

TROPHY™



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# TROPHY™ ACTIVE PROTECTION AND HOSTILE FIRE DETECTION SYSTEM FOR ARMORED VEHICLES. THE WORLD'S FIRST AND ONLY FULLY OPERATIONAL, COMBAT-PROVEN APS . . .

## SYSTEM DESCRIPTION

TROPHY is a combined Hostile Fire Detection (HFD) and Active Protection System (APS) which is available in two main configurations: TROPHY HV (Heavy Vehicle) and TROPHY MV (Medium Vehicle). By proactively detecting, locating, and (if necessary) neutralizing anti-armor threats, TROPHY dramatically increases platform survivability, and creates a new paradigm of networked threat awareness for maneuver forces.

TROPHY neutralizes all standard shaped charge anti-tank threats in flight through four stages of engagement: Threat Detection, Threat Tracking, Countermeasure Activation, and Threat Neutralization. Only those threats which pose a danger to the platform are neutralized, thereby conserving ammunition and minimizing the chance of collateral damage.



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## BACKGROUND

The specter of advanced anti-armor weapons on today's asymmetric battlefields continues to haunt modern armored forces. The power and sophistication of these weapons have surpassed the ability of strictly passive armor-equipped platforms to defeat them without unacceptable sacrifices in the key areas of weight and mobility. Integration of "active protection" capability into a platform's survivability suite allows for improved protection against these advanced threats without an increased weight or mobility penalty.



## BENEFITS

- Neutralizes a wide variety of anti-armor threats, from RPGs to the most modern anti-tank guided missiles (ATGMs)
- Very high kill probability at distances that greatly reduce the chance of residual penetration
- Engages threats only if they pose a danger to the platform
- Extremely low false alarm rate proven over years of developmental testing and operational employment
- Minimizes collateral damage through kinetic (non-explosive) intercept
- Immediately calculates and reports shooter location to the crew and/or Battle Management System
- Neutralizes threats fired at very short range, and multiple, simultaneous threats from the same or different directions
- User-defined protection zones optimize safety and flexibility for differing employment scenarios

## HOW TROPHY™ WORKS



**Radar detects and classifies incoming threat.**



**System tracks threat, computes intercept parameters, and transmits alert to crew and BMS.**



**If threat poses danger, system launches countermeasure to neutralize it away from the protected zone.**

## TROPHY HV COMBAT-PROVEN SYSTEM FOR HEAVY AND MEDIUM ARMORED VEHICLES

TROPHY HV protects heavy and medium armored vehicles from threats ranging from rockets to ATGMs and High-Explosive Anti-Tank (HEAT) rounds. Extremely precise target acquisition and tracking, coupled with Multiple Explosively Formed Projectile (MEFP) countermeasure technology, ensures a high probability of threat neutralization (in most cases without threat initiation) while minimizing the potential for collateral effects.

TROPHY HV offers 360° azimuth protection and high-angle elevation coverage, while maintaining user-defined safety zones for friendly troops on the ground.

**TROPHY HV is fully tested, qualified, and in serial production for the Israel Defense Forces armor force. Deployed operationally by the IDF since August 2009, TROPHY HV has proven itself in combat multiple times against advanced threats.**



## TROPHY MV LIGHTER WEIGHT SYSTEM FOR MEDIUM AND LIGHT ARMORED VEHICLES

By repackaging and re-engineering TROPHY's technology into a smaller, lighter form factor, TROPHY MV retains all the performance advantages of its larger predecessor, while enabling its further integration on both medium and lighter weight armored vehicles. TROPHY MV also offers a new, integrated Soft Kill (SK) capability against certain advanced threats. TROPHY MV is in the final stages of development, and has been successfully field-tested in Israel and overseas.



**TECHNICAL SPECIFICATIONS**

	<b>TROPHY HV</b>	<b>TROPHY MV</b>
Weight (kg)	820	520
Volume (m3)	0.69	0.42
Hard kill countermeasure	MEFP	MEFP
Soft kill countermeasure (optional)	N/A	Laser jammer
Threat detection	Radar	Radar
Threats addressed	ATGM, RPG, Recoilless rifle, Tank HEAT	ATGM, RPG, Recoilless rifle, Tank HEAT
Simultaneous threat engagement	Yes	Yes
Protection against short range launch	Yes	Yes
Situational awareness	Reports shooter location and threat classification to crew/BMS	Reports shooter location and threat classification to crew/BMS
Collateral Damage	<1% chance of collateral injury from Trophy or incoming threat	<1% chance of collateral injury from Trophy or incoming threat

