

WORK OF THE VARIABLE STAR SECTION, NETHERLANDS ASSOCIATION FOR ASTRONOMY AND METEOROLOGY

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Abstract

The activities of the Variable Star Section of the Netherlands Association for Astronomy and Meteorology are briefly described and the Mira stars being observed are listed.

The Variable Star Section (Werkgroep Veranderlijke Sterren or WVS) of the Netherlands Association for Astronomy and Meteorology (Nederlandse Vereniging voor Weer - en Sterrenkunde) has about 50 members, of which 15 are active observers. The number of observations made annually is approximately 8,000. The bulk of the variables observed are Mira stars, because they can be observed without missing too much of the light curve in a relatively poor climate, such as the Dutch climate. We also observe dwarf novae and a few semiregular variables and of course, novae. Recently a small group of observers started to observe eclipsing variables, visually and photoelectrically.

The observations are processed using an Atari Mega ST4 computer, for which software has been written in GfA-Basic. Every month the observations (as ASCII strings) are sent by electronic mail to the AAVSO. Each string contains the name of the star, the Julian date, the estimated magnitude, and the 3-letter code of the observer. The Harvard designation is not entered, but is generated by software afterwards. Sorting is also done by computer. Apart from that, the strings are utilized to publish the observations every trimester in the journal *Variabilis*. The strings also serve as a computer input for plotting light curves and for determining mean light curves.

Table 1 lists some lesser-known Mira stars that are observed by the WVS. *Yr* is the year the star was added to the WVS program. *Num obs* is the number of observations of the star in the WVS archives. The *Mean range* was determined from WVS observations only. The last four columns give the number of days that the star is brighter than 11.0 before and after maximum, whereas the last two columns give the number of days that the variable is fainter than 13.5 before and after minimum. So even when using a limited number of observations, one can provide data that help make more complete predictions in the *AAVSO Bulletin*.

Table 1. Mira stars observed by the WVS

<i>Star</i>	<i>Range</i>	<i>Per.</i>	<i>M-m</i>	<i>Yr</i>	<i>Num obs</i>	<i>Mean range</i>	<i>>11.0 days</i>		<i><13.5 days</i>	
SX And	8.5-14.6	329.3	0.53	1973	329	9.5-14.1	57	43	33	32
UW And	10.0-15.0	239.4	0.51	1973	207	10.5-14.8	35	34	46	39
RR Aur	9.5-14.9	310.9	0.46	1973	318	10.0-14.8	29	33	64	59

Table 1 (continued)

<i>Star</i>	<i>Range</i>	<i>Per.</i>	<i>M-m</i>	<i>Yr</i>	<i>Num obs</i>	<i>Mean range</i>	<i>>11.0 days</i>		<i><13.5 days</i>	
SZ Aur	9.5-15.0	451.3	0.50	1975	312	10.5-15.0	13	25	98	96
AA Aur	9.2-15.7	266.0	0.45	1975	342	9.6-15.3	32	49	53	44
AZ Aur	10.0-13.8	419	0.46	1975	200	10.3-13.6	52	54		
RR Boo	8.6-14.4	194.6	0.44	1972	479	9.2-13.9	50	46	22	17
RR Cnc	8.9-15.3	297.1	0.46	1976	183	9.3	25	41	106	74
U CVn	9.3-14.9	341.4	0.37	1975	198	9.9-14.6	20	33	81	63
VZ Cas	9.5-14.2	169.5	0.46	1973	380	10.1-13.5	25	33		
WY Cas	8.3-15.1	480	0.38	1977	384	8.9-15.0	60	93	103	68
BF Cep	10.5-15.2	421.8	0.47	1976	121	10.9-15.2	6	13	123	112
WY Cyg	8.4-14.8	305.0	0.46	1974	269	9.5-14.4	34	56	50	52
CM Cyg	9.8-14.6	251.9	0.44	1974	279	10.3-14.1	32	33	41	23
CN Cyg	8.0-14.9	198.3	0.47	1972	360	9.1-14.3	30	33	30	23
RX Del	10.3-15.7	184.1	0.52	1972	168	10.9-15.2	15	9	32	35
RT Dra	9.2-14.7	274.8	0.42	1975	339	9.7-14.0	39	36	33	19
RV Dra	9.4-15.0	209.1	0.55	1973	226	10.1-14.3	27	36	22	37
RR Equ	9.5-15.5	270.7	0.44	1974	93	9.8	26	32	79	63
ST Gem	9.0-14.7	246.3	0.48	1974	304	9.4-14.4	38	42	35	37
SY Her	7.9-13.2	117.4	0.46	1972	812	8.6-12.3	39	39		
UV Her	8.7-14.2	344.0	0.48	1974	263	8.9-14.0	47	66	40	42
VY Her	9.3-15.4	299.6	0.39	1975	154	10.0-15.1	23	31	82	70
AE Her	9.3-15.0	246.7	0.43	1975	140	9.8-14.8	34	37	51	37
W Lyn	9.3-15.0:	291.6	0.40	1974	148	9.9-15:	27	40	82	65
X Lyn	9.5-<15.0	319.4	0.40	1975	158	10.2-?	26	34	85	68
RT Lyn	9.3-15.5:	399.7	0.53	1975	164	9.7-15:	53	56	62	65
SS Lyr	9.9-14.4	350.6	0.51	1972	327	10.3-14.2	27	26	54	62
TW Lyr	9.8-15.3	379.8	0.51	1973	346	10.7-15.1	18	31	85	86
WZ Lyr	9.8-15.5	375	0.36	1975	191	10.6-15.4	12	21	135	83
SS Peg	8.3-14.7	426.9	0.44	1974	374	8.7-14.2	39	86	49	48
SX Peg	8.7-13.1	305.6	0.48	1977	176	8.8-12.7	91	78		
TU Peg	8.2-13.7	322.9	0.40	1973	364	8.9-13.6	35	67	28	26
TV Peg	9.6-15.5	244.7	0.47	1984	98	10.0-15.3	31	35	52	51
RR UMa	8.7-14.8	230.2	0.46	1972	234	9.7-14.6	33	42	37	34