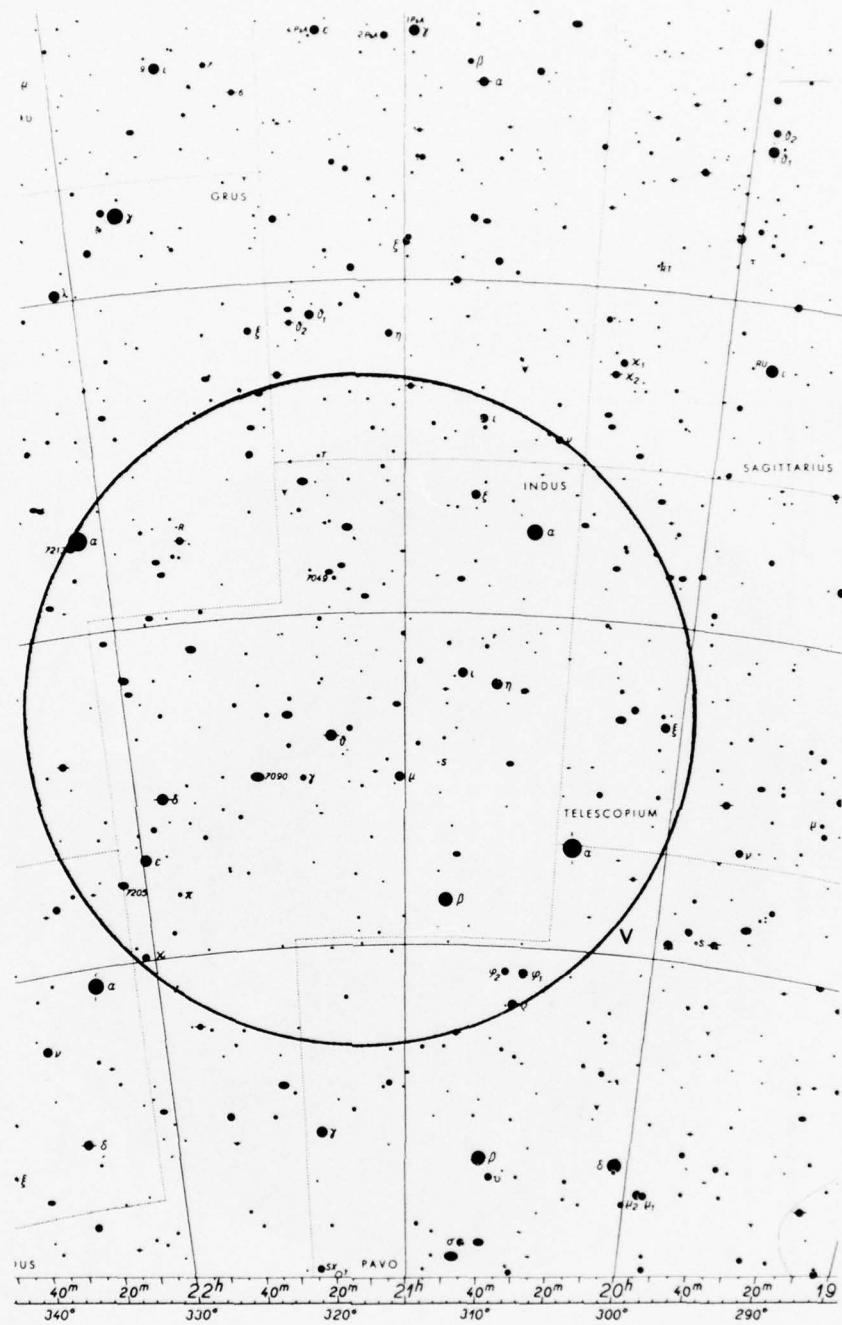


Fig. 8a — Preselected target field (Pavo). The approximate area covered by the S201 pointing is shown by the circle.

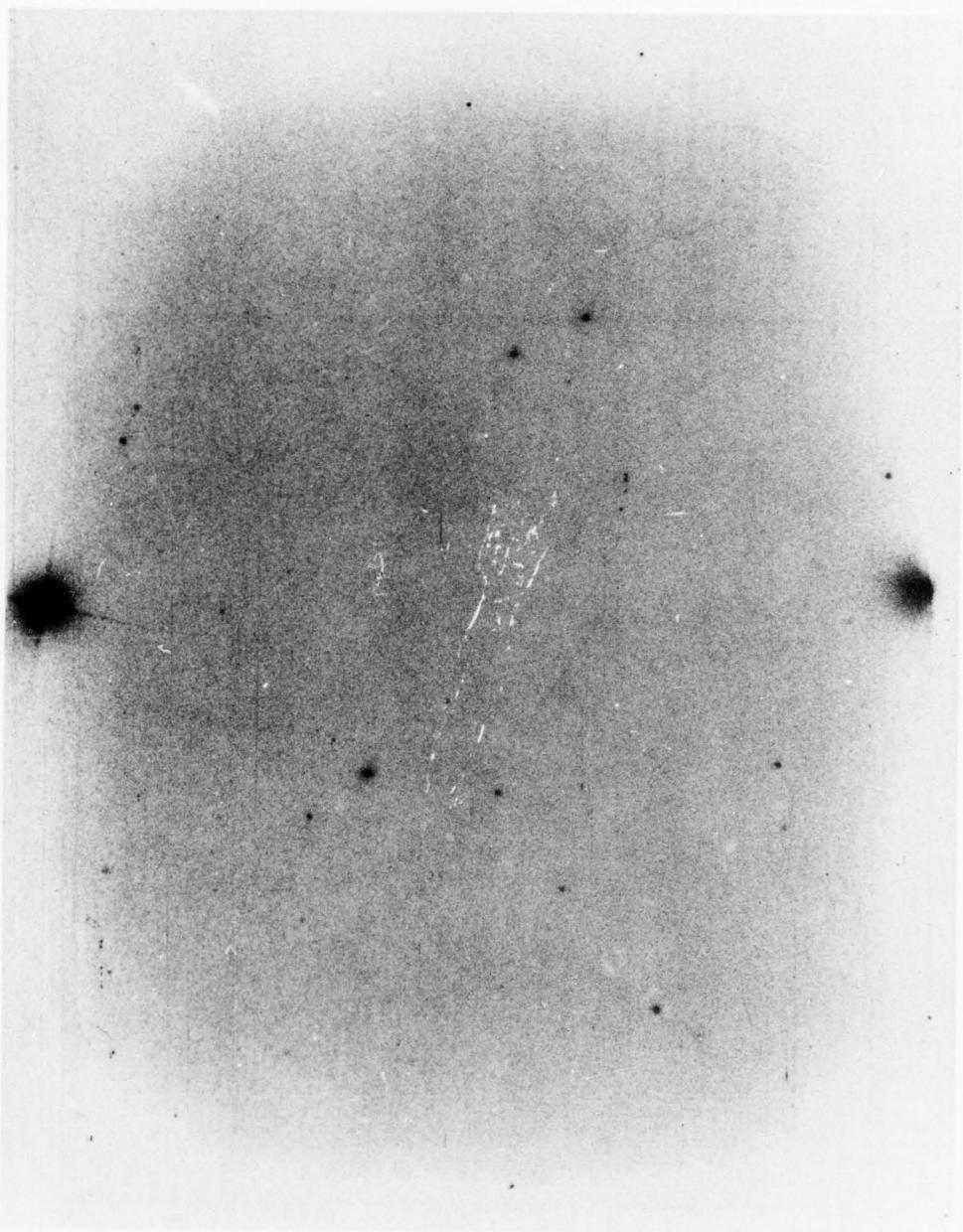


Fig. 8b — S201 starfield photograph (frame A121, ICa, 3-min exposure)

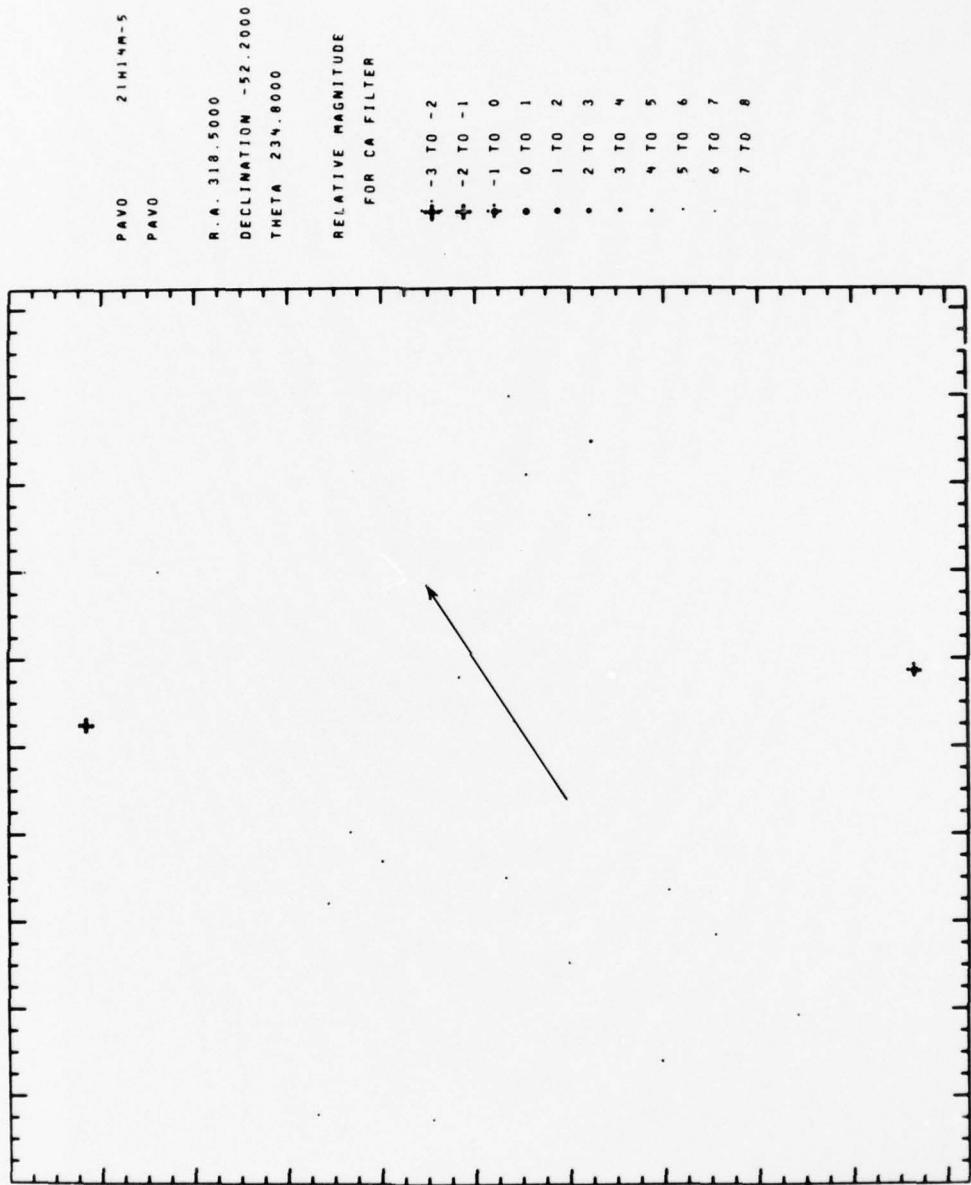


Fig. 8c — Smithsonian Astrophysical Observatory (SAO) star plot of area covered by the S201 image of Fig. 8b

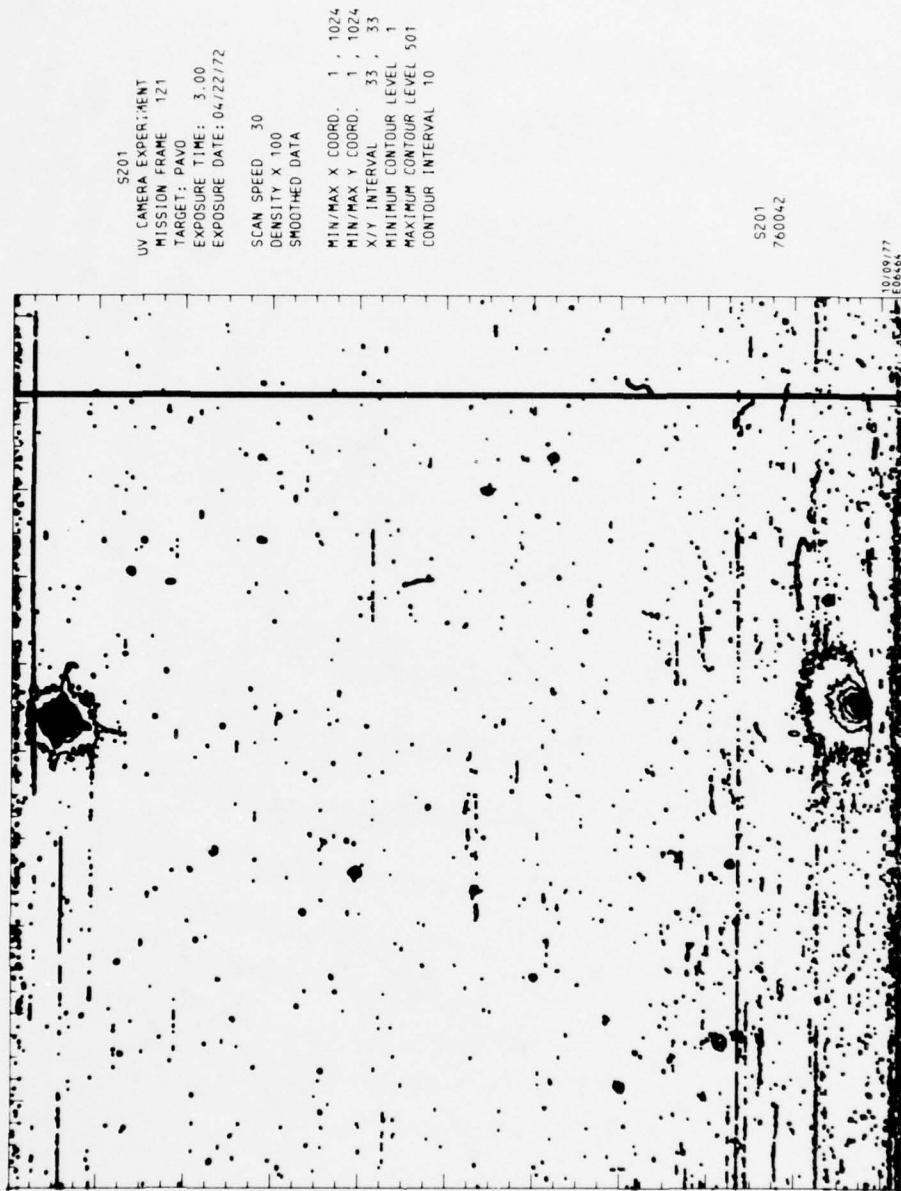


Fig. 8d - Sample isodensity contour plot. Orientation is the same as in Figs. 8b and 8c.

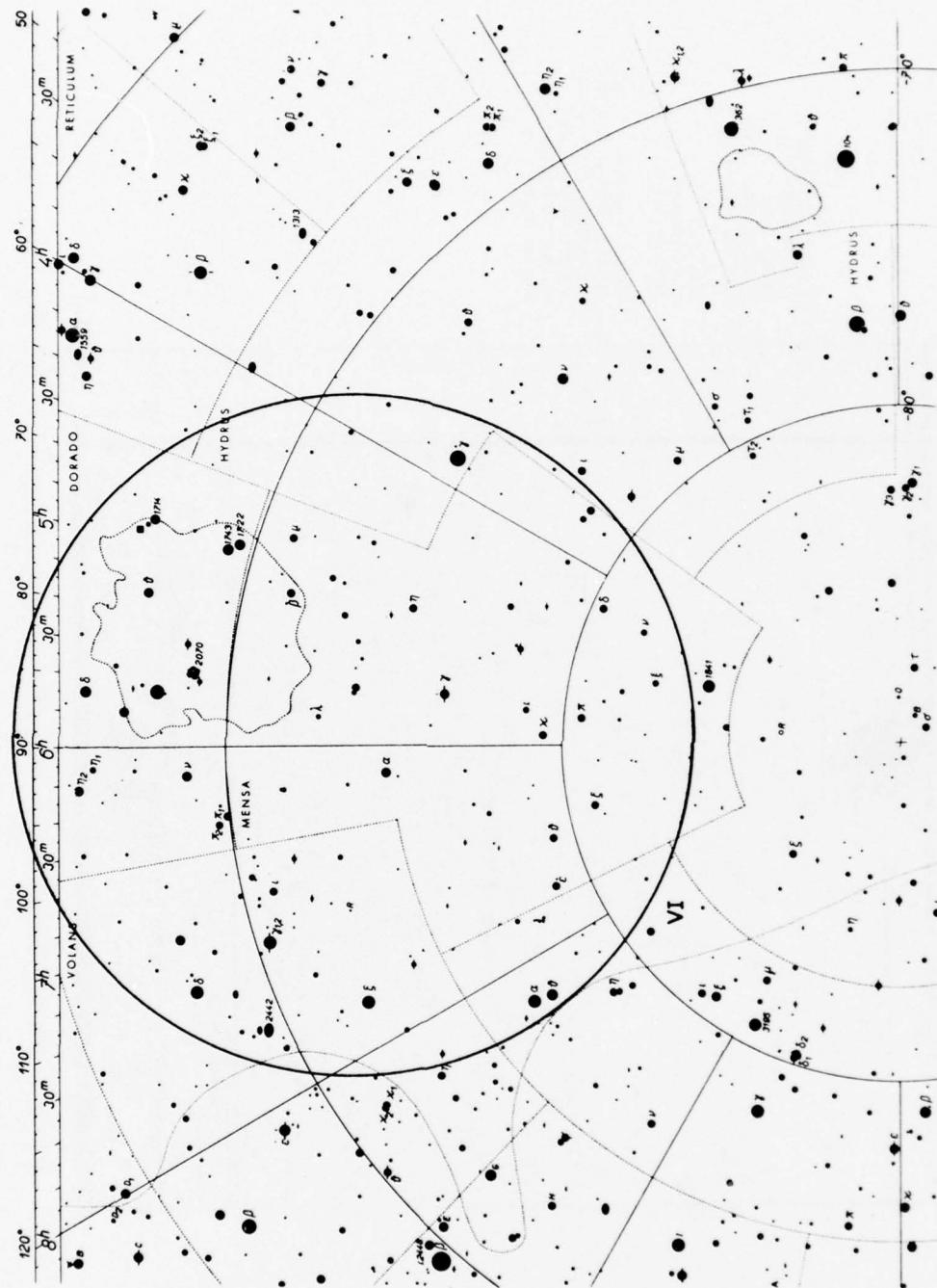


Fig. 9a — Preselected target field (Mensa-LMC). The approximate area covered by the S201 pointing is shown by the circle.

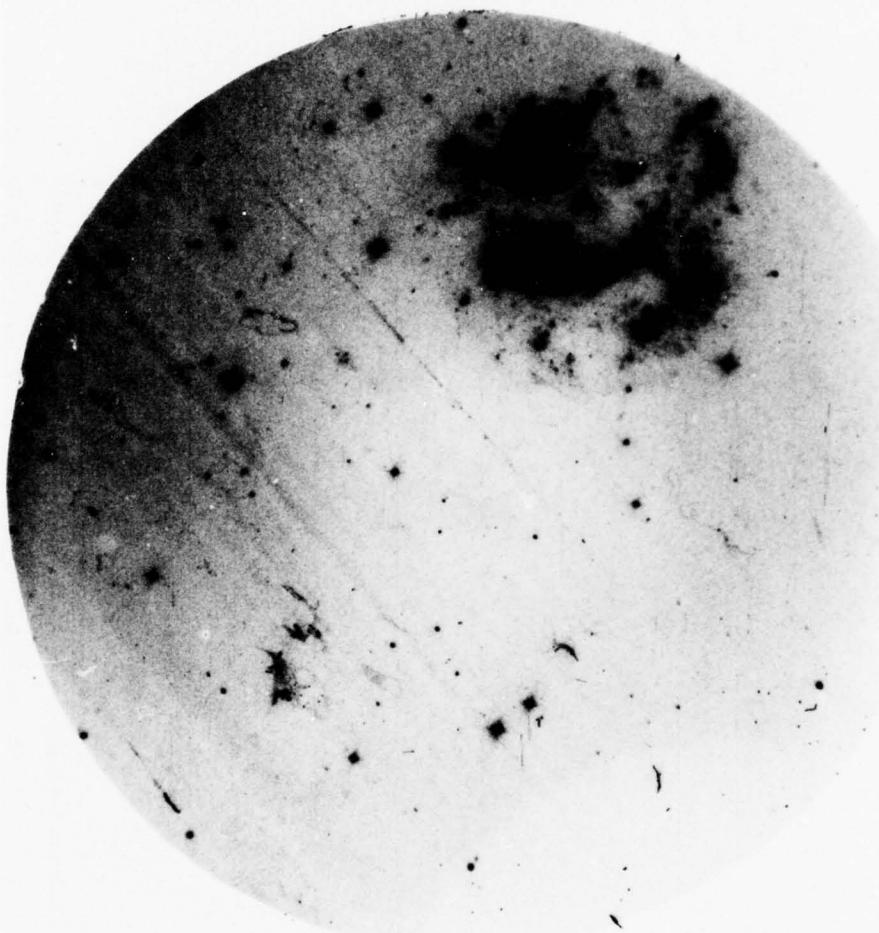


Fig. 9b — S201 starfield photograph (frame A129, ICd, 10-min exposure)

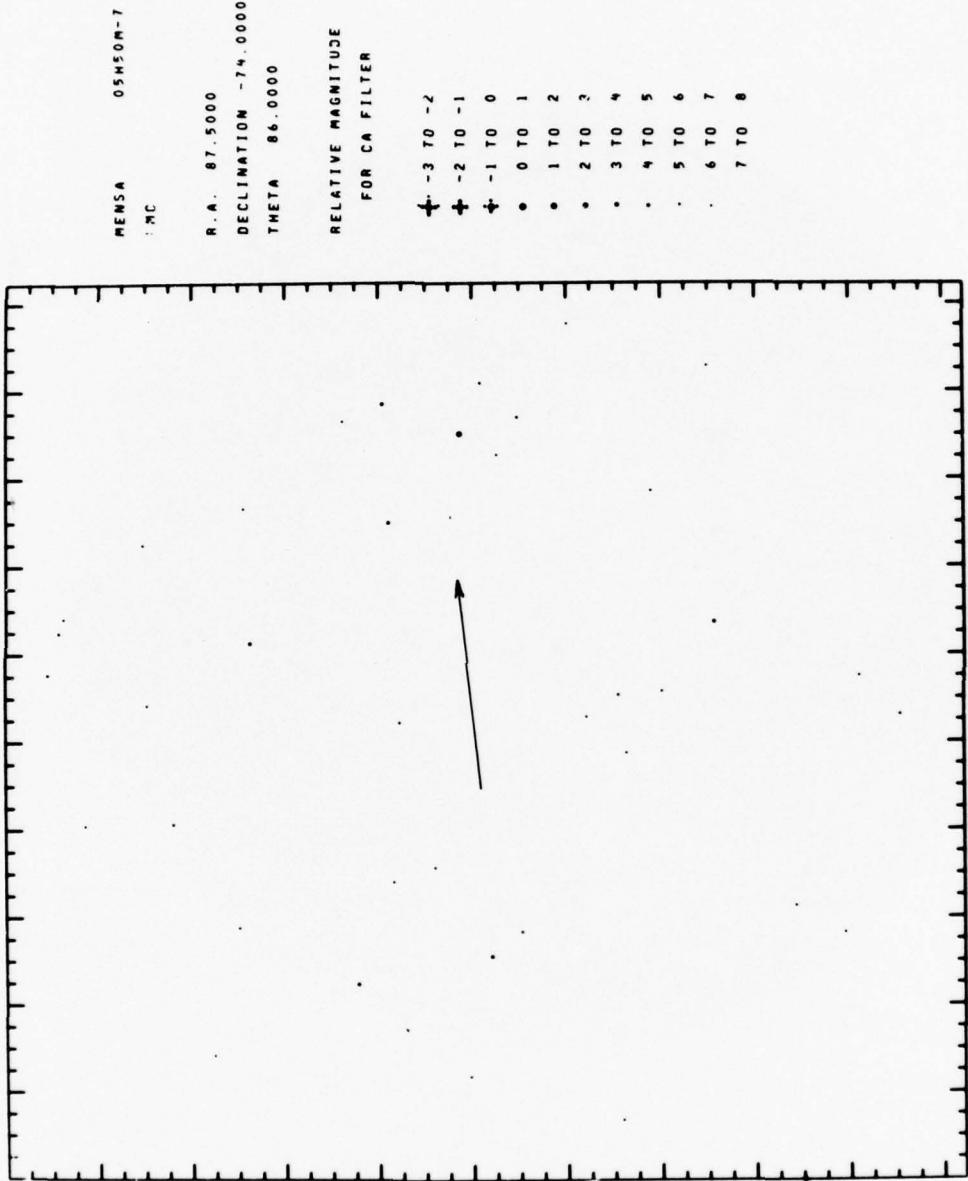


Fig. 9c — Smithsonian Astrophysical Observatory (SAO) star plot of area covered by the S201 image of Fig. 9b

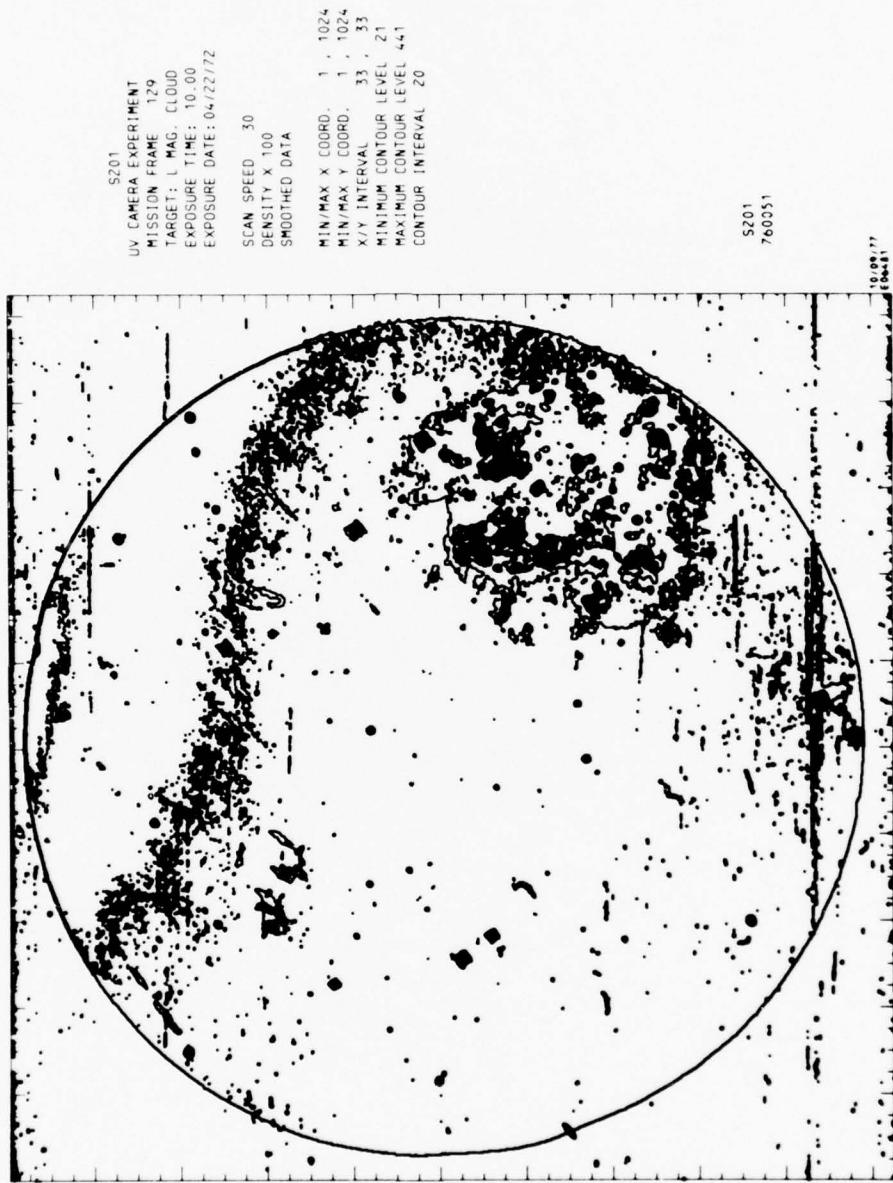


Fig. 9d — Sample isodensity contour plot. Orientation is the same as in Figs. 9b and 9c.

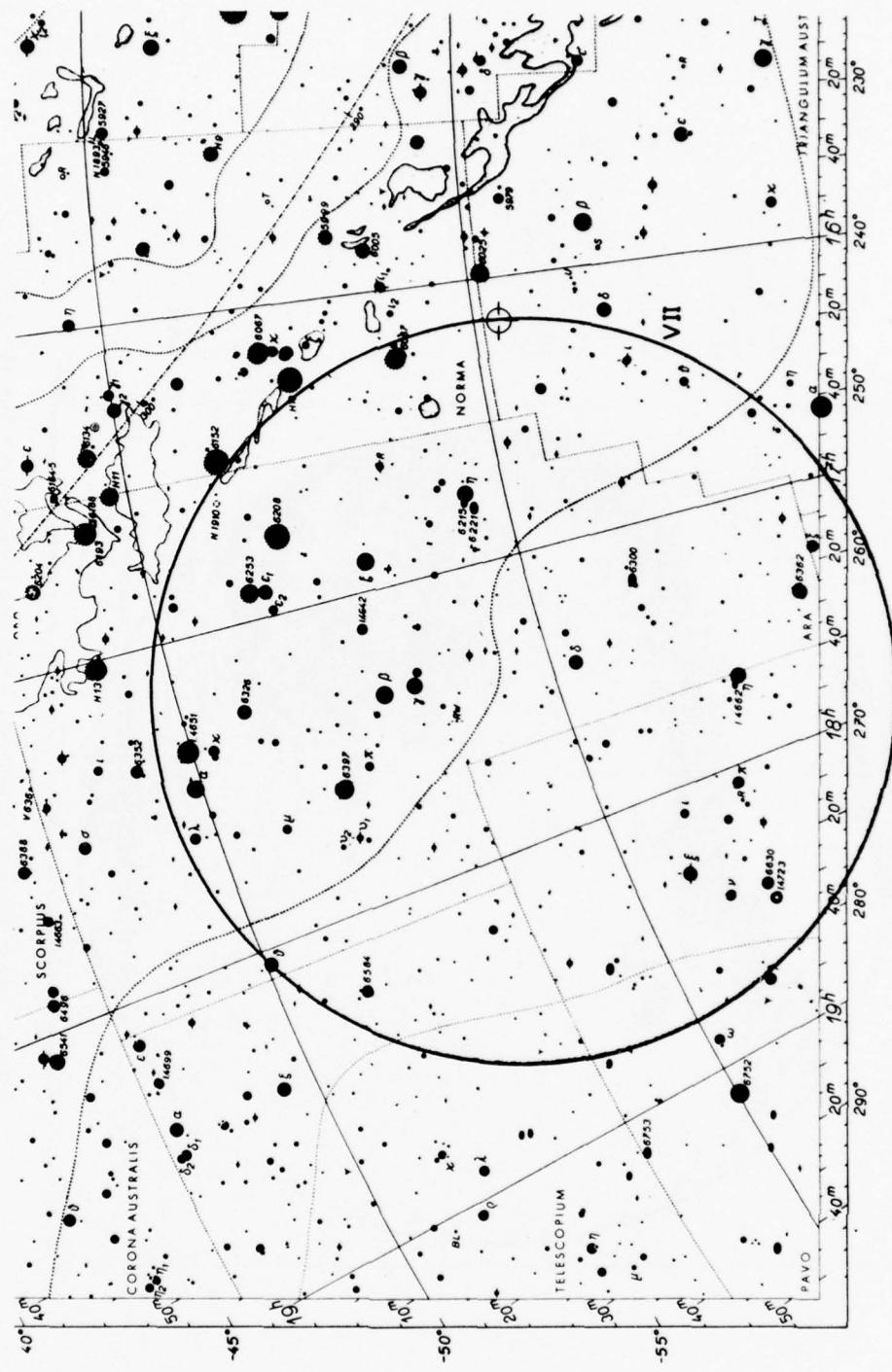


Fig. 10a — Preselected target field (Norma-N6300). The approximate area covered by the S201 pointing is shown by the circle.

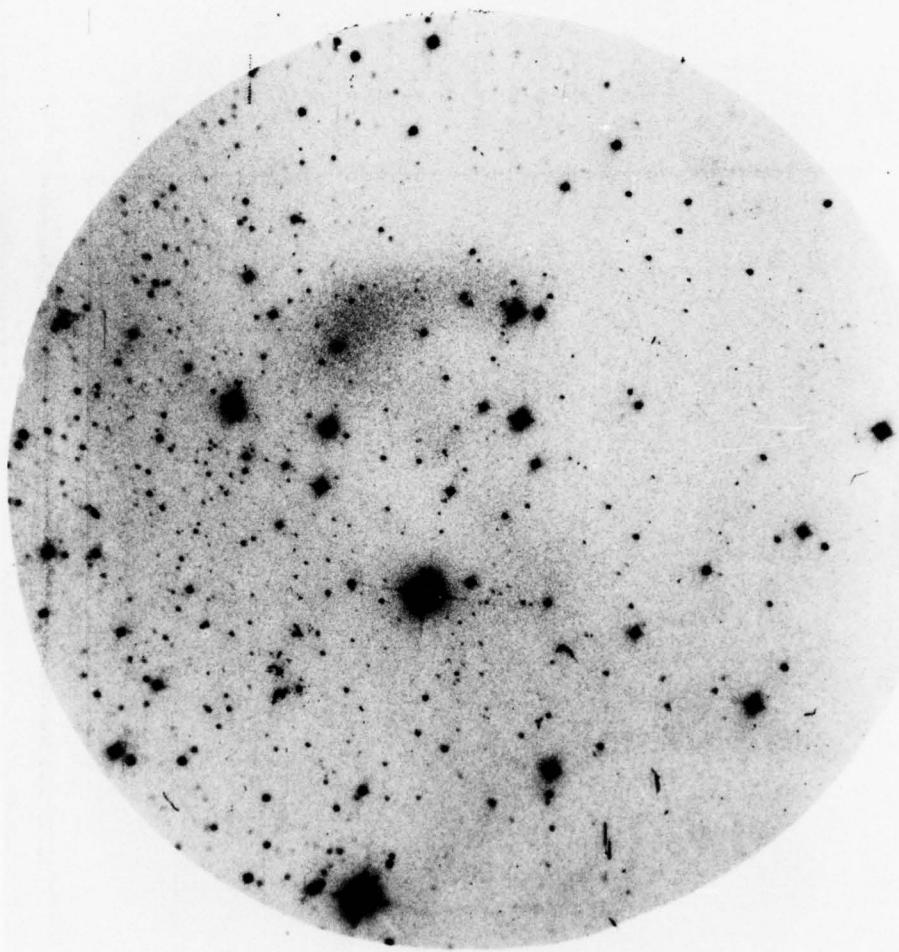


Fig. 10b — S201 starfield photograph (frame A149, 4.1-min exposure)

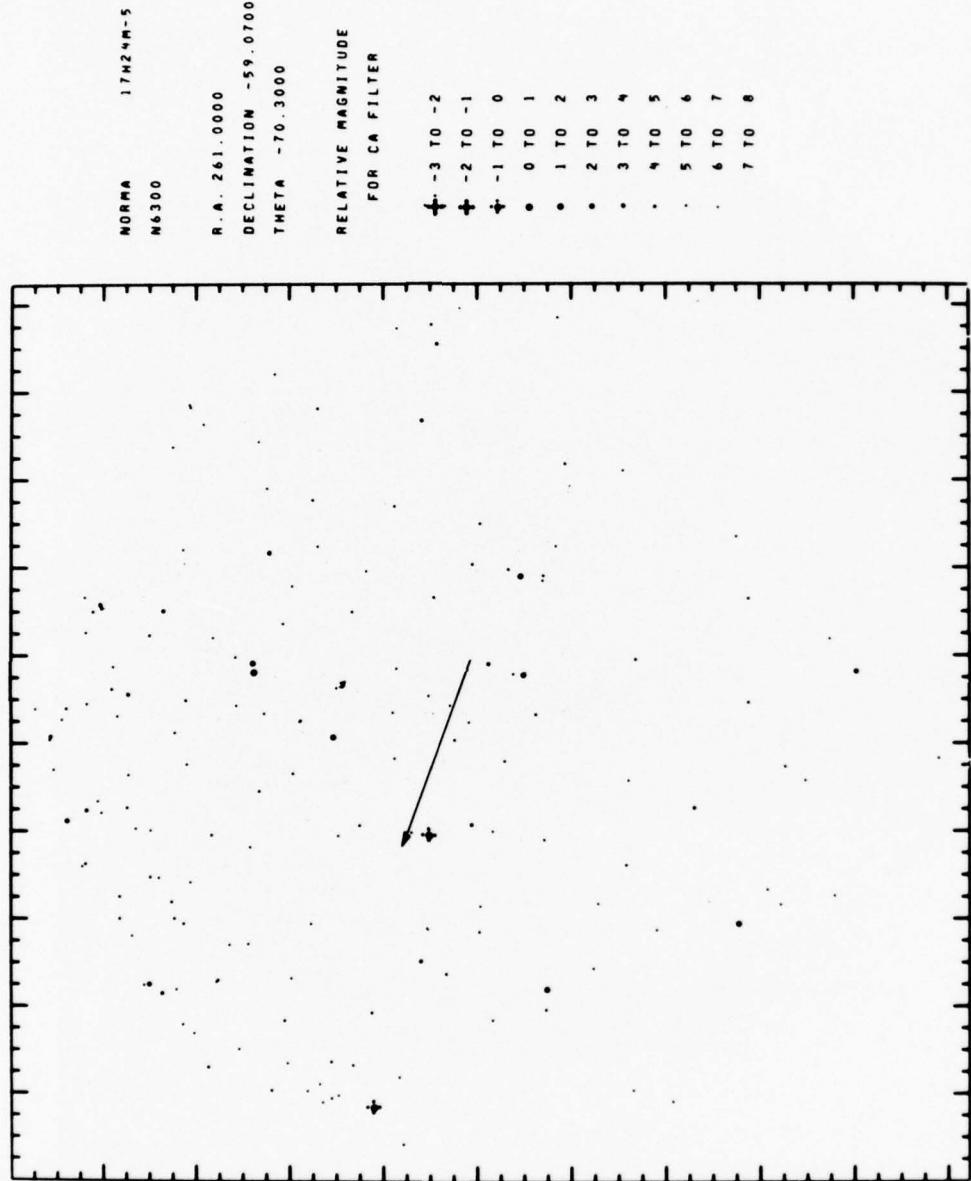


Fig. 10c — Smithsonian Astrophysical Observatory (SAO) star plot of area covered by the S201 image of Fig. 10b

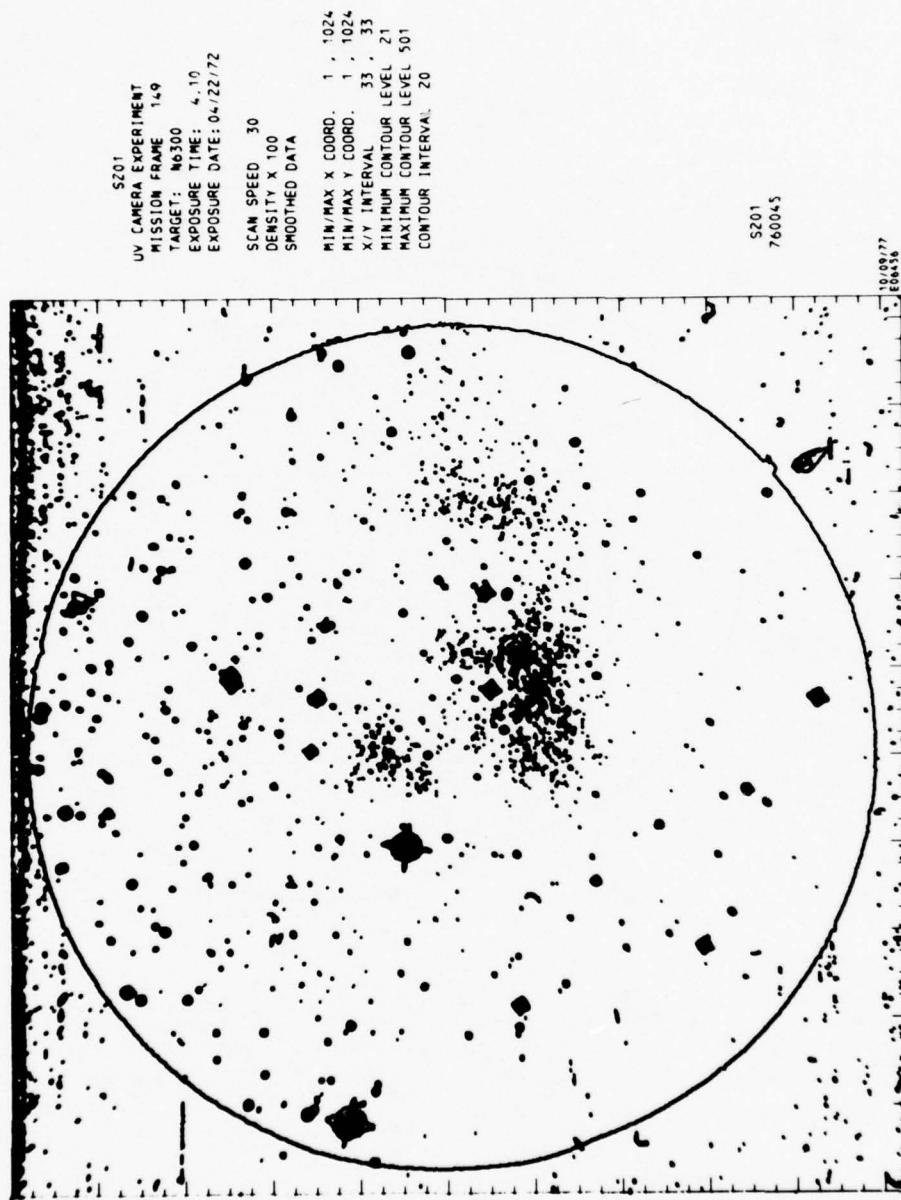


Fig. 10d — Sample isodensity contour plot. Orientation is the same as in Figs. 10b and 10c.

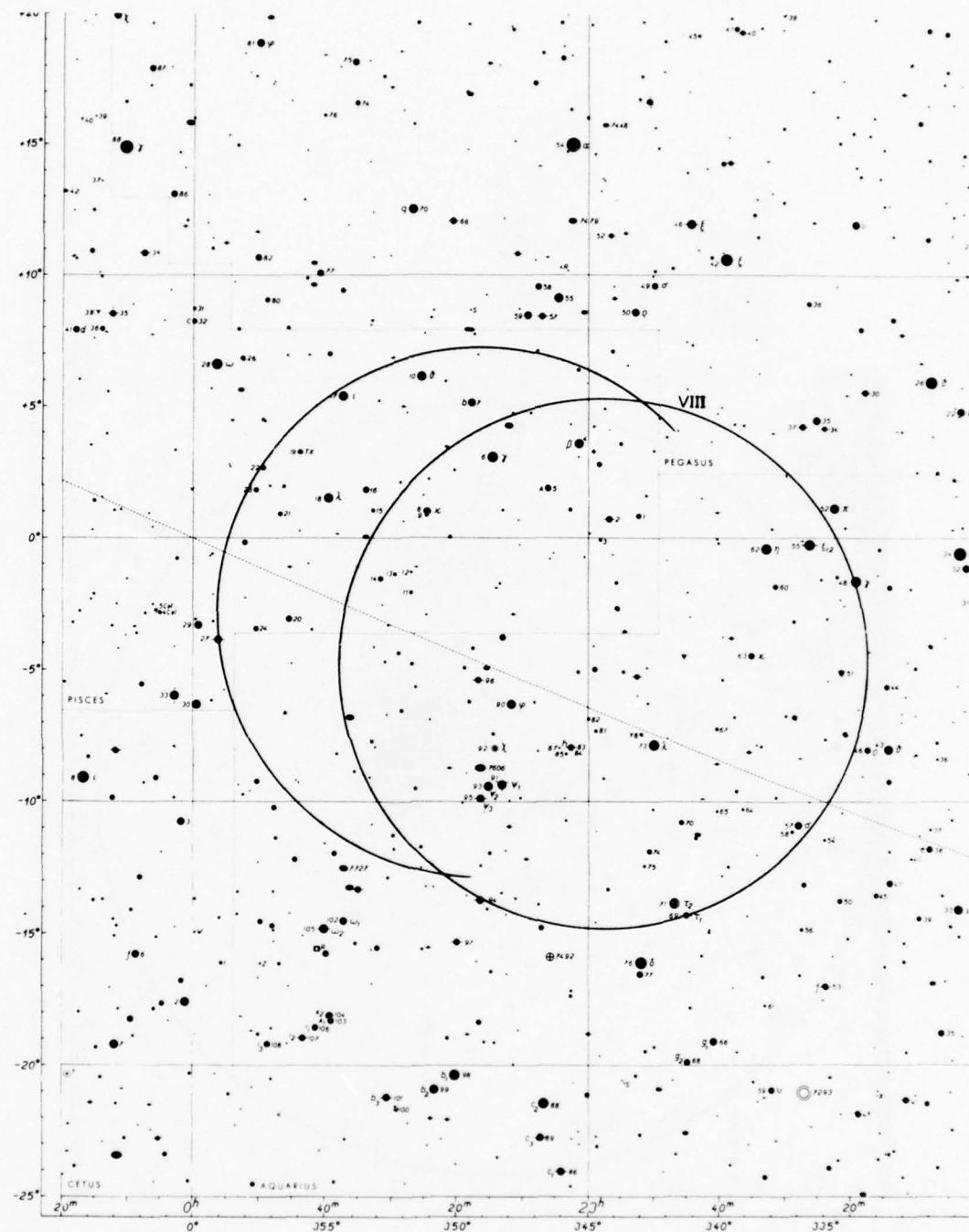


Fig. 11a — Preselected target field (Aquarius-Geocorona). Two overlapping fields are shown. The approximate area covered by the S201 pointing is shown by the two circles (beginning and ending of sequence).



Fig. 11b — S201 starfield photograph (Aquarius 1, frame A156, ICa, 10-min exposure)

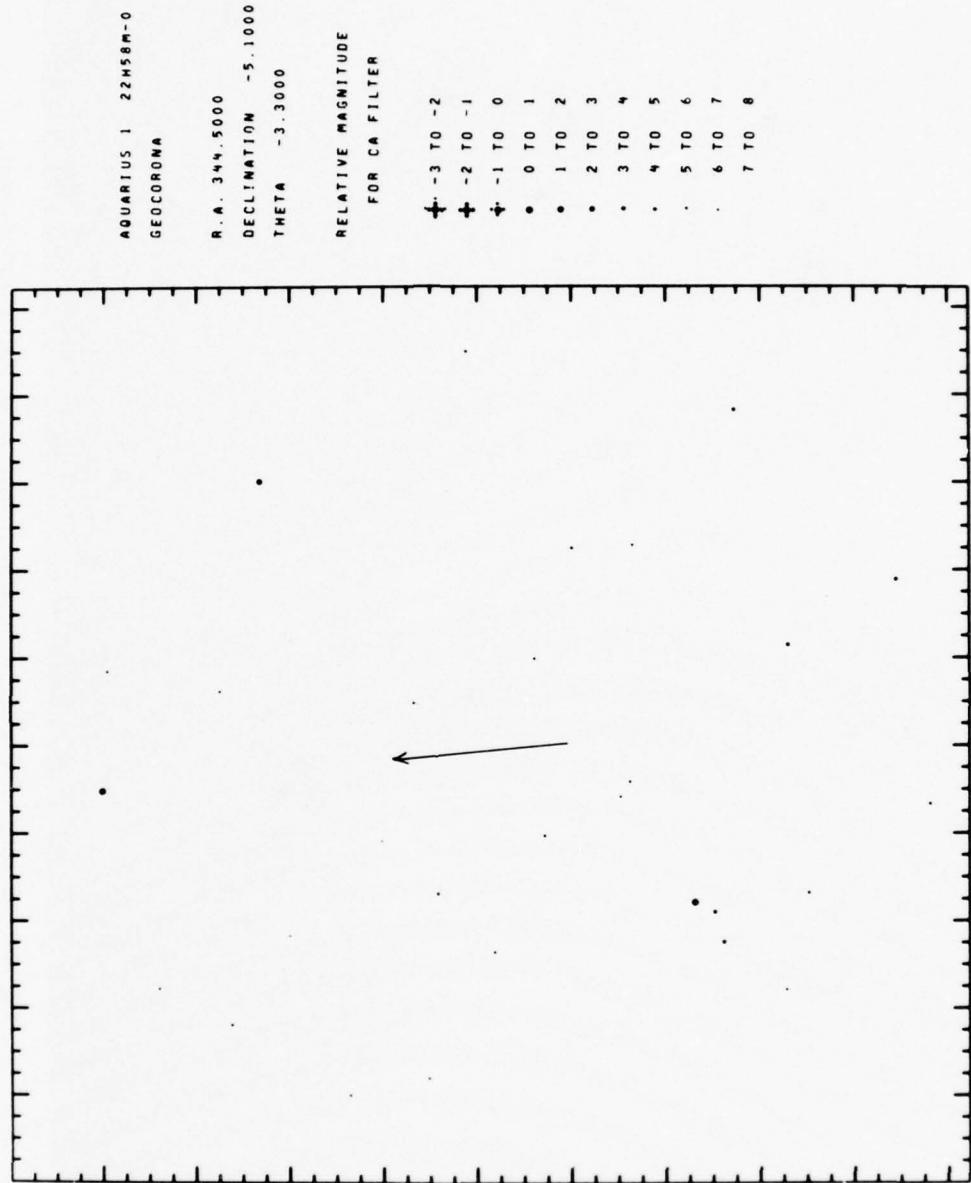


Fig. 11c — Smithsonian Astrophysical Observatory (SAO) star plot of area covered by the S201 image of Fig. 11b,
Aquarius 1

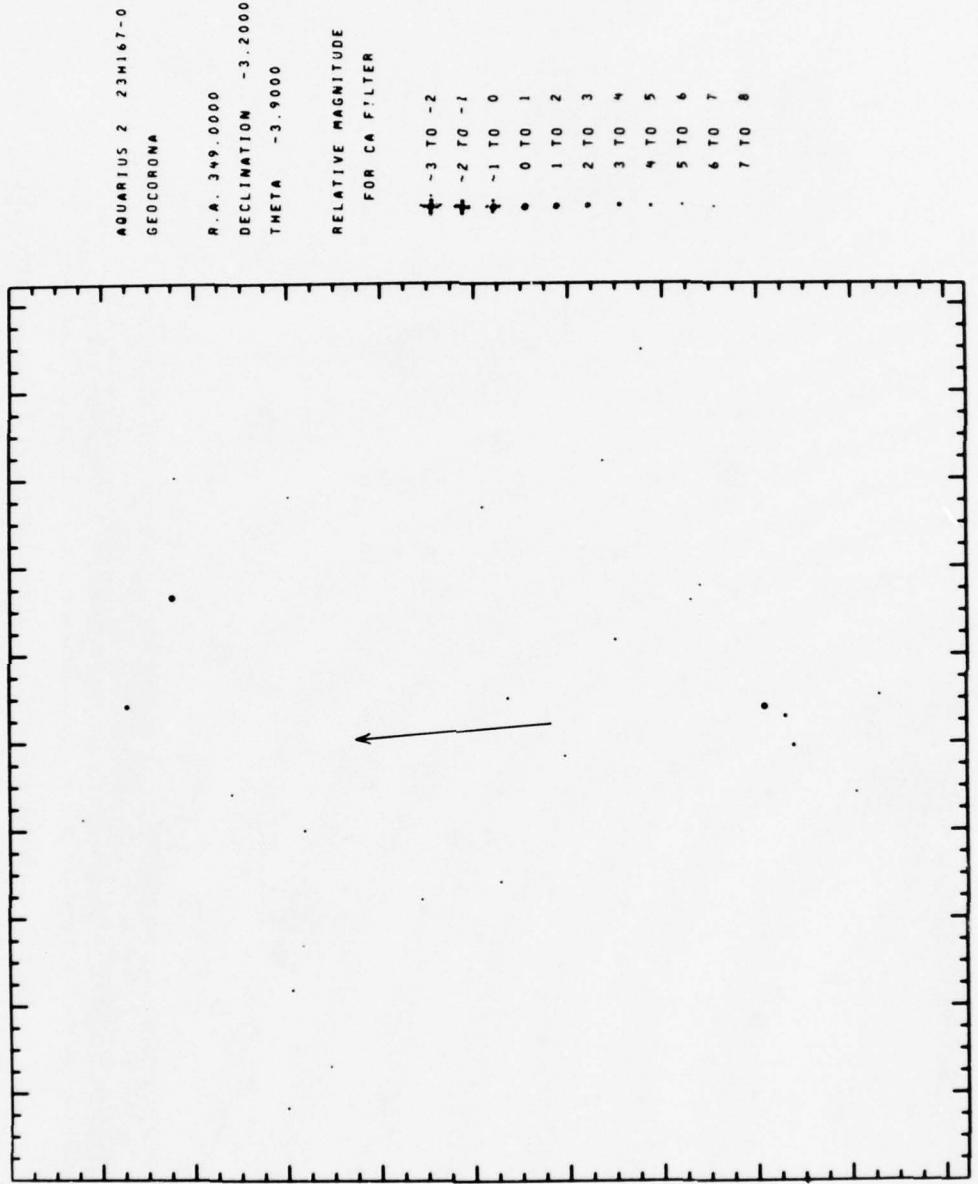


Fig. 11d — Sample isodensity contour plot. Orientation is the same as in Figs. 11b and 11c, frames A171-7, Aquarius 2

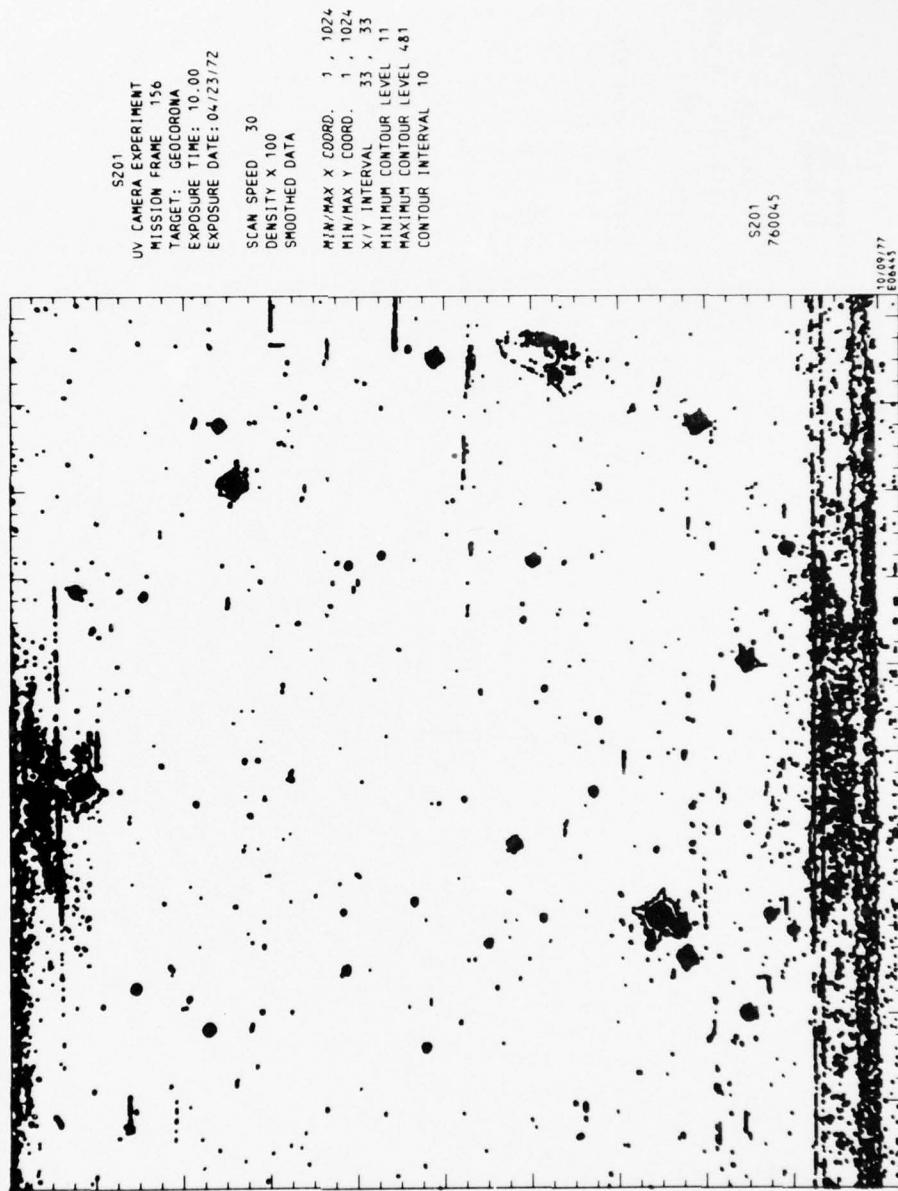


Fig. 11e — Isodensity contour plot of frame A156, ICa, 10 min exposure (Fig. 11b)

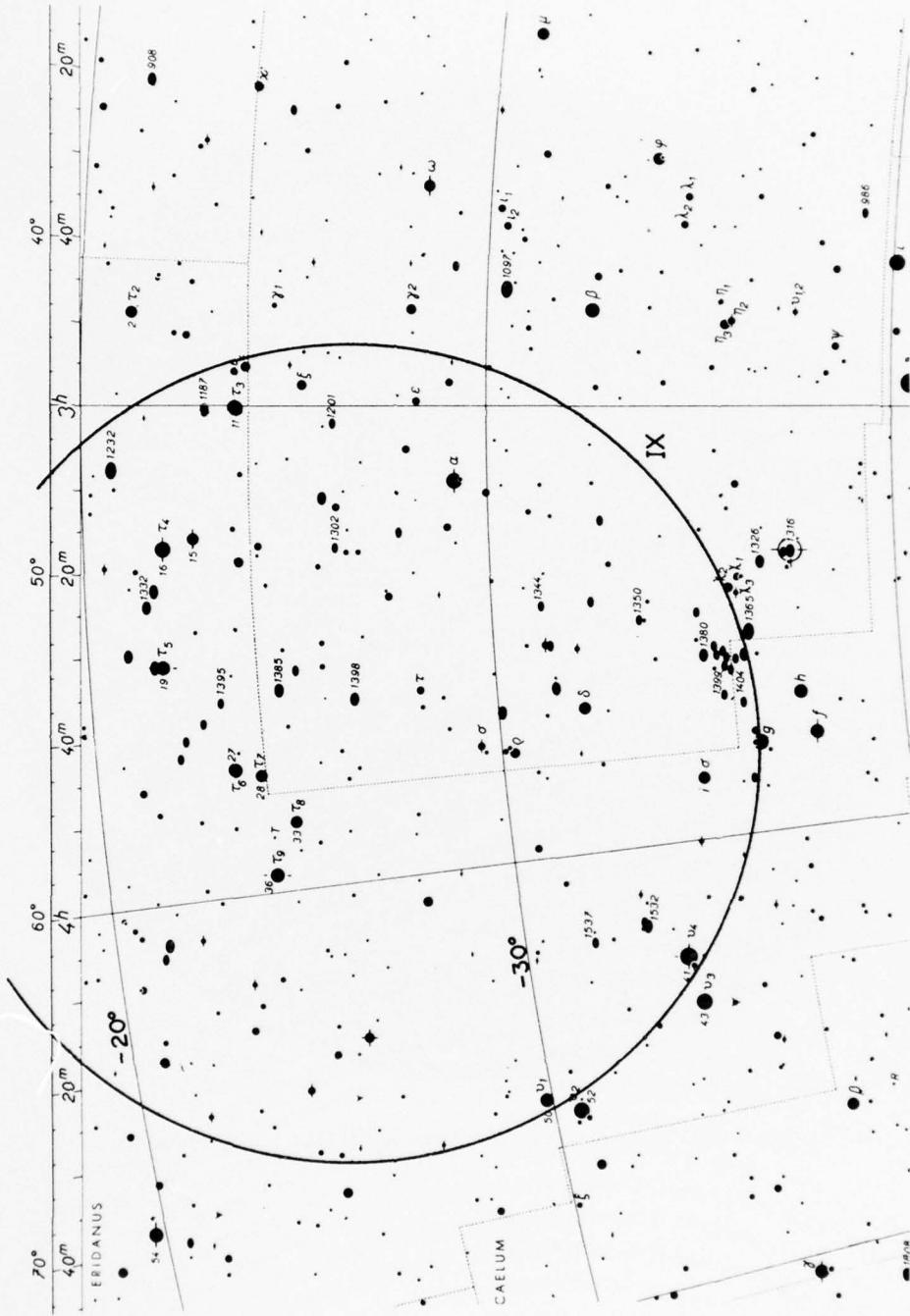


Fig. 12a — Presellected target field (Fornax). The approximate area covered by the S201 pointing is shown by the circle; see also Fig. 6a.

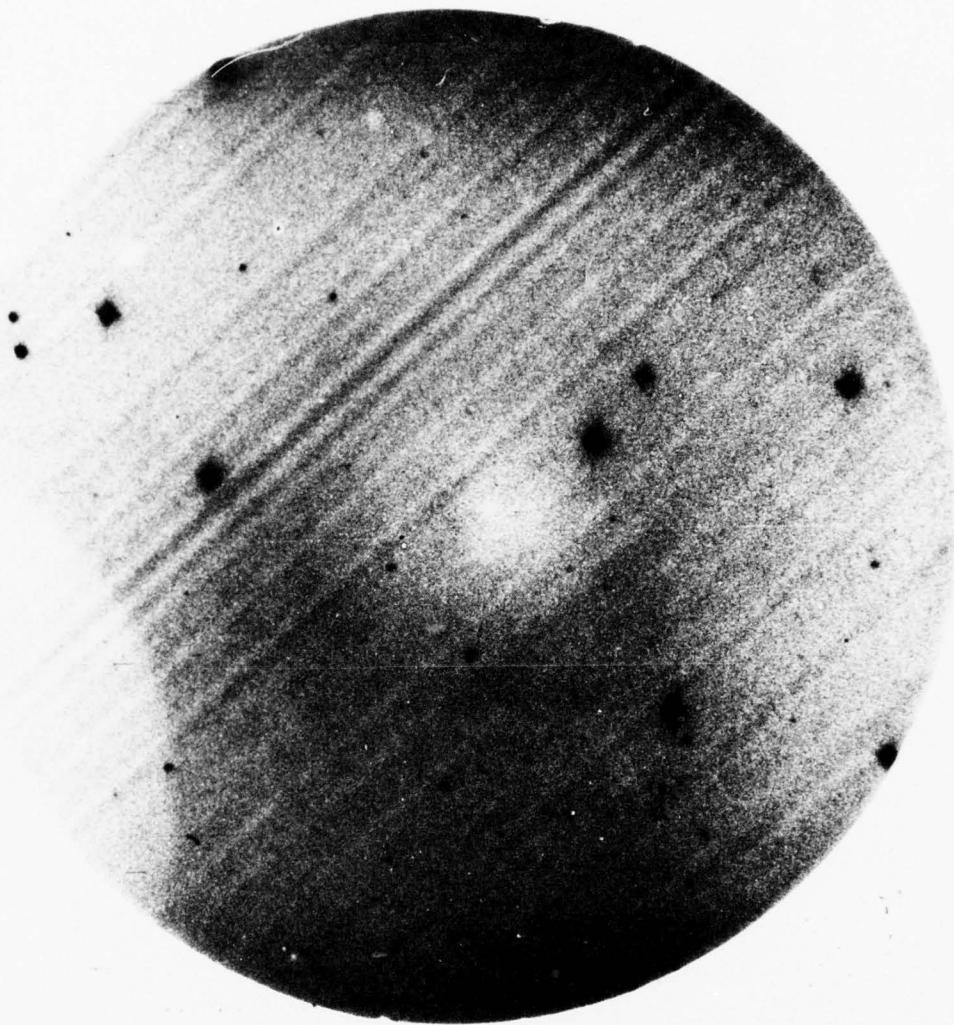


Fig. 12b — S201 starfield photograph (frame A192, ICa, 3-min exposure)

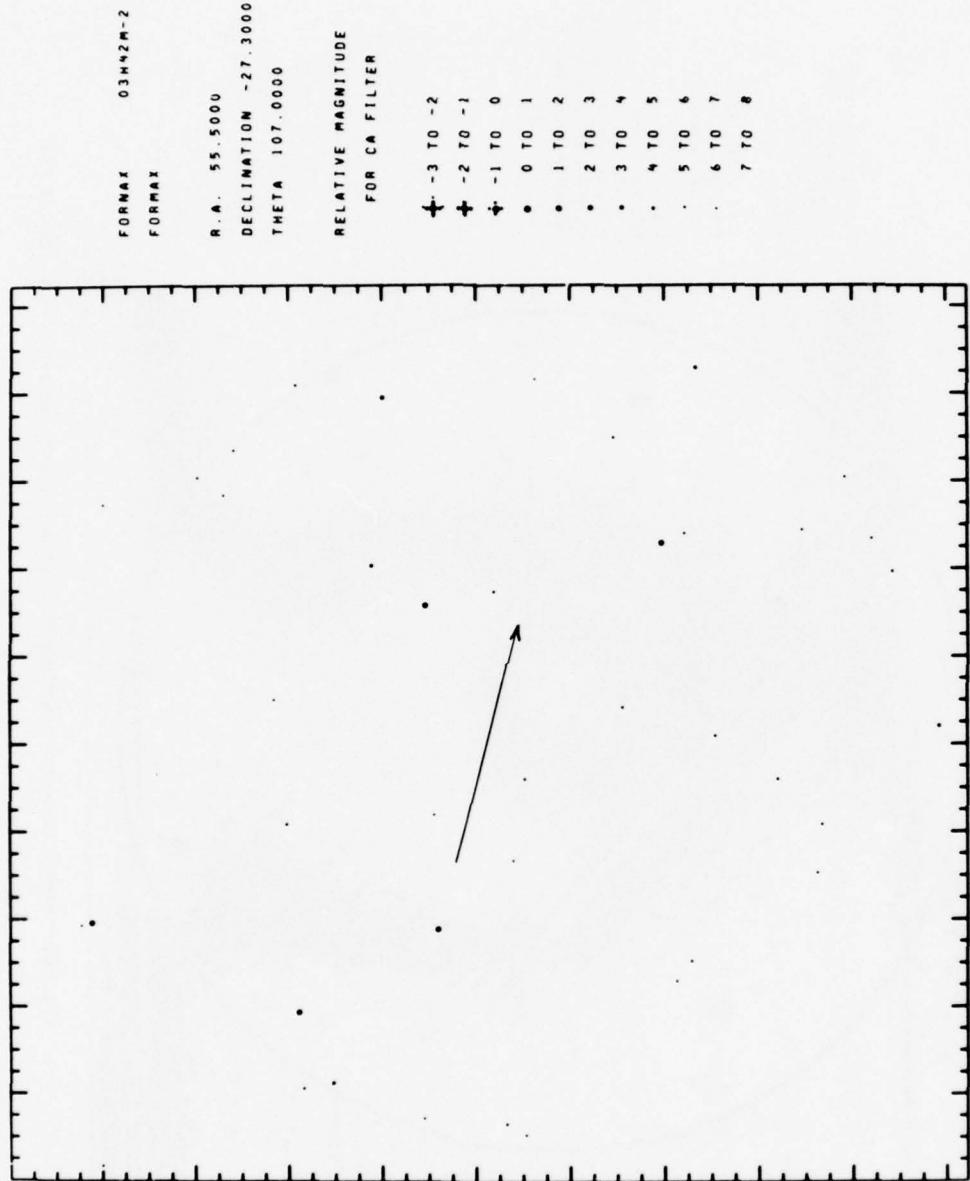


Fig. 12c — Smithsonian Astrophysical Observatory (SAO) star plot of area covered by the S201 image of Fig. 12b



Fig. 12d — Sample isodensity contour plot. Orientation is the same as in Figs. 12b and 12c

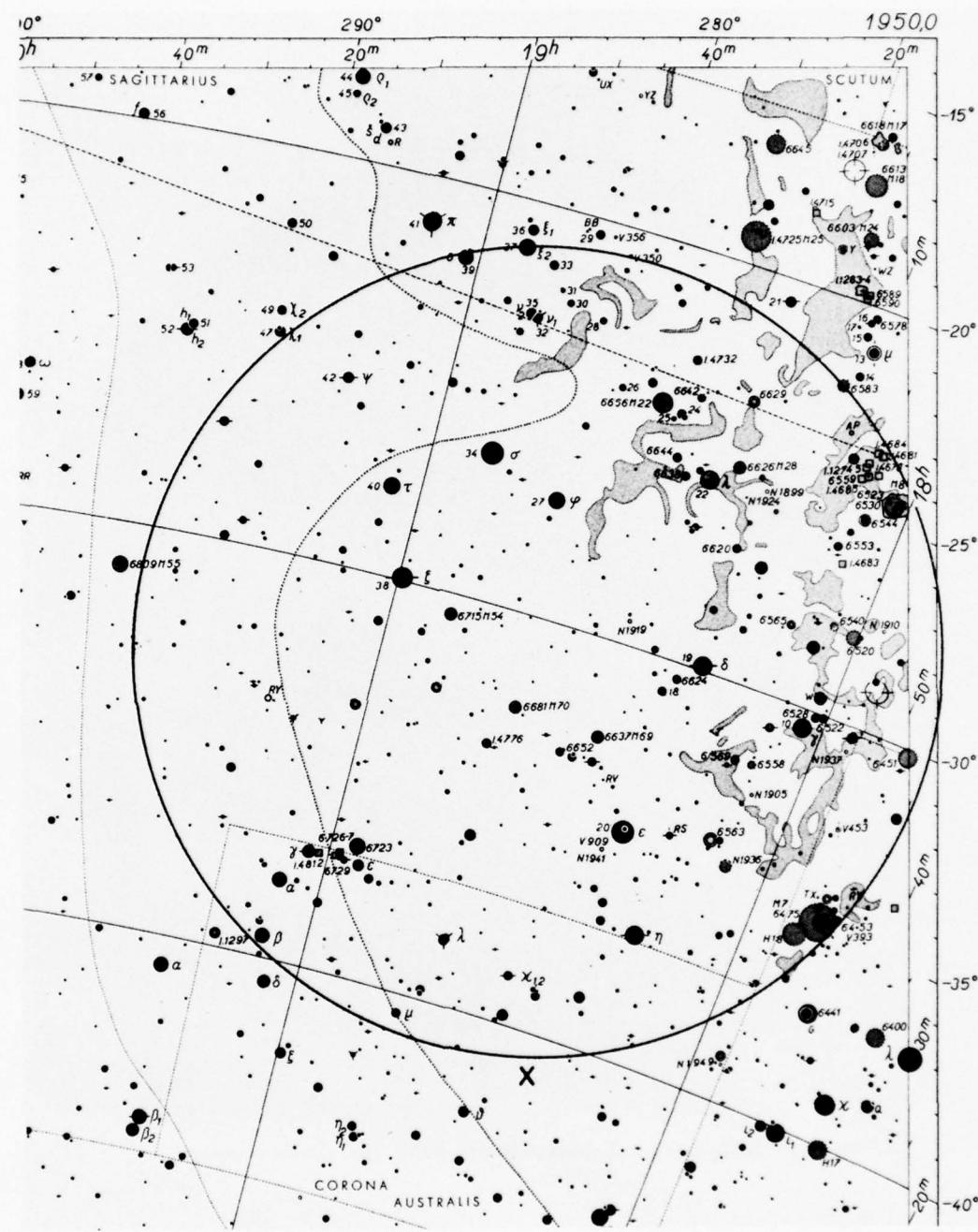


Fig. 13a — Preselected target field (Sagittarius-MW Center). The approximate area covered by the S201 pointing is shown by the circle.

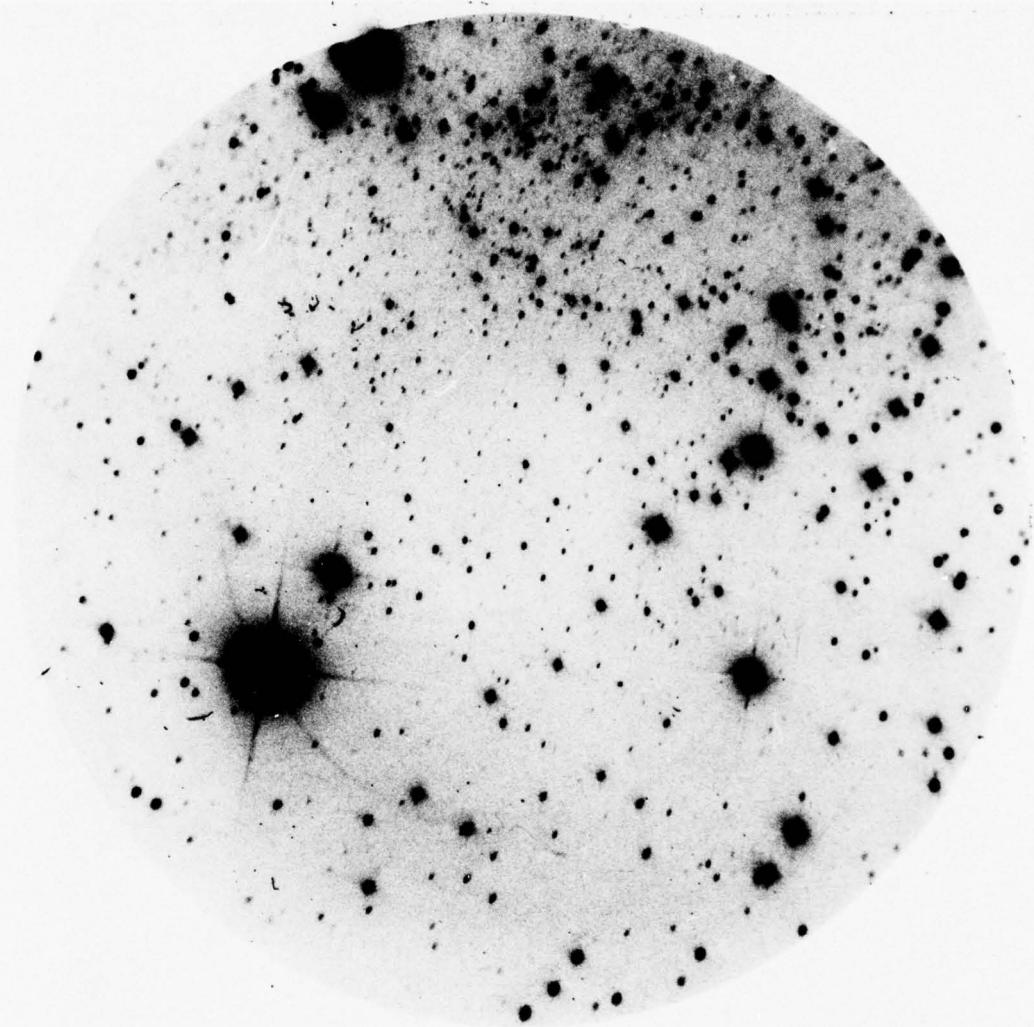


Fig. 13b — S201 starfield photograph (frame A203, ICa, 10-min exposure)

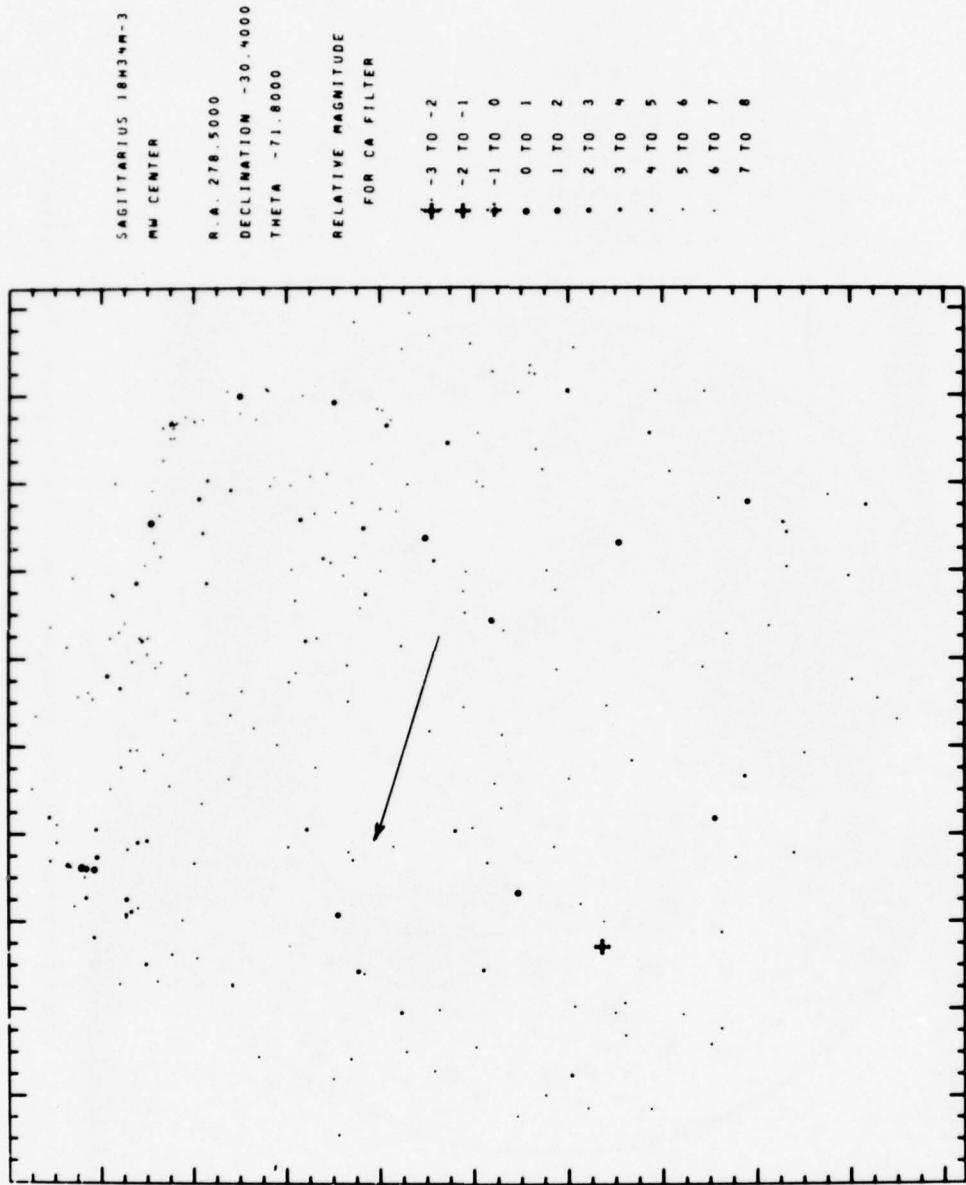


Fig. 13c — Smithsonian Astrophysical Observatory (SAO) star plot of area covered by the S201 image of Fig. 13b

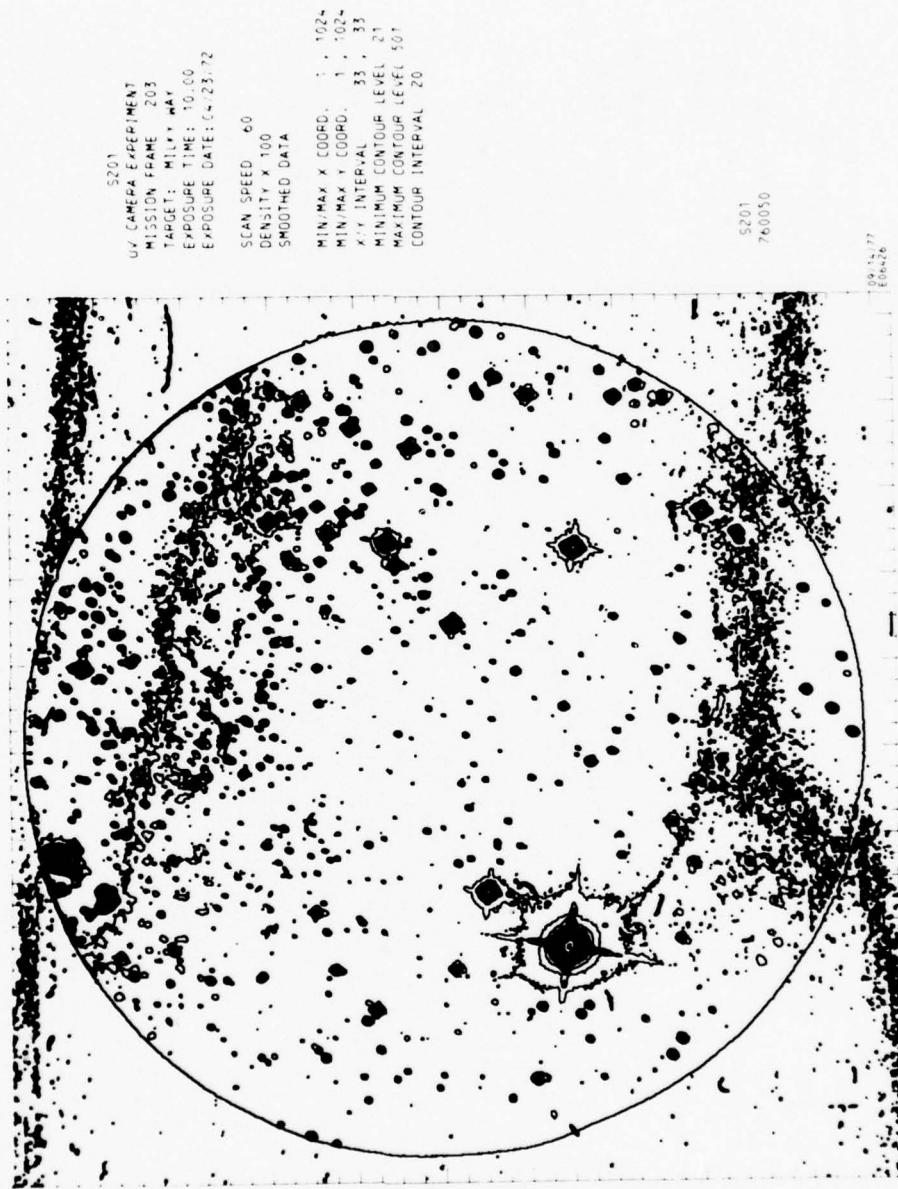


Fig. 13d — Sample isodensity contour plot. Orientation is the same as in Figs. 13b and 13c.

DATA ANALYSIS

All 204 frames, including, for example, calibration on frames A1 to A19, stellar imagery on frames A21 to A28, and spectra on frames A48 to A56, were scanned with a PDS microdensitometer in South Pasadena, Calif., specially tuned by its Boller and Chivens manufacturers to cover the range 0 to 5.2 density. The output (optical density $D = \log(I_0/I)$) was recorded on 27 seven track magnetic tapes at 800 bits/inch and with odd parity. These data, after reformatting on new tapes, were deposited with the National Space Science Data Center, Code 601, NASA Goddard Space Flight Center, Greenbelt, MD 20771, on 16 reels numbered D23995 to D24010 inclusive.

The scan matrix was 1024 by 1024 rasters (1024^2 x, y points, or pixels) on all scans except calibration frames, and one raster was $33 \mu\text{m}$, corresponding to 1.19 arc-min in the sky. The densitometer spot was $40 \mu\text{m}$ square. The x direction was parallel to the film edge toward the tail end of the film, which was loaded emulsion up, and the y direction was across the film at 90° clockwise from x (a left-hand coordinate system). Scan speeds of 17.2, 8.6, and 4.3 mm/s were used, requiring $1/2$, 1, or 2 hr per frame. The speed was selected according to eye estimates of the density gradients on each frame (lowest speed for high density gradients). A speed test was undertaken for four star images on frames A191 and A192 and showed that the PDS recording lag [11] reduced the measured peak density in a star image, although the position of the image was unaffected because of the zigzag scan (+x, then -x).

The center of each scan ($x = 512$, $y \approx 512$) was placed as nearly as possible at the frame center. The PDS density readings (in units of $0.01D$) were checked by scanning standard step wedges at the beginning and end, together with the calibration frames. No zero-point drift of the PDS microdensitometer was detected in the 19 days of scanning (29 July to 16 August 1974). There were one to seven parity errors on 19 of the frame scans, and one bad tape was discovered by playback; the scans were repeated. The PDS recorded densities in units of $0.01D$ ($100 \log I_0/I$), and these units are used throughout this catalog.

An asset of the electrographic recording technique is that the optical density of the processed emulsion is directly proportional to integrated photon flux up to densities of about $1.5D$, and the relationship between density and exposure can be determined to densities over $3.5D$. Preflight laboratory calibrations of the S201 instrument's spectral response and absolute sensitivity were used to determine the ultraviolet brightnesses of observed diffuse sources and point sources (star images). Observations of the hydrogen geocoronal and interplanetary Lyman- α emissions [2] are consistent with other measures of these emissions, and hence tend to confirm the preflight calibrations.

Star images were detected, located, and identified by a series of EXEC II programs on the Univac 1108 computer at the NASA Johnson Space Center. Seven major programs were written and can be summarized as follows:

- The REFORMAT program added a header starting with the frame number and added an end-of-file mark to each PDS scan, creating a new tape compatible with the EXEC II system.

- The SMOOTH program was found necessary to reduce grain noise in the PDS output. It created a new data tape by averaging 12 surrounding pixels with each pixel in the scan, using the following weighting factors to give a smoothed density $D(x, y)$ at each point x, y :

$$\begin{matrix} & & 1/36 \\ & 2/36 & 4/36 & 2/36 \\ 1/36 & 4/36 & 8/36 & 4/36 & 1/36 \\ & 2/36 & 4/36 & 2/36 \\ & & 1/36 \end{matrix}$$

- The CONTOUR program plotted isodensity contours at selectable contour intervals over selectable regions of the scan. This was used primarily to give quantitative intensity distributions over extended far-ultraviolet objects such as the geocorona, possible clouds in the solar wind, nebulas, clouds in the Large Magellanic Cloud (LMC), other galaxies, and clusters of galaxies. Sample full-frame plots are shown in Figs. 4d, 5d, ..., 13d. These contour plots also revealed defects in the scan data, such as hairs and scratches, which were later removed from the list of star images. They show streaks (as in Fig. 12d) caused by inhomogeneities in the barrier membrane, a lenticular region of low cathode sensitivity in the low- x , high- y part of each frame, and small variations in the background density (B) due to vignetting. Small-region (enlarged) contour plots were used to check density-volumes derived from the STAR DETECTION program.

- The STAR DETECTION program identified each starlike image by its "edge" 20 units (0.2D) above local background, measured its "area" by the number N of pixels within the edge, added up the total density $\Sigma_N D$, and measured the peak density P , the x, y coordinates of the peak, and the local background B . From these measurements the density volume of the image $V = \Sigma_N (D - B)$ can be derived. This program is described in detail in Appendix A.

- The STAR PLOT program was based on a tape created from the SAO catalog tape provided by the Smithsonian Astrophysical Observatory, Cambridge, MA 02138. That catalog, dated 1966, lists 258,997 stars as faint as 10.5 visual magnitude (complete to approximately 9 magnitude) in all parts of the sky, together with spectral type, visual magnitude m_v , photographic magnitude m_p , right ascension α , declination δ , (the latter two being 1950 coordinates), proper motions, and references. A new tape "SAO CATALOG APOLLO" was created, listing all SAO stars of O, B, and A types, F stars brighter than 4.5 visual magnitude and other types brighter than 3.5 visual magnitude in regions covering the ten S201 target fields listed in Table 1. From this tape the STAR PLOT program created plots and list lists of the SAO stars in fields accurately matching the S201 fields and using symbols that roughly represent far-ultraviolet magnitudes, as shown in Figs. 4c, 5c, ..., 13c. These rough far-ultraviolet magnitudes were computed using blackbody curves for the effective temperatures appropriate to the spectral classes and integrating the fluxes over the range 1050-1600 Å for the ILi frames and over the range 1250-1600 Å for the ICa frames. These plots were used to identify three to 23 star images on each frame with the brighter SAO stars. (A previous step had been the identification of three to five bright O-B stars by visual inspection and comparison with the Skalnate-Pleso charts (Figs. 4a, 5a, ..., 13a).) It was later found necessary to introduce a "distortion correction" (Δx and Δy as a function of x, y) to eliminate an S-shaped distortion produced by a nonuniform magnetic field in the S201 camera. This involved plots of detected images and plotted positions of over 150 SAO stars in two fields (Cygnus and Sagittarius), plots of resulting Δx and Δy , and smoothing the $\Delta x, \Delta y$ matrix.

- The COORDINATE TRANSFORMATION program used the input of three or more identified star positions (x , y and α , δ) and the distortion matrix to convert all detected star positions on one frame from scan coordinates to celestial (1950) coordinates right ascension (α) and declination (δ). The program derives the center-of-frame coordinates α_0, δ_0 and the angle θ_0 between the $-y$ axis and the $+\delta$ axis (direction north) from the input positions by the method of least squares. The residuals for each input star were printed out and used to spot an occasional misidentified input star. The root-mean-square residuals in x and y were used to estimate position errors, typically within 3 arc-min. In Table 1, σ is the larger of the rms residuals in rasters.
- The STAR IDENTIFICATION program was used to compare the coordinates of detected starlike images on each frame with SAO star coordinates on the SAO CATALOG APOLLO tape and print out a separate line for each star image and the SAO stars within 10 arc-min of that image position. These printouts, in the format of the final S201 catalog, were then edited, eliminating scan defects and correcting background (B) values inconsistent with the contour plots. The editing was done with the EXEC VIII Univac 1110 computer; a query (?) was added to doubtful SAO numbers, background values, and density-volume values, and H or L was added to density-volume values considered too high or too low (i.e. a factor of 2 above or below the mean) for the SAO spectral type and visual magnitude. The symbol NO (for non-SAO object) was inserted in the SAO-number column when two or more S201 frames recorded an image with no SAO star within 10 arc-min. They are listed in Table 2.

The measured density volumes (V) require three corrections: at low V a quantity T must be added to correct for truncation of the images at 20 units (0.2D) above background B , a correction $\Delta\Delta$ must be added for the PDS lag during the rise from B to the peak density P , and for $V > 500$ a quantity ΔD must be added to correct for the nonlinear response of the S201-camera-and-NTB-3-emulsion combination.

Figure 14 illustrates schematically the truncation correction T for images of different sizes. Many cross sections were drawn from mosaics of the smoothed scan data. The images were found to be nearly circular, roughly approximated by a right circular cone of volume $(N/3)(P - B)$. At $V \leq 400$ the full image radius was 3.5 rasters, and the measured V was $20N$ plus a rounded cap somewhat larger than a cone of volume $(N/3)(P - B - 20)$, as shown in Fig. 14a. This excess of cap over a cone is called $\Delta V = V - 20N - (N/3)(P - B - 20)$, and it was found that, on the average, $\Delta V = 0.13N(P - B - 20)$ for $80 \leq V \leq 800$, and $\Delta V = 100$ for $800 < V < 3000$. Then for the faint images the truncation correction is

$$T = \frac{\pi}{3} (3.5)^2 (P - B) - (N/3)(P - B - 20) - 20N, \quad \text{for } V \leq 400,$$

and is relatively large (up to a factor of 3.6 at $V = 80$). (Images with $N < 4$, or $V < 80$, are not listed in the catalog, because most of them are noise.)

Measured values of V , N , and $P - B$ for 138 images on frames A26, A27, and A28 (ICa, low background) also show how images "grow" from $V = 80$ to V over 100,000 (in units of 0.01D times raster squared, where 1 raster = $33 \mu\text{m}$). There is some scatter, but most of the values fall within 20% of the mean curves of N vs V and $(P - B)$ vs V (values from these curves being listed in the first three columns of Table 3).

Table 1 — Apollo Frames Scanned and Measured

In this table, α_0 and δ_0 are coordinates of the scan center, at $x = 512$, $y = 512$ rasters, θ_0 is the position angle of the $-y$ scan axis projected on the sky; "Stand. Stars" is the number of α , δ and x , y inputs to the COORDINATE TRANSFORMATION program; σ is the larger of the rms x residuals or y residuals, given in rasters, "No. of Images" is the number of starlike images of four or more pixels located by the STAR DETECTION program; "BG Range" is the range of the background density (B) in units of 0.01D; "SAO Stars" is the number of star images within 5 arc-min of stars listed in the Smithsonian Astrophysical Observatory catalog (1966); and "Non-SAO Objects" (NOs) is the number of starlike images detected on two or more frames which are more than 10 arc-min from any star in the SAO catalog). Except for the three entries footnoted, the local background B was the average of five surrounding pixels (as explained in Appendix A).

Frame	Exp	Filter	α_0 (deg)	δ_0 (deg)	θ_0 (deg)	Stand. Stars	σ	No. of Images	BG Range	SAO Stars	Non-SAO Objects
Cygnus (loop nebula)											
A21	1/4	Li	320.97	+37.57	+05.97	19	1.7	51	22- 30	32	0
22	1	Li	321.15	+37.47	+06.09	23	1.9	124	60- 70	103	1
23	3	Li	321.03	+37.51	+06.22	22	1.9	257	104-143	182	7
26	3	Ca	319.66	+37.58	+04.94	23	2.4	216	14- 20	166	3
27	10	Ca	321.12	+37.42	+05.68	23	2.0	456	18- 30	336	8
28	3.7	Ca	321.20	+37.55	+05.86	23	2.0	284	15- 28	212	7
Capricorn (earth centered)											
A40	1	Li	318.73	-14.43	-31.33	6	1.9	27	75-292	17	0
41	3	Li	318.71	-14.36	-31.40	8	1.9	30	158-348	19	0
44	3	Ca	318.49	-14.47	-31.46	12	1.8	36	17- 25	29	1
45	10	Ca	318.34	-14.70	-31.69	12	2.2	40	17- 28	31	4
46	30	Ca	318.59	-14.63	-31.80	12	2.1	43	12- 30	32	3
Cetus (for NGC1068)											
A58	1	Li	41.76	-15.26	+85.41	3	0.4	6	33- 40	3	1
59	3	Li	41.79	-15.24	+85.10	5	3.2	15	68- 83	9	2
62	3	Ca	40.57	-14.09	+85.19	5	2.3	17	12- 17	7	1
63	10	Ca	40.54	-14.09	+85.21	6	2.5	24	15- 20	11	3
64	8.4	Ca	41.69	-14.03	+85.47	5	1.9	21	17- 24	13	3
Grus (for NGC55)											
A68	1	Li	353.12	-42.61	+153.87	6	2.7	10	48- 63	7	0
69	3	Li	353.20	-42.64	+153.97	8	1.4	15	102-128	9	1
72	3	Ca	354.53	-42.09	+152.71	8	1.8	18	13- 19	9	1
73	10	Ca	353.81	-42.43	+153.38	8	1.5	20	15- 23	11	1
88	1	Li	358.11	-40.73	+153.59	3	3.3	8	43- 59	3	1
92	3	Ca	358.40	-40.58	+153.47	6	2.4	22	10- 22	9	1
93	10	Ca	358.70	-40.38	+153.36	6	2.3	20	16- 26	10	2
94	30	Ca	358.48	-40.50	+153.91	6	2.0	29	17- 27	10	2

Table continues.

Table 1 — Apollo Frames Scanned and Measured (Concluded)

Frame	Exp	Filter	α_0 (deg)	δ_0 (deg)	θ_0 (deg)	Stand. Stars	σ	No. of Images	BG Range	SAO Stars	Non-SAO Objects
Pavo											
A117	1	Li	318.55	-52.23	+234.76	9	2.7	22	47- 62	9	0
118	3	Li	318.51	-52.16	+235.02	10	3.0	27	106-136	11	1
121	3	Ca	318.86	-52.27	+234.79	10	1.8	32	14- 28	12	1
Mensa (LMC included)											
A124	1	Li	87.44	-74.00	+85.86	10	1.4	67	57- 90	16	13
125	3	Li	87.54	-74.03	+85.80	11	1.8	142	150-170	25	23
129	10	Ca	87.43	-74.03	+86.10	11	1.7	235	30- 70	37	51
130	30	Ca	87.25	-74.04	+86.31	7	1.4	499	70-120	43	54
Norma (for NGC6300)											
A144	1	Li	260.80	-59.06	-70.30	15	1.5	127	70-100	88	7
145	3	Li	260.85	-59.09	-70.26	15	1.6	230	160-300	165	21
148	3	Ca	261.13	-59.06	-70.42	15	1.5	220	20- 28	159	24
149	4	Ca	260.96	-59.08	-70.16	15	1.7	278	25- 35	197	25
Aquarius (geocorona)											
A150	1/2	Li	344.26	-05.16	-03.40	5	1.5	8	30- 49	7	0
151	1	Li	344.27	-05.06	-03.29	10	1.4	15	47- 77	13	1
152	3	Li	344.30	-05.05	-03.40	11	1.4	27	130-380	22	3
155	3	Ca	344.29	-05.13	-03.21	11	2.0	23	13- 22	21	2
156	10	Ca	344.46	-05.09	-03.11	11	1.8	32	16- 24	26	4
157	30	Ca	344.66	-05.02	-03.23	11	1.7	40	15- 35	27	4
171	1	Li	348.96	-03.31	-03.78	10	2.9	13	50- 75	11	2
172	3	Li	348.99	-03.23	-03.77	9	1.7	20	105-360	17	2
175	3	Ca	352.26	-02.89	-04.39	9	2.3	16	13- 29	14	1
176	10	Ca	349.04	-03.25	-03.84	10	2.9	26	14- 25	23	3
177	30	Ca	349.21	-03.20	-03.87	10	2.9	31	13- 39	25	4
Fornax											
A191	1	Li	55.38	-27.20	+107.07	6	1.0	14	30- 53	13	1
192	3	Li	55.38	-27.19	+107.10	6	1.1	29	67- 88 [†]	20	2
195	3	Ca	55.75	-27.47	+106.93	6	1.6	26	14- 20	16	2
196	0.3	Ca	55.75	-27.45	+106.92	6	1.1	10	14- 20	9	0
Sagittarius (Milky Way) (normal)											
A198	1	Li	278.36	-30.40	-71.72	14	1.6	150	60-144	107	3
202	3	Ca	278.46	-30.55	-71.78	14	1.4	265	15- 30	206	8
203	10	Ca	278.58	-30.42	-71.93	15	1.9	529	30- 70	375	44
Sagittarius (overexposed)											
A199	3	Li	278.33	-30.41	-71.75	14	2.0	851	210-300 [‡]	596	36
204	30	Ca	278.77	-30.37	-72.00	12	1.8	617	50-120 [†]	383	41

[†]Average of ten pixels.[‡]Average of 20 pixels.

Table 2 — Positions of Non-SAO Objects (NOS) and Possible Identifications

R.A.(1975)Dec.		Image on Frames		D-Vol/Exp		RNGC*	R.A.(1975)Dec.	Mag.	Type
Cygnus									
20:48	h m	+36.00'	A23,28	421Li,	338Ca				
20:58		+32.04	A23,26,27,28	70Li,	55Ca	6992?	20:55.2	+31:36'	
21:02		+41.14	A26,27,28	40-62Ca	55Ca	7024?	21:05.1	+41:24	Nebula Cluster?
21:08		+40.10	A23,27,28	47Li,					Cluster?
21:09		+33.15	A23	38Li,		7037?	21:09.7	+33:37	
21:16		+34.08	A23,27,28	84Li,	57Ca				(no?)
21:18		+38.09	A26,27,28	134-167Ca		7054?	21:19.7	+39:04	Cluster
21:23		+36.22	A23,27	31Li,	118Ca				
21:24		+34.44	A23,27,28	144Li,	130Ca				
21:29		+37.12	A22	146Li					
21:32		+35.58	A27	59Ca					
Capricorn (Earth centered)									
20:56	-14:36	A45,46				11-23Ca			
21:02	-11:31	A45,46				65-70Ca			
21:29	-19:35	A45,46				11-23Ca			
21:35	-19:29	A44,45				233-417Ca			
Cetus (for N1068)									
02:23	-16:15	A59,63,64		32Li,	30Ca	989?	02:32.6	-16:37	15m
02:35	-09:00	A63,64			17Ca	985	02:33.3	-08:53	E galaxy
02:52	-20:20	A58,59,62,63,64		139Li,	102Ca	988?	02:34.0	-09:27	Galaxy
									E galaxy
									SB galaxy
Grus (for N55)									
23:43	-34:36	A69,72,73,88,92,93		322Li,	443Ca	55	00:13.8	-39:22	8m
00:14	-39:25	A93,94			11-54Ca				Sc galaxy

Footnotes are at the end of the table.

Table continues.

Table 2 – Positions of Non-SAO Objects (NOs) and Possible Identifications (Continued)

R.A.(1975)Dec.	Image on Frames		D-Vol/Exp	RNGC*	R.A.(1975)Dec.	Mag.	Type
22:14 m	-49°23'	A118,121		294Li,	67Ca		
Pavo							
03:26	-77:08	A130		21Ca			
03:36	-79:26	A129,130		12-23Ca			
03:47	-77:27	A129,130		11-24Ca			
04:27	-80:34	A130		8Ca			
04:33	-80:10	A130		12Ca			
04:36	-78:31	A129,130		25-39Ca			
04:36	-74:35	A130		24Ca			
04:38	-79:53	A129		8Ca			
04:40	-82:00	A129,130		18-21Ca			
04:41	-83:02	A129,130		11-32Ca			
04:59	-74:40	A129		19Ca	1777?	04:56:4	-74:19'
05:14	-77:15	A129,130		12-28Ca			
05:19	-75:16	A130		15Ca			
05:21	-77:39	A125,129,130		26Li, 148Li,	1956?	05:20.9	-77:46
05:26	-77:36	A125,129		27Ca			
05:32	-79:07	A130		15Ca			
05:33	-79:13	A129*,130		31-35Ca			
05:48	-75:01	A124,125		126-182Li 251Li			
05:49	-70:03	A125		26Ca	2164	05:58.8	
05:58	-68:29	A130		13Ca	2187?	06:04.1	-68:31 -69:34
06:02	-69:48	A130		11-15Ca			
06:03	-77:00	A129,130		25-41Ca	2190? 2203?	06:01.6 06:05.6	-74:43 -75:26
06:03	-74:22	A129,130		36Li, 106Li, 94Li			
06:05	-75:01	A125,129,130		23Ca 52Ca			
06:07	-78:06	A124,129,130		16-37Ca			
06:08	-78:06	A125		229Li			
06:08	-65:13	A129,130					
06:19	-71:35	A125					
06:23	-66:34	A129,130					
06:29	-73:11	A129,130					

Table 2 — Positions of Non-SAO Objects (NOs) and Possible Identifications (Continued)

R.A.(1975)Dec.	Image on Frames	D-Vol/Exp	RNGC*	R.A.(1975)Dec.	Mag.	Type
Mensa (continued)						
06:29 ^h 58 ^m	-71 ^o 58'	A129,130	140Li, 157Li,	10-17Ca		
06:31	-68:51	A125,129,130	191Ca, 140Ca			
06:38	-70:51	A125,129,130	62-66Ca			
06:43	-69:12	A129,130	95Li, 494Li,	190Ca		
06:43	-68:10	A125,129,130	67Li,	518Ca		
06:43	-65:36	A125,129,130		214Ca		
06:44	-66:22	A125,129,130				
06:45	-67:36	A129		51Ca		
06:55	-76:35	A124,125,129,130	97Li,	189Ca		
06:57	-75:46	A129		38Ca		
06:58	-76:28	A129 [†] ,130		24-40Ca		
06:58	-72:50	A124,125,129,130	391Li, 46Li,	141Ca		
06:58	-71:36	A125,129		51Ca		
06:58	-69:16	A129,130		20-25Ca		
06:59	-73:22	A125,129,130	70Li,	59Ca		
07:02	-76:18	A129,130		13-40Ca		
07:03	-76:28	A124,125,129,130	214Li, 64Li,	382Ca		
07:08	-72:40	A125,129,130		67Ca		
07:11	-76:43	A125,129,130	42Li,	56Ca		
07:12	-77:37	A130		7Ca		
07:13	-68:18	A129,130		13-27Ca		
07:14	-77:00	A125,129,130	33Li,	99Ca		
07:15	-77:39	A130		167Ca		
07:15	-77:29	A124,125,129,130	222Li, 160-203Li	90Ca		
07:15	-77:05	A124,125		28Ca		
07:15	-76:55	A130		98Ca		
07:16	-77:37	A125,129	76Li,	13-23Ca		
07:17	-76:59	A129,130		297Li		
07:19	-77:28	A124		60-100Ca		
07:24	-70:40	A129,130	99Li,	115Ca		
07:25	-70:22	A124,129,130	131Li	25-26Ca		
07:32	-75:41	A124		77-87Ca		
07:37	-76:30	A129,130				
07:40	-70:17	A129,130				

Table continues.

Table 2 — Positions of Non-SAO Objects (NOs) and Possible Identifications (Continued)

R.A.(1975)Dec.	Image on Frames	D-Vol/Exp	RNGC*	R.A.(1975)Dec.	Mag.	Type
Mensa (continued)						
07:42 ^h 07:43	-77:28' -70:57	A129,130 A124,125,129,130	81:86Ca 304Ca	07:45:4?	-71°20'	Faint
08:03 08:16	-71:58 -78:19	A129,130 A130 (For objects in the LMC, see S201 Atlas of the LMC)	190Li, 1942Li 24:74Ca 356Ca			Galaxy
Norma (for N6300)						
16:17	-64:32	A145,149	89Li, 94Li, 388Li, 1205Li, 182Li, 94Li	47Ca 178Ca 212Ca 1162Ca 152Ca 28:42Ca 271Li,		
16:17	-64:25	A145,148,149				
16:27	-65:59	A145,148,149				
16:31	-65:57	A144,145,148,149				
16:37	-57:24	A145,148,149				
16:45	-58:16	A145				
16:47	-56:48	A148,149				
16:51	-57:13	A144,148,149				
17:07	-53:59	A148,149				
17:08	-54:29	A144,145,148,149				
17:08	-53:36	A148,149				
17:09	-54:30	A148,149				
17:09	-53:09	A145,148 ^r ,149 ^r				
17:09	-53:05	A145,148 ^r ,149				
17:10	-53:17	A144,148,149				
17:11	-54:42	A148,149				
17:21	-67:58	A145,149	37Li, 34Li, 28Li	90Ca 34Ca	6300	SB3 galaxy
17:22	-57:45	A145,149				
17:24	-55:55	A145				
17:28	-66:53	A144,145,148,149	1611Li, 75Li	1016Ca	6362	Globular
17:31	-54:57	A145				
17:34	-68:58	A148,149				
17:42	-64:53	A144,145,148,149	195Li, 140Li,	62:95Ca 209Ca 96Ca	17:29:2	
17:43	-54:09	A145,148,149			-67:02	

Table continues.

Table 2 — Positions of Non-SAO Objects (NOs) and Possible Identifications (Continued)

R.A.(1975)Dec.	Image on Frames		D-Vol/Exp		RNGC*	R.A.(1975)Dec.	Mag.	Type
Norma (continued)								
17:45 ^m	-61 [°] 59'	A144,145,148,149	265Li,	261Ca				
17:46	-66:15	A144,145,148,149	225Li,	362Ca				
17:46	-65:36	A145,148,149	210Li,	247Ca				
18:13	-66:56	A145,148,149	401Li,	445Ca				
Aquarius (Geocorona)								
22:49	-13:35	A156,157	40:78Ca					
22:54	-07:09	A156,157,176,177	14:35Ca					
23:02	-05:08	A151	161Li	7406?				
23:16	-06:37	A152,155,156	97Li,	71Ca				
		A175,176,177		106Ca				
23:19	-05:20	A152,155,156,157	163Li,	117Ca				
		A171,172,176,177		143Ca				
23:21	-03:17	A171,172	149Li,					
23:28	+00:24	A152	151-176Li					
			32Li	7684?				
				23:29.2				
				-00:04				
Fornax								
03:32	-25:58	A191,192,195	802Li,	360Ca	1360	03:32.3	-25:56	
04:00	-32:28	A192,195	260Li,	108Ca				Plan. neb.
Sagittarius (Milky Way)								
17:56	-32:58	A203,204	66:92Ca					
17:57	-30:56	A203,204	29:54Ca					
18:00	-27:41	A203,204	12:20Ca					
18:00	-27:32	A198,199 [†] ,202,203,204	2032Li,	6520?				
18:00	-26:18	A199	301Li	6520?				
18:01	-29:59	A203,204						
18:02	-25:29	A199,203,204	25:34Ca	6522				
18:03	-27:54	A203	64Ca	18:02.0				
18:04	-28:49	A203,204	37Ca	6540?				
				18:04.8				
				44:51Ca				
				14:5				

54

Table continues.

