

active protection system like Trophy will target the dummy round and fail to detect the grenade on its tail in time to prevent it from hitting the tank. Due to threats like these, systems like the Trophy must be continuously improved.

Foreign Adoption

The US government analyzed 15 active protection prototypes in 2007 and found Trophy to be the best. It conducted further tests on the Trophy system in 2011. In both cases, the military was reportedly reluctant to adopt Trophy since US weapons manufacturer Raytheon was developing its own active protection system, the “Quick Kill.” The Quick Kill took much longer to develop, but Raytheon declared that the system was mature and ready to be used by the US Army in 2013.

Over 2012-2013, Rafael cooperated with American and Canadian companies to hold a series of complex tests where the Trophy was installed on the General Dynamics Land Systems LAV III armored vehicle, which serves in many armies worldwide. The system may be integrated into vehicles serving in the US and Canadian armies.

After an extensive review of many different active protection systems, GDLS had chosen the Trophy “due to its performance, safety record and the fact that it has a successful, proven record in the field.”

Subsequent tests were conducted under difficult field conditions to evaluate deterrence of current and future threats, including advanced anti-tank rockets, recoil-less cannons, advanced anti-tank missiles, short-range fire, multi-directional and multi-weapon fire, fire during motion and more.

Trophy Saved Lives in Gaza

In the current Operation Protective Edge, the latest conflict in Gaza that started on July 8, the Trophy once again proved its invaluable role in the IDF’s defense strategy. The army reported that over the course of the operation’s first 12 days, the active protection system had saved at least four tanks of senior

commanders. Many other tanks have also been saved from being disabled or destroyed by terrorist rocket fire.

Unfortunately, even with the best technology, tragic accidents can happen. On July 20, it was reported that an Israeli soldier was killed in an incident involving the firing of a Trophy system. It seems that he was in too close proximity to the explosion outside the tank. No further details were available at the time of this writing.

Iron Fist

Israel Military Industries (IMI), a competitor to Rafael, has developed its own advanced active protection system called Iron Fist. Rather than shoot down incoming rockets, Iron Fist launches its own counter-missile at them.

Using radar technology developed by a different company than the one Rafael uses, the Iron Fist solely uses the power of its missile’s explosion to deflect or destroy the incoming missile. The protective missile is made of combustible materials so that the resulting debris will burn up rather than fall to the ground or hit nearby objects, minimizing collateral damage.

Iron Fist performed extremely well in tests. In 2010, though, the Israeli Ministry of Defense cancelled funding to Iron Fist in favor of Trophy, which had been commissioned simultaneously. IMI was not happy about the decision, insisting that its system was superior to Trophy.

In 2013, the Ministry of Defense indicated that it wanted IMI to cooperate with Rafael in developing the next generation of the Trophy system. One of Iron Fist’s advantages over the first version of Trophy is that it can defeat kinetic energy penetrators. Kinetic energy penetrators work by piercing through armor through force of impact, rather than with explosives, much like a simple bullet. The penetrators are specially designed and shaped to pierce vehicle armor at maximum speed to disable it.

IMI refused to work on the project since it would have been in a secondary position to Rafael, and is continuing to market its Iron Fist system internationally. ■

Spicing Up The Battlefield

Israel Develops
High-Tech
Weaponry to Limit
Civilian Casualties



Colonel Richard Kemp, former Commander of British Forces in Afghanistan, summed up the challenge that the State of Israel faces from terror groups like Hamas.

Hamas (like Hezbollah in Lebanon, like the Taliban in Afghanistan and like

al-Qaida and the Shi'a militias in Iraq), use their own people as both tactical and strategic weapons of war.

Hamas used them on the tactical level as human shields, to hide behind, to stand between Israeli forces and their own fighters, sometimes forcing women and children to remain in the