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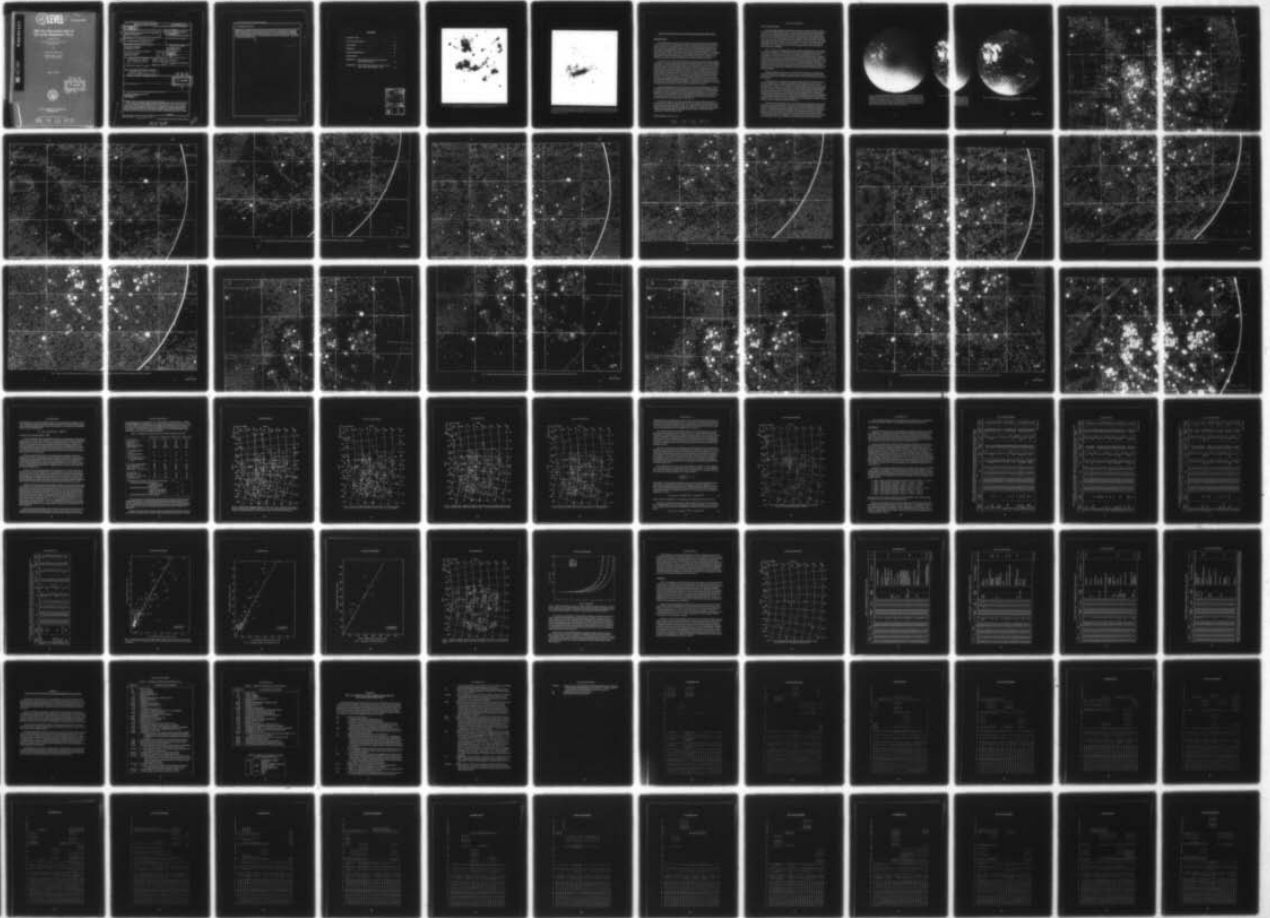
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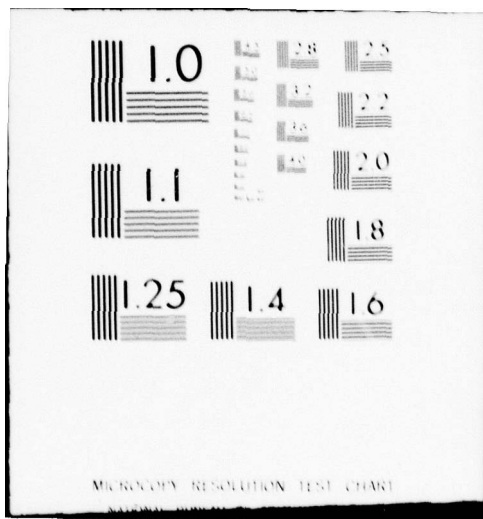
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NRL Report 8206

# S201 Far-Ultraviolet Atlas of the Large Magellanic Cloud

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*NASA Johnson Space Flight Center  
Houston, Texas*

and

GEORGE R. CARRUTHERS

*Upper Air Physics Branch  
Space Science Division*

July 12, 1978

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) <u>Far-ultraviolet electrographic images, covering the wavelength ranges 1050 to 1600 Å and 1230 to 1600 Å, were obtained of the Large Magellanic Cloud during the Apollo 16 mission with the NRL Far-Ultraviolet Camera/Spectrograph (Experiment S201). The images have about 4-arc-minute resolution and reveal early-type star associations, individual early-type LMC stars, and galactic foreground stars. The images were analyzed in the manner described in the "S201 Catalog of Far-Ultraviolet Objects" (NRL Report 8173), and isodensity contour maps of the LMC were generated from the far-UV images.</u>		

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20. ABSTRACT (Continued)

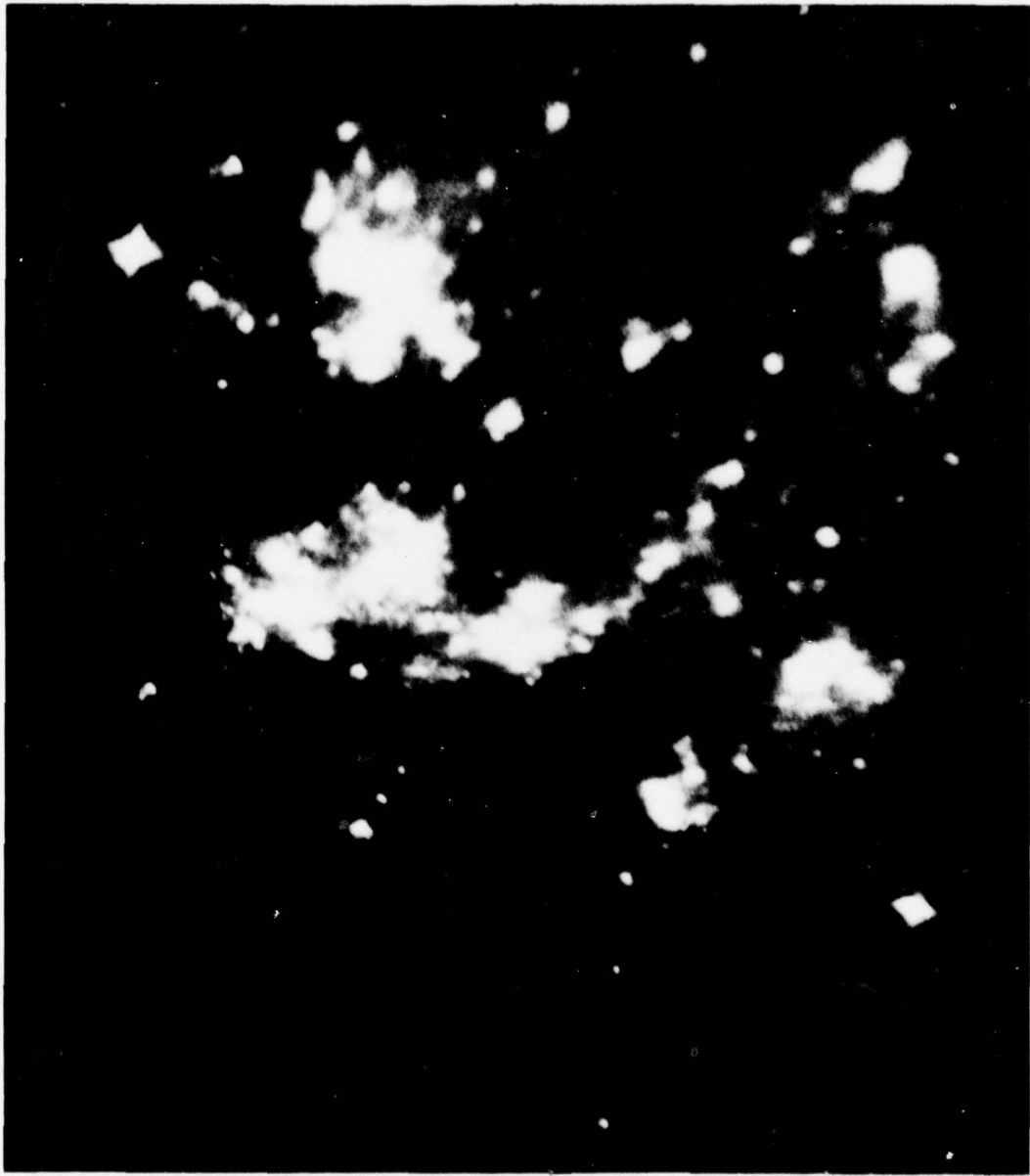
Individual far-UV brightnesses were determined, and corrected for interstellar extinction, for 122 Lucke-Hodge associations and 157 Henize nebulas. Over 130 other objects, of which 20 were identified as galactic foreground stars, were also measured. The ratio of UV flux to hydrogen Balmer-alpha ( $H\alpha$ ) intensity, denoted "hydrogen index," was determined for 90 of the Henize nebulas. The Atlas listing, which lists the individual far-UV flux measurements and hydrogen index determinations, is also available on a seven-track magnetic tape.

(H-alpha)

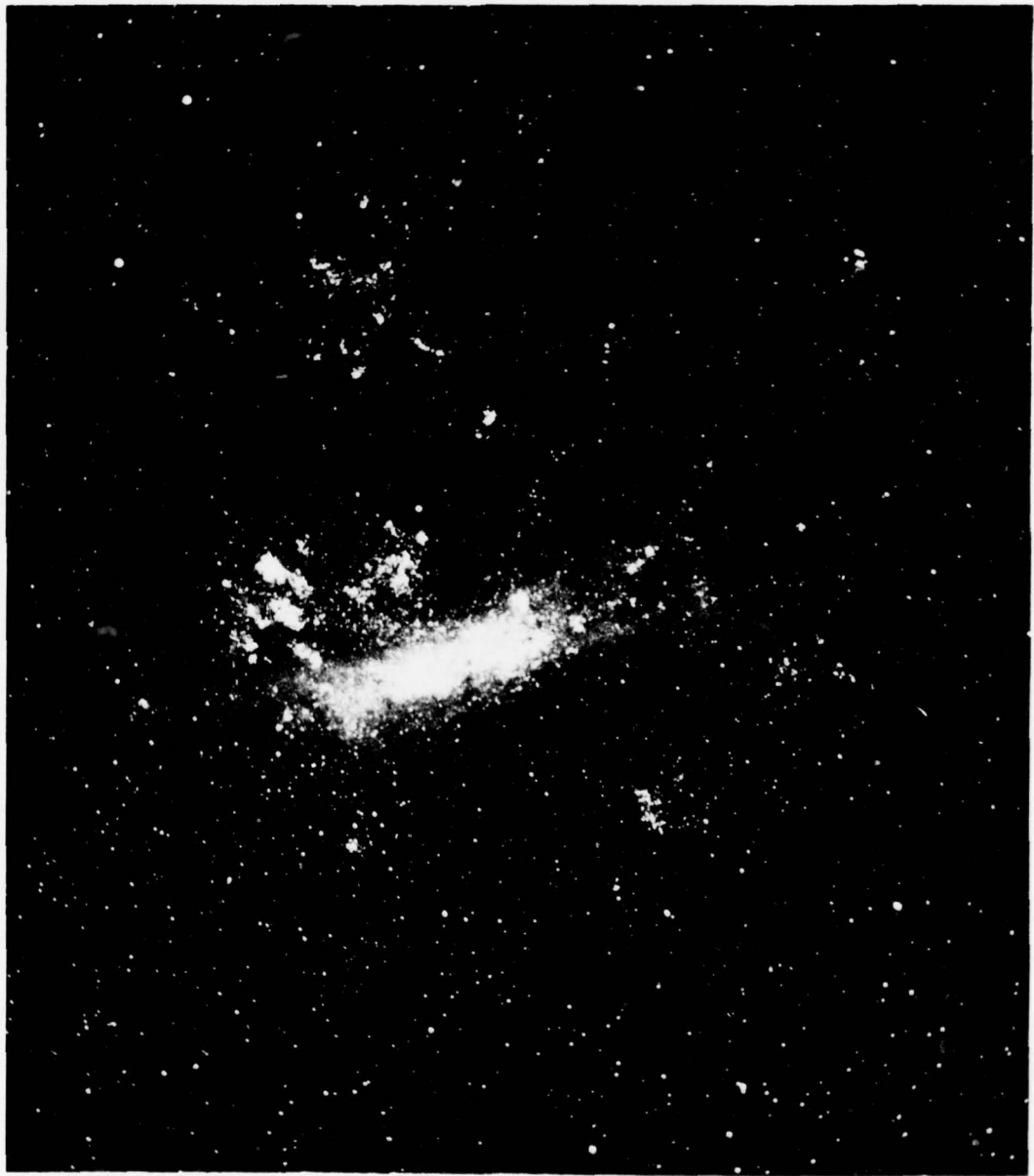
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Far-UV (1250 to 1600 Å) electrograph of the Large Magellanic Cloud (LMC) obtained from the lunar surface. The scale is 2.8 arc min/mm, north is up, and east is to the left.



Ground-based photograph of the LMC in visible light (courtesy of Lick Observatory). The view is the same as that of the far-UV electrograph on the facing page. The bright east-west bar in visible light is inconspicuous in the far UV, whereas the hot-star groupings in the outer regions of the LMC are relatively much more conspicuous in the far UV.

## S201 FAR-ULTRAVIOLET ATLAS OF THE LARGE MAGELLANIC CLOUD

### INTRODUCTION

The Naval Research Laboratory's Far-Ultraviolet Camera/Spectrograph (Experiment S201) was operated on the lunar surface during the Apollo 16 mission 21-23 April 1972. A primary objective of this experiment was to obtain far-ultraviolet images and spectra of stars, nebulas, and extragalactic objects under the low-sky-background conditions of the lunar surface. Preliminary results of S201 were given by Carruthers and Page [1]; other papers have given details of the instrument [2], imagery and spectrography of the terrestrial upper atmosphere and geocorona [3-5], and imagery of nebulosities in Cygnus [6]. The companion to this report, *S201 Catalog of Far-Ultraviolet Objects* [7], provides a compendium of photometry of stars and starlike objects in all ten S201 fields of view.

One field of view observed during the Apollo 16 mission included the Large Magellanic Cloud (LMC). A sequence of exposures beginning 22 April 1972 at 17:18.5 UT and ending at 23.20 the same day included direct imagery in the 1050-to-1600-Å and 1250-to-1600-Å wavelength ranges, with exposure times up to 10 min and 30 min respectively, and spectrographic exposures in the 500-to-1600-Å and 1050-to-1600-Å wavelength ranges, with exposure times up to 30 min and 200 min respectively. The spectrographic data on the LMC are described by Carruthers and Page [8], and the LMC imagery and spectra are briefly discussed by Page and Carruthers [9]. The present report will present the final photometric reduction of the S201 imagery of the LMC. The data are presented in the form of charts representing the ultraviolet brightness vs position over the LMC (isodensity contour plots) and a tabulated listing giving peak and integrated UV brightnesses for individual objects or groupings in the LMC. The data listing (available on magnetic tape, as described in Appendix A) is presented in Appendix B in order to have it at the end of the report.

Ultraviolet observations of the LMC have also been made by other observers. These include far-UV photometry of selected areas made with the Astronomical Netherlands Satellite (ANS), from which it was concluded that the interstellar extinction curve in the LMC is anomalous [10-12] in comparison to that found generally applicable in our own galaxy [13]. Far-UV spectrophotometry of the entire LMC was obtained with the Apollo 17 Far-UV Spectrometer [14]. Far-UV imagery of the LMC has been obtained from Skylab by Henize [15] and from a sounding rocket by Smith [16].

Ground-based studies of the LMC are extremely numerous. Particularly worthy of mention here, for comparison with the S201 far-UV measurements, are the Balmer- $\alpha$  measurements of Henize and coworkers [17,18], the catalogs of OB associations of Lucke and Hodge [19,20], and the LMC atlas of Hodge and Wright [21]. Among publications dealing with the spectral classifications of individual early-type stars in the LMC are those of Ardeberg et al. [22] and Walborn [23].

## DATA AND ANALYSIS

The direct-imagery frames from the S201 instrument covered  $20^\circ$ -diameter circular fields of view and had limiting resolution of about 2 arc-minutes at field center, degrading to about 4 arc-minutes near the edges. The LMC was near the edge of the field in those frames in which it appeared; hence the resolution was typically 3 to 4 arc-minutes. Exposures of 1, 3, and 10 min were taken with a LiF corrector on the electrographic Schmidt camera (ILi exposures, wavelength range 1050 to 1600 Å, frames A124, A125, and A126), and exposure times of 3, 10, and 30 min were taken with a CaF<sub>2</sub> corrector (ICa exposures, wavelength range 1250 to 1600 Å, frames A128, A129, and A130). The frontispiece on pages iv and v is a comparison of the 10-min ICa exposure (frame A129) with a ground-based visible-light photograph.

The ILi exposures on all target fields include a diffuse background due to interplanetary Lyman- $\alpha$  emission [4]. This background produced a rather high fog level on the 3-min ILi exposures and made nearly all 10-min ILi exposures (including that of the LMC) unusable due to saturation of the emulsion. The LMC camera field was near the southern lunar horizon as seen from the Apollo 16 landing site, and the LMC exposures exhibited an additional diffuse background whose intensity was related to angle above the horizon. This background was particularly noticeable on the ILi exposures but was also detectable on the longer ICa exposures. Its source is not yet certain, but a likely possibility is scattering of sunlight by dust electrostatically suspended above the lunar surface. Figures 1a and 1b compare the full-frame images of the LMC field in the 1050-to-1600-Å and 1250-to-1600-Å wavelength ranges.

By happy chance the LMC is close to the lunar south celestial pole. Therefore there was no noticeable image smearing due to lunar rotation, even in the longest (30-min ICa) exposure. This allowed considerably fainter objects to be detected than in most of the other S201 imagery.

The data frames were analyzed by scanning the flight films with a Boller and Chivens PDS microdensitometer. A raster scan of 1024 by 1024 elements at 33- $\mu$ m (1.19-arc-minute) intervals was used, and the quantity recorded on magnetic tape was 100 times optical density  $d$ :  $D = 100 \log_{10} I_0/I$ . 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 1.5 $d$ , and the density-exposure relationship can be usefully determined to densities above 3.0 $d$ . Preflight laboratory calibrations of the instrument's spectral response and absolute sensitivity were used to determine the ultraviolet brightnesses of observed diffuse and point sources. Observations of the hydrogen geocoronal and interplanetary Lyman- $\alpha$  emissions [4] are consistent with other measurements of these emissions and hence tend to confirm the preflight calibrations.

The PDS tapes were analyzed on the Univac 1108 and 1110 computers at the Johnson Space Center, to produce isodensity contour plots. Details of the analysis procedures and computer programs are given in the companion report, "S201 Catalog of Far-Ultraviolet Objects" [7]. Figures 2 through 9 are contour plots for the 10-, 3-, and 30-min ICa frames and the 1- and 3-min ILi frames. The densities were typically smoothed by a weighted averaging process between the particular picture element and the surrounding 12 pixels. Also, the density values were "linearized" by correcting for the nonlinearity of the density-exposure relation (but not for the lag in the PDS microdensitometer response at high

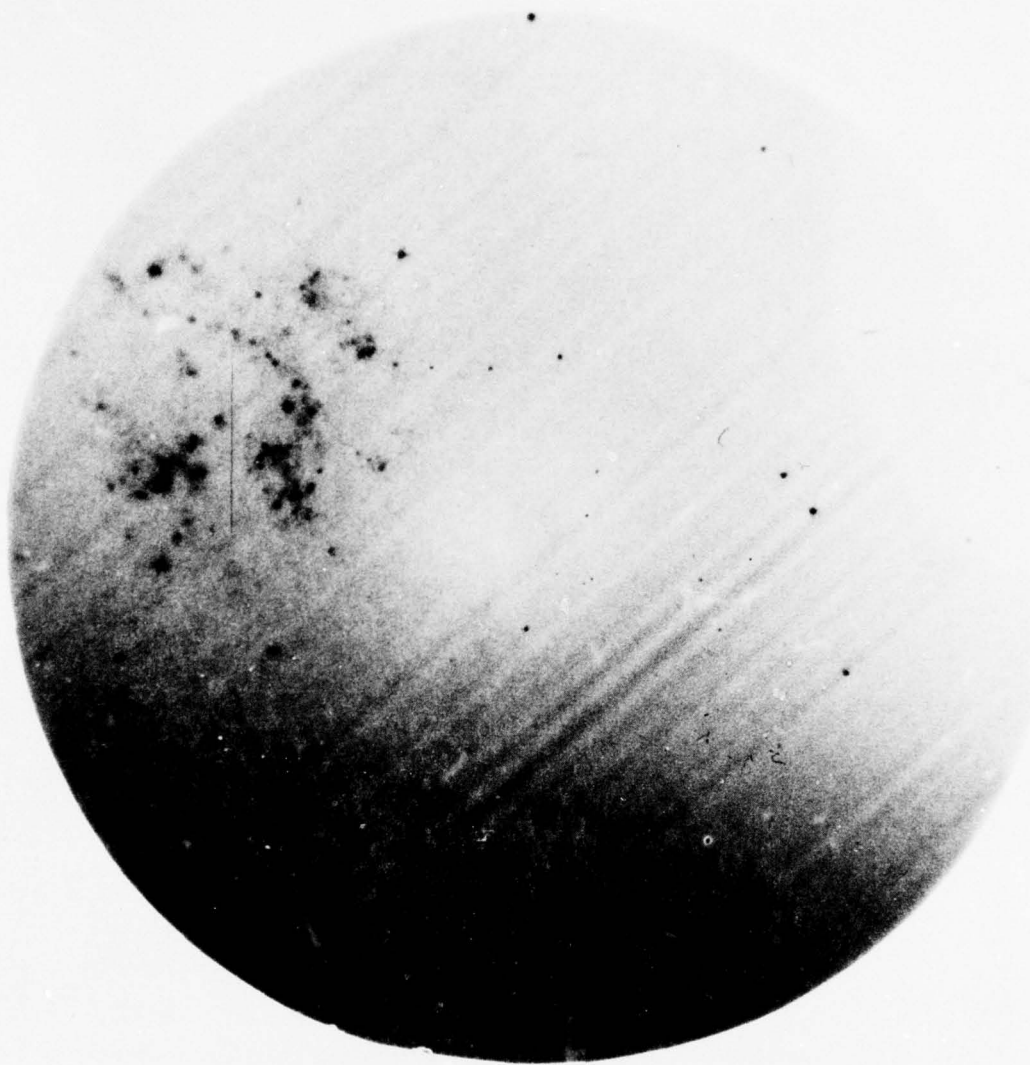


Fig. 1a — Full-field S201 imagery frame A125 including the Large Magellanic Cloud. The wavelength range is 1050 to 1600 Å, and the exposure time is 3 min. This frame is to be compared with the frame in Fig. 1b. The diagonal streaks and irregular markings in each frame are of instrumental origin, as is the lenticular area of lower background in the upper right and the region of slightly lower background near frame center. The background increases toward the bottom of each frame, which is about 4 degrees above the southern lunar horizon as seen from the Apollo 16 landing site.

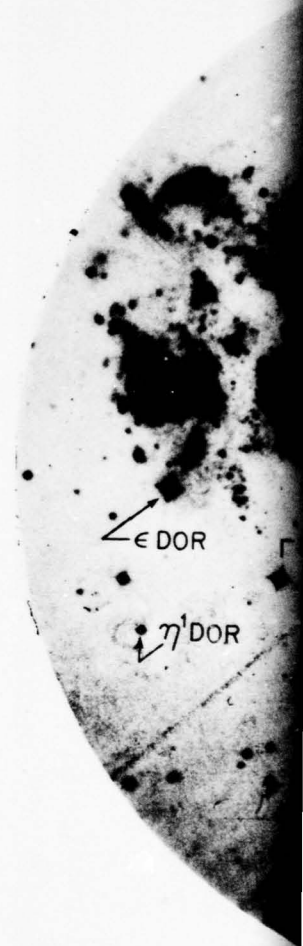


Fig. 1b — Full-field

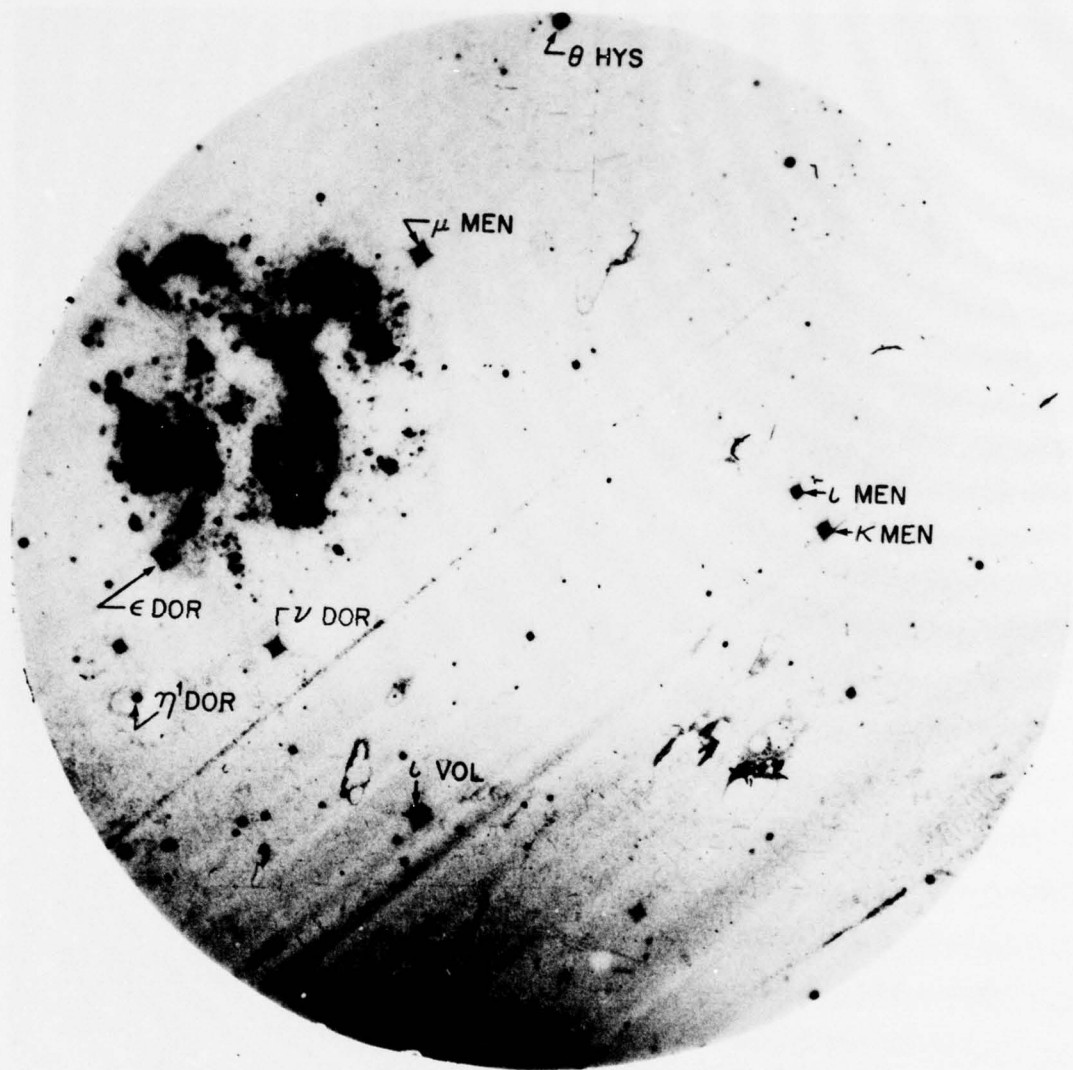
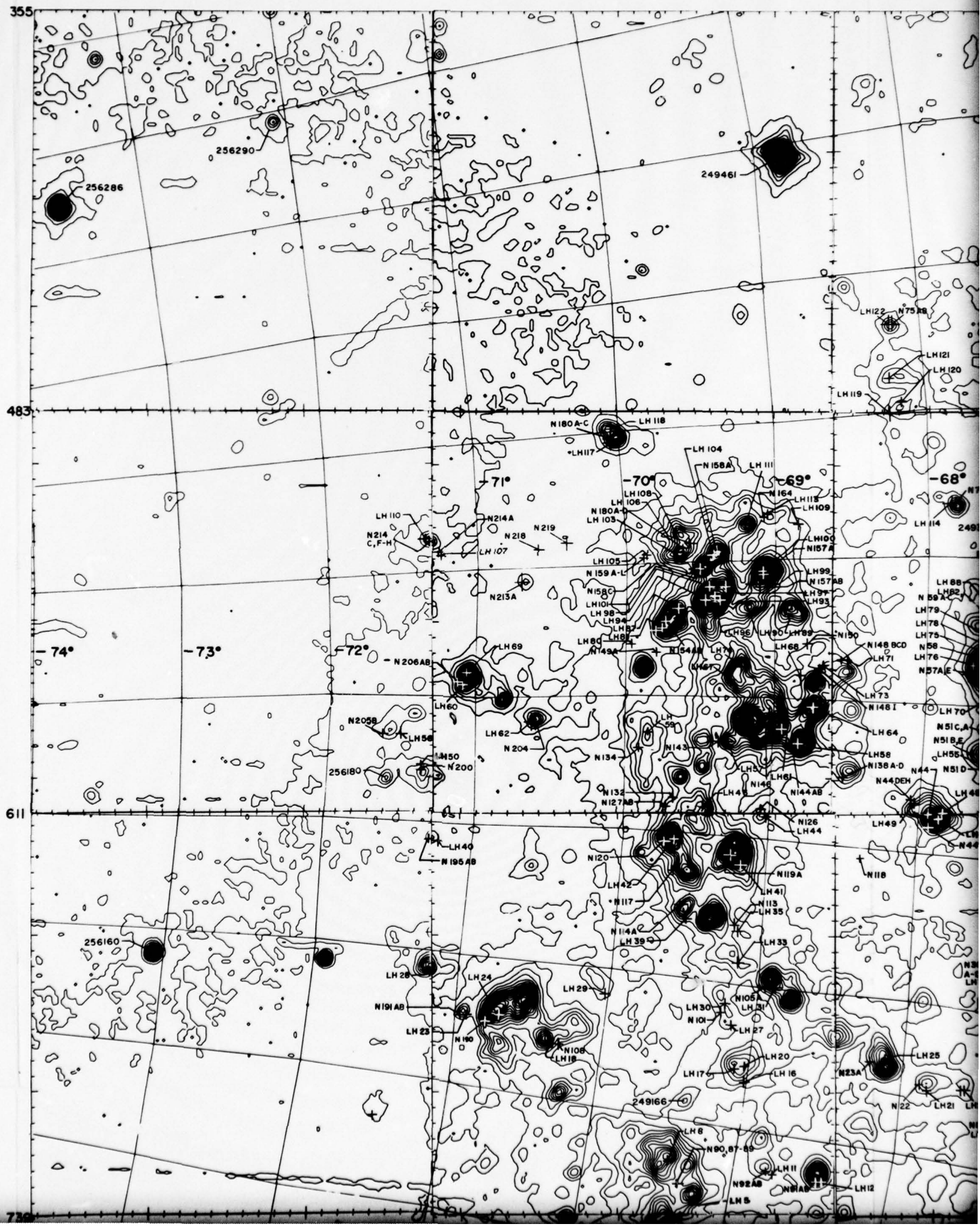


Fig. 1b — Full-field S201 imagery frame A130. The wavelength range is 1250 to 1600 Å, and the exposure time is 30 min.

Magellanic Cloud. The  
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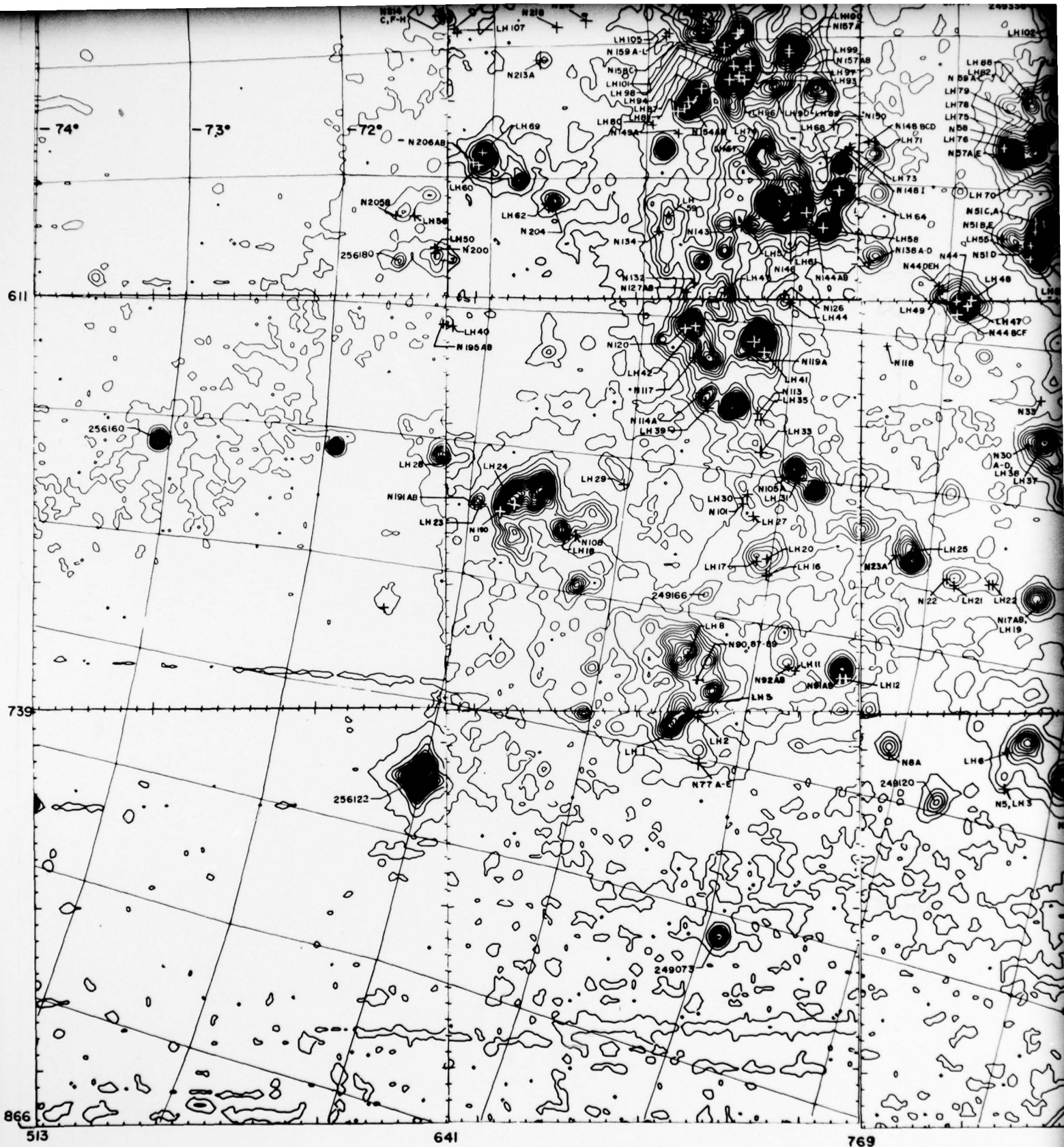
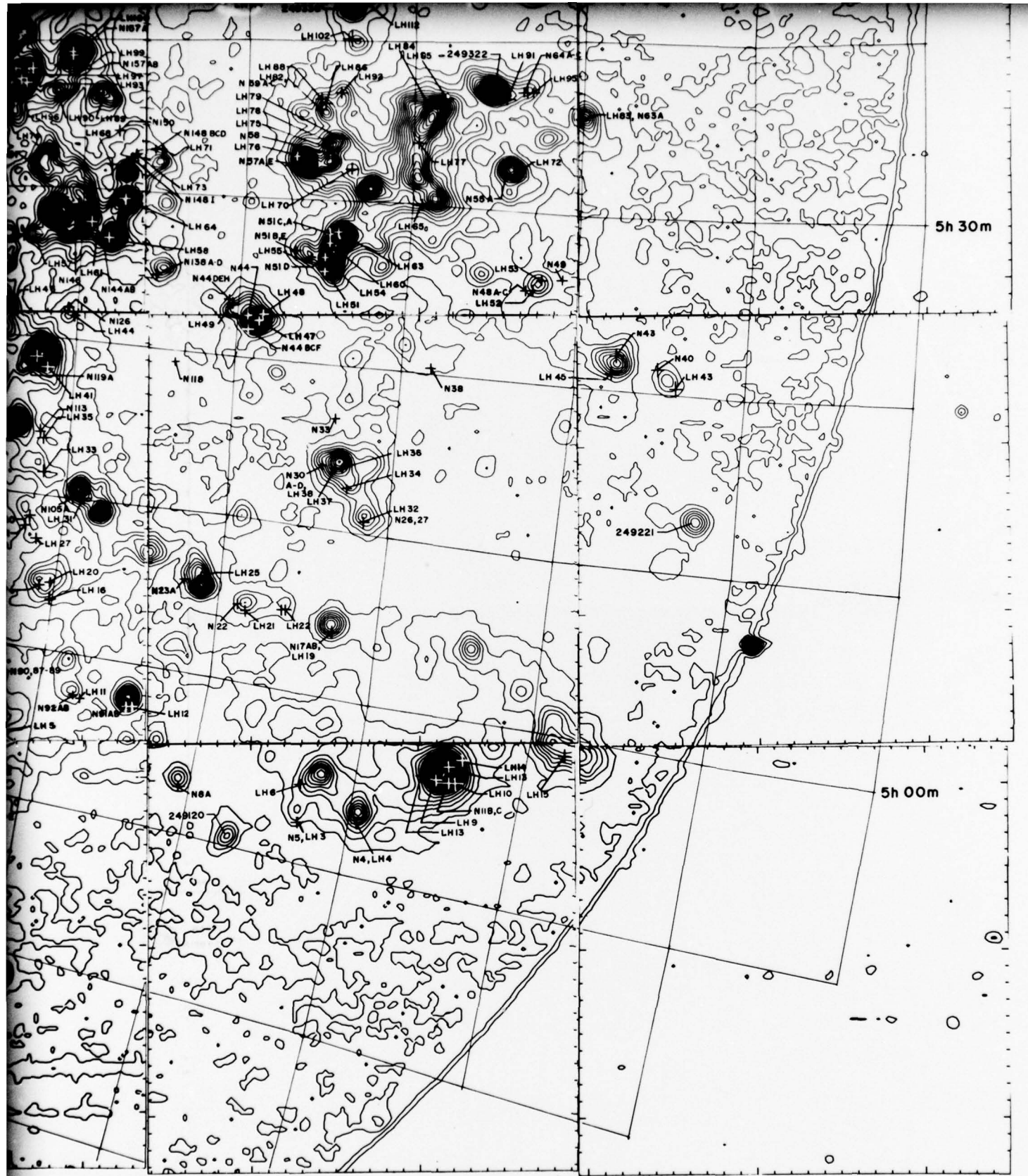


Fig. 2 — Density contours at intervals of 0.10D on frame A129, 10-min exposure, Ica (1250 to 1600 Å). The scan coordinates are, right, x = 513 to 1024 rasters, and, from top to bottom, y = 355 to 866 rasters; intervals on the margins are 5 rasters each. On the sky, the scan covers 10 minutes. The scale on this reproduction is 1.75 arc-min/mm. An approximate  $\alpha\delta$  grid is superimposed, and positions are also shown. Foreground stars are identified by SAO Catalog numbers.



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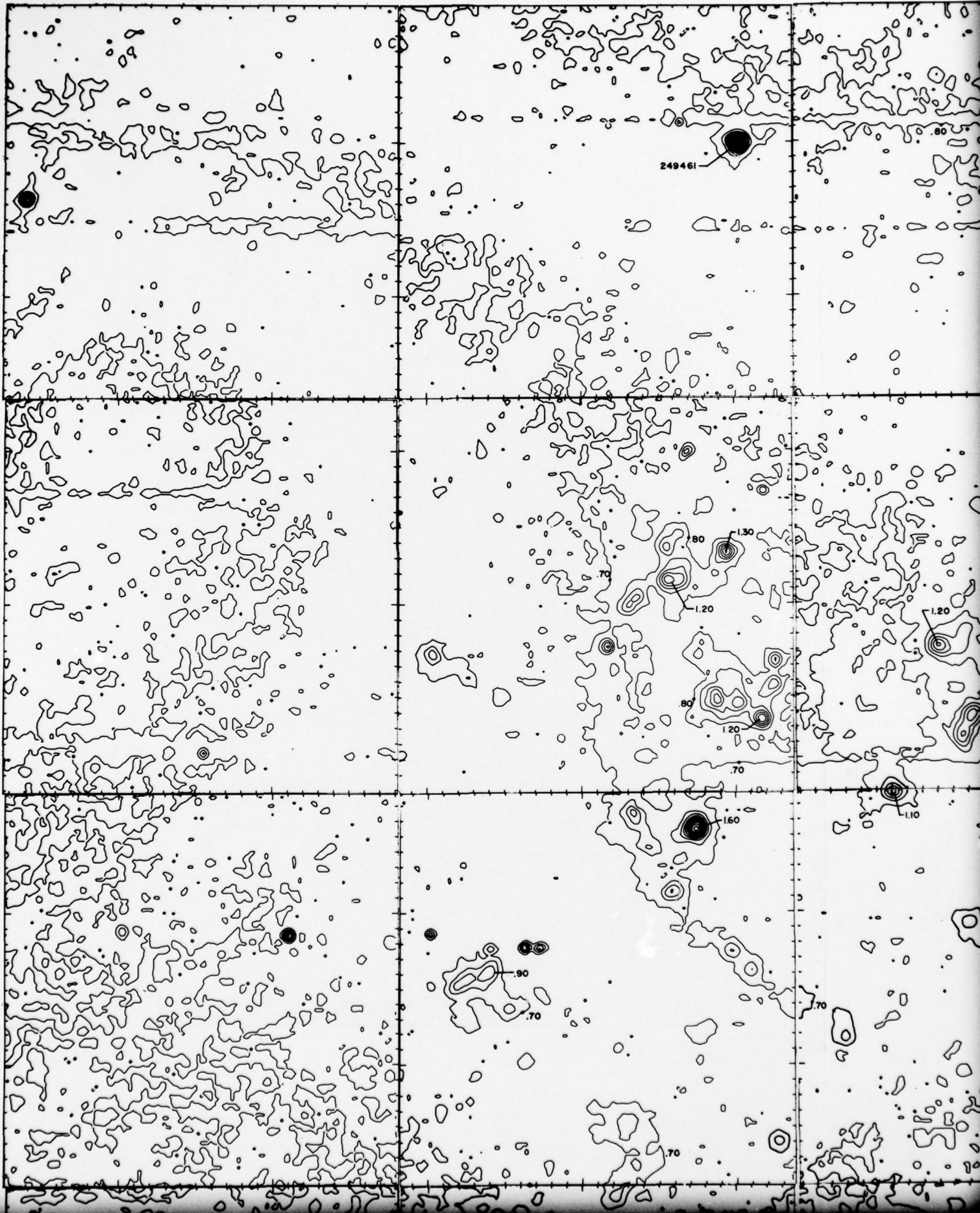
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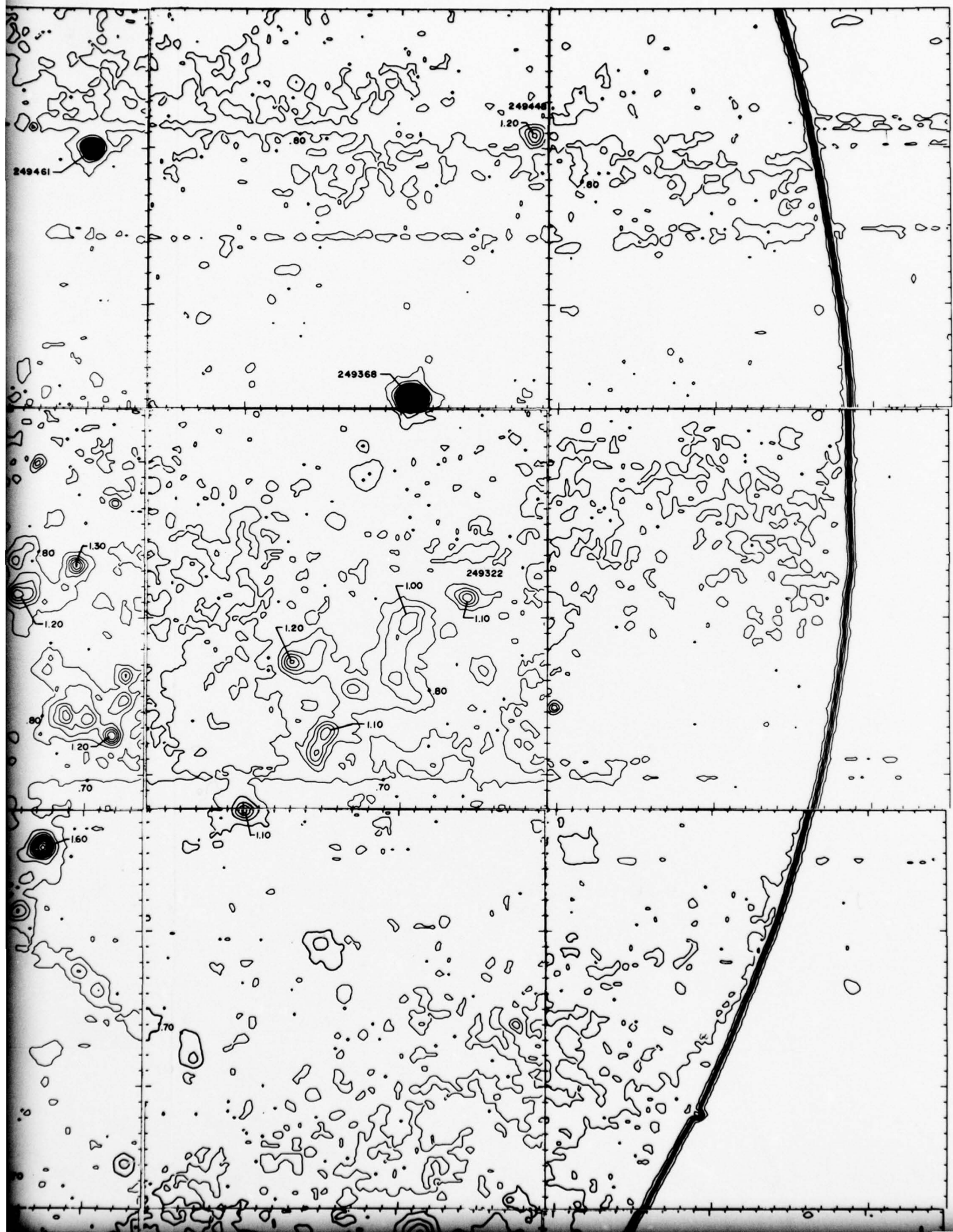
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exposure, ICa (1250 to 1600 Å). The scan coordinates in this figure (and in Figs. 3 through 9) are, from left to right; intervals on the margins are 5 rasters each. One raster (33 μm on the film frame) corresponds to 1.19 arc-min. An approximate αδ grid is superimposed, and positions of LH associations and Henize nebulas (N numbers) are

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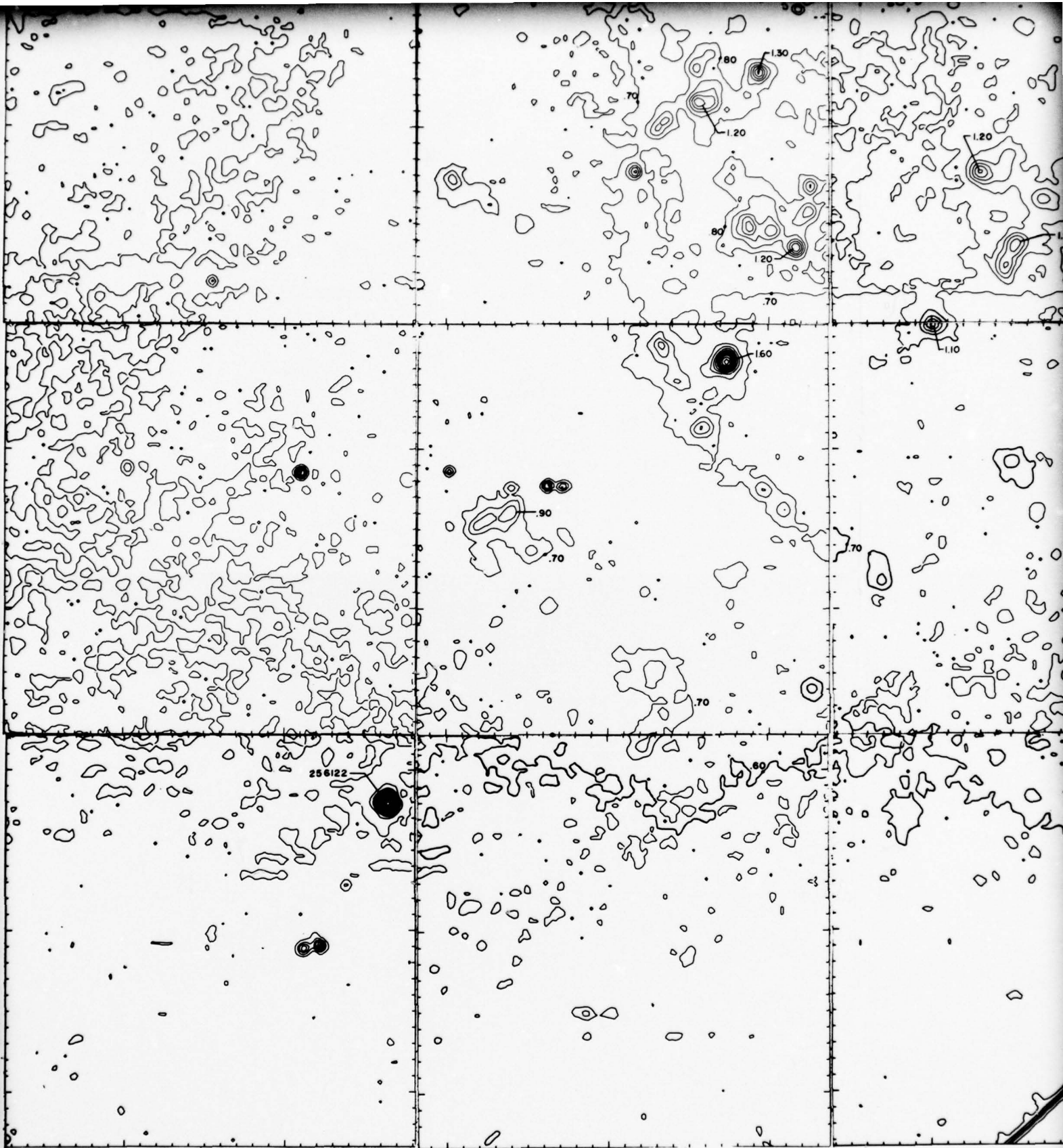
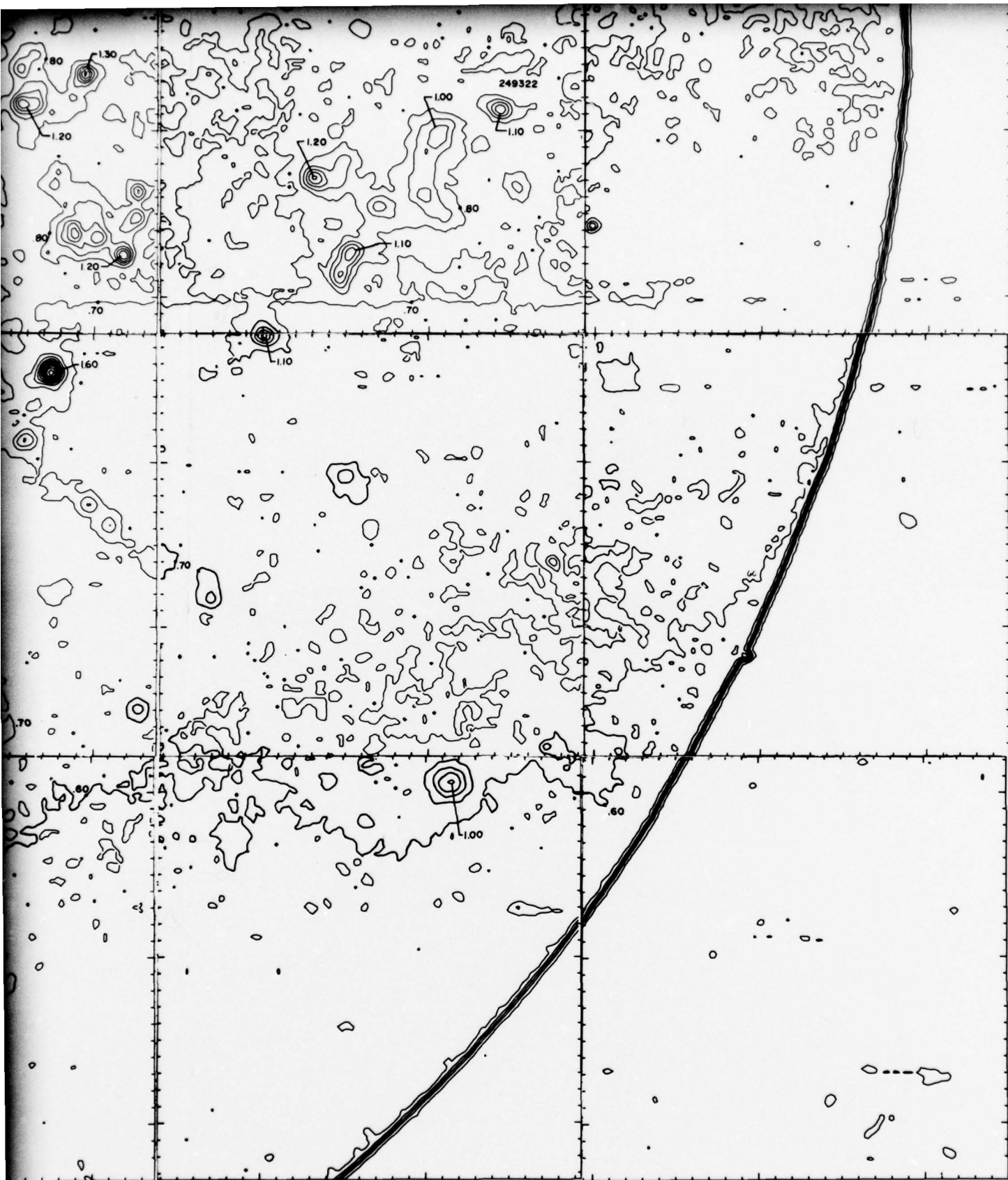


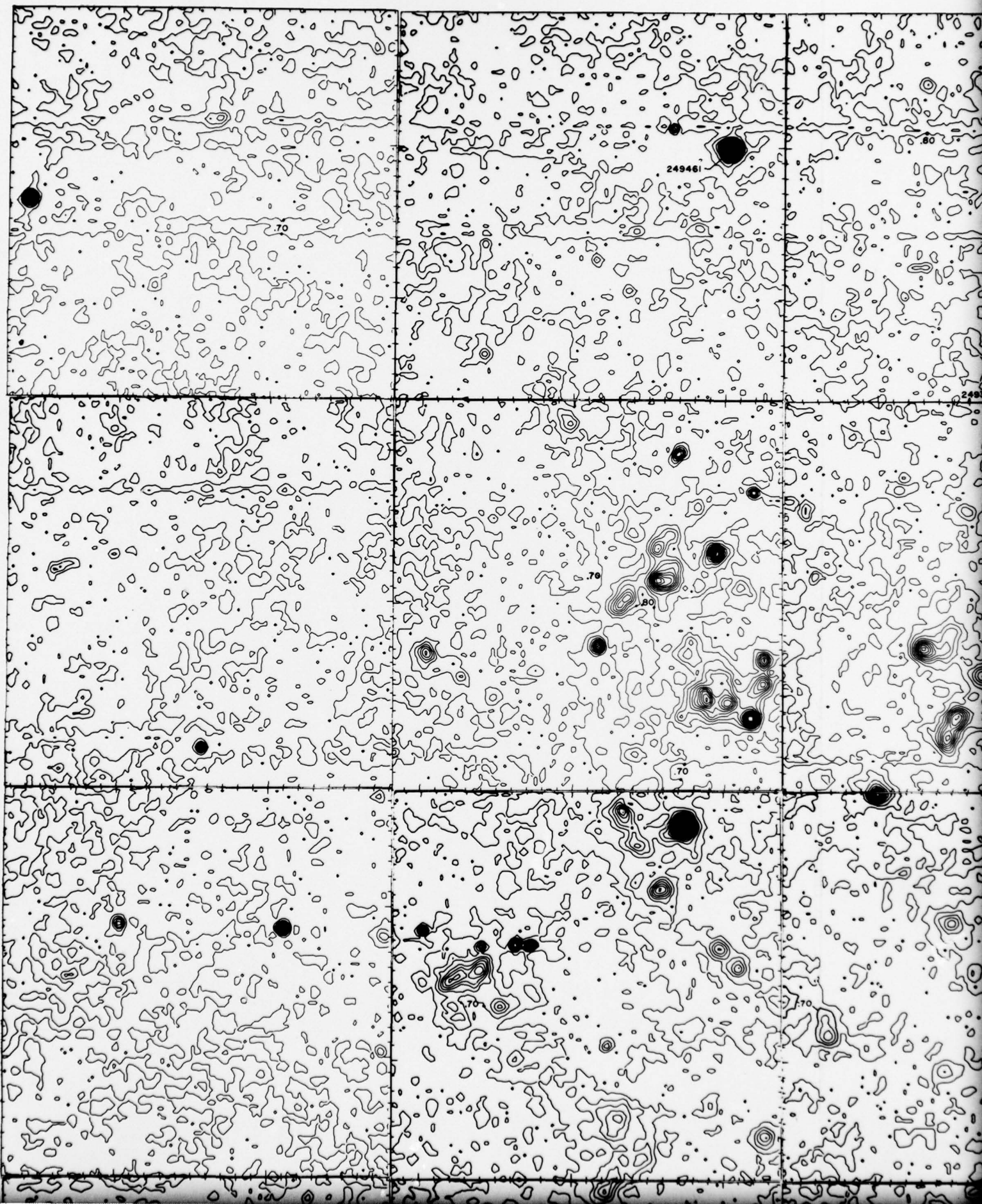
Fig. 3 — Density contours at intervals of 0.10D on frame A124, 1-min exposure, ILi (1

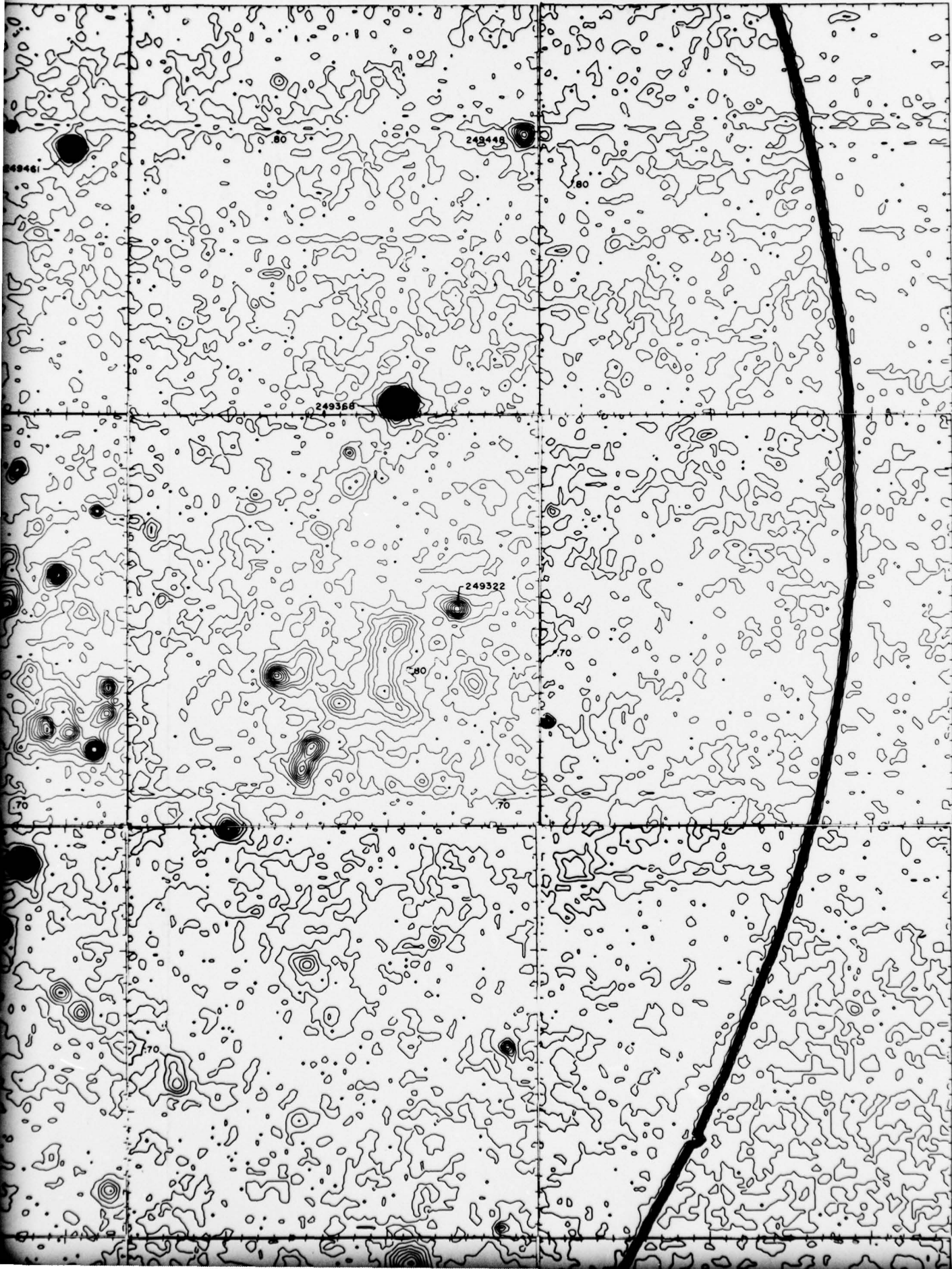
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Intervals of 0.10D on frame A124, 1-min exposure, ILi (1050 to 1600 Å)

