

Further Note on a Nova in the Large Magellanic Cloud, H.V. 4004.—

A preliminary note on a possible nova in the Large Magellanic Cloud was published in Harvard Bulletin 847. Through the closing of the Arequipa station of the Harvard Observatory no more observations of this object could be secured in Peru. A cablegram was accordingly sent to the Union Observatory at Johannesburg, and also to the Royal Observatory at the Cape of Good Hope, requesting further observations.

Mr. Innes was good enough to send two plates of this region, taken 1927 May 7 and May 8 respectively. The limiting magnitude of these plates is 13.5, and the nova is not shown. In a letter received on August 24, Mr. Jones kindly communicated the following data from the Cape Observatory:

Three old plates were examined, and five new plates taken, none of which revealed a trace of the nova. The corresponding dates and limiting magnitudes for the nova are given below.

Date		Pg. Mag.
1898 February	21	[17.5
1912 February	17	[18.0
1917 October	24	[15.0
1927 May	6	[15.0
"	7	[15.0
"	19	[15.0
June	2	[15.0
"	8	[15.0

In the light of this new evidence it seems fairly certain that the object in question was a nova, which reached a maximum photographic magnitude of at least 12.4.

Erratum. The photographic magnitude of the nova mentioned above was given in Harvard Bulletin 847 as 15.0 on November 6, 1926. The magnitude should have been given as 13.5.

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Two New Variables in the Region of the Andromeda Nebula.— A fifteenth magnitude star, following the nucleus of the Andromeda Nebula by 9'.2 and south of it by 4'.0 is found to be variable (H.V. 4013). Its estimated magnitude on seven occasions is given below, together with the corresponding Julian Days.

The variable has already been found at Mount Wilson, according to unpublished data kindly communicated by Dr. Hubble, who states that it is the brightest variable in the nebula. From observations made between 1909 and 1927 it appears either that the variable is irregular or that it has a period of several years.

Julian Day	Pg. Mag.
2414223	16.5
23668	15.9
23669	15.9
24766	15.8
24790	15.6
24814	15.7
24844	15.3

Since the star is situated on one of the outlying arms of the spiral, it possibly belongs to the nebula. The peculiarity of its light changes rather strengthens than weakens such a supposition. In this case the absolute photographic magnitude would be of the order of -7.0 at maximum.

Another star, H. V. 4014, situated at $0^h 29^m 47^s$, $+41^\circ 07'.5$ (1900), seems to vary between about $13^m.5$ and $14^m.5$, being faint on but two of the available eight plates, and bright on the remainder.

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Approximate Light Elements of YY Scorpil. — The variable star YY Scorpil (H.V. 1085) in the position $16^h 31^m 58^s$, $-28^\circ 22'.0$ (1900.0) was found again in the blink microscope while examining a pair of plates taken with the Bruce telescope. The star was subsequently looked up on fifteen plates taken with the same instrument, and on twenty five plates taken with the 8-inch Bache telescope; furthermore it was found to be very bright on fourteen plates taken with the 1-inch Cooke lens. The last mentioned plates show the variable only when it is in or near maximum. From this material it was found that the star was in or near maximum at the following times:

1890.4	1905.6	1916.4
97.5	08.3	17.3
99.4	09.2	23.6
1900.3	13.7	24.5
01.3	15.5	