

Training and Evaluation Outline Report

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Task Number: 43-CW-0001

Task Title: Perform Vehicle Recovery

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Destruction Notice: None

Foreign Disclosure: FD1 - This training product has been reviewed by the training developers in coordination with the CASCOM, Fort Lee, Virginia 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	Source Information
	ATP 4-31	Recovery and Battle Damage Assessment and Repair (BDAR)	Yes	Yes	
	ATP 4-33	Maintenance Operations (This item is published w/Basic incl C1) http://armypubs.army.mil/doctrine/DR_pubs/dr_a/pdf/atp4_33.pdf	Yes	No	
	PAM 750-3	SOLDIERS' GUIDE FOR FIELD MAINTENANCE OPERATIONS	Yes	No	
	TC 43-35	Recovery Training.	Yes	No	
	UNIT SOP	Unit / Unit's Standard Operating Procedure SOP	Yes	No	

Conditions: Unit vehicle(s) have become immobile/inoperative to the point of disablement. Vehicle operator/crews are required to perform self or like vehicle recovery. Equipment technical manual(s), BII, and additional authorized list or on vehicle equipment are available to perform troubleshooting procedures in preparation for recovery operations. The vehicle crew has analog and digital communications with higher headquarters and supported maintenance unit. Higher headquarters operation order (OPORD) is present with all annexes, specified time constraints, and overlays. ATP 4-31, applicable publications, and the unit's internal and external maintenance Standard Operating Procedures (SOP) are available.

Threat capabilities cover a full spectrum including information gathering; hostile force sympathizers; terrorist activities including suicide bombings; and conventional, air supported, and reinforced squad operations in a chemical, biological, radiological, and nuclear (CBRN) environment. Must include four or more operational environment conditions that includes a hybrid threat, various types of terrain, time restrictions, social (population, cultural & language implications). Additional variables may include information (media, population perception), infrastructure (bridges, electricity, roads, urban area), or economic (local vendors, contractual & supply implications).

All communications systems are subject to disruption due to a number of factors, including enemy activity, weather, equipment failure, and interruptions or damage to the civil and military infrastructure.

Operational Environment:

1. Military: Primary threat consists of both conventional and irregular forces. These forces may infiltrate the area of operations in squad or platoon-sized elements, with the objectives of intelligence gathering, harassment, disruption, or complete destruction of friendly forces. Primary means of engagement is that of ambush using light infantry weapons, and often initiated by mines or improvised explosive devices (IED). In addition, terrorists, criminal elements, and enemy sympathizers may engage by means of ambush, kidnapping, or any type of IED attack, and may engage in efforts to turn the local population against friendly forces.

2. Physical terrain: Terrain in which operations may be conducted covers the entire geographic spectrum, including urban to rural, flat to mountainous, desert to swamp, and tropical to arctic environments.

3. Time: Time restrictions are as given in the warning/operations order. Extreme conditions, such as weather or CBRN contamination, have a detrimental effect on all factors of the Operational Environment, especially time.

4. Social: The population in the operational environment may be friendly, hostile, apathetic, or a combination of all three. This variable is subject to change on a day-to-day basis, and the commander must be continually cognizant of the latest intelligence. Cultural issues and language barriers may frustrate the ability to communicate with local nationals.

5. Political: Government may be democratic or authoritarian, and may be stable or unstable. Most OEs have at least two political rival/factions competing for power. Unstable government or a failed economy may drive unemployed workers to the streets, demonstrating and rioting. Attitude of the general population toward US Forces is mixed. Some regard US Forces as saviors, while others regard US Forces with contempt.

6. Economic: All economies are based primarily on either agriculture or manufacturing (goods), supplemented by substantial services. Other variables, such as weather or politics, will affect the economy in a given OE. In the event of a weak or failed economy, banks become insolvent, goods and subsistence become scarce, vendors have little to sell, and organized crime may control most of the markets.

7. Infrastructure: Infrastructure may become austere or totally fail due to enemy activity, economic conditions, or a failed government. Frequent disruptions in basic support, such as electricity and potable water, create unrest in the population. Highway and rail networks are critical in supporting military operations. In the event of failed infrastructure, road conditions, including bridges and tunnels, may require re-routing of convoys and general traffic. Off-road travel may at times be necessary.