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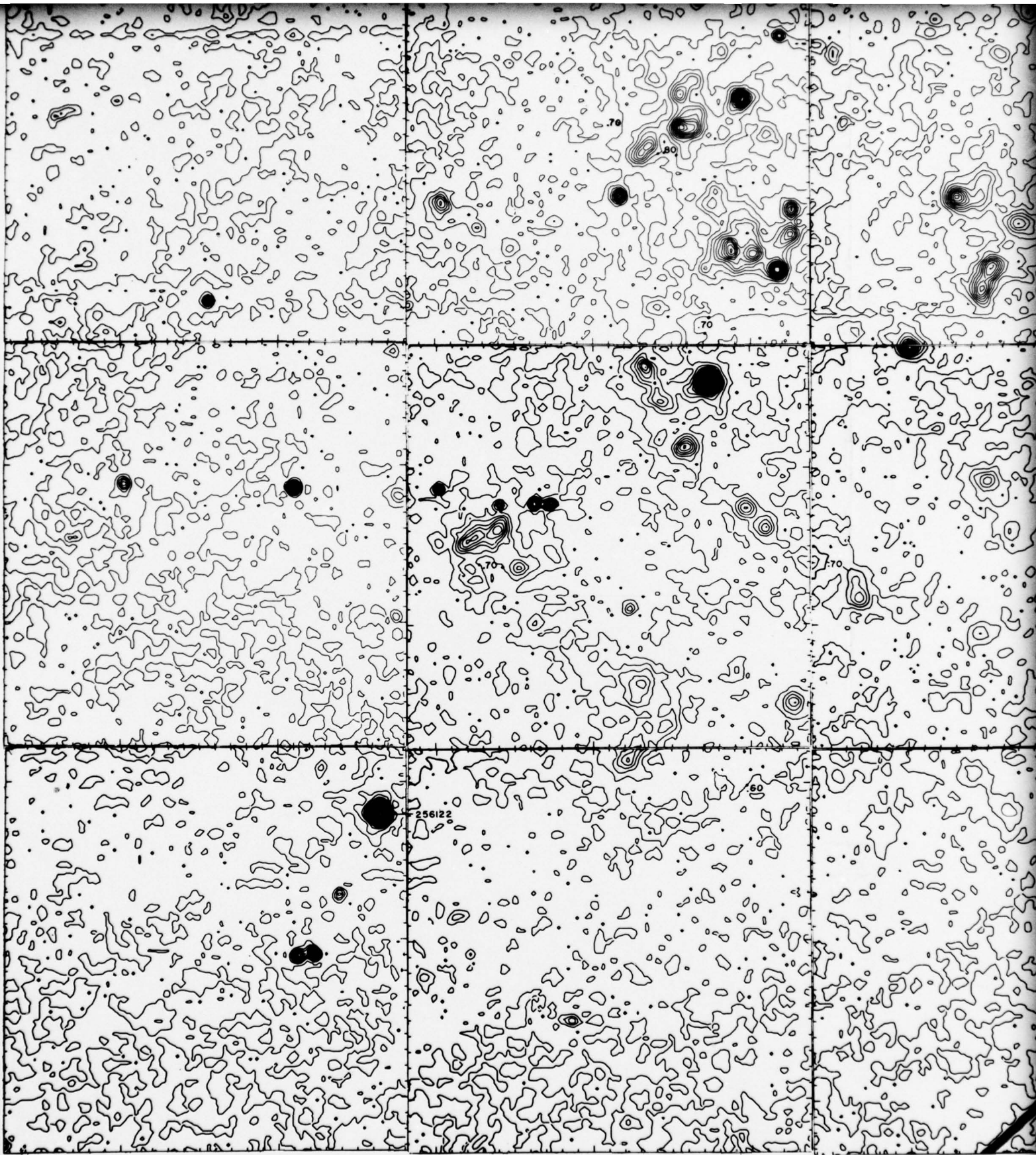
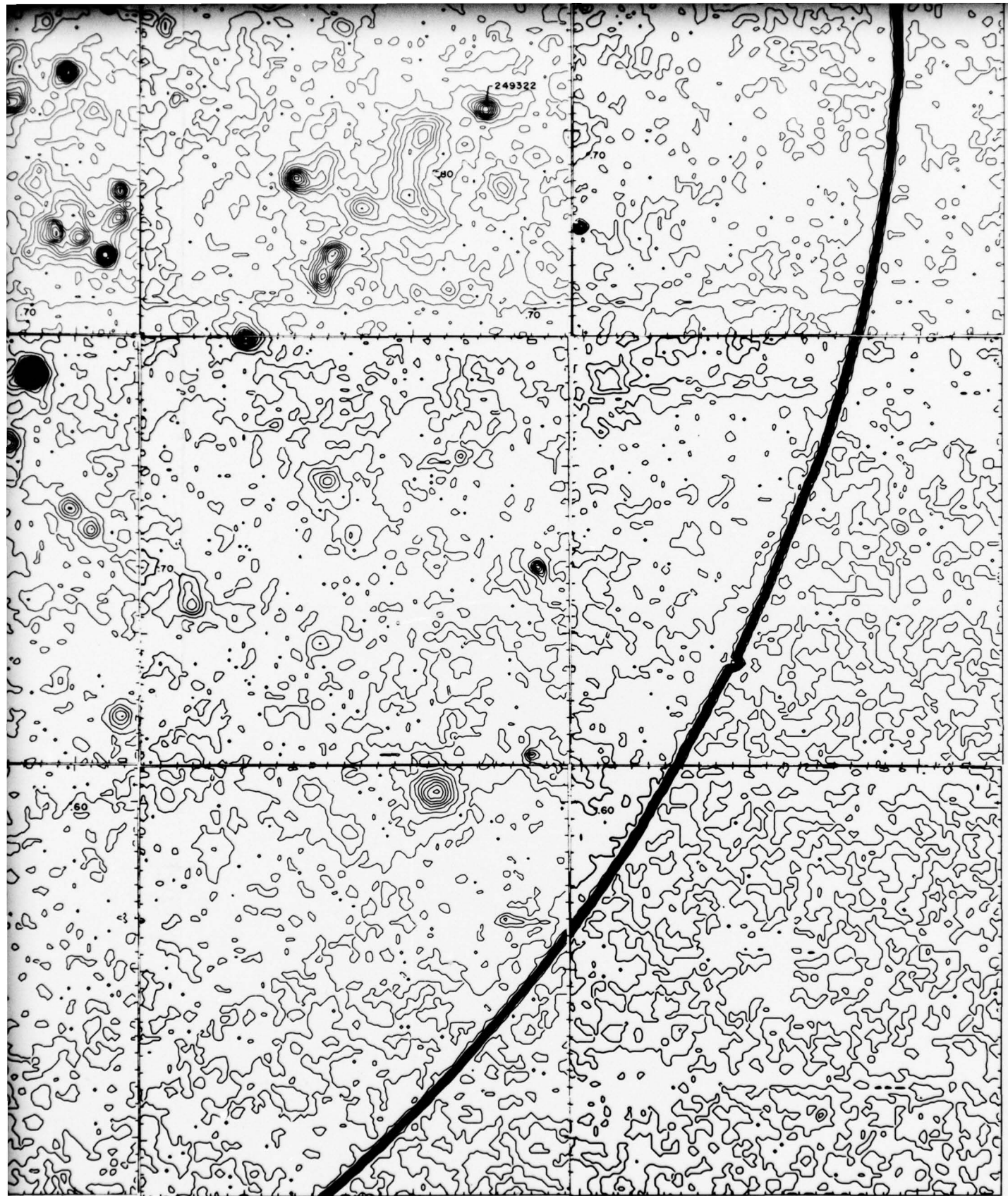


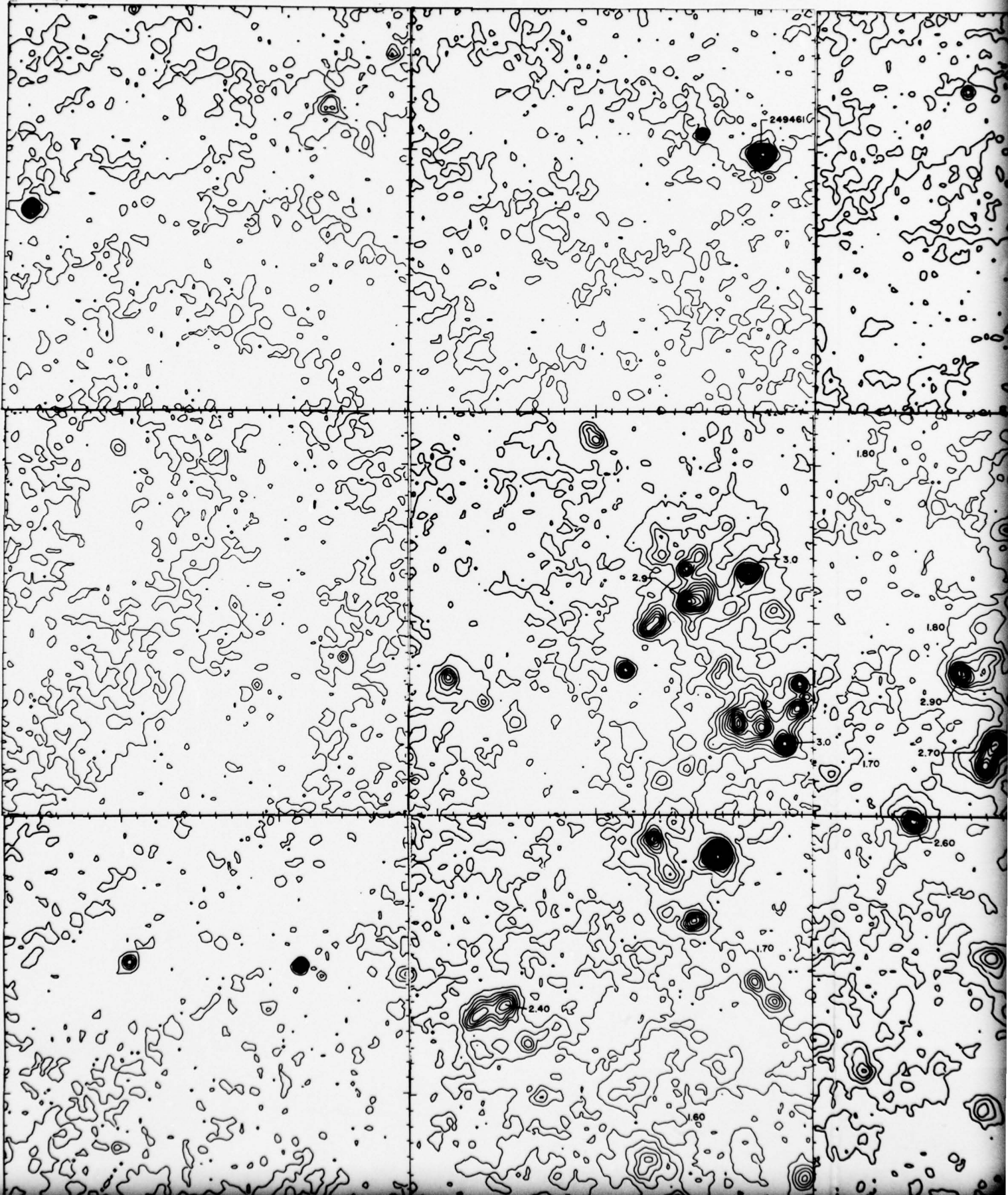
Fig. 4 — Density contours at intervals of  $0.05D$  on frame A124, 1-min exposure, ILi (

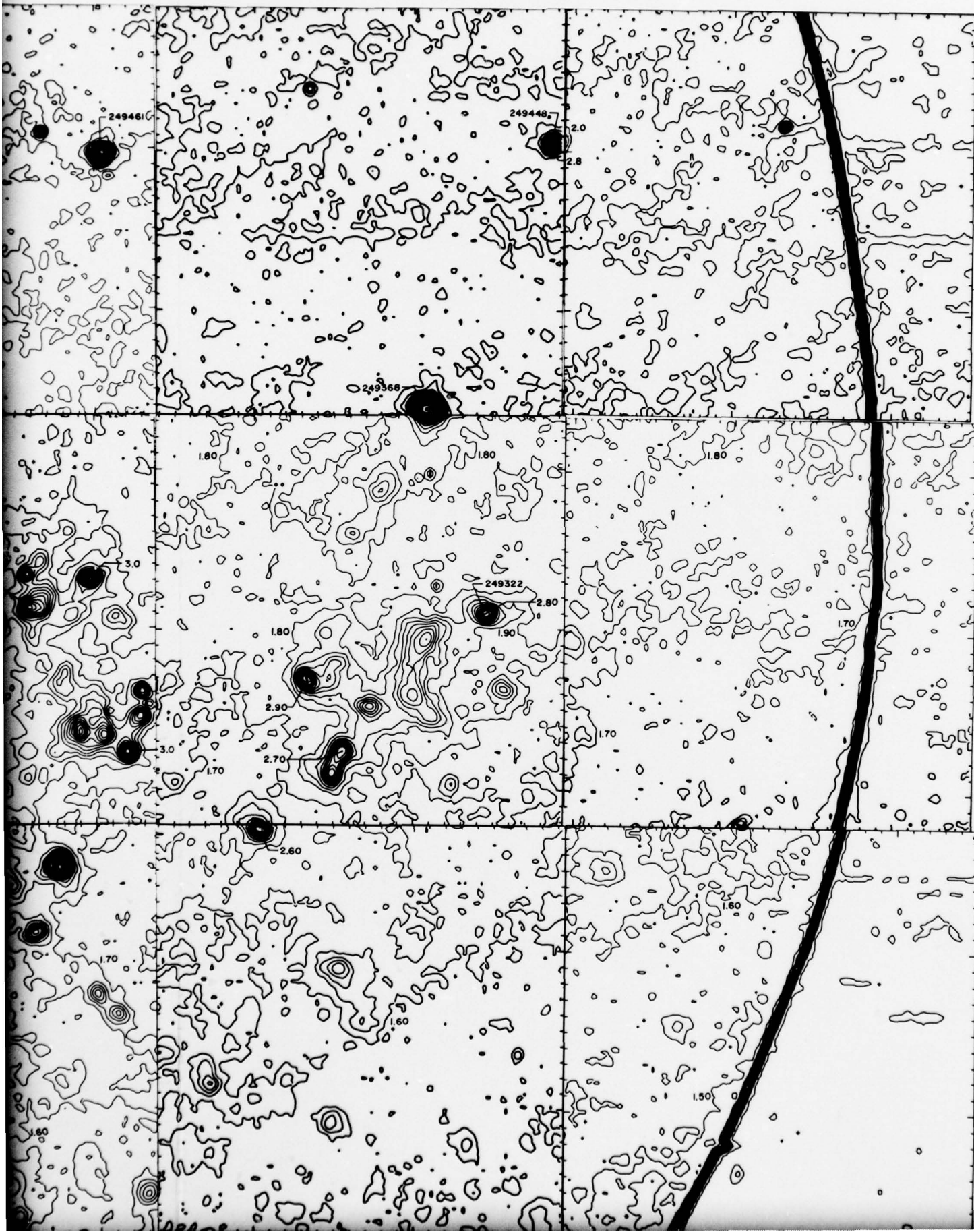


Contours of 0.05D on frame A124, 1-min exposure, ILi (1050 to 1600 Å)

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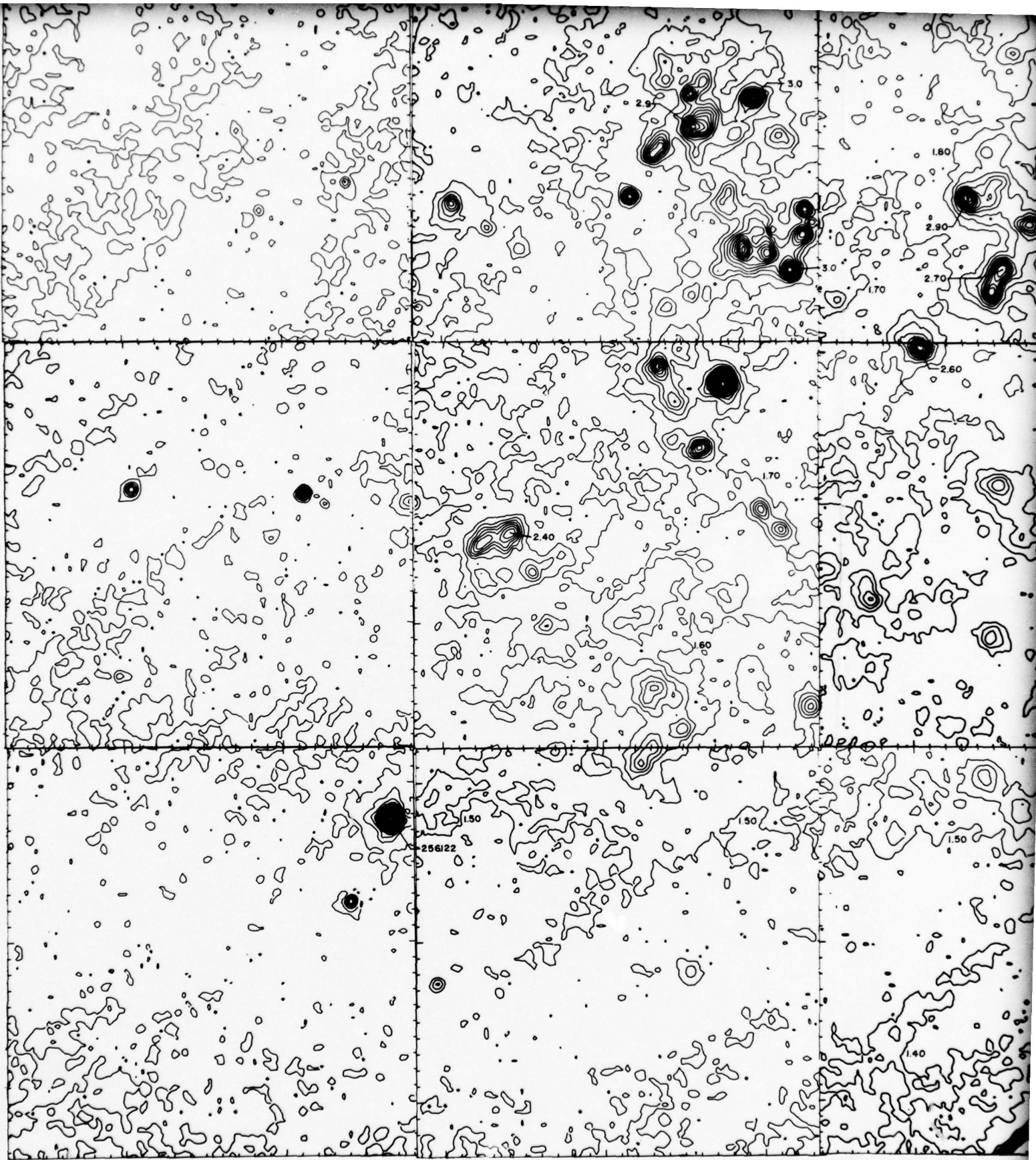
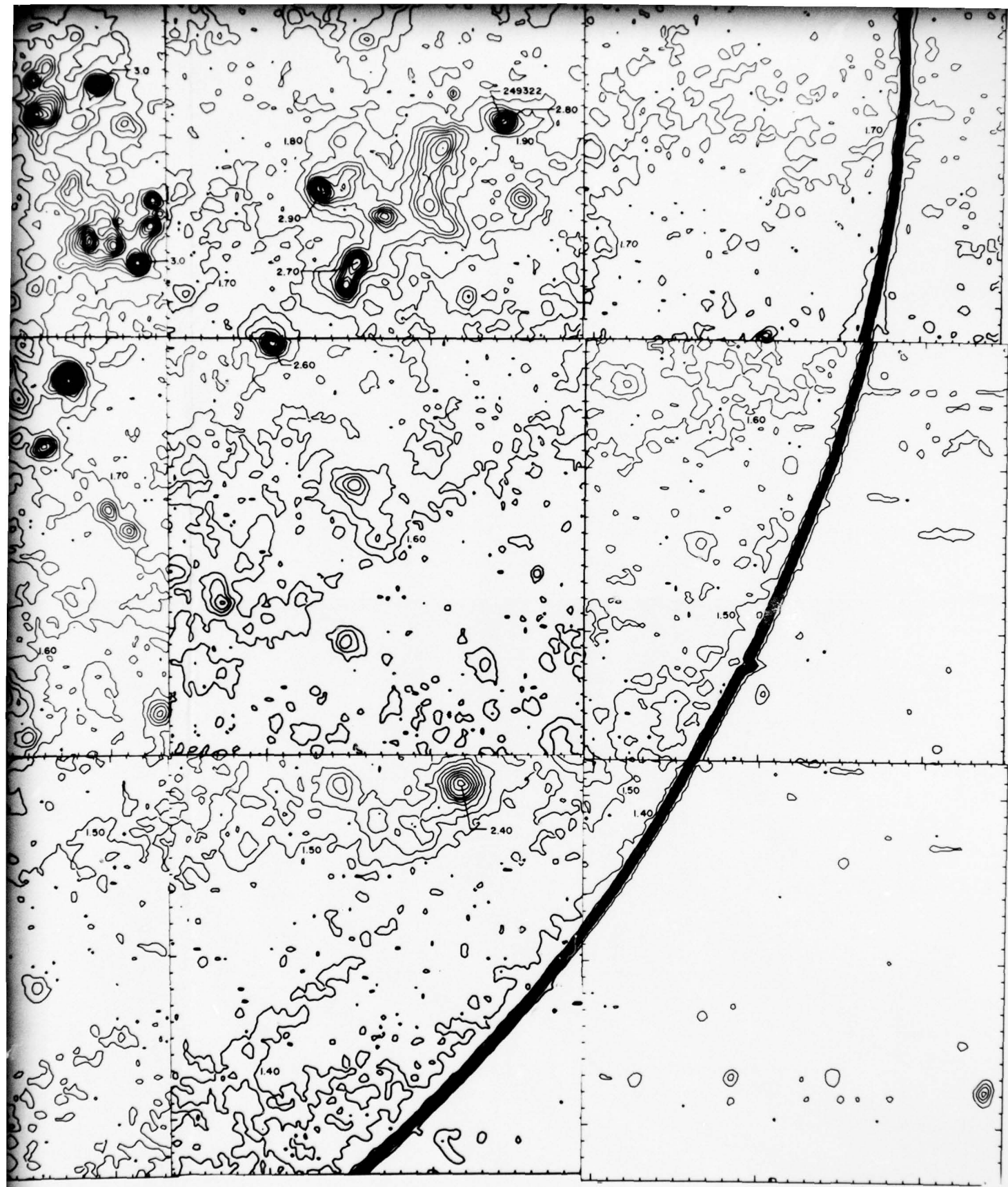
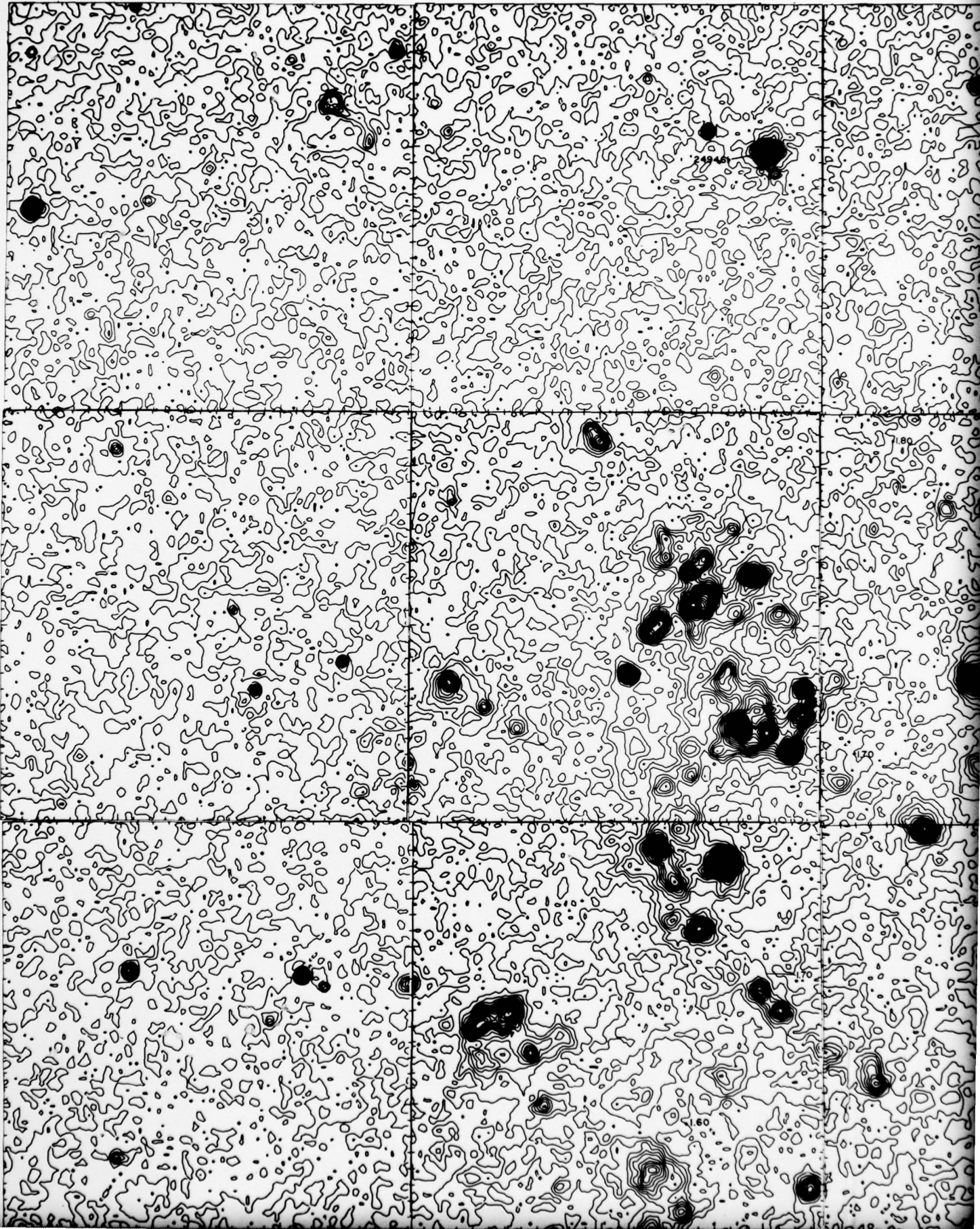


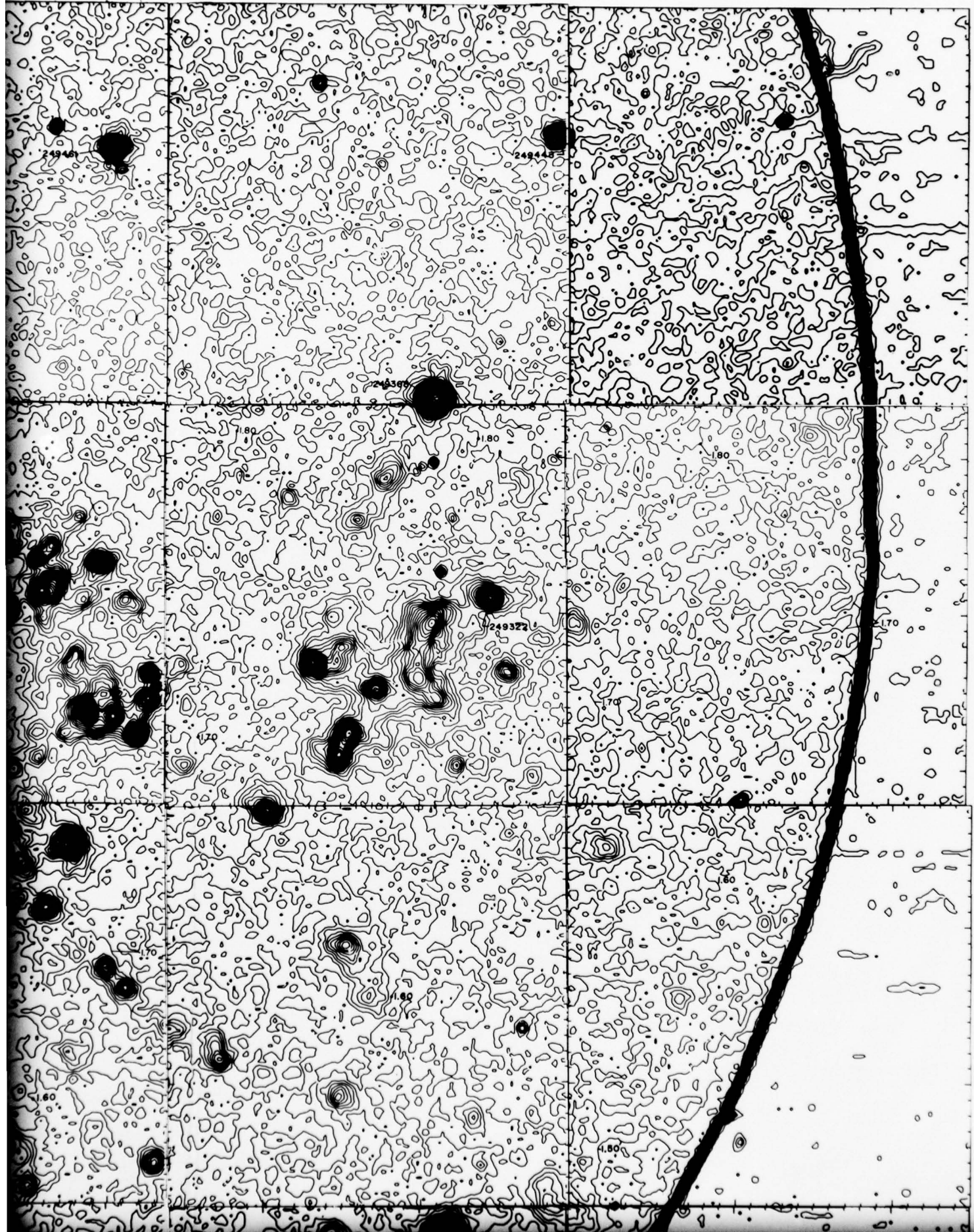
Fig. 5 — Density contours at intervals of 0.10D on frame A125, 3-min exposure, II



intervals of 0.10D on frame A125, 3-min exposure, ILi (1050 to 1600 Å)

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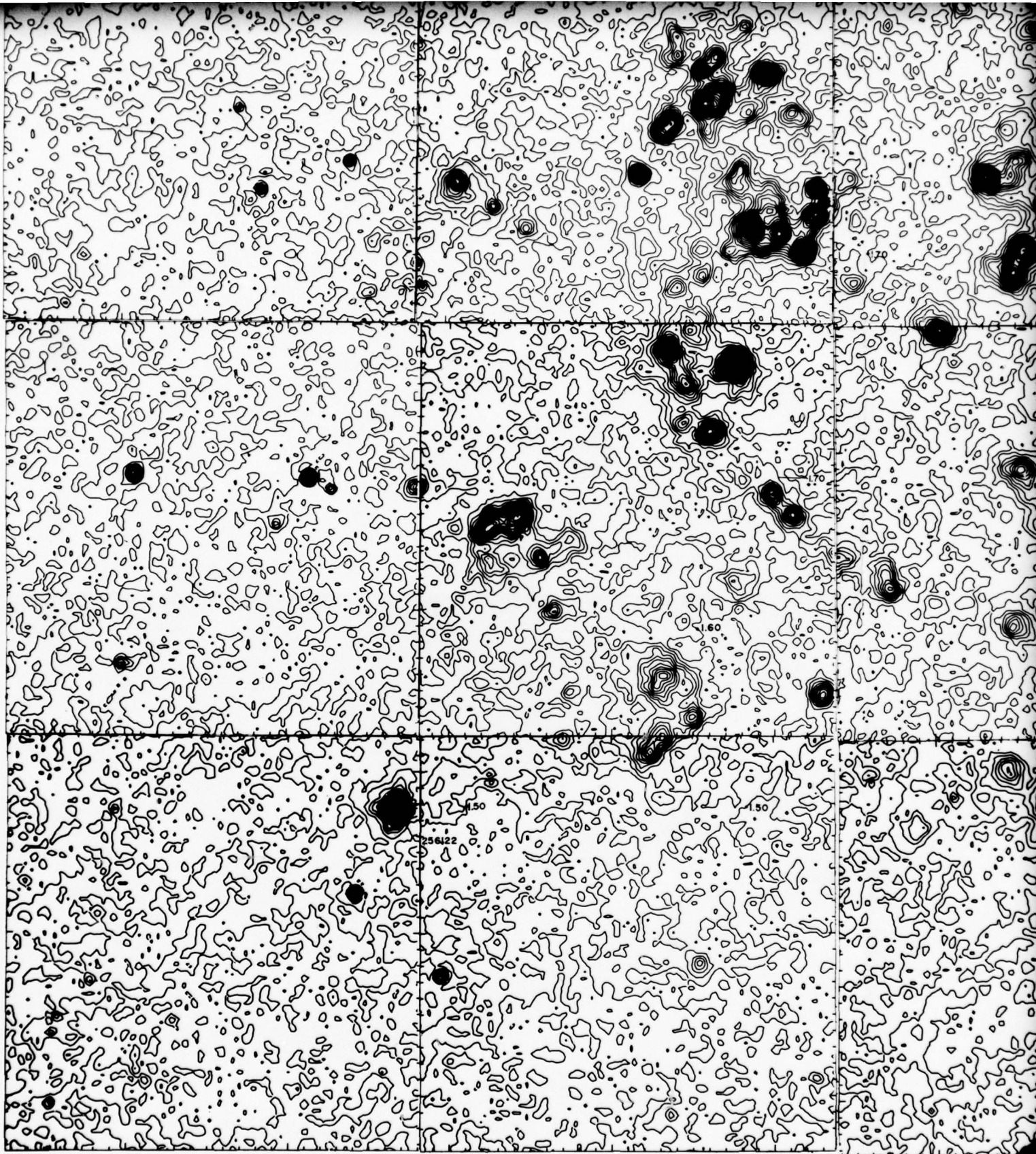
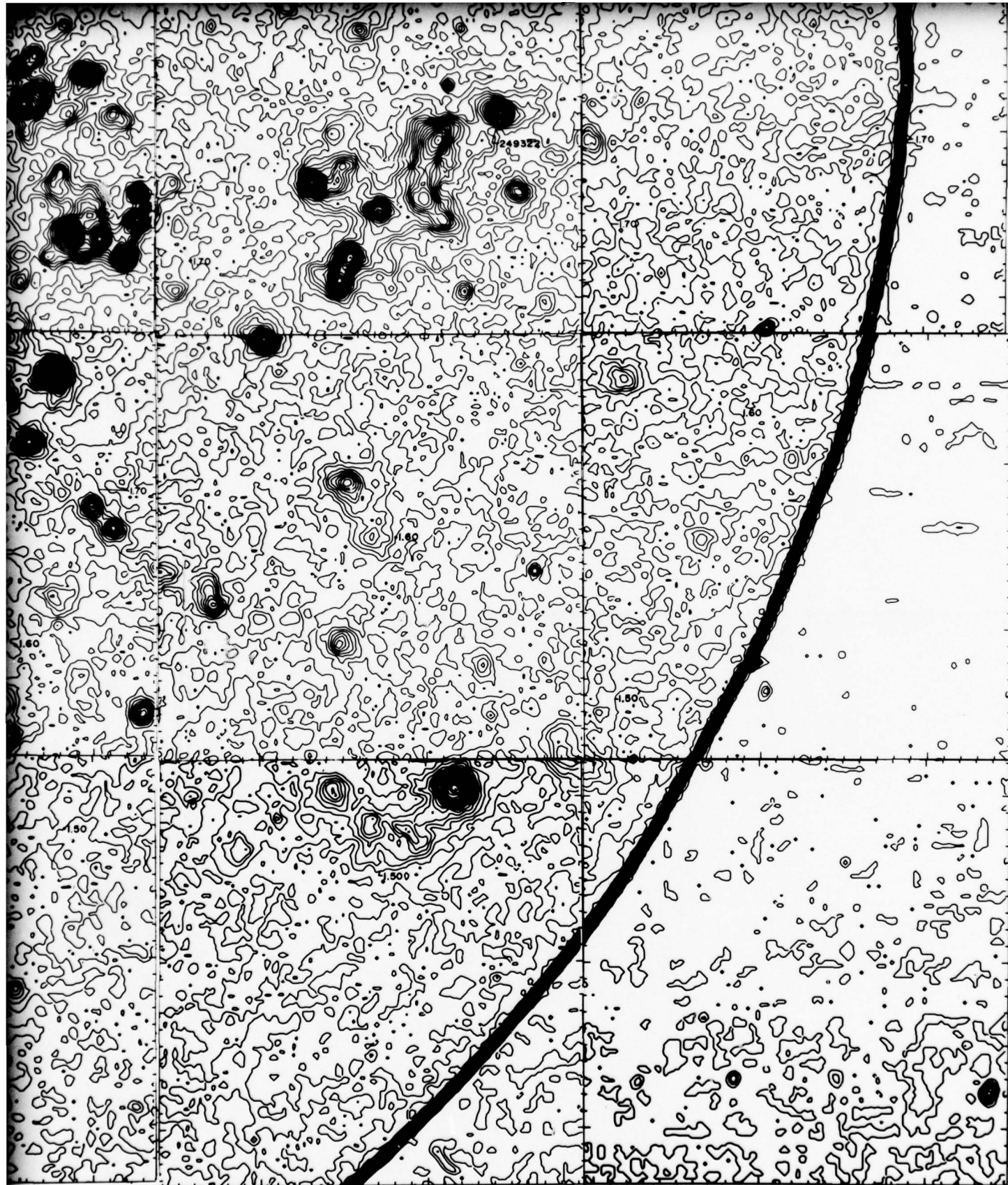


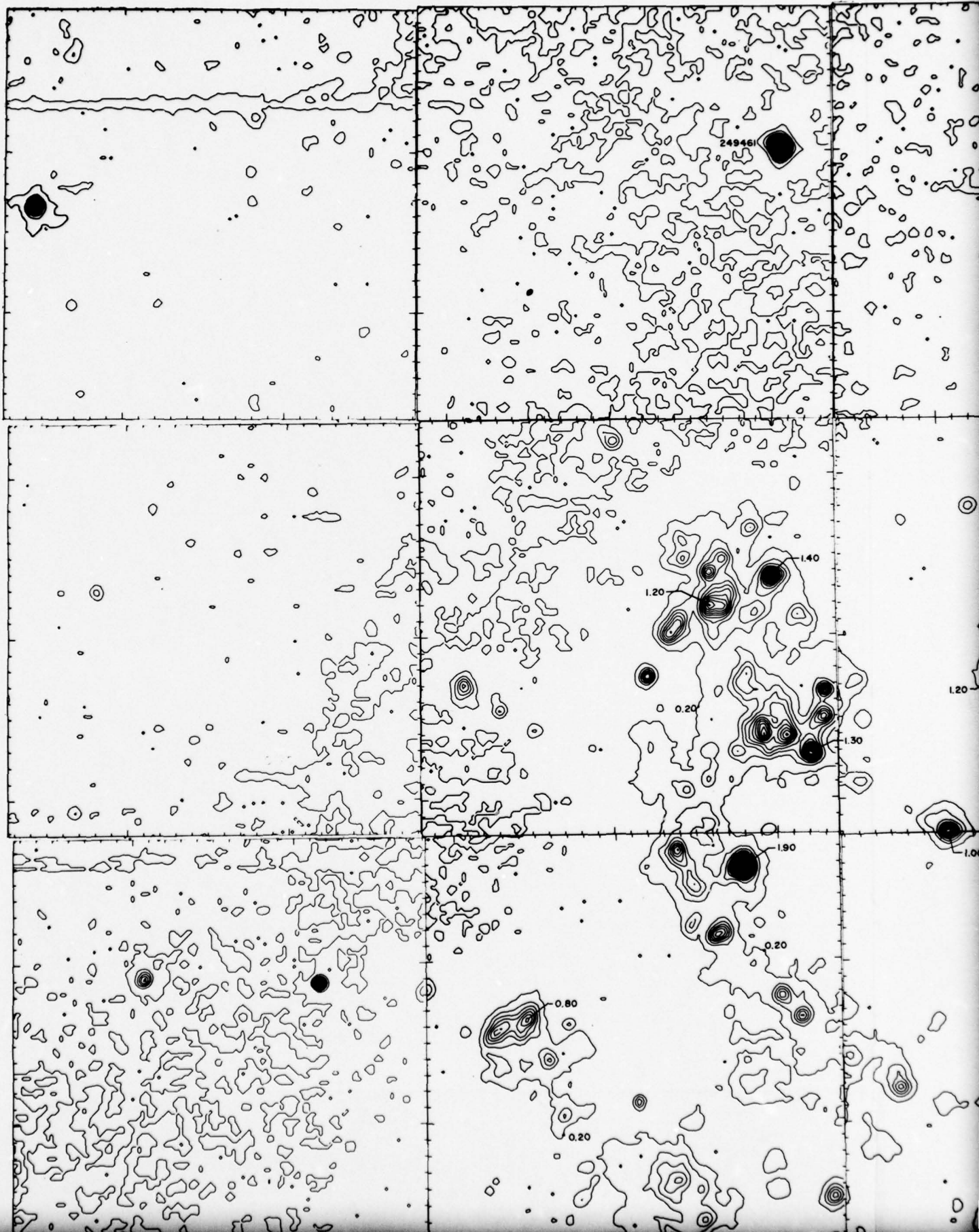
Fig. 6 — Density contours at intervals of 0.05D on frame A125, 3-min exposure, IL

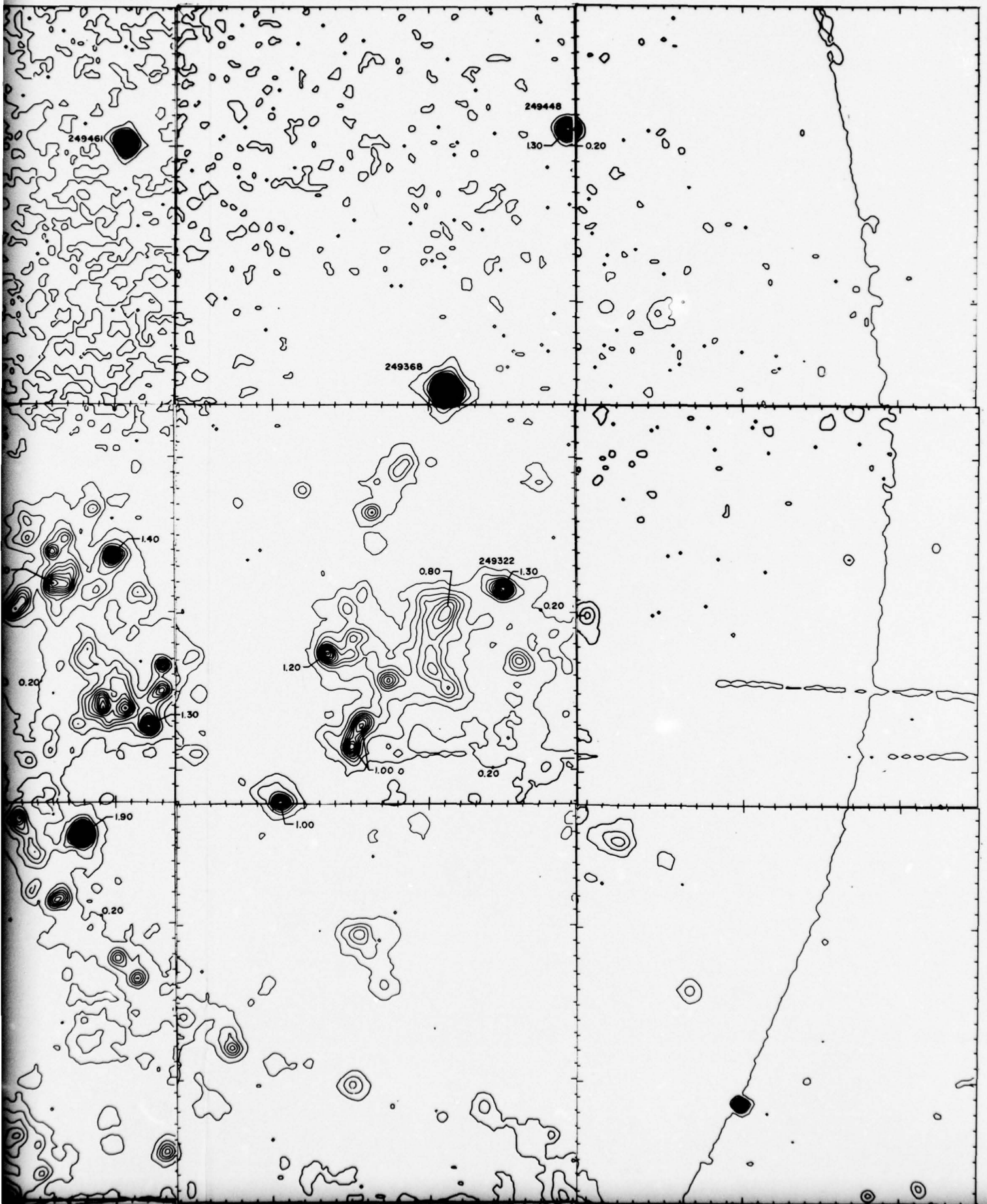
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Intervals of 0.05D on frame A125, 3-min exposure, ILi (1050 to 1600 Å)

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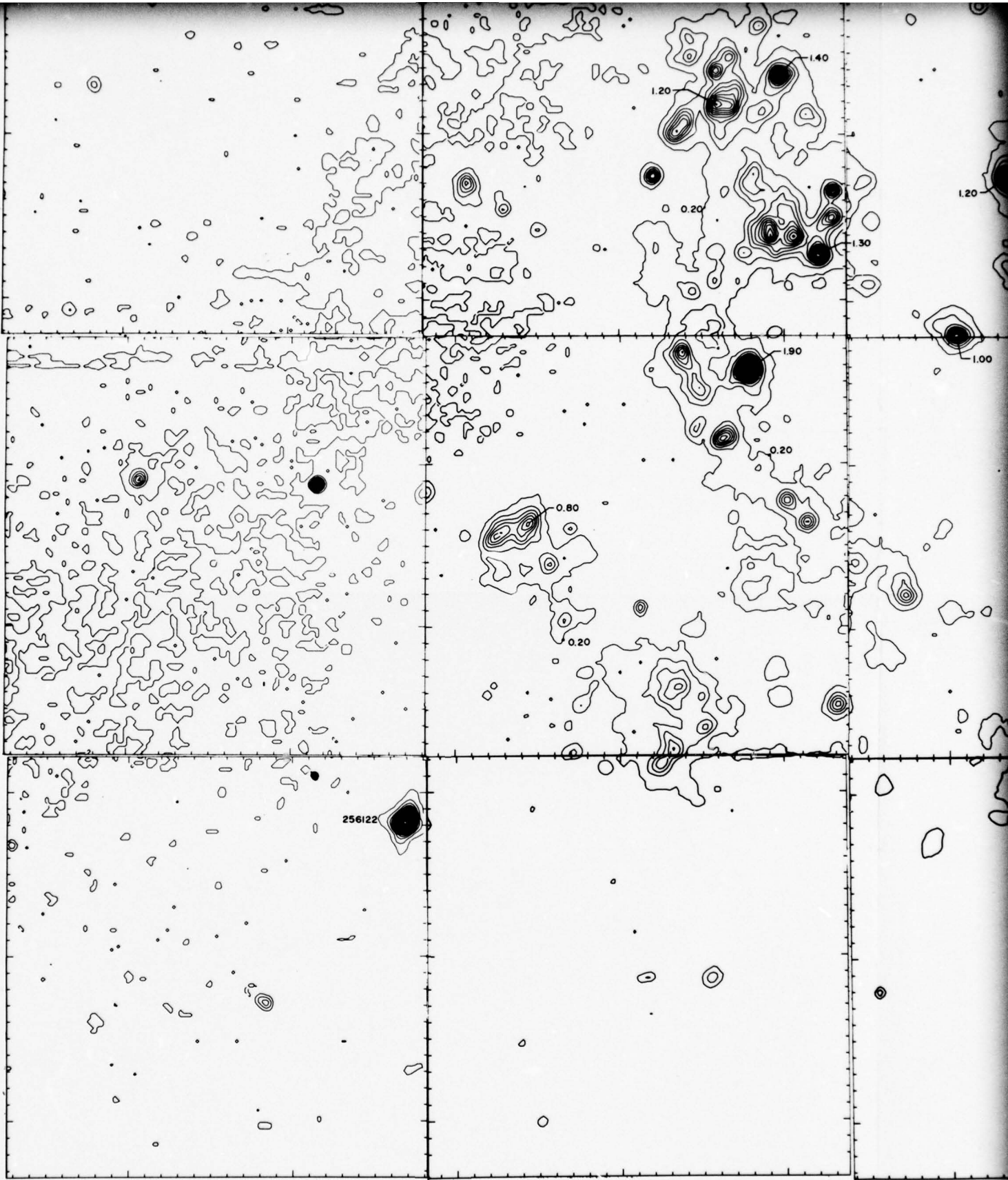
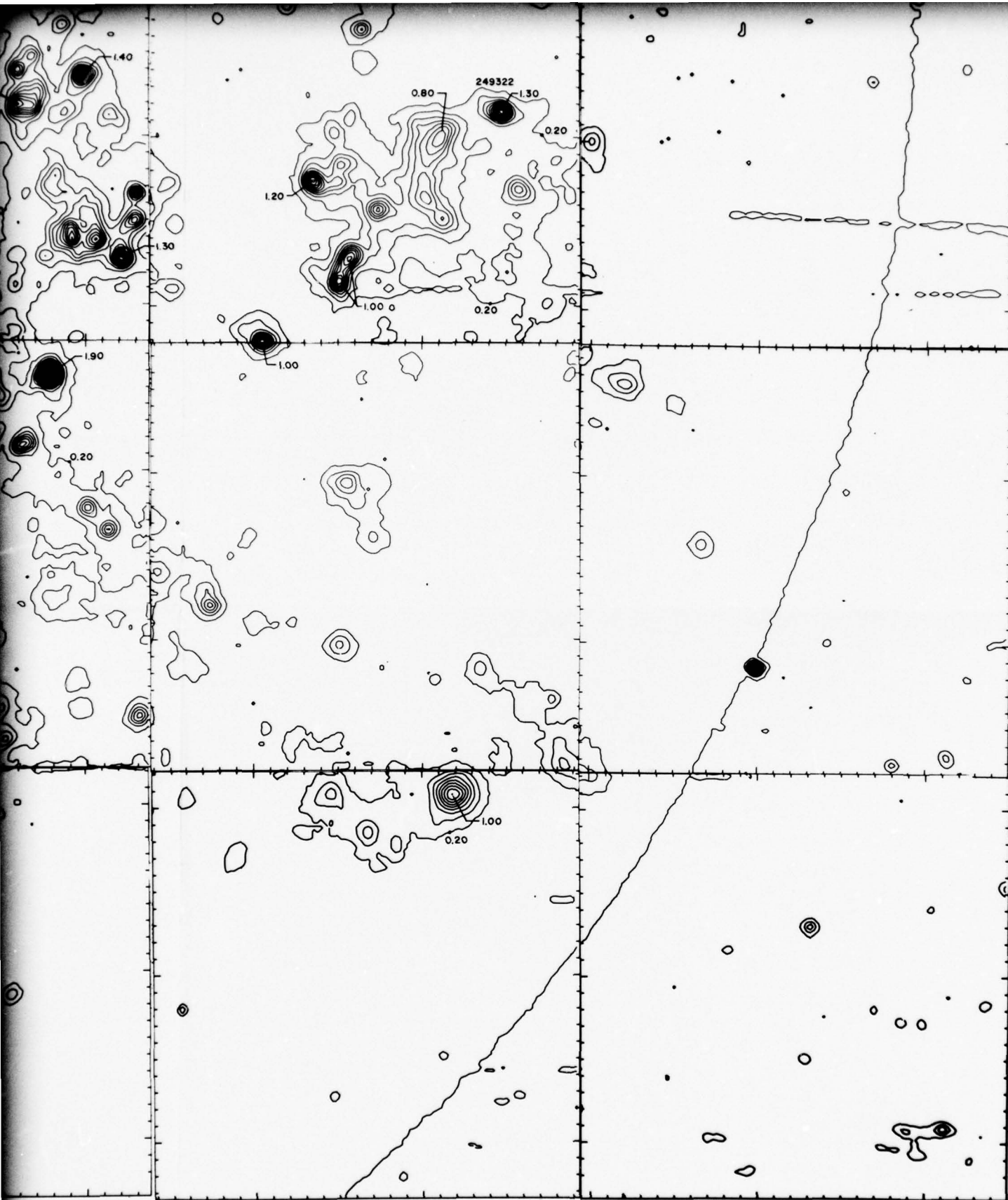


Fig. 7 — Density contours at intervals of 0.10D on frame A128, 3-min exp

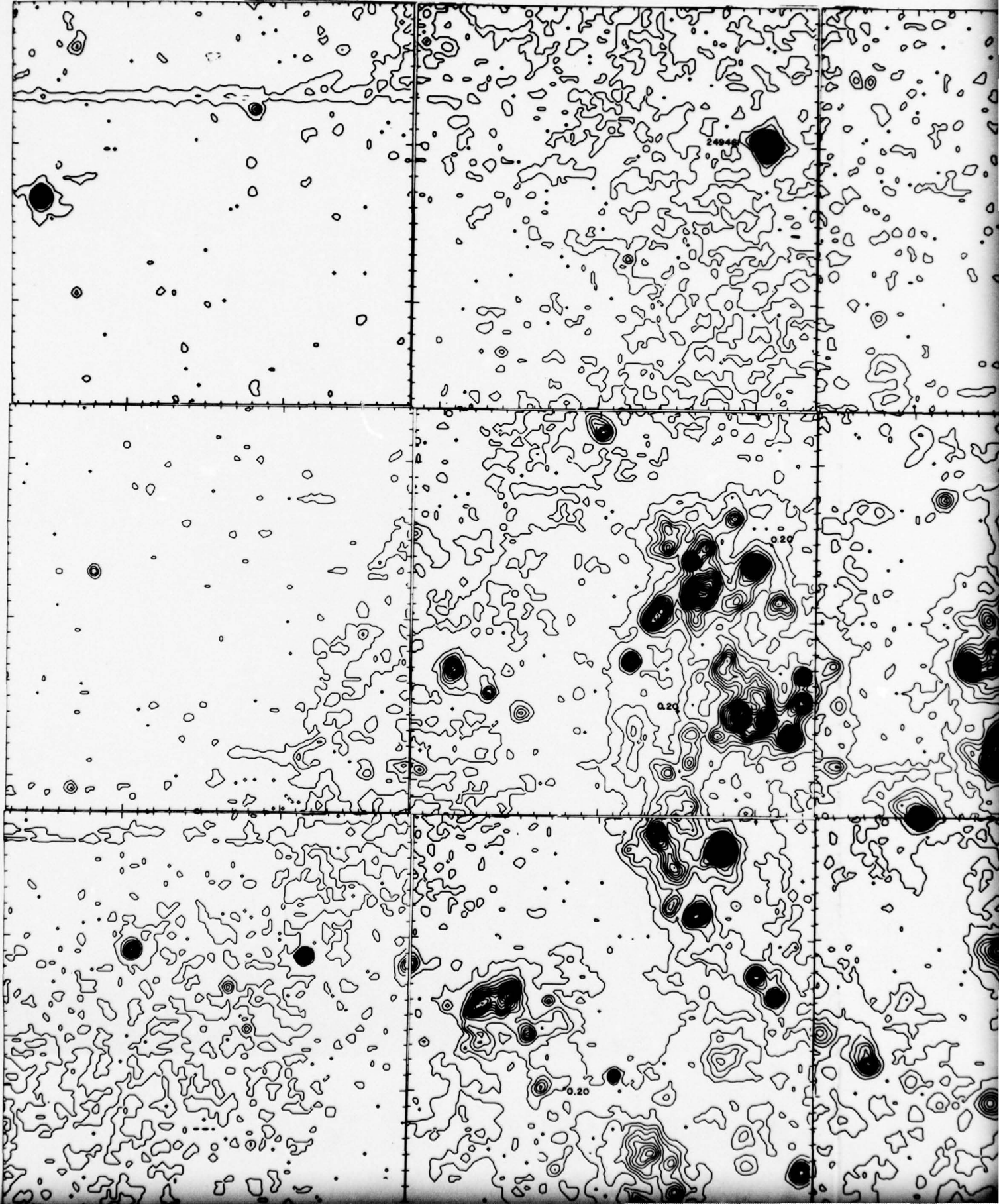
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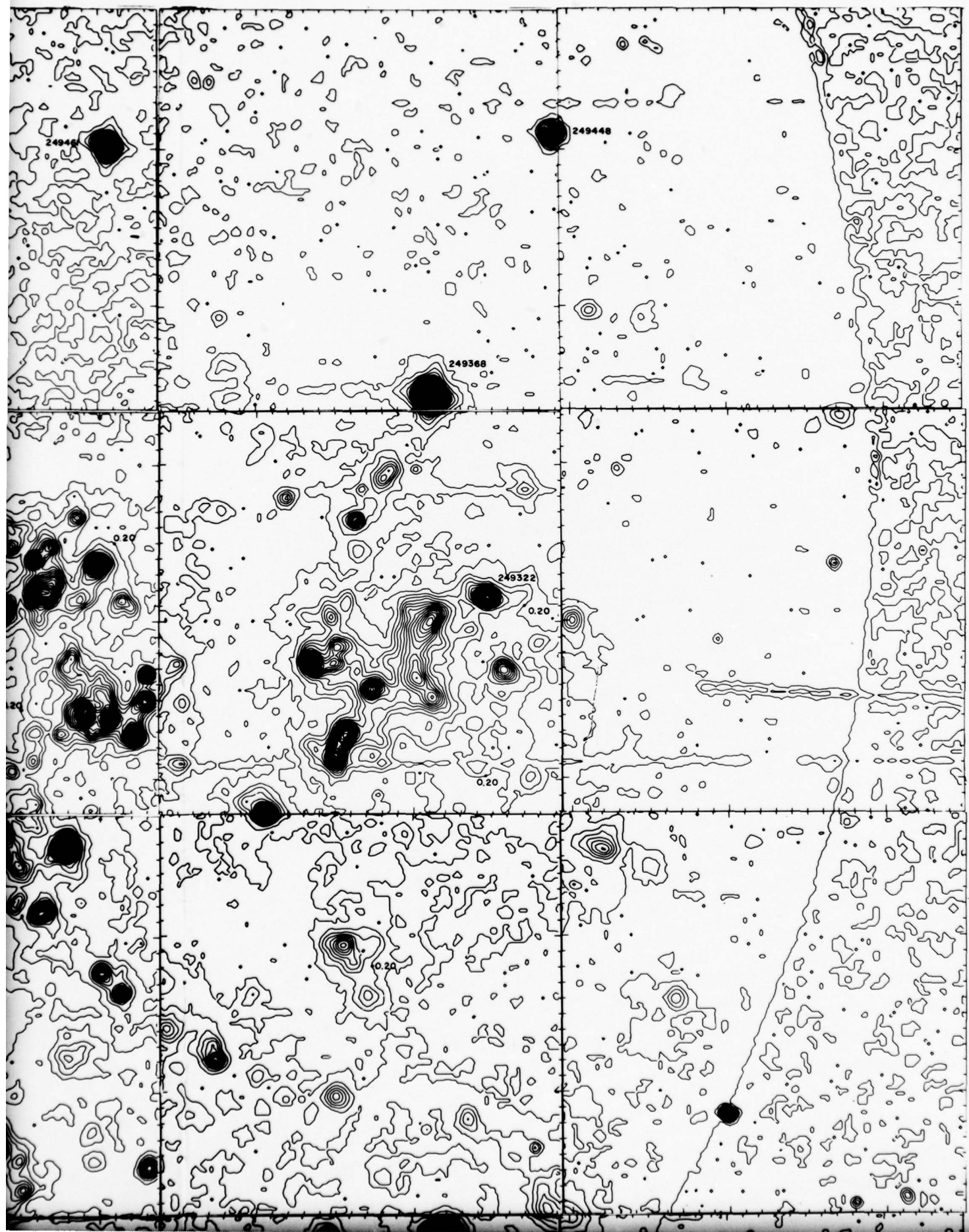


Intervals of 0.10D on frame A128, 3-min exposure, ICa (1250 to 1600 Å)

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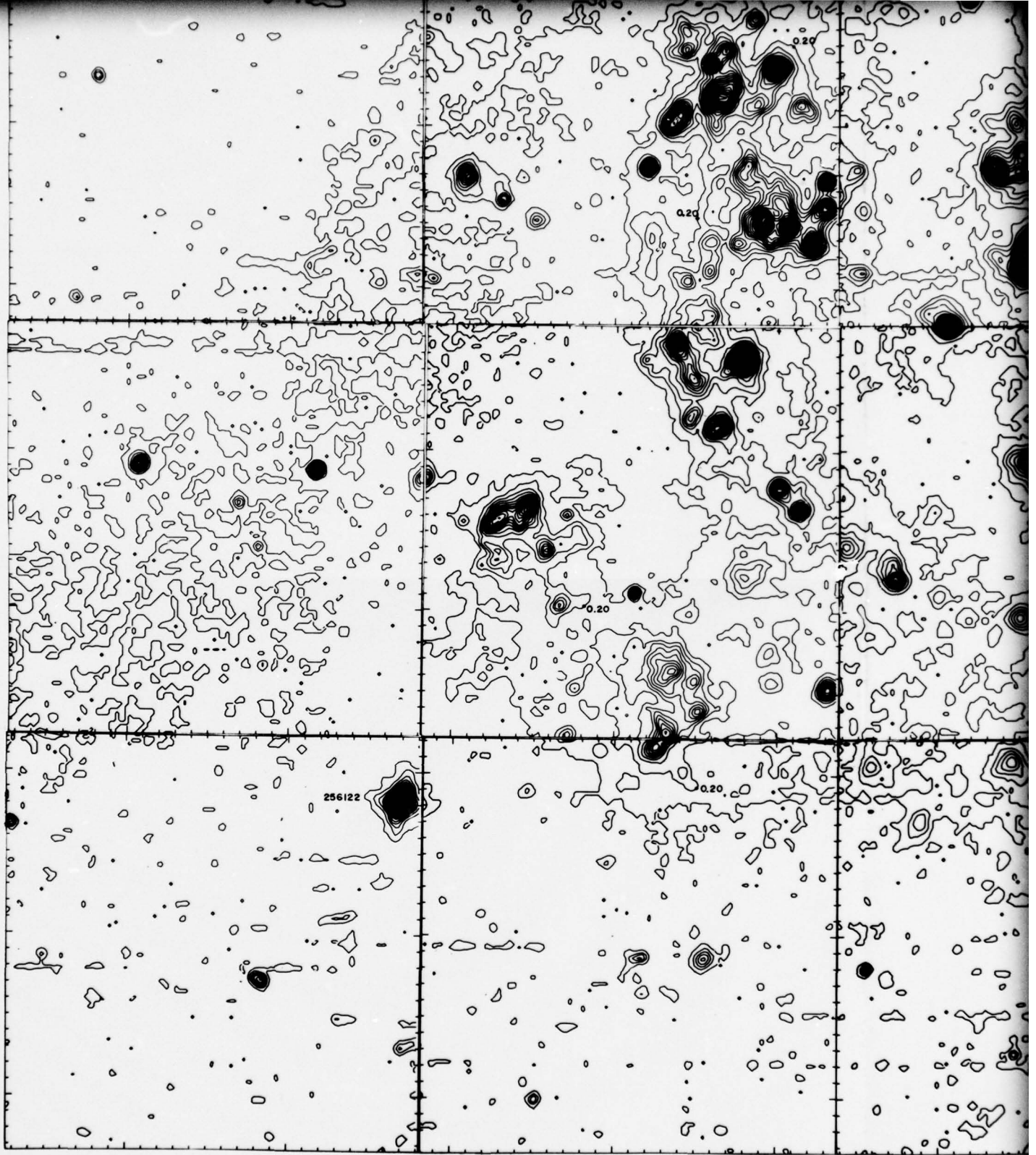
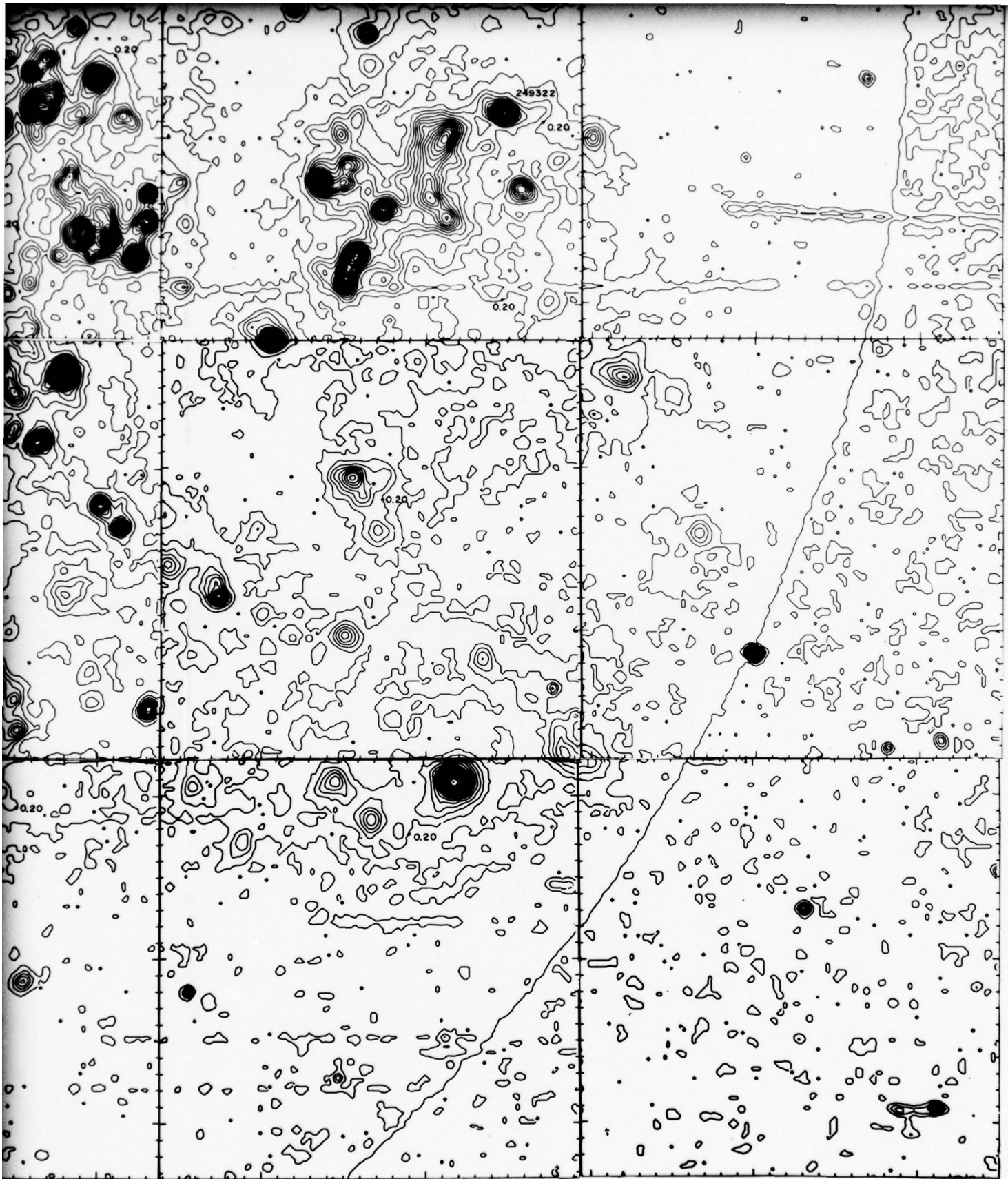


Fig. 8 — Density contours at intervals of 0.05D on frame A128, 3-min exposure.

