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**REVISED ASTROMETRY OF VARIABLE STARS (2)**

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This report describes the revised astrometry and identifications of 31 variable stars discovered in the course of variable star survey based on the MISAO Project observations.

These objects are detected automatically by the PIXY system as candidates of new variable stars from unfiltered CCD images taken by Kadota between 1999 April and August, and a few in 1998 December and 1999 February. Further details are the same as described in Yoshida and Kadota (1999). They are more than 5 arcsec away from the cataloged position. But no other variable objects are found on our images to be identified with around the cataloged position. Therefore we concluded these identifications.

Table 1 shows the astrometry, photometry and identifications. The magnitudes represent the observed range by our observations. The positions and magnitudes are measured using the USNO-A1.0 catalog. The magnitude is based on a preliminary *V* magnitude calculated from *R* and *B* magnitude in the catalog based on Kato's (1998) equation:

$$V = R + 0.375(B - R).$$

The identification of V1862 Sgr is recorded in SS1-158, but we also confirmed it based on the variability.

At the position of V338 Oph in the original GCVS, there is a red star USNO-A2.0 0600.23362015, however, it does not look variable on our unfiltered CCD images on Apr. 14 and Aug. 1, 1999. Therefore, we concluded our variable star USNO-A2.0 0600.23365338, just besides of USNO-A2.0 0600.23362015, is the true V338 Oph.

References:

Kato, T., 1998,

<http://www.kustastro.kyoto-u.ac.jp/vsnet/Mail/vsnet-chat/msg00700.html>

Yoshida, S., Kadota, K., 1999, *IBVS*, No. 4746

Table 1: Revised Astrometry and Identifications

Star	R.A. (J2000.0) Decl.		Unfiltered		Identified with
			Max.	Min.	
V338 Oph	17 <sup>h</sup> 03 <sup>m</sup> 11 <sup>s</sup> .368	−29°00′25″.95	11.5	13.6	USNO-A2.0 0600.23365338
V1055 Oph	16 57 51.990	−09 32 30.59	9.2	10.6	USNO-A1.0 0750.10238519
V1149 Oph	16 58 08.972	−19 37 36.24	10.8	13.5	USNO-A1.0 0675.11568832
V1170 Oph	16 59 20.153	−20 59 18.40	10.9	12.5	USNO-A2.0 0675.17300460
V1221 Oph	17 01 24.231	−21 57 39.44	11.5	14.1	USNO-A2.0 0675.17461742
V2098 Oph	17 01 49.923	−23 11 32.54	10.6	11.6	GSC 6811.0637
					USNO-A2.0 0600.23154617
V2207 Oph	17 00 13.226	−10 37 00.34	10.0	12.3	USNO-A2.0 0750.10252195
RY Sge	19 58 28.493	+16 47 58.57	10.6	12.6	USNO-A1.0 1050.16240370
WW Sgr	18 23 05.769	−27 25 31.09	10.8	12.3	USNO-A1.0 0600.17113538
AX Sge	19 59 27.053	+19 43 21.40	12.6	13.5	USNO-A1.0 1050.16312877
V1156 Sgr	19 02 19.871	−18 31 32.07	12.2	13.3	USNO-A1.0 0675.19132286
V1725 Sgr	17 59 48.14	−31 16 03.4	8.5	9.3	
V1862 Sgr	18 21 57.873	−27 25 20.65	12.3	13.0	GSC 6852.2549
					USNO-A1.0 0600.16938944
V2080 Sgr	18 58 31.129	−17 02 31.00	12.1	12.8	USNO-A1.0 0675.18868180
V2081 Sgr	18 59 02.881	−17 44 37.99	10.6	11.4	USNO-A1.0 0675.18904777
V2089 Sgr	19 00 44.61	−19 48 07.6	11.9	12.8	
V2093 Sgr	19 01 17.62	−18 54 28.7	13.4	14.2	
BI Sct	18 57 27.834	−07 31 27.84	9.2	11.4	GSC 5706.0279
					USNO-A1.0 0750.15834323
BK Sct	18 57 51.549	−08 23 17.89	12.6	13.7	USNO-A1.0 0750.15878118
BO Sct	18 58 48.725	−10 13 51.90	10.9	13.1	USNO-A1.0 0750.15976559
V346 Sct	18 57 32.34	−06 14 39.5	11.6	13.6	
V362 Sct	18 58 24.12	−07 38 51.9	12.1	13.5	
XX Vul	19 21 01.19	+24 59 32.5	10.3	12.3	
AC Vul	18 59 55.751	+25 10 38.07	10.8	11.6	GSC 2126.1655
					USNO-A2.0 1125.11009095
AL Vul	18 59 15.953	+24 34 04.33	10.7	13.1	USNO-A2.0 1125.10973373
AN Vul	19 02 17.839	+25 19 00.80	13.2	14.0	USNO-A2.0 1125.11137255
AO Vul	19 02 37.757	+24 33 26.62	13.6	14.4	GSC 2126.1873
					USNO-A2.0 1125.11155842
DE Vul	19 57 52.889	+23 37 29.90	9.6	10.4	GSC 2141.1329
					USNO-A1.0 1125.14971709
DH Vul	19 59 14.355	+22 01 13.35	11.6	13.7	USNO-A1.0 1050.16297131
DQ Vul	20 00 03.005	+22 46 52.36	11.1	12.4	USNO-A1.0 1125.15070167
V341 Vul	19 21 45.158	+24 43 17.86	10.7	12.9	USNO-A1.0 1125.12467703