

APPENDIX C

**Obstacles**

**GENERAL**

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In combat, enemy units use obstacles to stop or slow their opponent's movement. Because of that, you may have to bypass or breach (make a gap through) those obstacles in order to continue your mission.

Two basic obstacles used by the enemy are minefield and wire obstacles. This appendix gives guidance on breaching and crossing minefield and wire obstacles.

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## HOW TO BREACH AND CROSS A MINEFIELD

There are many ways to breach a minefield. One way is to probe for and mark mines to clear a footpath through the minefield.

### PROBING FOR MINES

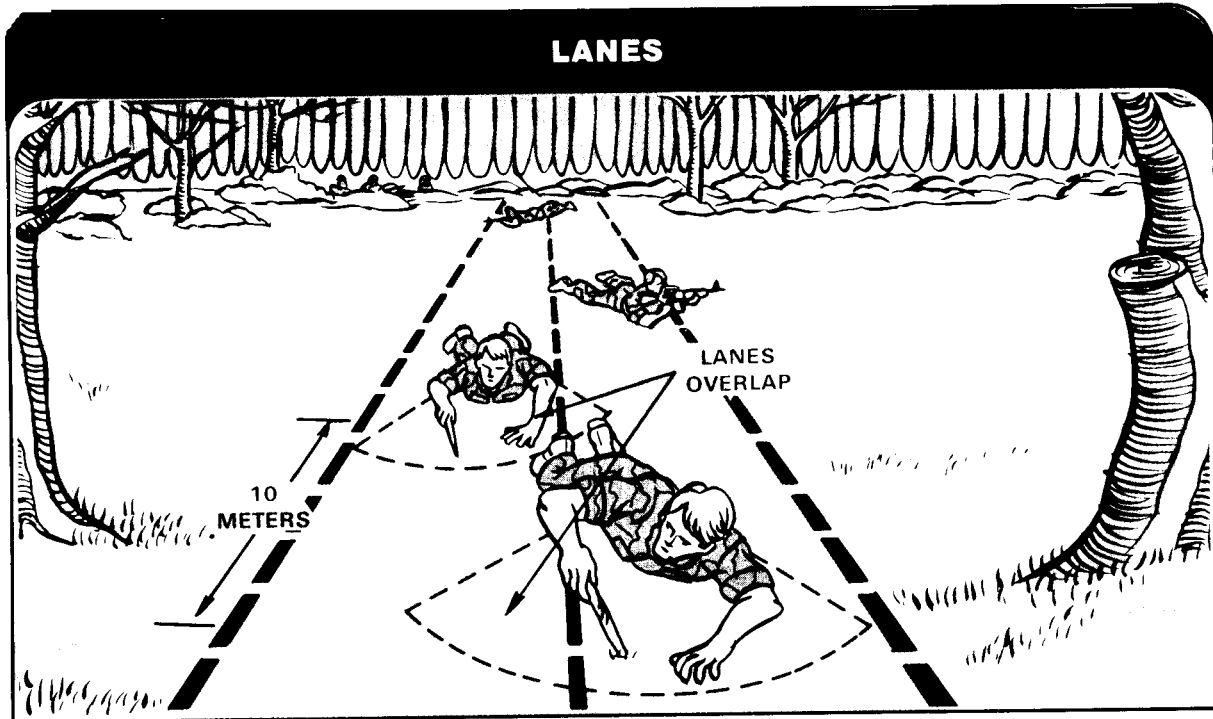
- Remove your helmet, load-carrying equipment (LCE), watch, rings, belt, dog tags, and anything else that may hinder movement or fall off.
- Leave your rifle and equipment with another soldier in the team.
- Get a wooden stick about 30 cm (12 in) long for a probe and sharpen one of the ends. Do not use a metal probe.
- Place the unsharpened end of the probe in the palm of one hand with your fingers extended and your thumb holding the probe.
- Probe every 5 cm (2 in) across a 1-meter front. Push the probe gently into the ground at an angle less than 45 degrees.
- Kneel (or lie down) and feel upward and forward with your free hand to find tripwires and pressure prongs before starting to probe.
- Put just enough pressure on the probe to sink it slowly into the ground. If the probe does not go into the ground.

