

COMMISSION 27 OF THE I. A. U.
 INFORMATION BULLETIN ON VARIABLE STARS
 NUMBER 286

Konkoly Observatory
 Budapest
 1968 June 22

DH DARINAE

Andrews (1) has reported photographic photometry of DH Car in two colors (blue and ultraviolet). As he pointed out from Hertzsprung's (2) identification chart it was not quite clear which star did flare. Thus, before knowing the work of Andrews, we undertook the task of observing in the UB_v-system some stars in the vicinity of DH Car as identified by Hertzsprung (2). Our first attempt was made in 1967 at the Cerro Tololo Inter-American Observatory with the 16-inch telescope. The results of these observations indicated that DH Car should be earlier than M0 and fainter than V=13 mag. Our second attempt was made at the same observatory with the 36-inch telescope. The results are listed in Table I. The first column gives the designation in Fig.1. The a, b, and f stars are those given by Andrews (1) (also DH Car). From second to last column is our photometry with the mean errors and the number of independent observations.

Table I. - Photometric Results

	V	m.e.	(B-V)	m.e.	(U-B)	m.e.	n
DH Car	15. ^m 46	+0. ^m 03	0. ^m 90	+0. ^m 03	0. ^m 32	+0. ^m 09	27
a	12.83	+0.04	0.91	+0.01	0.05	+0.05	2
b	14.3	+0.1	0.9	+0.1	0.8	+0.1	2
f	15.2	+0.2	0.82	+0.09	0.3	+0.2	6
h	12.76	+0.01	0.92	+0.01	0.35	+0.04	2
i	13.07	+0.01	0.93	+0.01	0.29	+0.04	2
j	13.25	+0.03	0.96	+0.01	-0.03	+0.01	2
k	16.3	+0.2	0.87	+0.01	0.16	+0.06	5

We should mention that our technique consisted of eight seconds integration time to be able to detect rapid light variations, if any. During our observing run (March 25, 26, 27; 1968; U.T.) we had a set of much higher deflexions, possibly caused by a flare. The results of this "flare" are listed in Table II. The columns give first, the Julian Day, and from second to last, the increase in brightness in V, B, and U respectively. Notice that these figures are several times the mean errors listed in Table I.

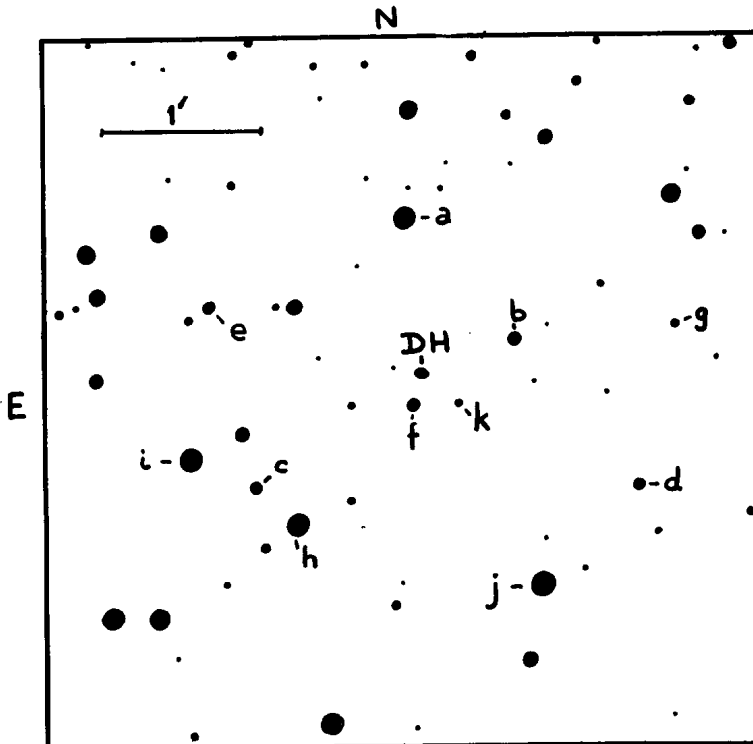
Table II.- A Possible Flare of DH Car

J.D.	ΔV	ΔB	ΔU
2439942.0 +			
0. ^d 529 - 0. ^d 536	0. ^m 17	0. ^m 63	1. ^m 00

If DH Car is not strongly affected by interstellar extinction its spectral type is around K2.

We also took two 103a-0 plates centered on DH Car of high quality with the 36-inch telescope. They show clearly a faint companion, less than two seconds of arc apart from DH Car (mostly to the West). The probability that they form a physical system is high because flare stars very often belong to double systems (3).

The author thanks to Dr.E.E.Mendoza for his advise and suggestions.



Astronomy Department, University of Chile and
Cerro Tololo Inter-American Observatory.
June 13, 1968.

S.TAPIA

References

- 1) A.D.Andrews, I.B.V.S. N° 248 (1968)
- 2) E.Hertzsprung, B.A.N. Vol.2, 87 (1924)
- 3) L.H.Solomon, Smithsonian Ap.Obs. Special Report N° 210, 4 (1966).