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THE RADIAL VELOCITIES, SPECTRAL CLASSES AND PHOTOGRAPHIC MAGNITUDES OF 1041 LATE-TYPE STARS

JOHN F. HEARD
DIRECTOR

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Introduction

In 1946 the late Frank S. Hogg, then Director of this Observatory, set out to design a long-range programme to measure the radial velocities of a large group of late-type stars, believing that stars of this kind had been neglected in comparison with early-type stars. To make the observational material most useful he decided to choose stars for which proper motion data were already available and to choose them so that the observational material would provide information well suited to galactic studies. With these points in mind, he chose the declination zone $+25°$ to $+30°$ which includes both the solar apex and the north galactic pole, and he selected from the Yale *Catalogue of the Positions and Proper Motions* (Schlesinger and Barney, 1933) the stars listed with photographic magnitudes brighter than 9.01 and of spectral types G0 and later for which radial velocities were not then known. The final programme included 1041 stars. Because of systematic errors in the photographic magnitudes of the Yale *Catalogue* the selected stars are for the most part fainter than 9th magnitude, and because of errors in the Henry Draper classification many are of type F.

The observations for this programme occupied a large part of the observing time of the 74-inch telescope from 1946 until 1954. As the observing and measuring of the spectrograms proceeded, it became apparent that the velocity data would be much more useful if spectral and luminosity classes and improved photographic magnitudes could be added. Accordingly, classification and photometric programmes were undertaken for the same stars. The present report combines the results of these three separate programmes.

The Radial Velocities

Observations. In conformity with earlier practices at this Observatory, four or more measurable spectrograms distributed over a reasonable interval of time were obtained for each star; the total number for this programme was about 4600. Eighty-three per cent. of the spectrograms were obtained with the 12½-inch camera of the one-prism spectrograph yielding a dispersion of 66 A./mm.at Hγ, the remainder (mostly of the brighter stars) with the 25-inch camera, dispersion 33 A./mm. Kodak Spectroscopic 103a–O plates were used almost exclusively. Exposure times ranged from one-half hour to two hours.

Throughout the observations of the programme stars, spectrograms were also obtained of a selection of the fainter standard velocity stars of G- and K-type listed in the *Transactions of the International Astronomical Union*, vol. 7; in all, 156 spectrograms of 18 standards were obtained with the smaller dispersion and 45 spectrograms of 14 standards with the larger dispersion. The purpose was to provide a control in the manner outlined below.

All regular observers took part in the observations. Particular credit is due to G. F. Longworth and F. Hawker of the technical staff for much of the observing and for maintenance of the telescope and spectrograph and to Miss Ruth Northcott and Dr. J. B. Oke for their vigilance over the progress of the observing and the maintenance of plate quality.

Measurements. Measurement and reduction were carried out by methods reported in our earlier Publications (vol. 1, nos. 3, 13, and 16). On good quality plates the number of lines measured was about 20. The spectrograms of the standard velocity stars were measured in the same manner as those of programme stars.

Most of the regular members of the staff and a number of summer assistants shared the task of measuring the plates. Miss Northcott supervised the work of the assistants.

Stars of Variable Velocity. A question which merits discussion in any radial velocity study is the incidence of velocity variation. In the past it has been customary to assign variability in a rather arbitrary manner from a look at the individual velocities with allowance for the precision of measurement. We wished to employ

a more objective means of deciding to what degree the measures indicated variability. The following method was developed along lines suggested by Dr. Donald A. MacRae.

Reference has already been made to a group of spectrograms of standard velocity stars taken and measured under the same circumstances as the programme stars. We assume that these measures of standards form a population subject to the same error dispersion as the programme stars, except that they lack whatever dispersion may be present among the measures of some programme stars by reason of true variation of velocity. The problem is to identify what programme stars possess this additional "error" dispersion.

Consider first the standard velocity stars.

Say we have h plates of r stars on which we have measured a grand total of N lines.

Let us compute the deviation of each line-measure from the mean for the plate; call these the "within-plate" deviations. Call the sum of the squares of the deviations of all these N lines S_w.

Let us also compute the deviation of each plate mean from the weighted star mean; call these the "among-plate" deviations. Multiply the square of each "among-plate" deviation by the number of lines measured on the plate and call the sum of these products S_a.

Now if there were no source of error other than the errors of setting on the lines, we would have

$$\frac{S_w}{N-h} = \frac{S_a}{h-r}.$$

But we can expect an error involving systematic shift of all lines on a plate for a variety of reasons. Call this the "plate error" and let the estimate of it be ω.

It can be shown that

$$\omega^2 = \frac{1}{N}\left(S_a - \frac{h-r}{N-h} \cdot S_w\right).$$

We evaluated this for "standard" plates for both 66A./mm. and 33 A./mm. dispersions and found

ω = 5.0 km./sec. for the 66 A./mm.

ω = 2.6 km./sec. for the 33 A./mm.

Now consider a programme star for which we have h' plates with a total of N' lines.

We compute S'_w and S'_a for this star.

Then the quantity, F, given by

$$\frac{1}{F} = \frac{S'_w}{N'-h'} \cdot \frac{h'-1}{S'_a} + \frac{N'\omega^2}{S'_a},$$

can be shown to be Snedecor's ratio of variances for degrees of freedom $h'-1$ and $N'-h'$. Using Snedecor's table of F's, — see, for example, Weatherburn (1949)—we can now say whether or not the scatter shown by the programme star's velocity measures from plate to plate is significant If the F value computed exceeds Snedecor's "1% point", then there is a probability smaller than one per cent. that the amount of scatter has arisen by chance and it is strongly suggested that the radial velocity of the star is variable. If the F value exceeds Snedecor's "5% point", but not the "1% point", then the probability that the amount of scatter has arisen by chance is between one and five per cent. and it is less strongly suggested that the star's velocity is variable. If the F value is less than Snedecor's "5% point", we can hardly consider that the observations suggest variable velocity.

For all of the stars we have made this computation and it is on the basis of this that we have assigned positive variability (strongly suggested) or questionable variability (less strongly suggested). We have also used the measures for the standard velocity stars to establish the weights to apply to the different measures in obtaining the mean velocity for a star. We used weight 4 for good plates of the higher dispersion, 1 for good plates of the lower dispersion and $\frac{1}{2}$ for plates on which fewer than 10 lines could be measured.

A more complete study of the available statistical data may be made at a later time.

Spectral Classification

A decision was made during the course of the investigation to reclassify the spectra of all the 1041 stars using the MK system (Johnson and Morgan, 1953). To this end a series of spectrograms of MK standard stars was obtained, using both dispersions and the same emulsion as for the programme stars. For each dispersion, a careful study of the series revealed the criteria which would be

most useful in the various ranges of spectral and luminosity classes, and a routine was developed for "converging" on the correct class of a spectrogram, using both the general appearance of the spectrum and the estimated intensity ratios of the lines and making continual reference to the spectrograms of the standards. Evidence has been adduced that the classification made with our spectrograms does not depart systematically from that made with the smaller dispersions and wider spectra on which the MK system was developed.

The classifications reported here are mostly those made by Miss Barbara Creeper (Mrs. V. Gaizauskas) using the 66 A./mm. spectrograms. For a few dozen stars for which there were no plates of this dispersion, classifications made by Dr. Ian Halliday from 33 A./mm. spectrograms were listed.

Difficulty was encountered with the M-type stars. With our spectrograms we found it difficult to assign a sub-classification to those stars which were recognized as giants of spectral class later than M2; all such are listed merely as M III.

Photometry

A casual comparison between the photographic magnitudes of the Yale *Catalogue* and visual magnitudes listed there and elsewhere sufficed to show that the photographic magnitudes are unsatisfactory, the errors sometimes amounting to a magnitude. Therefore it appeared most desirable to undertake a photometric programme for our stars. This was done by Dr. Donald A. MacRae of this Observatory in collaboration with Dr. Jurgen Stock of the Warner and Swasey and the Hamburg Observatories. They will publish soon a more complete account of this work than the following brief summary.

Through the kindness of Dr. O. Heckmann, Director of the Hamburg Observatory, 80 fields distributed around the sky at declination $+27\frac{1}{2}°$ were photographed with the "original" Schmidt telescope at Hamburg. These fields so overlapped that all our programme stars appeared on two films at least. The films, which cover an area 7.5° in diameter, were Perutz Phototechnical B emulsion exposed behind Schott filters BG3 and GG13, each 1 mm. thick. For the measurement of the films, the Eichner Astrophotometer of the Warner and Swasey Observatory was made available

through the kindness of the Director, Dr. J. J. Nassau. Many of the films were also measured on the iris photometer of the Hamburg Observatory. Dr. Stock supervised this part of the work.

To make possible the conversion of the astrophotometer readings to magnitudes, 24 sequences, involving 165 of the programme stars between 7.0 mag. and 10.0 mag., were selected. These stars were observed photoelectrically by Mr. G. Bakos, under Dr. MacRae's supervision, using the photometer attached to the 19-inch telescope of this Observatory. Each star was observed twice at least and the magnitudes, reduced to the $B-V$ system of Johnson and Morgan, will be published separately.

Magnitudes, m_e, on the colour system of the Schmidt films were derived from the photoelectric measures by means of the equation,

$$m_e = B+0.33\ (B-V),$$

and the 24 sequences were used to calibrate the astrophotometer measures. The quantities listed in Table I are the resulting photographic magnitudes. It is believed that residual field errors are negligible. The average mean error of a final magnitude is ± 0.045.

Tabulation of Results

The main body of the results is given in Table I. Following is a description of this table.

Column 1 gives the A.G. designations of the stars.

Column 2 gives the H.D. designations where applicable. A note has been added whenever any ambiguity could arise as to either designation or as to which component of a double star is meant.

Columns 3 and 4 give the 1950 positions which have been rounded off from the positions given in the Yale *Transactions*, vol. 24.

Column 5 gives the photographic magnitudes derived by MacRae and Stock as described in the foregoing section. The magnitudes are from the photographic photometry in all cases except for those values marked with an asterisk which refers to stars which, for one reason or another, were measured only photoelectrically.

Column 6 gives the spectral classes assigned from our spectrograms as described in an earlier section. A colon refers to a classification which is doubtful, either because the plates are poor (when no note is given), or for some specific reason referred to in a note. Stars classified as M III are those which have been recognized as giants later than M2 but to which sub-classes could not be assigned with confidence.

(*Continued on page 137.*)

TABLE I

A.G.	H.D.	R.A. (1950)	Dec. (1950)	Ptg. Mag.	Class	Velocity (km./sec)	P.E.	Pl.	Ref.
14436	225292	00 02.4	+27 23	7.24	G8 III	var.		6	II
14441	111	03.4	28 00	8.36	K5 III	+ 12.9	0.7	5	
4	167	04.0	28 17	7.50	G9 III	+ 4.4	0.3	4	
12	249	04.8	26 10	8.45	K1 IV	+ 15.5	1.6	5	
29	598	07.9	28 23	9.00	M III	- 7.4	1.5	4	
35	664	00 08.4	+29 16	8.88	F5 V	+ 9.0	1.8	6	
37		08.8	30 10	8.54	K0 V	- 3.1	1.0	4	
63		10.8	26 46	10.42	K2 III	- 15.6	1.9	6	
121	1406	15.7	30 07	8.34	K3 III	- 37.1	1.0	4	
131	1501	16.8	26 11	8.55	G8 III	- 10.9	1.2	5	
145	1605	00 17.9	+30 42	8.35	K1 III	+ 10.1	1.2	4	
146	1633	18.1	26 14	9.17	K5 III	+ 23.5	0.8	4	
188	1996	21.8	26 07	9.40	K1 III	var?		6	II
199	2084	22.7	29 49	9.37	G8 II	+ 6.9	1.7	6	
207	2190	23.4	28 40	9.37	M0 III	- 50.7	0.7	4	
225	2315	00 24.6	+25 18	8.96	K3 III	- 35.7	1.5	4	
230	2343	24.8	30 37	9.39	K1 III	var.		7	II
258	2552	26.7	28 33	9.28	K3 III	+ 33.4	1.3	5	
273	2713	28.2	27 50	9.29	F2 IV	- 4.2	2.9	6	
274	2732	28.2	29 15	9.40	K1 III	- 15.1	1.3	4	
288	2839	00 29.3	+28 15	9.24	K1 III	- 26.4	1.2	5	
289	2854	29.4	27 23	9.47	G0 V	- 0.5	1.3	4	
343	3252	33.2	28 50	9.53	K1 III	- 33.4	0.4	4	
352	3333	33.9	29 34	9.27	K0 III	+ 9.5	1.2	4	
366		35.2	25 33	9.79	G8 III	- 14.7	1.6	6	
375	3590	00 36.3	+26 03	8.67	K3 III	+ 0.9	0.8	4	
382	3650	36.8	26 28	9.55	G0 V	- 17.8	2.3	5	
387	3766	38.0	29 44	9.45	F5 V	- 24.5	1.5	4	
412	4006	40.1	29 50	8.63	K2 II-III	- 20.7	0.8	4	
434	4268	42.6	27 41	9.65	K2 III	var?		6	II
444	4312	00 43.1	+25 54	9.43	K5 II	- 18.5	1.2	5	
450	4372	43.7	30 40	8.41*	K1 III	+ 13.6	0.7	4	
452	4388	43.8	30 41	8.80*	K3 III	- 24.8	0.2	4	
467	4550	45.1	26 01	8.16	K0 III	- 4.0	0.6	5	
468	4549	45.1	26 49	9.41	K2 III	- 30.9	0.9	4	
477	4686	00 46.5	+28 27	8.20	G8 III	- 2.0	1.0	4	
486	4744	47.2	30 11	8.71	K0 III	-162.8	1.2	4	III
493	4798	47.6	28 06	8.47	K1 III	- 9.3	1.0	5	
498	4831	48.0	25 19	8.17	G8 III	- 10.7	0.3	5	
510	4963	49.2	27 30	9.06	K1 III	+ 25:5	1.6	5	
521	5007	00 49.7	+25 31	9.14	K1 III	+ 14.3	1.4	5	
527	5092	50.4	30 05	9.05	K3 III	+ 23.2	0.7	4	
533	5137	50.9	29 13	7.49	K0 III	- 10.6	1.2	4	
537	5164	51.1	28 17	8.48	K1 III	+ 14.0	1.1	4	
555	5411	53.6	28 53	9.87	K1 III	- 2.8	1.0	4	

