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AN RR LYRAE STAR IN NGC 288

In August 1975, one of us (MHL) obtained 17 B plates of the globular cluster NGC 288 on 9 nights with the 1-m Yale reflector at Cerro Tololo Inter-American Observatory. Blinking of 10 pairs of plates revealed one new variable star, V2, in addition to the long period variable discovered by Oosterhoff (1943). V2 lies approximately 36" north and 20" east of the center of the cluster as defined by Oosterhoff. The locations of V1 and V2 in the cluster are shown in Fig.1.

With a sequence from the photometry of Cannon (1974), we made visual estimates of the B magnitudes of V2 on our plates. Table 1 lists the heliocentric Julian Dates and magnitudes. With a period search computer program provided by E.L. Wright, we determined the period of V2 to be $0^d.679$ with epoch of maximum J.D. 2443011^d.853. The corresponding light curve is given in Fig.2.

The mean B magnitude for V2 is about $15^m.4$. If $B-V \sim +0^m.3$, $E_{B-V} = 0^m.0$ (Harris, 1976) and $V_{HB} \sim 0^m.6$, then $(m-M)_V \sim 14^m.5$, which is only $0^m.2$ different from Harris's value of $14^m.70$. Thus it seems probable that V2 is a member of NGC 288.

LINDA M. HOLLINGSWORTH

MARTHA H. LILLER*

Center for Astrophysics
Harvard College Observatory
and Smithsonian Astrophysical
Observatory, Cambridge,
Mass. 02138, U.S.A.

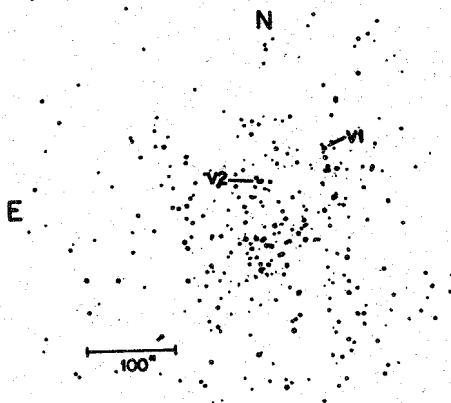
*Visiting Astronomer,

Cerro Tololo Inter-American Observatory, supported by the
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Table 1
B Magnitudes for V2

JD _{hel.}	B
2443003.742	14. ^m 8
.833	15.3
3004.731	15.9
.837	16.0
3005.690	15.1
.797	15.1
3009.739	15.3
.810	14.9
3010.743	15.5
.850	15.8
3011.737	15.9
.853	14.8
3012.754	15.7
.866	15.8
3013.689	15.9
3014.694	15.3
.812	15.7

Fig. 1



References:

- Cannon, R.D. 1974, Mon.Not.R.Astron.Soc. 167, 551
Harris, W.E. 1976, Astron.J. 81, 1095
Oosterhoff, P.Th. 1943, Bull.Astron.Inst.Netherlands 9, 397

Fig.2

