COMMISSIONS 27 AND 42 OF THE IAU
INFORMATION BULLETIN ON VARIABLE STARS
Number 4015

Konkoly Observatory
Budapest
21 April 1994
HU ISSN 0324 - 0676

EP And = NSV 598

During my work on *PICA project* (Precise Identification and Coordinate Adjustment of about 7000 variables) I have found that *EP And* is identical with *NSV 598.*

EP And = BV 75 was discovered by Strohmeier et al. (1955). In his paper the type of variability is commented as "slow changes". Eclipsing nature was first found by Filatov (1960), but he gave incorrect elements. This star has received its final designation in 1967 (Kukarkin et al., 1967). In 1975 (Diethelm, Locher, 1975) first visual observations by BBSAG appeared giving in short time the first correct elements for this W-UMa type star (Locher, 1976). From 1975 it was many times observed either visually or by photoelectric means and also on plates of photographic archives.

NSV 598 = Brun 16 was discovered by Brun (1963). His comment to the star is short, stating only "No 662 in Bergedorfer Spektral Durchmusterung. Mag: 11.74 Sp. F8. Maxima are frequent". Fortunately finder chart was published in the paper. I have found no other paper concerning this star. No final designation was accepted for this star and it was included into New Catalogue of Suspected Variable Stars (Kholopov et al., 1982).

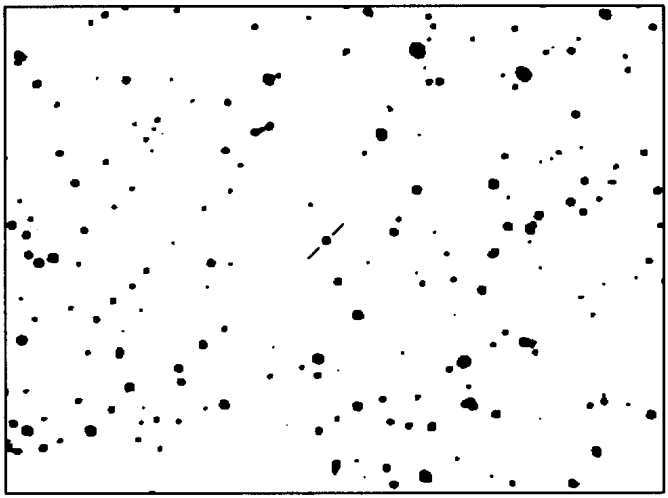

Figure 1: Finding chart for EP And = NSV 598. The chart covers about 60' x 45' with north up. Variable is marked with two short lines.

Name	Position (B1950)		Position (J2000)		Type	Max	Min	Ph.
	h m s	° ′	h m s	° ′ ″		mag	mag	s.
NSV 598	01 39 31	+44 30.8	*01 42 33*	*+44 45.9*		11.7	12.5	p
EP And	01 39 28	+44 30.6	*01 42 30*	*+44 45.7*	EW	11.9	12.5	p
EP And (Plaut)	01 39 27.65	+44 30 36.8	*01 42 29.54*	*+44 45 42.9*				
GSC 2827.0017	*01 39 27.48*	*+44 30 36.8*	01 42 29.37	+44 45 42.9		11.74		1

Table 1: Comparative table of *original* data for NSV 598, GSC 2827.0017 and EP And. Data concerning NSV 598 are from NSV, data for EP And are from GCVS, for EP And (Plaut) are by Plaut (1977) and data for GSC 2827.0017 are from GSC. Photometric system code 1 for GSC represents the Kodak IIa-D plate with W12 filter. Coordinates printed in italics were computed from the above stated data sources.

While working on field variable stars around *EP And* I have noticed that *NSV 598* lies quite close to *EP And*. As I wasn't successful in obtaining the original chart of Strohmeier et al. (1955) for *EP And*, I had to use the chart of Berthold (1982) to be sure. Berthold's chart refers to the same star as Brun's chart. Additional check has confirmed this. As *EP And* is identical with GSC 2827.0017 the J2000.0 coordinates were easily found (see Table 1). These coordinates are consistent with those given by Plaut (1977). The remaining difference may have origin in proper motion, as the epoch differs by 90 years. Finding chart (see Figure 1) was adapted from Atlas Stellarum (Vehrenberg, 1970).

Following cross-identifications are valid : EP And = BV 75 = Brun 16 = NSV 598 = Hels ph $1^h40^m + 44°$ N°93 = Hels ph $1^h35^m + 45°$ N°385 = GSC 2827.0017

Jan MÁNEK
Štefánik Observatory
Petřín 205
118 46 Praha 1
Czech Republic
e-mail: observ@earn.cvut.cz

References :

Berthold, T.: 1982, *Hartha Mitteilungen* No 17, 1
Brun, A.: 1963, *Journal des Observateurs* **46**, No 4, 126
Diethelm, R., Locher, K.: 1975, *BBSAG Bulletin* 21
Filatov, G.S.: 1960, *Astronomicheskij Tsirkulyar* No 215, 20
Guide Star Catalogue v1.1: 1992, The Space Telescope Science Institute, Baltimore, Maryland, USA. On CD-ROM.
Kholopov, P.N., et al.: 1982, *New Catalogue of Suspected Variable Stars*, Nauka, Moscow
Kholopov, P.N., et al.: 1985, *General Catalogue of Variable Stars*, 4th ed., Nauka, Moscow
Kukarkin, B.V., et al.: 1967, *2nd supplement to 2nd edition of GCVS*, Nauka, Moscow
Locher, K.: 1976, *BBSAG Bulletin* 25
Plaut, L.: 1977, *Astronomy & Astrophysics Suppl.* **28**, 169
Strohmeier, W., Geyer, E., Kippenhahn, R.: 1955, *Kleine Veröffentlichungen der Remeis-Sternwarte* No 11, Bamberg
Vehrenberg, H.: 1970, *Atlas Stellarum 1950.0*, Treugesell Verlag KG, Düsseldorf