

How many rockets has Iron Dome really intercepted?

While IDF figures put the Iron Dome missile defense system's success rate at 84 percent, three scientists claim the real figure could be much lower than that.

By Reuven Pedatzur, Haaretz | Mar.09, 2013 | 2:08 PM

"Iron Dome's intercept rate, defined as destruction of the rocket's warhead, was relatively low, perhaps as low as 5%, but could well be lower."

This astonishing figure, which casts a shadow of doubt on the figures published by the Israel Defense Forces regarding the Iron Dome missile defense system, was suggested by Professor Theodore Postol, a world-renowned scientist and expert in missile defense.

Postol, and two other rocket scientists, Dr. Mordechai Shefer, formerly of Rafael, and D., a scientist who until recently worked for Raytheon, the manufacturer of PATRIOT missiles, investigated the performance of Iron Dome performance during Operation Pillar of Defense and all reached similar conclusions: Iron Dome's rate of success did not come close to the figure of 84% as reported by the IDF.

According to the three scientists, who conducted their research separately by analyzing dozens of videos filmed during the operation, most of the explosions which look as if they were successful interceptions, are actually just the self-destruction of the Iron Dome's own missiles. The scientists point out that in every case the explosions, seen as balls of fire during the day and clouds of smoke at night, were round and symmetrical. In the case of successful interceptions, in which the incoming missile's warhead is destroyed, there should have been another ball of fire or cloud of smoke.

They also uncovered a strange phenomenon whereby the Iron Dome's missiles followed identical trajectories, and self-destructed at precisely the same time. In some of the videos, it appears that the Iron Dome's missiles made a very sharp turn shortly before self-destruction. That cannot be, say the scientists, as there is no way that the missile defense system could "remember" that it needs to turn in the direction of the incoming Grad missile a quarter-second before it self-destructs.

In some cases, it seems as if the trajectories of Iron Dome missiles were preset.

In many cases, the Iron Dome's missiles are seen taking a sharp plunge, and chasing after the incoming rockets from behind. In such a scenario, the chances that the interceptor could come into close enough proximity to destroy the incoming missile's warhead are miniscule. In order to destroy an incoming missile's warhead, the Iron Dome missile would need to follow a trajectory that would result in a direct hit, or at least a hit at a sharp angle.

The scientists also discovered that 3,200 civilian damage reports were filed for destruction caused by incoming rockets. It is impossible, claim the scientists, that the 58 rockets that weren't intercepted – the number reported by the IDF – could have caused damage on such a large scale.

When they compare the damage during Pillar of Defense to the damage from the Gulf War, or the Second Lebanon War, serious questions arise regarding the number of rockets that were not successfully intercepted by Iron Dome, and fell in populated areas. Also, Israel Police reported that it dealt with 109 cases of rockets falling in populated areas, which is almost double the figure reported by the IDF.

The reports compiled by the three scientists cast even more doubt on the rate of success touted by the IDF. While it is difficult to stomach such harsh criticism of the army's figures, the scientists' claims should not be ignored without remembering the aftermath of the Gulf War. Initial reports following that conflict claimed a 96% rate of success for Patriot missiles. Later, an extensive study carried out by Professor Postol revealed that the rate of success was actually zero.

IDF spokesperson's response: Operation Pillar of Cloud will be investigated in all its aspects,

including the activity of the Iron Dome system. All interceptions [of missiles] by Iron Dome are investigated, with cross-checking of system data, radar [data], reports of different sources on the ground and other information. The data of [Iron Dome] activity was arrived at based on this process.

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