

# Israel laser shield moves closer to deployment

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SPYDER, Rafael Advanced Defense Systems' surface-to-air missile system, is on display as F-16 fighter jets of the Singapore Air Force aerobatics team Black Knights perform on the fourth day of the Singapore Airshow in Singapore Friday, Feb. 14, 2014. Rafael Advanced Defense Systems developing a laser-based missile shield that evokes "Star Wars" style technology said its deployment over the country is closer to becoming a reality. The Israeli state-owned arms company said development of the system was advanced enough for the company to be comfortable with publicizing it at the airshow, which is Asia's largest aerospace and defense exhibition. (AP Photo/Joseph Nair)

An Israeli state-owned arms company developing a laser-based missile

shield that evokes "Star Wars" style technology says its deployment over the country is closer to becoming a reality.

Rafael Advanced Defense Systems said development of the system was advanced enough for the company to be comfortable with publicizing it at this week's Singapore Airshow, which is Asia's largest aerospace and defense exhibition.

The laser technology behind the missile shield called Iron Beam is not that far removed from fiction.

"It's exactly like what you see in Star Wars," said company spokesman Amit Zimmer. "You see the lasers go up so quickly like a flash and the target is finished."

Iron Beam is designed to intercept close-range drones, rockets and mortars which might not remain in the air long enough for Israel's current Iron Dome [missile defense](#) system to intercept.

Iron Dome batteries have shot down hundreds of rockets launched by Hamas militants from the Gaza Strip at Israeli cities. With no peace deal in sight and also threatened by Hezbollah in Lebanon, Israel wants to beef up that system and develop further protection.

Avnish Patel, an expert in military sciences at the Royal United Services Institute, said Iron Beam is potentially an effective addition to Israel's defenses rather than a drastic change.



An F-16 fighter jet flies past the Rafael Advanced Defense Systems' SPYDER surface-to-air missile system, during a performance by the Singapore Air Force aerobatics team Black Knights on the fourth day of the Singapore Airshow in Singapore Friday, Feb. 14, 2014. Rafael Advanced Defense Systems developing a laser-based missile shield that evokes "Star Wars" style technology said its deployment over the country is closer to becoming a reality. The Israeli state-owned arms company said development of the system was advanced enough for the company to be comfortable with publicizing it at the airshow, which is Asia's largest aerospace and defense exhibition. (AP Photo/Joseph Nair)

"Essentially, its military and tactical utility will be particularly useful in complementing the already proven Iron Dome system in tackling very short range threats such as rockets and mortar fire and in close quarter engagements," he said.

Rafael Advanced Defense Systems said test data show Iron Beam lasers are blasting away more than 90 percent of their targets. The new system

can also be modified so that multiple lasers can be used to hit a target, according to the company. But officials remain tight lipped as to when and how the Iron Beam will be deployed.

Zimmer, the company spokesman, said it took 15 engineers about five years to work on the technology involving solid-state lasers. It works by shooting laser beams at targets which are heated so rapidly they disintegrate in an instant.

"It's very accurate and will help avoid collateral damage," Zimmer said at the company's booth at the airshow exhibition hall. "When you use lasers, you have an unlimited magazine."

Besides Iron Beam and Iron Dome, Israel is also developing the next phase of its Arrow system which can intercept missiles in space and the upcoming David's Sling, which shoots down short and mid-range ballistic missiles.

But some feel Israel, which gets significant funding from key ally the U.S. for missile defense capabilities, is going overboard.

Fanar Haddad, a research fellow from the Middle East Institute in Singapore, said Israeli military superiority in the region was so firmly established that Iron Beam was unlikely to change anything in the short or medium term.

"The development of another layer says more about Israeli paranoia," he said. "The possibility of a conventional attack against Israel is next to nil and there is hardly a need for five layers of missile defense systems."

Rafael Advanced Defense Systems would not comment on how much Iron Beam would cost or how much has been invested in it so far.

"It's very hard to say. We're still testing and it can be modified in many different ways," Zimmer said.

Other nations and private companies may be keen on using the laser based technology to protect against attacks.

Israel has become one of the world's leading weapons exporters. Israeli arms companies often point out that they bring with them years of firsthand experience from conflicts with Palestinian militants in the Gaza Strip and the West Bank, jihadi militants in Egypt's Sinai desert and Hezbollah guerrillas.

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