

Appendix H

Countermine Operations

Military operations are often conducted in areas where warring factions have left unrecorded mines and minefields scattered across the landscape. In these environments, emphasize mine awareness at all levels of command and plan countermine operations into every military operation.

OVERVIEW

H-1. Undertake countermine operations to breach or clear a minefield. All the tasks fall under breaching or clearing operations and include detecting, reporting, reducing, proofing, and marking.

H-2. MP efforts in countermine operations are in detecting, reporting, and marking. They conduct countermine operations in conjunction with their other missions. Countermine operations include–

- Denying infiltrators, insurgents, and terrorist groups the opportunity to use mines.
- Using mine detection equipment.
- Detecting mines visually or by probing.
- Reporting the location of suspected mines and UXO.
- Marking the location of these devices.

H-3. MP patrols look for suspicious persons along MSR; watch approaches to critical points like bridges or defiles; and maintain surveillance of MSR, key terrain, and critical facilities. Check with the HN police and local nationals for information on unusual activity in a

particular AO. Mines are usually emplaced at night. Use night vision and early warning devices to maintain surveillance and detect enemy activity.

H-4. Mine and UXO awareness involve soldier and leader skills. Soldier skills are a mix of individual and collective tasks that are required for an element to maintain its combat effectiveness in and around a mined environment. Soldier skills involve individual and collective tasks that are required for basic survival in a mined environment. They include minefield indicators, probing techniques, mine detector operations, extraction drills, survival rules, casualty treatment, and evacuation drills. The soldier's basic mine awareness skills are critical to his and the unit's survival. Leader skills involve planning missions, assessing situations, and tracking and disseminating mine information. Soldiers must be proficient in all mine awareness skills to effectively operate in a mined environment (refer to *FM 20-32*).

DETECT

H-5. Detection is the actual confirmation and location of the mines and may be accomplished through reconnaissance or unintentionally (such as a vehicle running into a mine). Use mine detection in conjunction with intelligence-gathering operations, minefield bypass reconnaissance, and breaching and clearing operations. Use the following three methods to detect mines and UXO:

- Visual.
- Physical (probing).
- Electronic (mine detector).

VISUAL INDICATORS

H-6. Mine and UXO indicators are part of all combat operations. Understanding and recognizing mine

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indicators could determine whether or not a soldier becomes a casualty. The following may indicate the presence of mines and UXO:

- Trip wires.
- Signs of road repair (such as new fill or paving, road patches, ditching, or culvert work).
- Signs, usually understood only by local populace, placed on trees, posts, or stakes. Threat forces mark their minefields to protect their own forces.
- Dead animals.
- Vehicles that are damaged.
- Disturbances in previous tire tracks or tracks that stop unexplainably.
- Wires leading away from the side of the road. They may be firing wires that are partially buried.

H-7. Check for odd features in the ground or patterns that are not present in nature. Plant growth may wilt or change color, rain may wash away some of the cover, the cover may sink or crack around the edges, or the material covering the mines may look like mounds of dirt. Civilians may know where mines or booby traps are located in the residential area. Civilians staying away from certain places or out of certain buildings are good indications of the presence of mines or booby traps. Question civilians to determine the exact location of these devices.

H-8. Pieces of wood or other debris on a road may be indicators of pressure or pressure-release firing devices. These devices may be on the surface or partially buried. The enemy uses mines that are fired by command, so search road shoulders and areas close to the objects.

PHYSICAL INDICATORS

H-9. Physical detection (probing) is very time-consuming. Use it primarily for clearing operations, self-extraction, and covert breaching operations. Detection of mines by visual or electronic methods should be confirmed by probing. Use the following procedures and techniques when probing for mines:

- Roll up your sleeves, and remove any jewelry to increase sensitivity. Wear a Kevlar helmet, with the chin strap buckled, and a protective fragmentation vest.
- Stay close to the ground, and move in a prone position to reduce the effects of an accidental blast. When moving into a prone position—
 - Squat down without touching your knees to the ground.
 - Scan forward up to 2 meters and to the sides up to 3 meters for mine indicators.
 - Probe the area around your feet and as far forward as possible.
 - Kneel on the ground after the area is found to be clear. Continue probing forward until you are in a prone position.
- Use sight and touch to detect trip wires, fuses, and pressure prongs.
- Use a slender, nonmetallic object as a probe, and—
 - Probe every 5 centimeters across a 1-meter front.
 - Push the probe gently into the ground at an angle that is less than 45 degrees.
 - Apply just enough pressure on the probe to sink it slowly into the ground.
 - Check the probe for resistance. If the probe encounters resistance and does not go into the ground freely, carefully pick the soil

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away with the tip of the probe and remove the loose dirt by hand. Take care to prevent functioning the mine.

- Stop probing when you touch a solid object, and use two fingers from each hand to carefully remove the surrounding soil and identify the object. If the object is a mine, remove enough soil to show the mine type and mark its location.

DANGER

Do not attempt to remove or disarm the mine.

H-10. Probing is extremely stressful and tedious. The senior leader sets a limit to the time a prober can actually probe in the minefield. To determine a reasonable time, the leader considers the METT-TC factors, weather conditions, the threat level, the unit's stress level, and the prober's fatigue level and state of mind. As a rule, 20 to 30 minutes is the maximum amount of time that an individual can probe effectively.

DANGER

Use extreme caution when probing. If the probe is pushed straight down, its tip may detonate a pressure fuse.

ELECTRONIC INDICATORS

H-11. Electronic detection is effective for locating mines, but this method is time-consuming and exposes personnel to enemy fire. Confirm suspected mines by probing.

H-12. The AN/PSS-12 mine detector can only detect metal, but most mines have metal components in their design. The detector locates and identifies plastic or wooden mines by a slight metallic signature. Refer to *TM 5-6665-298-10* for more information about the employ-

ment and operation procedures for the AN/PSS-12. The detector is handheld and identifies suspected mines by an audio signal in the headphones.

H-13. As in probing, take consideration for the maximum amount of time an individual can operate the detector. The leader considers the METT-TC factors, weather conditions, the threat level, the unit's stress level, and the individual's fatigue level and state of mind. As a rule, 20 to 30 minutes is the maximum amount of time an individual can use the detector effectively.

REPORT

H-14. Intelligence concerning enemy mines and UXO is reported by the fastest means available. Report sightings of these devices using a SPOTREP format. SPOTREPs originate from patrols that have been sent on specific reconnaissance missions or from MP patrols that discover mine information in the course of their normal route operations.

MARK

H-15. When mines and UXO are detected, mark the location to prevent friendly follow-on forces and local nationals from accidentally encountering them. Mark the mines and UXO with standard North Atlantic Treaty Organization (NATO) markers (a red triangle with white letters). Use concertina wire to construct a perimeter around the mined area and place markers on the fencing about waist-high.