



V A R I A B I L I A

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WAARNEMINGSRESULTATEN APRIL-JUNI

Het meestal ongunstige^{weg}ten spijt zijn er toch nog 3048 waarnemingen gedaan door zeven amateurs. Onderstaande tabel geeft aan hoe de aantallen per maand over de diverse waarnemers verdeeld zijn. Ter nadere informatie zijn achter / de "inner sanctum" schattingen vermeld. Deze hebben betrekking op de positieve schattingen zwakker dan 13.7 alsmede de negatieve schattingen zwakker dan 14.0.

		APRIL	MEI	JUNI	totaal
E. van Ballegoy	BVE	8	18	11	37
R.J. Bouma	BMU	91/2	30/1	61	182
G. Comello	CMG	709/66	355/35	315/22	1379
E. van Dijk	VDE	8			8
H. Feijth	FJH	336/57	294/82	299/76	929
H. v.d. Hil	VDH	12			12
R.J. Johanns	JRJ	159/8	159/18	183/14	501
		1323	856	869	3048

OBSERVARIA

Twee sterren vallen op door afwijkend gedrag: FG Sagittae en CH Cygni. Het leek er eerst op dat FG Sagittae terug zou keren naar de helderheid die hij had vóór 1992 (ongeveer 9). Volkomen onverwacht begin in januari de helderheid vanaf 10.2 scherp te dalen naar 14.0 medio april. Volgens CCD-waarnemingen daalde de helderheid tot 16.5 in de tweede helft van mei, waarna de helderheid

weer begon toe te nemen. Op 10 juli schatte ik FG Sge op 14.0. De Z And ster CH Cygni is momenteel zwakker (10.2) dan ooit. In april was de helderheid nog 9.1. Het verdient aanbeveling deze ster met een kleine kijker te blijven volgen. Daartoe kan de bijgevoegde kaart dienen.

Van het novafront is niet veel nieuws te melden. V705 Cas (nova 1993) neemt zeer langzaam in helderheid af; deze bedraagt nu ongeveer 13.5. Nova Cas 1995 lijkt de verwachting dat deze zich zou gedragen als een kopie van HR Del (Nova 1967) waar te maken. Na een piek van 8.5 in april nam de helderheid gelijkmatig af tot 10.0 nu.

GK Persei is nu weer vanaf begin mei teruggekeerd in het ruststadium.

SS Cygni heeft twee maxima gehad: een brede in het begin van mei en een smalle op het einde van juni. Van SS Aurigae werd in het begin van mei alleen de dalende tak van een maximum geregistreerd. De hoop dat na conjunctie met de zon RX Andromedae niet meer in stilstand zou zijn bleek ijdel. Nog steeds is deze ster een toonbeeld van constant gedrag. Ook Z Camelopardalis beleefde een stilstand en wel van eind juni tot ongeveer half juli. Nu gedraagt deze ster weer als UG-ster.

Wat betreft de Mira sterren is het vermeldenswaard dat W Herculis medio mei een zwak minimum (14.5) beleefde. Vlak bij W staat een sterretje van 14.5 dat alleen bij sterke vergroting (>300 maal) goed gescheiden is. Het lijkt mij niet uitgesloten dat met name de zwakkere minima van W Her te helder geschat zijn. Wanneer W en de begeider even helder zijn worden ze samen op 13.7 geschat indien niet sterk genoeg vergroot wordt.

Momenteel beleeft V Cassiopeiae een helder maximum van ongeveer 7.2. Het helderst ooit waargenomen maximum is 6.9.

Wie meer wil weten over het (recente) gedrag van R Coronae Borealis wordt verwezen na het hierna volgende artikel van Robert Johanns. Ook andere RCRB-sterren zijn actief; Z UMi die in het midden van april nog 14.5 was steeg tot 12.5 in het begin van juni gevolgd door een dipje tot 13.2 in het einde van de maand. Nu (13 juni 1996) is de helderheid ongeveer 12.7. V482 Cygni, die in het maximum van de elfde grootte is, is nu begonnen aan een lichte afname. De helderheid werd 10 juli geschat op 12.2.

R.J. Johanns : R Coronae Borealis

Als naamgever voor het type ster waarvan we op onze breedtegraad slechts enkele sterren kunnen zien, is R CrB één van de best waargenomen sterren van de WVS. Andere R Coronae Borealis (RCB) sterren welke door waarnemers van de WVS worden waargenomen zijn U Aqr, V482 Cyg, SU Tau en Z UMi. R CrB is net niet circumpolair voor ons, maar kan toch wel zo'n 11 maanden per jaar worden gevolgd, daar hij in de winter door het noorden gaat, zodat lichtcurven slechts kleine hiaten hoeven te vertonen.

De eerste waarneming van R CrB werd in 1960 gedaan door Georg Comello. Georg had direct in het begin al geluk, want na twee maanden van magnitude 6.5 kwam de eerste afname. Er volgde een kleine

afname tot magnitude 8.8 direct gevolgd door een iets grotere afname tot magnitude 10.5. Het geheel duurde ongeveer 280 dagen. Nadat Georg het eerste jaar als enige R CrB waarnam, hebben in de periode van 1960 tot nu bijna 60 waarnemers naar deze ster gekeken. Dit heeft tot op heden geresulteerd in 3616 waarnemingen. (t/m 4-96)

begin JD	eind JD	tijdsduur	magn.
37070	37350	280	10.5
37870	39500	1630	< 13.5
40350	40500	150	8.0
41380	41500	120	12.9
42040	42240	200	11.4
42700	42850	150	11.0
43180	43600	420	13.7
45560	45900	340	13.9
46300	46550	250	11.6
47360	47650	290	11.7
47740	47850	110	8.7
49210	49380	170	8.3
49980	???	???	13.8

Vanaf 1965 begon ook Henk Feijth naar R CrB te kijken. Van de toenmalige waarnemers zijn zij de enigen die tot op de dag van vandaag nog steeds R CrB waarnemen. Dat is dus voor Georg al 36 en voor Henk 31 jaar!

In nevenstaande tabel zijn alle actieve perioden van R CrB sinds 1960 weergegeven zoals door de WVS waargenomen. De begin en eind-data zijn gegeven in Juliaanse Datum, de tijdsduur in dagen. Alles is afgerond op tientallen.

De tweede actieve periode was een zeer langdurige en bestaat uit een serie elkaar opvolgende grote brede afnames. Het is echter zeer jammer dat de toenmalige waarnemers nog niet de beschikking hadden over de "grotere" telescopen

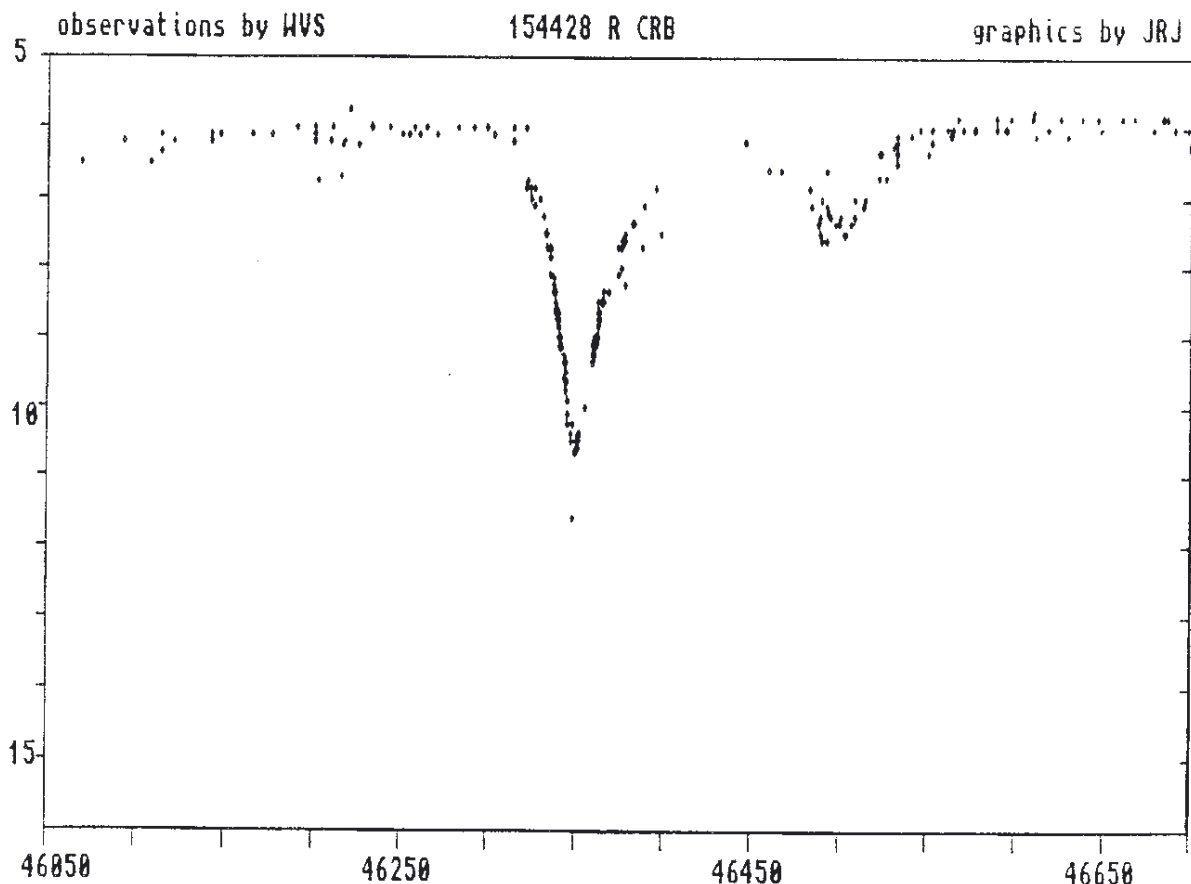
zoals deze nu algemeen worden gebruikt, want deze actieve periode bevat zeer veel "kleiner dan" waarnemingen, waarbij de ene waarnemer toch nog wel zwakker kon schatten dan de andere, maar ook R CrB niet te zien kreeg. Ook zitten er in deze actieve periode 4 hiaten van 100 tot 150 dagen. Wel is het zeer duidelijk dat R CrB in deze 4.5 jaar durende periode zeker 3 keer in helderheid is toegenomen (tot resp. magnitude 7.8 , 10.3 en 7.2) en weer afgezwakt, alvorens terug te keren naar zijn maximale helderheid van 6 à 6.5.

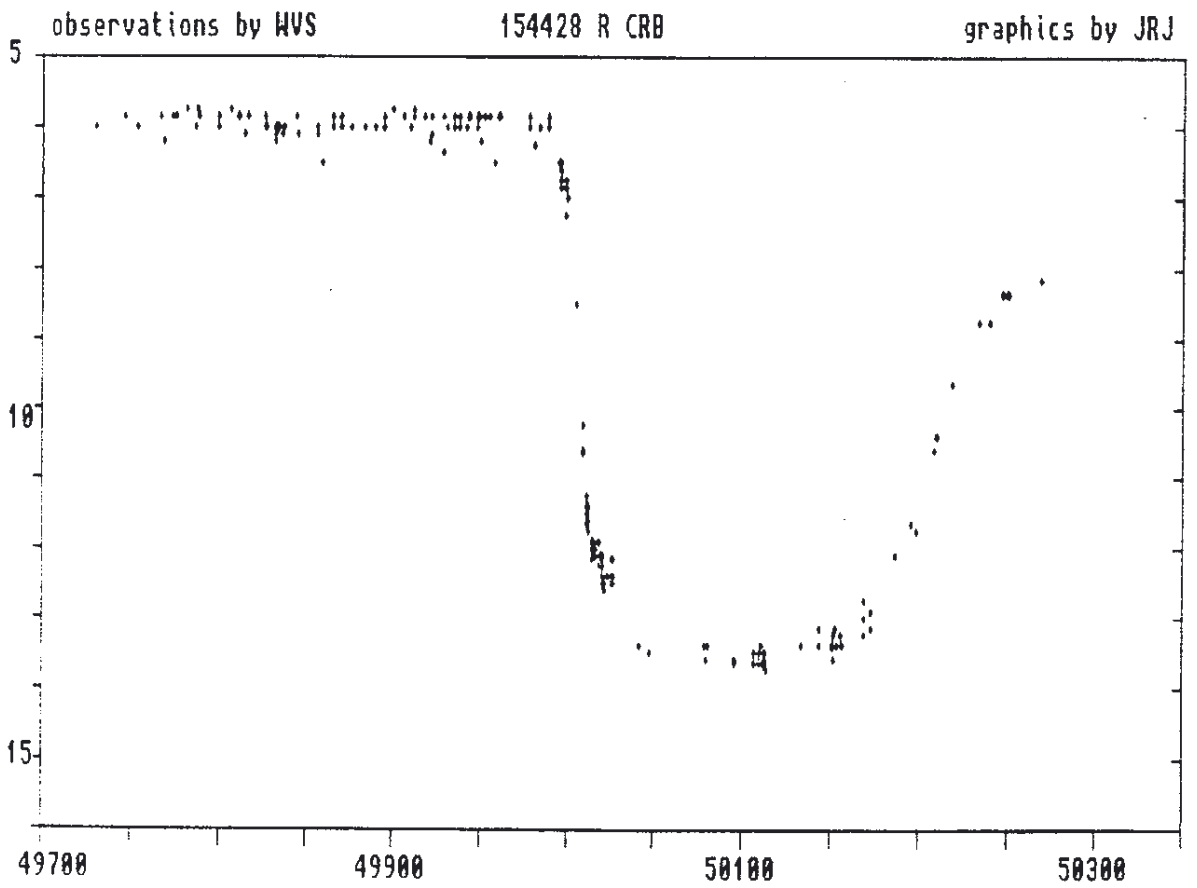
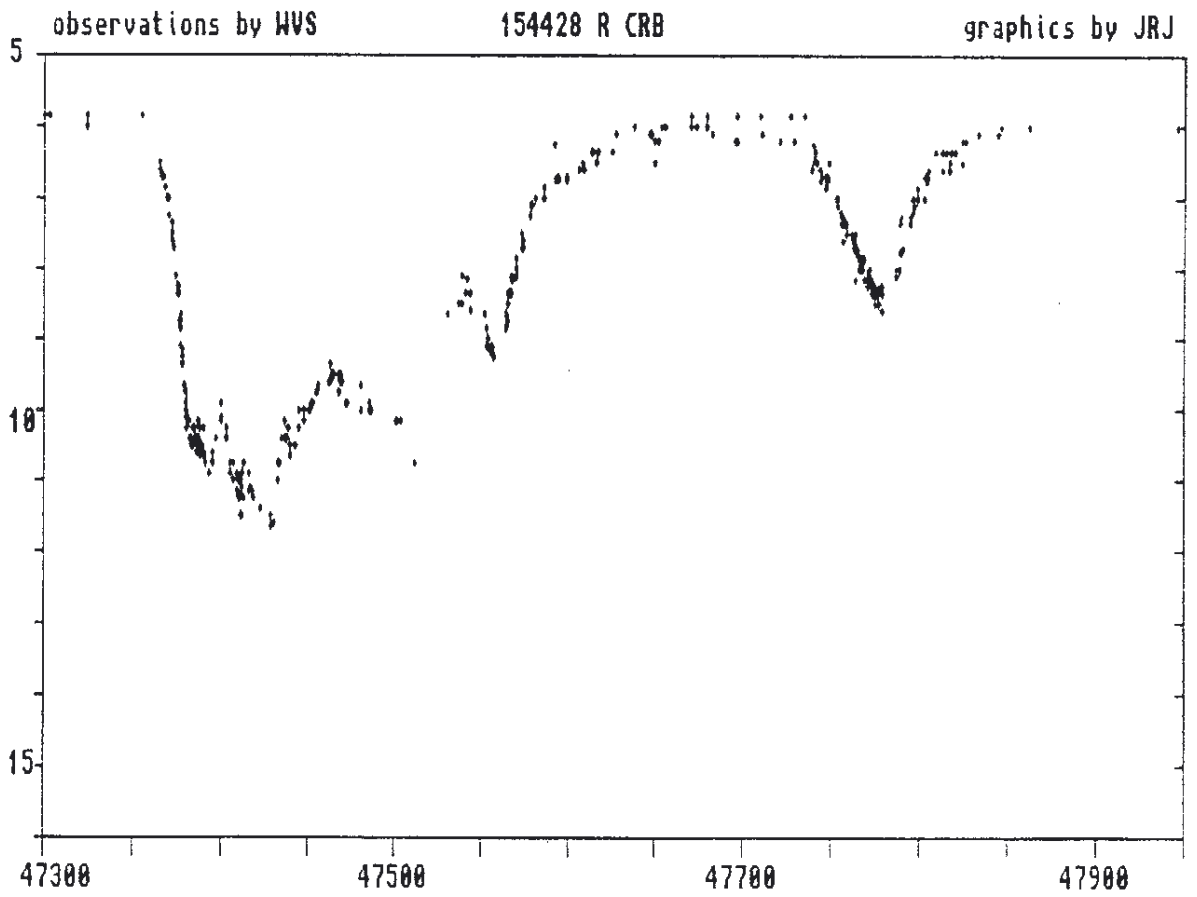
Qua analyse van de tot nu toe waargenomen actieve perioden is het zeer moeilijk, misschien wel onmogelijk, om het verloop te beschrijven. Uit de waarnemingen van 1960 tot op heden is het misschien gerechtvaardigd de volgende twee conclusies te trekken.