Table 2 - Positions of Non-SAO Objects (NOs) and Possible Identifications (Continued)

R.A.(1975)Dec.	Image on Frames	D-Vol/Exp	RNGC*	R.A.(1975)Dec.	Mag.	Type
Sagittarius (continued)						
18:04 h m	-27°46'	A199 [†] ,203,204	574Li, 250Li,	9Ca 12-63Ca 213Ca 9-11Ca 32Ca	6540 6557? 18-08.4 6551? 6557?	-27°49' -26:36 Faint
18:05	-26:43	A203,204				Cluster
18:05	-26:06	A199,203,204				
18:05	-23:55	A203,204				
18:06	-29:33	A199,203,204	84Li, 76Li, 103Li,	6565	18:07.4 18-10.3	-29:33 -28:11 13 m
18:07	-26:27	A199				(no?)
18:08	-28:09	A199,203,204				
18:09	-32:50	A203,204				
18:09	-32:12	A203,204				
18:10	-31:16	A203				
18:10	-29:07	A203	27Ca, 29Ca	6558?	18:08.6	-31:47 Faint
18:10	-23:50	A203,204	8-21Ca	6559?	18:08.6	Nebula
18:11	-36:14	A199,203,204	29Li, 71Li,	11Ca 34Ca		
18:11	-31:34	A199,203,204				
18:13	-38:13	A203,204	40-62Ca	6558?		Globular
18:13	-22:49	A199 [†]	396Li	396Li	18:08.6	-24:08 Faint
18:13	-21:50	A199,203,204	58Li, 37Li,	22Ca 46Ca		
18:16	-29:04	A199,203				
18:16	-26:07	A199,203,204	82Li, 64Li, 384Li,	22Ca 25Ca 37Ca		
18:17	-34:26	A199,203,204				
18:18	-25:40	A199,203,204				
18:19	-37:15	A202,203,204				
18:21	-39:48	A203,204				
18:21	-39:43	A203,204				
18:21	-34:21	A204	10-23Ca 405Ca	10-23Ca 405Ca		
18:21	-25:24	A199	57Li	57Li		
18:22	-26:07	A199,203,204	177Li,	57Ca	6620?	18:21.4
18:23	-36:04	A203,204		51-53Ca		
18:24	-25:53	A199,203,204	115Li, 46Li, 272Li, 168Li,	25Ca 8Ca 90Ca 15Ca	6620? 6637? 18-29.7	-26:50 -32:22 15 m 9 m
18:25	-27:02	A199,203				
18:28	-32:14	A199,202,203,204				
18:28	-31:28	A199,204				
18:37	-32:00	A202,203,204				
18:39	-29:55	A203,204 [†]		51-56Ca		

Table continues.

Table 2 — Positions of Non-SSAO Objects (NOs) and Possible Identifications (Concluded)

R.A.(1975)Dec.	Image on Frames	D-Vol/Exp	RNGC*	R.A.(1975)Dec.	Mag.	Type
Sagittarius (continued)						
18:41 m	-30°26' A203,204		9-12Ca			
18:43	-39°45' A199,202,203,204		439Li, 441Ca			
18:44	-39°20' A203,204		27-47Ca			
18:47	-33°16' A202,203		93-126Ca			
18:50	-26°13' A199†	4074Li				
18:56	-29°16' A203,204		19-22Ca			
18:58	-26°27' A198†	263Li				
19:00	-36°59' A203		142Ca	6729	h m 19.00.1	
19:01	-35°03' A199	76Li			-37°00'	Nebula
19:10	-27°39' A199†	114Li				
19:10	-26°50' A198,199,203	708Li,				
19:14	-34°56' A199,202,203,204	405Li, 298Ca	16Ca 298Ca			

*RNGC = The Revised New General Catalog of Nonstellar Astronomical Objects, by J.W. Sulentic and W.G. Tifft, Univ. of Arizona Press, 1973. A question mark (?) after the RNGC number indicates that the position differs by more than 5 arc-min.

†Two close images.

Table 3 — Corrections to S201 Density Volumes*

V	N	P - B	H	Truncation Only			For Normal $B \approx 50$			For High $B \approx 250$		
				T	V + T/V	$\log V + T/V$	V_c	V_c/V	$\log V_c/V$	V_c	V_c/V	$\log V_c/V$
80	3.5	22	25	210	3.62	0.559	290	3.62	0.559	325	3.94	0.596
100	4	25	27	233	3.33	0.522	333	3.33	0.522	363	3.63	0.560
150	6	30	31	244	2.63	0.420	394	2.63	0.420	433	2.89	0.462
200	7.5	34	34	250	2.25	0.353	450	2.25	0.353	494	2.47	0.394
300	10	40	40	245	1.82	0.260	545	1.82	0.260	594	1.98	0.298
400	13	46	46	242	1.605	0.206	642	1.605	0.206	700	1.75	0.244
500	15	49	49	245	1.51	0.180	745	1.51	0.180	825	1.65	0.218
600	17	54	52	265	1.44	0.160	865	1.44	0.160	945	1.575	0.198
700	20	58	53	295	1.42	0.152	995	1.42	0.152	1080	1.54	0.189
800	22	62	53	320	1.40	0.147	1120	1.40	0.147	1215	1.52	0.183
900	24	64	54	345	1.385	0.142	1245	1.38	0.142	1350	1.50	0.177
1000	26	70	54	365	1.365	0.136	1365	1.36	0.136	1490	1.49	0.173
1200	28	78	54	395	1.33	0.125	1595	1.33	0.125	1760	1.465	0.166
1400	30	90	55	420	1.30	0.115	1820	1.30	0.115	2015	1.44	0.159
1600	32	105	55	440	1.275	0.106	2050	1.28	0.108	2265	1.415	0.151
1800	33	122	56	430	1.24	0.093	2250	1.25	0.097	2500	1.39	0.144
2000	34	140	56	420	1.21	0.084	2460	1.23	0.090	2740	1.37	0.136
2500	38	165	56	520	1.207	0.082	3050	1.22	0.088	3380	1.35	0.131
3000	44	190	56	580	1.19	0.077	3640	1.215	0.085	4020	1.34	0.128
4000	52	225	56	680	1.17	0.069	4800	1.20	0.081	5320	1.33	0.125
5000	63	255	56	800	1.16	0.066	5950	1.19	0.077	6600	1.32	0.122
6000	72	285	58	820	1.136	0.056	7080	1.18	0.072	Not possible		
8000	87	315	64	910	1.113	0.047	9280	1.16	0.065	Not possible		
10000	103	345	67	1000	1.100	0.042	11460	1.146	0.060	Not possible		
12000	118	365	70	1100	1.090	0.038	13550	1.130	0.054	Not possible		
15000	137	375	75	1120	1.074	0.032	16700	1.113	0.047	Not possible		
20000	172	390	88	1150	1.053	0.024	21800	1.090	0.038	Not possible		

Table continued.

Table 3 — Corrections to S201 Density Volumes* (Concluded)

V	N	P - B	H	Truncation Only			For Normal $B \approx 50$			For High $B \approx 250$		
				T	V + T/V	$\log V + T/V$	V_c	V_c/V	$\log V_c/V$	V_c	V_c/V	$\log V_c/V$
25000	207	405	96	1200	1.048	0.021	26900	1.074	0.032	Not possible		
30000	240	410	104	1200	1.040	0.018	32000	1.066	0.028	Not possible		
40000	300	415	131	1200	1.030	0.014	42000	1.050	0.022	Not possible		
50000	365	420	200	900	1.016	0.008	51500	1.030	0.014	Not possible		
60000	430	425	311	600	1.010	0.004	61250	1.020	0.010	Not possible		
80000	525	440	420	400	1.005	0.003	81400	1.016	0.008	Not possible		
100000	715	455	455	100	1.001	0.000	101000	1.010	0.004	Not possible		

* V = density volume of an identified star image in units of 0.01D square raster; N = number of points (pixels) with density 20 (0.2D) above background B ; $P - B$ = peak density above background in units of 0.01D; H = height of "wing cone" (see Figs. 14d and 14e); T = correction for truncation in the STAR DETECTION program; B = local background density in units of 0.01D; V_c = fully corrected density volume in units of 0.01D-square-raster.

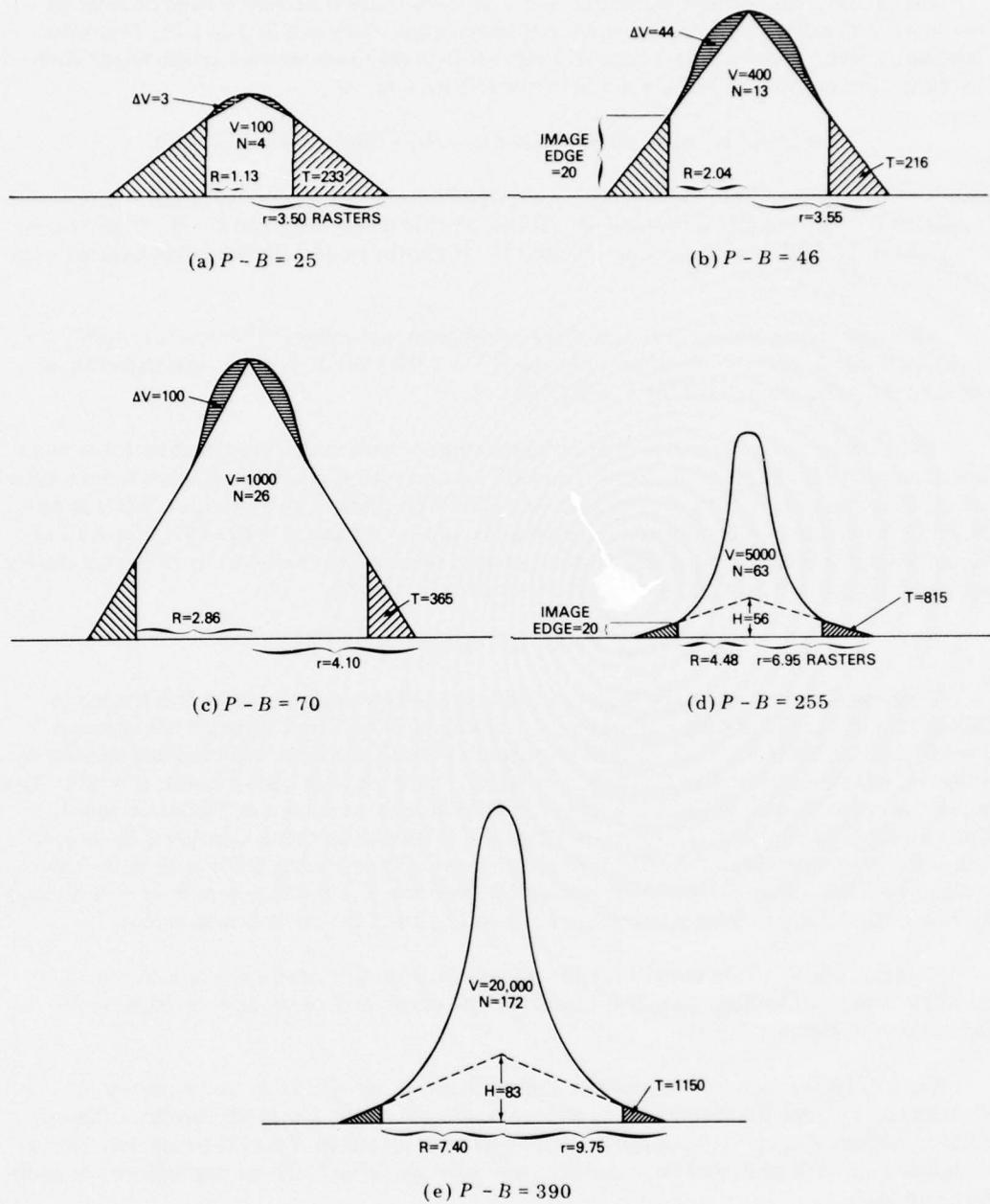


Fig. 14 — Correction to the measured density volume for image truncation (due to the PDS scan speed and the S201 nonlinear response)

The image cross sections show that for $V > 1000$ there is usually a wing or skirt extending several rasters beyond the measured image edge, as shown in Fig. 14b. This was fitted fairly well by extending a cone of height H beyond the measured image edge. Then the truncation correction is the volume of the H -cone rim, or

$$T = (N/3) H^3 / (H - 20)^2 - (N/3)(H - 20) - 20N, \quad \text{for } V > 400.$$

Values of H obtained from cross sections were plotted against V , and values of the resulting smoothed relation are listed in Table 3. At low V , H is nearly equal to $P - B$. In the range $V = 1000$ to 15,000, H remains near 60, and $P - B$ climbs to 350. In the large, overexposed images H reapproaches $P - B$.

Although uncertainties in H and T are fairly large, the ratio T/V drops off rapidly, as shown in Table 3, and the uncertainty in $\log [(V + T)/V]$ for $V > 400$ is estimated to be less than 0.05 (less than 0.02 for $V > 20,000$).

The PDS lag correction $\Delta\Delta$ and the linearizing correction ΔD are listed in Table 4a as functions of $P - B$ and P respectively. The PDS lag correction $\Delta\Delta$ was obtained from a speed test on four star images of different peak densities. The linearizing correction ΔD was obtained by measuring uniform geocorona densities on three frames, A40, A41, and A42 (1-, 3-, and 10-min ILi exposures), and up to measured density $D_M = 350$ units (3.5D) is closely represented by the following expression for linearized density:

$$D_L = D_M + \exp[0.674(D_M - 130)^{0.39}].$$

These two corrections have been applied to the image peak densities P as shown in Tables 4b and 4c, giving fully corrected density volumes V_c . The "normal" background $B \approx 50$, and the correction for nonlinear response is small for faint and medium star images. However on three frames (A41, A145, and A199) there is a high background: $B \approx 250$. This requires a correction to measured V even for faint images, as shown in Tables 4c and 3. Since the high background is subtracted from the (higher) star-image densities, the correction is the difference between ΔD for density P and ΔD for density 250, as given in Table 4c. This high-background correction cannot be given for $V > 5000$, where $P - B > 250$, and for $P > 500$, the upper limit to densities recorded by the PDS microdensitometer.

Table 3 lists V_c (fully corrected) for values of measured density volume V , and $\log V_c/V$ is plotted in Figs. 15a, 15b, and 15c. The correction for images on high background is considerably larger.

Figures 16 through 22 are plots of V magnitude vs $\log V/E$ (E is the exposure in minutes) on ILi and ICa frames. They show a scatter of about 1 magnitude about the expected relation $V \text{ mag} + 2.5 \log V/E = K$. The average intercept \bar{K} and the rms deviation σ are labeled on each plot, and large deviants are listed in Table 5. These derivations are probably due to:

- Differences in interstellar extinction,
- Errors in background (B) estimates,
- Corrections to V for truncation, PDS lag, and nonlinear response given in Table 3 but not applied to the figures,
- Errors in SAO visual magnitudes and/or spectral types, and
- Actual differences in the far-ultraviolet flux from stars of a given spectral type.

Table 4a — Corrections to Peak Densities P for
PDS Lag $\Delta\Delta$ and Linearization ΔD^*

$P - B$	$\Delta\Delta$	P	ΔD
50	0	50	0
100	0	100	0
150	0	150	+10
200	+10	200	30
250	20	250	80
300	40	300	150
350	70	350	270
400	100	400	400
450	140	450	600
500	180	500	870

* P = Peak density of a star image;
 B = local background density;
 $\Delta\Delta$ = correction for lag in the PDS microdensitometer;
 ΔD = correction for non linear response of the S201 camera;
All densities are in units of 0.01D.

Table 4b — Applied Corrections $\Delta\Delta$ and ΔD for Normal Background, $B \approx 50^*$

V	$V + T$	$P - B$	$\Delta\Delta$	$P = P - B + 50$	ΔD	V_c	V_c/V	$\log V_c/V$
1000	1365	70	0	120	0	1365	1.365	0.136
1300	1710	84	0	134	0	1710	1.315	0.120
1540	1975	100	0	150	10	1985	1.287	0.110
2100	2540	150	0	200	30	2570	1.224	0.088
3300	3910	200	10	250	80	4000	1.210	0.084
4800	5575	250	20	300	150	5745	1.197	0.079
7000	7865	300	40	350	270	8175	1.167	0.068
10500	11525	350	70	400	400	11995	1.143	0.058
23500	24680	400	100	450	600	25380	1.080	0.034
94000	94100	450	140	500	870	95110	1.012	0.006

* V = Density volume of a star image;
 T = correction for truncation in the STAR DETECTION program.

Table 4c — Applied Corrections $\Delta\Delta$ and ΔD for High Background, $B \approx 250$

V	$V + T$	$P - B$	$\Delta\Delta$	$P = P - B + 250$	$\Delta D - \Delta D(250)$	V_c	V_c/V	$\log V_c/V$
50	268	21	0	271	24	292	5.84	0.767
80	290	22	0	272	25	315	3.94	0.596
100	333	25	0	275	30	363	3.630	0.560
150	394	30	0	280	40	434	2.89	0.462
200	450	34	0	284	45	495	2.47	0.394
300	545	40	0	290	50	595	1.98	0.298
400	642	46	0	296	60	702	1.753	0.244
500	745	50	0	300	70	815	1.630	0.21
1540	1975	100	0	350	190	2165	1.405	0.149
2100	2540	150	0	400	320	2860	1.363	0.135
3300	3910	200	10	450	520	4430	1.343	0.129
4800	5575	250	20	500	790	6365	1.325	0.124

The many negative deviations, indicated by L in Table 5, are probably due to large interstellar extinction, and the positive deviations (H) may be due to stars' far-ultraviolet excess — both worthy of further study. The visual magnitudes and spectral types given in the SAO catalog are based on the Henry Draper Catalog; these often differ markedly from more modern determinations in specific regions of the sky, such as Orion [12].

The corrections to $\log V/E$ given as $\log V_c/V$ in Table 3 and in Figs. 15 will move points at the upper left on Figs. 16 through 22 toward the right by the amount $\log V_c/V \approx 0.25$. This, however, will not account for the large deviants.

COMPARISON WITH STELLAR MODELS

To compare the measured far-ultraviolet fluxes with expectations (with more accuracy used than used in the STAR PLOT program) the S201 camera response in the direct-imaging mode (Fig. 3) was folded with model atmosphere calculations by Kurucz, Petrenmann, and Avrett [13] and the "average" far-ultraviolet extinction curve of Bless and Savage [14]. For a monochromatic diffuse source the optical density of the image on the processed emulsion is given by $D = I s t$, where I is the monochromatic source density in kilorayleighs ($1 kR = 10^9/4\pi$ photons/cm 2 s sterad), s is the diffuse-source sensitivity in density units/ kR seconds, and t is the exposure time in seconds. (E or EXP is used in this catalog for exposure time in minutes.)

The sensitivity s is the product of the overall detection (quantum) efficiency η , the "blackening factor" b (density units/photoelectron per μm^2 , at the emulsion), and a geometrical factor G depending on the focal ratio of the optical system: $G = 10^{-8} A/f^2$, where A is the effective aperture in cm 2 and f is the focal length in cm. Thus for a monochromatic diffuse source

$$D = \frac{10^9}{4\pi} I \eta b G t = \Psi_\lambda \eta b G t,$$

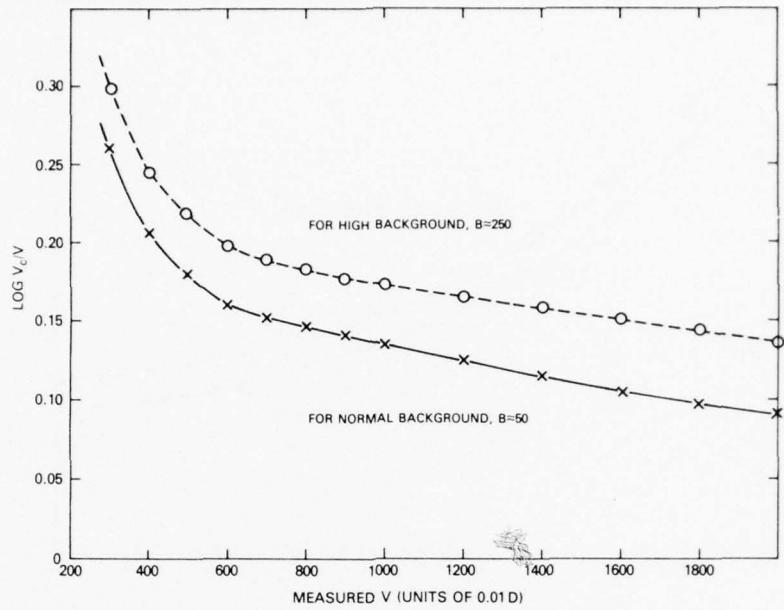


Fig. 15a — Relation of the fully corrected density volume V_c to the measured density volume V , plotted for $0 \leq V \leq 90,000$

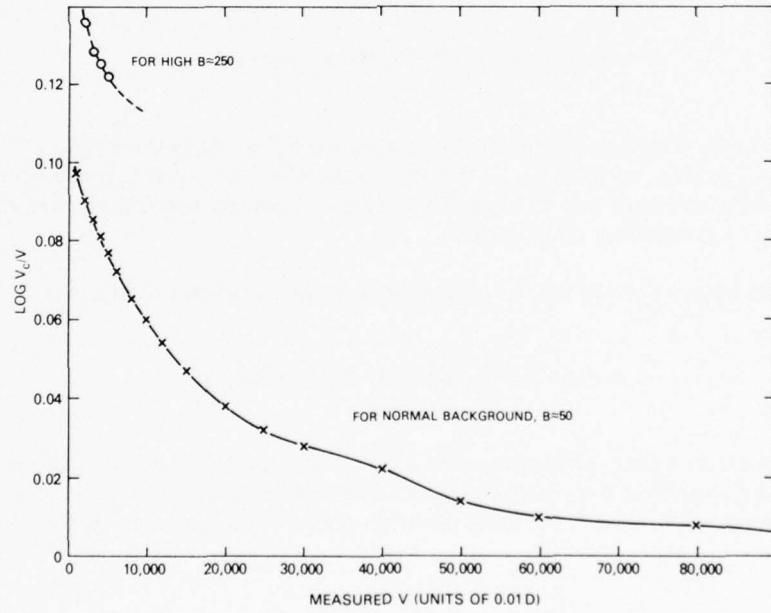
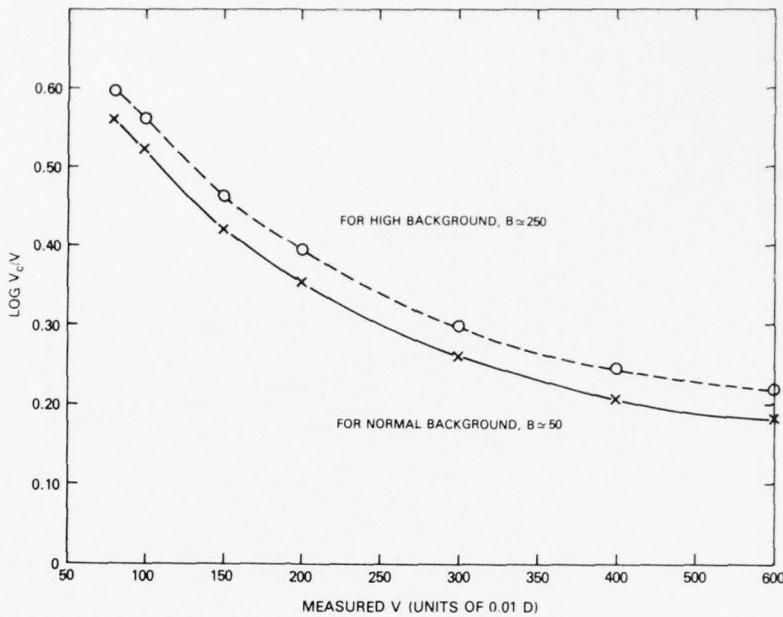


Fig. 15b — Relation of V_c to V , plotted for $200 \leq V \leq 2000$

Fig. 15c — Relation of V_c to V , plotted for $50 \leq V \leq 600$

where Ψ_λ is the diffuse flux expressed in photons/cm² s sterad. For a nonmonochromatic source

$$D = b G t \int \Psi_\lambda \eta_\lambda d\lambda = b G t \Psi_{\lambda \text{ eff}} \eta_{\lambda \text{ eff}} \Delta \lambda_{\text{eff}},$$

where λ_{eff} is the effective wavelength of the camera for a flat continuum ($\Phi_{\lambda \text{ eff}} = \Phi_\lambda = \text{constant}$) and $\eta_{\lambda \text{ eff}} \Delta \lambda_{\text{eff}}$, or $(\eta \Delta \lambda)_{\text{eff}}$, is the area under the curve of efficiency vs wavelength (half of which falls on either side of λ_{eff}). The result is relatively insensitive to slight changes in the shape of the continuum distribution.

For a point source the number of photoelectrons recorded in the image is

$$n = A t \int \Phi_\lambda \eta_\lambda d\lambda = A t \Phi_{\lambda \text{ eff}} (\eta \Delta \lambda)_{\text{eff}},$$

where Φ_λ is the photon flux (photons/cm² s Å). The density distribution in the recorded image of course depends on the resolution and details of the image structure. However, if linearity of response is assumed, the total density volume is independent of these details and is

$$V = \int D dA = \tilde{D} A = b \int \left(\frac{n}{A} \right) dA = nb.$$

Table 5 – Deviant Density Volumes in the S201 Far-Ultraviolet Catalog

Negative deviations (density volumes lower than expected) are indicated by L, and positive deviations (higher than expected) are indicated by H. The frames are in order of right ascension.

Frame	V Mag	Spec. Type	log D/E	Approx. D/E	SAO	R.A.	x	y	Remarks
Cetus									
59Li	7.9	A0	3.15	H	1400	148254	02:08:33	507	980
63Ca	8.3	B8	1.3	L	20	130410	03:15:50	689	77
64Ca	8.3	B8	1.05	L	11	130410	03:15:50	692	135
"	4.3	A3	1.6	L	40	168249	03:00:18	29	394
Fornax									
192Li	5.04	A2	1.5	L	31	168836	03:45:31	669	509
195Ca	9.6	A2	3.7	H	5260	149061	03:33:37	886	749
Mensa									
125Li	7.0	A0	1.65	L	45	256308	06:30:31	343	419
"	6.9	A0	1.60	L	40	256277	06:12:26	360	465
129Ca	5.1	B5	3.45	L	2800	249368	05:50:21	855	481
130Ca	5.1	B5	3.18	L	1500	249368	05:50:05	856	479
"	7.1	A0	3.1	H	1250	249336	05:41:57	831	519
"	8.3	A0	0.7	L	5	256448	07:48:18	407	124
"	7.95	A0	0.65	L	4	249373	05:50:36	939	474
"	7.9	A0	1.1	L	12	256381	07:13:16	218	344
"	6.7	A0	1.4	L	25	256053	04:00:14	562	929
"	6.5	A2	1.2	L	16	256408	07:25:14	556	133

Table continues.

Table 5—Deviant Density Volumes in the S201 Far-Ultraviolet Catalog (Continued)

Frame	V Mag	Spec. Type	$\log D/E$	Approx. D/E	SAO	R.A.	x	y	Remarks
Norma									
144Li	8.25	B3	2.0	L	100	244806	17:27:22	251	450
"	5.9	B3	2.0	L	100	253903?	17:19:03	692	548
"	7.85	B8	1.95	L	90	244003	16:33:35	473	115
"	8.75	B8	2.9	H	840	244400	17:00:02	221	207
"	7.2	B8	3.65	H	4336	245405	18:15:48	464	847
"	6.1	A0	1.95	L	90	253734	16:50:39	769	408
145Li	8.75	B0	1.9	L	80	243899	16:26:22	566	108
"	8.75	B8	1.5	L	30	244593	17:13:34	239	333
"	8.7	B8	1.6	L	40	243647	16:16:06	688	103
"	8.5	B8	1.6	L	40	244843	17:29:49	124	420
"	7.9	B8	1.6	L	40	243796	16:22:16	600	94
"	8.75	B8	3.0	H	1000	244400	16:59:55	222	204
"	7.3	B9	1.9	L	80	244134	16:43:00	638	285
"	6.05	B9	1.65	L	45	244755	17:23:15	130	368
"	7.25	A0	1.55	L	35	244705	17:20:19	523	494
"	7.74	B5	2.12	L	133	243741	16:19:42	555	39
148Ca	9.0	B3	1.6	L	40	244409	17:00:43	238	211
"	8.05	B3	2.1	L	125	243750	16:20:19	528	17
"	6.05	B9	1.8	L	63	244755	17:23:22	133	361
"	6.3	A0	1.85	L	70	253673	16:38:12	988	447
149Ca	8.7	B0	1.52	L	33	243899	16:26:51	569	110
"	8.05	B3	1.55	L	35	243750	16:20:27	526	22
"	8.9	B5	1.35	L	22	244089	16:39:01	415	119
"	8.6	B5	1.55	L	35	243844	16:24:24	575	92

Table continues.

Table 5 — Deviant Density Volumes in the S201 Far-Ultraviolet Catalog (Continued)

Frame	V Mag	Spec. Type	$\log D/E$	Approx. D/E	SAO	R.A.	x	y	Remarks
Norma (continued)									
149Ca	8.45	B5	1.85	L	70	243572	16:14:28	667	68
"	8.0	B8	1.5	L	32	227872	17:18:23	105	310
"	7.75	B9	1.6	L	37	244136	16:43:10	548	234
"	6.05	B9	2.1	L	115	244755	17:23:21	131	364
"	9.0	B9	2.5	H	320	244027	16:35:31	376	59
"	5.9	A2	1.4	L	25	243509	16:11:47	687	10r from EOF
Sagittarius (Normal)									
198Li	8.8	B0	2.0	L	100	186748	18:20:14	405	324
"	8.85	B3	1.95	L	92	209938	18:13:04	573	300
"	7.6	B5	3.7	H	4664	186389	18:06:49	321	120
"	7.1	B8	1.95	L	90	187672	19:03:08	275	782
"	6.9	B9	1.95	L	90	209919	18:12:20	708	342
"	9.4	B9	2.95	H	917	187070	18:35:00	182	418
"	8.9	B9	3.2	H	1600	209597	17:57:52	919	271
"	8.10	B9	3.3	H	1920	186268	18:02:49	358	83
"	9.2	A0	2.75	H	560	186471	18:09:25	505	231
"	2.65	A2	3.2	L	1490	187600	18:59:09	409	H on 202,203
Sagittarius (Overexposed)									
199Li	6.6	O	1.5	L	32	209489	17:52:38	768	140
"	6.6	O	1.75	L	56	209489	17:53:06	765	145
"	7.25	O	1.9	L	80	209560	17:55:59	910	247
"	9.2	B3	1.7	L	50	185985	17:53:56	634	Another image, $D/E = 38$
"	7.2	B3	2.6	L	400	209569	17:56:22	792	197
Two images, L on 203									
10r from EOF									
Another image, $D/E = 4146$									

Table continues.

Table 5—Deviant Density Volumes in the S201 Far-Ultraviolet Catalog (Continued)

Frame	V Mag	Spec. Type	$\log D/E$	Approx. D/E	SAO	R.A.	x	y	Remarks
Sagittarius (Overexposed) (continued)									
199Li	9.0	B5	3.15	H	1400	186539	18:11:52	239	151
"	8.80	B5	3.6	H	4000	186406	18:07:14	324	128
"	5.95	B5	4.2	H	16000	186025	17:55:48	589	98
"	8.2	B8	1.75	L	56	209755	18:04:46	803	298
"	7.0	B8	1.85	L	81	209966	18:14:10	715	367
"	9.1	B8	3.15	H	1400	186815	18:23:13	232	296
"	8.6	B8	3.2	H	1542	186556	18:12:51	528	283
"	7.45	B9	1.8	L	63	187089	18:36:03	405	509
"	9.0	B9	3.1	H	1250	186249	18:02:05	514	146
"	8.9	B9	3.3	H	2000	209597	17:57:53	918	272
"	9.4	B9	3.3	H	2000	187070	18:34:56	182	419
"	6.95	B9	3.75	H	5600	210570	18:44:03	805	722
"	7.2	A0	1.7	L	47	210853	18:59:42	693	855
"	5.1	A0	2.3	L	200	210501	18:40:36	855	702
"	9.6	A0	2.35	H	225	209906	18:12:10	649	319
"	9.2	A0	3.15	H	1141	186201	18:00:28	524	130
"	9.2	A0	2.7	H	462	186443	18:08:49	366	168
"	8.7	A0	2.85	H	758	186846	18:24:59	353	363
"	8.8	A0	2.95	H	877	186684	18:17:47	476	322
"	8.5	A2	2.85	H	760	186033	17:55:41	463	43
Sagittarius (Normal)									
202Ca	8.25	O	1.85	L	70	209521	17:54:20	692	119
"	8.5	B2	1.9	L	80	186332	18:05:01	394	124
"	8.6	B3	1.5	L	32	186086	17:57:52	399	29
"	8.1	B3	1.9	L	80	209664	18:01:02	687	199

Table continues.

Table 5 — Deviant Density Volumes in the S201 Far-Ultraviolet Catalog (Continued)

Frame	V Mag	Spec. Type	log D/E	Approx. D/E	SAO	R.A.	x	y	Remarks
Sagittarius (Normal) (continued)									
202Ca	8.9	B5	1.75 L	56	186166	17:59:59	599	149	
"	7.9	B5	1.55 L	35	186189	18:00:18	481	104	H on 198,203
"	7.6	B5	3.55 H	3500	186389	18:06:57	315	114	
"	7.9	B9	1.5 L	31	210276	18:28:51	832	564	
"	6.55	B9	1.75 L	56	209503	17:53:17	770	144	
"	9.4	B9	2.7 H	500	187070	18:34:59	177	412	H on 198,199,203,204
"	8.9	B9	3.28 H	1900	209597	17:57:51	914	265	7r from EOF, H on 198,199,203
"	9.2	A0	2.55 H	350	186471	18:09:26	506	225	H on 198,203
"	5.1	A0	2.2 L	160	210501	18:40:33	347	694	L on 204
203Ca	6.62	O	1.97 L	96	209489	17:52:45	772	131	L on 199
"	8.3	B2	1.65 L	45	209568	17:51:20	817	195	L on 204
"	9.05	B3	1.8 L	62	209456	17:51:19	811	132	L on 204
"	9.0	B5	1.35 L	22	186345	18:05:28	465	157	L on 204
"	8.95	B5	1.65 L	45	209934	18:13:01	979	447	10r from EOF, L on 204
"	7.6	B5	3.45 H	2950	186389	18:06:53	323	111	H on 198,202
"	8.5	B8	1.2 L	16	186861	18:25:47	401	378	
"	8.1	B8	1.25 L	18	186067	17:57:04	428	26	3r from EOF
"	8.9	B9	1.0 L	10	186882	18:26:38	322	360	
"	8.1	B9	1.25 L	18	187225	18:41:53	392	560	
"	7.45	B9	1.6 L	40	187089	18:36:09	408	499	L on 199
"	9.05	B9	2.6 H	390	209634	17:59:24	880	260	
"	9.3	B9	2.65 H	450	186360	18:05:49	313	92	
"	9.4	B9	2.72 H	550	187070	18:34:55	185	409	H on 198,199,202,204
"	8.9	B9	3.35 H	2440	209597	17:57:53	922	262	7r from EOF, H on 198,199,202
"	8.1	B9	3.25 H	1790	186268	18:02:58	360	75	H on 198
"	7.4	A0	1.05 L	11	209923	18:12:19	826	379	L on 204

Table continues.

Table 5 - Deviant Density Volumes in the S201 Far-Ultraviolet Catalog (Continued)

Frame	V Mag	Spec. Type	log D/E	Approx. D/E	SAO	R.A.	x	y	Remarks
Sagittarius (Normal) (continued)									
203Ca	6.45	A0	1.7	L	50	186863	18:25:51	371	368
"	8.9	A0	2.55	H	350	186085	17:57:37	583	105
"	9.2	A0	2.65	H	415	186471	18:09:29	508	222
"	6.05	A2	1.55	L	35	187519	18:55:31	76	622
"	5.25	A2	1.70	L	50	210277	18:29:08	959	608
"	8.5	A2	2.35	H	238	186033	17:55:41	465	31
Sagittarius (Overexposed)									
204Ca	8.3	B2	1.55	L	35	209568	17:56:20	822	188
"	9.05	B3	1.4	L	25	209456	17:51:41	814	428
"	9.0	B5	1.65	L	45	186345	18:05:24	470	148
"	8.95	B5	1.65	L	45	209934	18:12:51	984	439
"	8.88	B8	1.3	L	20	209797	18:06:56	847	320
"	8.1	B9	0.65	L	4.5	187225	18:42:18	394	557
"	9.65	B9	0.75	L	5.6	210147	18:23:21	744	458
"	9.1	B9	0.67	L	4.7	209834	18:08:36	789	314
"	9.2	B9	0.95	L	9.	210329	18:31:27	705	531
"	9.4	B9	2.45	H	548	187070	18:34:48	190	401
"	8.67	A0	0.77	L	6	210632	18:47:53	494	649
"	8.5	A0	0.65	L	4.5	186844	18:25:07	287	321
"	8.5	A0	0.77	L	6	209838	18:08:49	797	320
"	7.4	A0	1.2	L	16	209923	18:12:11	831	371
"	5.1	A0	2.4	L	265	210501	18:40:31	860	683
"	8.9	A0	2.35	H	225	186432	18:08:38	587	233
"	10	A0	1.82	H	67	210165	18:23:58	865	510
"	8.9	A0	2.55	H	355	186085	17:57:36	588	98

Table continues.

Table 5—Deviant Density Volumes in the S201 Far-Ultraviolet Catalog (Continued)

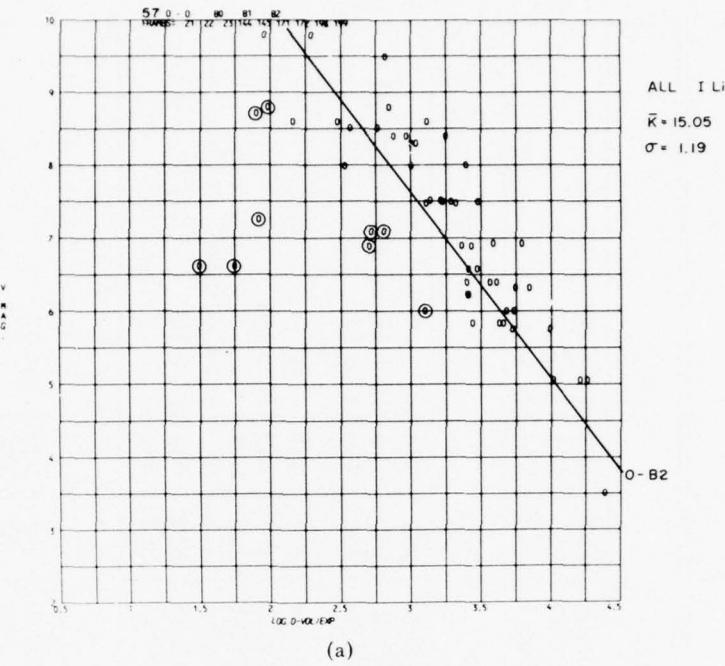
Frame	V Mag	Spec. Type	log D/E	Approx. D/E	SAO	R.A.	x	y	Remarks
Capricorn									
45Ca	6.8	A0	1.45 L	31	164275	21:14:23	395	338	
"	4.9	A3	1.72 L	52	189986	21:01:42	756	662	L on 46
46Ca	4.9	A3	1.8 L	67	189986	21:01:39	769	659	L on 45
Pavo									
118Li	10.2	A5	2.1 H	125	246739	20:45:10	540	247	less H on 121
Cygnus									
21Li	6.0	O	3.15 L	1290	50263	20:54:42	812	168	
"	6.9	B2	2.7 L	500	70599	20:50:10	826	684	
"	7.7	B3	3.52 H	3300	71104	21:12:09	622	517	H on 22
"	4.3	A0	2.6 L	400	71165	21:15:35	597	436	
"	8.6	A2	3.55 H	3500	70291	20:35:23	981	445	7r from EOF
22Li	7.1	B0	2.72 L	536	50230	20:53:28	812	395	L on 23
"	7.7	B3	3.57 H	3700	71104	21:12:12	629	512	H on 21
"	7.9	B3	2.3 L	200	50583	21:11:11	666	213	
"	5.5	A0	2.3 L	200	51595	22:01:00	251	111	7r from EOF
"	8.5	A2	2.9 H	800	70837	21:01:22	732	498	H on 23,26,27,28
23Li	7.1	B0	2.82 L	660	50230	20:53:26	808	397	L on 22
"	8.5	B8	3.1 H	1250	50411	21:02:14	760	92	5r from EOF
"	8.0	B9	1.48 L	30	70662	20:52:58	800	695	
"	7.6	B9	1.65 L	45	51671	22:05:49	184	187	
"	7.3	B9	1.85 L	70	50859	21:24:59	543	211	

Table 5 – Deviant Density Volumes in the S201 Far-Ultraviolet Catalog (Continued)

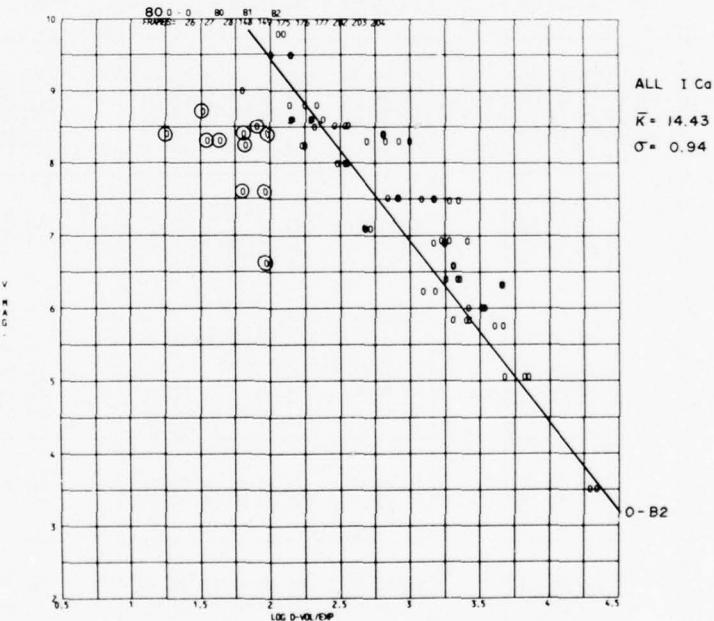
Table continues.

Table 5 - Deviant Density Volumes in the S201 Far-Ultraviolet Catalog (Concluded)

Frame	V Mag	Spec. Type	log D/E	Approx. D/E	SAO	R.A.	x	y	Remarks
Cygnus (continued)									
28Ca	7.4	A2	2.85 H	790	50189	20:51:53	831	361	H on 27
"	8.5	A2	2.75 H	560	70837	21:01:24	733	501	H on 22
"	8.9	A3	2.2 H	160	51388	21:50:11	320	243	H on 26
Aquarius									
150Li	5.2	A0	2.5 L	320	146635	23:16:29	291	764	
151Li	7.6	B3	3.65 H	4500	165651	23:19:21	255	779	H on 171, less H on 152,172
152Li	5.55	A2	1.85 L	74	146593	23:13:02	322	466	L on 172
171Li	8.4	B8	3.17 H	1480	165696	23:24:09	424	921	
"	7.6	B3	3.7 H	5000	165651	23:19:15	484	849	H on 151
172Li	8.4	B8	3.17 H	1500	165696	23:24:11	425	924	
"	7.6	A0	3.3 H	2000	165622	23:16:20	519	981	10r from EOF
"	5.55	A2	1.6 L	40	146593	23:12:58	549	534	L on 152
177Ca	6.3	B9	1.4 L	25	146273	22:41:01	953	686	
Grus									
69Li	4.8	A2	1.65 L	45	231675	23:32:25	504	502	L on 72
"	4.85	A2	2.15 L	140	231707	23:34:59	465	366	
72Ca	4.8	A2	1.82 L	75	231675	23:32:15	449	501	L on 69
73Ca	7.15	B8	1.7 L	91	231947	00:06:17	569	29	30r from EOF
"	9.5	A5	2.1 H	118	231522	23:13:29	370	681	
93Ca	3.9	A3	1.15 L	14	215092	00:23:42	659	222	L on 94
94Ca	3.9	A3	1.50 L	32	215092	00:23:33	668	223	L on 93



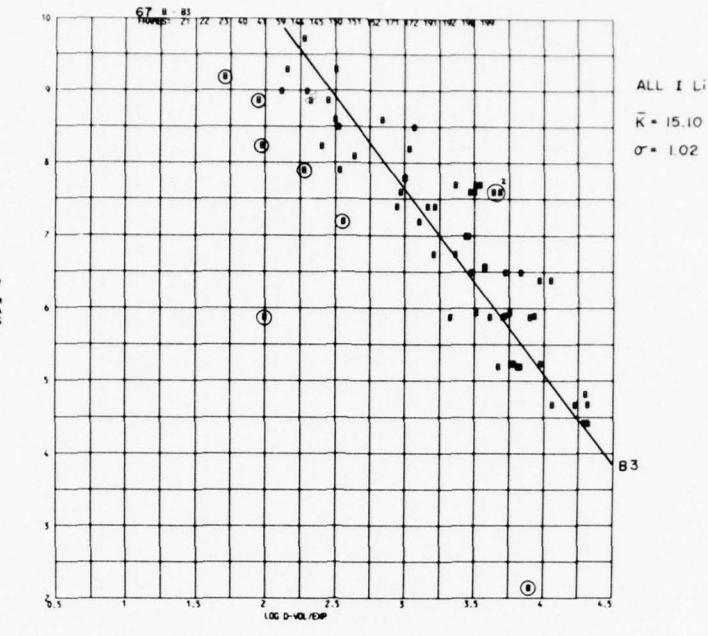
(a)



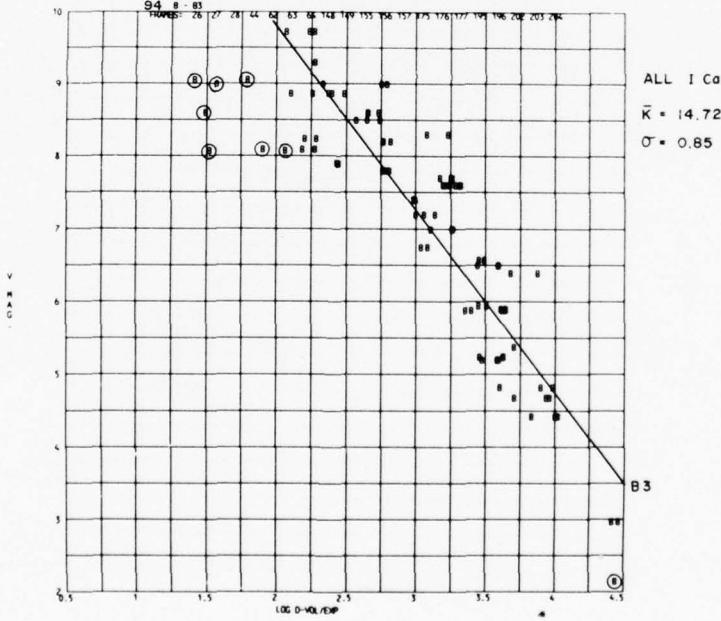
(b)

Fig. 16 — V magnitude as a function of $\log V/E$, where E is the exposure in minutes, for SAO spectral types O, B0, B1, and B2. The solid line is the expected relationship V mag + $2.5 \log V/E = K$.

NRL REPORT 8173



(a)



(b)

Fig. 17 — V magnitude as a function of $\log V/E$ for SAO spectral type B3

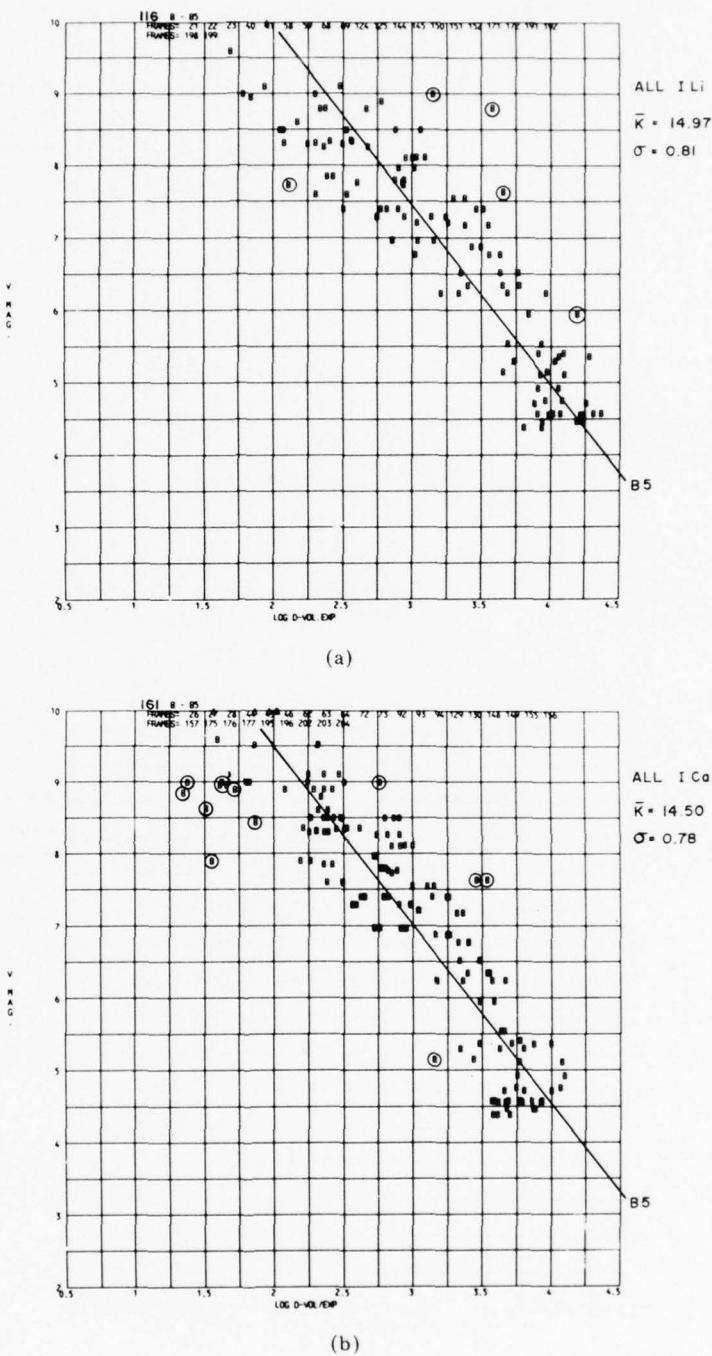
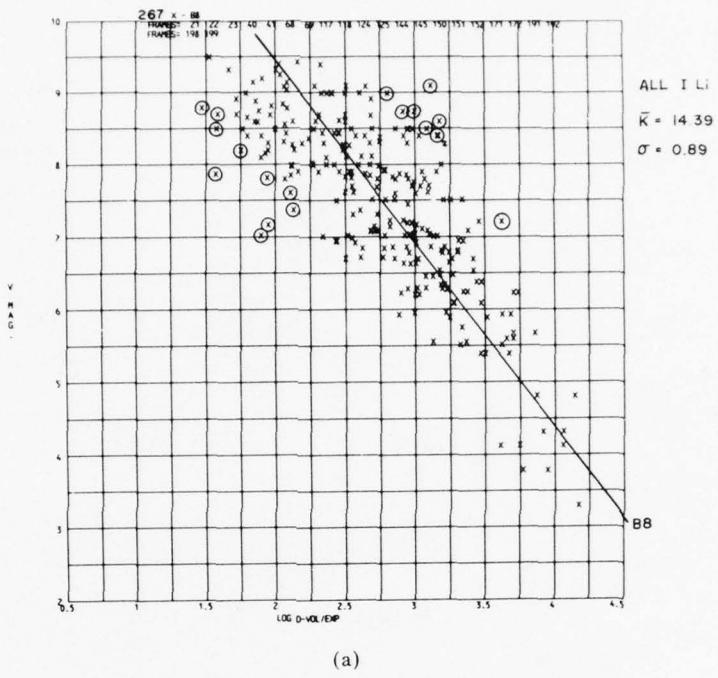
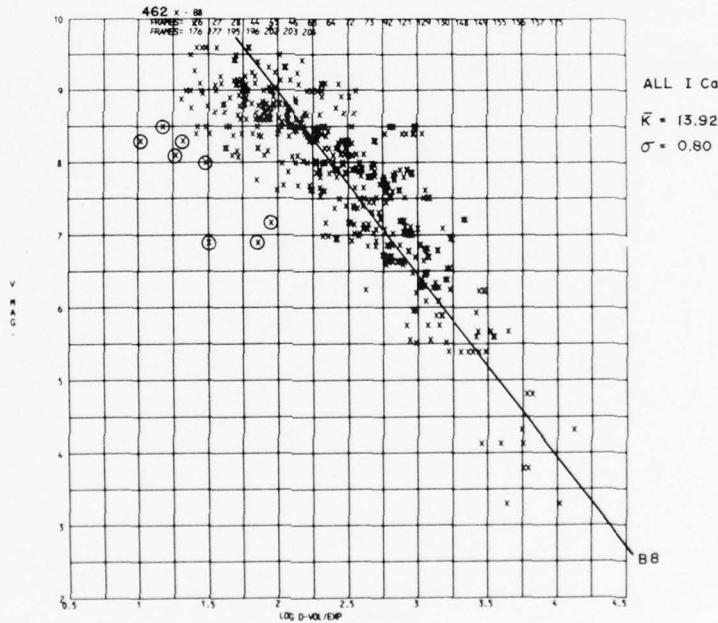


Fig. 18 — V magnitude as a function of $\log V/E$ for SAO spectral type B5

NRL REPORT 8173

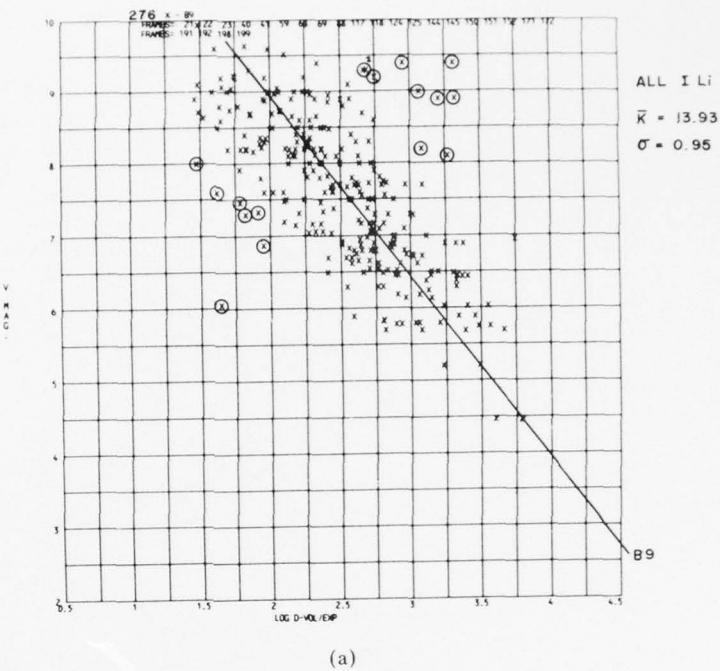


(a)

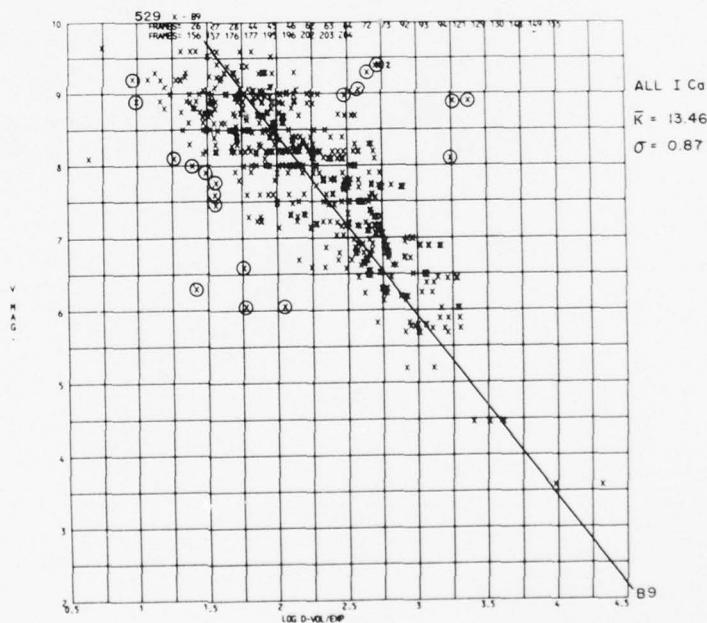


(b)

Fig. 19 — V magnitude as a function of $\log V/E$ for SAO spectral type B8



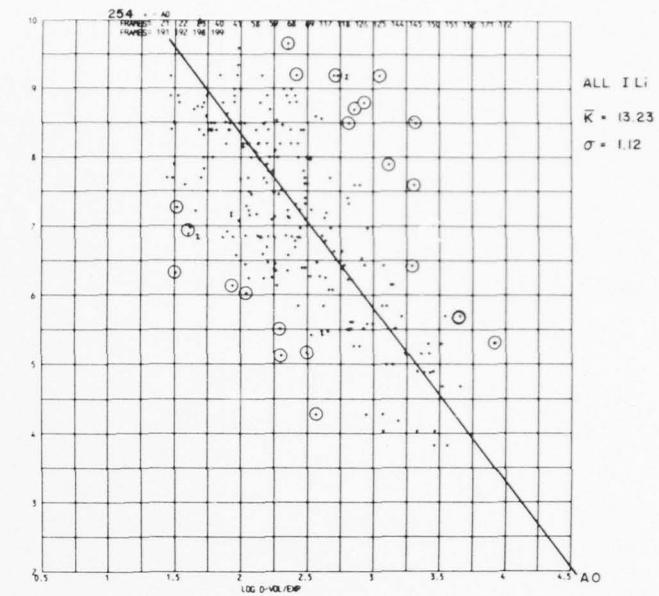
(a)



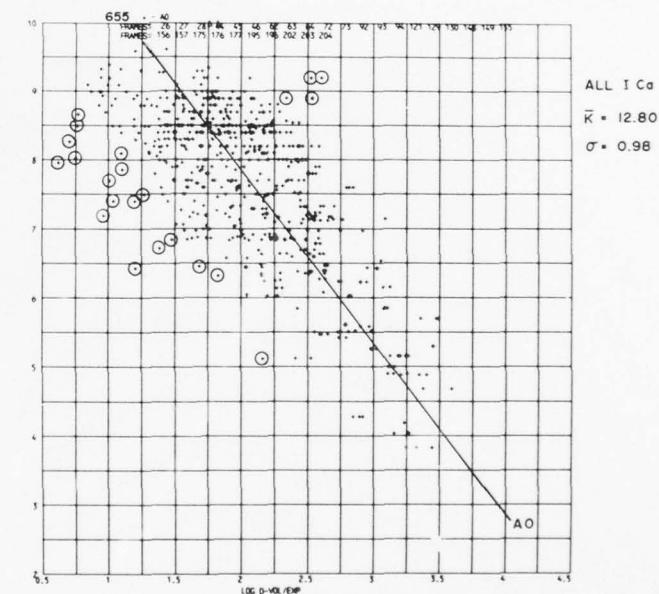
(b)

Fig. 20 — V magnitude as a function of $\log V/E$ for SAO spectral type B9

NRL REPORT 8173

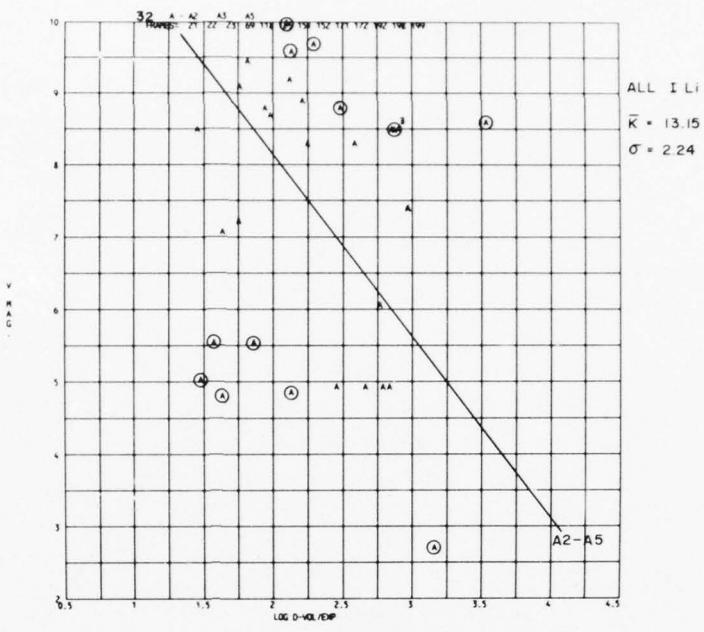


(a)

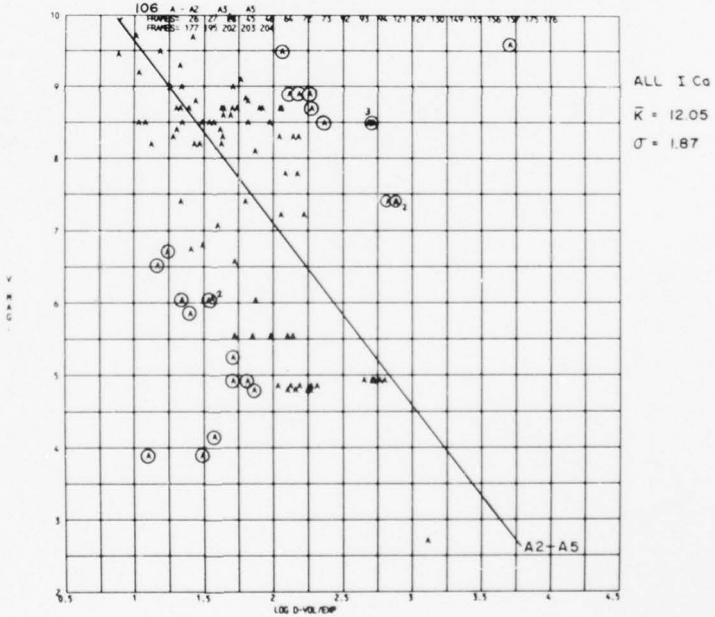


(b)

Fig. 21 — V magnitude as a function of $\log V/E$ for SAO spectral type A0



(a)



(b)

Fig. 22 — V magnitude as a function of $\log V/E$ for SAO spectral types A2, A3, and A5

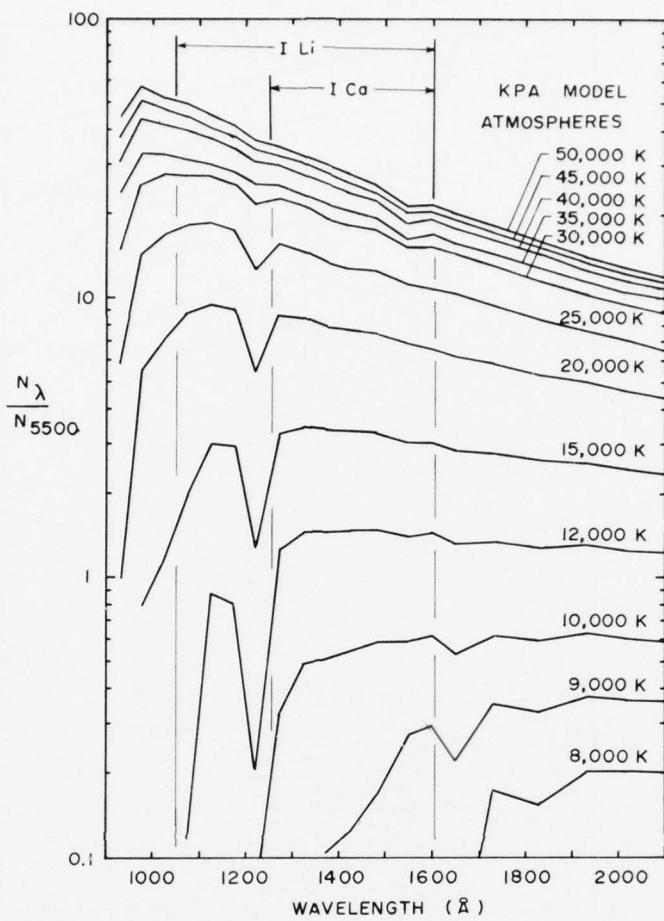


Fig. 23 — KPA model [13] predictions of photon flux vs wavelength, normalized to 5500 Å

For the S201 camera at wavelength 1216 Å, preflight calibrations, confirmed by imagery of the hydrogen geocorona and the interplanetary Lyman- α background [2], yield a value $b = 0.4D/\text{photoelectron } \mu\text{m}^2$. Hence the theoretical density volume $V = 0.4n$, with area expressed in μm^2 and density as normally defined. However, with area expressed in number of pixels ($33 \mu\text{m}$ square) and density in PDS units ($100 \times$ optical density),

$$V = 0.037n.$$

Thus a star image resulting from 1000 photoelectrons will yield a density volume $V = 37$.

Figure 23 shows plots of KPA model predictions of photon flux vs wavelength, normalized to the visual (5500 Å), where a star of visual magnitude 7.6 yields a flux of 1 photon/cm² s Å [15], and Fig. 4 shows the effects of varying degrees of interstellar reddening on the 20,000-K-mod fluxes. Folding of these curves with the response functions in ILi and ICa modes (Fig. 5), yields the curves of density volume/exposure for a star

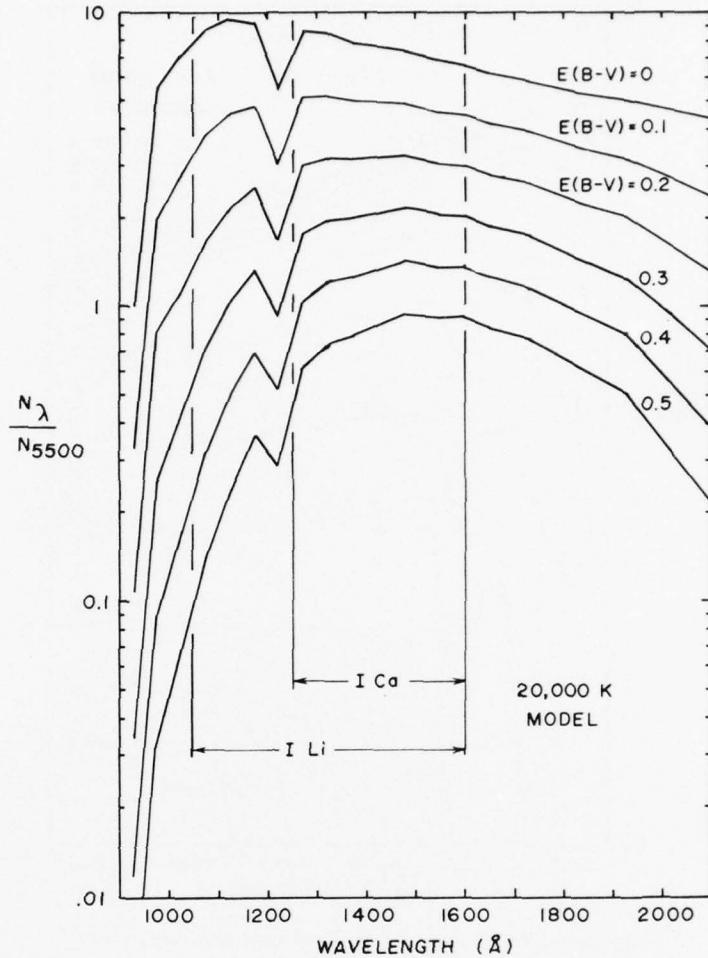


Fig. 24 — Effects of various degrees of interstellar reddening ("average" interstellar extinction law of Bless and Savage [14]) on the 20,000-*K*-model photon fluxes, normalized to 5500 Å

of visual magnitude 7.6 shown in Fig. 25, and the ratio I_{Li}/I_{Ca} shown in Figs. 26 and 27. Figure 28 shows the computed stellar visual magnitude required to produce a density volume $V = 5131$ for the various I_{Li} and I_{Ca} exposures in relation to the unreddened model effective temperature T_e . This "standard" density volume corresponds to a conical image with peak density $P = 100$ and a 7-raster diameter ($N = 38$ pixels) and is by no means the weakest measurable image. Density volumes of 80 with $P < 75$ and $N = 4$ are measured reliably, although the corrected density volume V_c equals 290 (Table 3). That is, images 17.7 times fainter than this "standard" have been detected, measured, and recorded in the catalog. However, Fig. 29 shows the actual fractions of SAO stars detected in two fields (Cygnus and Norma) plotted against visual magnitude for various spectral types. They are seen to be about 3 magnitudes brighter than expected. For O-B2 stars ($T_e \approx 20,000$ K) half are detected at visual magnitude 9.5; for A0 stars ($T_e \approx 10,000$ K), 50% are detected at 7.8

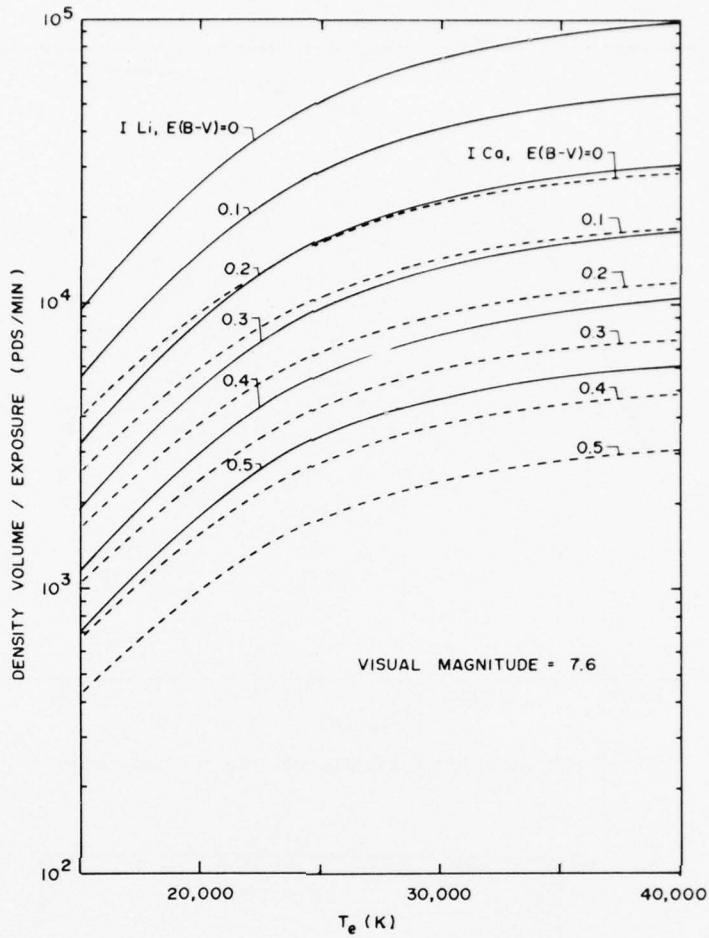


Fig. 25 — Ratio of density volume to exposure for a star of visual magnitude 7.6 as a function of effective temperature

mag. For A2-A5 stars the detection fraction is erratic. The other 50%-detection magnitudes are given in Table 6.

Figures 30 through 32 give the theoretical relationship between density volume and visual magnitude for various effective temperatures and interstellar reddening. These plots may be directly compared with the plots of visual magnitude vs $\log V/E$ in Figs. 16 through 22. Unfortunately, as apparent from these figures, it is not practical to separate the effects of temperature and of interstellar extinction using the far-ultraviolet imagery data alone; the effect of extinction is nearly equivalent to a decrease in effective temperature in the wavelength range covered by the ILi and ICa exposures. Only if the near-visual reddening and/or effective temperature is known from ground-based measurements can the far-ultraviolet fluxes be used to provide independent estimates of temperature and far-ultraviolet extinction. Comparison of our far-ultraviolet data and ground-based data is difficult because of the incompleteness and/or doubtful accuracy of the available ground-based data (spectral classification and UBV photometry) for stars in the visual magnitude range fainter than 7.0.

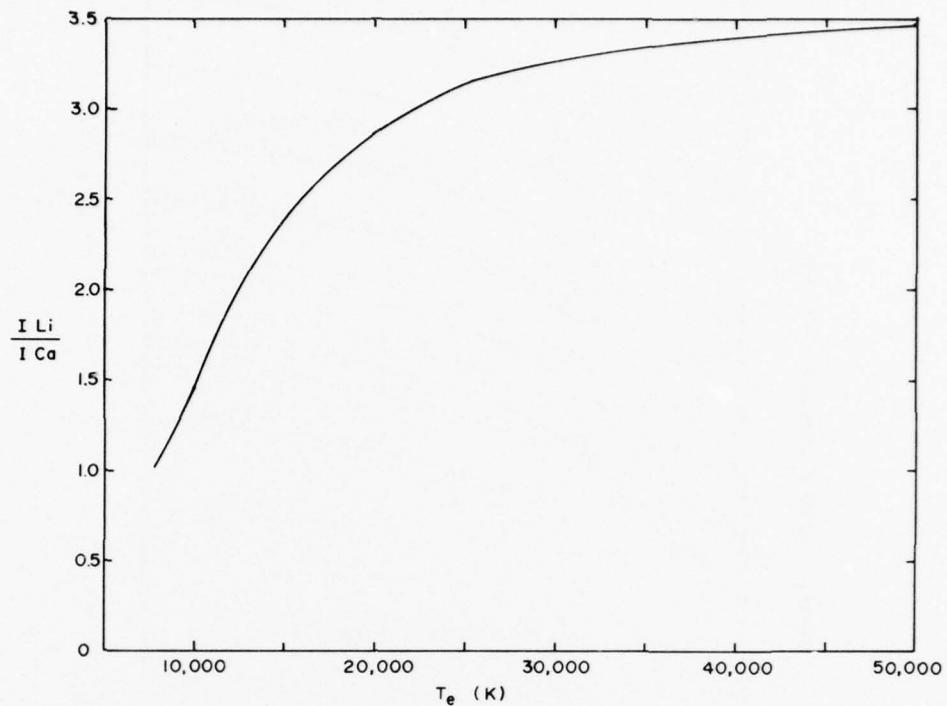


Fig. 26 — Ratio I_{Li}/I_{Ca} as a function of effective temperature

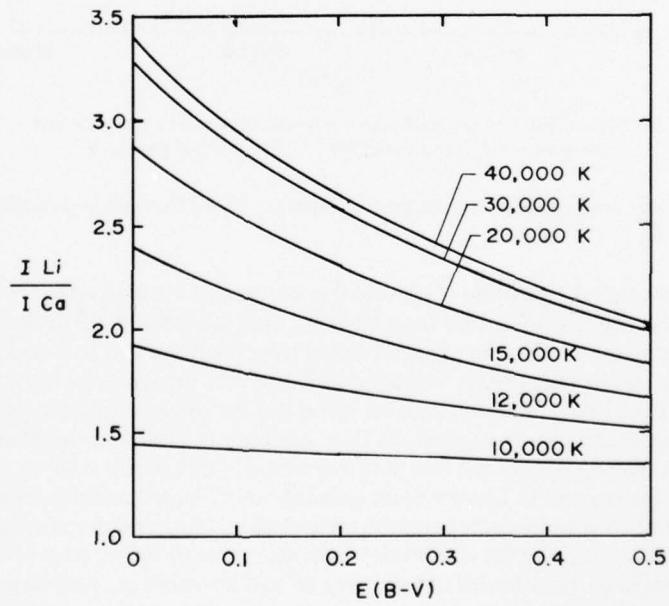


Fig. 27 — Ratio I_{Li}/I_{Ca} as a function of interstellar reddening

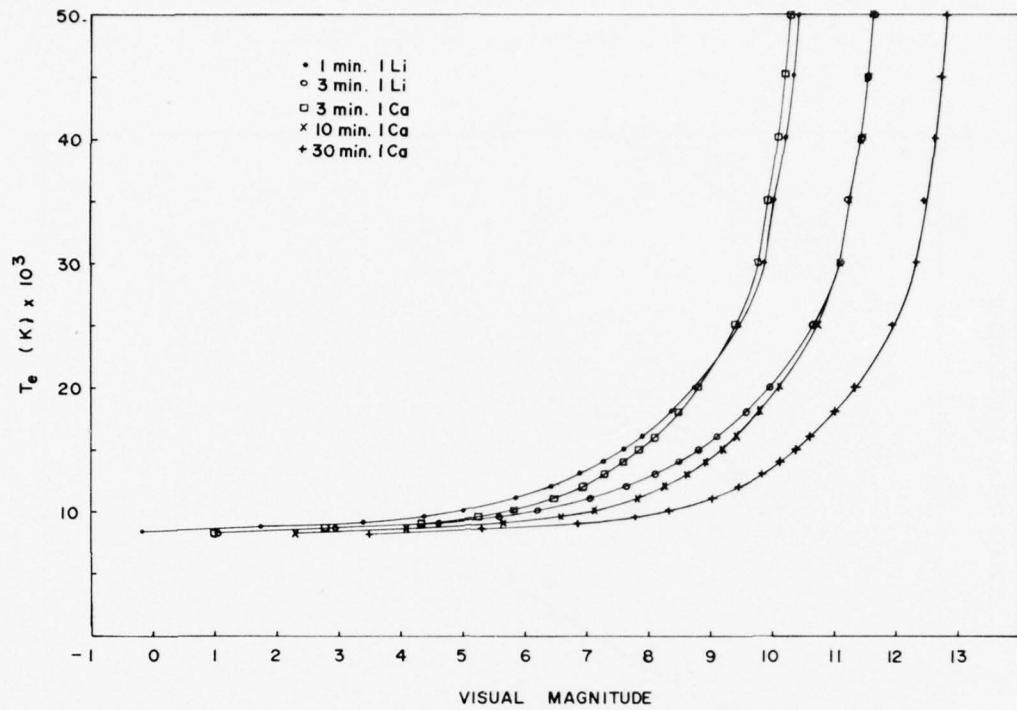


Fig. 28 — Computed stellar visual magnitude required to produce a density volume $V = 5131$ for various S201 exposures

THE CATALOG

The catalog is divided into 11 parts, each covering one field in the sky. Each part is headed by a constellation name and the field center coordinates α_0 and δ_0 . Two parts cover the Sagittarius field: one headed SGR NORMAL and the other headed SGR OVER-EXP (high background densities). The first column gives the object number. The next two columns give the scan coordinates x and y for each image detected, and the next two give the celestial coordinates R.A. (α 1950) in hr:min:s and DEC (δ 1950) in deg:arc-min:arc-s. The errors in position are less than about 3 arc-min.

Column 6 gives the star number in the SAO catalog (Smithsonian Astrophysical Observatory, 1966) within 5 arc-min of the detected image. If this SAO number is followed by a slash (/), the star is one of a pair or group too close to be resolved by the S201 camera; if by a query (?), the image is between 5 and 8 arc-min from the SAO star listed (considered a doubtful identification); and if by a colon (:), the star is one of two within 5 arc-min but is considered the less likely identification.

Columns 7 and 8 give the differences (measured image position minus SAO catalog position) in right ascension (α) and declination (δ). Columns 9, 10, 11 give spectral type and visual and photographic magnitudes from the SAO catalog.

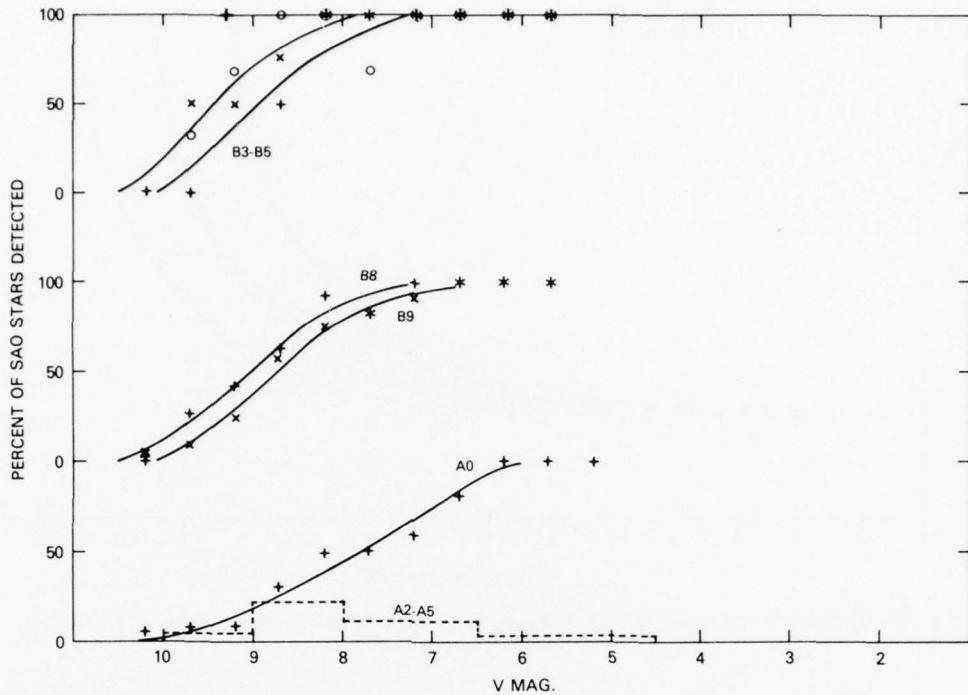


Fig. 29 — Percent of SAO stars detected in Cygnus and Norma as a function of visual magnitude

Table 6 — Visual Magnitudes for 50% Detection on 3-min ILi or 4-10-min ICa in Cygnus and Norma Fields

Spectral Type	Approx. T_e (K)	No. of SAO Stars	Vis. Mag. for Actual 50% Detection	Expected Unreddened Visual Magnitude for $V = 80$ on 10-min ICa
O-B2	20000	21	9.5	9.7 + 3.1 = 12.8
B3-B5	16000	60	9.0	9.2 + 3.1 = 12.3
B8	14000	179	9.0	8.8 + 3.1 = 11.9
B9	12000	286	8.7	8.0 + 3.1 = 11.1
A0	10000	661	7.8	6.6 + 3.1 = 9.7

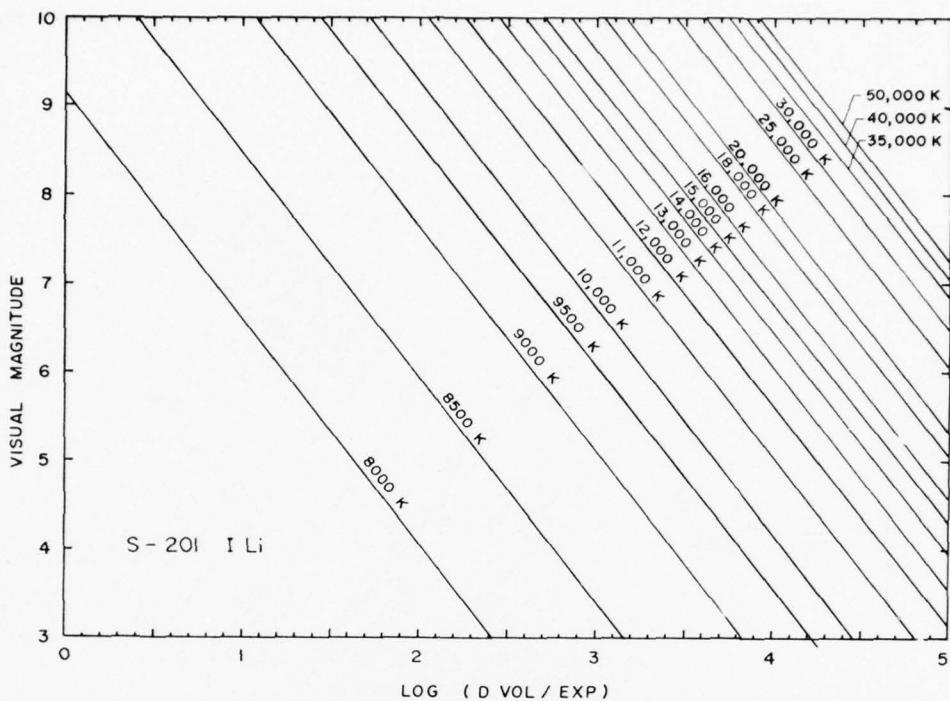


Fig. 30 — Theoretical ILi relationships between $\log V/E$ and visual magnitude for various effective temperatures

Columns 12 to 17 concern the far-ultraviolet photometry based on a PDS-microdensitometer scan of each frame. Column 12 gives the peak density in units of 0.01D. The coordinates of this peak (x, y) are those given in columns 2 and 3. The S201 electrographic camera was fairly linear up to peak densities of 300 (3.0D) but was increasingly saturated at higher densities up to 510 (5.1D), the largest measured by the Boller and Chivens PDS microdensitometer. Column 13 gives the number of pixels more than 20 (0.2D) higher than the local background (BG) listed in column 14. The background (BG) was determined by an average of five pixels outside the star image (except for three frames noted in Table 1, where a 10- or 20-pixel average was used). A query (?) following the BG entry means that the computer value has been modified by inspection of the scan, where nearby images confused the computer average. A query follows the number of pixels when a large BG change was made or when there were other reasons to doubt the computer count of points in the image.

Column 15 lists the density volume of the image—the sum of density minus BG for all pixels inside the image “boundary,” which are pixels such that the density was 20 (0.2D) above BG. Images less than four pixels in extent have been omitted. Column 16 lists the exposure in minutes and the filter type (L for LiF and C for CaF₂). Column 17 gives the ratio of the density volume to the exposure for easy comparison between frames of different exposure times. This ratio is the best estimate of the object’s far-ultraviolet flux, although it has not been corrected for truncation, etc. These are upward corrections. The

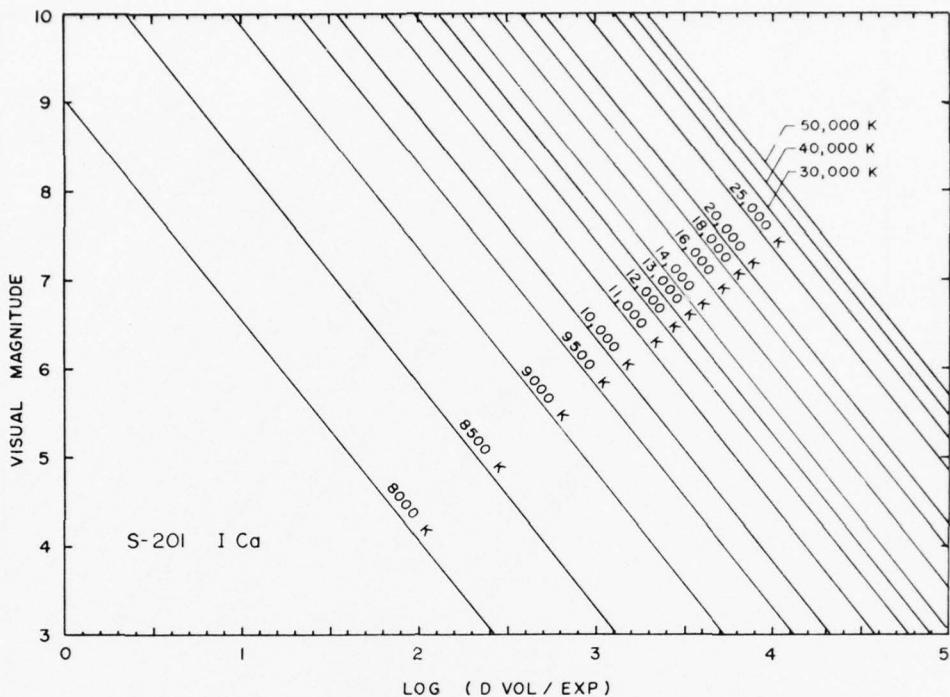


Fig. 31 — Theoretical ICa relationships for various effective temperatures

frame number from which these measurements were made is not listed but can be inferred from column 16 (EXP. & FILTER) and Table 1. For instance, in the Cygnus field, a 3.7-min exposure through CaF_2 is frame A28.

Symbols after the density-volume entries in column 15 have the following meanings: a query (?) means that the image was detected on one frame only (not confirmed by other frames covering the same field); an L means that the density volume is lower than expected from the spectral type and visual magnitude (columns 9 and 10), and H means that it is higher than expected. The H entries are therefore stars or associated nebulas with apparent far-ultraviolet excess; the NO entries are either nonstellar objects or stars too faint to have been included in the SAO catalog. These are all objects of special interest.

Table 2 is a list of the non-SAO (NO) objects in the S201 catalog, with some possible identifications in the RNGC [16]. The first two columns give the measured right ascension and declination converted to 1975 coordinates. The third column gives the frames on which each image was detected, and column 4 gives the measured ratio of density values and exposure, with separate values being listed for LiF-filter frames and CaF_2 -filter frames. A blank in column 4 means no detection of an expected object (such as NGC1068 in the Cetus field). Column 5 gives the RNGC number of the possible identification (with queries following doubtful ones), and columns 6 and 7 give the RNGC 1975 coordinates. In extended nebulas, clusters, and galaxies, the S201 measured position (columns 1 and 2) might be affected by uneven far-ultraviolet flux distribution. Columns 8 and 9 give the magnitude and

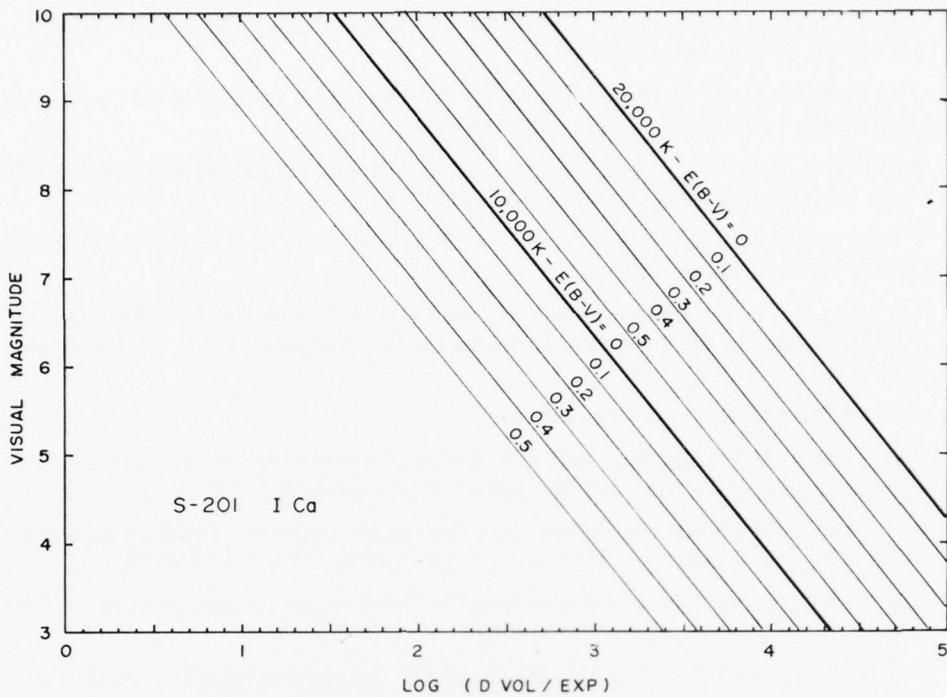


Fig. 32 — Theoretical ICA relationships for various instellar reddening

type of the RNGC objects. In general, Table 2 omits objects in the Large Magellanic Cloud, which is the subject of another S201 study [10].

The S201 catalog is also available on a single reel of seven-track magnetic tape created by the Univac EXEC VIII system, Fortran formatted. Details are given in Appendix B.

REFERENCES

1. G.R. Carruthers, "Apollo 16 Far-Ultraviolet Camera/Spectrograph: Instrument and Operations," *Applied Optics* 12, 2501 (1973).
2. G.R. Carruthers, T. Page and R.R. Meier, "Apollo 16 Lyman alpha Imagery of the Hydrogen Geocorona," *J. Geophys. Research* 81, 1664 (1976).
3. A. Becvár, *Atlas of the Heavens*, Sky Publishing Corp., Cambridge, Mass., 1958.
4. G.R. Carruthers and T. Page, "The S201 Experiment," Chap. 13 in *Apollo 16 Preliminary Science Report*, NASA SP315, 1972.
5. G.R. Carruthers and T. Page, "Apollo 16 Far Ultraviolet Imagery of the Polar Auroras, Tropical Airglow Belts, and General Airglow," *J. Geophys. Research* 81, 483 (1976).
6. G.R. Carruthers and T. Page, "Apollo 16 Far Ultraviolet Spectra of the Terrestrial Airglow," *J. Geophys. Res.* 81, 1683 (1976).

PAGE, CARRUTHERS AND HILL

7. G.R. Carruthers and T. Page, "Far-Ultraviolet Brightness of Nebulae in Cygnus," *Astrophys. J.* **205**, 397 (1976).
8. G.R. Carruthers and T. Page, "Apollo-16 Far-Ultraviolet Spectra in the Large Magellanic Cloud," *Astrophys. J.* **211**, 728 (1977).
9. T. Page and G.R. Carruthers, "Apollo-16 Far-Ultraviolet Imagery and Spectra of the Large Magellanic Cloud," COSPAR XIX, 15 June 1976.
10. T. Page and G.R. Carruthers, "S201 Far-Ultraviolet Atlas of the Large Magellanic Cloud," NRL Report 8206.
11. J.D. Wray and G.F. Benedict, *Instrumentation in Astronomy — II*, SPIE Proc. 44 137, (1974), Society of Photo-optical Instrumentation Engineers, Palos Verdes Estates, Calif.
12. H. Heckathorn, private communication.
13. R.L. Kurucz, E. Peytremann, and E.H. Avrett, *Blanketed Model Atmospheres for Early-Type Stars*, Smithsonian Institution, Washington, D.C., 1974.
14. R.C. Bless and B.D. Savage, "Ultraviolet Photometry from the Orbiting Astronomical Observatory. II. Interstellar Extinction," *Astrophys. J.* **171**, 293 (1972).
15. A.D. Code, "Stellar Energy Distribution," p. 50 in *Stellar Atmospheres*, J. L. Greenstein, editor, University of Chicago Press, 1960.
16. J.W. Sulentic and W.G. Tifft, *The Revised New General Catalogue of Nonstellar Astronomical Objects*, University of Arizona Press, Tucson, 1973.

Appendix A

STAR DETECTION Program for EXEC II

The basic source of star data in this catalog was the STAR DETECTION program. It was required to pick out star images from the many anomalies present in the PDS-microdensitometer scan data. These included overlapping frame fields, density variations due to streaks in the S201-camera barrier membrane (Figs. 2 and 12d), photocathode sensitivity deviations, dust on the film, and some emulsion flaking.

Each frame scan was a square matrix of 1024 by 1024 density pixels, which extended beyond the circular field of view of the camera, approximately 1000 pixels (rasters) in diameter. The STAR DETECTION program processes each scan line by first looking for the edge of the field of view, where there is usually a density step of 30 units or more (Figs. 4b, 5b, ..., 13b). If the edge of field was not discernible (step less than 10 units), the program applies a fail-safe test: all pixels within 475 rasters of the center of the scan matrix are considered to be within the field of view. The program then examines each pixel in the field of view to determine whether it exceeds a threshold value above local background.

Thus STAR DETECTION is based on the assumption that the density gradient in a star image exceeds the density gradients caused by normal variations in the background and exceeds other anomalies like streaks due to the barrier membrane. The threshold value is under the control of the user and has generally been set to 20 units (0.2D). At first a 10-unit value was used for ILI frames, but this complicated the truncation correction, so the threshold was set to 20 units (0.2D) for all star detection used in this catalog.

The local background is computed by the formula

$$B_i = \frac{(n-1)B_{i-1} + D_i}{n},$$

where B_i is the background density computed for the i th pixel, B_{i-1} is the background density computed for the previous, $(i-1)$ th, pixel, n is a number specified by the user (usually n was set to 5, that is, BG in Table 1 is an average of five pixels), and D_i is the density of the i th pixel. If there is a step change in background density, this formula halves the error in the computed background B_i every n pixels. To keep the edge of a star image from affecting the background calculation, the pixel being tested for exceeding the threshold is always five pixels ahead of the pixel used in the background calculation. That is, B_i is applied to the $(i+5)$ th pixel. Provisions were made for handling star images near or on the edge of the field by using stored densities from previous scan lines to calculate B_i .

Once a star edge has been detected, a record is kept of the sum of densities along the scan line which are greater than background plus threshold, the peak density value, the coordinates of the peak, and the background density B . The records of star images along two adjacent scan lines are maintained continuously. At the end of each scan line, the two lines are compared, and the densities are combined for each image that shows on both lines. If the peak density has increased from the previous line to the current line, the results

are brought forward to the current line. If the peak density has decreased, the results are placed in an output buffer and its location added to the current line so that additional data from succeeding lines can still be added. After the last scan line that detects the image edge, the data from the output buffer is listed, plotted, and placed on magnetic tape for further processing by the COORDINATE TRANSFORMATION program.

One problem was the effect of "noise" in the microdensitometer scans—localized high densities ("hot spots") within a star image. These hot spots would cause one large image to be recorded as several smaller images, which thwarted attempts to separate close, "double-star" images. These adverse effects of hot spots were reduced by preprocessing the scan data with the SMOOTH program. In addition the STAR DETECTION program was modified to automatically combine two peaks 3 rasters apart and to establish a "sphere of influence" of an image by measuring the diameter of the image (assumed to be circular) on the scan line through the peak. Other peaks within half this diameter from the first peak were combined with it unless the minimum density between them differed from the average peak density by more than a value specified by the user (usually 100 units). This modification may have helped resolve a few pairs of close images in the catalog.

AD-A051 304

NAVAL RESEARCH LAB WASHINGTON D C
S201 CATALOG OF FAR-ULTRAVIOLET OBJECTS. (U)
JAN 78 T PAGE, G R CARRUTHERS, R E HILL

F/6 3/2

UNCLASSIFIED

2 OF 2
AD
A051304

NRL-8173

SBIE-AD-E000 117

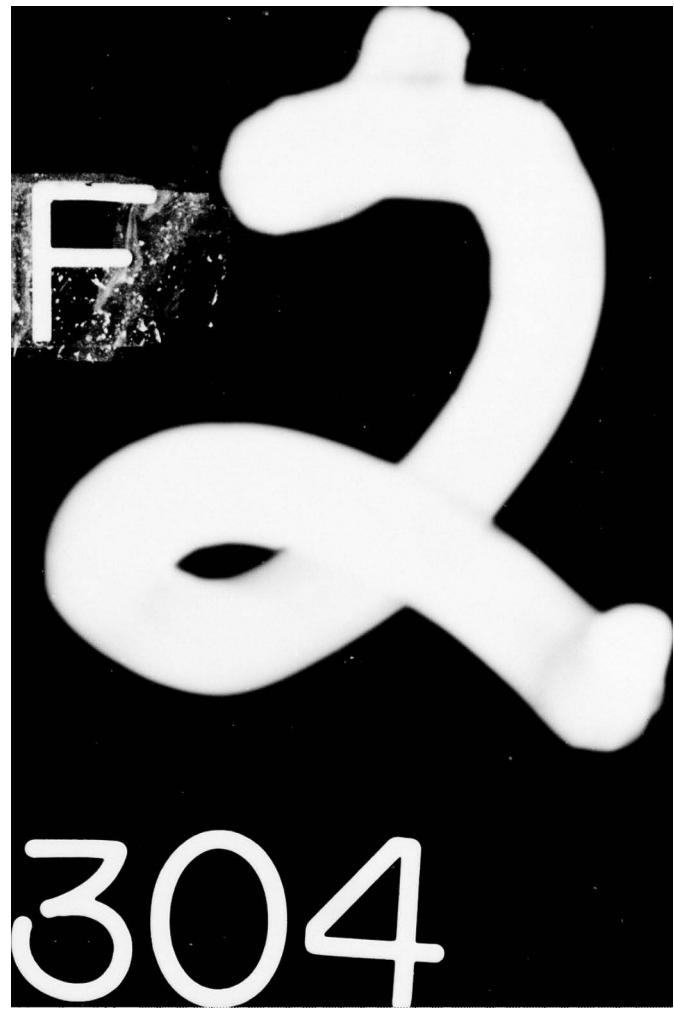
NL



END
DATE
FILED

4-78

DDC



Appendix B

S201 Catalog Tape

The S201 catalog of far-ultraviolet objects is available on a seven-track 800-bit-per-inch odd-parity tape. The tape was written on a Univac 1110 computer under the EXEC VIII operating system using Fortran-formatted write statements. Thus the file structure is of the Univac SDF sequential formatted record type. A more detailed description of this format can be found in the Sperry Univac 1100 Series Fortran V Library Programmer Reference (UP-7876).

There are 11 data files on the tape, and each data file is terminated by a software end-of-file mark and a hardware end-of-file mark. The data are in the field-data character set (see Univac 1100 Operating System UP-4144 Rev. 3, Appendix D) of 132 characters (22 words) per data line. The first data line of each file is a header line containing an alphanumeric description of the target field. Each succeeding line consists of 132 characters, the meanings of which are given in Table B1.

A listing of a Fortran program to extract the data is given in Table B2.

Table B1 — Meanings of Characters in Each Data Line

Characters	Meaning (digits right-justified)
1- 6	Object number
7- 12	x raster coordinate
13- 18	y raster coordinate
19- 23	Hours of right ascension (R.A.)
24	Separator (:)
25- 26	Minutes of R.A.
27	Separator (:)
28- 29	Seconds of R.A.
30- 34	Degrees of declination (DEC.)
35	Separator (:)
36- 37	Arc-minutes of DEC.
38	Separator (:)
39- 40	Arc-seconds of DEC.
41- 43	Blank
44- 49	SAO star number, or NO, or blank
50	Query (?) or colon (:) or slash (/) or blank
51- 55	Minutes in deviation of R.A. from SAO star
56	Separator (:)
57- 58	Seconds in deviation of R.A. from SAO star
59- 63	Arc-minutes in deviation of DEC. from SAO star
64	Separator (:)
65- 66	Arc-seconds in deviation of DEC. from SAO star
67- 69	Blank
70- 71	Spectral type of SAO star
72- 78	Visual magnitude of SAO star
79- 85	Photographic magnitude of SAO star (zeros = unknown)
86- 91	Peak density of the image
92- 99	Total number of points in the image
100	Query or blank
101-105	Local background density
106	Query or blank
107-114	Density volume of image
115	Query or blank
116	H or L or blank
117-121	Exposure time rounded off to tenths of minutes
122	Filter type (L or C)
123-132	Density volume divided by exposure time*

*For an image near the edge of the field, the letters ED replace the numerals for hundredths and thousandths (characters 131 and 132).

