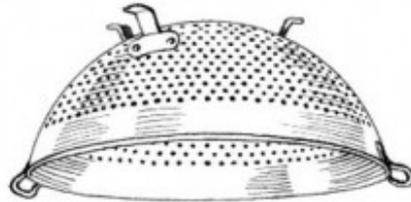


# BILLION DOLLAR BOONDOGGLE: ISRAEL'S IRON DOME MISFIRES



Schematic of Iron Dome missile defense system. \$1.3 billion price tag removed. (Wikimedia Commons image, rotated 180 degrees)

Less than two weeks after the US announced yet another \$429 million in funding for Israel's Iron Dome missile defense system (which had already gotten over \$900 million from the US), the system malfunctioned badly on Tuesday, resulting in the firing of two interceptor missiles by the system. The mishap frightened citizens in Eilat, where the incident took place around 7:30 am. Iran was quick to note the event and picked up on an important point: initial reports inside Israel claimed another "success" from the Iron Dome system, saying three rockets were incoming to Eilat and two of them were destroyed. The report later was withdrawn and the firing was blamed on an accident. Here is Fars News on the incident:

Israel's Iron Dome missile system 'accidentally' fired interceptor rockets into the Red Sea resort city of Eilat in Southern Negev.

Eilat residents were panicked early on Tuesday morning following a series of explosions that also sent Israeli forces scrambling to find the source of the

booms, press tv reported.

The Israeli army initially presumed that a rocket attack had occurred in the area.

Initial reports said three Grad rockets were fired at the resort town. They claimed two of the rockets were intercepted by the Iron Dome while the third one exploded in an open area.

However, the army later claimed that the attacks were really a false alarm caused by an error at the Iron Dome site near the city.

An army spokesperson said the explosions were caused by two Iron Dome anti-missile projectiles accidentally fired at around 7:30 am (0530 GMT).

PressTV took things a bit further, stating that Israel's bluffing about the capabilities of Iron Dome is meant to deter enemies. So did Israel initially claim that rockets had been intercepted? That does appear to be true. In my searching for news stories on this event, I found a story on Debka.com. The story now reads like this:

The loud explosions heard in Eilat early Tuesday came from Iron Dome which accidentally ejected two rockets. They were earlier accounted for erroneously by another Grad attack on Israel's southernmost town from Sinai.

But the Google remembered that Debka had originally described things differently. Here is how the story was displayed by Google in the search results (as an aside, whatever happened to the "cached copy" option that used to show up on Google?):

**Iron Dome intercepts two of three Grad missiles fired at Eilat**

[www.debka.com/newsupdate/7747/](http://www.debka.com/newsupdate/7747/) - Debkafile -

1 day ago - An **Iron Dome** battery deployed at Israel's southernmost town of Eilat intercepted two out of three Grad missiles fired at the town from ...

It turns out that despite cheerleading about Iron Dome from obvious sources like the US Missile Defense Agency and the Heritage Foundation, there are serious questions about just how well the system works and whether Israel has been falsely inflating its capabilities. Just over a year ago, the New York Times looked into how well Iron Dome functions. They found significant problems:

After President Obama arrived in Israel, his first stop on Wednesday was to inspect an installation of Iron Dome, the antimissile system hailed as a resounding success in the Gaza conflict in November. The photo op, celebrating a technological wonder built with the help of American dollars, came with considerable symbolism as Mr. Obama sought to showcase support for Israel after years of tensions over Jewish settlements and how to curb Iran's nuclear ambitions.

/snip/

Israeli officials initially claimed success rates of up to 90 percent. Michael Oren, Israel's ambassador to the United States, hailed the antimissile system as the first to succeed in combat. Congress recently called the system "very effective" and pledged an additional \$680 million for deployments through 2015.

But a growing chorus of weapons experts in the United States and in Israel say their studies – based largely on analyses of hits and misses captured on video – suggest that Iron Dome destroyed no more than 40 percent of incoming warheads and perhaps far fewer. Many rockets, they argue, were simply

crippled or deflected – failures that often let intact or dying rockets fall on populated areas.

The story continues:

Iron Dome is the newest and smallest of Israel's antimissile systems. Its interceptors – just 6 inches wide and 10 feet long – rely on miniature sensors and computerized brains to zero in on its specialty, short-range rockets. Israel's larger interceptors – the Patriot and Arrow systems – can fly longer distances to go after bigger threats. All have employed explosive warheads to shatter enemy targets, and all have faced doubts about their performance and military value.

/snip/

Iron Dome commanders fire only when radar systems and computer projections of rocket trajectories show threats to populated areas. Israeli officials say Iron Dome missed 58 incoming rockets while destroying 421. They now put Iron Dome's overall success rate at 84 percent rather than the 90 percent figure.

Isn't that interesting? The commanders "fire only when radar systems and computer projections of rocket trajectories show threats to populated areas", and yet there was no threat Tuesday morning when interceptors were fired. And note that the destruction of the incoming missile is achieved by the interceptor exploding near the incoming warhead, getting it to detonate while still high in the sky. Analysts have reasoned that since there is a lot of video of purported intercepts, they can analyze the videos to determine whether explosions of both the interceptor and the incoming missile can be confirmed. The results are not pretty. First up

is Richard Lloyd:

Mr. Lloyd also has the credentials for a critique, having written two books on antimissile warhead design during two decades at Raytheon, a top antimissile contractor. He now works for Tesla Laboratories, a defense contractor that has no projects competing with Iron Dome.

Mr. Lloyd says his doubts about Iron Dome deepened as he saw images of interceptors racing helter-skelter in the sky and found photographs of fallen rockets and even intact warheads.

From such evidence, as well as from rocket and warhead basics, Mr. Lloyd estimates that the system succeeded 30 percent to 40 percent of the time in detonating enemy warheads. For the remaining targets, he judges that the interceptor was either badly aligned or too far away, at best leaving the rockets wounded or thrown off course.

Hmm. A 30 to 40 percent success rate is far below Israel's claim of 90 percent. Well, okay, he used to work for the manufacturer of a competing system. How about another analyst?

Theodore A. Postol, a physicist at M.I.T. who helped reveal the Patriot antimissile failures of 1991, analyzed the new videos and found that Iron Dome repeatedly failed to hit its targets head-on. He concluded that the many dives, loops and curls of the interceptors resulted in diverse angles of attack that made it nearly impossible to destroy enemy warheads.

"It's very hard to see how it could be more than 5 or 10 percent," Dr. Postol said.

Wow. Only 5 or 10 percent? Can it get any worse than that?

Mordechai Shefer, an Israeli rocket scientist formerly with Rafael, Iron Dome's maker, studied nearly two dozen videos and, in a paper last month, concluded that the kill rate was zero.

And there you have it. We have pumped over a billion dollars into a system that Israel claims is essential and highly successful and yet multiple experts have shown that it falls far short of those claims. Despite this evidence of failure being pointed out last year, note that this latest \$429 million allocation from the US for the program was announced on March 19 of this year. What a great use of our tax dollars.