- langdurige perioden neigen naar een zwakker minimum.
- de afname naar minimum gaat doorgaans veel vlugger dan de toename naar maximum.

Dit laatste punt lijkt echter door zeer korte actieve perioden niet geheel te worden gerespecteerd.

Op de volgende pagina's zijn de actieve perioden vanaf 1977 tot en met de huidige weergegeven. Tussentijdse perioden waren op een enkel oneffenheidje na stabiel rond magnitude 6. Op het moment van schrijven is de helderheid toegenomen tot 8.2, en is de totale tijdsduur al 295 dagen. Als R CrB dus nog even rustig aan doet, of liever nog, weer af wil gaan nemen (wishfull thinking), dan kunnen we in ieder geval hopen op de op één na langste actieve periode van de laatste 36 jaar.





S

1913+50 (b)

TZ Cyg (Cygni)

AAVSO

Chart

6/95

Magn. - 10 - 11.5V (AAVSO)

Period -

(1900) 19^h 13^m 28^s +49° 58'.9

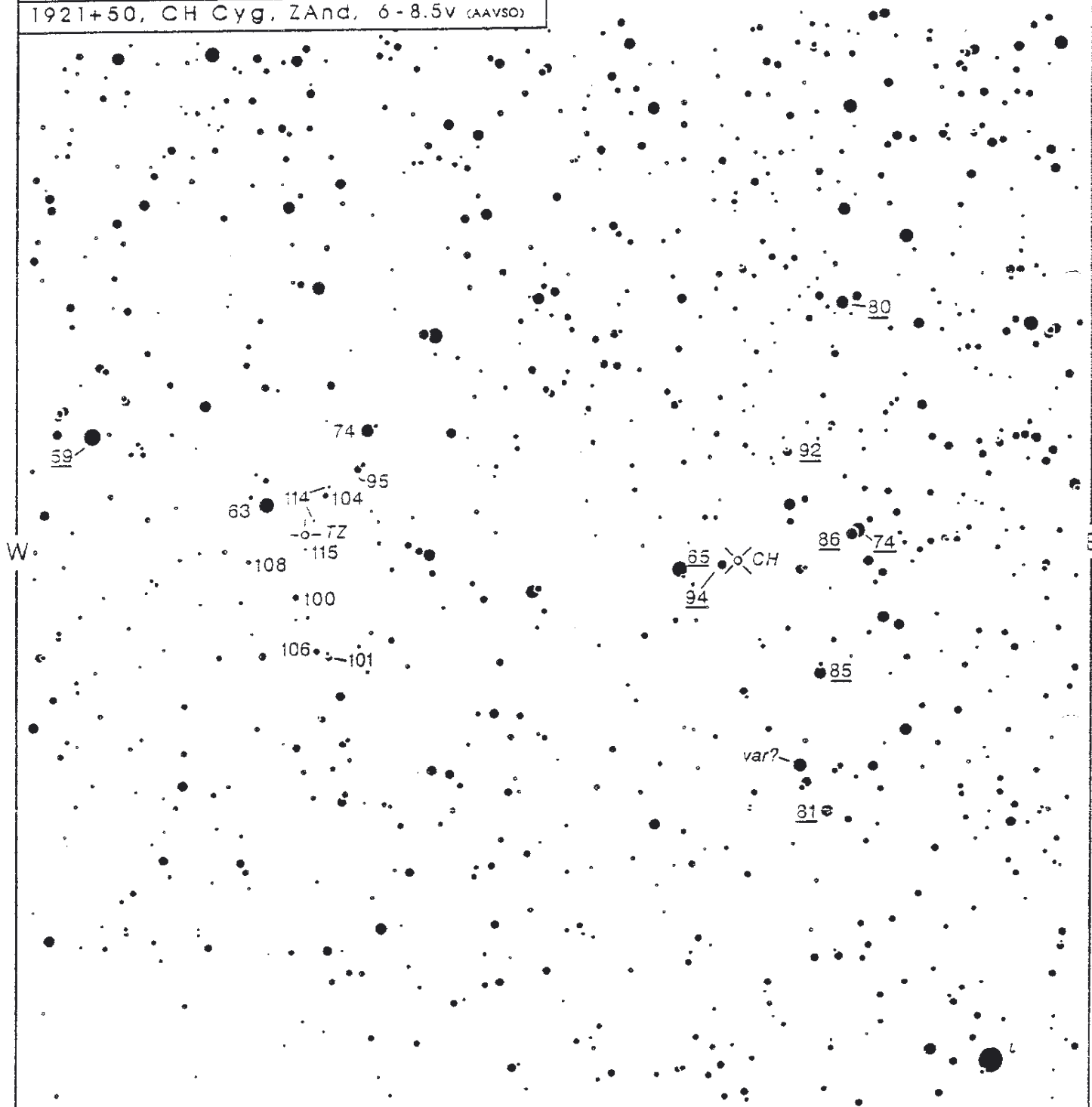
Type - Lb

(2000) 19^h 16^m 04^s +50° 09'.6

Spec. - M6

60"=1mm

1921+50, CH Cyg, ZAnd, 6 - 8.5V (AAVSO)



Drawn by: CES & RAL

From: Stamford Observatory photo & AAVSO 'b' chart, revised 1986

Sequence: PEP(V), H. Landis: & AAVSO chart 1986

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AAVSO ALERT NOTICE 222 (June 25, 1996)

-----	219.4	9.7	JRJ	188.4	<14.6	CMG									
053326 RR Tau	219.4	10.0	CMG	-----			175.3	11.8	CMG	175.4	10.3	CMG	175.3	9.8	CMG
type INAS	224.4	9.4	FJH	061275 W Cam			186.3	12.3	CMG	185.4	10.8	CMG	185.4	10.3	CMG
	240.5	10.4	CMG	type Mira			-----			189.4	11.1	JRJ	187.4	10.6	JRJ
186.3 12.6 CMG	250.4	10.3	JRJ				063159 U Lyn			190.4	11.3	FJH	189.3	10.9	FJH
196.4 12.5 CMG	-----			186.4	12.2	CMG	type Mira			192.4	11.0	CMG	192.4	10.7	CMG
-----	055439 AZ Aur			192.4	12.2	CMG				196.4	11.6	FJH	196.3	11.3	FJH
053337 RU Aur	type Mira			199.4	12.1	CMG	185.4	13.7	CMG	199.4	11.6	CMG	-----		
type Mira				210.4	11.7	CMG	186.4	13.7	FJH	209.4	11.9	FJH	072141 VX Aur		
	185.4	13.1	CMG	219.4	10.9	CMG	189.4	13.8	JRJ	210.4	11.7	JRJ	type Mira		
175.3 9.9 CMG	186.4	13.0	FJH	-----			196.4	13.6	FJH	224.4	12.4	FJH			
178.4 10.6 FJH	-----			061647 V Aur			199.4	13.5	CMG	-----			175.3	10.0	CMG
185.4 10.0 CMG	060246 VY Aur			type Mira			209.4	13.6	FJH	070109 V Cmi			185.4	9.6	CMG
189.4 10.1 JRJ	type Mira						210.4	14.0	JRJ	type Mira			190.4	9.4	FJH
196.3 10.1 CMG				175.3	9.2	CMG	224.4	13.4	FJH				192.4	9.2	CMG
199.4 10.2 JRJ	186.4	14.4	FJH	185.4	9.5	CMG	250.5	11.4	JRJ	175.3	12.0	CMG	199.3	9.1	CMG
209.4 10.7 JRJ	-----			189.4	9.7	JRJ	-----			178.4	12.2	FJH	210.4	8.5	CMG
209.4 11.0 FJH	060443 RR Aur			192.4	9.7	CMG	063308 R Mon			186.3	12.5	CMG	-----		
-----	type Mira			199.3	9.7	CMG	type Ina			187.4	12.5	JRJ	072708 S Cmi		
053531 U Aur				199.4	9.8	JRJ				189.3	12.6	FJH	type Mira		
type Mira	175.3	9.9	CMG	209.4	10.0	JRJ	188.3	11.6	CMG	196.3	13.0	FJH			
	178.4	10.4	FJH	-----			-----			196.4	12.7	CMG			
175.3 8.4 CMG	185.4	10.1	CMG	061725 ZZ Gem			063444A AA Aur			-----			175.3	8.7	CMG
185.4 8.6 CMG	189.4	10.4	JRJ	type Mira			type Mira			070122A R Gem			186.3	7.9	CMG
189.4 8.6 JRJ	196.3	10.4	CMG							type Mira			187.4	7.8	JRJ
192.4 8.9 CMG	196.3	10.4	FJH	175.3	10.7	CMG	175.3	12.8	CMG				189.3	7.8	FJH
199.4 9.0 JRJ	199.4	10.5	JRJ	185.4	11.0	CMG	185.4	13.0	FJH	151.5	11.2	VDH	196.3	7.5	FJH
210.4 9.7 JRJ	209.4	10.7	JRJ	192.4	11.1	CMG	185.4	13.2	CMG	175.3	11.8	CMG	-----		
-----	209.4	10.9	FJH	-----			196.3	13.5	FJH	178.4	11.4	FJH	072811 T Cmi		
053538 SZ Aur				061925 VV Gem			196.4	13.9	CMG	185.4	11.9	CMG	type Mira		
type Mira	060450 X Aur			type Mira			-----			187.4	12.2	JRJ			
	type Mira						063558 S Lyn			189.3	11.7	FJH	175.3	12.0	CMG
188.4 14.5 CMG				175.3	10.9	CMG	type Mira			192.4	12.1	CMG	178.4	11.9	FJH
-----	175.3	11.0	CMG	185.4	10.8	CMG				196.3	12.2	FJH	186.3	11.8	CMG
054920A U Ori	185.4	10.4	CMG	192.4	10.8	CMG	185.4	14.6	CMG	-----			187.4	11.6	JRJ
type Mira	189.4	9.3	JRJ	-----			210.4 :13.8	JRJ		070310 R Cmi			189.3	11.9	FJH
	192.4	9.7	CMG	062564 RT Cam			250.5	13.3	JRJ	type Mira			196.3	11.8	FJH
144.4 9.7 VDH	199.3	9.5	CMG	type Mira			-----						196.4	11.8	CMG
151.5 10.3 VDH	199.4	9.4	JRJ				064030 X Gem			175.3	10.5	CMG	-----		
186.3 11.3 CMG	209.4	9.2	JRJ	188.3	14.2	CMG	type Mira			186.3	10.6	CMG	073234 ST Gem		
-----	-----			210.4	13.5	JRJ				187.4	10.5	JRJ	type Mira		
054974 V Cam	060547 SS Aur			250.5	12.7	JRJ	175.3	11.2	CMG	196.4	10.7	CMG			
type Mira	type UGSS			-----			178.4	11.4	FJH	-----			175.3	10.0	CMG
				062574 SU Cam			185.4	11.6	CMG	070714 VX Gem			182.4	9.5	FJH
175.3 8.7 CMG	175.32	13.0	CMG	type Mira			187.3	11.9	JRJ	type Mira			185.4	9.5	CMG
182.4 7.5 FJH	175.34	12.8	JRJ				189.3	12.0	FJH				187.4	9.5	JRJ
185.5 8.2 CMG	186.36	14.8	FJH	188.4	13.4	CMG	196.3	12.2	FJH	178.4	12.3	CMG	192.4	8.9	CMG
189.4 7.8 JRJ	187.38	14.7	FJH	209.4	12.7	JRJ	209.4	12.6	JRJ	185.4	12.5	CMG	196.3	9.3	FJH
190.4 8.0 FJH	188.36	15.2	CMG	210.4	13.0	CMG	-----			-----			209.4	9.5	JRJ
192.4 8.8 CMG	209.40	12.9	FJH	219.4	12.0	JRJ	065111 Y Mon			071201 RR Mon			210.4	9.8	CMG
199.4 8.7 FJH	209.41	12.7	JRJ	219.4	12.1	CMG	type Mira			type Mira			219.4	9.5	CMG
199.4 8.9 JRJ	210.38	13.5	JRJ	224.4	12.2	FJH				-----			-----		
199.4 9.6 CMG	-----			250.4	10.4	JRJ	188.3	13.8	CMG	186.3	11.2	CMG	073336 RU Lyn		
209.4 9.0 FJH	060746A ST Aur			-----			-----			-----			type Mira		
209.4 9.5 JRJ	type Mira			063025 BR Gem			065355 R Lyn			071713 V Gem					
210.4 9.9 CMG				type Mira			type Mira			type Mira			185.4	14.5	FJH

