

Summary Report for Individual Task

061-266-4010

Transfer the Orienting Station (ORSTA) and the End of the Orienting Line (EOL) by Using Graphic Traverse
Status: Approved

DISTRIBUTION RESTRICTION: Approved for public release; distribution is unlimited.

DESTRUCTION NOTICE: None

Condition: Given an M2 or an M2A2 aiming circle set up and leveled over a known point, an azimuth from a known point to the azimuth mark, an appropriate aiming stake to mark each station, a base of known length, corresponding subtense tables, a target grid, a protractor, a plotting (boxwood scale), plotting pins, and two assistants; Some iterations of this task should be performed in MOPP.

Standard: Transfer the orienting station (OS) to a new location, and determine an eight-digit grid to within +/- 10 meters to a new OS.

Special Condition: None

Special Standards: None

Special Equipment:

Safety Level: Low

MOPP: Sometimes

Task Statements

Cue: Conduct survey operations

DANGER
None

WARNING
None

CAUTION
None

Remarks: None

Notes: None

Performance Steps

1. Perform directional traverse.
 - a. Set up and level the aiming circle over the occupied station.
 - b. With the upper motion, set 0.0 mils on the aiming circle.
 - c. With the lower motion, sight on the known reference point (rear station).
 - d. With the upper motion, measure the angle to the unknown point (forward station). Read this first reading to the nearest 0.5 mil, and record it.
 - e. With this reading still on the scales, sight again, using the lower motion, on the known reference point (rear station).
 - f. With the upper motion, again measure the angle to the forward station. Read this second reading to the nearest 0.5 mil, and record it.
 - g. Divide the second reading by 2 to determine the mean angle. If the second reading is smaller than the first reading, 6,400 mils must be added to the second reading before dividing by 2. The mean angle must agree with the first reading within 0.5 mil. If it does not, the angle must be remeasured. The mean angle is the angle used in the computation of the directional traverse.

2. Determine an eight-digit grid to the new end of the orienting line (EOL) and an eight-digit grid to the new OS.
 - a. Plot the coordinates of the SCP (starting point) on the fire direction center (FDC) grid sheet.
 - b. Using a target grid or a protractor, establish an azimuth index that corresponds to the computed azimuth from the starting point to the forward point.
 - c. Draw a line representing the azimuth of the first traverse leg. Scale this azimuth line as closely as possible.
 - d. With the plotting (boxwood) scale, measure the distance of the traverse leg; and mark the forward station with a plotting pin.
 - e. Continue the fieldwork for the traverse as described above. Forward stations are successively established as needed. An angle is measured at each station, and the azimuth of each leg is computed as in directional traverse. The distance of each leg is plotted in the same manner as above. The traverse appears on the grid sheet as a series of successive polar plots.
 - f. The traverse is planned so that the final forward station is the OS or other needed position that can be determined to an eight-digit grid coordinate.
 - g. The EOL is the final occupied station in the traverse. The orienting line is the back azimuth of the last traverse leg that can be determined to an eight-digit grid coordinate.

(Asterisks indicates a leader performance step.)

Evaluation Preparation: Setup: Ensure that all equipment is available and ready for use. Have the azimuth and distance measured.

Brief Soldier: Tell the soldier that all steps must be completed in accordance with (IAW) the performance measures.

PERFORMANCE MEASURES	GO	NO-GO	N/A
1. Performed directional traverse.			
2. Determined an eight-digit grid to the new EOL and an eight-digit grid to the new OS.			

Supporting Reference(s):

Step Number	Reference ID	Reference Name	Required	Primary
	FM 6-50	Tactics, Techniques, and Procedures for the Field Artillery Cannon Battery	Yes	Yes

Environment: Environmental consideration will be consistent with the post regulations/unit SOP.

Safety: In a training environment, leaders must perform a risk assessment in accordance with FM 5-19, Composite Risk Management. Leaders will complete a DA Form 7566 COMPOSITE RISK MANAGEMENT WORKSHEET during the planning and completion of each task and sub-task by assessing mission, enemy, terrain and weather, troops and support available-time available and civil considerations, (METT-TC). Note: During MOPP training, leaders must ensure personnel are monitored for potential heat injury. Local policies and procedures must be followed during times of increased heat category in order to avoid heat related injury. Consider the MOPP work/rest cycles and water replacement guidelines IAW FM 3-11.4, NBC Protection, FM 3-11.5, CBRN Decontamination. In accordance with unit SOP.

Prerequisite Individual Tasks : None

Supporting Individual Tasks : None

Supported Individual Tasks : None

Supported Collective Tasks :

Task Number	Title	Proponent	Status
06-4-5041	Prepare for a Survey Operation	06 - Field Artillery (Collective)	Approved
06-4-5085	Perform Hasty Survey (Radar)	06 - Field Artillery (Collective)	Approved