

## ICCD SPECKLE OBSERVATIONS OF BINARY STARS. XXIII. MEASUREMENTS DURING 1982–1997 FROM SIX TELESCOPES, WITH 14 NEW ORBITS

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### ABSTRACT

We present 2017 observations of 1286 binary stars, observed by means of speckle interferometry using six telescopes over a 15 year period from 1982 April to 1997 June. These measurements constitute the 23d installment in CHARA’s speckle program at 2 to 4 m class telescopes and include the second major collection of measurements from the Mount Wilson 100 inch (2.5 m) Hooker Telescope. Orbital elements are also presented for 14 systems, seven of which have had no previously published orbital analyses.

**Key words:** binaries: general — binaries: visual — techniques: interferometric

### 1. INTRODUCTION

This paper is the 23d in our current series of reports on a long-running effort to provide high-accuracy, high angular resolution measurements of binary star systems by speckle methods. The Center for High Angular Resolution Astronomy (CHARA) speckle camera has been used on numerous telescopes since its construction in 1981. Its primary “home” until 1993 was Arizona, where from 1982 to 1989 it was shuttled between Lowell Observatory and Kitt Peak National Observatory. Our main observing programs—close visual pairs, spectroscopic binaries, etc.—used observations obtained at the KPNO 3.8 m telescope; see Hartkopf et al. (1994) for the most recent major collection of these data. The 1.8 m Perkins Telescope at Lowell Observatory was used in a long-term planet search project;

see Al-Shukri et al. (1996) and Fu et al. (1997) for a description of this program. Other observing runs during this period at the 2.5 m Hooker Telescope at Mount Wilson Observatory, the 3.0 m Shane Telescope at Lick Observatory, and the 3.6 m Canada-France-Hawaii Telescope on Mauna Kea were aimed at studying the duplicity rate of potential *Hubble Space Telescope* guide stars (see McAlister et al. 1987b). Our observing program was extended to the southern hemisphere in a series of 10 observing runs at the Cerro Tololo Inter-American Observatory 4.0 m between 1989 April and 1996 March.

In 1993 December our speckle program found a new home at Mount Wilson Observatory, and since that time we have completed over 20 successful observing runs using the renovated 2.5 m Hooker Telescope. Paper XVII in this series (Hartkopf et al. 1997) describes the extensive renovation work done to this venerable instrument, as well as the equipment and method developed for use with the telescope to provide absolute scale calibration of our astrometry.

We present here 2017 measures obtained at these six telescopes during 60 observing runs between 1982 April and 1997 June. Table 1 lists all observing runs contributing observations to this paper, together with the resulting number of new measurements presented in Table 2. As can readily be seen, the number of new measurements resulting from each run varies wildly. Most of the observations obtained on runs through 1995 have already been published; the results presented here consist mainly of data originally considered too marginal in quality for publication, or data whose publication was delayed pending confirmation by later reobservation. The “marginal” data were reprocessed using better reduction techniques than were originally available (see Bagnuolo et al. 1992), resulting in measurements of much higher quality. Major

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TABLE 1  
OBSERVING RUNS

Tel. (m)	Dates	No. of Meas.	Observers	Tel. (m)		No. of Meas.
				Dates	Tel. (m)	
1982 Apr .....	1.8	1	W. I. H., H. A. M.	1989 Sep .....	3.8	20
1982 Jul .....	3.8	27	O. G. F., W. I. H., H. A. M.	1989 Dec .....	4.0	35
1982 Oct .....	3.8	13	O. G. F., H. A. M., H. R. Miller	1990 May .....	4.0	1
1983 Jan .....	3.8	26	O. G. F., W. I. H., H. A. M., H. R. Miller	1990 Sep .....	3.8	1
1983 Jun .....	3.8	31	O. G. F., B. J. Gaston, H. A. M., H. R. Miller	1990 Nov .....	4.0	1
1983 Sep .....	3.8	12	O. G. F., H. A. M.	1991 Sep .....	4.0	1
1984 Jan .....	3.8	42	O. G. F., H. A. M., J. W. Wilson	1991 Nov .....	3.8	3
1984 Mar .....	1.8	24	O. G. F.	1992 Apr .....	3.8	1
1984 Apr .....	1.8	8	O. G. F.	1993 Feb .....	4.0	279
1984 May .....	1.8	5	O. G. F., D. J. Hutter	1993 Mar .....	3.8	6
	3.8	64	O. G. F., D. J. Hutter	1994 Feb .....	2.5	2
	1.8	11	D. J. Hutter	1994 Mar .....	2.5	2
	3.8	35	O. G. F., D. J. Hutter, H. A. M.	1994 Apr .....	4.0	1
	1.8	6	O. G. F.	1994 Sep .....	3.8	188
	3.8	21	O. G. F., D. J. Hutter, W. S. Tsay	1994 Nov .....	3.6	10
	2.5	3	D. J. Hutter, H. A. M., M. M. Shara	1995 Feb .....	2.5	3
	1985 Apr .....	3.0	O. G. F., D. J. Hutter, M. M. Shara	1995 Apr .....	2.5	6
	1985 Jun .....	3.8	W. I. H., H. A. M., P. K. Lu, C. E. Worley	1995 Jun .....	2.5	2
	1985 Nov .....	3.8	O. G. F., W. I. H., P. K. Lu, H. A. M.	1995 Aug .....	2.5	4
	1986 May .....	3.8	O. G. F., W. I. H.	1995 Oct .....	2.5	7
	1986 Nov .....	3.8	O. G. F., W. I. H., J. R. Sowell	1995 Dec .....	2.5	3
	1987 Apr .....	3.8	O. G. F., W. I. H., H. A. M.	1996 Mar .....	4.0	63
	1987 Jul .....	1.8	E. G. Dombrowski, O. G. F.	1996 Apr .....	2.5	37
	1987 Oct .....	3.8	E. G. Dombrowski, O. G. F., W. I. H.	1996 Jun .....	2.5	47
	1988 Apr .....	3.8	E. G. Dombrowski, O. G. F., J. R. Sowell	1996 Jul .....	2.5	195
	1988 Aug .....	3.8	D. J. Barry, O. G. F., H. A. M.	1996 Sep .....	2.5	115
	1988 Nov .....	1.8	D. J. Barry, O. G. F., J. R. Sowell	1996 Nov .....	2.5	159
	1989 Mar .....	3.8	O. G. F., W. I. H., H. A. M.	1997 Feb .....	2.5	135
	1989 Apr .....	4.0	O. G. F., W. I. H., H. A. M.	1997 Apr .....	2.5	4
	1989 Aug .....	1.8	E. G. Dombrowski	1997 Jun .....	2.5	1

Note.—Telescopes: CFHT 3.6 m, CTIO 4.0 m, KPNO 3.8 m, Lick 3.0 m, Lowell 1.8 m, Mount Wilson 2.5 m.

TABLE 2  
SPECKLE MEASURES

Star Name Date (BY)	Discov. Desig. $\theta$ (deg)	HD/DM $\rho$ (arcsec)	WDS Filter, Tel.	Star Name Date (BY)	Discov. Desig. $\theta$ (deg)	HD/DM $\rho$ (arcsec)	WDS Filter, Tel.
ADS 17175	Bu 733 AB	HD 224930	00022+2705	ADS 493	Stt 15	HD 3210-11	00358+4901
1987.7568	323.6	0.445	549/22 3.8	1994.7084	320.7	0.218	549/22 3.8
ADS 17180	A 1249 AB	HD 224994	00024+1047	ADS 520	Bu 395	HD 3443	00373-2446
1987.7542	231.3	0.252	538/76 3.8	1985.8401	100.5	0.584	549/22 3.8
ADS 4	A 428	HD 225015	00026-0829	1988.6660	108.0	0.763	549/22 3.8
1989.9382	13.6	0.282	538/76 4.0	1994.8672	127.5	0.336	549/22 3.6
HR 9097	CHR 121	HD 225094	00034+6338	HR 178	WRH 28	HD 3883	00416+2438
1994.7003	219.7	0.186	549/22 3.8	1988.8982	252.6:	0.116:	538/76 1.8
1994.7084	217.5	0.187	549/22 3.8	BD -07°107	Rst 4154 AB	HD 4019	00426-0652
ADS 32	StF 3056 AB	HD 225220	00047+3416	1989.9382	257.:	0.144:	538/76 4.0
1986.8940	143.1	0.738	549/22 3.8	BD +61°159	Mlr 26	HD 4116	00444+6210
ADS 30	CHR 122 Aa	HD 225218	00046+4206	1986.8860	49.0:	0.212:	538/76 3.8
1994.7030	72.5	0.081	549/22 3.8	1994.7084	50.1:	0.225:	538/76 3.8
1996.5378	60.0	0.075	549/22 2.5	ADS 621	A 919 AB	HD 4173	00448+6019
ADS 51	Hu 1201 AB	HD 39	00055+3406	1987.7595	152.0	0.381	538/76 3.8
1994.7084	308.1	0.176	549/22 3.8	1994.7084	153.7	0.373	549/22 3.8
1996.6909	308.3	0.195	549/22 2.5	ADS 673	Bu 495	HD 4655	00487+1841
ADS 129	Bu 485	HD 627	00108+5846	1996.5433	338.2	0.183	538/76 2.5
1986.8859	272.0:	0.136:	538/76 3.8	ADS 674	A 921 AB	HD 236538	00492+5720
1987.7623	274.1:	0.134:	538/76 3.8	1994.7084	164.0	0.154	538/76 3.8
1994.7084	257.4	0.097	549/22 3.8	1996.6910	168.4	0.162	538/76 2.5
ADS 147	Bu 255	HD 744	00118+2825	AG +38°71	...	BD +38°118	00499+3915
1984.7014	76.4	0.532	549/22 3.8	1985.4985	...	<0.030	538/76 3.8
ADS 148	Bu 1026 Aa, B	HD 761	00121+5337	1985.8403	...	<0.030	549/22 3.8
1996.6910	292.8	0.248	549/22 2.5	BD +59°129	Mlr 27	HD 236553	00512+6019
ADS 155	A 2001	HD 866	00130+0257	1994.7084	209.8:	0.431:	538/76 3.8
1986.8859	156.7:	0.356:	538/76 3.8	ADS 701	A 1808	HD 4934	00516+2237
1987.7542	156.5	0.343	538/76 3.8	1994.7085	187.7	0.147	549/22 3.8
ADS 161	Stt 2 AB	HD 895	00134+2659	1996.5378	189.2	0.154	549/22 2.5
1994.7083	174.6	0.345	549/22 3.8	ADS 705	A 924	BD +31°132	00520+3154
1996.5378	172.7	0.352	549/22 2.5	1994.7085	2.4	0.136	538/76 3.8
ADS 197	A 1256 AB	HD 1082	00153+4412	1996.6909	351.1	0.143	549/22 2.5
1984.9991	61.6	0.117	549/22 3.8	ADS 732	A 2307	HD 5143	00533+0405
1987.7622	69.7	0.098	549/22 3.8	1994.7085	51.4	0.253	549/22 3.8
HR 63	CHR 123	HD 1280	00171+3841 <sup>a</sup>	1996.5433	49.0	0.235	549/22 2.5
1996.5378	141.3:	0.045:	549/22 2.5	BD +42°196	Cou 1654	HD 5178	00542+4318
1996.6909	134.9:	0.053:	549/22 2.5	1994.7085	97.1	0.154	549/22 3.8
ADS 238	A 1803 AB	HD 1317	00174+0853	ADS 746	Stt 20 AB	HD 5267	00546+1911
1994.8672	303.3	0.182	538/76 3.6	1984.0602	213.8	0.463	549/22 3.8
ADS 243	A 803	HD 1360	00182+7257	1994.7085	199.4	0.499	549/22 3.8
1994.7084	113.2	0.225	538/76 3.8	ADS 749	Hu 802	HD 5259	00549+4924
ADS 281	Bu 1015	HD 1634	00206+1219	1994.7085	217.6	0.350	549/22 3.8
1986.8859	76.7	0.335	538/76 3.8	ADS 755	StF 73 AB	HD 5286	00550+2338
ADS 287	Bu 1093	HD 1663	00209+1059	1984.7096	270.9	0.660	549/22 3.8
1996.8600	114.1	0.733	549/22 2.5	1984.9966	272.1	0.660	549/22 3.8
ADS 293	Stt 6 AB	HD 1658	00214+6700	1994.7085	298.3	0.801	549/22 3.8
1994.7084	154.6	0.598	549/22 3.8	ADS 768	Bu 500	HD 5315	00554+3040
ADS 296	Stt 7 AB	HD 1696	00218+6628	1994.7085	300.6	0.498	549/22 3.8
1987.7595	124.2	0.854	538/76 3.8	ADS 773	A 1259	HD 232319	00561+5406
ADS 328	Hu 506	HD 1976	00243+5201	1994.7084	105.1:	0.114:	538/76 3.8
1994.7084	61.3	0.145	549/22 3.8	ADS 784	Bu 1099 AB	HD 5408	00568+6022
1996.5378	64.3	0.138	549/22 2.5	1994.7084	339.9	0.279	549/22 3.8
1996.8657	65.4	0.138	549/22 2.5	ADS 795	Hld 4	HD 5502	00576+5424
AG +30°46	Cou 653	BD +30°58	00270+3058	1986.8860	221.3:	0.128:	538/76 3.8
1986.8859	263.3	0.361	NF 3.8	1994.7084	338.6	0.134	549/22 3.8
1989.7118	261.6	0.366	538/76 3.8	1996.6910	356.5	0.159	549/22 2.5
1996.6909	258.5	0.393	549/22 2.5	ADS 805	Bu 302	HD 5641	00583+2124
ADS 371	Hu 1007	BD +62°84	00283+6344	1994.7085	177.8	0.388	549/22 3.8
1988.6660	71.0:	0.542:	549/22 3.8	ADS 819	A 1902	HD 5781	00593-0040
ADS 416	Bu 394	HD 2675	00308+4732	1988.6661	183.7	0.317	549/22 3.8
1994.7030	133.2	0.061	549/22 3.8	1996.6963	194.0	0.339	549/22 2.5
1996.6910	244.1	0.079	549/22 2.5	BD +40°199	Cou 1505	HD 5729	00594+4057
BD +26°72	Cou 547	HD 2854	00320+2740	1996.6909	137.7	0.221	549/22 2.5
1987.7622	205.0	0.082	538/76 3.8	ADS 832	A 926	HD 5851	01011+6022
1989.7174	209.3	0.104	538/76 3.8	1994.7084	332.1	0.383	549/22 3.8
1994.7030	217.1	0.131	549+538 3.8	ADS 828	Bu 867	HD 5988	01014+1155
1996.6909	216.8	0.137	549/22 2.5	1996.5405	1.4	0.525	538/76 2.5
ADS 450	A 111 AB	HD 2880	00321-0511	BD +34°164	Cou 854	HD 5955	01014+3535
1987.7622	117.7:	0.171:	538/76 3.8	1982.5088	50.6	0.396	467/16 3.8
1989.7174	82.6:	0.175:	538/76 3.8	ADS 854	A 2003	HD 6094	01023+0552
1989.9382	82.6	0.163	538/76 4.0	1994.7085	132.2	0.173	538/76 3.8
1994.7083	19.1:	0.079:	538/76 3.8	ADS 836	A 2901	HD 5839	01015+6922
ADS 463	Ho 3	HD 2993	00335+4006	1982.5088	50.6	0.396	467/16 3.8
1994.7084	273.4	0.251	549/22 3.8	ADS 854	A 2003	HD 6094	01023+0552
1996.6909	261.4	0.218	549/22 2.5	1994.7085	132.2	0.173	538/76 3.8
AG +29°82	Cou 654	BD +29°99	00345+3015	ADS 859	Bu 1161	HD 6084	01029+5148
1996.6909	210.7	0.250	549/22 2.5	1984.9993	5.0:	0.357:	549/22 3.8
ADS 490	Ho 212 AB	HD 3196	00352-0336	1994.7085	10.4	0.358	549/22 3.8
1994.7083	11.2	0.152	549/22 3.8	BD +62°191	Mlr 87	HD 6129	01036+6341
1996.5405	61.4	0.264	549/22 2.5	1994.7084	71.4	0.305	549/22 3.8

TABLE 2—Continued

Star Name Date (BY)	Discov. Desig. $\theta$ (deg)	HD/DM $\rho$ (arcsec)	WDS Filter, Tel.	Star Name Date (BY)	Discov. Desig. $\theta$ (deg)	HD/DM $\rho$ (arcsec)	WDS Filter, Tel.
ADS 873 1994.7085	Ho 213 105.0	HD 6264 0.298	01040+3528 549/22 3.8	1994.7086	5.0	0.267	549/22 3.8
ADS 884 1988.6661	A 2310 324.9	HD 6387 0.285	01048+0135 549/22 3.8	ADS 1323 1994.7085	37.5	0.093	549/22 3.8
1994.7031	323.7:	0.320:	538/76 3.8	1996.8657 ADS 1321	31.6	0.109	549/22 2.5
1996.6963	322.1	0.315	549/22 2.5	1994.7085 ADS 1318	215.6	0.073	538/76 3.8
ADS 883 1994.7085	A 1515 294.0	BD +36°190 0.232	01049+3649 538/76 3.8	1984.7045 ADS 1339	Kr 12 294.4	HD 10196 HD 10453	01416+6241 01417-1119
ADS 887 1994.7085	A 929 AB 125.6	BD +29°176 0.673	01070+3014 538/76 3.8	1996.8630 ADS 1339	StF 147 94.0	HD 10297 HD 10453	01409+1117 01417-1119
ADS 918 1994.7085	A 1516 AB 151.5	HD 6586 0.102	01072+3839 <sup>b</sup> 549/22 3.8	1986.8861 ADS 1327	A 1268 265.9:	HD 10273 HD 10508	01417+5323 01424-0645
1996.6938	184.9	0.093	549/22 2.5	1984.7070 ADS 1345	241.0 A 1	0.125: 0.777	NF 3.8 549/22 3.8
ADS 936 1984.9966	AC 13 AB 263.4	HD 6757 0.595	01089+4512 538/76 3.8	1985.8429 ADS 1341	241.1 B 2550 AB	0.778 BD +49°440	549/22 3.8 01425+5000
1988.6608	263.8	0.604	549/22 3.8	1986.8861 ADS 1341	271.4:	0.220: 0.233	NF 3.8 538/76 3.8
ADS 955 1984.9966	Bu 303 291.5	HD 6886 0.655	01097+2348 549/22 3.8	1994.7086 ADS 1360	Bu 509	HD 10619	01437+0934
1985.8374	291.0	0.656	549/22 3.8	1994.7085 ADS 1360	75.5	0.468	549/22 3.8
ADS 950 1987.7625	Egg 1 Aa 147.2	HD 6843 0.047	01100+5202 549/22 3.8	1996.8657 ADS 1359	68.9	0.506	549/22 2.5
ADS 963 1986.8942	Bu 233 Aa 126.2	HD 6918 0.987	01106+5101 549/22 3.8	1986.8942 Bu 870 AB	0.0	0.858	549/22 3.8
ADS 974 1994.7085	A 655 326.9	HD 7018 0.365	01112+4113 549/22 3.8	AG +26°179 1994.7086	Cou 750 185.9	BD +26°287	01450+2703 538/76 3.8
ADS 993 1994.7085	A 1260 48.3	HD 7255 0.246	01131+2942 538/76 3.8	ADS 1380 1987.7571	StF 148 163.2	HD 10663	01461+6349 549/22 3.8
AG +02°131 1996.8657	CHR 195 147.7:	BD +01°234 0.260:	01155+0216 538/76 2.5	AG +29°225 1994.7086	Cou 451 73.8	BD +28°295	01465+2936 538/76 3.8
ADS 1007 1994.7084	A 935 356.4	HD 7432 0.269	01157+5918 538/76 3.8	ADS 1438 1989.7147	A 950 AB 248.2:	HD 11031	01493+4754 538+549 3.8
ADS 1040 1984.0629	StF 102 AB 280.1	HD 7710 0.495	01178+4901 549/22 3.8	ADS 1438 1994.7086	204.2: 251.2	HD 10543	01443+5732 549/22 3.8
BD +32°229 1994.7086	Cou 663 175.7	HD 7854 0.343	01187+3345 549/22 3.8	ADS 1437 1994.7086	248.2: 0.171:	HD 236885	01495+5645 538/76 3.8
AG +50°147 1994.7086	Cou 2005 191.6:	BD +49°348 0.134:	01191+5021 538/76 3.8	ADS 1451 1996.8657	Hu 422 45.2	HD 11182	01497-1414 549/22 2.5
1996.6912	188.6:	0.155:	538/76 2.5	ADS 1454 1996.8657	Bu 1168	HD 11181	01497-1022
ADS 1065 1987.7570	Hu 521 289.6	HD 7881 0.286	01194+4857 NF 3.8	ADS 1454 1996.8657	216.1	HD 11031	01493+4754 549/22 2.5
1994.7086	291.5:	0.287:	538/76 3.8	ADS 1457 1994.7086	251.2	HD 11154	01501+2217 549/22 3.8
ADS 1077 1994.7085	A 313 357.0	HD 8032 0.256	01196+0520 549/22 3.8	ADS 1457 1983.0690	248.2: 165.3	HD 11154	01501+4754 538/76 3.8
1996.8657	352.8	0.259	549/22 2.5	ADS 1451 1996.8657	Hu 422 45.2	HD 11182	01497-1414 549/22 2.5
ADS 1081 1983.0690	StF 113 A, BC 13.9	HD 8036 1.671	01198-0031 549/22 3.8	ADS 1457 1994.7086	Bu 1168 216.1	HD 11181	01497-1022 549/22 2.5
ADS 1087 1991.7129	HJ 2036 343.8	HD 8071 2.171	01200-1549 549/22 4.0	ADS 1457 1986.8942	204.2: 181.0	HD 11245	01501+2217 549/22 3.8
ADS 1105 1994.7031	StF 115 AB 194.7	HD 8272 0.092	01234+5809 549/22 3.8	ADS 1457 1994.7086	204.2: 181.0	HD 11245	01501+2217 549/22 3.8
1996.6910	183.2	0.121	549/22 2.5	ADS 1473 1994.7086	204.2: 339.4	HD 11284	01512+2439 549/22 3.8
ADS 1123 1984.8407	Bu 1163 208.9:	HD 8556 0.317:	01243-0655 538/76 1.8	ADS 1461 1983.0690	A 951 165.3	HD 11284	01513+6021 549/22 3.8
1996.6940	214.8	0.376	549/22 2.5	ADS 1509 1986.8942	217.3 100.2	HD 11126	01510+2551 538/76 3.8
AG +27°151 1994.7086	Cou 666 152.1	BD +26°235 0.352	01258+2733 538/76 3.8	ADS 1482 1987.7572	217.3 107.0	HD 11364	01520+1326 538/76 3.8
ADS 1183 1996.6938	A 1910 AB 220.0	HD 9071 0.116	01297+2250 549/22 2.5	ADS 1482 1994.7085	217.3 100.2	HD 11364	01520+1326 538/76 3.8
BD +09°175 1996.8657	CHR 197 104.9	HD 9110 0.087	01298+1014 549/22 2.5	ADS 1509 1984.7045	A 953 67.7	HD 11671	01551+2847 549/22 3.8
ADS 1224 1989.7119	A 1912 AB 1.2	HD 9532 0.194	01341+3612 549/22 3.8	ADS 1522 1986.8942	161.1 64.2	HD 11671	01559+0151 549/22 3.8
1994.7086	4.1	0.182	549/22 3.8	ADS 1538 1994.7086	161.1 57.0	HD 11803	01559+0151 549/22 3.8
ADS 1232 1994.7085	A 314 40.7	HD 9626 0.114	01343-0827 549/22 3.8	ADS 1548 1994.7086	60.1 1.229	HD 11803	01559+0151 549/22 3.8
1996.8657	29.5	0.161	549/22 2.5	ADS 1554 1996.6965	1.077 1.229	HD 11869	01559+5141 549/22 2.5
BD +63°206 1987.7625	Mlr 103 107.4:	HD 9570 0.352:	01357+6409 538/76 3.8	ADS 1554 1985.8431	1.077 <0.030	HD 11869	01558+5141 549/22 3.8
ADS 1226 1984.9966	A 816 309.1	HD 9454 0.791	01356+7227 538/76 3.8	ADS 1554 1985.8485	1.077 258.4:	HD 12122	02009+6025 538/76 3.8
ADS 1263 1984.7043	A 817 29.9	HD 9841 0.484	01372+4843 549/22 3.8	ADS 1554 1986.8861	1.077 254.8:	HD 12122	02009+6025 538/76 3.8
AG +39°163 1994.7086	Cou 1214 175.3	BD +39°367 0.316	01373+4015 549/22 3.8	ADS 1554 1994.7086	1.077 237.3:	HD 12122	02009+6025 538/76 3.8
HR 466 1996.6940	Kui 7 154.3	HD 10009 0.300	01376-0924 549/22 2.5	ADS 1592 1987.7571	1.077 310.3	HD 12122	02016+4107 538/76 3.8
ADS 1286 1994.7086	A 1266 239.7	HD 10031 0.170	01393+5436 549/22 3.8	ADS 1592 1993.2047	1.077 258.4:	HD 12483	02026+0905 538/76 3.8
1996.6910	238.5	0.157	549/22 2.5	ADS 1592 1994.7086	1.077 313.3:	HD 12483	02026+0905 538/76 3.8
ADS 1309 1984.9995	A 1267 1.6:	HD 10146 0.278:	01406+5457 538/76 3.8	ADS 1613 1994.7086	1.077 315.7	HD 12534	02022+3643 <sup>b</sup> 538/76 3.8

