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Variabilia verschijnt in principe 4x per jaar.

Contributie : f17.50 per jaar te voldoen op Postbanknummer 489829 tgv

Penningmeester Werkgroep Veranderlijke Sterren, Postbus 800, 9700 AV Groningen.

Variabilia nr.58

April 1999

WAARNEMER	CODE	JAN 99	FEB 99	MRT 99	TOTAAL
Reinder Bouma	BMU	73	101	83	257
Erwin van Ballegoij	BVE	30	52	74	156
Georg Comello	CMG	1031	956	811	2798
Guus Gilein	GGU	27	22	29	78
Robert Johanns	JRJ	339	279	3	621
F. Nieuwenhuis	NWH	13			13
Edwin van Dijk	VDE	27		29	56
		1540	1410	1029	3979

U Gem in uitbarsting per 1 april! Voor het eerst sinds jaren is er weer eens een derde uitbarsting te zien van U Gem in één zichtbaarheidsperiode, beginnende één dag na volle maan!
GK Per is nog steeds met haar maximum bezig. Voorgaande maxima waren in juli 1992 en in maart 1996.

R CrB lijkt, na een eerdere schijnbeweging, op weg terug naar zijn basishelderheid.

Z Ursae Majoris

De veranderlijke ster **Z UMa** is een halfregelmatige ster. Dat wil zeggen dat haar helderheidsverloop niet goed volgens een vast patroon voorspelbaar is, zoals dat voor de periode bij Mira sterren meestal wel het geval is. De helderheid van **Z UMa** varieert tussen de uiterste waarden magnitude 6,2 en 9,4. Dat maakt haar zeer geschikt voor waarnemers met een verrekijker of een kleine telescoop.

Z UMa is een van de vele veranderlijke sterren waarvan de veranderlijkheid pas deze eeuw werd ontdekt. Deze ontdekking werd gedaan tijdens een onderzoek op "Draper-Memorial Photographs" uitgevoerd in de jaren 1898 – 1904 door King. De ster viel op door haar spectrum, welk veel

overeenkomsten vertoonde met dat van langperiodiek veranderlijken. Aanvankelijk werd de ster op grond van waarnemingen uit 1932 – 1939 door Beyer ingedeeld als overgangstype tussen de Mira sterren en de RV Tauri sterren. Later werd de ster echter als halfregelmatige ster van het type b (SRB) gekwalificeerd, hetgeen we ook in de laatste “General Catalogue of Variable Stars” terugvinden. Deze GCVS vermeldt verder een periode van 195,5 dagen, spectrum type M5IIIe en helderheden variërend tussen de extremen 6,2 in maximum en 9,4 in minimum. Bij de opmerkingen staat vermeld dat de ster gewoonlijk twee maxima en twee minima vertoont in één periode.

Halfregelmatige sterren

Er zijn 4 soorten halfregelmatige sterren bekend (SRA t/m SRD). Het zijn allen reuzen of superreuzen van een laat spectraal type, meestal M, C of S. Zij vertonen perioden tussen 30 en ruim 1000 dagen. Hun helderheid varieert tussen 0,1 en 4 magnituden. Van SRA tot SRD neemt de onregelmatigheid toe maar de amplitude af. De SRA sterren vertonen een tamelijk regelmatig verloop. Het zijn de SRB sterren welke sterke wisselingen in periode te zien geven en een erg onregelmatige lichtwisseling vertonen. Enkele sterren van dit type zijn V en Z UMa, R UMi en RR CrB.

Bij de SRC en SRD sterren is de onregelmatigheid zo groot en de amplitude zo klein dat ze vaak niet als veranderlijk opvallen.

Grillig verloop van de lichtcurve

De afgedrukte lichtcurve van Z UMa beslaat een periode van ruim 13 jaar, april 1985 t/m mei 1998, en is samengesteld uit 10.000 waarnemingen. Deze waarnemingen zijn afkomstig van de Association Française des Observateurs d’ Etoiles Variables, en bevatten ook de Nederlandse waarnemingen.

Heel mooi is te zien dat in de jaren 85 – 88 er soms wel drie maxima zijn waargenomen in één periode van 195 dagen. In het verdere verloop van de lichtcurve zien we soms twee en soms gewoon één maximum in een periode van 195 dagen. Vooral de laatste jaren zien we dat één maximum per periode de overhand heeft gekregen. Het is echter wel duidelijk dat van enige symmetrie, zoals bij vele Mira sterren het geval is, geen enkele sprake is.

De gedachte achter het grillig gedrag van Z UMa is dat er wellicht sprake is van een tweede periode in de lichtcurve. Deze zou veel langer zijn. Glasby spreekt van 1560 dagen, maar dit wordt nergens bevestigd.

Deze twee verschillende perioden werken op elkaar in (vergelijkbaar met interferentie van licht) waardoor ze elkaar soms versterken, met als gevolg heldere maxima en zwakke minima, en soms verzwakken, waardoor gedurende enige tijd slechts zeer geringe veranderingen optreden. Dit zien we in de lichtcurve bijvoorbeeld eind 1996 en in het midden van 1997.

Z UMa waarnemen

We kunnen Z UMa vinden op ongeveer $2\frac{1}{2}^\circ$ ten westen van de ster δ UMa. We maken hiervoor gebruik van zoekkaarten van de AAVSO. Middels de a-kaart vinden we eenvoudig een ster van de 5.9° grootte. Deze ster staat ook op de b-kaart, welk een kleiner veld beslaat en zwakkere sterren laat zien. Z UMa is erg eenvoudig te lokaliseren daar ze op een $\frac{1}{4}^\circ$ ten zuiden staat van een opvallend groepje sterren op deze b-kaart. De sterren op de kaart gebruiken we ook om een helderheidsschatting te maken van Z. Hiertoe zijn van vele omgevingssterren de nauwkeurig gemeten helderheden gegeven.

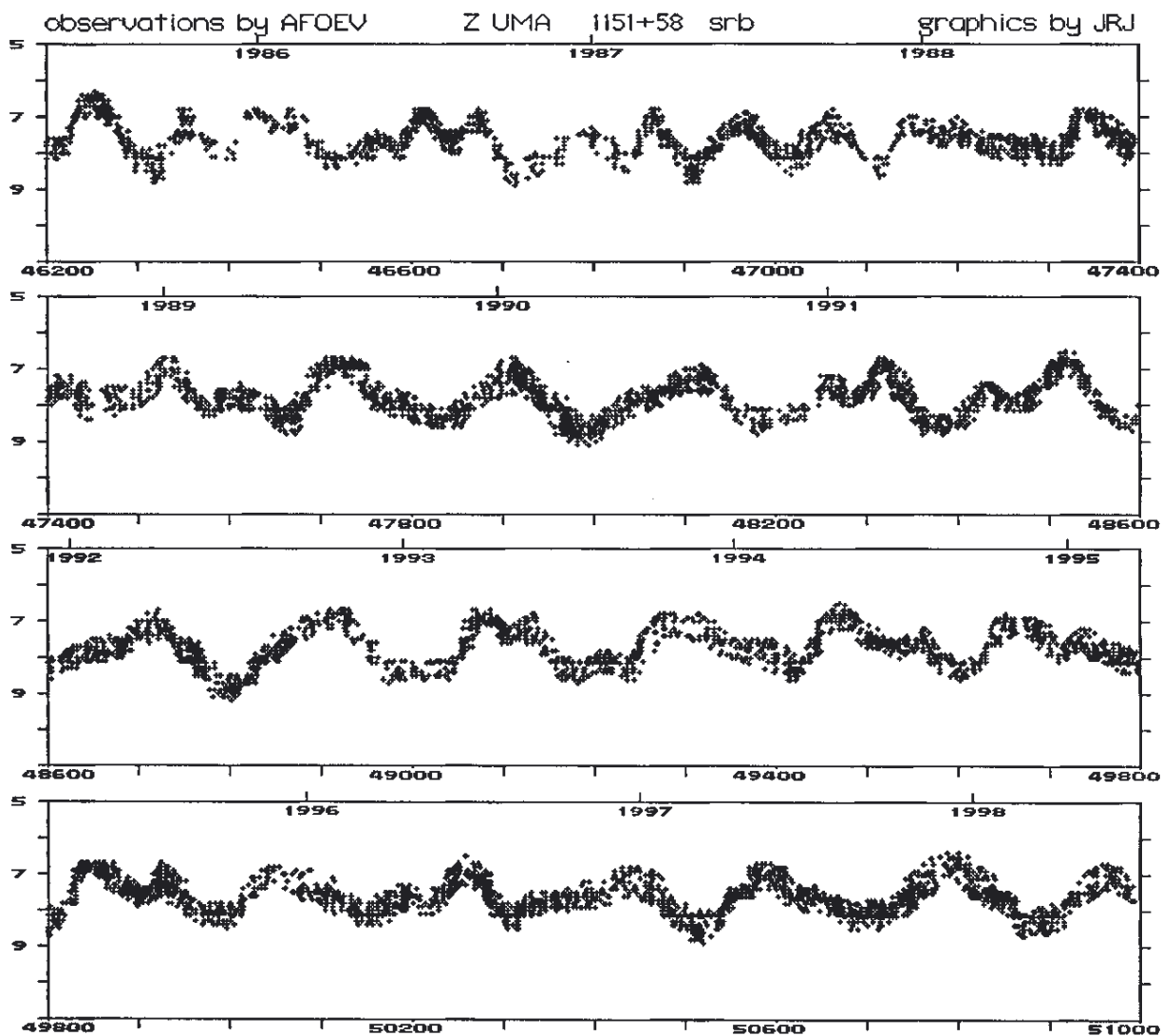
Daar Z UMa gewoonlijk niet zwakker wordt dan 9,4 is het gebruik van een verrekijker of kleine telescoop meer dan voldoende om een betrouwbare schatting te kunnen maken.

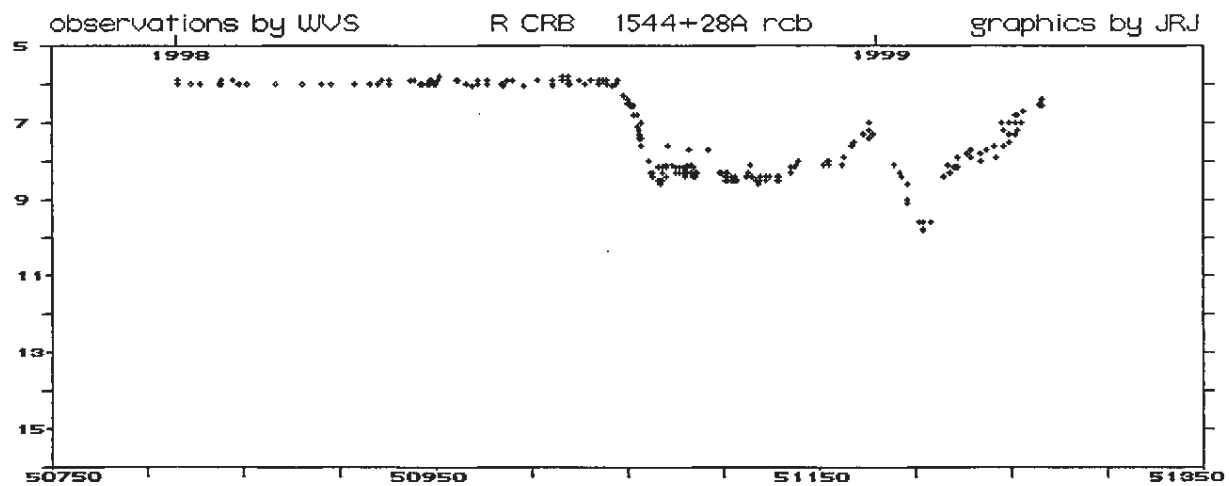
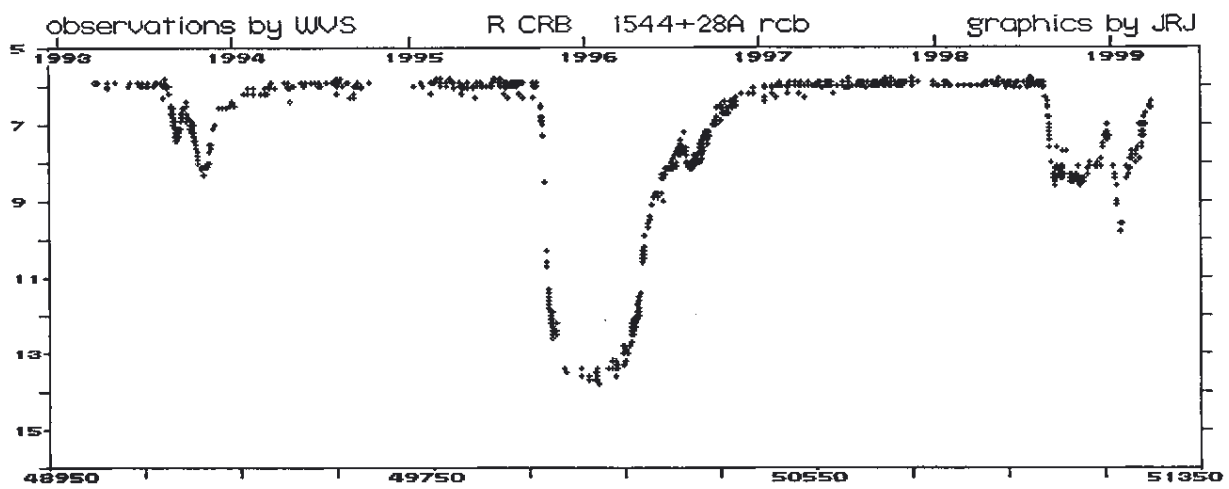
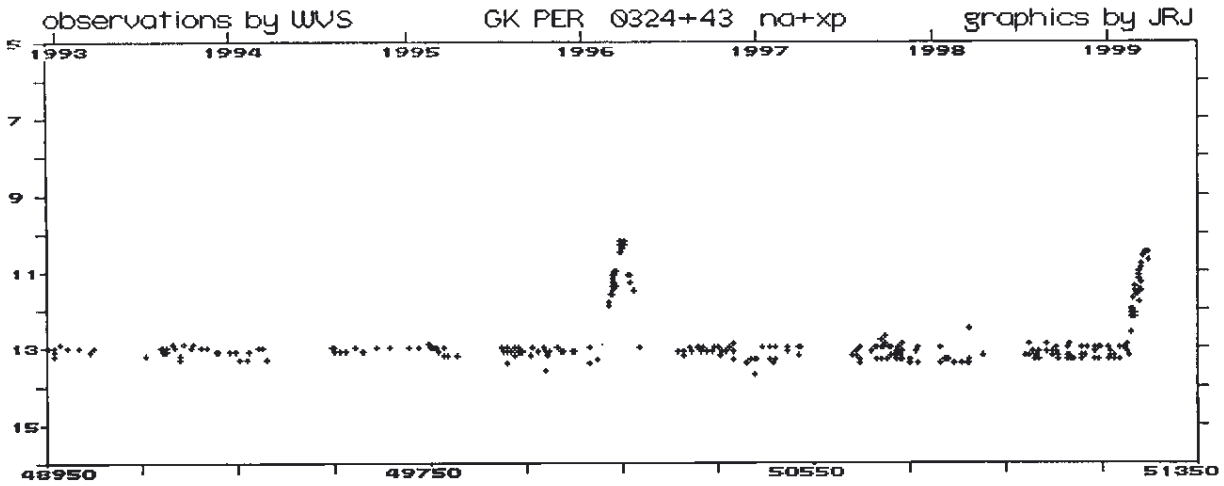
Z UMa is circumpolair en kan derhalve het gehele jaar gezien worden. In de winter staat ze aan de avondhemel laag in het noorden maar aan de ochtendhemel nagenoeg in het zenit.

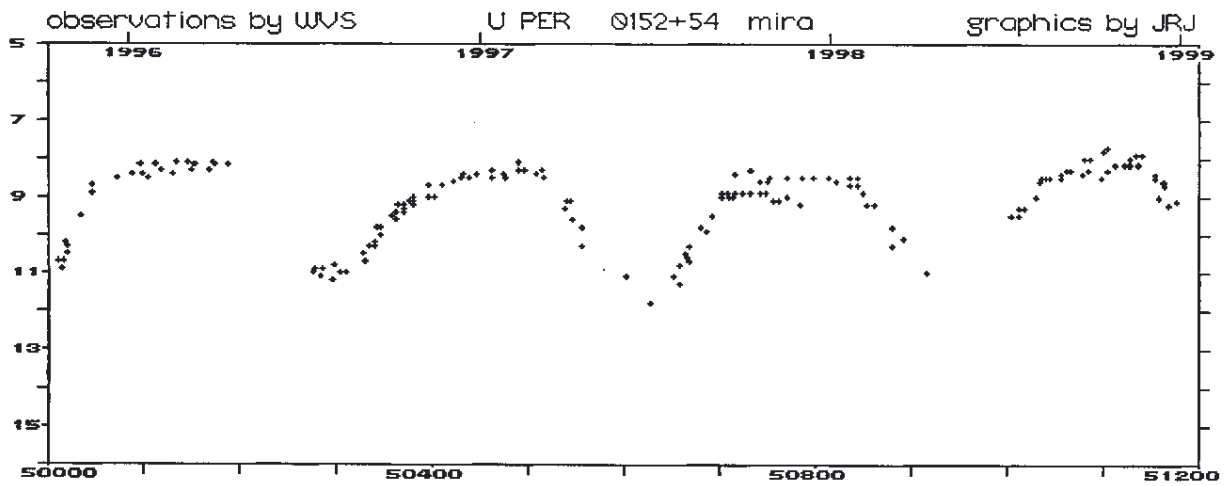
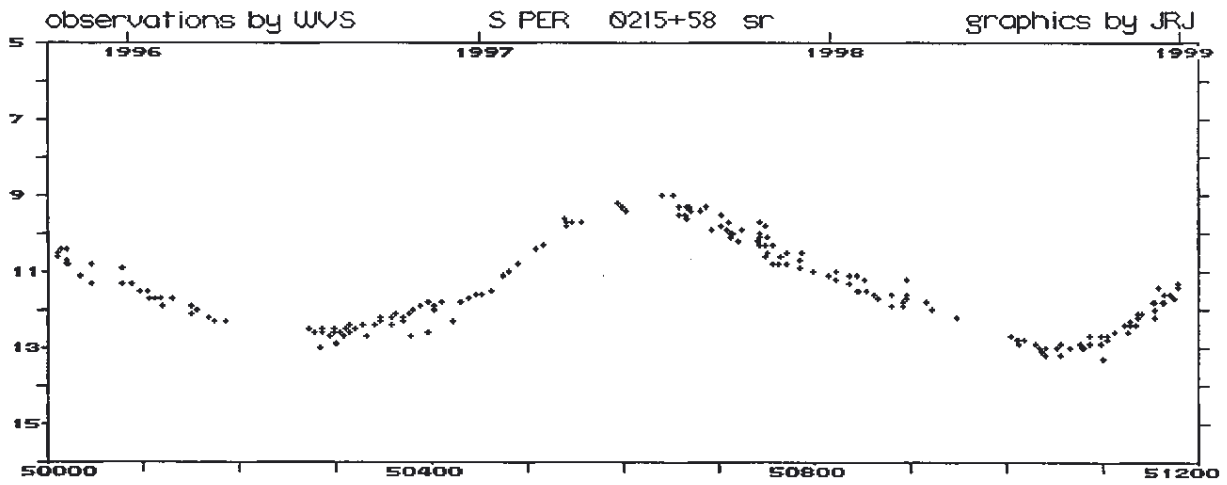
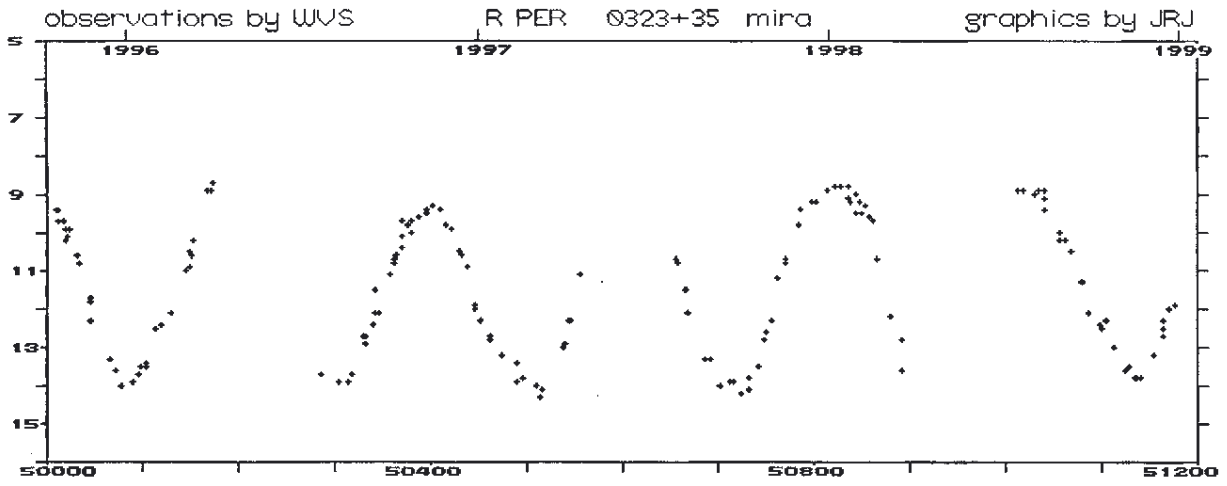
Literatuur:

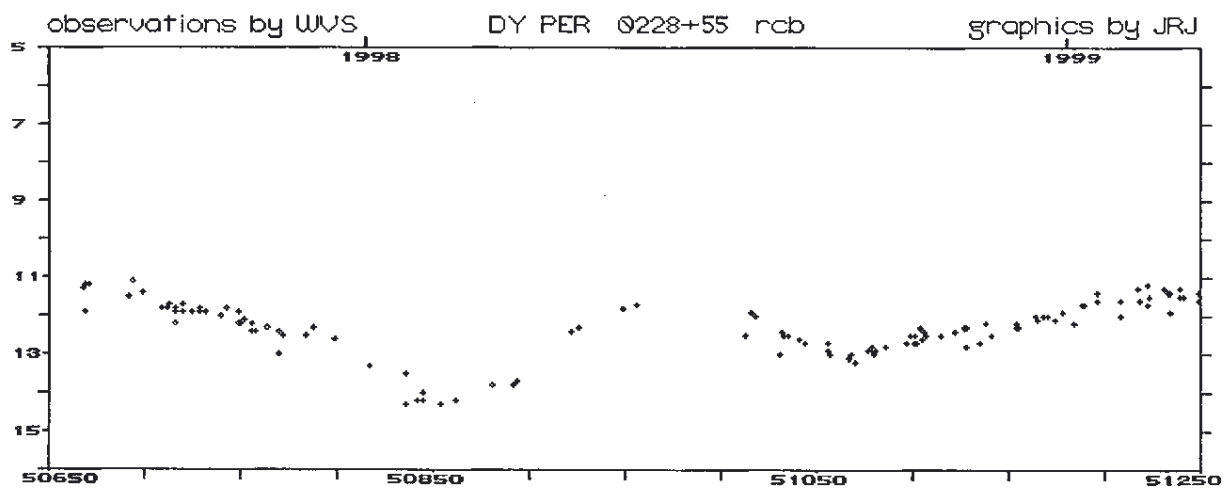
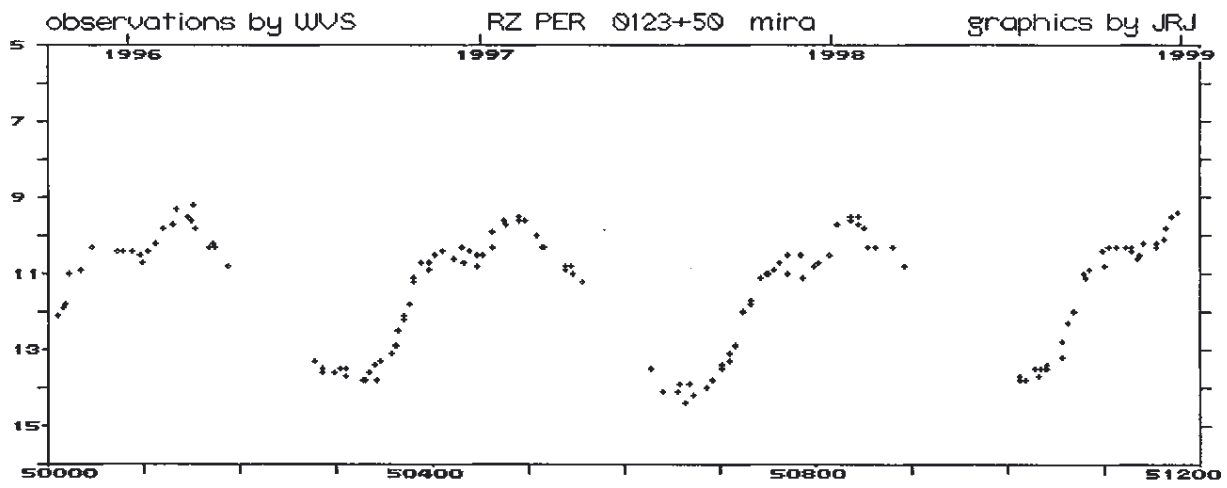
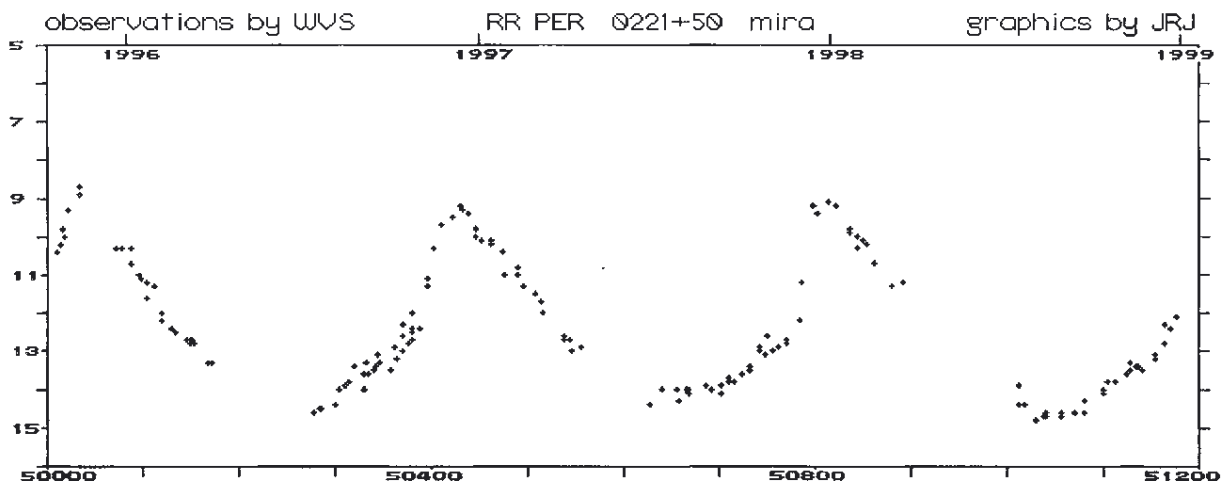
GCVS editie 4 1985-87

Geschichte und Literatur des Lichtwechsels der bis Ende 1915 als sicher veraenderlich anerkannten Sterne nebst einem Katalog der Elemente ihres Lichtwechsels. G. Mueller und E. Hartwig, 1918.









De Algemene Ledenvergadering van de Werkgroep Veranderlijke Sterren zal worden gehouden op **Zaterdag 24 April 1999 om 11.00 uur** precies. Plaats : Het Wapen van Drenthe te Roden.

Let op het gewijzigde aanvangstijdstip ten opzichte van het eerder vermelde in Variabilia 57!

AGENDA

- 1) Opening door de Voorzitter
- 2) Ingekomen Stukken en Mededelingen van het Bestuur
- 3) Notulen Jaarvergadering van 25 April 1998
- 4) Jaarverslag Secretaris over 19988
- 5) Jaarverslag Penningmeester over 1998
- 6) Verslag kascommissie (E.P.Bus, A.H. Schuitema)
- 7) Verkiezing nieuwe kascommissie ; Bus en Schuitema zijn niet herkiesbaar
- 8) Begroting 1999
- 9) Verkiezing afgevaardigden Verenigingsraad NVWS. Bouma en Johanns zijn de zittende afgevaardigden, beide zijn herkiesbaar
- 10) W.v.t.t.k.
- 11) Rondvraag
- 12) Sluiting

Werkroep Veranderlijke Sterren- Rooster van aftreden bestuursleden

Naam	Functie	Laatst herkozen	Aftredend
G.Comello	Secr. / Waarn.leider	1998	2002
R.J.Johanns	Lid / Recorder	1997	2001
T.A.jurriens	Voorzitter	1998	2002
G.Kuipers	Penningmeester	1997	2001

Werkgroep Veranderlijke Sterren - WVS.

Concept Jaarverslag 1998.

In September van het verenigingsjaar 1998 overleed na een ernstige ziekte ons lid Ben Tijssen op 69 – jarige leeftijd. Ben was een actief amateurastronoom, die in onze Werkgroep enkele keren kascommissaris is geweest.

Het aantal waarnemingen was bijna een record, een merkwaardig feit gezien het doorgaans slechte weer in het recordnatte jaar 1998.

De aantalen waarnemingen waren als volgt verdeeld :

R.J. Bouma 1223 , E. van Ballegoy 326 , G. Comello 9698 , E. van Dijk 343 , G. Gilein 11, J. Holtrop 62 , G. Hoogeveen 49 , R.J. Johanns 4465 , F. Nieuwenhuis 32 , A.H. Scholten 4. Het totaal bedroeg 16213, het was daarmee bijna een topjaar.

Het ledental van de Werkgroep bleef nagenoeg constant. De twee afgevaardigden van de Werkgroep bezochten de verenigingsraadsvergadering op 20 juni in Utrecht.

In de bestuurssamenstelling kwam geen wijziging. Variabilia verscheen vier keer in het jaar 1998. Een zorg blijven de moeizame communicatie met de AAVSO en de vele slechte sequences die voor verschillende veranderlijken in gebruik zijn. Met hulp van HST + GSC – magnituden hopen we hierin verbetering te kunnen aanbrengen.

G. Comello (secretaris)

Werkgroep Veranderlijke Sterren - WVS.

Notulen van de Algemene Ledenvergadering van 25-04-1998.

1) Opening door de voorzitter.

Om 13:03 uur opent Jurriens de vergadering met een welkom.

2) Ingekomen Stukken en Mededelingen.

Bij de secretaris - Comello - zijn stukken binnengekomen van de NVWS (conceptnotulen van de VR van 24 mei 1997 en Nieuwsbrieven), het overlijdensbericht van Hitty Dales en slecht nieuws over de gezondheidstoestand van ons lid Ben Tijssen.

Verder nog een e-mail bericht over een veranderlijke sterren pagina in Zenit van Ballegoy.

Hierover is inmiddels contact geweest met ons bestuurslid Johanns. Jurriens stelt voor om in de variabilia – indien van toepassing – ook e-mail adressen op te nemen.

3) Notulen Algemene Ledenvergadering van 27-04-97.

Worden zonder op- of aanmerkingen goedgekeurd.

4) Jaarverslag 1997 van de Secretaris.

Wordt zonder op- of aanmerkingen goedgekeurd.

5) Financieel verslag 1997 van de penningmeester.

Kuipers merkt op dat de post onvoorzien bestaat uit de kosten voor een rouwkrans namens de werkgroep voor de begrafenis van onze Henk Feijth. Verder alleen de kosten voor de jaarlijkse inschrijving bij de K.v.K. Contributies en renten zijn vrijwel gelijk gebleven.

6) Verslag Kascommissie over 1997.

Bus en Schuitema hebben de kas gecontroleerd en in orde bevonden en Schuitema leest hun verslag voor. Bij acclamatie wordt Kuipers decharge verleend en het financieel jaarverslag 1997 is daarmee goedgekeurd.

7) Verkiezing nieuwe Kascommissie.

Beide kascommissieleden doen het nog een jaar.

8) Begroting 1998.

Ten opzichte van 1997 zijn er geen echte wijzigingen en de vergadering gaat akkoord met de voorliggende begroting.

9) Bestuursmutatie.

Comello en Jurriens worden bij acclamatie voor vier jaar herkozen.

10) Verkiezing Afgevaardigden Verenigingsraad.

Bouma en Johanns blijven de afgevaardigden.

11) Wat verder ter tafel komt en Rondvraag.

Comello laat weten dat er momenteel twee relatief heldere extragalactische supernovae waar te nemen zijn. Bouma vraagt zich af wat we aan het VS-net kunnen hebben. Kaartmateriaal met Hipparcos-Tycho sequences zijn via dit net te verkrijgen en vergelijksterren zijn beter volgens Comello en Bouma. De vraag is wanneer de AAVSO overgaat naar deze sequences. Jurriens stelt voor om aan de AAVSO in ieder geval mede te delen welke vergelijksterren dan als slecht worden ervaren.

12) Sluiting.

Onder dank voor ieders aandeel en inbreng sluit Jurriens om 13:31 uur de vergadering.

G. Kuipers. (penningmeester)

De nu volgende tabel bevat de waarnemingen uit de periode januari – maart 1999.

Elke reeks waarnemingen gedaan aan een ster begint met het Harvard nummer, gevolgd door de naam en het type van de ster.

In de kolommen staan vermeld de Juliaanse Datum , de helderheid en de waarnemer.

Voor de JD geldt JD = JD + 2.451.000

0004+51		184.3	10.9	JRJ	222.3	11.2	CMG	239.3	8.4	CMG	184.4	10.3	JRJ			
SS CAS	mira	184.3	11.0	CMG	222.3	11.7	JRJ	250.3	8.4	CMG	188.3	10.1	GGU			
184.3	12.1	CMG	189.3	11.3	CMG	227.3	11.5	CMG	266.7	9.2	CMG	188.3	10.6	BMU		
184.4	11.8	JRJ	194.6	11.6	BVE	233.3	12.2	CMG	-----	-----	189.2	10.5	CMG			
188.3	12.0	BMU	196.3	11.4	CMG	234.3	12.0	JRJ	0041+32		194.6	10.2	BVE			
189.2	12.3	CMG	208.3	12.2	JRJ	-----	-----	-----	RW AND	mira	196.3	10.5	CMG			
196.3	12.7	CMG	208.4	12.1	CMG	0027+25A		184.3	13.9	JRJ	196.4	10.4	GGU			
208.4	13.1	CMG	222.3	12.9	CMG	TU AND	mira	188.3	13.5	CMG	196.4	10.4	NWH			
208.5	12.8	JRJ	222.3	12.9	JRJ	184.3	8.6	JRJ	190.4	13.3	CMG	206.2	10.6	CMG		
216.3	13.2	CMG	233.3	13.2	CMG	189.3	8.2	CMG	196.3	12.0	CMG	208.3	10.3	GGU		
218.3	13.3	BMU	234.3	13.5	JRJ	196.3	8.4	CMG	208.3	10.7	JRJ	208.5	10.4	JRJ		
221.3	13.2	CMG	239.3	13.4	CMG	208.3	9.0	JRJ	208.4	10.7	CMG	209.3	10.7	NWH		
222.4	12.7	JRJ	-----	-----	-----	208.4	9.0	CMG	215.3	10.2	CMG	215.6	10.7	BVE		
227.3	13.3	CMG	0017+55		221.3	9.8	CMG	221.3	10.2	CMG	216.3	10.9	CMG			
233.3	12.6	BMU	T CAS	mira	222.3	9.7	JRJ	222.3	9.9	JRJ	221.3	11.0	CMG			
233.3	13.2	CMG	184.3	8.8	CMG	233.3	10.6	CMG	227.3	10.2	CMG	222.4	10.4	GGU		
234.3	12.6	JRJ	184.4	8.5	JRJ	234.3	10.5	JRJ	233.3	10.2	CMG	222.4	10.6	JRJ		
239.3	12.3	BMU	189.2	8.8	CMG	239.3	10.7	CMG	234.3	9.9	JRJ	227.3	11.0	CMG		
239.3	12.8	CMG	196.3	8.9	CMG	-----	-----	-----	239.3	10.2	CMG	232.4	11.3	CMG		
250.3	11.7	CMG	196.4	8.0	GGU	0031+62		253.3	10.4	CMG	233.3	10.9	BMU			
265.3	10.6	CMG	196.4	8.3	NWH	TY CAS	mira	-----	-----	-----	234.3	11.1	JRJ			
-----	-----	-----	206.2	8.5	CMG	188.2	11.4	CMG	0044+35		234.4	10.4	GGU			
0006-12		208.3	208.3	8.4	GGU	196.3	11.3	CMG	V AND	mira	239.3	11.0	BMU			
WW CET	ug	208.5	208.5	8.5	JRJ	206.2	11.6	CMG	184.3	14.5	JRJ	239.3	11.3	CMG		
188.517	:12.2	BVE	209.3	8.4	NWH	208.5	11.6	JRJ	185.2	14.8	CMG	246.4	11.5	CMG		
-----	-----	-----	217.2	8.6	CMG	216.3	11.6	CMG	196.3	14.6	CMG	252.4	10.9	GGU		
0008+62		221.3	221.3	8.6	CMG	221.3	11.6	CMG	208.3	13.2	JRJ	261.3	11.3	CMG		
UX CAS	sr	222.4	222.4	8.4	GGU	222.4	11.5	JRJ	217.3	12.3	CMG	266.4	11.4	GGU		
184.4	10.7	CMG	222.4	8.7	JRJ	227.3	11.8	CMG	222.3	11.8	JRJ	-----	-----	-----		
196.3	10.8	CMG	227.3	8.6	CMG	232.5	11.8	CMG	222.3	12.0	CMG	0054+27				
216.3	10.8	CMG	232.4	8.7	CMG	234.4	11.5	JRJ	227.3	11.6	CMG	W PSC	mira			
221.3	10.6	CMG	233.3	8.7	BMU	239.3	11.9	CMG	233.3	11.3	CMG	184.3	10.3	CMG		
239.3	10.5	CMG	234.3	9.3	JRJ	249.4	11.9	CMG	234.3	11.3	JRJ	189.3	10.4	CMG		
249.4	10.7	CMG	234.4	8.4	GGU	253.3	12.4	CMG	239.3	11.3	CMG	196.2	10.4	CMG		
267.3	10.8	CMG	239.3	8.7	BMU	261.3	12.5	CMG	250.3	11.1	CMG	209.3	11.1	CMG		
-----	-----	-----	239.3	8.9	CMG	-----	-----	-----	-----	-----	-----	217.2	11.8	CMG		
0009+28		250.3	250.3	9.1	CMG	0031+79		-----	0045+33		222.3	12.2	CMG			
UW AND	mira	261.3	261.3	9.2	CMG	Y CEP	mira	185.3	12.5	JRJ	227.3	12.5	CMG			
184.3	10.2	JRJ	-----	-----	-----	189.4	12.5	CMG	184.3	13.2	CMG	233.3	12.9	CMG		
184.4	10.8	CMG	0018+38		196.3	12.7	CMG	184.3	13.5	JRJ	239.3	13.4	CMG			
189.3	10.9	CMG	R AND	mira	208.5	13.3	CMG	189.3	12.9	CMG	-----	-----	-----			
196.3	11.1	CMG	184.3	14.6	JRJ	215.3	13.6	CMG	196.3	12.7	CMG	0058+40				
208.3	11.7	JRJ	185.2	14.8	CMG	223.3	13.8	CMG	208.3	12.0	JRJ	RX AND	ugz			
208.4	12.2	CMG	196.3	14.9	CMG	253.4	14.7	CMG	208.4	12.1	CMG	184.259	11.5	JRJ		
222.3	12.1	JRJ	217.3	15.2	CMG	-----	-----	-----	215.3	11.5	CMG	185.224	11.6	CMG		
222.3	13.3	CMG	222.3	14.8	JRJ	0040+47		221.3	11.3	CMG	188.258	12.6	BMU			
234.3	13.4	JRJ	227.3	15.2	CMG	U CAS	mira	222.3	11.3	JRJ	188.297	13.0	CMG			
-----	-----	-----	234.3	14.8	JRJ	184.3	12.3	CMG	227.3	11.1	CMG	189.296	13.5	BMU		
0010+46		-----	-----	-----	-----	184.4	12.6	JRJ	233.3	11.0	CMG	189.299	13.8	VDE		
X AND	mira	0019-09		188.3	12.0	BMU	188.3	12.0	BMU	234.3	10.7	JRJ	189.330	13.4	CMG	
184.3	14.0	CMG	S CET	mira	189.2	12.1	CMG	196.3	11.4	CMG	239.3	10.6	CMG	190.274	13.6	CMG
184.3	14.0	JRJ	184.2	10.2	JRJ	196.3	11.4	CMG	196.4	11.3	NWH	250.3	10.0	CMG		
190.4	14.3	CMG	185.2	10.0	CMG	196.4	11.3	NWH	-----	-----	-----	-----	-----	-----	-----	
196.3	14.2	CMG	196.2	9.5	CMG	206.2	10.7	CMG	0047+46A		196.479	10.8	BMU			
208.3	14.0	JRJ	208.2	9.0	JRJ	208.4	10.5	JRJ	RV CAS	mira	196.481	10.7	VDE			
217.3	14.4	CMG	-----	-----	-----	209.3	9.9	NWH	188.3	14.5	CMG	197.367	11.6	CMG		
222.3	14.2	JRJ	0022+30		216.3	9.7	CMG	196.3	15.2	CMG	198.533	10.8	BVE			
222.3	14.5	CMG	YZ AND	mira	222.4	9.2	JRJ	217.2	15.4	CMG	208.327	12.3	JRJ			
227.3	14.5	CMG	184.3	10.4	CMG	227.3	8.5	CMG	250.3	14.2	CMG	208.375	12.9	CMG		
234.3	14.5	JRJ	184.3	10.7	JRJ	233.3	8.4	BMU	-----	-----	-----	209.285	12.9	JRJ		
-----	-----	-----	189.3	10.5	CMG	233.3	8.4	CMG	0049+58		209.299	13.4	CMG			
0017+26		196.3	196.3	10.6	CMG	234.4	8.5	JRJ	W CAS	mira	215.264	14.1	CMG			
T AND	mira	208.3	208.3	11.0	JRJ	239.3	8.4	BMU	183.5	10.1	BVE	217.290	11.6	CMG		
183.5	10.5	BVE	208.4	10.8	CMG	-----	-----	-----	184.3	10.3	CMG	218.315	11.6	BMU		