### MINE PROBE



pick or chip the dirt away with the probe and remove it by hand.

- Stop probing when a solid object is touched.
- Remove enough dirt from around the object to find out what it is.



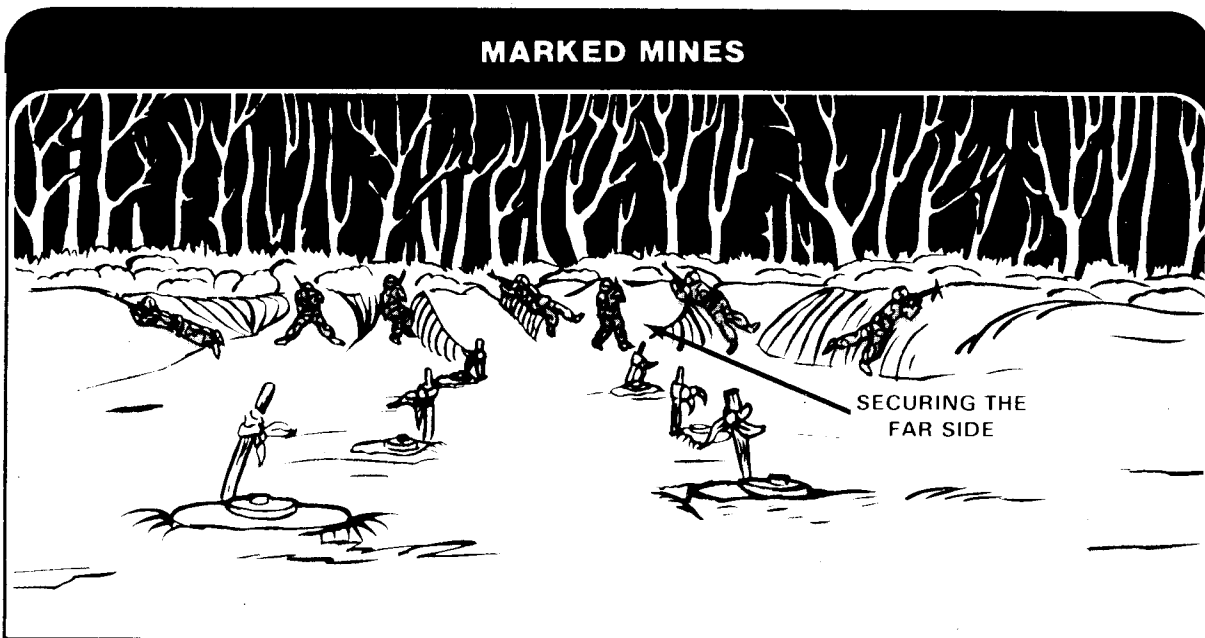
### MARKING THE MINE

- Remove enough dirt from around it to see what type of mine it is.
- Mark it and report its exact location to your leader. There are several ways to mark a mine. How it is marked is not as important as having everyone understand the marking. A common way to mark a mine is to tie a piece of paper, cloth, or engineer tape to a stake and put the stake in the ground by the mine.



**CROSSING THE MINEFIELD**

Once a footpath has been probed and the mines marked, a security team should cross the minefield to secure the far side. After the far side is secure, the rest of the unit should cross.



## HOW TO BREACH AND CROSS WIRE OBSTACLES

The enemy uses wire obstacles to separate infantry from tanks and to slow or stop infantry. His wire obstacles are similar to ours. To breach them, you should use wire cutters and bangalore torpedoes.

Breaching a wire obstacle may require stealth; for example, when done by a patrol. It may not require stealth during an attack. Breaches requiring stealth are normally done with wire cutters. Other breaches are normally done with bangalore torpedoes and wire cutters.

