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IMPROVED POSITIONS OF VARIABLE STARS IN ARA, I

As a part of a program conducted to revise and improve the coordinates of southern variable and suspected variable stars, accurate positions of confirmed variables in Ara are herein presented.

The methods, general description as well as goals of this project can be found in López and Girard (1990). For some of the stars (variables and suspected variables) so far reported, including the ones in this note, we have improved their positions by measuring the first epoch plates of the Yale – San Juan astrometric survey of the southern hemisphere (see López and Girard 1990 López 1991; López and Mira 1994). In some other cases, the program stars have been identified in the Hubble Space Telescope Guide Star Catalogue (GSC)(López 1993; López and Lépez 1993).

Table 1 contains the newly determined positions. For each star we have listed the name of the variable, the new RA and Dec (equinox B1950.0) – epoch between 1966.54 and 1970.59 – and average standard error of 0.″7 for both coordinates), and the differences between our new positions and those quoted in the GCVS IV (in the sense new positions *minus* GCVS IV coordinates).

Considering the 91 stars in Table 1 plus the 1126 already published in different notes of this program, the total number of variable stars for which we have been able to improve their coordinates is now 1217.

Carlos E. LÓPEZ
Hector S. LÉPEZ
Felix Aguilar and Yale Southern Obs.
Benavidez 8175 (oeste)
5413 Chimbas
San Juan - ARGENTINA
E-mail: celopez@unsjfa.edu.ar

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Table 1. Improved Positions of Variable Stars in Ara

Star	RA (1950.0)			DEC			Δ RA	Δ DEC
	h	m	s	°	′	″	m	′
T	16	58	26.98	−54	59	58.6	0.000	+0.023
U	17	49	39.35	−51	40	37.3	+0.006	−0.022
W	17	53	07.90	−49	47	43.3	−0.002	−0.122
X	16	32	20.90	−55	18	47.9	−0.002	−0.798
Y	16	34	44.59	−59	42	27.6	−0.007	−0.159
RU	17	24	33.62	−60	51	30.7	−0.006	−0.011
RW	17	30	32.74	−57	06	51.8	−0.004	+0.036
RX	16	48	03.35	−60	59	43.1	−0.011	+0.182
RY	17	17	09.17	−51	04	16.6	−0.014	−0.077
SW	17	15	35.10	−58	20	16.0	+0.085	−0.066
SX	18	06	00.87	−54	23	24.0	+0.048	+0.601
SY	16	31	19.57	−54	39	09.6	−0.007	−0.159
SZ	17	06	31.40	−61	53	33.7	−0.010	+0.039
UW	17	43	44.72	−48	43	48.0	−0.005	+0.000
UX	16	51	27.17	−51	51	29.5	−0.014	−0.092
UY	17	25	01.11	−59	51	40.6	+0.018	+0.023
UZ	16	32	46.15	−56	12	19.9	−0.014	−0.133
VV	16	33	19.23	−53	04	49.7	−0.013	+0.071
VW	16	31	51.44	−56	31	03.1	+0.007	−0.251
VZ	16	33	14.91	−58	17	48.2	−0.001	−0.104
WW	16	33	41.86	−58	05	33.9	+0.048	−0.165
WY	16	34	37.68	−59	30	24.5	+0.011	+0.091
WZ	16	35	00.37	−57	46	48.3	+0.106	+0.794
XX	16	35	06.80	−59	25	54.3	+0.013	−0.005
XY	16	35	11.69	−57	48	25.5	+0.162	+1.774
YY	16	36	58.84	−59	46	45.5	−0.003	+0.241
YZ	16	38	21.56	−60	01	15.9	−0.007	+0.035
AA	16	36	20.18	−56	26	34.3	+0.036	−0.072
AB	16	37	57.62	−57	13	01.4	+0.210	+0.977

Table 1 (cont.)