TABLE I - continued

A.G.	H.D.	R.A. (1950)	Dec. (1950)	Ptg. Mag.	Class	Velocity (km./sec)	P.E.	Pl.	Ref.
559	5449	00 54.0	+28 32	8.73	K0 III	+ 4.8	1.2	4	
560	5462	54.0	26 04	9.73	M III	- 6.5	1.9	4	
571	5585	55.2	29 15	8.64	K3 III	+ 23.9	1.3	5	
574	5584	55.3	30 03	9.18	G0 IV	+ 7.2	1.2	4	
582	5650	55.8	26 31	9.27	K5 III	- 24.4	1.3	4	
586	5705	56.3	+27 23	8.67	K3 III	- 7.6	0.7	4	
600	5917	58.3	28 44	9.35	G8 III	+ 21.8	1.3	4	
614	6132	01 00.2	29 43	9.15	K2 III	- 26.5	2.2	5	
627	6274	01.3	26 17	9.58	F7 V	- 28.1	0.9	4	
628	6286	01.4	26 19	9.35	G2 V	var.		7	II
647	6525	01 03.9	+29 26	9.42	K1 III	- 2.4	1.9	7	
702	7299	10.8	29 28	7.91	G8 III-IV	- 10.3	0.5	4	
704	7300	10.8	26 11	9.54	K2 III	+ 15.9	1.0	6	
706	7308	11.0	25 59	9.81	K5 III	var.		8	II
710		11.2	26 01	11.14	K2 III	+ 14.6	2.1	6	
714	7352	01 11.4	+25 34	8.66	G0 V	- 18.0	1.8	5	
721	7426	12.1	26 11	8.79	K0 III	+ 2.6	1.3	4	
778	8300	19.9	26 18	9.13	K1 III	- 22.1	0.8	4	
812	8747	24.0	26 59	8.07	K0 III	- 5.6	0.6	4	
814		24.1	27 15	10.48	K3 III	+ 30.4	1.6	7	
817	8791	01 24.3	+25 11	9.36	K3 II	- 15.9	1.7	4	
849	9224	28.5	29 09	7.98	G0 V	+ 13.6	0.7	6	
851	9269	29.0	30 22	9.31	K0 III	+ 42.1	1.4	4	
867	9446	30.5	29 01	9.14	G5 V	+ 21.2	0.5	4	
878	9638	32.2	28 51	9.34	K2 II	- 19.1	1.9	4	
887	9714	01 32.8	+28 01	8.16	K1 III	+ 7.7	0.8	8	
903	9984	35.1	25 39	9.83	G8 III	+ 39.4	1.2	5	
916	10095	36.4	27 30	8.53	K3 III	- 36.0	1.0	5	
929	10296	38.4	28 14	9.45	K1 III	- 4.2	2.5	6	
962	10766	43.0	26 09	9.25	F8 IV	+ 6.2	2.1	6	
966		01 43.7	+29 18	9.25	F5 V	+ 1.4	2.6	7	
968	10829	43.8	30 33	8.80	F7 IV	+ 5.2	2.1	5	
973	10866	44.3	25 55	9.09	K3 III	+ 22.9	0.8	4	
977		44.9	28 14	9.57	K1 III	+ 31.6	0.7	4	
983	10981	45.6	30 32	9.19	G8 III	+ 11.3	1.5	5	
991		01 46.7	+28 27	9.66	K0 III	- 65.2	1.1	4	III
993	11120	47.1	25 30	9.33	G8 V	- 3.5	1.4	6	
999	11130	47.3	29 13	8.79	K1 V	- 36.4	1.2	5	
1023	11453	50.3	28 34	8.57	K5 III	+ 5.0	1.0	4	
1026	11464	50.4	25 48	9.02	K0 III	+ 17.8	1.6	6	
1037	11650	01 52.1	+27 36	8.81	K1 II-III	- 3.8	1.7	5	
1042	11680	52.3	27 01	9.16	K1 III	- 32.8	2.0	4	
1046	11721	52.8	25 52	9.21	G8 III	+ 30.9	1.3	4	
1054	11781	53.4	27 14	8.91	G0 V	- 2.4	0.3	4	
1077		55.6	25 33	9.10	G2 V	- 1.1	0.4	4	

TABLE I - continued

A.G.	H.D.	R.A. (1950)	Dec. (1950)	Ptg. Mag.	Class	Velocity (km./sec)	P.E.	Pl.	Ref.
1082	12029	01 55.8	+29 08	8.96	K2 III	+ 40.0	0.3	5	
1084	12052	56.0	28 37	9.25	G8 III	+ 28.0	1.2	4	
1094	12232	57.8	29 41	8.96	F2 V	+ 8.2	1.9	4	
1097	12260	58.1	29 18	9.27	K2 III	- 3.6	2.3	5	
1102	12402	59.3	28 10	7.60	K1 III	+ 17.4	0.3	5	
1103	12426	01 59.5	+29 31	9.72	K0 III	+ 10.7	1.8	5	
1113	12535	02 00.7	27 15	8.56	K2 III	+ 36.5	1.0	5	
1122	12638	01.5	25 41	8.26	G8 III	- 17.9	1.0	4	
1128	12728	02.6	28 52	9.12	K1 III	- 8.4	1.9	4	
1139	12897	04.1	26 05	8.36	K1 III	+ 0.2	1.4	5	
1143		02 04.8	+29 24	9.58	K0 III	+ 25.4	2.8	5	
1145	13017	05.1	29 20	9.81	K5 III	+ 4.5	0.8	5	
1158		07.5	29 35	9.30	F8 V	+ 28.1	3.0	5	
1178	13565	10.2	30 20	9.00	K0 II	+ 18.6	1.0	4	
1181	13610	10.5	25 09	9.34	F8 IV	- 48.3	0.5	4	
1186	13691	02 11.2	+26 24	8.81	K1 III	- 7.8	0.8	4	
1192b	13747	11.7	28 28	7.72	K1 IV	var?		5	II
1200	13836	12.6	27 08	9.06	G8 V	+ 3.9	0.5	4	
1209	13943	13.5	29 34	9.51	G8 III	+ 18.4	1.0	4	
1222	14146	15.0	28 47	9.07	M0 III	+ 33.4	0.9	4	
1248	14456	02 17.9	28 18	9.14	G8 III	+ 2.8	1.6	5	
1251	14479	18.1	30 27	9.58	K1 II-III	+ 24.8	1.8	6	
1252	14490	18.2	29 42	9.38	F8 V	+ 28.2	2.8	5	
1264		19.2	27 23	9.22	K0 III	- 64.4	0.6	4	III
1265		19.2	30 04	9.24	F2 II:	- 1.9	2.6	6	
1269	14608	02 19.5	+30 06	9.20	K2 III	+ 0.9	1.4	4	
1271	14624	19.4	26 03	9.40	G5 V	+ 50.2	2.5	6	
1292	14875	21.8	29 01	8.94	K3 III	- 9.1	1.3	4	
1293	14876	21.8	27 26	9.48	K3 III	+ 9.0	0.8	5	
1295	14874	21.9	30 25	9.4	G0 V	+ 6.0	1.2	4	
1297	14918	02 22.2	+25 16	8.90	G5 III	- 9.5	1.7	5	
1301	14949	22.4	27 28	9.44	K2 II	var.		6	II
1304	14969	22.6	29 39	8.96	K3 III	- 27.8	0.3	4	
1324	15256	25.3	29 39	8.32	G5 III	- 13.7	0.9	6	
1330	15326	25.8	29 28	8.34	F8 V	- 16.7	1.8	5	
1371	16099	02 33.1	+29 39	9.64	K3 III	- 58.5	1.9	4	
1376	16139	33.4	27 15	9.28	G8 II	+ 26.3	1.8	5	
1429	17119	42.6	30 07	8.97	F5 V	- 14.1	1.4	5	
1436	17190	43.3	25 27	8.76	K1 IV	+ 14.9	0.8	4	
1447	17283	44.3	26 32	9.23	K1 III	- 37.3	1.1	4	
1454	17382	02 45.2	+26 52	8.57	K1 V	+ 9.4	1.4	7	
1455	17396	45.3	30 08	9.22	G0 V	+ 12.6	2.1	6	
1473	17674	48.1	30 05	8.29*	G0 V	+ 5.2	2.3	6	
1474	17673	48.1	30 18	9.23*	K1 III	- 19.8	1.8	5	
1497	17963	51.0	29 54	9.71	F6 V	+ 25.0	2.0	5	

TABLE I - continued

A.G.	H.D.	R.A. (1950)	Dec. (1950)	Ptg. Mag.	Class	Velocity (km./sec)	P.E.	Pl.	Ref.
1516	18189	02 53.1	+25 53	9.41	G8 III	- 21.1	1.3	4	
1517	18202	53.3	28 58	7.55	G8 III	+ 29.6	0.7	4	
1521	18328	54.6	29 31	9.38	F8 V	- 3.0	2.3	5	
1528	18403	55.3	27 08	9.49	G0 IV	- 62.1	1.4	6	III
1530	18450	55.9	26 34	9.31	K2 V	+ 35.7	2.2	6	
1537	18554	02 56.9	+30 25	9.46	K1 III	+ 6.0	1.0	4	
1541	18602	57.4	30 22	9.75	G8 III	- 13.4	1.8	4	
1559	18929	03 00.5	27 23	8.74	G8 III	- 18.6	0.7	5	
1564	19079	02.1	30 00	9.21	F7 IV	+ 21.2	2.0	5	
1572	19165	02.8	27 30	9.06	F6 V	+ 85.4	1.7	5	III
1584	19485	03 05.7	+25 24	8.97	G5 V	var.		17	II
1599	19823	09.2	29 38	9.75	G0 V	- 31.6	0.9	4	
1652	20671	17.6	28 39	9.41	F8 IV	- 19.7	1.1	4	
1653	20680	17.6	26 45	9.59	K2 III	- 12.0	2.1	5	
1699	21451	25.4	26 06	9.34	K3 III	- 19.0	0.7	4	
1727	21820	03 29.1	+29 22	9.43	K0 III	+ 32.2	0.4	6	
1747	22269	33.0	27 26	9.02	K1 III	+ 15.7	0.5	4	
1758	22403	34.2	25 50	8.17	G2 V	var.		6	II
1791	22849	38.2	29 21	9.58	K1 IV	+ 8.1	2.1	4	
1813	23141	40.8	26 13	8.96	K1 III	- 24.9	1.1	4	
1818	23169	03 40.9	+25 34	9.39	G2 V	+ 17.4	0.3	4	
1824	23257	41.7	27 46	7.60	G5 V	+ 49.0	1.3	5	
1894	24301	49.9	26 32	8.77	G0 IV	+ 26.0	1.2	5	
1902	24365	50.6	28 00	9.00	G8 V	+ 21.3	1.4	4	
1906	24399	50.8	26 45	8.89	G8 II	+ 4.6	1.3	4	
1911	24505	03 51.9	+28 03	9.01	G5 III	- 9.4	0.8	4	
1930	24768	54.2	25 08	8.78	G8 III	+ 6.8	0.9	4	
1958	25296	59.2	27 59	8.50	G8 III	- 20.8	1.7	4	
1967	25461	04 00.7	29 04	9.27	K1 V	- 9.3	1.5	5	
1993	25834	03.7	30 08	9.56*	K1 II	+ 22.8	1.3	5	
1999	26081	04 05.6	+25 45	9.16	G8 II	- 11.1	0.9	4	
2000	26090	05.8	29 04	9.16	G0 IV	+ 36.2	0.4	4	
2001	26126	06.0	28 31	8.93	F8 V	+ 2.6	1.1	4	
2009	26372	08.2	26 22	9.50	F8 V	- 10.9	2.8	6	
2023	26710	11.5	26 08	8.00	G2 V	- 9.3	1.6	5	
2025	26766	04 12.0	+29 47	8.62	K1 IV	+ 9.0	0.7	4	
2065	27741	20.6	28 04	9.19	G0 V	- 8.4	1.0	6	
2124	29246	34.3	25 38	9.26	K2 III	+ 39.1	1.1	5	
2157	30111	42.7	28 34	8.31	G8 III	+ 23.0	1.7	6	
2180	30467	46.0	26 56	8.76	F8 IV	- 21.2	1.9	5	
2204	30945	04 49.9	+26 42	9.44	K3 III	+ 27.2	1.7	5	
2248	31782	56.5	25 52	8.20	K0 IV	- 67.8	1.5	5	III
2249	31781	56.6	26 11	9.14	F8 V	+ 22.2	1.2	4	
2255	31867	57.2	25 04	8.86*	G2 V	- 25.4	1.0	4	
2265	32093	58.7	26 35	9.15	G2 V	- 1.0	1.6	4	

TABLE I - continued

A.G.	H.D.	R.A. (1950)	Dec. (1950)	Ptg. Mag.	Class	Velocity (km./sec)	P.E.	Pl.	Ref.
2271	32387	05 00.8	+24 54	8.26	G8 V	+ 57.9	1.0	4	
2277a	32477	01.4	30 19	9.61	M0 III	+ 36.2	2.2	6	
2298	32835-6	04.0	26 56	8.76	F5 V, A	+ 27.0	3.8	4	N
2302	32963	04.8	26 16	8.36	G2 V	- 62.0	0.4	4	III
2338	33463	08.5	29 51	8.74	M2 III	+ 14.0	2.7	5	
2344	33585	05 09.3	+26 24	7.84	G5 III	var?		5	II
2603		38.8	29 15	9.06	F8 V	- 4.0	1.2	6	
2606		38.8	26 14	10.63*	M0 III	+ 21.8	2.0	4	
2615	37800	39.3	29 50	9.51	F8 IV	+ 3.0	0.7	5	
2627b	37956	40.2	29 11	7.96	K1 III	+ 28.8	1.0	5	
2657	38142	05 41.6	+24 54	9.08	G8 III	+ 23.1	1.6	4	
2672	38261	42.5	25 06	8.98*	K2 III	- 5.1	1.4	4	
2696b	38524	44.5	25 33	7.94	K1 III	- 17.2	0.6	5	
2714	38750	46.0	25 38	9.14	K2 II	- 6.6	1.9	6	
2763	39416	50.4	25 04	8.54	G2 II	+ 0.2	2.5	6	
2784	39713	05 52.3	+29 10	8.86	G5 III	+ 71.9	1.7	5	
2805	39949	54.0	27 19	8.58	G0 II	+ 13.7	1.6	5	
2834b	40280	55.8	25 46	7.83	K0 III	+ 2.0	1.5	5	
2845	40460	57.0	27 16	7.88	K0 III	+ 98.5	1.4	5	III
2940	41430	06 03.1	29 06	9.03	K3 III	+ 21.1	1.9	4	
2946	41456	06 03.3	+26 32	8.82	G8 III	- 21.0	1.6	4	
2967	41708	04.8	27 26	8.81	G0 V	+ 34.8	1.8	6	
2994	41994	06.3	27 12	9.14	G5 II	+ 8.0	0.8	5	
3028	42397	08.5	25 01	8.68	G0 IV	+ 39.8	0.2	4	
3036	42454	08.9	29 30	8.74	G2 Ib	+ 11.4	0.4	4	
3061	42981	06 11.7	+25 16	9.84	K2 II	- 6.4	1.5	4	
3093	43383	13.8	25 31	8.98	F8 V	+ 12.7	1.6	4	
3107	43581	15.0	26 27	9.26	K0 II	+ 47.9	2.2	4	
3113	43693	15.6	28 05	9.39	K2 III	+ 9.6	1.0	4	
3146	44030	17.5	25 38	9.45	K5 III	-103.8	1.1	4	III
3167	44316	06 19.3	+28 56	9.20	K1 III	- 14.0	1.9	4	
3176	44391	19.6	28 01	9.34	K0 Ib	- 9.4	0.8	4	
3194	44615	20.7	29 00	9.32	F6 V	var?		6	II
3204	44780	21.6	25 05	7.76	K2 III	var.		5	II
3240	45207	24.3	29 40	8.48	F8 II	- 35.0	1.9	5	
3247	45336	06 24.9	+29 16	9.58	K5 III	- 1.0	2.7	5	
3255	45427	25.4	27 40	9.23	K1 III	- 51.3	2.1	5	
3288	45800	27.6	25 55	9.52	G8 II	+ 15.5	0.7	4	
3289	45824	27.7	26 41	9.08	K0 III	- 10.1	1.2	6	
3307	46159	29.9	29 27	9.25	G8 III	+ 34.8	2.4	4	
3309	46160	06 29.9	+27 52	9.46	K5 III	+ 7.9	1.8	4	
3320	46277	30.5	28 01	9.07	K0 II	- 2.5	0.4	4	
3326	46336	30.8	27 05	9.19	K0 III	+ 36.6	1.4	4	
3340	46532	31.9	24 58	9.46	K2 III	+ 3.2	1.5	4	
3367	46944	34.2	28 01	9.38	F7 V	+ 65.2	2.2	5	