TABLE 2—Continued

Star Name Date (BY)	Discov. Desig. $\theta$ (deg)	HD/DM $\rho$ (arcsec)	WDS Filter, Tel.	Star Name Date (BY)	Discov. Desig. $\theta$ (deg)	HD/DM $\rho$ (arcsec)	WDS Filter, Tel.
1996.6912	105.6	0.507	549/22 2.5	ADS 2040	A 1280	HD 16576	02417+5529
BD +38°401	Cou 1365	HD 12592	02043+3924	1986.8916	6.4:	0.348:	538/76 3.8
1994.7086	129.4	0.197	538/76 3.8	1994.7089	7.7	0.346	549/22 3.8
ADS 1646	StF 204	HD 12649	02071+6957	BD +50°607	Cou 2356	BD +50°607	02418+5056
1987.7571	56.7	0.440	538/76 3.8	1996.8658	160.0	0.228	538/76 2.5
BD +34°379	Cou 1067	HD 13102	02090+3540	HR 788	McA 8	HD 16739	02422+4012
1994.7087	23.4	0.186	538/76 3.8	1994.7087	138.4	0.052	549/22 3.8
ADS 1680	A 2325	BD +00°358	02097+0048	1996.6912	115.1	0.060	549+467 2.5
1996.6964	118.6:	0.241:	549/22 2.5	ADS 2051	Hu 539	HD 16692	02423+4925
AG +44°222	Cou 1667	BD +43°436	02107+4426	1994.7087	3.7	0.135	538/76 3.8
1994.7086	64.8:	0.133:	538/76 3.8	CD -23°1040	Rst 2286	HD 17050	02437-2240
AG +61°220	Mlr 30	BD +60°448	02122+6132	1993.0977	11.9	0.141	538/76 4.0
1987.7571	64.5:	0.254:	549/22 3.8	ADS 2133	A 2411	HD 17417	02477+0142
ADS 1709	StF 228	HD 13594	02140+4729	1989.9385	279.6:	0.350:	538/76 4.0
1982.7604	269.3	1.055	549/22 3.8	ADS 2186	See 21	HD 17881	02518-2117
1983.7130	270.6	1.075	549/22 3.8	1993.0977	50.7	0.077	549/22 4.0
1986.8943	271.9	1.070	549/22 3.8	BD +47°717	Cou 2013	HD 17670	02520+4831
HR 640	McA 6	HD 13474	02145+6631 <sup>b</sup>	1994.7087	95.8	0.212	538/76 3.8
1984.0602	40.7	0.070	549/22 3.8	ADS 2185	A 2906 AB	HD 17743	02529+5300
1987.7627	82.8:	0.052:	549/22 3.8	1994.7087	129.0	0.214	549/22 3.8
1994.7086	217.8	0.070	549/22 3.8	1996.6967	127.0	0.213	549/22 2.5
ADS 1729	A 2013	HD 13959	02159+0638	ADS 2185	StF 314 AB, C	HD 17743	02529+5300
1986.8915	113.6:	0.410:	538/76 3.8	1994.7087	312.9	1.568	549/22 3.8
1993.0922	102.3:	0.476:	538/76 4.0	1996.6967	313.1	1.545	549/22 2.5
1994.7032	98.1	0.479	538/76 3.8	ADS 2200	Bu 524 AB	HD 17904	02537+3820
BD +40°469	Cou 1669	HD 13844	02160+4046	1994.7087	219.6	0.120	549/22 3.8
1994.7086	173.7:	0.198:	538/76 3.8	BD -00°457	Rst 4753	HD 18286	02562+0031
BD +40°476	Cou 1670	HD 14137	02183+4120	1989.9385	68.7:	0.318:	538/76 4.0
1996.6912	39.7	0.137	549/22 2.5	ADS 2231	Daw 77	HD 18387	02563-2857
ADS 1763	Egg 2 Aa	HD 14189	02186+4017	1993.0978	74.1	0.248	549/22 4.0
1994.7086	141.6	0.239	549/22 3.8	ADS 2236	A 2413	HD 18368	02572+0153
1996.6912	146.0	0.243	549/22 2.5	1989.9385	118.7:	0.340:	538/76 4.0
BD +06°347	Vou 40	HD 14416	02198+0640	1996.6965	137.0	0.399	549/22 2.5
1994.7087	117.6:	0.207:	538/76 3.8	SAO 56037	Cou 867	BD +34°546	02580+3438
BD -02°401	Rst 4204	HD 14904	02243-0155	1994.7087	60.4:	0.160:	538/76 3.8
1989.9384	329.0	0.301	538/76 4.0	ADS 2246	Bu 1173 AB	HD 18442	02586+2408
BD +24°344	Cou 357	HD 14918	02250+2529	1994.7087	93.2	0.232	549/22 3.8
1986.8942	135.5	0.276	538/76 3.8	1996.6965	94.0	0.230	549/22 2.5
1994.7087	130.4	0.295	549/22 3.8	ADS 2253	Bu 525	HD 18484	02589+2137
ADS 1853	A 2328	BD +19°357	02270+1952	1996.6965	264.9	0.527	549/22 2.5
1986.8888	79.8	0.419	538/76 3.8	1996.6993	265.0	0.528	549/22 2.5
ADS 1865	A 2329	HD 15285	02278+0426	ADS 2283	A 2611	HD 18740	03003-1118
1986.8915	296.6:	0.404:	538/76 3.8	1996.8685	199.1	0.214	549/22 2.5
1989.9385	65.3:	0.250:	538/76 4.0	ADS 2271	A 1529 AB	HD 18549	03006+4753
1994.7032	107.1	0.597	538/76 3.8	1986.8917	164.9	0.191	538/76 3.8
1996.6965	112.9	0.631	549/22 2.5	1994.7087	165.2	0.233	549/22 3.8
HR 719	Kui 8	HD 15328	02280+0158	HR 915	WRH 29 Aa	HD 18925	03048+5330
1989.9385	35.7	0.510	467/16 4.0	1994.7087	65.4	0.179	549/22 3.8
1994.7032	35.3	0.517	549/22 3.8	1996.6967	63.9	0.230	549/22 2.5
1996.6940	35.5	0.508	549/22 2.5	ADS 2336	StF 346 AB	HD 19134-35	03054+2515
ADS 1860	CHR 6 Aa	HD 15089	02291+6724	1994.7087	249.1	0.313	549/22 3.8
1994.7086	154.8:	0.181:	549/22 3.8	1996.8605	249.8	0.323	549/22 2.5
ADS 1900	Bu 519	HD 15513	02297-0216	ADS 2334	Bu 1175	HD 19091-92	03058+4342
1984.7070	76.6	0.562	549/22 3.8	1984.0521	274.4	0.609	549/22 3.8
1985.8539	76.7	0.543	538/76 3.8	BD +61°520	Mlr 35	HD 18990	03062+6146
1996.6964	80.9:	0.457:	549/22 2.5	1988.6664	339.5:	0.225:	549/22 3.8
ADS 1913	A 660	HD 15561	02314+4234	ADS 2429	Hu 1055 AB	BD +15°452	03151+1618 <sup>b</sup>
1984.7046	311.3	0.472	549/22 3.8	1995.9183	143.3:	0.167:	538/76 2.5
1984.9967	311.0	0.474	538/76 3.8	1996.8658	136.0:	0.189:	538/76 2.5
ADS 1945	A 316	HD 15822	02327-0145	ADS 2436	Stt 52 AB	HD 20104	03175+6540
1989.9384	94.7:	0.594:	538/76 4.0	1984.8381	71.0	0.460	538/76 1.8
ADS 1938	Stt 42 AB	HD 15703	02333+5219	ADS 2463	See 23	HD 20610	03184-2231
1994.7087	298.4	0.080	549/22 3.8	1993.0923	259.7	0.310	549/22 4.0
1996.6913	300.7	0.074	549/22 2.5	1993.0977	259.6	0.310	549/22 4.0
HR 763	McA 7	HD 16234	02366+1227	AG +26°326	Cou 559	BD +25°531	03188+2617
1984.7046	23.7	0.029	549/22 3.8	1986.8889	95.5	0.686	NF 3.8
ADS 1992	A 1278	HD 16283	02382+4604	HR 1005	Cou 259	HD 20756	03212+2109
1994.7087	138.3	0.117	549/22 3.8	1982.7605	231.9	0.751	549/22 3.8
1996.6912	132.8	0.103	549/22 2.5	1982.7660	232.5	0.751	549/22 3.8
HR 781	Fin 312	HD 16620	02396-1152	1984.9967	232.4	0.763	549/22 3.8
1993.0923	196.2	0.100	549/22 4.0	CD -36°1291	B 1449	HD 21434	03260-3558
ADS 2028	A 1928	HD 16619	02399+0009 <sup>b</sup>	1993.0978	22.5:	0.181:	549/22 4.0
1987.7626	270.6:	0.131:	538/76 3.8	ADS 2531	A 829	HD 21261	03261+1229
1990.7550	33.1:	0.084:	549/22 3.8	1996.8658	64.6	0.340	549/22 2.5
1994.7032	4.1	0.113	549/22 3.8	BD +28°532	CHR 9	HD 21242	03266+2843
1996.6964	31.2	0.161	549/22 2.5	1996.8658	58.0	0.256	549/22 2.5
ADS 2032	Cou 1371 Aa	BD +38°536	02410+3905	ADS 2563	StF 389 AB	HD 21427	03302+5922
1996.8657	129.2	0.169	549/22 2.5	1982.7578	69.8	2.668	549/22 3.8
BD +40°568	Cou 1511	HD 16656	02415+4053	BD +36°721	Cou 1224	HD 278783	03333+3643
1994.7087	331.3	0.136	538/76 3.8	1987.7572	42.7	0.365	NF 3.8
1996.6912	312.7:	0.150:	549/22 2.5				

TABLE 2—Continued

Star Name Date (BY)	Discov. Desig. $\theta$ (deg)	HD/DM $\rho$ (arcsec)	WDS Filter, Tel.	Star Name Date (BY)	Discov. Desig. $\theta$ (deg)	HD/DM $\rho$ (arcsec)	WDS Filter, Tel.
HR 1071 1985.0076 1994.7034 1996.6965	CHR 117 138.4: 70.3 94.8	HD 21794 0.107: 0.142 0.136	03337+5752 549/22 3.8 549/22 3.8 549/22 2.5	1996.8687 ADS 3169 1996.8712 ADS 3172	350.3 Stt 82 AB 345.9 Stt 80	0.159 HD 27691 1.328 HD 27650	549/22 2.5 04227+1503 549/22 2.5 04236+4226
HR 1093 1993.0978 1996.1832 AG +31°352 1996.8658	B 52 337.9 ... Cou 691 203.9	HD 22262 0.064 <0.035 BD +31°637	03339-3105 549+467 4.0 549/22 4.0 03423+3141	1996.8713 1997.1364 1996.8868 ADS 3191	152.9 152.0 334.7 Bu 1235	0.326 0.323 0.111 HD 27832	549/22 2.5 538/76 2.5 549/22 2.5 04245+2244
HR 1099 1996.1832 AG +31°352 1996.8658	V711 Tau ... 203.9	HD 22468 <0.035 BD +31°637	03368+0035 538/76 2.5 03423+3141	ADS 3182 1996.8712 ADS 3191 1996.8712	Hu 304 1996.8868 62.3	HD 27820 154.4 HD 27832	04239+0928 549/22 2.5 04245+2244
BD -22°659 1993.0977 ADS 2710 1987.7545	Rst 4759 231.0 A 1289 60.8:	HD 23305 0.131 HD 23006 0.308:	03433-2217 549/22 4.0 03440+5228 NF 3.8	HR 1391 1989.2266 ADS 3210 ADS 3228	Fin 342 Aa 1989.2292 Bu 1185 1996.8690	HD 27991 201.9 HD 27989 208.2	04256+1556 0.071 0.087 549/22 2.5
ADS 2745 1986.8889 HR 1145 1985.8488	A 1828 12.4 H 156 ...<0.030	HD 23403 0.162 HD 23338 538/76 3.8	03450+0504 538/76 3.8 03453+2428 <sup>a</sup> 549/22 3.8	1989.2266 1996.8689 1996.8690 ADS 3228	0.217 0.095 78.1 Bu 1186	549+467 3.8 549/22 2.5 0.127 HD 28217	04275+1113 549/22 2.5 04286+1558
H 216 1985.8405 1996.6968	Cou 560 0.2 359.0	HD 23387 0.247 HD 23406	03456+2420 <sup>a</sup> 549/22 3.8 03489+6445	HR 1411 1984.0604 1989.2266 1989.2292	McA 15 354.1 355.2 350.5	HD 28307 0.169 0.168 0.162	04286+1558 549/22 3.8 549+467 3.8
ADS 2765 1986.8945 1987.7545	Stt 62 316.2 318.5	HD 23874 0.151	03489+1143 538/76 3.8	ADS 3248 1984.0577 1989.2266 1996.8716	Hu 1080 1984.0577 258.2 253.0	HD 28363 260.5 0.429 0.442	04290+1610 549/22 3.8 549+467 3.8
ADS 2785 1986.8945 1987.7544	A 831 21.0 19.2	HD 23874 0.384	03489+1143 538/76 3.8	1997.1365 1996.8716 1997.1365	248.0 0.140 0.131	04290+1610 549/22 3.8 549/22 2.5	549/22 3.8
CPD -20°443 1993.0977	Rst 2324 27.8	BD -20°716 0.106	03494-1956 538/76 4.0	BD -18°853 1993.0923	B 1937 46.0:	HD 28637 0.229:	04302-1747 538/76 4.0
ADS 2811 1988.6636	A 1830 195.2	HD 24104 0.162	03513+2621 549/22 3.8	ADS 3276 1994.8704	A 1838 154.1	BD +0°702 0.971	04308+0427 549/22 3.6
HR 1199 1993.0922 1996.8687	Kui 15 207.5 207.0	HD 24263 0.708 0.725	03520+0632 549/22 4.0 549/22 2.5	CD -24°2401 1993.0923	Rst 2347 310.2	HD 28845 0.132	04318-2407 549/22 4.0
ADS 2849 1987.7599 1996.8687	A 1831 BC 13.4: 25.9	BD +0°600 0.113: 0.152	03545+0510 538/76 3.8	ADS 3283 1984.0524	A 1839 271.1:	HD 28619 0.598:	04324+3849 538/76 3.8
ADS 2911 1983.0472 1986.8864	Hu 27 298.3: 302.6:	HD 25034 0.300: 0.305:	03590+0947 549/22 3.8 538/76 3.8	1987.7600 1984.0524	1994.8704 270.7	BD 2092 AB 0.600	04340-5503 538/76 3.8
ADS 2928 1993.0923	A 1937 36.1	HD 25248 0.149	04008+0505 549/22 4.0	HR 1465 1986.8945	B 1937 156.7	HD 29305 0.312	04344+4241 538/76 3.8
ADS 2980 1996.8713	A 1710 320.7	HD 25693 0.590	04064+4325 549/22 2.5	ADS 3317 1996.8690	CHR 17 124.3	HD 29140 0.159	04357+1010 <sup>b</sup> 549/22 2.5
BD +39°930 1986.8862 1996.8713	Cou 1394 113.1 117.1:	HD 276063 0.246	04070+3934 NF 3.8	ADS 3326 1993.0950	1986.8865 51.1:	HD 285931 0.185:	04340+1510 538/76 3.8
BD -20°793 1993.0977	Rst 2333 151.4	HD 26347 0.115	04093-2025 549/22 4.0	ADS 3300 1989.9332	A 1714 250.4:	HD 28803 0.405:	04344+4241 538/76 3.8
ADS 3032 1996.8687	A 469 128.6	HD 26294 0.194	04093-0756 549/22 2.5	ADS 3308 1986.8945	CHR 18 Aa 1986.8945	HD 29196 0.159	04362+0814 549/22 4.0
ADS 2963 1984.9967	StF 460 117.2	HD 25007-08 0.784	04100+8042 549/22 3.8	ADS 3317 1996.8690	CHR 18 Aa 124.3	HD 29196 0.148	04366+1946 549/22 4.0
BD +31°718 1984.0522	Cou 880 43.8:	HD 26385 0.711:	04117+3133 549/22 3.8	ADS 3326 1993.0950	A 1840 AB 81.2	HD 29196 0.135	04366+1946 549/22 4.0
BD +23°635 1986.8862	CHR 14 93.0:	HD 284163 0.126:	04119+2338 NF 3.8	ADS 3329 1996.8690	Stt 86 66.7	HD 29196 0.135	04366+1946 549/22 4.0
ADS 3053 1993.0950	Stt 74 254.4:	HD 26547 0.084:	04123+0939 549/22 4.0	ADS 3329 1994.8704	ADS 3326 8.9	HD 29196 0.479	04366+1946 549/22 4.0
ADS 3064 1996.8688	A 1938 340.8	HD 26690 0.094	04136+0743 549/22 2.5	ADS 3329 1993.0950	Stt 86 8.9	HD 29491 0.479	04385-0524 538/76 4.0
ADS 3072 1982.7551	Bu 547 AB 343.9:	HD 26722 1.224:	04139+0916 549/22 3.8	ADS 3338 1997.1364	ADS 3326 50.1:	HD 29491 0.503:	04400+5328 538/76 4.0
ADS 3060 1986.8945	Hu 212 AB 23.1:	HD 26513 0.535:	04142+5149 538/76 3.8	ADS 3358 1996.8689	Bu 1295 AB 168.8	HD 29316 0.261	04400+5328 <sup>a</sup> 549/22 2.5
ADS 3098 1997.1364	StF 511 90.3	HD 26839 0.505	04179+5847 538/76 2.5	ADS 3358 1997.1364	StF 566 AC 168.1	HD 29316 0.265	04400+5328 <sup>a</sup> 549/22 2.5
HR 1331 1996.8689	McA 14 Aa 156.8	HD 27176 0.120	04184+2135 549/22 2.5	ADS 3358 1997.1364	vB 185 1997.1364	HD 29316 0.777	04404+1631 <sup>a</sup> 549/22 2.5
ADS 3064 1997.1364	A 1938 148.1	HD 26690 0.123	04136+0743 549/22 2.5	ADS 3358 1996.8689	CHR 154 219.5	HD 29608 0.736	04404+1631 <sup>a</sup> 538/76 2.5
ADS 3072 1997.1364	Bu 547 AB 90.3	HD 26722 0.505	04139+0916 538/76 2.5	ADS 3358 1996.8689	29.2	HD 29708 0.621	04407-0112 538/76 2.5
HR 1331 1996.8689	McA 14 Aa 156.8	HD 27176 0.120	04184+2135 549/22 2.5	ADS 3358 1997.1364	Stt 4772 294.3	HD 29763 0.599	04422+2257 538/76 4.0
ADS 3135 1984.9998	Stt 79 154.6	HD 27383 0.157	04199+1631 <sup>a</sup> 549/22 3.8	ADS 3395 1997.1364	A 2424 198.9	HD 29839 0.777	04422+0259 549/22 2.5
CD -34°1622 1993.0897	I 724 193.1	HD 27470 0.088	04188-3407 549/22 4.0	ADS 3395 1993.0924	Don 75 41.2	HD 29961-62 0.105	04425-2058 549/22 4.0
BD -01°619 1993.0924	Rst 4769 199.4	HD 27516 0.197	04205-0119 549/22 4.0	ADS 3395 1996.8716	44.9	HD 29763 0.129	04425-2058 549/22 4.0
ADS 3159 1993.0897	Bu 744 AB 346.0	HD 27710 0.458	04215-2544 549/22 4.0	ADS 3395 1996.8689	HR 1497 78.8	HD 29763 0.224	04422+2257 549/22 2.5
ADS 3151 1993.0950	A 1835 342.3	HD 27597 0.156	04216+0658 549/22 4.0	ADS 3395 1997.1364	McA 16 Aa 77.8	HD 29763 0.222	04422+2257 549/22 2.5
				ADS 3395 1993.0924	Don 75 268.0	HD 29961-62 0.165	04425-2058 549/22 4.0
				ADS 3395 1993.0924	CD -49°1422 59.7	HD 30184 0.372	04429-4859 538/76 4.0
				ADS 3395 1993.0924	ADS 3389 A 1014	HD 29599 0.599	04430+5712 538/76 4.0
				ADS 3395 1993.0924	1986.8945 322.1	HD 29606 0.280	04445+3953 538/76 3.8
				ADS 3395 1993.0924	1996.8716 349.5	HD 29606 0.327	04445+3953 538/76 2.5
				ADS 3395 1993.0924	1993.0896 59.7	HD 29606 0.372	04445+3953 538/76 2.5
				ADS 3395 1993.0924	1984.0522 29.6	HD 29606 0.076	04445+3953 538/76 2.5
				ADS 3395 1993.0924	BD +39°1054 199.1:	HD 29911 0.178:	04445+3953 538/76 2.5
				ADS 3395 1993.0924	BD +61°729 1987.7573	HD 29797 0.121	04457+6141 538/76 3.8

TABLE 2—Continued

Star Name Date (BY)	Discov. Desig. $\theta$ (deg)	HD/DM $\rho$ (arcsec)	WDS Filter, Tel.	Star Name Date (BY)	Discov. Desig. $\theta$ (deg)	HD/DM $\rho$ (arcsec)	WDS Filter, Tel.
BD +42°1045	Cou 2031	HD 30090	04464+4221	BD +39°1200	Cou 1868	HD 277703	05115+3938
1996.8689	147.0	0.183	549/22 2.5	1996.8662	190.6	0.503	549/22 2.5
1997.1364	147.8	0.195	549/22 2.5	ADS 3767	Hu 33	HD 33647	05117+0031
ADS 3465	A 2621	HD 30636	04496+0212	1993.0924	357.0	0.124	549/22 4.0
1993.0924	89.9:	0.142:	549/22 4.0	1996.1832	353.2	0.130	549/22 4.0
BD +14°770	CHR 20	HD 30712	04506+1505	1996.8634	352.1	0.126	549/22 2.5
1996.8689	121.4	0.082	549/22 2.5	ADS 3764	StF 652	HD 33646	05118+0102
ADS 3475	Bu 883 AB	HD 30810	04512+1104	1983.0692	180.8	1.708	549/22 3.8
1996.8690	47.6	0.258	549/22 2.5	ADS 3785	A 2701	HD 33777	05130+0828
CD -35°1962	Fin 320	HD 31093	04515-3454	1987.7601	5.8	0.478	549/22 3.8
1993.0896	46.4	0.240	549/22 4.0	1996.8634	8.4	0.486	538/76 2.5
ADS 3483	Bu 552 AB	HD 30869	04518+1339	ADS 3847	A 2638	HD 34211	05159+0345
1989.2266	172.5	0.414	549+467 3.8	1989.9386	93.9:	1.005:	538/76 4.0
1996.8690	211.9	0.469	549/22 2.5	ADS 3857	A 844	HD 34307	05164-0139
ADS 3501	CHR 127 Aa	HD 31033	04536+2522	1993.0924	167.0	0.167	549/22 4.0
1996.8716	147.6	0.199	549/22 2.5	1996.8634	175.5	0.175	549/22 2.5
BD -03°928	Rst 5501	HD 31297	04545-0314	HR 1708	AnJ 1 Aa	HD 34029	05167+4600
1993.0924	28.1	0.202	549/22 4.0	1984.0604	0.6	0.047	549+467 3.8
1996.8716	14.9	0.149	549/22 2.5	1996.8662	10.6	0.053	467+549 2.5
ADS 3522	A 1019 AB	HD 31356	04551-0033	1997.1254	213.9	0.057	549/22 2.5
1993.0924	127.5:	0.156:	538/76 4.0	ADS 3880	A 2639	HD 34501	05181+0342
BD -04°973	Rst 4257 AB	HD 31375	04553-0352	1986.8892	287.9:	0.797:	538/76 3.8
1993.0923	322.0	0.221	538/76 4.0	1989.9386	283.9	0.796	538/76 4.0
ADS 3542	Stt 91	HD 31466	04562+0311	BD +43°1251	Cou 2365	BD +43°1251	05210+4408
1986.8945	233.5:	0.412:	538/76 3.8	1996.8662	197.0	0.311	NF 2.5
1996.8716	223.7	0.361	549/22 2.5	CPD -81°142	Rst 2387	HD 37134	05222-8102
ADS 3558	A 2624	HD 31622	04574+0100	1989.9360	120.8	0.627	549/22 4.0
1989.9332	124.4:	0.324:	538/76 4.0	ADS 3991	A 847 BC	HD 35317	05239-0052
ADS 3536	D 5 AB	HD 31278	04573+5345	1993.0924	139.3	0.312	549/22 4.0
1982.7579	232.4	0.467	549/22 3.8	ADS 3997	A 2703	HD 35365	05246+0910
1985.8434	229.7	0.483	549/22 3.8	1986.8892	104.0:	0.220:	538/76 3.8
CD -40°1666	Rst 5210	HD 31986	04582-4033	1993.0950	91.5:	0.167:	549/22 4.0
1993.0896	37.9:	0.256:	538/76 4.0	CPD -52°718	I 345 AB	HD 35860	05248-5219
BD +67°360	Mlr 398	HD 31150	04586+6725	1993.0896	29.7	0.104	549/22 4.0
1987.7573	309.8	0.153	538/76 3.8	CPD -58°506	I 390	HD 35977	05249-5810
ADS 3588	Bu 314 AB	HD 31925	04590-1622	1989.9359	344.2	0.157	538/76 4.0
1993.0923	328.3	0.679	549/22 4.0	1993.0896	349.0	0.134	538/76 4.0
1996.1804	326.6	0.746	549/22 4.0	ADS 4020	A 848	HD 35548	05255-0033
1996.8634	326.3	0.748	549/22 2.5	1988.2545	159.9:	0.224:	538/76 3.8
ADS 3573	A 1303	HD 31578	04599+5327	1993.0924	167.6	0.250	549/22 4.0
1996.8663	292.2	0.168	549/22 2.5	CPD -64°447	I 1150	HD 36401	05267-6436
BD +69°288	Mlr 399 AB	HD 31264	05001+6958	1989.9360	288.2:	0.187:	538/76 4.0
1984.0524	353.2:	0.254:	549/22 3.8	ADS 4038	McA 19 Aa	HD 35671	05272+1758
1986.8837	350.2	0.248	538/76 3.8	1997.1255	70.1	0.069	549/22 2.5
ADS 3589	CHR 159 Aa	HD 31761	05003+3924 <sup>a</sup>	BD -21°1173	See 53	HD 35973	05276-2055
1996.8662	76.8	0.098	549/22 2.5	1993.0923	328.9	0.116	549/22 4.0
ADS 3610	A 2629	HD 32222	05010-1112	BD +42°1292	Cou 2367	HD 278191	05282+4253
1993.0923	207.6	0.108	549/22 4.0	1996.8662	326.7	0.403	549/22 2.5
1996.8634	201.2	0.116	549/22 2.5	ADS 4078	Da 6	HD 36058	05289-0318
ADS 3614	Hu 445	HD 32127	05017+2050	1983.0613	191.9	0.161	549/22 3.8
1996.8635	295.7	0.438	549/22 2.5	1993.0923	230.2	0.140	549/22 4.0
ADS 3652	A 2632	HD 32541	05041+0257	1996.1832	241.6	0.146	549/22 4.0
1993.0924	124.1	0.918	538/76 4.0	1996.8634	245.0	0.145	549/22 2.5
HR 1589	Stt 89	HD 31590	05047+7404	1997.1310	247.2	0.145	549/22 2.5
1984.0604	299.2	0.464	549/22 3.8	CD -32°2381	B 1946	HD 36399	05301-3228
1986.8947	298.8	0.448	549/22 3.8	1993.0897	181.5	0.203	538/76 4.0
BD +13°790	Hei 104	HD 32595	05048+1319	CD -47°1886	I 62 AB	HD 36610	05305-4713
1986.8837	0.6	0.206	538/76 3.8	1989.9388	178.4	0.795	538/76 4.0
ADS 3659	A 1023	HD 32416	05055+4655	ADS 4115	StF 728	HD 36267	05308+0557
1996.8663	59.4	0.297	549/22 2.5	1984.9969	48.6	1.002	549/22 3.8
BD +22°818	Stt 97	HD 32641	05056+2304	ADS 4117	A 2646 AB	HD 36310	05310+0440
1986.8947	151.4:	0.352:	549/22 3.8	1986.8892	131.5:	0.187:	538/76 3.8
1996.8661	150.9	0.362	549/22 2.5	1989.9385	129.5:	0.178:	538/76 4.0
BD -19°1102	Fin 376	HD 33095	05072-1924	1993.0924	126.6	0.179	549/22 4.0
1993.0923	49.5	0.117	549/22 4.0	ADS 4136	A 2509	HD 36511	05323+0217
1996.8634	50.6	0.112	549/22 2.5	1986.8892	141.2:	0.413:	538/76 3.8
ADS 3711	Stt 98	HD 33054	05079+0830	1993.0924	140.0	0.420	538/76 4.0
1986.8945	359.6	0.674	549/22 3.8	HR 1897	CHR 249 Aa	HD 37041	05354-0525
1993.0950	339.9	0.698	549/22 4.0	1997.1310	111.6	0.379	549/22 2.5
1996.8635	329.6	0.721	549/22 2.5	HR 1889	CHR 203	HD 36994	05365+2556
CP -57°1096	Rst 124 AB	HD 33670	05085-5659	1997.1255	99.7:	0.137:	549/22 2.5
1989.9388	141.9	0.640	538/76 4.0	ADS 4208	StF 749 AB	HD 37098	05371+2655
BD +37°1053	Cou 1531	HD 32949	05085+3755	1997.1255	324.2	1.135	549/22 2.5
1996.8662	68.6	0.289	549/22 2.5	ADS 4203	A 1562	HD 36928	05372+4339
BD +36°1023	Cou 1533	HD 33153	05099+3617	1984.0551	351.4	0.405	549/22 3.8
1996.8662	255.3	0.186	549/22 2.5	BD +43°1315	CHR 21	HD 36948	05373+4404
ADS 3748	A 484	HD 33507	05103-0736	1996.8718	53.6:	0.115:	549/22 2.5
1993.0923	305.5	0.205	549/22 4.0	1997.1254	54.9	0.118	549/22 2.5
1996.8634	298.2	0.175	549/22 2.5	ADS 4224	A 2708	HD 37300	05379+0857
ADS 3734	StF 644 AB	HD 33203	05103+3718	1986.8918	305.5	0.590	538/76 3.8
1984.0549	221.9	1.629	549/22 3.8				

