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MIS-IDENTIFICATION OF V854 OPHIUCHI

YOSHIDA, S.¹; KADOTA, K.²; KATO, T.³

¹ MISAO Project, 1065-16 Miyawada Fujishiro-machi Kitasoma-gun, Ibaraki 300-1514, Japan,
e-mail: seiichi@muraoka.info.waseda.ac.jp

² MISAO Project, 77-1-3-12-204 Koshikiya Ageo City, Saitama 362-0064, Japan,
e-mail: kenic-k@astroarts.co.jp

³ Dept. of Astronomy, Kyoto University, Kyoto 606-8502, Japan, e-mail: tkato@kusastro.kyoto-u.ac.jp

This report discusses on the suggested identification of the emission-line star Stephenson No. 141 with V854 Oph.

V854 Oph was classified as a Mira-type variable star with a photographic brightness variation between 11–16 mag and a period of 352 days in the GCVS. One of the emission-line stars discovered by Stephenson, No. 141 is remarked to be identified with V854 Oph (Stephenson 1986). There is a star USNO-A2.0 0750.10233498, R.A. 16^h59^m11^s.965, Decl. –13°30′37″.41 (2000.0), 11.8 mag (*R*), 14.5 mag (*B*), at the cataloged position of Stephenson No. 141 in the USNO-A2.0 catalog. We observed it in the course of the MISAO Project variable star survey (Yoshida and Kadota 1999) and found that the identification is probably erroneous.

Table 1 shows the photometry of Stephenson No. 141. The CCD images were taken by KenIchi Kadota in 1999 with a 300-mm camera lens and 0.16-m *f*/3.3 reflector. The magnitude is measured automatically by the PIXY system using the USNO-A1.0 catalog based on a preliminary *V* magnitude calculated from *R* and *B* magnitude in the catalog based on Kato's (1998) equation:

$$V = R + 0.375(B - R).$$

The brightness keeps around 13.4 mag and no evident variability was detected at all within six months. This conflicts with the typical feature of a Mira-type variable star.

Within 10 arcmin from this star, no other variable star was found on the images except for one of our new variable stars, MisV0005 (Yoshida and Kadota 1999), = USNO-A1.0 0750.10268837, R.A. 16^h59^m28^s.077, Decl. –13°23′14″.08 (2000.0), 15.5 mag (*R*), 19.6 mag (*B*). Figure 1 shows the chart of Stephenson No. 141 and MisV0005. Table 2 shows the photometry of MisV0005, which implies that this variable star is changing its brightness slowly, so it is possibly a red semiregular variable. The magnitude data in the USNO-A1.0 catalog also implies it is a red star. These facts do not conflict with the cataloged type of V854 Oph. Therefore, this star may be the true V854 Oph, despite the large angular distance from the cataloged position.

Table 1: Photometry of Stephenson No. 141

JD	Mag
2451208.341	13.3
2451277.219	13.4
2451307.186	13.3
2451392.029	13.5

Table 2: Photometry of MisV0005

JD	Mag
2451208.341	12.5
2451277.219	13.8
2451307.186	13.9
2451392.029	12.2

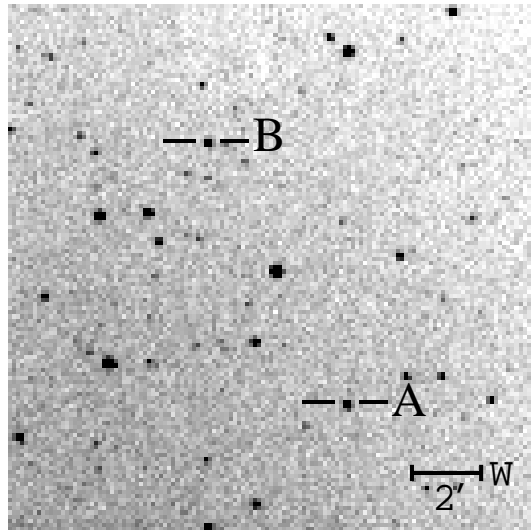


Figure 1. A: Stephenson No. 141, B: MisV0005

References:

Kato, T., 1998,

<http://www.kusastro.kyoto-u.ac.jp/vsnet/Mail/vsnet-chat/msg00700.html>

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