TABLE I - continued

A.G.	H.D.	R.A. (1950)	Dec. (1950)	Ptg. Mag.	Class	Velocity (km./sec)	P.E.	Pl.	Ref.
3424	47730	06 38.1	+29 46	9.53	K1 III	+ 5.7	1.2	4	
3433	47836	38.6	27 08	8.78	G8 III	+ 10.0	2.2	4	
3440	47960	39.1	25 31	9.50	M0 III	+ 10.1	1.7	4	
3441		39.3	29 29	9.76	G8 III	- 48.3	1.9	4	
3442	48008	39.2	25 25	9.32	F6 V	+ 1.6	2.8	4	
3471	48591	06 42.3	+29 25	8.76	F8 V	var.		6	II
3474	48640	42.3	24 44	9.54	K1 Ib	+ 24.5	1.6	5	
3475	48638	42.4	27 44	8.40	K3 III	- 35.5	1.3	4	
3504	49141	45.1	26 46	10.30	K0 III	- 1.1	2.0	5	
3513	49365	46.2	28 36	9.00	G0 IV	- 29.3	2.6	4	
3518	49500	06 46.6	+25 33	8.85	K0 III	+ 61.4	2.1	6	N
3615	51101	53.9	24 43	8.06	K0 III	+ 23.4	1.8	5	
3646	51690	56.3	25 18	9.50	F8 V	+ 6.4	1.4	5	
3647	51689	56.3	25 18	8.53	F8 V	+ 23.6	2.7	4	
3654	51834	56.9	29 51	9.02	K4 III	- 13.7	3.3	4	
3657	51886	06 57.1	+26 57	8.68	G8 III	- 6.6	1.5	5	
3668	52071	57.9	27 14	8.57	K2 IV	+ 94.7	2.4	4	III
3669	52101	58.0	29 48	8.98	K0 III	+ 40.0	1.2	5	
3670	52147	58.0	29 17	8.74	G5 III	+ 10.1	1.4	5	
3682		58.3	26 18	9.05	G5 III	+ 18.1	2.6	5	
3708	52765	07 00.5	+25 10	8.83	G8 III	+ 16.9	1.2	5	
3737	53472	03.1	24 56	8.88	K5 III	+ 9.3	2.7	5	
3775	54370	06.6	26 36	9.15	K2 III	+ 23.8	1.5	4	
3792	54825	08.4	26 29	8.24	K0 II	+ 41.5	0.6	4	
3808	55080	09.4	26 39	8.65	G8 II	+ 14.1	1.6	4	
3828		07 10.8	+28 39	9.34	F8 V	+ 7.5	2.1	4	
3834	55578	11.5	28 32	9.58	G8 V	+ 17.7	3.1	5	
3865b	56176	14.0	26 47	7.70	G7 IV	- 5.1	0.7	4	
3866	56224	14.2	26 27	8.86	K3 III	+109.6	2.3	4	III
3873	56418	14.8	26 25	8.98	K1 III	+ 1.1	2.7	4	
3874	56417	07 14.9	+27 14	8.95	G8 III	- 8.8	1.5	4	
3880	56513	15.4	27 21	8.90	G2 V	- 27.4	1.2	4	
3890	56629	15.9	29 17	8.79	G8 III	+ 16.1	1.9	4	
3897	56761	16.4	26 55	8.25	G8 III	+ 0.8	2.5	4	
3918	57267	18.5	26 15	8.65	G2 V	var.		7	N, II
3928	57470	07 19.6	+29 55	9.28	K1 III	- 26.4	1.4	4	
3974	58683	24.7	27 24	8.62	G8 III	+ 55.7	0.5	4	
3980b	58898	25.6	27 39	8.06	K2 III	var?		4	II
4019	59684	29.1	27 14	8.66	K1 III	+ 59.4	2.3	4	
4044		31.4	28 51	9.29	G0 IV	+ 0.6	0.5	4	
4046	60235	07 31.6	+28 37	9.22	K3 III	+ 34.3	3.1	5	
4051	60298	31.8	25 04	8.18	G0 V	-134.5	2.6	4	III
4119	61645	38.2	26 00	9.54	K2 III	- 28.5	3.0	4	
4143	62285	41.1	25 54	7.43	K5 III	+ 1.6	0.9	4	
4152	62567	42.5	26 07	9.34	K5 III	- 6.0	0.6	4	

TABLE I - continued

A.G.	H.D.	R.A. (1950)	Dec. (1950)	Ptg. Mag.	Class	Velocity (km./sec)	P.E.	Pl.	Ref.
4161	62857	07 43.9	+26 09	9.28	G5 IV	+ 17.1	1.3	4	
4173	63016	44.9	28 48	8.68	G8 III	- 8.2	2.4	5	
4178	63138	45.4	28 53	8.18	K0 III	+ 20.4	1.6	4	
4194	63410	46.7	26 23	8.06	G8 III	+ 81.4	1.4	4	III
4198	63433	46.8	27 29	7.71	G5 IV	- 15.7	0.7	4	
4202	63495	07 47.2	+28 52	9.17	K1 III	- 6.4	3.1	4	
4209	63712	48.3	29 18	8.17	G8 III	var?		5	II
4214	63816	48.8	24 57	8.97	K1 III	+ 8.2	1.7	4	
4261	64833	53.8	26 14	8.81	K1 III	- 35.3	1.7	4	
4303	65934	59.1	26 47	8.87	G8 III	+ 34.4	0.5	4	
4377	67402	08 05.8	27 38	8.17	K0 III	+ 12.4	1.3	4	
4384b	67542	06.5	29 14	7.72	G5 II	var?		6	II
4386	67544	06.4	24 58	8.59	G8 III	+ 3.7	0.9	4	
4389	67613	06.7	25 42	9.35	K5 III	+ 34.2	1.8	4	
4390	67628	06.9	29 16	9.48	K5 III	+ 0.9	0.8	4	
4392	67709	08 07.2	+27 14	9.51	K1 III	+ 45.3	2.7	4	
4430	68724	11.6	26 53	9.21	K0 III	- 32.1	1.3	4	
4451	69312	14.3	27 12	9.10	K1 III	var?		4	II
4453	69349	14.5	27 33	9.04	K1 III	+ 2.9	1.5	4	
4454	69364	14.6	25 00	8.83	K0 III	- 19.6	1.1	5	
4481	69866	08 17.0	+27 02	9.20	K1 III	- 5.3	2.6	4	
4488	70030	17.7	25 30	9.17	K3 III	+ 38.4	2.3	4	
4494	70178	18.5	28 59	9.22	G5 IV	+ 43.4	3.7	4	
4499	70402	19.8	27 41	9.08	G8 III	- 39.6	1.6	4	
4511	70688	21.2	28 55	9.44	F6 V	+ 41.8	1.6	4	
4525	71008	08 23.0	+28 48	9.00	K1 III	- 1.8	3.5	5	
4526	71028	23.1	28 34	9.32	K0 III	var?		5	II
4529	71093	23.4	28 04	7.40	K5 III	+ 24.8	0.6	4	
4531	71132	23.6	28 14	9.32	G8 IV	+ 19.8	2.6	4	
4554	71730	26.7	24 31	8.35*	K0 III	+ 32.8	1.7	4	
4588	72559	08 31.6	+28 37	9.08	F6 V	- 19.4	0.9	5	
4598	72907	33.3	28 53	9.16	G8 II	- 3.8	2.2	4	
4612	73160	34.8	26 25	9.33	K2 III	+ 39.9	0.4	4	
4632	73509	36.8	28 41	9.31	F8 V	var?		4	II
4670	74260	40.9	27 24	9.50	K3 III	+ 12.7	1.8	4	
4671	74348	08 41.4	+28 38	9.43	G0 IV	+ 2.3	2.1	4	N
4682	74624	43.0	28 34	9.02	F5 III	+ 27.8	2.4	4	
4684	74669	43.2	27 47	8.43	K1 IV	+ 27.6	0.8	4	
4690b	74811	44.1	28 21	7.40	G2 IV	- 1.8	0.9	4	
4693	74925	44.9	28 10	9.30	G0 IV	- 13.6	3.1	4	
4702	75216	08 46.7	+29 38	8.71	K2 III	var?		4	II
4714		49.0	25 55	9.13	G0 IV	+ 14.3	2.6	4	
4715	75646	49.0	25 54	9.06	K2 III	- 7.1	2.5	4	
4717	75663	49.3	29 03	9.44	K3 III	+ 20.2	2.7	4	
4727	75935	50.9	27 06	9.35	G8 V	- 18.7	0.7	4	

TABLE I - continued

A.G.	H.D.	R.A. (1950)	Dec. (1950)	Ptg. Mag.	Class	Velocity (km./sec)	P.E.	Pl.	Ref.
4730	76010	08 51.4	+27 07	9.06	M0 III	+ 29.6	1.2	4	
4743	76332	53.4	28 52	9.34	G2 V	+ 18.6	0.3	4	
4754	76657	55.4	26 41	9.08	K0 III	+ 23.7	1.8	4	
4758	76752	55.9	25 36	7.94	G2 V	- 10.1	0.8	4	
4760	76766	56.0	26 07	8.25	F8 V	+ 15.3	0.3	4	
4764	76864	56.8	29 13	9.46	K3 III	- 0.3	1.9	5	
4768	76866	56.8	24 49	9.32	F5 V	+ 12.2	2.6	5	
4771	76976	57.3	28 52	9.70	M0 III	+ 20.9	2.7	4	
4796	77313	59.6	26 03	8.44	K1 III	+ 16.7	2.1	4	
4799	77444	09 00.3	27 25	9.70	K4 III	- 30.9	1.0	4	
4809	77586	09 01.4	+29 28	9.64	M III	+ 88.2	2.7	4	III
4813	77694	01.9	24 48	9.33	K2 III	+ 42.3	2.5	4	
4814	77729	02.1	26 22	9.42	K2 IV	+104.5	3.3	4	III
4823	77948	03.3	26 20	9.52	K0 III	- 10.7	2.1	4	
4829	78194	04.7	28 12	9.29	K1 II	+ 57.2	3.2	5	
4834	78277	09 05.1	+27 46	8.87	G2 IV	var?		4	II
4835		05.4	27 44	8.76	G0 V	+ 32.6	2.0	4	
4836		05.5	27 45	8.84	G0 V	+ 28.2	0.3	4	
4856	78887	08.4	25 38	9.29	K0 II	0.0	1.4	4	
4859	78967	09.0	29 05	9.30	K1 III	+ 22.0	1.2	4	
4869	79214	09 10.7	+24 30	9.31	K0 III	- 6.3	2.0	4	
4875	79318	11.2	25 30	9.56*	K0 III	- 8.6	3.0	5	N
4878	79373	11.6	25 13	8.46	K3 III	+ 31.6	2.2	4	
4906	80217	16.3	26 28	8.35	K4 III	+ 9.9	1.6	4	
4914	80327	16.9	24 38	8.45	F8 V	- 32.1	3.1	4	
4930	80819	09 19.8	+25 58	9.20	K0 III	+ 74.1	2.2	4	III
4936	81058	21.2	26 08	8.38	K2 III	- 14.6	3.1	4	
4958	81505	23.8	26 34	9.28	G8 III	+ 20.9	0.5	4	
4968	81855	26.0	26 26	9.84	K3 III	+ 1.1	2.0	4	
4994	82331	29.2	27 03	9.21	K1 III	- 5.9	2.2	4	
5030	83098	09 33.9	+27 59	8.53	K2 III	- 6.0	0.9	4	
5038	83224	34.7	24 37	9.63	F6 V	var.		5	II
5041	83341	35.5	25 36	9.86	G8 III	+ 54.8	1.3	5	
5042	83340	35.6	28 14	8.65	G0 IV	+ 23.4	2.9	4	
5054	83617	37.5	25 15	9.56	G0 IV	+ 13.1	2.9	5	
5055	83632	09 37.7	+26 14	9.91	K0 III	+ 89.8	1.6	4	III
5059	83807	38.7	28 11	9.16	F8 V	var.		4	II
5061	83820	38.8	29 06	9.82	K1 III	+ 20.4	1.8	4	
5065	83935	39.5	25 49	8.71	K1 III	+ 15.9	1.7	4	
5083	84440	43.0	27 17	9.13	K1 III	+ 12.2	1.3	5	
5087	84577	09 44.0	+27 23	9.58	K0 III :	- 10.6	1.1	4	
5090		45.1	27 21		F6 V	- 0.5	1.7	5	
5122	85428	49.4	25 21	9.40	K2 III	+ 71.5	2.4	4	III
5126	85440	49.6	28 01	8.94	G8 III	0.0	1.0	4	
5132	85615	50.8	25 54	8.61	K2 III	- 12.1	0.5	4	

TABLE I - continued

A.G.	H.D.	R.A. (1950)	Dec. (1950)	Ptg. Mag.	Class	Velocity (km./sec)	P.E.	Pl.	Ref.
5145	85946	09 53.0	+27 05	9.13	K0 III	var?		4	II
5147	85976	53.2	26 14	8.98	G8 III	- 10.0	1.8	4	
5156	86131	54.4	28 48	8.96	K2 III	- 18.8	1.0	5	
5159	86168	54.5	25 02	9.70	K1 III	+ 10.3	1.9	4	
5173	86460	56.4	27 46	8.54	G0 IV	+ 5.7	1.5	4	
5179	86590	09 57.2	+24 48	8.95	K0 V	var.		4	II
5180	86680	57.8	28 25	8.78	G0 V	+ 8.4	2.5	5	
5182	86778	58.4	29 02	8.70	K2 III	- 0.3	1.1	4	
5183	86801	58.7	28 48	9.48	G0 V	- 4.6	0.5	4	
5216	87680	10 04.4	29 29	8.82	G2 V	- 25.5	2.4	5	
5223	87804	10 05.3	+27 03	9.46	G8 III	+ 1.6	2.8	4	
5229	88008	06.5	24 48	9.43	G5 V	var?		5	II
5248	88416	09.5	27 21	9.85	K0 IV	- 0.6	2.2	4	
5251	88476	09.9	28 29	8.14	G8 III	+ 4.7	1.7	4	
5254	88532	10.3	28 32	9.78	K0 IV	var.		5	II
5255	88533	10 10.3	+27 40	9.30	G5 V	- 39.3	2.8	4	
5280	89055	14.1	26 07	8.34	G0 V	- 14.4	0.8	4	
5298	89361	16.4	24 37	9.00	K2 III	+ 19.4	2.0	4	
5300	89415	16.9	29 37	9.81	F5 V	+ 14.4	1.4	4	
5308	89557	17.8	29 12	8.79	G8 III	+ 28.3	0.6	4	
5311	89629	10 18.2	+27 59	9.21	G8 IV	+ 18.1	3.1	5	
5312	89631	18.4	26 57	9.06	F5 V	+ 7.7	1.0	4	
5313	89630	18.4	27 08	9.35	F8 V	- 12.2	1.7	4	
5336	90009	21.0	25 49	8.33	K2 III	- 1.0	1.7	4	
5341	90183	22.3	24 52	8.97	G0 V	- 5.3	3.4	4	
5346	90346	10 23.5	+24 58	8.64	K1 III	- 20.0	2.5	4	
5355	90442	24.2	26 54	9.28	K1 V	var.		5	II
5356	90443	24.2	25 12	9.04	K1 III	var.		5	II
5361	90567	25.1	27 28	9.28	F8 V	+ 32.8	3.1	4	
5369	90682	26.0	27 11	9.64	K3 III	+ 6.3	1.7	4	
5377	90841	10 27.0	+28 49	9.64	K2 III	+ 27.3	1.1	4	
5379	90861	27.1	28 50	8.36	K2 III	+ 39.8	0.4	5	
5382	90932	27.6	27 36	9.70	K1 III	- 40.6	1.6	4	
5390	91148	29.0	24 20	8.81*	G8 V	- 24.4	1.0	4	
5393	91164	29.2	24 59	9.07	K0 III	+ 17.1	3.1	4	
5397	91348	10 30.5	+28 02	9.53	G8 III	+ 10.6	2.2	4	
5398	91366	30.5	25 23	9.02	K1 III	- 0.5	3.0	4	
5407	91545	32.0	28 13	8.32	K2 III	- 21.6	1.3	5	
5417	91685	32.9	29 22	9.28	F7 V	- 30.7	4.1	5	
5419	91842	34.0	28 02	9.76	K1 III	+ 39.0	2.9	5	
5420	91855	10 34.0	+26 26	9.76	K0 III	- 6.6	2.9	4	
5421	91950	34.6	25 20	9.28	G2 V	+ 42.0	1.1	5	
5432	92108	35.7	26 11	9.35	K0 III	+ 32.9	1.0	4	
5451	92456	38.1	25 58	9.24	K1 III	+ 23.0	2.7	4	
5475	92824	40.7	26 02	9.34	F8 V	- 10.2	1.8	4	

