

CERTIFICATION, ANOTHER CRITERIA FOR THE EVALUATION
OF PROFESSIONALS IN THE SPATIAL DATA ARENA

Roger R. "Sky" Chamard
Skyjettes Consultants Inc.
445 Palomino Drive
Eugene, Oregon 97401-6617

Many individuals who are players in cartography and the related mapping sciences exist in all shapes and forms. They are involved in the many aspects of the mapping sciences from the design concept through the various production, evaluation and analysis technologies. Many of those individuals have excellent skills in a specialty related to only a small ingredient of the total mapping science product. They may not be qualified to do any more than their specialized task. They are specialized and should not be represented as a Mapping scientist but as a specialist. This presentation examines a certification of mapping scientists program in practice in the United States of America. The program addresses the professional mapping scientist.

The advantages and disadvantages of certification of professionals in the mapping sciences presents serious areas of discussion. Points of view from the practitioner, the procurer of services and those who control acquisition for governmental agencies are often different and are important their concerns must apply to the overall certification issue. The procurer of services is able to use the certification of professionals as a selection criteria when selecting a vendor. The issue of certification also relates to the troublesome issue of ethics in the professional practice of mapping sciences.

INTRODUCTION

In 1975 the Board of the American Society of Photogrammetry approved granting a Certified Photogrammetrist recognition certification to members and to nonmembers who qualified under a set of qualification guidelines. The program was approved because the membership felt that certification was needed to provide potential clients, requiring mapping, a definite guide towards selection of professionals for doing the work. A strong feeling existed that requiring certified individuals to abide by the Society's Code of Ethics would strengthen the overall status of the membership and the profession. The program goal was also to encourage skill enhancement through the program. The program was entirely voluntary and it still is. Applicants for Certification are reviewed by an Evaluation for Certification Committee(ECC) which consist of Certified individuals that are representative of the Society membership.

The National Photogrammetrist and Mapping Scientist Recognition Committee was established by the Professional Practice Division of the American Society For Photogrammetry And Remote Sensing(ASPRS) to sponsor national recognition in the USA of the mapping science community. In 1990 they conducted a poll of the Certified Photogrammetrist. Poll results indicated a very strong desire to make two significant modification to the program. First the poll indicated a need to breakdown the existing Certified Photogrammetrist to more specialized categories. Second, the need to provide a method to evaluate and assure that certified persons have kept current with the technology. The Certification program was modified in 1990 to recognized the Certified Photogrammetrist, Certified Mapping Scientist Remote Sensing and Certified Mapping Scientist GIS/LIS. It also was modified to include a Recertification program requiring recertification every five years.

THE CERTIFICATION PROGRAM

The ASPRS Certification as revised in 1990 consist of three categories. They are the Certified Photogrammetrist, Certified Mapping Scientist Remote Sensing and Certified Mapping Scientist GIS/LIS.

The program also requires that Certified person be recertified every five years. These changes in the program furthers the primary program objectives which are:

1. To identify and recognize those person who, careful and just appraisal by their peers, are evaluated to have met the requirements established by the ASPRS for certification in a particular discipline.
2. To provide a basis for weighing the validity of allegations and complaints that involve practicing Certified Photogrammetrist and Certified Mapping Scientist and for taking appropriate action in connection therewith.
3. To encourage person as yet not fully qualified to be certified to work towards certification as a goal of professional achievement.
4. To encourage certified professionals to continue their professional achievements keeping current with the rapid technological advancements through the recertification evaluation.

CERTIFICATION REQUIREMENTS

Certified Photogrammetrist

1. Nine years experience in photogrammetry, five years which were in a position of professional responsibility demonstrating professional knowledge and competence
2. References from four persons who are in or have held responsible positions in photogrammetry and or the mapping sciences who have first hand knowledge of the applicants professional and personal qualifications.
3. Applicants declaration of compliance with the ASPRS CODE of ETHICS
4. Successful completion of an oral interview or written examination, if and when required by the Chair of the ECC.

Certified Mapping Scientist Remote Sensing

1. Three years of experience in photogrammetry or cartographic applications of which all has been in a position of responsibility that demonstrated knowledge and competence in planing and application.
2. Six years of specialized experience at a professional level in remote sensing and interpretation of data from various imaging systems and or design of remote sensing systems.

3. References from four persons who are in or have held responsible positions in the mapping science and remote sensing who have first hand knowledge of the applicants professional and personal qualifications.
4. Declaration of compliance with the ASPRS CODE OF ETHICS.
5. Successful completion of an oral or written examination, when required by the Chair of the ECC.

Certified Mapping Scientist GIS/LIS

1. Four years of experience in the mapping sciences or photogrammetry in a position of responsibility demonstrating professional knowledge and competence of mapping science or photogrammetry.
2. Five years of professional experience in the Geographic or Land Information Systems, during which professional knowledge and competence in the systems was demonstrated.
3. References from four persons who are in or have held responsible position in the mapping sciences who have a first hand knowledge of the applicants professional and personal qualifications.
4. Declaration of compliance with the ASPRS CODE OF ETHICS.
5. Successful completion of an oral or written examination, when required by the Chair of the ECC.

Educational Credits Applicable To All Categories

Educational credits are allowed in lieu of general experience time as listed for degrees in engineering, natural sciences or physical Sciences.

Bachelors degree=	1 year or 2 if degree in surveying
Masters degree=	1 additional year
Doctorate=	1 additional year

Recertification

Certification is awarded for life unless there is documented cause to remove for malpractice or violation of the ASPRS CODE OF ETHICS. Recertification assures that the Certified person has kept current and maintained skills in these fast paced changing times to remain on the ACTIVE Certified list.

To be evaluated for recertification application must be made by submitting evidence and references. Applicant is

evaluated by the ECC and must earn twenty five points as per the following criteria:

Possible Points -----	Criteria -----
Up to twenty	Applicant is actively practicing and or teaching
Up to eight	Participated in technical panels or published papers
Up to eight	Received training on new technology in area
Up to four	Attendance at technology conferences sponsored by professional organization in the mapping sciences

More detailed information is available in the ASPRS "Operating Guidelines" for the program.

Summary

The program has been very well accepted in the USA by many agencies and organizations who contract for mapping sciences services. Some state and other local governments are looking at the program for possible use in their licensing process of professional services providers. ASPRS knows that the program has strengthened professional recognition nationally, and encouraged those in the mapping sciences to further increase their skills and knowledge.

The ASPRS is taking the lead in the development of a series of written examinations to supplement the existing basicly peer review program. It is expected that this supplemental examination program will establish a minimum baseline for evaluations and registration of Photogrammetrist and Mapping Scientists at the state government level. This standardizing of mapping scientists requirements offers additional protection to the publics needing their services.