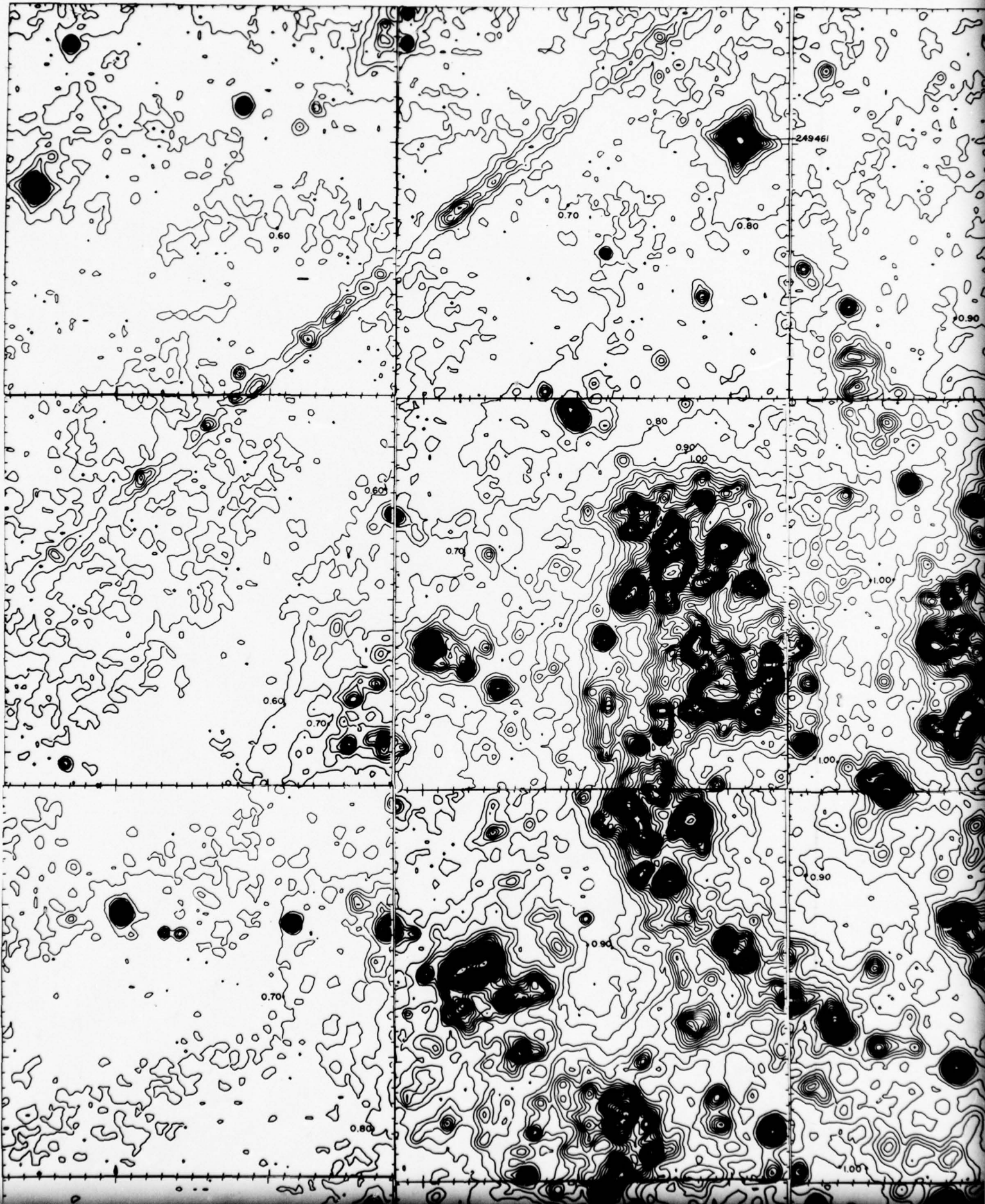
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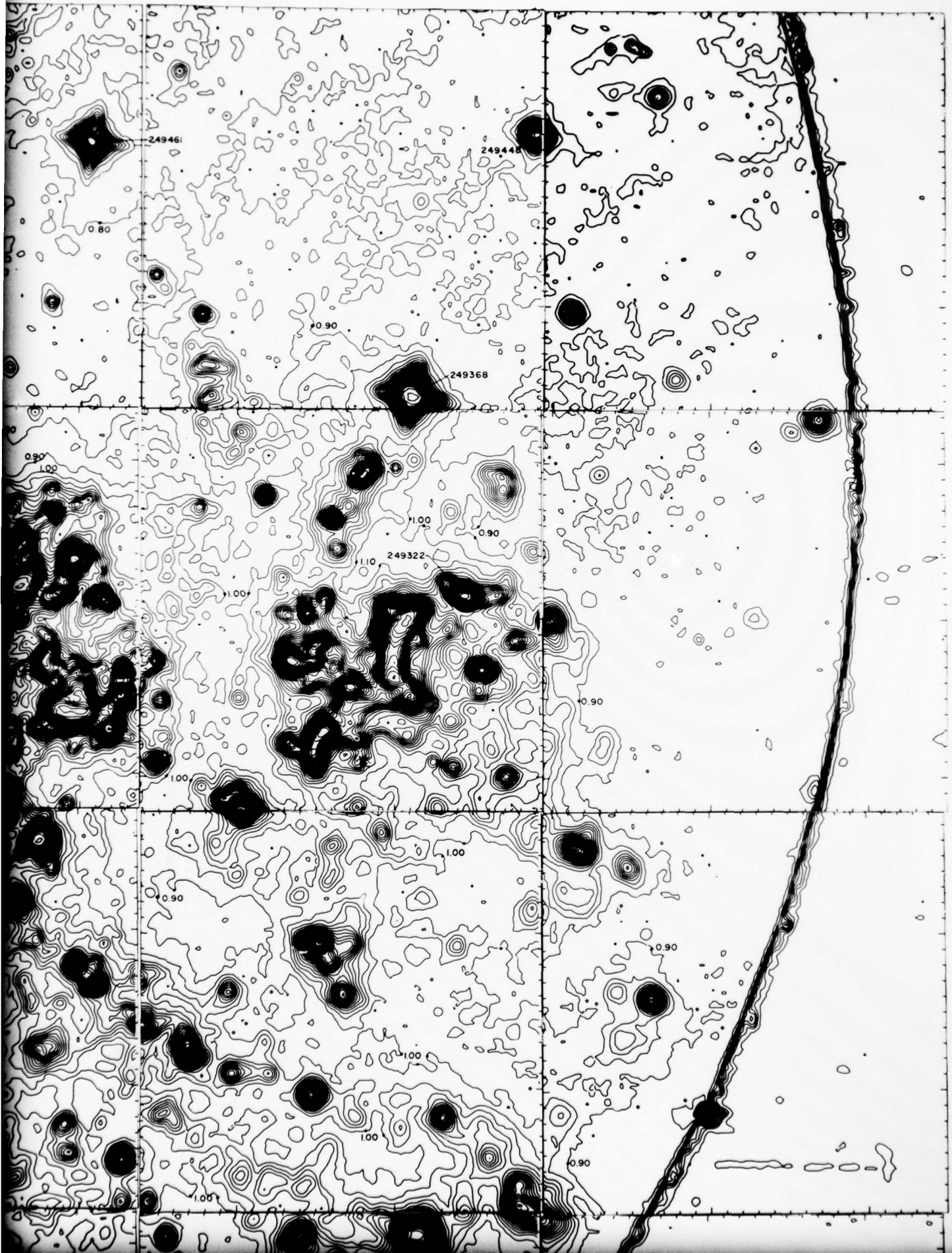


Intervals of 0.05D on frame A128, 3-min exposure, ICa (1250 to 1600 Å)

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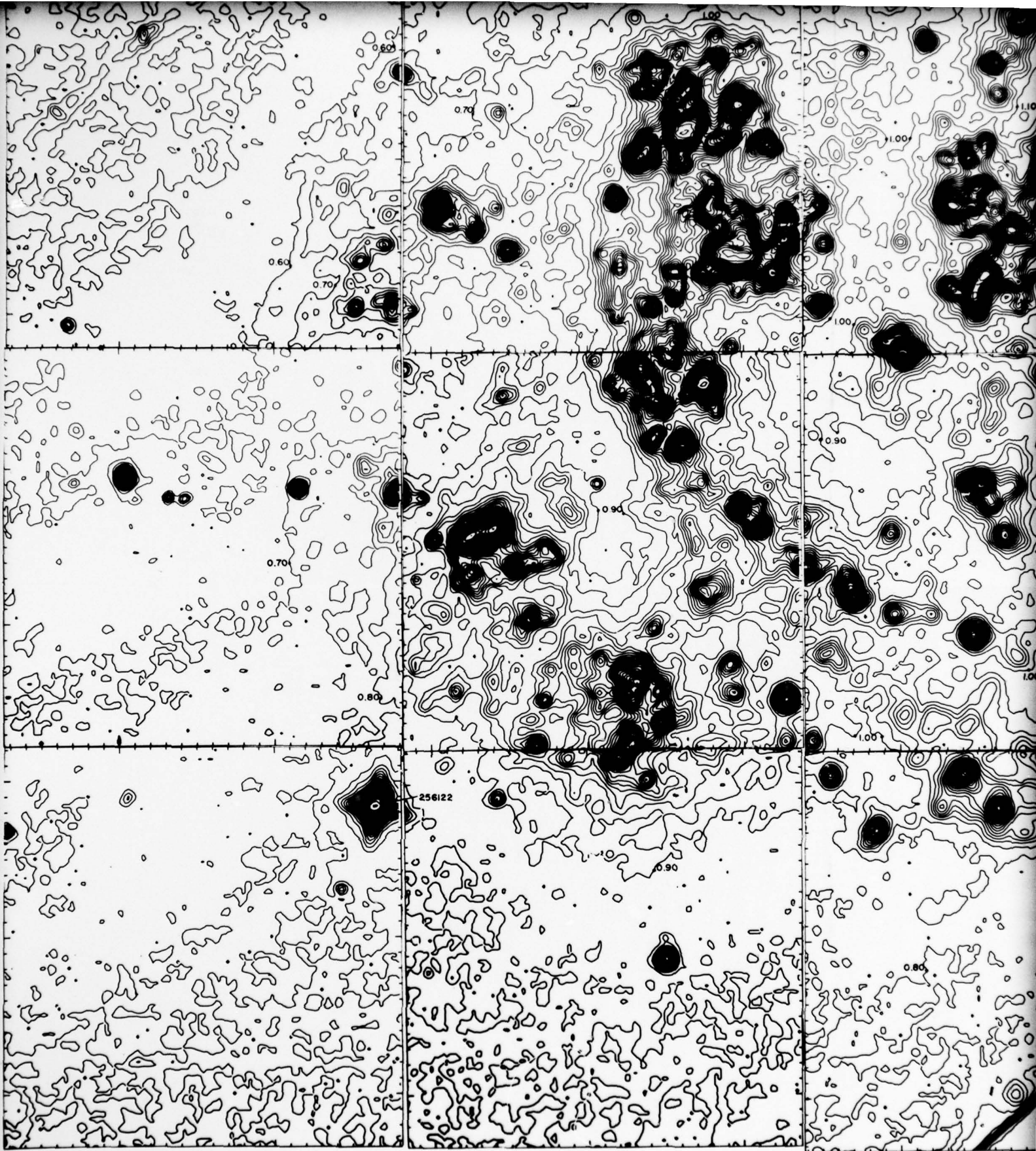
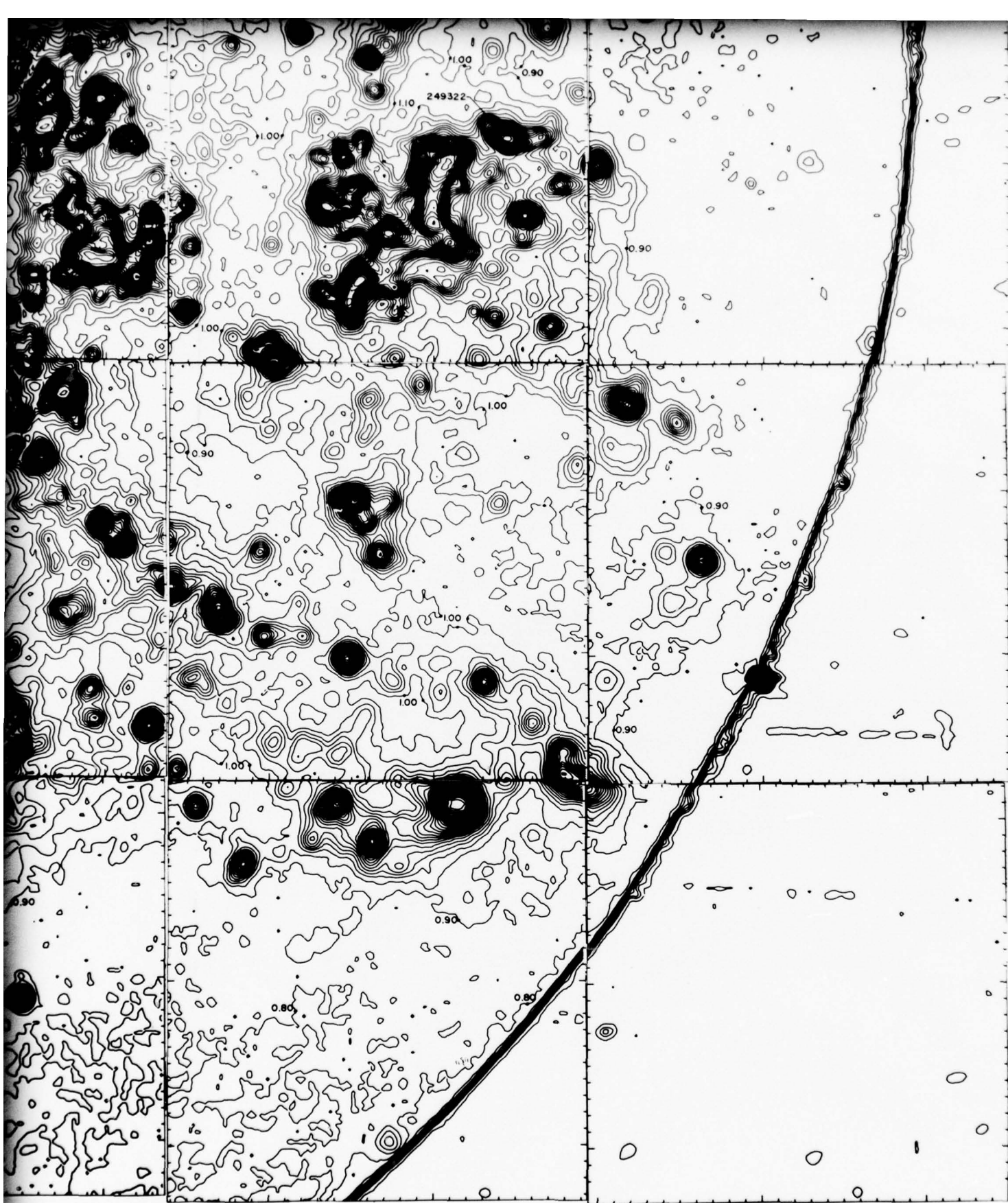


Fig. 9 - Density contours at intervals of 0.10D on frame A130, 30-min exposure, ICa (11



Intervals of 0.10D on frame A130, 30-min exposure, ICA (1250 to 1600 Å)

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density gradient). As noted in the S201 Catalog [7], this correction for nonlinearity of the density-exposure relation was determined from measurements of uniform geocorona densities on three Earth-imagery frames, with exposure times of 1, 3, and 10 min. The linearized density is closely represented by

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

where  $D_M$  is the measured density ( $\times 100$ ).

For any identifiable image, the integrated intensity can be determined by summing the *density volume*  $V = \Sigma(D_L - B_L)$ , where  $D_L$  is the linearized density ( $\times 100$ ) of a pixel in the image under consideration and  $B_L$  is the linearized background density ( $\times 100$ ) near, but outside of, the image, with the sum being taken over all pixels within the image. In the LMC, determination of the true background density is particularly difficult because of the multitude of field stars against which a particular association or other object in the LMC must be observed. The density volume divided by the exposure,  $V/E$ , is our direct measurement of far-UV flux in each image.

We looked for and detected most of the OB associations cataloged by Lucke and Hodge [19] and many of the emission nebulas cataloged by Henize [17]. This was done by converting the catalog positions (right ascension and declination) to scan coordinates ( $x, y$ ) and then plotting a rectangle ( $\Delta x, \Delta y$ ) to match the cataloged size of the association or nebula. These rectangles often overlapped but generally fell on or near a density maximum. The local background was determined by averaging the edge densities on each of the four sides of the rectangle  $\Delta x \Delta y$ .

In a few cases (Lucke-Hodge catalog numbers LH29, 34, 77, 107, 116, and 120) the area described by Lucke and Hodge [19] is not approximated by a simple north-south or east-west rectangle. In these cases the area summed on the  $D_L$  mosaic is a northeast-southwest rectangle, or some curved shape, and the listed value of  $\Delta y$  (in the \*Y column of the listing in Appendix B) is flagged with an asterisk. In all cases the areas summed for a given Lucke-Hodge (LH) association were made to correspond to the same celestial coordinates on each of the four frames, and the backgrounds were estimated in the same way on each.

In addition to these LH associations and Henize nebulas, over 130 other density peaks were noted on  $D_L$  mosaics of each of the four frames A124, A125, A129, and A130. When these peaks occurred at nearly the same position on two or more frames, they are clearly foreground stars, additional OB associations in the LMC not listed by Lucke and Hodge, or perhaps individual hot luminous LMC stars. Twenty of these are readily identified as foreground stars (four of them heavily overexposed) listed in the SAO catalog [24]. For all of these density peaks the background was determined by noting the first minimum in  $D_L$  in each of four directions on the mosaic ( $+x, +y, -x, -y$ ) and taking the average as  $B_L$ . The image "edge" was then taken at  $B_L + 10$ , with no image smaller than  $\Delta x = 2, \Delta y = 2$ . The measured density volume is then  $V = \Sigma(D_L - B_L)$  inside this "edge." Because these density volumes have been linearized, they are much larger in Appendix B than values listed in the S201 Catalog [7].

It was to be expected that frame A124, with the lowest exposure, would miss some of the fainter objects and that high background on frames A125 (3-min ILi exposure) and A130 (30-min ICa exposure) would obscure some of the objects. Moreover the correction

for nonlinear response is unreliable for  $D_L > 600$ . Values of  $V$  that include  $D_L > 600$  are therefore flagged (by an asterisk in the  $V/E$  column of Appendix B). Those values of  $V$  may be too low. Table 1 gives the statistics on all images listed in Appendix B. We consider that 110 of the 122 LH associations, 110 of the 221 Henize nebulas (including nine lettered "subnebulas"), 16 of the 20 SAO stars (of types B5 to A5), and 130 unidentified objects have reliable density volumes  $V$  listed in Appendix B.

Table 1 — Statistics of the Number of Far-UV Objects Measured in the LMC

	Frame A124	Frame A125	Frame A129	Frame A130
Total objects listed	429	439	443	444
Objects with $V < 0$	15	16	20	19
Objects with $V < 10$	88	58	59	46
Objects measured <i>reliably</i>	338	376	378	315
Background range	70-123	170-382	30-296	70-917
Lucke-Hodge associations with $V > 0$	117	117	112	114
Lucke-Hodge associations with $V > 10$	110	112	110	112
Lucke-Hodge associations with $V > 10$ and peak density $P < 600$	110	112	109	73
No. of Henize nebulas measured	157	157	157	157
Henize nebulas with $V > 0$	139	145	145	145
Henize nebulas with $V > 10$	84	108	108	121
Nebulas with $V > 10$ and $P < 600$	84	108	107	95
SAO stars with $V > 0$	19	19	19	20
SAO stars with $V > 10$	17	19	19	20
SAO with $V > 10$ and $P < 600$	16	16	16	11
Unidentified objects	110	128	123	124
Unidentified objects detected on more than one of the four frames			133	
Unidentified objects detected on two frames			23	
on frames 124 and 125				9
on frames 129 and 130				13
Unidentified objects detected on three frames			11	
on frames 124, 129, and 130				1
on frames 125, 129, and 130				10
on frames 124, 125, and 130				1
Unidentified objects detected on all four frames			99	

In several cases, two or more LH associations or Henize nebulas are grouped around a density peak, and the measured background is sloping steeply across each area. In these cases the areas have been combined (for example, LH9, 10, and 13 in Appendix B) and a new, lower background has been determined for the group. The individual areas sometimes give negative  $V$  in such cases of sloping background, as noted in Table 1, Table 2, and Appendix B.

Figures 10 through 13 give our best estimates of the background densities on frames A124, A125, A129, and A130. In regions of irregular background, small areas ( $\Delta x \Delta y$ ) give

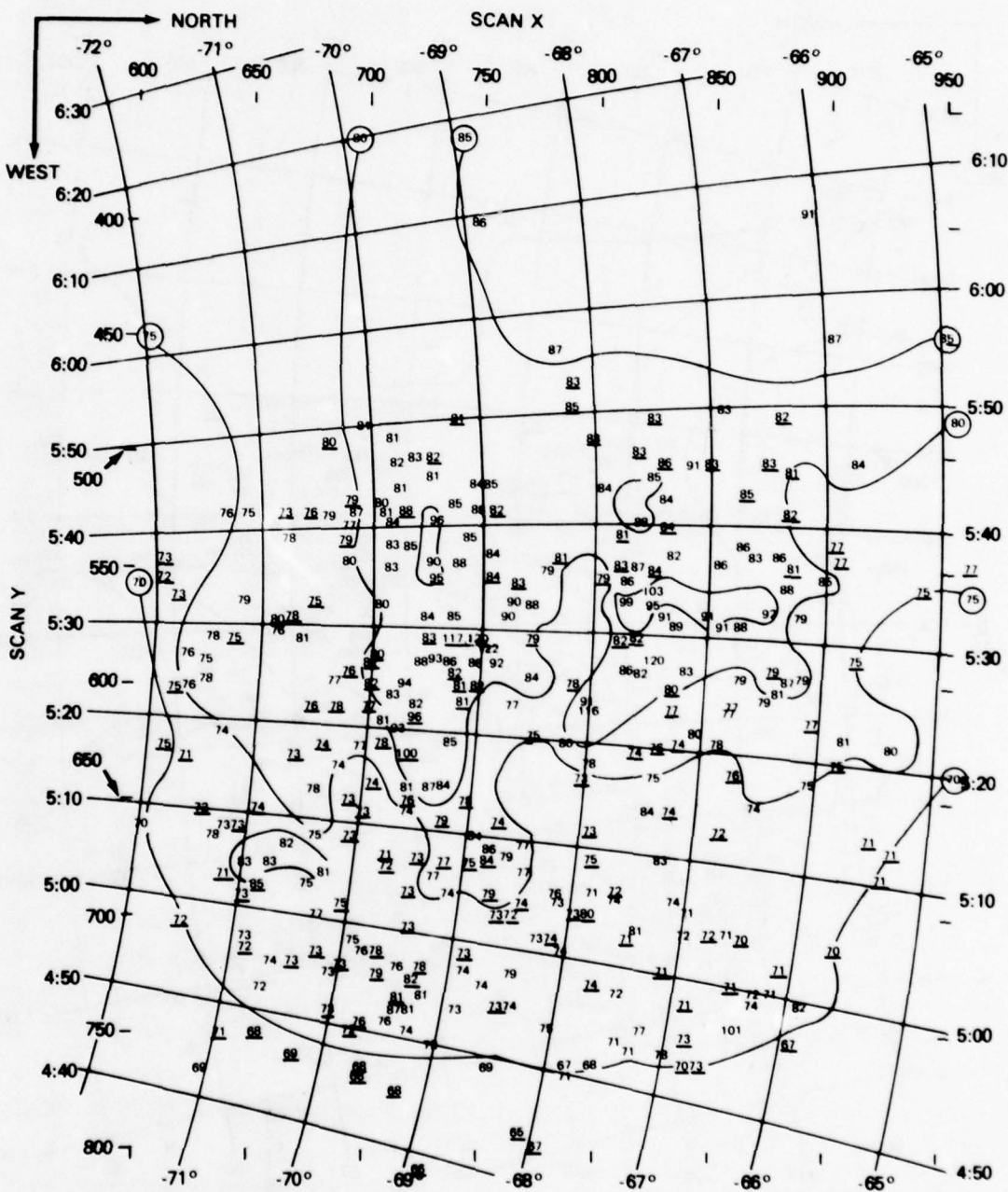


Fig. 10 - Contour plot of background densities on frame A124, used in computing measured density-volumes in the LMC, 1050 to 1600 Å. Values for  $\Delta x \Delta y = 2 \times 2$  are underlined. The orientation is as shown in Fig. 2 (north to the right and east up). The  $\alpha\delta$  grid is irregular because of S201 camera distortion.

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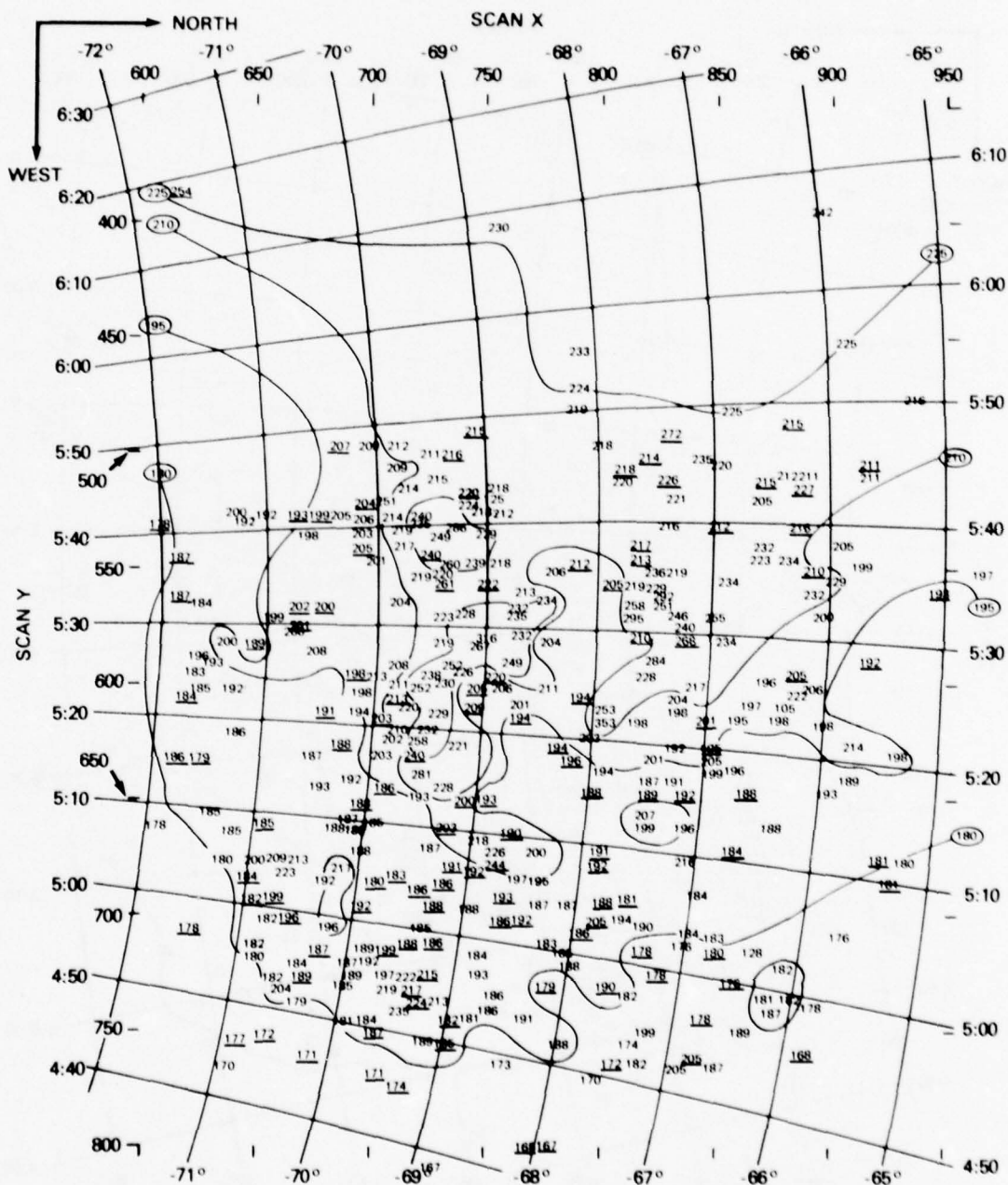


Fig. 11 — Contour plot of background densities on frame A125, used in computing measured density-volumes in the LMC, 1050 to 1600 Å. Values for  $\Delta x \Delta y = 2 \times 2$  are underlined.

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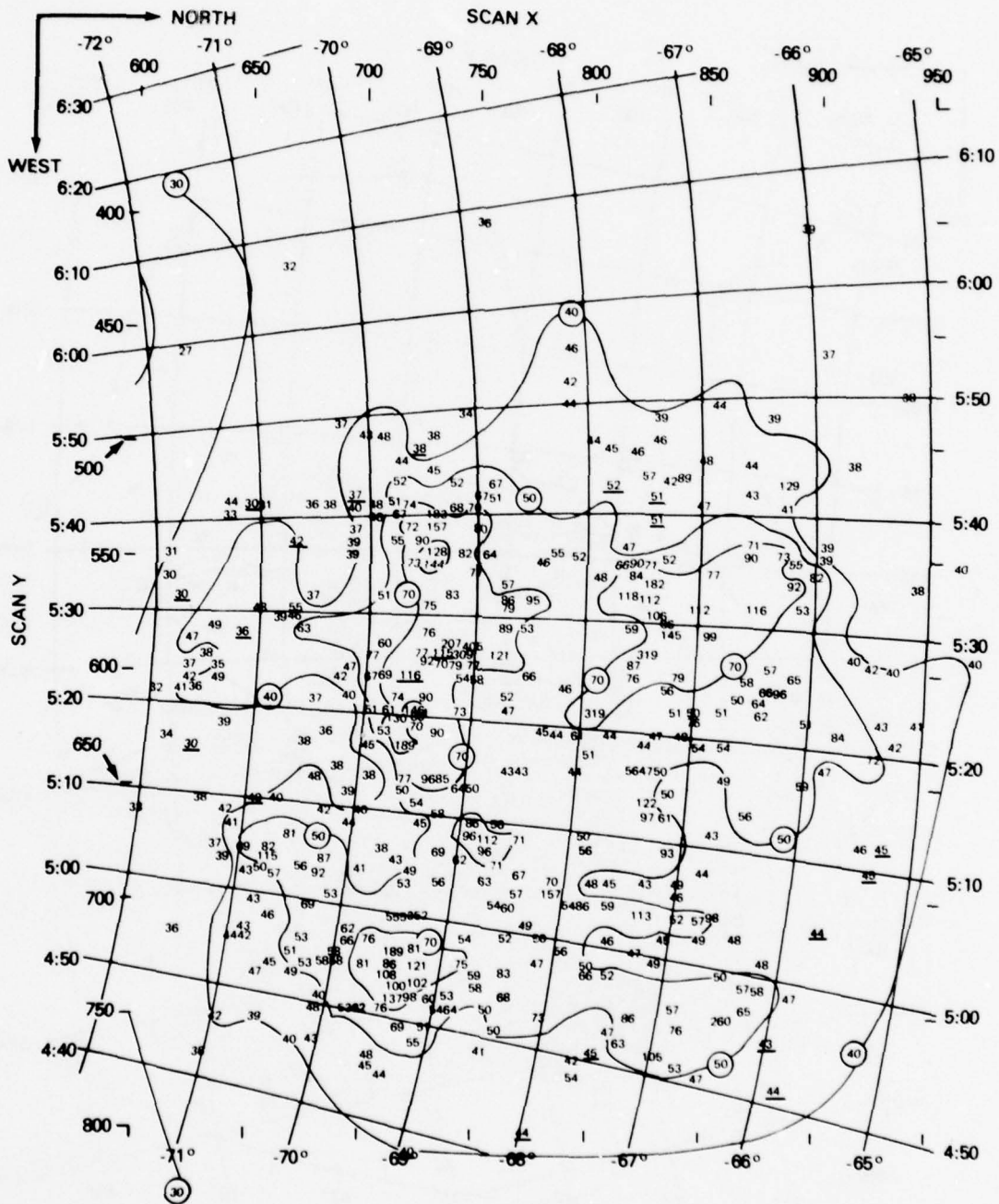


Fig. 12 - Contour plot of background densities on frame A129, used in computing measured density-volumes in the LMC, 1250 to 1600 Å. A few values for  $\Delta x \Delta y = 2 \times 2$  are underlined; the rest are not plotted.

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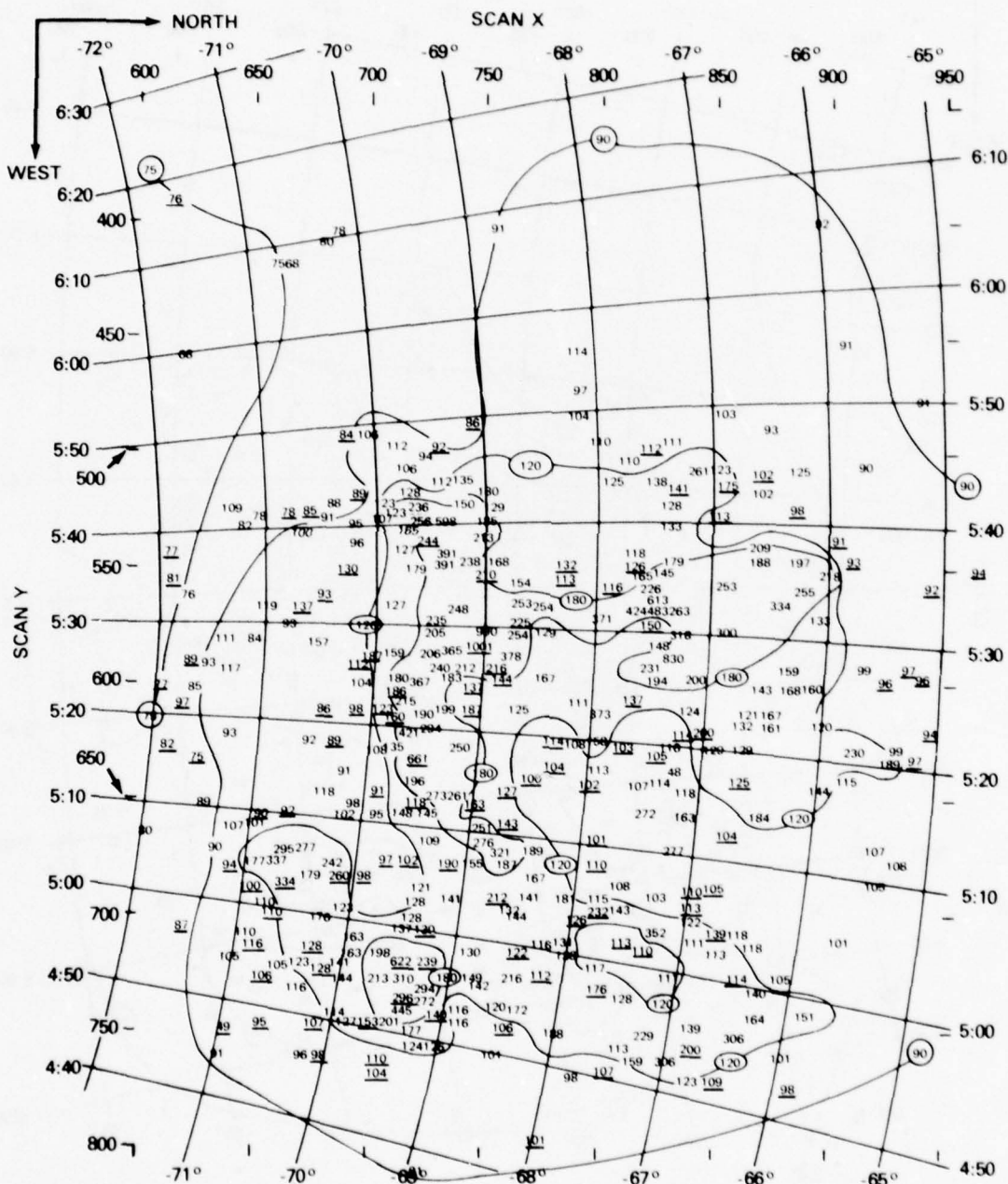


Fig. 13 - Contour plot of background densities on frame A130, used in computing measured density-volumes in the LMC, 1250 to 1600 Å. Values for  $\Delta x \Delta y = 2 \times 2$  are underlined.

unnaturally high  $B_L$ , and large  $\Delta x \Delta y$  gives lower than average  $B_L$ . If these are ignored, the contour lines show the general pattern of  $B_L$  on each frame. Although the patterns are similar, they are not entirely consistent with the exposure times (1 and 3 min on frames A124, and A125; 10 and 30 min on frames A129 and A130). This reveals that neither our correction for nonlinear response nor our estimates of  $B_L$  are precise.

The measured locations of identified SAO stars on the LMC frames were used, with their known values of right ascension and declination, to compute a transformation grid relating frame coordinates  $x$  and  $y$  to celestial coordinates  $\alpha$  and  $\delta$ . This  $(\alpha, \delta)$  grid is plotted in Fig. 2, along with the computed locations of the associations of Lucke and Hodge [19] (LH labels) and the H $\alpha$  emission regions of Henize [17] (N labels). It is seen, particularly from Figs. 2, that there is fairly good (although not perfect) correlation of UV-bright areas with known candidate sources; the mismatch is generally within the expected error of the mapping procedure.

Fig. 14 is a contour plot of the overall interstellar reddening in the LMC, based on interpolation of the measurements of Lucke [20] over the entire LMC, ranging from 0.05 for LH72 and foreground stars to 0.42 for LH89. This is subject to uncertainties, due to lack of knowledge of the small-scale variations of interstellar extinction in areas where it has not been measured. Also, correction of the measured far-UV fluxes for extinction suffer from the probability that the far-UV extinction curve in the LMC differs from the "average" interstellar extinction curve applicable to the local region of our galaxy. Nevertheless we have estimated the correction for extinction in providing the unreddened ultraviolet fluxes, UF, listed in Appendix B.

These ultraviolet fluxes combine the results of Bless and Savage [13] and of Borgman et al. [10] with Lucke's color-excess values and our density volumes in a highly simplified way, which we believe gives suitable values of the "unreddened flux" from blue stars in the LMC. From Bless, Savage, Borgman, et al. we adopt the ratio

$$\frac{E(\lambda 1350 - V)}{E(B - V)} = 4.2,$$

where  $E(B - V)$ , listed as RE in Appendix B, is Lucke's value plus 0.05 magnitude for foreground color excess (somewhat less than 0.07 magnitude estimated by Borgman et al.). Since  $\lambda 1350$  is approximately centered on our ICa passband (1250 to 1600 Å), the extinction for density volumes  $V$  measured on frames A129 and A130 (ICa, 10-min and 30-min exposures) is 4.2  $E(B - V)$  magnitudes, where  $E(B - V)$  is taken from Fig. 14. Thus the unreddened far-UV flux is

$$UF (\text{on ICa}) = (V/E)10^{0.4(4.2RE)} = (V/E)10^{1.67RE}, \quad (1)$$

where  $V$  has been normalized to a 1-min exposure by dividing by the exposure time  $E$ .

We expect that the wider ILi bandpass (1050 to 1600 Å) at shorter mean wavelength will increase the extinction, as shown in Fig. 27 of the S201 Catalog [7]. The correction to Eq. (1) was taken from the curves for 20,000 K and 40,000 K in that figure and is approximately

$$UF (\text{on ILi}) = (V/E)10^{0.4(5.48RE)} = (V/E)10^{2.19RE} \quad (2)$$

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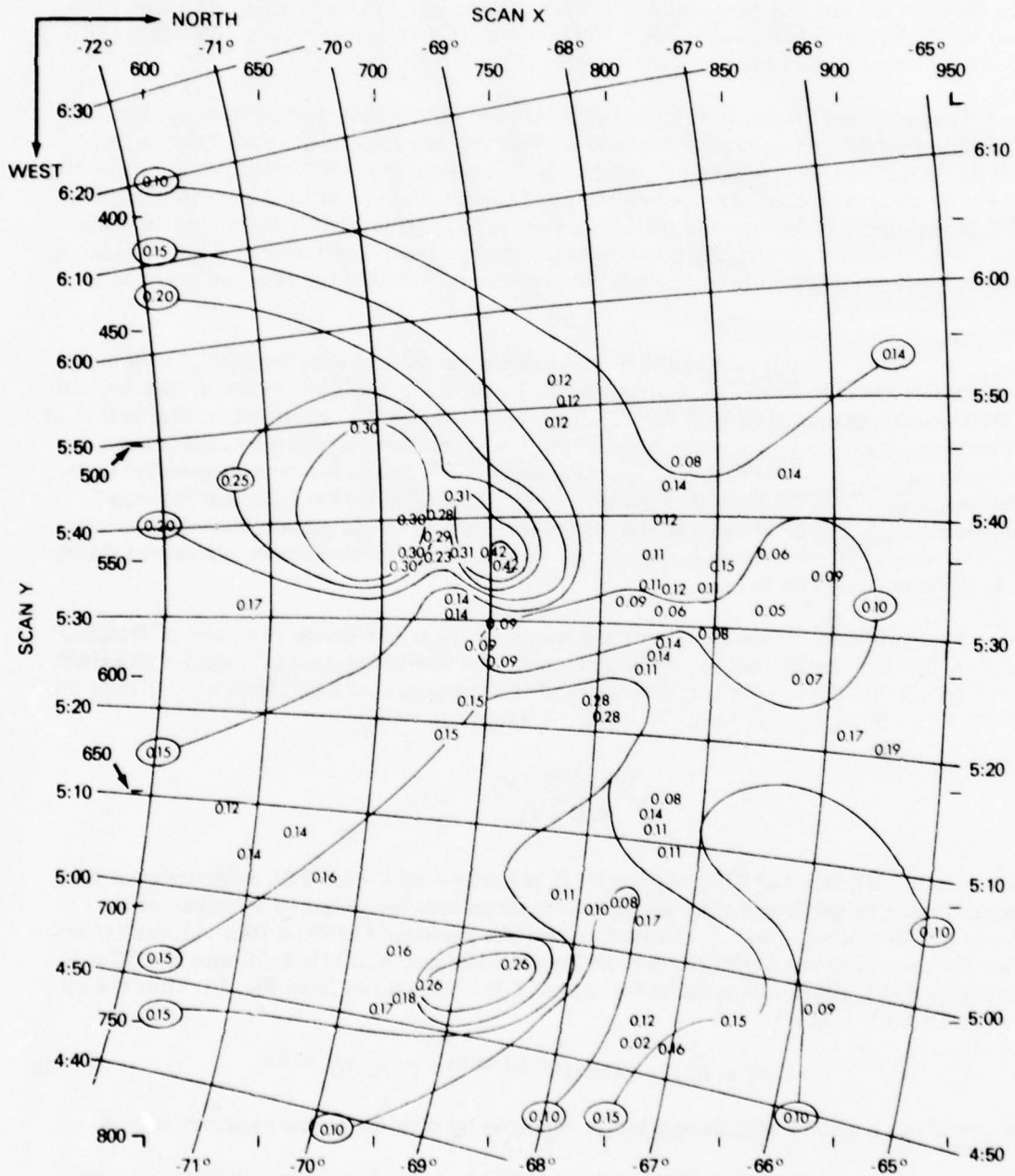


Fig. 14 — Contour plot of  $100 E(B - V)$  in the LMC, based on values given by Lucke [20] and used for estimating unreddened far-UV fluxes

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Values of the unreddened far-UV flux, listed as UF in Appendix B, were calculated in this way; they are fairly consistent, thus justifying the rough approximations used.

## DISCUSSION

Using Henize's estimates of  $H\alpha$  surface brightnesses calibrated by Doherty et al. [18], we calculated the  $H\alpha$  flux from each emission region (column labeled HA in Appendix B) and its ratio to the measured far-UV flux (UF). This ratio, called the "hydrogen index" (HI), is zero or very near zero for the 35 LH associations and 140 other hot-star areas far from  $H\alpha$  emission regions. The small, faint Henize nebulas have HI values about 0.05 to 0.1, which indicates the upper limit of  $H\alpha$  emission not detected by Henize.

Table 2 is a listing of the 157 Henize nebulas measured, showing the combined data from all four frames—the mean V/E for frames A124 and A125 listed under "Fil L," and the mean V/E for frames A129 and A130 listed under "Fil C." These values are used to calculate mean HI = HA/UF for frames A124 and A125 listed under "Mean HI, Fil L" and frames A129 and A130 under "Mean HI, Fil C." Italicized values are the most reliable (deviations less than 10%). Figs. 15, 16, and 17 are plots of small, medium, and large values of  $\bar{V}/\bar{E}$  for the nebulas in frames A124 and A125 (Fil L or ILi) vs  $\bar{V}/\bar{E}$  for these nebulas in frames A129 and A130 (Fil C or ICa) from  $\bar{V}/\bar{E} = 0$  to  $\bar{V}/\bar{E} = 3800$ , for both Henize nebulas and LH associations. Although there are some deviants (notably LH35 and N51 at the upper right in Fig. 15, N144 in Fig. 16, and N119 in Fig. 17), these figures show that  $\bar{V}/\bar{E}(\text{ILi}) = 1.77 \bar{V}/\bar{E}(\text{ICa}) + 3$  within  $\pm 10\%$  over this large range, thus confirming the background estimates fairly well.

Because V/E is 1.77 times larger on ILi frames, UF is about twice as large on ILi frames as on ICa frames. Thus  $\text{HI}(\text{ILi}) \approx 0.5 \text{HI}(\text{ICa})$ , as listed in Table 2 under "Ratio C/L." We averaged  $\text{HI}(\text{ILi})$  and  $0.5\text{HI}(\text{ICa})$  to get a mean value of HI, contoured in Fig. 18. This shows the distribution of atomic hydrogen across the LMC as determined from S201 far-UV measurements and Henize's  $H\alpha$  measurements [17,18]. There seem to be seven or eight clots of hydrogen around

x = 640, y = 600, near N199 and N200, where  $\bar{\text{HI}} = 0.91$  at  $\alpha = 5:23.5$ ,  $\delta = -71^\circ 20'$ ,  
 x = 720, y = 640, near N114, where  $\bar{\text{HI}} = 1.78$  at  $\alpha = 5:15.0$ ,  $\delta = -69^\circ 35'$ ,  
 x = 720, y = 760, near N77, where  $\bar{\text{HI}} = 1.49$  at  $\alpha = 4:49.0$ ,  $\delta = -69^\circ 14'$ ,  
 x = 790, y = 750, near N8, where  $\bar{\text{HI}} = 1.35$  at  $\alpha = 4:54.1$ ,  $\delta = -67^\circ 51'$ ,  
 x = 820, y = 550, near N56 and N59, where  $\bar{\text{HI}} = 2.26$  at  $\alpha = 5:35.7$ ,  $\delta = -67^\circ 37'$ ,  
 x = 820, y = 590, near N51, where  $\bar{\text{HI}} = 1.59$  at  $\alpha = 5:27.4$ ,  $\delta = -67^\circ 34'$ ,  
 x = 870, y = 735, near N14, where  $\bar{\text{HI}} = 0.95$  at  $\alpha = 5:00.2$ ,  $\delta = -66^\circ 18'$ ,  
 x = 885, y = 545, near N64, where  $\bar{\text{HI}} = 1.19$  at  $\alpha = 5:37.2$ ,  $\delta = -66^\circ 18'$ .

Measurements of some of these areas have been made longward of 1500 Å with the ultraviolet spectrometer on board the ANS spacecraft [10].

Bright  $H\alpha$  regions require both hot stars (implying high UF) and plentiful interstellar material; however, interstellar material can reduce observed far-UV brightness (V/E) due to dust extinction and may be responsible for some of the scatter in the correlation. The famous 30 Doradus region, for example, is *not* the brightest far-UV source in the LMC; this distinction is taken by the region of LH41, or N119A, which includes the highly luminous A-type supergiant S Doradus.

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Table 2 — Values of the Hydrogen Index for 157 Nebulas Through Filters LiF (Fil L) and CaF<sub>2</sub> (Fil C)  
(In the first column, the entry 77A-E, ..., N77E, and the entry 79, A-E means N79, N79A, ..., N79E.)

Henize N No.	Assoc. LH No.	R.A.	Dec.	Size	HA	V/E Fil L	Mean HI Fil L	V/E Fil C	Mean HI Fil C	Ratio C/L
2		4:43.1	-68:01	2.4 X 2.4	3.4	-0.7	—	0.2	11.6?	—
76		4:49.2	-68:29	3.6 X 4.8	4.5	3.5	0.69	0.3	9.2?	13.?
77A-E		4:49.7	-69:17	8.3 X 7.1	107.7	27	1.75	24	2.45	1.4
3		4:50.0	-67:46	11.9 X 9.5	52.5	75	0.41	57	0.62	1.5
79, A-E	1	4:51.1	-69:30	15.5 X 20.2	395.7	1127	0.15	647	0.32	2.1
79CE	2	4:52.5	-69:25	6.0 X 6.0	58.0	45	0.51	31	0.92	1.8
5	3	4:52.6	-67:22	6.0 X 6.0	35.2	18	1.02	9	2.57	2.5
8A		4:53.1	-68:08	4.8 X 3.6	23.1	11	1.32	6	2.75	2.1
81AB		4:53.1	-69:18	3.6 X 3.6	11.6	2.5	1.35?	1.1	4.00	3.0?
4A-F	4	4:53.2	-66:59	6.0 X 7.1	31.0	50	0.28	41	0.41	1.5
7		4:53.5	-67:28	3.6 X 3.6	3.2	5	0.36	0.0	—	—
185		4:54.2	-70:05	9.5 X 9.5	60.6	72	0.38	39	0.84	2.2
80		4:54.3	-68:27	3.6 X 3.6	9.2	7	0.48	3	1.45	3.0
83, A-D	5	4:54.5	-69:16	7.1 X 8.3	150.8	117	0.36	92	0.60	1.7
87		4:54.7	-69:35	2.4 X 2.4	0.6	0.2	1.59?	1.2	0.28?	0.2?
88	8	4:55.1	-69:29	2.4 X 3.6	0.7	6.5	0.05	1.1	0.33	6.6
9	6	4:55.2	-67:13	10.7 X 9.5	81.2	192	0.23	135	0.38	1.7
84		4:55.7	-68:31	4.8 X 4.8	10.8	12	0.24	1.2	3.16	13.
90	8	4:55.7	-69:21	2.4 X 2.4	1.5	3.1	0.19	-0.9	—	—
85, 86		4:55.9	-68:43	6.0 X 6.0	19.6	23	0.24	3.5	2.06	8.6
11, A-L	9-14	4:56.6	-66:30	26.2 X 23.8	1874.	3577	0.25	2277	0.46	1.8
94A-C	8	4:57.0	-69:33	6.0 X 6.0	20.9	38	0.25	7.1	1.59	6.4
11BC	9, 13	4:57.2	-66:30	7.1 X 8.3	355.	181	0.92	90	2.22	2.4
93		4:57.2	-69:18	2.4 X 3.6	0.5	2.6	0.07?	0.7	0.35	5.0?
92, AB	11	4:57.3	-68:50	4.8 X 4.8	14.4	13	0.31	7.2	0.74	2.4
91, AB	12	4:57.5	-68:29	8.3 X 9.5	229.5	275	0.23	178	0.48	2.1
12, A		4:58.6	-66:16	7.2 X 6.0	26.8	17.5	0.79	9.9	1.58	2.0
16A		5:00.0	-68:03	4.8 X 6.0	4.8	9	0.26	3.3	0.86	3.3

Table continues.

Table 2 (Continued) — Values of the Hydrogen Index for 157 Nebulas Through Filters LiF (Fil L) and CaF<sub>2</sub> (Fil C)  
 (In the first column, the entry 77A-E, ..., N77E, and the entry 79, A-E means N79, N79A, ..., N79E.)

