

## **A Boost for Israeli Armor Industry** **New Focus To Be Placed On Force Protection**

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Urgent force protection requirements are expected to reinvigorate Israel's heavy armor industry, which has suffered in recent years from production slowdowns, procurement freezes and chronic uncertainty regarding the future of the nation's Merkava Mk4 main battle tank.

Despite last year's Ministry of Defense decision to withhold new Mk4 orders, sources said the Israel Defense Forces (IDF) General Staff has determined a high-priority need for additional tanks and troop carriers based on the Merkava chassis.

Military and industry leaders said the MoD freeze on new contracts — which went into effect in late 2006 and was expected to continue through 2007 — is rapidly defrosting, and that new orders are expected in the next 30 to 60 days.

"We will order more tanks," said Maj. Gen. Benjamin Gantz, commander of the IDF's Land Forces Command.

In addition to more Mk4s, Gantz said the IDF plans to introduce in 2008 the first models of the Namer (Tiger), a heavily armored troop carrier based on the Merkava chassis. Designed to transport 11 soldiers under high-threat conditions, it will be built by the MoD-owned and -operated Tank Production Office and supported by many of the 200 firms and factories associated with the Merkava.

"It's not just an issue connected to the quantities of tanks, each of which lasts for 30 to 40 years. It's an issue about Israel's heavy armor industry that is a strategic asset which must be preserved," Gantz said. "In our case, we're not just preserving [tank production] for the sake of preserving an asset; we really need it."

He said lessons from last summer's war against Hizbollah in Lebanon catapulted elements of force protection to the very top of the IDF Land Force's modernization agenda. And while the IDF's multiyear spending plan has not been finalized, Gantz said there is renewed appreciation among Israeli decision-makers for protecting ground troops on the move.

"A key lesson from the last war is our need for an effective maneuvering capability," Gantz said. "Ground maneuver, regardless of whether it is defensive or offensive, is at the heart of the IDF's ability to be decisive and victorious in warfare."

To ensure maneuvering capability, Gantz said a premium will be placed on heavily armored vehicles and advanced active defense technologies aimed at protecting troops from artillery, improvised explosive devices (IEDs), anti-tank missiles and other threats.

"No doubt, we need to advance in terms of protecting our infantry through new vehicles and other capabilities," he said.

Gantz said force protection requirements will not require development funding, since capabilities have already been developed — and in many cases extensively field-tested — by local industry.

“It’s all capabilities that are either off-the-shelf or more or less are available and just waiting for [procurement] funding,” he said.

Gantz declined to discuss when the MoD plans to renew Merkava-related production contracts to local industry, insisting he does not want to be manipulated by a vocal and influential industrial lobby. Industry “knows what’s in store; they know what our direction is and they know that within the Army, we’re in the process of obtaining all the approvals needed to tender orders,” he said.

Shlomo Passy, chairman of the Israel Manufacturers’ Association’s Heavy Armor Forum, said he welcomes the IDF’s renewed emphasis on heavy armor and force protection, and eagerly anticipates renewal of Mk4 orders. But he expressed doubts about the ability of Gantz and other proponents to secure enough funding to extend Mk4 production in parallel to new builds of the Namer troop carrier.

In addition to Mk4 and Namer production, the Land Forces Command is seeking funding to equip these two and possibly other platforms with the Trophy active protection system made by Rafael. The IDF also continues to evaluate future procurement of the U.S. Stryker wheeled fighting vehicle and the Golan, Rafael’s heavily armored troop carrier.

Gantz “is now fighting for his share of the funding pie, and we hope he is successful,” Passy said. “It’s going to be difficult to get the green light to simultaneously launch Namer, continue Mk4 production and procure the needed quantities of Trophy. ... I’m not optimistic.”

### **International Success**

While most local firms anxiously await IDF multiyear funding decisions, a few companies are enjoying growth through export sales and international teaming agreements.

In recent years, Rafael has delivered more than 1,000 sets of reactive armor for the U.S. Army’s Bradley fighting vehicle through its partnership with General Dynamics ATP. Rafael also has contracted with two other NATO nations for sets of the reactive armor tiles, company executives here said.

In addition to active and reactive armor, Rafael has delivered more than 100 of its Wolf passive-armored light vehicle, based on a Ford four-wheel-drive chassis.

The firm also has developed a niche in the so-called hybrid armor market through its Golan Mine Resistant Armor Protection vehicle. In February, the U.S. Marine Corps awarded Rafael and Charleston, S.C.-based Protected Vehicles an initial \$37.4 million order for 60 15-ton Golan armored fighting vehicles, the first tranche in a planned \$2 billion, 4,100-

vehicle Pentagon acquisition program.

The Golan involves both passive and reactive armor, and begins as a protective capsule or crew compartment, which is then adapted to a particular platform, depending on customer need, Rafael executives said.

“The Golan is a philosophy based on the concept of hybrid armor; it is not limited to a specific platform,” said Nehemia Schachar, head of Rafael’s Land Systems and Survivability Division.

Schachar noted that 50 percent of the Golan’s weight is armor, compared with even the most efficient up-armored vehicles, where armor does not exceed 25 percent of gross volume weight.

“We’re at the very beginning of the road with this type of hybrid armor, and we anticipate tremendous interest from the export market, as well as ... the IDF,” he said.

Another local firm that has excelled on the international market is Plasan Sasa, one of the world’s leading niche suppliers of composite armor and ballistic protection. As a principal subcontractor to Oshkosh Truck, the firm was selected in mid-2006 for an estimated \$740 million, six-year U.S. Marine Corps Logistics Vehicle System Replacement program. It also is Europe’s predominant supplier of up-armor solutions and the second largest supplier in the United States after Armor Holdings, Jacksonville, Fla.

Meanwhile, state-owned Israel Military Industries (IMI) has concluded development and testing of its own active protection system, Iron Fist. Like the Rafael Trophy, Iron Fist creates around vehicles a virtual bubble of protection against IEDs, rocket-propelled grenades and mortars. However, Iron Fist also is designed to defend against the projected future threat of kinetic-energy tank rounds.

In February, IMI also completed development of an anti-IED system, Steel Carpet. IMI officials said Steel Carpet composite armor and other materials absorb energy from IEDs and other threats to prevent penetration of vehicles. •

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