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ON SEVERAL VARIABLE STARS IN THE FIELD OF M33

Having met some difficulties in locating variables discovered by Romano (1978), we decided to remeasure co-ordinates of these stars. The measurements, carried out by V. P. Goranskij by means of an "ASCORECORD" machine, have led to the following results (equinox 1950.0, epoch 1990.05, accuracy about 0.″5 in both co-ordinates):

Table I.

GCVS	GR	R.A.	Decl.
AI Psc	282	$1^h26^m27^s.78$	+32°27′46″.6
AK Psc	283	1 26 39.35	+28 56 57.6
AL Psc	284	1 27 37.52	+29 43 16.4
AM Psc	285	1 28 02.60	+31 23 21.4
TT Tri	286	1 29 11.54	+29 33 58.9
TU Tri	287	1 36 24.68	+31 09 05.1
TV Tri	288	1 30 20.83	+32 20 15.9
TW Tri	292	1 33 46.41	+31 45 19.3
	289	1 30 34.72	+32 12 14.4
	291	1 32 43.75	+31 15 29.4

Thus, the co-ordinates published by Romano for GR 283 are wrong by 1°in δ , and those for GR 287 - by almost 7^min α . As a result, the discovery of a new variable, in fact identical with GR 287, was announced by Sharov (1991). Note that the finding chart for TU Tri = GR 287 published by Khruzina and Shugarov (1991) is wrong, again because of their attempt to find the star at the published position. Our identification of TU Tri is quite sure, though a bright star in the field is missing in the chart by Romano (1978).

AL Psc = GR 284 was attributed by Romano (1978) to RR Lyrae stars; he indicated the range $15^m.3$ - $16^m.8$ pg.

One of us (A. S. Sh.) has estimated the brightness of AL Psc on 273 B plates taken with the 50 cm Maksutov camera of the Sternberg Institute Crimean Laboratory (J.D. 2437556 - 2448573). Figure 1 shows the finding chart with comparison stars indicated; their B magnitudes (a = 15.15, b = 16.05, c = 16.60, d = 17.58) rely upon the photoelectric standard (Sandage and Johnson, 1974).

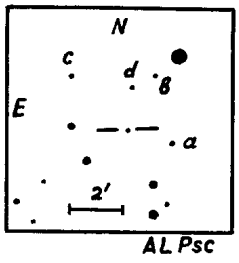

Figure 1. Finding chart of AL Psc

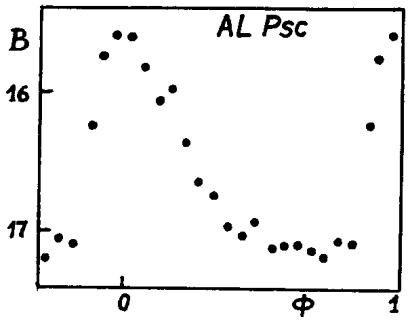

Figure 2. Light curve of AL Psc

We have determined the period of AL Psc using a computer program (Lafler - Kinman algorithm) written by S. Yu. Shugarov. The star is really an RR Lyrae variable (subtype ab) with the following light elements:

Max = 2448524.12 + 0^d.456782×E,

the period being apparently constant during the whole time interval covered with our observations. The range is 15^m.6 - 17^m.1B, M–m = 0^p.25. The mean light curve is shown in Figure 2.

A. S. SHAROV
V. P. GORANSKIJ
Sternberg Astronomical Institute
13, University Avenue, Moscow 119899
Russia

N. N. SAMUS
Institute for Astronomy
of Russian Academy of Science
48, Pyatnitskaya Str., Moscow 109017
Russia

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