Henize N No.	Assoc. LH No.	R.A.	Dec.	Size	HA	V/E Fil L	Mean HI Fil L	V/E Fil C	Mean HI Fil C	Ratio C/L
13		5:00.1	-66:09	4'8 X 4'8	4.0	-1.5	—	0.8	3.31	—
186A-E		5:00.1	-70:15	10.7 X 11.9	57.5	177	0.14	93	0.33	2.4
14		5:00.2	-66:19	4.8 X 4.8	11.5	5.6	0.94	3.3	1.92	2.0
15		5:00.7	-66:27	2.4 X 2.4	4.0	2.4	0.85	0.4	6.7?	8.?
10, 13		5:02.1	-68:08	25.0 X 27.4	802.	871	0.50	442	1.14	2.3
17, AB	19	5:03.8	-67:23	3.6 X 4.8	8.9	2.2	1.93	6.4	0.72	0.4
188		5:04.1	-70:18	2.4 X 2.4	0.1	0.0	—	0.8	0.04	—
21	22	5:04.9	-67:38	4.8 X 6.0	11.8	14	0.56	6.5	1.34	2.4
190	24	5:04.9	-70:48	4.8 X 4.8	21.3	42	0.24	25	0.50	2.1
22	21	5:05.1	-67:52	2.4 X 2.4	0.1	5	0.02	1.4	0.06	3.0
23A	25	5:05.1	-68:08	4.8 X 3.6	14.9	27	0.32	23	0.43	1.3
20		5:05.2	-66:59	3.6 X 4.8	4.0	6.3	0.31	1.0	2.2?	7.1?
191AB	23	5:05.2	-70:58	3.6 X 3.6	8.4	10.7	0.39	6.4	0.77	2.0
189		5:05.3	-70:12	3.6 X 3.6	2.9	6.7	0.19	3.2	0.48	2.5
23, A	25	5:05.8	-68:12	11.9 X 16.7	205.1	740	0.16	381	0.35	2.2
100		5:07.5	-68:37	4.8 X 6.0	5.5	18	0.15	2.3	1.38	9.2
101	27	5:07.8	-69:13	2.4 X 2.4	0.05	2	0.005	0.5	0.03	6.
103AB		5:09.2	-68:50	8.3 X 6.0	104.3	144	0.32	103	0.55	1.7
104AB		5:09.7	-68:33	4.8 X 6.0	11.4	17.4	0.31	8.0	0.80	2.6
105, A	31	5:10.1	-68:58	8.3 X 8.3	122.7	239	0.23	146	0.45	2.0
26, 27	32	5:10.8	-67:10	6.0 X 6.0	5.0	39	0.07	18.2	0.18	2.6
108		5:10.8	-69:31	3.6 X 3.6	1.6	1.2	0.61?	0.1	8.7?	14.?
193A-E		5:13.0	-70:28	3.6 X 3.6	4.8	5.5	0.42	1.7	1.6?	3.8?
112		5:13.7	-69:15	3.6 X 3.6	3.3	-2.5	—	-4	—	—
30, A-D	34-38	5:13.8	-67:28	11.9 X 9.5	90.7	148	0.34	79	0.75	2.2
113, A-F	35	5:13.8	-69:24	11.9 X 8.3	307.5	410	0.33	258	0.64	1.9
31		5:14.8	-66:29	3.6 X 3.6	1.0	4.6	0.14	2.2	0.33	2.4
114, A	39	5:14.9	-69:34	10.7 X 8.3	159.1	38	1.99	26	3.15	1.6

Table continues.

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Table 2 (Continued) — Values of the Hydrogen Index for 157 Nebulas Through Filters LiF (Fil L) and CaF<sub>2</sub> (Fil C)  
(In the first column, the entry 77A-E, ..., N77E, and the entry 79, A-E means N79, N79A, ..., N79E.)

Henize N No.	Assoc. LH No.	R. A.	Dec.	Size	HA	V/E Fil L	Mean HI Fil L	V/E Fil C	Mean HI Fil C	Ratio C/L
32		5:15.9	-68:02	2.4 X 2.4	0.3	0.0	—	0.3	0.52	—
194		5:16.5	-71:50	2.4 X 2.4	0.4	0.2	1.12?	0.2	1.39	1.2?
33		5:16.9	-67:23	3.6 X 3.6	10.5	4.3	1.25	0.1	—	—
116		5:17.3	-69:57	3.6 X 3.6	1.9	3.0	0.31	0.1	8.3?	27.?
117		5:17.4	-69:38	2.4 X 2.4	1.5	3	0.22	5.2	0.17	0.8
35		5:17.8	-66:04	4.8 X 4.8	2.9	9.7	0.18	3.6	0.53	3.0
36		5:18.0	-67:57	3.6 X 3.6	1.0	1.7	0.22	-0.1	—	—
195, AB	40	5:18.4	-71:18	6.0 X 4.8	15.7	15	0.48	6.0	1.45	3.0
119, A	41	5:18.7	-69:15	17.9 X 15.5	1028.	3820	0.13	1496	0.39	3.0
118		5:19.3	-68:24	2.4 X 2.4	1.5	-0.7	—	0.3	1.88	—
120, A-D	42	5:19.3	-69:43	8.3 X 10.7	293.	240	0.66	239	0.77	1.2
122	46	5:20.3	-69:34	2.4 X 2.4	0.1	1.5	0.02?	2.3	0.01	0.5?
37		5:20.3	-66:56	4.8 X 6.0	12.2	8.2	0.80	2.0	3.84	4.8
38		5:20.6	-66:50	3.6 X 3.6	7.6	2.5	1.6?	0.8	6.9?	4.3?
41		5:20.7	-68:04	3.6 X 3.6	1.0	2	0.14	-0.1	—	—
40	43	5:21.5	-65:30	3.6 X 3.6	5.5	3.3	0.67	1.2	2.4?	3.6?
197		5:21.6	-71:45	2.4 X 2.4	0.6	2.7	0.10	0.2	1.5?	15.?
44BCF	47	5:21.8	-67:58	7.1 X 8.3	84.2	328	0.06	139	0.21	3.5
126	44	5:21.9	-69:05	2.4 X 3.6	0.3	2.6	0.05	2.2	0.07	1.4
127AB, 129		5:22.0	-69:43	3.6 X 3.6	18.7	1.0	9.8?	-0.2	—	—
43	45	5:22.2	-65:46	7.1 X 13.1	64.4	80	0.34	58	0.58	1.7
128		5:22.5	-68:41	3.6 X 3.6	0.7	1.8	0.18?	0.1	3.9?	22.?
44, A-N	47-49	5:22.6	-67:59	21.4 X 17.9	2040.	1842	0.28	960	0.72	2.6
45, A		5:22.8	-66:44	3.6 X 3.6	5.0	1.6	1.7?	0.2	14.?	8.2?
130		5:23.0	-70:13	3.6 X 3.6	3.6	-2	—	-0.1	—	—
46		5:23.1	-66:25	3.6 X 3.6	5.0	1	3.0?	0.7	5.0?	1.7?
198		5:23.2	-71:38	8.3 X 8.3	58.3	43	0.60	23	1.36	2.3
131		5:23.3	-69:54	2.4 X 3.6	2.0	6	0.18	1.3	0.9?	5.0?

Table continues.

Table 2 (Continued) — Values of the Hydrogen Index for 157 Nebulas Through Filters LiF (Fil L) and CaF<sub>2</sub> (Fil C)  
(In the first column, the entry 77A-E, ..., N77E, and the entry 79, A-E means N79, N79A, ..., N79E.)

Henize N No.	Assoc. LH No.	R. A.	Dec.	Size	HA	V/E Fil L	Mean HI Fil L	V/E Fil C	Mean HI Fil C	Ratio C/L
199, 200	50	5:24.0	-71:23	15.5 X 9.5	121.0	75	0.69	28	2.26	3.3
132A-J		5:24.1	-69:40	6.0 X 8.3	11.4	50	0.12	44	0.14	1.2
137AB		5:24.4	-68:58	2.4 X 3.6	0.5	3	0.10	0.0	—	—
138, A-D		5:24.8	-68:33	8.3 X 9.5	64.4	85	0.39	54	0.72	1.8
48, A-E	53	5:25.4	-66:23	17.9 X 14.3	270.3	266	0.71	107	1.94	2.7
48A-C	52	5:25.7	-66:19	7.1 X 3.6	20.3	17	0.83	12	1.29	1.6
201, 202		5:25.7	-71:32	3.6 X 3.6	0.6	3.2	0.08	0.3	1.1?	14.?
140, 143		5:25.9	-69:15	9.5 X 9.5	47.7	168	0.16	80	0.39	2.4
142		5:25.9	-69:28	6.0 X 4.8	10.4	22	0.25	6	1.11	4.4
49	53	5:26.0	-66:08	3.6 X 3.6	13.2	3	3.4?	0.8	13.?	4.?
50		5:26.0	-67:12	6.0 X 4.8	11.4	21.5	0.25	5.3	1.27	5.1
134	59	5:26.2	-69:55	2.4 X 2.4	0.2	0.3	0.17	0.3	0.26	1.5
51BE	55	5:26.7	-67:41	10.7 X 11.9	315.9	97	1.85	72	2.67	1.4
143	57	5:26.8	-69:21	4.8 X 4.8	18.6	38	0.26	24	0.50	1.9
144, AB	58	5:26.9	-68:52	10.7 X 10.7	475.4	1010	0.30	415	0.81	2.7
51, A-E	51-63	5:26.9	-67:35	22.6 X 21.4	1707.0	3258	0.30	1619	0.69	2.3
205B	56	5:26.9	-71:38	6.0 X 6.0	9.0	40	0.10	10.5	0.45	4.5
51AC	60, 63	5:27.8	-67:30	7.1 X 6.0	69.7	115	0.30	38	1.07	3.6
145		5:27.9	-69:11	2.4 X 2.4	0.1	-9	—	1.9	0.02	—
204	62	5:28.0	-70:36	6.0 X 6.0	64.0	57	0.48	26.5	1.25	2.6
205A		5:28.3	-71:26	6.0 X 3.6	7.0	16	0.18	5.3	0.54	3.0
146	61	5:29.1	-69:03	3.6 X 3.6	1.6	8	0.11	2.9	0.34	3.1
206, A-D	66, 69	5:31.3	-71:07	17.8 X 20.2	1395.3	1139	0.52	460	1.58	3.0
148B-E	71	5:32.0	-68:34	6.0 X 4.8	21.4	16	0.49	14.2	0.69	1.4
148I	73	5:32.1	-68:42	6.0 X 6.0	19.2	-26	—	-15	—	—
57AE	76	5:32.1	-67:44	8.3 X 8.3	336.3	306	0.69	199	1.31	1.9
55, A	72	5:32.3	-66:28	9.5 X 7.1	173.3	163	0.81	116	1.24	1.5
57, A-E	76	5:32.5	-67:43	13.1 X 13.1	711.6	918	0.49	385	1.31	2.7

Table continues.

Table 2 (Continued) — Values of the Hydrogen Index for 157 Nebulas Through Filters LiF (Fil L) and CaF<sub>2</sub> (Fil C)  
 (In the first column, the entry 77A-E, ..., N77E, and the entry 79, A-E means N79, N79A, ..., N79E.)

Henize N No.	Assoc. LH No.	R.A.	Dec.	Size	HA	V/E Fil L	Mean HI Fil L	V/E Fil C	Mean HI Fil C	Ratio C/L
58		5:32.8	-70:28	2.4 X 2.4	1.8	14	0.07	10.3	0.11	1.6
148A		5:33.0	-68:25	2.4 X 2.4	1.1	1.5	0.26?	0.6	0.93	3.6?
149AB		5:33.3	-69:48	2.4 X 2.4	1.9	1.6	0.42	0.1	7.3?	17.?
150		5:34.0	-68:47	2.4 X 3.6	2.7	2.3	0.27	0.8	1.0	3.7
62AB		5:34.5	-66:16	6.0 X 4.8	41.9	25	1.13	13	2.46	2.2
154, AB	81, 87	5:35.5	-69:44	16.7 X 20.2	1288.4	1920	0.16	952	0.43	2.7
56, 59A-C	82, 88	5:35.6	-67:35	9.5 X 11.9	543.2	138	2.21	76	4.63	2.1
63, A	83	5:35.6	-66:01	8.3 X 7.1	101.8	104	0.62	58	1.23	2.0
64A-C	95	5:37.1	-66:21	7.1 X 8.3	91.3	65	1.04	27	2.69	2.6
68		5:37.2	-68:15	2.4 X 2.4	0.6	2.8	0.11	0.4	0.9?	8.?
65(75%)		5:37.3	-66:38	7.1 X 15.5	43.2	47	0.55	18	1.66	3.0
155		5:37.7	-69:47	3.6 X 3.6	2.2	3	0.17	0.4	1.6?	9.?
156		5:38.1	-69:36	3.6 X 2.4	1.4	-1.7	—	-0.1	—	—
157AB	99, 100	5:38.8	-69:08	20.2 X 17.8	3719.	1431	0.47	507	1.97	4.2
213, A		5:38.9	-70:42	4.8 X 6.0	48.7	18	0.61	5.6	2.71	4.4
148C	101	5:39.5	-69:32	6.0 X 6.0	257.5	73	0.85	58	1.44	1.7
158, A-D	96, 101	5:39.9	-69:28	15.5 X 14.3	864.	619	0.33	215	1.33	4.0
159, A-L	105	5:40.4	-69:46	7.1 X 7.1	102.6	21	1.08	-9	—	—
161		5:40.5	-69:00	3.6 X 3.6	5.7	1.8	0.68	0.5	3.6?	5.?
158A	104	5:40.6	-69:24	3.6 X 3.6	68.9	24	0.72	14	1.64	2.3
172, 173		5:40.7	-69:55	4.8 X 4.8	3.3	7	0.10	0.8	1.34?	13.?
160, A-F	103	5:40.8	-69:38	15.5 X 14.3	771.9	535	0.33	307	0.79	2.4
176		5:41.3	-70:11	3.6 X 3.6	2.1	7	0.06	0.3	2.1?	35.?
218		5:41.5	-70:35	2.4 X 2.4	1.9	2.3	0.19	0.1	12.?	64.?
214, A-H	107	5:41.6	-71:16	16.7 X 11.9	179.1	160	0.32	54	1.27	4.0
216		5:41.6	-70:55	3.6 X 3.6	0.6	2.3	0.26	0.2	1.4?	5.4?
117		5:41.6	-69:55	4.8 X 3.6	23.4	-1.5	—	0.5	14.?	—
219		5:41.7	-70:24	3.6 X 3.6	2.9	8.5	0.07	0.4	2.23	32.
174, 175		5:42.1	-70:01	4.8 X 4.8	11.7	8	0.30	5.1	0.69	2.3

Table continues.

Table 2 (Concluded) — Values of the Hydrogen Index for 157 Nebulas Through Filters LiF (Fil L) and CaF<sub>2</sub> (Fil C)  
 (In the first column, the entry 77A-E, ..., N77E, and the entry 79, A-E means N79, N79A, ..., N79E.)

Henize N No.	Assoc. LH No.	R.A.	Dec.	Size	HA	V/E Fil L	Mean HI Fil L	V/E Fil C	Mean HI Fil C	Ratio C/L
214CFGH	107, 110	5:42.3	-71:20	6.0 X 6.0	93.9	38	0.71	18	1.95	2.7
164	113	5:42.9	-69:05	7.1 X 7.1	123.0	35	1.00	15	3.24	3.2
165		5:43.2	-68:58	3.6 X 3.6	12.7	5	0.72	2.6	1.87	2.6
70	114	5:43.5	-67:51	9.5 X 9.5	240.	123	1.05	79.	1.90	1.8
72	115	5:43.6	-66:17	2.4 X 2.4	1.9	6	0.16	5.5	0.20	1.25
163		5:43.6	-69:46	6.0 X 6.0	63.0	17	0.82	3.2	5.90	7.2
71		5:43.9	-67:27	3.6 X 3.6	3.4	3.5	0.59	0.9	2.6?	4.4?
166, 167		5:44.8	-69:23	3.6 X 3.6	3.0	0.3	2.58	0.5	3.0?	1.2?
168, AB		5:45.8	-69:46	6.0 X 4.8	22.8	12.5	0.40	5.4	1.27	3.18
74, AB	116	5:45.8	-67:09	7.1 X 15.5	93.3	185	0.34	118	0.58	1.7
169A-C		5:46.7	-69:34	3.6 X 3.6	6.8	1	1.98	0.3	8.5?	4.3?
179A-D		5:48.4	-69:53	3.6 X 3.6	4.6	4	0.26	1.4	1.02	3.9
180, A-C	117, 118	5:49.5	-70:05	16.7 X 13.1	337.8	540	0.25	246	0.43	1.7
181		5:49.9	-69:09	2.4 X 2.4	0.1	1	0.04	0.1	0.25	6.2
75AB	122	5:56.2	-68:12	7.1 X 8.3	38.3	68	0.33	31	0.83	2.5
221		6:19.5	-71:35	2.4 X 2.4	0.1	6	0.005	-0.1	—	—

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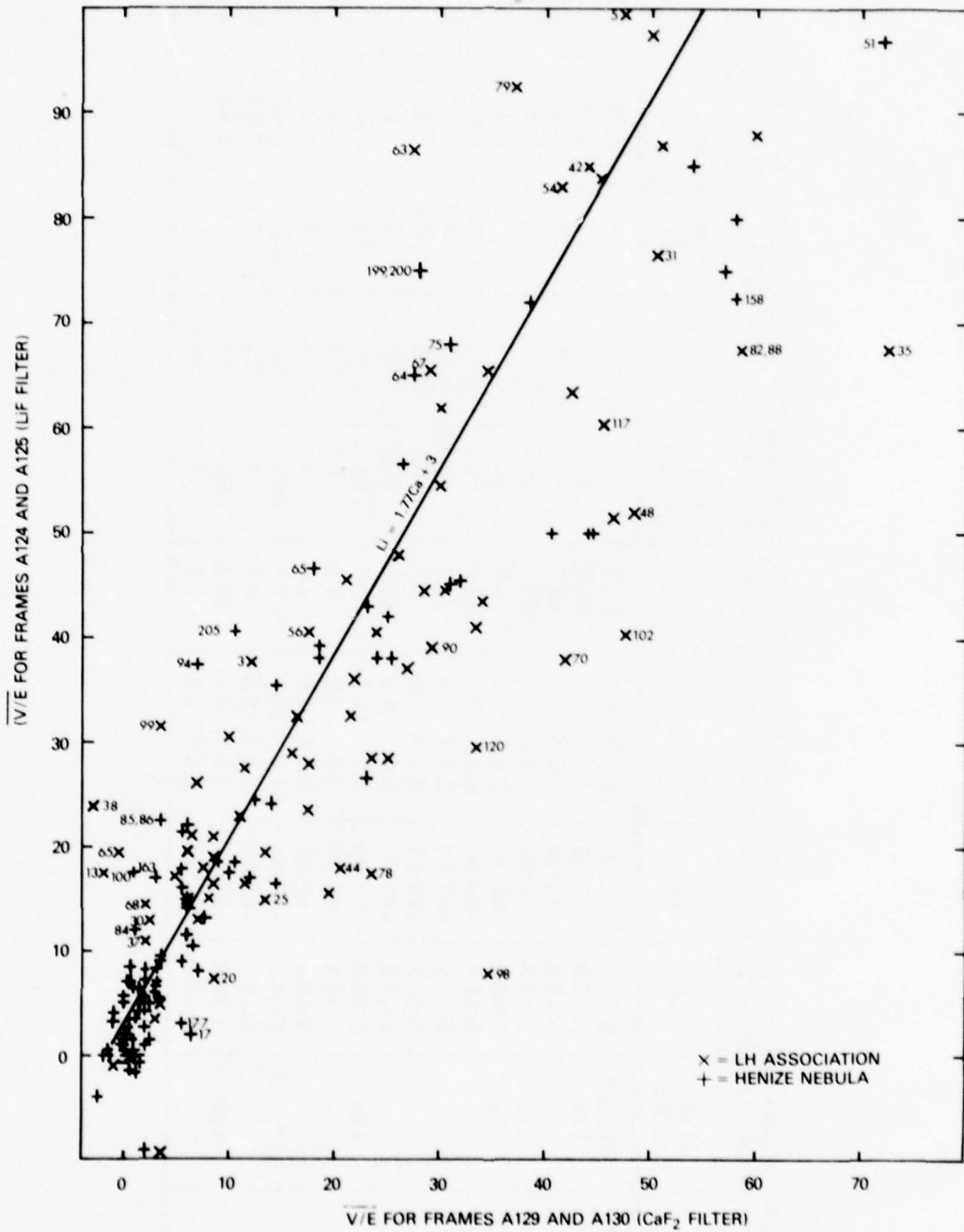


Fig. 15 — Small values of the ratio of density volume to exposure time  $V/E$  from I Li frames A124 and A125 vs  $V/E$  from I Ca frames A129 and A130. The LH numbers and Henize N numbers of deviant points are indicated.

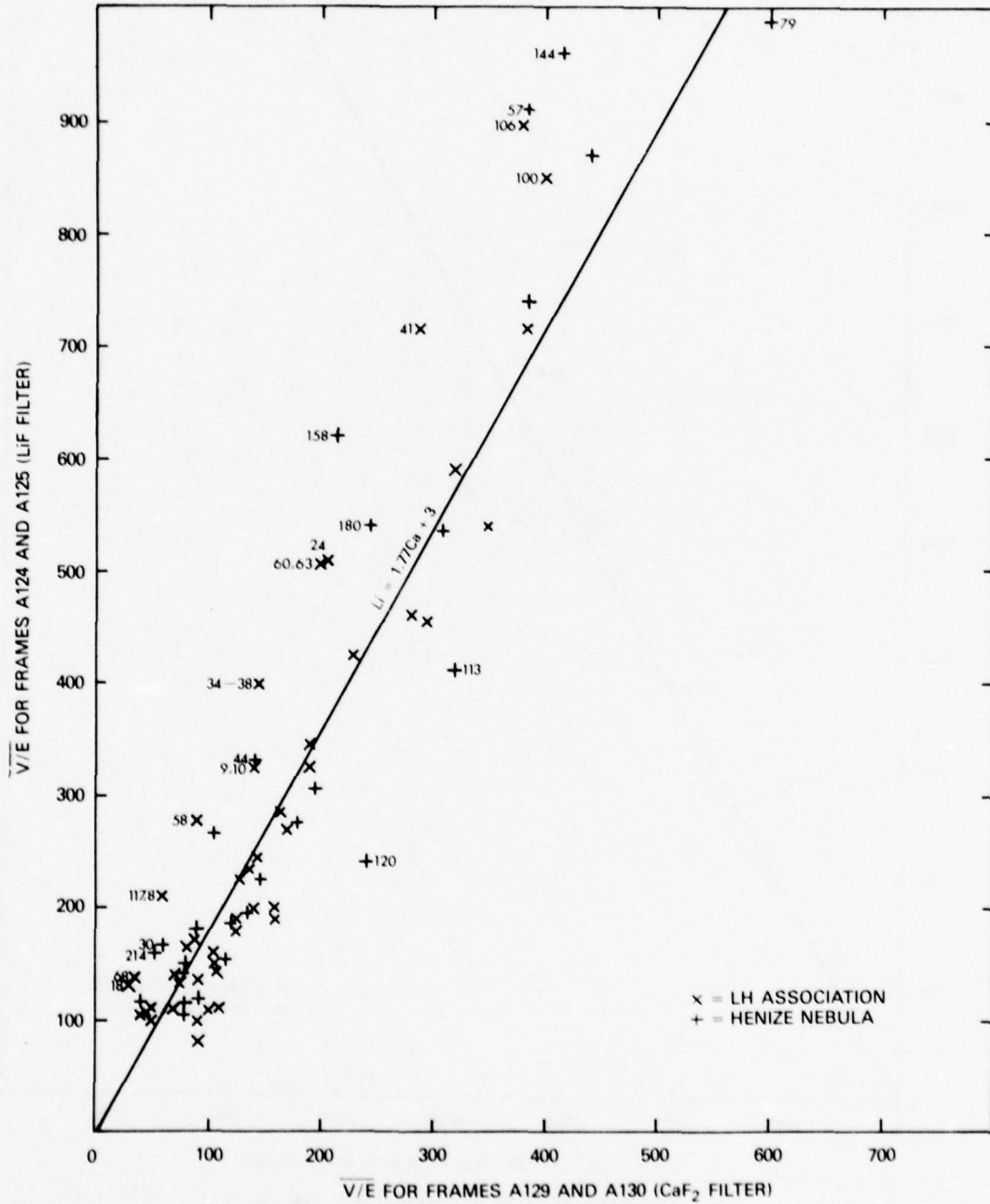


Fig. 16 — Intermediate values of V/E plotted as in Fig. 15

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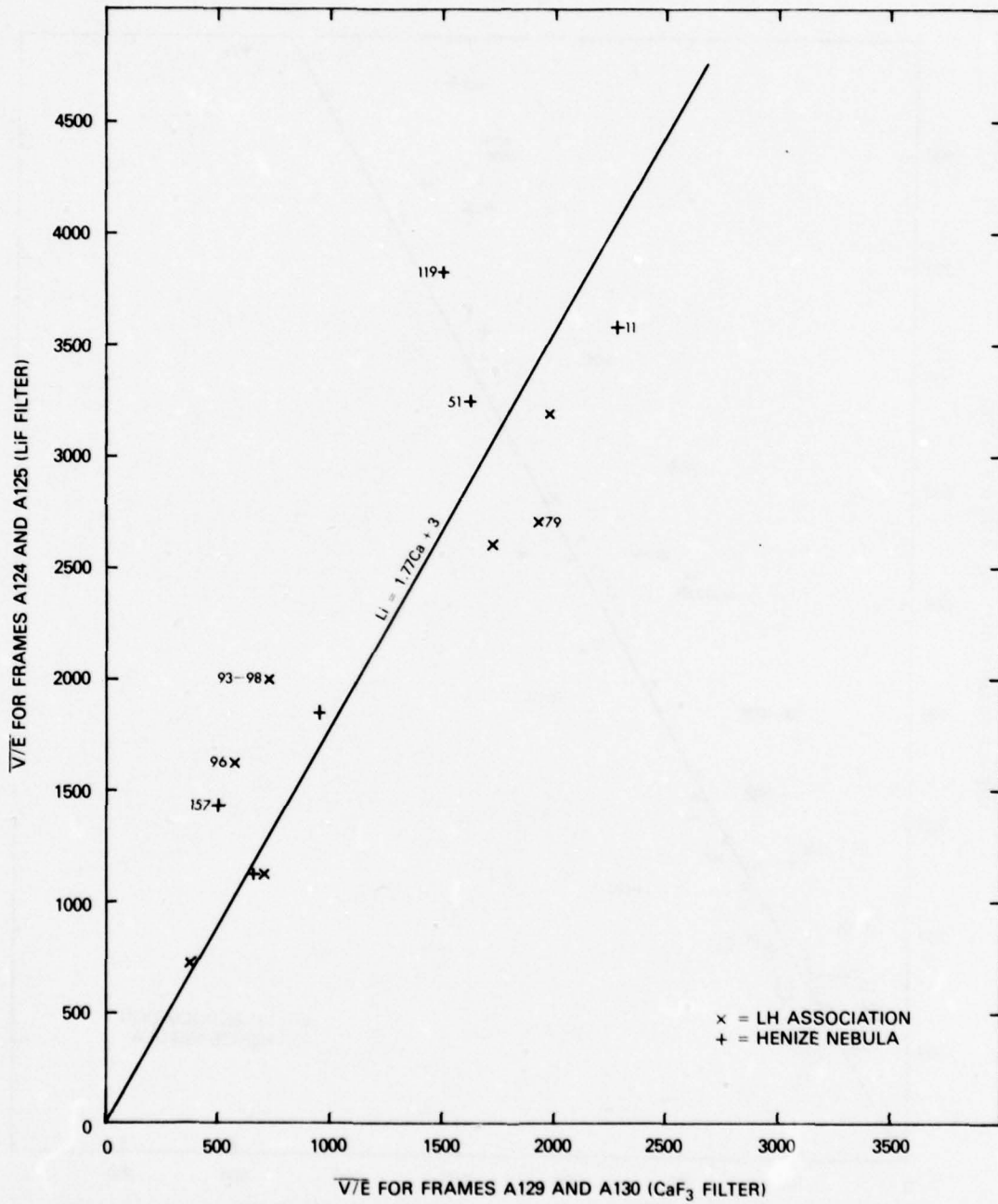


Fig. 17 — Large values of V/E plotted as in Fig. 15

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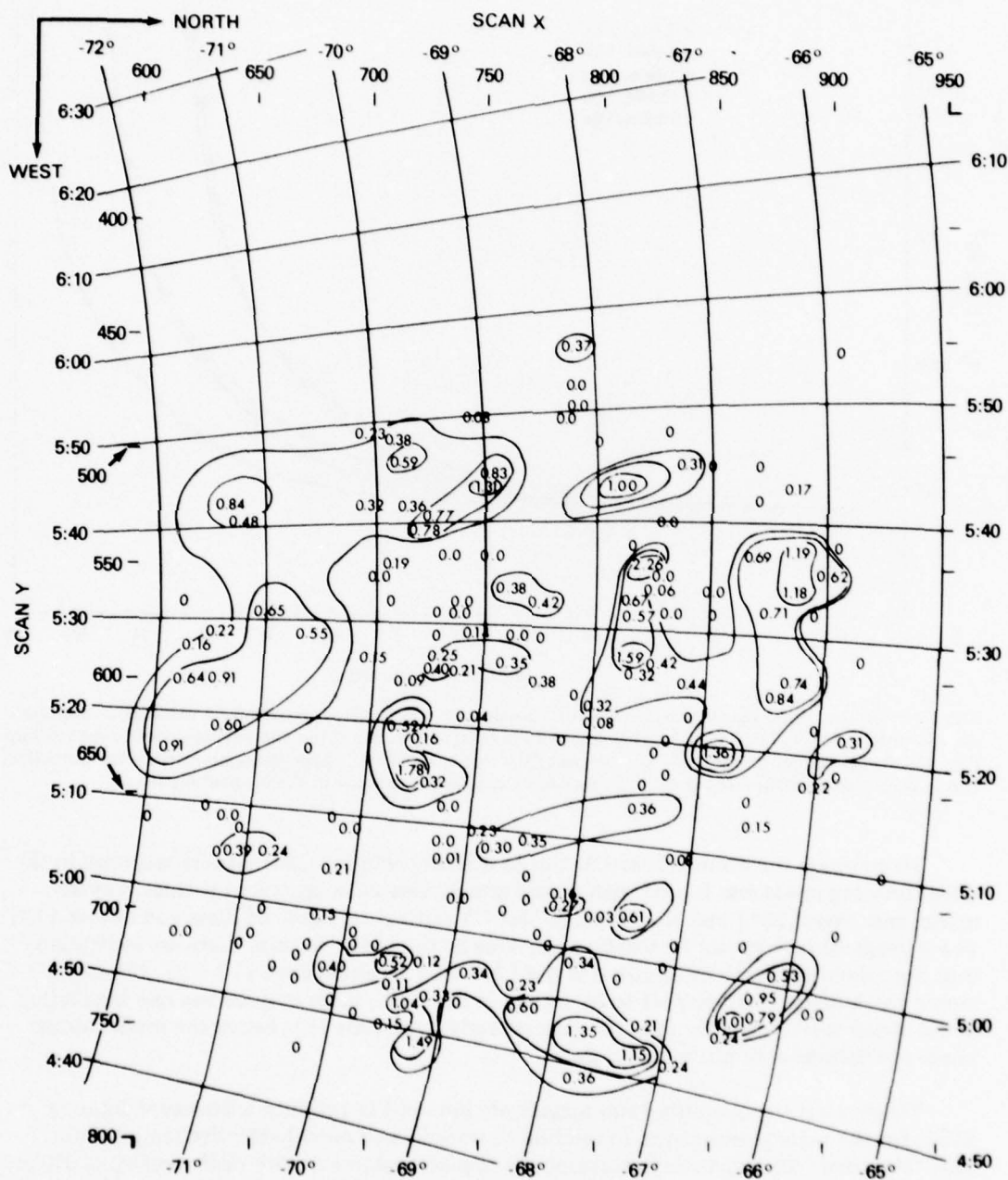


Fig. 18 — Contours of hydrogen index  $HI = HA/UF$  in the LMC ( $HA$  = Henize  $H\alpha$  flux,  $UF$  = measured far-UV flux corrected for extinction) plotted using the mean of frames A124, A125, 1/2 of A129, and 1/2 of A130

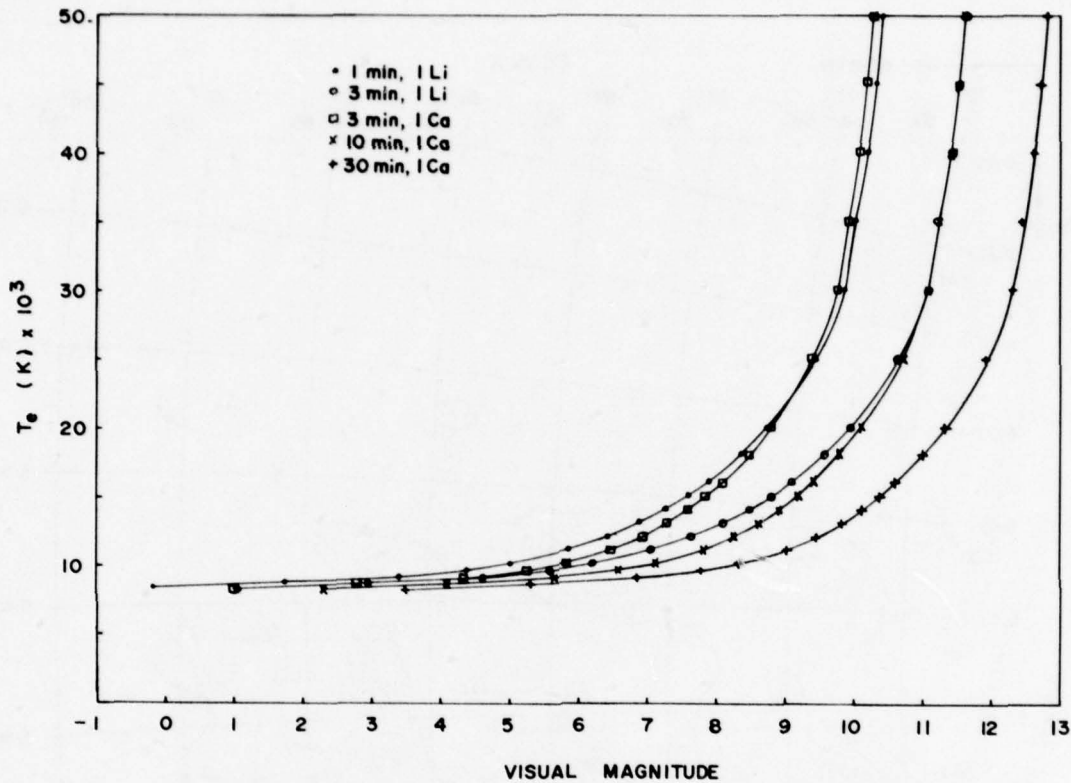


Fig. 19 — Stellar visual magnitude, in relation to effective temperature, required to produce a “standard” density volume of 5131 [7], computed for various S201 exposures using the preflight instrument calibration and stellar model atmosphere UV fluxes of Kurucz et al. [25] and assuming no interstellar extinction. Hot, unreddened stars as faint as  $m_v = 13$  should be readily measurable in the longest exposures.

To compare the observed far-UV fluxes with expectations, the camera response in the direct imaging mode was folded with model atmosphere calculations of Kurucz, Peytremann, and Avrett [25] and the “average” far-UV extinction curve of Bless and Savage [13]. These predictions may not be totally applicable to the LMC, because there are indications that the interstellar extinction curve in the LMC may be anomalous [10–12]. If heavy elements are deficient with respect to hydrogen in the LMC, there may be less line blanketing in the stellar far-UV spectra than for galactic early-type stars [8]; hence the model atmosphere predictions may not be accurate.

Figure 19 is the computed star magnitude required to produce a density volume of 5131, for the various exposures, in relation to unreddened model effective temperature. This “standard” density volume corresponds to a conical image with peak density of 1.0 and 7 rasters full width and is by no means the weakest measurable image. (Density volumes less by at least a factor of 100 are accurately determinable.) Further details are given in the S201 catalog [7].

Unfortunately it is not practical to separate the effects of temperature and of interstellar extinction using the UV imagery data alone, because 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 reddening and/or effective temperature is known from ground-based measurements can the UV fluxes be used to provide independent estimates of temperature and far-UV extinction. Although Lucke [20] has estimated the extinction for some of his associations and Bok and Bok [26] have measured integrated visual magnitudes and colors (B - V) for some associations, comparison of the present UV data and ground-based data is difficult because the available ground-based data are incomplete and because the S201 measurements integrate over areas which are larger than the individual associations and hence include a large contribution due to field stars.

#### SUMMARY

Far-UV electrographs of the LMC taken from the lunar surface on Apollo 16 have been scanned with a specially tuned PDS microdensitometer. The digitized scan data in units of 0.01D at scale of 1.19 arc-min per pixel (33- $\mu$ m raster) have been smoothed, contoured, and corrected for an empirically determined nonlinear response of the S201 electrographic camera, and isodensity contour maps of the LMC exposures were generated. On computer-printout mosaics of linearized density  $D_L$ , the 122 Lucke-Hodge (LH) associations and 157 of Henize's nebulas (N) in the LMC were located, the local background (BG) carefully estimated for each, and density volumes (V) summed within the specified areas. The far-UV brightnesses (V/E) were corrected for interstellar reddening (RE) in the LMC to give the unreddened far-UV flux (UF). All these data, as well as the H $\alpha$  flux (HA) for the nebulas, are listed for 1755 measurements in Appendix B.

Although an irregular background introduced large errors in some of the UF values, it was possible to derive meaningful values of the hydrogen index (HI) for 90 nebulas, from which a contour plot of  $HI = HA/UF$  is reproduced in Fig. 18, showing seven or eight clots of interstellar hydrogen in the LMC. Some of the deviants in our plots of V/E(ILi) vs V/E(ICa) in Figs. 15, 16, and 17 may involve OB stars with abnormal emission lines. Most of the 210 objects plotted in Figs. 15, 16, and 17 fall within 10% of the relation  $V/E(ILi) = 1.77V/E(ICa) + 3$  over the range 0 to 3800.

Figure 20 is a plot of the unidentified objects detected on at least two frames. They are listed in Table 3, which gives the mean value of V/E from all frames measured and possible identifications with NGC objects in some cases. Of the remaining 85 cases, some may be foreground OB stars not listed in the SAO catalog, and some may be stellar associations in the LMC not listed by Lucke and Hodge [19]. They are worthy of further study by higher-resolution far-UV imagery and spectrographically (such as with the IUE satellite or a Space-lab experiment). Likewise, more detailed far-UV measurements of the known associations, as well as more accurate ground-based photometry and spectrophotometry thereof, would be useful for determinations of stellar flux distributions, interstellar extinction laws, and the distributions of interstellar gas and dust in the LMC.

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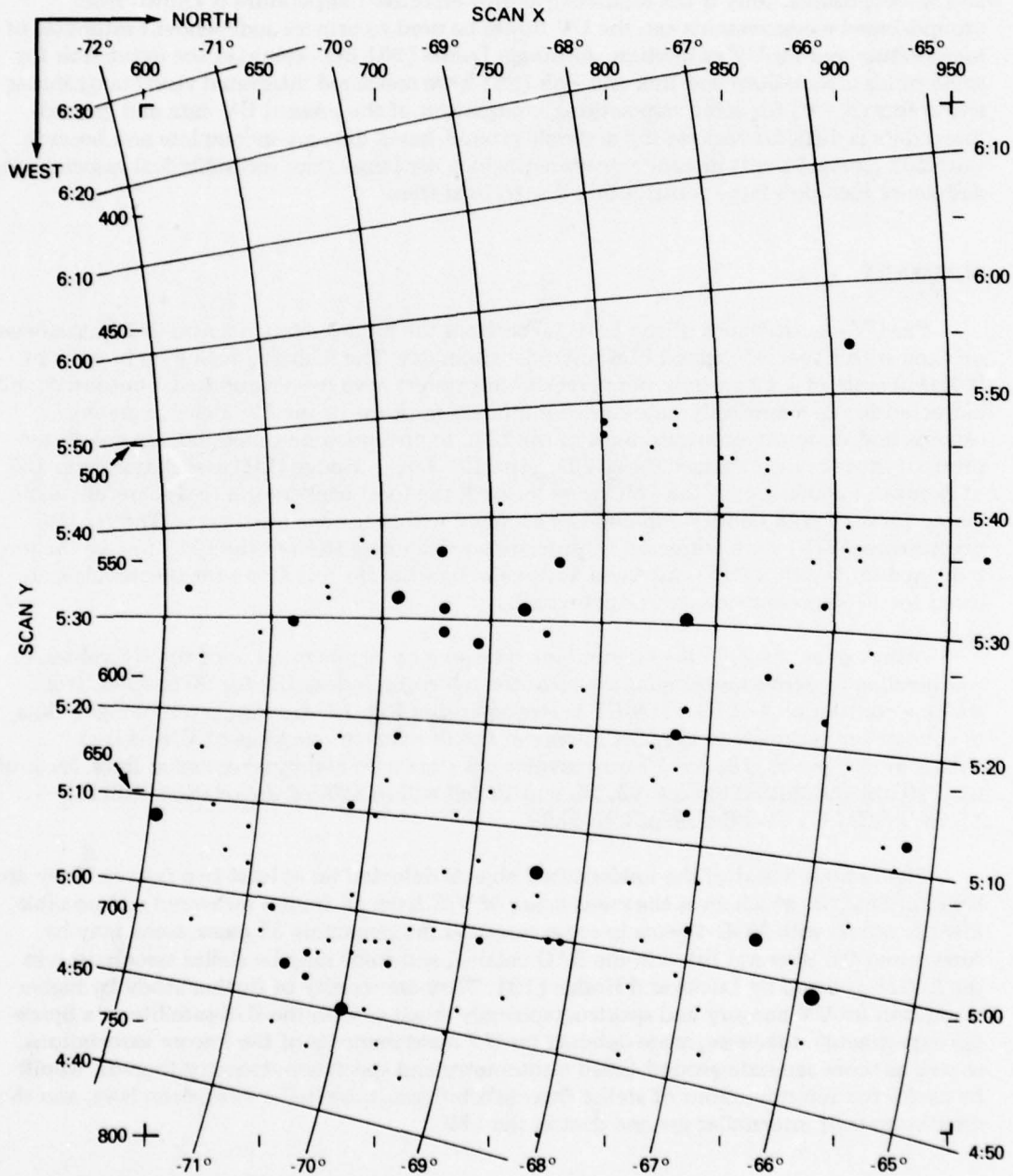


Fig. 20 — Plot of unidentified objects in the LMC measured on at least two frames.  
The size of the dot is a rough indication of the mean V/E.

Table 3 — Unidentified Far-UV Sources in the LMC

A129	1950		V/E	Measured Frames	Size (arc-min)	Nearby Objects	NGC No. and Description*	m <sub>v</sub>
	x	y						
770	4:43.7	-68:04	6	124-130	2.4 X 2.4	N2	1693??, Faint(F), Small(S)	
711	4:45.4	-69:19	8	124-130	2.4 X 2.4			
703	4:45.5	-69:32	9	124-130	2.4 X 2.4			
671	4:46.3	-70:15	16	124-130	3.6 X 3.6			
704	4:47.3	-69:36	8	124-130	2.4 X 2.4		1693?1695?, F, S	
654	4:47.8	-70:37	7	124-130	2.4 X 2.4			
728	4:50.2	-69:06	10	125-130	4.8 X 3.6		1698?, Pretty bright(pB), pS	
694	4:50.4	-69:50	34	124-130	6.0 X 4.8		1704?, F, pS	
684	4:51.2	-70:04	150	124-130	8.4 X 8.4		1711, Bright(B), S, Glob Cl	
803	4:51.3	-67:32	6	125-130	2.4 X 2.4			
840	4:52.1	-66:47	25	124-130	6.0 X 4.8	N4,6	1714?, vB, S, 1715??, vF, S	10.0
849	4:52.6	-66:36	3	129, 130	2.4 X 2.4	N6, 11		
670	4:53.0	-70:24	26	124-130	6.0 X 4.8	N6	1754??, F, S	
847	4:53.2	-66:40	165	124, 125	7.2 X 6.0	N6		
739	4:53.3	-68:56	81	124-130	10.7 X 9.7	N80	1734?, pB, Large(L)	
757	4:54.0	-68:34	2	129, 130	2.4 X 2.4			
658	4:54.1	-70:40	38	124-130	4.8 X 4.8		1754?, F, S, 1766??, cF, S	
757	4:54.4	-68:35	10	124, 125	2.4 X 2.4		1734??, pB, L, 1749??, vF	
677	4:55.0	-70:18	8	124-130	2.4 X 2.4		1754??, F, S, 1766?, cF, S	
670	4:55.3	-70:26	28	124-130	4.2 X 4.8		1754?, F, S, 1766??, cF, S	
704	4:55.4	-69:44	57	124-130	6.0 X 7.2	N88	1751??, eF, pL, 1767??	
713	4:55.4	-69:28	783	124-130	10.7 X 15.5	N88, 89, LH8	1767, 1782, pB, S, Glob Cl	10.0
772	4:55.5	-68:15	47	124-130	6.6 X 6.6		1755, vB, pL	
644	4:55.6	-70:56	20	124-130	3.6 X 4.8			
881	4:55.6	-66:00	4	129, 130	3.0 X 3.0			
677	4:56.2	-70:17	11	124-130	2.4 X 2.4		1766, cF, S, 1775??, eF, pL	
883	4:56.3	-65:56	13	124, 125	2.4 X 2.4			
688	4:56.5	-70:03	24	124-130	4.2 X 3.6	N185	1766??, cF, S	
839	4:57.1	-66:54	16	129, 130	4.8 X 6.0		1760??, vF, S, 1761??, cF, L, 1763??, vB, vL	
650	4:57.4	-70:53	23	124-130	4.8 X 3.6			
696	4:57.4	-69:55	23	125-130	4.8 X 5.6			
698	4:57.5	-69:51	28	124, 125	3.6 X 3.6			
841	4:57.7	-66:53	13	124, 125	2.4 X 2.4			
810	4:57.8	-67:32	33	124-130	4.8 X 4.8		1774??, B, S, Neb, 1786??, vB, pS	10.5, 10.0
704	4:57.9	-69:44	24	124-130	3.6 X 4.8		1772??, pB, pS, 1782??, pB, S, Glob Cl	

Table continues.

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Table 3 (Continued) — Unidentified Far-UV Sources in the LMC

A129		1950		V/E	Measured Frames	Size (arc-min)	Nearby Objects	NGC No. and Description*	m <sub>v</sub>
x	y	R.A.	Dec.						
778	727	4:58.1	-68:10	1	129, 130	2.4 X 2.4	—	—	
696	712	4:58.2	-69:55	23	124-130	3.6 X 4.8	—	—	
746	716	4:59.2	-68:52	94	124-130	7.2 X 8.4	N92	1785?	
890	741	4:59.7	-65:55	1255	124-130	22.5 X 20.0	LH15	1787, vL Cl	
654	700	4:59.9	-70:51	33	124-130	4.8 X 4.8	—	—	
716	707	4:59.9	-69:31	5	125-130	3.6 X 2.4	—	1793?, F, S	
828	726	5:00.4	-67:09	14	124-130	3.6 X 4.8	—	—	
727	707	5:00.6	-69:18	5	124-130	2.4 X 2.4	—	1801??, F, pL, 1804??, F, S	11.5
780	714	5:00.9	-68:10	34	124-130	4.8 X 7.2	—	1806?, pB, L	11.5
776	712	5:01.2	-68:18	66	124-130	7.2 X 6.6	—	1806?, pB, L	
819	719	5:01.6	-67:24	7	124-130	2.4 X 2.4	—	—	
691	695	5:02.0	-70:05	12	124-130	4.2 X 4.2	—	1813??, vF, S	
880	726	5:02.2	-66:08	370	124-130	11.9 X 14.3	N13	1805, B, vS+ Neb	10.5
651	687	5:02.4	-70:57	7	124-130	2.4 X 2.4	—	1815??, F, vS	
852	716	5:03.0	-66:44	9	129, 130	3.6 X 3.6	—	1810??, cF, S, Glob Cl	
837	713	5:03.6	-67:01	41	124-130	3.6 X 6.0	—	—	
758	698	5:03.7	-68:40	12	124-130	3.6 X 2.4	—	1825??	
642	679	5:04.2	-71:09	8	124-130	2.4 X 2.4	—	—	
865	713	5:04.3	-66:28	291	124-130	10.0 X 11.3	—	1818, vB, pL, Glob Cl	10.0
768	693	5:04.4	-68:29	22	124-130	4.8 X 4.2	—	—	
727	687	5:04.8	-69:19	16	124-130	2.4 X 2.4	—	1828?, F, S, 1830, F, ps, 1835?, cB, S	10.0
903	711	5:05.4	-65:42	21	124-130	4.8 X 4.8	—	—	
635	673	5:05.6	-71:19	17	124-130	4.2 X 4.8	—	—	
842	692	5:06.6	-67:01	8	124, 125	2.4 X 2.4	—	—	
769	684	5:06.9	-68:28	347	124-130	14.3 X 9.5	N21	1838?, L, Cl	11.5
809	688	5:07.0	-67:39	12	124-130	3.0 X 3.0	—	1844??, pF, pL, 1846?, pB, cL	
724	670	5:07.1	-69:26	9	124, 125	2.4 X 2.4	—	—	
744	678	5:07.4	-69:00	11	124-130	3.6 X 3.0	N101, LH27	1847?, B, S	
841	689	5:07.9	-66:59	1	129, 130	2.4 X 2.4	—	—	
606	660	5:08.0	-71:57	385	124-130	6.6 X 6.6	—	1840??, F	
646	663	5:08.2	-71:05	12	124-130	2.4 X 3.0	—	1848?, cL, Cl	
723	667	5:09.4	-69:31	6	129, 130	4.2 X 3.0	—	—	
629	655	5:10.2	-71:29	25	124-130	4.8 X 4.2	—	—	
923	687	5:10.4	-65:25	23	124-130	6.0 X 4.8	—	—	
687	658	5:10.6	-70:14	37	124-130	7.2 X 4.8	—	—	

Table continues.

Table 3 (Continued) — Unidentified Far-UV Sources in the LMC

A129		1950		V/E	Measured Frames	Size (arc-min)	Nearby Objects	NGC No. and Description*	m <sub>v</sub>
x	y	R.A.	Dec.						
702	658	5:10.9	-69:56	9	124-130	3.6 X 2.4	—	—	—
921	673	5:13.1	-65:28	9	124-130	3.6 X 3.6	—	1866,vB,L	10.0
704	647	5:13.3	-69:53	5	124-130	2.4 X 2.4	—	—	—
749	648	5:13.9	-68:59	1	129, 130	2.4 X 2.4	—	—	—
834	658	5:14.1	-67:11	67	124-130	6.0 X 7.2	N30	1873??,cL	—
623	631	5:16.0	-71:38	5	124-130	2.4 X 2.4	—	—	—
673	630	5:16.7	-70:37	43	124-130	6.0 X 4.8	—	1895??,pF,pL	—
819	643	5:16.8	-67:31	11	125-130	3.6 X 2.4	—	—	—
685	627	5:17.7	-70:21	10	124-130	2.4 X 2.4	—	1905,F,S	—
829	639	5:18.1	-67:18	18	125-130	4.8 X 4.8	—	—	—
708	626	5:18.2	-69:53	70	124-130	7.2 X 6.0	N116, 121	1905??,F,S	—
823	631	5:18.6	-67:30	11	124-130	2.4 X 2.4	—	—	—
904	640	5:19.0	-65:51	17	124-130	3.6 X 4.8	—	—	—
785	626	5:19.1	-68:16	14	124-130	3.6 X 3.6	—	—	—
727	617	5:10.2	-69:29	132	129, 130	8.4 X 10.7	N119, 122, LH46	1922,1926?,pB,pL	—
830	626	5:20.4	-67:21	54	124-130	6.0 X 6.6	—	—	—
838	613	5:22.9	-67:12	45	124-130	7.2 X 4.8	—	1940,pB,vS	—
895	619	5:22.0	-66:04	62	124-130	7.2 X 6.6	—	1932?,pB,S	—
788	607	5:23.5	-68:13	13	124-130	3.6 X 3.0	—	—	—
863	612	5:23.6	-66:41	36	129, 130	5.4 X 5.4	N45	1941??,vS Neb	—
709	598	5:24.9	-69:53	44	125-130	4.8 X 6.0	N131	1950?	—
624	593	5:25.8	-71:40	8	124-130	2.4 X 2.4	—	—	—
868	600	5:26.1	-66:37	98	124-130	7.2 X 7.2	N48	1951,B,L	10.5
727	589	5:26.6	-69:30	121	124-130	7.2 X 7.2	N142	—	—
710	587	5:27.0	-69:51	213	124-130	9.0 X 13.1	N134, LH59	1969,F,S,1971	—
880	595	5:27.1	-66:24	40	124-130	4.8 X 8.4	N48	—	—
648	581	5:28.2	-71:11	6	124-130	2.4 X 3.6	N206	1984?,CI,1994,CI,eS	—
745	583	5:28.3	-69:09	184	124, 125	6.0 X 6.6	N145	—	—
916	592	5:28.4	-65:40	15	124-130	3.6 X 4.8	—	—	—
969	590	5:28.6	-64:40	1	129, 130	2.4 X 2.4	—	—	—
729	579	5:29.0	-69:29	39	124, 9, 0	4.8 X 6.0	—	—	—
775	579	5:29.2	-68:30	72	124-130	6.0 X 7.2	—	2001??,CI,13 <sup>m</sup> stars	—
664	575	5:29.9	-70:50	150	124-130	6.6 X 8.4	N206	2010,F,CI	—
836	575	5:30.3	-67:17	1270	124, 5, 0	15.5 X 13.1	N54, LH70	2004,B,pL,Glob CI	—
731	570	5:30.8	-69:27	45	124-130	4.8 X 6.0	—	2009??,pF,pS	10.0

Table continues.

Table 3 (Continued) — Unidentified Far-UV Sources in the LMC

A129		1950		V/E	Measured Frames	Size (arc-min)	Nearby Objects	NGC No. and Description*	m <sub>v</sub>
x	y	R.A.	Dec.						
764	571	5:31.1	-68:45	507	124, 125	7.8 X 7.8	LH64, 68	2001?, Cl, 13 <sup>m</sup> stars	
850	572	5:31.3	-67:01	845	129, 130	13.1 X 19.1	—	2006, eL, Cl	
739	567	5:31.6	-69:17	954	124-130	14.3 X 17.9	LH67, 74	2015, vL, Cl	
893	572	5:31.8	-66:07	34	124-130	5.4 X 6.0	—	—	
823	567	5:32.0	-67:33	175	129, 130	7.8 X 9.0	N57, 58	2011, vB, S	9.5
709	566	5:32.2	-69:55	477	124-130	8.4 X 9.5	—	2016?, F, vL, HD269696 B star	10.7
682	564	5:32.7	-70:28	9	124-130	2.4 X 3.0	—	—	
622	563	5:33.1	-71:46	49	124-130	4.2 X 4.8	—	2025, vB, vS	
946	550	5:35.0	-65:06	10	124-130	2.4 X 2.4	—	—	
779	551	5:35.4	-68:28	34	124-130	4.8 X 4.8	LH85	2042?, vL, Cl, stars 12-15 <sup>m</sup>	
889	550	5:35.7	-66:14	4	124-130	2.4 X 2.4	N62	2030?, pB, L	
964	552	5:36.3	-64:45	30	124-130	4.8 X 4.2	—	—	
912	547	5:37.0	-65:47	8	124-130	2.4 X 2.4	—	—	
696	543	5:37.6	-70:10	10	124-130	3.0 X 3.0	—	2066, vF, vS, 2072?, vF, S	
814	540	5:37.6	-67:44	25	124-130	4.8 X 4.8	—	—	
906	538	5:38.3	-65:53	11	124-130	3.6 X 2.4	—	—	
848	526	5:40.9	-67:04	2	125-130	2.4 X 2.4	—	—	
663	526	5:41.9	-70:52	9	124-130	2.4 X 2.4	N216	2060?, vF, pS	
865	519	5:42.0	-66:40	15	124-130	3.6 X 3.6	—	—	
985	519	5:42.0	-64:22	8	124-130	2.4 X 2.4	—	—	
870	506	5:44.6	-66:38	16	124-130	3.0 X 4.2	—	2082, pF, L	13.0
849	505	5:45.2	-67:03	20	124-130	3.6 X 3.6	—	2105??, F, pS	
829	494	5:47.6	-67:28	12	124-130	3.6 X 2.4	—	—	
801	494	5:47.8	-68:00	55	124-130	6.0 X 6.0	—	2117, F, pL	
984	489	5:47.9	-64:25	189	124-130	10.1 X 9.5	—	—	
879	485	5:49.0	-66:28	6	124-130	2.4 X 2.4	—	—	
905	454	5:55.1	-65:55	130	124-130	9.5 X 9.5	—	2138?, eF, S	

\*A query (?) after the NGC No. means that the position matches poorly; a double query (??) means a very poor match (omitted from Appendix B). The description of brightness, size, and type of object is from the NGC as printed in the Revised New General Catalog of Non-stellar Astronomical Objects [27]. In 17 cases, two or more objects are listed, including HD269696, a foreground B star identified by Karl Henize. The 20 NGC Nos. without queries are fairly likely, but not certain, identifications.

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## Appendix A

### S201-ATLAS-LISTING TAPE AND LINEARIZED-DENSITY-MOSAIC TAPES

The listing in Appendix B of this Atlas is available on 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 is one data file on this tape, consisting of 1757 data records of 132 field data characters each. The first data record contains a title line, "S201 FAR-UV ATLAS OF THE LARGE MAGELLANIC CLOUD." This is followed by a 132-character line of column headings, as in Appendix B (but not repeated). The meanings of the remaining 1755 data records are given in Tables A1 and A2. To accommodate groups of LH objects (see text), there is a different line format for them (Table A2). Character 31 specifies the group-data-line format.

The Atlas tape file ends with a software end-of-file mark and a hardware end-of-file mark. Table A3 gives a simple Fortran program for reading the Atlas tape. The tape has been checked for errors, using this program.

Two linearized-density-mosaic tapes provide the mosaics of  $D_L$  values used in summing density volumes from frames A124 and A125 (on one tape) and A129 and A130 (on the other tape). These two tapes were written on a Univac 1108 under the EXEC II operating system, and each contains two files, one for each frame, covering the area from  $x = 475$  to  $x = 986$  and from  $y = 381$  to  $y = 830$ . Each file ends with a software end-of-file mark and a hardware end-of-file mark. The simple Fortran program in Table A3 will print out the mosaics in convenient form. The mosaics are each 145 pages long; in pairs (290 pages) they require larger-than-normal storage.

Other programs can be written for listing single Lucke-Hodge objects, selecting characters 68-72 with no parentheses and no asterisk in 30, for listing Henize nebulas, selecting characters 91-98 with no parentheses, and for listing unidentified objects, selecting double minus characters 119-120 and parentheses or nothing in 68-76 and 91-97.

