

The Photogrammetry and Mapping Sciences Exam

As you may already know, many States are adopting key elements of a Model Law proposed by the National Council of Examiners for Engineering and Surveying (NCEES) to include Photogrammetric Mapping Practice as part of state legislation for the Practice of Surveying. Since 1997, ASPRS has played an active role in the definition of photogrammetric practice for licensure purposes, and has supported various States enacting Model Law language into their legislation. Through the Professional Practice Division (www.asprs.org/society/divisions/ppd/licensing/licensure_comm.htm), ASPRS members and the public can review the history and documentation of this process.

After adopting Model Law language, several States already have offered photogrammetrists “licensure by prior practice” (i.e., “grandfathering”). As these grandfathering clauses expire and new applicants seek licensure, the need for an updated examination process to incorporate photogrammetric practices became evident.

The following article, published in the February 2007 NCEES Newsletter Licensure EXCHANGE, summarizes the progress made in developing a national examination to support the licensure of photogrammetrists.

In fall 2004, ASPRS began collaboration with the Colonial States Board for Registration of Surveyors (CSBRS) who sought the support of the professional photogrammetric community and our body

of knowledge. In early 2005, ASPRS approved the formation of the Licensure Exam Development Committee, a group of dedicated volunteers who have written, re-written, and reviewed the 300 exam items discussed in the article. The PAKS Review conducted in Reno in 2006 sponsored by NCEES and CSBSR was carried out by another group of ASPRS volunteers who had extensive experience in photogrammetric practice.

In addition to this in-kind support, ASPRS has assured the success of the effort with financial assistance for:

- Meeting space with logistics support for exam development.
- An annual contribution (\$2,000) to CSBSR to share in the costs for psychometric services.
- Travel expenses for ASPRS representatives to meet with CSBSR and NCEES.

The NCEES article leads us to the present activity before the Licensure Exam Development Committee, that is, the Cut Score Review, which will occur in early May. This step will result in having exams ready for April 2008 exam administration. ASPRS and CSBSR will continue working on exam question items to meet a goal of 400 items, and provide maintenance to the item bank.

Mike Renslow

Chair, ASPRS Licensure Exam Development Committee

Developing a New Mapping Exam for the Surveying Community

by Desiree Talbert
NCEES Editor

In 1994, the Florida Board of Professional Surveyors and Mappers became the first board to widen its practice act to include photogrammetry in the definition of surveying practice. Since that time, other states have also recognized the need to regulate this type of mapping when it is used for purposes that affect public health, safety, and welfare.

No uniform model of licensure exists for photogrammetrists. While some states have no licensure requirements for these mapping professionals, others require them to follow the same path as land surveyors, and some provide a separate licensure path. But there is no exam for photogrammetry licensure. Instead of requiring examination, many states have created grandfathering clauses that allow photogrammetrists who have a certain amount of experience to become licensed.

As grandfathering clauses have expired, the need for a mapping exam has increased. To assist NCEES Member Boards, the Board of Directors decided in 2004 to support an effort to create a jurisdictional exam for photogrammetrists. It is currently being developed and will be available for the April 2008 exam administration.

“The NCEES Principles and Practice of Surveying exam focuses on traditional boundary surveying content and is therefore not suitable for photogrammetrists,” says Dave Gibson, a geomatics professor at the University of Florida and an emeritus member of the Florida Surveying and Mapping Board.

“In licensing photogrammetrists, Florida followed the generic engineering licensure process, where all licensees have the same title but focus their practice in their area of expertise as defined by their education, exam, and experience,” he continues. “This is similar to a chemical engineer being licensed as a professional engineer by taking the Chemical PE exam. The photogrammetry exam allows photogrammetrists to become licensed by taking an exam that tests their knowledge of their particular field. Some states have assigned a separate license title to the photogrammetric surveyor, but in either case, a specialty exam is needed.”

The North Carolina Board of Examiners for Engineers and Surveyors is one of the boards that sees the need for this type of exam. “The Board feels that if licensees are working in a specific area, they should be examined in that area,” says Andrew Ritter, executive director of the North Carolina Board. “If a national exam is not available to test them in that area, the Board is then responsible for the examination process.

“This is the same reason that we develop our own state exam,” Ritter explains. “But we needed help with photogrammetry. Because this issue is affecting other colonial states as well, we contacted the Colonial States Board to see if we could work together to find a solution.”

continued on page 503

The Colonial States Board of Surveyor Registration (CSBSR) is familiar with the exam development process. It has assisted NCEES with developing questions for the national surveying exams.

"The partnership between NCEES and CSBSR has been a good cooperative effort over several decades," says Jim Riney, chair of the Committee on Examinations for Professional Surveyors. "It's benefited the Council as well as the entire surveying profession."

This particular effort began about five years ago at an NCEES Annual Meeting surveyors' forum. Several states were licensing photogrammetrists without an examination process. Others were in the process of creating licensing regulations for this profession. These boards knew it was only a matter of time before they would need an exam that focuses on mapping sciences other than traditional surveying.

"Because of the limited number of states needing the exam and because of the small candidate population, it couldn't be a national exam," explains Doyle Allen, P.E., CSBSR executive director and emeritus member of the Virginia Board of Architects, Professional Engineers, Land Surveyors, Certified Interior Designers, and Landscape Architects. "By working together to create a jurisdictional exam, the states involved are saving money and improving comity by reducing the number of differences in the licensure process."

CSBSR has led the effort to develop the photogrammetry and mapping sciences exam. It has sponsored item-writing sessions for the past three years and has worked with NCEES and the American Society of Photogrammetry and Remote Sensing to develop a bank of nearly 300 questions. All of the questions have been developed according to NCEES procedures, using proper psychometric standards and effective security measures.

In April 2006, a group of subject-matter experts sponsored by CSBSR and NCEES met with a psychometric consultant to perform a Professional Activities and Knowledge Study (PAKS). The group analyzed the 2003 PAKS that guided the creation of specifications for the most recent Principles and

Practice of Surveying (PS) exam. Focusing on the content that addresses photogrammetry, the group was able to determine specifications for the mapping sciences exam.

NCEES is contributing to the project by financially supporting the exam development effort and housing the item bank at NCEES headquarters. Eventually, it will also manage exam assembly, scoring, and reporting of scores. NCEES will also continue to ensure that the exam development process adheres to NCEES policies, procedures, and security requirements. The licensure boards involved in the project are dividing the remaining amount equally among themselves in annual funding to CSBSR.

The Colonial boards anticipate that the six-hour photogrammetry exam will be taken by exam candidates after they have passed the NCEES Fundamentals of Surveying exam. Photogrammetrists and other mapping professionals may take it in lieu of the PS exam and in conjunction with any state-specific surveying exams.

At this time, the number of exam candidates is relatively small, primarily due to the grandfathering process that boards have relied on up until this point. By creating an exam to test mapping sciences, boards are preparing for the next generation of photogrammetrists who will need to be examined before becoming licensed.

"CSBSR and the state boards have really worked hard to make this exam possible," says Chuck Wallace, NCEES director of exam development. "They've identified the need and then worked to find a solution. It's a project that could end up being very beneficial to all interested Member Boards."

As the owner of the exam, CSBSR welcomes other state boards to discuss agreements to use the exam.

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Licensure Exchange

National Council of Examiners for Engineering and Surveying

Volume II, Issue I

February 2007