UN Military Engineer Unit - Functions

UN Military Engineer Unit Function 1: PERSONNEL/ADMINSTRATION

Description: The Personnel Staff Section includes an administration and personnel officer and a military police officer. This section is responsible for personnel administration, welfare, morale, motivation, and maintaining conduct and discipline in the unit. The section ensures adherence of the UN code of conduct and supports the commander to maintain and manage Conduct & Discipline related issues.

Ref: UN Military Engineer Unit and Counter Explosive Threat (CET) Search and Detect Manual, Chapter 3.2.1; UNIBAM Chapter 2 and UNMIM Chapter 8 and para. 2.17.

UN Military Engineer Unit Function 1: PERSONNEL/ADMINSTRATION				
Sub-Task	**Standard Number**	**Standards**	**Indicators**	**Score**
F 1.1				
Personnel/Administration				
	F 1.1.1	Personnel administration of the unit is guided by Mission SOPs.	**Standard Met** 1. Engineering Unit's SOPs are written in the mother tongue and in English.	
			2. Personnel reporting procedures are covered in Engineering Unit SOPs.	
			3. Conduct and discipline procedures are covered in Engineering Unit SOPs.	
			4. Contingent leave policy is covered in Engineering Unit SOPs.	
			5. Welfare measures are covered in Engineering Units SOPs.	
			6. The SOP is updated and signed by Contingent Commander and not older than unit arrival date.	
			7. Job descriptions are available for all functions in the unit. (Comment: Are the Job Descriptions in English language, put into the UN template, using the current naming conventions and containing the necessary pre-deployment skills? Has every single member of the Unit/Sector signed a personal copy of their job description?)	
	F 1.1.2	The engineering Unit maintains, reports, and records the operational strength status of the unit.	**Standard Met** 1. Daily/Weekly unit strength reports are provided to Sector/ Force HQs.	
			2. The personnel section maintains the clear status of all unit personnel including the deployed locations.	
			3. Subordinated units report the daily strength status of all soldiers.	
			4. Personnel section reports critical shortfalls regarding personnel to Unit Commander.	
			5. The Unit's authorized strength is in line with the MOU.	
			6. The unit's operational strength (actual strength) (MML, i.e. 75%) in line with the specific field missions SOP is maintained at all locations of the Engineering Unit.	
			7. Repatriations/rotations of personnel before the end or at the end of the normal tour of duty are correctly recorded and documented.	
	F 1.1.3	The Unit meets UN specific gender strategy requirements.	**Standard Met** 1. 7% of all deployed contingent. pers. are females (8% in 2021, 9% in 2022, 10% in 2023).	
			2. Female soldiers are employed and operating in the	

			unit as per their assigned function. (Comment: Question female soldiers.)	
			3. Female soldiers have been assigned mentors in the contingent. (Comment: Question female soldiers.)	
			4. The Unit has a trained Gender Focal Point /Adviser.	
			5. The Engineering unit has an Engagement Staff Section including an engagement/public information officer and interpreters and these are projected in the unit's SOP. Ref.: UNMEU/CET Manual 3.2.1	
			6. Commanders are aware of the FC's Gender responsive document and conforming to its intent.	
			7. Unit leadership ensures gender training and awareness is being conducted in regular intervals. (Comment: Question gender advisor/Focal point.)	
	F 1.1.4	Physical requirements are in place according to UN gender strategy.	**Standard Met** 1. Separate accommodation, showers and toilets are available for female personnel.	
			2. Women's ablution and washrooms are in close distance to their accommodation.	
			3. Safety lighting is installed around all camps to ensure safe movement of personnel at night.	
			4. Suitable accommodation for women to allow full access, able to travel and operate in all areas in the mission is available.	
			5. Women have access to female sanitary products and there are disposal points for sanitary products in the ablutions.	
	F 1.1.5	Contingent personnel meet UN specific requirements. Ref.: COE Manual Chapter 9 Annex A	**Standard Met** 1. The contingent has no personnel under 18 years of age.	
			2. The contingent has no personnel older than 55 years of age (excluding ranks above Lt Col/Senior Warrant Officer).	
			3. Key personnel of the unit is capable to communicate in English with higher levels of Command.	
			4. Personnel on the platoon level can communicate in the Mission language (e.g. English, French).	
			5. Personnel in specialized functions is trained. (Comment: Check with S1 for duty record/training records of maintenance, medical, kitchen, operators of engineer equipment, specialists and interview 1 of each group to verify.)	
F 1.2				
Conduct & Discipline and SEA prevention				
	F 1.2.1	Understanding of SEA prevention and UN standards of Conduct. (Comment: A minimum requirement 5% of the overall contingent strength must be questioned.)	**Standard Met** 1. All unit members questioned can explain the UN standards of conduct.	
			2. All unit members questioned can explain the prohibitions against SEA and sexual relationships with members of the local population.	
			3. All unit members questioned demonstrate awareness of the possible consequences of SEA for troops, victims, the TCC and mission/UN.	
			4. All unit officers and senior NCOs (Staff sergeants and above), and all other unit members questioned,	

			know and can explain the process/procedure/appropriate reporting channels for reporting suspected misconduct.	
			5. All unit personnel carry the "No Excuses" card and the "Ten Rules: Code of Conduct for Blue Helmets" translated into the unit's mother tongue.	
			6. There are visible awareness-raising messages (e.g. posters, regular townhalls) regarding SEA prevention and UN Code of Conduct present in the Unit.	
	F 1.2.2	The Unit includes deployed personnel authorized and trained to serve as National Investigation Officers (NIOs). (Comment: Only applicable if unit has deployed NIOs.)	**Standard Met** 1. The NIO is formally authorized to obtain DNA samples of contingent members who are alleged to have committed SEA for criminal, military judicial, or administrative action. (Comment: Authorization needs to be documented.)	
			2. The NIO is formally authorized to obtain DNA samples of contingent members against whom there is a claim for paternity and/or child support. (Comment: Authorization needs to be documented.)	
			3. The NIO is formally authorized to obtain DNA samples of mothers and children as relevant to their investigations. (Comment: Authorization needs to be documented.)	
			4. There is a written document that the NIO has received training on UN code of conduct, including SEA.	
			5. Units of over 300 authorized strength are required to deploy 2 NIOs, for units below 300 authorized strength 1 NIO. (Comment: Check against authorized strength in the MOU.)	
	F 1.2.3	The Unit has a plan on the prevention of UN standards violations on conduct, including the zero-tolerance policy on SEA.	**Standard Met** 1. The unit commander has a written plan in place for preventing misconduct.	
			2. The unit has identified areas vulnerable for SEA cases and the preventive measures.	
			3. The plan is aligned with FHQ and approved by the Force Commander.	
			4. The plan is coordinated with the Conduct and Discipline team.	
			5. The plan identifies priority misconduct risks, and measures to mitigate these risks.	
	F 1.2.4	The unit commander has control measures to prevent misconduct (violations of UN standards of conduct, including the zero-tolerance policy on SEA).	**Standard Met** 1. The unit commander and all sub-unit commanders maintain a record showing they communicate on conduct and discipline to those under their command on a regular basis (at least monthly), including on the standards related to SEA.	
			2. Where personnel are deployed to Temporary Operating Bases or other remote locations, the unit commander conducts regular (monthly) visits to ensure adherence to UN standards of conduct.	
			3. The unit and sub-unit commanders demonstrate that they are actively monitoring the plan and measures to mitigate the risk of misconduct.	
			4. The unit commander maintains records and decisions of all disciplinary cases in the unit.	

			5. Unit commander and sub-unit commanders have a clear understanding of the procedure to deal with/administer the violation of conduct and discipline and SEA cases.	
			6. Appropriate action has been taken to address the violation of conduct and discipline and SEA cases. (Comment: N/A if no case)	
	F 1.2.5	Unit personnel adheres to UN standards of conduct and discipline incl. SEA.	**Standard Met** 1. During the reporting timeframe, no contingent member has been repatriated as a result of disciplinary issues.	
			2. During the reporting timeframe, no violation of the UN standards of conduct of a current contingent member is documented.	
			3. During the reporting timeframe the Engineering Unit Commander and personnel cooperated during investigations. (Comment: N/A if no investigations)	
			4. The unit commander conducts own investigations on cases of misconduct and penalizes contingent members that are found guilty (in accordance with authorization by national law). (Comment: Records to be presented. N/A if no cases.)	
			5. All cases of misconduct allegations and investigations are documented incl. the outcome (sentence). (Comment: Records to be presented. (N/A if no allegations or investigations))	
F 1.3				
Safe Driving				
	F 1.3.1	Unit personnel adheres to UN standards of safe driving. Ref.: UNMIM para. 2.17	**Standard Met** 1. During the reporting timeframe no traffic violations (with contingent members at fault) have been recorded by FPM/MP. (Comment: Obtain information from FPM/MP, Sector HQs Operations Centre.)	
			2. During the reporting timeframe no traffic accidents (with contingent members at fault) have been recorded by FPM/MP. (Comment: Obtain information from FPM/MP, Sector HQs Operations Centre.)	
			3. Drivers and operators are certified (driver's license or course completion certificate) for military pattern, armored, specialized and heavy vehicles. (Comment: Conduct spot checks for driver's license and certificates for different vehicle categories.)	
			4. A system is in place to ensure that drivers are rotated when driving over longer distances/ for longer time periods. (Comment: Note that driving over longer periods can result in lapses in concentration.)	
			5. The unit has a responsible officer to manage vehicles, tasking, drivers, licenses, safe driving measures in accordance with mission specific guidelines. (Comment: Does the Transport Section operate from a set of locally produced Standing Orders, covering the management of vehicles and drivers, reflecting local procedures? Does the Transport Section operate a satisfactory system to	

			coordinate and control vehicle tasking and movement in accordance with mission procedures?)	
			6. The unit traces traffic violation cases, conducts investigations (also in cooperation with local authorities and MP) and takes disciplinary measures if required (e.g. gross negligence). (Comment: Check unit records. If no existing cases - N/A.)	
	F 1.3.2	The unit has implemented a Road Safety Program. Ref.: UNMIM 2.17.6	**Standard Met** 1. The unit has clearly documented safety regulations and Standard Operating Procedures (SOPs) which are understood by drivers and vehicle occupants. These measures must be strictly enforced (e.g., speed limits, use of seat belts, alcohol control, vehicle breakdown drill). (Comment: Does the Transport Section utilize the UN Drivers Handbook and ensure their drivers are familiar with its contents?)	
			2. Training, testing and certification of drivers to operate vehicles in all weather conditions, during night and low-visibility and over rough terrain replicating conditions in the AOR. (Comment: Initial training conducted prior to deployment and repeated as refresher training during deployment- check records.)	
			3. The unit uses assistant drivers in vehicles where applicable.	
			4. Drivers know how to respond to accidents, perform self-extraction, operator-level emergency repairs, report on accidents, break-downs and faults, provide first-aid and attend to injuries en-route. (Comment: Question vehicle operators for an assessment.)	
			5. Vehicle operators of the unit are performing daily Preventive Maintenance Checks and Services (PMCS) prior to the operation of any vehicle, recording checks and services in logbooks assigned to the vehicle. (Comment: Conduct spot check with vehicle operators-PMCS as a minimum shall include a quick visual inspection and walk-around of the vehicle to ensure that the tires are properly inflated and that brake, signal lights, headlights are working properly, and no obstructions or personnel are obstructing vehicle movement; petroleum, oil and lubrication levels are at the full level.)	
			6. All vehicles are equipped with emergency repair and towing equipment, fire extinguishers, emergency triangles and first aid equipment.	
F 1.4				
Welfare				
	F 1.4.1	The unit has the required equipment, infrastructure and processes to provide effective welfare for its members. Ref.: UNMIM Chapter 8	**Standard Met** 1. No shortfalls regarding the Self Sustainment category of Catering (as per DOS KPI SS categories) are identified in the last COE verification inspection.	
			2. No shortfalls regarding the Self Sustainment category of Welfare (as per DOS KPI SS categories such as sports facilities, phone facilities etc.) are identified in the last COE verification inspection.	
			3. No shortfalls regarding the Self Sustainment	

			category of Internet Access (as per DOS KPI SS categories) are identified in the last COE verification inspection.	
			4. Recreational space/ facility is available.	
			5. Entertainment facility, TV, religious facilities, library, indoor/outdoor sports areas are available. (Comment: How does the unit account for Welfare items? Carry out a 10 item check of items on the Welfare account.)	
	F 1.4.2	The unit has implemented procedures to ensure the welfare of its members. Ref.: UNMIM Chapter 8	**Standard Met** 1. The unit has documented leave plans as per UN regulations for the contingent. (Comment: Does the unit have a system for registering and planning annual/compassionate/recreational leave?)	
			2. Temporary deployments at remote locations are not exceeding 30 days (unit members are rotated at these locations).	
			3. All Unit and sub-unit commanders have implemented and documented a duty system allowing for rest and recuperation.	
			4. The unit has a documented welfare plan and program for unit members (e.g. game nights, sport competitions, movie nights).	
			5. The unit has a system in place to inform all personnel (e.g. current situation, incidents, upcoming events) to avoid speculation, rumours and frustration.	
			6. The unit has established a designated counsellor for contingent members to raise problems and concerns.	
UN Military Engineer Unit Function 1: PERSONNEL/ADMINSTRATION (Overall Assessment):				
Observation & Recommendations				

UN Military Engineer Unit - Functions

UN Military Engineer Unit Function 2: The Engineer Unit Situation Awareness.

Description: The Engineer Units should be capable of pro-actively acquiring, processing, analysing (including the use of early warning indicators) and communicating tactical information at the unit level; and maintaining 24/7 situation awareness with dedicated staff and multiple resources for planning and executing Engineer tasks and force protection. The situation awareness section is to coordinate tactical information acquisition, collation, corroboration and dissemination for effective situation awareness throughout the unit.