### CUTTING THE WIRE

To cut through a wire obstacle with stealth

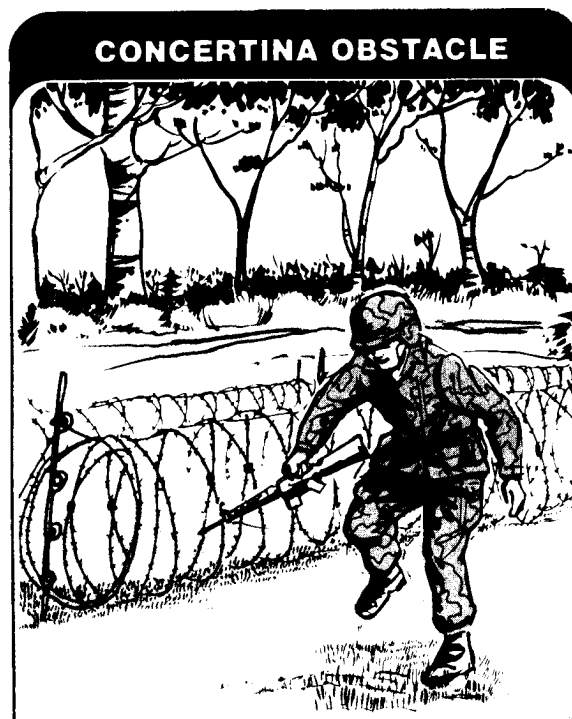
- Cut only the lower strands and leave the top strand in place. That makes it less likely that the enemy will discover the gap.



- Cut the wire near a picket. To reduce the noise of a cut, have another soldier wrap cloth around the wire and hold the wire with both hands. Cut part of the way through the wire between the other soldier's hands and have him bend the wire back and forth until it breaks. If you are alone, wrap cloth around the wire near a picket, partially cut the wire, and then bend and break the wire.

To breach an obstacle made of concertina:

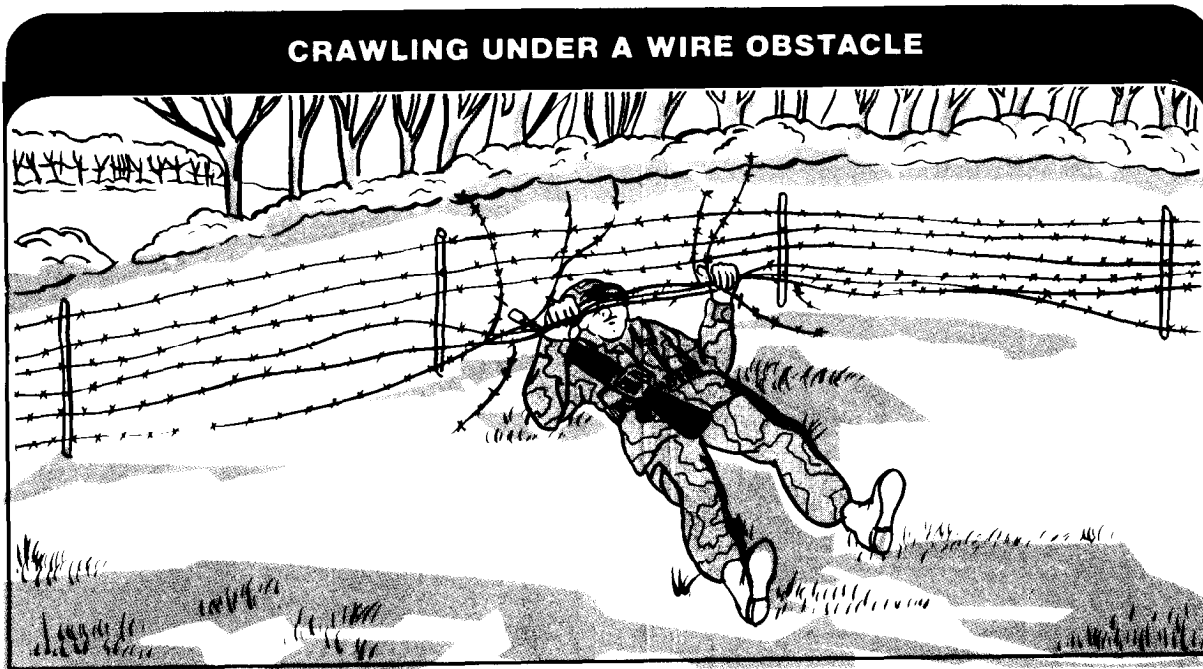
- Cut the wire and stake it back to keep the breach open.
- Stake the wire back far enough to allow room to crawl through or under the obstacle.