221.323	11.0	CMG	185.2	14.2	CMG	AE CEP	mira	184.3	11.4	CMG	208.4	10.4	CMG	
222.252	11.1	CMG	196.3	13.8	CMG	184.4	10.9	CMG	189.3	11.3	CMG	208.4	10.5	GGU
222.293	11.0	JRJ	208.4	13.2	CMG	188.3	10.8	BMU	196.3	10.7	CMG	217.3	10.4	CMG
222.297	10.9	BMU	215.3	12.7	CMG	189.4	11.2	CMG	208.3	10.5	JRJ	222.3	10.5	CMG
223.260	10.9	CMG	221.3	12.6	CMG	196.4	11.6	CMG	208.4	10.5	CMG	222.3	10.9	JRJ
223.292	10.7	BMU	222.3	13.3	JRJ	208.4	12.2	CMG	221.3	10.3	CMG	222.4	10.5	GGU
227.295	11.3	CMG	227.3	12.6	CMG	217.3	12.7	CMG	222.3	10.6	JRJ	227.3	10.6	CMG
233.278	11.7	CMG	233.3	12.5	CMG	222.3	13.0	CMG	227.3	10.2	CMG	233.3	10.7	CMG
233.302	11.5	BMU	234.3	12.8	JRJ	233.4	14.1	CMG	233.3	10.2	CMG	234.3	10.6	BMU
234.290	11.6	BMU	250.3	12.1	CMG	-----	-----	-----	234.3	10.7	JRJ	234.3	10.6	JRJ
234.314	11.5	JRJ	-----	-----	-----	0116+38	-----	-----	250.3	11.7	CMG	237.4	10.7	GGU
239.281	13.6	CMG	0110+41A	-----	-----	TX AND	mira	-----	-----	-----	-----	239.3	10.7	CMG
239.293	13.2	BMU	UZ AND	mira	-----	184.4	11.7	CMG	0132+38	-----	-----	241.3	10.7	BMU
241.294	13.4	BMU	184.3	11.3	CMG	189.3	11.7	CMG	RU AND	sr	-----	249.4	10.8	CMG
250.292	11.0	CMG	184.3	11.7	JRJ	196.3	11.6	CMG	184.3	12.0	JRJ	252.4	10.8	GGU
253.297	11.9	CMG	189.3	11.6	CMG	209.3	11.7	CMG	184.4	11.8	CMG	253.3	10.7	VDE
253.333	11.6	BMU	196.3	12.2	CMG	217.3	11.5	CMG	189.3	11.7	CMG	253.3	10.8	BMU
253.335	11.7	VDE	208.3	12.6	JRJ	223.3	11.6	CMG	196.3	11.7	CMG	253.4	10.7	VDE
-----	-----	-----	208.4	12.3	CMG	233.3	11.6	CMG	208.3	11.8	JRJ	265.3	10.9	CMG
0059+53	-----	-----	215.3	12.7	CMG	239.3	11.7	CMG	208.4	11.7	CMG	266.4	10.9	GGU
V723CAS	n	-----	221.3	12.8	CMG	253.3	11.8	CMG	217.3	11.6	CMG	-----	-----	-----
184.384	12.7	JRJ	222.3	12.9	JRJ	-----	-----	-----	222.3	12.0	JRJ	0154+57	-----	-----
185.240	12.9	CMG	233.3	13.0	CMG	0117+12	-----	-----	223.3	11.7	CMG	V666CAS	mira	-----
188.259	12.9	BMU	234.3	13.3	JRJ	U PSC	mira	-----	233.3	11.6	CMG	184.4	12.4	JRJ
189.303	12.6	BMU	-----	-----	-----	184.3	13.8	CMG	234.3	11.8	JRJ	184.5	12.6	CMG
189.304	12.7	VDE	0110+55A	-----	-----	196.2	12.7	CMG	239.3	11.6	CMG	190.3	12.8	CMG
196.267	12.9	CMG	VZ CAS	mira	-----	208.4	12.2	CMG	250.3	11.7	CMG	196.3	12.9	CMG
196.483	12.8	BMU	184.3	12.6	CMG	217.2	11.7	CMG	-----	-----	-----	208.4	13.0	CMG
196.484	12.6	VDE	184.4	13.4	JRJ	222.3	11.7	CMG	0133+38	-----	-----	208.5	13.4	JRJ
208.433	12.8	CMG	189.3	13.0	CMG	227.3	11.5	CMG	Y AND	mira	-----	217.2	13.6	CMG
208.451	12.6	JRJ	196.3	13.4	CMG	239.3	11.6	CMG	184.3	14.7	JRJ	222.3	13.6	CMG
217.239	12.7	CMG	208.4	13.5	CMG	-----	-----	-----	185.2	14.6	CMG	222.4	13.0	JRJ
218.314	12.6	BMU	208.5	13.6	JRJ	0120+20	-----	-----	190.4	14.5	CMG	234.4	13.3	JRJ
222.294	12.5	BMU	217.2	13.1	CMG	RX PSC	mira	-----	196.3	14.6	CMG	239.3	13.6	CMG
222.321	12.7	CMG	222.3	12.7	CMG	185.2	12.9	CMG	217.3	14.0	CMG	253.4	13.7	CMG
222.433	12.7	JRJ	222.4	12.8	JRJ	189.3	11.9	CMG	222.3	14.0	JRJ	-----	-----	-----
223.293	12.6	BMU	227.3	12.5	CMG	196.2	11.0	CMG	227.3	13.8	CMG	0159+12	-----	-----
233.292	12.9	CMG	233.3	12.2	CMG	209.3	10.4	CMG	233.3	13.2	CMG	S ARI	mira	-----
233.300	12.6	BMU	234.4	12.0	JRJ	217.2	10.3	CMG	234.3	12.8	JRJ	184.3	13.6	CMG
234.292	12.7	BMU	237.4	11.8	CMG	222.3	10.3	CMG	239.3	12.4	CMG	184.3	14.0	JRJ
234.356	12.6	JRJ	239.3	11.5	BMU	227.3	10.3	CMG	250.3	11.3	CMG	189.3	14.2	CMG
239.290	12.7	BMU	239.3	11.6	CMG	233.3	10.3	CMG	-----	-----	-----	196.3	14.2	CMG
239.310	12.9	CMG	246.4	11.4	CMG	239.3	10.7	CMG	0139+37	-----	-----	222.3	14.6	JRJ
241.292	12.7	BMU	250.3	11.4	CMG	-----	-----	-----	AR AND	ugss	-----	227.3	14.8	CMG
249.390	12.6	BMU	-----	-----	-----	0123+50	-----	-----	234.323	13.3	JRJ	-----	-----	-----
249.391	12.6	VDE	0112+08	-----	-----	RZ PER	mira	-----	-----	-----	-----	0202+27	-----	-----
250.302	12.9	CMG	S PSC	mira	-----	184.2	9.6	CMG	0149+58	-----	-----	Z TRI	mira	-----
252.385	12.6	BMU	185.2	14.9	CMG	184.4	9.2	JRJ	X CAS	mira	-----	188.3	11.4	CMG
252.386	12.6	VDE	217.2	15.5	CMG	189.3	9.3	CMG	184.3	10.6	CMG	196.2	10.8	CMG
253.344	12.6	VDE	-----	-----	-----	196.3	9.7	CMG	184.4	10.5	JRJ	206.3	10.1	CMG
253.344	12.7	BMU	0112+72	-----	-----	208.4	9.6	JRJ	189.2	10.6	CMG	215.3	9.4	CMG
-----	-----	-----	S CAS	mira	-----	208.4	9.8	CMG	196.3	10.6	CMG	221.3	9.4	CMG
0101-02	-----	-----	184.3	9.6	CMG	216.3	10.1	CMG	206.3	10.6	CMG	227.3	9.2	CMG
Z CET	mira	-----	184.4	9.4	JRJ	221.3	10.3	CMG	217.2	10.7	CMG	233.3	9.5	CMG
184.2	13.5	JRJ	189.2	9.4	CMG	222.3	10.3	JRJ	221.3	10.7	CMG	239.3	9.7	CMG
185.2	13.9	CMG	196.3	9.4	CMG	227.3	10.5	CMG	222.4	10.8	JRJ	250.3	10.5	CMG
208.2	13.3	JRJ	196.4	9.1	NWH	233.3	10.9	CMG	227.3	10.8	CMG	-----	-----	-----
217.2	14.2	CMG	208.4	9.4	CMG	234.3	10.8	JRJ	233.3	10.9	CMG	0204+48	-----	-----
-----	-----	-----	208.5	9.3	JRJ	239.3	10.7	CMG	234.4	10.7	JRJ	RV AND	sr	-----
0106+21A	-----	-----	209.3	9.3	GGU	-----	-----	-----	239.3	10.9	CMG	184.4	10.2	CMG
X PSC	mira	-----	216.3	9.4	CMG	0125+02	-----	-----	249.4	10.9	CMG	189.3	10.3	CMG
184.3	9.5	CMG	221.3	9.5	CMG	R PSC	mira	-----	265.3	11.0	CMG	196.3	10.3	CMG
189.3	9.8	CMG	222.4	9.5	JRJ	184.3	11.0	CMG	-----	-----	-----	208.4	10.4	CMG
196.2	10.1	CMG	227.3	9.6	CMG	189.3	11.0	CMG	0152+54	-----	-----	217.3	10.4	CMG
209.3	10.4	CMG	233.3	9.7	CMG	196.2	11.4	CMG	U PER	mira	-----	223.3	10.4	CMG
217.2	11.6	CMG	234.3	9.4	JRJ	209.3	11.9	CMG	183.6	9.6	BVE	233.3	10.4	CMG
222.3	11.3	CMG	234.3	9.6	BMU	217.2	12.1	CMG	184.2	9.6	CMG	-----	-----	-----
227.3	11.6	CMG	239.3	9.7	CMG	222.3	12.2	CMG	184.4	9.6	JRJ	0210+24	-----	-----
233.3	11.8	CMG	246.4	9.8	CMG	227.3	12.3	CMG	188.3	10.0	GGU	R ARI	mira	-----
239.3	11.8	CMG	250.4	9.8	CMG	-----	-----	-----	189.2	9.8	CMG	183.6	9.6	BVE
-----	-----	-----	265.3	10.1	CMG	0127+46	-----	-----	196.4	10.3	GGU	184.2	9.7	JRJ
0109+40	-----	-----	-----	-----	-----	SX AND	mira	-----	196.4	10.3	NWH	184.3	9.6	CMG
U AND	mira	-----	0113+79	-----	-----	184.3	10.9	JRJ	208.4	10.0	JRJ	189.3	9.3	CMG

194.6	9.0	BVE	183.6	11.2	BVE	184.2	10.8	CMG	246.4	11.2	CMG	208.4	13.7	CMG
196.2	8.9	CMG	184.2	11.3	CMG	184.4	10.8	JRJ	252.4	10.5	CMG	217.2	14.2	CMG
206.3	8.4	CMG	184.4	11.1	JRJ	188.3	10.4	CMG	261.4	10.3	CMG	222.3	14.2	CMG
208.3	8.3	JRJ	188.3	10.9	GGU	196.2	10.2	CMG	269.4	9.7	CMG	222.4	14.0	JRJ
215.2	8.4	CMG	188.3	11.2	CMG	208.4	9.5	CMG	-----	-----	-----	239.3	14.3	CMG
215.6	8.4	BVE	189.5	11.2	BMU	208.4	9.9	JRJ	0231+33			253.4	14.3	CMG
221.3	8.4	CMG	189.5	11.2	VDE	215.3	9.5	CMG	R TRI	mira		-----		
222.3	8.9	JRJ	196.3	11.2	CMG	221.3	9.6	CMG	183.6	10.0	BVE	0313+32		
227.3	8.4	CMG	196.4	11.1	GGU	222.3	10.0	JRJ	184.2	9.7	CMG	TW PER	mira	
231.5	8.1	BVE	196.5	11.1	BMU	227.3	9.9	CMG	184.3	9.7	JRJ	184.2	11.5	CMG
233.3	8.5	CMG	196.5	11.1	VDE	233.3	10.0	CMG	189.2	10.1	CMG	189.3	11.4	CMG
238.5	8.5	BVE	208.4	10.7	CMG	234.3	10.3	JRJ	189.5	9.8	BMU	208.4	10.1	CMG
239.3	8.6	CMG	208.4	10.7	JRJ	239.3	10.2	CMG	189.5	9.9	VDE	217.3	11.0	CMG
245.5	8.7	BVE	208.4	10.9	GGU	249.4	10.3	CMG	196.2	10.1	CMG	223.4	11.1	CMG
250.3	9.0	CMG	215.3	10.6	CMG	-----	-----	-----	206.3	10.5	CMG	227.3	11.2	CMG
-----	-----	-----	215.6	10.9	BVE	0226+46			208.3	10.7	JRJ	233.3	11.2	CMG
0211+43A			218.3	10.7	BMU	AX AND	mira		215.3	11.2	CMG	239.3	11.4	CMG
W AND	mira		222.3	10.5	JRJ	184.4	12.0	CMG	215.6	10.8	BVE	265.3	11.8	CMG
184.3	12.7	JRJ	222.4	10.5	GGU	189.3	11.9	CMG	221.3	11.3	CMG	-----		
184.3	12.8	CMG	223.3	10.5	BMU	196.3	11.6	CMG	222.3	11.4	JRJ	0314-01		
196.3	13.0	CMG	223.4	10.7	CMG	208.4	10.7	CMG	227.3	11.4	CMG	X CET	mira	
208.3	13.6	JRJ	227.3	10.7	CMG	217.3	10.5	CMG	233.3	11.5	CMG	184.2	10.7	JRJ
215.3	13.8	CMG	231.5	10.1	BVE	222.3	10.5	CMG	234.3	11.2	BMU	184.3	10.6	CMG
222.3	13.4	JRJ	233.3	10.5	BMU	233.3	10.4	CMG	235.5	10.9	BVE	188.3	10.5	CMG
227.3	14.1	CMG	233.3	10.7	CMG	239.3	10.6	CMG	239.3	11.4	CMG	196.2	10.5	CMG
234.3	14.0	JRJ	234.3	10.5	JRJ	251.3	11.0	CMG	243.5	11.3	BVE	208.3	9.6	JRJ
253.3	14.6	CMG	237.4	10.6	GGU	-----	-----	-----	250.3	11.4	CMG	209.3	9.7	CMG
-----	-----	-----	238.5	10.0	BVE	0228+55			-----	-----	-----	215.2	9.4	CMG
0211-20			239.3	10.5	CMG	DY PER	rcb		0242+17			221.3	9.4	CMG
RY CET	mira		241.3	10.5	BMU	184.382	12.2	JRJ	T ARI	sr		222.3	8.9	JRJ
188.3	12.6	CMG	245.5	10.2	BVE	188.249	11.7	CMG	184.3	9.6	CMG	227.3	9.2	CMG
-----	-----	-----	249.4	10.4	CMG	189.519	11.7	BMU	184.3	9.7	JRJ	233.3	9.3	CMG
0212+58			252.4	10.4	BMU	196.257	11.4	CMG	189.3	9.5	CMG	239.3	9.6	CMG
T PER	sr		252.4	10.5	GGU	196.494	11.6	BMU	196.2	9.3	CMG	-----		
188.3	8.9	CMG	252.4	10.7	VDE	208.433	11.6	CMG	208.3	8.7	JRJ	0319+47		
196.3	8.9	CMG	253.4	10.4	CMG	208.442	12.0	JRJ	208.4	9.0	CMG	V384PER	mira	
196.4	8.9	GGU	265.3	10.5	CMG	217.344	11.3	CMG	215.3	8.5	CMG	188.3	14.8	CMG
221.3	8.9	CMG	266.4	10.5	GGU	218.326	11.6	BMU	221.3	8.5	CMG	217.3	15.5	CMG
233.3	8.8	CMG	-----	-----	-----	222.274	11.2	CMG	222.3	8.5	JRJ	-----		
239.3	8.7	CMG	0220-00			222.317	11.7	JRJ	227.3	8.4	CMG	0320+43		
253.4	8.9	CMG	R CET	mira		223.298	11.5	BMU	233.3	8.4	CMG	Y PER	mira	
-----	-----	-----	184.2	13.0	JRJ	231.492	11.3	CMG	239.3	8.3	CMG	183.6	9.7	BVE
0212+81			184.3	12.9	CMG	233.308	11.4	BMU	250.3	8.4	CMG	184.2	9.8	CMG
Z CEP	mira		188.3	12.8	CMG	234.331	11.9	JRJ	-----	-----	-----	184.4	9.6	JRJ
188.2	14.5	CMG	196.2	12.9	CMG	234.401	11.4	CMG	0259+19			189.2	10.0	CMG
196.3	14.9	CMG	208.2	10.5	JRJ	239.297	11.5	BMU	RT ARI	mira		189.5	9.8	BMU
-----	-----	-----	215.2	10.2	CMG	239.310	11.3	CMG	188.3	15.4	CMG	196.2	9.9	CMG
0214-03			215.6	10.5	BVE	241.298	11.5	BMU	-----	-----	-----	196.4	9.7	NWE
OMICET	mira		221.3	9.7	CMG	249.386	11.6	CMG	0302+26			196.5	9.9	BMU
183.6	4.9	BVE	222.3	8.5	JRJ	249.396	11.4	BMU	Z ARI	mira		208.4	9.6	JRJ
184.2	5.7	JRJ	227.3	8.4	CMG	252.394	11.3	BMU	184.3	12.4	CMG	208.4	9.7	CMG
184.3	5.4	CMG	231.5	8.0	BVE	252.395	11.5	VDE	189.3	12.4	CMG	209.3	9.6	GGU
188.2	5.2	BMU	238.5	7.7	BVE	253.297	11.4	CMG	196.3	12.9	CMG	215.3	10.0	CMG
188.3	5.3	CMG	239.3	8.1	CMG	265.323	11.6	CMG	222.3	14.0	CMG	215.6	9.9	BVE
194.6	4.6	BVE	245.5	8.0	BVE	269.310	11.3	JRJ	227.3	14.3	CMG	218.3	9.9	BMU
196.2	5.5	CMG	-----	-----	-----	-----	-----	-----	-----	-----	-----	221.3	10.0	CMG
208.2	5.2	JRJ	0221+32			0228-13			0305+14			222.3	9.7	JRJ
209.3	5.4	BMU	S TRI	mira		U CET	mira		U ARI	mira		222.4	9.6	GGU
209.3	5.6	CMG	184.2	10.2	CMG	184.3	12.8	CMG	184.3	13.2	CMG	223.3	9.9	BMU
214.3	5.7	CMG	184.3	10.3	JRJ	189.3	13.0	CMG	184.3	13.2	JRJ	227.3	9.9	CMG
215.6	5.3	BVE	189.2	10.2	CMG	208.2	13.2	JRJ	189.3	13.4	CMG	231.5	9.7	BVE
218.4	5.6	BMU	196.2	10.3	CMG	217.2	12.6	CMG	196.2	13.5	CMG	233.3	9.8	BMU
221.3	6.0	CMG	208.4	10.3	JRJ	227.3	12.5	CMG	208.3	13.8	JRJ	233.3	9.9	CMG
222.3	6.0	JRJ	215.3	10.6	CMG	-----	-----	-----	215.3	14.0	CMG	234.3	9.5	JRJ
227.3	6.3	CMG	221.3	10.6	CMG	0229+80			222.3	14.1	CMG	237.4	9.9	CMG
231.5	6.1	BVE	222.3	10.6	JRJ	RR CEP	mira		222.3	14.5	JRJ	238.5	9.7	BVE
233.3	6.1	BMU	227.3	10.7	CMG	188.2	13.7	CMG	227.3	14.1	CMG	239.3	9.7	CMG
238.5	6.8	BVE	233.3	10.8	CMG	196.3	13.2	CMG	-----	-----	-----	241.3	9.9	BMU
239.3	6.4	BMU	239.3	10.7	CMG	208.4	13.1	CMG	0311+70			245.5	9.9	BVE
245.5	7.0	BVE	250.3	10.7	CMG	215.3	12.8	CMG	V667CAS	mira		246.3	9.8	CMG
-----	-----	-----	-----	-----	-----	221.3	12.4	CMG	184.5	13.2	CMG	249.4	9.7	CMG
0215+58			0221+50			227.3	12.4	CMG	190.3	13.3	CMG	249.4	10.0	BMU
S PER	sr		RR PER	mira		233.3	12.1	CMG	196.3	13.3	CMG	252.4	9.6	GGU