Ref: UN Military Engineer Unit and Counter Explosive Threat (CET) Search and Detect Manual, Chapter 3.2.1

UN Military Engineer Unit Function 2: The Engineer Unit Situation Awareness.				
Sub-Task	**Standard Number**	**Standards**	**Indicators**	**Score**
F 2.1				
Awareness and Understanding of the Area of Operation (AO)				
	F 2.1.1	The Engineer Unit Situation Awareness staff section demonstrates awareness of the physical terrain in its Area of Operation and its potential impact on unit operations to achieve the mandate. Ref.: UNMPKI HB 9.4.5	**Standard Met** 1. All routes throughout the unit Area of Operation, including roads, tracks and likely transit routes used by UN forces and other actors are identified and classified based on capabilities and conditions such as vehicle type, general road conditions are depicted in an Overlay. Ref.: MPKI handbook 9.4.5 (Comment: This overlay is known as the Mobility Corridor Overlay.)	
			2. The terrain has been labelled UNRESTRICTED (Terrain over which movements of UN forces or other actors is not affected by the ground, vegetation, natural and man-made obstacles), RESTRICTED (Terrain over which movements of UN forces or other actors is only possible at reduced speed, is canalised, or will be possible only with the assistance of additional non-organic assets like improvised bridges or obstacle crossing task is required, e.g., steep ground, swamps / river beds etc), SEVERELY RESTRICTED (Terrain over which movements of UN forces or actor groups being assessed as impractical e.g., rivers that cannot be crossed/forded, known minefields) and is depicted in an Overlay. Ref.: MPKI handbook 9.4.5	
			3. Pertinent Infrastructure in the Area of Operation of the Engineering Unit is depicted in an Overlay. E.g.: Sanitation (including sewerage, Water supply (including wells, water purification or de-salinization plants); Power supply; Refugee camps or key NGO facilitation areas; major airports, helipads, and their conditions.	
			4. The Engineer Unit Situation Awareness staff section has identified terrain/ ground that provides an advantage to either UN-opposing or UN forces towards the completion of a mission (but is not critical to mission success) and depicted these areas in an overlay (Key Terrain (KT)). (Comment: Depending on the type of the mission these could be high grounds, areas with good observation points and fields of fire, key infrastructure (such as	

			bridges, river crossing points, intersections, industrial complexes) and their conditions.)	
			5. The Engineering Unit Situation Awareness staff section has identified and maintains separate overlays on the impact of weather/seasonal conditions on routes, river courses, areas of cover (such as vegetation growth).	
	F 2.1.2	The Engineering Unit Situation Awareness staff section demonstrates awareness of the human terrain in its Area of Operation in relation to the mandate. Ref.: UNMPKI HB 9.5.2	**Standard Met** 1. The Engineering Unit Situation Awareness staff section has depicted in overlays all ethnic, religious (incl. religious sites), political and tribal group locations and identified vulnerabilities of each group within its Area of Operation.	
			2. The Engineering Unit Situation Awareness staff section has identified all armed groups, terrorists, and organized crime groups in its Area of Operation and depicted (in separate overlays) known locations (along with their capability, structure, and intent, their attitude to the UN, their links with other groups, and their key leaders).	
			3. The unit has identified and depicted in an overlay all locations of Host Nation Security Forces and institutions (including structure, capabilities and contact details of key personnel).	
			4. The Engineering Unit has identified locations (depicted in an overlay) and strength of refugees and IDP (internally displaced persons) and actors providing humanitarian assistance such as NGOs in their Area of Operation.	
			5. The Engineer Unit has identified political organisations and key leaders in their Area of Operation.	
			6. The Engineer Unit has identified in list individuals, equipment and infrastructure which are assessed as being significant to both (threat) actors and UN forces for the completion of their respective Engineer task(s)/ intent (Items of High Importance List (IHI List)). Ref.: MPKI handbook 9.5.11	
			7. The unit assesses if the armed elements use of mine, EOD, IED, and existence of the Explosive Remnant of War (ERW) in the AOR.	
F 2.2				
Direction & Acquisition				
	F 2.2.1	The Engineer Unit Situation Awareness staff section manages Information acquisition	**Standard Met** 1. Incoming information related to Engineer Units tasks is also visually depicted on maps, charts, and overlays. (Comment: Check Situation and Incident Maps.)	
			2. The Engineering Unit Commander receives INTREPs and INTSUMs (daily, weekly, and monthly) from higher headquarters and updates the unit's security information.	
			3. The Engineer Unit receives information or	

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			assessments on the accessibility of the main supply roads and infrastructures.	
			4. The unit analysis if Armed Groups used any types of explosives during the confrontation, the potential use of explosive ordnance, and situation related to UXO, AXO in the AOR etc.	
UN Military Engineer Unit Function 2: The Engineer Unit Situation Awareness. (Overall Assessment):				
Observation & Recommendations				

UN Military Engineer Unit - Functions

UN Military Engineer Unit Function 3: OPERATIONS AND ENGINEER PLANNING

Description: The unit's operations staff section is responsible for planning, organizing, staffing, directing, controlling and sustaining all operations and administrative responsibilities of the unit in accordance with unit and Force standard operating procedures. The section coordinates all operational activities and movements within the area of responsibility, carries out liaison, maintains the Engineer Unit's 24/7 Operations Center (ideally with tracking and video tele-conferencing capability to the next higher headquarters for real time monitoring, control and coordination of operations). They coordinate employment of Quick Reaction Teams in accordance with the operational situation. It is their responsibility to ensure the overall safety and security of personnel, materiel and information in the unit. The section establishes and maintains liaison with neighbouring contingents and the immediate higher headquarters and/or engineer section/Chief, Service Delivery for coordination and control of activities.

Ref: UNIBAM Chapter 2; and UN Military Engineer Unit and Counter Explosive Threat (CET) Search and Detect Manual, Annex E, UN Engineer Unit's Task 1

UN Military Engineer Unit Function 3: OPERATIONS AND ENGINEER PLANNING				
Sub-Task	**Standard Number**	**Standards**	**Indicators**	**Score**
F 3.1				
Planning and Mandate implementation				
	F 3.1.1	The UN Engineer Unit has created an understanding on how the mission/ mandate is to be implemented based on the guidance received from Higher HQs. Ref.: UNIBAM 2.3.3.2	**Standard Met** 1. The Engineer Unit has analysed the mandate, it's given missions in combination with the Force and Sector Commanders Intent.	
			2. The Engineer Unit has identified all specified tasks and implied tasks and determined all Mission Essential Tasks (Comment: Implied Task: Something that is not specified by higher HQ in the original order that needs to be carried out to achieve the mission/ implement the mandate. Mission Essential Task: A task that if not included in the plan could cause the unit to fail in its mission/ implement the mandate).	
			3. The unit has determined the assets available to execute the Engineering tasks.	
			4. The unit has identified all limitations (constraints/restraints) or shortfalls to execute Engineer tasks.	
			5. The unit coordinates for necessary supports such as Force Protection, and Transportation support etc with higher headquarters.	
			6. The unit commander has outlined in writing on how he is intending to implement the engineering tasks (Commanders Intent).	
	F 3.1.2	The UN Engineer Unit Commander has developed a plan to effectively implement the mission/mandate. Ref.: UNIBAM 2.3.3.3	**Standard Met** 1. The plan has a clear purpose and addresses all aspects of the mission/ mandate, higher HQs guidance, limitations, and tasks. (Completeness).	
			2. The plan outlines how the Engineer Unit will implement the mission/ mandate in the concept of operations.	
			3. The plan describes the Combat Engineering Tasks that the Engineer Unit will execute.	

UN Military Engineer Unit - Functions

			4. The plan describes the Construction Engineering Tasks that the Engineer Unit will execute.	
			5. The plan describes critical timings (when certain actions will be carried out).	
			6. The plan defines crucial decisive geographical locations (where it matters most) where military effects will be achieved based on the understanding of the operations area.	
			7. The plan describes the availability of local engineering resources (feasibility).	
	F 3.1.3	The unit has a coordination plan with Mission and Force Engineer to mitigate unit's shortfalls.	**Standard Met** 1. The unit commander prioritizes the Engineering tasks based on the mission.	
			2. The unit commander liaises and coordinates with Force Engineer and Mission Engineers in order to fill the unit's shortfalls for executing given Engineering Tasks.	
			3. Coordinate and plan with entities for detailed activities to fulfill engineering tasks.	
			4. The Unit Commander maintains the information of the database and presents the same to mission leadership.	
F 3.2				
Command & Control				
	F 3.2.1	The Military Engineer Commander exercises effective command and control. Ref.: UN Military Engineer Unit and Counter Explosive Threat (CET) Search and Detect Manual; UNIBAM 1.3	**Standard Met** 1. The unit commander exercises sound and timely decision-making.	
			2. Guidance and orders are clear, simple, concise, and based on developed plans and/or situation development.	
			3. The unit commander ensures that all operations of the unit are coordinated and integrated with other UN and Host Nation actors whenever advantageous for a mission/mandate implementation.	
			4. The unit commander seeks responsibility and is willing to take the initiative.	
			5. The unit commander ensures unity of command by establishing clear responsibilities and tasks for subordinate units.	
			6. The unit commander ensures that assigned tasks are understood, supervised, and accomplished (conducts briefing, debriefing, and operational rehearsals).	
			7. The unit commander ensures that the subordinate units/elements have the required capabilities to implement that assigned tasks.	
	F 3.2.2	All operations are conducted in accordance with documented orders and are continuously monitored.	**Standard Met** 1. Orders are based on guidance received from higher HQs (SHQs/FHQs) or situation developments. Orders are clear, simple, and concise.	

			2. Correct sets of orders (OPORD, FRAGO etc) are used, and orders are coordinated with other staff functions.	
			3. The unit's operations room is set up to monitor the unit's daily operational activities 24/7.	
			4. Mobile operation or sub-units operation out of the main camp of the unit (e.g. road construction) are tracked (waypoints/reporting lines/locations) on the Situation Map.	
			5. All incoming/outgoing orders are documented and filed. (Comment: Conduct a spot check.)	
			6. The commanding officer and his staff continuously monitor and assess the unit's operational situation and progress made, adjusting the scheme of maneuver, as required.	
	F 3.2.3	The unit collects, analyses and disseminates reports.	**Standard Met** 1. Engineer Unit provides comprehensive reports to higher HQ after completion of each task. It should include the latest information and an assessment of the incident with pictures/sketches in accordance with mission SOPs.	
			2. The operations (S3) section collects, analyses and disseminates operational reports timely to higher HQs as per mission-specific SOPs. (Location, tasks performed, details of work, progress etc).	
			3. Reports from subordinated units are recorded and transferred to the Operations map.	
			4. All reporting (including procurement report if applicable) must be completed on time.	
			5. The EOD team fills out the IED/UXO report when applicable. Ref.: UN Peacekeeping Missions Military EOD Unit Manual, 1.11 EOD Post task procedures, and Annex E.	
			6. CET Search Team fills out a comprehensive Search Report with correct Grids, Areas, Search Methods, Sketches and Findings. This report shall be transmitted to CET Search Coordination Cell.	
	F 3.2.4	The unit has established a process to continuously improve its effectiveness.	**Standard Met** 1. The Engineer Unit conducts After-Action Review (AAR) with team members after completion of each task and identifies Lessons Learned (What worked, what didn't work, recommended training, equipment, or supplies required).	
			2. Sub-unit commanders deliver a debrief to the Engineer Unit commander on the result of the task execution.	

			3. Findings of after-action reviews and debriefings are recorded and used to identify best practices and make necessary adjustments (e.g. revised tactics, techniques and procedures)	
			4. Best Practices and Lessons Learned are shared with higher HQs for distribution to other units.	
			5. Performance improvement plans and measures taken are recorded and reported to higher HQs.	
F 3.3				
Use of force and compliance with international human rights and humanitarian law.				
	F 3.3.1	The unit has implemented measures to ensure compliance with Mission specific ROEs. Ref.: Mission ROEs	**Standard Met** 1. There is a unit ROE SOP, drawn from the Force SOP, and this SOP is disseminated to all sub-unit commanders.	
			2. All unit personnel have been issued with mission-specific ROE pocket cards and every personnel carries it with him/her. (Comment: Spot Check)	
			3. Application of ROEs based on the specific task and the likely threat scenarios are always part of order briefings on all levels.	
			4. ROE cards are translated into the mother tongue of all personnel.	
			5. All applications of the Use of Force (6 points) are reported and recorded in the Operations Log.	
	F 3.3.2	The unit personnel demonstrate a clear understanding of basic ROE principles. (Comment: Conduct Interviews with personnel of all ranks.)	**Standard Met** 1. Soldiers can explain the principle of Self-Defence.	
			2. Soldiers can explain the principle of Use of Force other than in Self-Defence;	
			3. Soldiers can explain the principle of Duty to Identify Target(s)-Observe Fire.	
			4. Soldiers can explain the principle of Duty to Challenge and Warn.	
			5. Soldiers can explain the principle of Duty to Use Minimum and Proportional Force.	
			6. Soldiers can explain the principle of Avoidance of Collateral Damage.	
			7. Soldiers can explain the principle of Rules and instructions to deal with detainees.	
	F 3.3.3	The unit has implemented frequent ROE training for all unit personnel.	**Standard Met** 1. Scenario-based training is conducted based on likely mission-specific incidents.	
			2. Training is conducted monthly and documented (incl. participants).	
			3. Training is conducted separately for unit key leaders/ subordinated commanders and soldiers.	
	F 3.3.4	The unit upholds human rights and the principles of international law	**Standard Met** 1. The unit incorporates considerations of	

		including the Laws of Armed Conflict during the planning and conduct of operations. Ref.: Integrating Human Rights in United Nations Military Components Guidelines, Chapter 5.	international law including the Laws of Armed Conflict into the planning of operations.	
			2. The unit conducts regular training on Laws of Armed Conflicts, Human rights, and international humanitarian laws. (Comment: Check with training records (schedule and attendance).)	
			3. The unit personnel exercise individual self-defense in response to a hostile act or demonstrated hostile intent. (Comment: Check against ROE reporting of the unit.)	
			4. If time and circumstances permit, unit personnel attempts to de-escalate the situation, but de-escalation is not required. (Comment: Check against ROE reporting of the unit.)	
			5. There is no record of human rights violations of the unit.	
			6. When unit personnel responds to a hostile act or demonstration of hostile intent, the force used in self-defense is proportional. (Comment: Check against ROE reporting of the unit)	
F 3.4				
Caveats				
	F 3.4.1	The unit has supported planning and conduct of all tasks assigned by higher HQs.	**Standard Met** 1. The Engineer unit commander has never refused a task or the timely execution of it, which was in line with the SURs (e.g. because of national regulations/ policies.)	
			2. The unit has never imposed limitations or restrictions when conducting or planning for an assigned task (within SUR).	
			3. The unit has never refused to conduct a task (within SUR)	
			4. The unit or TCC has never requested/ informed UNHQs or the Mission that the unit cannot perform a task which was in line with the SUR or the application of UN regulations, procedures and Mission SOPs.	
			5. The unit never acted on national direction or instruction. Ref.: AC2 policy para 53	
			6. When receiving instructions from national authorities, the unit immediately informed their United Nations chain of command. Ref.: AC2 policy para 53	
UN Military Engineer Unit Function 3: OPERATIONS AND ENGINEER PLANNING (Overall Assessment):				
Observation & Recommendations				

UN Military Engineer Unit - Functions

UN Military Engineer Unit Function 4: SUSTAINMENT

Description: The Logistics Staff Section includes a Logistics Officer, logistics staff and a contingent-owned equipment (COE)/finance officer. The section coordinates logistics support for the unit in accordance with MOU arrangements to plan, provision, stock and turnover inventory; replenish supplies and stores; and repair, replace and manage equipment. The section ensures timely maintenance, serviceability and inspection of both contingent-owned and UN equipment in the unit's care. It also manages the unit's financial and accounting transactions. The Logistics Officer is in charge of the Engineer Unit's movement control for in-Mission movement as well as unit rotations and acts as the environmental focal point.