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Table A1 — Meanings of Characters in a Normal Data Line

Characters	Meaning (digits right-justified)
2-4	Frame number
6-8	x raster coordinate
10-12	y raster coordinate
14	Hours of right ascension
15	Separator (:)
16-19	Minutes of right ascension rounded to tenths
21-23	Degrees of declination
24	Separator (:)
25-26	Arc-minutes of declination
28-29	x-raster interval summed (*X)
30	X (times)
31-32	y-raster interval summed (*Y)
33	An asterisk (*) indicates that area *X*Y is <i>not</i> rectangular
34-36	Peak density at center of image (P)
37	An asterisk (*) indicates P is <i>not</i> a maximum
38-40	Background density (BG)
42-46	Density volume of area summed (V)
48-49	Exposure time in minutes (E)
50	Filter type (L or C)
52-56	Density volume divided by exposure time (V/E)
57	An asterisk (*) indicates that the density exceeds 600
58-60	Reddening, RE = E(B - V), in magnitudes, rounded to hundredths
61	An asterisk (*) indicates an RE value observed by Lucke
62-66	Unreddened UV flux (UF)
68-76	LH followed by one- to three-digit numbers are LH objects, parentheses mean that the Lucke-Hodge area overlaps the area summed; SAO followed by six digits means a foreground star near the area summed
76-79	North-south extent of LH object in arc-minutes rounded to tenths
81-84	East-west extent of LH object in arc-minutes rounded to tenths
86-89	Number of blue stars in LH object (BS)
91-98	Numbers and letters of Henize nebula or nebulas (N NO.); parentheses mean that the nebula area overlaps the LH area summed
98-103	H $\alpha$ flux in units of $10^{-4}$ erg/s $\cdot$ cm $^2$ $\cdot$ sterad, rounded to tenths, from Henize nebula or nebulae (HA)
105-109	Hydrogen index, HI = HA/UF, rounded to hundredths
109-110	An asterisk (*) indicates an uncertain HI value; V < 10
111-120	Numbers separated by a comma or dash are NGC numbers associated with the LH object; in one case the number starts with IC; in a few cases an LH number in parentheses or an SAO number in parentheses indicates overlaps
119-124	Six-digit number of an SAO star
125	A query (?) indicates an uncertain SAO identification; the letter H (one case) indicates that the number is in the HD Catalog
126-129	Visual magnitude of an SAO star, rounded to tenths (M)
131-132	Letter and digit for spectral type of an SAO star (SP)

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Table A2 — Meanings of Characters in a Group Data Line

Characters	Meaning (digits right-justified)
2-4	Frame number
6-8	x raster coordinate
10-12	y raster coordinate
14	Hours or right ascension (R.A.)
15	Separator (:)
16-19	Minutes of right ascension rounded to tenths
21-23	Degrees of declination
24	Separator (:)
25-26	Arc-minutes of declination
28-30	Number of pixels summed in a group of LH objects
31	An asterisk (*) indicates a <i>group data line</i>
34-36	Peak density at center of group image (P)
37	An asterisk (*) indicates that P is <i>not</i> a maximum
38-40	Background density (BG)
42-46	Density volume in the group area summed
48-49	Exposure time in minutes
50	Filter type (L or C)
52-56	Density volume divided by exposure time (V/E)
57	An asterisk (*) indicates that the density exceeds 600
58-60	Reddening, RE = E(B - V), in magnitudes, rounded to hundredths
61	An asterisk (*) indicates an RE value observed by Lucke
62-66	Unreddened UV flux (UF)
68-77	LH followed by one- to three-digit numbers that are separated by commas are LH objects in the group
79-83	Total area of the LH group in (arc-min) <sup>2</sup> rounded to tenths
82-83	An asterisk (*) indicates a group
86-88	Total number of blue stars in the LH group (BS)
91-98	Numbers of Henize nebulas overlapping the LH group
111-117	NGC numbers associated with LH objects in the group

Table A3 — Simple Fortran Program for Reading the LMC Atlas and Mosaic Tapes

Line 1:		DIMENSION LINE(22)
2:		REWIND 1
3:	5	READ(1,1000,END=100) LINE
4:	1000	FORMAT (22A6)
5:		WRITE(6,1000) LINE
6:		GO TO 5
7:	100	STOP
8:		END

## Appendix B

### S201 ATLAS LISTING OF FAR-UV OBJECTS IN THE AREA OF THE LARGE MAGELLANIC CLOUD

The S201 Atlas listing contains 458 far-UV objects in the LMC area, each detected on one or more of the four frames: A124 (1-min ILi exposure), A125 (3-min ILi exposure), A129 (10-min ICa exposure) and A130 (30-min ICa exposure). There are 26 columns, listing data from four other catalogs, as well as S201 measurements of far-UV flux from 122 Lucke-Hodge associations [19] with associated NGC objects, from 156 Henize nebulas [17], and from 20 SAO foreground stars [24]. The column entries are defined as follows, with asterisks on column entries flagging peculiar entries as noted:

FR.	S201 Apollo frame number
X	x coordinate in the PDS microdensitometer scan
Y	y coordinate on the PDS microdensitometer scan
R.A.	right ascension for the 1950 epoch in hours and minutes (to tenths of minutes), obtained from the LH, Henize, or SAO catalog for objects therein and from the xy coordinates for unidentified objects
DEC.	declination for the 1950 epoch in degrees and arc-minutes, obtained from the LH, Henize, or SAO catalog for objects therein and from the xy coordinates for unidentified objects
*X	number of pixels summed along the x axis, centered at X
*Y	number of pixels summed along the y axis, centered at Y. A multiplication sign between the two values *X and *Y indicates that the cataloged size of the object is matched by an area $\Delta x \Delta y$ in units of the area of one pixel; an asterisk indicates that the $\Delta x \Delta y$ area is <i>not</i> a rectangle but is slanted or curved. For grouped images the total number of pixels summed is listed as a single value followed by an asterisk, instead of being listed as a product of two values.
P	The central (peak) density of the image, corrected for nonlinear response but <i>not</i> for PDS lag. An asterisk indicates that the image center (pixel at x, y) is <i>not</i> a density maximum.
BG	the local background density, obtained by averaging the four density values on the centers of the four sides of the rectangle $\Delta x \Delta y$ from the mosaic of density values corrected for nonlinear response. In some images BG has a 1/2-density-unit remainder, and the listed value has been rounded upward to a whole number and is 1/2 density-unit high.
V	density volume = $\Sigma(D - BG)$ over the summed $\Delta x \Delta y$
E, F	exposure time, in minutes, and filter (L = LiF, with passband 1050 to 1600 Å; C = CaF <sub>2</sub> , with passband 1250 to 1600 Å)
V/E	density volume divided by exposure, a measure of the flux reaching the S201 camera. An asterisk indicates densities > 600.
RE	color excess in magnitudes. An asterisk indicates values measured by Lucke [20]; other values are interpolated from the contour plot, Fig. 14.

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- Lucke's values of  $E(B - V)$  in the LMC have been increased by 0.05 magnitude for foreground reddening (Borgman et al. [10,11]).
- UF far-UV flux  $V/E$  corrected for extinction based on RE. A dash indicates a value of  $V/E < 0$ . For ILi frames  $UF = (V/E)10^{2.19(RE)}$ . For ICa frames  $UF = (V/E)10^{1.67(RE)}$ .
- LH NO. number of association or cloud in the Lucke-Hodge catalog [19]. Numbers in parentheses are assumed to be associated with the Henize nebulas listed under N NO. or are other, overlapping LH numbers. In 23 cases, groups of two or more LH numbers are listed.
- SIZE dimensions of the LH association or cloud in arc-minutes north-south (along scan x) and east-west (along scan y). The summed area  $\Delta x \Delta y$  was generally one raster larger in each dimension to allow for the S201 camera resolution of 3 arc-minutes. (One raster =  $33 \mu\text{m}$  on the film = 1.19 arc-minutes in the sky.) In 37 cases the area published by Lucke [20] does not agree with these dimensions, which are presumably only rough estimates. For grouped images the total area in (arc-minutes)<sup>2</sup> is listed, followed by an asterisk.
- BS number of blue stars (Lucke's count [20]) in the LH association or cloud
- N NO. number of a nebula in the Henize catalog [17]. In many cases, the summed area  $\Delta x \Delta y$  corresponds to several Henize nebulas; for example, 77A-E means N77A and N77B and N77C and N77D and N77E, 8, A means N8 and N8A and 26, 27 means N26 and N27. These combinations were selected after plotting the nebula positions and dimensions on a mosaic of density vs x, y. The N numbers in parentheses are near unidentified images (density maxima on two or more frames).
- HA Henize's  $H\alpha$  intensity estimate calibrated by Dougherty, Henize, and Aller [18] in  $H\alpha$ -flux units of  $10^{-4} \text{ erg/s} \cdot \text{cm}^2 \cdot \text{sterad}$  summed for all nebulas listed under N NO. Their calibration was as follows: Henize "T" =  $1.0 \times 10^{-4} \text{ erg/s} \cdot \text{cm}^2 \cdot \text{sterad} \cdot \text{pixel}$ , Henize "1" =  $2.0 \times 10^{-4} \text{ erg/s} \cdot \text{cm}^2 \cdot \text{sterad} \cdot \text{pixel}$ , Henize "2" =  $4.5 \times 10^{-4} \text{ erg/s} \cdot \text{cm}^2 \cdot \text{sterad} \cdot \text{pixel}$ , Henize "3" =  $7.0 \times 10^{-4} \text{ erg/s} \cdot \text{cm}^2 \cdot \text{sterad} \cdot \text{pixel}$ , Henize "4" =  $9.5 \times 10^{-4} \text{ erg/s} \cdot \text{cm}^2 \cdot \text{sterad} \cdot \text{pixel}$ , Henize "5" =  $12.0 \times 10^{-4} \text{ erg/s} \cdot \text{cm}^2 \cdot \text{sterad} \cdot \text{pixel}$ . Hence the  $H\alpha$  intensity of N5, Henize "Int 2," dimensions 199 by 202 arc-seconds, or  $2.8 \times 2.8$  pixels, is  $4.5 \times 10^{-4} (2.8 \times 2.8) = 35.2 \times 10^{-4} \text{ erg/s} \cdot \text{cm}^2 \cdot \text{sterad}$ . For N77A-E, the contributions of the five overlapping parts are  $1.80 + 1.40 + 0.63 + 5.67 + 98.2 = 107.7$ , and the dimensions are 299 by 370 arc-seconds, corresponding to  $\Delta x = 5.2$  pixels and  $\Delta y = 4.2$  pixels. The summed area is  $7 \times 6$  pixels, to allow for the S201 camera resolution.
- HI hydrogen index, the ratio  $HA/UF$ , or  $H\alpha$  flux per unit of unreddened far-UV flux. A dash indicates that the measured UF is zero or negative (due to measurement errors); an asterisk indicates an uncertain value because V is low.
- NGC NO. objects in Dreyer's "New General Catalogue of Nebulae and Clusters of Stars" (Mem. R.A.S. 49, Part 1, 1888) associated with LH associations or clouds. When more than two are listed by Lucke and Hodge, only the first and last are listed here.

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SAO NO. number of a star in the Smithsonian Astrophysical Observatory catalog [24]  
identified with a measured image. In one case (R.A. = 5:32.2) a number  
from the Henry Draper Catalog [28] is given, followed by H.

M visual magnitude from the SAO catalog

SP spectral type from the SAO catalog

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FR.	X	Y	P.A.	DEC.	*X	*Y	P	BG	V	E.F	V/E	RE	UF	LH NO.	SIZE	BS	N NO.	HA	HI	NCC NO.	SAO NO.	M	SP
124	725	811	4:38.3	-68:55	3X	5	75	66	85	1L	85	.05	111							249073	B.1	A0	
125	727	812	4:38.3	-68:55	5X	5	201	167	363	3L	121	.05	157							249073	B.1	A0	
129	725	812	4:38.3	-68:55	7X	8	112	40	134	10C	134	.05	163							249073	B.1	A0	
130	725	810	4:38.3	-68:55	9X	9	331	91	579	30C	193	.05	233							249073	B.1	A0	
124	772	800	4:43.1	-68:01	2X	2	67	67	-1	1L	-1	.10	--					3.4	--				
125	773	801	4:43.1	-68:01	2X	2	167	167	-1	3L	0	.10	--					3.4	--				
129	770	800	4:43.1	-68:01	2X	2	40	41	2	10C	0	.10	0					3.4	11.6*				
130	771	798	4:43.1	-68:01	2X	2	100	99	6	30C	0	.10	0					3.4	11.6*				
124	632	764	4:43.5	-71:01	11X	12	473	69	6568	1L	6568	.05	8950							256122	5.7	B9	
125	634	765	4:43.5	-71:01	19X	21	958	170	85950	3L	28650*	.05	37200							256122	5.7	B9	
129	632	764	4:43.5	-71:01	18X	19	917	38	97000	10C	9700*	.05	11750							256122	5.7	B9	
130	633	761	4:43.5	-71:01	24X	24	953	911	41600	30C	4720*	.05	5710							256122	5.7	B9	
124	771	797	4:43.7	-68:05	2X	2	69	65	14	1L	14	.08	21										
125	770	799	4:43.7	-68:05	2X	2	174	165	29	3L	10	.08	15										
129	776	794	4:43.7	-68:04	2X	2	42	40	8	10C	1	.08	1										
130	771	793	4:43.7	-68:04	3X	3	96	91	26	30C	1	.08	1										
124	713	774	4:45.4	-69:19	2X	2	73	68	16	1L	16	.15	34										
125	711	774	4:45.4	-69:19	3X	3	181	174	45	3L	15	.15	32										
129	711	774	4:45.4	-69:19	2X	2	48	44	15	10C	2	.15	3										
130	712	771	4:45.4	-69:19	2X	2	114	104	35	30C	1	.15	2										
124	702	769	4:45.5	-69:32	2X	2	73	68	19	1L	19	.15	41										
125	702	769	4:45.5	-69:32	2X	2	181	171	33	3L	11	.15	24										
129	703	770	4:45.5	-69:32	2X	2	53	43	35	10C	4	.15	6										
130	703	769	4:45.5	-69:32	2X	2	118	104	50	30C	2	.15	3										
124	671	748	4:46.3	-70:15	2X	2	75	69	18	1L	18	.13	35										

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FR.	X	Y	R.A.	DEC.	*X	*Y	P	BC	V	E.F	V/E	RE	UF	LH NO.	SIZE	BS	N NO.	HA	HI	HGC NO.	SAO NO.	M	SP
125	672	761	4:46.3	-70:15	2X 2	180	171	32	3L	11	.13	21											
129	671	760	4:46.3	-70:15	3X 3	63	40	151	10C	15	.13	25											
130	671	758	4:46.3	-70:15	5X 4	162	96	555	30C	19	.13	26											
124	701	761	4:47.3	-69:36	2X 2	73	68	16	1L	16	.15	34											
125	702	760	4:47.3	-69:36	3X 3	181	175	39	3L	13	.15	28											
129	704	763	4:47.3	-69:36	2X 2	53	48	19	10C	2	.15	3											
130	703	761	4:47.3	-69:36	2X 2	130	110	74	30C	2	.15	4											
124	654	749	4:47.8	-70:37	2X 2	71	68	11	1L	11	.12	20											
125	653	749	4:47.8	-70:37	2X 2	181	172	30	3L	10	.12	19											
129	654	750	4:47.8	-70:37	2X 2	48	39	35	10C	4	.12	6											
130	654	747	4:47.8	-70:37	2X 2	116	95	73	30C	2	.12	2											
124	792	767	4:49.0	-67:48	5X 8	76	67	184	1L	184	.05	239											
125	796	769	4:49.0	-67:48	7X 9	196	170	784	3L	261	.05	340											
129	793	770	4:49.0	-67:48	8X 9	93	42	1726	10C	173	.05	209											
124	753	764	4:49.2	-68:29	3X 4	71	70	6	1L	6	.12	11											
125	752	765	4:49.2	-68:29	3X 4	178	176	3	3L	1	.12	2											
129	752	765	4:49.2	-68:29	3X 4	41	41	2	10C	0	.12	0											
130	755	762	4:49.2	-68:29	3X 4	105	105	13	30C	0	.12	1											
124	718	751	4:49.7	-69:17	7X 6	77	74	35	1L	35	.16	79											
125	719	755	4:49.7	-69:17	7X 6	193	189	57	3L	19	.16	43											
129	719	755	4:49.7	-69:17	7X 6	89	69	215	10C	22	.16	40											
130	719	752	4:49.7	-69:17	7X 6	257	177	791	30C	26	.16	49											
130	792	768	4:49.7	-67:44	10X 13	259	101	7252	30C	242	.05	293											
124	791	771	4:50.0	-67:46	10X 8	74	71	65	1L	65	.10	109											
125	792	772	4:50.0	-67:46	10X 8	187	178	256	3L	85	.10	143											

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FR.	X	Y	P.A.	DEC.	*X	*Y	P	BO	V	E.F	V/E	RE	UF	LH NO.	SIZE	BS	N NO.	HA	HI	NGC NO.	SAO NO.	M	SP	
129	790	769	4:50.0	-67:46	10X	8	66	56	590	10C	59	.10	87	(SA0249120)		3	52.5	0.60						
130	790	767	4:50.0	-67:46	10X	8	178	139	1667	30C	56	.10	82	(SA0249120)		3	52.5	0.64						
125	731	757	4:50.2	-69:06	4X	3	192	185	35	3L	12	.16	26	--									1698?	
129	728	755	4:50.2	-69:06	4X	3	63	51	73	10C	7	.16	14	--										1698?
130	728	753	4:50.2	-59:06	4X	4	155	126	289	30C	10	.16	18	--										1698?
124	694	748	4:50.4	-69:50	2X	2	78	72	22	1L	22	.16	50	--										1704?
125	695	747	4:50.4	-69:50	3X	4	199	184	110	3L	37	.16	83	--										1704?
129	694	747	4:50.4	-69:50	6X	4	80	53	304	10C	30	.16	56	--										1704?
130	694	745	4:50.4	-69:50	7X	7	201	127	1460	30C	49	.16	90	--										1704?
124	710	746	4:51.1	-69:30	13X	17	94	76	1001	1L	1001	.17	2360	(LH1)			79.A-E	395.7	0.17	1712.22				
125	712	747	4:51.1	-69:30	13X	17	262	194	3762	3L	1254	.17	2960	(LH1)			79.A-E	395.7	0.13	1712.22				
129	711	746	4:51.1	-69:30	13X	17	199	76	5819	10C	582	.17	1120	(LH1)			79A-E	395.7	0.35	1712.22				
130	711	744	4:51.1	-69:30	13X	17	652	201	21388	30C	713	.17	1370	(LH1)			79.A-E	395.7	0.29	1712.22				
124	710	746	4:51.1	-69:25	4X	8	94	86	88	1L	88	.17	208	LH1	3.0	7.5	23							1712.22
125	713	747	4:51.1	-69:25	4X	8	262	228	265	3L	88	.17	208	LH1	3.0	7.5	23							1712.22
129	711	746	4:51.1	-69:25	4X	8	199	125	667	10C	67	.17	128	LH1	3.0	7.5	23							1712.22
130	712	745	4:51.1	-69:25	4X	8	490	405	1618	30C	54	.17	103	LH1	3.0	7.5	23							1712.22
124	683	741	4:51.2	-70:04	5X	6	83	73	94	1L	94	.16	211	--										1711
125	685	743	4:51.2	-70:04	6X	6	212	181	482	3L	161	.16	362	--										1711
129	684	742	4:51.2	-70:04	8X	7	112	49	1071	10C	107	.16	198	--										1711
130	684	740	4:51.2	-70:04	12X	9	327	114	7200	30C	240	.16	444	--										1711
125	803	764	4:51.3	-67:32	2X	2	183	172	38	3L	13	.11	22	--										--
129	803	766	4:51.3	-67:32	2X	2	54	45	34	10C	3	.11	5	--										--
130	803	764	4:51.3	-67:32	2X	2	126	107	71	30C	2	.11	4	--										--
124	714	741	4:52.4	-69:21	5X	4	91	87	31	1L	31	.18	77	LH2	3.0	2.0	10							1727

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FP.	X	Y	P.A.	DEC.	*X	*Y	P	BG	V	E.F	V/E	RE	UF	LH NO.	SIZE	BS	N NO.	HA	H1	NGC NO.	SAO NO.	M	SP	
125	717	742	4:52.4	-69:21	5X	4	241*230	77	3L	26	.18	64	LH2	3.0	2.0	10	(79)						1727	
129	715	742	4:52.4	-69:21	5X	4	180 136	273	10C	27	.18	55	LH2	3.0	2.0	10	(79)							1727
130	716	739	4:52.4	-69:21	5X	4	517*410	718	30C	24	.18	48	LH2	3.0	2.0	10	(79)							1727
124	714	741	4:52.5	-69:25	5X	5	91 86	55	1L	55	.18	136	(LH2)				79CE	58.0	0.43				1727	
125	714	742	4:52.5	-69:25	5X	5	245*236	109	3L	36	.18	89	(LH2)				79CE	58.0	0.65				1727	
129	715	742	4:52.5	-69:25	5X	5	180 129	390	10C	39	.18	78	(LH2)				79CE	58.0	0.74				1727	
130	713	739	4:52.5	-69:25	4X	5	520*477	703	30C	23*	.18	47	(LH2)				79CE	58.0	1.24				1727	
124	840	767	4:52.5	-66:47	2X	3	74 70	23	1L	23	.12	43	--				(4.6)						1714?	
125	842	767	4:52.5	-66:47	2X	6	198 184	103	3L	34	.12	64	--				(4.6)						1714?	
129	840	770	4:52.5	-66:47	5X	3	64 53	113	10C	11	.12	18	--				(4.6)						1714?	
130	840	768	4:52.5	-66:47	8X	6	163 123	1000	30C	33	.12	53	--				(4.6)						1714?	
124	813	762	4:52.6	-67:22	5X	5	71* 70	20	1L	20	.12	37	(LH3)				5	35.2	0.95					
125	813	761	4:52.6	-67:22	5X	5	187*183	51	3L	17	.12	32	(LH3)				5	35.2	1.10					
129	814	762	4:52.6	-67:22	5X	5	73 63	81	10C	8	.12	13	(LH3)				5	35.2	2.72					
130	814	760	4:52.6	-67:22	5X	5	192 159	275	30C	9	.12	15	(LH3)				5	35.2	2.41					
129	849	773	4:52.6	-66:36	2X	2	56 47	36	10C	4	.10	5					(6.11)							
130	849	769	4:52.6	-66:36	2X	2	122 109	48	30C	2	.13	3					(6.11)							
124	813	762	4:52.7	-67:18	6X	6	71* 70	37	1L	37	.12	69	LH3	5.0	5.0	7	(5)							
125	815	761	4:52.7	-67:18	6X	6	189*183	113	3L	38	.12	71	LH3	5.0	5.0	7	(5)							
129	814	762	4:52.7	-67:18	6X	6	73 61	128	10C	13	.12	20	LH3	5.0	5.0	7	(5)							
130	815	759	4:52.7	-67:18	6X	6	176*156	332	30C	11	.12	18	LH3	5.0	5.0	7	(5)							
124	669	730	4:53.0	-70:24	4X	4	77 73	30	1L	30	.15	65											--	
125	670	731	4:53.0	-70:24	6X	2	193 179	138	3L	46	.15	99											--	
129	670	730	4:53.0	-70:24	4X	4	62 49	122	10C	12	.15	22											--	
130	670	728	4:53.0	-70:24	5X	5	159 116	543	30C	18	.15	32											--	

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FP.	X	Y	R.A.	DEC.	*X*	*Y	P	BG	V	E,F	V/E	RE	UF	LH	NO.	SIZE	BS	N	NO.	HA	HI	NGC	NO.	SAO	NO.	M	SP
124	719	739	4:53.1	-69:18	3X 3	83*	81	6	1L	6	.25	21							81AB	11.6	0.55*						
125	718	740	4:53.1	-69:18	3X 3	223*223		-3	3L	-1	.25	--							81AB	11.6	--						
129	720	739	4:53.1	-69:18	3X 3	101*	99	14	10C	1	.25	4							81AB	11.6	3.19						
130	720	737	4:53.1	-69:18	3X 3	279*272		25	30C	1	.25	2							81AB	11.6	5.35						
124	778	751	4:53.1	-68:08	4X 3	78	76	13	1L	13	.09	21							8.A	23.1	1.10						
125	777	754	4:53.1	-68:08	4X 3	189	184	30	3L	10	.09	16							8.A	23.1	1.45						
129	778	752	4:53.1	-68:08	4X 3	87	73	63	10C	6	.09	9							8.A	23.1	2.60						
130	778	750	4:53.1	-68:08	4X 3	226	189	167	30C	6	.09	8							8.A	23.1	2.93						
124	832	762	4:53.2	-66:59	5X 6	85	79	61	1L	61	.16	137	(LH4)						4A-F	31.0	0.24	1731					
125	832	763	4:53.2	-66:59	5X 6	218	205	116	3L	39	.16	88	(LH4)						4A-F	31.0	0.35	1731					
129	832	763	4:53.2	-66:59	5X 6	145	105	324	10C	32	.16	60	(LH4)						4A-F	31.0	0.52	1731					
130	832	761	4:53.2	-66:59	5X 6	470	306	1475	30C	49	.16	91	(LH4)						4A-F	31.0	0.34	1731					
124	843	763	4:53.2	-66:40	3X 3	76	72	19	1L	19	.13	37							(6)								
125	847	766	4:53.2	-66:40	9X 8	215*188		931	3L	310	.13	605							(6)								
124	737	741	4:53.3	-68:56	2X 3	77	71	30	1L	30	.25	104	--									1734?					
125	737	744	4:53.3	-68:56	4X 5	190	182	95	3L	32	.25	110	--									1734?					
129	739	742	4:53.3	-68:56	14X 7	67	50	887	10C	89	.25	231	--									1734?					
130	739	741	4:53.3	-68:56	16X17	178	116	5197	30C	173	.25	450	--									1734?					
124	832	762	4:53.4	-66:56	5X 5	85	79	55	1L	55	.16*	124	LH4			4.0	4.0	23	(4)			1731					
125	833	763	4:53.4	-66:56	5X 5	218	208	73	3L	24	.16*	55	LH4			4.0	4.0	23	(4)			1731					
129	832	763	4:53.4	-66:56	5X 5	145	108	265	10C	27	.16*	49	LH4			4.0	4.0	23	(4)			1731					
130	833	760	4:53.4	-66:56	5X 5	412*317		755	30C	25	.16*	47	LH4			4.0	4.0	23	(4)			1731					
124	807	756	4:53.5	-67:28	3X 3	71*	70	9	1L	9	.11	16							7	3.2	0.20*						
125	808	757	4:53.5	-67:28	3X 3	174*174		3	3L	1	.11	2							7	3.2	1.81*						
129	808	757	4:53.5	-67:28	3X 3	46*47		-1	10C	0	.11	--							7	3.2	--						

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FR.	X	Y	R.A.	DEC.	*X	*Y	P	BG	V	E.F	V/E	RE	UF	LH NO.	SIZE	BS	N NO.	HA	HI	NGC NO.	SAO NO.	M	SP			
130	808	755	4:53.5	-67:28	3X	3	113	113	4	30C	0	.11	0			7		3.2	16.0*							
129	757	744	4:54.0	-68:34	2X	2	57	50	20	10C	2	.20	4			(80)										
130	757	741	4:54.0	-68:34	2X	2	136	120	56	30C	2	.20	4			(80)										
124	660	727	4:54.1	-70:40	3X	3	75	73	19	1L	19	.14	39	--									1754?			
125	660	725	4:54.1	-70:40	5X	4	201	182	236	3L	79	.14	162	--									1754?			
129	658	725	4:54.1	-70:40	3X	4	68	45	184	10C	18	.14	31	--									1754?			
130	658	722	4:54.1	-70:40	6X	7	178	105	1070	30C	36	.14	61	--									1754?			
124	686	726	4:54.2	-70:05	8X	8	78	73	73	1L	73	.16	164			185		60.6	0.37							
125	686	727	4:54.2	-70:05	8X	8	198	187	213	3L	71	.16	160			185		60.6	0.38							
129	686	727	4:54.2	-70:05	8X	8	87	59	403	10C	40	.16	75			185		60.6	0.81							
130	686	725	4:54.2	-70:05	8X	8	236	144	1115	30C	37	.16	69			185		60.6	0.88							
124	723	734	4:54.3	-69:13	5X	7	88	82	74	1L	74	.26*	268	LH5	4.0	5.0	26						1727-48			
125	725	736	4:54.3	-69:13	5X	7	243	213	382	3L	127	.26*	460	LH5	4.0	6.0	26						1727-48			
129	724	734	4:54.3	-69:13	5X	7	171	106	566	10C	57	.26*	154	LH5	4.0	6.0	26						1727-48			
130	725	733	4:54.3	-69:13	5X	7	430	307	1135	30C	38	.26*	103	LH5	4.0	6.0	26						1727-48			
124	764	740	4:54.3	-68:27	3X	3	76	75	8	1L	8	.20	22			80		9.2	0.42*							
125	763	743	4:54.3	-68:27	3X	3	196	191	19	3L	6	.20	17			80		9.2	0.53							
129	763	741	4:54.3	-68:27	3X	3	76	68	33	10C	3	.20	7			80		9.2	1.30							
130	763	739	4:54.3	-68:27	3X	3	193	172	77	30C	3	.20	6			80		9.2	1.64							
124	758	741	4:54.4	-68:35	2X	2	77	73	13	1L	13	.20	36													
125	757	742	4:54.4	-68:35	2X	2	187	181	24	3L	8	.20	22													
124	723	734	4:54.5	-69:16	5X	7	88	81	104	1L	104	.26	378	(LH5)									83.A-D	150.8	0.40	1727-48
125	725	735	4:54.5	-69:16	6X	7	248	215	389	3L	130	.26	471	(LH5)									83.A-D	150.8	0.32	1727-48
129	724	734	4:54.5	-69:16	6X	7	171	102	774	10C	77	.26	210	(LH5)									83.A-D	150.8	0.72	1727-48
130	724	732	4:54.5	-69:16	6X	7	585	294	3221	30C	107	.26	291	(LH5)									83.A-D	150.8	0.52	1727-48

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NO.	X	Y	R.A.	DEC.	*X	*Y	P	BG	V	E.F	V/E	RE	UF	LH NO.	SIZE	BS	N NO.	HA	HI	NGC NO.	SAO NO.	M	SP
124	708	731	4:54.7	-69:35	2X	2	77	77	0	1L	0	.16	--				87	0.6	--				
125	709	732	4:54.7	-69:35	2X	2	195	195	1	3L	0	.16	1				87	0.6	0.80*				
126	707	730	4:54.7	-69:35	2X	2	77	78	1	10C	0	.16	0				87	0.6	3.25*				
130	707	728	4:54.7	-69:35	2X	2	199	202	-3	30C	0	.16	--				87	0.6	--				
124	675	722	4:55.0	-70:18	2X	2	77	73	14	1L	14	.15	30	--									1766?
125	677	719	4:55.0	-70:18	3X	2	201	189	40	3L	13	.15	29	--									1766?
128	677	723	4:55.0	-70:18	2X	2	59	53	24	10C	2	.15	4	--									1766?
130	677	721	4:55.0	-70:18	2X	3	148	128	77	30C	3	.15	5	--									1766?
124	711	728	4:55.1	-69:29	2X	3	80	81	5	1L	5	.16	11	(LH8)			88	0.7	0.06*	1767-82			
125	712	729	4:55.1	-69:29	2X	3	220	220	23	3L	8	.16	17	(LH8)			88	0.7	0.04	1767-82			
129	711	728	4:55.1	-69:29	2X	3	102	108	15	10C	2	.16	3	(LH8)			88	0.7	0.24	1767-82			
130	711	726	4:55.1	-69:29	2X	3	275	307	21	30C	1	.16	1	(LH8)			88	0.7	0.54	1767-82			
124	821	751	4:55.1	-67:11	5X	6	85	79	59	1L	59	.12*	110	LH6	3.0	5.0	10						1735.47
125	822	751	4:55.1	-67:11	5X	6	228	212	222	3L	74	.12*	138	LH6	3.0	5.0	10						1735.47
129	821	751	4:55.1	-67:11	5X	6	143	107	339	10C	34	.12*	54	LH6	3.0	5.0	10						1735.47
130	822	749	4:55.1	-67:11	5X	6	443	308	1062	30C	35	.12*	56	LH6	3.0	5.0	10						1735.47
124	821	751	4:55.2	-67:13	9X	8	85	77	135	1L	135	.12	251	(LH6)			9	81.2	0.32	1735.47			
125	822	752	4:55.2	-67:13	9X	8	228	199	757	3L	252	.12	468	(LH6)			9	81.2	0.17	1735.47			
129	821	751	4:55.2	-67:13	9X	8	143	86	1154	10C	115	.12	183	(LH6)			9	81.2	0.44	1735.47			
130	821	749	4:55.2	-67:13	9X	8	473	229	4685	30C	156	.12	248	(LH6)			9	81.2	0.33	1735.47			
124	670	720	4:55.3	-70:26	3X	3	78	73	37	1L	37	.15	80	--									1754?
125	671	722	4:55.3	-70:26	4X	4	199	184	147	3L	49	.15	105	--									1754?
129	670	721	4:55.3	-70:26	3X	3	66	51	86	10C	9	.15	15	--									1754?
130	670	719	4:55.3	-70:26	4X	6	163	123	503	30C	17	.15	30	--									1754?
124	705	723	4:55.4	-69:45	3X	5	83	79	50	1L	50	.16	112	--									(88)

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FR.	X	Y	R.A.	DEC.	*X	*Y	P	BG	V	E.F	V/E	RE	UF	LH NO.	SIZE	BS	N NO.	HA	HI	NGC NO.	SAO NO.	M	SP
125	703	725	4:55.4	-69:45	6X	4	216	197	225	3L	75	.16	169			(88)							
129	704	725	4:55.4	-69:44	4X	4	101	81	229	10C	23	.16	42			(88)							
130	704	723	4:55.4	-69:44	6X12	300	213	2400	30C		80	.16	148			(88)							
124	714	723	4:55.4	-69:28	11X11	95	80	964	1L		964	.16	2170	(LH8)		(88,89)				1767-82			
125	714	725	4:55.4	-69:28	14X15	269	204	4545	3L		1515	.16	3410	(LH8)		(88,89)				1767-82			
129	713	725	4:55.4	-69:28	6X14	201	186	3400	10C		340	.16	630	(LH8)		(88,89)				1767-82			
130	713	723	4:55.4	-69:28	7X14	630	310	9400	30C		313*	.16	579	(LH8)		(88,89)				1767-82			
124	772	740	4:55.5	-68:15	5X	4	76	70	54	1L	54	.17	127	--						1755			
125	773	739	4:55.5	-68:15	5X	6	190	176	177	3L	59	.17	139	--						1755			
129	772	740	4:55.5	-68:15	5X	5	75	48	333	10C	33	.17	64	--						1755			
130	772	737	4:55.5	-68:15	6X	7	195	113	1238	30C	41	.17	79	--						1755			
124	650	714	4:55.6	-70:56	3X	3	76	72	19	1L	19	.13	37	--						--			
125	649	716	4:55.6	-70:56	3X	3	196	180	101	3L	34	.13	66	--						--			
129	644	717	4:55.6	-70:56	3X	3	59	44	88	10C	9	.13	15	--						--			
130	645	713	4:55.6	-70:56	4X	6	148	105	580	30C	19	.13	32	--						--			
129	881	761	4:55.6	-66:00	2X	2	53	43	39	10C	4	.10	6	--						--			
130	881	759	4:55.6	-66:00	3X	3	126	101	154	30C	5	.10	8	--						--			
124	718	728	4:55.7	-69:21	2X	2	83*	82	4	1L	4	.20	11	(LH8)		90	1.5	0.1*		1767-82			
125	723	727	4:55.7	-69:21	2X	2	228	224	7	3L	2	.20	5	(LH8)		90	1.5	0.27*		1767-82			
129	719	729	4:55.7	-69:21	2X	2	109	108	-1	10C	0	.20	--	(LH8)		90	1.5	--		1767-82			
130	722	726	4:55.7	-69:21	2X	2	314*	288	-51	30C	-2	.20	--	(LH8)		90	1.5	--		1767-82			
124	759	735	4:55.7	-68:31	4X	4	72*	73	12	1L	12	.26	44			84	10.8	0.25					
125	760	735	4:55.7	-68:31	4X	4	190*	186	36	3L	12	.26	44			84	10.8	0.25					
129	759	735	4:55.7	-68:31	4X	4	54*	54	13	10C	1	.26	4			84	10.8	3.07					
130	759	733	4:55.7	-68:31	4X	4	126*	128	37	30C	1	.26	3			84	10.8	3.24					

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FR.	X	Y	R.A.	DEC.	*X	*Y	P	BG	V	E.F	V/E	RE	UF	LH NO.	SIZE	BS	N NO.	HA	MI	NGC NO.	SAO NO.	M	SP		
124	750	733	4:55.9	-68:43	5X	5	75*	74	25	1L	25	.26	91				85.86	19.6					0.22		
125	752	734	4:55.9	-68:43	5X	5	106*	104	61	3L	20	.26	74				85.86	19.6					0.27		
129	750	733	4:55.9	-68:43	5X	5	62*	58	40	10C	4	.26	11				85.86	19.6					1.81		
130	750	731	4:55.9	-68:43	5X	5	155	142	91	30C	3	.26	8				85.86	19.6					2.4		
124	678	717	4:56.2	-70:17	3X	2	76	73	15	1L	15	.16	34	--										1766	
125	678	716	4:56.2	-70:17	2X	3	201	187	77	3L	26	.16	58	--											1766
129	677	717	4:56.2	-70:17	2X	2	62	53	27	10C	3	.16	5	--											1766
130	677	715	4:56.2	-70:17	2X	2	148	128	57	30C	2	.16	4	--											1766
124	884	757	4:56.3	-85:56	2X	2	71	67	15	1L	15	.10	25											--	
125	883	760	4:56.3	-85:56	2X	2	177	168	35	3L	12	.10	20											--	
124	623	707	4:56.4	-71:25	5X	5	71*	71	15	1L	15	.15	32	LH7	4.0	4.0	--							--	
125	624	709	4:56.4	-71:25	5X	5	177*	179	-20	3L	-7	.15	--	LH7	4.0	4.0	--							--	
129	621	708	4:56.4	-71:25	5X	5	47	42	36	10C	4	.15	6	LH7	4.0	4.0	--							--	
130	622	705	4:56.4	-71:25	5X	5	108	99	37	30C	1	.15	2	LH7	4.0	4.0	--							--	
124	689	718	4:56.5	-70:03	3X	3	80	73	45	1L	45	.16	101				(185)								
125	689	719	4:56.5	-70:03	4X	3	204	187	116	3L	39	.16	87				(185)								
129	688	718	4:56.5	-70:03	3X	3	75	58	103	10C	10	.16	20				(185)								
130	688	716	4:56.5	-70:03	5X	5	198	141	633	30C	21	.16	39				(185)								
124	858	750	4:56.6	-66:30	22X	20	112	73	3437	1L	3437	.15	7390	(LH9,10,13,14)			11.A-L	1874.		0.25	1760-73				
125	859	751	4:56.6	-66:30	22X	20	342	189	11151	3L	3717	.15	8000	(LH9,10,13,14)			11.A-L	1874.		0.23	1760-73				
129	856	750	4:56.6	-66:30	22X	20	407	66	21099	10C	2110	.15	3760	(LH9,10,13,14)			11.A-L	1874.		0.50	1760-73				
130	858	749	4:56.6	-66:30	22X	20	990	168	73306	30C	2444*	.15	4350	(LH9,10,13,14)			11.A-L	1874.		0.43	1760-73				
124	858	750	4:56.6	-66:29	7X	5	112	101	125	1L	125	.15*	269	LH9	6.0	4.0	(11)							1760.61	
125	857	750	4:56.6	-66:29	7X	5	316*	280	464	3L	155	.15*	333	LH9	6.0	4.0	(11)							1760.61	
129	857	751	4:56.6	-66:29	7X	5	407	253	1477	10C	148	.15*	263	LH9	6.0	4.0	(11)							1760.61	

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FR.	X	Y	R.A.	DEC.	*X	*Y	P	BO	V	E.F	V/E	RE	UF	LH NO.	SIZE	BS	N NO.	HA	HI	NGC NO.	SAO NO.	M	SP
130	858	749	4:56.6	-66:29	7X	5	990	840	2251	30C	75	.15*	134	LH9	6.0	4.0	38			1760-61			
124	860	749	4:56.6	-66:28	69*	112	85	714	1L	1L	714	.15	1535	LH9--13	49.0*	38	(11)			1760-69			
125	859	749	4:56.6	-66:28	75*	298	245	2070	3L	3L	690	.15	1483	LH9--13	49.0*	38	(11)			1760-69			
129	859	749	4:56.6	-66:28	75*	259	170	3086	10C	10C	399	.15	690	LH9--13	49.0*	38	(11)			1760-69			
130	857	748	4:56.6	-66:28	79*	840	513	1114	29	30C	381	.15	579	LH9--14	50.5*	38	(11)			1760-73			
124	860	751	4:56.6	-66:27	54*	112	90	339	1L	1L	339	.15	728	LH9.10	40.0*	38	(11)			1760-63			
125	859	750	4:56.6	-66:27	50*	333	268	934	3L	3L	311	.15	668	LH9.10	40.0*	38	(11)			1760-63			
129	859	751	4:56.6	-66:27	45*	385	216	2183	10C	10C	218	.15	389	LH9.10	40.0*	38	(11)			1760-63			
130	859	748	4:56.6	-66:27	50*	953	679	4806	30C	30C	160	.15	285	LH9.10	40.0*	38	(11)			1760-63			
124	716	722	4:56.7	-69:26	14X18	277	212	3048	3L	3L	1016	.16*	2280	LH8	15.0	20.0	76	(90.94)		1767-82			
125	716	722	4:56.7	-69:26	14X18	201	92	6391	10C	10C	639	.16*	1182	LH8	15.0	20.0	76	(90.94)		1767-82			
130	716	720	4:56.7	-69:26	14X18	679	269	23026	30C	30C	768	.16*	1420	LH8	15.0	20.0	76	(90.94)		1767-82			
124	861	752	4:56.7	-66:24	5X	5	94*	92	20	1L	20	.15	43	LH10	4.0	4.0	--	(11)		1763			
125	861	751	4:56.7	-66:24	5X	5	312	286	166	3L	55	.15	118	LH10	4.0	4.0	--	(11)		1763			
129	861	751	4:56.7	-66:24	5X	5	238	212	144	10C	14	.15	26	LH10	4.0	4.0	--	(11)		1763			
130	862	749	4:56.7	-66:24	5X	5	734	579	1214	30C	41	.15	72	LH10	4.0	4.0	--	(11)		1763			
124	710	719	4:57.0	-69:33	5X	5	88*	86	40	1L	40	.16	90	(LH8)				94A-C	20.9	0.23	1767-82		
125	711	720	4:57.0	-69:33	5X	5	228	223	105	3L	35	.16	79	(LH8)				94A-C	20.9	0.26	1767-82		
129	711	720	4:57.0	-69:33	5X	5	134	128	53	10C	5	.16	10	(LH8)				94A-C	20.9	2.14	1767-82		
130	711	718	4:57.0	-69:33	5X	5	454	417	269	30C	9	.16	17	(LH8)				94A-C	20.9	1.26	1767-82		
129	839	744	4:57.1	-66:54	4X	3	68	57	93	10C	9	.16	17										
130	840	743	4:57.1	-66:54	5X	7	178	139	725	30C	24	.16	45										
124	724	721	4:57.2	-69:18	2X	3	77*	78	2	1L	2	.20	5										
125	724	723	4:57.2	-69:18	2X	3	213	215	10	3L	3	.20	9										

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FR. X	Y	R.A.	DEC.	*X	*Y	P	BG	V	E.F	V/E	RE	UF	LH NO.	SIZE	BS	N NO.	HA	H1	NGC NO.	SAO NO.	M	SP
129	724	721	4:57.2	-69:18	2X	3	83* 84	8	10C	1	.20	2				93	0.5	0.29*				
130	724	719	4:57.2	-69:18	2X	3	229*239	16	30C	1	.20	1				93	0.5	0.44				
124	858	750	4:57.2	-66:30	6X	7	112 99	204	1L	204	.15	438	(LH9,13)			118C	355.	0.81	1760-69			
125	858	748	4:57.2	-66:30	6X	7	284*262	478	3L	159	.15	342	(LH9,13)			118C	355.	1.04	1760-69			
129	858	749	4:57.2	-66:30	6X	7	271*229	1055	10C	106	.15	188	(LH9,13)			118C	355.	1.89	1760-69			
130	858	747	4:57.2	-66:30	6X	7	897*734	2202	30C	73*	.15	130	(LH9,13)			118C	355.	2.73	1760-69			
124	746	725	4:57.3	-68:50	4X	4	76 74	15	1L	15	.26	54	(LH11)			92,AB	14.4	0.27				
125	747	726	4:57.3	-68:50	4X	4	198 193	32	3L	11	.26	40	(LH11)			92,AB	14.4	0.36				
129	745	725	4:57.3	-68:50	4X	4	78* 73	67	10C	7	.26	18	(LH11)			92,AB	14.4	0.79				
130	747	723	4:57.3	-68:50	4X	4	239 199	230	30C	8	.26	21	(LH11)			92,AB	14.4	0.69				
124	746	725	4:57.3	-68:45	3X	3	76 75	4	1L	4	.26	15	LH11	1.5	1.0	--						
125	750	727	4:57.3	-68:45	3X	3	192*190	9	3L	3	.26	11	LH11	1.5	1.0	--						
129	747	725	4:57.3	-68:45	3X	3	86 78	30	10C	3	.26	8	LH11	1.5	1.0	--						
130	748	723	4:57.3	-68:45	3X	3	223*200	80	30C	3	.26	7	LH11	1.5	1.0	--						
124	649	709	4:57.4	-70:53	3X	3	78 73	24	1L	24	.16	54										
125	650	710	4:57.4	-70:53	4X	3	198 182	113	3L	38	.16	85										
129	650	709	4:57.4	-70:53	3X	2	56 43	61	10C	6	.16	11										
130	650	706	4:57.4	-70:53	7X	5	144 110	678	30C	23	.16	42										
125	697	713	4:57.4	-69:55	3X	3	204 180	114	3L	38	.16	86										
129	696	716	4:57.4	-69:55	4X	6	78 62	188	10C	19	.16	35										
130	696	714	4:57.4	-69:55	6X	5	210 163	685	30C	23	.16	42										
124	698	716	4:57.5	-69:51	3X	3	80 76	24	1L	24	.16	54										
125	698	717	4:57.5	-69:51	4X	3	205 192	96	3L	32	.16	72										
124	754	727	4:57.5	-68:29	7X	8	96 79	253	1L	253	.26	918	(LH12)			91,AB	229.5	0.25	1770			
125	765	728	4:57.5	-68:29	7X	8	259 204	891	3L	297	.26	1080	(LH12)			91,AB	229.5	0.21	1770			

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FR.	X	Y	R.A.	DEC.	*X	*Y	P	BG	V	E.F	V/E	RE	UF	LH NO.	SIZE	BS	N NO.	HA	HI	NGC NO.	SAO NO.	M	SP
129	763	728	4:57.5	-68:29	7X	8	207	83	1487	10C	149	.26	403	(LH12)			91,AB	229.5	0.57	1770			
130	763	726	4:57.5	-68:29	7X	8	663	216	6234	30C	208*	.26	562	(LH12)			91,AB	229.5	0.41	1770			
124	858	745	4:57.5	-66:28	5X	5	88*	88	15	1L	15	.15	32	LH13	3.0	3.0	--			1769			
125	860	746	4:57.5	-66:28	5X	5	238*	235	59	3L	20	.15	43	LH13	3.0	3.0	--			1769			
129	859	746	4:57.5	-66:28	5X	5	152*	146	-3	10C	0	.15	--	LH13	3.0	3.0	--			1769			
130	860	744	4:57.5	-66:28	5X	5	454*	452	-130	30C	-4	.15	--	LH13	3.0	3.0	--			1769			
124	764	727	4:57.6	-68:25	7X	5	96	82	145	1L	145	.26*	526	LH12	6.0	4.0	25	(91)		1770			
125	766	728	4:57.6	-68:25	7X	5	248*	215	380	3L	127	.26*	461	LH12	6.0	4.0	25	(91)		1770			
129	763	728	4:57.6	-68:25	7X	5	207	103	880	10C	88	.26*	238	LH12	6.0	4.0	25	(91)		1770			
130	765	725	4:57.6	-68:25	7X	5	523*	290	2801	30C	93	.26*	253	LH12	6.0	4.0	25	(91)		1770			
124	841	741	4:57.7	-66:53	2X	2	75	71	13	1L	13	.16	29	--			--			--			
125	841	743	4:57.7	-66:53	2X	2	190	178	41	3L	14	.16	31	--			--			--			
124	812	735	4:57.8	-67:32	2X	3	76	70	21	1L	21	.12	39	--			--			1774?86?			
125	810	736	4:57.8	-67:32	3X	3	195	182	78	3L	26	.12	48	--			--			1774?86?			
129	810	732	4:57.8	-67:32	4X	3	68	52	162	10C	16	.12	26	--			--			1774?86?			
130	809	734	4:57.8	-67:32	9X	7	174	133	2094	30C	70	.12	111	--			--			1774?86?			
124	704	717	4:57.9	-69:44	2X	2	84	78	23	1L	23	.16	52	--			--			1772?82?			
125	705	716	4:57.9	-69:44	2X	4	212	199	69	3L	23	.16	52	--			--			1772?82?			
129	704	715	4:57.9	-69:44	4X	4	97	76	167	10C	17	.16	31	--			--			1772?82?			
130	704	713	4:57.9	-69:44	5X	6	279	198	950	30C	32	.16	59	--			--			1772?82?			
124	862	744	4:58.0	-66:22	3X	3	78*	78	1	1L	1	.15	2	LH14	1.5	1.0	--	(11)		1773			
125	865	744	4:58.0	-66:22	3X	3	181*	185	-9	3L	-3	.15	--	LH14	1.5	1.0	--	(11)		1773			
129	863	743	4:58.0	-66:22	3X	3	70*	71	-2	10C	0	.15	--	LH14	1.5	1.0	--	(11)		1773			
130	864	741	4:58.0	-66:22	3X	3	156*	163	-22	30C	-1	.15	--	LH14	1.5	1.0	--	(11)		1773			
129	778	727	4:58.1	-68:10	2X	2	52	47	18	10C	2	.14	3	--			--			--			

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FR. X	Y	R.A.	DEC.	*X	*Y	P	BG	V	E.F	V/E	RE	UF	LH NO.	SIZE	BS	M NO.	HA	HI	NOC NO.	SAD NO.	M	SP	
130	777	726	4:58.1	-68:10	2X 2	124	112	41	30C	1	.14	2										--	
124	694	711	4:58.2	-69:55	2X 2	80	74	21	1L	21	.16	47										--	
125	697	713	4:58.2	-69:55	3X 4	204	189	104	3L	35	.16	78										--	
129	696	712	4:58.2	-69:55	3X 4	79	58	136	10C	14	.16	25										--	
130	696	710	4:58.2	-69:55	6X 5	212	163	700	30C	23	.16	43										--	
124	872	741	4:58.6	-66:16	6X 5	77	75	21	1L	21	.13	41				12.A	26.8	0.65					
125	873	742	4:58.6	-66:16	6X 5	195	187	43	3L	14	.13	28				12.A	26.8	0.96					
129	872	743	4:58.6	-66:16	6X 5	73	65	99	10C	10	.13	16				12.A	26.8	1.64					
130	872	741	4:58.6	-66:16	6X 5	195	164	298	30C	10	.13	16				12.A	26.8	1.57					
124	894	743	4:58.9	-65:44	13X22	81	74	516	1L	516	.09*	822	LH15	13.0	24.0	49						1787	
125	897	744	4:58.9	-65:44	13X22	208	188	1207	3L	402	.09*	639	LH15	13.0	24.0	49							1787
129	894	743	4:58.9	-65:44	13X22	119	74	3035	10C	304	.09*	428	LH15	13.0	24.0	49							1787
130	895	742	4:58.9	-65:44	13X22	348	197	7404	30C	247	.09*	348	LH15	13.0	24.0	49							1787
124	746	716	4:59.2	-68:52	4X 6	81	73	96	1L	96	.20	263	--			(92)							1785?
125	746	717	4:59.2	-68:52	6X 6	205	184	386	3L	129	.20	354	--			(92)							1785?
129	746	716	4:59.2	-68:52	6X 7	92	54	611	10C	61	.20	132	--			(92)							1785?
130	746	714	4:59.2	-68:52	8X 8	252	130	2720	30C	91	.20	196	--			(92)							1785?
124	885	738	4:59.7	-65:55	13X10	97	72	935	1L	935	.10	573	(CL..LH15)										1787
125	890	739	4:59.7	-65:55	22X18	218	178	5819	3L	1940	.10	3260	(CL..LH15)										1787
129	890	741	4:59.7	-65:55	20X20	124	47	12250	10C	1225	.10	1800	(CL..LH15)										1787
130	890	739	4:59.7	-65:55	20X19	402	151	27600	30C	920	.10	1353	(CL..LH15)										1787
124	653	700	4:59.9	-70:51	4X 4	77	72	48	1L	48	.15	103											--
125	653	699	4:59.9	-70:51	4X 4	199	182	163	3L	54	.15	117											--
129	654	700	4:59.9	-70:51	4X 3	58	43	142	10C	14	.15	25											--
130	654	697	4:59.9	-70:51	6X 4	151	110	510	30C	17	.15	30											--

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FR. X	Y	R.A.	DEC.	*X	*Y	P	BG	V	E,F	V/E	RE	UF	LH NO.	SIZE	BS	N NO.	HA	HI	MGC NO.	SAD NO.	M	SP
125	716	708	4:59.9	-69:31	2X	2	195	188	22	3L	7	.16	17	--					1793?			
129	716	707	4:59.9	-69:31	4X	2	62	55	44	10C	4	.16	8	--					1793?			
130	716	705	4:59.9	-69:31	3X	3	162	137	152	30C	5	.16	10	--					1793?			
130	764	713	4:59.9	-68:31	2X	2	130	122	32	30C	1	.05	1							249164?	8.2	A2
124	786	717	5:00.0	-68:03	4X	5	78	75	11	1L	11	.14	23		16A		4.8	0.21				
125	786	719	5:00.0	-68:03	4X	5	193	188	21	3L	7	.14	14		16A		4.8	0.31				
129	788	720	5:00.0	-68:03	4X	5	60	56	31	10C	3	.14	5		16A		4.8	0.91				
130	787	718	5:00.0	-68:03	4X	5	152	138	106	30C	4	.14	6		16A		4.8	0.80				
124	682	702	5:00.1	-70:15	9X10	86	77	77	152	1L	152	.16	342		186A-E		57.5	0.17				
125	682	703	5:00.1	-70:15	9X10	236	196	196	610	3L	203	.16	457		186A-E		57.5	0.13				
129	682	702	5:00.1	-70:15	9X10	127	69	69	820	10C	82	.16	152		186A-E		57.5	0.38				
130	682	699	5:00.1	-70:15	9X10	385	176	176	3118	30C	104	.16	192		186A-E		57.5	0.30				
124	877	733	5:00.1	-66:09	4X	4	70	71	-6	1L	-6	.13	--		13		4.0	--				
125	878	735	5:00.1	-66:09	4X	4	180	182	8	3L	3	.13	5		13		4.0	0.77*				
129	877	734	5:00.1	-66:09	4X	4	58	58	8	10C	1	.13	1		13		4.0	3.04*				
130	877	732	5:00.1	-66:09	4X	4	137	140	20	30C	1	.13	1		13		4.0	3.64				
124	869	732	5:00.2	-66:19	4X	4	73	71	6	1L	6	.15	13		14		11.5	0.89				
125	870	733	5:00.2	-66:19	4X	4	178	181	16	3L	5	.15	12		14		11.5	1.00				
129	869	734	5:00.2	-66:19	4X	4	58	57	48	10C	5	.15	9		14		11.5	1.34				
130	869	732	5:00.2	-66:19	4X	4	143	140	55	30C	2	.15	3		14		11.5	3.5*				
124	829	727	5:00.4	-67:09	2X	2	74	71	10	1L	10	.15	22						--			
125	829	728	5:00.4	-67:09	2X	2	190	178	43	3L	14	.15	31						--			
129	828	726	5:00.4	-67:09	2X	4	59	49	74	10C	7	.15	13						--			
130	828	724	5:00.4	-67:09	5X	8	144	111	765	30C	26	.15	45						--			
124	725	707	5:00.6	-69:18	2X	2	75	74	5	1L	5	.17	12						--			

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FR.	X	Y	R.A.	DEC.	*X	*Y	P	BG	V	E.F	V/E	RE	UF	LH NO.	SIZE	BS	N NO.	HA	HI	MGC NO.	SAO NO.	M	SP
125	726	710	5:00.6	-69:18	2X	2	195	186	29	3L	10	.17	23										
129	727	707	5:00.6	-69:18	2X	2	58	52	21	10C	2	.17	4										
130	727	705	5:00.6	-69:18	2X	2	149	130	65	30C	2	.17	4										
124	860	729	5:00.7	-66:27	2X	2	73	72	3	1L	3	.15	6			15	4.0	0.7*					
125	861	732	5:00.7	-66:27	2X	2	178	176	5	3L	2	.15	4			15	4.0	1.11*					
129	862	729	5:00.7	-66:27	2X	2	51*	50	6	10C	1	.15	1			15	4.0	3.7*					
130	861	725	5:00.7	-66:27	2X	2	112*112		3	30C	0	.15	0			15	4.0	22.2*					
124	722	705	5:00.8	-69:25	4X	4	80	73	57	1L	57	.05	74							249166	9.0	A0	
125	722	706	5:00.8	-69:25	4X	4	204	185	172	3L	57	.05	74							249166	9.0	A0	
129	722	704	5:00.8	-69:25	6X	5	82	53	406	10C	41	.05	49							249166	9.0	A0	
130	722	702	5:00.8	-69:25	8X	8	228	128	2340	30C	78	.05	94							249166	9.0	A0	
124	780	712	5:00.9	-68:10	3X	3	78	74	19	1L	19	.14	39							1806?			
125	782	715	5:00.9	-68:10	4X	4	199	185	156	3L	52	.14	107							1806?			
129	780	714	5:00.9	-68:10	4X	7	71	50	352	10C	35	.14	60							1806?			
130	780	712	5:00.9	-68:10	4X	9	186	131	895	30C	30	.14	51							1806?			
124	775	711	5:01.2	-68:18	3X	3	82	73	50	1L	50	.15	108							1806?			
125	775	713	5:01.2	-68:18	5X	5	199	183	163	3L	54	.15	117							1806?			
129	776	712	5:01.2	-68:18	7X	6	77	49	683	10C	68	.15	122							1806?			
130	776	710	5:01.2	-68:18	10X	8	210	116	2800	30C	93	.15	166							1806?			
124	816	712	5:01.6	-67:24	2X	2	75	71	12	1L	12	.16	27										
125	816	716	5:01.6	-67:24	2X	2	187	178	36	3L	12	.16	27										
129	819	719	5:01.6	-67:24	2X	2	53	47	23	10C	2	.16	4										
130	819	716	5:01.6	-67:24	2X	2	130	110	74	30C	2	.16	5										
124	690	695	5:02.0	-70:05	2X	2	76	75	4	1L	4	.16	9										
125	690	694	5:02.0	-70:05	2X	2	201	192	25	3L	8	.16	19										

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FR.	X	Y	R.A.	DEC.	*X	*Y	P	BG	V	E.F	V/E	RE	UF	LH NO.	SIZE	BS	N NO.	HA	HI	NGC NO.	SAO NO.	M	SP
129	691	695	5:02.0	-70:05	4X	3	65	53	84	100	8	.16	16										
130	691	693	5:02.0	-70:05	6X	7	159	123	835	300	28	.16	51										
124	881	724	5:02.1	-68:08	21X23	76	71	834	11	834	.12	1550						10.13	802.	0.52			
125	881	726	5:02.1	-68:08	21X23	196	180	2723	31	908	.12	1685						10.13	802.	0.48			
129	880	726	5:02.1	-68:08	21X23	8f	55	4176	100	418	.12	665						10.13	802.	1.21			
130	880	724	5:02.1	-68:08	21X23	236	133	13993	300	466	.12	742						10.13	802.	1.08			
129	809	714	5:02.1	-67:36	6X	5	56	50	61	100	6	.10	9										
124	881	724	5:02.2	-66:08	2X	2	76	71	17	11	17	.15	37	--			(13)		1805				
125	881	726	5:02.2	-66:08	3X	3	196	182	75	31	25	.15	54	--			(13)		1805				
129	880	726	5:02.2	-66:08	12X17	85	48	2706	100	271	.15	465	--				(13)		1805				
130	880	724	5:02.2	-66:08	27Xf5	236	105	35000	300	1167	.15	2075	--				(13)		1805				
124	650	688	5:02.4	-70:57	2X	2	76	73	10	11	10	.14	21										
125	650	692	5:02.4	-70:57	2X	2	193	182	36	31	12	.14	25										
129	651	687	5:02.4	-70:57	2X	2	51	43	32	100	3	.14	5										
130	651	685	5:02.4	-70:57	2X	2	124	108	58	300	2	.14	3										
124	488	669	5:02.5	-74:25	6X	6	122	69	705	11	705	.05	917										
125	489	670	5:02.5	-74:25	8X	9	344	175	3410	31	1137	.05	1480										
129	488	669	5:02.5	-74:25	9X	9	257	30	4723	100	472	.05	571										
130	488	665	5:02.5	-74:25	11X13	645	72	23700	300	790*	.05	955											
129	852	716	5:03.0	-66:44	2X	2	62	49	45	100	5	.16	8										
130	852	714	5:03.0	-66:44	4X	5	148	113	405	300	13	.16	25										
124	739	696	5:03.3	-69:02	4X	5	79*	78	27	11	27	.16	61	LH16	1.5	3.0							
125	740	696	5:03.3	-69:02	4X	5	218*	210	83	31	28	.16	63	LH16	1.5	3.0							
129	740	696	5:03.3	-69:02	4X	5	94*	87	96	100	10	.16	18	LH16	1.5	3.0							
130	739	693	5:03.3	-69:02	4X	5	310*	260	376	300	13	.16	23	LH16	1.5	3.0							

