

Training and Evaluation Outline Report

Status: Approved

29 Dec 2014

Effective Date: 03 Feb 2017

Task Number: 05-SEC-5001

Task Title: Perform Construction Survey

Distribution Restriction: Approved for public release; distribution is unlimited.

Destruction Notice: None

Foreign Disclosure: FD1 - This training product has been reviewed by the training developers in coordination with the Fort Leonard Wood, MO MSCoE foreign disclosure officer. This training product can be used to instruct international military students from all approved countries without restrictions.

Supporting Reference(s):

Step Number	Reference ID	Reference Name	Required	Primary
	ATP 3-34.40	General Engineering (http://armypubs.army.mil/doctrine/DR_pubs/dr_a/pdf/atp3_34x40.pdf)	Yes	No
	ATP 3-34.81	ENGINEER RECONNAISSANCE	Yes	No
	ERDC/ITL TR-09-2	A/E/C CAD Standard Release 4.0.	Yes	No
	FM 3-34	Engineer Operations http://armypubs.army.mil/doctrine/DR_pubs/dr_a/pdf/fm3_34.pdf	Yes	No
	NTRP 4-04.2.5/TM 3-34.42/AFPAM 32-1020/MCRP 3-17.7F	Construction Project Management (HTTPS://NDLS.NWDC.NAVY.MIL) (https://armypubs.us.army.mil/doctrine/DR_pubs/dr_aa/pdf/tm3_34x42_PH_Navy.pdf)	Yes	No
	TM 3-34.51	Construction Drafting	Yes	No
	TM 3-34.55	Construction Surveying	Yes	Yes

Conditions: The survey element is directed to perform a construction survey. Routes, location, organic equipment and compatible software are available. Drawings will be produced after completion of the survey and distributed to authorized personnel.

Note: The Commander must still determine at what level of training they would want the element to perform. Crawl, walk or run. This can only be determined after consideration as to the units training level.

The Commander prior to evaluating an element in the conduct of the task must determine if it will be conducted in a Live, Virtual, or Constructive environment, additionally it must also be determined which condition as described below that the element will conduct the task. The selection made for this task is at a trained level of proficiency. The commander must determine which of the environments below will best suit the unit and the proficiency level at which the unit is. When conducting crawl or walk level training units should not increase the intensity until the unit has achieved the standards and then unit trainers should include variables that increase proficiency in all conditions.

Note: The condition statement for this task is written assuming the highest training conditions reflected on the Task Proficiency matrix required for the evaluated unit to receive a "fully trained" (T) rating.

Note: Condition terms definitions:

Dynamic Operational Environment: Three or more operational and two or more mission variables change during the execution of the assessed task. Operational variables and threat Tactics, Techniques, and Procedures (TTPs) for assigned counter-tasks change in response to the execution of Blue Forces (BLUFOR) tasks.

Complex Operational Environment: Changes to four or more operational variables impact the chosen friendly COA/mission. Brigade and higher units require all eight operational variables of Political, Military, Economic, Social, Infrastructure, Information, Physical environment, and Time (PMESII-PT) to be replicated in varying degrees based on the task being trained.

Single threat: Regular, irregular, criminal or terrorist forces are present.

Hybrid threat: Diverse and dynamic combination of regular forces, irregular forces, and/or criminal elements all unified to achieve mutually benefiting effects.

Some iterations of this task should be performed in MOPP 4.

Standards: Performs the construction survey according to the drawings and specifications provided. Clearly marks and documents the survey layout for accurate construction effort without delays.

Note: Leaders are defined as the Commander, Executive Officer, First Sergeant, Operations Sergeant, Platoon Leaders, Platoon Sergeants, Squad Leaders, and Team Leaders.

Live Fire Required: No

Objective Task Evaluation Criteria Matrix:

Plan and Prepare		Execute						Assess	
Operational Environment	Training Environment (LV/C)	Training/Authorized	% of Leaders Present at	% of Soldiers Present at	External Eval	% Performance Measures 'GO'	% Critical Performance Measures 'GO'	% Leader Performance Measures 'GO'	Task Assessment
SQD & PLT									
Dynamic (Single Threat)	IAW unit CATS statement.		>=85%	>=80%	Yes	>=91%	All	>=90%	T
			75-84%			80-90%		80-89%	T-
65-74%			75-79%	65-79%	<All	<=79%	P		
60-64%			60-74%	51-64%			P-		
<=59%			<=59%	<=50%			U		
Static (Single Threat)				No					
	Day								

Remarks: None

Notes: None

Safety Risk: Low

Task Statements

Cue: None

DANGER

Leaders have an inherent responsibility to conduct Risk Management to ensure the safety of all Soldiers and promote mission accomplishment.