Ref: UUN Military Engineer Unit and Counter Explosive Threat (CET) Search and Detect Manual, Chapter 3.2.1; UNIBAM Chapter 4 and the UNMIM Chapter 9 and para 2.14 (Environmental Management)

UN Military Engineer Unit Function 4: SUSTAINMENT				
Sub-Task	**Standard Number**	**Standards**	**Indicators**	**Score**
F 4.1				
Equipment readiness and serviceability				
	F 4.1.1	Weapons, ammunition and Personal Protective equipment are available and serviceable.	**Standard Met** 1. All soldiers are equipped with personal weapons, combat helmet (with blue cover) and basic flak jacket. (Comment: Conduct spot checks.)	
			2. Based on the last COE verification inspection 90% or more of ARMAMENTS (as per DOS KPI ME categories) are available and serviceable. Ref.: COE Manual 2020, Chapter 8. (Comment: 10 (>90%); 5 (70-89%); 0 (<69%); and NA (not in MOU).)	
			3. Armaments are enough to perform ALL assigned tasks without limitation. (Comment: Written comments according evaluator assessment are required.)	
	F 4.1.2	The UN Engineer Unit's vehicles are available and serviceable.	**Standard Met** 1. The last COE verification inspection has identified that 90% or more of ENGINEERING VEHICLE category (as per DOS KPI ME categories) are available and serviceable.	
			2. The last COE verification inspection has identified that 90% or more of MATERIAL HANDLING EQUIPMENT category (as per DOS KPI ME categories) are available and serviceable.	
			3. The last COE verification inspection has identified that 90% or more of TRAILER category (as per DOS KPI ME categories) are available and serviceable.	
			4. The last COE verification inspection has identified that 90% or more of the SUPPORT VEHICLES category (as per DOS KPI ME categories) are available and serviceable.	
			5. Vehicles are enough to perform ALL assigned tasks without limitation. (Comment: Written comments according	

			evaluator assessment are required.)	
	F 4.1.3	The UN Engineer Unit's communication/intelligence related equipment is available and serviceable.	**Standard Met** 1. The last COE verification inspection has identified that 90% or more of COMMUNICATIONS/INTEL category (as per DOS KPI ME categories) are available and serviceable.	
			2. The last COE verification inspection has identified the Self Sustainment category of VHF/UHF-FM (as per DOS KPI categories) available and serviceable.	
			3. The last COE verification inspection has identified the Self Sustainment category of HF (as per DOS KPI categories) are available and serviceable.	
			4. The last COE verification inspection has identified the Self Sustainment category of TELEPHONE (as per DOS KPI categories) are available and serviceable.	
			5. The last COE verification inspection has identified the Self Sustainment category of IDENTIFICATION (as per DOS KPI categories) are available and serviceable.	
			6. The last COE verification inspection has identified the Self Sustainment category of OBSERVATION (as per DOS KPI categories) is available and serviceable.	
			7. The last COE verification inspection has identified the Self Sustainment category of NIGHT OBSERVATION (as per DOS KPI categories) is available and serviceable.	
			8. The last COE verification inspection has identified the Self Sustainment category of POSITIONING (as per DOS KPI categories) is available and serviceable.	
			9. Communication/intelligence related equipment is enough to perform ALL assigned tasks without limitation. (Comment: Written comments according evaluator assessment are required.)	
	F 4.1.4	The UN Engineer Unit's Equipment supporting assigned task is available and serviceable.	**Standard Met** 1. The last COE verification inspection has identified that 90% or more of the ENGINEERING EQUIPMENT category (as per DOS KPI ME categories) are available/ serviceable.	
			2. The last COE verification inspection has identified the Self Sustainment category of MINOR ENGINEERING (as per DOS KPI categories) is available and serviceable.	
			3. The last COE verification inspection has identified that 90% or more of the GENERATOR category (as per DOS KPI ME	

			categories) are available/ serviceable.	
			4. The last COE verification inspection has identified that 90% or more of the DEMINING/ EOD category (as per DOS KPI categories) are available/ serviceable.	
			5. The last COE verification inspection has identified the Self Sustainment category of EOD (as per DOS KPI categories) is available and serviceable.	
			6. The last COE verification inspection has identified that 90% or more of the WATER TREATMENT category (as per DOS KPI ME categories) are available/ serviceable.	
			7. Equipment for supporting assigned tasks is enough to perform ALL assigned tasks without limitation. (Comment: Written comments according evaluator assessment are required.)	
	F 4.1.5	Unit Equipment for Accommodation and Storage is available and serviceable.	**Standard Met** 1. The last COE verification inspection has identified that 90% or more of ACCOMMODATION category/ ablution facilities (as per DOS KPI ME categories) are available and serviceable.	
			2. The last COE verification inspection has identified the Self Sustainment category of ACCOMMODATION (as per DOS KPI categories) is available and serviceable.	
			3. The last COE verification inspection has identified that 90% or more of the STORAGE category (as per DOS KPI ME categories) are available/ serviceable.	
			4. The last COE verification inspection has identified that 90% (or more) of TENTAGE category (as per DOS KPI ME categories) are available and serviceable.	
			5. The last COE verification inspection has identified the Self Sustainment category of ELECTRICAL category (as per DOS KPI categories) are available and serviceable.	
			6. Accommodation and Storage equipment are enough to perform ALL assigned tasks without limitation. (Comment: Written comments according evaluator assessment are required.)	
	F 4.1.6	The unit has the necessary equipment available and serviceable to provide effective camp support.	**Standard Met** 1. The last COE verification inspection has identified the Self Sustainment category of CATERING (as per DOS KPI categories) are available and serviceable.	
			2. The last COE verification inspection has identified the Self Sustainment category of BEDDING category (as per DOS KPI	

			categories) are available and serviceable.	
			3. The last COE verification inspection has identified the Self Sustainment category of OFFICE category (as per DOS KPI categories) are available and serviceable.	
			4. Camp Support equipment are enough to perform ALL assigned tasks without limitation. (Comment: Written comments according evaluator assessment are required.)	
			5. The last COE verification inspection has identified the Self Sustainment category of LAUNDRY (as per DOS KPI categories) are available and serviceable.	
			6. The last COE verification inspection has identified the Self Sustainment category of CLEANING (as per DOS KPI categories) are available and serviceable.	
			7. The last COE verification inspection has identified the Self Sustainment category of FURNITURE (as per DOS KPI categories) are available and serviceable.	
			8. The last COE verification inspection has identified the Self Sustainment category of DEFENCE STORES (as per DOS KPI categories) are available and serviceable.	
			9. The last COE verification inspection has identified the Self Sustainment category of BASIC FIRE FIGHTING category (as per DOS KPI categories) are available and serviceable.	
			10. The last COE verification inspection has identified the Self Sustainment category of FIRE FIGHTING – FIRE DETECTION AND ALARM category (as per DOS KPI categories) are available and serviceable.	
			11. The last COE verification inspection has identified the Self Sustainment category of WELFARE category (as per DOS KPI categories) are available and serviceable.	
			12. The last COE verification inspection has identified the Self Sustainment category of INTERNET ACCESS category (as per DOS KPI categories) are available and serviceable.	
F 4.2				
Logistic Support to Operations				
	F 4.2.1	The unit has developed a logistic plan and outlines the logistic support requirements in the order.	**Standard Met** 1. The logistic support plan of the company is aligned with the Mission support plan (key requirements of UN and national responsibility are considered in the own plan).	
			2. Tasks and responsibilities for the provision of logistic support elements are	

			identified and outlined in the order. (Comment: Logistic Support, Environmental Protection and Medical.)	
			3. The requirement to maintain adequate stock levels is outlined in the order. (Comment: POL, water, rations, ammunition, Recovery & Maintenance, Material and Equipment, Transportation, Medical Support.)	
			4. The logistic component maintains an overview on storage levels of entire unit (esp. if temporarily deployed) and identifies logistic support requirements.	
			5. Supply points and routes are outlined in the order.	
			6. Logistic report requirements are outlined in the order.	
	F 4.2.2	The logistic situation awareness is properly established, updated and maintained.	**Standard Met** 1. A logistic situational report system is established.	
			2. All logistical situational reports from subordinated units are collected and analyzed to create logistic situational awareness (common logistic picture) of the Company.	
			3. The support component regularly updates the unit commander on the logistic situation of the unit.	
			4. The support component provides recommendations on improvement of the logistic situation to the unit commander.	
	F 4.2.3	The unit maintains the operational readiness of its Engineering equipment.	**Standard Met** 1. The unit conducts pre-operational equipment inspections, function tests and takes corrective measures to all its Engineering (Combat and Construction) equipment. (Comment: Check the log books for pre-operational inspection.)	
			2. The unit conducts post-task equipment maintenance of the special equipment after completion of each task. (Comment:) (Comment: Check the log books for post-task inspection.)	
			3. The unit conducts post-task consumable replenishment after the completion of each task.	
			4. The unit's special equipment is always ready to be deployed on short notice.	
F 4.3				
Sustainment				
	F 4.3.1	Food and water are properly stored and maintained.	**Standard Met** 1. The Company orders the supply of fresh, frozen, chilled and dry rations based on the	

			mission-specific cycle (e.g: 30/60 days) and provides them to subordinate units. Ref.: UNMIM 9.9.7	
			2. Storage for deep freeze (when required), cold (7days) and dry food is available at each contingent location and food storage facilities include appropriate temperature monitoring and control devices. Ref.: UNMIM 9.9.7	
			3. The rations are stored in date order to allow for stock rotation.	
			4. Food items are separated and segregated appropriately in store.	
			5. The unit keeps temperature logs and they are up to date.	
			6. Separate static water storage for drinking and bulk water is provided for a minimum of three days water per person.	
			7. Each person of the Engineer unit receives a minimum of 4.5 l of drinking water per day and has access to treated bulk water for cleaning, shower, ablutions and other uses (80 l/ 3 days). Ref.: UNMIM 9.4.3 (Comment: Check mission specific standards in the Mission Support plan.)	
	F 4.3.2	The Catering procedures are maintained properly.	**Standard Met** 1. Stock book is kept, and contents are accurate.	
			2. Catering Officer understands the rations demands process and the Ceiling Man-day Rate (CMR) allocation of rations.	
			3. The Unit conducts Composite Ration Packs (CRP) and Bottled water stock checks regularly.	
			4. The Unit reports stocks replenishment requirements in a timely manner.	
	F 4.3.3	Weapons & ammunition are well maintained and stored in proper way.	**Standard Met** 1. The last COE verification inspection has identified that Ammunition is stored in accordance with UN standards. Ref.: UN Ammunition Manual 1.15.2.1 and Annex C/ part B (Comment: As identified by the Senior Ammunition Technical Officer (SATO).)	
			2. Condition and shelf-life of ammunition are in accordance with UN standards. Ref.: UN Ammunition Manual 1.15.2.1 and Annex C/ part C & D. (Comment: Based on ATO report as identified by the Senior Ammunition Technical Officer (SATO).)	
			3. A registry for all ammunition in the national language with copies available in the mission language is maintained. Ref.: SOP Loss of weapons & ammunition 2019,	

			para 13 &14 (Comment: The registry must contain the following categories: Associated ammunition category, Type, Caliber, LOT and batch number, Number of each type, Location, Purpose of Issuing Ammunition, Date and time of Issue.)	
			4. Monthly reports on the status of their weapons, weapons-related equipment and ammunition IAW the SOP Loss of weapons & ammunition para 19 are issued to the HOMC.	
			5. Any Loss of weapons and ammunition are reported immediately through the chain of command in accordance with mission-specific guidance.	
			6. The unit maintains a registry for each weapon and weapon related equipment in the national language with copies available in the mission language. Ref.: SOP Loss of weapons & ammunition 2019, para 13 &14. (Comment: The registry must contain the following categories for each weapon of the Battalion: type; make; caliber; serial number; total number of each type; weapon location; user name; reason for issuing; date and time when issued.)	
	F 4.3.4	The Eng unit maintains its facilities clean and healthy. (Comment: COE Manual 2020 Chapter 3, Annex B.)	**Standard Met** 1. Waste disposal bins are placed at appropriate places and adequate in number.	
			2. The Unit has the required Manuals and Guidelines on Hygiene.	
			3. All facilities have hygienic equipment to keep a clean and healthy environment.	
			4. No open drains in the operating base.	
			5. Accommodation, ablution, laundry facilities, kitchen& dining hall are clean.	
			6. The Unit has an assigned hygiene officer who conducts regular hygiene inspections of all facilities (Kitchen, dining hall, office spaces, accommodation, food storage, laundry, ablution) of the Eng Unit and sub-ordinate units. (Comment: Evaluation based on provided records of the inspections by the unit.)	
	F 4.3.5	Firefighting measures are well prepared and put in place.	**Standard Met** 1. All areas (accommodations, stores, workshops, offices, kitchens etc.) meet with and are used in accordance with require Fire Safety Management regulations and policies.	
			2. All personnel received the appropriate Fire Safety, Prevention, and Fighting Training and have all Fire related Exercises and Drills (Firefighting and evacuation) been	

			conducted and recorded.	
			3. All Fire safety and fighting related equipment, posters/signs, and Personnel Protection Equipment (PPE) in place with evidence of regular checks, tests, and maintenance along with related reports and records.	
			4. All Fire Safety and Prevention measures related to different types of fires in place and recorded.	
			5. There are valid Fire Safety related documentations (Fire Safety, Prevention and Fighting SOP) including Fire Safety Plan, Fire Emergency Evacuation Plan and Immediate Fire Emergency Response Plan.	
			6. Fire Risk Assessments and Fire Safety Inspections for all buildings /locations/ Ops are conducted and documented?	
	F 4.3.6	POL is properly stored and maintained.	**Standard Met** 1. POL storage is provided as per Mission standards and containment basins with enough capacity are placed under all fuel tanks and fuel collection points. Ref.: UNMIM 2.14.5	
			2. Eng Unit maintains records of (daily/weekly/monthly) generator fuel use (in L), ideally via the use of meters, as requested as Mission Support.	
			3. Engineer Unit has sufficient stock levels of spare parts and lubricants for Contingent Owned Equipment and a national support plan is in place to obtain these parts from their nation when required. (Comment: Check if un- serviceable equipment could be linked to lack of spare parts.)	
			4. POL storage and internal distribution within sub-units are defined complies with UN regulations for environmental protection. Ref.: UNMIM 9.4.4 (Comment: Containment basins must be placed under all fuel tanks, generators, and fuel collection points)	
F 4.4				
Medical support				
	F 4.4.1	The unit has the required levels of equipment and supplies to ensure medical support Ref.: COE manual Chapter 3 Annex C	**Standard Met** 1. The last COE verification inspection has identified that 90% or more of MEDICAL HOSPITAL (level 1) category (as per DOS KPI ME categories) are available and serviceable.	
			2. 60 days of medical supplies and consumables are available. (Comment: Needs to be checked by Medical professional of the Sector/ Force)	
			3. Proper stores for consumables and for	