8. Information. Media in the OE may be either government or commercially owned and controlled. Local media may appear friendly, but is likely to use media events as propaganda against US Forces and their allies. The local national (LN) populations perception of US Forces may be colored by media propaganda, and is subject to change frequently. Both government and underground media sources are capable of implementing information warfare (INFOWAR) against US Forces in various forms of propaganda, using all common forms of media. Some iterations of this task should be performed in MOPP 4.

Standards: The unit performs vehicle recovery in accordance with ATP 4-31, required technical publications, specified time constraints, internal and external SOPs, and the commanders guidance.

To obtain a T or T-, this task must be conducted during an external evaluation, in a dynamic and complex environment with four or more Operational Environment (OE) variables and a hybrid threat at night with 75% or more leaders present and 80% or more Soldiers present. The unit must receive a GO on 80% of the performance measures, ALL of the critical performance measures, and at least 80% GO on the leader performance measures.

LEADER STATEMENT: For the purpose of this task, a leader is defined as a Soldier who is in an officer, warrant officer, non-commissioned officer (NCO), or civilian position designated by grade, paragraph, and title on the units Table of Organization and Equipment (TOE). Leaders may also be anyone assigned to the unit and designated as such by the unit commander, i.e., Subject Matter Experts (SME) who possess the requisite knowledge and skill sets to perform a particular task (for example, conduct a specific operation, or operate technical equipment).

Live Fire: No

Objective Task Evaluation Criteria Matrix:

Plan and Prepare		Execute					Assess			
Operational Environment	SQUAD & PLT	Training Environment (L/V/C)	Leaders Present at Training/Required	Present at Training/Required	External Eval	Performance Measures	Critical Performance Measures	Leader Performance Measures	Evaluator's Observed Task Proficiency Rating	Commander's Assessment
Dynamic (Single Threat)										
Static (Single Threat)	Day	60-74%	60-79%	No	65-79%	<All	75-84%	P	P	
		<=59%	<=59%					<=64%	<=74%	U
									T-	T-
									P-	P-

Remarks: Task steps and performance measures are arranged in a logical order in the Training & Evaluation Outline (TE&O). However, this should not be interpreted as a "required order" for performance. Various task steps are often performed simultaneously. Further, every task step and/or performance measure is not necessarily applicable to every unit. It is the commander's prerogative to add, delete, or reassign the order of task steps and performance measures in order to better fit the unit or the situation.

Prior to evaluation, the commander should coordinate these changes between the unit, the evaluator, and the unit's higher headquarters (if required). However, when evaluating this task, only the CRITICAL performance steps and measures will be used to calculate the overall percentage total in the training evaluation criteria matrix.

Training begins with receipt of the Operations Order (OPORD). Training ends when designated training objectives for the particular training event or exercise are performed to Army standard. Upon completion of training, the unit commander should conduct an After Action Report (AAR) to determine future training requirements for the unit.

Static- A static training environment has aspects of operational variables needed to stimulate mission variables that are fixed throughout the unit's execution of the task.

Dynamic- A dynamic training environment has operational variables and threat tactics, techniques, and procedures (TTP) for assigned counter tasks that change in response to the execution of friendly force tasks.

Complex- A complex training environment requires a minimum of four - terrain, time, military (threat), and social (population)—or more operational variables; brigade and higher units require all eight operational variables to be replicated in varying degrees based on the task being trained.

Single threat- A single threat in a training environment is a conventional force, irregular force, criminal element, or terrorist force.

Hybrid threat- A hybrid threat in a training environment uses diverse and dynamic combination of conventional forces, irregular forces, terrorist forces, and criminal elements unified to achieve mutually benefitting effects.

Task steps and measures were developed using the Plan, Prepare, Execute and Assess (PPEA) construct to reinforce the operations process and is implied throughout the T&EO.

Notes: 1. DISRUPTED COMMUNICATION NETWORKS: Leaders need to be able to command their formations when communication networks are disrupted, while on the move, and without perfect situational awareness. Training to become proficient in the use of analog data tracking systems, voice communications, and unaided navigation techniques requires significant amounts of repetition, particularly when integrating all of the elements of combat power. Habitual relationships, practiced standard operating procedures, and the use of battle drills can mitigate some of the risk and friction inherent in lost situational awareness.

2. REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS: Feedback is welcome to help improve this collective task. If errors are found, or if someone would like to recommend improvements to the performance steps and procedures in this collective task, please let us know. The preferred method is to submit a DA Form 2028 (Recommended Changes to Publications and Blank Forms) with recommended changes via email to usarmy.lee.tradoc.mbx.cascom-g3-collective@army.mil Recommended changes will be reviewed, validated to ensure approved Army or joint doctrine supports recommendation(s), and implemented as appropriate.

Safety Risk: Medium

Task Statements

Cue: Vehicle operator/crew receives a mission/order to perform self or like vehicle recovery.

DANGER Alerts users to an operating procedure or practice, which if not strictly observed, could result in personal injury, loss of life, and/or damage to or loss of equipment.
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WARNING Alerts users to an operating procedure or practice, which if not correctly followed, could result in personal injury or loss of life.

CAUTION Alerts users to an operating procedure or practice, which if not strictly observed, could result in damage to or destruction of equipment.
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Performance Steps and Measures

NOTE: Assess task proficiency using the task evaluation criteria matrix.

NOTE: Asterisks (*) indicate leader steps; plus signs (+) indicate critical steps.

STEP/MEASURE

GO	NO-GO	N/A
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Plan

+* 1. OIC/NCOIC initiate the mission command operations process upon receipt or in anticipation of a mission

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+* 2. OIC/NCOIC and Maintenance Support Team (MST) NCOIC conduct a thorough mission analysis of the higher headquarters order to determine how the unit best contributes to the higher headquarters' mission, commander's intent, and concept of operation

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- a. Identify recovery requirements and COAs for wheel and track vehicles
- b. Identify MST force protection/security requirements (if required)
- c. Review recovery priorities
- d. Review BDAR authorizations

Note: BDAR is located in OPORD Annex F Sustainment(Field Maintenance)

- e. Review controlled exchange and cannibalization guidance

+* 3. OIC/NCOIC issue initial guidance and recovery priorities

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Prepare

+* 4. OIC/NCOIC prepare for recovery operations

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- a. Coordinate initial meeting/link-up with MST
- b. Inspect unit vehicle(s) and recovery equipment prior to mission execution
- c. Inspect and inventory Crew/Operator BDAR kits
 - (1) Identify BDAR kits by vehicle
 - (2) Order BDAR kit shortages and replacements for expired components

Note: Crew/Operator BDAR Kit NSN: 5180-01-502-9504

+* 5. OIC/NCOIC plan and conduct key rehearsals

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- a. Review anticipated recovery techniques
 - b. Review current BDAR techniques
 - (1) Coordinate BDAR training with supported maintenance unit
 - (2) Identify mission requirements and modify training accordingly
 - (3) Conduct unit training on the use of BDAR kits and its components
- Note: Realistic training must be performed during peacetime to ensure wartime proficiency.
- (4) Conduct BDAR training on priority equipment
 - (5) Annotate completed BDAR kit training on individual military licenses and unit trackers

+ 6. Vehicle operator/crew prepare for vehicle recovery

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- a. Review vehicle recovery requirements
- b. Prepare required tools, special tools, BDAR, and recovery equipment
- c. Conduct equipment Preventive Maintenance Checks and Services (PMCS) prior to mission execution
- d. Conduct individual Pre-combat checks/Pre-combat inspections prior to mission execution

WARNING

Recovery operations, both on and off the battlefield, can be extremely hazardous. Safety must remain a top priority for each recovery mission. Leaders must conduct a risk assessment, consider operational variables, and continually enforce safe practices. Proper maintenance of recovery vehicles and serviceability of authorized rigging and other equipment is essential to ensure safe recovery mission. For additional information on safety, refer to ATP 5-19, Risk Management, AR 385-10, Army Safety Program and Department of Defense (DD) Form 2977 (Deliberate Risk Assessment Worksheet).

+* 7. OIC/NCOIC and Maintenance Support Team (MST) NCOIC develop a Risk Assessment to determine acceptable risk levels for various recovery operations, balancing risks and priorities to the overall success of the operation

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Note: Risk is defined as a probability or threat of damage, injury, liability, loss or other negative occurrence that is caused by external or internal vulnerabilities that may be neutralized by preemptive action. Risk assessment is a process of identifying, analyzing, and prioritizing programmatic and critical risks which includes quantifying risks in terms of performance, schedule, and cost. Risks identified in the risk assessment become critical elements of the source selection plan and the RFP. These risks have a common thread that starts with the requirement, ties to the risk assessment, then to the RFP, proposal, evaluation and contract execution.