Star	RA (1950.0)			DEC			Δ RA	Δ DEC
	h	m	s	°	′	″	m	′
AC	16	39	12.97	−56	21	40.0	−0.001	+0.233
AD	16	41	44.46	−55	42	16.7	−0.126	−0.778
AF	16	33	11.78	−55	37	54.9	−0.037	+0.185
AH	16	37	58.26	−53	47	55.9	−0.062	+1.731
AT	17	26	51.28	−46	03	42.1	+0.005	−0.102
AX	17	29	12.78	−46	11	37.8	−0.054	+0.670
BF	17	34	35.82	−47	08	59.0	+0.180	+0.017
BW	16	44	45.18	−59	06	35.2	+0.036	+0.413
BY	16	45	37.48	−58	48	03.4	+0.041	+0.044
BZ	16	45	56.35	−58	40	00.7	−0.044	+0.089
CC	16	46	04.00	−58	41	50.8	−0.033	−0.046
CF	16	49	32.85	−59	04	51.6	+0.014	−0.060
CH	17	02	26.23	−58	59	21.8	+0.004	+0.037
CL	17	05	41.09	−58	06	25.6	+0.018	−0.026
CM	17	06	58.90	−62	47	44.6	−0.052	−0.244
CN	17	06	48.24	−60	17	02.7	−0.096	+0.654
CO	17	06	47.84	−58	19	07.1	−0.003	−0.018
CP	17	07	57.38	−62	47	38.4	+0.023	−0.340
CQ	17	07	47.85	−58	30	45.4	−0.003	+0.043
CS	17	08	06.34	−60	25	31.6	−0.111	+0.673
CT	17	08	18.81	−57	20	38.0	−0.003	+0.166
CU	17	08	30.86	−60	16	30.6	−0.019	−0.310
CV	17	08	44.44	−61	08	56.1	+0.057	−0.534
CX	17	10	04.42	−60	20	49.6	+0.007	−0.527
CY	17	10	37.74	−55	41	53.2	−0.004	+0.114
DE	17	11	17.80	−57	01	41.1	−0.020	+0.315
DF	17	11	38.35	−56	58	03.6	−0.011	−0.060
DG	17	11	51.56	−59	52	08.6	−0.007	−0.244
DI	17	13	13.82	−60	57	38.6	−0.003	+0.056
DK	17	13	35.25	−55	55	25.4	+0.004	−0.023
DL	17	14	54.40	−59	10	24.2	−0.027	−0.103

Table 1 (cont.)

Star	RA (1950.0)			DEC			Δ RA	Δ DEC
	h	m	s	°	′	″	m	′
DM	17	15	01.16	−57	18	25.8	+0.003	−0.029
DO	17	15	41.93	−58	41	54.2	+0.015	−0.003
DP	17	16	57.08	−58	47	53.2	−0.015	−0.086
DS	17	17	31.29	−56	50	14.8	+0.005	+0.054
DT	17	17	36.25	−57	17	12.1	−0.013	−0.402
DW	17	18	00.55	−57	15	10.8	+0.009	+0.220
DX	17	18	23.17	−58	01	23.1	−0.030	+0.215
DZ	17	18	48.51	−58	49	25.9	+0.008	−0.131
EE	17	19	07.78	−56	19	30.8	−0.020	−0.014
EF	17	19	32.38	−57	46	29.4	+0.006	+0.011
EG	17	19	58.96	−61	41	19.2	+0.016	+0.180
EI	17	20	02.26	−59	41	19.3	−0.062	+0.379
EK	17	20	23.49	−59	38	37.5	+0.008	−0.024
EL	17	20	51.91	−59	41	10.3	+0.132	+0.528
EM	17	20	41.69	−56	57	49.8	−0.005	−0.029
EN	17	20	55.94	−55	03	30.6	−0.018	+0.090
EO	17	21	34.34	−60	12	15.8	−0.011	+0.136
EQ	17	22	23.54	−55	14	45.9	−0.008	−0.065
ES	17	23	16.07	−55	56	33.1	+0.001	+0.048
ET	17	24	01.70	−57	35	21.5	−0.005	+0.242
EU	17	24	21.84	−54	01	22.0	−0.003	−0.067
EW	17	24	55.37	−54	06	42.7	+0.006	−0.012
EX	17	25	19.33	−57	02	39.0	−0.011	+0.049
EY	17	25	16.83	−56	17	58.1	−0.019	+0.031
FF	17	25	33.81	−59	26	58.1	−0.070	+0.132
FI	17	27	10.56	−60	57	39.6	+0.009	+0.041
FL	17	27	15.26	−59	25	26.6	+0.004	+0.256
FM	17	27	11.57	−58	35	08.0	−0.024	+0.066
FN	17	27	06.52	−56	11	03.3	−0.008	+0.244
FO	17	27	03.84	−55	02	52.0	−0.003	+0.133
FP	17	27	17.61	−57	22	21.6	+0.010	+0.040