-----	195.40 12.2 FJH	-----	224.48 11.5 CMG	189.36 10.8 FJH	185.4 9.5 CMG
073508 U Cmi	196.37 13.2 CMG	081473 Z Cam	239.52 12.3 CMG	189.4 10.6 CMG	190.4 9.7 CMG
type Mira	196.37 12.8 FJH	type UGZ	240.44 12.4 CMG	189.57 10.8 BMU	196.4 9.9 JRJ
	198.36 13.6 FJH		247.45 11.2 BMU	190.36 11.0 FJH	198.4 9.5 CMG
175.3 8.9 CMG	202.42 14.0 FJH	175.34 10.5 CMG	248.43 11.5 CMG	191.57 10.8 BMU	210.4 8.7 CMG
186.3 9.2 CMG	208.39 13.6 FJH	178.35 11.1 CMG	249.43 11.7 BMU	192.42 11.0 BMU	-----
187.4 9.2 JRJ	209.37 14.3 FJH	178.37 10.7 FJH	249.44 11.7 CMG	192.5 10.8 CMG	0850-08 T Hya
189.3 9.5 FJH	210.39 14.2 FJH	182.36 10.6 FJH	250.44 12.0 JRJ	193.57 11.4 BMU	type Mira
196.3 9.6 FJH	211.39 14.3 FJH	185.38 10.9 FJH	250.46 12.2 CMG	194.41 11.4 FJH	
196.4 9.4 CMG	212.41 14.2 FJH	185.39 11.1 BMU	-----	195.40 11.5 FJH	198.4 11.1 CMG
-----	212.47 13.9 CMG	185.43 11.2 CMG	081617 V Cnc	195.5 11.4 CMG	-----
073723 S Gem	219.40 14.2 FJH	186.35 11.5 CMG	type Mira	196.38 11.8 FJH	085518 SY Cnc
type Mira	224.40 14.3 FJH	186.36 11.4 FJH		198.36 11.9 FJH	type UGZ
	-----	187.36 11.6 FJH	175.4 12.8 CMG	198.55 12.1 BMU	
185.4 14.0 CMG	080428 YZ Cnc	188.35 11.7 CMG	185.4 13.0 CMG	199.37 11.9 FJH	178.37 12.3 FJH
186.3 14.5 FJH	type UGSU	188.42 11.8 FJH	186.3 13.4 FJH	202.43 12.1 FJH	182.37 11.0 FJH
187.4 14.0 JRJ		188.57 11.3 BMU	187.4 12.9 JRJ	-----	185.37 11.5 CMG
196.4 :14.5 FJH	177.48 13.2 CMG	189.34 12.0 FJH	196.4 12.9 CMG	083013 UY Cnc	185.42 11.5 FJH
209.4 14.5 JRJ	182.36 12.5 FJH	189.35 12.0 CMG	196.4 12.9 JRJ	type Mira	186.35 11.5 CMG
-----	185.39 14.6 FJH	189.42 11.6 JRJ	-----		186.37 11.7 FJH
074323 T Gem	185.39 14.5 CMG	190.36 12.0 FJH	081633 T Lyn	185.4 14.4 CMG	187.36 11.8 FJH
type Mira	186.34 15.0 FJH	190.37 12.3 CMG	type Mira	186.3 14.2 FJH	187.41 11.0 JRJ
	187.37 14.6 FJH	191.57 11.6 BMU		188.4 14.1 CMG	188.35 11.5 CMG
175.3 9.8 CMG	188.35 14.6 CMG	192.35 12.3 CMG	175.4 10.0 CMG	196.3 13.5 FJH	188.42 11.5 FJH
182.4 9.8 FJH	188.43 14.5 FJH	192.57 11.8 BMU	182.4 10.0 FJH	196.4 13.8 CMG	189.36 11.5 CMG
185.4 10.2 CMG	190.33 12.0 BMU	193.57 12.2 BMU	185.4 10.1 CMG	-----	190.36 11.8 FJH
187.4 10.5 JRJ	190.36 12.2 FJH	194.39 12.5 BMU	189.4 10.1 JRJ	083019 U Cnc	190.38 11.6 CMG
192.4 10.5 CMG	190.38 12.2 CMG	194.41 12.6 FJH	192.4 10.3 CMG	type Mira	192.38 12.2 CMG
196.3 10.9 FJH	192.41 13.0 BMU	195.40 12.2 FJH	198.4 10.1 FJH		195.41 13.2 FJH
209.4 11.0 JRJ	195.41 14.5 FJH	196.37 12.8 FJH	199.4 10.3 CMG	185.4 14.0 FJH	196.36 13.3 CMG
209.4 11.6 FJH	-----	196.37 13.0 CMG	210.4 10.2 CMG	185.4 14.4 CMG	196.37 13.4 FJH
210.4 11.3 CMG	080523 RR Cnc	198.35 13.0 CMG	210.4 10.2 JRJ	209.4 14.4 FJH	196.38 13.3 JRJ
-----	type Mira	198.35 12.2 FJH	211.4 10.4 FJH	-----	209.39 11.7 FJH
074922 U Gem		198.55 12.5 BMU	219.4 10.7 CMG	083350 X Uma	211.38 12.0 FJH
type UGSS+E	185.4 14.1 CMG	199.35 13.0 CMG	-----	type Mira	212.38 12.7 FJH
	186.3 13.9 FJH	199.36 12.3 FJH	081935 X Lyn		-----
153.32 9.5 VDE	-----	199.39 12.8 JRJ	type Mira	178.4 10.4 CMG	090425 W Cnc
185.39 14.3 CMG	080837 RT Lyn	202.42 12.8 FJH		178.4 10.5 FJH	type Mira
186.35 14.2 FJH	type Mira	208.39 10.8 FJH	175.4 11.5 CMG	185.4 10.3 CMG	
187.36 14.2 JRJ		209.37 11.6 FJH	182.4 11.5 FJH	187.5 10.7 JRJ	175.4 8.3 CMG
187.37 14.7 FJH	185.4 14.5 CMG	209.39 11.6 BMU	185.4 11.0 CMG	188.4 10.6 CMG	182.4 8.2 FJH
190.32 14.2 BMU	-----	209.43 11.4 JRJ	189.4 11.2 JRJ	190.4 10.6 FJH	185.4 8.2 CMG
209.37 14.2 JRJ	081040 W Lyn	210.37 11.8 BMU	190.4 11.2 FJH	192.5 10.4 CMG	187.4 8.2 JRJ
209.37 14.3 BMU	type Mira	210.38 12.0 FJH	192.4 11.1 CMG	199.4 10.6 JRJ	192.4 8.2 CMG
-----		210.40 12.3 CMG	198.4 11.0 FJH	199.4 10.9 CMG	195.4 8.2 FJH
080362 SU Uma	211.4 <14.6 FJH	210.41 11.6 JRJ	199.4 11.2 CMG	208.5 10.9 FJH	196.4 8.5 JRJ
type UGSU	-----	211.37 12.3 CMG	210.4 11.0 JRJ	209.5 10.6 JRJ	210.4 8.7 FJH
	081112 R Cnc	211.38 12.1 FJH	210.4 11.2 CMG	210.4 10.9 CMG	210.4 8.8 CMG
185.38 14.2 FJH	type Mira	212.38 12.2 FJH	211.4 11.2 FJH	218.4 11.0 FJH	219.4 9.0 CMG
186.36 14.3 CMG		212.42 12.3 JRJ	219.4 11.4 CMG	219.4 11.1 CMG	-----
186.36 14.3 FJH	175.4 10.5 CMG	212.47 12.4 CMG	-----	224.4 11.1 FJH	0911-04 UZ Hya
187.36 14.3 FJH	185.4 10.9 CMG	218.39 12.8 FJH	082953 SW Uma	-----	type Mira
188.36 14.1 CMG	187.4 11.0 JRJ	219.40 13.2 FJH	type UG	084803 S Hya	
188.43 14.2 FJH	196.4 11.1 CMG	219.41 13.3 JRJ		type Mira	198.4 10.3 CMG
189.36 14.2 CMG	196.4 11.2 JRJ	219.43 13.0 CMG	186.4 10.4 CMG		
194.38 12.7 FJH	210.4 11.1 CMG	224.39 11.5 FJH	188.4 10.6 CMG	175.4 10.0 CMG	

-----	187.62 12.9 BMU	219.37 12.5 CMG	185.4 10.4 CMG	type Mira	177.5 10.4 CMG
093178 Y Dra	188.36 13.4 CMG	219.41 12.2 FJH	187.5 10.8 JRJ		185.5 10.9 CMG
type Mira	188.42 13.5 FJH	224.40 12.7 FJH	190.4 10.8 FJH	178.4 9.4 CMG	186.4 11.0 FJH
	189.37 13.6 CMG	-----	192.3 10.7 CMG	185.4 9.3 CMG	192.4 11.4 CMG
185.4 14.2 FJH	189.57 12.9 BMU	094735 S LMi	199.3 11.3 CMG	192.3 8.8 CMG	194.4 11.6 FJH
185.5 14.5 CMG	190.36 13.2 FJH	type Mira	199.4 10.8 JRJ	198.5 9.1 CMG	198.4 11.8 CMG
194.5 14.2 FJH	190.37 14.5 CMG		199.4 11.2 FJH	210.4 9.2 CMG	209.4 12.1 FJH
202.5 14.5 FJH	192.42 12.9 BMU	175.4 8.3 CMG	208.5 11.8 FJH	219.4 9.3 CMG	211.4 12.5 CMG
209.4 14.6 FJH	193.58 13.0 BMU	182.4 8.8 FJH	209.4 11.7 JRJ	248.4 9.9 CMG	219.4 12.7 CMG
211.4 14.5 CMG	194.38 13.0 FJH	185.4 8.3 CMG	210.4 11.7 CMG	-----	-----
219.4 14.6 CMG	195.40 13.1 FJH	187.4 8.6 JRJ	218.4 11.9 FJH	115158 Z UMa	1214-18 R Crv
219.4 14.8 FJH	196.37 13.0 FJH	192.4 8.5 CMG	219.4 12.1 CMG	type SRb	type Mira
240.5 14.5 CMG	198.36 13.2 FJH	195.4 9.0 FJH	231.4 12.2 FJH		
248.5 14.5 CMG	198.57 13.0 BMU	199.4 8.5 CMG	236.4 12.3 CMG	144.4 8.3 VDH	185.4 11.9 CMG
248.5 14.6 FJH	209.37 13.0 FJH	210.4 8.8 CMG	240.4 12.3 JRJ	151.5 8.4 VDH	-----
-----	209.39 13.0 BMU	210.4 9.0 FJH	247.5 12.3 BMU	172.5 8.0 VDH	122001 SS Vir
093720 RS Leo	210.38 13.7 BMU	211.4 8.7 JRJ	248.4 12.2 JRJ	175.3 8.0 CMG	type Mira
type Mira	210.39 13.5 FJH	219.4 9.4 CMG	248.4 12.6 CMG	185.4 7.9 CMG	
	211.40 14.5 FJH	-----	248.4 12.7 FJH	192.3 8.1 CMG	177.5 9.2 CMG
178.4 11.8 FJH	212.41 14.5 FJH	094836 U LMi	-----	199.3 8.0 CMG	185.5 9.5 CMG
185.4 10.9 CMG	219.41 13.3 FJH	type SRA	104814 W Leo	210.4 7.9 CMG	192.4 9.3 CMG
187.4 10.9 JRJ	224.40:14.5 FJH		type Mira	219.4 7.9 CMG	198.4 9.1 CMG
188.4 11.0 FJH	-----	175.4 11.2 CMG		236.4 7.9 CMG	210.4 8.9 CMG
190.4 10.3 CMG	094211 R Leo	185.4 11.1 CMG	185.4 13.6 CMG	247.5 7.5 BMU	219.4 8.7 CMG
198.4 9.6 CMG	type Mira	192.4 11.0 CMG	188.4 13.2 FJH	248.4 7.9 CMG	-----
198.5 10.2 FJH		199.4 11.0 CMG	190.4 13.2 CMG	-----	122532 T CVn
208.4 10.2 FJH	151.5 6.3 VDH	210.4 11.0 CMG	198.4 13.0 CMG	115919 R Com	type Mira
210.4 10.0 CMG	175.4 6.9 CMG	219.4 11.1 CMG	198.5 13.1 FJH	type Mira	
211.4 10.0 JRJ	175.4 7.0 BVE	-----	208.4 12.6 FJH		185.4 11.1 CMG
219.4 10.5 FJH	185.4 7.4 CMG	095421 V Leo	210.4 12.6 CMG	177.5 12.9 CMG	192.4 11.1 CMG
-----	187.4 7.1 BVE	type Mira	218.4 11.7 FJH	182.4 12.9 FJH	199.4 11.1 CMG
093934 R LMi	187.4 7.7 JRJ		219.4 11.9 CMG	185.4 13.2 CMG	211.4 11.0 CMG
type Mira	190.3 7.8 BMU	178.4 13.1 FJH	224.4 11.1 FJH	192.5 13.3 CMG	219.4 11.0 CMG
	190.4 7.4 CMG	185.4 13.3 CMG	-----	194.5 13.0 FJH	236.4 10.3 CMG
175.4 13.2 CMG	196.4 7.9 JRJ	187.4 13.3 JRJ	110506 S Leo	198.5 13.3 CMG	248.4 9.9 CMG
178.4 13.0 FJH	198.4 7.8 CMG	188.4 13.2 FJH	type Mira	208.4 13.3 FJH	-----
185.4 13.1 CMG	209.4 8.2 BMU	190.4 13.2 CMG		210.4 13.4 CMG	1228-03 Y Vir
187.4 13.0 JRJ	209.4 8.2 JRJ	198.4 13.9 CMG	177.5 11.7 CMG	219.4 13.5 CMG	type Mira
190.4 13.1 FJH	210.4 8.6 BVE	198.5 13.6 FJH	185.4 10.7 CMG	219.4 13.7 FJH	
192.4 13.1 CMG	211.4 8.4 JRJ	208.4 13.7 FJH	188.4 11.4 FJH	-----	177.5 10.2 CMG
199.4 13.0 CMG	212.4 8.6 FJH	210.4 13.6 CMG	190.4 10.5 CMG	120012 SU Vir	185.5 10.9 CMG
208.4 12.6 FJH	219.4 8.5 CMG	219.4 13.8 CMG	198.4 10.1 CMG	type Mira	186.4 11.1 FJH
210.4 12.9 CMG	-----	219.4 13.9 FJH	198.4 11.2 FJH		192.4 11.3 CMG
211.4 12.6 JRJ	094512 X Leo	-----	208.4 10.0 FJH	177.5 14.4 CMG	194.4 11.6 FJH
219.4 11.8 FJH	type UGSS	102900 S Sex	210.4 9.9 CMG	185.4 14.5 FJH	198.4 11.7 CMG
219.4 12.3 CMG		type Mira	218.4 10.5 FJH	185.5 14.2 CMG	209.4 12.3 FJH
-----	178.39 12.6 FJH		219.4 10.0 CMG	194.4 14.6 FJH	211.4 12.2 CMG
093952 ER UMa	188.37 13.9 CMG	178.4 12.2 CMG	224.4 10.7 FJH	198.4 14.3 CMG	219.4 12.9 CMG
type UG	189.36:14.8 CMG	185.4 11.5 CMG	-----	209.4 13.9 FJH	-----
	190.33 13.0 BMU	190.4 11.0 CMG	1107-06 U Crt	218.4 13.4 FJH	123160 T UMa
182.39 13.0 FJH	190.39 12.9 FJH	198.4 10.4 CMG	type Mira	219.4 13.2 CMG	type Mira
185.39 12.9 BMU	190.39 12.8 CMG	219.4 9.7 CMG		224.4 12.9 FJH	
185.39 13.1 FJH	192.34 12.7 CMG	-----	185.5 12.4 CMG	-----	175.3 11.9 CMG
186.36 13.3 CMG	192.37 12.5 BMU	103769 R UMa	198.4 12.5 CMG	1209-05 T Vir	182.4 11.5 FJH
186.37 13.2 FJH	193.34 13.0 BMU	type Mira	-----	type Mira	185.4 11.3 CMG
187.36 13.2 FJH	195.41 14.7 FJH		113639 RU UMa		187.4 10.8 BVE

