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 * V A R I A B I L I A *
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 * nummer 39 november 1993 *
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**WAARNEMINGSRESULTATEN
 JULI-SEPTEMBER 1993**

In het tijdvak juli-september 1993 werden door zeven waarnemers 3321 schattingen gedaan. Onderstaande tabel geeft aan hoe de aantallen

per maand over de diverse waarnemers verdeeld zijn. Bovendien 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.

Waarnemer		juli	augustus	september
R.J. Bouma	BMU	263/2	384/16	184
G. Comello	CMG	20	555/80	213/28
E. van Dijk	DKE	106/1	61/3	40
H. Feijth	FJH	287/77	745/193	288/48
J. Holtrop	HOL	72		50
G. Kuipers	KPG		32	19
A. Scholten	SAQ		2	
totaal		748	1779	794

In augustus werd een record aantal waarnemingen verricht; het vorige maandrecord staat op 1641, dat in oktober 1985 gevestigd werd. Eerlijkheidshalve moet worden opgemerkt dat hier duidelijk sprake is van een 'Puimichel-effekt'.

OBSERVARIA De meest opmerkelijke gebeurtenis in de laatste tijd is de afname in helderheid van R Coronae Borealis. Eind augustus begon de helderheid langzaam af te nemen tot 7.4 in het begin van september. Daarna volgde een langzame toename tot 6.6; omstreeks 20 oktober was de helderheid weer gedaald tot 7.7. Reden dus om deze ster nader in de gaten te houden. Jammer is dat de ster nu 's avonds moeilijk te zien is en straks alleen voor de matineuze waarnemers de moeite waard is. SU Tauri is nog steeds in het minimum; half oktober was dit object met pijn en moeite te schatten in de 305 mm Newton (m=15.7). De symbiotische veranderlijke (bestaande uit een koele hoofdreeksster en een witte dwerg) PU Vulpeculae moet ook nader in de gaten gehouden worden; na enige tijd constant 11.4 geweest te zijn was half oktober de helderheid afgenomen tot 12.0.

Nova V1974 Cygni (1992) is na een aanvankelijke langzame afname weer nagenoeg constant van helderheid ($m=12.7$) sedert augustus. Daarentegen is Nova Aquilae 1993 na een snelle afname tot de veertiende grootte in augustus nu weer toegenomen tot circa 12.7 in het midden van september. Supernova 1993J in M81 in de Grote Beer is nog steeds zichtbaar. Midden juli was deze 13.5 om geleidelijk af te nemen tot ongeveer 15.0 in het midden van oktober.

Wat betreft de dwergnovae kan gezegd worden dat de diverse objecten af en toe in uitbarsting gezien konden worden. Alleen Z Camelopardalis volhardt nog steeds in een stilstand. SS Cygni gedroeg zich vreemd in juli maar hervatte met twee normale maxima (8.1 eind augustus en 8.4 omstreeks 20 oktober) zijn normale gedrag. Van RU Pegasi werden twee maxima gezien, te weten 10.8 omstreeks 10 augustus en 11.0 in het midden van oktober.

FG Sagittae is van 12.0 in juli langzaam toegenomen tot 11.3 nu.

Slechts een paar Mira-sterren vertoonden een opvallend gedrag. ES Delphini, die in de omgeving staat van de oud-nova HR Del (nova 1967) was medio oktober 9.3, hetgeen minstens een magnitude helderder is dan normaal. Ook RT Herculis doorliep een helder maximum (8.8 eind september). Vermeldenswaard is nog dat de recente maxima van R Cassiopeiae en S Coronae Borealis wat helderder (6.2 respectievelijk 6.7) waren dan normaal (7.0 resp. 7.3). V Coronae Borealis is naar het lijkt weer op weg naar een zeer zwak minimum. Half oktober was de helderheid al afgenomen tot 11.7. En dat terwijl het volgende minimum pas 12 december verwacht wordt. In de gaten houden dus !

H. Feijth: Waarnemen in Puimichel

Van 8 tot en met 20 augustus 1993 verbleven Georg Comello en ik in de vakantiesterrenwacht van Dany Cardoen in Puimichel. Wij troffen het enorm met het weer; elke dag was het terrassenweer en elke nacht konden wij waarnemen met de 200 mm Celestron en de 254 mm Jones-Bird die we meegenomen hadden. Het behoeft dan ook geen betoog dat wij tevreden zijn met de oogst aan schattingen. Bovendien hadden zowel LL Lyrae en DX Andromedae, die UG-sterren zijn met maar eenmaal per jaar een uitbarsting, een maximum. Verder konden we een paar schattingen verrichten van de RCB-ster RY Sagittarii, die in juni begon af te nemen van 6.5. Omdat de hoogte in de meriaan slechts 13 graden was hadden we moeite om de ster die ondertussen afgenomen was tot 13.5 te schatten.

Ook hebben we andere waarnemingen gedaan. Niet alleen hebben we de Perseidenregen in de nacht van 11 op 12 augustus onder nagenoeg ideale omstandigheden waargenomen, maar hebben we van de gelegenheid gebruik gemaakt andere objecten te bekijken.

Met name Saturnus was fraai te zien; met de JB waren de floersring en een aantal manen, waaronder Enceladus, goed zichtbaar. Uranus en Neptunus, beiden nagenoeg in conjunctie, werden ook geobserveerd. De Uranusmanen Oberon en Titania en de Neptunusmaan Triton waren in de JB - zij het met moeite - zichtbaar. Ook dubbelsterren werden niet vergeten; Eta Ophiuchi (afstand 0.54") en Zeta Sagittarii (0.60") werden als rakende dubbelsterren in de JB waargenomen. De dwergster UV Ceti, die slechts op 11 lichtjaar van ons staat, werd als dubbelster in de JB geobserveerd. Dat terwijl de helderheden van de componenten 12 en 12.5 zijn en de onderlinge afstand 2.09 boogseconden.

Daarnaast keken wij ook naar 'diepe hemel objecten' zoals de bolvormige sterrenhopen M13 en M22, maar ook de planetaire nevels M27, M57, NGC 7293 en NGC 7009. Laatstgenoemde wordt ook wel de Saturnusnevel genoemd. Inderdaad was in de JB de 'ring' te zien.

000451 SS Cas
type Mira

170.4 11.5 BMU
180.4 11.0 BMU
195.4 10.1 BMU
203.5 9.9 DKE
203.5 10.0 BMU
210.4 10.2 BMU
210.5 10.0 CMG
213.5 10.1 FJH
215.5 10.6 CMG
217.4 10.6 BMU
220.5 10.8 CMG
228.4 11.3 BMU
228.4 11.5 FJH
236.6 11.8 HOL
237.4 11.9 BMU
237.4 12.1 CMG
237.4 12.5 FJH
249.4 12.7 BMU
251.3 13.0 CMG
252.4 13.0 FJH
254.4 12.8 HOL

000928 UW And
type Mira

175.5 12.9 FJH
186.5 12.8 FJH
194.5 12.7 FJH
204.4 11.4 FJH
211.5 11.7 CMG
214.4 11.4 FJH
215.4 11.2 CMG
223.5 11.2 FJH
37.4 10.2 FJH
252.5 10.4 CMG
259.4 10.4 FJH

001046 X And
type Mira

175.5 14.1 FJH
194.5 13.1 FJH
211.4 12.3 FJH
211.5 12.1 CMG
215.4 11.7 CMG
219.4 11.6 FJH
228.4 11.0 FJH
237.5 10.0 FJH
252.5 8.6 CMG
254.5 8.8 HOL

001726 T And
type Mira

206.4 9.4 FJH
211.5 9.6 CMG
215.4 9.5 CMG
219.4 9.9 FJH
225.6 10.7 FJH
236.4 11.3 FJH
252.5 12.1 FJH
252.5 12.3 CMG
254.5 12.5 HOL

001755 T Cas
type Mira

175.5 11.7 FJH
203.5 11.4 DKE
203.5 11.6 BMU
210.4 11.9 FJH
210.5 11.6 CMG
215.5 11.8 CMG
217.4 11.5 BMU
219.5 11.9 FJH
220.5 12.0 CMG
224.5 11.7 BMU
228.4 11.9 FJH
236.6 11.9 HOL
237.4 11.9 FJH
254.4 11.8 FJH
254.4 11.9 HOL

001838 R And
type Mira

180.5 15.0 FJH
194.5 14.7 FJH
211.4 13.2 FJH
211.5 13.5 CMG
215.4 13.5 CMG
216.4 13.1 FJH
222.5 12.9 FJH
236.4 12.3 FJH
252.4 11.8 FJH
252.5 11.3 CMG
254.5 10.8 HOL

002230 YZ And
type Mira

252.5 :15.0 CMG

002725A TU And
type Mira

211.5 10.0 CMG
214.4 9.7 FJH
215.4 10.1 CMG
219.4 9.7 FJH

228.4 9.6 FJH
252.5 8.6 CMG

003162 TY Cas
type Mira

180.5 <15.4 FJH
211.4 :16.0 FJH
218.4 14.5 FJH
222.5 13.1 FJH
231.4 11.6 FJH
237.4 11.4 FJH
252.4 11.1 FJH

003179 Y Cep
type Mira

175.5 10.5 FJH
208.3 12.6 FJH
210.4 12.7 CMG
215.4 13.0 FJH
215.5 12.7 CMG
226.5 13.4 FJH
236.5 13.7 FJH
252.4 13.8 CMG
252.4 14.0 FJH

004047 U Cas
type Mira

194.5 <15.4 FJH
210.4 :15.2 FJH
215.5 :14.6 CMG
216.4 14.9 FJH
218.3 14.4 CMG
223.5 14.1 FJH
237.4 12.9 FJH
237.4 13.0 CMG
249.4 11.6 BMU
251.3 11.8 CMG
254.4 11.1 FJH
254.5 11.8 HOL
260.3 10.8 BMU

004132 RW And
type Mira

175.5 11.2 FJH
194.5 12.3 FJH
210.4 12.5 FJH
211.5 12.9 CMG
215.4 12.9 CMG
216.4 13.2 FJH
225.5 13.5 FJH
237.4 13.8 FJH
252.5 14.2 FJH
252.5 14.3 CMG

004435 V And
type Mira

175.5 11.2 FJH
211.5 9.6 CMG
214.4 9.9 FJH
215.4 9.1 CMG
218.5 9.5 BMU
220.4 9.7 FJH
228.4 9.8 FJH
237.4 9.8 FJH
252.5 9.6 CMG
254.3 10.5 FJH

004533 RR And
type Mira

210.4 13.1 FJH
211.5 13.2 CMG
215.4 12.3 CMG
216.4 12.7 FJH
218.5 12.4 BMU
225.5 11.8 FJH
237.4 11.0 FJH
252.5 10.8 CMG
254.3 10.6 FJH

004746A RV Cas
type Mira

194.5 :15.5 FJH
211.4 15.6 FJH
215.5 :14.7 CMG
216.4 15.6 FJH
218.3 15.0 CMG
225.5 15.6 FJH
252.4 15.3 CMG

004958 W Cas
type Mira

170.4 10.5 BMU
180.4 10.8 BMU
195.4 11.1 BMU
203.5 11.3 BMU
210.5 11.3 CMG
213.5 11.9 FJH
215.4 11.6 BMU
215.5 11.5 CMG
220.4 11.7 FJH
220.5 11.8 CMG
223.5 11.7 BMU
228.4 11.9 FJH
237.4 11.6 CMG
237.4 11.8 BMU
237.4 12.0 FJH

249.4	11.9	BMU	228.41	12.3	BMU	226.5	10.0	FJH
251.3	11.6	CMG	228.52	12.4	FJH	259.3	10.4	FJH
254.4	11.9	FJH	231.43	13.7	FJH	-----		
260.3	11.9	BMU	236.47	11.0	FJH	012031	TY Psc	
-----			237.33	10.9	BMU	type	UGSU	
005840	RX And		237.38	11.0	FJH	222.47	13.8	FJH
type	UGZ		238.36	11.2	BMU	-----		
176.52	13.7	FJH	241.41	13.4	FJH	012350	RZ Per	
180.44	10.8	BMU	242.36	13.6	BMU	type	Mira	
181.44	10.7	BMU	242.50	13.7	FJH	-----		
194.50	12.4	FJH	248.37	12.5	BMU	211.6	13.1	CMG
195.40	12.0	BMU	249.36	11.1	BMU	215.4	13.3	CMG
197.42	12.5	BMU	249.37	10.8	CMG	252.5	13.6	CMG
206.42	11.6	BMU	250.33	10.8	BMU	-----		
208.38	11.1	BMU	251.53	11.4	HOL	012502	R Psc	
208.44	11.2	FJH	252.32	11.7	BMU	type	Mira	
208.51	11.0	CMG	252.37	11.4	FJH	-----		
210.37	12.3	FJH	252.54	11.7	CMG	212.3	13.4	CMG
210.41	12.0	BMU	252.56:12.7	HOL		216.5	13.7	CMG
211.41	13.1	FJH	254.36	13.4	FJH	220.4	14.0	FJH
211.49	13.2	CMG	254.45	13.2	BMU	-----		
212.33	13.8	CMG	254.49	13.5	HOL	012746	SX And	
212.39	13.7	FJH	259.40	13.8	FJH	type	Mira	
213.36	14.0	CMG	-----			-----		
213.38	13.7	FJH	010621A	X Psc		175.5	10.2	FJH
213.44	13.6	BMU	type	Mira		211.4	10.3	FJH
214.41	13.4	CMG	212.5	:14.6	FJH	211.5	10.0	CMG
214.42	13.6	FJH	222.4	:15.0	FJH	220.4	10.3	FJH
215.39	13.6	FJH	228.5	:14.7	FJH	228.4	10.7	FJH
215.43	14.0	BMU	-----			237.4	11.1	FJH
215.45	13.7	CMG	010937	FO And		254.4	11.5	FJH
216.36	13.7	FJH	type	UG		-----		
216.41	13.7	BMU	212.47	14.6	FJH	013050	KT Per	
216.45	13.8	CMG	213.45	15.1	FJH	type	UGZ	
217.34	13.8	CMG	222.44	14.8	FJH	-----		
217.39	13.8	BMU	-----			211.43	14.3	FJH
217.45	13.6	FJH	010940	U And		212.45	14.4	FJH
218.33	13.7	CMG	type	Mira		213.46	12.7	FJH
218.38	13.6	FJH	175.5	12.2	FJH	214.42	12.2	FJH
218.45	13.7	BMU	208.4	10.9	BMU	215.39	12.3	FJH
219.33	13.7	CMG	210.4	10.7	FJH	216.36	12.1	FJH
219.37	13.5	FJH	211.5	10.9	CMG	217.51	12.2	FJH
220.32	13.8	CMG	215.4	10.9	CMG	218.40	12.2	FJH
220.37	13.6	FJH	216.4	10.7	BMU	219.37	12.4	FJH
222.42	13.8	FJH	216.4	10.7	FJH	220.37	12.6	FJH
222.42	13.8	BMU	225.5	10.7	FJH	222.45	13.6	FJH
223.41	11.9	BMU	236.5	11.0	FJH	225.52	14.1	FJH
223.41	10.6	BMU	250.3	10.9	BMU	226.51	14.3	FJH
223.42	12.4	FJH	252.5	11.7	CMG	228.53	14.4	FJH
224.43	11.0	FJH	254.4	11.5	FJH	241.49	13.4	FJH
224.43	10.9	BMU	254.5	11.6	HOL	252.45	13.1	FJH
225.49	11.0	FJH	-----			-----		
226.51	11.2	FJH	011041A	UZ And		013238	RU And	
227.44	11.7	BMU	type	Mira		type	SRa	
227.44	11.5	FJH	212.3	10.6	CMG	-----		
227.58	11.6	CMG	212.5	10.3	FJH	215.5	12.2	FJH
			218.3	10.3	CMG			
			219.5	10.1	FJH			