257.5	9.7	BVE	252.391	10.9	VDE	250.3	13.4	CMG	208.4	13.5	JRJ	189.3	9.9	CMG
261.3	9.9	CMG	252.417	10.9	GGU	-----	-----	-----	217.3	13.6	CMG	196.3	10.3	CMG
265.3	9.9	CMG	253.297	11.3	CMG	0423+09	-----	-----	222.3	14.0	JRJ	206.3	11.0	CMG
266.4	9.6	GGU	253.335	10.8	BMU	S TAU	mira	-----	249.4	13.9	CMG	208.4	10.6	JRJ
269.3	9.4	JRJ	253.337	10.8	VDE	188.3	14.4	CMG	-----	-----	-----	215.3	11.7	CMG
-----	-----	-----	257.527	10.6	BVE	217.3	14.5	CMG	0441+26	-----	-----	221.3	12.2	CMG
0323+35	-----	-----	261.312	10.5	CMG	239.3	12.7	CMG	RV TAU	rvb	-----	222.3	12.0	JRJ
R PER	mira	-----	265.323	10.5	CMG	250.3	11.6	CMG	184.383	9.4	CMG	227.3	12.4	CMG
184.2	11.1	CMG	266.375	10.7	GGU	-----	-----	-----	196.294	9.9	CMG	232.4	12.7	CMG
184.4	11.0	JRJ	267.322	10.5	CMG	0430+65	-----	-----	209.276	10.0	CMG	239.3	13.0	CMG
189.2	10.6	CMG	269.308	10.5	JRJ	T CAM	mira	-----	217.359	9.5	CMG	249.4	13.6	CMG
196.2	10.0	CMG	-----	-----	-----	184.3	9.7	JRJ	239.299	10.1	CMG	-----	-----	-----
208.4	9.3	JRJ	0329-16	-----	-----	184.3	10.0	CMG	250.408	9.6	CMG	0500-22	-----	-----
208.4	9.4	CMG	RT ERI	mira	-----	189.3	9.8	CMG	267.308	9.7	CMG	T LEP	mira	-----
215.4	9.1	CMG	188.3	12.1	CMG	196.3	9.5	CMG	-----	-----	-----	222.3	11.8	JRJ
215.6	8.7	BVE	-----	-----	-----	208.4	9.1	CMG	0446+17	-----	-----	-----	-----	-----
222.3	8.8	JRJ	0351-24	-----	-----	217.3	8.9	CMG	V TAU	mira	-----	0509+53	-----	-----
231.5	8.7	BVE	T ERI	mira	-----	221.4	8.7	CMG	184.3	13.8	CMG	R AUR	mira	-----
233.3	8.8	CMG	189.3	8.6	CMG	222.5	8.7	JRJ	184.4	13.3	JRJ	184.3	11.6	CMG
234.3	8.6	BMU	-----	-----	-----	227.3	8.7	CMG	189.2	13.8	CMG	184.3	11.9	JRJ
234.3	8.7	JRJ	0357+16	-----	-----	233.3	8.6	CMG	196.3	14.0	CMG	189.2	11.0	CMG
238.5	8.7	BVE	TZ TAU	mira	-----	235.5	8.6	BVE	217.3	13.9	CMG	196.3	11.1	CMG
239.3	8.8	CMG	184.4	11.7	CMG	239.3	8.7	CMG	222.3	13.4	CMG	208.4	10.9	CMG
241.3	8.8	BMU	184.4	12.1	JRJ	243.5	8.7	BVE	222.3	13.6	JRJ	215.2	10.5	CMG
245.5	8.9	BVE	196.4	11.7	CMG	246.5	8.6	CMG	227.3	13.0	CMG	215.6	11.0	BVE
249.4	9.0	CMG	208.4	11.8	JRJ	250.4	8.7	CMG	239.3	11.9	CMG	221.3	10.5	CMG
253.3	9.0	VDE	209.3	11.6	CMG	265.3	8.8	CMG	246.4	11.2	CMG	222.3	11.5	JRJ
253.3	9.3	BMU	217.3	12.1	CMG	-----	-----	-----	250.3	11.3	CMG	223.5	11.6	JRJ
253.4	9.0	VDE	222.3	12.1	CMG	0432+08	-----	-----	265.3	10.4	CMG	229.4	11.3	CMG
254.5	8.9	BVE	222.3	12.2	JRJ	RX TAU	mira	-----	-----	-----	231.6	10.6	BVE	
261.3	9.5	CMG	239.3	13.4	CMG	184.3	12.8	CMG	0449+07	-----	-----	234.4	11.1	CMG
265.3	9.6	CMG	253.3	14.4	CMG	184.4	12.6	JRJ	FG ORI	mira	-----	238.5	10.5	BVE
-----	-----	-----	-----	-----	-----	189.2	12.8	CMG	250.3	12.3	CMG	239.4	10.8	CMG
0324+43	-----	-----	0401+06	-----	-----	196.3	12.8	CMG	-----	-----	-----	246.3	10.6	CMG
GK PER	na+xp	-----	XY TAU	mira	-----	208.4	12.6	CMG	0453+07	-----	-----	250.3	10.4	CMG
184.375	13.0	JRJ	196.3	11.5	CMG	208.4	13.0	JRJ	R ORI	mira	-----	257.5	9.4	BVE
184.459	13.3	CMG	208.4	11.2	JRJ	217.3	12.4	CMG	184.4	13.6	CMG	261.3	10.2	CMG
189.515	13.2	BMU	217.3	11.7	CMG	222.3	11.6	JRJ	184.4	13.6	JRJ	267.3	10.2	CMG
189.517	13.1	VDE	222.4	11.5	JRJ	222.3	12.0	CMG	189.3	13.6	CMG	-----	-----	-----
196.417	13.3	CMG	239.3	11.2	CMG	227.3	11.0	CMG	196.3	13.6	CMG	0513-16	-----	-----
196.489	13.2	BMU	253.3	11.6	CMG	233.3	10.7	CMG	208.4	13.6	JRJ	X LEP	mira	-----
208.412	13.3	CMG	-----	-----	-----	239.3	11.1	CMG	215.3	13.4	CMG	184.4	9.7	CMG
208.440	13.0	JRJ	0414+68	-----	-----	250.3	9.9	CMG	222.3	13.1	CMG	189.4	9.8	CMG
217.344	13.0	CMG	SX CAM	mira	-----	-----	-----	-----	222.3	13.6	JRJ	196.4	10.4	CMG
218.328	13.0	BMU	184.3	13.4	CMG	0432+74	-----	-----	227.3	13.0	CMG	208.4	11.1	CMG
222.274	12.9	CMG	189.3	13.9	CMG	X CAM	mira	-----	233.3	12.6	CMG	215.3	11.3	CMG
222.320	12.9	JRJ	197.4	14.4	CMG	184.3	10.8	CMG	239.3	12.4	CMG	222.3	11.6	CMG
223.295	12.9	BMU	253.4	14.6	CMG	184.3	10.8	JRJ	246.4	12.2	CMG	227.3	11.9	CMG
223.360	13.1	CMG	-----	-----	-----	188.3	11.2	BMU	250.3	12.1	CMG	239.3	12.4	CMG
227.339	13.2	CMG	0416+19	-----	-----	188.3	11.4	CMG	265.3	11.8	CMG	-----	-----	-----
231.483	12.6	CMG	T TAU	int	-----	196.3	12.2	CMG	-----	-----	-----	0515+32	-----	-----
232.330	12.1	CMG	184.4	10.2	JRJ	208.4	12.9	CMG	0455-14	-----	-----	UV AUR	mira	-----
233.285	12.2	CMG	208.4	10.5	JRJ	209.3	12.7	GGU	R LEP	mira	-----	265.3	9.1	CMG
233.306	12.0	BMU	222.3	10.5	JRJ	217.3	12.9	CMG	184.4	8.1	CMG	-----	-----	-----
234.296	11.7	BMU	-----	-----	-----	221.4	12.8	CMG	189.4	8.0	CMG	0519+50	-----	-----
234.333	12.0	JRJ	0419+16	-----	-----	222.5	13.0	JRJ	196.4	8.0	CMG	AC AUR	mira	-----
234.401	12.2	CMG	VX TAU	mira	-----	227.3	12.9	CMG	208.4	7.8	CMG	267.3	9.3	CMG
235.499	12.2	BVE	188.4	14.8	CMG	233.3	12.5	BMU	215.3	7.8	CMG	-----	-----	-----
237.410	12.1	CMG	217.3	14.6	CMG	233.3	12.7	CMG	222.3	7.4	CMG	0520+34	-----	-----
237.513	12.1	BVE	-----	-----	-----	239.3	12.2	CMG	222.3	8.0	JRJ	S AUR	sr	-----
238.503	12.2	BVE	0422+09	-----	-----	241.3	11.8	BMU	227.3	7.3	CMG	184.3	12.4	JRJ
239.296	11.5	BMU	R TAU	mira	-----	246.5	11.3	CMG	233.3	7.7	BMU	184.3	12.5	CMG
239.333	12.1	CMG	184.3	11.4	CMG	249.4	11.3	CMG	239.3	7.2	CMG	196.3	12.4	CMG
241.297	11.4	BMU	184.4	11.5	JRJ	253.3	11.2	BMU	-----	-----	-----	208.5	12.4	CMG
243.502	11.6	BVE	188.3	11.2	CMG	253.4	10.9	CMG	0459+35	-----	-----	217.3	12.3	CMG
245.503	11.6	BVE	196.3	11.7	CMG	261.3	10.4	CMG	AQ AUR	mira	-----	222.3	12.4	CMG
246.347	11.8	CMG	208.4	12.2	JRJ	265.4	10.0	CMG	188.4	14.6	CMG	223.7	12.5	JRJ
248.537	11.5	BVE	208.4	12.0	CMG	-----	-----	-----	229.4	15.0	CMG	229.4	12.4	CMG
249.386	11.2	CMG	217.3	12.7	CMG	0433+22	-----	-----	-----	-----	-----	237.4	12.4	CMG
249.394	11.0	VDE	222.3	12.6	CMG	VY TAU	mira	-----	0500+03A	-----	-----	249.4	12.5	CMG
249.394	11.1	BMU	222.3	13.0	JRJ	184.4	13.6	JRJ	V ORI	mira	-----	-----	-----	-----
250.338	11.5	CMG	227.3	12.8	CMG	188.3	13.6	CMG	184.4	9.3	JRJ	0520+36	-----	-----
252.390	10.9	BMU	239.3	12.9	CMG	196.4	13.5	CMG	184.4	9.5	CMG	W AUR	mira	-----

184.3	12.4	JRJ	249.4	14.4	CMG	196.3	11.0	CMG	0554+39		
184.3	13.1	CMG	253.4	14.5	CMG	208.4	10.4	CMG	AZ AUR	mira	0605+47
189.6	13.0	CMG				208.4	10.9	CMG	184.3	10.2	CMG
196.3	13.2	CMG	0535+31			217.3	10.5	CMG	184.3	10.2	JRJ
208.4	13.6	CMG	U AUR	mira		222.3	10.5	CMG	189.2	10.4	CMG
221.3	13.6	CMG	184.3	13.7	CMG	222.4	10.7	JRJ	196.3	10.5	CMG
222.3	13.8	JRJ	184.3	14.0	JRJ	237.4	10.4	CMG	208.4	10.5	CMG
229.4	13.7	CMG	189.3	13.8	CMG	249.4	10.4	CMG	215.2	10.6	CMG
239.4	13.9	CMG	196.3	13.9	CMG	253.3	10.4	CMG	221.3	10.7	CMG
249.4	13.7	CMG	215.2	14.0	CMG	265.3	10.6	CMG	222.3	10.5	JRJ
			222.3	13.7	JRJ				229.4	10.7	CMG
0524-04A			222.3	14.1	CMG	0549+20A			234.4	10.8	CMG
S ORI	mira		229.4	14.1	CMG	U ORI	mira		239.4	10.8	CMG
184.4	12.5	CMG	239.4	14.2	CMG	183.6	7.9	BVE	246.4	11.0	CMG
184.4	12.9	JRJ	249.4	14.3	CMG	184.3	8.2	JRJ	250.3	11.1	CMG
189.3	12.7	CMG	252.4	13.4	CMG	184.4	7.8	CMG	265.3	11.4	CMG
196.3	12.8	CMG	261.3	12.9	CMG	188.3	8.1	BMU			
208.4	12.9	CMG	267.3	12.7	CMG	189.3	7.9	CMG	0557+16		
208.4	13.3	JRJ				196.3	8.5	CMG	RR ORI	mira	
215.3	13.1	CMG	0535+38			206.3	8.7	CMG	184.4	14.4	JRJ
221.3	13.1	CMG	SZ AUR	mira		208.4	8.6	JRJ	188.3	15.0	CMG
222.3	13.5	JRJ	188.3	15.0	CMG	215.3	9.1	CMG	217.4	14.8	CMG
227.3	13.2	CMG	217.3	15.2	CMG	215.6	9.2	BVE	222.4	14.2	JRJ
233.3	13.4	CMG	222.3	14.5	JRJ	221.3	9.2	CMG	253.4	14.2	CMG
239.3	13.3	CMG	229.4	14.6	CMG	222.3	9.0	JRJ			
250.3	13.5	CMG	239.4	14.2	CMG	227.3	9.3	CMG	0557+47		
			249.4	13.4	CMG	231.6	9.6	BVE	XZ AUR	sr	0607+27
0526+07			253.4	13.2	CMG	232.3	9.5	CMG	184.3	11.4	CMG
BK ORI	mira					237.4	9.9	CMG	196.3	11.3	CMG
184.4	12.2	CMG	0536-04			238.5	10.1	BVE	208.4	10.5	CMG
189.3	12.4	CMG	Y ORI	mira		245.5	10.3	BVE	217.4	11.4	CMG
196.3	12.6	CMG	188.3	14.5	CMG	246.4	10.5	CMG	223.4	11.2	CMG
208.5	12.9	CMG	197.4	14.6	CMG	250.3	10.5	CMG	237.4	10.5	CMG
217.3	12.9	CMG				257.5	10.7	BVE	249.4	11.2	CMG
222.3	13.1	CMG	0543+19			265.3	10.6	CMG	265.3	11.4	CMG
253.3	13.9	CMG	SU TAU	rcb							
			184.310	12.8	CMG	0549+32			0602+46		
0532-01			184.348	13.0	JRJ	AY AUR	mira		VY AUR	mira	
X ORI	mira		188.271	12.6	CMG	261.3	13.6	CMG	239.3	11.3	CMG
184.4	13.6	CMG	188.296	12.7	BMU				249.4	11.5	CMG
189.3	13.7	CMG	189.310	12.6	BMU	0549+74					
196.4	13.7	CMG	189.312	12.9	VDE	V CAM	mira		0604+43		
217.4	14.4	CMG	189.312	13.0	CMG	184.3	13.6	CMG	RR AUR	mira	
			190.286	12.6	CMG	184.3	13.6	JRJ	184.3	12.3	CMG
0533+26			196.289	12.6	CMG	189.3	12.7	CMG	184.3	12.5	JRJ
RR TAU	insa		196.519	12.7	BMU	196.3	10.7	CMG	189.2	12.5	CMG
184.310	12.3	CMG	196.522	12.9	VDE	208.4	9.9	CMG	196.3	12.8	CMG
188.279	12.1	CMG	197.373	12.7	CMG	217.3	8.3	CMG	217.4	13.2	CMG
196.289	11.0	CMG	209.276	13.9	CMG	221.4	8.7	CMG	222.3	13.6	CMG
208.384	11.9	CMG	215.235	14.4	CMG	222.5	8.6	JRJ	222.3	13.7	JRJ
215.281	12.3	CMG	217.273	15.2	CMG	227.3	8.7	CMG	229.4	13.6	CMG
217.265	11.6	CMG	222.329	15.1	JRJ	233.3	9.4	CMG	239.4	14.1	CMG
221.257	11.4	CMG				239.3	9.5	CMG	249.4	14.6	CMG
222.321	11.4	CMG	0546+15A			246.5	9.7	CMG	253.4	14.5	CMG
232.545	11.6	CMG	Z TAU	mira		261.3	10.0	CMG			
234.439	11.8	CMG	184.4	13.7	CMG				0604+50		
237.414	12.2	CMG	184.4	13.9	JRJ	0553+53			X AUR	mira	
246.361	12.6	CMG	189.2	13.7	CMG	Z AUR	sr		183.3	10.5	CMG
249.40	12.6	CMG	196.3	13.7	CMG	184.3	9.8	CMG	184.3	10.3	JRJ
251.316	12.3	CMG	209.3	13.7	CMG	184.3	9.8	JRJ	189.6	9.6	CMG
253.297	11.6	CMG	217.3	13.7	CMG	189.2	9.8	CMG	196.3	9.3	CMG
261.319	10.8	CMG	222.3	13.6	CMG	196.3	10.0	CMG	206.3	9.1	CMG
265.323	11.0	CMG	222.4	13.3	JRJ	208.4	10.3	CMG	221.3	8.9	CMG
267.308	11.0	CMG	237.4	13.3	CMG	215.2	10.4	CMG	222.3	9.2	JRJ
			249.4	12.0	CMG	221.3	10.4	CMG	229.3	9.0	CMG
0533+37			253.3	12.0	CMG	222.3	10.6	JRJ	234.4	9.1	CMG
RU AUR	mira		265.3	11.7	CMG	229.4	10.9	CMG	235.5	9.5	BVE
184.3	12.7	CMG				234.4	10.9	CMG	239.4	9.2	CMG
184.3	13.0	JRJ	0546+15C			239.4	11.0	CMG	243.5	9.9	BVE
189.2	12.8	CMG	RU TAU	mira		246.4	10.8	CMG	246.3	10.2	CMG
217.3	13.7	CMG	184.4	12.0	JRJ	250.3	10.9	CMG	250.3	10.7	CMG
222.3	14.0	JRJ	184.4	12.1	CMG	265.3	10.3	CMG	257.5	10.9	BVE
229.4	14.0	CMG	189.2	11.5	CMG				265.3	11.9	CMG