TABLE 2—Continued

Star Name Date (BY)	Discov. Desig. $\theta$ (deg)	HD/DM $\rho$ (arcsec)	WDS Filter, Tel.	Star Name Date (BY)	Discov. Desig. $\theta$ (deg)	HD/DM $\rho$ (arcsec)	WDS Filter, Tel.
ADS 4215 1986.8893	Hu 557 283.3:	HD 37031 0.423:	05384+5105 538/76 3.8	HR 2541 1989.2377	Cou 1877 160.2:	HD 50037 0.464:	06532+3826 549/22 3.8
ADS 4229 1996.8718	Bu 1240 AB 351.5	HD 37269 0.174	05386+3030 549/22 2.5	HR 2565 1996.1833	CHR 169 143.3	HD 50644 0.135	06533–1902 549/22 4.0
1997.1255	350.3	0.174	549/22 2.5	1996.8719 1996.8719	146.3:	0.110:	549/22 2.5
ADS 4236 1997.1254	A 1564 147.9	HD 37265 0.186	05394+4343 538/76 2.5	CPD –62°732 1993.0952	Fin 100 133.4	HD 51685 0.190	06542–6228 538/76 4.0
ADS 4243 1984.7073	Stt 112 52.4	HD 37384 0.861	05399+3757 549/22 3.8	ADS 5616 1993.0898	A 2936 254.4	HD 51378 0.421	06567–0848 549/22 4.0
ADS 4249 1985.8407	Hu 825 345.8	HD 37405 0.390	05401+3601 549/22 3.8	CD –49°2532 1993.0953	Rst 5253 325.5	HD 52118 0.210	06573–4929 538/76 4.0
ADS 4265 1984.1888	Bu 1007 239.5	HD 37711 0.336	05413+1632 549/22 1.8	HR 2612 1993.0953	I 65 49.6	HD 51825 0.105	06573–3530 549/22 4.0
1984.8384	239.4	0.336	549/22 1.8	ADS 5586 1995.9242	Stt 159 AB 214.0	HD 50522 0.267	06573+5825 549/22 2.5
1996.8717	242.5	0.298	549/22 2.5	1996.8718 1996.8718	217.2	0.316	549/22 2.5
1997.1255	242.8	0.295	549/22 2.5	1997.1257 1997.1257	217.7	0.329	549/22 2.5
ADS 4299 1988.2546	A 494 AB 180.9:	HD 38089 0.106:	05429–0648 538/76 3.8	ADS 5625 1986.8948	A 2681 143.1	HD 51449 0.322	06575+0253 538/76 3.8
1991.8969	242.8:	0.160:	549/22 3.8	1997.1256 1983.0695	138.3 40.4	0.364	538/76 2.5 549/22 3.8
1993.0979	256.3	0.172	549/22 4.0	BD +02°1483 1989.9445	CHR 25 38.8:	HD 51566 0.938	06580+0218* 549/22 4.0
1996.1833	274.5	0.192	549/22 4.0	1993.0900 1993.0900	37.7 37.7	0.921: 0.911	549/22 4.0 549/22 4.0
1996.8717	278.5	0.172	549/22 2.5	BD +65°550 1988.2572	Mlr 133 3.8:	HD 50452 0.074:	06582+6516 549/22 3.8
1997.1310	281.2	0.162	549/22 2.5	ADS 5664 1998.2572	I 765 317.2	HD 52165 0.586	06592–2123 549/22 4.0
ADS 4304 1984.9969	A 117 250.7	HD 38068 0.793	05436+1300 538/76 3.8	ADS 5660 1984.0580	A 2461 AB 327.0	HD 51911 0.320	06598+1556 549/22 3.8
1997.1255	247.8:	0.806:	538/76 2.5	ADS 5687 1993.0897	Fin 334 Aa 8.8	HD 52437 0.063	07003–2207 549/22 4.0
ADS 4309 1986.8918	A 2653 106.5:	HD 38155 0.271:	05438+0103 538/76 3.8	ADS 5689 1996.8719	Stt 163 AB 97.5	HD 52309 0.159	07012+1146 549/22 2.5
ADS 4320 1993.0951	A 2654 3.0:	HD 38203 0.097:	05442+0058 549/22 4.0	ADS 5687 1997.1256	98.5	0.164	538/76 2.5
HR 1989 1995.7686	CHR 160 193.4	HD 38545 0.171	05472+1429 549/22 2.5	ADS 5703 1993.0898	A 671 35.8	BD –08°1674 0.252	07013–0906 538/76 4.0
1996.8717	192.5	0.168	549/22 2.5	BD +21°1471 1996.8719	CHR 215 255.4	HD 52422 0.108	07021+2148 538/76 2.5
1997.1311	192.6	0.168	549/22 2.5	BD –15°1618 1993.0897	Rst 3484 41.0:	HD 53089 0.245:	07031–1611 538/76 4.0
HR 2001 1988.2545	McA 22 294.1:	HD 38735 0.178:	05474–1032 538/76 3.8	BD +37°1645 1984.9792	McA 29 297.1	HD 52823 0.649	07043+3734 538/76 3.8
1993.0980	295.7	0.169	549/22 4.0	ADS 5752 1993.0898	A 519 271.2:	BD –08°1674 0.361:	07043–0303 538/76 4.0
1996.1833	298.8	0.153	549/22 4.0	BD +21°1471 1996.8719	CHR 215 255.4	HD 52422 0.108	07021+2148 538/76 2.5
1996.8717	301.7	0.155	549/22 2.5	BD –15°1618 1993.0897	Rst 3484 41.0:	HD 53089 0.245:	07031–1611 538/76 4.0
1997.1310	302.8	0.151	549/22 2.5	BD +37°1645 1984.9792	McA 29 297.1	HD 52823 0.649	07043+3734 538/76 3.8
ADS 4390 1984.7073	StF 795 215.5	HD 38710 1.197	05480+0627 549/22 3.8	ADS 5752 1993.0898	A 519 271.2:	BD –08°1674 0.361:	07043–0303 538/76 4.0
ADS 4396 1993.0951	A 2657 185.7	HD 38769 0.198	05482+0137 549/22 4.0	BD +21°1471 1996.8719	CHR 215 255.4	HD 52422 0.108	07021+2148 538/76 2.5
1997.1311	195.2	0.206	549/22 2.5	BD –15°1618 1993.0897	Rst 3484 41.0:	HD 53089 0.245:	07031–1611 538/76 4.0
BD +29°1028	Cou 898	HD 39303	05529+2907	BD +10°1848 1984.9792	Rst 3489 297.1	HD 53367 0.649	07044–1027 538/76 3.8
1984.0634	155.6:	0.158:	538/76 3.8	ADS 5752 1993.0898	A 519 271.2:	BD –08°1674 0.361:	07043–0303 538/76 4.0
ADS 4480 1993.0979	A 2919 AB 341.6	HD 39558 0.225	05534–0333 549/22 4.0	BD +21°1471 1996.8719	CHR 215 255.4	HD 52422 0.108	07021+2148 538/76 2.5
1997.1311	195.2	0.206	549/22 2.5	BD –15°1618 1993.0897	Rst 3484 41.0:	HD 53089 0.245:	07031–1611 538/76 4.0
BD +29°1330	Cou 1240	HD 262951	06452+2913	BD +10°1848 1984.9792	Rst 3489 297.1	HD 53367 0.649	07044–1027 538/76 3.8
1986.8866	85.0	0.481	NF 3.8	ADS 5752 1993.0898	A 519 271.2:	BD –08°1674 0.361:	07043–0303 538/76 4.0
ADS 5415 1986.8948	A 2457 5.2	HD 48588 0.429	06462+4203 538/76 3.8	BD +21°1471 1993.0953	CHR 215 196.9	HD 52422 0.175	07021+2148 538/76 4.0
1987.2719	7.2	0.420	538/76 3.8	CD –33°3478 1993.0953	Jsp 132 AB 342.0	HD 53891 0.203	07053–3409 549/22 4.0
ADS 5400 1983.0668	StF 948 AB 80.8	HD 48250 1.807	06462+5927 549/22 3.8	BD –18°1681 1993.0897	Rst 2453 242.9	HD 53911 0.107	07061–1843 538/76 4.0
1986.8948	77.8	1.811	549/22 3.8	ADS 5795 1984.1807	Bu 328 AB 116.4	HD 53974 0.569	07067–1118 549/22 1.8
BD –02°1766	Rst 4320	HD 49249	06474–0225	BD +18°1681 1984.1807	Rst 2453 242.9	HD 53974 0.569	07067–1118 549/22 1.8
1993.0898	82.5:	0.180:	538/76 4.0	ADS 5795 1996.1833	Bu 328 AB 115.6	HD 53974 0.569	07067–1118 549/22 1.8
ADS 5447 1984.9999	Stt 156 236.7	HD 49059 0.407	06474+1812 549/22 3.8	BD +18°1681 1996.8719	Rst 2453 242.9	HD 53974 0.569	07067–1118 549/22 1.8
ADS 5455 1988.2548	Stt 157 200.4:	HD 49294 0.363:	06478+0020 538/76 3.8	BD +35°1554 1986.8894	Cou 1740 276.7:	HD 53636 0.351:	07074+3532 538/76 3.8
ADS 5470 1993.0953	B 703 59.1	HD 49575 0.155	06480–2632 549/22 4.0	ADS 5814 1993.0897	A 3043 306.0	HD 54336 0.245	07079–1542 549/22 4.0
ADS 5477 1993.0898	A 2935 45.9	HD 49572 0.126	06485–1226 538/76 4.0	BD +16°1395 1996.8636	Hei 125 218.9	HD 54128 0.241	07083+1638 549/22 2.5
HR 2521 1993.0898	Fin 322 39.4	HD 49643 0.135	06493–0216 549/22 4.0	BD +19°1624 1996.8636	CHR 216 330.4	HD 54322 0.168	07092+1903 549/22 2.5
1997.1256	22.8	0.120	549/22 2.5	CD –33°3541 1996.8636	B 1530 342.7	HD 54915 0.163	07093–3319 538/76 4.0
ADS 5498	Bu 324 AB	HD 49891	06497–2405	ADS 5859 1993.0897	A 3045 263.3	BD –17°1827 0.241	07113–1719 538/76 4.0
1983.0667	216.2	1.624	549/22 3.8	BD +16°1395 1993.0897	Hei 125 218.9	HD 54128 0.241	07083+1638 549/22 2.5
BD +36°1511	Cou 1738	HD 49472	06502+3624	ADS 5857 1993.0897	A 2122 69.5	HD 55118 0.112	07113–1032 549/22 4.0
1996.8718	153.4	0.103	538/76 2.5	ADS 5857 1993.0897	A 2122 69.5	HD 55118 0.112	07113–1032 549/22 4.0
BD +24°1417	Cou 768	HD 49622	06503+2409	ADS 5855 1993.0900	A 1961 97.8:	HD 55058 0.210:	07114–0025 538/76 4.0
1996.8719	180.6	0.140	538/76 2.5	CD –51°2352 1993.0900	I 1504 114.0	HD 55788 0.114	07117–5118 549/22 4.0
ADS 5493 1986.8866	A 1573 82.7	HD 49445 0.349	06515+5412 NF 3.8	BD +20°1729 1993.0952	Cou 925 80.9:	HD 54985 0.486:	07118+1953 549/22 3.8
ADS 5526	A 2830	HD 50086	06517+0022	BD +20°1729 1984.0525	Cou 925 80.9:	HD 54985 0.486:	07118+1953 549/22 3.8
1993.0900	339.3:	0.275:	538/76 4.0				

TABLE 2—Continued

Star Name Date (BY)	Discov. Desig. $\theta$ (deg)	HD/DM $\rho$ (arcsec)	WDS Filter, Tel.	Star Name Date (BY)	Discov. Desig. $\theta$ (deg)	HD/DM $\rho$ (arcsec)	WDS Filter, Tel.
ADS 5866	AG 331	BD +18°1524	07123+1839	1996.8719	232.4	0.832	549/22 2.5
1988.2574	194.8:	0.637:	538/76 3.8	1997.1313	232.7	0.833	549/22 2.5
ADS 5871	StF 1037 AB	HD 55130	07128+2713	CD -26°4850	B 737	HD 62556	07435-2711
1984.1890	320.0	1.261	549/22 1.8	1993.0927	241.1	0.133	549/22 4.0
1989.2377	317.9	1.232	538/76 3.8	BD -10°2187	Rst 3542	HD 62515	07439-1104
HR 2745	Fin 323	HD 56014	07143-2621	1989.9363	180.1:	0.210:	538/76 4.0
1993.0953	144.6	0.133	549/22 4.0	ADS 6333	Hu 51 AB	HD 62632	07446-1219
BD -01°1612	Rst 4843	HD 55899	07148-0123	1989.9363	49.9	0.945	538/76 4.0
1993.0898	140.2	0.396	549/22 4.0	BD -09°2205	Rst 1364	HD 62725	07452-1017
ADS 5918	Bu 1023	HD 55726	07151+2553	1993.0925	155.4	0.234	538/76 4.0
1985.0000	304.8:	0.446:	538/76 3.8	BD -03°2065	Rst 4375	HD 63263	07478-0332
BD +19°1661	CHR 217	HD 55823	07153+1849	1993.0925	306.3	0.116	549/22 4.0
1996.8636	349.0	0.138	549/22 2.5	ADS 6378	WRH 15 AB	HD 63208	07486+2308
ADS 5956	A 2123 AB	HD 56593	07171-1202	1987.2690	47.3	0.275	549/22 3.8
1985.0000	147.1:	0.276:	549/22 3.8	ADS 6405	A 2880	HD 63799	07508+0317 <sup>b</sup>
1993.0898	159.4	0.386	549/22 4.0	1991.9052	32.0	0.051	549/22 3.8
1996.1808	162.2	0.402	549/22 4.0	1992.3124	49.7:	0.071:	549/22 3.8
BD +26°1508	CHR 218	HD 56176	07171+2641	1993.0925	54.9	0.059	549/22 4.0
1996.8636	244.0	0.140	549/22 2.5	1993.1968	51.3:	0.073:	549/22 3.8
1997.1257	244.8	0.138	549/22 2.5	1995.1492	76.4	0.082	549/22 2.5
BD +24°1600	Cou 585	HD 56462	07181+2405	1996.1836	85.8	0.088	549/22 4.0
1983.0476	156.4	0.388	549/22 3.8	1996.8693	103.0	0.098	549/22 2.5
AG +38°809	Cou 2069	BD +38°1732	07190+3804	1997.1313	101.3	0.095	549/22 2.5
1986.8894	121.1	0.376	NF 3.8	ADS 6412	Bu 1195	HD 63976	07513-0924
1988.2573	122.2:	0.370:	549/22 3.8	1993.0925	93.5	0.149	549/22 4.0
ADS 6001	A 1963	HD 57293	07206-0136	ADS 6420	Bu 101	HD 64096	07518-1354
1993.0898	267.9	0.287	549/22 4.0	1993.0927	297.4	0.532	549/22 4.0
BD +14°1649	Hei 128	HD 57675	07227+1417	1996.1754	305.2	0.416	549/22 4.0
1996.8635	50.8	0.165	549/22 2.5	1996.8719	307.9	0.382	549/22 2.5
CD -45°3181	Rst 4851	HD 59030	07260-4601	ADS 6424	Hu 53	HD 64196	07524-1139
1989.9388	210.4:	0.144:	538/76 4.0	1989.9363	145.6	0.489	538/76 4.0
1993.0953	209.9	0.125	538/76 4.0	1993.0925	146.2	0.503	549/22 4.0
BD +69°422	Mlr 409	HD 57308	07264+6929	CD -37°4006	Rst 4867	HD 64547	07528-3746
1986.8894	347.3:	0.362:	538/76 3.8	1993.0927	253.5	0.201	538/76 4.0
HR 2837	CHR 26	HD 58579	07269+2015	CPD -63°832	Rst 293	HD 65192	07536-6346
1987.2689	207.7	0.055	549/22 3.8	1993.0929	49.3	0.277	538/76 4.0
ADS 6089	McA 30 Aa	HD 58728	07277+2127	AG +13°772	Hei 55	BD +14°1778	07540+1346
1997.1259	348.1	0.094	549/22 2.5	1996.8691	347.4	0.096	538/76 2.5
ADS 6119	McA 31 Aa	HD 59148	07298+2755	ADS 6443	A 675	HD 64326	07546+3100
1987.2690	193.5	0.045	549/22 3.8	1996.8638	173.2	0.152	549/22 2.5
ADS 6138	A 2869	HD 59473	07305+0743	1997.1312	174.5	0.161	538/76 2.5
1985.0000	19.8:	0.142:	538/76 3.8	ADS 6483	Stt 185	HD 65123	07573+0108
1993.0900	326.5:	0.070:	549/22 4.0	1993.0925	140.9	0.140	549/22 4.0
1996.1836	231.9:	0.053:	549/22 4.0	1996.8719	165.9	0.163	549/22 2.5
CD -35°3659	Rst 4855	HD 60312	07324-3558	1997.1313	167.0	0.166	549/22 2.5
1989.9390	160.4:	0.051:	549/22 4.0	ADS 6500	Hld 93 AB	HD 65647	07594-1029
1990.9137	190.0	0.051	549/22 4.0	1989.9363	180.9	0.868	538/76 4.0
1993.0927	299.5	0.044	549/22 4.0	CD -49°3271	Rst 5278	HD 66407	08011-4952
CD -28°4515	B 1066	HD 60463	07334-2843	1993.0928	238.2	0.179	538/76 4.0
1993.0927	61.4	0.178	549/22 4.0	ADS 6526	A 1580	HD 66094	08017-0836
HR 2886	McA 32	HD 60107	07336+1550	1993.0925	272.6	0.253	538/76 4.0
1987.2690	273.7	0.167	549/22 3.8	1996.1808	276.0	0.261	549/22 4.0
1988.2520	272.6	0.152	467+549 3.8	ADS 6538	Stt 186	HD 66176	08033+2616
1996.8635	99.6	0.131	549/22 2.5	1984.0526	74.2	0.966	549/22 3.8
1997.1312	98.3	0.137	549/22 2.5	BD -11°2217	Rst 3565	HD 66535	08036-1204
CD -25°4727	...	HD 60683	07347-2602	1989.9363	87.9:	0.322:	538/76 4.0
1996.1807	...	<0.035	549/22 4.0	ADS 6554	Bu 581 AB	HD 66509	08044+1217
ADS 6185	Stt 175 AB	HD 60318	07351+3058	1986.8839	277.5	0.555	538/76 3.8
1996.8638	146.0	0.150	549/22 2.5	1988.2576	282.6	0.535	549/22 3.8
1997.1257	146.0	0.151	549/22 2.5	ADS 6552	A 2050 AB	HD 66263	08047+4717
AG +17°794	Cou 476	BD +17°1619	07359+1709	1996.8638	77.7	0.124	538/76 2.5
1996.8636	98.3	0.317	538/76 2.5	ADS 6548	A 1073	HD 66045	08050+5825
CD -27°4310	B 730	HD 61209	07371-2725	1986.8868	170.2	0.204	NF 3.8
1993.0927	266.1	0.237	549/22 4.0	1996.8638	151.5	0.293	538/76 2.5
HR 2937	Fin 324 AB, C	HD 61330	07374-3458	1997.1311	153.8	0.310	538/76 2.5
1993.0927	27.6	0.445	549/22 4.0	ADS 6581	A 2541	HD 66873	08065+2553
ADS 6248	Daw 89	HD 61446	07383-2654	1984.1783	356.0	0.765	550/89 1.8
1993.0927	242.2	0.177	549/22 4.0	ADS 6623	CHR 190 Aa	HD 67501	08095+3213 <sup>a</sup>
BD +28°1427	Cou 1247	HD 61034	07385+2819	1996.8638	115.0	0.062	549/22 2.5
1996.8638	103.8	0.107	549/22 2.5	CD -26°5599	B 758	HD 68022	08098-2654
1997.1312	108.0	0.113	538/76 2.5	1993.0927	185.2	0.233	538/76 4.0
ADS 6260	A 2532	HD 61526	07397+0117	ADS 6650	StF 1196 AB	HD 68256-57	08122+1739
1997.1313	272.4:	0.439:	538/76 2.5	1984.1891	243.0	0.650	549/22 1.8
ADS 6263	StF 1126 AB	HD 61563	07401+0514	1984.8442	236.0	0.638	538/76 1.8
1997.1312	169.4	0.911	549/22 2.5	1996.8665	106.3	0.727	538/76 2.5
BD +65°586	Hei 132	HD 61250	07429+6517	1997.1312	104.4	0.738	549/22 2.5
1986.8894	73.5:	0.447:	538/76 3.8	HR 3234	See 96 Aa, B	HD 68895	08125-4616
ADS 6313	A 2534 AB, C	HD 62264	07431+0011	1993.0928	272.5	0.558	549/22 4.0
1983.0504	228.7	0.816	549/22 3.8	1996.1781	272.3	0.571	549/22 4.0
1984.1807	229.7	0.811	549/22 1.8	HR 3234	CHR 143 Aa	HD 68895	08125-4616
1996.1808	232.3	0.838	549/22 4.0	1993.0928	177.0	0.075	549/22 4.0

TABLE 2—Continued

Star Name Date (BY)	Discov. Desig. $\theta$ (deg)	HD/DM $\rho$ (arcsec)	WDS Filter, Tel.	Star Name Date (BY)	Discov. Desig. $\theta$ (deg)	HD/DM $\rho$ (arcsec)	WDS Filter, Tel.
1996.1781	186.8	0.067	549/22 4.0	KW 212	CHR 156 Da	HD 73598	08399 + 1933 <sup>a</sup>
BD +29°1712	Cou 1114	HD 68254	08126 + 2849	1996.8663	233.9:	0.505:	549/22 2.5
1996.8639	223.0	0.172	549/22 2.5	1997.1315	232.2	0.510	549/22 2.5
CPD -63°909	Rst 310	HD 69362	08128 - 6359	KW 284	CHR 130	HD 73712	08403 + 1921 <sup>a</sup>
1993.0929	186.2	0.126	549/22 4.0	1994.8707	160.4	0.094	549/22 3.6
BD -13°2439	Hu 115	BD -13°2439	08132 - 1354	1996.8663	161.0	0.106	549/22 2.5
1993.0925	180.6	0.527	538/76 4.0	1997.1315	160.3	0.107	549/22 2.5
BD -18°2229	B 1979	HD 68818	08135 - 1851	CD -35°4930	B 1986	HD 74103	08407 - 3604
1993.0927	71.3	0.208	549/22 4.0	1993.0956	334.9	0.144	538/76 4.0
ADS 6671	Bu 1244	HD 68706	08138 + 0159	ADS 6932	A 3065	HD 74021	08409 - 1720
1989.9446	17.0:	0.882:	538/76 4.0	1983.0477	273.6:	0.311:	549/22 3.8
1993.0925	12.9	0.970	549/22 4.0	1993.0981	280.4	0.309	549/22 4.0
CD -45°3914	Fin 113 AB	HD 69302	08144 - 4550	ADS 6930	Bu 585	HD 73871	08413 + 2029
1993.0928	324.9	0.051	549/22 4.0	1987.2690	86.2	0.484	549/22 3.8
CD -46°3948	Rst 4881	HD 69384	08147 - 4708	ADS 6936	A 1750	HD 74113	08420 - 0109
1993.0928	146.2	0.187	549/22 4.0	1996.8665	32.8	0.146	538/76 2.5
BD +16°1671	Hei 140	HD 68934	08152 + 1550	BD -11°2437	Rst 3603	HD 74333	08431 - 1225
1996.8665	1.0	0.332	538/76 2.5	1993.0981	359.0	0.306	549/22 4.0
1997.1312	0.8:	0.353:	538/76 2.5	ADS 6950	A 1752	HD 74133	08439 + 4403
ADS 6697	A 546 AB	HD 69155	08155 - 0707	1996.8638	252.2	0.316	538/76 2.5
1989.9445	78.9:	0.490:	538/76 4.0	ADS 6964	A 552	HD 74469	08441 - 0412
AG +21°915	Cou 279	BD +21°1798	08155 + 2124	1993.0983	29.1	0.196	549/22 4.0
1986.8867	121.0	0.119	NF 3.8	1996.8666	34.6	0.224	549/22 2.5
BD -10°2443	Rst 3578	HD 69247	08158 - 1027	ADS 6976	A 2548	HD 74687	08454 - 0013
1993.0925	81.1	0.194	538/76 4.0	1996.8665	129.5:	0.121:	538/76 2.5
ADS 6719	A 337 AB	HD 69526	08173 - 0522	ADS 6989	Hu 120	HD 74861	08462 - 1422
1989.9445	87.2	0.458	538/76 4.0	1996.8666	288.3	0.289	549/22 2.5
ADS 6735	I 795	HD 69878	08181 - 2700	CPD -52°1652	Hu 1590	HD 75202	08464 - 5251
1993.0927	223.8	0.071	549/22 4.0	1993.0955	333.8	0.086	549/22 4.0
HR 3269	Fin 346	HD 70013	08198 + 0357	ADS 6993	Sp 1 AB	HD 74874	08468 + 0625
1984.1891	72.4	0.266	550 + 549 1.8	1996.1836	165.3	0.270	549/22 4.0
1996.1808	65.2	0.262	549/22 4.0	1996.8665	162.4	0.271	549/22 2.5
1996.8665	64.5	0.258	549/22 2.5	1997.1367	175.0	0.275	549/22 2.5
1997.1313	64.5	0.259	549/22 2.5	ADS 6999	Bu 586	HD 75098	08474 - 1703
CD -36°4506	Rst 4885	HD 70504	08210 - 3636	1993.0981	145.4	0.123	549/22 4.0
1993.0927	341.2	0.201	549/22 4.0	1996.8666	169.8	0.119	549/22 2.5
CD -29°6041	B 1600	HD 70725	08225 - 2942	BD +0°02392	Rst 5306	HD 75012	08476 + 0005
1983.0477	273.9	0.322	549/22 3.8	1993.0983	33.6	0.130	549/22 4.0
ADS 6786	A 2960	HD 70721	08237 + 0732	1996.8665	35.8	0.104	549/22 2.5
1993.0925	94.9	0.232	549/22 4.0	BD +19°2105	Cou 956	HD 75034	08481 + 1836
CD -40°4230	Rst 3592	HD 71383	08255 - 4058	1996.8665	26.8:	0.329:	538/76 2.5
1993.0927	16.0	0.113	538/76 4.0	1997.1315	30.2	0.289	538/76 2.5
AG +17°902	Cou 953	BD +18°1942	08264 + 1749	ADS 7012	A 2552	HD 75207	08487 + 0057
1996.8665	32.3	0.851	538/76 2.5	1993.0983	87.7	0.186	549/22 4.0
ADS 6811	A 1746 BC	HD 71153	08267 + 2432	1996.1836	75.1	0.214	549/22 4.0
1987.2664	17.9	0.157	538/76 3.8	1996.8665	72.4	0.218	549/22 2.5
CPD -54°1647	Fin 116	HD 71919	08275 - 5501	BD +21°1926	Cou 588	HD 75557	08514 + 2105
1993.0928	8.1	0.074	549/22 4.0	1987.2690	335.7	0.414	549/22 3.8
ADS 6825	A 550	HD 71499	08277 - 0425	CD -30°6904	B 1633	HD 75884	08517 - 3109
1993.0925	167.6	0.160	549/22 4.0	1993.0956	238.9	0.238	538/76 4.0
1996.1808	157.6	0.140	549/22 4.0	CD -36°5125	Fin 296	HD 76072	08526 - 3633
1996.8666	155.7	0.132	549/22 2.5	1993.0956	63.8	0.055	549/22 4.0
HR 3343	Fin 314 Aa	HD 71801	08280 - 3507	ADS 7054	A 1584	HD 75553	08531 + 5457
1993.0927	65.6	0.099	549/22 4.0	1987.2690	358.7	0.135	549/22 3.8
ADS 6828	A 551 AB	HD 71663	08285 - 0231	1993.2025	52.1:	0.371:	549/22 3.8
1993.0925	218.6	0.068	549/22 4.0	1994.2236	57.5:	0.431:	549/22 2.5
1996.1808	235.3	0.138	549/22 4.0	1996.8638	64.6	0.479	549/22 2.5
1996.8666	236.9	0.150	549/22 2.5	HR 3551	Fin 316	HD 76360	08538 - 4731
1997.1313	236.4	0.155	549/22 2.5	1993.0955	27.8	0.057	549/22 4.0
ADS 6862	I 489	HD 72310	08315 - 1935	ADS 7074	A 2554	HD 76050	08539 + 0149
1993.0981	330.1	0.243	549/22 4.0	1996.1836	321.1	0.308	549/22 4.0
1996.1808	321.5	0.262	549/22 4.0	1996.8665	319.6	0.311	549/22 2.5
1996.8666	319.8	0.262	549/22 2.5	BD +20°2232	Cou 773	HD 75974	08539 + 1958
CD -25°6205	I 807	HD 72397	08317 - 2601	1987.2690	43.2	0.223	549/22 3.8
1983.0477	6.8	0.331	549/22 3.8	ADS 7077	A 1754	HD 76119	08542 - 0229
ADS 6864	Hu 717	HD 72170	08326 + 3227	1996.8666	107.7:	0.288:	538/76 2.5
1986.8867	54.9	0.488	538/76 3.8	ADS 7071	StF 1291 AB	HD 75959	08542 + 3035
CD -32°5465	Fin 335	HD 72954	08345 - 3236	1997.1315	312.8	1.506	549/22 2.5
1993.0956	174.9	0.140	549/22 4.0	ADS 7082	A 2131 AB	HD 76095	08549 + 2612
CD -43°4432	B 1616	HD 73124	08350 - 4341	1987.2690	201.3	0.392	549/22 3.8
1993.0955	110.1:	0.234:	538/76 4.0	1996.8663	240.1	0.377	549/22 2.5
AG +28°921	Cou 1115	BD +28°1625	08352 + 2811	1997.1315	241.2	0.370	549/22 2.5
1996.8639	26.8	0.262	NF 2.5	ADS 7084	A 2132	HD 76117	08557 + 4141
1997.1312	25.1	0.275	538/76 2.5	1987.2690	202.4	0.182	549/22 3.8
CD -43°4449	B 1617	HD 73270	08358 - 4345	ADS 7067	StF 1280 AB	HD 75632	08554 + 7048 <sup>a</sup>
1993.0955	114.9	0.201	538/76 4.0	1983.0642	128.7	1.200	549/22 3.8
ADS 6914	Bu 208 AB	HD 73752	08391 - 2240	BD +36°1889	Cou 1897	HD 76595	08585 + 3548
1984.1892	16.8	0.483	549/22 1.8	1984.0609	166.8	0.179	549/22 3.8
ADS 6912	A 3063 AB	HD 73716	08392 - 1602	1987.2690	172.5	0.169	549/22 3.8
1983.0477	300.9	0.396	549/22 3.8	1996.8638	198.6	0.137	549/22 2.5
				1997.1315	194.6:	0.123:	538/76 2.5

