AUTOMATION AND SOFTWARE OF THE WANSCHAFF VERTICAL CIRCLE AT GOLOSEEVO

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The Wanschaff vertical circle, set up at Goloseevo in 1949 was built in 1914 . The instrument was originally equiped with four visual microscopes for reading the circle, with a visual eyepiece micrometer, and with two levels for the determination of the inclination of the vertical axis. After the instrument had been installed in a new pavilion in 1972 ,the visual microscopes were replaced by photographic devices, and a semi-automatic machine for measuring the circle readings with output on punched tape was developed. In 1973,the eyepiece micrometer was equiped with a precision potentiometer of the type ПТП5К1 which together with an automatic voltmeter of the type Ц1513 , the digitizer micrometer readings punches them on tape. The other information is punched on cards by the operator at the data desk.

The observations with the Wanschaff vertical circle are all made during the daylight hours and therefore are carried out visually, as before.However,all information is punched on tape, thus laying the foundation for automatizing all further reduction..

The data on the input catalogues, the ephemeris as well as the observational information are recorded on magnetic disk and form the data base. The total automation of the reduction is accomplished with a series of programs.

Such automation seems to be more convenient for daytime observations, when it becomes difficult to observe and record photoelectrically.

The diagram gives the flow chart of the automation of the observations and the reduction on the Wanschaff vertical circle.

H. K. Eichhorn and R. J. Leacock (eds.), Astrometric Techniques, 463–464.

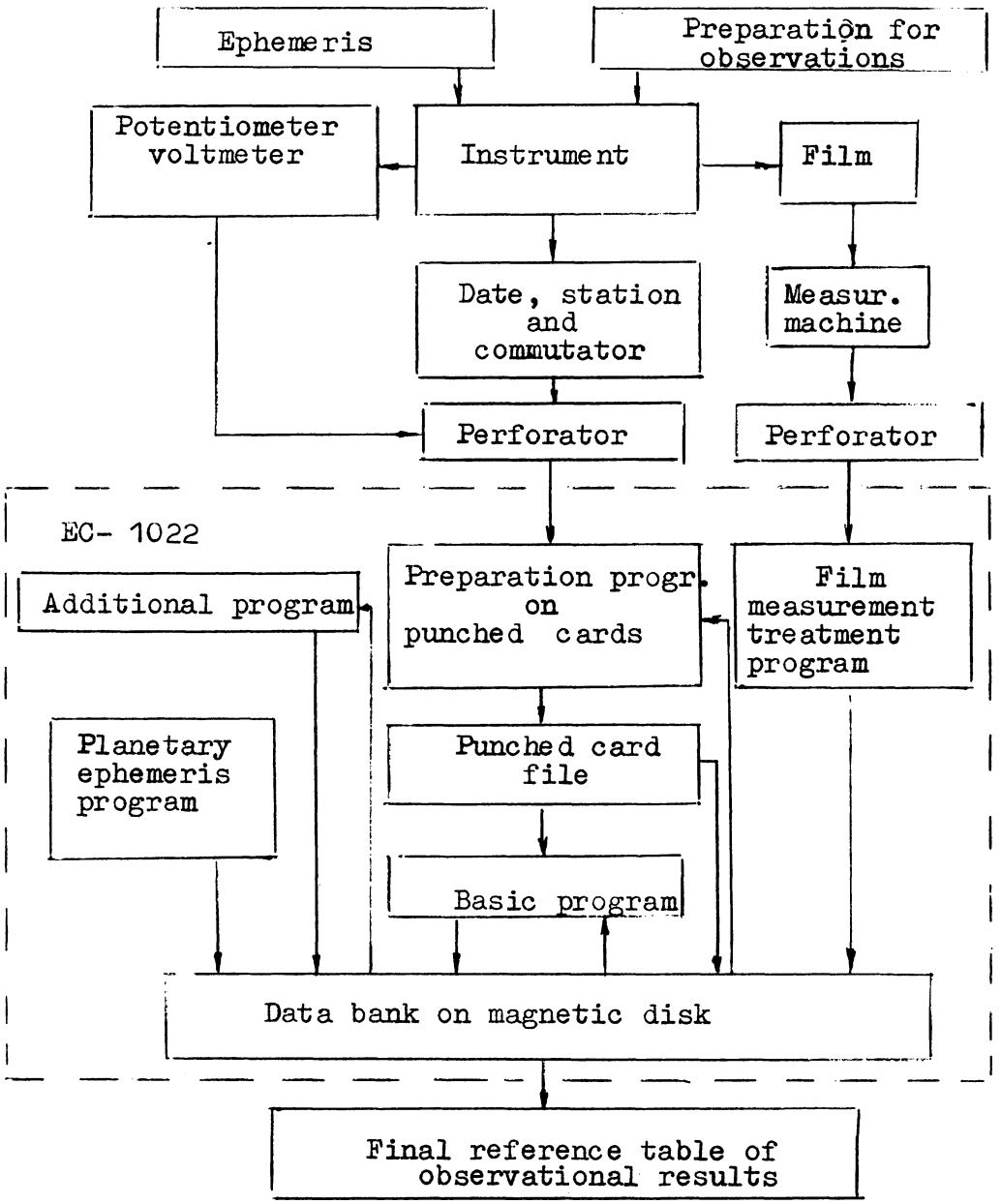

Fig.1. Flow chart of the automation of observations and their reduction with the Wanschaff vertical circle.

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