239.4	10.0	CMG	265.3	11.6	CMG	222.3	10.0	JRJ	0645+16		189.4	8.9	CMG	
246.3	10.1	CMG	-----			229.4	10.3	CMG	IT GEM	mira	196.3	8.8	CMG	
250.3	10.2	CMG	0625+64			234.4	10.6	CMG	184.4	11.1	CMG	217.3	9.8	CMG
265.3	10.6	CMG	RT CAM	mira		239.4	10.9	CMG	189.4	11.1	CMG	221.3	9.9	CMG
-----			184.3	12.5	JRJ	246.4	11.6	CMG	196.3	11.2	CMG	222.4	10.0	JRJ
0617+25			184.4	12.3	CMG	250.3	11.8	CMG	217.3	11.0	CMG	227.3	10.1	CMG
ZZ GEM	mira		189.3	12.4	CMG	265.3	12.9	CMG	222.3	11.1	CMG	233.3	10.4	CMG
184.4	11.6	CMG	196.3	12.9	CMG	-----			229.5	11.2	CMG	239.3	10.8	CMG
189.4	11.7	CMG	208.4	13.0	CMG	0635+58			237.4	11.1	CMG	246.4	11.2	CMG
196.3	11.9	CMG	217.3	13.3	CMG	S LYN	mira		246.4	11.1	CMG	250.3	11.6	CMG
217.3	12.3	CMG	222.5	13.5	JRJ	184.3	10.5	JRJ	265.3	11.1	CMG	265.4	12.4	CMG
222.3	12.1	CMG	239.4	13.9	CMG	184.4	10.8	CMG	-----			-----		
222.4	12.0	JRJ	-----			189.3	10.4	CMG	0651+11			0701+22A		
229.5	12.1	CMG	0625+74			196.3	10.2	CMG	Y MON	mira		R GEM	mira	
242.3	11.2	CMG	SU CAM	mira		208.4	9.5	CMG	184.4	10.5	CMG	184.3	8.2	CMG
249.4	11.2	CMG	184.3	12.6	JRJ	217.3	9.6	CMG	189.4	10.2	CMG	189.3	8.3	CMG
265.3	10.5	CMG	184.3	13.0	CMG	221.3	9.8	CMG	196.3	9.9	CMG	196.3	8.3	CMG
-----			189.3	13.0	CMG	222.5	9.8	JRJ	208.4	9.8	CMG	209.3	8.6	CMG
0617-02			196.4	13.1	CMG	229.5	9.8	CMG	217.3	9.6	CMG	215.3	8.8	CMG
V MON	mira		217.4	13.7	CMG	233.3	10.2	CMG	221.3	9.6	CMG	221.3	9.1	CMG
184.4	12.4	CMG	222.3	13.9	CMG	239.4	10.7	CMG	222.4	9.4	JRJ	222.4	9.5	JRJ
189.4	12.2	CMG	223.5	13.5	JRJ	246.4	11.0	CMG	227.3	9.8	CMG	229.5	9.6	CMG
196.3	12.0	CMG	249.4	14.2	CMG	250.3	11.0	CMG	233.3	10.0	CMG	234.4	9.6	CMG
208.4	11.6	CMG	-----			265.3	11.6	CMG	239.3	10.3	CMG	239.4	9.8	CMG
217.3	11.4	CMG	0630+25			-----			246.4	10.5	CMG	246.4	10.1	CMG
221.3	11.0	CMG	BR GEM	mira		0639+18			250.3	10.7	CMG	250.3	10.2	CMG
222.4	11.0	JRJ	217.4	14.0	CMG	IQ GEM	lb		265.3	11.4	CMG	265.3	10.7	CMG
227.3	11.1	CMG	229.5	13.5	CMG	265.3	12.4	CMG	-----			-----		
232.4	11.0	CMG	246.4	12.9	CMG	-----			0652-08			0702+05		
239.3	11.0	CMG	253.4	13.2	CMG	0640+18			X MON	sra		RS MON	mira	
250.3	10.6	CMG	-----			RT GEM	mira		222.4	7.8	JRJ	188.4	14.1	CMG
-----			0631+59			188.4	14.2	CMG	-----			217.4	14.4	CMG
0618+24			U LYN	mira		217.3	12.8	CMG	0653+55			222.4	14.3	JRJ
CD GEM	mira		184.3	10.3	JRJ	222.3	12.8	CMG	R LYN	mira		223.3	14.5	CMG
184.4	11.4	CMG	184.4	10.5	CMG	229.5	12.5	CMG	184.3	10.3	JRJ	-----		
189.4	11.4	CMG	189.3	10.6	CMG	242.3	12.2	CMG	184.4	10.4	CMG	0703+10		
196.3	11.5	CMG	196.3	10.7	CMG	246.4	12.1	CMG	189.3	10.0	CMG	R CMI	mira	
217.3	12.5	CMG	208.4	11.5	CMG	252.4	11.9	CMG	196.3	10.0	CMG	184.4	9.7	CMG
222.3	12.7	CMG	217.3	11.7	CMG	265.3	11.2	CMG	208.4	9.5	CMG	189.4	9.6	CMG
229.5	13.0	CMG	221.3	11.7	CMG	-----			217.3	9.2	CMG	196.3	9.8	CMG
249.4	13.4	CMG	222.5	12.3	JRJ	0640+30			221.3	8.8	CMG	208.4	9.7	CMG
-----			229.5	12.1	CMG	X GEM	mira		222.5	9.1	JRJ	217.3	9.8	CMG
0618+50			233.3	12.0	CMG	188.5	8.5	BVE	229.5	8.5	CMG	221.3	10.0	CMG
GO AUR	mira		239.4	12.2	CMG	189.4	8.6	CMG	233.3	8.8	CMG	222.4	10.0	JRJ
246.4	11.8	CMG	246.4	12.5	CMG	196.3	9.2	CMG	235.6	8.5	BVE	227.4	10.4	CMG
250.3	12.0	CMG	250.3	12.5	CMG	209.3	9.6	CMG	239.4	8.5	CMG	233.3	10.5	CMG
-----			265.3	12.8	CMG	215.6	10.5	BVE	243.5	8.4	BVE	239.3	10.7	CMG
0619+25			-----			217.3	9.4	CMG	246.4	8.6	CMG	246.4	10.8	CMG
VV GEM	mira		0632-01			222.4	10.4	JRJ	250.3	8.8	CMG	250.3	10.9	CMG
184.4	11.4	CMG	SY MON	mira		229.5	10.7	CMG	265.3	8.8	CMG	-----		
189.4	10.9	CMG	222.4	12.5	JRJ	231.6	10.9	BVE	-----			0706+07		
196.3	10.8	CMG	232.4	11.4	CMG	234.4	11.1	CMG	0659+10			WX CMI	mira	
217.3	11.0	CMG	239.4	11.8	CMG	238.5	12.0	BVE	BC GEM	mira		184.4	11.0	CMG
222.3	11.0	CMG	253.3	12.2	CMG	239.4	11.3	CMG	184.4	11.4	CMG	189.4	10.8	CMG
222.4	11.3	JRJ	253.3	12.2	CMG	245.5	12.1	BVE	196.3	11.9	CMG	196.3	10.6	CMG
229.5	11.7	CMG	-----			246.4	12.2	CMG	217.4	13.3	CMG	208.4	9.9	CMG
242.3	12.3	CMG	0633+08			249.4	12.3	CMG	222.3	13.4	CMG	217.4	10.4	CMG
249.4	12.8	CMG	R MON	ina		265.3	12.7	CMG	229.5	13.5	CMG	221.3	10.0	CMG
253.4	12.9	CMG	188.4	11.8	CMG	-----			249.4	14.5	CMG	227.4	10.7	CMG
267.3	13.5	CMG	196.4	11.8	CMG	0641+08			253.4	14.5	CMG	233.3	10.9	CMG
-----			217.4	11.8	CMG	ST MON	mira		-----			239.3	11.1	CMG
0619+47			222.4	12.4	JRJ	184.4	12.9	CMG	0700+37			250.3	11.4	CMG
GQ AUR	mira		239.4	11.9	CMG	189.4	13.4	CMG	ET AUR	mira		-----		
190.3	12.2	CMG	253.3	11.9	CMG	196.4	13.5	CMG	193.6	13.6	CMG	0707+14		
196.3	12.2	CMG	-----			217.4	14.3	CMG	229.4	10.3	CMG	VX GEM	mira	
208.4	11.2	CMG	0634+44A			222.3	14.3	CMG	239.4	10.3	CMG	184.4	9.9	CMG
215.2	11.0	CMG	AA AUR	mira		222.4	14.5	JRJ	246.4	10.5	CMG	189.4	10.0	CMG
221.3	10.8	CMG	184.3	9.7	JRJ	253.3	14.6	CMG	250.3	11.3	CMG	196.3	10.0	CMG
229.4	10.8	CMG	189.2	9.5	CMG	-----			265.3	11.1	CMG	209.3	10.0	CMG
234.4	10.9	CMG	196.3	9.4	CMG	0641+28			-----			217.3	10.2	CMG
239.4	11.0	CMG	206.3	9.9	CMG	IR GEM	ugsu		0701+09			222.3	10.3	CMG
246.3	11.2	CMG	215.2	10.0	CMG	222.420	13.2	JRJ	V CMI	mira		222.4	10.6	JRJ
250.3	11.3	CMG	221.3	10.2	CMG	-----			184.4	8.0	CMG	229.5	10.4	CMG

234.4	10.6	CMG	233.4	12.9	CMG	246.4	10.3	CMG	267.322	:14.2	CMG	231.492	11.6	CMG
246.4	10.9	CMG	249.4	13.6	CMG	250.3	10.3	CMG	-----			232.333	11.8	CMG
250.3	11.2	CMG	253.3	13.8	CMG	265.4	9.3	CMG	0751+21			233.331	12.0	CMG
265.4	11.3	CMG	-----			-----			XY GEM	mira		234.319	12.1	BMU
-----			0727+08			0737+23			222.3	:14.8	CMG	234.414	11.9	CMG
0707+17			S CMI	mira		S GEM	mira		-----			241.384	12.5	CMG
UZ GEM	mira		183.6	7.9	BVE	184.3	9.5	CMG	0753+20			242.278	:14.0	CMG
253.4	:15.0	CMG	184.4	8.0	CMG	189.3	9.4	CMG	BP GEM	mira		246.390	12.6	CMG
-----			189.4	8.0	CMG	193.6	9.4	CMG	188.4	13.0	CMG	249.391	14.4	CMG
0710+26			196.3	7.7	CMG	196.3	9.4	CMG	196.3	12.2	CMG	250.321	14.5	CMG
WZ GEM	mira		208.4	7.6	CMG	206.3	9.4	CMG	217.4	10.5	CMG	252.410	12.6	CMG
250.3	14.4	CMG	215.6	7.8	BVE	215.3	9.7	CMG	222.3	10.1	CMG	253.322	13.5	CMG
-----			217.3	7.6	CMG	221.3	9.8	CMG	229.5	10.2	CMG	261.323	13.4	CMG
0712+01			221.3	7.6	CMG	222.4	9.7	JRJ	242.3	10.2	CMG	-----		
RR MON	mira		222.4	7.7	JRJ	229.5	10.0	CMG	246.4	10.2	CMG	0805+23		
188.4	15.3	CMG	227.4	7.8	CMG	234.4	10.3	CMG	253.4	10.2	CMG	RR CNC	mira	
217.4	15.3	CMG	231.6	8.0	BVE	239.4	10.3	CMG	267.3	10.8	CMG	204.6	14.1	CMG
222.4	14.9	JRJ	233.3	8.3	CMG	246.4	10.7	CMG	-----			217.4	14.2	CMG
249.4	14.4	CMG	238.5	8.0	BVE	250.3	10.9	CMG	0756-12			229.5	13.7	CMG
253.3	14.2	CMG	239.3	8.3	CMG	261.3	11.7	CMG	U PUP	mira		233.4	13.6	CMG
-----			245.5	8.4	BVE	-----			184.5	9.7	CMG	246.4	11.7	CMG
0717+13			246.4	8.5	CMG	0739+14			196.4	10.1	CMG	250.3	11.5	CMG
V GEM	mira		250.3	8.5	CMG	BE GEM	mira		208.4	10.5	CMG	261.3	10.9	CMG
184.4	11.4	CMG	257.5	8.7	BVE	188.3	11.3	CMG	217.4	10.9	CMG	267.3	10.7	CMG
189.4	11.3	CMG	265.4	8.8	CMG	196.3	10.9	CMG	222.4	11.6	JRJ	-----		
196.3	10.5	CMG	-----			217.4	11.0	CMG	233.4	11.8	CMG	0807+14		
209.3	9.0	CMG	0728+11			222.3	11.1	CMG	249.4	12.5	CMG	SU CNC	mira	
217.3	8.4	CMG	T CMI	mira		229.5	11.3	CMG	253.3	12.6	CMG	196.4	13.7	CMG
221.3	8.6	CMG	184.4	11.3	CMG	249.4	11.9	CMG	-----			204.6	13.9	CMG
222.4	9.0	JRJ	189.4	11.1	CMG	253.4	12.1	CMG	0803+62			217.4	14.6	CMG
229.5	8.5	CMG	196.3	10.9	CMG	-----			SU UMA	ugsu		250.3	:14.5	CMG
234.4	8.6	CMG	208.4	10.3	CMG	0743+23			188.253	11.9	CMG	-----		
239.4	8.7	CMG	215.6	9.8	CMG	T GEM	mira		188.281	11.4	BMU	0808+10		
246.4	8.7	CMG	221.3	10.0	CMG	184.3	14.3	CMG	189.308	11.4	BMU	VW CNC	mira	
250.3	8.9	CMG	222.4	9.7	JRJ	189.3	13.4	CMG	189.608	11.6	CMG	204.6	11.8	CMG
265.3	9.8	CMG	227.3	10.2	CMG	193.6	13.3	CMG	192.645	11.7	CMG	215.6	11.7	CMG
-----			233.3	11.0	CMG	196.3	13.1	CMG	193.627	12.0	CMG	229.5	12.3	CMG
0719+33			239.3	11.5	CMG	215.3	11.4	CMG	196.403	12.1	CMG	233.4	12.8	CMG
XX GEM	mira		246.4	11.5	CMG	221.3	11.2	CMG	217.344	14.1	CMG	246.4	13.3	CMG
184.4	12.3	CMG	250.3	11.6	CMG	222.4	11.0	JRJ	220.558	12.9	CMG	-----		
189.4	12.3	CMG	-----			229.5	11.1	CMG	221.323	14.0	CMG	0808+37		
196.3	12.5	CMG	0732+34			234.4	10.7	CMG	222.305	14.1	CMG	RT LYN	mira	
217.4	12.1	CMG	ST GEM	mira		239.4	10.7	CMG	223.283	14.3	CMG	184.3	10.4	JRJ
222.3	12.0	CMG	184.4	9.8	CMG	246.4	9.9	CMG	229.449	13.8	CMG	184.4	10.2	CMG
229.5	11.7	CMG	189.4	9.8	CMG	250.3	9.8	CMG	231.496	14.2	CMG	189.3	10.3	CMG
242.3	11.0	CMG	196.3	9.5	CMG	261.3	9.4	CMG	233.338	14.2	CMG	196.3	10.0	CMG
246.4	10.7	CMG	206.3	9.8	CMG	-----			246.436	14.2	CMG	208.4	10.2	CMG
250.3	10.7	CMG	215.3	9.8	CMG	0749+22			249.402	14.2	CMG	217.3	10.4	CMG
265.4	10.6	CMG	221.3	10.1	CMG	U GEM	ugsu+e		250.321	14.3	CMG	221.3	10.4	CMG
-----			222.4	10.3	JRJ	184.349	14.3	CMG	252.415	14.1	CMG	222.5	10.7	JRJ
0721+41			229.5	10.8	CMG	188.296	14.3	CMG	253.411	14.1	CMG	229.5	10.8	CMG
VX AUR	mira		233.4	11.2	CMG	189.352	14.3	CMG	261.316	13.1	CMG	233.3	10.8	CMG
184.3	8.9	CMG	239.4	11.3	CMG	192.645	14.0	CMG	-----			241.4	11.3	CMG
184.3	9.1	JRJ	246.4	11.8	CMG	193.632	14.3	CMG	0804+28			250.3	11.7	CMG
196.3	8.7	CMG	250.3	12.1	CMG	197.373	14.3	CMG	YZ CNC	ugsu		-----		
208.4	8.3	CMG	265.4	12.7	CMG	204.596	14.3	CMG	184.375	12.5	CMG	0810+40		
215.6	8.3	CMG	-----			217.288	14.4	CMG	188.344	14.7	CMG	W LYN	mira	
222.3	8.3	CMG	0733+36			220.573	14.4	CMG	189.372	14.8	CMG	184.3	10.3	JRJ
222.3	8.3	JRJ	RU LYN	mira		222.321	14.4	CMG	190.375	12.3	CMG	184.4	10.2	CMG
234.4	8.5	CMG	250.4	12.8	CMG	222.424	14.5	JRJ	192.640	14.1	CMG	189.3	10.1	CMG
239.4	8.5	CMG	-----			223.3	14.4	CMG	196.378	14.6	CMG	196.3	10.2	CMG
246.3	9.0	CMG	0735+08			229.480	14.1	CMG	197.367	12.2	CMG	208.4	10.5	CMG
250.3	9.1	CMG	U CMI	mira		231.492	13.9	CMG	204.583	13.4	CMG	217.3	11.0	CMG
265.3	9.8	CMG	184.4	13.0	CMG	232.444	14.1	CMG	215.592	13.6	CMG	221.3	11.0	CMG
-----			189.4	12.8	CMG	233.338	13.9	CMG	217.372	14.5	CMG	222.5	11.3	JRJ
0724-04			196.3	12.4	CMG	234.407	13.9	CMG	220.547	11.6	CMG	229.5	11.4	CMG
RX MON	mira		208.4	11.2	CMG	241.396	14.2	CMG	221.317	11.7	CMG	233.3	11.8	CMG
184.4	10.0	CMG	217.4	10.8	CMG	246.408	14.1	CMG	222.297	11.4	CMG	241.4	12.3	CMG
189.4	10.3	CMG	221.3	10.8	CMG	249.395	14.2	CMG	222.325	11.6	BMU	246.4	12.9	CMG
196.4	10.7	CMG	222.4	11.2	JRJ	250.319	14.2	CMG	223.271	11.4	CMG	250.3	12.9	CMG
217.4	12.1	CMG	227.3	10.7	CMG	252.410	14.1	CMG	223.308	11.5	BMU	-----		
222.3	12.4	CMG	233.3	10.6	CMG	253.326	14.1	CMG	227.293	10.8	CMG	0811+08		
222.4	12.3	JRJ	239.3	10.5	CMG	261.359	14.6	CMG	229.462	10.9	CMG	TV CNC	mira	

