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**IDENTIFICATION AND LIGHT ELEMENTS OF BW Lib**

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<b>Name of the object:</b>
BW Lib = GSC 6192.1522

<b>Equatorial coordinates:</b>	<b>Equinox:</b>
R.A. = 15 <sup>h</sup> 31 <sup>m</sup> 40 <sup>s</sup> .08    DEC. = -20°27'17".5	2000

<b>Observatory and telescope:</b>
Crimean Laboratory of Sternberg Astronomical Institute, 40-cm astrograph

<b>Detector:</b>	Photoplate
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<b>Filter(s):</b>	None
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	GSC	$\alpha$ (J2000)	$\delta$ (J2000)	$B_{pg}$
<b>Comparison star(s):</b>	6192.1322	15 <sup>h</sup> 32 <sup>m</sup> 08 <sup>s</sup> .3	-20°19'55"	13 <sup>m</sup> 33
	6192.0857	15 <sup>h</sup> 31 <sup>m</sup> 53 <sup>s</sup> .8	-20°27'55"	14 <sup>m</sup> 31
	6192.1144	15 <sup>h</sup> 31 <sup>m</sup> 47 <sup>s</sup> .4	-20°28'08"	15 <sup>m</sup> 03

<b>Transformed to a standard system:</b>	$B_{pg}$
<b>Standard stars (field) used:</b>	Calibrated using the photoelectric standard sequence in NGC 5897 (Sandage and Katem, 1968)

<b>Date(s) of the observation(s):</b>
JD 2440413–2448425

<b>Availability of the data:</b>
Upon request

<b>Type of variability:</b>	EA
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**Remarks:**

The eclipsing variable star BW Lib (HV 10673) was discovered by Hanley (1942) who mentioned the presence of a faint companion to the north-west. Ashbrook (1942) gives the photographic light range from 13<sup>m</sup>2 to 14<sup>m</sup>9 and the period 0<sup>d</sup>.93235. No timings of minima were ever published for the star. A finding chart was presented by Tsesevich and Kazanasmas (1971). It shows a star approximately in 2' of the discoverer's position. However, there is a candidate star GSC 6192.1522 close to the position published by Hanley (1942) and with a companion agreeing with the description. We looked through several plates of our collection and immediately found a deep minimum on HJD 2440413.311 (in fact, the deepest minimum on our plates). Later on, our identification was confirmed by a finding chart based upon the discoverer's sketch and kindly sent to us by Dr. M.L. Hazen (Harvard Observatory). The best values of the period derived from the total of our 77 photographic brightness estimates do not differ significantly from that published by Ashbrook (1942), and thus we suggest the following light elements:

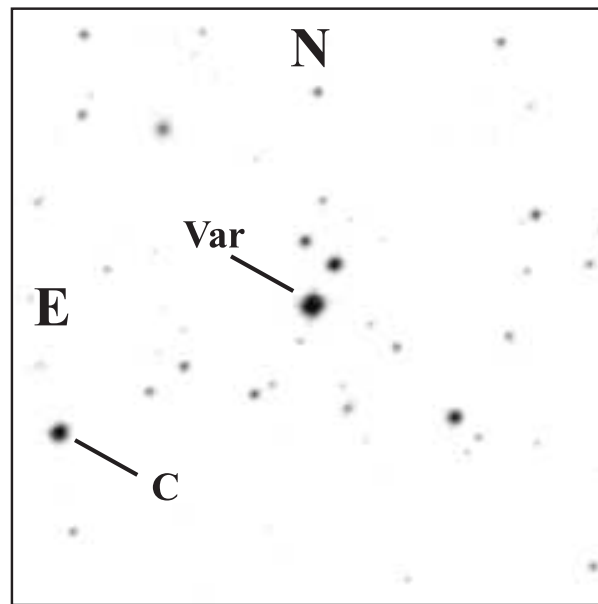
Min JD hel = 2440413.311 + 0<sup>d</sup>.93235 × *E*. The finding chart is shown in Fig. 1, the light curve is presented in Fig. 2. The wrong chart by Tsesevich and Kazanasmas identifies BW Lib with one of our comparison stars, GSC 6192.1144.

**Acknowledgements:**

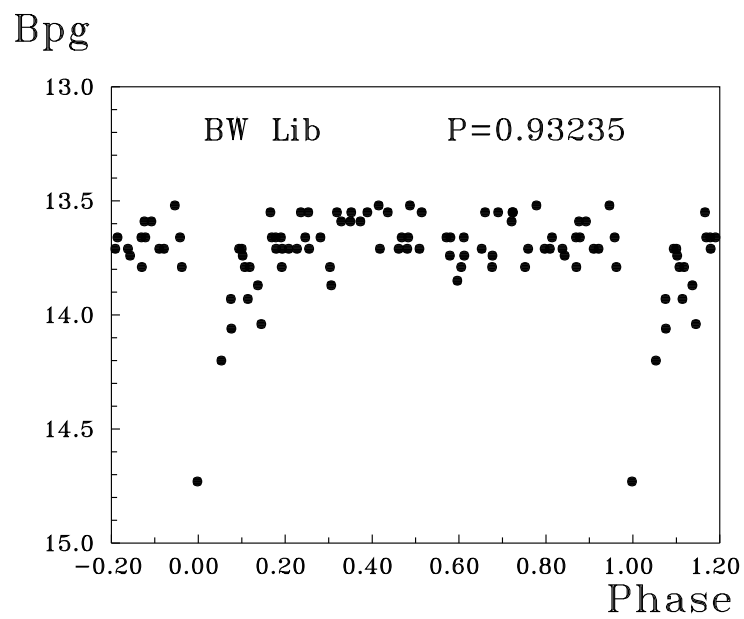
The work of the GCVS team is supported, in part, by grants from the Russian Foundation for Basic Research (grant 02-02-16069), The Federal Scientific and Technological Program "Astronomy", and the program of support for leading scientific schools of Russia (00-15-96627). The Digitized Sky Survey images are provided by the Hubble Space Telescope Science Institute under support from grant NAG W-2166 of the USA Government. Thanks are due to Dr. M.L. Hazen for sending us the finding chart confirming our identification and to Dr. S.V. Antipin for his assistance during the preparation of the manuscript.

## References:

- Ashbrook, M. D., 1942, *Harvard Obs. Ann.*, **109**, 31  
 Hanley, C. M., 1942, *Harvard Obs. Ann.*, **109**, 15  
 Sandage, A., Katem, B., 1968, *Astrophys. J.*, **153**, 569  
 Tsesevich, V. P., Kazanasmas, M. S., 1971, *Atlas of Finding Charts of Variable Stars*,  
 Moscow: Nauka



**Figure 1.** The finding chart for BW Lib. The chart shows a  $4' \times 4'$  field from the second Digitized Sky Survey, in red light. The star marked “C” is GSC 6192.1144, erroneously identified with BW Ser in Tsevevich and Kazanasmas (1971).



**Figure 2.** The light curve of BW Lib, folded with the elements presented above.