TABLE I - continued

A.G.	H.D.	R.A. (1950)	Dec. (1950)	Ptg. Mag.	Class	Velocity (km./sec)	P.E.	Pl.	Ref.
5489	93215	10 43.4	+26 01	9.98	G5 V	- 10.5	1.0	4	
5490	93242	43.6	25 53	9.42	K0 III	+ 7.0	0.7	4	
5503	93391	44.6	27 10	9.30	K5 III	+ 3.3	2.1	4	
5545	94336	50.8	26 28	9.12	M III	+ 6.9	2.8	4	
5565	94833	54.5	25 32	9.39	F8 V	- 21.1	2.3	4	
5567	94834	10 54.6	+24 25	8.6	K1 IV	+ 4.7	1.8	4	
5571	94966	55.5	24 39	8.64	K1 III	- 6.5	1.4	4	
5582	95188	57.1	25 33	9.44	G8 V	+ 6.8	2.7	5	
5591	95363	58.2	27 24	9.64	F7 V	var.		5	II
5593	95364	58.3	24 20	9.37	G2 V	+ 12.3	2.5	4	
5603	95725	11 00.5	+29 12	8.70	K1 II	- 12.8	1.1	4	
5611	95978	01.9	29 27	9.57	K2 III	- 45.4	2.7	5	
5628	96234	03.4	24 30	9.68	K0 III	+ 11.6	1.9	5	
5635	96393	04.3	26 00	9.58	K0 III	+ 15.1	1.3	4	
5671	97476	10.6	27 27	9.58	K4 III	+ 9.4	1.6	4	
5676	97658	11 11.9	+25 59	8.96	K1 V	+ 3.4	1.6	4	
5684	97777	12.7	26 43	9.71	G8 III	+ 1.1	1.8	4	
5698	98155	15.1	25 19	9.17	K0 III	- 6.1	2.1	4	
5713	98562	18.0	23 53	9.59*	G2 V	+ 12.0	3.2	5	
5765	99594	25.0	26 44	9.73	K2 III	- 0.2	1.0	5	
5780	99947	11 27.4	+25 10	9.16	K0 III	+ 39.1	1.6	5	
5781	99957	27.5	25 35	9.58	K3 III	+ 9.8	1.6	4	
5787	100041	28.3	28 44	9.02	M III	+ 87.0	1.3	4	III
5790	100179	29.2	24 35	9.02	K4 III	+ 26.4	1.3	5	
5815	100947	34.6	28 03	9.11	K1 III	- 14.8	2.6	4	
5818	100993	11 34.8	+25 42	8.77	F8 V	+ 11.2	2.8	5	
5829	101289	36.9	25 35	8.49	G0 V	- 8.1	1.4	5	
5838	101396	37.6	26 26	9.30	K1 V	- 6.7	1.4	4	
5847	101856	40.9	27 51	9.27	K0 III	+ 4.6	1.8	5	
5851	101906	41.2	24 17	8.24	G2 V	+ 5.3	0.7	4	
5863	102142	11 42.8	+27 30	8.23	G5 V	+ 9.5	1.0	4	
5864	102161	42.9	25 23	9.07	G0 V	+ 22.2	3.2	5	
5879	102404	44.7	24 42	9.37	K2 III	- 5.3	1.3	4	
5882	102494	45.3	27 37	8.26	G8 IV	- 21.1	0.7	4	
5887	102646	46.6	28 24	8.55	K0 III	+ 12.4	1.0	5	
5922	103614	11 53.4	+25 46	8.87	F6 V	var?		6	II
5946	104076	56.7	24 54	8.88	G0 V	+ 1.9	2.2	5	
5956	104392	58.7	24 30	9.74	K2 III	- 13.1	2.3	5	
5962	104590	12 00.1	24 44	8.95	K2 III	- 3.2	2.8	5	
5964	104589	00.2	25 36	9.36	K1 III	+ 28.0	1.5	4	
5974	104784	12 01.5	+25 13	8.62	F8 V	+ 3.1	2.6	7	
5981	105020	03.0	28 47	9.66	K3 III	- 33.1	3.2	7	
6015	105771	07.9	29 21	8.59	K0 III	- 3.5	1.1	4	
6020	105898	08.7	25 02	8.19	G2 V	- 37.7	2.1	5	
6022	105964	09.1	26 01	9.22	G0 V	+ 14.2	2.5	5	

TABLE I - continued

A.G.	H.D.	R.A. (1950)	Dec. (1950)	Ptg. Mag	Class	Velocity (km./sec)	P.E.	Pl.	Ref.
6031	106184	12 10.5	+28 55	9.75	K5 III	+ 6.5	1.2	4	
6035	106398	11.8	26 47	8.41	G8 III	+ 58.6	2.4	5	
6052	106857	14.8	29 00	9.54	F5 V	- 6.1	1.4	4	
6054	106947	15.3	25 20	9.31	F7 V	+ 5.0	1.0	4	
6060	107132	16.5	25 07	9.41	F7 V	+ 2.1	2.1	4	
6078	107468	12 18.6	+26 00	9.52	K1 III	+ 34.3	2.0	4	
6085	107611	19.4	27 35	9.04	F6 V	+ 3.2	1.5	4	
6091	107725	20.1	26 54	9.77	K2 III	- 1.7	2.4	4	
6125	108466	25.1	28 23	8.56	K2 III	- 27.1	2.3	4	
6134	108675	26.5	29 10	9.17	F6 IV-V	var?		5	II
6140	108805	12 27.5	+26 24	9.24	G8 III	- 23.0	1.9	4	
6146	108976	28.6	28 00	9.07	F6 V	- 1.2	1.0	4	
6149	109012	29.1	27 20	9.03	K2 III	- 18.1	1.8	4	
6163	109282	31.0	24 43	9.16	M III	+ 0.5	3.2	6	
6170	109463	32.3	24 30	9.35	K5 III	- 26.1	1.7	4	
6172	109482	12 32.3	+29 22	9.31	G8 II	+ 0.7	3.0	5	
6175	109552	33.0	29 07	9.07	F8 IV	+ 20.9	3.1	5	
6177	109627	33.5	25 42	9.10	K2 III	+ 1.0	2.9	5	
6182	109823	35.2	28 54	9.71	G0 IV	+ 8.2	1.6	4	
6222	110788	41.9	28 15	9.35	G8 III	- 30.6	2.9	4	
6227	110883	12 42.6	+27 40	8.98	K2 III	+ 7.0	1.9	4	
6246	111285	45.5	24 22	8.93	G8 III	- 31.2	1.1	4	
6249		45.8	25 25	11.07	K2 III	- 18.2	3.1	5	
6259	111541	47.4	26 42	8.32	K1 III	- 8.6	1.7	4	
6274	111842	49.5	25 57	9.68	K5 III	- 32.5	2.4	4	
6280	112001	12 50.6	+27 04	8.53	G0 IV	- 12.0	2.7	5	
6294	112257	52.7	28 02	8.72	G2 V	- 38.5	1.0	4	
6295	112299	53.0	26 01	9.19	F8 V	+ 3.6	0.4	4	
6313	112753	56.3	27 45	8.81	G0 V	var?		5	II
6321	113094	58.6	24 35	9.31*	K1 III	- 10.3	2.7	5	
6325	113242	12 59.7	+29 16	9.68	F8 V	- 5.7	1.5	4	
6343	113771	13 03.3	26 51	8.77	K0 III	- 8.6	2.2	4	
6359	114037	05.0	26 47	9.06	K1 III	- 6.4	0.7	5	
6364	114093	05.6	25 06	7.99	G8 III	- 5.9	0.9	4	
6368	114172	06.2	29 39	9.29	G0 V	- 36.8	2.2	4	
6385	114636	13 09.1	+26 39	9.77	K1 III	- 24.9	2.2	6	
6407	115103	12.2	29 40	9.23	F6 V	- 9.1	2.9	6	
6411	115256	13.2	29 00	9.06	K3 III	+ 19.2	1.9	5	
6416	115339	14.0	28 00	9.13	G8 V	+ 24.6	2.6	5	
6421	115613	15.6	27 43	9.24	F8 V	+ 3.8	3.2	5	
6430	115762	13 16.5	+24 52	9.39	G2 V	- 12.0	1.8	4	
6435	115929	17.5	28 22	8.76	F6 V	- 12.6	0.7	4	
6438	116029	18.3	24 55	9.05	K1 III	- 2.1	1.9	4	
6443	116232	19.6	26 16	8.76	G8 III	- 22.8	1.8	5	
6454	116329	20.3	26 06	9.52	F7 V	- 27.3	2.2	4	

TABLE I - continued

A.G.	H.D.	R.A. (1950)	Dec. (1950)	Ptg. Mag.	Class	Velocity (km./sec.)	P.E.	Pl.	Ref.
6477	117028	13 24.8	+29 08	9.46	G8 III	+ 26.7	1.2	4	
6478	117062	25.1	24 34	9.02	F2 V	var?		5	II
6501	117555	28.4	24 49	9.02	G5 II	var.		7	N, II
6529		32.8	25 04	9.47	G8 V	- 2.3	0.5	4	
6546	118658	35.6	27 04	9.79	K0 III	- 5.4	2.1	4	
6552	118823	13 36.5	+24 30	9.25	K2 III	- 11.6	2.1	5	
6556	118905	37.1	26 56	8.46	K1 III	+ 0.5	2.5	6	
6559	118971	37.7	26 11	8.91	G8 III	+ 33.1	1.4	5	
6582	119665	41.8	25 32	9.39	F6 V	- 0.8	2.2	4	
6584	119748	42.2	29 14	9.76	K1 III	- 29.9	1.0	4	
6590	119944	13 43.6	+27 29	9.65	K2 III	+ 13.8	2.2	4	
6605	120421	46.5	28 08	8.52	K1 III	- 4.2	1.1	4	
6618	120802	48.9	27 23	9.71	K1 III	var.		6	II
6619	120803	48.9	24 57	9.05	K1 III	- 47.4	2.5	6	
6623	120895	49.5	24 56	9.91	K3 III	- 18.3	0.8	4	
6633	121131	13 50.8	+28 04	9.44	K1 V	+ 40.3	1.4	4	
6634	121149	50.8	27 54	9.29	G0 V	- 22.0	2.0	4	
6638	121184	51.1	24 24	9.89	K3 III	- 18.6	1.7	5	
6639	121183	51.0	27 20	9.57	K0 IV	- 20.7	2.1	5	
6646	121319	51.9	28 34	9.15	K0 III	- 40.0	1.6	4	
6663	121844	13 55.2	+25 15	9.37	K1 III	- 62.1	2.7	4	
6669	122052	56.6	24 56	8.67	G0 III	- 26.1	2.4	6	
6693	122693	14 00.5	24 48	8.74	F8 V	+ 1.0	0.4	4	
6694	122767	01.0	24 50	9.73	K3 III	var.		5	II
6699	122796	01.2	27 45	8.49	K1 III	- 32.5	1.8	5	
6705		14 02.5	+26 05	9.79	K0 V	- 12.7	1.6	5	
6726	123612	06.0	24 33	8.43	K5 III	- 25.4	2.1	4	
6732	123822	07.1	25 41	9.77	G8 III	- 0.3	2.2	4	
6734	123877	07.4	26 05	9.93	K5 III	+ 21.0	2.9	5	
6738	124019	08.2	27 52	9.33	G2 V	- 20.2	0.4	4	
6788	125320	14 15.9	+27 02	9.12	G5 IV	+ 21.1	3.0	4	
6802	125728	18.5	26 18	7.99	G8 II	+ 26.1	1.9	4	
6808	126009	20.0	29 36	8.65	M III	- 14.4	1.7	8	
6820	126307	21.8	27 38	8.45	K4 III	+ 31.6	1.1	4	
6821	126327	21.9	25 56	var.	M III	- 7.7	3.0	5	N
6832	126598	14 23.7	+26 29	9.22	K4 III	var.		7	II
6838	126778	24.7	28 49	9.39	G8 IV	-130.1	1.5	4	III
6847	126970	25.8	29 29	8.91	G5 IV	- 48.1	1.5	4	
6848	126991	26.0	24 44	8.81	G2 V	- 82.9	1.8	4	III
6852	127093	26.5	26 05	8.75	M III	+ 3.9	1.8	4	
6861	127386	14 28.2	+25 19	8.99	pec.	var.		5	N, II
6888		32.2	24 37	9.33	G8 III	- 12.9	2.5	4	
6889	128095	32.1	28 42	9.49	K1 IV	+ 26.3	1.2	4	
6894	128185	32.6	28 37	8.67	F8 V	- 6.5	2.5	4	
6937	129357	39.2	29 17	8.72	G2 V	- 33.9	2.2	4	