187.5	11.1	JRJ	190.4	10.1	FJH	210.4	13.5	CMG	188.5	13.1	FJH	219.4	11.0	CMG	187.5	9.7	JRJ
190.4	10.5	FJH	192.3	10.2	CMG	219.4	13.5	CMG	195.5	12.9	CMG	224.5	10.4	BVE	190.4	10.1	FJH
192.3	10.4	CMG	196.4	10.4	JRJ	219.4	13.9	FJH	198.4	12.8	CMG	236.4	10.9	CMG	192.4	9.8	CMG
196.4	10.1	JRJ	199.3	10.3	CMG	224.4	13.8	FJH	198.4	13.1	FJH	236.4	11.1	FJH	196.4	10.3	JRJ
199.3	9.6	CMG	199.4	10.3	FJH	-----	-----	-----	209.4	12.7	BMU	248.4	10.9	CMG	199.4	10.2	CMG
199.4	9.6	FJH	208.5	11.0	FJH	124238	U CVn	-----	209.4	13.0	FJH	249.4	11.1	FJH	199.4	10.6	FJH
209.4	8.2	JRJ	209.4	10.8	JRJ	type Mira	-----	-----	210.4	12.8	CMG	251.4	10.9	BVE	209.4	10.7	FJH
210.4	8.5	CMG	210.4	10.5	CMG	-----	-----	-----	219.4	12.5	CMG	263.4	11.6	FJH	209.4	10.8	JRJ
210.4	8.6	BVE	210.4	10.8	BVE	185.4	13.6	FJH	240.4	11.7	CMG	-----	-----	-----	210.4	11.0	CMG
219.4	8.1	CMG	218.4	11.1	FJH	185.4	13.7	CMG	-----	-----	-----	1353-04	SY Vir	-----	219.4	11.5	CMG
219.6	7.8	JRJ	219.4	11.1	CMG	195.4	14.0	FJH	133273	T UMi	-----	type Mira	-----	-----	236.4	12.0	CMG
224.4	8.0	BVE	219.6	11.4	JRJ	198.6	13.4	CMG	type Mira	-----	-----	-----	-----	-----	236.5	12.3	FJH
236.4	7.6	CMG	224.4	11.6	BVE	211.4	14.4	CMG	-----	-----	-----	188.6	14.0	CMG	240.4	12.3	JRJ
240.4	7.7	JRJ	231.4	12.0	FJH	212.4	14.1	FJH	175.3	11.2	CMG	-----	-----	-----	242.5	12.4	FJH
247.5	7.7	BMU	236.4	11.6	CMG	-----	-----	-----	185.5	10.5	CMG	1359-08	RR Vir	-----	248.4	12.8	CMG
248.4	7.7	JRJ	240.4	12.3	JRJ	124606	U Vir	-----	186.3	11.0	FJH	type Mira	-----	-----	248.4	13.0	JRJ
248.4	8.0	CMG	242.5	12.3	FJH	type Mira	-----	-----	187.5	11.5	JRJ	-----	-----	-----	249.4	12.5	BMU
251.4	8.5	BVE	247.5	12.4	BMU	-----	-----	-----	192.4	10.1	CMG	188.6	12.7	CMG	255.4	13.1	FJH
-----	-----	-----	248.4	12.5	JRJ	177.5	9.6	CMG	198.4	10.1	FJH	-----	-----	-----	-----	-----	-----
123307	R Vir	-----	248.4	12.8	CMG	182.4	10.2	FJH	199.4	10.0	CMG	140113	Z Boo	-----	142205	RS Vir	-----
type Mira	-----	-----	248.4	12.8	FJH	185.5	9.8	CMG	209.5	9.8	FJH	type Mira	-----	-----	type Mira	-----	-----
-----	-----	-----	-----	-----	-----	192.5	10.4	CMG	210.4	9.8	CMG	-----	-----	-----	-----	-----	-----
177.5	10.2	CMG	123961	S UMa	-----	198.4	11.0	CMG	211.5	9.6	JRJ	177.5	13.6	CMG	177.5	12.6	CMG
182.4	9.5	FJH	type Mira	-----	-----	199.4	11.2	FJH	219.4	9.5	CMG	185.4	13.9	FJH	185.4	13.2	FJH
185.5	9.4	CMG	-----	-----	-----	208.4	11.7	FJH	236.4	9.5	CMG	185.4	14.1	CMG	186.4	12.9	CMG
192.4	9.1	CMG	175.3	12.3	CMG	210.4	11.6	CMG	240.4	9.5	JRJ	187.5	14.1	JRJ	194.4	13.3	FJH
198.4	8.7	CMG	182.4	11.9	FJH	219.4	12.2	CMG	241.4	9.5	FJH	194.5	14.2	FJH	195.5	12.8	CMG
210.4	7.2	CMG	185.4	11.5	CMG	219.4	12.3	FJH	248.5	9.7	CMG	202.4	14.3	FJH	202.5	13.4	FJH
219.4	6.5	CMG	187.5	11.1	JRJ	224.4	12.6	FJH	249.5	9.6	JRJ	209.4	14.5	FJH	210.4	13.4	CMG
236.4	6.5	CMG	190.4	11.3	FJH	236.4	12.7	CMG	255.5	10.1	FJH	211.4	14.1	JRJ	212.4	13.5	FJH
-----	-----	-----	192.3	10.7	CMG	-----	-----	-----	-----	-----	-----	219.4	14.6	CMG	219.4	13.5	CMG
123366	RV Dra	-----	196.4	10.4	JRJ	1322-02	V Vir	-----	134434	RT CVn	-----	219.4	14.7	FJH	219.4	13.6	FJH
type Mira	-----	-----	199.3	10.5	CMG	type Mira	-----	-----	type Mira	-----	-----	-----	-----	-----	240.4	12.9	CMG
-----	-----	-----	199.4	10.3	FJH	-----	-----	-----	-----	-----	-----	141567	U UMi	-----	249.4	12.7	CMG
185.5	11.7	CMG	209.4	9.5	JRJ	185.5	10.0	CMG	178.4	10.7	CMG	type Mira	-----	-----	249.4	13.3	FJH
187.4	11.4	FJH	210.4	9.1	BVE	188.5	10.6	FJH	182.4	11.1	FJH	-----	-----	-----	-----	-----	-----
199.4	10.6	FJH	210.4	9.2	CMG	195.5	10.4	CMG	185.4	10.7	CMG	175.3	10.8	CMG	142539	V Boo	-----
208.5	10.5	FJH	219.4	9.1	CMG	198.4	10.6	CMG	190.4	11.3	FJH	185.5	10.8	CMG	type SRA	-----	-----
211.4	10.2	CMG	219.6	9.3	JRJ	198.4	11.0	FJH	192.4	11.3	CMG	186.3	10.5	FJH	-----	-----	-----
219.4	10.1	CMG	224.4	9.1	BVE	209.4	11.6	FJH	199.4	11.7	FJH	187.5	10.6	JRJ	151.5	8.6	VDH
223.4	10.5	FJH	236.4	8.7	CMG	210.4	11.3	CMG	199.4	11.8	CMG	192.4	10.6	CMG	172.5	9.0	VDH
236.4	10.5	FJH	240.4	8.6	JRJ	219.4	11.6	CMG	210.4	12.5	FJH	199.4	10.5	FJH	175.4	8.5	BVE
236.5	10.6	CMG	247.5	8.2	BMU	-----	-----	-----	211.4	12.7	CMG	199.4	10.6	CMG	175.4	8.9	CMG
248.4	10.6	FJH	248.4	8.7	JRJ	132262	RR UMa	-----	219.4	13.5	CMG	210.4	10.0	CMG	185.4	8.8	CMG
263.4	11.3	FJH	248.4	8.8	CMG	type Mira	-----	-----	-----	-----	-----	211.5	10.4	JRJ	187.5	8.5	BVE
-----	-----	-----	251.4	8.2	BVE	-----	-----	-----	134440	R CVn	-----	219.4	9.9	CMG	187.5	8.6	JRJ
123459	RS UMa	-----	-----	-----	-----	185.5	13.9	CMG	type Mira	-----	-----	236.4	9.6	CMG	192.4	8.5	CMG
type Mira	-----	-----	124204	RU Vir	-----	211.4	14.6	CMG	-----	-----	-----	240.4	9.4	JRJ	196.4	8.5	JRJ
-----	-----	-----	type Mira	-----	-----	219.5	14.8	CMG	185.4	9.2	CMG	241.4	9.2	FJH	199.4	8.3	CMG
172.5	10.0	VDH	-----	-----	-----	240.4	9.7	CMG	187.5	9.2	BVE	248.5	9.7	CMG	209.4	8.0	JRJ
175.3	9.6	CMG	177.5	13.1	CMG	-----	-----	-----	192.4	9.4	CMG	249.5	9.0	JRJ	210.4	8.2	CMG
175.4	9.3	BVE	185.5	13.4	CMG	1327-06	S Vir	-----	199.4	9.7	CMG	-----	-----	-----	210.4	8.4	BVE
182.4	10.0	FJH	186.4	13.5	FJH	type Mira	-----	-----	210.4	10.2	BVE	141954	S Boo	-----	219.4	8.3	CMG
185.4	10.1	CMG	194.4	13.5	FJH	-----	-----	-----	211.4	10.3	CMG	type Mira	-----	-----	219.5	8.1	JRJ
187.4	10.0	BVE	198.4	13.5	CMG	177.5	13.2	CMG	212.4	10.3	FJH	-----	-----	-----	224.5	8.5	BVE
187.5	10.0	JRJ	208.4	13.7	FJH	185.5	13.2	CMG	218.4	10.8	FJH	175.4	9.5	CMG	236.4	8.5	CMG

