

Report of the Professional Engineers Committee

A. O. QUINN, *Chairman*

THE PURPOSE OF this discussion is to present to you, the members of ASP and ACSM, a report of the Professional Engineer's Committee of ASP. This Committee has been asked to review the problem of the professional status of Photogrammetry and to recommend guide lines for the Society in regard to this important subject.

We must first define terms of reference so that you may understand the work of your Committee and your relation to their assignment. You will note that the Committee is called the *Professional Engineers' Committee* and its members are, in fact, registered Professional Engineers. The members of the Committee are: *Richard Burke*, New York State Department of Transportation; *L. Richard Evans*, Vice President of Alster and Associates; *Morris M. Thompson*, Atlantic Region Engineer, United States Geological Survey; *Prof. Harmer Weeden*, of Penn State University, now teaching at the University of Hawaii; *Earle Fennell*, past-president of ACSM and recently retired as Associate Chief Topographic Engineer of the United States Geological Survey, now Executive Director of ACSM, who serves as the liaison from ACSM; and myself. As engineers, the members represent government, both State and Federal, private practice and teaching. Quite naturally, these men review their assignment on the Committee through their background and knowledge of engineering.

DURING THE PAST two years, the Committee has circulated a questionnaire to the membership of ASP to ascertain the number of registered engineers, surveyors and others in the various States. In addition, the members who do hold valid registration have been asked to contact their State Registration Boards and to provide the Committee with information as to their needs for more data concerning Photogrammetry. A number of the State Registration Boards have written asking for information concerning photogrammetric work. Based upon these and other requests, the initial discussions of the Committee concerning the status of Photogrammetry indicated the need for a detailed analysis of the various component parts of

Photogrammetry. The simple definition, *Photogrammetry is the science of making measurements on photographs*, was not enough. Therefore, the Committee concluded that the first order of business should be a thorough review of all phases of Photogrammetry for the use of the Society and its members and for the use of others not directly engaged in photogrammetric work.

The Classification Chart (page 980) which we are asking you to review is *not* designed to answer all the problems of professional status, licensing and registration, job descriptions and job classification within federal, state or other civil service systems, ethics or technical standards of work. Your Committee believes that the Classification Chart provides an orderly and comprehensive outline of photogrammetric activities together with designations of professional and technical aspects of the work as defined below. We believe that the Classification Chart can become a fundamental document of the Society to serve as a guide for future studies. We believe that this is the first step in answering the questions *Who are we?* and *Where do we go from here?*

IN THE BEGINNING of this study, your Committee found a valuable precedent in the work of a similar committee of the American Society of Civil Engineers in which a classification chart for Surveying and Mapping was prepared. The Chart, Committee Report and resulting policy decision has helped to strengthen the position of Surveying and Mapping within the engineering profession.

A review of the membership of ASP indicates a wide variety of backgrounds, interests, education and degrees of responsibility in the photogrammetric field. Our membership includes representatives from almost all the scientific disciplines and many *innocent bystanders* whose interests in photogrammetry are so diverse as to defy categorization. We include persons with extensive educational backgrounds and we have people whose training and skills are more limited. Undoubtedly, you can agree that the practitioners in Photogrammetry encompass a wide range of backgrounds and work assignments.

Your Committee hopes that the Classification Chart can include a place for all members of the Society.

THE COMMITTEE HAS accepted the definitions for Professional Level and Technician Level work as shown on page 980.

We would expect that where professional level work is being performed in, say, the field of engineering, that the professional canons of ethics, standards of work and the methods of engaging persons or firms to perform the work required in that discipline (in this case engineering) would apply and would be enforced.

In order to obtain an initial reaction to the Chart, approximately one hundred copies of the first draft were sent to selected members of the Society and other organizations. As anticipated the first replies have been most helpful to the Committee, and the Chart which is now distributed has incorporated many of the suggestions which have been received. The Committee sincerely wishes to thank the members who have thoughtfully reviewed and commented upon our current efforts. We need the continuing help of the

membership in reviewing further the many facets of this important problem.

NOW LET US TURN to the Classification Chart. You will note that there are ten major categories, namely,

1. Education in Photogrammetry
2. Research and Development
3. Manufacture—materials and equipment
4. Photography—aerial, terrestrial, underwater or in space
5. Photo Interpretation
6. Cadastral Surveys
7. Engineering Surveys
8. Topographic Mapping
9. Space Surveys
10. Special Applications.

The order in which these categories have been listed has been carefully reviewed to provide a logical development of Photogrammetry. It is our opinion that the entire field has been included and that each of us should be able to find our place or places within the scope of the Chart. Many of the categories are inter-related and certainly the ties to a great many disciplines are clearly identified.

Professional Aspects of Photogrammetry

THE AMERICAN SOCIETY of Photogrammetry has been asked to define the professional aspects of photogrammetry and to provide liaison and advice to the various state registration boards with respect to the professional use of photogrammetric methods and techniques. In line with these requests, the American Society of Photogrammetry has prepared this document, under the title *Professional Aspects of Photogrammetry*.

The principal element of this document is a *Classification Chart for Photogrammetry*, prepared in such a manner as to be consistent with the final report of the ASCE Task Committee on Status of Surveying and Mapping. The ASCE report included a treatment of the place of photogrammetry in surveying and mapping activities. That treatment is considered to be consistent with, but preliminary to, the content of this ASP document in that the ASP approach is to explore photogrammetric activities in greater depth and particularly to include those activities wherein photogrammetry is used for purposes other than surveying and mapping.

The American Society of Photogrammetry

accepts without change the definitions used in the ASCE report for professional level and technician level work, as follows:

Professional Level: Work that involves the exercise of professional judgment, frequently based on knowledge acquired through higher learning, generally non-routine in character. The term implies one who can plan, perform, and/or direct all such operations in the category; this person is responsible for work performed by those under him.

Technician Level: Work that is primarily routine, of a technical nature, often demanding a high degree of skill, done under the direction of a professional person who is responsible for its outcome. Such work is preprofessional when performed by a professional trainee who, having completed courses of specialized intellectual instruction and study, is seeking to attain professional status.

In the classification chart that follows, work listed under the heading of *Technician Level* also includes work that is preprofessional as defined above.

In the classification chart, several professional-level activities are listed, such as geographer, geologist, forester, and archaeologist, in which it is intended to connote that photo-