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NEW ELEMENTS FOR THE ECLIPSING BINARY GO Vul

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Name of the object:				
GO Vul = HBV 327 = GSC 2147.0989				
Equatorial coordinates:		Equinox:		
$\mathbf{R.A.} = 19^{\mathrm{h}}46^{\mathrm{m}}35^{\mathrm{s}}4 \mathbf{DEC.} = +27^{\circ}5'59''$		2000		
Observatory and telescope:				
Ondřejov Observatory, Czech Republic, 0.65-m reflecting telescope				
Detector:	CCD camera Apogee AP7 in primary focus, Peltier cooled			
Filter(s):	Johnson's R			
Date(s) of the observation(s):				
18 August 2002 – 12 November 2002				
Comparison star(s): GSC 2147.1315, GSC 2147.1413				
Transformed to a standard system: No				
Availability of the data:				
Upon request, see also http://nyx.asu.cas.cz/~lenka/dbvar/				

Remarks:

Type of variability:

EΑ

GO Vul was discovered as a variable star by Wachmann (1966), who derived the first light elements:

Pri. Min. = HJD
$$2434628.337 + 1.00892787 \times E$$
.

Our measurements phased with this period indicate that there are two types of primary minimum (see Fig. 1). It implies that the true orbital period is double. A least squares fit to all times of minimum light led to the following light elements, which we propose for future use:

Pri. Min. = HJD
$$24\,52505.4944 + 2.0178517 \times E$$
.

The primary and secondary minima have an amplitude of 0.^m45 and 0.^m37, respectively. The minimum times in Table 1 are calculated by the bisecting cord method.

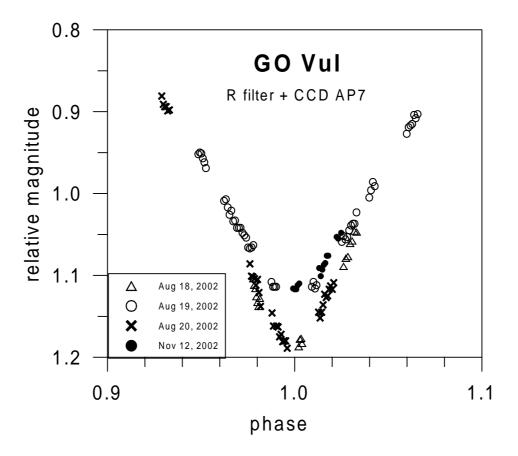


Figure 1. The light curve of GO Vul phased with the Wachmann's period of 1.009 days. The triangles and crosses correspond to the primary minima, the dots and circles to the secondaries, respectively.

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Table 1: New precise times of minimum light for GO Vul.

JD Hel. –	Error	Points	Type
$24\ 00000$	[days]		
52505.4943	0.0008	18	Pri.
52506.5035	0.0004	51	Sec.
52507.5120	0.0006	35	Pri.

Reference:

Wachmann, A. A., 1966, Astron. Abhandlungen Hamburg, 6, 97