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IMPROVED POSITIONS FOR 15 CATACLYSMIC VARIABLE STARS

Modern astronomical observations generally require accurate celestial coordinates for source acquisitions and candidate confirmations among various observational wavelengths. Nevertheless, many important members of various classes of faint objects are still identified (or misidentified) through the use of relatively poor coordinates that may be perpetuated for decades in the literature. This paper presents new source positions, with accuracies of order 1 arc-sec, for 15 cataclysmic variables.

The star positions were measured with the Computer Assisted Astrometry System of NRAO's Very Large Array. The system allows one to measure the position of objects on the Palomar Observatory Sky Survey (POSS) prints by utilizing the Smithsonian Astrophysical Observatory Star Catalog as a source of reference stars. The source names, types, and their measured 1950.0 coordinates are presented in Table I in order of increasing right ascension, α. The uncertainties in right ascension, $\Delta\alpha$, and declination, $\Delta\delta$, are determined from the variances of the residuals of the fitted reference stars (typically eight stars were fitted). These uncertainties include an empirically determined 0.3 arc-sec measuring precision of the source itself.

It is hoped that these positions will serve to correct published errors of several minutes of arc for some sources and to confirm the more accurately reported positions. The author wishes to thank Dr. Derek Wills who earlier provided the position for SU UMa. This position is included here because its accuracy is comparable or even superior to the other measurements since it was measured with the superb plate measuring engine of the McDonald Observatory using techniques similar to those above with the POSS plates.

TABLE I. POSITIONS OF CATACLYSMIC VARIABLES

SYSTEM	TYPE+	RIGHT ASCENSION α (1950.0)	Δα (time)	Δα (arc-sec)	DECLINATION δ (1950.0)	Δδ (arc-sec)
KT Per	DN	$01^h34^m01\overset{s}{.}67$	$0\overset{s}{.}05$	1.2	+50° 42' 01.7"	1.4
RX And	DN	01 01 46.01	0.05	1.0	41 01 52.2	1.1
RW Tri	NL	02 22 41.57	0.06	1.0	27 52 20.3	0.6
CN Ori	DN	05 49 40.47	0.06	1.0	-05 25 41.0	0.8
SS Aur	DN	06 09 35.57	0.04	0.8	+47 45 13.8	0.4
IR Gem	DN	06 44 25.75	0.04	0.7	+28 09 42.8	0.9
U Gem	DN	07 52 07.78	0.03	0.5	+22 08 02.4	0.6
YZ Cnc	DN	08 07 52.71	0.06	1.0	+28 17 31.0	1.2
SU UMa	DN	08 08 05.45	0.02	0.7	+62 45 22.8	0.4
Z Cam	DN	08 19 39.64	0.01	0.5	+73 16 24.7	1.1
UX UMa	NL	13 34 42.06	0.05	1.2	+52 10 04.4	1.1
V603 Aql	N	18 46 21.42	0.06	0.9	+00 31 34.8	0.8
EM Cyg	DN	19 36 42.13	0.07	1.2	+30 23 33.5	0.6
SS Cyg	DN	21 40 44.42	0.03	0.6	+43 21 21.4	0.6
RU Peg	DN	22 11 35.50	0.06	1.0	+12 27 16.8	0.7

+ DN, dwarf nova; NL, nova-like; N, old nova.

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