

Alternative Job Titles

Survey Technician, Mapping Technician, Instrument Man, Chainman, Stereoplotter Operator, Photogrammetric Compilation Specialist, Aerotriangulation Specialist, Agricultural GPS Mapper

Job Description

Surveying and mapping technicians collect data and make maps of the Earth's surface, usually under the direction of an engineer, surveyor, cartographer, or photogrammetrist. They obtain data for use in construction, mapmaking, boundary location, mining, or other purposes, and may calculate mapmaking information and create maps from sources such as surveying notes, aerial photography, satellite data, or other maps to show topographical features, political boundaries, and other features. Surveying technicians work outside extensively and can be exposed to all types of weather, while mapping technicians work primarily indoors on computers. Most surveying and mapping technicians work for firms that provide engineering, surveying, and mapping services on a contract basis. Local governments also employ these workers in highway and planning departments. Other duties typically include:

- Visit sites to record survey measurements and other descriptive data.
- Operate surveying instruments, such as electronic distance-measuring equipment.
- Enter data from surveying instruments into computers, either in the field or in an office.
- Produce maps showing boundaries, water locations, elevation, and other features of the terrain.
- Assist photogrammetrists by laying out aerial photographs in sequence to identify areas not captured by aerial photography.

Knowledge Requirements

- General Computers & Electronics
- Geography & Geospatial Systems
- Engineering & Technology
- Basic Document Drafting
- Operate Specialized Equipment
- Mathematics & Number Systems
- Knowledge of Surveying Equipment
- Understanding of GIS, GPS, LIS

Required Skills & Abilities

- Precise, Accurate & Detail Oriented
- Dependable & Cooperative
- Exercise Independent Judgement
- Meet Tight Deadlines
- Communicate with Team Members
- Follow Spoken Instructions
- Physical Stamina (stand for long hours)
- Problem Solver, Critical Thinker
- Work with Minimal Supervision
- Active Learner & Listener
- Reading Comprehension

Technical Skills Requirements

- CAD (3D Nature Visual Studio)
- Adobe Freehand, Illustrator, Photoshop
- Strong Computer Skills; MS Office Tools

Typical Salary

- \$31,459 - \$69,591, entry-level
(Source: PayScale)

Education & Work Experience

- High school diploma or equivalent; bachelor's degree with some technical education preferred.
- Entry positions may require 3 to 6 months of work experience and 1 to 3 months on-the-job training.
- Certifications of technical competency are offered by the American Society for Photogrammetry & Remote Sensing, National Society of Professional Surveyors, and the GIS Certification Institute.