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1987 October 8

118th List of Minima of Eclipsing Binaries

The following table lists 4 photoelectric (underlined>) and 154 visual heliocentric minima obtained mainly during 1987 August and September by the observers

- RD Roger Diethelm, Rodersdorf, Switzerland
- SFe Stéphane Ferrand, Bougival, France
- MKo Michael Kohl, Uster, Switzerland
- KL Kurt Locher, Grüt, Switzerland
- AMa Antonio Maraziti, Catanzaro, Italy
- APS Anton Paschke, Rüti, Switzerland
- HP Hermann Peter, Otelfingen, Switzerland

The O-C values refer to the linear elements of the GCVS 1985, with a few marked exceptions. Reductions were made using mainly the tracing paper method.

Nr.	Design.	Star	Type	T _{obs}	0-C	n	Obs.	Remarks
24265	0041+306	UU And	p	47048.589	+0.022	4	KL	
24266	0153+418	XZ And	p	47056.347	0.000	6	KL	
24267	0017+399	CN And	p	47034.3802	-0.0246	6	RD	
24268	0008+418	DO And	p	47052.315		7	KL	
24269			p	47053.632		7	KL	
24270			s	47054.313		5	KL	
24271			s	47055.654		6	KL	
24272			p	47056.297		7	KL	
24273			p	47057.662		5	KL	
24274			s	47059.645		5	KL	
24275			p	47060.365		5	KL	
24276			p	47068.438		6	KL	
24277	0209+444	GZ And	p	47048.542	+0.008	8	KL	
24278	0031+410	HS And	p	47038.523	+0.113	6	KL	
24279	2202-209	XZ Aqr	p	47029.422	+0.015	7	KL	
24280	2204-209	AI Aqr	p	47023.418	+0.002	6	KL	
24281	2233-009	CX Aqr	p	47038.421	+0.001	6	HP	
24282	2319-162	CZ Aqr	p	47029.534	-0.012	6	KL	
24283	1936+064	LT Aql	p	47024.385	+0.062	6	KL	
24284	1914+092	V342 Aql	p	47029.468	+0.021	12	HP	
24285	1934+038	V418 Aql	p	47023.410	-0.069	6	KL	
24286	1847+106	V479 Aql	p	47029.457	0.000	6	KL	
24287	1935+106	V640 Aql	p	47029.367	-0.041	6	KL	
24288	1958+085	V760 Aql	p	47059.330	+0.005	6	KL	
24289	1858-075	V803 Aql	s	47037.442	-0.008	6	KL	
24290	0506+293	CI Aur	p	47068.618	+0.077	8	KL	
24291	0509+334	CL Aur	p	47038.596	+0.060	8	KL	
24292	1402+302	TU Boo	p	46914.402	-0.021	8	Mko	
24293	0630+823	SV Cam	p	46910.400	+0.015	7	Mko	
24294	0823+210	EH Cnc	p	46800.342	+0.010	17	AtMa elem	IBVS 2755
24295	0244+694	RZ Cas	p	47027.501	+0.014	11	SFe	
24296	0130+707	AH Cas	p	47038.572	-0.217	6	KL	
24297	0000+574	EY Cas	p	47036.604	-0.103	5	KL	
24298	0145+560	6H Cas	p	47037.392	-0.138	6	KL	
24299	0048+585	KL Cas	p	47030.351	-0.002	6	KL	
24300	0101+538	KT Cas	p	47037.410	-0.101	7	KL	
24301	0045+605	OR Cas	p	47039.407	+0.007	6	HF	
24302	2229+632	WX Cep	p	47038.3601	+0.0108	8	RD	
24303	2320+650	CM Cep	p	47055.533	-0.026	6	KL	
24304	2157+607	DK Cep	p	47029.488	+0.035	6	KL	
24305	2306+609	DP Cep	p	47053.414	-0.020	7	KL	
24306	2024+614	HI Cep	p	47023.475	+0.048	4	KL	elem. BBSAG Bul. 81.6
24307	0220+809	V358 Cep	s	47036.581	+0.500	7	KL	elem. BBSAG Bul 63.5
24308	0146-211	TW Cet	p	47027.610	-0.005	6	KL	
24309	0147-198	VY Cet	s	47027.621	-0.006	6	KL	
24310	0156-231	AA Cet	p	47055.580	+0.008	6	KL	
24311	1121-164	V Cr1	p	46910.417	-0.005	8	Mko	
24312	2021+430	UW Cyg	p	47030.424	+0.033	8	KL	
24313			p	47030.429	+0.038	13	HP	
24314	2104+455	VV Cyg	p	47037.489	-0.007	6	KL	
24315	2002+414	WW Cyg	p	47066.499	-0.009	5	KL	
24316	2051+386	WZ Cyg	p	47028.441	+0.029	7	HP	
24317	2022+467	ZZ Cyg	p	47021.350	-0.008	6	KL	
24318			p	47024.489	-0.013	7	HP	
24319			p	47036.434	-0.012	6	HP	
24320	1928+342	HK Cyg	p	47056.478	-0.016	5	KL	
24321	1941+326	V370 Cyg	p	47021.387	-0.003	7	KL	