TABLE I - continued

A.G.	H.D.	R.A. (1950)	Dec. (1950)	Ptg. Mag.	Class	Velocity (km./sec)	P.E.	Pl.	Ref.
6940	129412	14 39.5	+24 45	8.27	F7 V	+ 2.5	2.0	4	
6960	130215	43.9	27 43	9.07	K2 V	- 16.2	0.8	4	
6971	130500	45.6	25 41	9.72*	G8 II-III	+ 3.9	3.1	5	
6983	130766	47.0	25 21	8.43	K3 II	- 11.5	1.1	8	
7008	131509	51.1	28 43	9.22	K0 V	- 43.7	2.1	4	
7022	131972	14 53.8	+24 35	8.10	K2 III	+ 4.0	1.8	4	
7032	132256	55.2	25 31	8.16	G2 IV	- 3.9	2.2	4	
7035	132304	55.5	24 52	8.82	K3 III	- 38.3	3.2	4	
7039	132524	56.6	25 15	8.73	K0 III	- 18.4	1.9	4	
7042	132737	57.7	27 21	9.03	K0 III	- 20.7	0.6	4	
7061	133460	01.6	26 14	7.95	F8 V	+ 3.7	0.7	4	
7062	133459	15 01.7	+27 17	8.93	K4 III	+ 8.2	2.1	4	
7079	133922	04.2	26 38	9.78	K4 III	var?		6	II
7089	134246	05.9	28 43	8.47	G8 III	+ 10.4	1.4	4	
7090	134282	06.1	26 54	9.25	G8 II	- 5.2	1.2	4	
7106	134680	15 08.2	+27 37	9.68	G8 III	var.		6	II
7116	135145	10.7	28 07	9.19	G0 V	- 54.4	1.1	5	
7152	136231	16.6	25 57	9.31	G0 V	+ 14.8	1.6	5	
7155	136274	16.9	25 52	8.94	G8 V	- 28.6	1.1	10	
7181	136901	20.3	25 48	8.91	K1 III	var.		9	II
7183	137003	15 20.7	+28 14	8.67	G8 III	- 9.8	1.8	5	
7201	137688	24.4	28 18	9.27	K3 III	+ 28.6	2.1	4	
7220	138156	27.3	27 16	9.55	G5 III	- 36.1	2.2	4	
7256	139007	32.7	25 10	8.75	F8 V	- 22.2	2.6	4	
7276	139550	35.8	25 48	9.41	G8 III	+ 11.1	0.8	4	
7280	139608	15 36.1	+24 41	8.2	M III	- 23.2	1.0	4	
7281	139749	36.9	25 54	8.87	G0 V	+ 8.1	1.6	4	
7298	140385	40.2	29 47	9.37	G2 V	- 44.8	1.4	4	
7326	140913	43.1	28 37	8.81	G0 V	- 14.5	0.2	4	
7333	141176	44.7	25 14	9.07	G2 IV	- 17.5	2.0	5	
7353	141690	15 47.4	+25 37	9.27	G0 IV	var.		5	II
7367	142053	49.4	25 27	8.87	K1 II-III	- 10.6	1.0	5	
7377	142209	50.3	28 45	9.40	K3 III	- 15.8	2.0	4	
7378	142243	50.5	29 04	9.25	K3 III	- 17.5	2.3	5	
7385	142418	51.5	29 37	9.41	K1 III	+ 9.1	2.6	5	
7398	142898	15 54.0	+27 12	9.24	K1 IV	- 31.5	1.2	4	
7399	142929	54.3	25 19	9.01	F8 V	- 34.1	2.0	5	
7415	143271	56.4	27 00	9.43	G8 III	+ 1.3	1.8	4	
7418	143272	56.5	26 41	9.35	K0 II-III	+ 3.6	1.6	4	
7419	143313	56.6	25 43	9.59	K2 V	var.		6	II
7420		15 56.5	+27 53	8.95	K0 V	- 67.4	1.2	4	
7441	143688	58.9	24 36	9.31	F6 V	+ 27.2	3.4	5	
7444	143705	58.9	29 05	8.73	G0 V	var.		5	II
7468	144287	16 02.0	25 23	8.24	G8 V	- 44.5	0.7	8	
7505	145374	07.5	27 06	8.28	K1 III	+ 6.4	1.5	4	

TABLE I - continued

A.G.	H.D.	R.A. (1950)	Dec. (1950)	Ptg. Mag.	Class	Velocity (km./sec)	P.E.	Pl.	Ref.
7507	145404	16 07.7	+26 08	9.20	G0 V	- 19.6	0.8	4	
7511	145458	08.0	25 37	8.67	G8 II-III	- 4.5	1.2	4	
7513	145457	08.0	26 52	8.14	K0 III	- 3.3	1.1	7	
7537	145890	10.3	26 34	9.15	K1 III	var?		4	II
7603	147487	19.2	27 29	9.15	G0 V	- 58.2	1.0	4	
7608	147527	16 19.4	+29 07	9.41	F5 IV	- 33.5	1.4	5	
7612	147665	20.2	24 52	9.50	F8 V	- 7.0	1.6	5	
7629	147980	21.9	28 30	8.80	K1 II-III	- 28.8	2.1	4	
7685	149067	29.4	25 57	9.26	G8 II	- 4.1	1.8	4	
7690	149132	29.7	29 43	9.25	K2 II	- 18.2	1.2	4	
7692	149142	16 29.8	+26 08	8.97	G8 III	+ 41.3	1.7	5	
7698	149241	30.4	27 49	9.49	K5 III	- 0.6	1.6	5	
7704	149403	31.5	24 59	9.33	G0 V	- 12.3	3.4	5	
7709	149474	32.0	25 35	9.65	K3 III	- 8.1	1.2	5	
7721	149803	33.9	29 51	8.90	F7 V	+ 1.2	0.7	4	
7734	150087	16 35.7	+27 28	9.24	G8 III	- 2.1	1.8	5	
7735	150086	35.6	28 56	9.74	G8 III	+ 1.1	1.0	4	
7737	150102	35.8	27 09	9.08	M2 III	+ 12.7	2.7	5	
7742	150205	36.3	29 46	8.32	G5 V	+ 29.9	1.5	4	
7756	150431	37.9	25 38	9.47	G8 III	- 14.0	0.8	4	
7761	150567	16 38.7	+29 01	9.13	K3 III	- 50.4	1.3	4	
7769	150665	39.5	26 11	9.14	K0 III	- 3.9	1.8	4	
7774		40.1	25 31	9.52	F7 IV-V	- 15.5	2.4	7	
7776	150799	40.2	25 31	9.79	F8 IV	- 28.7	2.9	5	
7779	150889	40.9	25 57	9.07	K2 III	- 54.4	1.6	4	
7799	151256	16 43.2	+24 40	9.57	K1 III	+ 10.5	1.1	4	
7806	151369	44.0	26 08	9.35	G2 IV	- 3.6	2.2	4	
7826	151625	45.4	28 29	8.82	G0 IV	- 38.4	2.4	4	
7833	151780	46.5	26 41	9.25	K1 III	- 19.9	1.2	4	
7847	152032	48.0	26 18	8.57	G8 II-III	- 19.5	1.9	4	
7857	152264	16 49.2	+29 39	8.41	G0 V	- 25.2	1.9	4	
7860	152306	49.5	28 12	8.23	G8 III	+ 6.0	1.1	4	
7884	152748	52.1	27 40	9.15	G8 II	- 13.7	2.4	4	
7908	153224	54.9	29 40	8.80	F8 V	- 17.4	1.4	4	
7940	153698	57.9	27 23	9.21	M III	- 20.1	1.3	5	
7956	154049	17 00.0	+25 06	9.41	K3 III	- 86.0	1.7	4	III
7969	154183	00.9	25 43	9.33	G0 V	- 21.7	2.4	5	
7973		01.1	24 55	9.51	K1 III	- 49.5	2.1	6	
7989	154510	02.8	28 10	8.59	K1 III	+ 2.5	1.0	10	
8001	154635	03.7	25 34	9.24	K0 II	- 49.0	1.0	4	
8009	154760	17 04.3	+26 35	9.31	G2 V	- 14.3	1.5	4	
8026	154942	05.5	28 11	8.77	K1 III	- 20.4	2.1	4	
8032	155041	06.0	29 13	9.13	K2 III	- 29.2	2.2	5	
8046	155344	07.9	26 31	8.50	K2 III	+ 4.0	0.9	4	
8063	155675	10.1	25 18	9.24	F8 V	- 23.8	1.7	4	

TABLE I - continued

A.G.	H.D.	R.A. (1950)	Dec. (1950)	Ptg. Mag.	Class	Velocity (km./sec)	P.E.	Pl.	Ref.
8066		17 10.2	+29 35	9.48	G8 II-III	- 29.5	1.1	4	
8072	155839	11.2	25 03	9.18	K5 III	+ 0.8	0.8	5	
8073	155878	11.2	27 59	9.17	G8 II	+ 3.0	1.1	4	
8077	155989	11.9	26 14	9.43	G5 III	var.		5	II
8079	156002	12.1	26 53	9.10	F5 IV	- 9.7	3.6	5	
8084		17 12.2	+29 38	8.99	G0 V	+ 17.9	0.8	4	
8085	156093	12.5	26 07	8.42	K3 III	- 20.3	2.2	5	
8098	156362	14.0	27 11	8.27	K2 III	- 51.1	0.8	4	
8104	156454	14.6	26 38	9.41	G2 V	- 0.3	3.1	4	
8114	156563	15.3	25 05	9.56	G8 V	- 11.7	2.6	4	
8117	156652	17 15.6	+28 58	8.81	M III	- 36.4	2.0	5	
8127	156774	16.4	26 59	9.04	K2 III	- 48.3	3.1	5	
8128	156775	16.5	25 51	8.19	K1 III	- 4.8	1.4	4	
8135	156966	17.4	27 20	8.89	M2 III	+ 72.7	2.0	4	III
8152	157294	19.3	26 01	9.04	G8 III	- 48.6	3.1	5	
8189	158038	17 23.8	+27 21	8.76	K2 II	+ 15.6	0.9	4	
8207	158332	25.6	26 50	8.80	K1 IV	- 18.8	2.2	4	
8223	158521	26.8	26 46	8.82	F6 V	- 1.1	1.2	4	
8244	158823	28.3	29 33	9.25	K3 III	- 42.9	1.4	4	
8283	159479	31.9	26 42	9.56	K2 III	- 21.3	1.6	4	
8291	159608	17 32.4	+29 48	9.89	M2 III	- 60.2	3.2	6	
8309	159948	34.4	25 39	8.97	K2 III	+ 6.3	0.6	4	
8311	159968	34.4	27 36	8.44	M III	- 35.0	1.4	4	
8338	160508	37.2	26 47	8.91	F8 V	+ 25.1	1.8	4	
8350	160678	38.1	29 16	9.03	K0 III	+ 35.5	1.8	4	
8372	160952	17 39.7	+29 37	9.04	G8 III	+ 30.6	0.3	4	
8380	161112	40.6	26 34	8.82	K0 III	- 5.6	1.7	5	
8387	161197	41.1	24 49	8.91	G2 IV	+ 26.5	1.7	4	
8390	161196	41.1	29 40	8.96	M III	+ 2.4	2.0	4	
8392	161268	41.5	27 03	8.91	K1 II	- 23.4	2.4	4	
8492	162901	17 50.4	+25 00	8.95	K2 III	- 9.4	2.4	5	
8506	163077	51.3	25 00	8.82	G8 V	+ 12.3	1.3	4	
8523	163331	52.5	27 37	9.16	K1 III	+ 8.5	2.3	4	
8559	163949	55.6	28 00	9.39	F6 V	+ 16.5	1.5	4	
8563	163970	5.88	27 51	9.60	G0 V	- 28.3	2.8	4	
8564	163969	17 55.8	+28 15	9.52	G8 III	+ 8.0	2.2	4	
8569	164042	56.2	27 24	9.10	K2 III	- 25.9	1.8	5	
8571	164079	56.4	28 00	9.21	F2 V	+ 23.4	1.8	4	
8617	164923	18 00.4	25 00	9.80	K2 III	- 23.5	2.6	4	
8651	165473	03.0	29 05	8.29	K0 II	+ 18.7	1.4	4	
8654	165589	18 03.5	+28 41	8.31	K1 III	+ 11.5	1.1	4	
8656		04.0	25 41	9.09	F6 V	- 21.4	2.7	5	
8669	165989	05.5	26 24	8.22	G8 III	- 1.9	1.0	4	
8677	166070	05.8	27 23	9.33	K1 IV	- 27.6	1.4	4	
8683	166093	05.9	29 49	8.89	K3 II	- 25.0	1.6	4	

TABLE I - continued

A.G.	H.D.	R.A. (1950)	Dec. (1950)	Ptg. Mag.	Class	Velocity (km./sec)	P.E.	Pl.	Ref.
8685	166181	18 06.3	+29 41	8.37	G5 V	var.		5	II
8706	166683	08.6	29 04	9.06	G8 III	- 17.5	3.0	6	
8707	166730	08.8	27 58	9.41	K1 III	- 29.0	1.0	5	
8709	166781	09.1	26 39	8.22	G5 III	- 34.9	2.0	4	
8712	166822	09.3	25 19	9.09	G0 IV	- 1.3	1.7	4	
8713	166842	18 09.5	+25 33	8.14	K1 III	- 59.3	1.8	4	
8715	166867	09.5	29 54	8.59	K0 IV	+ 17.3	1.2	4	
8716	166895	09.5	30 07	9.21	F6 V	- 20.7	2.2	4	
8717	166914	09.7	25 22	9.51	F8 IV-V	- 9.9	3.2	5	
8732	167132	10.9	25 38	9.46	K1 III	+ 11.6	1.0	4	
8742	167275	18 11.4	+26 14	8.79	K1 III	- 3.7	0.8	4	
8753	167472	12.2	28 12	8.19	K1 II	- 1.8	1.1	4	
8773	167782	13.7	25 47	9.70	G8 II	- 18.3	1.8	4	
8783	168038	14.8	27 05	9.07	F7 IV	+ 9.8	2.4	4	
8818	168622	17.6	27 28	9.70	K2 III	- 30.3	1.7	4	
8824		18 18.1	+26 29	10.87	K3 III	+ 8.7	2.4	4	
8836	168956	19.3	26 41	9.12	F6 V	- 25.3	2.1	4	
8849	169245	20.7	26 12	9.47	F8 V	- 13.4	2.1	4	
8870	169573	22.2	26 18	9.63	K2 III	+ 28.5	1.2	5	
8887	169797	23.3	26 03	8.92	G8 III	- 19.9	0.7	4	
8889	169819	18 23.5	+25 58	9.95	K2 III	+ 7.4	2.2	8	
8898		23.8	29 23	9.33	K2 II	- 3.4	1.2	4	
8958	170619	27.3	29 31	8.45	K0 III	- 26.7	1.0	5	
8975	170737	27.9	26 37	9.11	G5 V	-136.7	2.2	4	III
8976	170738	27.9	25 44	9.21	G8 III	- 27.8	2.1	4	
8990	170951	18 29.1	+25 08	10.05	M III	- 2.7	2.8	5	
9008	171164	30.0	28 51	9.61	K2 III	- 24.4	1.8	4	
9013	171232	30.6	25 27	8.66	G8 III	- 30.6	0.9	4	
9036	171550	32.4	29 42	8.00	K0 III	- 12.4	1.7	5	
9050	171830	33.8	27 10	9.41	G8 III	- 75.8	3.1	4	
9077	172132	18 35.3	+29 01	9.51	K2 III	+ 12.2	2.7	5	
9080	172169	35.5	29 32	8.39	K4 III	- 24.7	0.8	4	
9091	172311	36.4	28 15	9.82	G8 III	- 35.4	1.6	4	
9109		37.6	26 09	9.78	F8 V	- 37.6	2.7	4	
9180	173367	41.7	28 04	9.59	K0 III	+ 3.5	3.0	5	
9186	173435	18 42.2	+26 11	9.61	K0 III	- 3.3	2.8	5	
9223	173909	44.8	27 26	8.95	G8 III	+ 23.6	2.1	4	
9236		45.3	28 22	9.77	G0 V	- 68.3	1.9	4	
9244	174104	45.8	28 40	9.25	G0 Ib	- 14.3	3.0	4	
9245	174126	45.8	28 35	9.30	K2 II	- 9.2	2.8	5	
9263	174414	18 47.2	+27 40	8.46	K1 III	+ 14.8	1.6	4	
9288	174695	48.7	28 28	8.57	K1 III	+ 2.1	1.9	4	
9295	174764	49.1	29 40	9.77	K1 III	- 4.4	1.7	4	
9319	175036	50.4	26 28	8.94	G0 V	- 51.5	2.1	4	
9330	175204	51.3	25 19	8.93	G5 III	- 46.5	3.2	4	