229.5	13.4	CMG	252.397	12.4	VDE	233.4	13.7	CMG	-----	0937+20				
-----	-----	-----	252.406	12.7	CMG	249.4	14.2	CMG	0855+18	RS LEO	mira			
0811+12			253.347	12.7	BMU	253.3	14.4	CMG	SY CNC	ugz	204.6	14.3	CMG	
R CNC	mira		253.348	12.8	VDE	-----	-----	-----	188.344	12.9	CMG	215.6	12.7	CMG
184.4	9.2	CMG	261.316	13.0	CMG	0830+19			189.372	12.9	CMG	221.3	12.1	CMG
196.4	9.6	CMG	265.4	13.1	CMG	U CNC	mira		192.640	12.3	CMG	223.5	11.8	JRJ
204.6	9.6	CMG	266.631	13.1	CMG	204.6	15.3	CMG	193.628	12.3	CMG	229.5	11.2	CMG
215.6	10.0	CMG	267.322	12.7	CMG	222.5	14.2	JRJ	196.378	12.5	CMG	234.4	11.0	CMG
221.3	10.1	CMG	269.360	10.9	CMG	229.5	14.9	CMG	197.367	12.6	CMG	241.4	10.6	CMG
222.5	9.8	JRJ	-----	-----	-----	249.4	14.2	CMG	204.583	13.4	CMG	246.4	10.5	CMG
229.5	10.4	CMG	0816+17			261.3	14.5	CMG	208.462	13.2	CMG	250.3	10.4	CMG
231.6	9.8	BVE	V CNC	mira		-----	-----	-----	215.592	12.0	CMG	261.3	11.1	CMG
233.4	10.5	CMG	184.4	9.1	CMG	0833+50			217.372	11.6	CMG	267.4	11.6	CMG
243.5	10.1	BVE	188.3	9.4	CMG	X UMA	mira		220.547	11.4	CMG	-----	-----	-----
246.4	10.7	CMG	196.4	9.7	CMG	188.3	9.3	CMG	221.3	11.6	CMG	0939+34		
250.3	10.8	CMG	202.9	9.5	BVE	196.3	9.8	CMG	222.321	11.9	CMG	R LMI	mira	
257.6	10.4	BVE	204.6	10.1	CMG	204.6	10.2	CMG	222.451	11.3	JRJ	184.4	11.0	CMG
267.3	10.8	CMG	215.6	10.3	CMG	209.4	10.5	JRJ	223.271	12.0	CMG	189.3	11.1	CMG
-----	-----	-----	215.6	10.4	BVE	217.3	10.9	CMG	229.462	12.8	CMG	196.3	11.3	CMG
0814+73			221.3	10.5	CMG	229.4	11.3	CMG	231.492	13.0	CMG	204.6	11.4	CMG
Z CAM	ugz		222.5	10.4	JRJ	233.3	11.9	CMG	232.333	12.9	CMG	208.5	11.6	JRJ
184.247	12.8	CMG	229.5	11.2	CMG	241.4	12.2	CMG	233.331	13.0	CMG	215.6	11.9	BVE
184.265	13.0	JRJ	233.4	11.2	CMG	246.5	12.6	CMG	234.414	13.1	CMG	217.3	11.9	CMG
185.240	12.9	CMG	243.5	11.2	BVE	250.4	12.7	CMG	243.519	11.9	BVE	221.3	11.9	CMG
188.256	10.8	BMU	246.4	11.8	CMG	267.4	13.5	CMG	245.542	11.7	BVE	222.3	11.8	BMU
188.347	10.5	CMG	250.3	12.0	CMG	-----	-----	-----	246.388	12.0	CMG	222.5	11.9	JRJ
189.294	10.7	BMU	257.6	12.2	BVE	0848+03			249.391	12.9	CMG	229.5	12.3	CMG
189.294	10.8	VDE	261.3	12.3	CMG	S HYA	mira		250.321	12.9	CMG	233.3	12.3	CMG
189.617	10.5	CMG	267.4	12.5	CMG	184.4	10.8	CMG	252.410	13.2	CMG	246.4	12.7	CMG
190.276	10.7	CMG	-----	-----	-----	188.4	10.4	CMG	253.322	13.5	CMG	250.3	13.0	CMG
192.645	11.6	CMG	0816+33			196.4	10.3	CMG	261.323	12.6	CMG	265.4	13.2	CMG
193.651	11.7	CMG	T LYN	mira		204.6	9.8	CMG	267.308	12.1	CMG	-----	-----	-----
196.267	12.6	CMG	184.3	12.2	JRJ	208.5	9.9	JRJ	-----	-----	-----	0939+52		
196.514	12.5	BMU	184.4	12.2	CMG	215.6	9.5	CMG	0904+25			ER UMA	ug	
196.515	12.8	VDE	189.3	12.2	CMG	221.3	9.3	CMG	W CNC	mira		188.277	13.7	BMU
197.361	13.1	CMG	196.3	12.3	CMG	222.5	9.4	JRJ	189.4	14.5	CMG	192.656	13.7	CMG
204.625	13.2	CMG	208.4	12.4	CMG	227.4	9.2	CMG	196.4	14.6	CMG	221.323	12.7	CMG
204.653	13.0	BMU	217.3	12.1	CMG	233.3	8.6	CMG	204.6	14.6	CMG	222.305	12.7	CMG
206.334	13.2	CMG	221.3	12.0	CMG	246.4	7.8	CMG	217.4	14.6	CMG	222.306	12.8	BMU
208.265	11.5	JRJ	222.5	11.6	JRJ	250.4	7.8	CMG	223.5	14.2	JRJ	223.283	12.8	CMG
208.412	11.1	CMG	229.5	11.6	CMG	261.3	7.5	CMG	229.5	13.9	CMG	223.314	12.8	BMU
209.272	10.9	CMG	233.3	11.6	CMG	267.3	7.7	CMG	246.4	13.7	CMG	229.449	12.7	CMG
209.287	10.8	JRJ	241.4	11.5	CMG	-----	-----	-----	250.3	13.5	CMG	233.338	13.1	CMG
209.333	10.5	GGU	246.4	11.4	CMG	0850-08			261.3	12.8	CMG	234.313	13.3	BMU
217.288	12.8	CMG	250.3	11.4	CMG	T HYA	mira		-----	-----	-----	249.435	13.8	CMG
218.311	12.9	BMU	265.4	11.0	CMG	189.6	8.4	CMG	0911-04			252.415	14.9	CMG
220.558	12.9	CMG	269.4	11.0	CMG	196.4	8.5	CMG	UZ HYA	mira		-----	-----	-----
221.262	13.0	CMG	-----	-----	-----	204.6	8.8	CMG	189.6	9.4	CMG	0942+11		
222.252	13.1	CMG	0819+35			208.5	9.0	JRJ	204.6	9.0	CMG	R LEO	mira	
222.294	12.9	BMU	X LYN	mira		215.6	9.3	CMG	215.6	8.9	CMG	181.4	9.0	CMG
223.269	13.1	CMG	184.3	11.2	JRJ	221.4	9.3	CMG	229.4	9.3	CMG	189.5	9.0	VDE
223.311	13.2	BMU	184.4	11.5	CMG	222.5	9.5	JRJ	234.4	9.4	CMG	189.5	9.3	BMU
223.319	13.0	JRJ	189.3	11.6	CMG	229.5	9.8	CMG	246.4	9.8	CMG	189.6	9.2	CMG
227.293	13.2	CMG	196.3	11.6	CMG	233.3	10.0	CMG	250.4	10.0	CMG	196.4	9.3	CMG
231.484	13.1	CMG	208.4	11.6	CMG	246.4	10.2	CMG	261.3	11.1	CMG	196.5	9.5	BMU
232.340	13.1	CMG	217.3	11.9	CMG	250.4	10.6	CMG	-----	-----	-----	196.5	9.5	VDE
233.297	13.0	BMU	221.3	11.9	CMG	261.3	11.1	CMG	0930-14			202.8	9.2	BVE
233.315	13.0	CMG	222.5	12.2	JRJ	-----	-----	-----	X HYA	mira		204.6	9.7	CMG
234.293	13.0	BMU	229.5	12.5	CMG	0852-02			208.5	11.8	JRJ	208.5	9.8	JRJ
234.359	13.0	JRJ	233.3	12.6	CMG	WW HYA	mira		222.5	11.8	JRJ	215.4	10.0	CMG
234.406	13.2	CMG	241.4	12.7	CMG	249.4	14.4	CMG	-----	-----	-----	215.6	9.9	BVE
237.410	11.1	CMG	246.4	12.9	CMG	-----	-----	-----	0931+78			218.3	9.9	BMU
239.284	10.7	BMU	250.3	13.0	CMG	0853-00			Y DRA	mira		221.3	10.0	CMG
239.333	10.5	CMG	-----	-----	-----	TU HYA	mira		184.3	14.6	CMG	222.5	10.2	JRJ
241.288	10.6	BMU	0830+13			189.6	10.2	CMG	189.3	14.5	CMG	227.4	10.2	CMG
241.378	10.4	CMG	UY CNC	mira		196.4	10.1	CMG	196.3	14.6	CMG	231.6	10.0	BVE
242.272	10.4	CMG	188.4	11.4	CMG	204.6	10.3	CMG	217.3	14.5	CMG	233.4	9.9	BMU
246.361	10.7	CMG	193.7	11.9	CMG	215.6	10.5	CMG	223.3	14.5	CMG	237.4	10.2	CMG
249.381	11.7	BMU	196.4	11.9	CMG	229.4	11.1	CMG	229.5	14.4	CMG	241.3	10.0	BMU
249.382	11.8	VDE	204.6	12.3	CMG	234.4	11.7	CMG	249.4	14.4	CMG	241.4	10.2	CMG
249.402	11.6	CMG	215.6	12.8	CMG	246.4	12.4	CMG	249.4	14.4	CMG	243.5	9.9	BVE
250.291	12.1	CMG	220.5	13.3	CMG	250.4	12.8	CMG	261.4	14.3	CMG	246.4	10.2	CMG
252.397	12.4	BMU	229.5	13.5	CMG	261.3	13.4	CMG	-----	-----	-----	249.4	9.9	BMU

249.4	10.0	VDE	189.6	9.9	CMG	204.6	10.7	CMG	196.7	11.1	CMG	209.4	12.4	JRJ
250.3	10.2	CMG	204.6	10.3	CMG	208.6	11.3	JRJ	204.6	11.3	CMG	215.4	12.3	CMG
251.6	9.5	BVE	215.6	9.5	CMG	215.6	11.9	CMG	215.6	11.7	CMG	221.3	11.7	CMG
253.4	9.5	GGU	229.5	9.5	CMG	222.5	12.3	JRJ	229.5	11.9	CMG	223.3	11.2	JRJ
261.3	9.9	CMG	246.4	10.0	CMG	229.5	12.5	CMG	233.4	12.0	CMG	224.8	11.2	BVE
267.4	9.5	CMG	250.3	9.9	CMG	233.4	12.7	CMG	246.4	12.3	CMG	227.3	10.6	CMG
-----	-----	-----	267.4	10.7	CMG	246.4	13.2	CMG	250.4	12.6	CMG	233.3	9.5	BMU
0945+12			-----	-----	-----	250.4	13.1	CMG	-----	-----	-----	233.3	9.6	CMG
X LEO	ugss		1029+00			261.4	14.0	CMG	1200+12			237.4	9.4	CMG
204.599	12.5	CMG	S SEX	mira		-----	-----	-----	SU VIR	mira		239.3	9.1	BMU
223.538	12.4	JRJ	189.6	12.6	CMG	1107-06			189.6	13.4	CMG	241.4	9.3	CMG
250.321	12.7	CMG	196.4	12.5	CMG	U CRT	mira		208.6	14.2	JRJ	245.8	9.0	BVE
251.611	12.3	BVE	204.6	12.1	CMG	204.6	14.8	CMG	220.6	14.0	CMG	246.4	8.9	CMG
252.384	12.9	BMU	208.6	11.7	JRJ	229.5	13.8	CMG	223.6	14.3	JRJ	250.3	8.7	CMG
252.410	13.0	CMG	215.6	11.8	CMG	249.4	12.0	CMG	229.5	14.0	CMG	253.4	8.7	BMU
253.42	13.1	CMG	221.4	11.6	CMG	252.4	11.9	CMG	249.4	13.0	CMG	253.4	8.7	GGU
-----	-----	-----	222.5	11.6	JRJ	261.4	11.1	CMG	253.4	12.7	CMG	255.9	8.9	BVE
0945-01			229.5	11.2	CMG	-----	-----	-----	-----	-----	-----	261.3	8.5	CMG
W SEX	sr		233.4	11.0	CMG	1118+17			1209-05			265.4	8.5	CMG
208.5	9.4	JRJ	246.4	10.7	CMG	TZ LEO	mira		T VIR	mira		266.4	8.9	GGU
222.5	9.0	JRJ	250.3	10.4	CMG	189.6	11.6	CMG	189.6	11.7	CMG	-----	-----	-----
-----	-----	-----	261.3	9.9	CMG	204.6	12.1	CMG	204.6	12.1	CMG	1233+07		
0947+35			-----	-----	-----	215.6	12.6	CMG	222.6	13.0	CMG	R VIR	mira	
S LMI	mira		1037+69			229.5	12.8	CMG	223.6	12.8	JRJ	189.6	11.3	CMG
184.4	10.4	CMG	R UMA	mira		246.4	13.1	CMG	-----	-----	-----	204.6	10.8	CMG
189.3	10.8	CMG	188.3	12.8	BMU	250.4	13.3	CMG	1214-18			208.6	9.8	JRJ
196.3	11.3	CMG	188.3	13.0	CMG	-----	-----	-----	R CRV	mira		220.6	9.2	CMG
204.6	11.7	CMG	196.3	12.6	CMG	1133+03			189.6	12.5	CMG	223.6	8.9	JRJ
208.5	12.2	JRJ	204.6	12.3	CMG	T LEO	ug		208.7	12.5	JRJ	229.5	8.2	CMG
217.3	12.4	CMG	208.4	12.6	GGU	234.644	10.8	BMU	-----	-----	-----	237.6	7.6	CMG
221.3	12.6	CMG	209.4	12.5	JRJ	-----	-----	-----	1220+01			249.4	7.0	CMG
222.5	12.6	JRJ	215.3	12.3	CMG	1136+39			SS VIR	sr		253.4	7.1	CMG
229.5	13.2	CMG	221.3	12.1	CMG	RU UMA	mira		189.6	8.4	CMG	265.4	7.2	CMG
233.3	13.4	CMG	222.3	12.2	BMU	188.4	9.1	CMG	204.6	8.5	CMG	-----	-----	-----
246.4	13.4	CMG	223.3	12.3	JRJ	196.4	9.1	CMG	208.6	8.4	JRJ	1233+66		
250.3	13.5	CMG	223.4	12.2	GGU	204.6	9.0	CMG	220.6	9.0	CMG	RV DRA	mira	
265.4	13.9	CMG	227.3	12.1	CMG	217.3	9.3	CMG	223.6	9.1	JRJ	188.3	14.7	CMG
-----	-----	-----	233.3	11.8	BMU	223.3	9.3	CMG	229.5	9.1	CMG	227.3	12.2	CMG
0948+36			233.3	11.8	CMG	229.5	9.4	CMG	250.4	9.0	CMG	233.4	11.1	CMG
U LMI	sr		241.3	11.3	BMU	242.7	9.5	CMG	-----	-----	-----	239.3	10.5	CMG
184.4	12.1	CMG	241.4	11.4	CMG	246.5	9.6	CMG	1225+32			246.4	10.1	CMG
189.3	12.0	CMG	246.4	10.9	CMG	250.4	9.7	CMG	T CVN	mira:		250.4	9.8	CMG
196.3	11.9	CMG	250.3	10.9	CMG	-----	-----	-----	189.6	9.8	CMG	265.4	9.7	CMG
204.6	11.9	CMG	253.4	9.7	BMU	1151+58			196.4	9.8	CMG	-----	-----	-----
208.5	11.8	JRJ	253.4	9.9	VDE	Z UMA	sr		204.6	9.6	CMG	1234+59		
217.3	11.9	CMG	261.3	9.0	CMG	181.4	8.0	CMG	215.6	9.7	CMG	RS UMA	mira	
221.3	11.9	CMG	-----	-----	-----	188.3	8.1	BMU	221.4	9.7	CMG	181.4	11.9	CMG
222.5	11.9	JRJ	1048+14			188.3	8.1	CMG	229.5	9.8	CMG	188.3	10.7	BMU
229.5	12.1	CMG	W LEO	mira		189.3	7.4	VDE	234.4	9.7	CMG	188.3	10.8	CMG
233.3	12.0	CMG	189.6	14.0	CMG	196.4	8.1	CMG	246.4	10.4	CMG	196.4	9.8	CMG
246.4	12.0	CMG	204.6	14.5	CMG	204.6	8.0	CMG	250.3	10.5	CMG	202.8	9.2	BVE
250.3	11.9	CMG	222.5	14.4	JRJ	209.4	7.5	JRJ	265.4	10.9	CMG	204.6	9.3	CMG
265.4	11.8	CMG	229.5	14.8	CMG	222.3	7.6	CMG	-----	-----	-----	209.4	9.0	JRJ
-----	-----	-----	249.4	14.8	CMG	222.3	7.8	BMU	1228-03			215.4	8.8	CMG
0954+21			-----	-----	-----	223.3	7.8	JRJ	Y VIR	mira		215.6	9.4	BVE
V LEO	mira		1051+50			227.3	7.6	CMG	189.6	10.6	CMG	221.3	9.1	CMG
181.4	10.7	CMG	CY UMA	ug		233.3	7.6	BMU	204.6	10.2	CMG	222.3	9.0	BMU
189.6	10.1	CMG	222.323	12.8	BMU	233.3	7.6	CMG	208.6	9.9	JRJ	223.3	9.0	JRJ
196.4	9.8	CMG	223.284	12.8	CMG	239.3	7.4	BMU	220.6	9.8	CMG	224.8	9.2	BVE
204.6	9.7	CMG	223.316	12.8	BMU	246.4	7.5	CMG	223.6	9.9	JRJ	227.3	9.2	CMG
208.5	9.7	JRJ	-----	-----	-----	250.4	7.5	CMG	229.5	9.8	CMG	233.3	9.1	BMU
215.4	9.5	CMG	1058+33			253.4	8.0	BMU	237.6	9.5	CMG	233.3	9.2	CMG
221.3	9.7	CMG	SX LEO	srb		261.4	8.6	CMG	249.4	9.5	CMG	237.4	9.3	CMG
222.5	10.2	JRJ	189.6	9.9	CMG	269.4	8.6	CMG	253.4	9.8	CMG	239.3	9.3	BMU
229.5	9.8	CMG	204.6	9.8	CMG	-----	-----	-----	265.4	10.0	CMG	241.4	9.4	CMG
233.4	10.2	CMG	215.6	9.9	CMG	1155-09			-----	-----	-----	245.8	9.7	BVE
241.4	10.4	CMG	229.5	9.8	CMG	SV VIR	mira		1231+60			246.4	9.7	CMG
246.4	10.5	CMG	246.6	9.9	CMG	193.6	13.5	CMG	T UMA	mira		250.3	9.9	CMG
250.3	10.6	CMG	250.4	9.8	CMG	222.6	13.7	CMG	181.4	13.0	CMG	253.4	10.1	BMU
261.3	11.6	CMG	-----	-----	-----	-----	-----	-----	188.3	12.9	BMU	253.4	10.4	GGU
-----	-----	-----	1105+06			1159+19			188.3	13.0	CMG	255.9	10.4	BVE
0958+14			S LEO	mira		R COM	mira		196.4	12.8	CMG	261.3	10.9	CMG
RY LEO	sr		189.6	10.2	CMG	189.6	11.3	CMG	204.6	12.5	CMG	265.4	10.9	CMG

1239+61		1302-12		234.4	10.8	CMG	208.6	9.5	JRJ	222.5	8.0	JRJ			
S UMA	mira	RV VIR	mira	245.9	11.1	BVE	215.6	9.3	CMG	222.7	7.4	CMG			
181.4	8.1	222.6	14.3	CMG	246.4	11.3	CMG	221.4	9.1	CMG	224.9	7.8	BVE		
188.3	8.1	1322+62		250.3	11.4	CMG	222.6	9.5	JRJ	229.5	7.4	CMG			
188.3	8.2	RR UMA	mira	255.9	11.1	BVE	229.5	8.8	CMG	237.4	7.4	CMG			
189.3	7.9	188.3	14.5	CMG	265.4	11.7	CMG	234.3	8.5	BMU	245.9	7.3	BVE		
196.4	8.4	227.3	11.0	CMG	-----	-----	-----	234.4	8.8	CMG	246.5	7.4	CMG		
196.5	7.8	233.4	10.5	CMG	1344-01		242.7	8.9	CMG	250.4	7.5	CMG			
202.8	8.6	239.3	9.6	CMG	CE VIR	rv:	246.5	8.9	CMG	255.9	7.9	BVE			
204.6	8.6	246.4	9.4	CMG	237.635	8.9	CMG	250.4	9.1	CMG	265.4	8.0	CMG		
209.4	8.4	250.4	9.3	CMG	266.554	8.6	CMG	265.4	9.4	CMG	269.4	8.4	CMG		
215.4	8.7	265.4	9.3	CMG	-----	-----	-----	-----	-----	-----	-----	-----	-----		
215.6	9.2	-----	-----	-----	1353-04		1422+05		1443+39						
221.3	8.8	1322-02		193.6	11.8	CMG	RS VIR	mira	RR BOO	mira					
222.3	9.2	V VIR	mira	208.7	11.0	JRJ	189.6	12.3	CMG	189.6	11.9	CMG			
223.3	9.0	189.6	10.0	CMG	222.6	9.7	CMG	204.6	13.3	CMG	204.6	10.5	CMG		
224.8	9.1	204.6	10.9	CMG	237.6	9.8	CMG	208.7	13.0	JRJ	208.6	10.1	JRJ		
227.3	9.2	208.6	11.4	JRJ	266.6	11.0	CMG	222.6	13.4	CMG	215.6	9.4	CMG		
233.3	9.3	222.6	12.5	CMG	-----	-----	-----	223.7	13.5	JRJ	222.5	9.3	JRJ		
233.3	9.5	223.6	13.0	JRJ	1359-08		229.5	13.6	CMG	222.7	9.5	CMG			
237.4	9.5	-----	-----	-----	RR VIR	mira	249.4	13.4	CMG	229.5	9.4	CMG			
237.4	10.3	1327-06		222.6	12.9	CMG	266.6	14.2	CMG	237.4	9.3	CMG			
239.3	9.6	S VIR	mira	223.6	12.8	JRJ	-----	-----	-----	246.5	9.5	CMG			
241.4	9.6	189.6	9.1	CMG	266.6	11.7	CMG	1425+39		250.4	9.6	CMG			
245.8	10.2	204.6	9.4	CMG	-----	-----	-----	V BOO	sr	265.4	10.0	CMG			
246.4	9.9	208.6	9.4	JRJ	1401+13		189.6	8.9	CMG	-----	-----	-----	-----		
250.3	10.1	220.6	9.8	CMG	Z BOO	mira	202.8	8.5	BVE	1506-05					
253.4	10.0	223.6	9.9	JRJ	189.6	9.6	CMG	204.6	8.9	CMG	Y LIB	mira			
253.4	10.4	229.5	10.1	CMG	204.6	10.1	CMG	208.6	8.5	JRJ	208.7	9.5	JRJ		
253.4	10.5	237.6	10.7	CMG	208.6	10.2	JRJ	215.6	8.8	CMG	222.6	9.6	CMG		
255.9	10.9	265.4	11.5	CMG	215.6	10.2	CMG	217.8	8.1	BVE	237.7	10.1	CMG		
261.3	10.6	-----	-----	-----	222.5	10.7	JRJ	222.5	8.7	JRJ	266.6	11.9	CMG		
265.4	10.7	1332+73		222.7	10.4	CMG	222.7	8.7	CMG	-----	-----	-----	-----		
266.4	10.8	T UMI	mira	222.7	10.4	CMG	224.9	8.2	BVE	1510+83					
-----	-----	184.3	11.6	CMG	229.5	11.0	CMG	229.5	8.6	CMG	Z UMI	rcb			
1242+04		189.3	11.6	CMG	237.6	11.3	CMG	237.4	8.5	CMG	185.240	11.3	CMG		
RU VIR	mira	196.2	11.1	CMG	246.5	11.8	CMG	245.9	8.1	BVE	188.257	11.2	BMU		
189.6	12.1	204.6	10.7	CMG	250.4	11.9	CMG	246.5	8.4	CMG	190.286	11.3	CMG		
204.6	11.4	209.4	10.9	JRJ	266.5	12.9	CMG	250.4	8.4	CMG	196.238	11.3	CMG		
208.6	11.6	215.3	10.5	CMG	-----	-----	-----	255.9	8.1	BVE	196.516	11.1	BMU		
220.6	12.0	221.3	10.5	CMG	1405-12		265.4	8.3	CMG	196.517	11.3	VDE			
223.6	12.5	223.3	10.1	JRJ	Z VIR	mira	-----	-----	-----	204.653	11.3	BMU			
229.5	12.0	227.3	10.4	CMG	208.7	11.7	JRJ	1425+84		208.3	11.0	GGU			
237.6	12.0	233.3	10.4	CMG	222.6	10.8	CMG	R CAM	mira	208.412	11.4	CMG			
249.4	11.8	239.3	10.4	CMG	223.6	10.9	JRJ	184.3	11.1	CMG	209.282	11.3	JRJ		
253.4	11.6	246.4	10.3	CMG	237.6	10.3	CMG	189.3	10.4	CMG	209.333	11.2	GGU		
265.4	11.0	250.4	10.2	CMG	266.6	10.3	CMG	196.3	9.7	CMG	217.289	11.1	CMG		
-----	-----	261.3	10.1	CMG	-----	-----	-----	208.4	9.3	GGU	218.312	11.2	BMU		
1242+38		265.4	10.0	CMG	1415+67		208.4	9.7	CMG	222.296	11.1	BMU			
U CVN	mira	-----	-----	-----	U UMI	mira	215.3	9.5	CMG	222.318	11.1	CMG			
189.6	12.0	1344+34		184.3	9.2	CMG	221.3	9.4	CMG	222.375	11.2	GGU			
196.4	12.0	RT CVN	mira	189.3	9.1	CMG	222.4	9.3	GGU	223.308	11.3	JRJ			
204.6	12.4	189.6	11.1	CMG	196.2	9.2	CMG	223.3	9.4	JRJ	223.375	11.2	GGU		
215.6	12.6	204.6	11.6	CMG	204.6	9.1	CMG	227.3	9.4	CMG	233.285	11.1	CMG		
229.5	13.1	215.6	12.1	CMG	209.4	9.1	JRJ	233.3	9.2	BMU	233.320	11.2	BMU		
234.4	13.2	229.5	12.5	CMG	215.3	9.1	CMG	233.3	9.3	CMG	234.375	11.4	GGU		
246.4	13.2	234.4	12.8	CMG	221.3	9.1	CMG	237.4	9.3	CMG	237.428	11.1	CMG		
252.4	13.6	246.4	13.3	CMG	223.3	8.8	JRJ	241.3	9.0	BMU	237.448	11.3	GGU		
-----	-----	252.4	13.7	CMG	227.3	9.1	CMG	246.5	9.3	CMG	239.285	11.0	BMU		
1246+06		-----	-----	-----	233.3	9.2	CMG	250.4	9.1	CMG	241.288	11.0	BMU		
U VIR	mira	1344+40		239.3	9.2	CMG	252.4	8.5	GGU	249.383	11.0	BMU			
189.6	8.4	R CVN	mira	246.4	9.2	CMG	253.4	8.6	BMU	249.383	11.3	VDE			
204.6	9.0	189.6	9.2	CMG	250.4	9.2	CMG	261.3	9.1	CMG	249.402	11.1	CMG		
208.6	9.3	196.4	9.4	CMG	253.4	8.9	GGU	266.4	8.4	GGU	252.399	11.1	BMU		
220.6	9.8	202.8	10.3	BVE	261.4	9.2	CMG	-----	-----	-----	252.399	11.4	VDE		
223.6	9.9	204.6	10.0	CMG	265.4	9.1	CMG	1432+27		252.417	11.2	GGU			
229.5	9.9	215.6	10.3	CMG	266.4	8.9	GGU	R BOO	mira	252.432	11.1	CMG			
237.6	10.1	217.8	10.5	BVE	-----	-----	-----	189.6	9.9	CMG	253.417	11.2	GGU		
249.4	10.8	221.4	10.4	CMG	1419+54		202.8	8.1	BVE	261.344	11.0	CMG			
253.4	10.9	224.9	10.7	BVE	S BOO	mira	204.6	8.6	CMG	266.375	11.2	GGU			
265.4	11.4	229.5	10.7	CMG	189.6	10.3	CMG	208.6	8.5	JRJ	267.322	11.1	CMG		
-----	-----	234.3	11.0	BMU	196.4	9.7	CMG	215.6	7.9	CMG	-----	-----	-----	-----	
					204.6	9.4	CMG	217.8	8.0	BVE	1513+36				