240.4	8.9	JRJ	192.4	12.7	CMG	251.5	12.9	JRJ	219.4	12.3	CMG	191.57	12.3	BMU	250.46	8.3	CMG
248.4	8.5	JRJ	198.5	12.4	FJH	255.4	12.8	FJH	219.4	12.9	JRJ	192.41	12.3	CMG	251.4	8.4	JRJ
248.4	8.7	CMG	199.4	12.2	CMG	263.4	13.2	FJH	224.4	12.9	FJH	192.57	12.3	BMU	251.5	9.0	BVE
249.4	8.8	BMU	210.4	11.2	CMG	-----			236.4	13.0	CMG	193.37	12.1	BMU	254.4	8.2	FJH
251.4	8.8	BVE	210.4	11.8	FJH	151336	RT Boo		240.4	13.0	JRJ	194.34	12.0	BMU	255.47	8.3	BMU
-----			219.4	10.5	CMG	type Mira			240.4	13.1	FJH	194.5	12.0	FJH	258.49	8.2	BMU
142584	R Cam		236.4	8.7	CMG				247.5	12.4	BMU	195.4	11.9	FJH	258.5	8.2	FJH
type Mira			241.4	9.1	FJH	175.4	11.8	CMG	248.4	13.1	FJH	195.54	12.1	CMG	263.4	8.2	FJH
			248.4	8.9	CMG	188.5	11.5	FJH	248.4	13.2	CMG	196.37	12.1	CMG	-----		
175.3	8.5	CMG	250.4	8.9	JRJ	192.4	11.4	CMG	248.4	13.2	JRJ	196.4	11.7	JRJ	154536	X CrB	
185.5	8.1	CMG	254.4	9.3	FJH	198.5	11.4	FJH	258.5	13.1	FJH	198.39	11.9	CMG	type Mira		
189.5	8.1	FJH	-----			199.4	11.2	CMG	-----			198.4	11.6	FJH			
192.4	8.4	CMG	1506-05	Y Lib		210.4	11.0	FJH	153378A	S UMi		198.56	12.0	BMU	175.4	11.2	CMG
199.4	8.7	CMG	type Mira			210.4	11.2	CMG	type Mira			199.4	11.8	JRJ	185.4	10.2	BMU
210.4	9.0	CMG				219.4	11.0	CMG				199.40	11.9	CMG	185.5	9.9	CMG
212.4	9.2	JRJ	194.5	12.8	FJH	236.4	10.1	CMG	175.3	8.5	CMG	199.5	11.5	FJH	186.4	10.0	FJH
219.4	9.3	CMG	202.5	13.1	FJH	241.4	10.3	FJH	185.5	8.8	CMG	202.4	11.4	FJH	187.4	9.8	JRJ
236.5	9.8	CMG	212.4	13.5	FJH	248.4	10.1	CMG	187.5	8.8	JRJ	208.4	10.4	FJH	192.4	9.7	CMG
240.4	9.9	JRJ	219.4	13.7	FJH	254.4	10.2	FJH	192.4	8.8	CMG	209.4	10.3	FJH	199.4	9.3	JRJ
241.4	9.9	FJH	224.4	13.8	FJH	-----			199.4	9.1	CMG	209.4	10.6	JRJ	199.4	9.4	CMG
248.5	10.3	CMG	-----			151714	S Ser		199.4	9.4	FJH	209.40	10.5	BMU	199.5	9.7	FJH
249.5	10.3	JRJ	151083	Z UMi		type Mira			210.4	9.3	CMG	209.45	10.3	CMG	209.5	9.3	JRJ
263.4	11.0	FJH	type RCB?						210.4	9.7	FJH	210.38	10.4	BMU	210.4	9.3	BMU
-----						177.5	11.5	CMG	211.5	9.7	JRJ	210.4	10.3	FJH	210.4	9.3	CMG
143227	R Boo		185.4	14.5	FJH	185.5	11.3	CMG	219.4	9.3	CMG	210.4	10.4	JRJ	210.4	9.6	FJH
type Mira			187.5	14.6	FJH	187.6	11.5	JRJ	236.4	10.4	CMG	210.4	10.5	BVE	218.4	9.6	FJH
			188.4	14.1	CMG	192.4	11.3	CMG	240.4	9.9	JRJ	210.43	10.2	CMG	219.4	9.1	JRJ
175.4	10.5	CMG	188.5	14.6	FJH	199.4	11.3	CMG	241.4	10.5	FJH	211.39	10.2	CMG	219.4	9.6	CMG
185.4	11.6	CMG	193.37	14.1	BMU	199.5	11.4	JRJ	248.4	10.9	JRJ	211.4	10.4	JRJ	236.4	9.8	CMG
187.5	11.5	JRJ	194.5	14.1	FJH	210.4	10.8	CMG	248.5	10.6	CMG	212.4	10.2	FJH	239.4	10.4	FJH
188.4	11.6	FJH	195.5	13.9	CMG	211.4	10.3	JRJ	256.5	11.5	FJH	212.47	9.9	CMG	240.5	9.8	JRJ
192.4	11.8	CMG	198.4	13.9	FJH	219.5	10.0	JRJ	-----			218.4	9.6	FJH	247.5	10.6	BMU
198.4	12.0	FJH	198.6	13.8	CMG	219.5	10.1	CMG	154428A	R CrB		219.4	9.7	JRJ	248.4	10.7	CMG
199.4	12.0	CMG	202.5	13.8	FJH	236.5	8.9	CMG	type RCB			219.41	9.6	CMG	248.4	10.7	FJH
208.5	12.5	FJH	208.4	13.5	FJH	240.5	9.0	JRJ				223.4	9.4	FJH	248.4	10.7	JRJ
209.4	12.6	JRJ	209.39	13.6	BMU	248.4	8.9	CMG	177.48	13.0	CMG	224.48	9.4	CMG	258.5	11.5	FJH
210.4	12.8	CMG	210.4	13.0	CMG	248.5	8.7	JRJ	178.4	12.8	FJH	224.5	9.5	BVE	-----		
218.4	12.9	FJH	210.4	13.8	FJH	-----			182.4	12.7	FJH	229.41	9.1	CMG	154615	R Ser	
219.4	13.0	CMG	211.4	13.5	FJH	151731	S CrB		184.40	12.2	BMU	231.4	8.9	FJH	type Mira		
219.5	12.7	JRJ	212.4	13.7	JRJ	type Mira			185.37	12.3	BMU	234.4	8.8	JRJ			
224.4	12.9	FJH	218.4	13.4	FJH				185.4	12.4	FJH	236.4	8.8	FJH	177.5	7.5	CMG
236.4	12.9	CMG	219.4	13.0	CMG	175.4	10.9	CMG	185.45	12.5	CMG	236.44	8.8	CMG	185.5	7.6	CMG
236.4	13.0	FJH	219.4	13.4	FJH	185.4	11.7	BMU	186.37	12.4	CMG	239.4	8.9	FJH	187.5	7.6	JRJ
240.4	13.0	JRJ	219.4	13.6	JRJ	185.4	11.7	FJH	186.4	12.5	FJH	239.52	8.8	CMG	188.5	7.5	FJH
247.4	13.0	FJH	231.4	13.3	FJH	185.5	11.4	CMG	186.42	12.2	BMU	240.4	8.8	JRJ	192.4	7.7	CMG
248.4	12.6	JRJ	236.4	12.8	FJH	187.4	11.5	JRJ	187.4	12.1	JRJ	240.49	8.8	CMG	199.4	7.8	CMG
248.4	12.9	CMG	239.5	12.9	FJH	192.4	11.4	CMG	187.5	12.5	FJH	241.4	8.8	FJH	199.5	7.9	JRJ
249.4	13.0	BMU	240.4	12.3	JRJ	194.3	11.9	BMU	187.56	12.2	BMU	247.4	8.4	JRJ	210.4	8.2	CMG
255.4	12.8	FJH	240.4	12.5	CMG	194.5	12.2	FJH	188.37	12.4	CMG	247.4	8.8	FJH	211.4	8.3	JRJ
-----			241.4	12.8	FJH	199.4	11.7	CMG	188.5	12.4	FJH	247.45	8.4	BMU	212.4	8.6	FJH
144339	RR Boo		247.45	12.7	BMU	199.4	12.1	JRJ	188.58	12.1	BMU	248.4	8.4	JRJ	219.5	8.5	CMG
type Mira			247.5	12.8	FJH	208.5	12.3	FJH	188.63	12.4	CMG	248.44	8.3	CMG	219.5	8.7	JRJ
			248.5	12.7	CMG	209.5	12.0	JRJ	189.57	12.2	BMU	249.4	8.8	FJH	223.4	8.9	FJH
177.5	13.4	CMG	249.43	12.8	BMU	210.4	12.3	BMU	189.58	12.4	CMG	249.42	8.4	BMU	236.5	9.4	CMG
185.4	13.1	CMG	249.5	12.7	CMG	210.4	12.5	CMG	190.4	12.3	FJH	249.44	8.3	CMG	239.4	9.7	FJH
188.4	13.4	FJH	249.5	12.7	JRJ	218.4	12.6	FJH	190.57	12.2	BMU	250.4	8.4	JRJ	240.5	9.5	JRJ

248.4	9.8	CMG	194.5	10.4	FJH	160210	U Ser	161138	W CrB	185.5	10.7	CMG	210.4	7.9	BVE		
248.4	10.1	FJH	199.4	9.8	JRJ	type Mira		type Mira		195.5	11.0	CMG	210.4	7.9	CMG		
248.5	10.0	JRJ	199.4	10.2	CMG					211.4	11.9	CMG	219.4	8.0	CMG		
258.5	11.0	FJH	202.4	10.3	FJH	177.5	9.5	CMG	175.4	9.8	CMG	212.4	12.3	FJH	224.5	8.1	BVE
-----			208.5	9.9	FJH	185.5	9.8	CMG	185.4	9.9	BMU	239.5	14.0	FJH	236.4	8.2	CMG
154639	V	CrB	209.4	10.0	BMU	187.6	10.2	JRJ	185.5	9.6	CMG	-----			240.6	9.1	JRJ
type Mira			209.5	10.1	JRJ	188.5	10.3	FJH	186.4	9.9	FJH	162807A	SS Her		248.5	9.3	CMG
			210.4	10.0	BMU	192.4	10.4	CMG	187.4	10.2	JRJ	type Mira			249.4	9.5	JRJ
175.4	8.9	CMG	210.4	10.0	CMG	195.4	10.4	FJH	192.4	10.0	CMG				251.5	9.7	BVE
185.4	8.7	BMU	210.4	10.1	FJH	199.4	10.3	CMG	194.5	10.5	FJH	177.5	12.0	CMG	-----		
185.5	8.6	CMG	218.4	10.3	FJH	199.5	10.2	JRJ	199.4	10.2	JRJ	185.5	12.8	CMG	163414	AS Her	
186.4	8.7	FJH	219.4	9.9	CMG	208.5	10.9	FJH	199.4	10.3	CMG	187.6	13.0	JRJ	type Mira		
187.5	8.3	JRJ	219.4	10.0	JRJ	210.4	11.2	CMG	208.5	11.3	FJH	195.5	13.4	CMG			
192.4	8.6	CMG	224.4	10.4	FJH	211.4	11.2	JRJ	209.5	11.3	JRJ	199.5	13.6	JRJ	177.5	11.0	CMG
199.4	8.3	JRJ	236.4	10.3	CMG	219.5	11.4	CMG	210.4	10.9	CMG	210.5	13.0	CMG	185.5	11.7	CMG
199.4	8.7	CMG	239.4	10.5	FJH	219.5	11.9	JRJ	210.4	11.1	BMU	211.4	12.9	JRJ	186.5	11.7	FJH
199.5	8.4	FJH	247.5	10.3	BMU	239.5	12.5	FJH	218.4	11.6	FJH	219.5	11.9	JRJ	194.5	12.3	FJH
209.5	8.4	JRJ	248.4	10.0	JRJ	240.5	12.6	JRJ	219.4	11.3	CMG	219.5	12.0	CMG	195.5	12.2	CMG
210.4	8.5	BMU	248.4	10.1	CMG	240.5	12.7	CMG	219.4	11.5	JRJ	240.5	10.0	JRJ	202.4	12.3	FJH
210.4	8.5	FJH	249.4	10.4	BMU	248.4	13.2	CMG	224.4	11.9	FJH	248.5	9.0	JRJ	210.4	12.8	CMG
210.4	8.8	CMG	249.4	10.4	FJH	248.4	13.2	FJH	236.4	12.5	CMG	248.5	9.1	CMG	219.5	13.3	CMG
219.4	8.3	JRJ	258.5	10.5	FJH	248.5	12.9	JRJ	239.4	12.4	FJH	-----			240.4	13.6	CMG
219.4	8.9	CMG	-----			-----			240.4	12.7	JRJ	163137	W Her		240.4	13.7	FJH
236.4	8.8	CMG	160118	R Her		160625	RU Her		247.5	12.9	BMU	type Mira			248.5	13.5	CMG
239.4	8.6	FJH	type Mira			type Mira			248.4	12.9	CMG				249.4	13.9	FJH
240.5	8.5	JRJ							248.4	12.9	JRJ	177.5	12.6	CMG	-----		
247.5	8.9	BMU	177.5	11.8	CMG	177.5	12.1	CMG	248.4	13.0	FJH	185.4	13.3	FJH	164012	UV Her	
248.4	8.3	JRJ	185.4	11.9	FJH	185.4	12.4	FJH	258.5	13.3	FJH	185.5	12.8	CMG	type Mira		
248.4	8.8	CMG	185.5	12.4	CMG	185.5	12.1	CMG	-----			187.5	13.1	JRJ			
-----			187.5	11.8	JRJ	187.5	11.9	JRJ	162119	U Her		194.4	13.2	BMU	177.5	9.3	CMG
155229	Z	CrB	192.4	12.6	CMG	192.4	11.8	CMG	type Mira			194.4	13.7	FJH	185.5	9.1	CMG
type Mira			194.4	12.3	FJH	194.5	12.0	FJH				195.5	13.4	CMG	186.5	9.0	FJH
			199.5	13.0	JRJ	199.4	11.7	CMG	177.5	11.7	CMG	199.4	13.6	JRJ	194.5	9.0	FJH
177.5	14.7	CMG	202.4	12.8	FJH	199.5	11.8	JRJ	185.4	11.7	FJH	208.5	14.1	FJH	195.5	8.8	CMG
185.4	15.2	FJH	208.4	12.9	FJH	208.5	11.8	FJH	185.5	11.6	CMG	209.5	14.0	JRJ	208.5	9.5	FJH
185.5	14.8	CMG	210.4	13.0	JRJ	210.4	11.4	CMG	187.5	11.6	JRJ	210.4	13.9	CMG	210.4	9.6	CMG
194.5	15.0	FJH	210.4	13.4	CMG	210.4	11.7	JRJ	192.4	11.3	CMG	219.4	14.5	FJH	219.5	9.9	CMG
210.4	14.8	FJH	219.5	13.3	JRJ	218.4	11.5	FJH	194.4	11.7	BMU	231.4	14.4	FJH	236.5	10.3	CMG
219.4	14.2	FJH	219.5	13.4	CMG	219.5	11.3	CMG	194.5	11.7	FJH	240.4	13.7	CMG	239.4	10.5	FJH
219.4	14.3	JRJ	224.4	13.4	FJH	219.5	11.9	JRJ	199.4	11.5	CMG	240.5	13.5	JRJ	248.5	10.7	CMG
239.4	12.9	FJH	239.4	13.8	FJH	224.4	11.6	FJH	199.5	11.3	JRJ	247.4	13.8	FJH	248.5	11.0	FJH
240.4	13.0	JRJ	240.5	13.5	JRJ	236.5	11.4	CMG	210.4	11.4	CMG	248.5	13.1	JRJ	258.5	11.1	FJH
248.4	12.0	CMG	240.5	13.6	CMG	239.4	11.6	FJH	210.4	11.5	JRJ	248.5	13.6	CMG	-----		
248.4	12.1	FJH	248.5	13.8	CMG	240.5	11.6	JRJ	210.4	11.7	FJH	249.5	13.0	BMU	164025	AH Her	
248.4	12.1	JRJ	248.5	14.0	JRJ	248.5	11.3	CMG	219.5	11.0	JRJ	255.4	13.0	FJH	type UGZ		
249.4	11.9	BMU	249.4	14.0	FJH	248.5	11.6	JRJ	219.5	11.4	CMG	-----					
258.5	11.2	FJH	-----			249.4	11.4	FJH	236.5	10.5	CMG	163266	R Dra		177.53	14.5	CMG
-----			160167	AG Dra		-----			239.4	10.4	FJH	type Mira			185.52	12.1	CMG
155526	T	CrB	type Z	And		160710	DN Her		240.5	10.0	JRJ				198.54	14.4	CMG
type Nd						type Mira			248.5	9.3	CMG	175.4	7.6	CMG	212.43	12.3	FJH
			175.4	9.6	CMG				248.5	9.3	JRJ	185.5	7.7	CMG	241.48	11.2	FJH
185.4	10.4	BMU	186.4	9.6	CMG	185.5	10.8	CMG	249.4	9.3	BMU	192.4	7.5	CMG	242.51	11.1	FJH
185.5	10.3	CMG	199.4	9.7	CMG	212.4	10.7	FJH	-----			199.4	7.1	JRJ	250.46	13.7	CMG
187.4	10.1	JRJ	211.4	9.8	CMG	239.5	11.0	FJH	162623	DO Her		199.4	7.6	CMG			
192.4	10.2	CMG	240.5	9.7	CMG	250.5	11.6	CMG	type Mira			209.5	7.9	JRJ			
194.3	10.3	BMU	-----			-----						210.4	7.8	FJH			

