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ON IDENTIFICATIONS OF NEW VARIABLE STARS ANNOUNCED BY WOITAS

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Having prepared the special (Hipparcos) 74th Name-list of variable stars (Kazarovets et al., 1999), we are now working on the next, 75th Name-list. Among candidates selected for designation as variable stars, there are several stars from the list of 43 new variables published by Woitas (1997). Our work on checking and improving coordinates of Name-list candidates and on their identification with the GSC shows that the appearance of catalogues like GSC, USNO A1.0 and A2.0, Hipparcos and Tycho greatly reduces the number of problems encountered when locating variables and measuring their coordinates. However, this applies to recent discoveries of variable stars. Old GCVS and NSV variables need a long and laborious work: they must be found using charts and identified using new positional catalogues, thus improving coordinates and switching to the equinox 2000.0 from 1950.0. In this connection, papers published by variable star researchers should not create new identification problems instead of reducing their number. Unfortunately, the cited paper (Woitas, 1997) does create new problems.

Our analysis of Table 1 in Woitas (1997) has shown the following.

1. Of the 43 announced new variables, two stars are known GCVS objects (No. 26 = V713 Ara, No. 29 = V764 Sco). Additional 27 stars have been attributed GCVS names in the Hipparcos catalogue (ESA, 1997), but surely Woitas did not yet know the final version of the Hipparcos catalogue during the preparation of his paper.

2. The heterogeneity of presentation of 2000.0 coordinates in the Table is amazing, especially for a study based upon Tycho mission, mainly an astrometric one. The coordinates published by Woitas, in many cases, considerably (up to several arcseconds) differ from 2000.0 coordinates in the Hipparcos catalogue as well as in the PPM catalogue or in the GSC. Probably the positional data used by Woitas come from SIMBAD. Below I present a table of accurate positions.

3. A number of mistakes in the information presented by Woitas and of other problems deserve special discussion.

No.1 = TICID 3303/979. This Tycho (and GSC) number corresponds to HD 15922, not 15992. The star HD 15992 is NSV 00839 (Kholopov, 1982), and the present misidentification (due to misprint) could bring the star into the GCVS. The needed star, HD 15922, is the variable star V376 And, named on the base of Hipparcos data. But most amazing is that the right ascension given by Woitas for this star actually corresponds to the equinox 1950.0, whereas the declination is for 2000.0, as indicated in the header. No. 10 = TICID 8911/2750. The declination in IBVS No. 4444 is greatly in error. Instead of $-61^{\circ}12'15''.8$, it should be $-61^{\circ}52'17''.5$.

No. 40 = TICID 2772/1716. For this red star (spectrum M5), the large difference between the blue and the red magnitude resulted in the existence of two GSC numbers; besides that coinciding with the Tycho designation, there is also GSC 2772/1486.

No. 43 = TICID 8953/3540. The coordinates given by Woitas correspond to the position of CoD-59°3546, reduced from rather rough 1875.0 coordinates; but CoD-59°3546 is probably GSC 8958/3649. The Tycho mission did not observe GSC 8958/3649, and GSC (or TICID) 8953/3540 corresponds to CoD-59°3541 = CPD-59°3034, at a position differing from that published by Woitas by several minutes of arc.

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References:

ESA, 1997, The Hipparcos and Tycho Catalogues, ESA SP-1200

Kazarovets, E.V. et al., 1999, IBVS, No. 4659

Kholopov, P.N. (ed.), 1982, New Catalogue of Suspected Variable Stars, Moscow: Nauka Woitas, J., 1997, IBVS, No. 4444