226.5 12.4 FJH
237.4 12.7 FJH
254.3 12.8 FJH

013338 Y And
type Mira

194.5 14.7 FJH
210.4 14.0 FJH
211.5 14.1 CMG
215.4 13.8 CMG
216.4 14.0 FJH
222.4 13.3 FJH
237.4 12.1 FJH
252.5 9.9 CMG
254.3 9.6 FJH

013937 AR And
type UGSS

210.42 14.0 FJH
211.43 14.9 FJH
228.54:15.6 FJH
241.41 12.3 FJH
242.50 12.5 FJH

014958 X Cas
type Mira

209.5 12.8 CMG
215.5 12.7 CMG
220.5 12.7 CMG
237.4 12.7 CMG
252.3 12.5 CMG

015254 U Per
type Mira

170.5 8.3 BMU
180.4 8.1 BMU
180.4 8.1 DKE
195.4 8.0 BMU
203.4 8.0 BMU
211.6 8.5 CMG
215.4 8.3 CMG
216.4 8.2 BMU
223.4 8.3 BMU
231.4 8.5 BMU
250.4 8.5 BMU
252.5 8.5 CMG

015457 V666 Cas
type Mira

210.4 13.2 FJH
210.5 13.4 CMG
215.5 13.3 CMG

237.5 12.5 FJH
252.5 12.4 CMG
259.4 13.2 FJH

015912 S Ari
type Mira

225.5 15.3 FJH

020227 Z Tri
type Mira

215.5 14.7 FJH
226.5 13.9 FJH
241.5 13.3 FJH
252.5 12.6 FJH

020657A TZ Per
type UGZ

175.52 13.0 FJH
210.44 12.9 FJH
212.44 13.0 FJH
213.40 13.0 FJH
215.48 13.0 FJH
217.51 13.1 FJH
218.40 13.1 FJH
219.48 13.1 FJH
220.38 13.1 FJH
225.52 13.4 FJH
226.51 13.4 FJH
228.53 13.3 FJH
236.43 13.0 FJH
237.47 13.0 FJH
241.49 13.4 FJH
252.38 13.0 FJH
254.36 12.9 FJH
259.40 13.0 FJH

021024 R Ari
type Mira

211.5 9.3 FJH
211.6 9.5 CMG
215.4 9.5 CMG
220.4 9.6 FJH
252.5 12.4 CMG
252.5 12.5 FJH

021143A W And
type Mira

175.5 12.3 FJH
210.4 13.1 FJH
211.5 13.0 CMG
215.4 13.3 CMG
216.4 13.3 FJH

225.5 13.5 FJH
237.5 13.9 FJH
252.5 14.1 CMG

021258 T Per
type SRC

211.6 9.2 CMG
218.3 9.1 CMG
252.5 9.1 CMG

021281 Z Cep
type Mira

175.5 11.9 FJH
208.3 13.3 FJH
210.4 13.3 CMG
215.4 13.6 FJH
215.5 13.7 CMG
226.5 13.9 FJH
236.5 14.3 FJH

0214-03 Mira
type Mira

218.3 5.1 CMG
218.4 5.1 FJH
228.5 5.3 BMU
249.5 6.2 BMU

021558 S Per
type SRC

170.5 10.2 BMU
180.4 10.4 BMU
195.4 10.5 BMU
203.4 10.3 DKE
203.4 10.6 BMU
211.4 10.8 FJH
211.6 10.8 CMG
216.4 10.7 BMU
219.5 10.8 FJH
223.4 10.7 BMU
228.4 10.6 FJH
231.4 10.8 BMU
231.4 10.9 DKE
237.5 10.9 FJH
250.4 10.8 BMU
252.5 11.1 CMG
259.4 10.9 FJH

0220-00 R Cet
type Mira

218.3 8.6 CMG
228.5 7.9 BMU

249.5 7.4 BMU
252.5 8.0 CMG

022150 RR Per
type Mira

175.5 13.0 FJH
211.4 12.2 FJH
211.6 12.5 CMG
215.4 12.6 CMG
219.5 11.4 FJH
237.5 10.0 FJH
252.5 9.5 CMG
259.3 9.2 FJH

0228-13 U Cet
type Mira

218.3 9.2 CMG

022980 RR Cep
type Mira

212.3 :14.7 CMG
212.4 14.9 FJH
217.5 15.0 FJH
226.5 15.3 FJH
236.5 15.0 FJH

023133 R Tri
type Mira

211.5 6.3 CMG
213.5 6.3 BMU
216.5 6.2 CMG
216.5 6.3 DKE
222.5 5.9 DKE
222.5 6.0 BMU
228.4 5.8 FJH
231.4 5.9 BMU
231.4 5.9 DKE
237.4 5.8 BMU
237.4 5.8 DKE
248.4 5.9 DKE
248.4 6.0 BMU
252.5 6.6 CMG
260.4 6.4 DKE
260.4 6.5 BMU

024217 T Ari
type SRa

211.6 9.8 CMG
216.5 9.7 CMG
252.5 8.5 CMG

-----	032443 GK Per	209.4	12.3	CMG	218.5	8.7	FJH
030226 Z Ari	type Na	209.4	12.4	FJH	225.6	8.7	FJH
type Mira		215.4	12.1	BMU	236.5	8.6	FJH
	180.49 13.2 BMU	215.4	12.1	FJH	-----		
211.5 13.3 FJH	211.5 13.0 FJH	218.3	11.9	CMG	053531 U Aur		
212.3 13.8 CMG	211.6 13.0 CMG	218.4	11.9	FJH	type Mira		
219.5 13.8 FJH	216.42 13.1 BMU	223.4	11.7	BMU			
226.5 13.8 FJH	217.5 13.0 FJH	224.5	11.0	FJH	218.5 14.6 FJH		
-----	218.3 13.1 CMG	231.4	10.8	BMU	225.6 14.6 FJH		
030514 U Ari	223.45 13.1 BMU	236.5	10.3	FJH	-----		
type Mira	225.56 13.0 FJH	237.3	10.3	BMU	053538 SZ Aur		
	237.48 12.9 FJH	250.3	8.5	BMU	type Mira		
211.5 8.4 FJH	241.50 13.0 FJH	259.3	8.8	FJH			
211.6 8.4 CMG	252.35 13.2 BMU	260.3	8.0	BMU	211.6 13.9 FJH		
216.5 9.1 CMG	252.50 13.3 CMG	-----			218.3 14.2 CMG		
220.4 8.5 FJH	259.42 12.9 FJH	044617 V Tau			218.5 14.0 FJH		
226.5 8.7 FJH	-----	type Mira			-----		
252.5 9.7 CMG	040150 FO Per				054319 SU Tau		
259.3 9.6 FJH	type UG	216.5	9.8	CMG	type RCB		
-----		217.5	9.6	FJH			
031170 V667 Cas	217.51 13.2 FJH	225.6	9.6	FJH	218.5 <15.1 FJH		
type Mira	218.51 13.6 FJH	-----			225.6 :15.4 FJH		
	228.54<15.0 FJH	045307 R Ori			-----		
259.4 10.4 FJH	-----	type Mira			054615A Z Tau		
-----	041916 VX Tau				type Mira		
0314-01 X Cet	type Mira	218.3	13.6	CMG			
type Mira		-----			218.3 11.5 CMG		
	217.5 9.7 FJH	050953 R Aur			-----		
218.3 9.5 CMG	225.6 9.7 FJH	type Mira			054920A U Ori		
252.5 8.7 CMG	259.3 10.6 FJH				type Mira		
-----	-----	211.5 12.9 FJH					
032043 Y Per	042209 R Tau	211.6 12.4 CMG			218.3 11.7 CMG		
type Mira	type Mira	217.5 12.6 CMG			218.5 12.0 FJH		
		218.5 13.0 FJH			225.6 12.0 FJH		
180.5 8.8 DKE	216.5 11.0 CMG	225.6 13.2 FJH			-----		
180.5 8.9 BMU	226.5 11.8 FJH	-----			054974 V Cam		
195.4 9.0 BMU	-----	052036 W Aur			type Mira		
208.5 9.1 BMU	043065 T Cam	type Mira					
211.6 9.3 CMG	type Mira				171.4 9.7 FJH		
215.4 9.5 CMG		211.6 9.9 FJH			206.4 10.5 BMU		
216.4 9.3 BMU	209.4 13.3 CMG	211.6 10.1 CMG			209.4 10.3 CMG		
223.4 9.4 BMU	211.4 13.8 FJH	217.5 10.3 CMG			209.4 10.9 FJH		
231.4 9.5 BMU	214.4 13.5 CMG	218.5 10.3 FJH			214.4 10.5 CMG		
252.3 9.9 BMU	216.4 13.8 FJH	225.6 10.6 FJH			215.4 10.7 BMU		
252.5 10.2 CMG	224.5 13.8 FJH	236.5 11.2 FJH			218.4 11.2 FJH		
-----	236.5 13.5 FJH	-----			223.4 10.8 BMU		
032335 R Per	-----	053326 RR Tau			224.5 11.2 FJH		
type Mira	043208 RX Tau	type INAS			236.5 11.5 FJH		
	type Mira				-----		
211.5 12.9 FJH		216.5 11.9 CMG			055439 AZ Aur		
211.6 12.9 CMG	218.3 12.2 CMG	-----			type Mira		
217.5 13.3 FJH	-----	053337 RU Aur					
225.6 13.5 FJH	043274 X Cam	type Mira			217.5 12.1 CMG		
241.5 14.0 FJH	type Mira				218.5 12.0 FJH		
252.5 14.4 CMG		211.6 8.9 FJH			225.6 12.0 FJH		
252.5 14.4 FJH	171.4 11.5 FJH	211.6 9.1 CMG			236.5 12.0 FJH		
-----	206.4 12.5 BMU	217.5 9.1 CMG					