			medical equipment are available. (Comment: Is there an AC unit and registration for the temperature of drug store?)	
			4. Medical equipment for assigned task is enough to perform ALL assigned tasks without limitation. (Comment: Written comments according evaluator assessment are required.)	
			5. The last COE verification inspection has identified that 90% or more of MEDICAL AMBULANCE category (as per DOS KPI ME categories) are available and serviceable.	
			6. The last COE verification inspection has identified that 90% or more of MEDICAL EQUIPMENT category (as per DOS KPI ME categories) are available and serviceable.	
			7. The last COE verification inspection has identified the Self Sustainment category of MEDICAL LEVEL 1 category (as per DOS KPI categories) are available and serviceable.	
			8. The last COE verification inspection has identified the Self Sustainment category of COMMUNAL FIRST AID category (as per DOS KPI categories) are available and serviceable.	
			9. The last COE verification inspection has identified the Self Sustainment category of BUDDY FIRST AID (BFA) category (as per DOS KPI categories) are available and serviceable.	
			10. The last COE verification inspection has identified the Self Sustainment category of HIGH-RISK AREAS (EPIDEMIOLOGICAL) category (as per DOS KPI categories) are available and serviceable.	
			11. 100% of unit personnel deployed with a first aid kit. (Comment: Conduct spot checks)	
			12. 100% of tourniquets available in all first aid kits. (Comment: Conduct spot checks)	
	F 4.4.2	Level 1 of the unit can provide standard medical services at a static location. Ref.: COE manual Chapter 3 Annex C.	**Standard Met** 1. Level 1 has a treatment capacity of 20 ambulatory patients per day and a holding capacity of 5 patients for up to 2 days.	
			2. Level 1 has two medical officers and six paramedics/ nurses.	
			3. Level 1 maintains records of treated personnel and provides referrals (recorded) for treatment of personnel at Level 2/3.	
			4. Level 1 personnel can name the determined higher-level treatment facilities identified for the Battalion by the Force Medical Officer.	
			5. The level 1 conducts routine sick calls and	

			the manages minor sicknesses and injuries among personnel for immediate return to duty.	
			6. The Level 1 provides advice to the contingent personnel on disease prevention.	
			7. The level 1 provides medical risk assessments and contributes to determine force protection measures within the area of operation (AOR) of the Company.	
			8. The Level 1 has a designated isolation possibility for infectious patients. (Comment: Isolation facilities can be in the level 1 or in the camp.)	
	F 4.4.3	Level 1 provides regular Buddy First Aid refresher training to unit personnel.	**Standard Met** 1. Training is provided at least every 3 months to all unit personnel and is documented (incl. participants). (Comment: Training should be conducted during pre-deployment training and be recorded.)	
			2. Training includes application of Tourniquets for Extremity Hemorrhage .	
			3. Training includes Wound Packing for Limb Injuries not Amenable to Tourniquet Application including Application of Emergency Pressure Bandages.	
			4. Training includes Airway Management procedures and techniques.	
			5. Training includes areas like Fracture Immobilization, Burns, Bites and stings.	
			6. Casualty Movement Techniques, CASEVAC procedures and request are included in the training.	
			7. Training on healthcare policies and procedures is included.	
	F 4.4.4	Level 1 is organized, trained and equipped to provide emergency medical services for the unit Ref.: COE manual Chapter 3 Annex C	**Standard Met** 1. Level 1 is able to split into two forward medical teams (1 medical officer and 3 paramedics/nurses in each).	
			2. Level 1 emergency resuscitation equipment and drugs are prepared, portable and transportable by helicopter.	
			3. Level 1 equipment includes Fluids, Splints and bandages, Surgical sets for minor surgical procedures, Field dispensary, Stretchers	
			4. The level 1 provides (is equipped and trained for) casualty collection from the point of injury/wounding.	
			5. The level 1 provides limited triage and stabilization of casualties.	
			6. The level 1 prepares casualties for evacuation to the next level of medical capability or the appropriate level of medical	

			facility depending on the type and gravity of the injuries.	
F 4.5				
Environmental Management				
	F 4.5.1	The military unit has implemented effective environmental measures related to Water and Wastewater management in the Permanent Operating Base. Ref.: DPKO/DFS Environmental Policy for UN Field Missions, 2009.6; DPKO /DFS Environmental Guidelines for UN Field Missions (2007); DPKO /DFS Waste Management Policy for UN Field Missions (2015.6).	**Standard Met** 1. The unit maintains records of (daily/weekly/monthly) water consumption (in L), ideally via the use of meters. (Comment: Please also note if water meters are in place or not.)	
			2. The unit maintains records of data on (daily/weekly/monthly) water abstraction (in L), if applicable (e.g. boreholes), ideally via the use of meters. (Comment: Please add the frequency of records in the Comment field e.g. quarterly.)	
			3. The unit reports data on water consumption and/or abstraction (in L) to Mission Support, as per the requested frequency.	
			4. The unit demonstrates the implementation of water conservation measures (harvest water, use treated wastewater…), as per Mission Support Directive. (Comment: List examples of best practices implemented.)	
	F 4.5.2	The military unit has implemented effective environmental measures related to solid and hazardous waste management in the Permanent Operating Base. Ref.: DPKO/DFS Environmental Policy for UN Field Missions, 2009.6; DPKO/DFS Environmental Guidelines for UN Field Missions (2007); DPKO/DFS Waste Management Policy for UN Field Missions (2015.6).	**Standard Met** 1. The unit maintains records (daily/weekly/monthly) of the amount of general waste produced (in Kg), as requested by Mission Support.	
			2. The unit reports data on the generation of general solid waste (in kg) to Mission Support, as per the requested frequency.	
			3. The unit demonstrates proper segregation of general waste in color-coded bins (e.g. composting, paper, plastic, metals, etc).	
			4. The unit demonstrates proper hazardous waste management practices (eg: hazardous waste inventory, proper handling, and storage in place), as per Mission Support Directive.	
			5. The unit demonstrates proper management of medical waste at Level 1 hospitals (incl. medical waste segregation and incineration process inappropriate medical incinerator), as per the Mission Support Directive.	
			6. The unit demonstrates efforts to take action on waste management of non-functional COE and expired materials by actively communicating with the concerned Mission units (COE, PDU, Environment, FMU,	

			etc.) and/or showing plans for the repatriation of non -functional COE.	
	F 4.5.3	The military unit has implemented effective environmental measures related to energy management in the Permanent Operating Base. Ref.: DPKO/DFS Environmental Policy for UN Field Missions, 2009.6; DPKO /DFS Environmental Guidelines for UN Field Missions (2007).	**Standard Met** 1. The unit maintains records of (daily/weekly/monthly) electricity demand (in Kwh), ideally with the use of meters, as requested by Mission Support.	
			2. The unit maintains records of (daily/weekly/monthly) generator fuel use (in L), ideally via the use of meters, as requested as Mission Support.	
			3. The unit reports data on electricity demand (in Kwh) and generator fuel use (in L) to Mission Support, as per the requested frequency.	
			4. The unit demonstrates containment basins with berms are positioned under fuel storage, generator sets, and used POL storage to prevent soil contamination, oil separators are provided to the basins and to concrete floors beneath the generators.	
			5. Emergency containment measures are immediately undertaken, using spill kits as appropriate, to reduce as much as practicable discharges to the environment, and any such incidents are immediately reported to Mission Support/Environment Unit.	
			6. The unit demonstrates best practices to reduce fuel and electricity consumption, and realize energy efficiencies (eg: generator synchronization, reduced vehicle idling, turning off ACs, Replacement of conventional bulbs with LED). (Comment: List the examples of actions.)	
	F 4.5.4	The military unit has implemented effective environmental measures related to overall environmental management in the Permanent Operating Base. Ref.: DPKO/DFS Environmental Policy for UN Field Missions, 2009.6; Draft DPKO/DFS Environmental Guidelines for UN Field Missions (2007); DPKO /DFS Waste Management Policy for UN Field Missions (2015.6).	**Standard Met** 1. A focal point is appointed and conducts site inspections regularly.	
			2. The unit implements the recommendations from the environmental inspection report in due time.	
			3. The unit complies with the duties of peacekeepers as stated in the UNMIM (United Nations Military Unit Manual). (Comment: UN Military units duties are: 1. Bring empty (plastic) water bottles used during patrols back to camps for proper disposal (Do not throw away bottles/wraps directly into nature). 2. Avoid bringing to the area of operations plastic cutlery as well as using it 3. Undertake energy conservation measures: switch off all appliances, lights, and air conditioning when not in use. 4. Avoid vehicle idle time as much as possible.	

UN Military Engineer Unit - Functions

			5. Undertake water conservation measures, especially in water-scarce areas. 6. Do not bring any plant/seeds from the country of origin which is not endemic to the country of deployment, and vice versa. 6. Do not acquire wild plants and animals, alive or dead. Avoid using charcoal. 7. Know where the cultural, religious and historical sites are, and behave according to local sensitivities.)	
			4. The unit demonstrates the use of the STOP tool (Stop, Think, Observe, Plan) when undertaking a new task to assess and mitigate risks to the environment. (Comment: Explanation: *Stop before you start a new task/operation. Think, does the task involve issues (e.g. fuels, water, waste) that could affect the environment? Observe, the environment around you (e.g. drains, streams, trees). Plan, the task to avoid any damage to the environment.)	
			5. In case of a site closure, the unit undertakes the necessary clean-up activities, with Mission Support advice, to leave the premises and physical environment in the conditions it was provided to them" as per COE Manual language. (Comment: If this cannot be evaluated score as Non Applicable.)	
			6. The unit conducts regular environment awareness briefings (every 3 months).	
UN Military Engineer Unit Function 4: SUSTAINMENT (Overall Assessment):				
Observation & Recommendations				

UN Military Engineer Unit - Functions

UN Military Engineer Unit Function 6: COMMUNICATION

Description: Engineer Unit's Headquarters Support Platoon operates under the Logistics Staff Section and it includes a Signal Section. Signal section provides suitable equipment for internal Signal, telephone Signal from the UN mission to the respective countries and access to Email, Internet for personal, office or welfare purposes is available in the Engineer Unit.

UN Military Engineer Unit Function 6: COMMUNICATION				
Sub-Task	**Standard Number**	**Standards**	**Indicators**	**Score**
F 6.1				
Planning & Communications architecture				
	F 6.1.1	The unit has established a communications architecture including enabling infrastructure for internal communications with subordinate and supporting units.	**Standard Met** 1. The Communications component is trained and organized to support the communication infrastructure besides being proficient in basic military tasks. Ref.: Subjective assessment of evaluators.	
			2. The communication architecture is aligned with the tactical deployment and is designed to cater for all operational tasks and contingencies. (Comment: This means that for all possible operational scenarios, the communication plan ensures effective communication with primary, alternate, contingency and emergency networks clearly defined.)	
			3. The communications architecture is coordinated with higher HQs and describes the integration of the unit's communication equipment with higher, lower and support elements as well as other Mission components.	
			4. The communication architecture supports command and control of the entire unit, situational awareness, secure communications with Higher HQs, and coordination with neighboring units and internally.	
			5. The internal communication system incorporates telephonic and data communication between static elements.	
			6. Radio communications is used for Command & Control of mobile operations based on identified Primary, Alternate, Contingency, and Emergency Networks.	
			7. The communications architecture ensures availability of enabling infrastructure such as repair facilities and battery charging devices.	
	F 6.1.2	The communication plan for the conduct of an operation/ task is incorporated in the order of the Engineer Unit. (Comment: Check Company Orders.)	**Standard Met** 1. Signal Instructions are issued clearly to include details of code words, radio net diagrams and frequency management issues during operations and static duties.	
			2. All command relationships of units conducting the operation are defined in the order.	
			3. Available communications networks to conduct the operation are defined.	

			4. Primary, alternative (including SATPHONE), command and emergency means of communication during each phase of an operation and for static duties are defines in the order.	
			5. Mitigation measures for communication disruptions are outlined in the order.	
			6. The communication plan describes all available existing communication means.	
			7. Frequencies & Call signs have been established for radio communications of all units.	
	F 6.1.3	Signal component supports planning and conduct of all unit operations. (Comment: Can only be valuated if a planning process is conducted during the evaluation.)	**Standard Met** 1. The Signal component monitors radio traffic during the operations and maintain log to that effect using existing radio sets.	
			2. The Signal component develops communications' estimate of the own unit that includes details of equipment (spares and reserves) that are available.	
			3. The Signal component evaluates the supportability and feasibility of the signal plan for each proposed course of action.	
			4. The Signal component develops a signal support plan for the approved operations plan.	
			5. The Signal component consults with higher, lower, and support elements and other mission components to ensure effective communications during operations.	
			6. The Signal component manages tactical radio and telephone networks.	
F 6.2				
Support to Operations				
	F 6.2.1	The Engineer unit has established an effective telephone communications network. Ref.: UN COE manual Chapter 3, Annex B.	**Standard Met** 1. The unit operates telephonic communications to all other static locations of unit. It includes unit's HQs, stationary elements (such as offices, workspaces, observation posts and guard posts) and sub-units located at the main base camp.	
			2. The unit operates and maintains a switchboard.	
			3. All telephone lines of the unit are operational 24/7.	
	F 6.2.2	The Engineer unit has established and maintains effective radio communications networks. Ref.: UN COE manual Chapter 3, Annex B.	**Standard Met** 1. The unit operates & maintains a VHF/UHF command and control net, down to the sub-unit (section/ squad) level.	
			2. The unit operates & maintains one VHF/UHF/HF administrative net.	
			3. During tactical and mobile operations the unit commander can communicate with sub-units and sub elements which are unable to communicate via telephone and beyond the range of VHF/UHF- FM base station communications.	
			4. Radio operators are able to site, establish and operate radio repeater detachments based on vehicles and man-pack.	