-----	185.5	10.8	CMG	219.5	12.4	CMG	250.5	13.8	CMG	199.4	14.1	JRJ	
164715 S Her	186.5	10.8	FJH	219.5	12.7	JRJ	-----	-----	-----	208.5	13.7	FJH	
type Mira	187.5	10.8	JRJ	236.4	13.2	FJH	175423 FU Her	-----	-----	209.5	13.9	JRJ	
	192.5	11.2	CMG	240.4	13.0	CMG	type Mira	-----	-----	219.4	13.3	CMG	
177.5 10.7 CMG	194.4	11.1	BMU	240.5	13.2	JRJ	-----	-----	-----	219.5	13.3	FJH	
185.5 10.3 CMG	194.5	11.8	FJH	247.4	13.4	FJH	185.5 14.6 CMG	-----	-----	231.4	12.3	FJH	
186.5 10.9 FJH	199.5	11.8	JRJ	248.5	13.1	CMG	195.5 15.0 CMG	-----	-----	236.4	12.0	CMG	
187.6 10.5 JRJ	202.4	11.9	FJH	248.5	13.2	JRJ	250.5 14.8 CMG	-----	-----	240.5	11.8	JRJ	
195.5 10.1 CMG	208.5	11.9	FJH	255.4	13.7	FJH	-----	-----	-----	241.4	11.7	FJH	
199.5 10.2 JRJ	210.4	12.0	CMG	-----	-----	-----	239.4 13.9 FJH	-----	-----	175458A T Dra	248.5	11.7	CMG
210.4 9.5 CMG	210.4	12.0	JRJ	171401 Z Oph	-----	-----	255.4 14.2 FJH	-----	-----	type Mira	249.4	11.5	JRJ
210.4 10.1 FJH	219.5	11.5	CMG	type Mira	-----	-----	-----	-----	-----	-----	-----	-----	-----
211.4 9.6 JRJ	219.5	11.9	JRJ	-----	-----	-----	172809A RU Oph	-----	-----	177.5 12.0 CMG	-----	-----	175718 WZ Her
219.5 9.3 CMG	223.4	11.5	FJH	177.5 13.4 CMG	-----	-----	type Mira	-----	-----	185.5 12.3 CMG	-----	-----	type Mira
219.5 9.6 JRJ	224.5	11.4	BVE	185.5 13.2 CMG	-----	-----	-----	-----	-----	195.5 12.3 CMG	-----	-----	-----
236.5 8.8 CMG	236.4	10.7	FJH	196.5 13.1 CMG	-----	-----	177.5 11.9 CMG	-----	-----	199.4 12.0 CMG	-----	-----	198.5 14.4 CMG
240.5 9.1 JRJ	236.5	10.5	CMG	210.5 12.3 CMG	-----	-----	185.5 12.2 CMG	-----	-----	199.4 12.3 JRJ	-----	-----	-----
241.4 9.1 FJH	240.5	10.4	JRJ	219.5 12.1 CMG	-----	-----	188.5 12.9 FJH	-----	-----	209.5 12.4 JRJ	-----	-----	180531 T Her
248.5 8.5 JRJ	247.5	9.6	JRJ	239.5 10.3 CMG	-----	-----	194.5 13.3 FJH	-----	-----	210.4 12.0 CMG	-----	-----	type Mira
248.5 8.7 CMG	249.4	9.2	BMU	247.5 9.9 JRJ	-----	-----	202.5 13.8 FJH	-----	-----	219.4 11.9 CMG	-----	-----	-----
249.5 8.7 BMU	251.5	9.5	JRJ	248.4 9.8 CMG	-----	-----	210.4 13.9 FJH	-----	-----	240.4 10.7 CMG	-----	-----	177.5 11.9 CMG
-----	251.5	9.6	BVE	-----	-----	-----	212.5 14.0 CMG	-----	-----	240.5 10.5 JRJ	-----	-----	185.5 12.2 CMG
1652-02 SS Oph	-----	-----	-----	171707 UZ Oph	-----	-----	219.5 14.0 JRJ	-----	-----	249.4 10.7 JRJ	-----	-----	186.4 12.1 FJH
type Mira	165752 WZ Dra	-----	-----	type RV	-----	-----	219.5 14.1 CMG	-----	-----	-----	-----	-----	187.5 12.3 JRJ
	type Mira	-----	-----	-----	-----	-----	224.5 14.6 FJH	-----	-----	175519 RY Her	-----	-----	194.5 11.6 FJH
177.6 13.5 CMG	-----	-----	-----	185.5 11.0 CMG	-----	-----	240.4 14.5 FJH	-----	-----	type Mira	-----	-----	195.5 11.3 CMG
185.5 13.7 CMG	185.5 12.7 CMG	-----	-----	196.5 10.8 CMG	-----	-----	247.5 14.5 JRJ	-----	-----	-----	-----	-----	199.5 11.3 JRJ
195.5 14.4 CMG	211.4 :14.5 CMG	-----	-----	212.5 10.7 CMG	-----	-----	249.4 14.4 FJH	-----	-----	177.5 13.3 CMG	-----	-----	210.4 9.1 CMG
212.5 14.0 CMG	-----	-----	-----	219.5 10.7 CMG	-----	-----	249.5 14.2 CMG	-----	-----	185.5 13.6 CMG	-----	-----	210.5 9.7 JRJ
219.5 13.7 CMG	1702-15 R Oph	-----	-----	240.5 11.4 CMG	-----	-----	-----	-----	-----	187.5 13.6 FJH	-----	-----	212.4 9.8 FJH
240.4 12.1 CMG	type Mira	-----	-----	248.4 10.5 CMG	-----	-----	1744-06 RS Oph	-----	-----	187.5 13.9 JRJ	-----	-----	219.5 8.8 JRJ
240.5 12.1 CMG	-----	-----	-----	-----	-----	-----	type Nd	-----	-----	194.5 13.7 FJH	-----	-----	219.5 9.1 CMG
248.4 11.1 CMG	192.6 12.7 BMU	-----	-----	171723 RS Her	-----	-----	-----	-----	-----	195.5 13.9 CMG	-----	-----	236.5 8.2 CMG
-----	-----	-----	-----	type Mira	-----	-----	247.47 11.5 BMU	-----	-----	199.5 13.8 JRJ	-----	-----	240.5 8.2 JRJ
165631 RV Her	170217 VY Her	-----	-----	-----	-----	-----	249.44 11.6 BMU	-----	-----	208.5 13.9 FJH	-----	-----	241.4 8.0 FJH
type Mira	type Mira	-----	-----	177.5 9.0 CMG	-----	-----	-----	-----	-----	210.4 14.0 CMG	-----	-----	248.5 8.0 JRJ
		-----	-----	185.5 9.1 CMG	-----	-----	174422 SU Her	-----	-----	210.5 13.9 JRJ	-----	-----	248.5 8.2 CMG
177.5 14.4 CMG	188.5 :15.4 FJH	-----	-----	186.4 8.9 FJH	-----	-----	type Mira	-----	-----	219.4 13.9 FJH	-----	-----	249.5 7.9 BMU
185.5 14.8 CMG	198.5 15.1 CMG	-----	-----	187.5 9.0 JRJ	-----	-----	-----	-----	-----	219.5 13.9 JRJ	-----	-----	251.5 8.0 BVE
187.5 15.0 FJH	210.4 15.4 FJH	-----	-----	192.4 8.5 CMG	-----	-----	177.5 12.8 CMG	-----	-----	219.5 14.0 CMG	-----	-----	254.4 8.1 FJH
195.5 15.0 CMG	219.4 15.6 FJH	-----	-----	194.4 8.8 BMU	-----	-----	185.5 12.8 CMG	-----	-----	239.4 13.8 FJH	-----	-----	-----
198.5 15.6 FJH	-----	-----	-----	199.5 8.4 JRJ	-----	-----	195.5 12.4 CMG	-----	-----	240.4 13.7 CMG	-----	-----	180565 W Dra
209.4 :15.7 FJH	170627A RT Her	-----	-----	210.4 7.8 JRJ	-----	-----	212.5 12.1 CMG	-----	-----	240.5 13.9 JRJ	-----	-----	type Mira
219.4 16.0 FJH	type Mira	-----	-----	210.4 8.2 CMG	-----	-----	219.5 11.8 CMG	-----	-----	247.4 13.7 FJH	-----	-----	-----
239.4 14.5 FJH	-----	-----	-----	219.5 8.3 JRJ	-----	-----	-----	-----	-----	248.5 13.5 JRJ	-----	-----	187.5 :14.7 FJH
240.4 14.3 CMG	177.5 10.4 CMG	-----	-----	236.5 8.5 CMG	-----	-----	175111 RT Oph	-----	-----	248.5 13.6 CMG	-----	-----	188.4 14.8 CMG
240.5 14.4 JRJ	185.5 10.9 CMG	-----	-----	240.5 8.6 JRJ	-----	-----	type Mira	-----	-----	-----	-----	-----	195.5 14.6 CMG
247.4 14.1 FJH	186.4 10.9 FJH	-----	-----	241.4 8.6 FJH	-----	-----	-----	-----	-----	175654 V Dra	-----	-----	198.5 14.6 FJH
248.5 13.8 JRJ	187.5 10.5 JRJ	-----	-----	248.5 8.8 CMG	-----	-----	194.5 14.6 FJH	-----	-----	type Mira	-----	-----	209.5 :15.0 FJH
248.5 14.0 CMG	192.5 11.2 CMG	-----	-----	248.5 8.9 JRJ	-----	-----	198.5 :14.8 CMG	-----	-----	-----	-----	-----	219.5 14.6 FJH
255.4 12.6 FJH	194.5 11.0 FJH	-----	-----	249.4 8.8 BMU	-----	-----	212.4 14.8 FJH	-----	-----	177.5 14.3 CMG	-----	-----	231.4 13.1 FJH
-----	199.5 11.3 JRJ	-----	-----	251.5 9.2 BVE	-----	-----	219.5 14.5 JRJ	-----	-----	185.5 14.3 CMG	-----	-----	240.4 11.9 CMG
165722 SY Her	202.4 11.6 FJH	-----	-----	263.4 10.0 FJH	-----	-----	224.5 14.2 FJH	-----	-----	186.5 14.3 FJH	-----	-----	241.4 11.7 FJH
type Mira	208.5 12.0 FJH	-----	-----	-----	-----	-----	239.4 14.0 FJH	-----	-----	194.5 13.8 FJH	-----	-----	248.5 10.7 CMG
	210.4 11.9 JRJ	-----	-----	172618 UZ Her	-----	-----	247.5 14.2 JRJ	-----	-----	195.5 14.3 CMG	-----	-----	249.5 10.0 JRJ
177.5 10.2 CMG	210.4 12.0 CMG	-----	-----	type Mira	-----	-----	249.4 13.8 FJH	-----	-----	198.5 14.1 FJH	-----	-----	263.4 10.5 FJH

