

## TEXT 5

### **Armour**

The fundamental mission of armour is to destroy the enemy. The ability to move, shoot, communicate, and provide armoured protection is a decisive factor on the modern battlefield. In accomplishing its assigned missions, armour uses fire, manoeuvre, and shock effect, synchronized with other manoeuvre elements, and with combat-support and combat-service support assets. When properly supported, it is capable of conducting sustained operations against any sophisticated threat.

The main purpose of the tank is to carry the gun into the battle. The armour is provided to ensure that the crew is protected from shrapnel (the main cause of battlefield casualties) and small arms fire. The crew has divided responsibilities. The driver gets the vehicle to firing position, the tank commander selects targets, the loader ensures the weapon is loaded with correct ammunition for the target selected, and the gunner makes sure the round strikes the target in the area of maximum vulnerability.

Tanks embody the mobile protected firepower needed to fight the close-combat manoeuvre battle. In the attack, tanks which function as a part of combined-arms mounted force must enter the close-combat battle space in order to win. This entails driving the enemy from an objective or destroying him. In the defence, mounted units must also fight and destroy enemy forces moving into this battle space.

The operational capabilities of survivability, lethality, and mobility are defined by the need to fight and win against any system entering or engaging tanks in the battle space. Survivability must be maximized against any weapon system capable of engaging in the close-combat battle space. Lethality requirements are driven by the need for the tank to engage and destroy any vehicle entering the close-combat battle space. Tanks must be able to manoeuvre quickly over the battlefield in order to bring the lethality and survivability assets to bear. Only fully tracked vehicles can provide the load-carrying capacity and cross-country mobility needed to effectively fight the manoeuvre battle.

Tanks offer an impressive array of capabilities on the modern battlefield: excellent cross-country mobility, sophisticated communications, enhanced target acquisition, lethal firepower, and effective armour protection. In combination, these factors produce the shock effect that allows armour units to close with and destroy the enemy in most weather and light conditions. Tanks can move rapidly under a variety of terrain conditions including soft ground, trenches, small trees, and limited obstacles. In addition, navigation systems allow today's tanks to move to virtually any designated location with greater speed and accuracy than ever before. Optics and sighting systems enable the crews to acquire and destroy enemy tanks, armoured vehicles, and fortifications using the main gun or to use machine guns to destroy enemy positions, personnel, and lightly armoured targets. The tank's armour protects crewmembers from small arms fire, most artillery, and some anti-armour systems.

Tanks require extensive maintenance, proficient operators, and skilled mechanics, as well as daily re-supply of fuel, oil, and grease. They are vulnerable to the weapons effects of other tanks, attack helicopters, mines, anti-tank guided missiles, antitank guns, and close-attack aircraft. When tanks operate in urban areas, dense woods, or other close terrain, reduced visibility leaves them vulnerable to dismounted infantry attacks as well. In such situations, they are usually restricted to trails, roads, or streets. This severely limits manoeuvrability and visibility for observation.