-----	259.6 10.3 CMG	-----	259.6 14.6 CMG	147.49 11.9 CMG
060246 VY Aur	-----	062574 SU Cam	-----	169.47 11.6 CMG
type Mira	062574 SU Cam	type Mira	070122A R Gem	170.42 11.5 BMU
211.6 11.0 FJH	-----	type Mira	type Mira	171.42 11.5 BMU
218.5 11.1 FJH	215.4 13.5 CMG	-----	-----	173.42 11.5 BMU
225.6 11.7 FJH	215.5 13.6 FJH	259.6 7.2 CMG	-----	174.47 11.5 BMU
236.5 12.0 FJH	220.4 13.5 FJH	-----	070310 R CMi	175.42 11.4 BMU
-----	225.6 13.6 FJH	070310 R CMi	type Mira	176.43 11.6 BMU
060443 RR Aur	-----	type Mira	-----	176.43 11.7 DKE
type Mira	063159 U Lyn	-----	259.6 10.5 CMG	177.41 11.6 CMG
211.6 11.8 FJH	type Mira	-----	-----	177.42 11.6 BMU
211.6 11.9 CMG	211.5 14.2 FJH	071713 V Gem	-----	179.42 11.5 BMU
217.5 11.2 CMG	211.6 14.0 CMG	type Mira	-----	179.42 11.9 DKE
218.5 11.0 FJH	218.3 14.5 CMG	-----	259.6 11.0 CMG	180.41 11.5 BMU
225.6 10.5 FJH	218.5 14.3 FJH	259.6 11.0 CMG	-----	180.41 11.9 DKE
236.5 10.1 FJH	225.6 14.5 FJH	-----	072708 S CMi	180.42 11.6 CMG
259.3 10.3 FJH	259.6 13.6 CMG	072708 S CMi	type Mira	181.41 11.5 BMU
-----	-----	type Mira	-----	181.43 11.6 CMG
060450 X Aur	063444A AA Aur	-----	259.6 8.4 CMG	191.43 11.5 BMU
type Mira	type Mira	-----	-----	191.43 11.4 DKE
211.6 8.3 CMG	218.3 13.8 CMG	072811 T CMi	-----	195.40 11.5 BMU
217.5 8.6 CMG	218.5 13.6 FJH	type Mira	-----	197.42 11.4 BMU
-----	225.6 13.5 FJH	-----	259.6 11.3 CMG	197.42 11.8 DKE
060547 SS Aur	-----	259.6 11.3 CMG	-----	200.39 11.5 BMU
type UGSS	063558 S Lyn	-----	073234 ST Gem	203.41 11.4 BMU
216.53 14.8 FJH	type Mira	073234 ST Gem	type Mira	203.41 11.4 DKE
218.53 14.8 FJH	211.5 13.4 FJH	-----	-----	206.40 11.4 BMU
225.61 14.7 FJH	211.6 13.2 CMG	225.6 10.2 FJH	-----	208.38 11.6 BMU
259.33 11.1 FJH	218.3 13.4 CMG	259.6 10.6 CMG	-----	208.39 11.5 DKE
-----	218.5 13.5 FJH	-----	073508 U CMi	209.36 11.5 FJH
061275 W Cam	225.6 13.5 FJH	073508 U CMi	type Mira	209.49 11.8 CMG
type Mira	259.6 13.0 CMG	type Mira	-----	210.40 11.4 BMU
209.4 13.7 CMG	-----	-----	211.56 11.5 FJH	211.58 11.7 CMG
214.4 13.4 CMG	064030 X Gem	259.6 9.4 CMG	-----	213.37 11.5 DKE
-----	type Mira	-----	213.37 11.6 BMU	213.37 11.6 BMU
061647 V Aur	225.6 12.9 FJH	073723 S Gem	-----	214.41 11.6 CMG
type Mira	259.6 10.3 CMG	type Mira	-----	215.41 11.5 BMU
211.6 11.9 CMG	-----	-----	259.6 12.9 CMG	215.51 11.5 FJH
217.5 12.4 CMG	065111 Y Mon	-----	-----	216.33 11.5 CMG
218.5 12.1 FJH	type Mira	074323 T Gem	-----	216.41 11.5 BMU
225.6 12.4 FJH	259.6 14.2 CMG	type Mira	-----	216.41 11.5 DKE
-----	-----	-----	225.6 9.7 FJH	216.52 11.5 FJH
061725 ZZ Gem	065355 R Lyn	225.6 9.7 FJH	-----	217.34 11.8 CMG
type Mira	type Mira	259.6 9.0 CMG	-----	217.39 11.6 BMU
259.6 11.7 CMG	217.5 12.3 FJH	-----	080362 SU UMa	217.53 11.5 FJH
-----	218.3 12.6 CMG	080362 SU UMa	type UGSU	217.53 11.5 FJH
062564 RT Cam	225.6 11.8 FJH	type UGSU	-----	218.36 11.5 FJH
type Mira	-----	218.50 14.2 FJH	-----	218.43 11.5 BMU
218.3 12.3 CMG	070109 V CMi	-----	081473 Z Cam	219.33 11.8 CMG
-----	type Mira	070109 V CMi	type UGZ	220.45 11.8 CMG
-----	-----	type UGZ	-----	222.43 11.5 BMU
-----	-----	-----	-----	223.37 11.5 BMU
-----	-----	-----	-----	224.43 11.6 BMU
-----	-----	-----	-----	225.57 11.5 FJH
-----	-----	-----	-----	227.44 11.6 BMU
-----	-----	-----	-----	227.44 11.5 FJH

228.40	11.5	BMU	147.46	13.1	DKE	224.4	7.5	BMU	220.3	7.9	CMG
231.35	11.6	BMU	148.44	13.0	DKE	231.3	8.1	BMU	222.4	7.8	BMU
237.32	11.6	BMU	150.44	13.1	DKE	237.3	8.6	CMG	224.4	7.6	FJH
238.36	11.5	BMU	161.46	13.3	DKE	237.4	8.4	BMU	228.5	7.8	DKE
242.36	11.4	BMU	167.46	13.3	DKE	248.4	8.8	BMU	231.3	7.9	BMU
248.34	11.5	BMU	168.45	13.4	DKE	-----			236.3	8.1	HOL
249.36	11.2	BMU	171.45	13.3	BMU	115158	Z	UMa	237.3	7.6	BMU
250.33	11.3	BMU	171.45	13.3	DKE	type	SRb		237.3	7.6	CMG
252.32	11.4	BMU	174.47	13.3	BMU				237.3	7.6	FJH
254.44	11.4	BMU	175.44	13.3	BMU	174.5	8.2	BMU	237.4	7.8	DKE
259.30	11.5	BMU	175.44	13.5	DKE	181.4	8.3	BMU	248.4	7.8	DKE
259.57	11.7	CMG	177.46	13.4	BMU	191.4	8.3	BMU	248.4	8.1	BMU
260.31	11.5	BMU	179.45	13.5	BMU	200.4	8.0	BMU	249.3	8.4	HOL
-----			179.45	13.5	DKE	206.4	7.9	BMU	259.3	8.1	DKE
081633	T	Lyn	180.45	13.3	BMU	209.4	8.2	CMG	259.3	8.5	BMU
type	Mira		180.45	13.4	DKE	210.4	8.0	DKE	-----		
			181.43	13.4	CMG	213.4	7.9	BMU	123366	RV	Dra
259.6	11.3	CMG	181.46	13.4	BMU	214.3	8.4	CMG	type	Mira	
-----			181.46	13.5	DKE	216.4	7.3	DKE			
081935	X	Lyn	191.44	13.3	BMU	220.3	8.4	CMG	170.4	10.2	FJH
type	Mira		191.44	13.5	DKE	222.4	8.0	BMU	177.4	10.5	HOL
			195.44	13.4	BMU	231.3	8.5	BMU	182.4	10.5	FJH
259.6	11.1	CMG	195.44	13.5	DKE	237.3	8.3	CMG	195.4	10.8	HOL
-----			197.45	13.4	BMU	237.3	8.5	BMU	208.4	11.0	CMG
093178	Y	Dra	197.45	13.5	DKE	237.4	8.6	DKE	208.4	11.1	FJH
type	Mira		206.4	13.6	DKE	248.4	7.9	BMU	222.4	11.7	FJH
			206.4	13.7	BMU	248.4	7.9	DKE	-----		
175.5	12.8	FJH	208.4	13.8	BMU	259.3	7.2	BMU	123459	RS	UMa
209.4	13.4	CMG	209.37	13.7	FJH	-----			type	Mira	
209.4	13.8	FJH	209.38	13.6	CMG	122532	T	CVn			
214.4	14.2	CMG	210.4	13.9	BMU	type	Mira		168.4	10.6	DKE
220.5	14.0	CMG	213.4	13.9	BMU				173.4	10.9	DKE
-----			213.4	13.9	DKE	208.4	10.3	CMG	173.4	11.1	BMU
093952	EQ	UMa	215.42	13.9	CMG	214.3	10.4	CMG	174.4	11.4	FJH
type	UG		215.51	13.7	FJH	-----			175.5	11.1	HOL
			216.5	14.1	BMU	123160	T	UMa	180.4	11.8	BMU
213.4	12.7	BMU	217.5	13.8	DKE	type	Mira		182.4	11.9	FJH
222.4	12.1	BMU	217.5	14.0	BMU				191.4	12.1	DKE
223.4	12.2	BMU	218.33	14.0	CMG	168.4	10.5	DKE	191.4	12.3	FJH
224.4	12.2	BMU	218.38	13.7	FJH	170.4	10.0	FJH	191.5	12.2	BMU
-----			224.4	13.8	DKE	173.4	9.9	BMU	195.4	12.7	HOL
094769	SN	93J	224.4	14.0	BMU	173.4	9.9	DKE	200.4	12.7	BMU
type	SN		228.5	14.1	BMU	175.5	9.9	HOL	206.4	12.9	BMU
			-----			180.4	8.7	DKE	208.4	13.0	FJH
107.35	11.8	DKE	103769	R	UMa	180.4	8.9	BMU	208.4	13.1	CMG
111.44	12.1	DKE	type	Mira		191.4	7.9	DKE	213.4	13.4	BMU
112.43	12.1	DKE				191.5	8.0	BMU	214.3	13.7	CMG
119.40	12.4	DKE	173.4	8.2	BMU	195.4	8.0	HOL	217.3	13.6	FJH
124.43	12.7	DKE	180.4	7.5	BMU	200.4	7.7	BMU	220.3	13.8	CMG
125.43	12.7	DKE	195.4	7.5	BMU	206.4	7.7	BMU	222.4	13.6	BMU
130.48	12.4	DKE	203.4	7.4	BMU	206.4	7.8	DKE	237.3	14.2	CMG
131.44	12.4	DKE	208.4	8.0	CMG	208.4	8.1	CMG	-----		
138.44	12.9	DKE	210.4	7.4	BMU	213.4	7.8	BMU	123961	S	UMa
142.43	12.8	DKE	214.3	7.9	FJH	213.4	7.8	DKE	type	Mira	
144.44	12.8	DKE	214.3	8.0	CMG	214.3	7.7	FJH			
144.46	13.0	DKE	217.4	7.4	BMU	214.3	7.8	CMG	167.4	7.8	DKE
146.44	12.9	DKE	220.3	8.0	CMG	216.4	7.9	DKE	170.4	8.2	FJH

174.5	7.9	BMU	134434	RT CVn	174.4	13.1	FJH	206.4	12.8	BMU	
175.5	7.9	HOL	type Mira		177.4	12.8	HOL	208.3	13.1	FJH	
179.5	8.2	DKE			179.5	13.1	BMU	208.4	13.1	CMG	
181.4	8.2	BMU	181.4	12.2	FJH	191.4	13.4	FJH	214.4	13.4	CMG
191.5	8.4	BMU	191.4	13.7	FJH	195.4	13.4	BMU	215.5	13.1	FJH
195.4	8.4	HOL	217.3	14.3	FJH	208.4	13.2	BMU	216.4	13.4	BMU
195.4	8.6	DKE	-----		208.4	13.4	CMG	219.3	13.2	FJH	
200.4	8.6	BMU	134440	R CVn	208.4	13.4	FJH	219.3	13.3	CMG	
206.4	8.8	DKE	type Mira		214.3	13.4	CMG	223.4	13.3	BMU	
206.4	8.9	BMU			216.4	13.1	BMU	236.5	13.0	FJH	
208.4	9.0	CMG	171.4	7.4	FJH	217.3	13.4	FJH	-----		
213.4	9.0	DKE	177.4	7.8	BMU	220.3	13.3	CMG	143227	R Boo	
213.4	9.1	BMU	177.4	7.9	HOL	223.4	13.0	BMU	type Mira		
214.3	9.3	CMG	191.5	8.4	BMU	228.4	12.7	FJH			
214.3	9.4	FJH	195.4	8.5	HOL	236.3	12.3	FJH	146.5	11.6	DKE
216.4	9.5	DKE	200.4	8.7	BMU	237.3	12.2	CMG	177.4	9.4	BMU
220.3	9.6	CMG	208.4	8.9	BMU	237.4	12.3	BMU	177.4	9.4	HOL
222.4	9.5	BMU	208.4	9.0	CMG	250.3	11.3	BMU	181.4	9.7	FJH
222.4	9.7	DKE	214.3	9.3	CMG	-----			191.5	8.7	BMU
224.4	9.9	FJH	215.4	9.1	BMU	142205	RS Vir	195.4	8.6	DKE	
228.5	10.0	DKE	220.3	9.5	CMG	type Mira		195.4	9.0	HOL	
231.3	10.0	BMU	223.4	9.3	BMU			200.4	8.4	BMU	
236.3	10.4	HOL	231.4	9.8	BMU	176.4	13.6	FJH	206.4	8.2	BMU
237.3	10.4	CMG	237.4	10.0	BMU	208.4	13.4	FJH	208.4	8.1	CMG
237.3	10.6	FJH	250.3	10.5	BMU	216.3	13.4	FJH	213.4	8.2	BMU
237.4	10.4	BMU	-----			216.3	13.5	CMG	214.3	8.0	CMG
237.4	10.4	DKE	140113	Z Boo	-----			220.3	8.1	CMG	
248.4	10.6	BMU	type Mira		142539	V Boo		222.4	8.1	BMU	
248.4	10.9	DKE			type SRa			231.4	8.0	BMU	
-----			174.4	13.0	FJH			237.3	7.9	BMU	
124238	U CVn		191.4	11.4	FJH	177.4	8.4	BMU	237.3	8.0	FJH
type Mira			208.4	9.5	FJH	177.4	8.4	HOL	237.3	8.1	CMG
			208.4	9.6	CMG	191.5	8.4	BMU	237.4	7.8	DKE
219.3	<14.5	FJH	214.3	9.2	CMG	195.4	8.5	DKE	250.3	7.9	DKE
-----			217.3	9.3	FJH	195.4	8.6	HOL	250.3	8.1	BMU
132262	RR UMa		-----			200.4	8.6	BMU	-----		
type Mira			141567	U UMi		206.4	8.6	BMU	144339	RR Boo	
			type Mira			208.4	8.6	CMG	type Mira		
214.3	10.5	CMG			213.4	8.7	BMU				
220.3	12.2	CMG	174.4	11.4	FJH	214.3	8.6	CMG	174.4	13.8	FJH
-----			181.4	11.0	HOL	220.3	8.8	CMG	191.4	14.1	FJH
133273	T UMi		195.5	10.7	HOL	222.4	8.9	BMU	208.4	14.0	CMG
type Mira			203.4	10.4	DKE	237.3	8.8	CMG	208.4	14.0	FJH
			203.4	10.5	BMU	237.4	8.7	DKE	214.3	14.0	CMG
174.4	9.2	FJH	208.4	10.3	CMG	237.4	8.9	BMU	217.3	13.4	FJH
203.4	10.4	BMU	214.3	10.0	CMG	250.3	9.1	BMU	220.3	13.4	CMG
203.4	10.5	DKE	214.3	10.3	FJH	250.4	9.0	DKE	237.3	11.5	CMG
208.3	10.7	FJH	215.4	10.4	BMU	-----			-----		
208.4	11.4	CMG	220.3	10.1	CMG	142584	R Cam		1506-05	Y Lib	
214.3	11.9	CMG	223.5	10.3	BMU	type Mira			type Mira		
215.4	11.3	BMU	224.4	10.2	FJH						
219.3	11.7	FJH	237.4	10.2	CMG	171.4	11.4	FJH	212.3	13.2	FJH
220.3	12.0	CMG	249.3	10.3	HOL	177.5	11.4	HOL	220.3	12.5	FJH
223.5	11.6	BMU	-----			177.5	11.7	BMU			
237.3	12.4	FJH	141954	S Boo		195.5	12.5	HOL			
237.4	12.5	CMG	type Mira			197.5	12.3	DKE			
-----						197.5	12.5	BMU			

