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An American Iron Dome?

According to Peter Buxbaum, the United States sees Israel's Iron Dome as the ideal platform to defend its own territory from short-range missile threats. However, prospects for US-Israeli co-production remain subject to Tel Aviv's ongoing efforts to deploy more of these assets along its own borders.

By Peter A Buxbaum for ISN

The Israeli short-range missile defense system **Iron Dome** made headlines recently as a result of its effectiveness during the latest round of conflict between Israel and the Palestinians. Over the course of the eight-day conflict, Hamas and Islamic Jihad launched approximately 1,500 rockets and missiles against Israeli territory. In response, Israel, launched over 400 *Iron Dome* interceptors and, according to Israeli sources, downed [85 percent](#) of all projectiles fired from Gaza.

While the United States has an established arsenal of missile defense systems, it nevertheless lacks a system like *Iron Dome* that can defend against short-range threats. However, a [request for information](#) released last August which calls for the development of a system with capabilities similar to those of *Iron Dome*, demonstrates that Washington is determined to acquire similar hardware. But the United States' Congress may have different ideas. Within the last few months, Congress has gone out of its way to provide regular and extra funding to Israel for *Iron Dome*. While this activity could have been motivated in part by political considerations, it could also signal a move toward joint production of *Iron Dome*.

U.S. Support

The rationale for such a move is simple: in an era of declining defense expenditure, the Department of Defense may stand to benefit from acquiring an existing capability that it needs and wants, instead of developing one from scratch. It should be noted that the United States has provided most of the funding for *Iron Dome* to date. Moreover, several levels of Israel's missile defense array that are also currently under development are already joint US-Israel projects. Viewed in this light, the recent flurry of Congressional activity in support of *Iron Dome* (most of which preceded the Gaza conflict) could be a down-payment toward an eventual co-production scheme. The Israelis are apparently amenable to such an arrangement and general talks have been held on the possibility of co-production. But any deal will have to wait until the Israelis finish beefing up the production of *Iron Dome* interceptors and the deployment of additional batteries around the country.

At the production level, the *Iron Dome* system was developed by Rafael Advanced Defense Systems. It was developed in response to the 2006 conflict between Israel and Hizbullah in Lebanon. During

that conflict, Hizbullah fired hundreds of rockets against northern Israel, prompting retaliatory airstrikes and intervention into southern Lebanon. Following its test phase, *Iron Dome* was first deployed in 2011. The project benefited from initial funding of \$270 million from the Israeli government, which covered development and the deployment of the first two batteries of interceptors. However, much of the follow-on funding came from the [U.S. government](#), with future outlays likely to take financing close to \$1 billion.

Selective Engagement

"[*Iron Dome*] is designed to intercept and destroy short-range artillery and rockets of ranges from four km to 17 km," said Lt. Col. Merav Davidovits, a liaison officer for the Israeli Missile Defense Organization in the Embassy of Israel in Washington. "It is also effective against rocket salvos and has been combat proven since 2011." One important capability of the system is selective engagement, which explains why the Israelis launched only 400 interceptors against Hamas' 1,500 rockets and missiles. "The system is able to predict the trajectory of the rocket," explained Davidovits. "If it is calculated to fall into an open area, we do not waste an interceptor against it." The Israelis have not publicly confirmed the cost of the interceptors but various experts have estimated the price per unit to be between \$30,000 and \$80,000.

The benefits of the system, according to Davidovits, go beyond providing a measure of protection for Israeli citizens who live within range of the rocket fire. "It also provides time to the political echelon to take the right and responsible decision," she said. "There are alternatives to mounting a ground incursion into Gaza to stop the rocket attacks." That proposition was demonstrated in the recent conflict, when the Israeli government determined that a ground incursion was not necessary before agreeing to a cease fire.

Continued Support

U.S. support for *Iron Dome* has enjoyed strong bipartisan support in Congress as well as from the Obama administration. "Israel received a first installment of US\$205 million for *Iron Dome* in 2010," said Randy Jennings, a defense consultant and former congressional staffer. "Israel received another \$70 million this year. There have been eight bills introduced in Congress this year to extend funding for *Iron Dome*." For instance, [The United States-Israel Enhanced Security Cooperation Act](#), passed by the Congress and signed by President Obama in July 2012, calls for the United States to "provide the Government of Israel assistance specifically for the production and procurement of the *Iron Dome* defense system". [The National Defense Authorization Act](#) for fiscal year 2013, which is currently pending in Congress, provides \$200 million for *Iron Dome* next year as well as another \$680 million to fund the system through 2015.

Iron Dome is the shortest-range component of a multi-layered program for missile defense which also includes, in order of increasing ranges, *David's Sling*, *the Arrow 2*, and *the Arrow 3*. These programs, which are currently in development and have not yet been deployed, are all being co-produced by the United States and Israel, and, according to Jennings, are fully funded through 2018. "The US lacks the capability to defend against short range missile attacks," said Jennings. "The Defense Department has a mindset against adopting foreign systems and issued a request for information earlier this year for a system with *Iron Dome's* capabilities. But internal or external influences could push the Pentagon to save time and lives by establishing co-production of *Iron Dome*."

The Benefits of Co-production

There are several factors, according to Jennings, which makes a co-production scheme "inevitable." "The U.S. has one billion dollars in the program and...sufficient industrial capacity to manufacture the

system. *The Arrow* and *David's Sling* programs are already operating under joint production agreements, serving as established precedents. With defense cuts looming and layoffs in the defense workforce coming, the political pressure will increase to spend *Iron Dome* money at home." Jennings estimates that production of 3,000 missiles would create 600 jobs, not including positions at second-tier suppliers.

According to Jennings, Israel would also benefit from the arrangement because with co-production the unit costs for interceptor missiles would fall. In addition, the United States would be in a position to stockpile interceptors in Israel, which the latter could borrow in the case of a conflict and its supplies run short. Davidovits acknowledged that Israel would be amenable to such an arrangement and that talks on the subject have already begun at the ministerial level. But the situation is not "mature enough," she said, for the two sides to hammer out a definitive agreement. Israel already shares details of the technology with the US Missile Defense Agency, Davidovits added.

Israel's current priority, Davidovits emphasized, is to double its production capacity for *Iron Dome* and to more than double its level of deployment of the system. Israel currently fields six *Iron Dome* batteries around the country; its aim is to increase that to as many as thirteen. There will likely be little progress on a co-production agreement while Israel is in its current phase of ramping up its capacity and deployment. But in the longer run, if co-production is not inevitable, as Jennings would have it, it certainly appears to be highly likely.

For additional reading on this topic please see:

[Israel and Hamas: Fire and Ceasefire in a New Middle East](#)

[How Many Domes does Beer Sheva Need?](#)

[US Foreign Aid to Israel](#)

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