

SURVEYOR ASSISTANT

RAPIDS: 0551M

O*NET/SOC: 17-3031.01

REVISION DATE: 09/2019

TRADE DESCRIPTION: Adjust and operate surveying instruments, such as the theodolite and electronic distance-measuring equipment, and compile notes, make sketches and enter data into computers.

TASK PERFORMANCE: Demonstrate knowledge and skills for qualifying as Journeyman. Applicable Job Qualification Requirements will be used as a guide in performing tasks and demonstrating knowledge in the following skill areas. Actual work time must be recorded in the Work Experience Log; each skill area must be completed.

Applicable Ratings/MOS/NEC

USMC MOS: 0261, 0847, 1361

USCG: None

USN: EA

USA MOS: 12T, 12Y

Related Instruction:

Trade related On-The-Job-Training (OJT) or Any trade related schools/courses totaling 288 or more hours.

Additional Requirement:

None

Total Hours: **4000**

Skill	Description	Hours
A	TAPING -- Search section corners, property irons, and survey points. -- Set out and recover stakes, marks, and other monumentation.	200

	-- Place and hold measuring tapes when electronic distance-measuring equipment is not used.	
B	RODDING -- Position and hold the vertical rods, or targets, that theodolite operators use for sighting to measure angles, distances, and elevations. -- Run rods for benches and cross-section elevations.	200
C	LEVELING -- Adjust and operate surveying instruments such as prisms, theodolites, and electronic distance-measuring equipment. -- Verify mathematical calculations.	475
D	TRANSIT/THEODOLITE -- Prepare topographic and contour maps of land surveyed, including site features and other relevant information such as charts, drawings, and survey notes. -- Provide assistance in the development of methods and procedures for conducting field surveys.	475
E	NOTEKEEPING -- Record survey measurements and descriptive data using notes, drawings, sketches, and inked tracings. -- Operate computer systems.	150
F	PLANETABLE/STADIA SURVEY -- Conduct surveys to ascertain the locations of natural features and manmade structures on the Earth's surface, underground, and underwater using electronic distance-measuring equipment and other surveying instruments. -- Collect information needed to carry out new surveys using source maps, previous survey data, photographs, computer records, and other relevant information.	400
G	TRAVERSING/TRIANGULATION -- Lay out grids, and determine horizontal and vertical controls.	800
H	ROAD AND CONSTRUCTION LAYOUT -- Perform manual labor, such as cutting brush for lines, carrying stakes, rebar, and other heavy items, and stacking rods. -- Maintain equipment and vehicles used by surveying crews.	500
I	COMPUTATIONS	300

	<ul style="list-style-type: none"> -- Perform calculations to determine earth curvature corrections, atmospheric impacts on measurements, traverse closures and adjustments, azimuths, level runs, and placement of markers. -- Compare survey computations with applicable standards to determine adequacy of data. -- Compile information necessary to stake projects for construction, using engineering plans. -- Operate and manage land-information computer systems, performing tasks such as storing data, making inquiries, and producing plots and reports, 	
J	<p>PARTY CHIEF</p> <ul style="list-style-type: none"> -- Direct and supervise work of subordinate members of surveying parties. -- Supervise engineering or other technical personnel. -- Assist engineers or scientists with research. 	500