Table B2 — Fortran Program to Extract Data From S201 Catalog Tape

```

1:      DIMENSION HEAD(22)
2:      DO 20 IFILE=1,11
3:      READ (1,2000,END=5) HEAD
4: 2000  FORMAT (22A6)
5:      GO TO 15
6:      5 WRITE (6,1111)
7: 1111  FORMAT (1H1,'SECOND END OF FILE HAS BEEN READ')
8:      READ (1,2000,END=20) HEAD
9:      15 WRITE (6,1000) HEAD
10: 1000  FORMAT (1H1,21A6,A5)
11:      10 READ (1,2005,END=20,ERR=17) LINEN,IX,IY,IRAH,IRAM,IRAS,IDECD,
12:           $ IDECM,IDECS,NSAO,Q1,JRAH,JRAM,JDEC,D,JOECH,SPECT,VHAG,PHAG,
13:           $ IPEAKD,NPOINT,Q2,IBG,Q3,IVOL,Q4,Q5,EXP,FTYPE,DVSEX
14: 2005  FORMAT (3I6,2(I5,1X,I2),1X,I2),3X,A6,A1,2(I5,1X,I2),
15:           $ 3X,A2,2F7.2,I6,I8,A1,I5,A1,I8,2A1,F5.1,A1,F10.3)
16:C
17:C          START OF USER AREA
18:C
19:      GO TO 18
20:      17 WRITE (6,1010)
21: 1010  FORMAT (1H0,'ERROR IN READING DATA')
22:      18 WRITE (6,2005) LINEN,IX,IY,IRAH,IRAM,IRAS,IDECD,IDECH,
23:           $ IDECS,NSAO,Q1,JRAH,JRAM,JDEC,D,JOECH,SPECT,VHAG,PHAG,
24:           $ IPEAKD,NPOINT,Q2,IBG,Q3,IVOL,Q4,Q5,EXP,FTYPE,DVSEX
25:C
26:C          END OF USER AREA
27:C
28:      GO TO 10
29:      20 CONTINUE
30:      30 STOP
31:      END

```

**S201 Catalog
Listing**

NOT
Preceding Page BLANK - FILMED

NRL REPORT 8173

OBJECT NO.	X	Y	R.A.	DEC.	SAO NO.	A R.A.	A DEC.	SPEC. TYPE	V MAG.	P MAG.	PEAK DEN.	NO. OF POINTS	BG	DENSITY VOLUME	EXP. & FILTER	DEN. VOL. EXP.
1 981	445	20:35:23	39:15:31	70291	-0: 8	-3:37	A2	8.60	8.90	54	37	26	873 H	.2L	3492.00	
2 990	460	20:35:26	38:45:18	70276	0: 7	-1:29	A0	8.70	8.70	38	8	16	168	3.7C	45.405	
3 977	631	20:36:18	35:22:18	70314	0: 3	-5:16	A2	8.40	8.20	50	8	20	207	10.0C	20.700	
4 974	801	20:36:44	32:13:17	70303	-0: 5	-0:29	A0	9.00	9.10	62	9	17	273	3.7C	73.784	
5 908	381	20:37:25	40:26:21	49899?	-0:18	2:15	B8	5.93	.00	266	110	16	9929 H	3.0C	3309.667	
6 908	381	20:37:25	40:26:21	49902?	-0:24	1:50	B8	8.90	8.90	266	110	16	9929 H	3.0C	3309.667	
7 959	386	20:37:36	40:25:58	49899?	-0: 8	1:52	B8	5.93	.00	50	9	26	196 L	.2L	784.000	
8 959	386	20:37:36	40:25:58	49902?	-0: 8	1:27	B8	8.90	8.90	50	9	26	196	.2L	784.000	
9 967	383	20:37:40	40:26:43	49899?	-0: 4	2:37	B8	5.93	.00	180	90	61	4949	1.0L	4949.000	
10 967	383	20:37:40	40:26:43	49902?	-0: 9	2:12	B8	8.90	8.90	180	90	51	4949	1.0L	4949.000	
11 965	378	20:37:41	40:26:41	49899?	-0: 3	2:35	B8	5.93	.00	130	203	21	26633	10.0C	2663.300	
12 965	378	20:37:41	40:26:41	49902?	-0: 8	2:10	B8	8.90	8.90	430	203	21	26633	10.0C	2663.300	
13 962	396	20:37:44	40:26:56	49899?	-0: 1	2:50	B8	5.93	.00	392	130	19	1295	3.0L	417.333	
14 962	396	20:37:44	40:26:56	49902?	-0: 5	2:25	B8	8.90	8.90	392	130	19	1295	3.0L	417.333	
15 967	396	20:37:45	40:25:45	49899?	-0: 2	1:39	B8	5.93	.00	307	130	18	12758 L	3.7C	3448.008	
16 967	386	20:37:45	40:25:45	49902?	-0: 4	1:14	B8	8.90	8.90	307	130	18	12758	3.7C	3448.108	
17 896	350	20:38:39	41: 4:12	49929	-0:25	2:47	B9	6.92	.00	67	35	15	1171	3.0C	390.333	
18 893	457	20:38:53	38:53:4	70367	-0:15	1: 9	B9	6.44	.00	193	83	15	5822 H	3.0C	1940.667	
19 953	347	20:38:59	41: 4:28	49929	-0:10	3: 3	B9	6.92	.00	164	77	21	4915	10.0C	491.500	
20 955	354	20:38:58	41: 4:45	49929	-0: 6	3:20	B9	6.92	.00	80	42	18	1555	3.7C	420.000	
21 950	354	20:38:59	41: 5:50	49929	-0: 5	4:25	B9	6.92	.00	172	33	129	999	3.0L	333.000	
22 954	505	20:39: 5	38: 1:33								52	4	16	111?	3.7C	30.000
23 952	461	20:39:12	38:53:59	70367	0: 4	-0:14	B9	6.44	.00	225	94	18	7275	3.7C	1966.216	
24 946	462	20:39:14	38:53:47	70367	0: 6	-0:26	B9	6.44	.00	309	97	133	7191 H	3.0L	2397.000	
25 949	454	20:39:15	38:53:45	70367	0: 7	-0:27	B9	6.44	.00	397	143	21	16791 H	10.0C	1679.100	
26 950	459	20:39:18	38:53:41	70367	0:10	0:31	B9	6.44	.00	144	59	60	2615 H	1.0L	2615.000	
27 886	628	20:39:26	35:28: 2	70380	-0:11	5: 5	B9	8.30	8.00	76	32	21	1105 H	3.0C	369.333	
28 942	827	20:39:30	31:34:52	70372?	0:11	6:34	B9	9.10	9.40	53	5	17	150	10.0C	15.000	
29 942	827	20:39:30	31:34:52	70375	0: 1	3: 8	B9	9.20	9.40	53	5	17	150	10.0C	15.000	
30 943	609	20:39:35	35:47:57	70390?	-0:17	5:27	B9	9.20	9.80	54	5	21	132	10.0C	13.200	
31 943	629	20:39:37	35:29:16	70380	-0: 0	3:51	B9	8.30	8.00	180	73	30	484 H	10.0C	484.000	
32 945	632	20:39:38	35:29:33	70380	-0: 3	3:34	B9	8.30	8.00	91	43	22	1721	3.7C	465.135	
33 977	629	20:39:39	35:30:37	70380	-0: 7	2:37	B9	8.30	8.00	192	38	137	1281 H	3.0L	427.000	
34 886	324	20:39:48	41:35: 5	49946	-0:19	3:31	B8	5.60	.00	292	113	16	1084 H	3.0C	367.667	
35 939	331	20:39:51	41:35: 4	49946?	-0:15	2:51	B8	5.60	.00	81	17	24	1983	1.0C	192.000	
36 941	329	20:39:56	41:35: 4	49946	-0:12	3:10	B8	5.60	.00	395	137	128	13955	3.0L	4518.333	
37 946	328	20:40: 0	41:36:10	49946	-0: 7	3:57	B8	5.60	.00	340	126	19	13150	3.7C	3554.094	
38 943	321	20:40: 2	41:35:57	49946	-0: 6	3:44	B8	5.60	.00	436	189	24	26892	10.0C	2682.400	
39 945	326	20:40: 4	41:35:49	49946	-0: 4	3:25	B8	5.60	.00	190	63	13	5155	1.0L	5155.000	
40 878	642	20:40:10	35:10:39	70400?	-0: 3	-4:48	B9	9.10	9.60	322	118	17	11944	3.0C	3981.333	
41 878	642	20:40:10	35:10:39	70406	-0:15	5:55	B9	6.50	.00	322	118	17	11944	3.0C	3981.333	
42 935	639	20:40:21	35:13:11	70400?	0: 8	2:15	B9	9.10	9.60	433	202	24	28306	10.0C	2830.600	
43 935	639	20:40:21	35:13:11	70406	-0: 4	2:33	B9	6.50	.00	433	202	24	28306	10.0C	2830.600	
44 929	646	20:40:27	35:14:20	70400?	-0:14	1: 7	B9	9.10	9.60	419	151	133	16267	3.0L	5422.333	
45 929	646	20:40:27	35:14:20	70406	0: 2	2:14	B9	6.50	.00	419	151	133	16267	3.0L	5422.333	
46 936	646	20:40:27	35:13:28	70400?	-0:15	1:59	B9	9.10	9.60	364	137	20	14836	3.7C	4009.730	
47 936	646	20:40:27	35:13:28	70406	0: 3	3: 6	B9	6.50	.00	364	137	20	14836	3.7C	4009.730	
48 934	643	20:40:28	35:14:19	70406	0: 3	-2:15	B9	6.50	.00	233	104	62	7068	1.0L	7068.000	
49 926	648	20:40:31	35:13:27	70406	0: 6	-3: 6	B9	6.50	.00	62	28	26	768	.2L	3072.000	
50 931	591	20:40:46	36: 9:21	70410	0: 1	-2:04	B9	8.40	8.30	48	8	22	187 L	10.0C	18.700	
51 921	654	20:41: 1	35: 6: 0	70421?	-0:19	5:49	B9	8.80	9.10	8	5	26	106	.2L	424.000	
52 868	725	20:41: 5	33:33:27	70417?	-0: 9	5:34	A0	8.00	7.60	92	62	15	2610 H	3.0C	870.000	
53 868	725	20:41: 5	33:33:27	70422?	-0:19	7:48	A0	7.80	7.30	92	62	15	2610 H	3.0C	870.000	
54 869	626	20:41: 9	35:29:31	70416?	-0: 2	5:28	A0	8.40	8.60	44	11	16	264	3.0C	88.000	
55 869	626	20:41: 9	35:29:31	70420?	-0:11	4: 7	A0	8.10	7.90	44	11	16	264	3.0C	88.000	
56 928	630	20:41:14	35:32:14	70416?	-0: 6	2:45	A0	8.40	8.60	53	19	18	516	3.7C	104.599	
57 928	630	20:41:14	35:32:14	70417?	-0: 6	1:24	A0	8.10	7.90	53	19	18	516	3.7C	104.599	
58 919	729	20:41:18	37:37:16	70417?	-0: 3	1:45	A0	8.40	8.60	202	59	21	2421 H	3.0L	807.000	
59 919	729	20:41:18	37:37:16	70422?	-0: 3	3:59	A0	7.80	7.30	202	59	21	2421 H	3.0L	807.000	
60 925	623	20:41:19	35:32: 1	70416?	-0:12	2:58	A0	8.40	8.60	99	55	21	2413 H	10.0C	241.300	
61 925	623	20:41:19	35:32: 1	70420?	-0: 1	-1:39	A0	8.10	7.90	99	55	21	2413 H	10.0C	241.300	
62 924	727	20:41:21	33:36: 5	70417?	-0: 6	2:57	A0	8.00	7.60	86	14	60	324	3.0C	324.000	
63 924	727	20:41:21	33:36: 5	70422?	-0: 3	5:11	A0	7.80	7.30	86	14	60	324	3.0C	324.000	
64 929	375	20:41:21	40:29: 7	49974?	-0: 3	-2:42	A0	8.00	8.20	74	35	19	1228	10.0C	122.800	
65 929	376	20:41:21	40:29: 7	49977?	-0: 0	2:14	A0	8.30	8.30	74	35	19	1228	10.0C	122.800	
66 924	722	20:41:22	33:36:15	70417?	0: 8	-2:46	A0	8.00	7.60	216	123	21	9333 H	10.0C	933.300	
67 924	722	20:41:22	33:36:15	70422?	-0: 1	5: 0	A0	7.80	7.30	216	123	21	9333 H	10.0C	933.300	
68 926	729	20:41:22	33:36:32	70417?	0: 8	-2:30	A0	8.00	7.60	107	73	17	3437 H	3.7C	928.919	
69 926	729	20:41:22	33:36:32	70422?	-0: 1	4:43	A0	7.80	7.30	107	73	17	3437 H	3.7C	928.919	
70 863	624	20:41:40	35:32: 4	70420?	-0: 2	7:22	A0	8.90	9.50	49	4	17	114	3.0C	38.000	
71 863	624	20:41:40	35:32: 4	70425?	-0: 2	7:22	A0	8.90	9.50	49	4	17	114	3.0C	38.000	
72 919</td																

PAGE, CARRUTHERS AND HILL

CYGNUS RA 21:24 DEC +37:30

OBJECT NO.	X	Y	R.A.	DEC.	SAO NO.	Δ R.A.	Δ DEC.	SPEC. TYPE	V MAG.	P MAG.	PEAK DEN.	NO. OF POINTS	BG	DENSITY VOLUME	EXP. & FILTER	DEN. VOL/ EXP.	
101	885	591	20:45:35	36:17:21	70505	0: 9	-1: 1	B5	4.47	.00	433	235	20	28034 L	3.7C	7576.757	
102	877	590	20:45:37	36:17:44	70505	0: 9	-0:37	B5	4.47	.00	453	235	141	26832 L	3.0L	894.000	
103	870	772	20:45:38	32:47:35	70510	-0:2	4:55	9.20	9.80	.53	5	25	118?	.2L	72.000		
104	875	806	20:45:51	31:56:52	70513?	0: 2	-6:12	9.00	9.40	.49	21	25	+85?	10.0C	+8.500		
105	875	806	20:45:51	31:56:52	70514?	-0: 2	-0:50	A0	8.50	8.80	.49	21	25	+85?	10.0C	+8.500	
106	888	304	20:45:52	41:56: 2	50066	0: 0	3: 1	A0	7.20	7.60	.61	18	21	564 L	10.0C	56.400	
107	886	341	20:45:53	41:56:10	50071?	-0:15	-3:16	9.40	10.00	.67	8	18	271?	10.0C	27.100		
108	873	566	20:46:35	36:37:16	70525	-0: 1	-0:43	8.90	9.10	.54	6	27	139	10.0C	13.900		
109	814	615	20:46:39	35:40:55	70527	0: 1	-2:36	9.00	9.00	.43	7	17	157	3.0C	52.333		
110	871	612	20:46:42	35:42:13	70527?	0: 4	-1:17	9.00	9.00	.101	35	24	1479 H	10.0C	147.900		
111	866	619	20:46:43	35:43:39	70527	0: 8	0:19	9.00	9.00	.165	7	138	166	3.0L	55.333		
112	873	619	20:46:43	35:43:33	70527	0: 5	0:2	9.00	9.00	.51	11	17	303	3.7C	81.892		
113	867	619	20:46:50	33:57:47	70528	0: 8	-2:40	A2	8.80	9.10	.50	12	23	283	10.0C	28.300	
114	812	606	20:46:52	35:50:56	70527?	0:14	-7:25	9.00	9.00	.76	25	15	929	3.0C	309.667		
115	869	603	20:46:54	35:53:26	70527?	0: 8	-1:36	88	31	.62	174	23	367	10.0C	361.000		
116	871	610	20:46:55	35:53:32	NO	70527?	0:18	10:33	9.00	9.00	.87	201	33	138	1263	3.0L	+2.000
119	814	420	20:46:59	39:36:49	70541	-0: 9	0:29	A0	7.32	.00	.75	22	13	855 H	3.0C	285.000	
120	813	466	20:46:59	38:40:21	70539	-0: 8	-0:23	A0	7.60	7.10	.130	39	15	2003 H	3.0C	667.667	
121	868	563	20:46:58	36:41: 1	70534	0: 3	0:25	9.10	9.30	.51	12	23	282	10.0C	28.200		
122	821	262	20:47: 1	42:49:26	50102	-0:19	3:20	BB	7.40	7.30	.65	28	14	953	3.0C	317.667	
123	876	266	20:47:10	42:51:21	50102?	-0:10	5:16	BB	7.40	7.30	.174	36	123	1193	3.0L	397.667	
124	880	266	20:47:11	42:51: 0	50102	-0: 9	4:55	BB	7.40	7.30	.83	36	19	1313	3.7C	354.865	
125	871	417	20:47:12	39:37:34	70541	0: 4	1:15	A0	7.32	.00	.170	49	20	3189	10.0C	318.900	
126	868	424	20:47:13	39:37:54	70541	0: 5	1:35	A0	7.32	.00	.196	24	142	798	3.0L	266.000	
127	872	470	20:47:15	38:42:31	70539	0: 8	1:47	A0	7.60	7.10	.152	45	16	2658 H	3.7C	718.378	
128	873	424	20:47:16	39:29:51	70541	0: 8	2:32	A0	7.32	.00	.90	28	16	1133	3.7C	306.216	
129	866	470	20:47:17	38:42:48	70539	0:10	2: 4	A0	7.60	7.10	.262	46	144	2415 H	3.0L	805.000	
130	869	463	20:47:18	38:41:15	70539	0:12	0:30	A0	7.60	7.10	.284	63	21	631 H	10.0C	634.100	
131	877	259	20:47:19	42:50:58	50102	-0: 1	4:52	BB	7.40	7.30	.162	71	22	4172	10.0C	417.200	
132	870	468	20:47:20	38:41:47	70539	0:14	1: 3	A0	7.60	7.10	.111	22	61	740 H	1.0L	740.000	
133	869	326	20:47:45	41:28:49	50112	0: 1	2:59	A0	8.80	8.40	.64	20	19	605	10.0C	60.500	
134	801	593	20:47:50	36: 5:53	70555	-0: 3	0:29	BB	8.50	8.30	.132	38	18	2003 H	3.0C	667.667	
135	860	598	20:48: 3	36: 7:12	70555	0: 3	-1:20	BB	8.50	8.30	.148	45	20	2576 H	3.7C	696.216	
136	853	597	20:48: 8	36: 8:36	70555	0: 5	0: 4	BB	8.50	8.30	.271	50	140	2980 H	3.0L	993.333	
137	858	595	20:48:10	36: 8:40	70555	0: 5	-0:53	BB	8.50	8.30	.120	26	64	654 H	1.0L	908.000	
138	857	590	20:48: 9	36: 8:25	70555	0: 8	-0: 7	BB	8.50	8.30	.293	73	25	654 H	10.0C	651.400	
139	847	592	20:48:14	30:36:15	70564	-0:18	-7:13	A2	6.75	.00	.17	4	17	98	3.7C	26.966	
140	862	436	20:48:20	39:23:50	70564	-0: 8	-1:20	BB	6.75	.00	.55	9	15	2657	3.7C	11.622	
141	804	291	20:49:35	42:13:20	50125	-0:16	1:42	BB	7.20	7.10	.121	45	16	2899 H	3.0C	763.000	
142	851	579	20:49:45	36:20:54	70568	0: 3	0:32	A0	8.90	8.90	.73	21	22	638	10.0C	69.800	
143	861	288	20:49:46	42:15: 1	50125	-0: 5	3:22	BB	7.20	7.10	.288	92	23	7926	10.0C	792.600	
144	859	295	20:49:48	42:15:14	50125	-0: 2	3:35	BB	7.20	7.10	.245	53	128	2984	3.0L	981.333	
145	854	450	20:49:48	38:57:32	50125	-0: 2	-1:20	BB	6.90	6.90	.79	9	21	351?	10.0C	35.100	
146	863	292	20:49:49	42:15:28	50125	-0: 2	3:49	BB	7.20	7.10	.108	29	58	915	1.0L	915.000	
147	863	295	20:49:51	42:15: 2	50125	0: 0	3:23	BB	7.20	7.10	.148	55	19	3052	3.7C	824.865	
148	845	722	20:49:59	33:32: 6	70573	0: 5	-2:12	BB	8.80	8.80	.48	7	22	162 L	10.0C	16.200	
149	848	595	20:49: 3	36: 2: 5	70580	-0: 6	4:59	BB	9.40	9.90	.51	8	21	296	10.0C	20.600	
150	822	901	20:49:25	30:14:23	70580	-0: 3	0:32	B5	6.97	.00	.63	9	25	298?	.2L	1192.000	
151	840	513	20:49:32	37:48:35	70590	-0: 3	0:32	B5	6.97	.00	.266	40	143	2226 L	3.0L	742.000	
152	855	275	20:49:33	42:30: 0	50137	-0: 2	3:25	A0	8.70	8.30	.78	26	26	856	10.0C	85.600	
153	843	541	20:49:36	37: 5:56	70586	0: 3	0: 3	A0	8.80	8.80	.72	20	20	657	10.0C	65.700	
154	787	509	20:49:37	37:47:29	70590	0: 1	-0:36	B5	6.97	.00	.131	31	17	1634 L	3.0C	544.667	
155	846	513	20:49:39	37:48:31	70590	0: 4	0:28	B5	6.97	.00	.158	37	18	2194 L	3.7C	592.973	
156	845	510	20:49:43	37:48:54	70590	0: 8	0:51	B5	6.97	.00	.115	21	62	737	1.0L	737.000	
157	844	506	20:49:43	37:48:33	70590	0: 8	0:29	B5	6.97	.00	.287	61	25	5376 L	10.0C	537.600	
158	775	772	20:49:59	32:35:20	70596	0: 4	-1:17	BB	6.35	.00	.335	104	19	10562	3.0C	3520.667	
159	826	776	20:49:59	32:38:15	70596	0: 4	1:22	BB	6.35	.00	.410	136	127	13946	3.0L	4648.667	
160	834	777	20:49:59	32:37: 8	70596	0: 5	-1:49	BB	6.35	.00	.371	151	8	1588	3.7C	3689.000	
161	823	778	20:50: 3	32:37: 5	70596	0: 5	-2:29	BB	6.35	.00	.65	23	26	616	.2L	2564.000	
162	842	769	20:50: 5	32:37: 5	70596	0: 5	2:21	BB	6.35	.00	.428	188	24	2547.9	10.0C	2547.900	
163	832	531	20:50: 5	37:27:58	70606?	-0:10	8: 9	A2	8.70	8.60	.66	10	24	3057	.2L	1220.000	
164	832	531	20:50: 5	37:27:58	70607?	-0:10	8: 9	A2	9.20	9.80	.66	10	24	3057	.2L	1220.000	
165	831	773	20:50: 5	32:37:25	70596	0: 7	-2:12	BB	6.35	.00	.238	89	61	6151 H	1.0L	6151.000	
166	778	678	20:50: 5	34:24: 2	70599	0: 1	4: 6	BB	6.90	.00	.257	63	18	5115	3.0C	1805.000	
167	826	684	20:50:10	34:26:17	70599	0: 6	-1:51	BB	6.90	.00	.49	6	26	130 L	2.0L	620.000	
168	829	681	20:50:11	34:27:58	70599	0: 8	-0:10	BB	6.90	.00	.376	83	138	7154	3.0L	2384.667	
169	839	537	20:50:16	37:19:37	70606	0: 2	-0:12	A2	8.70	8.60	.44	8	16	2783	1.0L	2783.000	
170	839	460	20:50:17	38:43:41	70608	0: 2	0:24	A0	8.90	9.30	.55	10	20	276	3.0L	59.667	
171	831	647	20:50:32	34:59: 8	70603	0: 20	-2:20	BB	8.80	9.30	.163	4	140	81	3.0L		

NRL REPORT 8173

OBJECT NO.	X	Y	R.A.	DEC.	SAO NO.	Δ R.A.	Δ DEC.	SPEC. TYPE	V MAG.	P MAG.	PEAK DEN.	NO. OF POINTS	BG	DENSITY VOLUME	EXP. & FILTER	DEN. VOL / EXP.		
																1	2	
201	835	286	20:51:33	42:16:19	50183	-0: 4	3: 7	A0	6.47	.00	234	54	29	4367	10.0C	436	700	
202	837	291	20:51:36	42:15:18	50183	-0: 1	2: 6	A0	6.47	.00	87	29	131	1151	1.0L	164	000	
203	833	293	20:51:36	42:16:12	50179?	-0: 12	5:50	A0	6.90	.00	199	29	131	1151	3.0L	383	667	
204	833	293	20:51:36	42:16:12	50183	-0: 1	2:60	A0	6.47	.00	199	29	131	1151	3.0L	383	667	
205	772	357	20:51:37	40:51:53	50189	-0:11	0:20	A2	7.40	7.50	146	41	15	2326	H	3.0C	775	333
206	820	645	20:51:39	35: 1:33	70638	0: 4	0:-2	B9	7.80	8.00	83	26	20	991	L	10.0C	98	100
207	837	293	20:51:39	42:16:15	50179?	-0: 15	5:53	A0	8.80	8.90	116	37	21	1701	3.7C	459	730	
208	837	293	20:51:39	42:16:15	50183	-0: 2	3: 3	A0	6.47	.00	116	37	21	1701	3.7C	459	730	
209	822	652	20:51:40	35: 1:30	70638	0: 4	0:-6	B9	7.80	8.00	48	8	17	202	L	3.7C	54	595
210	826	360	20:51:47	40:54:56	50189	-0: 2	3:24	A2	7.40	7.50	278	45	133	2882	H	3.0L	960	667
211	834	272	20:51:48	42:33:45	50193	-0: 2	3: 6	A0	8.70	8.60	69	18	28	579	10.0C	57	900	
212	831	361	20:51:53	40:53:46	50189	-0: 4	2:13	A2	7.40	7.50	176	46	17	2921	H	3.7C	789	459
213	830	358	20:51:55	40:54: 3	50189	-0: 6	2:30	A2	7.40	7.50	122	26	61	951	H	1.0L	951	000
214	839	359	20:51:55	40:53:51	50189	-0: 6	2:18	A2	7.40	7.50	309	73	22	688	H	10.0C	688	600
215	783	153	20:52:01	41:00:30	50205	-0:10	2:21	B9	7.60	7.80	52	10	20	267	3.0C	89	000	
216	817	554	20:52:11	36:49:17	70639	-0:34	3:40	A2	7.24	.00	76	13	20	448	L	10.0C	44	800
217	804	157	20:52:12	40:56:55	50187?	-0: 26	1: 3	A0	8.50	7.80	66	19	23	591	3.7C	159	730	
218	764	379	20:52:22	40:30:29	50200?	-0: 11	3:46	B9	7.60	.00	66	19	23	591	L	3.0C	159	730
219	764	374	20:52:22	40:30:29	50200?	-0: 1	0:-29	B9	8.80	8.80	207	47	16	3424	H	3.0C	1141	333
220	764	374	20:52:22	40:30:29	50209	-0: 1	0:-15	B9	8.45	.00	207	47	16	3424	H	3.0C	1141	333
221	802	726	20:52:22	33:35:37							55	4	26	100?	L	4.00	000	
222	818	377	20:52:30	40:33:30	50200?	0:19	2:33		8.80	8.80	345	59	135	4697	3.0L	1565	667	
223	818	377	20:52:30	40:33:30	50209	0: 0	2:47	B9	8.48	.00	345	59	135	4697	3.0L	1565	667	
224	823	375	20:52:32	40:32:40	50209	0: 2	1:57	B9	8.48	.00	163	38	20	60	1.0L	1927	000	
225	821	371	20:52:33	40:32:31	50209	0: 3	1:48	B9	8.48	.00	366	90	23	9424	10.0C	942	400	
226	823	378	20:52:37	40:32:24	50200?	-0:26	1:27	B9	8.80	8.80	249	56	18	4424	3.7C	1195	676	
227	223	378	20:52:37	40:32:24	50209	0: 7	1:41	B9	8.48	.00	249	56	18	4424	3.7C	1195	676	
228	779	151	20:52:39	44:59:58	50205?	-0:18	4:48	B9	7.60	.00	55	32	18	919	H	3.0C	306	333
229	779	151	20:52:39	44:59:58	50219?	-0:21	3:17	B9	8.10	7.80	55	32	18	919	H	3.0C	306	333
230	812	551	20:52:42	36:52:57	70659	-0: 3	0: 0	A0	7.24	.00	211	58	20	3998	H	10.0C	399	800
231	814	558	20:52:42	36:52:49	70659	-0: 1	0:-7	A0	7.24	.00	118	28	16	1376	3.7C	371	892	
232	835	156	20:52:45	45: 0: 2	50205?	-0:25	4:52	B9	7.60	.00	162	32	131	771	3.0L	257	000	
233	835	156	20:52:45	45: 0: 2	50219	-0:15	3:21	B9	8.10	7.80	162	32	131	771	3.0L	257	000	
234	812	555	20:52:47	36:53:52	70659	-0: 2	0: 6	A0	7.24	.00	97	11	6	285	L	1.0L	285	000
235	807	557	20:52:48	36:53:47	70659	-0: 3	0:51	A0	7.24	.00	217	24	142	1046	H	3.0L	348	667
236	755	554	20:52:48	36:51:37	70659	-0: 4	1:19	A0	7.24	.00	101	22	15	993	H	3.0C	331	000
237	838	156	20:52:48	45: 0: 9	50219	-0:12	3:28	B9	8.10	7.80	65	32	22	1025	3.7C	277	027	
238	749	692	20:52:52	36:52:53	70662	-0: 3	0:49	B9	8.00	8.00	47	7	16	178	L	3.0C	59	333
239	835	158	20:52:54	45: 0: 24	50219	-0: 6	4:13	B9	8.10	7.80	35	93	39	5125	H	10.0C	512	500
240	806	689	20:52:55	36: 8:41	70662	-0: 5	1:12	B9	8.00	8.00	151	33	19	1445	10.0C	144	500	
241	808	696	20:52:55	36: 8:51	70662	-0: 6	0:-2	B9	8.00	8.00	53	12	16	337	L	3.0C	91	61
242	800	695	20:52:58	36: 9:28	70662	-0: 8	0:25	B9	8.00	8.00	58	12	16	337	L	3.0L	30	667
243	819	316	20:53:43	41:38:46	50221	-0: 2	1:57	A0	8.90	8.90	104	7	20	347	L	1.0L	34	700
244	819	335	20:53:43	41:21:22							59	7	20	227	L	1.0L	227	000
245	808	425	20:53:15	39: 33: 8	70679?	-0:30	7:18	A5	8.30	8.70	172	7	135	210?	3.0L	70	000	
246	761	284	20:53:19	42:20:35	50226	-0:10	1:18	B9	8.69	.00	230	57	16	4392	H	3.0C	1864	000
247	818	281	20:53:21	42:21:12	50226	-0: 7	1:55	B9	8.69	.00	394	112	23	12373	H	10.0C	1237	300
248	811	390	20:53:23	40: 8:37	50230	-0: 7	2: 8	B9	8.10	7.10	240	62	20	4850	L	10.0C	485	000
249	820	285	20:53:23	42:22:33	50226	-0:25	3:15	B9	8.89	.00	168	48	20	2455	H	1.0L	2455	000
250	816	288	20:53:25	42:22: 8	50226	-0: 4	2:50	B9	8.89	.00	35*	76	128	698	H	3.0L	2166	000
251	754	393	20:53:25	40: 7:2	50230	-0: 5	1:13	B9	7.10	7.10	125	29	15	1491	L	3.0C	497	000
252	808	397	20:53:26	40: 8:13	50230	-0: 4	1:44	B9	7.10	7.10	258	37	137	198	L	3.0L	661	333
253	820	288	20:53:27	42:22:20	50226	-0: 1	3: 3	B9	8.69	.00	271	66	18	5580	H	3.7C	1508	108
254	813	397	20:53:27	40: 8:28	50230	-0: 3	1:60	B9	7.10	7.10	146	35	17	1983	L	3.7C	535	96
255	812	290	20:53:27	42:20:36	50226	-0: 1	1:19	B9	8.69	.00	46	4	25	83	L	2.0L	332	000
256	812	395	20:53:28	40: 7:25	50230	-0: 2	0:57	B9	7.10	7.10	110	16	61	536	L	1.0L	536	000
257	791	676	20:53:43	43:33:56	50249?	-0:10	2:55	B9	6.79	.00	329	72	131	5379	3.0L	1793	000	
258	819	229	20:53:48	43:24:41	50243?	-0:14	1:51	B9	8.60	8.40	71	28	30	717	L	1.0L	71	700
259	819	229	20:53:48	43:24:41	50243?	-0:14	1:50	B9	8.67	.00	399	41	17	1881	3.0C	627	000	
260	763	191	20:53:58	43:12:33	50247	-0:14	1:50	B9	8.67	.00	201	54	17	2198	3.0L	32	667	
261	819	194	20:54:02	44:14:14	50247	-0:10	3: 8	B9	6.71	.00	271	57	16	6522	10.0C	6522	000	
262	822	197	20:54:05	44:14:20	50247	-0: 6	3:27	B9	6.71	.00	198	59	15	2423	3.0C	662	973	
263	822	198	20:54:06	44:14:21	50247	-0: 6	0:17	B9	6.71	.00	198	59	15	2426	L	1.0L	2426	000
264	796	616	20:54: 9	35:33:33	70683	-0: 6	1:-1	B9	9.30	9.60	55							

PAGE, CARRUTHERS AND HILL

CYGNUS RA 21:24 DEC +37:30

OBJECT NO.	X	Y	R.A.	DEC.	SAO NO.	α R.A.	δ DEC.	SPEC. TYPE	V MAG.	P MAG.	PEAK DEN.	NO. OF POINTS	BG	DENSITY VOLUME	EXP. & FILTER	DEN. VOL / EXP.
301	793	354	20:55:19	40:59: 6	50271?	0: 5	-5:27	8.60	8.80	388	71	132	6605	3.0L	2201.667	
302	793	354	20:55:19	40:59: 6	50274	0: 0	-0:+0	A0	4.04	.00	388	71	132	6605	3.0L	2201.667
303	795	347	20:55:20	40:59:41	50271?	0: 6	-4:52	8.60	8.80	407	139	20	14719	L 10.0C	1471.900	
304	795	347	20:55:20	40:59:41	50274	0: 1	-1:15	A0	4.04	.00	407	139	20	14719	L 10.0C	1471.900
305	772	845	20:55:24	31: 5:52	70731	-0: 35	-3:49	9.00	9.30	47	15	22	338	10.0C	33.800	
306	732	424	20:55:38	39:29:30	70721	-0: 3	1:22	89	7.50	.00	114	25	14	1248	H 3.0C	416.000
307	790	426	20:55:39	39:27:57	70721	-0: 2	-0:11	89	7.50	.00	103	13	63	390	1.0L	390.000
308	791	428	20:55:39	39:29: 7	70721	-0: 2	0:59	89	7.50	.00	133	28	18	1489	3.7C	402.432
309	788	421	20:55:42	39:29:18	70721	0: 1	1:10	89	7.50	.00	254	52	19	4078	H 10.0C	407.800
310	768	479	20:55:42	30:34:42							47	6	18	1517	3.7C	40.811
311	785	428	20:55:43	39:28:37	70721	0: 2	0:29	89	7.50	.00	238	22	136	1550	H 3.0L	516.667
312	789	396	20:55:57	40: 5:27	50286	-0: 6	0:45	A0	8.20	7.70	46	6	16	142	L 3.7C	38.378
313	786	391	20:55:56	40: 5:38	50286	-0: 3	0:56	A0	8.20	7.70	83	19	19	711	10.0C	71.100
314	729	312	20:56:30	41:44:57	50303	-0:10	0:14	89	6.03	.00	319	67	15	6157	H 3.0C	2052.333
315	788	313	20:56:34	41:45:37	50303	-0: 6	0:54	89	6.03	.00	209	53	63	3641	H 1.0L	3641.000
316	716	316	20:56:36	41:46:19	50303	-0: 6	0:56	89	6.03	.00	100	80	132	7777	H 3.0C	2590.000
317	760	826	20:56:36	31:24:58	70734	-0: 3	1:31	89	7.17	.00	197	77	21	560	10.0C	546.000
318	788	318	20:56:37	41:44:49	50303	-0: 3	0:11	89	6.03	.00	64	15	24	441	2L	1760.000
319	753	834	20:56:37	31:24:47	70734	-0: 2	2:55	89	7.17	.00	201	39	16	1582	3.0L	527.333
320	788	216	20:56:37	41:46:33	50203	-0: 3	0:50	89	6.03	.00	343	77	19	7321	3.7C	1498.819
321	703	831	20:56:39	31:23:16	70734	-0: 1	-3:55	89	7.17	.00	86	35	17	1407	3.0C	469.000
322	786	309	20:56:39	41:45:45	50303	-0: 1	1: 2	89	6.03	.00	410	141	21	15099	10.0C	1509.900
323	761	835	20:56:40	31:25: 3	70743	0: 1	-2: 7	89	7.17	.00	102	43	19	1909	3.7C	515.946
324	758	832	20:56:42	31:23:41	70743	0: 3	-3:29	89	7.17	.00	90	10	62	237	L 1.0L	237.000
325	757	857	20:56:44	30:50:23							44	6	21	1307	10.0C	13.000
326	756	853	20:56:50	30:55:18							56	5	20	1367	10.0C	13.600
327	768	472	20:57:16	38:33:58							56	5	20	1367	10.0C	13.600
328	761	588	20:57:22	36:14:16	70765	-0: 2	0:16	89	8.00	7.90	182	13	139	417	3.0L	139.000
329	747	805	20:57:24	31:57:24	NO						155	9	129	209	3.0L	69.667
330	765	581	20:57:24	36:13:57	70765	0: 0	-0: 2	89	8.00	7.90	139	29	20	1571	10.0C	157.100
331	746	879	20:57:26	30:28:41							107	48	61	15487	1.0L	1548.000
332	767	588	20:57:26	36:14:58	70765	0: 2	0:58	89	8.00	7.90	74	14	17	491	3.7C	132.703
333	755	806	20:57:26	31:58:15	NO						46	8	18	197	3.7C	53.243
334	722	293	20:57:27	42: 8:31	50319	-0: 7	0:47	89	6.51	.00	212	49	16	3429	3.0C	1143.000
335	779	290	20:57:29	42: 9:20	50319	-0: 5	1:36	89	6.51	.00	375	95	21	963	10.0C	964.300
336	708	584	20:57:31	36:14:57	70765	0: 7	0:57	89	8.00	7.90	60	10	15	315	3.0C	105.000
337	696	802	20:57:31	31:56:30	NO						41	5	15	123	3.0C	41.000
338	781	294	20:57:32	42: 9: 7	50319	-0: 2	1:23	89	6.51	.00	154	36	61	1601	1.0L	1601.000
339	726	296	20:57:32	42: 9:32	50319	-0: 2	2: 2	89	6.51	.00	330	58	21	128	4L 3.0C	183.667
340	753	795	20:57:33	31:57: 7	NO						87	6	14	1343	10.0C	134.300
341	724	256	20:57:34	42: 5:31	50325	-0: 9	1:24	88	8.10	7.90	43	6	14	146	L 3.0C	41.567
342	781	257	20:57:35	42: 5: 6	50319	-0: 1	1:22	89	6.51	.00	250	54	17	4334	L 3.0C	1171.351
343	781	253	20:57:36	42: 5:16	50325	-0: 8	2: 8	89	8.10	7.90	103	33	22	1428	L 10.0C	142.800
344	779	260	20:57:41	42: 5:27	50325	-0: 2	1:20	89	8.10	7.90	155	10	126	241	L 3.0L	80.333
345	783	260	20:57:42	42: 5:24	50325	-0: 2	1:55	89	8.10	7.90	52	11	16	301	L 3.0C	82.162
346	772	320	20:57:47	41:31:41	50342?	-0:41	4:46	89	8.40	9.00	54	10	18	2967	10.0C	29.600
347	757	612	20:58: 9	35:37:13	70775	0: 1	0:14	89	9.30	7.90	73	14	27	404	10.0C	40.400
348	739	768	20:58:31	32:40:24	70774?	0:26	-8:52	9.20	9.60	163	4	133	1072	3.0L	35.667	
349	777	235	20:58:35	43:23:45	50344	-0: 5	1:51	A2	8.50	8.20	44	6	17	143	3.7C	38.694
350	774	229	20:58:42	43:32:41	50344	0: 2	0:48	A2	8.50	8.20	83	25	22	960	10.0C	96.000
351	786	112	20:58:52	45:40:18							54	5	30	1107	10.0C	11.000
352	744	682	20:59:44	34:12:48	70793	-0: 1	-0:29	A0	8.50	8.40	48	8	19	193	L 10.0C	19.300
353	757	412	20:59: 5	39:39:0	70790	0: 5	2:17	9.10	9.50	50	7	18	188	L 10.0C	18.800	
354	757	412	20:59: 5	39:39:0	70791?	0: 1	-7:37	A0	8.10	7.70	50	7	18	188	L 10.0C	18.800
355	757	404	20:59: 6	39:48:29	70791	0: 3	1:11	A0	8.10	7.70	54	7	18	207	L 10.0C	20.700
356	712	223	20:59:17	43:31:46	50358	-0: 8	0:16	A0	8.20	7.40	64	17	14	562	H 3.0C	187.333
357	721	935	20:59:23	29:17:29	89380?	-0:13	-8:29	88	7.80	7.41	217	102	21	8265	H 10.0C	826.500
358	771	227	20:59:23	43:32:15	50358	-0: 1	0:46	A0	8.20	7.40	81	23	17	369	H 3.0C	234.865
359	719	940	20:59:25	29:15:46	89380?	-0:11	-10:11	88	7.80	7.41	96	23	22	403	1.0L	403.000
360	713	940	20:59:25	29:18:38	89380?	-0:11	-7:20	88	7.80	7.41	214	71	124	3566	H 3.0L	1188.667
361	768	220	20:59:25	43:32:28	50358	-0: 1	0:59	A0	8.20	7.40	157	48	20	2807	H 10.0C	280.700
362	767	229	20:59:26	32:42:41	50358	-0: 1	1:17	A0	8.20	7.40	169	19	21	608	H 3.0L	202.667
363	684	938	20:59:29	29:16:39	89380	-0:11	-7:20	88	7.80	7.41	95	57	19	2445	H 3.0C	815.000
364	722	916	20:59:26	29:18:33	89380	-0:10	-2:50	88	7.80	7.41	103	51	21	2183	3.0L	530.000
365	106	319	20:59:31	45:57:50	50359	-0: 5	1:19	88	5.24	.00	98	36	25	1480	2L	592.000
366	781	105	20:59:32	45:58:35	50359	-0: 6	0:53	88	5.24	.00	435	177	25	1820	3.0L	642.000
367	725	101	20:59:32	45:58:50	50359	-0: 6	0:33	88	5.24	.00	379	118	25	1313	3.0C	378.333
368	785	102	20:59:35	45:57: 9	50359	-0: 9	0:23	88	5.24	.00	347	101	62	9671	1.0L	9671.000
369	781	98	20:59:39	45:57:24	50359	-0:12	0: 7	88	5.24	.00	436	254	46	29214	10.0C	2921.400
370	789	105	20:59:39	45:57:15	50359	-0:13	-0:16	88	5.24	.00	404	136	28	16027	H 3.0C	4311.667
371	730	802	20:59:53	32:0:41												

NRL REPORT 8173

OBJECT NO.	X	Y	R.A.	DEC.	SAO NO.	Δ R.A.	Δ DEC.	SPEC. TYPE	V MAG.	P MAG.	PEAK DEN.	NO. OF POINTS	BG	DENSITY VOLUME	EXP.S FILTER	DEN.VOL/ EXP.
#01	700	139	21: 1:44	45:10:30	50404	-0: 7	0:22	A0	8.00	7.90	52	17	14	491 H	3.0C	163 667
#02	756	143	21: 1:49	45:10:30	50400	-0: 2	-0: 7	A0	8.00	7.90	155	14	123	369	3.0L	123 000
#03	756	135	21: 1:50	45:11: 8	50404	-0: 2	-1: 1	A0	8.00	7.90	128	54	24	2730 H	10.0C	273 000
#04	759	143	21: 1:51	45:11:54	50404	-0: 4	-0:47	A0	8.00	7.90	64	24	17	779	3.7C	210 541
#05	764	93	21: 2: 5	46:10:49	50411	-0: 4	2:17	B8	8.50	7.70	141	64	22	3711 H	3.7C	1002 973
#06	704	89	21: 2: 6	46: 9:46	50411	-0: 3	-1:54	B8	8.50	7.70	119	58	19	2935 H	3.7C	978 333
#07	764	90	21: 2: 9	46:10:49	50411	-0: 3	-2: 1	B8	8.50	7.70	101	29	56	914 H	1.0C	912 000
#08	761	86	21: 2:11	46: 9: 5	50411	-0: 2	-1:13	B8	8.50	7.70	302	116	36	9874 H	10.0C	987 000
#09	760	92	21: 2:14	46:10:26	50411	-0: 5	2:33	B8	8.50	7.70	240	67	124	3750 H	3.0L	1250 000
#10	717	593	21: 2:20	35:57:58	70861	-0: 1	-0:59	A0	8.90	8.90	66	10	20	331	3.0C	33 100
#11	722	436	21: 2:22	39:15:31	7087?	-0:33	6:10	A2	8.60	8.70	199	8	1367	350?	10.0C	116 667
#12	726	293	21: 2:40	42:12:42	50421	-0:16	-1:40	A0	8.60	9.30	52	5	27	117	2L	468 000
#13	725	353	21: 2:49	40:49:54	50420	-0: 0	1:25	A	8.40	8.20	54	10	18	264	10.0C	26 900
#14	723	393	21: 3:10	40: 9: 7	50426	-0: 3	-0:27	A0	8.60	8.70	48	6	16	153	3.7C	41 351
#15	723	393	21: 3:10	40: 9: 7	50428	-0: 2	-3:51	A0	8.70	9.20	48	6	16	153	3.7C	41 351
#16	720	386	21: 3:13	40: 9:30	50426	-0: 6	-0:49	A0	8.60	8.70	79	17	19	631	10.0C	63 100
#17	720	386	21: 3:13	40: 9:30	50428	-0: 1	-3:29	A0	8.70	9.20	79	17	19	631	10.0C	63 100
#18	701	73	21: 3:18	33:17:24	70886	-0: 3	-0:16	A0	8.00	8.00	49	8	17	199 L	3.7C	53 78
#19	699	727	21: 3:19	30:19:55	70886	-0: 3	0: 6	A0	8.00	8.00	84	21	21	804	10.0C	80 400
#20	697	666	21: 3:22	34:37:36	70888	-0: 3	-0:55	A0	7.90	8.00	164	4	139	97 L	3.0L	32 333
#21	704	667	21: 3:24	34: 37:41	70881?	-0:14	8:53	A0	9.00	9.30	46	5	16	125	3.7C	33 78
#22	704	667	21: 3:24	34: 37:41	70888	-0: 2	-0:50	A0	7.90	8.00	46	5	16	125 L	3.7C	33 78
#23	702	664	21: 3:29	34: 36:47	70881?	-0:20	7:58	A0	9.00	9.30	81	17	21	618	10.0C	61 800
#24	702	660	21: 3:29	34: 36:47	70886	-0: 4	0: 5	A0	7.90	8.00	81	17	21	618	10.0C	61 800
#25	681	873	21: 3:38	31:20:42	70892	-0: 0	-1:13	A0	8.40	8.70	167	15	127	470	3.0L	156 667
#26	689	837	21: 3:40	31:20:55	70892	-0: 3	-0:59	A0	8.40	8.70	62	19	17	595	3.7C	160 811
#27	673	220	21: 3:41	43:33:33	70892	-0: 3	-1:20	A0	8.40	8.70	52	10	16	280?	3.0C	93 333
#28	631	330	21: 3:41	30:10:34	70892	-0: 3	-1:20	A0	8.40	8.70	50	13	16	340	3.0C	113 333
#29	687	827	21: 3:42	31:19:60	70892	-0: 5	-1:54	A0	8.40	8.70	40	22	20	200	10.0C	200 600
#30	683	868	21: 3:44	30:32:42	70894	-0: 5	-2:50	A0	8.50	8.60	62	16	23	480	10.0C	480 000
#31	704	160	21: 3:46	44:50:23	70894	-0: 19	-1:40	A0	8.50	8.60	70	16	16	597?	3.7C	161 351
#32	711	427	21: 3:49	39:18:49	70894	-0: 19	-1:40	A0	8.50	8.60	49	6	18	158?	10.0C	15 800
#33	700	579	21: 4: 9	36:13:21	70907	-0: 3	0: 1	A0	8.80	9.30	50	7	19	179 L	3.0L	17 900
#34	695	563	21: 4:20	36:40:25	70936	-0:53	-1:28	A0	8.00	8.00	167	8	141	188	3.0L	62 667
#35	697	559	21: 4:34	36:43:22	70936	-0:38	-1:31	A0	8.00	8.00	66	10	21	330 L	10.0C	33 000
#37	692	661	21: 4:38	34:14:32	70921	-0: 5	-0:45	A0	8.80	8.50	79	16	16	589	3.7C	159 189
#38	690	654	21: 4:44	34:14:34	70921	-0: 1	1: 7	A0	8.80	8.50	147	32	20	1860	10.0C	186 000
#39	633	658	21: 4:45	34:14:34	70921	-0: 2	-0:37	A0	8.80	8.50	63	12	15	401	3.0C	133 667
#40	670	885	21: 4:46	30:20:17	70931	-0: 2	-3:22	A0	7.51	.00	189	69	19	4633 H	3.7C	1252 162
#41	667	881	21: 5: 1	30:20:55	70931	-0: 1	-2:45	A0	7.51	.00	134	44	61	1877 H	1.0L	1877 000
#42	661	883	21: 5: 1	30:21: 4	70931	-0: 0	-2:35	A0	7.51	.00	293	71	126	4949 H	3.0L	169 667
#43	661	883	21: 5: 1	30:21: 4	70943?	-0:20	-6:38	A5	8.90	8.49	293	71	126	4949 H	3.0L	169 667
#44	668	878	21: 5: 2	30:19:22	70931	-0: 1	-1:18	A0	7.51	.00	343	108	22	1130 H	10.0C	1130 000
#45	668	878	21: 5: 2	30:19:22	70943?	-0:19	-8:21	A5	8.90	8.49	343	108	22	1130 H	10.0C	1130 000
#46	611	881	21: 5: 6	30:19:49	70931	-0: 14	-3:50	A0	7.51	.00	160	59	19	3674 H	3.0C	1224 667
#47	611	881	21: 5: 6	30:19:49	70943?	-0:15	-7:53	A5	8.90	8.49	160	59	19	3674 H	3.0C	1224 667
#48	698	940	21: 5: 9	38: 7: 5	70930	-0: 1	-0:18	A0	8.80	7.80	47	4	18	106 L	3.7C	28 649
#49	683	690	21: 5:11	34: 0:32	70934?	-0:27	-4:40	A2	8.00	8.00	55	7	20	200	10.0C	20 000
#50	682	690	21: 5:11	34: 0:32	70934?	-0:27	-4:40	A2	8.00	8.00	55	7	20	200	10.0C	20 000
#51	587	558	21: 5:12	36:46: 8	70936	-0: 1	-1:15	A0	8.00	8.00	196	15	140	507 H	3.0L	69 000
#52	675	780	21: 5:13	32:17:57	70940	-0: 2	-0: 3	A0	7.50	7.60	94	7	64	179 L	1.0L	179 000
#53	695	495	21: 5:13	39: 7: 31	70935	-0: 3	-0:43	A0	8.50	7.80	85	17	19	670	10.0C	67 000
#54	691	552	21: 5:13	36:45:31	70936	-0: 0	-0:39	A0	8.00	8.00	141	22	21	1626	10.0C	162 600
#55	693	559	21: 5:14	36:46:18	70936	-0: 2	-1:25	A0	8.00	8.00	74	15	17	512	3.7C	138 379
#56	635	555	21: 5:15	36:46:24	70936	-0: 2	-1:31	A0	8.00	8.00	59	9	14	298	3.0C	99 333
#57	669	782	21: 5:16	32:18: 6	70940	-0: 0	0: 6	A0	7.50	7.90	208	26	132	1129 H	3.0L	376 333
#58	677	781	21: 5:16	32:18:18	70940	-0: 1	-0:28	A0	7.50	7.90	110	25	19	1224	3.7C	330 811
#59	619	780	21: 5:17	32:18:19	70940	-0: 1	-0:14	A0	7.50	7.90	89	22	17	898	3.0C	299 333
#60	675	777	21: 5:17	32:17:37	70940	-0: 2	-0:23	A0	7.50	7.90	203	47	23	3405	10.0C	340 500
#61	699	401	21: 5:19	39:49:35	70928	-0: 25	-1:42	A3	8.50	8.50	50	4	19	111	10.0C	111 100
#62	719	177	21: 5:21	44:27:22	50468	-0: 5	-0:57	A0	7.90	7.10	212	40	122	1936 H	3.0L	645 333
#72	720	171	21: 5:24	44:27:39	50468	-0: 2	-0:39	A0	7.70	7.10	269	67	22	5589 H	10.0C	558 900
#73	723	175	21: 5:25	44:26:55	50468	-0: 1	-1:23	A0	7.70	7.10	94	15	56	438	1.0L	438 000
#74	731	114	21: 5:25	45:42:59	50473	-0: 7	-0:38	A0	8.70	8.40	48	7	21	170	3.7C	45 946
#75	623	178	21: 5:25	44:28:33	50468	-0: 1	-0:15	A0	7.70	7.10	137	38	17	2119 H	3.7C	572 703
#76	663	173	21: 5:26	44:27:57	50468	-0: 0	-0:22	A0	7.70	7.10	110	35	14	1702 H	3.0C	567 333
#77	667	853	21: 5:26	30:48:54	70944	-0: 2	-1:41	A0	9.00	9.00	67	23	20	742	10.0C	74 200
#78	692	107	21: 5:31	45:43:14	50473	-0: 1	-0:23	A0	8.70	8.40	92	38	25	1522 H	10.0C	152 200
#79	728	112	21: 5:33	45:44:12	50473	-0: 0	-0:35	A0	8.70	8.40	144	6	119	137	3.0L	45 667
#80	675	737	21: 5:47</													

PAGE, CARRUTHERS AND HILL

CYONUS RA 21:24 DEC +37:30

OBJECT NO.	X	Y	R.A.	DEC.	SAO NO.	Δ R.A.	Δ DEC.	SPEC. TYPE	V MAG.	P MAG.	PEAK DEN.	NO. OF POINTS	BG	DENSITY	EXP. & FILTER	DEN. VOL / EXP.
501	676	517	21: 7: 4	37:27:17	70981?	-0:15	6:48	9.30	9.90	55	5	24	1397	10.0C	13.900	
502	686	396	21: 7: 5	40: 3:13	NO	-0: 8	-0:38	85	7.40	7.60	18	48	18	143	30.0C	38.649
503	683	389	21: 7: 8	40: 3:42	NO	-0: 9	-0:38	85	7.40	7.60	19	86	19	717	10.0C	71.700
504	681	382	21: 7: 30	40:12:18	NO	-0: 4	-0:57	85	7.40	7.60	20	55	20	1777	10.0C	17.700
505	714	85	21: 7: 33	46: 8:17	50503	-0: 6	1: 7	85	8.70	9.00	60	18	28	456	10.0C	45.600
506	711	120	21: 7: 39	45:30:18	50510	-0: 8	-0:38	85	7.40	7.60	91	24	57	614	1.0L	614.000
507	651	119	21: 7: 39	45:31:26	50510	-0: 9	-0:38	85	7.40	7.60	107	40	17	1897	3.0C	632.333
508	707	116	21: 7: 43	45:31: 7	50510	-0: 4	-0:57	85	7.40	7.60	264	74	32	6399	10.0C	639.900
509	697	122	21: 7: 44	45:31:50	50510	-0: 3	-0:14	85	7.40	7.60	217	51	126	2460	3.0L	820.000
510	689	289	21: 7: 44	42:13:39	50509	-0: 2	-0: 7	A0	7.90	7.70	61	10	17	293	3.7C	79.189
511	686	282	21: 7: 45	42:12:51	50509	-0: 1	-0:55	A0	7.90	7.70	110	24	21	1078	10.0C	107.800
512	710	123	21: 7: 45	45:31:59	50510	-0: 3	-0: 5	85	7.90	7.60	135	46	20	2554	3.7C	490.270
513	662	627	21: 7: 46	35:18:13	70994	-0: 5	0:58	85	8.70	8.70	137	15	72	575	1.0L	575.000
514	657	629	21: 7: 46	35:18:20	70994	-0: 5	1:	85	8.70	8.70	284	34	143	2013 H	3.0L	671.000
515	671	482	21: 7: 48	38: 8:45	70990	-0: 3	1: 3	9.10	9.30	48	5	19	124	10.0C	12.400	
516	671	482	21: 7: 48	38: 8:45	71000?	-0:13	7: 4	A2	8.60	8.20	48	5	19	124	10.0C	12.400
517	657	682	21: 7: 51	34:12:39	70998	-0: 7	0:29	85	8.70	8.70	104	8	22	66	227	227.000
518	665	266	21: 7: 51	36:27:26	70998	-0: 1	1: 5	85	8.70	8.70	53	5	23	1227	10.0C	12.200
519	661	644	21: 7: 51	35:18: 3	70998	-0: 1	0:48	85	8.70	8.70	267	5	23	4417 H	10.0C	441.700
520	663	631	21: 7: 51	35:17:30	70998	-0: 0	0:15	85	8.70	8.70	137	30	18	1562 H	3.7C	422.162
521	630	285	21: 7: 52	42:14: 1	50509	-0: 6	0:15	A0	7.90	7.70	48	6	16	157	3.0C	52.333
522	605	627	21: 7: 53	35:18:47	70994	-0: 1	1:31	85	8.70	8.70	131	25	17	1239 H	3.0C	413.000
523	651	684	21: 7: 56	32:12:39	70998	-0: 2	0:30	85	8.70	8.70	223	22	142	972 H	3.0L	324.000
524	711	671	21: 7: 56	46:10:34	50503?	-0:28	3:25	85	9.00	9.30	72	34	24	1136?	10.0C	113.600
525	656	678	21: 7: 58	34:13:42	70998	-0: 0	1:34	85	8.70	8.70	186	41	25	2545	10.0C	254.500
526	655	697	21: 7: 58	33:51: 3	70998	-0: 1	1:41	A0	8.90	9.30	73	16	20	566	10.0C	56.600
527	658	685	21: 7: 58	34:13:11	70998	-0: 0	1: 2	85	8.70	8.70	97	19	18	835	3.7C	225.676
528	600	681	21: 7: 59	34:19:23	70998	-0: 1	2:14	85	8.70	8.70	86	16	17	624	3.0C	208.000
529	668	487	21: 8: 5	38: 3:15	71000	-0: 4	0:34	A2	8.60	8.20	85	15	27	502	10.0C	50.200
530	649	691	21: 8: 6	34: 4:58	70998?	-0: 7	-7:11	85	8.70	8.70	176	7	14	171	3.0L	57.000
531	649	691	21: 8: 6	34: 4:58	71005	-0: 2	1:27	A0	8.90	8.60	176	7	14	171	3.0L	57.000
532	697	136	21: 8: 7	45:17: 2	50521	-0: 4	-0:51	85	6.52	.00	61	20	22	584	-2L	2336.000
533	701	134	21: 8: 7	45:15:3	50521	-0: 4	-1:10	85	6.52	.00	417	151	138	13331	3.0L	4443.667
534	655	685	21: 8: 8	34: 4:47	70998?	-0:10	7:22	85	8.70	8.70	109	31	24	1287	10.0C	128.700
535	654	685	21: 8: 8	34: 4:47	71005	-0: 1	1:16	A0	8.90	8.60	108	31	24	1287 H	10.0C	128.700
537	705	135	21: 8: 8	45:16:55	50521	-0: 3	-0:58	85	6.52	.00	380	107	297	11574	3.7C	1.216
538	705	135	21: 8: 8	45:16:55	50531?	-0:23	4:25	85	8.40	8.40	380	107	297	11574	3.7C	3124.216
539	695	692	21: 8: 9	34: 5:30	70998?	-0:10	6:39	85	8.70	8.70	60	10	18	307	3.7C	82.973
540	656	692	21: 8: 9	34: 5:30	71005	-0: 1	1:59	A0	8.90	8.60	60	10	18	307	3.7C	82.973
541	598	688	21: 8: 9	34: 6:42	70998?	-0:11	5:27	85	8.70	8.70	50	7	15	196	3.0C	65.333
542	598	688	21: 8: 9	34: 6:42	71005	-0: 2	3:11	A0	8.90	8.60	50	7	15	196	3.0C	65.333
543	705	132	21: 8: 10	45:16:23	50521	-0: 1	-1:30	85	6.52	.00	247	89	60	6008 H	1.0L	6008.000
544	654	651	21: 8: 10	45:17:30	50521	-0: 1	0:23	85	6.52	.00	350	87	26	934 H	3.0C	3114.000
545	701	128	21: 8: 14	45:17:14	50521	-0: 3	0:39	85	6.52	.00	432	165	37	22353	H	10.0C
546	701	128	21: 8: 14	45:17:14	50531?	-0:17	-4: 6	85	8.40	8.40	432	165	37	22353 H	10.0C	2235.300
547	642	738	21: 8: 18	33: 8:11	NO	-0: 2	-0:17	85	8.40	8.40	161	5	13	113	3.0L	37.667
548	690	205	21: 8: 20	43:45: 7	50525?	-0: 6	-1:30	A0	8.10	8.00	76	16	25	553 L	10.0C	55.300
549	690	205	21: 8: 20	43:45: 7	50529?	-0: 4	-2:28	A0	8.50	.00	76	16	25	553 L	10.0C	55.300
550	648	733	21: 8: 23	33: 8: 1	NO	-0: 2	-0:22	85	8.40	8.40	74	19	19	665?	10.0C	66.500
551	653	589	21: 8: 33	36: 5:40	71011	-0: 7	-2:30	9.10	9.40	175	4	143	104	3.0L	34.667	
552	626	924	21: 8: 33	29:23:18	89506?	-0: 3	5:39	A2	8.80	8.92	50	13	22	317	3.0C	31.700
553	666	456	21: 8: 39	38:44:41	71013?	-0: 9	5:16	9.30	9.80	191	29	67	1694	1.0L	1694.000	
554	666	456	21: 8: 39	38:44:41	71018	-0: 3	0:39	85	7.40	7.40	191	29	67	1694	1.0L	1694.000
555	671	375	21: 8: 39	40:20:25	50532?	-0: 6	0:51	85	8.90	9.10	70	11	23	345 L	10.0C	34.500
556	658	509	21: 8: 40	37:42:53	71017	-0: 0	0:13	A0	8.50	7.90	176	7	139	195	3.0L	65.000
557	667	459	21: 8: 40	38:45:15	71013?	-0:10	6:20	9.30	9.80	234	48	18	3685	3.7C	995.946	
558	667	459	21: 8: 40	38:45:15	71018	-0: 2	0: 9	85	7.40	7.40	234	48	18	3685 L	3.7C	995.946
559	664	510	21: 8: 40	37:43:21	71017	-0: 0	0:42	A0	8.50	7.90	60	10	16	305	3.7C	82.432
560	661	458	21: 8: 42	38:46: 2	71013?	-0:12	7: 7	9.30	9.80	356	64	137	4492	3.0L	1497.333	
562	558	460	21: 8: 43	38:46:22	71018	-0: 2	0:58	85	7.40	7.40	65	4	37	4492	3.0L	4492.000
563	654	456	21: 8: 43	38:45:46	71018	-0:22	8:22	85	7.40	7.40	65	8	25	226	3.0C	226.000
564	661	913	21: 8: 46	37:37:52	71017	-0:15	4:26	A0	8.50	7.90	70	11	22	9897	10.0C	9897.000
565	605	613	21: 8: 46	37:37:52	71017	-0: 6	-5:31	A0	8.50	7.90	37	4	15	85	3.0C	28.333
566	608	455	21: 8: 48	38:47:55	71018	-0: 7	-2:31	85	7.40	7.40	209	43	16	3042	3.0L	1014.000
567	605	506	21: 8: 48	37:44:42	71017	-0: 8	2: 2	85	8.00	7.90	49	6	15	164	3.0C	54.667
568	676	722	21: 8: 52	33:28:28	NO	-0: 1	0:38	85	7.40	7.40	50	4	20	1017	3.7C	27.297
569	660	488	21: 8: 56	71024?	-0: 6	1:56	A0	8.70	8.70	45	4	20	97 L	10.0C	9.700	
570	655	590	21: 9: 1	36: 5:51	71032	-0: 2	-0:50	85	7.30	.00	355	58	135	4259	3.0L	1419.667
571	663	468	21: 9: 2	38: 3:53	71030	-0: 3	0: 9	85	7.30	.00	191</td					

NRL REPORT 8173

CYGNUS RA 21:24 DEC +37:30

OBJECT NO.	X	Y	R.A.	DEC.	SAO NO.	Δ R.A.	Δ DEC.	SPEC. TYPE	V MAG.	P MAG.	PEAK DEN.	NO. OF POINTS	BO	DENSITY VOLUME	EXP. & FILTER	DEN. VOL. EXP.
601	6.04	908	21:10: 9	29:47:44	89524	0:21	0: 7	A0	9.00	9.19	158	11	123	308 H	3.0L	102.667
602	685	117	21:10:12	45:29:34	50561	-0: 7	-1:17	B8	7.90	7.70	210	58	39	4086 H	10.0C	408.600
603	685	122	21:10:13	45:29: 1	50561	-0: 6	-0:50	B8	7.90	7.70	192	29	135	1040 H	3.0L	346.667
604	602	366	21:10:15	40:35:31	50556	0:16	1:25	B8	7.70	7.80	163	32	15	1808 H	3.0C	602.667
605	686	135	21:10:15	45:15:43	50560	0: 1	-1:29	B8	8.90	8.90	60	12	24	343 H	3.7C	92.703
606	627	131	21:10:17	45:16:15	50560	0: 3	-0:57	B8	8.90	8.90	51	10	17	280	3.0C	93.333
607	687	124	21:10:20	45:29:19	50561	0: 2	-0:32	B8	7.90	7.70	97	32	27	1293	3.7C	349.459
608	615	803	21:10:22	31:51: 0	71061	-0: 4	1:33	B9	8.20	8.20	163	8	130	210	3.0L	70.000
609	628	120	21:10:22	45:29:51	50561	0: 3	0:0	B9	7.90	7.70	87	31	23	1093 H	3.0C	364.333
610	623	805	21:10:23	31:50:38	71061	-0: 3	1:11	B9	8.20	8.20	55	11	16	317	3.7C	85.676
611	798	21:10:24	31:49:55	71061	-0: 1	0:28	B9	8.20	8.20	101	28	19	1277	10.0C	127.700	
612	801	21:10:30	31:49:39	71061	0: 5	2:12	B9	8.20	8.20	47	7	16	183 L	3.0C	61.000	
613	616	471	21:10:32	39:21:47	71053	0:26	-2:34	B9	8.20	8.20	335	9	27	782 H	10.0C	782.000
614	616	471	21:10:32	39:21:47	71065	0: 1	0:10	B9	7.70	7.70	335	91	27	827 H	10.0C	782.700
615	617	474	21:10:34	39:21:44	71065	0: 2	0: 8	B9	7.70	7.70	171	25	65	1257 H	3.0L	1257.000
616	619	433	21:10:34	39: 0:30	71064	0: 3	0:2	B9	8.40	8.40	61	12	18	368 L	10.0C	36.800
617	618	478	21:10:34	38:21: 8	71065	0: 3	-0:28	B9	7.70	7.70	204	49	19	3018 H	3.7C	815.676
618	612	476	21:10:36	38:21:44	71065	0: 5	0: 8	B9	7.70	7.70	317	50	137	2045 H	3.0L	948.333
619	573	177	21:10:36	44:17:29	50567	-0: 2	-2:2	B8	7.60	7.70	96	23	24	948 L	10.0C	94.800
620	678	184	21:10:37	44:18:16	50567	-0: 2	-1:16	B8	7.60	7.70	54	9	18	243 L	3.7C	65.676
621	581	118	21:10:43	45:33:38	50573	0: 6	1:41	B8	8.30	8.50	183	39	125	1452 H	3.0L	484.000
622	589	474	21:10:43	38:23:46	71065	0:12	2: 9	B9	7.70	7.70	177	42	16	2402 H	3.0C	800.667
623	684	119	21:10:44	45:34: 3	50561	0:25	4:12	B8	7.90	7.70	85	27	22	1086	3.7C	293.514
624	684	119	21:10:44	45:34: 3	50573	-0: 6	-1:17	B8	8.30	8.50	85	27	22	1086	3.7C	293.514
625	684	119	21:10:44	45:34: 3	50578	-0:22	0:13	B9	9.10	9.50	85	27	22	1086	3.7C	293.514
626	685	116	21:10:46	45:33:23	50573	-0: 4	-1:51	B8	8.30	8.50	81	4	57	91 L	1.0L	91.000
627	625	115	21:10:46	45:34:34	50573	-0: 4	-0:45	B8	8.30	8.50	71	26	17	902 L	3.0C	300.667
628	681	112	21:10:50	45:34:24	50573	0: 0	-0:55	B8	8.30	8.50	177	50	34	3304 H	10.0C	330.400
629	673	157	21:10:50	44:00:55	50582	-0: 1	0:14	B8	8.30	8.50	51	5	28	1067	10.0C	10.600
630	630	626	21:11: 1	35:18: 0	71079	-0: 8	1: 2	B8	8.00	7.30	106	8	67	237 L	1.0L	237.000
631	622	716	21:11: 4	33:30:50	71077	-0: 7	1:39	B8	7.09	7.09	129	14	67	530 L	1.0L	530.000
632	622	629	21:11: 4	35:15:59	71079	-0: 8	1:0	B8	8.00	7.30	226	18	143	808	3.0L	269.333
633	622	738	21:11: 6	33: 9: 1	71077	-0: 5	1:29	B8	7.09	7.09	48	8	17	204?	3.7C	55.135
634	622	713	21:11: 6	33:29:44	71077	-0: 5	0:34	B8	7.09	7.09	267	56	25	4455 H	10.0C	445.500
635	624	719	21:11: 6	33:31:39	71077	-0: 5	2:28	B8	7.09	7.09	143	29	18	1659	3.7C	484.378
636	616	718	21:11: 8	33:30:42	71077	-0: 3	1:32	B8	7.09	7.09	263	26	14	1450	3.0L	495.333
637	629	623	21:11: 9	35:18: 5	71079	-0: 3	1:27	B8	8.00	7.30	184	40	23	2538 H	10.0C	253.800
638	631	629	21:11:10	35:18:42	71079	-0: 2	1:44	B8	8.00	7.30	101	21	20	930	3.7C	251.351
639	666	213	21:11:11	43:38:32	50583	-0: 8	-1:29	B3	7.90	7.50	90	8	60	196 L	1.0L	196.000
640	573	626	21:11:11	35:18:45	71079	-0: 1	1:46	B9	8.00	7.30	82	17	17	640	3.0C	213.333
641	662	215	21:11:13	43:38:39	50583	-0: 5	-1:22	B3	7.90	7.50	216	24	132	1058 L	3.0L	352.667
642	565	716	21:11:13	33:31:30	71077	0: 2	2:20	B8	7.09	7.09	124	25	17	1255	3.0C	418.333
643	644	416	21:11:13	39:29:30	71078	0: 2	0:30	A0	8.70	8.90	57	9	18	270 L	10.0C	27.000
644	630	598	21:11:14	36:53:54	71082	-0: 3	0:13	A0	8.40	8.00	200	12	136	491 H	3.0L	163.667
645	634	593	21:11:14	36:54: 2	71082	-0: 3	0:21	A0	8.40	8.00	136	27	20	1537 H	10.0C	153.700
646	687	51	21:11:16	46:44:34	50582	-0: 1	0:12	A0	8.00	7.90	56	22	23	552	10.0C	55.200
647	636	594	21:11:16	36:54:38	71082	-0: 1	0:57	A0	8.40	8.00	71	14	19	470	3.7C	127.027
648	578	596	21:11:18	36:56: 1	71082	0: 1	2:19	A0	8.40	8.00	59	12	14	366	3.0C	122.000
649	633	210	21:11:18	43:38:22	50583	-0: 0	-1:39	B3	7.90	7.50	214	40	31	2839 L	10.0C	283.900
650	665	217	21:11:18	43:37:52	50583	-0: 1	-2: 9	B3	7.90	7.50	105	23	22	1032 L	3.7C	278.919
651	631	566	21:11:24	36:26: 6	71086	-0: 2	0:32	A5	6.05	6.00	56	8	20	226 L	10.0C	22.600
652	647	385	21:11:26	40:15:26	50585	0: 2	0:28	B8	8.60	8.60	66	10	16	341 L	3.7C	92.162
653	623	213	21:11:27	43:39:27	50583	0: 9	-0:34	B3	7.90	7.50	91	21	17	863	3.0C	287.667
654	642	383	21:11:34	40:15:57	50585	0: 9	-0:55	B8	8.60	8.60	185	13	136	412	3.0C	137.333
655	578	378	21:11:35	40:14:50	50585	0: 11	-0:25	B8	8.60	8.60	122	24	21	1196	10.0C	119.600
656	598	586	21:11:42	40:16:44	50585	0:18	-0:45	B8	8.60	8.60	59	9	14	265	3.0C	88.333
657	674	125	21:11:46	45:22:47	50592	-0: 8	-1:27	B3	7.40	7.40	172	64	56	3364 H	1.0L	3364.000
658	666	129	21:11:50	45:23:22	50592	-0: 4	-0:22	B5	7.10	7.10	44	4	22	82	1.0L	328.000
659	670	127	21:11:50	45:22:55	50592	-0: 3	-1:19	B5	7.40	7.40	380	98	124	8952 L	3.0L	298.000
660	673	129	21:11:50	45:22:11	50592	-0: 3	-2: 3	B5	7.40	7.40	296	75	19	6918 H	3.7C	1869.700
661	614	125	21:11:53	45:22:40	50592	-0: 1	-1:31	B5	7.40	7.40	292	65	17	5370 H	3.0C	1790.000
662	633	474	21:11:55	38:18:13	71092	-0:13	-2:49	B8	8.70	9.20	73	19	23	603	10.0C	60.300
663	633	474	21:11:55	38:18:13	71092	-0: 4	4: 9	B8	8.80	9.10	73	19	23	603	10.0C	60.300
664	633	474	21:11:55	38:18:13	71092	-0: 3	0:45	B8	8.80	9.10	73	19	23	603	10.0C	60.300
665	670	122	21:11:56	30:45:20	50592	0: 3	-2:54	B5	7.40	7.10	407	122	30	14139 H	10.0C	1413.900
666	600	859	21:11:60	30:45:27	71089	-0:29	1:14	A0	8.90	9.10	94	29	18	1229	3.7C	332.162
667	600	859	21:11:60	30:45:27	71089	-0: 3	0:13	A0	7.80	7.60	94	29	18	1229 H	3.7C	332.162
668	613	707	21:12: 2	33:05: 0	71101	-0:17	4:12	A0	9.00	9.20	98	5	65	134?	1.0L	134.000
669	591	857	21:12: 2													

PAGE, CARRUTHERS AND HILL

CYGNUS RA 21:24 DEC +37:30

OBJECT NO.	X	Y	R.A.	DEC.	SAO NO.	Δ R.A.	Δ DEC.	SPEC. TYPE	V MAG.	P MAG.	PEAK DEN.	NO. OF POINTS	BG	DENSITY VOLUME	EXP. & FILTER	DEN. VOL/ EXP.
701	614	538	21:13:29	37: 2: 2	71128	-0: 5	-0:35	B8	7.80	7.70	138	18	63	741	1.0L	741.000
702	613	539	21:13:30	37: 3: 35	71128	-0: 3	-0:58	B8	7.80	7.70	267	58	21	4604	10.0C	460.400
703	609	540	21:13:31	37: 3: 10	71128	-0: 3	-0:33	B8	7.80	7.70	276	27	139	1636	3.0L	545.333
704	615	541	21:13:32	37: 2: 51	71126	-0: 2	-0:14	B8	7.80	7.70	144	31	17	1754	3.7C	474.054
705	603	658	21:13:37	34:41:54	71134	-0: 7	1:31	A0	8.30	8.60	64	8	35	163 L	10.0C	16.300
706	557	537	21:13:41	37: 5: 24	71128	0: 7	2:47	B8	7.80	7.70	118	26	15	1351 H	3.0C	450.333
707	521	510	21:13:42	33:38:12							178	13	142	3737	3.0L	124.333
708	619	159	21:13:42	44:42:53	50627	-0: 4	-1:51	A0	8.00	7.20	191	46	25	3122 H	10.0C	312.200
709	652	161	21:13:43	44:42:36	50627	-0: 3	-1: 8	A0	8.00	7.20	97	25	18	1082 H	3.7C	292.432
710	593	157	21:13:45	44:42:59	50627	-0: 1	-0:40	A0	8.00	7.20	79	21	15	816 H	3.0L	272.200
711	618	160	21:13:47	44:42:50	50627	-0: 1	-1:53	A0	8.00	7.20	182	29	124	1036 H	3.0L	355.333
712	652	119	21:14: 2	45:29:55	50644	-0: 7	-1:26	B9	7.80	7.70	182	32	123	1183 H	3.0L	394.333
713	655	121	21:14: 4	45:29:23	50644	-0: 7	-1:57	B9	7.80	7.70	93	30	21	1204	3.7C	325.405
714	655	118	21:14: 4	45:28:34	50644	-0: 5	-2:47	B9	7.80	7.70	80	4	57	88 L	1.0L	88.000
715	596	117	21:14: 5	45:31: 2	50644	-0: 4	-0:19	B9	7.80	7.70	76	25	16	927 L	3.0C	309.000
716	652	114	21:14: 8	45:29:48	50644	-0: 1	-1:32	B9	7.80	7.70	187	60	23	3885	10.0C	388.500
717	612	449	21:14:29	38:52:49	71147	0: 7	-0:23	A2	8.20	8.30	61	9	20	278 L	10.0C	27.800
718	615	368	21:14:51	40:26: 1							46	5	18	1197	10.0C	11.900
719	581	690	21:14:58	34: 0: 50	NO						185	8	143	251 L	3.0L	83.667
720	586	685	21:15: 1	34: 1: 31	NO						88	17	23	659	10.0C	69.400
721	588	691	21:15: 1	34: 2: 2	NO						52	6	18	169	3.7C	45.676
722	621	273	21:15: 3	42:26:30	50671?	-0:26	-1:53	B8	6.09	8.00	161	5	129	137 L	3.0L	45.667
723	654	49	21:15: 9	46:44:32	50666?	0: 3	10:26	A2	8.70	8.80	215	26	32	1937 H	10.0C	193.700
724	609	398	21:15:10	39:49: 8	71156	0: 3	0:20	A0	8.50	8.50	74	10	20	365	10.0C	36.500
725	623	247	21:15:11	42:57:48	50666	0: 0	-1:13	A3	8.70	8.70	172	10	131	298 H	3.0L	97.333
726	652	59	21:15:11	46:33:25	50666	-0: 1	-0:41	A2	8.70	8.80	50	10	21	254	10.0C	25.400
727	627	249	21:15:11	42:57:26	50666	-0: 1	-1:35	A3	8.70	8.70	70	9	19	317 H	3.7C	85.676
728	624	242	21:15:12	42:58: 3	50666	0: 0	-0:58	A3	8.70	8.70	132	23	26	1183 L	10.0C	118.300
729	595	60	21:15:16	46:35:47	50666	0: 5	1:41	A2	8.70	8.80	52	6	23	136 L	3.0C	45.333
730	579	731	21:15:18	33: 1: 4	71161	-0: 4	2:54	A2	9.00	9.20	72	16	21	525	10.0C	52.500
731	568	265	21:15:20	40:58:53	50666	0: 9	-0: 8	A3	8.70	8.70	58	16	21	267 L	3.0C	81.333
732	595	537	21:15:23	36:59:55							52	10	18	267?	10.0C	26.700
733	613	96	21:15:28	45:49:56	50672	-0: 4	-1:53	B9	8.50	8.30	65	22	23	651 L	10.0C	65.100
734	621	271	21:15:30	42:26: 9	50671	0: 0	-2:14	B9	6.09	8.00	245	43	60	3050 L	1.0L	3050.000
735	605	432	21:15:31	39:10:31	71165	0: 4	0:33	A0	4.38	0.00	174	24	63	1206 L	1.0L	1206.000
736	617	273	21:15:31	42:26: 5	50671	0: 1	-2:18	B9	6.09	8.00	383	78	129	5931 L	3.0L	194.3.667
737	621	274	21:15:32	42:26:60	50671	0: 3	-1:23	B9	6.09	8.00	300	66	20	5310 L	3.7C	1435.135
738	606	435	21:15:32	39:11:26	71165	0: 5	0:23	A0	4.28	0.00	217	45	17	3133 L	3.7C	846.757
739	613	275	21:15:34	42:26:38	50671	0: 4	-1:45	B9	6.09	8.00	74	15	23	486 L	2L	1944.000
740	597	436	21:15:35	39:10:56	71165	0: 8	-0: 7	A0	4.28	0.00	53	4	25	95 L	2L	380.000
741	600	134	21:15:35	39:10:19	71165	0: 8	-0:45	A0	4.28	0.00	327	36	132	2705 L	3.0L	901.667
742	603	429	21:15:35	39:10:52	71165	0: 8	-0:12	A0	4.28	0.00	341	79	21	7198 L	10.0C	719.800
743	618	267	21:15:40	42:27:32	50671	0: 11	-0:50	B8	6.09	8.00	378	128	25	11727 L	10.0C	1172.700
744	547	432	21:15:41	39:12:46	71165	0: 14	1:43	A0	4.28	0.00	186	35	16	2398 L	3.0C	799.333
745	577	655	21:15:46	34:42:55	71173	-0: 5	1:45	A3	4.42	0.00	454	340	140?	4052 L	3.0L	13507.333
746	582	653	21:15:47	34:41:53	71173	-0: 5	0:43	A3	4.42	0.00	414	212	70	19928 L	1.0L	19928.000
747	582	649	21:15:47	34:43:42	71173	-0: 5	2:32	B3	4.42	0.00	459	504	30	69627 L	10.0C	6962.700
748	562	270	21:15:49	42:29:34	50671	0: 19	1:12	A0	6.09	8.00	260	58	17	4328 L	3.0C	142.667
749	574	657	21:15:51	34:43:33	71173	-0: 0	2:23	B3	4.42	0.00	290	66	28	5325 L	2L	21300.000
750	619	238	21:15:51	43: 8: 30							161	6	128	158?	3.0L	52.667
751	498	986	21:15:53	30: 9: 7	71174	0: 1	2:19	B5	7.80	7.56	114	37	17	1842 L	3.0C	614.000
752	583	656	21:15:53	34:44: 5	71173	0: 2	2:55	B3	4.42	0.00	433	314	21	3818 L	3.7C	10299.459
753	525	652	21:15:56	34:45:24	71173	0: 4	4:14	B3	4.42	0.00	426	288	23	3239 L	3.0C	10798.333
754	586	806	21:15:57	30: 6: 36	71160	0: 6	0:12	B5	7.80	7.56	113	25	63	774 L	2L	174.000
755	556	890	21:15:57	30: 6: 35	71174	0: 5	0:25	B5	7.80	7.56	139	4	20	2313 L	3.7C	625.135
756	547	887	21:15:58	30: 6: 32	71174	0: 6	0:44	B5	7.80	7.56	242	49	125	2698 L	3.0L	899.333
757	554	883	21:15:58	30: 7: 11	71174	0: 8	0:26	B5	7.80	7.56	260	80	22	6527 L	10.0C	652.700
758	592	457	21:16: 8	38:41:54	71178	0: 0	0:18	B9	9.30	9.60	157	5	130	118 L	3.0L	39.333
759	595	452	21:16: 9	38:42:31	71178	0: 1	0:56	B9	9.30	9.60	74	30	19	989 L	10.0C	98.900
760	618	57	21:16:11	46:38:43	50680	-0: 5	0: 3	B9	7.00	0.00	93	28	54	793 L	1.0L	793.000
761	614	54	21:16:12	46:38:51	50681	-0: 4	0: 4	B9	7.00	0.00	294	112	23	9486 H	10.0C	948.600
762	617	61	21:16:15	45:38:20	50681	-0: 2	-0:26	B9	7.00	0.00	146	61	18	3512 L	3.7C	949.189
763	587	57	21:16:16	46:38:43	50681	0: 1	-0: 4	B9	7.00	0.00	115	54	18	2588 H	3.0C	862.667
764	614	59	21:16:17	46:38:41	50681	0: 1	-0: 6	B9	7.00	0.00	230	61	23	4700 L	2L	18600.000
765	612	64	21:16:21	46:32:27	50681?	0: 7	-0: 5	A0	8.40	8.30	151	4	123	104 L	3.0L	34.667
766	612	297	21:16:21	41:58:37	50680	0: 7	2:5	A0	8.40	8.20	58	10	16	307 L	3.7C	82.973
767	609	290	21:16:23	41:59:17	50680	0: 8	-1:25	A0	8.40	8.20	112	19	22	922 L	10.0C	92.200
768	589	500	21:16:25	37:44: 3	71172?	0: 35	6:35	9.00	9.50	52	6	17	1752 L	10.0C	17.500	
769	607	295	21:16:26	41:58:47	50680	0: 11	-1:55	A0	8.40	8.20	162	7	130	185 L	3.0L	61.667
770	553															

NRL REPORT 8173

CYGNUS RA 21:24 DEC +37:30

OBJECT NO.	X Y	R.A. DEC.	SAO NO.	A R.A.	A DEC.	SPEC. TYPE	V MAG.	P MAG.	PEAK DEN.	NO. OF POINTS	BO	DENSITY VOLUME	EXP. & FILTER	DEN. VOL/ EXP.		
801	581	485	21:17:23	38: 0:52	NO					140	29	17	1674	10.0C	167.400	
802	577	490	21:17:26	38: 1:15						195	14	120	523?	3.0L	177.333	
803	525	488	21:17:28	38: 3:57	NO					62	12	13	409	3.0C	136.333	
804	588	385	21:17:41	40: 3:21	50711	0: 6	-0:42	8.80	9.00	50	6	18	165	10.0C	16.500	
805	605	247	21:17:42	42:57:48						66	35	18	113?	3.7C	305.946	
806	612	163	21:17:50	44:29:44	50716	-0: 2	-2:21	9.00	9.60	64	9	26	270	10.0C	27.000	
807	600	231	21:18: 5	43:15: 9						202	15	132	567?	3.0L	189.000	
808	546	724	21:18: 7	33:18:11	71220	-0: 8	1:49	A0	6.84	.00	195	16	137	556	3.0L	185.333
809	546	724	21:18: 7	33:18:11	71228?	-0:32	4: 8	A0	8.80	9.40	195	16	137	556	3.0L	185.333
810	551	722	21:18: 9	33:18:30	71220	-0: 6	2: 8	A0	6.84	.00	93	6	64	144 L	1.0L	144.000
811	553	726	21:18:10	33:18:26	71228?	-0:29	4:23	A0	8.80	9.40	87	17	16	695	3.7C	187.838
812	553	726	21:18:10	33:18:26	71228?						66	29	17	1095?	3.0C	365.000
813	454	999	21:18:11	27:52:51							17	16	695	3.7C	187.838	
814	551	719	21:18:11	33:19:15	71220	-0: 4	2:53	A0	6.84	.00	158	36	21	2202	10.0C	220.200
815	495	722	21:18:13	33:21: 1	71220	-0: 2	4:38	A0	6.84	.00	70	15	14	518	3.0C	172.667
816	611	147	21:18:13	44:48: 7							72	17	22	558?	10.0C	55.800
817	596	240	21:18:55	43: 5:29							45	10	21	211?	3.7C	57.027
818	531	777	21:18:57	32:15:28	71237?	-0:19	-8:30	A0	6.03	.00	183	9	132	310L	3.0L	133.333
819	538	769	21:19:13	32:26:55	71237?	-0:2	2:57	A0	6.03	.00	80	18	20	596 L	3.7C	161.081
820	530	767	21:19:14	32:26:57	71237?	-0:2	2:29	A0	6.03	.00	176	11	132	340 L	3.0L	113.333
821	535	763	21:19:14	32:26:59	71237?	-0:1	2:32	A0	6.03	.00	135	37	20	1915 L	10.0C	191.500
822	480	755	21:19:16	45:18: 2	71237?	-0: 4	2:34	A0	6.03	.00	60	13	15	405 L	3.0C	135.000
823	607	112	21:19:22	45:18: 2	50750	-0: 4	2:34	A0	8.80	9.10	51	9	22	216	10.0C	21.600
825	611	61	21:19:51	46:27:16	50751	-0:20	-3:41	A2	7.71	.00	56	7	22	178 L	10.0C	8.000
826	586	249	21:19:52	42:54:33	50758	-0: 0	-1:17	A0	8.20	8.00	47	4	19	95 L	3.7C	26.676
827	583	242	21:19:59	42:55:55	50758	-0: 8	-0:40	A0	8.20	8.00	86	15	29	504	10.0C	50.000
828	526	246	21:20:15	42:55:38	50758	-0:23	-0:12	A0	8.20	8.00	37	4	15	85 L	3.0C	28.333
829	542	567	21:20:17	36:25:26	71255	-0: 8	-0: 5	A0	8.40	8.20	169	7	136	184	3.0L	61.333
830	546	562	21:20:19	36:25:25	71255	-0: 7	-0: 6	A0	8.40	8.20	100	19	24	775	10.0C	77.500
831	548	568	21:20:21	36: 27:	71255	-0: 5	1:30	A0	8.40	8.20	52	7	18	186	3.7C	50.270
832	489	565	21:20:29	36:28:16	71255	-0: 4	2:45	A0	8.40	8.20	44	4	15	100	3.0C	33.333
833	554	470	21:20:43	38:25:47	71266	-0: 4	0:35	A0	6.45	.00	69	12	17	406 L	3.7C	109.730
834	548	469	21:20:45	38:24:10	71266	-0: 2	-1: 1	A0	6.45	.00	172	11	129	332 L	3.0L	110.667
835	551	464	21:20:47	38:25:21	71266	-0: 0	0: 9	A0	6.45	.00	134	28	18	1464 L	10.0C	146.400
836	560	363	21:20:58	40:27:59	50772	-0: 4	-0:59	B5	7.40	7.30	271	59	20	4622	10.0C	462.200
837	495	467	21:20:59	38:26:56	71266	-0:12	1:44	A0	6.45	.00	65	10	15	335 L	3.0C	111.667
838	524	668	21:21: 3	34:22:50							190	10	141	329?	3.0L	109.667
839	562	369	21:21: 3	40:29:34	50772	0: 9	0:37	B5	7.40	7.30	150	30	19	1693 L	3.7C	457.568
840	561	366	21:21: 4	40:28:22	50772	0:11	-0:36	B5	7.40	7.30	137	22	62	898	1.0L	898.000
841	557	367	21:21: 4	40:29:18	50772	-0:10	0:20	B5	7.40	7.30	288	30	134	2034	3.0L	678.000
842	580	185	21:21: 7	44: 1:48	50780	-0: 0	-0:35	B8	7.70	9.00	51	4	24	105	10.0C	10.500
843	503	366	21:21:13	40:30:50	50772	-0:19	1:53	B5	7.40	7.30	125	26	15	1299	3.0C	433.098
844	534	541	21:21:19	36:48:18	71277	-0: 7	-0:29	A0	9.10	9.10	165	5	134	124	3.0L	61.318
845	590	499	21:21:21	36:48:43	71277	-0: 5	-0: 4	A0	9.10	9.10	46	5	17	125	3.7C	33.768
846	511	432	21:21:22	39: 6:57	71273	-0: 7	-1: 7	A0	7.90	7.40	94	16	62	180 L	1.0L	180.000
847	582	435	21:21:23	39: 6:50	71273	-0: 5	-0: 6	A0	7.90	7.40	98	16	16	692	3.0C	137.277
848	539	542	21:21:26	36:49:33	71277	-0: 0	0:45	A0	9.10	9.10	85	15	21	577	10.0C	47.700
849	546	433	21:21:27	39: 7:45	71273	-0: 9	-0:19	B9	7.90	7.40	203	15	130	632	3.0C	211.667
850	549	428	21:21:27	39: 9: 0	71273	-0: 8	0:56	B9	7.90	7.40	164	32	19	2059	10.0C	205.000
851	493	431	21:21:33	39:10:41	71273	-0:15	2:37	B9	7.90	7.40	175	12	15	465	3.0C	155.000
852	525	631	21:21:44	34:57:42	71282	-0:10	0:38	A0	8.20	9.10	110	25	19	1188	10.0C	118.800
853	525	631	21:21:44	34:57:42	71282?	-0:24	9: 2	A2	8.10	8.80	110	25	19	1188	10.0C	118.800
854	527	640	21:21:45	34:59:16	71282	-0: 9	2:12	A0	8.20	9.10	62	9	16	299	3.7C	80.811
855	520	638	21:21:46	34:58:41	71282	-0: 8	1:37	A0	8.20	9.10	192	10	140	342	3.0L	114.000
856	458	637	21:21:54	35: 0:31	71282	-0: 0	3:27	A0	8.20	9.10	50	6	14	177	3.0C	59.000
857	487	452	21:21:59	38:49:18							48	13	14	364?	3.0C	121.333
858	598	43	21:22: 0	46:51:50	50792?	-0: 1	-5: 7	B2	7.40	7.40	177	8	122	273 L	3.0L	91.000
859	598	43	21:22: 0	46:51:50	50801?	-0:23	-7:36	A	8.90	8.90	177	8	122	273	3.0L	91.000
860	598	35	21:22: 4	46:56:10	50792	-0: 2	-0:46	B2	7.40	7.40	73	34	22	1193?	10.0C	119.300
861	524	576	21:22: 5	36:16:57	NO						164	4	136	92	3.0L	30.667
862	542	437	21:22: 6	38:56:53	71283	0: 4	0:15	A	8.80	8.80	51	7	17	192	10.0C	19.200
863	527	568	21:22:14	36:16:57	NO						85	34	32	1175	10.0C	117.500
864	529	578	21:22:16	38:18:29	NO						48	10	187	251	3.7C	67.946
865	506	705	21:22:25	33:38: 6	71300	-0: 6	2:42	A0	8.40	8.90	175	7	141	182	3.0L	60.667
866	511	701	21:22:28	33:37:11	71300	-0: 4	1:48	A0	8.40	8.90	91	22	23	834	10.0C	83.400
867	511	701	21:22:28	33:37:11	71307?	-0:21	8:54	A3	8.00	8.60	91	22	23	834	10.0C	83.400
868	513	701	21:22:28	33:38:45	71300	-0: 3	3:22	A0	8.40	8.90	49	7	17	178	3.7C	48.199
869	562	226	21:22:33	43:18:45	50805	-0: 1	-0:52	A0	8.80	9.00	25	18	23	616	3.0C	61.000
870	474	557	21:22:55	36:36:55	NO						193	12	140	431	3.0L	143.667
872	512	651	21:23:55	34:37:20	NO						119	30	140	1435	10.0C	143.500
873	514	657	21:23:56	34:37:37	NO						63	13	15	424	3.7C	114.595
874	431	640	21:23: 2	30:57:14	NO						51	6	16	159?	3.0C	53.000
875	455	651	21:23: 4	34:38:53	71284											

PAGE, CARRUTHERS AND HILL

CYGNUS RA 21:24 DEC +37:30

OBJECT NO.	X	Y	R.A.	DEC.	SAO NO.	δ R.A.	δ DEC.	SPEC. TYPE	V MAG.	P MAG.	PEAK DEN.	NO. OF POINTS	BG	DENSITY VOLUME	EXP. & FILTER	DEN. VOL./ EXP.	
901	547	213	21:24:57	43:34:29	50859	0: 5	-1:12	B9	7.30	7.50	63	9	17	291 L	3.7C	78,649	
902	533	218	21:24:58	42:13:23	50861	0: 5	-1:30	A	8.60	8.70	153	7	125	168	3.0L	56,000	
903	543	211	21:24:59	43:33:58	50859	0: 7	-1:42	B9	7.30	7.50	153	9	125	204 L	3.0L	68,000	
904	537	208	21:24:59	42:13:53	50861	0: 7	-0.60	A	8.60	8.70	52	6	16	161	3.7C	43,514	
905	535	209	21:24:59	42:13:58	50861	0: 8	-0.8	A	8.60	8.70	96	17	20	760	10.0C	76,000	
906	536	209	21:25:12	43:35:39	50869	0: 15	-0.2	B9	7.30	7.60	54	7	17	192 L	3.0C	64,000	
907	538	235	21:25:12	42:59:52	50868	0: 2	-0.6	-0.56	A0	7.50	7.60	64	10	19	315 L	10.0C	31,500
908	503	539	21:25:19	36:52:45	71258	0: 4	-1:10	B3	5.20	.00	350	91	68	6997 L	1.0L	6997,000	
909	502	536	21:25:17	36:53:58	71258	0: 2	-0.3	B3	5.20	.00	27	277	22	30316 L	10.0C	3031,000	
910	504	542	21:25:19	36:54:10	71258	0: 0	-0.15	B3	5.20	.00	291	157	19	14455 L	3.7C	3906,757	
911	495	543	21:25:20	36:54:25	71258	0: 1	-0.29	B3	5.20	.00	184	27	32	1660	2L	6600,000	
912	497	540	21:25:23	36:53:15	71258	0: 4	-0.41	B3	5.20	.00	418	172	141	14471 L	3.0L	4823,667	
913	445	539	21:25:27	36:55:25	71258	0: 9	-1:29	B3	5.20	.00	378	134	16	12132 L	3.0C	4044,000	
914	510	392	21:25:38	39:58: 9													
915	562	70	21:25:53	46:19:31	50890	-0: 11	-1: 4	B5	6.88	.00	260	95	19	6956	3.7C	1880,000	
916	559	68	21:25:55	46:19: 2	50890	-0: 9	-1:33	B5	6.68	.00	352	128	123	9636 H	3.0L	3212,000	
917	563	68	21:25:56	46:19:20	50890	-0: 8	-1:15	B5	6.88	.00	142	60	54	2753 H	1.0L	2753,000	
918	559	64	21:25:57	46:18:54	50890	-0: 7	-1:41	B5	6.88	.00	400	131	28	14890 H	10.0C	1489,000	
919	460	816	21:25:60	31:20:17													
920	502	67	21:26:11	45:21:42	50890	0: 7	1: 7	B5	6.88	.00	214	72	16	5393 H	3.0C	1797,667	
921	439	916	21:26:21	29:16:19	89747	-0: 58	-2:25	A2	8.90	8.61	50	7	21	1682	10.0C	16,800	
922	448	435	21:26:22	39: 1:13													
923	555	58	21:26:31	46:25:45	50911	-0: 9	-1:33		9.20	9.60	87	30	28	1135	10.0C	113,500	
924	521	275	21:26:35	42:11:42													
925	465	740	21:26:36	32:47:50	71377	-0: 0	4:11	B9	8.30	8.30	51	9	25	244 L	10.0C	24,400	
926	517	302	21:26:37	41:38:51	50908	0: 6	-0.35	A0	8.80	8.70	74	13	19	483 L	10.0C	48,300	
927	465	681	21:26:48	34: 2:28	71383	-0:13	2:49	A5	8.30	8.50	199	14	139	540 H	3.0L	180,000	
928	470	680	21:26:49	34: 1:53	71387	-0:12	2:14	A5	8.30	8.50	95	4	67	94	1.0L	94,000	
929	572	684	21:26:50	34: 2:17	71389	-0:11	2:38	A5	8.30	8.50	74	15	16	526 H	3.7C	142,162	
930	470	677	21:26:55	34: 3: 3	71393	-0: 5	3:35	A5	8.30	8.50	25	31	29	1561 H	10.0C	156,100	
931	413	680	21:27: 1	34: 2: 27	71393	0: 3	3:49	A5	8.30	8.50	55	12	15	338 H	3.0C	112,607	
932	534	148	21:27: 8	44:41:46	50925	-0: 6	-0:27	B8	6.90	.00	83	20	20	784 L	10.0C	78,000	
933	566	155	21:27:15	44:40:47	50925	-0: 2	-1:26	B8	6.90	.00	42	5	15	122 L	3.7C	32,973	
934	531	180	21:27:16	44: 6:47	50930	-0: 5	-0:20	B8	7.58	.00	134	34	56	1669 L	1.0L	1669,000	
935	548	83	21:27:17	46: 4:17	50935	-0: 28	-8: 8	A3	6.77	.00	46	4	17	1097 L	3.7C	29,459	
936	488	442	21:27:19	38:55: 2													
937	527	182	21:27:19	46: 1:15	50930	-0: 2	-0:52	B2	7.52	.00	325	58	122	4223	3.0L	1407,667	
938	527	178	21:27:22	44: 6:28	50930	0: 1	-0:39	B2	7.52	.00	349	73	22	7081	10.0C	708,100	
939	530	185	21:27:22	44: 5:36	50930	0: 1	-1:31	B2	7.52	.00	225	42	17	3094 L	3.7C	836,216	
940	552	31	21:27:26	46:55:40													
941	471	181	21:27:39	44: 7:46	50930	-0: 18	0:39	B2	7.52	.00	199	37	14	2556	3.0C	852,000	
942	452	748	21:27:48	32:39:35	71397	-0: 3	4:11	B9	7.60	7.70	152	22	63	1050 H	1.0L	1050,000	
943	454	753	21:27:49	32:38:48	71397	-0: 1	3:24	B8	7.60	7.70	170	43	18	2490	3.7C	672,973	
944	476	750	21:27:50	32:38:44	71397	-0:19	6:35	9.00	9.40	305	37	134	2240 H	3.0L	746,667		
945	466	750	21:27:50	32:38:44	71397	0: 0	3:20	B8	7.60	7.70	305	37	134	2240 H	3.0L	746,667	
946	452	746	21:27:51	32:39:53	71397	0: 0	4:29	B8	7.60	7.70	304	70	23	6144	10.0C	614,400	
947	468	615	21:27:53	35:15:29	71402	-0: 9	0:21	A0	7.17	.00	83	22	18	890 L	10.0C	84,000	
948	470	621	21:27:54	35:16:52	71402	-0: 7	1:44	A0	7.17	.00	47	6	15	156 L	3.7C	42,162	
949	447	776	21:27:56	32:4:28	71398	0: 6	4:22	B8	7.60	7.70	149	32	17	1813 H	3.0C	604,333	
950	526	749	21:27:57	32:49:10	71398	0: 7	4:46	B8	7.60	7.70	149	32	17	3259 L	3.7C	880,811	
951	524	225	21:28:01	45:15:56	50928	-0:11	-1:31	B5	6.98	.00	213	43	19	1126 L	1.0L	1126,000	
952	534	120	21:28:01	45:15:56	50928	0: 8	-0:32	B5	6.98	.00	118	30	55	971 L	3.7C	24,595	
953	435	120	21:28:01	45:15:56	50928	-0:11	-1:31	B5	6.98	.00	213	43	19	8301 L	1.0L	8301,000	
954	426	901	21:28:01	29:4:21	89767	-0: 5	0:49	B8	8.30	7.95	4	4	4	4391 L	3.0L	1462,100	
955	531	118	21:28: 4	45:15:38	50942	-0: 5	-0:49	B8	8.30	7.95	363	83	22	8301 L	1.0L	8301,000	
956	531	122	21:28: 4	45:15:28	50942	-0: 3	-1:5	B8	8.30	7.95	288	67	118	4391 L	3.0L	120,900	
957	463	635	21:28: 5	34:52:23	71407	-0:11	1:56	A0	8.40	8.50	107	27	19	1209 L	10.0C	120,900	
958	458	639	21:28: 6	34:51:19	71407	-0:11	0:52	A0	8.40	8.50	182	8	9	213 L	3.7C	83,657	
959	465	641	21:28: 6	34:52:30	71407	-0:11	2:34	A0	8.40	8.50	58	9	17	264 L	3.7C	71,351	
960	424	894	21:28:11	29:41:12	89757	-0:14	0:60	A0	8.30	7.95	55	16	19	443 L	10.0C	44,300	
961	475	121	21:28:17	45:18:17	50929	0: 8	1:50	B5	6.98	.00	172	44	16	2749	3.0C	916,333	
962	406	638	21:28:20	34:52:25	71407	0: 3	1:58	A0	8.40	8.50	50	6	16	159	3.0L	53,000	
963	469	536	21:28:23	36:55:26								171	4	134	1202 L	3.0L	40,000
964	483	443	21:28:25	38:45:35								47	5	17	134 L	10.0C	13,400
965	459	695	21:28:32	33:47:18	71404	0:25	1: 0	A3	8.50	9.00	74	48	16	1848 H	3.7C	499,459	
966	472	527	21:28:39	37: 4:41	71448	-0:14	0:27	B9	8.60	8.60	187	205	10	135	416 L	3.0L	138,667
967	467	528	21:28:41	37: 5:10								98	5	62	146 L	1.0L	146,000
968	423	859	21:28:44	30:22:47	71416	0: 6	2:16	A2	8.50	8.23	47	5	20	124 L	10.0C	12,400	
969	469	514	21:28:59	37:17:11								45	4	19	94 L	1.0L	9,400
970	505	241	21:29:15	42:52:35	50962	0: 8	-0:33	B9	8.20	8.50	92	9	57	239	1.0C	239,000	
971	501	243	21:29:17	42:51:57	50962	0: 9	-1:10	B9	8.20	8.50	202	24	123	1006	3.0L	335,333	
972	502	238	21:29:17	42:52:33	5096												

NRL REPORT 8173

CYGNUS RA 21:24 DEC +37:30

OBJECT NO.	X	Y	R.A.	DEC.	SAO NO.	Δ R.A.	Δ DEC.	SPEC. TYPE	V MAG.	P MAG.	PEAK DEN.	NO. OF POINTS	BG	DENSITY VOLUME	EXP. & FILTER	DEN. VOL/ EXP.
1001	471	326	21:31:21	41:5:2	51022	0: 6	-0: 9	8.90	8.80	82	15	19	568	10.0C	56.800	
1002	440	589	21:31:21	35:51:23						44	14	16	93?	3.7C	25.135	
1003	469	330	21:31:22	41:5:17	51022	0: 7	0: 5	8.90	8.80	156	5	129	118	3.0L	39.333	
1004	397	852	21:31:30	30:27:41						39	4	17	87?	10.0C	8.700	
1005	504	113	21:31:32	45:23:18						150	9	119	226?	3.0L	75.333	
1006	454	469	21:31:33	38:17:19	71461	-0: 0	-0: 58	89	8.00	.00	141	23	18	1298	3.7C	350.811
1007	419	729	21:31:34	33:3:43	71465	-0: 6	-4:13	A0	7.70	7.80	47	6	17	152 L	3.7C	41.081
1008	448	467	21:31:35	38:15:57	71461	0: 1	-2:20	89	8.00	.00	261	22	130	135 H	3.0C	448.333
1009	411	726	21:31:36	33:3:17	71465	0: 3	-3:48	A0	7.70	7.80	163	6	131	155	3.0L	51.667
1010	451	463	21:31:36	38:17: 9	71461	0: 3	-1: 8	89	8.00	.00	250	47	20	3703	10.0C	370.300
1011	481	243	21:31:37	42:44:30	51029	0: 5	-0:27	A0	8.20	8.10	146	25	20	1444	10.0C	144.400
1012	450	465	21:31:38	38:16:41	71461	0: 5	-1:36	89	8.00	.00	124	14	62	541	1.0L	541.000
1013	360	726	21:31:41	33:3:53	71465	0: 2	-4:23	A0	7.70	7.80	42	4	14	97 L	3.0C	32.333
1014	417	723	21:31:41	33:3:31	71465	0: 1	-4: 2	A0	7.70	7.80	85	20	18	812	10.0C	81.200
1015	395	666	21:31:42	38:18:29	71461	0: 8	0:12	89	8.00	.00	113	22	14	1087 H	3.0C	362.333
1016	479	393	21:31:43	39:43:23	71464	0: 5	-0:18	89	8.00	.00	129	25	18	1306	10.0C	130.600
1017	483	250	21:31:43	32:14:35	51029	0:11	-0:22	A0	8.20	8.10	76	11	18	399	3.7C	107.838
1018	479	250	21:31:44	34:16:45	51029	0:12	-0:14	A0	8.20	8.10	168	11	121	353	3.0C	117.667
1019	456	397	21:31:46	39:42: 9	71464	0: 7	-0:55	89	8.00	8.90	189	10	133	356	3.0L	118.667
1020	456	397	21:31:46	39:42: 9	71471	-0:28	-5:59	9.20	9.50	189	10	133	356	3.0L	118.667	
1021	461	400	21:31:47	39:42: 9	71464	0: 8	-0:56	89	8.00	8.90	66	11	15	368	3.7C	99.469
1022	424	246	21:31:53	42:45:34	51029	0:21	-0:37	A0	8.20	8.10	62	9	14	306	10.0C	102.000
1023	451	439	21:31:56	38:45:58						58	6	17	172?	10.0C	17.200	
1024	402	396	21:31:56	39:43:15	71461	0:17	-0:10	89	8.90	54	9	14	265	3.0C	88.333	
1025	402	396	21:31:56	39:43:15	71471	-0:18	6:55	9.20	9.50	54	9	14	265	3.0C	88.333	
1026	430	598	21:32: 1	35:35: 8	71470	-0:11	3: 6	A2	7.80	8.30	53	9	18	250?	10.0C	25.000
1027	350	757	21:32:13	32:25:15						41	8	14	197?	3.0C	65.667	
1028	503	94	21:32:25	45:48: 3	51041	-0: 3	-1:43	89	8.70	8.00	94	32	18	1308 H	3.7C	353.514
1029	500	91	21:32:26	45:48:14	51041	0: 1	-1:55	89	8.70	8.00	180	40	118	1407	3.0L	469.000
1030	500	88	21:32:30	35:47:35	51041	0: 2	-1:15	89	8.70	8.00	182	53	21	3755 H	10.0C	375.500
1031	394	761	21:32:37	32:24: 2						51	10	24	238?	2L	952.000	
1032	444	91	21:32:39	35:43:50	51041	0:11	-2:30	89	8.70	8.00	71	25	15	947 H	3.0C	315.667
1033	444	91	21:32:39	35:43:50	51045	0: 4	-8:44	89	8.90	9.50	71	25	15	947 H	3.0C	315.667
1034	387	450	21:32:45	38:36: 1						40	12	12	282?	3.0C	94.333	
1035	466	258	21:33: 1	42:26:13	51055	-0: 2	-0:59	9.10	9.30	78	15	19	553	10.0C	55.300	
1036	386	795	21:33: 2	31:38:54	71483	0: 9	-5:17	A0	7.21	.00	180	18	124	631	3.0C	210.333
1037	335	796	21:33: 2	31:37:25	71483	0: 9	-3:49	A0	7.21	.00	63	16	20	451	3.0C	150.333
1038	394	799	21:33: 2	31:38:19	71483	0: 9	-4:38	A0	7.21	.00	76	17	18	598	3.7C	161.622
1039	392	792	21:33: 4	31:39:26	71483	0:12	-5:50	A0	7.21	.00	136	45	24	2069	10.0C	206.900
1040	426	265	21:33: 6	42:24:60	51055	0: 7	-0:14	9.10	9.30	44	4	16	94	3.7C	25.405	
1041	508	35	21:33: 7	46:55: 6	51057	0: 3	-3:29	A0	8.20	7.70	62	25	17	785	3.7C	212.162
1042	506	32	21:33:11	46:55:34	51057	0: 2	-3:35	A0	8.20	7.70	154	19	121	482	3.0C	160.667
1043	506	29	21:33:11	46:55:11	51057	0: 2	-4:12	A0	8.20	7.70	126	58	21	2993 H	10.0C	299.300
1044	479	199	21:33:13	43:44:16						53	8	15	244?	3.7C	65.946	
1045	475	207	21:33:15	43:28:38	51058	0: 3	-0: 8	89	6.70	.00	223	43	58	261?	1.0C	2674.000
1046	475	212	21:33:15	43:27:51	51058	0: 2	-0:55	89	6.70	.00	282	54	18	458	3.7C	120.865
1047	472	205	21:33:16	43:28:53	51058	0: 3	-0: 7	89	6.70	.00	389	107	22	977?	3.0C	977.300
1048	471	209	21:33:17	43:27:51	51058	0: 5	-0:55	89	6.70	.00	374	67	25	577?	3.0L	1892.333
1049	467	211	21:33:20	43:29: 4	51058	0: 7	-0:18	89	6.70	.00	57	10	23	269	2L	1076.000
1050	381	447	21:33:21	38:38:50						49	17	13	470?	3.0C	156.667	
1051	500	46	21:33:25	46:53:50						49	9	22	216?	10.0C	21.600	
1052	449	31	21:33:27	46:49:50	51057	0:18	-2: 9	A0	8.20	7.70	50	16	17	419 H	3.0C	139.667
1053	421	562	21:33:27	36:13:42	71492	-0: 4	-0:57	9.10	9.20	46	6	17	143	10.0C	14.300	
1054	387	796	21:33:31	31:33:44	71483	0:38	-0: 7	A0	7.21	.00	68	15	19	485 L	10.0C	48.500
1055	416	208	21:33:32	43:28:36	51058	0:19	-0:10	B8	6.70	.00	256	46	15	3701 H	3.0C	1233.667
1056	307	898	21:33:33	29:31:26	89826	0: 0	-0: 9	B8	8.40	7.74	103	42	15	1983	3.0C	661.000
1057	357	898	21:33:39	29:31: 7	89826	0: 6	-0:19	B8	8.40	7.74	226	54	118	2874	3.0L	958.000
1058	366	901	21:33:39	29:31:55	89826	0: 6	-0:39	B8	8.40	7.74	121	49	18	2476	3.7C	669.189
1059	363	896	21:33:40	29:32:11	89826	0: 6	-0:54	B8	8.40	7.74	102	25	58	779	1.0C	779.000
1060	364	895	21:33:42	29:31:51	89826	0: 9	-0:34	B8	8.40	7.74	240	89	22	6711	10.0C	671.100
1061	429	501	21:33:42	37:36: 0	71499	0: 7	-0:21	89	8.70	91	33	16	1426	3.7C	385.405	
1062	429	501	21:33:42	37:36: 0	71504?	-0:24	-3: 6	A0	8.20	8.00	91	33	16	1426	3.7C	385.405
1063	427	497	21:33:46	37:35:15	71499	-0: 3	-1: 6	89	8.70	106	10	63	309	1.0L	309.000	
1064	422	499	21:33:48	37:34:16	71497?	-0: 1	-2: 6	89	8.70	215	28	132	1299 H	3.0L	433.000	
1065	422	499	21:33:48	37:34:16	71504?	-0:18	-4:50	A0	8.20	8.00	215	28	132	1299 H	3.0L	433.000
1066	426	495	21:33:52	37:35:44	71497?	0: 3	-0:37	89	8.70	194	54	20	3944 H	10.0C	394.400	
1067	426	495	21:33:52	37:35:44	71504?	0:14	-3:22	A0	8.20	8.00	194	54	20	3944 H	10.0C	394.400
1068	370	498	21:33:56	37:35:46	71497?	0: 7	-0:35	89	8.70	82	29	16	1038	3.0C	346.000	
1069	370	498	21:33:56	37:35:46	71504?	-0:10	-3:20	A0	8.20	8.00	82	29	16	1038	3.0C	346.000
1070	473	150	21:34:14	44:32:46	51088	-0: 5	-0:32	A0	9.00	9.20	65	14	19	473?	10.0C	473.000
1071	416	536	21:34:37	36:52:36	51099	0: 4	0:18	A2	8.70	8.70	47	4	15	117?	3.7C	31.892
1072	455	236	21:34:40													

