

NEWSLETTER

TABLE OF CONTENTS

NO. 22	MARCH 1985
Observatory Controller's Message.....	2
New Personnel.....	3
European Selection Committee for 8th Round of IUE...	4
Return of IUE data tapes.....	5
Vilspa Data Bank Statistics.....	6
LWP Absolute Calibration:-.....	
The SWP-LWP Overlap Discrepancy.....	9
LWR Flare Anomaly and Current policy on LW.....	
Camera operations.....	19
Absolute Stellar UV fluxes obtained with the.....	
TD1, ANS & IUE satellites.....	25
Photometric Calibration XI:-.....	
Secondary Standards of absolute UV flux.....	35
Vilspa Publications List.....	54
Merged Log of IUE Observations.....	58
Various forms.....	107

IUE ESA NEWSLETTER

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OBSERVATORY CONTROLLER'S MESSAGE

On January 27, 1985, IUE completed its seventh year in orbit. The importance of observations with IUE, for the Astrophysical Community is illustrated by the large overdemand - 3 times - still present. An interesting trend in the distribution of proposals over the various astronomical subareas is the 100 % increase in requests for Solar System studies. This represents the importance of supporting observations in the UV with IUE for the spacecraft encounters planned with two comets (Giacobini-Zinner and Halley) occurring during the 8th year of IUE observing. The ESA IUE Allocation Committee has met in ESA Headquarters and has completed its important task in a responsible way. For the eighth year a change was made in the IUE year: the eighth period will last 13 month. One of the reasons was to accommodate better the NASA allocation which is presently frequently complicated by local weather conditions. It also allows the accommodation of the large amount of calibration work being done at present. New high quality observations have been finished through a joint effort between GSFC and VILSPA to obtain new - and better - Intensity Transfer Functions - for all three cameras (LWP, LWR and SWP).

Various actions have been taken to assure that the project can remain responsive to the Community wishes. A Long Term Planning Committee (IUE-LTPV) has been formed to allow community input into the project with respect to future use of the satellite and final status of the unique IUE archive. The activities of this Committee will be reported in the next newsletter. A new scheduling software has been developed and installed at VILSPA. This should allow a better scheduling, where unforeseen changes can be better evaluated, as e.g. in the case of Targets of Opportunity etc... The ESA IUE Observatory has also undertaken to begin a small amount of service observing for those programs which could benefit from such service.

In December 1984, a very useful meeting was held in VILSPA between representatives of EXOSAT, ESO and IUE to discuss the problems presented by multifrequency observations and the possible solutions thereof.

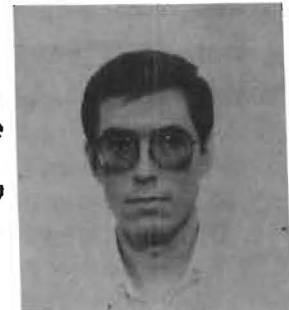
Willem Wamsteker

NEW PERSONNEL

Alberto Martos Rubio married and aged 42 years has joined the VILSPA ranks as IUE Telescope Operator/Spacecraft Controller. His career of technical communications Engineer has included 5 years with the Consejo Superior de Investigaciones Cientificas and 15 years at Fresnedillas, the NASA Tracking Station, Madrid. He has taken part in several Apollo, Skylab, Apollo-Soyuz and space Shuttle missions, as well as in numerous scientific and communications satellites as a hardware engineer. In his spare time he is an amateur astronomer



Miguel Diaz after having spent 4 years in the telescope operator's hot-seat during real time, has side stepped into the computer department. This no-less-important behind-the-scenes-job, will, he hopes, allow him more time for his further educational studies, with which we wish him success.



Francisco Saiz Repila 24 years old, a native of Madrid and a bachelor, has recently joined the VILSPA team as an Image Processing Specialist. After completing his degree in Physics, specialising in Electronics, at the Madrid Complutense University, he worked for the Consejo Superior de Investigaciones Cientificas where his particular interest was micro computers. Outside working hours he likes to read, go to the cinema and listen to music, particularly Gregorian chant.



EUROPEAN SELECTION COMMITTEE FOR 8TH ROUND OF IUE

The proposals requesting IUE observing time are evaluated by a Selection Committee, which this year met in Paris in early January. The list of successful European programs will be published (together with the corresponding NASA list) in ESA Newsletter No. 23, once the results have been communicated to the individual applicants. Below we give for your information, the complete members list of this year's ESA Selection Committee, together with the letter representing the research category code of the relevant proposal sub-group.

A.J. Willis/Chairman		U.C.L., London
N. Panagia/Vice-Chairman		Istituto di Radioastronomia, Bologna
P.B. Byrne	(C)	Armagh Observatory
R. Canal	(C)	Universidad de Granada
R.F. Carswell	(Q)	University of Cambridge
V. Castellani	(E)	Universita "La Sapienza" Roma
D.H. Clark	(M)	R.A.L., Oxfordshire
J. Danziger	(Q)	E.S.O., Munich
E. van Dessel	(I)	Koninklyle Sterrewacht, Belgium
P.L. Dufton	(A)	Queen's University, Belfast
K.J. Fricke	(Q)	Universitäts-Sternwarte, Göttingen
P.M. Gondhalekar	(E)	R.A.L., Oxfordshire
W.R. Hamann	(A)	Universität Kiel
D.W. Hughes	(S)	University of Sheffield
H.J. Lamers	(A)	Space Research Laboratory, Utrecht
J. Lequeux	(E)	Observatoire de Marseille
H. Nussbaumer	(M)	ETH-Zentrum, Zurich
F. Praderie	(C)	Observatoire de Meudon, Paris
J. Pringle	(I)	University of Cambridge
J. Rahe	(S)	Reinis-Sternwarte Bamberg
E. Tanzi	(I)	Laboratorio di Fisica Cosmica, Milano
A. Vidal-Madjar	(M)	Institut d'Astrophysique, Paris
W. Wamsteker/Secretary		VILSPA

Research Category Code

S = Solar System
C = Cool Stars
E = Extragalactic
Q = Active Galaxies
(QSO's, etc)

M = Interstellar Medium
A = Hot Stars (Atmosphere)
I = Hot Stars (Interaction)
E = Galaxies
(Stellar content, etc)

RETURN OF IUE DATA TAPES

In principle, IUE data tapes either from observing runs or dearchiving requests are on loan to the astronomical community and should be returned when finished with. You'll probably have noticed that most of them do indeed have a bright orange sticker on them, which says in large friendly letters:

TAPE TO BE RETURNED
TO VILSPA

When you post tapes back to the address below, please would you be sure to mark them clearly as "of no commercial value" so that ESA is not subjected to undue Spanish customs duties. By far the simplest method though, is to bring the tapes by hand when you or your friends come observing. That way VILSPA will be able to offer you a new-for-old data exchange, without causing you excess baggage charges!

BARBARA HASSALL

Vilspa IUE Data Bank
ESA Satellite Tracking Station
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VILSPA DATA BANK STATISTICS

Michael Barylak, IGCS/ VILSPA

"... It is in the glorious columns of ascertained facts and legalized measures that beauty is to be found. In this very log we sit upon, Mrs. Sampson," says I, "is statistics more wonderful than any poem Them ideas is so orsiginal and soothing. I think statistics are just as lovely as they can be."

O. Henry, The Handbook of Hymen

Following the above apocryphal statement we give a summary of a small statistical study performed on the Vilspa Data Bank. This data bank (status: Jan'85) holds the merged log of IUE observations of both GSFC (till 31-Oct-84) and VILSPA (till 31-Dec-84).

Fig. 1 displays several histograms in five sections. In section 1 the total number of imases taken can be determined to be 41931 including FES, NULL and WAVECAL imases. The ratio 2:1 (GSFC:VILSPA) in available observing time is not reflected in the 2.5:1 ratio of imases obtained at each groundstation. This may be explained by the tendency to take short exposures during the high background US2 shift.

Section 2 of Fig. 1 shows the number of imases recorded with each camera. The mean exposure duration time for large aperture imases was evaluated for each camera: LWP 48 min., LWR 43 min., SWP 67 min., and SWR 11 min.

As one can see in section 3, there is a 3:1 (GSFC:VILSPA) ratio for high dispersion imases and a 2.5:1 ratio for low dispersion imases. IUE spectra are taken 1.7 times more often in low dispersion mode than in high resolution.

Section 4 indicates that there are 3 times more large aperture than small aperture exposures. (Remember that one low dispersion imase can contain two spectra - one taken in the large, the other one in the small aperture.) The sum gives the total number of spectra obtained, ie. 44157. With the results of section 1 one can see that on average 1.053 spectra per imase are made or each 19th imase is a double aperture exposure.

Section 5 displays the distribution of imases taken over the different object classes. This classification scheme can be found es. in ESA IUE Newsletter No.20 (p.110). The distribution indicates that the B stars (classes 20-29) are the leader of the race with 9745 imases, followed (and this is very interesting) by the late type stars (F, G, K, M - classes 40-49) with 6214 imases. The third are the O type stars (including W C, W N, OE, OF - classes 10-19) with 5489 imases. For the rest of the object classes an average of ~3200 imases were taken except for the object classes 60-69 (ie. shell stars, pulsars, nova-like, etc.) which with 1155 imases are the tail-enders.

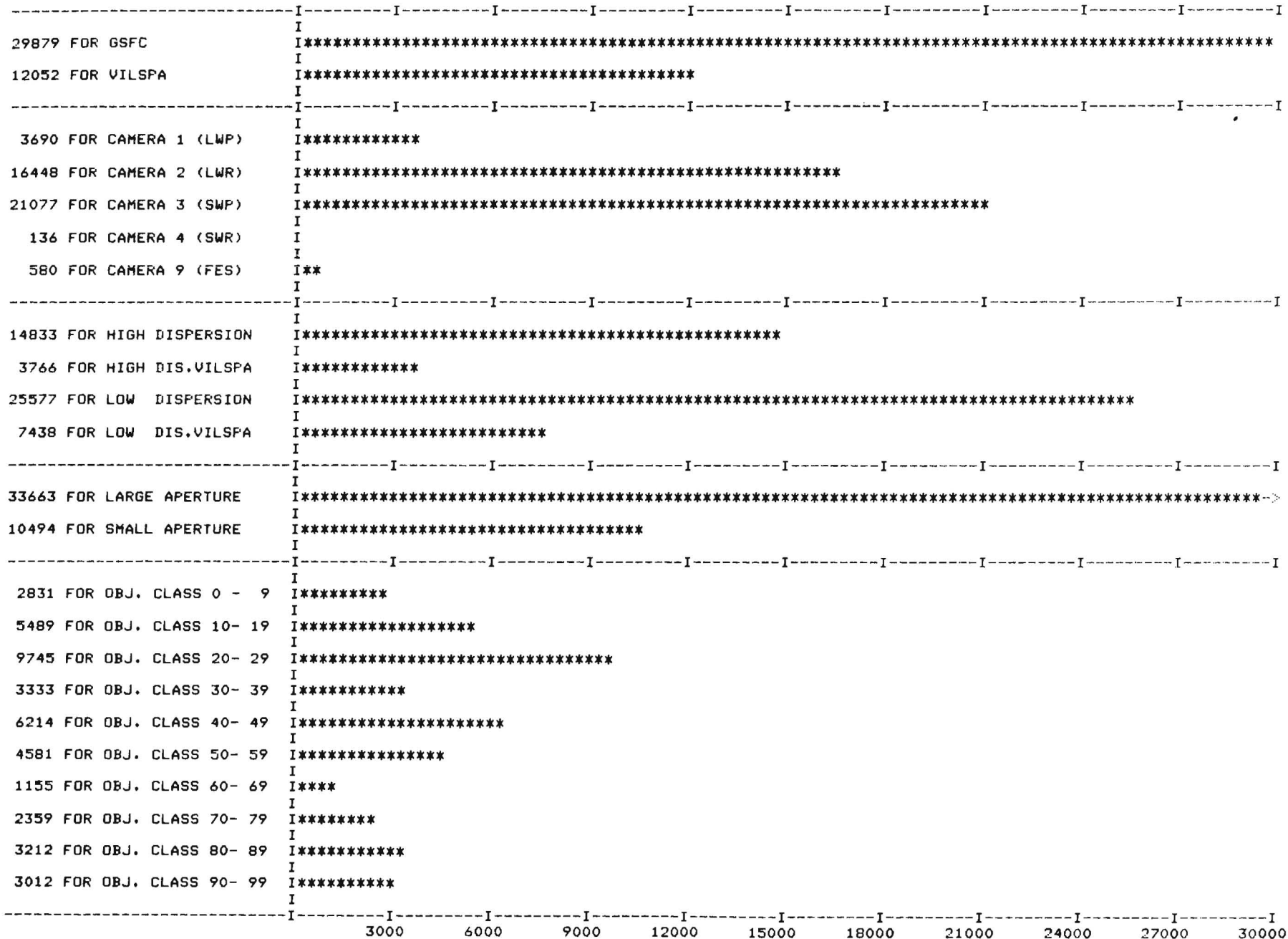


FIG. 1: see text

Number of Images

7

LIFETIME USAGE OF I U E (~60 000h)

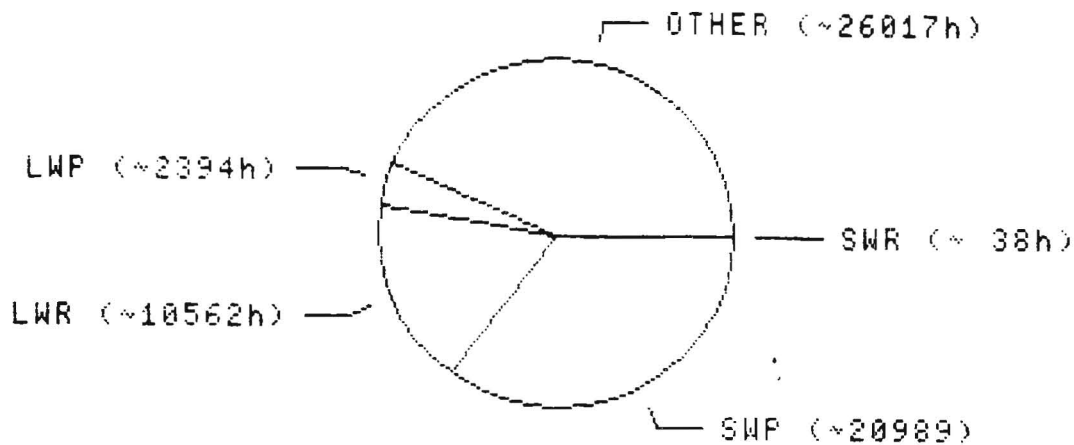


FIG. 2: see text

EXPOSURE TIME DISTRIBUTION

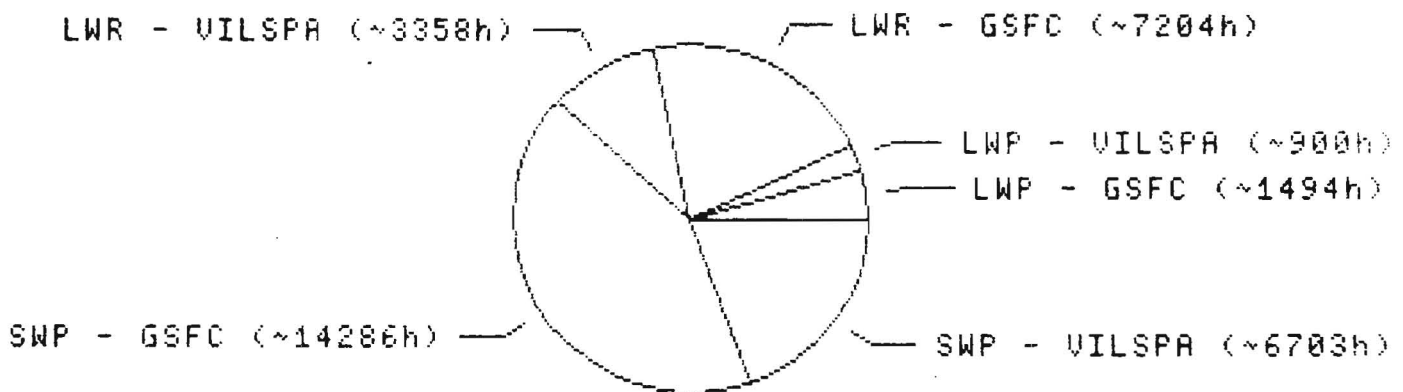


FIG. 3: see text

By adding up all non-zero exposure duration times of both large and small aperture exposures (disregarding serendipity small aperture exposures at extended objects - about 1/8 of the small aperture exposures) we were able to determine the total overall time IUE was exposing; ie. 33983 hours. Estimating the lifetime of IUE to date to be ~60000 hours we can deduce that ~57% of this time was used for scientific purposes (ie. exposing) and ~43% of the time was used for maneuvering, etc. (see Fig. 2). Fig. 2 also indicates that over 1/3 (35%) of the time the SWP camera was being used, whereas both LW cameras together only reach 22%.

Fig. 3 displays the distribution of the exposure times of each camera for GSFC and VILSPA, ie.: LWP 1.7:1, LWR 2:1, and SWP 2:1. These ratios reflect quite well the 2:1 ratio of available telescope time for GSFC and VILSPA.

LWP ABSOLUTE CALIBRATION:
THE SWP-LWP OVERLAP DISCREPANCY

1. Introduction

The LWP absolute calibration, which has been used in IUESIPS since October 1983 (Ref. 1) was derived using the same method as that used for the absolute calibration of the other cameras (Ref. 2,3). The slope of the LWP calibration curve was determined using trailed spectra of bright OAO-2 standards, while the absolute level was found using point spectra of the fainter TD1 standards. It is evident, however, that a discrepancy exists in the region of overlap of the SWP and LWP spectral ranges: low dispersion absolutely calibrated spectra taken with these cameras do not join up perfectly, the LWP giving ~ 15% higher fluxes, on average, than the SWP at ~ 1900 - 1950A.

In a preliminary study (Ref. 4), some of the possible causes for the discrepancy were excluded, e.g. the LWP non-linearity, and an incorrect scaling of the LWP sensitivity curve. More recent investigations have revealed inconsistencies between point and trailed LWP spectra of standard stars. In this report we re-consider the SWP-LWP overlap problem in the light of these findings.

2. The problem

In Figures 1 and 2, mean IUE absolutely calibrated low resolution SWP and LWP point spectra of BD+28°4211 and BD+75°325 are plotted together. In both the cases shown, there is a clear discrepancy throughout the overlap range: LWP fluxes exceed SWP fluxes by 10 to 30%.

In order to verify whether the discrepancy has some dependence on the exposure level, we analyzed several pairs of SWP - LWP flux calibrated spectra of white-dwarf standard stars for which images with different exposure levels were available. The wavelength range 1912 - 1946A was taken as representative of the IUESIPS absolutely calibrated overlap region. The results are summarized in Tables 1 and 2. Table 1 refers to spectra well exposed in the region of maximum sensitivity. Table 2 refers to spectra which were well exposed in the SWP, and 1.5 to ~ 3 times overexposed around 2800A in the LWP. For each star, the discrepancy is measured by the mean ratio R where:-

$$R = \frac{(\text{Flux(LWP)} - \text{Flux(SWP)})}{\text{Flux(SWP)}}$$

TABLE 1

<u>R</u>	<u>OBJECT</u>	<u>No. of pairs</u>
0.18 ±0.09	BD+70° 5824	2
0.14 ±0.04	G191-B2B	3
0.20 ±0.08	BPM16274	2
0.20	Feige 110	1
0.25 ±0.07	AGK+81° 266	2

Average : R = 0.19 ± 0.07

TABLE 2

<u>R</u>	<u>OBJECT</u>	<u>No. of pairs</u>
0.11 ±0.04	BD+70° 5824	4
0.02	BPM16274	1
0.10	Feige 110	1
0.18 ±0.04	AGK+81° 266	3

Average : R = 0.10 ± 0.06

Tables 1 and 2 clearly indicate that a better agreement between SWP and LWP fluxes is obtained with the more heavily exposed LWP spectra. This is also evident from Figures 3 and 4 which show the overlap region for G191-B2B and Feige 110, respectively.

3. Comparison of point and trailed spectra

The calibration philosophy implicitly assumes that a unique absolute calibration curve holds for both point and trailed spectra. This assumption is valid only if the ITF is accurate and the camera characteristics invariant. In order to verify that IUESIPS calibrated point/trailed spectra are indeed consistent, the mean of 2 trailed spectra of BD+28° 4211 was normalized over the wavelength range 2300-2800Å, to the mean of 3 point spectra of the same star (Fig. 5a), the point and trailed spectra were then ratioed (Fig. 5b). In both plots it is immediately clear that the point/trailed ratio rises by 20 to 30% at the shortest wavelengths. Similar trends are apparent in Figure 6a,b for BD+75° 325 and in Figure 7a,b for HD60753. On the contrary, no deviations of the ratio point/trailed, which could affect the SWP-LWP overlap, are found for SWP spectra, shown in Figure 8.

In view of the above results, it was decided to compare SWP spectra with LWP normalized trailed spectra. Such comparisons are shown in Figure 9 for BD+28° 4211 and in Figure 10 for BD+75° 325, where the SWP spectra are the same as those in Figures 1 and 2. In these figures a marked improvement in the SWP-LWP overlap region is evident. Although there is a residual discrepancy, it is reduced to only 5 - 10%. At least part of this may be due to the drop in sensitivity of the SWP in the long wavelength region of about 0.9% per year since 1979.5 (Ref. 5).

4. Discussion

A possible reason for the discrepancy in LWP point/trailed spectra is a fixed noise contribution from the (1 image per level) LWP ITF. This suggestion is supported by the results presented in Tables 1 and 2, since such noise should be less apparent in spectra with relatively high exposure levels. Note that this problem is independent of the LWP absolute calibration. The IUE calibration method is accurate only in the absence of small-scale fixed pattern noise.

In September 1984, as part of a general programme to obtain new calibration data for all 3 operational cameras, a set of images for the construction of a new "4 image per level LWP ITF was obtained. In conjunction with this a new absolute calibration of the camera is planned. At the time of writing the evaluation of the new ITF and observations for the related absolute calibration are in progress. It is anticipated that these efforts will lead to significant improvements in the photometric quality of LWP spectra especially at the shorter wavelengths.

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4. Cassatella, A., 1984, Report to the 3 Agency Meeting, Darmstadt, March 9 - 11.
5. Sonneborn, G., 1984, Report to the 3 Agency Meeting, Darmstadt, March 9 - 11.

A. W. Harris and A. Cassatella

Vilspa, January 1985.

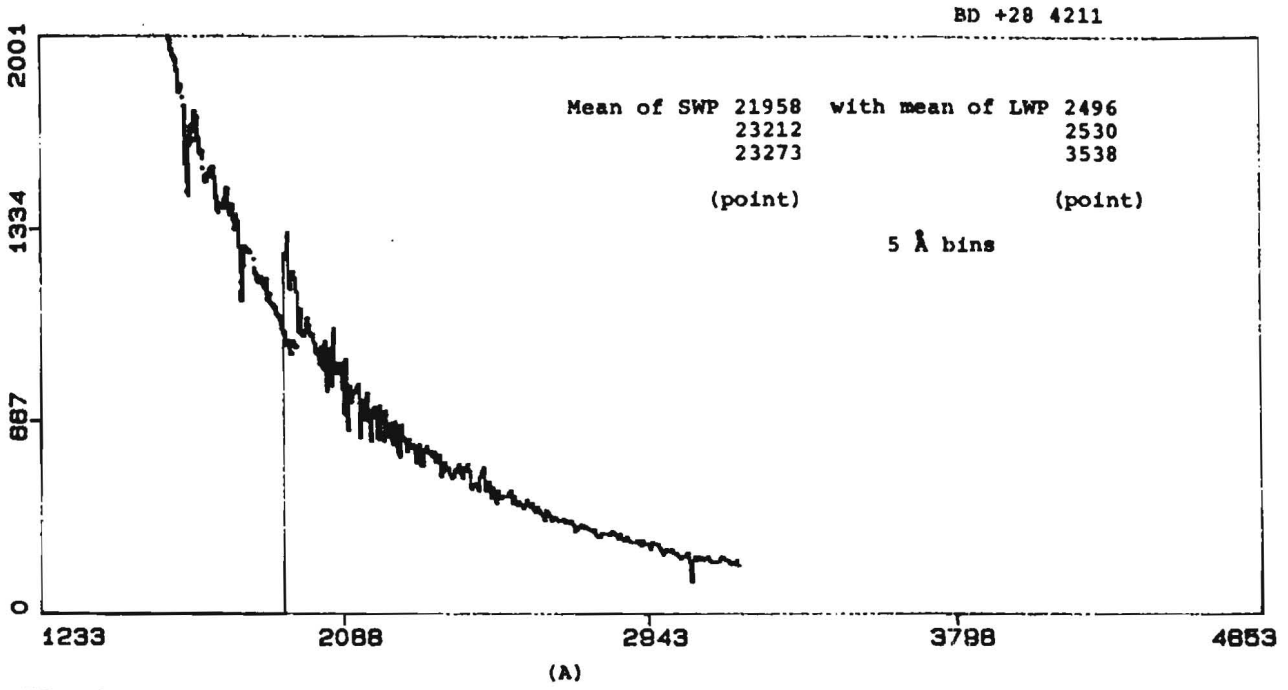


Fig. 1

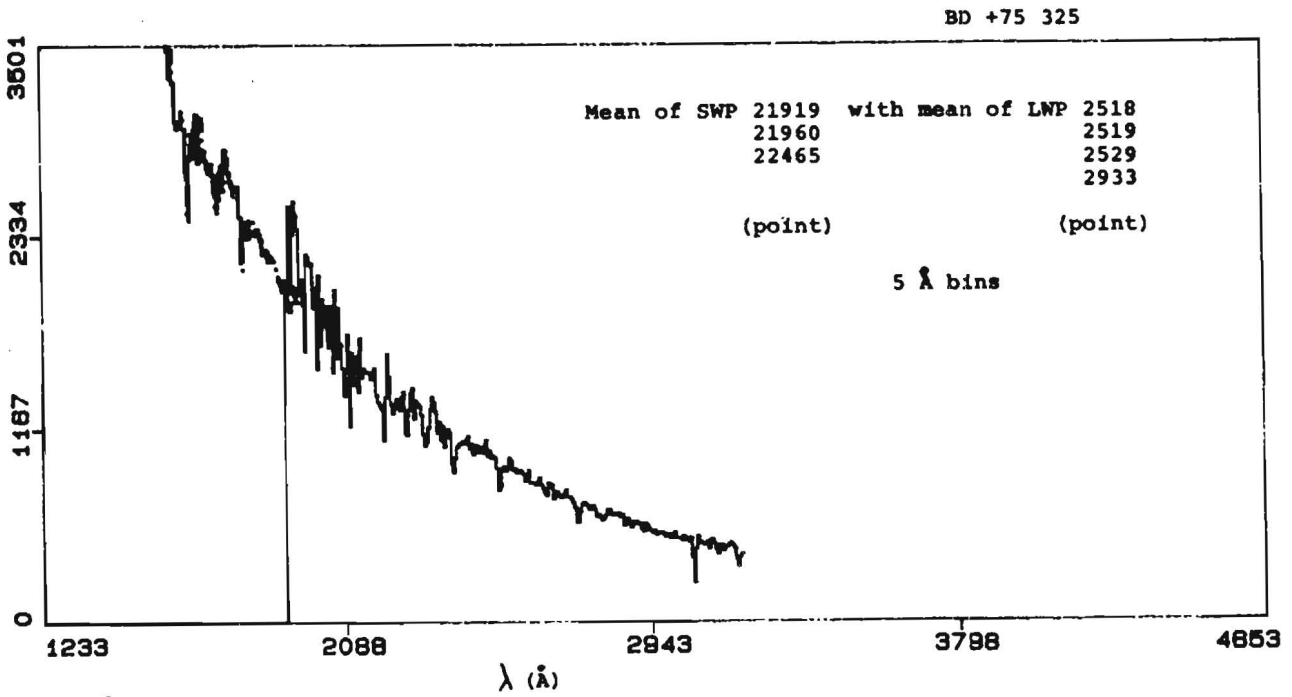


Fig. 2

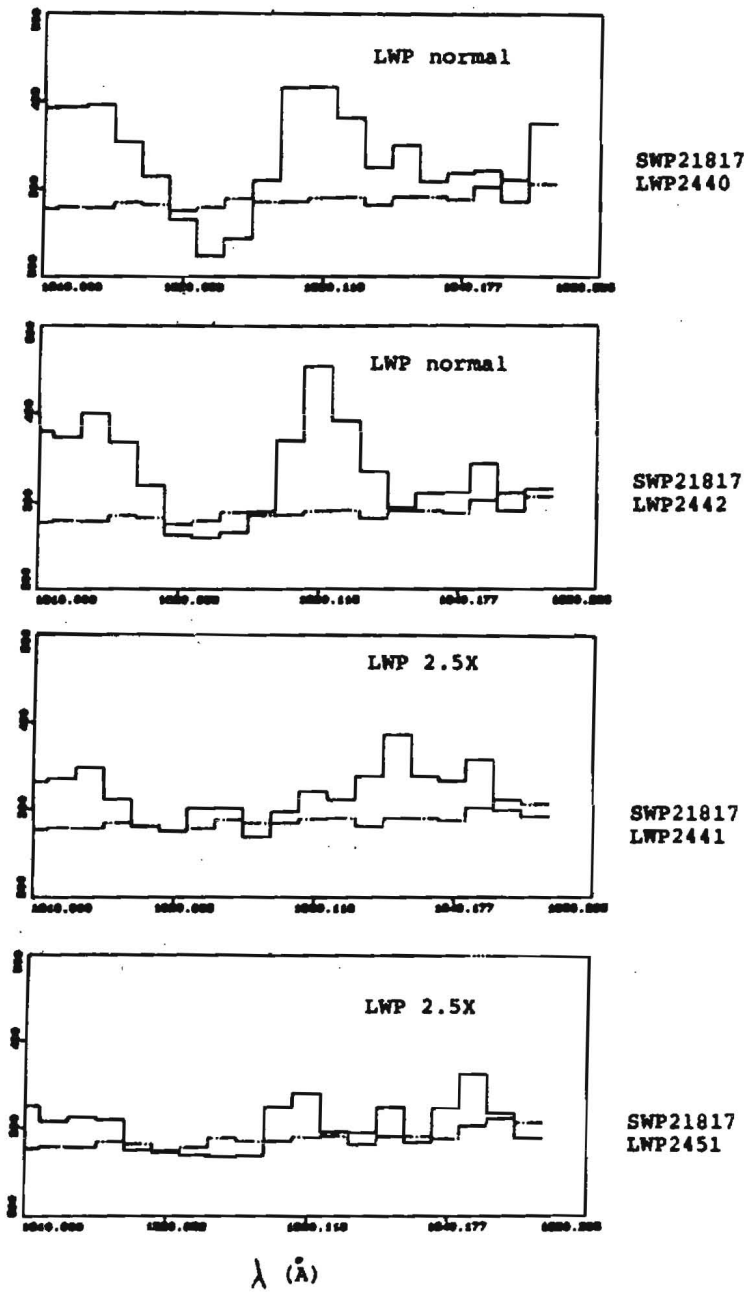


Fig. 3

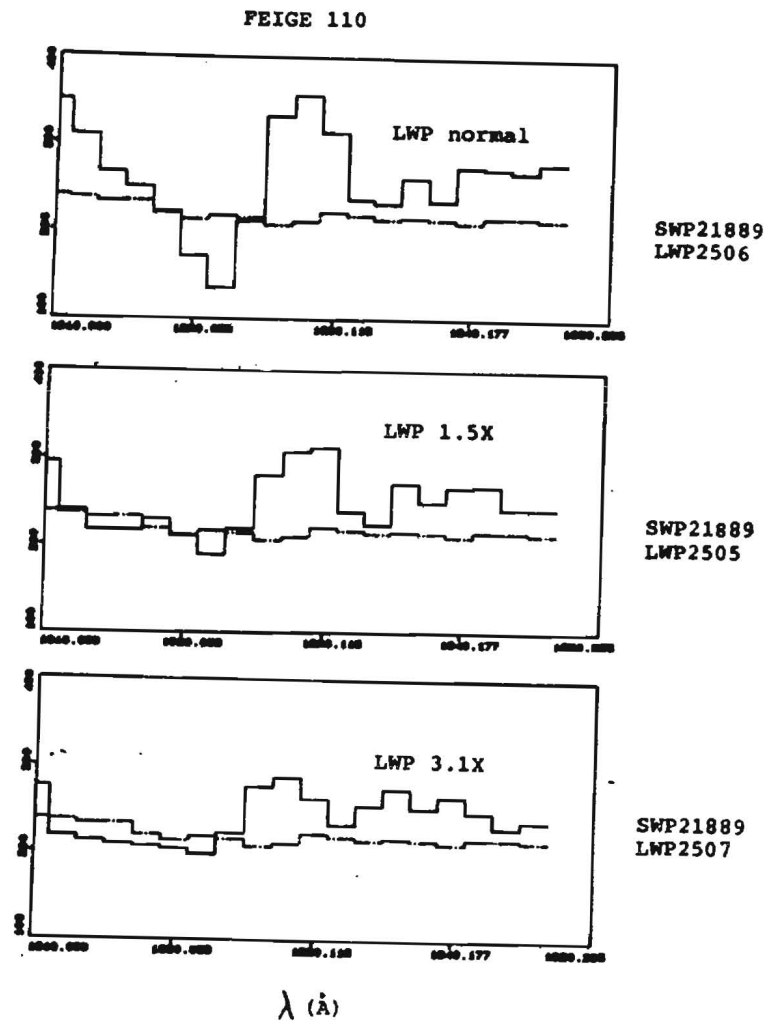


Fig. 4

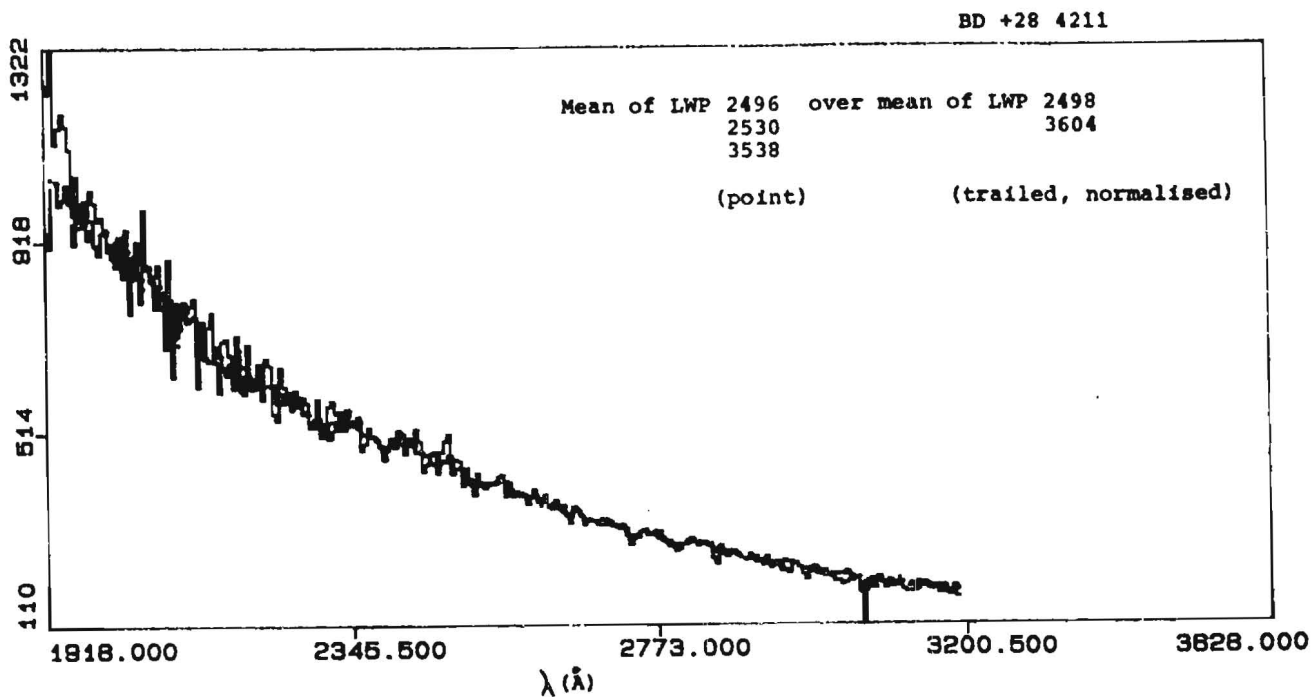


Fig. 5a

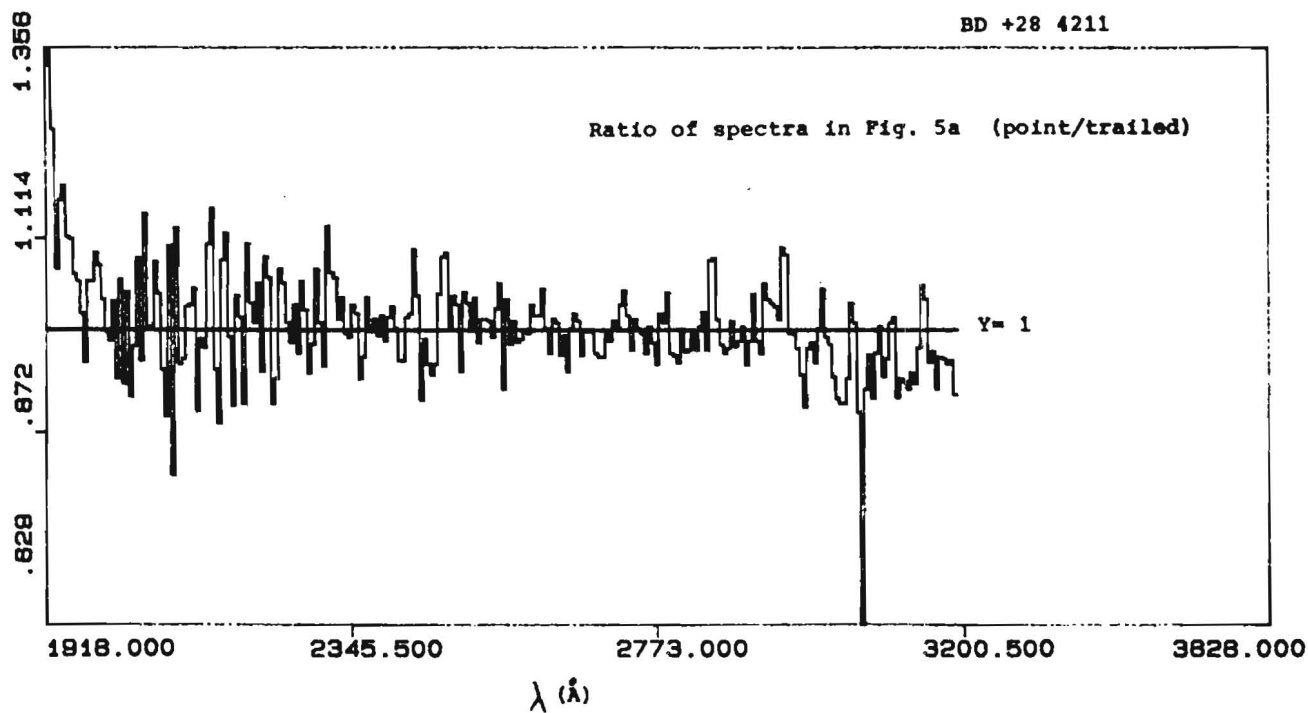


Fig. 5b

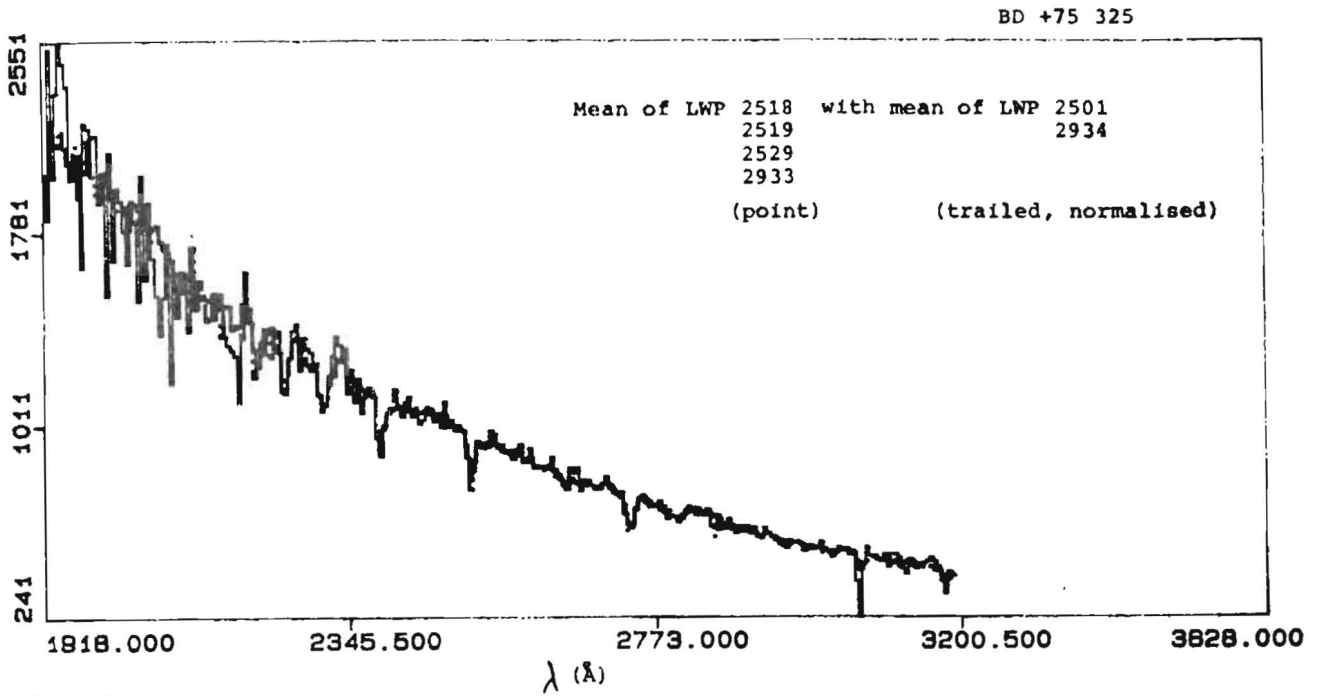


Fig. 6a

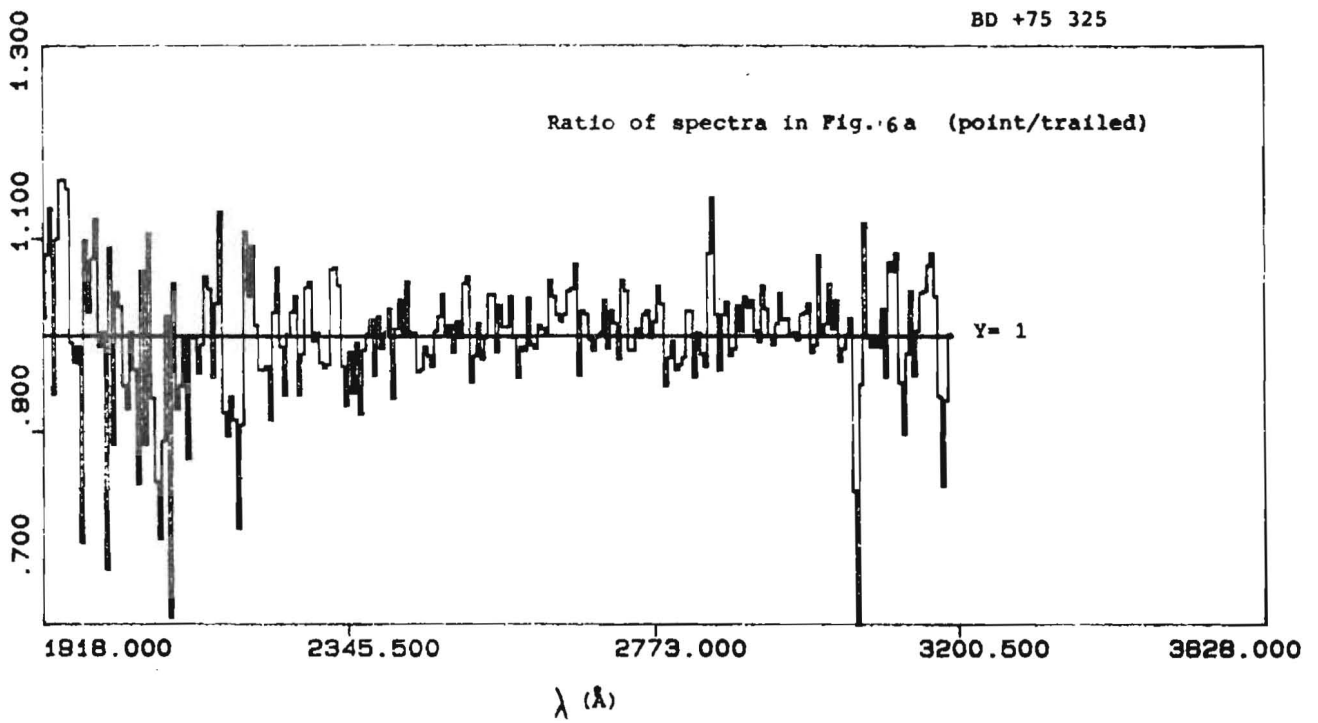


Fig. 6b

HD 60753

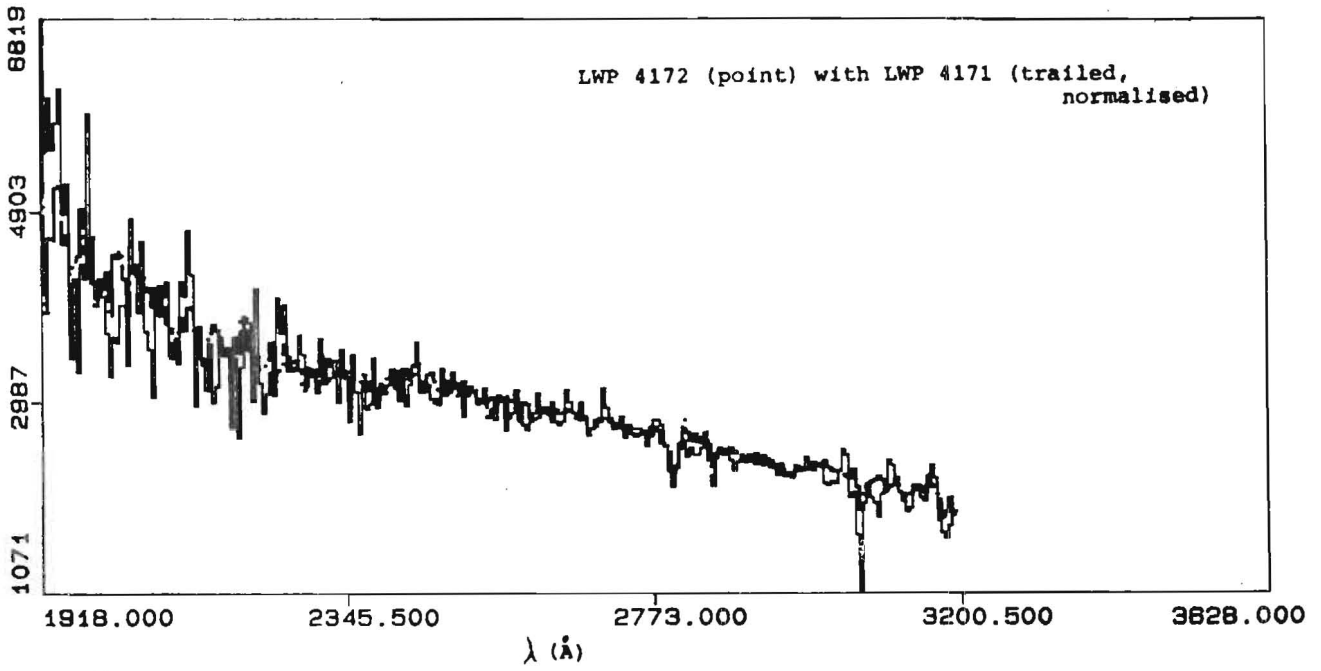


Fig. 7a

HD 60753

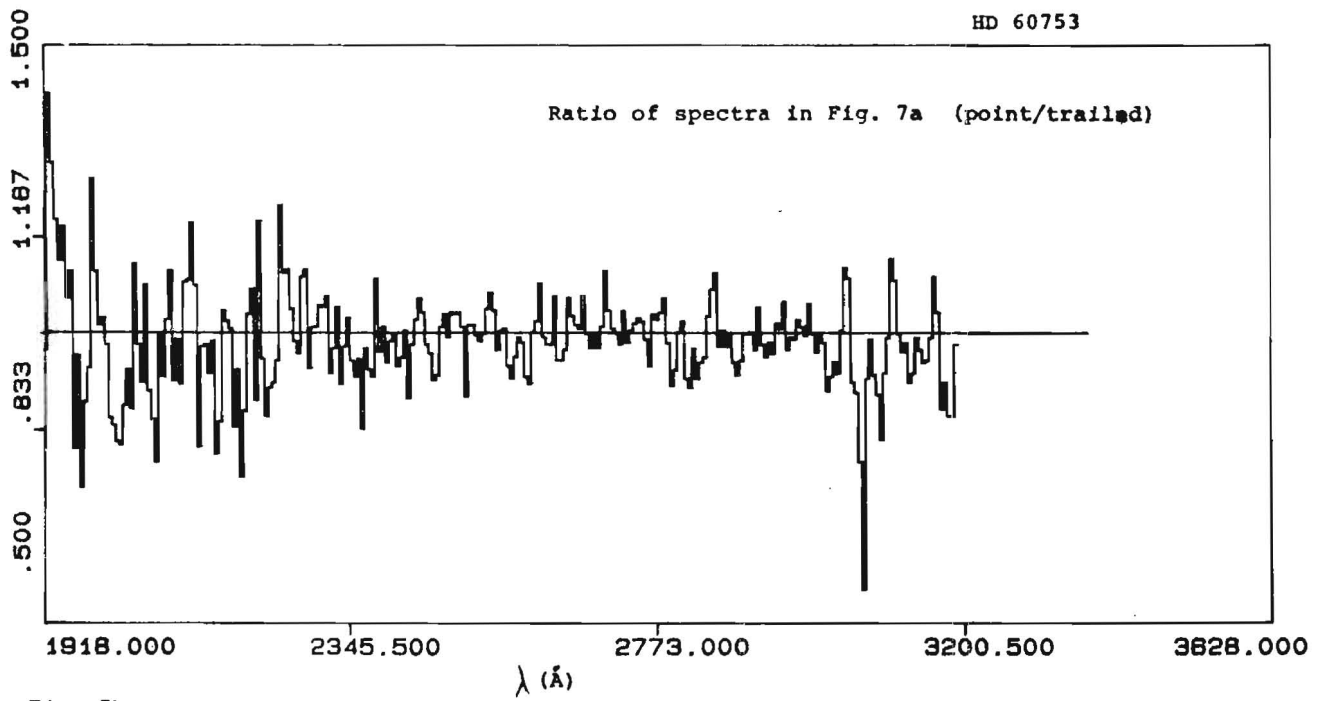


Fig. 7b

BD +28 4211

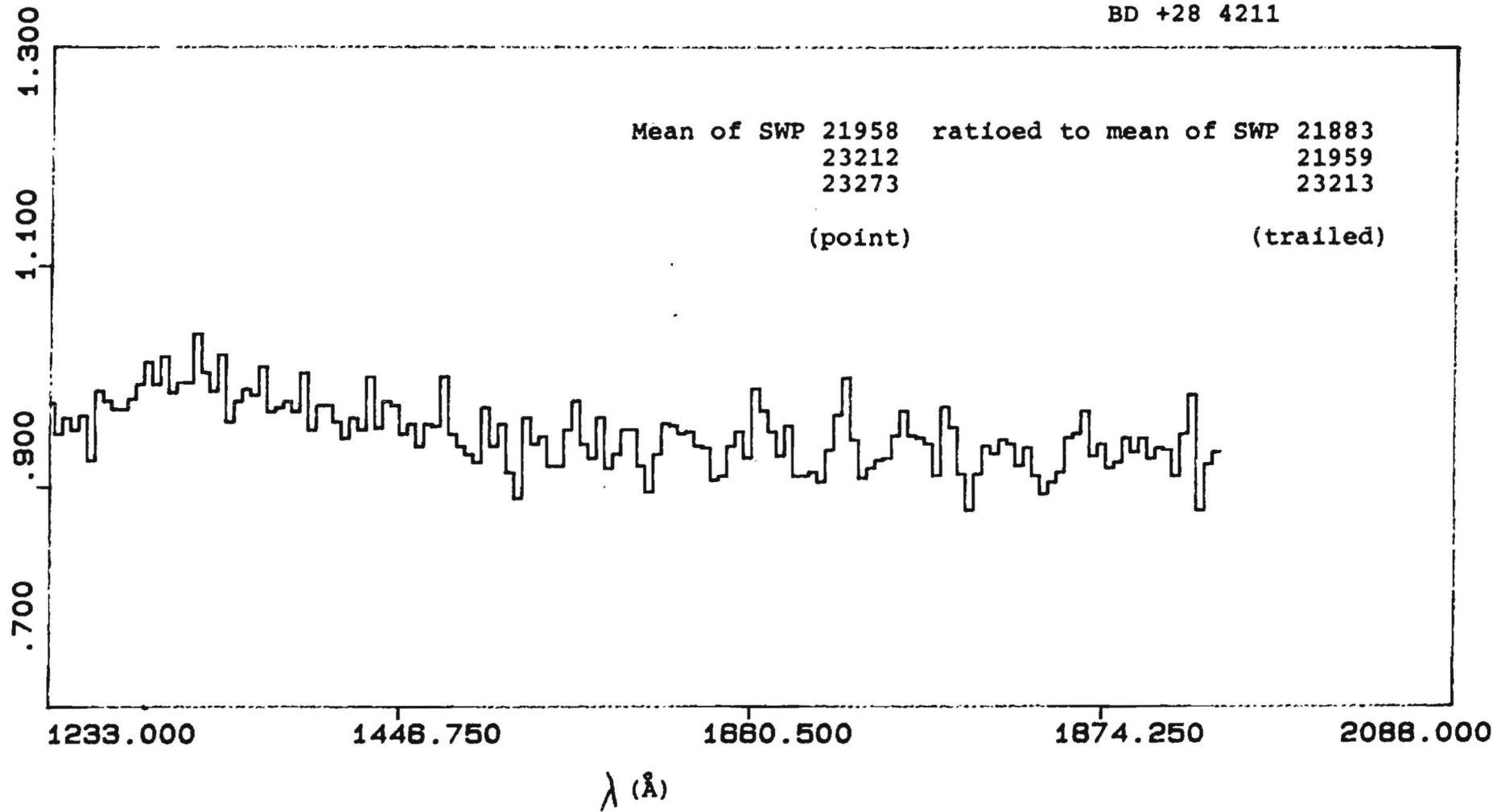


Fig.8

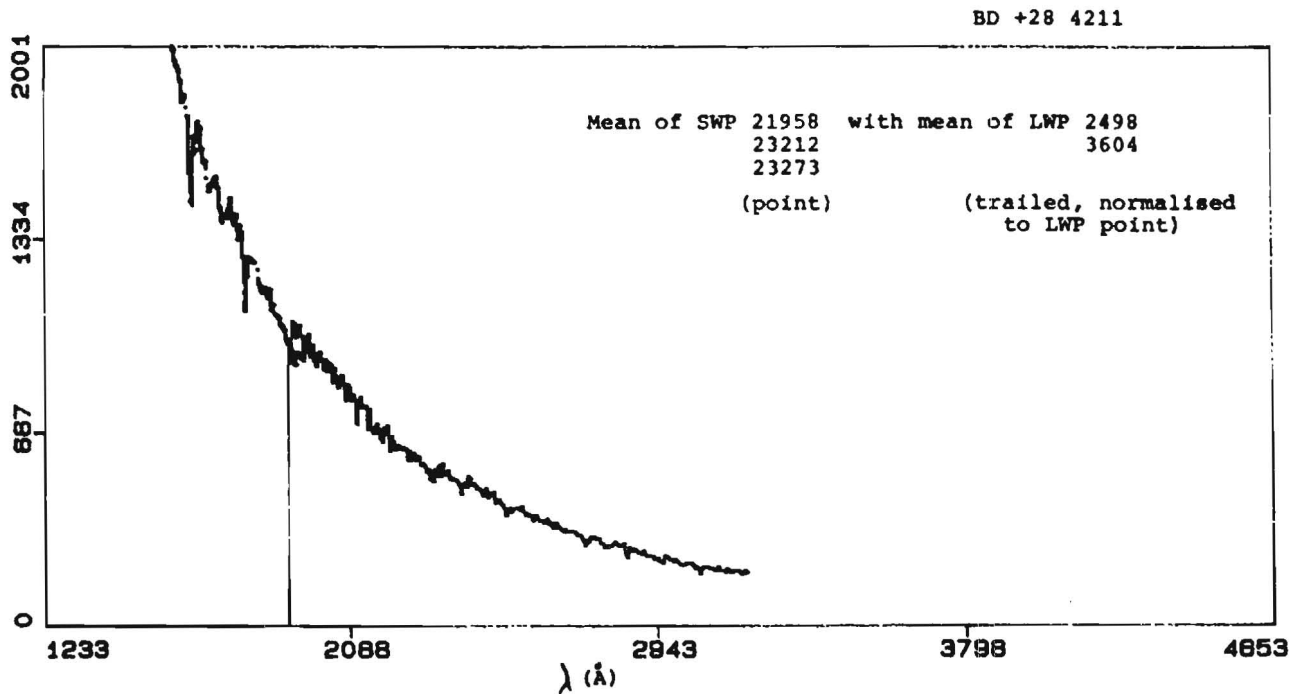


Fig. 9

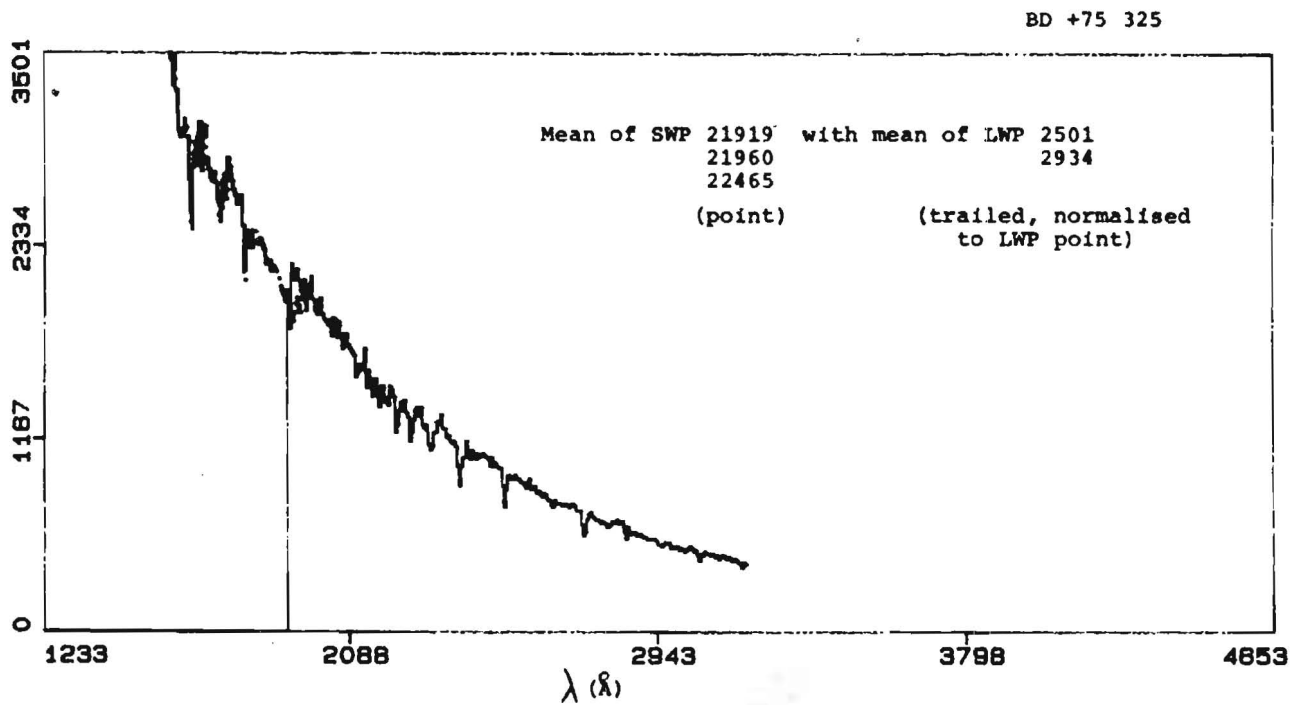


Fig. 10

THE LWR FLARE ANOMALY AND CURRENT POLICY
ON LW CAMERA OPERATIONS

1. Introduction

The flare discharge anomaly, associated with the LWR ultra-violet-to-visible converter (UVC), has been affecting LWR images since early 1983 (see ESA Newsletter No. 20, p64). The "flare rate" on an image, measured in terms of build up of DN per minute of exposure time, has steadily increased with time and now seriously limits the usefulness of the LWR camera in its present mode of operation. On a 120 minute test image taken in October 1984 (Fig. 1) the flare is seen to cover a large portion of the lower half of the image area. Figure 2 illustrates the catastrophic effect of the flare on the long wavelength orders of a high dispersion spectrum taken in April 1984. In October 1983, as a result of the flare problem, the project decided to switch to the LWP as the main operational LW camera. Since then the development and characteristics of the flare have been monitored in an attempt to discover how the increase in the flare rate might be reduced or halted and how the impact of a similar anomaly occurring in another camera in the future could be minimised.