TABLE 2—Continued

Star Name Date (BY)	Discov. Desig. $\theta$ (deg)	HD/DM $\rho$ (arcsec)	WDS Filter, Tel.	Star Name Date (BY)	Discov. Desig. $\theta$ (deg)	HD/DM $\rho$ (arcsec)	WDS Filter, Tel.
ADS 7113	A 1974	HD 76720	08587+2523	HR 3794	Fin 349	HD 82543	09327+0152
1996.8663	198.9	0.200	549/22 2.5	1993.0983	204.5	0.135	549/22 4.0
1997.1315	198.1	0.208	538/76 2.5	1996.1836	224.7	0.123	549/22 4.0
ADS 7117	Hu 861	HD 76793	08588+1414	1996.8693	231.4	0.119	549/22 2.5
1987.2692	25.5	0.261	538/76 3.8	1997.1260	231.9	0.124	549/22 2.5
GJ 9281	Ald 115	BD +16°1877	09002+1550	CD -26°7184	Rst 1436	HD 82725	09330-2705
1984.0553	278.6	1.963	538/76 3.8	1993.0956	143.8:	0.247:	538/76 4.0
HR 3579	Kui 37 AB	HD 76943	09006+4147	ADS 7438	Cou 2084 Aa	HD 82780	09354+3958
1996.8638	100.6	0.396	549/22 2.5	1996.3232	95.2	0.342	549/22 2.5
ADS 7158	A 1585	HD 77327	09036+4709 <sup>b</sup>	1996.8721	94.2	0.338	549/22 2.5
1987.2690	274.9	0.215	549/22 3.8	1997.1259	93.6	0.340	538/76 2.5
1993.2025	236.2:	0.060:	549/22 3.8	CD -36°5822	Rst 2644	HD 83416	09372-3721
1994.0927	193.6:	0.042:	549/22 2.5	1993.0956	239.5	0.181	538/76 4.0
1994.8708	158.1	0.043	549/22 3.6	HR 3846	CHR 175	HD 83650	09398-1034
1996.8638	107.2	0.078	549/22 2.5	1996.1836	133.7	0.376	549/22 4.0
1997.1368	107.6	0.086	549/22 2.5	1996.8719	133.3	0.369	549/22 2.5
1997.2709	103.9	0.076	549/22 2.5	CPD -57°2228	B 780	HD 84121	09407-5759
CD -32°6023	Rst 2599	HD 77920	09044-3306	1993.0903	181.6	0.077	549/22 4.0
1993.0956	284.3	0.288	538/76 4.0	CD -34°6086	B 1996	HD 84088	09417-3452
CD -49°4118	Rst 5317	HD 78386	09062-4943	1993.0902	309.3	0.086	538/76 4.0
1993.0955	343.3:	0.312:	538/76 4.0	HR 3871	Fin 326	HD 84367	09442-2746
CD -43°4952	B 1646 AB	HD 78547	09074-4357	1988.2548	261.6:	0.074:	549/22 3.8
1993.0955	1.8	0.181	538/76 4.0	1989.2269	243.2	0.093	549/22 3.8
HR 3650	Fin 347 Aa	HD 79096	09123+1500	1993.0901	205.1	0.134	549/22 4.0
1996.8665	177.9	0.092	549/22 2.5	1996.1810	187.6	0.145	549/22 4.0
1997.1313	160.0	0.130	549/22 2.5	HR 3859	CHR 176	HD 83962	09446+6459
ADS 7231	A 1977	BD +27°1722	09124+2653	1994.8708	188.0	0.090	549/22 3.6
1997.1315	142.3	0.168	538/76 2.5	ADS 7510	B 188	HD 84566	09455-2824
CPD -60°1353	HdO 207 Aa, B	HD 79699	09128-6055	1993.0902	134.7	0.115	538/76 4.0
1993.0955	62.1	0.227	549/22 4.0	HR 3880	McA 34	HD 84722	09474+1134
1996.1781	65.2	0.214	549/22 4.0	1984.0609	46.4:	0.065:	549/22 3.8
ADS 7265	Cou 934 Aa	BD +25°2069	09159+2431	1997.1260	27.9	0.127	549/22 2.5
1997.1315	257.1	0.132	549/22 2.5	AG +14°1050	Mrl 2	BD +14°2146	09476+1419
HR 3712	Fin 363 AB	HD 80671	09173-6841	1995.9272	269.7:	0.435:	538/76 2.5
1993.0953	312.9	0.066	549/22 4.0	BD +21°2108	Cou 284	HD 84739	09477+2036
HR 3720	I 12 AB	HD 80951	09174-7454	1997.1259	46.2	0.120	538/76 2.5
1993.0953	266.3	0.288	549/22 4.0	CD -45°5435	B 1661	HD 85080	09482-4632
1996.1809	265.0	0.295	549/22 4.0	1993.0902	54.2	0.149	538/76 4.0
ADS 7284	StF 3121	HD 79969	09179+2834	HR 3889	Kui 44	HD 85040	09498+2111
1996.8638	6.4	0.540	549/22 2.5	1985.2269	209.3:	0.226:	549/22 9.9
1997.1315	7.1	0.569	549/22 2.5	1986.8923	208.7	0.220	549/22 3.8
BD +19°2194	Cou 384	HD 80082	09183+1847	1988.2495	208.4	0.205	538/76 3.8
1996.8663	64.2	0.099	549/22 2.5	1994.8708	203.8	0.117	549/22 3.6
1997.1313	62.3	0.096	538/76 2.5	1997.1259	194.6	0.073	549/22 2.5
ADS 7286	StF 1333	HD 80024	09184+3522	ADS 7541	Ho 369 AB	HD 85177	09512+3629
1997.1315	49.0	1.883	549/22 2.5	1983.0645	99.9	0.389	549/22 3.8
ADS 7307	StF 1338 AB	HD 80441	09210+3811	1984.3832	101.2	0.400	549/22 3.8
1988.2576	267.0	1.032	549/22 3.8	ADS 7545	Stt 208	HD 85235	09521+5404
1997.1315	282.2	1.028	549/22 2.5	1988.2521	171.3	0.183	467/16 3.8
ADS 7334	A 1342 AB	HD 81009	09228-0950	1996.3232	239.3	0.221	549/22 2.5
1984.0527	21.3	0.167	549/22 3.8	1996.8721	242.4	0.225	549/22 2.5
1984.3859	22.6	0.162	549/22 3.8	1997.1259	243.6	0.227	549/22 2.5
1993.0983	49.0	0.113	549/22 4.0	ADS 7555	AC 5 AB	HD 85558	09525-0806
1996.1783	73.4	0.051	549/22 4.0	1988.2522	74.2	0.553	467/16 3.8
CD -38°5541	Fin 348	HD 81411	09243-3926	BD +44°1931	Pop 151	HD 85973	09566+4359
1993.0955	340.7	0.134	549/22 4.0	1986.8840	79.6:	0.501:	538/76 3.8
CD -41°5091	B 1122	HD 81782	09264-4215	CPD -52°3063	Rst 1474	HD 87027	10008-5308
1993.0955	30.3	0.164	549/22 4.0	1993.0902	93.5	0.156	538/76 4.0
ADS 7382	A 1588 AB	HD 81728	09272-0913	BD -03°2831	Rst 4445	HD 86814	10009-0416
1984.1865	192.6	0.362	549/22 1.8	1993.0901	113.1	0.242	538/76 4.0
1996.1782	194.6	0.393	549/22 4.0	CD -50°4791	Hu 1594	HD 87652	10050-5119
1996.8719	195.5	0.379	549/22 2.5	1989.3086	290.6	0.311	549/22 4.0
HR 3750	B 2530	HD 81809	09278-0604	ADS 7635	I 293	HD 87556	10052-2812
1988.2522	146.4	0.364	467/16 3.8	1993.0902	324.0	0.137	549/22 4.0
1993.0983	149.5	0.528	549/22 4.0	BD -11°2794	Rst 3677	HD 87572	10056-1231
1994.8708	150.1	0.544	549/22 3.6	1993.0901	345.6	0.229	538/76 4.0
1996.1783	151.0	0.532	549/22 4.0	BD +34°2079	Cou 1569	HD 87473	10059+3412
1996.8719	151.1	0.513	549/22 2.5	1984.3832	82.1	0.146	549/22 3.8
ADS 7384	Ho 366 AB	HD 81656	09279+3128	ADS 7651	Kui 48 AB	HD 87822	10083+3136
1997.1315	136.0:	0.122:	549/22 2.5	1987.2665	332.5:	0.046:	549/22 3.8
ADS 7390	StF 1356	HD 81858	09285+0903	1996.8721	169.6	0.212	549/22 2.5
1988.2522	48.3	0.457	467/16 3.8	1997.1259	170.1	0.212	549/22 2.5
1993.0983	65.5	0.485	549/22 4.0	ADS 7662	A 2145	HD 88021-22	10093+2020
CD -37°5811	B 1125	HD 82120	09289-3750	1994.8708	287.6	0.059	549/22 3.6
1993.0956	131.8	0.063	538/76 4.0	HR 3989	CHR 177	HD 88195	10101-0824
BD +58°1192	Mlr 549	HD 81772	09299+5808	1996.1836	329.3	0.217	549/22 4.0
1983.0642	119.8	0.238	549/22 3.8	CD -38°6260	I 1523	HD 88505	10115-3924
AG +15°1069	Hei 151	BD +15°2060	09305+1516	1993.0902	129.6	0.209	549/22 4.0
1997.1313	112.2:	0.137:	538/76 2.5	ADS 7674	Hu 874	HD 88355	10116-1321
ADS 7417	Hu 127	HD 82448	09318-1126	1995.1465	285.4	0.220	549/22 2.5
1984.3860	85.7	0.892	549/22 3.8	1996.4219	284.8:	0.222:	549/22 2.5

TABLE 2—Continued

Star Name Date (BY)	Discov. Desig. $\theta$ (deg)	HD/DM $\rho$ (arcsec)	WDS Filter, Tel.	Star Name Date (BY)	Discov. Desig. $\theta$ (deg)	HD/DM $\rho$ (arcsec)	WDS Filter, Tel.
1997.1260	286.6	0.225	549/22 2.5	CPD -61°2064	B 2004	HD 96357	11055 -6151
ADS 7681	B 194	HD 88522	10120 -2836	1993.0903	321.1:	0.320:	538/76 4.0
1993.0902	171.8	0.095	549/22 4.0	CPD -70°1304	B 2006	HD 96705	11068 -7050
CPD -59°2008	Hu 1597	HD 89263	10161 -5954	1993.0903	193.7	0.164	549/22 4.0
1993.0903	75.7	0.264	549/22 4.0	BD +15°2297	Hei 60	HD 96953	11100 +1443
BD -02°3111	Rst 4454 AB	HD 89334	10183 -0326	1987.2638	265.0:	0.362:	549/22 3.8
1993.0901	221.3	0.283	538/76 4.0	ADS 8086	Bu 220	HD 97411	11125 -1830
CD -31°8206	I 1525	HD 89949	10223 -3225	1996.3235	322.7	0.320	549/22 2.5
1993.0902	203.7	0.196	538/76 4.0	1997.1317	322.3	0.326	549/22 2.5
ADS 7746	B 197	HD 89983	10227 -2350	ADS 8092	A 1353	HD 97455	11136 +5525
1993.0901	62.9	0.091	538/76 4.0	1984.3750	226.9	0.432	549/22 3.8
ADS 7769	A 2570	HD 90361	10260 +0256	1986.8840	224.2	0.459	538/76 3.8
1984.3778	307.6	0.348	549/22 3.8	ADS 8094	StF 1517	HD 97561	11137 +2008
ADS 7766	A 1086 AB	HD 90203	10270 +6722	1989.2271	324.6	0.477	549/22 3.8
1984.1810	215.8	0.941	550/89 1.8	ADS 8096	Bu 916	HD 97635	11141 -1526
ADS 7780	Hu 879	HD 90537	10279 +3642	1993.0901	140.7	0.249	549/22 4.0
1984.0610	230.9	0.447	549/22 3.8	CD -27°7953	Rst 5353	HD 97785	11148 -2830
1985.2269	231.8:	0.420:	549 + NF 2.5	1993.0901	74.1	0.132	538/76 4.0
1996.3232	2.3	0.076	549/22 2.5	ADS 8102	Stt 232 Aa, B	HD 97731	11151 +3735
1996.8721	14.7	0.097	549/22 2.5	1986.8840	238.5	0.625	538/76 3.8
1997.1259	18.5	0.100	549/22 2.5	1996.4247	242.4:	0.568:	549/22 2.5
ADS 7787	Fin 308 AB	HD 90737	10282 -2548	CD -38°7022	See 128	HD 97881	11151 -3929
1993.0901	212.1	0.144	549/22 4.0	1993.0902	127.9	0.063	549/22 4.0
CD -43°6308	B 1158	HD 91036	10297 -4352	BD +43°2096	Cou 1904	HD 97857	11158 +4227
1993.0902	326.6	0.081	538/76 4.0	1983.4167	195.3	0.305	549/22 3.8
CD -35°6481	Rst 3701	HD 91153	10309 -3616	1984.0583	197.7	0.307	549/22 3.8
1993.0902	142.8	0.168	538/76 4.0	ADS 8119	StF 1523 AB	HD 98230 -31	11182 +3132
CD -36°6489	Rst 3706	HD 91673	10345 -3721	1984.1866	93.0	2.403	549/22 1.8
1993.0902	232.8	0.147	538/76 4.0	1995.3105	313.0	1.203	549/22 2.5
ADS 7844	A 2055 AB	HD 91751	10365 +4430	ADS 8128	StF 1527	HD 98354	11190 +1416
1986.4038	164.3:	0.332:	549/22 3.8	1997.1318	59.7	0.628	467/16 2.5
HR 4167	See 119	HD 92139	10373 -4814	ADS 8141	I 507	HD 98800	11221 -2447
1993.0902	289.0	0.386	549/22 4.0	1996.1838	3.1	0.807	549/22 4.0
1996.1837	277.7	0.441	549/22 4.0	BD +37°2177	Cou 1260 BC	HD 98745	11221 +3705
CD -42°6390	Fin 338	HD 92328	10388 -4245	1986.4066	18.2:	0.306:	NF 3.8
1993.0902	32.9	0.185	549/22 4.0	ADS 8145	A 2776 AB	HD 98914	11230 +0408
CD -35°6668	Jsp 418	HD 92791	10423 -3612	1993.0900	118.7	0.076	549/22 4.0
1993.0902	126.9	0.278	538/76 4.0	CD -73°6644	B 2011 AB	HD 99514	11256 -7359
ADS 7896	A 2768	HD 92749	10426 +0335	1989.3059	112.2:	0.435:	538/76 4.0
1983.4169	332.4:	0.223:	549/22 3.8	HR 4417	I 883	HD 99574	11268 -5310
1996.4219	271.2	0.449	549/22 2.5	1993.0931	192.5	0.157	549/22 4.0
1997.1260	270.3	0.463	549/22 2.5	HR 4419	Rst 4944	HD 99651	11279 -0142
HR 4212	CHR 227 Ba	HD 93359	10443 -7052	1983.4169	294.8	0.252	549/22 3.8
1996.1838	48.2	0.608	549/22 4.0	1996.3234	279.0:	0.201:	549/22 2.5
CD -37°6769	B 794	HD 93122	10447 -3809	1997.1317	274.2	0.200	549/22 2.5
1993.0902	176.3	0.257	549/22 4.0	HR 4425	B 1699	HD 99872	11283 -7228
CPD -79°554	I 294	HD 93779	10453 -8028	1996.1837	352.4	0.358	549/22 4.0
1989.3087	83.6	0.778	549/22 4.0	ADS 8189	Stt 234	HD 100018	11308 +4117
ADS 7918	I 502 AB	HD 93227	10455 -2502	1983.0671	127.0	0.291	549/22 3.8
1984.3805	359.0	0.290	549/22 3.8	ADS 8198	Hu 1134	HD 100235	11322 +3615
CPD -63°1649	Fin 364	HD 93549	10465 -6416	1996.3234	122.0	0.167	549/22 2.5
1993.0903	322.2	0.078	549/22 4.0	1996.4247	123.7:	0.163:	549/22 2.5
ADS 7929	Stt 229	HD 93457	10480 +4107	ADS 8197	Stt 235 AB	HD 100203	11323 +6105
1984.0529	279.5	0.776	549/22 3.8	1984.0610	246.6	0.478	549/22 3.8
1984.0610	279.7:	0.768:	549/22 3.8	1988.2522	276.4	0.563	467/16 3.8
1986.4038	278.1	0.771	549/22 3.8	ADS 8210	Hu 727	HD 233841	11332 +4927
ADS 7952	A 2373	HD 94120	10520 +1606	1984.1812	22.9	1.236	550/89 1.8
1984.3860	104.0	0.072	549/22 3.8	1984.3861	23.0	1.234	549/22 3.8
CD -34°7078	I 1206 AB	HD 94693	10553 -3530	ADS 8231	StF 1555 AB	HD 100808	11363 +2747
1993.0902	297.0	0.138	549/22 4.0	1984.0612	143.9	0.602	549/22 3.8
BD +29°2110	Cou 960	HD 95342	11008 +2913	1985.0004	144.4	0.607	549/22 3.8
1984.0583	100.7	0.179	549/22 3.8	1985.2269	143.8:	0.607:	549 + NF 2.5
1984.3724	103.5	0.200	549/22 3.8	1988.2523	145.0	0.637	467/16 3.8
1987.2638	105.5	0.188	538/76 3.8	CD -49°6332	Rst 4947	HD 101004	11371 -4942
BD +30°2097	Cou 961 Aa, B	HD 95515	11018 +2952	1993.0931	23.7	0.256	538/76 4.0
1984.3558	324.0	1.072	549/22 1.8	ADS 8242	Ku 39	BD +48°1958	11374 +4728
CD -50°5641	LL Vel	HD 96008	11037 -5121	1984.3861	87.5	1.489	549/22 3.8
1996.1783	...	<0.035	549/22 4.0	1988.2578	92.5	1.425	538/76 3.8
ADS 8035	Bu 1077	HD 95689	11037 +6145	1989.2382	94.5	1.424	NF 3.8
1986.4039	292.1	0.787	549/22 3.8	ADS 8244	Hu 728	HD 101024	11379 +4949
1989.2378	279.8	0.729	549/22 3.8	1987.2640	115.6:	0.392:	538/76 3.8
ADS 8043	StF 1504 AB	HD 95899	11040 +0338	ADS 8249	StF 1559	HD 101150	11388 +6421
1996.4329	300.8:	1.258:	549/22 2.5	1983.0508	323.4	1.999	549/22 3.8
ADS 8048	A 676 BC	HD 96064	11047 -0413	ADS 8254	A 2577	HD 101279	11394 +0856
1989.9446	77.2:	0.342:	NF 4.0	1997.1318	55.1	0.119	538/76 2.5
1993.0901	125.4	0.175	538/76 4.0	CPD -64°1685	B 1705 AB	HD 101379	11395 -6524
1997.2682	234.3:	0.280:	549/22 2.5	1993.0930	250.3	0.208	549/22 4.0
HR 4314	Fin 47	HD 96202	11053 -2718	HR 4501	Bnu 3 Aa	HD 101606	11416 +3145
1993.0901	233.7	0.066	549/22 4.0	1986.4066	239.1	0.041	549/22 3.8
ADS 8051	A 2378	HD 96130	11053 +1635	BD -21°3358	...	HD 101649	11417 -2245
1989.2379	137.2	0.508	NF 3.8	1994.3109	...	<0.030	538/76 4.0

TABLE 2—Continued

Star Name Date (BY)	Discov. Desig. $\theta$ (deg)	HD/DM $\rho$ (arcsec)	WDS Filter, Tel.	Star Name Date (BY)	Discov. Desig. $\theta$ (deg)	HD/DM $\rho$ (arcsec)	WDS Filter, Tel.
CD $-38^{\circ}7286$ 1993.0931	Rst 5358 170.9	HD 101822 0.168	11430–3933 538/76 4.0	CD $-61^{\circ}3546$ 1989.3115	Rst 4504 AB 74.6	HD 109891 0.622	12390–6232 538/76 4.0
CD $-35^{\circ}7393$ 1993.0931	I 1546 15.2	HD 101834 0.095	11431–3601 538/76 4.0	CD $-39^{\circ}7742$ 1993.0931	B 1215 113.9	HD 109961 0.083	12392–4022 538/76 4.0
BD $-03^{\circ}3167$ 1993.0957	Rst 5524 105.6	HD 101969 0.095	11441–0448 549/22 4.0	BD $+27^{\circ}2158$ 1986.4067	Cou 596 190.1	HD 110297 0.069	12409+2708 538/76 3.8
1997.1317	135.9	0.117	549/22 2.5	1987.2642	176.2:	0.048:	538/76 3.8
ADS 8309	A 2380	HD 102513	11479–1528	1997.1262	210.5	0.165	549/22 2.5
1993.0956	55.5	0.191	538/76 4.0	HR 4825	StF 1670 A	HD 110379	12417–0127
ADS 8311	Bu 603	HD 102590	11486+1417	1996.1758	...	<0.035	549/22 4.0
1983.0482	351.9	0.956	549/22 3.8	HR 4826	StF 1670 B	HD 110380	12417–0127
1984.3726	350.9	0.968	549/22 3.8	1996.1758	...	<0.035	549/22 4.0
CD $-45^{\circ}7312$ 1993.0931	Fin 366 357.7	HD 102703 0.204	11495–4604 549/22 4.0	CPD $-56^{\circ}5410$ 1993.0930	Fin 65 306.9	HD 110698 0.166	12446–5717 549/22 4.0
BD $-19^{\circ}3360$ 1993.0956	B 1708 318.5	HD 103116 0.205	11523–1958 538/76 4.0	BD $-20^{\circ}3713$ 1989.3116	Rst 2814 145.9:	HD 111017 0.175:	12465–2051 538/76 4.0
ADS 8332	A 2579	HD 103228	11532–1540	1989.3115	...	0.297:	12477–5826 538/76 4.0
1983.4141	61.9	0.363	549/22 3.8	1989.3115	239.1:	0.297:	12477–5826 538/76 4.0
CPD $-56^{\circ}4859$ 1993.0931	Rst 2772 312.9	HD 103345 0.252	11540–5652 538/76 4.0	CPD $-57^{\circ}5708$ 1993.0931	Rst 2815 29.6:	HD 111104 0.262:	12524+5017 538/76 2.5
CD $-49^{\circ}6618$ 1993.0931	Rst 562 AB 327.5	HD 103526 0.254	11552–5012 538/76 4.0	CD $-69^{\circ}1044$ 1996.1758	...	HD 111828	12531–6953
BD $+06^{\circ}2529$ 1997.1318	CHR 220 140.8	HD 103740 0.126	11568+0521 549/22 2.5	AG $+43^{\circ}1122$ 1997.1318	Cou 1579 63.0:	BD $+43^{\circ}2270$ 0.161:	12533+4246 NF 2.5
CD $-43^{\circ}7386$ 1993.0931	B 1203 AB 219.4	HD 103910 0.240	11578–4343 549/22 4.0	CD $-28^{\circ}9777$ 1993.0931	Rst 5370 338.2	HD 112087 0.321	12542–2924 538/76 4.0
ADS 8387	A 1088	HD 104288	12006+6911	ADS 8708	Stt 256 95.5	HD 112398	12564–0057
1986.4066	294.4:	0.129:	538/76 3.8	1984.0558	95.5	0.970	549/22 3.8
1989.2272	301.7:	0.119:	538/76 3.8	BD $+09^{\circ}2696$ 1993.0957	Fin 380 157.6	HD 112503	12572+0818 0.209
ADS 8393	Hu 890	BD $+12^{\circ}2413$	12014+1119	1993.0957	...	549/22 4.0	549/22 2.5
1984.3861	68.6	1.555	549/22 3.8	1997.1263	159.4	0.233	549/22 2.5
ADS 8419	StF 3123 AB	HD 105122	12060+6842	ADS 8727	CHR 39 Aa 186.9	HD 112846	12597–0349
1984.1813	307.3	0.155	549/22 1.8	1984.4280	0.120	549/22 3.8	549/22 3.8
CPD $-65^{\circ}1788$ 1993.0930	Fin 367 Aa 22.3	HD 105151 0.162	12064–6543 549/22 4.0	1984.3752	207.1	0.107	549/22 3.8
ADS 8486	StF 1621	BD $+06^{\circ}2573$	12160+0538	1987.2640	318.5	0.055	549/22 3.8
1984.1813	2.5	0.655	550/89 1.8	1993.0933	44.8	0.099	549/22 4.0
CD $-49^{\circ}6957$ 1993.0931	Rst 583 270.1	HD 106725 0.202	12165–5009 538/76 4.0	1993.0957	45.6	0.098	549/22 4.0
ADS 8502	A 2582	HD 106914	12177+0002	1996.1840	58.8	0.058	549/22 4.0
1989.3060	67.6:	0.410:	538/76 4.0	CD $-40^{\circ}7615$ 1993.0931	I 1224 16.9	HD 112833	13000–4123
HR 4689	McA 37	HD 107259	12199–0040	1993.0931	16.9	0.127	549/22 4.0
1983.0482	348.0	0.152	549/22 3.8	1984.1814	313.1	HD 113415	13038–2035
1993.0933	276.5:	0.091:	549/22 4.0	1984.3779	312.4	0.833	549/22 1.8
1993.0957	269.1	0.086	549/22 4.0	ADS 8759	Bu 929 200.8	HD 113459	13039–0340
1996.1838	347.7	0.147	549/22 4.0	ADS 8764	Bu 798 168.0	HD 113460	13040–1738
1997.1317	0.6	0.129	549/22 2.5	1993.0905	313.1	0.352	538/76 4.0
CD $-36^{\circ}7814$ 1993.0931	Rst 2793 194.4	HD 107783 0.126	12232–3729 538/76 4.0	ADS 8765	I 915 76.4	HD 113669	13056–2204
ADS 8535	Stt 249 AB	HD 107922	12238+5410	1984.3862	200.8	0.081	549/22 3.8
1984.0557	266.5:	0.408:	549/22 3.8	1986.4067	54.9:	0.711	549/22 1.8
ADS 8540	Stt 250	HD 108005	12244+4305	ADS 8785	A 1605 167.3	HD 234012	13069+5200
1984.0530	345.2	0.387	549/22 3.8	1984.4436	0.984	550/89 1.8	550/89 1.8
1984.3726	345.4	0.384	549/22 3.8	ADS 8801	McA 38 Aa 327.9	HD 114330	13099–0532
ADS 8551	A 78	HD 108320	12268–0536	1983.4169	0.483	549/22 3.8	549/22 3.8
1984.0531	141.6:	0.174:	549/22 3.8	1984.0586	328.1	0.484	549/22 3.8
1984.3752	143.5	0.170	549/22 3.8	1984.1814	328.5	0.488	549/22 1.8
1993.0957	199.1	0.096	549/22 4.0	1984.1868	328.1	0.488	549/22 1.8
1997.1317	346.3	0.081	549/22 2.5	1993.0905	334.7	0.466	549/22 4.0
ADS 8552	A 79 AB	HD 108361	12270–0332	1996.1840	336.9	0.463	549/22 4.0
1997.1317	103.9	0.327	549/22 2.5	1997.1263	337.5	0.463	549/22 2.5
ADS 8555	B 228	HD 108410	12274–2843	ADS 8804	StF 1728 AB 192.3	HD 114378–79	13100+1732
1983.4304	140.0	0.265	549/22 3.8	1984.1814	192.6	0.642	549/22 1.8
1993.0931	171.6	0.083	549/22 4.0	1984.1869	192.6	0.643	549/22 1.8
CD $-49^{\circ}7142$ 1993.0931	Rst 4960 355.5	HD 108749 0.135	12299–5015 538/76 4.0	1996.3236	12.8	0.343	549/22 2.5
CPD $-59^{\circ}4296$ 1993.0930	Jsp 539	HD 109091	12325–5954	1997.1263	11.9	0.278	549/22 2.5
1993.0930	38.8	0.155	549/22 4.0	CD $-34^{\circ}8695$ 1993.0958	B 2015 323.6	HD 114336	13103–3447
CPD $-60^{\circ}4128$ 1989.3115	B 802	HD 109164	12332–6057	ADS 8806	B 242 37.7	HD 114404	13105–2553
1989.3115	176.2:	0.447:	538/76 4.0	1993.0958	0.286	549/22 4.0	549/22 4.0
CPD $-56^{\circ}5311$ 1989.3088	Rst 4963	HD 109299	12340–5732	HR 4978	Fin 305 115.6	HD 114576	13117–2633
1993.0931	240.1	0.188	538/76 4.0	1984.0558	0.090	549/22 3.8	549/22 3.8
1993.0931	245.3:	0.185:	538/76 4.0	1984.3862	0.096:	549/22 3.8	549/22 3.8
HR 4789	WRH 12	HD 109485	12349+2238	1986.4067	97.3:	0.143:	549/22 3.8
1984.1868	9.2	0.328	549/22 1.8	1993.0958	93.2	0.182	549/22 4.0
BD $-04^{\circ}3307$ 1997.1317	Rst 4502 215.2	HD 109452 0.137	12349–0509 549/22 2.5	1996.1785	86.5	0.161	549/22 4.0
ADS 8603	Fin 368 Aa	HD 109557	12357–1650	ADS 8820	A 1606 19.2	HD 114878	13128+4030
1993.0956	100.8	0.107	549/22 4.0	1984.2932	1.341	550/89 1.8	550/89 1.8
CD $-46^{\circ}8027$ 1993.0931	Rst 5526	HD 109607	12362–4650	CD $-50^{\circ}7589$ 1993.0984	I 1227 184.8	HD 114772	13134–5042
1993.0931	138.6	0.190	538/76 4.0			0.252	549/22 4.0