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FR.	X	Y	R.A.	DEC.	*X	*Y	P	BG	V	E.F	V/E	RE	UF	LM NO.	SIZE	BS	M NO.	MA	MI	MGC NO.	SAO NO.	M	SP
124	836	710	5:03.6	-67:01	6X	3	74	70	48	1L	48	.15	103								--		
125	837	711	5:03.6	-67:01	5X	4	192	176	189	3L	63	.15	136								--		
129	837	713	5:03.6	-67:01	4X	4	63	45	206	10C	21	.15	37								--		
130	838	711	5:03.6	-67:01	7X10	157	111	943	30C	31	.15	56									--		
124	758	698	5:03.7	-68:40	2X	2	79	73	21	1L	21	.18	52								--		
125	758	698	5:03.7	-68:40	3X	2	193	186	38	3L	13	.18	31								--		
129	758	698	5:03.7	-68:40	2X	2	64	54	39	10C	4	.18	8								--		
130	758	696	5:03.7	-68:40	5X	3	159	132	263	30C	9	.18	18								--		
124	818	704	5:03.8	-67:23	3X	4	73*	74	3	1L	3	.17	7	(LM19)			17,AB	8.9	1.25*	1814-20			
125	821	707	5:03.8	-67:23	3X	4	198*	197	4	3L	1	.17	2	(LM19)			17,AB	8.9	3.8*	1814-20			
129	824	706	5:03.8	-67:23	3X	4	130	113	67	10C	7	.17	13	(LM19)			17,AB	8.9	0.69	1814-20			
130	821	705	5:03.8	-67:23	3X	4	255*	241	182	30C	6	.17	12	(LM19)			17,AB	8.9	0.76	1814-20			
124	738	693	5:03.9	-69:03	51*	84*	79	82	82	1L	82	.16	185	LH16,17,20	22.5*	12							
125	740	693	5:03.9	-69:03	53*	215*	207	402	402	3L	134	.16	301	LH16,17,20	22.5*	12							
129	740	693	5:03.9	-69:03	51*	108*	90	455	455	10C	46	.16	84	LH16,17,20	22.5*	12							
130	738	690	5:03.9	-69:03	48*	337*	248	1380	1380	30C	46	.16	85	LH16,17,20	22.5*	12							
124	739	694	5:03.9	-69:01	45*	82*	80	54	54	1L	54	.16	122	LH16,20	20.5*	7							
125	740	694	5:03.9	-69:01	45*	218*	209	168	168	3L	56	.16	126	LH16,20	20.5*	7							
124	736	692	5:04.0	-69:05	4X	3	86	83	16	1L	16	.16	36	LH17	2.0	1.0	5						
125	738	693	5:04.0	-69:05	4X	3	228	218	42	3L	14	.16	32	LH17	2.0	1.0	5						
129	737	692	5:04.0	-69:05	4X	3	115	101	52	10C	5	.16	10	LH17	2.0	1.0	5						
130	737	690	5:04.0	-69:05	4X	3	344	303	214	30C	7	.16	13	LH17	2.0	1.0	5						
124	823	705	5:04.0	-67:16	8X	8	86	76	147	1L	147	.17*	347	LH19	7.0	7.0	18	(17)			1814-20		
125	825	706	5:04.0	-67:16	8X	8	228*	197	597	3L	199	.17*	470	LH19	7.0	7.0	18	(17)			1814-20		
129	824	706	5:04.0	-67:16	8X	8	130	74	1024	10C	102	.17*	197	LH19	7.0	7.0	18	(17)			1814-20		

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FR.	X	Y	R.A.	DEC.	*X	*Y	P	BC	Y	E.F	V/E	RE	UF	LH NO.	SIZE	BS	N NO.	HA	HI	NGC NO.	SAO NO.	M	SP
130	826	704	5:04.0	-67:16	8X	8	312*212	2172	30C	72	.17*	129	LH19	7.0	7.0	18	(17)			1814-20			
124	678	684	5:04.1	-70:20	9X	5	93* 83	136	1L	136	.16*	306	LH18	8.0	4.0	20	(188)			1813.23			
125	680	685	5:04.1	-70:20	9X	5	229*220	381	3L	127	.16*	286	LH18	8.0	4.0	20	(188)			1813.23			
129	681	683	5:04.1	-70:20	9X	5	93* 92	201	10C	20	.16*	37	LH18	8.0	4.0	20	(188)			1813.23			
130	681	681	5:04.1	-70:20	9X	5	264*277	910	30C	30	.16*	56	LH18	8.0	4.0	20	(188)			1813.23			
124	681	685	5:04.1	-70:18	2X	2	80* 78	-1	1L	-1	.16	--	(LH18)				188	0.1	--	1813.23			
125	682	686	5:04.1	-70:18	2X	2	210*211	3	3L	1	.16	2	(LH18)				188	0.1	0.02*	1813.23			
129	683	683	5:04.1	-70:18	2X	2	96 92	5	10C	1	.16	1	(LH18)				188	0.1	0.05*	1813.23			
130	683	681	5:04.1	-70:18	2X	2	275 260	29	30C	1	.16	2	(LH18)				188	0.1	0.03	1813.23			
124	642	678	5:04.2	-71:09	2X	2	77 72	16	1L	16	.13	31											
125	644	678	5:04.2	-71:09	2X	2	193 184	34	3L	11	.13	22											
129	642	679	5:04.2	-71:09	2X	2	48 39	32	10C	3	.13	5											
130	642	676	5:04.2	-71:09	2X	2	111 94	64	30C	2	.13	4											
124	865	711	5:04.3	-66:28	6X	6	80 70	281	1L	281	.17	663	--							1818			
125	867	713	5:04.3	-66:28	10X	10	213 178	1290	3L	430	.17	1015	--							1818			
129	665	713	5:04.3	-66:28	9X	10	109 48	2467	10C	247	.17	474	--							1818			
130	865	711	5:04.3	-66:28	11X	14	329 118	10100	30C	337	.17	646	--							1818			
124	769	695	5:04.4	-68:29	5X	3	79 74	37	1L	37	.15	80											
125	768	696	5:04.4	-68:29	3X	3	201 187	80	3L	27	.15	57											
129	768	693	5:04.4	-68:29	3X	2	70 57	66	10C	7	.15	12											
130	768	692	5:04.4	-68:29	4X	6	181 141	502	30C	17	.15	30											
124	739	691	5:04.5	-69:01	5X	5	82* 82	5	1L	5	.16	11	LH20	4.0	4.0	5							
125	741	691	5:04.5	-69:01	5X	5	212*211	28	3L	9	.16	20	LH20	4.0	4.0	5							
129	740	691	5:04.5	-69:01	5X	5	104* 98	105	10C	11	.16	19	LH20	4.0	4.0	5							
130	739	688	5:04.5	-69:01	5X	5	277*264	180	30C	6	.16	11	LH20	4.0	4.0	5							

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FR. X	Y	R.A.	DEC.	*X	*Y	P	BG	V	E,F	V/E	RE	UF	LH NO.	SIZE	BS	N NO.	HA	HI	NGC NO.	SAO NO.	M	SP
124	798	698	5:04.6	-67:49	6X	5	81	77	36	1L	36	10*	60	LH21	5.0	3.0	4					(22)
125	799	699	5:04.6	-67:49	6X	5	207	198	87	3L	29	10*	49	LH21	5.0	3.0	4					(22)
129	798	699	5:04.6	-67:49	6X	5	91	69	235	10C	24	10*	35	LH21	5.0	3.0	4					(22)
130	798	698	5:04.6	-67:49	6X	5	238	177	559	30C	19	10*	27	LH21	5.0	3.0	4					(22)
124	728	686	5:04.8	-69:19	2X	2	77	74	11	1L	11	16	25	--								1828.35
125	730	686	5:04.8	-69:19	2X	2	193	186	27	3L	9	16	20	--								1828.35
129	727	687	5:04.8	-69:19	2X	2	59	49	36	10C	4	16	7	--								1828.35
130	727	685	5:04.8	-69:19	3X	3	148	121	188	30C	6	16	12	--								1828.35
124	657	676	5:04.9	-70:48	4X	4	89	89	42	1L	42	14	86	(LH24)								190
125	659	679	5:04.9	-70:48	4X	4	260	238	125	3L	42	14	86	(LH24)								190
129	658	677	5:04.9	-70:48	4X	4	143	132	273	10C	27	14	47	(LH24)								190
130	659	675	5:04.9	-70:48	4X	4	605	466	680	30C	23	14	39	(LH24)								190
124	809	697	5:04.9	-67:38	4X	5	75	74	12	1L	12	08	18	(LH22)								21
125	811	699	5:04.9	-67:38	4X	5	201	194	48	3L	16	08	24	(LH22)								21
129	809	699	5:04.9	-67:38	4X	5	65	59	61	10C	6	08	8	(LH22)								21
130	810	697	5:04.9	-67:38	4X	5	176	143	204	30C	7	08	9	(LH22)								21
124	812	697	5:04.9	-67:34	6X	4	77	74	22	1L	22	08	33	LH22	5.0	2.0	6					(21)
125	811	699	5:04.9	-67:34	6X	4	201	193	61	3L	20	08	30	LH22	5.0	2.0	6					(21)
129	810	699	5:04.9	-67:34	6X	4	69	58	76	10C	8	08	10	LH22	5.0	2.0	6					(21)
130	812	697	5:04.9	-67:34	6X	4	151	134	247	30C	8	08	11	LH22	5.0	2.0	6					(21)
124	786	593	5:05.1	-68:08	4X	3	91	89	23	1L	23	11	41	(LH25, SA0249185)								23A
125	784	595	5:05.1	-68:08	4X	3	228	226	73	3L	24	11	42	(LH25, SA0249185)								23A
129	783	594	5:05.1	-68:08	4X	3	134	134	210	10C	21	11	32	(LH25, SA0249185)								23A
130	785	592	5:05.1	-68:08	4X	3	667	481	756	30C	25	11	39	(LH25, SA0249185)								23A
124	796	696	5:05.1	-67:52	2X	2	78	78	6	1L	6	10	10	(LH21)								22

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R.	X	Y	R.A.	DEC.	X	Y	P	BG	V	E.F	V/E	RE	UF	LH NO.	SIZE	BS	M NO.	HA	HI	MGC NO.	SAD NO.	M	SP		
125	797	697	5:05.1	-67:52	2X	2	193*194	12	3L	4	.10	4	7	(LM21)			22	0.1	0.02						
129	798	699	5:05.1	-67:52	2X	2	91 86	14	10C	1	.10	1	2	(LM21)			22	0.1	0.06						
130	799	697	5:05.1	-67:52	2X	2	248 232	42	30C	1	.10	1	2	(LM21)			22	0.1	0.06						
124	651	676	5:05.2	-70:58	3X	3	83 80	12	1L	12	.14	12	25	(LM23)			191AB	8.4	0.34						
125	652	677	5:05.2	-70:58	3X	3	208 200	28	3L	9	.14	9	18	(LM23)			191AB	8.4	0.46						
129	651	676	5:05.2	-70:58	3X	3	88 69	62	10C	6	.14	6	11	(LM23)			191AB	8.4	0.79						
130	651	673	5:05.2	-70:58	3X	3	236 177	200	30C	7	.14	7	11	(LM23)			191AB	8.4	0.74						
124	651	676	5:05.2	-70:55	4X	3	83 79	19	1L	19	.14	19	39	LM23	1.5	1.0	--	(191)							
125	653	677	5:05.2	-70:55	4X	3	202*198	34	3L	11	.14	11	23	LM23	1.5	1.0	--	(191)							
129	651	676	5:05.2	-70:55	4X	3	88 66	66	10C	7	.14	7	11	LM23	1.5	1.0	--	(191)							
130	652	673	5:05.2	-70:55	4X	3	221*167	283	30C	9	.14	9	16	LM23	1.5	1.0	--	(191)							
124	785	693	5:05.2	-68:09	9X	12	94 73	1004	1L	1004	.05	1305											249185	7.8 89	
125	783	694	5:05.2	-68:09	14X	14	221*184	4012	3L	1337	.05	1740												249185	7.8 89
129	785	694	5:05.2	-68:09	13X	18	220 48	7343	10C	734	.05	888												249185	7.8 89
130	785	692	5:05.2	-68:09	13X	15	667 118	22315	30C	744*	.05	900												249185	7.8 89
124	842	702	5:05.2	-66:59	3X	4	71* 72	8	1L	8	.15	17					20	4.0	0.24						
125	842	704	5:05.2	-66:59	3X	4	184*184	14	3L	5	.15	10					20	4.0	0.40						
129	842	703	5:05.2	-66:59	3X	4	55 52	12	10C	1	.15	2					20	4.0	1.88						
130	842	701	5:05.2	-66:59	3X	4	128*122	25	30C	1	.15	1					20	4.0	2.70						
124	687	679	5:05.3	-70:12	3X	3	82 81	7	1L	7	.16	16					189	2.9	0.18*						
125	687	680	5:05.3	-70:12	3X	3	221 217	19	3L	6	.16	14					189	2.9	0.20						
129	686	679	5:05.3	-70:12	3X	3	94 87	30	10C	3	.16	6					189	2.9	0.52						
130	686	677	5:05.3	-70:12	3X	3	269 242	104	30C	3	.16	6					189	2.9	0.45						
124	904	713	5:05.4	-65:42	3X	2	74 70	20	1L	20	.14	41					--								
125	903	710	5:05.4	-65:42	3X	3	189 176	86	3L	29	.14	59					--								

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NAVAL RESEARCH LAB WASHINGTON D C  
S201 FAR-ULTRAVIOLET ATLAS OF THE LARGE MAGELLANIC CLOUD.(U)  
JUL 78 T PAGE, G R CARRUTHERS

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UNCLASSIFIED

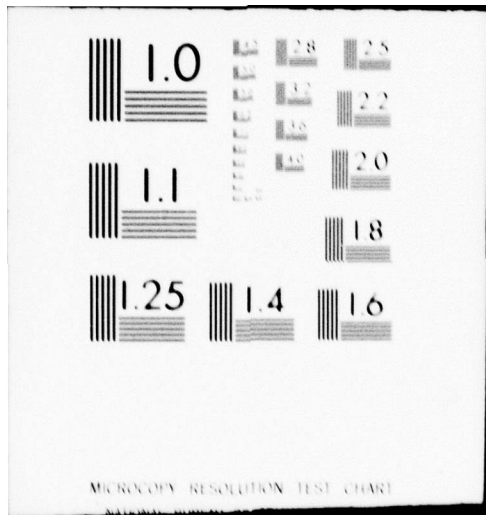
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MICROCOPY RESOLUTION TEST CHART

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FR.	X	Y	R.A.	DEC.	*X	*Y	P	BG	V	E.F	V/E	RE	UF	LH NO.	SIZE	BS	N NO.	MA	MI	NGC NO.	SAO NO.	M	SP
129	903	711	5:05.4	-65:42	4X	5	56	44	131	10C	13	.14	22										--
130	903	709	5:05.4	-65:42	6X	6	134	101	688	30C	23	.14	39										--
124	635	671	5:05.6	-71:19	3X	2	76	73	15	1L	15	.13	29										--
125	636	674	5:05.6	-71:19	3X	3	193	181	78	3L	26	.13	51										--
129	635	673	5:05.6	-71:19	3X	5	49	37	94	10C	9	.13	16										--
130	635	671	5:05.6	-71:19	5X	6	123	90	574	30C	19	.13	32										--
124	662	675	5:05.7	-70:43	10X15	*106	88	302	302	1L	302	.14	620	LH24	10.0	16.0	51						1833.37
125	663	677	5:05.7	-70:43	10X15	*294	224	2167	3L	722	.14	1480	LH24	10.0	16.0	51							1833.37
129	661	676	5:05.7	-70:43	10X15	*250	106	2246	10C	225	.14	384	LH24	10.0	16.0	51							1833.37
130	663	672	5:05.7	-70:43	10X15	*803	368	5535	30C	185	.14	316	LH24	10.0	16.0	51							1833.37
124	783	690	5:05.8	-68:12	10X14	86	76	820	1L	820	.11	1450	(LH25)				23.A						205.1 0.14
125	784	691	5:05.8	-68:12	10X14	228	199	1978	3L	659	.11	1165	(LH25)				23.A						205.1 0.18
129	783	691	5:05.8	-68:12	10X14	118	70	3581	10C	358	.11	548	(LH25)				23.A						205.1 0.38
130	783	689	5:05.8	-68:12	10X14	357	181	12418	30C	414	.11	633	(LH25)				23.A						205.1 0.32
124	666	673	5:06.2	-70:40	271*	100*	80	2499	1L	2499	.14	5125	LH24,26	330.0*	105		(190)						1833-45
125	667	676	5:06.2	-70:40	274*	271	212	8071	3L	2690	.14	5520	LH24,26	330.0*	105		(190)						1833-45
129	665	674	5:06.2	-70:40	280*	192*	79	17309	10C	1731	.14	2960	LH24,26	330.0*	105		(190)						1833-45
130	667	671	5:06.2	-70:40	280*	743	211	51099	30C	1703	.14	2915	LH24,26	330.0*	105		(190)						1833-45
124	786	688	5:06.3	-68:06	4X	4	83*	83	14	1L	14	.11*	25	LH25	3.0	3.0	6						(SA0249185)
125	787	690	5:06.3	-68:06	4X	4	220	221	48	3L	16	.11*	28	LH25	3.0	3.0	6						(SA0249185)
129	784	688	5:06.3	-68:06	4X	4	117	105	99	10C	10	.11*	15	LH25	3.0	3.0	6						(SA0249185)
130	786	686	5:06.3	-68:06	4X	4	279	270	570	30C	19	.11*	29	LH25	3.0	3.0	6						(SA0249185)
124	839	695	5:06.6	-67:01	2X	2	76	74	7	1L	7	.13	14										--
125	842	692	5:06.6	-67:01	2X	2	190	180	31	3L	10	.13	20										--
124	670	672	5:06.7	-70:32	10X16	110	89	471	1L	471	.14*	966	LH26	10.0	17.0	54							1845

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FR.	X	Y	R.A.	DEC.	*X	*Y	P	BG	V	E.F	V/E	RE	UF	LH NO.	SIZE	BS	N NO.	HA	HI	MGC NO.	SAO NO.	M	SP		
125	670	674	5:06.7	-70:32	10x16	32x	233	183x	3L	611	.14*	1255		LH26	10.0 17.0	5x	(190)							1845	
129	670	672	5:06.7	-70:32	10x16	288	110	347x	10C	347	.14*	593		LH26	10.0 17.0	5x	(190)								1845
130	670	670	5:06.7	-70:32	10x16	85x	327	11067	30C	369*	.14*	631		LH26	10.0 17.0	5x	(190)								1845
124	769	682	5:06.4	-68:28	9x	6	89	77	312	1L	312	.16	701	--											1838?
125	770	684	5:06.9	-68:28	9x	7	236	195	1208	3L	403	.16	908	--											1838?
129	769	684	5:06.9	-68:28	12x	8	130	67	2152	10C	215	.16	398	--											1838?
130	770	682	5:06.9	-68:28	18x10	419	167	13800	30C	460	.16	850		--											1838?
124	808	689	5:07.0	-67:39	2x	2	77	72	18	1L	18	.09	29	--											1846?
125	810	689	5:07.0	-67:39	3x	2	193	181	50*	3L	17	.09	27	--											1846?
129	809	688	5:07.0	-67:39	2x	2	57	45	45	10C	5	.09	6	--											1846?
130	809	687	5:07.0	-67:39	3x	4	136	108	214	30C	7	.09	10	--											1846?
124	723	676	5:07.1	-69:26	2x	2	76	73	10	1L	10	.16	23	--											--
125	724	670	5:07.1	-69:26	2x	2	195	187	25	3L	8	.16	19	--											--
124	551	658	5:07.2	-73:06	4x	5	100	70	272	1L	272	.05	354												256160
125	553	660	5:07.2	-73:06	6x	6	264	180	1140	3L	380	.05	494												256160
129	552	658	5:07.2	-73:06	7x	8	177	30	2210	10C	221	.05	267												256160
130	552	655	5:07.2	-73:06	8x	9	505	75	9100	30C	303	.05	366												256160
124	735	676	5:07.2	-69:08	5x	5	77*	76	29	1L	29	.16	65	LH27	4.0 3.0	6	(101)								1847?
125	738	679	5:07.2	-69:08	5x	5	198*	193	29	3L	10	.16	23	LH27	4.0 3.0	6	(101)								1847?
129	737	678	5:07.2	-69:08	5x	5	67	65	74	10C	7	.16	14	LH27	4.0 3.0	6	(101)								1847?
130	737	676	5:07.2	-69:08	5x	5	176*	169	143	30C	5	.16	9	LH27	4.0 3.0	6	(101)								1847?
124	744	677	5:07.4	-69:00	2x	2	79	75	16	1L	16	.17	38	(LH27)											1847?
125	746	678	5:07.4	-69:00	2x	3	202	192	38	3L	13	.17	30	(LH27)											1847?
129	744	678	5:07.4	-69:00	3x	2	75	62	55	10C	6	.17	11	(LH27)											1847?
130	744	676	5:07.4	-69:00	4x	4	195	155	335	30C	11	.17	21	(LH27)											1847?

NRL REPORT 8206

FR.	X	Y	R.A.	DEC.	*X	*Y	P	BG	V	E.F	V/E	RE	UF	LH NO.	SIZE	BS	N NO.	HA	HI	NGC NO.	SAO NO.	M	SP	
124	761	677	5:07.5	-68:37	4X	5	82*79	22	1L	22	.15	22	1L			100		5.5	0.12					
125	762	678	5:07.5	-68:37	4X	5	198*197	40	3L	13	.15	29	29			100		5.5	0.19					
129	760	678	5:07.5	-68:37	4X	5	70*73	23	10C	2	.15	4	4			100		5.5	1.34					
130	761	675	5:07.5	-66:37	4X	5	174*184	66	30C	2	.15	4	4			100		5.5	1.4					
124	732	673	5:07.8	-69:13	2X	2	78*77	3	1L	3	.16	7	7	(LM27)		101		0.0	0.00*					
125	735	678	5:07.8	-69:13	2X	2	192*192	3	3L	1	.16	2	2	(LM27)		101		0.0	0.01*					
129	735	676	5:07.8	-69:13	2X	2	73 70	4	10C	0	.16	1	1	(LM27)		101		0.0	0.03*					
130	735	674	5:07.8	-69:13	2X	2	196 190	15	30C	1	.16	1	1	(LM27)		101		0.0	0.02					
129	841	689	5:07.9	-66:59	2X	2	50 44	21	10C	2	.13	3	3										--	
130	842	687	5:07.9	-66:59	2X	2	120 110	37	30C	1	.13	2	2											--
124	605	659	5:08.0	-71:57	5X	5	139 70	582	1L	582	.12	1083	1083											--
125	607	661	5:08.0	-71:57	6X	5	404 178	1930	3L	643	.12	1197	1197											--
129	606	660	5:08.0	-71:57	5X	5	246 33	1763	10C	176	.12	280	280											--
130	607	658	5:08.0	-71:57	6X	7	425 80	4310	30C	144	.12	228	228											--
124	639	662	5:08.1	-71:11	6X	5	89 78	120	1L	120	.12*	223	223	LM28	5.0 4.0 13									1848
125	640	664	5:08.1	-71:11	6X	5	241 204	303	3L	101	.12*	188	188	LM28	5.0 4.0 13									1848
129	639	662	5:08.1	-71:11	6X	5	125 72	462	10C	46	.12*	74	74	LM28	5.0 4.0 13									1848
130	640	660	5:08.1	-71:11	6X	5	385*191	1602	30C	53	.12*	85	85	LM28	5.0 4.0 13									1848
124	646	662	5:08.2	-71:05	3X	2	76 73	13	1L	13	.12	24	24	--										1848?
125	646	665	5:08.2	-71:05	2X	3	196 185	60	3L	20	.12	37	37	--										1848?
129	646	663	5:08.2	-71:05	2X	2	58 41	64	10C	6	.12	10	10	--										1848?
130	647	660	5:08.2	-71:05	3X	3	149 101	207	30C	7	.12	11	11	--										1848?
124	695	667	5:08.3	-70:01	6X	4*	80 76	32	1L	32	.15	69	69	LM29	5.0 2.0 5									
125	695	668	5:08.3	-70:01	6X	4*204	196	59	3L	20	.15	43	43	LM29	5.0 2.0 5									
129	694	666	5:08.3	-70:01	6X	4*	68 59	85	10C	9	.15	15	15	LM29	5.0 2.0 5									

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FR.	X	Y	R.A.	DEC.	*X	*Y	P	BG	V	E.F	V/E	RE	UF	LH NO.	SIZE	BS	N NO.	MA	MI	MGC NO.	SAO NO.	M	SP
130	695	665	5:08.3	-70:01	6x	4*16*	145	163	30C	5	.15	10	LM29	5.0	2.0	5							
124	735	671	5:08.4	-69:13	4x	4	70	76	11	1L	11	.16	25	L	0	--							
125	733	670	5:08.4	-69:13	4x	4	205*201	45	3L	15	.16	34	LM30	2.0	2.0	--							
129	733	670	5:08.4	-69:13	4x	4	74	67	37	10C	4	.16	7	LM30	2.0	2.0	--						
130	734	670	5:08.4	-69:13	4x	4	183*173	46	30C	2	.16	3	LM30	2.0	2.0	--							
124	755	671	5:09.2	-68:50	7x	5	101	96	122	1L	122	.16	274				10348	104.3	0.38				
125	756	672	5:09.2	-68:50	7x	5	279	226	500	3L	167	.16	375				10348	104.3	0.28				
129	755	672	5:09.2	-68:50	7x	5	245	112	976	10C	98	.16	190				10348	104.3	0.58				
130	755	670	5:09.2	-68:50	7x	5	682	321	3275	30C	109*	.16	202				10348	104.3	0.52				
129	723	667	5:09.4	-69:31	3x	2	55	45	52	10C	5	.16	10										--
130	723	665	5:09.4	-69:31	4x	3	136	109	210	30C	7	.16	13										--
124	769	668	5:09.7	-68:33	4x	5	80	78	18	1L	18	.15	39				104AB	11.4	0.29				
125	768	670	5:09.7	-68:33	4x	5	205	200	50	3L	17	.15	36				104AB	11.4	0.32				
129	769	670	5:09.7	-68:33	4x	5	81	71	84	10C	8	.15	15				104AB	11.4	0.74				
130	769	668	5:09.7	-68:33	4x	5	231	189	228	30C	8	.15	14				104AB	11.4	0.84				
124	748	665	5:10.1	-68:58	7x	7	101	84	237	1L	237	.16	533	(LM31)			105.A	122.7	0.23	1858			
125	748	666	5:10.1	-68:58	7x	7	255*217	726	3L	242	.16	545	(LM31)				105.A	122.7	0.23	1858			
129	749	665	5:10.1	-68:58	7x	7	228	96	1384	10C	138	.16	256	(LM31)			105.A	122.7	0.48	1858			
130	749	663	5:10.1	-68:58	7x	7	682	270	4662	30C	155*	.16	288	(LM31)			105.A	122.7	0.43	1858			
124	748	665	5:10.1	-68:54	5x	4	101	91	68	1L	68	.16	153	LM31	4.0	2.0	2	(105)					1858
125	750	666	5:10.1	-68:54	5x	4	284	243	255	3L	85	.16	191	LM31	4.0	2.0	2	(105)					1858
129	749	665	5:10.1	-68:54	5x	4	228	134	544	10C	54	.16	100	LM31	4.0	2.0	2	(105)					1858
130	750	663	5:10.1	-68:54	5x	4	519**11	1420	30C	47*	.16	87	LM31	4.0	2.0	2	(105)						1858
124	628	653	5:10.2	-71:29	2x	2	79	72	25	1L	25	.12	46										--
125	630	655	5:10.2	-71:29	5x	2	198	185	89	3L	30	.12	55										--

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FP.	X	Y	R.A.	DEC.	*X	*Y	P	BG	V	E.F	V/E	RE	UF	LM NO.	SIZE	BS	N NO.	HA	HI	NCC NO.	SAD NO.	M	SP
129	629	655	5:10.2	-71:29	3X	4	52	38	133	10C	13	.12	21										--
130	630	652	5:10.2	-71:29	7X	6	133	89	923	30C	31	.12	49										--
124	923	685	5:10.4	-65:25	2X	2	74	71	10	1L	10	.13	20										--
125	923	687	5:10.4	-65:25	2X	2	189	181	26	3L	9	.13	17										--
129	923	687	5:10.4	-65:25	6X	5	59	45	260	10C	26	.13	43										--
130	922	685	5:10.4	-65:25	9X	8	143	105	1470	30C	49	.13	81										--
124	690	659	5:10.6	-70:14	2X	6	78	75	24	1L	24	.15	52										--
125	689	657	5:10.6	-70:14	6X	5	204	187	291	3L	97	.15	209										--
129	687	658	5:10.6	-70:14	4X	2	57	42	84	10C	8	.15	15										--
130	688	655	5:10.6	-70:14	7X	5	144	102	520	30C	17	.15	30										--
124	832	673	5:10.7	-67:10	5X	8	86	79	82	1L	82	.11	145	LH32	4.0	7.0	10						(26.27)
125	834	674	5:10.7	-67:10	5X	8	221	208	126	3L	42	.11	74	LH32	4.0	7.0	10						(26.27)
129	833	673	5:10.7	-67:10	5X	8	103	79	211	10C	21	.11	32	LH32	4.0	7.0	10						(26.27)
130	834	672	5:10.7	-67:10	5X	8	314	211	1145	30C	38	.11	59	LH32	4.0	7.0	10						(26.27)
124	720	657	5:10.8	-69:31	3X	3	75	75	2	1L	2	.16	5				108						1.6 0.35*
125	721	659	5:10.8	-69:31	3X	3	186	167	1	3L	0	.16	1				108						1.6 2.13*
129	724	657	5:10.8	-69:31	3X	3	59	59	1	10C	0	.16	0				108						1.6 8.7*
130	724	655	5:10.8	-69:31	3X	3	147	145	3	30C	0	.16	0				108						1.6 8.7*
124	832	673	5:10.8	-67:10	5X	5	86	80	54	1L	54	.11	96	(LH32)			26.27						5.0 0.05
125	834	674	5:10.8	-67:10	5X	5	221	210	71	3L	24	.11	42	(LH32)			26.27						5.0 0.12
129	833	673	5:10.8	-67:10	5X	5	103	83	157	10C	16	.11	24	(LH32)			26.27						5.0 0.21
130	834	672	5:10.8	-67:10	5X	5	314	236	620	30C	21	.11	32	(LH32)			26.27						5.0 0.16
124	702	656	5:10.9	-69:56	2X	2	76	73	9	1L	9	.15	19										--
125	701	658	5:10.9	-69:56	4X	1	193	185	28	3L	9	.15	20										--
129	702	658	5:10.9	-69:56	2X	2	58	40	67	10C	7	.15	10										--

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FR.	X	Y	R.A.	DEC.	*X	*Y	P	BG	V	E.F	V/E	RE	UF	LH NO.	SIZE	BS	N NO.	HA	H1	MGC NO.	SAG NO.	M	SP
130	703	656	5:10.9	-69:56	3X	4	145	95	282	30C	9	.15	17										
124	736	658	5:11.4	-69:10	4X	7	83	81	23	1L	23	.16	52	LH33	2.0	6.0	11						
125	737	658	5:11.4	-69:10	4X	7	215	209	31	3L	10	.16	23	LH33	2.0	6.0	11						
129	737	657	5:11.4	-69:10	4X	7	92	79	110	10C	11	.16	20	LH33	2.0	6.0	11						
130	738	656	5:11.4	-69:10	4X	7	241	214	352	30C	12	.16	22	LH33	2.0	6.0	11						
124	827	661	5:12.7	-67:18	12X	6*	83*	83	153	1L	153	.11*	270	LH34	16.0	3.0	22						(30)
125	828	663	5:12.7	-67:18	12X	6*	22*	219	138	3L	46	.11*	81	LH34	16.0	3.0	22						(30)
129	826	659	5:12.7	-67:18	12X	6*	159*	104	1177	10C	118	.11*	180	LH34	16.0	3.0	22						(30)
130	827	657	5:12.7	-67:18	12X	6*	505*	337	1712	30C	57*	.11*	87	LH34	16.0	3.0	22						(30)
124	678	644	5:13.0	-70:28	3X	3	80	78	8	1L	8	.14	16				193A-E	4.8	0.30*				
125	679	646	5:13.0	-70:28	3X	3	198	194	9	3L	3	.14	6				193A-E	4.8	0.78*				
129	679	646	5:13.0	-70:28	3X	3	54	48	21	10C	2	.14	4				193A-E	4.8	1.3*				
130	679	643	5:13.0	-70:28	3X	3	130	118	42	30C	1	.14	2				193A-E	4.8	2.0*				
125	752	650	5:13.1	-68:55	2X	2	204	193	42	3L	14	.17	33										1866
124	919	671	5:13.1	-65:28	2X	2	73	71	5	1L	5	.15	11	--									1866
125	922	673	5:13.1	-65:28	2X	2	189	181	26	3L	9	.15	19	--									1866
129	921	673	5:13.1	-65:28	4X	3	58	46	92	10C	9	.15	16	--									1866
130	921	671	5:13.1	-65:28	4X	5	145	107	408	30C	14	.15	25	--									1866
124	932	674	5:13.2	-65:17	6X	5	80	71	150	1L	150	.05	195										249221
125	932	675	5:13.2	-65:17	9X	7	208	180	792	3L	264	.05	344										249221
129	932	675	5:13.2	-65:17	8X	9	109	45	1971	10C	197	.05	238										249221
130	932	673	5:13.2	-65:17	10X	10	342	108	7200	30C	240	.05	290										249221
124	705	646	5:13.3	-69:53	2X	2	77	74	10	1L	10	.15	22										--
125	705	646	5:13.3	-69:53	2X	2	192	186	22	3L	7	.15	16										--
129	704	647	5:13.3	-69:53	2X	2	45	38	23	10C	2	.15	4										--

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FR.	X	Y	R.A.	DEC.	*X	*Y	P	BG	V	E.F	V/E	RE	UF	LM NO.	SIZE	B5	N NO.	HA	M1	NCC NO.	SAC NO.	M	SP
130	724	644	5:13.3	-69:53	2X	2	110	91	69	30C	2	.15	4										
124	731	647	5:13.5	-69:21	5X	7	99	92	79	1L	79	.16	178	LH35	3.0	6.0	10	(113)					1874-B1
125	732	649	5:13.5	-69:21	5X	7	255	254	169	3L	56	.16	126	LH35	3.0	6.0	10	(113)					1874-B1
129	731	647	5:13.5	-69:21	5X	7	233	157	604	10C	60	.16	112	LH35	3.0	6.0	10	(113)					1874-B1
130	730	645	5:13.5	-69:21	5X	7	730	445	254	7	65	.16	157	LH35	3.0	6.0	10	(113)					1874-B1
124	825	657	5:13.6	-67:22	106*		98*	81	509	1L	509	.11	900	LH34--38	64.0*	45	(30)						1869.71
125	826	659	5:13.6	-67:22	102*		259*	218	871	3L	290	.11	513	LH34--38	64.0*	45	(30)						1869.71
129	826	653	5:13.6	-67:22	124*		79*	88	451	10C	45	.11	69	LH34--38	64.0*	45	(30)						1869.71
130	824	653	5:13.6	-67:22	122*		342*	193	756	7	252*	.11	386	LH34--38	64.0*	45	(30)						1869.71
124	734	646	5:13.7	-69:15	3X	3	84*	84		1	1	.16	2				112	3.3					1.47*
125	735	647	5:13.7	-69:15	3X	3	224*	230	-18	3L	-6	.16	--				112	3.3					--
129	735	646	5:13.7	-69:15	3X	3	77*	87	-29	10C	-3	.16	--				112	3.3					--
130	735	644	5:13.7	-69:15	3X	3	274*	261	-155	30C	-5	.16	--				112	3.3					--
124	729	646	5:13.8	-69:24	10X	7	111	86	446	1L	446	.16	1003	(LH35)			113	A-F	307.5	0.31			1874-B1
125	729	647	5:13.8	-69:24	10X	7	308*	238	1120	3L	373	.16	839	(LH35)			113	A-F	307.5	0.37			1874-B1
129	729	646	5:13.8	-69:24	10X	7	294*	95	3554	10C	355	.16	657	(LH35)			113	A-F	307.5	0.47			1874-B1
130	728	644	5:13.8	-69:24	10X	7	650*	289	864	9	288*	.16	533	(LH35)			113	A-F	307.5	0.58			1874-B1
124	821	656	5:13.8	-67:28	10X	8	85*	81	169	1L	169	.11	299	(LH34,36,37,38)			30	A-D	90.7	0.30			1869.71
125	822	658	5:13.8	-67:28	10X	8	228*	216	385	3L	128	.11	226	(LH34,36,37,38)			30	A-D	90.7	0.40			1869.71
129	821	655	5:13.8	-67:28	10X	8	93	80	937	10C	94	.11	143	(LH34,36,37,38)			30	A-D	90.7	0.63			1869.71
130	819	652	5:13.8	-67:28	10X	8	159*	163	1319	30C	64*	.11	98	(LH34,36,37,38)			30	A-D	90.7	0.93			1869.71
124	821	656	5:13.8	-67:27	4X	5	85*	84	21	1L	21	.14*	43	LH38	2.0	3.0	8	(30)					1871
125	822	658	5:13.8	-67:27	4X	5	228*	222	71	3L	27	.14*	55	LH38	2.0	3.0	8	(30)					1871
129	823	650	5:13.8	-67:27	4X	5	52*	54	-26	10C	-3	.14*	--	LH38	2.0	3.0	8	(30)					1871
130	820	652	5:13.8	-67:27	4X	5	177*	175	-84	30C	-3	.14*	--	LH38	2.0	3.0	8	(30)					1871

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FR.	X	Y	R.A.	DEC.	*X	*Y	P	BG	V	E.F	V/E	RE	UF	LH NO.	SIZE	BS	N NO.	HA	HI	NOC NO.	SAO NO.	M	SP
124	824	656	5:13.8	-67:23	4X	4	96* 91	12	1L	12	.11	21	LH37	2.0	2.0	6	(30)						1869
125	826	658	5:13.8	-67:23	4X	4	269*249	31	3L	10	.11	18	LH37	2.0	2.0	6	(30)						1869
129	827	652	5:13.8	-67:23	4X	4	58* 58	-22	10C	-2	.11	--	LH37	2.0	2.0	6	(30)						1869
130	823	652	5:13.8	-67:23	4X	4	233*249	187	30C	6	.11	10	LH37	2.0	2.0	6	(30)						1869
124	827	656	5:13.8	-67:20	4X	5	93* 88	9	1L	9	.08*	114	LH36	2.0	3.0	9	(30)						
125	828	658	5:13.8	-67:20	4X	5	260*243	32	3L	11	.08*	17	LH36	2.0	3.0	9	(30)						
129	829	652	5:13.8	-67:20	4X	5	54* 59	-50	10C	-5	.08*	--	LH36	2.0	3.0	9	(30)						
130	826	652	5:13.8	-67:20	4X	5	277*312	-153	30C	-5	.08*	--	LH36	2.0	3.0	9	(30)						
129	749	648	5:13.9	-68:59	2X	2	54 50	16	10C	2	.17	3										--	
130	749	646	5:13.9	-68:59	2X	2	137 127	38	30C	1	.17	6										--	
124	834	655	5:14.1	-67:11	3X	4	81 74	65	1L	65	.10	109					(30)						
125	835	658	5:14.1	-67:11	4X	6	215 198	232	3L	77	.10	129					(30)						
129	834	658	5:14.1	-67:11	6X	6	90 61	649	10C	65	.10	95					(30)						
130	835	656	5:14.1	-67:11	7X	8	252 163	1890	30C	63	.10	93					(30)						
124	721	641	5:14.3	-69:31	4X	7	86* 84	40	1L	40	.15	86	LH39	2.0	6.0	10	(114)						
125	723	644	5:14.3	-69:31	4X	7	245*224	148	3L	49	.15	106	LH39	2.0	6.0	10	(114)						
129	721	644	5:14.3	-69:31	4X	7	136 92	310	10C	31	.15	55	LH39	2.0	6.0	10	(114)						
130	722	641	5:14.3	-69:31	4X	7	394*265	892	30C	30	.15	53	LH39	2.0	6.0	10	(114)						
124	870	657	5:14.8	-66:29	3X	3	76 75	5	1L	5	.09	8					31	1.0	0.12*				
125	871	659	5:14.8	-66:29	3X	3	193 188	13	3L	4	.09	7					31	1.0	0.15				
129	870	659	5:14.8	-66:29	3X	3	61 56	24	10C	2	.09	3					31	1.0	0.3*				
130	870	656	5:14.8	-66:29	3X	3	159 144	56	30C	2	.09	3					31	1.0	0.39				
124	719	638	5:14.9	-69:34	9X	7	83* 81	45	1L	45	.15	97	(LH39)				114.A	159.1	1.64				
125	722	642	5:14.9	-69:34	9X	7	224*219	92	3L	31	.15	67	(LH39)				114.A	159.1	2.38				
129	720	642	5:14.9	-69:34	9X	7	98* 81	378	10C	38	.15	67	(LH39)				114.A	159.1	2.36				

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FR.	X	Y	P.A.	DEC.	*X	*Y	P	BO	V	E.F	V/E	RE	UF	LH NO.	SIZE	BS	N NO.	HA	HI	NOC NO.	SAC NO.	M	SP
130	721	639	5:14.9	-69:34	9X	7	203*234	404	30C	13	.15	24	(LH39)	114.A	159.1	6.64							
124	793	641	5:15.9	-68:02	2X	2	74* 74	-1	1L	-1	.20	--		32	0.3	--							
125	794	643	5:15.9	-68:02	2X	2	109*109	2	2L	1	.20	2		32	0.3	0.16*							
129	794	642	5:15.9	-68:02	2X	2	44* 44	4	10C	0	.20	1		32	0.3	0.25*							
130	794	640	5:15.9	-68:02	2X	2	102*102	4	30C	0	.20	0		32	0.3	1.04*							
124	624	630	5:16.0	-71:30	2X	2	74	71	1L	11	.15	24											
125	626	628	5:16.0	-71:30	3X	3	103	179	10	2L	6	.15	13										
129	623	631	5:16.0	-71:30	2X	2	37	31	26	10C	3	.15	5										
130	623	628	5:16.0	-71:30	2X	2	87	75	40	30C	1	.15	2										
124	613	629	5:16.5	-71:50	2X	2	75* 75	0	1L	0	.15	--		194	0.4	--							
125	614	630	5:16.5	-71:50	2X	2	106*106	1	2L	0	.15	1		194	0.4	0.56*							
129	614	628	5:16.5	-71:50	2X	2	34* 33	1	10C	0	.15	0		194	0.4	2.25*							
130	614	626	5:16.5	-71:50	2X	2	79* 78	7	30C	0	.15	0		194	0.4	1.01*							
124	672	628	5:16.7	-70:37	2X	5	80	73	57	1L	57	.12	106										
125	673	630	5:16.7	-70:37	5X	5	202	187	103	2L	61	.12	113										
129	673	630	5:16.7	-70:37	4X	4	64	38	194	10C	19	.12	31										
130	673	627	5:16.7	-70:37	7X	5	163	92	1020	30C	24	.12	54										
125	821	643	5:16.8	-67:31	3X	2	201	189	56	2L	19	.14	38										
129	819	643	5:16.8	-67:31	3X	2	60	48	66	10C	7	.14	11										
130	820	640	5:16.8	-67:31	4X	3	141	107	232	30C	8	.14	13										
124	825	640	5:16.9	-67:23	3X	3	77* 75	9	1L	9	.13	18		33	10.5	0.60*							
125	826	642	5:16.9	-67:23	3X	3	106*107	-2	2L	-1	.13	--		33	10.5	--							
129	825	642	5:16.9	-67:23	3X	3	46* 47	1	10C	0	.13	0		33	10.5	--							
130	826	640	5:16.9	-67:23	3X	3	113*114	0	30C	0	.13	--		33	10.5	--							
124	702	627	5:17.3	-69:57	3X	3	78* 77	3	1L	3	.14	6		116	1.9	0.31*							

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FR.	X	Y	R.A.	DEC.	*X	*Y	P	BG	V	E.F	V/E	RE	UF	LH NO.	SIZE	BS	N NO.	HA	HI	MGC NO.	SAD NO.	M	SP
125	703	629	5:17.3	-69:57	3X	3	205*203	9	3L	3	.14	3	.14	6		116	1.9	0.31*					
129	703	620	5:17.3	-69:57	3X	3	44* 45	2	10C	0	.14	0	.14	0		116	1.9	5.6*					
130	703	626	5:17.3	-69:57	3X	3	105*106	2	30C	0	.14	0	.14	0		116	1.9	16.7*					
124	718	630	5:17.4	-69:38	2X	2	92* 90	0	1L	0	.15	--	--	--		117	1.5	--					
125	719	629	5:17.4	-69:38	2X	2	245*248	18	3L	6	.15	13	.15	13		117	1.5	0.12					
129	721	631	5:17.4	-69:38	2X	2	189*180	40	10C	4	.15	7	.15	7		117	1.5	0.21					
130	721	629	5:17.4	-69:38	2X	2	630*618	195	30C	7*	.15	12	.15	12		117	1.5	0.13					
124	684	627	5:17.7	-70:21	2X	2	80 74	20	1L	20	.11	35	.11	35		--							
125	687	627	5:17.7	-70:21	2X	2	198 188	34	3L	11	.11	20	.11	20		--							
129	685	627	5:17.7	-70:21	2X	2	50 36	48	10C	5	.11	7	.11	7		--							
130	685	624	5:17.7	-70:21	3X	2	120 89	144	30C	5	.11	7	.11	7		--							
124	894	645	5:17.8	-66:04	4X	4	77 75	10	1L	10	.11	18	.11	18		35	2.9	0.16					
125	894	646	5:17.8	-66:04	4X	4	196*194	28	3L	9	.11	17	.11	17		35	2.9	0.17					
129	894	646	5:17.8	-66:04	4X	4	66 59	40	10C	4	.11	6	.11	6		35	2.9	0.49					
130	894	644	5:17.8	-66:04	4X	4	163 144	95	30C	3	.11	5	.11	5		35	2.9	0.59					
124	799	634	5:18.0	-67:57	3X	3	79* 78	1	1L	1	.20	3	.20	3		36	1.0	0.33*					
125	800	636	5:18.0	-67:57	3X	3	196*194	7	3L	2	.20	6	.20	6		36	1.0	0.16*					
129	799	633	5:18.0	-67:57	3X	3	51* 52	-1	10C	0	.20	--	--	--		36	1.0	--					
130	800	633	5:18.0	-67:57	3X	3	112*113	-6	30C	0	.20	--	--	--		36	1.0	--					
125	830	638	5:18.1	-67:18	5X	3	202 191	97	3L	32	.13	63	.13	63								1905	
129	829	639	5:18.1	-67:18	3X	4	63 50	89	10C	9	.13	15	.13	15								1905	
130	829	635	5:18.1	-67:18	5X	4	153 118	393	30C	13	.13	22	.13	22								1905	
124	709	626	5:18.2	-69:53	5X	4	87 78	97	1L	97	.13	189	.13	189		(116,121)							
125	709	627	5:18.2	-69:53	9X	7	228 214*	250	3L	83	.13	162	.13	162		(116,121)							
129	708	626	5:18.2	-69:53	5X	4	98 53	445	10C	45	.13	73	.13	73		(116,121)							

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FR.	X	Y	R.A.	DEC.	*X	*Y	P	BO	V	E.F	V/E	RE	UF	LH NO.	SIZE	BS	N NO.	HA	HI	NOC NO.	SAO NO.	M	SP	
130	708	623	5:18.2	-69:53	6X	6	271	135	1660	30C	55	.13	91				(116,121)							
124	638	620	5:18.4	-71:18	5X	4	74	74	19	1L	19	.15	41	(LH40)			195,AB	15.7	0.38			1914		
125	641	622	5:18.4	-71:18	5X	4	183	187	34	3L	11	.15	24	(LH40)			195,AB	15.7	0.65			1914		
129	641	621	5:18.4	-71:18	5X	4	54	40	68	10C	7	.15	12	(LH40)			195,AB	15.7	1.30			1914		
130	641	619	5:18.4	-71:18	5X	4	122	93	160	30C	5	.15	10	(LH40)			195,AB	15.7	1.57			1914		
124	642	620	5:18.4	-71:14	3X	3	74	74	3	1L	3	.15	6	(LH40)	1.0	1.0	--					1914		
125	644	622	5:18.4	-71:14	3X	3	192	187	21	3L	7	.15	15	(LH40)	1.0	1.0	--					1914		
129	641	621	5:18.4	-71:14	3X	3	54	44	35	10C	4	.15	6	(LH40)	1.0	1.0	--					1914		
130	641	619	5:18.4	-71:14	3X	3	122	104	57	30C	2	.15	3	(LH40)	1.0	1.0	--					1914		
124	737	625	5:18.5	-69:13	5X	8	199	123	723	1L	723	.15*	1555	LH41	4.0	7.0	52	(119)					1910	
125	740	629	5:18.5	-69:13	5X	8	346	325	2129	3L	710	.15*	1525	LH41	4.0	7.0	52	(119)					1910	
129	738	627	5:18.5	-69:13	5X	8	616	296	4593	10C	459	.15*	816	LH41	4.0	7.0	52	(119)					1910	
130	738	623	5:18.5	-69:13	5X	8	953	693	3640	30C	121	.15*	216	LH41	4.0	7.0	52	(119)					1910	
124	819	631	5:18.6	-67:30	2X	2	80	74	20	1L	20	.14	41										--	
125	821	632	5:18.6	-67:30	3X	3	201	191	65	3L	22	.14	45										--	
129	823	631	5:18.6	-67:30	2X	2	50	44	20	10C	2	.14	3										--	
130	823	628	5:18.6	-67:30	2X	2	121	105	63	30C	2	.14	4										--	
124	737	625	5:18.7	-69:15	15X	13	199	85	3199	1L	3199	.15	6875	(LH41)			119,A	1028.					0.15	1910
125	738	626	5:18.7	-69:15	15X	13	702	221	13325	3L	4442	.15	9550	(LH41)			119,A	1028.					0.11	1910
129	737	626	5:18.7	-69:15	15X	13	830	90	17565	10C	1757	.15	3120	(LH41)			119,A	1028.					0.33	1910
130	737	622	5:18.7	-69:15	15X	13	922	240	37050	30C	1235	.15	2200	(LH41)			119,A	1028.					0.47	1910
124	903	637	5:19.0	-65:51	2X	2	78	75	11	1L	11	.18	27										--	
125	904	640	5:19.0	-65:51	2X	2	198	189	33	3L	11	.18	27										--	
129	904	640	5:19.0	-65:51	4X	5	61	47	182	10C	18	.18	36										--	
130	904	638	5:19.0	-65:51	5X	6	151	115	597	30C	30	.18	60										--	

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FP.	X	Y	R.A.	DEC.	*X	*Y	P	BG	V	L.F	V/E	RE	UF	LH NO.	SIZE	BS	N NO.	HA	HI	NGC NO.	SAC NO.	M	SP	
124	783	626	5:19.1	-68:16	2X	2	82	76	24	1L	24	.19	63											
125	786	628	5:19.1	-68:16	3X	3	205	196	57	3L	19	.19	50											
129	785	626	5:19.1	-68:16	3X	3	95	44	73	10C	7	.19	15											
130	785	624	5:19.1	-68:16	4X	3	133	108	204	30C	7	.19	14											
124	714	622	5:19.3	-69:43	7X	9	92*	90	182	1L	182	.12	338	(LH42)				120.A-D	293.		0.87	1918		
125	716	621	5:19.3	-69:43	7X	9	380	258	893	3L	298	.12	554	(LH42)				120.A-D	293.		0.53	1918		
129	717	620	5:19.3	-69:43	7X	9	324	130	2255	10C	226	.12	358	(LH42)				120.A-D	293.		0.82	1918		
130	715	619	5:19.3	-69:43	7X	9	565*	393	7509	30C	250*	.12	398	(LH42)				120.A-D	293.		0.74	1918		
124	777	625	5:19.3	-68:24	2X	2	74*	75	-1	1L	-1	.18	--				118	1.5	--		--			
125	778	625	5:19.3	-68:24	2X	2	193*	194	-1	3L	0	.18	--				118	1.5	--		--			
129	777	625	5:19.3	-68:24	2X	2	46*	45	1	10C	0	.18	0				118	1.5	7.6*					
130	778	624	5:19.3	-68:24	2X	2	115*	114	15	30C	1	.18	1				118	1.5	1.52					
124	717	620	5:19.7	-69:38	4X	4	116	104	61	1L	61	.12	114	LH42	2.0	1.5	--	(120)					1918	
125	720	619	5:19.7	-69:38	4X	4	266*	273	328	3L	109	.12	203	LH42	2.0	1.5	--	(120)					1918	
129	717	620	5:19.7	-69:38	4X	4	324	209	487	10C	49	.12	78	LH42	2.0	1.5	--	(120)					1918	
130	718	617	5:19.7	-69:38	4X	4	734*	607	1163	30C	39*	.12	62	LH42	2.0	1.5	--	(120)					1918	
125	727	618	5:20.1	-69:29	6X	4	257	232	450	3L	150	.13	292	(LH46)				(119,122)					1922,26?	
129	727	617	5:20.1	-69:29	6X	9	139	112	732	10C	73	.13	121	(LH46)				(119,122)					1922,26?	
130	727	615	5:20.1	-69:29	9X	10	502	299*	5720	30C	191	.13	314	(LH46)				(119,122)					1922,26?	
124	723	617	5:20.3	-69:34	2X	2	92*	91	2	1L	2	.12	4	(LH46)				122	0.1	0.01*				
125	724	618	5:20.3	-69:34	2X	2	250*	251	3	3L	1	.12	2	(LH46)				122	0.1	0.03*				
129	724	614	5:20.3	-69:34	2X	2	153	146	23	10C	2	.12	4	(LH46)				122	0.1	0.01				
130	724	612	5:20.3	-69:34	2X	2	533	495	71	30C	2	.12	4	(LH46)				122	0.1	0.01				
124	853	626	5:20.3	-66:56	4X	5	81	78	13	1L	13	.12	24				37	12.2	0.51					
125	852	629	5:20.3	-66:56	4X	5	204	199	10	3L	3	.12	6				37	12.2	1.96					

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FR.	X	Y	R.A.	DEC.	*X	*Y	P	BG	V	E.F	V/E	RE	UF	LH NO.	SIZE	BS	N NO.	HA	HI	NGC NO.	SAO NO.	M	SP
129	852	628	5:20.3	-66:56	4X	5	57	54	22	10C	2	.12	4			37		12.2	3.49				
130	852	626	5:20.3	-66:56	4X	5	141	129	54	30C	2	.12	3			37		12.2	4.27				
124	830	625	5:20.4	-67:21	5X	2	83	76	41	1L	41	.13	80										--
125	831	626	5:20.4	-67:21	5X	6	210	193	290	3L	97	.13	189										--
129	830	626	5:20.4	-67:21	5X	6	71	47	349	10C	35	.13	58										--
130	830	624	5:20.4	-67:21	6X	8	178	115	1300	30C	43	.13	71										--
124	854	628	5:20.6	-66:50	3X	3	78*	78	2	1L	2	.11	4			38		7.6	1.89*				
125	855	628	5:20.6	-66:50	3X	3	201	197	9	3L	3	.11	5			38		7.6	1.41*				
129	857	627	5:20.6	-66:50	3X	3	57	55	11	10C	1	.11	2			38		7.6	4.5*				
130	857	626	5:20.6	-66:50	3X	3	130*	128	12	30C	0	.11	1			38		7.6	12.4*				
124	793	619	5:20.7	-68:04	3X	3	83*	82	5	1L	5	.26	18			41		1.0	0.06*				
125	794	620	5:20.7	-68:04	3X	3	201*	203	-3	3L	-1	.26	--			41		1.0	--				
129	793	619	5:20.7	-68:04	3X	3	53*	53	-2	10C	0	.26	--			41		1.0	--				
130	794	617	5:20.7	-68:04	3X	3	130*	132	1	30C	0	.26	0			41		1.0	11.1*				
124	923	629	5:20.9	-65:28	7X	5	83	78	29	1L	29	.19*	76	LH43	6.0	3.0	9	(40)					1923
129	924	632	5:20.9	-65:28	7X	5	78	60	205	10C	21	.19*	43	LH43	6.0	3.0	9	(40)					1923
130	925	631	5:20.9	-65:28	7X	5	198*	151	569	30C	19	.19*	40	LH43	6.0	3.0	9	(40)					1923
129	726	614	5:21.0	-69:32	14X	19	153	70	8550	10C	855	.13	410	(LH46)									(119,122)
124	745	613	5:21.4	-69:04	6X	6	81*	80	19	1L	19	.15*	41	LH44	5.0	5.0	8	(126)					
125	746	614	5:21.4	-69:04	6X	6	210*	206	50	3L	17	.15*	37	LH44	5.0	5.0	8	(126)					
129	745	613	5:21.4	-69:04	6X	6	80	58	217	10C	22	.15*	39	LH44	5.0	5.0	8	(126)					
130	746	611	5:21.4	-69:04	6X	6	212	144	573	30C	19	.15*	34	LH44	5.0	5.0	8	(126)					
124	922	627	5:21.5	-65:30	3X	3	73*	76	-5	1L	-5	.18	--	(LH43)					5.5	--			1923
125	924	627	5:21.5	-65:30	3X	3	201*	196	35	3L	12	.18	29	(LH43)					5.5	0.19			1923
129	919	626	5:21.5	-65:30	3X	3	47*	46	9	10C	1	.18	2	(LH43)					5.5	3.0*			1923

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FR.	X	Y	P.A.	DEC.	*X	*Y	F	BO	V	E.F	V/E	RE	UF	LH NO.	SIZE	BS	N NO.	HA	HI	NOC NO.	S&O NO.	M	SP
130	92*	629	5:21.5	-65:30	3X	3	188*174	4	30C	1	.18		3	(LH43)		40		5.5		1.92*	1923		
124	619	606	5:21.6	-71:45	2X	2	72* 73	4	1L	4	.16		9			197		0.6		0.07*			
125	620	607	5:21.6	-71:45	2X	2	190*191	4	3L	1	.16		3			197		0.6		0.20*			
129	620	606	5:21.6	-71:45	2X	2	42 41	3	10C	0	.16		1			197		0.6		1.08*			
130	620	604	5:21.6	-71:45	2X	2	99 97	4	30C	0	.16		0			197		0.6		2.44*			
124	908	626	5:21.6	-65:48	10X	9	89* 80	400	1L	400	.17*		945	LH45	10.0	9.0	25						
125	908	627	5:21.6	-65:48	10X	9	233*209	874	3L	291	.17*		686	LH45	10.0	9.0	25						
129	909	627	5:21.6	-65:48	10X	9	144 74	1739	10C	174	.17*		334	LH45	10.0	9.0	25						
130	908	625	5:21.6	-65:48	10X	9	448*193	6346	30C	211	.17*		406	LH45	10.0	9.0	25						
124	799	614	5:21.8	-67:58	6X	7	115* 95	338	1L	338	.28		1350	(LH47)		448CF	84.2		0.06		1929-36		
125	801	616	5:21.8	-67:58	6X	7	331*269	956	3L	319	.28		1276	(LH47)		448CF	84.2		0.07		1929-36		
129	800	616	5:21.8	-67:58	6X	7	228*156	1717	10C	172	.28		505	(LH47)		448CF	84.2		0.17		1929-36		
130	800	614	5:21.8	-67:58	6X	7	619*430	3157	30C	105*	.28		309	(LH47)		448CF	84.2		0.27		1929-36		
124	745	611	5:21.9	-69:05	2X	3	82 80	5	1L	5	.15		11	(LH44)		126		0.3		0.03*			
125	745	612	5:21.9	-69:05	2X	3	207*207	1	3L	0	.15		1	(LH44)		126		0.3		0.4*			
129	745	613	5:21.9	-69:05	2X	3	80 73	23	10C	2	.15		4	(LH44)		126		0.3		0.07			
130	746	611	5:21.9	-69:05	2X	3	212 187	64	30C	2	.15		4	(LH44)		126		0.3		0.07			
124	715	607	5:22.0	-69:43	3X	3	83* 83	2	1L	2	.13		4			127AB.9	18.7			4.67*			
125	716	609	5:22.0	-69:43	3X	3	220*220	0	3L	0	.13		--			127AB.9	18.7			--			
129	715	608	5:22.0	-69:43	3X	3	73* 74	-1	10C	0	.13		--			127AB.9	18.7			--			
130	716	606	5:22.0	-69:43	3X	3	210*215	-10	30C	0	.13		--			127AB.9	18.7			--			
124	728	609	5:22.1	-69:27	5X	5	91* 88	28	1L	28	.12		52	LH46	4.0	3.0	--						
125	728	611	5:22.1	-69:27	5X	5	252 245	56	3L	19	.12		35	LH46	4.0	3.0	--						
129	728	611	5:22.1	-69:27	5X	5	143 113	226	10C	23	.12		36	LH46	4.0	3.0	--						
130	728	609	5:22.1	-69:27	5X	5	493 364	975	30C	33	.12		52	LH46	4.0	3.0	--						

