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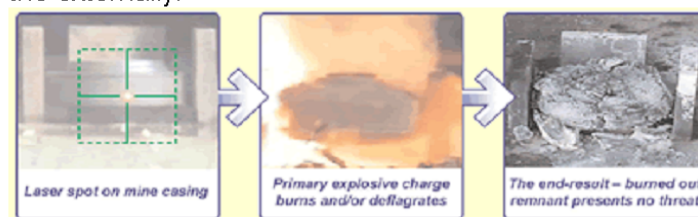
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Thor – High Energy Laser IED Neutralization System

RAFAEL, Israel



RAFAEL is introducing at Eurosatory a new high-energy laser weapon system, developed in Israel to defeat improvised explosive charges (IEDs), roadside bombs and unexploded ordnance (UXO) and other objects categorized "potentially explosive hazards". The vehicular, system is mounted on a remotely controlled weapon station, carrying the laser beam director and high-energy laser and coaxial 12.7mm machine gun to neutralize improvised explosive devices from a safe, standoff distance. This dual capability enables Thor to be used for offensive and defensive purposes, as well as for safe stand-off removal of explosive obstacles by laser directed energy or projectile kinetic energy. Since the laser is used to burn the IED, rather than activate it, it can be used to avoid collateral damage which can result from other neutralization procedures. The system's total weight is 850 kg, of which 250, including heavy machine gun and beam director are mounted on the externally.



The directed energy from the laser is capable of rapidly clearing unexploded ordnance and defeating IEDs by inducing a low-order burning or deflagration reaction in the explosive fill at safe stand-off ranges (see photos above). THOR uses powerful, air cooled laser, measuring up to 700 watt. The kinetic energy from the 12.7mm bullet fired by the M2 functions as a standoff disrupter, destroying fusing, thick-cased munitions and booby traps. The M2 machine gun also provides

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accurate, direct fire upon enemy forces and targets in either an offensive or defensive role.

The system is modular and can be installed on a variety of vehicles and weapon stations, as an add-on system. The system is already operational is used by Combat Engineering and EOD/IED Defeat Forces, to enable on-the-move removal of explosive obstacles such as IED's, mines, UXO and others, with embedded self-protection capability. Thor has demonstrated combat effectiveness in operational engagements bringing an additional precision fire gun platform to the fight, while at the same time filling a unique tactical mission role.

Developed by Rafael Armament Development Authority Ltd., Thor is now available for sale and integration in the United States by GD-OTS through a teaming agreement with Rafael. The system will be on display at the Eurosatory 2006 exhibition in June, 2006

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