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RAY GUNS

## Will THEL Live Again

by Martin Sieff

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Washington (UPI) Aug 24, 2006

The war between Israel and Hezbollah in southern Lebanon has revived the prospects of a long-abandoned laser defense against short-range rockets.

Wars bury the reputations of old weapons and transform the standing of new or previously despised ones. Israel's legendary Merkava, or "Chariot," main battle tank turned out to be unexpectedly vulnerable to anti-tank rockets that had been widely available since the late 1980s.

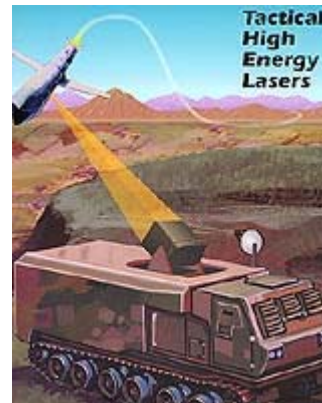
And Hezbollah's hoary old Katyusha-style mobile rocket-launching batteries turned out to have a devastating strategic impact in their ability to bombard the cities and townships of northern Israel. Yet the Katyusha massed rocket battery technology has been widely available for almost five-and-a-half decades since the Red Army used it to devastating effect in World War II.

All of Israel's vaunted in-depth anti-ballistic missile defenses turned out to be useless against the Katyusha threat. As a result, the Israelis are now looking to the United States to revive a promising but ambitious chemical laser weapon that was being developed against such threats but was abandoned less than a year ago.

Al-Jazeera satellite news network reported Aug 16 that the Israeli government of Prime Minister Ehud Olmert, taken by surprise by the scale and effectiveness of the Katyusha bombardments, had requested information from the U.S. Department of Defense about "Skyguard," a high-energy chemical laser system designed to destroy incoming artillery rockets and ballistic missiles.

The day before, Aug 15, StrategyPage.com reported that Israel was already working with the U.S. government to see if it could revive its participation in the laser anti-missile system, previously called THEL, or "Tactical High Energy Laser."

Israel dropped out of the project at the beginning of this year, the report said, because of the expense of developing the system. "But after seeing Hezbollah fire over 2,000 rockets into northern Israel, and having the Palestinians fire a few dozen a month into southern Israel, the Israelis want to reconsider the new



The THEL laser (pictured) and radar system was designed to track up to 60 targets -- as small as mortar and artillery shells or rockets -- at a time and fire on and destroy these projectiles at a range of up to 3 miles.

Will David Beckham  
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version of THEL," StrategyPage.com said.

Northrop Grumman, the U.S. partner in THEL development, is now offering a smaller version of THEL, Skyguard, for protecting commercial aircraft from portable anti-aircraft missiles, StrategyPage.com noted. But Northrop Grumman originally developed THEL for combat situations. And tests last year had highly promising results. They "showed THEL was able to knock down barrages of incoming mortar shells," StrategyPage.com said.

The THEL laser and radar system was designed to track up to 60 targets -- as small as mortar and artillery shells or rockets -- at a time and fire on and destroy these projectiles at a range of up to 3 miles, the StrategyPage.com report said. "THEL can destroy about a dozen targets a minute, at a cost of some \$3,000 per shot. Each THEL system (radar and laser) could thus cover about 10 kilometers (6 miles) of border," it said.

According to the StrategyPage.com report, the THEL system is remarkably cheap -- at least by the astronomical standards of BMD program development. "Northrop Grumman now says that it can have an anti-rocket system ready in 18 months, at a development cost of \$400 million. Each anti-rocket system would cost about \$50 million, and eight or nine would be required to cover the Lebanese border. One or two could cover Gaza. Thus the total bill for just developing, building and installing the systems is about a billion dollars," the report said.

Why then, was THEL effectively scrapped at the beginning of this year?

"It died (as) a casualty of the Iraq war and homeland security and national missile defense ideologies and bureaucratic politics," William M. Arkin, one of the most respected and influential U.S. reporters on national security issues, wrote in his "Early Warning" column in the Washington Post Aug 9.

Arkin noted that a test laser showed its ability to shoot down a short-range Katyusha rocket in flight as early as February 1996 in a New Mexico test. As a result of that test, TRW was awarded \$89 million to develop that test laser capability into THEL, he wrote. A joint program was started with Israel. In May 1996, President Bill Clinton's Defense Secretary William Perry called THEL "an urgent matter for both governments and one to which I assign the utmost importance."

But as early as 1997, Perry's Department of Defense requested no further funds to develop THEL. "The big boys at missile defense didn't want anything short-range threatening their space-based, mega-long-range systems," Arkin wrote.

THEL had its problems, but also its successes. By the time of the Sept. 11, 2001, terrorist attacks on the World Trade Center and the Pentagon, THEL had shot down 28 Katyusha rockets, Arkin noted. U.S. Army champions of the program were enthusiastic. But after Sept. 11, 2001, the program got sidetracked as many other issues seemed far more urgent. The program was transferred to Northrop Grumman and more progress was made. But funding remained extremely low.

"In more than 10 years of development, THEL had been funded to the tune of about \$300 million, of which Israel had paid almost half," Arkin concluded.

StrategyPage.com noted Aug 15 that senior Israeli artillery officers who favored THEL had argued that money spent on it would provide more benefit than billions of dollars spent on new jet fighters. "Earlier this year, the air force won that argument. But now the artillery generals are coming back for another round," StrategyPage.com said.



With the benefit of hindsight, the THEL program showed far more promising results, far more quickly than many of the hugely ambitious, long-term programs being funded by Defense Secretary Donald Rumsfeld's Pentagon. And even if its mobility was still extremely limited, its value should have seemed obvious to another key U.S. ally, South Korea, as a potential defense against the estimated 13,000 rockets and artillery tubes that North Korea has deployed across the Demilitarized Zone.

Military history is full of examples of weapons systems whose value was overlooked by thousands of generals and experts until it was too late. After a decade out in the cold, it may be that THEL's time has finally come.

Source: United Press International

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Redondo Beach CA (SPX) Aug 23, 2006

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