UN Military Engineer Unit - Functions

			5. Unit provides a command and control net using non-vehicular mounted HF communications equipment.	
			6. Communication channels are operational at all times (24/7) within the unit.	
			7. Rear linked communications between the contingent and the home country is established and includes telephonic communications.	
	F 6.2.3	Personnel of the Engineer unit conducts effective radio communications	**Standard Met** 1. Radio communication procedures are outlined in a unit SOP and aligned with UN procedures. (Comment: The SOP includes guidelines for transmitting phonetic alphabet and numbering and procedure words.)	
			2. Radio communications with higher HQs is conducted in English based on UN procedures.	
			3. Messages transmitted over radio use defined procedure words.	
			4. Radio operators transmit messages that are clear and brief.	
			5. Radio checks are conducted before conduct of each task with all stations involved in the task.	
			6. Orders to conduct tasks (verbal or written) include always Primary, alternative, command and emergency frequencies ((including SATPHONE).	
			7. Officers and radio operators are able to use basic radio equipment in service in their unit and to operate them according to the internationally recognized procedure.	
UN Military Engineer Unit Function 6: COMMUNICATION (Overall Assessment):				
Observation & Recommendations				

UN Military Engineer Unit - Functions

UN Military Engineer Unit Function 7: TRAINING

Description: Training for military units is broadly separated in the United Nations into Pre-Deployment Training (PDT) and In-Mission Training. During PDT TCCs must train their personnel to operate as a UN Engineer Unit in the specific UN operating environment to which they will deploy and to UN standards. This means that TCCs must re-orientate the operational capabilities of a company, within the parameters set by the UN, so that it can operate in a peacekeeping environment. The focus of In-Mission Training is on Mission -specific induction training and the maintenance of capabilities and skills. The current function is focused on the training to be conducted during the deployment to a UN PKO.

Ref: UNIBAM Chapter 5 and Operational Readiness Preparation (ORP) Guidelines 2018.

UN Military Engineer Unit Function 7: TRAINING				
Sub-Task	**Standard Number**	**Standards**	**Indicators**	**Score**
F 7.1				
Training plans and documents				
	F 7.1.1	The unit has facilities, resources, and training related documents to conduct regular training and rehearsals in the mission area. Ref.: UNIBAM Annex H	**Standard Met** 1. The unit has the infrastructure to facilitate contingent training (classrooms and appropriate IT infrastructure).	
			2. The unit maintains a current record of all training policies, SOPs, guidelines applicable to the contingent, including UN Training Policy and Guidelines, FC's Training Directive, FHQ/SHQ training documents, and instructions. Ref.: 2010 Policy: Training for all UN Peacekeeping Personnel; 2019 Guidelines: Design, Delivery and Evaluation of Training (Training Cycle); 2015 Policy: Operational readiness Assurance and Performance Improvement; 2018 Guidelines: Operational Readiness Preparation for Troop Contributing Countries in Peacekeeping Missions.	
			3. The unit has a written training program in line with guidance/FC Training Directives.	
			4. The unit is aware of UN websites/resource hub for PKO training manuals and can access to the same and developed a training plan based on referenced documents.	
			5. Resources are planned and assigned to the unit to conduct training and rehearsals and there is a reporting mechanism in place and used.	
	F 7.1.2	The unit has developed training plans to improve on identified performance shortfalls. Ref.: 2019 Guidelines: Design, Delivery and Evaluation of Training (Training Cycle); 2015 Policy: Operational readiness Assurance and Performance Improvement) 2019 Guidelines: Combined Military and Police Coordination Mechanisms in Peace Operations	**Standard Met** 1. The UN unit is keeping records of After Action Reviews, in-mission evaluations, Performance Improvement Plans and Instructions from SHQ/FHQ.	
			2. Training plans are aligned with Mission specific guidance (SOPs, FC's Training directive and FHQ/SHQ instructions).	
			3. Previous observations/ recommendations of Pre-deployment visits and in-mission	

			evaluations are incorporated into training plans to improve on identified shortfalls. (Comment: Note that for units that have received a Pre-Deployment Visit before their deployment/ rotation the contingent commander should also have knowledge on provided improvement recommendations (not mandatory).)	
			4. Training plans consider training recommendations of the unit's performance improvement plan.	
			5. Training plans are based also on inputs from all staff functions of the company to synchronize training with operational activities.	
			6. Training plans have been coordinated with Force/ Sector HQ to ensure that temporary capability reduction during scheduled training does not degrade mission performance and have been approved by the Sector HQ.	
F 7.2				
Conduct, Monitoring and Reporting of training activities.				
	F 7.2.1	The unit has effectively conducted Awareness Training.	**Standard Met** 1. A plan has been developed to ensure that 100% of unit members completed the induction in the form of awareness generation. (Comment: Awareness generation sessions are to be held periodically as refreshers or to emphasize some issues of importance to missions.)	
			2. Attendance of unit personnel at mission-specific induction training has been recorded by name and 90% of unit personnel have attended mission-specific induction in the form of awareness generation. (Comment: Awareness generation sessions are to be held periodically as refreshers or to emphasise some issues of importance to missions.)	
			3. There is a training plan in place to meet documented induction training shortfalls.	
			4. A plan has been developed to periodically train and inform the personnel on the changing threat scenarios. Ref.: UN Force Protection Guidelines	
	F 7.2.2	The unit conducts regular refresher for all unit members. Ref.: 2019 Guidelines: Design, Delivery and Evaluation of Training (Training Cycle); 2015 Policy: Operational readiness Assurance and Performance Improvement.	**Standard Met** 1. 90% of unit personnel have received refresher training (and passed the associated test of objectives) at least once per 6 months. (Comment: Needs to be documented. Check training plan and training log book.)	
			2. 1 or 2 Buddy First Aid, CASEVAC, and Heli Evacuation procedures courses every six months. Ref.: 2020 Policy: Casualty Evacuation in the Field, and UN Buddy First Aid application.	

			3. At least 1 weapon handling training for individual and crew-served weapons (including calibration) and firing practice every six months. (Comment: The unit must have requested a live firing range if no range is available.)	
			4. One ROE training every three months focusing on the correct practical application of ROEs in mission-specific scenarios and ROE reporting requirements.	
			5. One session per deployment on the UN Code of Conduct and SEA prevention training.	
			6. Two trainings every six months on radio communications, voice procedures (including communication with helicopters), and navigation.	
	F 7.2.3	The unit personnel have received mandatory conduct and discipline and SEA prevention training (pre-deployment and in-mission). Ref.: 2018 Policy: Gender Responsive United Nations Peacekeeping Operations.	**Standard Met** 1. A unit SOP (or recorded order) describes that the unit has to conduct in-mission training on UN standards of conduct, including zero-tolerance policy on sexual exploitation and abuse (SEA), (which may occur in coordination with the Conduct and Discipline Team).	
			2. Written records show that the unit conducted UN standards of conduct, including a zero-tolerance policy on sexual exploitation and abuse (SEA) prior to deployment.	
			3. A record is maintained to confirm that all unit members (100%) have received conduct and discipline induction training since arrival in the mission. (Comment: For all unit members that have not yet completed the training, a record of an ongoing schedule to achieve compliance needs to be presented.)	
			4. There is a record that 100% of unit personnel have taken the mandatory SEA Training Program via E-learning or in a classroom setting. (Comment: For all unit members that have not yet completed the SEA E-Learning Program, a record of an ongoing schedule to achieve compliance needs to be presented)	
			5. Gender responsive sensitive topics are delivered by a combination of male and female instructors.	
			6. Conflict related sexual violence and human rights training activities are conducted.	
			7. Participation of every soldier is recorded.	
UN Military Engineer Unit Function 7: TRAINING (Overall Assessment):				
Observation & Recommendations				

UN Military Engineer Unit - Tasks

UN Military Engineer Unit Task 2: Obstacle Crossing (Combat Engineering Task)

Description: The unit is tasked to construct standard / improvised crossing over obstacles using expedients in a given time. It is basically to evaluate if the unit is capable to construct a crossing using the available resources like the earth moving equipment. Bailey bridge construction may be evaluated only if the unit has the bailey bridge capability. In this case, the unit is considered for establishing an entry and exit approach for men and vehicles across a water obstacle.

Ref: UNMUM Engineering Unit and CET Search and Detect Manual 2.2 and Appendix 2 to Annex E

UN Military Engineer Unit Task 2: Obstacle Crossing (Combat Engineering Task)				
Sub-Task	**Standard Number**	**Standards**	**Indicators**	**Score**
T 2.1				
Planning and Preparation				
	T 2.1.1	Commander performs engineer appreciation for the task.	**Standard Met** 1. Conduct of quick assessment on the obstacle: (kind of obstacle, location, access the terrain, soil, time limit for crossing obstacle etc)	
			2. Assess the time and resources required for the task.	
			3. Analyze the own capability to execute the task	
			4. Request the additional support (DMS, Force Engineer etc)	
			5. Assess the mobilization and deployment requirements.	
			6. Tactical movement plan to the obstacle.	
			7. Asses the crossing for temporary or permanent. (standard or improvised)	
	T 2.1.2	Obstacle crossing task plan is prepared.	**Standard Met** 1. An obstacle crossing plan is prepared (with a sketch, map, all calculations of the required equipment etc).	
			2. Ensures the planning is in line with task order issued by higher HQ.	
			3. Planning is clearly outlined the specific period for the different stages of the crossing.	
			4. Planning of the special requirements, support arrangement, and liaison instruction is included.	
			5. Logistic supply plan (supply of construction materials, fuel, spare parts for the equipment, also include food and water supply for the troops).	
			6. Security plan and MED/CASEVAC plan.	
			7. Planning of procurement of the necessary materials by the unit if applicable.	
	T 2.1.3	Grouping (assign sub-units to fulfill the task) is organized based on the envisaged task.	**Standard Met** 1. All types of safety instructions must be issued to every individual and they are ensured during the entire execution of the task.	
			2. Grouping of the sub-units with their appropriate equipment (site preparation, site survey, earth work, bridge construction etc)	
			3. Mobilization – able to mobilize heavy equipment to the site.	
			4. Store management and proper procurement process if applicable and required.	
			5. Assign/coordinate the Force Protection party.	

UN Military Engineer Unit - Tasks

			6. Logistics support and support arrangement coordination.	
			7. Commanders of the sub-units conduct spot checks for all the equipment before conducting task execution.	
	T 2.1.4	The unit commander issues the order for the construction of obstacle crossing.	**Standard Met** 1. Order describes a clear and concise statement of what the unit must accomplish.	
			2. The order describes the specific activity with a specific timeframe to be accomplished by each sub-unit.	
			3. The order includes the requirement of resources (store & manpower with locations) including transport requirement.	
			4. Support arrangements are coordinated with higher HQs.	
			5. The order describes Command and control measures including reporting instructions and communication methods.	
			6. Logistical concerns/resupply of the materials and other supply considerations are instructed.	
T 2.2				
Conduct of Task				
	T 2.2.1	Commander exersices effective command and control.	**Standard Met** 1. Commanders react quickly to situation developments and report the progress to a higher HQ.	
			2. Safety procedures must be ensured at all times.	
			3. Proper procedures of the procurement must be followed as instructed.	
			4. Commander ensures all coordination for special requirements, support arrangements for execution of the task.	
			5. Force protection is maintained at all times during the execution of the task.	
	T 2.2.2	Obstacle crossing operation is conducted as planned.	**Standard Met** 1. A topographic survey for ground leveling at the crossing site is carried out and GPS is used to mark maps and layout sketches.	
			2. A site survey is conducted, and the survey team estimated earthwork requirements for obstacle crossing.	
			3. Ensure the proper earthmoving task execution including earth moving plants, entry and exit approaches with appropriate equipment (dozer, loaders, excavators etc).	
			4. Construction of the crossing (bridging, or river crossing etc) is executed timely.	
			5. The Unit is sufficiently self-sustained to undertake tasks and has the ability to construct crossing using appropriate stores and expedients.	
	T 2.2.3	The obstacle crossing is accomplished effectively.	**Standard Met** 1. The obstacle crossing task is completed as planned.	
			2. Force protection measures provided / to be ensured while on move and execution of tasks.	
			3. Spot check on all equipment is conducted and proper	

UN Military Engineer Unit - Tasks

			reporting must be ensured.	
			4. Movements are conducted through obstacle crossing safely.	
			5. Proper handover to the authorities is conducted.	
UN Military Engineer Unit Task 2: Obstacle Crossing (Combat Engineering Task) (Overall Assessment):				
Observation & Recommendations				

UN Military Engineer Unit - Tasks

UN Military Engineer Unit Task 3-1: CONDUCT REACTIVE SEARCH TASKS IN SUPPORT OF EOD UNITS (Improvised Explosive Device Disposal, IEDD)

Description: In order to return a scene of EOD action to an explosively safe state, CET Search units are able to clear a safe path for IED Operator(s) to gain access to a known or suspected IED. This task is generally performed where the area of unproven terrain to be traversed exceeds the capability of on-scene IEDD Unit(s).

Ref: UN Military Engineer Unit and Counter Explosive Threat (CET) Search and Detect Manual, Annex B and Annex E; IMAS 10.20, Safety & occupational health - Demining worksite safety, Chapter 5.1; IMAS 08.40 Making mine and ERW hazards.

UN Military Engineer Unit Task 3-1: CONDUCT REACTIVE SEARCH TASKS IN SUPPORT OF EOD UNITS (Improvised Explosive Device Disposal, IEDD)				
Sub-Task	**Standard Number**	**Standards**	**Indicators**	**Score**
T3-1.1				
Planning and Preparation				
	T 3-1.1.1	Unit commander plans and prepares for the task. Ref.: UN Military Engineer Unit and Counter Explosive Threat (CET) Search and Detect Manual, Annex B.	**Standard Met** 1. Commander obtains all available information (from CET Cell or Units C2 element) related to the task including the nature of known, or suspected threat.	
			2. Commander plans and prepares for the execution of the task. (What effects the Search Team is expected to achieve, appropriate search capability to counter assessed threats, minimize the disruption and damage, and proper TTP.)	
			3. Calculates time and resources requirements (equipment and manpower).	
			4. Defines search capabilities and systematic procedures and techniques. (All arms or Specialist Search). Ref.: Annex B.6.1-3	
			5. Complete all preoperational equipment inspections, state of equipment, function tests, and take necessary corrective actions.	
			6. Commander coordinates with other agencies and works in close coordination with the Search Advisor.	
			7. Analyze the own capability to execute the task and request additional support if needed. Commander verifies required supporting elements (EOD, Military working dogs, Counter Radio-controlled electronic warfare, IRS, MP, Force Protection etc).	
	T 3-1.1.2	Unit commander gives orders to conduct reactive search tasks in support of the EOD Unit.	**Standard Met** 1. The order describes a clear and concise statement of what the unit must accomplish.	
			2. The order describes the specific activity with a specific timeframe to be accomplished by each sub-unit.	
			3. Requirement of resources (store & manpower with locations) including transport requirement.	
			4. Command, control, and communications to be employed including coordination with supporting elements (FP, EOD etc.)	
			5. Security plan and MED/CASEVAC plan.	
			6. Logistical concerns/resupply of the materials and	