No.	lpha(2000.0)	$\delta(2000.0)$	GCVS
1	$0\overline{2^{h}35^{m}11^{s}630}$	$+49^{\circ}51'37''_{\cdot}25$	$\overline{V376}$ And
2	$03^{h}35^{m}53^{s}.004$	$-69^{\circ}11'34''.76$	CS Hyi
3	$06^{\rm h}18^{\rm m}02^{\rm s}.797$	+35°35′51″.43	(new)
4	$06^{h}18^{m}22^{s}271$	$-54^{\circ}24'14''.61$	(new)
5	$06^{h}34^{m}32^{s}.794$	$+55^{\circ}21'10''.93$	$\mathrm{BQ}\ \mathrm{Lyn}$
6	$06^{h}35^{m}37.648$	$+32^{\circ}34'36''.52$	V459 Aur
7	$07^{h}46^{m}52^{s}852$	$+81^{\circ}40'56''.75$	FF Cam
8	$07^{h}32^{m}46^{s}.150$	$-53^{\circ}33'18''_{\cdot}87$	V454 Car
9	$07^{ m h}39^{ m m}27^{ m s}232$	-11°33′50″.33	V381 Pup
10	$07^{h}54^{m}29^{s}.379$	$-61^{\circ}52'17''.47$	(new)
11	$09^{h}47^{m}20^{s}403$	+32°46′56″.24	EL Leo
12	$09^{ m h}47^{ m m}10^{ m s}.378$	$-57^{\circ}20'43''.45$	(new)
13	$10^{h}24^{m}39.640$	$-54^{\circ}19'18''.94$	V346 Vel
14	$10^{\rm h}44^{\rm m}10^{\rm s}.024$	$-72^{\circ}03'52''.13$	V521 Car
15	11 ^h 01 ^m 35 ^s .756	$-61^{\circ}02'55''.83$	(new)
16	$11^{\rm h}18^{\rm m}43^{\rm s}.743$	$-58^{\circ}11'11''.10$	V537 Car
17	11 ^h 21 ^m 38 ^s 963	$-60^{\circ}59'28''.22$	(new)
18	$11^{h}37^{m}34.060$	-60°54'11''.66	V913 Cen
19	$12^{h}17^{m}29^{s}.634$	$-34^{\circ}30'18''_{\cdot}30$	V337 Hya
20	$12^{h}38^{m}51.509$	+13°48′13″.50	KM Com
21	13 ^h 09 ^m 36 ^s 086	$-07^{\circ}46'51''.27$	KY Vir
22	14 ^h 19 ^m 37 ^s 740	$+05^{\circ}53'46''.67$	NN Vir
23	$14^{h}22^{m}52^{s}236$	$-55^{\circ}57'44''.36$	V1003 Cen
24	$14^{h}22^{m}17^{s}.716$	+41°27′02″.18	DU Boo
25	$16^{h}05^{m}01.109$	$-39^{\circ}13'00''.28$	LN Lup
26	$17^{h}00^{m}36^{s}618$	$-61^{\circ}24'17''.79$	V713 Ara
27	$17^{h}32^{m}10^{s}485$	$-51^{\circ}04'26''.75$	V863 Ara
28	$17^{h}46^{m}22.666$	$-72^{\circ}49'19''.41$	(new)
29	$17^{h}56^{m}08.498$	$-45^{\circ}09'20''_{.67}$	V764 Sco
30	$18^{h}34^{m}26^{s}303$	$+57^{\circ}48'06''.56$	HL Dra
31	$20^{\rm n}15^{\rm m}53^{\rm s}568$	$+07^{\circ}40'13''.27$	(new)
32	$20^{h}46^{m}40^{s}197$	$-27^{\circ}13'59''.86$	(new)
33	21 ^h 01 ^m 53 ^s 351	$+18^{\circ}59'55''.94$	(new)
34	$21^{\rm h}32^{\rm m}00^{\rm s}.737$	$-58^{\circ}48'54''.43$	BT Ind
35	$21^{h}54^{m}22^{s}.194$	$-41^{\circ}15'57''.81$	CO Gru
36	$22^{n}14^{m}02^{s}.615$	$-57^{\circ}13'06''.33$	DH Tuc
37	$22^{n}25^{m}46^{s}.170$	$-49^{\circ}49'33''.24$	CT Gru
38	$22^{h}28^{m}58^{s}.321$	$+50^{\circ}57'47''.28$	V411 Lac
39	$23^{n}49^{m}58.211$	$-61^{\circ}08'07''.24$	DU Tuc
40	$23^{n}56^{m}58.052$	$+32^{\circ}20'14''.06$	(new)
41	18"03" 19.263	$+23^{\circ}49'00''.54$	(new)
42	$05^{n}40^{m}58.773$	$-27^{\circ}57'07''.72$	(new)
43	$11^{n}05^{m}44^{s}.373$	-60°29'15''.81	(new)

Table 1: Tycho Positions for Variables Announced by Woitas