Mon. Not. R. astr. Soc. (1976) **177**, *Short Communication*, 67P–68P.

THE POSITION OF NOVA CYGNI 1975

Leander Fischer

Vienna University Observatory, Schottenstift, Freyung 6, A1010 Wien, Austria

(Received 1976 June 28)

SUMMARY

The accurate position of Nova Cygni 1975 was determined photographically from eleven plates taken at the Normal Astrograph of the Vienna Observatory. No trace of a praenova was detectable in the Palomar Sky Survey.

During the period from 1975 August 31 to October 26, eleven plates of the Nova Cygni were obtained at the Normal Astrograph of the Vienna University Observatory. Altogether, ten stars were available as reference stars, whose positions for the epoch were calculated from their published positions in AGK 3, AGK 2 (reconstituted from AGK 3 data), two plates of the Catania zone ($21^h\,10^m$, $+48°$; $21^h\,05^m$, $+47°$) of the AC, for which Günther & Kox's (1970) plate constants were used, and AGK 1 positions, which were reconstituted from the SAOC data. Not all plates showed all reference stars.

The plates were measured and prereduced in the usual way as previously described by Fischer (1975). The finally adopted values for the measured coordinates of the reference stars have a standard error of about $0''\cdot1$ and about twice that for the Nova; it became apparent that the position of the Nova could be measured more accurately as its brightness decreased.

Six linear plate constants only were used to reduce the plates. The position of the Nova on the FK4 system at the average epoch, namely 1975·8 and referred to the orientation of the coordinate system 1950·0 is

$$21^h\,09^m\,52^s\cdot818 \pm 0^s\cdot027 \text{ s.e.}$$

$$+47°\,56'\,41''\cdot29 \pm 0''\cdot12 \text{ s.e.}$$

in excellent agreement with de Vegt & Gehlich (1975) previously published position (residuals Fischer minus de Vegt: $-0^s\cdot009$ and $0''\cdot04$, respectively). The standard errors were calculated from the dispersion of the values, which resulted from the individual plates, against their mean.

The positions and proper motions of the reference stars were obtained from a rigorous least-squares solution from all available sources. From backsubstitution, this sample yields the following estimates for the standard errors in the source catalogues:

Source	ϵ_α	ϵ_δ
AGK 3	$0^s\cdot016$	$0''\cdot10$
AGK 2	$0^s\cdot022$	$0''\cdot11$
Catania I	$0^s\cdot034$	$0''\cdot21$
Catania II	$0^s\cdot018$	$0''\cdot19$
AGK 1	$0^s\cdot079$	$1''\cdot37$,

which is a reasonably good confirmation of the weighting system we had used for the derivation of the reference star parameters.

The prints of the Palomar Sky Survey at the Vienna Observatory were very carefully searched for the praenova, visually as well as by comparing measurements made on enlarged copies with our positions. No trace whatsoever of any praenova object was found at the position of the Nova.

ACKNOWLEDGMENTS

Thanks are due to the Department of Photogrammetry of the Vienna Technical University for the use of their comparator and their Durst-Laborator which was used for making the Palomar print enlargements. Professor Heinrich Eichhorn gave technical advice and checked the language of the paper.

REFERENCES

De Vegt, C. & Gehlich, U., 1975. *IAU Circ. 2837.*
Fischer, L., 1975. *Mem. R. astr. Soc.*, **80**, 93–103.
Günther, A. & Kox, H., 1970. *Astr. Astrophys. Suppl.*, **3**, 137.