TABLE 2—Continued

Star Name Date (BY)	Discov. Desig. $\theta$ (deg)	HD/DM $\rho$ (arcsec)	WDS Filter, Tel.	Star Name Date (BY)	Discov. Desig. $\theta$ (deg)	HD/DM $\rho$ (arcsec)	WDS Filter, Tel.
ADS 8831	Fin 297 AB	HD 114993	13145–2417	BD +02°2752	A 2167	HD 121908	13583+0213
1984.3862	317.4	0.195	549/22 3.8	1993.0905	130.4	0.192	538/76 4.0
1993.0958	336.0	0.244	549/22 4.0	GJ 9465	Ald 112	...	14019+1530
BD –09°3648	Rst 3830	HD 115078	13149–1026	1984.3865	181.7	1.629	538/76 3.8
1993.0905	84.9:	0.140:	538/76 4.0	ADS 9089	A 1097 AB	HD 122740	14020+5713
HR 5004	CHR 180	HD 115271	13155+4051	1987.2668	231.4	0.407	538/76 3.8
1997.1262	33.3	0.462	549/22 2.5	ADS 9094	Bu 1270	HD 122769	14037+0829
ADS 8843	Stt 263	HD 115477	13166+5034	1993.0903	230.5	0.118	549/22 4.0
1984.2933	135.7	1.859	550/89 1.8	1996.1759	265.2:	0.179:	549/22 4.0
HR 5014	Fin 350	HD 115488	13175–0041	ADS 9106	Bu 938	HD 123107	14063–2635
1985.3389	10.5	0.129	549/22 3.0	1993.0958	130.5	0.267	549/22 4.0
1996.1840	24.2	0.116	549/22 4.0	ADS 9159	Stt 278	HD 124399	14122+4411
CD –51°7425	I 516	HD 115595	13191–5239	BD +04°2837	A 1797	HD 124259	14124+0352
1993.0984	192.6	0.174	549/22 4.0	1986.4041	310.3	0.326	549/22 3.8
ADS 8862	Hu 644 Aa, B	HD 115953	13198+4747	1993.0905	115.8:	0.203:	538/76 4.0
1984.1869	268.8	1.570	550/89 1.8	ADS 9158	Stt 277 AB	HD 124346	14124+2843
1984.2932	269.0	1.576	550/89 1.8	1997.1266	52.6	0.243	538/76 2.5
1984.4519	268.7	1.546	550/89 1.8	ADS 9174	StF 1816	HD 124587	14139+2906
ADS 8864	StF 1734	HD 115995	13207+0257	1982.2921	89.9	0.735	550/89 1.8
1997.1263	176.6	1.120	549/22 2.5	1984.0559	88.8	0.748	549/22 3.8
CPD –72°1380	B 1735	HD 115672	13211–7316	1986.4042	89.5	0.730	549/22 3.8
1989.3090	0.4:	0.226:	538/76 4.0	1989.2273	89.6	0.697	549/22 3.8
HR 5030	B 1736	HD 115967	13229–7209	1996.4194	89.9	0.608	549/22 2.5
1993.0985	307.1	0.211	549/22 4.0	1997.1266	91.3	0.604	549/22 2.5
1996.1841	310.6	0.227	549/22 4.0	BD –00°2797	Rst 4997	HD 124700	14151–0125
ADS 8887	Ho 260 AB	HD 116495	13235+2914	1993.0905	241.0:	0.263:	538/76 4.0
1984.2933	73.8	1.210	550/89 1.8	ADS 9182	StF 1819	HD 124757	14153+0308
1984.3779	73.7	1.220	549/22 3.8	1997.1265	204.6	0.886	538/76 2.5
1984.3807	73.9	1.217	549/22 3.8	ADS 9186	Hu 138	HD 124851	14160–0704
ADS 8903	Stt 267	HD 117173	13253+7559	1996.4249	16.0	0.562	538/76 2.5
1985.4840	206.5:	0.109:	538/76 3.8	ADS 9204	A 2067	BD +18°2859	14175+1722
CD –48°8202	Fin 351	HD 116836	13271–4909	1988.2606	254.9:	0.149:	549/22 3.8
1993.0984	159.1	0.194	549/22 4.0	ADS 9220	A 1102	HD 125725	14179+6914
CD –38°8592	See 179	HD 117440	13310–3924	1987.2671	103.8:	0.417:	538/76 3.8
1993.0983	94.6	0.210	549/22 4.0	HR 5372	CHR 137	HD 125632	14189+5452
CPD –64°2441	Fin 369	HD 117432	13320–6519	1997.1320	24.4	0.138	549/22 2.5
1993.0984	8.2	0.144	549/22 4.0	BD +27°2367	Dan 1	HD 125709	14205+2634
AG +31°1211	Wor 24	BD +31°2500	13320+3108	1984.3835	170.7	0.050	549/22 3.8
1983.0511	327.7:	0.239:	549/22 3.8	1997.1266	176.5	0.086	549/22 2.5
ADS 8939	Stt 269 AB	HD 117902	13329+3454	ADS 9247	Bu 1111 BC	HD 126128	14234+0827
1986.4069	260.1	0.057	549/22 3.8	1988.2526	65.0	0.242	538/76 3.8
1996.4220	211.3	0.184	549/22 2.5	1993.0903	108.3	0.163	549/22 4.0
1997.1262	211.8	0.197	549/22 2.5	1997.1265	176.3	0.154	549/22 2.5
BD –15°3694	Rst 3844	HD 117968	13342–1623	ADS 9254	StF 1837	HD 126251	14247–1140
1993.0905	340.3:	0.105:	538/76 4.0	1996.5369	277.5	1.242	549/22 2.5
ADS 8954	Bu 932 AB	HD 118054	13347–1313	ADS 9256	Stn 31	HD 126279	14252–2808
1983.4304	48.0	0.351	549/22 3.8	1984.3781	270.9	0.615	549/22 3.8
ADS 8964	Ag 190	HD 118376	13356+4939	1989.2300	267.8	0.589	549/22 3.8
1995.3136	16.7:	1.923:	538/76 2.5	CD +44°9323	I 402	HD 126354	14262–4523
CD –31°10498	I 221	HD 118318	13368–3224	1993.0983	191.4	0.077	549/22 4.0
1989.3116	114.8	0.586	549/22 4.0	BD –05°3896	Rst 4529	HD 127352	14310–0548
ADS 8974	StF 1768 AB	HD 118623	13375+3618	1993.0905	106.7	0.082	549/22 4.0
1984.2935	103.4	1.810	549/22 1.8	ADS 9301	A 570	HD 127726	14323+2641
ADS 8979	StF 1770 AB	HD 118741	13377+5043	1996.4194	170.6	0.229	549/22 2.5
1996.4275	122.0	1.720	549/22 2.5	1997.1266	164.5	0.228	549/22 2.5
ADS 8988	Hu 897 AB	BD +38°2467	13400+3759	CPD –68°2128	Don 662	HD 127203	14335–6909
1984.2933	31.2:	0.395:	550/89 1.8	1989.3118	255.8	0.545	538/76 4.0
1984.4491	31.6	0.401	550/89 1.8	ADS 9313	AGC 6	HD 128042	14339+2949
1984.4546	30.9	0.386	550/89 1.8	1984.2935	135.1:	0.806:	550/89 1.8
1985.4840	30.8	0.394	538/76 3.8	ADS 9318	Bu 941 AB	HD 128233	14358+0015
ADS 8994	Fin 352 AB	HD 119086	13415–2327	1993.0905	142.4	0.225	538/76 4.0
1984.3752	321.6	0.184	549/22 3.8	AG +20°1515	Cou 98	BD +20°2993	14367+2014
1987.2722	321.0	0.200	549/22 3.8	1989.2383	200.4	0.325	NF 3.8
1993.0958	319.0	0.213	549/22 4.0	CD –45°9302	Fin 318 Aa	HD 128266	14373–4608
CD –41°8089	Fin 353 AB	HD 119361	13437–4204	1993.0984	334.6	0.163	549/22 4.0
1993.0983	47.1	0.116	549/22 4.0	ADS 9323	CHR 42 Aa	HD 128563	14375+0217 <sup>b</sup>
ADS 9019	StF 1781	HD 119931	13461+0507	1994.2240	...	<0.055	549/22 2.5
1993.0903	167.2	0.613	549/22 4.0	1995.1443	...	<0.055	549/22 2.5
1996.1759	172.2	0.682	549/22 4.0	1995.3109	...	<0.055	549/22 2.5
ADS 9043	Hu 898	HD 121137	13539–1910	1996.1842	131.4	0.106	549/22 4.0
1993.0958	257.2	0.186	549/22 4.0	1997.1265	137.8	0.137	549/22 2.5
BD –13°3786	Rst 3852	HD 121136	13539–1440	CD –49°8904	Fin 371	HD 128415	14383–4954
1984.0558	136.1	0.143	549/22 3.8	1993.0985	27.3	0.076	549/22 4.0
1984.3752	134.8	0.146	549/22 3.8	HR 5472	McA 40	HD 129132	14404+2159
1993.0905	69.8	0.105	549/22 4.0	1997.1266	68.5	0.072	549/22 2.5
CD –34°9254	B 2019	HD 121526	13566–3519	ADS 9343	StF 1865 AB	HD 129246–47	14411+1344
1993.0958	338.3	0.106	549/22 4.0	1996.3185	302.0	0.826	549/22 2.5
ADS 9066	StF 1792	BD +13°2731	13571+1227	1996.4302	301.4	0.821	549/22 2.5
1984.3865	291.6	2.161	549/22 3.8	1996.5288	301.2	0.825	549/22 2.5
CPD –61°4194	Fin 370	HD 121454	13574–6229	1997.1265	301.2	0.812	549/22 2.5
1993.0984	128.8	0.137	549/22 4.0				

TABLE 2—Continued

Star Name Date (BY)	Discov. Desig. $\theta$ (deg)	HD/DM $\rho$ (arcsec)	WDS Filter, Tel.	Star Name Date (BY)	Discov. Desig. $\theta$ (deg)	HD/DM $\rho$ (arcsec)	WDS Filter, Tel.
ADS 9352 1984.3755	Hu 575 AB 332.8	BD +20°3010	14426+1929 0.465	CD -23°12272 1993.0959	Rst 2957 269.6	HD 137153 0.268	15251-2340 538/76 4.0
1989.2383	278.5		538/76 3.8	BD +42°2601 1988.2582	Cou 1443 178.4	HD 137896 0.500	15272+4133 549/22 3.8
1996.4248	204.1		538/76 2.5	ADS 9645 1996.3240	A 2074 253.2	BD +18°3024 0.202	15273+1738 538/76 2.5
CPD -62°4257 1993.0985	B 1759 AB 79.1	HD 129092	14435-6258 0.237	1996.5398 1997.1321	1996.5288 251.7	HD 137896 0.212	15272+4133 538/76 2.5
BD -19°3950 1993.0959	B 1761 163.6	HD 129714	14447-2029 0.210	HR 5747 1996.4196	Jef 1 148.2	HD 137909 0.314	15278+2906 538/76 2.5
CD -35°9765 1993.0959	I 528 357.0	HD 129732	14453-3609 0.060	1996.5288 1996.5398	147.0 147.2	HD 137909 0.311	15278+2906 538/76 2.5
ADS 9378 1996.4194	Stt 285 AB 291.8:	HD 130188	14455+4223 0.426:	1997.1375 1998.6653	144.4 199.5	HD 137844 0.300	15282+0251 538/76 2.5
HR 5504 1993.0959	Fin 309 5.7	HD 129980	14462-2111 0.168	ADS 9654 1986.4098	A 2175 192.6:	HD 137844 0.281:	15282+0251 538/76 3.8
1996.1842	63.6		549/22 4.0	1993.0986 1997.2684	197.4 126.4:	0.270	549/22 4.0
ADS 9392 1996.1842	StF 1883	HD 130604	14489+0557 0.751	ADS 9682 1983.4200	Hu 1163 16.1:	HD 138439 0.122:	15307+3810 <sup>b</sup> 549/22 3.8
1996.4194	283.0		549/22 2.5	1988.6653 1988.6653	68.2:	0.120:	549/22 3.8
1997.1265	284.1		538/76 2.5	1996.5399 1997.2684	119.5 126.4:	0.136 0.150:	538/76 2.5 549/22 2.5
CPD -58°5719 1993.0985	Fin 298 AB 168.5	HD 130205	14492-5924 0.084	ADS 9682 1983.0702	A 1634 AB 55.5	HD 138629 0.141	15318+4054 538/76 3.8
ADS 9395 1984.3755	Hu 141	HD 130558	14492-1050 0.292	1985.4841 1984.2936	184.0 236.0	HD 138629 0.050	15347+2655 549/22 3.8
1986.4070 1987.2725	293.2: 294.3		538/76 3.8 549/22 3.8	AG +27°1450 1996.5399	Cou 798 199.5	BD +27°2513 0.120:	15347+2655 538/76 3.8
ADS 9397 1986.4070	A 2983	HD 130669	14493+1013 0.109	1983.0702 1989.3119	Rst 2964 237.8	HD 138589 0.387	15358-5654 538/76 4.0
1997.1265	173.9		538/76 3.8	CPD -56°6810 1989.3119	A 1634 AB 237.8	HD 139341 0.387	15360+3948 538/76 4.0
ADS 9425 1989.3090	Stt 288 167.0	HD 131473	14534+1542 0.1240	ADS 9716 1984.2936	Stt 298 AB 236.0	HD 139341 0.434	15360+3948 549/22 1.8
CPD -61°4749 1989.3090	B 2025	HD 130911	14536-6221 0.151	1996.5399 1997.1320	Rst 4545 111.5	HD 139177 0.213	15368-0438 549/22 2.5
CD -38°9753 1993.0959	I 1578	HD 131388	14545-3921 0.279	1997.2684 1998.6653	CD -38°10497 B 1299	HD 138875 193.3	15363-3851 0.251
ADS 9443 1993.0986	A 2172	HD 131954	14565+0255 0.106	BD -04°3930 1996.5397	Rst 2964 275.4	HD 139005 0.460	15368-0438 538/76 2.5
CPD -61°4768 1993.0985	B 2026	HD 131491	14566-6222 0.127	ADS 9730 1989.2384	Hu 1168 167.2	HD 139905 0.156	15370+6426 538/76 3.8
CD -42°9898 1989.3064	B 1256	HD 132515	15010-4300 0.657	ADS 9731 1995.4366	Hu 1167 AB 80.2	HD 139691 1.280	15382+3615 549/22 2.5
ADS 9480 1988.2499	Bu 348 AB 110.4:	HD 132933	15018-0008 0.500:	BD +26°2712 1996.3241	Cou 612 32.7	HD 139749 0.250	15390+2545 549/22 2.5
ADS 9494 1997.1320	StF 1909	HD 133640	15038+4739 52.0	1996.5398 1997.1320	1996.5398 32.0	HD 139212 0.243	15405-6350 538/76 2.5
CPD -55°6331 1993.0985	Rst 2937	HD 133044	15047-5625 0.167	CD -63°1105 1989.3120	B 842 AB 261.2	HD 140065 0.527	15406+3128 538/76 4.0
HR 5605-06 1996.1815	HJ 4728 AB	HD 133242-43	15051-4703 67.3	BD +31°2762 1988.2555	Cou 613 345.1	HD 140065 0.198	15406+3128 549/22 3.8
1996.1815	See 219	HD 133955	15088-4517 0.044	ADS 9747 1993.0986	A 2176 313.0	HD 140122 0.117	15420+0027 549/22 4.0
HR 5626 1996.1815	253.8		549/22 4.0	1993.0986 1996.3240	1996.4222 336.0	HD 140122 0.159	15420+0027 538/76 2.5
ADS 9515 1989.3091	Rst 4534 AB	HD 134213	15088-0610 12.1	1996.4222 1996.5397	331.8 333.1	HD 140122 0.142	15420+0027 549/22 2.5
BD -13°4081 1996.1842	HI Lib	HD 134214	15090-1400 <0.035	ADS 9747 1984.3756	A 2176 221.0	HD 140432 0.126	15420+4203 549/22 3.8
ADS 9530 1985.4895	A 1116	HD 134827	15116+1007 0.764	1984.3756 1988.6653	StF 1967 223.9:	HD 140436 0.079:	15427+2618 538/76 3.8
HR 5654 1984.3590	Cou 189	HD 134943	15121+1859 0.460	ADS 9757 1987.2643	StF 1967 119.2	HD 140436 0.528	15427+2618 549/22 3.8
1997.1321	144.5		549/22 1.8	1996.5288 1997.1375	116.1 116.0	HD 140436 0.681	15427+2618 549/22 2.5
ADS 9545 1988.2609	Hu 1159	HD 135529	15127+6008 0.230:	ADS 9758 1996.3240	Bu 619 2.4	HD 140438 0.648	15432+1340 549/22 2.5
ADS 9547 1988.6653	Ho 60	HD 135365	15136+3453 0.082:	1996.4222 1996.5398	Bu 619 2.2	HD 140438 0.648	15432+1340 549/22 2.5
HR 5683 1989.3063	HJ 4753 AB	HD 135734	15185-4753 131.3	1997.1321 1.121	Cou 106 0.8	HD 140629 0.668	15440+2220 549/22 2.5
AG +23°1451 1984.3755	Cou 103	BD +24°2847	15200+2338 0.543:	BD +22°2878 1984.3756	Cou 106 271.2	HD 140629 0.400	15440+2220 549/22 3.8
1986.4097 1997.2684	283.2		NF 3.8	CPD -53°6667 1989.3119	I 1099 198.1	HD 140080 0.450	15443-5419 549/22 4.0
ADS 9626 1994.0931	CHR 181 Aa	HD 137391	15245+3723 0.072	CPD -58°6252 1993.0985	Fin 234 AB 171.5	HD 140178 0.194	15453-5841 549/22 4.0
1996.3186 1996.5398	202.8		549/22 2.5	1993.0985 ADS 9775	HD 140178 172.4	HD 140504 0.162	15462-2804 549/22 4.0
1997.1321	117.8		549/22 2.5	1993.0959 Bu 620 Aa, B	HD 140722 171.8	HD 140504 0.584	15462-2804 549/22 4.0
1997.2684	83.4		549/22 2.5	GJ 9529 AB 1988.2556	Cou 66 140.8	HD 140817 0.844	15465+1957 549/22 3.8
CD -48°9912 1993.0985	B 1288 AB	HD 136807	15246-4835 0.165	CPD -57°7206 1993.0985	I 974 172.4	HD 140504 0.162	15468-5808 549/22 4.0
ADS 9628 1984.3756	Hu 149	HD 137588	15246+5413 0.606	ADS 9783 1984.3590	A 2077 231.7	HD 140817 0.562	15468+1905 550/89 1.8
1985.4896	273.7		549/22 3.8	1984.4492 1984.4521	BD +19°3014 232.8	HD 140817 0.565	15468+1905 550/89 1.8
1986.4043	273.7		549/22 3.8	1984.4521 1989.3119	BD +19°3014 62.5	HD 140817 0.559	15468+1905 550/89 1.8
CD -37°10225 1993.0959	Rst 2955	HD 137015	15251-3810 0.121	CD -35°10503 1989.3119	B 2038 AB 62.5	HD 140817 0.607	15471-3531 549/22 4.0

TABLE 2—Continued

Star Name Date (BY)	Discov. Desig. $\theta$ (deg)	HD/DM $\rho$ (arcsec)	WDS Filter, Tel.	Star Name Date (BY)	Discov. Desig. $\theta$ (deg)	HD/DM $\rho$ (arcsec)	WDS Filter, Tel.
ADS 9794 1984.3756	A 1127 288.2	HD 141730 0.321	15474+5929 549/22 3.8	1996.5343 1997.1376	322.6 322.1	0.460 0.459	549/22 2.5 549/22 2.5
ADS 9806 1988.2609	Hu 912 342.5	HD 142089 0.068	15493+6032 549/22 3.8	ADS 10252 1984.3812	B 323 90.8	HD 152535 0.473	16550–2431 549/22 3.8
ADS 9812 1984.3782	Hu 153 70.5	HD 141898 0.424	15520–1232 549/22 3.8	GJ 644 1983.4282	Kui 75 AB 131.5	HD 152751 0.233	16555–0820 549/22 3.8
ADS 9836 1996.1843	I 977 218.2	HD 142456 0.268	15557–2645 549/22 4.0	1984.3619 1984.3785	308.9 303.1	0.228 0.221	550/89 1.8 549/22 3.8
ADS 9909 1987.5457	StF 1998 AB 35.6	HD 144069–70 0.860	16044–1122 549/22 1.8	1984.3811 1987.2727	301.8: 52.1:	0.222: 0.208:	549/22 3.8 538/76 3.8
ADS 9913 1995.3167	Bu 947 AB 153.1	HD 144217 0.304	16054–1948 549/22 2.5	CPD –65°3372 1989.3120	Rst 3053 220.2:	HD 152138 0.176:	16562–6519 538/76 4.0
1996.5397	156.0:	0.282:	549/22 2.5	ADS 10276 1984.3839	A 1143 AB 261.4	HD 153495 0.439	16566+5711 549/22 3.8
ADS 9913 1993.0986	McA 42 CE 158.6	HD 144218 0.119	16054–1948 549/22 4.0	1984.3867 1988.2556	261.6 257.2	0.439 0.429	549/22 3.8 549/22 3.8
1996.1842	181.6	0.121	549/22 4.0	1996.5424 BD +39°3062	247.7 259.8:	0.420 0.092:	549/22 2.5 549/22 3.8
ADS 9918 1993.2057	Fin 384 Aa 353.4	HD 144362 0.051	16057–0617 549/22 3.8	ADS 10276 1984.3839	A 1143 CD 142.0	HD 238627 0.769	16566+5711 549/22 3.8
1996.1842	282.7	0.064	549/22 4.0	1984.3867 1988.2556	141.8	0.755	549/22 3.8
ADS 9931 1984.3757	A 1798 24.9	HD 144935 0.168	16079+1425 549/22 3.8	1996.5424 BD +39°3062	Cou 1289 250.9	HD 153527 0.122	16584+3943 549/22 3.8
1988.2609	18.7	0.170	549/22 3.8	1994.7078 1994.7079	250.8	0.123	538/76 2.5
ADS 9935 1996.4197	Bu 355 AB 285.0	HD 145246 0.216	16080+4523 549/22 2.5	1997.1266 ADS 10287	252.5 Hu 162	0.126	538/76 2.5 16593–1654
1996.5399	283.7	0.220	538/76 2.5	1994.7078 Hu 162	252.5 HD 153305	0.126	538/76 2.5 16593–1654
1997.1320	281.3	0.208	549/22 2.5	1983.4227 HR 6317	215.2 220.2:	0.661 0.176:	549/22 3.8 549/22 3.8
ADS 9932 1996.5397	Bu 949 196.3	HD 144892 0.479	16085–1006 549/22 2.5	1994.7078 1994.7079	250.9 248.6	0.122 0.123	549/22 3.8 538/76 2.5
1997.1321	195.2	0.493	549/22 2.5	1997.1266 ADS 10287	252.5 Hu 162	0.126	538/76 2.5 16593–1654
CD –30°12880 1984.3783	I 557 228.7:	HD 144926 0.190:	16094–3103 549/22 3.8	1986.4044 BD +38°2885	123.1 215.2	0.378 0.661	17036+6948 549/22 3.8
HR 6032 1983.0702	Fin 354 84.9	HD 145589 0.121	16115+0943 549/22 3.8	1984.3840 1994.7078	216.7 274.3	0.108 0.154	17075+3810 549/22 3.8
1983.4282	82.6	0.130	549/22 3.8	1994.7078 BD +19°4547	250.8 108.2	0.187 0.135	538/76 3.8 17036+6948
ADS 9951 1996.1842	Bu 120 Aa, B 2.1:	HD 145502 1.317:	16120–1928 549/22 4.0	1994.7078 1994.7079	108.2 116.9	0.135 0.081	17036+6948 549/22 3.8
1996.4196	1.7	1.306	549/22 2.5	1997.1266 ADS 10360	116.9 215.2	0.135 0.081	549/22 3.8 17080+3556
ADS 9975 1988.2609	A 1642 190.8	HD 146327 0.502	16137+4638 538/76 3.8	1984.3730 1994.7078	115.3 123.1	0.085 0.378	17080+3556 549/22 3.8
1996.4222	186.4	0.626	538/76 2.5	1994.7078 1994.7079	115.3 123.1	0.085 0.378	17080+3556 549/22 3.8
1996.5399	184.5:	0.625:	538/76 2.5	1997.1266 ADS 10360	116.9 215.2	0.135 0.081	549/22 3.8 17080+3556
ADS 9971 1985.4868	Rst 3936 AB 269.1	HD 145996 0.295	16143–1025 538/76 3.8	1988.6654 1996.5289	112.1: 117.6:	0.133: 0.145:	17088+6543 549/22 2.5
ADS 10006 1985.4814	Stt 309 286.8	HD 147275–76 0.320	16192+4140 549/22 3.8	1989.3040 1996.5288	150.3 245.1	0.059 0.513	17104–1544 549/22 2.5
1996.5399	296.7	0.292	538/76 2.5	1996.6956 ADS 10374	245.1 253.1	0.513 0.443	17104–1544 549/22 2.5
1997.1266	296.2	0.295	538/76 2.5	1998.6654 Bu 1118 AB	112.1: 215.2	0.133: 0.145:	17104–1544 549/22 2.5
ADS 10005 1987.2726	B 1808 AB 181.2:	HD 147104 0.184:	16205–2007 549/22 3.8	1989.3040 1996.5289	117.6: 215.2	0.145: 0.660:	17119–0151 538/76 3.8
ADS 10017 1996.3241	Hu 481 29.5	HD 147442 0.204	16212+2259 538/76 2.5	1996.6956 ADS 10374	215.2 253.1	0.145: 0.443	17119–0151 549/22 4.0
1996.5398	26.6	0.203	538/76 2.5	1996.6956 Bu 1118 AB	215.2 253.1	0.145: 0.443	17119–0151 549/22 4.0
BD –16°4280 1996.5397	CHR 54 66.1	HD 147473 0.219	16229–1701 549/22 2.5	1996.6956 ADS 10425	215.2 253.1	0.145: 0.443	17119–0151 549/22 4.0
ADS 10036 1996.5398	VBs 26 AB 46.7	BD +33°2722 0.174	16235+3321 538/76 2.5	1996.6956 ADS 10423	215.2 253.1	0.145: 0.443	17119–0151 549/22 4.0
HR 6123 1988.6598	CHR 55 339.9	HD 148283 0.050	16254+3724 549/22 3.8	1996.6956 ADS 10459	215.2 253.1	0.145: 0.443	17119–0151 549/22 4.0
1996.5398	170.4	0.175	549/22 2.5	1996.6956 Bu 628	215.2 253.1	0.145: 0.443	17119–0151 549/22 4.0
1997.1266	169.2	0.170	549/22 2.5	1996.6956 BD +32°2888	215.2 253.1	0.145: 0.443	17119–0151 549/22 4.0
ADS 10068 1985.3314	Bu 814 354.1	HD 148552 0.322	16272+3953 538/76 3.0	1996.6956 ADS 10459	215.2 253.1	0.145: 0.443	17119–0151 549/22 4.0
ADS 10078 1996.4250	A 2084 141.5	BD +16°2956 0.484	16296+1635 538/76 2.5	1996.6956 Bu 6469	215.2 349.8	0.145: 0.461	17119–0151 550/89 1.8
ADS 10087 1996.5288	StF 2055 AB 25.8	HD 148857 1.381	16309+0159 549/22 2.5	1996.6956 ADS 10521	215.2 349.8	0.145: 0.461	17119–0151 550/89 1.8
BD +74°680 1987.2672	Mlr 198 167.8:	HD 151746 0.152:	16420+7353 538/76 3.8	1996.6956 ADS 10521	215.2 349.8	0.145: 0.461	17119–0151 550/89 1.8
ADS 10169 1996.4224	StF 2091 320.3	HD 150903 0.514	16422+4112 538/76 2.5	1996.6956 ADS 10521	215.2 349.8	0.145: 0.461	17119–0151 550/89 1.8
1996.5425	320.8	0.521	538/76 2.5	1996.6956 ADS 10521	215.2 349.8	0.145: 0.461	17119–0151 550/89 1.8
1997.1266	320.6	0.509	538/76 2.5	1996.6956 ADS 10521	215.2 349.8	0.145: 0.461	17119–0151 550/89 1.8
BD +00°3569 1987.2727	Rst 5415 342.9	HD 150732 0.274	16429+0005 549/22 3.8	1996.6956 ADS 10573	215.2 346.9:	0.145: 0.461	17217+3958 538/76 3.8
CPD –53°8153 1993.0988	Fin 251 AB 286.0:	HD 150446 0.362:	16438–5330 549/22 4.0	1996.6956 ADS 10561	215.2 346.9:	0.145: 0.461	17217+3958 538/76 3.8
BD +29°2876 1983.7151	Cou 490 24.4	HD 151236 0.202	16450+2928 549/22 3.8	1996.6956 HR 6501	215.2 346.9:	0.145: 0.461	17217+3958 538/76 3.8
ADS 10230 1994.7079	Stt 315 323.8	HD 152127 0.429	16514+0113 549/22 3.8	1996.6956 ADS 10585	215.2 346.9:	0.145: 0.461	17217+3958 538/76 3.8
1996.4197	323.3	0.462	549/22 2.5	1996.6956 ADS 10585	215.2 346.9:	0.145: 0.461	17217+3958 538/76 2.5