2. Development of the flare

In a recent study carried out at VILSPA the flare rate has been accurately measured on a total of 50 GSFC and VILSPA images taken in the period April 1983 - October 1984. The measurement procedure involves subtraction of average null and scaled average background traces from a raw image trace through the centre of the flare. The net DN level of the centre of the flare is then divided by the exposure time of the image to give the maximum flare rate in DN/min. The flare rate is plotted against day number in Fig. 3. Straight-line and 4th-order polynomial fits are superimposed. It is seen that the increase in flare rate follows a linear trend on a long time-scale but large deviations from the overall trend are apparent. The possibility that the scatter could be related to the amount of usage of the camera, in a short time interval before an exposure, was investigated by plotting the fractional deviation of the flare rate from the linear fit in Fig. 3 against integrated exposure time over the 2-week period preceeding the exposure. It is clear from Fig. 4 that there is no significant dependence of the flare rate fluctuation on camera usage on this time-scale. Furthermore, if only those measurements from exposures of 2

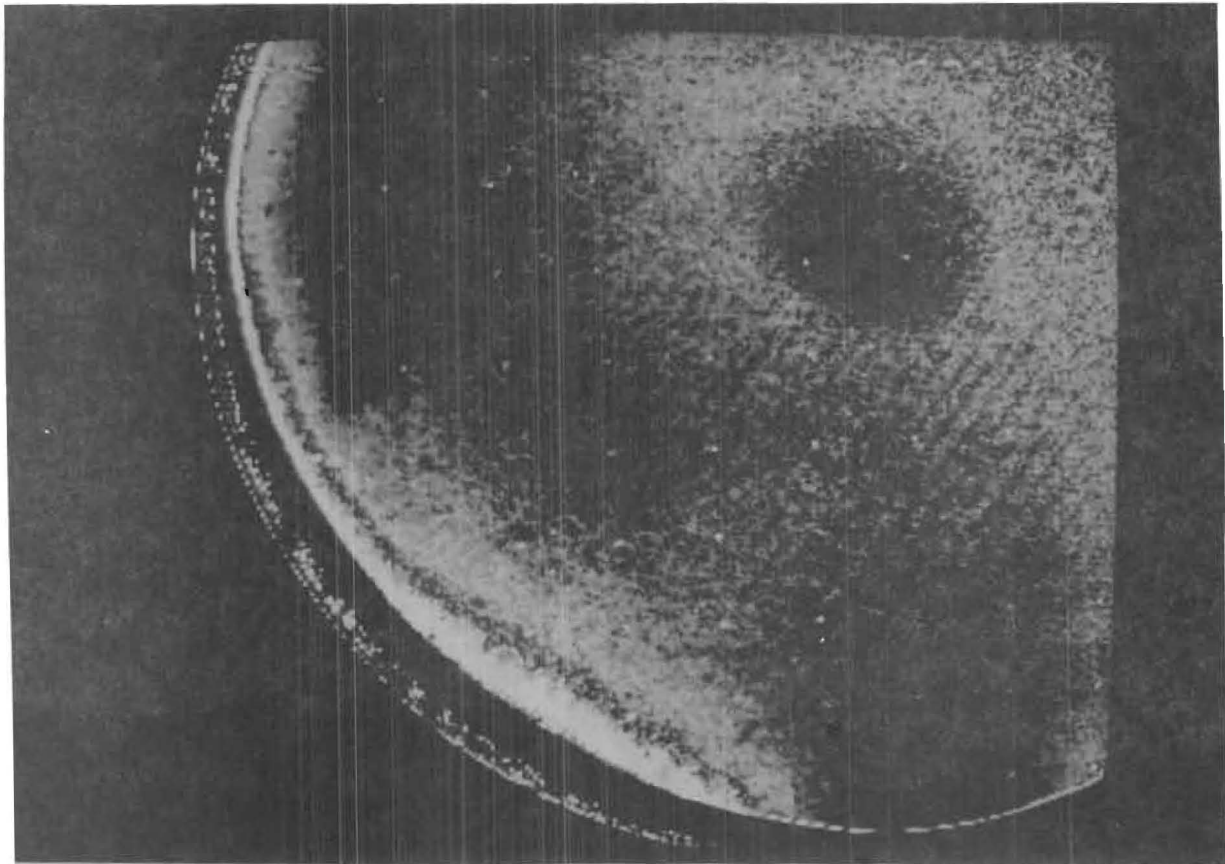
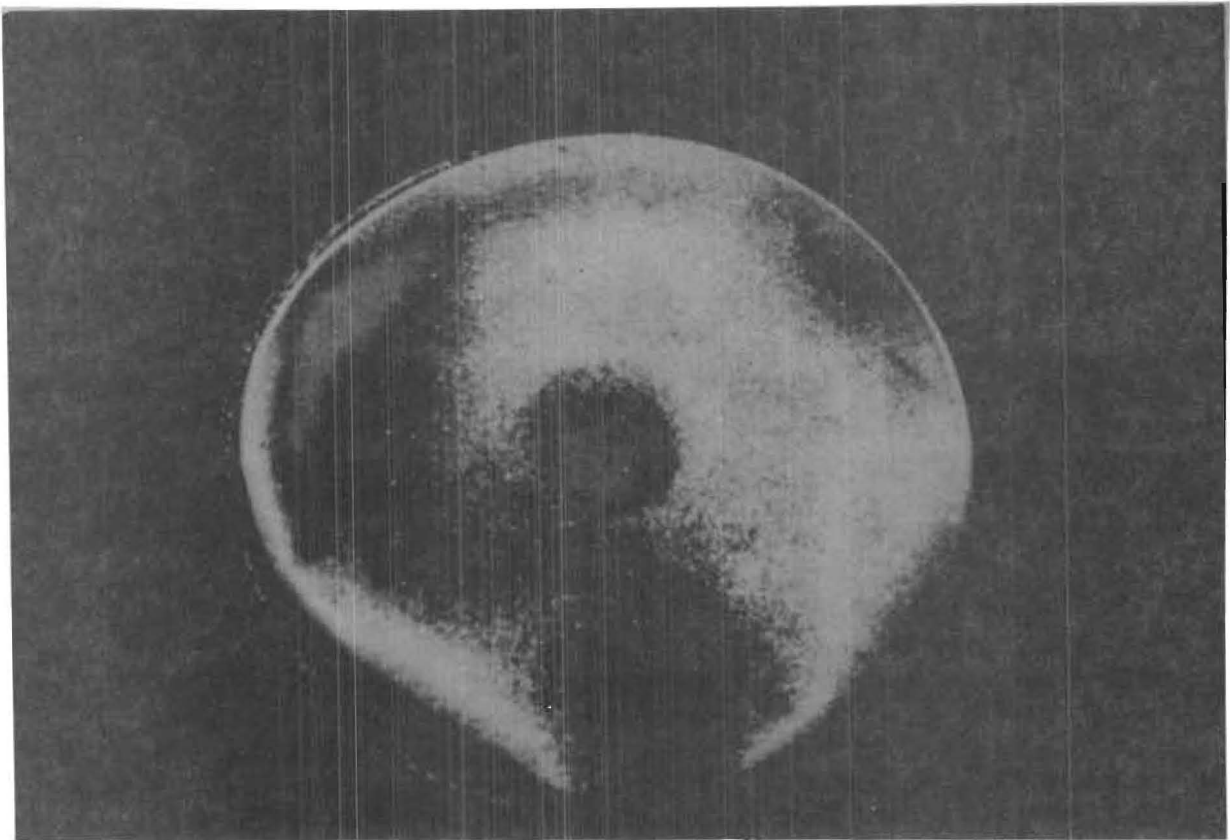


Fig. 1 (top). Test image LWR 17523, 120 Min. The flare has a maximum net DN of 180 near the lower rim of the image.

Fig. 2. LWR 17338, 260 Min. A high dispersion spectrum is seriously contaminated by the flare.

hours or more are considered (Fig. 5) then the scatter is considerably reduced. This demonstrates that the flare rate is variable on time-scales of less than a few hours. Note that the amount of scatter on the early data (day no. < 275) is very small: these data are necessarily from long exposures (typically 4 hours) due to the relatively low flare rate at that time.

Figure 6 illustrates how the level of LWR camera usage has changed with time. In particular the camera has been used very little since May 1984 (day 500). However, Figure 5 shows that the flare rate has continued to increase at least as rapidly as before (in fact the most recent data, from images taken at VILSPA on 15, 16 October 1984, suggest that the increase has steepened).

A further illustration of the continued rapid rise of the flare rate over periods when the camera is not in use is given by a plot of flare rate as a function of image number (Fig. 7). A dramatic rise is apparent from image no. ~17000, corresponding to the time when the LWR became back-up LW camera. Note that a plot of flare rate against integrated exposure time would show an even steeper rise due to the fact that guest-observer usage became restricted at that time, whereas calibration work continues as before, resulting in a reduction in average exposure time per image.

In summary, the study shows that:-

1. The overall trend in the LWR flare development is an approximately linear increase in flare rate with time, at a rate of 0.0021 DN/min./day, although recent measurements are suggestive of a slight steepening of the gradient.
2. There is no significant correlation between flare rate variation and the accumulated exposure time in the 2-week period immediately preceding an exposure. In any case, recent measurements would appear to rule out the idea that long-term reduction in camera usage might halt the development of the flare.

3. Present Status of the LWR Camera

As a result of the unrelenting increase in the flare rate it has been decided to permanently reduce the operating voltage on the UVC from 5 to 4.5 kV from April 1985. At this lower voltage there is no trace of the flare, even on full-shift exposures. The price paid, however, is a reduction in sensitivity of the camera by 27%. The re-calibration requirements are currently under study. Preliminary results indicate that a new ITF will not be

required for the lower UVC voltage but that a modified absolute calibration may be sufficient.

The main role of the LWR is now as back-up camera for the LW spectrograph. However, it is recognised that on LWP low dispersion spectra the signal to noise ratio at the shorter wavelengths is somewhat inferior to that of the LWR, probably due to noise in the LWP ITF (see Harris and Cassatella, this issue). Hence, for special cases in which guest observers present a convincing scientific justification, the project will still allow use of the LWR (but, after 1 April 1985, only at the reduced UVC voltage). In order to maintain the LWR as a viable back-up for the LW spectrograph, regular calibration monitoring (at a somewhat reduced level) will continue on the camera.

Alan Harris

VILSPA, January 1985.

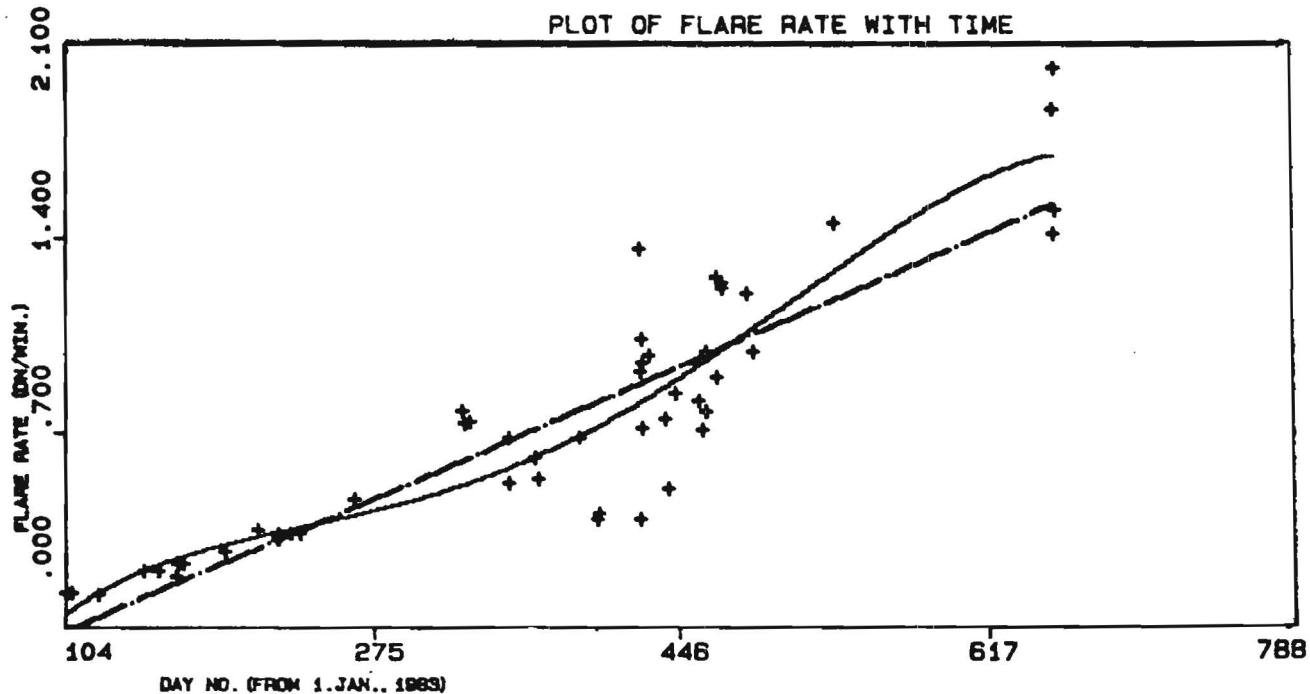


Fig. 3

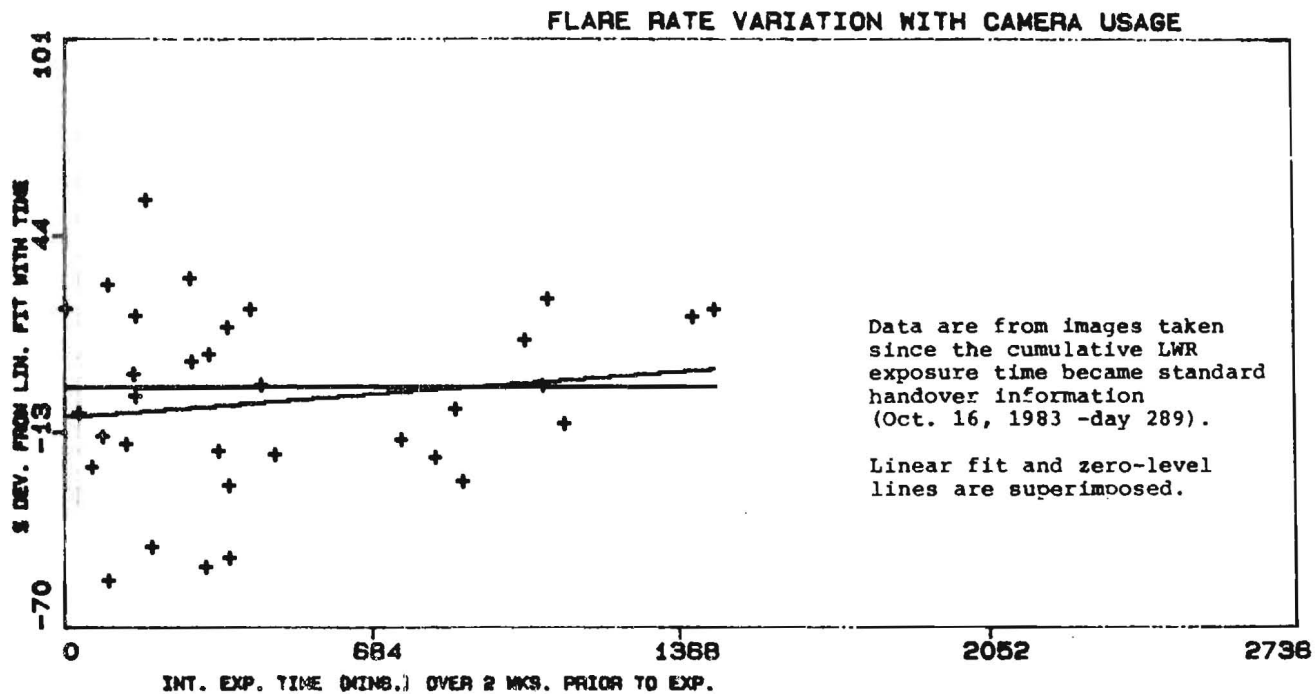


Fig. 4

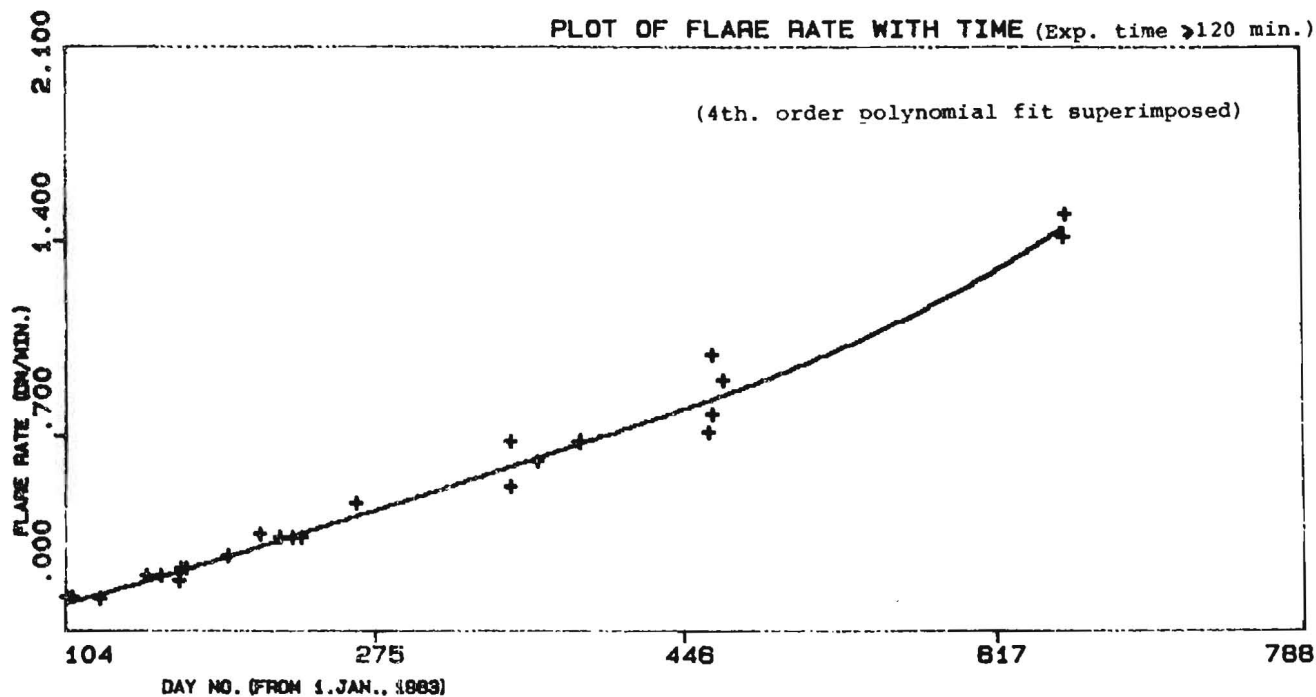


Fig. 5

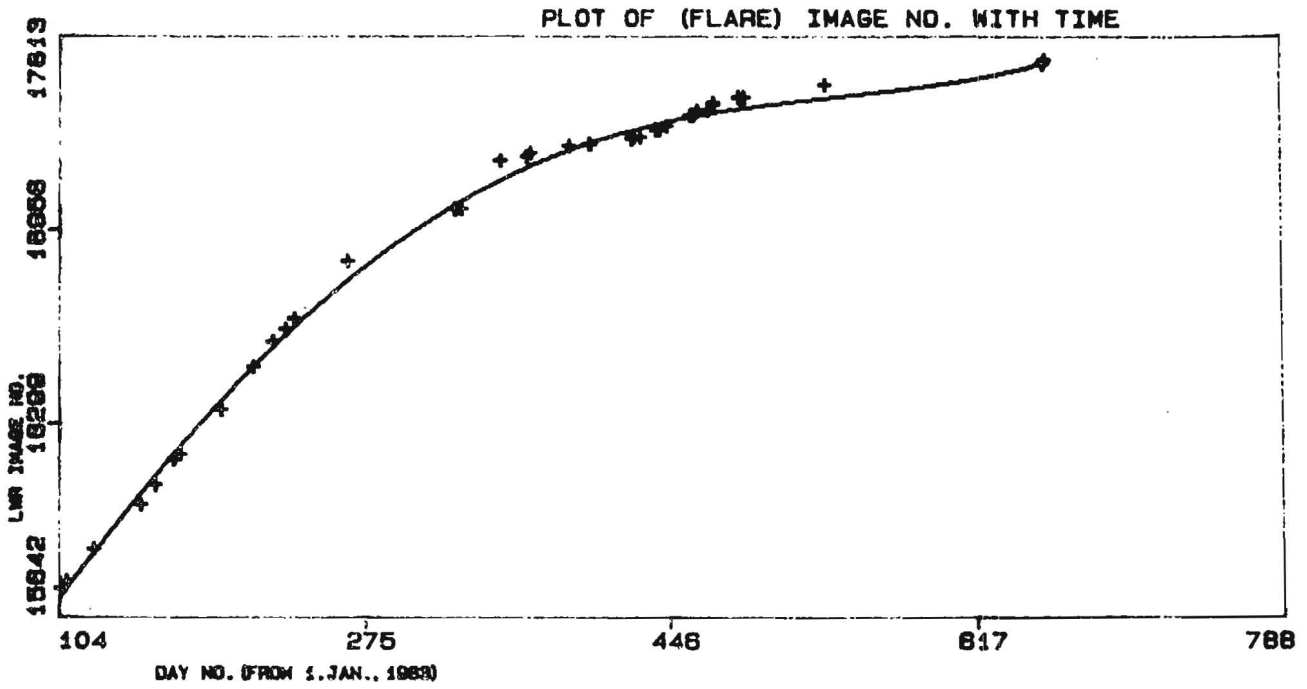


Fig. 6

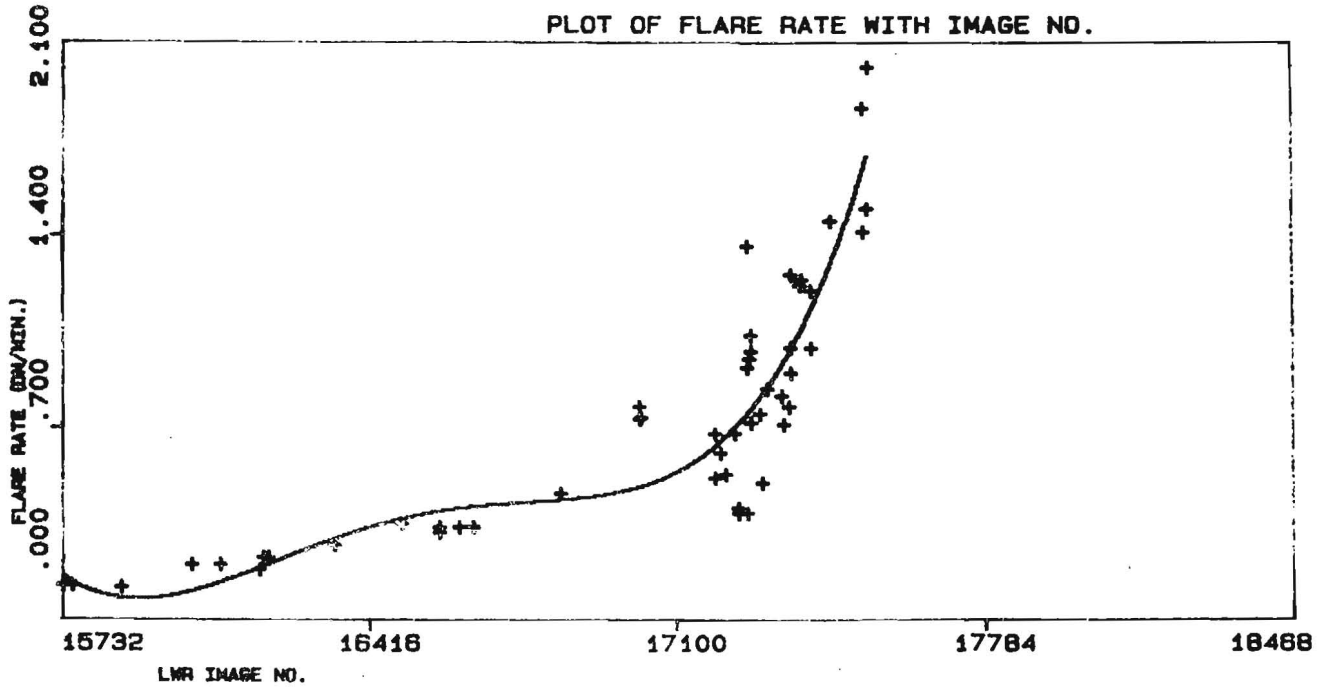


Fig. 7

Absolute Stellar UV Fluxes obtained with the
TD1, ANS and IUE Satellites

Michael Barylak, VILSPA

SUMMARY

The absolute stellar UV fluxes of 125 stars observed with the three experiments TD1, ANS and IUE are compared. Correction factors were derived for the far UV fluxes measured by the projects TD1, ANS and DAO-2 enabling a direct comparison with IUE observations. Some evidence for a dependence of the correction factors with the MK spectral type has been found but is based on a few stars only.

Keywords: stellar UV fluxes - systematic and instrumental effects

INTRODUCTION

The IUE flux scale is based on the adopted fluxes for Eta UMa (B3 V) obtained from six previous space experiments (Bohlin et al., 1980).

Correction factors were determined by Bohlin et al. (1980, 1984) to account for differences in fluxes measured by the different experiments. The purpose of this paper is to provide an extensive comparison between IUE, TD1 and ANS flux measurements by making use of a large sample of stars. In particular we aim to:

- 1, provide an independent determination of the correction factors;
- 2, verify any dependence of these correction factors with the MK spectral type.

THE DATA

The primary source from which the 125 stars used in this investigation were taken from is the IUE Low-Dispersion Spectra Flux Catalogue (Heck et al., 1984). This catalogue, containing 229 low-dispersion stellar spectra collected by the International Ultraviolet Explorer (IUE), concentrates on stars exhibiting a normal behaviour in the ultraviolet.

Out of the stars in this catalogue only those were selected for which both TD1 and ANS data were available.

The TD1 data were taken from the Catalogue of Stellar Ultraviolet Fluxes (Thompson et al., 1978).

The ANS fluxes were taken from the ANS Catalogue by Wesselius et al. (1982). The ANS bands used are centered at $\lambda = 1549, 1799, 2200, 2493\text{\AA}$ and 3294\AA with bandwidths of 149, 149, 200, 150 and 101\text{\AA} respectively.

A linear interpolation of the published ANS fluxes was performed in order to obtain the absolute fluxes in the corresponding TD1 bands at $\lambda = 1565, 1965, 2365,$ and 2740\AA .

The IUE fluxes at the above given wavelengths were derived by integrating the low-dispersion spectra as given in the IUE low-dispersion spectra flux catalogue (Heck et al., 1984) over 330\text{\AA} and 310\text{\AA} (at 2740\text{\AA}) respectively.

METHOD OF ANALYSIS

As the IUE satellite is still operational its stellar fluxes were taken as reference. Hence the fluxes obtained with the other experiments can be normalized to the IUE flux by:

$$F_{\lambda}(\text{experiment}) / F_{\lambda}(\text{IUE}) = a_{\lambda}$$

where F_{λ} is the far UV flux, $\lambda = 1565, 1965, 2365$ and 2740\AA respectively. The correction factors were derived by the following iterative procedure. As a first step, we determined (for each experiment separate) the mean value of a_{λ} together with the standard deviation ϵ .

Next, stars deviating more than one ϵ from this mean value were excluded. The resulting subset is called sample S1 (see second column of Table 2 and 3).

New values a_{λ}' and ϵ' were then calculated using sample S1. And as before a selection was performed within sample S1 excluding all stars lying outside ($a_{\lambda}' - \epsilon', a_{\lambda}' + \epsilon'$). This defines a new subset called sample S2 (see third column, Table 2 & 3) for which the mean of a_{λ}'' was redetermined. Finally the correction factors were derived by:

$$\text{corr } f = 1 / a_{\lambda}''$$

Stars excluded from more than two bands in both TD1 and ANS are suspected to be variable and are listed in Table 1. These stars were also excluded in the study of the dependency of the correction factors from the MK spectral type.

ANS versus IUE

The result of the comparison between ANS and IUE fluxes is summarized in Table 2. It appears that the flux measured at 1565\text{\AA} by ANS is 12% too low. This may be due to the different bandwidths used (150\text{\AA} in the case of ANS and 330\text{\AA} by IUE) and to the method (see above) employed.

At the other wavelengths, a deviation from $\pm 3\%$ indicates a very good agreement in the flux measurements of ANS and IUE, since $\pm 3\%$ is also the reproducibility of the IUE flux in broad (300-600\text{\AA}) bands (Bohlin et al., 1980).

Table 1: stars showing UV variability. The quantity given at each wavelength is the percentage difference of the flux of the experiment to the one of IUE, i.e:

$$I = (F(\text{experiment}) - F(\text{IUE})) / F(\text{IUE}) * 100$$

The characters (S1 or S2) indicate from which sample the measurements has been excluded.

star	exp.	1965A	1965A	2365A	2740A
HD 20902	F5 Ib	TD1	-85% S1 -13% S2	---	47% S1
		ANS	---	---	53% S1
HD 23753	B8 Vn	TD1	-16 S2	-25 S2	-25 S2
		ANS	---	-18 S1	-22 S1 -15 S2
HD 34078	O9.5 V	TD1	56 S2	46 S2	65 S2 -2 S2
		ANS	---	29 S1	23 S1
HD 36629	B2.5 IV	TD1	---	35 S2	---
		ANS	---	---	1 S2
HD 37903	B1.4 V	TD1	55 S2	67 S2	62 S2 13 S1
		ANS	16 S2	49 S1	41 S1 26 S1
HD 40893	B0 IV	TD1	24 S2	54 S2	26 S2 -3 S2
		ANS	5 S2	30 S1	19 S1
HD 74180	F3 Ia	TD1	838 S1	139 S1	119 S1 111 S1
		ANS	500 S1	14 S2	18 S2 95 S1
HD159876	A5	TD1	-40 S2	---	-20 S2 -35 S1
		ANS	---	---	-12 S1 -35 S1
HD166937	B8 Ia	TD1	---	---	-11 S2
		ANS	-29 S2	-10 S2	-13 S1 -26 S1
HD173667	F6 V	TD1	-92 S2	18 S2	---
		ANS	---	25 S1	---
HD183143	B7 Ia	TD1	70 S2	967 S1	700 S1 56 S1
		ANS	---	50 S1	40 S1 65 S1
HD200120	B1 Ve	TD1	-29 S2	-28 S2	-31 S2 -39 S1
		ANS	-46 S2	-48 S1	-51 S1 -51 S1
HD207260	A2 Ia Vn	TD1	---	34 S2	---
		ANS	---	-16 S1	29 S1 124 S1
HD215835	O5.5	TD1	113 S1	107 S1	122 S1 15 S1
		ANS	---	16 S2	14 S2 -11 S2

Table 2: ANS versus IUE

Wave	a_{λ}	$\pm \sigma$	N	sample S1	N	sample S2	N
1565A	0.934	.47	125	0.893	.12	124	106
1965A	1.039	.13	125	1.031	.08	102	68
2365A	1.070	.10	125	1.067	.05	109	93
2740A	0.997	.19	125	0.976	.07	114	86

In Fig.1 the derived correction factors for the ANS experiment are compared with the ones given by Bohlin and Holm (1984). They also find a smaller (~8%) ANS flux at 1565A.

The original sample of 125 stars consists of 12 O, 78 B, 24 A and 11 F type stars. Table 2a provides the mean normalisation factors and standard deviations for each spectral type after the exclusion of the stars given in Table 1. The numbers in parenthesis indicate the number of stars used for each spectral class.

Table 2a: a_{λ} for ANS versus IUE for different MK spectral types

wave	D stars (10)	B stars (71)	A stars (22)	F stars (8)
1565A	0.902 .05	0.864 .05	0.878 .14	1.147 .18
1965A	1.080 .06	1.067 .09	0.914 .06	0.963 .09
2365A	1.086 .05	1.058 .06	1.076 .06	1.102 .04
2740A	0.990 .08	0.967 .09	0.969 .06	1.021 .07

One can see in Table 2a that there is some dependence of a_{λ} on the spectral type: at 1565A the ANS flux for F type stars is ~15% too high; whereas for the other spectral types O, B and A, the ANS flux at 1565A is ~12% too small with the B stars having the greatest deficiency of 14%.

In the 2365A band the ANS flux is about 8% too high compared to IUE. The maximum deviation show the F stars with 10.2% higher fluxes at this wavelength for ANS than for IUE.

However Kjergaard et al. (1984) found in a comparison between various UV photometric systems for 44 late-type stars that the ANS flux at 2500A is 20% smaller than that of IUE. They remarked that this difference is only marginally significant.

Fig. 1a illustrates the dependency of the correction factors with the spectral type.

A different correction factor has to be used for F stars at 1565A and for A and F stars in the 1965A band. At the other wavelengths the correction factors are quite similar for all spectral types.

TD1 versus IUE

Table 3 lists the results of the comparison between the farUV flux obtained with TD1 and IUE.

Table 3: TD1 versus IUE

Wave	$a_{\lambda} \pm \epsilon$	N	sample S1	N	sample S2	N
1565A	1.089 ± .79	125	1.007 ± .19	121	0.983 ± .07	108
1965A	1.114 ± .89	125	1.017 ± .14	122	0.996 ± .05	105
2365A	1.106 ± .65	125	1.032 ± .12	122	1.020 ± .05	106
2740A	0.907 ± .21	125	0.867 ± .08	113	0.849 ± .05	87

At 1565A, 1965A and 2365A a good agreement between the TD1 and IUE fluxes exists. The deviations are not greater than $\pm 3\%$. At 2740A the TD1 flux is definitely 15% too small. Hence the TD1 flux should be increased by a factor of 1.18 at 2740A. This stands in agreement with the results of other authors (Burger et al., 1980, Remie and Lamers, 1982, Kjergaard et al., 1984). Fig.2 shows that the average correction factors derived in this study coincide with the ones given by Bohlin and Holm (1984). However we found also a dependence of the correction factors on the spectral type. In Table 3a the results of the comparison between the TD1 and IUE fluxes for different spectral types are given:

Table 3a: a_{λ} for TD1 versus IUE for different MK spectral types

wave	D stars (10)	B stars (71)	A stars (22)	F stars (8)
1565A	0.998 ± .08	0.981 ± .08	1.007 ± .17	1.395 ± .58
1965A	1.024 ± .07	1.001 ± .10	0.980 ± .06	1.024 ± .13
2365A	1.052 ± .08	1.025 ± .07	1.015 ± .05	1.059 ± .08
2740A	0.831 ± .06	0.840 ± .08	0.930 ± .08	1.019 ± .07

Fig. 2a illustrates the correction factors as function of the spectral type especially in the 2740A band. In the 1565A band there exists a noticeable disagreement between the flux of TD1 and IUE for F type stars: the measured TD1 flux is 40% too high. Note however that the standard deviation of $\pm 60\%$ is large and the sample is relatively small. In addition, Kjergaard et al. (1984) concluded that the TD1 system becomes strongly non-linear at low flux levels as seen in F stars at short wavelengths. At 1965A and 2365A the correction factors coincide within the derived standard deviation for all studied spectral types.

At 2740A the correction factors are quite different for each spectral type. For D and B type stars a correction factor of 1.20 should be used when one compares the TD1 flux with IUE observations. For A type stars a correction factor of 1.08 seems to be sufficient. No correction factor has to be applied to the TD1 flux of F stars at 2740A according to this study.

DAO-2 versus IUE

For 12 stars the IUE fluxes were compared with the published DAO-2 fluxes (Code et al., 1980) which were integrated over the same bands.

The result is summarized in Table 4. Figure 3 compares the results of this study with those obtained by Bohlin and Holm (1984). They stand in good agreement and reveal that the DAO-2 flux is ~22% and 11% too high at 1565A and 1965A respectively.

We remember that it is the DAO-2 scale which provides the fundamental reference for the absolute flux of Eta UMa longward of 2000A (Bohlin et al., 1980). Shortward of 2000A the discrepancies we have found are not greater than those found by other authors.

Table 4: a λ for DAO-2 versus IUE

wave λ	a λ \pm	ϵ	N
1565A	1.217	.10	10
1965A	1.112	.16	12
2365A	1.049	.10	12
2740A	1.020	.10	12

CONCLUSION

In order to compare and interrelate far UV stellar fluxes obtained with the experiments ANS, TD1, and DAO-2 with IUE observations, we suggest correction factors, summarized in Table 5, with which to multiply the non-IUE data.

We believe a larger sample of stars would be needed to verify the detected dependency of the correction factors with the spectral type. However, in one case (F stars at 1565A) the observed dependency might be due to the combination of a poor signal and instrumental effects.

Results as presented here should be taken into consideration for any attempts to improve upon the IUE calibration (see also next paper).

Table 5: Derived correction factors for the three experiments ANS, TD1 and DAO-2

wave λ	ANS	TD1	DAO-2
1565A	1.138!!!	1.017	0.822!!
1965A	0.975	1.004	0.899!!
2365A	0.942	0.980	0.953
2740A	1.027	1.178!!!	0.980

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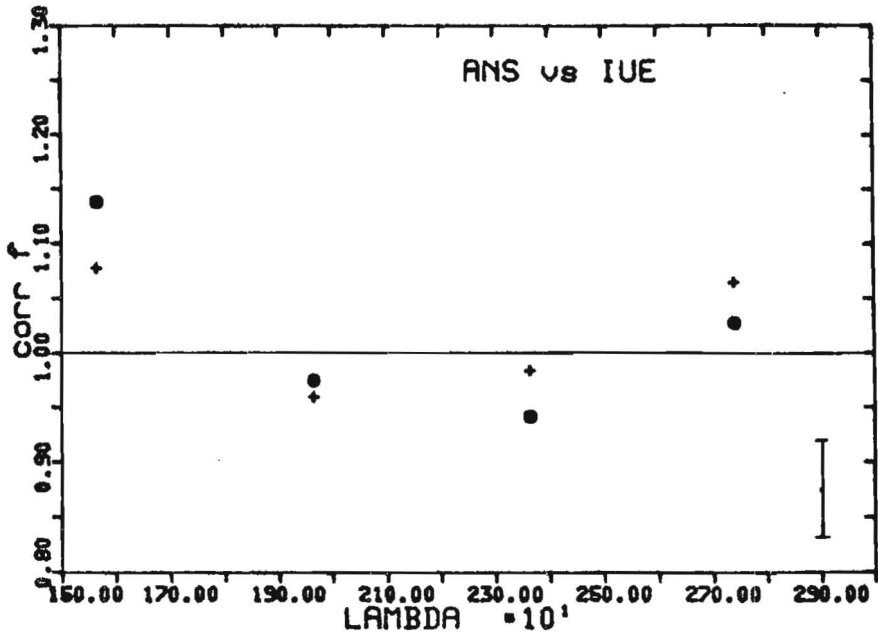


Fig. 1: Correction factors (●) for ANS data derived in this study compared with the ones (+) given by Bohlin and Holm (1984). There is a slight disagreement at 1565Å. A typical standard deviation is indicated in the lower right corner.

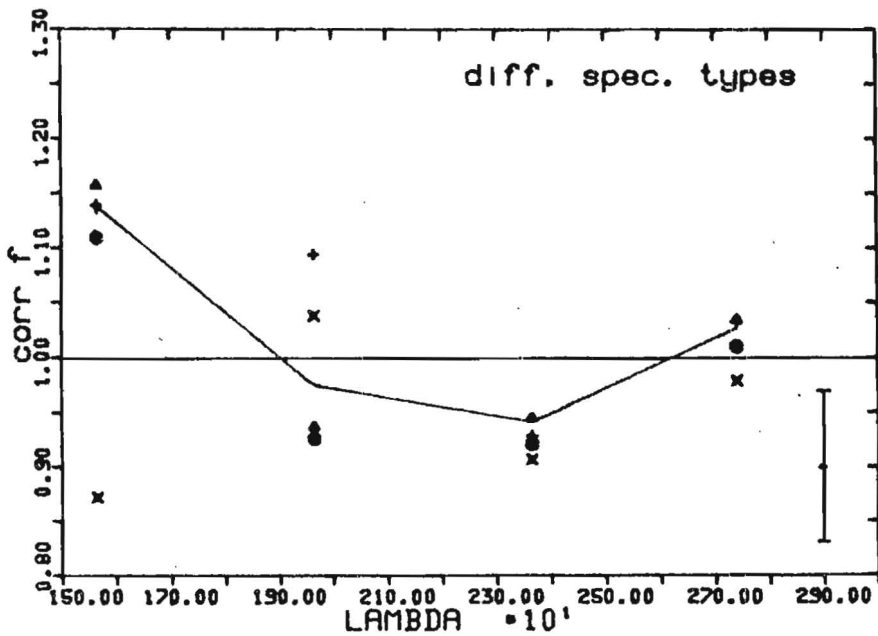


Fig. 1a: Correction factors as derived for different spectral types O stars (●), B stars (▲), A stars (+) and F stars (x) compared with the overall derived corr. factors (solid line). Note the deviation for F type stars at 1565Å due to the bad signal-to-noise ratio for these stars at that wavelength (see also Fig. 2a).

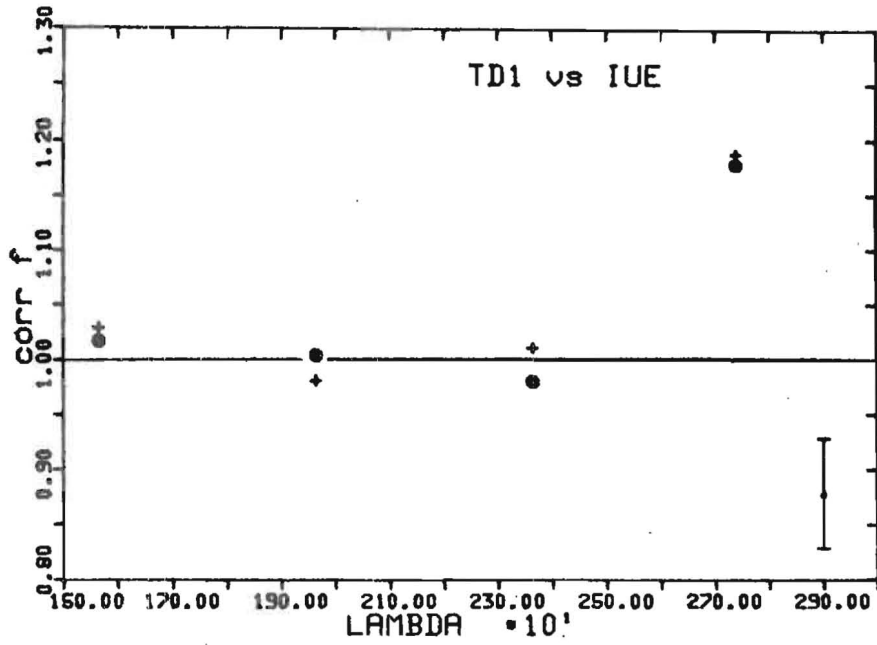


Fig. 2: The correction factors derived for TD1 data stand in good agreement with the ones (+) given by Bohlin and Holm (1984). In the lower right corner a typical standard deviation is indicated.

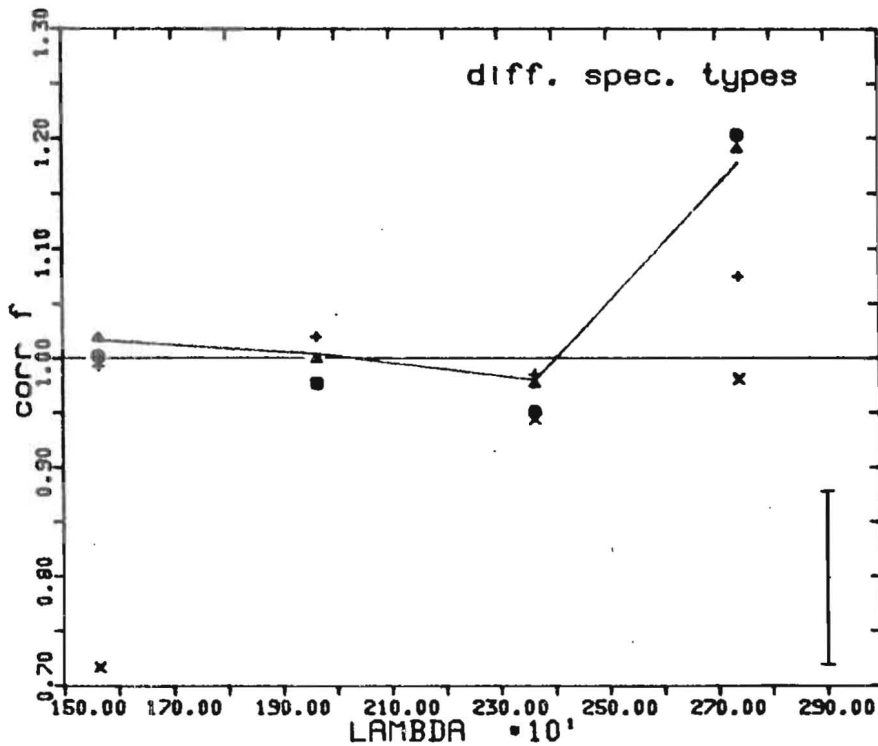


Fig. 2a: Correction factors as derived for different spectral types O stars (●), B stars (▲), A stars (+), and F stars (x) compared with the overall derived corr. factors (solid line). Note the deviation of the F (x) stars at 1565Å and of the A (+) and F (x) stars at 2740Å.

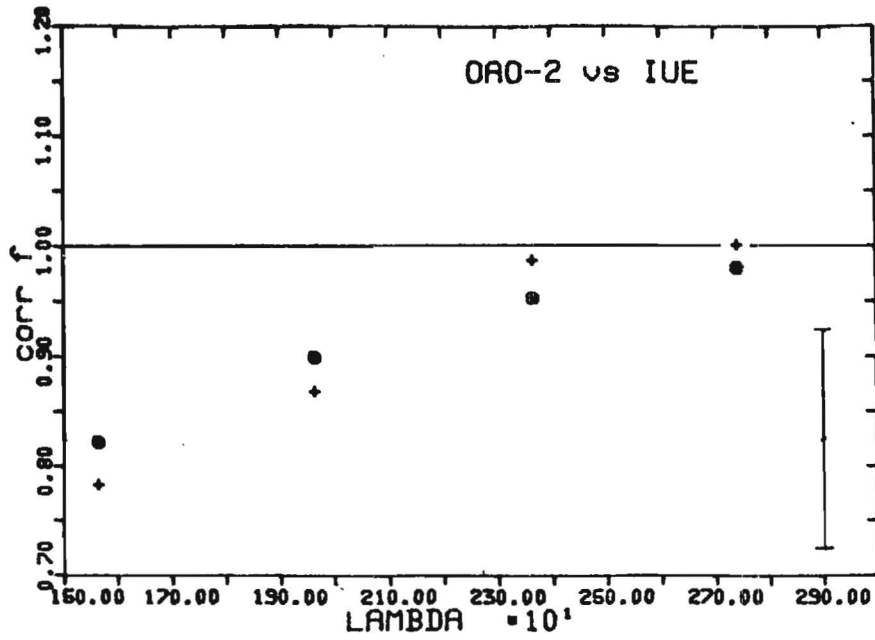


Fig. 3: The correction factors (+) given by Bohlin and Holm (1984) stand in good agreement with the ones (●) derived in this study. The OAO-2 fluxes are too high at 1565A and 1965A.