UN Military Engineer Unit - Tasks

			other supply considerations are instructed.	
	T 3-1.1.3	TTPs and SOPs to be reviewed and rehearsed.	**Standard Met** 1. Vulnerable point check drills.	
			2. Methods of marking searched areas.	
			3. Contact/Ambush Drills.	
			4. Procedures for collecting forensic evidence.	
			5. Procedures for treating casualties and CASEVAC.	
			6. Location and route to RV with the outer Cordon/FP commander.	
			7. Disposition and means of requesting support from QRF, CASEVAC or other mission enablers.	
T3-1.2				
Conduct of Task in support of EOD units				
	3-1.2.1	The search team executes necessary coordination. Ref.: UN Military Engineer Unit and Counter Explosive Threat (CET) Search and Detect Manual, Annex B.	**Standard Met** 1. Team Commander issues confirmatory orders to the Search Team at the scene if necessary.	
			2. Execute the search task using a four-stage framework (Secure ICP, isolate and dominate; execute the search; and secure and hand over.). Ref.: Annex B.5.1-4	
			3. Adhering to all relevant TTPs and SOPs consistent with known threat levels, FP measures and ROE.	
			4. The team commander liaises with the Incident Commander and EOD Team Leader to gather further relevant information related to the task.	
			5. Provide Incident Commander, EOD Team Leader with situational awareness regarding task progress and the estimated time of completion of the task.	
			6. The unit is sufficiently self-sustained to provide maintenance, supply, and other services during the assigned task.	
			7. Force protection is maintained at all times during the execution of the task.	
	3-1.2.2	Establishment of a Secure the Incident Control Point (ICP) Ref.: IMAS 10.20, Safety & occupational health - Demining worksite safety, Chapter 5.1	**Standard Met** 1. The Search team Commander is able to identify, determine and establish ICP where has been previously secured and searched.	
			2. Provide a clearly visible separation of hazardous areas (including demolition danger areas), cleared areas, and useable areas. Ref.: IMAS 10.20, Safety & occupational health - Demining worksite safety, Chapter 5.1	
			3. Control the movement of search worksite staff and visitors (including members of the public) at the worksite. Ref.: IMAS 10.20, Safety & occupational health - Demining worksite safety, Chapter 5.1	
			4. Safety measures are being applied and all findings are documented accordingly.	
	3-1.2.3	Isolate and Dominate the Target (Area/Point/Building) and Execute the Search	**Standard Met** 1. The target area must be isolated from outside influences by dominating the surrounding terrain.	
			2. Safe and hazardous areas within the worksite shall be separated by providing clear and consistent	

			marking. Ref.: “IMAS 08.40 Making mine and ERW hazards” for details of hazard marking.	
			3. Search member team should be directed to a segregated area, be searched away from others and from outside interference and nobody gets in or out when the search takes place.	
			4. The effects of an explosion should be considered in isolating the target area.	
			5. TCC uses its own Search TTPs. Search capabilities must be: - Effective, efficient, and safe leading to the detection and location of threats; - In line with the mission mandate; and In line with search principles (systematic, flexible, focused, and safe). Ref.: Annex B.	
			6. Search team Commander handed over to EOD team Commander for further activities. (Comment: A searched person is allowed to enter a controlled area and must remain supervised to be considered "searched". A searched building must have its access points controlled to be deemed "searched and secure". A searched route must be under continuous surveillance to be deemed "searched and secure". If a target has been searched, and after that is no longer under control it must be considered "unsearched and unsecured".)	
			7. The search Team remains on scene to provide continued Search support or returns to base as the tactical situation and direction with CET Coordination Cell dictate.	
			8. CET Search Team fills out a comprehensive Search Report with correct Grids, Areas, Search Methods, Sketches, and Findings. This report shall be transmitted to CET Search Coordination Cell.	
UN Military Engineer Unit Task 3-1: CONDUCT REACTIVE SEARCH TASKS IN SUPPORT OF EOD UNITS (Improvised Explosive Device Disposal, IEDD) (Overall Assessment):				
Observation & Recommendations				

UN Military Engineer Unit - Tasks

UN Military Engineer Unit Task 3-2: CONDUCT PREVENTIVE SEARCH TASKS IN SUPPORT OF FREEDOM OF MOVEMENT (FoM)

Description: Search Units can be deployed to conduct preventive, planned searches along routes, on vulnerable points (VP) and vulnerable areas (VA) as well as within buildings and other infrastructure. The Search Task can be executed with or without the support of other specialist assets (EOD, MWD, MP, etc.), although it is recommended to have at least an EOD unit on standby.

Ref: UN Military Engineer Unit and Counter Explosive Threat (CET) Search and Detect Manual, Annex B and Appendix 2 to Annex B; IMAS 10.20, Safety & occupational health - Demining worksite safety, Chapter 5.1; IMAS 08.40 Making mine and ERW hazards.

UN Military Engineer Unit Task 3-2: CONDUCT PREVENTIVE SEARCH TASKS IN SUPPORT OF FREEDOM OF MOVEMENT (FoM)				
Sub-Task	**Standard Number**	**Standards**	**Indicators**	**Score**
T3-2.1				
Planning and Preparation				
	T3-2.1.1	Unit commander plans and prepares for the task. Ref.: UN Military Engineer Unit and Counter Explosive Threat (CET) Search and Detect Manual, Annex B.	**Standard Met** 1. Commander obtains all relevant information (from CET Cell or Units C2 element) to the known or suspected threat including possible hotspots, danger area (DA), and adversary TTPs.	
			2. Terrain and Route analysis of routes along which explosives (IED. ERW, etc) have been or may be deployed to identify VPs and VAs.	
			3. Commander plans and prepares for the execution of the task. (What effects the Search Team is expected to achieve, appropriate search capability to counter assessed threats, minimize the disruption and damage, and proper TTP.)	
			4. Calculates time (critical timing to be met) and resources requirements (equipment including the use of heavy Engineering assets and manpower; and consideration of assigning temporary composite Route Clearance Packages (RCP) or Dedicated RCP Units as per high commanders directives). Ref.: Appendix 2 to Annex B.3.	
			5. Defines search capabilities and systematic procedures and techniques. (All arms or Specialist Search). (Comment: Annex B.6.1-3)	
			6. Complete all preoperational equipment inspections, state of equipment, function tests, and take necessary corrective actions.	
			7. Commander coordinates with other agencies and works in close coordination with the Search Advisor.	
			8. Analyze the own capability to execute the task and request additional support if needed. Commander verifies required supporting elements (EOD, IEDD, Military working dogs, Counter Radio-controlled electronic warfare, IRS, MP, Force Protection etc)	
	T3-2.1.2	Unit commander gives orders to conduct preventive search tasks in support of Freedom of Movement. Ref.: Annex B, and Appendix 2 to Annex B.	**Standard Met** 1. The order describes a clear and concise statement of what the unit must accomplish.	
			2. The order includes terrain and route analysis and identified potential VPs and VAs.	

UN Military Engineer Unit - Tasks

			3. The order describes the specific activity (Patrol search, intermediate, or advanced route search) with a specific timeframe to be accomplished by each sub-unit.	
			4. Requirement of resources (Search equipment, use of heavy Engineering assets & manpower with locations) including transport requirement.	
			5. Command, control, and communications to be employed including coordination with supporting elements (FP, EOD etc.)	
			6. Security plan and MED/CASEVAC plan.	
			7. Logistical concerns/resupply of the materials and other supply considerations are instructed.	
	T3-2.1.3	TTPs and SOPs to be reviewed and rehearsed.	**Standard Met** 1. Vulnerable point check drills.	
			2. Contact/Ambush Drills.	
			3. Methods of marking searched areas.	
			4. Procedures for collecting forensic evidence.	
			5. Procedures for treating casualties and CASEVAC.	
			6. Location and route to RV with the outer Cordon/FP commander.	
			7. Disposition and means of requesting support from QRF, CASEVAC, or other mission enablers.	
T3-2.2				
Conduct of Task				
	T3-2.2.1	The search team executes necessary coordination. Ref.: UN Military Engineer Unit and Counter Explosive Threat (CET) Search and Detect Manual, Annex B.	**Standard Met** 1. Team Commander issues confirmatory orders to the Search Team at the scene if necessary.	
			2. Execute the search task using a four-stage framework (Secure ICP, isolate and dominate; execute the search; and secure and hand over.). Ref.: Annex B.5.1-4	
			3. Adhering to all relevant TTPs and SOPs consistent with known threat levels, FP measures, and ROE.	
			4. The team commander liaises with the Incident Commander and EOD Team Leader to gather further relevant information related to the task.	
			5. Provide Incident Commander, EOD Team Leader with situational awareness regarding task progress and the estimated time of completion of the task.	
			6. The unit is sufficiently self-sustained to provide maintenance, supply, and other services during the assigned task.	
			7. Force protection is maintained at all times during the execution of the task.	
	T3-2.2.2	Establishment of a Secure the Incident Control Point (ICP) Ref.: IMAS 10.20, Safety & occupational health - Demining worksite safety, Chapter 5.1	**Standard Met** 1. The Search team Commander able to identify, determine and establish ICP where has been previously secured and searched.	
			2. Provide a clearly visible separation of hazardous areas (including demolition danger areas), cleared areas, and useable areas. Ref.: IMAS 10.20, Safety & occupational health - Demining worksite safety, Chapter 5.1	
			3. Control the movement of search worksite staff and visitors (including members of the public) at the worksite.	

			Ref.: IMAS 10.20, Safety & occupational health - Demining worksite safety, Chapter 5.1	
			4. Safety measures are being applied and all findings are documented.	
	T3-2.2.3	Conduct all required post-task administrative requirements.	**Standard Met** 1. Target (VP or VA, or buildings and other infrastructure) area must be isolated from outside influences by dominating the surrounding terrain.	
			2. Safe and hazardous areas within the worksite shall be separated by providing clear and consistent marking. Ref.: "IMAS 08.40 Making mine and ERW hazards" for details of hazard marking.	
			3. The search team member (s) should be directed to a segregated area, be searched away from others and from outside interference and nobody gets in or out when the search takes place.	
			4. The effects of an explosion should be considered in isolating the target area.	
			5. TCC uses its own Search TTPs. Search capabilities must be: - Effective, efficient, and safe leading to the detection and location of threats; - In line with the mission mandate; and In line with search principles (systematic, flexible, focused, and safe). Ref.: Annex B.	
			6. Search team Commander handed over to EOD team Commander for further activities. (Comment: A searched person is allowed to enter a controlled area and must remain supervised to be considered "searched". A searched building must have its access points controlled to be deemed "searched and secure". A searched route must be under continuous surveillance to be deemed "searched and secure". If a target has been searched, and after that is no longer under control it must be considered "unsearched and unsecured".)	
			7. The Search Team remains on scene to provide continued Search support or returns to base as the tactical situation and direction with CET Coordination Cell dictate.	
			8. CET Search Team fills out a comprehensive Search Report with correct Grids, Areas, Search Methods, Sketches, and Findings. This report shall be transmitted to CET Search Coordination Cell.	

UN Military Engineer Unit Task 3-2: CONDUCT PREVENTIVE SEARCH TASKS IN SUPPORT OF FREEDOM OF MOVEMENT (FoM) (Overall Assessment):

Observation & Recommendations

UN Military Engineer Unit - Tasks

UN Military Engineer Unit Task 4: Explosive Ordnance Disposal, EOD (Combat Engineer Task)

Description: If other assets are not available, such as all-arms or specialist search teams, EOD can be tasked to conduct an all-arms search as directed by the Force Commander. Such tasks can be executed by day or night, be ordered on short notice, and can take place within a semi-permissive environment. Possible targets to search may include: • Regular and/or contingency Helicopter Landing Sites (HLS); • Temporary operating bases; • Vulnerable points and areas.

Ref: UN Military Engineer Unit and Counter Explosive Threat (CET) Search and Detect Manual; United Nations Peacekeeping Military EOD Unit Manual; and United Nations Improvised Explosive Device Disposal Standards, Chapter 6.

UN Military Engineer Unit Task 4: Explosive Ordnance Disposal, EOD (Combat Engineer Task)				
Sub-Task	**Standard Number**	**Standards**	**Indicators**	**Score**
T 4.1				
Planning and Preparation				
	T 4.1.1	EOD Team leader analysis potential threat and ensures the team's readiness for the search and detect task.	**Standard Met** 1. The EOD Team Leader receives and understands orders from the EOD Coordination Cell or Higher HQ (Engineer Unit) and obtains all available information related to the task.	
			2. The EOD Team leader ensures the capability to deploy personnel and equipment on short notice.	
			3. The Engineer unit commander/team leader ensures the EOD Team has appropriate capabilities and equipment to conduct a search and detect task.	
			4. The EOD Team leader ensures the team members' training on search and detect tasks including their knowledge for the conventional munitions in the AO and management of detecting and disposing of various explosives (according to the CMD Level 1, 2 or 3, Specialist CMD). Eg for Specialist- knowledge on the Liquid Propellent disposal, Maritime EO). (Comment: Each member knows their specific roles and is capable to handle the equipment. Evaluators interview with members.)	
			5. The EOD Team leader analyzes the own capability to execute the task and request and coordinate for additional support if needed.	
	T 4.1.2	EOD Team Leader prepares for the task and delivers his orders.	**Standard Met** 1. All information is relevant to the task including the known or suspected threat.	
			2. The order describes each team members' tasks are assigned with their equipment including effects of the EOD/ Search Team are expected to achieve and critical timings to be met.	
			3. The order describes the location and route to ICP, and location and route to the meeting point (RV) with the Cordon/Force FP Commander (if available).	
			4. Coordination with the cordon team and Force Protection team (UN forces, and local forces) is included.	
			5. The order describes Command and control measures including reporting instructions and communication methods.	
			6. The order describes the security plan and MED/CASEVAC plan including from the IED to Control Point and Control Point to Hospital.	
			7. The order describes disposition and means of requesting support from QRF, CASEVAC, or other mission enablers.	
			8. The EOD/ Search Team conducts movements to the meeting	

			point (RV location): Adhering to all relevant TTPs and SOPs consistent with known threat levels, FP measures, and ROE.	
T 4.2				
Conduct of Task				
	T 4.2.1	The EOD team conducts necessary measures at the EO site.	**Standard Met** 1. The EOD Team liaises with the Incident Commander to gather further relevant information related to the task.	
			2. The EOD team conducts an initial assessment of the explosive threat and assesses the requirement for mitigation measures such as cordon and evacuation. (Comment: Ensure the cordon is set to the appropriate distance. Depending on the size of the threat, cordon should be expanded and anyone within the new cordon must be evacuated before any work is done to mitigate the threat.)	
			3. The EOD Team establishes a secured Incident Control Point (ICP).	
			4. The EOD Team identifies specific hazards in EO areas and determines if the detected arms or explosives are to be neutralized on site, transported, or in some combination.	
			5. Team leader issues confirmatory orders to the EOD/ Search Team.	
			6. The EOD Team identifies a safe location for the storage and destruction site of the collected ammunition/explosives.	
			7. Communication to higher HQ and both inner and outer security cordons throughout the task is established, until complete.	
	T 4.2.2	The team disposes or removes the EO/ammunition and always renders safety.	**Standard Met** 1. Team members implement the protective measures during entire operations.	
			2. Appropriate safety measures are taken. (Public safety, Cordon Safety, and IEDD Team safety). Ref.: United Nations Improvised Explosive Device Disposal Standards, Chapter 6.	
			3. Appropriate disposal (disposal on spot) or removal methods (disarm and take the explosives/ammunition to the safe zone to dispose of) are used.	
			4. Threat assessment and a safe waiting period (soak time) are considered. (Primary soak time-70 min; Secondary soak time-10-15 min).	
			5. The Military Engineer Unit is sufficiently self-sustained during the assigned EOD task.	
			6. The unit takes proper safety measures during the transportation of the ammunition/explosives and ensures the international standard of transporting, handling, and storage of explosives. Ref.: IMAS 10.50-Storage, transport and handling of explosives.	
			7. The unit provides the Incident Commander and any other Elements with situational awareness regarding task progress and the estimated time of completion of the task.	
	T 4.2.3	The team adopts correct procedures for collecting forensic evidence and ensures the area is safe.	**Standard Met** 1. The team ensures proper pictures are taken documenting scene and device/ordnance (In CMD context) after neutralization.	
			2. In addition to IED, or EO parts collected, if possible, the team	

			collects a sample of the explosives for analysis.	
			3. A proper secondary device search is conducted to ensure the EOD team is not directly targeted and the scene is 100% clear of all hazards before the team departs.	
			4. The final briefing is conducted at the scene and the team ensures post-clearance safety measures in the area.	
			5. The team fills out the IED/UXO report if applicable. Ref.: UN Peacekeeping Missions Military EOD Unit Manual, Annex E.	
			6. Military EOD Unit provides comprehensive reports to higher HQ (UN Military Engineer Unit) and EOD Coordination Cell. It should include the latest information and an assessment of the incident with pictures/sketches in accordance with mission SOPs.	
UN Military Engineer Unit Task 4: Explosive Ordnance Disposal, EOD (Combat Engineer Task) (Overall Assessment):				
Observation & Recommendations				