236.3	12.9	FJH	214.3	8.5	CMG	176.4	10.9	BMU	228.4	8.9	FJH
237.3	12.5	CMG	220.3	8.8	CMG	179.5	10.7	HOL	231.4	8.8	BMU
237.4	12.5	BMU	220.4	8.9	FJH	180.4	11.2	FJH	231.4	8.8	DKE
248.4	11.4	BMU	223.4	8.5	BMU	191.5	11.1	HOL	236.3	9.1	KPG
252.3	11.3	FJH	236.3	9.6	FJH	191.5	11.3	BMU	237.4	8.9	BMU
-----			-----			200.4	11.4	BMU	249.4	9.2	BMU
155526	T	CrB	160625	RU	Her	203.4	11.6	FJH	249.5	9.2	DKE
type Nd			type Mira			208.4	11.6	BMU	250.3	9.4	HOL
175.4	10.3	BMU	173.4	11.8	FJH	209.5	11.3	CMG	254.3	9.3	FJH
176.4	10.6	FJH	181.4	11.6	BMU	213.4	11.8	FJH	-----		
191.4	10.6	FJH	191.4	11.3	FJH	214.4	11.6	CMG	163172	R	UMi
191.5	10.5	BMU	195.4	11.3	BMU	215.5	11.6	BMU	type SRa		
200.4	10.5	BMU	206.4	11.0	BMU	220.5	11.8	CMG	170.5	9.5	BMU
204.4	10.5	FJH	209.5	11.6	CMG	222.4	11.7	BMU	203.4	9.2	BMU
206.4	10.5	BMU	213.4	11.0	BMU	223.4	12.0	FJH	203.4	9.3	DKE
213.4	10.6	BMU	213.4	11.4	FJH	231.3	12.1	FJH	215.4	9.1	BMU
215.3	10.9	FJH	215.3	11.4	CMG	231.4	11.7	DKE	223.5	9.2	BMU
219.3	10.9	FJH	220.5	11.4	CMG	231.4	11.8	BMU	-----		
222.4	10.5	BMU	223.4	11.0	BMU	237.3	11.9	CMG	163266	R	Dra
223.4	10.8	FJH	231.3	11.4	FJH	242.3	12.4	FJH	type Mira		
228.4	10.5	BMU	236.3	11.0	KPG	252.3	12.1	BMU	-----		
228.4	10.6	FJH	237.4	11.4	CMG	1628-16 S Oph			171.4	8.8	FJH
236.3	10.6	FJH	250.3	10.8	BMU	type Mira			177.5	8.4	BMU
237.3	10.5	BMU	-----			195.4	9.0	DKE	181.5	8.1	HOL
248.4	10.4	BMU	161138	W	CrB	-----			191.5	7.8	BMU
259.3	10.4	BMU	type Mira			162807A SS Her			200.4	7.2	BMU
-----			175.4	9.4	BMU	type Mira			208.4	7.3	BMU
160118	R	Her	179.5	9.4	HOL	181.4	8.9	BMU	208.5	7.5	CMG
type Mira			191.5	8.6	HOL	195.4	9.8	BMU	214.4	7.5	CMG
177.4	8.5	BMU	191.5	8.7	BMU	206.5	10.6	BMU	215.4	7.4	BMU
179.5	8.5	HOL	200.4	8.5	BMU	208.4	10.7	CMG	220.5	7.5	CMG
180.4	8.6	FJH	206.5	8.4	BMU	213.4	11.2	BMU	223.5	7.4	BMU
191.5	8.5	HOL	208.4	8.6	CMG	215.3	11.4	CMG	224.5	7.7	FJH
195.4	8.7	BMU	213.4	8.5	BMU	219.3	12.4	CMG	231.4	7.7	BMU
206.5	8.9	BMU	213.4	8.5	KPG	222.5	12.3	BMU	237.3	8.1	BMU
209.5	9.3	CMG	214.3	8.4	CMG	237.3	13.1	CMG	237.4	8.1	CMG
213.4	9.2	FJH	215.3	8.9	FJH	-----			249.3	8.4	HOL
213.4	9.3	BMU	222.4	8.7	BMU	163137 W Her			250.3	8.6	BMU
214.4	9.5	CMG	228.4	8.9	FJH	type Mira			-----		
220.4	9.3	FJH	231.3	9.3	BMU	173.4	10.9	FJH	163414	AS	Her
220.5	9.4	CMG	236.3	10.1	FJH	177.4	11.0	BMU	type Mira		
222.5	9.6	BMU	237.4	9.6	BMU	179.5	11.2	HOL	210.3	13.3	CMG
231.3	10.1	FJH	248.4	10.2	BMU	191.5	9.9	BMU	215.3	13.3	CMG
242.3	10.7	FJH	254.3	10.8	FJH	191.5	10.2	HOL	215.3	13.3	FJH
252.3	11.3	BMU	-----			191.5	10.2	HOL	220.4	13.1	FJH
-----			1621-12	V	Oph	200.4	9.5	BMU	220.5	13.4	CMG
160210	U	Ser	type Mira			206.5	9.1	BMU	237.3	12.2	FJH
type Mira			195.5	8.2	BMU	209.5	9.2	CMG	237.4	12.4	CMG
181.4	8.7	HOL	208.4	7.8	BMU	213.4	8.8	KPG	242.3	11.7	FJH
181.4	8.9	FJH	217.4	7.7	BMU	213.4	9.1	BMU	-----		
195.4	7.6	HOL	-----			214.4	9.0	CMG	164012	UV	Her
208.3	8.3	FJH	162119	U	Her	217.3	8.8	FJH	type Mira		
208.4	8.5	CMG	type Mira			222.4	9.0	BMU	170.4	9.7	FJH
213.4	8.6	BMU	-----			223.4	9.0	DKE	176.5	10.1	FJH

203.4	11.1	FJH	237.4	12.0	CMG	210.3	12.2	CMG	180.5	11.8	BMU
210.4	11.3	CMG	242.3	11.8	FJH	213.4	12.0	KPG	181.4	12.1	FJH
215.3	11.4	CMG	252.3	11.0	FJH	214.4	12.0	CMG	195.5	12.7	BMU
215.3	11.4	FJH	-----			216.5	11.7	FJH	204.4	13.3	FJH
220.5	11.4	CMG	165722	SY Her		220.5	11.4	CMG	208.4	13.8	CMG
231.3	12.1	FJH	type Mira			231.3	10.2	FJH	214.4	13.9	CMG
237.4	12.3	CMG				236.3	9.3	KPG	216.4	14.0	BMU
242.3	12.3	FJH				237.4	9.6	CMG	218.4	14.0	FJH
-----			170.4	13.0	FJH	-----			220.5	14.3	CMG
164715	S Her		176.4	12.3	BMU	171401	Z Oph		223.4	13.9	BMU
type Mira			180.4	12.3	FJH	type Mira			223.4	14.4	FJH
			191.4	10.2	DKE				237.4	14.6	CMG
			191.5	10.6	BMU				242.3	14.0	FJH
175.4	12.9	FJH	200.4	9.9	BMU	180.5	10.2	BMU	-----		
177.5	13.0	BMU	206.5	9.5	BMU	180.5	10.4	DKE	1744-06	RS Oph	
181.4	13.1	FJH	209.5	9.8	CMG	195.5	9.7	BMU	type Nd		
191.4	13.2	FJH	213.4	8.6	KPG	206.5	9.2	BMU			
191.5	13.6	HOL	213.4	9.2	BMU	208.4	9.0	CMG			
195.4	13.4	BMU	214.4	9.4	CMG	214.4	8.5	CMG	180.47	11.9	BMU
206.5	13.7	BMU	220.5	9.2	CMG	216.5	8.7	BMU	195.47	11.0	BMU
208.3	13.4	FJH	222.4	8.7	BMU	220.5	8.3	CMG	206.49	11.9	BMU
209.5	13.6	CMG	223.4	8.3	DKE	223.4	8.4	BMU	216.45	11.4	BMU
210.3	13.7	CMG	231.4	8.6	DKE	237.4	8.1	CMG	-----		
213.4	13.6	BMU	231.4	8.7	BMU	-----			175111	RT Oph	
215.3	13.4	FJH	236.3	8.6	KPG	171723	RS Her		type Mira		
215.3	13.5	CMG	237.4	9.0	BMU	type Mira					
220.5	13.4	CMG	249.4	9.9	BMU				175.5	11.9	FJH
222.5	13.4	BMU	-----			170.4	9.4	FJH	181.4	12.1	FJH
223.4	13.3	FJH	1702-15	R Oph		176.4	9.3	DKE	197.5	12.2	BMU
231.3	13.2	FJH	type Mira			176.4	9.7	BMU	197.5	12.2	DKE
237.4	13.0	CMG				181.4	10.4	FJH	206.4	12.2	FJH
242.3	12.9	FJH	180.5	8.4	DKE	181.5	10.1	HOL	206.5	12.3	BMU
252.3	11.8	BMU	180.5	8.6	BMU	191.5	10.8	BMU	208.4	12.4	CMG
252.3	12.2	FJH	195.5	9.2	BMU	191.5	11.1	HOL	214.4	12.4	CMG
-----			208.4	9.8	BMU	194.4	11.7	FJH	216.4	12.5	BMU
1652-02	SS Oph		210.3	10.0	CMG	200.4	11.4	BMU	218.4	12.3	FJH
type Mira			214.4	10.5	CMG	203.4	12.1	FJH	220.5	12.7	CMG
			217.3	10.6	CMG	208.4	12.1	BMU	223.4	12.4	FJH
180.5	9.4	DKE	217.4	10.2	BMU	209.5	12.5	CMG	223.4	12.7	BMU
180.5	9.6	BMU	-----			213.4	12.5	FJH	237.4	12.9	CMG
195.5	8.8	BMU	170217	VY Her		213.4	12.5	KPG	242.3	12.7	FJH
206.5	8.3	BMU	type Mira			214.4	12.6	CMG	-----		
208.4	8.5	CMG				215.5	12.3	BMU	175458A	T Dra	
214.4	8.8	CMG	176.5	11.6	FJH	220.5	12.8	CMG	type Mira		
216.5	8.5	BMU	204.4	12.9	FJH	222.4	12.6	BMU			
220.5	8.8	CMG	210.3	13.0	CMG	222.4	12.8	FJH	208.5	12.3	CMG
-----			215.3	13.4	CMG	223.5	12.6	DKE	214.4	12.9	CMG
165631	RV Her		215.3	13.5	FJH	231.3	12.9	FJH	220.5	13.1	CMG
type Mira			220.5	13.7	CMG	236.3	12.4	KPG	237.4	13.2	CMG
			223.4	13.7	FJH	237.4	13.0	CMG	-----		
180.4	15.3	FJH	237.3	14.1	FJH	242.3	13.0	FJH	175519	RY Her	
209.4	14.4	FJH	237.4	14.2	CMG	252.3	12.4	BMU	type Mira		
209.5	14.4	CMG	-----			252.3	12.6	FJH			
215.3	13.8	FJH	170627A	RT Her		-----			179.4	9.6	DKE
215.5	13.8	CMG	type Mira			172809A	RU Oph		179.4	10.2	BMU
220.5	13.3	CMG				type Mira			181.4	10.3	FJH
222.4	13.1	FJH	181.4	13.5	FJH				195.4	9.5	BMU
231.3	12.3	FJH	208.4	11.8	FJH	175.5	12.0	FJH	203.5	9.1	DKE