see BBSAG Bul. 85. 5

NR	Design.	Star	Type	T_obs	0-C	n	Obs.	Remarks
24384	2125+047	BN Peg	p	47030,324	+0,002	5	KL	
24385			p	47037,462	+0,007	7	HP	
24386	2146+278	CW Peg	p	47030,577	+0,024	7	KL	
24387	2205+059	DO Peg	p	47038,611	-0,013	6	KL	
24388	2312+165	EY Peg	p	47041,560	0,000	9	KL	elem BBSAG Bull 85.5
24389			p	47066,552	+0,006	8	KL	
24390			p	47068,460	-0,008	8	KL	
24391	0405+464	XZ Per	p	47039,531	-0,008	6	KL	
24392	0150+545	BY Per	p	47037,576	+0,016	6	KL	
24393	0156+529	KW Per	p	47036,414	0,000	8	HP	
24394	0256+454	PS Per	p	47028,565	+0,037	7	KL	
24395	0327+343	V337 Per	p	47041,633	+0,016	5	KL	
24396	2331+076	Y Psc	p	47028,558	-0,016	6	KL	
24397	1846-103	RS Sct	p	47024,382	+0,008	7	HP	
24398	1842-061	F6 Sct	s	46948,519	-0,051	6	KL	
24399	1739-138	AK Ser	p	47028,348	+0,009	6	KL	
24400	1554+224	AU Ser	p	47038,381	-0,007	6	HP	
24401	1534+156	CC Ser	p	46924,434	-0,049	9	APs	
24402			p	46939,398	-0,050	12	APs	
24403			p	46974,485	-0,051	17	APs	
24404	1535+190	LX Ser	p	47023,447	-0,002	6	KL	
24405	0400+279	RW Tau	p	47057,530	-0,016	7	KL	
24406	0434+015	AC Tau	p	47048,559	+0,010	8	KL	
24407	0344+249	AH Tau	p	47041,526	-0,047	6	KL	
24408	0404+291	IL Tau	p	47068,510	-0,059	6	KL	
24409	0128+291	V Tri	p	47030,475	+0,001	6	KL	
24410			p	47037,500	+0,004	7	HP	
24411	0210+367	RV Tri	p	47039,441	-0,012	7	HP	
24412	0222+278	RW Tri	p	47023,606	0,000	7	KL	
24413	0851+651	AC UMa	p	47059,575	-0,002	5	KL	
24414	1337+700	RU UMi	p	46925,384	-0,003	12	APs	
24415	2055+276	VV Vul	p	47024,443	+0,036	8	KL	
24416	1927+273	XZ Vul	p	47029,408	+0,039	8	KL	
24417	2030+246	AX Vul	p	47048,309	-0,006	6	KL	
24418	2023+272	BE Vul	p	47030,410	+0,017	12	HP	
24419	1954+237	BO Vul	p	47024,478	+0,024	8	HP	
24420			p	47028,362	+0,016	6	KL	
24421	2023+263	CD Vul	p	47029,431	+0,003	7	HP	
24422	1944+287	GP Vul	p	47054,471	-0,015	6	KL	

The correct period of DO Andromedae

The GCVS 1985 states $0^d 672$ and " E " for these parameters, entirely based on an unpublished letter by Tsevitsh to Kukarkin. My visual survey during 10 September nights 1987 and a few earlier ones confirms roughly this period, except that it must be doubled, and reveals the class as typical EB.