186.6	10.8	CMG	249.4	11.1	CMG	-----	type Mira	239.5	11.1	FJH	196.6	8.3	CMG				
194.5	10.8	FJH	-----	-----	-----	190933A	RS Lyr	247.5	10.7	JRJ	209.5	8.4	FJH				
196.5	10.8	CMG	190333	AB Lyr	-----	type Mira	-----	190.6	11.9	CMG	249.4	10.6	CMG				
199.5	10.6	JRJ	-----	-----	-----	-----	-----	196.6	11.5	CMG	-----	224.5	9.0	CMG			
210.4	11.3	FJH	-----	-----	-----	-----	-----	212.5	10.3	CMG	191831	AN Lyr	239.5	9.6	CMG		
210.5	10.9	CMG	202.5	14.7	FJH	178.6	11.8	CMG	224.5	9.9	CMG	-----	type Mira	240.5	9.4	FJH	
211.5	11.0	JRJ	208.5	14.7	FJH	186.6	11.8	CMG	240.5	9.1	CMG	-----	-----	247.5	9.9	JRJ	
219.5	11.4	CMG	219.4	14.2	FJH	187.5	11.7	FJH	248.5	8.7	CMG	187.5	10.4	FJH	248.5	9.6	CMG
231.4	12.2	FJH	231.4	13.9	FJH	196.5	11.7	CMG	-----	-----	-----	198.5	10.3	FJH	-----	-----	
236.5	12.0	CMG	236.5	13.4	FJH	198.5	11.6	FJH	1910-17	T Sgr	208.5	10.6	FJH	193411	SV Aql	-----	
240.4	12.8	FJH	247.5	12.0	FJH	208.5	11.5	FJH	-----	-----	-----	223.4	11.3	FJH	-----	type Mira	
247.5	12.9	JRJ	255.5	11.0	FJH	210.5	11.5	CMG	-----	-----	-----	236.5	11.9	FJH	-----	-----	
249.4	12.8	CMG	-----	-----	-----	219.5	11.3	CMG	249.5	10.3	BMU	247.5	12.5	FJH	188.6	11.5	CMG
249.5	13.3	FJH	190527	TY Lyr	-----	223.4	10.8	FJH	-----	-----	-----	255.4	12.8	FJH	196.6	11.5	CMG
258.5	13.5	FJH	-----	-----	-----	236.5	10.6	CMG	1910-19	R Sgr	-----	-----	-----	-----	212.5	11.4	CMG
-----	-----	-----	-----	-----	-----	236.5	10.7	FJH	-----	-----	-----	192150	CH Cyg	224.5	11.3	CMG	
185947	WZ Lyr	-----	187.5	14.4	FJH	249.4	10.4	CMG	-----	-----	-----	-----	type % And	239.5	11.4	CMG	
-----	-----	-----	194.5	14.5	FJH	249.4	10.5	FJH	249.5	11.7	BMU	-----	-----	248.5	11.7	CMG	
-----	-----	-----	212.4	:14.8	FJH	-----	-----	-----	-----	-----	-----	177.5	9.1	CMG	-----	-----	
187.5	12.1	FJH	219.4	:15.0	FJH	190941	RU Lyr	-----	191046	SS Lyr	186.6	9.2	CMG	193428	BG Cyg	-----	
194.5	11.3	FJH	240.4	:15.0	FJH	-----	-----	-----	-----	-----	193.6	9.1	BMU	-----	-----	-----	
208.5	10.7	FJH	247.5	:15.2	FJH	-----	-----	-----	-----	-----	198.6	9.2	BMU	-----	-----	-----	
223.4	10.7	FJH	-----	-----	-----	187.5	14.4	FJH	187.5	13.6	FJH	209.4	9.1	BMU	178.6	11.0	CMG
236.5	10.8	FJH	190529A	V Lyr	-----	194.5	14.7	FJH	194.5	13.5	FJH	210.5	9.3	CMG	186.6	11.1	CMG
247.4	10.8	FJH	-----	-----	-----	196.6	14.8	CMG	196.5	13.6	CMG	219.5	9.3	CMG	195.5	11.2	CMG
249.4	11.2	CMG	-----	-----	-----	210.4	14.6	FJH	208.5	13.9	FJH	236.5	9.5	CMG	210.5	11.6	CMG
255.4	11.4	FJH	188.5	13.1	FJH	212.5	14.6	CMG	212.5	13.9	CMG	247.4	9.7	BMU	219.5	11.6	CMG
-----	-----	-----	198.5	13.4	FJH	219.5	14.7	FJH	219.4	14.1	FJH	248.5	9.7	CMG	236.5	11.9	CMG
1900-01	N95 Aql	-----	199.5	13.3	JRJ	239.4	14.2	FJH	219.5	14.1	CMG	249.4	9.8	BMU	247.5	11.7	JRJ
-----	-----	-----	208.5	14.0	FJH	247.4	13.8	FJH	239.4	14.3	FJH	-----	-----	248.5	11.8	CMG	
-----	-----	-----	219.4	14.2	FJH	247.5	14.1	JRJ	247.4	14.2	FJH	192201	TU Aql	251.4	11.7	JRJ	
193.62	13.2	BMU	240.4	14.6	FJH	249.4	14.1	CMG	249.4	13.8	CMG	-----	-----	-----	-----	-----	
-----	-----	-----	247.5	14.8	FJH	256.5	13.1	FJH	-----	-----	-----	-----	-----	-----	-----	-----	
190108	R Aql	-----	-----	-----	-----	-----	-----	-----	191517	W Sge	188.6	13.0	CMG	193449	R Cyg	-----	
-----	-----	-----	190643	ST Lyr	-----	190967	U Dra	-----	-----	-----	196.6	12.5	CMG	-----	-----	-----	
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	224.5	10.6	CMG	-----	-----	-----	
178.7	6.5	CMG	-----	-----	-----	-----	-----	-----	198.6	13.3	CMG	240.5	9.3	CMG	178.6	8.8	CMG
186.6	6.6	CMG	178.6	10.8	CMG	175.4	10.9	CMG	212.6	12.6	CMG	248.5	9.0	CMG	186.6	8.9	CMG
196.6	6.7	CMG	186.6	11.0	CMG	185.5	11.3	CMG	224.5	11.2	CMG	-----	-----	187.6	9.0	JRJ	
198.6	6.6	BMU	188.5	11.5	FJH	187.5	11.2	FJH	240.5	9.4	CMG	192928	TY Cyg	188.5	8.6	FJH	
212.5	7.2	CMG	202.5	11.8	FJH	192.4	11.4	CMG	249.4	9.3	CMG	-----	-----	193.6	9.3	BMU	
224.5	8.0	CMG	210.4	12.2	FJH	199.4	11.8	JRJ	-----	-----	-----	-----	-----	196.5	8.9	CMG	
240.5	8.2	CMG	212.5	12.3	CMG	199.4	11.9	CMG	191637	U Lyr	209.5	:14.8	FJH	209.4	9.4	BMU	
247.5	8.5	JRJ	219.5	12.5	CMG	202.5	11.8	FJH	-----	-----	-----	-----	-----	210.4	9.7	FJH	
248.5	8.5	CMG	240.5	13.4	CMG	208.5	12.1	FJH	-----	-----	-----	-----	-----	210.5	9.6	JRJ	
255.5	8.6	BMU	249.4	13.6	CMG	209.5	12.2	JRJ	178.6	10.9	CMG	224.6	14.6	CMG	210.5	9.7	CMG
-----	-----	-----	-----	-----	-----	210.4	12.0	CMG	186.6	11.1	CMG	239.5	13.6	FJH	219.5	9.7	CMG
190317	SV Sge	-----	190728	UW Lyr	-----	219.5	12.4	FJH	187.5	11.4	FJH	247.5	13.2	JRJ	219.5	9.7	JRJ
-----	-----	-----	-----	-----	-----	231.4	13.0	FJH	196.5	11.1	CMG	249.4	12.8	CMG	236.4	9.9	CMG
-----	-----	-----	-----	-----	-----	240.4	12.8	CMG	199.5	11.2	JRJ	-----	-----	241.4	9.8	FJH	
178.7	10.7	CMG	242.5	12.8	FJH	240.5	12.9	JRJ	202.5	11.3	FJH	193311	RT Aql	247.4	10.2	BMU	
190.6	11.1	CMG	-----	-----	-----	241.4	13.0	FJH	210.4	11.5	FJH	-----	-----	247.4	10.3	JRJ	
198.5	11.0	CMG	190925	S Lyr	-----	248.5	13.0	CMG	210.5	11.0	CMG	-----	-----	248.5	10.4	CMG	
212.5	11.0	CMG	-----	-----	-----	249.4	13.0	JRJ	211.5	11.2	JRJ	-----	-----	251.4	10.3	JRJ	
224.5	11.0	CMG	-----	-----	-----	-----	-----	-----	219.5	10.8	CMG	178.7	8.3	CMG	262.4	10.8	CMG
240.5	10.9	CMG	250.4	13.3	JRJ	1910-07	W Aql	-----	236.5	10.6	CMG	186.6	8.3	CMG	263.4	11.0	FJH
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	188.6	8.2	CMG	-----	-----	

-----	194348 TU Cyg	178.6 10.6 CMG	-----	type SRA			
193509 RV Aql	type Mira	186.6 10.6 CMG	195849 Z Cyg		186.6 11.6 CMG		
type Mira		196.6 11.3 CMG	type Mira	186.6 9.7 CMG	198.6 12.0 CMG		
	187.6 13.9 JRJ	210.5 11.3 CMG		196.6 10.1 CMG	219.5 13.2 FJH		
188.6 14.6 CMG	188.5 13.3 FJH	219.5 12.0 CMG	178.6 9.1 CMG	212.5 9.7 CMG	224.5 12.6 CMG		
196.6 14.6 CMG	188.6 13.5 CMG	236.5 13.3 CMG	186.6 9.4 CMG	224.5 10.0 CMG	240.5 12.6 CMG		
240.5 12.8 FJH	193.6 13.1 BMU	249.5 13.7 CMG	187.6 9.7 JRJ	240.5 10.3 CMG	242.5 13.3 FJH		
240.5 12.9 CMG	196.5 13.0 CMG	-----	196.6 9.8 CMG	248.5 10.4 CMG	249.4 12.8 CMG		
247.5 12.9 JRJ	198.5 12.8 FJH	1952-02 RR Aql	210.5 10.2 CMG	-----	250.5 12.8 JRJ		
248.5 12.9 CMG	209.4 12.1 BMU	type Mira	210.5 10.4 JRJ	200720 FG Sge	255.5 13.3 FJH		
-----	209.5 12.4 FJH		219.5 10.8 JRJ	type uniek	-----		
193954 V369 Cyg	210.5 12.1 CMG	190.6 11.5 CMG	219.5 11.0 CMG		201130 SX Cyg		
type Mira	210.5 12.4 JRJ	249.5 13.0 CMG	236.5 12.5 CMG	219.5 <15.0 FJH	type Mira		
	219.5 11.6 CMG	-----	247.4 13.1 JRJ	224.5 <15.0 FJH			
178.6 10.6 CMG	219.5 11.9 JRJ	1953-08 RS Aql	248.5 12.7 CMG	240.5 <15.0 FJH	178.6 12.6 CMG		
186.6 10.7 CMG	236.4 9.7 CMG	type Mira	251.5 13.0 JRJ	247.5 <15.0 FJH	186.6 12.6 CMG		
196.6 12.0 CMG	236.5 9.9 FJH		-----	249.5 :15.2 FJH	187.6 12.6 JRJ		
210.5 13.2 CMG	247.4 9.4 JRJ	249.5 11.3 CMG	200212 SY Aql	-----	196.6 12.5 CMG		
219.5 13.6 CMG	247.4 9.5 BMU	-----	type Mira	200720A ST Sge	202.5 12.5 FJH		
236.5 11.5 CMG	248.5 9.9 CMG	195533 V482 Cyg		type Mira	210.5 11.8 JRJ		
248.5 10.5 CMG	251.4 9.7 JRJ	type RCB	178.7 11.1 CMG		210.5 12.1 CMG		
-----	263.4 9.4 FJH		186.6 11.3 CMG	219.5 13.0 FJH	219.5 10.8 CMG		
194027 YZ Vul	-----	185.53 11.0 CMG	196.6 11.8 CMG	224.5 12.8 CMG	219.5 11.6 FJH		
type Mira	194604 X Aql	191.58 11.0 BMU	212.5 12.1 CMG	240.5 12.1 CMG	236.4 9.5 FJH		
	type Mira	198.54 11.1 CMG	224.5 12.4 CMG	240.5 12.3 FJH	236.5 9.6 CMG		
		198.56 11.0 BMU	248.5 13.0 JRJ	249.4 11.8 CMG	247.4 9.5 JRJ		
224.5 :15.6 FJH		209.4 10.9 BMU	248.5 13.2 CMG	-----	248.5 9.5 CMG		
249.5 <15.6 FJH	188.6 12.9 CMG	210.5 11.2 JRJ	-----	200812 RU Aql	251.5 9.4 JRJ		
-----	196.6 13.1 CMG	212.50 11.1 CMG	200250 BU Cyg	type Mira	-----		
194048 RT Cyg	224.5 14.4 CMG	219.49 11.0 CMG	type Mira		201276 SZ Cep		
type Mira	247.5 15.0 FJH	239.53 11.3 CMG		178.7 10.9 CMG	type Mira		
	-----	240.5 11.2 JRJ	178.6 11.5 CMG	186.6 10.9 CMG			
178.6 11.0 CMG	194632 Chi Cyg	247.4 11.1 JRJ	186.6 11.9 CMG	196.6 11.5 CMG	187.5 9.9 FJH		
186.6 11.3 CMG	type Mira	247.43 11.0 BMU	196.6 12.3 CMG	212.5 12.0 CMG	195.5 9.0 CMG		
187.6 11.8 JRJ		249.48 11.2 CMG	212.5 13.1 CMG	224.5 12.7 CMG	198.4 9.3 FJH		
188.5 11.6 FJH	177.5 12.3 CMG	251.4 11.2 JRJ	219.5 13.8 CMG	240.5 13.1 FJH	198.6 9.3 CMG		
193.6 11.9 BMU	186.6 11.9 CMG	-----	-----	248.5 13.6 CMG	209.5 9.8 FJH		
196.5 11.3 CMG	187.6 12.2 JRJ	195551 CM Cyg	200357 S Cyg	255.5 14.0 FJH	210.4 9.5 CMG		
198.5 11.7 FJH	188.5 12.2 FJH	type Mira	type Mira	-----	219.5 10.1 FJH		
209.4 11.8 BMU	191.6 12.1 BMU			2009-06 Z Aql	219.5 10.2 CMG		
209.5 11.6 FJH	195.5 11.6 CMG	178.6 10.7 CMG	209.5 14.0 FJH	type Mira	236.4 10.1 CMG		
210.5 11.6 CMG	202.5 11.6 FJH	186.6 10.5 CMG	212.5 13.7 JRJ		236.4 11.1 FJH		
210.5 11.8 JRJ	209.4 11.2 BMU	196.6 10.4 CMG	241.5 12.9 FJH	249.5 10.3 CMG	248.4 11.8 FJH		
219.5 10.9 JRJ	209.5 11.2 FJH	209.5 10.0 FJH	247.4 12.0 JRJ	-----	248.5 11.0 CMG		
219.5 11.0 CMG	210.5 11.1 CMG	210.5 10.6 CMG	248.5 12.1 CMG	200916 R Sge	263.4 12.2 FJH		
236.4 9.4 CMG	210.5 11.1 JRJ	224.6 10.9 CMG	251.4 12.0 JRJ	type RVB	-----		
247.4 8.6 BMU	219.5 10.9 CMG	236.5 11.0 FJH	263.4 11.8 FJH		201434 AU Cyg		
247.4 8.7 JRJ	236.5 9.9 CMG	236.5 11.2 CMG	-----	186.6 9.8 CMG	type Mira		
248.5 8.6 CMG	240.5 9.8 JRJ	248.5 12.0 CMG	200706 TV Aql	198.6 10.1 CMG			
251.4 8.3 JRJ	247.4 9.4 JRJ	-----	type Mira	212.5 9.4 CMG	178.6 12.0 CMG		
-----	247.4 9.6 BMU	195818 TX Sge		224.5 10.0 CMG	186.6 12.3 CMG		
194067 ZZ Dra	248.5 9.5 CMG	type Mira	188.6 13.4 CMG	240.5 9.4 CMG	196.6 12.6 CMG		
type Mira	251.4 9.3 JRJ		196.6 13.7 CMG	249.4 9.5 CMG	212.5 13.0 CMG		
	-----	224.5 14.8 FJH	-----	-----	219.5 13.3 CMG		
186.4 12.7 CMG	195055 CU Cyg	240.5 <15.1 FJH	200715A S Aql	201008 R Del	249.4 13.6 CMG		
211.4 14.2 CMG	type Mira	247.5 :15.7 FJH		type Mira			