203.5	9.2	BMU	250.3	8.6	HOL	191.5	10.7	BMU	260.3	8.5	BMU
204.4	8.9	FJH	252.4	8.4	DKE	203.4	10.6	FJH	-----		
209.5	9.0	CMG	259.3	8.4	BMU	203.5	10.2	DKE	181306	BC Oph	
213.4	9.0	KPG	-----			203.5	10.3	BMU	type Mira		
213.4	9.2	BMU	180565	W Dra		209.5	10.1	CMG			
214.4	9.1	CMG	type Mira			210.5	10.0	BMU	212.4	:14.8	FJH
220.4	8.8	FJH				213.4	9.7	KPG	-----		
220.5	9.1	CMG	171.5	9.2	FJH	214.4	9.7	CMG	181406	AY Oph	
222.4	9.1	BMU	208.4	9.7	FJH	215.5	10.1	FJH	type Mira		
231.3	9.1	FJH	208.4	9.9	CMG	217.4	10.0	BMU			
231.4	9.1	BMU	214.4	10.1	CMG	220.5	10.0	CMG	175.5	11.5	FJH
236.3	9.3	KPG	220.5	10.3	CMG	222.5	9.8	BMU	212.4	:15.2	FJH
237.4	9.3	CMG	224.5	10.3	FJH	223.5	10.1	FJH	-----		
249.4	9.6	BMU	231.4	11.2	FJH	231.4	9.9	BMU	181730	TV Lyr	
254.3	10.2	FJH	237.4	11.3	CMG	236.3	9.9	KPG	type Mira		
260.4	10.4	BMU	252.3	12.2	FJH	237.4	10.4	CMG			
260.4	10.8	DKE	-----			249.4	10.6	BMU	175.4	14.1	FJH
-----			181020	YY Her		250.3	11.1	HOL	191.4	14.8	FJH
175654	V Dra		type Z	And		252.3	10.9	FJH	213.4	15.0	FJH
type Mira						259.3	10.8	BMU	219.5	15.0	FJH
			171.4	11.8	BMU	-----			-----		
171.5	10.6	FJH	173.4	11.7	BMU	181103	RY Oph		182039	TW Lyr	
208.4	10.7	FJH	176.4	11.5	DKE	type Mira			type Mira		
208.5	10.4	CMG	176.4	11.7	BMU						
213.4	10.7	FJH	176.4	11.7	FJH	181.4	13.7	BMU	175.4	12.6	FJH
214.4	10.2	CMG	179.4	11.7	BMU	208.4	12.0	CMG	191.4	12.9	FJH
220.4	10.9	FJH	180.4	11.7	CMG	214.4	11.4	CMG	209.4	13.5	FJH
220.5	10.6	CMG	181.4	11.7	BMU	217.4	11.1	BMU	217.3	13.5	CMG
231.4	11.0	FJH	191.4	11.9	BMU	217.4	11.4	KPG	217.5	13.7	FJH
237.4	11.0	CMG	195.4	11.9	BMU	220.5	11.0	CMG	223.5	13.7	FJH
252.3	12.3	FJH	200.4	11.9	BMU	223.4	10.7	BMU	237.3	14.1	FJH
-----			203.4	12.0	BMU	-----			251.3	13.9	CMG
180531	T Her		203.5	11.8	DKE	181136	W Lyr		252.3	14.0	FJH
type Mira			206.5	12.1	BMU	type Mira			-----		
			210.4	12.0	BMU				182172	RT Dra	
177.4	13.0	BMU	211.3	11.8	CMG	172.5	10.6	FJH	type Mira		
180.4	13.2	FJH	213.4	12.1	BMU	177.4	10.3	BMU			
191.4	13.3	FJH	215.5	12.0	BMU	177.5	10.1	HOL	171.5	12.2	FJH
191.5	13.1	BMU	217.4	12.0	BMU	191.4	9.6	DKE	182.4	12.9	FJH
191.5	13.2	HOL	219.3	11.6	CMG	191.5	9.2	BMU	194.5	12.9	FJH
203.4	12.7	FJH	220.4	12.1	FJH	197.4	9.2	HOL	210.5	13.1	CMG
203.5	12.6	BMU	222.4	12.1	BMU	203.5	8.5	DKE	212.4	13.5	FJH
209.5	11.8	CMG	228.4	12.1	BMU	203.5	8.7	BMU	214.4	13.2	CMG
210.5	11.6	BMU	231.4	12.1	BMU	210.5	8.3	BMU	219.3	13.7	FJH
213.4	11.3	KPG	237.4	11.9	CMG	211.3	8.6	CMG	220.5	13.8	CMG
213.4	11.9	FJH	237.4	12.2	BMU	213.4	8.2	KPG	231.4	13.8	FJH
214.4	11.9	CMG	249.4	12.0	BMU	213.4	8.7	FJH	237.4	14.4	CMG
217.4	11.0	BMU	-----			215.4	8.3	BMU	-----		
219.3	11.0	CMG	181031	TV Her		216.3	8.4	CMG	182224	SV Her	
222.5	10.6	BMU	type Mira			223.4	8.1	BMU	type Mira		
228.4	9.8	FJH				224.4	8.0	FJH			
231.4	9.6	DKE	173.4	11.7	FJH	231.4	7.9	BMU	173.4	9.9	FJH
231.4	9.7	BMU	177.4	11.9	BMU	238.4	8.1	BMU	180.4	10.2	FJH
236.3	9.1	KPG	180.4	11.7	FJH	250.3	8.2	HOL	191.4	10.3	FJH
237.4	9.2	BMU	191.4	10.5	DKE	250.4	8.3	BMU	204.4	10.8	FJH
237.4	9.5	CMG	191.4	10.8	FJH	251.3	8.3	CMG	210.4	11.2	CMG
249.4	8.5	BMU	191.5	10.5	HOL	260.3	8.4	DKE	213.4	11.0	KPG

215.3	11.0	FJH	222.4	13.8	FJH	185131	SX Lyr				
215.3	11.4	CMG	237.3	14.3	FJH	type Mira					
220.5	11.6	CMG	237.4	14.1	CMG	176.5	14.0	FJH			
223.4	11.7	FJH	-----			191.4	14.1	FJH			
231.3	12.5	FJH	183308	X Oph	170.4	6.1	BMU	211.4	14.6	FJH	
236.3	12.6	KPG	type Mira		175.4	6.5	BMU	217.5	14.8	FJH	
242.3	13.1	FJH	180.5	8.9	BMU	181.4	6.8	BMU	-----		
252.3	13.5	FJH	210.3	9.1	CMG	191.4	7.1	BMU	185132	FF Lyr	
-----			214.4	8.6	CMG	195.4	7.1	BMU	type Mira		
182306	T Ser		220.5	9.0	CMG	203.4	6.4	DKE	181.4	14.2	FJH
type Mira			-----			203.4	6.6	BMU	191.4	14.4	FJH
175.5	12.6	FJH	183922	AE Her	208.4	6.5	BMU	-----			
208.3	11.5	FJH	type Mira		210.5	6.8	CMG	185634	Z Lyr		
208.4	11.2	CMG	174.4	12.6	FJH	213.4	6.7	CMG	type Mira		
214.3	10.3	CMG	191.4	13.4	FJH	216.5	6.5	BMU	176.5	14.2	FJH
217.4	10.3	KPG	208.3	13.9	FJH	217.3	6.7	CMG	191.4	13.1	FJH
219.3	10.4	CMG	215.4	14.4	FJH	222.4	5.8	DKE	209.4	12.5	FJH
219.3	11.1	FJH	222.4	14.4	FJH	222.4	6.0	BMU	211.3	11.7	CMG
236.3	11.1	FJH	237.3	14.4	FJH	231.3	5.5	BMU	216.3	11.6	CMG
-----			-----			231.4	5.4	DKE	217.5	12.1	FJH
183138	LL Lyr		184134	RY Lyr	236.3	5.2	BMU	223.5	11.4	FJH	
type UG			type Mira		237.4	5.4	DKE	234.4	10.8	FJH	
208.43	13.0	FJH	175.5	12.1	FJH	248.4	5.3	BMU	251.3	10.4	CMG
209.38	12.6	FJH	197.4	10.2	HOL	248.4	5.4	DKE	252.3	10.6	FJH
210.40	12.9	FJH	203.4	10.1	FJH	249.4	5.8	CMG	-----		
211.34	13.4	FJH	206.5	10.0	BMU	260.3	5.1	DKE	185737	RT Lyr	
212.47	13.1	FJH	206.5	10.1	DKE	260.3	5.2	BMU	type Mira		
213.42	13.4	FJH	211.3	9.6	CMG	-----			176.5	11.4	FJH
214.44	13.4	FJH	213.5	9.7	KPG	184243	RW Lyr	203.4	10.5	FJH	
215.48	13.4	FJH	215.4	9.6	BMU	type Mira		216.3	11.3	CMG	
216.48	14.0	FJH	216.3	9.8	CMG	180.4	16.2	FJH	217.5	10.6	FJH
217.46	14.7	FJH	216.5	9.4	FJH	-----		223.5	11.2	FJH	
218.43	15.5	FJH	223.4	9.2	BMU	184826	CY Lyr	223.5	11.8	FJH	
-----			228.4	9.4	FJH	type UGSS		234.4	11.8	FJH	
183149A	SV Dra		231.4	9.5	BMU	174.43	13.3	FJH	251.3	12.5	CMG
type Mira			236.3	9.5	KPG	175.42	13.0	FJH	252.3	12.4	FJH
173.4	11.7	FJH	238.4	9.7	BMU	176.42	13.2	FJH	-----		
211.4	13.7	CMG	250.4	10.0	BMU	179.42	13.2	FJH	185947	WZ Lyr	
211.5	13.5	FJH	251.3	10.0	CMG	180.40	13.3	FJH	type Mira		
214.4	14.0	CMG	251.3	10.0	HOL	181.42	13.9	FJH	175.4	13.8	FJH
219.5	14.1	FJH	254.3	10.1	FJH	210.40	14.4	FJH	212.5	14.4	FJH
220.5	14.2	CMG	-----			211.49	13.3	FJH	217.5	14.4	FJH
226.5	14.3	FJH	184137	AY Lyr	212.48	13.3	FJH	226.5	14.7	FJH	
236.4	14.5	FJH	type UGSU		213.37	13.9	FJH	237.3	14.8	FJH	
-----			179.42	13.7	FJH	222.36	13.2	FJH	-----		
183225	RZ Her		180.43	15.8	FJH	223.39	13.3	FJH	190108	R Aql	
type Mira			212.47	<15.5	FJH	224.44	13.8	FJH	type Mira		
173.4	11.9	FJH	213.42	<15.5	FJH	236.32	13.2	FJH	146.4	8.2	DKE
180.4	12.1	FJH	217.46	<15.5	FJH	237.34	13.1	FJH	174.5	9.4	BMU
191.4	12.6	FJH	218.43	13.4	FJH	-----			182.4	9.3	BMU
208.3	12.9	FJH	219.46	13.7	FJH	185032	RX Lyr	191.5	9.7	BMU	
215.3	13.4	CMG	220.43	15.9	FJH	type Mira		206.5	10.4	BMU	
215.3	13.7	FJH	237.34	<15.5	FJH	179.5	15.0	FJH	-----		

210.3	10.0	CMG	-----	195.45	13.8	BMU	171.5	10.0	FJH		
215.3	10.3	CMG	190643	ST Lyr	197.52	13.7	BMU	182.4	10.5	FJH	
216.5	10.5	BMU	type	Mira	197.52	13.8	DKE	208.4	11.3	FJH	
223.5	10.7	BMU			211.33	14.3	CMG	208.5	11.7	CMG	
252.4	10.4	BMU	179.5	14.3	FJH	211.40	14.1	FJH	214.3	11.4	FJH
252.4	10.7	CMG	211.3	12.5	CMG	213.37	14.3	CMG	214.4	11.8	CMG
-----			213.4	12.2	FJH	213.37	14.3	FJH	219.3	11.7	FJH
190333	AB Lyr		216.3	12.6	CMG	216.33	14.0	CMG	220.5	11.8	CMG
type	Mira		223.5	12.1	FJH	216.37	14.0	FJH	231.4	12.3	FJH
			251.3	11.5	CMG	217.34	14.1	CMG	237.4	12.4	CMG
172.5	10.4	FJH	252.3	12.1	FJH	218.33	14.0	CMG	252.3	12.8	FJH
179.5	10.4	FJH	-----			219.33	14.0	CMG	-----		
203.4	10.8	FJH	190801	N93 Aql	219.34	14.0	FJH	1910-07	W Aql		
214.4	10.8	FJH	type	N	220.50	14.1	CMG	type	Mira		
219.5	11.2	FJH			222.37	13.9	FJH				
226.5	11.8	FJH	130.46	7.4	DKE	248.4	12.7	BMU	210.3	11.5	CMG
234.4	12.4	FJH	131.44	7.4	DKE	248.4	12.8	DKE	215.3	11.5	CMG
252.3	14.2	FJH	138.45	8.0	DKE	249.3	13.0	CMG	-----		
-----			142.45	8.5	DKE	249.4	12.6	DKE	1910-17	T Sgr	
190443	MV Lyr		144.45	8.6	DKE	249.4	12.8	BMU	type	Mira	
type	NL		144.46	8.8	DKE	250.4	12.8	BMU			
			146.45	9.0	DKE	252.3	12.6	DKE	218.3	10.8	CMG
170.45	12.7	FJH	147.44	9.3	DKE	252.3	12.7	BMU	218.3	10.8	FJH
211.33	12.3	CMG	148.43	9.3	DKE	-----			-----		
211.35	12.6	FJH	150.44	9.4	DKE	190933A	RS Lyr		1910-33	RY Sgr	
216.33	12.3	CMG	159.44	9.8	DKE	type	Mira		type	RCB	
223.48	12.6	FJH	161.45	9.9	DKE						
228.52	12.6	FJH	167.44	11.0	DKE	180.4	15.1	FJH	211.4	13.2	FJH
251.32	12.5	CMG	168.45	11.4	DKE	191.4	15.1	FJH	216.3	13.2	FJH
252.35	12.6	FJH	170.43	12.1	BMU	211.4	14.3	FJH	218.3	13.6	FJH
-----			170.44	12.0	DKE	216.3	14.3	CMG	218.3	14.0	CMG
190527	TY Lyr		170.46	11.8	FJH	216.5	13.9	FJH	219.3	13.7	FJH
type	Mira		171.43	11.8	CMG	223.5	13.7	FJH	219.3	13.8	CMG
			171.44	12.1	DKE	234.4	13.3	FJH	-----		
179.5	14.1	FJH	171.44	12.2	BMU	251.3	12.1	CMG	191046	SS Lyr	
191.4	14.8	FJH	171.47	11.6	FJH	252.3	12.7	FJH	type	Mira	
211.4	:15.2	FJH	174.43	12.1	FJH	-----					
237.3	<15.0	FJH	174.46	12.4	BMU	190941	RU Lyr		179.5	14.8	FJH
-----			175.43	12.3	DKE	type	Mira		211.3	14.6	CMG
190529A	V Lyr		175.43	12.4	BMU				211.4	14.9	FJH
type	Mira		175.48	12.3	FJH	176.5	11.6	FJH	216.3	14.6	CMG
			176.43	12.3	DKE	194.4	11.4	FJH	217.5	14.6	FJH
180.5	15.5	FJH	176.43	12.4	BMU	203.4	11.4	FJH	226.5	14.7	FJH
211.4	<15.1	FJH	177.41	12.2	CMG	211.3	10.9	CMG	237.3	14.1	FJH
-----			177.43	12.4	BMU	213.4	11.7	FJH	251.3	13.9	CMG
190529B	VZ Lyr		179.42	12.5	FJH	213.5	10.9	KPG	252.4	14.2	FJH
type	Mira		179.43	12.8	BMU	216.3	11.0	CMG	-----		
			179.44	12.5	DKE	217.5	11.7	FJH	191349	TZ Cyg	
179.5	12.5	FJH	180.42	12.6	CMG	223.5	11.6	FJH	type	LB	
191.4	13.4	FJH	180.44	13.0	BMU	234.4	11.8	FJH			
211.4	14.3	FJH	180.45	12.5	DKE	236.3	11.2	KPG	174.5	10.9	BMU
-----			181.43	12.8	CMG	251.3	11.8	CMG	-----		
190627A	UV Lyr		181.45	12.6	DKE	252.3	12.2	FJH	191517	W Sge	
type	Mira		181.45	12.9	BMU	-----			type	Mira	
			186.46	12.8	FJH	190967	U Dra				
211.3	13.3	CMG	191.43	14.0	FJH	type	Mira		197.4	10.6	HOL
216.3	13.6	CMG	195.44	13.6	DKE				211.6	11.6	CMG