- a. Identify safety procedures

b. Identify environmental stewardship procedures

Execute

+* 8. OIC/NCOIC direct recovery operations

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- a. Enforce safety procedures
- b. Enforce environmental stewardship procedures
- c. Coordinate dedicated recovery operations with MST NCOIC (if required)

Note: 1. One or more additional skill identifier H8 certified maintainer must be present for wheeled vehicles recovery missions. During tracked recovery missions, at least two additional skill identifier H8 certified maintainers must be present.

Note: 2. Wheel additional skill identifier H8 recovery specialists cannot be substituted for track additional skill identifier H9 recovery specialists.

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+ 9. Vehicle operator/crew conduct recovery operations

- a. Identify method of recovery/repair per equipment TM
 - (1) Self-recovery
 - (2) Like-vehicle recovery

Note: Like-vehicle recovery is used when self-recovery fails. The principle is to use another piece of equipment "of the same weight class or heavier" to extract the mired, disabled, or damaged equipment by using tow bars, chains, and/or tow cables. When self-recovery and like-recovery are not practical or are unavailable, use dedicated recovery assets (ASI H8/H9 certified maintainers).

- b. Repair equipment in accordance with BDAR (if required)
- c. Recover disabled equipment
- d. Practice safety procedures
- e. Practice environmental stewardship procedures

Assess

+* 10. OIC/NCOIC used running estimates to continuously assess the current situation to determine if the operation is going according to plan

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+* 11. OIC/NCOIC, MST, and vehicle personnel conducted an After Action Review (AAR) and record findings to assess the units performance for future operations (When mission allows)

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Task Performance Summary Block										
Training Unit			ITERATION							
			1	2	3	4				
Date of Training per Iteration:										
Day or Night Training:			Day / Night		Day / Night		Day / Night		Day / Night	
			#	%	#	%	#	%	#	%
Total Leaders Authorized		% Leaders Present								
Total Soldiers Authorized		% Soldiers Present								
Total Number of Performance Measures		% Performance Measures 'GO'								
Total Number of Critical Performance Measures		% Critical Performance Measures 'GO'								
Live Fire, Total Number of Critical Performance Measures		% Critical Performance Measures 'GO'								
Total Number of Leader Performance Measures		% Leader Performance Measures 'GO'								
MOPP LEVEL										
Evaluated Rating per Iteration T, T-, P, P-, U										

Mission(s) supported: None

MOPP 4: Sometimes

MOPP 4 Statement: Some iterations of this task may be performed in Mission-Oriented Protective Posture (MOPP) Level 1-4 as directed by the commander and/or unit leaders. At MOPP 4, performance degradation factors increase mission completion time. Enforce compliance with commander's guidance and applicable unit SOPs when conducting operations in all stages of MOPP.

NVG: Sometimes

NVG Statement: Conduct risk management procedures prior to executing missions under NVG conditions. See TTP 5-19, Risk Management.

Prerequisite Collective Task(s): None

Supporting Collective Task(s):

Step Number	Task Number	Title	Proponent	Status
1.	71-TM-5100	Conduct Troop Leading Procedures	71 - Mission Command (Collective)	Approved
6.	43-CO-4575	Conduct Preventive Maintenance Checks and Services	43 - Maintenance (except missile) (Collective)	Approved
9.	43-SEC-1503	Perform Battlefield Damage Assessment Repair (BDAR) Operations	43 - Maintenance (except missile) (Collective)	Approved

OPFOR Task(s): None

Supporting Individual Task(s):

Step Number	Task Number	Title	Proponent	Status
1.	091-LCST-3001	Apply Critical Thinking as a Junior Leader	091 - Ordnance (Individual)	Approved
2.	091-LCST-3003	Conduct Administrative Procedures at the Platoon Level	091 - Ordnance (Individual)	Approved
2.	091-91B-3718	Plan Recovery Operations	091 - Ordnance (Individual)	Approved
2.	551-751-3400	Determine Vehicle Recovery Requirements	551 - Transportation (Individual)	Approved
2.	551-88M-1661	Perform hasty recovery on wheeled vehicle	551 - Transportation (Individual)	Approved
2.	551-751-2400	Conduct Hasty Vehicle Recovery	551 - Transportation (Individual)	Approved
3.	091-LCST-3007	Conduct a Military Briefing	091 - Ordnance (Individual)	Approved
8.	091-91B-3514	Supervise Battle Damage Assessment and Repair/Recovery(BDAR) on a Wheeled Vehicle	091 - Ordnance (Individual)	Approved
9.	091-91M-1040	Perform Battlefield Damage Assessment and Repair on the M2/M3 BFV	091 - Ordnance (Individual)	Approved
9.	091-91A-3066	Perform Battlefield Damage Assessment and Repair of the M1 Series Track Vehicle	091 - Ordnance (Individual)	Approved
9.	091-91P-3032	Perform Battle Damage Assessment and Repair (BDAR) on Tracked Vehicles	091 - Ordnance (Individual)	Approved