RT BOO	mira	R CRB	rcb	255.9	7.7 BVE	-----	202.9	7.7 BVE	
189.6	12.6 CMG	189.531	8.1 BMU	265.6	8.0 CMG	1602+10	204.6	8.2 CMG	
204.6	12.8 CMG	189.533	8.1 VDE	-----	-----	U SER	208.7	8.4 JRJ	
208.6	12.7 JRJ	189.617	8.1 CMG	1546+39	-----	mira	217.9	8.6 BVE	
215.6	12.5 CMG	192.639	8.3 CMG	V CRB	mira	193.7	13.3 CMG	222.7	8.8 CMG
222.5	12.5 JRJ	193.646	8.4 CMG	189.6	11.2 CMG	204.6	13.5 CMG	223.7	8.8 JRJ
222.7	12.4 CMG	196.523	9.0 BMU	204.6	10.8 CMG	222.7	13.9 CMG	237.7	9.4 CMG
229.5	12.0 CMG	196.526	9.1 VDE	208.6	10.5 JRJ	223.6	14.0 JRJ	245.9	9.8 BVE
237.6	11.9 CMG	196.701	8.6 CMG	215.6	10.5 CMG	266.6	12.4 CMG	255.9	10.6 BVE
246.5	11.4 CMG	202.886	9.6 BVE	217.9	10.4 BVE	-----	-----	266.6	11.5 CMG
250.4	11.3 CMG	204.622	9.6 CMG	222.6	10.3 JRJ	1606+25	-----	-----	-----
265.6	11.2 CMG	204.624	9.8 BMU	222.7	10.4 CMG	RU HER	mira	1632+66	-----
-----	-----	208.582	9.6 JRJ	229.5	10.3 CMG	189.6	11.8 CMG	R DRA	mira
1517+14	-----	215.567	8.4 CMG	237.7	10.0 CMG	204.7	11.8 CMG	184.3	7.8 CMG
S SER	mira	217.862	8.1 BVE	245.9	9.3 BVE	208.7	11.9 JRJ	185.3	8.0 JRJ
189.6	13.4 CMG	218.511	8.3 BMU	246.5	9.7 CMG	222.7	11.7 CMG	188.3	7.7 BMU
204.6	13.4 CMG	220.566	8.2 CMG	250.4	9.4 CMG	223.7	12.0 JRJ	189.3	7.8 CMG
208.7	13.4 JRJ	221.504	8.2 BMU	255.9	8.2 BVE	237.7	11.4 CMG	196.3	7.9 CMG
222.7	13.3 CMG	222.503	8.2 BMU	265.4	8.8 CMG	242.7	11.4 CMG	204.6	8.0 CMG
223.6	13.2 JRJ	222.552	7.9 JRJ	-----	-----	265.4	8.3 CMG	208.6	8.2 JRJ
237.6	13.3 CMG	222.642	8.2 CMG	1552+29	-----	-----	-----	215.3	8.4 CMG
265.6	12.2 CMG	227.565	7.8 BMU	Z CRB	mira	1607+10	-----	221.3	8.5 CMG
-----	-----	229.488	7.7 BMU	204.6	13.7 CMG	DN HER	mira	223.5	8.8 JRJ
1517+31	-----	229.531	7.9 CMG	222.6	13.0 JRJ	237.7	13.3 CMG	227.3	9.1 CMG
S CRB	mira	234.5	7.8 CMG	222.6	13.5 CMG	266.6	11.4 CMG	233.3	9.0 CMG
189.5	8.5 BMU	234.638	8.0 BMU	237.7	12.2 CMG	-----	-----	234.3	9.1 BMU
189.5	8.6 VDE	237.441	7.7 CMG	249.4	11.6 CMG	1611+38	-----	239.3	9.3 CMG
189.6	8.9 CMG	237.678	7.7 BMU	266.5	9.6 CMG	W CRB	mira	246.5	9.9 CMG
202.9	8.6 BVE	241.448	7.6 BMU	-----	-----	204.6	12.5 CMG	250.4	10.3 CMG
204.6	9.0 CMG	242.674	7.9 CMG	1555+26	-----	208.6	12.4 JRJ	253.4	10.1 GGU
208.6	9.2 JRJ	245.897	7.0 BVE	T CRB	nr	215.6	13.3 CMG	253.4	10.2 BMU
215.6	9.2 CMG	246.456	7.2 BMU	189.547	10.5 BMU	222.6	13.2 JRJ	265.4	11.1 CMG
217.9	9.5 BVE	246.479	7.6 CMG	189.549	10.1 VDE	222.7	13.4 CMG	266.4	11.1 GGU
222.6	9.5 JRJ	249.424	7.0 BMU	189.617	10.2 CMG	237.7	14.0 CMG	-----	-----
222.7	9.3 CMG	249.424	7.3 VDE	196.527	10.4 BMU	249.4	14.3 CMG	1634+14	-----
234.7	9.8 BMU	249.435	7.5 CMG	196.528	10.5 VDE	266.5	13.9 CMG	AS HER	mira
237.7	9.9 CMG	252.433	7.3 VDE	204.622	10.0 CMG	-----	-----	208.7	9.4 JRJ
245.9	10.3 BVE	252.434	6.8 BMU	204.623	10.2 BMU	1613+26	-----	223.6	9.9 JRJ
246.5	10.1 CMG	252.438	7.0 CMG	208.584	10.3 JRJ	NP HER	mira	237.7	10.2 CMG
249.4	10.1 CMG	253.399	6.8 BMU	215.597	10.0 CMG	189.6	12.1 CMG	266.6	11.9 CMG
255.9	10.5 BVE	253.403	7.2 VDE	222.554	10.1 JRJ	237.7	12.7 CMG	-----	-----
265.4	10.5 CMG	255.876	7.0 BVE	222.694	10.2 CMG	266.6	12.0 CMG	1640+12	-----
-----	-----	256.531	6.7 BMU	234.639	10.3 BMU	-----	-----	UV HER	mira
1527+03	-----	256.534	6.7 VDE	237.678	10.1 CMG	1621+19	-----	208.7	9.6 JRJ
WW SER	mira	265.401	6.6 CMG	249.422	10.4 BMU	U HER	mira	223.6	9.3 JRJ
222.7	12.0 CMG	265.460	6.5 BMU	249.423	10.9 VDE	189.6	9.5 CMG	237.7	9.3 CMG
237.7	12.4 CMG	266.470	6.4 BMU	249.435	10.1 CMG	202.9	9.8 BVE	266.6	10.2 CMG
-----	-----	266.511	6.4 VDE	253.382	10.4 BMU	204.6	9.9 CMG	-----	-----
1533+78A	-----	266.656	6.6 CMG	265.401	10.3 CMG	208.7	9.8 JRJ	1640+25	-----
S UMI	mira	-----	-----	-----	-----	217.9	9.9 BVE	AH HER	ugz
184.3	9.9 CMG	1545+36	-----	1601+18	-----	222.7	10.2 CMG	208.689	13.0 JRJ
188.3	9.8 GGU	X CRB	mira	R HER	mira	223.7	10.3 JRJ	237.693	14.3 CMG
189.3	10.0 CMG	189.6	9.3 CMG	208.7	14.0 JRJ	245.9	10.6 BVE	242.684	11.9 CMG
196.2	10.1 CMG	204.6	9.6 CMG	222.7	14.1 CMG	255.9	10.9 BVE	266.583	11.4 CMG
196.4	9.9 GGU	208.6	9.9 JRJ	223.7	14.2 JRJ	266.6	11.1 CMG	-----	-----
204.6	10.4 CMG	215.6	10.1 CMG	266.6	14.7 CMG	-----	-----	1647+15	-----
208.3	10.4 GGU	222.6	10.9 JRJ	-----	-----	1626+23	-----	S HER	mira
209.4	10.1 JRJ	222.7	10.4 CMG	1601+67	-----	DO HER	mira	208.7	7.8 JRJ
215.3	10.7 CMG	237.7	11.7 CMG	AG DRA	zand	208.7	12.6 JRJ	222.7	8.2 CMG
221.4	10.8 CMG	249.4	12.4 CMG	185.3	9.8 JRJ	223.7	11.5 JRJ	223.6	8.0 JRJ
222.4	10.5 GGU	266.5	13.2 CMG	188.2	10.0 CMG	242.7	11.0 CMG	237.7	8.6 CMG
223.3	11.4 JRJ	-----	-----	188.317	9.8 BMU	-----	-----	266.6	9.6 CMG
227.3	11.0 CMG	1546+15	-----	208.4	9.9 CMG	1628+07A	-----	-----	-----
233.3	11.4 CMG	R SER	mira	208.6	10.1 JRJ	SS HER	mira	1652-02	-----
239.3	11.7 CMG	189.6	7.9 CMG	223.5	10.0 JRJ	208.7	9.1 JRJ	SS OPH	mira
246.4	11.9 CMG	202.9	7.2 BVE	234.290	10.0 BMU	222.7	9.2 CMG	237.7	13.0 CMG
250.4	11.9 CMG	204.6	7.5 CMG	246.5	9.9 CMG	223.6	9.5 JRJ	266.6	14.2 CMG
252.4	11.5 GGU	208.7	7.7 JRJ	249.4	9.8 CMG	237.7	10.3 CMG	-----	-----
261.3	12.0 CMG	217.9	7.2 BVE	253.396	9.8 VDE	266.6	12.0 CMG	1656+31	-----
265.4	12.2 CMG	222.6	7.3 CMG	253.396	9.9 BMU	-----	-----	RV HER	mira
266.4	12.2 GGU	223.6	7.5 JRJ	253.4	9.8 CMG	1631+37	-----	223.7	13.5 JRJ
-----	-----	237.6	7.4 CMG	253.4	10.1 GGU	W HER	mira	266.6	13.2 CMG
1544+28A	-----	245.9	7.6 BVE	266.4	10.1 GGU	189.6	8.0 CMG	-----	-----

1657+22		237.7	12.0	CMG	184.3	11.3	CMG	1823+06		266.615	14.6	CMG			
SY HER	mira	266.6	11.8	CMG	185.3	11.3	JRJ	T SER	mira						
208.7	8.5	JRJ			189.3	11.5	CMG	237.7	13.6	CMG		1905+29A			
217.9	9.0	BVE			196.3	11.7	CMG	266.6	11.4	CMG		V LYR	mira		
222.7	9.6	CMG			204.6	12.2	CMG					185.2	9.9	CMG	
223.7	9.7	JRJ			208.6	12.5	JRJ	1829+16				188.2	9.5	CMG	
237.7	11.1	CMG			215.3	12.8	CMG	DS HER	mira			237.6	9.8	CMG	
245.9	:12.3	BVE			221.3	12.9	CMG	266.6	12.1	CMG		266.6	11.3	CMG	
255.9	:12.5	BVE			223.5	12.7	JRJ								
266.6	12.6	CMG			227.3	13.1	CMG	1831+49A							
					237.7	13.5	CMG	SV DRA	mira						
1657+52					246.5	13.6	CMG	185.2	9.8	JRJ					
WZ DRA	sr				253.4	13.9	CMG	189.6	10.2	CMG					
185.2	11.6	JRJ			266.5	14.2	CMG	204.6	11.0	CMG					
189.6	11.3	CMG						208.6	11.0	JRJ					
204.6	11.6	CMG			1806+66			222.6	12.0	CMG					
208.6	11.5	JRJ			X DRA	mira		223.5	12.4	JRJ					
222.6	11.4	CMG			184.3	13.5	CMG	237.7	12.6	CMG					
223.5	11.5	JRJ			185.3	13.4	JRJ	249.4	13.1	CMG					
237.7	11.3	CMG			189.3	13.8	CMG	266.5	13.6	CMG					
249.4	10.6	CMG			196.3	14.0	CMG								
252.4	10.6	CMG			266.5	<14.6	CMG								
266.5	9.8	CMG						1832+25							
								RZ HER	mira						
1702+17								266.6	:14.7	CMG					
VY HER	mira														
237.7	11.5	CMG													
266.6	12.6	CMG													
1706+27A															
RT HER	mira														
266.6	14.6	CMG													
1714+01															
Z OPH	mira														
222.7	13.9	CMG													
266.6	13.4	CMG													
1717+07															
UZ OPH	rva														
222.683	10.6	CMG													
237.714	11.2	CMG													
266.606	10.9	CMG													
1717+23															
RS HER	mira														
208.7	12.5	JRJ													
222.7	12.0	CMG													
223.7	12.1	JRJ													
237.7	10.7	CMG													
245.9	10.1	BVE													
255.9	10.1	BVE													
266.6	9.7	CMG													
1726+18															
UZ HER	mira														
223.7	12.0	JRJ													
237.7	12.7	CMG													
266.6	13.1	CMG													
1728+09A															
RU OPH	mira														
222.7	14.2	CMG													
266.6	13.3	CMG													
1740+21															
CF HER	mira														
237.7	10.3	CMG													
266.6	10.4	CMG													
1744+22															
SU HER	mira														
208.7	12.8	JRJ													

