

STOPPING



A dreadful roar filled the valley, inspiring awe and fear in the men who waited in silence on the slopes. Eyes strained to pick up the first movement, but smoke and fog combined to frustrate detection. The roar was louder now, the clatter of the tracks discernable from the heavy whine of the engines. Then through patches of haze they came into view — dozens of enemy tanks, wave upon wave, screaming down the small valley in a violent and headlong dash to their objective at the other end. At their high rate of speed, they would be past the defenders in a matter of minutes. There were so many, they literally filled the valley. Could they be stopped?

The defending Task Force opened fire first with their M60A2 and M60A1 tanks, then with their TOWs and Dragons. Where were those Cobras? The enemy force was moving too fast, their numbers too great. Their momentum had

carried them to within hundreds of meters of the foremost defenders. Then they hit the ditch.

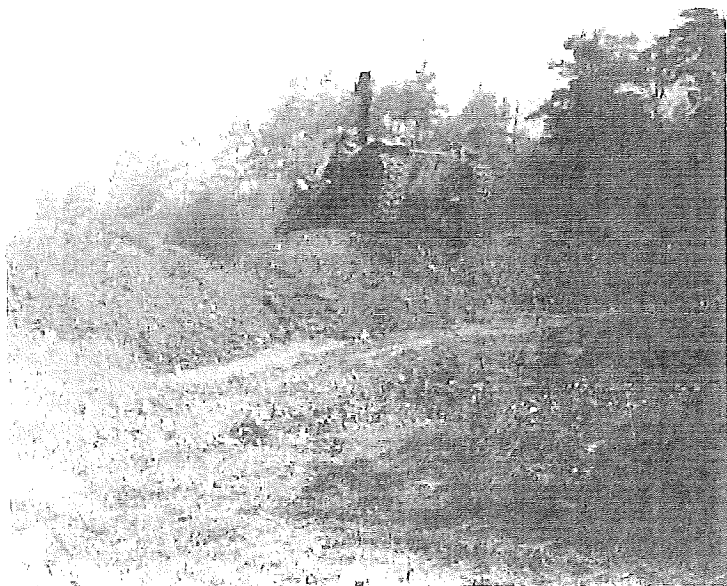
The surprise was evident; the ditch had not been reported by their reconnaissance parties the night before. Some stopped, looking frantically for a gap. Others probed the ditch, some cautiously, some aggressively. Succeeding waves came to a halt — keeping a distance from the previous wave, not bunching up — a tribute to their discipline. It became a turkey shoot now, the defenders continued to pour down their deadly fire. Now the artillery was coming in with devastating effect. Some tanks tried end runs, but the ditch sprawled across the valley floor, leading them to death at point blank range on the flanks. A few tanks broached the ditch; their bare bellies rising high in the air as they cleared over the mound of spoil. They were inviting and vulnerable targets to the expectant anti-tank gunners. The area had become

a killing zone. The engineers had done their job.

Stymied by the ditch and decimated by direct and indirect fire, the attackers moved back with a final burst of smoke. Once again the defenders strained for visual contact. The artillery was called off. The Task Force began to move to maintain contact. Now the TOW-Cobras came to join in the pursuit. The whole encounter lasted but for a few minutes — quick and deadly. The careful planning of the Task Force Commander had paid off with a successful defense by his combined arms team — armor, infantry, artillery and engineers. They had fought and won the first battle of the next war.

The description of the above "battle" (with a little poetic license) was typical of a scene repeated several times by the forces of the 3rd Armored Division at Hohenfels in the summer of '76. Maneuver battalions and the divisional engineer battalion were "taking their ARTEPs." The ARTEP (Army Training and Evaluation Program) provided these battalions the opportunity to demonstrate their training in a combined arms environment under the scrutiny of evaluators. The "enemy" was the divisional Armored Cav Squadron reinforced. The artillery was simulated as was the "deadly fire." The ditches were real, as was the laughter of the engineers on the slopes as they watched the armored attacks growl to a halt. The ditches had not been there the "night before," but were constructed across the 400-600 m valley in the early hours of the operation while the opposing forces were reconnoitering farther to the front. The training benefits were numerous and significant.

BANG! That vulnerable belly is exposed 6 to 10 times during a crossing



ATTACKING THE DITCH BY RAMMING. The gun is slewed. Ditch is too deep for enemy to turn it into a dug-in firing position.

Benefits of Anti-Tank Ditches. Some of the salient advantages of this easily-constructed obstacle are:

- Minimum logistic support required (vis-a-vis a minefield for example). We employed a D-7 dozer and 2½ CY scoop-loader team. With full fuel tanks they can work all day or all night. No big haul requirements.
- Puts a physical obstacle where there was none, converts an open avenue of approach into a kill zone, or can serve to channelize the enemy. It can be emplaced during times of tension without danger to the civilian populace.
- Strips away enemy mine-clearing attachments (i.e. plows and rollers). Therefore, the anti-tank ditch is especially effective when combined with mines on the friendly side — a real combat multiplier.
- Great for peacetime training — no need to simulate.

Combined arms team learns to appreciate the capabilities of one of its members — the combat engineers.

Team acquires the good habits of coordinating the location of obstacles, direct and indirect fire plans, security and logistic support. SOPs are developed, CEOs are checked, signals agreed upon.



RECTANGULAR ANTI TANK DITCH are better than triangular in clayey soil, but tougher to counter attack across.

Engineer capabilities become a vital part of the technical plan in both defense and offense. The defending commander plans his defense largely around emplacing the obstacle/barrier. "How long will it take to get that ditch across the valley? How many mines can we get behind it? We need it by BMNT!" Similarly on offense — "When we counterattack, put those CEVs and tank-dozer up front to breach that ditch ASAP."

During the ARTEPs, engineer resources were in constant demand by both the aggressors and the defenders — as it should be! The anti-tank ditch made believers out of the maneuver elements. No armored force worth its salt would stop in full attack for a strip of white "engineer" tape. But they don't run over an anti-tank ditch.

Planning Factors. Time of emplacement will vary with type of soil. In the rocky, clayey soil at Hohenfels, we found that two dozer scoop-loader teams (4 vehicles) could dig 400 to 600 m of ditch in 2-3 hours.

The deeper the ditch the longer it takes a tank to defeat it (by ramming the walls and breaking them down). A 1.2 m rectangular ditch provided a good two minutes of delay; a 1.5 m more gave about five minutes. The tactical play of the problem usually limited us to shallower depth because of the press of time. In the counterattack, the ditch delays the friendly force by about a minute. Less, if CEVs and tank-dozer are up front to breach by pushing in the spoil.

Conclusion. The anti-tank ditch is not the answer to the combined arms teams's prayer; it does not have (by itself) the awesome lethality of a minefield, nor is it as formidable as a blown multi-span bridge at flood-tide. It is an important tool for the combat commander and his engineer. It is a combat multiplier that can turn the tide of battle. It is the most realistic peacetime training obstacle that the combat engineer can provide for his combined arms team. Use it — you'll have fun!