PAGE, CARRUTHERS AND HILL

OBJECT NO.	X	Y	R.A.	DEC.	SAO NO.	A. R.A.	S. DEC.	SPEC. TYPE	V MAG.	P MAG.	PEAK DEN.	NO. OF POINTS	BG	DENSITY VOLUME	EXP. & FILTER	DEN. VOL / EXP.
1101	442	169	21:37:53	44:11:24	51161	-0: 5	-0:53	B9	6.70	.00	136	30	17	1682	3.7C	454 595
1102	439	165	21:37:58	44:12:12	51161	-0: 0	-0: 5	B9	6.70	.00	186	30	116	1071	3.0L	357 000
1103	439	163	21:37:58	44:11: 6	51161	0: 1	-1:11	B9	6.70	.00	265	53	26	4360	10.0C	438 000
1104	442	164	21:38: 1	44:11:46	51161	0: 3	-0: 2	B9	6.70	.00	90	14	54	369 L	10.0C	369 000
1105	444	131	21:38: 5	44:47:19							47	4	21	937	10.0C	9 300
1106	382	166	21:38:15	44:10:32	51161	0:17	-1:45	B9	6.70	.00	114	26	13	1324	3.0C	441 333
1107	408	335	21:38:35	40:53: 7	51171	-0: 1	-0:38	B9	8.90	8.90	52	4	21	102	3.7C	27 568
1108	305	919	21:38:36	28:53:59							49	4	20	1037	10.0C	10 300
1109	403	332	21:38:37	40:52:29	51171	0: 2	-1:16	B9	8.90	8.90	161	4	133	100	3.0L	33 333
1110	405	329	21:38:37	40:53: 5	51171	0: 1	-0:40	B9	8.90	8.90	96	16	26	651	10.0C	65 100
1111	403	327	21:39:16	41: 2:10	51178	0: 4	-0:57	A0	8.40	8.00	54	8	17	226	3.7C	61 081
1112	401	320	21:39:18	41: 2:25	51178	0: 6	-0:17	A0	8.40	8.00	106	19	21	895	10.0C	81 500
1113	399	323	21:39:19	41: 2:43	51178	0: 8	-0:24	A0	8.40	8.00	156	6	126	148	3.0L	49 333
1114	344	323	21:39:24	41: 3: 4	51178	0:12	-0: 4	A0	8.40	8.00	44	5	14	126	3.0C	42 000
1115	336	736	21:39:26	32:36: 3							57	4	20	1297	10.0C	12 900
1116	322	776	21:39:30	31:50:18							154	6	121	1607	3.0L	53 333
1117	397	550	21:39:35	40:33:43	51187	0: 5	-0:19	B9	9.20	9.30	66	11	16	365	3.7C	98 699
1118	397	350	21:39:35	40:33:43	51189	0: 1	-0:56	A0	6.05	.00	66	11	16	365 L	3.7C	98 699
1119	392	346	21:39:37	40:34:14	51187	0: 0	-0:13	B9	9.20	9.30	165	7	130	196	3.0L	65 333
1120	392	346	21:39:37	40:34:14	51189	0: 4	-0:25	A0	6.05	.00	165	7	130	196 L	3.0L	65 333
1121	394	343	21:39:37	40:34:58	51187	0: 0	-0:56	B9	9.20	9.30	112	23	19	1126	10.0C	112 600
1122	394	343	21:39:37	40:34:58	51189	0: 4	-0:19	A0	6.05	.00	112	23	19	1126 L	10.0C	112 600
1123	338	346	21:39:43	40:34:36	51187	0:14	-0:36	B9	9.20	9.30	52	8	13	232	3.0C	77 333
1124	393	343	21:39:49	40:34:54	51189	0: 9	-0:56	A0	6.05	.00	52	8	13	232 L	3.0C	77 333
1125	393	343	21:39:49	40:34:54	51196	0: 0	-0:13	A0	7.00	8.10	58	7	21	200 L	3.7C	50 500
1126	390	357	21:39:50	40:36:49	51196	0: 3	-0:40	A0	7.00	8.10	108	21	17	998	10.0C	98 800
1127	387	360	21:39:57	40:47: 7	51196	0: 9	-0:42	A0	7.00	8.10	158	5	129	117 L	3.0L	39 000
1128	333	360	21:40: 2	40:16:19	51196	0:15	-1:31	A0	7.00	8.10	46	6	13	158 L	3.0C	52 667
1129	362	540	21:40:11	36:39:40	71625	-0: 8	-0:40	B9	8.90	8.70	145	36	16	1997	3.7C	539 736
1130	362	540	21:40:11	36:39:40	71633	-0:32	-0:50	B9	8.90	9.50	145	36	16	1997	3.7C	539 736
1131	360	536	21:40:13	36:37:19	71625	-0: 6	-3: 1	B9	8.90	8.70	145	19	63	791 H	1.0L	791 000
1132	359	534	21:40:15	36:38:29	71625	-0: 4	-1:51	B9	8.90	8.70	282	60	20	5186 H	10.0C	518 600
1133	359	534	21:40:15	36:38:29	71633	-0:29	-0:22	B9	8.90	9.50	282	60	20	5186 H	10.0C	518 600
1134	355	537	21:40:16	36:38:33	71625	-0: 3	-1:47	B9	8.90	8.70	289	28	136	1779	3.0L	593 000
1135	355	537	21:40:16	36:38:33	71633	-0:28	-0:17	B9	8.90	9.50	289	28	136	1779	3.0L	593 000
1136	303	537	21:40:17	36:38:24	71625	-0: 2	-1:56	B9	8.90	8.70	129	29	16	1515 H	3.0C	505 000
1137	303	537	21:40:17	36:38:24	71633	-0:27	-0:27	B9	8.90	9.50	129	29	16	1515 H	3.0C	505 000
1138	389	329	21:40:22	40:50:15	51207	0: 0	-0:39	A0	5.48	.00	289	47	20	4133 L	10.0C	413 300
1139	392	335	21:40:22	40:51:28	51207	-0: 0	-0:35	A0	5.48	.00	156	29	16	1711 L	3.7C	462 432
1140	391	331	21:40:23	40:49:16	51207	0: 1	-1:37	A0	5.48	.00	118	12	61	419	1.0L	419 000
1141	387	332	21:40:24	40:50:40	51207	0: 2	-0:13	A0	5.48	.00	241	26	126	1406	3.0L	468 667
1142	333	332	21:40:28	40:49:52	51207	0: 6	-1: 2	A0	5.48	.00	124	23	14	1211 L	3.0C	403 667
1143	371	432	21:40:56	38:50:56							46	7	15	1877	3.7C	50 541
1144	417	138	21:41: 0	44:35:15	51220	0: 0	-0:31	A3	8.30	8.50	58	15	18	445	10.0C	44 500
1145	360	465	21:41:15	38:2: 6	71637	-0:22	-0:44	B9	8.30	8.40	318	71	20	6205	10.0C	620 500
1146	360	465	21:41:15	38:2: 6	71642	-0: 6	-1: 8	A0	5.62	.00	318	71	20	6205	10.0C	620 500
1147	360	465	21:41:15	38:2: 6	71642	-0:17	-2:24	A0	6.00	.00	318	71	20	6205	10.0C	620 500
1148	361	467	21:41:16	38:0:52	71643	-0: 5	-2:62	A0	5.62	.00	338	17	55	718	1.0L	718 000
1149	362	472	21:41:17	38:0:36	71643	-0: 5	-2:39	A0	5.62	.00	176	35	17	2317	3.7C	626 116
1150	362	472	21:41:17	38:0:36	71642	-0:16	-3:55	A0	6.07	.00	176	35	17	2317	3.7C	626 216
1151	356	468	21:41:17	38:0:19	71637?	-0:26	-3:27	B9	8.30	8.40	275	40	131	2058	3.0L	686 000
1152	356	468	21:41:19	38:0:48	71643	-0: 2	-2:27	A0	5.62	.00	275	40	131	2058	3.0L	686 000
1153	356	468	21:41:19	38:0:48	71646?	-0:13	-3:42	A0	6.07	.00	275	40	131	2058	3.0L	686 000
1154	356	468	21:41:19	38:0:48	71646?	-0: 2	-2:48	A0	5.62	.00	154	33	14	1905	3.0C	675 000
1155	303	468	21:41:24	38:0:27	71643	-0: 9	-4: 4	A0	6.07	.00	154	33	14	1905	3.0C	675 000
1156	304	780	21:41:41	31:39: 6							76	29	20	11587	10.0C	116 800
1158	361	431	21:41:46	38:39:30							102	7	62	2007	1.0L	200 000
1159	382	285	21:42: 3	41:41:59	51237	0: 2	1: 1	B9	9.00	9.40	47	5	19	122	10.0C	122 000
1160	328	612	21:42:13	35:0:51	71654	-0: 0	-0:38	A0	8.50	8.30	57	12	18	355	10.0C	35 500
1161	208	915	21:42:14	28:52: 5	89948	-0: 1	-5:44	A0	7.40	7.06	41	6	15	137 L	3.0C	45 667
1162	266	918	21:42:22	28:54:35	89948	0: 7	-3:14	A0	7.40	7.06	41	5	18	107 L	3.7C	28 919
1163	265	912	21:42:26	28:54:45	89948	0:11	-3:3	A0	7.40	7.06	79	41	18	1505 L	10.0C	150 500
1164	339	529	21:42:30	36:40:56	71661	-0:10	-2:31	A0	9.10	9.00	45	4	18	101 L	10.0C	101 100
1165	263	892	21:43: 5	29:18:31							66	33	20	10217	10.0C	102 100
1166	384	212	21:43:12	43: 7:18	51256	-0: 4	-1:15	A	8.50	8.80	59	10	20	287	10.0C	28 700
1167	384	212	21:43:12	43: 7:18	51257	-0: 7	4: 2	B9	8.70	9.10	59	10	20	287	10.0C	28 700
1168	409	84	21:43:14	45:32:57	51259	-0: 7	2:45	B9	9.30	9.49	9	21	21	218	10.0C	21 800
1169	333	506	21:43:22	37: 8:41	71674	-0: 7	-1:30	A0	8.80	8.30	119	26	17	1447	10.0C	144 000
1170	335	502	21:43:22	37: 8:41	71674	-0: 4	-1:50	A0	8.80	8.30	62	12	16	380	3.0L	102 733
1171	322	508	21:43:25	37: 8:22	71674	-0: 0	-3:37	B9	8.70	8.30	47	9	14	228	3.0C	50 000
1172	7															

NRL REPORT 8173

OBJECT NO.	X	Y	R.A.	DEC.	SAO NO.	Δ R.A.	Δ DEC.	SPEC. TYPE	V MAG.	P MAG.	PEAK DEN.	NO. OF POINTS	BG	DENSITY VOLUME	EXP. & FILTER	DEN. VOL/ EXP.		
1201	318	447	21:46:20	38:23:15	71722	-0: 5	-1:41	B9	5.80	.00	269	55	19	4369 L	3.7C	1180.811		
1202	260	727	21:46:22	32:35: 9	71718	0: 8	-1:21	A0	6.79	.00	214	28	12	1337 H	3.0L	45.667		
1203	309	446	21:46:23	38:23:38	71722	-0: 1	-1:18	B9	5.80	.00	67	9	24	278	.2L	1112.000		
1204	312	443	21:46:23	38:22:58	71722	-0: 2	-1:58	B9	5.80	.00	327	49	130	3552	3.0L	1184.000		
1205	259	444	21:46:23	38:20:33	71722	-0: 1	-4:23	B9	5.80	.00	228	48	15	3518	3.0C	1172.667		
1206	265	726	21:46:24	32:35:22	71718	0: 11	-1:35	A0	6.79	.00	95	9	58	262	1.0L	262.000		
1207	267	731	21:46:26	32:35:35	71718	0: 12	-1:48	A0	6.79	.00	109	29	17	1386	3.7C	374.595		
1208	265	725	21:46:27	32:35:58	71718	0: 14	-2:11	A0	6.79	.00	212	57	21	4049	10.0C	404.900		
1209	329	325	21:47:29	40:51:30	51333/	0: 11	-0:3											
1210	329	325	21:47:29	40:51:30	51334/	0: 10	-3:42	A2	8.20	8.00	59	7	19	207	3.7C	55.946		
1211	329	325	21:47:29	40:51:30	51341/-	0: 4	-0:21											
1212	329	325	21:47:29	40:51:30	51344/-	0: 13	-3:24	A0	6.49	.00	59	7	19	207 L	3.7C	55.946		
1213	321	21:47:29	40:51:18		51333/-	0: 4	-0:15											
1214	324	321	21:47:29	40:51:18	51334/-	0: 13	-3:29	A2	8.20	8.00	158	4	129	106	3.0C	35.333		
1215	324	321	21:47:29	40:51:18	51342/-	0: 1	-0:33											
1216	324	321	21:47:29	40:51:18	51342/-	0: 10	-3:36											
1217	327	318	21:47:29	40:52:56	51333/-	0: 13	-1:23											
1218	327	318	21:47:29	40:52:56	51334/-	0: 12	-1:36	A0	6.49	.00	115	30	18	1431	10.0C	143.100		
1219	327	318	21:47:29	40:52:56	51341/-	0: 2	-1:5											
1220	320	21:47:29	40:52:56		51342/-	0: 10	-1:58	A0	6.49	.00	115	30	18	1431 L	10.0C	143.100		
1221	272	620	21:47:39	34:40:39	71747	-0: 2	-2:09	A0	7.50	7.80	56	9	18	262 L	10.0C	26.200		
1222	332	300	21:47:39	41:21:37	51346	-0: 6	1:7	B9	8.20	8.20	49	7	16	189 L	3.7C	61.081		
1223	329	294	21:47:39	41:21:48	51346	-0: 5	1:19	B9	8.20	8.20	104	22	21	951 L	10.0C	95.100		
1224	324	297	21:47:41	41:20: 9	51346	-0: 3	-0:21	B9	8.20	8.20	150	6	120	154 L	3.0L	61.333		
1225	162	856	21:47:45	29:52:46	90040	0: 7	-3:41	A0	5.00	.00	155	74	17	4246	3.0C	1415.333		
1226	272	297	21:47:48	41:18:23	51346	0: 4	-2:6	B9	8.20	8.20	40	4	12	96 L	3.0C	32.000		
1227	220	859	21:47:55	29:55:10	90040	0:17	-1:16	A0	5.00	.00	184	84	19	5488	3.7C	1483.243		
1228	218	854	21:47:56	29:53:25	90040	0:18	-3:1	A0	5.00	.00	117	38	54	1422 L	1.0L	1422.000		
1229	212	855	21:47:56	29:52:59	90040	0:18	-3:28	A0	5.00	.00	253	72	115	3839	3.0C	1279.333		
1230	219	853	21:47:57	29:54:19	90040	0:20	-2:7	A0	5.00	.00	351	133	23	13474	10.0C	1347.400		
1231	212	873	21:48: 8	29:30:11	90043	0:19	-2:14	A0	8.20	7.67	56	25	21	618?	10.0C	61.800		
1232	321	325	21:48:17	40:49:50	51355	-0: 7	0: 7	A0	8.20	8.10	73	13	14	476	3.7C	128.649		
1233	316	321	21:48:20	40:49:32	51355	-0: 4	-0:11	A0	8.20	8.10	164	8	124	237	3.0C	79.000		
1234	262	321	21:48:22	40:49: 5	51355	-0: 2	-1:38	A0	8.20	8.10	51	10	13	278	3.0C	92.667		
1235	318	318	21:48:26	40:51: 4	51355	0: 2	-1:21	A0	8.20	8.10	129	31	18	1601	10.0C	160.100		
1236	203	854	21:48:42	29:52:36	90040	0:18	-3:28	A0	5.00	.00	135	6	105	151?	3.0L	60.333		
1237	300	393	21:48:52	39:17:19	71767	-0: 9	-0:48	B9	6.19	.00	356	82	20	7794	10.0C	779.400		
1238	243	358	21:48:54	39:15:28	71767	-0: 7	-2:38	B9	6.19	.00	194	38	15	2516	3.0C	838.667		
1239	295	395	21:48:55	39:16:31	71767	-0: 6	-1:35	B9	6.19	.00	296	39	126	2463	3.0C	86.000		
1240	302	391	21:48:56	39:16:51	71767	-0: 5	-1:16	B9	6.19	.00	220	18	10	3234	3.0C	874.554		
1241	301	394	21:48:56	39:16:53	71767	-0: 4	-1:24	B9	6.19	.00	161	26	81	1176	1.0L	1176.000		
1242	353	87	21:49:25	45:26:20							56	10	22	293?	2L	1172.000		
1243	362	58	21:49:57	45:58:33	51376	0: 8	-0:44	B9	8.20	8.10	43	9	17	208 L	3.7C	56.216		
1244	275	444	21:49:59	38:17:38							55	5	24	137?	2L	59.000		
1245	190	849	21:49:59	29:54:52	90058	0: 6	-2:29	B9	8.40	7.40	130	9	104	204	3.0C	68.000		
1246	359	52	21:50: 1	45:58:26	51376	0:12	-0:36	B9	8.20	8.10	84	49	19	1853	10.0C	185.300		
1247	303	54	21:50: 2	45:56:19	51376	0:13	-1:31	B9	8.20	8.10	38	5	14	111 L	3.0C	37.000		
1248	318	236	21:50: 4	42:25:38	51388	-0: 9	1: 3	A3	8.90	8.70	140	34	19	1889 H	10.0C	188.900		
1249	359	87	21:50: 7	45:58:13	51376	0:18	-0:23	B9	8.20	8.10	134	9	110	190 L	3.0L	63.333		
1250	347	85	21:50: 8	45:56:11							52	12	22	314?	2L	1256.000		
1251	316	238	21:50:11	42:24:56	51388	-0: 2	-0:21	A3	8.90	8.70	164	16	117	503 H	3.0L	167.667		
1252	320	243	21:50:11	42:25:12	51388	-0: 2	-0:37	A3	8.90	8.70	71	15	14	583 H	3.7C	157.568		
1253	261	239	21:50:14	42:22: 2	51388	-0: 1	-2:33	A3	8.90	8.70	60	13	14	404 H	3.0C	134.667		
1254	195	848	21:50:18	29:55:54	90058	0:24	-1:26	B9	8.40	7.40	70	40	19	1323	10.0C	132.300		
1255	289	341	21:50:48	40:18:46	51391?	0:33	-8:45	B9	9.10	9.80	187	46	14	119	635?	3.0C	211.667	
1256	225	661	21:51:27	33:42: 2							52	12	22	314?	2L	1256.000		
1257	313	191	21:51:39	43:15:39	51407	-0: 4	-0:53	O	9.00	9.00	66	20	20	639 L	10.0C	63.900		
1258	254	493	21:51:45	37: 7:46	71809	-0: 4	-1:29	A2	8.70	9.20	65	14	19	435	10.0C	43.500		
1259	274	371	21:52: 1	39:37:45	71814	-0: 5	-0:41	A5	9.10	9.40	68	19	20	595 H	10.0C	59.500		
1260	331	82	21:52:22	45:10:52	51417	0: 5	-0:28	A0	8.10	8.20	41	6	18	127 L	10.0C	127.700		
1261	272	368	21:52:30	39:41: 9	71828	-0: 10	-0:45	B9	9.00	8.70	84	4	17	57	99	0.0L	99.000	
1262	213	370	21:52:31	39:38:34	71828	-0: 9	-3:20	B9	9.00	8.80	68	15	13	513 H	3.0C	153.000		
1263	274	374	21:52:34	39:40: 9	71828/	-0: 9	-0:28	A5	9.10	9.40	76	14	18	598	3.7C	148.108		
1264	272	374	21:52:34	39:40: 1	71828/	-0: 6	-1:53	B9	9.00	8.00	80	76	14	598	3.7C	148.108		
1265	267	369	21:52:35	39:40: 35	71828/	-0: 5	-1:19	B9	9.00	8.00	80	16	119	570 H	3.0L	190.000		
1266	200	696	21:52:35	32:56: 2	71828/	-0: 4	-1:21	B9	9.00	8.90	142	11	109	297	3.0L	99.000		
1267	205	695	21:52:38	32:56:24	71822	-0: 8	-0:59	B9	9.00	8.90	83	31	19	1099	10.0C	109.900		
1268	207	701	21:52:39	32:57: 4	71822	-0: 8	-0:19	B9	9.00	8.90	46	9	16	221	3.7C	59.730		
1270	210	643	21:53:23	33:59:54							48	4	18	105?	10.0C	10.500		
1271	131	723	21:53:27	32:20:35							47	5	13	134?	3.0C	44.667		
1272	315	111	21:53:27	44:44: 4	51447	-0: 3	-1:25				7.70	7.40	120	52	18	2673	10.0C	267.300
1273	216	602	21:53:															

PAGE, CARRUTHERS AND HILL

CYGNUS RA 21:24 DEC +37:30

OBJECT NO.	X	Y	R.A.	DEC.	SAO NO.	Δ R.A.	Δ DEC.	SPEC. TYPE	V MAG.	P MAG.	PEAK DEN.	NO. OF POINTS	BG	DENSITY VOLUME	EXP. & FILTER	DEN. VOL / EXP.
1301	216	197	21:56: 4	42:56:35	51496/	-0: 5	-3:24	B9	7.38	.00	88	33	14	1309 H	3.0C	436.333
1302	272	196	21:56: 5	43: 0:20	51489?	-0: 5	-5:42	A2	8.10	7.60	189	38	113	1509	3.0L	503.000
1303	272	196	21:56: 5	43: 0:20	51496/	-0: 5	0:22	B9	7.38	.00	189	38	113	1509	3.0L	503.000
1304	210	501	21:56:24	36:53:25							42	5	15	123	3.7C	53.243
1305	193	274	21:56:33	41:20:15	51507	-0: 19	-3: 8	B9	7.70	7.30	81	23	13	923	3.0C	307.667
1306	293	271	21:56:39	41:20:19	51507	-0:14	-5:56	B9	7.70	7.30	85	11	53	288	1.0C	280.000
1307	253	277	21:56:39	41:20:24	51507	-0:13	1: 1	B9	7.70	7.30	99	26	16	1174	3.7C	57.297
1308	260	277	21:56:40	41:20:29	51507	-0:12	1:26	B9	7.70	7.30	194	46	19	3308	10.0C	330.800
1309	248	273	21:56:40	41:27:20	51507	-0: 9	-0: 3	B9	7.70	7.30	182	24	12	979	3.0L	326.333
1310	95	724	21:56:47	32:10:44	71905	-0: 1	-3:52	B9	7.50	7.60	47	12	15	309	3.0C	103.000
1311	107	668	21:56:48	33:18:55	71910	-0:12	-4:32	B3	7.80	7.90	111	36	14	1776	3.0C	592.000
1312	296	280	21:56:55	41:16:49	51511	-0: 9	0:18	B9	9.40	53	14	18	370	10.0C	37.000	
1313	253	269	21:57: 1	41:42:52	51513	-0:10	-0:17	B9	8.40	8.40	45	8	15	197 L	3.7C	53.243
1314	166	671	21:57: 1	33:21:36	71910	-0: 1	-1:51	B3	7.80	7.90	132	46	18	2316	3.7C	625.946
1315	164	665	21:57: 2	33:22:19	71910	-0: 2	-1: 8	B3	7.80	7.90	248	83	18	6595	10.0C	659.500
1316	250	257	21:57: 3	41:44:31	51513	-0: 8	1:21	B9	8.40	8.40	82	24	18	926	10.0C	92.600
1317	153	727	21:57: 5	32:12:59	71905	-0:18	-1:37	B9	7.50	7.60	54	19	16	542 L	3.7C	146.486
1318	666	726	21:57: 6	33:21: 9	71910	-0: 5	-2:18	B3	7.80	7.90	241	54	105	3100	3.0L	1033.333
1319	145	722	21:57: 6	32:11:50	71905	-0:19	-3:18	B9	7.50	7.60	142	14	104	397	3.0L	132.333
1320	151	721	21:57: 7	32:13:41	71905	-0:20	-0:55	B9	7.50	7.60	104	49	17	2208	10.0C	220.800
1321	163	665	21:57: 8	33:21:50	71910	-0: 8	-1:37	B3	7.80	7.90	110	29	53	1021	1.0L	1021.000
1322	287	95	21:57:35	45: 0:19							58	6	17	18?	3.7C	49.730
1323	253	214	21:57:46	42:33:42	51526	-0: 3	1:17	B7	8.70	8.90	43	6	18	136	10.0C	13.600
1324	258	185	21:57:53	43: 7:37	51522?	-0:16	10: 7	B7	8.70	8.90	78	22	18	777?	10.0C	77.700
1325	155	644	21:58:23	33:44:39	71933	-0: 6	-1:19	A0	8.80	8.60	42	4	18	87 L	10.0C	8.700
1326	149	391	21:58:35	38:55:47	71949	-0:25	-4:31	A0	7.08	.00	62	10	20	308 L	3.0C	102.667
1327	117	528	21:58:41	36: 6: 4	71942	-0: 5	-8:55	B9	9.10	9.50	54	12	13	358	3.0C	119.333
1328	116	581	21:58:41	36: 6: 4	71952	-0:29	-5:26	B9	8.00	8.00	54	12	13	358	3.0C	119.333
1329	165	581	21:58:44	35: 0:12	71945	-0: 8	-3:20	A0	8.30	8.50	52	10	18	277 L	10.0C	27.200
1330	208	395	21:58:48	38: 0: 8	71948	-0:12	-2: 9	A0	7.90	8.00	76	14	20?	523	3.7C	41.167
1331	297	215	21:58:50	40: 0: 52	51555	-0:14	-0:37	A0	8.40	8.50	63	17	19	518	10.0C	51.800
1332	205	388	21:58:52	38: 0: 53	71949	-0: 8	-0:25	A0	7.08	.00	145	57	18	2918	10.0C	291.800
1333	292	390	21:58:53	38:57:54	71949	-0: 7	-2:24	A0	7.08	.00	162	10	122	299	3.0L	99.667
1334	170	526	21:58:60	36: 0: 45	71942	-0:14	-6:14	B9	9.10	9.50	162	23	113	726	3.0L	242.000
1335	170	526	21:58:60	36: 0: 45	71952	-0:10	-2:45	B9	8.00	8.00	162	23	113	726	3.0L	242.000
1336	174	525	21:58:60	36: 0: 45	71942	-0:14	-5:15	B9	9.10	9.50	123	39	18	1966	10.0C	196.600
1337	174	525	21:58:60	36: 0: 45	71952	-0:11	-1:45	B9	8.00	8.00	123	39	18	1966	10.0C	196.600
1338	176	531	21:59: 1	36: 0: 58	71942	-0:15	-6: 2	B9	9.10	9.50	66	17	15	553	3.7C	149.459
1339	176	531	21:59: 1	36: 0: 58	71952	-0: 9	-2:32	B9	8.00	8.00	66	17	15	553	3.7C	149.459
1340	135	683	21:59:25	32:54: 0	71950	-0:17	-1:42	B9	8.00	8.20	46	10	17	254 L	10.0C	25.400
1341	173	209	22: 0: 19	42:31:41	51589?	-0:22	-2:04	B9	7.06	.00	88	37	14	1522 H	3.0C	507.333
1342	135	371	22: 0: 20	39:15:37	71979?	-0:18	-4:30	A0	9.30	8.10	40	4	14	99 L	3.0C	33.000
1343	135	371	22: 0: 20	39:15:37	71981?	-0:22	-3:37	A0	8.00	8.10	40	4	14	99 L	3.0C	33.000
1344	232	212	22: 0: 27	42:36:12	51589	-0:14	-1:41	B9	7.06	.00	112	40	16	1927	3.7C	520.811
1345	195	375	22: 0: 33	39:18:17	71979?	-0:11	-7:10	A0	8.30	8.10	49	10	15	269	3.7C	72.703
1346	195	375	22: 0: 33	39:18:17	71981	-0:15	-0:57	A0	8.00	8.10	49	10	15	269	3.7C	72.703
1347	232	206	22: 0: 34	42:36:28	51589	-0: 7	2: 7	B9	7.06	.00	80	10	52	244 L	1.0L	244.000
1348	229	206	22: 0: 34	42:36:15	51589	-0: 7	1:54	B9	7.06	.00	219	66	20	5157 H	10.0C	515.700
1349	228	207	22: 0: 36	42:35:47	51589?	-0: 5	1:26	B9	7.06	.00	180	38	108	1594	3.0L	531.333
1350	192	369	22: 0: 36	39:18:50	71979?	-0: 8	7:43	A0	8.30	8.10	91	29	18	1177	10.0C	117.700
1351	192	369	22: 0: 36	39:18:50	71981?	-0:12	-0:24	A0	8.00	8.10	91	29	18	1177	10.0C	117.700
1352	189	370	22: 0: 40	39:17:51	71979?	-0: 4	6:40	A0	8.30	8.10	139	7	12	161	3.0L	53.667
1353	189	370	22: 0: 40	39:17:51	71981?	-0: 8	1:23	A0	8.30	8.10	139	7	12	161	3.0L	53.667
1355	113	222	0: 51	42:21:38	51595	-0: 5	-2:51	A0	5.50	.00	83	43	17	1737	3.0C	57.000
1356	251	117	22: 0: 59	44:26:13	51601?	-0:23	-1:21	A0	6.60	8.50	106	51	20	2472	3.7C	660.000
1357	251	111	22: 0: 60	44:25:37	51595	-0: 5	1: 0	A0	5.50	.00	77	9	50	204 L	1.0L	204.000
1358	247	112	22: 0: 64	44:24:55	51595	-0:18	0:26	A0	5.50	.00	176	52	108	2080	3.0L	693.333
1359	247	112	22: 0: 64	44:24:55	51601?	-0:18	0: 4	A0	8.60	8.50	176	52	108	2080	3.0L	693.333
1360	110	222	0: 54	44:26:22	51595?	-0:18	1:53	A0	5.50	.00	221	94	27	683?	10.0C	683.400
1361	248	110	22: 0: 54	44:26:22	51601?	-0:18	1:31	A0	8.60	8.50	221	94	27	683?	10.0C	683.400
1362	215	124	22: 0: 54	44: 7: 47	51614	-0: 4	1:39	A2	6.57	.00	54	19	18	538 L	10.0C	53.800
1363	95	473	22: 0: 57	37: 4: 59							47	8	13	217?	3.0C	72.333
1364	134	523	22: 0: 57	36: 6: 36	72016	-0:15	-1:52	B9	7.60	7.90	40	6	15	137 L	3.7C	37.027
1365	130	276	22: 0: 57	41: 3: 25	51636?	-0:24	-3: 6	B9	7.60	7.50	89	34	12	1391 H	3.0C	463.667
1366	131	517	22: 0: 57	36: 7:15	72016	-0:11	-1:13	B9	7.60	7.90	72	28	17	969	10.0C	96.900
1367	189	279	22: 0: 57	41: 3: 35	51636	-0:15	1: 5	B9	7.60	7.50	105	39	14	1816	3.7C	490.811
1368	186	273	22: 0: 57	41: 8:10	51636	-0:14	1:00	B9	7.60	7.50	200	68	18	4886 H	10.0C	488.600
1369	188	273	22: 0: 57	41: 7: 54	51636	-0:10	1:24	B9	7.60	7.50	83	10	53	252	1.0L	252.000
1370	184	274	22: 0: 57	41: 7: 7	51636	-0:10	0:36</td									

NRL REPORT 8173

OBJECT NO.	X	Y	R.A.	DEC.	SAO NO.	Δ R.A.	Δ DEC.	SPEC. TYPE	V MAG.	P MAG.	PEAK DEN.	NO. OF POINTS	BG	DENSITY VOLUME	EXP. & FILTER	DEN. VOL/ EXP.
1 917	310	20:36:13	-15: 6:19	163771	-0: 16	1:35	85	5.30	.00	407	159	22	19445	3.0C	6481.667	
2 929	307	20:36:19	-15: 6: 2	163771	-0:15	1:51	85	5.30	.00	375	129	96	10987	1.0L	10987.000	
3 904	303	20:36:19	-15: 6:19	163771	-0:15	1:14	85	5.30	.00	449	305	22	43641	10.0C	4264.100	
4 928	310	20:36:16	-15: 5:58	163771	-0:12	1:55	85	5.30	.00	389	171	203	16660	3.0L	5553.333	
5 913	300	20:36:29	-15: 5:33	163771	0: 1	2:21	85	5.30	.00	469	393	23	67438	30.0C	2247.933	
6 885	357	20:40:20	-15: 39:59							98	13	18	5187	3.0C	172.667	
7 858	285	20:40:20	-14: 3: 2							152	8	101	2552	1.0L	255.000	
8 797	198	20:41:42	-11:15: 6							261	9	213	2902	3.0L	96.667	
9 716	122	20:44:54	-9:42:10	149810	-0: 4	-1:22	A0	3.83	.00	357	116	19	8846	3.0L	2948.667	
10 703	111	20:44:54	-9:41:26	149810	-0: 4	-0:38	A0	3.83	.00	467	330	24	54376	L 30.0C	1812.533	
11 703	122	20:44:54	-9:40:56	149810	-0: 0	0: 8	A0	3.83	.00	328	84	21	8530	3.0C	2843.333	
12 715	119	20:45: 1	-9:32:55	149810	0: 3	-2: 7	A0	3.83	.00	223	65	91	3721	1.0L	3721.000	
13 689	116	20:45: 3	-9:42:10	149810	0: 5	-1:22	A0	3.83	.00	427	163	22	21736	10.0C	2173.600	
14 758	262	20:46:51	-12:42:32							156	6	112	1857	1.0L	185.000	
15 874	584	20:49:27	-19:53: 3	163943	0: 2	-3: 8	A0	7.18	.00	169	70	19	4737	10.0C	473.700	
16 885	592	20:49:29	-19:52:13	163943	0: 4	-2:17	A0	7.18	.00	86	30	23	1108	H 3.0C	369.333	
17 716	278	20:49:31	-12:38: 8							62	7	22	2097	3.0C	69.667	
18 896	593	20:49:33	-19:51:27	163943	0:10	-1:32	A0	7.18	.00	265	13	221	408	3.0L	136.000	
19 885	582	20:49:41	-19:53:20	163943	0:16	-3:25	A0	7.18	.00	213	167	20	14741	H 30.0C	491.367	
20 868	592	20:51:41	-19:36: 3							230	5	204	1187	3.0L	39.333	
21 569	20:52:19	-6:51:21	149498	-0:12	2: 6	A0	9.30	.00	153	10	10	40474	3.0L	4047.400		
22 707	384	20:54:44	-14:36:17	NO						45	28	24	683	30.0C	247.767	
23 693	388	20:54:55	-14:36:31	NO						44	5	19	114	10.0C	114.000	
24 584	100	20:54:58	-7:55:25	149498	-0: 1	-1: 9	A0	7.50	.00	119	97	20	5300	30.0C	176.667	
25 511	104	20:54:59	-7:56:57	149498	-0: 1	-0:31	A0	7.50	.00	104	35	19	1594	10.0C	159.000	
26 526	74	20:55: 3	-7: 5: 1	149498	-0: 8	-0:58	A0	8.70	.00	40	4	17	488	3.0C	29.333	
27 555	111	20:55: 3	-7:57:31	149498	0: 3	-3: 5	A0	7.50	.00	50	9	18	235	3.0C	78.333	
28 522	68	20:55: 3	-7: 4: 9	149498	0: 5	-0:34	A0	8.70	.00	81	37	18	1414	10.0C	141.400	
29 532	65	20:55:15	-7: 4: 9	149498	0: 5	-0:44	A0	8.70	.00	97	20	4477	30.0C	149.233		
30 594	220	20:56:25	-10:29:22	164039	-0:10	-2:25	A0	8.50	.00	93	59	21	2656	30.0C	88.533	
31 592	231	20:56:42	-10:27:55	164039	0: 6	-0:58	A0	8.50	.00	50	6	17	160	3.0C	53.333	
32 578	225	20:56:46	-10:27:16	164039	0:10	-0:19	A0	8.50	.00	79	20	18	762	10.0C	76.200	
33 796	605	20:56:48	-19:14:39	164039	0: 2	-0:50	A0	6.23	.00	180	41	21	2707	H 3.0C	902.333	
34 807	602	20:56:49	-19:14:40	164039	0: 3	-0:51	A0	6.23	.00	179	19	122	702	1.0L	702.000	
35 784	598	20:56:52	-19:15:24	164039	0: 7	-1:35	A0	6.23	.00	335	82	21	8185	10.0C	818.500	
36 807	605	20:56:53	-19:14: 8	164039	0: 7	-0:19	A0	6.23	.00	341	41	259	1965	3.0L	654.667	
37 796	595	20:56:59	-19:15:11	164039	0:13	-1:22	A0	6.23	.00	384	190	22	24146	30.0C	804.867	
38 607	367	21: 0:59	-13: 1: 4	164103	0: 7	1:10	A0	8.10	.00	71	10	19	333	3.0C	111.000	
39 594	361	21: 1: 2	-13: 1: 24	164103	0: 9	1:31	A0	9.10	.00	120	28	20	1482	10.0C	148.200	
40 603	358	21: 1:15	-12:59:58	164103	0:23	-2:56	A0	8.10	.00	138	79	26	4793	30.0C	159.767	
41 554	303	21: 1:34	-11:31:34	NO						76	18	20	649	10.0C	64.900	
42 769	659	21: 1:39	-20: 5: 2	189986	0: 6	-1:48	A3	4.93	.00	73	55	21	6283	30.0C	67.000	
43 756	662	21: 1:42	-20: 4: 0	189986	0: 9	-0:46	A3	4.93	.00	60	18	19	530	10.0C	53.000	
44 563	300	21: 2:29	-11:31:41							99	52	26	2102	30.0C	70.067	
45 460	108	21: 2:29	-11:31:41							237	80	193	2393	3.0L	797.667	
46 591	568	21: 3: 5	-17:25:25	164132	-0: 6	0:32	A0	4.19	.00	458	237	282	42654	L 30.0C	1421.800	
47 701	561	21: 3: 4	-17:26:24	164132	-0: 5	-0:15	A0	4.19	.00	318	22	173	1583	1.0L	1583.000	
48 678	557	21: 3: 6	-17:24:20	164132	-0: 3	1:38	A0	4.19	.00	399	73	31?	12750	L 10.0C	1275.000	
49 689	564	21: 3:10	-17:24:33	164132	0: 2	1:24	A0	4.19	.00	306	53	25	5226	3.0C	1742.000	
50 578	574	21: 4: 56	-17:39:34	164156	-0: 1	-0:52	A0	6.03	.00	356	177	26	20634	30.0C	687.800	
51 677	585	21: 4: 59	-17:39:29	164156	0: 2	-0:57	A0	6.03	.00	173	34	22	2034	3.0C	678.000	
52 665	578	21: 4: 59	-17:37:30	164156	0: 3	-1:57	A0	6.03	.00	304	77	24	6626	10.0C	662.600	
53 769	751	21: 5:47	-21:25:28	190050	0: 5	-1:43	A3	5.27	.00	163	23	108	806	1.0L	806.000	
54 758	755	21: 5:51	-21:26: 6	190050	0: 9	-2:21	A0	5.27	.00	188	49	23	3252	3.0C	1084.000	
55 769	754	21: 5:52	-21:24:43	190050	0:10	-0:58	A0	5.27	.00	329	42	236	2183	3.0L	727.667	
56 759	744	21: 5:55	-21:24:30	190050	0:13	-0:46	A0	5.27	.00	409	212	22	29375	30.0C	979.167	
57 747	747	21: 5:56	-21:25:14	190050	0:14	-1:30	A0	5.27	.00	341	95	21	9889	10.0C	988.900	
58 393	96	21: 7:10	-5:53:44							156	14	92	5077	1.0L	507.000	
59 372	84	21: 7:13	-5:30:43							80	12	17	4597	3.0C	153.000	
60 718	827	21:11:19	-22:27:44	190147	0:10	-2:34	A0	6.88	.00	88	42	18	1689	10.0C	168.900	
61 728	834	21:11:22	-22:27:38	190147	0:13	-2:28	A0	6.88	.00	49	6	23	145	L 3.0C	48.333	
62 448	335	21:11:30	-10:0:41	164200	-0: 5	0: 6	B9	6.49	.00	287	146	27	14027	30.0C	467.567	
63 434	339	21:11:39	-10:6:58	164200	0: 4	1:48	B9	6.49	.00	244	61	22	4730	10.0C	473.000	
64 727	825	21:11:41	-22:28:12	190147	0:31	-3: 2	A0	6.88	.00	110	113	20	5786	30.0C	192.933	
65 458	341	21:11:43	-10:9:28	164240	0: 8	-0:41	B9	6.49	.00	231	17	165	651	1.0L	651.000	
66 446	345	21:11:43	-10:9:21	164240	0: 9	1:26	B9	6.49	.00	37	26	20	1346	3.0C	484.667	
67 435	345	21:11:43	-10:9:14	164240	0:11	-0:54	B9	6.49	.00	365	194	20	6208	L 30.0C	2073.000	
68 578	739	21:12:11	-23:10:56							210	13	124	6080	1.0L	608.000	
69 743	743	21:12:29	-23:10:56							144	23	91	9307	1.0L	930.700	
70 392	289	21:12:30	-9:3:58	145256	-0:14	0: 4	A0	7.34	.00	106	62	22	3043	30.0C	101.433	
71 390	299	21:13:52	-9:21:50	145256	0: 4	0:12	A0	7.34	.00	52	6	18	161 L	3.0C	53.667	
72 376	294	21:13:57	-9:21: 7	145256	0: 9	0:55	A0	7.34	.00	92	21	18	894	L 10.0C	89.400	
73 357	223	21:14:17	-7:38: 9							135	4	96	1307	1.0L	130.000	
74 356	226	21:14:20	-7:36:33							271	7	207	2997	3.0L	99.667	

PAGE, CARRUTHERS AND HILL

CAPRICORN RA 21:14 DEC -14:30

OBJECT NO.	X	Y	R.A.	DEC.	SAO NO.	Δ R.A.	Δ DEC.	SPEC. TYPE	V MAG.	P MAG.	PEAK DEN.	NO. OF POINTS	BG	DENSITY VOLUME	EXP. & FILTER	DEN. VOL/ EXP.
101	400	464	21:21: 5	-12:19:35	164359	0: 6	-3: 4	A0	8.30	.00	275	25	201	898 H	1.0L	898.000
102	486	624	21:21:14	-16:16:28	164366	-0:21	0:12	A0	8.80	.00	96	47	42	1820	30.0C	60.667
103	617	854	21:21:15	-21:43:53							57	9	21	236?	30.0C	7.867
104	470	629	21:21:33	-16:14:31	164366	-0: 1	2: 9	A0	8.80	.00	73	16	26	528	10.0C	52.800
105	374	453	21:21:49	-12: 0:27	164372	-0: 9	-0:45	A0	9.40	.00	54	14	31	309 L	30.0C	10.300
106	439	566	21:22:39	-14: 32:22	164378	-0: 1	-2:46	A0	6.86	.00	279	16	251	423	1.0L	423.000
107	415	564	21:22:45	-14:28:38	164378	-0: 2	1: 7	A0	6.86	.00	77	18	27	610 L	10.0C	61.000
108	425	561	21:22:55	-14:28:31	164378	-0:14	-1: 6	A0	6.86	.00	106	37	46	1312 L	30.0C	43.733
109	394	594	21:24:24	-13:49:27	164400	-0:16	-1: 8	B9	6.80	.00	349	181	37	18563	30.0C	618.767
110	391	594	21:24:38	-13:48:29	164400	-0: 2	-0: 9	B9	6.80	.00	155	34	23	1921	3.0C	640.333
111	393	549	21:24:49	-13:48:19	164400	-0: 0	0: 6	B9	6.80	.00	291	71	24	613 L	10.0C	611.000
112	403	551	21:24:42	-13:49:39	164400	-0: 2	-3:19	B9	6.80	.00	286	24	22	933 H	30.0C	933.000
113	593	960	21:27:21	-23:19:19							46	4	19	10?	30.0C	3.0C
114	493	809	21:27:29	-19:35:20	NO						49	5	23	111	1.0C	11.100
115	504	806	21:27:37	-19:35:60	NO						57	27	25	704	30.0C	23.467
116	445	751	21:30: 4	-17:46:52							182	11	132	358?	1.0L	358.000
117	233	424	21:30:43	-9:57: 1	145483	-0:11	-4: 2	B9	8.10	.00	206	113	23	8951 H	30.0C	298.367
118	218	428	21:30:54	-9:56:38	145483	-0: 0	-3:39	B9	8.10	.00	177	48	16	3025	10.0C	302.500
119	242	431	21:30:55	-9:55: 2	145483	0: 0	-2: 3	B9	8.10	.00	283	26	224	922 H	3.0L	307.333
120	230	433	21:30:58	-9:57:12	145483	0: 3	-4:13	B9	8.10	.00	92	18	19	735 H	3.0C	245.000
121	242	429	21:30:60	-9:58:26	145483?	0: 5	-5:27	B9	8.10	.00	149	9	118	223	1.0L	223.000
122	533	945	21:31:27	-22: 5:31							243	12	204	339?	3.0L	113.000
123	429	896	21:33:43	-19:28:33	NO						142	83	27	4166	10.0C	416.600
124	439	853	21:33:45	-19:30:50	NO						89	18	25	700	3.0C	233.333
125	449	859	21:34: 7	-19:37:40	164520	-0:10	3:48	B5	4.72	.00	392	316	230	23540	3.0L	784.667
126	440	851	21:34: 8	-19:37: 9	164520	-0: 9	4:19	B5	4.72	.00	500	734	38	139821	30.0C	4660.700
127	448	857	21:34:11	-19:39:25	164520	-0: 6	2: 3	B5	4.72	.00	432	175	105	18540	1.0L	18540.000
128	437	860	21:34:14	-19:36:47	164520	-0: 3	4:41	B5	4.72	.00	436	256	26	30949	3.0C	10316.333
129	426	854	21:34:15	-19:35:31	164520	-0: 2	5:57	B5	4.72	.00	457	410	29	64744	10.0C	64744.000
130	432	844	21:34:28	-19:23:39	164528?	-0:22	3:45	B5	7.30	.00	368	112	34	18165 H	30.0C	605.500
131	417	818	21:34:38	-19:23: 4	164528	-0:12	4:20	B5	7.30	.00	249	51	28	5123	10.0C	512.300
132	438	853	21:34:39	-19:23:54	164528	-0:11	3:30	B9	7.30	.00	311	41	228	1717 H	3.0L	572.333
133	427	854	21:34:41	-19:23:41	164528	-0: 9	3:43	B9	7.30	.00	126	36	25	1692 H	3.0C	564.000
134	437	851	21:34:43	-19:25:39	164528	-0: 7	1:45	B9	7.30	.00	153	22	104	711 H	1.0L	711.000
135	162	411	21:35: 9	-9: 0: 7	145541	-0: 6	-4:48	A0	8.70	.00	134	100	17	5975 H	30.0C	199.167
136	174	417	21:35:11	-8:58:58	145541	-0: 4	-3:32	A0	8.70	.00	225	19	188	512 H	3.0L	170.667
137	149	414	21:35:13	-8:59:27	145541	-0: 2	-4: 9	A0	8.70	.00	102	37	17	1681 H	10.0C	168.100
138	161	419	21:35:15	-8:59:12	145541	-0: 0	-3:53	A0	8.70	.00	55	10	18	286 H	3.0L	95.333
139	285	615	21:35:22	-13:46:55	164539	-0:10	-1:22	A0	8.40	.00	135	93	23	561 H	30.0C	187.333
140	293	623	21:35:32	-13:47:39	164539	-0: 1	-2: 6	A0	8.40	.00	308	13	29	399 H	3.0L	183.000
141	270	619	21:35:32	-13:46:28	164539	-0: 0	-0:54	A0	8.40	.00	111	36	19	1679 H	10.0C	167.900
142	281	624	21:35:35	-13:46:47	164539	-0: 3	-1:14	A0	8.40	.00	65	11	21	336	3.0C	112.000
143	408	869	21:36:37	-19:26:39							65	13	24	402?	3.0C	134.000
144	370	805	21:37:00	-17:46: 7	164566	-0: 8	3:32	O3	9.30	.00	209	29	231	996	3.0L	329.667
145	348	800	21:37:40	-17:49:16	164567?	-0: 7	5:23	B3	9.30	.00	149	48	24	2650	10.0C	265.000
146	369	802	21:37:41	-17:46:52	164566	-0: 6	2:47	B3	9.30	.00	135	6	106	146 L	1.0L	146.000
147	360	797	21:37:42	-17:49:29	164567?	-0: 6	5:10	B3	9.30	.00	176	122	23	8569 H	30.0C	285.633
148	358	806	21:37:46	-17:45: 8	164566	-0: 2	4:31	B3	9.30	.00	80	16	22	580	3.0C	193.333
149	174	493	21:37:55	-10:30: 6	164570	-0: 1	-3:55	A0	8.00	.00	89	68	19	3029 H	30.0C	100.933
150	174	493	21:37:55	-10:30: 6	164572?	-0:20	-4: 3	A2	9.00	.00	89	68	19	3029 H	30.0C	100.933
151	185	499	21:37:57	-10:30:15	164570	-0: 3	-4: 4	A0	8.80	.00	227	9	197	225	3.0L	75.000
152	161	496	21:37:57	-10:31: 9	164570	-0: 3	-4:57	A0	8.80	.00	74	23	18	806	10.0C	80.600
153	382	864	21:38:18	-19: 3:35							64	7	23	2112	3.0C	70.333
154	219	592	21:39:30	-12:26:47	164584	-0:12	1:56	A2	8.30	.00	230	18	204	399?	3.0L	133.000
155	422	948	21:39:37	-20:55:49							288	25	196	1096?	3.0L	365.333
156	376	894	21:40:36	-19:39:10							64	7	20	2097	30.0C	6.967
157	305	808	21:42:25	-17:58: 5							244	10	208	278?	3.0L	92.667
158	154	597	21:42:45	-12:10: 6							48	6	17	166?	10.0C	166.000
159	152	585	21:43:52	-11:39: 8	164639	-0: 2	-3:17	A0	5.43	.00	258	28	177	1265	3.0L	421.667
160	140	587	21:43:53	-11:39:51	164639	-0: 3	-4: 0	A0	5.43	.00	120	34	21	1669	3.0C	556.333
161	129	583	21:43:53	-11:41: 7	164639?	-0: 2	-5:16	A0	5.43	.00	292	78	20	6144	10.0C	614.400
162	152	583	21:43:55	-11:41:44	164639	-0: 4	-5:53	A0	5.43	.00	136	12	100	350 L	1.0L	350.000
163	140	580	21:43:59	-11:38:40	164639	-0: 9	-2:49	A0	5.43	.00	319	171	22	19013	30.0C	633.767
164	281	832	21:44:45	-17:29:19	164653	-0: 6	2:19	B9	8.20	.00	164	129	23	8395 H	30.0C	279.833
165	288	839	21:44:54	-17:28:36	164653	-0: 3	3: 3	B9	8.20	.00	242	15	200	471	3.0L	157.000
166	267	836	21:44:55	-17:28:48	164653	-0: 4	2:51	B9	8.20	.00	123	50	20	2561	10.0C	256.100
167	277	841	21:44:58	-17:29: 7	164653	-0: 7	2:31	B9	8.20	.00	65	15	23	449	3.0C	149.667
168	149	662	21:46:56	-13: 8:38							4	18	110?	30.0C	3.667	
169	260	861	21:47:45	-13:34: 5							227	8	186	246?	3.0L	88.000
170	278	902	21:48:29	-18:30: 2							215	4	186	104?	3.0L	34.667
171	34	570	21:48:47	-19:55: 0							56	6	17	184?	10.0C	18.400
172	39	579	21:50:49	-10:31:14	164717	-0: 8	-0:22	B9	6.50	.00	392	267	18			

NRL REPORT 8173

OBJECT NO.	X	Y	R.A.	DEC.	SAO NO.	A R.A.	A DEC.	SPEC. TYPE	V MAG.	P MAG.	PEAK DEN.	NO. OF POINTS	BG	DENSITY VOLUME	EXP. & FILTER	DEN. VOL/ EXP.
1	507	980	2: 8: 33	-15:30:57	148254	0: 0	2: 2	A0	7.90	.00	82	149	46	4048 H	3.0L	1349.333
2	609	879	2:11:23	-12:20: 8							52	12	16	323?	3.0C	107.667
3	5*	835	2:15:19	-13:44:46							48	18	18	470?	10.0C	47.000
4	605	820	2:15:39	-10:31:12							49	6	16	157?	3.0C	52.333
5	189	779	2:22:20	-21:29: 1							50	8	13	225?	3.0C	75.000
6	479	800	2:26:14	-12:41:41							60	9	19	264?	8.4C	31.429
7	655	783	2:31:31	-12:41: 6	148385	-0: 1	-0:11	A0	4.90	.00	191	45	40	2909	1.0L	2909.000
8	594	785	2:31:33	-12:33:43	148385	0: 1	-2:49	A0	4.90	.00	178	13	23	12142	8.4C	1445.476
9	654	783	2:31:34	-12:32:47	148385	0: 0	-1:53	A0	4.90	.00	355	66	79	65?	3.0C	2192.000
10	596	729	2:23:34	-12:34:23	148385	0: 0	-3:29	A0	4.90	.00	269	63	16	55.19	3.0C	1839.667
11	595	727	2:23:37	-12:35:39	148385	0: 5	-4:45	A0	4.90	.00	324	125	22	1304?	10.0C	1307.700
12	391	705	2:27: 7	-16:50:60							47	5	17	152?	10.0C	15.200
13	813	691	2:30: 7	-9:11:57							103	17	75	404?	3.0L	13.667
14	177	714	2:31:57	-22:22:14							141	21	33	1166?	1.0L	1166.000
15	470	695	2:32:16	-16:20:17	NO						108	4	82	97?	3.0L	32.333
16	411	696	2:32:16	-16:20:42	NO						53	8	20	204	8.4C	24.286
17	412	639	2:32:25	-16:20:34	NO						57	12	17	357	10.0C	35.700
18	733	603	2:32:44	-9:35:51	129994	-0:14	-1:44	A0	7.16	.00	59	14	13	465	3.0C	155.000
19	733	601	2:32:48	-9:35:52	129994	-0:10	-1:45	A0	7.16	.00	115	39	17	1941	10.0C	194.100
20	733	659	2:32:49	-9:35:18	129994	-0: 9	-1:11	A0	7.16	.00	107	36	18	1666 H	8.4C	198.333
21	791	657	2:32:51	-9:36:26	129994	-0: 6	-2:20	A0	7.16	.00	112	13	76	360 L	3.0L	120.000
22	756	58*	2:34: 0	-9: 5:35	NO						47	7	20	159	10.0C	15.900
23	756	642	2:34: 2	-9: 5:10	NO						46	6	19	144	8.4C	17.143
24	682	561	2:37: 2	-11:50:55							49	5	12	136?	3.0C	45.333
25	572	567	2:41:47	-14: 4:30	148575	0: 2	-0:19	B5	4.39	.00	320	117	40	8899	1.0L	8899.000
26	571	567	2:41:52	-14: 4:5	148575	0: 0	-0:34	B5	4.39	.00	412	216	83	19729 L	3.0L	6576.333
27	513	568	2:41:60	-14: 4:42	148575	0:15	-0:32	B5	4.39	.00	419	308	22	35319	8.4C	4204.643
28	513	513	2:42: 6	-14: 4:11	148575	0:22	-0: 1	B5	4.39	.00	337	178	17	15362	3.0C	5120.667
29	513	511	2:42:10	-14: 4:14	148575	0:25	-0: 3	B5	4.39	.00	369	346	24	38604	10.0C	3860.400
30	200	589	2:42:48	-20:35:55	168025	-0:13	0:47	A0	7.06	.00	50	10	16	282 L	8.4C	33.571
31	200	529	2:43: 9	-20:35:31	168025	0: 8	1:10	A0	7.06	.00	55	13	16	379 L	10.0C	37.900
32	237	572	2:44:51	-19:56: 3							51	5	17	140?	8.4C	16.667
33	910	454	2:45:28	-15:50:56							38	4	12	94?	3.0C	31.333
34	509	503	2:47:31	-19:11:10							66	10	17	333?	8.4C	39.667
35	501	429	2:48:25	-12:31:16							41	6	13	155?	3.0C	51.667
36	309	458	2:48:39	-18:15:19							55	11	12	346?	3.0C	115.333
37	262	494	2:50:37	-20:27:33	NO						64	5	36	116	1.0L	116.000
38	203	494	2:50:38	-20:26: 1	NO						95	22	17	94?	8.4C	112.738
39	202	441	2:50:50	-20:25:36	NO						44	7	12	185	3.0C	61.667
40	261	494	2:50:52	-20:27: 5	NO						134	13	75	483	3.0L	161.000
41	202	438	2:50:59	-20:25:33	NO						101	31	16	1317	10.0C	131.700
42	27	423	2:53:23	-23:52: 6							46	5	16	123?	10.0C	12.300
43	738	349	2:53:34	-9: 8:34							101	14	12	635?	3.0C	211.667
44	717	329	2:55:25	-9:32:27							42	5	13	131?	3.0C	43.667
45	572	324	2:57: 7	-12:33:20							71	9	15	338?	10.0C	33.800
46	++7	369	2:59:40	-16:24:43							76	4	37	115?	1.0L	115.000
47	29	394	3: 0:18	-23:44:37	168249	0: 7	4:33	A3	4.16	.00	48	13	17	327 L	8.4C	38.929
48	28	340	3: 0:30	-23:42:44	168249?	0:19	6:26	A3	4.16	.00	54	19	15	539 L	10.0C	53.900
49	803	250	3: 1: 6	-7:45:32							105	20	16	852?	10.0C	85.200
50	'01	257	3: 1:12	-9:47: 5							48	5	16	140?	10.0C	14.000
51	324	307	3: 1:13	-17:42:11							63	30	15	1033?	10.0C	103.300
52	73	373	3: 1:45	-22:50:45							84	17	16	670?	8.4C	79.762
53	344	307	3: 5:34	-17:14:54							85	30	17	1168?	8.4C	139.048
54	251	304	3: 6:33	-19: 9:12	148791	-0: 5	0:22	A0	7.30	.00	116	11	73	339?	3.0L	111.000
55	250	250	3: 6:34	-19: 7:38	148791	-0: 3	1:55	A0	7.30	.00	57	12	13	370	3.0C	123.333
56	250	248	3: 6:38	-19: 7:43	148791	0: 0	1:51	A0	7.30	.00	122	32	17	1582?	10.0C	158.200
57	871	238	3: 6:41	-7:33: 2							108	11	69	335?	3.0L	111.667
58	308	304	3: 6:46	-19: 8:50	148791	0: 9	-0:16	A0	7.30	.00	116	11	73	339?	3.0L	111.000
59	462	268	3: 8: 6	-15:50:51							111	7	75	167?	8.4C	62.333
60	170	270	3: 9: 9	-20:45:23	168376	-0:11	3: 0	B9	6.90	.00	352	89	20	8978	6.4C	1068.810
61	168	217	3: 9:50	-20:44:31	168376	-0:11	3:52	B9	6.90	.00	204	52	14	3687	6.4C	1229.000
62	168	216	3: 9:53	-20:44:36	168376	-0: 8	3:47	B9	6.90	.00	325	100	17	1081.6 H	10.0C	1081.600
63	228	270	3: 9:57	-20:47:56	168376	-0: 3	0:27	B9	6.90	.00	134	25	72	537?	1.0L	1455.000
64	256	270	3:10:13	-20:47:11	168376	0:12	1:12	B9	6.90	.00	293	70	72	5465 H	3.0L	1821.667
65	292	264	3:10:17	-19:38: 0							122	30	70	1083?	3.0L	361.000
66	196	232	3:12:46	-20:10:36	168610	-0:14	1:35	A0	6.86	.00	106	32	18	1492	8.4C	177.619
67	194	177	3:12:48	-20:10:39	168610	-0:12	1:33	A0	6.86	.00	116	38	17	1897	10.0C	189.700
68	194	178	3:12:49	-20: 9:10	168610	-0:10	3: 1	A0	6.86	.00	52	11	13	328 L	3.0C	109.333
69	252	232	3:13: 8	-20:11:60	168610	-0: 9	0:11	A0	6.86	.00	104	15	70	413 L	3.0C	137.667
70	345	156	3:13:24	-17: 2:40	148864	-0: 4	-1:54	B3	8.20	.00	170	32	15	2016 H	3.0C	672.000
71	345	154	3:13:27	-17: 2:45	148864	-0: 1	-1:60	B3	8.20	.00	281	56	19	5996	10.0C	599.600
72	347	210	3:13:33	-17: 2:26	148864	0: 5	-1:40	B3	8.20	.00	280	59	21	5021	8.4C	597.738
73	404	209	3:13:37	-17: 1: 1	148864	0: 9	-0:15	B3	8.20	.00	271	47	74	3342 H	3.0L	1114.000
74	366	139	3:14:27	-16:35:49							96	39	16	1663?	10.0C	166.300
75	689	77	3:15:50	-9:58:28	130410	-0: 5	-3:40	B8	8.30	.00	44	9	17	216 L	10.0C	21.600
76	692	135	3:15:50	-9:52:59	130410	-0: 4	1:48	B8	8.30	.00	44	4	20	58 L	8.4C	10.714
77	372	114	3:16:17	-16:27:26							60	8	15	22?	10.0C	26.200
78	247	11														

PAGE, CARRUTHERS AND HILL

GRUS RA 23:34 TO 23:54 DEC -42:30 TO -40:30

OBJECT NO.	X	Y	R.A.	DEC.	SAO NO.	Δ R.A.	Δ DEC.	SPEC. TYPE	V MAG.	P MAG.	PEAK DEN.	NO. OF POINTS	BG	DENSITY VOLUME	EXP. & FILTER	DEN. VOL. EXP.	
1	380	46	0: 1:48	-50:12: 7								160	18	16	1209?	3.0C	403.000
2	622	200	0: 2:40	-46:49:12								94	37	16	164?	3.0C	51.333
3	605	477	0: 4:17	-40:12:33								45	6	14	154?	3.0C	51.333
4	682	268	0: 4:59	-44:57:18								70	11	15	415?	10.0C	41.500
5	569	29	0: 6:17	-50:21:46	231947	-0:20	4:56	B8	7.17	.00	80	26	22	917 L	10.0C	91.700	
6	835	866	0: 7:40	-31: 8:14								68	14	16	492?	3.0C	164.000
7	571	320	0: 9: 3	-43:22:24								47	4	20	97?	30.0C	3.233
8	674	461	0:12:36	-39:32:14	NO							42	5	18	110	10.0C	11.000
9	684	465	0:12:39	-39:32:53	NO							63	54	22	162?	30.0C	54.233
10	652	357	0:15: 7	-41:50:19								72	15	21	525?	30.0C	17.500
11	836	702	0:15:12	-33:53:43								87	9	22	382?	30.0C	12.733
12	807	501	0:21:44	-37:41:60	192504	0: 9	-0:44	B9	7.83	.00	76	19	16	661	3.0C	220.333	
13	793	497	0:21:44	-37:41:49	192504	0: 8	-0:34	B9	7.83	.00	165	45	18	263!	10.0C	263.100	
14	804	498	0:22: 3	-37:44:48	19250?	0:28	-3:32	B9	7.83	.00	213	117	22	9028	30.0C	300.933	
15	668	223	0:23:33	-40:11:60	215092	-0:12	-1:34	A3	3.90	.00	63	30	22	958 L	30.0C	31.933	
16	659	222	0:23:42	-43:58:46	215092	-0: 3	-1:20	A3	3.90	.00	46	5	17	130 L	10.0C	13.000	
17	808	413	0:26:43	-39:11:51								51	4	21	104?	30.0C	3.467
18	627	34	0:28:57	-47:48: 5								54	27	24	685?	30.0C	22.833
19	885	461	0:30:31	-37:38: 1								49	9	15	242?	3.0C	80.667
20	827	342	0:31: 8	-40:19:56	21514?	0:16	-7:55	B8	7.54	.00	90	106	24	8059	30.0C	268.633	
21	827	345	0:31: 8	-40:19:56	21514?	0:19	-2:11	B8	7.54	.00	64	19	14	62?	3.0C	209.000	
22	812	341	0:31:44	-40:19:49	21514?	0:21	-3:20	B8	7.54	.00	148	46	18	267?	10.0C	267.700	
23	916	358	0:40:49	-39:52:50	192690?	0:30	-8:37	A0	6.07	.00	364	211	24	2515?	30.0C	833.833	
24	942	360	0:40:51	-39:47:16	192690?	0:32	-3: 2	A0	6.07	.00	98	55	15	247?	3.0C	825.667	
25	989	356	0:40:51	-39:47:27	192690?	0:32	-3:13	A0	6.07	.00	227	108	18	8765	10.0C	876.500	
26	953	373	0:41: 2	-38:26:11	192692?	0:28	-2: 8	B8	6.00	10.10	46	18	16	438 H	3.0C	146.000	
27	939	369	0:41: 6	-38:27:24	192692?	0:32	-3:20	B8	6.00	10.10	113	66	20	3130 L	10.0C	313.000	
28	948	371	0:41: 6	-38:31: 6	192692?	0:32	-7: 2	B8	6.00	10.10	177	147	27	10283 H	30.0C	342.767	
29	91	405	22:51:13	-47:54:29								116	11	50	471?	1.0L	471.000
30	146	763	22:51:13	-40:23:44								43	5	15	121?	3.0C	40.333
31	38	348	22:54: 9	-48:58:54								55	5	15	168?	3.0C	56.000
32	191	632	22:56:53	-42:50:60								42	4	16	96?	10.0C	9.600
33	158	375	23: 0:11	-48: 5:50	231409	0: 7	1:13	B9	6.72	.00	201	39	108	1817	3.0L	605.667	
34	160	376	23: 0:14	-48: 4:52	231409	0:10	2:11	B9	6.72	.00	90	14	52	417 L	1.0L	417.000	
35	133	376	23: 0:14	-48: 4:57	231409	0:10	2: 6	B9	6.72	.00	233	74	20	5889	10.0C	588.900	
36	103	374	23: 0:24	-48: 3:31	231409	0:20	3:31	B9	6.72	.00	106	37	16	1709	3.0C	569.667	
37	349	837	23: 3:28	-37:59:23								90	6	55	165?	1.0C	165.000
38	90	753	23: 3:59	-39:10: 6	214313	-0: 8	-0:19	A0	5.59	.00	54	15	17	437?	10.0C	43.700	
39	280	779	23: 4: 0	-39:12:43	214313	-0: 7	-2:57	A0	5.59	.00	163	49	16	283?	3.0C	944.667	
40	336	777	23: 4: 1	-39:14:39	214313	-0: 6	-4:52	A0	5.59	.00	139	22	56	1013	1.0L	1013.000	
41	334	780	23: 4: 1	-39:13:26	214313	-0: 6	-3:40	A0	5.59	.00	287	41	17	2768	3.0C	922.667	
42	310	781	23: 4: 3	-39:13:38	214313	-0: 4	-3:52	A0	5.59	.00	317	88	22	812?	10.0C	812.200	
43	52	424	23:10:37	-45:40:48								55	29	18	830?	10.0C	83.000
44	370	681	23:13:29	-40:37:39	231520	0:13	1:12	A5	9.50	9.70	46	51	18	1185 H	10.0C	118.500	
45	329	527	23:15:33	-43:49:14								58	9	16	290?	10.0C	29.000
46	287	347	23:15:52	-47:41:34	231542	-0: 6	0:58	A0	6.70	.00	86	54	18	161 L	1.0L	161.000	
47	286	350	23:15:54	-47:41:25	231542	-0: 5	1:11	A0	6.70	.00	186	19	13	782?	3.0L	260.667	
48	231	318	23:15:57	-47:39:55	231542	-0: 1	2:37	A0	6.70	.00	97	20	15	866?	3.0C	266.667	
49	262	361	23:16: 1	-47:39:38	231542	-0: 3	2:53	A0	6.70	.00	205	45	18	323?	10.0C	323.100	
50	79	315	23:16: 3	-47:44: 0	231542	-0: 5	-1:29	A0	6.70	.00	47	17	16	419 L	3.0C	139.667	
51	76	309	23:16: 3	-47:44: 9	231542	-0: 4	-1:37	A0	6.70	.00	174	145	19	11007?	30.0C	366.300	
52	61	310	23:16:12	-47:44:16	231542	-0:13	-1:44	A0	6.70	.00	110	65	18	3088	30.0C	308.800	
53	239	792	23:16:32	-37:30:58								96	15	22	701?	30.0C	23.367
54	48	166	23:21:00	-50:31:17	247837	-0: 1	3:45	A3	8.87	.00	86	14	19	510?	30.0C	17.000	
55	297	839	23:19: 6	-36:28:46								91	9	50	266?	1.0L	266.000
56	470	840	23:20:12	-36:31:37								53	7	16	200?	3.0C	66.667
57	531	830	23:21:15	-34:4:21	214517	-0:14	2:53	10.50	10.78	.00	104	13	19	458?	1.0L	458.000	
58	370	935	23:23:15	-34:4:21								104	13	19	1675?	1.0L	1675.000
59	300	191	23:24:26	-50:25: 9	247880	0: 3	-0:49	B8	6.34	.00	140	36	52	1675?	1.0L	1675.000	
60	299	193	23:24:29	-50:26:18	247880	0: 6	-0:20	B8	6.34	.00	292	68	105	4734 H	3.0L	1578.000	
61	244	191	23:24:31	-50:24:32	247880	0: 7	1:26	B8	6.34	.00	207	55	15	4095 H	3.0C	1365.000	
62	275	194	23:24:31	-50:24:44	247880	0: 8	1:14	B8	6.34	.00	378	96	19	11030?	10.0C	1103.000	
63	485	614	23:25:23	-41: 0:39								179	9	127	283?	3.0L	94.333
64	453	586	23:25:52	-41:37:58								59	8	16	261?	10.0C	261.000
65	289	656	23:26:36	-39:42:42								46	4	19	100?	10.0C	100.000
66	327	315	23:28:15	-47:29: 6								44	4	17	93?	3.0C	31.000
67	476	625	23:29:12	-40:23:23								62	10	15	330?	3.0C	110.000
68	358	227	23:29:49	-49:19:56	231652?	0:12	9:34	A5	9.30	9.90	148	4	105	154?	3.0L	51.333	
69	429	926	23:29:51	-33:38:24	231652?	0: 1	-2:29	B9	4.46	.00	51	4	16	122?	3.0C	40.667	
70	558	722	23:30:18	-38:8:12	214615	0: 1	-4:15	B9	4.46	.00	434	285	21	32852	10.0C	3285.200	
71	348	714	23:30:19	-38:9:57	214615	0: 1	-4:45	B9	4.46	.00	436	282	21	32861	10.0C	3286.100	
72	356	714	23:30:19	-38:10:28	214615	0: 1	-4:45	B9	4.46	.00	483	53	32	76689	30.0C	2556.300	
73	529	719	23:30:21	-38:9:29	214615	0: 4	-3:47	B9	4.46	.00	324	135	19	12034?	3.0C	4011.333	
74	363	718	23:30:23	-38:9:18	214615	0: 5	-3:36	B9	4.46	.00	345	132	19	12629	3.0C	4209.66	

NRL REPORT 8173

GRUS RA 23:34 TO 23:54 DEC -42:30 TO -40:30																	
OBJECT NO.	X	Y	R.A.	DEC.	SAO NO.	Δ R.A.	Δ DEC.	SPEC. TYPE	V MAG.	P MAG.	PEAK DEN.	NO. OF POINTS	BG	DENSITY VOLUME	EXP. & FILTER	DEN. VOL / EXP.	
101	508	923	23:37:43	-38:59:22							91	15	25	619?	30.0C	20.633	
102	286	322	23:38:55	-36:10:31							61	10	13	328?	3.0C	109.333	
103	479	774	23:39:58	-36: 0:26							55	8	23	216?	30.0C	7.200	
104	467	711	23:40:39	-37:21:13							54	11	14	340?	3.0C	113.333	
105	695	823	23:41:20	-34:39:30	NO						55	17	17	483	3.0C	161.000	
106	725	826	23:41:31	-34:40:40	NO						123	55	18	2800	10.0C	280.000	
107	749	825	23:41:40	-34:41:39	NO						168	31	113	1054	3.0L	351.333	
108	537	825	23:41:51	-34:45:16	NO						87	11	53	294	1.0L	294.000	
109	511	819	23:41:56	-34:47: 7	NO						144	47	20	2580	10.0C	258.000	
110	518	820	23:41:56	-34:48: 1	NO						187	111	25	8098	30.0C	269.933	
111	525	823	23:41:59	-34:46:20	NO						69	16	15	584	3.0C	19.667	
112	473	277	23:42:56	-47: 5:13							37	6	16	124?	10.0C	12.400	
113	674	632	23:42:57	-38:48:47							181	6	126	220?	3.0L	73.333	
114	235	89	23:44:19	-50:31:58	248018	-0:18	-1:44	B5	5.37	.00	464	159	25?	46588	10.0C	4658.800	
115	248	92	23:44:20	-50:33:40	248018	-0:17	-3:26	B5	5.37	.00	374	216	18	30728	H 3.0C	100.667	
116	414	118	23:44:22	-50:29:30	248018	-0:15	0:44	B5	5.37	.00	403	21	25	5333	10.0C	5333.000	
117	29	91	23:44:23	-50:28:36	248018	-0:15	1:39	B5	5.37	.00	464	958	25	9307	30.0C	3113.567	
118	440	111	23:44:24	-50:29:15	248018	-0:12	1:02	B5	5.37	.00	364	176	57	19493	H 3.0L	19493.000	
119	400	117	23:44:27	-50:28:20	248018	-0:10	2: 9	B5	5.37	.00	445	295	111	35240	H 3.0L	11746.667	
120	261	95	23:44:27	-50:28:26	248018	-0: 6	3:14	B5	5.37	.00	409	73	50?	17017	1.0L	17017.000	
121	394	115	23:44:31	-50:29:26	248018	-0: 6	0:49	B5	5.37	.00	362	210	18	23079	3.0C	7693.000	
122	326	241	23:46:57	-47:18:41							45	10	13	273?	3.0L	91.000	
123	591	302	23:51:29	-45:36: 8							150	14	116	36?	3.0L	121.333	
124	424	324	23:52:29	-45: 2:20							86	11	52	299?	1.0L	299.000	
125	688	895	23:52:41	-32: 5:39	214860/	-0: 1	6:20	B3	6.05	.00	225	98	52	668?	1.0L	6688.000	
126	688	895	23:52:41	-32: 5:33	214861/	-0: 1	4: 6	A	6.73	.00	225	98	52	668?	1.0L	6688.000	
127	673	893	23:52:42	-32: 6: 6	214860/	-0: 0	5:53	B3	6.05	.00	323	117	20	12615	3.0C	4205.000	
128	673	893	23:52:42	-32: 6: 6	214861/	-0: 0	3:39	A	6.73	.00	323	117	20	12615	3.0C	4205.000	
129	659	889	23:52:46	-32: 6:22	214860/	0: 4	5:37	B3	6.05	.00	433	223	24	30818	10.0C	3081.800	
130	659	889	23:52:46	-32: 6:22	214861/	0: 4	3:23	A	6.73	.00	433	223	24	30818	10.0C	3081.800	
131	665	890	23:52:46	-32: 6: 5	214860/	0: 4	3: 8	B3	6.05	.00	482	431	30	73039	30.0C	2434.633	
132	665	890	23:52:46	-32: 6: 5	214861/	0: 4	0:54	A	6.73	.00	482	431	30	73039	30.0C	2434.633	
133	626	308	23:53:37	-45: 3: 6							92	14	52	396?	1.0L	396.000	
134	585	637	23:56: 3	-37:21:35							101	11	17	495?	10.0C	49.500	
135	497	417	23:56:51	-42:21:45	231876	0: 5	-1:40	B9	8.50	8.90	47	7	19	1797L	30.0C	5.967	
136	721	523	23:57:32	-39:39:28	214911	-0:14	1:10	B5	10.20	10.00	49	8	14	225	3.0C	75.000	
137	751	526	23:57:35	-39:39:51	214911	-0:11	0:47	B5	10.20	10.00	95	25	17	1096	10.0C	109.600	
138	776	525	23:57:45	-39:40:31	214911	-0: 1	0: 8	B5	10.20	10.00	160	9	118	276	3.0L	92.000	
139	559	526	23:57:47	-39:45:20	214911	0: 1	1:41	B5	10.20	10.00	98	62	20	2872	H 30.0C	95.733	
140	565	530	23:57:48	-39:41:53	214911	0: 2	-1:15	B5	10.20	10.00	44	4	15	113 L	3.0C	37.667	
141	551	526	23:57:52	-39:43:36	214911	0: 6	-2:58	B5	10.20	10.00	93	24	16	1068	10.0C	106.800	
142	457	271	23:59:47	-45:27:15							95	15	22	630?	30.0C	21.000	

PAVO RA 21:14 DEC -52:12																	
1	536	56	20:21:33	-56:54:37	246574	-0: 9	-0:47	B3	2.12	.00	511	997	202	333700	3.0C111233.333		
2	545	68	20:22:27	-56:51:32	246574	-0:44	2:18	B3	2.12	.00	511	1705	125?	32289	H 3.0L107631.333		
3	285	213	20:25:46	-51: 5:15							52	6	15	185?	3.0C	61.667	
4	523	115	20:27:20	-56:14:48							85	8	54	209?	1.0L	209.000	
5	366	205	20:29:28	-52:39:47							80	9	16	335?	3.0C	111.667	
6	358	222	20:29:42	-52:14:56							169	7	121	226?	3.0L	75.333	
7	135	395	20:33:36	-47: 8: 2							44	4	16	101?	3.0C	33.667	
8	386	233	20:34:23	-52:52: 9							92	38	15	1601?	3.0C	533.667	
9	540	164	20:36: 7	-56:13:21							52	4	15	123?	3.0C	41.000	
10	242	368	20:40:31	-48:58:59							45	4	16	94?	3.0C	31.333	
11	317	334	20:41:19	-50:01:09	246715	-0: 3	-0: 9	A0	7.49	.00	75	14	17	492	3.0C	164.000	
12	327	340	20:41:20	-50:39:58	246715	-0: 2	0:12	A0	7.49	.00	183	15	125	548	3.0L	182.667	
13	743	105	20:42:56	-60:17:24							52	5	15	135?	3.0C	45.000	
14	708	136	20:44:48	-59:25:20	246736	-0: 5	-0:50	A0	7.41	.00	66	26	16	859	3.0C	286.333	
15	718	142	20:44:50	-59:27:21	246736	-0: 2	-2:12	A0	7.41	.00	193	48	120	1965	H 3.0L	655.000	
16	713	143	20:44:58	-59:26:43	246736	0: 5	-1:34	A0	7.41	.00	79	12	48	314	1.0L	314.000	
17	530	242	20:45: 9	-55:22:38	246739	-0: 7	1: 5	A5	10.16	.00	45	6	16	149 H	3.0C	49.667	
18	540	247	20:45:10	-55:24:22	246739	-0: 6	-0:19	A5	10.16	.00	173	13	128	388	H 3.0L	129.333	
19	695	183	20:50:59	-50:54:42	246786	-0: 2	0:23	B9	6.46	.00	273	53	217	47?	3.0C	195.667	
20	362	393	20:51:16	-50:51:16	246786	-0: 0	0:48	B9	6.46	.00	377	57	136	475?	3.0L	195.000	
21	372	400	20:51:16	-50:51:16	246786	-0: 4	1:16	B9	6.46	.00	229	34	59	2213?	1.0L	2213.000	
22	348	402	20:51: 5	-50:53:48	246786	0: 4	1:16	B9	6.46	.00	80	4	52	101?	1.0L	101.000	
23	210	511	20:52:34	-46:58:25							48	6	16	157?	3.0C	52.333	
24	395	395	20:52:35	-51:29:58							96	8	55	239?	1.0L	239.000	
25	551	336	20:57:13	-54:48:32							132	4	106	99?	3.0L	33.000	
26	77	692	20:59: 9	-42:16:33							182	8	132	279?	3.0L	276.000	
27	353	537	21: 4:31	-49: 8:17	230536	0: 4	0:13	A0	6.84	.00	225	17	137	828	3.0C	276.000	
28	350	539	21: 4:36	-49: 8:21	230536	0: 9	0: 9	A0	6.84	.00	101	9	58	285	1.0L	285.000	
29	343	532	21: 4:42	-49: 7: 29	230536	0:15	1: 1	A0	6.84	.00	95	21</td					

PAGE, CARRUTHERS AND HILL

PAVO RA 21:14 DEC -52:12

OBJECT NO.	X	Y	R.A.	DEC.	SAO NO.	Δ R.A.	Δ DEC.	SPEC. TYPE	V MAG.	P MAG.	PEAK DEN.	NO. OF POINTS	BG	DENSITY VOLUME	EXP. & FILTER	DEN. VOL/ EXP.		
51	383	830	21:35:35	-46:20:43	230770?	-0:34	-5: 8	A0	9.00	9.40	233	36	131	1864 H	3.0L	621.333		
52	380	832	21:35:36	-46:19:32	230769?	-0:20	-0: 5	B9	9.60	9.60	100	17	56	513	1.0L	513.000		
53	380	832	21:35:36	-46:19:32	230769?	-0:33	-3:57	A0	9.00	9.40	100	17	56	513	1.0L	513.000		
54	372	825	21:35:36	-46:19:47	230769?	-0:20	-0:21	B9	9.60	9.60	84	26	18	998 H	3.0C	332.667		
55	372	825	21:35:36	-46:19:47	230770?	-0:33	-4:12	A0	9.00	9.40	84	26	18	998 H	3.0C	332.667		
56	639	658	21:42:13	-52:33:10							52	4	17	113?	3.0C	37.667		
57	560	732	21:42:21	-50:22:52							42	4	17	94?	3.0C	31.333		
58	659	665	21:43:15	-52:40:59							193	7	138	232?	3.0L	77.333		
59	669	665	21:43:42	-52:45:45							171	5	138	139?	3.0L	46.333		
60	670	663	21:45:33	-52:58:35							77	7	20	248?	3.0C	82.667		
61	811	552	21:45:35	-56:31:15	247190	0:10	-0:50	B9	6.74	.00	282	44	126	2862	3.0L	954.000		
62	801	556	21:45:39	-56:31:27	247190	0:14	-1: 3	B9	6.74	.00	181	40	18	2510	3.0C	836.667		
63	808	552	21:45:40	-56:31:17	247190	0:15	-0:53	B9	6.74	.00	126	26	55	1045	1.0L	1045.000		
64	675	663	21:46:0	-53: 3:18							62	6	22	159?	3.0C	53.000		
65	903	508	21:49:41	-58:31:15							92	7	51	211?	3.0L	211.000		
66	894	532	21:51:23	-58: 2:50							152	6	18	173?	3.0C	57.667		
67	523	885	21:52: 3	-47:51:53							195	13	129	49?	3.0L	104.000		
68	955	509	21:54:31	-59:12:55							141	115	95?	3.0L	31.667			
69	849	682	21:57:11	-56: 6:41	247282	0:11	0:43	B8	6.21	.00	260	53	122	3296	3.0L	1098.667		
70	839	681	21:57:16	-56: 6:58	247282	0:15	0:25	B8	6.21	.00	171	47	19	2992	3.0C	997.333		
71	816	687	21:57:23	-56: 7:27	247282	0:21	1:57	B8	6.21	.00	114	29	56	1024	1.0L	1024.000		
72	557	973	22: 3: 9	-52:15:19							184	4	125?	234?	3.0L	78.000		
73	734	802	22: 3:29	-52: 3:50							151	4	123	95?	3.0L	31.667		
74	569	974	22: 4:21	-47:24:17							206	5	125?	395?	3.0L	131.667		
75	566	980	22: 4:43	-47:18:25	230992	-0:23	-6:10	B5	2.16	.00	80	159	55?	714	1.0L	4385.667		
76	568	982	22: 4:57	-47:18:13	230992	-0: 8	-5:58	B5	2.16	.00	271	662	125?	3157 L	3.0L	7837.667		
77	557	981	22: 5:19	-47:13:52	230992	0:13	-1:43	B5	2.16	.00	307	269	207	23513 L	3.0C	801	3.0L	293.667
78	766	835	22: 9:28	-52: 6:12							150	4	123	95?	3.0L	31.667		
79	685	944	22:11:52	-49:28:54	NO						159	33	124	801	3.0L			
80	675	938	22:11:59	-49:29: 3	NO						46	9	21	200	3.0C	66.667		
81	742	928	22:17:11	-50:35:29							62	6	19	178?	3.0C	59.333		

MENSA RA 05:50 DEC -74:00

1	256	903	3:26: 8	-77: 9:17	NO						163	16	83	642	30.0C	21.400
2	269	904	3:28: 3	-76:55:47	255988?	2:16	-0:37	A0	6.89	.00	124	4	90	121 L	30.0C	4.033
3	237	877	3:30:15	-77:47:41							108	5	76	134?	30.0C	4.467
4	332	926	3:33: 5	-75:34: 7							131	27	87	838?	30.0C	27.933
5	177	882	3:35:58	-79:27:21	NO						164	15	68	695	30.0C	23.167
6	176	824	3:36: 5	-79:28:10	NO						65	4	29	123	10.0C	12.300
7	243	954	3:38:22	-77:57:47							110	8	74	222?	30.0C	7.400
8	171	806	3:40:40	-79:31:55							92	12	66	270?	30.0C	9.000
9	241	846	3:44:48	-78:24:39							113	7	76	181?	30.0C	6.333
10	512	981	3:44:46	-71:27:41	256025	-0:53	1:39	A0	6.54	.00	343	123	42	1587 H	10.0C	1157.900
11	513	981	3:44:49	-71:46:56	256025	-0:49	1:51	A0	6.54	.00	99	30	61	835 H	1.0C	835.000
12	511	978	3:44:50	-71:47:57	256025	-0:49	0:50	A0	6.54	.00	428	80	93?	2333 H	30.0C	781.1ED
13	514	982	3:44:52	-71:47: 5	256025	-0:47	1:41	A0	6.54	.00	249	49	140?	4267 H	3.0L	1455.760
14	531	975	3:47:29	-71:27:41							128	4	81	103?	30.0C	3.433
15	259	835	3:47:32	-77:53: 0							130	6	81	187?	30.0C	6.233
16	276	844	3:47:45	-77:28:20	NO						120	28	85	713	30.0C	23.767
17	301	861	3:47:50	-76:54:60	256028	-0: 8	-2:54	B8	8.12	.00	194	29	141	985	3.0L	328.333
18	275	866	3:47:52	-77:29:12	NO						58	5	36	108	10.0C	10.600
19	300	859	3:47:52	-76:54:32	256028	-0: 6	-2:26	B8	8.12	.00	167	55	36	3093	10.0C	309.300
20	300	855	3:48:16	-76:55:56	256028	0:17	-3:51	B8	8.12	.00	341	100	85	8663	30.0C	288.767
21	537	969	3:49:13	-71:24:40							137	8	95	236?	30.0C	7.867
22	283	838	3:51:45	-77:25:33							73	4	35	107?	10.0C	10.700
23	561	943	3:57:47	-71:12:13							96	104	39	4117?	10.0C	411.700
24	570	940	3:58:32	-71:21:13							140	7	96	210?	30.0C	7.000
25	553	934	3:59: 7	-71:25:42	256053?	-1:54	-7:22	A0	6.72	.00	103	191	42	7951	10.0C	795.100
26	562	929	4: 0:14	-71:17:46	256053	-0:46	0:34	A0	6.72	.00	143	24	96	750 L	30.0C	25.000
27	359	841	4: 0:49	-75:59: 3							118	8	88	203?	30.0C	6.767
28	604	942	4: 1:21	-70:22: 6							121	8	94	190?	30.0C	6.333
29	648	961	4: 2: 8	-69:23:47							177	5	145	125?	3.0L	41.667
30	264	791	4: 3:34	-78:12:37							115	4	84	1167	30.0C	3.867
31	294	804	4: 3:34	-77:32:11							152	8	87	3197	30.0C	10.633
32	296	794	4: 7:18	-77:35:37							128	5	87	168?	30.0C	5.600
33	463	857	4: 9:34	-73:53:31							191	7	154	196?	3.0L	65.333
34	602	897	4:11:28	-70:47: 8							90	17	39	581?	10.0C	58.100
35	817	978	4:12:18	-65:59:58							74	3	35	121?	10.0C	12.100
36	688	875	4:22:40	-69:16:52							257	17	150	912?	3.0L	304.000
37	440	789	4:24:52	-74:48:52							116	5	93	103?	30.0C	3.433
38	373	760	4:26:57	-76:44:53	NO						107	8	68	230	30.0C	7.667
39	175	699	4:31:21	-70:35:47							126	85	93	190?	30.0C	63.333
40	445	767	4:31:36	-71:18:39	LMC						109	7	66	232?	1.0L	232.000
41	606	809	4:31:36	-71:18:39	LMC						113	8	79	211?	30.0C	7.033
42	316	730	4:32: 8	-77:40:43							127	8	68	308?	1.0L	308.000
43	611	808	4:32:11	-71:12:53	LMC						113	8	89	172?	30.0C	5.733
44	441	763	4:32:15	-74:57: 2							137	31	91	938?	30.0C	31.267
45	446	761	4:33:17	-74:51:33							115	10	66	346	30.0C	11.533
46	199	691	4:33:49	-80:10:4												

NRL REPORT 8173

MENSA RA 05:50 DEC -74:00

OBJECT NO.	X	Y	R.A.	DEC.	SAO NO.	δ R.A.	δ DEC.	SPEC. TYPE	V MAG.	P MAG.	PEAK DEN.	NO. OF POINTS	BG	DENSITY VOLUME	EXP. & FILTER	DEN. VOL / EXP.	
51	514	769	4:35:27	-73:25:35	NO LMC							184	11	88	564	30.0C	18.800
52	513	771	4:35:32	-73:26:14	NO LMC							94	8	37	281	10.0C	28.100
53	203	691	4:35:34	-80: 5:58								77	6	45	15?	10.0C	14.700
54	208	689	4:35:49	-80: 0:31								145	53	65	268?	30.0C	89.400
55	279	709	4:35:52	-78: 31:38	NO							159	27	81	1160	30.0C	38.667
56	837	852	4:35:57	-66:27: 6								126	18	93	473?	30.0C	15.767
57	279	712	4:36: 9	-78: 31: 3	NO							74	9	37	248	10.0C	24.800
58	271	706	4:36:17	-78:42:17								109	4	82	98?	30.0C	3.067
59	462	752	4:36:54	-74:35:44	NO							145	22	86	733	30.0C	24.433
60	462	751	4:37: 9	-74:33:56	NO LMC							62	4	36	94	10.0C	9.400
61	725	810	4:37:15	-68:53:33	249073	-0:36	0:60	A0	8.13	.00	251	52	95	3471	30.0C	115.700	
62	725	812	4:38: 4	-68:53:16	249073	-0:7	1:17	A0	8.13	.00	112	33	41	128?	10.0C	128.400	
63	217	685	4:38:34	-79:52: 2								116	22	72	739?	30.0C	24.633
64	215	688	4:38:47	-79:53:51	NO							54	4	33	80	10.0C	8.000
65	114	655	4:39:57	-82: 0:33								128	19	61	551	30.0C	18.367
66	13	656	4:40:51	-80: 1:29	NO							128	19	61	213	10.0C	21.300
67	64	701	4:41: 7	-83: 3:10	NO							187	16	72	976	30.0C	32.400
68	65	642	4:42:27	-83: 3:37	NO							68	32	13	101	10.0C	10.300
69	532	764	4:43:35	-71: 1: 7	256122	0: 2	0:16	B9	5.69	.00	309	56	69	478?	11.0C	478? 0.00	
70	632	764	4:43:40	-71:1:17	256122	0: 7	0: 6	B9	5.69	.00	425	167	41	16736	10.0C	1673.600	
71	634	765	4:43:42	-71: 0: 8	256122	0: 9	1:15	B9	5.69	.00	433	81	162	758?	3.0C	2527.333	
72	633	761	4:43:51	-71: 0:55	256122	0:18	0:28	B9	5.69	.03	432	294	90	3165?	30.0C	1055.133	
73	639	760	4:44:25	-70:53:48	256122?	0:52	7:35	B9	5.69	.00	127	8	91	235 L	30.0C	7.833	
74	386	709	4:44:55	-76:21:56								116	8	82	219?	30.0C	7.300
75	352	699	4:45:60	-77: 6:22								103	5	80	104?	30.0C	3.467
76	671	758	4:46:17	-70:14:44								152	16	96	579?	30.0C	19.300
77	703	761	4:47: 6	-69:34:43								130	8	104	182?	30.0C	6.067
78	263	677	4:47:15	-79: 1: 4								110	12	77	296?	30.0C	9.867
79	696	756	4:47:57	-69:49:29								131	20	101	487?	30.0C	16.233
80	711	756	4:48:38	-69:26: 2								138	7	113	158?	30.0C	5.267
81	723	756	4:49:10	-69:11:18								153	11	113	360?	30.0C	12.000
82	484	712	4:49:35	-74:19:40								106	10	77	258?	30.0C	9.600
83	719	752	4:49:41	-69:16:53	NO LMC							213	120	119	4965	30.0C	165.500
84	792	768	4:49:49	-67:44:30	29120	0:50	3:23	A2	7.79	.00	214	88	100	4570 H	30.0C	152.333	
85	793	770	4:49:57	-67:42:39	29120	0:57	5:14	A2	7.79	.00	93	36	42	1250 H	10.0C	125.000	
86	719	751	4:50: 1	-69:16:28	NO LMC							89	4	67	81	10.0C	8.100
87	683	743	4:50:14	-70: 3:11								145	8	107	248?	30.0C	8.267
88	694	745	4:50:14	-69:49:12	NO LMC							179	19	124	703	30.0C	23.433
89	728	752	4:50:18	-69: 6: 2								146	4	119	99?	30.0C	3.300
90	694	747	4:50:20	-69:48:34	NO LMC							80	9	51	218	10.0C	21.800
91	684	742	4:51: 6	-70: 1:58	NO LMC							112	25	51	870	10.0C	87.000
92	711	744	4:51:12	-69:28:29								364	1063	128	59875?	30.0C	1995.833
93	712	747	4:51:17	-69:27:47	NO LMC							216	62	122	88?	3.0L	60.000
94	711	746	4:51:19	-69:27:50	NO LMC							178	69	63	89?	10.0C	89.100
95	800	769	4:51:38	-66: 7: 5								151	34	106	1078?	30.0C	35.933
96	677	735	4:51:52	-70:13:33								133	16	107	370?	30.0C	12.333
97	684	736	4:51:55	-70: 4:42	NO LMC							141	19	107	485?	30.0C	16.167
98	813	761	4:52: 6	-67:21:31	NO LMC							167	12	114	443?	30.0C	14.767
99	814	762	4:52:25	-67:19:52	NO LMC							73	11	48	244?	10.0C	24.400
100	548	727	4:52:35	-70:51: 6								130	20	92	536?	30.0C	17.867
101	740	743	4:52:35	-68:54:12								156	16	122	412?	30.0C	13.733
102	656	727	4:52:40	-70:40:59								115	5	92	110?	30.0C	3.667
103	778	750	4:52:43	-68: 6:15	NO LMC							195	36	110	173?	30.0C	57.800
104	682	731	4:52:48	-70: 8: 1	LMC							157	37	118	79?	30.0C	26.467
105	778	752	4:53: 1	-68: 5:49	NO LMC							87	14	50	38?	10.0C	38.400
106	832	761	4:53: 1	-66:58:29	NO LMC							309	333	114	19255	30.0C	61.833
107	670	728	4:53: 2	-70:23:29								150	19	105	58?	30.0C	19.467
108	832	763	4:53: 5	-66:59:12	NO LMC							190	6	169	100	3.0L	33.333
109	832	763	4:53: 5	-66:57:51	NO LMC							140	67	63	2425	10.0C	242.500
110	698	734	4:53:19	-69:47:24								77	6	54	130?	10.0C	13.000
111	686	727	4:53:56	-70: 3:53								161	6	123	143?	30.0C	4.767
112	658	722	4:54: 0	-70:39:33								164	63	104	1531?	30.0C	51.033
113	671	724	4:54: 3	-70:23: 3								138	10	105	291?	30.0C	9.700
114	725	735	4:54:16	-69:15:12	NO LMC							88	10	54	268	10.0C	26.800
115	686	728	4:54:16	-70: 3:26	NO LMC							159	65	78	2325	10.0C	232.500
116	724	734	4:54:23	-68:57: 3								143	4	130	45?	30.0C	1.500
117	739	734	4:54:23	-68:57: 3	NO LMC							174	35	122	925	30.0C	30.833
118	763	739	4:54:23	-68:26:42	NO LMC							76	5	52	441?	10.0C	10.800
119	763	731	4:54:26	-68:26: 3	NO LMC							92	16	20	441?	10.0C	229.667
120	704	730	4:54:31	-68:40:47								196	25	166	6?	3.0L	229.667
121	883	753	4:54:40	-67: 1:56	NO LMC							141	14	113	323?	30.0C	10.767
122	676	722	4:54:45	-70:17:16								309	97	115	6381?	30.0C	212.700
123	821	749	4:54:56	-67:14: 6	NO LMC							151	41	107	123?	30.0C	4.433
124	821	751	4:55: 1	-67:13:27	NO LMC							142	54	93	1691?	30.0C	56.367
125	772	737	4:55: 9	-68:16: 0								161	17	129	433?	30.0C	14.433
126	687	722	4:55:11	-70: 3:39	LMC							142	21	116	109?	30.0C	16.333
127	670	719	4:55:14	-70:25:17								439	780	115	70948	30.0C	236.932
128	806	744	4:55:16	-67:33:15								112	45	76	122?	1.0L	122.000
129	645	714	4:55:29	-70:57:15								284	321	62	18515	10.0C	1851.500
130	30	689</															

PAGE, CARRUTHERS AND HILL

MENSA RA 05:50 DEC -74:00

OBJECT NO.	X	Y	R.A.	DEC.	SAO NO.	Δ R.A.	Δ DEC.	SPEC. TYPE	V MAG.	P MAG.	PEAK DEN.	NO. OF POINTS	BG	DENSITY VOLUME	EXP. & FILTER	DEN. VOL/ EXP.		
151	704	715	4:57:51	-69:43:26	NO LMC				97	10	71	211	10.0C	21.100				
152	801	730	4:57:53	-67:43:1					166	74	114	2381?	30.0C	79.367				
153	704	712	4:57:59	-69:44:17	NO LMC				222	58	126	3121	30.0C	104.033				
154	695	713	4:57:60	-69:54:57	NO LMC				79	13	54	296	10.0C	29.600				
155	696	710	4:58:11	-69:54:34	NO LMC				186	87	125	2945	30.0C	98.167				
156	872	742	4:58:12	-66:15:33					174	4	143	107?	30.0C	3.567				
157	810	729	4:58:23	-67:32:7					155	20	113	5962	30.0C	19.867				
158	872	740	4:58:25	-66:15:43					169	24	143	193?	30.0C	6.433				
159	822	729	4:58:46	-67:17:22					148	7	113	204?	30.0C	6.800				
160	473	679	4:58:55	-74:39:60	NO LMC				189	29	75	1567	30.0C	52.233				
151	746	714	4:58:57	-68:53:10					210	80	126	3477?	30.0C	115.900				
162	707	708	4:59:3	-69:41:17					162	10	125	293?	30.0C	9.767				
163	894	743	4:59:6	-65:49:24					190	6	167	123?	30.0L	41.000				
164	672	702	4:59:16	-70:25:46					146	6	114	159?	30.0C	5.300				
165	889	739	4:59:19	-65:55:16	NO LMC				282	312	144	17692	30.0C	589.733				
166	799	722	4:59:20	-67:46:42					137	4	117	73?	30.0C	2.433				
167	472	680	4:59:21	-74:40:44	NO				66	6	30	187	10.0C	18.700				
168	889	741	4:59:23	-65:54:36	NO LMC				124	223	55	882?	10.0C	882.700				
169	704	706	4:59:25	-69:45:21					162	14	129	346?	30.0C	11.533				
170	654	698	4:59:35	-70:50:5					144	42	109	961?	30.0C	32.033				
171	739	712	4:59:37	-68:21:0					145	15	120	116?	30.0C	3.867				
172	890	739	4:59:47	-65:54:56	NO LMC				180	16	167	331?	30.0L	110.333				
173	682	703	5:0:7	-70:14:3	NO LMC				201	14	170	34?	30.0L	15.667				
174	682	702	5:0:12	-70:13:0	NO LMC				127	47	52	185?	10.0C	185.000				
175	682	699	5:0:19	-70:15:6	NO LMC				275	173	122	7718	30.0C	257.267				
176	829	722	5:0:29	-67:9:56					139	11	117	226?	30.0C	7.533				
177	722	702	5:0:42	-69:24:46	29166	-0: 4	0:31	A0	8.95	.00	196	47	131	1405?	30.0C	46.833		
178	780	712	5:0:43	-68:11:39					169	20	125	619?	30.0C	20.633				
179	721	705	5:0:46	-69:25:20	29166	-0: 0	-0: 2	A0	8.95	.00	83	7	55	169 L	10.0C	16.900		
180	721	705	5:0:46	-69:25:20	29172?	-1: 9	0:37	A3	8.32	.00	83	7	55	159	10.0C	16.900		
181	672	694	5:0:58	-70:28:13					148	8	127	128?	30.0C	4.267				
182	776	710	5:1:3	-68:16:55					185	44	125	1717?	30.0C	57.233				
183	776	712	5:1:7	-68:16:19	NO LMC				77	10	54	213	10.0C	21.300				
184	678	693	5:1:25	-70:20:55					155	24	111	76?	30.0C	25.467				
185	691	693	5:1:51	-70:44:45					150	5	114	147?	30.0C	4.900				
186	880	721	5:1:52	-66:9:45	NO LMC				201	185	117	698?	30.0C	232.900				
187	880	726	5:1:56	-66:9:5	NO LMC				85	20	54	508	10.0C	50.800				
188	664	691	5:2:2	-70:38:18					83	18	49	477?	10.0C	47.700				
189	645	686	5:2:3	-71:3:9					137	13	92	380?	30.0C	12.667				
190	651	685	5:2:31	-70:55:50					124	12	91	32?	30.0C	10.800				
191	661	688	5:2:42	-70:42:31	NO LMC				110	76	46	258?	10.0C	258.500				
192	852	714	5:2:47	-66:44:8					142	20	112	431?	30.0C	14.367				
193	767	700	5:2:48	-68:29:29					169	23	126	667?	30.0C	22.233				
194	838	711	5:2:49	-67:1:39					149	19	113	54?	30.0C	18.033				
195	488	669	5:3:3	-74:23:42	256152	0: 39	0:57	A0	6.97	.00	213	47	31	3263?	10.0C	326.300		
196	663	689	5:3:10	-70:41:2	NO LMC				269	302	111	1451?	30.0C	488.367				
197	488	669	5:3:13	-74:23:10	256152	0:46	1:29	A0	6.97	.00	122	14	69	489?	1.0L	489.000		
198	488	670	5:3:15	-74:23:26	256152	0:48	1:13	A0	6.97	.00	257	19	167	866?	3.0L	288.667		
199	488	665	5:3:16	-74:24:34	256152	0:49	0: 4	A0	6.97	.00	362	77	80	7186?	30.0C	239.533		
200	662	686	5:3:25	-70:42:43	NO LMC				201	28	168	715	3.0L	238.333				
201	8	8	5:3:39	-66:13:34					156	16	123	55?	3.0L	15.111				
202	865	711	5:3:40	-66:29:49					250	111	123	5525?	3.0L	9.557				
203	865	713	5:3:47	-66:29:8	NO LMC				103	20	51	121?	1.0L	12.625				
204	874	707	5:3:49	-67:20:15	NO LMC				199	165	56	35?	3.0L	1.9667				
205	578	686	5:3:54	-70:42:46	LMC				220	14	177?	31?	3.0L	4.333				
206	824	704	5:3:56	-67:19:57	NO LMC				298	89	117	5656?	3.0L	12.367				
207	617	685	5:3:57	-70:23:2	NO LMC				152	168	45	719?	3.0L	1.933				
208	374	690	5:3:59	-69: 8:3	NO LMC				257	124	12	2983?	3.0L	562.51				
209	824	706	5:3:60	-67:19:16	NO LMC				130	58	49	2670?	3.0L	355.333				
210	637	692	5:4:4	-69: 7:21	NO LMC				115	91	55	3-59?	1.0L	24.522				
211	677	682	5:4:6	-70:23:54	NO LMC				340	179	106	16829?	32.0C	55.251				
212	798	697	5:4:19	-67:52:48	NO LMC				208	36	134	149?	32.0C	19.822				
213	798	699	5:4:23	-67:52:6	NO LMC				91	14	55	398?	3.0L	39.822				
214	768	692	5:4:24	-68:29:18					166	18	128	536?	32.0C	17.367				
215	663	677	5:4:50	-70:45:50	LMC				258	80	105	7152?	32.0C	238.111				
216	933	710	5:5:4	-65:44:42					132	5	111	102?	32.0C	3.333				
217	786	694	5:5:10	-68: 7:40	249185	-0: 4	1:28	B9	7.83	.00	191	82	57	15392?	12.0C	53.921		
218	786	694	5:5:16	-68: 7:32	249185	0: 1	1:37	B9	7.83	.00	212	28	174	793	3.0L	864.333		
219	651	676	5:5:25	-70:56:48	LMC				88	11	42	350?	1.0L	35.000				
220	686	679	5:5:27	-70:23:33					94	16	44	60?	1.0L	60.000				
221	660	676	5:5:35	-70:44:59	LMC				106	13	78	323?	1.0L	323.000				
222	635	671	5:5:36	-71:17:56	NO LMC				123	24	84	697?	32.0C	23.233				
223	662	677	5:5:41	-70:44:1	NO LMC				240	81	176	2755?	3.0L	918.333				
224	661	676	5:5:43	-70:44:19	NO LMC				209	176	50	10592?	10.0C	125.222				
225	663	676	5:5:56	-70:41:22	NO LMC				107	15	77	383?	1.0L	383.000				
226	638	669	5:6:12	-71:14:29					111	7	84	174?	30.0C	5.800				
227	571	662	5:6:16	-72:39:26					119	6	77	197?	30.0C	6.567				
228	949	710	5:6:19	-64:49:48					355	29	101	3608?	30.0C	23.267				
229	948	712	5:6:20	-64:50:19	NO LMC				196	17	13	120?	10.0C	12.133				
230	669	673	5:6:32	-70:34:1	NO LMC				106	8	81	95?	1.0L	95.000				
231	566	661	5:6:32	-72:47: 5					130	7	78	230?	30.0C					

NRL REPORT 8173

MENSA RA 05:50 DEC -74:00

OBJECT NO.	X	Y	R.A.	DEC.	SAO NO.	Δ R.A.	Δ DEC.	SPEC. TYPE	V MAG.	P MAG.	PEAK DEN.	NO. OF POINTS	BG	DENSITY VOLUME	EXP. & FILTER	DEN. VOL/ EXP.
251	755	672	5: 8: 55	-68:48:48							206	68	59	3716?	10.0C	371.600
252	686	664	5: 9: 1	-70:13:55							113	5	82	115?	1.0L	115.000
253	756	672	5: 9: 2	-68:49:34							225	34	174	1050?	3.0L	350.000
254	686	663	5: 9: 10	-70:19: 2							123	4	77	171?	1.0L	171.000
255	722	664	5: 9: 12	-69:31:14							130	4	109	79?	30.0C	2.633
256	651	659	5: 9: 25	-70:58:17							110	4	73	107?	1.0L	107.000
257	637	654	5: 9: 47	-71:18:49							124	7	85	211?	30.0C	7.033
258	797	671	5: 9: 48	-67:57:20	NO LMC						186	45	112	168?	30.0C	56.133
259	797	673	5: 9: 52	-67:56:37	NO LMC						81	10	47	277	10.0C	27.700
260	750	666	5:10: 3	-68:56:37	NO LMC						228	24	178	792	3.0L	264.000
261	749	663	5:10: 5	-68:57:43	NO LMC						372	2164	132	74710	30.0C	2490.333
262	629	652	5:10: 6	-71:29: 5							131	40	84	1200?	30.0C	40.000
263	749	665	5:10: 9	-68:56:59	NO LMC						196	57	63	3130?	10.0C	313.000
264	629	685	5:10:15	-65:25:37							138	47	104	1329?	30.0C	44.300
265	688	655	5:10:34	-70:14:46							139	25	104	68?	30.0C	22.733
266	834	674	5:10:40	-67:12:59							192	4	171	79?	3.0L	26.333
267	703	656	5:10:40	-69:55:55							140	4	109	108?	30.0C	3.600
268	920	671	5:12:48	-65:29:27							140	32	109	938?	30.0C	31.267
269	934	673	5:12:48	-65:15:51	249221	-0:26	1:43	BB	8.45	.00	256	81	101	558?	30.0C	166.000
270	879	675	5:12:51	-65:15: 7	249221	-0:23	2:27	BB	8.45	.00	109	39	50	141?	10.0C	141.100
271	826	655	5:13: 3	-67:24:14	NO LMC						365	508	100	4056?	30.0C	1352.057
272	826	657	5:13: 1	-67:24: 5	NO LMC						98	5	76	107	1.0L	107.000
273	826	658	5:13:45	-67:24:24	NO LMC						220	59	171	184?	3.0L	614.667
274	729	696	5:13:48	-69:23: 8	NO LMC						111	13	80	342	1.0L	342.000
275	730	647	5:13:52	-69:23:26	NO LMC						254	56	183	1906	3.0L	635.333
276	357	621	5:13:52	-77:16: 4	NO						146	23	76	838	30.0C	27.933
277	730	644	5:13:54	-69:23:22	NO LMC						408	69	188	243?	30.0C	81.233
278	826	657	5:13:56	-67:23:34	NO LMC						173	307	41	1478?	10.0C	1478.400
279	730	646	5:13:58	-69:22:37	NO LMC						241	219	83	2959	10.0C	295.900
280	722	645	5:14:11	-69:33:37	NO LMC						205	8	173	207	3.0L	69.000
281	356	622	5:14:25	-77:16:39	NO						65	4	31	117	10.0C	11.700
282	870	656	5:14:37	-66:31: 5							150	20	107	607?	30.0C	20.233
283	723	643	5:14:41	-69:32:33							205	8	174	200?	3.0L	66.667
284	741	642	5:15: 7	-69: 9:16							70	7	44	163?	10.0C	16.300
285	761	670	5:15:29	-68:5: 4							118	7	94	159?	30.0C	5.300
286	820	670	5:16:36	-67:32:57							137	23	101	630?	30.0C	21.000
287	673	630	5:16:49	-70:35:26	NO LMC						64	5	37	118	10.0C	11.800
288	673	627	5:16:59	-70:36:17	NO LMC						153	37	86	1305	30.0C	43.500
289	800	634	5:17:23	-67:58:13							136	8	107	206?	30.0C	6.867
290	722	631	5:17:24	-69:33:58	NO LMC						182	369	50	14261	10.0C	1426.100
291	758	628	5:18: 7	-68:51: 4							123	4	97	94?	30.0C	3.133
292	641	619	5:18:29	-71:17: 7							122	13	75	423?	30.0C	14.100
293	737	624	5:18:31	-69:16:17							432	371	98	4937?	30.0C	1657.900
294	737	626	5:18:35	-69:15:31	NO LMC						407	314	41	2818?	10.0C	2818.800
295	737	625	5:18:39	-69:14:46	NO LMC						178	48	87	227?	1.0L	227.000
296	728	626	5:18:42	-69:15:45	NO LMC						377	69	196	5432?	3.0L	180.667
297	904	638	5:18:48	-65:5:48							144	57	105	1560?	30.0C	52.000
298	310	604	5:18:50	-78: (6:29)							106	17	76	428?	30.0C	14.267
299	673	618	5:18:56	-70:26:55							114	12	84	302?	30.0C	10.067
300	452	611	5:19: 6	-75:17:24	NO						135	11	70	456	30.0C	15.200
301	755	623	5:19:14	-69:6:11							131	5	100	132?	30.0C	4.400
302	912	636	5:19:18	-65:3:18							129	5	105	113?	30.0C	3.767
303	717	620	5:19:35	-69:10: 8	NO LMC						116	19	81	482	1.0L	482.000
304	718	621	5:19:39	-69:10:26	NO LMC						273	147	179	5766	3.0L	1922.000
305	717	618	5:19:39	-69:11:45							396	1593	97	12856?	30.0C	4285.067
306	717	620	5:19:44	-69:10:58	NO LMC						248	151	50	10025	10.0C	1002.500
307	793	623	5:19:45	-68: 7:45							159	33	122	735?	30.0C	24.500
308	331	605	5:19:57	-77:19:26							56	6	30	142?	10.0C	14.200
309	703	618	5:20: 1	-69:58:39							64	4	40	89?	10.0C	8.900
310	830	624	5:20:12	-67:22:57							164	56	126	905?	30.0C	30.167
311	847	625	5:20:12	-67:1:46	LMC						142	20	108	527?	30.0C	17.567
312	830	626	5:20:15	-67:22:10	NO LMC						71	9	44	217	10.0C	21.700
313	797	620	5:20:15	-68: 2:54							153	17	121	435?	30.0C	14.500
314	858	626	5:20:19	-66:48: 7							132	6	108	135?	30.0C	4.500
315	924	631	5:20:26	-65:28:50	NO LMC						183	40	122	1400	30.0C	46.667
316	727	618	5:20:29	-69:29:21							213	17	183	422?	3.0L	140.667
317	923	632	5:20:40	-65:29:21	NO LMC						78	13	49	324	10.0C	32.400
318	335	603	5:20:50	-77:14:34							82	9	33	288?	10.0C	28.800
319	724	615	5:21: 1	-69:32:32							146	218	51	1138?	10.0C	1138.100
320	724	615	5:21:10	-69:33:17	NO LMC						222	60	187	1368	3.0L	456.000
321	846	620	5:21:15	-67: 3:19							187	40	116	1668?	30.0C	55.600
322	909	625	5:21:17	-65:4:38	NO LMC						309	209	107	1437?	30.0C	478.233
323	846	622	5:21:19	-67: 2:32	NO LMC						81	13	50	325?	30.0C	32.500
324	824	624	5:21:20	-66: 2:27							139	5	114	157?	30.0C	5.067
325	909	627	5:21:20	-65:45:51	NO LMC						227	155	81	2973?	10.0C	287.300
326	533	605	5:21:20	-73:25:32							106	5	32	3285?	30.0C	10.333
327	349	599	5:21:31	-77:39:13	NO						189	4	161	87	3.0L	29.000
328	338	601	5:22: 4	-77:41:36	NO						415	273	114	24616	30.0C	820.533
329	338	602	5:22: 4	-67:58:24	NO LMC						127	26	80	832	1.0L	832.000
330	801	612	5:22: 8	-67:58: 2	NO LMC						298	155	48	1097?	10.0C	1097.900
331	800	613	5:22: 8	-67:57:37	NO LMC						162	7	108	276?	30.0C	9.267
332	801	614	5:22: 8	-69: 7:16	NO LMC						281	68	178	3285?	3.0L	1