215.3 11.7 CMG
252.4 13.5 CMG

191637 U Lyr
type Mira

176.5 12.9 FJH
211.3 11.8 CMG
212.5 12.8 FJH
216.3 12.2 CMG
223.5 12.7 FJH
234.4 12.7 FJH
251.3 11.8 CMG
252.3 12.7 FJH

191831 AN Lyr
type Mira

179.5 :15.2 FJH
191.4 15.4 FJH
211.4 15.5 FJH
216.5 15.4 FJH
224.5 14.8 FJH
252.3 13.4 FJH

192150 CH Cyg
type Z And

174.5 8.5 BMU
181.4 8.5 BMU
191.5 8.2 BMU
203.5 8.2 BMU
210.5 8.2 BMU
211.5 8.2 CMG
216.4 8.2 CMG
217.5 8.1 BMU
224.5 8.3 BMU
237.4 8.4 BMU
249.4 8.5 BMU
252.5 8.2 CMG
260.3 8.6 BMU

192201 TU Aql
type Mira

176.5 9.3 FJH
177.4 8.9 BMU
195.4 9.5 BMU
206.5 9.7 BMU
210.3 10.5 CMG
212.4 11.4 FJH
215.3 11.0 CMG
220.4 12.0 FJH
252.4 13.4 CMG

192928 TY Cyg
type Mira

175.4 14.2 FJH
211.4 12.5 CMG
211.4 13.3 FJH
216.4 12.8 CMG
220.4 12.6 FJH
226.5 12.4 FJH
252.4 11.5 CMG
254.3 11.6 FJH

193311 RT Aql
type Mira

175.5 10.9 FJH
186.5 9.7 FJH
209.5 8.4 CMG
212.4 8.4 FJH
215.3 8.5 CMG
236.4 9.3 KPG
237.3 9.2 CMG
242.3 9.3 FJH
252.4 10.1 CMG

193428 BG Cyg
type Mira

211.4 10.5 CMG
216.4 10.5 CMG
252.4 10.4 CMG

193449 R Cyg
type Mira

175.4 14.3 FJH
194.4 14.1 FJH
210.5 13.3 BMU
211.4 13.5 CMG
211.4 13.6 FJH
216.4 13.3 CMG
216.5 13.2 FJH
217.5 13.0 BMU
224.5 12.5 BMU
225.5 12.6 FJH
236.4 12.2 FJH
236.5 12.6 HOL
237.4 12.1 BMU
249.4 11.8 BMU
252.4 11.6 CMG
254.3 11.7 FJH
254.4 11.8 HOL
260.3 11.2 BMU

193509 RV Aql
type Mira

175.5 9.7 FJH
186.5 9.5 FJH

210.3 9.6 CMG
212.4 9.5 FJH

215.3 10.2 CMG
217.4 10.2 KPG
225.5 11.0 FJH
236.4 10.8 KPG
237.4 11.1 FJH
252.4 11.8 CMG
259.3 12.1 FJH

193954 V369 Cyg
type Mira

211.4 11.3 CMG
216.4 11.0 CMG
252.4 11.3 CMG

194027 YZ Vul
type Mira

180.5 :15.4 FJH
216.5 14.5 FJH
226.5 14.5 FJH
236.4 14.0 FJH
259.3 12.0 FJH

194048 RT Cyg
type Mira

171.4 7.3 FJH
175.4 7.7 BMU
181.4 7.9 BMU
191.5 8.4 BMU
197.4 8.6 HOL
203.5 8.9 BMU
210.5 9.7 BMU
211.4 9.5 CMG
213.5 9.6 KPG
216.4 9.7 CMG

194311 RY Aql
type Mira

171.4 7.3 FJH
175.4 7.7 BMU
181.4 7.9 BMU
191.5 8.4 BMU
197.4 8.6 HOL
203.5 8.9 BMU
210.5 9.7 BMU
211.4 9.5 CMG
213.5 9.6 KPG
216.4 9.7 CMG
217.5 10.1 BMU
224.5 10.7 BMU
226.5 10.7 FJH
236.4 11.5 FJH
236.5 11.8 HOL
237.4 11.1 BMU
249.4 11.4 BMU
252.4 11.2 CMG
254.3 11.7 FJH
254.4 11.4 HOL
260.3 11.1 BMU

194311 RY Aql
type Mira

210.3 10.5 CMG
215.3 10.8 CMG

194348 TU Cyg
type Mira

174.5 9.8 BMU
181.4 10.2 BMU
182.4 10.1 FJH
191.5 10.8 BMU
197.4 11.1 HOL
203.5 11.3 BMU
210.5 11.8 BMU
211.4 11.6 CMG
212.3 12.0 FJH
213.5 11.9 KPG
216.4 12.0 CMG
217.5 12.1 BMU
219.3 12.4 FJH
224.5 12.9 BMU
226.5 12.9 FJH
236.4 13.3 FJH
237.4 13.4 BMU
252.4 14.0 CMG

194604 X Aql
type Mira

176.5 13.0 FJH
181.4 13.1 FJH
191.4 13.2 FJH
208.4 13.7 FJH
210.3 14.0 CMG
215.3 13.4 CMG
215.5 14.0 FJH
224.4 14.1 FJH
236.3 14.1 FJH
237.4 14.5 CMG
242.3 14.4 FJH

194632 Chi Cyg
type Mira

170.4 8.4 FJH
170.5 8.5 HOL
172.4 8.2 BMU
180.4 8.5 BMU
191.4 9.1 BMU
197.4 9.0 DKE
197.4 9.3 HOL
197.4 9.6 BMU
206.4 9.9 BMU
211.4 10.0 CMG
213.4 10.3 BMU
213.5 10.2 KPG
216.4 9.8 CMG
222.4 10.6 BMU
224.5 11.0 FJH
231.4 10.8 BMU
236.3 11.0 KPG

236.4 11.0 FJH
237.3 11.2 BMU
248.4 11.6 BMU
251.3 11.5 HOL
252.4 11.6 CMG
254.3 12.3 FJH

1952-02 RR Aql
type Mira

210.3 11.0 CMG
215.3 9.4 CMG

1953-08 RS Aql
type Mira

215.3 :14.5 CMG

195533 V482 Cyg
type RCB

172.4 10.9 BMU
177.5 10.9 BMU
191.4 11.1 BMU
197.4 11.0 BMU
203.4 11.0 BMU
206.4 10.9 BMU
213.4 11.0 BMU
216.4 11.1 CMG
217.5 11.0 BMU
220.3 11.1 CMG
222.4 11.0 BMU
228.4 11.0 BMU
228.5 11.2 FJH
231.4 10.9 BMU
237.3 10.9 BMU
248.4 11.0 BMU
252.3 11.0 BMU
252.4 11.1 CMG
259.3 10.9 BMU

195551 CM Cyg
type Mira

182.4 9.9 FJH
211.4 11.4 CMG
212.3 11.2 FJH
216.4 11.7 CMG
226.5 12.0 FJH
237.5 12.6 FJH
252.4 13.7 CMG
259.3 13.1 FJH

195818 TX Sge
type Mira

212.4 13.1 FJH

219.4 13.1 FJH
234.4 13.0 FJH

195849 Z Cyg
type Mira

169.5 10.9 HOL
176.4 11.2 BMU
197.4 11.4 BMU
197.4 12.2 HOL
211.4 12.6 CMG
213.4 12.2 BMU
216.4 12.7 CMG
228.4 12.8 BMU
236.5 12.9 HOL
249.5 12.9 HOL
252.4 13.1 CMG
259.3 13.1 FJH

200212 SY Aql
type Mira

210.3 13.7 CMG
252.4 14.2 CMG

200250 BU Cyg
type Mira

211.4 11.8 CMG
216.4 11.8 CMG
252.5 12.2 CMG

200357 S Cyg
type Mira

180.4 16.0 FJH
212.3 15.6 FJH
223.4 14.7 FJH
236.5 13.9 FJH
252.4 13.0 CMG
259.3 12.7 FJH

200706 TV Aql
type Mira

186.5 12.0 FJH
212.3 14.0 CMG
212.4 13.8 FJH
217.3 14.0 CMG
220.4 14.0 FJH

200715A S Aql
type SRA

200.5 11.7 BMU
208.4 11.9 BMU
210.3 11.7 CMG

215.3 11.9 CMG
216.5 11.8 BMU
216.5 12.5 FJH
223.5 11.8 BMU
252.4 10.7 CMG

200720 FG Sge
type uniek

175.4 12.1 FJH
179.4 12.0 FJH
194.4 12.0 FJH
206.4 11.6 FJH
212.4 11.6 FJH
216.5 11.4 FJH
219.4 11.4 FJH
224.5 11.4 FJH
234.4 11.6 FJH
241.4 11.6 FJH
252.4 11.6 FJH
259.3 11.6 FJH

200720A ST Sge
type Mira

175.4 12.1 FJH
181.4 12.6 FJH
212.4 14.2 FJH
219.4 14.0 FJH

200812 RU Aql
type Mira

179.5 14.2 FJH
191.4 14.7 FJH
210.3 14.4 CMG
210.3 14.8 FJH
215.3 14.5 CMG
215.5 14.7 FJH
225.5 14.6 FJH
236.3 14.6 FJH
252.4 13.4 CMG

2009-06 Z Aql
type Mira

210.3 10.1 CMG
215.3 10.0 CMG

200916 R Sge
type RVb

200.5 9.3 BMU
208.4 9.4 BMU
210.3 9.2 CMG
216.5 9.1 BMU
223.5 9.2 BMU

201008 R Del
type Mira

176.4 12.1 FJH
208.4 10.0 BMU
210.4 9.8 FJH
215.3 9.9 CMG
217.4 9.0 KPG
217.4 9.3 BMU
218.4 9.0 FJH
236.4 8.0 KPG
237.3 8.2 CMG
237.4 8.2 BMU
237.5 8.4 FJH
250.4 8.1 BMU
252.3 8.3 CMG

201130 SX Cyg
type Mira

175.4 13.6 FJH
194.5 14.1 FJH
211.4 14.4 FJH
211.4 14.5 CMG
216.4 14.1 CMG
222.5 14.7 FJH
242.3 14.7 FJH
252.4 14.8 CMG

201434 AU Cyg
type Mira

211.4 12.4 CMG
216.4 11.9 CMG
252.5 11.6 CMG

201437B WX Cyg
type Mira

211.4 12.8 CMG
216.4 13.1 CMG
252.4 13.0 CMG

201559 CN Cyg
type Mira

182.4 10.2 FJH
211.4 12.5 CMG
212.3 12.6 FJH
216.4 12.8 CMG
218.3 13.0 CMG
218.4 13.3 FJH
226.5 13.3 FJH
237.5 13.5 FJH
252.5 13.9 CMG
259.4 14.3 FJH

201621 PU Vul
type NL

171.4 11.4 BMU
177.5 11.4 BMU
182.4 11.5 BMU
191.5 11.3 DKE
191.5 11.5 BMU
200.4 11.5 BMU
208.4 11.3 BMU
217.4 11.4 BMU
228.4 11.4 BMU
237.3 11.3 BMU
250.4 11.4 BMU
259.3 11.4 FJH
260.3 11.4 BMU

201647 U Cyg
type Mira

170.5 7.9 HOL
171.4 8.0 FJH
176.4 7.8 BMU
197.4 7.8 BMU
197.4 7.8 DKE
197.4 7.9 HOL
211.4 8.0 CMG
213.4 7.8 BMU
216.4 7.8 CMG
228.4 7.9 BMU
249.5 8.5 HOL
252.4 8.0 CMG
259.3 8.5 FJH

202343 V503 Cyg
type UGSS

175.48 13.9 FJH
176.45 14.0 FJH
179.46 13.8 FJH
180.41 14.5 FJH
228.52 14.8 FJH

202509 RY Del
type Mira

180.5 :16.0 FJH
211.4 <15.4 FJH
216.4 15.5 FJH
236.4 14.6 FJH

202512 RX Del
type Mira

176.4 11.0 FJH
206.4 12.9 FJH

218.4 13.9 FJH
236.4 14.6 FJH

202752 1974 Cyg
type N

119.40 11.5 DKE
124.43 11.4 DKE
170.43 12.3 BMU
171.42 12.3 BMU
171.46 12.1 FJH
173.42 12.3 BMU
174.47 12.3 BMU
175.42 12.3 BMU
176.42 12.3 BMU
177.42 12.4 BMU
177.50 12.2 HOL
179.42 12.3 DKE
179.42 12.4 BMU
179.45 12.1 FJH
180.41 12.3 BMU
181.42 12.4 BMU
182.42 12.4 BMU
191.43 12.4 BMU
195.40 12.4 BMU
197.43 12.5 BMU
197.50 12.7 HOL
200.40 12.5 BMU
203.4 12.4 BMU
204.41 12.6 FJH
206.39 12.2 SAQ
206.4 12.5 BMU
208.4 12.4 BMU
210.4 12.4 BMU
212.33 12.6 CMG
212.34 12.7 FJH
213.4 12.5 BMU
215.4 12.6 BMU
216.4 12.6 BMU
216.46 12.6 CMG
216.53 12.6 FJH
217.5 12.6 BMU
219.33 12.8 CMG
219.34 12.7 FJH
222.5 12.7 BMU
223.5 12.7 BMU
224.37 12.2 SAQ
227.5 12.7 BMU
228.4 12.7 BMU
228.53 12.6 FJH
236.49 12.5 FJH
237.3 12.7 BMU
248.4 12.8 BMU
249.48 12.6 HOL
254.5 12.7 BMU
259.37 12.7 FJH
260.4 12.6 BMU