### CROSSING THE WIRE

To crawl under a wire obstacle:

- Slide headfirst on your back.
- Push forward with your heels.
- Carry your weapon lengthwise on your body and steady it with one hand. To keep the wire from snagging on your clothes and equipment, let it slide along your weapon.
- Feel ahead with your free hand to find the next strand of wire and any trip wires or mines.



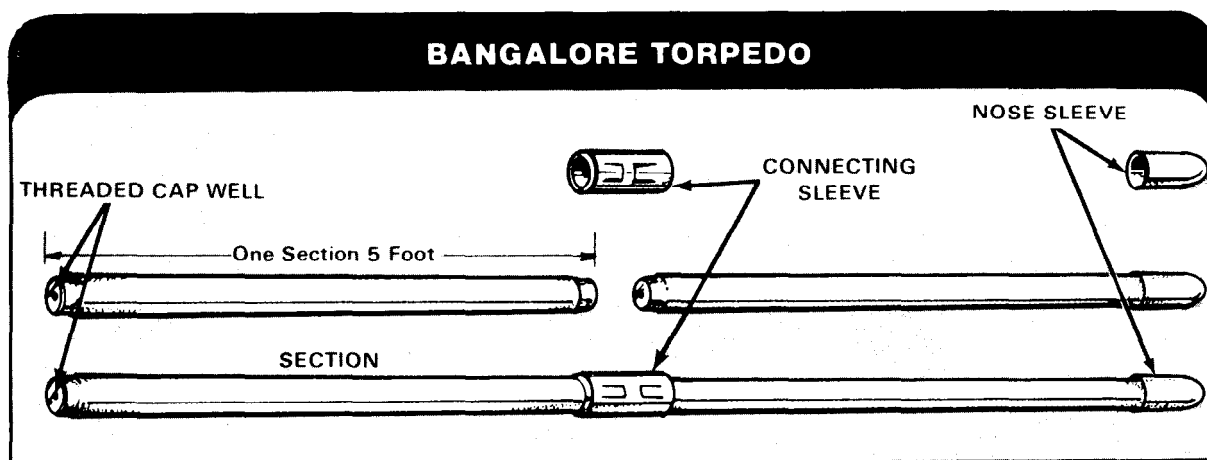
To cross over a wire obstacle:

- Stay crouched down low.
- Feel and look for tripwires and mines.
- Grasp the first wire strand lightly, and cautiously lift one leg over the wire.

- Lower your foot to the ground.
- Lift your other foot over the wire and lower it to the ground.
- Release the wire and feel for the next strand.
- To speed up a crossing, put boards or grass mats over the wire and cross on them.

### USING A BANGALORE TORPEDO

A bangalore torpedo comes in a kit that has 10 torpedo sections, 10 connecting sleeves, and 1 nose sleeve. Use only the number of torpedo sections and connecting sleeves needed.



All torpedo sections have a threaded cap well at each end so that they may be assembled in any order. Use the connecting sleeves to connect the torpedo sections together. To prevent early detonation of the entire bangalore torpedo if you hit a mine while pushing it through the obstacle, attach an improvised (wooden) torpedo section to its end. That section can be made out of any wooden pole or stick that is the size of a real torpedo section. Attach the nose sleeve to the end of the wooden section.

After the bangalore torpedo has been assembled and pushed through the obstacle, prime it with either an electric or nonelectric firing system (app B).

Once the bangalore torpedo has been fired, use wire cutters to cut away any wire not cut by the explosion.

### BANGALORE TORPEDO PLACEMENT