PAGE, CARRUTHERS AND HILL

OBJECT NO.	X	Y	R.A.	DEC.	SAO NO.	Δ R.A.	Δ DEC.	SPEC. TYPE	V MAG.	P MAG.	PEAK DEN.	NO. OF POINTS	BG	DENSITY VOLUME	EXP. & FILTER	DEN. VOL/ EXP.	
351	877	608	5:24: 4	-66:26:44								162	58	129	1386?	30.0C	46.200
352	721	601	5:24:15	-69:38:56	NO LMC							216	11	187	280	3.0L	93.333
353	721	600	5:24:21	-69:38:18	NO LMC							135	320	46	11859	10.0C	1185.900
354	835	603	5:24:35	-67:17:49								134	9	109	208?	30.0C	6.933
355	761	598	5:24:38	-68:49: 0								139	9	123	97?	30.0C	3.233
356	759	597	5:24:47	-69: 1:34								150	24	108	74+?	30.0C	24.800
357	353	597	5:24:53	-67:15:41	NO							197	17	160	4+	3.0L	148.333
358	774	597	5:24:59	-69:32:48	NO LMC							223	30	108	1550	30.0C	51.667
359	679	593	5:25: 7	-70:32: 3								115	8	85	159?	30.0C	6.467
360	774	598	5:25:16	-69:32: 2								106	20	98	662?	10.0C	66.000
361	885	601	5:25:35	-66:17: 7	NO LMC							241	89	137	359?	30.0C	119.800
362	885	603	5:25:38	-66:16:19	NO LMC							104	27	59	855	10.0C	85.500
363	709	594	5:25:42	-69:53:36								84	30	46	857?	10.0C	85.700
364	748	595	5:25:46	-69: 4:40								92	6	59	162?	10.0C	16.200
365	857	598	5:25:49	-66:51:55								138	10	108	249?	30.0C	8.300
366	813	597	5:25:56	-67: 8: 6	LMC							143	19	106	546?	30.0C	18.200
367	868	598	5:26: 6	-66:38:18	NO LMC							215	173	108	8360	30.0C	278.667
368	766	594	5:26: 8	-68:42:11								70	7	46	156?	10.0C	15.600
369	868	600	5:26: 9	-66:37:29	NO LMC							94	23	53	681	10.0C	68.100
370	824	596	5:26:18	-67:31: 0								290	566	65	26552?	10.0C	2655.200
371	839	597	5:26:24	-67:12:20								96	6	47	227?	10.0C	22.700
372	859	595	5:26:28	-66:49:32								138	21	105	596?	30.0C	19.867
373	727	590	5:26:48	-69:31:10	LMC							110	11	64	373?	10.0C	37.300
374	341	588	5:26:50	-77:37:50	NO							63	10	31	265?	10.0C	26.500
375	710	589	5:26:55	-69:52:32								101	34	46	1278?	10.0C	127.800
376	728	590	5:26:56	-69:30:32	LMC							209	4	187	86?	3.0L	28.667
377	759	589	5:27: 3	-68:50: 8	NO LMC							140	14	94	479	1.0L	479.000
378	760	590	5:27: 7	-68:50:27								320	45	212	1857?	3.0L	619.000
379	880	593	5:27:13	-66:23:34	24929?	-2:10	5: 1	A0	B-41	.00		186	196	120	6212	30.0C	207.067
380	759	589	5:27:14	-68:51: 6								330	626	56	4530?	10.0C	4530.200
381	628	584	5:27:17	-71:36:36	NO LMC							150	44	80	1653?	30.0C	55.100
382	816	591	5:27:20	-67:41: 8								93	4	58	115?	10.0C	11.500
383	628	586	5:27:22	-71:37:21	NO LMC							62	5	38	104?	10.0C	10.800
384	854	590	5:27:30	-66:55:55	NO LMC							199	58	104	293?	30.0C	97.800
385	710	586	5:27:39	-69:52:37								103	103	41	356?	3.0L	35.600
386	828	587	5:27:47	-67:27: 3	NO LMC							420	1237	106	109690	30.0C	3656.333
387	826	588	5:27:49	-67:27:45	NO LMC							126	65	90	1505?	1.0L	1505.000
388	347	582	5:27:52	-77:31:13	LMC							130	67	75	2426?	30.0C	80.867
389	828	589	5:27:54	-67:26:50	NO LMC							281	161	217	2332?	3.0L	777.333
390	751	584	5:27:56	-69: 0:14	NO LMC							129	26	86	805	1.0L	805.000
391	854	590	5:27:58	-66:55: 8	NO LMC							94	20	45	749	10.0L	74.900
392	752	586	5:28: 1	-69: 0:33	LMC							277	46	194	2247?	3.0L	74.900
393	750	581	5:28:17	-69:3:20								450	1516	38	196254?	30.0C	6541.800
394	674	580	5:28:22	-70:38:47	NO LMC							223	58	85	3348?	30.0C	111.600
395	744	582	5:28:23	-69: 9: 3	NO LMC							137	63	85	2070?	1.0L	2070.000
396	635	579	5:28:24	-71:27:54								131	32	86	865?	30.0C	28.833
397	674	582	5:28:26	-70:37:58	NO LMC							104	25	38	919	10.0C	91.900
398	745	583	5:28:27	-69: 9:22	LMC							307	144	191	8140?	3.0L	2713.333
399	864	587	5:28:39	-66:42:47								84	8	55	2111	10.0C	21.100
400	729	581	5:28:43	-69:28:53								88	6	59	153?	0.0C	15.300
401	867	585	5:29: 5	-66:39: 6								90	18	55	457?	10.0C	45.700
402	688	575	5:29:26	-70:21:16								126	5	95	125?	30.0C	4.167
403	764	579	5:29:27	-68:45:38								268	33	208	1045?	3.0L	348.333
404	763	578	5:29:34	-68:46:20								249	126	57	9615?	10.0C	961.500
405	749	578	5:29:38	-63: 4:26								247	62	194	2200?	3.0L	733.333
406	801	576	5:29:39	-68: 0:55								147	13	102	434?	30.0C	14.467
407	836	581	5:29:40	-67:17: 0	NO LMC							220	19	190	472?	3.0L	151.333
408	693	573	5:29:57	-70:15: 2								136	120	200	308?	30.0C	107.267
409	749	576	5:29:59	-69: 3:54								192	172	59	857?	10.0C	930.000
410	741	573	5:30: 2	-69:48:39								256	50	145	1546?	30.0C	52.000
411	664	573	5:30: 6	-65:51:31	NO LMC							111	4	79	104?	1.0L	104.000
412	899	580	5:30: 9	-65:59:44	NO LMC							62	6	37	135?	10.0C	13.500
413	655	575	5:30: 9	-71: 2: 1								134	8	120	100?	30.0C	3.333
414	894	578	5:30:10	-66:7:46								115	30	47	906?	10.0C	90.600
415	664	575	5:30:11	-70:50:41	NO LMC							208	171	62	1196?	10.0C	1196.400
416	855	578	5:30:19	-66:54: 6								240	90	190	2641?	3.0L	880.333
417	855	578	5:30:21	-66:54:39								419	1071	113	133853?	30.0C	4461.767
418	836	573	5:30:39	-67:18:35	NO LMC							116	11	89	261	1.0L	261.000
419	835	574	5:30:40	-67:17:58	NO LMC							251	519	48	35968?	10.0C	3596.800
420	835	575	5:30:41	-67:19: 0	NO LMC							268	75	199	2727?	3.0L	909.000
421	836	575	5:30:44	-67:18:18	NO LMC							92	5	69	108?	30.0C	3.600
422	616	570	5:30:59	-71:52: 3								115	14	80	368?	30.0C	12.267
423	637	569	5:31: 3	-71:25:35								68	13	38	319?	10.0C	31.900
424	662	571	5:31:12	-70:53:15								270	19	205	702?	3.0L	234.000
425	764	571	5:31:18	-68:45:43	NO LMC							381	102	120	13703?	30.0C	456.767
426	764	568	5:31:22	-68:47:17	NO LMC							131	4	96	114?	30.0C	3.800
427	671	567	5:31:24	-70:42:47								228	187	51	12297?	10.0C	1229.700
428	764	570	5:31:26	-68:45:12	NO LMC							122	8	89	214?	1.0L	214.000
429	763	569	5:31:28	-68:45:24	NO LMC							356?	222	90	1576?	30.0C	525.400
430	653	566	5:31:36	-71: 5:27	NO LMC							254	109	219	336		

NRL REPORT 8173

MENSA RA 05:50 DEC -74:00

OBJECT NO.	X	Y	R.A.	DEC.	SAO NO.	A R.A.	A DEC.	SPEC. TYPE	V MAG.	P MAG.	PEAK DEN.	NO. OF POINTS	BG	DENSITY VOLUME	EXP.& FILTER	DEN.VOL/ EXP.	
451	270	569	5:32:49	-79: 8: 9	NO							144	12	80	438	30.0C	14.600
452	823	563	5:32:50	-67:31:41	NO LMC							106	4	81	92	1.0L	92.000
453	667	561	5:32:55	-70:47:51								111	7	81	1907	30.0C	6.333
454	760	563	5:33: 3	-68:51:29								88	29	51	8117	10.0C	81.100
455	269	571	5:33: 3	-79: 8: 33	NO							62	4	31	111	10.0C	11.100
456	849	564	5:33: 5	-67: 1: 38								180	23	74	13377	10.0C	133.700
457	829	562	5:33:17	-67:31:31								186	219	47	140412	10.0C	1404.100
458	825	562	5:33:21	-67:30:45								239	72	18	2494?	3.0L	831.333
459	622	560	5:33:25	-71:44: 32								106	8	79	1862	30.0C	6.200
460	876	563	5:33:31	-66:29:20								83	10	48	278?	10.0C	27.800
461	887	563	5:33:43	-66:15:41								80	8	48	220?	10.0C	22.000
462	263	566	5:33:43	-79:16:55	NO							150	20	75	942	30.0C	31.400
463	761	559	5:33:44	-68:46:28								90	5	67	1067	10.0C	10.600
464	857	561	5:33:45	-66:52:10								224	6	195	155?	3.0L	51.667
465	620	562	5:33:46	-71:46:41	NO LMC							204	4	169	110	3.0L	36.667
466	901	560	5:33:53	-65:59:11								148	4	129	60?	30.0C	2.000
467	825	559	5:33:57	-67:31:31								142	174	49	8126?	10.0C	812.600
468	264	568	5:33:57	-79:17:19	NO							69	9	34	244	10.0C	24.400
469	849	558	5:34: 6	-67: 0: 31	LMC							111	17	86	380?	1.0L	380.000
470	265	565	5:34: 9	-79:10:40								126	12	74	429?	30.0C	14.300
471	657	555	5:34:27	-71: 0: 26								109	4	86	84?	30.0C	2.800
472	455	566	5:34:41	-75:15:19	256203	0: 3	-0: 6	A0	8.33	.00	192	6	160	161	3.0L	53.667	
473	456	561	5:34:43	-75:15:19	256203	0: 3	0:47	A0	8.33	.00	246	36	65	257?	30.0C	85.700	
474	730	555	5:34:42	-69:27:40								122	4	56	1895?	10.0C	189.500
475	455	564	5:34:50	-75:15:44	256203	0:11	0:22	A0	8.33	.00	115	22	28	936?	10.0C	93.600	
476	771	551	5:35: 9	-68:38:31								150	4	114	107?	30.0C	4.000
477	851	554	5:35:15	-66:55:48	NO LMC							271	266	191	1131?	3.0L	377.333
478	899	552	5:35:19	-66: 1: 37	NO LMC							298	40	108	3732?	30.0C	124.400
479	717	553	5:35:21	-69:44:33								260	65	184	290?	3.0L	968.000
480	853	552	5:35:23	-66:55:27	NO LMC							120	36	87	942?	1.0L	942.000
481	752	552	5:35:23	-69: 1: 27								84	32	48	911?	10.0C	91.100
482	855	551	5:35:23	-66:54:57	NO LMC							423	1312	111	149860	30.0C	4995.333
483	853	553	5:35:26	-66:55:21	NO LMC							248	460	61	29169	10.0C	2916.900
484	780	549	5:35:30	-68:27:14								148	17	113	404?	30.0C	13.467
485	822	552	5:35:32	-67:35:37	NO LMC							216	4	195	79	3.0L	26.333
486	899	553	5:35:34	-66: 0: 45	NO LMC							131	32	60	1372?	10.0C	137.200
487	758	551	5:35:36	-68:53:55								93	12	48	447?	10.0C	44.700
488	822	549	5:35:39	-67:36: 2								305	127	121	9045?	30.0C	301.500
489	718	549	5:36: 0	-69:41:40	NO LMC							115	29	82	743	1.0L	743.000
490	827	548	5:36:21	-67:28:51								108	30	55	1070?	10.0C	107.000
491	756	548	5:36:25	-68:56:48								224	9	196	215?	3.0L	71.667
492	851	548	5:36:32	-66:59:25								216	5	194	104?	3.0L	3.667
493	871	545	5:36:48	-66:34:11	249322	-0: 6	1: 8	A0	6.44	.00	129	21	88	619	1.0L	619.000	
494	872	544	5:36:50	-66:34:58	249322	-0: 5	0:20	A0	6.44	.00	418	307	130	2732?	H 30.0C	910.700	
495	872	546	5:36:58	-66:34: 7	249322	-0: 3	1:12	A0	6.44	.00	348	147	55?	1098?	H 10.0C	1098.200	
496	872	546	5:36:53	-66:34:31	249322	-0: 1	0:47	A0	6.44	.00	291	55	194	2624	3.0L	874.667	
497	730	545	5:37:14	-69:29:19	NO LMC							304	214	99	758?	3.0L	2527.667
498	731	542	5:37:16	-69:28:31	NO LMC							442	2155	104	23798?	30.0C	2379.800
499	729	544	5:37:20	-69:30: 9	NO LMC							310	698	46	5399?	10.0C	5399.100
500	728	543	5:37:25	-69:30:13	NO LMC							140	38	88	1366?	1.0L	1366.000
501	853	541	5:37:31	-66:57:16								171	21	130	368?	3.0L	12.257
502	850	541	5:37:31	-66:29:38								137	5	122	5	322?	12.233
503	697	541	5:37:39	-70: 9: 56								130	10	105	178?	322?	5.933
504	847	549	5:37:45	-67: 1: 53								143	11	116	165?	322?	5.333
505	284	559	5:37:50	-78:49:39	256214	-0:50	1:16	B9	6.14	.00	362	85	55	94.5	12.200	84.150	
506	885	540	5:37:50	-66:18:44								159	5	123	129?	322?	5.322
507	732	541	5:37:53	-69:25: 9	NO LMC							117	22	86	65	322?	5.650
508	815	548	5:37:53	-67:44:34								162	43	108	1393?	322?	5.433
509	284	551	5:37:55	-78:50: 5	256214	-0:45	0:50	B9	6.14	.00	351	45	158	280?	3.200	93.667	
510	694	549	5:38: 9	-70:13:39								124	6	97	140?	30.0C	140.667
511	282	543	5:38:20	-78:50:59	256214	-0:20	-0: 4	B9	6.14	.00	186	27	70	143?	1.200	143.200	
512	284	555	5:38:28	-78:50:29	256214	-0:11	0:27	B9	6.14	.00	414	174	79	17532?	30.0C	504.400	
513	746	549	5:38:35	-69: 9: 5								222	4	199	96?	3.0L	30.000
514	748	545	5:39: 9	-69: 6: 7	NO LMC							332	194	46	1551.9	10.0C	1551.900
515	776	532	5:39:10	-68:29:24								137	4	110	97?	30.0C	3.233
516	747	534	5:39:12	-69: 6: 9	NO LMC							143	20	88	720	1.0L	720.000
517	672	535	5:39:16	-70:41:12								126	20	78	609?	30.0C	20.300
518	748	536	5:39:17	-69: 6: 28	NO LMC							312	42	199	2132?	3.0L	710.667
519	728	533	5:39:34	-69:29:56	NO LMC							116	11	84	291	1.0L	291.000
520	729	534	5:39:39	-69:30:15	NO LMC							268	38	191	1471	3.0L	490.333
521	891	530	5:39:39	-66: 8: 3								147	19	100	648?	30.0C	21.600
522	729	531	5:39:40	-69:30:45	NO LMC							394	602	98	6421.0	30.0C	214.000
523	729	533	5:39:44	-69:29:53	NO LMC							232	248	41	16299?	10.0C	1629.900
524	832	531	5:39:49	-67:22:15	249336?	-2: 0	3:15	A0	7.15	.00	94	30	47	935?	10.0C	93.500	
525	749	529	5:40:33	-69: 4: 39								87	12	54	281?	10.0C	281.000
526	733	530	5:40:34	-69:25: 5	NO LMC							240	31	195	891	3.0L	297.000
527	721	530	5:40:40	-69:01: 8	LMC							228	52	186	161?	3.0L	487.000
528	382	546	5:41: 4	-76:01:17								103	6	66	163?	30.0C	5.433
529	530	536	5:41:1														

PAGE, CARRUTHERS AND HILL

OBJECT NO.	X	Y	R.A.	DEC.	SAO NO.	A. R.A.	A. DEC.	SPEC. TYPE	V MAG.	P MAG.	PEAK DEN.	NO. OF POINTS	BG	DENSITY VOLUME	EXP. & FILTER	DEN. VOL/ EXP.	
551	808	514	5:43:35	-67:51:43	NO LMC							210	6	189	118	3.0L	39.333
552	885	510	5:43:40	-66:21:23	LMC							201	118	104	6361?	30.0C	212.033
553	781	511	5:44:20	-69:14:49	NO LMC							197	224	102	948?	30.0C	316.133
554	741	513	5:44:34	-69:13:59	NO LMC							83	8	51	211	10.0C	21.100
555	839	508	5:44:45	-67:13:42	NO LMC							148	110	53	489?	10.0C	489.700
556	839	508	5:44:47	-67:13:56	NO LMC							231	28	195	785	3.0L	261.667
557	729	509	5:44:57	-69:30:59								130	5	37	139?	30.0C	4.633
558	720	509	5:45: 3	-69:41: 1								170	13	116	477?	30.0C	14.567
559	850	503	5:45:15	-67: 1:59								98	6	66	158?	30.0C	5.267
560	414	530	5:45:38	-76: 7:15	LMC							129	12	89	376?	30.0C	12.733
561	715	504	5:46: 5	-69:47: 2								85	5	37	110?	30.0C	3.667
562	554	516	5:46:12	-73:10: 9								170	4	97	100?	30.0C	
563	810	499	5:46:19	-67:49: 5	249353	0: 4	-5:30	A0	8.13	.00	132	23	93	616 L	30.0C	20.533	
564	735	502	5:46:39	-69:19:27								115	7	82	190?	1.0L	190.000
565	465	521	5:47:24	-75: 2:27								102	6	62	187?	30.0C	6.233
566	985	487	5:47:31	-64:24: 1	NO LMC							206	50	124	1099	30.0C	63.300
567	989	489	5:47:33	-64:24:20	NO LMC							90	41	42	1259	10.0C	125.900
568	558	511	5:47:35	-73: 4:45								117	22	60	813?	30.0C	27.100
569	465	524	5:47:42	-75: 1:47	NO							229	9	163	379	3.0L	126.333
570	463	522	5:47:59	-75: 2:38	NO							109	6	68	182?	1.0L	182.000
571	801	491	5:47:59	-67:59:48	NO LMC							163	133	103	343?	30.0C	114.467
572	561	509	5:48: 6	-73: 0:50								93	6	59	165?	30.0C	5.500
573	789	489	5:48:36	-68:14:37								138	42	90	1309?	30.0C	43.633
574	709	493	5:48:50	-69:53:45								122	18	85	485?	30.0C	16.167
575	394	521	5:49:14	-76: 3:47								97	6	65	155?	30.0C	5.167
576	700	493	5:49:32	-70: 3:56	NO LMC							142	62	38	2839	10.0C	283.900
577	700	493	5:49:42	-70: 4: 5	NO							229	26	185	752?	3.0L	250.667
578	805	483	5:49:43	-67: 54:11								113	4	90	88?	30.0C	2.933
579	700	490	5:49:43	-70: 4:48	NO LMC							304	103	85	7768	30.0C	258.933
580	854	480	5:50: 5	-66: 54:13	249368	0: 9	0: 39	B8	5.15	.00	404	92	86	9713	1.0L	9713.000	
581	856	479	5:50: 5	-66: 54:15	249368	0: 9	0: 44	B8	5.15	.00	445	340	112	44190 L	30.0C	1473.000	
582	855	481	5:50:21	-66: 54:19	249368	0:24	0:30	B8	5.15	.00	459	232	49	28095 L	10.0C	2809.500	
583	855	481	5:50:23	-66: 54:26	249368	0:26	0:24	B8	5.15	.00	463	134	96	14030	3.0L	4676.667	
584	979	474	5:50:26	-67: 1:17	249373	0: 6	-0:41	A0	7.96	.00	38	8	112	110 L	30.0C	4.333	
585	792	479	5:50:49	-68:10: 2	NO LMC							175	205	30	7969	30.0C	265.633
586	791	481	5:50:52	-68:10:22	NO LMC							75	30	40	782?	10.0C	782.000
587	576	497	5:50:57	-72:41: 0								91	6	63	182?	30.0C	5.400
588	579	494	5:51:44	-72:36:57								113	14	64	421?	30.0C	14.033
589	690	481	5:52: 7	-70:16:31								127	10	96	281?	30.0C	9.367
590	246	525	5:52:18	-79:36:16								106	11	79	253?	30.0C	8.433
591	708	478	5:52:33	-69:56:10								113	4	86	100?	30.0C	3.333
592	257	528	5:52:45	-79:23: 2	256248	-0:153	-0:42	B8	5.56	.00	396	52	162	4120 L	3.0L	1373.333	
593	791	472	5:52:53	-68: 9:30	NO LMC							72	40	38	1120	10.0C	112.000
594	789	469	5:52:53	-68:12:55	LMC							176	97	96	4332?	30.0C	144.400
595	257	525	5:53: 4	-79:22:40	256248	-0:35	-0:20	B8	5.56	.00	415	121	37	1251?	10.0C	1251.400	
596	256	526	5:53:11	-79:22:34	256248	-0:28	-0:15	B8	5.56	.00	251	35	72	2365	1.0L	2365.000	
597	778	468	5:53:19	-68:26:32								108	4	85	91?	30.0C	3.033
598	727	471	5:53:35	-69:29:17								116	4	87	104?	30.0C	3.467
599	589	485	5:53:44	-72:23:34								110	16	64	476?	30.0C	15.867
600	258	521	5:53:44	-79:22: 8	256248	0: 5	0:11	B8	5.56	.00	423	266	80	26661	30.0C	888.700	
601	785	461	5:54: 5	-68:17:23								125	9	91	252?	30.0C	8.400
602	594	482	5:54:27	-72:16:57								109	32	64	992?	30.0C	33.067
603	906	452	5:55: 7	-65:53:14	NO LMC							223	51	93	2910	30.0C	97.000
604	905	455	5:55:10	-65:53:31	NO LMC							95	26	38	938	10.0C	93.800
605	590	476	5:56:12	-72:21:18								114	11	64	355?	30.0C	11.833
606	73	527	5:56:29	83: 3:42								135	11	65	439?	30.0C	14.633
607	788	453	5:56:30	-68:12:25	NO LMC							191	36	90	1624	30.0C	54.133
608	788	455	5:56:32	-68:11:26	NO LMC							81	12	38	378	30.0C	37.800
609	605	471	5:56:54	-72: 1:58								88	7	67	136?	30.0C	4.533
610	741	450	5:58:16	-69:10:36								143	18	83	661?	30.0C	22.033
611	612	465	5:58:20	-71:52:26								123	46	65	1515?	30.0C	50.500
612	773	441	5:59:20	-68:29:42	NO							150	22	87	773?	30.0C	25.767
613	773	443	5:59:36	-68:28:36	NO LMC							65	4	37	10?	10.0C	10.000
614	621	457	5:59:57	-67: 1:3								119	50	66	1653?	30.0C	55.100
615	631	448	6: 2: 1	-71: 26:24	NO							127	25	63	1233?	30.0C	11.100
616	709	436	6: 2:13	-69:48:43	NO							74	8	27	253	10.0C	25.300
617	493	467	6: 2:50	-74:23:40	NO							108	11	70	309?	30.0C	10.300
618	492	469	6: 2:59	-74:22:57	NO							125	11	70	441	30.0C	14.700
619	636	443	6: 3: 21	-77: 1:20	NO							60	4	29	105	10.0C	10.500
620	368	485	6: 3: 55	-77: 1:27	NO							163	14	62	726	30.0C	24.200
621	367	486	6: 3: 55	-75: 1:56	NO							73	7	27	223	30.0C	22.300
622	461	463	6: 3: 54	-75: 1:56	NO							202	4	167	109	3.0L	36.333
623	460	465	6: 3: 53	-75: 2:12	NO							223	7	162	283	3.0L	94.333
624	460	466	6: 3: 54	-75: 2: 8	NO							102	4	71	106	1.0L	106.000
625	893	396	6: 3: 44	-65:59:48	249448	0:39	2: 9	B9	5.83	.00	133	22	93	654?	30.0C	654.000	
626	895	395	6: 3: 47	-66: 0:12	249448	0:41	1:45	B9	5.83	.00	417	140	95	15829?	30.0C	527.633	
627	894	397	6: 3: 50	-66: 0:10	249448	0:44	1:47	B9	5.83	.00	294	40	208	1972	3.0L	657.333	
628	894	397	6: 3: 50	-66: 0:26	249448	0:44	1:31	B9	5.83	.00	356	90	40	8962	10.0C	896.200	
629	315	482	6: 3: 15	-78: 6:55													

NRL REPORT 8173

MENSA RA 05:50 DEC -74:00

OBJECT NO.	X	Y	R.A.	DEC.	SAO NO.	R.A.	DEC.	SPEC. TYPE	V MAG.	P MAG.	PEAK DEN.	NO. OF POINTS	BG	DENSITY VOLUME	EXP. # FILTER EXP.
651	780	376	6:13:32	-68:11:27					144	17	95	536?	30:00	17,567	
652	115	497	6:14: 7	-82:10:50	258438	-0:24	-2:14	BB	7.61	.00	128	47	31	2205	10:00
653	116	493	6:14:56	-82:10:11	258438	0:25	-1:35	BB	7.61	.00	271	88	74	6301	30:00
654	707	381	6:15:17	-69:42:37					109	4	87	862	30:00	2,967	
655	714	377	6:15:56	-69:33: 6					118	8	91	184?	30:00	6,133	
656	562	416	6:16: 0	-73:37:23	256286	0: 5	-0:53	BB	6.80	.00	369	106	70	8493	30:00
657	562	418	6:16: 5	-73:36:22	256286	0:10	0: 8	BB	6.80	.00	248	49	30	3780	10:00
658	521	420	6:16:10	-73:37:23	256286	0:19	-0:52	BB	6.80	.00	307	24	179	1389	3:00
659	817	344	6:16:18	-66:13:48	249497	0:41	2:37	BB	7.34	.00	389	97	97	9911	30:00
660	876	351	6:16:21	-66:13:59	249497	0:44	2:26	BB	7.34	.00	220	67	40	8880	10:00
661	876	351	6:16:22	-66:13:31	249497	0:44	2:54	BB	7.34	.00	267	22	216	77	3:00
662	520	418	6:16:27	-73:36:17	256286	0:32	-0:17	BB	6.80	.00	146	14	79	579	10:00
663	509	395	6:16:38	-71:45:22					102	4	74	93	30:00	3:00	
664	726	370	6:16:50	-69:16:58					117	9	97	139?	30:00	6,633	
665	719	370	6:17: 8	-69:25:36					118	5	87	142?	30:00	* 733	
666	723	367	6:17:39	-69:19:59					120	8	91	190?	30:00	6,333	
667	727	365	6:17:57	-69:14:36					137	21	90	653?	30:00	21,767	
668	614	389	6:17:58	-71:37:48					111	6	75	181?	30:00	6,233	
669	528	405	6:18:53	-73:27:25					96	4	72	89?	30:00	2,967	
670	614	387	6:19: 3	-71:35:33	NO				223	24	188	688	3:00	229,333	
671	590	391	6:19:14	-72: 6:29	256290	0: 7	0: 6	A0	7.96	.00	74	9	30	281 L	10:00
672	882	333	6:19:24	-5:52:22	256290	-1:49	-1:45	A0	7.96	.00	139	12	100	326?	30:00
673	591	388	6:19:27	-72: 7:17	256290	0:20	-0:42	A0	7.96	.00	181	23	76	1105 L	30:00
674	878	331	6:19:57	-66: 9:46					123	7	98	163?	30:00	5,433	
675	801	339	6:20:41	-67:41:22					124	8	96	182?	30:00	6,067	
676	635	372	6:20:50	-71: 9:30					111	56	77	1566?	30:00	58,200	
677	748	346	6:21:11	-68:45:46					122	8	95	182?	30:00	6,067	
678	644	367	6:21:39	-70:57:10	256298?	-2: 8	-2: 9	A2	8.06	.00	178	68	78	2816 H	30:00
679	643	369	6:21:57	-70:56:46	256298?	-1:49	-1:45	A2	8.06	.00	214	4	190	85 L	3:00
680	724	346	6:22:18	-69:15:13					207	41	94	238?	30:00	* 8,267	
681	637	361	6:23:32	-71: 4:16	256298?	-0:15	-9:15	A2	8.06	.00	141	92	81	3081 H	30:00
682	854	315	6:23:49	-66:35:32	NO				173	12	100	517	30:00	17,233	
683	853	317	6:24: 2	-66:34:13	NO				81	5	41	156	10:00	15,600	
684	771	327	6:24:24	-68:14: 5					121	6	98	127?	30:00	* 4,233	
685	360	426	6:24:51	-76:59: 2					103	10	75	246?	30:00	8,200	
686	779	319	6:25:49	-68: 3:27					124	12	98	267?	30:00	8,900	
687	787	311	6:27:10	-67:51:33					131	7	98	190?	30:00	6,333	
688	365	417	6:27:47	-76:51:36					109	82	78	145?	30:00	* 4,000	
689	589	356	6:28:01	-71:59: 5	NO				62	4	32	102?	10:00	10,200	
690	513	371	6:28:44	-71:52:13	NO				73	8	32	23?	30:00	21,000	
691	798	301	6:29:48	-67:36:40					130	13	98	327?	30:00	10,900	
692	590	352	6:29:50	-71:59:19	NO				147	14	84	520	30:00	17,333	
693	534	368	6:29:54	-73:11:46	NO				165	20	78	889	30:00	29,633	
694	802	299	6:29: 5	-67:32:28					122	6	99	129?	30:00	* 300	
695	746	310	6:29:13	-68:40:13					152	6	107	177?	30:00	5,900	
696	257	439	6:30:23	-79: 5: 2					99	5	72	112?	1:00	112,000	
697	343	419	6:30:31	-77:16:43	256308	-0: 4	-1:25	A0	6.98	.00	209	5	176	129 L	3:00
698	343	417	6:30:32	-77:16:53	256308	-0: 3	-1:35	A0	6.98	.00	118	22	32	1019	10:00
699	733	308	6:30:56	-68:53: 1	NO				268	13	221	419	3:00	139,667	
700	735	305	6:30:56	-68:52:10	NO				350	57	102	4791	30:00	159,700	
701	733	307	6:31: 0	-68:52:18					197	36	40	2230	10:00	223,000	
702	639	330	6:31:00	-70:54:43					304	53	97	3538	30:00	117,933	
703	344	413	6:31: 4	-77:16: 7	256308	0:30	-0:49	A0	6.98	.00	271	41	78	3095	30:00
704	820	283	6:31:47	-67: 3: 2					125	7	101	159?	30:00	5,300	
705	236	435	6:32:53	-79:31:50					120	6	81	178?	30:00	5,933	
706	668	301	6:35:46	-70:11: 7					136	72	99	1862?	30:00	62,067	
707	682	296	6:36: 8	-69:53:45					149	113	97	204?	30:00	134,700	
708	633	306	6:37:49	-70:52:10	NO				262	1	211	471	3:00	157,000	
709	633	305	6:37:52	-70:52:47	NO				163	28	37	1609	10:00	160,900	
710	634	302	6:38: 1	-70:52:20	NO				304	53	97	3538	30:00	117,933	
711	402	374	6:38:40	-75:53:35					126	7	79	231?	30:00	7,700	
712	846	242	6:38:46	-66:28:18					136	4	108	102?	30:00	3,400	
713	175	436	6:39: 2	-80:45: 3					135	22	83	764?	30:00	* 25,667	
714	877	233	6:39: 8	-65:50:30					138	5	113	118?	30:00	3,933	
715	880	232	6:39:10	-65:46:36					139	10	112	237?	30:00	7,900	
716	318	397	6:39:15	-77:42:50					109	5	83	114?	30:00	3,800	
717	884	228	6:39:46	-65:41:44					149	29	112	195?	30:00	26,500	
718	309	396	6:39:51	-77:54: 3					119	71	92	198?	30:00	66,467	
719	669	275	6:41:41	-70: 2: 4					133	23	99	624?	30:00	20,000	
720	898	214	6:41:46	-64:21:42					162	14	127	164?	30:00	12,333	
721	321	399	6:41:56	-77:36:24					123	24	100	304?	30:00	10,133	
722	283	402	6:42: 8	-78:40:58	256327	-0:17	-1:31	BB	8.80	.00	172	10	35	270 L	10:00
723	688	266	6:42:33	-69:37:60	249630	0: 4	1:22	A0	7.56	.00	250	117	106	5726 H	30:00
724	687	268	6:42:38	-69:38:49	249630	0: 9	1:17	A0	7.56	.00	114	24	40	950	10:00
725	284	298	6:42:42	-78:24: 9	256327	0:17	-0:41	BB	8.80	.00	175	29	84	1123	30:00
726	776	240	6:42:52	-67:44:11	249631	0:19	3:21	A0	6.86	.00	132	5	107	112 L	1:00
727	777	241	6:42:58	-67:44:34	249631	0:25	2:57	A0	6.86	.00	290	20	238	678	3:00
728	756	247	6:42:59	-68:10:33	NO				275	10	239	286	3:00	95,333	
729	779	238	6:42:59	-67:44:11	249631	0:26	3:31	A0	6.86	.00	385	79	113	7273	30:00
730	757	244	6:43: 3	-68:11:12	NO				340	58	109	939	30:00	164,633	
731	777	240	6:43: 7	-67:45:16	249631	0:34	2:15	A0	6.86	.00	237	54	45	3944	10:00
732	756	246	6:43: 7	-68:11:15	NO				169	38	44	2138	10:00	213,800	
733	881	212	6:43:15	-65:38:35	NO				307	50	263	1482	3:00	494,000	
734	895	209	6:43:15	-65:35:43	NO				397	150	120	1942	30:00	498,067	
735	883	211	6:43:21	-65:36:56	NO				196	86	49	5393	10:00</		

PAGE, CARRUTHERS AND HILL

OBJECT NO.	X	Y	R.A.	DEC.	SAO NO.	Δ R.A.	Δ DEC.	SPEC. TYPE	V MAG.	P MAG.	PEAK DEN.	NO. OF POINTS	BG	DENSITY VOLUME	EXP. & FILTER	DEN. VOL/ EXP.
751	611	256	6:51:27	-71: 4: 6							83	28	43	814?	10.0C	81.400
752	360	348	6:51:34	-76:35:55							118	15	31?	30.0C	11.367	
753	618	251	6:51:51	-70:54:11	256344	-0:11	-0: 6	A2	5.52	.00	434	162	45	16276	10.0C	1627.600
754	617	252	6:51:53	-70:54:32	256344	-0: 9	-0:26	A2	5.52	.00	441	73	235	6451	3.0L	2150.333
755	616	250	6:52: 2	-70:53:44	256344	-0: 0	-0:21	A2	5.52	.00	349	50	104	4290	1.0L	4290.000
756	618	248	6:52: 4	-70:54:56	256344	0: 2	-0:50	A2	5.52	.00	434	319	117	29696	30.0C	989.867
757	548	273	6:52:35	-72:27:29							149	9	111	253?	30.0C	8.433
758	442	312	6:53:32	-74:45:33							129	4	97	109?	30.0C	3.633
759	371	338	6:53:40	-76:18:43							126	14	98	296?	30.0C	9.867
760	373	336	6:54: 6	-76:15:30							138	12	93	365?	30.0C	12.167
761	650	215	6:54:17	-69:17:25							292	27	245	885?	3.0L	295.000
762	341	345	6:54:38	-76:55:51							124	18	93	451?	30.0C	15.033
763	382	311	6:54:42	-72:34:3							131	16	96	428?	30.0C	14.267
764	579	269	6:54:43	-72:35:2							136	4	112	87?	30.0C	2.900
765	373	334	6:54:46	-76:14:40							128	4	83	130?	30.0C	4.000
766	350	342	6:54:49	-76:45:17							110	9	96	220?	30.0C	7.333
767	352	341	6:54:55	-76:42:30							133	7	96	222?	30.0C	7.400
768	356	338	6:55:27	-76:36:29	NO						290	146	92	7818	30.0C	260.600
769	615	229	6:55:40	-70:25:20	256351	0: 5	0: 1	A2	7.22	.00	273	7	244	174	3.0L	58.000
770	637	225	6:55:48	-70:24:37	256351	0: 3	0:44	A2	7.22	.00	331	44	117	3505 H	30.0C	116.633
771	339	343	6:55:50	-76:58:43							120	8	90	200?	30.0C	6.667
772	356	339	6:55:52	-76:34:55	NO						133	23	35	1159	10.0C	115.900
773	636	227	6:55:54	-70:24:38	256351	0: 9	0:43	A2	7.22	.00	177	29	46	1707 H	10.0C	170.700
774	354	339	6:56:11	-76:34:48	NO						110	4	82	100	1.0L	100.000
775	355	340	6:56:16	-76:35:12	NO						232	8	185	285	3.0L	95.000
776	393	320	6:56:46	-75:46:37							192	180	91	8222?	30.0C	27.067
777	361	331	6:56:56	-76:26:51	NO						64	4	39	96	10.0C	9.600
778	392	322	6:56:57	-75:46:39	NO						84	12	36	378	10.0C	37.800
779	359	329	6:58: 8	-76:29: 3	NO						175	27	89	1193	30.0C	39.767
780	358	331	6:58:19	-76:29: 5	NO						73	5	36	138	10.0C	13.800
781	578	241	6:58:21	-71:36:47	NO						260	6	234	138	3.0L	46.000
782	523	261	6:58:22	-72:51:14	NO						334	3	105	2899	30.0C	96.633
783	580	237	6:58:25	-71:36: 6	NO						237	25	121	1333?	30.0C	44.433
784	687	194	6:58:29	-69:17: 6	NO						215	12	115	605	30.0C	20.167
785	522	263	6:58:30	-72:51:15	NO						233	23	42	1856	10.0C	185.600
786	579	239	6:58:32	-71:36: 7	NO						106	15	47	513	10.0C	51.300
787	686	196	6:58:34	-69:17: 5	NO						93	7	45	246	10.0C	24.600
788	520	262	6:58:48	-72:50:39	NO						168	13	97	546	1.0L	546.000
789	521	263	6:58:54	-72:51: 2	NO						313	12	219	711	3.0L	237.000
790	498	211	6:59: 2	-73:22:37	NO						110	15	40	620	10.0C	62.000
791	499	218	6:59:11	-73:22: 9	NO						239	28	17	682	30.0C	56.077
792	477	272	6:59:12	-73:32:50	NO						248	6	216	209	1.0L	65.667
793	227	379	6:59:18	-79:20:22	256355	-0:28	0: 39	A0	5.51	.00	288	39	170	201	3.0L	677.000
794	227	376	6:59:25	-79:20:25	256355	-0:11	0:36	A0	5.51	.00	316	61	35	5553	10.0C	555.300
795	226	377	6:59:39	-79:19:30	256355	0: -7	1:31	A0	5.51	.00	131	1	73	654	1.0L	64.000
796	788	150	7: 0: 5	-67: 9: 5							149	4	121	95?	30.0C	3.167
797	363	322	7: 0: 5	-67:22:24							122	5	90	142?	30.0C	4.733
798	229	372	7: 0: 10	-79:19:29	256355	0:24	1:32	A0	5.51	.00	398	108	87	11072 L	30.0C	369.067
799	631	206	7: 0: 36	-70:25: 8	256355	0:24	1:32	A0	5.51	.00	191	4	119	82?	30.0C	2.733
800	293	343	7: 2: 2	-77:52:45							117	4	93	88?	30.0C	2.933
801	362	317	7: 2: 15	-76:31: 4	NO						80	17	47	399	10.0C	39.900
802	364	314	7: 2: 16	-76:18: 3	NO						172	8	91	381	30.0C	12.700
803	353	323	7: 2: 21	-76:31: 4	NO						234	10	191	291?	3.0L	97.000
804	352	321	7: 2: 35	-76:30:11	NO						111	5	81	126	1.0L	126.000
805	355	314	7: 3: 26	-76:28:34	NO						316	205	91	13708	30.0C	456.933
806	354	316	7: 3: 38	-76:28:34	NO						161	62	35	3179	10.0C	317.900
807	626	195	7: 3: 42	-70:27:14	256366	0: 4	0:41	A0	7.66	.00	241	26	128	1406	30.0C	46.867
808	625	197	7: 3: 48	-70:27:13	256366	0:10	0:42	A0	7.66	.00	96	14	47	483 L	10.0C	48.300
809	354	317	7: 3: 53	-76:27:33	NO						255	9	192	368	3.0L	122.667
810	353	315	7: 4: 8	-76:26:40	NO						122	6	83	179	1.0L	179.000
811	360	309	7: 4: 26	-76:20:23							169	56	98	2289?	30.0C	76.300
812	502	243	7: 5: 27	-73: 8: 53							158	7	114	195?	6.500	
813	719	148	7: 6: 8	-68:22:34							307	21	267	590?	3.0L	196.667
814	774	123	7: 6: 30	-67:16: 5							152	6	121	163?	30.0C	5.433
815	742	127	7: 8: 7	-67:49: 9	249747	0:17	2:11	B8	7.88	.00	155	18	125	447	1.0L	447.000
816	743	128	7: 8: 12	-67:51: 9	249747	0:21	0:12	B8	7.88	.00	223	74	52	5056 H	10.0C	505.600
817	743	128	7: 8: 13	-67:49:33	249747	0:23	1:47	B8	7.88	.00	337	73	281	2387 H	3.0L	795.667
818	745	125	7: 8: 14	-67:49:36	249747	0:24	1:45	B8	7.88	.00	403	113	120	11558 H	30.0C	385.267
819	519	223	7: 8: 26	-74:41:42	NO						264	26	115	1714	30.0C	57.133
820	518	225	7: 8: 27	-72:40:32	NO						130	17	42	783	10.0C	78.300
821	518	226	7: 8: 28	-72:39:25	NO						269	7	232	193	3.0L	63.667
822	301	318	7: 9: 33	-73:31:58							132	32	107	420?	3.0L	14.000
823	680	17	7: 9: 44	-69: 5: 7							290	4	269	81?	30.0C	27.000
824	321	308	7: 11:12	-77: 6: 6							122	25	97	730?	30.0C	24.333
825	281	323	7: 11:13	-77: 5: 58							132	11	86	361?	30.0C	12.033
826	700	130	7: 11:17	-68:37:24							305	10	277	249?	3.0L	83.000
827	324	298	7: 11:40	-76:45: 6	NO						281	28	97	2223	30.0C	74.000
828	320	300	7: 11:48	-76:45:56	NO						112	10	54	384?	30.0C	38.400
829	324	302	7: 11:49	-76:58:37							183	89	89	4579?	30.0C	152.633
830	317	305	7: 11:49	-77: 8: 1							139</					

NRL REPORT 8173

MENSA RA 05:50 DEC -74:00

OBJECT NO.	X	Y	R.A.	DEC.	SAO NO.	A R.A.	A DEC.	SPEC. TYPE	V MAG.	P MAG.	PEAK DEN.	NO. OF POINTS	BG	DENSITY VOLUME	EXP. & FILTER	DEN. VOL/ EXP.
851	313	299	7:15:16	-77:4:1	NO						115	7	81	203	1.0L	203.000
852	296	304	7:15:26	-77:31:41	NO						282	24	91	2499	30.0C	83.300
853	322	291	7:15:28	-76:55:45	NO						178	26	104	853	30.0C	28.333
854	296	306	7:15:29	-77:30:30	NO						176	22	43	1089	10.0C	108.900
855	289	309	7:15:33	-77:40:3	NO						112	23	35	978	10.0C	97.800
856	617	145	7:15:34	-70:18:24							156	5	129	1177	30.0C	3.900
857	290	306	7:15:41	-77:39:34	NO						245	112	88	5024	30.0C	167.467
858	296	307	7:15:48	-77:29:17	NO						274	11	187	521	3.0L	173.667
859	295	305	7:16:	-77:28:19	NO						131	8	82	270	1.0L	270.000
860	291	302	7:16:56	-77:36:18							275	220	89	1454?	30.0C	484.800
861	317	288	7:17:15	-76:59:51	NO						139	12	91	393	30.0C	13.100
862	316	290	7:17:27	-76:59:48	NO						69	8	34	225	10.0C	22.500
863	290	305	7:17:29	-77:35:0	NO						225	8	186	228	3.0L	76.000
864	556	165	7:17:58	-71:34:19							159	5	125	141?	30.0C	4.700
865	610	139	7:18:19	-70:20:21							291	7	265	160?	3.0L	53.333
866	713	89	7:18:34	-68:7:32							340	5	318	107?	3.0L	35.667
867	294	297	7:18:36	-77:28:30							120	69	36	3235?	10.0C	323.500
868	293	296	7:19:10	-77:26:15	NO						113	7	88	129	1.0L	129.000
869	294	298	7:19:15	-77:26:41							229	11	196	228?	3.0L	76.000
870	291	297	7:19:45	-77:30:4							229	10	188	314?	3.0L	104.667
871	288	295	7:20:25	-77:31:20	NO						118	6	82	168	1.0L	168.000
872	419	226	7:20:38	-74:36:18							144	6	107	160?	3.0L	5.333
873	635	115	7:20:42	-69:42:45							335	26	282	986?	3.0L	308.667
874	286	296	7:20:57	-77:35:0							214	4	188	97?	3.0L	32.333
875	57	140	7:21:33	-71:6:4							157	10	131	215?	30.0C	7.167
876	567	140	7:22:20	-71:11:52							159	27	128	635?	30.0C	21.167
877	572	133	7:23:51	-71:44:58							157	18	127	48?	30.0C	4.933
878	676	80	7:23:51	-68:44:40							333	7	11	13?	3.0L	4.567
879	599	116	7:24:3	-70:27:19							166	18	134	27?	30.0C	14.233
880	586	123	7:24:10	-70:41:8	NO						98	18	51	598	10.0C	59.800
881	589	120	7:24:17	-70:40:42	NO						226	66	127	299?	30.0C	99.900
882	686	71	7:24:45	-68:29:44							340	8	313	191?	3.0L	63.667
883	556	133	7:25:15	-71:20:21	256408	0: 5	1:52	A2	6.52	.00	177	15	131	456 L	30.0C	15.200
884	598	110	7:25:42	-70:23:20	NO						174	16	54	889	10.0C	88.900
885	606	104	7:25:42	-70:13:26							174	38	130	1052?	30.0C	35.067
886	597	109	7:25:43	-70:20:58	NO						153	4	126	99	1.0L	99.000
887	598	108	7:25:43	-70:24:34	NO						289	95	128	4232?	30.0C	141.067
888	598	111	7:25:49	-70:21:23							340	6	289	188?	3.0L	62.667
889	561	122	7:27:3	-71:10:17							159	9	133	202?	30.0C	6.733
890	361	228	7:28:49	-75:41:52							128	8	97	208?	30.0C	6.933
891	354	225	7:31:53	-75:43:21							278	9	209	392?	3.0L	130.667
892	353	223	7:32:5	-75:43:20	NO						122	4	87	131	1.0L	131.000
893	587	72	7:35:13	-70:15:52							334	6	310	132?	3.0L	44.000
894	296	242	7:35:56	-76:58:13	256426	0: 36	0: 4	A0	7.31	.00	102	22	38	856	10.0C	85.600
895	298	238	7:36:11	-76:56:2	256426	0:51	2:16	A0	7.31	.00	250	40	100	2579	30.0C	85.967
896	415	168	7:36:54	-79:10:13	256428	0:32	-0:29	B9	6.46	.00	367	64	46	6623	10.0C	662.300
897	414	169	7:36:59	-79:8:40	256428	0:35	1: 5	B9	6.46	.00	369	47	244	2501?	3.0L	833.667
898	413	168	7:37:2	-79:9:20	256428	0:38	0:25	B9	6.46	.00	163	21	103	790	1.0L	790.000
899	416	165	7:37:3	-79:9:45	256428	0:39	-0: 1	B9	6.46	.00	410	122	115	1153?	30.0C	384.467
900	314	224	7:37:37	-76:59:50	NO						191	17	103	776	30.0C	25.867
901	314	226	7:37:35	-76:30:24	NO						87	8	40	251	10.0C	25.100
902	579	51	7:40:	-70:18: 6	NO						242	51	141	2618	30.0C	87.267
903	578	53	7:40:10	-70:17:54	NO						104	26	62	765	10.0C	76.500
904	480	106	7:42:20	-72:28:39	NO						209	52	128	2572?	30.0C	85.733
905	479	107	7:42:25	-72:27:54	NO						90	26	49	806	10.0C	80.800
906	542	61	7:43:21	-70:55:49	NO						397	17	350?	50	3.0L	100.000
907	501	86	7:43:34	-71:56:49	NO						154	4	127	90?	30.0C	3.000
908	58	158	7:43:37	-76:59:50	NO						248	100	14	567?	30.0C	181.233
909	51	74	7:43:48	-70:31:56	NO						163	64	60	4291	10.0C	429.100
910	540	59	7:43:56	-70:56:16	NO						210	50	144	194?	1.0L	1942.000
911	405	138	7:45:49	-74:24:24							155	13	117	378?	30.0C	12.600
912	59	351	7:45:31	-82:14:14							133	5	100	130?	3.0L	4.333
913	490	83	7:45:48	-72:6:37							170	7	126	205?	30.0C	6.833
914	96	327	7:46:6	-81:22:21							112	4	90	85?	3.0L	2.833
915	556	29	7:48:8	-70:26:27							370	6	350?	160	3.0L	53.333
916	407	124	7:48:18	-73:57:46	256448	0: 33	0:10	A0	8.27	.00	146	7	120	157 L	30.0C	5.233
917	23	7:49:27	-70:31:44								253	130	145	483?	30.0C	16.100
918	334	165	7:51:31	-75:32:22							302	37	233	1397?	3.0L	465.667
919	526	26	7:53: 8	-70:53:24							363	4	350?	100	3.0L	33.333
920	524	19	7:54:20	-70:57:36							144	202	141?	721?	30.0C	240.460
921	95	301	7:57:58	-81: 6:59							126	12	95	342?	30.0C	11.400
922	89	302	7:59:22	-81:13:44							125	14	96	352?	30.0C	11.733
923	91	300	7:59:37	-81:10:17							129	21	94	594?	30.0C	19.800
924	311	138	8: 2:39	-75:39:51							275	6	238	179?	3.0L	59.667
925	462	25	8: 3:31	-71:59:42	NO						87	11	62	237?	10.0C	23.700
926	464	21	8: 3:37	-71:59:17	NO						189	218	133?	233?	30.0C	74.400
927	242	143	8:14:30	-76:57:14							130	16	92	487?	30.0C	16.233
928	221	158	8:14:51	-77:28:22							117	5	93	111?	30.0C	3.700
929	233	149	8:14:52	-77:10:39							159	60	91	230?	30.0C	76.910
930	205	169	8:15:30	-77:50:43							157	66	94	761?	30.0C	58.000
931	198	170	8:15:43	-78:2:24							169	46	99	180?	30.0C	52.000
932	211	184	8:15:45	-77:41:57							118	11	93	244?	30.0C	8.133
933	185	183	8:15:59	-78:2												

PAGE, CARRUTHERS AND HILL

OBJECT NO.	X	Y	R.A.	DEC.	SAC NO.	Δ R.A.	Δ DEC.	SPEC. TYPE	V MAG.	P MAG.	PEAK DEN.	NO. OF POINTS	BG	DENSITY VOLUME	EXP. & FILTER	DEN VOL / EXP.	
1	687	60	16:11:47	-57:47:22	243509	0: 6	-0: 9	A2	5.66	.00	68	4	36	107 L	4.1C	26.098	
2	935	274	16:14: 8	-64:31: 7	N0							11	235	268	3.0L	89.333	
3	678	79	16:14:13	-57:54:13	24351?	0:21	1:35	A	8.89	8.68	264	5	331	119?	3.0L	39.667	
4	931	272	16:14:16	-64:25:38	N0							13	234	282	3.0L	94.000	
5	931	270	16:14:20	-64:22:57	N0							70	27	29	823	4.1C	200.732
6	667	68	16:14:28	-57:33:36	243572	-0: 1	0:52	B5	8.44	8.14	65	13	37	312 L	4.1C	76.098	
7	933	266	16:14:29	-57:22: 7	N0							58	21	28	465	3.0C	155.000
8	675	78	16:14:31	-57:48:22	243571?	0: 3	0:40	B8	9.42	9.29	375	94	333	2104	3.0L	701.333	
9	673	78	16:14:31	-57:48:22	243581?	0: 6	1: 5	N	9.64	9.67	375	94	333	2104	3.0L	701.333	
10	673	78	16:14:31	-57:48:22	243583	0: 8	0:12	B8	7.84	7.61	375	94	333	2104	3.0L	701.333	
11	673	78	16:14:31	-57:48:22	243584?	0:10	1: 0	N	8.81	8.50	375	94	333	2104	3.0L	701.333	
12	676	76	16:14:34	-57:47:47	243563?	-0:20	-3:37	A0	9.78	9.65	112	89	37	3802 H	4.1C	927.317	
13	676	76	16:14:34	-57:47:47	243571?	0: 5	1:16	B8	9.42	9.29	12	89	37	3802 H	4.1C	927.317	
14	676	76	16:14:34	-57:47:47	243581?	0: 4	1:41	N	9.64	9.67	112	89	37	3802 H	4.1C	927.317	
15	676	76	16:14:34	-57:47:47	243583	0: 6	0:48	B8	7.84	7.61	12	89	37	3802 H	4.1C	927.317	
16	676	76	16:14:34	-57:47:47	243594?	0: 7	1:36	B8	8.81	8.50	12	89	37	3802 H	4.1C	927.317	
17	677	72	16:14:36	-57:47:2	243623?	0:22	-2:52	A0	9.78	9.55	63	60	29	2046 H	3.0C	682.000	
18	677	72	16:14:36	-57:47:2	24361?	0: 8	2: 1	B8	9.42	9.29	83	60	29	2046 H	3.0C	682.000	
19	677	72	16:14:36	-57:47:2	24361?	0: 2	2:26	N	9.64	9.67	83	60	29	2046 H	3.0C	682.000	
20	677	72	16:14:36	-57:47:2	24363?	0: 4	1:33	B8	7.84	7.61	83	60	29	2046 H	3.0C	682.000	
21	677	72	16:14:36	-57:47:2	24364?	0: 5	2:21	B8	8.81	8.50	83	60	29	2046 H	3.0C	682.000	
22	677	72	16:14:36	-57:47:2	243605?	0:33	-0:40	B5	9.28	9.03	83	60	29	2046 H	3.0C	682.000	
23	934	274	16:14:37	-64:28:52	N0							54	9	30	194	4.1C	+7.317
24	680	84	16:14:40	-57:59:49	243582	0: 2	1: 2	B8	8.63	8.29	349	13	330	199?	3.0L	66.333	
25	797	172	16:14:55	-61: 0:13	253503	0:40	0:37	B8	9.00	8.67	59	10	30	255 L	4.1C	62.195	
26	671	80	16:14:56	-57:46:39	243571?	0:18	2:24	B8	9.42	9.29	169	14	192	324	1.0L	324.000	
27	671	80	16:14:56	-57:46:39	243581?	0: 9	2:49	N	9.64	9.67	169	14	192	324	1.0L	324.000	
28	671	80	16:14:56	-57:46:39	243583	0: 7	1:55	B8	7.84	7.61	169	14	192	324	1.0L	324.000	
29	671	80	16:14:56	-57:46:39	243594?	0: 5	2:44	B8	8.81	8.50	169	14	192	324	1.0L	324.000	
30	671	80	16:14:56	-57:46:39	243605?	-0:22	-0:18	B5	9.28	9.03	169	14	192	324	1.0L	324.000	
31	671	80	16:14:56	-57:46:39	24361?	-0:29	-0:45	B8	9.11	8.83	169	14	192	324	1.0L	324.000	
32	794	174	16:14:56	-60:59:49	253503	-0:31	1: 2	B8	9.00	8.67	293	8	266	188 L	3.0L	62.667	
33	880	239	16:15:18	-63:10:21	253508	0:10	1: 4	A5	9.30	9.29	51	4	28	89	4.1C	21.707	
34	812	189	16:15:27	-61:28:1	253507	0:34	1:15	B8	8.92	8.55	58	16	30	386	4.1C	94.146	
35	809	190	16:15:28	-61:26:53	253507	0:33	2:23	B8	8.92	8.55	288	8	266	160 L	3.0L	53.333	
36	689	100	16:16: 5	-57:46:39	24364?	0:10	-0:10	B8	8.70	8.22	67	13	35	335 L	4.1C	81.707	
37	688	103	16:16: 6	-57:46:39	24364?	0: 9	-2:27	B8	7.80	8.22	336	7	316	119 L	3.0L	39.667	
38	688	103	16:16: 6	-57:46:39	24364?	0:13	4:22	A0	9.92	9.78	336	7	316	119 L	3.0L	39.667	
39	673	112	16:16:12	-58:12:39	243679?	0:55	3:26	A0	9.43	9.48	183	7	30	189 H	1.0L	189.000	
40	733	163	16:16:17	-58:14:40	243701?	0:20	-0:41	A0	9.19	9.11	502	4	278	91 L	3.0L	30.333	
41	742	165	16:19:4	-60:59:21	24371?	0:20	-0:5	A0	9.19	8.91	59	12	30	297	4.1C	72.439	
42	742	165	16:19:4	-60:59:21	24372?	0:20	-0:5	A0	9.20	9.17	59	12	30	297	4.1C	72.439	
43	742	165	16:19:4	-60:59:21	243529?	0:15	-0:45	A0	9.03	8.59	59	12	30	297	4.1C	72.439	
44	714	153	16:19:10	-69:26:28	243738?	0:11	-0:11	B8	9.40	9.03	308	14	279	327	3.0L	109.000	
45	555	39	16:19:42	-55:19:52	243741	0:18	-0:26	B5	7.74	7.40	400	40	362	400 L	3.0L	133.333	
46	717	152	16:19:42	-59:27:43	243739?	0: 8	-1: 4	B8	9.40	9.03	62	12	31	301	4.1C	73.415	
47	553	41	16:19:49	-55:19:55	243741	0:10	-1:14	B5	7.74	7.40	195	29	149	889	1.0C	889.000	
48	559	33	16:19:49	-55:20:19	243741	0:10	-0:2	B5	7.74	7.40	122	47	34	2174	3.0L	72.667	
49	557	37	16:19:54	-55:20:5	243741	0: 5	-0:12	B5	7.74	7.40	180	63	357	4244 H	4.1C	1035.024	
50	856	255	16:19:57	-62:59: 5	253532?	0:23	-0:19	A2	9.70	9.52	51	5	27	110 H	4.1C	26.829	
51	523	23	16:19:59	-54:33:57	243750	-0:24	2:41	B3	8.08	0.00	175	107	156?	160 L	1.0L	160.000	
52	547	32	16:19:59	-55: 3: 37	243748	-0:16	0:38	B8	7.86	0.00	93	37	39	1267	4.1C	309.024	
53	549	28	16:20: 6	-55: 5: 29	243748	0: 9	0:46	B8	7.86	0.00	67	20	29	581 L	3.0C	193.667	
54	752	181	16:20: 7	-60:23:52	253535	-0:23	0: 7	B9	9.24	8.89	55	6	30	137 L	4.1C	314.15	
55	528	17	16:20:19	-55:35:32	243750?	0: 4	1: 6	B3	8.08	0.00	64	13	28	356 L	3.0C	118.667	
56	526	22	16:20:27	-54:37: 1	243750?	0: 4	-0:22	B3	8.08	0.00	62	6	37	140 L	4.1C	34.146	
57	562	62	16:22:15	-59:44:28	243793	0: 3	-1:54	B8	8.08	0.00	74	51	26	532	4.1C	129.756	
58	603	92	16:22:15	-56:47:28	243796	0: 2	-1:11	B8	7.87	7.50	85	25	34	832	4.1C	202.927	
59	600	94	16:22:16	-56:46:49	243796	0: 0	-0:32	B8	7.87	7.50	348	5	322	115 L	3.0L	38.333	
60	605	88	16:22:16	-56:46:36	243796	0: 1	-0:19	B8	7.87	7.50	61	14	28	363 L	3.0C	121.000	
61	713	174	16:22:18	-59:41:12	243798	0: 5	-1:49	B8	8.66	8.31	320	20	271	658 H	3.0L	219.333	
62	713	174	16:22:18	-59:41:12	243801?	0:10	-1:15	A0	9.28	9.04	320	20	271	658	3.0L	219.333	
63	713	174	16:22:18	-59:41:12	243801?	0:19	-1:58	B9	8.74	8.45	320	20	271	658	3.0L	219.333	
64	713	174	16:22:18	-59:41:12	243801?	0:16	-0:38	B9	8.74	8.45	94	23	26	942	3.0C	280.667	
65	564	58	16:22:23	-59:39:44	243798?	0: 0	-0:21	B8	8.66	8.31	111	32	31	1394	4.1C	340.000	
66	712	175	16:22:21	-59:39:43	243801?	0: 1	-0:13	B9	8.75	8.37	61	14	29	364	4.1C	146.000	
67	712	175	16:22:21	-59:39:43	243801?	0:14	-0:29	A0	9.80	9.55	145	6	18	146 L	1.0L	146.000	
68	712	175	16:22:21	-59:39:43	243801?	0:16	-0:30	B8	8.66	8.31	145	6	18	146 L	1.0L	146.000	
69	717	176	16:22:21	-59:39:52	243798?	0: 8	-0:5	B9	8.28	9.04	84	23	26	942	3.0C	280.667	
70	717	176	16:22:21	-59:39:52	243801?	0: 8	-2:10	A0	9.80	9.45	84	23	26	942	3.0C	280.667	
7																	

NRL REPORT 8173

OBJECT NO.	X	Y	R.A.	DEC.	SAO NO.	A R.A.	A DEC.	SPEC. TYPE	V MAG.	P MAG.	PEAK DEN.	NO. OF POINTS	BG	DENSITY VOLUME	EXP. & FILTER		DEN. VOL/ EXP.	
															3:38	BB	9.07	8.80
101	488	32	16:24:12	-54:1:52	243853	-0:26	3:38	BB	9.07	8.80	64	6	38	149 L	4.1C	36.341		
102	96	358	16:24:20	-65:56:28	NO	-0:26	3:38	BB	9.07	8.80	248	42	211	1164	3.0L	388.000		
103	575	92	16:24:24	-56:1:20	243844	0: 3	-0: 7	BB	8.63	8.49	58	6	33	137 L	4.1C	33.415		
104	963	358	16:24:27	-57:2:24	NO	-0:26	3:38	BB	9.07	8.80	78	39	30?	1204	4.1C	293.659		
105	630	136	16:24:34	-57:47:42	243850	0: 2	-0: 2	BB	8.87	8.59	30	20	295	65	3.0L	217.000		
106	965	354	16:24:39	-65:56:24	243850	0: 12	-0: 21	BB	8.97	8.59	61	15	29	391	3.0C	130.333		
107	635	130	16:24:41	-57:48: 9	243850	0: 9	-0: 29	BB	8.87	8.59	30	30	295	65	3.0L	217.000		
108	635	130	16:24:41	-57:48: 1	243862?	-0:29	3:27	BB	9.94	9.95	79	22	25	769	3.0C	256.333		
109	601	107	16:24:43	-56:56:30	243847	0:16	-1:58	BB	9.40	9.29	59	6	25	769	3.0C	256.333		
110	633	134	16:24:44	-57:48: 1	243862?	-0:25	3:34	BB	9.94	9.95	104	30	31	1280	4.1C	312.195		
111	633	134	16:24:44	-57:48: 1	243862?	-0:20	2: 6	BB	9.40	9.29	73	7	31	213	4.1C	312.195		
112	599	112	16:24:47	-56:56:22	243877	0:20	0:34	BB	7.46	.00	286	40	221	1623 L	3.0L	541.000		
113	889	323	16:26:12	-64:21:13	253586?	-0:50	0:44	BB	6.60	.00	286	40	221	1623 L	3.0L	541.000		
114	891	322	16:26:12	-64:21:32	253586?	-0:50	0:26	BB	6.60	.00	137	66	26	3269	4.1C	797.317		
115	889	324	16:26:13	-64:20:45	253586?	-0:49	1:13	BB	6.60	.00	132	17	97	469 L	1.0L	464.000		
116	893	318	16:26:15	-64:21:33	253586?	-0:47	0:24	BB	6.60	.00	105	41	23	1820	3.0C	606.667		
117	566	108	16:26:22	-56:20:55	243899	-0:31	2:19	BB	8.72	8.51	334	9	302	245 L	3.0L	81.667		
118	569	110	16:26:51	-56:24:19	243899	-0: 2	-1: 5	BB	8.72	8.51	57	6	31	138 L	4.1C	33.659		
119	797	266	16:26:52	-62:11:35	253588	-0:29	0:34	BB	7.46	.00	286	22	236	706	3.0L	235.333		
120	799	264	16:26:52	-62:10:12	253588	-0:28	0:49	BB	7.46	.00	100	27	30	1082	4.1C	263.902		
121	801	261	16:27: 2	-62:10:55	253588	-0:19	0: 6	BB	7.46	.00	79	20	24	719	3.0C	239.667		
122	543	100	16:27:10	-55:51:14	243905	-0: 8	-1:17	BB	8.01	7.77	346	30	308	706	3.0L	235.333		
123	547	95	16:27:14	-55:50: 1	243905	-0: 4	-0: 4	BB	8.01	7.77	59	8	27	220 L	3.0C	73.333		
124	545	98	16:27:19	-55:49:55	243905	-0: 1	-0: 3	BB	8.01	7.77	72	15	32	460	4.1C	112.195		
125	778	259	16:27:59	-61:45:42	253595?	-0:31	-0:33	BB	8.48	8.00	69	14	28	420	4.1C	102.39		
126	780	255	16:27:60	-61:45:44	253595?	-0:31	-0:34	BB	8.48	8.00	55	11	22	285	3.0C	95.000		
127	782	264	16:28:22	-61:53:16	253599?	-0:31	-0:24	BB	8.00	.00	9.30	56	6	30	134 L	4.1C	32.683	
128	948	376	16:29: 2	-65:54:58	NO	-0:31	-0:24	BB	8.00	.00	168	80	26	4916	4.1C	1199.024		
129	950	372	16:29: 7	-65:54:56	NO	-0:31	-0:24	BB	8.00	.00	128	63	22	3379	3.0C	1126.333		
130	956	378	16:29:15	-65:55:16	NO	-0:31	-0:24	BB	8.00	.00	303	86	210	3926	3.0L	1307.000		
131	946	374	16:29:19	-65:55:16	NO	-0:31	-0:24	BB	8.00	.00	135	35	92	1106	1.0L	1106.000		
132	774	261	16:30: 5	-61:48:19	253613	-0:30	-0:51	BB	9.50	9.04	53	6	25	154	3.0C	51.333		
133	771	271	16:30: 6	-61:47:15	253613	-0:25	-0:13	BB	9.50	9.04	69	4	27	432 H	4.1C	105.366		
134	769	273	16:30:24	-61:47:29	253613	-0:20	-0: 1	BB	9.50	9.04	267	5	241	104 L	3.0L	29.667		
135	838	324	16:31:24	-63:32:27	253621	-0:39	-1:13	BB	8.72	8.29	249	4	224	94 L	3.0L	31.333		
136	436	64	16:31:25	-53:31:38	243965	-0: 3	-0: 3	BB	7.18	.00	453	136	323	7378	3.0L	2459.333		
137	440	58	16:31:25	-53:31:33	243965	-0: 3	-1: 7	BB	7.18	.00	239	80	26	6370	3.0C	2123.333		
138	438	61	16:31:25	-53:30:51	243965	-0: 3	-1:50	BB	7.18	.00	357	99	38	9668 H	4.1C	2358.049		
139	839	322	16:31:28	-63:30: 6	253621	-0:35	1: 8	BB	8.72	8.29	61	11	25	307	4.1C	74.878		
140	435	66	16:31:31	-53:30:37	243965	-0: 9	-2: 3	BB	7.18	.00	227	73	123	3658	1.0L	31.667		
141	841	319	16:31:39	-63:30:43	253621	-0:24	0:31	BB	8.72	8.29	46	4	22	95 L	3.0C	51.667		
142	480	106	16:32:11	-54:45:54	243981	-0: 9	-1:19	BB	9.34	9.15	327	9	296	2307	3.0L	76.667		
143	433	79	16:33: 7	-53:37:34	243996	-0:16	-2:59	BB	8.16	7.94	344	11	313	253 L	3.0L	86.333		
144	479	107	16:33:24	-54:43:58	243995?	-0: 6	-2:45	BB	9.10	8.80	86	36	27	1207	3.0C	402.333		
145	479	107	16:33:24	-54:43:58	244003	-0:23	1:32	BB	7.82	7.40	86	36	27	1207	3.0C	402.333		
146	435	79	16:33:28	-53:38:41	243995?	-0: 6	-1:51	BB	8.16	7.94	66	14	33	358 L	4.1C	87.317		
147	437	75	16:33:29	-53:39:21	243995?	-0: 7	-1:12	BB	8.16	7.94	51	7	26	157 L	3.0C	52.333		
148	477	111	16:33:30	-54:43:56	243995?	-0:12	-2:47	BB	9.10	8.80	109	48	31	2069 H	4.1C	504.634		
149	477	111	16:33:30	-54:43:56	244003?	-0:17	-1:34	BB	7.82	7.40	109	48	31	2069 H	4.1C	504.634		
150	477	111	16:33:30	-54:43:56	244007?	-0:39	-0:49	BB	9.46	9.29	109	48	31	2069 H	4.1C	504.634		
151	473	115	16:33:35	-54:41:56	243995?	-0:18	-4:47	BB	9.10	8.80	139	4	116	89	1.0L	89.000		
152	473	115	16:33:35	-54:41:56	244003	-0:12	-3:34	BB	7.82	7.40	139	4	116	89	1.0L	89.000		
153	473	115	16:33:35	-54:41:56	244003	-0:34	-1:11	BB	9.46	9.29	139	4	116	89	1.0L	89.000		
154	474	114	16:33:36	-54:43:35	243995?	-0:18	-3: 8	BB	9.10	8.80	338	33	291	1068	3.0L	356.222		
155	474	114	16:33:36	-54:43:35	243995?	-0:11	-1:55	BB	7.82	7.40	338	33	291	1068	3.0L	356.222		
156	628	206	16:33:45	-58:33:25	244002	-0: 2	-1:39	BB	7.58	7.03	210	40	31	2708 L	4.1C	660.466		
157	625	209	16:33:47	-58:33:28	244002	-0: 4	-0: 8	BB	7.58	7.03	169	18	115	633	1.0L	633.000		
158	620	202	16:33:47	-58:32:24	244002	-0: 6	-0:41	BB	7.58	7.03	370	32	21	1535	3.0L	51.667		
159	620	208	16:33:50	-58:32:32	244022	-0:12	-0:28	BB	8.98	8.61	78	43	35	495	3.0C	155.333		
160	720	269	16:34: 8	-60:55: 9	243639	-0:19	-1:34	BB	6.24	.00	429	66	24	5659	1.0L	124.333		
161	722	268	16:34:13	-60:55:31	243639	-0:13	-2: 4	BB	6.24	.00	329	68	29	5659	1.0L	124.333		
162	723	271	16:34:15	-60:55: 5	243639	-0:11	-1:38	BB	6.24	.00	247	38	109	2225 L	1.0L	2225.000		
163	724	264	16:34:19	-60:54:24	243638	-0: 9	-0:57	BB	6.24	.00	288	52	24	4554	3.0C	1518.000		
164	581	177	16:34:23	-57:22:27	NO	-0: 2	-0: 9	BB	6.80	.00	157	73	11	284	3.0C	128.000		
165	576	183</td																

PAGE, CARRUTHERS AND HILL

OBJECT NO.	X	Y	R.A.	DEC.	SAO NO.	Δ R.A.	Δ DEC.	SPEC. TYPE	V MAG.	P MAG.	PEAK DEN.	NO. OF POINTS	BG	DENSITY VOLUME	EXP. & FILTER	DEN. VOL/ EXP.
201	542	190	16:37:40	-56:48:39	244069	-0: 5	0: 7	B9	8.36	8.00	288	11	256	264 L	3.0L	88 000
202	546	184	16:37:47	-56:49:11	244069	-0: 2	-0:40	B9	8.36	8.00	57	6	25	159 L	3.0C	53 000
203	544	188	16:37:51	-56:49:14	244069	-0: 6	-0:43	B9	8.36	8.00	74	14	28	441 L	4.1C	107 561
204	986	451	16:38: 5	-67:22:10	253673	-0:13	-1:54	A0	6.32	6.00	64	21	26	596 L	4.1C	145 366
205	986	452	16:38:10	-67:21:37	253673	-0: 7	-1:21	A0	6.32	6.00	219	5	198	100 L	3.0L	33 333
206	497	168	16:38:12	-55:44:54	244080	-0:13	0: 2	A0	7.97	7.00	324	33	269	1028 H	3.0L	342 667
207	988	447	16:38:12	-67:22: 0	253673	-0: 6	-1:44	A0	6.32	6.00	49	9	23	207 L	3.0C	69 000
208	499	166	16:38:16	-55:44:55	244080	-0: 9	0: 2	A0	7.97	7.00	118	24	29	1125 H	4.1C	274 390
209	496	170	16:38:19	-55:43:48	244080	-0: 6	1: 8	A0	7.97	7.00	135	6	108	143 L	1.0L	143 000
210	500	163	16:38:29	-55:33:17	244080	-0: 2	1:40	A0	7.97	7.00	87	18	24	733	3.0C	244 333
211	601	231	16:38:29	-58:22:54	244080	-0: 4	-0:18	B8	8.20	7.82	71	10	30	302 L	4.1C	73 659
212	682	272	16:38:51	-60:15:56	253676	-0: 6	-1:22	B9	9.60	9.07	53	4	23	107	3.0C	35 667
213	680	276	16:38:52	-60:16: 2	253676	-0: 5	-1:23	B9	9.60	9.07	69	9	27	277	4.1C	67 561
214	678	278	16:38:55	-60:16: 2	253676	-0: 3	-1:29	B9	9.60	9.07	264	5	236	124	3.0L	41 333
215	606	289	16:38:59	-58:24: 2	244084	-0:10	-1:26	B8	8.20	7.82	54	5	24	129 L	3.0C	43 000
216	415	119	16:39: 1	-53:26:18	244099	-0: 6	1:46	B5	8.85	8.72	56	4	31	96 L	4.1C	22 927
217	483	181	16:40:45	-55:36:48	244108	-0:11	0:50	B8	8.03	7.60	308	16	258	560 L	3.0L	186 667
218	489	176	16:40:54	-55:35:45	244108	-0: 3	1:52	B8	8.03	7.60	97	19	28	791	4.1C	192 927
219	496	176	16:40:56	-55:36:17	244108	-0: 0	1:21	B8	8.03	7.60	75	13	24	466 L	3.0C	155 333
220	685	289	16:40:58	-60:29: 3	253684	-0:27	1:56	A0	8.68	8.49	195	36	25	2289	3.0C	763 000
221	685	289	16:40:58	-60:29: 3	253684	-0: 5	-0:44	B8	7.62	7.00	195	36	25	2289 H	3.0C	763 000
222	683	293	16:40:59	-60:29:11	253684	-0:28	1:48	A0	8.68	8.49	231	43	30	3059 H	4.1C	746 098
223	683	293	16:40:59	-60:29:11	253684	-0: 4	-0:52	B8	7.62	7.00	231	43	30	3059 H	4.1C	746 098
224	681	296	16:40:60	-60:28:30	253684	-0:29	2:29	A0	8.68	8.49	198	27	102	1278 H	1.0L	1278 000
225	681	296	16:40:60	-60:28:30	253686	-0: 3	0:11	B8	7.62	7.00	198	27	102	1278 H	1.0L	1278 000
226	681	295	16:41: 1	-60:29: 8	253684	-0:30	1:51	A0	8.68	8.49	384	42	232	261 L	3.0L	872 333
227	681	295	16:41: 1	-60:29: 8	253686	-0: 24	-0:19	B8	7.62	7.00	384	42	232	267 L	3.0C	872 333
228	618	320	16:41:11	-59:34:58	253687	-0: 3	-0:44	B8	7.00	6.50	67	8	27	245 L	4.1C	59 566
229	613	255	16:41:11	-59:34:58	253687	-0: 3	-0:44	B8	9.50	9.17	61	4	34	100 L	4.1C	29 390
230	730	316	16:41:12	-61:36:11	253687	-0:15	-1:43	A0	7.00	6.50	52	5	21	161 L	3.0C	53 667
231	963	457	16:41:29	-67: 2:27	253688	-0: 8	-1:14	A0	5.30	5.00	337	117	25	11919 H	4.1C	2907 073
232	962	459	16:41:29	-67: 2:11	253688	-0: 5	-1:13	A0	5.30	5.00	181	71	85	3382 L	1.0L	3382 000
233	961	458	16:41:34	-67: 1:45	253688	-0: 3	-0:37	A0	5.30	5.00	388	105	95	8017	3.0L	2672 333
234	965	453	16:41:36	-67: 2:10	253688	-0: 1	-1:2	A0	5.30	5.00	261	100	95	8694	3.0C	2898 000
235	532	214	16:41:51	-56:51:47	244121	-0: 1	0:21	B8	9.27	9.16	55	4	27	106 L	4.1C	25 854
236	625	268	16:42: 1	-59:10:10	244122	-0: 1	0:24	B8	9.27	9.16	57	4	29	98?	4.1C	23 902
237	592	255	16:42:10	-58:24:28	244122	-0: 6	0:19	B3	5.94	5.00	405	63	108	5835 L	1.0L	5835 000
238	596	248	16:42:11	-58:25: 5	244122	-0: 7	-0:18	B3	5.94	5.00	379	90	27	8669	3.0C	2889 667
239	595	252	16:42:15	-58:25:13	244122	-0:10	-0:26	B3	5.94	5.00	405	121	32	1381	4.1C	3288 049
240	696	312	16:42:15	-60:57: 3	253693	-0:13	-1:56	B9	8.68	8.31	256	8	222	220 L	3.0L	73 333
241	589	250	16:42:16	-58:13:53	NO	-0: 4	-0:52	B9	7.33	7.00	293	10	255	282	3.0L	94 000
242	697	310	16:42:17	-60:56: 2	253693	-0:11	-0:55	B9	8.68	8.31	65	9	28	254	4.1C	61 951
243	591	254	16:42:18	-58:24: 1	244122	-0: 4	0:14	B3	5.94	5.00	459	100	247	10042	3.0L	3347 333
244	587	244	16:42:19	-58:12:44	244111	-1: 9	0:33	B8	9.88	9.59	66	10	28	272	3.0C	90 667
245	699	307	16:42:25	-60:56:29	253693	-0: 3	-1:22	B9	8.68	8.31	54	4	26	101 L	3.0C	33 667
246	583	253	16:42:35	-59:13:19	244133?	-0:29	1:47	B8	5.76	5.00	143	6	108	165	1.0L	165 000
247	544	228	16:42:47	-57:14:31	244129	-0: 6	0:32	B9	9.60	9.32	57	4	28	101	4.1C	24 634
248	638	285	16:43: 0	-59:35:40	244130?	-0: 6	5: 7	A0	9.90	9.73	277	9	230	251	3.0L	83 667
249	638	285	16:43: 0	-59:35:40	244134	-0: 4	-0:52	B9	7.33	7.00	277	9	230	251 L	3.0L	83 667
250	582	257	16:43: 4	-58:14: 0	244133	-0: 1	1: 6	B7	5.76	5.00	419	119	108	1008 L	1.0L	1008 000
251	639	283	16:43: 4	-59:34:40	244134	-0: 0	0: 8	B9	7.33	7.00	97	17	30	651	4.1C	158 780
252	586	256	16:43: 4	-58:14:40	244133	-0: 4	0:20	B8	5.76	5.00	465	194	242	16293	3.0L	54 31 000
253	530	224	16:43: 8	-56:56: 4	244137	-0: 1	0:40	B8	8.96	8.77	55	5	27	121 L	4.1C	29 51 52
254	641	280	16:43:10	-59:35: 6	244134	-0: 7	-0:18	B8	7.33	7.00	73	12	26	381 L	3.0C	127 000
255	365	224	16:43:10	-57:15:55	244136	-0: 2	0:22	B8	7.77	7.50	57	6	27	153 L	4.1C	17 317
256	586	224	16:43:13	-58:15:55	244133	-0:10	0: 7	B8	5.76	5.00	407	132	27	14049 L	3.0C	4793 000
257	581	223	16:43:17	-58:15:50	NO	-0:13	0:16	B8	5.76	5.00	426	161	31	17042 L	4.1C	456 585
258	510	266	16:44:15	-51:19:26	253705	-0:11	-1:25	A0	7.86	7.00	55	6	24	156 L	3.0C	52 000
260	519	227	16:44:20	-56:55:45	NO	-0: 4	1:59	B8	7.99	7.00	298	15	264	282	3.0L	27 561
261	707	330	16:44:20	-61:18:31	253705	-0: 6	-0:30	A0	7.86	7.00	74	12	28	382	4.1C	93 171
262	290	99	16:44:40	-51:15:38	244152	-0:13	-2:60	B9	9.90	9.90	293	6	273	1057	3.0L	35 000
263	354	140	16:44:46	-52:19:44	244158	-0:10	1:28	B8	7.04	6.00	368	81	258	3929 H	3.0L	1309 667
264	356	137	16:44:46	-52:19:40	244158	-0:10	1:52	B8	7.04	6.00	188	54	28	3651 L	4.1C	890 488
265	353	143	16:44:58	-52:19:49	244158	-0: 2	2: 7	B8	7.04	6.00	146	30	100	952	1.0L	952 000
266	358	134	16:44:58	-52:19:45	244177?	-0: 9	2:43	B8	9.60	10.20	298	15	264	399 L	3.0L	133 000
267	291	115	16:46:15	-51:25:43	244184	-0:21	1:59	B8	7.99	7.00	298	15	264	399 L	3.0L	133 000
268	291	115	16:46:15	-51:25:43	244184	-0: 10	2:37	B8	9.60	10.20	54	14	25	331 L	3.0C	110 333
269	294	110	16:46:34	-51:25:49	244184	-0: 2	1:53	B8	7.99	7.00	54	14	25	331 L	3.0C	110 333
270	294	11														

NRL REPORT 8173

OBJECT NO.	X	Y	R.A.	DEC.	SAO NO.	Δ R.A.	Δ DEC.	SPEC. TYPE	V MAG.	P MAG.	PEAK DEN.	NO. OF POINTS	BG	DENSITY VOLUME	EXP. & FILTER	DEN. VOL/ EXP.	
301	398	211	16:49:44	-54:19:49	244253	-0:16	1:35	BB	7.08	.00	345	32	241	1656	3.0L	552.000	
302	398	213	16:49:46	-54:19:38	244253	-0:13	1:45	BB	7.08	.00	146	15	98	495 L	1.0L	495.000	
303	380	197	16:49:48	-53:50:31	244252	-0:7	1:37	B	8.73	8.47	66	13	27	363	4.1C	88.537	
304	382	193	16:49:49	-53:50:52	244252	-0:6	1:16	B	8.73	8.47	55	6	26	151 L	3.0C	50.333	
305	400	208	16:49:54	-54:18:60	244253	-0:6	2:24	BB	7.08	.00	185	37	27	2423	4.1C	590.976	
306	402	205	16:49:55	-54:19:21	244253	-0:4	2:3	BB	7.08	.00	140	29	23	1548	3.0C	516.000	
307	348	186	16:50:10	-53: 8:58	244261	-0:13	2:19	BB	8.40	8.05	273	10	243	243 L	3.0L	81.000	
308	353	180	16:50:14	-53:10:44	244261	-0:9	0:33	BB	8.40	8.05	51	7	23	170 L	3.0C	56.667	
309	350	187	16:50:25	-53: 9:50	244261	-0:2	1:27	BB	8.40	8.05	67	14	27	418	4.1C	101.951	
310	769	406	16:50:29	-53:12:41	253734	-0:15	1:20	A0	6.14	.00	203	578	L	3.0L	192.667		
311	773	401	16:50:33	-53:13:15	253734	-0:11	1:53	A0	6.14	.00	80	15	21	568 L	3.0C	189.333	
312	770	405	16:50:37	-53:12:25	253734	-0:7	1:	A0	6.14	.00	96	20	25	854 L	4.1C	208.293	
313	769	408	16:50:39	-53:12:32	253734	-0:5	1:10	A0	6.14	.00	115	4	92	89 L	1.0L	89.000	
314	306	187	16:50:41	-52:12:50	244264?	-0:9	2:39	A0	6.14	.00	10.20	275	17	241	457 L	3.0L	152.333
315	306	187	16:50:41	-52:12:50	244264?	-0:7	0:46	B	8.61	8.20	275	17	241	457 L	3.0L	152.333	
316	534	286	16:50:46	-57:37: 6	244269	-0:9	1:6	B	9.94	9.62	55	4	27	105	4.1C	25.800	
317	301	181	16:50:53	-52:13:28	244270	-0:13	0:5	B	8.00	.00	21	23	63	3.0C	214.000		
318	309	184	16:50:53	-52:12:28	244270	-0:22	3:26	A0	6.00	10.20	92	27	27	1033 H	4.1C	251.951	
319	308	184	16:50:53	-52:12: 8	244270	-0:5	1:33	B	8.61	8.20	92	27	27	1033 H	4.1C	251.951	
320	696	376	16:51:34	-61:33:53	253740	-0:10	0:12	A0	6.84	.00	255	8	21	226 L	3.0L	75.333	
321	697	377	16:51:35	-61:33: 4	253740	-0:10	0:37	A0	6.84	.00	91	13	35	481 L	4.1C	17.317	
322	633	345	16:51:39	-60: 5:29	253744	-0:13	0:37	B	8.12	.00	284	17	220	648	3.0L	216.000	
323	700	370	16:51:39	-61:34:28	253740	-0:6	0:47	A0	6.84	.00	73	8	29	251 L	3.0L	83.667	
324	634	343	16:51:42	-60: 4:41	253744	-0:10	0:11	B	8.12	.00	116	20	28	901 L	4.1C	219.756	
325	633	347	16:51:46	-60: 5:19	253744	-0:6	0:26	B	8.12	.00	124	6	94	151	1.0L	151.000	
326	636	340	16:51:58	-60: 5:32	253744	-0:6	0:40	B	8.12	.00	83	15	24	543	3.0C	181.000	
327	710	386	16:52: 3	-61:55:15	253745	-0:15	0:16	A0	8.74	8.41	244	6	214	146	3.0L	48.667	
328	711	384	16:52: 3	-61:54:27	253745	-0:16	0:32	A0	8.74	8.41	80	10	34	322	4.1C	78.537	
329	231	138	16:52: 7	-50: 3: 7	244275?	-0:34	0:42	B	9.00	8.90	194	78	94	3817	1.0L	3817.000	
330	231	138	16:52: 7	-50: 3: 7	244280	-0:10	1:38	B	6.57	.00	194	78	94	3817	1.0L	3817.000	
331	231	136	16:52:11	-50:33:15	244280	-0:6	2:30	B	6.57	.00	428	144	237	11689	3.0L	3896.333	
332	235	129	16:52:12	-50:33:22	244275?	-0:39	0:2	B	9.00	8.90	257	104	24	6719	3.0L	2906.333	
333	235	129	16:52:12	-50:33:22	244280	-0:5	2:23	B	6.57	.00	257	104	24	8719 L	3.0L	2906.333	
334	713	381	16:52:12	-61:54:43	253745	-0:6	0:16	A0	8.74	8.41	59	4	29	115	3.0C	38.333	
335	233	132	16:52:14	-50:33: 3	244280	-0:3	0:42	B	8.57	.00	360	124	29	12952	4.1C	3159.024	
336	304	172	16:52:24	-52:12:16	244285	-0:9	0:1	A0	6.16	.00	194	53	25	3629	3.0C	1209.667	
337	282	164	16:52:24	-51:44:15	244286	-0:10	1: 5	B	9.08	.00	54	9	27	212 L	4.1C	51.707	
338	302	175	16:52:24	-52:11:18	244285	-0:8	0:19	A0	6.16	.00	260	66	27	5558 H	4.1C	1354.146	
339	299	180	16:52:27	-50:10:48	244285	-0:5	1:29	A0	6.16	.00	161	36	93	1386	1.0L	1386.000	
340	299	178	16:52:27	-51:11: 2	244285	-0:6	1:15	A0	6.16	.00	378	71	234	4317	3.0L	1439.000	
341	280	168	16:52:30	-51:44:59	244286	-0:5	0:22	B	9.08	.00	260	14	231	355	3.0L	118.333	
342	692	355	16:52:53	-60:31:26	253748	-0:10	0:6	B	6.81	.00	234	48	24	346	3.0C	1140.333	
343	698	364	16:52:55	-60:30:38	253748	-0:8	0:42	B	6.81	.00	360	124	29	12952	4.1C	2083.000	
344	698	361	16:52:57	-60:31:23	253748	-0:6	0:3	B	6.81	.00	410	69	213	4077 H	3.0L	1569.000	
345	679	359	16:52:59	-60:30:37	253748	-0:4	0:43	B	6.81	.00	286	60	21	4955	4.1C	1208.537	
346	446	265	16:54:40	-55:44:36	244297	-0:11	1:39	B	9.82	8.01	293	17	229	617 L	1.0L	208.667	
347	446	267	16:54:40	-55:44:36	244297	-0:8	1:52	B	9.82	8.01	293	5	26	123 L	1.0L	123.000	
348	450	259	16:53:22	-55:45:29	244297	-0:4	0:59	B	8.32	8.01	91	16	22	621 L	3.0C	207.000	
349	448	263	16:53:27	-55:45:46	244297	-0:1	0:43	B	8.32	8.01	105	19	26	899	4.1C	207.073	
350	355	223	16:53:31	-53:36:21	244307?	-0:18	9:26	A0	8.39	.00	129	5	91	141	1.0L	141.000	
351	355	221	16:53:44	-53:37: 8	244307?	-0:12	8:39	A0	8.39	.00	297	8	227	332?	3.0L	110.667	
352	577	332	16:53:45	-58:53:18	244303	-0:2	1:38	B	8.23	.00	275	17	221	576	3.0L	192.000	
353	579	330	16:53:45	-58:53:18	244303	-0:2	1:15	B	8.23	.00	97	15	28	571	4.1C	139.268	
354	364	218	16:53:48	-53:44:30	244307	-0:8	1:17	A0	8.38	.00	92	8	20	208	3.0C	69.333	
355	526	308	16:53:49	-57:40:38	244307	-0:2	0:55	B	7.70	.00	361	42	222	2406 H	3.0L	802.000	
356	526	308	16:53:49	-57:40:38	244306	-0:6	2:3	B	7.71	.00	361	42	222	2406 H	3.0L	802.000	
357	526	310	16:53:51	-57:41:16	244304?	-0:2	0:2	B	7.70	.00	171	19	26	779	1.0L	779.000	
358	526	310	16:53:50	-57:41:32	244306	-0:5	1: 8	B	7.71	.00	171	19	26	779	1.0L	779.000	
359	577	334	16:53:51	-58:53: 3	244303	-0:3	1:51	B	8.23	.00	121	4	96	90 L	1.0L	90.000	
360	581	327	16:53:51	-58:53:56	244303	-0:3	1: 0	B	8.23	.00	72	11	23	369	3.0L	123.000	
361	587	306	16:53:55	-57:39:53	244304?	-0:4	1:40	B	7.70	.00	195	34	28	2208	4.1C	538.537	
362	587	306	16:53:55	-57:39:53	244306	-0:0	2:47	B	7.71	.00	195	34	28	2208	4.1C	538.537	
363	530	302	16:53:56	-57:41:16	244304?	-0:4	0:16	B	7.70	.00	143	28	22	1626	3.0C	542.000	
364	530	302	16:53:56	-57:41:16	244306	-0:1	1:24	B	7.71	.00	143	28	22	1626	3.0C	542.000	
365	654	363	16:55:57	-55:56:14	244311?	-0:4	0:17	B	8.74	.00	255	4	22	4222	4.1C	1029.536	
366	455	269	16:56:14	-55:56:14	244315?	-0:14	1:15	X	3.06	.00	455	4	22	12w L	3.0C	41.333	
377	451	275	16:56:15	-55:55:57	244312	-0:7	1:39	B	8.74	8.74	266	11	226	331	3.0L	110.333	
378	221	153	16:56:16	-56:31:33	244313	-0:10	2:19	B	5.70	.00	126	25	90	673 L	1.0L	673.000	
379	226	144	16:56:18	-56:31:58	244313	-0:8	1:54	B	5.70	.00	118	53	25	2509	3.0L	836.333	
380	452	273	16:56:23	-55:55:14	244312</td												

PAGE, CARRUTHERS AND HILL

NORMA RA 17:24 DEC -59:04

OBJECT NO.	X	Y	R.A.	DEC.	SAO NO.	Δ R.A.	Δ DEC.	SPEC. TYPE	V MAG.	P MAG.	PEAK DEN.	NO. OF POINTS	BG	DENSITY VOLUME	EXP. & FILTER	DEN. VOL/ EXP.
401	854	500	16:59:12	-65:35:23	244392	-0: 2	1: 2	BB	8.49	8.25	54	7	25	1622	H, IC	39.612
402	366	271	16:59:26	-54:16:11	244392	-0: 18	1:28	BB	9.30	9.14	261	5	25	129 L	4, IC	31.463
403	275	231	16:59:41	-52:13:19	244390	-0:16	-0: 3	BB	9.27	9.05	261	22	215	687 H	3, DL	229.000
404	275	231	16:59:41	-52:13:19	244396	-0:16	-0: 4	BB	9.30	9.14	72	22	215	687	3, DL	229.000
405	277	228	16:59:42	-52:13:21	244390	-0:19	-0: 2	BB	9.27	9.05	72	23	26	710	4, IC	173.171
406	277	228	16:59:42	-52:13:21	244396	-0:15	-0: 4	BB	9.27	9.05	72	23	26	710	4, IC	173.171
407	279	225	16:59:49	-52:14: 1	244390	-0:26	-0: 46	BB	9.30	9.14	55	12	21	326	3, DL	108.667
408	279	225	16:59:49	-52:14: 1	244396	-0: 8	-0:45	BB	9.27	9.05	55	12	21	326	3, DL	108.667
409	222	204	16:59:55	-51: 0: 37	244397	-0:11	0: 9	BB	9.50	.00	311	60	212	3035	3, DL	1011.667
410	222	204	16:59:55	-51: 0: 37	244397	-0:11	0:20	BB	9.50	10.90	311	60	212	3035	3, DL	1011.667
411	222	204	16:59:55	-51: 0: 37	244400	-0:12	0:13	BB	8.74	.00	311	60	212	3035	H, 3, DL	1011.667
412	226	198	16:59:56	-51: 0: 48	244393	-0:24	7: 9	A3	7.90	.00	114	47	21	2272 H	3, DL	757.333
413	226	198	16:59:56	-51: 0: 48	244398	-0: 9	-0: 2	BB	9.50	.00	114	47	21	2272 H	3, DL	757.333
414	226	198	16:59:56	-51: 0: 48	244399	-0:10	0: 9	BB	9.50	10.90	114	47	21	2272 H	3, DL	757.333
415	226	198	16:59:56	-51: 0: 48	244400	-0:11	0: 2	BB	8.74	.00	114	47	21	2272 H	3, DL	757.333
416	224	201	16:59:58	-51: 0: 39	244398	-0: 8	0: 7	BB	9.50	.00	149	60	25	3393	4, IC	827.561
417	224	201	16:59:58	-51: 0: 39	244399	-0: 9	0:18	BB	9.50	10.90	149	60	25	3393	4, IC	827.561
418	224	201	16:59:58	-51: 0: 39	244400	-0:10	0:11	BB	8.74	.00	149	60	25	3393	4, IC	827.561
419	221	207	17: 0: 2	-51: 0: 47	244398	-0: 3	-0: 1	BB	9.50	.00	128	29	87	840	1, DL	840.000
420	221	207	17: 0: 2	-51: 0: 47	244399	-0: 4	0:10	BB	9.50	10.90	128	29	87	840	1, DL	840.000
421	221	207	17: 0: 2	-51: 0: 47	244400	-0: 5	0: 3	BB	8.74	.00	128	29	87	840	H, 1, DL	840.000
422	505	416	17: 0: 2	-57: 36:43	244401	-0: 1	1:50	BB	5.88	.00	42	96	224	6506 L	3, DL	2168.667
423	507	413	17: 0: 2	-57: 37:16	244401	-0: 1	1:17	BB	5.88	.00	392	118	29	10499	4, IC	2560.732
424	505	417	17: 0: 2	-57: 36:24	244401	-0: 2	1: 3	BB	5.88	.00	354	53	95	173 L	1, DL	2335.000
425	509	339	17: 0: 2	-57: 37:24	244401	-0: 5	1: 9	BB	5.88	.00	343	85	32	7006 L	3, DL	2335.333
426	557	372	17: 0: 2	-58: 50:49	244406	-0: 5	1:36	BB	8.44	8.00	126	8	90	26	20	200.000
427	557	371	17: 0: 30	-58: 51:39	244406	-0: 2	0:46	BB	8.44	8.00	276	21	206	820	3, DL	273.333
428	558	369	17: 0: 34	-58: 51: 3	244406	-0: 2	1:22	BB	8.44	8.00	99	19	25	803	4, IC	195.894
429	233	217	17: 0: 35	-51:19:44	244405	-0: 5	-1:19	BB	9.80	9.60	248	22	211	613	3, DL	204.333
430	233	217	17: 0: 35	-51:19:44	244409	-0:15	0:37	B3	9.00	8.60	248	22	211	613	3, DL	204.333
431	561	365	17: 0: 36	-58: 52:20	244406	-0: 4	0: 5	BB	8.44	8.00	83	13	22	479	3, DL	159.667
432	239	211	17: 0: 43	-51:20:26	244405	-0:13	-2: 1	BB	9.80	9.60	47	5	23	115	3, DL	38.333
433	238	211	17: 0: 43	-51:20:26	244409	-0: 6	-0: 5	B3	9.00	8.60	47	5	23	115	L, 3, DL	38.333
434	235	214	17: 0: 44	-51:20:18	244405	-0:14	-1:53	BB	9.80	9.60	61	16	26	449	4, IC	109.512
435	235	214	17: 0: 44	-51:20:18	244409	-0: 5	0: 4	B3	9.00	8.60	61	16	26	449	4, IC	109.512
436	258	241	17: 1: 52	-51:58:10	244433	-0:16	0: 4	BB	9.23	8.96	235	7	208	169	3, DL	56.333
437	259	238	17: 1: 52	-51:58: 7	244433	-0:11	0:60	BB	9.23	8.96	53	7	25	167	4, IC	40.732
438	275	252	17: 2: 6	-52:24:40	244432	-0: 0	0:	BB	8.27	8.05	243	16	207	433	3, DL	144.333
439	275	252	17: 2: 6	-52:24:40	244435	-0:11	0:15	BB	8.38	7.99	243	16	207	433	L, 3, DL	144.333
440	277	249	17: 2: 7	-52:24:45	244432	-0: 0	0:10	BB	8.38	7.99	71	16	26	484	4, IC	118.049
441	277	249	17: 2: 7	-52:24:45	244435	-0:10	0:10	BB	8.38	7.99	71	16	26	484	L, 4, IC	118.049
442	279	246	17: 2: 10	-52:23:44	244432	-0: 3	3:52	BB	8.27	8.05	54	10	20	278 L	3, DL	92.667
443	279	246	17: 2: 10	-52:23:44	244435	-0: 0	0: 7	BB	8.38	7.99	54	10	20	278 L	3, DL	92.667
444	413	319	17: 2: 28	-55:34:23	244438	-0: 0	2:33	BB	8.76	8.51	52	4	25	100 L	4, IC	24.390
445	428	327	17: 2: 42	-55:57:22	244442	-0: 8	0:57	BB	8.06	.00	54	4	25	97 L	4, IC	23.659
446	526	371	17: 2: 52	-58:14:58	244449	-0:39	-7:16	A2	9.26	9.23	58	5	25	123 L	4, IC	30.000
447	470	358	17: 4: 4	-57: 2: 42	244457	-0: 3	2:32	BB	9.50	9.25	232	7	207	1547 L	3, DL	51.333
448	337	297	17: 4: 44	-53:55:54	NO	-0: 1	0: 6	BB	8.40	7.96	225	5	23	129	3, DL	43.000
449	584	412	17: 4: 46	-59:45: 5	244461	-0: 1	-0: 6	BB	8.40	7.96	225	5	23	194 L	3, DL	64.667
450	355	315	17: 4: 49	-59:25:33	NO	-0: 1	0: 6	BB	8.40	7.96	121	4	20	102	1, DL	102.000
451	585	410	17: 4: 49	-59:44:35	244461	-0: 2	0:24	BB	8.40	7.96	58	5	26	138 L	4, IC	33.659
452	355	310	17: 4: 54	-59:26:26	NO	-0: 1	0: 6	BB	8.40	7.96	228	2	20	227	3, DL	75.667
453	335	302	17: 4: 54	-59:56:50	NO	-0: 1	0: 6	BB	8.40	7.96	59	6	27	244	4, IC	34.878
454	315	298	17: 5: 1	-53:58:32	NO	-0: 1	0: 6	BB	8.40	7.96	251	9	207	273 L	3, DL	91.000
455	663	505	17: 5: 23	-53:57:13	253818	-0: 9	-0:28	BB	6.52	.00	341	33	198	2107 L	3, DL	704.333
456	665	448	17: 5: 23	-61:36:44	253818	-0: 9	0: 1	BB	6.52	.00	177	37	29	2305	4, IC	562.195
457	664	452	17: 5: 27	-61:37:59	253818	-0: 5	-1:14	BB	6.52	.00	167	19	87	812	1, DL	812.000
458	188	233	17: 5: 31	-50:37:50	NO	-0: 1	0: 6	BB	8.40	.00	78	17	26	5087	4, IC	123.902
459	667	445	17: 5: 32	-61:36:45	253818	-0: 0	0: 6	BB	6.52	.00	150	30	24	1647	3, DL	549.000
460	357	312	17: 5: 33	-54:26:21	NO	-0: 1	0: 6	BB	8.38	7.99	76	10	20	355	3, DL	118.333
461	354	319	17: 5: 38	-54:27:47	NO	-0: 1	0: 6	BB	8.38	7.99	57	10	207	258	3, DL	86.000
462	318	300	17: 5: 41	-53: 36:21	NO	-0: 1	0: 6	BB	8.38	7.99	67	9	22	288	3, DL	96.000
463	317	296	17: 5: 44	-53: 32:27	NO	-0: 1	0: 6	BB	8.38	7.99	75	10	26	339	4, IC	82.683
464	355	317	17: 5: 47	-54:27:19	NO	-0: 1	0: 6	BB	8.38	7.99	237	6	204	163	3, DL	54.333
465	292	294	17: 6: 1	-53: 4:41	NO	-0: 1	0: 6	BB	8.38	7.99	232	6	203	159	3, DL	53.000
466	292	293	17: 6: 6	-52:59:36	NO	-0: 1	0: 6	BB	8.38	7.99	70	12	26	381?	4, IC	92.927
467	315	302	17: 6: 7	-53:33:54	NO	-0: 1	0: 6	BB	8.38	7.99	61	8	27	222	4, IC	54.146
468	354	297	17: 6: 32	-54:28:41	NO	-0: 1	0: 6	BB	8.38	7.99	54	7	21	186	3, DL	62.000
469	295	293	17: 6: 32	-53: 6: 14	NO	-0: 1	0: 6	BB	8.38	7.99	66	7	21			