30 NOV 84

PHOTOMETRIC CALIBRATION OF THE IUE *

XI. Secondary Standards of Absolute Ultraviolet Flux

Ralph C. Bohlin

ABSTRACT

Now that the IUE flux scale has been generally accepted and verified to the quoted errors of $\pm 10\%$, the publication of spectral energy distributions of some stars based on IUE data is desirable for the calibration of future UV experiments and for any recalibrations of the three functional IUE cameras. Despite the fact that the original IUE absolute flux calibration was traceable to the adopted flux for η UMa, new calibrations should not attempt to retrace or improve the original transfer. Instead, the fluxes resulting from five stars that were well observed in the original calibration epoch of the IUE observatory should be the basis for calibrations of instruments that work well in the $V = 6$ to 11 range. The primary reasons for this recommendation are:

- 1) IUE has collected the largest body of UV spectrophotometry to date, which should be internally consistent. All other future UV instruments should be on this IUE scale until a better fundamental reference exists.
- 2) Better fundamental reference flux standards are needed, but none are expected soon in this demanding field of work. No new data covering the entire wavelength range of IUE from 1150 to 3250 Å has become available since the original IUE calibration was done.
- 3) The known errors in the original transfer of the chosen fluxes for η UMa into the IUE sensitivity calibration were in the 2 to 4% range, so that the errors in the absolute fluxes for the five standards proposed here are not likely to greatly exceed the 10% uncertainty quoted for η UMa.
- 4) The IUE fluxes for these five standard stars will form the basis for

determining the UV fluxes of all of the stars that will provide calibrations of the instruments on the Hubble Space Telescope. 5) The five proposed standards were observed often enough to check on stellar variability and to provide a large enough body of data to reduce the effect of IUE reproducibility to less than 1%. 6) The internal consistency among the relative flux levels was verified using TD-1 data, to the typical accuracy of 3%.

I. INTRODUCTION

The original absolute sensitivity calibration of the low dispersion mode of the IUE SWP and LWR cameras was based on η UMa and several measurements of UV fluxes by earlier experiments (Bohlin et al. 1980). The relation of the IUE flux scale to these other instruments is shown graphically in Bohlin et al. (1980) and in tabular form in Bohlin and Holm (1984). IUE absolute fluxes are based on the May 1980 calibration of Bohlin and Holm (1980), which also appears in Holm et al. (1982). The preliminary calibration of Bohlin et al. (1980) was superseded by the May 1980 calibration, which is the only sensitivity calibration for SWP and LWR that has ever been used in routine IUE production data processing.

The derivation of fluxes from the IUE data is complicated by the observed sensitivity losses of up to 2.5% per year (Sonneborn 1984). However, mean fluxes of stars that were well observed in both SWP and LWR throughout the initial epoch from April 1978 to April 1979 are unaffected by sensitivity changes to an accuracy of better than 1%. Observations of the five stars that satisfy these criteria are summarized in Table 1. Any errors in the processing of these early spectra are nearly irrelevant, because the same

spectra for all stars, except BD+33°2642, were used to derive the sensitivity curve in the first place. In other words, the IUE fluxes for these four stars presented in Table 2 are equal on average by definition to the TD-1 fluxes as corrected to the IUE scale in Table 4 of Bohlin and Holm (1984). The study of the UV fluxes of the program stars over the lifetime of the IUE has revealed no evidence for stellar variability, with an upper limit in the 1 to 2% range.

II. DATA REDUCTION

a) Correction of Systematic Errors

The IUE spectra were all extracted by the processing system that was in routine use between July of 1978 and May of 1979. Certain errors were present in those early extractions, as reviewed by Turnrose, Thompson, and Cass (1984). The following corrections were made to the extracted spectra before production of the average fluxes in Table 2.

1. All wavelength assignments were corrected to the mean small aperture dispersion constants of Turnrose, Bohlin, and Harvel (1979) with the displacements for the large aperture given by Turnrose et al. (1979). The correction procedure is specified by Harvel, Turnrose, and Bohlin (1979).

2. The correction algorithm that was adopted by the three IUE agencies was applied to remedy the original error in the intensity transfer function (ITF) for the SWP camera (Holm et al. 1982). Any data that might have been processed using an even earlier, preliminary ITF was reprocessed to this uniform, known basis.

3. All spectra were corrected to the mean camera head temperatures of 8C for SWP and 12C for LWR by using the changes in camera sensitivity with temperature of $-0.5\% \text{ C}^{-1}$ for SWP and $-1.1\% \text{ C}^{-1}$ for LWR (Schiffer 1982). Mean temperatures for all of the spectra discussed here are within 0.5C of the overall means, so that the total effect of the temperature correction on the fluxes in Table 2 is less than 0.5%.

4. The exposure times were corrected for the high voltage rise of 0.12 s (Schiffer 1980) after truncating the specified exposure time to an integral multiple of 0.4096 s. The large aperture exposure times in Table 3 reflect the use of these constants. Corrections to the small aperture exposure times are irrelevant, since the small aperture data is normalized to the large aperture. The primary effect of the 0.12 s correction is an increase in the HD 93521 fluxes of 4% with respect to the faintest stars. Bohlin and Holm did not make a high voltage rise time correction in deriving the May 1980 calibration, since the effect was not appreciated at the time. If 0.12 s had been subtracted from the exposure times originally, the inverse sensitivity of May 1980 and all fluxes based on the IUE scale would be about 1% lower.

b) Procedures

Following the correction of individual spectra for the above effects, the mean spectrum for each star was created according to the steps outlined below.

1. After the SWP ITF correction, the net spectrum was computed from the gross by subtracting a background that had a 31 point median filter applied and was smoothed twice by averaging over 15 points. The LWR net was created by the production processing system.

2. The effective exposure times for small aperture spectra were computed by normalizing to the mean of the large aperture spectra in the interval 1600 to 1725 Å for SWP and 1950 to 2150 Å for LWR.

3. The sum of the calibrated net spectra ΣA were accumulated in 5 Å bins, while the sum of the exposure times Σt , or effective exposure times for the small aperture, were accumulated for the same bins.

4. If any point was flagged as a reseau or other contaminant, no contribution was made to either ΣA or Σt . The effect of this procedure is that the net flux at positions of large aperture reseau are defined entirely by small aperture data, and visa versa. The reduced number of spectra used to define the standard flux in Table 2 is reflected in the reduced number of points under NO. in the table.

5. The root-mean-square scatter of all spectra within each bin is listed in percent under SIGMA in Table 2.

6. The absolute flux is $F = \Sigma A / \Sigma t$. The units of this FLUX in Table 2 are $\text{erg cm}^{-2} \text{s}^{-1} \text{Å}^{-1}$. The wavelengths (LAMBDA) are in Å.

c) Quality Control

The following were considered in an effort to have the highest quality set of uniform data for the IUE standards.

1. Spectra with saturated data were generally avoided, since exposure times were calculated to keep the response below the level where errors could occur due to truncations in the ITF.

2. All spectra with pronounced microphonics noise were excluded.

3. All images with telemetry dropouts were excluded.

d) Uncorrected Errors

Certain known errors that have not been corrected are still associated with the spectra of the UV flux standards.

1. The ratio of small aperture to large aperture spectra is a function of wavelength, so that the normalization of the small aperture spectra discussed above will cause problems. The magnitude of the ratio relative to the normalization interval is within 5% of unity below 3100 Å and reaches 20% at 3200 Å (Holm and Bohlin, in preparation). The non-gray response of the small aperture will cause little error in the fluxes presented here, since the problem is compensated on average by the calibration, which is in error by the same amount as the IUE response that was derived by assuming grayness. The fluxes for any single star will be in error to the extent that the fractional contribution of small aperture spectra to the total signal differs from the average fraction. From Table 1, the number of small aperture spectra are significantly less than the number of large aperture spectra only for BD+33°2642. Even in this case, the errors in Table 2 should be less than 1% for both cameras below 3100 Å.

2. The mean epoch of the original IUE calibration represented by the fluxes of Table 2 is 1978.8. By assuming that the fluxes of Table 2 reflect the IUE sensitivity as of 1978.8, any error is less than 1% due to differential sensitivity change over the April 1978 to April 1979 calibration period.

3. IUE exposure times for point source spectra are uncertain by 30 ms due to questions about when the on-board computer turns the high voltage on and off. For the brightest star in the UV, HD 93521, exposure times were as short as 2.75 s in the large aperture. A 30 ms error would make any individual spectrum of HD 93521 uncertain by 1%. However, the fluxes of

Table 2 are based on the large aperture level set by 15 SWP and 13 LWR spectra, which are expected to reduce the 1% by the square root of the number of independent observations. Further evidence to substantiate the full validity of HD 93521 as a standard are the values for the mean scatter in the 5 Å bins (see Table 1), which are typical of the values for the other stars.

4. The well known non-linearity problems of IUE (eg. Oliverson 1983) may be the dominant source of error in the relative fluxes of the five standards. Since all spectra were exposed to similar levels at one wavelength and since all stars are hot and unreddened, linearity errors are minimized. However, residual non-linearity due to remaining differences in the actual exposures and in the slope of the flux distributions as a function of wavelength may be the dominant uncertainty among the relative flux levels of the standards. One measure of the internal accuracy of the standards is to compare the TD-1 fluxes of Jamar et al. (1976) with those in Table 2. This comparison was done in the process of the original calibration, which showed a typical scatter of 3% about the mean. However, BD+28°4211 has both the largest scatter of up to 7% about the mean calibration curve and also the most deviant flux distribution. This largest systematic deviation from the mean comparison with TD-1 as a function of wavelength is indicative of a linearity error for this case of the most extreme shape of the IUE response.

III. FUTURE UV CALIBRATIONS

Despite the several possible errors at the 1% level outlined here and despite the potential improvements to the original transfer of the chosen fluxes for ηUMa to IUE as detailed in Bohlin and Holm (1984), my recommendation is to base all future UV calibrations on the fluxes of the 5

fundamental standards of Table 2. The overall error in the transfer of the absolute flux scale to IUE is still less than the nominal 10% uncertainty in the η UMa fluxes quoted by Bohlin et al. (1980).

Specifically, the five IUE standards should be the basis for calibration of the LWP camera, for any recalibrations of the SWP and LWR cameras, and for the UV calibration of the Space Telescope (ST) instruments. The present IUE program to provide a larger grid of standards for ST ties these new secondary standards to the primary set by observing at least two of the five during each observing run.

New observations by instruments precisely calibrated with respect to the National Bureau of Standards absolute scale are needed. Preference for new observations should be given to the five standards of Table 2. If these stars are too faint, η UMa is the best bright star, because Bohlin et al. (1980) based the IUE calibration on the choice of flux for this star and because OAO-2 observation showed no UV variability (Holm, private communication). Even though exposure times are uncertain when η UMa is rapidly trailed through the IUE slit, the shape of the IUE flux distribution can be directly compared with new fundamental observations. An absolute normalization of a UV flux distribution can always be done with respect to ground based data at 3200 Å, if necessary.

An independent technique for studying the IUE calibration error is to compare unreddened sources with physical predictions of their flux distribution, as normalized at $V = 5480$ Å. Especially useful for this purpose are stars with few features, such as hot white dwarfs or main sequence stars near spectral type B3. If enough different physical theories all predict the

same error for the IUE absolute fluxes, this correction could be justified and would have the virtue of not only eliminating the 10% uncertainty in the chosen flux for η UMa, but also of removing the 2 to 4% transfer uncertainty.

Drs. A. V. Holm and J. Koornneef provided valuable constructive criticisms that have been incorporated into this paper.

TABLE 1
OBSERVATIONS OF PROGRAM STARS BETWEEN APRIL 1978 AND APRIL 1979

Star	R.A.(1950)	Dec(1950)	S.T.	V	B-V	Ref.	No. of			No. of		
							SWP Spectra P ^a	S ^a	σ (SWP) ^b (%)	LWR Spectra P ^a	S ^a	σ (LWR) ^b (%)
HD60753	7 ^h 32 ^m 08 ^s .1	-50° 28' 29"	B3IV	6.69	-0.09	1	6	5	4.1	5	4	6.8
BD+75°325	8 04 43.2	+75 06 48	O5p	9.54	-0.37	2,4	7	6	4.3	7	6	6.7
HD 93521	10 45 33.6	+37 50 04	O9Vp	7.04	-0.28	3	15	13	5.0	13	13	7.5
BD+33°2642	15 50 01.9	+33 05 28	B2IV	10.83	-0.16	4	8	4	5.3	7	4	7.8
BD+28°4211	21 48 57.4	+28 37 34	O _p	10.54	-0.34	2,4	12	12	5.4	7	6	7.0

^a P - Point source in large aperture. S - Source in small aperture.

^b Mean standard deviation, one sigma, of all 5 Å bins of Table 2 in percent.

References: 1. Jamar et al. (1976) 2. Goy (1973) 3. Guetter (1974) 4. Jaschek et al. (1972).

TABLE 3
JOURNAL OF IUE DATA

Star Name	SWP			LWR		
	Image	Exp. ^a	Proc. Date ^b	Image	Exp. ^a	Proc. Date ^b
HD60753	3226	9.71	25 Nov 78	2829	6.84	20 Nov 78
	3354 ^c	9.71,15.85	3 Dec 78	2941	6.84,11.76	28 Nov 78
	3697	9.71,15.85	27 Dec 78	3269	6.84,11.76	27 Dec 78
	3901	9.71,15.85	15 Jan 79	3471	6.84,10.53	15 Jan 79
	4315	9.71,15.85	26 Feb 79	3811	6.84,10.53	26 Feb 79
	4633	9.71,15.85	25 Mar 79			
BD+75°325	2996	13.81,21.6	16 Nov 78	2568	26.5,43	29 Oct 78
	3184	13.81,21.6	19 Nov 78	2619	23.6,38	15 Nov 78
	3188	13.81,21.6	20 Nov 78	2748	23.6,38	19 Nov 78
	3456	13.81,21.6	3 Dec 78	2789	23.6,38	20 Nov 78
	4237	13.81	18 Feb 79	2793	-- ,38	20 Nov 78
	4877	13.81,23.7	20 Apr 79	3035	23.6,38	3 Dec 78
	4939	13.81,21.6	22 Apr 79	3036	26.5	3 Dec 78
				3747	23.6	18 Feb 79
HD93521	1927	2.75,11.76	8 Jul 78	1589	2.75,2.75	5 Jul 78
	1955	2.75,11.76	11 Jul 78	1790	2.75,5.61	8 Jul 78
	1956	2.75,11.76	25 Jul 78	1805	2.75,11.76	10 Jul 78
	2899	2.75,4.80	29 Oct 78	1806	2.75,11.76	11 Jul 78
	2901	2.75,5.61	29 Oct 78	2567	2.75,4.80	29 Oct 78

TABLE 3 continued

Star	SWP			LWR		
Name	Image	Exp. ^a	Proc. Date ^b	Image	Exp. ^a	Proc. Date ^b
	3277	2.75,4.80	27 Nov 78	2569	2.75,5.61	29 Oct 78
	3355	2.75,4.80	28 Nov 78	2887	2.75,4.80	27 Nov 78
	3356	2.75,4.80	28 Nov 78	2942	2.75,4.80	28 Nov 78
	3698	2.75	27 Dec 78	2943	2.75,4.80	28 Nov 78
	3978	2.75,4.80	14 Feb 79	3270	2.75,9.71	27 Dec 78
	4317	2.75,4.80	26 Feb 79	3546	2.75,4.80	14 Feb 79
	4350	2.75,4.80	26 Feb 79	3813	2.75,4.80	26 Feb 79
	4738	2.75,4.80	9 May 79	3840	2.75,4.80	26 Feb 79
	4984	2.75,4.80	25 Apr 79			
	5172	2.75	20 May 79			
BD+33°2642	2353	240,240	3 Sep 78	2137	190,190	4 Sep 78
	2797	240,384	17 Oct 78	2490	190,300	17 Oct 78
	3502	240,384	10 Dec 78	3080	190,304	10 Dec 78
	3605	240	18 Dec 78	3171	190	18 Dec 78
	3889	240	14 Jan 79	3459	190	14 Jan 79
	4003	240,400	4 Feb 79	3561	190,317	4 Feb 79
	4238	240	18 Feb 79	3748	190	18 Feb 79
	4263	240	19 Feb 79			

TABLE 3 continued

Star		SWP		LWR		
Name	Image	Exp. ^a	Proc. Date ^b	Image	Exp. ^a	Proc. Date ^b
BD+28°4211	1831	25.7,25.7	1 Jul 78	1912	59.7,120	2 Aug 78
	2059	25.7,25.7	25 Jul 78	2225	59.7,96	4 Sep 78
	2139	25.7,52	2 Aug 78	2286	59.7	15 Sep 78
	2422	25.7,42	5 Sep 78	2540	59.7,96	27 Oct 78
	2505	25.7,42	13 Sep 78	2730	59.7,96	27 Nov 78
	2863	25.7,42	27 Oct 78	3128	59.7,96	10 Jan 79
	3167	25.7,42	27 Nov 78	3428	59.7,100	11 Jan 79
	3453	25.7,41	3 Dec 78			
	3555	25.7,41	13 Dec 78			
	3850	25.7,42	14 Jan 79			
	4875	25.7,42	19 Apr 79			
	5030	25.7,42	7 May 79			

^aExposure time in seconds for the large aperture point source spectrum followed by the small aperture exposure time for those images that have useful exposures in the small aperture.

^bDate that the spectrum was extracted from the image by the production processing system in use at NASA.

^cLine 1 of the VICAR label incorrectly designates this image as SWP3355.

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#  
#           VILSPA PUBLICATIONS LIST           #  
#  
#           IN MAIN JOURNALS                   #  
#  
#           Published 1 May - 30 Sept 1984     #  
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This list contains all Vilspa papers that have appeared between the above dates in major refereed journals (Mon. Not. R. astr. Soc., Astron. Astrophys., Astrophys. J.) and which originate from Europe. Underlining of an author's name indicates membership of the Vilspa Observatory staff, and papers by Observatory staff on topics not involving IUE data are marked by '(Obs)' after the entry.

We remind users that, in any publications resulting from IUE data, whether it be from their own allocated shifts or data released from the Archive, they should acknowledge the use of the IUE Satellite and the Agency - ESA, NASA or SERC as appropriate, in a footnote on the title page. The following are examples of some of the possibilities.

Based on observations by the International Ultraviolet Explorer, collected at Villafranca Satellite Tracking Station of the European Space Agency. (In the case of one's own observations).

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#  
#   MERGED LOG OF IUE OBSERVATIONS   #  
#  
#   1 JUNE 1984 - 30 SEPTEMBER 1984   #  
#  
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The merged log of Vilspa and Goddard images for the above dates is listed in order of right ascension.

The programme reference codes (column 1) identifying the ESA and NASA programmes for the sixth round can be found in ESA IUE Newsletter No.16 p45 and p55 for ESA and NASA respectively, and for the seventh round in ESA IUE Newsletter No.19 p17 and 23.

The Object Classification Codes (column 3) and the Vilspa Exposure Classification Codes (column 16) are listed overleaf.

CLASSIFICATION OF OBJECTS USED IN THE JOINT ESA/SERC LOG OF IUE OBSERVATIONS

00	SUN	50	R, N OR S TYPES
01	EARTH	51	LONG PERIOD VARIABLE STARS
02	MOON	52	IRREGULAR VARIABLES
03	PLANET	53	REGULAR VARIABLES
04	PLANETARY SATELLITE	54	DWARF NOVAE
05	MINOR PLANET	55	CLASSICAL NOVAE
06	COMET	56	SUPERNOVAE
07	INTERPLANETARY MEDIUM	57	SYMBIOTIC STARS
08		58	T TAURI
09		59	X-RAY
10	W C	60	SHELL STAR
11	W N	61	ETA CARINAE
12	MAIN SEQUENCE O	62	PULSAR
13	SUPERGIANT O	63	NOVA-LIKE
14	OE	64	STELLAR OBJECT NOT INCLUDED ABOVE
15	OF	65	
16	SD O	66	
17	WD O	67	
18		68	
19	UV-STRONG	69	
20	B0-B2 V-IV	70	PLANETARY NEBULAR+CENTRAL STAR
21	B3-B5 V-IV	71	PLANETARY NEBULAR-CENTRAL STAR
22	B6-B9,5 V-IV	72	H II REGION
23	B0-B2 III-I	73	REFLECTION NEBULA
24	B3-B5 III-I	74	DARK CLOUD (ABSORPTION SPECTRUM)
25	B6-B9,5 III-I	75	SUPERNOVA REMNANT
26	BE	76	RING NEBULA (SHOCK-IONISED)
27	BP	77	
28	SDB	78	
29	WDB	79	
30	A0-A3 V-IV	80	SPIRAL GALAXY
31	A4-A9 V-IV	81	ELLIPTICAL GALAXY
32	A0-A3 III-I	82	IRREGULAR GALAXY
33	A4-A9 III-I	83	GLOBULAR CLUSTER
34	AE	84	SEYFERT GALAXY
35	AM	85	QUASAR
36	AP	86	RADIO GALAXY
37	WDA	87	BL LACERTAE OBJECT
38		88	EMISSION LINE GALAXY (NON-SEYFERT)
39	COMPOSITE	89	
40	F0-F2	90	INTERGALACTIC MEDIUM
41	F3-F9	91	
42	FP	92	
43	LATE TYPE DEGENERATE STARS	93	
44	G (TO 1FEB79); GIV-VI (FROM 1FEB79)	94	
45	G I-II (FROM 1FEB79)	95	
46	K (TO 1FEB79); K IV-VI (FROM 1FEB79)	96	
47	K I-III (FROM 1FEB79)	97	
48	M (TO 1FEB79); M DWARFS (FRM 1FEB79)	98	WAVELENGTH CALIBRATION (NASA LOG)
49	M I-III (FROM 1 FEB79)	99	NULLS AND FLAT FIELDS (NASA LOG)

THE CLASSIFICATION IS SUPPLIED BY D STICKLAND FOR USE ONLY WITHIN THE PROJECT

EXPOSURE CLASSIFICATION CODES

#####

The exposure levels of Vilspa images are described by a 3-digit code listed in column 16 in the merged log.

DIGIT 1: EXPOSURE LEVEL OF CONTINUUM
 DIGIT 2: EXPOSURE LEVEL OF EMISSION LINES
 DIGIT 3: BACKGROUND LEVEL

The CONTINUUM and EMISSION are both classified as follows:-

0: NOT APPLICABLE
 1: NO SPECTRUM VISIBLE
 2: FAINT SPECTRUM; MAX DN < 20 ABOVE LOCAL BACKGROUND
 3: UNDEREXPOSED; MAX DN < 100 ABOVE LOCAL BACKGROUND
 4: WEAK; MAX DN BETWEEN 100 AND 150 ABOVE LOCAL BACKGROUND
 5: GOOD; NO SATURATION BUT MAX DN OVER 150 ABOVE LOCAL BACKGROUND
 6: A BIT STRONG; A FEW PIXELS SATURATED
 7: SATURATED FOR LESS THAN HALF THE SPECTRUM
 8: MOSTLY SATURATED BUT SOME PARTS USABLE
 9: COMPLETELY SATURATED

The BACKGROUND is classified in terms of a standard region of each camera outside the area affected by the high resolution orders. The value used is the mean DN given by a subset histogram approximately 10 pixels in width.

The BACKGROUND classification codes are:- (limits inclusive)

0 DN<20
 1 21<DN<30
 2 31<DN<40
 3 41<DN<50
 4 51<DN<60
 5 61<DN<70
 6 71<DN<80
 7 81<DN<90
 8 91<DN<100
 9 DN>101
 X SATURATED

NOTES

- 1) No exposure classification code was assigned to VILSPA images before 1 August 1978.
- 2) Prior to 1 Sept 1979, the BACKGROUND digit was not included and the ECC occupied the first two places in the comment line.
- 3) The Goddard images are described in the comments by the gross DN of the CONTINUUM (C), EMISSION LINES (E) and BACKGROUND (B).

PRO	OBJECT	CL	MAG	R.A.	DEC	D C	IMAGE	A	DATE	EXP.SMALL	EXP.LARGE	ECC	COMMENT	
PHCAL	CALUV80Z	99	9999	0000000	000000	H	1	04431	84092818	000000	000000	183656	000246	009 V
PHCAL	NULL	99	9999	0000000	000000	H	1	04300	84092418	000000	000000	180811	000000	003 V RAW(AS3CH31)=55
PHCAL	CALUV140Z	99	9999	0000000	000000	H	1	04299	84092417	000000	000000	172014	000450	009 V RAW(AS3CH31)=40;FINA
PHCAL	CALUV60Z	99	9999	0000000	000000	H	1	04430	84092817	000000	000000	175746	000204	009 V
PHCAL	CALUV40Z	99	9999	0000000	000000	H	1	04429	84092817	000000	000000	171021	000123	008 V
PHCAL	CALUV20Z	99	9999	0000000	000000	H	1	04428	84092816	000000	000000	162927	000041	006 V
PHCAL	CALUV80Z	99	9999	0000000	000000	H	1	04298	84092416	000000	000000	163906	000246	009 V RAW(AS1CH31)=40,FINA
PHCAL	UV240Z	99	9999	0000000	000000	H	1	04297	84092415	000000	000000	155112	000817	009 V RAW(AS3CH31)=41,FINA
PHCAL	UV80Z	99	9999	0000000	000000	H	1	04296	84092415	000000	000000	150847	000246	009 V RAW(AS1CH31)=41,FINA
PHCAL	NULL	99	9999	0000000	000000	H	1	04295	84092414	000000	000000	141130	000000	003 V FPM=1.7,RAW(AS3CH31)
PHCAL	CALUV170Z	99	9999	0000000	000000	H	1	04427	84092815	000000	000000	153613	000552	009 V
PHCAL	CALUV80Z	99	9999	0000000	000000	H	1	04301	84092418	000000	000000	185153	000246	009 V RAW(AS3CH31)=60,FINA
PHCAL	CALUV20Z	99	9999	0000000	000000	H	1	04302	84092419	000000	000000	193450	000041	006 V RAW(AS3CH31)=55,FINA
PHCAL	CALUV60Z	99	9999	0000000	000000	H	1	04303	84092420	000000	000000	201815	000204	009 V RAW(AS1CH31)=56,FINA
PHCAL	CALUV140Z	99	9999	0000000	000000	H	1	04403	84092715	000000	000000	152356	000450	009 V
PHCAL	CALUV80Z	99	9999	0000000	000000	H	1	04402	84092714	000000	000000	144059	000246	009 V
PHCAL	NULL	99	9999	0000000	000000	H	1	04304	84092421	000000	000000	211446	000000	003 V
PHCAL	CALUV80Z	99	9999	0000000	000000	H	1	04426	84092814	000000	000000	145521	000246	009 V
PHCAL	CALUV80Z	99	9999	0000000	000000	H	1	04412	84092721	000000	000000	212622	000246	009 V
PHCAL	NULL	99	9999	0000000	000000	H	1	04332	84092514	000000	000000	140830	000000	003 V
PHCAL	CALUV280Z	99	9999	0000000	000000	H	1	04411	84092720	000000	000000	204059	000940	009 V
PHCAL	CALUV140Z	99	9999	0000000	000000	H	1	04376	84092621	000000	000000	213023	000450	009 V
PHCAL	CALUV170Z	99	9999	0000000	000000	H	1	04405	84092716	000000	000000	164506	000552	009 V
PHCAL	NULL	99	9999	0000000	000000	H	1	04333	84092514	000000	000000	143544	000000	003 V
PHCAL	CALUV80Z	99	9999	0000000	000000	H	1	04334	84092515	000000	000000	151920	000246	009 V
PHCAL	CALUV40Z	99	9999	0000000	000000	H	1	04410	84092720	000000	000000	200617	000123	008 V
PHCAL	CALUV40Z	99	9999	0000000	000000	H	1	04335	84092516	000000	000000	160120	000123	009 V
PHCAL	CALUV60Z	99	9999	0000000	000000	H	1	04375	84092620	000000	000000	205344	000204	009 V
PHCAL	CALUV20Z	99	9999	0000000	000000	H	1	04409	84092719	000000	000000	192831	000041	006 V
PHCAL	CALUV20Z	99	9999	0000000	000000	H	1	04435	84092821	000000	000000	213146	000041	006 V
PHCAL	CALUV140Z	99	9999	0000000	000000	H	1	04434	84092820	000000	000000	204521	000450	009 V
PHCAL	CALUV120Z	99	9999	0000000	000000	H	1	04433	84092820	000000	000000	200635	000408	009 V
PHCAL	CALUV100Z	99	9999	0000000	000000	H	1	04432	84092819	000000	000000	191923	000327	009 V
PHCAL	SAFETYREAD	99	9999	0000000	000000	L	4	01178 L	84060821	000000	000000	210431	000000	V
PHCAL	CALUV200Z	99	9999	0000000	000000	H	1	04374	84092620	000000	000000	200901	000654	009 V
PHCAL	CALUV200Z	99	9999	0000000	000000	H	1	04406	84092717	000000	000000	172443	000654	009 V
PHCAL	CALUV280Z	99	9999	0000000	000000	H	1	04373	84092619	000000	000000	192542	000940	009 V
PHCAL	CALUV80Z	99	9999	0000000	000000	H	1	04407	84092718	000000	000000	180806	000246	009 V
PHCAL	CALUV80Z	99	9999	0000000	000000	H	1	04372	84092618	000000	000000	183906	000246	009 V
PHCAL	CALUV20Z	99	9999	0000000	000000	H	1	04371	84092617	000000	000000	175819	000041	009 V
PHCAL	CALUV60Z	99	9999	0000000	000000	H	1	04370	84092617	000000	000000	171931	000204	009 V
PHCAL	CALUV40Z	99	9999	0000000	000000	H	1	04369	84092616	000000	000000	163415	000123	009 V
PHCAL	CALUV120Z	99	9999	0000000	000000	H	1	04368	84092615	000000	000000	155035	000408	009 V
PHCAL	CALUV80Z	99	9999	0000000	000000	H	1	04367	84092615	000000	000000	151206	000246	009 V
PHCAL	NULL	99	9999	0000000	000000	H	1	04366	84092614	000000	000000	143437	000000	003 V

PRO	OBJECT	CL	MAG	R.A.	DEC	D C	IMAGE A	DATE	EXP.SMALL	EXP.LARGE	ECC	COMMENT	
PHCAL	CALUV170Z	99	9999	0000000	000000	H 1	04342	84092521	000000	000000	213138	000552 009 V	
PHCAL	CALUV280Z	99	9999	0000000	000000	H 1	04341	84092520	000000	000000	204651	000940 009 V	
PHCAL	NULL IMAGE	99	9999	0000000	000000	L 1	04242 L	84091719	000000	000000	000000	000000 200 V	
PHCAL	NULL IMAGE	99	9999	0000000	000000	L 2	17422	84061122	222320	000000	000000	000000 V	
PHCAL	60Z CALUV	99	9999	0000000	000000	L 2	17423	84061122	225546	000153	000000	000000 V FINAL UVFT=39	
PHCAL	20ZCALUV	99	9999	0000000	000000	L 2	17424	84061123	232617	000038	000000	000000 V FINAL UVFT=37	
PHCAL	120ZCALUV	99	9999	0000000	000000	L 2	17425	84061123	235512	000346	000000	000000 V FINAL UVFT=41	
PHCAL	60ZCALUV	99	9999	0000000	000000	L 2	17426	84061200	002724	000153	000000	000000 V FINAL UVFT=39	
PHCAL	100ZTFLOOD	99	9999	0000000	000000	L 2	17427	84061200	005327	000022	000000	000000 V	
PHCAL	160ZCALUV	99	9999	0000000	000000	L 2	17428	84061201	012357	000501	000000	000000 V FINAL UVFT=42	
PHCAL	220ZCALUV	99	9999	0000000	000000	L 2	17429	84061201	015712	000654	000000	000000 V	
PHCAL	NULL IMAGE	99	9999	0000000	000000	L 2	17430	84061202	021645	000000	000000	000000 V	
PHCAL	NULL IMAGE	99	9999	0000000	000000	L 2	17431	84061202	024800	000000	000000	000000 V	
PHCAL	NULL IMAGE	99	9999	0000000	000000	L 2	17432	84061203	030800	000000	000000	000000 V	
PHCAL	NULL IMAGE	99	9999	0000000	000000	L 1	03559	84061203	033605	000000	000000	000000 V	
PHCAL	CALUV80Z	99	9999	0000000	000000	H 1	04340	84092520	000000	000000	201104	000246 009 V	
PHCAL	NULL	99	9999	0000000	000000	H 1	04336	84092517	000000	000000	170613	000000 003 V	
PHCAL	NULL	99	9999	0000000	000000	H 1	04339	84092519	000000	000000	192635	000000 003 V	
PHCAL	CALUV 80Z	99	9999	0000000	000000	H 1	04337	84092517	000000	000000	174348	000246 009 V	
PHCAL	CALUV120Z	99	9999	0000000	000000	H 1	04338	84092518	000000	000000	183920	000408 009 V	
PHCAL	CALUV120Z	99	9999	0000000	000000	H 1	04408	84092718	000000	000000	184747	000408 009 V	
PHCAL	CALUV100Z	99	9999	0000000	000000	H 1	04404	84092716	000000	000000	160446	000327 009 V	
QSGMM	DOMARK	335	84	1370	0003452	+195529	L 3	23250 L	84061218	000000	000000	182700	006000 G E=2.0X,C=1.5X,B=201
QSGMM	DOMARK	335	84	1370	0003452	+195529	L 1	03562 L	84061219	000000	000000	194100	006000 G C=1.5X,B=152
GC230	HD352	47	0661	0005384	-024334	L 3	23567 L	84080100	000000	000000	000546	007000 530 V	
GC230	HD352	47	0653	0005384	-024334	L 1	03905 L	84073123	000000	000000	235415	000400 460 V	
GC230	HD352	47	0655	0005384	-024334	H 1	03906 L	84080101	000000	000000	012238	004600 241 V	
GC230	HD 352	47	0607	0005384	-024334	L 1	03573 L	84061401	000000	000000	014457	000600 562 V	
GC230	HD352	47	0646	0005384	-024334	L 1	03574 L	84061403	000000	000000	032514	001800 802 V	
GC230	HD352	47	0644	0005384	-024334	L 3	23261 L	84061402	000000	000000	020656	007000 532 V	
GC230	HD352	47	0641	0005384	-024334	H 1	03575 L	84061404	000000	000000	041705	003000 232 V	
DSGTA	HD	432	40	0230	0006298	+585227	L 3	24071 L	84092811	000000	000000	111100	000400 G E=1.5X,C=20X,B=3X
DSGTA	HD	432	40	0230	0006298	+585227	H 3	24062 L	84092805	000000	000000	052100	000230 G C=140,B=45
DSGTA	HD	432	40	0230	0006298	+585227	L 3	24067 L	84092808	000000	000000	085100	000500 G E=102,C=8X,B=65
DSGTA	HD	432	40	0230	0006298	+585227	L 3	24066 L	84092808	000000	000000	081400	000500 G E=91,C=8X,B=55
PHCAL	00	NULL	99	0230	0006298	+585227	H 1	04423 L	84092811	000000	000000	114900	000000 G B=46
DSGTA	HD	432	40	0230	0006298	+585227	H 3	24063 L	84092805	000000	000000	055400	000730 G C=1.5X,B=42
DSGTA	HD	432	40	0230	0006298	+585227	L 3	24065 L	84092807	000000	000000	074000	000500 G E=107,C=8X,B=51
DSGTA	HD	432	40	0230	0006298	+585227	H 3	24064 L	84092806	000000	000000	063200	003730 G C=15X,B=160
DSGTA	HD	432	40	0230	0006298	+585227	L 3	24070 L	84092810	000000	000000	103500	000500 G E=241,C=1.0X,B=230
DSGTA	HD	432	40	0230	0006298	+585227	L 3	24068 L	84092809	000000	000000	092600	000500 G E=130,C=8X,B=84
DSGTA	HD	432	40	0230	0006298	+585227	L 3	24069 L	84092810	000000	000000	100100	000500 G E=168,C=8X,B=138
GA093	SB58	16	1301	0007300	-263000	H 3	23345 L	84062522	000000	000000	224418	036300 403 V	
QSGMM	00III	ZW 2	84	1500	0007567	+104148	L 3	23248 L	84061209	000000	000000	090600	015000 G E=123,C=100,B=60
QSGMM	00III	ZW 2	84	1500	0007567	+104148	L 1	03560 L	84061206	000000	000000	060200	018000 G C=165,B=55

PRO	OBJECT	CL	MAG	R.A.	DEC	D C	IMAGE	A	DATE	EXP.SMALL	EXP.LARGE	ECC	COMMENT	
GE057	Q0014+81	85	1650	0014040	811826	L	3	23970	L	84091515	000000	000000	150721 037000 113	V
LDGDS	HD 01326B	48	1100	0015310	+434422	L	1	03617	L	84061815	000000	000000	151100 010000	G E=183,B=140
LDGDS	HD 01326B	48	1100	0015310	+434422	L	1	03578	L	84061415	000000	000000	151600 003000	G B=118
GC210	HD 1671	41	0518	0018287	374129	L	3	23748	L	84082123	000000	000000	231010 002400 700	V
GC210	HD1671	41	0545	0018287	374129	H	1	04046	L	84082122	000000	000000	224016 002500 603	V
GC210	HD1671	41	0547	0018287	374129	L	3	23727	L	84081921	000000	000000	211500 019300 751	V
GC210	HD1671	41	0544	0018287	374129	H	1	04040	L	84082000	000000	000000	003132 001400 501	V
MGGJW	OO EARTH	01	0000	0024564	-095722	L	1	04051	SL	84082215	155600	000412	155600 000412	G C=90,B=37
MGGJW	OO EARTH	01	0000	0024564	-095722	L	3	23752	SL	84082215	155400	001200	155400 001200	G E=158,C=90,B=20
GQ225	PG0026+12	85	1470	0026380	125929	L	3	23451	L	84071221	000000	000000	213510 015000 341	V
GQ225	PG0026+12	85	1470	0026380	125929	L	1	03758	L	84071300	000000	000000	001230 007000 314	V
HSGAP	HD 2857	38	1000	0029200	-053229	L	3	23440	L	84071113	000000	000000	132100 008600	G C=240,B=82
EGGAC	OO S1	83	1370	0030055	+391808	L	1	03653	L	84062509	000000	000000	094700 018000	G C=150,B=110
EGGAC	OO S1	83	1370	0030055	+391808	L	3	23339	L	84062505	000000	000000	054300 024000	G C=75,B=55
PHCAL	HD 3360	20	0368	0034099	+533718	H	1	04397	L	84092711	000000	000000	110400 000016	G C=210,B=67
PHCAL	OO NULL	99	0368	0034099	+533718	H	1	04398	L	84092711	000000	000000	113400 000000	G B=46
PHCAL	ZETA CAS	20	0382	0034100	533719	H	2	17473	L	84071321	000000	000000	210818 000021 502	V
PHCAL	ZETA CAS	20	0364	0034100	533719	H	2	17474	L	84071321	000000	000000	214021 000042 702	V
PHCAL	ZETA CAS	20	0363	0034100	533719	H	2	17480	L	84071401	000000	000000	010307 000057 702	V UVC AT -4.5KV
PHCAL	ZETA CAS	20	0364	0034100	533719	H	2	17479	L	84071400	000000	000000	003359 000028 502	V UVC AT -4.5KV
PHCAL	ZETA CAS	20	0366	0034100	533719	H	2	17478	L	84071400	000000	000000	000337 000057 702	V UVC AT -4.5KV
PHCAL	ZETA CAS	20	0360	0034100	533719	H	2	17477	L	84071323	000000	000000	233414 000028 502	V UVC AT -4.5 KV
PHCAL	ZETA CAS	20	0364	0034100	533719	H	2	17475	L	84071322	000000	000000	221156 000021 502	V
PHCAL	ZETA CAS	20	0362	0034100	533719	H	2	17476	L	84071322	000000	000000	225017 000042 702	V
PHCAL	OO TFL00D	99	0000	0034102	+533718	H	3	23919	L	84090913	000000	000000	133900 000005	G B=110
PHCAL	OO WAVCAL	98	0000	0034102	+533718	H	3	23918	S	84090913	130900	000200	000000 000000	G E=50X,B=140
PHCAL	HD 3360	20	0368	0034102	+533718	H	3	23862	S	84090313	133900	000040	000000 000000	G C=180,B=35
PHCAL	OO WAVCAL	98	0000	0034102	+533718	L	3	23917	S	84090912	124000	000002	000000 000000	G E=20X,B=105
PHCAL	OO TFL00D	99	0000	0034102	+533718	H	1	04189	L	84090912	000000	000000	122300 000025	G B=107
PHCAL	OO WAVCAL	98	0000	0034102	+533718	H	1	04188	S	84090911	113800	000016	000000 000000	G E=50X,B=112
PHCAL	OO WAVCAL	98	0000	0034102	+533718	L	1	04187	S	84090911	110800	000001	000000 000000	G E=20X,B=105
PHCAL	HD 3360	21	0370	0034103	+533719	H	1	04284	L	84092407	000000	000000	073800 000028	G C=1.3X,B=50
PHCAL	OO NULL	99	9999	0034103	+533719	H	1	04291	L	84092411	000000	000000	113500 000000	G B=33
PHCAL	HD 3360	21	0370	0034103	+533719	H	1	04292	L	84092412	000000	000000	120400 000018	G C=230,B=60
PHCAL	HD3360	20	0377	0034103	533720	L	1	03988	L	84081322	000000	000000	221318 000001 503	V R=20.83 I=1
PHCAL	OO NULL	99	9999	0034103	+533719	H	1	04293	L	84092412	000000	000000	123300 000000	G B=35
PHCAL	HD 3360	21	0370	0034103	+533719	H	1	04290	L	84092411	000000	000000	110500 000029	G C=1.5X,B=72
PHCAL	HD 3360	20	0370	0034103	+533719	H	2	17492	L	84081312	000000	000000	123000 000021	G C=175,B=35
PHCAL	HD 3360	21	0370	0034103	+533719	H	2	17467	L	84070714	000000	000000	141700 000021	G C=205,B=32
PHCAL	HD 3360	21	0370	0034103	+533719	H	1	04287	L	84092409	000000	000000	092300 000011	G C=160,B=41
PHCAL	HD 3360	21	0370	0034103	+533719	H	1	04289	L	84092410	000000	000000	103100 000023	G C=255,B=52
PHCAL	HD 3360	21	0370	0034103	+533719	L	2	17438	L	84061316	000000	000000	165800 000001	G C=210,B=30
PHCAL	HD 3360	21	0370	0034103	+533719	H	1	03687	L	84070113	000000	000000	132000 000021	G C=225,B=45
PHCAL	HD 3360	21	0370	0034103	+533719	H	1	04288	L	84092409	000000	000000	095500 000005	G C=120,B=40
PHCAL	HD 3360	21	0370	0034103	+533719	H	1	04286	L	84092408	000000	000000	084900 000005	G C=120,B=40

PRO	OBJECT	CL	MAG	R.A.	DEC	D C	IMAGE	A	DATE	EXP. SMALL	EXP. LARGE	ECC	COMMENT	
PHCAL	HD	3360	20	0370 0034103	+533719	H 1	03478	L	84060118	000000	000000	180200	000021	G C=235, R=45
PHCAL	HD	3360	21	3700 0034103	+533719	H 3	23376	L	84070113	000000	000000	132400	000024	G C=200, R=32
PHCAL	HD	3360	21	0370 0034103	+533719	H 1	04285	L	84092408	000000	000000	081700	000018	G C=205, R=40
PHCAL	HD	3360	20	0370 0034103	+533719	H 3	23145	L	84060117	000000	000000	175800	000024	G C=190, R=35
PHCAL	HD	3360	21	0370 0034103	+533719	L 2	17486	SL	84072114	145300	000002	144800	000001	G C=2X, R=30
PHCAL	HD	3360	21	0370 0034103	+533719	L 2	17485	SL	84072114	141400	000001	141000	000001	G C=177, R=27
PHCAL	HD3360	20	0372 0034103	533720	L 1	03989	L	84081322	000000	000000	225529	000003	703	V R=5.21 , I=1, T=03.8
GA101	SB253	38	1098 0035540	-151700	L 3	23356	L	84062703	000000	000000	034753	000330	500	V
GA101	SB 253	38	1098 0035540	-151700	L 1	03649	L	84062404	000000	000000	043531	000300	503	V
MLGPM	QOM31CFHT3	13	1760 0037494	+402842	D 9	01548	L	84070418	000000	000000	185600	002000		G NO COMMENTS
MLGPM	QOM31CFHT3	13	1760 0037494	+402842	L 3	23402	L	84070507	000000	000000	071700	091200		G E=214, C=195, R=140
EGGAC	00	576	83 1430 0038155	+401921	L 3	24000	L	84091822	000000	000000	222800	024000		G C=80, R=60
EGGAC	00	576	83 1430 0038155	+401921	L 1	04252	L	84091902	000000	000000	023000	019000		G C=105, R=65
GC137	HR180	45	0497 0038580	-462133	H 1	03686	L	84063023	000000	000000	235429	005000	532	V
EGGAC	00	5148	83 1500 0039348	+405736	L 3	24018	L	84092023	000000	000000	231900	024000		G R=55
EGGAC	00	5148	83 1500 0039348	+405736	L 1	04263	L	84092103	000000	000000	032200	014500		G C=100, R=73
EGGAC	00	5219	83 1510 0040342	+393248	L 1	03656	L	84062607	000000	000000	074900	027000		G C=165, R=125
ZAGND	00	WAVECAL	99 9999 0041526	+402422	H 3	23693	S	84081607	074100	000200	000000	000000		G E=50X, R=121
ZAGND	HD	4174	57 0750 0041527	+402423	H 3	23692	L	84081601	000000	000000	013100	034500		G E=4X, C=130, R=78
PHCAL	00	UVFLOOD	99 0000 0041556	+480039	H 1	04438	L	84092823	000000	000000	234100	000204		G R=122
PHCAL	00	T-FLOOD	99 0000 0041556	+480039	H 1	04388	L	84092705	000000	000000	055500	000235		G R=2X
PHCAL	00	UVFLOOD	99 0000 0041556	+480039	H 1	04377	L	84092622	000000	000000	222700	000245		G R=149
PHCAL	00	UVFLOOD	99 0000 0041556	+480039	H 1	04378	L	84092623	000000	000000	230600	000552		G R=233
PHCAL	00	T-FLOOD	99 0000 0041556	+480039	H 1	04387	L	84092705	000000	000000	052500	000235		G R=2X
PHCAL	00	NULL	99 0000 0041556	+480039	H 1	04386	L	84092704	000000	000000	045300	000000		G R=44
PHCAL	00	NULL	99 0000 0041556	+480039	H 1	04440	L	84092900	000000	000000	000000	000000		G R=44
PHCAL	00	NULL	99 0000 0041556	+480039	H 1	04385	L	84092704	000000	000000	040500	000000		G R=45
PHCAL	00	UVFLOOD	99 0000 0041556	+480039	H 1	04384	L	84092703	000000	000000	032900	000245		G R=150
PHCAL	00	NULL	99 9999 0041556	+480039	H 1	04424	L	84092812	000000	000000	123800	000000		G R=44
PHCAL	00	NULL	99 9999 0041556	+480039	H 1	04425	L	84092813	000000	000000	132700	000000		G R=44
PHCAL	00	UVFLOOD	99 0000 0041556	+480039	H 1	04383	L	84092702	000000	000000	024100	000552		G R=233
PHCAL	00	UVFLOOD	99 0000 0041556	+480039	H 1	04437	L	84092823	000000	000000	230300	000123		G R=98
PHCAL	00	UVFLOOD	99 0000 0041556	+480039	H 1	04382	L	84092702	000000	000000	020100	000245		G R=149
PHCAL	00	NULL	99 0000 0041556	+480039	H 1	04389	L	84092706	000000	000000	062300	000000		G R=45
PHCAL	00	T-FLOOD	99 0000 0041556	+480039	H 1	04390	L	84092706	000000	000000	064900	000235		G R=2X
PHCAL	00	UVFLOOD	99 0000 0041556	+480039	H 1	04436	L	84092822	000000	000000	222300	000245		G R=145
PHCAL	00	NULL	99 9999 0041556	+480039	H 1	04294	L	84092413	000000	000000	132500	000000		G R=30
PHCAL	00	UVFLOOD	99 0000 0041556	+480039	H 1	04439	L	84092900	000000	000000	001900	000245		G R=145
PHCAL	00	UVFLOOD	99 0000 0041556	+480039	H 1	04305	L	84092422	000000	000000	221800	000246		G R=151
PHCAL	00	UVFLOOD	99 0000 0041556	+480039	H 1	04379	L	84092623	000000	000000	235100	000654		G R=247
PHCAL	00	UVFLOOD	99 0000 0041556	+480039	H 1	04306	L	84092422	000000	000000	225500	000816		G R=253
PHCAL	00	UVFLOOD	99 0000 0041556	+480039	H 1	04380	L	84092700	000000	000000	003400	000816		G R=253
PHCAL	00	T-FLOOD	99 0000 0041556	+480039	H 1	04391	L	84092707	000000	000000	072100	000235		G R=2X
PHCAL	00	NULL	99 0000 0041556	+480039	H 1	04392	L	84092707	000000	000000	074900	000000		G R=45
PHCAL	00	NULL	99 0000 0041556	+480039	H 1	04393	L	84092708	000000	000000	081400	000000		G R=45

PRO	OBJECT	CL	MAG	R.A.	DEC	D	C	IMAGE	A	DATE	EXP.SMALL	EXP.LARGE	ECC	COMMENT		
PHCAL	00	NULL	99	0000	0041556	+480039	H	1	04394	L	84092708	000000	000000	085000	000000	G B=45
PHCAL	00	UVFLOOD	99	0000	0041556	+480039	H	1	04307	L	84092423	000000	000000	234200	000245	G B=153
PHCAL	00	UVFLOOD	99	0000	0041556	+480039	H	1	04381	L	84092701	000000	000000	012300	000123	G B=100
PHCAL	00	NULL	99	0000	0041556	+480039	H	1	04328	L	84092511	000000	000000	111300	000000	G B=46
PHCAL	00	NULL	99	0000	0041556	+480039	H	1	04327	L	84092510	000000	000000	104800	000000	G B=45
PHCAL	00	NULL	99	0000	0041556	+480039	H	1	04326	L	84092510	000000	000000	101900	000000	G B=45
PHCAL	00	TFLOOD	99	0000	0041556	+480039	H	1	04325	L	84092509	000000	000000	095100	000235	G B=254
PHCAL	00	TFLOOD	99	0000	0041556	+480039	H	1	04324	L	84092509	000000	000000	092200	000235	G B=255
PHCAL	00	NULL	99	0000	0041556	+480039	H	1	04323	L	84092508	000000	000000	085700	000000	G B=45
PHCAL	00	TFLOOD	99	0000	0041556	+480039	H	1	04322	L	84092508	000000	000000	082700	000235	G B=254
PHCAL	00	TFLOOD	99	0000	0041556	+480039	H	1	04321	L	84092507	000000	000000	075600	000235	G B=255
PHCAL	00	NULL	99	0000	0041556	+480039	H	1	04320	L	84092507	000000	000000	072900	000000	G B=48
PHCAL	00	NULL	99	0000	0041556	+480039	H	1	04319	L	84092506	000000	000000	065900	000000	G B=46
PHCAL	00	T FLOOD	99	0000	0041556	+480039	H	1	04318	L	84092506	000000	000000	062900	000109	G B=197
PHCAL	00	TFLOOD	99	0000	0041556	+480039	H	1	04317	S	84092505	055900	000109	000000	000000	G B=196
PHCAL	00	NULL	99	0000	0041556	+480039	H	1	04316	L	84092505	000000	000000	052500	000000	G B=47
PHCAL	00	TFLOOD	99	0000	0041556	+480039	H	1	04315	L	84092504	000000	000000	045900	000109	G B=198
PHCAL	00	TFLOOD	99	0000	0041556	+480039	H	1	04314	L	84092504	000000	000000	043200	000109	G B=194
PHCAL	00	NULL	99	0000	0041556	+480039	H	1	04313	L	84092503	000000	000000	035700	000000	G B=46
PHCAL	00	NULL	99	0000	0041556	+480039	H	1	04312	L	84092503	000000	000000	032900	000000	G B=45
PHCAL	00	UVFLOOD	99	0000	0041556	+480039	H	1	04311	S	84092502	025300	000245	000000	000000	G B=152
PHCAL	00	UVFLOOD	99	0000	0041556	+480039	H	1	04310	S	84092502	020600	000204	000000	000000	G B=127
PHCAL	00	UVFLOOD	99	0000	0041556	+480039	H	1	04309	S	84092501	010800	000041	000000	000000	G B=74
PHCAL	00	UVFLOOD	99	0000	0041556	+480039	H	1	04308	L	84092500	000000	000000	002100	000450	G B=212
PHCAL	00	UVFLOOD	99	0000	0041559	+480039	H	1	04415	L	84092723	000000	000000	235100	000654	G B=245
PHCAL	00	UVFLOOD	99	0000	0041559	+480039	H	1	04419	L	84092802	000000	000000	023800	000204	G B=124
PHCAL	00	UVFLOOD	99	0000	0041559	+480039	H	1	04416	L	84092800	000000	000000	003100	000940	G B=254
PHCAL	00	UVFLOOD	99	0000	0041559	+480039	H	1	04343	L	84092522	000000	000000	222600	000327	G B=174
PHCAL	00	UVFLOOD	99	0000	0041559	+480039	H	1	04344	L	84092523	000000	000000	231100	000041	G B=73
PHCAL	00	UVFLOOD	99	0000	0041559	+480039	H	1	04413	L	84092722	000000	000000	222700	000817	G B=252
PHCAL	00	UVFLOOD	99	0000	0041559	+480039	H	1	04345	L	84092523	000000	000000	234900	000245	G B=208
PHCAL	00	UVFLOOD	99	0000	0041559	+480039	H	1	04346	L	84092600	000000	000000	002600	000654	G B=247
PHCAL	00	UVFLOOD	99	0000	0041559	+480039	H	1	04347	L	84092601	000000	000000	011200	000450	G B=214
PHCAL	00	UVFLOOD	99	0000	0041559	+480039	H	1	04348	L	84092601	000000	000000	015300	000327	G B=174
PHCAL	00	UVFLOOD	99	0000	0041559	+480039	H	1	04349	L	84092602	000000	000000	023400	000816	G B=253
PHCAL	00	NULL	99	0000	0041559	+480039	H	1	04421	L	84092803	000000	000000	034500	000000	G B=46
PHCAL	00	UVFLOOD	99	0000	0041559	+480039	H	1	04350	L	84092603	000000	000000	032100	000246	G C=152
PHCAL	00	UVFLOOD	99	0000	0041559	+480039	H	1	04418	L	84092801	000000	000000	015800	000327	G B=168
PHCAL	00	NULL	99	0000	0041559	+480039	H	1	04351	L	84092604	000000	000000	041200	000000	G B=43
PHCAL	00	UVFLOOD	99	0000	0041559	+480039	H	1	04417	L	84092801	000000	000000	011700	000245	G B=148
PHCAL	00	UVFLOOD	99	0000	0041559	+480039	H	1	04420	L	84092803	000000	000000	031700	000245	G B=147
PHCAL	00	NULL	99	0000	0041559	+480039	H	1	04422	L	84092804	000000	000000	041100	000000	G B=46
PHCAL	00	UVFLOOD	99	0000	0041559	+480039	H	1	04414	L	84092723	000000	000000	231200	000408	G B=191
CSGTS	HD	4656	47	0440	0046051	+071848	L	1	03628	L	84062014	000000	000000	144900	000500	G E=248,C=120,B=50
NPGSM	DD	SMCNA3	70	1690	0049249	-741353	L	3	23415	L	84070609	000000	000000	095300	005500	G E=109,C=51,B=32