To get more than 3 accurate digits of the period, continued survey is planned for this autumn and will probably come forth in a light curve in the next Bulletin.

K. Locher

The correct period of EY Pegasi

The GCVS 1985 gives a very similar unpublished reference (as above for DO And) for the parameters of this EA binary, they however turn out to be erroneous according to my visual survey during 21 summer nights 1987. Instead of the period of 0.65678 day the correct elements must read

$$JD_{hel \min_1} = 2447041.560 + 1.922 E$$

along with the other parameters

$$m_v | \max - \min_1 | = 2.4 \pm .2$$

$$m_v | \max - \min_{11} | = 0.2 \pm .1$$

$$D / p = 0.10 \pm .01$$

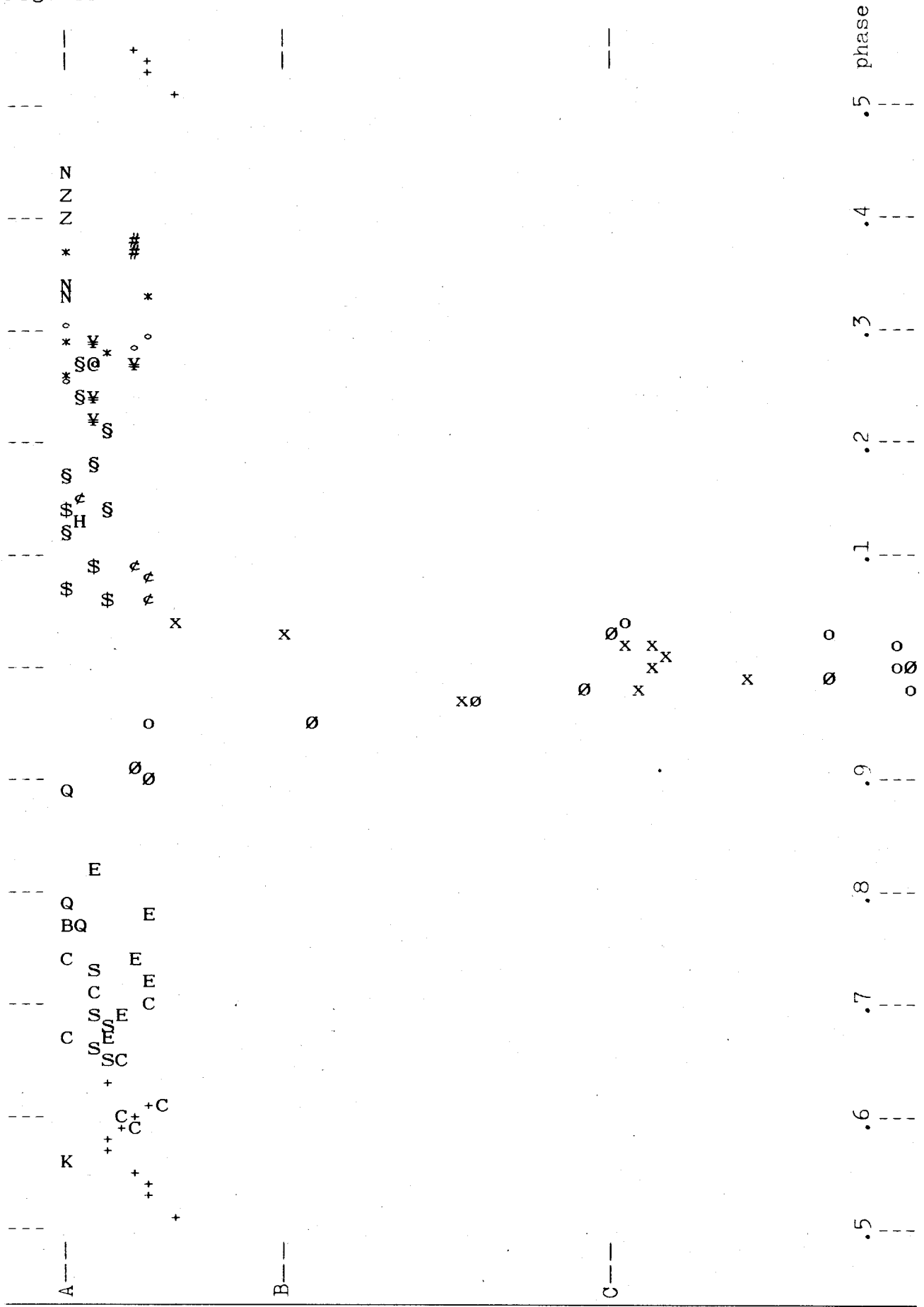
$$d / p = 0.02 \pm .01$$

Figure 83 plots all my observations against phase, using the comparison magnitudes

