COMMISSIONS 27 AND 42 OF THE IAU
INFORMATION BULLETIN ON VARIABLE STARS

Number 4137

Konkoly Observatory
Budapest
28 December 1994

HU ISSN 0374 – 0676

POSITIONS OF VARIABLE STARS IN PLAUT'S FIELD 3

This paper continues the study announced in our previous publication (Antipin *et al.*, 1994a) and deals with the variable stars in the Palomar–Groningen Field 3 (Plaut, 1971). This field contains 1474 variable stars discovered by Plaut. Using photographic finding charts prepared by L. Plaut and available in Moscow, we have checked for possible GSC identifications. 174 stars have been identified with the GSC. We have also checked 83 stars discovered in this field by other authors and identified 23 of them with GSC objects. We are not able to present the corresponding table here because of volume restrictions and are planning to publish this list in Astronomical and Astrophysical Transactions. We have not found very significant positional mistakes among those stars we were able to identify with GSC. We have also checked positions for non-GSC variable stars and found quite a number of serious mistakes in GCVS positions. The corrected coordinates presented in

Table 1. Corrected Coordinates for Variable Stars

Plaut	GCVS, NSV	$\alpha(2000.0)$	$\delta(2000.0)$	$\Delta\alpha$	$\Delta\delta$
23	V2636 Sgr	$18^h12^m23^s.0$	$-31°20'40''$	$-0^m.01^s$	$-1°00'.0$
34	V2647 Sgr	18 12 38.1	–31 08 00	−0 03	−0 00.6
111	V2705 Sgr	18 13 49.7	–34 20 46	−0 02	−0 00.8
307	V2852 Sgr	18 16 43.2	–34 01 22	+0 00	−0 03.4
437	V2965 Sgr	18 18 27.0	–32 10 39	−0 01	−0 11.2
474	V2988 Sgr	18 11 42.2	–36 11 44	+0 10	−0 01.5
521	V3033 Sgr	18 12 32.2	–32 39 15	−0 42	−0 04.0
580	V3081 Sgr	18 20 36.2	–34 46 21	+0 07	+0 00.2
707	V3180 Sgr	18 23 02.2	–33 57 25	+0 00	−0 00.9
732	V3200 Sgr	18 23 26.6	–30 54 07	−0 02	−0 17.6
755	V3220 Sgr	18 23 49.5	–31 11 43	−0 02	−0 16.1
782	V3243 Sgr	18 24 46.0	–32 03 01	−0 32	+0 00.1
835	V3288 Sgr	18 25 15.0	–33 33 46	+0 01	+0 11.3
881	NSV10777	18 26 13.4	–31 41 59	+0 04	+0 00.1
1027	V3447 Sgr	18 21 13.8	–30 53 46	+8 42	−0 00.8
1030	V3443 Sgr	18 29 56.2	–30 57 37	+0 01	−3 44.3
1158	V3549 Sgr	18 33 13.3	–31 22 27	+0 00	−0 11.2
1388	V3723 Sgr	18 39 39.1	–34 41 16	+0 14	−1 52.0
1395	V3729 Sgr	18 38 16.7	–36 51 46	+1 52	+0 00.6
1427	V3758 Sgr	18 32 14.2	–31 09 34	−1 00	+0 00.1
1453	V3774 Sgr	18 41 41.2	–32 54 35	+0 04	−0 33.4
1474	V666 CrA	18 22 22.7	–36 59 57	−0 09	+0 00.1
	NSV 10351	18 12 20.9	–31 50 24	+0 15	+0 01
	NSV 10364	18 12 59.4	–31 46 47	+0 13	+0 00.2

Table 2. Identifications of Several GCVS Stars

474	V2988 Sgr = V655 Sgr	Plaut, 1971
595	NSV 10648 = V1289 Sgr	Mayall, 1951 (chart)
723	V1188 Sgr = NSV 10715	Strohmeier *et al.,* 1964
1063	V3475 Sgr = V2355 Sgr	Rosino, 1962
1105	V3507 Sgr = V2360 Sgr	Rosino, 1962
1388	V3723 Sgr = V1635 Sgr	Plaut, 1971
1395	V3729 Sgr = V2371 Sgr	Plaut, 1971
1414	V3746 Sgr = V948 Sgr = V1154 Sgr	GCVS

Table 1 have been determined by one of us (S.A.) relative to GSC stars. The columns of the table contain: Plaut's numbers (the two last lines, without Plaut's numbers, refer to variables discovered by Rosino (1962), in the field of the globular cluster NGC 6569); GCVS or NSV designations; right ascensions and declinations (2000.0); positional differences found (in the sense GCVS minus present study).

Table 2 contains 8 stars for which positional inaccuracies have led to multiple entries in the GCVS and the NSV catalogue. The first column gives Plaut's numbers. The second column presents the existing GCVS or NSV designations. The last column of the table identifies the source of error. If the star in Table 2 does not enter also Table 1, Plaut's coordinates for this star are to be preferred.

Several final remarks deal with difficult cases. It turns out that Plaut's variable No. 239 ($18^h12^m32^s$, $-31°07'.3$, 1950.0, Cepheid with a period of 51: days according to Plaut, 1971) never got a GCVS designation. The reasons for this are presently unclear, no indication of any mistakes revealed is present in GCVS team records. Though the star could not be identified with any GSC star, Plaut's coordinates agree with the photograph. We have not been able to find Plaut's No. 1282 = V3643 Sgr. The photograph does not agree with the coordinates, a great mistake in coordinates is probable.

Mr. J. Mánek has turned our attention to a mistake in the second paper of the present series (Antipin *et al.,* 1994b). The declination presented there for V448 Oph = GSC 6237.1702 is wrong, the correct $\delta(2000.0)$ value is $-18°06'56"$.

Thanks are due to Mr. Jan Mánek for his attention to our work.

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