PRO	OBJECT	CL	MAG	R.A.	DEC	D C	IMAGE	A	DATE	EXP.SMALL	EXP.LARGE	ECC	COMMENT		
GA101	SB357	38	1263	0050360	-363800	L 1	03660	L	84062701	000000	000000	012315	001300	402 V	
GA101	SB357	38	1275	0050360	-363800	L 3	23354	L	84062700	000000	000000	004855	001900	401 V	
MLGCW	HD	5394	26	0260	0053403	+602647	H 3	24001	L	84091906	000000	000000	061800	000008	G C=220,B=40
GA198	HD5394	26	0224	0053404	602647	H 3	23611	S	84080522	225114	000012	000000	000000	401 V	
GA198	HD5394	26	0227	0053404	602647	H 1	03947	L	84080522	000000	000000	225526	000008	703 V	
GA198	HD5394	26	0228	0053404	602647	H 3	23852	S	84090215	155259	000016	000000	000000	301 V	
GA198	HD5394	26	0218	0053404	602647	H 1	04131	L	84090216	000000	000000	161102	000006	501 V	
GM148	L56	83	1215	0055490	-723246	L 3	23264	L	84061421	000000	000000	213222	001809	300 V	
GM148	L56	83	1217	0055490	-723246	L 1	03583	L	84061421	000000	000000	215700	002500	501 V	
HSGDB	HD	5737	27	0440	0056119	-293738	H 3	23968	L	84091513	000000	000000	130400	000115	G C=180,B=44
HSGDB	HD	5737	27	0440	0056119	-293738	H 3	23969	L	84091513	000000	000000	134300	000230	G C=1.5X,B=56
HSGDB	HD	5737	27	0440	0056119	-293738	H 3	23984	L	84091709	000000	000000	094000	000200	G C=235,B=42
HSGDB	HD	5737	27	0440	0056119	-293738	L 3	23937	L	84091211	000000	000000	113300	000001	G C=150,B=18
HSGDB	HD	5737	27	0440	0056119	-293738	L 1	04212	L	84091211	000000	000000	113800	000001	G C=220,B=36
HSGDB	HD	5737	27	0440	0056119	-293738	H 3	23936	L	84091210	000000	000000	105800	000159	G C=220,B=46
CSGTS	HD	5820	49	0610	0057140	+061250	L 1	03627	L	84062013	000000	000000	135300	001340	G E=203,C=120,B=83
GM148	NGC346	83	1362	0057240	-722648	L 1	03584	L	84061423	000000	000000	232117	002000	502 V	
GM148	NGC346	83	1233	0057240	-722648	L 3	23265	L	84061423	000000	000000	230443	001000	302 V	
IEGCG	OD	AV223	13	1370	0057340	-725505	L 3	23892	L	84090711	000000	000000	111300	003000	G C=2X,B=182
IEGCG	OD	AV223	13	1370	0057340	-725505	L 1	04165	L	84090710	000000	000000	103700	003000	G C=1.5X,B=155
PHCAL	HD	6300	21	0654	0101505	+504431	L 1	04363	L	84092612	000000	000000	120100	000007	G C=240,B=46
PHCAL	HD	6300	21	0654	0101505	+504431	L 1	04362	L	84092611	000000	000000	112600	000002	G C=93,B=40
PHCAL	HD	6300	21	0654	0101505	+504431	L 1	04361	L	84092610	000000	000000	105500	000003	G C=134,B=40
PHCAL	HD	6300	21	0654	0101505	+504431	L 1	04360	L	84092610	000000	000000	102300	000006	G C=185,B=40
PHCAL	HD	6300	21	0654	0101505	+504431	L 1	04355	L	84092607	000000	000000	070600	000007	G C=167,B=98
PHCAL	HD	6300	21	0654	0101505	+504431	L 1	04359	L	84092609	000000	000000	094900	000007	G C=172,B=109
PHCAL	HD	6300	21	0654	0101505	+504431	L 1	04358	L	84092609	000000	000000	090500	000007	G C=172,B=105
PHCAL	HD	6300	21	0654	0101505	+504431	L 1	04365	L	84092613	000000	000000	131300	000006	G C=220,B=35
PHCAL	HD	6300	21	0654	0101505	+504431	L 1	04354	L	84092606	000000	000000	062400	000007	G C=210,B=147
PHCAL	HD	6300	21	0654	0101505	+504431	L 1	04353	L	84092605	000000	000000	053900	000042	G C=2X,B=45
PHCAL	HD	6300	21	0654	0101505	+504431	L 1	04352	L	84092605	000000	000000	050000	000021	G C=190,B=35
PHCAL	HD	6300	21	0654	0101505	+504431	L 1	04357	L	84092608	000000	000000	082900	000021	G C=190,B=40
PHCAL	HD	6300	21	0654	0101505	+504431	L 1	04364	L	84092612	000000	000000	124100	000009	G C=1.5X,B=41
PHCAL	HD	6300	21	0654	0101505	+504431	L 1	04356	L	84092607	000000	000000	074800	000014	G C=205,B=105
PHCAL	HD	6300	21	0654	0101509	+504431	L 1	04395	L	84092709	000000	000000	092600	000007	G C=179,B=110
PHCAL	HD	6300	21	0654	0101509	+504431	L 1	04329	L	84092512	000000	000000	120500	000006	G C=205,B=42
PHCAL	HD	6300	21	0654	0101509	+504431	L 1	04330	L	84092512	000000	000000	123700	000002	G C=100,B=38
PHCAL	OD	NULL	99	9999	0101509	+504431	L 1	04401	L	84092713	000000	000000	132800	000000	G B=44
PHCAL	HD	6300	21	0654	0101509	+504431	L 1	04283	L	84092406	000000	000000	064600	000021	G C=185,B=42
PHCAL	HD	6300	21	0654	0101509	+504431	L 1	04400	L	84092712	000000	000000	124200	000007	G C=180,B=115
PHCAL	HD	6300	21	0654	0101509	+504431	L 1	04331	L	84092513	000000	000000	130900	000006	G C=210,B=38
PHCAL	OD	NULL	99	0368	0101509	+504431	H 1	04399	L	84092712	000000	000000	121000	000000	G B=44
PHCAL	HD	6300	21	0654	0101509	+504431	L 1	04396	L	84092710	000000	000000	101100	000007	G C=250,B=185
NSGWB	ODE0102-72	75	9999	0102249	-721808	L 1	04203	L	84091106	000000	000000	065500	012000	G C=210,B=175	
NSGWB	ODE0102-72	75	9999	0102249	-721808	L 3	23925	L	84091023	000000	000000	232800	029500	G C=115,B=65	

PRO	OBJECT	CL	MAG	R.A.	DEC	D C	IMAGE	A	DATE	EXP.SMALL	EXP.LARGE	ECC	COMMENT	
NSCW8	00 N 76 A 72	9999	0102249	-721808	L 1	04202	L	84091023	000000	000000	233700	024000	G C=185,B=70	
GA101	SB 463	38	1225	0106420	-332400	L 1	03648	L	84062403	000000	000000	031600	001200	403 V
GA101	SB 463	38	1229	0106420	-332400	L 3	23326	L	84062403	000000	000000	033834	001900	500 V
CCGAD	HD 6833	47	0680	0106509	+542820	L 1	03793	L	84071809	000000	000000	094100	001260	G E=147,C=210,B=80
CCGAD	HD 6833	47	0680	0106509	+542820	H 1	03792	L	84071803	000000	000000	032600	034000	G E=219,C=225,B=148
CCGAD	HD 6833	47	0680	0106509	+542820	L 1	03794	L	84071810	000000	000000	102900	002000	G B=150
GC210	HD6903	45	0594	0107080	192331	L 3	23747	L	84082118	000000	000000	185755	009000	531 V
GC210	HD6903	45	0596	0107080	192331	H 1	04045	L	84082118	000000	000000	180733	004500	502 V
GC210	HD6903	45	0589	0107080	192331	H 1	04047	L	84082200	000000	000000	000018	004700	503 V
NEGRD	00 SMC N81	72	1220	0107449	-732736	L 3	23616	L	84080608	000000	000000	083400	004000	G C=3X,B=139
NEGRD	00 SMC N81	72	1400	0107449	-732736	L 3	23598	L	84080410	000000	000000	101500	003000	G E=1.5X,C=1.5X,B=105
NEGRD	00 SMC N81	72	1220	0107449	-732736	L 1	03949	L	84080607	000000	000000	074000	004000	G C=2X,B=113
NEGRD	00 SMC N81	72	1400	0107449	-732735	L 1	03934	L	84080410	000000	000000	105000	002000	G C=1.1X,B=113
WDGJH	00 GD 691	37	1310	0109479	-262917	L 3	23215	SL	84060914	141600	001220	140400	000610	G C=110,B=18
LDGDS	HD 7438	46	0510	0111512	-081045	L 1	03577	L	84061414	000000	000000	140700	000500	G E=122,C=175,B=50
LDGDS	HD 7438	46	0510	0111512	-081045	L 1	03591	L	84061514	000000	000000	144600	000600	G E=120,C=195,B=40
LDGDS	HD 7439	41	0790	0111528	-081128	H 1	03590	L	84061513	000000	000000	133400	004000	G E=120,C=3.5X,B=78
LDGDS	HD 7439	41	0790	0111528	-081128	H 1	03576	L	84061412	000000	000000	125200	002500	G E=125,C=2X,B=98
GQ256	F9	84	1390	0121511	-590358	L 3	23824	L	84083015	000000	000000	153615	007500	251 V
GQ256	F9	84	1424	0121512	-590359	L 1	04106	L	84083016	000000	000000	165830	006000	342 V
NEGRD	00 SMC N88	72	1400	0122547	-732452	L 1	03933	L	84080409	000000	000000	091800	004500	G C=250,B=167
NEGRD	00 SMC N88	72	1200	0122547	-732453	L 3	23614	L	84080601	000000	000000	015200	009000	G E=201,C=90,B=37
NEGRD	00 SMC N88	72	1400	0122547	-732452	L 3	23597	L	84080408	000000	000000	083200	004000	G E=169,C=125,B=83
NEGRD	00 SMC N88	72	1200	0122547	-732453	D 9	01568	L	84080602	000000	000000	023300	000020	G NO COMMENTS
NEGRD	00 SMC N88	72	1200	0122547	-732453	L 1	03948	L	84080603	000000	000000	032900	012000	G E=85,C=200,B=50
NEGRD	00 SMC N88	72	1200	0122547	-732453	L 3	23615	L	84080606	000000	000000	060700	007500	G E=202,C=100,B=55
NEGRD	00 SMC N90	72	1200	0128119	-734909	L 3	23617	L	84080610	000000	000000	104300	003000	G E=247,C=225,B=180
NEGRD	00 SMC N90	72	1200	0128119	-734909	L 1	03950	L	84080610	000000	000000	101200	002000	G C=235,B=160
GM148	NGC602	83	1351	0128190	-734906	L 1	03585	L	84061500	000000	000000	004653	003000	402 V
GM148	NGC602	83	1362	0128190	-734906	L 3	23266	L	84061500	000000	000000	001036	003000	401 V
GHGLH	BD+32 0270	20	1038	0132000	+324032	L 3	23328	L	84062410	000000	000000	102800	000240	G C=200,B=17
ZAGNO	00 AX PER 57	1050	0133050	+540000	L 1	03999	SL	84081608	083300	000600	081600	000800	G E=1.2X,C=90,B=43	
ZAGNO	00 AX PER 57	1050	0133050	+540000	L 3	23448	SL	84071214	142400	001000	140100	001500	G E=255,B=32	
GA102	R548	65	1430	0133444	-113546	L 3	23755	L	84082220	000000	000000	205701	015000	101 V 20 CTS AT RP
GA102	R548	65	1430	0133444	-113546	L 1	04054	L	84082223	000000	000000	233021	003304	101 V
CCGAD	BD-18 271	47	0980	0134540	-174409	L 1	04110	L	84083022	000000	000000	223300	035000	G E=177,C=225,B=85
GA094	GD 419	37	1342	0134550	831948	L 1	04208	L	84091118	000000	000000	180734	002500	502 V
GA094	GD 419	37	1335	0134550	831948	L 3	23931	L	84091118	000000	000000	184624	004500	600 V
WDGGW	00 L870-2	37	1280	0135275	-051454	L 1	03695	L	84070203	000000	000000	034100	006000	G C=225,B=42
WDGGW	00 L870-2	37	1280	0135275	-051454	L 3	23380	L	84070204	000000	000000	045100	036000	G C=120,B=68
PMGJL	HD 10380	47	0440	0138496	+051407	L 3	23453	L	84071303	000000	000000	033500	021000	G E=77,B=40
CCGDS	HD 11131	44	0680	0146558	-105700	H 1	03613	L	84061805	000000	000000	053400	008500	G E=191,C=215,B=43
GA102	GD279	37	1278	0148560	464512	L 1	04053	L	84082219	000000	000000	195731	001200	402 V
GA102	GD279	37	1274	0148560	464512	L 3	23754	L	84082219	000000	000000	191447	002500	560 V
GE057	MICH 393	88	1500	0203425	-003146	L 3	23979	L	84091614	000000	000000	145500	038200	353 V

PRO	OBJECT	CL	MAG	R.A.	DEC	D C	IMAGE	A	DATE	EXP.SMALL	EXP.LARGE	ECC	COMMENT		
OD26K	DOMRK	1018	84	1400	0203426	-003147	L 3	23423	L	84070707	000000	000000	075800	017500	G E=190,C=106,B=67
PHCAL	OD WAVCAL	98	0000	0203555	-001210	H 2	17465	S	84070712	123500	000016	000000	000000	G E=50X,B=144	
PHCAL	OD NULL	99	0000	0203555	-001210	H 2	17463	L	84070711	000000	000000	112500	000000	G	
PHCAL	OD WAVCAL	98	0000	0203555	-001210	L 2	17464	S	84070712	120600	000001	000000	000000	G E=10X,B=83	
GC210	HD12929	47	0236	0204210	231335	H 1	04039	L	84081920	000000	000000	202118	001600	651 V	
GC210	HD12929	47	0234	0204210	231335	L 3	23726	L	84081917	000000	000000	175444	014000	341 V	
GC210	HD12929	47	0237	0204210	231335	H 1	04038	L	84081917	000000	000000	174147	000800	341 V	
HSGAT	HD 12993	12	0890	0205327	+574133	L 1	03868	L	84072515	000000	000000	155200	000105	G C=240,B=40	
HSGAT	HD 12993	12	0890	0205327	+574133	L 1	03850	L	84072412	000000	000000	125500	000530	G C=8X,B=45	
WDGFB	0205+250	37	1310	0205540	+250000	H 3	23647	L	84080902	000000	000000	020200	041000	G C=180,B=87	
GI179	WXHYI	54	1500	0208285	-633247	L 1	04184	L	84090820	000000	000000	202814	005000	341 V	
GI179	WX HYI	54	1335	0208285	-633247	L 3	23952	L	84091319	000000	000000	192224	006000	550 V	
GI179	WX HYI	54	1289	0208285	-633247	L 1	04138	L	84090315	000000	000000	155153	003000	402 V	
GI179	WX HYI	54	1298	0208285	-633247	L 3	23863	L	84090315	000000	000000	150723	004000	331 V	
GI234	WX HYI	54	1480	0208285	-633247	L 3	23924	L	84091020	000000	000000	203642	004100	230 V	
GI179	WX HYI	54	1281	0208285	-633247	L 3	23864	L	84090316	000000	000000	162739	004500	331 V	
GI179	WX HYI	54	1348	0208285	-633247	L 1	04221	L	84091320	000000	000000	202944	004700	561 V	
GI179	WXHYI	54	1450	0208285	-633247	L 3	23998	L	84091814	000000	000000	145609	010800	341 V	
HSGAT	HD 13338	12	0910	0208481	+574224	L 1	03849	L	84072412	000000	000000	120000	000530	G C=5X,B=35	
HSGAT	HD 13338	12	0910	0208481	+574224	L 3	23502	L	84072411	000000	000000	111800	000410	G C=140,B=15	
HSGAT	HD 13338	12	0910	0208481	+574224	L 1	03869	L	84072516	000000	000000	163600	000110	G C=165,B=36	
HSGAT	HD 13338	12	0910	0208481	+574224	L 1	03848	L	84072411	000000	000000	110800	000056	G C=120,B=30	
WDGFB	0214+569	37	1350	0214000	+565300	L 3	23375	L	84070111	000000	000000	114700	000700	G C=90,B=20	
IGGDY	PG0217+168	38	1450	0217489	+165025	L 3	23685	L	84081414	000000	000000	140800	002000	G B=25	
HSGAP	HD 14829	38	1030	0220442	-105422	L 3	23439	L	84071111	000000	000000	114300	005100	G C=230,B=45	
GA102	FEIGE22	37	1294	0227390	050230	L 3	23756	L	84082300	000000	000000	003140	001500	501 V	
GA102	FEIGE22	37	1277	0227390	050230	L 3	23753	L	84082217	000000	000000	173301	004000	601 V	
GA102	FEIGE22	37	1291	0227390	050230	L 1	04052	L	84082218	000000	000000	181850	002000	503 V	
GA102	GD31	37	1440	0231375	-052452	L 3	23941	L	84091218	000000	000000	182843	017000	402 V	
WDGJR	OOFEIGE 24	37	1240	0232309	+033051	L 3	23475	SL	84071908	082300	000400	081500	000200	G C=140,B=18	
WDGJR	OOFEIGE 24	37	1240	0232309	+033051	H 3	23474	L	84071903	000000	000000	034600	024000	G C=195,B=80	
WDGJH	OOFEIGE 24	37	1230	0232320	+033012	L 3	23801	SL	84082810	104400	000630	105800	000325	G C=215,B=17	
LDCGS	HD 16160A	46	0580	0233201	+063858	H 1	04068	L	84082413	000000	000000	130500	003000	G E=138,C=110,B=50	
LDCGS	HD 16160B	48	1160	0233310	+063800	L 1	04069	L	84082414	000000	000000	142100	002000	G B=40	
VVGSP	HD 17878	39	0410	0250418	+523333	H 1	04150	L	84090511	000000	000000	111900	002200	G C=1.5X,B=72	
AFGJL	HD 18404	41	0580	0255132	+202810	H 1	03776	L	84071617	000000	000000	170400	001000	G C=1.5X,B=167	
WDGGW	OD BPM2819	37	1410	0255524	-703403	L 3	23381	L	84070218	000000	000000	181100	003500	G C=62,B=38	
WDGGW	OD BPM2819	37	1410	0255524	-703403	L 1	03698	L	84070217	000000	000000	170100	006000	G C=250,B=180	
PHCAL	OD WAVCAL	99	0000	0255524	-703403	L 1	04104	S	84083012	121200	000001	000000	000000	G E=10X,B=105	
WDGGW	OD BPM2819	37	1410	0255524	-703403	L 3	23821	L	84083011	000000	000000	110500	002000	G C=173,B=141	
WDGGW	OD BPM2819	37	1410	0255524	-703403	L 1	04103	L	84083010	000000	000000	101000	004500	G C=3X,B=207	
WDGGW	OD BPM2819	37	1410	0255524	-703403	L 3	23820	L	84083009	000000	000000	090300	006000	G C=184,B=141	
PHCAL	OD WAVCAL	99	0000	0255524	-703403	H 3	23823	S	84083013	133600	000200	000000	000000	G E=50X,B=170	
WDGGW	OD BPM2819	37	1410	0255524	-703403	L 1	03697	L	84070215	000000	000000	152500	006000	G C=245,B=175	
PHCAL	OD WAVCAL	99	0000	0255524	-703403	H 1	04105	S	84083012	124500	000016	000000	000000	G E=50X,B=123	

PRO	OBJECT	CL	MAG	R.A.	DEC	D C	IMAGE	A	DATE	EXP.SMALL	EXP.LARGE	ECC	COMMENT	
PHCAL	00 WAVCAL	99	0000	0255524	-703403	L 3	23822	S	84083013	131100	000002	000000	000000	G E=10X,B=103
HSGDB	HD 19400	27	0550	0302083	-720552	H 3	23977	L	84091612	000000	000000	123300	000600	G C=2.0X,B=170
GC137	HD20301	41	0712	0312420	-354434	L 3	23373	L	84070101	000000	000000	011543	017200	411 V
GC137	HD20301	41	0696	0312420	-354434	L 3	23372	L	84063022	000000	000000	224135	001500	201 V EARTH OCCULTED
GC137	HD20301	41	0695	0312420	-354434	L 1	03685	LS	84063022	221205	000500	222200	001500	712 V 512*
LGGER	HD 20468	47	0480	0315357	+340228	L 3	23555	L	84073008	000000	000000	082900	021000	G E=137,C=150,B=115
OD42K	X 0323+022	87	1600	0323379	+021447	L 1	04259	L	84092006	000000	000000	062700	020000	G C=160,B=115
OD42K	X 0323+022	87	1600	0323380	+021447	L 3	24010	L	84091922	000000	000000	225500	044000	G C=140,B=190
HSGDB	HD 21699	27	0550	0328358	+475116	L 3	23982	L	84091707	000000	000000	074500	000005	G C=195,B=17
HSGDB	HD 21699	27	0550	0328358	+475116	L 1	04238	L	84091706	000000	000000	065400	000002	G C=180,B=36
HSGDB	HD 21699	27	0550	0328358	+475116	H 3	23981	L	84091706	000000	000000	064200	000700	G C=250,B=45
HSGDB	HD 21699	27	0550	0328358	+475116	H 3	23978	L	84091613	000000	000000	134100	000600	G C=255,B=70
HSGDB	HD 21699	27	0550	0328358	+475116	L 1	04237	L	84091613	000000	000000	133500	000002	G C=175,B=36
HSGDB	HD 21699	27	0550	0328358	+475116	H 3	23980	L	84091713	000000	000000	133700	000600	G C=250,B=63
HSGDB	HD 21699	27	0550	0328358	+475116	L 3	23939	L	84091213	000000	000000	134400	000005	G C=205,B=18
HSGDB	HD 21699	27	0550	0328358	+475116	L 3	23967	L	84091511	000000	000000	115700	000005	G C=198,B=17
HSGDB	HD 21699	27	0550	0328358	+475116	L 1	04235	L	84091511	000000	000000	111700	000002	G C=165,B=16
HSGDB	HD 21699	27	0550	0328358	+475116	H 3	23966	L	84091510	000000	000000	103500	000500	G C=250,B=92
HSGDB	HD 21699	27	0550	0328358	+475116	L 3	23956	L	84091408	000000	000000	083300	000002	G C=175,B=32
HSGDB	HD 21699	27	0550	0328358	+475116	L 1	04222	L	84091408	000000	000000	083300	000002	G C=190,B=18
HSGDB	HD 21699	27	0550	0328358	+475116	H 3	23955	L	84091407	000000	000000	074200	000700	G C=1.2X,B=60
HSGDB	HD 21699	27	0550	0328358	+475115	H 3	23950	L	84091313	000000	000000	134200	000500	G C=250,B=84
HSGDB	HD 21699	27	0550	0328358	+475115	L 1	04219	L	84091313	000000	000000	132400	000002	G C=185,B=36
HSGDB	HD 21699	27	0550	0328358	+475116	L 1	04217	L	84091309	000000	000000	094400	000003	G C=1.5X,B=26
HSGDB	HD 21699	27	0550	0328358	+475116	L 3	23947	L	84091309	000000	000000	094000	000005	G C=185,B=18
HSGDB	HD 21699	27	0550	0328358	+475116	L 3	23933	L	84091207	000000	000000	071200	000005	G C=185,B=20
HSGDB	HD 21699	27	0550	0328358	+475116	L 1	04210	L	84091207	000000	000000	071600	000003	G C=250,B=36
HSGDB	HD 21699	27	0550	0328358	+475116	H 1	04211	L	84091208	000000	000000	081700	000230	G C=205,B=45
HSGDB	HD 21699	27	0550	0328358	+475116	H 3	23934	L	84091208	000000	000000	082700	000700	G C=245,B=50
HSGDB	HD 21699	27	0550	0328358	+475116	H 3	23946	L	84091308	000000	000000	084200	000700	G C=250,B=56
HSGDB	HD 21699	27	0550	0328358	+475116	H 3	23938	L	84091213	000000	000000	130600	000500	G C=240,B=80
HSGDB	HD 21699	27	0550	0328359	+475117	H 3	23973	L	84091608	000000	000000	081000	000700	G C=255,B=47
EGGSF	RG 1399	81	1000	0336348	-353642	L 3	23271	L	84061605	000000	000000	054200	039500	G C=120,B=70
HCGFC	DLTT 1728	46	1300	0337010	-110858	L 3	23416	L	84070611	000000	000000	115200	009000	G B=80
VVGSP	HD 23089	39	0499	0341386	+631121	H 1	04151	L	84090512	000000	000000	122400	001800	G C=1.5X,B=130
GM037	HD23478	21	0690	0343320	320808	H 3	23920	L	84090915	000000	000000	151448	002900	501 V
GM037	HD23478	21	0690	0343320	320808	H 1	04190	L	84090914	000000	000000	145256	001200	502 V
CBGEG	RD+16 0516	46	0950	0347340	+170624	L 3	23668	SL	84081110	104400	002000	102300	001200	G C=180,B=18
CBGEG	RD+16 0516	46	0950	0347340	+170624	L 1	03977	SL	84081111	113100	002400	111300	001200	G C=152,B=42
CBGEG	RD+16 0516	46	0950	0347340	+170624	L 3	23669	SL	84081112	120000	003800	121300	002800	G C=220,B=25
CBGEG	RD+16 0516	46	0950	0347340	+170624	L 3	23670	SL	84081113	141500	001400	135900	002800	G C=230,B=28
CBGEG	RD+16 0516	46	0950	0347340	+170624	L 1	03978	L	84081113	000000	000000	130900	002000	G E=166,C=125,B=47
LGGJL	HD 24512	49	0320	0348007	-742332	H 1	03732	L	84070814	000000	000000	143800	002500	G E=1.5X,C=121,B=72
IMGTS	OOZETA PER	23	0290	0350589	+314412	H 1	04459	L	84093022	000000	000000	223300	000130	G C=4X,B=73
IMGTS	OOZETA PER	23	0290	0350589	+314412	H 1	04460	L	84093023	000000	000000	231100	000145	G C=4X,B=73

PRO	OBJECT	CL	MAG	R.A.	DEC	D C	IMAGE A	DATE	EXP.SMALL	EXP.LARGE	ECC	COMMENT	
IMGTS	DOZETA PER	23	0290	0350589	+314412	H 1	04461 L	84093023	000000	000000	235100	000145	G C=4X,B=73
CRGMP	HD 25487	66	0800	0400480	+275930	L 1	04081 L	84082611	000000	000000	110900	001500	G C=142,B=72
CRGMP	HD 25487	66	0800	0400480	+275930	L 3	23785 L	84082610	000000	000000	100200	006000	G C=110,B=86
GM037	HD25539	21	0696	0401322	322607	H 1	04192 L	84090920	000000	000000	203015	001500	501 V
EGGTT	NG 1510	80	1350	0401541	-433211	L 1	04236 L	84091522	000000	000000	225500	031000	G C=182,B=75
EGGTT	NG 1510	80	1350	0401541	-433211	L 3	23980 L	84091622	000000	000000	221500	038500	G C=163,B=82
EGGTT	NG 1510	80	1350	0401541	-433211	L 3	23971 L	84091605	000000	000000	054400	001000	G B=20
MLGOW	HD 25940	26	0400	0405013	+473452	H 3	24013 L	84092011	000000	000000	112400	000155	G C=200,B=45
GA209	HD25940	21	0420	0405013	473452	H 3	24051 L	84092217	000000	000000	171731	000210	501 V
GI234	VWHYI	54	1355	0409322	-712528	L 1	04201 L	84091015	000000	000000	152235	010400	561 V 2*52 MINS,2EXP LAP
GI179	VW HYI	54	1421	0409323	-712529	L 3	23865 L	84090319	000000	000000	193532	010500	501 V
GI179	VW HYI	54	1390	0409323	-712529	L 1	04220 L	84091317	000000	000000	170519	010400	551 V 2*52 MIN, 2EXP LAP
GI179	VW HYI	54	1421	0409323	-712529	L 3	23951 L	84091315	000000	000000	150914	010400	431 V 2*52 MIN, 2EXP LAP
GI179	VWHYI	54	1390	0409323	-712529	L 1	04251 L	84091817	000000	000000	171823	010400	551 V 2*52 MIN (2,-212)(-3
GI233	VW HYI	54	0990	0409323	-712529	L 1	04264 L	84092116	000000	000000	165209	000130	501 V
GI233	VW HYI	54	0990	0409323	-712529	L 3	24032 L	84092116	000000	000000	165747	000200	500 V
GI179	VW HYI	54	1434	0409323	-712529	L 3	23999 L	84091819	000000	000000	191051	010400	430 V 2*52 MINS (-34,-204)
GI179	VW HYI	54	1390	0409323	-712529	L 1	04139 L	84090317	000000	000000	174631	010500	662 V
GI179	VW HYI	54	1126	0409323	-712529	L 1	04170 L	84090717	000000	000000	171923	000800	502 V 2*4MIN
GI179	VW HYI	54	1119	0409323	-712529	L 1	04169 L	84090716	000000	000000	162326	000400	501 V
GI234	VW HYI	54	1350	0409323	-712529	L 3	23923 L	84091017	000000	000000	172451	010400	440 V 2*52 MINS,2EXP LAP
GI179	VW HYI	54	1127	0409323	-712529	L 3	23897 L	84090718	000000	000000	180208	001200	500 V 2*6MIN
GI179	VW HYI	54	1319	0409323	-712529	L 1	04183 L	84090818	000000	000000	185105	002500	502 V
GI179	VW HYI	54	1336	0409323	-712529	L 3	23905 L	84090819	000000	000000	192128	003500	400 V
GI179	VWHYI	54	1122	0409323	-712529	L 3	23896 L	84090716	000000	000000	163245	000630	500 V
GI179	VW HYI	54	1114	0409323	-712529	L 3	23895 L	84090715	000000	000000	152556	000700	600 V
WDEJH	0040 ERI B	37	0950	0412585	-074608	L 3	23803 SL	84082813	132700	000231	131900	000124	G C=205,B=15
PHGJL	HD 27442	46	0440	0415369	-592518	L 3	23454 L	84071307	000000	000000	074500	021000	G E=91,C=62,B=48
GE078	SN/NGC1559	56	1332	0417000	-625500	L 3	23682 L	84081318	000000	000000	181153	016800	211 V
GE078	SN/NGC1559	56	1332	0417000	-625500	E 9	01577 2	84081318	000000	000000	181000	004000	V FES FOR SWP 23682
HSGDB	HD 28843	27	0590	0430072	-031851	H 3	23958 L	84091411	000000	000000	111700	000600	G C=2.0X,B=128
HSGDB	HD 28843	27	0590	0430072	-031851	L 3	23959 L	84091411	000000	000000	115800	000005	G C=155,B=18
GQ225	3C120	84	1434	0430315	051500	L 1	04153 L	84090519	000000	000000	190613	013000	343 V
GQ225	3C120	84	1424	0430315	051500	L 3	23880 L	84090515	000000	000000	151901	022000	341 V
QSGJO	00 3C120	84	1500	0430315	+051459	L 3	23799 L	84082802	000000	000000	021600	036000	G E=216,C=125,B=63
GM037	HD29309	20	0710	0435026	315359	H 1	04191 L	84090916	000000	000000	161829	004900	502 V
GM037	HD29309	20	0736	0435026	315359	H 3	23921 L	84090917	000000	000000	171221	018000	602 V
CRGMP	HD 29365	66	0570	0435184	+203508	H 3	23784 L	84082608	000000	000000	085100	001200	G C=205,B=42
CRGMP	HD 29365	66	0570	0435185	+203509	H 3	23786 L	84082611	000000	000000	115400	002600	G C=1.1X,B=106
CRGMP	HD 29365	66	0570	0435185	+203509	H 1	04080 L	84082609	000000	000000	090900	000800	G C=285,B=50
CRGMP	HD 29365	66	0570	0435185	+203509	H 1	04082 L	84082612	000000	000000	122600	001800	G C=1.5X,B=130
CVGWR	00 AS 84	16	1300	0439132	+463254	L 1	04205 L	84091112	000000	000000	121900	001000	G C=210,B=174
CVGWR	00LSV46	21	1230	0439132	+463254	L 3	23928 L	84091113	000000	000000	130700	000300	G C=190,B=35
CVGWR	00 AS 84	16	1300	0439132	+463254	L 3	23927 L	84091111	000000	000000	111400	000200	G B=25
CVGWR	00LSV46	21	1230	0439405	+463628	L 1	04204 L	84091111	000000	000000	110200	000330	G C=170,B=62

PRO	OBJECT	CL	MAG	R.A.	DEC	D C	IMAGE	A	DATE	EXP.SMALL	EXP.LARGE	ECC	COMMENT			
CVGWB	DOLSV46	21	16	1230	0439405	+463628	L 3	23926	L	84091110	000000	000000	102900	000300	G C=200,B=20	
CVGWB	DOLSV46	21	16	1230	0439405	+463628	L 1	04206	L	84091113	000000	000000	131700	000330	G C=180,B=74	
WRGCG	00	BR1	11	1590	0445553	-702027	L 1	03699	L	84070303	000000	000000	035800	010000	G E=153,C=105,B=45	
WRGCG	00	BR1	11	1590	0445553	-702027	L 3	23384	L	84070306	000000	000000	061100	012000	G E=1.1X,C=97,B=36	
NEGRD	DOLMC	N4A	72	0000	0452000	-670000	L 3	23643	L	84080812	000000	000000	125900	004000	G C=240,B=118	
NEGRD	DOLMC	N4A1	72	1300	0452045	-670010	L 3	23618	L	84080611	000000	000000	115700	002000	G C=230,B=160	
NEGRD	DOLMC	N4A2	72	0000	0452052	-670014	L 3	23619	L	84080612	000000	000000	125700	001500	G C=225,B=160	
GE071	NGC 1705	B2	1400	0453060	-532626	L 1	03624	L	84062002	000000	000000	025059	011700	504	V NUCLEUS	
GE071	NGC 1705	B2	1400	0453060	-532636	L 3	23285	L	84061901	000000	000000	011036	021700	311	V 10" SOUTH OF NUCLEUS	
GE071	NGC 1705	B2	1400	0453060	-532626	L 1	03621	L	84061822	000000	000000	220657	018000	714	V NUCLEUS	
GE071	NGC 1705	B2	1400	0453060	-532636	L 1	03623	L	84061922	000000	000000	220948	023000	314	V 10" SOUTH OF NUCLEUS	
GE071	NULL	99	9999	0453060	-532636	1	03622		84061922	000000	000000	000000	000000		V READG1 FOR LWP3623	
GC167	HD31398	47	0296	0453440	330519	H 1	04014	L	84081717	000000	000000	175156	041500	776	V CENTER OF LIGHT	
NEGWB	00	LMC-N86	75	9999	0456050	-684249	L 3	23722	L	84081901	000000	000000	015600	033000		G C=128,B=76
GM180	SK-69	43	23	1217	0456260	-692017	L 1	03612	L	84061802	000000	000000	020947	001100	613	V
GE251	SK-6636	72	1140	0457010	-662752	L 3	23773	L	84082500	000000	000000	002501	002200	300	V	
GE251	N11A/LMC	72	1273	0457100	-662754	L 3	23772	L	84082421	000000	000000	211234	009000	550	V	
GE251	N11A/LMC	72	1288	0457100	-662754	L 1	04073	L	84082422	000000	000000	224821	009000	701	V	
VVGRC	HD	31964	39	0300	0458225	+434505	L 2	17499	L	84081511	000000	000000	115900	000006		G C=140,B=25
VVGRC	HD	31964	39	0300	0458225	+434505	L 3	23689	L	84081512	000000	000000	120500	000100		G C=115,B=17
VVGRC	HD	31964	39	0300	0458225	+434505	L 3	23942	L	84091222	000000	000000	221000	000140		G C=132,B=18
GI004	HD31964	40	0335	0458225	434505	L 1	04160	L	84090617	000000	000000	174655	000012	701	V	
GI004	HD31964	40	0336	0458225	434505	L 3	23886	L	84090616	000000	000000	164928	000300	500	V	
GI004	HD31964	40	0335	0458225	434505	H 3	23888	L	84090619	000000	000000	190455	013200	701	V	
VVGRC	HD	31964	39	0300	0458225	+434505	H 2	17498	L	84081510	000000	000000	103000	000730		G C=185,B=30
VVGRC	HD	31964	39	0300	0458225	+434505	L 1	04214	L	84091221	000000	000000	215800	000007		G C=205,B=32
VVGRC	HD	31964	39	0300	0458225	+434505	H 3	23688	L	84081509	000000	000000	094400	004000		G C=143,B=43
GI004	HD31964	40	0336	0458225	434505	H 1	04158	L	84090614	000000	000000	144150	000800	501	V	
GI004	HD31964	40	0336	0458225	434505	H 1	04159	L	84090616	000000	000000	160257	004000	702	V	
VVGRC	HD	31964	39	0300	0458225	+434505	H 3	23943	L	84091222	000000	000000	224200	030000		G C=5X,B=92
GI004	HD31964	40	0336	0458225	434505	L 3	23887	L	84090617	000000	000000	175235	002000	700	V	
GI004	HD31964	40	0337	0458225	434505	H 3	23885	L	84090614	000000	000000	145550	006000	401	V	
GI004	HD31964	40	0335	0458225	434505	L 1	04161	L	84090618	000000	000000	183332	000200	802	V	
VVGRC	HD	31964	39	0300	0458225	+434505	L 1	04215	L	84091303	000000	000000	034600	000035		G C=4X,B=35
VVGTA	00	EPS AUR	40	0300	0458226	+434505	L 3	23606	L	84080514	000000	000000	140900	000150		G C=200,B=65
VVGTA	00	EPS AUR	40	0300	0458226	+434505	L 1	03944	SL	84080513	133200	000112	133700	000009		G C=3X,B=68
VVGTA	00	EPS AUR	40	0320	0458226	+434505	L 3	23848	L	84090210	000000	000000	102500	000150		G C=170,B=22
VVGTA	00	EPS AUR	40	0320	0458226	+434505	L 3	23849	L	84090211	000000	000000	110100	002500		G C=10X,B=132
VVGTA	00	EPS AUR	40	0300	0458226	+434505	L 3	23608	L	84080516	000000	000000	163500	001500		G E=100,C=7X,B=93
VVGTA	00	EPS AUR	40	0320	0458226	+434505	H 1	04128	L	84090211	000000	000000	113400	000600		G C=255,B=100
VVGTA	00	EPS AUR	40	0320	0458226	+434505	L 1	04129	SL	84090212	122400	000119	122000	000007		G C=1.2X,B=67
VVGTA	00	EPS AUR	40	0320	0458226	+434505	H 1	04127	L	84090210	000000	000000	103000	002500		G E=212,C=4X,B=120
VVGTA	00	EPS AUR	40	0300	0458226	+434505	H 1	03945	L	84080514	000000	000000	142800	000400		G C=1.5-2X,B=160
WDGJH	00G191	B2B	37	1180	0501310	+524448	L 3	23813	SL	84082913	131200	000235	130500	000126		G C=210,B=44
WDGJH	00G191	B2B	37	1180	0501310	+524448	L 3	23800	SL	84082809	093800	000235	093100	000126		G C=178,B=15

PRO	OBJECT	CL	MAG	R.A.	DEC	D C	IMAGE A	DATE	EXP.SMALL	EXP.LARGE	ECC	COMMENT			
NPGSM	00	LMCP7	70	1660	0505048	-684306	L 3	23397 L	84070409	000000	000000	094900	006000	G E=62,C=50,B=37	
NPGSM	00	LMCP7	70	1660	0505048	-684306	L 3	23413 L	84070604	000000	000000	041600	012000	G E=108,B=35	
NPGSM	00	LMCP8	70	1670	0566154	-674927	L 3	23396 L	84070408	000000	000000	081600	004500	G B=26	
MLGCW	HD	33328	26	0430	0506449	-084859	H 3	24011 L	84092810	000000	000000	101200	000048	G C=220,B=38	
OD38K	HD	338533	66	0800	0511472	+462100	L 1	04010 L	84081710	000000	000000	100900	000200	G C=3X,B=40	
OD38K	HD	338533	66	0800	0511472	+462100	L 3	23708 L	84081710	000000	000000	100000	000300	G C=3X,B=22	
OD38K	HD	338533	66	0800	0511473	+462100	H 3	23728 L	84082009	000000	000000	093100	007000	G C=210,B=58	
OD38K	HD	338533	66	0800	0511473	+462100	L 3	23713 L	84081715	000000	000000	150200	000115	G C=255,B=45	
OD38K	HD	338533	66	0800	0511473	+462100	L 1	04013 L	84081714	000000	000000	143000	000045	G C=230,B=25	
OD38K	HD	338533	66	0800	0511473	+462100	L 3	23712 L	84081713	000000	000000	135500	000130	G C=208,B=27	
OD38K	HD	338533	66	0800	0511473	+462100	L 1	04012 L	84081713	000000	000000	132500	000100	G C=225,B=47	
OD38K	HD	338533	66	0800	0511473	+462100	L 3	23711 L	84081712	000000	000000	124900	000155	G C=198,B=26	
OD38K	HD	338533	66	0800	0511473	+462100	L 1	04011 L	84081712	000000	000000	121700	000110	G C=232,B=42	
OD38K	HD	338533	66	0800	0511473	+462100	L 3	23710 L	84081712	000000	000000	121200	000105	G C=120,B=20	
OD38K	HD	338533	66	0800	0511473	+462100	L 3	23732 L	84082015	000000	000000	153700	000100	G C=190,B=19	
OD38K	HD	338533	66	0800	0511473	+462100	L 1	04042 L	84082015	000000	000000	154300	000038	G C=255,B=30	
IGGFB	SA	25100	22	0791	0512070	+515405	H 3	23709 L	84081710	000000	000000	105600	002700	G C=160,B=93	
PHCAL	00	WAVCAL	98	0000	0513473	-671430	L 1	03664 S	84062718	181300	000001	000000	000000	G E=10X,B=102	
PHCAL	00	WAVCAL	98	0000	0513473	-671430	H 1	03665 S	84062718	184500	000016	000000	000000	G E=50X,B=105	
PHCAL	00	WAVCAL	98	0000	0513473	-671430	H 3	23363 S	84062719	193000	000200	000000	000000	G E=50X,B=130	
PHCAL	00	WAVCAL	98	0000	0513473	-671430	L 3	23362 S	84062719	190400	000002	000000	000000	G E=10X,B=100	
GA008	RB4	60	1191	0514120	-693400	H 3	23655 L	84080918	000000	000000	186602	040000	503 V		
HSGDB	HD	34452	27	0540	0515424	+334150	L 1	04234 L	84091509	000000	000000	095700	000002	G C=242,B=34	
HSGDB	HD	34452	27	0540	0515424	+334150	L 3	23965 L	84091509	000000	000000	095300	000005	G C=178,B=18	
PHCAL	00	NULL	IMG	99	9999	0517162	-131337	H 1	03936 L	84080414	000000	000000	145300	000000	G B=38
PHCAL	HD	34816	20	0430	0517162	-131337	H 2	17493 L	84081313	000000	000000	131400	000026	G C=190,B=32	
PHCAL	HD	34816	20	0430	0517162	-131337	H 3	23602 L	84080415	000000	000000	155300	000022	G C=185,B=38	
PHCAL	HD	34816	20	0430	0517162	-131337	H 1	03937 L	84080415	000000	000000	154700	000022	G C=233,B=50	
GM148	SL360	83	1033	0517490	-691326	L 3	23269 L	84061504	000000	000000	042247	001500	802 V		
GM148	SL362	83	1256	0517590	-693700	L 3	23268 L	84061503	000000	000000	030057	003000	401 V		
GM148	SL362	83	1252	0517590	-693700	L 1	03587 L	84061503	000000	000000	033744	002100	401 V		
GE149	SL 360	83	1034	0518335	-691600	L 3	23312 L	84062221	000000	000000	215253	000300	501 V		
GE149	SL 360	83	1038	0518335	-691600	H 1	03644 L	84062301	000000	000000	014048	018000	503 V		
GE149	SL 360	83	1035	0518335	-691600	L 1	03642 L	84062222	000000	000000	220136	000360	501 V		
GE149	NULL	99	9999	0518335	-691600	H 1	03643	84062304	000000	000000	043800	000000	V		
GE149	SL 360	83	1036	0518335	-691600	H 3	23313 L	84062222	000000	000000	223445	018000	403 V		
GM180	SK-69	108	24	1236	0520190	-695527	L 3	23282 L	84061721	000000	000000	214919	024000	512 V	
HSGDB	HD	35456	27	0800	0522095	-023231	H 3	23944 L	84091306	000000	000000	063900	004000	G C=2.0X,B=105	
HSGDB	HD	35456	27	0800	0522095	-023231	H 3	23972 L	84091606	000000	000000	064400	005000	G C=2.0X,B=82	
HSGDB	HD	35456	27	0800	0522095	-023231	L 3	23945 L	84091307	000000	000000	075500	000030	G C=195,B=18	
HSGDB	HD	35456	27	0800	0522095	-023231	H 3	23963 L	84091506	000000	000000	062700	004000	G C=2.0X,B=116	
HSGDB	HD	35456	27	0800	0522095	-023231	L 1	04216 L	84091307	000000	000000	075000	000015	G C=1.5X,B=36	
HSGDB	HD	35456	27	0800	0522095	-023231	H 3	23954 L	84091406	000000	000000	062400	004000	G C=2X,B=125	
WRGCG	00	BR27	11	1490	0523120	-655936	L 1	03702 L	84070314	000000	000000	141600	005000	G E=223,C=200,B=102	
WRGCG	00	BR27	11	1490	0523120	-655936	L 3	23387 L	84070315	000000	000000	150900	004000	G E=1.3X,C=170,B=40	

PRO	OBJECT	CL	MAG	R.A.	DEC	D C	IMAGE	A	DATE	EXP.SMALL	EXP.LARGE	ECC	COMMENT	
NPGSM	00 LMCP25	70	1570	0525395	-713525	L 3	23414	L	84070606	000000	000000	065800	012000	G E=133,C=60,B=33
NPGSM	00 LMCP25	70	1570	0525395	-713525	L 3	23394	L	84070405	000000	000000	051800	004500	G E=64,C=40,B=31
NPGSM	00 LMCP25	70	1570	0525395	-713525	L 3	23393	L	84070403	000000	000000	034100	004500	G
GM148	NGC1967	83	1180	0527030	-690830	L 1	03586	L	84061502	000000	000000	021652	001500	502 V
GM148	NGC1967	83	1179	0527030	-690830	L 3	23267	L	84061501	000000	000000	014812	002000	501 V
GM148	N1984	83	1030	0527540	-690800	L 1	03564	L	84061223	000000	000000	232721	000430	501 V
GM148	N1984	83	1030	0527540	-690800	L 1	03563	L	84061222	000000	000000	222308	001600	802 V
GM148	N1984	83	1030	0527540	-690800	L 3	23251	L	84061221	000000	000000	214656	003000	802 V
GM148	N1984	83	1031	0527540	-690800	L 3	23252	L	84061222	000000	000000	225242	000700	501 V
GM148	N1983	83	1064	0528030	-690130	L 1	03567	L	84061304	000000	000000	041955	001300	702 V
GM148	N1983	83	1068	0528030	-690130	L 3	23255	L	84061303	000000	000000	033401	000700	302 V
GM148	N1983	83	1070	0528030	-690130	L 3	23256	L	84061304	000000	000000	044003	000700	302 V
GM148	N1994	83	1072	0528360	-690900	L 3	23254	L	84061301	000000	000000	014619	000900	502 V
GM148	N1994	83	1075	0528360	-690900	L 1	03565	L	84061301	000000	000000	010030	001300	702 V
GM148	N1994	83	1071	0528360	-690900	L 3	23253	L	84061300	000000	000000	002234	002000	702 V
GM148	N1994	83	1071	0528360	-690900	L 1	03566	L	84061302	000000	000000	021840	000430	502 V
WRCCG	00 BR38	11	1540	0528370	-690455	L 1	03700	L	84070308	000000	000000	083000	009000	G E=153,C=130,B=47
WRCCG	00 BR38	11	1540	0528370	-690455	L 3	23385	L	84070310	000000	000000	100400	006500	G E=187,C=88,B=42
GA008	S111	13	1037	0528420	-691052	L 3	24017	L	84092015	000000	000000	152910	001500	510 V
GA008	S111	13	1036	0528420	-691052	L 1	04261	L	84092016	000000	000000	160848	000500	510 V RPNT -19,-234
GA008	S111	13	1036	0528420	-691052	H 1	04262	L	84092016	000000	000000	164548	030200	443 V R PNT -19,-234
GA008	S 111	13	1020	0528420	-691052	L 1	04260	L	84092015	000000	000000	150427	001100	711 V
GA008	S111	13	1036	0528420	-691052	L 3	24008	L	84091921	000000	000000	210000	001200	401 V RP(-19,-234)
GA008	S111	13	1036	0528420	-691052	L 3	24009	L	84091921	000000	000000	213858	000800	301 V
WRCCG	00 BREY 40	11	1490	0529496	-685642	L 3	23398	L	84070412	000000	000000	121000	004500	G E=1.5X,C=106,B=63
WRCCG	00 BREY 40	11	1490	0529496	-685642	L 1	03707	L	84070411	000000	000000	111800	005000	G E=241,C=168,B=72
IGGJS	HD 36841	12	0860	0532004	-002508	L 3	23882	L	84090610	000000	000000	104800	000046	G C=78,B=17
GA008	R123	60	1077	0535420	-694200	H 3	23646	L	84080821	000000	000000	211719	021000	451 V
GA008	R123	60	1076	0535420	-694200	H 1	03976	L	84080817	000000	000000	173154	022000	603 V
GA067	A0538-66	59	1450	0535427	-665339	L 3	23300	L	84062202	000000	000000	021145	008000	301 V EXPO T=9MIN+71MIN
GA067	A0538-66	59	1450	0535427	-665339	L 1	03638	L	84062203	000000	000000	035619	005200	303 V STAR AT EDGE OF AP
FI091	A0538-66	59	1400	0535428	-665340	L 1	03634	L	84062023	000000	000000	233956	006000	414 V
FI091	A0538-66	59	1322	0535428	-665340	L 1	04213	L	84091216	000000	000000	165300	004500	403 V
FI091	A0538-66	59	1400	0535428	-665340	L 3	23292	L	84062022	000000	000000	221119	008500	511 V
FI091	A0538-66	59	1400	0535428	-665340	L 3	23940	L	84091215	000000	000000	150005	010000	501 V
GI042	A0538-66	59	9999	0535428	-665340	L 1	03946	L	84080517	000000	000000	175107	008000	503 V
GI042	A0538-66	59	9999	0535428	-665340	L 3	23609	L	84080519	000000	000000	191843	009000	501 V
PHCAL	00 NULL	99	9999	0535449	-071103	H 1	04048	L	84082205	000000	000000	050800	000000	G B=37
PHCAL	00 NULL	99	1650	0535453	-071103	L 1	04154	L	84090523	000000	000000	233600	000000	G B=10
PHCAL	00 NULL	99	1650	0535453	-071103	L 1	04157	L	84090601	000000	000000	011200	000000	G B=28
PHCAL	00 NULL	99	1650	0535453	-071103	L 1	04155	L	84090600	000000	000000	000900	000000	G B=25
PHCAL	00 NULL	99	1650	0535453	-071103	L 1	04156	L	84090600	000000	000000	004100	000000	G B=45
HHGRS	00 HH43	76	1650	0535454	-071104	L 3	23749	L	84082201	000000	000000	014100	042500	G C=140,B=95
HHGRS	00 HH43	76	1650	0535454	-071104	L 1	04041	L	84082001	000000	000000	014700	042000	G E=154,C=138,B=105
HHGJS	00 HH-43	64	1600	0535454	-071104	L 3	23881	L	84090522	000000	000000	220600	059700	G C=210,B=145

