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Commission III
Working Group III-4: On-Line Analytical Aerial Triangulation
Working Group Report

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As I suggested at the Helsinki Congress in 1976 the creation of Working Group on On-line Analytical Aerial Triangulation, I was convinced that the subject for the study was most intriguing and the one that was opening a large field for interesting investigations and approaches and, hopefully, promising also tangible dividends in practical operations.

A certain experience in the field was available, particularly with the U.S. Air Force which was using a large number of analytical plotters already for a number of years. The photogrammetric community at large was, however, not sufficiently familiar with the new technology of on-line operations in general and of on-line aerial triangulation in particular. My suggestion was therefore to form a Working Group consisting primarily of researchers active in the field, in order to encourage further the already existing effort and provide a platform for mutual contacts and exchange of information. Accordingly, I left to the members of the Working Group the choice of the specific subjects for their study indicating that at a convenient moment a workshop will be organized, at which time presentation of various results and discussion of relevant questions will take place.

The suggestion was well received and we obtained a declaration of participation in the Working Group activities from about twenty individuals representing universities, research centers and instrument and map making industries from

Canada
France
German Dem. Republic
German Federal Republic
Italy
Netherlands
Poland
U.S.A.

The Workshop on On-line Analytical Aerial Triangulation was set for May 30 - June 1, 1979, at the premises of the National Research Council of Canada, Ottawa. The date was chosen to permit members to carry out some initial work, but not too late in view of the next International Photogrammetric Congress.

Papers given at the Workshop (by speakers from Canada, G.F.R. and U.S.A.) and discussions provided a good orientation about the "state of art" in the field. Some centers were only in the process of setting their on-line triangulation facilities and as the result some of the work was of a speculative nature. An important, and very appreciated part of the Workshop

program was therefore the provision of a free access to the National Research Council system, ANAPLOT, for general familiarization and experimenting. Several participants took advantage of this opportunity, some of them returning to the NRC laboratories for a longer period of time at a later date.

Another important outcome of the Workshop organized in Ottawa was the formulation of the participation of the Working Group in the program of the XIV International Photogrammetric Congress. Working Groups are appointed because certain areas are considered to be of particular importance to our discipline and professional activities. It would therefore appear logical that the Commission Presidents, who are setting the programs of their sessions at the Congress, consider in the first place suitable submissions from the Working Groups. At the Workshop in Ottawa we agreed on a procedure, which would permit us to select submission to be presented at the Congress and to suggest to the Commission III President a respective program.

This I did in my letter of the 21st December 1979 to Prof. Antipov. In view of a very limited time available during the Congress only a very small number of presentations from our group could be considered.

To provide satisfactory information to the Congress on the development in the field covered by our W.G. and at the same time to include into the program speakers from the most active centers, I invited Dr. V. Kratky from Canada to prepare a reviewing paper concentrating on main developments and trends in the field of our concern. In addition I suggested to the Commission President that papers on more specific problems by Mr. Chester C. Slama from the USA and Prof. E. Dorrer from G.F.R. be presented. Obviously, there is no limit as far as the number of "submitted" papers (and not necessarily "presented") to the Congress is concerned.

I regret, that circumstances do not permit me to participate in the Congress. I asked Dr. Kratky who already for a certain time acted as a Co-Chairman to kindly substitute for me and I wish to thank him for his cooperation. I wish also to thank all members of our W.G. III-4 for their understanding and cooperation spirit. In submitting my brief report I believe, that the Group carried out the intended program and met the goals during this preliminary period of the development of on-line procedures. Considering further the scope and importance of aerial triangulation, I strongly believe, that the Working Group III-4 should continue to exist, until the theoretical formulations and operational processes of on-line analytical triangulation are duly analyzed and consolidated.