

GENERAL REPORT OF COMMITTEE III
AERO-TRIANGULATION

SUMMARY

- Chapter I. *Introduction.* Mentions the "review of aerial triangulation since 1948" prepared by the president of Commission III and published in "Photogrammetria" 1950-51, nr. 3, p. 127-133. Invites the attention for the resolutions of Commission III at the Paris Meeting in December 1950: that experimental work concerning the spatial aerial triangulation be undertaken in each country as soon as possible. For norms for this experimental work: see "Photogrammetria", 1950-51, nr. 3, p. 135.
- Chapter II. *Questionary of Committee III.*
Mentions the thirteen countries which have sent in a report and mentions the names of the reporters in the respective countries.
- Chapter III. *The institutions* that carry out aero-triangulation.
- Chapter IV. *Types of instruments* employed for aero-triangulation.
- Chapter V. *Methods.*
A. Spatial aero-triangulation.
a) methods of relative orientation. There is a tendency to give the operators a set of well-defined rules in order to reduce the influence of personal factors.
b) method of connection of successive pairs of photographs. Essentially deviating is the purely analytical triangulation, with the help of the Stereocomparator, mentioned in the Egyptian report.
c) method of adjustment and calculation.
d) Use of auxiliary equipment.
B. Radial triangulation. Application of the slotted templet method in Germany and Finland.
- Chapter VI. *Practical work performed.* Information is given about; arrangements of strips c.q. triangulation scheme; scale of the used photographs, camera-type, flying height and base-altitude ratio; position and number of ground control points; accuracy of the resulting coordinates; estimate of consumed time for each step of the work, Some remarks on the suitability of various types of instruments for the special purpose of aero-triangulation are given. Canada states: "The Wild A5 is a very precise instrument but the advantages of its precision are largely off-set by the errors in our present cameras. For shorter extensions (less 20 overlaps) in smaller scale, where elevations only are desired the Multiplex is faster and more flexible."

The U.S.A.-report says: The Multiplex and the Stereoplani-graph are very well adapted to their respective fields of appli-cation.

The Swiss report mentions: Tests, carried out by the "Service Topographique Fédéral" in collaboration with the Wild-firm, showed that the use of film-cameras for the purpose of triangu-lation is not recommendable, for irregular deformations very soon appear. Details of these tests are given in the report of Committee I.

Chapter VII. *Theoretical Study of errors and research.*

- a) Subjects, related to aerial triangulation, that have been sub-mitted to special study and research.
- b) Something about the results. Reference to the Bibliography (Chapter IX).

Chapter VIII. *Remarks.* Definition of problems which should be given special attention in the near future.

Chapter IX. *Bibliography.*

Annexe. *Resume of communications* to be presented to the VIIth Inter-national Congress.