TABLE I - continued

A.G.	H.D.	R.A. (1950)	Dec. (1950)	Ptg. Mag.	Class	Velocity (km./sec)	P.E.	Pl.	Ref.
9358	175578	18 52.9	+29 58	8.77	G5 III	- 32.4	1.2	4	
9364		53.3	26 56	9.31	G8 III	- 4.1	2.2	5	
9383	175940	54.6	28 08	8.40	K2 III	- 31.3	2.2	4	
9417	176230	56.1	28 06	8.87	K1 II	- 45.2	2.2	4	
9449		57.4	29 32	9.01	F8 V	+ 10.4	1.1	4	
9459		18 57.9	+26 17	9.61	G8 III	+ 17.7	0.7	4	
9472	176695	58.3	28 36	9.17	G8 III	var.		5	II
9486		59.4	26 19	9.35	K1 III	- 2.1	1.1	4	
9516	177251	19 00.7	29 13	9.04	G8 III	+ 16.9	2.1	5	
9575	178029	03.9	29 15	9.19	G8 III	+ 11.4	1.6	4	
9585		19 04.5	+28 38	9.91	F8 V	+ 2.2	1.2	4	
9594		05.0	29 07	9.47	G2 V	- 7.8	1.4	4	
9607	178450	05.6	30 10	8.83	G8 V	var.		5	II
9629	178798	06.9	30 13	8.53	K3 III	- 12.1	0.9	6	
9659		08.6	28 16	9.29	F6 V	- 52.4	1.4	4	
9675		19 09.4	+26 19	8.83	G5 III	var?		5	II
9763	180502	13.7	29 02	8.77	G0 IV	- 4.3	1.1	4	
9797	181047	15.8	25 16	8.99	G8 V	- 84.6	1.5	4	III
9865	182056	19.7	30 16	9.25	K2 II	+ 7.8	1.5	4	
9877	182218	20.5	27 04	9.29	K1 III	- 7.3	2.5	5	
9882	182256	19 20.7	+25 14	8.94	F5 IV	- 57.4	2.4	5	
9929	182617	22.3	28 29	9.09	K1 III	+ 9.3	1.5	4	
9949		23.3	25 37	9.63	K1 II-III	+ 27.5	1.8	4	
9950		23.4	26 14	9.71	K2 II	- 59.7	1.0	5	
10014	183399	26.3	29 21	8.09	K1 III	- 13.5	1.0	5	
10039	183753	19 27.9	+28 37	9.59	K3 II	+ 26.7	1.4	6	
10072	184150	30.0	30 05	9.49	K3 III	- 30.0	0.4	4	
10077		30.4	25 19	9.45	pec.	- 4.2	0.3	4	N
10103	184538	32.0	25 42	8.97	K2 III	- 25.1	0.6	4	
10108	184590	32.2	25 15	9.27	M1 III	+ 28.3	1.0	6	
10122	184719	19 32.7	+29 03	9.31	K5 III	- 24.4	1.6	5	
10133		33.0	28 59	9.55	F7 V	- 37.0	0.4	4	
10151		33.6	30 17	9.73	G8 II	- 11.3	2.6	5	
10154		34.0	26 23	9.52	K1 III	- 52.9	2.5	4	
10175	185151	34.7	27 46	9.59	K1 III :	+ 4.4	3.6	4	N
10181	185270	19 35.2	+26 02	8.94	F8 V	- 25.5	1.3	4	
10182	185241	35.1	28 04	9.54	K0 III	- 36.5	1.0	4	
10184	185269	35.2	28 23	7.35	G0 IV	0.0	1.0	4	
10188	185289	35.3	26 15	8.41	G8 III	- 13.1	1.1	5	
10268	185982	38.7	27 37	9.29	G8 III	+ 8.1	3.1	4	
10292	186223	19 40.1	+27 04	9.47	K2 III	- 30.8	0.7	4	
10299	186260	40.3	26 57	9.24	K0 III	- 0.5	1.9	4	
10315		41.0	27 49	9.22	F8 V	- 19.1	1.2	4	
10333	186517	41.9	27 19	9.11	K1 III	- 37.6	1.3	4	
10377	186860	43.7	30 08	9.81	M III	+ 7.5	2.2	4	

TABLE I - continued

A.G.	H.D.	R.A. (1950)	Dec. (1950)	Ptg. Mag.	Class	Velocity (km./sec)	P.E.	Pl.	Ref.
10414	187162	19 45.4	+28 22	9.47	G8 III	- 12.5	2.1	5	
10426	187280	46.2	28 12	9.51	K2 III	- 10.6	2.3	4	
10444	187462	47.1	27 37	7.71	G0 V	+ 3.5	0.5	6	
10445	187460	47.1	29 45	9.25	G8 III	- 6.1	2.7	6	
10454	187548	47.4	28 29	8.73	G0 V	+ 14.2	1.1	5	
10456	187565	19 47.5	+29 15	8.74	F8 V	var.		5	II
10465	187614	47.9	26 57	7.63	G8 III	var.		5	II
10499	187921	49.5	27 20	var.		var?		4	N, II
10509	188015	50.0	27 58	9.09	G5 IV	+ 2.6	0.7	4	
10528	188121	50.5	28 25	9.21	G0 IV	- 13.9	0.6	4	
10546	188259	19 51.2	+26 22	8.99	K1 III	- 26.9	1.4	4	
10548	188258	51.2	27 58	8.32	K2 III	- 35.3	1.1	4	
10582	188566	52.8	25 12	8.91	K2 III	- 9.5	2.2	5	
10601		53.3	29 51	9.36	K3 III	var.		5	II
10644		55.2	29 48	9.20	G0 V	- 9.6	2.7	4	
10646	189087	19 55.2	+29 41	8.73	K1 V	- 27.1	2.3	5	
10650	189108	55.4	28 34	7.83	G8 III	+ 10.2	1.0	5	
10668	189317	56.3	28 28	8.34	F6 V	- 35.4	1.7	4	
10704	189671	58.2	26 03	7.88	G8 II	- 20.9	0.3	4	
10713	189753	58.5	27 00	9.79	K4 II	- 8.0	1.0	4	
10724	189796	19 58.8	+29 41	8.46	G0 V	- 4.7	1.9	4	
10731	189884	59.2	27 03	8.90	K2 III	- 10.2	0.7	4	
10742	189943	59.5	30 05	8.70	G5 III	+ 17.6	1.6	4	
10753		59.9	29 45	9.45	F5 Ib	- 3.3	1.4	4	
10771	190228	20 00.9	28 10	8.36	G5 IV	- 48.7	0.4	4	
10799	190470	20 02.1	+25 39	9.04	K3 V	- 6.6	2.1	4	
10813		02.7	26 20	9.23	G0 V	- 43.8	2.5	4	
10814	190605	02.8	25 55	8.50	G2 V	+ 22.0	2.3	4	
10818	190630	02.8	30 22	9.39	K2 III	+ 16.5	1.1	4	
10831	190749	03.5	29 44	9.59	K1 III	+ 0.6	2.0	4	
10833	190787	20 03.7	+27 59	9.78	M III	+ 17.9	1.4	4	
10837		03.8	29 37	9.72	F6 V	var?		5	II
10838		03.9	29 37	9.20	K3 III	- 10.0	1.8	4	
10843	190885	04.1	27 59	9.84	K3 III	- 36.2	2.0	4	
10844		04.1	28 46	9.54	G0 V	- 16.3	1.4	4	
10850	191010	20 04.7	+25 32	9.42	G5 Ib	+ 21.9	1.1	4	
10899	191445	06.9	28 32	9.93	K3 III	+ 39.0	1.7	4	
10924	191590	07.7	29 35	9.28	K2 III	0.0	2.2	5	
10925	191615	07.8	25 23	9.09	K0 III	- 94.0	0.7	4	III
10961	191875	09.0	29 33	9.84	K3 III	- 25.0	2.0	4	
10962	191898	20 09.2	+25 59	9.56	G0 V	+ 11.4	2.3	4	
10971	191945	09.4	29 01	9.36	M0 III	- 17.4	1.4	4	
11011	192287	11.2	25 05	9.49	M III	- 7.3	2.6	5	
11012	192286	11.0	30 20	9.37	G8 III	- 75.9	0.8	4	
11015	192405	11.6	27 23	8.73	F7 V	- 24.3	1.7	4	

TABLE I - continued

A.G.	H.D.	R.A. (1950)	Dec. (1950)	Ptg. Mag.	Class	Velocity (km./sec)	P.E.	Pl.	Ref.
11036		20 12.7	+26 38	9.46	G5 III	- 23.1	1.9	4	
11053	192732	13.3	29 52	9.18	K0 III	- 11.1	2.8	4	
11072	192892	14.3	26 20	8.55	G9 III	- 17.1	1.2	4	
11086	193011	14.9	29 57	9.70	K1 III	- 29.9	1.1	4	
11110	193221	16.1	25 21	9.13	K2 III	- 11.4	1.6	4	N
11122	193347	20 16.7	+26 50	8.80	M2 III	- 36.7	1.2	4	
11140	193488	17.5	27 16	8.85	F6 IV	+ 10.3	3.4	5	N
11216	194071	20.5	28 05	9.06	G8 III	- 12.8	0.3	4	
11233		21.2	28 38	9.67	K1 III	+ 53.2	1.0	4	III
11254	194403	22.5	25 45	9.71	K3 III	- 2.8	2.8	4	
11271	194510	20 23.1	+25 33	8.90	F7 IV	+ 0.6	2.2	5	
11273	194525	23.0	30 24	9.04	G0 III	- 38.6	2.0	4	
11332		25.5	27 53	10.19	G8 III	- 14.7	1.9	4	N
11368	195216	26.9	27 41	9.95	K5 III	- 46.0	2.4	4	
11384	195273	27.4	26 46	8.85	K1 III	- 31.6	2.1	4	
11420		20 28.7	+27 47	9.66	K2 III	- 17.4	2.1	4	
11424	195509	28.8	26 31	8.58	K0 III	+ 2.7	1.9	4	
11440	195667	29.7	26 53	9.45	K3 III	+ 17.9	1.1	4	
11447	195712	29.9	26 54	9.45	K0 III	+ 7.8	1.7	4	
11453	195790	30.3	27 21	9.28	G8 III	+ 8.9	1.0	4	
11456	195834	20 30.6	+28 53	9.99	K3 II	- 3.5	1.2	4	
11470	195967	31.3	29 21	9.41	K2 III	+ 26.7	2.7	4	
11471		31.5	25 40	9.32	G8 III	+ 10.4	2.6	4	
11480	196034	31.8	25 27	9.82	K3 III	- 31.7	1.1	4	
11519		34.3	26 13	10.06	K1 III	- 55.9	0.5	4	
11525	196448	20 34.4	+29 02	9.60	G0 V	+ 4.6	1.1	4	
11546		35.5	30 00	9.31	G0 V	+ 21.5	1.9	4	
11571		36.8	26 31	9.74	G8 V	+ 3.9	0.8	4	
11573	196866	37.2	25 54	8.70	K2 III	- 76.5	1.0	4	
11579		37.4	26 27	10.21	K2 III	- 3.6	0.7	4	
11581	196928	20 37.4	+27 55	9.64	K4 III	- 17.9	2.6	5	
11584	196940	37.5	26 08	9.56	G8 III	- 6.0	2.4	4	
11598	197020	38.1	25 52	9.57	G0 V	- 6.1	1.6	4	
11623	197207	39.2	30 01	8.99	G5 V	- 52.5	0.5	4	N
11625	197227	39.3	29 09	8.73	F7 IV	+ 16.3	1.5	4	
11630	197264	20 39.6	+26 56	9.85	K0 III	- 0.9	1.8	4	
11631	197263	39.6	28 05	8.99	G0 V	- 2.4	1.7	4	
11648	197395	40.4	30 05	9.53	K2 III	- 7.6	1.3	4	
11661	197515	41.3	25 25	9.43	K5 III	- 46.8	0.6	4	
11662	197514	41.2	27 04	9.60	M III	- 19.2	1.7	4	
11663	197550	20 41.3	+30 02	9.81	K0 III	+ 9.8	1.4	4	
11668	197605	41.8	27 16	9.25	F5 II	- 13.7	0.9	4	
11755	198198	45.7	29 27	9.27	G8 III	+ 16.0	2.1	4	
11765	198238	46.1	26 13	9.90*	K5 III	+ 23.2	1.3	4	N
11767	198254	46.1	28 21	9.62	K1 III	- 15.0	3.0	4	

TABLE I - continued

A.G.	H.D.	R.A. (1950)	Dec. (1950)	Ptg. Mag.	Class	Velocity (km./sec)	P.E.	Pl.	Ref.
11779	198313	20 46.5	+28 37	9.31	K1 IV	- 63.4	1.9	4	
11808	198483	47.6	25 35	8.55	G0 V	- 14.6	1.7	4	
11809	198482	47.5	30 28	9.54	K2 III	+ 15.8	2.2	4	
11814	198526	47.9	28 48	9.91	K1 III	- 0.9	1.1	4	
11817	198550	48.1	29 12	9.81	K5 V	- 13.3	1.0	4	
11823		20 48.4	+28 31	9.67	K0 III	- 7.2	1.8	4	
11855	198821	50.0	28 40	9.47	K2 III	- 23.0	1.4	4	
11919	199375	53.9	27 23	8.03	K2 III	- 12.8	1.6	6	
11923	199440	54.2	27 19	9.67	K1 III	- 45.1	0.9	4	
11941	199598	55.5	26 13	7.66	G0 V	- 27.1	1.3	4	
11958	199717	20 56.0	+29 05	9.57	K0 III	- 23.8	2.0	4	
11965	199763	56.2	30 12	7.67	G9 III	var?		5	II
11970		56.3	30 26	9.93	G0 IV	- 26.6	0.8	4	
11990		57.8	29 05	9.75	F8 V	- 2.2	2.3	4	
12015		59.6	27 03	9.77	G0 IV-V	- 9.0	2.1	5	
12031	200391	21 00.3	+27 37	9.11	G0 III	var.		54	II
12032	200425	00.4	25 58	8.42	F8 V	- 24.9	1.1	4	
12035	200451	00.5	26 19	9.49	K5 III	- 29.7	1.9	4	
12042	200491	00.8	28 47	8.96	G8 III	- 5.2	0.4	4	
12050	200546	01.2	27 08	9.58	M2 III	- 18.0	1.3	4	
12059	200578	21 01.4	+28 54	8.05	G8 III	- 25.0	0.5	4	
12069	200679	01.9	26 09	9.76	K1 III	- 16.3	1.5	4	
12130	201094	04.5	26 21	9.94	K2 II	+ 3.8	1.1	4	
12135		04.7	30 15	9.92	K0 III	- 21.3	1.9	4	
12158		05.6	30 10	9.38	G0 V	- 12.7	1.8	4	
12166	201346	21 06.0	+28 25	9.46	K1 IV	- 71.0	2.0	5	
12185	201490	07.0	30 10	8.57	F7 V	+ 1.0	0.8	4	
12199	201626	07.8	26 25	9.53	pec.	-150.8	0.7	15	N, III
12205	201669	08.1	27 06	8.94	G8 III	+ 5.9	0.3	4	
12228	201860	09.4	26 08	9.48	G0 V	- 36.2	1.2	4	
12281	202365	21 12.4	+27 57	9.01	K0 III	- 10.8	2.9	4	
12296	202521	13.4	27 48	9.13	K2 III	+ 15.5	0.7	4	
12298	202573	13.7	25 14	8.16	G5 V :	- 28.4	0.9	4	
12352	203030	16.8	26 01	7.30	G8 V	- 12.9	1.9	4	
12372	203171	17.6	27 18	9.02	G0 V	- 17.9	1.4	4	
12381	203288	21 18.4	+26 02	9.38	K5 III	+ 16.7	2.0	4	
12385		18.5	29 55	9.62	K1 III	- 47.1	0.6	4	
12398		19.0	30 04	9.77	K2 III	- 7.4	2.9	5	
12402	203471	19.4	28 21	9.38	G5 V	+ 18.9	2.2	4	
12426		20.5	30 28	9.53	K0 III	- 1.8	0.8	5	
12442	203733	21 21.1	+29 36	9.08	K1 III	- 46.7	1.4	4	
12483	204079	23.3	27 00	9.43	K1 V	- 30.9	1.5	4	
12514	204388	25.3	27 39	9.58	K5 III	- 24.7	0.6	4	
12538	204539	26.5	26 12	9.21	K3 III	- 44.8	0.7	4	
12539	204540	26.5	25 42	8.44	K2 III	- 23.7	0.5	5	