- A 1' southwest
- B 5' north
- C 3' east

K. Locher

Fig. 83



plot symbols:

- JD 2447000+
- 024 \$
- 028 @
- 030 H
- 036 #
- 038 N
- 041 x
- 048 +
- 050 K
- 051 &
- 052 C
- 053 S
- 054 S
- 055 °
- 056 E
- 057 *
- 058 B
- 059 ¥
- 060 Q
- 066 Ø
- 067 Z
- 068 o

To help observers identify stars at minimum light near 15th magnitude, we sporadically give amply magnified sections of the Palomar Blue Sky Survey, with north at top and scale 18 mm/".

K. Locher

no SAO star inside, next outside is 124940, at right top

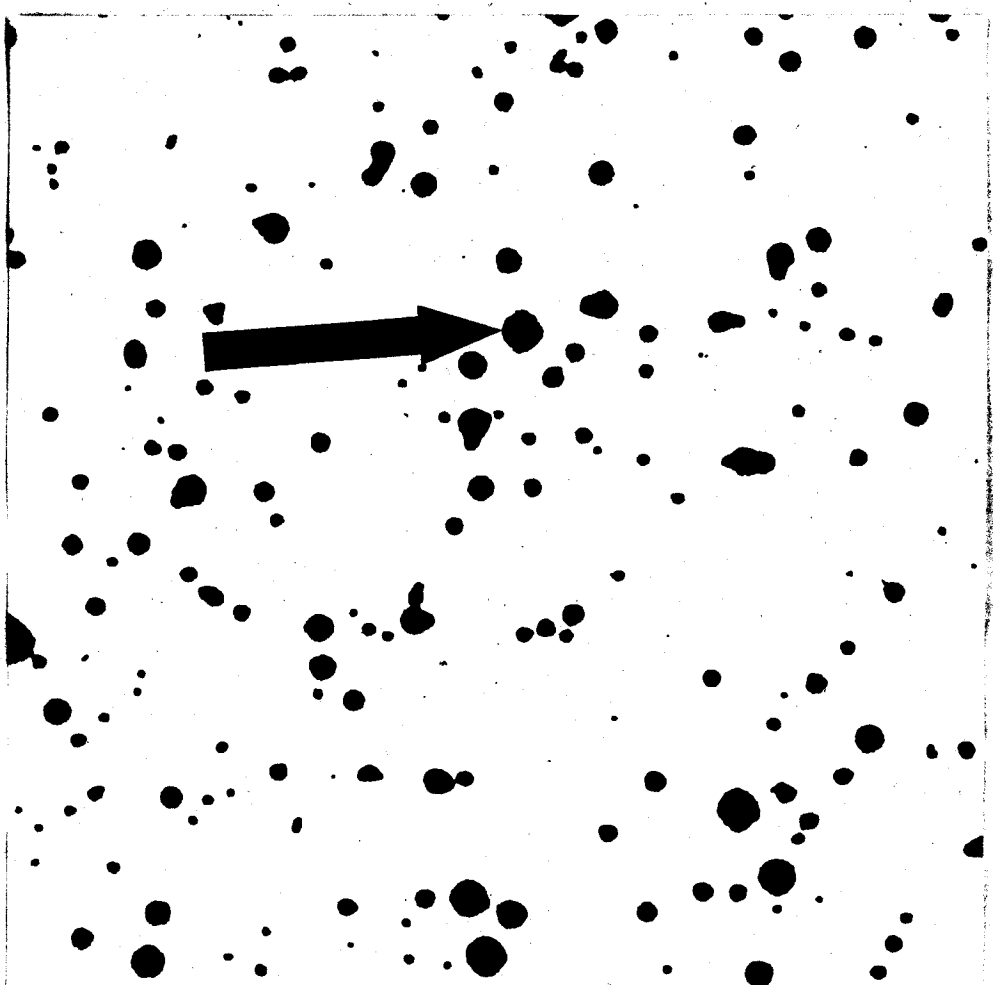
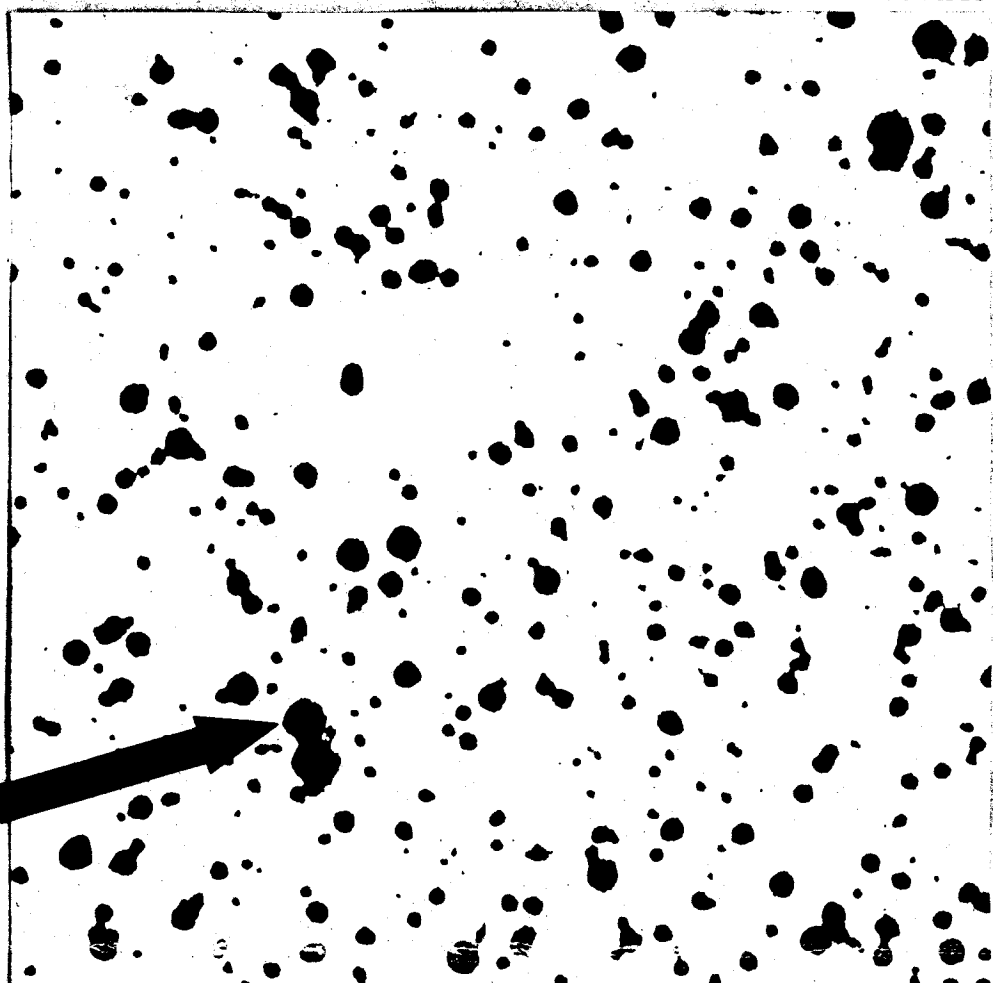
3) V 418 Aql