TABLE 2—Continued

Star Name Date (BY)	Discov. Desig. $\theta$ (deg)	HD/DM $\rho$ (arcsec)	WDS Filter, Tel.	Star Name Date (BY)	Discov. Desig. $\theta$ (deg)	HD/DM $\rho$ (arcsec)	WDS Filter, Tel.
ADS 10598	StF 2173	HD 158614	17304–0104	ADS 10916	Bu 1299 AB	BD +10°3337	17575+1058
1994.7079	328.5	0.995	549/22 3.8	1996.6902	77.5:	0.242:	549/22 2.5
1996.3242	327.0	0.884	538/76 2.5	GJ 9609	Kui 84	BD +04°3562	17584+0428
1996.5289	326.2	0.862	549/22 2.5	1996.5289	8.4:	0.199:	NF 2.5
1996.5343	326.1	0.864	549/22 2.5	BD +35°3116	Cou 1002	HD 164251	17587+3538
1996.6902	325.9	0.849	549/22 2.5	1983.7098	169.9	0.694	549/22 3.8
BD +19°3336	Cou 499	HD 158956	17313+1901	1984.3785	169.2:	0.706:	549/22 3.8
1984.3759	63.6:	0.167:	549/22 3.8	AG +24°1812	Cou 115	BD +24°3298	18000+2449
ADS 10621	A 352	HD 159240	17324+2848	1986.4047	114.2	0.276	549/22 3.8
1994.7079	355.2	0.139	549/22 3.8	1988.2584	113.9	0.270	549/22 3.8
1996.5291	352.7	0.123	538/76 2.5	CD –24°13745	Rst 3147	HD 164146	18009–2413
ADS 10624	Hu 1181	HD 159304	17326+3445	1983.4312	199.5	0.216	549/22 3.8
1989.7058	149.5	0.116	538/76 3.8	ADS 11010	Bu 1127 AB	HD 165170	18025+4414
1996.5291	315.7	0.104	538/76 2.5	1984.3839	73.7	0.872	549/22 3.8
HR 6560	Mlr 571	HD 159870	17335+5734	BD +40°3270	Cou 1785	HD 165311	18035+4032
1996.3214	300.7	0.095	549/22 2.5	1984.3840	55.1	0.148	549/22 3.8
1996.6929	298.2	0.093	549/22 2.5	BD +42°2995	Cou 1786	HD 165503	18043+4206
1997.1267	294.5	0.094	549/22 2.5	1984.3760	132.1:	0.092:	549/22 3.8
ADS 10659	A 1156	HD 159857	17366+0723	1988.6658	183.0	0.095	549/22 3.8
1994.7079	354.2	0.159	549/22 3.8	1994.6996	233.2	0.106	549/22 3.8
1996.5289	353.2	0.159	538/76 2.5	1996.4226	247.4:	0.114:	538/76 2.5
ADS 10690	StF 2207	HD 160862	17371+6707	ADS 11060	Stt 341 AB	HD 165590	18058+2127
1988.2583	115.6	0.527	549/22 3.8	1987.7617	91.5	0.500	549/22 3.8
HR 6571	CHR 63	HD 160181	17375+2419 <sup>b</sup>	1988.2584	92.2	0.498	549/22 3.8
1993.2058	289.2	0.059	549/22 3.8	1988.6655	91.9	0.504	549/22 3.8
1994.7079	...	<0.036	549/22 3.8	1994.6997	94.2	0.356	549/22 3.8
1996.3242	63.0	0.097	549/22 2.5	1996.3242	97.1	0.252	538/76 2.5
1996.5289	64.7	0.094	549/22 2.5	1996.5289	95.7	0.236	549+538 2.5
1997.1377	63.2	0.104	549/22 2.5	ADS 11071	Hu 1186	BD +38°3077	18063+3824
ADS 10696	Bu 631	HD 160438	17400–0038	1984.3760	101.6	0.449	549/22 3.8
1994.7079	103.3	0.184	549/22 3.8	1996.3243	110.1:	0.359:	538/76 2.5
1996.3242	100.7	0.189	549/22 2.5	ADS 11077	AC 15 AB	HD 165908	18070+3034
1996.5289	100.3	0.194	549/22 2.5	1995.3167	47.9:	0.566:	549/22 2.5
1996.6902	99.6	0.196	549/22 2.5	ADS 11080	Stt 524	HD 165886	18075+1940
BD +21°3188	Cou 114	HD 160935	17418+2130	1985.3369	223.7	0.308	549/22 3.0
1996.3242	38.3	0.246	549/22 2.5	1996.3242	216.6	0.371	538/76 2.5
1996.6903	38.4	0.236	549/22 2.5	1996.6902	214.9	0.376	549/22 2.5
1997.1377	40.0	0.236	538/76 2.5	ADS 11089	CHR 67 Aa	HD 166045	18078+2606
K 62	CHR 157	HD 161573	17461+0532 <sup>a</sup>	1994.6997	325.4	0.281	549/22 3.8
1994.7079	43.0	0.267	549/22 3.8	1996.5291	329.2	0.267	549/22 2.5
1996.5289	40.3	0.272	549/22 2.5	ADS 11098	Hu 314	HD 166157	18086+1838
HR 6641	CHR 64	HD 162132	17471+4737	1983.7097	95.1	0.300	549/22 3.8
1988.6654	124.7	0.186	549/22 3.8	ADS 11111	Stt 2281 AB	HD 166233	18096+0400
1989.7058	126.1	0.184	549/22 3.8	1994.6997	305.0	0.461	549/22 3.8
1996.3214	139.0	0.285	549/22 2.5	1996.4198	302.2	0.471	549/22 2.5
1996.6929	139.5	0.274	549/22 2.5	1996.6931	301.6	0.477	549/22 2.5
1997.1267	139.6	0.279	549/22 2.5	ADS 11149	Ho 82 AB, C	HD 166988	18118+3327
ADS 10795	StF 2215	HD 161833	17471+1742	1996.4226	217.7	0.703	549/22 2.5
1994.7079	261.4	0.538	549/22 3.8	1996.6929	218.4	0.698	549/22 2.5
1996.3242	260.8	0.526	549/22 2.5	BD +46°2441	Cou 2118	HD 167260	18121+4644
1996.5289	259.9	0.525	549/22 2.5	1996.3215	23.6:	0.147:	538/76 2.5
BD +37°2949	Cou 1145	HD 162338	17490+3704	1996.6929	22.5:	0.135:	549/22 2.5
1996.3243	103.4	0.136	538/76 2.5	ADS 11225	Hu 1291	BD +36°3076	18163+3625
1996.5291	100.1	0.133	538/76 2.5	1996.6929	101.3	0.146	549/22 2.5
BD +36°2956	Cou 1146	HD 162667	17505+3651	BD –20°5068	McA 51	HD 167570	18166–2033
1986.4102	154.2	0.249	538/76 3.8	1985.4899	133.4	0.254	549/22 3.8
ADS 10850	Stt 338 AB	HD 162734	17520+1520 <sup>a</sup>	ADS 11224	B 386	HD 167702	18176–2752
1982.5028	353.0	0.841	549/22 3.8	1983.4227	31.9:	0.454:	549/22 3.8
AG +42°1531	Cou 1599	BD +42°2942	17531+4212	HR 6851	CHR 68	HD 168199	18180+1347
1982.5027	129.6:	0.612:	549/22 3.8	1994.6997	53.4	0.047	549/22 3.8
ADS 10871	A 235	HD 163077	17533+2459	ADS 11240	Bu 639 AB	HD 168021	18187–1837
1996.6903	101.4	0.269	549/22 2.5	1988.2584	141.7	0.472	549/22 3.8
HR 6676	Fin 381	HD 163151	17542+1108	ADS 11260	Hu 197	HD 168499	18197+1016
1996.3242	232.5:	0.090:	549/22 2.5	1996.6930	90.6	0.431	549/22 2.5
1996.5289	224.3	0.081	549/22 2.5	BD +20°3741	Cou 202	HD 168743	18205+2055
CD –32°13517	V453 Sco	HD 163181	17563–3229	1983.7098	267.4	0.265	549/22 3.8
1993.0933	...	<0.035	549/22 4.0	ADS 11311	Stt 353 AB	HD 170000	18208+7120
ADS 10899	A 2189	HD 163471	17563+0259	1988.6656	275.9	0.369	549/22 3.8
1986.4100	354.3:	0.128:	538/76 3.8	HR 6927	Lab 5 Aa	HD 170153	18211+7244
ADS 10905	McA 49 Aa	HD 163640	17564+1820	1994.6996	236.1	0.110	549/22 3.8
1994.6997	74.6	0.092	549/22 3.8	BD +23°3312	Cou 418	HD 169030	18217+2356
1994.7079	74.9	0.094	549/22 3.8	1983.7098	250.0	0.200	549/22 3.8
1996.5289	69.5	0.099	549/22 2.5	1996.6930	261.7	0.181	549/22 2.5
ADS 10905	StF 2245 Aa, B	HD 163640	17564+1820	ADS 11313	Ho 83	HD 335988	18233+2731
1983.4203	291.9	2.627	549/22 3.8	1988.2584	108.0	0.813	549/22 3.8
1996.5289	291.9	2.603	549/22 2.5	ADS 11296	Ho 566	HD 168991	18236–2610
ADS 10912	StF 2244	HD 163624	17571+0004	1983.4227	154.9:	0.382:	549/22 3.8
1996.3242	97.7	0.501	NF 2.5	ADS 11324	AC 11	HD 169493	18250–0135
1996.5343	96.2	0.500	549/22 2.5	1984.3594	356.3	0.864	549/22 1.8
1996.6902	95.7	0.502	549/22 2.5	ADS 11344	Stt 351 AC	HD 170109	18253+4846
				1994.6996	20.4	0.725	549/22 3.8

TABLE 2—Continued

Star Name Date (BY)	Discov. Desig. $\theta$ (deg)	HD/DM $\rho$ (arcsec)	WDS Filter, Tel.	Star Name Date (BY)	Discov. Desig. $\theta$ (deg)	HD/DM $\rho$ (arcsec)	WDS Filter, Tel.
ADS 11344 1994.6996	Hu 66 AB 240.8	HD 170109 0.287	18253+4846 549/22 3.8	ADS 11803 1984.7036	A 1891 258.2:	HD 175060 0.364:	18542–1338 549/22 3.8
ADS 11339 1982.5083	Bu 1203 148.8	HD 169725 0.392	18261+0047 467/16 3.8	1985.4872 CPD –83°664	257.8: 1989.3041	0.361: 0.432:	549/22 3.8 18582–8325
1988.2584	146.8	0.418	549/22 3.8	HR 7166 Kui 89	282.2: 1988.6655	0.432: 310.2	549/22 4.0 18594–1250
HR 6928 1994.6997	CHR 71 182.8:	HD 170200 0.059:	18280+0612 549/22 3.8	1996.7010 1984.7080	56.3 33.3:	0.119 0.112:	549/22 2.5 549/22 3.8
1996.3243	153.7	0.072	549/22 2.5	1996.3270 1996.6930	46.6 199.1	0.127 0.551	549/22 2.5 549/22 2.5
1996.6930	155.4	0.069	549/22 2.5	ADS 12035 ADS 12033	A 1389 Hu 940	0.119 0.268 0.236.8 BD +33°3318	549/22 2.5 19055+3352
ADS 11395 1983.4227	B 394 184.8:	HD 170398 0.214:	18303–2533 549/22 3.8	1996.7010 1987.7590	199.1 173.1	0.119 0.178	549/22 2.5 538/76 3.8
ADS 11454 1996.4226	Hu 322 AB 81.5	HD 171365 0.152	18338+1744 549/22 2.5	ADS 12032 ADS 12040	Ho 95 StF 2454 AB	0.119 0.178 0.281.8 HD 178091	549/22 2.5 19057+2717 19062+3026
1996.6930	80.9	0.155	549/22 2.5	1982.7651 1984.3788	282.0	1.224	549/22 3.8
ADS 11454 1985.4846	Wak 21 CD 76.7:	HD 171365 0.319:	18338+1744 549/22 3.8	1984.7091 1987.7590	282.4	1.229	549/22 3.8
1996.4226	80.2	0.395	538/76 2.5	1984.7117 1996.6984	282.6	1.239	549/22 3.8
ADS 11468 1989.7112	A 1377 AB 104.3:	HD 171779 0.266:	18339+5221 549/22 3.8	1982.7651 1984.3788	283.7	1.235	549/22 3.8
1996.3215	111.3	0.253	549/22 2.5	1984.7117 1996.6984	283.7	1.290	549/22 2.5
1996.6929	111.1	0.253	549/22 2.5	HR 7248 Hei 568	284.7	1.290	549/22 2.5
HR 6977 1994.6997	CHR 74 171.4	HD 171623 0.092	18352+1812 549/22 3.8	1995.7620 1996.3270	296.7	0.310	19070+1104 549/22 2.5
1996.6930	155.9:	0.074:	549/22 2.5	1996.5372 1996.7012	295.2	0.308	549/22 2.5
BD +21°3488 1996.6930	Cou 205 151.9	HD 171681 0.271	18353+2145 549/22 2.5	HR 7263 CHR 83	294.7	0.310	549/22 2.5
ADS 11486 1996.6958	Bar 10 233.1	HD 171638 0.274	18365–1159 549/22 2.5	1996.7012 1984.3842	294.9 58.4	0.310	549/22 2.5 19081+2142
ADS 11584 1984.3842	Stt 363 160.4	HD 173831 0.096	18374+7741 549/22 3.8	ADS 12079 Ho 98 AB	295.2 198.4 AB	0.310 0.080	19083+2706 549/22 3.8
ADS 11524 1984.3760	Hu 198 137.6	HD 172171 0.456	18384+0850 549/22 3.8	1984.3842 ADS 12078	296.0 199.0 AB	0.264	549/22 3.8 19081+3031
ADS 11529 1985.4845	StF 2356 61.8	HD 172325 1.118	18384+2842 549/22 3.8	1987.7563 BD +12°3818	296.0 159.9	0.383	549/22 3.8
ADS 11520 1994.6997	A 88 AB 126.3	HD 172088 0.074	18384–0312 549/22 3.8	McA 54 GJ 747.2	297.4	0.159	19082+1215 549/22 3.8
1996.4198	11.1	0.119	549/22 2.5	1994.7079 Cou 1462	298.1	0.142	538/76 3.8
1996.6931	6.3	0.108	549/22 2.5	ADS 12101 CHR 84 Aa	298.1	0.142	19091+3436 <sup>b</sup>
ADS 11530 1996.6930	Ho 87 AB 66.8	HD 172246 0.334	18386+1632 549/22 2.5	1994.7079 1995.3141	299.2	0.090	538/76 3.8
BD +26°3325 1987.7562	Cou 641 51.8	HD 336690 0.561	18406+2636 NF 3.8	1996.4199 1994.7079	201.9: 160.4:	0.098:	549/22 2.5
ADS 11574 1994.6997	A 2988 132.9	HD 172743 0.053	18410+2450 549/22 3.8	ADS 12126 ADS 12126	299.2 A 95	0.098:	19110–0726 549/22 2.5
ADS 11579 1985.3369	StF 2367 AB 99.5	HD 172865 0.121	18413+3018 538/76 3.0	1982.5084 ADS 12145	299.2 72.2	0.276	467/16 3.8
1994.6998 1996.4198	82.1 78.9	0.265 0.280	18413+3018 549/22 2.5	1996.6984 ADS 12160	299.2 136.9	0.510:	19111+3847 549/22 2.5
1996.6930	79.9	0.285	538+549 2.5	1994.7080 Bu 139 AB	299.2 136.9	0.660	549/22 3.8
ADS 11593 1982.5083	B 2546 Aa 293.5	HD 173087 0.178	18421+3445 467/16 3.8	1996.3270 ADS 12239	299.2 136.8	0.660	538/76 2.5
1996.3215	327.4	0.131	549/22 2.5	1996.7012 Stt 371 AB	299.2 136.8	0.650	549/22 2.5
1996.6929	327.3	0.132	549/22 2.5	1982.5084 ADS 12239	299.2 160.2	0.879	467/16 3.8
ADS 11640 1984.3760	Fin 332 Aab 132.4	HD 173495 0.147	18455+0530 549/22 3.8	HR 7318 1994.7080	299.2 136.9	0.102	19177+2302 549/22 3.8
1996.6930	152.9	0.071	549/22 2.5	1995.4397 BD +19°3972	299.2 136.9	0.133	549/22 2.5
ADS 11640 1995.6061	Fin 332 Bab 131.8	HD 173495 0.141	18455+0530 549/22 2.5	Cou 321 1996.6985	299.2 317.7	0.102	19180+2012 549/22 2.5
1996.3215	130.7	0.141	549/22 2.5	HR 7338 1996.4309	299.2 179.2	0.136	19190+3727 <sup>a</sup>
1996.3270 1996.7012	130.1 127.1	0.142 0.139	538/76 2.5 549/22 2.5	1996.6984 1994.7080	299.2 179.7	0.133	549/22 2.5
ADS 11667 1986.8882	McA 53 Aa 352.7	HD 173654 0.162	18465–0058 538/76 3.8	AG +28°1963 1996.4227	299.2 140.6	0.158	538/76 2.5
BD –08°4701 1988.2584	Rst 4597 321.3	HD 173611 0.441	18466–0807 549/22 3.8	BD +26°3530 1996.5292	299.2 145.6	0.259	538/76 2.5
ADS 11680 1996.6984	Hu 1191 131.6	HD 173950 0.094	18466+3821 549/22 2.5	ADS 12329 Hwe 47	299.2 310.5	0.253	19206+0256 549/22 3.8
ADS 11698 1984.3842	Bu 971 AB 216.0	HD 174343–44 0.303	18475+4926 549/22 3.8	ADS 12366 Bu 1129	299.2 2.2	0.221	467/16 3.8
1994.6998	215.2:	0.375:	549/22 3.8	1982.5083 1996.6985	299.2 350.2	0.221	549/22 2.5
HR 7090 1996.4199	Hei 72 224.8	HD 174366 0.569	18477+4904 549/22 2.5	BD +21°3773 1996.4227	299.2 359.0	0.237	19251+2213 NF 2.5
BD –18°5070	Rst 3198	HD 173805–06	18480–1814	ADS 12501 A 160	299.2 70.6	0.310	19288+2305 NF 2.5
1983.4203	154.2:	0.416:	549/22 3.8	1983.4176 AG +29°2076	299.2 26.2	0.406:	19300+2918 NF 2.5
ADS 11709 1988.6656	Hu 326 183.9:	HD 343145 0.093:	18486+2330 549/22 3.8	1996.5292 Cou 1318	299.2 310.5	0.406:	19302+5639 NF 2.5
HR 7072 1985.3397	Kui 88 165.4:	HD 173928 0.416:	18488–1836 549/22 3.0	ADS 12552 1996.6903	299.2 93.9	0.406:	19307+2758 <sup>a</sup>
BD +24°3555	Cou 510 1996.5292	HD 174932 0.194	18521+2431 538/76 2.5	ADS 12540 McA 55 Aa	299.2 169.0	0.413	549/22 3.8
					299.2 156.3:	0.406:	467/16 3.8

TABLE 2—Continued

Star Name Date (BY)	Discov. Desig. $\theta$ (deg)	HD/DM $\rho$ (arcsec)	WDS Filter, Tel.	Star Name Date (BY)	Discov. Desig. $\theta$ (deg)	HD/DM $\rho$ (arcsec)	WDS Filter, Tel.
1994.7080	143.6	0.393	549/22 3.8	1996.6903	11.4	0.163	549/22 2.5
1996.4227	139.0	0.384	549/22 2.5	ADS 13104	StF 2597	HD 188405	19553–0644
1996.6984	138.1	0.385	549/22 2.5	1996.5293	105.4	0.377	549/22 2.5
BD +58°1929	McA 56	HD 184467	19311+5835	BD +31°3841	Cou 1469	HD 331523	19553+3146
1994.7080	292.1	0.062	549/22 3.8	1996.4227	211.9	0.258	538/76 2.5
1996.6903	255.0	0.111	549/22 2.5	BD +23°3838	Cou 1036	HD 345176	19554+2341
ADS 12567	A 713	HD 184242	19313+4729	1996.5400	199.3	0.288	NF 2.5
1984.7037	271.1	0.364	549/22 3.8	ADS 13148	YR 2 Aa	HD 189037	19556+5226 <sup>a</sup>
ADS 12600	Ho 108	HD 184470	19333+3329	1996.5431	106.2	0.083	549/22 2.5
1996.4227	20.8	0.241	549/22 2.5	1996.6931	105.7	0.082	549/22 2.5
1996.6904	20.8	0.240	549/22 2.5	ADS 13156	A 604	HD 188914	19573+0513
HR 7436	CHR 87	HD 184603	19336+3846 <sup>a</sup>	1996.5321	52.6	0.150	549/22 2.5
1994.7080	40.7	0.100	549/22 3.8	ADS 13176	AC 16 AB	HD 189214	19579+2715
1996.6904	58.5	0.081	549/22 2.5	1983.4176	234.2	0.433	549/22 3.8
HR 7441	WRH 32	HD 184759	19348+2928	ADS 13186	Stt 392 AB	HD 189377	19579+4216
1986.8856	8.4:	0.044:	549/22 3.8	1996.5403	183.6	0.113	549/22 2.5
ADS 12656	Hu 679	HD 185082	19351+5038	ADS 13198	StF 2609	HD 189432	19586+3806
1996.6903	235.6	0.328	549/22 2.5	1989.7113	24.0:	1.989:	538/76 3.8
BD +63°1544	Mlr 56 AB	HD 185977	19376+6344	HR 7637	Ho 276	HD 189340	19598–0957
1984.7039	104.8:	0.107:	549/22 3.8	1996.5320	331.8	0.163	549/22 2.5
BD +01°4050	Hei 176	HD 185198	19379+0130	BD +34°3840	Cou 1947	HD 189983	20016+3435
1996.5293	146.2	0.217	538/76 2.5	1996.5402	91.2	0.286	538/76 2.5
ADS 12746	Hu 953	HD 185696	19389+3514	ADS 13277	Stt 395	HD 190004	20020+2456
1996.6904	287.2	0.204	549/22 2.5	1982.5084	120.6	0.835	467/16 3.8
BD +26°3631	Cou 822	HD 185819	19400+2712	1984.4551	121.3	0.865	549/22 1.8
1983.7098	144.5	0.233	549/22 3.8	1989.7113	120.7:	0.870:	549/22 3.8
1996.4227	140.6	0.211	549/22 2.5	HR 7684	CHR 91	HD 190781	20045+4814
BD +30°3687	Cou 1164	HD 331100	19404+3118	1985.8425	205.1	0.354	549/22 3.8
1996.6904	330.6:	0.350:	549/22 2.5	1996.5403	208.4	0.377	549/22 2.5
BD +31°3715	Cou 1163 Aa	HD 331099	19404+3121	HR 7677	CHR 92	HD 190590	20050+2313
1996.4227	176.5	0.138	538/76 2.5	1994.7025	84.9	0.059	549/22 3.8
ADS 12775	CHR 88 Aa	HD 185762	19407–0037 <sup>b</sup>	ADS 13461	Stt 400	HD 191854	20102+4357
1990.3445	336.0:	0.084:	549/22 4.0	1994.7080	353.1	0.405	549/22 3.8
1995.4398	227.2	0.076	549/22 2.5	1996.5403	349.3	0.440	549/22 2.5
1994.7080	241.1	0.078	549/22 3.8	ADS 13508	A 282 AB	HD 192124	20120+3429
1996.5293	205.2	0.086	549/22 2.5	1989.7139	...	<0.036	538/76 3.8
1997.4604	191.0	0.081	538/76 2.5	1996.5402	204.3	0.173	549/22 2.5
HR 7499	Kui 94	HD 186307	19420+4015	ADS 13493	Bu 1205	HD 191841	20123–0806
1996.4200	177.6	0.216	549/22 2.5	1984.7039	236.3	0.287	549/22 3.8
1996.6904	177.8	0.224	549/22 2.5	BD +22°3963	Cou 123	HD 346003	20123+2248
ADS 12808	Stt 380 AB	HD 186203	19426+1150	1984.7039	238.8	0.260	549/22 3.8
1989.7112	77.1:	0.444:	549/22 3.8	BD +30°3951	Cou 1475	HD 333792	20140+3031
1994.7080	76.9	0.425	549/22 3.8	1996.5402	69.3	0.209	NF 2.5
1996.5293	76.5	0.414	549/22 2.5	ADS 13564	A 1204	HD 192559	20144+3129
ADS 12864	AGC 10 AB	HD 186587	19449+1047	1983.4176	138.0:	0.351:	549/22 3.8
1985.4901	141.0:	0.258:	538/76 3.8	1988.6575	139.6	0.359	538/76 3.8
ADS 12906	A 1404 AB	HD 186996	19459+3953	1994.7025	141.2	0.364	549/22 3.8
1996.4200	289.0	0.180	538/76 2.5	BD +37°3845	Cou 2416	HD 192744	20151+3742
1996.6904	289.6	0.183	549/22 2.5	1996.6986	2.0	0.095	549/22 2.5
ADS 12924	A 2993	HD 186949	19474–0148	ADS 13589	Bu 983 AB	HD 192685	20153+2536
1996.6985	319.2	0.193	549/22 2.5	1996.4337	179.3	0.531	549/22 2.5
HR 7536	Bla 6	HD 187076	19474+1832	ADS 13611	A 2095 AB	HD 192911	20157+4339
1987.7620	30.9	0.051	549/22 3.8	1983.4176	161.3:	0.182:	549/22 3.8
1988.6575	10.8	0.050	549/22 3.8	HR 7755	CHR 93	HD 192983	20157+5014
ADS 12962	StF 2583 AB	HD 187259	19487+1149	1989.7061	182.7	0.141	549/22 3.8
1984.7117	108.5	1.444	549/22 3.8	HR 7744	McA 60 Aa, B	HD 192806	20158+2749
ADS 12961	A 1658	HD 187283	19487+1504	1989.7112	142.1:	0.284:	549/22 3.8
1996.6985	159.3	0.209	549/22 2.5	1994.7000	143.9	0.272	549/22 3.8
BD +18°4252	McA 58	HD 187321–22	19487+1852	1996.5402	144.3	0.256	549/22 2.5
1987.7620	98.2	0.413	549/22 3.8	BD +19°4355	Cou 219	HD 193079	20177+2025
1994.7080	99.0	0.413	549/22 3.8	1987.7538	110.4	0.391	538/76 3.8
ADS 12972	Stt 387	HD 187458	19487+3519	ADS 13728	A 1427 AB	HD 193702	20203+3924
1996.5430	146.9	0.627	549/22 2.5	1996.5294	116.4	0.315	549/22 2.5
ADS 12973	AGC 11 AB	HD 187362	19490+1909	1996.6960	116.6	0.312	549/22 2.5
1994.7080	157.9	0.231	549/22 3.8	ADS 13777	A 288	HD 194113	20231+2052
1996.5292	153.5	0.208	549/22 2.5	1996.5399	253.0	0.148	538/76 2.5
ADS 12986	A 718 BC	HD 187613	19490+4423	ADS 13809	Wor 33 Aa	HD 194283	20244+1213
1985.8370	36.6	0.213	549/22 3.8	1988.6630	139.7	0.485	538/76 3.8
HR 7571	CHR 90	HD 187949	19531–1436	BD +23°4004	Cou 125	HD 194359	20244+2417
1994.7079	159.9	0.192	549/22 3.8	1985.4902	115.2	0.366	549/22 3.8
1996.5320	145.8:	0.149:	549/22 2.5	BD +60°2125	Mlr 503	HD 194932	20251+6118
HR 7592	Dju 4	HD 188260	19535+2405	1984.7012	33.1	0.172	549/22 3.8
1989.7113	245.2:	1.190:	549/22 3.8	ADS 13850	A 730	HD 194882	20251+5935
BD +32°3614	Cou 1626	HD 226401	19539+3257	1982.5084	328.6	0.225	467/16 3.8
1996.6904	98.3:	0.161:	549/22 2.5	ADS 13887	SHJ 323 AB	HD 194943	20289–1749
ADS 13125	Ho 581	HD 188753	19550+4152	1982.7598	204.8	0.760	NF 3.8
1996.4199	69.6	0.361	538/76 2.5	ADS 13894	A 610	HD 195090	20290+0710
1996.6903	72.1	0.355	549/22 2.5	1996.5321	41.8	0.359	538/76 2.5
ADS 13135	Hu 687	HD 188871	19549+5049	1996.6987	42.3:	0.363:	549/22 2.5
1982.5083	347.1:	0.140:	467/16 3.8	Vyss 67	Wor 9 AB	HD 340345	20302+2651
1996.4199	12.1	0.162	538/76 2.5	1983.4287	315.8	1.023	549/22 3.8