PRO	OBJECT	CL	MAG	R.A.	DEC	D C	IMAGE	A	DATE	EXP.SMALL	EXP.LARGE	ECC	COMMENT		
MFGER	00 961-03	20	1390	0535482	-693222	L 3	23348	L	84062615	000000	000000	153600	002000	G C=200,B=60	
WRGCG	00 BR58	10	1370	0536035	-691339	L 1	04163	L	84090701	000000	000000	013800	007500	G C=160,B=42	
WRGCG	00 BR58	10	1370	0536035	-691339	L 3	23891	L	84090706	000000	000000	065300	012000	G C=160,B=165	
WRGCG	00 BREY 58	10	1370	0536035	-691339	L 1	03709	L	84070415	000000	000000	151700	002500	G C=141,B=99	
WRGCG	00 BREY 58	10	1370	0536035	-691339	L 3	23401	L	84070417	000000	000000	171300	002500	G E=110,B=82	
WRGCG	00 BREY 64	10	1330	0536137	-690053	L 1	03710	L	84070416	000000	000000	163400	002000	G C=210,B=111	
WRGCG	00 BR64	10	1330	0536137	-690053	L 3	23899	L	84090703	000000	000000	031200	005600	G C=100,B=20	
WRGCG	00 BREY 64	10	1330	0536137	-690053	L 3	23400	L	84070416	000000	000000	160000	002000	G C=108,B=66	
WRGCG	00 BR64	10	1330	0536137	-690053	L 1	04164	L	84090709	000000	000000	090600	002500	G C=185,B=67	
MFGER	00 961-10	20	1420	0536195	-693102	L 3	23350	L	84062618	000000	000000	182100	003000	G B=60	
GM180	SK-69	210	23	1288	0536220	-690352	L 3	23270	L	84061523	000000	000000	233254	031300	502 V
GM180	NULL		99	9999	0536220	-690352	L 1	03597	L	84061500	000000	000000	000000	000000	V
GM180	SK-69	210	23	1259	0536220	-690352	L 2	17442	L	84061521	000000	000000	214429	010000	501 V
MFGER	00 961-6	20	1410	0536265	-693133	L 3	23340	L	84062514	000000	000000	142600	003000	G C=90,B=30	
MFGER	00 961-9	20	1310	0536305	-693107	L 3	23320	S	84062316	163400	001000	000000	000000	G C=225,B=180	
MFGER	00 961-9	20	1310	0536305	-693107	L 3	23321	S	84062319	190100	003000	000000	000000	G C=205,B=145	
MFGER	00 961-9	20	1310	0536305	-693107	L 3	23335	L	84062418	000000	000000	180600	003000	G C=165,B=65	
MLGCW	HD 37490	26	0450	0536326	+040541	H 3	24040	L	84092207	000000	000000	074600	000210	G C=230,B=40	
MLGCW	HD 37490	26	0450	0536326	+040541	H 3	24042	L	84092209	000000	000000	093400	000210	G C=240,B=42	
GA198	HD37490	26	0452	0536326	+040540	H 3	23610	L	84080521	000000	000000	214945	000210	501 V	
GA198	HD37490	24	0465	0536326	+040540	H 3	23851	L	84090215	000000	000000	150023	000210	501 V	
MLGCW	HD 37490	26	0450	0536326	+040541	H 3	24027	L	84092112	000000	000000	123800	000210	G C=1.1X,B=56	
GA209	HD37490	23	0464	0536326	+040541	H 3	24052	L	84092217	000000	000000	175548	000210	501 V	
MLGCW	HD 37490	26	0450	0536326	+040541	H 3	24026	L	84092111	000000	000000	110700	000210	G C=1.1X,B=58	
MLGCW	HD 37490	26	0450	0536326	+040541	H 3	24005	L	84091909	000000	000000	092800	000210	G C=225,B=40	
GA209	HD37490	23	0467	0536326	+040541	H 3	24047	L	84092213	000000	000000	134837	000210	501 V	
GA209	HD37490	23	0467	0536326	+040541	H 3	24049	L	84092215	000000	000000	154600	000210	501 V	
GA209	HD37490	23	0454	0536326	+040541	H 3	24033	L	84092118	000000	000000	190605	000210	501 V	
MLGCW	HD 37490	26	0450	0536326	+040541	H 3	24024	L	84092110	000000	000000	101700	000210	G C=250,B=46	
GA209	HD37490	23	0458	0536326	+040541	H 3	24029	L	84092114	000000	000000	143407	000210	501 V	
MLGCW	HD 37490	26	0450	0536326	+040541	H 3	24012	L	84092010	000000	000000	104900	000210	G C=225,B=45	
MLGCW	HD 37490	26	0450	0536326	+040541	H 3	24023	L	84092109	000000	000000	094500	000210	G C=243,B=42	
MLGCW	HD 37490	26	0450	0536326	+040541	H 3	24021	L	84092107	000000	000000	075400	000210	G C=240,B=40	
MLGCW	HD 37490	26	0450	0536326	+040541	H 3	24020	L	84092107	000000	000000	072400	000210	G C=235,B=40	
MLGCW	HD 37490	26	0450	0536326	+040541	H 3	24044	L	84092211	000000	000000	112100	000210	G C=255,B=55	
MFGER	00 961-14	20	1530	0536358	-693055	L 3	23343	L	84062518	000000	000000	181700	003000	G C=83,B=55	
MFGER	00 961-46	20	1420	0536385	-693312	L 3	23334	L	84062416	000000	000000	165800	003000	G C=165,B=115	
MFGER	00 961-24	20	1410	0536388	-693138	L 3	23342	L	84062517	000000	000000	170600	003000	G C=185,B=120	
MFGER	00 961-45	20	1230	0536409	-693311	L 3	23317	S	84062313	133500	002000	000000	000000	G C=165,B=115	
MFGER	00 961-45	20	1230	0536409	-693311	L 3	23322	S	84062320	201100	003700	000000	000000	G C=95,B=21	
MFGER	00 961-43	20	1450	0536431	-693252	L 3	23360	L	84062716	000000	000000	160900	003000	G C=140,B=100	
MFGER	00 961-43	20	1450	0536431	-693252	L 3	23336	L	84062419	000000	000000	192200	005000	G C=75,B=30	
IBGBR	HD 37453	39	0820	0536443	+300337	L 1	04092	SL	84082716	163100	000800	160900	001600	G E=3X,C=3X,B=40	
IBGBR	HD 37453	39	0820	0536443	+300337	L 3	23795	L	84082715	000000	000000	153500	001500	G C=140,B=18	
MFGER	00 961-22	20	1360	0536449	-693133	L 3	23349	L	84062616	000000	000000	164100	003000	G C=190,B=125	

PRO	OBJECT	CL	MAG	R.A.	DEC	D C	IMAGE	A	DATE	EXP.SMALL	EXP.LARGE	ECC	COMMENT		
MFGEB	00	961-18	20	1350	0536458	-693016	L 3	23319	S	84062315	152800	002000	000000	000000	G C=245,B=193
MFGEB	00	961-18	20	1350	0536458	-693016	L 3	23333	L	84062415	000000	000000	151300	003000	G C=143,B=33
MFGEB	00	961-18	20	1350	0536458	-693016	L 3	23361	L	84062717	000000	000000	172400	002000	G B=97
MFGEB	00	961-44	20	1540	0536507	-693225	L 3	23332	L	84062414	000000	000000	140300	003000	G B=25
MFGEB	00	94-3	20	1380	0536596	-693139	L 3	23344	L	84062519	000000	000000	193800	003000	G C=125,B=22
MFGEB	00	961-36	20	1290	0536599	-693245	L 3	23341	L	84062515	000000	000000	155300	003000	G C=170,B=70
MFGEB	00	961-36	20	1290	0536599	-693245	L 3	23318	S	84062314	143200	002000	000000	000000	G C=190,B=145
GA008	R127		52	0995	0537097	-693127	H 1	04258	L	84091916	000000	000000	163515	021000	562 V
GA008	R127		52	1003	0537097	-693127	L 3	24007	L	84091915	000000	000000	151258	001500	510 V
GA008	R127		52	1001	0537097	-693127	L 1	04256	L	84091915	000000	000000	150244	000530	750 V
GA008	R127		52	0999	0537097	-693127	L 1	04257	L	84091915	000000	000000	154445	000300	550 V
MFGEB	00	94-9	20	1410	0537110	-693205	L 3	23347	L	84062613	000000	000000	133800	003000	G C=115,B=40
WRGCG	00	BREY 71	10	1370	0538014	-690936	L 1	03708	L	84070413	000000	000000	132400	004000	G E=211,C=163,B=93
WRGCG	00	BR71	10	1370	0538014	-690936	L 1	03703	L	84070316	000000	000000	161000	001500	G C=110,B=80
WRGCG	00	BREY 71	10	1370	0538014	-690936	L 3	23399	L	84070414	000000	000000	141000	004500	G E=170,C=110,B=73
WRGCG	00	BR71	10	1370	0538014	-690936	L 3	23388	L	84070316	000000	000000	163900	001300	G E=63,C=63,B=45
GM236	DIF.L.IUE1	73	9999	0538180	-020000	L 3	23817	L	84082920	000000	000000	202538	006000	430 V	
GM236	DIF.L.IUE1	73	9999	0538180	-020000	L 1	04101	L	84082920	000000	000000	205133	006000	301 V	SERENDIPITY DURING S
GM236	DIF.L.IUE2	73	9900	0538220	-020200	L 3	23816	L	84082917	000000	000000	174824	012000	331 V	WITH FES1581 AND LWP
GM236	DIF.L.IUE2	73	9999	0538220	-020200	L 1	04100	L	84082917	000000	000000	173051	016200	302 V	SERENDIPITY DURING S
GM236	DIF.L.IUE2	73	9999	0538220	-020200	E 9	01581	2	84082918	000000	000000	184300	016000		V FES FOR SWP 23816
GM236	DIF.L.IUE5	73	9999	0538250	-021612	L 3	23832	L	84083119	000000	000000	193656	010000	210 V	BRIGHT RIM;ANS-MAIN
GM236	DIF.L.IUE3	73	9999	0538260	-020400	L 3	23818	L	84082922	000000	000000	220155	010500	301 V	
GM236	DIF.L.IUE4	73	9999	0538340	-020800	L 3	23831	L	84083114	000000	000000	145930	019955	314 V	LWP4117,EXPOSED ALON
GM236	DIF.L.IUE4	73	9999	0538340	-020800	F 9	01582	2	84083118	000000	000000	182810	004000		V FGR SWP23831 +LWP411
GM236	DIF.L.IUE4	73	9999	0538340	-020800	L 1	04117	L	84083115	000000	000000	150104	021500	218 V	WITH SWP2383 AS MAIN
MLG8S	00	R 136	A 11	0942	0539038	-690733	H 3	23762	S	84082312	121300	001500	000000	000000	G C=60,B=31
NEGRD	00	QQLMCN160A	72	0000	0540092	-694018	D 9	01572	L	84080811	000000	000000	110900	016000	G NO COMMENTS
NEGRD	00	N160 P1	72	9999	0540092	-694018	L 3	23599	L	84080411	000000	000000	114100	002000	G C=122,B=90
NEGRD	00	QQLMCN160A	72	0000	0540092	-694018	L 1	03973	L	84080810	000000	000000	101200	009500	G C=142,B=102
NEGRD	00	QQLMCN160A	72	0000	0540093	-694019	L 3	23642	L	84080810	000000	000000	100900	012000	G E=187,C=170,B=80
NEGRD	00	N160 P2	72	0000	0540120	-694004	L 3	23600	L	84080412	000000	000000	124800	002000	G C=195,B=160
GE251	N159A5/LMC	72	1400	0540311	-694609	L 3	23771	L	84082418	000000	000000	183335	003000	101 V	
GE251	N159A5/LMC	72	1400	0540311	-694609	L 1	04072	L	84082419	000000	000000	191125	006000	203 V	
GM180	SK-69	270	24	1155	0541400	-690640	L 3	23283	L	84061802	000000	000000	025437	011200	711 V
LDGDS	HD	38392	46	0610	0542214	-222613	H 1	04067	L	84082411	000000	000000	111900	006000	G E=1.1X,C=130,B=60
NPGSM	00	LMCP38	70	1590	0543082	-701046	L 3	23395	L	84070406	000000	000000	064800	004500	G E=72,B=26
PHCAL	HD	38666	12	0520	0544084	-321927	L 2	17488	SL	84072117	174800	000003	174300	000002	G C=2X,B=28
PHCAL	HD	38666	12	0520	0544084	-321927	L 2	17487	SL	84072116	162300	000002	161200	000001	G C=195,B=28
WRGCG	00	BR99	11	1490	0545283	-670700	L 1	04162	L	84090622	000000	000000	222100	006000	G E=185,C=120,B=40
WRGCG	00	BR58	10	1370	0545283	-670700	L 3	23889	L	84090623	000000	000000	232600	012000	G E=2.0X,C=130,B=22
WRGCG	00	BR99	11	1490	0545283	-670700	L 1	03701	L	84070311	000000	000000	115500	006500	G E=211,C=160,B=100
WRGCG	00	BR99	11	1490	0545283	-670700	L 3	23386	L	84070313	000000	000000	130600	005500	G E=246,C=90,B=59
WDGJH	00	GD 71	37	1310	0549340	+155242	L 3	23804	L	84082814	000000	000000	145800	001130	G C=1.5X,B=18
WDGJH	00	GD 71	37	1310	0549340	+155242	L 3	23815	SL	84082916	162100	001900	160400	001040	G C=1.5X,B=20

PRO	OBJECT	CL	MAG	R.A.	DEC	D C	IMAGE A	DATE	EXP.SMALL	EXP.LARGE	ECC	COMMENT			
CSGAD	HD	39801	49	0050	0552280	+072358	L 3	23994	L	84091810	000000	000000	101900	000500	G E=131,C=85,B=52
CSGAD	HD	39801	49	0050	0552280	+072358	H 1	04447	L	84092911	000000	000000	114900	000130	G E=226,B=167
CSGAD	HD	39801	49	0050	0552280	+072358	H 1	04098	S	84082910	103500	004000	000000	000000	G E=10X,C=244,B=174
CSGAD	HD	39801	49	0050	0552280	+072358	L 1	04448	SL	84092913	130400	000030	130100	000005	G E=207,C=80,B=38
CSGAD	HD	39801	49	0050	0552280	+072358	L 3	23811	L	84082909	000000	000000	093800	005000	G E=5X,C=215,B=90
CSGAD	HD	39801	49	0050	0552280	+072358	L 3	23997	L	84091813	000000	000000	133400	001200	G E=231,C=120,B=60
CSGAD	HD	39801	49	0050	0552280	+072358	H 1	04250	S	84091812	125000	004000	000000	000000	G E=10X,C=10X,B=6X
CSGAD	HD	39801	49	0050	0552280	+072358	H 1	04446	L	84092910	000000	000000	103400	000130	G E=22B,B=105
CSGAD	HD	39801	49	0050	0552280	+072358	L 3	24075	L	84092910	000000	000000	104900	000400	G E=255,C=240,B=188
CSGAD	HD	39801	49	0050	0552280	+072358	L 3	23996	L	84091812	000000	000000	121100	003000	G E=239,C=2.5X,B=1.6X
CSGAD	HD	39801	49	0050	0552280	+072358	H 1	04249	L	84091811	000000	000000	114100	000200	G E=224,C=115,B=72
CSGAD	HD	39801	49	0050	0552280	+072358	L 3	23995	L	84091811	000000	000000	110300	000500	G E=151,C=105,B=70
CSGAD	HD	39801	49	0050	0552280	+072358	H 1	04248	L	84091810	000000	000000	103300	000200	G E=219,C=100,B=52
CSGAD	HD	39801	49	0050	0552280	+072358	L 3	24077	L	84092913	000000	000000	130900	003000	G E=4X,C=148,B=61
CSGAD	HD	39801	49	0050	0552280	+072358	L 3	23812	L	84082911	000000	000000	112100	001000	G E=213,C=128,B=75
CSGAD	HD	39801	49	0050	0552280	+072358	L 3	24076	L	84092911	000000	000000	115500	000320	G E=202,C=180,B=139
CSGAD	HD	39801	49	0050	0552280	+072358	L 1	04099	SL	84082911	115600	000030	115100	000005	G E=201,C=78,B=37
CSGAD	HD	39801	49	0050	0552280	+072358	H 1	04397	L	84082909	000000	000000	093000	000200	G E=188,C=75,B=42
LGGDD	DD	SS GEM	52	0800	0605340	+223736	L 1	04198	L	84091011	000000	000000	113000	002000	G C=198,B=150
LGGDD	DD	SS GEM	52	0950	0605340	+223736	L 1	04176	L	84090810	000000	000000	104300	001600	G C=208,B=165
WDGFB		0612+177	37	1340	0612239	+174447	H 3	23953	L	84091322	000000	000000	223000	033000	G C=140,B=75
HSGDB	HD	49333	27	0610	0644529	-205736	H 3	23974	L	84091609	000000	000000	091100	000900	G C=1.2X,B=60
HSGDB	HD	49333	27	0610	0644529	-205736	H 3	23948	L	84091310	000000	000000	104100	000600	G C=245,B=90
HSGDB	HD	49333	27	0610	0644529	-205736	H 3	23935	L	84091209	000000	000000	095500	000900	G C=1.5X,B=65
HSGDB	HD	49333	27	0610	0644529	-205736	H 3	23983	L	84091708	000000	000000	083800	000900	G C=1.1X,B=57
LDGDS	HD	53680	46	0860	0702179	-432928	L 1	03579	L	84061417	000000	000000	171300	000200	G B=48
LDGDS	HD	53680	46	0860	0702179	-432928	L 1	03580	L	84061417	000000	000000	174800	003000	G E=239,C=243,B=200
LDGDS	HD	53680	46	0860	0702179	-432928	L 1	03596	L	84061519	000000	000000	195500	005000	G E=155,C=109,B=41
LDGDS	HD	53705	44	0550	0702252	-433216	H 1	03581	L	84061419	000000	000000	190200	002500	G E=135,C=1.5X,B=144
LDGDS	HD	53705	44	0550	0702252	-433216	H 1	03595	L	84061518	000000	000000	184100	004000	G E=119,C=1.2X,B=72
LDGDS	HD	53706	46	0680	0702268	-433228	L 1	03582	L	84061420	000000	000000	201000	000100	G E=72,C=115,B=33
LDGDS	HD	53706	46	0680	0702268	-433228	L 1	03594	L	84061517	000000	000000	175400	000200	G E=115,C=172,B=40
GA094	GD294		37	1222	0713200	582948	L 3	23930	L	84091116	000000	000000	160632	007500	301 V
GA094	GD 294		37	1222	0713200	582948	L 1	04207	L	84091115	000000	000000	150619	003000	403 V
GA094	GD 294		37	1224	0713200	582948	L 3	23929	L	84091114	000000	000000	142943	001000	201 V
PHCAL	HD60753		21	0673	0732079	-502828	L 1	04171	L	84090719	000000	000000	193823	000025	501 V R=0.7B,I=1,TRAILED
PHCAL	HD60753		21	0684	0732079	-502828	L 1	04172	LS	84090720	205221	000018	204842	000006	501 V 601\$
PHCAL	HD60753		21	0665	0732079	-502828	L 3	23898	L	84090719	000000	000000	194712	000040	500 V R=.49,I=1,TRAILED
PHCAL	HD60753		21	0664	0732079	-502828	L 3	23899	LS	84090720	205948	000030	205619	000010	500 V 600\$
PHCAL	OCNULL IMG	99	9999	0732080	-502828	L 1	03951	L	84080613	000000	000000	135400	000000	G R=38	
PHCAL	HD	60753	21	0670	0732081	-502829	L 1	04231	L	84091502	000000	000000	025200	000015	G C=150,B=36
PHCAL	HD	60753	21	0670	0732081	-502829	L 1	04230	L	84091502	000000	000000	021500	000015	G C=145,B=38
PHCAL	DD	NULL	99	0670	0732081	-502829	L 1	04229	L	84091501	000000	000000	013600	000000	G R=38
PHCAL	HD	60753	21	0670	0732081	-502829	L 1	04228	L	84091500	000000	000000	004600	000026	G C=200,B=38
PHCAL	HD	60753	21	0670	0732081	-502829	L 1	04227	L	84091500	000000	000000	000600	000041	G C=1.3X,B=38

PRO	OBJECT	CL	MAG	R.A.	DEC	D C	IMAGE	A	DATE	EXP. SMALL	EXP. LARGE	ECC	COMMENT		
PHCAL	HD	60753	21	0670	0732081	-502829	L 1	04226	L	84091423	000000	000000	232800	000031	G C=232,B=35
PHCAL	HD	60753	21	0670	0732081	-502829	L 1	04232	L	84091503	000000	000000	032900	000026	G C=200,B=38
PHCAL	HD	60753	21	0670	0732081	-502829	L 3	23489	L	84072218	000000	000000	184300	000041	G C=193,B=17
PHCAL	HD	60753	21	0670	0732081	-502829	L 1	03938	L	84080416	000000	000000	164200	000006	G C=215,B=35
PHCAL	HD	60753	21	0670	0732081	-502829	L 1	04225	L	84091422	000000	000000	225100	000010	G C=123,B=36
PHCAL	HD	60753	21	0670	0732081	-502829	L 2	17459	SL	84062117	175200	000018	174700	000009	G C=185,B=28
PHCAL	HD	60753	21	0670	0732081	-502829	L 1	04224	L	84091422	000000	000000	221500	000026	G C=200,B=38
PHCAL	HD	60753	21	0670	0732081	-502829	L 2	17460	SL	84062118	183700	000020	183000	000010	G C=205,B=28
PHCAL	HD	60753	21	0670	0732081	-502829	L 2	17461	SL	84062119	191900	000042	191500	000021	G C=2X,B=28
PHCAL	HD	60753	21	0670	0732081	-502829	L 2	17462	L	84062119	000000	000000	195400	000031	G C=195,B=27
PHCAL	HD	60753	21	0670	0732081	-502829	L 1	04036	S	84081915	150900	000018	000000	000000	G C=1.1X,B=30
PHCAL	HD	60753	21	0670	0732081	-502829	L 1	04122	L	84090113	000000	000000	132400	000006	G C=220,B=39
PHCAL	HD	60753	21	0670	0732081	-502829	L 2	17507	L	84091203	000000	000000	035800	000031	G C=200,B=25
PHCAL	DNKULL	IMG	99	9999	0732081	-502829	L 2	17506	L	84091202	000000	000000	025700	000000	G B=22
PHCAL	HD	60753	21	0670	0732081	-502829	L 2	17505	L	84091202	000000	000000	022700	000047	G C=235,B=25
PHCAL	HD	60753	21	0670	0732081	-502829	L 2	17504	L	84091201	000000	000000	014900	000038	G C=220,B=25
PHCAL	HD	60753	21	0670	0732081	-502829	L 2	17503	L	84091200	000000	000000	003700	000013	G C=115,B=25
PHCAL	HD	60753	21	0670	0732081	-502829	L 2	17502	L	84091200	000000	000000	000300	000031	G C=195,B=25
PHCAL	HD	60753	21	0670	0732081	-502829	L 2	17494	L	84081313	000000	000000	135700	000007	G C=155,B=23
PHCAL	HD	60753	21	0670	0732081	-502829	L 2	17501	L	84091123	000000	000000	231500	000031	G C=195,B=20
PHCAL	HD	60753	21	0670	0732081	-502829	L 3	23914	L	84090903	000000	000000	033500	000041	G C=200,B=18
PHCAL	HD	60753	21	0670	0732081	-502829	L 3	23913	L	84090902	000000	000000	025800	000012	G C=100,B=15
PHCAL	HD	60753	21	0670	0732081	-502829	L 3	23912	L	84090902	000000	000000	022400	000024	G C=140,B=18
PHCAL	HD	60753	21	0670	0732081	-502829	L 2	17472	L	84070718	000000	000000	180100	000106	G C=2.1X,B=31
PHCAL	HD	60753	21	0670	0732081	-502829	L 2	17471	SL	84070717	172700	000021	172300	000007	G C=185,B=23
PHCAL	HD	60753	21	0670	0732081	-502829	L 3	23620	L	84080613	000000	000000	135100	000010	G C=180,B=18
PHCAL	DD	NULL	99	0670	0732081	-502829	L 3	23911	L	84090901	000000	000000	015500	000000	G B=10
PHCAL	HD	60753	21	0670	0732081	-502829	L 3	23910	L	84090901	000000	000000	012100	000041	G C=200,B=18
PHCAL	HD	60753	21	0670	0732081	-502829	L 3	23378	SL	84070116	164300	000030	163800	000010	G C=160,B=18
PHCAL	HD	60753	21	0670	0732081	-502829	L 3	23838	SL	84090113	133500	000030	133000	000010	G C=200,B=27
PHCAL	HD	60753	21	0670	0732081	-502829	L 3	23909	L	84090900	000000	000000	001900	000105	G C=255,B=18
PHCAL	HD	60753	21	0670	0732081	-502829	L 1	03689	SL	84070116	163400	000018	162900	000006	G C=200,B=35
PHCAL	HD	60753	21	0670	0732081	-502829	L 1	04035	L	84081914	000000	000000	143000	000026	G C=210,B=53
PHCAL	HD	60753	21	0670	0732081	-502829	L 3	23906	L	84090822	000000	000000	221400	000041	G C=193,B=17
PHCAL	HD	60753	21	0670	0732081	-502829	L 3	23908	L	84090823	000000	000000	234200	000049	G C=220,B=18
PHCAL	HD	60753	21	0670	0732081	-502829	L 3	23907	L	84090822	000000	000000	225000	000017	G C=105,B=17
GC089	HD62044	47	9999	0740114	+290022	E 9	01583	2	84092914	000000	000000	143000	016000	V SWP24078	
GC089	HD62044	47	0465	0740114	+290022	H 1	04449	L	84092914	000000	000000	143520	002500	371 V	
RSGTA	DD	WAVECAL	98	9999	0740114	+290022	H 3	24079	S	84093005	054400	000018	000000	000000	G E=5X,B=105
RSGTA	HD	62044	47	0430	0740114	+290022	H 1	04451	L	84093005	000000	000000	050800	002500	G E=2X,C=120,B=45
RSGTA	HD	62044	47	9999	0740114	+290022	H 1	04450	L	84092922	000000	000000	223400	002500	G E=2X,C=120,B=40
RSGTA	HD	62044	47	0430	0740114	+290022	H 3	24078	L	84092915	000000	000000	150500	075700	G E=2X,C=210,B=162
GA107	HD62714	25	0735	0741199	-560136	L 3	23260	L	84061400	000000	000000	003754	000030	500 V	
GA107	HD62714	25	0735	0741199	-560136	L 1	03572	L	84061400	000000	000000	003440	000015	503 V	
FSGKL	DD	YZ CMI	48	1120	0742030	+034031	L 1	04454	L	84093010	000000	000000	104000	000500	G B=190

PRO	OBJECT	CL	MAG	R.A.	DEC	D C	IMAGE	A	DATE	EXP. SMALL	EXP. LARGE	ECC	COMMENT		
FSGKL	00	YZ CMI	48	1120 0742030	+034031	L	3	24083	L	84093011	000000	000000	111000	001000	G B=2X
FSGKL	00	YZ CMI	48	1120 0742030	+034031	L	1	04453	L	84093009	000000	000000	092100	002000	G E=1.5X, B=210
FSGKL	00	YZ CMI	48	1120 0742030	+034031	L	3	24082	L	84093010	000000	000000	100600	001000	G B=165
FSGKL	00	YZ CMI	48	1120 0742030	+034031	L	3	24084	L	84093012	000000	000000	121900	002000	G B=200
FSGKL	00	YZ CMI	48	1120 0742030	+034031	L	1	04455	L	84093012	000000	000000	124500	002000	G E=255, B=118
FSGKL	00	YZ CMI	48	1120 0742030	+034031	L	3	24080	L	84093006	000000	000000	065100	003000	G B=21
FSGKL	00	YZ CMI	48	1120 0742030	+034031	L	1	04452	L	84093007	000000	000000	074200	004000	G E=255, B=71
FSGKL	00	YZ CMI	48	1120 0742030	+034031	L	3	24065	L	84093013	000000	000000	131500	003000	G B=37
FSGKL	00	YZ CMI	48	1120 0742030	+034031	L	3	24081	L	84093008	000000	000000	083000	003000	G B=80
IBGRB	CD-30	5135	39	0980 0747081	-310006	L	1	04091	L	84082714	000000	000000	142800	001000	G C=110, B=55
IBGPS	00	U GEN	54	1400 0752077	+220802	L	3	24074	L	84092907	000000	000000	070400	004500	G C=125, B=95
IBGPS	00	U GEN	54	1400 0752077	+220802	L	1	04444	L	84092907	000000	000000	075600	004000	G E=194, C=170, B=81
IBGPS	00	U GEN	54	1400 0752077	+220802	L	1	04445	L	84092909	000000	000000	091000	002200	G E=2X, C=2X, B=2X
PHCAL	BD+75	325	16	0962 0804430	750648	L	1	04240	L	84091715	000000	000000	152436	000020	503 V
PHCAL	BD+75	325	16	0966 0804430	750648	L	3	23904	LS	84090817	175232	000042	174823	000014	500 V 600\$
PHCAL	BD+75	325	16	0966 0804430	750648	L	3	23989	L	84091715	000000	000000	152115	000014	500 V
PHCAL	BD+75	325	16	0958 0804430	750648	L	2	17508	LS	84091717	175741	000112	175432	000024	502 V 502\$
PHCAL	BD+75D	325	16	0952 0804430	750648	L	1	03537	LS	84060901	012312	000300	011941	000020	501 V 801\$
PHCAL	BD+75D325	16	0954 0804430	750648	L	3	23211	L	84060901	000000	000000	011552	000014	500 V	
PHCAL	BD+75	325	16	0954 0804430	750648	L	2	17445	L	84061623	000000	000000	232108	000024	402 V
PHCAL	BD+75	325	16	0954 0804430	750648	L	3	23272	L	84061623	000000	000000	231727	000014	500 V
PHCAL	BD+75	325	16	0960 0804430	750648	L	1	04241	L	84091716	000000	000000	163712	000143	503 V
PHCAL	BD+75	325	16	0973 0804430	750648	L	3	23990	L	84091716	000000	000000	162720	000047	500 V
PHCAL	BD+75325	16	0965 0804430	750648	L	1	04182	L	84090817	000000	000000	173850	000140	501 V R=0.20 I=1 T=100.0 S	
PHCAL	BD+75	0325	16	0950 0804432	+750648	L	3	23697	L	84081614	000000	000000	145300	000047	G C=175, B=63
PHCAL	BD+75	0325	16	0950 0804432	+750648	L	2	17469	L	84070715	000000	000000	153900	000024	G C=215, B=31
PHCAL	BD+75	0325	16	0950 0804432	+750648	L	1	04136	L	84096312	000000	000000	120600	000140	G C=250, B=81
PHCAL	BD+75	0325	16	0950 0804432	+750648	L	1	04121	L	84090111	000000	000000	115400	000140	G C=2X, B=145
PHCAL	BD+75	0325	16	0950 0804432	+750648	L	1	03916	L	84080216	000000	000000	164700	000020	G C=220, B=035
PHCAL	BD+75	0325	16	0950 0804432	+750648	L	3	23621	L	84080615	000000	000000	151600	000014	G C=180, B=18
MLGJC	HD	68450	13	0644 0809109	-370833	H	3	23761	L	84082311	000000	000000	110800	001000	G C=210, B=40
LDGDS	HD	69144B	46	0950 0812023	-465022	L	1	03593	L	84061516	000000	000000	163000	004000	G E=165, C=185, B=135
LDGDS	HD	69144B	46	0950 0812023	-465022	L	1	03592	L	84061515	000000	000000	153900	002000	G E=95, C=100, B=62
EGGEH	HD	72127A	24	0520 0827464	-443324	H	3	23523	S	84072710	105300	000305	000000	000000	G C=42, B=20
GA107	HD75309	20	0793 0845466	-461559	L	3	23259	LS	84061323	235408	000035	234919	000035	500 V 500\$	
GA107	HD75309	20	0795 0845466	-461559	L	1	03571	LS	84061323	231537	000300	230924	000020	503 V 803\$	
HSGFW	PG0856+121	28	1350 0856188	+120806	L	1	03484	L	84060314	000000	000000	142200	002000	G C=190, B=45	
HSGFW	PG0856+121	28	1350 0856188	+120806	L	3	23159	L	84060313	000000	000000	135200	001500	G C=160, B=20	
GA146	HD	78316	36	0531 0905024	105214	H	1	03552	L	84061021	000000	000000	215919	000500	601 V
PHCAL	QDA+81	266	16	1210 0913428	+815611	L	1	04137	L	84090312	000000	000000	125200	000248	G C=240, B=67
PHCAL	QDA+81	266	16	1210 0913428	+815611	L	3	23861	L	84090313	000000	000000	130200	000216	G C=250, B=81
AFGEB	HD	83368	36	0616 0934363	-483133	H	3	23241	L	84061113	000000	000000	132700	006000	G C=1.1X, B=144
NPGWF	QDHE2	36	70	1040 0941507	-570312	L	3	23370	L	84063012	000000	000000	123000	002000	G B=22
NPGWF	QDHE2	36	70	1040 0941507	-570312	L	1	03680	L	84063011	000000	000000	112300	006000	G C=120, B=65
NPGJL	00	HE2-38	57	0000 0953035	-570437	L	3	23517	L	84072611	000000	000000	114500	006000	G E=85, B=38

PRD	OBJECT	CL	MAG	R.A.	DEC	D C	IMAGE	A	DATE	EXP.SMALL	EXP.LARGE	ECC	COMMENT	
NPGJL	00 HE2-38	57	0000	0953035	-570437	L 1	03876	L	84072610	000000	000000	103800	006000	G E=255,C=96,B=60
NPGJL	00 HE2-38	57	0000	0953035	-570437	L 1	03878	L	84072614	000000	000000	142200	000700	G E=140,B=73
NPGJL	00 HE2-38	57	0000	0953035	-570437	L 3	23518	L	84072613	000000	000000	133400	003000	G E=98,C=90,B=64
NPGJL	00 HE2-38	57	0000	0953035	-570437	L 1	03877	L	84072612	000000	000000	125300	003000	G E=255,C=85,B=45
HSGFW	00 GD109	28	1360	0958180	-071900	L 1	03485	L	84060316	000000	000000	162600	002130	G C=185,B=43
HSGFW	00 GD108	28	1360	0958180	-071900	L 3	23160	L	84060315	000000	000000	154100	001600	G C=160,B=15
HSGFW	PG1000+408	28	1330	1000523	+404850	L 1	03487	L	84060319	000000	000000	193000	001700	G C=230,B=45
HSGFW	PG1000+408	28	1330	1000523	+404850	L 3	23162	L	84060319	000000	000000	191300	001300	G C=230,B=17
GA107	HD88195	30	0601	1007384	-080943	L 3	23258	LS	84061322	221714	000040	220752	000140	401 V 401\$TRAIL R=0.2 I=1
GA107	HD88195	30	0594	1007384	-080943	L 1	03570	LS	84061321	213628	000015	212928	000033	402 V 402\$TRAIL R=0.6 I=1
EQ058	MULL	99	9999	1011058	250408	L 1	03524		84060800	000000	000000	000000	000000	V G1 OUT-OF-READ
EQ058	1011+25	85	1550	1011059	250408	L 1	03525	L	84060721	000000	000000	214502	041200	304 V
HSGFW	PG1018-047	28	1330	1018393	-044109	L 1	03486	L	84060318	000000	000000	180000	001730	G C=190,B=45
HSGFW	PG1018-047	28	1330	1018393	-044109	L 3	23161	L	84060317	000000	000000	171900	001300	G C=180,B=18
WRGLA	HD 90657	11	0980	1024408	-582310	L 3	23500	L	84072318	000000	000000	181700	000900	G E=190,C=140,B=17
WRGLA	HD 90657	11	0980	1024408	-582310	L 3	23547	L	84072914	000000	000000	140800	000900	G C=140,B=40
WRGLA	HD 90657	11	0980	1024408	-582310	L 3	23494	L	84072311	000000	000000	111700	000900	G E=213,C=180,B=35
WRGLA	HD 90657	11	0980	1024408	-582310	L 3	23535	L	84072817	000000	000000	175700	000900	G C=135,B=25
CSGTS	HD 91232	49	0540	1029317	+142340	L 2	17449	L	84061913	000000	000000	135000	000740	G E=166,C=65,B=30
HSGFW	PG1032+406	28	1130	1032216	+403645	L 1	03500	L	84060515	000000	000000	153200	000330	G C=242,B=35
HSGFW	00UV103240	28	1130	1032216	+403645	L 3	23163	L	84060320	000000	000000	260900	000230	G C=260,B=18
MLGJC	HD 303067	20	0950	1033353	-575622	H 3	23759	L	84082306	000000	000000	064800	015000	G C=197,B=59
MLGJC	HD 91943	23	0670	1033473	-575600	H 3	23760	L	84082309	000000	000000	094800	001700	G C=180,B=36
MLGJC	CP57 03506	23	0760	1033518	-575838	H 3	23570	L	84080107	000000	000000	075600	006000	G C=205,B=44
MLGJC	CP57 03507	20	0930	1033534	-575654	H 3	23568	L	84080103	000000	000000	032900	010500	G C=190,B=48
MLGJC	NG 3293	20	0930	1033534	-575654	D 9	01564	L	84080102	000000	000000	025800	016000	G NO COMMENTS
MLGJC	HD 91983	23	0860	1033595	-575953	H 3	23569	L	84080105	000000	000000	055000	009000	G C=190,B=43
MLGJC	CP57 03523	23	0800	1034027	-575738	H 3	23571	L	84080109	000000	000000	093200	004000	G C=170,B=39
MLGJC	CP57 03527	23	0890	1034034	-575905	H 3	23758	L	84082304	000000	000000	041400	012000	G C=190,B=50
MLGJC	HD 92044	23	0825	1034209	-580103	H 3	23757	L	84082301	000000	000000	014100	012000	G C=190,B=52
NDGRD	00ETACARNB	72	9999	1043048	-592522	L 3	23596	L	84080403	000000	000000	033600	001500	G C=150,B=18
NDGRD	00 S COND.	61	0020	1043048	-592522	H 3	23641	L	84080802	000000	000000	022600	042000	G E=170,C=160,B=92
NDGRD	00 EC BKGD	72	9999	1043048	-592522	L 1	03972	L	84080803	000000	000000	034500	024500	G C=160,B=70
NDGRD	00ETACARNB	72	9999	1043048	-592522	L 3	23595	L	84080402	000000	000000	020900	006000	G C=38,B=25
NDGRD	00 S COND.	61	0020	1043048	-592522	L 1	03932	L	84080401	000000	000000	014800	036000	G E=215,C=180,B=106
NDGRD	00 HOMUN.	61	0050	1043066	-592513	H 1	03974	S	84080814	141800	001000	000000	000000	G E=255,C=220,B=103
NDGRD	00 HOMUN.	61	0050	1043066	-592513	H 3	23644	S	84080814	144900	001000	000000	000000	G E=152,C=120,B=67
NDGRD	00 HOMUN.	61	0050	1043066	-592513	H 1	03975	S	84080815	152900	003000	000000	000000	G C=185,B=127
NDGRD	00 HOMUN.	61	0050	1043066	-592513	H 3	23645	S	84080816	160300	004000	000000	000000	G B=45
NDGRD	00 EC BKGD	72	9999	1043068	-592515	L 1	03971	L	84080802	000000	000000	024700	003000	G C=65,B=38
NDGRD	00 S COND.	61	0020	1043068	-592515	D 9	01571	L	84080802	000000	000000	022000	016000	G NO COMMENTS
NDGRD	00 HOMUN.	61	0050	1043068	-592515	H 1	03935	L	84080413	000000	000000	134000	000300	G E=234,C=170,B=87
NDGRD	00 HOMUN.	61	0050	1043068	-592515	H 3	23601	L	84080413	000000	000000	135100	000300	G E=130,C=115,B=80
PHCAL	HD 93521	12	0700	1045336	+375004	L 3	23281	L	84061720	000000	000000	203100	000011	G C=180,B=17
PHCAL	HD93521	12	0696	1045336	375004	L 1	03535	L	84060822	000000	000000	223122	000003	401 V

PHD	OBJECT	CL	MAG	R.A.	DEC	D C	IMAGE	A	DATE	EXP.SMALL	EXP.LARGE	ECC	COMMENT			
PHCAL	HD	93521	12	0700	1045336	+375004	L 1	03611	L	84061720	000000	000000	201900	000036	G C=3X,B=40	
PHCAL	HD	93521	12	0700	1045336	+375004	L 1	03480	L	84060120	000000	000000	203900	000011	G C=190,B=35	
PHCAL	HD93521		12	0697	1045336	375004	L 3	23209	L	84060822	000000	000000	222722	000003	400 V	
PHCAL	HD	93521	12	0700	1045336	+375004	L 2	17439	L	84061318	000000	000000	181000	000012	G C=175,B=30	
PHCAL	HD93521		12	0706	1045340	375004	L 2	17444	LS	84061622	222740	000012	222340	000003	402 V 602#	
CSGTS	HD	94705	49	0526	1053257	+062709	L 2	17450	L	84061914	000000	000000	144800	001000	G E=225,C=65,B=30	
TTGJL	OO	TW	HYA	58	1040	1059303	-342610	L 1	03779	L	84071710	000000	000000	100600	000500	G E=167,C=72,B=45
TTGJL	OO	WAVCAL		98	9999	1059303	-342610	H 3	23468	S	84071609	093800	000018	000000	000000	G E=8X,B=115
TTGJL	OO	TW	HYA	58	1040	1059303	-342610	H 3	23472	L	84071709	000000	000000	091900	004000	G E=102,B=70
TTGJL	OO	TW	HYA	58	1040	1059303	-342610	H 1	03771	L	84071608	000000	000000	085700	006000	G E=174,B=110
TTGJL	OO	WAVCAL		98	9999	1059303	-342610	H 1	03778	S	84071707	074600	000016	000000	000000	G E=50X,B=105
TTGJL	OO	TW	HYA	58	1040	1059303	-342610	H 3	23467	L	84071604	000000	000000	041600	081000	G E=10X,B=130
TTGJL	OO	TW	HYA	58	1040	1059303	-342610	L 3	23471	L	84071706	000000	000000	065700	010000	G E=155,C=72,B=45
TTGJL	OO	TW	HYA	58	1040	1059303	-342610	H 1	03777	L	84071618	000000	000000	184800	072000	G E=10X,B=136
TTGJL	OO	TW	HYA	58	1040	1059303	-342610	D 9	01555	L	84071618	000000	000000	180300	016000	G NO COMMENTS
TTGJL	OO	TW	HYA	58	1040	1059303	-342610	L 1	03740	L	84070916	000000	000000	165800	000500	G E=201,C=86,B=52
TTGJL	OO	TW	HYA	58	1040	1059303	-342610	L 1	03733	L	84070816	000000	000000	161000	000500	G E=152,C=63,B=42
TTGJL	OO	TW	HYA	58	1040	1059303	-342610	D 9	01554	L	84071518	000000	000000	184200	016000	G NO COMMENTS
TTGJL	OO	TW	HYA	58	1040	1059303	-342610	L 1	03766	L	84071514	000000	000000	145400	000500	G E=190,C=120,B=97
TTGJL	OO	TW	HYA	58	1040	1059303	-342610	L 1	03768	L	84071516	000000	000000	163900	000500	G E=232,C=175,B=142
TTGJL	OO	TW	HYA	58	1040	1059303	-342610	L 1	03770	L	84071517	000000	000000	175600	002500	G E=4X,C=150,B=80
TTGJL	OO	TW	HYA	58	1040	1059303	-342610	L 1	03769	L	84071517	000000	000000	171800	000500	G E=181,C=110,B=85
QSGAG	Q	1100+772	85	1570	1100274	+771508	L 3	23149	L	84060205	000000	000000	053800	043000	G E=187,C=145,B=75	
QSGAG	Q	1100+772	85	1570	1100274	+771508	L 3	23144	L	84060107	000000	000000	072200	040600	G E=201,C=155,B=95	
PHCAL	OO	WAVCAL		98	0000	1102262	+073623	L 1	03606	S	84061715	150500	000001	000000	000000	G E=10X,B=102
PHCAL	OO	TFL00D		99	0000	1102262	+073623	H 3	23278	L	84061714	000000	000000	143700	000005	G E=50X,B=130
PHCAL	OO	WAVCAL		98	0000	1102262	+073623	H 3	23277	S	84061714	140700	000200	000000	000000	G C=50X,B=130
PHCAL	OO	WAVCAL		98	0000	1102262	+073623	L 3	23276	S	84061713	134200	000002	000000	000000	G E=10X,B=105
PHCAL	OO	63	LED	41	0460	1102262	+073623	D 9	01545	L	84061713	000000	000000	133000	016000	G NO COMMENTS
PHCAL	OO	TFL00D		99	0000	1102262	+073623	H 1	03608	L	84061716	000000	000000	161700	000025	G B=107
PHCAL	OO	WAVCAL		98	0000	1102262	+073623	H 1	03607	S	84061715	153400	000016	000000	000000	G E=50X,B=110
WRGLA	HD	97152	10	0830	1107569	-604227	L 3	23534	L	84072817	000000	000000	171600	000030	G C=135,B=20	
WRGLA	HD	97152	10	0830	1107569	-604227	L 3	23548	L	84072914	000000	000000	145100	000030	G C=140,B=20	
WRGLA	HD	97152	10	0830	1107569	-604227	L 3	23495	L	84072312	000000	000000	122400	000200	G E=1.0X,C=200,B=68	
WRGLA	HD	97152	10	0830	1107569	-604227	L 3	23498	L	84072316	000000	000000	161200	000030	G E=198,C=156,B=25	
WRGLA	HD	97152	10	0830	1107569	-604227	L 3	23552	L	84072918	000000	000000	182900	000120	G C=180,B=20	
HSGFW	DOFEIGE	38	28	1300	1114143	+071554	L 3	23175	L	84060514	000000	000000	141300	000930	G C=165,B=18	
HSGFW	DOFEIGE	38	28	1300	1114143	+071554	L 1	03499	L	84060513	000000	000000	134800	001230	G C=180,B=40	
LGGER	HD	98262	47	0350	1115469	+332203	L 3	23239	L	84061105	000000	000000	055300	024000	G E=1.2X,C=183,B=53	
GA120	FEIGE40		21	1116	1118532	113544	L 3	23168	LS	84060404	043730	001000	042157	000900	501 V 301#	
LDGDS	HD	99491	46	0650	1124134	+031709	H 1	03599	L	84061615	000000	000000	155300	007000	G E=200,C=1.2X,165	
LDGDS	HD	99492	46	0760	1124144	+031643	H 1	03600	L	84061617	000000	000000	174400	000600	G E=110,C=135,B=61	
GA036	HD99897		12	0856	1126385	-622237	H 1	04056	L	84082318	000000	000000	181510	005000	503 V	
GA036	HD99897		12	0855	1126385	-622237	L 1	04057	L	84082319	000000	000000	193905	000100	703 V	
GA036	HD99897		12	0856	1126385	-622237	L 1	04055	LS	84082317	173031	000100	172558	000230	702 V 40#	

PRO	OBJECT	CL	MAG	R.A.	DEC	D C	IMAGE	A	DATE	EXP.SMALL	EXP.LARGE	ECC	COMMENT
GM036	HD999897	12	0845	1126385	-622237	L 3	23767	L	84082318	000000	000000	180911	000110 500 V
GM036	HD999953	23	0673	1127001	-631641	L 1	04060	L	84082321	000000	000000	215130	000025 602 V
GM036	HD999953	23	0671	1127001	-631641	L 1	04058	LS	84082320	201735	000025	281401	000100 700 V 500\$
GM036	HD999953	23	0679	1127001	-631641	L 3	23768	LS	84082320	202446	000125	262046	000050 500 V 500\$
GM036	HD999953	23	0675	1127001	-631641	H 1	04059	L	84082320	000000	000000	205605	001530 503 V
CGS15	HD 99998	47	0470	1127455	-024339	L 2	17451	L	84061915	000000	000000	154500	000520 G E=170,C=75,B=30
HCGBC	HD 100363	40	0860	1130194	-114525	L 3	23445	L	84071203	000000	000000	034400	009000 G C=5X,B=35
HCGBC	HD 100363	40	0860	1130194	-114525	L 1	03753	L	84071203	000000	000000	033400	000330 G C=200,B=30
IGGJS	HD 100444	13	0840	1130362	-632213	H 1	03639	L	84062207	000000	000000	073700	004500 G C=190,B=44
IGGJS	HD 100444	13	0840	1130362	-632213	H 3	23301	L	84062205	000000	000000	052200	013000 G C=230,B=55
IGGJS	HD 100444	13	0840	1130362	-632213	L 3	23309	L	84062218	000000	000000	181600	000137 G C=205,B=32
WDGFB	1134+301	37	1240	1134279	+300435	H 3	23374	L	84070106	000000	000000	063300	023500 G C=130,B=56
GM036	HD101190	12	0744	1135495	-625512	L 1	04063	LS	84082400	000257	000018	000020	000019 703 V 503\$
GM036	HD101190	12	0748	1135495	-625512	L 3	23769	L	84082322	000000	000000	223205	000016 500 V
GM036	HD101190	12	0745	1135495	-625512	L 1	04061	LS	84082322	222928	000022	222641	000033 703 V 603\$
GM036	HD101190	12	0745	1135495	-625512	H 1	04062	L	84082323	000000	000000	230827	001330 503 V
LDGDS	HD 101177A	44	0640	1136073	+452307	H 1	03598	L	84061613	000000	000000	135800	007000 G E=132,C=1.5X,B=95
GQ256	NGC 3783	84	1331	1136300	-372800	L 1	03540	L	84060923	000000	000000	231926	007000 563 V
GQ256	NGC3783	84	1329	1136300	-372800	L 1	03541	L	84061002	000000	000000	024452	011000 553 V 2EXP LAP 55M EACH/RP
GQ256	NGC 3783	84	1335	1136300	-372800	L 3	23222	L	84061000	000000	000000	003550	012500 461 V
GQ256	NGC3783	84	1328	1136300	-372800	L 3	23221	L	84060921	000000	000000	214309	009000 451 V
GE030	NGC3783	84	1332	1136330	-372742	L 1	03474	L	84060104	000000	000000	044606	008000 563 V
GM036	HD101545	13	0645	1138147	-621729	L 1	04064	LS	84082400	003951	000009	003706	000012 702 V 402\$
GM115	N3918	70	0945	1147490	-565416	H 3	23806	S	84082817	175228	004000	000000	000000 130 V
GM115	N3918	70	0943	1147490	-565416	L 1	04096	L	84082818	000000	000000	183822	000430 341 V
GM115	N3918	70	0944	1147490	-565416	H 3	23807	S	84082819	190723	008000	000000	000000 140 V
GM115	N3918	70	0940	1147490	-565416	H 3	23808	S	84082821	211122	008000	000000	000000 141 V R.P. AT -6,-220
GM115	N3918	70	0943	1147490	-565416	H 3	23809	S	84082823	230325	010300	000000	000000 141 V R.P. AT -26,-196
GI147	NOVA MUSCA	55	1199	1149351	-665543	L 1	03706	L	84070322	000000	000000	223716	001500 351 V
GI147	NOVA MUSCA	55	1198	1149351	-665543	L 3	23391	L	84070321	000000	000000	212725	006000 381 V
GI147	NOVA MUSCA	55	1199	1149351	-665543	L 1	03705	L	84070320	000000	000000	202944	005000 571 V
GI147	NOVA MUSCA	55	1197	1149351	-665543	H 3	23392	L	84070323	000000	000000	230543	022200 042 V
GI147	NOVA MUSCA	55	1198	1149351	-665543	L 3	23390	L	84070320	000000	000000	200105	001500 261 V
LG6IL	HD 104979	45	0410	1202396	+090037	H 1	03727	L	84070703	000000	000000	034700	013300 G E=2-3X,C=5X,B=68
GA120	HD+23B	21	1115	1205248	224833	L 3	23167	SL	84060403	030840	001200	032700	000800 500 V 400\$
GA120	HD+23B	21	1117	1205248	224833	L 1	03491	LS	84060402	025511	000730	023319	001130 703 V 403\$
LG6EB	HD 105707	47	0300	1207329	-222030	L 3	23240	L	84061110	000000	000000	104400	012000 G E=169,C=161,B=130
GQ205	NGC4151	84	1252	1208004	394102	L 3	23191	LS	84060703	041517	003200	031418	005500 351 V 231\$
GQ205	NGC4151	84	1258	1208004	394102	L 1	03483	L	84060302	000000	000000	025012	003500 353 V
GQ205	NGC4151	84	1254	1208004	394102	L 1	03511	L	84060702	000000	000000	023234	003500 342 V
GQ205	NGC4151	84	1246	1208004	394102	L 3	23156	L	84060301	000000	000000	015347	005000 250 V
GQ205	NGC4151	84	1253	1208004	394102	L 3	23190	L	84060701	000000	000000	013712	005000 250 V
GQ205	NGC4151	84	1258	1208004	394102	L 3	23157	LS	84060303	003057	002500	040110	004700 251 V 231\$
IGGJS	CD-60 3864	13	0950	1213066	-610220	L 3	23307	L	84062216	000000	000000	162900	001500 G C=1.2X,B=150
GA120	HD+41B	21	1174	1220013	410613	L 3	23164	LS	84060322	224006	002500	220637	001900 500 V 500\$

PRD	OBJECT	CL	MAG	R.A.	DEC	D C	IMAGE	A	DATE	EXP. SMALL	EXP. LARGE	ECC	COMMENT	
GA120	HQ+41B	21	1176	1220013	410613	L 1	03488	LS	84060321	214742	001330	212262	002000	603 V 503#
EGGSL	NG 4449	82	1000	1225434	+442142	L 3	23262	L	84061405	000000	000000	055500	021000	G C=210,B=40
HSGAP	BD+42 2309	38	1080	1225480	+415600	L 3	23441	L	84071116	000000	000000	160500	005000	G C=209,B=85
GQ225	3C 273	85	1318	1226330	021944	L 3	23444	L	84071202	000000	000000	020822	003900	351 V
GQ225	3C 273	85	1322	1226330	021944	L 1	03757	L	84071219	000000	000000	195531	003000	413 V
LDGDS	HD 108767B	46	0840	1227154	-161435	L 1	03602	L	84061619	000000	000000	195100	004800	G C=1.5X,B=47
LGGJL	HD 108903	49	0160	1228229	-565000	H 1	03767	L	84071515	000000	000000	154100	000230	G E=241,B=98
MLGCW	HD 109387	26	0390	1231216	+700349	H 3	24004	L	84091908	000000	000000	084300	000125	G C=210,B=38
PHCAL	DD WAVCAL	98	0000	1236229	+393501	L 2	17457	S	84062114	144900	000007	000000	000000	G E=20X,B=96
PHCAL	DD WAVCAL	98	0000	1236229	+393501	H 2	17458	S	84062115	152400	000016	000000	000000	G E=50X,B=140
AFGSA	HD 109995	38	0760	1236229	+393501	L 3	23296	L	84062114	000000	000000	140100	000919	G C=207,B=97
AFGSA	HD 109995	38	0760	1236229	+393501	L 3	23295	L	84062112	000000	000000	122100	000919	G C=207,B=97
AFGSA	HD 109995	38	0760	1236229	+393501	H 3	23288	L	84062005	000000	000000	054300	015000	G C=135,B=40
AFGSA	HD 109995	38	0760	1236229	+393501	H 1	03625	L	84062007	000000	000000	075900	007000	G C=175,B=50
AFGSA	HD 109995	38	0760	1236229	+393501	H 3	23289	L	84062009	000000	000000	091900	014500	G C=255,B=160
AFGSA	HD 109995	38	0760	1236229	+393501	L 3	23294	L	84062105	000000	000000	055100	026500	G C=255,B=105
PHCAL	DD NULL	99	0000	1236229	+393501	L 1	03636	L	84062106	000000	000000	064700	000000	G B=35
AFGSA	HD 109995	38	0760	1236229	+393501	L 1	03637	L	84062110	000000	000000	132300	000504	G C=210,B=52
AFGSA	HD 109995	38	0760	1236229	+393501	H 1	03626	L	84062011	000000	000000	115100	004500	G C=2X,B=200
AFGSA	HD 109995	38	0760	1236232	+393506	H 1	03667	L	84062805	000000	000000	054700	012000	G C=250,B=59
AFGSA	HD 109995	38	0760	1236232	+393506	H 1	03662	L	84062711	000000	000000	110200	008000	G C=220,B=85
AFGSA	HD 109995	38	0760	1236232	+393506	H 3	23358	L	84062705	000000	000000	055500	030000	G C=1.2X,B=95
AFGSA	HD 109995	38	0760	1236232	+393506	H 3	23365	L	84062807	000000	000000	075300	022300	G C=210,B=65
EGGSF	NG 4697	81	0930	1246005	-053141	L 3	23275	L	84061710	000000	000000	104200	012000	G B=78
EGGSF	NG 4742	81	1130	1249120	-101100	L 3	23274	L	84061705	000000	000000	054800	026000	G C=80,B=50
AFGEB	HD 111786	30	0610	1249172	-262801	L 3	23243	L	84061117	000000	000000	170100	005000	G C=2-3X,B=200
AFGEB	HD 111786	30	0610	1249172	-262801	H 1	03557	L	84061116	000000	000000	162700	002500	G C=2X,B=137
CVGFC	DD EX HYA	63	1320	1249426	-285839	L 3	23199	L	84060716	000000	000000	162400	002000	G E=123,C=108,B=62
CVGFC	DD EX HYA	63	1320	1249426	-285839	L 3	23197	L	84060714	000000	000000	141400	002000	G E=170,C=102,B=59
CVGFC	DD EX HYA	63	1320	1249426	-285839	L 1	03513	L	84060707	000000	000000	072400	003000	G E=80,C=58,B=25
CVGFC	DD EX HYA	63	1320	1249426	-285839	L 1	03521	L	84060717	000000	000000	175900	002000	G E=238,C=212,B=155
CVGFC	DD EX HYA	63	1320	1249426	-285839	L 3	23201	L	84060718	000000	000000	182700	002000	G E=194,C=118,B=82
CVGFC	DD EX HYA	63	1320	1249426	-285839	L 3	23193	L	84060708	000000	000000	083500	003000	G E=80,C=58,B=25
CVGFC	DD EX HYA	63	1320	1249426	-285839	L 3	23192	L	84060706	000000	000000	063700	003000	G E=58,C=51,B=23
CVGFC	DD EX HYA	63	1320	1249426	-285839	L 1	03512	L	84060705	000000	000000	055400	003000	G E=166,C=117,B=40
CVGFC	DD EX HYA	63	1320	1249426	-285839	L 1	03519	L	84060715	000000	000000	155200	002000	G E=214,C=165,B=90
CVGFC	DD EX HYA	63	1320	1249426	-285839	L 3	23200	L	84060717	000000	000000	172600	002000	G E=194,C=118,B=82
CVGFC	DD EX HYA	63	1320	1249426	-285839	L 1	03520	L	84060716	000000	000000	165700	002000	G E=218,C=190,B=120
CVGFC	DD EX HYA	63	1320	1249426	-285839	L 1	03517	L	84060713	000000	000000	132600	004000	G E=238,C=200,B=135
CVGFC	DD EX HYA	63	1320	1249426	-285839	L 1	03522	L	84060719	000000	000000	190100	002500	G E=1.2X,C=230,B=160
CVGFC	DD EX HYA	63	1320	1249426	-285839	L 3	23202	L	84060719	000000	000000	193200	002000	G E=146,C=120,B=73
CVGFC	DD EX HYA	63	1320	1249426	-285839	L 1	03523	L	84060720	000000	000000	200800	002200	G E=188,C=150,B=72
CVGFC	DD EX HYA	63	1320	1249426	-285839	L 3	23196	L	84060712	000000	000000	123000	004000	G E=134,C=111,B=66
CVGFC	DD EX HYA	63	1320	1249426	-285839	L 3	23198	L	84060715	000000	000000	151800	002000	G E=150,C=100,B=53
CVGFC	DD EX HYA	63	1320	1249426	-285839	L 1	03514	L	84060708	000000	000000	084900	003000	G E=141,C=110,B=40

