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

NUMBER 642

-Konkoly Observatory Budapest 1972 March 15

UBV OBSERVATIONS OF FU Ori, SU Tau AND OJ 287

One set of observations each was obtained for FU Ori, SU Tau and OJ 287 on 25 January 1972 U.T. at the No.1 36-inch reflector of Kitt Peak National Observatory during an observing session on another photometric program. A refrigerated photomultiplier (KPNO No.CT11919/5) together with standard UBV filters (V filter no. 232; B filter no. 233; and U filter no. 315) and 14 UBV standard stars chosen from the list of Johnson and Harris (1954) placed the observations on the UBV system. Standard observation and reduction procedures were followed (Landolt 1968). The external probable errors of the photometry, as defined by the UBV standard stars, were ±0.020 in V, ±0.007 in (B-V), and ±0.013 in (U-B).

Each of the three objects observed is quite interesting in its own way; hence, observations made from time to time are worthwhile.(a)FU Ori was observed to brighten rapidly in 1936 by some 6 magnitudes; see Herbig (1966) for a thorough discussion. The magnitude and color indices shown in Table I remain similar to those reported by Herbig (1966).

Table I

Object	JD hel.	v	B-V	U-B
	2441000+			
FU Ori	341.6742	06 و 9	+1.36	+0.92
SU Tau	341.6818	11.50	+1.48	+1.00
OJ 287	341.7544	12.51	+0.37	-0.68

- (b) SU Tau is a R CrB variable which entered a minimum early in 1971 (IAU Circular Nos. 2316 and 2318). The star still seems to be 2 magnitudes fainter than its normal brightness.
- (c) The radio source OJ 287, an optically variable quasi stellar object, has recently been discussed by Dyck et al. (1971) and by Kinman and Conklin (1971). The magnitude and color indices given in Table I are quite similar to those published.

I thank the Director of the Kitt Peak National Onservatory for the observing time. These observations were made during an observing program funded by National Science Foundation Grant No. GP-31504.

ARLO U. LANDOLT Louisiana State University Observatory

References:

Dyck, H.M., Kinman, T.D., Kockwood, G.W., and Landolt, A.U. 1971, Nature Physical Sciences 234, 71.

Herbig, G.H. 1966, in Vistas in Astronomy, edited by A. Beer and K.Aa. Strand (London: Pergamon Press), 8, 109.

Johnson, H.L., and Harris, D.L., III 1954, Ap. J. 120, 196.

Kinman, T.D., and Conklin, E.K., 1971, Astrophys. Letters 9, 147.

Landolt, A.U. 1968, Astron. J. 73, 705.