TABLE I - continued

A.G.	H.D.	R.A. (1950)	Dec. (1950)	Ptg. Mag.	Class	Velocity (km./sec)	P.E.	Pl.	Ref.
12553	204642	21 27.1	+28 22	8.14	K2 III	+ 19.9	0.4	4	
12554	204658	27.2	28 39	9.42	G0 V	var?		5	II
12566	204711	27.6	25 36	9.68	K2 III	- 15.8	1.6	4	
12592	204923	28.9	25 50	9.89	K3 III	- 23.0	2.0	4	
12596	204934	29.0	28 09	9.64	K1 III	+ 2.5	0.3	4	
12598	204921	21 29.0	+30 03	9.18	K2 III	- 25.7	2.0	4	
12643	205287	31.4	27 23	9.98	K5 III	- 41.7	0.8	4	
12644	205316	31.6	25 40	9.61	K0 III	- 17.2	1.5	4	
12677		33.1	27 48	9.52	G0 V	- 21.1	1.0	4	
12691	205626	33.7	26 09	9.95*	F8 V	- 2.7	1.1	4	
12692	205627	21 33.7	+26 09	9.98*	F8 V	- 8.7	1.6	4	
12704	205700	34.2	29 19	8.78	F5 V	- 7.5	1.9	5	
12707		34.5	29 27	9.36	G8 III	+ 0.3	2.6	5	
12709	205760	34.7	25 23	9.84	K1 III	- 10.6	1.7	4	
12781	206332	38.5	28 32	8.24	G0 V	- 42.8	0.8	4	
12786	206374	21 38.8	+26 31	8.51	G8 V	- 41.1	1.2	4	
12787	206373	38.8	29 07	9.08	G0 V	- 91.8	1.7	4	III
12789	206385	38.8	30 04	9.12	K5 III	+ 13.2	1.6	4	
12834		41.9	26 17	9.36	G2 V	- 45.2	1.2	4	
12842	206889	42.2	29 02	8.56	K1 III	- 8.1	0.8	4	
12846	206899	21 42.2	+30 05	10.00	K5 III	+ 5.1	2.1	4	
12854	206978	42.9	30 11	9.65	G0 IV	- 12.5	1.9	4	
12856	206979	43.0	29 00	9.41	K2 III	- 73.4	1.4	4	
12885	207243	44.7	29 52	9.62	K0 III	+ 11.9	1.9	4	
12902	207379	45.6	29 30	9.12	K1 III	- 4.2	2.0	5	
12915	207470	21 46.3	+28 29	9.58	G8 III	- 0.9	1.9	4	
12947	207740	48.4	28 32	8.96	G5 V	+ 8.5	1.3	4	
12985	208277	52.3	30 00	9.52	G5 III	var.		5	II
12998	208379	53.2	25 42	9.41	G0 V	var?		5	II
13000	208415	53.2	30 35	9.04	K0 III	- 0.2	1.5	4	
13008	208457	21 53.6	+26 10	9.29	G0 IV	- 3.6	2.2	4	
13020		54.1	26 13	9.64	G5 V	- 33.1	1.8	4	
13032	208641	54.9	27 45	9.61	G0 III	+ 1.4	2.1	4	
13037	208658	55.0	28 35	9.47	K1 III	+ 15.1	1.1	5	
13039		55.2	28 42	9.76	G5 V :	- 16.8	0.9	4	
13040	208700	21 55.2	+29 04	8.84	K3 III	- 13.1	0.5	4	
13047	208750	55.6	26 59	9.58	G0 IV	- 63.6	4.0	5	
13070		57.0	28 24	9.76	G0 V	- 35.5	1.8	4	
13072	208951	57.0	30 18	9.24	K2 III	- 20.7	0.3	4	
13076	208987	57.2	29 39	9.94	K5 III	var?		5	II
13135	209457	22 00.7	+29 27	10.21	K5 III	- 7.3	2.2	5	
13140	209500	01.1	29 30	9.92	K5 III	+ 15.9	0.9	4	
13144	209543	01.3	26 42	9.49	K0 III	- 5.9	0.9	4	
13147	209598	01.7	28 06	var.	M III	- 19.4	0.8	4	N
13157	209680	02.3	29 43	10.26	K5 III	- 5.6	1.8	6	

TABLE I - continued

A.G.	H.D.	R.A. (1950)	Dec. (1950)	Ptg. Mag.	Class	Velocity (km./sec.)	P.E.	Pl.	Ref.
13167		22 02.9	+25 25	9.71	F8 V	- 4.8	2.8	6	
13169	209745	02.9	29 37	9.38	F8 V	- 21.8	0.8	4	
13179	209858	03.6	27 44	8.59	F8 V	+ 0.6	1.5	6	
13188	209994	04.5	28 04	9.94	K0 III	+ 10.5	1.0	4	
13192	210026	04.7	26 23	8.79	K1 III	+ 14.0	0.8	4	
13194		22 04.8	+26 48	10.08	K5 III	- 21.5	1.6	8	
13246		08.6	25 34	9.93	K3 III	- 2.0	2.4	4	
13250	210608	08.7	29 24	9.87	K0 III	+ 8.5	1.6	4	
13262	210685	09.3	27 01	9.52	K1 III	+ 18.3	1.3	4	
13271	210789	10.1	25 14	9.52	K2 III	- 43.8	0.6	4	
13283	210925	22 10.9	+25 42	8.05	K0 III	- 62.4	1.3	6	
13325	211407	14.0	26 01	9.49	K0 III	+ 5.4	0.5	4	
13331	211460	14.4	28 55	9.02	G8 III	var.		5	II
13340	211555	15.1	26 08	8.62	K0 III	- 23.4	0.3	4	
13344	211606	15.5	26 41	8.90	K5 II	- 8.3	1.0	4	
13366	211884	22 17.6	+25 28	9.46	K5 III	- 23.8	2.6	5	
13391	212280	20.3	30 06	8.59	G0 IV	var.		4	N, II
13393	212289	20.4	30 30	9.49*	K1 II	+ 5.0	1.4	4	
13422	212567	22.5	28 26	9.68	K0 III	- 19.3	1.7	6	
13439	212750	23.8	28 16	8.57	K1 III	+ 1.4	0.3	4	
13466b	213025	22 25.8	+26 46	7.92	G8 III	- 39.7	1.7	5	
13477	213177	26.7	29 32	9.17	K0 II	- 2.3	0.6	4	
13479	213178	26.8	28 46	8.75	K1 III	- 7.5	0.8	4	
13518		30.0	25 20	9.50	G8 II	var.		5	II
13532	213803	31.3	29 20	9.34	K0 III	+ 13.2	1.6	4	
13540	213857	22 31.7	+29 29	9.58	K0 III	- 39.0	1.1	5	
13547	213947	32.3	26 20	8.93	K4 III	+ 20.0	0.4	4	
13552	213992	32.5	29 42	8.67	K3 III	+ 7.7	1.6	4	
13555	214023	32.7	30 33	9.20	K3 III	- 38.0	1.4	4	
13568		33.4	29 51	9.44	G8 III	var?		7	II
13570	214202	22 33.9	+29 29	9.63	G8 III	- 1.8	2.8	4	
13575	214265	34.3	27 31	8.49	K0 III	- 17.7	0.3	4	
13583	214332	34.6	29 29	9.32	G8 III	- 12.3	2.6	5	
13592	214434	35.6	26 10	9.17	K2 II	- 1.4	2.1	5	
13596	214458	35.6	29 40	8.72	K2 III	- 41.6	0.7	4	
13639		22 39.1	+29 47	9.92	K3 III	- 37.7	1.8	4	
13664	215274	41.3	29 50	8.91	G5 V	- 11.6	0.8	4	
13675	215360	41.9	29 21	9.58	M III	- 64.6	1.4	4	
13705	215732	44.6	29 39	9.27	K3 III	+ 0.5	1.0	4	
13715	215944	46.1	27 51	9.00	F8 V	+ 3.4	0.8	4	
13716	215956	22 46.2	28 28	9.10	G0 V	- 17.4	1.6	5	
13748	216331	49.4	29 47	8.75	G5 II	- 9.8	1.1	4	
13758	216465	50.4	29 11	8.81	F5 V	0.0	1.3	5	
13760	216502	50.8	26 43	8.86	K2 III	- 9.8	1.0	4	
13769	216586	51.4	28 22	8.84	K1 III	- 50.4	1.4	4	

TABLE I - continued

A.G.	H.D.	R.A. (1950)	Dec. (1950)	Ptg. Mag.	Class	Velocity (km./sec)	P.E.	Pl.	Ref.
13772	216632	22 51.8	+27 45	8.29	F8 V	- 17.7	1.4	4	
13777	216685	52.2	29 06	9.30	F8 V	- 9.2	1.0	4	
13780	216723	52.5	27 45	8.36	G8 III	- 15.2	0.5	6	
13813	217230	56.5	27 14	9.14	G8 III	+ 17.8	0.7	4	
13821		57.1	29 49	10.21	G5 V	var?		4	II
13839	217576	22 59.0	+28 26	9.24	K0 III	var.		6	II
13850		23 00.3	28 56	9.60	G2 V	+ 3.1	3.2	5	
13862		01.8	28 34	9.42	G2 V	var?		5	II
13863		01.9	27 33	9.82	G0 IV	- 37.6	1.5	4	
13870	218113	02.7	27 56	9.64	K5 III	- 20.8	2.5	6	
13876	218153	23 03.1	+25 44	9.07	G8 II	- 80.5	1.1	5	III
13877	218170	03.1	28 43	9.18	M2 III	- 56.4	1.4	4	
13879	218199	03.3	30 27	9.43	K1 II	- 6.0	0.4	4	
13894	218356	04.7	25 12	6.53	K1 II-III	- 25.3	1.1	4	N
13901	218454	05.4	30 10	9.03	K4 II	- 19.2	0.6	4	
13910		23 05.9	+30 11	9.30	G8 III	- 6.9	0.9	4	
13919	218610	06.7	26 39	9.34	K2 III	- 3.3	1.5	7	
13923	218660	07.1	29 24	8.10	K2 III	+ 11.2	0.9	5	
13940	218880	08.8	29 46	8.30	K0 III	+ 41.9	1.0	4	
13990b	219418	12.9	25 24	9.52	G5 III	+ 39.6	0.7	5	
13996	219538	23 13.8	+30 24	9.04	K2 V	+ 10.0	1.6	4	
14006	219654	14.9	29 36	9.32	M1 III	+ 3.3	1.6	6	
14015	219736	15.5	30 11	8.41	K2 III	- 3.8	1.3	7	
14021	219800	16.0	27 20	8.29	K0 III	var.		5	II
14059	220286	19.9	29 10	9.28	G0 IV	- 16.1	1.0	5	
14060	220288	23 20.0	+25 39	8.38	K3 III	+ 25.8	1.8	4	
14084	220684	23.1	25 55	9.26	G8 III	+ 0.1	2.3	7	
14120	221133	26.9	25 32	9.26	K2 III	- 22.9	1.4	4	
14121	221170	27.0	30 09	9.04	G0 V	-119.8	3.0	4	III
14136b	221364	29.0	28 23	7.02	K0 III	- 4.0	1.2	4	
14142	221469	23 29.8	+26 17	8.98	F8 IV-V	- 14.8	0.6	5	
14144	221478	30.0	26 15	9.18	G8 II-III	+ 22.0	2.0	4	
14180	222033	34.6	30 24	8.02*	G0 V	- 12.6	0.8	4	
14185		34.8	25 30	9.97	G8 III	- 11.8	2.1	5	
14190		36.3	25 40	9.76	K1 III	- 4.6	0.9	4	
14195b	222317	23 37.0	+27 58	7.95	G5 V	var.		6	II
14201b	222390	37.5	27 14	8.00	K1 III	- 11.4	1.0	4	
14203	222391	37.5	26 31	8.34	G0 III	- 2.1	0.5	4	
14232		41.3	30 27	9.70*	G0 V	+ 6.4	2.1	4	
14255	223019	43.2	26 04	9.40	K3 III	- 11.2	1.0	4	
14261	223094	23 43.9	+28 26	8.97	K5 III	+ 20.8	0.5	4	
14267	223138	44.3	28 09	8.55	M III	- 1.7	0.9	4	
14276	223211	45.0	25 18	7.3	K3 III	- 18.3	0.6	4	
14279	223231	45.1	26 54	9.69	K2 II	- 6.3	1.6	4	
14292	223332	46.1	28 06	9.06	K5 II	+ 11.8	0.8	4	

TABLE I - continued

A.G.	H.D.	R.A. (1950)	Dec. (1950)	Ptg. Mag.	Class	Velocity (km./sec)	P.E.	Pl.	Ref.
14301	223424	23 46.8	+26 45	9.01	K0 III	+ 4.8	2.7	6	
14333	223869	50.6	25 43	8.67	K1 III	+ 16.7	1.7	4	
14346	224085	52.5	28 21	8.71	K2 III	var.		7	N, II
14376	224458	55.5	29 42	9.52	G8 III	- 55.2	1.0	6	
14406	224882	58.9	30 27	8.44	G0 IV	- 14.5	1.1	5	
14407	224895	23 59.0	+28 09	8.16	K2 III	- 11.4	1.7	4	

NOTES TO TABLE I

A.G. 2298 The spectrum is composite; the hydrogen lines of the A-type spectrum are very broad as are also some of the metallic lines. The velocity refers to the F-type spectrum.

A.G. 3518 CN λ4215 is weak as in the spectra of high-velocity stars.

A.G. 3918 The spectrum has been reported as composite (Ap. J., vol. 112, p. 48, 1950). It is apparent on our plates.

A.G. 4671 Refers to south preceding component of H. D. 74348.

A.G. 4875 The star has a very close fainter companion.

A.G. 6501 The lines are very diffuse.

A.G. 6821 RX Boo. Hydrogen emission lines.

A.G. 6861 The lines are diffuse. The strength of the hydrogen lines suggests type F0 and the strength of λ4077 suggests brighter than class V. Other features are contradictory and vary from one plate to another.

A.G. 10077 The hydrogen lines and the lines near λ4250 indicate F0 type or earlier. The iron lines, λ4227 and the G band indicate F6.

A.G. 10175 Ca II emission appears on one plate. The plates are poor and there is uncertainty about the luminosity.

A.G. 10499 SV Vul, a known Cepheid. The classification from our plates ranges from F8 Ib to G5 Ib.

A.G. 11110 Two plates give K2 III; a third gives G8 III.

A.G. 11140 One plate gives luminosity II.

A.G. 11332 The south preceding component of a pair.

A.G. 11623 The south following component of a pair.

A.G. 11765 ADS 14315. The data refer to the brighter component.

A.G. 12199 A CH star. (See Jour. Roy. Astr. Soc. Can., vol. 47, p. 65, 1953).

A.G. 13147 TW Peg.

A.G. 13391 One plate shows double lines.

A.G. 13894 56 Peg. Ca II emission and strong hydrogen lines have been recognized. (See L. O. B., vol. 6, p. 149, 1911).

A.G. 14346 A known spectrographic binary with Ca II emission and weak hydrogen lines. (See Jour. Roy. Astr. Soc. Can., vol. 46, p. 103, 1952).

Column 7 gives the mean radial velocities. When the designation "var." appears, it means that the data strongly suggest variable velocity; "var?" means that variable velocity is less strongly suggested. Assignment of these classifications has been made on the basis of a statistical treatment of the data as described earlier. For both "var." and "var?" stars, no mean velocities are given, but the individual velocities are listed in Table II.