-----	219.5 <15.4 FJH	248.5 13.5 FJH	194.5 12.7 FJH	type Mira	212.5 11.8 CMG
201437B WX Cyg	247.5 13.1 FJH	-----	195.5 12.8 CMG		219.5 11.9 CMG
type Mira	-----	203513 SS Del	210.5 12.2 JRJ	188.6 13.9 CMG	240.5 12.7 CMG
178.6 10.9 CMG	202512 RX Del	type Mira	212.5 12.6 CMG	198.5 13.6 CMG	247.4 12.6 JRJ
187.6 11.5 JRJ	type Mira		219.5 12.1 JRJ	212.5 13.2 CMG	248.5 13.2 CMG
195.5 10.9 CMG		219.5 <15.0 FJH	219.5 12.3 FJH	240.5 11.9 CMG	251.5 13.0 JRJ
210.5 10.6 CMG	209.5 12.5 FJH	247.5 :15.6 FJH	219.5 12.8 CMG	249.4 11.8 CMG	-----
210.5 11.0 JRJ	224.5 11.6 CMG	-----	236.5 11.6 CMG	-----	210382 X Cep
219.5 10.6 CMG	236.5 11.0 FJH	203537 FF Cyg	236.5 11.9 FJH	205017 X Del	type Mira
219.6 10.7 JRJ	242.5 10.3 FJH	type Mira	247.4 11.1 JRJ	type Mira	
236.5 10.5 CMG	249.4 10.4 CMG		248.5 11.1 CMG		224.5 14.3 FJH
247.4 10.7 JRJ	-----	186.6 14.1 CMG	251.4 10.8 JRJ	190.6 14.1 CMG	240.5 :14.7 FJH
251.4 10.9 JRJ	202817 Z Del	196.6 13.7 CMG	263.4 10.3 FJH	209.5 12.9 FJH	248.5 14.4 CMG
-----	type Mira	212.5 12.2 CMG	-----	212.5 13.1 CMG	248.5 14.5 FJH
201559 CN Cyg	188.6 11.7 CMG	219.5 11.9 CMG	203918 ES Del	219.5 12.7 FJH	-----
type Mira	198.6 11.4 CMG	236.5 10.9 CMG	type Mira	224.5 12.4 CMG	210405 RR Equ
178.6 9.9 CMG	209.5 11.0 FJH	241.5 10.8 FJH		236.5 11.5 FJH	type Mira
186.6 10.4 CMG	212.5 10.8 CMG	248.5 10.9 CMG		240.5 11.0 CMG	
196.6 11.4 CMG	219.5 10.3 FJH	-----		242.5 11.0 FJH	249.5 13.5 FJH
209.5 11.9 FJH	224.5 10.0 CMG	203611 Y Del	203937 DR Cyg	249.4 10.1 CMG	-----
210.5 12.1 CMG	236.5 9.6 FJH	type Mira	type Mira	249.5 10.4 FJH	210415 TZ Peg
219.5 12.6 CMG	240.5 8.9 CMG			250.5 10.3 JRJ	type Mira
240.5 13.6 CMG	248.5 9.4 JRJ	209.5 12.5 FJH	196.6 14.3 CMG	-----	
241.5 13.4 FJH	249.4 9.0 CMG	212.5 12.1 CMG	212.5 14.2 CMG	205030A UX Cyg	249.5 10.4 CMG
248.5 13.3 CMG	251.5 9.1 BVE	224.5 10.6 CMG	-----	type Mira	-----
-----	202918 AG Del	236.5 9.7 FJH	204016 T Del		210587 X UMi
201621 PU Vul	type Mira	240.5 9.8 CMG	type Mira	186.6 12.7 CMG	type Mira
type NL		242.5 9.7 FJH		196.6 12.9 CMG	
188.57 11.6 BMU	249.5 15.4 FJH	249.4 9.8 CMG	188.6 13.1 CMG	210.5 13.0 JRJ	178.4 13.0 CMG
198.56 11.6 BMU	-----	249.5 9.9 FJH	209.5 12.1 FJH	212.5 13.2 CMG	185.5 13.0 CMG
239.5 11.9 FJH	202954 ST Cyg		212.5 12.0 CMG	219.5 13.8 CMG	195.5 13.2 CMG
247.47 11.7 BMU	type Mira	203718 HR Del	219.5 11.2 FJH	240.5 13.9 CMG	210.4 13.6 CMG
249.46 11.7 BMU		type Nb	224.5 10.8 CMG	247.4 14.0 JRJ	219.4 13.8 CMG
-----	178.6 10.4 CMG	209.5 12.0 FJH	236.5 9.5 FJH	249.5 14.1 CMG	240.4 14.4 CMG
201647 U Cyg	186.6 10.6 CMG	-----	240.5 9.4 CMG	251.5 14.0 JRJ	-----
type Mira	196.6 10.4 CMG	203816 S Del	242.5 9.5 FJH	-----	210612 AN Peg
	210.5 10.6 CMG	type Mira	248.5 9.5 JRJ	205923A R Vul	type Mira
178.6 7.9 CMG	212.5 10.5 JRJ	188.6 10.0 CMG	249.4 9.3 CMG	type Mira	
187.6 8.5 JRJ	219.5 10.8 CMG	198.6 9.7 CMG	249.5 9.5 FJH		247.5 13.0 FJH
195.5 8.0 CMG	236.5 11.8 CMG	209.5 9.3 FJH	-----	178.7 12.8 CMG	249.5 13.2 CMG
210.4 8.9 FJH	247.4 11.7 JRJ	212.5 9.4 CMG	204318 V Del	196.6 9.9 CMG	-----
210.5 8.1 CMG	248.5 12.0 CMG	224.5 8.9 CMG	type Mira	212.5 9.2 CMG	210812 R Equ
210.5 9.1 JRJ	251.4 13.1 JRJ	236.5 9.2 FJH		219.5 9.1 CMG	type Mira
219.5 8.1 CMG	-----	240.5 9.1 CMG	249.5 <15.2 FJH	224.5 8.9 CMG	
219.5 9.3 JRJ	202962 BF Cep	248.5 8.8 JRJ	-----	236.5 8.6 CMG	224.5 9.4 CMG
236.5 8.4 CMG	type Mira	249.4 9.1 CMG	204341 V516 Cyg	247.5 9.1 JRJ	236.5 9.5 FJH
247.4 8.5 JRJ		249.5 9.2 FJH	type UGSS	249.4 9.1 CMG	240.5 9.6 CMG
248.5 8.5 CMG	178.7 11.6 CMG	-----	194.54 13.8 FJH	-----	242.5 9.9 FJH
251.4 9.2 JRJ	188.6 11.7 CMG	203847 V Cyg	209.51 13.9 FJH	210129 TW Cyg	249.5 10.0 JRJ
-----	209.5 12.6 FJH	type Mira	219.48<15.5 FJH	type Mira	249.5 10.2 CMG
202509 RY Del	210.5 12.2 CMG		224.47 14.9 FJH		-----
type Mira	219.5 12.4 CMG	178.6 12.9 CMG	249.48<15.5 FJH	178.6 10.6 CMG	210818 AS Peg
	236.5 13.5 FJH	186.6 12.9 CMG	258.47 13.6 FJH	186.6 11.0 CMG	type Mira
	248.5 13.3 CMG	187.6 12.7 JRJ	-----	187.6 10.8 JRJ	
			204846 RZ Cyg	196.6 11.3 CMG	219.5 12.6 FJH
				210.5 11.9 JRJ	236.5 10.3 FJH

249.5 10.5 FJH	213678 S Cep	239.47 12.1 FJH	236.5 10.4 FJH	249.5 8.7 JRJ
-----	type Mira	239.53 12.2 CMG	240.5 10.5 CMG	-----
210836 DU Cyg		240.47 12.2 CMG	249.5 13.3 CMG	231425 W Peg
type Mira	175.4 8.9 CMG	240.48 12.4 FJH	249.5 11.1 CMG	type Mira
	185.5 9.1 CMG	240.52 12.3 JRJ	249.5 11.1 FJH	-----
186.6 11.4 CMG	189.5 9.1 JRJ	241.46 12.1 FJH	-----	222439 S Lac
198.5 11.5 CMG	189.5 9.2 FJH	242.50 12.1 FJH	220133B RZ Peg	type Mira
212.5 11.6 CMG	195.5 9.3 CMG	247.42 12.2 JRJ	type Mira	247.5 12.3 FJH
240.5 11.3 CMG	210.4 9.5 FJH	247.43 12.2 BMU		249.5 11.6 CMG
249.4 11.7 CMG	210.4 9.6 CMG	247.48 12.4 FJH		249.5 12.0 JRJ
-----	212.4 9.7 JRJ	248.51 12.2 JRJ		-----
210868 T Cep	219.5 9.8 CMG	248.52 12.2 CMG	190.6 11.1 CMG	209.5 11.3 FJH
type Mira	236.4 10.0 CMG	249.42 12.2 BMU	198.6 10.8 CMG	219.5 10.4 FJH
	248.5 10.2 CMG	249.44 12.4 CMG	209.5 11.9 FJH	224.5 9.6 CMG
185.5 6.0 CMG	249.4 10.1 JRJ	249.47 12.3 JRJ	224.5 9.6 CMG	239.5 9.3 CMG
189.4 6.4 JRJ	249.5 10.0 BMU	249.48 12.5 FJH	249.5 8.8 CMG	249.5 8.8 CMG
195.5 6.3 CMG	-----	250.47 12.2 CMG	249.5 9.2 JRJ	-----
199.4 6.5 CMG	213843 SS Cyg	251.42 12.3 JRJ	-----	231839 BU And
209.5 6.9 JRJ	type UGSS	255.49 12.2 FJH	222924 SS Peg	type Mira
210.4 6.6 CMG		258.47 12.0 FJH	type Mira	236.5 11.7 FJH
219.5 6.9 CMG	114.70 8.2 VDE	263.43 8.6 FJH	-----	247.5 11.8 FJH
236.4 7.8 CMG	115.70 8.3 VDE	-----	220337 W Lac	236.5 9.9 FJH
248.5 8.4 CMG	170.63 11.2 VDE	214012 TU Peg	type Mira	249.5 9.4 CMG
249.4 8.3 JRJ	177.55 12.3 CMG	type Mira	-----	-----
249.5 8.1 BMU	185.54 12.3 CMG		249.5 9.9 CMG	223841 R Lac
-----	186.62 12.4 CMG	219.5 12.8 FJH	-----	type Mira
211614 X Peg	187.56 12.1 BMU	242.5 12.0 FJH	220412 T Peg	195.4 10.3 FJH
type Mira	188.56 12.0 BMU	249.5 12.0 CMG	type Mira	210.4 10.3 FJH
	188.62 12.3 CMG	-----		-----
219.5 13.5 FJH	189.57 12.1 BMU	214024 RR Peg	209.5 :14.3 FJH	209.5 :14.3 FJH
236.5 12.2 FJH	189.59 12.4 CMG	type Mira		219.5 14.1 FJH
242.5 11.9 FJH	190.57 12.0 BMU		247.5 <15.0 FJH	224.5 13.9 CMG
249.5 11.2 JRJ	190.60 12.3 CMG		255.5 :15.2 FJH	236.5 13.8 FJH
249.5 11.6 CMG	191.57 12.1 BMU		-----	242.5 13.2 FJH
-----	192.57 12.1 BMU	209.5 :14.7 FJH	220613 Y Peg	249.5 12.7 CMG
211721 SW Peg	193.57 12.0 BMU	219.5 15.1 FJH	type Mira	249.5 13.0 JRJ
type Mira	195.53 12.4 CMG	247.5 14.4 FJH		-----
	196.56 12.4 CMG	249.5 14.4 CMG	247.5 14.1 FJH	225542 SZ And
249.5 12.3 CMG	198.55 12.0 BMU	256.5 14.3 FJH	-----	type Mira
-----	198.57 12.2 CMG	-----	220714 RS Peg	249.5 <15.4 FJH
212216 TV Peg	199.52 12.4 JRJ	214443 WY Cyg	type Mira	-----
type Mira	209.40 8.3 BMU	type Mira	247.5 10.5 FJH	225914 RW Peg
	209.49 8.3 JRJ		249.5 10.3 CMG	type Mira
219.5 11.4 FJH	209.51 8.3 FJH	196.6 14.0 CMG	249.5 10.5 JRJ	-----
236.5 12.1 FJH	210.37 8.3 BMU	219.5 13.2 FJH	-----	249.5 10.7 CMG
242.5 12.5 FJH	210.48 8.3 JRJ	236.5 12.3 FJH	220912 RU Peg	249.5 10.9 FJH
249.5 12.8 FJH	210.49 8.4 CMG	239.5 12.2 CMG	type UGSS	-----
249.5 13.2 CMG	211.47 8.3 JRJ	248.5 11.6 CMG		230759 V Cas
-----	212.45 8.3 JRJ	249.5 11.7 FJH	247.49 12.3 FJH	type Mira
212610 UU Peg	212.49 8.3 CMG	-----	249.49 12.6 CMG	250.5 10.6 CMG
type Mira	219.47 10.9 CMG	215605 V Peg	249.49 12.7 FJH	-----
	219.52 10.7 FJH	type Mira	249.53 12.5 JRJ	233656 N93 Cas
219.5 12.8 FJH	219.53 10.6 JRJ	249.5 9.3 FJH	255.48 12.7 FJH	type N
247.5 13.8 FJH	224.48 12.2 CMG	249.5 9.4 CMG	-----	193.58 13.4 BMU
255.5 13.8 FJH	236.44 12.2 CMG	-----	222129 RV Peg	209.39 13.5 BMU
-----	236.47 12.1 FJH	215934 RT Peg	type Mira	247.48 13.5 BMU
		type Mira		249.46 13.4 BMU
			219.5 10.3 FJH	249.48 13.4 CMG
			224.5 11.1 CMG	249.53 13.4 FJH
				255.49 13.3 FJH

233956 Z Cas 235939 SV And
type Mira type Mira

249.5 14.6 FJH 247.5 13.7 FJH
256.5 13.9 FJH

235053 RR Cas
type Mira

249.5 14.4 JRJ
249.5 14.6 FJH
250.5 14.4 CMG

235255 WY Cas
type Mira

188.6 12.2 CMG
198.6 12.8 CMG
212.5 13.0 CMG
224.4 13.3 FJH
224.5 13.4 CMG
239.5 13.9 CMG
249.5 13.6 FJH
250.5 14.3 CMG

235350 R Cas
type Mira

186.6 8.9 CMG
189.4 9.1 JRJ
196.6 9.2 CMG
210.5 9.2 JRJ
212.5 9.3 CMG
224.5 9.6 CMG
236.5 9.8 CMG
240.5 9.8 JRJ
248.5 10.0 CMG
249.5 10.2 JRJ
249.5 10.5 BMU

235525 Z Peg
type Mira

249.5 13.5 FJH

235855A Y Cas
type Mira

190.6 13.2 CMG
212.5 12.4 CMG
224.4 12.6 FJH
224.5 12.3 CMG
248.5 11.2 CMG
249.5 11.4 JRJ
249.5 11.6 FJH