TABLE 2—Continued

Star Name Date (BY)	Discov. Desig. $\theta$ (deg)	HD/DM $\rho$ (arcsec)	WDS Filter, Tel.	Star Name Date (BY)	Discov. Desig. $\theta$ (deg)	HD/DM $\rho$ (arcsec)	WDS Filter, Tel.
1984.4443	315.5	0.985	550/89 1.8	ADS 14412	A 751	HD 199306	20537+5918
ADS 13920	Bu 63 AB	HD 195325	20303+1054	1994.7000	111.0	0.160	549/22 3.8
1996.7013	349.5:	0.915:	549/22 2.5	ADS 14430	StF 2735	HD 199223	20557+0432
HR 7837	Fin 336	HD 195330	20311–1503	1982.7598	282.9	2.052	NF 3.8
1996.5320	283.5	0.113	549/22 2.5	ADS 14473	A 755	HD 199739	20567+5656
ADS 13944	A 1675	HD 195481	20311+1548	1996.5375	184.9	0.086	549/22 2.5
1994.7025	148.0	0.081	549/22 3.8	ADS 14499	StF 2737 AB	HD 199766	20591+0418
AG +33°1959	Cou 1962	BD +33°3930	20311+3333	1984.7118	286.3	0.985	549/22 3.8
1984.7013	234.3:	0.074:	549/22 3.8	ADS 14526	McA 65 Aa	HD 200120	20598+4731
1994.7000	294.6	0.225	538/76 3.8	1996.5375	29.5	0.196	549/22 2.5
1996.5402	299.4	0.154	538/76 2.5	HR 8038	Kui 102	HD 199942	21001+0731
ADS 13946	Da 1 BC	HD 195482	20312+1116 <sup>b</sup>	1982.5084	63.0	0.278	467/16 3.8
1985.8396	298.0	0.109	549/22 3.8	1996.5377	19.2	0.360	549/22 2.5
1989.7061	315.9:	0.106:	549/22 3.8	BD +23°4216	Cou 128	HD 200290	21019+2340
1994.7025	340.7	0.084	549/22 3.8	1985.4902	138.6	0.194	538/76 3.8
1996.5399	348.8	0.071	549/22 2.5	ADS 14585	Bu 1138 AB	HD 200595	21028+4551
ADS 13946	CHR 9 Aa	HD 195482	20312+1116	1985.8398	170.0	0.069	549/22 3.8
1985.8396	127.0	0.342	549/22 3.8	ADS 14634	Hu 765 BC	HD 201267	21055+6210
1994.7025	132.2:	0.368:	549/22 3.8	1986.8856	32.8	0.732	538/76 3.8
1996.5399	132.9	0.364	549/22 2.5	AG +26°2446	Cou 527 Aa	BD +26°4074	21065+2655
1996.7013	132.1:	0.370:	549/22 2.5	1988.6631	333.3:	0.372:	549/22 3.8
ADS 13964	StF 2695	HD 195692	20320+2548	1987.7566	334.1	0.379	538/76 3.8
1996.7013	241.1	0.186	549/22 2.5	ADS 14648	Bu 368 AB	HD 201038	21074–0814
ADS 13961	See 512	HD 195536	20325–1637	1994.7081	275.7	0.193	549/22 3.8
1996.5320	105.3:	0.131:	538/76 2.5	AG +29°2499	Cou 1332	BD +28°4003	21091+2922
BD +49°3310	McA 61	HD 196089	20330+4950	1996.5376	19.2	0.217	538/76 2.5
1994.7000	203.7	0.067	549/22 3.8	ADS 14749	StF 2780 Aa, B	HD 202214	21118+5959
1996.5403	211.4	0.074	549/22 2.5	1994.7001	214.5	1.049	549/22 3.8
HR 7866	WRH 34 AB	HD 196093	20339+3515	ADS 14749	McA 67 Aa	HD 202214	21118+5959
1982.7571	279.7	0.284	549/22 3.8	1994.7001	1.2:	0.052:	549/22 3.8
ADS 14073	Bu 151 AB	HD 196524	20375+1436	ADS 14761	Hu 767	HD 202128	21135+1559
1994.7025	287.9	0.220	549/22 3.8	1996.5376	138.2	0.194	549/22 2.5
1996.5293	317.9	0.322	549/22 2.5	ADS 14784	StF 2783	HD 202519	21141+5818
1996.5399	318.2	0.323	549/22 2.5	1982.5084	7.4	0.762	467/16 3.8
ADS 14099	Hu 200 AB	HD 196662	20393–1457	ADS 14773	Stt 535 AB	HD 202275	21145+1000
1985.3370	112.2	0.350	549/22 3.0	1996.5295	17.5	0.270	549/22 2.5
1985.3370	111.6	0.347	467/16 3.0	1996.5377	17.6	0.270	549/22 2.5
BD +04°4510	Kui 99	HD 196795	20396+0458	ADS 14775	A 883 AB	HD 202260	21147–0050
1996.6906	126.0	0.635	549/22 2.5	1994.7026	2.2	0.112	549/22 3.8
1996.8624	126.4	0.623	549/22 2.5	1996.5377	353.0	0.120	549/22 2.5
ADS 14126	Stt 410 AB	HD 197018	20396+4035	ADS 14787	AGC 13 AB	HD 202444	21148+3803
1985.8396	6.3	0.838	549/22 3.8	1982.5084	124.7	0.659	467/16 3.8
ADS 14121	Wck 2 Aa	HD 196867	20396+1555	ADS 14864	Bag 9 Aa	HD 203338	21193+5837
1994.7026	185.7	0.207	549/22 3.8	1994.7001	121.6	0.113	549/22 3.8
1996.5294	164.7	0.178	549/22 2.5	1996.5375	121.8	0.112	549/22 2.5
1996.5376	163.7	0.179	549/22 2.5	ADS 14879	A 295	HD 203302	21206+2743
HR 7922	McA 62	HD 197226	20410+3905	1987.7539	245.4	0.369	538/76 3.8
1985.8396	104.0	0.082	549/22 3.8	ADS 14893	A 617	HD 203345	21214+1020
AG +34°2072	Cou 1965	BD +34°4128	20424+3455	1982.7600	272.5	0.170	NF 3.8
1996.5376	273.0:	0.343:	538/76 2.5	1994.7081	94.3	0.176	549/22 3.8
BD +39°4290	Cou 2421	BD +39°4290	20432+4026	1996.5376	76.4	0.124	549/22 2.5
1996.5375	103.1	0.323	NF 2.5	ADS 14954	Bu 164 AB	HD 203943	21251+0923
BD +40°4297	Cou 2423	BD +40°4297	20444+4103	1996.5377	190.2	0.119	549/22 2.5
1996.5375	178.5	0.265	NF 2.5	BD +17°4577	Cou 430	HD 203991	21252+1828
ADS 14233	StF 2723 AB	HD 197684	20449+1219	1983.4259	234.7	0.628	549/22 3.8
1982.5057	126.8	1.091	549/22 3.8	1983.7101	234.2:	0.628:	549/22 3.8
1982.7596	125.6	1.110	NF 3.8	ADS 14958	A 887 AB	HD 204011	21254+1121
1983.4287	123.8	1.093	549/22 3.8	1996.5376	178.7	0.107	549/22 2.5
ADS 14238	Bu 64 AB	HD 197683	20450+1244	ADS 14960	A 2289 AB	HD 203993	21255+0203
1989.7061	166.3	0.650	538/76 3.8	1996.5377	344.9	0.094	549/22 2.5
1994.6998	167.7	0.668	549/22 3.8	HR 8246	CHR 102	HD 205314	21329+4959
HR 7958	Kui 101	HD 198151	20466+4632	1985.8397	68.1	0.057	549/22 3.8
1984.7013	109.0	0.396	549/22 3.8	ADS 15103	Stt 442	HD 205599	21339+6148
1985.4902	108.8	0.377	549/22 3.8	1989.6188	323.6:	0.237:	538/76 1.8
1996.5375	111.8	0.280	549/22 2.5	HR 8274	CHR 104	HD 206027	21387+2530 <sup>a</sup>
BD +43°3720	Cou 2425	BD +43°3720	20473+4345	1985.8398	206.0:	0.104:	549/22 3.8
1996.8679	56.2	0.227	538/76 2.5	ADS 15176	Bu 1212 AB	HD 206058	21395–0003
ADS 14296	Stt 413 Aa, B	HD 198183	20474+3629	1982.5085	243.0	0.346	467/16 3.8
1985.3370	15.8	0.837	549/22 3.0	1986.8910	252.7	0.430	549/22 3.8
1996.5376	10.4	0.860	549/22 2.5	1988.6658	257.0	0.458	549/22 3.8
ADS 14306	Bu 268	HD 198253	20477+4204	1994.7081	266.5	0.513	549/22 3.8
1985.8396	202.0	0.430	549/22 3.8	1996.5349	269.0	0.519	549/22 2.5
ADS 14333	J 194 AB	BD +10°4385	20494+1124	ADS 15182	A 772	HD 206168	21395+3009
1982.5057	198.7	0.766	549/22 3.8	1996.6960	199.5	0.094	549/22 2.5
1983.4259	197.4	0.774	549/22 3.8	ADS 15236	Hu 280	HD 206512	21423+0555
ADS 14372	A 2286 AB, C	HD 198706	20521+0205	1996.5349	154.5	0.201	549/22 2.5
1996.5377	44.8:	0.992:	538/76 2.5	HR 8300	Kui 108	HD 206644	21424+4105
HR 7990	McA 64	HD 198743	20527–0859	1994.7081	328.1	0.149	549/22 3.8
1996.5377	136.6	0.058	549/22 2.5	1996.5350	304.3	0.119	549/22 2.5
ADS 14404	Ho 146	HD 199071	20536+3514	ADS 15251	Bu 688 AB	HD 206656	21426+4103
1986.8966	47.8	0.353	549/22 3.8	1983.4341	204.1	0.335	549/22 3.8

TABLE 2—Continued

Star Name Date (BY)	Discov. Desig. $\theta$ (deg)	HD/DM $\rho$ (arcsec)	WDS Filter, Tel.	Star Name Date (BY)	Discov. Desig. $\theta$ (deg)	HD/DM $\rho$ (arcsec)	WDS Filter, Tel.
ADS 15267 1996.5350	Ho 166 45.4	HD 206792 0.259	21439 + 2751 549/22 2.5	ADS 15971 1996.8682	StF 2909 AB 192.3	HD 213051–52 1.916	22288 – 0001 549/22 2.5
ADS 15270 1984.4471	StF 2822 AB	HD 206826–27	21441 + 2845 549 + 550 1.8	HR 8572	McA 71 1987.7594	HD 213310 46.2	22295 + 4742 549/22 3.8
ADS 15281 1994.7081	Bu 989 AB	HD 206901	21446 + 2539 549/22 3.8	ADS 15988	StF 2912 1982.5085	HD 213235 118.4	22300 + 0426 467/16 3.8
1996.5349	195.6	0.089	549/22 2.5		1986.8939 1994.7081	116.6 118.8	0.743 0.491
ADS 15300 1996.5349	A 1223 AB	HD 207033	21459 + 1153 538/76 2.5		1996.5295 1996.5432	117.3 117.6	0.680 0.463
HR 8335 1996.5350	Miu 3	HD 207330	21468 + 4919 549/22 2.5	ADS 15992	Hu 388 1996.5322	HD 213315 54.7	22302 + 2228 538/76 2.5
ADS 15336 1996.5349	Hu 378	HD 207380	21481 + 2100 538/76 2.5	AG + 22°2442	Vou 38 AB 1996.5322	BD + 21°4772 211.2:	22305 + 2232 538/76 2.5
HR 8344 1994.7081	Cou 14	HD 207652	21501 + 1718 549/22 3.8	LTT 16615	Kui 112 Aa 1996.5321	BD + 53°2911 252.3	22329 + 5348 0.714
1996.5295	224.9	0.336	549/22 2.5	ADS 16046	Uu 1320 1996.6987	HD 213776 334.6	NF 2.5 0.312
ADS 15375 1983.4341	Ho 170	HD 207782	21504 + 3927 549/22 3.8	ADS 16057	StF 2924 AB 1982.5085	HD 213973 89.7	22329 + 4923 0.439
BD + 09°4913 1995.7596	Hei 599 Aa, B	HD 207758	21511 + 1022 549/22 2.5		1984.7042 1996.5322	467/16 3.8 0.426	22341 + 3823 549/22 3.8
1996.5349	77.2	0.216	549/22 2.5	ADS 16072	Hu 983 1984.7042	HD 214051 224.4	22339 + 6550 0.076
HR 8355 1996.5348	Fin 358 AB	HD 208008	21536 – 1019 549/22 2.5	ADS 16073	A 1468 1995.6094	HD 213990 255.4	22342 + 5405 0.255
1996.5348	110.4	0.136	538/76 2.5	ADS 16098	StF 2924 AB 1994.7083	HD 213919 304.8	22344 + 2623 0.297
ADS 15435 1988.6576	A 620	HD 208341	21545 + 4403 538/76 3.8		1996.5322 1996.6987	HD 213919 0.119	NF 2.5 538/76 2.5
ADS 15431 1996.5349	Cou 432 BC	HD 208202	21543 + 1943 538/76 2.5	ADS 16098	A 1470 1994.7083	HD 214222 86.3	22357 + 5312 0.146
1996.6960	211.5	0.139	538/76 2.5		1996.5321 1996.6987	22357 + 5312 0.169	22357 + 5312 538/76 2.5
ADS 15444 1984.7118	Ku 62	HD 208377	21550 + 3843 549/22 3.8	ADS 16073	StF 2924 AB 1994.7083	HD 214221 44.3	22357 + 5413 0.305
ADS 15447 1996.5349	Bu 75 AB	HD 208348	21555 + 1053 549/22 2.5	ADS 16098	A 1470 1994.7083	HD 214222 86.3	22357 + 5312 0.146
1996.5349	13.3	0.714	549/22 2.5		1996.5321 1996.6987	22357 + 5312 0.169	22357 + 5312 538/76 2.5
ADS 15454 1996.6960	A 1449	HD 208490	21556 + 3849 549/22 2.5	ADS 16098	StF 2924 AB 1994.7083	HD 214222 224.4	22357 + 5413 0.076
ADS 15478 1987.7594	A 622	HD 208610	21572 + 1047 538/76 3.8	ADS 16073	A 1468 1995.6094	HD 213990 255.4	22344 + 2623 0.255
1996.5349	303.3	0.152	538/76 3.8	ADS 16098	StF 2924 AB 1996.5322	HD 213919 304.8	22344 + 2623 0.297
1996.5349	299.5	0.130	549/22 2.5		1996.5322 1996.6987	22344 + 2623 0.119	NF 2.5 538/76 2.5
ADS 15487 1996.5350	A 1226	HD 208687	21573 + 3241 549/22 2.5	ADS 16113	Cou 737 Aa 1996.5322	HD 214222 4.2	22357 + 2645 0.125
1996.5350	215.5	0.132	549/22 2.5	ADS 16113	StF 2924 AB 1996.5322	HD 214222 0.125	22357 + 2645 0.125
ADS 15530 1983.4341	Hu 774	HD 209103	21597 + 4907 549/22 3.8	ADS 16113	StF 2924 AB 1994.7083	HD 214222 0.1: 0.1:	22357 + 2645 0.534
1996.5350	317.3	0.174	549/22 3.8		1996.5323 1996.6987	22357 + 2645 0.300	22357 + 2645 NF 2.5
1996.5350	339.8	0.185	549/22 2.5	ADS 16113	StF 2924 AB 1994.7083	HD 214222 288.9	22357 + 2645 0.300
BD – 10°5812 1996.5348	Rst 4095	HD 209208	22018 – 0952 549/22 2.5	ADS 16113	StF 2924 AB 1994.7083	HD 214558 193.9	22383 + 4511 <sup>a</sup> 0.105
1996.5348	182.2	0.125	549/22 2.5		1996.5321 1996.6987	22383 + 4511 <sup>a</sup> 0.114	22383 + 4511 <sup>a</sup> 0.146
AG + 26°2642 1994.7081	Cou 537	BD + 25°4677	22077 + 2622 538/76 2.5	ADS 16130	A 2695 1985.8398	HD 214448 205.5	22384 – 0754 0.114
1996.5350	241.6	0.098	538/76 2.5	ADS 16131	Ho 479 1994.7083	HD 214606 136.8	22373 + 6913 0.135
BD + 22°4563 1982.5085	Cou 136	HD 210444	22100 + 2308 467/16 3.8	ADS 16131	Ho 479 1996.5432	HD 214494 94.7	22385 + 0218 0.487
1982.5085	44.6	0.393	549/22 3.8	ADS 16131	Ho 731 1987.7621	HD 215319 94.3:	22394 + 8124 0.145:
1983.4341	44.2	0.406	549/22 3.8		1996.5321 1996.6987	22394 + 8124 0.145:	NF 2.5 538/76 2.5
1996.5349	33.1	0.484	549/22 2.5	ADS 16157	A 2099 1996.5323	HD 214699 160.9	22400 + 0113 0.682
BD + 23°4482 1996.5349	Egg 4	HD 210595	22110 + 2429 538/76 2.5	ADS 16157	A 2099 1996.5323	HD 214699 160.9	22400 + 0113 NF 2.5
1996.5349	152.1	0.529	538/76 2.5	ADS 16164	Ho 188 1983.7102	HD 214807 205.5	22402 + 3732 <sup>a</sup> 0.322
ADS 15720 1996.5350	A 1457	HD 210787	22114 + 5259 549/22 2.5	ADS 16173	Ho 296 AB 1994.7083	HD 214850 201.6	22409 + 1433 0.370
1996.5350	109.9	0.178	549/22 2.5	ADS 16173	Ho 296 AB 1994.7083	HD 214850 213.0	22409 + 1433 0.370
ADS 15756 1983.4341	Bu 991	HD 211113	22136 + 5234 549/22 3.8	ADS 16173	Ho 296 AB 1995.6095	HD 214850 212.2	22409 + 1433 0.375
1983.4341	139.3	0.656	549/22 3.8	ADS 16173	Ho 296 AB 1996.5322	HD 214850 212.2	22409 + 1433 0.375
ADS 15758 1982.5085	McA 70 Ab	HD 211073	22139 + 3943 467/16 3.8	HR 8629	Kui 114 1996.5323	HD 214810 309.4	22408 – 0333 0.366
1982.5085	8.1:	0.502:	467/16 3.8	ADS 16173	Ho 296 AB 1996.5323	HD 214810 309.4	22408 – 0333 0.366
1982.7654	7.7	0.499	549/22 3.8	ADS 16173	Ho 296 AB 1996.5323	HD 214810 309.4	22408 – 0333 0.366
1996.5350	13.7:	0.411:	549/22 2.5	ADS 16173	Ho 296 AB 1996.5323	HD 214810 309.4	22408 – 0333 0.366
BD + 63°1823 1986.8857	Mlr 58	HD 211553	22159 + 6413 538/76 3.8	ADS 16173	Ho 296 AB 1996.5323	HD 214810 309.4	22408 – 0333 0.366
1986.8857	105.9	0.462	538/76 3.8	ADS 16173	Ho 296 AB 1996.5323	HD 214810 309.4	22408 – 0333 0.366
AG + 34°2295 1996.5350	Cou 1191	BD + 33°4470	22164 + 3438 538/76 2.5	ADS 16173	Ho 296 AB 1996.5323	HD 214810 309.4	22408 – 0333 0.366
1996.5350	206.2	0.466	538/76 2.5	ADS 16214	Stt 476 AB 1994.7083	HD 215242 34.2	22431 + 4710 0.079
ADS 15896 1984.7041	Cou 139 CD	BD + 20°5138	22237 + 2051 549/22 3.8	ADS 16214	Stt 476 AB 1994.7083	HD 215242 51.7	22431 + 4710 0.480
1984.7041	67.3	0.403	549/22 3.8	ADS 16214	Stt 476 AB 1996.5321	HD 215242 45.1	22431 + 4710 0.444
1985.8425	67.3	0.403	549/22 3.8	ADS 16214	Stt 476 AB 1996.5321	HD 215242 302.2	22431 + 4710 0.491
1994.7081	74.2	0.403	549/22 3.8	ADS 16249	Stt 476 AB 1996.5321	HD 215590 302.2	22445 + 5129 0.491
1996.5322	76.1:	0.395:	538/76 2.5	ADS 16249	Stt 476 AB 1996.5321	HD 215590 302.2	22445 + 5129 0.491
ADS 15902 1996.5323	Bu 172 AB	HD 212404	22241 – 0450 549/22 2.5	ADS 16249	Stt 476 AB 1996.5321	HD 215590 302.2	22445 + 5129 0.491
1996.5323	75.9	0.234	549/22 2.5	ADS 16249	Stt 476 AB 1996.5321	HD 215590 302.2	22445 + 5129 0.491
AG + 42°2172 1996.5322	Cou 1986	BD + 42°4396	22263 + 4308 NF 2.5	BD + 43°4326	Cou 2244 1996.5322	HD 216488 267.7	22527 + 4347 0.209
1996.5322	10.8	0.474	NF 2.5	BD + 43°4326	Cou 2244 1996.5322	HD 216488 267.7	22527 + 4347 0.209
ADS 15934 1996.8682	SHJ 345 AB	HD 212697–98	22266 – 1645 549/22 2.5	ADS 16345	Bu 382 AB 1984.7069	HD 216608 211.2	22537 + 4445 0.951
1996.8682	358.5	1.880	549/22 2.5	ADS 16345	Bu 382 AB 1984.8434	HD 216608 210.5	22537 + 4445 0.945
BD + 39°4837 1996.5322	Cou 1642	HD 212900	22268 + 4033 538/76 2.5	BD + 22°4742	Cou 240 1984.7041	HD 216879 290.6	22564 + 2257 0.731
1996.5322	83.8	0.171	538/76 2.5	BD + 22°4742	Cou 240 1984.7041	HD 216879 290.6	22564 + 2257 0.731
ADS 15956 1996.5322	Bu 291 AB	HD 212923	22277 + 0431 538/76 2.5	ADS 16345	Bu 382 AB 1985.4904	HD 216608 290.4	22537 + 4445 0.728
1996.5322	222.6	0.267	538/76 2.5	ADS 16345	Bu 382 AB 1985.4904	HD 216608 290.4	22537 + 4445 0.728
ADS 15962 1984.7119	Bu 701 AB	HD 212989	22281 + 1215 549/22 3.8	BD + 23°4640	Cou 542 Aa 1983.7101	HD 216963 107.2	22570 + 2441 0.162
1984.7119	203.6:	0.942:	549/22 3.8	BD + 23°4640	Cou 542 Aa 1983.7101	HD 216963 107.2	22570 + 2441 0.162

TABLE 2—Continued

Star Name Date (BY)	Discov. Desig. $\theta$ (deg)	HD/DM $\rho$ (arcsec)	WDS Filter, Tel.	Star Name Date (BY)	Discov. Desig. $\theta$ (deg)	HD/DM $\rho$ (arcsec)	WDS Filter, Tel.
1984.7041	125.8	0.125	549/22 3.8	BD +63°1995	Mlr 72	HD 220907	23269 + 6414
1994.7083	321.0	0.193	549/22 3.8	1986.8914	160.4:	0.198:	538/76 3.8
1996.5322	335.9	0.220	538/76 2.5	1994.7083	165.6	0.184	549/22 3.8
ADS 16417	Stt 536 AB	HD 217166	22586+0921	BD +41°4791	Cou 1847	HD 221102	23288 + 4225
1982.5085	347.0	0.323	467/16 3.8	1986.8912	31.9	0.093	549/22 3.8
1996.5295	347.1	0.195	549/22 2.5	ADS 16800	Bu 1266 AB	HD 221264	23304 + 3050
1996.5432	347.0	0.196	549/22 2.5	1994.7002	54.7:	0.209:	549/22 3.8
ADS 16428	Stt 483	HD 217232	22592+1144	1996.5404	47.4	0.190	549/22 2.5
1984.7041	305.1	0.581	549/22 3.8	1996.8628	43.2	0.188	549/22 2.5
1994.7083	324.9	0.521	549/22 3.8	ADS 16806	Bu 774	HD 221333	23307 + 6419
1996.5323	328.4	0.508	549/22 2.5	1987.7568	338.9:	0.642:	NF 3.8
HR 8762	WRH 37 Aa, B	HD 217675	23019+4220	ADS 16819	Hu 298	HD 221445	23322 + 0705
1996.5297	328.9	0.105	549/22 2.5	1994.7029	299.6	0.180	549/22 3.8
ADS 16457	A 194	HD 217712	23020+4800	1996.5323	314.4	0.194	549/22 2.5
1985.8398	294.8	0.135	549/22 3.8	AG +19°2431	Cou 340	BD +18°5163	23322 + 1942
1996.5404	290.5:	0.174:	549/22 2.5	1996.5403	56.3:	0.284:	NF 2.5
ADS 16463	Hu 398	HD 217716	23024+1837	ADS 16836	Bu 720	HD 221673	23340 + 3120
1996.5403	271.3:	0.425:	538/76 2.5	1984.0601	82.2	0.510	549/22 3.8
ADS 16467	Bu 1147 AB	HD 217782	23026+4245	1996.5323	91.2	0.531	549/22 2.5
1985.8398	339.3	0.401	549/22 3.8	1996.7018	90.9	0.532	549/22 2.5
1996.6990	349.6	0.362	549/22 2.5	ADS 16873	Fox 102 AB	HD 222068	23374 + 0737
BD +63°1925	Mlr 70	HD 218179	23048+6405	1996.5377	346.2	0.188	538/76 2.5
1984.7043	252.3:	0.583:	549/22 3.8	ADS 16880	Hu 1324	...	23378 + 6601
1988.6577	251.9:	0.579:	549/22 3.8	1994.7083	341.7:	0.360:	538/76 3.8
ADS 16497	A 417 AB	HD 218060	23052-0742	ADS 16886	A 1493	HD 222186	23382 + 5514 <sup>a</sup>
1996.5295	133.6	0.185	549/22 2.5	1995.7705	341.3	0.144	549/22 2.5
ADS 16505	A 196	HD 218196	23055+4643	1996.5405	339.7:	0.133:	538/76 2.5
1983.7102	317.1	0.476	549/22 3.8	ADS 16904	A 643 Aa, B	HD 222326	23393 + 4543
ADS 16538	Stt 489 AB	HD 218658	23079+7523	1996.5404	154.2:	0.226:	549/22 2.5
1984.0573	332.0	0.543	549/22 3.8	BD +45°4301	Mlr 4	HD 222516	23411 + 4613
ADS 16539	A 1238 AB	HD 218550	23088+1058	1996.5404	180.0	0.105	549/22 2.5
1996.5377	153.5	0.290	538/76 2.5	ADS 16941	A 1495	HD 222672	23425 + 5436
HR 8817	Rst 320	HD 218640	23099-2227	1987.7540	181.0	0.467	538/76 3.8
1982.5087	323.6	0.293	467/16 3.8	1995.7705	183.1	0.488	549/22 2.5
ADS 16561	Bu 385 AB	HD 218767	23103+3229	HR 9003	McA 75 Aab	HD 223047	23460 + 4625
1987.7567	91.2	0.644	549/22 3.8	1982.5087	286.8	0.271	467/16 3.8
1988.6659	91.3	0.649	549/22 3.8	1994.7083	280.7:	0.313:	549/22 3.8
ADS 16576	Ho 197 AB	HD 218917	23114+3813	1996.5323	280.7	0.309	549/22 2.5
1996.6990	308.7:	0.306:	549/22 2.5	AG +35°2467	Cou 944	BD +35°5106	23485 + 3608
ADS 16586	A 197	HD 219040	23123+4449	1989.7173	95.8	0.196	538/76 3.8
1987.7567	159.1:	0.475:	538/76 3.8	1995.7706	94.6	0.194	549/22 2.5
ADS 16591	A 2298	HD 219018	23126+0241	ADS 17019	B 2547 AB	HD 223331	23486 + 3616
1996.5297	306.5	0.167	538/76 2.5	1996.5404	13.4	0.201	549/22 2.5
ADS 16610	A 1481	BD +38°4957	23137+3931	BD +18°5223	Cou 343	HD 223402	23491 + 1915
1996.5404	186.2	0.154	538/76 2.5	1987.7542	115.2	0.197	538/76 3.8
ADS 16633	Bu 1220 BC	HD 219430	23159-0905	AG +61°1489	Mlr 24 AB	BD +61°2536	23493 + 6158
1983.7103	99.4:	0.391:	NF 3.8	1987.7568	306.2:	0.533:	NF 3.8
ADS 16645	Bu 853 AB	BD +61°2414	23168+6148	ADS 17030	A 424	HD 223486	23498 + 2741
1987.7568	234.0:	0.557:	NF 3.8	1982.5087	109.2	0.187	467/16 3.8
ADS 16644	Bu 182 AB	HD 219617	23171-1349	BD +18°5226	Cou 344	HD 223523	23502 + 1940
1994.7083	46.5:	0.819:	538/76 3.8	1996.5403	358.0:	0.182:	538/76 2.5
1996.5295	50.4:	0.764:	538/76 2.5	ADS 17036	A 792	BD +46°4184	23505 + 4703
ADS 16650	Hu 400	HD 219675	23176+1818	1988.6606	265.3	0.709	538/76 3.8
1996.5323	106.1	0.333	549/22 2.5	HR 9041	Fin 359	HD 223825	23529 - 0309
ADS 16672	McA 74 Aa	HD 219834	23191-1328	1991.8933	182.8	0.062	549/22 3.8
1994.7083	302.1	0.157	549/22 3.8	AG +43°2301	Cou 1497	BD +43°4571	23545 + 4408
BD +27°4530	Cou 439	HD 219963	23199+2844	1996.5404	29.9:	0.379:	538/76 2.5
1996.5404	248.7	0.164	538/76 2.5	ADS 17105	A 426	HD 224217	23561 + 2520
BD +33°4690	Cou 742	HD 219982	23199+3444	1987.7542	316.9	0.369	538/76 3.8
1996.5404	27.1	0.230	538/76 2.5	1996.5403	307.5:	0.384:	538/76 2.5
BD +15°4809	Hei 88	HD 220077	23209+1643	ADS 17118	A 900	HD 224395	23573 + 7252
1996.5403	250.8	0.178	549/22 2.5	1986.8885	128.3:	0.343:	538/76 3.8
ADS 16702	Bu 718 AB	HD 220222	23219+3149	1987.7568	126.5:	0.326:	538/76 3.8
1996.8628	161.7	0.401	549/22 2.5	1988.6606	128.6:	0.329:	549/22 3.8
ADS 16708	Hu 295	HD 220278	23227-1502	1994.7083	125.1:	0.328:	538/76 3.8
1996.5295	241.6	0.137	549/22 2.5	BD -14°6588	Rst 4136 AB	HD 224512	23586 - 1408
BD +22°4835	Cou 338	HD 220794	23266+2342	1996.5405	6.5:	0.182:	549/22 2.5
1989.7173	46.6	0.093	538/76 3.8	ADS 17151	A 1498	HD 224646-47	23595 + 5441
ADS 16760	A 1485	HD 220869	23268+5434	1996.5405	85.9	0.374	538/76 2.5
1995.7705	211.0	0.568	549/22 2.5				

<sup>a</sup> See Appendix for comments on individual objects.<sup>b</sup> New orbital elements; see Table 4 and Appendix.

portions of the data obtained during 4 m-class runs between 1993 February and 1996 March were published in duplicity surveys of occultation binaries, Be, and O stars (Mason 1996; Mason et al. 1997, 1998); the remainder of the observations obtained in these runs are presented here. Finally, only small samples of the 1996 and early 1997

Mount Wilson observations have already been published; the bulk of these measures are included here.

While all data were reduced using the same equipment and reduction routine (the DVA routine; see Bagnuolo et al. 1992), both detectors and calibration methods changed during this period. The 1982 observations were obtained

TABLE 3  
TYPICAL ERRORS

Tel. (m)	$\delta\theta$ (deg)	$\delta\rho/\rho$
1.8 .....	0.5	0.010
2.5 .....	0.4	0.008
3.0 .....	0.5	0.010
3.6 .....	0.5	0.010
3.8 .....	0.3	0.006
4.0 .....	0.4	0.008

using our original RCA intensified CCD. This camera failed during the 1983 January run, so observations dating between 1983.06 and 1983.08 were made using an intensified silicon-intensifier target camera. A new RCA camera was used for all data presented here that were obtained between 1983.41 and 1991.894, while an ITT Industries camera was used for all subsequent observations. See McAlister et al. (1987a) and Mason et al. (1993) for further information on all these detectors.