184.3	12.6	CMG	184.3	10.2	CMG	188.233	10.9	BMU	189.4	10.1	CMG	ST CYG	mira	
189.3	12.7	CMG	185.3	9.3	JRJ	208.273	11.1	JRJ	192.7	10.1	CMG	184.3	10.1	CMG
196.3	12.9	CMG	189.3	10.2	CMG	234.663	10.9	BMU	196.4	10.1	CMG	185.3	10.4	JRJ
215.3	13.6	CMG	196.3	10.3	CMG	242.702	11.1	CMG	208.4	10.5	CMG	189.3	10.2	CMG
223.3	14.3	CMG	208.6	10.0	JRJ	266.647	11.3	CMG	209.3	10.5	JRJ	196.2	10.4	CMG
-----			215.3	10.7	CMG	-----			217.3	10.7	CMG	208.3	10.4	JRJ
1927+34			223.5	10.3	JRJ	1955+51			223.3	10.7	JRJ	209.3	10.6	CMG
DD CYG	mira		246.5	12.1	CMG	CM CYG	mira		223.3	10.8	CMG	217.3	10.8	CMG
185.2	11.2	JRJ	252.4	12.7	CMG	185.2	11.6	CMG	227.3	11.3	CMG	223.3	10.9	JRJ
185.2	11.5	CMG	266.5	13.3	CMG	185.3	11.8	JRJ	233.3	11.7	CMG	227.3	11.3	CMG
189.3	11.0	BMU	-----			189.3	11.5	CMG	239.3	11.8	CMG	266.6	12.6	CMG
242.7	10.5	CMG	1943+48			196.2	11.3	CMG	252.4	12.3	CMG	-----		
266.6	11.3	CMG	TU CYG	mira		209.3	10.9	JRJ	266.6	13.0	CMG	2029+62		
-----			185.2	11.3	CMG	223.3	10.9	JRJ	-----			BF CEP	mira	
1929+28			185.2	11.4	JRJ	237.7	10.6	CMG	2014+34			185.3	14.5	JRJ
TY CYG	mira		188.3	11.3	BMU	266.6	11.6	CMG	AU CYG	mira		-----		
185.2	13.0	JRJ	189.3	11.5	CMG	-----			188.2	14.7	CMG	2035+37		
188.2	12.9	CMG	196.2	11.9	CMG	1958+49			-----			FF CYG	mira	
-----			208.3	12.7	JRJ	Z CYG	mira		2014+37B			184.3	13.0	CMG
1933+11			237.7	14.5	CMG	185.2	10.0	CMG	WX CYG	mira		189.3	12.3	CMG
RT AQL	mira		266.6	14.6	CMG	185.2	10.5	JRJ	184.3	11.3	CMG	196.2	12.3	CMG
237.7	11.1	CMG	-----			189.3	9.6	CMG	185.2	11.3	JRJ	237.7	10.7	CMG
-----			1946+32			196.2	9.3	CMG	189.3	11.5	CMG	266.6	10.5	CMG
1934+28			CHICYG	mira		208.3	8.9	JRJ	196.2	11.5	CMG	-----		
BG CYG	mira		185.2	7.5	CMG	223.3	9.0	JRJ	208.3	11.2	JRJ	2036+11		
185.2	10.4	JRJ	185.2	7.5	JRJ	237.7	8.8	CMG	223.3	11.7	JRJ	Y DEL	mira	
185.2	10.8	CMG	188.2	7.2	BMU	266.6	9.7	CMG	237.7	12.1	CMG	185.2	9.1	CMG
237.7	10.2	CMG	190.3	7.6	CMG	-----			266.6	12.2	CMG	-----		
266.6	10.2	CMG	208.3	8.5	JRJ	2002+50			-----			2038+16		
-----			234.7	9.8	BMU	BU CYG	mira		2015+20			S DEL	mira	
1934+49			237.7	9.7	CMG	185.2	14.9	JRJ	V SGE	nl + e		185.2	12.0	CMG
R CYG	mira		266.6	11.1	CMG	188.2	14.9	CMG	188.215	11.2	CMG	-----		
185.2	12.8	JRJ	-----			208.3	14.0	JRJ	188.232	11.2	BMU	2038+47		
185.2	13.0	CMG	1950+55			237.7	12.9	CMG	242.715	10.6	CMG	V CYG	mira	
188.3	12.9	BMU	CU CYG	mira		266.6	11.7	CMG	266.656	11.4	CMG	184.3	10.2	CMG
208.3	13.1	JRJ	185.2	12.7	CMG	-----			-----			185.2	10.4	JRJ
222.7	13.7	CMG	185.3	12.6	JRJ	2003+57			2015+59			189.3	10.2	CMG
223.3	13.8	JRJ	189.3	12.4	CMG	S CYG	mira		CN CYG	mira		196.2	10.2	CMG
237.7	13.8	CMG	196.2	11.9	CMG	184.2	13.6	JRJ	184.3	11.0	CMG	208.3	9.8	JRJ
266.6	13.7	CMG	209.3	11.3	JRJ	196.2	12.4	CMG	185.3	10.7	JRJ	223.3	10.6	JRJ
-----			223.3	10.8	JRJ	208.3	12.2	JRJ	189.3	11.1	CMG	237.7	11.0	CMG
1937+31			237.7	10.7	CMG	222.7	11.7	CMG	196.2	11.5	CMG	266.6	11.6	CMG
FU CYG	mira		266.6	10.8	CMG	223.3	11.9	JRJ	209.3	11.9	JRJ	-----		
188.2	13.7	CMG	-----			237.7	11.1	CMG	209.3	12.2	CMG	2039+37		
-----			1951+36A			266.6	10.7	CMG	217.3	12.4	CMG	DR CYG	mira	
1939+54			IZ CYG	mira		-----			223.3	12.7	JRJ	185.2	14.5	JRJ
V369CYG	mira		188.2	13.0	CMG	2007+20A			227.3	13.1	CMG	188.2	14.6	CMG
185.2	11.5	CMG	242.7	13.0	CMG	ST SGE	mira		266.6	14.2	CMG	242.7	11.7	CMG
185.3	11.3	JRJ	-----			188.2	14.5	CMG	-----			266.6	9.4	CMG
189.3	11.3	CMG	1953+77			242.715	11.1	CMG	2016+21			-----		
196.2	11.0	CMG	AB DRA	ugz		266.6	11.6	CMG	FU VUL	n		2040+16		
209.3	10.3	JRJ	184.340	12.7	CMG	-----			188.231	11.6	BMU	T DEL	mira	
223.3	10.8	JRJ	188.243	14.9	CMG	2010+08			-----			185.2	11.4	CMG
237.7	11.7	CMG	189.369	13.8	CMG	R DEL	mira		2016+47			-----		
242.7	12.1	CMG	190.382	13.9	CMG	185.2	10.7	CMG	U CYG	mira		2048+46		
266.6	13.2	CMG	192.656	12.7	CMG	-----			184.3	9.4	CMG	RZ CYG	sr	
-----			196.368	14.8	CMG	2011+30			185.2	10.0	JRJ	184.3	12.5	CMG
1940+48			208.400	14.0	CMG	SX CYG	mira		189.3	9.6	CMG	185.2	12.7	JRJ
RT CYG	mira		209.276	13.9	CMG	184.3	11.5	CMG	196.2	9.6	CMG	189.3	12.7	CMG
185.2	10.0	CMG	215.269	13.4	CMG	185.2	11.1	JRJ	208.3	9.8	JRJ	208.3	13.3	JRJ
185.2	10.0	JRJ	217.333	14.9	CMG	189.3	11.5	CMG	223.3	10.3	JRJ	223.3	13.6	JRJ
188.3	9.7	BMU	223.281	12.8	CMG	196.2	11.5	CMG	237.7	9.8	CMG	266.6	14.2	CMG
189.3	9.4	CMG	227.313	13.5	CMG	209.2	11.8	JRJ	266.6	9.9	CMG	-----		
196.2	9.2	CMG	242.701	13.8	CMG	266.6	14.4	CMG	-----			2050+17		
208.3	9.0	JRJ	246.479	12.8	CMG	-----			2025+12			X DEL	mira	
223.3	7.8	JRJ	252.431	14.3	CMG	2012+09			RX DEL	mira		185.2	11.2	CMG
234.3	7.7	BMU	261.344	13.5	CMG	RU DEL	mira		185.2	11.2	CMG	-----		
237.7	7.8	CMG	266.554	12.4	CMG	185.2	12.1	CMG	-----			2050+30A		
239.3	7.8	BMU	-----			-----			2028+17			UX CYG	mira	
266.6	8.6	CMG	1955+33			2013+76			Z DEL	mira		184.2	11.3	JRJ
-----			V482CYG	rcb		SZ CEP	mira		185.2	10.0	CMG	184.3	10.8	CMG
1940+67			185.217	11.0	JRJ	184.3	9.9	CMG	-----			189.3	10.3	CMG
ZZ DRA	mira		188.229	11.5	CMG	185.3	10.0	JRJ	2029+54			196.2	9.7	CMG

209.2	9.8	JRJ	227.3	8.0	CMG	215.233	9.8	CMG	184.3	11.0	CMG	-----
266.6	10.6	CMG	233.3	8.0	CMG	217.239	8.5	CMG	185.3	11.1	JRJ	2229+24
-----	-----	-----	233.3	8.3	BMU	218.296	8.5	BMU	189.3	11.1	CMG	SS PEG mira
2055+47			239.3	7.9	CMG	222.278	8.5	BMU	196.2	12.2	CMG	184.3 11.5 CMG
DH CYG mira			241.3	8.1	BMU	222.694	8.4	CMG	209.3	12.4	JRJ	185.3 11.5 JRJ
185.2 13.5 JRJ			246.4	7.8	CMG	223.272	8.2	JRJ	217.2	13.6	CMG	189.3 11.6 CMG
223.3 11.8 JRJ			252.4	7.7	CMG	223.290	8.5	BMU	-----	-----	-----	209.2 12.0 JRJ
-----	-----	-----	265.4	7.7	CMG	233.308	10.8	BMU	2201+33B			209.3 12.3 CMG
2059+23A			-----	-----	-----	234.282	11.2	BMU	RZ PEG mira			217.2 12.5 CMG
R VUL mira			2116+14			234.313	10.9	JRJ	184.3 12.8 CMG			-----
184.3 8.3 CMG			X PEG mira			237.662	11.5	CMG	185.3 12.9 JRJ			2238+41
185.2 8.2 JRJ			185.2 14.1 CMG			239.281	12.0	BMU	189.3 12.9 CMG			R LAC mira
196.2 8.3 CMG			-----	-----	-----	241.276	12.0	BMU	209.3 12.7 CMG			184.3 9.3 CMG
209.2 9.0 JRJ			2117+21			242.701	11.8	CMG	209.3 12.7 JRJ			185.3 9.3 JRJ
266.7 12.5 CMG			SW PEG mira			265.635	10.2	CMG	215.2 12.7 CMG			189.3 9.3 CMG
-----	-----	-----	184.3 11.9 CMG			266.606	10.7	CMG	222.3 12.5 CMG			196.3 9.4 CMG
2101+29			185.3 12.4 JRJ			-----	-----	-----	-----			209.3 9.5 CMG
TW CYG mira			190.3 12.9 CMG			2140+12			2203+37			209.3 9.5 JRJ
184.3 10.3 CMG			-----	-----	-----	TU PEG mira			W LAC mira			222.3 9.7 CMG
185.2 10.4 JRJ			2122+16			185.2 14.0 CMG			184.3 11.5 CMG			223.3 9.5 JRJ
189.3 10.2 CMG			TV PEG mira			-----	-----	-----	185.3 11.5 JRJ			-----
196.2 10.0 CMG			185.2 10.5 CMG			2140+24			189.3 11.4 CMG			2245+17
209.2 10.0 JRJ			-----	-----	-----	RR PEG mira			196.3 11.4 CMG			SX PEG mira
266.6 12.1 CMG			2125+6			184.3 11.1 CMG			209.3 10.6 JRJ			184.3 12.5 CMG
-----	-----	-----	AX CEP mira			185.3 11.0 JRJ			209.3 10.8 CMG			185.3 12.7 JRJ
2103+82			185.2 12.4 CMG			189.3 11.4 CMG			222.3 9.6 CMG			189.3 12.7 CMG
X CEP mira			189.3 12.1 VDE			196.2 11.8 CMG			223.3 10.0 JRJ			196.2 12.8 CMG
188.2 15.0 CMG			189.3 12.3 BMU			209.3 12.6 JRJ			-----			215.2 13.2 CMG
252.4 15.2 CMG			196.4 12.5 CMG			217.2 12.7 CMG			2204+12			-----
-----	-----	-----	233.3 11.8 BMU			-----	-----	-----	T PEG mira			2255+42
2105+87			234.4 11.4 CMG			2143+73			184.3 10.2 CMG			SZ AND mira
X UMI mira			239.3 11.4 CMG			PQ CEP mira:			185.3 10.4 JRJ			184.3 13.2 CMG
184.3 12.7 CMG			241.3 11.3 BMU			181.4 9.6 CMG			188.2 10.2 BMU			189.3 13.4 CMG
188.3 12.7 CMG			246.4 11.2 CMG			189.4 9.7 CMG			189.3 10.4 CMG			196.3 14.0 CMG
196.2 12.7 CMG			252.4 10.9 CMG			196.4 9.8 CMG			196.2 10.4 CMG			-----
204.6 12.8 CMG			269.4 10.6 CMG			208.4 9.9 CMG			-----			2258+59
215.3 13.1 CMG			-----	-----	-----	217.3 10.1 CMG			2207+14			UV CAS rcb
223.3 13.2 CMG			2136+78			222.3 10.1 CMG			RS PEG mira			184.4 10.9 JRJ
233.3 14.0 CMG			S CEP mira			233.3 10.1 CMG			185.2 13.1 CMG			188.261 11.1 BMU
239.3 14.3 CMG			184.2 9.4 CMG			234.3 9.9 BMU			185.3 13.2 JRJ			208.5 11.0 JRJ
249.4 14.4 CMG			185.3 9.5 JRJ			239.3 10.0 CMG			-----			218.323 11.1 BMU
-----	-----	-----	188.3 9.4 BMU			246.4 10.1 CMG			2207+54			222.4 11.2 JRJ
2106+12			192.6 9.6 CMG			252.4 10.1 CMG			AB CEP mira			233.312 11.1 BMU
AN PEG mira			208.4 9.7 CMG			269.4 9.9 CMG			189.4 12.0 CMG			234.3 10.9 JRJ
185.2 12.2 CMG			209.3 9.3 JRJ			-----	-----	-----	196.4 12.3 CMG			239.287 11.2 BMU
-----	-----	-----	215.3 9.9 CMG			2144+43			208.4 12.6 CMG			253.357 11.1 BMU
2108+12			221.3 9.9 CMG			WY CYG mira			217.3 13.1 CMG			-----
R EQU mira			223.3 9.6 JRJ			184.3 10.2 CMG			222.3 13.5 CMG			2259+14
185.2 14.5 CMG			223.4 9.5 GGU			185.2 9.7 JRJ			-----			RW PEG mira
-----	-----	-----	227.3 10.0 CMG			189.3 10.0 CMG			2209+12			184.3 12.7 CMG
2108+36			233.3 10.0 BMU			196.2 9.6 CMG			RU PEG ugss+zz			185.3 12.5 JRJ
DU CYG mira			233.3 10.0 CMG			208.3 9.9 JRJ			184.244 10.8 JRJ			190.3 13.0 CMG
184.3 11.8 CMG			234.4 9.6 GGU			209.3 10.1 CMG			184.262 10.6 CMG			196.2 13.6 CMG
185.2 11.7 JRJ			239.3 10.3 CMG			215.2 10.3 CMG			185.223 10.7 JRJ			209.2 12.9 JRJ
189.3 12.0 CMG			246.4 10.2 CMG			223.3 10.0 JRJ			185.229 10.6 CMG			-----
242.7 12.3 CMG			252.4 10.4 CMG			237.7 10.6 CMG			188.236 11.6 BMU			2301+10
266.6 11.5 CMG			-----	-----	-----	242.7 10.9 CMG			189.258 11.9 CMG			R PEG mira
-----	-----	-----	2138+43			266.6 11.8 CMG			190.296 12.3 CMG			184.3 11.2 CMG
2108+68			SS CYG ugss			-----	-----	-----	-----			185.3 11.1 JRJ
T CEP mira			183.295 11.5 CMG			2152+47A			2221+29			189.3 11.4 CMG
184.2 9.7 CMG			184.243 11.5 JRJ			LX CYG mira			RV PEG mira			196.2 11.6 CMG
185.3 9.8 JRJ			184.281 11.4 CMG			184.3 11.6 CMG			185.2 14.4 CMG			209.2 12.0 JRJ
189.3 9.6 BMU			185.224 12.0 JRJ			190.3 11.7 CMG			-----			209.3 11.7 CMG
189.3 9.8 VDE			185.253 11.8 CMG			209.3 11.9 CMG			2224+39			217.2 12.1 CMG
192.6 9.4 CMG			188.249 11.8 CMG			-----	-----	-----	S LAC mira			-----
196.3 9.2 CMG			188.253 12.0 BMU			2156+05			184.3 11.3 CMG			2307+59
208.4 8.5 CMG			189.256 11.9 CMG			V PEG mira			185.3 10.8 JRJ			V CAS mira
208.4 8.9 GGU			189.280 12.3 BMU			184.3 9.5 CMG			189.3 10.8 CMG			184.3 8.8 CMG
209.3 8.9 JRJ			189.281 12.2 VDE			189.3 9.4 CMG			196.3 10.3 CMG			184.4 8.5 JRJ
215.3 8.4 CMG			196.224 11.7 CMG			196.2 9.4 CMG			209.3 9.7 CMG			188.3 8.0 BMU
221.3 8.3 CMG			208.285 11.6 JRJ			-----	-----	-----	209.3 9.9 JRJ			188.3 8.5 GGU
222.4 8.3 GGU			209.235 11.6 JRJ			2159+34			222.3 9.1 CMG			189.2 8.1 CMG
223.3 8.3 JRJ			209.285 11.7 CMG			RT PEG mira			223.3 9.8 JRJ			196.3 7.9 CMG

196.4	7.8	GGU	184.4	10.0	CMG	2352+55					
206.2	7.6	CMG	189.3	10.3	CMG	WY CAS	mira	2359+39			
208.3	7.6	GGU	196.3	10.8	CMG	184.3	13.0	CMG	SV AND	mira	
208.5	7.7	JRJ	208.3	11.7	JRJ	184.4	13.3	JRJ	184.3	12.8	JRJ
216.3	7.3	CMG	209.3	11.6	CMG	189.3	13.1	CMG	184.3	13.3	CMG
218.3	7.9	BMU	217.3	12.4	CMG	196.3	13.5	CMG	189.3	13.2	CMG
221.3	7.4	CMG	222.3	12.2	JRJ	208.4	13.6	CMG	196.3	13.3	CMG
222.4	7.9	GGU	222.3	12.4	CMG	217.2	14.3	CMG	208.3	13.3	JRJ
222.4	8.0	JRJ	227.3	12.6	CMG	227.3	14.4	CMG	217.3	13.7	CMG
227.3	7.7	CMG	233.3	13.0	CMG	-----			222.3	13.8	JRJ
233.3	8.1	CMG	234.3	13.0	JRJ	2352-09			223.3	13.8	CMG
233.3	8.4	BMU	-----			V CET	mira		227.3	13.8	CMG
234.3	8.3	JRJ	2328+48			184.2	14.4	JRJ	233.3	13.9	CMG
234.4	8.8	GGU	Z AND	zand		188.3	14.6	CMG	234.3	14.0	JRJ
239.3	8.7	BMU	184.3	10.6	CMG	-----					
239.3	8.8	CMG	184.3	10.7	JRJ	2353+50					
250.3	9.1	CMG	189.3	10.7	CMG	R CAS	mira				
253.4	9.3	BMU	189.301	10.6	BMU	184.3	11.7	CMG			
266.7	9.9	CMG	189.303	10.5	VDE	184.4	11.8	JRJ			
-----			196.3	10.6	CMG	188.3	11.9	BMU			
2314+25			208.3	10.6	JRJ	189.2	12.0	CMG			
W PEG	mira		209.3	10.6	CMG	196.3	12.2	CMG			
184.3	11.5	NWH	217.3	10.5	CMG	196.4	11.6	NWH			
184.3	11.8	CMG	218.319	10.6	BMU	208.4	12.3	CMG			
185.3	11.5	JRJ	222.3	10.4	JRJ	208.5	11.9	JRJ			
189.3	11.8	CMG	222.3	10.6	CMG	209.3	12.2	NWH			
196.2	12.1	CMG	227.3	10.6	CMG	216.3	12.3	CMG			
196.4	11.5	NWH	233.319	10.6	BMU	218.3	12.2	BMU			
209.3	12.2	JRJ	234.3	10.1	JRJ	221.3	12.3	CMG			
209.3	12.4	CMG	239.3	10.5	CMG	222.4	12.0	JRJ			
215.2	12.4	CMG	241.294	10.6	BMU	227.3	12.2	CMG			
222.3	12.8	CMG	252.388	10.5	BMU	233.3	12.1	BMU			
223.3	12.5	JRJ	252.389	10.5	VDE	233.3	12.2	CMG			
227.3	12.8	CMG	-----			234.3	11.6	JRJ			
-----			2336+56			239.3	12.2	CMG			
2315+08			V705CAS	n		250.3	12.2	CMG			
S PEG	mira		188.253	15.1	CMG	266.6	11.0	CMG			
184.3	12.6	CMG	-----			-----					
185.3	12.5	JRJ	2338-15			2355+25					
189.3	12.6	CMG	R AQR	mira		Z PEG	mira				
196.2	12.7	CMG	184.2	11.1	JRJ	185.2	13.7	CMG			
215.2	12.4	CMG	185.2	10.8	CMG	185.3	13.5	JRJ			
-----			-----			189.3	13.7	CMG			
2315+39			2339+56			209.3	13.2	JRJ			
RY AND	mira		Z CAS	mira		216.3	13.8	CMG			
184.3	13.9	CMG	184.3	14.9	CMG	222.3	13.8	CMG			
184.3	13.9	JRJ	196.3	14.9	CMG	223.3	13.0	JRJ			
189.3	14.0	CMG	217.2	15.0	CMG	227.3	13.2	CMG			
196.3	14.3	CMG	222.4	14.4	JRJ	233.3	12.7	CMG			
-----			227.3	14.9	CMG	234.3	12.9	JRJ			
2318+78			-----			239.3	12.3	CMG			
RY CEP	mira		2343+15			-----					
184.2	12.6	CMG	DL PEG	mira		2357-15					
189.4	12.4	CMG	184.3	12.7	CMG	W CET	mira				
196.3	11.9	CMG	217.2	12.8	CMG	184.2	8.5	JRJ			
208.4	11.4	CMG	-----			185.2	8.8	CMG			
215.3	10.9	CMG	2350+53			-----					
227.3	10.5	CMG	RR CAS	mira		2358+55A					
233.3	10.4	CMG	184.3	11.6	CMG	Y CAS	mira				
246.4	10.5	CMG	184.4	11.5	JRJ	184.3	11.4	CMG			
252.4	10.4	CMG	189.3	11.5	CMG	184.4	11.5	JRJ			
265.4	10.3	CMG	196.3	11.6	CMG	189.3	11.5	CMG			
269.4	10.3	CMG	206.3	11.6	CMG	196.3	11.6	CMG			
-----			208.5	11.5	JRJ	208.4	11.6	CMG			
2325+43			216.3	11.7	CMG	208.5	11.6	JRJ			
DX AND	ugsa		221.3	11.7	CMG	216.3	11.8	CMG			
184.326	14.4	JRJ	222.4	11.5	JRJ	221.3	11.8	CMG			
222.305	14.5	JRJ	227.3	11.7	CMG	222.4	12.0	JRJ			
234.311	14.5	JRJ	233.3	11.7	CMG	227.3	11.9	CMG			
-----			234.4	11.5	JRJ	233.3	12.0	CMG			
2326+42			239.3	11.6	CMG	234.4	11.9	JRJ			
BG AND	mira		250.3	11.6	CMG	239.3	12.0	CMG			
184.3	9.9	JRJ	-----			253.3	12.7	CMG			