PRD	OBJ	CL	MAG	R.A.	DEC	D C	IMAGE	A	DATE	EXP.SMALL	EXP.LARGE	ECC	COMMENT	
CVGFC	00	EX	HYA 63	1320	1249426	-285839	L 1	03518	L 84060714	000000	000000	144900	002700	G E=192,C=170,B=10
CVGFC	00	EX	HYA 63	1320	1249426	-285839	L 1	03516	L 84060711	000000	000000	115000	003000	G E=184,C=165,B=10
CVGFC	00	EX	HYA 63	1320	1249426	-285839	L 1	03515	L 84060710	000000	000000	101800	003000	G E=159,C=125,B=12
CVGFC	00	EX	HYA 63	1320	1249426	-285839	L 3	23195	L 84060711	000000	000000	110500	003000	G E=83,C=65,B=30
CVGFC	00	EX	HYA 63	1320	1249426	-285839	L 3	23203	L 84060720	000000	000000	203600	001400	G E=101,C=60,B=22
CVGFC	00	EX	HYA 63	1320	1249426	-285839	L 3	23194	L 84060709	000000	000000	093400	003000	G E=99,C=70,B=25
CSGTS	HD		112142 49	0470	1251449	-091604	L 3	23290	L 84062017	000000	000000	170000	000000	G C=163,B=133
CSGTS	HD		112142 49	0470	1251449	-091604	L 3	23291	L 84062020	000000	000000	201800	002500	G C=60,B=25
CSGTS	HD		112142 49	0470	1251449	-091604	L 1	03630	L 84062016	000000	000000	164500	000430	G E=2X,C=1.5X,B=120
CSGTS	HD		112142 49	0470	1251449	-091604	L 2	17452	L 84061916	000000	000000	163500	000640	G E=240,C=190,B=35
WDGJH	00	GD	153 37	1340	1254350	+221812	L 3	23219	SL 84060919	194700	001900	193100	001000	G C=225,B=25
WDGJH	00	GD	153 37	1340	1254350	+221812	L 3	23220	S 84060920	203600	001200	000000	000000	G C=140,B=18
WDGJH	00	HZ	43 37	1290	1314007	+292150	L 3	23218	SL 84060918	183700	001315	182500	000620	G C=1.1X,B=40
GC169	HD	115383	44	9999	1314174	094105	9	01566	2 84080123	000000	000000	232000	016000	V FES FOR SWP 23574
CCGTS	HD	115383	44	0520	1314175	+094166	H 1	03910	L 84080208	000000	000000	081300	002500	G E=220,C=1.5X,B=66
CCGTS	HD	115383	44	0520	1314175	+094166	H 1	03908	L 84080114	000000	000000	141200	004000	G E=1.5X,C=3X,B=108
CCGTS	HD	115383	44	0520	1314175	+094166	D 9	01565	L 84080116	000000	000000	160600	002000	G NO COMMENTS
CCGTS	HD	115383	44	0520	1314175	+094166	H 3	23574	L 84080116	000000	000000	165600	008000	G E=184,C=2X,B=160
CCGTS	HD	115383	44	0520	1314175	+094166	H 1	03907	L 84080112	000000	000000	124600	002000	G E=182,C=220,B=45
CCGTS	HD	115383	44	0520	1314175	+094166	L 3	23573	L 84080113	000000	000000	132100	004000	G E=97,C=135,B=41
CCGTS	HD	115383	44	0520	1314175	+094166	H 1	03909	L 84080115	000000	000000	152600	008000	G E=3-4X,C=5-6X,B=144
CCGTS	00	WAVCAL	99	0520	1314175	+094166	H 3	23575	S 84080208	080500	000018	000000	000000	G E=8X,B=110
CCGTS	HD	115383	44	0520	1314175	+094166	L 3	23572	L 84080111	000000	000000	111000	009000	G E=129,C=2X,B=39
GA120	PB166		20	1258	1321550	493812	L 3	23165	S 84060400	001237	003500	000000	000000	400 V
GA120	PB166		20	1250	1321550	493812	L 1	03489	L 84060323	000000	000000	233323	003300	704 V
GA120	PB166		20	1264	1321550	493812	L 3	23166	L 84060401	000000	000000	011943	002500	600 V
GA120	PB166		20	1258	1321550	493812	L 1	03490	L 84060400	000000	000000	005303	001600	503 V
GA056	LONGHORE-B		70	1304	1322451	-372040	H 3	23368	L 84062822	000000	000000	220559	040100	303 V
LGGIL	HD	116713	46	0510	1323132	-392941	H 1	03730	L 84070803	000000	000000	034200	042000	G E=3-5X,C=5X,B=122
PMGJL	HD	116976	47	0480	1324469	-154254	L 3	23455	L 84071311	000000	000000	115200	024000	G C=100,B=73
HSGAP	HD	117880	38	0910	1330480	-181525	L 1	03751	L 84071118	000000	000000	182400	001000	G C=3X,B=40
HSGAP	HD	117880	38	0910	1330480	-181525	L 3	23442	L 84071117	000000	000000	175600	002200	G C=1.5X,B=30
LGGIL	BS	5110	40	0508	1332338	+372615	L 3	23422	L 84070706	000000	000000	062100	003000	G E=138,C=5X,B=15
EGGDY	00	M 83	SN 56	9999	1334017	-293848	P 9	01542	L 84060512	000000	000000	124700	000125	G NO COMMENTS
QBGRK	00	SN M83	80	1400	1334017	-293848	L 1	03895	L 84073020	000000	000000	202100	044400	G C=255,B=90
GE255	EG/SN	1983	56	9999	1334017	-293848	F 9	01562	2 84073020	000000	000000	200000	004000	V
QBGRK	00	SN M83	80	1400	1334017	-293848	L 3	23560	L 84073020	000000	000000	201200	071500	G C=175,B=115
EGGDY	00	M 83	SN 56	9999	1334017	-293848	P 9	01543	L 84060512	000000	000000	125800	000500	G NO COMMENTS
QBGRK	00	SN M83	80	1400	1334017	-293848	P 9	01563	L 84073110	000000	000000	102400	000125	G NO COMMENTS
QBGRK	00	SN M83	80	1400	1334017	-293848	L 1	03896	L 84073104	000000	000000	042100	031500	G C=205,B=101
EGGDY	00	M 83	80	0810	1334100	-293638	H 3	23174	L 84060422	000000	000000	220700	002000	G C=250,B=135
EGGDY	00	M 83	80	0810	1334100	-293638	L 1	03498	L 84060505	000000	000000	053100	030000	G C=122,B=73
EGGDY	QBKY	EKGD	07	0810	1334109	-293638	L 1	03847	L 84072403	000000	000000	033000	024000	G B=65
GE252	NULL		99	9999	1334109	-293638	L 1	03495	L 84060422	000000	000000	225200	000000	V AFTER ABORT.XSPREP
EGGDY	NG	5236	80	0810	1334109	-293638	H 3	23501	L 84072319	000000	000000	193800	003500	G C=1.1X,B=160

PRD	OBJECT	CL	MAG	R.A.	DEC	D C	IMAGE A	DATE	EXP. SMALL	EXP. LARGE	ECC	COMMENT	
GE252	NGC 5236	80	9999	1334110	-293639	E 9	01558 2	84072319	000000	000000	192800	04000	V IMAGE FOR SWP 23501
GE252	NGC5236	80	1140	1334110	-293638	L 1	03497 L	84060423	000000	000000	231800	031000	314 V SEREND. FOR SWP23174
GE252	NGC5236	80	1140	1334110	-293638	E 9	01541 2	84060500	000000	000000	060000	004000	V FES REF. FOR SWP23174
GE252	NGC 5236	80	1135	1334110	-293639	L 1	03846 L	84072319	000000	000000	194044	038700	304 V SERENDIPITY WITH SWP
GE252	READ G1	99	9999	1334110	-293638	L 1	03496	84060500	000000	000000	000430	000000	V G1 CUT-OFF READ
GA056	ABELL 36	70	1160	1337578	-193733	L 1	03692 L	84070120	000000	000000	260324	060500	701 V
GA056	ABELL 36	70	1157	1337578	-193733	H 1	03693 L	84070120	000000	000000	204542	031500	763 V
GA056	ABELL 36	70	1151	1337578	-193733	L 1	03694 L	84070202	000000	000000	023420	000330	502 V
IGGDY	DD1339+611	38	1040	1338309	+610756	D 9	01578 L	84081416	000000	000000	161600	016000	G NO COMMENTS
IGGDY	DD1339+611	38	1040	1338309	+610756	L 3	23677 L	84081212	000000	000000	123100	002000	G C=10X, B=28
GM208	PG1339+611	38	1196	1338312	610757	L 3	23686 L	84081416	000000	000000	162815	000200	401 V
CSGTS	HD 119149	49	0520	1338590	-082705	L 2	17453 L	84061917	000000	000000	173400	000640	G E=191, C=85, B=40
CSGTS	HD 119149	49	0520	1338590	-082705	L 1	03631 L	84062017	000000	000000	175600	000400	G E=230, C=180, B=145
GCCBA	DD VZ 1128	16	1490	1339584	+284106	L 3	23493 L	84072309	000000	000000	090800	004000	G C=200, B=114
PHCAL	ETA UMA	21	0196	1345340	493344	H 3	23457 L	84071320	000000	000000	200454	000006	401 V PREP TGT X128, Y-32
PHCAL	ETA UMA	21	0189	1345340	493344	H 1	03536 L	84060823	000000	000000	234915	000006	502 V
PHCAL	ETA U MA	21	0194	1345340	493344	H 2	17443 L	84061621	000000	000000	213512	000006	402 V
PHCAL	ETA UMA	21	0190	1345340	493344	H 3	23210 L	84060823	000000	000000	234607	000006	500 V
PHCAL	HD 120315	21	0180	1345343	+493344	L 3	23279 L	84061717	000000	000000	173400	000001	G C=205, B=21
PHCAL	HD 120315	21	0180	1345343	+493344	H 1	03914 L	84080213	000000	000000	135400	000005	G C=225, B=45
PHCAL	HD 120315	21	0180	1345343	+493344	L 1	03479 L	84060119	000000	000000	193100	000001	G C=220, B=40
PHCAL	HD 120315	21	0180	1345343	+493344	L 1	03609 L	84061717	000000	000000	172000	000001	G C=233, B=47
PHCAL	HD 120315	21	0180	1345343	+493344	H 2	17468 L	84070715	000000	000000	150200	000006	G C=215, B=31
PHCAL	HD 120315	21	0180	1345343	+493344	L 3	23146 L	84060119	000000	000000	191800	000001	G C=190, B=20
PHCAL	HD 120315	21	0180	1345343	+493344	H 3	23578 L	84080214	000000	000000	140000	000006	G C=180, B=36
PHCAL	HD 120315	21	0180	1345343	+493344	L 2	17441 L	84061320	000000	000000	201600	000001	G C=200, B=27
HSGCG	HD 120307	20	0350	1346298	-412622	L 1	03505 SL	84060613	135900	000001	135200	000002	G C=3X, B=42
HSGCG	HD 120307	20	0350	1346298	-412622	L 3	23180 L	84060613	000000	000000	134200	000001	G C=1.2X, B=17
EGGEH	DD A 1795	88	0000	1346339	+265027	D 9	01559 L	84072619	000000	000000	192300	016000	G NO COMMENTS
EGGEH	DD A 1795	88	0000	1346339	+265027	L 3	23522 L	84072619	000000	000000	194800	082000	G E=205, C=190, B=113
GA197	HD120324	26	0345	1346357	-421331	H 3	23186 L	84060621	000000	000000	212907	000024	500 V
GGGDY	DD1348+369	16	1350	1348422	+365651	H 3	23509 S	84072504	041600	033000	000000	000000	G C=145, B=85
GQ225	PG1351+64	85	1480	1351461	640029	L 3	23443 L	84071120	000000	000000	200024	021000	362 V
GQ225	PG1351+64	85	1480	1351461	640029	L 1	03752 L	84071123	000000	000000	234458	016000	433 V
IGGJS	HD 121800	20	0910	1353545	+662139	L 3	23310 L	84062219	000000	000000	191400	000036	G C=100, B=15
HSGCG	HD 121743	20	0400	1355133	-415127	L 1	03506 SL	84060615	154600	000001	153800	000002	G C=2X, B=40
HSGCG	HD 121743	20	0400	1355133	-415127	L 3	23181 L	84060615	000000	000000	150500	000001	G C=1.1X, B=19
HSGCG	HD 121790	20	0410	1355348	-443338	L 3	23182 L	84060616	000000	000000	163000	000002	G C=1.5X, B=19
HSGCG	HD 121790	20	0410	1355348	-443338	L 1	03507 SL	84060618	183400	000001	182800	000002	G C=2X, B=47
HSGCG	DDMULL IMG	99	9999	1355348	-443338	L 3	23183 L	84060617	000000	000000	175300	000000	G B=19
IGGJS	HD 123008	13	0880	1403444	-641353	L 3	23308 L	84062217	000000	000000	172900	000500	G C=233, B=105
CSGTS	HD 123657	49	0420	1405558	+440530	L 2	17456 L	84061920	000000	000000	201600	000340	G E=122, C=60, B=25
CSGTS	HD 123934	49	0490	1408063	-160400	L 2	17454 L	84061918	000000	000000	182200	000640	G E=211, C=80, B=38
CSGTS	HD 123934	49	0490	1408063	-160400	L 1	03632 L	84062018	000000	000000	184200	000400	G E=226, C=132, B=100
MPGJL	DD HE2-106	57	0000	1410240	-631147	L 3	23516 L	84072606	000000	000000	063400	021000	G E=111, C=105, B=42

PRO	OBJECT	CL	MAG	R.A.	DEC	D C	IMAGE	A	DATE	EXP.SMALL	EXP.LARGE	ECC	COMMENT		
NPGJL	00 HE2-106	57	0000	1410240	-631147	L 1	03875	L	84072605	000000	000000	055400	003300	G E=131,C=66,B=37	
NPGJL	00 HE2-106	57	0000	1410240	-631147	L 3	23515	L	84072604	000000	000000	043700	007000	G E=55,B=25	
HSGCG	HD 125238	21	0410	1416115	-454942	L 3	23184	L	84060619	000000	000000	191300	000003	G C=2X,B=22	
HSGCG	HD 125238	21	0410	1416115	-454942	L 1	03508	SL	84060619	195400	000002	194600	000002	G C=3X,B=46	
GM195	IC4406	70	1229	1419155	-435527	L 1	03724	L	84070621	000000	000000	215858	003000	331 V	
GM195	IC4406	70	1229	1419155	-435527	L 3	23420	L	84070622	000000	000000	223527	006000	230 V	
GM195	IC4406	70	1219	1419155	-435527	L 1	03725	L	84070623	000000	000000	234209	006000	332 V	
HSGFW	DDFEIGE	95	28	1320	1426116	+211918	L 3	23177	L	84060517	000000	000000	175600	001130	G C=200,B=37
HSGFW	DDFEIGE	95	28	1320	1426116	+211918	L 1	03502	L	84060518	000000	000000	183300	001530	G C=1.1X,B=107
IRGBR	HD 127208	39	0690	1427501	-221422	H 1	04089	L	84082711	000000	000000	114500	001300	G E=178,C=195,B=90	
IRGBR	HD 127208	39	0690	1427501	-221422	L 1	04088	L	84082711	000000	000000	110700	000025	G C=240,E=35	
IRGBR	HD 127208	39	0690	1427501	-221422	L 3	23793	L	84082711	000000	000000	111200	000050	G C=180,B=17	
GE030	NGC5643	B4	1360	1429277	-435716	L 3	23147	L	84060121	000000	000000	214822	024000	202 V	
SPGRN	DDENCELEDS	04	1066	1431050	-121712	L 1	03681	L	84063014	000000	000000	140500	006500	G C=4X,B=100	
SPGRN	DO DIONE	04	1060	1431069	-121703	L 1	03676	L	84062912	000000	000000	121700	011500	G C=180,B=70	
SPGRN	DDENCELADS	04	1040	1431069	-121606	L 1	03677	L	84062915	000000	000000	153000	007000	G C=220,B=125	
HSGCG	HD 127972	26	0260	1432193	-415622	L 3	23185	L	84060620	000000	000000	204000	000001	G C=240,B=19	
HSGCG	HD 127972	26	0260	1432193	-415622	L 1	04019	SL	84081809	095600	000001	094700	000001	G C=3X,B=48	
SPGHH	DO SATURN	03	0080	1432407	-123615	L 3	23657	L	84081005	000000	000000	051200	012000	G C=10X,B=30	
SPGHH	DO SATURN	03	0080	1432407	-123615	L 3	23656	L	84081001	000000	000000	015200	012000	G C=10X,B=30	
SPGHH	DO SATURN	03	0080	1432407	-123615	L 3	23658	L	84081008	000000	000000	000200	003000	G C=10X,B=43	
SPGHH	DO SATURN	03	0080	1432452	-123644	L 3	23659	L	84081011	000000	000000	110300	006000	G C=5X,B=45	
HSGFW	PG1432+004	28	1280	1432463	+002652	L 1	03501	L	84060517	000000	000000	170000	001400	G C=230,B=66	
HSGFW	PG1432+004	28	1280	1432463	+002652	L 3	23176	L	84060516	000000	000000	164400	001000	G C=175,B=26	
MLGFB	HD128220	B 16	0850	1432559	+192518	H 3	23729	L	84082011	000000	000000	113100	003800	G C=210,B=48	
MLGFB	HD128220	B 16	0850	1432559	+192518	H 3	23730	L	84082012	000000	000000	124000	003400	G C=220,B=85	
MLGFB	HD128220	B 16	0850	1432559	+192518	H 3	23731	L	84082013	000000	000000	135500	003000	G C=220,B=90	
MLGFB	HD128220	B 16	0850	1432559	+192518	H 3	23714	L	84081716	000000	000000	160700	003400	G C=198,B=55	
MLGFB	HD 128220B	16	0850	1432560	+192519	H 3	23805	L	84082816	000000	000000	161300	003800	G C=195,B=41	
GA067	HD128220	16	0866	1432566	192558	H 3	23297	L	84062121	000000	000000	213748	004000	501 V	
GA067	HD128220	16	0866	1432566	192558	H 3	23298	L	84062122	000000	000000	223912	004000	501 V	
GI042	HD128220	16	0869	1432566	192558	H 3	23699	L	84081617	000000	000000	174438	004000	501 V	
GI042	HD128220	16	0865	1432566	-153115	H 3	23701	L	84081619	000000	000000	195800	004000	501 V	
GI042	HD128220	16	0867	1432566	192558	H 3	23700	L	84081618	000000	000000	185218	004000	501 V	
GI042	HD128220	16	0870	1432566	192557	H 3	23154	L	84060221	000000	000000	212606	004000	501 V	
SSGJH	DO SATURN	04	0020	1434179	-122719	L 1	03529	L	84060814	000000	000000	142800	000018	G C=225,B=36	
SSGJH	DO SATURN	04	0020	1434190	-122735	H 1	03528	L	84060813	000000	000000	130100	000018	G C=130,B=32	
SSGJH	DO SATURN	04	0020	1434203	-122738	L 3	23207	L	84060813	000000	000000	134100	004500	G E=230,C=240,B=139	
SSGJH	DO SATURN	04	0020	1434203	-122738	L 3	23208	L	84060819	000000	000000	195400	004500	G E=114,C=175,B=60	
SSGJH	DO SATURN	04	0020	1434203	-122738	L 3	23206	L	84060811	000000	000000	112100	009000	G E=210,C=162,B=73	
SSGJH	DO SATURN	04	0020	1434203	-122738	H 1	03527	L	84060810	000000	000000	103500	000015	G C=135,B=35	
SSGJH	DO SATURN	04	0020	1434203	-122738	L 1	03534	L	84060818	000000	000000	183000	002500	G C=75X,B=2.5X	
SSGJH	DO SATURN	04	0020	1434203	-122738	L 1	03530	L	84060815	000000	000000	153900	000018	G C=220,B=36	
SSGJH	DO SATURN	04	0020	1434203	-122738	L 1	03531	L	84060816	000000	000000	161800	000040	G C=2.5X,B=40	
SSGJH	DO SATURN	04	0020	1434203	-122738	L 1	03533	L	84060817	000000	000000	174300	000800	G C=25X,B=135	

PRO	OBJECT	CL	MAG	R.A.	DEC	D C	IMAGE	A	DATE	EXP.SMALL	EXP.LARGE	ECC	COMMENT		
SSGJH	00 SATURN	04	0020	1434203	-122738	L 1	03532	L	84060816	000000	000000	165900	000300	G C=10X,B=72	
SSGJH	00 SATURN	04	0020	1434203	-122738	L 3	23205	L	84060808	000000	000000	084700	010500	G E=189,C=145,B=30	
SSGJH	00 SATURN	04	0020	1434205	-122741	H 1	03526	L	84060807	000000	000000	074700	000010	G C=120,B=33	
SSGJH	00 SATURN	04	0020	1434205	-122741	L 3	23204	L	84060806	000000	000000	061400	009000	G E=154,C=163,B=30	
GS188	SATURN	03	-0056	1434240	-124651	L 1	04032	S	84081823	234443	000500	000000	000000	702 V 6*S.OF CENTER LIGHT	
GS188	SATURN	03	0060	1434240	-124651	L 1	04028	S	84081820	205416	000500	000000	000000	702 V 8*N OF CENTER LIGHT	
GS188	SATURN	03	-0056	1434240	-124651	L 1	04031	S	84081823	230145	000500	000000	000000	702 V 4*S.OF CENTER LIGHT	
GS188	SATURN	03	-0056	1434240	-124651	L 1	04030	S	84081822	221832	000500	000000	000000	703 V 2*S.OF CENTER LIGHT	
GS188	SATURN	03	-0056	1434240	-124651	L 1	04029	S	84081821	213551	000500	000000	000000	402 V 10*N.OF CENTER LIGHT	
GS188	SATURN	03	-0056	1434240	-124651	L 1	04027	S	84081820	201352	000500	000000	000000	702 V 6*N. OF CENTER LIGHT	
GS188	SATURN	03	-0056	1434240	-124651	L 1	04026	S	84081819	193523	000500	000000	000000	703 V 4*N.OF CENTER LIGHT	
GS188	SATURN	03	-0056	1434240	-124651	L 1	04025	S	84081818	185716	000500	000000	000000	702 V 2*N OF CENTER LIGHT	
GS188	SATURN	03	-0056	1434240	-124651	L 1	04024	S	84081818	181733	000500	000000	000000	702 V CENTER OF LIGHT	
GS188	SATURN	03	-0056	1434240	-124651	L 1	04033	S	84081900	002755	000300	000000	000000	702 V CENTER OF LIGHT	
IMGRH	HD 128621	46	0220	1435532	-603733	H 3	23900	S	84090722	224100	032000	000000	000000	G E=235,C=170,B=80	
IMGRH	HD 128621	46	0220	1435539	-603737	L 3	23286	S	84061907	070100	001000	000000	000000	G E=45,C=50,B=25	
IMGRH	HD 128621	46	0220	1435539	-603737	H 3	23287	S	84061907	074200	030500	000000	000000	G E=175,B=143	
GS054	SATURN	03	0060	1436008	-125614	L 3	23781	L	84082519	000000	000000	192404	006000	741 V GUIDING ON TITAN	
HSGCG	HD 129116	21	0410	1438507	-373449	L 1	04020	L	84081811	000000	000000	113100	000004	G C=3X,B=50	
HSGCG	HD 129116	21	0410	1438507	-373449	L 3	23718	L	84081810	000000	000000	102900	000002	G C=205,B=23	
CGGER	DOV553	CEN	53	0900	1443321	-315741	H 3	23242	L	84061115	000000	000000	150400	006000	G C=180,B=142
IGGDY	00 BT DRA	53	1160	1450298	+601625	L 1	03986	L	84081216	000000	000000	161300	003000	G C=110,B=40	
IGGDY	00 BT DRA	53	1160	1450298	+601625	L 1	03984	L	84081209	000000	000000	095200	003000	G C=115,B=40	
IGGDY	00 BT DRA	53	1160	1450298	+601625	L 1	03994	L	84081415	000000	000000	152700	003000	G C=185,B=40	
IGGDY	00 BT DRA	53	1160	1450298	+601625	L 1	03993	L	84081411	000000	000000	111700	003000	G C=120,B=55	
IGGDY	00 BT DRA	53	1160	1450298	+601625	L 1	03985	L	84081213	000000	000000	133100	003000	G C=135,B=64	
LDGER	HD 131873	47	0210	1450496	+742136	L 3	23214	L	84060905	000000	000000	053400	012500	G E=1.5X,C=78,B=30	
HSGFW	PG1452+198	28	1250	1452227	+194904	L 3	23178	L	84060519	000000	000000	194200	000600	G C=180,B=19	
HSGFW	PG1452+198	28	1250	1452227	+194904	L 1	03503	L	84060520	000000	000000	201300	000800	G C=185,B=40	
LDGDS	HD 131976	48	0790	1454310	-211118	L 1	03601	L	84061618	000000	000000	183300	000700	G E=135,C=83,B=61	
CSGTS	HD 132813	49	0470	1456468	+660752	L 1	03629	L	84062015	000000	000000	154800	000520	G E=2-3X,C=140,B=70	
LGGJL	HD 133216	49	0329	1501084	-250507	H 1	03765	L	84071513	000000	000000	131500	002000	G E=1.5X,B=110	
GHGLH	RD+23 2769	20	1040	1502570	+230900	L 3	23329	L	84062411	000000	000000	112400	000455	G C=210,B=17	
CSGTS	HD 133774	47	0530	1503500	-160351	L 2	17455	L	84061919	000000	000000	191700	000820	G E=111,C=73,B=28	
IGGDY	PG1510+635	38	1410	1510149	+633252	L 3	23676	L	84081211	000000	000000	111200	002000	G B=20	
CCGAD	HD 135148	47	0950	1510548	+123835	L 1	03504	L	84060606	000000	000000	065100	035500	G C=1.1X,B=114	
HSGCG	HD 136664	21	0470	1519572	-364051	L 3	23719	SL	84081812	125300	000002	121500	000004	G C=230,B=27	
HSGCG	HD 136664	21	0470	1519572	-364051	L 1	04021	SL	84081813	130700	000002	130000	000008	G C=3X,B=65	
CCGDS	HD 137107	44	0500	1521083	+302802	H 1	03614	L	84061810	000000	000000	102300	001600	G E=82,C=210,B=40	
CCGDS	HD 137107	44	0500	1521083	+302802	L 3	23284	L	84061808	000000	000000	081200	012500	G C=3X,B=35	
GC142	HD142560	58	1129	1523240	-374058	L 3	23491	L	84072300	000000	000000	004431	012300	330 V	
GC142	HD142560	58	1114	1523240	-374058	L 1	03845	LS	84072223	002148	001000	235716	001000	462 V 342*	
GA198	HD138749	26	0430	1530547	313136	H 3	23613	L	84080600	000000	000000	002304	000145	501 V	
GA197	HD138749	26	0428	1530547	313136	H 3	23232	L	84061022	000000	000000	225707	000148	500 V	
GA197	HD138749	26	0425	1530547	313136	H 3	23187	L	84060622	000000	000000	222613	000145	500 V	

PRO	OBJECT	CL	MAG	R.A.	DEC	D C	IMAGE	A	DATE	EXP.SMALL	EXP.LARGE	ECC	COMMENT
GA197	HD138749	26	0426	1530547	313136	H 1	03509	L	84060622	000000	000000	223118	000115 501 V
GA198	HD138749	25	0432	1530547	313136	H 3	23854	L	84090217	000000	000000	173627	000145 501 V
GA197	HD 138749	26	0428	1530547	313136	H 1	03553	L	84061023	000000	000000	230133	000115 501 V
HSGCG	HD 138690	20	0290	1531480	-410001	L 1	04022	SL	84081814	143100	000001	142200	000001 G C=3X,B=62
HSGCG	HD 138690	20	0290	1531480	-410001	L 3	23720	L	84081813	000000	000000	134300	000001 G B=25
EGGWR	OO IC4553	86	1440	1532469	+234007	L 3	23857	L	84090222	000000	000000	222900	034500 G B=67
CVGFC	OO LX SER	63	1450	1535447	+190148	L 3	23223	L	84061006	000000	000000	060300	003000 G E=52,C=43,B=18
CVGFC	OO LX SER	63	1450	1535447	+190148	L 3	23224	L	84061007	000000	000000	072700	003600 G E=62,C=38,B=19
CVGFC	OO LX SER	63	1450	1535447	+190148	L 1	03545	L	84061012	000000	000000	121100	003500 G E=110,C=102,B=72
CVGFC	OO LX SER	63	1450	1535447	+190148	L 3	23226	L	84061011	000000	000000	111800	002800 G E=67,C=50,B=22
CVGFC	OO LX SER	63	1450	1535447	+190148	L 1	03544	L	84061010	000000	000000	103600	003000 G E=81,C=67,B=40
CVGFC	OO LX SER	63	1450	1535447	+190148	L 3	23225	L	84061008	000000	000000	084200	011000 G E=142,C=70,B=32
CVGFC	OO LX SER	63	1450	1535447	+190148	L 1	03543	L	84061008	000000	000000	080700	003000 G E=75,C=65,B=38
CVGFC	OO LX SER	63	1450	1535447	+190148	L 1	03542	L	84061006	000000	000000	063700	004300 G E=93,C=80,B=39
CSGTS	HD 139663	47	0490	1537192	-233925	L 1	03633	L	84062019	000000	000000	193000	000430 G E=167,C=85,B=48
TTGJL	OD33 10685	58	1050	1541590	-335812	L 1	03764	L	84071512	000000	000000	121100	000500 G C=80,B=52
CCGDS	HD 141003B	46	0990	1543527	+153437	L 1	03618	L	84061817	000000	000000	173600	003000 G E=136,C=147
RCFAH	OO R CRB	52	0580	1546307	+281832	L 2	17418	L	84060217	000000	000000	175600	000600 G C=160,B=25
RCFAH	OO R CRB	52	0700	1546307	+281832	L 3	23153	L	84060219	000000	000000	191400	004000 G C=125,B=72
RCFAH	OO R CRB	52	0700	1546307	+281832	L 2	17420	L	84060219	000000	000000	195800	003500 G C=4X,B=35
RCFAH	OO R CRB	52	0700	1546307	+281832	L 2	17419	L	84060218	000000	000000	183500	003000 G C=4X,B=60
MLGJC	HD 141318	23	0572	1547129	-545417	H 3	23765	L	84082314	000000	000000	145500	000830 G C=230,B=40
MPGJL	OO CN1-1	70	0000	1547379	-483553	L 3	23521	L	84072617	000000	000000	175400	004500 G E=197,B=25
PHCAL	BD+33 2642	20	1101	1550010	330528	L 1	04179	L	84090814	000000	000000	145248	000310 502 V
PHCAL	BD+33 2642	20	1100	1550010	330528	L 3	23903	L	84090814	000000	000000	145854	000400 500 V
PHCAL	BD+33 2642	20	1080	1550019	+330528	L 3	23280	L	84061719	000000	000000	190400	000400 G C=190,B=20
PHCAL	BD+33 2642	20	1080	1550019	+330528	L 1	03610	L	84061718	000000	000000	184800	000310 G C=248,B=50
PHCAL	BD+33 2642	20	1080	1550019	+330528	L 3	23407	L	84070518	000000	000000	182300	000400 G C=180,B=16
PHCAL	BD+33 2642	20	1080	1550019	+330528	L 1	03715	L	84070518	000000	000000	183400	000310 G C=235,B=32
PHCAL	BD+33 2642	20	1080	1550019	+330528	L 3	23579	L	84080215	000000	000000	152600	000400 G C=202,B=44
PHCAL	BD+33 2642	20	1080	1550019	+330528	L 1	03915	L	84080215	000000	000000	154600	000310 G C=1.5X,B=72
PHCAL	BD+33 2642	20	1080	1550019	+330528	L 2	17495	L	84081314	000000	000000	145600	000310 G C=150,B=25
PHCAL	BD+33 2642	20	1080	1550019	+330528	L 2	17470	L	84070716	000000	000000	161900	000310 G C=200,B=26
PHCAL	BD+33 2642	20	1080	1550019	+330528	L 2	17440	L	84061319	000000	000000	190800	000310 G C=185,B=30
HSGDB	HD 142301	27	0590	1551391	-250549	H 3	23987	L	84091712	000000	000000	122700	000700 G C=1.2X,B=136
GI215	E1551+718	59	1650	1551405	715407	L 3	23426	L	84070800	000000	000000	000025	015700 331 V
MGGJW	OO EARTH	01	0000	1552430	+315835	L 1	04049	SL	84082210	105900	000400	105900	000400 G C=170,B=45
MGGJW	OO EARTH	01	0000	1552430	+315835	L 3	23750	SL	84082210	105700	000500	105700	000500 G E=82,C=45,B=18
GC142	HD142560	58	1103	1553240	-374058	L 1	03635	LS	84062101	020518	001300	014603	001300 573 V 463*
GC142	HD142560	58	1094	1553240	-374058	L 3	23293	L	84062102	000000	000000	022638	014000 451 V
HYGJL	HD 142514	25	0575	1554227	-645332	H 3	23434	L	84070915	000000	000000	152800	000800 G C=185,B=50
HYGJL	HD 142514	25	0575	1554227	-645333	H 1	03739	L	84070916	000000	000000	160200	000400 G C=180,B=50
HCGBC	BD-16 4187	46	1090	1555200	-162736	L 3	23418	L	84070617	000000	000000	175800	005200 G B=42
HCGBC	BD-16 4187	46	1090	1555200	-162736	L 1	03722	L	84070617	000000	000000	172600	002500 G C=145,B=82
HSGCG	HD 143118	20	0360	1556480	-381520	L 3	23721	L	84081815	000000	000000	151800	000001 G C=200,B=25

PRO	OBJECT	CL	MAG	R.A.	DEC	D C	IMAGE	A	DATE	EXP.SMALL	EXP.LARGE	ECC	COMMENT				
HSGCG	HD	143118	20	0360	1556480	-381520	L	1	04023	L	84081815	000000	000000	155700	000001	G C=2.5X,R=38	
HSGSA	HD	143807	30	0500	1559259	+295922	H	3	23366	L	84062812	000000	000000	124000	000655	G C=190,R=32	
HSGSA	HD	143807	30	0500	1559260	+295900	H	1	03668	L	84062812	000000	000000	123000	000400	G C=220,R=41	
GA102	G180-23	37	1430	1559324	365722	L	3	23733	L	84082018	000000	000000	180630	012000	111	V NO SPECTRUM	
NPGJL	BD	67	922	57	1000	1601229	+665624	L	3	23519	L	84072616	000000	000000	161200	000400	G E=128,C=45,R=28
NPGJL	BD	67	922	57	1000	1601229	+665624	L	3	23520	L	84072616	000000	000000	164800	001800	G E=255,C=65,R=35
GI110	AG DRA	57	1008	1601230	665624	L	1	03920	L	84080222	000000	000000	221236	001500	461	V	
GI110	AG DRA	57	1003	1601230	665624	L	3	23582	LS	84080221	220126	000500	213104	002000	361	V 361\$	
HSGDB	HD	144334	27	0590	1603071	-232818	H	3	23975	L	84091610	000000	000000	102400	003900		G C=1.5X,R=110
CSGEB	HD	144608	45	0430	1604281	-204407	L	3	23561	L	84073111	000000	000000	112000	016000		G C=215,R=132
CSGEB	HD	144608	45	0430	1604281	-204407	H	1	03898	L	84073113	000000	000000	130600	002000		G E=141,C=1.1X,R=95
CSGEB	HD	144608	45	0430	1604281	-204407	L	1	03897	SL	84073111	111400	000020	110900	000040		G C=2X,R=34
CSGEB	HD	144608	45	0430	1604281	-204407	L	3	23559	L	84073018	000000	000000	188800	004000		G E=35,C=75,R=25
LGGDD	OO SX HER	52	0840	1605210	+250227	L	1	04177	L	84090812	000000	000000	121100	000800		G R=118	
LGGDD	OO SX HER	52	0840	1605210	+250227	L	1	04195	L	84091002	000000	000000	025500	006500		G C=125,R=40	
GA123	HD	144941	20	1030	1606229	-270853	H	3	23961	L	84091414	000000	000000	144915	021000	303	V
GA123	HD	144941	20	1026	1606229	-270853	H	3	23962	L	84091418	000000	000000	184746	014900	301	V
GM195	NQC6072	70	1399	1609416	-360601	L	1	03723	L	84070620	000000	000000	202049	003000	111	V	
LGGJL	HD	146051	49	0274	1611433	-033356	H	1	03772	L	84071611	000000	000000	110200	002000		G E=3X,R=108
QSGMM	DDMARK	876	84	1530	1613362	+655037	L	3	23249	L	84061213	000000	000000	134100	009000		G E=195,C=192,R=158
QSGMM	DDMARK	876	84	1530	1613362	+655037	L	2	17433	L	84061215	000000	000000	153600	012000		G C=1.3X,R=166
QSGMM	DDMARK	876	84	1530	1613362	+655037	L	1	03561	L	84061212	000000	000000	122200	007500		G C=245,R=202
GI184	SCO X-1	59	1277	1617043	-153115	L	1	03930	L	84080322	000000	000000	224645	002000	502	V	
GI184	SCO X-1	59	1274	1617040	-153115	L	1	03837	L	84072120	000000	000000	205719	004000	602	V	
GI184	SCO X-1	59	1275	1617040	-153115	L	3	23480	L	84072121	000000	000000	214435	005000	450	V	
GI184	SCO X-1	59	1251	1617040	-153115	L	1	03729	L	84070722	000000	000000	224411	002000	502	V	
GI184	SCO X-1	59	1272	1617040	-153115	L	3	23594	L	84080300	000000	000000	002828	001800	331	V	
GI184	SCO X-1	59	1280	1617040	-153115	L	3	23479	L	84072120	000000	000000	201014	004000	450	V	
GI184	SCO X-1	59	1269	1617040	-153115	L	3	23593	L	84080323	000000	000000	231545	003500	451	V	
GI184	SCO X-1	59	1255	1617040	-153115	L	3	23424	L	84070720	000000	000000	204615	003000	351	V	
GI184	SCO X-1	59	1273	1617040	-153115	L	1	03728	L	84070721	000000	000000	212324	003000	502	V	
GI184	SCO X-1	59	1272	1617040	-153115	L	1	03931	L	84080323	000000	000000	235744	002000	402	V	
GI184	SCO X-1	59	1265	1617040	-153115	L	3	23425	L	84070722	000000	000000	220031	003000	341	V	
GI184	SCO X1	59	1319	1617043	-153115	L	1	04005	L	84081623	000000	000000	234855	002246	303	V	
GI184	SCO X1	59	1329	1617043	-153115	L	1	04004	L	84081622	000000	000000	222813	003000	303	V	
GI184	SCO X1	59	1339	1617043	-153115	L	3	23702	L	84081621	000000	000000	215310	003000	331	V	
GI184	SCO X-1	59	1277	1617043	-153115	L	3	23592	L	84080322	000000	000000	220607	003500	451	V	
GI184	SCO X1	59	1339	1617043	-153115	L	1	04003	L	84081621	000000	000000	211706	003000	403	V	
GI184	SCO X1	59	1316	1617043	-153115	L	3	23704	L	84081700	000000	000000	001834	002900	331	V	
GI184	SCO X1	59	1325	1617043	-153115	L	3	23703	L	84081623	000000	000000	230305	004000	332	V	
GM116	SN-1	70	1348	1618304	-000906	L	1	04124	L	84090119	000000	000000	194122	004000	501	V	
GM115	SN-1	70	1353	1618304	-000906	L	3	23873	L	84090420	000000	000000	201805	005000	500	V	
GM116	SN-1	70	1347	1618304	-000906	L	3	23842	L	84090120	000000	000000	203655	004000	541	V	
GM116	SN-1	70	1350	1618304	-000906	L	3	23841	L	84090119	000000	000000	191444	002000	331	V	
SPGRM	0018MELPOM	85	1000	1622022	-055726	L	1	03675	L	84062909	000000	000000	094200	007500		G C=203,R=44	

PRD	OBJECT	CL	MAG	R.A.	DEC	D C	IMAGE	A	DATE	EXP.SMALL	EXP.LARGE	ECC	COMMENT		
SPGRN	0018MELPOM	05	1000	1622314	-055534	L 1	03671	L	84062817	000000	000000	174100	007000	G C=220,B=65	
GHGLH	HD	148265	20	0970	1623514	+261511	L 3	23330	L	84062412	000000	000000	120000	000144	G C=125,B=16
IGGJS	HD	148265	20	0970	1623514	+261511	H 3	23302	L	84062299	000000	000000	091200	012000	G C=210,B=90
IGGJS	HD	148265	20	0970	1623514	+261511	L 3	23303	L	84062211	000000	000000	114200	000123	G C=110,B=17
GHGBS	HD	148422	23	0860	1626530	-562315	H 3	23529	L	84072807	000000	000000	075200	018000	G C=230,B=65
GHGBS	HD	148422	23	0860	1626530	-562315	D 9	01560	L	84072807	000000	000000	074400	016000	G NO COMMENTS
GHGBS	HD	148422	23	0860	1626530	-562315	D 9	01561	L	84072807	000000	000000	074400	016000	G NO COMMENTS
GS054	URANUS	03	0603	1629307	-214741	L 3	23782	SL	84082521	212914	018800	212914	010500	042 V 342*LAP CLOSED AFTER	
HYGJL	HD	148740	25	0735	1629490	-655437	H 3	23433	L	84070913	000000	000000	135600	003000	G C=228,B=72
HYGJL	HD	148740	25	0735	1629490	-655437	H 1	03738	L	84070914	000000	000000	144300	001500	G C=208,B=72
QSGRG	PG1630+377	85	1610	1630152	+374410	L 1	04265	L	84092122	000000	000000	223500	043500	G E=255,C=220,B=100	
GS104	URANUS	03	9999	1630493	-215005	E 9	01557	L	84072019	000000	000000	193300	016000	V	
SUGJC	OO	URANUS	03	0550	1630503	-215009	L 3	23478	SL	84072103	042900	058000	035500	058000	G C=10X,B=93
SUGJC	OO	URANUS	03	0550	1630503	-215009	L 1	03833	L	84072018	000000	000000	185200	001700	G C=10X,B=50
SUGJC	OO	URANUS	03	0550	1630518	-215012	L 1	03825	L	84072009	000000	000000	092700	001000	G C=10X,B=100
SUGJC	OO	URANUS	03	0550	1630549	-215015	L 3	23477	SL	84072004	043900	058700	040500	058700	G C=20,B=89
SUGJC	OO	URANUS	03	0550	1630549	-215015	L 1	03824	L	84072008	000000	000000	083000	002000	G E=20X,C=10X,B=80
GS104	URANUS	03	9999	1630550	-215016	E 9	01556		84071920	000000	000000	201830	016000	V	
SPGHM	OO	URANUS	03	0550	1631318	-215135	L 3	23464	L	84071418	000000	000000	180500	003000	G E=77,C=65,B=30
SPGHM	OO	URANUS	03	0600	1631318	-215135	L 3	23463	L	84071417	000000	000000	170600	003000	G E=122,C=120,B=90
SPGHM	OO	URANUS	03	0600	1631318	-215135	L 3	23459	L	84071411	000000	000000	113200	006000	G E=172,C=112,B=52
SPGHM	OO	URANUS	03	0600	1631318	-215135	L 3	23460	L	84071413	000000	000000	131000	006000	G E=217,C=159,B=92
SPGHM	OO	URANUS	03	0600	1631318	-215135	L 3	23462	L	84071415	000000	000000	155800	003000	G E=198,C=230,B=184
SPGHM	OO	URANUS	03	0600	1631318	-215135	L 3	23461	L	84071414	000000	000000	145100	003000	G E=178,C=190,B=146
SPGHM	OO	URANUS	03	0600	1631318	-215135	L 3	23458	L	84071404	000000	000000	040000	036000	G E=2X,C=2X,B=80
PHCAL	HD	149438	20	0280	1632459	-280651	H 3	23725	S	84081913	133100	000009	000000	000000	G C=200,E=32
PHCAL	HD	149438	20	0280	1632459	-280651	H 3	23724	S	84081912	125500	000009	000000	000000	G C=190,B=33
PHCAL	HD	149438	20	0280	1632459	-280651	H 3	23379	L	84070118	000000	000000	181000	000006	G C=215,B=30
PHCAL	HD	149438	20	0280	1632459	-280651	H 1	03690	L	84070118	000000	000000	180500	000006	G C=215,B=42
PHCAL	HD	149438	20	0280	1632459	-280651	H 1	03691	S	84070118	184800	000011	000000	000000	G C=225,B=42
PHCAL	TAU	SCD	20	0289	1632460	-280651	H 3	23894	L	84090714	000000	000000	140907	000006	501 V
PHCAL	TAU	SCD	20	0285	1632460	-280651	H 2	17509	L	84091718	000000	000000	184853	000006	502 V
PHCAL	TAU	SCD	20	0283	1632460	-280651	H 1	04168	L	84090714	000000	000000	143701	000006	501 V
LGGDD	OO	UU HER	52	0900	1634120	+380357	L 3	23902	L	84090813	000000	000000	130000	002000	G B=127
LGGDD	OO	UU HER	52	0900	1634120	+380357	L 1	04196	L	84091006	000000	000000	063900	008800	G C=98,B=35
LGGDD	OO	UU HER	52	0900	1634120	+380357	L 3	23922	L	84091000	000000	000000	003400	012000	G B=37
LGGDD	OO	UU HER	52	0900	1634120	+380357	L 1	04178	L	84090813	000000	000000	132900	008500	G E=130,C=117,B=73
CCGDS	HD	150706	44	0710	1634281	+795340	H 1	03616	L	84061813	000000	000000	130700	008000	G E=200,C=233,B=99
HCGBC	OO	G202-65	40	1120	1634300	+455754	L 1	03754	L	84071210	000000	000000	102600	002500	G
HCGBC	OO	G202-65	40	1120	1634300	+455754	L 3	23446	L	84071206	000000	000000	061000	025000	G C=205,E=55
HYGJL	HD	149671	22	0590	1636135	-681147	H 3	23429	L	84070816	000000	000000	165700	000800	G C=175,B=45
HYGJL	HD	149671	22	0590	1636135	-681147	H 1	03734	L	84070817	000000	000000	171100	000430	G C=183,B=50
GM116	DDM-1	70	1381	1638347	384258	L 1	04123	L	84090115	000000	000000	153909	005000	401 V	
GM115	DDM-1	70	1421	1638347	384805	L 1	04145	L	84090417	000000	000000	170604	015000	712 V	
GM115	DDM-1	70	1407	1638347	384805	L 3	23872	L	84090414	000000	000000	144342	013500	551 V	

PRO	OBJECT	CL	MAG	R.A.	DEC	D C	IMAGE	A	DATE	EXP.SMALL	EXP.LARGE	ECC	COMMENT				
GM116	DDM-1	70	1377	1638347	384258	L	3	23839	L	84090115	000000	000000	151057	001500	301	V	
GM116	DDM-1	70	1424	1638347	384805	L	3	23840	L	84090116	000000	000000	164749	006000	301	V	
IGGJS	HD	150533	13	0950	1640047	-452212	L	3	23305	L	84062213	000000	000000	135600	002600		G C=195,B=85
LGGER	HD	151101	47	0480	1640339	+644101	L	3	23554	L	84073003	000000	000000	034000	024000		G E=86,C=90,E=55
CCGDS	HD	151044	41	0650	1641083	+500152	H	1	03615	L	84061811	000000	000000	112200	006400		G E=95,C=250,B=55
HYGLH	HD	150798	47	0191	1643210	-685619	H	1	03940	L	84080508	000000	000000	081400	000700		G E=251,C=92,B=43
GC024	HD150798	46	9999	1643210	-685619	E	9	01550	Z	84070900	000000	000000	001600	000000		V SWP 23430	
HYGJL	DD	WAVCAL	98	0190	1643220	-685619	H	1	03737	S	84070912	124700	000016	000000	000000		G E=50X,B=135
HYGJL	HD	150798	47	0190	1643220	-685619	H	1	03736	L	84070907	000000	000000	074300	024000		G E=50X,C=16X,B=160
HYGJL	HD	150798	47	0190	1643220	-685619	H	3	23430	L	84070818	000000	000000	185900	072000		G E=1.5X,C=180,B=120
HYGJL	HD	150798	47	0190	1643220	-685619	L	3	23427	L	84070811	000000	000000	112900	007000		G E=2X,C=200,E=72
HYGJL	HD	150798	47	0190	1643220	-685619	H	1	03731	L	84070812	000000	000000	124500	003000		G E=3X,C=210,B=72
HYGJL	DD	WAVCAL	98	9999	1643220	-685619	H	3	23431	S	84070908	082600	000018	000000	000000		G E=8X,B=110
HYGJL	HD	150798	47	0190	1643220	-685619	L	3	23428	L	84070813	000000	000000	132100	003000		G E=3X,C=210,B=72
HYGJL	HD	150798	47	0190	1643220	-685619	L	3	23432	L	84070912	000000	000000	120500	005000		G E=2X,C=150,B=61
HYGJL	HD	150798	47	0190	1643220	-685619	H	1	03735	L	84070818	000000	000000	180900	000500		G E=220,C=90,E=42
HYGJL	HD	150798	47	0190	1643220	-685619	D	9	01549	L	84070818	000000	000000	184900	016000		G NO COMMENTS
CGGBA	DDIII-3-48	83	1360	1645099	-014952	L	3	23483	L	84072208	000000	000000	084300	006000		G B=159	
CGGBA	DDIII-3-48	83	1360	1645099	-014952	L	1	03839	L	84072209	000000	000000	095200	004000		G B=235	
GHGLH	HD	151809	21	0950	1645341	+562753	L	3	23331	L	84062412	000000	000000	124000	000121		G C=125,B=16
CSGJL	HD	151680	47	0230	1646554	-341209	H	1	03763	L	84071511	000000	000000	111400	000500		G E=112,C=115,B=43
CSGJL	HD	151680	47	9999	1646554	-341209	L	3	23466	L	84071509	000000	000000	093500	006000		G E=128,C=115,B=87
CSGJL	DD	WAVCAL	98	9999	1646554	-341209	H	1	03762	S	84071510	101500	000016	000000	000000		G E=50X,B=104
CSGJL	HD	151680	47	0230	1646554	-341209	H	1	03761	L	84071503	000000	000000	034900	034000		G E=10X,C=10X,B=140
GHGBS	HD	151805	23	0890	1648050	-414134	H	3	23542	L	84072905	000000	000000	053400	023500		G C=1.5X,B=65
WRGLA	HD	152270	10	0690	1650487	-414421	L	3	23549	L	84072915	000000	000000	153000	000020		G C=185,B=20
WRGLA	HD	152270	10	0690	1650487	-414421	L	3	23544	L	84072911	000000	000000	111900	000020		G C=180,B=20
WRGLA	HD	152270	10	0690	1650487	-414421	L	3	23536	L	84072818	000000	000000	184300	000020		G C=180,B=25
WRGLA	HD	152270	10	0690	1650487	-414421	L	3	23531	L	84072813	000000	000000	132100	000020		G C=180,B=20
WRGLA	HD	152270	10	0690	1650487	-414421	L	3	23499	L	84072317	000000	000000	171700	000110		G E=1.1X,C=210,B=32
WRGLA	HD	152270	10	0690	1650487	-414421	L	3	23497	L	84072315	000000	000000	151800	000020		G E=242,C=195,B=25
GA067	HZ HER	59	1329	1656020	352505	L	3	23299	L	84062200	000000	000000	000842	005000	451	V	
GI042	HZ HER	59	1331	1656020	352505	L	3	23155	L	84060223	000000	000000	235922	006000	541	V	
GM207	RS69	85	1540	1700134	515337	L	3	23691	L	84081517	000000	000000	175742	041000	313	V	
GM207	RS 69	85	9999	1700134	515337	E	9	01575	Z	84081117	000000	000000	171500	004000		V FES FOR SWP23672	
GM208	RS 69	85	1540	1700134	515337	L	3	23672	L	84081118	000000	000000	180446	040300	133	V	
GI155	V2051	OPH	54	1500	1705140	-254438	L	3	24061	L	84092320	000000	000000	201615	006000	131	V
GI155	V2051	OPH	54	1500	1705140	-254438	L	3	24059	L	84092317	000000	000000	171700	006500	331	V
GI155	V2051	OPH	54	1500	1705140	-254438	L	1	04281	L	84092321	000000	000000	212459	002200	333	V
GI155	V2051	OPH	54	1500	1705140	-254438	L	1	04280	L	84092315	000000	000000	150636	003000	332	V
GI155	V2051	OPH	54	1500	1705140	-254438	L	3	24057	L	84092314	000000	000000	143041	003000	130	V
GI155	V2051	OPH	54	1500	1705140	-254438	L	3	24060	L	84092318	000000	000000	184832	006000	131	V
GI155	V2051	OPH	54	1500	1705140	-254438	L	3	24058	L	84092315	000000	000000	154136	007000	331	V
GHGDY	DD1708+602	16	1370	1708359	+601352	H	3	23683	S	84081401	015200	041700	000000	000000		G E=56,C=140,B=23	
PHCAL	HD155763	25	0338	1708381	654634	L	1	03991	L	84081400	000000	000000	003641	000005	703	V	
																R=4.00,I=1,T=5.000 S	

