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NOVA V360 HERCULIS (1892) IDENTIFIED

V360 Herculis is of considerable interest as an apparent example of a halo nova. Its discovery was announced by Baillaud and de Grandchamp (1927), who called attention to it on cliché 286 (1892 July 8), center R.A. 17^h12^m, Dec. +24°, in Volume I of the Paris zone of the Astrographic Catalogue (Observatoire de Paris 1902), where it is listed as No. 244 (magnitude 6.3) in that field. Each plate measured for the Astrographic Catalogue contained three images, spanning a range of exposure times, of a 2° × 2° field. Baillaud and de Grandchamp noted that all three images of No. 244 are detectable on this plate, appear perfectly normal, and show the proper relative displacement. The star's equatorial coordinates, derived using the provisional plate constants and precessed to equinox 1950, are:

RA (1950)	Dec (1950)	Ep.
$17^h\ 14^m\ 34\overset{s}{.}19$	+24° 30' 00".2	1892.55

Subsequent attempts to recover this object have proven fruitless, despite the existence of a precise position, and the star's high galactic latitude (b = +30.96°). Baillaud and de Grandchamp were unable to find it in the overlapping Oxford field at R.A. 17^h16^m, Dec. +25° (Turner 1911), nor on the negative of the Paris field obtained on 1901 June 22 for the Carte du Ciel series itself, or on a negative obtained with the same instrument on 1927 July 29; each of these plates has a limiting magnitude of about 14. The nova was later included by Prager (1934) in his catalog of reportedly variable stars as No. 1230. Parenago (1947) could find no evidence of it on a series of 28 plates at the Shternberg State Astronomical Institute, and considered the Paris observation probably a plate defect, notwithstanding the three apparently normal images recorded on the Astrographic Catalogue plate. Ashbrook (1953) searched for it without success on Harvard patrol plates from 1890 June 30 through 9 August 1893, and on a deeper Yale plate, reaching magnitude 16, taken on 1951 March 31, but he was convinced of its reality. In 1958, it received the variable star designation V360 Herculis (Efremov and Kholopov 1958). Most recently, Duerbeck (1987) examined this field on the Palomar Observatory Sky Survey, identifying a star some 6" NW of the reported position of V360 Her as the best candidate for the nova system.

On a recent visit to the library of the U.S. Naval Observatory, I looked up the entry for AC +24°1712,244 in the Observatory's copy of the Paris zone of the Astrographic Catalogue, and was surprised to find the entire field extensively annotated in an anonymous hand. These annotations referenced a large number of corrections at the end of Volume III of the Paris zones (Observatoire de Paris 1911) reprinted from a paper by Pourteau and Baillaud (1910) - ironically, the same Jules Baillaud who later co-authored the discovery of V360 Her. This paper reported the discovery of a very large number of images on the Catalogue plate for this field which were not present on the corresponding Carte du Ciel plate. On further examination,

Pourteau and Baillaud had found that the Catalogue plate in fact contained a superimposed triple exposure (cliché 280, taken 1892 June 11) of a field centered at $+24°16^h56^m$. They identified some 403 stars catalogued in the field nominally centered at $+24°17^h12^m$ which in fact belong to the field at $+24°16^h56^m$, among them No. 244 = V360 Her, and were able to derive provisional plate constants for the latter field.

From the (corrected) plate constants for cliché 280, and published plate coordinates of V360 Her, I derive the following position:

	RA (1950)	Dec (1950)	Ep.
AC +24°1712,244	$16^h\ 58^m\ 36\overset{s}{.}02$	+24° 29' 01".1	1892.45

This position is in fact coincident with that of HD 153820 (A0, mag 8.1) = BD +24°3104 = SAO 084700 = AGK3 +24°1696, corrected for proper motion to the epoch of observation:

	RA (1950)	Dec (1950)	Ep.
SAO 084700	$16^h\ 58^m\ 35\overset{s}{.}88$	+24° 29' 01".3	1892.45
AGK3 +24°1696	$16^h\ 58^m\ 35\overset{s}{.}95$	+24° 29' 01".2	1892.45

There can be no doubt therefore that V360 Her is one and the same star as HD 153820, and not a classical nova.

I am indebted to the Brenda Corbin and Greg Shelton at the U.S. Naval Observatory library for the generous use of that resource, to the anonymous individual who diligently annotated the library copy of the Catalogue Photographique du Ciel, and to the Office of University Programs at Goddard Space Flight Center for a NASA/ASEE Summer Faculty Fellowship which made this opportunity possible.

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