



*And must have whiskey  
Oh, you know why*

« Ukrainian Tochka-U Missile Killed Dozens At Kramatorsk Train Station | Main | The MoA Week In Review - NOT Ukraine OT 2022-43 »

**April 09, 2022**

## More Evidence That Ukraine Fired The Missile Which Killed Dozens In Kramatorsk

This is a follow on to yesterday's [Ukrainian Tochka-U missile strike on the Kramatorsk railway station](#). Russia [no longer has Tochka missiles](#) (search for Tochka in the pdf) while the Ukraine, Belarus and several other states still use them.

There is now additional evidence that the missile was fired by Ukrainian forces. The facts do not matter in 'western' media who stick to whatever story they are told to produce. Still, I do believe that facts matter at least in the long term and that there is a historic value in documenting them.

The Tochka-U is a tactical missile with a maximum range of some 120 kilometer. It is typically fired from a transporter, erector, launcher vehicle (TEL) with little need of preparations.

The TEL vehicle for the Tochka is a [six wheeled BAZ 5921 /5922](#). These are amphibious floating hull chassis. The picture below shows a BAZ TEL in parade mode with a Tochka missile slightly erected. In the normal transport mode the missile lies horizontally under a protective roof.



[bigger](#)

There were several claims of such vehicles being seen in Belarus or with Russian forces in Ukraine. But not every six wheeled BAZ vehicle can be said to be a Tochka missile TEL or Tochka transporter. There are various look alike variants of the vehicle with radar or communication equipment or simply used as transporters or ferries for all kind of goods.



[bigger](#)

The Tochka missile, below in a firing position, consists of a rocket engine, four fins and grids to direct its course, a solid fuel compartment and a warhead at its front. A complete missile weighs about 2,000 kilogram.



[bigger](#)

There are various warhead types available which weigh about 500 kilogram each.

The warhead which was used in Kramatorsk is a fragmentation one with 20 sub-munitions (gray) each with some 7.5 kilogram of explosives enclosed in a metal hull.



[bigger](#)

Over the target area these sub-munitions get expelled and explode while still in the air and each one creates some 800 fragments. The warhead thus leaves no hole in the ground but expels a huge number of deadly metal fragments at high speed over a relative large area. The Tochka missiles are not very precise. They have a circular error probability (CEP) of some 150 meters. They are so called area weapons to be used against concentrations of infantry or unarmored vehicles.

After being fired the rocket engine propels the warhead towards its destination. Shortly before the impact the warhead separates from the booster section and continues its path while the rocket engine shuts down. Having lost its thrust and aerodynamic tip the relative heavy booster section will then tumble to the ground. If everything works as designed the booster section always falls short of the warhead section.

Which brings us to the scene in Kramatorsk. Several pictures from the scene show the booster section of the missile.



[bigger](#)



[bigger](#)





[bigger](#)

The place where it landed was geo-located as being near a parking space some 60 meter west-southwest of the railway station. Here is the [Google maps view](#) of the railway station area. The warhead explosions happened on the east side of the station over the departure platform.

The location of the booster debris and where the explosion happened allows one to point out the trajectory from where the missile was fired. I have checked the locations depicted below and found them to be correct.

North is to the top. The station is encircled and the point is where the booster section landed. The arrow shows the trajectory the missile must have taken.



[bigger](#)

Oh, the map is annotated in Russian and you don't trust Russian sources? Well, here is the *New York Times* [posting a similar map](#).



About 4,000 people were at the Kramatorsk train station trying to escape eastern Ukraine when a missile strike tore through it on Friday, killing at least 50 people and wounding nearly 100, according to Ukrainian officials.