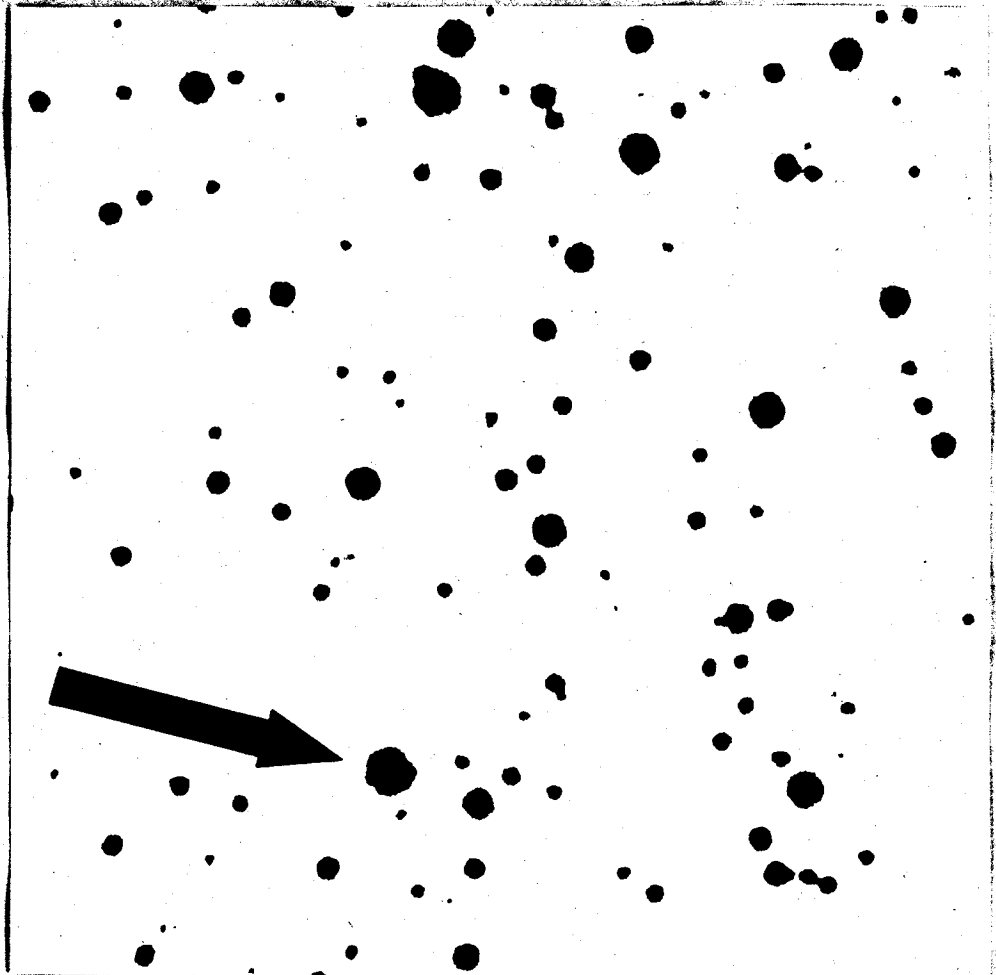
4) GH Cas



no SAO star inside, next outside is 22659, at left top

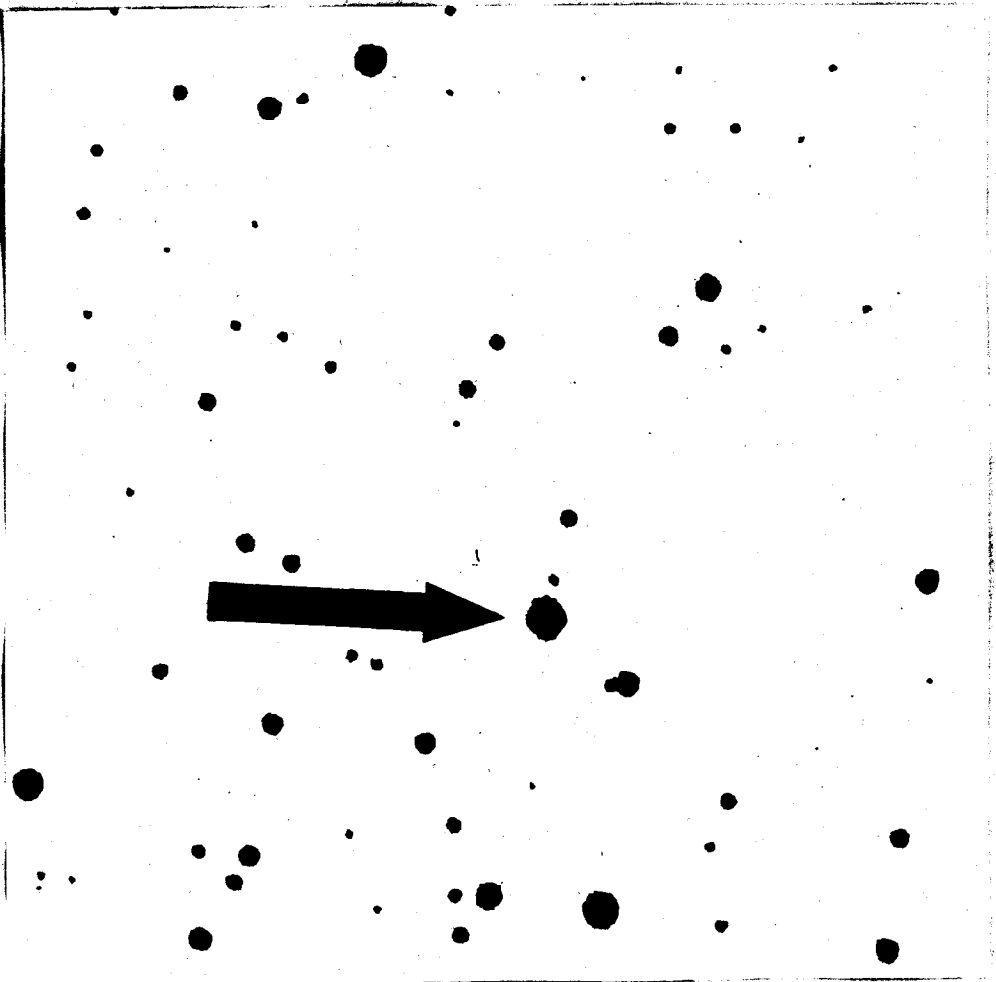


no SAO star in-
side, next out-
side is 21974,
at right top



5) KT Cas

no SAO star in-
side, next out-
side is 113147,
at left



6) QT Ori

Nr	Design.	Star	Type	O	O-C	n	Obs	Remarks
24841	1707+803	RT UMi	p	46994,371	+0,102	40	AMa	
24842			p	47005,421	+0,100	40	AMa	
24843	2026+246	AW Vul	p	47069,341	+0,005	8	HP	
24844	2033+225	AY Vul	p	47078,426	-0,016	6	KL	
24845	2023+272	BE Vul	p	47002,466	+0,010	10	GM	
24846			p	47061,448	+0,014	9	HP	
24847			p	47117,320	+0,012	8	HP	
24848	1954+237	BO Vul	p	47061,453	+0,027	7	HP	
24849			p	47063,394	+0,023	9	HP	
24850	2023+208	BP Vul	p	47039,370	-0,024	8	APs	
24851	2044+280	BU Vul	p	47117,255	+0,002	6	HP	
24852	0935+218	BS Vul	p	47059,355	-0,004	10	APs	
24853			p	47069,354	-0,000	9	APs	
24854	2023+263	CD Vul	s	47039,343	0,000	8	EBl	