WARNING

Risk management is the Army's primary decision-making process to identify hazards, reduce risk, and prevent both accidental and tactical loss. All Soldiers have the responsibility to learn and understand the risks associated with this task.

CAUTION

Identifying hazards and controlling risks across the full spectrum of Army functions, operations and activities is the responsibility of all Soldiers.

MOPP 4 Statement: None

NVG: Never

NVG Statement: None

Prerequisite Collective Task(s):

Step Number	Task Number	Title	Proponent	Status
	05-CO-5250	Perform Construction Operations	05 - Engineers (Collective)	Approved

Supporting Collective Task(s):

Step Number	Task Number	Title	Proponent	Status
	05-CO-0007	Prepare an Operation Order (OPORD)	05 - Engineers (Collective)	Approved
	05-PLT-1020	Perform a Technical Reconnaissance	05 - Engineers (Collective)	Approved
	05-SEC-5003	Perform Combat Construction Route Survey	05 - Engineers (Collective)	Approved
	71-CO-5100	Conduct Troop Leading Procedures for Companies	71 - Combined Arms (Collective)	Approved

OPFOR Task(s):

Task Number	Title	Status
71-CO-8502	OPFOR Execute an Ambush	Approved
71-CO-8504	OPFOR Execute a Reconnaissance Attack	Approved

Supporting Individual Task(s):

Step Number	Task Number	Title	Proponent	Status
	052-12T-3412	Determine Drainage Requirements	052 - Engineer (Individual)	Approved
	052-196-2002	Determine the Radius of a Curve	052 - Engineer (Individual)	Approved
	052-236-1162	Install Batter Boards	052 - Engineer (Individual)	Approved
	052-243-1248	Perform a Traverse Survey	052 - Engineer (Individual)	Approved
	052-243-1303	Perform Differential Leveling	052 - Engineer (Individual)	Approved
	052-243-1513	Perform Layout of a Construction Project	052 - Engineer (Individual)	Approved
	052-243-1540	Perform Real Time Kinematic (RTK) Survey with Differential Global Positioning System (DGPS)	052 - Engineer (Individual)	Approved
	052-243-1601	Perform a Preliminary Site Survey (Topographic/Radial Survey) with a Total Station Survey Instrument	052 - Engineer (Individual)	Approved
	052-243-1602	Perform a Preliminary Site Survey (Topographic/Radial Survey) with a Total Station and Survey Controller	052 - Engineer (Individual)	Approved
	052-243-1604	Perform as a Rodman During Conventional Surveying Observations	052 - Engineer (Individual)	Approved
	052-243-1605	Install Survey Stakes for Horizontal Projects	052 - Engineer (Individual)	Approved
	052-243-1606	Install Survey Stakes for Vertical Projects	052 - Engineer (Individual)	Approved

Supporting Drill(s): None

Supported AUTL/UJTL Task(s):

Task ID	Title
ART 4.1.7.3.1	Provide Engineer Survey Support

TADSS

TADSS ID	Title	Product Type	Quantity
No TADSS specified			

Equipment (LIN)

LIN	Nomenclature	Qty
No equipment specified		

Materiel Items (NSN)

NSN	LIN	Title	Qty
No materiel items specified			

Environment: Environmental protection is not just the law but the right thing to do. It is a continual process and starts with deliberate planning. Always be alert to ways to protect our environment during training and missions. In doing so, you will contribute to the sustainment of our training resources while protecting people and the environment from harmful effects. Refer to the current Environmental Considerations manual and the current GTA Environmental-related Risk Assessment card. .

Safety: In a training environment, leaders must perform a risk assessment in accordance with ATP 5-19, Risk Management. Leaders will complete the current Deliberate Risk Assessment Worksheet in accordance with the TRADOC Safety Officer 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, Multiservice Tactics, Techniques, and Procedures for Nuclear, Biological, and Chemical (NBC) Protection, FM 3-11.5, Multiservice Tactics, Techniques, and Procedures for Chemical, Biological, Radiological, and Nuclear Decontamination. .