

Indian Army tanks to get APS



Leopard 2A7A1 with Trophy

The Indian Army has invited an expression of interest for procurement of armoured fighting vehicles protection and counter measure systems for the T-90S Bhisma tank fleet; 818 such systems are to be procured. T-90 tanks are the mainstay of the mechanised forces and are likely to remain in service beyond 2050. The fleet is to be periodically upgraded to meet the futuristic war fighting capabilities. Currently there are many projects ongoing to modernise Russian origin tank fleet and to combat obsolescence firepower, protection and situational awareness are to be enhanced.

An active protection system currently is the most potent way to protect an armoured vehicle from the enemy HEAT projectiles. World's first operational active

protection system Drozd was developed by Soviet Union in late 70s. Since then many nations have developed APS successfully. As the Indian Army is witnessing the rapid change in armoured warfare to defeat new threats, in lieu of heavier armour to protect their assets have turned towards cutting edge solutions for the protection. At the moment only the T-90S Bhisma fleet (while light tanks too to get similar upgrades) is desired to be equipped with a potent system.

The active protection system with 360° coverage must brave adverse weather situation and should be in working situation during temperature ranging from -5° C to +45° C. A light system with maximum weight of 1000 kg is desired with a service life in excess of 3000 hours. It must have both the Soft Kill and Hard Kill capability.

The Soft Kill capability should provide an audio visual warning on being laser tagged or engaged by a hostile system and will use decoy or smoke to defeat it. It must be able to defeat or at least degrade in-coming anti-tank guided missiles (laser/ IR/Radar guided) by means of electro optical signals and IR jamming. The hard kill system must be capable of defeating all kind of incoming anti-tank guided missiles and 125 mm HEAT (High Explosive Anti-Tank) rounds, rocket propelled grenades and smaller anti-tank shells from rocket launchers by means of intercepting and defeating or at least degrading their lethality. Capability to intercept enemy KE tank rounds (APFSDS) by upgrading the system in future is desired as well. The safety parameter has been given utmost importance. The radiation from the