UN Military Engineer Unit - Tasks

UN Military Engineer Unit Task 5: Establishment of field defences / Improvement of existing defences. (Combat and Construction Engineering Task)

Description: The establishment of field defence of own base/camp is the responsibility of each military unit. Yet some field defence tasks like defence barriers, chain link fence, earth embankment, dug-in position/ shelter might be considered as a mission priority. Considering the resource limitations of other units those tasks can be given to Engineer units for implementation. The unit is tasked to prepare field defenses / improve existing field defenses for the hardening of key points in a given time.

Ref: UN Military Engineer Unit and Counter Explosive Threat (CET) Search and Detect Manual, Annex E.

UN Military Engineer Unit Task 5: Establishment of field defences / Improvement of existing defences. (Combat and Construction Engineering Task)				
Sub-Task	**Standard Number**	**Standards**	**Indicators**	**Score**
T5.1				
Planning and Preparation				
	T5.1.1	Unit Commander undertakes initial survey and engineer appreciation for the task.	**Standard Met** 1. Commanders and staff assess the Force protection plan and the field defense improvement plan (defence barriers, chain link (razor wire) fence, earth embankment, dug in position/ shelter) and coordinate with the base commander for the execution of the task.	
			2. Estimates the requirements of expedients, earthwork, and earthmoving plant requirements.	
			3. Calculates time and resources requirements (equipment and manpower).	
			4. Ensures earmark trade proficient personnel for construction/maintenance.	
			5. Calculate the mobilization and deployment requirements.	
			6. Analyze the own capability to execute the task and request additional support if needed.	
	T5.1.2	Planning for the construction, or improvement of field defense task.	**Standard Met** 1. Plans for construction of field defense or improvement of the defense (with a sketch, map, model, etc).	
			2. The unit is organized based on the envisaged tasks and may include the following elements: Mobilization, Task execution to include earthwork tasks as required, Store management, Protection party (if required), and Logistics support.	
			3. Ensures the planning is in line with task orders issued by higher HQ.	
			4. Special instructions, including the security plan, coordination and support mechanism other units, contingency plan, and MED/CASEVAC plan are included.	
			5. Logistic supply plan (supply of construction materials, fuel, spare parts for the equipment, also include food and water supply for the troops).	
			6. Planning of procurement of the necessary materials by the unit if applicable.	
	T5.1.3	Unit commander issues the order for construction or improvement of field defense.	**Standard Met** 1. The order describes a clear and concise statement of what the unit must accomplish (details of expected tasks).	
			2. The order describes the specific activity with a specific timeframe to be accomplished by each sub-unit and earmarking	

UN Military Engineer Unit - Tasks

			correct trade personnel for the task.	
			3. The order is clearly outlined the specific period for the different stages of the activity to be accomplished by each sub-unit and earmarking correct trade personnel for the task.	
			4. Requirement of resources (store & manpower with locations) including transportation requirement.	
			5. The order describes Command and control measures including reporting instructions and communication methods.	
			6. Special instructions, including the security plan, coordination and support mechanism other units, and MED/CASEVAC plan are included.	
			7. Force protection measures provided / to be adopted while on move and execution of tasks.	
			8. Logistical concerns/resupply of the materials and other supply considerations are instructed.	
T5.2				
Conduct of Task				
	T5.2.1	Unit is sufficiently self-sustained and executes the task as planned.	**Standard Met** 1. The unit has topographic survey equipment and trained personnel. Survey personnel/party of the unit is setting outfield defence work. A survey of ground levels is carried out and GPS is used to mark maps and layout sketches.	
			2. The unit has proficient trade personnel for construction works including masonry, woodwork, metal works, etc.	
			3. The unit is able to level the ground, fill up the defence barriers, creat earthwork for embankment or dug in position/ shelter by using earth moving plants to include excavator loaders, dumpers, dozers etc. (use of available equipment)	
			4. Construction of field defences and necessary protection of structures like drainage, revetment, overhead cover/ protection etc. is prepared.	
			5. Safety procedures must be ensured at all times.	
			6. Force protection is maintained at all times during the execution of the task.	
			7. The Unit Commander exercises appropriate C2 during move and execution of the task (e.g. undertake resource management and caters for contingencies)	
			8. The Unit Commander reports the progress of the task to the higher HQ.	

UN Military Engineer Unit Task 5: Establishment of field defences / Improvement of existing defences. (Combat and Construction Engineering Task) (Overall Assessment):

Observation & Recommendations

UN Military Engineer Unit - Tasks

UN Military Engineer Unit Task 6: Construction or repair of helipads. (Combat and Construction Engineering Task)

Description: UN Engineers mobilization task includes construction and repair of Helipad which for some remote deployments constitute the main supply route and only viable option for medical evacuation. Basing on mission priority, Helipad construction, and repair tasks will be implemented by Construction/ Combat Engineer companies. Construction or repair of Helipad is a time-sensitive task.

Ref: UN Military Engineer Unit and Counter Explosive Threat (CET) Search and Detect Manual, Annex E.

UN Military Engineer Unit Task 6: Construction or repair of helipads. (Combat and Construction Engineering Task)				
Sub-Task	**Standard Number**	**Standards**	**Indicators**	**Score**
T6.1				
Planning and Preparation				
	T6.1.1	Unit Commander undertakes an initial survey of the task.	**Standard Met** 1. Commander performs engineer appreciation for the task.	
			2. Calculates the time and resources required.	
			3. Estimates the requirements of expedients, earth work, and earth moving plant requirements.	
			4. Calculates store requirements for helipad marking.	
			5. Calculates the mobilization and deployment requirements.	
	T6.1.2	Planning for the construction or repair of helipads.	**Standard Met** 1. Plan for construction or repair of the helipad is prepared (with sketch, map, all calculation of the required equipment, etc).	
			2. Ensures the planning is in line with task orders issued by higher HQ.	
			3. Planning is clearly outlined the specific period for the different stages of the construction or repair of the helipad.	
			4. The unit is organized based on the envisaged tasks and may include the following elements: Mobilization, Task execution to include earthwork tasks as required, Store management, Protection party (if required), and Logistics support.	
			5. Special instructions, including the security plan, coordination and support mechanism other units, contingency plan, and MED/CASEVAC plan are included.	
			6. Logistic supply plan (supply of construction materials, fuel, spare part for the equipment, also include food and water supply for the troops).	
			7. Planning of procurement of the necessary materials by the unit if applicable.	
	T6.1.3	Unit Commander issues the order for construction or repair of the helipad.	**Standard Met** 1. The order describes a clear and concise statement of what the unit must accomplish (details of expected tasks).	
			2. The order describes the specific activity with a specific timeframe to be accomplished by each sub-unit and earmarking correct trade personnel for the task.	
			3. Requirement of resources (store & manpower with locations) including transport requirement and earth	

			moving plant requirement.	
			4. Support arrangements are coordinated with higher HQs for the requirements for the helipad.	
			5. The order describes Command and control measures including reporting instructions and communication methods.	
			6. Force protection measures provided / to be adopted while on move and execution of tasks.	
			7. Logistical concerns/resupply of the materials and other supply considerations are instructed.	
T6.2				
Conduct of Task				
	T6.2.1	Unit is sufficiently self-sustained to undertake the task.	**Standard Met** 1. The unit has topographic survey equipment and trained personnel. Survey party/personnel set out the Helipad site and conducting an estimation of earthwork requirements for the repair of the Helipad.	
			2. A Survey of ground levels is carried out and GPS is used to mark maps and layout sketches.	
			3. The Unit is sufficiently self-sustained to undertake tasks with earthmovers including vibrating rollers, concrete mixer machine, and portable generator with a floodlight with proficient personnel as earthmoving plant operators and mason.	
			4. The unit is leveling the ground, filling up the defense barriers, moving earthwork for embankment or dug in position/ shelter by using earth moving plants to include excavator loaders, dumpers, dozers, etc.	
			5. Unit uses concrete casting of pavement or rapidly deployable landing mat.	
			6. Helipad marking and setting up clear zone, markers, illuminations is performed by the unit.	
	T6.2.2	Construction or repair of helipads is carried out and the commander provided effective command and control.	**Standard Met** 1. Unit Commander exercises appropriate C2 during the move and execution of task (e.g. undertake resource management and caters for contingencies).	
			2. Unit Commander is aware about the reporting procedures and reports progress of task to higher HQ.	
			3. Safety procedures must be ensured at all times.	
			4. Force protection is maintained at all times during the execution of the task.	
			5. Logistical concerns/resupply of the materials are coordinated.	
UN Military Engineer Unit Task 6: Construction or repair of helipads. (Combat and Construction Engineering Task) (Overall Assessment):				
Observation & Recommendations				

UN Military Engineer Unit - Tasks

UN Military Engineer Unit Task 7: Construction/Maintenance of Tracks. (Combat and Construction Engineering Task)

Description: A UN Military Engineers' mobilization task includes construction and repair of tracks which, for some remote deployments, constitute the supply routes or an option for medical evacuation. This task can be suitably implemented by the construction platoon of the Engineer unit. The unit is tasked to undertake construction or repair of macadam or gravel track in a given time.

Condition: Additional Note: While constructing and rehabilitating the roads and tracks, engineering equipment are transported from the base however with the pace of progress in construction sites, it takes a long time to reach and return, Similarly, haulage between quarry site and the construction site also consumes time this affects the working hours, efficiency/output of the troops and causes economic burden to the UN. Considering haulage, security factors, and the availability of force, it may be better to establish a TOB as a support base for engineers working on the site..

Ref: UN Military Engineer Unit and Counter Explosive Threat (CET) Search and Detect Manual, Annex E.

UN Military Engineer Unit Task 7: Construction/Maintenance of Tracks. (Combat and Construction Engineering Task)				
Sub-Task	**Standard Number**	**Standards**	**Indicators**	**Score**
T7.1				
Planning and Preparation				
	T7.1.1	Unit Commander undertakes an initial survey of the task.	**Standard Met** 1. The Commander performs an engineer appreciation for the task.	
			2. Calculates time and resources required.	
			3. Estimates requirements of survey, earth work, and earth moving plant requirements.	
			4. Calculates store requirements for resuscitation.	
			5. Calculates mobilization and deployment requirements.	
			6. Assess the required plants for preparation of construction materials. (stone crusher, excavators, and asphalt plants, etc.)	
			7. Assess the requirements of constructing other road infrastructures (drainpipes, culverts, bridges, etc).	
	T7.1.2	Unit plans for the task.	**Standard Met** 1. The Unit commander estimates details of construction material requirement.	
			2. The Unit is organized based on envisaged tasks and may include: Mobilization, Preparation of construction material, Transportation of construction material to the road segment, Earthwork, leveling and compaction of earthen road, Store management, Protection party (if required), Logistics support.	
			3. Planning is clearly outlined the specific period for the different stages of the construction and repair of tracks.	
			4. Special requirements, including the security plan, coordination and support with other units, and MED/CASEVAC plan are coordinated with higher HQs.	
			5. Logistic supply plan (supply of construction materials, fuel, spare parts for the equipment, also include food and water supply for the troops).	
			6. Planning of procurement of the necessary materials by the unit if applicable.	
	T7.1.3	The Unit Commander issues an order for the construction of the track.	**Standard Met** 1. The order describes a clear and concise statement of what the unit must accomplish (details of expected tasks).	

			2. The order describes the specific activity with a specific timeframe to be accomplished by each sub-unit.	
			3. The order includes requirement of resources (store & manpower) to include transport requirement and earth moving plant requirements	
			4. Special instructions, including the security plan, coordination and support mechanism other units, contingency plan, and MED/CASEVAC plan are included.	
			5. The order describes Command and control measures including reporting instructions and communication methods.	
			6. Force protection measures provided / to be adopted while on move and execution of tasks	
			7. Logistical concerns/resupply of the materials and other supply considerations are instructed.	
T7.2				
Conduct of Task				
	T7.2.1	Unit is sufficiently self-sustained to undertake the task.	**Standard Met** 1. The unit has plants for the preparation of construction material (Stone crusher, excavators) and is able to prepare materials required for the construction of tracks (e.g. stone crushers).	
			2. The unit has transportation of construction material and earthmovers (Loaders, dumpers).	
			3. Plants for track leveling and compacting (dozer, motor graders, rollers) and an earthen track are constructed by using dozers, motor graders, and rollers.	
			4. The Unit has proficient operators for using earth moving plants/excavators and/or stone crushers etc.	
			5. The unit has topographic survey equipment and trained personnel.	
			6. Surveyors are conducting a survey to identify the best location of the track. (To be tested: Level survey work of 500 M of track segment). Survey of ground levels is carried out and GPS used to mark maps and layout sketches.	
	T7.2.2	The unit executes the task as planned and the commander provided effective command and control.	**Standard Met** 1. The unit commander creates the workflow plan with earth movers.	
			2. Unit Commander exercises appropriate C2 during the move and execution of task (e.g. undertake resource management and caters for contingencies).	
			3. Unit Commander is aware of the reporting procedures and reports progress of task to higher HQ.	
			4. Safety procedures must be ensured at all times.	
			5. Force protection is maintained at all times during the execution of the task.	
			6. Logistical concerns/resupply of the materials are coordinated.	

