



‘Patriot shutdown of a Kinzhal’: dezinformatsiya?

Description

UKRAINE: Ukraine claims it shot down a Kinzhal hypersonic missile over Kiev on the night of May 4. The claim was dutifully reported by the Ukrainian propaganda mill, after which major Western news outlets [reported](#) the shutdown as fact.

The Ukrainians helpfully provided some photos claiming to show the front section of the Kinzhal after being hit.



Photo of alleged downed Kinzhal missile and close-in photo of where it was supposedly hit. Note the photo of the downed “Kinzhal” missile looks staged and is different from known images of the front section of the Kinzhal. Photo: Defense Express

According to Kyiv, the Ukrainians used their brand new US-supplied Patriot air defense system, firing a single shot that brought down the Kinzhal. However, it is unlikely a Kinzhal hypersonic missile was shot down by the US-supplied Patriot air defense system.

It should be noted that Patriot air defense systems have a mixed-to-poor record of successful intercepts of ballistic missiles. The failures include not being able to stop Yemen-fired Iranian ballistic missiles aimed at Saudi Arabia and the UAE from hitting their targets.

One would have expected US Army and Pentagon bigwigs, hearing the news, to have danced a jig. But in fact, although the New York Times reports that three unnamed US officials “confirmed” Ukraine’s shootdown, no US official actually has gone on record supporting the Ukrainians.

They said it couldn’t be done

While the Pentagon had been convinced that there was no contemporary air defense system that could knock out a hypersonic missile, the Ukrainians claim to have proved it could be done. Did they?

We do not know much about the Patriot battery that was handed over to Ukraine, other than that it was drawn down from an active US Army unit by Presidential order. The army has fifteen Patriot units altogether, but many of them are deployed abroad. There is no information that any unit operating abroad was sent to Ukraine. In 2021 the Biden administration pulled US Patriot units out of Saudi Arabia and the UAE. Quite possibly one of these units was sent to Ukraine.

If the unit sent was a PAC-3 model, we do not know whether it was modernized. The army has been slowly modifying and upgrading PAC-3 Patriots, but whether Ukraine got PAC-3s in one of the latest upgraded models is not known. The upgrades included improvements to the system's computers, changing over analog components to digital and improving the system's radar.

However, whether improved or not, the Patriot system delivered to Ukraine would need either US Army personnel or contractors from Raytheon to support the unit, since training some soldiers to operate and shoot a system does not equip them to do diagnostics and maintenance.

Some say that the Patriot system sent to Ukraine is an older PAC-2 model. Again, the Biden administration has not provided any information of the model Patriot sent to Kiev, but some of the units pulled from Saudi and UAE probably were PAC-2.

The PAC-2 interceptors fly far more slowly than the interceptor missiles on the PAC-3.

The Patriots were supplied to Ukraine to shoot down cruise missiles, glide bombs and kamikaze drones. No one ever said it was put in Ukraine to deal with Kinzhal or other hypersonic threats.

We also don't know what interceptor missiles were sent to Ukraine for the Patriot. Interceptor missiles for Ukraine are in very short supply and some US clients are having trouble getting replacement missiles. The US tried to help Saudi Arabia by trying to scrape up "spare" missiles from other US clients, suggesting there are no spare missiles in the army's inventory.

The latest version of the PAC-3 missile is called the MIM-104F. It has a Ka band active radar on board and a "hit to kill" package. Hit to kill is designed to impact and shatter an enemy missile or aircraft. Unlike blast fragmentation warheads that can send out thousands of lethal pellets using a proximity fuse, the MIM-104F relies primarily on its hit to kill feature, although it has a small additional explosive warhead called a lethality enhancer.

Had a kinetic kill device hit the Kinzhal it would have shattered the Kinzhal in a thousand pieces. Had the lethality enhancer gone off, it might have brought down the Kinzhal, but the Kinzhal that fell would be littered with small tears and holes.



Under the belly of a Russian Aerospace Forces MiG-31 is a Kinzhal hypersonic aeroballistic missile with a small radar signature and high maneuverability. Photo: Ministry of Defense of the Russian Federation

The photo supplied by Ukraine of the alleged nose section of the Kinzhal with a roundish hole in it was not likely hit either by a kinetic kill or by the missile's lethality enhancer.

American and European news media suggested that maybe the Kinzhal is not hypersonic and that is why it was knocked out of the sky. This argument is being put forward to explain how the Patriot was able to kill the Kinzhal. No proof has been provided for this claim.

The Kinzhal has a solid-fuel rocket motor and is launchable from either a Tu-22M3 nuclear bomber or a MIG-31 interceptor. When fired from the Tupolev bomber, the Kinzhal has a range of 3,000 km. When fired from a MIG-31, the range is less, around 2,000 km, perhaps due to a less capable onboard radar. The Tu-22M3s are stationed in the southern and western districts of Russia, putting them in range of Kiev and other Ukrainian targets.

The US has repeatedly said that the current-generation radars – including even the upgraded Patriot – can't track a hypersonic missile. One solution is to integrate space-based radar with advanced long-range terrestrial radar. If that is done you still have to hope that your interceptor can reach the hypersonic weapon. There is no evidence the US has implemented a system of space-based sensors with Ukraine's newly acquired Patriot battery.

Regarding the claimed shutdown, the official US position is that the US government supports Ukraine's claim of a successful Kinzhal shutdown, without actually saying that the US can confirm

it. This strongly suggests that US personnel supporting the Patriot in Kiev have not reported a Kinzhal shootdown.

While Ukraine's defense ministry and government support the story of the shootdown of a Kinzhal, the Ukrainian air force said there wasn't any missile attack on the night of May 4th when the alleged shootdown occurred. In fact, on that same night the Ukrainians managed to shoot down one of their own drones, although it isn't clear if they used their new Patriot system. After saying it didn't happen, the Ukrainian air force chief changed his mind and confirmed a Kinzhal was shot down.

The bottom line is that the Ukrainians need this victory to show citizens in Kyiv that they are protected. Thus, even if the shootdown wasn't real, the announcement served a political purpose.

All of this leads to the conclusion that the Kinzhal missile episode is, as the Russians would say, "dezinformatsiya."

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