(We note that while the DVA routine does a good job at removing the quadrant ambiguity inherent in standard vector autocorrelations, this technique does not yield relative photometry of sufficient accuracy for publication. Experiments with adaptive optics, however, have shown considerable promise in this area; see ten Brummelaar et al. [2000] for recent results using the Mount Wilson adaptive optics system.)

Absolute calibrations of all KPNO data were obtained using a slit mask mounted at the "stovepipe" baffle of the 3.8 m (see McAlister et al. 1987a). Calibration methods for the 1994–1995 Mount Wilson data are described in Hartkopf et al. (1997); the 1996–1997 data were also calibrated using the combination of slit mask and star trails described in that paper. All other data were calibrated through observations of binary stars with well-known orbits or stars having contemporaneous KPNO and/or Mount Wilson observations.

Earlier papers in this series (see, e.g., McAlister et al. 1987a; Hartkopf et al. 1994) have quoted typical errors of  $\sim 0.6\%$ , or 1–3 mas in separation and  $\sim 0^{\circ}2$  in position angle for 4 m-class observations. In order to obtain an estimate of errors for data from these six telescopes, 51 binaries were chosen having well-determined orbital elements.  $O-C$  residuals in  $\rho$  and  $\theta$  were then determined for the  $\sim 400$  CHARA speckle measurements made of these stars. These residuals also include errors in the orbital elements themselves, of course, and some of the telescopes were underrepresented in the collection of measurements. We therefore convolved our findings with some "educated guesswork" (considering primary vs. secondary calibration methods, amount of experience with each telescope, past orbit calculations, etc.) in coming up with reasonable estimates for typical errors. These estimates are given in Table 3.

## 2. NEW MEASUREMENTS

A total of 2017 observations of 1286 stars are presented in Table 2, where we use a format similar to that used in other recent papers in this series. The first line of information for each star gives four different identifiers; the first column usually lists the ADS or HR number, followed by the discoverer designation and the HD or Durchmusterung

number. The coordinates in the fourth column, which also serve as the Washington Double Star Catalog (WDS) number, are for equinox J2000.0. One or more individual measures are listed below each set of star names. Here the first column gives the epoch of observation, shown as the fractional Besselian year. The second column gives the position angle in degrees; these  $\theta$ -values have not been corrected for precession and are thus based upon the equinox for the epoch of observation. Angular separation in arcseconds is given in the third column, while the final column lists the filter effective wavelength and FWHM in nanometers, plus the telescope aperture in meters. This aperture size also uniquely identifies the telescope as one of the six instruments listed in Table 1. Notes to some of the stars are flagged by a footnote in the final column. Stars for which new orbital elements are presented are also flagged in the final column; all have entries in the notes as well.

## 3. NEW ORBITAL ELEMENTS

New orbital elements have been determined for 14 systems, five of which were discovered interferometrically and seven of which have not had orbital elements previously published. Elements are listed in Table 4, where the first two columns give the coordinates and discoverer designation of the binary, while the remaining columns list respectively the period (in years), semimajor axis (in arcseconds), inclination (in degrees), node (in degrees), time of periastron passage (in years), eccentricity, and longitude of periastron (in degrees), together with their formal errors. Systems with no previously published orbits are so indicated, and comments on all systems are listed below in the Appendix. Finally, Table 5 gives predicted separations and angles for these systems during the next few years.

We are indebted to the efforts of the staffs of these six observatories—telescope assistants, engineering staff, and administrators—in making our runs over the years so productive. Thanks also to the many observers who participated in the collection of these data. This research has made use of the Washington Double Star database, maintained at the US Naval Observatory by B. D. M. Thanks to Gary Wycoff of the USNO for checking all our measurements against the WDS for any coordinate or quadrant errors. This research has made use of the SIMBAD database, operated at CDS, Strasbourg, France. Research in speckle interferometry at Georgia State University is supported by the GSU College of Arts and Sciences, the Office of the Vice President for Research, and the Research Program Enhancement fund of the University System of Georgia. The National Science Foundation provided support for this effort, most recently through NSF grant AST 94-16994 to GSU/CHARA.

## APPENDIX

### COMMENTS ON INDIVIDUAL OBJECTS

**00171+3841 = CHR 123:** These two observations include the closest separation published here

TABLE 4  
NEW ORBITAL ELEMENTS

WDS	Discoverer Designation	$P$ (yr)	$a$ (arcsec)	$i$ (deg)	$\Omega$ (deg)	$T_0$ (yr)	$e$	$\omega$ (deg)
01072+3839 .....	A 1516 AB	$33.72 \pm 0.15$	$0.131 \pm 0.001$	$23.9 \pm 1.7$	$104.1 \pm 2.6$	$1997.49 \pm 0.11$	$0.232 \pm 0.008$	$97.1 \pm 3.1$
02022+3643 .....	A 1813 AB	$12.94 \pm 0.04$	$0.150 \pm 0.001$	$67.0 \pm 0.5$	$191.4 \pm 0.5$	$1989.06 \pm 0.03$	$0.404 \pm 0.007$	$295.1 \pm 0.7$
02145+6631 <sup>a</sup> .....	McA 6	$32.8 \pm 5.4$	$0.078 \pm 0.003$	$29.7 \pm 8.1$	$203.9 \pm 9.4$	$1989.76 \pm 0.53$	$0.267 \pm 0.086$	$291 \pm 15$
02399+0009 .....	A 1928	$17.94 \pm 0.05$	$0.137 \pm 0.002$	$40.5 \pm 1.6$	$62.8 \pm 2.9$	$1973.26 \pm 0.09$	$0.469 \pm 0.008$	$348.2 \pm 4.0$
03151+1618 <sup>a</sup> .....	Hu 1055 AB	$100.5 \pm 4.6$	$0.442 \pm 0.045$	$126.0 \pm 7.0$	$227 \pm 16$	$1991.30 \pm 0.69$	$0.975 \pm 0.006$	$286 \pm 10$
04357+1010 <sup>a</sup> .....	CHR 18 Aa	$16.25 \pm 1.15$	$0.220 \pm 0.014$	$67.3 \pm 1.7$	$147.2 \pm 1.4$	$1996.0 \pm 3.8$	$0.034 \pm 0.029$	$293 \pm 92$
07508+0317 .....	A 2880	$106.9 \pm 4.1$	$0.179 \pm 0.004$	$45.9 \pm 1.2$	$91.9 \pm 1.8$	$1992.1 \pm 0.1$	$0.603 \pm 0.009$	$294.8 \pm 3.5$
09036+4709 .....	A 1585	$35.59 \pm 0.05$	$0.182 \pm 0.001$	$109.4 \pm 0.4$	$106.0 \pm 0.2$	$1996.88 \pm 0.05$	$0.567 \pm 0.004$	$356.8 \pm 0.8$
14375+0217 <sup>a</sup> .....	CHR 42 Aa	$21.5 \pm 1.4$	$0.136 \pm 0.010$	$50.4 \pm 6.0$	$134.6 \pm 5.2$	$1994.52 \pm 0.23$	$0.839 \pm 0.019$	$37.5 \pm 7.7$
15307+3810 .....	Hu 1163	$217 \pm 20$	$0.285 \pm 0.011$	$23.2 \pm 5.1$	$123 \pm 12$	$1989.21 \pm 0.49$	$0.603 \pm 0.022$	$305 \pm 14$
17375+2419 .....	CHR 63	$9.79 \pm 0.10$	$0.143 \pm 0.003$	$99.7 \pm 0.4$	$259.6 \pm 0.9$	$1984.88 \pm 0.06$	$0.856 \pm 0.007$	$80.7 \pm 0.5$
19091+3436 <sup>a</sup> .....	CHR 84 Aa	$3.54 \pm 0.02$	$0.078 \pm 0.003$	$142.2 \pm 7.0$	$107 \pm 18$	$1997.26 \pm 0.12$	$0.624 \pm 0.039$	$270 \pm 11$
19407-0037 <sup>a</sup> .....	CHR 88 Aa	$21.7 \pm 1.9$	$0.085 \pm 0.006$	$163.0 \pm 10.8$	$175 \pm 63$	$1993.6 \pm 2.8$	$0.067 \pm 0.037$	$272 \pm 110$
20312+1116 <sup>a</sup> .....	Da 1 BC	$272 \pm 27$	$0.407 \pm 0.016$	$63.7 \pm 2.2$	$177.6 \pm 2.3$	$1998.45 \pm 0.26$	$0.862 \pm 0.012$	$232.1 \pm 2.6$

<sup>a</sup> No previously published orbit.

(0''.045)—actually below the Rayleigh limit of resolution of the 2.5 m telescope.

**01072+3839 = A 1516 AB** (Fig. 1, *top left*): Although we find a period very similar to the 33.6 yr determined by Morel (1970), our semimajor axis is nearly 20% smaller. This finding is not altogether unexpected; visual observers working at very close separations tend to overestimate  $\rho$ . Interferometric data cover some 160° of the orbit and define the curve quite well.

**02022+3643 = A 1813 AB** (Fig. 1, *top right*): Speckle coverage for this system now exceeds one full revolution and so defines the shape of the orbit well. All data (spanning nearly seven revolutions) were used to determine the orbital period, and then interferometric data alone were used to derive the remaining elements. The published orbit is that of Heintz (1973); Heintz finds a period identical to ours (to within quoted accuracy), but his other elements are obviously quite different.

**02145+6631 = McA 6** (Fig. 1, *middle left*): This is the first published orbit for this system, which has completed

just over half a revolution since it was first resolved by McAlister in 1980 (McAlister et al. 1983). Also known as 55 Cas, the binary consists of an evolved primary (classified as G0 II–III) and a B9 main-sequence star. When combined with a published parallax of 3.79 mas (*Hipparcos*; ESA 1997), this orbit predicts a mass sum of 8.1 solar masses, in good agreement with the  $7.2 M_{\odot}$  estimated for the pair based on their spectral types.

**02399+0009 = A 1928** (Fig. 1, *middle right*): Most of the newly determined elements for this system are similar to those published by Heintz (1988) except for the two angles  $\omega$  and  $\Omega$ , which are each rotated by some 30°. An older orbit by van den Bos (1951, not shown) actually gives smaller  $\theta$ -residuals for the speckle data than does the Heintz orbit ( $\omega$  and  $\Omega$  here each differ by about 10°), although neither gives a particularly good fit.

**03151+1618 = Hu 1055 AB** (Fig. 1, *bottom left*): This system has completed nearly one full revolution since its discovery in 1904 (Hussey 1905). Fortunately, speckle data were obtained on either side of periastron passage in 1991,

TABLE 5  
EPHEMERIDES

WDS	DISCOVERER DESIGNATION	2000.0		2001.0		2002.0	
		$\theta$ (deg)	$\rho$ (arcsec)	$\theta$ (deg)	$\rho$ (arcsec)	$\theta$ (deg)	$\rho$ (arcsec)
01072+3839 .....	A 1516 AB	113.6	0.102	98.9	0.109	85.9	0.115
02022+3643 .....	A 1813 AB	16.3	0.135	37.7	0.074	151.4	0.049
02145+6631 .....	McA 6	268.2	0.080	276.8	0.081	285.2	0.082
02399+0009 .....	A 1928	233.4	0.206	239.3	0.207	245.3	0.201
03151+1618 .....	Hu 1055 AB	132.0	0.247	130.6	0.263	129.3	0.279
04357+1010 .....	CHR 18 Aa	157.9	0.202	170.4	0.163	192.8	0.114
07508+0317 .....	A 2880	111.7	0.111	116.4	0.115	120.8	0.119
09036+4709 .....	A 1585	11.2	0.043	335.9	0.063	319.9	0.091
14375+0217 .....	CHR 42 Aa	328.6	0.200	331.2	0.211	333.5	0.219
15307+3810 .....	Hu 1163	138.5	0.153	142.6	0.158	146.4	0.164
17375+2419 .....	CHR 63	25.3	0.055	355.9	0.042	318.0	0.043
19091+3436 .....	CHR 84 Aa	335.6	0.084	111.9	0.045	39.3	0.095
19407-0037 .....	CHR 88 Aa	150.1	0.087	134.8	0.087	119.6	0.087
20312+1116 .....	Da 1 BC	110.6	0.032	141.8	0.052	154.4	0.075

when the stars reached a closest projected separation of less than 7 mas. This is the first set of orbital elements published for this pair.

**03453+2428 = HR 1145**: Pleiades cluster member.

**03456+2420 = Cou 560**: Pleiades cluster member.

**04199+1631 = Stt 79**: The 1989.2266 measure results from rereduction of data originally published by McAlister, Hartkopf, & Franz (1990).

**04259+1852 = Bu 1185**: The 1989.2266 measure results from rereduction of data originally published by McAlister et al. (1990).

**04357+1010 = CHR 18 Aa** (Fig. 1, *bottom right*): More complete coverage is needed to better define  $P$  and  $T$ , but a 16 yr period fits these data considerably better than an alternate 8 yr orbit. The near-zero eccentricity results in a value for  $\omega$  that is poorly defined. Also known as 88 Tau, the A component of this multiple system includes a 3.6 day double-lined spectroscopic binary; the B component (SHJ 45) lies some 70" from the primary.

**04400+5328 = StF 566 AC**: The 1989.2294 measure results from rereduction of data originally published by McAlister et al. (1990).

**04404+1631 = CHR 154**: Hyades cluster member.

**05003+3924 = CHR 159 Aa**: This observation finally confirms the discovery of this close component of ADS 3589, made in 1988 by McAlister et al. (1993).

**06580+0218 = CHR 25**: The 1989.9445 measure results from rereduction of data originally published by Hartkopf et al. (1993).

**07508+0317 = A 2880** (Fig. 2, *top left*): This system, a pair of K1 giants, has been analyzed by Baize on numerous occasions; his latest orbit (Baize 1992) is shown in the figure. The eight new observations since 1991 presented here show that the components continued to open up more than Baize expected, although we may now be seeing the system beginning to turn significantly. Another decade of observations will nearly complete one revolution since discovery and should refine the elements significantly.

**08095+3213 = CHR 190 Aa**: This system is rapidly closing and is now near the resolution limit of a 2.5 m telescope.

**08399+1933 = CHR 156 Da**: Praesepe cluster member.

**08403+1921 = CHR 130**: Praesepe cluster member.

**08554+7048 = StF 1280 AB**: This measure results from rereduction of data originally published by McAlister et al. (1987a).

**09036+4709 = A 1585** (Fig. 2, *top right*): Docobo & Costa (1986) published both short- and long-period orbits (36.2 and 73.6 yr, respectively) for this pair, unable to determine which was correct. Subsequent speckle observations near periastron have shown the shorter period solution to be the correct one. Although all visual and interferometric data were used in the solution presented here, only the interferometric data are included in the figure, for clarity. Docobo & Costa's 36 yr solution is also shown.

**14375+0217 = CHR 42 Aa** (Fig. 2, *middle left*): This pair has a fairly high eccentricity and reached a minimum separation of only 16 mas in 1994.7 (unresolvable by speckle on any telescope of under 8 m aperture). Predicted separations at the three unresolved epochs listed in Table 2 are 30, 48, and 59 mas, respectively.

**15307+3810 = Hu 1163** (Fig. 2, *middle right*): While both Couteau (1990) and Zulević (1996) have published recent elements for this binary, the newest interferometric data

indicate that the system has not "turned" in its counter-clockwise motion as rapidly as they had predicted. This new orbit is also preliminary; several decades' more data are needed to refine these elements into something approaching definitive.

**17375+2419 = CHR 63** (Fig. 2, *bottom left*): The new orbit for this pair of A dwarfs is shown together with published orbits by McAlister et al. (1993) and Olević & Jovanović (1998; larger orbit). While the McAlister et al. orbit appears superficially to fit the data as well as the new elements,  $O-C$  residuals to that 11 yr period orbit are actually considerably larger.

**17461+0532 = CHR 157**: Member of cluster IC 4665.

**17520+1520 = Stt 338 AB**: This measure results from rereduction of data originally published by McAlister et al. (1987a).

**19091+3436 = CHR 84 Aa** (Fig. 2, *bottom right*): This system is unresolvable at a 2.5 m telescope through some 200° of its orbit (spanning ~7 months of its 3.5 yr period), and is even unresolvable at a 4 m telescope during the 100° (2 months) around periastron. However, with 11 years' worth of data obtained since its 1985 discovery (McAlister et al. 1987b), some elements, such as the period, are quite well defined. The B component of this multiple system (StF 2474) lies at a distance of about 16".

**19190+3727 = Miu 1**: These two measures confirm the discovery observation of this system, made in 1992 by Miura et al. (1993).

**19307+2758 = McA 55 Aa**: This close component to ADS 12540, consisting of a K3 II primary and a B0.5 V secondary, was first resolved in 1976 by McAlister & Hendry (1982), using a photographic speckle camera. Since that time it has completed only about 50° of orbital motion and less than one-quarter of its predicted century-long period. The pair is closing slowly at present, but a recent orbit (Hartkopf 1999) predicts that this motion will soon increase significantly, covering an additional 80° by 2010 and another 140° by 2020.

**19336+3846 = CHR 87**: With only 12 years' worth of data, spanning just over 70° of the orbit, the elements calculated from these data by Hartkopf (1999) are of course very preliminary. Still, the data are fitted quite well, so that orbit should predict the astrometry of the system fairly well for several years.

**19407-0037 = CHR 88 Aa** (Fig. 3, *left*): Data cover just over half the period and about 210° of coverage for this close system. Eccentricity is near zero, and the three orientation angles for the orbit are very poorly defined. Considerably more data from a telescope of at least 2 m aperture are needed to refine these elements significantly.

**19556+5226 = YR 2 Aa**: These observations "preconfirm" the discovery observation of this close pair, made in 1997.52 by Horch et al. (1999).

**20312+1116 = Da 1 BC** (Fig. 3, *right*): Although first resolved by Dawes (1867) in 1841, this binary still has over a century to go before completing one full revolution since that discovery. Highly eccentric, the pair is currently marginally unresolvable at even a 4 m telescope, and it will not be resolvable through a 2.5 m telescope until early 2002.

**21387+2530 = CHR 104**: This binary was retracted by McAlister et al. (1993) after numerous failed attempts to confirm its discovery (six unresolved observations between 1985 and 1991). It now appears that we were too rash in making this retraction, as a weak peak in good agreement

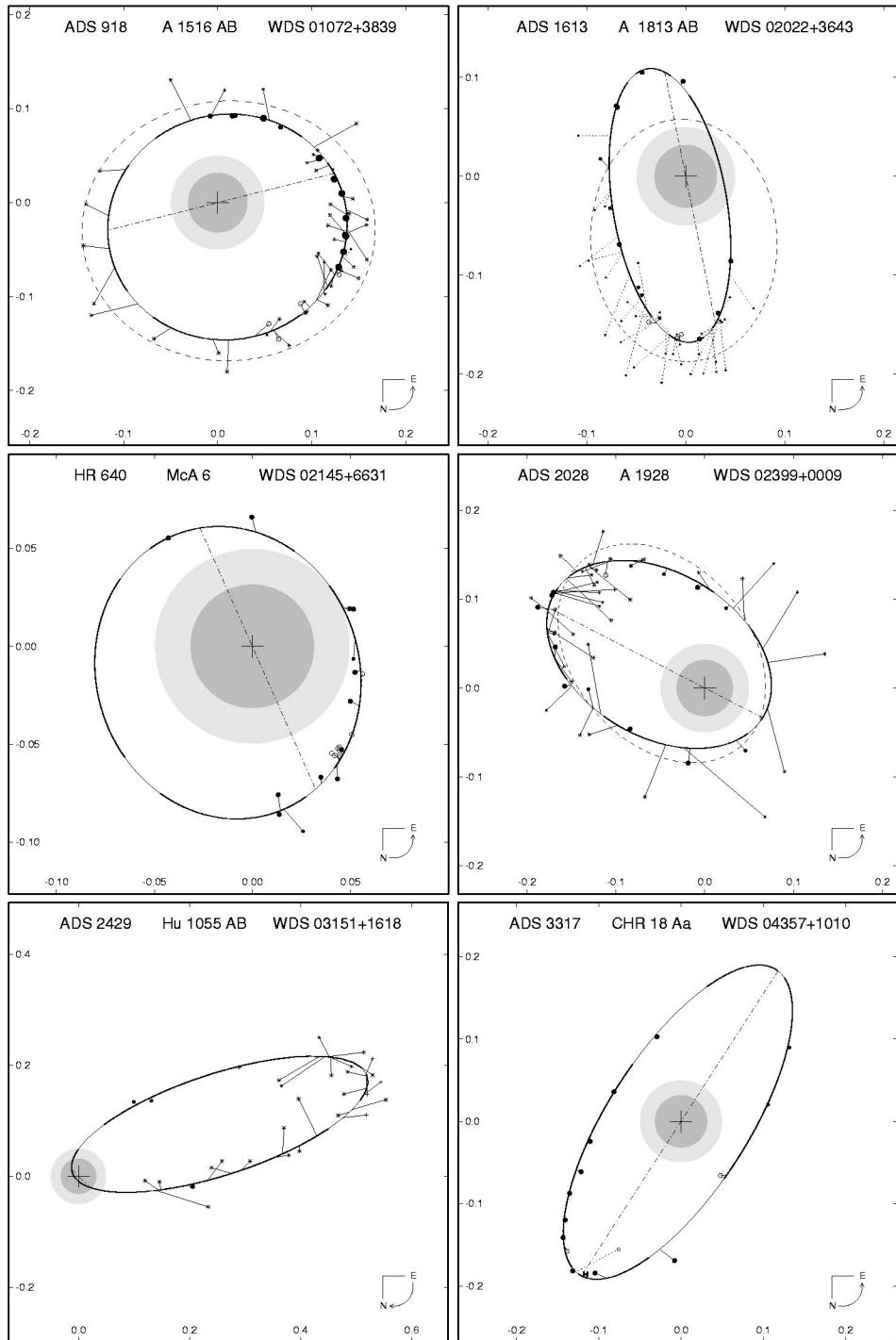


FIG. 1.—New orbital elements for A 1516 AB, A 1813 AB, McA 6, A 1928, Hu 1055 AB, and CHR 18 Aa (top left to bottom right). In this and subsequent figures, visual data are indicated by plus signs or asterisks (for observations obtained at “small” or “large” telescopes, respectively); CHARA speckle data, other interferometric data, and *Hipparcos* measures are indicated by filled circles, open circles, and the letter “H,” respectively. The newly determined orbit is represented by a solid curve, while previously published orbits (identified in the notes) are shown as dotted curves.  $O-C$  lines connect measures to their predicted locations on the new orbit; a dotted  $O-C$  line indicates an observation given zero weight in the orbit calculation. The dot-dashed line indicates the line of nodes, and the light and dark gray regions about the origin indicate the Rayleigh limits of both a 2.5 and a 4 m telescope. Finally, clockwise or counterclockwise orbital motion is indicated by an arrow in the lower right corner of each panel.

with the 1985.5178 separation and angle has been extracted from Kitt Peak data taken later that year. Perhaps subsequent failures were the result of a variable component in the pair decreasing in brightness, yielding an excessive magnitude difference.

**22383+4511 = CHR 114:** This system has covered  $\sim 90^\circ$  of motion since its discovery in 1985 (McAlister et al. 1987b). Hartkopf (1999) finds an orbital period of about 85 yr for this system; the elements are obviously very preliminary and have large errors, but they should define the

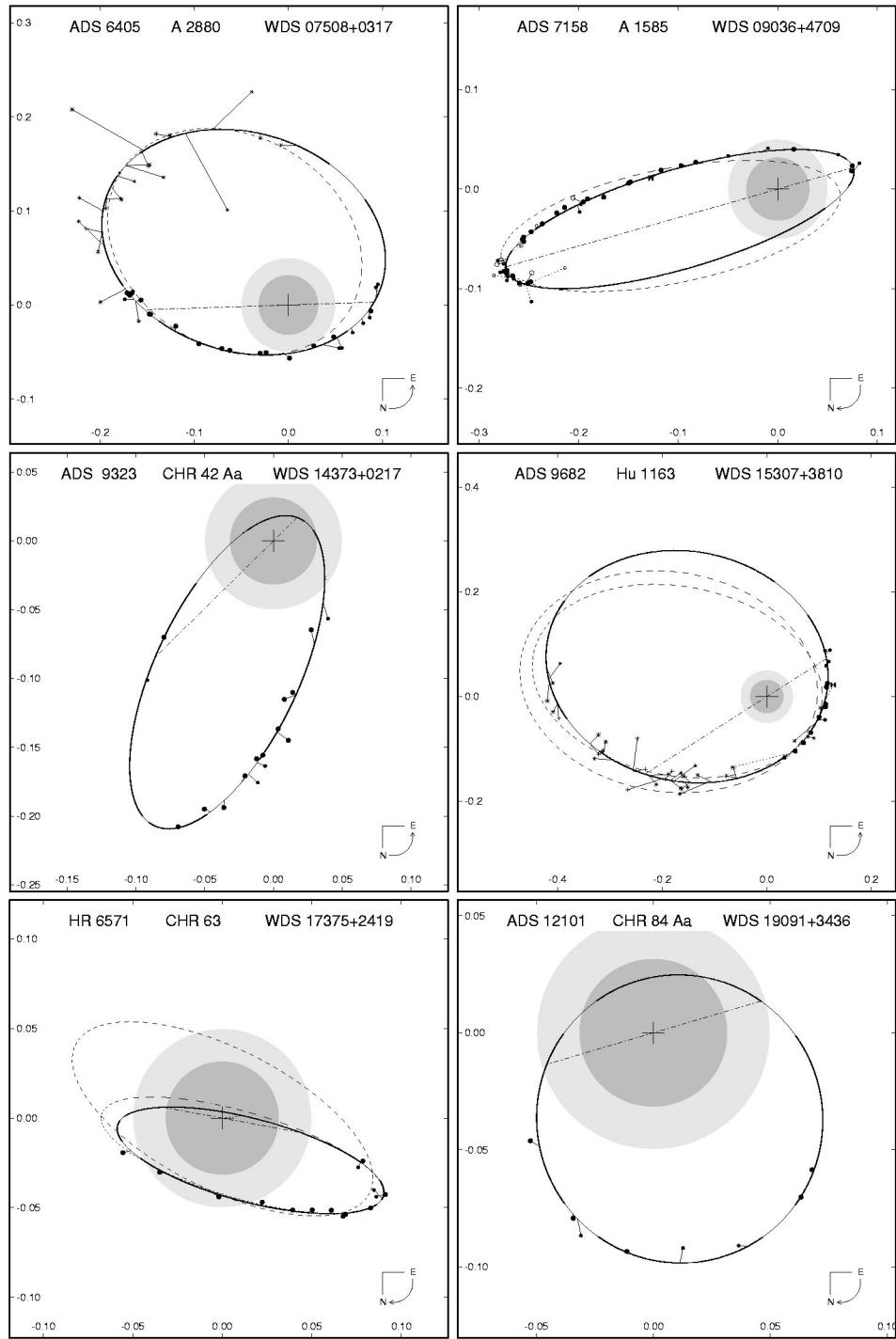


FIG. 2.—New orbital elements for A 2880, A 1585, CHR 42 Aa, Hu 1163, CHR 63, and CHR 84 Aa (top left to bottom right). Symbols are as in Fig. 1.

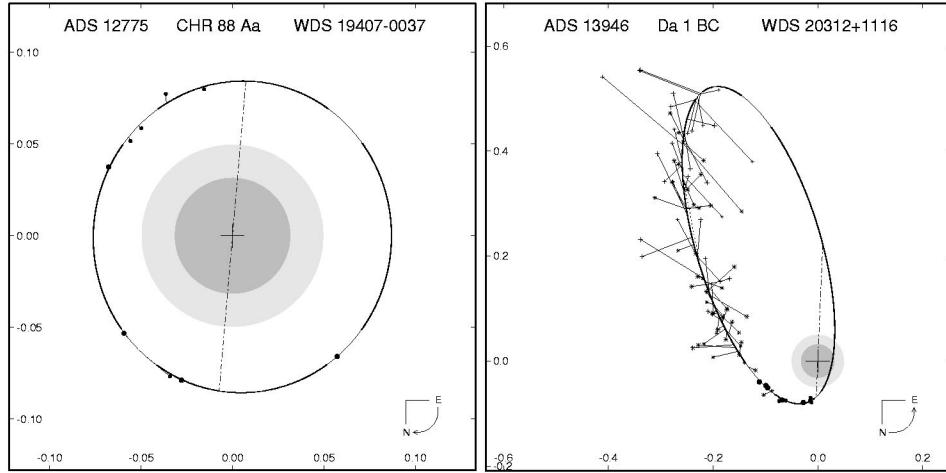


FIG. 3.—New orbital elements for CHR 88 Aa and Da 1 BC

binary's motion for the next several years. The Yale Bright Star Catalogue (Hoffleit & Jaschek 1982) lists spectral types of G2 III + A4 V for this system.

**22402+3732 = Ho 188:** This pair was observed twice in succession in 1995.6095. The first of these observations was erroneously attributed to 22341+3823 = Cou 1488 by

Hartkopf et al. (1997), while the second was published under its correct ID in the same paper. The two observations are here averaged together.

**23382+5514 = A 1493:** This 1995.7705 observation was erroneously attributed to 22527+4347 = Cou 2244 by Hartkopf et al. (1997).

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