NRL REPORT 8206

FR.	X	Y	R.A.	DEC.	*X	*Y	P	BG	V	E.F	V/E	RE	UF	LH NO.	SIZE	BS	N NO.	HA	HI	NGC NO.	SAO NO.	M	SP
124	802	612	5:22.2	-67:57	5X 7	112*100		193	1L	193	.28	772	LM47	4.0	6.0	40	(44)						1929-36
125	802	614	5:22.2	-67:57	5X 7	399 285		104	3L	347	.28	1387	LM47	4.0	6.0	40	(44)						1929-36
129	801	614	5:22.2	-67:57	5X 7	443 178		214	3L	214	.28	630	LM47	4.0	6.0	40	(44)						1929-36
130	801	612	5:22.2	-67:57	5X 7	868 537		361	30C	120*	.28	354	LM47	4.0	6.0	40	(44)						1929-36
124	908	623	5:22.2	-65:46	6X11	87* 82		80	1L	80	.17	189	(LHM5)				43	64.4	0.34				
125	909	624	5:22.2	-65:46	6X11	220*214		240	3L	80	.17	189	(LHM5)				43	64.4	0.34				
129	909	624	5:22.2	-65:46	6X11	99* 82		608	10C	61	.17	117	(LHM5)				43	64.4	0.55				
130	910	622	5:22.2	-65:46	6X11	250*209		1637	30C	55	.17	105	(LHM5)				43	64.4	0.61				
124	803	611	5:22.4	-67:55	43*	95* 95		312	1L	312	.28	1250	LM47.48	30.0*		48	(44)						1929-37
125	803	613	5:22.4	-67:55	43*	333 262		1636	3L	545	.28	2180	LM47.48	30.0*		48	(44)						1929-37
129	802	613	5:22.4	-67:55	43*	320*142		3337	10C	334	.28	981	LM47.48	30.0*		48	(44)						1929-37
130	802	611	5:22.4	-67:55	43*	830*430		7652	30C	255*	.28	750	LM47.48	30.0*		48	(44)						1929-37
124	763	608	5:22.5	-68:41	3X 3	79* 78		1	1L	1	.15	2				128		0.7	0.33*				
125	765	610	5:22.5	-68:41	3X 3	202*201		8	3L	3	.15	6				128		0.7	0.12*				
129	763	608	5:22.5	-68:41	3X 3	48* 48		1	10C	0	.15	0				128		0.7	3.9*				
130	764	606	5:22.5	-68:41	3X 3	116*117		3	30C	0	.15	0				128		0.7	3.9*				
124	798	610	5:22.6	-67:59	18X15	93* 80		1584	1L	1584	.28	6330	(LM47-49)				44.A-N2040.	0.32					1929-37
125	800	612	5:22.6	-67:59	18X15	296*208		6300	3L	2100	.28	8410	(LM47-49)				44.A-N2040.	0.24					1929-37
129	799	612	5:22.6	-67:59	18X15	180* 65		9098	10C	910	.28	2675	(LM47-49)				44.A-N2040.	0.76					1929-37
130	799	610	5:22.6	-67:59	18X15	545*157		30319	30C	1011*	.28	2970	(LM47-49)				44.A-N2040.	0.69					1929-37
124	804	611	5:22.6	-67:53	4X 4	90* 98		49	1L	49	.28	196	LM48	2.0	2.0	8	(44)						1937
125	805	612	5:22.6	-67:53	4X 4	234*255		159	3L	53	.28	212	LM48	2.0	2.0	8	(44)						1937
129	804	612	5:22.6	-67:53	4X 4	143*154		508	10C	51	.28	149	LM48	2.0	2.0	8	(44)						1937
130	804	610	5:22.6	-67:53	4X 4	488*496		1329	30C	44*	.28	130	LM48	2.0	2.0	8	(44)						1937
124	859	613	5:22.8	-66:44	3X 3	76* 77		1	1L	1	.11	2				45.A		5.0	2.72*				

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FP.	X	Y	P.A.	DEC.	*X	*Y	P	BG	V	E.F	V/E	RE	UF	LH	NO.	SIZE	BS	N	NO.	HA	MI	MCC	NO.	SAO	NO.	M	SP
125	860	615	5:22.8	-66:44	3X	3	196*195	7	3L	2	.11	4							45.A	5.0	1.22*						
129	860	615	5:22.8	-66:44	3X	3	51* 51	3	10C	0	.11	0							45.A	5.0	10.9*						
130	861	613	5:22.8	-66:44	3X	3	140*139	5	30C	0	.11	0							45.A	5.0	19.5*						
124	837	615	5:22.9	-67:12	3X	2	81 79	7	1L	7	.11	12	--														1940
125	837	613	5:22.9	-67:12	5X	4	216 199	149	3L	50	.11	88	--														1940
129	838	613	5:22.9	-67:12	5X	4	75 51	318	10C	32	.11	49	--														1940
130	838	611	5:22.9	-67:12	12X	7	208 124	2730	30C	91	.11	139	--														1940
124	895	618	5:22.9	-66:04	3X	3	84 77	46	1L	46	.14	94	--														1932?
125	895	620	5:22.9	-66:04	5X	4	213 198	183	3L	61	.14	125	--														1932?
129	895	619	5:22.9	-66:04	4X	3	68 51	158	10C	16	.14	27	--														1932?
130	895	617	5:22.9	-66:04	11X	12	183 120	3809	30C	127	.14	216	--														1932?
124	692	601	5:23.0	-70:13	3X	3	77* 77	0	1L	0	.15	--							130	3.6	--						--
125	693	602	5:23.0	-70:13	3X	3	196*198	-11	3L	-4	.15	--							130	3.6	--						--
129	692	602	5:23.0	-70:13	3X	3	41* 42	-2	10C	0	.15	--							130	3.6	--						--
130	693	600	5:23.0	-70:13	3X	3	104 104	1	30C	0	.15	0							130	3.6	--						--
124	795	609	5:23.1	-68:04	5X	5	89 85	13	1L	13	.28	52		LH9	4.0	3.0	8	(44)									1C2128
125	798	608	5:23.1	-68:04	5X	5	228*224	69	3L	23	.28	92		LH9	4.0	3.0	8	(44)									1C2128
129	797	608	5:23.1	-68:04	5X	5	90* 88	83	10C	8	.28	24		LH9	4.0	3.0	8	(44)									1C2128
130	797	606	5:23.1	-68:04	5X	5	245*244	203	30C	7	.28	20		LH9	4.0	3.0	8	(44)									1C2128
124	876	612	5:23.1	-66:25	3X	3	79* 79	0	1L	0	.10	--							46	5.0	--						--
125	877	613	5:23.1	-66:25	3X	3	202 201	6	3L	2	.10	3							46	5.0	1.47*						--
129	876	616	5:23.1	-66:25	3X	3	62* 60	6	10C	1	.10	1							46	5.0	5.6*						--
130	877	613	5:23.1	-66:25	3X	3	167*161	24	30C	1	.10	1							46	5.0	4.2*						--
124	625	600	5:23.2	-71:38	8X	7	82 77	19	1L	19	.16	43							198	58.3	1.35						--
125	627	603	5:23.2	-71:38	8X	7	212 190	284	3L	95	.16	214							198	58.3	0.27						--

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R.	X	Y	R.A.	DEC.	*X	*Y	P	BG	V	E.F	V/E	RE	UF	LH NO.	SIZE	BS	N NO.	HA	HI	NGC NO.	SAO NO.	M	SP
129	624	601	5:23.2	-71:38	8X	7	51	44	214	10C	21	.16	40	(SA0256180?)		198	58.3	1.47					
130	626	599	5:23.2	-71:38	8X	7	196	104	760	30C	25	.16	47	(SA0256180?)		198	58.3	1.25					
124	625	600	5:23.2	-71:37	5X	3	82	74	68	1L	68	.05	88								256180?	7.4	A3
125	627	603	5:23.2	-71:37	5X	4	212	187	236	3L	79	.05	103								256180?	7.4	A3
130	626	599	5:23.2	-71:37	9X	6	196	85	1890	30C	63	.05	76								256180?	7.4	A3
129	626	601	5:23.2	-71:33	5X	5	75	36	348	10C	35	.05	42								256180?	7.4	A3
124	707	601	5:23.3	-69:54	2X	3	82	82	7	1L	7	.14	14					2.0	0.14*				
125	707	602	5:23.3	-69:54	2X	3	212	211	14	3L	5	.14	10					2.0	0.21				
129	707	602	5:23.3	-69:54	2X	3	63	67	10	10C	1	.14	2					2.0	1.17				
130	708	600	5:23.3	-69:54	2X	3	176	186	49	30C	2	.14	3					2.0	0.7*				
124	788	602	5:23.5	-68:13	2X	2	84	78	19	1L	19	.20	52										
125	788	607	5:23.5	-68:13	2X	2	205	194	36	3L	12	.20	33										
129	788	607	5:23.5	-68:13	2X	2	61	46	59	10C	6	.20	13										
130	789	604	5:23.5	-68:13	5X	4	162	111	477	30C	16	.20	34										
124	862	610	5:23.6	-66:41	3X	4	80	77	28	1L	28	.08	42								(45.A)		
125	863	611	5:23.6	-66:41	5X	5	210	197	145	3L	48	.08	73								(45.A)		
129	863	612	5:23.6	-66:41	2X	2	71	50	246	10C	25	.08	33								(45.A)		
130	864	611	5:23.6	-66:41	7X	7	187	121	1414	30C	47	.08	64								(45.A)		
124	637	600	5:24.0	-71:23	13X	8	80	78	59	1L	59	.17	139	(LM50)				199,200	121.0	0.87			
125	639	600	5:24.0	-71:23	13X	8	212	192	270	3L	90	.17	212	(LM50)				199,200	121.0	0.57			
129	637	600	5:24.0	-71:23	13X	8	75	49	169	10C	17	.17	32	(LM50)				199,200	121.0	3.74			
130	638	595	5:24.0	-71:23	13X	8	151	112	1175	30C	39	.17	75	(LM50)				199,200	121.0	1.61			
124	718	601	5:24.1	-69:40	5X	7	93	88	41	1L	41	.13	80								132A-J	11.4	0.14
125	719	601	5:24.1	-69:40	5X	7	248	234	177	3L	59	.13	115								132A-J	11.4	0.10
129	720	600	5:24.1	-69:40	5X	7	139	95	356	10C	36	.13	59								132A-J	11.4	0.19

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FR.	X	Y	R.A.	DEC.	*X*Y	P	BG	V	E.F	V/E	RE	UF	LM NO.	SIZE	BS	M NO.	HA	HI	MGC NO.	SAO NO.	M	SP	
130	721	598	5:24.1	-69:40	5X 7 465	267	1595	30C	53	.13	88	88				132A-J	11.4	0.12					
124	752	598	5:24.4	-68:58	2X 3 84	82	4	1L	4	.10	7	7				137AB	0.5	0.07*					
125	753	600	5:24.4	-68:58	2X 3 210	207	6	3L	2	.10	3	3				137AB	0.5	0.15*					
129	752	599	5:24.4	-68:58	2X 3 59*	58	1	10C	0	.10	0	0				137AB	0.5	3.4*					
130	753	597	5:24.4	-68:58	2X 3 149*	144	-3	30C	0	.10	--	--				137AB	0.5	--					
124	637	598	5:24.5	-71:23	8X 9 83	77	37	1L	37	.17	87	87	LMS0	7.0	8.0	14	(200)						
125	639	597	5:24.5	-71:23	8X 9 196*	190	47	3L	16	.17	37	37	LMS0	7.0	8.0	14	(200)						
129	638	599	5:24.5	-71:23	8X 9 76	50	147	10C	15	.17	28	28	LMS0	7.0	8.0	14	(200)						
130	638	597	5:24.5	-71:23	8X 9 212	123	706	30C	24	.17	45	45	LMS0	7.0	8.0	14	(200)						
124	773	598	5:24.8	-68:33	7X 8 89	84	69	1L	69	.13	135	135				138.A-D	64.4	0.48					
125	777	599	5:24.8	-68:33	7X 8 228*	211	302	3L	101	.13	197	197				138.A-D	64.4	0.33					
129	774	596	5:24.8	-68:33	7X 8 106	66	530	10C	53	.13	88	88				138.A-D	64.4	0.74					
130	775	596	5:24.8	-68:33	7X 8 320	167	1653	30C	55	.13	91	91				138.A-D	64.4	0.71					
125	711	599	5:24.9	-69:53	3X 3 226	212	102	3L	34	.14	70	70				(131)							
129	709	598	5:24.9	-69:53	4X 7 89	69	358	10C	36	.14	61	61				(131)							
130	710	594	5:24.9	-69:53	6X 9 248	180	1831	30C	61	.14	104	104				(131)							
124	879	604	5:25.4	-66:23	15X12 80*	79	329	1L	329	.07	470	470	(LMS3)			48.A-E	270.3	0.58					
125	881	604	5:25.4	-66:23	15X12 205*	204	609	3L	203	.07	290	290	(LMS3)			48.A-E	270.3	0.93					
129	882	604	5:25.4	-66:23	15X12 79*	64	1014	10C	101	.07	132	132	(LMS3)			48.A-E	270.3	2.06					
130	883	602	5:25.4	-66:23	15X12 236*	159	3354	30C	112	.07	147	147	(LMS3)			48.A-E	270.3	1.84					
124	822	595	5:25.5	-67:30	4X 5 116	108	107	1L	107	.11	189	189	LMS1	1.5	3.0	5	(52)						
125	823	597	5:25.5	-67:30	4X 5 333*	304	484	3L	161	.11	284	284	LMS1	1.5	3.0	5	(52)						
129	824	596	5:25.5	-67:30	4X 5 422	249	694	10C	69	.11	106	106	LMS1	1.5	3.0	5	(52)						
130	824	594	5:25.5	-67:30	4X 5 826	667	1354	30C	45*	.11	69	69	LMS1	1.5	3.0	5	(52)						
124	630	591	5:25.7	-71:32	3X 3 76	75	5	1L	5	.17	12	12				201.202	0.6	0.05*					

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FR.	X	Y	R.A.	DEC.	*X	*Y	P	BG	V	E.F	V/E	RE	UF	LH NO.	SIZE	BS	N NO.	HA	MI	NCC NO.	SAO NO.	M	SP
125	631	592	5:25.7	-71:32	3X 3	193*193		4	3L	1	.17	3					201.202	0.6	0.19*				
129	631	591	5:25.7	-71:32	3X 3	41* 40		4	10C	0	.17	1					201.202	0.6	0.78*				
130	631	588	5:25.7	-71:32	3X 3	94* 93		5	30C	0	.17	0					201.202	0.6	1.88*				
124	885	601	5:25.7	-66:19	6X 3	90 86		19	1L	19	.07	27		(LM52)			48A-C	20.3	0.75	1948			
125	886	603	5:25.7	-66:19	6X 3	228 217		46	3L	15	.07	21		(LM52)			48A-C	20.3	0.95	1948			
129	884	603	5:25.7	-66:19	6X 3	101* 86		125	10C	13	.07	16		(LM52)			48A-C	20.3	1.24	1948			
130	885	601	5:25.7	-66:19	6X 3	310 242		344	30C	11	.07	15		(LM52)			48A-C	20.3	1.33	1948			
124	886	601	5:25.7	-66:17	6X 6	90 83		72	1L	72	.07	103		LM52	4.5	4.5	15			1948			
125	885	603	5:25.7	-66:17	6X 6	224*211		233	3L	78	.07	112		LM52	4.5	4.5	15			1948			
129	885	603	5:25.7	-66:17	6X 6	104 79		286	10C	29	.07	38		LM52	4.5	4.5	15			1948			
130	886	601	5:25.7	-66:17	6X 6	300*214		857	30C	29	.07	38		LM52	4.5	4.5	15			1948			
124	623	587	5:25.8	-71:40	2X 2	77 74		11	1L	11	.17	26											
125	624	591	5:25.8	-71:40	3X 3	196 186		46	3L	15	.17	36											
129	624	593	5:25.8	-71:40	2X 2	43 37		24	10C	2	.17	5											
130	625	591	5:25.8	-71:40	2X 2	112 89		75	30C	3	.17	5											
125	729	578	5:25.9	-69:25	5X 5	238 219		278	3L	93	.15	200											
124	729	592	5:25.9	-69:28	5X 4	88 86		23	1L	23	.12	43		(LM46)			142	10.4	0.25				
125	729	592	5:25.9	-69:28	5X 4	234*233		63	3L	21	.12	39		(LM46)			142	10.4	0.27				
129	729	593	5:25.9	-69:28	5X 4	103 92		50	10C	5	.12	8		(LM46)			142	10.4	1.31				
130	730	591	5:25.9	-69:28	5X 4	290 240		205	30C	7	.12	11		(LM46)			142	10.4	0.96				
124	738	591	5:25.9	-69:15	8X 8	91* 87		160	1L	160	.11	283		(LM57)			140.143	47.7	0.17				
125	739	592	5:25.9	-69:15	8X 8	243*232		527	3L	176	.11	311		(LM57)			140.143	47.7	0.15				
129	738	592	5:25.9	-69:15	8X 8	100* 87		657	10C	66	.11	101		(LM57)			140.143	47.7	0.47				
130	739	589	5:25.9	-69:15	8X 8	308*263		2800	30C	93	.11	143		(LM57)			140.143	47.7	0.33				
124	822	593	5:25.9	-67:30	37*	114*103		215	1L	215	.11	380		LM51.54	392.2*	17	(52)						1955

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SP.	X	Y	P.A.	DEC.	*X	*Y	P	BC	V	C.F	V/E	RE	UF	LH NO.	SIZE	BS	N NO.	MA	HI	NOG NO.	SAD NO.	M	SP
125	823	596	5:25.9	-67:30	29*	348*302		470	3L	157	.11	270	LM51.54	392.2*	17	(52)							1955
129	824	596	5:25.9	-67:30	37*	422 187		2010	10C	202	.11	308	LM51.54	392.2*	17	(52)							1955
130	824	592	5:25.9	-67:30	37*	790*582		3989	30C	133*	.11	203	LM51.54	392.2*	17	(52)							1955
124	888	602	5:25.9	-66:14	18X	7 86* 82		34	1L	34	.07*	49	LM52.53	19.0	6.0	34	(48)						1948
125	888	602	5:25.9	-66:14	18X	7 215*205		450	3L	150	.07*	214	LM52.53	19.0	6.0	34	(48)						1948
129	887	602	5:25.9	-66:14	18X	7 90* 66		721	10C	72	.07*	95	LM52.53	19.0	6.0	34	(48)						1948
130	887	600	5:25.9	-66:14	18X	7 253*164		3048	30C	102	.07*	133	LM52.53	19.0	6.0	34	(48)						1948
124	830	597	5:26.0	-67:12	5X	4 87 83		21	1L	21	.14	43				50	11.4	0.27					
125	840	598	5:26.0	-67:12	5X	4 231 217		66	3L	22	.14	45				50	11.4	0.25					
129	839	598	5:26.0	-67:12	5X	4 98 78		96	10C	10	.14	16				50	11.4	0.69					
130	839	595	5:26.0	-67:12	5X	4 239 200		30	30C	1	.14	2				50	11.4	6.6*					
124	891	599	5:26.0	-66:08	3X	3 79* 79		4	1L	4	.07	6	(LM53)			49	13.2	2.2*					
125	892	602	5:26.0	-66:08	3X	3 210*206		6	3L	2	.07	3	(LM53)			49	13.2	4.4*					
129	892	601	5:26.0	-66:08	3X	3 68 65		13	10C	1	.07	2	(LM53)			49	13.2	7.77					
130	892	599	5:26.0	-66:08	3X	3 160*160		7	30C	0	.07	0	(LM53)			49	13.2	--					
124	866	601	5:26.1	-66:37	6X	6 89 79		130	1L	130	.07	186	--			(48)							1951
125	869	599	5:26.1	-66:37	7X	5 226 197		549	3L	183	.07	262	--			(48)							1951
129	868	600	5:26.1	-66:37	6X	6 94 58		611	10C	61	.07	79	--			(48)							1951
130	869	598	5:26.1	-66:37	8X	9 260 143		2960	30C	99	.07	129	--			(48)							1951
124	706	588	5:26.2	-69:55	2X	2 82* 82		0	1L	0	.15	--	(LM59)			134	0.2	--					1969.71
125	707	590	5:26.2	-69:55	2X	2 213*213		2	3L	1	.15	1	(LM59)			134	0.2	0.1*					1969.71
129	707	589	5:26.2	-69:55	2X	2 78 77		2	10C	0	.15	0	(LM59)			134	0.2	0.45*					1969.71
130	707	588	5:26.2	-69:55	2X	2 195*198		15	30C	1	.15	1	(LM59)			134	0.2	0.22					1969.71
124	822	592	5:26.2	-67:30	5X	5 110*105		68	1L	68	.11	120	LM54	3.5	3.5	12	(52)						1955
129	824	593	5:26.2	-67:30	5X	5 288*243		407	10C	41	.11	62	LM54	3.5	3.5	12	(52)						1955

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FP	X	Y	P.A.	DEC.	*X	*Y	P	BG	V	E.F	V/E	RE	UF	LH NO.	SIZE	BS	M NO.	HA	HI	MOC NO.	SAC NO.	M	SP
120	824	591	5:26.2	-67:30	5X	5	755*620	1240	30C	42	.11	64	LM54	3.5	3.5	12	(52)						1955
124	817	593	5:26.5	-67:30	6X	3	90* 89	-12	1L	-12	.11	--	LM55	5.0	1.0	3	(51)						
125	818	595	5:26.5	-67:30	6X	3	245*239	-25	3L	-8	.11	--	LM55	5.0	1.0	3	(51)						
129	818	594	5:26.5	-67:30	6X	3	114 101	31	10C	3	.11	5	LM55	5.0	1.0	3	(51)						
130	817	591	5:26.5	-67:30	6X	3	335*291	130	30C	4	.11	7	LM55	5.0	1.0	3	(51)						
124	728	589	5:26.6	-69:30	5X	5	94 84	137	1L	137	.25	474					(142)						
125	728	590	5:26.6	-69:30	6X	5	250 220	482	3L	161	.25	556					(142)						
129	727	589	5:26.6	-69:30	6X	6	120 77	739	10C	74	.25	192					(142)						
130	728	587	5:26.6	-69:30	7X	9	360 206	3330	30C	111	.25	289					(142)						
124	814	592	5:26.7	-67:41	9X10	86* 82	101	1L	101	.11	179	LM55					518E	315.9	1.77				
125	815	593	5:26.7	-67:41	9X10	223*216	278	3L	93	.11	165	LM55					518E	315.9	1.91				
129	814	592	5:26.7	-67:41	9X10	81* 62	726	10C	73	.11	111	LM55					518E	315.9	2.84				
130	815	590	5:26.7	-67:41	9X10	252*161	2130	30C	71	.11	109	LM55					518E	315.9	2.91				
124	736	588	5:26.8	-69:21	4X	4	102 93	42	1L	42	.12	78	LM57				143	18.6	0.24				
125	735	589	5:26.8	-69:21	4X	4	243*241	101	3L	34	.12	63	LM57				143	18.6	0.29				
129	734	588	5:26.8	-69:21	4X	4	94* 95	179	10C	18	.12	28	LM57				143	18.6	0.66				
130	735	586	5:26.8	-69:21	4X	4	350*305	894	30C	30	.12	47	LM57				143	18.6	0.39				
124	627	583	5:26.9	-71:30	5X	5	79 76	34	1L	34	.17	80	LM56				2058	9.0	0.11				
125	627	587	5:26.9	-71:30	5X	5	212 196	141	3L	47	.17	111	LM56				2058	9.0	0.08				
129	627	586	5:26.9	-71:30	5X	5	62 47	109	10C	11	.17	21	LM56				2058	9.0	0.43				
130	628	584	5:26.9	-71:30	5X	5	159 114	301	30C	10	.17	19	LM56				2058	9.0	0.47				
124	629	583	5:26.9	-71:34	6X	6	77* 76	36	1L	36	.17	85	LM56	5.0	5.0	2	(202.205)						
125	629	587	5:26.9	-71:34	6X	6	201*197	100	3L	33	.17	79	LM56	5.0	5.0	2	(202.205)						
129	627	586	5:26.9	-71:34	6X	6	62 44	189	10C	19	.17	26	LM56	5.0	5.0	2	(202.205)						
130	629	584	5:26.9	-71:34	6X	6	143*106	477	30C	16	.17	31	LM56	5.0	5.0	2	(202.205)						

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IP	X	Y	P.A.	DEC.	*X	*Y	P	BG	V	E.F	V/E	RE	UF	LH NO.	SIZE	BS	N NO.	HA	HI	MGC NO.	SAD NO.	M	SP	
124	748	588	5:26.9	-69:18	4X	4	94* 95	13	1L	13	.12	24	LM57	1.5	1.5	--	(140,143)							
124	747	589	5:26.9	-69:18	4X	4	268*252	132	3L	44	.12	82	LM57	1.5	1.5	--	(140,143)							
124	746	589	5:26.9	-69:18	4X	4	155 118	192	10C	19	.12	31	LM57	1.5	1.5	--	(140,143)							
120	747	586	5:26.9	-69:18	4X	4	488*372	839	30C	28	.12	44	LM57	1.5	1.5	--	(140,143)							
124	759	586	5:26.9	-68:52	9X	9	145 92	840	1L	840	.09	1335	(LM58)				144,AB	475.4	0.36				1962-66	
124	760	590	5:26.9	-68:52	9X	9	505 249	3543	3L	1181	.09	1880	(LM58)				144,AB	475.4	0.25				1962-66	
124	759	549	5:26.9	-68:52	9X	9	536 121	4828	10C	483	.09	680	(LM58)				144,AB	475.4	0.70				1962-66	
120	758	586	5:26.9	-68:52	9X	9	803*437	10388	30C	346*	.09	488	(LM58)				144,AB	475.4	0.97				1962-66	
124	820	592	5:26.9	-67:35	19X18		95* 84	2732	1L	2732	.11	4830	(LM51--63)				51, A-E	1707.0	0.35				1947,55	
124	821	593	5:26.9	-67:35	19X18		255*218	11351	3L	3784	.11	6700	(LM51--63)				51, A-E	1707.0	0.25				1947,55	
124	822	593	5:26.9	-67:35	19X18		156* 77	15575	10C	1558	.11	2380	(LM51--63)				51, A-E	1707.0	0.72				1947,55	
120	822	591	5:26.9	-67:35	19X18		448*198	50396	30C	1680	.11	2570	(LM51--63)				51, A-E	1707.0	0.66				1947,55	
124	704	586	5:27.0	-69:51	4X	8	87 81	107	1L	107	.16	240	(LM59)				(134)						1969,71	
124	712	589	5:27.0	-69:51	7X11		234 208	824	3L	275	.16	618	(LM59)				(134)						1969,71	
124	710	587	5:27.0	-69:51	8X12		105 60	2130	10C	213	.16	394	(LM59)				(134)						1969,71	
120	711	585	5:27.0	-69:51	11X14		312 159	7750	30C	258	.16	478	(LM59)				(134)						1969,71	
124	759	588	5:27.0	-68:49	5X	5	145 109	278	1L	278	.09	442	LM58	4.0	4.0	22	(144)						1962-66	
124	761	590	5:27.0	-68:49	5X	5	417*321	828	3L	276	.09	439	LM58	4.0	4.0	22	(144)						1962-66	
124	760	588	5:27.0	-68:49	5X	5	348*219	1263	10C	126	.09	178	LM58	4.0	4.0	22	(144)						1962-66	
120	760	586	5:27.0	-68:49	5X	5	812*615	1807	30C	60*	.09	85	LM58	4.0	4.0	22	(144)						1962-66	
124	879	594	5:27.1	-66:24	2X	2	84 79	18	1L	18	.07	26					(48)							
124	880	597	5:27.1	-66:24	2X	4	216 205	65	3L	22	.07	32					(48)							
124	880	595	5:27.1	-66:24	5X13		81 57	531	10C	53	.07	70					(48)							
120	880	592	5:27.1	-66:24	8X10		212 159	1950	30C	65	.07	85					(48)							
124	826	588	5:27.2	-67:28	7X	5	126 109	180	1L	180	.14	370	LM60	6.0	3.0	16	(51)						1968	

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FR.	X	Y	P.A.	DEC.	*X	*Y	P	BO	V	E.F	V/E	RE	UF	LH NO.	SIZE	BS	N NO.	HA	HI	MGC NO.	SAO NO.	M	SP	
125	826	591	5:27.2	-67:28	7X	5	366*319	438	3L	146	.14	300	LH60	6.0	3.0	16	(511)						1968	
129	825	591	5:27.2	-67:28	7X	5	308*211	92*	10C	92	.14	158	LH60	6.0	3.0	16	(511)							1968
130	826	589	5:27.2	-67:29	7X	5	835*629	2076	30C	69*	.14	118	LH60	6.0	3.0	16	(511)							1968
124	709	586	5:27.3	-69:51	5X	8	87	83	52	1L	52	.16	117	LH59	3.0	7.0	--	(1134)						1969,71
125	710	585	5:27.3	-69:51	5X	8	224*218	172	3L	57	.16	128	LH59	3.0	7.0	--	(1134)							1969,71
129	710	587	5:27.3	-69:51	5X	8	105	85	243	10C	25	.16	47	LH59	3.0	7.0	--	(1134)						1969,71
130	711	583	5:27.3	-69:51	5X	8	288*228	1058	30C	35	.16	65	LH59	3.0	7.0	--	(1134)							1969,71
124	827	587	5:27.6	-67:27	45*		126	101	527	1L	527	.14	1080	LH60.63	30.0*	30	(511)							1947,68
125	826	589	5:27.6	-67:27	47*		362*302	1466	3L	489	.14	1003	LH60.63	30.0*	30	(511)								1947,68
129	825	590	5:27.6	-67:27	43*		306*197	2061	10C	206	.14	352	LH60.63	30.0*	30	(511)								1947,68
130	827	588	5:27.6	-67:27	43*		878*574	5684	30C	190*	.14	324	LH60.63	30.0*	30	(511)								1947,68
124	824	586	5:27.8	-67:30	6X	5	104*102	78	1L	78	.14	160	(LH60.63)				51AC	69.7	0.43					1947,68
125	825	589	5:27.8	-67:30	6X	5	316*310	458	3L	153	.14	314	(LH60.63)				51AC	69.7	0.22					1947,68
129	824	589	5:27.8	-67:30	6X	5	181*205	440	10C	44	.14	75	(LH60.63)				51AC	69.7	0.93					1947,68
130	826	587	5:27.8	-67:30	6X	5	830*633	958	30C	32*	.14	54	(LH60.63)				51AC	69.7	1.29					1947,68
124	742	583	5:27.9	-69:11	2X	2	122*119	-5	1L	-5	.10	--	(STAR?)				145	0.1	--					
125	743	584	5:27.9	-69:11	2X	2	375*360	-42	3L	-14	.10	--	(STAR?)				145	0.1	--					
129	742	584	5:27.9	-69:11	2X	2	264*281	22	10C	2	.10	3	(STAR?)				145	0.1	0.03					
130	745	580	5:27.9	-69:11	2X	2	10171001	48	30C	2*	.10	2	(STAR?)				145	0.1	0.02					
124	752	584	5:27.9	-68:59	5X	6	124*110	140	1L	140	.09	222	LH61	3.0	5.0	27	(146)							1983
125	752	585	5:27.9	-68:59	5X	6	417	338	761	3L	254	.09	404	LH61	3.0	5.0	27	(146)						1983
129	752	584	5:27.9	-68:59	5X	6	432	244	1176	10C	118	.09	165	LH61	3.0	5.0	27	(146)						1983
130	750	581	5:27.9	-68:59	5X	6	1051	917	833	30C	28*	.09	39	LH61	3.0	5.0	27	(146)						1983
124	674	582	5:28.0	-70:36	5X	5	88	81	51	1L	51	.17	120	(LH62)			204	64.0	0.53					
125	674	583	5:28.0	-70:36	5X	5	231*209	185	3L	62	.17	146	(LH62)				204	64.0	0.44					

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FR.	X	Y	R.A.	DEC.	*X	*Y	P	BG	V	E.F	V/E	RE	UF	LH NO.	SIZE	BS	N NO.	HA	HI	NGC NO.	SAO NO.	M	SP	
129	674	582	5:28.0	-70:36	5X 5	104	63	270	10C		27	.17	52	(LM62)		204		64.0	1.24					
130	675	580	5:28.0	-70:36	5X 5	273*158		779	30C		26	.17	49	(LM62)		204		64.0	1.30					
124	828	585	5:28.0	-67:26	4X 4	107*104		44	1L		44	.14	90	LM63	4.0	3.0	14						1947	
125	827	587	5:28.0	-67:26	4X 4	339*324		388	3L		129	.14	264	LM63	4.0	3.0	14						1947	
129	826	588	5:28.0	-67:26	4X 4	312*260		194	10C		19	.14	33	LM63	4.0	3.0	14						1947	
130	828	586	5:28.0	-67:26	4X 4	868*757		1073	30C		36*	.14	61	LM63	4.0	3.0	14						1947	
124	744	582	5:28.1	-69:09	17X17	141	90	4305	1L		4305	.10	7240	--		(145)							1984?94	
125	745	583	5:28.1	-69:09	13X16	468	243	11570	3L		3857	.10	6310	--		(145)								1984?94
129	744	583	5:28.1	-69:09	10X14	454	130	11164	10C		1116	.10	1640			(145)								1984?94
130	745	580	5:28.1	-69:09	20X18	1017	258	127989	30C		4266*	.10	6270			(145)								1984?94
124	647	579	5:28.2	-71:11	2X 2	77	75	7	1L		7	.17	17			(206)								
125	649	582	5:28.2	-71:11	2X 2	196	189	26	3L		9	.17	21			(206)								
129	648	581	5:28.2	-71:11	2X 2	41	36	18	10C		2	.17	3			(206)								
130	648	579	5:28.2	-71:11	3X 5	108	84	155	30C		5	.17	10			(206)								
124	633	580	5:28.3	-71:26	5X 3	81* 78		19	1L		19	.17	45			205A		7.0	0.16					
125	635	582	5:28.3	-71:26	5X 3	210	200	40	3L		13	.17	32			205A		7.0	0.22					
129	635	581	5:28.3	-71:26	5X 3	62	49	69	10C		7	.17	19			205A		7.0	0.37					
130	635	579	5:28.3	-71:26	5X 3	133	111	109	30C		4	.17	7			205A		7.0	1.00					
124	674	582	5:28.3	-70:37	4X 4	88	83	27	1L		27	.17	64	LM62	1.5	1.5	3							
125	674	582	5:28.3	-70:37	4X 4	226*215		114	3L		38	.17	90	LM62	1.5	1.5	3							
129	674	582	5:28.3	-70:37	4X 4	104	73	141	10C		14	.17	28	LM62	1.5	1.5	3							
130	674	579	5:28.3	-70:37	4X 4	260	181	533	30C		18	.17	34	LM62	1.5	1.5	3							
124	916	590	5:28.4	-65:40	2X 2	79	75	13	1L		13	.08	20											--
125	917	590	5:28.4	-65:40	2X 2	202	192	31	3L		10	.08	16											--
129	916	592	5:28.4	-65:40	3X 6	54	40	147	10C		15	.08	20											--

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FR.	X	Y	R.A.	DEC.	*X	*Y	P	BG	V	E.F	V/E	RE	UF	LM NO.	SIZE	BS	N NO.	HA	HI	NGC NO.	SAO NO.	M	SP
130	917	590	5:28.4	-65:40	5X	7	127	99	623	30C	21	.08	28										
129	969	590	5:28.6	-64:40	2X	2	44	40	13	10C	1	.09	2										
130	968	591	5:28.6	-64:40	2X	3	101	94	42	30C	1	.09	2										
124	728	579	5:29.0	-69:29	4X	4	90	83	65	1L	65	.15	140										
129	729	579	5:29.0	-69:29	3X	3	95	76	115	10C	12	.15	21										
130	729	577	5:29.0	-69:29	5X	9	273	205	1221	30C	41	.15	73										
124	750	579	5:29.1	-69:03	3X	3	111	109	9	1L	9	.10	15	(LM61)		146	1.6	0.11	1983				
125	749	578	5:29.1	-69:03	3X	3	322	313	21	3L	7	.10	12	(LM61)		146	1.6	0.13	1983				
129	750	578	5:29.1	-69:03	3X	3	223	214	40	10C	4	.10	6	(LM61)		146	1.6	0.27	1983				
130	749	576	5:29.1	-69:03	3X	3	812	787	72	30C	2	.10	4	(LM61)		146	1.6	0.46	1983				
124	774	579	5:29.2	-68:30	3X	5	86	79	72	1L	72	.10	121										
125	776	580	5:29.2	-68:30	4X	6	226	204	264	3L	88	.10	148										
129	775	579	5:29.2	-68:30	5X	5	90	53	533	10C	53	.10	77										
130	776	577	5:29.2	-68:30	7X	8	246	129	2300	30C	77	.10	103										
124	762	577	5:29.4	-68:47	3X	6	118	95	350	1L	350	.09	556	LM64	8.0	5.0	37						2001
125	764	578	5:29.4	-68:47	9X	6	364	255	1509	3L	503	.09	800	LM64	8.0	5.0	37						2001
129	763	578	5:29.4	-68:47	9X	6	327	120	2517	10C	252	.09	354	LM64	8.0	5.0	37						2001
130	762	575	5:29.4	-68:47	9X	6	616	384	6310	30C	210	.09	296	LM64	8.0	5.0	37						2001
124	664	575	5:29.9	-70:50	4X	3	92	76	113	1L	113	.17	267	--		(206)							2010
125	665	576	5:29.9	-70:50	5X	7	239	200	540	3L	180	.17	425	--		(206)							2010
129	664	575	5:29.9	-70:50	8X	12	115	39	2080	10C	208	.17	400	--		(206)							2010
130	664	573	5:29.9	-70:50	6X	9	346	93	4170	30C	139	.17	266	--		(206)							2010
124	852	577	5:30.1	-66:57	4X	4	101	101	26	1L	26	.08	39	LM65	2.0	2.0	5						(LM77)
125	851	579	5:30.1	-66:57	4X	4	264	266	44	3L	15	.08	23	LM65	2.0	2.0	5						(LM77)
129	850	578	5:30.1	-66:57	4X	4	157	153	2	10C	0	.08	0	LM65	2.0	2.0	5						(LM77)

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130	852	576	5:30.1	-66:57	4X	4	682*619	-28	30C		-1*.08*	--		LH65	2.0	2.0	5							(LH77)	
124	835	574	5:30.3	-67:17	10X	7	116	89	863	1L	863 .06	1173		(LH70)										2004	
125	836	575	5:30.3	-67:17	11X11	368	240	4120	3L	1373	.06	1868		(LH70)										2004	
130	836	573	5:30.3	-67:17	19X15	887	318	47000	30C	1567*	.06	1963		(LH70)										2004	
124	731	569	5:30.8	-69:27	4X	4	89	84	55	1L	55 .16	124												--	
125	730	572	5:30.8	-69:27	3X	6	241	223	179	3L	60 .16	135												--	
129	731	570	5:30.8	-69:27	4X	4	106	75	297	10C	30 .16	55												--	
130	731	568	5:30.8	-69:27	5X	7	306	235	1020	30C	34 .16	63												--	
124	652	569	5:30.9	-71:05	4X	5	99*	94	21	1L	21 .17	50		LH66	1.0	4.0	4							(206)	
125	652	571	5:30.9	-71:05	4X	5	246*	250	121	3L	40 .17	95		LH66	1.0	4.0	4							(206)	
129	653	570	5:30.9	-71:05	4X	5	141*	125	121	10C	12 .17	23		LH66	1.0	4.0	4							(206)	
130	653	568	5:30.9	-71:05	4X	5	407*	354	254	30C	8 .17	16		LH66	1.0	4.0	4							(206)	
124	763	569	5:31.1	-68:45	5X	5	122	90	341	1L	341 .20	935		(LH64.68)										2001?	
125	764	571	5:31.1	-68:45	8X	8	373	235	2020	3L	673 .20	1845		(LH64.68)										2001?	
124	651	567	5:31.3	-71:07	15X17	102*	77	1195	1L	1195 .17	2820			(LH66.69)										206.A-01395.3	0.50
125	650	569	5:31.3	-71:07	15X17	228*	199	3246	3L	1082 .17	2555			(LH66.69)										206.A-01395.3	0.54
129	653	568	5:31.3	-71:07	15X17	207	48	4308	10C	431 .17	829			(LH66.69)										206.A-01395.3	1.68
130	651	565	5:31.3	-71:07	15X17	312*	108	14665	30C	489*.17	936			(LH66.69)										206.A-01395.3	1.49
129	850	572	5:31.3	-67:01	11X15	262	112	8200	10C	820 .10	1205			(LH77)										2006	
130	850	570	5:31.3	-67:01	11X17	849	371	26100	30C	870*.10	1280			(LH77)										2006	
124	652	567	5:31.5	-71:04	42*	107	87	190	1L	190 .17	458			LH66.69	19.0*		25							(206)	
125	653	569	5:31.5	-71:04	42*	300	233	572	3L	191 .17	451			LH66.69	19.0*		25							(206)	
129	653	568	5:31.5	-71:04	46*	207	87	1118	10C	112 .17	214			LH66.69	19.0*		25							(206)	
130	653	564	5:31.5	-71:04	50*	485*	216	4152	30C	138 .17	266			LH66.69	19.0*		25							(206)	
124	738	568	5:31.5	-69:18	4X	6	102	98	38	1L	38 .14	78		LH67	2.0	5.0	15								

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125	738	568	5:31.5	-69:18	4X	6	294	269	279	3L	93	.14	191	LH67	2.0	5.0	15							
129	737	568	5:31.5	-69:18	4X	6	171	146	278	10C	28	.14	48	LH67	2.0	5.0	15							
130	738	565	5:31.5	-69:18	4X	6	634	486	888	30C	30	.14	51	LH67	2.0	5.0	15							
124	738	568	5:31.6	-69:17	9X	10	102	85	703	1L	703	.14	1440	(LH67,74)									2015	
125	738	568	5:31.6	-69:17	15X	16	294	228	4577	3L	1526	.14	3125	(LH67,74)										2015
129	739	567	5:31.6	-69:17	12X	17	186	82	7700	10C	770	.14	1320	(LH67,74)										2015
130	739	565	5:31.6	-69:17	12X	18	663	250	24506	30C	817	.14	1400	(LH67,74)										2015
124	761	568	5:31.7	-68:50	5X	3	99	99	16	1L	16	.20	44	LH68	3.0	1.0	--							
125	759	567	5:31.7	-68:50	5X	3	233	227	40	3L	13	.20	36	LH68	3.0	1.0	--							
129	759	567	5:31.7	-68:50	5X	3	84	84	18	10C	2	.20	4	LH68	3.0	1.0	--							
130	759	564	5:31.7	-68:50	5X	3	224	219	58	30C	2	.20	4	LH68	3.0	1.0	--							
124	892	570	5:31.8	-66:07	3X	3	84	79	25	1L	25	.07	36										--	
125	896	572	5:31.8	-66:07	4X	5	215	201	162	3L	54	.07	77											--
129	893	572	5:31.8	-66:07	5X	5	69	53	245	10C	25	.07	32											--
130	894	570	5:31.8	-66:07	6X	7	181	133	970	30C	32	.07	42											--
124	739	566	5:31.9	-69:16	48*		100	94	165	1L	165	.14	338	LH67,74	25.0*	28								2015
125	739	566	5:31.9	-69:16	48*		284	257	916	3L	305	.14	625	LH67,74	25.0*	28								2015
129	739	566	5:31.9	-69:16	48*		186	129	1311	10C	131	.14	224	LH67,74	25.0*	28								2015
130	739	563	5:31.9	-69:16	48*		602	405	4350	30C	145	.14	248	LH67,74	25.0*	28								2015
124	652	565	5:32.0	-71:04	5X	6	95	88	111	1L	111	.17	262	LH69	3.0	5.0	21							(206)
125	653	567	5:32.0	-71:04	5X	6	266	233	494	3L	165	.17	390	LH69	3.0	5.0	21							(206)
129	653	565	5:32.0	-71:04	5X	6	102	98	245	10C	25	.17	47	LH69	3.0	5.0	21							(206)
130	653	563	5:32.0	-71:04	5X	6	342	284	1393	30C	46	.17	89	LH69	3.0	5.0	21							(206)
124	772	566	5:32.0	-68:34	5X	4	90	88	12	1L	12	.20	33	(LH71)										1488-E
125	773	566	5:32.0	-68:34	5X	4	241	235	62	3L	21	.20	57	(LH71)										1488-E

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129	773	567	5:32.0	-68:34	5X	4	120	93	145	10C	15	.20	31	(LH71)		1480-E	21.4	0.69					
130	774	565	5:32.0	-68:34	5X	4	353	254	412	30C	14	.20	30	(LH71)		1480-E	21.4	0.72					
125	823	567	5:32.0	-67:33	8X	8	310	251	2869	3L	956	.10	1608	--		(57.58)						2011	
129	823	567	5:32.0	-67:33	7X	6	226	112	1690	10C	169	.10	248	--		(57.58)						2011	
130	823	565	5:32.0	-67:33	5X	9	817	483	5400	30C	180*	.10	265	--		(57.58)						2011	
124	829	569	5:32.0	-67:23	5X	8	98*	93	39	1L	39	.06*	53	LH70	4.0	7.0	10						
125	831	568	5:32.0	-67:23	5X	8	264*	256	111	3L	37	.06*	50	LH70	4.0	7.0	10						
129	830	569	5:32.0	-67:23	5X	8	147	119	383	10C	38	.06*	48	LH70	4.0	7.0	10						
130	831	567	5:32.0	-67:23	5X	8	511	381	1358	30C	45	.06*	57	LH70	4.0	7.0	10						
124	764	564	5:32.1	-68:42	5X	5	87*	88	-21	1L	-21	.20	--	(LH73)		1481	19.2	--					
125	765	565	5:32.1	-68:42	5X	5	229*	232	-94	3L	-31	.20	--	(LH73)		1481	19.2	--					
129	766	564	5:32.1	-68:42	5X	5	77*	80	-2	10C	0	.20	--	(LH73)		1481	19.2	--					
130	765	563	5:32.1	-68:42	5X	5	207*	253	-876	30C	-29	.20	--	(LH73)		1481	19.2	--					
124	815	567	5:32.1	-67:44	7X	7	120*	103	243	1L	243	.09	386	(LH76)		57AE	336.3	0.87	2014				
125	814	566	5:32.1	-67:44	7X	7	314*	275*	1107	3L	369	.09	587	(LH76)		57AE	336.3	0.57	2014				
129	815	567	5:32.1	-67:44	7X	7	346*	170	2416	10C	242	.09	341	(LH76)		57AE	336.3	0.99	2014				
130	815	565	5:32.1	-67:44	7X	7	897*	531	4652	30C	155*	.09	219	(LH76)		57AE	336.3	1.54	2014				
124	877	568	5:32.1	-66:27	7X	5	104	95	72	1L	72	.05*	94	LH72	6.0	3.0	16	(55)					
125	879	570	5:32.1	-66:27	7X	5	294*	252	434	3L	145	.05*	189	LH72	6.0	3.0	16	(55)					
129	877	569	5:32.1	-66:27	7X	5	220	129	879	10C	88	.05*	106	LH72	6.0	3.0	16	(55)					
130	878	567	5:32.1	-66:27	7X	5	710	396	3377	30C	113*	.05*	136	LH72	6.0	3.0	16	(55)					
124	709	565	5:32.2	-69:55	5X	5	125	80	502	1L	502	.05	653									269696H10.7 B	
125	710	566	5:32.2	-69:55	8X	10	378	266	2247	3L	749	.05	975									269696H10.7 B	
129	709	566	5:32.2	-69:55	7X	8	228	51	3240	10C	324*	.05	392									269696H10.7 B	
130	709	563	5:32.2	-69:55	9X	9	545	127	9950	30C	332	.05	401									269696H10.7 B	

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124	773	565	5:32.2	-68:33	4X	5	90	87	26	IL	26	.20	71	LH71	2.0	3.0	--							
125	774	565	5:32.2	-68:33	4X	5	236+229	90	3L	30	.20	82	LH71	2.0	3.0	--								
129	773	566	5:32.2	-68:33	4X	5	120	91	156	10C	16	.20	34	LH71	2.0	3.0	--							
130	773	565	5:32.2	-68:33	4X	5	329+251	559	30C	19	.20	40	LH71	2.0	3.0	--								
124	877	568	5:32.3	-66:28	8X	6	104	93	125	IL	125	.05	162	(LH72)				55.4	173.3	1.07				
125	878	570	5:32.3	-66:28	8X	6	296	247	606	3L	202	.05	262	(LH72)				55.4	173.3	0.66				
129	876	568	5:32.3	-66:28	8X	6	177+113	809	10C	81	.05	98	(LH72)					55.4	173.3	1.77				
130	877	566	5:32.3	-66:28	8X	6	609+327	4755	30C	158	.05	192	(LH72)					55.4	173.3	0.91				
124	740	564	5:32.4	-69:14	5X	6	100	94	55	IL	55	.14*	113	LH74	3.0	5.0	13						2015	
125	740	564	5:32.4	-69:14	5X	6	288+260	358	3L	119	.14*	244	LH74	3.0	5.0	13								2015
129	740	565	5:32.4	-69:14	5X	6	195	145	471	10C	47	.14*	81	LH74	3.0	5.0	13							2015
130	740	561	5:32.4	-69:14	5X	6	536	424	1643	30C	55	.14*	94	LH74	3.0	5.0	13							2015
124	764	565	5:32.4	-68:41	5X	5	87	90	-37	IL	-37	.20	--	LH73	3.0	3.0	--							(148)
125	766	564	5:32.4	-68:41	5X	5	228+228	2	3L	1	.20	2	LH73	3.0	3.0	--								(148)
129	766	564	5:32.4	-68:41	5X	5	77	80	-2	10C	0	.20	--	LH73	3.0	3.0	--							(148)
130	766	562	5:32.4	-68:41	5X	5	201+220	-61	30C	-2	.20	--	--	LH73	3.0	3.0	--							(148)
124	816	565	5:32.5	-67:43	11X	11	134	94	908	IL	908	.09	1445	(LH76)				57.4-E	711.6	0.49	2014			
125	814	565	5:32.5	-67:43	11X	11	298+250	2788	3L	929	.09	1477	(LH76)					57.4-E	711.6	0.48	2014			
129	813	565	5:32.5	-67:43	11X	11	125	108	3533	10C	353	.09	498	(LH76)				57.4-E	711.6	1.43	2014			
130	815	563	5:32.5	-67:43	11X	11	722+326	12501	30C	417	.09	568	(LH76)					57.4-E	711.6	1.21	2014			
124	816	565	5:32.6	-67:42	5X	7	134	109	217	IL	217	.09	345	LH76	3.5	6.0	34							(57)
125	815	564	5:32.6	-67:42	5X	7	310+289	567	3L	189	.09	300	LH76	3.5	6.0	34								(57)
129	814	565	5:32.6	-67:42	5X	7	207+178	1924	10C	192	.09	270	LH76	3.5	6.0	34								(57)
130	816	564	5:32.6	-67:42	5X	7	917+576	3875	30C	123	.09	182	LH76	3.5	6.0	34								(57)
124	823	562	5:32.6	-67:32	5X	5	104+102	24	IL	24	.11*	42	LH75	3.0	3.0	--								(58)

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175	874	563	5:32.6	-67:32	5X	5	300*287	102	3L	34	.11*	60	LH75	3.0	3.0	--	(58)						(LH78.79)	
179	874	563	5:32.6	-67:32	5X	5	196*178	73	10C	7	.11*	11	LH75	3.0	3.0	--	(58)							(LH78.79)
140	874	561	5:32.6	-67:32	5X	5	637*563	754	30C	25*	.11*	38	LH75	3.0	3.0	--	(58)							(LH78.79)
174	874	564	5:32.7	-70:28	2X	2	81	76	19	1L	.18	47											--	
175	874	564	5:32.7	-70:28	2X	3	205	200	19	3L	.18	16											--	
174	874	564	5:32.7	-70:28	2X	2	49	37	45	10C	.18	9											--	
140	874	562	5:32.7	-70:28	2X	3	121	93	142	30C	.18	9											--	
174	874	562	5:32.8	-67:31	3X	3	104*103	10	1L	10	.11	18	(LH75.78.79)			58	1.8	0.10					2021	
175	875	562	5:32.8	-67:31	3X	3	306	293	54	3L	.11	32	(LH75.78.79)			58	1.8	0.06					2021	
174	875	561	5:32.8	-67:31	3X	3	212	182	115	10C	.11	18	(LH75.78.79)			58	1.8	0.10					2021	
140	875	560	5:32.8	-67:31	3X	3	686	613	276	30C	.11	14	(LH75.78.79)			58	1.8	0.12					2021	
174	778	561	5:33.0	-68:25	2X	2	82*82	0	1L	0	.20	--				148A	1.1	--					--	
175	779	561	5:33.0	-68:25	2X	2	208*210	9	3L	3	.20	8				148A	1.1	0.13*					--	
174	779	562	5:33.0	-68:25	2X	2	56*55	4	10C	0	.20	1				148A	1.1	1.28*					--	
140	779	560	5:33.0	-68:25	2X	2	133*133	21	30C	1	.20	2				148A	1.1	0.73					--	
174	871	562	5:33.0	-66:56	294*	103*	94	2658	1L	2658	.11	4700	(LH65.77.84	349.0*	181									2002-34
175	871	560	5:33.0	-66:56	220*	316*	255	11154	3L	3718	.11	6480	(LH65.77.84	349.0*	181									2002-34
178	871	563	5:33.0	-66:56	283*	183*	134	17434	10C	1743	.11	2665	(LH65.77.84	349.0*	181									2002-34
140	872	560	5:33.0	-66:56	230*	656*	424	66870	30C	2229*	.11	3410	(LH65.77.84	349.0*	181									2002-34
174	670	562	5:33.1	-71:46	5X	4	78	73	63	1L	.19	184											2025	
175	670	562	5:33.1	-71:46	3X	4	241	184	344	3L	.19	300											2025	
178	672	563	5:33.1	-71:46	3X	3	44	30	89	10C	.19	19											2025	
140	672	560	5:33.1	-71:46	3X	5	106	76	275	30C	.19	19											2025	
174	713	561	5:33.3	-69:48	2X	2	79*79	2	1L	2	.20	5				149AB	1.9	0.3*					--	
175	713	561	5:33.3	-69:48	2X	2	212*212	4	3L	1	.20	4				149AB	1.9	0.52*					--	

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129	713	560	5:33.3	-69:48	2X 2	55* 56			3	10C	0	.20	1				149AB	1.9				2.98*	
130	714	558	5:33.3	-69:48	2X 2	139*137			-2	30C	0	.20	--				149AB	1.9	--			--	
124	825	559	5:33.3	-67:30	79*	103* 93			241	1L	241	.11	426	LH75.78.79	46.0*	28	(58)					2021	
125	825	561	5:33.3	-67:30	63*	305*262			619	3L	206	.11	365	LH75.78.79	46.0*	28	(58)					2021	
129	825	560	5:33.3	-67:30	68*	184*119			1386	10C	139	.11	212	LH75.78.79	46.0*	28	(58)					2021	
130	825	558	5:33.3	-67:30	70*	526*393			3630	30C	121*	.11	185	LH75.78.79	46.0*	28	(58)					2021	
124	849	560	5:33.3	-66:59	7437*108*	96			2183	1L	2183	.11	3870	LH77	5.0 60.0	138						2002-34	
125	849	562	5:33.3	-66:59	7437*310*262	9731			9731	3L	324*	.11	5750	LH77	5.0 60.0	138						2002-34	
129	850	560	5:33.3	-66:59	7437*216*136	16309			1631	10C	1631	.11	2490	LH77	5.0 60.0	138						2002-34	
130	850	558	5:33.3	-66:59	7437*777*429	66852			2228*	30C	2228*	.11	3410	LH77	5.0 60.0	138						2002-34	
124	823	558	5:33.6	-67:31	5X 5	98* 96			22	1L	22	.11*	39	LH78	4.0 4.0	13	(58)					(LH75.79)	
125	824	561	5:33.6	-67:31	5X 5	290*278			36	3L	13	.11*	23	LH78	4.0 4.0	13	(58)					(LH75.79)	
129	823	560	5:33.6	-67:31	5X 5	155*145			384	10C	38	.11*	58	LH78	4.0 4.0	13	(58)					(LH75.79)	
130	823	558	5:33.6	-67:31	5X 5	430*437			142	30C	5*	.11*	7	LH78	4.0 4.0	13	(58)					(LH75.79)	
124	828	558	5:33.7	-67:27	8X 5	92* 91			87	1L	87	.12*	162	LH79	7.0 3.0	15	(58)					2021	
125	827	560	5:33.7	-67:27	8X 5	279 258			293	3L	98	.12*	182	LH79	7.0 3.0	15	(58)					2021	
129	827	559	5:33.7	-67:27	8X 5	137*120			259	10C	26	.12*	41	LH79	7.0 3.0	15	(58)					2021	
130	827	557	5:33.7	-67:27	8X 5	448*379			1438	30C	48*	.12*	76	LH79	7.0 3.0	15	(58)					2021	
124	762	557	5:34.0	-68:47	2X 3	83* 83			4	1L	4	.30	18				150	2.7				0.15*	
125	762	558	5:34.0	-68:47	2X 3	218*218			2	3L	1	.30	3				150	2.7				0.93*	
129	762	558	5:34.0	-68:47	2X 3	75* 76			12	10C	1	.30	4				150	2.7				0.71*	
130	770	555	5:34.0	-68:47	2X 3	153*157			12	30C	0	.30	1				150	2.7				2.1*	
124	704	556	5:34.1	-69:57	5X 5	83* 80			30	1L	30	.30	132	LH80	4.0 3.0	--						2028	
125	706	557	5:34.1	-69:57	5X 5	213 208			23	3L	8	.30	34	LH80	4.0 3.0	--						2028	
129	707	557	5:34.1	-69:57	5X 5	61* 53			55	10C	6	.30	17	LH80	4.0 3.0	--						2028	

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FR.	X	Y	P.A.	DEC.	*X	*Y	P	BG	V	E.F	V/E	RE	UF	L.M	NO.	SIZE	BS	N	NO.	HA	HI	NGC	NO.	SAD	NO.	M	SP	
120	707	555	5:34.1	-69:57	5X	5	201*212	332	30C	11	.30	35	LM80	4.0	3.0	--											2028	
124	866	558	5:34.5	-66:16	5X	4	91 88	15	1L	15	.08	23							62AB	41.9	1.85							
125	867	558	5:34.5	-66:16	5X	4	239 227	103	3L	34	.08	52							62AB	41.9	0.81							
129	887	559	5:34.5	-66:16	5X	4	101* 90	110	10C	11	.08	15							62AB	41.9	2.80							
120	888	558	5:34.5	-66:16	5X	4	331 255	424	30C	14	.08	19							62AB	41.9	2.19							
124	944	559	5:35.0	-65:06	2X	2	81 75	20	1L	20	.05	26																
125	946	560	5:35.0	-65:06	2X	2	205 193	41	3L	14	.05	18																
129	946	559	5:35.0	-65:06	2X	2	49 38	40	10C	4	.05	5																
120	946	557	5:35.0	-65:06	2X	2	117 92	85	30C	3	.05	3																
124	715	562	5:35.2	-69:45	7X	6	112* 94	279	1L	279	.30	1228	LM81	5.5	4.5	49	(154)											2033
125	715	563	5:35.2	-69:45	7X	6	298*257	623	3L	208	.30	915	LM81	5.5	4.5	49	(154)											2033
129	715	562	5:35.2	-69:45	7X	6	223*126	1399	10C	140	.30	444	LM81	5.5	4.5	49	(154)											2033
130	716	549	5:35.2	-69:45	7X	6	821 503	4483	30C	149*	.30	474	LM81	5.5	4.5	49	(154)											2033
124	780	550	5:35.4	-68:28	3X	3	84 79	33	1L	33	.25	114	(LM85)															2042?
125	778	550	5:35.4	-68:28	6X	5	221 206	201	3L	67	.25	232	(LM85)															2042?
129	779	551	5:35.4	-68:28	3X	4	64 46	126	10C	13	.25	33	(LM85)															2042?
130	780	549	5:35.4	-68:28	5X	6	156 113	650	30C	22	.25	56	(LM85)															2042?
124	717	550	5:35.5	-69:44	14X	17	112 84	1378	1L	1378	.30	6050	(LM81.87)						154,AB	1288.4	0.21	2033.48						
125	719	551	5:35.5	-69:44	14X	17	344 219	7386	3L	2462	.30	10840	(LM81.87)						154,AB	1288.4	0.12	2033.48						
129	716	550	5:35.5	-69:44	14X	17	173 66	8894	10C	889	.30	2820	(LM81.87)						154,AB	1288.4	0.46	2033.48						
130	718	549	5:35.5	-69:44	14X	17	821 179	30467	30C	1016*	.30	3220	(LM81.87)						154,AB	1288.4	0.40	2033.48						
124	821	551	5:35.6	-67:35	8X	10	95 87	152	1L	152	.11	269	(LM82.88)						56,59A-C543.2	2.02	2029.40							
125	822	552	5:35.6	-67:35	8X	10	262 236	375	3L	125	.11	221	(LM82.88)						56,59A-C543.2	2.46	2029.40							
129	821	551	5:35.6	-67:35	8X	10	137* 88	796	10C	80	.11	122	(LM82.88)						56,59A-C543.2	4.45	2029.40							
130	822	550	5:35.6	-67:35	8X	10	473*253	2168	30C	72	.11	111	(LM82.88)						56,59A-C543.2	4.91	2029.40							

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FR.	X	Y	P.A.	DEC.	*X	*Y	P	BG	V	E.F	V/E	RE	UF	LH NO.	SIZE	BS	N NO.	HA	HI	NOC NO.	SAO NO.	M	SP
124	422	550	5:35.6	-67:34	7X	5	94* 89	57	1L	57	.11	101	LM82	6.0	3.3	--	(56.59)						2029-35
124	421	551	5:35.6	-67:34	7X	5	250*239	89	3L	30	.11	53	LM82	6.0	3.0	--	(56.59)						2029-35
124	422	551	5:35.6	-67:34	7X	5	137*102	265	10C	27	.11	41	LM82	6.0	3.0	--	(56.59)						2029-35
120	424	549	5:35.6	-67:34	7X	5	454*305	1232	30C	41	.11	63	LM82	6.0	3.0	--	(56.59)						2029-35
124	427	553	5:35.6	-66:02	5X	5	94* 87	56	1L	56	.09*	89	LM83	4.0	4.0	10	(63)						2030
124	429	553	5:35.6	-66:02	5X	5	250 237	77	3L	26	.09*	41	LM83	4.0	4.0	10	(63)						2030
124	429	553	5:35.6	-66:02	5X	5	133 95	291	10C	29	.09*	41	LM83	4.0	4.0	10	(63)						2030
120	429	551	5:35.6	-66:02	5X	5	422*270	1143	30C	38	.09*	54	LM83	4.0	4.0	10	(63)						2030
124	437	553	5:35.6	-66:01	7X	6	94* 85	103	1L	103	.09	164	(LM83)				63.A	101.8	0.62				2030
124	429	553	5:35.6	-66:01	7X	6	250 229	316	3L	105	.09	167	(LM83)				63.A	101.8	0.61				2030
124	429	553	5:35.6	-66:01	7X	6	133 82	614	10C	61	.09	87	(LM83)				63.A	101.8	1.18				2030
120	429	551	5:35.6	-66:01	7X	6	422*225	1661	30C	55	.09	78	(LM83)				63.A	101.8	1.31				2030
124	453	549	5:35.7	-66:56	6X	9	108*104	58	1L	58	.15*	125	LM84	5.0	9.0	38							2027(LH77)
124	453	550	5:35.7	-66:56	6X	9	304*297	-54	3L	-18	.15*	--	LM84	5.0	9.0	38							2027(LH77)
124	454	550	5:35.7	-66:56	6X	9	226*198	-281	10C	-28	.15*	--	LM84	5.0	9.0	38							2027(LH77)
130	453	547	5:35.7	-66:56	6X	9	549*552	283	30C	9*	.15*	17	LM84	5.0	9.0	38							2027(LH77)
124	486	549	5:35.7	-66:14	2X	2	82 81	3	1L	3	.07	4	--				(62)						2030?
124	490	553	5:35.7	-66:14	2X	2	218 210	28	3L	9	.07	13	--				(62)						2030?
124	489	550	5:35.7	-66:14	2X	2	61 55	22	10C	2	.07	3	--				(62)						2030?
130	489	549	5:35.7	-66:14	2X	2	149 130	73	30C	2	.07	3	--				(62)						2030?
124	717	549	5:35.8	-69:42	88*	111*	86	998	1L	998	.30	4390	LM81.87	59.8*			(154)						2033.48
125	718	550	5:35.8	-69:42	86*	314*234	3100	3L	1033	.30	4550	LM81.87	59.8*				(154)						2033.48
129	718	549	5:35.8	-69:42	88*	243* 82	6718	10C	602	.30	1910	LM81.87	59.8*				(154)						2033.48
130	719	547	5:35.8	-69:42	78*	772*289	16461	30C	549*	.30	1740	LM81.87	59.8*				(154)						2033.48
124	757	548	5:35.9	-68:52	5X	5	90* 90	18	1L	18	.42	132	LM85	4.0	3.0	24							(LM89)2042?