UN Military Engineer Unit Task 7: Construction/Maintenance of Tracks. (Combat and Construction Engineering Task) (Overall Assessment):

Observation & Recommendations

UN Military Engineer Unit - Tasks

UN Military Engineer Unit Task 8: Construction / dismantling of Rigid/Semi-rigid/ Prefabricated structures (Construction Engineering Task)

Description: UN Engineers survivability tasks include construction of accommodation in camps. UN Military Construction Engineer Units are often tasked for the construction of UN provided rigid/semi-rigid/pre-fabricated structures in campsites in the initial phase of the mission. The unit is tasked to undertake the construction of rigid/semi-rigid/pre-fabricated structures including siting of base camps.

Ref: UN Military Engineer Unit and Counter Explosive Threat (CET) Search and Detect Manual, Annex E.

UN Military Engineer Unit Task 8: Construction / dismantling of Rigid/Semi-rigid/ Prefabricated structures (Construction Engineering Task)				
Sub-Task	**Standard Number**	**Standards**	**Indicators**	**Score**
T8.1				
Planning and Preparation				
	T8.1.1	Unit Commander undertake initial survey of the task.	**Standard Met** 1. Commander performs engineer appreciation for the task.	
			2. Calculates the time and resources required.	
			3. Estimates the requirements of survey, earth work, and earth moving plant requirements.	
			4. Assess for the construction materials, the location of the storage, and transportation requirements.	
			5. Assess water supply, power supply, plumbing, drainage of the site of the structures.	
			6. Calculates the mobilization and deployment requirements.	
			7. Calculates store requirements for construction /maintenance	
	T8.1.2	Unit plans for the task.	**Standard Met** 1. The Unit commander estimates details of construction material requirements.	
			2. The Unit is organized based on envisaged tasks and may include: Mobilization, Task execution to include earthwork tasks as required, Store management, Protection party (if required), Logistics support.	
			3. Planning is clearly outlined the specific period for the different stages of the construction or dismantling of the structures.	
			4. Special requirements, including the security plan, coordination and support with other units, and MED/CASEVAC plan are coordinated with higher HQs.	
			5. Logistic supply plan (supply of construction materials, fuel, spare parts for the equipment, also include food and water supply for the troops).	
			6. Planning of procurement of the necessary materials by the unit if applicable.	
	T8.1.3	The Unit Commander issues orders for the construction of structures.	**Standard Met** 1. The order describes a clear and concise statement of what the unit must accomplish (details of expected tasks).	
			2. The order describes the specific activity with a specific timeframe to be accomplished by each sub-unit.	
			3. The order includes requirement of resources (store & manpower) to include transport requirement and earth moving plant requirements.	
			4. Special instructions, including the security plan, coordination and support mechanism other units, contingency plan, and	

			MED/CASEVAC plan are included.	
			5. The order describes Command and control measures including reporting instructions and communication methods.	
			6. Force protection measures provided / to be adopted while on move and execution of tasks .	
			7. Logistical concerns/resupply of the materials and other supply considerations are instructed.	
T8.2				
Conduct of Task				
	T8.2.1	Unit is sufficiently self-sustained to undertake the task.	**Standard Met** 1. The unit is sufficient construction equipment such as generators, welding machines, water pumps, water trucks, concrete mixers, carpentry shops, and earth moving equipment.	
			2. 2. The unit has enough trained personnel as generator operators, earthmoving plant operators, masonry workers, metalsmiths, plumbers, electricians, carpenters, and other specialists (air conditioning, heating, boiler room, etc). (Comment: Air-conditioning is a specialist's task and will not be available at the basic engineer formation level.)	
			3. The unit has the capability of transportation of construction material and earthmovers (loaders, dumpers) to the road segment.	
			4. Earthwork including leveling with dozer, excavator, loader, dumper, motor grader, roller etc. is performed by the unit.	
			5. The unit is performing masonry works to include concrete casting, brickwork & foundations.	
			6. Safe electric connections, plumbing & metalsmith works are performed by the unit.	
			7. Air conditioning & heating/boiler room connection is completed by the unit.	
	T8.2.2	The unit executes the task as planned and the commander provided effective command and control.	**Standard Met** 1. Setting up of the campsite work is done by survey personnel. A Survey of ground levels is carried out and GPS is used to mark maps and layout sketches.	
			2. The drainage of the campsite is adequately addressed.	
			3. Safety procedures for the construction or dismantling of structures must be ensured at all times.	
			4. Unit Commander exercises appropriate C2 during the move and execution of task (e.g. undertake resource management and caters for contingencies).	
			5. Unit Commander is aware of the reporting procedures and reports the progress of task to higher HQ.	
			6. Force protection is maintained at all times during the execution of the task.	

UN Military Engineer Unit Task 8: Construction / dismantling of Rigid/Semi-rigid/ Prefabricated structures (Construction Engineering Task) (Overall Assessment):

Observation & Recommendations

UN Military Engineer Unit - Tasks

UN Military Engineer Unit Task 9: Construction of drainage works. (Construction Engineering Task)

Description: To prevent any type of disputes between the local population and the UN staff, managing surface water and waste water is an important function. Managing such water is also important in terms of hygiene and sanitation. Establishing effective drainage for managing surface and waste water or constructing a ditch is one of the solutions to harmonious living between the locals and the UN. The unit is tasked to undertake the construction of drainage works in a given time.

Ref: UN Military Engineer Unit and Counter Explosive Threat (CET) Search and Detect Manual, Annex E

UN Military Engineer Unit Task 9: Construction of drainage works. (Construction Engineering Task)				
Sub-Task	**Standard Number**	**Standards**	**Indicators**	**Score**
T9.1				
Planning and Preparation				
	T9.1.1	Unit Commander undertake initial survey of the task.	**Standard Met** 1. Commander performs engineer appreciation for the task.	
			2. Calculates the time and resources required.	
			3. Estimates the requirements of survey, earthwork, and earthmoving plant requirements.	
			4. Assess the required construction materials, the location of the storage, and transportation requirements.	
			5. Survey personnel is performing a survey of ground levels and water flow patterns.	
			6. The unit commander estimates details of construction material requirement.	
			7. Calculates the mobilization and deployment requirements.	
	T9.1.2	The unit commander issues orders for the construction/improvement of drainages.	**Standard Met** 1. The order describes a clear and concise statement of what the unit must accomplish (Details of expected task).	
			2. The order describes the specific activity with a specific timeframe to be accomplished by each sub-unit.	
			3. Requirement of resources (store & manpower) to include transport requirements and earthmoving plant requirements.	
			4. The order provides details of the survey and water flow patterns.	
			5. Force protection measures provided / to be adopted while on move and execution of tasks	
			6. The order describes Command and control measures including reporting instructions and communication methods.	
			7. Special instructions, including the security plan, coordination and support mechanism other units, contingency plan, and MED/CASEVAC plan are included.	
			8. Logistical concerns/resupply of the materials, and other supply considerations are instructed.	

UN Military Engineer Unit - Tasks

T9.2				
Conduct of Task				
	9.2.1	The unit is sufficiently self-sustained to undertake a task.	**Standard Met** 1. The unit has sufficient construction equipment such as generators, welding machines, water pumps, water trucks, concrete mixers, carpentry shop, and earth moving equipment.	
			2. The unit has enough trained personnel as generator operators, earthmoving plant operators, masonry specialists, metalsmiths, plumbers, electricians, carpenters, and other specialists.	
			3. A Survey of ground levels is carried out and GPS is used to mark maps and layout sketches.	
			4. Earthwork including leveling with Dozer, excavator, loader, dumper, motor grader, roller, etc. are performed by the unit.	
			5. Concrete casting and masonry works are performed by the unit (if required).	
			6. The Unit Commander exercises appropriate C2 during the move and execution of task (e.g. undertake resource management and caters for contingencies).	
			7. The Unit Commander is aware of the reporting procedures and reports the progress of task to higher HQ	
			8. Safety procedures for road construction or maintenance must be ensured at all times and force protection is maintained at all times during the execution of the task.	
UN Military Engineer Unit Task 9: Construction of drainage works. (Construction Engineering Task) (Overall Assessment):				
Observation & Recommendations				

UN Military Engineer Unit - Tasks

UN Military Engineer Unit Task 10: Airfield maintenance. (Construction Engineering Task)

Description: A UN Military Engineers mobilization task includes maintenance of an Airfield. Airfield maintenance must adequately address the ICAO technical specifications or specifications set by the UN Aviation safety authorities. Certification of the maintenance works are of utmost importance. This task is a specialist tasking however support could be provided by the Construction Engineering Unit to assist with the air field maintenance.

Ref: UN Military Engineer Unit and Counter Explosive Threat (CET) Search and Detect Manual, Annex E

UN Military Engineer Unit Task 10: Airfield maintenance. (Construction Engineering Task)				
Sub-Task	**Standard Number**	**Standards**	**Indicators**	**Score**
T10.1				
Planning, Preparation, and Coordination				
	T10.1.1	Unit Commander undertake initial survey of the task.	**Standard Met** 1. Commander coordinates with UN Aviation safety authorities to identify technical specifications or ICAO specifications for the airfield maintenance.	
			2. Commander performs engineering appreciation for the task and calculates the time and resources required.	
			3. Coordinates with specialists to receive the specifications for the airfield maintenance task that is given to the unit.	
			4. Estimates the requirements of survey, earthwork, and earthmoving plant requirements if necessary to assist the airfield maintenance.	
			5. Assess the construction materials, the location of the storage, and transportation requirements.	
			6. Assess water supply, power supply, plumbing, drainage of the site of the structures.	
			7. Calculate the mobilization and deployment requirements.	
	T10.1.2	The unit provides necessary support to assist with airfield maintenance.	**Standard Met** 1. The unit commander creates the workflow plan for assisting the airfield maintenance. (with a sketch, map, all calculations of the required equipment etc).	
			2. Planning is clearly outlined the specific period for the different stages of supporting the maintenance of the airfield.	
			3. The order provides the special requirements and liaison instruction with the airfield maintenance authority.	
			4. Requirement of resources (store & manpower with locations) including transport requirement.	
			5. The order describes Command and control measures including reporting instructions and communication methods.	
			6. Force protection measures provided / to be adopted while on move and execution of tasks.	
			7. Logistical concerns/resupply of the materials and other supply considerations are instructed.	
T10.2				
Conduct of Task				
	T10.2.1	The unit commander plans and issues the order to provide support to airfield maintenance.	**Standard Met** 1. Airfield maintenance task is executed with close coordination with airfield maintenance authority.	
			2. The Unit is sufficiently self-sustained to undertake tasks and has the ability to provide all necessary support to maintain the airfield. (Comment: Earthmoving, performing masonry works,	

			levelling the ground, concrete casting of pavement or landing mat, marking and setting up clear zone, markers, illuminations etc as per required specifications.)	
			3. Safety procedures must be ensured at all times.	
			4. Unit Commander exercises appropriate C2 during the move and execution of the task (e.g. undertake resource management and caters for contingencies).	
			5. Unit Commander is aware of the reporting procedures and reports the progress of task to higher HQ.	
			6. Force protection is maintained at all times during the execution of the task.	
UN Military Engineer Unit Task 10: Airfield maintenance. (Construction Engineering Task) (Overall Assessment):				
Observation & Recommendations				

UN Military Engineer Unit - Tasks

UN Military Engineer Unit Task 11: Well drilling

Description: UN Military Engineers' survivability tasks include the provision of water for the UN personnel. Well-drilling is a viable solution for provisioning water in severe drought conditions of several missions. The unit is tasked to conduct well drilling and maintain several boreholes.

Condition: Well drilling and maintenance of boreholes is a specialist tasking and a specialist construction unit with the necessary well drilling equipment would be required depending on the MOU.

Ref: UN Military Engineer Unit and Counter Explosive Threat (CET) Search and Detect Manual, Annex E.

UN Military Engineer Unit Task 11: Well drilling				
Sub-Task	**Standard Number**	**Standards**	**Indicators**	**Score**
T11.1				
Planning and Preparation				
	T11.1.1	Unit Commander undertake initial survey of the task.	**Standard Met** 1. Commander performs engineer appreciation for the task.	
			2. Calculates the time and resources required. Also, calculates store requirements for well drilling	
			3. Utilizes the available geological survey estimates and selects the most suitable site administratively and security-wise.	
			4. Estimates the requirements consumables basing on the geological survey result and maintain liaison with the Mission Support for planning continuous supply of consumables.	
			5. Ensure coordination with other services, such as medical for testing and the Engineering section for the supply of consumables.	
			6. Calculates store requirements for well drilling.	
			7. Calculates the mobilization and deployment requirements.	
			8. The Unit is organized based on envisaged task and may include: Mobilization, Task execution to include earthmover operators, well drilling rig operators, welders, plumbers, electricians etc, Store management (consumables), Operation and maintenance of Well, Protection party (if required), Logistics support.	
	T11.1.2	The Unit Commander issues order for well Drilling.	**Standard Met** 1. The order describes a clear and concise statement of what the unit must accomplish (details of expected task).	
			2. The order describes the specific activity with a specific timeframe to be accomplished by each sub-unit.	
			3. The order includes the requirement of resources (store & manpower) to include transport requirement and earthmoving plant requirements.	
			4. Special instructions, including the security plan, coordination and support mechanism other units, contingency plan and MED/CASEVAC plan are included.	
			5. The order describes Command and control measures including reporting instructions and communication methods.	
			6. Force protection measures provided / to be adopted while on move and execution of tasks.	
			7. Logistical concerns/resupply of the materials and other supply considerations are instructed.	
			8. Coordination with other services to ensure testing and movement control.	
T11.2				

UN Military Engineer Unit - Tasks

Conduct of Task				
	T11.2.1	Unit is sufficiently self-sustained to undertake the task.	**Standard Met** 1. The unit is sufficient well drilling and construction equipment such as generators, well drilling rigs, welding machine, water pumps, water trucks, concrete mixers, carpentry shops, earth moving equipment, and consumables.	
			2. The unit is prepared for task execution to include earthmover operators, well drilling rig operators, water testing facility operators, welders, plumbers, electricians etc	
			3. The unit sets up the well drilling rig with standard equipment.	
			4. The unit estimates and calculates the required consumables and maintaining a store list.	
			5. Plumbers/Welders/generator Operators can operate their machine/equipment and other accessories proficiently in coordination with rig operators.	
			6. The Unit Commander exercises appropriate C2 during the move and execution of task (e.g. undertake resource management and caters for contingencies).	
			7. The Unit Commander is aware of the reporting procedures and reports the progress of the task to higher HQ.	
			8. Safety procedures must be ensured at all times and force protection is maintained at all times during the execution of the task.	
UN Military Engineer Unit Task 11: Well drilling (Overall Assessment):				
Observation & Recommendations				