Column 8 gives the probable errors of the mean velocities derived from the individual plate velocities in the usual manner.

Notwithstanding the remarks made with reference to column 7, one can expect that a number of the stars with probable errors in excess of 2 km./sec. are variable in velocity; but it is not possible to say which ones with any degree of confidence.

Column 9 gives the numbers of plates used for the velocity determination.

Column 10 refers to inclusion in a series of notes following the table (N) or to inclusion in Table II (II) or in Table III (III).

Stars with Variable Velocity (Table II)

In Table II are listed the individual velocities, along with the Julian Days of the observations, of those stars which, on the basis of the statistical criteria mentioned earlier, have been listed in Table I as having certain or almost certain velocity variations (var.) or as having less strongly suggested variations (var?). There are 43 of the former and 31 of the latter. In two instances where many observations are at hand and an orbit will be published soon, the individual velocities are not listed.

High-Velocity Stars (Table III)

On the basis of radial-velocity data alone, it is possible to classify a number of the stars as high-velocity stars. Table III lists all the programme stars, 31 in number, for which the radial velocities, after correction for solar motion (Apex 18h, +30°; velocity 20 km./sec.), exceed 65 km./sec. Sixteen of these stars (marked *R*) have been listed by Miss Roman in her recent *Catalogue of High Velocity Stars* (1955).

Earlier Publication of Some of the Radial Velocities

Radial velocities of 223 of the stars included in this report were reported in 1950, when the data were less complete, to R. E. Wilson and were included by him in his *General Catalogue of Stellar Radial Velocities* (1953). The velocities given in Table I differ in a number of cases by one or two km./sec. from the velocities reported in

Wilson's *Catalogue*, either because of the effect of subsequent observations or by virtue of different weighting. Aside from these small differences, the corrections to Wilson's *Catalogue* are as follows.

The following stars, reported as spectroscopic binaries in Wilson's *Catalogue* are now, as a result of more careful analysis, believed to have constant velocity: A.G. 366, 382, 444, 647, 714, 983, 2157, 2714, 2845, 3240, 4051, 6808, 6983, 7155, 7468, 7989, 9629, 13283, 13870, 13918, 14015, 14060, 14084.

A.G. 628 reported in Wilson's *Catalogue* as having constant velocity is now believed to be probably variable in velocity.

The velocity assigned to star number 14428 in Wilson's *Catalogue* (B.D. 29° 4828) really belongs to A.G. 13821 (B.D. 29° 4830).

Acknowledgments

As well as to those whose names appear in this report, the writer wishes to offer sincere thanks to the members of the Observatory staff for the many hours of observing, measuring and computing which have been put into this work over the past ten years. Thanks are also due to Dr. W. W. Morgan of the Yerkes Observatory and to Dr. Nancy Roman of the U.S. Naval Research Laboratory for advice in the matter of spectral classification.

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Richmond Hill, Ontario,
June 5, 1956.

TABLE II

STARS WITH VARIABLE RADIAL VELOCITY

Star A.G.	Julian Day (243 ....)	Velocity (km./sec.)	Star A.G.	Julian Day (243 ....)	Velocity (km./sec.)
14436	2066.801	+ 1.9	1301	2568.531	− 2.4
	2422.814	+13.6		2895.612	+ 6.4
	3186.752	+21.9		3159.893	+18.3
	3197.722	+14.8		3325.562	+ 7.5
	3515.875	+18.6		3581.790	+14.5
	3542.761	+14.9		3710.538	−42.9
188	2780.829	−23.8	1584	17 plates. Double lines	
	2850.639	− 6.8		An orbit will be computed	
	3151.834	−27.1			
	3189.704	− 0.4	1758	2112.805	−44.2
	3554.744	−19.4		2453.891	−87.7
	3576.674	−23.0		2467.858	−52.6
230	2772.854	−27.1		2591.510	− 4.6
	2823.720	−22.2		3554.897	+61.1
	3169.772	− 0.3		3587.785	+58.5
	3228.622	− 0.9	2344	2120.862	− 7.2
	3568.686	−25.9		2129.853	−20.5
	3608.597	−21.9		2883.751	− 5.8
	4041.527	− 6.0		3008.546	− 9.9
434	2784.844	−11.1		3575.900	+ 1.6
	2823.741	−13.7	3194	2839.944	+ 6.6
	2826.745	−22.4		3229.837	+11.2
	3181.790	−17.2		3316.652	−20.1
	3571.697	+ 5.3		3352.528	+ 6.8
	4651.803	−19.8		3710.611	+30.6
628	2529.567	− 3.5		4667.710	+ 4.3
	2804.822	− 7.8	3204	2140.842	+ 5.5
	3162.850	− 4.6		2203.694	+ 1.2
	3175.778	−20.2		2461.935	+24.4
	3584.717	−29.6		2143.847	+ 1.8
	3940.772	−42.3		3315.716	+11.4
	4651.856	−30.4			
706	2491.673	−14.2	3471	3603.868	+102.0
	2806.819	−45.8		3935.937	+84.2
	2823.760	−57.6		3937.881	+48.7
	2828.742	−54.6		3955.866	+54.5
	2841.710	−53.2		4668.745	+41.7
	3570.729	−24.4		4676.776	+63.9
	3960.682	−14.6			
	4652.715	−15.5	3918	2144.895	− 0.8
				2639.546	+46.6
1192b	2079.853	+ 7.6		4311.955	+ 0.1
	2203.525	+19.7		4347.711	+ 0.5
	2429.836	+16.0		4391.844	− 0.4
	3197.846	+17.4		4394.802	+23.7
	3556.831	+30.6		4501.587	+22.8

Star A.G.	Julian Day (243 ....)	Velocity (km./sec.)	Star A.G.	Julian Day (243 ....)	Velocity (km./sec.)
3980b	2169.822	+32.8	5145	2615.718	− 0.1
	2283.562	+19.2		3687.765	− 9.0
	3644.776	+19.7		4785.835	−28.5
	4062.600	+36.3		4818.601	−12.7
4209	2203.781	−24.8	5179	2391.836	+83.9
	4080.606	−27.6		3035.556	+101.9
	4132.555	− 1.4		4719.958	−17.0
	4133.556	−26.7		4813.699	− 6.9
	4833.615	−14.2			
			5229	2639.670	+ 6.2
4384b	2139.822	+ 1.9		3015.630	−23.0
	2165.870	+18.3		4792.783	− 0.4
	2202.760	+17.5		4828.606	− 9.2
	2257.641	+14.9		4833.702	− 3.9
	3320.730	+28.9			
	4736.664	+26.9	5254	2989.676	−34.3
				3344.767	−17.3
4451	2644.556	−38.8		3398.625	−10.1
	3664.750	−38.3		4134.625	−31.0
	4668.879	−25.8		4434.578	−50.7
	4746.658	−54.0			
4526	2624.614	+34.1	5355	3693.788	+23.7
	2982.622	+45.2		3743.645	− 7.1
	3681.751	+64.8		4813.841	−16.4
	4750.633	+22.6		4819.769	−16.8
	4791.527	− 4.1		4841.634	−20.6
4632	2888.900	−30.2	5356	2672.561	−24.4
	2968.681	−23.5		2675.580	−16.5
	4765.676	−49.3		3771.572	+ 5.0
	4791.733	−26.8		4132.708	−20.6
				4844.576	−27.8
4702	2587.765	− 3.2			
	3281.833	+ 2.6	5591	2275.688	−12.6
	4699.965	− 2.6		3322.847	+16.9
	4777.608	+25.3		4755.849	−13.0
				4828.757	+33.2
4834	2899.917	+27.2		4833.739	−33.6
	4099.630	+ 6.3			
	4771.837	+ 1.0	5922	3010.700	−32.1
	4793.644	+11.8		3692.882	−29.2
				3775.638	−16.7
5038	2888.921	+18.6		4165.710	+ 0.4
	2977.727	− 3.2		4557.624	−21.5
	4705.920	+35.7		4796.803	−42.7
	4800.647	−16.2			
	4841.556	+13.4			
			6134	3011.716	−33.0
5059	2573.819	+42.9		3381.729	−18.0
	2974.726	−13.3		4080.817	−14.9
	3763.597	+20.0		4186.604	− 6.4
	4809.794	−34.4		4755.926	−30.8

Star A.G.	Julian Day (243 ....)	Velocity (km./sec.)	Star A.G.	Julian Day (243 ....)	Velocity (km./sec.)
6313	2275.783	− 5.5	7106	2369.650	−30.3
	3037.681	−16.6		2994.869	+ 2.0
	3779.649	+ 9.3		3057.703	−41.2
	4132.674	+ 9.4		3080.640	−22.0
	4188.679	− 7.6		3434.694	−20.0
				4126.804	−40.0
6478	3036.700	+15.9			
	3425.638	+30.7	7181	2303.793	− 0.4
	4086.851	+ 3.0		2718.644	−21.6
	4198.668	− 6.1		3061.710	−21.7
	4226.592	+ 1.1		3423.724	− 0.7
				3490.608	−16.2
6501	3053.652	−42.6		4111.846	+ 9.2
	3393.762	− 6.8		4482.803	− 9.9
	4126.724	+16.2		4504.803	+ 5.7
	4228.592	+16.6		4525.713	−11.4
	4235.585	−14.3			
	4501.738	−31.8	7353	2737.624	−43.1
	4507.672	−53.2		3031.760	−26.8
				3079.671	−49.0
6618	2982.868	− 1.9		3413.785	− 9.3
	3028.727	−13.2		4569.673	−44.5
	3423.685	+36.5			
	4162.744	−24.2	7419	3015.865	− 9.3
	4210.622	−19.7		3057.757	+50.4
	4796.940	−14.2		3086.675	+11.2
				3757.829	−39.6
6694	2639.811	−19.2		3822.651	+12.4
	3033.734	−52.8		4819.928	−52.8
	3370.855	− 6.9			
	3718.866	+10.0	7444	2722.672	+ 8.2
	4195.712	−41.5		3053.747	−13.0
				3404.816	+18.5
6832	2720.606	+14.2		3409.804	+12.1
	3037.744	− 4.3		3821.654	+12.1
	3380.795	+22.2			
	3426.692	−16.0	7537	2712.717	+23.8
	3470.639	+10.6		3033.815	+36.9
	3490.583	+ 4.6		3061.746	+12.0
	4536.747	+ 3.4		3067.726	+21.0
6861	2703.682	−12.7			
	3028.776	+59.2	8077	2728.751	− 2.6
	3731.842	+13.2		3023.893	−17.9
	3757.770	+49.7		3044.839	+25.3
	4188.724	−23.3		3840.652	−19.7
				4218.688	−17.8
7079	2949.961	−18.1			
	2977.918	+ 2.5	8685	2760.665	−56.3
	3034.760	− 2.4		3136.587	−31.2
	3098.612	+ 5.2		3507.653	−32.7
	4565.667	+10.7		3772.875	+30.8
	4918.883	− 1.3		4303.521	+29.4

Star A.G.	Julian Day (243 ....)	Velocity (km./sec.)	Star A.G.	Julian Day (243 ....)	Velocity (km./sec.)
9472	2765.690	+13.0	12031	54 plates. Double lines. An orbit is being computed	
	3067.837	+14.1			
	4195.774	−10.2			
	4284.650	−19.4			
	4603.704	− 3.8	12554	2792.718	− 9.0
				3178.665	−18.4
9607	2347.796	+ 3.2		4209.824	−19.0
	3094.843	+12.5		4618.778	+ 2.9
	3098.758	− 2.9		4756.476	−39.7
	4173.849	−52.4			
	4513.856	+ 8.9	12985	2798.812	−13.2
				3121.307	+ 5.6
9675	2426.646	−19.2		3945.588	− 8.2
	2744.745	−18.6		3962.606	+21.2
	3833.753	−45.2		4610.781	+ 4.7
	4199.724	−34.4			
	4548.767	−35.0	12998	2793.698	−35.1
				3585.544	−11.7
10456	2765.740	−24.6		3945.615	−38.2
	3144.662	−31.0		3962.564	−11.3
	3571.509	− 1.9		4629.717	−20.6
	4567.786	−23.8			
	4636.545	−34.5	13076	2798.710	−46.6
				3202.610	−37.4
10465	2098.549	−10.5		3897.699	−20.3
	2262.844	− 5.8		3941.654	−23.8
	2480.991	− 6.0		4629.671	−21.7
	3515.670	−21.1			
	4583.741	− 7.1	13331	2066.757	−37.9
				2067.738	−37.6
10499	2790.660	− 4.9		2068.726	−33.3
	3150.639	−10.2		3509.746	−19.8
	4275.615	− 6.6		3857.865	−33.8
	4569.745	+15.7			
			13391	2390.838	+30.8
10601	2772.689	− 7.1		2748.855	+11.3
	2835.523	−13.4		3130.816	+ 4.7
	3154.582	+23.2		3883.795	−39.4, +40.3
	4225.755	−13.9			
	4582.788	+11.1	13518	2788.749	+ 5.7
				2864.538	− 4.6
10837	3141.785	−11.4		3150.751	+12.3
	4273.628	−39.8		3532.714	+30.4
	4583.769	−26.2		3919.709	+22.0
	4612.700	−12.6			
	4638.537	−22.3	13568	2779.781	+ 1.8
				2785.762	− 3.2
11965	2028.789	−55.3		2841.610	+ 8.9
	2066.690	−55.3		3555.683	+19.9
	2079.660	−57.4		3996.473	− 9.8
	3508.731	−44.8		4266.740	+18.6
	4699.494	−41.6		4277.694	+ 9.8

Star A.G.	Julian Day (243 ....)	Velocity (km./sec.)	Star A.G.	Julian Day (243 ....)	Velocity (km./sec.)
13821	4912.828	−15.6	14021	2454.739	−20.7
	4972.822	−43.1		3136.840	−45.8
	4974.819	−36.2		3199.685	−23.8
	5008.718	−20.0		3541.723	−20.3
				3955.626	−10.7
13839	2785.765	+ 0.8			
	3530.792	+24.9	14195b	2101.692	−18.9
	3532.743	+34.2		2109.711	−35.6
	3884.778	+ 9.7		3129.840	+32.6
	3970.615	+19.5		3190.702	+31.1
	4269.782	+ 0.3		3514.819	+20.2
				4659.578	− 0.9
13862	2765.838	+26.5			
	2820.685	+ 1.2	14346	2100.726	−46.7
	3170.716	+12.0		2873.563	−34.2
	3222.621	−12.0		3149.832	−37.5
	3982.549	+ 3.9		3199.728	− 5.4
				3507.878	−36.8
				3542.747	+ 3.3
				4266.702	−54.2

TABLE III

HIGH-VELOCITY STARS

A.G.	V* km./sec.	A.G.	V* km./sec.
486 *R*	−160.7	5055 *R*	+ 85.1
991	− 67.1	5122	+ 67.2
1264	− 68.4	5787	+ 89.6
1528	− 68.3	6838 *R*	−116.5
1572 *R*	+ 79.1	6848	− 69.4
2248 *R*	− 78.5	7956	− 66.7
2302 *R*	− 72.5	8135	+ 92.4
2845 *R*	+ 87.3	8975 *R*	−116.8
3146 *R*	−115.1	9797	− 65.6
3668 *R*	+ 84.4	10925 *R*	− 76.4
3866 *R*	+ 99.3	11233	+ 70.5
4051 *R*	−144.7	12199	−135.7
4194 *R*	+ 71.9	12787	− 78.0
4809	+ 82.4	13876	− 72.2
4814 *R*	+ 98.0	14121 *R*	−112.5
4930	+ 68.4		

*Radial velocity corrected for solar motion.
R Listed in Roman's *Catalogue of High-Velocity Stars*.