PRD	OBJECT	CL	MAG	R.A.	DEC	D C	IMAGE	A	DATE	EXP.SMALL	EXP.LARGE	ECC	COMMENT	
PHCAL	HD155763	25	0341	1708381	654634	L 1	03990	L	84081323	000000	000000	235839	000001	503 V R=13.89,I=1,T=1.4398
NEGWR	PG1711+336	54	9999	1711057	+333446	L 3	23723	L	84081908	000000	000000	082700	002500	G C=135,B=40
IGGJS	HD 155756	13	0930	1712088	-455118	L 3	23306	L	84062215	000000	000000	152400	001300	G C=135,B=72
HYGJL	HD 156283	47	0316	1713182	+365155	H 1	03773	L	84071612	000000	000000	120700	002500	G E=255,C=185,B=135
WRGCG	HD 156327	10	0970	1715044	-342123	L 3	23893	L	84090712	000000	000000	123600	001500	G E=243,C=1.5X,B=180
WRGCG	HD 156327	10	0970	1715044	-342123	L 1	03711	L	84070512	000000	000000	122200	002500	G W=93,C=3X,B=56
WRGCG	HD 156327	10	0970	1715044	-342123	L 1	04167	L	84090713	000000	000000	131000	000500	G E=201,C=220,B=103
WRGCG	HD 156327	10	0970	1715044	-342123	L 3	23403	L	84070511	000000	000000	115900	001600	G E=128,C=110,B=25
WRGCG	HD 156327	10	0970	1715044	-342123	L 1	04166	L	84090712	000000	000000	122400	000700	G E=249,C=1.5X,B=145
GM195	NGC6326	70	1227	1716491	-514220	L 1	03726	L	84070702	000000	000000	022509	002200	230 V
GM195	NGC6326	70	1227	1716491	-514220	L 3	23421	L	84070701	000000	000000	011731	006000	340 V
CRGEB	DDV636	SCD 53	0700	1719055	-453401	H 2	17421	L	84060909	000000	000000	090500	019000	G C=135,B=52
IGGDY	DD IZW 187	87	1660	1727042	+501530	L 3	23678	L	84081214	000000	000000	145400	004500	G C=60,B=43
GC024	HD161096	47	0312	1741000	043512	L 3	23790	L	84082622	000000	000000	222541	012000	350 V
FEGMP	HD 161114	60	0970	1741160	-061500	L 3	23783	L	84082601	000000	000000	014200	020000	G E=236,C=140,B=42
FEGMP	HD 161114	60	0970	1741160	-061500	L 1	04078	L	84082605	000000	000000	052300	005000	G E=2X,C=2X,B=45
FEGMP	HD 161114	60	0970	1741160	-061500	L 1	04084	L	84082615	000000	000000	150100	000900	G E=1.1X,C=1.1X,B=46
FEGMP	HD 161114	60	0970	1741160	-061500	L 1	04079	L	84082607	000000	000000	073300	001800	G E=1.5X,C=1.5X,B=47
CSGER	HD 161239	45	0570	1741183	+242053	H 1	03546	L	84061014	000000	000000	141200	006000	G E=187,C=2X,B=137
CSGER	HD 161239	45	0570	1741183	+242053	L 3	23227	L	84061013	000000	000000	132600	004000	G E=85,C=162,B=61
GHGRS	HD 160993	23	0770	1741360	-453701	H 3	23541	L	84072903	000000	000000	033800	008000	G C=1.5X,B=56
HYGJL	HD 162094	21	0660	1746037	+341740	H 3	23469	L	84071613	000000	000000	131800	000530	G C=160,B=60
GA197	HD162732	26	0681	1748447	482425	L 3	23234	L	84061101	000000	000000	010108	000018	500 V
GA197	HD162732	26	0682	1748447	482425	L 1	03554	L	84061101	000000	000000	010436	000013	500 V
CRGJE	HD 163611	40	0750	1754243	+045931	L 1	03806	L	84071818	000000	000000	180200	000120	G C=190,B=35
CRGJE	HD 163611	40	0750	1754243	+045931	L 1	03805	L	84071817	000000	000000	172900	000120	G C=200,B=43
CRGJE	HD 163611	40	0750	1754243	+045931	L 1	03780	L	84071711	000000	000000	115200	000800	G C=3-4X,B=73
CRGJE	HD 163611	40	0750	1754243	+045931	L 1	03790	L	84071718	000000	000000	183700	000120	G C=188,B=35
CRGJE	HD 163611	40	0750	1754243	+045931	L 1	03822	L	84071918	000000	000000	180500	000120	G C=195,B=38
CRGJE	HD 163611	40	0750	1754243	+045931	L 1	03821	L	84071917	000000	000000	173400	000125	G C=200,B=50
CRGJE	HD 163611	40	0750	1754243	+045931	L 1	03823	L	84071918	000000	000000	183600	000120	G C=165,B=35
CRGJE	HD 163611	40	0750	1754243	+045931	L 1	03782	L	84071713	000000	000000	132100	000200	G C=1.2X,B=50
CRGJE	HD 163611	40	0750	1754243	+045931	L 1	03783	L	84071713	000000	000000	135800	000130	G C=220,B=50
CRGJE	HD 163611	40	0750	1754243	+045931	L 1	03784	L	84071714	000000	000000	144000	000200	G C=1.2X,B=73
CRGJE	HD 163611	40	0750	1754243	+045931	L 1	03820	L	84071917	000000	000000	170200	000130	G C=212,B=78
CRGJE	HD 163611	40	0750	1754243	+045931	L 1	03795	L	84071811	000000	000000	113400	000200	G C=220,B=45
CRGJE	HD 163611	40	0750	1754243	+045931	L 1	03819	L	84071916	000000	000000	162700	000130	G C=220,B=110
CRGJE	HD 163611	40	0750	1754243	+045931	L 1	03785	L	84071715	000000	000000	152500	000200	G C=238,B=90
CRGJE	HD 163611	40	0750	1754243	+045931	L 1	03789	L	84071718	000000	000000	180100	000110	G C=193,B=37
CRGJE	HD 163611	40	0750	1754243	+045931	L 1	03786	L	84071716	000000	000000	160500	000145	G C=1.2X,B=90
CRGJE	HD 163611	40	0750	1754243	+045931	L 1	03787	L	84071716	000000	000000	165100	000110	G C=200,B=55
CRGJE	HD 163611	40	0750	1754243	+045931	L 1	03796	L	84071812	000000	000000	121200	000110	G C=170,B=40
CRGJE	HD 163611	40	0750	1754243	+045931	L 1	03797	L	84071812	000000	000000	124600	000110	G C=178,B=42
CRGJE	HD 163611	40	0750	1754243	+045931	L 1	03798	L	84071813	000000	000000	132000	000110	G C=178,B=45
CRGJE	HD 163611	40	0750	1754243	+045931	L 1	03799	L	84071814	000000	000000	140000	000120	G C=205,B=57

PRD	OBJECT	CL	MAG	R.A.	DEC	D C	IMAGE	A	DATE	EXP.SMALL	EXP.LARGE	ECC	COMMENT					
CBGJE	HD	163611	40	0750	1754243	+045931	L	1	03818	L	84071915	000000	000000	155300	000120	G C=230,B=118		
CBGJE	HD	163611	40	0750	1754243	+045931	L	1	03817	L	84071915	000000	000000	152000	000110	G C=225,B=105		
CBGJE	HD	163611	40	0750	1754243	+045931	L	1	03816	L	84071914	000000	000000	144300	000125	G C=1.2X,B=100		
CBGJE	HD	163611	40	0750	1754243	+045931	L	1	03800	L	84071814	000000	000000	143700	000120	G C=220,B=75		
CBGJE	HD	163611	40	0750	1754243	+045931	L	1	03815	L	84071914	000000	000000	140300	000120	G C=200,B=78		
CBGJE	HD	163611	40	0750	1754243	+045931	L	1	03801	L	84071815	000000	000000	151400	000130	G C=225,B=93		
CBGJE	HD	163611	40	0750	1754243	+045931	L	1	03814	L	84071913	000000	000000	132900	000120	G C=210,B=65		
CBGJE	HD	163611	40	0750	1754243	+045931	L	1	03813	L	84071912	000000	000000	125500	000125	G C=195,B=53		
CBGJE	HD	163611	40	0750	1754243	+045931	L	1	03802	L	84071815	000000	000000	154700	000140	G C=242,B=110		
CBGJE	HD	163611	40	0750	1754243	+045931	L	1	03803	L	84071816	000000	000000	162200	000130	G C=220,B=88		
CBGJE	HD	163611	40	0750	1754243	+045931	L	1	03807	L	84071818	000000	000000	183400	000120	G C=260,B=35		
CBGJE	HD	163611	40	0750	1754243	+045931	L	1	03804	L	84071816	000000	000000	165700	000120	G C=200,B=60		
CBGJE	HD	163611	40	0750	1754243	+045931	L	1	03788	L	84071717	000000	000000	172800	000110	G C=192,B=21		
CBGJE	HD	163611	40	0750	1754243	+045931	L	1	03812	L	84071912	000000	000000	122000	000130	G C=190,B=53		
CBGJE	HD	163611	40	0750	1754243	+045931	L	1	03811	L	84071911	000000	000000	114100	000140	G C=180,B=52		
CBGJE	HD	163611	40	0750	1754243	+045931	L	1	03781	L	84071712	000000	000000	124500	000230	G C=1.5X,B=45		
SUGJC	DO	NEPTUNE	03	0750	1754465	-221351	L	1	03834	L	84072108	000000	000000	080100	004500	G C=10X,B=160		
GA209	HD	164284	20	0477	1757471	042212	H	3	24037	L	84092121	000000	000000	211545	000210	501 V		
GA209	HD	164284	20	0476	1757471	042212	H	3	24035	L	84092119	000000	000000	194605	000210	501 V		
MLGCW	HD	164284	26	0480	1757471	+042212	H	3	24015	L	84092012	000000	000000	125500	000210	G C=230,B=41		
GA209	HD	164284	20	0477	1757471	042212	H	3	24054	L	84092219	000000	000000	192005	000210	501 V		
GA209	HD	164284	20	0476	1757471	042212	H	3	24031	L	84092116	000000	000000	160315	000210	501 V		
GA197	HD	164284	26	0473	1757471	042211	H	3	23189	L	84060700	000000	000000	004517	000130	500 V		
GA197	HD	164284	26	0477	1757471	042211	H	3	23233	L	84061023	000000	000000	234245	000130	500 V		
MLGCW	HD	164284	26	0480	1757480	+042130	H	3	24038	L	84092206	000000	000000	061700	000210	G C=235,B=40		
MLGCW	HD	164284	26	0480	1757480	+042130	H	3	24046	L	84092212	000000	000000	125100	000210	G C=240,B=50		
MLGCW	HD	164284	26	0480	1757480	+042130	H	3	24022	L	84092108	000000	000000	085100	000210	G C=222,B=40		
MLGCW	HD	164284	26	0480	1757480	+042130	H	3	24003	L	84091907	000000	000000	074400	000210	G C=230,B=40		
MLGCW	HD	164284	26	0480	1757480	+042130	H	3	24025	L	84092111	000000	000000	110700	000210	G C=240,B=54		
IEGEB	QQW		03	20	0860	1759358	-241452	L	3	23590	SL	84080315	154700	000100	154200	000130	G C=2-3X,B=40	
IEGEB	QQW		03	20	0860	1759358	-241452	L	1	03927	SL	84080315	153700	000100	153200	000120	G C=2-3X,B=76	
IEGEB	QQW		03	20	0860	1759358	-241452	H	3	23776	L	84082512	000000	000000	122600	003500	G C=215,B=114	
IEGEB	QQW		03	20	0860	1759358	-241452	H	1	04076	L	84082513	000000	000000	130800	002500	G C=240,B=135	
MLGJC	HD	164637	23	0637	1800000	-224312	H	3	23763	L	84082313	000000	000000	131100	001100	G C=225,B=50		
IEGEB	QQW		43	20	0900	1801111	-241432	H	3	23775	L	84082509	000000	000000	094100	010000	G C=205,B=105	
IEGEB	QQW		43	20	0900	1801111	-241432	L	3	23586	SL	84080309	100300	000100	095600	000140	G C=160,B=18	
IEGEB	QQW		43	20	0900	1801111	-241432	L	1	03923	SL	84080309	092200	000100	091500	000140	G C=240,B=42	
IEGEB	QQW		43	20	0900	1801111	-241432	H	1	04075	L	84082511	000000	000000	112600	005000	G C=1.1X,B=160	
IEGEB	QQW		45	25	0760	1801114	-241112	L	1	03924	L	84080310	000000	000000	101200	000800	G C=1.3X,B=73	
IEGEB	QQW		45	25	0760	1801114	-241112	L	3	23587	L	84080310	000000	000000	104100	003000	G C=190,B=122	
IEGEB	QQW		56	20	0910	1801172	-242130	L	1	03925	SL	84080312	121100	000130	120400	000200	G C=1.5X,B=63	
IEGEB	QQW		56	20	0910	1801172	-242130	L	3	23588	SL	84080311	115800	000130	115100	000200	G C=215,B=25	
IEGEB	QQW		59	20	0890	1801190	-242629	L	3	23589	SL	84080314	140700	000100	140200	000140	G C=215,B=61	
IEGEB	QQW		59	20	0890	1801190	-242629	L	1	03926	SL	84080314	141900	000100	141200	000140	G C=3X,B=96	
IEGEB	QQ		W	85	20	0850	1801292	-240952	H	3	23779	L	84082515	000000	000000	154800	006000	G C=180,B=46

PRO	OBJECT	CL	MAG	R.A.	DEC	D C	IMAGE A	DATE	EXP.SMALL	EXP.LARGE	ECC	COMMENT	
CCGDS	HD	165185	44	0590	1803009	-360132	H 1	04066 L	04082409	000000	000000	094100 004000	G C=220,B=41
GCGBA	NG	6541	83	1500	1804240	-434400	L 3	23492 L	04072303	000000	000000	033200 024000	G E=125,B=59
MLGJC	HD	165793	23	0660	1805589	-364053	H 3	23764 L	04082314	000000	000000	140500 001100	G C=200,B=42
GQTOD	3C371		87	1445	1807185	694858	L 3	24086 L	04093015	000000	000000	151944 015400	302 V
IBGBB	HD	166612	39	0090	1809279	-281459	H 1	04090 L	04082713	000000	000000	130400 001600	G C=208,C=230,B=135
IBGBB	HD	166612	39	0090	1809279	-281459	L 3	23794 L	04082712	000000	000000	125600 001600	G C=200,B=18
GC108	HD319139		46	1065	1810530	-324830	L 1	03838 L	04072123	000000	000000	233333 005000	352 V
GC108	HD319139		46	1065	1810530	-324830	L 3	23481 L	04072200	000000	000000	002901 013800	231 V
GC108	HD319139		46	1065	1810530	-324830	L 1	03844 L	04072220	000000	000000	200420 004000	342 V
GC108	HD319139		46	1068	1810530	-324830	L 3	23490 L	04072220	000000	000000	205043 012000	231 V
GS054	JUPITER		03	-0260	1811390	-232843	L 3	23780 L	04082517	000000	000000	175446 001500	741 V GUIDING ON GANYMEDE
SJGHM	DD JUPITER		03	-0250	1811595	-232810	L 3	23746 L	04082116	000000	000000	160900 001500	G C=3X,B=23
SJGHM	DD JUPITER		03	-0250	1812043	-232804	L 3	23742 L	04082112	000000	000000	125600 001500	G C=3X,B=37
SJGHM	DOSKY BKGD		07	9999	1812043	-232804	L 3	23743 L	04082113	000000	000000	134900 001500	G B=35
SJGHM	DD JUPITER		03	-0250	1812043	-232804	L 3	23744 L	04082114	000000	000000	143600 001500	G B=28
SJGHM	DD	ID	07	0500	1812043	-232804	L 3	23736 L	04082102	000000	000000	020300 018000	G E=67,B=48
SJGHM	DD	ID	07	0500	1812043	-232804	L 3	23737 L	04082105	000000	000000	053100 018000	G E=75,B=45
SJGHM	DD JUPITER		03	-0250	1812043	-232804	L 3	23738 L	04082109	000000	000000	091800 001500	G C=3X,B=23
SJGHM	DOSKY BKGD		07	9999	1812043	-232804	L 3	23739 L	04082110	000000	000000	101600 001500	G B=20
SJGHM	DOSKY BKGD		07	9999	1812043	-232804	L 3	23745 L	04082115	000000	000000	152200 001500	G B=22
SJGHM	DD JUPITER		03	-0250	1812043	-232804	L 3	23740 L	04082111	000000	000000	111000 001500	G C=3X,B=25
SJGHM	DOSKY BKGD		07	9999	1812043	-232804	L 3	23741 L	04082112	000000	000000	120600 001500	G B=27
GHGBS	HD	167402	23	0890	1813060	-300834	H 3	23528 L	04072803	000000	000000	034100 016000	G
SJGHM	DDIO TORUS		04	0500	1813527	-232620	L 3	23667 L	04081106	000000	000000	064700 012200	G E=54,B=43
SJGHM	DDIO TORUS		04	0500	1813582	-232615	L 3	23666 L	04081103	000000	000000	030300 019200	G E=211,B=37
SJGHM	DDIO TORUS		04	0500	1813582	-232615	L 3	23665 L	04081021	000000	000000	214200 019900	G E=192,B=32
SJGHM	DD	ID	07	0500	1814027	-232611	D 9	01573 L	04081016	000000	000000	165400 016000	G NO COMMENTS
SJGHM	DD JUPITER		03	-0130	1814027	-232611	L 3	23663 L	04081015	000000	000000	154000 001500	G C=10X,B=25
GS048	ID TORUS		04	-0056	1814027	-232611	L 3	23664 L	04081016	000000	000000	164624 024000	232 V
GS048	ID TORUS		03	-0051	1814028	-232612	E 9	01574 L	04081017	000000	000000	175000 016000	V
SJGHM	DD JUPITER		07	-0130	1814060	-232608	L 3	23662 L	04081014	000000	000000	145000 001500	G B=34
SJGHM	DD JUPITER		03	-0130	1814060	-232608	L 3	23661 L	04081014	000000	000000	140000 001500	G C=10X,B=57
SJGHM	DD JUPITER		03	-0130	1814060	-232608	L 3	23660 L	04081013	000000	000000	130900 001500	G B=34
SJGHM	DD JUPITER		03	-0130	1814365	-232553	L 3	23650 L	04080911	000000	000000	115900 001500	G E=87,C=3X,B=38
SJGHM	DD JUPITER		03	-0130	1814365	-232553	L 3	23651 L	04080913	000000	000000	130400 001500	G E=106,C=3X,B=60
SJGHM	DD JUPITER		03	-0130	1814365	-232553	L 3	23654 L	04080915	000000	000000	154500 001500	G E=69,C=3X,B=34
SJGHM	DD JUPITER		03	-0130	1814365	-232553	L 3	23653 L	04080914	000000	000000	145100 001500	G E=95,C=3X,B=72
SJGHM	DD JUPITER		03	-0130	1814365	-232553	L 3	23652 L	04080913	000000	000000	135700 001500	G E=122,C=3X,B=85
SJGHM	DD JUPITER		03	-0130	1814365	-232553	L 3	23649 L	04080911	000000	000000	110600 001500	G E=98,C=3X,B=27
SJGHM	DD JUPITER		03	-0130	1814365	-232553	L 3	23648 L	04080910	000000	000000	101300 001500	G E=94,C=3X,B=22
IEGER	HD	167863	25	0670	1814545	-184905	L 3	23591 SL	04080316	164700	000300	163600 000600	G C=15X,B=60
IEGER	HD	167863	20	0670	1814546	-184905	H 1	04077 L	04082515	000000	000000	151100 002000	G C=242,B=60
IEGER	HD	167863	20	0670	1814546	-184905	H 3	23778 L	04082514	000000	000000	142900 002500	G C=194,B=66
IEGER	HD	167863	20	0670	1814546	-184905	L 3	23777 SL	04082513	135500	000015	135000 000015	G C=130,B=16
XBGJR	DD	AM HER	54	1250	1814587	+495054	L 1	04147 L	04090560	000000	000000	005900 003000	G E=255,C=180,B=40

PRO	OBJECT	CL	MAG	R.A.	DEC	D C	IMAGE	A	DATE	EXP. SMALL	EXP. LARGE	ECC	COMMENT		
XBGJR	OO	AM HER	54	1250	1814587	+495054	L 3	23876	L	84090501	000000	000000	013700	002500	G E=255,C=80,B=20
XBGJR	OO	AM HER	54	1250	1814587	+495054	L 3	23875	L	84090500	000000	000000	002500	002500	G E=249,C=76,B=21
XBGJR	OO	AM HER	54	1250	1814587	+495054	L 1	04146	L	84090423	000000	000000	231800	006000	G C=1.5X,B=40
XBGJR	OO	AM HER	54	1250	1814587	+495054	L 3	23874	L	84090422	000000	000000	223100	004000	G E=2X,C=125,B=19
XBGJR	OO	AM HER	54	1250	1814587	+495054	L 1	04148	L	84090502	000000	000000	021500	003000	G E=255,C=190,B=37
GA232	AM HER		59	1410	1814587	495059	L 3	23410	L	84070523	000000	000000	231359	003000	350 V
GA232	AM HER		59	1335	1814587	495059	L 3	23411	L	84070600	000000	000000	002310	003600	360 V
GA232	AM HER		59	1369	1814587	495059	L 3	23409	L	84070521	000000	000000	215742	002000	350 V
GA232	AM HER		59	1360	1814587	495059	L 1	03718	L	84070523	000000	000000	235354	002000	351 V
XBGJR	OO	AM HER	54	1250	1814587	+495054	L 3	23877	SL	84090502	032200	005000	025200	002500	G E=255,C=80,B=25
GA232	AM HER		59	1379	1814587	495059	L 1	03717	L	84070522	000000	000000	224042	002500	451 V
GA232	AM HER		59	1373	1814587	495059	L 1	03716	L	84070521	000000	000000	211425	003600	462 V
GHG8S	HD	167756	23	0630	1815055	-421831	H 3	23845	L	84090203	000000	000000	035900	000530	G C=215,B=38
GHG8S	HD	167756	23	0630	1815055	-421831	H 3	23834	L	84090164	000000	000000	041700	000400	G C=176,B=36
GHG8S	HD	167756	23	0630	1815055	-421831	H 3	23844	L	84090203	000000	000000	032100	000500	G C=200,B=36
GHG8S	HD	167756	23	0630	1815055	-421831	H 1	03891	L	84072910	000000	000000	101800	000400	G C=230,B=50
GHG8S	HD	167756	23	0630	1815055	-421831	H 3	23543	L	84072910	000000	000000	100300	000800	G C=1.5X,B=45
HSGAT	HD	167971	13	0750	1815176	-121545	L 1	03884	L	84072718	000000	000000	182100	000100	G C=200,B=31
HSGAT	HD	167971	13	0750	1815176	-121545	L 1	03882	L	84072715	000000	000000	150300	001000	G C=5X,B=85
HSGAT	HD	167971	13	0750	1815176	-121545	L 3	23525	L	84072715	000000	000000	152900	001000	G E=1.5X,C=2X,B=38
SPGRN	OO	IO BKGD	04	9999	1815265	-233033	L 1	04266	L	84092223	000000	000000	232600	002320	G C=80,B=40
SPGRN	OO	GAGANYMEDE	04	0450	1815302	-233032	L 1	04270	L	84092303	000000	000000	034600	000124	G C=200,B=35
SPGRN	OO	IO	04	0500	1815302	-233032	L 1	04267	L	84092300	000000	000000	003900	001840	G C=68,B=40
SPGRN	OO	GAGANYMEDE	04	0450	1815302	-233032	L 1	04269	L	84092303	000000	000000	030000	000140	G C=210,B=35
SPGRN	OO	IO	04	0500	1815302	-233032	L 1	04268	L	84092301	000000	000000	015300	001900	G C=115,B=36
SPGRN	OO	IO	04	0565	1815302	-233032	L 1	04271	L	84092304	000000	000000	043300	002230	G C=198,B=40
SPGRN	OO	EUROPA	04	0580	1815407	-233017	L 1	04277	L	84092311	000000	000000	112200	000240	G C=220,B=40
SPGRN	OO	IO	04	0550	1815420	-233012	L 1	04276	L	84092309	000000	000000	094200	002440	G C=210,B=42
SPGRN	OO	OCALLISTO	04	0630	1815420	-233012	L 1	04274	L	84092307	000000	000000	074400	000516	G C=195,B=35
SPGRN	OO	IO	04	0550	1815420	-233012	L 1	04275	L	84092308	000000	000000	083700	002440	G C=210,B=40
SPGRN	OO	GAGANYMEDE	04	0510	1815599	-233000	L 1	04279	L	84092312	000000	000000	125600	000124	G C=210,B=35
SPGRN	OO	GAGANYMEDE	04	0510	1815599	-233010	L 1	04278	L	84092312	000000	000000	121300	000124	G C=210,B=38
SPGRN	OO	OCALLISTO	04	0630	1816077	-233002	L 1	04273	L	84092306	000000	000000	065600	000450	G C=190,B=35
SPGRN	OO	IO	04	0565	1816080	-233002	L 1	04272	L	84092305	000000	000000	053600	002230	G C=190,B=40
LGGEB	HD	168454	47	0270	1817476	-295105	L 1	03901	SL	84073117	170500	000100	170000	000130	G E=242,C=1.1X,B=36
LGGEB	HD	168454	47	0270	1817476	-295105	L 3	23564	L	84073117	000000	000000	171000	005900	G E=181,C=95,B=41
GHG8S	HD	168941	13	0930	1820180	-265846	H 3	23843	L	84090122	000000	000000	221000	027000	G C=1.5X,B=90
HSGAT	HD	169454	23	0661	1822248	-140024	L 1	03881	L	84072713	000000	000000	132600	000900	G C=145,B=55
HSGAT	HD	169454	23	0661	1822248	-140024	L 1	03880	L	84072712	000000	000000	124500	000100	G C=140,B=20
HSGAT	HD	169454	23	0661	1822248	-140024	L 3	23524	L	84072711	000000	000000	115900	001100	G C=240,B=36
HSGAT	HD	169454	23	0661	1822248	-140024	L 1	03879	L	84072711	000000	000000	115200	000130	G C=2X,B=35
LGGDD	OO	AC HER	52	0780	1828089	+214947	L 1	04193	L	84090922	000000	000000	223600	004000	G C=5X,B=42
LGGDD	OO	AC HER	52	0780	1828090	+214948	L 1	04194	L	84090923	000000	000000	235500	001000	G C=2X,B=37
LGGDD	OO	AC HER	52	0780	1828090	+214948	L 1	04200	L	84091013	000000	000000	134200	000500	G C=218,B=45
LGGDD	OO	AC HER	52	0780	1828090	+214948	H 1	04197	L	84091007	000000	000000	072800	018000	G C=197,B=105

PRO	OBJECT	CL	MAG	R.A.	DEC	D C	IMAGE	A	DATE	EXP.SMALL	EXP.LARGE	ECC	COMMENT			
SPGRN	00	J4/J2	04	0580	1832587	-230949	L	1	03684	SL	84063019	201100	000100	195700	000640	G C=3X,B=30
SPGRN	00	EUROPA	04	0580	1832587	-230949	L	1	03683	L	84063019	000000	000000	192500	000145	G C=1.5X,B=35
SPGRN	00	DECELELADS	04	1040	1832598	-230942	L	1	03678	L	84062917	000000	000000	173300	006500	G C=165,B=80
SPGRN	00	OGANYMEDE	04	0510	1832599	-230942	L	1	03679	L	84062920	000000	000000	201200	000058	G C=240,B=32
QSGJD	00	3C 382	84	1500	1833119	+323919	L	3	23810	L	84082902	000000	000000	021500	037200	G E=215,C=185,B=104
SPGRN	00	ID	04	0550	1833171	-230928	L	1	03674	L	84062907	000000	000000	074000	000417	G C=145,B=32
SPGRN	00	EUROPA	04	0580	1833171	-230928	L	1	03673	L	84062906	000000	000000	064700	000320	G C=249,B=32
SPGRN	00	ID	04	0550	1833403	-230845	L	1	03670	L	84062815	000000	000000	152300	001200	G C=200,B=40
SPGRN	00	ID	04	0550	1833403	-230845	L	1	03669	L	84062814	000000	000000	142700	001530	G C=255,B=40
SPGRN	00	ID	04	0550	1833403	-230845	D	9	01546	L	84062814	000000	000000	141300	016000	G NO COMMENTS
GA056	HD171782	25	0794	1834019	051446	L	3	23566	L	84073121	000000	000000	215348	000200	400	V
GA056	HD171782	25	0795	1834019	051446	L	1	03904	L	84073122	000000	000000	220014	000040	501	V
GA056	HD171931	22	0937	1834481	051627	L	1	03890	L	84072901	000000	000000	013531	000300	403	V
GA056	HD171931	22	0933	1834481	051627	L	3	23539	L	84072900	000000	000000	004327	001600	500	V
GA056	HD172012	25	0946	1835118	052917	L	1	03902	L	84073119	000000	000000	194838	000440		V K104(IC4756)
GA056	HD172012	22	0939	1835118	052917	L	3	23540	L	84072902	000000	000000	021806	001800	500	V
IGGJS	HD 172175	15	0940	1836208	-075419	L	3	23883	L	84090612	000000	000000	120000	001500		G C=200,B=125
HSGAT	HD 172175	15	0750	1836208	-075419	L	1	03883	L	84072716	000000	000000	163000	003000		G C=8X,B=55
GA056	HD172248	22	0912	1836360	052446	L	1	03889	L	84072900	000000	000000	000823	000130	502	V
GA056	HD172248	22	0917	1836360	052446	L	3	23538	L	84072823	000000	000000	233421	000630	500	V
GA056	HD172271	30	0925	1836362	053235	L	3	23565	L	84073120	000000	000000	200237	000900	400	V K280(IC4756)
GHGGS	HD 173502	23	0973	1843441	-300051	H	3	23866	L	84090322	000000	000000	221200	019000		G C=255,B=75
IGGJS	HD 173783	13	0930	1844396	-092151	L	3	23884	L	84090612	000000	000000	125500	001300		G C=207,B=120
LGGDD	00 R SCT	52	0585	1844490	-054545	L	1	04175	L	84090809	000000	000000	092600	001200		G C=165,B=65
LGGDD	00 R SCT	52	0565	1844490	-054545	L	3	23901	L	84090808	000000	000000	082800	035000		G B=70
LGGDD	00 R SCT	52	0560	1844490	-054545	L	1	04199	L	84091012	000000	000000	124730	002000		G C=1.2X,B=140
LGGDD	00 R SCT	52	0585	1844490	-054545	L	1	04174	L	84090808	000000	000000	081900	000120		G C=52,B=35
GET00	3C 390.3	86	1500	1845379	794306	L	3	23179	L	84060521	000000	000000	215042	041500	353	V
GET00	3C390.3	86	1500	1845379	794306	L	1	03808	L	84071819	000000	000000	195458	041200	345	V
QSGJD	00 3C390.3	84	1600	1845385	+794302	L	3	23791	L	84082701	000000	000000	012800	044000		G E=160,C=115,B=105
CBGMP	HD 174638	66	0340	1848139	+331759	H	3	23787	L	84082613	000000	000000	134500	000140		G E=1.5X,C=1.5X,B=42
CBGMP	HD 174638	66	0340	1848139	+331759	H	1	04083	L	84082613	000000	000000	135100	000130		G C=2X,B=53
OD35K	HD 175227	21	0830	1851218	+241254	L	3	23450	SL	84071217	180200	000530	175400	000245		G C=182,B=19
OD35K	HD 175227	21	0830	1851218	+241254	L	3	23449	SL	84071216	163900	000400	163000	000200		G C=170,B=20
OD35K	HD 175227	21	0830	1851218	+241254	L	1	03756	SL	84071218	181700	000240	181100	000120		G C=210,B=35
DCGEB	BS 7107	53	0430	1851482	-671757	L	3	23230	L	84061018	000000	000000	184300	002500		G C=130,B=106
DCGEB	BS 7107	53	0430	1851483	-671757	L	1	03558	L	84061118	000000	000000	182800	002500		G C=2X,B=190
DCGEB	BS 7107	53	0430	1851483	-671757	L	1	03550	L	84061019	000000	000000	191900	001500		G C=161,B=92
DCGEB	BS 7107	53	0430	1851483	-671757	L	1	03892	SL	84073013	130800	000030	130200	000130		G C=7X,B=40
DCGEB	BS 7107	53	0430	1851483	-671757	L	3	23556	L	84073013	000000	000000	131500	004500		G C=4X,B=92
DCGEB	BS 7107	53	0430	1851483	-671757	H	1	03893	L	84073014	000000	000000	140800	001200		G C=1.1X,B=75
DCGEB	BS 7107	53	0430	1851483	-671757	L	3	23244	L	84061118	000000	000000	185900	002500		G E=147,C=163,B=115
DCGEB	BS 7107	53	0430	1851483	-671757	L	1	03549	SL	84061018	183100	000025	183500	000100		G C=90,B=38
DCGEB	BS 7107	53	0430	1851483	-671757	L	3	23557	SL	84073014	150600	001000	144600	001000		G E=68,C=1.5X,B=78
DCGEB	BS 7107	53	0430	1851483	-671757	L	1	03894	SL	84073015	154000	000012	153400	000012		G C=220,B=38

PRO	OBJECT	CL	MAG	R.A.	DEC	D C	IMAGE	A	DATE	EXP.SMALL	EXP.LARGE	ECC	COMMENT		
DCGEB	BS	7107	53	0430	1851483	-671757	L 1	03899	SL	84073114	142800	000020	142400	000020	G C=1.1X,B=38
DCGEB	BS	7107	53	0430	1851483	-671757	L 3	23563	L	84073115	000000	000000	133900	003000	G C=240,B=98
DCGEB	BS	7107	53	0430	1851483	-671757	L 3	23562	L	84073114	000000	000000	143400	003000	G C=1.5X,B=135
DCGEB	BS	7107	53	0430	1851483	-671757	H 1	03900	L	84073115	000000	000000	151100	001600	G E=153,C=1.5X,B=114
HSGDB	HD	175156	27	0510	1851511	-154001	H 3	23976	L	84091611	000000	000000	111300	001000	G C=2.0X,B=192
HSGDB	HD	175156	27	0510	1851511	-154001	H 3	23985	L	84091710	000000	000000	104600	001100	G C=1.2X,B=150
HSGDB	HD	175156	27	0510	1851511	-154001	H 3	23957	L	84091410	000000	000000	100200	001500	G C=2.0X,B=146
HSGDB	HD	175362	27	0540	1853171	-372432	L 3	23986	L	84091711	000000	000000	113900	000003	G C=180,B=15
HSGDB	HD	175362	27	0540	1853171	-372432	L 3	23949	L	84091312	000000	000000	120300	000003	G C=185,B=18
HSGDB	HD	175362	27	0540	1853171	-372432	L 1	04218	L	84091312	000000	000000	120700	000002	G C=2.0,B=36
HSGDB	HD	175362	27	0540	1853171	-372432	L 1	04239	L	84091711	000000	000000	113400	000002	G C=220,B=32
CEGMP	HD	176437	25	0325	1857042	+323719	H 3	23788	L	84082615	000000	000000	155200	000120	G C=130,B=26
GA093	JL 9	16	1342	1902240	-723500	L 3	23323	L	84062322	000000	000000	220313	000900	501 V	
GA093	JL 9	16	1327	1902240	-723500	L 1	03645	L	84062321	000000	000000	213937	001200	403 V	
GA093	JL9	16	1353	1902240	-723500	H 3	23364	L	84062722	000000	000000	221419	039300	303 V	
GA093	JL9	16	1356	1902240	-723500	L 1	03666	L	84062721	000000	000000	214021	001500	503 V	
GHGBS	HD	177989	23	0930	1904420	-184831	H 3	23867	L	84090402	000000	000000	021000	012700	G C=227,B=59
GCGAD	OO	A59	47	1090	1906079	-600203	H 1	03939	L	84080501	000000	000000	013900	078500	G B=160
GC170	A59	47	9999	1906080	-600203	E 9	01567	2	84080417	000000	000000	172400	016000	V FES FOR LUP3939,HRES	
GM195	NGC6072	70	1402	1909416	-360601	L 3	23419	L	84070620	000000	000000	205813	001500	110 V	
GHGBS	HD	179407	23	0940	1910050	-124005	H 3	23833	L	84083122	000000	000000	225200	027100	G C=240,B=76
FECMP	BD+14	3887	60	0960	1919169	+144719	L 1	04085	L	84082616	000000	000000	161700	003200	G C=110,B=40
GA102	GD219	37	1329	1919230	143454	L 1	04044	L	84082023	000000	000000	230818	002500	501 V	
GA102	GD219	37	1328	1919230	143454	L 3	23735	L	84082023	000000	000000	233930	006800	501 V	
PHCAL	OO	WAVCAL	98	0000	1923475	-542537	H 1	03843	S	84072217	173200	000016	000000	000000	G E=50X,B=110
PHCAL	OO	WAVCAL	98	0000	1923475	-542537	L 1	03842	S	84072217	170300	000001	000000	000000	G E=20X,B=105
PHCAL	OO	WAVCAL	98	0000	1923475	-542537	L 3	23487	S	84072216	160600	000002	000000	000000	G E=20X,B=107
PHCAL	OO	WAVCAL	98	0000	1923475	-542537	H 3	23488	S	84072216	163200	000200	000000	000000	G E=50X,B=173
CVGCW	QONOVA	VUL	55	0930	1924033	+271542	L 1	04443	S	84092905	054900	000800	000000	000000	G E=10X,C=3X,B=42
CVGCW	QONOVA	VUL	55	0930	1924033	+271542	H 3	24073	L	84092903	000000	000000	034800	012000	G E=160,C=155,B=83
T00	NOV	VULB4	55	0831	1924033	271551	L 1	03967	LS	84080717	175817	001000	175019	000200	443 V 663#
T00	NOV	VULB4	55	0829	1924033	271551	L 3	23638	SL	84080718	182144	001000	184854	003500	221 V 331#
CVGCW	QONOVA	VUL	55	0651	1924034	+271554	L 1	03943	L	84080512	000000	000000	120900	000145	G E=182,C=180,B=50
CVGCW	QONOVA	VUL	55	0652	1924034	+271554	L 3	23605	L	84080511	000000	000000	113600	001330	G E=219,C=210,B=104
CVGCW	QONOVA	VUL	55	0662	1924034	+271554	H 1	03942	L	84080511	000000	000000	110500	002000	G E=1.1X,C=1.1X,B=170
CVGCW	QONOVA	VUL	55	0700	1924034	+271554	L 1	04017	SL	84081807	073200	000300	072400	000300	G E=3X,C=2X,B=38
T00	NOV	VUL	55	0795	1924034	271552	H 1	04109	L	84083020	000000	000000	204106	003600	553 V
T00	N	VUL	55	0904	1924034	271552	L 1	04456	LS	84093018	190554	001500	185924	000200	771 V 881#
CVGCW	QONOVA	VUL	55	0760	1924034	+271554	L 1	03913	SL	84080212	123100	000800	121000	000610	G E=218,C=240,B=113
T00	N	VUL	55	0901	1924034	271552	H 1	04458	L	84093021	000000	000000	210134	002600	342 V
T00	N	VUL	55	0900	1924034	271552	H 3	24088	L	84093019	000000	000000	193440	006500	223 V
CVGCW	QONOVA	VUL	55	0663	1924034	+271554	L 3	23604	L	84080510	000000	000000	103100	001200	G E=200,C=185,B=80
CVGCW	QONOVA	VUL	55	0760	1924034	+271554	L 3	23576	SL	84080209	094200	001500	093500	000200	G E=8X,B=110
T00	NOV	VULB4	55	0834	1924034	271552	H 1	03968	L	84080719	000000	000000	192758	009000	333 V
CVGCW	QONOVA	VUL	55	0700	1924034	+271554	L 3	23717	L	84081807	000000	000000	074100	002000	G E=208,C=2X,B=30

PRO	OBJECT	CL	MAG	R.A.	DEC	D C	IMAGE	A	DATE	EXP.SMALL	EXP.LARGE	ECC	COMMENT		
CVGCW	DDNOVA	VUL	55	0700	1924034	+271554	H 1	04018	L	84081808	000000	000000	083000	001500	G E=126,C=125,B=66
FIT00	N	VUL	55	0901	1924034	271552	L 3	24087	L	84093018	000000	000000	184052	000700	550 V
CVGCW	DDNOVA	VUL	55	0700	1924034	+271554	L 1	04135	SL	84090310	105100	000040	104700	000010	G E=156,C=90,B=38
CVGCW	DDNOVA	VUL	55	0700	1924034	+271554	L 3	23860	L	84090310	000000	000000	103700	000500	G E=186,C=135,B=30
GI110	NOVA	VUL	55	0760	1924034	271552	L 3	23580	L	84080217	000000	000000	175830	002000	401 V
GI110	NOVA	VUL	55	0743	1924034	271552	H 1	03917	L	84080218	000000	000000	182733	002500	331 V
TOO	N	VUL	55	0902	1924034	271552	L 1	04457	L	84093026	000000	000000	200951	000100	571 V
GI110	NOVA	VUL	55	0749	1924034	271552	L 1	03918	LS	84080219	192604	001000	193849	000100	772 V 442\$
TOO	NOV	VUL	55	0802	1924034	271552	L 1	04108	L	84080320	000000	000000	200621	000100	561 V
CVGCW	DDNOVA	VUL	55	0782	1924034	+271554	L 1	03953	L	84080616	000000	000000	164000	000300	G E=143,C=170,B=50
CVGCW	DDNOVA	VUL	55	0700	1924034	+271554	L 3	23675	L	84081207	000000	000000	075600	004200	G E=1.5X,C=1.5X,B=29
CVGCW	DDNOVA	VUL	55	0870	1924034	+271554	L 1	03983	L	84081208	000000	000000	083300	000400	G E=2X,C=1.5X,B=35
TOO	NOV	VUL	55	0819	1924034	271552	L 1	04107	LS	84080319	190922	000400	190234	000300	771 V 771\$
CVGCW	DDNOVA	VUL	55	0767	1924034	+271554	L 3	23622	L	84080616	000000	000000	160600	001500	G B=115
CVGCW	DDNOVA	VUL	55	0773	1924034	+271554	L 1	03952	L	84080615	000000	000000	155600	000100	G E=82,C=95,B=43
CVGCW	DDNOVA	VUL	55	0760	1924034	+271554	L 1	03911	SL	84080210	100800	000300	101400	000030	G E=190,C=200,B=40
CVGCW	DDNOVA	VUL	55	0668	1924034	+271554	L 1	03941	SL	84080509	095500	000200	094900	000200	G E=2X,C=3X,B=59
CVGCW	DDNOVA	VUL	55	0700	1924034	+271554	L 1	04120	SL	84090110	103600	000200	103100	000030	G E=2X,C=220,B=52
CVGCW	DDNOVA	VUL	55	0700	1924034	+271554	L 3	23837	L	84090110	000000	000000	102200	000500	G E=191,C=140,B=45
TOO	NOV	VUL	55	0809	1924034	271552	L 3	23825	L	84080319	195248	001000	191704	003000	760 V
CVGCW	DDNOVA	VUL	55	0870	1924034	+271554	L 1	03982	L	84081207	000000	000000	073100	000800	G E=3X,C=4X,B=36
CVGCW	DDNOVA	VUL	55	0930	1924034	+271554	H 1	04442	L	84092902	000000	000000	025900	003500	G E=176,C=110,B=50
CVGCW	DDNOVA	VUL	55	0930	1924034	+271554	L 3	24072	L	84092902	000000	000000	022000	001000	G E=1.5X,C=195,B=20
CVGCW	DDNOVA	VUL	55	0760	1924034	+271554	H 1	03912	L	84080210	000000	000000	104500	004500	G C=230,B=150
CVGCW	DDNOVA	VUL	55	0760	1924034	+271554	L 3	23577	L	84080211	000000	000000	113600	002500	G E=186,C=170,B=72
CVGCW	DDNOVA	VUL	55	0668	1924034	+271554	L 3	23603	L	84080509	000000	000000	093000	001500	G E=233,C=220,B=87
CVGCW	DDNOVA	VUL	55	0930	1924034	+271554	L 1	04441	SL	84092902	021300	000200	020700	000030	G E=244,C=110,B=35
GA102	G185-32	37	1329	1935110	273630	L 3	23734	L	84082021	000000	000000	215255	005000	300 V	
GA102	G185-32	37	1335	1935110	273630	L 1	04043	L	84082021	000000	000000	210141	004500	501 V	
HGGJW	DD	EARTH	01	0000	1935431	+144759	L 1	04050	SL	84082213	131400	000400	131400	000400	G C=165,B=50
HGGJW	DD	EARTH	01	0000	1935431	+144759	L 3	23751	SL	84082213	131000	001000	131000	001000	G E=117,C=1.5X,B=30
HYGJL	HD	185507	21	0517	1936434	+051700	H 1	03774	L	84071613	000000	000000	135500	000230	G C=217,B=83
HYGJL	HD	185507	21	0517	1936434	+051700	H 3	23470	L	84071614	000000	000000	142600	000400	G C=235,B=68
CSGEB	HD	185758	45	0440	1937516	+175351	L 3	23585	L	84080306	000000	000000	062600	012000	G E=117,C=1.5X,B=77
CSGEB	HD	185758	45	0440	1937516	+175351	L 1	03922	SL	84080306	062000	000030	061500	000100	G C=1.5X,B=32
SUGJC	0016	CYG B	44	0620	1940314	+502356	L 1	03835	L	84072109	000000	000000	095900	001000	G C=10X,B=123
SUGJC	0016	CYG B	44	0620	1940314	+502356	L 1	03836	L	84072110	000000	000000	104800	000700	G C=10X,B=125
PHCAL	DD	SAFE RD	99	9999	1940314	+502356	L 2	17482	L	84072111	000000	000000	112500	000000	G B=50
CBGEG	BD+30	3704	66	1050	1940319	+311214	L 1	03979	L	84081116	000000	000000	163000	001000	G C=230,B=38
SUGJC	0016	CYG A	44	0600	1940319	+502426	L 1	03832	L	84072017	000000	000000	173700	000700	G C=10X,B=112
SUGJC	0016	CYG A	44	0600	1940319	+502426	L 1	03831	L	84072014	000000	000000	143800	000400	G C=10X,B=190
CBGEG	BD+30	3704	66	1050	1940319	+311214	L 3	23671	L	84081116	000000	000000	161100	001000	G C=85,B=20
SUGJC	0016	CYG A	44	0600	1940319	+502426	L 1	03829	L	84072013	000000	000000	131800	000600	G C=10X,B=150
SUGJC	0016	CYG B	44	0620	1940319	+502426	L 1	03826	L	84072010	000000	000000	104400	001000	G C=10X,B=160
SUGJC	0016	CYG A	44	0600	1940319	+502426	L 1	03830	L	84072013	000000	000000	135800	000500	G C=10X,B=167

PRO	OBJECT	CL	MAG	R.A.	DEC	D C	IMAGE	A	DATE	EXP.SMALL	EXP.LARGE	ECC	COMMENT	
SUGJC	0016 CYG B 44		0620	1940319	+502426	L 1	03827	L	84072611	000000	000000	113200	001000	G C=10X,B=165
SUGJC	0016 CYG A 44		0600	1940319	+502426	L 1	03828	L	84072612	000000	000000	122900	001000	G C=10X,B=188
EGGSL	NG 6822 B2		0900	1942032	-145023	L 3	23263	L	84061410	000000	000000	104100	009600	G C=85,B=62
HYGJL	HD 186547	25	0626	1942144	+131057	H 1	03745	L	84071912	000000	000000	123500	000530	G C=125,B=43
CSGER	HD 186648	45	0490	1943268	-195259	L 3	23245	L	84061120	000000	000000	201900	003200	G C=57,B=39
GA056	NGC6826	70	0977	1943272	502410	L 3	23537	L	84072822	000000	000000	221537	000130	500 V
GA056	NGC6826	70	0977	1943272	502410	H 1	03887	L	84072819	000000	000000	195951	013000	554 V
GA056	NGC6826	70	0978	1943272	502410	L 1	03888	L	84072822	000000	000000	225423	000130	503 V
GC024	HD186791	47	9999	1943529	102924	E 9	01552	2	84071002	000000	000000	020000	002000	V
HYGJL	HD 186791	47	0270	1943530	+102929	H 1	03741	L	84071003	000000	000000	033700	072000	G E=50X,C=25,B=160
HYGJL	HD 186791	47	0270	1943530	+102929	D 9	01551	L	84070918	000000	000000	180800	016000	G NO COMMENTS
HYGJL	HD 186791	47	0270	1943530	+102929	H 1	03744	L	84071009	000000	000000	094300	005000	G E=3X,C=160,B=59
HYGJL	HD 186791	47	0270	1943530	+102929	H 1	03743	L	84071908	000000	000000	084700	000800	G E=144,C=68,B=35
HYGJL	HD 186791	47	0270	1943530	+102929	L 3	23435	L	84071009	000000	000000	090200	020000	G E=3X,C=260,B=82
HYGJL	OO WAUCAL	98	9999	1943530	+102929	H 1	03742	S	84071007	074500	000016	000000	000000	G E=50X,B=105
OD43K	OO V 3885	63	1050	1944125	-420754	L 1	03841	L	84072213	000000	000000	135900	000300	G C=230,B=108
OD43K	OO V 3885	63	1050	1944125	-420754	L 3	23484	L	84072212	000000	000000	122100	000400	G E=154,C=160,B=45
OD43K	OO V 3885	63	1050	1944125	-420754	L 3	23485	L	84072213	000000	000000	134800	000430	G C=220,B=100
OD43K	OO V 3885	63	1050	1944125	-420754	L 1	03840	L	84072212	000000	000000	123200	000230	G C=180,B=60
OD43K	OO V 3885	63	1050	1944125	-420754	L 3	23486	L	84072215	000000	000000	150100	000345	G E=209,C=250,B=160
WRGLA	HD 186943	11	1040	1944143	+280856	L 3	23530	L	84072812	000000	000000	120400	001000	G E=216,C=127,B=25
WRGLA	HD 186943	11	1040	1944143	+280856	L 3	23550	L	84072916	000000	000000	163200	001600	G E=1.5X,C=210,B=35
WRGLA	HD 186943	11	1040	1944143	+280856	L 3	23545	L	84072912	000000	000000	121900	001600	G E=1.5X,C=195,B=35
LDGDS	HD 187013	41	0500	1944316	+333637	H 1	03619	L	84061818	000000	000000	185500	000700	G E=67,C=170,B=43
LDGDS	HD 187013	41	0500	1944316	+333637	H 1	04070	L	84082415	000000	000000	154500	001000	G C=195,B=40
LDGDS	HD 225732	46	0860	1944336	+333646	L 1	03620	L	84061819	000000	000000	195200	000600	G C=55,B=35
LDGDS	HD 225732	46	0860	1944336	+333646	L 1	04071	L	84082416	000000	000000	163700	001000	G E=40,C=76,B=36
GC024	HD187076	49	0386	1945094	182434	H 1	04095	L	84082800	000000	000000	001715	003300	772 V
MLGJC	HD 187459	23	0644	1946559	+331839	H 3	23766	L	84082315	000000	000000	155200	002700	G C=220,B=40
GI110	CI CYG	57	1050	1948210	353324	L 3	23581	L	84080220	000000	000000	201322	002000	351 V
ZAGND	OO CI CYG	57	1050	1948210	+353327	L 3	23447	SL	84071211	121500	001500	115500	001500	G E=248,B=30
GI110	CI CYG	57	1054	1948210	353324	L 1	03919	L	84080220	000000	000000	203935	002000	452 V
ZAGND	OO CI CYG	57	1050	1948210	+353327	L 1	03755	SL	84071212	130500	001100	124500	001100	G E=223,C=94,B=43
WDGGW	OO L997-21	37	1370	1953549	-011034	L 3	23819	L	84083001	000000	000000	011700	024000	G C=133,B=82
WDGGW	OO L997-21	37	1370	1953550	-011035	L 1	03696	L	84070211	000000	000000	115000	012000	G C=1.3X,B=125
WDGGW	OO L997-21	37	1370	1953560	-011012	L 1	04102	L	84083006	000000	000000	065700	006000	G C=225,B=145
GA101	JL36	38	1318	1956180	-720600	L 3	23357	L	84062704	000000	000000	043736	001000	300 V
GA101	JL36	38	1317	1956180	-720600	L 1	03654	L	84362521	000000	000000	213429	001500	401 V
GI224	E2003+225	63	1500	2003320	223120	L 3	23507	L	84072500	000000	000000	005602	004000	331 V
GI224	E2003+225	63	1500	2003320	223120	L 3	23506	L	84072423	000000	000000	234242	004000	340 V
GI224	E2003+225	63	1500	2003320	223120	L 1	03859	L	84072423	000000	000000	231406	002000	311 V
GI224	E2003+225	63	1500	2003320	223120	L 3	23505	L	84072422	000000	000000	222951	004000	330 V
GI224	E2003+225	63	1500	2003320	223120	L 1	03858	L	84072421	000000	000000	215921	002000	312 V
GI224	E2003+225	63	1500	2003320	223120	L 3	23504	L	84072421	000000	000000	210954	004500	340 V
GI224	E2003+225	63	1500	2003320	223120	L 1	03857	L	84072420	000000	000000	204301	002000	312 V