24855			p	47053,361	+0,002	7	EBl	
24856			p	47068,408	+0,006	6	HP	
24857			p	47116,262	-0,002	6	HP	
24858	1934+266	FR Vul	p	47000,453	-0,003	8	GM	
24859			p	47001,396	-0,003	7	GM	
24860			p	47051,307	-0,010	8	GM	

Errata

- (7th list after the general one in BBSAG Bulletin 54, pages 4 - 6)
- (6th list see BBSAG Bulletin 82, page 6)
- (5th list see BBSAG Bulletin 75, page 3)
- (4th list see BBSAG Bulletin 65, page 7)
- (3rd list see BBSAG Bulletin 63, page 4)
- (2nd list see BBSAG Bulletin 60, page 7)
- (1st list see BBSAG Bulletin 58, page 5)

Corrections are underlined

Bulletin no. minimum no.

80	23299	1613-068 SW Oph	p	46552.385	+ .108	15	APs
82	23606	1844+107 KO Aql	p	46627.470	- .013	13	APs
	23827	1402-099 VV Vir		<u>lacking reference BBSAG 31, 6</u>			
84	24220	2327+032 TY Peg	p	46982.522	- .031	7	KL
	24256	1312-172 UW Vir					
85	24403	1534+156 CC Ser	p	46974.485	- .051	17	APs