

## MOS-21Y-001

### GEOSPATIAL ENGINEER

(Terrain Data Specialist)

21Y10

21Y20

21Y30

21Y40

**Exhibit Dates:** 10/08–10/10. Effective 10/10, MOS 21Y was converted and its duties were incorporated into 12Y; see exhibit MOS-12Y-001.

**Career Management Field:** 21 (Engineer) PVT: Private (E-1). PVT: (E-2) PFC: Private First Class (E-3). Specialist (E-4). Sergeant (E-5). Staff Sergeant (E-6). Sergeant First Class (E-7).

#### Description

**Summary:** Supervises and/or performs cartographic and terrain analysis duties; collects and processes military geographic information from remote-sensed imagery, digital data, intelligence data, existing topographic products, and other collateral data sources; edits cartographic and terrain analysis products; advises command and staff officers on topographic operations and special map product planning. **Skill Level 10:** Extracts terrain data from remote-sensed imagery, field reconnaissance, digital data, existing topographic products, and other collateral data sources; records analysis results to a military graphic data base; draws, scribes, digitizes, and scans cultural, topographic, hydrographic, and/or other features on overlay/scribing surfaces or in digital formats; utilizes basic drafting techniques to tailor terrain products; revises planimetric and topographic maps; performs digital manipulation of topographic information by querying, viewing, evaluating, and downloading digital data. **Skill Level 20:** Able to perform the duties required for Skill Level 10; supervises and provides technical guidance to subordinates; analyzes collected military geographic information to produce tactical decision aids; predicts terrain and weather effects as applied to command, control, communications, computer, and intelligence systems; performs data base management for the storage of aerial photographs, maps, digital data bases, and collateral source materials; performs quality assurance during all stages of topographic operations. **Skill Level 30:** Able to perform the duties required for Skill Level 20; supervises topographic analysts; supervises equipment maintenance; evaluates source materials for military geographic information analysis; supervises quality assurance during all stages of topographic operations; ensures required administrative, intelligence, source data, and reference files are maintained; advises command and staff officers on all aspects of topographic operations and doctrine. **Skill Level 40:** Able to perform

the duties required for Skill Level 30; supervises quality assurance program for all topographic operations; plans and coordinates activities pertaining to the organization, training, and tactical and technical operations; directs preparation for movement and operation of mobile/portable work sections; advises command and staff officers on all aspects of topographic operations and doctrine; coordinates the planning and production of military geographic information; supervises preparation of portable/mobile work sections; advises command and staff officers on all aspects of topographic operations and doctrine; coordinates the planning and production of military geographic information.

**Recommendation, Skill Level 10**

Credit may be granted on the basis of an individualized assessment of the student (5/04)(10/12).

**Recommendation, Skill Level 20**

Credit may be granted on the basis of an individualized assessment of the student (5/04)(10/12).

**Recommendation, Skill Level 30**

In the lower-division baccalaureate/associate degree category, 3 semester hours in applied algebra and trigonometry, 3 in computer operating systems, 2 in physical geography, 2 in geographic field techniques, 2 in aerial photography interpretation, 2 in photogrammetry, 2 in remote sensing interpretation, 2 in terrain analysis, 3 in cartography, 2 in technical report writing, 3 in geographic information systems (GIS), 3 in principles of supervision, and 3 in oral communication skills (5/04)(10/12).

**Recommendation, Skill Level 40**

In the lower-division baccalaureate/associate degree category, 3 semester hours in applied algebra and trigonometry, 3 in computer operating systems, 3 in physical geography, 3 in geographic field techniques, 3 in aerial photography interpretation, 3 in photogrammetry, 2 in remote sensing interpretation, 3 in terrain analysis, 3 in cartography, 3 in technical report writing, 3 geographic information systems, 3 in principles of supervision, and 3 in oral communication skills. In the upper-division baccalaureate degree category, 3 semester hours for field experience in management and 3 in personnel management (5/04)(10/12).