

REMARKS TO THE "IMPRESSIONS" OF THE 1952 WASHINGTON CONGRESS OF PHOTOGRAMMETRY OF PROF. DR. IR. W. SCHERMERHORN

Prof. Dr. M. Zeller, Swiss Federal Institute of Technology, Zurich

IN NUMBER 1/1953 of the review "Photogrammetria" Prof. Schermerhorn has published his impressions of the Congress 1952, and I am obliged to complete his explanations concerning my communication in Commission III.

After some remarks concerning the French method, Prof. Schermerhorn writes about my explanations of our method for computation of a bloc: "In this respect the well-known method for computation of a bloc of strips by Prof. Zeller is much clearer, because the author admits that there is no theoretical foundation underneath. Only the satisfactory results justify his method."—This does not correspond to my answer to his question about the theoretical foundation of our method. I explained to him after my lecture that the computation of coordinates and heights is based on the interpolation method, and that I shall be the first to use another method if he is able to designate a better and more economic one. Concluding the discussion I answered to him that our method, in my opinion, is indeed the best known to-day.

The interpolation computation of single strips as well as that of blocs is mathematically founded on the publications of Dr. Brandenberger "Zur Praxis der räumlichen Lufttriangulation" and Dr. Zarzycki "Beitrag zur Fehlertheorie der räumlichen Aerotriangulation." I know that an *exact* theory of errors of these methods is still missing, but this is not a reason for not using a logical and plausible computation of strips and blocs. These interpolations can be compared with those of a polygon. Though the theory of errors of a polygon demands another kind of computation, the interpolation method is used in practice. Consequently there are not only the satisfactory results which justify our method. On the other hand I do not think that an exact use of the theory of least squares would give essentially other results than the simple method which we used for the calculation of the mean square errors in the strips and in the bloc.

These remarks are made to complete Prof. Schermerhorn's remarks about my explanations of our method of computation in aerotriangulation.

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