NRL REPORT 8173

OBJECT NO.	X	Y	R.A.	DEC.	SAO NO.	Δ R.A.	Δ DEC.	SPEC. TYPE	V MAG.	P MAG.	PEAK DEN.	NO. OF POINTS	BG	DENSITY VOLUME	EXP. & FILTER		DEN. VOL/ EXP.
															30s	30s	
501	355	341	17: 8:47	-54: 39:50	NO							75	10	25	325	4. IC	79. 667
502	296	324	17: 9:20	-53: 24:20	244532	-0:11	0:11	B8	8.12	7.70	309	29	201	1499	3. DL	499. 667	
503	298	321	17: 9:20	-53: 24:20	244532	-0:11	-0: 6	B8	8.12	7.70	149	33	25	1731	4. IC	422. 195	
504	705	486	17: 9:22	-62: 41:46	253841	-0:14	-1:11	B8	7.23	.00	147	32	27	1673	3. DC	557. 667	
505	702	490	17: 9:25	-62: 41: 9	253841	-0:10	-0:34	B8	7.23	.00	199	37	32	2300	4. IC	560. 976	
506	701	493	17: 9:28	-62: 40:37	253841	-0: 8	-0: 2	B8	7.23	.00	159	21	87	852	1. DL	852. 000	
507	701	492	17: 9:28	-62: 41:33	253841	-0: 8	-0:58	B8	7.23	.00	339	32	199	2052	3. DL	684. 000	
508	300	318	17: 9:28	-53: 24:47	244532	-0: 3	-0:33	B8	8.12	7.70	118	25	23	1127	3. DL	375. 667	
509	296	327	17: 9:30	-53: 24: 4	244532	-0: 2	0:10	B8	8.12	7.70	132	13	85	422	1. DL	422. 000	
510	558	432	17: 9:38	-59: 23:21							68	6	25	197	4. IC	48. 049	
511	235	309	17: 9:55	-52: 3:46	244542	-0:17	-1:17	B5	9.60	9.29	222	6	194	150 L	3. DL	50. 000	
512	236	296	17:10: 7	-52: 3:24	244542	-0: 5	-0:55	B5	9.60	9.29	52	7	24	165 L	4. IC	40. 244	
513	409	370	17:10:16	-55: 57:16	244542	-0: 5	-0:15	B5	7.97	.00	143	30	22	1652	3. DC	550. 667	
514	406	375	17:10:16	-55: 56: 9	244542	-0: 4	-0:52	B5	7.97	.00	174	35	28	2204	4. IC	537. 561	
515	405	376	17:10:17	-55: 56:10	244542	-0: 1	-0: 1	B5	7.97	.00	349	45	204	2442	3. DL	814. 000	
516	405	380	17:10:20	-55: 56:20	244542	-0: 1	-0:28	B5	7.97	.00	178	25	89	1062	1. DL	1000. 000	
517	333	348	17:10:20	-57: 1:51	244546	-0: 9	-0:55	B8	8.56	8.26	249	11	262	385 L	3. DL	120. 333	
518	325	346	17:10:26	-54: 18:39	244546	-0: 2	0: 7	B8	8.56	8.26	85	16	24	620	4. IC	151. 220	
519	327	342	17:10:27	-54: 18:36	244546	-0: 1	0:10	B8	8.56	8.26	67	10	21	328 L	3. DL	110. 667	
520	386	369	17:10:36	-55: 30: 1							62	12	26	322	4. IC	76. 537	
521	482	413	17:10:49	-57: 45:10	244551	-0:10	-0:32	B9	7.92	7.55	231	7	199	186 L	3. DL	52. 000	
522	695	496	17:10:57	-62: 35:20	253849	-0: 8	-0:24	B8	8.44	7.99	110	23	27	974	4. IC	231. 561	
523	483	411	17:10:58	-57: 43:39	244551	-0: 1	-2: 3	B9	7.92	7.55	66	9	25	275 L	4. IC	67. 073	
524	694	498	17:10:59	-62: 36:20	253849	-0: 6	-0:45	B8	8.44	7.99	272	22	197	879	3. DL	293. 000	
525	698	493	17:11: 3	-62: 37: 4	253849	-0: 2	-1:29	B8	8.44	7.99	84	16	25	597	3. DL	199. 000	
526	695	500	17:11:14	-62: 37: 2	253849	-0: 1	-1:27	B8	8.44	7.99	124	10	85	292	1. DL	292. 000	
527	486	408	17:11:17	-57: 45:14	244551	-0:10	-0:28	B9	7.92	7.55	54	6	22	154 L	3. DL	51. 333	
528	184	291	17:11:39	-51: 1:56	244562	-0:10	-0:17	B8	7.31	.00	270	40	192	1662	3. DL	554. 000	
529	186	288	17:11:42	-51: 2:17	244562	-0: 8	-0:38	B8	7.31	.00	127	43	25	2231	4. IC	544. 146	
530	184	295	17:11:47	-51: 1:53	244562	-0: 3	-0:15	B8	7.31	.00	117	13	81	372	1. DL	372. 000	
531	188	285	17:11:48	-51: 2:40	244562	-0: 2	-1: 2	B8	7.31	.00	97	33	21	1451	3. DL	483. 667	
532	618	475	17:11:57	-60: 54:51	253854	-0:10	-0:48	A0	7.62	.00	118	12	80	325 H	1. DL	325. 000	
533	621	468	17:11:59	-60: 54:55	253854	-0: 9	-0:51	A0	7.62	.00	90	14	22	570	3. DL	190. 000	
534	617	474	17:12: 3	-60: 54:38	253854	-0: 4	-0:35	A0	7.62	.00	270	22	186	934 H	3. DL	311. 333	
535	618	472	17:12: 4	-60: 54:19	253854	-0: 3	-0:15	A0	7.62	.00	107	20	25	862	4. IC	210. 244	
536	535	440	17:12:50	-58: 56:57	244579	-0: 4	-0:14	B8	9.00	8.61	82	14	21	497	3. DC	165. 667	
537	531	446	17:12:53	-58: 56:39	244579	-0: 0	-0:32	B8	9.00	8.61	268	19	186	778	3. DL	259. 333	
538	532	448	17:12:55	-58: 56:20	244579	-0: 2	-0: 9	B8	9.00	8.61	119	8	80	240	1. DL	240. 000	
539	532	444	17:12:57	-58: 56:21	244579	-0: 3	-0:50	B8	9.00	8.61	97	19	24	803	4. IC	195. 854	
540	239	333	17:13:34	-52: 24: 2	244593	-0:15	-1:23	B8	7.97	8.47	215	4	191	91 L	3. DL	30. 333	
541	102	272	17:13:45	-49: 23:32	227793	-0:24	-0:25	B5	7.77	.00	273	65	195	2635	3. DL	878. 333	
542	106	266	17:13:47	-49: 23:49	227793	-0:22	-0:22	B8	7.77	.00	93	51	24	204	3. DL	681. 333	
543	540	331	17:13:49	-52: 28:35	244653	-0: 0	-0: 3	B8	8.79	8.72	59	11	23	303	4. IC	73. 902	
544	104	274	17:13:51	-52: 28:34	227793	-0:20	-0:20	B8	7.77	.00	123	67	29	3258	4. IC	794. 634	
545	102	276	17:13:59	-49: 23:54	227793	-0:11	-0: 3	B8	7.77	.00	112	17	82	414 L	4. DL	414. 000	
546	126	292	17:14:17	-50: 10:33	244608	-0:10	-1: 5	A0	7.10	.00	231	20	187	568 L	3. DL	176. 000	
547	140	286	17:14:21	-50: 9:42	244608	-0:10	-1:14	A0	7.10	.00	59	19	21	552	3. DL	164. 000	
548	139	299	17:14:23	-50: 9:50	244608	-0: 8	-0:22	A0	7.10	.00	75	26	26	967	4. IC	235. 854	
549	391	403	17:15:26	-55: 50:24	244627	-0: 1	-0:16	B8	8.59	8.25	66	8	24	247 L	3. DL	82. 333	
550	387	409	17:15:29	-55: 50: 4	244627	-0: 2	-0:35	B8	8.59	8.25	249	8	210	231 L	3. DL	77. 000	
551	132	304	17:15:33	-50: 9:27	244608	1: 2	-0: 0	A0	7.10	.00	116	11	79	317	1. DL	317. 000	
552	132	304	17:15:33	-50: 9:27	244632	-0:23	-0:44	B8	9.60	9.30	116	11	79	317	1. DL	317. 000	
553	297	370	17:15:36	-53: 46:58	244629	-0: 1	-0:59	B9	8.35	8.00	89	17	25	650	4. IC	158. 537	
554	388	407	17:15:36	-55: 49:50	244627	-0:10	-0:50	B8	8.59	8.25	78	14	25	502	4. IC	122. 439	
555	295	373	17:15:37	-53: 46:30	244629	-0: 2	-0:30	B9	8.35	8.00	256	17	194	599	3. DL	199. 667	
556	299	367	17:15:37	-53: 46:49	244629	-0: 1	-0:50	B9	8.35	8.00	71	12	21	395	3. DL	131. 667	
557	295	376	17:15:47	-53: 46:29	244629	-0:11	-0:25	B9	8.35	8.00	109	4	82	96	1. DL	96. 000	
558	545	466	17:16: 8	-59: 24: 0	244638	-0: 4	-0:36	A0	7.05	.00	54	7	23	168 L	3. DL	56. 000	
559	543	473	17:16:11	-59: 24:37	244638	-0: 1	-1:13	A0	7.05	.00	69	14	27	380 L	4. IC	92. 683	
560	695	532	17:16:17	-62: 53:41	253880	-0:19	-1:35	B8	9.80	9.37	263	16	201	598	3. DL	199. 333	
561	695	534	17:16:27	-62: 53: 9	253880	-0:10	-1: 3	B8	9.80	9.37	113	4	88	93 L	1. DL	93. 000	
562	696	530	17:16:29	-62: 52:45	253880	-0: 7	-0:39	B8	9.80	9.37	93	14	31	524	4. IC	127. 805	
563	692	527	17:16:40	-62: 52:34	253880	-0: 3	-0:29	B8	9.80	9.37	76	11	27	349 L	3. DL	116. 333	
564	566	485	17:16:42	-59: 59: 3	244645	-0: 4	-1: 3	A0	7.63	7.20	239	13	180	480	3. DL	160. 000	
565	569	479	17:16:42	-59: 58:12	244645	-0: 4	-1:13	A0	7.63	7.20	68	9	23	295	3. DL	98. 333	
566	567	483	17:16:44	-59: 58:50	244645	-0: 2	-0:50	A0	7.63	7.20	86	13					

PAGE, CARRUTHERS AND HILL

NORMA RA 17:24 DEC -59:04

OBJECT NO.	X	Y	R.A.	DEC.	SAO NO.	Δ R.A.	Δ DEC.	SPEC. TYPE	V MAG.	P MAG.	PEAK DEN.	NO. OF POINTS	BG	DENSITY VOLUME	EXP. & FILTER	DEN. VOL/ EXP.	
601	502	477	17:19:22	-59:39:37	244693	-0:1	-1:29	BB	6.78	.00	233	49	25	3604	4.1C	879.024	
602	481	477	17:19:23	-59:39:11	244693	-0:0	-1:4	BB	6.78	.00	230	25	79	1606	4.1L	1606.000	
603	490	488	17:19:26	-59:46:47	244696	-0:3	0:22	BB	8.73	8.25	29	7	30?	29	4.1C	75.76	
604	422	445	17:19:38	-59:46:47	244696	-0:9	0:8	BB	8.73	8.25	63	4	33	106	3.0C	35.33	
605	592	507	17:19:44	-60:37:57	253909	-0:3	-0:18	BB	5.96	.00	216	43	22	2988	3.0C	996.000	
606	589	513	17:19:45	-60:39:46	253909	-0:3	-1:7	BB	5.96	.00	387	43	180	3050	3.0L	1016.667	
607	590	511	17:19:46	-60:39:37	253909	-0:1	-0:58	BB	5.96	.00	254	52	26	3668	4.1C	943.415	
608	589	515	17:19:52	-60:39:11	253909	-0:4	-0:31	BB	5.96	.00	206	29	77	1712	1.0L	1712.000	
609	460	467	17:20: 9	-57:42:55	NO							63	5	23	140	4.1C	34.146
610	522	491	17:20:17	-59:10:51	244705	-0:8	-0:46	A0	7.27	7.00	67	9	24	276	4.1C	67.317	
611	523	494	17:20:19	-59:11:25	244705	-0:2	-1:20	A0	7.27	7.00	209	4	182	103	3.0L	34.333	
612	526	488	17:20:29	-59:11:25	244705	-0:7	-0:58	A0	7.27	7.00	51	4	21	129	3.0C	36.333	
613	173	363	17:20:39	-51:22:24	244716	-0:2	0:13	B9	8.50	8.10	228	23	181	720	3.0L	240.000	
614	177	357	17:20:40	-51:22:45	244716	-0:1	-0:8	B9	8.50	8.10	66	18	21	569	3.0C	189.667	
615	175	360	17:20:41	-51:23: 1	244716	0:0	-0:23	B9	8.50	8.10	85	27	26	936	4.1C	229.293	
616	399	449	17:21:18	-56:21:10	244726	0:7	-1:11	B1	3.51	.00	482	473	29	67337	3.0C	2245.667	
617	396	452	17:21:18	-56:20:14	244726	0:7	-0:16	B1	3.51	.00	491	563	36	8266	4.1C	2011.146	
618	396	457	17:21:19	-56:21:21	244726	0:9	-1:22	B1	3.51	.00	470	383	90	46282	1.0L	46282.000	
619	396	456	17:21:25	-56:22:24	244726	0:14	-2:25	B1	3.51	.00	507	629	206	7467	3.0L	24891.333	
620	91	340	17:21:49	-59:41:10	272944	-0:19	0:19	BB	6.95	.00	345	104	186	6337	3.0L	2112.333	
621	373	452	17:21:54	-55:53: 2	NO							228	4	206	85	3.0L	28.333
622	91	343	17:21:55	-59:40:56	227944	-0:12	0:33	BB	6.95	.00	151	57	78	2286	1.0L	2286.000	
623	95	334	17:21:58	-59:41:55	227944	-0:10	-0:27	BB	6.95	.00	170	86	26	5230	3.0C	1743.333	
624	96	337	17:22: 3	-59:41: 4	227944	-0:5	0:25	BB	6.95	.00	218	104	31	7444	4.1C	1815.610	
625	131	353	17:22: 3	-50:21:57	244733	-0:2	0:1	A0	8.00	7.90	54	5	30	111	4.1C	27.073	
626	130	341	17:22:26	-49:59:50	227958	-0:16	-0:46	BB	8.00	7.90	67	20	28	5070	3.0C	193.667	
627	98	344	17:22:30	-59:50:32	227958	-0:14	-0:28	BB	8.00	7.90	88	40	30?	1437	4.1C	350.468	
628	97	348	17:22:31	-59:51:27	227958	-0:13	-0:28	BB	8.00	7.90	22	180	594	3.0C	30.000		
629	192	390	17:22:53	-56:56:23	244749	-0:5	-0:08	BB	6.95	.00	355	53	179	3703	3.0L	1234.333	
630	130	393	17:23: 1	-51:56:10	244749	-0:3	-1:47	BB	6.95	.00	164	31	78	1388	1.0L	1388.000	
631	681	566	17:23: 4	-62:54:57	253931	-0:26	-0:44	BB	7.75	7.30	130	26	26	1370	4.1C	33.146	
632	195	384	17:23: 7	-51:54:54	244749	0:9	-0:28	BB	6.95	.00	204	50	22	3516	3.0C	1172.000	
633	582	534	17:23: 8	-60:38:52	244749	-0:19	-0:28	BB	6.95	.00	109	6	79	1497	1.0L	149.000	
634	193	387	17:23: 8	-51:55: 9	244749	0:10	-0:46	BB	6.45	.00	259	56	27	4708	4.1C	1148.293	
635	687	563	17:23:11	-62:55:51	253931	-0:20	-1:37	BB	7.75	7.30	131	26	22	1446	3.0C	482.000	
636	584	570	17:23:12	-62:55:34	253928	-0:12	4:7	B9	6.38	.00	149	13	88	513	1.0L	513.000	
637	681	570	17:23:12	-62:55:34	253931	-0:18	-1:20	BB	7.75	7.30	149	13	88	513	1.0L	513.000	
638	130	368	17:23:15	-50:37:16	244755	0:3	-1:59	B9	6.06	.00	205	6	181	135	3.0L	45.000	
639	683	569	17:23:17	-62:55:27	253931	-0:13	-1:13	B9	7.75	7.30	335	29	192	1990	3.0L	663.333	
640	691	565	17:23:17	-63: 1:26	253928	0:8	-1:45	BB	6.38	.00	213	44	23	3532	3.0C	1177.333	
641	688	572	17:23:18	-63: 1:26	253928	0:6	-1:28	BB	6.38	.00	219	34	26	2179	1.0L	2179.000	
642	688	572	17:23:19	-63: 1: 9	253931	-0:12	-6:55	BB	7.75	7.30	219	34	26	2179	1.0L	2179.000	
643	688	569	17:23:20	-63: 0:58	253928	-0:4	-1:18	BB	6.38	.00	262	58	26	531	4.1C	1324.634	
644	131	364	17:23:21	-50:36:47	244755	0:3	-1:29	BB	6.06	.00	67	17	29	474	4.1C	115.610	
645	133	361	17:23:22	-50:35:18	244755	0:4	-0:1	BB	6.06	.00	50	8	24	183	3.0C	61.000	
646	687	571	17:23:23	-63: 1: 2	253928	-0:1	-1:21	BB	6.38	.00	392	43	193	3935	3.0L	1311.667	
647	703	581	17:24: 8	-63:24:12	253935	-0:6	-1:12	BB	6.28	7.77	249	17	192	579	3.0L	193.000	
648	707	576	17:24:12	-63:25: 1	253935	-0:2	-2:2	BB	6.28	7.77	76	13	23	443	3.0C	147.667	
649	704	580	17:24:15	-63:24:34	253935	0:1	-1:35	BB	6.28	7.77	98	16	26	691	4.1C	168.537	
650	859	649	17:25:20	-66:56:51	NO						148	42	75	1754	1.0L	1754.000	
651	859	647	17:25:23	-66:55:15	NO						234	62	49	3363	4.1C	820.244	
652	862	643	17:25:24	-66:51:40	NO						181	56	21	3635	3.0C	1211.667	
653	855	649	17:25:34	-66:51:16	NO						315	70	174	4457	3.0L	1484.667	
654	579	546	17:26:25	-60:39:36	253945	-0:10	-0:55	BB	3.79	.00	421	193	21	19077	3.0C	6359.000	
655	570	550	17:26:25	-60:40:21	253945	-0:8	-1:41	BB	3.79	.00	435	234	25	24237	4.1C	591.463	
656	576	552	17:26:29	-60:39: 9	253945	-0:6	-0:29	BB	3.79	.00	401	208	181	18139	3.0L	6046.333	
657	185	412	17:26:31	-51:56:59	244795	0:0	-0:39	A0	8.20	7.90	48	4	24	92	4.1C	20.333	
658	287	455	17:26:32	-54:12:29	244795	-0:12	-0:23	BB	7.75	7.50	268	19	187	832	3.0L	207.333	
659	291	449	17:26:32	-54:12:53	244795	-0:11	-0:29	BB	7.75	7.50	89	10	21	9148	3.0C	230.000	
660	576	554	17:26:33	-60:39:10	253945	-0:2	-0:59	BB	3.79	.00	400	121	81	9148	4.1C	9148.000	
661	298	452	17:26:33	-54:12: 4	244795	-0:13	0:1	B9	7.85	7.50	110	25	24	1109	4.1C	270.488	
662	287	457	17:26:34	-54:11:47	244795	-0:14	-0:18	BB	7.85	7.50	114	9	79	251	1.0C	251.000	
663	406	501	17:27: 3	-56:53:38	244808	-0:5	-0:38	BB	6.29	.00	374	46	190	2721	3.0L	907.000	
664	407	504	17:27:12	-56:54:32	244808	-0:4	-1:32	BB	6.29	.00	223	26	84	1611	1.0L	1611.000	
665	465	523	17:27:14	-58:11:58	244799	-0:42	-0:1	A0	10.00	9.87	117	6	78	184	4.1C	184.000	
666	241	447	17:27:15	-53:26:60	244806	-0:11	-0:32	B3	8.20	7.90	247	21	180	784	3.0L	261.333	
667	251	447	17:27:22	-53:27:53	244814?	-0:21	3:2	A0	10.00	9.78	247	21	180	784	3.0L	261.333	
668	408	499	17:27:15	-55:55:16	244806	-0:7	-2:15	BB	6.29	.00	265	57	28	4323	4.1C	1054.390	
669	309	468	17:27:16	-54:43:53	244805?	-0:17	-0:23	A0	9.20	8.95	214	4	191	877L	3.0L	29.000	
670	255	441	17:27:16	-53:27:26	244806	-0:12											

NRL REPORT 8173

NORMA RA 17:24 DEC -59:04

OBJECT NO.	X	Y	R.A.	DEC.	SAO NO.	A R.A.	A DEC.	SPEC TYPE	V MAG.	P MAG.	PEAK DEN.	NO. OF POINTS	BG	DENSITY VOLUME	EXP. & FILTER	DEN. VOL / EXP.	
701	809	660	17:31:28	-65:59:13	253970	0:13	-1:18	A0	7.53	.00	103	27	24	1179 H	4.1C	287.561	
702	236	477	17:31:30	-53:20:23	244870	0:13	-1:10	A0	6.27	.00	123	11	78	343	1.0L	343.000	
703	235	475	17:31:31	-53:19:57	244870	0:14	-0:44	A0	6.27	.00	279	24	181	1200	3.0L	400.000	
704	239	469	17:31:32	-53:20:25	244870	0:15	-1:12	A0	6.27	.00	115	25	22	1198	3.0C	399.333	
705	236	472	17:31:34	-53:19:41	244870	0:17	-0:28	A0	6.27	.00	148	32	27	1805	4.1C	440.244	
706	487	558	17:31:41	-58:53:48	244874	0:15	-0:48	B9	8.28	7.86	222	9	182	262 L	3.0L	87.333	
707	488	556	17:31:45	-58:53:56	244874	0:1	-0:56	B9	8.28	7.86	75	10	28	323	4.1C	78.780	
708	603	588	17:31:50	-61:24:46	253976	-0:11	-1:49	B9	9.05	8.73	58	7	20	209	3.0C	69.667	
709	603	588	17:31:50	-61:24:46	253980?	-0:35	-2:30	A2	10.20	9.92	58	7	20	209	3.0C	69.667	
710	493	553	17:31:51	-58:53:30	244870	0:1	-0:30	B9	8.28	7.86	57	5	22	147 L	3.0C	49.000	
711	599	592	17:31:55	-61:24:15	253976	0:1	-1:18	B9	9.05	8.73	233	10	183	348	3.0E	116.000	
712	600	590	17:31:56	-61:24:24	253976	0:1	-1:27	B9	9.05	8.73	69	10	23	320	4.1C	78.049	
713	600	592	17:31:56	-61:24:24	253980?	-0:31	-2:8	A2	10.20	9.92	69	10	23	320	4.1C	78.049	
714	946	715	17:32:5	-68:56: 9	NO	-	-	-	-	-	-	105	25	398	4.1C	9.634	
715	949	710	17:32:5	-68:56: 9	NO	-	-	-	-	-	-	70	6	23	187	3.0C	62.333
716	387	555	17:35:33	-56:51:13	244922	-0:2	-0:18	B9	8.73	8.39	238	10	186	364	3.0L	121.333	
717	388	553	17:35:40	-56:51:26	244922	0:5	-0:32	B9	8.73	8.39	75	14	26	440	4.1C	107.317	
718	391	550	17:35:41	-56:52: 8	244922	0:1	-1:13	B9	8.73	8.39	54	6	22	170 L	3.0C	56.667	
719	537	600	17:36:12	-60:10:56	253997	-0:4	-1:44	B9	9.08	8.53	53	4	23	102 L	4.1C	24.876	
720	764	685	17:38:43	-65:16:52	NO	-	-	-	-	-	-	60	6	25	181?	4.1C	44.146
721	387	581	17:39:12	-57:1:32	244967	-0:5	-1:34	B9	6.88	.00	341	36	182	2216	3.0L	738.667	
722	391	575	17:39:13	-57:0:54	244967	-0:4	-0:56	B9	6.88	.00	149	34	23	1874	3.0C	624.667	
723	388	579	17:39:18	-57:1:51	244967	0:2	-1:53	B9	6.88	.00	192	39	26	2566	4.1C	625.854	
724	744	684	17:39:19	-61:51:34	NO	-	-	-	-	-	-	102	4	77	95	1.0L	95.000
725	743	681	17:39:20	-60:50:52	NO	-	-	-	-	-	-	101	22	25	942	4.1C	229.756
726	388	584	17:39:22	-57:2:15	244967	0:5	-2:17	B9	6.88	.00	155	17	79	787	1.0L	787.000	
727	743	683	17:39:23	-61:51:35	NO	-	-	-	-	-	-	240	22	176	885	3.0L	295.000
728	746	678	17:39:30	-61:51:20	NO	-	-	-	-	-	-	81	15	23	565	3.0C	188.333
729	180	525	17:40:17	-52:36:28	244976	0:17	-1:1:	B8	7.90	7.50	233	24	170	880	3.0L	293.333	
730	182	522	17:40:18	-52:37:37	244976	0:18	-2:10	B8	7.90	7.50	106	26	30	1102	4.1C	268.780	
731	184	519	17:40:20	-52:35:48	244976	0:20	-0:21	B8	7.90	7.50	82	22	22	791	3.0C	263.667	
732	181	528	17:40:23	-52:37:38	244976	0:23	-1:41	B8	7.90	7.50	101	6	73	148 L	1.0L	148.000	
733	250	556	17:41: 9	-54: 7: 6	NO	-	-	-	-	-	-	220	14	176	419	3.0L	139.667
734	254	548	17:41: 9	-54: 7: 9	NO	-	-	-	-	-	-	60	8	22	78	667	14.195
735	251	551	17:41:11	-54: 7: 5	NO	-	-	-	-	-	-	75	14	26	460	4.1C	295.000
736	607	660	17:41:53	-61:57:37	NO	-	-	-	-	-	-	125	9	77	295	1.0L	295.000
737	606	659	17:41:58	-61:57:39	NO	-	-	-	-	-	-	289	14	183	706	3.0L	235.333
738	343	591	17:42:20	-56:11:01	NO	-	-	-	-	-	-	216	11	183	279?	3.0L	93.000
739	600	658	17:42:50	-61:57:33	NO	-	-	-	-	-	-	135	4	22	839	3.0C	279.667
740	605	652	17:42:55	-61:57:19	NO	-	-	-	-	-	-	162	17	25	994	4.1C	24.339
741	801	723	17:43: 9	-66:13:18	NO	-	-	-	-	-	-	235	31	75	1147	3.0L	392.333
742	345	590	17:43:10	-56:11:20	245020?	0:10	-6:27	A0	10.00	9.93	60	21	23	549	3.0C	183.000	
743	804	718	17:43:15	-66:13: 4	NO	-	-	-	-	-	-	89	25	22	999	3.0C	333.000
744	801	722	17:43:15	-66:12:50	NO	-	-	-	-	-	-	119	35	27	1603	4.1C	390.976
745	771	713	17:43:20	-65:34:12	NO	-	-	-	-	-	-	99	24	26	999	4.1C	243.659
746	801	725	17:43:22	-66:12:22	NO	-	-	-	-	-	-	101	7	75	167	1.0L	167.000
747	771	715	17:43:25	-65:34:59	NO	-	-	-	-	-	-	225	19	176	629	3.0L	209.667
748	774	709	17:43:31	-65:34:55	NO	-	-	-	-	-	-	81	21	22	749	3.0C	249.667
749	271	582	17:44: 5	-54:41:38	245031	0:13	-0:28	B8	8.84	8.46	221	11	174	348 L	3.0L	116.000	
750	272	579	17:44: 6	-54:41:43	245031	0:13	-0:32	B8	8.84	8.46	81	17	27	559	4.1C	136.341	
751	274	576	17:44: 7	-54:41:42	245031	0:15	-0: 9	B8	8.84	8.46	61	8	22	238 L	3.0C	79.333	
752	487	640	17:44:16	-59:24:20	245028?	0:39	-1:30	A0	9.90	9.52	83	16	23	578	4.1C	142.276	
753	487	640	17:44:16	-59:24:20	245047	-0:15	-0: 9	B9	8.40	8.10	83	16	23	578	4.1C	142.976	
754	889	637	17:44:22	-59:23:40	245047	-0: 9	-1:29	B9	8.40	8.10	61	10	20	306	3.0C	122.000	
755	886	643	17:44:23	-59:24:14	245047	-0: 9	-2: 3	B9	8.40	8.10	232	14	181	475	3.0L	158.333	
756	595	668	17:44:40	-61:44:45	250408	-0:15	-2:48	B9	6.62	.00	168	36	22	2161	3.0C	723.333	
757	592	672	17:45: 5	-61:44:32	250408	-0:11	-2:35	B9	6.62	.00	196	41	25	2807	4.1C	68.534	
758	591	674	17:45: 5	-61:44: 5	250408	-0:10	-2: 8	B9	6.62	.00	353	37	183	2590	3.0L	863.333	
759	592	676	17:45: 9	-61:44:21	250408	-0: 6	-2:24	B9	6.62	.00	172	25	79	1141	1.0L	114.000	
760	215	588	17:46:41	-53:35:36	245065	0:17	0:18	B3	5.30	.00	402	90	74	8789	1.0L	8789.000	
761	214	585	17:46:42	-53:35:21	245065	0:18	0:32	B3	5.30	.00	459	180	169	16133	3.0L	5377.667	
762	218	579	17:46:43	-53:35:57	245065	0:19	0: 4	B3	5.30	.00	419	127	26	13681	3.0C	560.333	
763	215	582	17:46:44	-53:35:29	245065	0:20	0:24	B3	5.30	.00	432	155	35	17292	4.1C	419.613	
764	427	649	17:47:14	-58:12: 2	NO	-	-	-	-	-	-	111	9	79	248?	1.0L	248.000
765	189	583	17:47:25	-53: 6: 5	245072	0:17	0:57	A0	6.40	.00	243	21	167	934	3.0L	311.333	
766	183	578	17:47:27	-52:57:10	245071	0:20	0: 1	B9	9.42	9.02	55	7	29	157	4.1C	38.293	
767	183	578	17:47:27	-52:57:10	245074?	0:12	-2: 1	A0	10.07	10.07	55	7	29	157	4.1C	38.293	
768	190	587	17:47:32	-53: 6: 39	245072	0:24	-0:23	A0	6.40	.00	108	10	70	296	1.0L	296.000	
769	193	578	17:47:33	-53: 7: 7	245072	0:26	0: 1	A0	6.40	.00	113	28	25	1279	3.0C	426.333	
770	191	581	17:47:37	-53: 7: 7	245072	0:26	-0:45	B9	6.50	.00	145	33	33	1824	4.1C	144.878	
772	418	633	17:48:48	-64:38:18	245085	-0:17	-1:38	B9	9.94	9.61	207	4	23	238 L	3.0C	31.333	
773	609	720	17:49:48	-63:58:35	245084	-0:2	-1:39										

PAGE, CARRUTHERS AND HILL

NORMA RA 17:24 DEC -59:04

OBJECT NO.	X	Y	R.A.	DEC.	SAO NO.	A. R.A.	A. DEC.	SPEC. TYPE	V MAG.	P MAG.	PEAK DEN.	NO. OF POINTS	BG	DENSITY VOLUME	EXP. & FILTER	EXP. VOL/ DEN.
801	729	729	17:58:55	-65:6:43	254121	0:29	-0:58	BB	8.28	0.0	230	25	170	560	3.2L	316 667
802	281	705	18:0:18	-65:6:20	254118	0:6	-3:4	BB	8.43	0.00	215	11	168	269 L	3.2L	123 225
803	284	699	18:0:26	-65:30:52	254218	0:4	3:32	BB	8.43	0.00	50	11	23	318 L	3.2C	134 919
804	282	703	18:1:0	-65:32:7	254218	0:2	2:17	BB	8.43	0.00	77	17	28	553	3.2C	134 222
805	422	747	18:1:40	-58:34:32	254237	-0:27	0:2	BB	7.21	0.00	216	31	76	1871	3.2C	871 222
806	420	745	18:1:40	-58:33:19	254237	-0:27	1:20	BB	7.21	0.00	383	46	180	3330	3.2L	124 222
807	421	742	18:1:45	-58:34:1	254237	-0:22	0:30	BB	7.21	0.00	274	57	29	456	3.2C	134 222
808	424	739	18:1:47	-58:34:19	254237	-0:19	0:15	BB	7.21	0.00	219	48	24	341	3.2C	138 222
809	296	755	18:6:37	-56:5:8	254288	-0:15	2:44	BB	8.90	8.41	222	19	170	641	3.2L	213 667
810	296	755	18:6:37	-56:5:8	254289	-0:25	3:38	AO	10.10	9.91	222	19	170	641	3.2L	213 667
811	297	752	18:6:38	-56:4:35	254288	-0:14	3:16	BB	8.90	8.41	81	16	27	569	4.1C	138 782
812	297	752	18:6:38	-56:4:35	254290	-0:29	4:10	AO	10.10	9.91	81	16	27	569	4.1C	138 782
813	300	749	18:6:39	-56:4:44	254288	-0:14	3:18	BB	8.90	8.41	60	16	26	419	3.0C	139 667
814	300	749	18:6:39	-56:4:44	254290	-0:23	4:2	AO	10.10	9.91	60	16	26	419	3.0C	139 667
815	541	797	18:7:31	-61:15:4	254170	-0:19	-0:11	BB	8.34	7.87	97	22	24	871 L	3.0C	290 333
816	537	803	18:7:32	-61:15:23	254170	-0:17	-0:32	BB	8.34	7.87	262	26	179	1134	3.0L	378 222
817	538	801	18:7:33	-61:16:22	254170	-0:16	-1:31	BB	8.34	7.87	126	28	27	1347	4.1C	328 537
818	539	805	18:7:34	-61:16:36	254170	-0:15	-1:45	BB	8.34	7.87	112	9	75	261 L	1.0L	261 000
819	800	867	18:10:32	-66:54:18	NO						94	54	27	2962	4.1C	502 907
820	803	863	18:10:33	-66:54:14	NO						71	35	23	1161	3.0C	387 000
821	800	869	18:10:40	-66:54:28	NO						212	36	164	1294	3.0L	401 333
822	454	815	18:11:50	-59:34:48	254361	-0:29	0:2	AO	7.70	7.30	111	27	27	1244 H	4.1C	302 683
823	453	818	18:11:56	-59:33:56	254361	-0:23	0:54	AO	7.70	7.30	248	23	177	929	3.2L	309 667
824	456	812	18:11:56	-59:33:38	254361	-0:23	1:12	AO	7.70	7.30	90	22	24	833	3.0C	277 667
825	454	820	18:11:59	-59:33:52	254361	-0:20	0:58	AO	7.70	7.30	103	6	74	153	1.0L	153 000
826	396	811	18:12:24	-58:9:19	254368	-0:28	2:50	AO	8.80	8.23	233	21	171	814 H	3.0L	201 333
827	387	809	18:12:30	-58:10:24	254368	-0:22	1:45	AO	8.80	8.23	55	21	29	793 H	4.1C	193 375
828	398	814	18:12:32	-58:11:56	254368	-0:20	0:13	AO	8.80	8.32	95	4	73	92	1.0L	92 000
829	390	800	18:12:32	-58:10:57	254368	-0:19	1:42	AO	8.80	8.32	73	16	25	507 L	3.0C	169 000
830	282	795	18:12:37	-56:0:12	254369	-0:18	2:18	BB	5.54	0.0	463	145	173	15012	3.0L	5004 000
831	283	792	18:12:38	-55:59:49	254369	-0:17	2:40	BB	5.54	0.0	440	152	33	18057	4.1C	4404 146
832	286	789	18:12:39	-55:59:51	254369	-0:16	2:39	BB	5.54	0.0	415	124	29	18776	3.0C	4508 667
833	283	798	18:12:46	-56:0:20	254369	-0:9	2:9	BB	5.54	0.0	400	86	75	8776	1.0L	8776 000
834	653	861	18:14:28	-63:54:13	254209	-0:17	-1:48	AO	8.59	8.33	52	6	26	141	4.1C	340 390
835	461	892	18:15:40	-59:50:54	254045	-0:33	0:50	BB	7.21	0.00	367	85	31	8890 H	4.1C	2168 293
836	461	895	18:15:45	-59:51:11	254055	-0:28	0:39	BB	7.21	0.00	439	91	179	8880 H	3.0L	2960 000
837	464	839	18:15:45	-59:50:56	254055	-0:29	0:49	BB	7.21	0.00	325	75	27	6743 H	3.0C	2247 667
838	462	897	18:15:48	-59:51:3	254055	-0:25	0:41	BB	7.21	0.00	290	57	76	1336 H	1.0L	1336 000
839	321	824	18:16:18	-56:55:28	254511	-0:13	1:52	BB	7.73	0.00	136	44	28	2232 H	4.1C	544 390
840	322	830	18:16:19	-56:55:37	254511	-0:12	1:42	BB	7.73	0.00	112	17	70	522 H	1.0L	522 000
841	320	827	18:16:20	-56:54:30	254511	-0:12	2:50	BB	7.73	0.00	268	43	167	2097 H	3.0L	699 000
842	324	821	18:16:21	-56:54:12	254511	-0:10	3:8	BB	7.73	0.00	108	32	24	1457	3.0C	485 667
843	446	865	18:19:44	-59:38:54	254541	-0:12	-0:19	BB	7.56	0.00	144	40	28	2140 H	4.1C	521 951
844	445	868	18:19:49	-59:37:49	254541	-0:7	0:46	BB	7.56	0.00	272	42	171	2030 H	3.0L	676 667
845	449	862	18:19:49	-59:37:37	254541	-0:7	0:59	BB	7.56	0.00	111	32	25	1415	3.0C	471 667
846	446	870	18:19:52	-59:37:39	254541	-0:4	0:56	BB	7.56	0.00	109	15	70	462	1.0L	462 000
847	247	839	18:20: 9	-55:30:45	NO						56	5	28	127?	4.1C	30 976
848	569	921	18:27:18	-62:20:22	254273	0:35	-1:36	BB	4.81	0.0	441	159	28	20358	3.0C	676 000
849	569	921	18:27:18	-62:20:22	254275	0:26	-0:21	AO	7.76	0.00	441	159	28	20358	3.0C	676 000
850	566	927	18:27:19	-62:20:27	254273	0:37	-1:41	BB	4.81	0.00	472	194	178	22974	3.0L	7658 000
851	566	927	18:27:19	-62:20:27	254275	0:28	-0:27	AO	7.76	0.00	472	194	178	22974	3.0L	7658 000
852	566	925	18:27:21	-62:20:39	254273	0:38	-1:53	BB	4.81	0.00	451	196	34	25483	4.1C	6215 366
853	566	925	18:27:21	-62:20:39	254275	0:29	-0:38	AO	7.76	0.00	451	196	34	25483	4.1C	6215 366
854	567	929	18:27:24	-62:20:10	254213	0:42	-1:24	BB	4.81	0.00	415	124	72	14287	1.0L	14287 000
855	567	929	18:27:24	-62:20:10	254275	0:33	-0:10	AO	7.76	0.00	415	124	72	14287	1.0L	14287 000

NRL REPORT 8173

OBJECT NO.	X	Y	R.A.	DEC.	SAO NO.	Δ R.A.	Δ DEC.	SPEC. TYPE	V MAG.	P MAG.	PEAK DEN.	NO. OF POINTS	BG	DENSITY	EXP. & FILTER	DEN. VOL/ EXP.	
														VOLUME			
1	984	553	22:18:23	-6:24:11	146041?	-0:24	5:32	A2	7.46	.00	385	68	348	1702?	3.0L	567.333	
2	976	560	22:18:59	-6:32:32	146041?	-0:12	-2:49	A2	7.46	.00	389	48	355	1167?	3.0L	389.000	
3	897	489	22:21:17	-5:6:16	146067	-0:13	-0:50	A0	5.85	.00	149	66	16	3899	3.0C	1299.667	
4	954	489	22:21:30	-5:6:16	146067	-0:0	-0:50	A0	5.85	.00	308	129	19	12576	10.0C	1257.600	
5	944	489	22:21:34	-5:5:5	146067	0:3	0:21	A0	5.85	.00	175	36	125	1192	1.0L	1192.000	
6	945	489	22:21:37	-5:4:44	146067	0:6	0:42	A0	5.85	.00	374	79	274	3885	3.0L	1295.000	
7	963	491	22:21:38	-5:6:8	146067	0:8	-0:42	A0	5.85	.00	387	26	27	36497	30.0C	1216.567	
8	819	239	22:21:16	-0:1:32	146126	-0:20	5:34	A0	7.80	.00	53	15	17	428	3.0C	142.667	
9	867	241	22:21:27	-0:1:43	146126	-0:9	5:23	A0	7.80	.00	198	19	165	496	3.0L	165.333	
10	886	260	22:21:27	-0:1:14	146126	-0:10	5:54	A0	7.80	.00	176	156	26	11252	30.0C	375.067	
11	876	260	22:21:31	-0:1:18	146126	-0:5	5:48	A0	7.80	.00	123	65	19	3312	10.0C	331.200	
12	878	791	22:21:44	-1:0:08	165134	-0:17	-4:49	A0	4.89	.00	118	73	20	28483	10.0C	2848.300	
13	869	791	22:21:49	-1:0:59:31	165134	-0:12	-3:27	A0	4.89	.00	189	65	12	2726	1.0L	2726.000	
14	871	791	22:21:49	-1:1:05	165134	-0:12	-4:11	A0	4.89	.00	309	11	250	7465	3.0L	2468.333	
15	821	790	22:21:49	-1:1:23	165134	-0:12	-6:27	A0	4.89	.00	229	96	16	7746	3.0C	2582.667	
16	887	793	22:21:49	-1:0:59:9	165134	-0:11	-3:5	A0	4.89	.00	427	297	29	49403	30.0C	1645.767	
17	879	793	22:21:49	-2:31:58	165134	-0:11	-3:5	A0	4.89	.00	23	9	23	2377	30.0C	7.900	
18	816	658	22:29:29	-8:32:15	146141?	-0:20	0:6	A2	9.10	.00	80	4	46	997	5L	198.200	
19	799	252	22:32:37	-0:19:32	146181	-0:10	3:1	B8	4.13	.00	128	44	39	2097	5L	419.000	
20	801	257	22:32:39	-0:19:32	146181	-0:9	3:1	B8	4.13	.00	467	161	163	17321	L	5773.667	
21	751	256	22:32:39	-0:19:30	146181	-0:8	3:3	B8	4.13	.00	440	139	18	17639	L	5879.667	
22	799	256	22:32:43	-0:20:7	146181	-0:4	2:26	B8	4.13	.00	406	104	72	11808	L	11808.000	
23	808	256	22:32:47	-0:19:27	146181	-0:0	3:6	B8	4.13	.00	477	296	22	40833	H	10.0C	
24	818	259	22:32:48	-0:19:8	146181	-0:0	3:24	B8	4.13	.00	436	588	31	88258	L	30.0C	
25	720	428	22:39:26	-3:43:25	146252	-0:5	0:43	A0	7.70	.00	210	4	185	94	L	3.0C	
26	737	429	22:39:27	-3:43:18	146252	-0:4	0:49	A0	7.70	.00	108	68	21	3495	30.0C	116.500	
27	727	427	22:39:30	-3:43:48	146252	-0:1	0:20	A0	7.70	.00	86	22	16	938	10.0C	93.800	
28	959	507	22:39:34	-3:45:9	146252	-0:2	-1:2	A0	7.70	.00	61	29	18	871	10.0C	87.100	
29	670	427	22:39:36	-3:42:33	146252	-0:5	1:34	A0	7.70	.00	44	5	13	131	L	3.0C	
30	734	892	22:39:40	-12:56:34	165243	-0:14	-7:15	A0	7.90	.00	129	70	19	3703	H	10.0C	
31	728	892	22:39:42	-12:55:4	165243	-0:11	-5:46	A0	7.90	.00	227	19	190	484	3.0L	161.333	
32	678	892	22:39:43	-12:57:30	165243	-0:10	-8:11	A0	7.90	.00	54	25	16	694	3.0C	231.333	
33	955	509	22:39:43	-3:45:28	146252	-0:11	-1:20	A0	7.70	.00	307	4	285	86	L	3.0L	
34	967	509	22:39:43	-3:45:44	146252	-0:12	-1:36	A0	7.70	.00	87	99	22	4055	30.0C	135.167	
35	942	878	22:39:51	-12:55:46	165243	-0:3	-6:27	A0	7.90	.00	169	170	24	11954	H	30.0C	
36	959	770	22:40:11	-2:57:52	146262	-0:11	-1:10	B8	8.20	.00	99	109	21	5138	30.0C	171.267	
37	726	391	22:40:18	-2:56:3	146262	-0:5	0:38	B8	8.20	.00	120	77	20	4303	30.0C	143.433	
38	708	390	22:40:22	-2:56:2	146262	-1	0:40	B8	8.20	.00	209	8	176	208	L	69.333	
39	659	388	22:40:22	-2:56:2	146262	-1	0:40	B8	8.20	.00	45	4	15	111	L	3.0C	
40	715	388	22:40:27	-2:55:14	146262	-0:4	1:27	B8	8.20	.00	98	25	17	1120	L	112.000	
41	946	467	22:40:27	-2:55:39	146262	-0:4	1:2	B8	8.20	.00	67	36	17	1188	L	118.000	
42	731	603	22:40:29	-7:14:13	146273	-0:9	-0:42	B9	6.30	.00	333	159	23	18772	L	30.0C	
43	712	602	22:40:33	-7:13:57	146273	-0:5	0:26	B9	6.30	.00	151	16	92	600	L	600.000	
44	946	689	22:40:33	-7:17:13	146273	-0:5	-3:42	B9	6.30	.00	179	16	152	360	L	360.000	
45	950	687	22:40:33	-7:17:39	146273	-0:5	-4:8	B9	6.30	.00	188	77	19	5707	10.0C	570.700	
46	664	601	22:40:34	-7:12:36	146273	-0:3	0:55	B9	6.30	.00	139	30	14	1730	3.0C	576.667	
47	720	600	22:40:35	-7:13:29	146273	-0:2	0:2	B9	6.30	.00	290	66	18	6183	L	10.0C	
48	713	602	22:40:36	-7:14:18	146273	-0:1	-0:47	B9	6.30	.00	326	36	207	1942	3.0L	647.333	
49	947	688	22:40:36	-7:16:50	146273	-0:2	-3:19	B9	6.30	.00	395	205	24	6515	3.0C	2171.667	
50	953	686	22:41:01	-7:19:10	146273	-0:24	-0:39	B9	6.30	.00	82	23	27	806	L	30.0C	
51	690	302	22:41:08	-7:4:48	146282?	-0:9	5:11	A3	8.80	.00	227	73	77	40282	H	1.0L	
52	676	75	22:43:6	-3:23:52	127740	-0:1	1:48	B9	8.20	.00	166	27	130	728	3.0L	242.667	
53	627	75	22:43:9	-3:24:46	127740	-0:4	2:42	B9	8.20	.00	54	19	16	545	3.0C	181.667	
54	694	77	22:43:13	-3:22:26	127740	-0:7	0:23	B9	8.20	.00	178	157	21	11798	30.0C	393.267	
55	685	74	22:43:14	-3:23:2	127740	-0:9	0:58	B9	8.20	.00	139	70	18	3884	10.0C	388.400	
56	650	939	22:47:31	-13:44:18	NO	-	-	-	-	-	-	71	79	29	2343	30.0C	78.100
57	639	935	22:47:35	-13:42:40	NO	-	-	-	-	-	-	52	16	22	403	10.0C	40.300
58	608	310	22:49:55	-1:1:38	NO	-	-	-	-	-	-	48	4	20	106?	30.0C	5.333
59	596	841	22:50:43	-11:53:59	165359	-0:7	-1:1	B9	5.89	.00	62	8	33	199	5L	398.000	
60	604	845	22:50:43	-11:55:7	165359	-0:8	-2:9	B9	5.89	.00	441	126	20	16914	10.0C	1691.400	
61	596	847	22:50:44	-11:53:48	165359	-0:7	-0:50	B9	5.89	.00	204	51	72	2913	1.0C	2913.000	
62	598	847	22:50:45	-11:53:56	165359	-0:6	-0:58	B9	5.89	.00	408	75	169	6730	3.0C	2243.333	
63	613	848	22:50:48	-11:53:23	165359	-0:3	-2:25	B9	5.89	.00	425	286	24	44273	30.0C	1475.767	
64	548	866	22:50:52	-11:52:28	165359	-0:1	0:32	B9	5.89	.00	298	66	17	6119	3.0C	2039.667	
65	809	699	22:52:53	-7:21:38	NO	-	-	-	-	-	-	47	4	24	88	30.0C	2.933
66	747	770	22:52:53	-2:52:28	NO	-	-	-	-	-	-	239	4	207	102?	3.0C	102.000
67	583	615	22:52:56	-7:15:3	NO	-	-	-	-	-	-	57	22	20	651	30.0C	21.033
68	573	613	22:52:58	-7:15:5	NO	-	-	-	-	-	-	44	6	16	149	10.0C	14.000
69	795	690	22:53:8	-7:16:49	NO	-	-	-	-	-	-	44	6	18	140	10.0C	14.000
70	579	614	22:53:16	-7:13:31	NO	-	-	-	-	-	-	55	1				

PAGE, CARRUTHERS AND HILL

AQUARIUS RA 22:58 TO 23:16 DEC -05:06 TO -03:12

OBJECT NO.	X	Y	R.A.	DEC.	SAO NO.	α R.A.	δ DEC.	SPEC. TYPE	V MAG.	P MAG.	PEAK DEN.	NO. OF POINTS	BD	DENSITY VOLUME	EXP. & FILTER	DEN. VOL/ EXP.
101	830	747	23: 3:30	-8: 6:38	146505	0:13	5:47	A0	6.85	.00	76	15	16	576	3.0C	192.000
102	461	440	23: 3:33	-3: 37:33									10	1312	30.0C	367.367
103	621	120	23: 3:33	-4: 22:33	127991	0: 0	-1:32	A0	7.70	.00	49	12	16	322	10.0C	38.200
104	629	122	23: 3:5	-4: 22:21	127991	0: 3	-2:3	A0	7.70	.00	67	56	21	1858	30.0C	61.933
105	415	42	23: 6:11	-4: 22:41	127991	0: 8	-1:44	A0	7.70	.00	58	45	26	1173	30.0C	39.100
106	404	38	23: 6:22	-4: 23:49	127991	0:20	-0:36	A0	7.70	.00	47	5	24	104	10.0C	10.000
107	626	650	23: 7:51	-6:14: 7	146543	-0:13	-0:11	B8	7.01	.00	391	204	24	27176	30.0C	905.867
108	386	577	23: 7:54	-6:15:21	146543	-0:10	-1:26	B8	7.01	.00	61	4	32	113	5L	226.000
109	395	579	23: 7:56	-6:15:32	146543	-0: 9	-1:37	B8	7.01	.00	386	87	22	8727	10.0C	915.200
110	616	648	23: 7:58	-6:13:29	146543	-0: 7	-0:27	B8	7.01	.00	373	87	22			
111	612	645	23: 7:59	-6:13:20	146543	-0: 6	-0:35	B8	7.01	.00	185	27	26	1478	1.0L	1478.000
112	771	651	23: 7:59	-6:12:27	146543	-0: 5	-1:48	B8	7.01	.00	191	42	18	2614	3.0C	871.333
113	387	582	23: 8: 1	-6:15:20	146543	-0: 4	-1:24	B8	7.01	.00	350	45	16	3061	3.0L	1020.333
114	613	649	23: 8: 1	-6:13:5	146543	-0: 3	-0:50	B8	7.01	.00	366	46	173	2996	H	998.667
115	385	581	23: 8: 2	-6:14:24	146543	-0: 2	-0:29	B8	7.01	.00	179	26	64	1392	1.0L	1392.000
116	+03	581	23: 8: 3	-6:14: 7	146543	-0: 1	-0:12	B8	7.01	.00	387	191	23	25056	30.0C	835.200
117	338	580	23: 8: 4	-6:14: 7	146543	0: 0	-0: 9	B8	7.01	.00	201	40	16	2806	3.0C	935.333
118	607	781	23: 9:48	-8:46:58							55	6	21	1737	30.0C	5.767
119	566	113	23: 11:18	-4:38:58	128051	-0:10	-4:30	B2	6.93	.00	432	322	23	51609	L 30.0C	1720.300
120	552	107	23: 11:28	-4:40:53	128051	0: 0	-2:36	B2	6.93	.00	291	77	58	6347	1.0L	6347.000
121	555	110	23: 11:30	-4:40:56	128051	0: 2	-2:33	B2	6.93	.00	451	139	19	19677	10.0C	1967.700
122	553	110	23: 11:31	-4:42:26	128051	0: 3	-1:3	B2	6.93	.00	432	110	18	11958	3.0L	3986.000
123	710	113	23: 11:31	-4:41:21	128051	0: 3	-2:8	B2	6.93	.00	343	72	18	7980	L 3.0C	2660.000
124	560	534	23: 12:57	-3:46:21	146593	-0: 2	-0:12	A2	5.55	.00	97	60	18	2998	L 30.0C	98.267
125	549	534	23: 12:58	-3:46:50	146593	-0: 1	-0:40	A2	5.55	.00	175	5	148	116	L 3.0L	38.667
126	551	532	23: 12:59	-3:45:47	146593	-0: 1	-0:22	A2	5.55	.00	76	20	17	733	L 10.0C	73.200
127	330	463	23: 13: 0	-3:49:35	146593	0: 1	-3:25	A2	5.55	.00	102	29	16	1298	L 10.0C	129.800
128	362	466	23: 13: 2	-3:49:20	146593	0: 2	-2:50	A2	5.55	.00	177	78	10	4224	L 3.0C	14.333
129	397	466	23: 13: 6	-3:48:46	146593	0: 3	-3:11	A2	5.55	.00	119	46	6	163	L 3.0C	54.333
130	273	461	23: 13: 6	-3:48:46	146593	0: 6	-1:54	A2	5.55	.00	46	100	21	3353	30.0C	111.767
131	543	694	23: 14:56	-6:45: 6							93	69	21	3049	30.0C	101.633
132	534	682	23: 14:57	-6:43:18	NO						65	11	18	349	3.0C	116.333
133	538	952	23: 15:58	-12: 4:36	165609	-0: 5	-5:25	A0	6.36	.00	203	163	24	13053	30.0C	435.100
134	325	875	23: 15: 1	-12: 0:14	165609	-0: 3	-1:3	A0	6.36	.00	165	143	22	6947	L 30.0C	331.567
135	322	615	23: 15: 3	-6:47:57	NO						93	69	21	3049	30.0C	101.633
136	688	681	23: 15: 3	-6:45:11	NO						65	11	18	349	3.0C	116.333
137	546	952	23: 15: 3	-12: 4:59	165609	-0: 1	-5:48	A0	6.36	.00	203	163	24	13053	30.0C	435.100
138	534	952	23: 15: 5	-12: 4:47	165609	0: 1	-2:35	A0	6.36	.00	191	23	150	692	L 3.0L	230.667
139	314	872	23: 15: 6	-12: 1:33	165609	0: 3	-2:21	A0	6.36	.00	134	58	19	3089	L 10.0C	308.900
140	257	873	23: 15: 9	-12: 0:32	165609	0: 5	-1:20	A0	6.36	.00	55	15	17	436	L 3.0C	145.333
141	545	819	23: 15: 9	-9:24:27	146620	-0: 9	-2:54	B5	4.56	.00	447	888	39	143534	30.0C	4784.467
142	307	875	23: 15:13	-12: 0:44	165609	0:10	-1:32	A0	6.36	.00	173	19	132	566	L 3.0L	188.667
143	254	613	23: 15:13	-6:47:27	NO						39	4	14	93	3.0C	31.000
144	533	819	23: 15:13	-9:24:54	146620	-0: 5	2:26	B5	4.56	.00	472	287	160	29976	3.0L	9992.000
145	310	611	23: 15:14	-6:46:43	NO						74	22	17	791	10.0C	79.100
146	303	611	23: 15:15	-6:45:60	NO						178	10	138	290	3.0L	96.667
147	690	821	23: 15:15	-9:25:25	146620	-0: 3	1:56	B5	4.56	.00	389	241	19	25998	3.0C	8632.667
148	531	815	23: 15:16	-9:25: 6	146620	-0: 2	2:15	B5	4.56	.00	448	169	71	17752	1.0L	17752.000
149	324	747	23: 15:17	-9:25:0	146620	-0: 1	2:21	B5	4.56	.00	450	819	35	126660	L 30.0C	4222.000
150	691	955	23: 15:17	-12: 2:55	165609	0:14	-3:44	A0	6.36	.00	62	20	22	608	L 3.0C	202.667
151	304	742	23: 15:21	-9:25:36	146620	0: 3	1:44	B5	4.56	.00	277	61	30	5010	5L	10020.000
152	534	818	23: 15:21	-9:25: 1	146620	0: 3	2:20	B5	4.56	.00	482	430	25	61328	10.0C	61328.000
153	306	747	23: 15:22	-9:24:24	146620	0: 3	2:57	B5	4.56	.00	472	288	137	30018	3.0C	10006.000
154	256	745	23: 15:24	-9:25:33	146620	0: 5	1:48	B5	4.56	.00	452	223	18	26145	3.0C	8715.000
155	303	746	23: 15:27	-9:24:50	146620	0: 9	2:31	B5	4.56	.00	442	159	59	16835	1.0C	16835.000
156	312	740	23: 15:28	-9:24:50	146620	0:10	2:21	B5	4.56	.00	485	421	23	63285	10.0C	63285.000
157	532	981	23: 16:14	-12: 34: 43	165622	-0:13	-8:16	A0	7.60	.00	75	82	25	5890	L 3.0L	94.333
158	532	844	23: 16:15	-9:52: 9	166635	-0: 9	-9:58	A0	7.60	.00	424	340	33	4747	30.0C	1570.333
159	523	842	23: 16:16	-9:51:38	166635	-0: 8	-1:25	A0	5.16	.00	433	133	24	15918	10.0C	1591.800
160	520	842	23: 16:16	-9:50: 9	166635	-0: 5	-2:55	A0	5.16	.00	464	69	155	540	3.0L	1812.333
161	531	808	23: 16:17	-9:10:49	166635	-0: 9	9:11	A2	9.40	.00	64	5	38	115	L 30.0C	3.833
162	519	981	23: 16:20	-12: 35: 8	165622	-0: 5	-8:30	A0	7.60	.00	158	161	17	6284	L 3.0L	2094.667
163	521	978	23: 16:23	-12: 32:52	165622	-0: 3	-6:13	A0	7.60	.00	51	16	20	4080	L 10.0C	40.800
164	518	839	23: 16:24	-9:51:30	166635	-0: 3	1:34	A0	5.16	.00	203	45	65	2712	L 30.0C	2712.000
165	307	900	23: 16:25	-12:29:48	165622	-0: 0	-3: 9	A0	7.60	.00	68	65	22	2198	L 30.0C	73.267
166	677	845	23: 16:25	-9:52:57	166635	-0: 3	0:6	A0	5.16	.00	296	63	19	5604	3.0C	1880.000
167	243	768	23: 16:26	-9:51:57	166635	-0: 5	1:6	A0	5.16	.00	279	67	18	5366	3.0C	1788.667
168	291	769	23: 16:29	-9:50:43	166635	-0: 7	2:21	A0	5.16	.00	57	7	30	162	L 5L	324.000
169	290	769	23: 16:30	-9:51:18	166635	-0: 8	1:46	A0	5.16	.00	192	40	59	2357	1.0L	2357.000
170	292	769	23: 16:30	-9:50:44	166635	-0: 8	2:19	A0	5.16	.00						

NRL REPORT 8173

AQUARIUS RA 22:58 TO 23:16 DEC -05:06 TO -03:12

OBJECT NO.	X	Y	R.A.	DEC.	SAO NO.	Δ R.A.	Δ DEC.	SPEC. TYPE	V MAG.	P MAG.	PEAK DEN.	NO. OF POINTS	BG	DENSITY VOLUME	EXP. & FILTER	DEN. VOL / EXP.
201	465	521	23:19:51	-3:24:60	NO						100	6	63	176	1.0L	176.000
202	466	525	23:19:54	-3:24:48	NO						217	11	146	454	3.0L	151.333
203	603	23*	23:20:13	-2:29:31	128150	-0: 7	-3: 8	A0	6.92	.00	59	10	14	320 L	3.0C	106.667
204	242	149	23:20:17	-2:31:28	128150	-0: 3	-1:11	A0	6.92	.00	103	104	22	5082	30.0C	169.400
205	458	233	23:20:21	-2:32: 7	128150	0: 1	-0:32	A0	6.92	.00	152	77	18	5564	30.0C	185.467
206	449	231	23:20:23	-2:32:36	128150	0: 3	-0: 3	A0	6.92	.00	122	29	15	1560	10.0C	156.000
207	447	231	23:20:24	-2:33:56	128150	0: 4	-1:17	A0	6.92	.00	165	9	130	245 L	3.0L	81.667
208	231	144	23:20:27	-2:33:25	128150	0: 7	0:46	A0	6.92	.00	72	37	18	1265 L	10.0C	126.500
209	585	60	23:21:42	-5:55:36	128162	-0: 7	0:54	A0	7.14	.00	74	30	17	1096	3.0C	365.333
210	428	53	23:21:57	-5:56:55	128162	0: 8	-1:47	A0	7.14	.00	89	8	63	186	1.0C	186.000
211	430	57	23:21:58	-5:53:10	128162	0: 9	-1:32	A0	7.14	.00	62	21	81	1000 L	10.0C	100.400
212	439	59	23:22: 1	-5:52:50	128162	0:10	-1:22	A0	7.14	.00	294	171	22	33920	30.0C	559.333
213	437	926	23:24: 8	-11:22: 9	165696	-0: 2	-3:52	BB	8.40	.00	398	242	24	33913 H	30.0C	113.767
214	424	921	23:24: 9	-11:21:57	165696	0: 1	-3:39	BB	8.40	.00	121	41	59	1479	1.0C	1479.000
215	428	924	23:24: 9	-11:21:49	165696	0: 1	-3:22	BB	8.40	.00	307	104	24	9639	10.0C	963.900
216	425	924	23:24:11	-11:20:27	165696	0: 1	-1:59	BB	8.40	.00	294	73	137	4523 H	3.0L	1507.667
217	558	317	23:24:14	0:56: 4	128186	-0: 8	-2:50	A2	4.94	.00	157	27	14	1637	3.0C	545.667
218	194	232	23:24:15	0:57:50	128186	0: 7	-1: 4	A2	4.94	.00	265	177	21	17980	30.0C	599.333
219	125	229	23:24:19	0:57:12	128186	-0: 3	-1:42	A2	4.94	.00	83	34	14	1392	3.0C	464.000
220	183	227	23:24:24	0:59:43	128186	0: 2	0:49	A2	4.94	.00	220	82	16	6490	10.0C	649.000
221	174	230	23:24:25	0:59:58	128186	0: 3	1: 4	A2	4.94	.00	176	39	113	1419 L	3.0L	473.000
222	583	927	23:24:25	-11:19:14	165696	0:15	-0:46	BB	8.40	.00	141	52	22	2875 H	3.0C	958.333
223	195	87	23:24:26	-11:22:21	165696	0:17	-3:54	BB	8.40	.00	86	45	16	1806	3.0C	602.000
224	201	86	23:24:26	-11:22:51	165696	0:17	-4:24	BB	8.40	.00	225	110	18	8560 H	10.0C	856.000
225	211	84	23:24:27	-11:22:29	165696	0:17	-4: 2	BB	8.40	.00	293	230	22	24088	30.0C	802.933
226	400	311	23:24:28	0:58:33	128186	0: 6	-0:21	A2	4.94	.00	123	18	55	706	1.0L	706.000
227	172	229	23:24:29	1: 0:23	128186	0: 7	1:29	A2	4.94	.00	77	12	49	293 L	1.0L	293.000
228	412	316	23:24:29	0:58:17	128186	0: 7	-0:37	A2	4.94	.00	332	142	20	16039	30.0C	534.633
229	401	314	23:24:31	1: 0: 0	128186	0: 9	1: 6	A2	4.94	.00	266	33	129	1893	3.0L	631.000
230	403	314	23:24:31	0:58:44	128186	0: 9	-0:10	A2	4.94	.00	304	61	20	5279	10.0C	527.900
231	192	848	23:24:32	-11:22: 1	165696	0:22	-3:34	BB	8.40	.00	88	28	47	848 H	1.0L	848.000
232	194	849	23:24:32	-11:21:16	165696	0:22	-2:48	BB	8.40	.00	208	68	112	3317 H	3.0L	1105.667
233	171	269	23:26:11	0:15:51	NO						69	17	20	500?	30.0C	16.667
234	152	269	23:26:17	0:15:34	NO						138	4	112	95	3.0C	31.667
235	168	271	23:26:26	0:13:34	NO						83	14	22	573?	30.0C	19.100
236	593	559	23:26:39	-3:57:10	146732	-0: 9	-4:54	A0	8.50	.00	56	12	14	349	3.0C	116.333
237	389	556	23:26:43	-3:54:32	146732	-0: 5	-2:16	A0	8.50	.00	111	35	16	1644	10.0C	164.400
238	174	481	23:26:44	-3:57:49	146732	-0: 4	-5:33	A0	8.50	.00	118	97	21	5170	30.0C	172.333
239	385	553	23:26:44	-3:54:38	146732	-0: 3	-2:03	A0	8.50	.00	89	4	64	99	1.0C	99.000
240	397	557	23:26:46	-3:53:41	146732	-0: 2	-1:25	A0	8.50	.00	130	83	18	5206	30.0C	173.533
241	386	556	23:26:47	-3:53:13	146732	-0: 1	-0:57	A0	8.50	.00	206	13	147	463	3.0C	154.333
242	105	478	23:26:49	-3:57:27	146732	0: 1	-5:11	A0	8.50	.00	40	4	15	91 L	3.0C	30.333
243	169	477	23:26:51	-3:57: 2	146732	0: 3	-4:46	A0	8.50	.00	85	36	16	1407	10.0C	140.700
244	154	479	23:26:52	-3:55:21	146732	0: 5	-3: 5	A0	8.50	.00	147	13	115	326	3.0C	108.667
245	234	203	23:38:14	3:19:38	128322	-0: 4	-1:21	A0	8.90	.00	58	23	16	690	10.0C	69.000
246	241	205	23:38:22	3:20:45	128322	-0: 4	-0:14	A0	8.90	.00	78	72	19	2856	30.0C	95.200
247	220	401	23:40:44	-0:29:41	146860	0: 0	-3:42	A0	8.40	.00	46	17	20	386 L	30.0C	12.867
248	97	290	23:50:10	1:47:18	128436	-0:21	-1:28	A0	6.24	.00	221	196	19	17367	30.0C	578.900
249	85	286	23:50:25	1:50:12	128436	-0: 6	1:27	A0	6.24	.00	152	93	17	5505	10.0C	550.500
250	240	289	23:50:40	2: 3:44	128436	-0:29	-1:37	A2	8.20	.00	67	37	14	1216?	3.0C	405.333
251	81	272	23:51:23	2: 9:33	128456	-0:29	-1:37	A2	8.20	.00	40	17	12	408 L	30.0C	13.600

BEST AVAILABLE COPY

PAGE, CARRUTHERS AND HILL

FORNAX RA 03:42 DEC -27:20

OBJECT NO.	X	Y	R.A.	DEC.	SAO NO.	Δ R.A.	Δ DEC.	SPEC. TYPE	V MAG.	P MAG.	PEAK DEN.	NO. OF POINTS	BO	DENSITY VOLUME	EXP. & FILTER	DEN. VOL / EXP.	
1 481	947	3: 4:51	-24:38:13									122	14	89	372?	3.0L	124.000
2 264	806	3: 8:59	-29:59:52									114	8	79	214?	3.0L	71.333
3 244	791	3: 9:28	-30:29: 3	194145	-0:19	-1:13	A0	8.80	8.66	104	10	74	267	H	3.0L	89.000	
4 584	930	3:10:41	-22: 4: 3									108	23	21	1147?	.3C	3823.333
5 199	740	3:13:58	-31: 3:21	194197	-0: 9	-2:41	B9	6.62	.00	88	31	17	1208	3.0C	402.667		
6 238	735	3:14: 3	-31: 4:18	194197	-0: 4	-3:38	B9	6.62	.00	71	14	34	389	1.0L	389.000		
7 238	735	3:14: 3	-31: 3:39	194197	-0: 5	-2:59	B9	6.62	.00	169	38	76	1813	3.0L	604.333		
8 731	859	3:19: 4	-20:28:32	16885	-0:23	1:37	A0	6.58	.00	109	11	80	284	3.0L	94.667		
9 160	643	3:19:20	-33:13:29									112	7	70	214?	3.0L	71.333
10 500	759	3:20:18	-25:47: 6	168493	0:11	-1:10	A0	6.26	.00	68	7	37	176	L	1.0L	176.000	
11 500	759	3:20:18	-25:46:28	168493	0:10	-0:32	A0	6.26	.00	168	33	87	1333	3.0L	444.333		
12 461	764	3:20:25	-25:49: 3	168493	0:10	-3: 7	A0	6.26	.00	81	17	18	608	L	3.0C	202.667	
13 708	769	3:20:31	-21:34: 5	168560	-0:13	0: 6	B9	9.00	.00	107	5	82	118	L	3.0L	39.333	
14 466	685	3:20:27	-26:58:39									224	20	88	1158?	3.0L	386.000
15 574	596	3:20:14	-21:58:29									143	5	16	118?	3.0C	38.667
16 693	727	3:20:41	-21:25:36	168614	-0:11	-0:38	B5	8.80	.00	76	19	16	678	3.0C	225.333		
17 732	722	3:20:44	-21:24:44	168614	0: 7	0:14	B5	8.80	.00	66	9	36	293	L	1.0L	293.000	
18 732	722	3:20:45	-21:24:10	168614	0: 7	0:48	B5	8.80	.00	173	32	84	1444		.3C	481.333	
19 629	678	3:30:21	-23:15:37	168620	-0: 4	2:11	B9	9.10	.00	111	4	87	93	3.0L	31.000		
20 529	637	3:31: 8	-26: 2:26	NO								115	18	39	792	1.0L	792.000
21 530	637	3:31:10	-26: 0:37	NO								103	26	16	1081	3.0C	360.333
22 491	642	3:31:17	-26: 3: 8	NO								271	37	88	2440	3.0L	813.333
23 720	696	3:31:26	-21:48:56	168634	-0: 9	-0:58	B8	4.32	.00	463	233	86	25176	3.0L	8392.000		
24 721	696	3:31:27	-21:48:18	168634	-0: 8	-0:20	B8	4.32	.00	414	109	39	11792	1.0L	11792.000		
25 682	701	3:31:29	-21:49:36	168634	-0: 6	-1:38	B8	4.32	.00	403	167	17	17046	3.0C	5682.000		
26 682	701	3:31:29	-21:48:35	168634	-0: 6	-0:37	B8	4.32	.00	259	48	16	4059	.3C	13530.000		
27 885	748	3:33:35	-17:33:48	194063?	-0:25	4: 5	A0	5.32	.00	82	47	16	1821	H	.3C	6070.000	
28 924	744	3:33:37	-17:35:51	194063	-0:24	2: 2	A0	5.32	.00	210	119	33	8589	H	1.0L	8589.000	
29 886	749	3:33:37	-17:33:39	194061	-0:18	-4:57	A2	9.60	.00	354	140	18	15806	H	3.0C	5268.667	
30 886	749	3:33:37	-17:33:39	194063?	-0:24	4:19	A0	5.32	.00	354	140	18	15806	H	3.0C	5268.667	
31 924	744	3:33:38	-17:35:18	194063	-0:23	2:35	A0	5.32	.00	445	181	74	25359	H	3.0L	8941.333	
32 112	442	3:36: 0	-35:32:19									115	5	73	185?	3.0L	61.667
33 455	550	3:36:39	-28: 7: 4	168701	-0: 4	-0:45	A0	6.08	.00	99	13	37	506	1.0L	506.000		
34 456	550	3:36:40	-28: 5:20	168701	-0: 2	0:59	A0	6.08	.00	224	22	86	1421	3.0L	473.667		
35 417	555	3:36:43	-28: 7:26	168701	-0: 0	-1: 7	A0	6.08	.00	116	26	16	1278	3.0C	426.000		
36 467	522	3:39:27	-28: 2:21									129	7	83	226?	3.0L	75.333
37 660	574	3:39:51	-23:47:38	168752	-0: 0	0:35	A0	8.30	.00	116	6	87	1417	3.0L	47.000		
38 247	463	3:40: 6	-32: 5:17	194667	-0: 9	0:32	B5	4.93	.00	392	171	17	17486	3.0C	5829.333		
39 286	458	3:40: 8	-32: 5: 8	194667	-0: 8	0:42	B5	4.93	.00	451	255	42	24997	3.0L	832.333		
40 286	458	3:40: 9	-32: 5:38	194667	-0: 7	0:11	B5	4.93	.00	405	134	40	11744	1.0L	11744.000		
41 246	462	3:40:11	-32: 5:49	194667	-0: 5	0:0	B5	4.93	.00	237	50	16	3827	.3C	12756.667		
42 669	509	3:40:11	-24:47:15	168836	-0: 0	0:55	A2	5.04	.00	107	4	86	93	3.0L	51.000		
43 711	337	3:40:11	-36:13:30	194537	-0:15	2:02	B8	6.24	.00	182	76	16	5219	3.0C	1739.667		
44 70	337	3:40:11	-36:13:37	194537	-0:14	1:55	B8	6.25	.00	37	6	14	1540	L	.3C	443.333	
45 109	333	3:46:13	-34:15: 4	194537	-0:17	-0:12	B8	6.25	.00	112	56	36	2274	1.0L	2274.000		
46 110	333	3:46:13	-36:14: 5	194537	-0:17	-2:27	B8	6.25	.00	264	103	24	7324	3.0L	2441.333		
47 103	300	3:49: 4	-36:34:10	194570	-0:18	0:22	B9	6.79	.00	131	47	22	1693	3.0L	564.333		
48 64	304	3:49: 9	-36:32:42	194570	-0:23	1:50	B9	6.79	.00	67	34	16	1104	3.0C	368.000		
49 653	434	3:51:32	-24:47:15	168925	-0: 3	-1:42	B5	4.76	.00	457	276	84	28330	3.0L	9443.333		
50 654	434	3:51:34	-24:46:29	168925	-0: 1	-0:56	B5	4.76	.00	412	137	37	12475	1.0L	12475.000		
51 615	439	3:51:36	-24:48: 4	168925	-0: 2	-2:31	B5	4.76	.00	396	169	17	17097	3.0C	5699.000		
52 615	439	3:51:37	-24:46:60	168925	-0: 2	-1:27	B5	4.76	.00	212	48	16	3574	.3C	11913.333		
53 152	303	3:51:46	-34:51:43	194608	-0: 1	J: 2	B5	5.12	.00	176	51	14	3697	.3C	12323.333		
54 155	303	3:51:48	-34:50:25	194608	-0: 4	2:20	B5	5.12	.00	408	143	18	18201	3.0C	6067.000		
55 193	299	3:51:51	-34:52:16	194608	-0: 6	0:30	B5	5.12	.00	403	118	37	12884	1.0L	12884.000		
56 194	299	3:51:51	-34:50:39	194608	-0: 6	2: 8	B5	5.12	.00	462	214	76	25934	3.0L	8644.667		
57 553	417	3:52: 5	-26:11:16									87	10	14	414?	3.0C	138.000
58 185	264	3:56:16	-34:29:29									44	4	15	1052	3.0C	35.000
59 420	314	3:56:13	-30:15:30									143	13	82	517?	3.0L	172.333
60 888	449	3:57:27	-19:22:14									43	4	14	113?	3.0C	37.667
61 702	375	3:57:47	-24: 8:59	169017	-0: 0	0:27	A0	4.69	.00	274	55	38	4651	1.0L	4651.000		
62 662	379	3:57:49	-24:10:39	169017	-0: 2	-1:13	A0	4.69	.00	123	29	16	1193	.3C	3976.667		
63 663	379	3:57:50	-24:10:31	169017	-0: 3	-1: 6	A0	4.69	.00	339	79	18	7254	3.0C	2418.000		
64 702	374	3:57:52	-24: 8:54	169017	-0: 5	0:31	A0	4.69	.00	428	102	85	10236	3.0L	3412.000		
65 408	289	3:58:16	-30:38:37	194689	-0: 6	-0:48	A0	5.85	.00	74	9	34	279	L	1.0L	279.000	
66 408	289	3:58:16	-30:38:13	194689	-0: 5	-0:24	A0	5.85	.00	182	26	79	1298	L	3.0L	430.667	
67 370	293	3:58:19	-30:38:59	194689	-0: 8	-1: 9	A0	5.85	.00	99	17	16	819	3.0L	273.000		
68 284	264	3:59: 9	-32:32:47	NO								53	12	16	324?	3.0L	108.000
69 323	259	3:59:18	-32:31:40	NO								137	22	77	700	3.0L	260.000
70 856	393	4: 1:17	-20:14:43	169071	-0: 4	2: 7	B3	6.39	.00	120	44	15	2310	.3C	7700.000		
71 859	393	4: 1:18	-20:14:37	169071	-0: 6	2:13	B3	6.39	.00	396	124	18	19751	3.0C	4913.000		
72 897	388	4: 1:19	-20:14:33	169071	-0: 8	-0:42	B3	6.39	.00	470	213	29	26750	3.0L	9583.333		
73 898	389	4: 1:20															

NRL REPORT 8173

OBJECT NO.	X	Y	R.A.	DEC.	SAO NO.	Δ R.A.	Δ DEC.	SPEC. TYPE	V MAG.	P MAG.	PEAK DEN.	NO. OF POINTS	BG	DENSITY VOLUME	EXP. & FILTER		DEN. VOL / EXP.	
															13	27	317	3.0C
1	745	82	17:49:18	-31:37:11	209398	-0:12	0:18	BB	8.62	8.33	57	13	27	317	3.0C	105.667		
2	751	80	17:49:31	-31:35:26	209398	-0: 0	2: 3	BB	8.62	8.33	111	23	54	881	10.0C	88.100		
3	68*	65	17:50:59	-30:13:39								85	11	58	264?	10.0C	26.400	
4	665	60	17:51: 9	-29:50: 36	185914	-0: 2	-0: 0	BB	9.20	.00	96	10	55?	3607L	10.0C	36.000		
5	811	132	17:51:19	-33:11:21	209456	-0:18	-0: 6	BB	9.06	9.00	88	23	53	635 L	10.0C	63.500		
6	855	163	17:52: 5	-34:16:38	209460	0: 9	-2:59	A0	8.00	0.00	88	12	56	324?	10.0C	32.400		
7	690	88	17:52:24	-30:34:22	209474	0: 4	-1:14	BB	8.60	8.70	149	66	54	3168	10.0C	316.800		
8	690	88	17:52:24	-30:34:22	209480	0: 8	-0:31	A0	7.54	7.21	149	66	54	3168	10.0C	316.800		
9	682	81	17:52:29	-30:33:14	209480	0: 5	-0:33	BB	8.80	8.70	60	11	28	281 L	3.0C	93.667		
10	682	81	17:52:29	-30:33:14	209480	0: 3	-0:37	A0	7.54	7.21	60	11	28	281 L	3.0C	93.667		
11	772	131	17:52:39	-32:20:11	209509	0:14	-1: 5	BB	9.62	9.00	94	31	49	175 L	3.0C	58.333		
12	770	144	17:53:17	-30:37:37	209503	0:16	-0:22	BB	8.60	0.00	49	8	26					
13	779	141	17:53:18	-32:41:40	209503	0:16	-0:42	BB	8.60	0.00	139	49	51	2219	10.0C	221.900		
14	727	117	17:53:20	-31:31:15	209502	0: 8	-0:18	BB	8.72	8.41	118	80	55	2845 H	10.0C	284.500		
15	810	157	17:53:26	-33:24:39	209508	0:19	-0:24	A0	8.12	7.84	76	10	47	252 L	10.0C	25.200		
16	656	86	17:53:33	-29:56: 3	185974	0: 3	-1: 5	BB	8.50	0.00	93	18	55	508	10.0C	50.800		
17	534	32	17:53:35	-27: 8: 2	185976	-0:14	-0:13	BB	8.40	0.00	124	39	58	1505	10.0C	150.500		
18	672	95	17:53:39	-30:18:20	209507	0: 1	-1:30	BB	8.50	8.47	123	35	56	1442	10.0C	144.200		
19	678	109	17:53:59	-30:39:22	209506?	0:21	2: 6	BB	9.50	9.33	49	4	27	85	3.0C	28.333		
20	678	109	17:53:59	-30:39:22	209506?	0: 3	-0:26	BB	9.10	8.68	49	4	27	85 L	3.0C	28.333		
21	739	138	17:53:60	-32: 3:48	209520	0:14	-1: 8	BB	8.27	7.82	99	40	25	1698	3.0C	166.000		
22	686	106	17:54: 0	-30:39:19	209506?	0:22	2: 9	BB	9.50	9.33	126	61	57	2237 H	10.0C	223.700		
23	686	106	17:54: 0	-30:39:19	209515	0: 2	-0:23	BB	9.10	8.68	126	61	57	2237 H	10.0C	223.700		
24	747	135	17:54: 2	-32: 3:44	209520	0:12	-1: 3	BB	8.27	7.82	310	91	52	8247	10.0C	824.700		
25	744	145	17:54: 6	-32:3:27	209520	0: 7	-0:47	BB	8.27	7.82	136	10	108	237 L	1.0L	237.000		
26	830	177	17:54:15	-33:57:31	209527	-0:25	-0:48	A0	8.30	7.93	72	8	48	179 L	10.0C	17.900		
27	700	116	17:54:19	-31: 1:27	209521	0: 1	-0:50	BB	8.24	8.17	137	41	55	1822 L	10.0C	182.200		
28	692	119	17:54:20	-31: 0:22	209521	0: 2	0:15	BB	8.24	8.17	53	9	26	207 L	3.0C	69.000		
29	636	90	17:54:31	-29:35:42	185985	0:18	-1:33	BB	9.20	0.00	100	25	55	829	10.0C	82.900		
30	636	90	17:54:31	-29:35:42	185994	0: 4	-1:37	BB	8.70	0.00	100	25	55	829	10.0C	82.900		
31	785	160	17:54:36	-32:59:47	NO							91	23	50	661	10.0C	66.100	
32	648	105	17:54:43	-30: 4: 6	209529	-0: 5	-0:27	BB	7.65	7.20	71	20	27	613	3.0C	204.333		
33	612	84	17:54:54	-29:5:11	186005	0: 1	-1: 5	BB	9.00	0.00	122	31	56?	1398	10.0C	139.800		
34	656	103	17:54:59	-30: 5: 1	209529	0: 7	-1:22	BB	7.65	7.20	190	70	54	4198 H	10.0C	419.800		
35	564	69	17:55: 1	-28:10:21	186010/	0: 2	-0:53	BB	9.00	0.00	63	16	28	429	3.0C	143.000		
36	564	69	17:55: 1	-28:10:21	186010/	0: 1	-2: 5	BB	8.80	0.00	63	16	28	429	3.0C	143.000		
37	572	67	17:55: 1	-28:10:18	186011/	0: 2	-0:50	BB	9.00	0.00	187	51	59?	2366	10.0C	236.600		
38	572	67	17:55: 1	-28:10:18	186011/	0: 1	-2: 3	BB	8.80	0.00	187	51	59?	2366	10.0C	236.600		
39	619	91	17:55:14	-29:16:38	186016	0: 1	-1: 4	BB	8.50	0.00	77	4	54	88 L	10.0C	8.800		
40	534	52	17:55:21	-31:31:32	186023	0: 7	-0:30	BB	8.50	0.00	60	15	29	378	3.0C	126.000		
41	542	59	17:55:21	-31:31:29	186023	0: 7	-0:27	BB	8.50	0.00	167	73	56	3501	10.0C	350.100		
42	915	242	17:55:27	-36: 2:26	209555?	0:27	-2:11	A0	8.60	8.26	124	8	100	171	1.0L	171.000		
43	915	242	17:55:27	-36: 2:26	209557?	0:28	-3: 8	BB	9.36	9.18	124	8	100	171	1.0L	171.000		
44	588	87	17:55:28	-28:46:50	186025	0: 0	-1:30	BB	5.95	0.00	403	99	31	11891	3.0C	1189.700		
45	593	93	17:55:29	-28:45:56	186025	0: 1	-0:36	BB	5.95	0.00	318	95	114	7110	1.0L	7110.000		
46	691	127	17:55:30	-30:57:10	NO							93	18	51	542	10.0C	54.200	
47	596	85	17:55:34	-28:47:15	186025	0: 6	-1:55	BB	5.95	0.00	429	298	57	31229	10.0C	31229.000		
48	908	237	17:55:36	-36: 1:33	209555	0:18	-1:17	A0	8.60	8.26	64	14	26	403	3.0C	134.333		
49	908	237	17:55:36	-36: 1:33	209557?	0:19	-4: 1	BB	9.36	9.18	64	14	26	403	3.0C	134.333		
50	465	31	17:55:41	-25:45:20	186033	0: 8	-2:54	A2	8.50	0.00	145	47	56	2387 H	10.0C	238.700		
51	465	31	17:55:41	-25:45:20	186047?	-0:29	-3:38	BB	8.20	0.00	145	47	56	2387 H	10.0C	238.700		
52	914	235	17:55:51	-35:59:33	209555	0: 3	-0:43	A0	8.60	8.26	93	15	51	464 L	10.0C	46.400		
53	914	235	17:55:51	-35:59:33	209560/	0:15	-1:33	BB	7.26	0.00	93	15	51	464 L	10.0C	46.400		
54	807	188	17:56: 4	-33:38:59	209563	0:18	0: 2	BB	9.29	8.99	88	23	56	499	10.0C	49.900		
55	658	120	17:56:10	-30:17:25	209567?	0:37	-1:49	BB	8.94	8.93	78	7	54	151 L	10.0C	151.000		
56	557	76	17:56:13	-27:58: 1	186045	0: 4	-0:35	A0	8.70	0.00	75	5	50	1217L	10.0C	121.700		
57	675	129	17:56:14	-30:40:53	209561	0: 5	-2:22	BB	8.9	8.47	8.10	90	24	50	687	10.0C	68.700	
58	889	235	17:56:16	-35:39:28	209574?	0:34	-0:37	BB	9.10	8.64	54	13	24	330 L	3.0C	110.000		
59	623	106	17:56:17	-29:29: 9	186048	0: 6	-1:18	BB	8.90	0.00	78	6	51	150 L	10.0C	15.000		
60	792	195	17:56:19	-33:23:39	209569	0:19	-0:49	BB	7.20	0.00	163	36	103	1299	1.0L	1299.000		
61	456	35	17:56:19	-25:47:33	186047	0: 9	-1:26	BB	8.20	0.00	54	10	30	220	3.0C	73.333		
62	817	195	17:56:20	-33:53:53	209568	0:18	-0:34	BB	8.31	8.26	80	17	47	450 L	10.0C	45.000		
63	896	232	17:56:20	-35:39:14	209574?	0:30	-0:24	BB	9.10	8.64	142	75	45	365 L	10.0C	365.000		
64	909	239	17:56:22	-35:56:60	209560	0:16	-4: 6	BB	7.26	0.00	68	6	46	1287 L	10.0C	128.700		
65	787	189	17:56:24	-33:24:54	209569?	0:15	-0:32	BB	7.20	0.00	163	58	24	3926	3.0			

PAGE, CARRUTHERS AND HILL

SGR NORMAL RA 18:34 DEC -30:24

OBJECT NO.	X	Y	R.A.	DEC.	SAO NO.	Δ R.A.	Δ DEC.	SPEC. TYPE	V MAG.	P MAG.	PEAK DEN.	NO. OF POINTS	BG	DENSITY VOLUME	EXP. FILTER	DEN. VOL/ EXP.
101	801	231	17:59: 6	-33:53:24	209631	-0:18	0: 1	85	7.55	6.98	176	48	97	2043	1.0L	2043.000
102	795	225	17:59: 7	-33:53: 6	209631	-0:17	0:19	85	7.55	6.98	187	59	24	3908	3.0C	1302.667
103	803	222	17:59: 8	-33:54: 2	209631	-0:16	-0:36	85	7.55	6.98	394	123	44	1451	10.0C	1451.400
104	872	263	17:59:20	-35:36:52	209632?	-0:24	-2:31	A	9.97	9.60	58	16	23	425	H 3.0C	141.667
105	872	263	17:59:20	-35:36:52	209634	-0:11	-5: 1	B9	9.06	8.84	58	16	23	425	H 3.0C	141.667
106	880	260	17:59:24	-35:36:35	209634	-0: 7	-4:44	B9	9.06	8.84	157	77	42	3936	H 10.0C	393.600
107	880	260	17:59:24	-35:36:35	209639?	-0:28	0:19	B9	8.30	8.02	157	77	42	3936	H 10.0C	393.600
108	599	148	17:59:34	-29:22: 1	186156	-0: 2	0: 4	88	7.86	.00	153	27	103	880	1.0L	880.000
109	594	142	17:59:38	-29:23:22	186156	0: 2	-1:17	88	7.86	.00	145	39	25	2136	H 3.0C	712.000
110	602	139	17:59:39	-29:23:13	186156	0: 3	-1: 8	88	7.86	.00	342	104	47	9394	H 10.0C	939.400
111	629	151	17:59:41	-30: 1:21	NO						75	10	46	251	10.0C	25.100
112	599	149	17:59:59	-29:32: 1	186166	0: 2	-0: 9	85	8.90	.00	54	7	27	163	L 3.0C	54.333
113	599	149	17:59:59	-29:32: 1	186170?	-0: 4	-4: 2	A0	9.10	.00	54	7	27	163	3.0C	54.333
114	466	88	18: 0: 2	-26:17:28	186180	-0:15	1:50	A0	7.50	.00	122	73	48	2795	10.0C	278.500
115	807	146	18: 0: 3	-29:33:29	186166	0: 5	-1:38	85	8.90	.00	141	48	51	1998	10.0C	199.800
116	534	187	18: 0: 6	-27:53:36	186171	0: 3	-1:42	A0	9.00	.00	99	25	58	616	10.0C	67.600
117	519	113	18: 0: 7	-27:53:32	186182	-0: 3	-1:11	88	8.80	.00	73	5	58	1297	L 10.0C	12.900
118	481	104	18: 0: 18	-26:51:24	186189	-0:14	0:52	85	7.90	.00	51	5	27	1650	L 3.0C	38.667
119	489	101	18: 0: 18	-26:51:15	186189	-0:15	1: 1	85	7.90	.00	117	37	45	1590	L 10.0C	158.000
120	458	180	18: 0: 20	-26:17:51	186180	0: 3	-1:27	A0	7.50	.00	51	5	26	116	L 3.0C	38.667
121	852	260	18: 0: 30	-35: 7:19	209663?	-0:28	-0:45	A0	8.15	8.00	85	27	41	793	L 10.0C	78.300
122	507	112	18: 0: 34	-27:18:22	186200	-0: 9	0: 2	B3	9.00	.00	207	103	47	634	10.0C	634.500
123	504	122	18: 0: 35	-27:17:37	186200	-0: 7	0:48	B3	9.00	.00	124	6	100	134	L 1.0L	134.000
124	499	115	18: 0: 37	-27:17:22	186200	-0: 5	1: 2	B3	9.00	.00	77	20	27	661	3.0C	220.333
125	569	138	18: 0: 38	-28:45:12	186192	0: 1	-0:58	A0	8.20	.00	85	17	44	519	L 10.0C	51.900
126	525	121	18: 0: 40	-27:44:35	186201	-0: 4	0:37	A0	9.20	.00	105	40	53	1185	H 10.0C	118.500
127	375	62	18: 0: 42	-24:17:52	186204	-0: 6	3:57	0	5.86	.00	408	59	103	47938	1.0L	47938.000
128	375	62	18: 0: 42	-24:17:52	186207	-0:11	1: 4	B0	7.25	.00	408	59	103	47938	0.0L	47938.000
129	429	77	18: 0: 48	-25:29:11	NO						87	22	53	594	10.0C	59.400
130	369	56	18: 0: 51	-24:17: 3	186204	0: 2	4:46	0	5.86	.00	470	727	287	98000	3.0C	32666.667
131	369	56	18: 0: 51	-24:17: 3	186207	-0: 2	1:53	B0	7.25	.00	470	727	287	98000	3.0C	32666.667
132	377	55	18: 0: 57	-24:18:56	186204	0: 9	2:53	0	5.86	.00	468	996	71	19160	10.0C	19160.000
133	377	55	18: 0: 57	-24:18:56	186207	0: 4	0: 0	80	7.25	.00	468	996	71	19160	10.0C	19160.000
134	695	196	18: 1: 1	-31:00:38	209664	0: 1	-1:44	B3	8.09	7.81	143	41	41	1938	L 10.0C	193.800
135	687	199	18: 1: 1	-31:39:41	209664	0: 1	-0:47	B3	8.09	7.81	56	9	22	247	L 3.0C	82.333
136	500	122	18: 1: 3	-27:22:30	186200	-0:21	-4: 5	B3	9.00	.00	61	12	25	3407	3.0C	113.333
137	500	122	18: 1: 3	-27:22:30	186218	-0:11	0:59	B9	8.00	.00	61	12	25	3407	3.0C	113.333
138	663	273	18: 1: 12	-35:25:44	209675?	-0:28	-0:38	A0	8.30	8.06	71	6	45	132	L 10.0C	13.200
139	330	42	18: 1: 13	-23:25:39	186219	-0: 2	2:24	A2	9.60	.00	56	5	21	148	3.0C	49.333
140	330	42	18: 1: 13	-23:25:39	186233?	-0:26	2:11	B	9.10	.00	56	5	21	148	3.0C	49.333
141	659	185	18: 1: 21	-30:53:40	209669	0: 2	-1:19	B9	9.60	9.34	73	8	42	209	L 10.0C	20.900
142	730	215	18: 1: 21	-32:29:45	186200	-0:19	2:41	B0	8.00	.00	119	39	41	16557	10.0C	165.500
143	730	191	18: 1: 24	-32:38:24	186200	-0:19	2:41	B0	8.00	.00	112	15	307	713	3.0C	237.667
144	556	145	18: 1: 35	-28:38: 6	186234	-0: 5	-1:39	B9	9.30	.00	99	23	44	823	10.0C	82.300
145	332	50	18: 1: 42	-23:32:15	186233?	0: 3	-1:26	B9	9.10	.00	49	4	29	75	3.0C	25.000
146	332	50	18: 1: 42	-23:32:15	186236?	-0:04	3:40	B8	8.60	.00	49	4	29	75	3.0C	25.000
147	395	81	18: 1: 48	-24:39:55	186200	-0: 6	1:11	B9	8.00	.00	209	55	15	2557	1.0L	2557.000
148	380	75	18: 1: 49	-24:39:46	186204	-0: 4	1:19	B0	8.00	.00	312	64	297	7031	3.0C	293.667
149	629	179	18: 1: 50	-30:15:32	209679	-0: 2	-1:40	B0	8.54	8.31	90	17	42	566	10.0C	56.600
150	397	72	18: 1: 52	-24:40: 1	186240	-0: 1	1: 4	B0	8.00	.00	422	179	67	28029	10.0C	28029.000
151	911	312	18: 1: 59	-36:34:51	209691?	-0:27	0:13	B8	7.80	.00	123	20	91	507	1.0L	507.000
152	905	306	18: 1: 59	-36:34:35	209691	-0:26	0:28	B8	7.80	.00	100	49	23	2790	H 3.0C	696.667
153	913	303	18: 1: 57	-36:35:22	209691?	-0:24	-0:18	B8	7.80	.00	296	112	40	9939	H 10.0C	993.900
154	470	116	18: 2: 3	-26:36:26	186252	-0:14	1:39	B8	8.60	.00	90	20	49	557	L 10.0C	55.700
155	517	135	18: 2: 3	-27:42:32	186249	0: 8	-0:27	B9	9.00	.00	116	50	50	1840	H 10.0C	184.000
156	577	161	18: 2: 14	-29: 5:59	186248	-0: 5	-0:25	B8	8.70	.00	82	13	45	363	L 10.0C	36.300
157	339	66	18: 2: 16	-23:38:16	186236/	0: 31	-2:12	B8	8.60	.00	143	42	100	1246	1.0L	1246.000
158	339	66	18: 2: 16	-23:38:16	186255/	-0:10	4:57	B3	8.30	.00	143	42	100	1246	1.0L	1246.000
159	524	141	18: 2: 17	-27:43:36	NO						87	12	49	373	10.0C	37.300
160	366	75	18: 2: 18	-24:23:38	186247?	0:12	0:33	0	6.79	.00	128	14	287	845	3.0C	281.667
161	565	157	18: 2: 19	-28:50:10	NO						86	17	44	510	10.0C	51.000
162	386	78	18: 2: 20	-24:41: 8	186240?	0:26	-0: 3	B0	8.00	.00	132	10	507	577	L 10.0C	57.700
163	334	60	18: 2: 21	-23:39:46	186255	-0: 5	3:27	B3	8.30	.00	140	71	29	3702	H 3.0C	1234.000
164	342	58	18: 2: 22	-23:41: 8	186255	-0: 5	2: 5	B3	8.30	.00	363	175	50	17391	H 10.0C	1739.100
165	465	120	18: 2: 32	-26:33:38	186252	0:15	4:26	B8	8.60	.00	91	23	47	713	10.0C	71.300
166	520	143	18: 2: 36	-27:50:53	186264	-0:13	1:35	B3	8.60	.00	112	29	25	1380	3.0C	461.333
167	475	131	18: 2: 38	-26:57:14	186264	-0: 9	0:53	B3	8.60	.00	132	12	98	326	L 1.0L	326.000
168	480	138	18: 2: 42	-26:57:57	186264	-0: 8	0:13	B8	7.98	7.46	119	6	95	134	3.0C	134.000
169	803	274	18: 2: 42	-34:19:12	186264	-0: 8	1:20	B3	8.60	.00	284	66	47	551	L 10.0C	55.