Supporting Drill(s): None

Supported AUTL/UJTL Task(s):

Task ID	Title
ART 4.1.1.6	REPAIR EQUIPMENT (UNSCHEDULED MAINTENANCE)
ART 4.1.1.8	Provide Maintenance Management
ART 4.1.1.3	Conduct Recovery Operations
ART 4.1.1.3.1	Perform Battle Damage Assessment and Repair
ART 4.1.1.3.2	Conduct Dedicated Recovery Operations

TADSS

TADSS ID	Title	Product Type	Quantity
GTA 05-08-002	Environmental-Related Risk Assessment	GTA	1
GTA 01-14-001	Battle Damage Assessment and Repair (BDAR) Smart Book	GTA	1
GTA 21-08-001	Composite Risk Management Quick Reference Booklet	GTA	1
GTA 25-06-023	After Action Review Techniques	GTA	1
GTA 09-10-046	Small Unit Leader's Card (Intermediate Maintenance Light)	GTA	1

Equipment (LIN)

LIN	Nomenclature	Qty
No equipment specified		

Material 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. It is the responsibility of all Soldiers and Department of the Army civilians to practice environmental stewardship. All operations conducted on Army installations must comply with federal, state, local, and host nation environmental requirements and applicable Army regulations. Army personnel will maintain compliance at all sites in the U.S. and abroad, which will in turn establish good relationships with environmental officials and local communities. Environmental risk management consists of the following steps:

- a. Identify Hazards. Leaders identify environmental hazards during METT-TC analysis. An environmental hazard is a condition with the potential of polluting air, soil, or water, or damaging or destroying cultural and historical artifacts.
- b. Assess the Hazard. Leaders analyze potential severity of environmental degradation using the Environmental Risk Assessment. This assessment implements a risk impact value, which is defined as an indicator of the severity of environmental degradation. This value is applied to an environmental risk assessment matrix and used to quantify environmental risk resulting from the operation as high, medium, or low.
- c. Make Environmental Risk Decisions. Leaders make decisions and develop measures to reduce high environmental risks.
- d. Brief Chain of Command. Leaders brief the chain of command, to include the installation environmental office, if applicable, on proposed plans and pertinent high-risk environmental matrices. Risk decisions are made at a level of command that corresponds to the degree of risk.

See GTA 05-08-002, Environmental-Related Risk Assessment, for detailed instructions.

Reference: ATP 3-34.5, Environmental Considerations.

Safety: In a training environment, leaders must perform a risk assessment in accordance with current Risk Management Doctrine. 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 current CBRN doctrine.

Leaders must verify the validity of all training and evaluation plans from a safety viewpoint, and conduct training at levels consistent with the abilities of the Soldiers being trained. They must also instill an awareness of individual safety in all subordinate leaders and Soldiers. All Soldiers must constantly be alert for and avoid situations that may result in injury or death. Be aware of the following:

- a. At the training site, leaders must establish training safety overview procedures. Safety procedures should emphasize adherence to standards, consideration of environmental factors (i.e., wet bulb), risk assessment, and identification of factors contributing to and aiding in the prevention of accidents.
- b. Leaders must know how to balance risks against training requirements, and monitor conditions for safety and health hazards in order to control or eliminate them). The welfare of the Soldier is the primary factor in all situations.
- c. Leaders must establish a buddy system for safety measures. Soldiers should maintain a safety watch on each other, with emphasis on individual safety training and first aid responsibilities. All unsafe conditions and unsafe acts must be recognized and reported. Soldiers must be alert to human error and know the capabilities and limitations of the vehicles and equipment they use. Establishment of proper safety procedures preserves troop strength by preventing personnel loss through accidents.

For further guidance, see ATP 5-19, Risk Management.

