



Topographic Analyst (21U)

The Army is always building and repairing airstrips, docks, barracks and roads. Surveying, mapping and drafting technicians, such as a Topographic Analyst, conduct land surveys, make maps and prepare detailed plans and drawings for construction projects. They're also called upon to provide maps and surveys that locate military targets and help plot troop movements.

Topographic Analysts are primarily responsible for supervising and performing cartographic and terrain analysis duties. They're also involved in collecting and processing military geographic information from remote sensed imagery, digital data, intelligence data, existing topographic products and other collateral data sources.

Some of your duties as a Topographic Analyst may include:

- Extracting terrain data from collateral data sources such as remote sensed imagery and field reconnaissance

- Recording analysis results into a graphic database

- Drawing, scribing, digitizing and scanning cultural, topographic, hydrographic and/or other features on overlay/scribing surfaces or in digital formats

- Performing digital manipulation of topographic information

- Drawing maps and charts using drafting tools such as easels, templates and compasses

- Making scale drawings of roads, airfields, buildings and other military projects

- Conducting land surveys and computing survey results

- Drawing diagrams for wiring and plumbing of structures

- Building scale models of land areas that show hills, lakes, roads and buildings

- Using aerial photographs to form large photomaps

TRAINING

Job training for a Topographic Analyst consists of nine weeks of Basic Training, where you'll learn basic Soldiering skills, and 18 weeks of Advanced

Individual Training, including practice operating topographical equipment. Part of this time is spent in the classroom and in field. You'll learn:

- Surveying and drafting techniques
- Aerial photo interpretation
- Architectural and structural drawing

HELPFUL SKILLS

Helpful attributes include:

- An interest in algebra, geometry and trigonometry
- An ability to convert ideas into drawings
- An interest in maps and charts
- An ability to print and draft neatly
- An interest in working with drafting equipment

ADVANCED RESPONSIBILITIES

Advanced level Topographic Analysts supervise and train the other Soldiers.

As an advanced level Topographic Analyst, you may be involved in:

- Analyzing collected geographic information in order to produce tactical decision aids
- Predicting terrain and weather effects as applied to control, communication, computer and intelligence systems
- Performing database management for the storage of aerial photographs, maps, digital databases and collateral source materials
- Performing quality assurance during all stages of topographic operations

RELATED CIVILIAN JOBS

The skills you learn as a Topographic Analyst will help prepare you for a civilian career with construction, engineering and architectural firms, as well as government agencies. In the civilian world, topographic analysts take part in planning construction projects such as highways, airport runways, dams and drainage systems. You might consider a future as a surveyor, mapmaker, cartographer, cartographic technician or photogrammetrist.

With additional training, education and experience, you could qualify for certification as a construction materials tester in the subfields of asphalt, concrete and soils.

RELATED ARMY POSITIONS

- Lithographer (21L)
- Field Artillery Firefinder RADAR Operator (13R)
- Field Artillery Meteorological Crewmember (13W)

Topographic Surveyor (21S)

Information about this MOS provided by: www.goarmy.com

For further information visit: www.minnesotanationalguard.org