NRL REPORT 8173

SGR NORMAL RA 18:34 DEC -30:24

OBJECT NO.	X	Y	R.A.	DEC.	SAO NO.	Δ R.A.	Δ DEC.	SPEC. TYPE	V MAG.	P MAG.	PEAK DEN.	NO. OF POINTS	BG	DENSITY VOLUME	EXP. & FILTER	DEN. VOL./ EXP.	
201	561	179	18: 3:45	-29: 3:26	185288/	0: 0	1:26	B9	7.90	.00	69	18	23	560	3.0C	186.667	
202	569	177	18: 3:48	-29: 4:50	186287/	0:11	-2:16	A0	8.10	.00	174	61	43	3260	10.0C	326.000	
203	569	177	18: 3:48	-29: 4:50	186288/	0: 4	0: 2	B9	7.90	.00	174	61	43	3260	10.0C	326.000	
204	440	123	18: 3:49	-26: 6:55	NO						159	53	47	2710	10.0C	271.000	
205	432	126	18: 3:52	-26: 5:59	NO						65	15	25	465	3.0C	155.000	
206	683	239	18: 4:10	-31:47: 7	NO						129	7	95	199?	1.0L	199.000	
207	629	212	18: 4:10	-30:0:22	209733	0: 1	-0: 9	B9	8.89	8.50	56	9	22	243	3.0C	81.000	
208	637	210	18: 4:14	-30:1:45	209733	0: 6	-1:31	B9	8.89	8.50	128	30	41	1363	10.0C	136.300	
209	823	296	18: 4:15	-35: 1:39	209746	-0:18	0: 8	B8	8.66	8.22	49	7	23	160	3.0C	53.333	
210	831	293	18: 4:16	-35: 2:27	209746	-0:17	-0:14	B8	8.66	8.22	116	38	40	1665	10.0C	166.500	
211	463	141	18: 4:17	-26:41:38	186310	-0:12	0:21	A0	8.80	.00	67	5	44	108 L	10.0C	10.800	
212	379	109	18: 4:19	-25: 6:31	186306	-0: 3	0:11	B8	8.40	.00	89	23	47	664	10.0C	66.400	
213	115	120	18: 4:27	-25:35:23	186315	-0: 4	0:40	B9	8.50	.00	113	25	51	976	10.0C	97.600	
214	304	111	18: 4:36	-23: 3:53	186324	-0: 7	2:52	B9	8.40	.00	112	8	50?	386 L	10.0C	38.600	
215	587	195	18: 4:37	-25:25:20	NO						73	10	40	260	10.0C	26.000	
216	295	69	18: 4:44	-22:55:39	186320/	0: 4	1:39	B2	9.10	.00	14	8	53?	568	10.0C	56.800	
217	295	69	18: 4:44	-22:55:39	186325/	0: 4	0:36	B3	8.50	.00	141	8	53?	568	10.0C	56.800	
218	288	70	18: 4:46	-22:50:11	186320/	0: 6	4: 6	B2	9.10	.00	66	31	23	992	3.0C	327.333	
219	286	70	18: 4:46	-22:50:11	186325/	0: 2	3: 3	B3	8.50	.00	66	31	23	992	3.0C	327.333	
220	798	291	18: 4:47	-34: 32: 2	209755	-0:17	-0:55	B8	8.20	7.87	48	6	24	133 L	3.0C	44.333	
221	889	324	18: 4:48	-36:20:13	209758?	-0:21	-0:30	A0	9.00	8.70	92	34	37	1222 H	10.0C	122.200	
222	479	154	18: 4:49	-27: 7:21	186327	-0: 3	0:42	A0	9.30	.00	81	17	41	518	10.0C	51.800	
223	479	161	18: 4:50	-27:17: 7	186331	-0: 7	2:14	B9	8.60	.00	53	5	24	132	3.0C	44.000	
224	806	288	18: 4:50	-34:31:41	209755	-0:14	-0:35	B8	8.20	7.87	124	59	44	2668	10.0C	266.800	
225	487	158	18: 4:53	-27:18:41	186331	-0: 5	0:51	B9	8.60	.00	122	26	45	1157	10.0C	115.700	
226	402	121	18: 4:57	-25:21:51	186332	-0: 5	0:28	B2	8.50	.00	127	51	44	2133 L	10.0C	213.300	
227	394	124	18: 5: 1	-25:21: 1	186332	-0: 1	0:26	B2	8.50	.00	54	10	24	250 L	3.0C	83.333	
228	657	230	18: 5:11	-31:15: 6	209767?	-0:29	0:20	B9	9.38	9.28	70	12	41	281 L	10.0C	28.100	
229	465	157	18: 5:28	-26:51:58	186345	-0:13	0:32	B5	9.00	.00	75	9	41	247 L	10.0C	24.700	
230	446	159	18: 5:34	-26:29:47	NO						131	9	94	263?	1.0L	263.000	
231	450	161	18: 5:36	-26:34:21	NO						143	15	96	499?	1.0L	499.000	
232	899	318	18: 5:38	-36:40:11	209779	-0:21	0:44	B0	6.58	.00	180	64	88	3032	1.0L	3032.000	
233	893	311	18: 5:39	-36:39:55	209779	-0:20	0:59	B0	6.58	.00	223	82	23	6267	3.0C	2089.000	
234	401	141	18: 5:41	-25:27:36	186350	-0: 7	1:18	B8	6.27	.00	180	38	92	1743	1.0L	1743.000	
235	644	237	18: 5:44	-31:10:15	209767?	0: 5	5:10	B9	9.38	9.28	59	9	21	257	3.0C	85.667	
236	644	237	18: 5:44	-31:10:15	209771	-0: 1	0: 8	A0	7.69	.00	59	9	21	257	3.0C	85.667	
237	404	132	18: 5:44	-25:28:44	186350	-0: 4	0:10	B0	6.27	.00	395	115	47	1314?	10.0C	1313.400	
238	902	339	18: 5:44	-36:42:15	209779	-0:15	-1:21	B0	6.58	.00	414	149	40	21065	10.0C	2106.500	
239	771	290	18: 5:46	-31: 1:56	209777	-0: 9	-0:54	B8	9.25	9.02	53	8	23	200	3.0C	66.667	
240	779	287	18: 5:46	-34:2:44	209777	-0: 8	-1:14	B8	9.25	9.02	128	31	46	1409	10.0C	140.900	
241	396	125	18: 5:48	-25:27:51	186350	-0: 1	1:33	B8	6.27	.00	256	55	25	369	3.0C	1453.333	
242	313	322	18: 5:49	-23:24:50	186360	-0:16	1:44	B9	9.30	.00	105	131	41	4942	H	10.0C	154.200
243	652	235	18: 5:49	-31:11:36	209787	0: 9	3:49	B8	9.29	9.19	17	5	39	224	L	10.0C	223.400
244	652	235	18: 5:49	-31:11:36	209787	-1:28	4:40	B8	7.69	.00	134	52	39	223	L	10.0C	223.400
245	329	109	18: 5:50	-23:58:19	186366	-0:11	1:33	B0	7.48	.00	258	78	36	5918	3.0C	1972.667	
246	337	107	18: 6: 5	-23:59:36	186366	-0:10	0:15	B0	7.48	.00	411	130	46	22745	10.0C	2274.500	
247	292	91	18: 6: 8	-22:44: 6	186365	-0: 5	3: 6	B8	8.70	.00	92	49	45?	191	10.0C	149.100	
248	334	116	18: 6: 9	-23:57:44	186366	-0: 5	2: 8	B8	7.48	.00	180	48	99	2142	1.0L	2142.000	
249	366	123	18: 6:20	-24:41: 2	186374	-0: 8	-0:37	B8	8.90	.00	80	22	45	605	10.0C	60.500	
250	813	319	18: 6:22	-34:53:50	209789	-0:16	-1: 7	B5	9.11	8.79	114	4	91	89 L	1.0L	99.000	
251	515	187	18: 6:22	-28: 6:44	NO						58	8	39	190	10.0C	19.000	
252	807	313	18: 6:23	-34:53:32	209789	-0:15	-0:49	B5	9.11	8.79	68	17	22	546	3.0C	182.000	
253	815	310	18: 6:26	-34:53: 9	209789	-0:11	-0:26	B5	9.11	8.79	175	52	40	3024	10.0C	302.400	
254	836	326	18: 6:28	-35:31:34	209792	-0:12	4: 5	A0	8.88	8.75	45	4	23	86 L	3.0C	28.667	
255	836	325	18: 6:28	-35:31:34	209797	-0:16	-0:53	B8	8.88	8.58	45	4	23	86 L	3.0C	28.667	
256	438	156	18: 6:29	-35:20:58	186372	-0: 5	0:14	A0	9.00	.00	82	18	38	570	10.0C	57.000	
257	844	323	18: 6:31	-35:31:10	209792?	-0: 8	4:30	A0	8.88	8.75	105	35	41	1350	10.0C	135.000	
258	844	323	18: 6:31	-35:31:10	209797	-0:13	-0:29	B8	8.88	8.58	105	35	41	1350	10.0C	135.000	
259	320	105	18: 6:34	-23:39:30	186379	-0:10	1:57	B8	9.10	.00	399	177	48	18045 H	10.0C	1804.500	
260	320	105	18: 6:34	-23:39:30	186380?	-0:10	0: 9	B8	8.70	.00	399	177	48	18045 H	10.0C	1804.500	
261	320	105	18: 6:34	-23:39:30	186381?	-0:12	0:27	B8	9.40	.00	399	177	48	18045 H	10.0C	1804.500	
262	320	105	18: 6:34	-23:39:30	186385?	-0:15	-2: 1	B5	9.50	.00	399	177	48	18045 H	10.0C	1804.500	
263	702	271	18: 6:36	-32:4:26	209791	-0: 3	0:36	B8	9.14	8.90	51	6	22	148	3.0C	49.333	
264	710	268	18: 6:36	-32:35:16	209791	-0: 3	1:26	B8	9.14	8.90	114	32	40	1251	10.0C	125.100	
265	321	120	18: 6:49	-23:55:11	186379?	-0: 5	3:44	B8	9.10	.00	162	114	90	4664	1.0L	4664.000	
266	321	120	18: 6:49	-23:55:11	186389?	-0: 15	1:50	B5	7.64	.00	162	114	90	4664	1.0L	4664.000	
267	323	111	18: 6:53	-23:55:10	186379?	-0:10	3:43	B8	9.10	.00	397	325	49	29492 H	10.0C	2949.200	
268	313	178	18: 6:53	-23:45:10	186389?	-0:16	-1:11	A0	8.93	8.68	64	5	39	1157L	10.0C	11.500	
269	798	309	18: 6:56	-34:34:34	209808?	-0:17	-2:53	B8	9.10	.00	189	15	26	10568	3.0C	3522.667	
270	315	114	18: 6:57	-23:44:21	186380?	-0:14	-4:23	B8	9.40	.00	189	152	26</td				

PAGE, CARRUTHERS AND HILL

SGR NORMAL RA 18:34 DEC -30:24

OBJECT NO.	X	Y	R.A.	DEC.	SAO NO.	α R.A.	δ DEC.	SPEC. TYPE	V MAG.	P MAG.	PEAK DEN.	NO. OF POINTS	BG	DENSITY VOLUME	EXP. & FILTER	DEN. VOL/ EXP.
301	769	316	18: 8:41	-28: 6:30	209841	-0: 7	-1:38	BB	7.11	.00	369	90	46	9103 H	10.0C	910.300
302	532	229	18: 8:44	-29: 5:19	186444	-0: 4	0:32	A0	6.38	.00	108	18	23	820 L	3.0C	273.333
303	318	134	18: 8:45	-23: 50:55	No						50	4	39	83	10.0C	87.333
304	561	241	18: 8:47	-29: 33:44	186445	-0: 2	1:18	BB	8.00	.00	65	9	23	262	3.0C	87.333
305	539	227	18: 8:49	-28: 54:26	186444	0: 2	0:25	A0	6.38	.00	230	47	38	3507 L	10.0C	350.700
306	537	236	18: 8:50	-28: 53:54	186444	0: 3	0:57	A0	6.38	.00	126	7	95	193 L	1.0L	183.000
307	569	238	18: 8:51	-29: 35: 1	186445	0: 2	0: 0	BB	8.00	.00	131	30	41	1343 L	10.0C	134.300
308	430	184	18: 8:52	-26:24: 1	186449	-0: 5	0:34	A0	8.50	.00	65	5	37	125 L	10.0C	12.500
309	474	204	18: 8:53	-27:25: 8							82	12	42	352?	10.0C	35.200
310	878	366	18: 8:54	-36:29:32	209851	-0:10	0: 2	BB	8.26	8.03	82	22	40	646 L	10.0C	64.600
311	460	203	18: 8:54	-27: 8:18	186462	-0: 7	0:59	BB	9.20	.00	102	20	42	762?	10.0C	76.200
312	505	231	18: 8:55	-28:13:42	186471	-0:20	3:54	A0	9.20	.00	142	17	91	552 H	1.0L	552.000
313	505	231	18: 8:55	-28:13:42	186472?	-0:25	6: 9	A0	9.20	.00	142	17	91	552 H	1.0L	552.000
314	665	364	18: 8:55	-36:14:45	No						58	4	36	8	10.0C	8.400
315	500	225	18: 8:56	-28:13:24	186471	-0:19	4:12	A0	9.20	.00	117	22	22	1036 H	3.0C	345.333
316	508	222	18: 8:57	-28:14:40	186471	-0:16	2:56	A0	9.20	.00	251	55	39	4153 H	10.0C	415.300
317	653	280	18: 8:57	-31:34:56	No						75	12	37	348	10.0C	34.800
318	689	293	18: 8:57	-32:17:10	209862?	-0:14	6:59	BB	9.32	9.14	69	8	43	181 L	10.0C	18.400
319	689	297	18: 8:57	-32:24:51	209862	-0: 2	0:42	BB	9.32	9.14	100	26	42	878	10.0C	87.800
320	460	212	18: 8:58	-27:13: 3	186481	-0: 7	0:43	BB	8.20	.00	239	49	40	358 H	10.0C	358.400
321	452	215	18: 8:58	-27:12:14	186481	-0: 5	1:31	BB	8.20	.00	110	21	23	921 H	3.0C	307.000
322	457	221	18: 8:58	-27:11:21	186481	-0: 4	2:25	BB	8.20	.00	124	7	93	180 L	1.0L	180.000
323	554	248	18: 8:58	-29:22:41	186480	-0: 0	0:40	BB	9.20	.00	68	7	36	193 L	10.0C	19.300
324	261	127	18: 8:59	-22:42:43	186489	-0:12	1:12	BB	8.60	.00	98	39	41	1423 L	10.0C	142.300
325	681	346	18: 8:59	-20:35:28	209871	-0: 7	0:28	BB	9.22	8.91	72	7	36	1887L	10.0C	18.800
326	566	303	18: 8:59	-31:59:33	209871	-0: 3	0:43	BB	6.60	.00	185	21	93	85	1.0L	85.000
327	660	297	18: 8:59	-32:10: 7	209873	-0: 1	0:28	BB	6.64	.00	170	32	22	204	3.0C	678.000
328	893	309	18: 8:59	-36:53:50	209883	-0:16	0:37	BB	9.35	8.00	59	18	22	501	3.0C	167.000
329	668	295	18: 8:59	-31:59:20	209873	0: 6	2:26	BB	6.64	.00	344	75	39	790	10.0C	79.000
330	891	306	18: 8:59	-36:53:18	209883	-0:11	0: 5	BB	8.36	8.00	154	80	38	4278	10.0C	427.800
331	769	347	18: 8:59	-34:19:15	209885	-0:12	1: 0	BB	7.85	7.37	116	6	91	132 L	1.0L	132.000
332	956	419	18: 8:59	-38:27:17	209880	-0: 9	1:39	A0	7.14	.00	65	29	20	900	3.0C	300.000
333	716	322	18: 8:59	-33:15:48	209880	-0:12	0:51	BB	8.21	7.82	60	7	24	200	3.0C	66.667
334	772	338	18: 8:59	-34:19:33	209885	-0:11	1:24	BB	7.85	7.37	216	43	41	3171	10.0C	317.100
335	761	341	18: 8:59	-34:20:33	209885	-0: 8	2:18	BB	7.85	7.37	86	19	23	715	3.0C	238.333
336	926	401	18: 8:59	-37:38:55	209876	-0:10	1:57	BB	9.70	9.37	77	22	38	6207L	10.0C	62.000
337	926	401	18: 8:59	-37:38:55	209886	-0: 9	0:45	A0	7.70	7.42	77	22	38	6207L	10.0C	62.000
338	964	416	18: 8:59	-38:26:41	209880	-0: 4	1: 4	A0	7.14	.00	184	81	36	5096 H	10.0C	509.600
339	729	320	18: 8:59	-33:17: 0	209888	-0: 6	2: 3	BB	8.9	8.21	134	19	38	1055	10.0C	105.500
340	366	189	18: 8:59	-25:19:26	186506	-0:11	0: 8	BB	8.50	.00	81	19	22	706	3.0C	235.333
341	371	195	18: 8:59	-25:18:29	186506	-0:10	1: 5	BB	8.50	.00	112	5	86	121 L	1.0L	121.000
342	466	235	18: 8:59	-27:28:53	186505	-0: 7	2:11	BB	7.50	.00	142	17	91	546	1.0L	546.000
343	373	187	18: 8:59	-25:18:19	186506	-0: 6	1:15	BB	8.50	.00	196	47	37	3158	10.0C	315.800
344	561	229	18: 8:59	-27:30:13	186505	-0: 3	0:51	BB	7.50	.00	143	23	23	1267	3.0C	422.333
345	669	226	18: 8:59	-27:29:50	186505	-0: 3	1:14	BB	8.70	.00	286	51	41	4605 H	10.0C	460.500
346	709	327	18: 8:59	-33: 9:54	209900	-0: 9	-0:31	BB	8.30	7.89	182	32	23	2076	3.0C	202.000
347	717	324	18: 8:59	-33:10:17	209900	-0: 9	-1:15	BB	8.30	7.89	345	94	39	8548	10.0C	854.800
348	510	255	18: 8:59	-28:49:55	186512	-0: 4	1:21	BB	8.00	.00	97	16	26	582	3.0C	194.000
349	523	261	18: 8:59	-28:49:49	186512	-0: 3	2:13	BB	8.00	.00	130	7	95	191 L	1.0L	191.000
350	526	252	18: 8:59	-28:51: 9	186512	-0: 1	0: 7	BB	8.00	.00	196	65	51	2964	10.0C	296.400
351	714	334	18: 8:59	-33: 9:31	209900	-0: 2	0:36	BB	8.69	8.26	101	22	36	838 L	10.0C	83.800
352	505	245	18: 8:59	-28:21:44	186511	-0: 3	0:54	BB	9.00	.00	123	20	45	1335	1.0L	133.500
353	556	246	18: 8:59	-28:31:47	186511	-0: 2	1:50	A0	9.30	.00	122	9	38	929	10.0C	92.900
354	556	246	18: 8:59	-28:31:47	186513	-0: 0	1:19	A0	9.10	.00	72	9	38	250 L	10.0C	25.000
355	497	248	18: 8:59	-28:20:57	186514	-0: 1	1:41	BB	8.90	.00	57	7	24	178	3.0C	59.333
356	611	248	18: 8:59	-28:30:57	186524	-0:14	1:19	BB	9.20	.00	80	11	53	208 L	10.0C	20.800
357	215	125	18: 8:59	-21:50:43	No						59	6	36	133	10.0C	13.300
358	627	297	18: 8:59	-31:23:26	209904	-0: 1	0:36	BB	8.69	8.26	101	22	36	838 L	10.0C	83.800
359	260	157	18: 8:59	-22:52:10	186539	-0:13	1:24	BB	8.50	.00	59	20	23	1257	1.0L	125.700
360	234	143	18: 8:59	-22:26:20	186539	-0:13	1:24	BB	8.50	.00	59	20	23	545	3.0C	181.667
361	242	141	18: 8:59	-22:27:27	186539	-0:13	0:16	BB	9.00	.00	135	70	39	3314	10.0C	331.400
362	311	172	18: 8:59	-24:04:52	186534	-0:10	0:32	BB	8.38	.00	71	18	36	494 L	10.0C	49.400
363	949	424	18: 8:59	-38:14:16	No						64	15	33	397	10.0C	39.700
364	772	360	18: 8:59	-34:38: 7	209916	-0: 8	-1:27	BB	6.85	.00	130	29	21	1529	3.0C	509.667
365	777	366	18: 8:59	-34:37:16	209916	-0: 7	-2: 8	BB	6.85	.00	130	14	21	429	1.0L	429.000
366	780	357	18: 8:59	-34:38:48	209916	-0: 7	-2: 8	BB	6.85	.00	317	67	37	6357	10.0C	635.700
367	862	399	18: 8:59	-36:35:16	209922	-0:18	0:11	BB	7.00	.00	245	72	22	5683 H	3.0C	1894.333
368	652	309	18: 8:59	-31:47:38	209906	-0: 31	-2: 7	A0	9.66	9.58	91	18	36	661 H	10.0C	66.400
369	867	406	18: 8:59	-36:34:50	209922	-0:11	0:37	BB	7.00	.00	195	53	46	2820	1.0L	2820.000
370	870	397	18: 8:59	-36:36:20	209922	-0:11	-0:									

NRL REPORT 8173

SGR NORMAL RA 18:34 DEC -30:24

OBJECT NO.	X	Y	R.A.	DEC.	SAO NO.	Δ R.A.	Δ DEC.	SPEC. TYPE	V MAG.	P MAG.	PEAK DEN.	NO. OF POINTS	BG	DENSITY VOLUME	EXP. & FILTER	DEN. VOL/ EXP.	
401	698	346	18:13:52	-32:59: 0	209952	-0: 8	-1:32	B8	8.32	7.90	180	28	38	1973	10.0C	197.300	
402	695	355	18:13:53	-32:57:29	209952	-0: 7	-0: 0	B8	8.32	7.90	117	5	90	118	1.0L	118.000	
403	816	393	18:13:59	-35:34:59	209954	-0: 4	-0:24	B9	9.39	9.04	75	15	36	451 L	10.0C	45.100	
404	616	322	18:13:59	-31:18: 0	209953	-0: 2	0:58	B8	7.37	.00	105	18	21	788	3.0C	262.667	
405	275	18*	18:14:	-23:24:44	186597	-0:20	-0:17	B8	9.40	.00	65	4	36	1012L	10.0C	10.100	
406	624	320	18:14: 5	-31:19:10	209953	-0: 3	-0:12	B8	7.37	.00	218	65	36	3815	10.0C	381.500	
407	621	329	18:14: 6	-31:17:38	209953	-0: 5	1:20	B8	7.37	.00	118	6	91	140 L	1.0L	140.000	
408	747	378	18:14: 6	-34: 8:21	209959	-0:11	-0:46	B5	6.10	.00	343	62	89	5494	1.0L	5494.000	
409	747	378	18:14: 6	-34: 8:21	209961	-0:16	-1:57	A0	8.70	8.26	343	62	89	5494	1.0L	5494.000	
410	741	372	18:14:13	-34: 8:28	209959	-0: 4	-0:53	B5	6.10	.00	362	84	26	7965	3.0C	2655.000	
411	741	372	18:14:13	-34: 8:28	209961	-0: 9	-2: 4	A0	8.70	8.26	362	84	26	7965	3.0C	2655.000	
412	749	369	18:14:13	-34: 9: 6	209959	-0: 4	-1:32	B5	6.10	.00	416	182	42	21346	10.0C	2134.600	
413	749	369	18:14:13	-34: 9: 6	209961	-0: 9	-2:44	A0	8.70	8.26	416	182	42	21346 H	10.0C	2134.600	
414	714	366	18:14:26	-33:25:37	209966	-0: 8	-0:41	B8	7.02	.00	129	12	91	339 L	1.0L	339.000	
415	472	269	18:14:26	-27:51:49	186598	-0: 0	-0:43	B9	8.20	.00	189	55	38	322 L	10.0C	322.000	
416	472	269	18:14:26	-27:51:49	186601	-0: 6	1:14	B9	8.60	.00	189	55	38	322 T	10.0C	322.000	
417	524	288	18:14:26	-29: 5: 4	NO	-	-	-	-	-	-	88	1	38	458	1.0C	45.800
418	709	362	18:14:27	-33:25:17	209966	-0: 7	-0:20	B8	7.02	.00	133	21	23	1076	3.0C	258.667	
419	573	306	18:14:27	-30:12:25	209966	-0: 3	0: 8	B9	9.52	9.33	104	24	36	983	10.0C	98.300	
420	716	359	18:14:27	-33:25:57	209966	-0: 7	-1: 1	B8	7.02	.00	204	58	36	4971	10.0C	497.100	
421	200	166	18:14:28	-21:49:43	186598	-0: 2	0: 0	B9	8.20	.00	87	18	21	667	3.0C	233.000	
422	461	272	18:14:28	-27:53: 5	186601	-0: 4	-1:57	B9	8.60	.00	87	18	21	699	3.0C	233.000	
423	461	272	18:14:28	-27:53: 5	186598	-0: 3	0:52	B9	8.20	.00	115	6	87	142 L	1.0L	142.000	
424	469	278	18:14:29	-27:52:13	186601	-0: 3	-2:49	B9	8.60	.00	115	6	87	142	1.0L	142.000	
425	469	278	18:14:29	-27:52:13	209966	-0: 2	0:52	B9	9.52	9.33	51	4	21	98	3.0C	32.667	
426	565	309	18:14:29	-30:11:41	209966	-0: 2	-0:10	B8	8.00	.00	167	76	37	3948	10.0C	394.800	
427	268	188	18:14:35	-23:18:17	186608	-0:10	-0:29	B8	8.00	.00	109	10	76	269	1.0L	269.000	
428	260	191	18:14:39	-23:17:37	186608	-0: 6	0:11	B8	8.00	.00	70	21	22	667	3.0C	222.333	
429	850	415	18:14:43	-36:22:22	209970	-0:10	0: 4	B8	9.09	8.53	167	48	36	2777 H	10.0C	277.700	
430	531	294	18:14:45	-29:15:58	186607	-0: 1	-0:40	B8	8.50	.00	146	30	39	1571	10.0C	157.100	
431	642	418	18:14:45	-36:23:24	209970	-0: 8	-0:57	B8	9.09	8.53	66	14	22	432	3.0C	144.000	
432	523	297	18:14:46	-29:15:14	186607	-0: 1	1:23	B8	8.50	.00	71	11	21	371	3.0C	123.667	
433	550	303	18:14:45	-29:42:20	186615	-0: 2	1:37	B9	8.70	.00	100	22	36	794 L	10.0C	79.400	
434	731	370	18:14:57	-33:48:28	209973	-0: 3	-0:55	B9	9.01	8.61	77	15	36	454 L	10.0C	45.400	
435	761	390	18:15:0	-34:33: 2	209978	-0:10	-0:38	B8	6.86	.00	162	32	23	1850	3.0C	616.667	
436	393	247	18:15: 3	-26: 9:39	NO	-	-	-	-	-	-	65	6	36	149	10.0C	14.900
437	770	397	18:15: 3	-34:31:48	209978	-0: 6	-1:24	B8	6.86	.00	146	20	89	712	1.0L	712.000	
438	347	229	18:15: 6	-25: 7: 9	186614	-0:10	1: 5	A0	8.90	.00	60	5	39	115 L	10.0C	11.500	
439	772	388	18:15: 7	-34:44: 6	209978	-0: 4	-1:43	B8	6.86	.00	336	66	43	6665	10.0C	666.500	
440	759	386	18:15:23	-34:27:59	NO	-	-	-	-	-	-	72	10	39	258	3.0C	25.800
441	231	183	18:15:25	-22:33:32	186627	-0:11	0:33	A0	8.80	.00	67	20	34	526	10.0C	52.600	
442	314	220	18:15:28	-24:25: 4	186620	-0:17	-2:31	B9	9.10	.00	61	9	33	213 L	10.0C	213.000	
443	314	220	18:15:28	-24:25: 4	186630	-0: 8	-0:26	B8	9.00	.00	61	9	33	213 L	10.0C	213.000	
444	480	399	18:15:49	-28:12:44	186639	-0: 5	1:28	B9	9.10	.00	109	22	37	926	10.0C	92.600	
445	472	392	18:15:51	-28:12:44	186635	-0: 2	2:10	B9	9.10	.00	109	4	21	111	3.0C	37.000	
446	514	305	18:16:13	-29: 0:17	186621	-0: 1	0:60	A0	8.50	.00	133	27	36	1260	10.0C	126.000	
447	506	308	18:16:14	-28:59:35	186624	-0: 1	0:42	B9	8.50	.00	60	8	22	227	3.0C	22.700	
448	367	252	18:16:14	-25:04:49	NO	-	-	-	-	-	-	71	11	34	320	10.0C	32.000
449	488	299	18:16:27	-28:26:31	186652	-0: 5	1:22	B8	9.10	.00	91	21	35	701	10.0C	70.100	
450	820	428	18:16:29	-35:32:33	209995	-0: 9	-1:34	A5	9.15	9.26	72	18	21	617 H	3.0C	205.667	
451	820	428	18:16:29	-35:32:33	209996	-0:11	0: 7	B8	8.67	8.26	72	18	21	617 H	3.0C	205.667	
452	189	180	18:16:36	-21:45:33	186659	-0:14	0:13	A0	9.20	.00	54	5	32	104 L	10.0C	10.400	
453	828	426	18:16:36	-36: 4:23	209995	-0: 2	-2:34	A5	9.15	9.26	185	52	34	3269 H	10.0C	326.900	
454	828	426	18:16:36	-36: 4:23	209996	-0: 4	-0:54	B8	8.67	8.26	185	52	34	3269 L	10.0C	326.900	
455	762	407	18:16:42	-34:18:15	210002	-0: 7	0:26	B9	7.81	7.35	89	20	21	737	3.0C	245.667	
456	767	414	18:16:43	-34:17:24	210002	-0: 6	0:25	B9	7.81	7.35	115	8	87	190 L	1.0L	190.000	
457	317	238	18:16:48	-24:36:60	186661	-0: 8	0:16	B9	9.60	.00	69	14	33	381	10.0C	38.100	
458	770	405	18:16:48	-34:19:17	210002	-0: 1	-0:28	B9	7.81	7.35	216	51	35	3831	10.0C	383.100	
459	800	417	18:16:48	-35:29:17	210005	-0: 8	-2:13	B9	6.72	.00	355	90	35	9149	10.0C	914.900	
460	791	420	18:16:49	-35:27:33	210005	-0: 7	-0:28	B9	6.72	.00	172	39	21	2469	3.0C	823.000	
461	959	479	18:16:49	-38:49:28	209999	-0: 6	0:34	B8	9.60	9.29	62	11	34	268 L	10.0C	26.800	
462	652	368	18:16:52	-32:21:35	210001	-0: 4	1:48	B9	9.39	9.19	78	18	24	595	3.0C	198.333	
463	652	368	18:16:52	-32:21:35	210003	-0: 2	0:15	B8	9.80	9.56	78	18	24	595	3.0C	198.333	
464	652	368	18:16:52	-32:21:35	210004	-0: 3	2:12	B8	8.77	8.56	78	18	24	595	3.0C	198.333	
465	652	368	18:16:52	-32:21:35	210009	-0: 9	0:24	B8	8.29	8.09	78	18	24	595	3.0C	198.333	
466	650	365	18:16:52	-32:22:15	210009	-0: 2	-0:15	A0	8.45	8.25	197	55	40	3247 L	10.0C	324.700	
467	660	365	18:16:52	-32:22:15	210009	-0: 9	-0:15	B8	8.77	8.56	197	55	40	3247 L	10.0C	324.700	
471	779	410	18:16:52	-35:36:16	210008	-0: 8	-1:32	B9	9.42	9.03	87	16	40	3247 L	10.0C	324.700	
472	797	427	18:16:53	-35:26:10	210005	-0: 2	1:13	B9	6.72	.00	153	27	85</td				

PAGE, CARRUTHERS AND HILL

SGR NORMAL RA 18:34 DEC -30:24

OBJECT NO.	X	Y	R.A.	DEC.	SAO NO.	Δ R.A.	Δ DEC.	SPEC. TYPE	V MAG.	P MAG.	PEAK DEN.	NO. OF POINTS	BG	DENSITY VOLUME	EXP. & FILTER	DEN. VOL / EXP.	
501	388	295	18:19:10	-26:25:49	186726	-0: 4	0:41	B	7.99	.00	228	52	34	3688	10.0C	368.800	
502	380	298	18:19:13	-26:25:12	186726	-0: 1	1:18	B	7.99	.00	111	19	23	930	3.0C	310.000	
503	410	304	18:19:15	-26:55:38	186730	-0: 3	0:30	A0	8.80	.00	76	13	34	393 L	10.0C	39.300	
504	410	304	18:19:15	-26:55:38	186733	-0: 7	0:33	A0	8.40	.00	76	13	34	393 L	10.0C	39.300	
505	405	473	18:19:23	-36:42:26	210061	-0: 7	-0:24	B0	5.39	.00	298	65	83	4820	1.0C	4820.000	
506	839	467	18:19:23	-36:42:26	210061	-0: 6	-0: 8	B0	5.39	.00	378	90	23	9366	3.0C	3122.000	
507	988	518	18:19:25	-39:43:59	NO							55	5	95	10.0C	9.500	
508	917	456	18:19:29	-36:41: 9	210061	-0: 2	0:33	B0	5.39	.00	116	202	37	25108	10.0C	2510.800	
509	552	357	18:19:30	-30: 9:42	210064	-0: 4	0:15	B0	8.52	.07	238	51	33	3708	0.0C	370.800	
510	544	360	18:19:31	-30: 9: 4	210064	-0: 2	0:53	B0	8.52	.07	102	21	21	89	3.0C	298.000	
511	549	366	18:19:32	-30: 9:15	210064	-0: 1	1:42	B0	8.52	.07	133	12	87	378	1.0L	378.000	
512	216	234	18:19:50	-22:39:34	186743	-0:12	-1:27	B0	9.00	.00	58	8	33	179 L	10.0C	17.800	
513	992	525	18:19:55	-39:50: 1	NO							76	21	34	650	10.0C	65.000
514	408	315	18:20:12	-26:57:31	186748	-0: 6	1:16	B0	8.80	.00	161	30	35	1791 L	10.0C	179.100	
515	405	324	18:20:14	-21:57: 8	186747	-0: 4	1:33	B0	8.80	.00	113	4	86	98 L	1.0L	98.000	
516	400	318	18:20:15	-26:56:54	186748	-0: 3	1:52	B0	8.80	.00	71	13	21	417	3.0C	139.000	
517	432	324	18:20:17	-27:31:20	186747	-0: 0	0:24	A0	8.40	.00	65	7	34	173 L	10.0C	17.300	
518	234	249	18:20:23	-23: 5:58	186750	-0: 7	-0:42	B0	9.00	.00	78	25	33	79	10.0C	79.400	
519	181	229	18:20:24	-21:57: 8	186763	-0:13	-0:24	B0	9.00	.00	64	17	32	444	10.0C	44.400	
520	735	446	18:20:45	-34:24:29	210088	-0:14	0: 5	B0	10.10	9.60	403	127	88	12074	1.0L	12074.000	
521	735	446	18:20:45	-34:24:29	210088	-0: 1	-2:50	B0	6.79	.00	403	127	88	12074	1.0L	12074.000	
522	735	446	18:20:45	-34:24:29	210091	-0: 6	0: 8	A0	1.95	.00	403	127	88	12074	1.0L	12074.000	
523	729	439	18:20:47	-34:24: 9	210088	-0:15	0:25	B0	10.10	9.60	442	240	25	25361	3.0C	8453.667	
524	729	439	18:20:47	-34:24: 9	210088	-0: 2	-2:30	B0	6.79	.00	442	240	25	25361	3.0C	8453.667	
525	729	439	18:20:47	-34:24: 9	210091	-0: 5	0:28	A0	1.95	.00	442	240	25	25361	3.0C	8453.667	
526	868	486	18:20:47	-37:14:43	210087	-0: 2	-0: 3	B0	9.02	8.60	100	32	35	1224 H	10.0C	122.400	
527	868	486	18:20:47	-37:14:43	210098	-0:20	0:33	A3	7.84	7.71	100	32	35	1224 H	10.0C	122.400	
528	736	436	18:20:49	-33:23:30	210088	-0:17	1: 4	B0	10.10	9.60	447	438	42	63244 H	10.0C	6324.000	
529	736	436	18:20:49	-33:23:30	210091	-0: 2	1: 6	A0	1.95	.00	447	438	42	63244 H	10.0C	6324.000	
530	369	309	18:20:55	-26: 8:52	NO							79	16	32	519	10.0C	51.900
532	925	519	18:21: 6	-38:41:31	210097	-0: 0	-3: 7	B0	8.20	7.87	50	9	21	224 L	3.0C	74.667	
533	334	295	18:21: 8	-25:23:21	210097	-0: 2	-3:30	B0	8.20	7.87	133	58	33	2814	10.0C	281.400	
534	933	516	18:21: 8	-38:41:54	210097	-0: 2	-3:30	B0	8.20	7.87	133	58	33	1249	1.0L	124.900	
535	405	318	18:21:13	-27:57:53	210102	-0: 3	0:50	B0	8.20	7.87	159	26	35	20	3.0C	73.333	
536	374	323	18:21:20	-26:59:37	186780	-0: 4	1:47	A0	8.50	.00	57	8	21	220	3.0C	123.700	
537	383	321	18:21:20	-26:59:37	186780	-0: 1	0:48	A0	8.50	.00	123	27	35	1337	10.0C	339.100	
538	314	298	18:21:40	-24:59:28	210102	-0: 1	0:48	A0	8.50	.00	75	11	32	339	10.0C	33.900	
539	809	474	18:21:46	-36:45:51	NO							76	17	31	528	10.0C	52.800
540	973	545	18:21:55	-39:46:33	210114	-0:18	2:26	A5	8.96	8.98	50	14	21	347	3.0C	115.667	
541	973	545	18:21:55	-39:46:33	210112	-0: 7	-5:15	B0	8.69	8.20	50	14	21	347	3.0C	115.667	
542	578	394	18:21:60	-30:57:33	210120	-0: 3	-0: 8	A0	8.47	8.07	116	27	30	1188	10.0C	118.800	
543	541	545	18:21:55	-39:46:33	210115	-0:13	-1:25	B0	8.68	8.20	134	73	35	3585 H	10.0C	358.500	
544	570	397	18:22: 1	-30:56:58	210120	-0: 1	0:27	A0	8.47	8.07	54	7	21	181	3.0C	60.333	
545	841	489	18:22: 5	-35:45:60	210121	-0: 1	-0:17	B0	9.32	9.02	98	31	32	1167	10.0C	116.700	
546	860	497	18:22: 9	-37:10: 3	210122	-0: 2	0:38	B0	8.01	7.70	83	20	34	671 L	10.0C	67.100	
547	292	295	18:22:11	-24:32:35	186787	-0:10	6: 1	B0	8.60	.00	75	8	31	2737L	10.0C	27.300	
548	294	296	18:22:12	-24:35:21	186787	-0:11	8:47	B0	8.60	.00	66	11	37	2497L	10.0C	24.900	
549	676	429	18:22:12	-33: 9:34	210123	-0: 0	-0:35	A0	9.31	8.99	65	7	34	179 L	10.0C	17.900	
550	288	294	18:22:13	-24:27:28	186787	-0:12	-0:53	B0	8.60	.00	72	9	31	2837L	10.0C	28.300	
551	288	294	18:22:23	-24:27:28	186797	-0:21	-0:49	A0	9.60	.00	72	9	31	283?	10.0C	28.300	
552	353	321	18:22:23	-24:55:33	NO							64	7	32	178	10.0C	17.800
553	709	455	18:22:31	-33:57:38	210135	-0: 6	0:51	B0	6.38	.00	265	45	83	3067	1.0C	3067.000	
554	703	449	18:22:31	-33:57:17	210135	-0: 5	1:12	B0	6.38	.00	280	63	22	5040	3.0C	1680.000	
555	605	415	18:22:32	-31:46:12	210138	-0: 8	0:51	B0	7.15	.00	122	23	20	1079	3.0C	359.667	
556	711	446	18:22:32	-33:57:48	210135	-0: 4	0:41	B0	6.38	.00	394	166	39	16128	10.0C	1612.800	
557	611	422	18:22:36	-31:46:60	210138	-0: 4	0: 3	B0	7.15	.00	133	15	81	524	1.0C	524.000	
558	613	413	18:22:42	-31:47:36	210138	-0: 2	-0:34	B0	7.15	.00	264	57	29	4559	10.0C	455.900	
559	291	302	18:22:44	-23:33:53	NO							66	10	32	274?	10.0C	27.400
560	615	415	18:22:47	-27:20:27	186803	-0: 4	1:17	B0	8.50	.00	98	16	36	633 L	10.0C	63.300	
561	407	351	18:22:50	-27:19:33	186803	-0: 1	1:51	B0	8.50	.00	44	4	19	392 L	3.0C	30.667	
562	296	305	18:22:50	-27:41:41	210120	-0: 2	0:50	B0	8.50	.00	111	11	32	515?	10.0C	51.500	
563	233	293	18:23:11	-23:23:47	186815	-0:19	-0:12	B0	9.10	.00	111	8	78	195	1.0L	195.000	
564	235	297	18:23:21	-23:23:35	186815	-0: 5	-0:31	B0	9.10	.00	124	40	32	2074 H	10.0C	207.400	
565	235	297	18:23:24	-23:23: 9	186822	-0:15	4:53	B0	8.40	.00	124	40	32	2077 H	10.0C	207.700	
566	400	360	18:23:26	-23:23:29	NO							55	4	34	80	10.0C	8.000
567	239	290	18:23:32	-23:29: 1	186822	-0: 7	-1: 2	B0	8.40	.00	146	43	31	2491 H	10.0C	249.100	
568	231	293	18:23:35	-23:29:43	186822	-0: 4	-1:45	B0	8.40	.00	66	30	20	889	3.0C	299.667	
569	861	515	18:23:43	-37:20:43	210165	-0: 2	-1: 4	A0	10.20	9.78	77	19	33	591 H	10.0C	59.100	
570	355	338	18:23:47	-26: 5: 9	NO							79	9	32	284?	10.0C	28.400
571	376	347	18:23:55	-26:33:46	186826	0: 1	3:28	A2	9.20	.00	68	4	3				

NRL REPORT 8173

SGR NORMAL RA 18:34 DEC -30:24																
OBJECT NO.	X	Y	R.A.	DEC.	SAO NO.	δ R.A.	Δ DEC.	SPEC. TYPE	V MAG.	P MAG.	PEAK DEN.	NO. OF POINTS	BG	DENSITY VOLUME	EXP. & FILTER	DEN. VOL./ EXP.
601	696	491	18:26:15	-33:58: 8	210226	-0: 4	-0: 4	B9	7.10	.00	141	17	83	619	1.0L	619.000
602	613	459	18:26:15	-32:14:59	NO						50	5	19	128	3.0C	42.667
603	690	485	18:26:16	-33:57:47	210226	-0: 3	0:17	B9	7.10	.00	129	27	22	1348	3.0C	449.333
604	698	482	18:26:16	-33:58:15	210226	-0: 3	-0:10	B9	7.10	.00	289	61	35	5383 H	10.0C	538.300
605	145	287	18:26:17	-21:41:16	186876	-0:11	-1: 4	A0	8.90	.00	67	21	31	572	10.0C	57.200
606	621	457	18:26:26	-32:16:18	NO						104	26	28	1143	10.0C	114.300
607	373	376	18:26:28	-26:42:59	186878	-0: 2	-0:37	B9	9.30	.00	81	15	33	492 L	10.0C	49.200
608	322	360	18:26:38	-25:34:38	186882	0: 0	0: 7	B9	8.90	.00	67	4	39	102 L	10.0C	10.200
609	675	488	18:26:40	-33:31:57	210228	0:15	0:34	A0	8.72	8.36	133	15	82	507	1.0L	507.000
610	675	488	18:26:40	-33:31:57	210228	-0: 5	-0:10	B9	7.62	.00	133	15	82	507	1.0L	507.000
611	665	482	18:26:41	-33:31:33	210228	0:16	0:56	A0	8.72	8.36	116	24	20	11367	3.0C	378.667
612	665	482	18:26:41	-33:31:33	210228	0:14	0:12	B9	7.62	.00	116	24	20	11367	3.0C	378.667
613	677	479	18:26:41	-33:32: 3	210228	0:16	0:28	A0	8.72	8.36	252	59	34	4599 H	10.0C	459.900
614	677	479	18:26:41	-33:32: 3	210228	0:14	-0:16	B9	7.62	.00	252	59	34	4599 H	10.0C	459.900
615	141	293	18:26:54	-33:38:59	186937	-0:27	-1: 3	A0	8.90	.00	83	20	29	6867	10.0C	68.600
616	659	474	18:26:59	-33: 9:24	210235	0:14	-4:20	A3	8.22	.00	86	20	30	713	10.0C	71.300
617	659	474	18:26:59	-33: 9:24	210240	0: 1	-0:21	A0	8.38	8.00	86	20	30	713	10.0C	71.300
618	146	302	18:27:02	-21:49:10	186898	0:10	-1:53	B9	8.80	.00	57	11	30	258 L	10.0C	25.800
619	775	537	18:27:52	-35:49:54	210254?	0:14	-1:21	A2	8.83	8.66	127	7	80	226 H	10.0L	226.000
620	288	363	18:27:54	-24:56:44	186906	0: 4	-1: 5	B9	8.10	.00	175	39	34	2389	10.0C	238.900
621	280	366	18:27:57	-24:56:19	186906	0: 0	-0:40	B9	8.10	.00	82	15	21	567	3.0C	189.000
622	285	372	18:27:58	-24:55:26	186906	0: 1	0:13	B9	8.10	.00	102	6	76	140 L	1.0L	140.000
623	517	448	18:28:34	-30: 5:38	210272	0: 4	0:44	B5	8.50	8.01	191	39	29	2508	10.0C	250.800
624	515	457	18:28:35	-30: 5:33	210272	0: 3	-1:11	B8	8.50	8.01	112	4	79	114 L	1.0L	114.000
625	505	451	18:28:36	-30: 5:10	210272	0: 3	-1:11	B8	8.50	8.01	85	15	19	572	3.0C	90.667
626	832	564	18:28:51	-37:15:25	210276	0: 1	-0:28	B9	7.90	7.51	47	4	20	95 L	3.0C	31.667
627	840	561	18:28:52	-37:15:44	210276	0: 3	-0:48	B9	7.90	7.51	104	31	34	1221	10.0C	122.100
628	473	438	18:28:56	-29: 8: 3	186924	0: 2	0:22	B8	9.00	.00	60	8	27	224 L	10.0C	22.400
629	629	489	18:29: 6	-32:38:32	210281	0: 3	-0:55	B9	8.48	8.12	66	11	28	319 L	10.0C	31.900
630	958	608	18:29: 8	-39:48:22	210277	0:16	-3:56	A2	5.25	.00	74	19	37	529 L	10.0C	52.900
631	386	421	18:29:10	-27:14:53	186937	0: 2	0:37	B8	7.80	.00	113	4	81	119 L	1.0L	119.000
632	386	421	18:29:10	-27:14:53	186937	-0:21	-1:16	A3	8.80	.00	113	4	81	119 L	1.0L	119.000
633	380	415	18:29:10	-27:14:32	186937	0: 3	0:59	B8	7.80	.00	88	16	20	615	3.0C	205.000
634	380	415	18:29:10	-27:14:32	186937	-0:20	-0:55	A3	8.80	.00	88	16	20	615	3.0C	205.000
635	386	413	18:29:13	-27:15:22	186937	0: 5	0: 9	B8	7.80	.00	190	41	33	2637	10.0C	263.700
636	386	413	18:29:13	-27:15:22	186937	-0:17	-1:45	A3	8.80	.00	190	41	33	2637	10.0C	263.700
637	237	376	18:30: 4	-24:10:39	186959	0: 7	-1:47	B3	6.75	.00	219	58	20	3716	3.0C	1238.667
638	900	603	18:30: 4	-38:19:11	210293	0: 8	-2:42	A	6.60	.00	306	91	22	8962	3.0C	2987.333
639	900	603	18:30: 4	-38:19:11	210294	0: 9	-2:19	B8	6.00	.00	306	91	22	8962	3.0C	2987.333
640	900	603	18:30: 4	-38:19:11	210295	0: 8	-2:20	B8	5.95	.00	306	91	22	8962	3.0C	2987.333
641	900	603	18:30: 4	-38:19:11	210296	0: 9	-2:14	B9	6.55	.00	306	91	22	8962	3.0C	2987.333
642	505	609	18:30: 5	-39:47:13	210293	0: 9	-1:44	A	6.60	.00	203	74	26	4225	1.0L	4225.000
643	505	609	18:30: 5	-39:47:13	210295	0: 9	-1:21	B8	6.00	.00	203	74	26	4225	1.0L	4225.000
644	505	609	18:30: 5	-39:47:13	210296	0: 9	-1:22	B8	5.55	.00	203	74	26	4225	1.0L	4225.000
645	505	609	18:30: 5	-39:47:13	210296	0: 9	-1:23	B8	5.55	.00	203	74	26	4225	1.0L	4225.000
646	242	392	18:30: 6	-29: 4:45	186959	0: 5	-0:51	B3	6.75	.00	83	34	25	1655	1.0L	1655.000
647	245	374	18:30: 8	-24:10:13	186959	0: 3	-1:21	B3	6.75	.00	352	111	34	11131 L	10.0C	1113.100
648	907	600	18:30: 9	-38:47:15	210293	0:12	-1:47	A	6.60	.00	433	180	37	27070	10.0C	2707.000
649	907	600	18:30: 9	-38:47:15	210294	0:12	-1:23	B8	6.00	.00	433	180	37	27070	10.0C	2707.000
650	907	600	18:30: 9	-38:47:15	210295	0:12	-1:23	B8	5.95	.00	433	180	37	27070	10.0C	2707.000
651	907	600	18:30: 9	-38:47:15	210296	0:12	-1:45	B9	6.55	.00	433	180	37	27070	10.0C	2707.000
652	512	464	18:30:12	-30: 6: 7	210298	0: 3	0: 1	B9	8.51	8.16	52	4	26	952 L	10.0C	9.500
653	217	365	18:30:18	-23:35:32	186962	0: 2	-1:52	B8	8.70	.00	68	15	30	427 L	10.0C	42.700
654	808	570	18:30:19	-36: 51: 6	210302	0: 6	-2:50	B9	8.78	8.46	115	34	21	1572 H	3.0C	524.000
655	808	570	18:30:19	-36: 51: 6	210304	0: 2	-0:27	B9	8.04	7.60	115	34	21	1572 H	3.0C	524.000
656	813	577	18:30:19	-36:50:13	210302	0: 6	-1:56	B9	8.78	8.46	113	15	78	423	1.0L	423.000
657	813	577	18:30:20	-36:50:13	210304	0: 3	0:26	B9	8.05	7.60	113	15	78	423	1.0L	423.000
658	829	573	18:30:24	-37: 8:43	210305	0: 6	-1:27	B9	8.95	8.75	83	16	36	532 L	10.0C	53.200
659	816	568	18:30:26	-36:51:49	210302	0:13	-3: 32	B9	8.78	8.46	317	78	33	7183 H	10.0C	718.300
660	816	568	18:30:26	-36:51:49	186975?	0: 2	-0:44	B9	8.30	8.00	61	12	33	375 L	10.0C	37.500
661	343	431	18:30:30	-27:31:44	186968	0: 1	0: 9	B8	8.50	.00	70	15	29	448 L	10.0C	44.400
662	635	514	18:30:38	-33: 3:20	210312	0: 3	0: 0	B3	5.38	.00	412	149	24	1548	3.0C	5149.333
663	635	514	18:30:38	-33: 3:20	210314?	0:10	-3:19	B9	6.88	.00	412	149	24	1548	3.0C	5149.333
664	640	520	18:30:39	-33: 2:31	210312?	0: 2	-0:49	B3	5.38	.00	388	111	81	9234	1.0L	9234.000
665	640	520	18:30:39	-33: 2:31	210314?	0: 9	-2:30	B9	6.88	.00	388	111	81	9234	1.0L	9234.000
666	642	511	18:30:40	-33: 2:32	210312?	0: 1	-0:48	B3	5.38	.00	431	319	29	43013	10.0C	4301.300
667	642	511	18:30:40	-33: 2:32	210314?	0: 8	-2:31	B9	6.88	.00	431	319	29	43013	10.0C	4301.300
668	303	401	18:30:42	-25:29:19	186975?	0: 2	-0:44	B9	8.30	.00	61	12	33	375 L	10.0C	

PAGE, CARRUTHERS AND HILL

SGR NORMAL RA 18:34 DEC -30:24

OBJECT NO.	X	Y	R.A.	DEC.	SAO NO.	A. R.A.	A. DEC.	SPEC. TYPE	V. MAG.	P. MAG.	PEAK DEN.	NO. OF POINTS	BG	DENSITY VOLUME	EXP. & FILTER	DEVIOL/ EXP.
701	673	570	18:35:13	-34:3:41	210392	-0:1	-1:7	BB	8.55	8.07	109	23	31	998	10:OC	98.800
702	801	622	18:35:23	-37:3:16	210388	0:15	-2:2	A5	9.59	9.74	51	6	21	155	3:OC	51.667
703	801	622	18:35:23	-37:3:16	210394	0:5	-2:32	BB	9.02	8.65	51	6	21	155	3:OC	51.667
704	190	423	18:35:29	-23:33:40	187080	0:0	-1:42	BB	5.75	.00	310	69	24	6208	3:OC	2069.333
705	195	429	18:35:30	-23:33:45	187080	0:2	-2:18	BB	5.75	.00	293	48	73	3130	1:OC	3130.000
706	198	421	18:35:30	-23:35:15	187080	0:2	-2:18	BB	5.75	.00	399	132	36	15916	10:OC	1591.667
707	809	620	18:35:30	-37:3:58	210388	0:22	-2:39	A5	9.59	9.74	109	13	34	567	10:OC	56.722
708	809	620	18:35:30	-37:3:58	210394	0:12	-1:8	BB	9.02	8.65	109	13	34	567	L 10:OC	56.722
709	587	584	18:35:34	-30:33:56	210403	-0:6	-0:6	BB	7.62	.00	66	9	19	301 L	3:OC	122.333
710	839	632	18:35:34	-37:42:2	210397	0:7	-1:8	BB	8.90	8.49	183	51	35	3285 H	10:OC	3285.667
711	815	566	18:35:36	-31:43:24	210397	0:9	-1:21	BB	8.90	8.49	68	21	21	652 H	3:OC	21.567
712	515	526	18:35:38	-30:39:39	210403	-0:1	-0:49	BB	7.62	.00	144	32	27	1730 L	10:OC	1730.000
713	579	547	18:35:44	-32:1:17	NO											
714	571	550	18:35:45	-32:1:57	NO											
715	670	583	18:35:55	-34:12:51	210408	-0:4	-0:9	A0	6.64	.00	40	4	18	85	3:OC	80.000
716	678	580	18:35:56	-31:13:9	210408	-0:4	-0:26	A0	6.64	.00	170	38	31	228 H	10:OC	228.000
717	591	560	18:36:4	-32:28:51	210409	-0:5	-0:35	BB	9.05	8.63	45	4	19	93	3:OC	31.000
718	409	499	18:36:9	-28:1:51	187089	0:4	-1:16	BB	7.62	.00	68	13	28	375 L	10:OC	375.000
719	599	557	18:36:10	-32:29:33	210409	-0:0	-1:17	BB	9.05	8.63	91	22	28	931	10:OC	93.200
720	121	405	18:36:28	-22:1:45	187096	-0:2	-1:4	A0	8.20	.00	66	18	31	501 L	10:OC	50.200
721	459	520	18:36:34	-29:2:14	187100	-0:4	-1:6	BB	9.50	.00	123	30	28	1440	10:OC	144.000
722	451	523	18:36:36	-29:23:56	187100	-0:2	-0:48	BB	9.50	.00	58	11	18	311	3:OC	103.667
723	444	427	18:37:15	-22:43:48	187112	-0:5	-1:10	BB	8.90	.00	58	13	20	373	3:OC	124.333
724	685	688	18:37:15	-39:51:35	210450	-0:29	-6:40	A2	8.84	8.79	72	24	37	649	10:OC	64.900
725	152	425	18:37:16	-22:44:19	187112	0:6	-1:41	BB	8.90	.00	128	47	31	2362	10:OC	236.200
726	314	482	18:37:16	-26:1:14	NO											
727	481	535	18:37:18	-29:56:56	NO											
728	94	409	18:37:36	-21:33:55	187119	-0:4	-0:33	BB	8.80	.00	76	30	30	946 L	10:OC	946.600
729	525	559	18:37:48	-31:8:23	210457	-0:7	-1:12	BB	8.82	8.50	51	5	19	127	3:OC	42.333
730	533	557	18:37:52	-31:9:3	210457	-0:3	-1:52	BB	8.82	8.50	104	25	27	1047	10:OC	104.700
731	431	529	18:38:7	-28:53:38	187120	-0:1	-1:13	BB	7.90	.00	192	44	28	2781	10:OC	278.100
732	423	532	18:38:9	-28:53:22	187120	-0:1	-0:57	BB	7.90	.00	83	16	20	611	3:OC	203.667
733	428	538	18:38:10	-28:52:35	187120	-0:2	-0:9	BB	7.90	.00	115	7	77	208	1:OC	208.000
734	624	593	18:38:13	-33:21:10	210464	-0:1	-0:38	BB	8.87	8.37	66	10	19	342	3:OC	114.000
735	632	590	18:38:13	-33:21:26	210464	-0:1	-0:54	BB	8.87	8.37	152	34	30	1866	10:OC	186.600
736	359	518	18:38:38	-27:30:45	187141	-0:1	-1:8	BB	8.30	.00	77	16	21	554	3:OC	18.667
737	367	516	18:38:41	-27:31:23	187141	-0:2	-1:46	BB	8.30	.00	171	41	33	2548	10:OC	254.800
738	364	525	18:38:45	-27:30:23	187141	-0:5	-0:4	BB	8.30	.00	111	7	79	180 L	1:OC	180.000
739	586	533	18:38:52	-32:26:2	210478	-0:3	-1:3	BB	7.76	7.11	176	20	80	999 H	1:OC	999.500
740	588	589	18:38:52	-32:26:53	210478	-0:2	-0:54	BB	7.76	7.11	309	77	29	6965	10:OC	696.500
741	580	587	18:38:53	-32:26:37	210478	-0:2	-0:38	BB	7.76	7.11	152	30	21	1776 H	1:OC	1776.000
742	454	551	18:38:58	-29:19:7	187151	-0:3	-1:3	BB	8.60	.00	40	5	19	152	3:OC	4.333
743	463	549	18:39:2	-29:39:46	187151	-0:1	-0:44	BB	8.60	.00	107	25	27	1120	10:OC	112.000
744	166	455	18:39:18	-23:11:26	187154	-0:8	-2:0	BB	9.00	.00	54	7	31	91 L	10:OC	91.000
745	896	702	18:39:37	-31:21:26	210488	-0:11	-1:19	BB	7.09	.00	131	58	23	3077 H	3:OC	3077.667
746	119	433	18:39:41	-22:13:19	187169	-0:3	-0:8	BB	8.60	.00	67	22	30	616 L	10:OC	61.600
747	496	566	18:39:42	-30:27:32	NO											
748	901	709	18:39:44	-30:20:49	210488	-0:18	-0:41	BB	7.09	.00	120	40	72	1266	1:OC	1266.000
749	904	700	18:39:46	-31:21:52	210488	-0:20	-1:45	BB	7.09	.00	389	131	38	15499 H	10:OC	1549.900
750	372	430	18:39:49	-27:42:41	187170	-0:2	-0:48	BB	8.40	.00	104	24	33	1012 L	10:OC	101.200
751	364	533	18:39:51	-27:42:28	187170	-0:5	-0:34	BB	8.40	.00	53	6	20	160	3:OC	53.333
752	128	455	18:40:23	-22:28:29	187185	-0:4	-0:22	BB	8.70	.00	72	21	31	625 L	10:OC	62.500
753	87	694	18:40:33	-38:22:33	210501	-0:11	-0:9	A0	5.13	.00	61	15	22	451 L	3:OC	150.333
754	856	691	18:40:33	-38:23:50	210501	-0:12	-1:26	A0	5.13	.00	178	57	35	3447 L	10:OC	344.700
755	727	661	18:41:1	-35:41:33	210509	-0:3	-0:3	BB	8.82	.00	423	201	82	20549	1:OC	20549.000
756	721	655	18:41:3	-35:41:12	210509	-0:4	-0:23	BB	8.82	.00	446	264	23	29732	3:OC	9910.667
757	728	652	18:41:5	-35:40:11	210509	-0:7	-1:25	BB	8.82	.00	452	535	40	81361	10:OC	8136.100
758	557	605	18:41:35	-31:55:40	210523	-0:3	-0:42	A5	9.55	9.36	59	7	29	183	10:OC	183.000
759	565	605	18:41:35	-31:55:40	210526	-0:10	-1:29	BB	9.70	9.18	59	7	29	183 L	10:OC	183.000
760	910	729	18:41:43	-39:48:9	NO											
761	918	728	18:41:47	-39:46:60	NO											
762	237	515	18:41:51	-25:5:6	187216	-0:6	-1:21	BB	5.76	.00	254	57	22	4383	3:OC	1461.000
763	242	521	18:41:52	-25:4:18	187216	-0:7	-0:31	BB	5.76	.00	215	36	22	2207	1:OC	2207.000
764	392	560	18:41:53	-28:17:38	187225	-0:7	-1:15	BB	8.10	.00	75	6	34	188 L	10:OC	188.000
765	295	513	18:41:54	-28:19:26	187216	-0:9	-0:39	BB	5.76	.00	380	110	38	11998 L	10:OC	11998.000
766	366	561	18:42:2	-28:10:46	187257	-0:9	-0:37	BB	8.10	.00	87	29	35	968 L	10:OC	968.000
767	407	576	18:42:26	-28:21:11	187237	-0:4	-1:22	BB	8.40	.00	60	10	20	296	3:OC	98.667
768	407	576	18:42:26	-28:21:11	187238	-0:5	-2:16	BB	8.90	.00	60	10	20	296	3:OC	98.667
769	895	728	18:42:29	-39:21:5	NO											
770	415	574	18:42:31	-28:50:33	187237	-0:1	-0:43	A0	8.40	.00	128	30	30	1554	10:OC	155.400
771	415	574	18:42:31	-28:50:33	187238	-0:5	-1:37	A0	8.40	.00	128	30	30	1554	10:OC	155.400
772	333	550	18:42:37	-27:2:55	187239	-0:5	-0:16	BB	8.30	.00	452	509	35?	78579 H	10:OC	78579.000
773	326	553</														

NRL REPORT 8173

SGR NORMAL RA 18:34 DEC -30:24

OBJECT NO.	X	Y	R.A.	DEC.	SAO NO.	Δ R.A.	Δ DEC.	SPEC TYPE	V MAG.	P MAG.	PEAK DEN.	NO. OF POINTS	BG	DENSITY VOLUME	EXP. & FILTER	DEN. VOL/ EXP.	
801	207	556	18:46:35	-24:36:46	187317	0: 7	-0:49	A0	8.50	.00	58	5	34	111 L	10.0C	11.100	
802	578	668	18:46:44	-32:45:36								62	4	30	118? H	10.0C	11.800
803	642	699	18:47:23	-34:22:18	210625	-0: 6	-0:28	B9	7.23	.00	73	12	21	428	3.0C	142.667	
804	650	697	18:47:29	-34:22:45	210625	-0: 5	-0:55	B9	7.32	.00	186	39	33	2440 H	10.0C	244.000	
805	483	670	18:49:13	-30:48:44	210663	-0:16	-1: 0	B8	6.63	.00	328	85	34	8233 H	10.0C	823.300	
806	475	673	18:49:14	-30:48:39	210663	-0:15	-0:56	B8	6.63	.00	158	37	22	2197	3.0C	732.333	
807	479	680	18:49:20	-30:48:15	210663	-0: 9	-0:31	B8	6.63	.00	168	21	81	951	1.0L	951.000	
808	772	767	18:50:10	-37:21:16	210676	-0:10	-0:31	B9	8.50	.00	67	10	39	218 L	10.0C	21.800	
809	188	596	18:50:27	-24:30:20	187408?	0: 8	-0:24	B9	8.50	.00	62	6	29	172 L	10.0C	17.200	
810	195	598	18:50:28	-24:38:13	187408?	0: 8	-0:24	B9	8.50	.00	67	10	39	218 L	10.0C	21.800	
811	518	700	18:51: 4	-31:42:47	210690?	-0:26	-3:27	A5	9.37	9.17	99	23	33	886	10.0C	88.600	
812	519	700	18:51: 4	-31:42:47	210705?	-0:11	-1: 6	B9	9.29	8.64	99	23	33	886	10.0C	88.600	
813	95	575	18:51:13	-22:37: 8	187425	0: 6	-0:53	B8	8.04	.00	83	4	28	1365 L	10.0C	136.500	
814	495	696	18:51:13	-31:13:11	210704	-0:14	-1:39	B9	8.94	.00	188	45	35	2802 H	10.0C	280.200	
815	486	695	18:51:13	-31:11:56	210704	-0:14	-0:49	B9	8.84	.00	78	14	20	582	3.0C	75.000	
816	491	695	18:51:13	-31:11:50	210704	-0:10	-0:22	B9	8.54	.00	113	7	29	853	3.0C	192.000	
817	192	614	18:51:26	-24:49:42	187431	0: 7	-0:15	B8	7.50	.00	86	22	21	283	1.0L	283.000	
818	197	620	18:51:27	-24:48:55	187431	0: 8	-1: 2	B9	7.50	.00	102	10	66	283	1.0L	283.000	
819	200	612	18:51:30	-24:48:46	187431	0:11	-1:11	B9	7.50	.00	184	64	32	3975 H	10.0C	397.500	
820	146	605	18:51:33	-23:48:48	187433	0: 7	-1:15	A0	8.80	.00	93	11	65	239	1.0L	239.000	
821	291	646	18:51:33	-26:56:24	187438	0: 2	-0:49	B9	7.76	.00	88	6	38	216 L	3.0C	72.000	
822	261	643	18:52: 3	-26:19:14	187448	-0: 7	-2:25	B3	2.14	.00	510	1187	30	176262	3.0C	56754.000	
823	533	716	18:52: 9	-32: 7:40	210720	0: 9	-2:22	B9	8.87	8.43	69	12	34	335 L	10.0C	33.500	
824	269	642	18:52:11	-26:19:52	187448	0: 1	-1:45	B3	2.14	.00	504	2628	35?	447396	10.0C	44739.600	
825	267	651	18:52:13	-26:20:22	187448	0: 3	-1:17	B3	2.14	.00	472	979	100	108142	1.0L	10814.200	
826	118	605	18:53: 5	-23:14:13	187468	0: 6	-0: 8	B9	5.89	.00	358	172	32	15317	10.0C	1531.700	
827	705	775	18:53: 7	-35:57:49	210730	0: 8	-1:33	B9	9.90	8.55	71	13	37	359 L	10.0C	35.900	
828	109	608	18:53:10	-23:13:13	187468	0:11	-1: 8	B9	5.89	.00	181	73	20	4552 H	3.0C	1517.333	
829	114	614	18:53:11	-23:12:23	187468	0:12	-1:58	B9	5.89	.00	137	41	60	1813 H	1.0L	1813.000	
830	579	749	18:53:27	-33:24: 6	210749	-0:13	-0:21	B9	7.16	.00	99	20	21	887	3.0C	295.667	
831	764	809	18:53:31	-37:25:54	210734	0:14	-1:22	B5	5.41	.00	434	149	25	18464	3.0C	6154.667	
832	584	756	18:53:33	-33:23:39	210749	0: 7	-0: 7	B9	7.16	.00	113	7	77	206 L	1.0L	206.000	
833	769	811	18:53:35	-37:26:31	210734	0:18	-1:58	B5	5.41	.00	387	122	76	12741	1.0L	12741.000	
834	587	747	18:53:38	-33:24:46	210749	-0:2	-1: 1	B9	7.16	.00	240	51	36	3969	10.0C	396.900	
835	771	802	18:53:40	-37:24:57	210734?	0:23	-0:25	B5	5.41	.00	440	341	42	47831	10.0C	4783.100	
836	398	703	18:54: 8	-29:16:57	NO							67	8	35	215	10.0C	21.500
837	366	707	18:54:52	-28:48:15	187511	-0:12	-0:58	B9	8.68	.00	50	4	24	91 L	3.0C	30.333	
838	374	705	18:54:56	-28:48:32	187511	0: 8	-0:41	B9	8.68	.00	111	29	38	1170	10.0C	117.000	
839	293	689	18:55: 9	-27: 3:46	187513	0: 2	-1: 2	B9	8.80	.00	76	4	52	927 L	10.0C	9.200	
840	615	777	18:55:10	-34:18:12	210769	-0:14	-2: 3	B9	8.96	8.57	81	18	21	67	3.0C	225.667	
841	615	777	18:55:10	-34:18:12	210776	-0:14	-0:14	B9	8.77	.00	81	18	21	677	3.0C	225.667	
842	623	774	18:55:10	-34:18:10	210769?	0:14	-2: 6	B9	8.96	8.57	82	94	38	3832	10.0C	383.200	
843	623	774	18:55:10	-34:18:10	210767	0: 7	-0:12	B9	8.77	.00	232	94	38	3832	10.0C	383.200	
844	652	782	18:55:10	-34:55:51	210772	0: 1	-1:17	A0	8.29	8.12	74	15	38	415 L	10.0C	41.500	
845	198	689	18:55:24	-24:55:50	187517	0: 4	-0:35	A0	8.60	.00	90	7	66	150 L	1.0L	150.000	
846	183	658	18:55:25	-24:56:14	187517	0: 8	-0:29	A0	8.60	.00	76	21	20	739	3.0C	246.333	
847	191	662	18:55:28	-24:56:12	187517	0:12	-1:30	A0	8.60	.00	171	63	33	364 3	10.0C	364.300	
848	76	622	18:55:31	-22:32:30	187519	0: 7	-3:23	A2	6.04	.00	56	15	29	353 L	10.0C	353.000	
849	193	668	18:55:39	-25:10: 6	187532	0: 7	-2: 2	B9	8.80	.00	54	8	22	205	3.0C	68.333	
850	201	666	18:56: 2	-25:10:16	187532	-0:10	-1:53	B9	8.40	.00	118	44	35	1983	10.0C	198.300	
851	239	682	18:56:22	-25:59:30	210798	-0:14	-0:41	A0	8.57	8.11	67	11	22	657? L	10.0C	65.700	
852	523	769	18:56:34	-32:21:52	210798	-0:10	-0:49	A0	8.57	8.11	163	38	38	2260	10.0C	226.000	
853	532	766	18:56:38	-32:23:22	210797?	0: 3	-4:10	A5	9.08	9.05	163	38	38	2260	10.0C	226.000	
854	532	766	18:56:38	-32:23:22	210798	-0:10	-0:49	A0	8.57	8.11	163	38	38	2260	10.0C	226.000	
855	256	703	18:56:50	-26:26:22	NO							114	6	89	114	1.0L	114.000
856	258	704	18:56:53	-26:29: 7	NO							122	6	90	149	1.0L	149.000
857	154	668	18:56:58	-26:26: 7	187551	0: 8	-1:60	B8	8.40	.00	44	4	22	81 L	3.0C	27.000	
858	162	666	18:57: 1	-24:26:14	187551	0:10	-1:53	B8	8.40	.00	98	42	32	1628	10.0C	162.800	
859	315	715	18:57:14	-27:40: 7	187563	-0:11	-2:50	A0	8.20	.00	85	18	36?	648 L	10.0C	64.800	
860	238	708	18:57:46	-26: 7:55	NO							104	20	69	529	1.0L	529.000
861	250	714	18:57:57	-26:24: 3	187515?	0:18	-2:31	B8	6.84	.00	301	99	32	12971 H	3.0C	1297.000	
862	738	738	18:57:59	-37:10:25	210815?	-0:19	-1:34	A2	2.71	.00	386	104	36?	12928 L	10.0C	1292.800	
863	738	841	18:57:59	-37:10:25	210816?	-0:17	-2:27	A2	2.71	.00	202	65	77	3996 L	3.0C	3996.000	
864	743	851	18:58: 4	-37: 9:50	210815?	-0:21	-1:55	B8	6.84	.00	202	65	77	3646 L	1.0L	3646.000	
865	743	851	18:58: 4	-37: 9:50	210816?	-0:23	-1:52	B8	6.82	.00	202	65	77	3646 H	1.0L	3646.000	
866	746	842	18:58: 8	-37: 9:23	210815?	-0:27	-1:29	B8	6.84	.00	426	237	43	3264 H	10.0C	3264.300	
867	746	842	18:58: 8	-37: 9:23	210816?	-0:26	-1:25	B8	6.82	.00	426	237	43	3264 H	10.0C	3264.300	
868	728	848	18:58:39	-36:59:39	210828?	-0:22	-1:53	A0	6.88	.00	66	26	23	782	3.0C	260.667	
869	870	831	18:58:39	-36:59:39	210829?	-0:13	-1: 9	A0	8.07	7.76	96	20	40	676	1.0L	676.000	
870	736	848	18:58:58	-37: 1:													

PAGE, CARRUTHERS AND HILL

SGR NORMAL RA 18:34 DEC -30:24

OBJECT NO.	X	Y	R.A.	DEC.	SAO NO.	Δ R.A.	Δ DEC.	SPEC. TYPE	V MAG.	P MAG.	PEAK DEN.	NO. OF POINTS	BG	DENSITY VOLUME	EXP. & FILTER	DEN. VOL/ EXP.
901	450	848	19: 5:19	-31:21:32	210970?	0:17	4: 9	A0	.00	.00	47	4	22	97	3.0C	32 333
902	450	848	19: 5:19	-31:21:32	210977	0: 5	2:12	B9	8.73	8.30	47	4	22	97 L	3.0C	32 333
903	135	763	19: 5:24	-24:39:37	187718	0:12	4:36	B9	6.24	.00	81	36	21	1292	3.0C	430 667
904	140	769	19: 5:25	-24:38:53	187718?	0:14	5:20	B9	6.24	.00	84	8	60	175 L	1.0L	175 000
905	144	761	19: 5:26	-24:39:33	187718	0:15	4:40	B9	6.24	.00	184	94	30	5989	10.0C	598 900
906	125	843	19: 5:48	-30:40:15	210987	-0: 8	2: 9	A0	7.89	.00	73	12	41	309 L	10.0C	30 900
907	154	774	19: 5:51	-25: 5:36	187728	0: 8	3:60	B9	6.76	.00	82	39	20	1424	3.0C	474 667
908	162	772	19: 5:55	-25: 4:19	187728?	0:12	5:16	B9	6.76	.00	196	97	31	6463	10.0C	646 300
909	158	781	19: 5:59	-25: 3:59	187728	0:16	5:36	B9	6.76	.00	91	16	60	422	1.0L	422 000
910	221	792	19: 6: 7	-26:20:43							79	8	33	249?	10.0C	24 900
911	475	666	19: 6:11	-31:59:14	211001	-0:18	0:54	B5	9.52	8.91	52	9	22	223	3.0C	74 333
912	483	861	19: 6:18	-31:58: 5	211001	-0:11	2: 3	B5	9.52	8.91	146	41	43	2138	10.0C	213 800
913	611	891	19: 6:45	-34:47: 1	210987	0:23	-1:11	A0	8.21	7.89	72	9	45	214 L	10.0C	21 400
914	672	920	19: 6:46	-36:18:25	210986	0:30	-3:39	B9	6.58	.00	72	28	23	951	3.0C	317 000
915	681	917	19: 6:47	-36:18: 9	210986?	0:31	-3:24	B9	6.58	.00	268	94	46	7460	10.0C	746 000
916	365	851	19: 7:59	-29:32:27	187786	-0:10	2:41	B9	6.25	.00	388	108	42	1304	10.0C	130 400
917	361	852	19: 8: 0	-29:32: 2	187786	-0: 9	3: 5	B9	6.25	.00	198	34	23	1369	10.0C	1369 000
918	357	856	19: 8:46	-29:32:44	187786	-0: 9	2:23	B9	6.25	.00	178	54	23	3303	3.0C	1101 000
919	195	806	19: 8: 1	-25:55:14	187776	0: 9	4:25	B9	8.50	.00	65	18	32	494? L	10.0C	49 400
920	238	832	19: 8:20	-26:51:27	NO						67	6	33	165	1.0L	15 500
921	232	834	19: 8:41	-26:49:38	NO						116	36	63	1269	1.0L	1269 000
922	662	944	19: 9:46	-36:45:53	211039?	0:47	-3:20	B5	10.20	9.62	89	41	47	1246	10.0C	124 600
923	662	944	19: 9:46	-36:45:53	211043?	0:30	9:43	A2	8.95	8.87	89	41	47	1246 H	10.0C	124 600
924	554	923	19: 9:48	-33:55:58	211045	0:21	0:15	A0	7.86	.00	135	50	24	2645	3.0C	881 667
925	554	923	19: 9:48	-33:55:58	211046	0:20	-0: 6	A0	7.30	.00	135	50	24	2645	3.0C	881 667
926	365	871	19: 9:52	-29:41: 9	187830	-0: 5	2:13	B9	8.10	.00	90	27	43	836 L	10.0C	83 600
927	563	920	19: 9:53	-33:57:10	211045	0:26	-0:57	A0	7.86	.00	388	113	49	13173 H	10.0C	1317 300
928	563	920	19: 9:53	-33:57:10	211046	0:25	-1:18	A0	7.30	.00	388	113	49	13173 H	10.0C	1317 300
929	559	930	19: 9:54	-33:55:28	211045	0:26	0:45	A0	7.86	.00	123	33	73	1102	1.0L	1102 000
930	559	930	19: 9:54	-33:55:28	211046	0:26	0:24	A0	7.30	.00	123	33	73	1102 L	1.0L	1102 000
931	320	881	19:11:28	-28:50:58	187864	0: 0	1: 0	BB	9.20	.00	75	15	40	396 L	10.0C	39 600
932	427	910	19:11:48	-31: 9:30	211085	0:12	0:47	A0	8.94	8.47	66	4	42	92 L	10.0C	9 200
933	592	963	19:12:38	-34:56:37	NO						53	13	25	311	3.0C	103 667
934	601	960	19:12:39	-34:57:30	NO						163	76	49?	4119	10.0C	411 900
935	532	953	19:12:52	-33:39:15	211100?	0:21	-2: 7	A0	7.38	.00	89	43	23	1675	3.0C	558 333
936	532	953	19:12:52	-33:39:15	211101?	0:18	0:53	BB	9.03	8.38	89	43	23	1675	3.0C	558 333
937	536	960	19:12:57	-33:38:45	211100?	0:27	-1:38	A0	7.38	.00	105	20	78	469	1.0L	469 000
938	536	960	19:12:57	-33:38:45	211101?	0:26	1:22	BB	9.03	8.38	105	20	78	469	1.0L	469 000
939	541	950	19:12:57	-33:40:23	211100?	0:26	-3:16	A0	7.38	.00	338	116	49	1121 H	10.0C	1121 000
940	541	950	19:12:57	-33:40:23	211101?	0:23	-0:16	BB	9.03	8.38	338	116	49	1121 H	10.0C	1121 000
941	580	967	19:13:47	-34:33:53	211107	0:46	-1:48	A0	8.98	8.58	78	17	49?	420 L	10.0C	42 000
942	505	976	19:15:25	-33:15:48	211146	0:19	-1:10	BB	7.52	.00	90	43	27	1560	3.0C	526 000
943	509	983	19:15:30	-33:15:20	211148	0:24	-0:42	BB	7.52	.00	100	22?	70	742	1.0C	742 000
944	514	973	19:15:31	-33:15:41	211148?	0:25	-1: 3	BB	7.52	.00	306	117	49	10220 H	10.0C	1022 000

BEST AVAILABLE COPY

NRL REPORT 8173

OBJECT NO.	X	Y	R.A.	DEC.	SAO NO.	A. R.A.	Δ. DEC.	SPEC. TYPE	V. MAG.	P. MAG.	PEAK. DEN.	NO. OF POINTS	BG	DENSITY VOLUME	EXP. & FILTER		
															EXPO. VOL.	DEN.	EXP.
1	748	92	17:49:34	-31:37:54	209398	0: 4	-0:25	B8	8.62	8.33	475	34	446	885 L	3.0L	295.000	
2	686	70	17:50:13	-30:17: 9							476	1401	365	1117872	3.0L	37262.333	
3	696	70	17:50:26	-30:32:46							481	92	432	23012	3.0L	167.000	
4	617	42	17:50:32	-33:43:46							493	967	430	44432	3.0L	1481.000	
5	737	104	17:50:56	-31:32: 3							493	283	340	278021	3.0L	983.667	
6	838	159	17:51:25	-33:53:27	209447	0: 10	2:34	A0	8.80	8.56	420	4	397	872L	3.0L	20.000	
7	838	159	17:51:25	-33:53:27	209449	0: 5	3:25	B9	7.88	7.47	420	4	397	872L	3.0L	29.000	
8	838	159	17:51:25	-33:53:27	209450	0: 2	0:22	A0	7.71	7.35	420	4	397	872L	3.0L	29.000	
9	652	73	17:51:38	-29:40:25							468	314	365	236937	3.0L	7897.667	
10	814	128	17:51:41	-33: 9: 7	209456	0: 4	2: 9	B3	9.06	9.00	143	29	107	799 L	30.0C	26.633	
11	606	55	17:51:54	-28:39:29							492	195	456	3894?	3.0L	1298.000	
12	600	31	17:52: 5	-28:19:19	185937	-0: 5	1: 9	B9	9.10	.00	148	14	115	392?L	30.0C	13.067	
13	747	124	17:52: 9	-31:55:17							450	27	419	683	3.0L	227.667	
14	591	53	17:52:17	-28:21:13	185937	0: 7	-0:44	B9	9.10	.00	463	6	434	160?L	3.0L	53.333	
15	689	100	17:52:26	-30:37:58	209475	0: 6	2:35	B9	8.86	8.65	472	33	439	790 L	3.0L	263.333	
16	689	100	17:52:26	-30:37:58	209480	-0: 6	4: 6	A0	7.54	7.21	472	33	439	790 L	3.0L	263.333	
17	695	81	17:52:30	-30:33:29	209474	0: 10	-0:46	B3	8.60	8.70	245	257	122	13682	30.0C	456.067	
18	695	81	17:52:30	-30:33:29	209480	-0: 1	0:23	A0	7.54	7.21	245	257	122	13682	30.0C	456.067	
19	768	140	17:52:38	-32:27:55	20989	-0:22	0:11	B0	6.62	.00	434	4	408	97 L	3.0L	32.333	
20	846	178	17:52:41	-34:12:47	209482	0: 5	3:60	B9	8.06	7.71	410	13	384	290?	3.0L	96.667	
21	857	185	17:52:48	-34:28:19	209493	-0:15	1:10	A0	8.66	8.44	402	10	374	2332L	3.0L	77.667	
22	776	126	17:52:59	-32:27:38	209489	-0: 0	0:31	B0	6.62	.00	156	78	103	2783?	30.0C	92.767	
23	765	145	17:53: 6	-32:26:30	209489	0: 7	1:37	B0	6.62	.00	439	7	410	173 L	3.0L	57.667	
24	572	56	17:53:13	-28: 2: 2	185975	-0:19	1:31	A3	5.76	.00	466	5	443	113?	3.0L	37.667	
25	784	132	17:53:13	-32:39:43	209503	-0:20	1:15	B9	6.60	.00	204	111	111	5373 L	30.0C	179.100	
26	816	148	17:53:14	-33:23:13	209508	-0:30	0:56	A0	8.12	7.80	126	27	101	613 L	30.0C	20.433	
27	616	78	17:53:21	-29: 3: 55	185963	0: 7	-2:59	A2	9.10	.00	458	4	435	89?	3.0L	29.667	
28	616	78	17:53:21	-29: 3: 55	185970	-0: 5	-1:18	A3	8.90	.00	458	4	435	89?	3.0L	29.667	
29	539	24	17:53:31	-26: 6: 15	185976	-0:18	1:38	B8	8.40	.00	215	93	116	5363	30.0C	178.767	
30	529	44	17:53:34	-27: 7: 15	185976	-0:18	1:38	A0	8.40	.00	465	42	431	1186 L	3.0L	395.333	
31	661	79	17:53:39	-29: 5: 40	185972	-0:24	-3: 8	A0	8.00	.00	161	27	118	885	30.0C	29.500	
32	661	79	17:53:39	-29: 5: 40	185974	-0:18	0: 8	B9	8.50	.00	461	27	118	885	30.0C	29.500	
33	677	86	17:53:35	-30:16:27	209507	-0: 5	0:23	B8	8.50	8.47	207	87	125	1043	30.0C	105.000	
34	667	107	17:53:45	-30:16:51	209507	-0: 5	-0: 1	B8	8.50	8.47	443	13	411	165?	3.0L	121.667	
35	730	113	17:53:47	-31:29:31	209502	-0:19	1:25	B9	8.72	8.41	236	183	113	9951	30.0C	331.700	
36	730	113	17:53:47	-31:29:31	209514	-0:10	0:27	A0	9.44	9.40	226	183	113	9951	30.0C	331.700	
37	730	113	17:53:47	-31:29:31	209518	-0:25	0:46	B5	9.34	9.17	236	183	113	9951	30.0C	331.700	
38	753	125	17:53:50	-32: 2: 27	209520	-0:24	0:13	B8	8.27	7.82	339	208	102	20302	H 30.0C	676.733	
39	634	94	17:53:56	-29:33: 4	185985	-0:17	1: 5	B3	9.20	.00	458	7	428	158 L	3.0L	52.667	
40	595	76	17:53:57	-28:38:49							467	190	424	5613?	3.0L	1871.000	
41	706	107	17:54: 7	-31: 0: 12	209521	-0:11	0:24	B0	8.24	8.17	209	107	117	5196 L	30.0C	173.200	
42	741	146	17:54:10	-32: 1: 10	209520	-0: 4	1:30	B5	8.27	7.82	457	38	406	1471 L	3.0L	490.333	
43	835	169	17:54:11	-33:55:32	209527	-0:29	1:11	A0	8.30	7.93	132	37	99	999	30.0C	33.300	
44	619	70	17:54:21	-29: 2: 21	186005	-0:31	2: 2	B9	9.00	.00	174	9	127	292?	30.0C	9.733	
45	791	150	17:54:21	-32:56:50	NO						155	74	99	2762	30.0C	92.067	
46	516	48	17:54:23	-26:54: 5	185998	-0:19	-4: 1	A5	9.00	.00	444	12	420	2167	3.0L	72.000	
47	633	99	17:54:25	-29:34:22	186002	-0:11	-0:13	B3	9.20	.00	453	5	428	114 L	3.0L	38.000	
48	633	99	17:54:25	-29:34:22	186004	-0:10	-0:17	B8	8.70	.00	453	5	428	114 L	3.0L	38.000	
49	773	165	17:54:25	-32:47:25							426	9	395?	2177	3.0L	72.333	
50	694	128	17:54:27	-30:58:51	209521	0: 9	1:46	B0	8.24	8.17	445	8	417	2007	3.0L	66.667	
51	641	81	17:54:27	-29:33:50	186085	-0:14	0:18	B3	9.20	.00	181	50	127	1724 L	32.0C	56.822	
52	641	81	17:54:27	-29:33:50	186094	-0: 8	0:14	B8	8.70	.00	181	50	127	1724 L	32.0C	56.822	
53	776	145	17:54:32	-32:38:50							143	8	103	265?	32.0C	8.833	
54	856	183	17:54:33	-34:25:57							122	12	99	241?	32.0C	8.833	
55	644	107	17:54:34	-30:32:29	186002	-0:10	-4:16	B3	9.30	.00	451	47	408	1616?	3.0L	53.667	
56	662	93	17:54:38	-30:32:29	209529	-0:10	0:19	B8	7.65	7.20	275	151	116	1535?	H 32.0C	36.500	
57	650	112	17:54:47	-30:35:55	209529	-0: 1	2:44	B8	7.65	7.20	470	137	112	514?	30.0L	175.000	
58	617	75	17:54:50	-30:32:21	186005	-0: 3	0:45	B9	9.00	.00	204	39	124?	2226	32.0C	74.222	
59	587	78	17:55: 2	-28: 8: 16	186010	-0: 3	1:12	B9	9.00	.00	463	45	425	1393	32.0C	16.333	
60	567	78	17:55: 2	-28: 8: 16	186010	-0: 2	-0: 0	B5	8.80	.00	463	45	425	1393 L	32.0C	16.333	
61	577	59	17:55: 2	-28: 8: 16	186010	-0: 3	0:29	B9	9.00	.00	269	41	1407	365?	32.0C	21.922	
62	577	59	17:55: 2	-28: 8: 16	186011	-0: 2	-0:43	B5	8.80	.00	269	41	1407	365?	32.0C	21.922	
63	512	56	17:55:35	-32:52:51	185998?	-0:25	-2:46	A5	9.00	.00	461	19	428	1428?	32.0C	56.567	
64	547	50	17:55:15	-27:30:51	186027	-0:21	-2:27	A0	9.30	.00	258	17	167	1637?	32.0C	54.567	
65	547	50	17:55:15	-27:30:51	186023	-0:14	0:11	B8	8.50	.00	258	17	167	1637 L	32.0C	54.567	
66	697	117	17:55:18	-30:55:56	NO						150	40	117	884?	32.0C	29.667	
67	103	103	17:55:23	-29:13:59	186016	-0:10	1:36	A0	9.03	.00	448	51	399	1883?	32.0C	62.667	
68	602	75	17:55:23	-28:46: 6	186025	-0: 6	-0:46	B5	5.95	.00	412	432	127?	57155 L	30.0C	1905.167	
69	614	83	17:55:30	-29: 4: 26	186005?	-0											

PAGE, CARRUTHERS AND HILL

SGR OVEREXP RA 18:34 DEC -30:24

OBJECT NO.	X	Y	R.A.	DEC.	SAO NO.	A R.A.	Δ DEC.	SPEC TYPE	V MAG.	P MAG.	PEAK DEN.	NO. OF POINTS	BG	DENSITY VOLUME	EXP. & FILTER	DEN. VOL./ EXP.
101	598	98	17:57:36	-28:42:31	186085	0: 3	-0:54	A0	8.90	.00	249	175	114	10569 H 30.00	350 300	
102	543	80	17:57:43	-27:41:52	186082	0:20	-1:25	B9	9.00	.00	189	30	108	15437 H 30.00	51 433	
103	696	170	17:57:47	-31:25:20							422	39	384	2045 L 3.0L	401 333	
104	918	272	17:57:53	-36:22: 4	209597	-0: 6	1:14	B9	8.90	8.46	422	119	527	6435 H 3.0L	2145 000	
105	918	272	17:57:53	-36:22: 4	209608	-0:32	0:36	B9	6.32	.00	422	119	327	6435 H 3.0L	2145 000	
106	557	88	17:57:54	-28:1:49	1861207	-0:40	-4:26	B9	9.30	.00	149	5	121	1107 L 30.0C	3 667	
107	532	79	17:57:56	-27:28:14							149	6	109	187 L 30.0C	6 333	
108	854	228	17:58: 5	-31:59:49	209605	-0: 9	0:44	A0	8.50	8.30	132	44	97	1224 L 30.0C	40 800	
109	761	181	17:58: 8	-32:42:18	209599	-0:18	0:37	B0	8.76	8.77	140	73	94	2292 L 30.0C	76 400	
110	761	181	17:58: 8	-32:42:18	209609	-0:18	0:37	B0	8.76	8.77	140	73	94	2292 L 30.0C	76 400	
111	587	127	17:58: 9	-28:58: 3	186102	0: 3	1:35	A0	9.10	.00	422	6	396	1387 L 3.0L	46 000	
112	885	261	17:58:12	-35:40:41	209614	-0:31	-0:29	B8	7.62	7.33	398	30	335	1124 L 3.0L	374 667	
113	599	110	17:58:14	-29:1:57	186102	0: 9	-2:19	A0	9.10	.00	179	33	109	1002 30.0C	33 400	
114	985	258	17:58:15	-36:21:29	209597	-0:17	1:48	B5	8.90	8.46	382	201	95	22522 30.0C	750 753	
115	985	258	17:58:15	-36:21:29	209608	-0:10	1:10	B9	6.32	.00	382	201	95	22522 30.0C	750 733	
116	613	140	17:58:16	-29:34:19	186109	0: 5	0:56	A0	7.50	.00	431	16	403	357 L 3.0L	119 000	
117	522	103	17:58:22	-27:29:53	NO						440	51	395	1744 3.0L	581 333	
118	622	123	17:58:25	-29:35:24	186109	0:10	-0: 9	A0	7.50	.00	198	89	114	3971 30.0C	132 367	
119	543	112	17:58:28	-28: 0: 2	186120	-0: 7	-2:39	B9	9.30	.00	441	19	409	510 3.0L	170 000	
120	892	246	17:58:29	-35:39:39	209614	-0:15	0:33	B8	7.62	7.33	254	486	93	34609 H 30.0C	1153 633	
121	550	94	17:58:32	-27:57:16	186120	-0: 1	0: 7	B9	9.30	.00	162	46	116	1516 30.0C	50 533	
122	881	263	17:58:33	-35:37: 6	209614	-0:11	3: 6	B8	7.62	7.33	367	7	335	1897 L 3.0L	63 000	
123	881	263	17:58:33	-35:37: 6	209620?	-0:18	-1:36	A2	9.46	9.23	367	7	335	1897 L 3.0L	63 000	
124	730	172	17:58:33	-32:3:52	209617	-0:14	-0:24	B8	8.61	149	133	96	4617 30.0C	153 900		
125	881	89	17:58:37	-26:33:10	186136	-0:20	-4:10	A0	9.00	.00	419	25	389	5997 L 3.0L	199 667	
126	521	177	17:58:37	-27:31:12	NO						456	30	392	772 L 3.0L	2590 667	
127	804	217	17:58:45	-31:10:46	209626	-0:19	0:40	B8	8.93	8.60	456	65	104	1733 L 3.0C	57 767	
128	719	192	17:58:46	-32: 3: 13	209617	-0: 1	0:15	B8	8.61	8.38	420	22	383	569 L 3.0L	199 333	
129	529	89	17:58:52	-27:30:39	NO						371	308	115	334? 3.0L	91 667	
130	880	267	17:58:55	-35:39: 4	209614	-0:12	1: 8	B8	7.62	7.33	356	15	334?	3377 L 3.0L	112 333	
131	880	267	17:58:55	-35:39: 4	209623?	-0: 1	-4:43	A	9.97	9.60	356	15	334?	3377 L 3.0L	112 333	
132	537	93	17:58:58	-27:41:46	NO						163	10	114	351 30.0C	111 700	
133	469	88	17:58:58	-26:18:51	NO						427	26	386	903 3.0L	301 000	
134	605	123	17:59:2	-29:15:45	186128	-0:23	-0:20	A0	9.00	.00	173	46	106	1871 30.0C	62 367	
135	473	70	17:59:8	-26:13:51	186147	-0:17	-7: 0	A0	9.00	.00	174	10	122	417 L 30.0C	13 900	
136	800	233	17:59:11	-33:53:51	209631	-0:13	-0:26	B5	7.55	6.98	450	143	357	7425 3.0L	2475 000	
137	679	158	17:59:17	-30:58:44	209635	-0:16	-0:28	B9	8.63	8.32	131	15	102	3727 L 30.0C	12 400	
138	808	217	17:59:19	-33:53:33	209631	-0: 5	-0: 8	B5	7.55	6.98	380	259	92	30496 30.0C	1016 533	
139	876	271	17:59:27	-35:36:28	209623?	-0:31	-2: 6	A	9.97	9.60	371	19	331	569 H 3.0L	189 667	
140	876	271	17:59:27	-35:36:28	209634?	-0: 4	-1:36	B9	9.06	8.84	371	19	331	569 3.0L	189 667	
141	876	271	17:59:27	-35:36:28	209639	-0:25	0:27	B9	8.30	8.02	371	19	331	569 3.0L	189 667	
142	753	216	17:59:28	-32:53: 7	NO						400	596	3407	9339? 3.0L	3113 000	
143	656	173	17:59:30	-30:41:44	209638	-0:14	1:55	A0	9.61	9.33	417	21	381	557? 3.0L	185 667	
144	607	131	17:59:32	-29:22:34	186156	-0: 4	-0:29	B8	7.86	.00	356	272	104	27293 H 30.0C	909 767	
145	598	150	17:59:38	-29:22:26	186156	-0: 2	-0:21	B8	7.86	.00	459	129	397	4348 3.0L	1499 333	
146	799	239	17:59:39	-33:56:18	209631	-0:15	-2:52	B5	7.55	6.98	390	5	357	1397 L 3.0L	46 333	
147	472	76	17:59:41	-26:15:29	186147?	-0:16	-8:38	A0	9.00	.00	249	73	1307	4080 H 30.0C	136 000	
148	472	76	17:59:41	-26:15:29	186180?	-0:36	3:49	A0	7.50	.00	249	73	1307	4080 30.0C	136 000	
149	632	146	17:59:41	-29:58:38	NO						135	38	102	1007 30.0C	33 567	
150	463	99	17:59:59	-26:17:44	186180	-0:18	1:33	A0	7.50	.00	431	18	395	484? L 3.0L	161 333	
151	504	118	17:59:59	-27:15:53	186168	0: 1	3:54	A0	9.00	.00	401	350	320?	320? 3.0L	106 667	
152	543	133	17:59:59	-28:1:32	186166	0: 14	0:24	B5	8.90	.00	206	66	99	3654 L 30.0C	123 133	
153	213	140	17:59:59	-29:31:29	186170/	-0: 9	-3:29	A0	9.10	.00	206	66	99	3654 L 30.0C	123 133	
154	511	140	17:59:59	-29:31:29	186170/	-0: 9	-3:29	A0	9.10	.00	206	66	99	3654 L 30.0C	123 133	
155	494	92	17:59:59	-26:50:40	186189	-0:21	1:36	B5	7.90	.00	207	105	105	3654 L 30.0C	189 000	
156	528	129	17:59:59	-27:50:56	186171	-0:12	0:59	A0	9.00	.00	436	89	398	2364? H 3.0L	788 000	
157	502	118	17:59:59	-27:14:30	186168?	-0:16	5:17	A2	9.00	.00	404	35	357	1315 L 3.0L	439 333	
158	502	118	17:59:59	-27:14:30	186200?	-0:28	3:54	B3	9.00	.00	404	35	357	1315 L 3.0L	439 333	
159	528	111	17:59:59	-27:53:14	186171	-0:18	-1:19	A0	9.00	.00	180	52	133	1367 L 3.0L	45 567	
160	858	251	18: 0:17	-35: 6: 1	209640?	-0:25	-7:55	A2	9.19	9.23	134	69	90	2218 30.0C	73 933	
161	858	251	18: 0:17	-35: 6: 1	209632?	-0:41	0:33	A0	8.5	8.00	134	69	90	2218 30.0C	73 933	
162	524	130	18: 0:28	-27:46:46	186201	-0:16	-2:48	A0	9.20	.00	442	72	361	3424 H 3.0L	114 133	
163	565	147	18: 0:32	-28:43:56	186192	-0: 5	0:18	A0	8.20	.00	419	34	385	731 L 3.0L	243 667	
164	419	92	18: 0:33	-25:20:13	186193	-0: 6	-1:19	B1	8.90	.00	421	40	378	1295? L 3.0L	431 667	
165	436	66	18: 0:33	-25:30:29	NO						247	34	1307	2084 30.0C	69 467	
166	427	87	18: 0:37	-25:31:17	NO						433	169	366	7140 3.0L	2380 000	
167	483	115	18: 0:37	-26:49:29	186189	-0: 4	2:47	B5	7.90	.00	422	68	346	3484? 3.0L	1161 333	
168	530	113	18: 0:39	-27:44:26	186201	-0: 5	-0:28	A0	9.20	.00	173	59	123	2051 30.0C	68 367	
169	574	131	18: 0:42	-28:44:21	186192	-0: 7	0: 6	B8	8.20	.00	155	49	108	1532 30.0C	51 067	
170	511	106	18: 0:45	-27:18: 1	186200	-0: 3	0:24	B3	9.00	.00	285	200	112	17354 H 30.0C	578 467	
171	373	64	18: 0:47	-24:17: 5	186204?	-0: 1	4:43	B3	5.86	.00	507	3339	369	2358? 3.0L	78613 667	
172	373	64	18: 0:47	-24:19:35	186207?	-0: 6	1:50	B								

NRL REPORT 8173

SOR OVEREXP RA 18-34 DEC -30:24

OBJECT NO.	X	Y	R.A.	DEC.	SAO NO.	A R.A.	A DEC.	SPEC TYPE	V MAG.	P MAG.	PEAK DEN.	NO. OF POINTS	BG	DENSITY VOLUME	EXP. & FILTER	DEN. VOL / EXP.
201	514	146	18: 2: 5	-27:43:21	186249	-0: 5	-1:16	BB	9.00	.00	424	99	371	3593 H	3.0L	1197.667
202	339	66	18: 2: 7	-23:38:52	186236?	0:21	-2:48	BB	8.60	.00	444	20	367	1117 L	3.0L	372.333
203	339	66	18: 2: 7	-23:38:52	186255?	-0:19	4:21	BB	8.30	.00	444	20	367	1117 L	3.0L	372.333
204	522	150	18: 2: 9	-27:54:30	NO						412	16	378	426	3.0L	142.000
205	574	172	18: 2:11	-29: 6:22	186248	0: 2	-0:48	BB	8.70	.00	420	26	388	634 L	3.0L	211.333
206	374	60	18: 2:11	-24:16:13	186227?	0:39	3:53	BB	8.90	.00	472	1598	1377	375396	30.0C	12513.200
207	374	60	18: 2:11	-24:16:13	186247	0: 4	7:58	O	6.79	.00	472	1598	1377	375396	30.0C	12513.200
208	570	148	18: 2:12	-28:49:32	NO						141	41	100	1324	30.0C	44.133
209	465	129	18: 2:15	-26:35:21	186252	-0: 2	2:43	BB	8.60	.00	406	44	375	975 L	3.0C	325.000
210	526	132	18: 2:19	-27:49:21	186249?	0: 8	-7:16	BB	9.00	.00	211	239	107	11810 H	30.0C	393.667
211	584	176	18: 2:21	-29:20:49	186256	-0: 8	-3:54	A2	7.03	.00	413	15	374	4197L	3.0C	139.667
212	472	111	18: 2:23	-26:34:13	186252?	0: 7	3:52	BB	8.60	.00	179	91	108	4191 H	30.0C	139.700
213	346	50	18: 2:25	-23:38:45	186255?	-0: 1	4:27	BB	8.30	.00	401	129	144?	25040	30.0C	834.667
214	516	152	18: 2:27	-27:47:60	186249?	0:16	-5:55	BB	9.00	.00	409	22	381	539	3.0L	179.667
215	527	198	18: 2:32	-30:21:13	209696	-0: 4	4:13	K0	3.07	.00	407	10	383?	261?	3.0L	73.667
216	595	153	18: 2:32	-29:24: 8	186265	-0:20	1: 6	BB	8.50	.00	356	197	104	1978	30.0C	649.267
217	389	72	18: 2:33	-29:39:39	186207	0:10	4:27	BB	8.00	.00	377	35	130?	4662	30.0C	156.067
218	581	159	18: 2:36	-29:56:32	186249?	-0:27	-0:50	BB	8.00	.00	139	33	98	1052 L	30.0C	133.333
219	479	140	18: 2:40	-26:56:50	186264?	-0:11	0:59	BB	8.60	.00	436	54	380	2137	3.0L	712.333
220	469	114	18: 2:40	-26:31:39	186252?	-0:23	6:25	BB	8.60	.00	167	34	108	1211?L	30.0C	40.367
221	487	121	18: 2:41	-26:57:23	186264?	-0: 9	1:27	BB	8.60	.00	336	145	113	14011	30.0C	467.033
222	338	73	18: 2:42	-23:42: 1	186255?	-0:16	1:12	BB	8.30	.00	415	15	365	514?L	3.0L	180.333
223	811	257	18: 2:44	-34:18: 9	209711	-0:17	1: 7	BB	7.98	7.46	265	211	93	15101	30.0C	503.367
224	803	276	18: 2:45	-34:20:36	209711	-0:16	1:20	BB	7.98	7.46	396	49	339	1679	3.0L	559.667
225	676	221	18: 2:46	-31:30:22	209703?	-0: 3	-0:40	BB	8.76	8.49	407	424	362	1320	3.0L	440.000
226	676	221	18: 2:46	-31:30:22	209704?	-0: 3	4:14	BB	8.92	8.69	407	424	362	1320	3.0L	440.000
227	685	203	18: 2:48	-31:29:41	209703?	-0: 1	0: 1	BB	8.76	8.49	199	136	88	7914 H	30.0C	263.800
228	685	203	18: 2:48	-31:29:41	209704?	-0: 2	4:55	BB	8.92	8.69	199	136	88	7914 H	30.0C	263.800
229	355	84	18: 2:50	-24: 6: 9	186268?	-0:11	5:15	BB	8.10	.00	449	23	371	1260	3.0L	420.000
230	586	185	18: 2:52	-29:27:36	186265?	-0: 0	-1:22	BB	8.50	.00	442	63	384?	2183	3.0L	727.667
231	809	280	18: 2:54	-34:29:26	209714?	-0:13	1: 2	BB	8.71	8.31	382	26	343?	707	3.0L	235.667
232	909	280	18: 2:54	-34:29:26	209718?	-0:18	1:48	BB	9.24	9.05	382	26	343?	707	3.0L	235.667
233	357	86	18: 2:56	-24:10: 2	186268?	-0: 5	2: 2	BB	8.10	.00	459	332	366	15440?H	3.0L	5146.667
234	679	224	18: 2:56	-31:35:16	209704?	-0: 6	-0:40	BB	8.69	8.45	415	47	365	1460?	3.0L	486.667
235	555	152	18: 2:60	-28:33:31	186278?	-0:18	0:31	BB	9.20	.00	159	69	104	2111	30.0C	70.367
236	694	231	18: 3: 1	-31:56: 0	209701?	-0:16	-0:45	A5	9.70	9.85	388	21	350	605 H	3.0L	201.667
237	818	265	18: 3: 1	-30:30:43	209711?	-0: 2	-0:15	BB	8.71	8.31	191	51	89	2651	30.0C	88.367
238	818	265	18: 3: 1	-30:30:43	209718?	-0: 7	0:31	BB	9.24	9.05	191	51	89	2651	30.0C	88.367
239	723	223	18: 3: 6	-32:23:55	209720?	-0:21	-0:30	BB	8.82	8.63	130	56	86	1173	30.0C	59.100
240	545	173	18: 3:13	-28:32:39	186278?	-0: 5	1:22	BB	9.20	.00	405	10	376	247 L	3.0L	62.333
241	510	159	18: 3:16	-27:44:17	NO						417	18	351	1297	3.0L	4.92.333
242	473	124	18: 3:21	-26:42: 3	NO						142	75	104	1896	30.0C	63.200
243	713	243	18: 3:24	-32:25:23	209720	-0: 2	-1:58	BB	8.82	8.63	387	11	353	2466 L	3.0L	25.333
244	713	249	18: 3:24	-32:25:23	209722?	-0:10	4:53	BB	9.60	9.75	387	11	353	2466 L	3.0L	25.333
245	710	249	18: 3:24	-32:25:26	209720	-0: 3	1:59	BB	8.82	8.63	386	9	356	2476 L	3.0L	69.333
246	695	212	18: 3:29	-31:34:38	209704?	-0:40	0: 1	BB	8.92	8.69	113	5	88	114?	30.0C	800
247	516	143	18: 3:30	-27:43:32	NO						135	8	105	205	30.0C	6.833
248	536	173	18: 3:32	-28:22:11	186286?	-0: 4	0: 0	A0	7.33	.00	426	60	376	2015	3.0L	671.667
249	808	266	18: 3:32	-34:19:00	209711?	-0:24	0:46	BB	7.46	7.46	124	5	89	1497 L	30.0C	4.967
250	497	159	18: 3:32	-27:29:24	186292?	-0:12	2:12	BB	9.30	.00	412	16	362	617 L	3.0L	205.667
251	446	112	18: 3:38	-25:54:54	NO						265	117	109	8704?	30.0C	290.133
252	506	141	18: 3:38	-27:29:22	186292?	-0:13	1:32	BB	8.90	.00	156	54	101	2071 L	30.0C	69.033
253	955	330	18: 3:40	-37:31:54	209728?	-0:18	0: 4	BB	9.30	8.94	125	40	80	1291	30.0C	43.033
254	689	238	18: 3:42	-31:54:12	NO						388	6	363	132	3.0L	44.000
255	567	188	18: 3:43	-29: 6:25	186287?	-0: 6	-3:51	A0	8.10	.00	411	55	369	1863	3.0L	621.000
256	567	188	18: 3:43	-29: 6:25	186288?	-0: 1	-1:33	BB	7.90	.00	411	55	369	1863	3.0L	621.000
257	351	71	18: 3:46	-23:55:20	NO						207	6	1517	326	30.0C	10.867
258	430	130	18: 3:48	-25:56:36	NO						396	18	351	625?	3.0L	208.333
259	437	135	18: 3:52	-26:7:42	NO						415	22	373	751	3.0L	250.333
260	542	159	18: 3:59	-26:21:10	186286?	0:23	1: 1	A0	7.33	.00	316	136	94	12899 H	30.0C	429.967
261	572	172	18: 4: 2	-29:3:17	186287?	0:24	-0:43	A0	8.10	.00	248	155	94	1026	30.0C	334.200
262	572	172	18: 4: 2	-29:3:17	186288?	0:17	1:35	BB	7.90	.00	248	155	94	1026	30.0C	334.200
263	837	284	18: 4: 3	-35:1:13	209746?	-0:31	0:34	BB	8.66	8.22	162	84	92	3663	30.0C	122.100
264	610	210	18: 4: 6	-30: 7:57	209734?	-0: 5	3: 7	A0	9.32	9.23	392	15	363	380?	3.0L	126.667
265	394	394	18: 4: 8	-25: 8:41	186306?	-0:14	-1:59	BB	8.40	.00	401	160	352	5471	3.0L	1823.667
266	642	202	18: 4: 9	-30:39:56	209733?	-0: 1	0:18	BB	8.89	8.50	173	63	98	2864	30.0C	95.467
267	633	220	18: 4:10	-30:39:25	209733?	-0: 2	0:49	BB	8.89	8.50	14	26	354	978	3.0L	326.000
268	463	133	18: 4:13	-26:45:56	186315?	-0:16	-3:57	BB	8.80	.00	402	18	371	433	3.0L	141.333
269	365	85	18: 4:16	-24:18: 1	186315?	-0:15	1:52	BB	9.20	.00	160	20	121	529?	30.0C	17.667
270	411	129	18: 4:22	-24: 6: 6	186306?	-0:25	0: 8	BB	8.80	.00	397					

PAGE, CARRUTHERS AND HILL

SGR OVEREXP RA 18:34 DEC -30:24

OBJECT NO.	X	Y	R.A.	DEC.	SAO NO.	A DEC.	A DEC.	SPEC. TYPE	V MAG.	P MAG.	PEAK DEN.	NO. OF POINTS	BG	DENSITY VOLUME	EXP. & FILTER	DEN. VOL / EXP.	
301	470	148	18: 5:24	-26:50:14	186345	-0:17	2:16	B5	9.00	.00	135	42	95	1305 L	30.0C	43.500	
302	397	138	18: 5:25	-25:22:10	186332	0:23	-0:44	B2	8.50	.00	397	15	361	447L	30.0L	149.000	
303	+45	159	18: 5:27	-26:28:12	NO							9	347	227	30.0L	75.667	
304	898	349	18: 5:38	-36:40:07	209779	-0:1	0:50	B8	6.58	.00	428	103	293	7949 L	30.0L	264.667	
305	400	143	18: 5:44	-25:27:55	186350	0: 4	0:59	B8	6.27	.00	445	661	317?	56272 H	30.0L	18757.333	
306	650	245	18: 5:44	-31:13:15	209767	0: 4	2:10	B9	9.38	9.28	388	11	355	307 L	30.0L	102.333	
307	650	245	18: 5:44	-31:13:15	209771	0: 1	-3: 7	A0	7.69	.00	388	11	355	307 L	30.0L	102.333	
308	776	298	18: 5:44	-34: 2: 8	209777	-0:10	-1: 6	B8	9.25	9.02	379	14	348	334	30.0L	111.333	
309	279	88	18: 5:46	-22:42:36	186365	-0:26	4:38	B8	8.70	.00	376	9	355	162 L	30.0L	54.000	
310	657	227	18: 5:47	-31:11:25	209767	0: 7	4:09	B9	9.38	9.28	181	133	84	6899 H	30.0C	229.967	
311	657	227	18: 5:47	-31:11:25	209771	0: 2	-1:17	A0	7.69	.00	181	133	84	6899	30.0C	229.967	
312	407	147	18: 5:50	-25:37:51	186350?	0:22	-8:57	B8	6.27	.00	387	19	349	559 L	30.0L	186.333	
313	408	145	18: 5:50	-25:29:56	186350	0: 2	0:58	B8	6.27	.00	386	17	108	41397	30.0C	1379.900	
314	906	333	18: 5:51	-36:10: +	209779	0: 7	0.50	B8	6.58	.00	396	228	76?	40453	30.0C	1348.433	
315	371	133	18: 5:59	-26:49:2	186368	0:18	0:41	B8	9.40	.00	388	26	345	808?	30.0L	269.667	
316	333	116	18: 6: 2	-23:57: 9	186366	0:12	0:23	B8	7.08	.00	453	55	339	3538 L	30.0L	1512.667	
317	361	130	18: 6: 4	-24:36: 6	186374?	0:24	4:19	B8	8.90	.00	399	76	355	333	30.0L	1125.000	
318	861	317	18: 6: 4	-35:43:34	209790?	0:35	1:-23	A0	9.90	9.45	107	5	83	111?	30.0C	3.700	
319	792	293	18: 6: 7	-34: 0: 25	209777	0:13	0:36	B8	9.25	9.02	172	69	101	2926	30.0C	97.533	
320	310	107	18: 6: 8	-23:27: 1	186360	0: 2	-0:20	B9	9.30	.00	383	38	350	739?	30.0L	246.000	
321	287	74	18: 6: 9	-22:42:53	186365	0: 4	4:19	B8	8.70	.00	213	14	128?	1031 L	30.0C	34.367	
322	774	303	18: 6:14	-34: 3: 19	209777	0:20	-2:18	B8	9.25	9.02	368	10	334	281?	30.0L	93.667	
323	371	111	18: 6:16	-24:39:21	186374	0:12	1: 4	B8	8.90	.00	172	46	123	1385 L	30.0C	46.167	
324	361	133	18: 6:20	-24:37:26	186374	0: 9	2:54	B8	8.90	.00	377	6	345	167?	30.0L	55.667	
325	293	103	18: 6:22	-23: 5: 37	186371	0: 1	-0:26	A0	9.30	.00	370	38	338	911?	30.0L	303.667	
326	812	320	18: 6:22	-34:53:43	209789	0:16	-1: 0	B5	9.11	8.79	392	25	331	931	30.0L	310.333	
327	366	136	18: 6:23	-24:45:44	186368	0: 6	3:59	B8	9.40	.00	377	11	342	351?	30.0L	117.000	
328	89	315	18: 6:23	-35:30:24	209797?	0:21	0:16	B8	8.88	8.58	156	169	82	6166 H	30.0C	215.533	
329	435	166	18: 6:24	-26:19:44	186372	0: 1	1:28	A0	9.00	.00	391	27	355	736	30.0L	245.333	
330	362	315	18: 6:28	-24:39:29	186374	0: 0	0:55	B8	8.90	.00	380	9	347	270?L	30.0L	90.000	
331	715	260	18: 6:31	-32:33:26	209791	0: 8	0:25	B8	9.14	8.90	157	73	85	3206	30.0C	106.867	
332	707	278	18: 6:32	-32:35:48	209791	0: 7	-1:58	B8	9.14	8.90	374	15	345	373	30.0L	124.333	
333	837	333	18: 6:36	-35:27: 7	209797?	0: 8	3:33	B8	8.88	8.58	337	10	312	222 L	30.0L	74.000	
334	804	298	18: 6:37	-34:32:29	209807?	0:35	0:28	A0	8.93	8.68	111	11	88	227?	30.0C	7.567	
335	819	305	18: 6:37	-34:52:40	209798?	0: 0	0: 3	B5	9.11	8.79	209	109	87	7133	30.0C	237.767	
336	317	117	18: 6:39	-23:39: 5	186375?	0: 6	-4:25	A2	8.60	.00	455	565	342	35121	30.0L	11707.000	
337	317	117	18: 6:39	-23:39: 5	186379?	0: 4	2:22	B8	9.10	.00	455	565	342	35121	30.0L	11707.000	
338	317	117	18: 6:39	-23:39: 5	186380?	0: 5	0:15	B8	8.70	.00	455	565	342	35121	30.0L	11707.000	
339	317	117	18: 6:39	-23:39: 5	186381?	0: 6	-2:52	B8	9.40	.00	455	565	342	35121	30.0L	11707.000	
340	317	117	18: 6:39	-23:39: 5	186385?	0: 9	-1:36	B5	9.50	.00	455	565	342	35121	30.0L	11707.000	
341	442	166	18: 6:46	-26:20:36	186372	0:16	0:36	A0	9.00	.00	137	15	89	195?	30.0C	65.100	
342	411	166	18: 6:46	-26:20:27	NO							113	15	86	346?	30.0C	11.333
343	518	159	18: 6:46	-26: 6: 5	NO							127	34	90	30.0C	30.0C	30.0C
344	327	103	18: 6:46	-23:42:47	186379?	0:13	-1:20	B8	9.10	.00	446	1722	113	226681	30.0C	7556.033	
345	327	103	18: 6:46	-23:42:47	186380?	0:12	-3:27	B8	8.70	.00	446	1722	113	226681	30.0C	7556.033	
346	327	103	18: 6:46	-23:42:47	186381?	0:10	-2:50	B8	9.40	.00	446	1722	113	226681	30.0C	7556.033	
347	327	103	18: 6:46	-23:42:47	186389?	0: 8	-2:54	B5	7.64	.00	446	1722	113	226681	30.0C	7556.033	
348	725	269	18: 6:56	-32:50:26	NO							141	45	90	1697?	30.0C	56.567
349	807	320	18: 6:56	-35:30:24	209797?	0:12	0:17	B8	8.88	8.58	139	18	87	62?	30.0C	20.700	
350	357	120	18: 7:10	-24:25:20	1860+02	0:16	2:33	B8	9.60	.00	160	59	109	1914	30.0C	63.800	
351	557	226	18: 7:11	-29:13:45	186391	0: 4	-0:20	A2	8.00	.00	379	6	354	138?	30.0L	4.600	
352	324	128	18: 7:14	-23:52:46	186397?	0:10	-5:45	B5	7.64	.00	434	238	341	11720 L	30.0L	3906.667	
353	324	128	18: 7:14	-23:52:46	1860+06	0:16	-3: 1	B5	8.80	.00	434	238	341	11720 L	30.0L	3906.667	
354	+79	196	18: 7:15	-27:26:51	1860+08	0:17	-0:16	B9	9.00	.00	386	8	353	1867?	30.0L	62.000	
355	580	236	18: 7:16	-29:45:14	186397?	0:10	-0:30	B5	6.24	.00	462	220	332	15000	30.0L	5000.000	
356	585	238	18: 7:16	-29:52:39	186397?	0: 1	-6:35	A0	9.00	.00	372	21	322	813	30.0L	271.000	
357	902	368	18: 7:16	-36:54:46	186397?	0: 1	-2:14	A0	9.40	.00	379	25	355	1020	30.0C	234.600	
358	840	321	18: 7:16	-35:22:47	209802?	0:32	1:13	A3	9.80	9.71	108	5	83	118?	30.0C	3.933	
359	287	90	18: 7:20	-22:51:44	186145?	0:31	3: 1	B9	9.40	.00	131	9	107	189 L	30.0C	6.300	
360	559	229	18: 7:23	-29:17:28	186391	0: 16	-4: 3	A2	8.00	.00	374	5	347	119?	30.0L	39.667	
361	279	110	18: 7:24	-22:52:32	186415	0:26	-2:13	B9	9.40	.00	361	8	336	175?	30.0L	56.333	
362	385	158	18: 7:24	-25:17:55	186407	0: 7	1:59	B9	9.20	.00	391	53	339	16937H	30.0L	564.333	
363	308	758	18: 7:27	-33:49:10	209817	0:10	-0:30	B5	6.24	.00	462	220	332	15000	30.0L	5000.000	
365	767	293	18: 7:34	-33:48:50	209817?	0: 3	-0:11	B5	6.24	.00	411	535	88	704?	30.0C	234.600	
366	403	169	18: 7:34	-25:43:21	1860+09	0: 7	-2:14	A0	9.40	.00	379	9	349	220?	30.0L	53.667	
367	277	113	18: 7:34	-22:51:32	186415	0: 7	-3:34	B5	9.90	.00	144	25	352	164?	30.0C	54.667	
368	285	195	18: 7:35	-26:24:26	186395?	0:31	-2:45	A0	9.00	.00	369	15	360?	19?	30.0C	9.333	
369	309	106	18: 7:35	-26:24:10	209834?	0: 7	-4:41	A3	10.00	.00	369	12	360	2597L	30.0L	95.333	
370	471	101	18: 7:39	-27:23:41	1861+19	0: 7	-2:										