PRO	OBJECT	CL	MAG	R.A.	DEC	D C	IMAGE	A	DATE	EXP.SMALL	EXP.LARGE	ECC	COMMENT
GI224	E2003+225	63	1500	2003320	223120	L 3	23503	L	84072419	000000	000000	195240	004600 341 V
GI224	E2003+225	63	1500	2003320	223120	L 1	03856	L	84072419	000000	000000	192539	002000 312 V 22CNTS AT RP
GI224	E2003+225	63	1500	2003320	223120	L 3	23508	L	84072502	000000	000000	020815	004000 330 V
GI224	E2003+225	63	1500	2003320	223120	L 1	03861	L	84072501	000000	000000	014143	002000 312 V
GI224	E2003+225	63	1500	2003320	223120	L 1	03860	L	84072500	000000	000000	002827	002600 312 V
GG256	2005-489	84	1377	2005466	-485843	L 3	23482	L	84072205	000000	000000	051650	006000 360 V
HSGAT	HD 191612	15	0780	2007354	+353509	L 1	03862	L	84072510	000000	000000	105900	000040 G C=240,B=32
HSGAT	HD 191612	15	0780	2007354	+353509	L 3	23510	L	84072511	000000	000000	110500	000106 G C=136,B=18
IGGJS	HD 191781	13	0950	2008140	+451516	L 3	23311	L	84062219	000000	000000	195700	002500 G C=120,B=20
IGGJS	HD 191781	13	0950	2008140	+451516	L 1	03641	L	84062220	000000	000000	202900	000800 G C=230,B=37
GC024	HD192577	47	0407	2012033	463520	H 1	04094	L	84082719	000000	000000	192943	001200 772 V
GC024	HD192577	47	0408	2012033	463520	H 3	23797	L	84082718	000000	000000	185704	001200 540 V
HSGAT	HD 192639	13	0710	2012391	+371203	L 1	03864	L	84072512	000000	000000	123900	000020 G C=200,B=37
MLGCM	BS 7739	26	0480	2013086	+252516	H 3	24045	L	84092212	000000	000000	121400	000140 G C=220,B=50
MLGCM	BS 7739	26	0480	2013086	+252517	H 3	24016	L	84092013	000000	000000	133200	000140 G C=220,B=40
GA209	HD192685	21	0486	2013087	252617	H 3	24055	L	84092220	000000	000000	200145	000140 501 V
VVGSP	HD 192713	39	0040	2013205	+232117	L 3	23879	L	84090510	000000	000000	102400	000400 G C=220,B=18
VVGSP	HD 192713	39	0040	2013205	+232117	H 1	04141	L	84090407	000000	000000	074400	004500 G E=44,C=166,B=47
VVGSP	HD 192713	39	0040	2013205	+232117	L 3	23868	L	84090407	000000	000000	070600	000800 G E=87,C=200,B=25
VVGSP	HD 192713	39	0040	2013205	+232117	L 1	04140	L	84090406	000000	000000	065300	000120 G E=201,C=230,B=35
VVGSP	HD 192713	39	0040	2013205	+232117	L 1	04149	SL	84090509	095400	000220	094600	000220 G C=2X,B=35
VVGSP	HD 192713	39	0040	2013205	+232117	H 3	23878	L	84090506	000000	000000	063000	019000 G C=240,B=70
VVGSP	HD 192713	39	0040	2013205	+232117	H 1	04008	L	84081707	000000	000000	070300	004600 G E=235,C=195,B=66
VVGSP	HD 192713	39	0040	2013205	+232117	H 1	04152	L	84090513	000000	000000	132000	002500 G E=230,C=200,B=123
VVGSP	HD 192713	39	0550	2013205	+232117	L 1	03980	L	84081201	000000	000000	013600	000100 G C=240,B=32
VVGSP	HD 192713	39	0550	2013205	+232117	L 3	23673	L	84081202	000000	000000	021000	000230 G C=180,B=18
VVGSP	HD 192713	39	0040	2013205	+232117	L 3	23991	L	84091806	000000	000000	063200	000240 G C=195,B=17
VVGSP	HD 192713	39	0040	2013205	+232117	H 3	23706	L	84081703	000000	000000	033300	020300 G C=1.5X,B=80
VVGSP	HD 192713	39	0040	2013205	+232117	L 1	04009	L	84081708	000000	000000	082900	000106 G C=238,B=30
VVGSP	HD 192713	39	0040	2013205	+232117	H 1	04246	L	84091806	000000	000000	064100	004500 G E=1.2X,C=240,B=125
VVGSP	HD 192713	39	0040	2013205	+232117	H 3	23992	L	84091807	000000	000000	073100	006000 G C=225,B=135
VVGSP	HD 192713	39	0040	2013205	+232117	L 1	04247	SL	84091808	084000	000140	083500	000140 G C=2X,B=42
VVGSP	HD 192713	39	0040	2013205	+232117	H 1	04007	L	84081702	000000	000000	021700	007000 G E=1.5X,B=230
VVGSP	HD 192713	39	0040	2013205	+232117	L 3	23915	L	84090906	000000	000000	065400	000340 G C=230,B=18
VVGSP	HD 192713	39	0040	2013205	+232117	L 1	04185	L	84090907	000000	000000	070400	000106 G C=1.2X,B=33
VVGSP	HD 192713	39	0040	2013205	+232117	H 3	23916	L	84090907	000000	000000	073500	009000 G C=205,B=97
VVGSP	HD 192713	39	0040	2013205	+232117	H 1	04186	L	84090909	000000	000000	091100	004000 G E=255,C=205,B=90
VVGSP	HD 192713	39	0040	2013205	+232117	L 3	23705	L	84081701	000000	000000	014400	000350 G C=235,B=17
VVGSP	HD 192713	39	0040	2013205	+232117	L 1	04006	L	84081701	000000	000000	013700	000110 G C=1.1X,B=32
VVGSP	HD 192713	39	0040	2013205	+232117	L 1	04015	L	84081801	000000	000000	015700	000106 G C=255,B=35
VVGSP	HD 192713	39	0040	2013205	+232117	L 3	23993	L	84091809	000000	000000	090800	000240 G C=200,B=16
VVGSP	HD 192713	39	0040	2013205	+232117	L 1	04130	L	84090213	000000	000000	133900	000100 G E=188,C=150,B=48
VVGSP	HD 192713	39	0550	2013205	+232117	H 1	03981	L	84081202	000000	000000	021800	004000 G E=222,C=170,B=43
VVGSP	HD 192713	39	0040	2013205	+232117	L 3	23850	L	84090213	000000	000000	133000	000600 G E=134,B=93
VVGSP	HD 192713	39	0040	2013205	+232117	L 3	23694	L	84081609	000000	000000	093400	000300 G C=195,B=20

PRO	OBJECT	CL	MAG	R.A.	DEC	D C	IMAGE	A	DATE	EXP.SMALL	EXP.LARGE	ECC	COMMENT	
VVGSF	HD 192713	39	0040	2013205	+232117	H 3	23674	L	84081203	000000	000000	030400	023000	G C=1.5X,R=76
VVGSF	HD 192713	39	0040	2013205	+232117	L 3	23715	L	84081802	000000	000000	020300	000345	G C=235,R=18
VVGSF	HD 192713	39	0040	2013205	+232117	H 1	04016	L	84081802	000000	000000	023800	005500	G E=1.2X,C=200,R=47
VVGSF	HD 192713	39	0040	2013205	+232117	L 1	04142	L	84090409	000000	000000	092100	000400	G C=3X,R=37
VVGSF	HD 192713	39	0040	2013205	+232117	H 3	23869	L	84090408	000000	000000	083400	006200	G E=249,C=85,R=35
VVGSF	HD 192713	39	0040	2013205	+232117	L 3	23690	L	84081514	000000	000000	144200	000300	G C=207,R=20
VVGSF	HD 192713	39	0040	2013205	+232117	L 1	03997	L	84081514	000000	000000	145200	000100	G C=235,R=37
VVGSF	HD 192713	39	0040	2013205	+232117	H 1	03998	L	84081515	000000	000000	152700	005600	G E=1.5X,C=250,R=105
VVGSF	HD 192713	39	0040	2013205	+232117	H 3	23716	L	84081803	000000	000000	034400	019000	G C=255,R=77
GC024	HD192713	45	0564	2013205	232117	H 3	23789	L	84082617	000000	000000	172731	015000	231 V
GC024	HD192713	45	0562	2013205	232117	H 1	04086	L	84082620	000000	000000	200504	010500	462 V
VVGSF	HD 192713	39	0040	2013205	+232117	L 3	23707	L	84081708	000000	000000	081900	000340	G C=220,R=26
GC024	HD192909	47	0423	2013555	473335	H 1	04093	L	84082718	000000	000000	181155	002500	572 V
GC024	HD192909	47	0421	2013555	473335	H 3	23796	L	84082717	000000	000000	174141	002500	440 V
GA146	HD 193237	23	0493	2015565	375236	L 3	23236	L	84061102	000000	000000	025901	000018	508 V
GA146	HD193237	23	0513	2015565	375236	L 3	23640	L	84080722	000000	000000	223859	000018	551 V
GA146	HD193237	23	0498	2015565	375236	H 3	23639	L	84080727	000000	000000	212647	002500	561 V
GA146	HD193237	23	0496	2015565	375236	H 1	03969	L	84080722	000000	000000	220434	000500	563 V
GA146	HD 193237	23	0492	2015565	375236	H 1	03555	L	84061102	000000	000000	023230	000500	561 V
GA146	HD193237	23	0493	2015565	375236	H 3	23235	L	84061102	000000	000000	020023	002500	560 V
HSGAT	HD 228854	12	0950	2016539	+361100	L 1	03871	L	84072518	000000	000000	181600	002500	G C=5X,R=40
HSGAT	HD 228854	12	0950	2016539	+361100	L 1	03863	L	84072511	000000	000000	115300	000430	G C=235,R=38
GA232	GD391	37	1353	2028050	390322	L 3	23412	L	84070602	000000	000000	020836	001200	500 V
GA232	GD391	37	1345	2028050	390320	L 3	23408	L	84070519	000000	000000	195623	001800	500 V
GA232	GD391	37	1348	2028050	390322	L 1	03720	L	84070602	000000	000000	023833	001000	302 V
GA232	GD391	37	1291	2028050	390322	L 1	03719	L	84070601	000000	000000	013734	002500	502 V
WDGJH	DD W 1346	37	1150	2032130	+245348	L 3	23814	SL	84082914	144100	001100	142800	000540	G C=2X,R=65
LGDD	DD V VUL	52	0880	2034250	+262542	L 1	04173	L	84090806	000000	000000	065000	002500	G E=165,C=107,R=70
HCGTA	HD 197177	39	0550	2039010	+320742	L 3	23607	L	84080515	000000	000000	155200	000300	G C=200,R=61
NSGJR	DDCYG LOOP	75	9999	2043349	+305532	H 3	23770	L	84082402	000000	000000	020600	040000	G E=110,C=140,R=73
NSGJR	DDCYG LOOP	75	9999	2043397	+305556	L 1	04065	L	84082402	000000	000000	023200	036000	G C=125,R=90
GI013	HBV475	57	1342	2049026	352337	H 3	23624	L	84080620	000000	000000	204333	024400	133 V
GI013	HBV475	57	1332	2049026	352337	L 1	03954	L	84080619	000000	000000	194645	005000	254 V
GI013	HBV 475	57	1336	2049026	352337	E 9	01569	2	84080619	000000	000000	193700	016000	V FES FOR SWP 23623
GI013	HBV475	57	1336	2049026	352337	L 3	23623	L	84080617	000000	000000	175952	008500	252 V
BCGDB	HD 199140	53	1500	2052149	+281952	L 3	23632	L	84080710	000000	000000	103900	000008	G C=195,R=17
BCGDB	HD 199140	53	1500	2052149	+281952	L 1	03957	L	84080704	000000	000000	043700	000003	G C=205,R=36
BCGDB	HD 199140	53	1500	2052149	+281952	L 3	23627	L	84080704	000000	000000	040100	000004	G C=220,R=20
BCGDB	HD 199140	53	1500	2052149	+281952	L 3	23626	L	84080703	000000	000000	032400	000005	G C=200,R=26
BCGDB	HD 199140	53	1500	2052149	+281952	L 1	03956	L	84080702	000000	000000	024800	000004	G C=222,R=30
BCGDB	HD 199140	53	1500	2052149	+281952	L 3	23625	L	84080702	000000	000000	021200	000007	G C=205,R=20
BCGDB	HD 199140	53	1500	2052149	+281952	L 1	03955	L	84080701	000000	000000	013600	000005	G C=220,R=36
BCGDB	HD 199140	53	1500	2052149	+281952	L 1	03959	L	84080707	000000	000000	070200	000005	G C=210,R=30
BCGDB	HD 199140	53	1500	2052149	+281952	L 1	03962	L	84080710	000000	000000	100200	000004	G C=206,R=26
BCGDB	HD 199140	53	1500	2052149	+281952	L 3	23631	L	84080709	000000	000000	092600	000005	G C=195,R=16

PRO	OBJECT	CL	MAG	R.A.	DEC	D C	IMAGE	A	DATE	EXP.SMALL	EXP.LARGE	ECC	COMMENT				
BCGDB	HD	199140	53	1500	2052149	+281952	H	3	23637	L	84080716	000000	000000	163900	000930	G C=1.2X,B=89	
BCGDB	HD	199140	53	1500	2052149	+281952	L	3	23636	L	84080716	000000	000000	160400	000607	G C=210,B=17	
BCGDB	HD	199140	53	1500	2052149	+281952	L	1	03966	L	84080715	000000	000000	152800	000005	G C=250,B=37	
BCGDB	HD	199140	53	1500	2052149	+281952	L	1	03965	L	84080713	000000	000000	134400	000003	G C=225,B=35	
BCGDB	HD	199140	53	1500	2052149	+281952	L	1	03961	L	84080708	000000	000000	085000	000003	G C=207,B=34	
BCGDB	HD	199140	53	1500	2052149	+281952	L	3	23628	L	84080705	000000	000000	051200	000006	G C=195,B=20	
BCGDB	HD	199140	53	1500	2052149	+281952	L	1	03963	L	84080711	000000	000000	111500	000005	G C=210,B=35	
BCGDB	HD	199140	53	1500	2052149	+281952	L	3	23633	L	84080711	000000	000000	115100	000008	G C=215,B=17	
BCGDB	HD	199140	53	1500	2052149	+281952	L	3	23635	L	84080713	000000	000000	134000	000004	G C=200,B=17	
BCGDB	HD	199140	53	1500	2052149	+281952	L	1	03964	L	84080712	000000	000000	122800	000008	G C=2X,B=38	
BCGDB	HD	199140	53	1500	2052149	+281952	L	1	03958	L	84080705	000000	000000	054900	000005	G C=210,B=30	
BCGDB	HD	199140	53	1500	2052149	+281952	L	1	03960	L	84080708	000000	000000	081400	000003	G C=197,B=30	
BCGDB	HD	199140	53	1500	2052149	+281952	L	3	23629	L	84080706	000000	000000	062500	000008	G C=200,B=20	
BCGDB	HD	199140	53	1500	2052149	+281952	L	3	23634	L	84080713	000000	000000	130400	000005	G C=210,B=17	
BCGDB	HD	199140	53	1500	2052149	+281952	L	3	23630	L	84080707	000000	000000	073800	000006	G C=190,B=20	
HSCAT	HD	199579	12	0600	2054488	+444354	L	1	03855	L	84072418	000000	000000	181400	000004	G C=230,B=32	
NSGJR	QOSKY	BKGD	75	9999	2054505	+305526	L	1	04074	L	84082502	000000	000000	021000	038500	G B=105	
NSGJR	QOCYG	LOOP	75	0000	2054505	+305526	L	3	23774	L	84082502	000000	000000	020500	040000	G E=189,C=115,B=80	
MLGCM	HD	200120	26	0450	2058073	+471929	H	3	24002	L	84091906	000000	000000	065800	000125	G C=225,B=39	
MLGCM	HD	200120	26	0450	2058073	+471929	H	3	24043	L	84092210	000000	000000	103000	000230	G C=3X,B=65	
MLGCM	HD	200120	26	0450	2058073	+471929	H	3	24041	L	84092208	000000	000000	083700	000230	G C=2X,B=50	
MLGCM	HD	200120	26	0450	2058073	+471929	H	3	24039	L	84092206	000000	000000	065300	000230	G C=2X,B=50	
MLGCM	HD	200120	26	0450	2058073	+471929	H	3	24014	L	84092012	000000	000000	121200	000230	G C=2X,B=60	
MLGCM	HD	200120	26	0450	2058073	+471929	H	3	24028	L	84092113	000000	000000	132900	000230	G C=2-3X,B=57	
MLGCM	HD	200120	26	0450	2058073	+471929	H	3	24019	L	84092106	000000	000000	062000	000230	G C=2X,B=50	
GA197	HD	200120	26	0487	2058074	471930	L	3	23238	L	84061104	000000	000000	043937	000001	500 V	
GA197	HD	200120	26	0489	2058074	471930	H	1	03556	L	84061104	000000	000000	041044	000130	662 V	
GA197	HD	200120	26	0490	2058074	471930	H	3	23237	L	84061104	000000	000000	040641	000130	500 V	
GA209	HD	200120	20	0436	2058074	471930	H	3	24030	L	84092115	000000	000000	152202	000230	761 V	
GA209	HD	200120	20	0487	2058074	471930	H	3	24050	L	84092216	000000	000000	162921	000230	701 V	
GA197	HD	200120	26	0492	2058074	471930	H	1	03510	L	84060623	000000	000000	234502	000130	501 V	
GA209	HD	200120	20	0490	2058074	471930	H	3	24053	L	84092218	000000	000000	184016	000230	761 V	
GA209	HD	200120	20	0493	2058074	471930	H	3	24056	L	84092220	000000	000000	204434	000230	701 V	
GA198	HD	200120	26	0466	2058074	471930	H	3	23612	L	84080523	000000	000000	234912	000130	561 V	
GA197	HD	200120	26	0484	2058074	471930	H	3	23188	L	84060623	000000	000000	231210	000130	500 V	
GA209	HD	200120	20	0489	2058074	471930	H	3	24048	L	84092214	000000	000000	145142	000230	701 V	
GA209	HD	200120	20	0491	2058074	471930	H	3	24036	L	84092120	000000	000000	203453	000230	761 V	
GA198	HD	200120	26	0488	2058074	471930	H	3	23853	L	84090216	000000	000000	164623	000130	501 V	
GA209	HD	200120	20	0435	2058074	471930	H	3	24034	L	84092118	000000	000000	185411	000230	701 V	
GA056	NGC	7009	71	0943	2101276	-113354	H	3	23383	L	84070320	000000	000000	205222	035500	383 V	
GA056	NGC	7009	71	0944	2101276	-113354	L	3	23382	L	84070228	000000	000000	200918	000600	451 V	
SCGMA	DUTAKAMIZA	06	9999	2107038	-223342	D	9	01580	L	84081910	000000	000000	100700	002600	G NO COMMENTS		
SCGMA	DUTAKAMIZA	06	9999	2107038	-223342	L	1	04034	L	84081910	000000	000000	102500	003000	G B=105		
WDGJH	OO	GD	394	37	1310	2111030	+495342	L	3	23217	SL	84060917	172100	002000	170300	000900	G C=1.2X,B=53
SCGMA	DUTAKAMIZA	06	9999	2115012	-244130	L	1	04282	L	84092400	000000	000000	003500	021000	G C=110,B=78		

PRO	OBJECT	CL	MAG	R.A.	DEC	D C	IMAGE	A	DATE	EXP.SMALL	EXP.LARGE	ECC	COMMENT	
CRGEB	00 AU PEG	53	0930	2121405	+180349	L 3	23584	L	84080301	000000	000000	012800	024000	G C=78,B=59
GA101	PHL25	38	1236	2129120	-173200	L 1	03658	L	84062622	000000	000000	221006	001200	501 V
GA101	PHL25	38	1238	2129120	-173200	L 3	23352	L	84062621	000000	000000	214332	001800	501 V
GC024	HD205114	45	0651	2129465	522355	H 3	23798	L	84082720	000000	000000	201503	020000	441 V
QSGMM	00II ZW136	84	1490	2130012	+095501	L 3	23257	L	84061309	000000	000000	093600	015000	G E=1.2X,C=140,B=80
QSGMM	00II ZW136	84	1490	2130012	+095501	L 1	03569	L	84061312	000000	000000	121100	004500	G C=175,B=106
QSGMM	00II ZW136	84	1490	2130012	+095501	L 1	03568	L	84061305	000000	000000	055700	021000	G E=161,C=1.5X,B=65
PHCAL	00 WAVCAL	98	0000	2130380	+094018	H 2	17435	S	84061314	142600	000016	000000	000000	G E=50X,B=145
PHCAL	00 TFL00D	99	0000	2130380	+094018	H 2	17436	S	84061314	145400	000007	000000	000000	G B=140
PHCAL	00 WAVCAL	98	0000	2130380	+094018	L 2	17434	S	84061313	140100	000001	000000	000000	G E=10X,B=85
PHCAL	5A 126883	46	0900	2130380	+094018	D 9	01544	L	84061313	000000	000000	132700	016000	G NO COMMENTS
PMGJL	HD 205478	47	0380	2135599	-773650	L 3	23456	L	84071316	000000	000000	163800	013000	G E=91,C=77,B=47
PHCAL	00SAFETYRD	99	9999	2136219	+824947	2	17500	L	84091122	000000	000000	222000	000000	G C=66,B=25
GA094	G261-45	37	1332	2136220	824948	L 3	23932	L	84091120	000000	000000	203034	004700	600 V
GA094	G261-45	37	1331	2136220	824948	L 1	04209	L	84091119	000000	000000	195931	002500	502 V
CVGRP	00SS CYGNI	54	0934	2140446	+432121	L 3	23964	SL	84091508	082000	000120	080100	000040	G C=190,B=18
CVGRP	00SS CYGNI	54	0934	2140446	+432121	L 1	04233	SL	84091508	083400	000100	082600	000030	G C=190,B=40
PHCAL	00 WAVCAL	98	0000	2140449	+432121	H 1	03714	S	84070517	171500	000016	000000	000000	G E=50X,B=105
PHCAL	00 WAVCAL	98	0000	2140449	+432121	L 1	03713	S	84070516	164500	000001	000000	000000	G E=10X,B=105
CVGRP	00 SS CYG	54	0820	2140449	+432121	L 3	23533	SL	84072815	151500	000110	150700	000050	G C=220,B=18
PHCAL	00 WAVCAL	98	0000	2140449	+432121	H 3	23406	S	84070516	161200	000200	000000	000000	G E=50X,B=131
PHCAL	00 WAVCAL	98	0000	2140449	+432121	L 3	23405	S	84070515	154700	000002	000000	000000	G E=10X,B=102
CVGRP	00 SS CYG	54	9999	2140450	+432122	L 1	03663	SL	84062714	140900	000150	140100	000027	G C=188,B=32
CVGRP	00 SS CYG	54	0953	2140450	+432122	L 1	03682	SL	84063016	163200	000120	162600	000043	G C=185,B=35
CVGRP	00 SS CYG	54	0910	2140450	+432122	L 1	04223	SL	84091413	131700	000300	131100	000030	G C=245,B=94
CVGRP	00 SS CYG	54	0953	2140450	+432122	L 3	23371	SL	84063016	164600	000046	163900	000046	G E=122,C=180,B=20
CVGRP	00 SS CYG	54	0910	2140450	+432122	L 3	23960	SL	84091413	130700	000045	130100	000045	G C=1.2X,B=30
CVGRP	00 SS CYG	54	1180	2140450	+432122	L 3	23404	SL	84070514	145000	000700	143000	001000	G E=156,C=86,B=30
CVGRP	00 SS CYG	54	1230	2140450	+432122	L 3	23695	L	84081610	000000	000000	102000	001100	G E=94,C=50,B=25
CVGRP	00 SS CYG	54	1230	2140450	+432122	L 1	04000	L	84081611	000000	000000	112400	001600	G E=236,C=150,B=63
CVGRP	00 SS CYG	54	1220	2140450	+432122	L 3	23696	L	84081611	000000	000000	115000	002200	G E=186,C=105,B=50
CVGRP	00 SS CYG	54	1180	2140450	+432122	L 1	03712	SL	84070514	141700	000700	140300	000700	G E=188,C=141,B=35
CVGRP	00 SS CYG	54	1230	2140450	+432122	L 1	04116	L	84083113	000000	000000	132500	000500	G E=245,C=244,B=203
CVGRP	00 SS CYG	54	1230	2140450	+432122	L 3	23830	S	84083112	125000	001500	000000	000000	G B=2X
CVGRP	00 SS CYG	54	1230	2140450	+432122	L 1	04115	L	84083112	000000	000000	120400	000500	G E=192,C=189,B=155
CVGRP	00 SS CYG	54	0820	2140450	+432122	L 1	03672	SL	84062820	202700	000300	200100	000030	G C=200,B=35
CVGRP	00 SS CYG	54	0820	2140450	+432122	L 3	23367	SL	84062820	202100	000046	201600	000046	G E=190,C=210,B=18
CVGRP	00 SS CYG	54	1230	2140450	+432122	L 3	23829	L	84083111	000000	000000	113000	001500	G E=239,C=215,B=182
CVGRP	00 SS CYG	54	0980	2140450	+432122	L 1	03655	SL	84062605	054400	000400	052700	001000	G C=4X,B=32
CVGRP	00 SS CYG	54	1230	2140450	+432122	L 1	04114	L	84083111	000000	000000	110000	001600	G E=1.5X,C=250,B=182
CVGRP	00 SS CYG	54	1230	2140450	+432122	L 3	23828	L	84083110	000000	000000	103300	002000	G E=214,C=154,B=115
CVGRP	00 SS CYG	54	0820	2140450	+432122	L 1	03686	SL	84072815	153100	000140	152200	000035	G C=200,B=40
CVGRP	00 SS CYG	54	1090	2140450	+432122	L 1	03704	L	84070318	000000	000000	183600	000243	G C=207,B=35
CVGRP	00 SS CYG	54	9999	2140450	+432122	L 3	23359	SL	84062713	135600	000042	135200	000042	G E=144,C=225,B=15
CVGRP	00 SS CYG	54	0820	2140450	+432122	L 1	03657	SL	84062620	201200	000313	200500	000107	G C=2X,B=35

PRO	OBJECT	CL	MAG	R.A.	DEC	D C	IMAGE	A	DATE	EXP.SMALL	EXP.LARGE	ECC	COMMENT	
CVGRP	OO	SS	CYG 54	0820 2140450	+432122	L 3	23351	SL	84062619	195700	000200	194500	000200	G C=2X,B=18
CVGRP	OO	SS	CYG 54	1090 2140450	+432122	L 3	23389	SL	84070317	180600	000245	175700	000245	G E=131,C=175,B=23
CVGRP	OO	SS	CYG 54	0980 2140450	+432122	L 3	23346	SL	84062605	062600	000330	055300	002000	G C=3X,B=21
LGGJL	HD	206778	47	0240 2141438	+093842	L 3	23436	L	84071013	000000	000000	133700	006000	G E=3X,C=141,B=85
LGGJL	HD	206778	47	0240 2141438	+093842	H 1	03746	L	84071014	000000	000000	140600	000600	G E=160,C=85,B=42
LGGJL	HD	206778	47	0240 2141438	+093842	H 3	23437	L	84071104	000000	000000	040400	088500	G E=249,C=207,B=138
LGGJL	OO	MAVCAL	98	9999 2141438	+093842	H 3	23438	S	84071110	103600	000018	000000	000000	G E=8X,B=111
LGGJL	HD	206778	47	0240 2141438	+093842	H 1	03750	L	84071110	000000	000000	100400	002500	G E=3X,C=110,B=45
LGGJL	HD	206778	47	0240 2141438	+093842	D 9	01553	L	84071018	000000	000000	184000	016000	G NO COMMENTS
GC250	HD206936	49	0371 2141585	583301	L 1	03928	L	84080317	000000	000000	175828	004000	451 V	
GA101	PHL 1745	38	1223 2144120	-202200	L 1	03646	L	84062323	000000	000000	233154	001300	403 V	
GA101	PHL 1745	38	1230 2144120	-202200	L 3	23324	L	84062323	000000	000000	235015	002200	401 V	
IRGR	HD 207739	39	0010 2147598	+434354	L 1	04087	L	84082709	000000	000000	094300	000400	G C=180,B=18	
PHCAL	BD+28D4211	16	1054 2148560	283735	L 3	23212	L	84060902	000000	000000	023954	000026	500 V	
PHCAL	NULL	99	9999 2148560	283735	L 1	03759	L	84071402	000000	000000	023039	000000	V	
PHCAL	BD+28D4211	16	1053 2148560	283735	L 1	03538	L	84060902	000000	000000	024305	000050	502 V	
PHCAL	BD+28D4211	16	1063 2148560	283735	L 1	03539	L	84060903	000000	000000	033610	000320	502 V TRAILED R=0.1,I=1	
PHCAL	BD+28 4211	16	1052 2148560	283735	L 3	23273	L	84061700	000000	000000	003655	000026	500 V	
PHCAL	BD+28D4211	16	1046 2148560	283735	L 3	23213	L	84060904	000000	000000	041452	000117	500 V TRAILED R=0.26,I=1	
PHCAL	BD+28 4211	16	1052 2148560	283735	L 1	03605	L	84061703	000000	000000	035530	000820	703 V TRAIL R=0.04,I=1	
PHCAL	NULL	99	9999 2148560	283735	L 1	03603	L	84061702	000000	000000	023600	000000	V	
PHCAL	BD+28 4211	16	1060 2148560	283735	L 2	17481	L	84071401	000000	000000	015905	000122	502 V UVC AT -4.5KV	
PHCAL	BD+28 4211	16	1042 2148560	283735	L 1	03604	L	84061703	000000	000000	031520	000320	503 V TRAIL R=0.1, I=1	
PHCAL	BD+28 4211	16	1050 2148560	283735	L 2	17448	L	84061702	000000	000000	020300	000820	702 V TRAIL R=0.04, I=1	
GA146	BD+28-4211	16	1057 2148560	283735	L 1	03970	LS	84080723	235740	000600	235027	000050	502 V 7025	
PHCAL	BD+28 4211	16	1040 2148560	283735	L 2	17447	L	84061701	000000	000000	012445	000320	502 V TRAIL R=0.1, I=1	
PHCAL	BD+28 4211	16	1052 2148560	283735	L 2	17446	L	84061700	000000	000000	004005	000100	502 V	
PHCAL	BD+28 4211	16	1050 2148574	+283734	L 2	17483	SL	84072112	121300	000159	120500	000108	G C=190,B=40	
PHCAL	BD+28 4211	16	1050 2148574	+283734	L 1	04037	SL	84081916	163600	000230	162900	000050	G C=203,B=35	
PHCAL	BD+28 4211	16	1050 2148574	+283734	L 2	17466	SL	84070713	133100	000300	132600	000100	G C=180,B=23	
PHCAL	BD+28 4211	16	1050 2148574	+283734	L 3	23698	SL	84081616	164200	000118	162700	000026	G C=205,B=19	
PHCAL	BD+28 4211	16	1050 2148574	+283734	L 1	03688	SL	84070114	143600	000230	142900	000050	G C=210,B=38	
PHCAL	BD+28 4211	16	1050 2148574	+283734	L 3	23377	SL	84070114	145000	000118	144300	000026	G C=200,B=15	
PHCAL	BD+28 4211	16	1050 2148574	+283734	L 2	17437	L	84061315	000000	000000	155500	000330	G C=193,B=38	
PHCAL	BD+28 4211	16	1050 2148574	+283734	L 2	17497	L	84081316	000000	000000	162000	000229	G C=170,B=23	
PHCAL	BD+28 4211	16	1050 2148574	+283734	L 2	17496	L	84081315	000000	000000	154800	000100	G C=170,B=23	
PHCAL	BD+28 4211	16	1050 2148574	+283734	L 2	17484	SL	84072112	130100	000328	125300	000159	G C=111,B=58	
GQ185	PKS2152-69	86	1400 2152586	-695541	L 3	23527	L	84072722	000000	000000	221546	027200	232 V	
GQ185	PKS2152-69	86	1400 2152586	-695541	L 1	03885	L	84072721	000000	000000	214446	002500	112 V	
GQ185	PKS2152-69	86	1400 2152586	-695541	L 3	23526	L	84072720	000000	000000	203953	006000	121 V	
GQ225	PK2155-304	87	1400 2155583	-302754	L 3	23452	L	84071302	000000	000000	020709	004000	311 V	
CCGSB	BD-03 5357	45	0940 2158009	-025852	L 3	23171	L	84060416	000000	000000	160000	010000	G E=88,C=83,B=61	
CCGSB	BD-03 5357	45	0940 2158009	-025852	L 3	23172	L	84060418	000000	000000	182800	002400	G C=200,B=40	
CCGSB	BD-03 5357	45	0940 2158009	-025852	L 1	03493	L	84060414	000000	000000	144400	005500	G E=245,C=130,B=55	
CCGSB	BD-03 5357	45	0940 2158009	-025852	L 3	23170	SL	84060411	121700	004000	110800	012000	G E=83,C=80,B=58	

PRO	OBJECT	CL	MAG	R.A.	DEC	D C	IMAGE A	DATE	EXP.SMALL	EXP.LARGE	ECC	COMMENT	
CCGSB	BD-03 5357	45	0940	2158009	-025852	L 1	03492 L	84060409	000000	000000	093900	007000	G E=255,C=130,B=43
CCGSB	BD-03 5357	45	0940	2158009	-025852	L 3	23169 SL	84060406	072300	004000	060700	012000	G E=75,B=45
RSGDH	HD 209318	66	0880	2159285	+433854	H 1	04245 L	84091801	000000	000000	014000	018500	G E=123,C=120,B=75
RSGDH	HD 209318	66	0880	2159286	+433855	L 1	04253 L	84091910	000000	000000	103500	003500	G E=1.5X,C=220,B=105
RSGDH	HD 209318	66	0880	2159286	+433855	H 1	04244 L	84091721	000000	000000	213800	021000	G E=130,C=110,B=62
RSGDH	HD 209318	66	0880	2159286	+433855	L 1	04254 L	84091911	000000	000000	114300	001500	G E=255,C=120,B=55
RSGDH	HD 209318	66	0880	2159286	+433855	L 3	24006 L	84091912	000000	000000	120400	006000	G C=60,B=40
RSGDH	HD 209318	66	0880	2159286	+433855	L 1	04255 L	84091913	000000	000000	131000	001500	G E=255,C=115,B=38
HYGLH	HD 209750	45	0293	2203128	-003348	H 1	03809 L	84071909	000000	000000	090500	001000	G E=228,C=240,B=66
GHGLH	BD+07 4795	20	1070	2204349	+080001	H 3	23314 L	84062305	000000	000000	054800	032000	G C=2X,B=176
IGGJS	HD 210191	20	0574	2206145	-184554	H 1	03640 L	84062212	000000	000000	125200	000200	G C=173,B=47
IGGJS	HD 210191	20	0574	2206145	-184554	H 3	23304 L	84062212	000000	000000	124300	000300	G C=155,B=38
DD46K	HD 210334	46	0610	2206390	+452948	H 1	04112 L	84083108	000000	000000	080900	003500	G E=236,C=215,B=139
DD46K	HD 210334	46	0610	2206390	+452948	L 3	23859 L	84090309	000000	000000	090900	004000	G E=95,C=78,B=39
DD46K	HD 210334	46	0610	2206390	+452948	H 1	04134 L	84090308	000000	000000	080500	005500	G E=166,C=120,B=52
DD46K	HD 210334	46	0610	2206390	+452948	H 1	04118 L	84090106	000000	000000	064300	004500	G E=164,C=112,B=60
DD46K	HD 210334	46	0610	2206390	+452948	H 1	04113 L	84083109	000000	000000	092500	002500	G E=174,C=185,B=120
DD46K	HD 210334	46	0610	2206390	+452948	L 3	23835 L	84090107	000000	000000	073400	003000	G E=70,C=52,B=40
DD46K	HD 210334	46	0610	2206390	+452948	H 1	04125 L	84090206	000000	000000	064300	004500	G E=173,C=140,B=50
DD46K	HD 210334	46	0610	2206390	+452948	H 1	04133 L	84090306	000000	000000	063500	004500	G E=148,C=100,B=47
DD46K	HD 210334	46	0610	2206390	+452948	L 3	23827 L	84083108	000000	000000	085100	002000	G E=126,C=96,B=70
DD46K	HD 210334	46	0610	2206390	+452948	L 3	23847 L	84090209	000000	000000	091100	003500	G E=88,C=84,B=41
DD46K	HD 210334	46	0610	2206390	+452948	L 3	23858 L	84090307	000000	000000	072700	003000	G E=47,C=39,B=30
DD46K	HD 210334	46	0610	2206390	+452948	H 1	04119 L	84090108	000000	000000	081000	004500	G E=214,C=140,B=105
DD46K	HD 210334	46	0610	2206390	+452948	L 3	23836 L	84090109	000000	000000	090500	003500	G E=139,C=124,B=89
DD46K	HD 210334	46	0610	2206390	+452948	L 3	23846 L	84090207	000000	000000	073400	003000	G E=69,C=72,B=35
DD46K	HD 210334	46	0610	2206390	+452948	H 1	04126 L	84090208	000000	000000	081400	005000	G E=187,C=175,B=69
DD46K	HD 210334	46	0610	2206390	+452948	L 3	23826 L	84083107	000000	000000	073200	003000	G E=1.5X,C=118,B=71
DD46K	HD 210334	46	0610	2206390	+452948	H 1	04111 L	84083106	000000	000000	064000	004500	G E=230,C=195,B=101
HSGAT	HD 210809	13	0750	2209445	+521058	L 1	03870 L	84072517	000000	000000	171900	000020	G C=2X,B=32
HSGAT	HD 210809	13	0750	2209445	+521058	L 1	03865 L	84072513	000000	000000	134500	000010	G C=190,B=30
GHGLH	BD+16 4689	21	1040	2210180	+170236	L 3	23315 L	84062311	000000	000000	113800	000317	G C=185,B=20
QSGAB	QDMRK 304	84	1460	2214458	+135920	L 1	03588 L	84061506	000000	000000	061900	030000	G E=195,C=175,B=76
QSGAB	QDMRK 304	84	1460	2214459	+135920	L 1	03589 L	84061511	000000	000000	115000	006000	G C=105,B=66
QSGAB	QDMRK 304	84	1460	2214459	+135920	L 3	23158 L	84060305	000000	000000	055500	041000	G E=197,C=110,B=80
GI224	H2215-086	59	1399	2215172	-083607	L 3	23514 L	84072600	000000	000000	003626	004900	330 V 7 X 7MIN, 3 RPTS.
GI224	H2215-086	59	1392	2215172	-083607	L 1	03873 L	84072522	000000	000000	222640	002000	332 V
GI224	H2215-086	59	1402	2215172	-083607	L 1	03872 L	84072521	000000	000000	210138	002000	342 V
GI224	H2215086	59	1387	2215172	-083607	L 3	23512 L	84072521	000000	000000	213028	005000	340 V
GI224	H2215-086	59	1373	2215172	-083607	L 3	23513 L	84072522	000000	000000	225457	005000	341 V
GI224	H2215-086	59	1360	2215172	-083607	L 1	03874 L	84072523	000000	000000	235646	002000	332 V
GI224	H2215-086	59	1399	2215172	-083607	L 3	23511 L	84072520	000000	000000	200525	005000	340 V
WRGLA	HD 211853	11	0920	2216545	+555230	L 3	23546 L	84072913	000000	000000	131300	000730	G C=170,B=32
WRGLA	HD 211853	11	0920	2216545	+555230	L 3	23532 L	84072814	000000	000000	141800	000600	G C=150,B=30
WRGLA	HD 211853	11	0920	2216545	+555230	L 3	23551 L	84072917	000000	000000	172300	000800	G C=180,B=25

PRD	OBJECT	CL	MAG	R.A.	DEC	D C IMAGE	A	DATE	EXP.SMALL	EXP.LARGE	ECC	COMMENT			
WRGLA	HD	211853	11	0920	2216545	+555230	L 3	23496 L	84072313	000000	000000	135200	000600	G E=254,C=225,B=105	
GA101	PHL	227	38	1363	2217538	014546	L 3	23325 L	84062401	000000	000000	013221	006000	401 V	
GA101	PHL	227	38	1365	2217538	014546	L 1	03647 L	84062400	000000	000000	005627	003000	403 V	
AFGER	HD	212061	30	0390	2219043	-013823	H 3	23229 L	84061016	000000	000000	164100	000500	G C=2X,B=53	
AFGER	HD	212061	30	0390	2219044	-013824	H 1	03548 L	84061017	000000	000000	171400	000200	G C=2X,B=53	
AFGER	HD	212061	30	0390	2219044	-013824	L 3	23228 SL	84061015	160100	000005	155400	000010	G C=3X,B=17	
AFGER	HD	212061	30	0390	2219044	-013824	L 1	03547 SL	84061016	163500	000003	163200	000005	G C=2-3X,B=31	
CSGER	HD	211998	45	0530	2220220	-722959	L 3	23558 L	84073016	000000	000000	162500	005000	G C=200,B=70	
CSGER	HD	211998	45	0530	2220220	-722959	L 1	03551 L	84061020	000000	000000	203900	000040	G C=1.5X,B=35	
CSGER	HD	211998	45	0530	2220220	-722959	L 3	23231 L	84061020	000000	000000	200600	003000	G	
HSGAT	BD+54	2761	15	1000	2221487	+552559	L 1	03854 L	84072417	000000	000000	172000	000140	G C=120,B=32	
HSGAT	BD+54	2761	15	1000	2221510	+552625	L 1	03853 L	84072416	000000	000000	161700	001200	G C=5X,B=105	
HSGWF	NG	7293	70	1350	2226547	-210540	L 3	23369 L	84062922	000000	000000	223300	072000	G C=1.2X,B=122	
GA056	NGC7293	71	1350	2226548	-210541	E 9	01547	2	84062922	000000	000000	223400	016000	V TARGET INTO SWLA	
PHCAL	OO	WAVCAL	99	0000	2234319	+732259	H 1	04002 S	84081613	135100	000016	000000	000000	G E=50X,B=112	
PHCAL	OO	WAVCAL	99	0000	2234319	+732259	L 1	04001 S	84081613	131400	000001	000000	000000	G E=20X,B=105	
GA101	PHL346	38	1164	2234540	-185600	L 1	03661 L	84062702	000000	000000	025058	000400	402 V		
GA101	PHL346	38	1163	2234540	-185600	L 3	23355 L	84062702	000000	000000	021717	000500	400 V		
PHCAL	OO	WAVCAL	99	0000	2237007	+384721	L 2	17489 S	84081310	103000	000001	000000	000000	G E=10X,B=85	
PHCAL	OO	WAVCAL	99	0000	2237007	+384721	H 3	23681 S	84081310	101500	000200	000000	000000	G C=50X,B=125	
PHCAL	OO	WAVCAL	99	0000	2237007	+384721	L 3	23680 S	84081309	094800	000002	000000	000000	G E=10X,B=105	
PHCAL	OO	WAVCAL	99	0000	2237007	+384721	H 2	17490 S	84081311	110200	000016	000000	000000	G E=50X,B=120	
PHCAL	HD	214680	12	0490	2237008	+384722	L 2	17491 L	84081311	000000	000000	114100	000001	G C=180,B=25	
PHCAL	HD214680	13	0501	2237010	384722	L 1	04181 L	84090816	000000	000000	161906	000006	701 V R=3 I=1 T=6.666		
PHCAL	HD214680	12	0482	2237010	384722	L 1	04243 L	84091720	000000	000000	204136	000002	503 V TRAIL R=9.9,I=1		
PHCAL	HD214680	13	0493	2237010	384722	L 1	04180 L	84090815	000000	000000	154438	000002	501 V R=9.9 I=1 T=2.0202		
PHCAL	HD214680	12	0486	2237010	384722	L 2	17510 L	84091719	000000	000000	194232	000002	502 V TRAIL R=8.26,I=1		
VVGSP	HD	215182	39	0290	2240392	+295732	H 1	03996 L	84081513	000000	000000	132300	001200	G C=1.5X,B=70	
HSGAT	HD	215835	12	0930	2244542	+574913	L 1	03866 L	84072514	000000	000003	142800	000108	G C=230,B=40	
HSGAT	HD	215835	12	0930	2244542	+574913	L 1	03852 L	84072414	000000	000000	144800	000500	G C=5X,B=75	
HSGAT	HD	216532	12	0800	2250342	+621029	L 1	03867 L	84072515	000000	000000	150900	000120	G C=250,B=45	
HSGAT	HD	216532	12	0800	2250342	+621029	L 1	03851 L	84072413	000000	000000	134500	001000	G C=8X,B=70	
CSGJL	HD	217906	49	0260	2301207	+274839	H 1	03775 L	84071615	000000	000000	153600	000500	G E=3X,B=175	
GE030	NGC25822	84	1365	2302072	-085719	L 3	23143 L	84060102	000000	000000	020808	009000	351 V		
GE030	NGC25822	84	1381	2302072	-085719	L 3	23148 L	84060203	000000	000000	030421	009000	451 V		
GE030	NGC25822	84	1383	2302072	-085719	L 1	03473 L	84060101	000000	000000	010414	006000	553 V		
DD36K	HD	218356	46	0480	2304400	+251153	H 1	03475 L	84060115	000000	000000	150600	003300	G E=1.2X,C=125,B=70	
PHCAL	OO	WAVCAL	98	0000	2304402	+251152	L 1	03476 S	84060116	161900	000001	000000	000000	G E=20X,B=105	
PHCAL	OO	WAVCAL	98	0000	2304402	+251152	H 1	03477 S	84060116	164900	000016	000000	000000	G E=60X,B=108	
GK208	DY	PEG	53	1084	2306219	165641	E 9	01576 2	84081200	000000	000000	000000	004000	V FES FOR LWP3987,LWLA	
GK208	DY	PEG	53	9999	2306219	165641	E 9	01579 2	84081417	000000	000000	173000	004000	V FES FOR LWP3995	
IGGDY	OO	DY	PEG	53	1030	2306220	+165641	L 1	03992 L	84081409	000000	000000	095700	001500	G C=170,B=40
IGGDY	ODSKY	BKGD	07	1030	2306220	+165641	H 3	23679 L	84081301	000000	000000	013100	083000	G B=137	
IGGDY	ODSKY	BKGD	07	1030	2306220	+165641	L 3	23687 L	84081418	000000	000000	181200	082000	G B=136	
IGGDY	OO	DY	PEG	53	1030	2306220	+165641	H 1	03987 L	84081218	000000	000000	160000	087000	G C=1.2X,B=150

PRO	OBJECT	CL	MAG	R.A.	DEC	D C	IMAGE	A	DATE	EXP,SMALL	EXP,LARGE	ECC	COMMENT			
IGGDY	DD	DY PEG	53	1030	2306220	+165641	H	1	03995	L	04081501	000000	000000	011800	008700	G C=1.3X,B=165
WDGJH	DD	GD 246	37	1310	2309500	+103042	L	3	23216	SL	04060915	153000	001000	152000	000430	G C=160,B=19
WDGJH	DD	GD 246	37	1310	2309500	+103042	L	3	23802	SL	04082812	121800	001020	120700	000510	G C=200,B=21
GA101	PHL460		38	1283	2317000	-223600	L	3	23353	L	04062623	000000	000000	231633	003300	501 V
GA101	PHL460		38	1234	2317000	-223600	L	1	03659	L	04062623	000000	000000	235440	001600	502 V
AFGJL	HD	220117	41	0580	2318281	+375433	H	1	03748	L	04071016	000000	000000	163200	002200	G C=234,B=90
DD39K	DD	Z AND	57	0950	2331147	+483233	L	3	23151	SL	04060215	154000	000500	151400	001500	G E=9X,C=95,B=25
DD39K	DD	Z AND	57	0950	2331147	+483233	H	1	03482	L	04060216	000000	000000	160700	003000	G E=143,C=100,B=65
DD39K	DD	Z AND	57	0950	2331147	+483233	L	1	03481	SL	04060214	144600	001000	143100	001000	G E=3X,C=2X,B=50
RCFAH	DGSAF	READ	99	9999	2331147	+483233	H	2	17417	L	04060217	000000	000000	171900	000000	G B=35
DD39K	DD	Z AND	57	0950	2331147	+483233	L	3	23152	S	04060216	164000	000230	000000	000000	G E=179,B=18
DD39K	DD	Z AND	57	0950	2331147	+483233	L	3	23150	L	04060213	000000	000000	133600	004500	G E=1.5X,B=40
DD39K	DD	Z AND	57	1040	2331149	+483231	L	3	23871	SL	04090412	130500	000300	122800	001500	G E=3X,C=70,B=23
DD39K	DD	Z AND	57	1040	2331149	+483231	L	1	04144	SL	04090413	133900	000400	131600	000600	G E=1.2X,C=107,B=60
PHCAL	HD221650		57	1003	2331149	483230	H	3	23246	L	04061121	000000	000000	215334	003500	373 V
DD39K	DD	Z AND	57	1040	2331149	+483231	H	1	04143	L	04090411	000000	000000	113700	004500	G E=183,B=90
DD39K	DD	Z AND	57	1040	2331149	+483231	H	3	23870	L	04090410	000000	000000	105900	003000	G E=233,B=30
PHCAL	HD221650		57	1005	2331150	483231	L	3	23247	L	04061204	000000	000000	042554	002200	470 V
GI110	Z AND		57	1020	2331150	483223	L	1	03921	L	04080200	000000	000000	002357	002300	781 V
GI110	Z AND		57	1020	2331150	483223	L	3	23583	LS	04080223	000114	001500	231501	004000	481 V 361%
GIT00	Z AND		57	1025	2331150	483231	L	1	04132	LS	04090219	193031	000500	190323	001000	581 V 351%
GIT00	Z AND		57	1019	2331150	483231	L	3	23855	LS	04090218	185209	000500	181916	002500	381 V 251%
GIT00	Z AND		57	1024	2331150	483231	H	3	23656	L	04090219	000000	000000	194203	009500	172 V
CCGSB	HD	222107	45	0390	2335065	+461114	L	3	23173	L	04060420	000000	000000	201800	002600	G E=145,C=63,B=30
CCGSB	HD	222107	45	0390	2335065	+461114	H	1	03810	L	04071910	000000	000000	100900	000400	G E=222,C=120,B=73
CCGSB	HD	222107	45	0390	2335065	+461114	L	1	03494	L	04060420	000000	000000	200900	000300	G C=2,B=38
CCGSB	HD	222107	45	0390	2335065	+461114	L	3	23476	L	04071910	000000	000000	101900	001500	G E=197,C=162,B=128
AFGJL	HD	222451	41	0620	2338103	+362636	H	1	03747	L	04071015	000000	000000	152200	003000	G C=235,B=105
GHGLH	DDHOBBS	#1	20	1090	2340210	+315200	L	3	23316	L	04062312	000000	000000	121900	000510	G C=195,B=35
GHGLH	DDHOBBS	#1	20	1090	2340210	+315200	H	3	23327	L	04062405	000000	000000	053300	026000	G C=190,B=72
GC250	TX	PSC	50	0509	2343500	031236	L	1	03929	L	04080320	000000	000000	205953	006000	331 V
AFGJL	HD	223421	41	0630	2346438	+584107	H	1	03749	L	04071017	000000	000000	173500	003000	G C=200,B=80
IGGDY	PG2351+196		38	1230	2351119	+194926	L	3	23684	L	04081412	000000	000000	125000	001000	G C=45,B=22
GC135	HD224085		52	0776	2352291	282118	H	3	23473	L	04071720	000000	000000	202108	038600	133 V
GC135	HD224085		52	0777	2352291	282118	H	1	03791	L	04071719	000000	000000	194614	003000	243 V
GC135	HD224085		52	0786	2352291	282118	H	3	23465	L	04071420	000000	000000	203135	037600	133 V
GC135	HD224085		52	0784	2352291	282118	H	1	03760	L	04071420	000000	000000	200541	002000	133 V
GA095	K282	N7789	22	1235	2354170	562137	L	1	03652	L	04062502	000000	000000	021324	014000	504 V
GA056	K	282	30	1234	2354170	562137	L	3	23553	L	04072919	000000	000000	195333	041300	403 V
HCBRC	DD	K 409	30	1300	2354308	+563020	L	1	03721	L	04070614	000000	000000	142300	006000	G C=195,B=137
HCBRC	DD	K 409	30	1300	2354308	+563020	L	3	23417	L	04070615	000000	000000	152900	005000	G C=126,B=101
GA095	K677	N7789	22	1135	2354530	562119	L	3	23338	L	04062500	000000	000000	003601	008000	401 V
GA095	K677	N7789	22	1138	2354530	562119	L	1	03651	L	04062500	000000	000000	000630	002300	403 V
GA095	K1211N7789		22	1181	2355530	562544	L	1	03650	L	04062421	000000	000000	214308	002700	403 V
GA095	K1211N7789		22	1178	2355530	562544	L	3	23337	L	04062422	000000	000000	221634	009000	401 V

ERRORS IN FOREGOING VILSPA LOG

Please inform us by post of all errors or omissions in the log reproduced in this issue. Detach this page, fold and staple it leaving the mailing address (verso) visible.

CAMERA & IMAGE	DISPERSION	APERTURE	TARGET	DATE OF OBSERVATION	WRONG FIELD CONTENTS	CORRECT INFORMATION

Dr. A.W. Harris

UK Resident Astronomer

Villafranca Satellite Tracking Station

Apartado 54065

Madrid, Spain

QUESTIONNAIRE FOR NEWSLETTER CIRCULATION

- There is a misprint in my name/address on the present mailing label; the correct version appears below.
- Having become acquainted with the ESA IUE Newsletter through a colleague/library, I would like to be placed on the regular mailing list. My name and address, including the post code, are given below.
- Please delete my name and address (printed below) from the Newsletter distribution list.

NAME:

ADDRESS:

Now tear off this last page and return it to ESA, Paris, in the convenient posting format provided. Simply fold and staple leaving the mailing address (verso) visible.

Mrs. S. Babayan
European Space Agency
8-10 rue Mario Nikis
75738 Paris Cedex 15
France

T A P E A R C H I V E R E T R I E V A L

=====

DATA TAPE:

TAPE DENSITY

1600 bpi (default)

800 bpi

REQUESTED DATA

Raw Data Only

Complete: Raw image + Extracted Spectra

Extracted Spectra Only

* CAM :	IMAGE	* CAM :	IMAGE	* CAM :	IMAGE	* CAM :	IMAGE	* CAM :	IMAGE
* # :	#	* # :	#	* # :	#	* # :	#	* # :	#
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CAMERA NUMBERS: 1 = LWP / 2 = LWR / 3 = SWP / 4 = SWR

REASON DATA IS ACCESSIBLE:

- Normal Release (6 month rule)
- Special Release data from my programme
- maintenance data
- others (give details)

REQUESTED BY: DATE OF REQUEST:

MAILING ADDRESS:
.....
.....

DATA BANK R.A.

.....

Dr. A. Cassatella,
Data Bank Resident Astronomer,
Villafranca Satellite Tracking Station
Apartado 54065
Madrid,
SPAIN