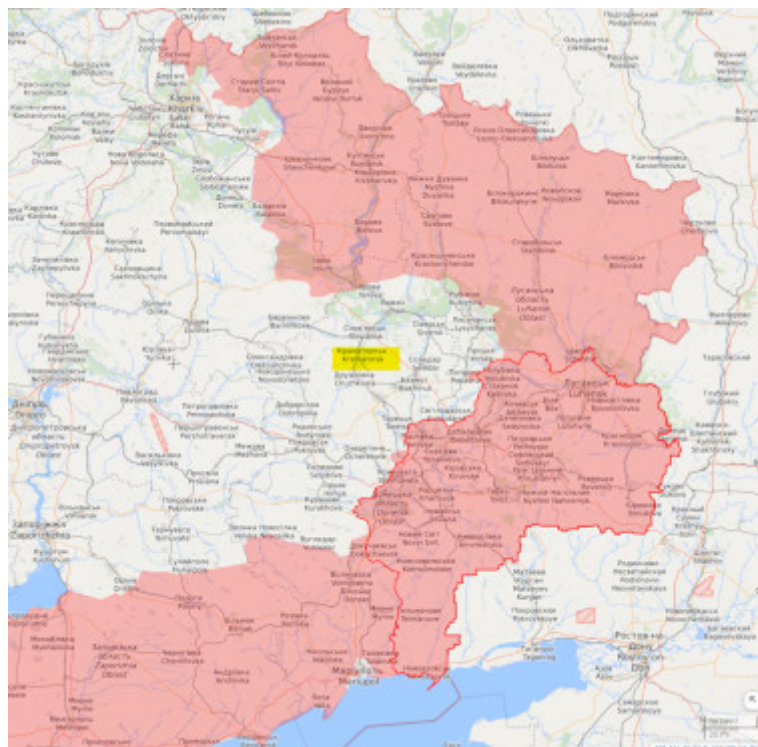
Follow live updates: [nyti.ms/3v1L1u1](https://nyti.ms/3v1L1u1)



9:20 PM · Apr 8, 2022 · SocialFlow

[bigger](#)

Here is map from [Liveuamap](#) depicting the current front lines in Ukraine. Kramatorsk is marked in yellow.



[bigger](#)

Note that there are no Russian or Russia-aligned forces west-southwest of Kramatorsk within the 120 km maximum range of a Tochka missile. The missile must have been fired by Ukrainian forces.

Unsurprisingly the Russian military [has come](#) to the same conclusion:

An analysis of the engagement radius of the warhead, as well as the characteristic position of Tochka-U missile's tail section, clearly confirm that it was launched from a south-western direction away from Kramatorsk.

According to intelligence reports, one of the divisions of the 19th Missile Brigade armed with Tochka-U missile systems at the time of the strike on Kramatorsk was located near Dobropol'e in Donetsk Region, 45 km south-west of Kramatorsk.

This area is still under the full control of the Ukrainian military grouping troops in Donbass.

The publicly available evidence shows that the Ukrainian military must have fired the missile that killed some 50 Ukrainian civilians in Kramatorsk.

The only purpose of the attack I can think of was to create propaganda that, when distributed as 'Russian attack' through 'western' media, will create more military support for Ukraine.

Everyone who urges to give more arms to the Ukraine or who eggs it on to continue this war is guilty of creating impetus for more incidents like the one seen in Kramatorsk.

Posted by b on April 9, 2022 at 10:23 UTC | [Permalink](#)

## Comments

[next page »](#)

The propaganda on this is still strong here in the UK on the BBC.

Posted by: JohninMK | Apr 9 2022 10:54 utc | [1](#)

---

The only thing the Russians in my opinion can do is stick to their plan and follow it through without hesitation.

The propaganda war cannot be won.

As a German citizen my daily experience is that big majority of „educated middle class“-people are thoroughly brainwashed - and a perfect example of how to manipulate the masses towards war.

Posted by: Vollhonk | Apr 9 2022 10:55 utc | [2](#)

---

CC:

During an offensive operation by LNR units, a portable radioisotope identifier Verifinder SN20 manufactured by the American company Symetrica was found at positions recaptured from Ukrainian armed formations.

According to official data, this equipment was not supplied to the territory of Ukraine as part of military assistance and is not on free sale, as it is intended directly for delivery to the United States security services.

Posted by: hmmm | Apr 9 2022 10:59 utc | [3](#)

---

Great article! It lays out evidence in a way that is hard to dispute.