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125	758	548	5:35.9	-68:52	5X	5	260*250	118	3L	29	.42	213	LM85	4.0	3.0	24				(LM89)20427			
129	760	549	5:35.9	-68:52	5X	5	104* 85	159	10C	16	.42	80	LM85	4.0	3.0	24				(LM89)20427			
130	759	547	5:35.9	-68:52	5X	5	318*266	583	30C	19	.42	97	LM85	4.0	3.0	24				(LM89)20427			
124	822	548	5:36.0	-67:34	51*		88* 88	60	1L	60	.11	106	LM82.88	22.0*		9	(56.59)				2029-40		
125	821	549	5:36.0	-67:34	51*		233*232	225	3L	75	.11	132	LM82.88	22.0*		9	(56.59)				2029-40		
129	822	550	5:36.0	-67:34	47*		124* 91	569	10C	57	.11	87	LM82.88	22.0*		9	(56.59)				2029-40		
130	823	548	5:36.0	-67:34	47*		375*280	1829	30C	61	.11	94	LM82.88	22.0*		9	(56.59)				2029-40		
124	826	548	5:36.0	-67:28	6X	5	93 88	23	1L	23	.11*	41	LM86	5.0	3.0	13	(56.59)			(LM82.88.92)			
125	828	549	5:36.0	-67:28	6X	5	245 238	47	3L	16	.11*	28	LM86	5.0	3.0	13	(56.59)			(LM82.88.92)			
129	827	548	5:36.0	-67:28	6X	5	108 92	95	10C	10	.11*	15	LM86	5.0	3.0	13	(56.59)			(LM82.88.92)			
130	828	546	5:36.0	-67:28	6X	5	320 245	521	30C	17	.11*	27	LM86	5.0	3.0	13	(56.59)			(LM82.88.92)			
124	755	546	5:36.2	-68:55	62*		98 87	187	1L	187	.42	1375	LM85.89	48.0*		108					2042		
125	756	546	5:36.2	-68:55	64*		264*233	589	3L	196	.42	1440	LM85.89	48.0*		108					2042		
129	758	548	5:36.2	-68:55	61*		130* 81	1501	10C	150	.42	751	LM85.89	48.0*		108					2042		
130	757	546	5:36.2	-68:55	64*		470*235	5275	30C	176	.42	880	LM85.89	48.0*		108					2042		
124	824	548	5:36.2	-67:31	89*		89* 87	138	1L	138	.11	244	LM82--92	43.2*		25	(56.59)				2029-40		
125	825	548	5:36.2	-67:31	89*		238*232	244	3L	81	.11	144	LM82--92	43.2*		25	(56.59)				2029-40		
129	824	550	5:36.2	-67:31	78*		103* 87	895	10C	90	.11	137	LM82--92	43.2*		25	(56.59)				2029-40		
130	825	547	5:36.2	-67:31	77*		255*230	4025	30C	134	.11	205	LM82--92	43.2*		25	(56.59)				2029-40		
124	822	546	5:36.3	-67:34	4X	4	85* 86	0	1L	0	.11	--	LM88	2.0	2.0	9	(56.59)				2040		
125	821	547	5:36.3	-67:34	4X	4	229*225	3	3L	1	.11	2	LM88	2.0	2.0	9	(56.59)				2040		
129	822	548	5:36.3	-67:34	4X	4	101* 92	-28	10C	-3	.11	--	LM88	2.0	2.0	9	(56.59)				2040		
130	823	547	5:36.3	-67:34	4X	4	320 290	4	30C	0	.11	0	LM88	2.0	2.0	9	(56.59)				2040		
124	963	550	5:36.3	-64:45	5X	4	81 77	49	1L	49	.05	64									--		
125	963	552	5:36.3	-64:45	6X	5	210 197	197	3L	66	.05	86									--		

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FR.	X	Y	R.A.	DEC.	*X	*Y	P	BG	V	E.F	V/E	RE	UF	LH NO.	SIZE	BS	N NO.	HA	HI	NGC NO.	SAO NO.	M	SP
129	964	552	5:36.3	-64:45	2X	2	48	40	29	10C	3	.05	4										
130	964	550	5:36.3	-64:45	2X	2	114	94	36	30C	1	.05	1										
124	719	546	5:36.4	-69:39	6X	8	99	92	149	1L	149	.30	655	L487	5.0	7.0	50			2048			
125	720	547	5:36.4	-69:39	6X	8	273	260	550	3L	183	.30	805	L487	5.0	7.0	50			2048			
129	720	546	5:36.4	-69:39	6X	8	151	123	1131	10C	113	.30	359	L487	5.0	7.0	50			2048			
130	721	544	5:36.4	-69:39	6X	8	493	366	4156	30C	139	.30	439	L487	5.0	7.0	50			2048			
124	742	545	5:36.5	-69:11	5X	5	100	94	38	1L	38	.31	175	L490	4.0	3.5	21			2044			
125	742	546	5:36.5	-69:11	5X	5	275	266	118	3L	39	.31	179	L490	4.0	3.5	21			2044			
129	743	546	5:36.5	-69:11	5X	5	180	137	264	10C	26	.31	87	L490	4.0	3.5	21			2044			
130	743	544	5:36.5	-69:11	5X	5	623	458	995	30C	33	.31	109	L490	4.0	3.5	21			2044			
124	754	545	5:36.5	-68:57	9X	5	94	88	76	1L	76	.42	458	L489	9.0	4.0	84			2042(L485)			
125	755	546	5:36.5	-68:57	9X	5	253	239	256	3L	85	.42	625	L489	9.0	4.0	84			2042(L485)			
129	756	547	5:36.5	-68:57	9X	5	163	96	863	10C	86	.42	432	L489	9.0	4.0	84			2042(L485)			
130	755	545	5:36.5	-68:57	9X	5	488	283	2838	30C	95	.42	474	L489	9.0	4.0	84			2042(L485)			
124	875	545	5:36.6	-66:27	4X	4	100	98	-24	1L	-24	.06	--	L491	2.0	2.0	4			(SA0249322)			
125	876	547	5:36.6	-66:27	4X	4	283	283	-71	3L	-24	.06	--	L491	2.0	2.0	4			(SA0249322)			
129	876	547	5:36.6	-66:27	4X	4	133	137	-145	10C	-15	.06	--	L491	2.0	2.0	4			(SA0249322)			
130	878	545	5:36.6	-66:27	4X	4	333	358	8	30C	0	.06	0	L491	2.0	2.0	4			(SA0249322)			
124	827	544	5:36.7	-67:27	4X	4	90	87	3	1L	3	.11	5	L492	2.5	2.5	3			(L486)			
125	829	546	5:36.7	-67:27	4X	4	231	230	37	3L	12	.11	21	L492	2.5	2.5	3			(L486)			
129	827	545	5:36.7	-67:27	4X	4	89	81	92	10C	9	.11	14	L492	2.5	2.5	3			(L486)			
130	828	543	5:36.7	-67:27	4X	4	246	220	279	30C	9	.11	14	L492	2.5	2.5	3			(L486)			
124	871	545	5:36.9	-66:35	11X	8	129	83	1525	1L	1525	.05	1980							249322	6.4	A0	
125	872	546	5:36.9	-66:35	13X	10	425	223	7500	3L	2500	.05	3250							249322	6.4	A0	
129	872	546	5:36.9	-66:35	14X	10	595	71	19000	10C	1900	.05	2300							249322	6.4	A0	

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FR.	X	Y	R.A.	DEC.	*X	*Y	P	BG	V	E.F	V/E	RE	UF	LH NO.	SIZE	BS	N NO.	HA	HI	NGC NO.	SAO NO.	M	SP		
130	872	544	5:36.9	-66:35	17X13	883	188	38900	30C	1297*	.05	1570													
124	880	544	5:36.9	-66:22	4X 4	91*	89	13	1L	13	.06	18	LH95	1.5	1.5	2	(64)						249322	6.4	A0
125	881	547	5:36.9	-66:22	4X 4	241*	237	5	3L	2	.06	1	LH95	1.5	1.5	2	(64)								
129	883	545	5:36.9	-66:22	4X 4	95	84	82	10C	8	.06	10	LH95	1.5	1.5	2	(64)								
130	883	543	5:36.9	-66:22	4X 4	277	231	316	30C	11	.06	13	LH95	1.5	1.5	2	(64)								
124	911	545	5:37.0	-65:47	2X 2	82	77	17	1L	17	.06	23													
125	911	549	5:37.0	-65:47	2X 2	207	199	32	3L	11	.06	15													
129	912	547	5:37.0	-65:47	2X 2	43	39	14	10C	1	.06	2													
130	912	545	5:37.0	-65:47	2X 2	107	93	52	30C	2	.06	2													
124	727	544	5:37.1	-69:30	4X 4	130*	120	124	1L	124	.23	393	LH94	2.5	1.5	8	(158)								
125	728	544	5:37.1	-69:30	4X 4	402*	360	526	3L	175	.23	555	LH94	2.5	1.5	8	(158)								
129	726	544	5:37.1	-69:30	4X 4	180*	221	231	10C	23	.23	56	LH94	2.5	1.5	8	(158)								
130	728	542	5:37.1	-69:30	4X 4	922*	815	940	30C	31*	.23	76	LH94	2.5	1.5	8	(158)								
124	732	544	5:37.1	-69:24	4X 5	127*	120	47	1L	47	.23*	149	LH93	2.0	4.0	35	(158)								
125	733	544	5:37.1	-69:24	4X 5	394*	382	120	3L	40	.23*	127	LH93	2.0	4.0	35	(158)								
129	731	544	5:37.1	-69:24	4X 5	409*	346	284	10C	28	.23*	69	LH93	2.0	4.0	35	(158)								
130	733	542	5:37.1	-69:24	4X 5	969*	864	801	30C	27*	.23*	65	LH93	2.0	4.0	35	(158)								
124	881	543	5:37.1	-66:21	6X 7	91*	86	85	1L	85	.06	116	(LH95)				64A-C	91.3	0.79						
125	882	546	5:37.1	-66:21	6X 7	239	234*	134	3L	45	.06	61	(LH95)				64A-C	91.3	1.50						
129	883	545	5:37.1	-66:21	6X 7	95	75	240	10C	24	.06	30	(LH95)				64A-C	91.3	3.02						
130	883	543	5:37.1	-66:21	6X 7	277	197	929	30C	31	.06	39	(LH95)				64A-C	91.3	2.34						
124	788	542	5:37.2	-68:15	2X 2	87	86	3	1L	3	.15	6					68	0.6	0.09*						
125	789	543	5:37.2	-68:15	2X 2	212	212	8	3L	3	.15	6					68	0.6	0.10*						
129	787	544	5:37.2	-68:15	2X 2	52*	52	3	10C	0	.15	1					68	0.6	1.1*						
130	787	542	5:37.2	-68:15	2X 2	123*	125	15	30C	1	.15	1					68	0.6	0.67						

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FR.	X	Y	R.A.	DEC.	*X	*Y	P	BC	Y	E.F	V/E	RE	UF	LH NO.	SIZE	BS	N NO.	HA	MI	MGC NO.	SAO NO.	M	SP
130	731	542	5:37.3	-69:27	13X131006	391	30000	300	1000*	.23	2420	(LH93--98)		(152,158)						2050,55			
124	867	542	5:37.3	-66:38	6X13	95*	89	37	1L	.10	62	(SA0249322)		65(3/4)	43.2	0.70							
125	868	542	5:37.3	-66:38	6X13	250*	232	168	3L	.10	94	(SA0249322)		65(3/4)	43.2	0.46							
129	868	543	5:37.3	-66:38	6X13	126*	90	115	10C	.10	17	(SA0249322)		65(3/4)	43.2	2.54							
130	868	541	5:37.3	-66:38	6X13	368*	234	719	30C	.10	35	(SA0249322)		65(3/4)	43.2	1.23				2050,55			
124	732	542	5:37.4	-69:25	10X16	123*	99	1175	1L	.23	3723	LH96	10.0	17.0	226	(158)							
125	732	542	5:37.4	-69:25	10X16	364*	272	6172	3L	.23	6510	LH96	10.0	17.0	226	(158)				2050,55			
129	730	543	5:37.4	-69:25	10X16	399*	173	6511	10C	.23	1580	LH96	10.0	17.0	226	(158)				2050,55			
130	732	541	5:37.4	-69:25	10X16	1006	508	24990	30C	.23	2015	LH96	10.0	17.0	226	(158)				2050,55			
124	732	542	5:37.5	-69:26	168*	123*	95	1877	1L	.23	5950	LH93--98	192.8*	305	(158)					2050,55			
125	732	542	5:37.5	-69:26	164*	364*	272	6389	3L	.23	6750	LH93--98	192.8*	305	(158)					2050,55			
129	732	541	5:37.5	-69:26	168*	399*	173	6520	10C	.23	1580	LH93--98	192.8*	305	(158)					2050,55			
130	732	541	5:37.5	-69:26	168*	1006	508	25213	30C	.23	2010	LH93--98	192.8*	305	(158)					2050,55			
124	695	545	5:37.6	-70:10	2X	2	83	80	1L	.31	51	--								2066,72?			
125	698	543	5:37.6	-70:10	3X	3	216	203	55	3L	18	.31	84	--						2066,72?			
129	696	543	5:37.6	-70:10	2X	2	52	39	91	10C	9	.31	30	--						2066,72?			
130	697	541	5:37.6	-70:10	3X	3	130	98	170	30C	6	.31	19	--						2062,72?			
124	814	536	5:37.6	-67:44	2X	2	86	81	18	1L	18	.12	33	--									
125	815	541	5:37.6	-67:44	2X	2	229	217	46	3L	15	.12	28	--									
129	814	540	5:37.6	-67:44	4X	6	67	47	238	10C	24	.12	38	--									
130	815	538	5:37.6	-67:44	7X	7	176	118	1260	30C	42	.12	67	--									
124	713	539	5:37.7	-69:47	3X	3	83*	83	2	1L	2	.30	9							155	2.2	0.2*	
125	712	540	5:37.7	-69:47	3X	3	216*	214	12	3L	4	.30	18							155	2.2	0.12	
129	714	541	5:37.7	-69:47	3X	3	56*	55	7	10C	1	.30	2							155	2.2	1.0*	
130	714	538	5:37.7	-69:47	3X	3	127*	127	5	30C	0	.30	1							155	2.2	4.1*	

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FR.	X	Y	P.A.	DEC.	*X	*Y	P	BG	V	E.F	V/E	RE	UF	LH NO.	SIZE	BS	N NO.	HA	HI	NGC NO.	SAO NO.	M	SP
124	729	540	5:38.0	-69:28	4X	4	109*107	-8	1L	-8	.23	--	LH98	2.0	1.5	7	(158)						
125	730	539	5:38.0	-69:28	4X	4	286*293	71	3L	24	.23	76	LH98	2.0	1.5	7	(158)						
129	728	540	5:38.0	-69:28	4X	4	166*209	91	10C	9	.23	22	LH98	2.0	1.5	7	(158)						
130	730	538	5:38.0	-69:28	4X	4	812*779	984	30C	33*	.23	78	LH98	2.0	1.5	7	(158)						
124	735	540	5:38.0	-69:21	5X	4	105*101	26	1L	26	.23	83	LH97	4.0	2.0	29	(158)						
125	735	539	5:38.0	-69:21	5X	4	296*288	189	3L	63	.23	200	LH97	4.0	2.0	29	(158)						
129	734	540	5:38.0	-69:21	5X	4	253*234	214	10C	21	.23	52	LH97	4.0	2.0	29	(158)						
130	736	538	5:38.0	-69:21	5X	4	794*679	1079	30C	36*	.23	87	LH97	4.0	2.0	29	(158)						
124	722	538	5:38.1	-69:36	3X	2	85* 85	-1	1L	-1	.28	--	--			156	1.4	--					
125	723	540	5:38.1	-69:36	3X	2	241*239	-5	3L	-2	.28	--	--			156	1.4	--					
129	723	540	5:38.1	-69:36	3X	2	88* 90	-1	10C	0	.28	--	--			156	1.4	--					
130	723	537	5:38.1	-69:36	3X	2	229*241	-4	30C	0	.28	--	--			156	1.4	--					
124	743	539	5:38.2	-69:11	5X	5	93* 92	43	1L	43	.32	208	LH99	3.0	3.0	--	(157)						2060
125	743	539	5:38.2	-69:11	5X	5	243*246	60	3L	20	.32	97	LH99	3.0	3.0	--	(157)						2060
129	743	539	5:38.2	-69:11	5X	5	116*119	10	10C	1	.32	3	LH99	3.0	3.0	--	(157)						2060
130	744	537	5:38.2	-69:11	5X	5	407*394	171	30C	6	.32	20	LH99	3.0	3.0	--	(157)						2060
124	906	541	5:38.3	-65:53	2X	2	82 77	17	1L	17	.06	23											--
125	907	543	5:38.3	-65:53	7X	3	215 205	79	3L	26	.06	35											--
129	906	538	5:38.3	-65:53	2X	2	43 39	14	10C	1	.06	2											--
130	907	535	5:38.3	-65:53	2X	2	102 91	39	30C	1	.06	2											--
124	745	536	5:38.7	-69:08	100*		112* 89	1268	1L	1268	.35	7050	LH99.100	90.0*	NEB?	(157)							2060.70
125	745	537	5:38.7	-69:08	97*		283*245	3378	3L	1126	.35	6250	LH99.100	90.0*	NEB?	(157)							2060.70
124	745	534	5:38.8	-69:08	17X15		115* 87	1226	1L	1226	.35	6825	(LH99.100)			1574B	3719.	0.54					2060.70
125	746	536	5:38.8	-69:08	17X15		350*233	4909	3L	1636	.35	9100	(LH99.100)			1574B	3719.	0.41					2060.70
129	746	539	5:38.8	-69:08	17X15		162*108	5643	10C	564	.35	2165	(LH99.100)			1574B	3719.	1.71					2060.70

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FR.	X	Y	R.A.	DEC.	*X	*Y	P	B0	V	E.F	V/E	RE	UF	LH NO.	SIZE	BS	N NO.	HA	HI	NCC NO.	SAO NO.	M	SP
130	747	537	5:38.8	-69:08	17X15	533*335	13531	30C	451	.35	1733	(LM99,100)	15748	3719.	2.15	2060-70							
124	670	537	5:38.9	-70:42	4X 5	80* 78	14	1L	14	.30	62		213.A	48.7	0.79								
125	672	537	5:38.9	-70:42	4X 5	204*198	67	3L	22	.30	97		213.A	48.7	0.50								
129	671	538	5:38.9	-70:42	4X 5	56 42	62	10C	6	.30	20		213.A	48.7	2.47								
130	672	535	5:39.0	-70:42	4X 5	126 100	151	30C	5	.30	16		213.A	48.7	3.08								
124	747	534	5:39.2	-69:06	9X 9	149 93	896	1L	896	.35	4980	LM100	9.0	9.0	NEB?	(157)							2070
125	747	535	5:39.2	-69:06	9X 9	402*257	2424	3L	808	.35	4480	LM100	9.0	9.0	NEB?	(157)							2070
129	748	535	5:39.2	-69:06	9X 9	542 123	4177	10C	418	.35	1605	LM100	9.0	9.0	NEB?	(157)							2070
130	749	532	5:39.2	-69:06	9X 9	878*374	11603	30C	3874	.35	1485	LM100	9.0	9.0	NEB?	(157)							2070
124	726	533	5:39.5	-69:32	5X 5	105* 98	70	1L	70	.29	294	(LM101)	158C	257.5	0.87	2074							
125	727	534	5:39.5	-69:32	5X 5	300*276*	226	3L	75	.29	315	(LM101)	158C	257.5	0.82	2074							
129	727	534	5:39.5	-69:32	5X 5	215*152	602	10C	60	.29	184	(LM101)	158C	257.5	1.40	2074							
130	728	531	5:39.5	-69:32	5X 5	686*472	1694	30C	564	.29	171	(LM101)	158C	257.5	1.50	2074							
124	728	533	5:39.5	-69:30	5X 6	116 100	159	1L	159	.29	668	LM101	3.0	5.0	10	(158)							2074
125	728	534	5:39.5	-69:30	5X 6	350*273	624	3L	208	.29	875	LM101	3.0	5.0	10	(158)							2074
129	728	534	5:39.5	-69:30	5X 6	312 143	1304	10C	130	.29	400	LM101	3.0	5.0	10	(158)							2074
130	729	531	5:39.5	-69:30	5X 6	772 479	3000	30C	1004	.29	306	LM101	3.0	5.0	10	(158)							2074
124	730	531	5:39.9	-69:28	13X12	105* 92	590	1L	590	.29	2480	(LM96,101)	158.A-D	864.	0.35	2050-74							
125	730	532	5:39.9	-69:28	13X12	286*250	1945	3L	648	.29	2720	(LM96,101)	158.A-D	864.	0.32	2050-74							
129	728	531	5:39.9	-69:28	13X12	140*115	2767	10C	277	.29	846	(LM96,101)	158.A-D	864.	1.02	2050-74							
130	730	529	5:39.9	-69:28	13X12	598*339	4590	30C	1534	.29	468	(LM96,101)	158.A-D	864.	1.85	2050-74							
124	831	530	5:40.0	-67:24	9X 7	87* 85	45	1L	45	.12	84	LM102	9.0	6.0	24								(SA0249336)
125	831	529	5:40.0	-67:24	9X 7	226*224	108	3L	36	.12	67	LM102	9.0	6.0	24								(SA0249336)
129	832	531	5:40.0	-67:24	9X 7	94 62	512	10C	51	.12	82	LM102	9.0	6.0	24								(SA0249336)
130	832	529	5:40.0	-67:24	9X 7	255 161	1315	30C	44	.12	70	LM102	9.0	6.0	24								(SA0249336)

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FR.	X	Y	P.A.	DEC.	*X	*Y	P	BG	V	E.F	V/E	RE	UF	LH NO.	SIZE	BS	N NO.	HA	HI	NGC NO.	SAO NO.	M	SP		
124	721	529	5:40.3	-69:38	5X 6	96* 91	64	1L	64	.30*	281	LH103	4.0	5.0	41	(160)							2077-86		
125	721	532	5:40.3	-69:38	5X 6	259*245	189	3L	63	.30*	277	LH103	4.0	5.0	41	(160)								2077-86	
129	721	529	5:40.3	-69:38	5X 6	163 116	285	10C	29	.30*	90	LH103	4.0	5.0	41	(160)								2077-86	
130	721	528	5:40.3	-69:38	5X 6	459*315	1585	30C	53	.30*	168	LH103	4.0	5.0	41	(160)								2077-86	
124	715	529	5:40.4	-69:46	6X 6	87* 86	20	1L	20	.31	92	(LH105)					159.A-L	102.6	1.12				2078-84		
125	715	532	5:40.4	-69:46	6X 6	221*220	64	3L	21	.31	97	(LH105)					159.A-L	102.6	1.05				2078-84		
129	714	529	5:40.4	-69:46	6X 6	66* 67	-54	10C	-5	.31	--	(LH105)					159.A-L	102.6	--					2078-84	
130	716	527	5:40.4	-69:46	6X 6	243*216	-431	30C	-14	.31	--	(LH105)					159.A-L	102.6	--					2078-84	
124	732	529	5:40.5	-69:25	7X 5	104 94	161	1L	161	.28*	644	LH104	6.0	3.5	48	(158)								2081	
125	732	530	5:40.5	-69:25	7X 5	298*260	479	3L	160	.28*	640	LH104	6.0	3.5	48	(158)									2081
129	732	530	5:40.5	-69:25	7X 5	213 135	970	10C	97	.28*	285	LH104	6.0	3.5	48	(158)									2081
130	733	527	5:40.5	-69:25	7X 5	702 417	3171	30C	106*	.28*	310	LH104	6.0	3.5	48	(158)									2081
124	751	526	5:40.5	-69:00	3X 3	86* 85	1	1L	1	.30	4							5.7	1.3*						
125	750	527	5:40.5	-69:00	3X 3	220*219	8	3L	3	.30	12							5.7	0.49*						
129	750	527	5:40.5	-69:00	3X 3	72* 71	9	10C	1	.30	3							5.7	1.9*						
130	752	525	5:40.5	-69:00	3X 3	184*195	1	30C	0	.30	0							5.7	--						
124	716	528	5:40.6	-69:45	5X 5	87* 88	8	1L	8	.31	37	LH105	4.0	4.0	--	(159)									2078-84
125	716	531	5:40.6	-69:45	5X 5	233*229	34	3L	11	.31	51	LH105	4.0	4.0	--	(159)									2078-84
129	716	530	5:40.6	-69:45	5X 5	99 82	92	10C	9	.31	30	LH105	4.0	4.0	--	(159)									2078-84
130	715	527	5:40.6	-69:45	5X 5	190*193	-49	30C	-2	.31	--	(LH105)	4.0	4.0	--	(159)									2078-84
124	732	529	5:40.6	-69:24	3X 3	104 100	24	1L	24	.28	96	(LH104)					158A	68.9	0.72					2081	
125	733	530	5:40.6	-69:24	3X 3	308 286	71	3L	24	.28	96	(LH104)					158A	68.9	0.72					2081	
129	732	530	5:40.6	-69:24	3X 3	213 183	158	10C	16	.28	47	(LH104)					158A	68.9	1.47					2081	
130	733	527	5:40.6	-69:24	3X 3	702 596	369	30C	12*	.28	36	(LH104)					158A	68.9	1.90					2081	
124	707	526	5:40.7	-69:55	4X 4	81* 80	8	1L	8	.31	37						172.173	3.3	0.09*						

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FR.	X	Y	R.A.	DEC.	*X	*Y	P	BG	V	E.F	V/E	RE	UF	LH NO.	SIZE	BS	N NO.	HA	HI	NGC NO.	SAO NO.	M	SP	
125	708	528	5:40.7	-69:55	4X	4	213*212	17	3L	6	.31	26					172.173	3.3	0.13					
129	708	527	5:40.7	-69:55	4X	4	47* 49	10	10C	1	.31	3					172.173	3.3	1.00					
130	708	525	5:40.7	-69:55	4X	4	113*115	5	30C	0	.31	1					172.173	3.3	6.0*					
124	720	527	5:40.8	-69:38	13X12	97*	87	526	1L	526	.30	2315	(LH103)				160.A-F	771.9	0.33	2077-86				
125	721	530	5:40.8	-69:38	13X12	28*	232	1628	3L	543	.30	2385	(LH103)				160.A-F	771.9	0.32					
129	721	527	5:40.8	-69:38	13X12	128*	81	3198	10C	320	.30	1014	(LH103)				160.A-F	771.9	0.76	2077-86				
130	721	527	5:40.8	-69:38	13X12	545	228	8810	30C	294	.30	930	(LH103)				160.A-F	771.9	0.83	2077-86				
125	849	528	5:40.9	-67:04	2X	2	216	212	9	3L	.16	7	--										2062?	
129	848	526	5:40.9	-67:04	2X	2	49	47	8	10C	1	.16	1	--									2062?	
130	848	524	5:40.9	-67:04	2X	2	121	113	28	30C	1	.16	2	--									2062?	
124	693	523	5:41.3	-70:11	3X	3	84	81	10	1L	10	.31	46				176	2.1	0.05					
125	695	526	5:41.3	-70:11	3X	3	210	206	13	3L	4	.31	20				176	2.1	0.11					
129	694	525	5:41.3	-70:11	3X	3	40*	40	4	10C	0	.31	1				176	2.1	1.6*					
130	694	523	5:41.3	-70:11	3X	3	96*	95	7	30C	0	.31	1				176	2.1	2.8*					
124	723	525	5:41.3	-69:35	17X12	90*	87	716	1L	716	.30	3150	LH106	18.0	12.0	--	(160)			(LH101--8)				
125	724	526	5:41.3	-69:35	17X12	239*233	3222	3L	1074	.30	4730	LH106	18.0	12.0	--	(160)			(LH101--8)					
129	722	526	5:41.3	-69:35	17X12	119*	85	3380	10C	338	.30	1072	LH106	18.0	12.0	--	(160)			(LH101--8)				
130	724	522	5:41.3	-69:35	17X12	399*238	12736	30C	425	.30	1347	LH106	18.0	12.0	--	(160)			(LH101--8)					
124	644	529	5:41.4	-71:15	12X	4*	78*	76	66	1L	66	.25	228	LH107	12.0	4.0	--	(214)			2103			
125	644	530	5:41.4	-71:15	12X	4*	192*197	176	3L	59	.25	204	LH107	12.0	4.0	--	(214)			2103				
129	645	530	5:41.4	-71:15	12X	4*	35*	37	282	10C	28	.25	73	LH107	12.0	4.0	--	(214)			2103			
130	644	526	5:41.4	-71:15	12X	4*	91*	96	645	30C	22	.25	57	LH107	12.0	4.0	--	(214)			2103			
124	675	526	5:41.5	-70:35	2X	2	77*	76	1	1L	1	.30	4				218	1.9	0.4*					
125	676	527	5:41.5	-70:35	2X	2	202	198	11	3L	4	.30	16				218	1.9	0.12*					
129	676	526	5:41.5	-70:35	2X	2	36*	36	0	10C	0	.30	--				218	1.9	--					

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130	676	524	5:1+1.5	-70:35	2X	2	86	95	3	30C	0	.30	0			218		1.9	5.9*				
124	642	527	5:1+1.6	-71:16	14X10	77	75	142	1L	142	1L	142	492	(LM107)		214	A-H	179.1	0.36	2103			
125	643	528	5:1+1.6	-71:16	14X10	201	192	530	3L	177	25	613	613	(LM107)		214	A-H	179.1	0.29	2103			
129	643	528	5:1+1.6	-71:16	14X10	37	34	531	10C	53	25	138	138	(LM107)		214	A-H	179.1	1.30	2103			
130	643	525	5:1+1.6	-71:16	14X10	105	92	1669	30C	55	25	145	145	(LM107)		214	A-H	179.1	1.23	2103			
124	660	528	5:1+1.6	-70:55	3X	3	76	76	2	1L	2	.28	8			216		0.6	0.08*				
125	661	529	5:1+1.6	-70:55	3X	3	195	192	8	3L	3	.28	11			216		0.6	0.06*				
129	660	526	5:1+1.6	-70:55	3X	3	36	35	2	10C	0	.28	1			216		0.6	1.02*				
130	660	524	5:1+1.6	-70:55	3X	3	84	84	3	30C	0	.28	0			216		0.6	2.04*				
124	707	524	5:1+1.6	-69:55	4X	3	82	82	-1	1L	-1	.31	--			177		23.4	--				
125	708	524	5:1+1.6	-69:55	4X	3	213	213	-6	3L	-2	.31	--			177		23.4	--				
129	707	524	5:1+1.6	-69:55	4X	3	48	48	4	10C	0	.31	1			177		23.4	17.7*				
130	708	522	5:1+1.6	-69:55	4X	3	125	123	18	30C	1	.31	2			177		23.4	11.7*				
124	829	520	5:1+1.6	-67:25	5X	5	100	84	244	1L	244	.05	317							24	3336	7.2	A0
125	831	521	5:1+1.6	-67:25	12X	9	277	221	1640	3L	547	.05	712							24	3336	7.2	A0
129	830	521	5:1+1.6	-67:25	13X14	198	51	4390	10C	439	.05	531								24	3336	7.2	A0
130	831	519	5:1+1.6	-67:25	14X14	602	148	23000	30C	967	.05	1070								24	3336	7.2	A0
124	684	524	5:1+1.7	-70:24	3X	3	82	79	10	1L	10	.31	46			219		2.9	0.06				
125	685	527	5:1+1.7	-70:24	3X	3	210	205	22	3L	7	.31	34			219		2.9	0.09				
129	684	525	5:1+1.7	-70:24	3X	3	40	39	6	10C	1	.31	2			219		2.9	1.5*				
130	685	522	5:1+1.7	-70:24	3X	3	89	88	6	30C	0	.31	1			219		2.9	4.4*				
124	663	526	5:1+1.9	-70:52	2X	2	78	73	18	1L	18	.27	69			(216)							
125	663	523	5:1+1.9	-70:52	2X	2	201	193	32	3L	11	.27	41			(216)							
129	663	525	5:1+1.9	-70:52	2X	2	41	31	33	10C	3	.27	9			(216)							
130	664	524	5:1+1.9	-70:52	2X	2	100	78	82	30C	3	.27	8			(216)							

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124	867	518	5:42.0	-66:40	2X	2	85	82	12	1L	12	.15	26									--	
125	869	520	5:42.0	-66:40	4X	2	221	210	82	3L	27	.15	58									--	
129	868	519	5:42.0	-66:40	2X	2	59	43	59	10C	6	.15	10									--	
130	868	517	5:42.0	-66:40	5X	5	144	102	465	30C	16	.15	28									---	
124	980	518	5:42.0	-64:22	2X	2	86	80	20	1L	20	.05	26	--								2082	
125	981	519	5:42.0	-64:22	2X	2	216	207	31	3L	10	.05	13	--								2082	
129	985	519	5:42.0	-64:22	2X	2	43	40	12	10C	1	.05	1	--								2082	
130	984	517	5:42.0	-64:22	2X	2	100	95	15	30C	1	.05	1	--								2082	
124	702	520	5:42.1	-70:01	4X	4	80*	79	7	1L	7	.31	32				174,175	11.7				0.37*	
125	703	523	5:42.1	-70:01	4X	4	216*	212	28	3L	9	.31	43				174,175	11.7				0.27	
129	702	523	5:42.1	-70:01	4X	4	49*	46	56	10C	6	.31	18				174,175	11.7				0.64	
130	703	523	5:42.1	-70:01	4X	4	124*	120	138	30C	5	.31	15				174,175	11.7				0.78	
124	719	522	5:42.1	-69:40	4X	4	94*	92	13	1L	13	.30	57	LH108	2.0	2.0	--	(160)				(LH106)	
125	721	524	5:42.1	-69:40	4X	4	273	258	68	3L	23	.30	101	LH108	2.0	2.0	--	(160)				(LH106)	
129	721	524	5:42.1	-69:40	4X	4	136	120	57	10C	6	.30	18	LH108	2.0	2.0	--	(160)				(LH106)	
130	721	521	5:42.1	-69:40	4X	4	454	378	309	30C	10	.30	33	LH108	2.0	2.0	--	(160)				(LH106)	
124	755	520	5:42.2	-68:56	6X	4	84*	83	10	1L	10	.25	35	LH109	5.0	2.0	--	(165)				2093	
125	755	520	5:42.2	-68:56	6X	4	221*	216	52	3L	17	.25	59	LH109	5.0	2.0	--	(165)				2093	
129	755	520	5:42.2	-68:56	6X	4	62*	61	45	10C	5	.25	12	LH109	5.0	2.0	--	(165)				2093	
130	755	518	5:42.2	-68:56	6X	4	155*	159	40	30C	1	.25	3	LH109	5.0	2.0	--	(165)				2093	
124	640	525	5:42.3	-71:20	5X	5	84	77	38	1L	38	.25	132	(LH107,110)				214CFGH	93.9			0.71	2103
125	641	527	5:42.3	-71:20	5X	5	218	200	114	3L	38	.25	132	(LH107,110)				214CFGH	93.9			0.71	2103
129	640	525	5:42.3	-71:20	5X	5	72	44	195	10C	20	.25	51	(LH107,110)				214CFGH	93.9			1.84	2103
130	641	523	5:42.3	-71:20	5X	5	195	109	501	30C	17	.25	44	(LH107,110)				214CFGH	93.9			2.13	2103
124	640	525	5:42.4	-71:21	4X	5	84	78	28	1L	28	.25	97	LH110	2.0	3.0	5	(214)					2103

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125	639	526	5:42.4	-71:21	4X	5	204*201	55	3L	18	.25	63	LH110	2.0	3.0	5	(214)						2103	
129	640	525	5:42.4	-71:21	4X	5	72	47	136	10C	14	.25	35	LH110	2.0	3.0	5	(214)					2103	
130	639	521	5:42.4	-71:21	4X	5	104*102	227	30C	8	.25	20	LH110	2.0	3.0	5	(214)						2103	
124	741	519	5:42.4	-69:13	6X	7	99	88	141	1L	.31*	650	LH111	5.0	6.0	26							2100	
125	742	521	5:42.4	-69:13	6X	7	268	232	400	3L	.31*	612	LH111	5.0	6.0	26							2100	
129	742	520	5:42.4	-69:13	6X	7	156	84	709	10C	71	.31*	233	LH111	5.0	6.0	26						2100	
130	742	518	5:42.4	-69:13	6X	7	430	235	2417	30C	81	.31*	265	LH111	5.0	6.0	26						2100	
124	834	517	5:42.6	-67:20	5X	6	88*	86	27	1L	.27	.14*	55	LH112	3.0	5.0	12						2095(+STAR)	
125	833	517	5:42.6	-67:20	5X	6	243*241	45	3L	15	.14*	31	LH112	3.0	5.0	12							2095(+STAR)	
129	835	517	5:42.6	-67:20	5X	6	93	79	147	10C	15	.14*	25	LH112	3.0	5.0	12						2095(+STAR)	
130	835	515	5:42.6	-67:20	5X	6	264*215	655	30C	22	.14*	37	LH112	3.0	5.0	12							2095(+STAR)	
124	747	516	5:42.9	-69:05	6X	6	86*	85	52	1L	.52	.25	180	(LH113)		164	123.0	0.68						
125	748	518	5:42.9	-69:05	6X	6	236	225	58	3L	19	.25	56	(LH113)		164	123.0	1.86						
129	749	517	5:42.9	-69:05	6X	6	84	67	159	10C	16	.25	41	(LH113)		164	123.0	2.98						
130	749	515	5:42.9	-69:05	6X	6	231	176	401	30C	13	.25	35	(LH113)		164	123.0	3.53						
124	748	515	5:43.1	-69:04	4X	4	87*	86	14	1L	14	.25	49	LH113	2.0	1.5	--	(164)						
125	747	519	5:43.1	-69:04	4X	4	229*227	35	3L	12	.25	42	LH113	2.0	1.5	--	(164)							
129	749	517	5:43.1	-69:04	4X	4	83*	72	66	10C	7	.25	17	LH113	2.0	1.5	--	(164)						
130	749	514	5:43.1	-69:04	4X	4	198*184	197	30C	7	.25	17	LH113	2.0	1.5	--	(164)							
124	753	516	5:43.2	-68:58	3X	3	87	85	5	1L	5	.25	17	(LH109)		165	12.7	0.73*2093						
125	753	516	5:43.2	-68:58	3X	3	221*218	15	3L	5	.25	17	(LH109)		165	12.7	0.73	2093						
129	753	516	5:43.2	-68:58	3X	3	74	67	29	10C	3	.25	8	(LH109)		165	12.7	1.68	2093					
130	753	514	5:43.2	-68:58	3X	3	208	183	71	30C	2	.25	6	(LH109)		165	12.7	2.03	2093					
124	807	513	5:43.4	-67:52	5X	4	95	88	39	1L	39	.12	73	LH114	3.0	2.0	8	(70)						
125	808	514	5:43.4	-67:52	5X	4	241*233	127	3L	42	.12	78	LH114	3.0	2.0	8	(70)							

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129	808	514	5:43.4	-67:52	5X	4	112	74	210	10C	22	.12	35	LM114	3.0	2.0	8						
130	809	512	5:43.4	-67:52	5X	4	335	192	779	30C	26	.12	41	LM114	3.0	2.0	8						
124	807	513	5:43.5	-67:51	8X	8	95	84	96	1L	96	.12	179	(LM114)			70	240.	1.34				
125	808	514	5:43.5	-67:51	8X	8	252	220	451	3L	150	.12	279	(LM114)			70	240.	0.87				
129	808	514	5:43.5	-67:51	8X	8	112	52	747	10C	75	.12	119	(LM114)			70	240.	2.02				
130	809	512	5:43.5	-67:51	8X	8	335	125	2504	30C	83	.12	133	(LM114)			70	240.	1.80				
124	714	515	5:43.6	-69:46	5X	5	82	81	23	1L	23	.31	106				163	63.0	0.59				
125	716	516	5:43.6	-69:46	5X	5	218	216	32	3L	11	.31	49				163	63.0	1.28				
129	715	516	5:43.6	-69:46	5X	5	58	54	27	10C	3	.31	9				163	63.0	7.0				
130	715	514	5:43.6	-69:46	5X	5	139	128	92	30C	3	.31	10				163	63.0	6.3				
124	806	510	5:43.6	-66:17	2X	2	88	87	8	1L	8	.14	16	(LM115)			72	1.9	0.12*				
125	807	511	5:43.6	-66:17	2X	2	228	227	12	3L	4	.14	8	(LM115)			72	1.9	0.23				
129	807	514	5:43.6	-66:17	2X	2	167	159	91	10C	9	.14	16	(LM115)			72	1.9	0.12				
130	807	511	5:43.6	-66:17	2X	2	176	182	59	30C	2	.14	3	(LM115)			72	1.9	0.56				
124	827	510	5:43.9	-67:27	3X	3	85	85	3	1L	3	.10	5				71	3.4	0.7*				
125	828	511	5:43.9	-67:27	3X	3	226	226	11	3L	4	.10	6				71	3.4	0.55				
129	827	510	5:43.9	-67:27	3X	3	59	57	10	10C	1	.10	2				71	3.4	2.30				
130	827	508	5:43.9	-67:27	3X	3	143	138	22	30C	1	.10	1				71	3.4	3.2*				
124	885	510	5:44.0	-66:19	7X10	90	84		117	1L	117	.14*	240	LM115	6.0	10.0	14						
125	885	509	5:44.0	-66:19	7X10	238	222		432	3L	144	.14*	295	LM115	6.0	10.0	14						
129	886	513	5:44.0	-66:19	7X10	112	77		1539	10C	154	.14*	263	LM115	6.0	10.0	14						
130	885	509	5:44.0	-66:19	7X10	231	161		1725	30C	57	.14*	98	LM115	6.0	10.0	14						
124	872	507	5:44.6	-66:38	3X	3	87	83	33	1L	33	.12	61										--
125	873	512	5:44.6	-66:38	3X	7	221	215	86	3L	29	.12	54										--
129	870	506	5:44.6	-66:38	2X	2	46	44	6	10C	1	.12	1										--

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120	871	505	5:44.6	-66:38	2X	2	110	102	29	30C	1	.12	2											
124	915	506	5:44.7	-65:45	3X	3	87	84	10	1L	10	.05	13								249346	4.5	A5	
125	915	512	5:44.7	-65:45	3X	2	220	211	45	3L	15	.05	20								249346	4.5	A5	
129	915	506	5:44.7	-65:45	2X	2	47	38	35	10C	4	.05	4								249346	4.5	A5	
120	915	505	5:44.7	-65:45	3X	4	122	90	226	30C	8	.05	9								249346	4.5	A5	
124	732	509	5:44.8	-69:23	3X	3	81	82	-3	1L	-3	.25	--			166.167	3.0	--						
125	733	511	5:44.8	-69:23	3X	3	221	216	11	3L	4	.25	13			166.167	3.0	0.24						
129	734	510	5:44.8	-69:23	3X	3	51	48	5	10C	1	.25	1			166.167	3.0	2.31*						
130	734	508	5:44.8	-69:23	3X	3	119	116	12	30C	0	.25	1			166.167	3.0	2.89						
124	839	505	5:45.0	-67:14	8X	7	101	92	207	1L	207	.08*	312	LM116	5.0	9.0	34	(74)						
125	839	506	5:45.0	-67:14	8X	7	271	255	584	3L	195	.08*	294	LM116	5.0	9.0	34	(74)						
129	839	506	5:45.0	-67:14	8X	7	140	94	1213	10C	121	.08*	165	LM116	5.0	9.0	34	(74)						
130	840	505	5:45.0	-67:14	8X	7	539	254	6109	30C	204	.08*	277	LM116	5.0	9.0	34	(74)						
124	848	504	5:45.2	-67:03	2X	2	92	83	23	1L	23	.10	39											
125	849	505	5:45.2	-67:03	3X	3	241	220	97	3L	32	.10	54											
129	849	505	5:45.2	-67:03	4X	3	73	48	152	10C	15	.10	22											
130	850	503	5:45.2	-67:03	4X	4	187	123	436	30C	15	.10	21											
124	714	507	5:45.8	-69:46	5X	4	83	82	9	1L	9	.31	41								168.48	22.8	0.55*	
125	715	508	5:45.8	-69:46	5X	4	221	215	48	3L	16	.31	74								168.48	22.8	0.31	
129	715	507	5:45.8	-69:46	5X	4	54	44	57	10C	6	.31	19								168.48	22.8	1.22	
130	715	504	5:45.8	-69:46	5X	4	128	106	154	30C	5	.31	17								168.48	22.8	1.36	
124	843	501	5:45.8	-67:09	6X	13	91	87	199	1L	199	.08	300	LM116							74.48	93.3	0.31	
125	844	502	5:45.8	-67:09	6X	13	241	235	510	3L	170	.08	256	LM116							74.48	93.3	0.37	
129	840	505	5:45.8	-67:09	6X	13	134	84	1297	10C	130	.08	176	LM116							74.48	93.3	0.53	
130	840	502	5:45.8	-67:09	6X	13	327	264	3167	30C	106	.08	144	LM116							74.48	93.3	0.65	

8.2.80

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FR.	X	Y	P.A.	DEC.	*X	*Y	P	BG	V	E.F	V/E	RE	UF	LH NO.	SIZE	BS	N NO.	HA	HI	NGC NO.	SAO NO.	M	SP
129	810	501	5:46.1	-67:50	2X	2	54	45	33	10C	3	.05	4								249353?	B.1	A0
130	810	499	5:46.1	-67:50	3X	3	134	110	112	30C	4	.05	5								249353?	B.1	A0
125	810	503	5:46.1	-67:49	2X	2	226	218	27	3L	9	.05	12								249353?	B.1	A0
130	822	497	5:46.2	-67:44	2X	2	130	112	68	30C	2	.05	3								249353?	B.1	A0
129	822	499	5:46.2	-67:36	2X	2	54	46	29	10C	3	.05	4								249353?	B.1	A0
124	822	499	5:46.6	-67:39	2X	2	85	83	7	1L	7	.05	9								249353?	B.1	A0
125	819	499	5:46.6	-67:39	3X	2	226	214	42	3L	14	.05	18								249353?	B.1	A0
124	723	501	5:46.7	-69:34	3X	3	83	83	1	1L	1	.27	4			169A-C	6.8	1.77*					
125	723	499	5:46.7	-69:34	3X	3	212	213	3	3L	1	.27	4			169A-C	6.8	1.78*					
129	724	501	5:46.7	-69:34	3X	3	39	38	4	10C	0	.27	1			169A-C	6.8	6.0*					
130	724	499	5:46.7	-69:34	3X	3	95	94	5	30C	0	.27	0			169A-C	6.8	14.2*					
124	827	487	5:47.6	-67:28	2X	2	90	83	24	1L	24	.08	36						2117				
125	829	487	5:47.6	-67:28	6X	3	228	222	63	3L	21	.08	32						2117				
129	829	494	5:47.6	-67:28	2X	2	54	46	27	10C	3	.08	4						2117				
130	828	491	5:47.6	-67:28	2X	2	127	111	63	30C	2	.08	3						2117				
124	801	494	5:47.8	-68:00	3X	4	91	83	62	1L	62	.11	110								--		
125	802	495	5:47.8	-68:00	5X	4	239	218	243	3L	81	.11	143								--		
129	801	494	5:47.8	-68:00	5X	5	68	44	331	10C	33	.11	51								--		
130	801	491	5:47.8	-68:00	7X	7	177	110	1370	30C	46	.11	70								--		
124	983	486	5:47.9	-64:25	5X	6	92	82	149	1L	149	.05	194								--		
125	984	489	5:47.9	-64:25	9X	7	246	223	750	3L	250	.05	325								--		
129	984	489	5:47.9	-64:25	9X	8	90	40	1542	10C	154	.05	187								--		
130	985	487	5:47.9	-64:25	11X	11	245	94	6050	30C	202	.05	244								--		
124	708	495	5:48.4	-69:53	3X	3	82	81	2	1L	2	.30	9			179A-D	4.6	0.5*					
125	709	496	5:48.4	-69:53	3X	3	216	212	18	3L	6	.30	28			179A-D	4.6	0.17					

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FR.	X	Y	R.A.	DEC.	*X	*Y	P	BG	V	E.F	V/E	RE	UF	LH NO.	SIZE	BS	N NO.	HA	HI	NGC NO.	SAO NO.	M	SP		
129	709	495	5:48.4	-69:53	3X	3	52	48	16	100	2	.30	5			179A-0	4.6	0.90							
130	709	493	5:48.4	-69:53	3X	3	122	112	37	300	1	.30	4			179A-0	4.6	1.18							
124	878	484	5:49.0	-66:28	2X	2	86	82	13	11	13	.07	19												
125	878	484	5:49.0	-66:28	2X	2	224	216	28	31	9	.07	13												
129	879	485	5:49.0	-66:28	2X	2	44	39	18	100	2	.07	2												
130	879	483	5:49.0	-66:28	2X	2	106	93	45	300	2	.07	2												
124	698	492	5:49.4	-70:05	4X	6	96	89	62	11	62	.30*	272	LH117	2.0	5.0	23	(180)					2122		
125	698	492	5:49.4	-70:05	4X	6	257	247	174	31	58	.30*	255	LH117	2.0	5.0	23	(180)					2122		
129	700	493	5:49.4	-70:05	4X	6	148	85	462	100	46	.30*	146	LH117	2.0	5.0	23	(180)					2122		
130	700	490	5:49.4	-70:05	4X	6	459	240	1361	300	45	.30*	144	LH117	2.0	5.0	23	(180)					2122		
124	698	492	5:49.5	-70:05	14X11	96	81	408	11	408	11	408	.30	1795	(LH117,118)			180.A-C	337.8	0.19	2122				
125	698	492	5:49.5	-70:05	14X11	257	210	2016	31	672	.30	2960	(LH117,118)					180.A-C	337.8	0.11	2122				
129	700	493	5:49.5	-70:05	14X11	148	43	2569	100	257	.30	815	(LH117,118)					180.A-C	337.8	0.42	2122				
130	700	490	5:49.5	-70:05	14X11	459	106	7048	300	235	.30	745	(LH117,118)					180.A-C	337.8	0.45	2122				
124	698	490	5:49.8	-70:05	45*	93	84	200	11	200	.30	880	LH117.118	26.0*		32	(180)						2122		
125	698	490	5:49.8	-70:05	40*	257	224	666	31	222	.30	977	LH117.118	26.0*		32	(180)						2122		
129	700	491	5:49.8	-70:05	41*	115	68	720	100	72	.30	228	LH117.118	26.0*		32	(180)						2122		
130	700	488	5:49.8	-70:05	45*	284	189	1360	300	45	.30	144	LH117.118	26.0*		32	(180)						2122		
124	743	488	5:49.9	-69:09	2X	2	83	82	1	11	1	.18	2			181		0.1	0.04*						
125	744	489	5:49.9	-69:09	2X	2	216	215	3	31	1	.18	2			181		0.1	0.02*						
129	744	486	5:49.9	-69:09	2X	2	34	34	1	100	0	.18	0			181		0.1	0.25*						
130	744	484	5:49.9	-69:09	2X	2	86	85	3	300	0	.18	0			181		0.1	0.25*						
124	854	480	5:49.9	-66:55	17X16	817	83	57000	11	57000	.05	74000											249368	5.2	85
125	855	481	5:49.9	-66:55	21X21	1127	225	109200	31	36400	.05	47400											249368	5.2	85
129	855	481	5:49.9	-66:55	23X21	1103	441	43000	100	14300	.05	17300											249368	5.2	85

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FR.	X	Y	R.A.	DEC.	*X	*Y	P	BG	V	E.F	V/E	RE	UF	LH NO.	SIZE	BS	N NO.	HA	HI	MGC NO.	SAO NO.	M	SP	
120	856	479	5:49.9	-66:55	28X271023	103198000	30C	6600*	.05	8000											249368	5.2	85	
124	787	483	5:50.2	-68:15	5X 5	87* 85	28	1L	28	.12	52	LH119	3.0	3.0	6									
125	787	484	5:50.2	-68:15	5X 5	226*222	17	3L	6	.12	11	LH119	3.0	3.0	6									
129	787	483	5:50.2	-68:15	5X 5	59* 52	56	10C	6	.12	9	LH119	3.0	3.0	6									
130	788	480	5:50.2	-68:15	5X 5	157*136	121	30C	4	.12	6	LH119	3.0	3.0	6									
124	698	488	5:50.3	-70:05	5X 5	87* 86	21	1L	21	.30	92	LH118	4.0	4.0	9	(180)								
125	698	488	5:50.3	-70:05	5X 5	229*223	74	3L	25	.30	110	LH118	4.0	4.0	9	(180)								
129	700	489	5:50.3	-70:05	5X 5	72* 78	-156	10C	-16	.30	--	LH118	4.0	4.0	9	(180)								
130	700	485	5:50.3	-70:05	5X 5	125*149	-186	30C	-6	.30	--	LH118	4.0	4.0	9	(180)								
124	935	479	5:50.5	-65:16	4X 4	86 81	41	1L	41	.05	53										249373	8.0	A0	
125	936	475	5:50.5	-65:16	4X 4	231 216	149	3L	50	.05	65										249373	8.0	A0	
129	938	475	5:50.5	-65:16	4X 4	58 38	221	10C	22	.05	27										249373	8.0	A0	
130	939	473	5:50.5	-65:16	7X 6	143 91	870	30C	29	.05	36										249373	8.0	A0	
129	790	481	5:50.7	-68:11	49*	72* 56	101	10C	10	.12	16	LH119,120	51.0*	51.0*	14									
130	791	479	5:50.7	-68:11	48*	190*140	336	30C	11	.12	18	LH119,120	51.0*	51.0*	14									
124	790	480	5:50.7	-68:10	13X 3*	88* 87	31	1L	31	.12*	58	LH120	14.0	3.0	8									
125	791	483	5:50.7	-68:10	13X 3*	241 226	102	3L	34	.12*	63	LH120	14.0	3.0	8									
129	791	481	5:50.7	-68:10	13X 3*	75 57	117	10C	12	.12*	19	LH120	14.0	3.0	8									
130	792	479	5:50.7	-68:10	13X 3*	195 140	414	30C	14	.12*	22	LH120	14.0	3.0	8									
124	787	472	5:52.5	-68:14	13X 5	91 86	126	1L	126	.12	234	LH121	14.0	3.0	16									
125	789	473	5:52.5	-68:14	13X 5	236*232	208	3L	59	.12	128	LH121	14.0	3.0	16									
129	790	472	5:52.5	-68:14	13X 5	71* 57	514	10C	51	.12	82	LH121	14.0	3.0	16									
130	790	469	5:52.5	-68:14	13X 5	196 136	1466	30C	49	.12	78	LH121	14.0	3.0	16									
124	905	452	5:55.1	-65:55	8X 8	93 87	94	1L	94	.05	122	--										2138?		
125	904	453	5:55.1	-65:55	8X 8	248 225	532	3L	177	.05	230	--										2138?		

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FR.	X	Y	P.A.	DEC.	*X	*Y	P	BG	V	E.F	V/E	RE	UF	LH NO.	SIZE	BS	N NO.	HA	HI	MCC NO.	SAD NO.	M	SP	
129	905	454	5:55.1	-65:55	6X	6	95	37	925	10C	93	.05	112	--						2138?				
130	906	452	5:55.1	-65:55	9X	9	275	91	4750	30C	158	.05	192	--						2138?				
124	786	455	5:56.2	-68:13	4X	3	96	91	15	1L	15	.10	25	LH122	2.0	1.5	4							
125	786	456	5:56.2	-68:13	4X	3	245	239	54	3L	18	.10	30	LH122	2.0	1.5	4							
129	788	455	5:56.2	-68:13	4X	3	81	61	88	10C	9	.10	13	LH122	2.0	1.5	4							
130	788	453	5:56.2	-68:13	4X	3	220	157	238	30C	8	.10	12	LH122	2.0	1.5	4							
124	787	455	5:56.2	-68:12	6X	7	94	88	66	1L	66	.10	111	(LH122)			75AB	38.3					0.35	
125	787	456	5:56.2	-68:12	6X	7	248	233	210	3L	70	.10	118	(LH122)			75AB	38.3					0.32	
129	788	455	5:56.2	-68:12	6X	7	81	46	333	10C	33	.10	49	(LH122)			75AB	38.3					0.78	
130	788	453	5:56.2	-68:12	6X	7	220	114	857	30C	29	.10	42	(LH122)			75AB	38.3					0.91	
124	893	396	6:06.1	-66:02	10X	7	136	91	1190	1L	1190	.05	1550											5.8 B9
125	894	397	6:06.1	-66:02	12X10	432	242	5205	3L	1735	.05	2260												5.8 B9
129	874	397	6:06.1	-66:02	14X14	623	39	23800	10C	23800	.05	2880												5.8 B9
130	895	395	6:06.1	-66:02	16X15	873	92	53900	30C	17974	.05	2175												5.8 B9
124	751	400	6:09.1	-68:50	12X11	399	86	4918	1L	4918	.05	6400												5.2 B9
125	752	402	6:09.1	-68:50	15X15	902	230	16440	3L	54804	.05	7120												5.2 B9
129	752	401	6:09.1	-68:50	17X17	883	36	19991	10C	19994	.05	2420												5.2 B9
130	753	399	6:09.1	-68:50	24X23	892	92	40496	30C	13504	.05	1635												5.2 B9
124	520	418	6:15.9	-73:36	6X	6	153	77	905	1L	905	.05	1177											5.2 B9
125	521	420	6:15.9	-73:36	9X	9	468	197	4990	3L	1663	.05	2160											6.8 B9
129	522	418	6:15.9	-73:36	11X12	324	27	7033	10C	703	.05	850												6.8 B9
130	522	416	6:15.9	-73:36	14X14	671	67	33900	30C	11304	.05	1370												6.8 B9
124	589	390	6:19.1	-72:07	3X	4	88	82	42	1L	42	.05	55											8.0 A0
125	590	391	6:19.1	-72:07	4X	5	233	210	227	3L	76	.05	99											8.0 A0
129	590	391	6:19.1	-72:07	5X	5	74	28	451	10C	45	.05	55											8.0 A0

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FR.	X	Y	R.A.	DEC.	*X	*Y	P	BG	V	E.F	V/E	RE	UF	LH NO.	SIZE	BS	N NO.	HA	HI	NGC NO.	SAD NO.	M	SP
130	591	308	6:19.1	-72:07	6x	6	204	73	1610	30C	54	.05	65							256290	B.0	A0	
124	612	303	6:19.5	-71:35	2x	2	86	85	4	1L	4	.10	7			221		0.1	0.01*				
125	612	305	6:19.5	-71:35	2x	2	224	232	22	3L	7	.10	12			221		0.1	0.01				
129	613	307	6:19.5	-71:35	2x	2	30	30	0	10C	0	.10	--			221		0.1	--				
130	613	305	6:19.5	-71:35	2x	2	75	76	-6	30C	0	.10	--			221		0.1	--				

ABSTRACT PRINTS