

AN ADDRESS*

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IT IS customary at the end of each year to look back upon our past year's performance and to take stock, so to speak, of our accomplishments, and, if we are true to ourselves, note also our failures. It is also customary at the end of a decade to summarize the record of the past 10-year period.

The Society was, as you know, founded in August 1934, and, consequently, its influence over the vast field of photogrammetry, both in the United States and other countries throughout the world, only extends since that time. Before its organization, aerial photography was a very individualized industry, groping and pioneering its way, influenced largely by the initiative and ingenuity of several of the larger companies. No standards were even prescribed by the Government; each Federal agency conducting or contracting for aerial photography drafted its own specifications with usually no consideration of the needs of any other organization, and often without benefit of experience.

One of the first tasks assumed by the Society shortly after its formation was to draft standard specifications for aerial photography, covering what at that time and since has become its major use, i.e., land use studies and general map work. Countless conferences were held with interested agencies, and all Governmental organizations anticipating the possible use of aerial photography were consulted, and as a result, the Society prepared and transmitted to the Secretary of the Treasury standard specifications which were approved for Federal use on May 27, 1937. Since that time, modifications to meet the particular needs of the Department of Agriculture have been approved.

These specifications have been in use over three years and the Department of Agriculture alone has extended aerial photography over 2,000,000 square miles of territory (two-thirds of the area of the United States) at an expenditure of approximately \$7,000,000. One can imagine the chaotic condition that would have resulted if standard specifications had not been available when this large aerial photographic program was initiated.

I could recite several other instances which clearly outline the vast and important influence of the Society, some of which are not so closely allied to the science of photogrammetry, but which, due to urgency of need, were studied, considered, and adopted by the Society and later, in one case, accepted as standard by a Federal agency.

During the past few years, we have seen the development of many improvements related to photogrammetry, notably the 9-lens camera, the solar navigator, the multiplex projector, the pusher type of photographic plane, the slotted templet method of extending graphic aero-triangulation, special equipment for the use of oblique photography, several new types of precision cameras, better lenses, newer and better types of stereoscopes, improvements and greater ranges in photographic emulsions, and the final development of acetate aerial film, thus eliminating a large potential fire hazard. Possibly there are others I have unintentionally overlooked.

The development of color photography and its economic adaption to paper reproductions are only a few steps away.

An organization, like an individual, is growing old when it becomes reminiscent and enjoys telling about what it has done in the past, and gives

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no thought to the future. Surely, this vigorous and lusty child—photogrammetry—has a short past, but it has a long future before it.

Its minor accomplishments during the past year, as evidenced by committee reports, are only steps on its ladder of progress, and what the future holds, no mortal can tell; but it does appear to me that now is an appropriate time to pause and map out, so far as we can, a definite program of progress.

The accelerated extension of aerial photography over approximately 90% of all the agricultural land in the United States during the past few years has required the combined resources and ability of the entire industry. I doubt whether there is an aerial survey company in the United States that has not had a part in the furtherance of this work. In the development of this program, however, certain apparent desiderata had to be foregone for two reasons: (1) for the sake of expediency and (2) for lack of specified requirements. What I am driving at is the need for giving more consideration to the quality of the delivered product. Studies and tests conducted by the photographic laboratories and research divisions of the Department of Agriculture with both processed film and prints delivered under contract show in some cases almost a total disregard for proper exposure of film, and development and washing technique. A carefully compiled and confidential list of all the aerial contractors who have performed work, shows that some companies consistently deliver a far more inferior product than others. This can only be a reflection of improper processing methods in their laboratories. This condition can be corrected by two methods: (1) by contractual compulsion (i.e. specific requirements in specifications); and (2) by education and dissemination of knowledge among the executing agencies. Unquestionably, the latter method is preferred, as certainly no contractor wishes to risk the chance of having his material rejected after he has, to the best of his ability, incurred the expense of procurement. This is a prime function of the Society, and I would like to see authoritative articles soon appearing in **PHOTOGRAMMETRIC ENGINEERING**.

It is evident that the present technique of exposing and processing aerial film is old-fashioned. To keep abreast of the greatly improved methods, which fortunately have been developed by the motion picture industry, and to adapt them to our own use, we must become familiar with such technical terms as "gamma," "densitometry," "sensitometry," and give more consideration to proper exposure, light filters, adaptable emulsions, etc.

Up until a few years ago, all film was developed by hand or by rack, and the photographic quality was controlled by visual judgment. Obviously, the standard of quality depended upon the skill and judgment of those whose duty was to pass upon the finished product. Nevertheless, by this method, remarkably good and uniform results were obtained. Later, however, with the advent of film developing tanks, the exercise of this skill was no longer possible as development was controlled entirely by time and temperature, but unfortunately such retarding or accelerating action as might be advisable due to improper exposure of the film was impossible.

Proper means of determining the correct exposure of film and the general adoption of sensitometric control will be the primary factor in the general improvement of photographic quality, and will be of great aid in revealing certain heretofore unrecognized deficiencies in processing technique, the importance of which has not always been properly recognized or, if recognized, was not properly taken care of because there was little or nothing definite to indicate the direction in which improvements might be made.

There are many other important matters which warrant research and in-

vestigation, some of which I could further enumerate, but the time is getting short and I will leave them to my successors.

In conclusion, I want to express my appreciation to all my associate officers, and to the chairmen and committee members for their excellent co-operation and the work performed; bearing in mind at all times, as I have, that committee assignment tasks are "labors of love" and such remuneration as there is, is the knowledge that one has, in his way, possibly contributed a little of himself in making the world a better place in which to live; at least in our field of endeavor, it has possibly made it a little better known and understandable.

I want to pay tribute to the excellent work done by our retired Secretary-Treasurer, Mr. Massie, and to report that the Auditing Committee found his books and records to be in excellent shape.

A vote of thanks is extended to Mr. Coltharp and the Texas Section for a very instructive and interesting meeting in San Antonio.

A special tribute is extended to the entire Program Committee; it has had, as you know, a very busy year, and every member has worked hard in the performance of his assigned task.

And now, in conclusion, I want to thank every member for his support, co-operation, and confidence during the five and one-half years I have held some office in the Society.

PHOTOGRAMMETRIA

Inquiries have been received in regard to renewal of subscriptions to *Photogrammetria*. The Board of Direction was undecided as to whether the magazine would be published due to the European situation and therefore requested information from Professor ir W. Schermerhorn, President of the International Society. He has informed the Society that the publisher has every intention to continue *Photogrammetria* without any alteration whatsoever. Number 4, 1939 was published in the middle of December and Number 1, 1940 was due to be published at the end of February. This issue of PHOTOGRAMMETRIC ENGINEERING went to press early in March before Number 1, 1940 of *Photogrammetria* could be received.

It is suggested, therefore, that those members of the Society desiring to subscribe to or renew subscriptions to *Photogrammetria* in which articles by leading photogrammetrists throughout the world appear in several languages, send their check or money order, in the amount of \$3.80 for one year's subscription to the American Society of Photogrammetry, Box 18, Benjamin Franklin Station, Washington, D. C. The Secretary-Treasurer will, on receipt of several subscriptions, forward a single draft together with a list of the names and addresses of the subscribers.