

Aerospace Careers: Photogrammetry

A Career in mapping and Photogrammetry

Introduction

Photogrammetry is the tongue-twisting term for the science and technology of obtaining reliable measurements, maps, digital elevation models, and other GIS data primarily from aerial and space photography. Professional Photogrammetrists are responsible for all phases of mapping projects and provide spatially accurate base maps that form a foundation for many applications of GIS. Functions can include planning and supervising ground and aerial surveys, interpreting and making measurements from remote sensing imagery, designing maps and cartographic presentations, reproduction and distribution of map products, and managing general business and organizational aspects of photogrammetric projects.



Photogrammetrists prepare detailed maps and drawings from aerial photographs, usually of areas that are inaccessible, difficult, or more costly to survey by other methods. *Map editors* develop and verify the contents of maps, using aerial photographs and other reference sources. Some States require Photogrammetrists to be licensed as surveyors.



Many engineering disciplines also use photogrammetric data as the basis for project planning and design. In order to serve these customers effectively, the professional Photogrammetrists must have a broad understanding of a number of civil engineering and GIS disciplines, as well as surveying and geodesy (the study of the true shape of the earth). Some Photogrammetrists are employed in the design and manufacturing of specialized data acquisition, analysis, and measurement equipment.

Education

High School - High school students interested in surveying should take courses in algebra, geometry, trigonometry, drafting, mechanical drawing, and computer science. College-preparatory courses that emphasize the sciences are suggested for individuals interested in pursuing careers in photogrammetry, remote sensing and GIS. Examples include, but are not limited to, mathematics (algebra, trigonometry, geometry, and calculus), biology, chemistry, physics, geography, earth science, computer programming and applications, drafting, English, fine arts/humanities, social studies, and foreign languages.

Community Colleges and Technical Institutions - Many 2-year academic and technical institutions offer education and training in photogrammetry, remote sensing and GIS, and in related fields. Associate degree and certificate programs in GIS, surveying, photogrammetry, and similar curricula provide a sound foundation for work experience or for transfer to other academic institutions for further education. There is a substantial demand for technicians in geospatial information technology, for individuals who do not wish to pursue an advanced degree.

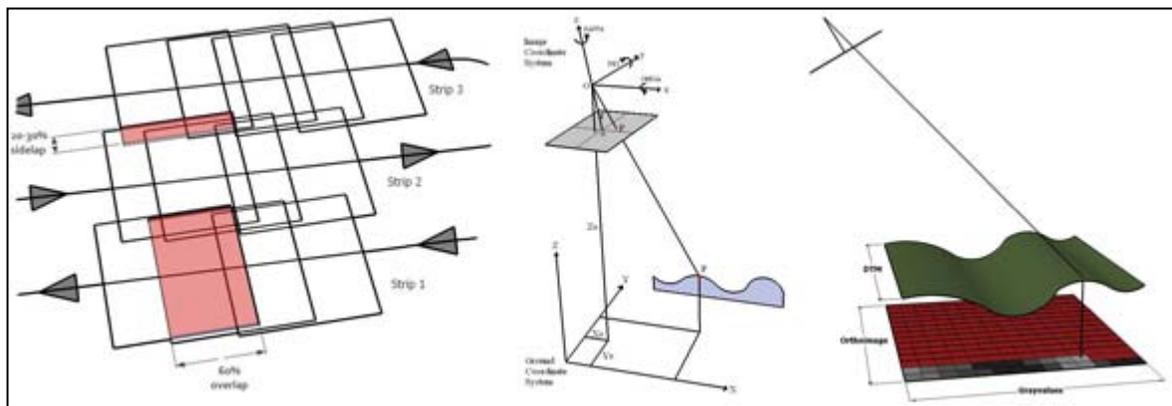
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Colleges and Universities - Majors emphasizing photogrammetry, remote sensing and GIS are typically found in geography, geomatics engineering, civil engineering, forestry, planning, surveying and mapping, or various physical science programs at many colleges and universities, and can result in earning bachelor's, master's, and doctoral degrees. Increasingly, colleges and universities are offering minors, certificates, and specialized professional master's degree programs in these areas as well. Hence, educational preparation can be targeted either toward becoming a specialist in the field of geospatial information science and technology or a specialist in a traditional discipline with a complementary background in photogrammetry, remote sensing, and GIS.

High school graduates with no formal training in surveying usually start as apprentices. Beginners with postsecondary school training in surveying usually can start as technicians or assistants. With on-the-job experience and formal training in surveying—either in an institutional program or from a correspondence school—workers may advance to senior survey technician, then to party chief, and, in some cases, to licensed surveyor (depending on State licensing requirements). However, it is becoming increasingly difficult to gain licensure without a formal education in surveying.

Links to Photogrammetry Job Information click below:

<http://www.asprs.org/Students/Career-Brochure.html>



Courtesy: [ASPRS.org, cast.uark.edu]

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