202817 Z Del
type Mira

179.5 14.7 FJH
186.5 14.7 FJH
211.4 <15.0 FJH
222.5 15.2 FJH
237.3 14.2 CMG
242.3 13.9 FJH
252.4 12.9 FJH

202918 AG Del
type Mira

181.4 13.1 FJH
218.4 12.0 FJH
236.4 12.6 FJH
254.3 13.5 FJH

202954 ST Cyg
type Mira

177.4 10.4 BMU
197.4 10.7 BMU
206.4 10.9 BMU
213.4 11.1 BMU
216.4 11.4 CMG
222.5 11.4 BMU
252.5 12.9 CMG

202962 BF Cep
type Mira

176.4 14.0 FJH
212.3 13.9 FJH
218.4 14.0 FJH
226.5 13.9 FJH
237.5 13.7 FJH
259.4 13.0 FJH

203513 SS Del
type Mira

176.4 11.7 FJH
194.4 13.5 FJH
210.4 14.3 FJH
218.4 14.7 FJH
225.5 15.0 FJH

203537 FF Cyg
type Mira

211.5 14.4 CMG
216.4 14.2 CMG
252.5 12.3 CMG

203611 Y Del
type Mira

180.5 15.0 FJH
194.4 15.1 FJH
211.4 <15.2 FJH
216.4 :15.4 FJH
222.5 15.6 FJH
242.3 14.8 FJH
252.3 13.4 CMG

203718 HR Del
type Nb

254.33 12.0 FJH

203816 S Del
type Mira

176.4 11.2 FJH
177.5 10.9 BMU
195.5 11.4 BMU
206.4 11.8 FJH
208.4 11.6 BMU
210.4 12.1 CMG
215.3 12.1 CMG
217.4 11.7 BMU
217.4 11.7 KPG
218.4 11.9 FJH
223.5 11.9 FJH
234.4 11.9 FJH
236.4 11.6 KPG
237.3 12.2 CMG
237.4 11.9 BMU
250.4 11.9 BMU
252.3 11.7 CMG
252.4 11.7 FJH

203847 V Cyg
type Mira

170.4 10.6 FJH
176.5 10.6 BMU
182.4 11.4 FJH
194.4 11.9 FJH
197.4 11.2 BMU
211.4 12.0 CMG
213.4 11.7 BMU
213.4 12.1 FJH
216.4 11.7 CMG
220.4 12.0 FJH
226.5 12.2 FJH
228.4 12.2 BMU
236.4 12.5 FJH
252.4 12.4 CMG
259.3 12.8 FJH

2039-05 Y Aqr
type Mira

180.5 9.2 FJH
197.5 9.0 BMU
197.5 9.0 DKE
206.5 9.5 BMU
206.5 9.6 DKE
211.4 9.9 FJH
211.6 9.8 CMG
216.5 9.8 CMG
216.5 9.9 BMU
220.4 10.4 FJH
223.5 10.3 BMU

203918 ES Del
type Mira

194.4 13.2 FJH
210.4 13.8 FJH
218.4 13.3 FJH
242.3 12.1 FJH
254.3 10.4 FJH

203937 DR Cyg
type Mira

211.5 13.2 CMG
216.4 13.0 CMG
252.5 14.4 CMG

204016 T Del
type Mira

179.5 14.7 FJH
186.5 14.2 FJH
206.4 12.8 FJH
210.4 13.1 CMG
213.4 12.2 FJH
213.5 12.6 KPG
215.3 12.7 CMG
217.4 12.3 BMU
218.4 12.3 FJH
223.5 12.2 FJH
234.4 11.6 FJH
236.4 11.0 KPG
237.3 11.3 CMG
237.4 11.0 BMU
250.4 10.5 BMU
251.4 10.8 HOL
252.3 10.3 CMG
252.4 10.3 FJH

2041-04 W Aqr
type Mira

180.5 13.5 FJH
197.5 13.8 BMU
211.4 13.9 FJH
211.6 13.9 CMG
216.5 13.8 CMG
217.4 14.6 BMU
219.4 14.6 FJH

204318 V Del
type Mira

180.5 <15.4 FJH
222.5 15.5 FJH
242.3 :15.4 FJH

204341 V516 Cyg
type UGSS

171.46 13.6 FJH
173.45 14.1 FJH
213.4 14.1 FJH
214.3 13.8 FJH
215.4 14.0 FJH
216.4 14.1 FJH
217.4 15.0 FJH
236.36 13.8 FJH
237.36 13.7 FJH

2044-05 T Aqr
type Mira

180.5 8.0 FJH
197.5 7.6 DKE
197.5 7.7 BMU
206.5 7.5 DKE
206.5 7.7 BMU
211.4 8.0 FJH
211.6 7.9 CMG
216.5 7.9 BMU
216.5 8.0 CMG
220.4 8.0 FJH
223.5 8.2 BMU
237.4 9.0 DKE
237.4 9.1 BMU

204846 RZ Cyg
type Mira

211.5 12.5 CMG
216.4 13.1 CMG
252.5 12.4 CMG

205017 X Del
type Mira

177.5 9.9 BMU
177.5 9.9 HOL

195.5 10.9 BMU
197.5 :11.0 HOL
206.4 11.6 FJH
208.4 11.8 BMU
210.4 12.3 CMG
213.5 12.1 KPG
215.3 12.6 CMG
217.4 12.4 BMU
219.3 12.5 FJH
225.5 12.8 FJH
234.4 13.3 FJH
237.3 13.4 CMG
237.4 13.3 BMU
252.3 14.1 CMG
252.4 13.7 FJH

205923A R Vul
type Mira

170.5 9.1 HOL
197.5 11.7 HOL
220.5 12.8 CMG
249.5 9.0 HOL
252.3 9.0 CMG

210129 TW Cyg
type Mira

211.4 13.7 CMG
216.4 13.7 CMG

210382 X Cep
type Mira

180.5 14.8 FJH
210.4 11.5 CMG
210.4 11.8 FJH
215.5 10.1 CMG
220.4 10.1 FJH
228.4 9.8 FJH
237.5 9.8 FJH
251.3 9.6 CMG
259.3 10.0 FJH

210405 RR Equ
type Mira

181.4 13.7 FJH
194.4 14.2 FJH
210.4 14.4 FJH
212.3 14.6 CMG
216.4 14.7 FJH
216.5 14.6 CMG
226.5 14.9 FJH
242.3 :15.3 FJH

2105-04 RS Aqr

type Mira

213.4 13.1 FJH
213.4 13.3 CMG
219.4 13.2 FJH

210587 X UMi
type Mira

209.5 13.7 CMG
214.3 13.9 CMG
216.4 14.1 BMU
220.3 14.2 CMG
223.5 14.3 BMU

210612 AN Peg
type Mira

176.4 12.9 FJH
206.4 12.0 FJH
215.4 12.0 CMG
217.4 11.9 FJH
223.5 11.8 FJH
236.3 11.6 FJH
252.3 11.1 CMG
252.4 11.5 FJH

210812 R Equ
type Mira

176.4 9.7 FJH
206.4 10.8 FJH
208.5 10.7 CMG
214.3 11.4 FJH
215.5 11.0 CMG
217.4 11.0 KPG
219.4 11.2 CMG
223.5 11.8 FJH
236.3 12.6 FJH
236.4 12.5 KPG
237.3 12.6 CMG
252.3 13.4 CMG
252.4 13.2 FJH

210818 AS Peg
type Mira

180.5 :15.5 FJH
211.4 14.8 FJH
216.4 14.4 FJH
224.5 14.0 FJH
236.3 12.4 FJH
254.3 10.5 FJH

-----	223.5	10.8	FJH	173.44	11.7	FJH	215.39	10.5	FJH
210836 DU Cyg	236.3	11.3	FJH	174.45	11.8	BMU	215.42	10.6	CMG
type Mira	252.4	12.3	FJH	175.42	12.0	BMU	215.43	10.8	BMU
	-----			175.47	11.8	FJH	216.33	10.2	CMG
211.5 12.3 CMG	212610 UU Peg			176.44	10.8	BMU	216.33	10.2	FJH
216.4 12.3 CMG	type Mira			176.45	10.5	DKE	216.42	10.1	BMU
252.5 11.5 CMG				176.48	10.7	FJH	217.34	9.5	CMG
-----	179.4	13.9	FJH	177.41	10.6	CMG	217.36	9.5	FJH
210868 T Cep	186.5	13.5	FJH	177.42	10.7	BMU	217.44	9.4	BMU
type Mira	210.4	10.7	FJH	177.51	10.4	HOL	218.33	9.3	CMG
	216.4	9.9	FJH	179.39	10.7	CMG	218.33	8.8	FJH
170.5 11.0 HOL	218.3	10.0	CMG	179.42	10.7	BMU	218.43	8.8	BMU
179.5 10.2 BMU	223.5	9.9	FJH	179.42	10.3	DKE	219.33	8.4	CMG
180.5 10.3 FJH	236.3	9.9	FJH	179.44	10.6	FJH	219.33	8.3	FJH
197.5 9.6 BMU	252.3	9.4	CMG	179.50	10.9	HOL	219.42	8.3	BMU
197.5 9.8 DKE	252.4	10.2	FJH	180.41	10.4	DKE	219.42	8.3	DKE
208.4 9.2 BMU	-----			180.41	10.9	BMU	220.32	8.4	CMG
210.4 9.4 CMG	213678 S Cep			180.42	10.9	CMG	220.36	8.2	FJH
215.5 9.4 CMG	type Mira			180.48	10.9	FJH	221.42	8.2	BMU
217.4 8.9 BMU				180.54	11.2	HOL	222.36	8.1	FJH
228.4 8.7 BMU	170.5 7.9 BMU			181.42	11.5	CMG	222.41	8.2	BMU
228.4 8.7 FJH	170.5 7.9 HOL			181.42	11.0	BMU	222.41	8.0	DKE
237.4 8.7 BMU	171.4 8.3 FJH			181.43	10.5	DKE	223.41	8.1	BMU
237.5 8.4 FJH	179.5 8.1 BMU			182.40	11.5	BMU	223.41	8.3	FJH
251.3 8.5 CMG	197.4 8.2 BMU			182.41	11.6	FJH	224.34	8.2	BMU
252.3 8.2 BMU	208.4 8.4 BMU			182.45	10.8	DKE	224.49	8.2	FJH
-----	210.4 8.8 CMG			182.46	11.8	HOL	225.55	8.1	FJH
2109-03 RR Aqr	215.5 8.7 CMG			191.42	11.9	BMU	226.57	8.3	FJH
type Mira	217.4 8.6 BMU			191.43	11.9	DKE	227.37	8.4	CMG
	228.4 8.7 BMU			191.47	12.2	FJH	227.37	8.3	BMU
213.4 10.5 CMG	228.4 8.9 FJH			194.41	12.1	FJH	228.38	8.4	FJH
213.4 10.5 FJH	237.4 8.9 BMU			195.40	11.8	BMU	228.39	8.4	BMU
217.4 10.2 BMU	237.5 9.3 FJH			197.40	11.8	CMG	229.32	8.6	BMU
219.4 10.5 FJH	249.5 8.9 HOL			197.42	12.0	BMU	231.35	9.3	FJH
-----	251.3 9.2 CMG			197.42	12.1	DKE	231.35	9.4	BMU
211614 X Peg	252.3 9.1 BMU			197.49	12.1	HOL	232.32	10.1	BMU
type Mira	259.3 9.5 FJH			199.45	11.9	CMG	236.36	11.1	FJH
	-----			200.39	11.9	BMU	236.54	11.7	HOL
179.4 13.6 FJH	213753 RU Cyg			203.41	12.0	BMU	237.33	11.2	BMU
186.5 13.9 FJH	type SR			203.41	11.9	DKE	237.37	11.5	FJH
210.4 13.5 FJH				203.42	11.8	FJH	237.43	11.7	CMG
210.5 13.5 CMG	251.4 8.8 HOL			204.40	12.1	FJH	238.36	11.5	BMU
215.4 12.9 CMG	-----			205.48	11.8	FJH	241.49	11.7	FJH
217.4 12.4 KPG	213843 SS Cyg			206.41	11.9	BMU	242.36	11.6	BMU
217.4 12.7 FJH	type UGSS			206.43	11.7	FJH	242.50	11.7	FJH
223.5 12.0 FJH				208.35	11.8	FJH	248.28	11.9	CMG
236.4 10.0 KPG	170.42 10.8 BMU			208.39	11.5	BMU	248.38	11.7	BMU
237.4 10.6 FJH	170.45 11.1 FJH			210.38	11.8	FJH	249.34	11.7	CMG
252.3 9.6 CMG	170.53 11.3 HOL			210.41	11.8	BMU	249.37	11.9	BMU
-----	171.42 11.1 BMU			211.38	11.8	FJH	249.45	11.7	HOL
212216 TV Peg	171.42 11.5 CMG			211.49	11.9	CMG	250.32	11.8	CMG
type Mira	171.46 11.3 FJH			212.33	11.9	CMG	250.32	11.7	BMU
	171.51 11.7 HOL			212.33	11.8	FJH	250.45	11.7	HOL
175.5 11.4 FJH	172.42 11.4 BMU			213.35	11.9	CMG	251.31	11.8	CMG
206.4 10.9 FJH	172.46 11.6 CMG			213.36	11.7	FJH	251.37	11.8	HOL
217.4 10.8 FJH	172.48 11.5 FJH			213.37	11.5	BMU	251.50	11.7	HOL
218.3 11.1 CMG	173.42 11.7 BMU			214.34	11.7	FJH	252.32	11.8	BMU