NRL REPORT 8173

SGR OVEREXP RA 18:34 DEC -30:24

OBJECT NO.	X	Y	R.A.	DEC.	SAO NO.	Δ R.A.	Δ DEC.	SPEC. TYPE	V MAG.	P MAG.	PEAK DEN.	NO. OF POINTS	BG	DENSITY VOLUME	EXP. & FILTER	DEN. VOL/ EXP.	
401	579	251	18: 8: 37	-29:52: 7	186424?	0: 30	2:41	A0	8.30	.00	384	19	350	488 L	3.0L	162.667	
402	579	251	18: 8: 37	-29:52: 7	186432	0: 5	-0: 2	A0	8.90	.00	384	19	350	488 L	3.0L	162.667	
403	587	233	18: 8: 38	-29:51: 29	186432	0: 6	0:37	A0	8.90	.00	183	146	94	6770 H	30.0C	225.667	
404	766	326	18: 8: 39	-34: 5: 55	209841	0: 0	8	-1: 3	BB	7.11	.00	428	66	329	3486	3.0L	1162.000
405	649	258	18: 8: 40	-31:16: 39	209853?	0:-10	-0:40	-3:28	A0	9.35	9.42	118	27	86	718	30.0C	23.933
406	342	156	18: 8: 41	-24:27: 2	186436	0: 3	0:53	A0	9.40	.00	373	56	334	14787H	3.0L	492.667	
407	330	129	18: 8: 42	-23:58: 41	186439	0: 2	1:32	BB	9.20	.00	141	58	94	2087?	30.0C	69.567	
408	566	249	18: 8: 48	-29:35: 31	186445	0: 1	-0:29	BB	8.00	.00	397	25	345	977	3.0L	325.667	
409	366	168	18: 8: 49	-24:59: 49	186443	0: 2	4:14	A0	9.20	.00	377	55	337	13867?	3.0L	462.000	
410	536	237	18: 8: 49	-28:53: 44	186444	0: 1	1: 6	A0	6.38	.00	411	47	344	1818 L	3.0L	606.000	
411	797	320	18: 8: 49	-34:35: 16	209838	0: 8	1: 4	A0	8.18	120	7	88	181 L	30.0C	6.033		
412	544	219	18: 8: 50	-28:53: 8	186444	0: 2	1:43	A0	6.38	.00	273	162	88	1209	30.0C	340.300	
413	371	172	18: 8: 52	-25: 8: 8	186443	0: 5	-4: 5	A0	9.20	.00	379	37	335	11867H	3.0L	395.333	
414	325	151	18: 8: 54	-24: 5: 31	186435?	0:18	-1:13	BB	9.20	.00	356	4	332	85?	3.0L	28.333	
415	325	151	18: 8: 54	-24: 5: 31	186451?	0: 7	1:18	BB	9.30	.00	356	4	332	85?	3.0L	28.333	
416	240	113	18: 8: 59	-22:10: 27	186442	0:17	-3:26	B	9.10	.00	355	6	325	136?	3.0L	45.333	
417	434	177	18: 8: 59	-26:23:12	186449	0: 1	1:23	A0	8.50	.00	117	29	86	762	30.0C	25.400	
418	425	198	18: 8: 60	-26:22:33	186449	0: 2	2:22	A0	8.50	.00	364	4	337	97 L	3.0L	32.333	
419	448	180	18: 8: 9	-23:49:51	186450	0:-23	2:36	B	9.20	.00	109	5	85	134?	30.0C	4.667	
420	322	129	18: 8: 9	-23:49:51	NO							133	22	94	64?	30.0C	21.000
421	560	259	18: 9: 6	-29:28:56	186455	0: 6	0:22	BB	9.00	.00	396	53	345	194?	3.0L	649.000	
422	883	259	18: 9: 6	-36:1: 3	209851	0:-12	0:22	BB	8.26	8.03	129	65	79	23047L	30.0C	76.667	
423	572	234	18: 9: 9	-29:33:54	186445	0:20	1: 7	BB	8.00	.00	173	93	89	3832	30.0C	127.733	
424	572	234	18: 9: 9	-29:33:54	186457	0: 2	-1:36	BB	8.00	.00	173	93	89	3832	30.0C	127.733	
425	440	204	18: 9: 11	-26:43:40	186460	0:13	1:11	A0	9.20	.00	391	13	345	881?	3.0L	293.667	
426	636	280	18: 9: 11	-31:13:20	209853	0: 9	-0: 9	A2	9.25	9.42	371	14	341	341?	3.0L	113.667	
427	513	212	18: 9: 11	-28:13:12	186471?	0:33	4:24	A0	9.20	.00	292	124	91	10371 H	30.0C	345.700	
428	513	212	18: 9: 11	-28:13:12	186472?	0:38	6:38	A0	9.20	.00	292	124	91	10371 H	30.0C	345.700	
429	455	211	18: 9: 15	-27: 5: 31	186462	0:15	3:47	BB	9.20	.00	383	21	343	649?	3.0L	216.333	
430	536	243	18: 9: 15	-28:56: 0	186465	0:-19	2:34	A0	9.20	.00	373	17	349	333?	3.0L	111.000	
431	325	157	18: 9: 19	-24: 7: 43	186451	0:19	-0:54	BB	9.30	.00	359	9	328	227?	3.0L	75.667	
432	505	232	18: 9: 21	-28:14:42	186471?	0:24	2:54	A0	9.20	.00	417	83	339	3861 H	3.0L	1287.000	
433	505	232	18: 9: 21	-28:14:42	186472?	0:28	5: 9	A0	9.20	.00	417	83	339	3861 H	3.0L	1287.000	
434	500	209	18: 9: 22	-27:56:39	186458	0: 2	-0:54	A0	8.70	.00	115	24	86	620	30.0C	20.667	
435	659	270	18: 9: 22	-31:35: 1	NO							116	35	82	949	30.0C	31.633
436	638	283	18: 9: 23	-31:17: 3	209853	0: 3	-3:52	A2	9.35	9.42	362	4	339	897L	3.0L	29.667	
437	862	374	18: 9: 23	-36:14:12	NO							319	4	295	87	3.0L	29.000
438	441	207	18: 9: 25	-26:46:10	186460	0: 0	-1:20	B	9.20	.00	370	14	343	317?	3.0L	105.667	
439	869	357	18: 9: 27	-36:12: 7	NO							100	17	73	405	30.0C	13.500
440	553	252	18: 9: 31	-29:21:39	186457	0:16	0:22	A3	8.80	.00	371	5	344	114?	3.0L	38.000	
441	260	130	18: 9: 33	-22:41:11	209862?	0:-23	6:27	BB	9.32	9.14	122	16	86	449 L	30.0C	14.967	
442	690	204	18: 9: 33	-32:17:42	209862?	0:23	6:27	BB	9.32	9.14	122	16	86	469?	30.0C	15.633	
443	446	198	18: 9: 35	-26:43:45	186463	0: 1	0:10	A0	9.10	.00	111	20	84	469?	30.0C	15.633	
444	680	302	18: 9: 36	-32:16: 6	209862?	0:-21	8: 3	BB	9.32	9.14	366	9	335	229	3.0L	76.333	
445	621	279	18: 9: 37	-30:55:18	209858	0: 2	0:24	A0	8.65	8.73	367	6	337	153?	3.0L	51.000	
446	283	142	18: 9: 38	-23:12: 8	18673	0:-15	2: 5	A0	8.80	.00	113	51	311	1885?	3.0L	628.333	
447	452	193	18: 9: 38	-26:52: 8	18673	0:14	2:43	A0	8.80	.00	388	44	341	385?	3.0L	461.667	
448	443	212	18: 9: 39	-26:51:29	18673	0: 9	0:22	BB	9.00	.00	376	16	343	3867?	3.0L	128.667	
449	456	217	18: 9: 39	-27: 9:56	186662	0:10	-2:13	A0	9.30	.00	346	4	321	321?	3.0L	30.000	
450	271	137	18: 9: 42	-22:56:30	186653	0:10	-2:13	A0	9.10	.00	150	81	194	2322?	30.0C	79.733	
451	256	109	18: 9: 42	-22:23:28	18674	0:-10	5:32	A0	9.10	.00	355	4	329	89?	3.0L	29.333	
452	340	169	18: 9: 44	-24: 31: 9	186469	0: 0	-1:11	A5	9.00	.00	369	7	334	1085?	3.0L	18.667	
453	651	292	18: 9: 45	-31:36:23	NO							369	7	334	212	3.0L	70.667
454	694	288	18: 9: 46	-32:24:12	209862?	0:10	-0: 4	BB	9.32	9.14	144	103	89	342?	30.0C	114.333	
455	686	307	18: 9: 50	-32:25:24	209862?	0: 6	-1:16	A0	9.10	.00	344	5	333	142	3.0L	47.333	
456	354	177	18: 9: 52	-24:50:32	186653	0:10	-2:13	A0	9.10	.00	346	89	310	3413?	3.0L	1137.667	
457	477	228	18: 9: 52	-27:39:38	186464	0:19	-2:23	A2	9.00	.00	371	9	344	154?	3.0L	51.333	
458	579	245	18: 9: 52	-29:48:16	18680	0:-13	3:42	BB	9.20	.00	370	6	343	137 L	3.0L	45.667	
459	599	256	18: 9: 56	-29:18:19	18680	0:-13	3:42	BB	9.20	.00	370	6	338	214?	3.0L	71.000	
460	559	238	18: 9: 58	-29:20:29	18680	0:-11	1:32	BB	9.20	.00	111	29	81	624 L	30.0C	20.800	
461	456	222	18: 10: 5	-27:11:10	18681	0: 6	2:36	BB	8.80	.00	419	170	340	3756	3.0L	1252.000	
462	248	132	18: 10: 6	-22:29:10	18674	0:13	-0:10	A0	9.10	.00	344	11	313	282?	3.0L	94.000	
463	258	137	18: 10: 7	-22:41:26	186809	0:-16	2:27	A0	8.60	.00	375	170	318	3978	3.0L	1326.000	
464	464	205	18: 10: 11	-27:11: 3	18681	0: 0	2:42	BB	8.80	.00	290	221	88	1993 H	30.0C	499.767	
465	680	310	18: 10: 14	-32:19:18	209862	0:18	4:51	BB	9.32	9.14	357	6	329	152?	3.0L	50.667	
466	225	126	18: 10: 16	-21:58:37	186487	0: 5	4:39	A0	9.20	.00	344	27	306	812	3.0L	270.667	
467	557	263	18: 10: 17	-29:30:52	186488	0: 6	0:59	A0	9.30	.00	364	65	338	214?	3.0L	36.667	
468	730	309	18: 10: 18	-33:16:36	209887	0:-27	-1:40	BB	8.21	7.82	167	24	85	1106 L	30.0C	36.667	
469	665	305	18: 10: 19	-31:59:27	209873	0:-24	-0:13										

PAGE, CARRUTHERS AND HILL

SGR OVEREXP RA 18:34 DEC -30:24

OBJECT NO.	X	Y	R.A.	DEC.	SAO NO.	A R.A.	A DEC.	SPEC. TYPE	V MAG.	P MAG.	PEAK DEN.	NO. OF POINTS	BG	DENSITY VOLUME	EXP. & FILTER	DEN. VOL/ EXP.
501	689	325	18:11:18	-32:36:41	209895	0:11	-3:19	A0	8.9*	8.65	352	7	323	1712L	3.0L	57.000
502	516	239	18:11:21	-28:29:34	18652+?	-0:22	-0:46	B9	9.20	.00	131	38	93	1132	30.0C	37.733
503	711	335	18:11:22	-33: 9:20	209900	-0:2	0:	B2	8.30	7.89	124	65	324	3356	3.0L	1118.667
504	561	256	18:11:23	-29:31:00	18651/	-0:0	1:59	A0	9.30	.00	14	44	84	1203	30.0C	40.100
505	561	256	18:11:23	-29:31:00	186513/	-0:2	1:26	A0	9.10	.00	124	44	84	1203	30.0C	40.100
506	522	263	18:11:24	-28:49:19	186512	0:1	1:57	B8	8.00	.00	411	33	320	1458	3.0L	486.000
507	214	134	18:11:25	-21:51:21	NO						345	6	213	173	3.0L	54.567
508	355	198	18:11:25	-25: 1:13	186503?	0:27	1:15	B9	9.20	.00	362	40	339?	802L	3.0L	28.667
509	508	258	18:11:26	-28:30:38	186524?	-0:17	-1:50	B9	9.20	.00	376	15	331	534	3.0L	178.000
510	261	157	18:11:30	-22:53:52	NO						336	6	310	140	3.0L	46.667
511	509	238	18:11:30	-28:20:54	186514	0:3	1:44	B8	9.00	.00	171	56	95	2710	30.0C	90.333
512	269	161	18:11:33	-23: 6: 1	186522?	-0:4	1:57	A0	9.50	.00	339	11	306	2937L	3.0L	97.667
513	269	161	18:11:33	-23: 6: 1	186526?	-0:13	-2: 1	A5	9.00	.00	339	11	306	2937	3.0L	97.667
514	255	155	18:11:36	-22:46:29	NO						347	33	305	1048	3.0L	349.333
515	410	223	18:11:38	-26:17:17	186510	0:17	-4:23	A5	8.60	.00	367	95	329	2073?	3.0L	691.000
516	281	168	18:11:40	-23:22:33	186516	0:10	1:16	B8	9.10	.00	344	11	310	3087L	3.0L	102.667
517	529	248	18:11:40	-28:50:2	186512	0:18	1:14	B8	8.00	.00	252	106	100	6694	30.0C	223.133
518	220	118	18:11:41	-21:48:21	NO						138	21	96	624	30.0C	20.800
519	317	162	18:11:41	-23:59:24	186534	-0:22	1:27	B8	8.38	.00	135	64	84	2258	30.0C	75.267
520	633	308	18:11:43	-31:23:16	209904	0:4	0:45	B8	8.69	8.26	366	12	335	284 L	3.0L	94.667
521	719	321	18:11:43	-33: 8:6	209900	0:18	0:38	B2	8.30	7.89	362	272	80	30783 H	30.0C	1026.100
522	719	321	18:11:43	-33: 8:3	209900	0:18	0:41	B2	8.30	7.89	362	192	79	15166	30.0C	505.533
523	783	348	18:11:49	-36:29:29	209916	-0:19	0:12	B8	6.85	.00	317	121	81	13442	30.0C	448.067
524	641	291	18:11:50	-31:23: 1	209904	0:10	1: 1	B8	8.69	8.26	144	53	84	2145	30.0C	71.506
525	239	151	18:11:50	-22:26:00	186539	-0:12	1: 4	B5	9.00	.00	382	116	304	4377 H	3.0L	1459.000
527	953	47	18:11:55	-23:59:35	186534	-0:10	1:17	B8	8.38	.00	356	53	311	1728	3.0L	576.000
528	771	367	18:11:55	-34:38:15	209916	-0: 9	-1:35	B8	6.85	.00	396	38	312	1843 L	3.0L	61.800
529	266	136	18:11:59	-22:25:12	186539	-0: 5	2: 3	B5	9.00	.00	277	275	94	18041 H	30.0C	601.367
530	649	319	18:12:10	-31: 1:2	209906	0:30	-1:30	A0	9.66	9.59	379	23	322	698 L	3.0L	232.000
531	875	389	18:12:10	-36:24:26	209922	-0:17	1: 2	B3	7.00	.00	345	76	76	39148	30.0C	1304.933
532	236	155	18:12:11	-29:25:39	186539	-0: 7	2: 6	B5	9.00	.00	350	29	305	21297L	3.0C	28.000
533	656	302	18:12:11	-31:46:18	209906	0:31	-0:47	A0	9.66	9.59	136	55	78	2129 H	30.0C	70.967
534	831	371	18:12:11	-35:38:25	209923	-0:18	0:51	A0	7.40	7.21	99	21	73	465	30.0C	16.167
535	306	187	18:12:15	-24: 0: 9	186534?	0:13	0:43	B8	8.38	.00	345	16	307	4827L	3.0L	160.667
536	306	187	18:12:15	-24: 0: 9	186554?	-0:3	1:32	A0	9.20	.00	345	16	307	4827L	3.0L	160.667
537	866	407	18:12:17	-36:34:40	209922	-0:11	0:49	B3	7.00	.00	434	113	283	8832	3.0L	2944.000
538	708	343	18:12:18	-33: 7: 7	209919	-0: 5	0:37	B9	6.87	.00	395	34	323	1361 L	3.0L	453.667
539	266	170	18:12:19	-23: 5: 59	186548	-0: 9	2: 3	B5	8.70	.00	342	17	308	4397L	3.0L	146.333
540	405	261	18:12:23	-29: 4:29	186549	-0: 7	1:19	B8	8.50	.00	393	56	340	1522	3.0L	507.333
541	378	199	18:12:27	-25:27:17	186559	-0:26	1:22	B8	9.30	.00	114	17	83	4367L	30.0C	14.533
542	307	191	18:12:29	-24: 2: 7	186545	0:11	-3:59	A0	9.20	.00	344	9	313	1947L	3.0L	64.667
543	274	154	18:12:29	-23: 6:23	186548	0:1	1:39	B5	8.70	.00	117	13	92	2987L	30.0C	9.933
544	250	166	18:12:31	-22:46: 8	186547	0:13	0:46	B9	8.80	.00	337	16	306	3757L	3.0L	125.000
545	369	218	18:12:31	-25:27: 4	186559	-0:19	1:35	B8	9.30	.00	361	77	311	2248?	3.0L	749.333
546	409	235	18:12:36	-26:22: 7	186550	0: 3	-1:27	A5	8.50	.00	356	10	320	3067	3.0L	102.000
547	927	424	18:12:36	-28: 3:36	186549	0: 7	2:13	B8	8.50	.00	220	106	85	6581 H	30.0C	219.367
548	492	245	18:12:36	-28: 3:36	186560?	-0:22	3:20	A0	8.80	.00	220	106	85	6581 H	30.0C	219.367
549	386	205	18:12:38	-29:41:36	186561	-0:20	1:52	B9	9.40	.00	112	13	82	3217	30.0C	10.700
550	372	221	18:12:43	-25:31:41	186559	-0:10	-3:15	B8	9.30	.00	346	10	311	2777L	3.0L	92.333
551	336	186	18:12:49	-24:31:40	186561?	-0: 9	-5:44	B9	9.40	.00	114	39	83	994?	30.0C	33.133
552	393	209	18:12:49	-25:49:12	186564?	-0:21	3:40	A0	9.20	.00	114	15	83	3727L	30.0C	12.400
553	393	209	18:12:49	-25:49:12	186564?	-0:21	3:40	B9	9.60	.00	214	168	82	9890	30.0C	329.667
554	531	265	18:12:50	-26: 6:34	186556/	-0:14	1: 7	B9	9.00	.00	214	168	82	9890	30.0C	329.667
555	527	265	18:12:50	-26: 6:34	186556/	-0:14	1: 7	B9	9.00	.00	298	126	331	4628 H	3.0L	1542.667
556	528	262	18:12:51	-29: 6: 2	186556	-0: 5	4:19	B8	8.60	.00	298	126	331	4628 H	3.0L	1542.667
557	528	262	18:12:51	-29: 6: 2	186556?	-0:13	1:39	B9	9.00	.00	298	126	331	4628 H	3.0L	1542.667
558	619	316	18:12:51	-31: 9:59	209933	-0: 6	0:39	B5	7.60	.00	396	29	332	1053 L	3.0L	351.000
559	694	439	18:12:51	-38:56:45	209934	-0: 5	-0:28	B5	8.96	8.67	109	53	72	1408 L	30.0C	46.933
560	881	399	18:12:55	-36:55:55	209924?	-0:26	0:60	B8	8.25	7.96	107	5	76	1317L	30.0C	4.367
561	451	256	18:12:60	-27:21:52	186566	-0:15	4: 1	B9	8.30	.00	355	17	329	3227L	3.0L	107.333
562	371	225	18:13: 1	-25:32: 2	186559?	0: 8	-3:23	B8	9.30	.00	364	41	312	1290	3.0L	430.000
563	371	225	18:13: 1	-25:32: 2	186565?	-0:12	1:59	B8	8.80	.00	120	23	90	551?	30.0C	18.367
564	288	167	18:13: 1	-23:28:58	186572?	-0:26	1:13	A2	8.80	.00	134	14	81	4647	30.0C	15.467
565	277	228	18:13: 3	-25:41:33	186561	0: 4	1:56	B9	9.40	.00	356	53	323	10377	3.0L	345.667
566	378	228	18:13: 3	-25:41:33	186561	0: 4	1:56	B9	9.40	.00	353	63	307	1647?	3.0L	549.000
567	296	194	18:13: 5	-23:51: 5	186567	-0: 1	1:48	B8	7.69	7.28	391	54	331	1650	3.0L	550.000
568	964	454	18:13: 5	-38:3:3	209935	0: 7	-2: 3	A2	8.82	293	15	248	5037	3.0L	167.667	
569	379	207	18:13: 6	-25:31:56	186559?	0:13	-3:17	B8	9.30	.00	141	100	82	3424	30.0C	114.133
570	379	207	18:13: 6	-25:31:56	186565	-0: 7	2: 5	B8	8.80	.00	141</					

NRL REPORT 8173

OBJECT NO.	X	Y	R.A.	DEC.	SAO NO.	A R.A.	Δ DEC.	SPEC TYPE	V MAG.	P MAG.	PEAK DEN.	NO. OF POINTS	BG	DENSITY VOLUME			EXP. & FILTER	DEN VOL/ EXP.
														DEC.	MAG.	NO. OF POINTS	EXP. & FILTER	DEN VOL/ EXP.
501	746	379	18:14: 6	-34: 8: 8	209959/	-0:11	-0:33	85	6.10	.00	442	130	310	8923 L	3.0L	2974.333		
502	745	379	18:14: 6	-34: 8: 8	209961/	-0:16	-1:44	80	8.70	8.26	442	130	310	8923 H	3.0L	2974.333		
503	715	367	18:14:10	-33:26:51	209966	-0:23	-1:55	88	7.02	.00	342	9	307	244 L	3.0L	81.333		
504	820	388	18:14:10	-35:34:27	209954	0: 7	0: 8	89	9.39	9.04	123	58	75	1862	30.0C	62.067		
505	298	209	18:14:11	-24: 0:37	186587	0: 8	-0:54	89	9.20	.00	336	8	301	209? L	3.0L	69.667		
506	753	362	18:14:13	-34: 7:44	209959/	-0: 4	-0: 9	85	6.10	.00	398	336	85	4019Z	30.0C	1339.733		
507	753	362	18:14:13	-34: 7:44	209961/	-0: 9	-1:20	80	8.70	8.26	398	336	85	4019Z H	30.0C	1339.733		
508	260	192	18:14:15	-23: 9:10	186586	0:12	4:45	80	9.30	.00	335	24	295	717?	3.0L	239.000		
509	482	283	18:14:19	-28:11:26	186599	-0: 9	-1:15	80	8.60	.00	359	17	329	406?	3.0L	135.333		
510	624	335	18:14:19	-31:23:54	209953	0:18	-0:56	88	7.37	.00	349	11	318	261?L	3.0L	87.000		
511	469	279	18:14:20	-27:52:44	186598/	-0: 6	0:22	89	8.20	.00	385	32	325	1303	3.0L	434.333		
512	469	279	18:14:20	-27:52:44	186601/	-0:12	2:19	80	8.60	.00	385	32	325	1303	3.0L	434.333		
513	521	298	18:14:20	-29: 4: 0	NO						364	7	329	202	3.0L	67.333		
514	273	178	18:14:20	-23:15:47	186586/	-0:18	-1:52	80	9.30	.00	289	226	88	16969 H	30.0C	565.633		
515	273	178	18:14:20	-23:15:47	186609/	-0:26	2: 2	88	8.00	.00	289	226	88	16969 H	30.0C	565.633		
516	476	260	18:14:21	-27:52: 7	186599/	-0: 5	0:59	88	8.20	.00	238	131	83	8910	30.0C	297.000		
517	476	260	18:14:21	-27:52: 7	186601/	-0:11	2:56	89	8.60	.00	238	131	83	8910	30.0C	297.000		
518	509	293	18:14:24	-28: 1:24	186599	-0:10	-3:30	83	6.04	.00	350	5	322	(28?)	3.0L	42.667		
519	570	317	18:14:27	-30:11:49	209964	-0: 4	-0:44	89	9.52	9.33	371	11	325	389	3.0L	129.667		
520	358	216	18:14:27	-25:11:58	186614?	-0:29	-5:54	80	8.00	.00	301	9	317	210?	30.0C	0.000		
521	731	378	18:14:32	-33:50: 6	209973	-0:28	-2:34	89	9.01	8.61	333	6	305	151 L	3.0L	50.333		
522	712	370	18:14:33	-33:29:40	209966	-0: 0	0:16	88	7.02	.00	403	38	316	1872 L	3.0L	62.000		
523	265	199	18:14:34	-23:18:43	186600/	-0:12	-0:55	88	8.00	.00	376	127	293	474?	3.0L	1581.667		
524	855	407	18:14:34	-26:21:42	209970	-0:19	0:45	88	9.09	8.53	198	85	72	6311 H	30.0C	211.367		
525	277	205	18:14:36	-23:34:50	186602	0: 3	1:45	80	8.70	.00	343	38	297	1261?	3.0L	420.333		
526	348	235	18:14:36	-25:10:36	186614	-0:20	-0:32	80	8.90	.00	343	28	303	900?	3.0L	300.000		
527	737	360	18:14:36	-33:48: 5	209973	-0:25	-0:33	89	9.01	8.61	120	43	308	1280	30.0C	42.667		
528	475	285	18:14:38	-28: 3:37	186599	0:10	3:34	80	8.60	.00	356	14	327	340?	3.0L	113.333		
529	385	251	18:14:41	-26: 0:31	NO						349	35	306	1109?	3.0L	369.667		
530	527	304	18:14:41	-29:13:44	186607	-0: 5	2:54	88	8.50	.00	375	18	325	584	3.0L	194.667		
531	481	288	18:14:42	-28:12: 0	186599	0:14	-0:50	80	8.60	.00	357	21	326	502?	3.0L	167.333		
532	847	426	18:14:45	-36:23:29	209970	-0: 8	-1: 2	88	9.09	8.53	341	35	283	1354	3.0L	451.333		
533	535	287	18:14:45	-29:14:41	186607	-0: 1	1:56	88	8.50	.00	202	71	94	3854	30.0C	128.467		
534	719	355	18:14:46	-33:24:44	209966	-0:12	0:12	88	7.02	.00	295	123	76	11835	30.0C	394.500		
535	555	294	18:14:47	-29:41:48	186615	-0: 9	2: 9	89	8.70	.00	146	58	78	2485	30.0C	82.833		
536	352	218	18:14:49	-25: 5:48	186614	-0: 7	0:16	80	8.90	.00	108	28	74	756 L	30.0C	25.200		
537	286	190	18:14:50	-23:36:46	186602/	-0:16	-0:11	80	8.70	.00	115	13	89	2977L	30.0C	9.900		
538	286	190	18:14:50	-23:36:46	186617?	-0:14	3:37	89	9.10	.00	115	13	89	2977L	30.0C	9.900		
539	448	277	18:14:52	-27:27: 7	186616	-0: 8	0:47	89	9.40	.00	364	23	321	672	3.0L	224.000		
540	547	313	18:14:52	-29:42:55	186615	-0: 4	1: 2	89	8.70	.00	366	7	323	222 L	3.0L	74.000		
541	205	176	18:14:54	-21:59:48	186622?	-0:21	1:36	80	9.40	.00	319	13	283	361?	3.0L	120.333		
542	279	210	18:14:58	-23:39:18	186617	-0: 6	0: 5	89	9.10	.00	343	22	298	668?	3.0L	222.667		
543	312	225	18:15: 1	-24:23:24	186620	-0:10	-0:51	89	9.10	.00	329	8	308	1377L	3.0L	45.667		
544	343	239	18:15: 1	-25: 6: 2	186614	0: 5	0: 2	80	8.90	.00	344	9	306	276 L	3.0L	92.000		
545	397	239	18:15: 1	-26: 8:25	NO						115	31	322	852	30.0C	28.400		
546	764	376	18:15: 1	-26: 8:25	NO						350	8	314	246	3.0L	82.000		
547	389	258	18:15: 1	-26: 7:49	NO						350	8	314	246	3.0L	82.000		
548	648	336	18:15: 1	-34:43:35	209978	-0: 6	-1:11	88	6.86	.00	409	46	304	267	3.0L	88.567		
549	769	381	18:15: 1	-34:42:43	209978	-0: 6	-0:19	88	6.86	.00	333	256	84	237?	3.0L	761.933		
550	314	227	18:15: 1	-24:26:36	186620	-0: 3	-1: 3	89	9.10	.00	336	7	293	95?	3.0L	2.833		
551	621	322	18:15: 8	-31:13:37	209983?	-0:28	1:20	80	8.90	8.74	97	4	75	95?	3.0L	6.233		
552	212	161	18:15:10	-21:59:26	186622	-0: 4	-1:58	80	9.40	.00	108	8	83	1872?	30.0C	6.233		
553	230	193	18:15:15	-22:35:53	186627	-0:21	-1:48	80	8.80	.00	313	5	289	156 L	3.0L	35.333		
554	990	300	18:15:16	-28:38:56	186621	-0: 5	1:36	82	8.90	.00	354	12	323	221?	3.0L	71.567		
555	318	210	18:15:18	-24:22:59	186620	-0: 8	-0:26	89	9.10	.00	121	54	78	1658	30.0C	55.267		
556	318	210	18:15:18	-24:22:59	186630?	-0:18	1:39	88	8.40	.00	121	54	78	1658	30.0C	55.267		
557	447	282	18:15:20	-27:28: 8	186616	-0:20	-0:13	89	9.40	.00	349	12	319	308?	3.0L	122.667		
558	311	230	18:15:22	-25:25: 7	186620	-0:15	-2:34	89	9.10	.00	343	24	294	820	3.0L	273.333		
559	311	230	18:15:22	-25:25: 7	186630?	-0:15	-2:34	89	9.40	.00	343	24	294	820	3.0L	273.333		
560	199	181	18:15:23	-21:55:42	186622?	0: 9	5:42	80	9.40	.00	336	8	307	442?	3.0L	147.333		
561	755	396	18:15:23	-23:26:17	NO						95	10	74	199?	3.0L	6.333		
562	236	175	18:15:24	-22:33:29	186627	-0:12	0:36	80	8.80	.00	135	70	81	2601	30.0C	96.700		
563	251	204	18:15:26	-23:43: 2	186625	-0: 2	-0:34	80	9.30	.00	335	32	291	932?	3.0L	312.667		
564																		

PAGE, CARRUTHERS AND HILL

SUM OVER EXP RA 18:34 DEC -30:24

OBJECT NO.	X	Y	R.A.	DEC.	SAO NO.	A R.A.	A DEC.	SPEC. TYPE	V MAG.	P MAG.	PEAK DEN.	NO. OF POINTS	BG	DENSITY VOLUME	EXP. & FILTER	DEN. VOL / EXP.
701	776	420	18:16:50	-35: 1: 6	210008	-0:10	-1: 1	B8	9.42	9.03	336	15	294	445	3.0L	148.333
702	221	210	18:16:51	-22:33:19	186655	0:13	-1:17	A5	9.40	.00	312	16	284	367?	3.0L	122.333
703	796	428	18:16:54	-35:28: 3	210005	-0:2	-0:59	B9	6.72	.00	410	64	292	373?	3.0L	124.667
704	224	212	18:16:55	-22:37:39	186655	0:17	-4:37	A5	9.20	.00	311	35	281	824?H	3.0L	274.667
705	657	376	18:16:56	-32:22: 8	210001	0:8	1:15	B9	9.39	9.19	376	35	306	1391	3.0L	463.667
706	657	376	18:16:56	-32:22: 8	210003	0:8	-0:18	B8	8.90	8.56	376	35	306	1391	3.0L	453.667
707	657	376	18:16:56	-32:22: 8	210004	0:1	1:39	B8	8.77	8.56	376	35	306	1391	3.0L	463.667
708	657	376	18:16:56	-32:22: 8	210009	0:2	-0: 9	B8	8.29	7.89	376	35	306	1391	3.0L	463.667
709	387	200	18:16:57	-26:15:42	186663	-0:2	-3:55	B9	8.70	.00	334	5	307	1137L	3.0L	37.667
710	243	103	18:16:57	-16:51:00	210009	0:3	0:35	B9	9.42	9.03	326	6	80	148L	30.0C	49.567
711	382	279	18:17: 1	-26:15:33	186663	0:3	-2:47	B9	8.70	.00	311	5	305	1437L	3.0L	38.333
712	204	205	18:17: 1	-22:11:53	186675?	-0:2	-1: 6	B8	8.80	.00	309	18	279	507 L	30.0C	16.900
713	782	406	18:17:11	-35: 0:25	210008	0:11	-0:20	B8	9.42	9.03	125	14	73?	2110	30.0C	70.333
714	358	252	18:17:16	-25:27:17	186676	-0:2	2:24	B9	8.90	.00	128	56	72	2112	30.0C	53.333
715	191	181	18:17:21	-21:45:20	186659	0:30	0: 0	A0	9.20	.00	109	59	71	1612	30.0C	13.567
716	353	273	18:17:26	-25:32:41	186677	-0:12	-3: 0	B9	8.90	.00	325	4	296	1107L	3.0L	36.667
717	253	231	18:17:27	-23:19:36	186677	-0:6	2:37	A0	9.40	.00	321	36	283	1022?	3.0L	340.667
718	173	197	18:17:30	-21:33:25	186673	0:13	-2:34	A2	9.00	.00	298	7	270	1677L	3.0L	55.667
719	408	301	18:17:31	-29:19:43	186684	-0:20	2:35	A0	8.80	.00	113	33	74	1009?	30.0C	33.633
720	349	274	18:17:39	-25:28:25	186679	0:1	1:17	B9	8.90	.00	340	35	292	1139	3.0L	379.667
721	255	236	18:17:44	-23:22:37	186677	0:11	-1:24	A0	9.40	.00	312	8	277	248?	3.0L	82.667
722	598	344	18:17:45	-30:56:23	210026	-0:19	1:31	B9	6.98	.00	296	109	707	11182	30.0C	372.733
723	476	322	18:17:47	-28:21:40	186684	0: 4	0:38	A0	8.80	.00	363	76	314	2631 H	3.0L	877.000
724	195	189	18:17:47	-21:39:37	186673?	0:31	8: 6	A2	9.00	.00	100	5	71	126?	30.0C	4.200
725	580	359	18:17:49	-30:42:50	210023	-0: 6	-2:56	A3	8.77	8.77	332	7	305	162?	3.0L	54.000
726	251	235	18:17:52	-23:17:57	186677	0:18	3:16	A0	9.40	.00	313	13	277	362?	3.0L	120.667
727	961	504	18:17:57	-39: 2: 2	210022	0:10	0:41	B9	6.70	.00	286	25	240	795 L	3.0L	265.000
728	589	364	18:17:58	-30:55:40	210026	-0: 5	2:15	B9	6.98	.00	403	45	305	2333	3.0L	777.667
729	911	465	18:17:59	-37:48:46	186673?	0:31	8: 6	A2	9.00	.00	110	14	69	407?	30.0C	13.567
730	876	472	18:18: 1	-37:15:31	186673?	-0: 6	2:37	A0	9.40	.00	344	35	266	1513?	3.0L	504.333
731	717	390	18:18: 2	-33:37:24	210031	-0:11	1: 4	A	9.60	9.23	108	17	72	483	30.0C	16.100
732	369	487	18:18: 4	-39: 1:32	210022	-0:17	1:12	B9	6.70	.00	182	139	68	8310 H	30.0C	277.000
733	707	407	18:18: 5	-33:35:53	210031	-0: 8	2:35	A	9.60	9.23	330	12	298	294?	3.0L	98.000
734	350	280	18:18: 8	-25:32: 9	186689	0:1	1:47	A2	9.00	.00	325	8	296	195?	3.0L	65.000
735	645	387	18:18:15	-32:13:32	210027	0:11	-1:14	A3	7.07	7.07	331	6	307	133 L	3.0L	44.333
736	645	387	18:18:15	-32:13:32	210032?	0: 1	2:57	B8	8.80	8.55	331	6	307	133 L	3.0L	44.333
737	883	457	18:18:17	-37:14:20	NO	-0:25	-0: 9	A0	9.35	.00	225	137	70	994?	30.0C	331.467
738	988	67	18:18:18	-37:46: 9	210046?	-0:30	0:54	A0	8.83	8.83	175	9	67	2887L	30.0C	9.600
739	179	190	18:18:23	-23:34:43	210046?	-0:18	2:16	A2	9.00	8.00	102	2	292	156?	3.0L	6.933
740	352	284	18:18:26	-25:36:12	186689	0:18	-2:16	A2	8.80	8.30	102	10	68	2497L	30.0C	8.300
741	644	369	18:18:29	-25:36:12	210043	-0:15	2: 4	A0	8.50	8.31	102	12	69	3276 L	30.0C	109.000
742	711	394	18:18:35	-33:33:15	210052?	-0:25	-0: 9	A0	9.35	9.08	125	12	69	3387	30.0C	11.267
743	176	192	18:18:37	-21:33:13	210052?	-0:14	-1: 1	B8	8.80	8.56	132	16	72	1712 L	30.0C	57.067
744	653	373	18:18:38	-32:14:28	210032?	0:24	2: 1	B8	8.80	8.56	132	16	72	1712 L	30.0C	57.067
745	473	331	18:18:41	-29:22: 0	186704	-0: 9	5:17	A2	6.07	.00	354	56	309	1794 L	3.0L	598.000
746	195	223	18:18:43	-22: 9: 0	186710	-0:12	-3:15	A0	9.20	.00	293	8	268	1807L	3.0L	60.000
747	334	281	18:18:45	-25:13:44	186718	-0:18	2: 9	A2	8.80	.00	318	4	299	1027L	3.0L	34.000
748	191	221	18:18:45	-22: 4:36	186710	-0:12	1:10	A0	9.20	.00	292	4	269	897L	3.0L	29.667
749	191	221	18:18:45	-22: 4:36	186712?	-0:11	-1:48	A3	8.80	.00	292	4	269	897L	3.0L	29.667
750	231	239	18:18:47	-22:57:26	186715?	-0:14	-0:39	B8	7.70	7.70	175	72	276	3403	3.0L	1134.333
751	231	239	18:18:47	-22:57:26	186717?	-0:14	-0:39	B8	7.70	.00	375	72	276	3403	3.0L	1134.333
752	500	342	18:18:47	-28:58:42	186720	-0:18	2: 1	B9	9.20	.00	338	4	311	987L	3.0L	32.667
753	280	260	18:18:48	-24: 2:18	186700	0:15	-1:36	A0	9.10	.00	310	8	282	194 L	3.0L	64.667
754	339	284	18:18:50	-25:20:54	186716	-0:11	2:20	B8	9.00	.00	336	24	288	776	3.0L	258.667
755	339	284	18:18:50	-25:20:54	186718?	-0:12	-5: 1	A2	8.80	.00	336	24	288	776	3.0L	258.667
756	480	336	18:18:50	-28:32:27	186706	0: 1	2:22	A0	9.40	.00	332	7	306	1467	3.0L	48.667
757	702	415	18:18:55	-33:33: 2	210052	-0: 5	0: 4	A0	9.35	9.08	331	10	291	291	3.0L	97.000
758	210	210	18:18:55	-22:19:20	186719?	-0: 8	0: 1	A0	8.60	.00	102	13	76	2847L	30.0C	9.467
759	317	277	18:18:56	-24:52: 3	186722	-0:14	3:47	B8	8.90	.00	317	7	289	162?	3.0L	54.000
760	238	223	18:18:59	-22:56:32	186715?	-0: 2	0:15	B8	7.70	.00	309	185	81	15701	30.0C	523.367
761	238	223	18:18:59	-22:56:32	186717?	-0: 2	0:15	B8	7.05	.00	309	185	81	15701	30.0C	523.367
762	482	318	18:18:59	-28:25:25	186704?	0: 8	1:52	A2	6.07	.00	112	41	75	1121	30.0C	37.367
763	482	318	18:18:59	-28:25:25	186706?	0:10	4:20	A0	9.40	.00	112	41	75	1121	30.0C	64.333
764	336	336	18:18:59	-28:24:54	186704?	0:10	2:22	A0	6.07	.00	331	8	301	1937 L	3.0L	64.333
765	474	336	18:18:59	-28:24:54	186706?	0: 7	4:51	A0	9.40	.00	331	8	301	1937 L	3.0L	64.333
766	495	343	18:18:59	-28:32:17	186720	-0:2	3:28	B9	9.20	.00	313	4	288	102?	3.0L	667
767	305	274	18:18:59	-39:32:47	186726	-0: 9	0: 0	B9	7.99	.00	400	71	289	3099	3.0L	1033.000
768	395	405	18:19: 6	-27: 0:57	186730?	-0:13	-4:49	A0	8.80	.00	326	7	301	1587L	3.0L	52.667
769	412	315	18:19: 6	-27: 0:57	186733?	-0:17	-4:46	A0	8.40	.00	326	7</				

NRL REPORT 8173

SGR OVEREXP RA 18:34 DEC -30:24																	
OBJECT NO.	X	Y	R.A.	DEC.	SAO NO.	Δ R.A.	Δ DEC.	SPEC. TYPE	V MAG.	P MAG.	PEAK DEN.	NO. OF POINTS	BG	DENSITY VOLUME	EXP. & FILTER	DEN VOL/ EXP.	
801	435	320	18:20:37	-27:39:59	1867477	0:20	2:47	A0	8.40	.00	103	8	73	192 L	30 DC	6.400	
802	310	296	18:20:40	-24:52:34	186765	0:15	-4:43	B9	9.20	.00	303	5	278	1087 L	30 DL	36.000	
803	287	287	18:20:42	-24:22:10	186753	0:14	-3:18	A3	9.10	.00	303	4	275	967 L	30 DL	32.000	
804	481	359	18:20:49	-28:44:14	186761	0: 7	-2:29	B9	9.00	.00	332	5	308	1077 L	30 DL	35.667	
805	865	497	18:20:50	-37:14:40	210087	0: 6	-0: 1	B9	9.02	8.60	305	17	265	486	30 DL	162.000	
806	865	497	18:20:50	-37:14:40	210098	-0:16	0:35	A3	7.87	7.71	305	17	265	486	30 DL	162.000	
807	872	480	18:20:54	-37:12:38	210087	0: 9	2: 2	B9	9.02	8.60	144	80	73	3453	30 DL	115.100	
808	872	480	18:20:54	-37:12:38	210098	-0:13	2:38	A3	7.87	7.71	144	80	73	3453	30 DL	115.100	
809	366	319	18:20:55	-26: 8:17	NO						335	17	292	530	30 DL	176.667	
810	186	225	18:20:57	-21:56:23	186763	0:10	0:21	B9	9.00	.00	133	89	73	3289	30 DC	109.633	
811	741	431	18:20:58	-34:24:15	210088	0:13	-2:36	B9	6.79	.00	425	816	74	122476	30 DC	4082.533	
812	741	431	18:20:58	-34:24:15	210091	0: 7	0:22	A0	1.95	.00	425	816	74	122476	30 DC	4082.533	
813	445	349	18:21: 1	-27:55:40	NO						344	59	297	1882?	30 DL	627.333	
814	318	303	18:21: 2	-38:36:12	210097	-0: 5	2:12	BB	8.20	7.87	167	130	66	7188	30 DC	239.600	
815	938	507	18:21: 4	-30:41:13	210101	0: 7	1:46	A0	8.03	7.61	87	8	63	174 L	30 DC	5.800	
817	929	526	18:21: 8	-38:40:19	210109	0: 2	-1:55	BB	8.20	7.87	289	13	244	420 L	30 DC	14.000	
818	372	305	18:21:13	-26: 7:43	NO						126	52	74	1838	30 DC	61.267	
819	389	333	18:21:18	-26:42: 9	186780	-0: 8	0:36	A0	8.50	.00	362	49	287	2002 H	30 DL	66.667	
820	380	330	18:21:29	-26:22:10	210102	0:17	-3:29	A0	8.46	8.10	309	4	286	857 L	30 DL	26.333	
821	685	437	18:21:29	-26:29:14	186780	-0: 1	2: 1	A0	8.50	.00	168	66	75	3529 H	30 DC	117.633	
822	357	314	18:21:40	-29:29:31	186787	-0:20	-2:56	B9	8.60	.00	207	5	272	1067 L	30 DL	35.333	
824	380	335	18:21:46	-26:32:20	186780	0:13	-1: 5	A0	8.50	.00	317	10	290	2252 L	30 DL	75.000	
825	813	467	18:21:47	-36: 2:21	NO						109	46	65	1524	30 DC	50.800	
826	213	249	18:21:51	-22:38:48	186796?	-0:39	4:19	BB	8.60	.00	95	4	72	86?	30 DC	2.867	
827	865	488	18:21:54	-37: 9: 2	210122	-0:13	1:39	B9	8.01	7.70	122	68	68	2534	30 DC	84.467	
828	293	289	18:21:56	-24:26:11	186787	0: 5	0:24	BB	8.60	.00	102	32	66	923 L	30 DC	30.767	
829	335	300	18:21:56	-25:21:55	NO						119	9	76	276?	30 DC	9.200	
830	876	481	18:21:56	-36:5:25	210121	-0: 8	0:18	BB	9.32	9.02	130	89	66	3426	30 DC	114.200	
831	977	553	18:21:57	-39:5:18	210114?	0:20	3:41	A5	8.96	8.98	285	45	230	1491 H	30 DL	497.000	
832	977	552	18:21:57	-39:5:18	210115	0:10	-4: 1	B8	6.88	8.20	285	45	230	1491 H	30 DL	497.000	
833	575	404	18:21:59	-30:57: 2	210120	-0: 3	0:23	A0	8.47	8.07	353	16	290	633	30 DL	211.000	
834	985	535	18:21:59	-39:44:20	210114?	0:22	4:39	A5	8.96	8.98	178	169	71	9082 H	30 DC	302.733	
835	985	535	18:21:59	-39:44:20	210115	0:11	-3: 3	BB	8.68	8.20	178	169	71	9082 H	30 DC	302.733	
836	283	301	18:22: 2	-24:23:17	186787	0: 1	3:18	BB	8.60	.00	299	6	271	137 L	30 DL	45.667	
837	283	301	18:22: 2	-24:23:17	186797?	-0:33	3:22	A0	9.60	.00	299	6	271	137 L	30 DL	45.667	
838	837	499	18:22: 3	-36:5:32	210121	0: 1	0:10	B8	9.32	9.02	300	11	264	309 L	30 DC	103.000	
839	680	421	18:22: 5	-33: 7: 52	210123?	0: 6	1: 7	A0	9.31	8.99	101	25	69	654	30 DC	21.800	
840	680	421	18:22: 5	-33: 7: 52	210126?	0: 7	-3:53	A0	9.08	9.02	101	25	69	654	30 DC	21.800	
841	582	387	18:22: 5	-30:55:29	210120	0: 5	1:56	A0	8.47	8.07	302	52	73	4000	30 DC	143.333	
842	351	329	18:22: 5	-30:55:31	NO						313	13	281	346	30 DL	115.333	
843	35	360	18:22:14	-27:5:23	NO						346	65	297	2102?	30 DC	75.000	
844	543	396	18:22:15	-30:14: 0	210128	-0: 3	2:56	BB	7.35	7.95	320	64	293	1107 L	30 DL	36.667	
845	319	298	18:22:15	-25: 2:12	210136?	-0:22	1: 6	A0	8.79	8.47	90	113	73	275?	30 DC	9.167	
846	667	418	18:22:15	-25:52:11	210136?	-0:22	1: 6	A0	8.79	8.47	90	12	64	273?	30 DC	9.100	
847	175	262	18:22:23	-23: 3:55	186799	-0:15	-1:40	A2	9.40	.00	279	5	251	124?	30 DL	41.333	
848	716	437	18:22:23	-33:57:17	210135	-0:13	1:12	BB	6.38	.00	380	338	76	3261	30 DC	1088.033	
849	315	299	18:22:23	-24:57:54	NO						128	24	71	789?	30 DC	26.300	
850	617	404	18:22:30	-31:57:27	210138	-0: 9	1:36	BB	7.15	.00	287	131	60	12568	30 DC	148.933	
851	660	439	18:22:32	-32:53:15	210136	-0: 4	2:20	BB	6.38	.00	427	153	286	8512	30 DL	2837.333	
852	707	456	18:22:32	-32:53:15	210135	-0: 2	5: 5	-0:57	A0	8.79	8.47	308	35	286	2044	30 DL	681.333
853	609	423	18:22:37	-31:55:30	210138	-0: 2	1:33	BB	7.15	.00	398	35	286	427?	30 DC	14.100	
854	355	316	18:22:43	-25:52:12	NO						167	32	68	1404	30 DC	46.800	
855	388	349	18:22:45	-26:47:41	186795	0:18	-2:13	A2	9.50	.00	317	14	288	344?	30 DL	114.667	
856	412	359	18:22:53	-23:27:47	186803	0: 1	1:24	B9	8.50	.00	344	14	292	490 L	30 DL	163.333	
857	295	297	18:22:55	-24:33:29	186797?	0:20	-6:50	A0	9.60	.00	117	54	70	1832 H	30 DC	61.067	
858	172	268	18:22:59	-22: 2:52	186799	0:21	-0:37	A2	9.40	.00	283	5	254	128?	30 DL	42.667	
859	430	367	18:22:59	-27:46:10	186811	-0:15	4:32	BB	9.40	.00	323	4	295	107?	30 DL	35.667	
860	425	365	18:23: 0	-27:38:16	186811	-0: 2	0:54	BB	9.40	.00	336	33	292	1083?	30 DL	361.000	
861	228	292	18:23: 5	-23:16:57	186802	0:20	-1:22	BB	9.40	.00	284	4	288	100?	30 DL	33.333	
862	737	473	18:23:13	-34:14: 0	210147	0: 1	-0:15	B9	9.65	9.33	312	8	283	204?	30 DL	68.000	
863	613	523	18:23:10	-38:29:33	210169?	-0:46	3:23	BB	8.86	8.62	114	12	65	43?	30 DC	14.100	
864	697	466	18:23:11	-33:33:39	210153	0: 5	3:20	A2	9.40	9.17	311	9	284	202?	30 DL	67.333	
865	294	322	18:23:12	-25:53: 3	NO						125	14	70	500	30 DC	16.667	
866	432	370	18:23:13	-23:22:52	186815	-0:16	-0:18	BB	9.10	.00	344	103	261	3995 H	30 DL	1329.333	
867	232	296	18:23:13	-23:22:52	186815	-0:26	5: 6	BB	9.40	.00	344	103	261	3995 H	30 DL	1329.333	
868	232	296	18:23:13	-23:22:52	186822?	-0:23	4: 8	A0	9.20	.00	285	12	255	283?	30 DL	94.333	
869	697	440	18:23:13	-37:19:34	210165	0:14	1:35	A0	8.44	8.10	151	93	66	454?	30 DL	151.567	
870	197	281	18:23:15	-23:27:47	186806?	0:13	3: 1	A0	9.00	.00	221	193	68	15538 H	30 DC	517.933	
871	244	280	18:23:16	-23:27:47	186802?	-0:23	0:14	B9	8.40	.00	221	193	68	15538 H	30 DC	517.933	
872	244	280	18:23:16	-23:27:47	186822?	-0:23	2:51	B9	8.50	.00</td							

PAGE, CARRUTHERS AND HILL

OBJECT NO.	X	Y	R.A.	DEC.	SAO NO.	Δ R.A.	Δ DEC.	SPEC. TYPE	V MAG.	P MAG.	PEAK DEN.	NO. OF POINTS	BG	DENSITY	EXP. &	DEN. VOL./ EXP.	
														VOLUME	FILTER		
901	634	456	18:24:51	-32:30:18	210194	-0:4	-0:10	A0	7.70	7.29	358	36	274	1444	3.0L	481.333	
902	674	470	18:24:51	-33:23:42	210193	-0:4	-0:10	B9	8.32	330	20	282	591	3.0L	197.000		
903	611	438	18:24:54	-32:28:20	210194	-0:1	1:48	A0	7.70	7.29	221	98	62	6968 H	30.0C	232.267	
904	180	296	18:24:55	-22:23:55	186853	-0:15	2:51	A0	9.00	0.00	273	6	245	1517L	3.0L	50.333	
905	280	336	18:24:57	-24:34:31	186844	-0:3	1:9	A0	8.50	0.00	300	15	265	3827L	3.0L	127.333	
906	379	372	18:24:57	-26:47:20	186843/	-0:2	0:0	A3	6.28	0.00	325	21	286	602	3.0L	200.667	
907	379	372	18:24:57	-26:47:20	186845/	-0:5	0:2	A0	9.00	0.00	325	21	286	602	3.0L	200.667	
908	965	565	18:24:58	-38:58:22	210200	-0:9	1:24	B9	7.60	0.00	259	14	217	383 L	3.0L	127.667	
909	353	363	18:24:58	-26:11:35	186846	-0:2	1:14	A0	8.70	0.00	352	59	275	2216 H	3.0L	738.667	
910	283	338	18:24:58	-24:38:51	186844	-0:2	-3:13	A0	8.50	0.00	297	26	262	7187	3.0L	239.333	
911	115	251	18:25:01	-20:50:01	186850	-0:1	0:29	A0	8.90	0.00	94	51	63	12667	30.0C	42.200	
912	281	315	18:25:01	-26:00:37	186849	-0:7	1:3	A0	8.50	0.00	26	6	68	367 L	30.0C	4.533	
913	568	819	18:25:01	-38:57:06	210197	-0:10	4:33	B9	5.65	0.00	285	14	243	324 L	3.0L	108.000	
914	328	568	18:25:01	-38:57:07	210200	-0:2	-3:20	B9	7.50	0.00	285	14	23	324 L	3.0L	108.000	
915	366	356	18:25:01	-26:46:13	186843/	-0:10	1:7	A3	6.28	0.00	107	25	74	662	30.0C	22.067	
916	356	356	18:25:01	-26:46:13	186845/	-0:8	1:48	A0	9.00	0.00	107	25	74	662 L	30.0C	22.067	
917	359	349	18:25:17	-26:10:53	186846	-0:15	1:55	A0	8.70	0.00	117	24	68	847	30.0C	28.233	
918	408	386	18:25:18	-27:27:35								332	49	289	1324?	3.0L	441.333
919	407	366	18:25:18	-27:15:18	186861?	-0:23	2:23	BB	8.50	0.00	100	26	69	668 L	30.0C	22.267	
920	199	310	18:25:28	-22:51:26	186856	-0:3	-0:17	B9	9.10	0.00	273	5	247	1127L	3.0L	37.333	
921	698	466	18:25:38	-33:48:55	210226?	-0:42	9:9	B9	7.10	0.00	90	12	67	2472L	30.0C	8.233	
922	933	555	18:25:47	-38:54:45	210213	-0:2	-1:40	B8	6.65	0.00	325	24	73	3239 H	30.0C	774.633	
923	652	453	18:25:49	-32:48:26	210224?	-0:30	0:31	A0	8.40	8.16	81	5	59	1017L	30.0C	3.367	
924	923	573	18:25:51	-38:53:20	210213	-0:1	-0:16	B8	6.65	0.00	318	154	219	5360	3.0L	1786.667	
925	731	481	18:25:52	-34:33:52	210219	-0:12	0:20	B9	8.95	8.61	127	69	63	2787	30.0C	92.900	
926	724	499	18:25:57	-34:35:6	210218	-0:7	-0:54	B9	8.95	8.61	324	19	276	596	3.0L	198.667	
927	890	563	18:26:01	-38:12:18	210222	-0:13	-4:24	A2	9.59	9.62	252	12	210	417	3.0L	139.000	
928	366	380	18:26:01	-26:35:11	186863	-0:13	1:42	A0	6.46	0.00	311	25	285	556 L	3.0L	186.333	
929	397	391	18:26:05	-27:16:34	186861	-0:18	1:7	BB	8.50	0.00	333	69	284	2240	3.0L	746.667	
930	588	453	18:26:05	-31:30:18	No							296	14	265	354	3.0L	118.000
931	703	473	18:26:08	-33:57:46	210226	-0:12	0:19	B9	7.10	0.00	309	149	70	13947	30.0C	464.900	
932	308	361	18:26:10	-25:18:37	186873	-0:1	-1:12	B2	6.23	0.00	423	130	274	7755	3.0L	2850.000	
933	378	366	18:26:12	-26:00:25	186863?	-0:22	-3:31	A0	6.46	0.00	118	121	67	4072 L	30.0C	135.733	
934	378	366	18:26:12	-26:00:25	186878?	-0:18	1:52	B9	9.30	0.00	118	121	67	4072 H	30.0C	135.733	
935	618	466	18:26:13	-32:15:15	No							325	23	268	815	3.0L	271.077
936	766	505	18:26:17	-35:00:17	210221	-0:9	0:47	A0	9.21	9.00	86	12	61	271 L	30.0C	9.033	
937	626	433	18:26:21	-33:58:12	210226	-0:1	-0:8	B9	7.10	0.00	309	87	203	2703	3.0L	327.667	
938	370	366	18:26:23	-26:01:59	186878	-0:7	0:17	B9	9.30	0.00	324	45	280	1442 H	3.0L	480.667	
939	314	346	18:26:25	-25:16:19	186873	-0:7	1:6	B2	6.23	0.00	377	182	74?	2663 L	30.0C	882.100	
940	625	450	18:26:25	-32:15:3	No							142	68	57	3391	30.0C	112.433
941	591	439	18:26:26	-31:26:23	No							83	19	55	463	30.0C	15.433
942	640	476	18:26:27	-32:45:21	210224	-0:8	3:37	A0	8.40	8.16	298	19	273	3872 L	3.0L	129.000	
943	650	459	18:26:27	-32:48:33	210224	-0:8	0:25	A0	8.40	8.16	82	6	58	1372 L	3.0C	4.567	
944	682	470	18:26:27	-33:31:10	210228?	-0:2	1:21	A0	8.72	8.36	280	132	66	11843 H	30.0C	39.767	
945	682	470	18:26:27	-33:31:10	210234?	-0:18	0:37	B9	7.64	0.00	280	132	66	11843 H	30.0C	39.767	
946	149	282	18:26:28	-21:04:50	186876	-0:1	-0:38	A0	8.90	0.00	122	92	61	3718 H	30.0C	123.933	
947	143	301	18:26:30	-21:44:16	186876	-0:2	-4:3	A0	8.90	0.00	256	4	232	91 L	3.0L	30.333	
948	263	349	18:26:30	-24:20:56								293	37	254	1107?	3.0L	369.000
949	109	289	18:26:39	-21:04:40	186885	-0:13	-1:28	A0	8.20	0.00	257	6	234	1302 L	3.0L	43.333	
950	318	370	18:26:39	-25:34:08	186882	-0:1	0:37	B9	8.90	0.00	299	13	273	272 L	3.0L	90.667	
951	318	370	18:26:39	-25:34:08	186888?	-0:35	0:57	A0	8.50	0.00	299	13	273	272 L	3.0L	90.667	
952	326	353	18:26:39	-25:33:22	186882	-0:1	1:23	B9	8.90	0.00	113	26	79	702 L	30.0C	23.400	
953	674	490	18:26:45	-33:32:1	210228?	-0:20	0:31	A0	8.72	8.36	378	45	275	2262	3.0L	754.000	
954	674	490	18:26:45	-33:32:1	210234?	-0:1	-0:13	B9	7.64	0.00	378	19	274	478 L	3.0L	159.333	
955	656	486	18:26:52	-33:03:30	210235?	-0:3	-3:35	A3	7.22	0.00	311	19	274	478 L	3.0L	159.333	
956	656	486	18:26:52	-33:03:32	210240?	-0:6	0:31	A0	8.38	0.00	311	21	51	51?	30.0C	7.033	
957	582	445	18:27:17	-31:20:07	210240	-0:20	0:51	A0	8.38	0.00	123	55	66	1956	30.0C	65.200	
958	662	472	18:27:17	-33:01:18	210240	-0:5	1:11	B5	8.50	8.01	352	24	272	2262	3.0L	754.000	
959	378	399	18:27:18	-26:56:12	186890	-0:3	0:51	A0	8.80	0.00	313	59	274	2127 L	3.0L	63.333	
960	389	403	18:27:24	-27:31:50	186902?	-0:20	-1:43	A2	9.50	0.00	318	12	65	182 L	3.0L	60.667	
961	383	403	18:27:25	-24:10:33	186891	-0:4	-4:29	B9	8.36	0.00	282	12	255	3452 L	30.0C	11.500	
962	355	355	18:27:27	-36:50:16	210234?	-0:12	-0:34	B9	9.13	8.77	88	15	63	3452 L	30.0C	11.500	
963	143	312	18:27:26	-21:48:39	186898?	-0:9	-1:22	B9	8.80	0.00	267	7	235	182 L	3.0L	60.667	
964	830	533	18:27:27	-36:50:16	210235?	-0:15	-4:57	A5	8.84	8.93	88	15	63	3452 L	30.0C	11.500	
965	830	533	18:27:27	-32:47:10	186898?	-0:3	0:6	B9	8.80	0.00	103	61	65	1755	30.0C	58.500	
966	292	404	18:27:37	-27:37:37	186902?	-0:7	-1:21	A2	9.50	0.00	317	28	273	9307 H	3.0L	310.000	
967	293	354	18:27:44	-24:54:40	186906	-0:14	0:59	B9	8.10	0.00	236	100	74	7514</			

NRL REPORT 8173

OBJECT NO.	X	Y	R.A.	DEC.	SAO NO.	A R.A.	A DEC.	SPEC. TYPE	V MAG.	P MAG.	PEAK DEN.	NO. OF POINTS	BG	DENSITY VOLUME			EXP. & FILTER	DEN. VOL/ EXP.
														DEG.	MIN.	SEC.		
1001	241	394	18:30: 8	-24: 9:45	186959	-0: 3	-0:53	B3	6.75	.00	405	121	248	7113	L	3.0L	2371	000
1002	241	394	18:30: 8	-24: 9:45	186977	-0: 36	-0: 1	B9	7.82	.00	405	121	248	7113	H	3.0L	2371	000
1003	904	611	18:30:12	-38:47:16	210293	0: 16	-1:48	A	6.60	.00	434	143	236	13394	3.0L	4464	667	
1004	904	611	18:30:12	-38:47:16	210294	0: 16	-1:25	B8	6.00	.00	434	143	236	13394	3.0L	4464	667	
1005	904	611	18:30:12	-38:47:16	210295	0: 16	-1:25	B8	5.95	.00	434	143	236	13394	3.0L	4464	667	
1006	904	611	18:30:12	-38:47:16	210296	0: 16	-1:47	B9	6.55	.00	434	143	236	13394	3.0L	4464	667	
1007	309	390	18:30:17	-25:28:52	186975	-0: 23	0:24	B9	8.30	.00	115	12	68	104	L	3.0C	13	467
1008	813	578	18:30:18	-36:51: 2	210302	0: 5	-2:46	B9	8.78	8.46	371	1102	261	16000	3.0L	533	333	
1009	813	578	18:30:18	-36:51: 2	210304	0: 2	-0:23	B9	8.04	7.60	371	1102	261	16000	3.0L	533	333	
1010	825	582	18:30:18	-37: 6:48	210305	-0: 1	0:30	B9	8.95	8.75	286	42	226	16137H	3.0L	537	667	
1011	400	422	18:30:25	-27:30: 8	186968	-0: 4	1:28	B9	8.50	.00	109	43	61	1402	L	3.0C	46	733
1012	820	561	18:30:25	-36:50: 3	210302	0: 12	-2:17	B9	8.78	8.46	296	154	63	15809	3.0C	526	967	
1013	820	561	18:30:25	-36:50: 3	210304	0: 8	0: 5	B9	8.04	7.60	296	154	63	15809	3.0C	526	967	
1014	833	566	18:30:25	-37: 6:20	210305	0: 6	0:58	B9	8.95	8.75	116	51	70	1679	3.0C	55	967	
1015	248	370	18:30:25	-24: 8:57	186959	-0: 14	-0: 6	B3	6.75	.00	371	231	67	27153	L	3.0C	905	100
1016	248	370	18:30:25	-24: 8:57	186977	-0: 19	0:47	B9	7.82	.00	371	231	67	27153	H	3.0C	905	100
1017	639	519	18:30:28	-33: 1:19	210312	-0: 13	2:	B3	5.38	.00	445	904	271	2689	L	3.0L	896	333
1018	639	519	18:30:28	-33: 1:19	210314	-0: 21	-1:17	B9	6.88	.00	445	904	271	2689	3.0L	896	333	
1019	392	441	18:30:30	-27:31:18	186969	-0: 20	0:18	B9	8.50	.00	348	39	272	1078	3.0L	359	333	
1020	300	411	18:30:35	-28:29:20	186975	-0: 5	-0:25	B9	8.00	.00	310	47	254	157	3.0L	56	667	
1021	647	503	18:30:37	-36:50: 3	210312	-0: 4	0:19	B9	8.38	.00	412	655	61	82795	3.0C	2759	867	
1022	647	503	18:30:37	-36:50: 3	210314	-0: 11	-2:30	B9	8.88	.00	412	655	61	82795	3.0C	2759	867	
1023	639	521	18:30:39	-33: 2: 9	210312	-0: 2	1:11	B3	5.38	.00	456	2687	272	1436	L	3.0L	478	667
1024	639	521	18:30:39	-33: 2: 9	210314	-0: 9	-2: 8	B9	6.88	.00	456	2687	272	1436	L	3.0L	478	667
1025	172	361	18:30:41	-22:41:38	186976	-0: 2	-0:60	B8	9.40	.00	262	9	231	2397L	3.0L	79	667	
1026	550	476	18:30:57	-30:54:51	210318	-0: 6	0:30	B9	7.15	.00	177	82	52	5370	3.0C	179	000	
1027	542	499	18:30:59	-30:54:26	210318	-0: 4	0:55	B9	7.15	.00	324	11	260	169	L	3.0L	156	333
1028	295	414	18:31: 0	-25:25:54	186986	-0: 2	0:14	B8	9.00	.00	347	45	255	20362H	3.0L	678	667	
1029	896	596	18:31: 2	-38:29:60	210317	0: 1	-0:44	A0	9.38	9.26	88	9	66	1877L	3.0C	6	233	
1030	372	441	18:31: 6	-27: 7:25	186987	0: 7	-1:54	A0	9.20	.00	298	6	266	1707L	3.0L	56	667	
1031	149	363	18:31:19	-22:15:47	186994	-0: 3	-0:44	B8	9.00	.00	270	36	224	1231	3.0L	410	333	
1032	157	345	18:31:23	-22:15:21	186994	0: 1	-0:18	B8	9.00	.00	141	5	707	310	L	3.0C	10	333
1033	302	400	18:31:23	-25:24:30	186986	-0: 20	0:39	B8	9.00	.00	180	111	73	6323	3.0C	210	767	
1034	286	416	18:31:26	-25:15: 1	186997	-0: 6	-0:12	B9	9.30	.00	286	8	253	216	3.0L	72	000	
1035	697	594	18:31:26	-34:23:46	210329	0: 2	0:11	B9	9.21	8.90	306	6	275	172	L	3.0L	57	333
1036	705	531	18:31:27	-34:22:55	210329	0: 2	1: 2	B9	9.21	8.90	91	11	61	283	L	3.0C	9	433
1037	212	390	18:31:36	-23:38:14	187002	-0: 15	-2:35	A0	9.50	.00	262	4	237	892L	3.0L	29	667	
1038	288	420	18:31:44	-25:18:59	186997	-0: 11	-1:10	B9	9.30	.00	281	18	255	4467	3.0L	148	667	
1039	350	421	18:31:44	-26:29:39	187001	-0: 0	1:19	A0	9.10	.00	92	10	67	213	L	3.0C	7	100
1040	293	401	18:31:44	-25:14:19	186997	-0: 11	0:37	B9	9.30	.00	97	29	67	683	L	3.0C	22	767
1041	493	669	18:31:55	-25:15: 7	186997	-0: 7	-0:46	B8	8.50	.00	96	5	58	1439	3.0C	30	4	667
1042	671	534	18:32: 1	-32:52:35	210344	-0: 9	-2:41	A0	6.85	.00	297	18	267	439	L	3.0L	146	333
1043	912	531	18:32: 1	-32:52:35	210338	-0: 20	0:44	B8	8.70	8.45	222	29	71	709	L	3.0C	23	333
1044	172	362	18:32: 9	-22:38:27	187015	-0: 18	0: 4	B9	9.20	.00	20	24	67	5287L	3.0C	17	600	
1045	637	517	18:32:11	-32:55:46	210344	-0: 10	0: 8	A0	6.85	.00	82	5	60	992L	3.0C	3	300	
1046	141	371	18:32:13	-22: 9:31	187010	-0: 7	-1:37	B3	8.50	.00	352	64	223	3628	3.0L	1209	333	
1047	148	354	18:32:13	-22: 8:41	187010	-0: 7	-0:46	B3	8.50	.00	283	193	67	16966	3.0C	565	533	
1048	461	465	18:32:26	-29:11:27	187021	-0: 17	5:27	A3	9.70	9.81	279	4	253	101	3.0L	33	667	
1049	355	453	18:32:36	-26:51:29	187021	-0: 2	-0:16	B9	9.60	.00	287	6	262	1387	3.0L	46	000	
1050	690	540	18:32:40	-34: 9:24	210355	-0: 12	0: 0	B9	9.07	8.72	115	50	59	1922	3.0C	64	067	
1051	682	558	18:32:41	-34: 9: 3	210355	-0:10	0:21	B9	9.07	8.72	307	6	280	138	L	3.0L	46	000
1052	491	499	18:32:50	-29:54:32	187030	-0:14	4: 7	A2	9.71	9.73	286	4	260	97?	3.0L	32	333	
1053	614	538	18:32:56	-32:39:50	210358	-0: 4	-1:23	B9	8.95	8.51	312	26	259	799	3.0L	266	333	
1054	511	496	18:33: 0	-30:51:38	210354	-0:12	0:29	A0	9.27	8.84	86	27	52	737	3.0C	24	567	
1055	356	438	18:33: 2	-26:44:43	187021	-0: 26	6:31	B9	9.60	.00	106	6	76	1657	3.0C	5	500	
1056	620	522	18:33: 3	-32:37: 0	210358	-0: 6	1:27	B9	9.52	9.32	263	4	251	327L	3.0L	12	667	
1057	396	453	18:33:12	-32:38:28	210360	-0:17	5:27	B9	7.93	7.30	282	121	67	5960	L	3.0C	198	667
1058	594	537	18:33:22	-31:21:54	210376	-0: 11	-0:22	B8	7.93	7.30	393	30	281	1878	3.0L	626	000	
1059	697	581	18:34:26	-35:35:60	210376	-0: 2	-0:40	B8	8.00	7.30	291	14	215	398?	3.0L	132	667	
1060	134	397	18:34:32	-22:12:19	187064	-0: 3	-2:22	B9	9.40	.00	251	277	6	919	L	3.0L	306	333
1061	401	490	18:34:34	-28: 1: 5	187063	-0: 3	0:39	B2	8.60	.00	360	23	67	11912L	3.0C	39	700	
1062	204	405	18:34:35	-23:32:31	187059	-0: 1	6:54	B9	9.10	.00	142	29	67	2717L	3.0L	90	333	
1063	200	422	18:34:36	-23:37:20	187059	-0: 15	2: 6	B9	9.10	.								

PAGE, CARRUTHERS AND HILL

SGR OVEREXP RA 18:34 DEC -30:24

OBJECT NO.	X	Y	R.A.	DEC.	SAO NO.	δ R.A.	δ DEC.	SPEC. TYPE	V MAG.	P MAG.	PEAK DEN.	NO. OF POINTS	BG	DENSITY VOLUME	EXPL. FILTER	DEN VOL/ EXP.	
1101	411	495	18:36:28	-28:12:26	1870897	0:23	1:9	B9	7.45	.00	100	44	58	1390 L	30.0C	46.333	
1102	126	398	18:36:29	-22:0:29	187096	0:2	0:12	A0	9.20	.00	118	70	66	2373	30.0C	79.100	
1103	455	530	18:36:35	-29:22:43	187100	0:2	0:25	B	9.50	.00	341	317	259	2016	3.0L	672.000	
1104	463	513	18:36:35	-29:23:27	187100	0:2	-0.19	B	9.50	.00	153	75	55	4284	30.0C	142.800	
1105	627	561	18:36:45	-33:2:35	210412	0:31	-0:9	A0	7.85	.00	80	15	54	3417L	30.0C	11.367	
1106	627	561	18:36:45	-33:2:35	210435	0:26	0:9	A0	9.20	8.88	80	15	54	3417L	30.0C	11.367	
1107	81	389	18:37:03	-21:7:21	1871117	0:1	-6.37	B9	9.00	.00	93	16	66	3797L	30.0C	12.633	
1108	466	525	18:37:5	-29:55:44	NO							112	21	55	813	30.0C	27.100
1109	148	434	18:37:9	-22:2:2	187112	0:1	0:36	B5	8.90	.00	293	47	215	1848	3.0L	616.000	
1110	931	695	18:37:14	-39:50:3	210450	0:30	-5:8	A2	8.89	8.79	259	6	230	149	3.0L	49.667	
1111	939	677	18:37:15	-39:49:12	210450	0:29	-4:17	A2	8.89	8.79	111	80	68	2384	H 30.0C	79.533	
1112	156	418	18:37:16	-22:3:3	187112	0:7	-0:28	B5	8.90	.00	198	123	68	814	30.0C	271.467	
1113	465	522	18:37:20	-29:28:56	187122	0:24	-6.29	A3	8.80	.00	94	60	60	1017L	30.0C	3.67	
1114	91	418	18:37:27	-21:1:60	187119	0:13	0:32	B9	8.80	.00	246	23	211	5047	3.0L	201.333	
1115	751	633	18:37:29	-29:55:56	210451	0:15	-4.20	A2	10.10	9.62	286	19	269	967	3.0L	32.000	
1116	489	530	18:37:38	-29:55:56	NO							113	18	56	734	30.0C	24.467
1117	99	442	18:37:37	-21:31:49	187119	0:3	0:43	B9	8.80	.00	130	98	65	3957	30.0C	131.900	
1118	743	632	18:37:38	-35:50:33	210451?	0:6	5:35	A2	10.10	9.62	286	16	273?	377	3.0L	12.333	
1119	255	479	18:37:46	-25:3:27	187120	0:3	0:9	A0	9.00	.00	275	7	245	1727L	3.0L	57.333	
1120	435	521	18:38:1	-28:52:5	187128	0:7	0:20	BB	7.90	.00	220	104	57	7786	30.0C	259.533	
1121	315	483	18:38:4	-26:12:21								157	10	65	5067	30.0C	16.867
1122	636	582	18:38:5	-33:19:53	210456	0:8	0:38	B9	8.87	8.37	170	97	60	5115 H	30.0C	170.500	
1123	248	539	18:38:7	-28:53:20	187128	0:1	-0.55	BB	7.90	.00	356	21	269	1076	3.0L	358.667	
1124	279	492	18:38:9	-25:36:40	187130	0:5	-7.58	A0	9.30	.00	291	98	248	2648?	3.0L	882.667	
1125	629	601	18:38:10	-33:22:19	210464	0:4	-1:47	B9	8.87	8.37	346	277	277?	1492 H	3.0L	497.333	
1126	97	408	18:38:10	-21:31:46	187119?	0:31	0:46	B9	8.80	.00	101	7	64	206 L	30.0C	6.867	
1127	535	552	18:38:10	-31:7:50	210457	0:15	-0:39	BB	8.82	8.50	130	63	50	3111	30.0C	103.700	
1128	371	508	18:38:41	-27:30:13	187141	0:1	-0:36	B5	8.30	.00	215	97	70	7129	30.0C	237.633	
1129	363	526	18:38:43	-27:29:53	187141	0:3	-0:16	B5	8.30	.00	372	17	275	969 L	3.0L	323.000	
1130	468	538	18:38:43	-29:38:40	187151	0:18	0:22	BB	8.60	.00	132	50	59	2319	30.0C	77.300	
1131	584	594	18:38:47	-32:23:50	210478	0:7	-0:59	BB	7.78	7.11	69	220?	227?	2228	3.0L	442.667	
1132	592	577	18:38:51	-32:24:44	210478	0:3	0:14	BB	7.78	7.11	317	172	56	17120 H	3.0L	576.667	
1133	360	559	18:39:15	-29:55:29	187151	0:0	-0.26	B9	8.60	.00	336	13	269	1702?	3.0L	167.333	
1134	619	593	18:39:15	-29:55:29	210452?	0:19	5:39	A3	10.50	10.32	282	8	262	211?	3.0L	20.333	
1135	172	466	18:39:15	-23:11:56	187154	0:5	-5:53	A0	9.00	.00	99	39	65	1048	30.0C	34.933	
1136	162	464	18:39:15	-23:9:34	187154?	0:6	1:24	A0	9.00	.00	253	11	221	275	3.0L	91.667	
1137	506	579	18:39:30	-30:43:39	210479?	0:29	-3:4	A2	9.12	8.85	274	4	248	98 L	3.0L	32.667	
1138	351	512	18:39:31	-27:7:20							124	4	83	121?	30.0C	4.033	
1139	500	558	18:39:36	-30:26:20	NO						79	14	50	349	30.0C	11.633	
1140	901	710	18:39:43	-39:21:32	210488	0:17	-1:25	BB	7.09	.00	381	110	236	7377	3.0L	2459.000	
1141	115	454	18:39:48	-22:13:24	187169	0:9	-0:13	BB	8.60	.00	233	9	206	218 L	3.0L	72.667	
1142	369	540	18:39:49	-27:12:25	187170	0:3	-0:31	B9	8.40	.00	330	13	267	542	3.0L	180.667	
1143	123	438	18:39:52	-22:12:50	187169	0:14	-0:21	BB	8.60	.00	111	68	68	2329	30.0C	77.633	
1144	376	524	18:39:54	-27:11:54	187170	0:8	-0:0	B9	8.40	.00	147	60	72	2738	30.0C	91.267	
1145	657	629	18:40:0	-34:6:29	210498	0:5	-1:28	A0	9.39	8.95	315	354	276?	13687H	3.0L	456.000	
1146	908	695	18:40:1	-39:21:47	210488?	0:37	-1:41	BB	7.09	.00	359	237	69	2919 H	30.0C	980.633	
1147	133	446	18:40:12	-22:27:15	187185	0:7	0:25	B9	7.60	.00	114	70	67	2324	30.0C	77.467	
1148	126	463	18:40:13	-22:28:11	187185	0:7	-0:31	B9	7.60	.00	243	9	205	277 L	3.0L	92.333	
1149	726	654	18:40:14	-35:38:7	210499	0:7	3:40	A5	9.74	9.80	407	157	281	4347?	3.0L	1449.000	
1150	583	590	18:40:22	-32:18:48							93	28	56	620?	30.0C	21.333	
1151	129	465	18:40:26	-22:26:35	187181	0:7	1:6	B9	7.60	.00	24	25	284	172?	3.0L	247.333	
1152	860	683	18:40:31	-38:22:27	210501	0:10	-0:16	BB	5:13	.00	193	118	65	7952 L	3.0L	265.067	
1153	693	702	18:40:36	-35:42:16	210501	0:15	-1:28	A0	5:13	.00	289	22	246	E18 L	3.0L	206.000	
1154	735	633	18:40:53	-35:42:16	210509	0:6	-0:40	B3	4:82	.00	424	935	83	123354	30.0C	4111.800	
1155	726	663	18:41:1	-35:41:26	210509	0:9	0:9	B3	4:82	.00	469	707	287?	11931	3.0L	3977.000	
1156	227	511	18:41:1	-24:42:58	187199	0:15	2:11	A0	9.20	.00	265	7	237	157L	3.0L	52.333	
1157	191	499	18:41:21	-23:56:22	187211	0:11	-3:19	A0	9.90	.00	247	7	219	173?	3.0L	57.667	
1158	301	539	18:41:35	-28:20:2	187209	0:10	-3:17	A0	9.20	.00	286	17	255	444	3.0L	148.000	
1159	397	549	18:41:35	-28:16:34	187225?	0:25	-0:11	B9	8.10	.00	111	12	68	393 L	30.0C	13.100	
1160	561	597	18:41:35	-31:54:32	210523?	0:4	1:50	A5	9.55	9.36	88	26	52	723	30.0C	24.100	
1161	561	597	18:41:35	-31:54:32	210526?	0:10	-0:21	B9	9.70	9.18	88	26	52	723	30.0C	24.100	
1162	190	503	18:41:38	-23:56:17	187211	0:7	-3:15	A0	9.90	.00	242	9	219	192?	3.0L	64.000	
1163	927	717	18:41:39	-39:5:29	NO						227	168	72	1267?	30.0C	421.567	
1164	242	521	18:41:43	-25:4:39	187216	0:2	-0:52	BB	5.76	.00	389	87	242	42477L	3.0L	1415.667	
1165	203	509	18:41:48	-21:3:60	187220	0:2	-2:10	A0	9.10	.00	253	6	227	1387L	3.0L	46.000	
1166	250	505	18:41:48	-25:4:4	187216	0:2	-0:18	BB	5.76	.00	373	213	86	25362	30.0C	854.400	
1167	913	737	18:41:54	-39:5:37	NO						298	33	240	1316	3.0L	438.667	
1168	494	18:42:3	-23:8:34	187222	0:6	-3:26	A0	9.40	.00	232	77	61	208	1507L	3.0L	50.000	
1169	420	563	18:42:37	-28:49:7	187237	0:23	-0:42	A0	8.40	.00	164	77	61	4576	30.0C	152.333	
1170	420	563	18:42:37	-28:49:7	187239	0:24	-0:42	A0	8.40	.00	164	77	61	2268	30		

NRL REPORT 8173

SGR OVEREXP RA 1B:34 DEC -30:24

OBJECT NO.	X	Y	R.A.	DEC.	SAO NO.	A. R.A.	A. DEC.	SPEC. TYPE	V MAG.	P MAG.	PEAK DEN.	NO. OF POINTS	BG	DENSITY VOLUME	EXP. & FILTER	DEN. VOL / EXP.
1201	326	579	18:44:20	-27: 5:43	1872907	-0:28	2:46	BB	8.50	.00	303	43	268?	7137L	3.0L	237 667
1202	388	598	18:44:28	-28:19:46	187286	-0: 3	0:21	B9	7.24	.00	313	22?	202	64	3.0L	213 333
1203	129	528	18:44:34	-23:36: 2							235	47	236	98?	3.0L	523 333
1204	248	557	18:44:39	-24:20:47							280	47	236	1388?	3.0L	56 000
1205	390	582	18:44:35	-25:24:39	187286	0: 6	-0:41	B9	7.24	.00	134	62	73	2377 L	3.0L	79 233
1206	215	547	18:44:39	-24:41:39	187285	0:11	-7.24	A2	9.00	.00	274	76	232	2176 H	3.0L	725 333
1207	327	585	18:44:45	-27: 8:46	187290	-0: 2	-0:16	B9	8.50	.00	360	55?	2677	1120	3.0L	373 333
1208	226	552	18:44:48	-24:56:37	187301?	-0:18	-6:53	A2	8.60	.00	257	31	231	528	3.0L	176 000
1209	633	675	18:44:51	-33:54:36	210583	-0: 6	3:15	A2	7.06	.00	299	30	2777	328	3.0L	109 333
1210	643	678	18:44:51	-34: 7:44							303	176	2777	1744?	3.0L	581 333
1211	327	566	18:44:53	-26:57:49	187308?	-0:44	-3:17	A3	8.50	.00	122	38	87	1077	3.0L	35 900
1212	342	592	18:44:59	-27:29:23	187299	-0: 1	-0:12	B9	9.10	.00	313	20?	2707	400	3.0L	133 333
1213	908	749	18:45: 9	-39:40:45	210581	0:19	-1:12	A0	6.97	.00	256	220	71	17259 H	3.0L	575 300
1214	899	767	18:45:10	-39:40:21	210581	0:20	-0:49	A0	6.97	.00	329	56	242	2797	3.0L	932 333
1215	543	653	18:45:11	-31:56:10	210588	0: 3	-0:53	B9	7.45	6.80	353	141	2757	2020?	3.0L	673 333
1216	550	635	18:45:11	-31:55:18	210588	0: 3	-0: 1	B9	7.45	6.80	306	153	58	15005	3.0L	500 167
1217	209	553	18:45:19	-24:37:52							273	142	222	4509?	3.0L	1503 000
1218	461	631	18:45:20	-30: 8:45	210591?	-0: 6	-5:23	A0	9.51	2.4	311	162	283?	530?	3.0L	176 667
1219	517	654	18:45:55	-31:24:45	210598?	0: 1	-5:13	A0	9.65	9.23	293	107	2777	1235?H	3.0L	411 667
1220	607	660	18:46: 0	-33:14:42							219	18	57	1360?	3.0L	45 333
1221	463	623	18:46:20	-30: 3:58	210613	-0:22	0: 1	B9	8.82	8.24	128	59	62	2551 L	3.0L	85 033
1222	454	641	18:46:22	-30: 3:33	210613	-0:20	0:20	B9	8.82	8.24	136	49	28?	506	3.0L	168 667
1223	454	642	18:46:28	-30: 3:55	210613	-0:15	-0: 2	B9	8.82	8.24	328	25?	278?	128?	3.0L	429 000
1224	202	565	18:46:33	-24:33:58	187317	0: 6	-2: 5	A0	8.50	0.0	274	17	208	6208 H	3.0L	2149 333
1225	556	672	18:46:35	-32:19:54	210507?	-0:23	-2: 2	A2	9.94	9.37	304	37	2807	307	3.0L	86 667
1226	219	552	18:46:36	-24:33:59	187317?	-0:25	-0:29	A0	8.50	.00	106	4	11	1187	3.0L	39 667
1227	262	568	18:46:42	-25:41:59							114	7	87	163?	3.0L	5 433
1228	193	568	18:47: 1	-26:55:24							250	50	213	1325?	3.0L	441 667
1229	466	653	18:47: 9	-30:22:22	210626	-0:21	-4:30	A0	8.73	8.36	297	10	275?	106?	3.0L	35 333
1230	655	696	18:47: 9	-34:21:49	210625	-0:20	0: 1	B9	7.23	.00	200	103	65	6570 H	3.0L	219 000
1231	503	647	18:47:27	-31: 2: 4	210631	-0:18	-0:49	A0	7.88	.00	94	5	69	118?	3.0L	3 933
1232	126	533	18:47:39	-22:53:34	187337	0: 5	-5:04	A0	9.00	.00	81	28	57	669?	3.0L	22 300
1233	487	665	18:47:42	-30:52: 2	210632	-0: 5	-5:04	A0	8.67	.00	318	32?	277?	3000?H	3.0L	1000 000
1234	494	649	18:47:53	-30:51:53	210632	0: 7	-0:32	A0	8.67	.00	86	9	61	184 L	3.0L	6 133
1235	218	587	18:47:54	-25:01:13	187357	-0:14	2:57	A2	9.30	.00	265	35	240?	361?	3.0L	120 333
1236	187	577	18:47:58	-24:21:28	187355	-0: 7	5:22	B9	8.70	.00	242	21	212	528?	3.0L	176 000
1237	510	675	18:47:58	-31:24:39							312	267	277?	326?	3.0L	1087 333
1238	299	615	18:48: 6	-26:45:34	187359	-0: 5	1:26	A2	9.10	.00	297	6	260	177	3.0L	59 000
1239	490	672	18:48:10	-30:57:49	210631?	-0:26	3:26	A0	7.88	.00	316	171	280?	194?	3.0L	646 667
1240	325	608	18:48:31	-31:21:13	187374	-0:18	0:53	B9	9.30	.00	150	25	75?	1712 L	3.0L	57 067
1241	478	653	18:48:36	-30:33:34							87	4	62	91?	3.0L	3 033
1242	72	528	18:48:37	-21:50:33	187369	-0: 5	4:34	A0	8.80	.00	80	4	56	937L	3.0L	3 100
1243	273	615	18:48:57	-26:15:30	NO						331	20?	280?	273?	3.0L	912 333
1244	738	752	18:48:54	-36:28:53	210648	-0:13	0:15	A2	9.36	9.44	286	32	258?	360?	3.0L	120 000
1245	268	677	18:49: 5	-26:10:12	NO						325	139	277?	263?	3.0L	877 667
1246	271	619	18:49:13	-26:14:31	NO						351	1099	276?	685?	3.0L	2285 667
1247	487	662	18:49:13	-30:47:39	210663	-0:17	0: 5	B9	6.63	.00	328	169	64	1861?	3.0L	630 567
1248	479	681	18:49:18	-30:48:54	210663	-0:12	-1:10	B9	6.63	.00	413	32?	276?	28616 H	3.0L	9538 667
1249	440	611	18:49:21	-29:56:36	210656	-0: 9	3:55	A0	9.67	9.40	305	93	274?	577?	3.0L	565 667
1250	601	709	18:49:30	-33:30:59							312	290	276?	3694?	3.0L	15 333
1251	167	590	18:49:36	-26:32:28	187304?	-0:20	0:32	B9	9.30	.00	246	20?	216?	1179	3.0L	333 667
1252	592	621	18:49:46	-31:20:15	187304?	-0:20	0:32	A0	9.30	.00	314	31?	284?	2295?	3.0L	765 000
1253	573	711	18:49:37	-32:54:42	210673?	-0:12	-9:16	A0	10.50	10.03	302	105	276?	989?	3.0L	349 667
1254	201	588	18:50:10	-24:38:23	187098	-0: 9	0:21	B9	8.50	.00	116	84	68	2526?	3.0L	84 200
1255	775	778	18:50:14	-37:21:20	210676	-0:13	-1:10	A0	7.04	.00	292	10?	259?	207 L	3.0L	69 000
1256	186	605	18:50:21	-31:31: 5	187087?	-0: 2	7:39	B9	8.50	.00	239	12	209?	295 L	3.0L	98 333
1257	488	696	18:50:22	-31:41:41	187087?	-0: 3	6:26	A5	9.82	9.78	310	274?	287?	7113H	3.0L	270 333
1258	620	714	18:50:32	-33:49:32	210692	-0: 7	-0:40	A0	9.89	9.16	91	7	66	156?	3.0L	5 200
1259	781	763	18:50:35	-37:20:22	210676?	-0:33	-0:12	A0	7.04	.00	136	77	72	3102	3.0L	103 400
1260	101	566	18:51: 0	-22:37:36	187425	-0: 7	0:25	B9	8.00	.00	129	119	56	5008	3.0L	166 933
1261	206	601	18:51: 6	-24:48:36	187431	-0:13	1:21	B9	7.50	.00	263	179	73	1274?	3.0L	424 700
1262	92	585	18:51:51	-22:36:44	187425	-0: 2	1:17	B9	8.00	.00	228	42	182	1205	3.0L	401 667
1263	473	681	18:51: 9	-30:37:50	210701	-0: 7	0:59	A0	10.00	9.68	103	10	66	278?	3.0L	9 267
1264	499	688	18:51:12	-31:12: 7	210704	-0:14	-0:34	A0	8.54	8.24	219	108	67	7536 H	3.0L	251 200
1265	462	699	18:51:15	-30:33:53	210701	-0: 1	4:55	A0	10.00	9.68	316	768	286?	2471H	3.0L	827 000
1266	490	706	18:51:15	-31:10:35	210704?	-0:12	0:57	A0	8.54	8.30	377	2000?	2807	31510	3.0L	10503 333
1267	521	696	18:51:22	-31:41:32	210700	-0: 7	0: 9	B9	8.29	8.64	127	57	67	2284	3.0L	76 133
1268	196	681	18:51:31	-24:48:20	18731	-0: 6	1:37	B9	7.50	.00	351	71	237?	196?	3.0L	655 333
1269	221	633	18:51:42	-25:20:37	187441	-0: 2	0:46	A0	9.00	.00	270	6	255?	597?	3.0L	19 667
1270	276	633	18:51:56	-26:21:39	187448	-0:14	-0: 1	B9	2.14	0.48	484	6302	93	8481?	3.	

PAGE, CARRUTHERS AND HILL

SGR OVEREXP RA 18:34 DEC -30:24

OBJECT NO.	X	Y	R.A.	DEC.	SAO NO.	A R.A.	A DEC.	SPEC. TYPE	V MAG.	P MAG.	PEAK DEN.	NO. OF POINTS	BG	DENSITY VOLUME	EXP & FILTER	DEN VOL / EXP.
1301	82	615	18:55:30	-22:32:29	187519	0: 6	3:24	A2	5.04	.00	98	75	55	2306 L	30.0C	76.867
1302	195	650	18:55:34	-24:54:24	187517	0: 17	2:19	A0	6.60	.00	239	135	71	10542 L	30.0C	354.733
1303	320	713	18:55:45	-27:55:23	187522?	0: 9	5:43	A3	9.30	.00	294	34	273?	202?	3.0L	67.333
1304	206	658	18:55:55	-25: 9.59	187532	0: 3	2:10	BB	8.40	.00	191	114	77	6343	30.0C	211.433
1305	197	675	18:55:57	-25: 9.55	187532	0: 5	2:14	BB	8.40	.00	312	32	228	1340	3.0L	446.667
1306	257	694	18:55:57	-26:25: 6	187532	0: 11	2:14	BB	8.40	.00	345	975	259?	29201?	3.0L	9733.667
1307	250	693	18:56: 2	-26:16:20	187534	0: 4	-0:39	A0	8.50	.00	279	6	260?	680?	3.0L	22.667
1308	201	679	18:56: 7	-25:15:44	187532	0: 15	-3:36	BB	8.40	.00	246	4	224	807?	3.0L	26.667
1309	237	690	18:56:10	-25:59:60	187542	-0:15	0:55	BB	8.60	.00	291	48	250	11762	3.0L	392.000
1310	301	711	18:56:14	-27:22: 4	187536?	0: 2	-7:16	A0	9.20	.00	302	86	276?	6787H	3.0L	226.000
1311	242	695	18:56:24	-26: 7.22	187545	-0:11	-2:39	A2	9.00	.00	278	24	260?	178?	3.0L	59.333
1312	428	749	18:56:29	-30: 9.31	187545	-0:11	-2:39	A2	9.00	.00	318	745	280?	4073?	3.0L	1357.667
1313	556	758	18:56:34	-32:22: 0	210797?	-0: 3	5:31	A5	9.08	9.05	194	84	74	534H	30.0C	178.267
1314	536	758	18:56:38	-32:22: 0	210798?	-0:16	0:33	A0	8.57	8.71	194	74	74	534H	30.0C	178.267
1315	527	777	18:56:42	-32:21:60	210798?	-0:16	0:33	A0	8.57	8.11	370	27	291	1256	3.0L	418.667
1316	586	794	18:56:47	-24:40:37	210806	0: 6	-0:17	BB	8.67	.00	313	5	286	1167L	3.0L	161.667
1317	168	656	18:56:49	-24:25:35	187551	-0: 2	2:31	BB	8.67	.00	161	112	65	581?	30.0C	193.000
1318	159	675	18:56:56	-24:25:54	187551	0: 5	2:12	BB	8.40	.00	266	36	209	1161	3.0L	387.000
1319	335	730	18:57: 0	-28:10:27	187552	0: 8	-3:12	A2	7.71	.00	305	6	275	167L	3.0L	54.667
1320	320	706	18:57: 2	-27:39:34	187553?	-0:23	3:23	A0	8.20	.00	138	55	80?	2369	30.0C	78.807
1321	255	710	18:57:19	-26:28:58	187553?	-0:23	3:23	A0	8.20	.00	305	119	264?	2171?	3.0L	727.000
1322	750	834	18:58: 6	-37: 8.25	210815/	0:26	-0:30	BB	6.84	.00	400	461	77	58758	30.0C	1958.600
1323	750	834	18:58: 6	-37: 8.25	210816/	0:25	-0:27	BB	6.62	.00	400	461	77	58758	30.0C	1958.600
1324	741	852	18:58: 7	-37: 7.58	210815/	0:26	-0: 3	BB	6.84	.00	443	182	283	1244	3.0L	4748.000
1325	741	852	18:58: 7	-37: 7.58	210816/	0:25	0: 0	BB	6.62	.00	443	182	283	1244	3.0L	4748.000
1326	114	656	18:58: 8	-23:23:45	187566?	0:31	-2:54	A3	9.40	.00	94	6	57	179?	30.0C	5.967
1327	513	771	18:58:16	-31:57:59	187566?	0:31	-2:54	A3	9.40	.00	131	7	74	239?	30.0C	7.967
1328	232	716	18:58:29	-26: 4.48	187583	-0: 7	-0: 9	A0	8.20	.00	260	21	234	473?	3.0L	157.667
1329	734	857	18:58:42	-37: 0:47	210828/	0:25	-3: 2	A0	6.88	.00	349	19	281	682 L	3.0L	227.333
1330	734	857	18:58:42	-37: 0:47	210829/	0:23	-3:55	B2	8.00	.00	349	19	281	682 L	3.0L	227.333
1331	685	862	18:58:43	-35:57:44	210833	0:17	-1:16	A0	8.07	7.80	315	15	280	403 L	3.0L	134.333
1332	693	824	18:58:44	-35:56:57	210833	0:18	-0:29	A0	8.07	7.80	130	56	73?	2356	30.0C	78.533
1333	285	736	18:58:45	-27:13:11	187587	0: 3	4: 4	A0	9.40	.00	289	22	255?	462?	3.0L	154.000
1334	285	736	18:58:45	-27:13:11	187589?	0: 4	-3:10	A3	9.50	.00	289	22	255?	462?	3.0L	154.000
1335	677	863	18:58:45	-35:48:23	210840	0:16	-0:40	A0	9.83	9.48	304	4	282	82?	3.0L	27.333
1336	279	738	18:58:45	-27: 6.36	187589	0:15	3:25	A0	9.50	.00	286	3	263?	381?	3.0L	127.000
1337	417	756	18:58:46	-29:55:49	187590	0:20	-1:24	A0	9.10	.00	375	77	70?	260?	30.0C	80.000
1338	408	775	18:59: 7	-29:10:22	187600	0:18	2:51	A0	2:71	.00	410	1500?	278?	10766 L	3.0L	3588.333
1339	294	740	18:59: 8	-27:13:18	187587?	0:20	3:57	A0	9.40	.00	284	12	282	206?	3.0L	68.667
1340	284	740	18:59: 8	-27:13:18	187589?	0:19	3:17	A3	9.50	.00	284	12	258	206?	3.0L	68.667
1341	125	672	18:59:11	-23:41:54	187595	0: 1	4: 9	A0	8.60	.00	109	78	60	2519?	30.0C	81.967
1342	626	832	18:59:19	-34:42: 5	210852	0: 4	0:13	B9	7.21	.00	389	75	286	1300 L	3.0L	433.333
1343	548	792	18:59:21	-32:48:28	210856?	-0:26	0:41	A0	8.10	7.76	134	62	77	2359	30.0C	78.633
1344	739	845	18:59:23	-36:59:29	187595?	0:10	-0:30	B9	7.21	.00	286	132	74	454?	30.0C	15.133
1345	633	815	18:59:24	-39:42:48	210852	0:10	-0:30	BB	7.21	.00	258	122	75	9925	30.0C	330.833
1346	114	692	18:59:31	-23:40:34	187595?	0:19	5:29	A0	8.60	.00	221	27	190	647	3.0L	215.667
1347	758	873	18:59:32	-37:35:25	210858?	-0:17	-1:49	A5	10.00	10.40	299	107	276	1207H	3.0L	40.000
1348	691	839	18:59:35	-35: 3:38	NO	-	-	-	-	-	310	9	283	229	3.0L	76.333
1349	701	836	18:59:37	-36:10: 2	210853	0:15	0: 9	A0	7.22	.00	127	65	75	2353 L	30.0C	78.433
1350	693	855	18:59:42	-36:11: 6	210853	0:20	-0:55	A0	7.22	.00	320	5	287	141 L	3.0L	47.000
1351	255	738	18:59:43	-26:39: 9	187609	-0:14	-2:56	A0	9.30	.00	284	31	263?	267?	3.0L	89.000
1352	243	738	18:59:55	-26:24:21	187606	0: 9	0:45	A0	9.00	.00	269	14	245?	266?	3.0L	88.667
1353	402	762	18:59:55	-29:39:13	187614?	-0:28	2: 5	A0	8.60	.00	111	22	82	550 L	30.0C	18.333
1354	246	739	18:59:56	-26:28:38	187606	0:15	-3:32	A0	9.00	.00	276	244	200?	2007?	3.0L	66.667
1355	394	781	18:59:57	-29:39:19	187614?	-0:22	1:59	A0	8.60	.00	328	22	283	674	3.0L	224.667
1356	750	876	18:59:57	-37:26:43	210858?	0:14	6:52	A5	10.00	10.40	281	20	273?	30?	3.0L	10.000
1357	284	742	18:59:57	-27:18: 7	187629?	0:2	-6:12	A3	9.00	.00	284	20	264?	264?	3.0L	89.000
1358	539	821	18:59:58	-28:52:26	187629?	0:14	-4:14	A0	9.00	.00	280	20	251	573?	3.0L	15.000
1359	257	749	18:59:58	-26:52:31	210856?	0:30	-3:21	A0	8.10	7.76	312	7	289	1367L	3.0L	46.000
1360	257	749	18:59:58	-26:56:23	187629?	-0:26	0:14	A0	9.40	.00	282	10	257?	247?	3.0L	83.333
1361	477	809	18:59:58	-31:31:52	210876?	0:14	0: 1	BB	8.98	8.59	329	13	251?	351?	3.0L	117.000
1362	253	750	18:59:49	-26:41:53	187629?	0:14	4:44	A0	9.40	.00	279	8	254?	156?	3.0L	51.667
1363	465	789	18:59:52	-31:51:41	210883?	-0:21	1:39	A0	5.53	.00	350	211	73?	231.15	30.0C	770.500
1364	456	807	18:59:53	-31:51:24	210883?	-0:20	-1:56	A0	5.53	.00	414	69	284	4481	3.0L	1493.667
1365	257	752	18:59:55	-26:47:22	187629?	0: 9	-0:45	A0	9.40	.00	276	43	258?	366?	3.0L	122.000
1366	260	757	18:59:55	-26:52:18	187629?	0: 8	-5:41	A0	9.40	.00	281	34	256?	437?	3.0L	115.667
1367	451	810	18:59:57	-31:0:17	210894?	-0:16	1: 9	A0	8.73	8.29	322	8	293	158 L	3.0L	52.667
1368	251	755	18:59:57	-26:41: 6	187629?	0:15	5:31	A0	9.40	.00	282	71	258?	557?	3.0L	185.667
1369	275	767	18:59:5													

NRL REPORT 8173

SOR OVEREXP RA 18:34 DEC -30:24

OBJECT NO.	X	Y	R.A.	DEC.	SAO NO.	Δ R.A.	Δ DEC.	SPEC TYPE	V MAG.	P MAG.	PEAK DEN.	NO. OF POINTS	BG	DENSITY VOLUME	EXP. & FILTER	DEN. VOL / EXP.	
1401	430	835	19: 5:46	-30:40:29	210987	-0:10	1:55	A0	7.89	.00	120	47	77	1447 L	30.0C	48.233	
1402	158	782	19: 5:55	-25: 4:28	1877287	0:12	5: 7	B9	6.76	.00	359	116	201	6835	3.0L	2278.333	
1403	167	765	19: 5:55	-25: 4:28	187728	0:12	5:11	B9	6.76	.00	297	197	61	19325	30.0C	64.167	
1404	489	854	19: 6: 3	-31:58:58	211001	-0:26	1:11	B5	9.52	8.91	189	112	78	6374	30.0C	212.467	
1405	220	804	19: 6:15	-26:23:58	187758?	-0:34	4:34	A0	9.00	.00	253	5	230	101 L	3.0L	33.667	
1406	478	874	19: 6:17	-31:56:50	211001	-0:12	3:18	B5	9.52	8.91	362	200?	280?	7878 H	3.0L	2625.333	
1407	422	861	19: 6:29	-30:45:29	210987?	0:32	-2:45	A0	7.89	.00	302	9	274	216 L	3.0L	140.000	
1408	604	907	19: 6:35	-34:42:41	210998	0:13	3: 9	A0	8.81	7.89	314	117	266	420 L	3.0L	140.000	
1409	247	892	19: 6:46	-26:39:43	187728	0:11	1:41	A0	8.50	.00	261	6	234	1407 L	3.0L	46.667	
1410	615	891	19: 6:44	-34:46:56	210998	0:22	-0:17	A0	8.81	7.89	114	40	77	1093 L	30.0C	36.433	
1411	685	809	19: 6:46	-35:17:16	210996?	0:30	8:30	B9	6.58	.00	297	179	77	16760	30.0C	558.667	
1412	499	886	19: 6:54	-32:47:10	211004?	0:21	7: 2	A5	8.93	8.84	312	5	286	118?	3.0L	39.333	
1413	675	929	19: 6:59	-36:16: 9	210996?	0:43	-1:24	B9	6.58	.00	362	48	304	1519 L	3.0L	506.333	
1414	419	876	19: 7:50	-30:46:56	211019	0: 8	-1:39	A5	10.10	9.76	308	102	283?	1207H	3.0L	40.000	
1415	419	876	19: 7:50	-30:46:56	211026?	-0:20	-3:51	A3	9.71	9.53	308	102	283?	1207H	3.0L	40.000	
1416	193	815	19: 7:54	-25:56:17	187776	0: 2	3:22	B9	8.50	.00	252	23	225	614	3.0L	204.667	
1417	248	832	19: 7:55	-27: 8:11	187792?	-0:31	1:25	A0	8.60	.00	281	26	251	438?	3.0L	146.000	
1418	370	896	19: 8: 4	-29:31:45	187786	-0: 5	3: 3	B9	6.25	.00	378	218	767	28544	30.0C	951.467	
1419	199	800	19: 8: 7	-25:54:27	187776	0:15	5:12	B9	8.50	.00	119	85	67	2951	30.0C	98.367	
1420	234	830	19: 8: 8	-26:50:58	NO							267	25	243?	445	3.0L	148.333
1421	361	866	19: 8:14	-29:33:29	187786	0: 5	1:44	B9	6.25	.00	370	556	277?	9393	3.0L	31.31.000	
1422	273	896	19: 8:32	-27:42:25	NO							293	9	259	255	3.0L	85.000
1423	242	838	19: 8:35	-27: 2:47	187792?	0:10	6:49	A0	8.60	.00	272	9	247	1917L	3.0L	63.667	
1424	554	921	19: 9: 1	-33:46:56	211046?	-0:27	8:54	A0	7.30	.00	317	4	298	867L	3.0L	28.667	
1425	267	851	19: 9: 7	-27:36:41	NO							287	4	265	86	3.0L	28.667
1426	667	935	19: 9:38	-36: 4:57	211039	0:39	-3:24	B5	10.20	9.62	138	93	77?	378?	30.0C	124.333	
1427	660	954	19: 9:0	-36: 7:11	211043?	0:24	7:28	A2	8.95	8.87	325	6	300	120 L	3.0L	10.000	
1428	371	865	19: 9:0	-29:40:47	187833	-0:17	2:35	B9	8.10	.00	143	75	44	444	30.0C	134.800	
1429	568	911	19: 9:0	-33:54:42	211045?	0:31	3:10	A0	7.66	.00	375	214	77?	27189 H	30.0C	906.300	
1430	566	911	19: 9:0	-33:55:49	211046?	0:13	0:10	A0	7.30	.00	375	214	77?	27189 H	30.0C	906.300	
1431	558	910	19: 9:47	-33:54:26	211046?	0:20	1:19	A0	7.86	.00	419	105	303	5940 H	3.0L	1980.000	
1432	558	910	19: 9:47	-33:54:24	211046?	0:20	1:19	A0	7.30	.00	419	105	303	5940 H	3.0L	1980.000	
1433	431	891	19: 9:48	-30:58:31	211054?	-0:13	2:15	A0	9.07	8.71	110	25	75	720	30.0C	24.000	
1434	417	891	19: 9:48	-30:58:31	211057?	-0:14	2: 7	A0	8.80	9.01	110	25	75	720	30.0C	24.000	
1435	255	859	19:10: 4	-27:27:0	187830	0: 7	3:59	B9	8.10	.00	307	24	272	469 L	3.0L	156.333	
1436	359	866	19:10: 5	-29:39:23	187830	0: 7	3:59	B9	8.10	.00	307	5	282	1167L	3.0L	38.667	
1437	456	910	19:10: 8	-31:44:22	211062?	-0:25	6: 9	A0	9.39	8.97	308	26	276	210 L	3.0L	70.000	
1438	273	868	19:10:29	-27:51:30	187807	0:16	6:51	A5	9.20	.00	284	55	273?	429H	3.0L	143.000	
1439	422	906	19:10:30	-31: 3: 4	211052?	0:29	-2:18	A0	9.07	8.71	310	4	285	892L	3.0L	29.667	
1440	422	906	19:10:30	-31: 3: 4	211057?	0:28	-2:25	A0	8.80	9.01	310	4	285	892L	3.0L	29.667	
1441	422	906	19:10:30	-31: 3: 4	211069?	-0:15	-3:48	A0	10.00	9.51	310	4	285	89?	3.0L	29.667	
1442	176	823	19:10:37	-25:36:12	187891	0:20	0:59	A0	9.10	.00	100	4	65	1267L	30.0C	4.200	
1443	251	868	19:10:58	-27:24:52	187861?	-0:25	3: 6	A0	8.80	.00	281	36	253?	775?	3.0L	258.333	
1444	325	871	19:11:12	-28:49: 5	187861	-0:16	2:53	B8	9.20	.00	124	60	75?	2203	30.0C	73.433	
1445	313	889	19:11:19	-28:46:51	187861?	-0: 8	5: 8	B8	9.20	.00	307	8	276	210 L	3.0L	70.000	
1446	257	855	19:11:24	-27:22:27	187861?	0: 1	5:31	A0	8.50	.00	113	61	73?	202?	30.0C	67.467	
1447	247	873	19:11:29	-27:22:44	187861?	0: 6	5:14	A0	8.50	.00	291	89	260?	1061?	3.0L	353.667	
1448	432	902	19:11:43	-31: 8:16	211095?	0:28	2: 1	A0	8.94	B.47	109	29	157?	1070	30.0C	49.000	
1449	250	877	19:11:47	-27:27:34	187861?	0:24	0:25	A0	8.50	.00	292	51	257?	1028?	3.0L	24.667	
1450	255	879	19:11:51	-27:34:12	187861?	0:28	-6:14	A0	8.50	.00	292	5	269	1042L	3.0L	34.667	
1451	267	888	19:12:23	-27:52:36	187889?	-0:10	4: 4	A0	9.00	.00	280	30	270?	766?	3.0L	255.333	
1452	605	952	19:12:32	-34:55: 9	NO							233	150	80?	11364	30.0C	378.800
1453	277	876	19:12:42	-27:54:48	187884?	0:13	2:52	A0	9.00	.00	104	7	75?	1857L	30.0C	6.167	
1454	527	972	19:12:46	-34:57:58	NO							343	38	297	1216	3.0L	405.333
1455	277	896	19:12:49	-28: 6:46	187891	-0: 7	-4:34	A2	9.20	.00	301	14	275	343?	3.0L	114.333	
1456	545	943	19:12:58	-33:38:18	211100?	0:27	-1:10	A0	7.38	.00	347	227	80?	2624?	30.0C	874.900	
1457	545	943	19:12:58	-33:38:18	211101?	0:24	-1:50	B8	9.03	B.38	347	227	80?	2624?	30.0C	874.900	
1458	535	962	19:13: 3	-33:38:12	211100?	0:32	-1: 5	A0	7.38	.00	402	85	302	4980 H	3.0L	1660.000	
1459	535	962	19:13: 3	-33:38:12	211101?	0:29	1:55	B8	9.03	B.38	402	85	302	4980 H	3.0L	1660.000	
1460	510	961	19:13:23	-33: 8:29	211113?	0:14	0:42	A0	8.86	B.55	319	10	292	234?	3.0L	78.000	
1461	586	957	19:13:28	-34:33:26	211110?	0:27	-1:21	A0	8.98	B.58	126	62	85	1855	30.0C	61.833	
1462	489	961	19:13:52	-32:36:36	211132?	-0:25	-1:14	A0	8.84	B.63	318	13	284	356?	3.0L	118.667	
1463	299	918	19:14:13	-28:41:58	187892?	-0: 7	-7:59	A5	8.90	.00	303	7	274	169?	3.0L	56.333	
1464	402	950	19:14:53	-30:55:52	211155?	-0:29	-0:40	A0	9.20	8.81	305	4	282	877L	3.0L	29.000	
1465	509	983	19:15:22	-33:15:26	211148?	0:16	-0:47	B8	7.52	.00	396	111	274	6756 H	3.0L	2252.000	
1466	518	966	19:15:32	-33:13:36	211148?	0:25	1: 2	B8	7.52	.00	362	224	88	24884	30.0C	829.467	
1467	396	957	19:15:38	-30:51:44	211155?	0:16	3:28	A0	9.20	8.81	317	61	285	1552	3.0L	517.333	
1468	459	979	19:16:26	-32:15:51	211182?	-0:30	5:14	A0	9.74	9.43	321	14	277	393?	3.0L	151.000	

BEST AVAILABLE COPY