252.45 11.6 CMG	252.5 14.9 FJH	252.3 11.8 CMG	216.33 11.6 CMG
254.32 11.8 FJH	-----	252.4 11.9 FJH	216.36 12.0 FJH
254.35 11.9 HOL	2158-28 S PSA	-----	216.47 11.4 BMU
254.43 12.0 BMU	type Mira	220613 Y Peg	217.34 12.1 CMG
259.31 12.0 BMU		type Mira	217.36 12.1 FJH
259.34 11.5 FJH	211.6 10.1 CMG		217.44 11.6 KPG
260.32 12.0 BMU	215.5 10.5 FJH	210.4 14.1 FJH	217.48 11.4 BMU
-----	220.4 10.9 FJH	210.5 14.2 CMG	218.33 12.2 CMG
214012 TU Peg	-----	215.4 13.6 CMG	218.38 12.2 FJH
type Mira	215934 RT Peg	216.4 13.6 FJH	218.47 11.8 BMU
	type Mira	222.4 13.1 FJH	219.33 12.3 CMG
175.4 13.2 FJH		236.3 12.2 FJH	219.34 12.3 FJH
194.4 13.4 FJH	180.5 14.5 FJH	252.3 11.5 CMG	220.37 12.3 FJH
210.3 13.5 FJH	210.5 13.3 CMG	252.4 11.6 FJH	220.45 12.4 CMG
210.5 13.6 CMG	211.4 13.6 FJH	-----	222.37 12.3 FJH
215.4 13.7 CMG	215.4 13.3 CMG	220714 RS Peg	222.47 12.3 BMU
216.4 13.6 FJH	218.5 11.4 BMU	type Mira	223.41 12.3 FJH
223.5 13.6 FJH	219.3 12.5 FJH		224.43 12.4 FJH
237.4 13.5 FJH	237.5 10.8 FJH	180.5 14.6 FJH	225.49 12.4 FJH
252.5 13.5 CMG	252.3 10.0 CMG	191.5 14.8 FJH	226.50 12.4 FJH
254.3 13.3 FJH	259.3 10.6 FJH	210.4 14.6 FJH	228.42 12.5 BMU
-----	-----	210.5 14.4 CMG	228.52 12.4 FJH
214024 RR Peg	220133B RZ Peg	215.4 14.0 CMG	236.33 12.3 FJH
type Mira	type Mira	216.4 14.3 FJH	237.36 12.4 FJH
		222.4 13.8 FJH	237.40 12.4 BMU
179.4 14.7 FJH	210.5 9.3 CMG	236.3 13.4 FJH	242.31 12.4 FJH
194.4 14.9 FJH	212.4 8.8 FJH	252.3 13.1 CMG	249.37 12.4 CMG
210.4 14.9 FJH	215.4 9.3 CMG	252.4 13.4 FJH	249.47 12.6 BMU
216.4 14.3 FJH	218.5 8.8 BMU	-----	252.28 12.5 CMG
216.5 14.6 CMG	219.4 8.7 FJH	220912 RU Peg	252.34 12.4 BMU
222.5 14.0 FJH	226.6 8.8 FJH	type UGSS	252.36 12.7 FJH
252.3 11.3 CMG	237.5 8.9 FJH		-----
252.4 11.7 FJH	252.3 9.4 CMG	170.42 12.3 FJH	2212-30 R PSA
-----	259.3 9.7 FJH	175.45 12.6 FJH	type Mira
214443 WY Cyg	-----	179.45 12.4 FJH	
type Mira	220337 W Lac	180.46 12.4 FJH	215.5 13.4 FJH
	type Mira	186.46 12.4 FJH	218.5 13.2 FJH
175.5 13.0 FJH		191.45 12.4 FJH	-----
194.4 13.4 FJH	211.5 12.2 CMG	194.41 12.3 FJH	222129 RV Peg
211.4 13.7 FJH	219.4 12.1 CMG	204.39 11.7 FJH	type Mira
211.5 13.6 CMG	252.3 10.7 CMG	205.48 11.7 FJH	
216.4 14.0 CMG	-----	206.45 11.5 FJH	176.5 13.5 FJH
219.3 13.8 FJH	220412 T Peg	208.43 11.4 FJH	194.4 13.9 FJH
237.4 14.0 FJH	type Mira	208.46 11.2 BMU	211.4 14.3 FJH
252.5 14.1 CMG		210.33 10.8 CMG	212.3 14.4 CMG
-----	179.5 14.1 FJH	210.35 11.0 FJH	216.4 14.7 FJH
215605 V Peg	191.5 13.4 FJH	210.45 10.8 BMU	222.5 14.7 FJH
type Mira	210.4 12.6 FJH	211.40 11.1 FJH	242.3 15.3 FJH
	210.5 13.0 CMG	212.33 10.9 CMG	-----
180.5 13.8 FJH	216.4 12.5 FJH	212.36 11.0 FJH	222439 S Lac
194.4 14.4 FJH	217.5 12.7 KPG	213.35 11.0 CMG	type Mira
210.3 14.8 FJH	218.5 12.6 BMU	213.36 11.1 FJH	
212.3 14.5 CMG	222.5 12.4 FJH	213.44 11.0 BMU	175.5 12.9 FJH
216.4 15.0 FJH	228.4 12.2 BMU	214.34 11.4 FJH	194.5 13.4 FJH
216.5 14.8 CMG	236.3 12.0 FJH	215.33 11.4 CMG	206.4 13.7 FJH
222.4 15.1 FJH	237.4 12.0 BMU	215.38 11.7 FJH	211.5 13.5 CMG
252.5 14.4 CMG	249.5 11.9 BMU	215.43 11.1 BMU	214.3 13.7 FJH

219.4 13.7 CMG
220.4 13.4 FJH
228.5 13.3 FJH
241.5 13.1 FJH
249.5 12.1 HOL
252.3 12.7 CMG
252.4 12.6 FJH

222924 SS Peg
type Mira

175.5 13.3 FJH
191.5 13.6 FJH
210.4 14.3 FJH
210.5 14.3 CMG
215.4 14.3 CMG
216.4 14.5 FJH
222.4 14.7 FJH
236.3 14.6 FJH
252.4 14.6 FJH

223841 R Lac
type Mira

175.5 13.3 FJH
194.5 13.8 FJH
206.4 14.4 FJH
211.5 14.5 CMG
214.3 14.5 FJH
219.4 14.4 CMG
220.4 14.5 FJH
228.5 14.6 FJH
236.4 14.8 FJH
252.3 14.5 CMG
252.4 14.9 FJH

224517 SX Peg
type Mira

210.5 9.3 CMG
215.4 9.3 CMG
219.4 9.4 FJH

225542 SZ And
type Mira

176.5 14.5 FJH
194.5 15.1 FJH
212.5 15.2 FJH
218.4 15.4 FJH
223.4 :15.5 FJH

225914 RW Peg
type Mira

175.5 12.5 FJH
181.5 12.2 BMU

191.5 11.2 DKE
191.5 11.6 BMU
197.5 11.2 BMU
204.4 10.8 FJH
208.5 10.3 BMU
210.5 10.1 CMG
215.4 10.1 CMG
217.4 10.1 KPG

217.5 9.9 BMU
219.4 10.3 FJH
224.5 9.8 BMU
236.4 10.0 FJH

237.4 9.7 BMU
250.4 9.7 BMU
252.3 9.6 DKE
252.3 9.8 CMG
254.3 10.6 FJH
254.4 : 9.7 HOL

230110 R Peg
type Mira

197.5 7.5 DKE
197.5 7.9 BMU

208.5 7.9 BMU
210.5 8.1 CMG
211.5 7.9 FJH
215.4 8.0 CMG
217.5 8.1 KPG
218.5 7.8 BMU
219.4 8.1 FJH
224.5 8.2 FJH
228.4 8.2 BMU
237.4 8.3 BMU
237.5 8.6 FJH
250.4 8.9 BMU
252.3 8.9 CMG

230759 V Cas
type Mira

179.5 8.9 BMU
200.4 9.8 BMU
208.4 10.3 BMU
210.5 10.5 CMG
213.4 11.0 FJH

215.5 10.7 CMG
217.4 10.8 BMU
219.5 11.0 FJH
220.5 10.8 CMG
228.4 11.2 BMU
236.6 11.5 HOL
237.4 11.4 CMG
241.5 12.2 FJH
249.5 11.8 HOL
252.4 11.9 CMG
252.4 12.2 FJH

231425 W Peg
type Mira

175.5 12.7 FJH
181.5 12.3 BMU
182.4 12.6 FJH
195.5 12.4 BMU
204.4 12.4 FJH
210.4 12.1 BMU
210.5 12.4 CMG
215.4 12.7 CMG
216.4 12.7 FJH
217.5 12.0 KPG
217.5 12.3 BMU
223.5 12.6 FJH
224.5 11.9 BMU
237.4 11.4 BMU
237.5 12.2 FJH
250.4 11.0 BMU
250.5 10.7 HOL
252.3 11.1 CMG
254.3 11.5 FJH

231508 S Peg
type Mira

197.5 8.6 BMU
210.5 9.0 CMG
211.5 9.1 FJH
215.4 9.0 CMG
218.5 9.2 BMU
219.4 9.5 FJH
224.5 9.9 FJH
228.4 9.5 BMU
237.4 10.1 BMU
237.5 10.3 FJH
250.4 10.5 BMU
252.3 10.6 CMG

231539 RY And
type Mira

211.5 12.9 CMG
252.5 13.7 CMG

231817 IP Peg
type UGSS+E

220.37 12.6 FJH
222.37 12.5 FJH
223.42 12.3 FJH
224.43 12.8 FJH
225.49 13.1 FJH
226.51 13.2 FJH
228.54 14.0 FJH

231839 BU And
type Mira

175.5 12.9 FJH
211.4 14.0 FJH
217.5 14.1 FJH
222.5 14.1 FJH
236.4 14.3 FJH

232144 AL And
type Mira

206.4 11.5 FJH
214.3 11.9 FJH
220.4 12.5 FJH
236.4 12.4 FJH

232543 DX And
type UGSS

180.47 14.4 FJH
194.50 14.3 FJH
211.42 14.4 FJH
213.46 12.2 FJH
214.34 12.1 FJH
215.39 11.8 FJH
216.36 11.8 FJH
217.36 11.7 FJH
218.38 11.8 FJH
219.34 11.8 FJH
220.37 12.1 FJH
222.42 12.2 FJH
223.42 12.3 FJH
224.43 12.3 FJH
225.49 12.7 FJH
226.57 12.9 FJH
228.53 13.4 FJH

232642 BG And
type Mira

175.5 12.4 FJH
194.5 12.7 FJH
211.4 13.5 FJH
217.5 13.6 FJH
222.5 13.8 FJH
236.4 14.1 FJH

232848 Z And
type Z And

211.5 10.6 CMG
215.4 10.5 CMG
220.4 10.7 FJH
228.4 10.7 FJH
252.5 10.6 CMG

-----	210.5	6.5	CMG	222.5	11.9	FJH
233109 FF Peg	213.4	7.0	DKE	236.4	12.3	FJH
type Mira	213.5	6.5	FJH	252.4	12.8	FJH
	215.5	6.5	CMG	252.5	12.5	CMG
210.5 11.6 CMG	217.4	6.2	BMU			
215.4 11.0 CMG	220.5	6.5	CMG			
252.3 11.4 CMG	228.4	6.2	BMU			
-----	231.4	6.1	FJH			
233956 Z Cas	237.4	6.1	CMG			
type Mira	237.4	6.3	BMU			
	249.4	6.4	BMU			
176.5 14.6 FJH	250.4	7.0	DKE			
194.5 14.4 FJH	251.3	6.4	CMG			
210.4 14.8 FJH	259.3	6.6	BMU			
216.4 14.6 FJH	260.3	6.9	DKE			
218.3 14.7 CMG	-----					
228.5 14.8 FJH	235525 Z Peg					
236.4 14.8 FJH	type Mira					
252.4 14.2 CMG						
-----	175.5	12.0	FJH			
235053 RR Cas	181.5	12.4	BMU			
type Mira	186.5	12.4	FJH			
	194.5	12.7	FJH			
210.5 11.0 CMG	197.5	12.7	BMU			
212.5 10.8 FJH	210.4	13.0	BMU			
215.5 11.4 CMG	210.4	13.0	FJH			
220.4 11.0 FJH	210.5	13.0	CMG			
236.6 11.6 HOL	215.4	13.5	CMG			
252.4 12.6 CMG	216.4	13.3	FJH			
254.4 12.5 FJH	217.5	13.1	BMU			
254.4 12.7 HOL	217.5	13.1	KPG			
-----	222.4	13.3	FJH			
235255 WY Cas	236.4	13.1	FJH			
type Mira	252.3	13.3	CMG			
	252.4	13.0	FJH			
176.5 11.0 FJH	254.4	13.2	HOL			
208.3 11.2 FJH	-----					
210.5 11.9 CMG	235855A Y Cas					
215.5 12.1 CMG	type Mira					
217.5 11.6 KPG						
219.5 11.6 FJH	175.5	13.5	FJH			
220.5 12.1 CMG	194.5	13.6	FJH			
228.4 11.7 FJH	210.4	14.5	FJH			
237.4 12.2 CMG	210.5	13.9	CMG			
251.3 12.4 CMG	215.5	14.1	CMG			
252.4 12.4 FJH	216.4	14.8	FJH			
-----	223.5	14.7	FJH			
235350 R Cas	236.4	15.0	FJH			
type Mira	252.3	14.5	CMG			

144.5 10.2 DKE	235939 SV And					
170.4 8.8 BMU	type Mira					
180.4 7.9 BMU						
195.4 7.1 BMU	206.4	11.3	FJH			
200.5 7.4 DKE	211.5	11.3	CMG			
203.5 6.9 BMU	215.4	11.6	CMG			
210.4 6.6 BMU	215.5	11.8	FJH			