# **Incident Assessment**

Incident ID	CIV0463
Location	4 Novhorods'ka St, Kharkiv
Coordinates	<u>50.0204, 36.2170</u> <sup>1</sup>
Date	28/02/2022 (the latest)
Time	Unknown

## **Description of the Events**

On 28/02/2022, a footage showing a 9M55K cargo section impacting the road surface in the Shevchenkivs'kyi district of Kharkiv, next to a school and a Red Cross branch was posted in open sources. According to media reports, 28/02/2022 saw heavy shelling in multiple districts of Kharkiv. The possible direction of origin of the 9M55K cargo section was estimated as being north-east, indicating the location of a 1 km area possibly impacted by its submunitions. Based on the reported capabilities of 9M55K rockets, the launch site must have been located between 20-70km away from the area of impact, towards the north-east. At the time of the incident, control over the estimated area was contested by Ukrainian and Russian forces.

## Timeline of the Incident

Between 24/02/2022 and 28/02/2022, a 9M55K cargo section impacted the road surface near a school and a Red Cross branch in Kharkiv.

There were no posts or media reports identified that would contain this imagery or any other materials depicting the CIV0463 prior to 16:46 EET on 28/02/2022. The search for relevant materials was performed using Google and Yandex, as well as search boxes on social media platforms, including Telegram. At the time of the assessment, it was not possible to determine the exact time of the attack.

## **Key Findings**

- On 28/02/2022 at 16:46 EET, an image depicting the cargo section of a 9M55K rocket embedded in a road was posted on Telegram;
- The incident was geolocated to a residential area of Kharkiv at <u>50.0204</u>, <u>36.2170</u><sup>2</sup>, in a close proximity to a Red Cross branch and a school;

<sup>&</sup>lt;sup>1</sup> https://maps.app.goo.gl/oDc8MQPfXFGKks8G7

<sup>&</sup>lt;sup>2</sup> https://maps.app.goo.gl/oDc8MQPfXFGKks8G7

- 'Kharkiv Air Force University' was identified within 1 km distance from the impact location;
- The area that was affected by the submunitions of this rocket was not identified;
- The date on which the image depicting CIV0463 was uploaded indicates that it must have taken place on or before 16:46 EET 28/02/2022;
- Multiple media outlets reported on other impacts affecting this area of Kharkiv on 28/02/2022;
- The exact area of launch was not identified; however, it was possible to identify the general direction of origin.

## **Description of Searches**

The CIVHARM sheet lists a single URL link to a Telegram post containing an image of the cargo section of a 9M55K rocket (S1I1).

Further online searches were conducted to identify other relevant materials about the incident using multiple search queries with the name of the general area affected by the cargo section as well as the specific address of the impact.

## **Background Summary of Significant Descriptive Content**

### **Media Reports**

Two media outlets reported on the heavy shelling that happened in Kharkiv on 28/02/2022:

- <u>https://www.newsroom.kh.ua/news/v-harkove-pokazali-posledstviya-obstrela-goroda-foto-video</u>
- <u>https://24tv.ua/ru/harkove-predupredili-o-nerazorvannyh-snarjadah-bombah-posle-ob</u> <u>strelov\_n1884197</u>

### Other

A personal blog describing the events that occurred on February 28th, together with a set of pictures. The time of the reported incidents was not specified.

• <u>https://www.tumgir.com/tag/war%20ukraine%20russia</u>

## **Description of Examinable Content**

#### Source 1 Image I (S1I1): <u>https://t.me/truexanewsua/26153</u>

Date: 28/02/2022 at 16:46 EET

**Description:** The Telegram post contains S1I1, depicting part of a missile sticking out of the ground next to a road. In the background, a sticker on a car and a building with two banners, all of which contain red crosses on a white background, are visible.

Accompanying caption: "-Харьков, Новгородская сейчас." (in Russian)



A screenshot of the Telegram post containing S1I1.

## **Questions to Investigate**

### Where Was the Incident?

The cargo section of the 9M55K rocket depicted in S1V1 was geolocated to 4 Novhorods'ka St, Kharkiv, Ukraine, at 50.0204,  $36.2170^3$ .

<sup>&</sup>lt;sup>3</sup> https://maps.app.goo.gl/oDc8MQPfXFGKks8G7

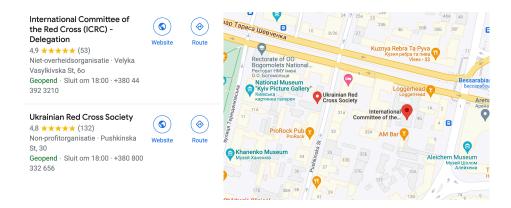
S1I1 was posted on Telegram with the accompanying caption: "– Харьков, Новгородская сейчас." which translates to English as "– Kharkov, Novgorodskaya now.", indicating the possible city and area of the incident.

The presence of a car with a red cross sticker on its bumper and two banners with red crosses on a white background hanging on the building's windows visually match the emblem of the international Red Cross movement. Furthermore, a person in a bright red jacket and a person with a bright red cap are seen standing at the entrance of the building. This indicates a possible presence of a Red Cross branch in the area of the incident.



Cropped and zoomed in image of S1I1.

A search using Google and Google Maps conducted in English in Kharkiv using the words "red cross" "Kharkiv", "novgorodskaya" in Google and Google Maps indicated a presence of two Red Cross branches in the area of interest:



However, a closer inspection of Google Street View images depicting these locations did not confirm the location of S1I1. The search using the phrase "*temporary red cross locations kharkiv ukraine*" in English performed using Google and Google Maps did not yield relevant results.

A search query using the Ukrainian terms "*Червоний Хрест Харьков*" (*In English:* "Red Cross Kharkov") identified the following website: <u>https://redcross.org.ua/contacts/</u> containing a list of Red Cross branches in Ukraine with addresses in Ukrainian, including the address of its branch in Kharkiv located on "вулиця Новгородська, 4, м. Харків, Україна" (*in English:* "4 Novhorods'ka St, Kharkiv, Ukraine").



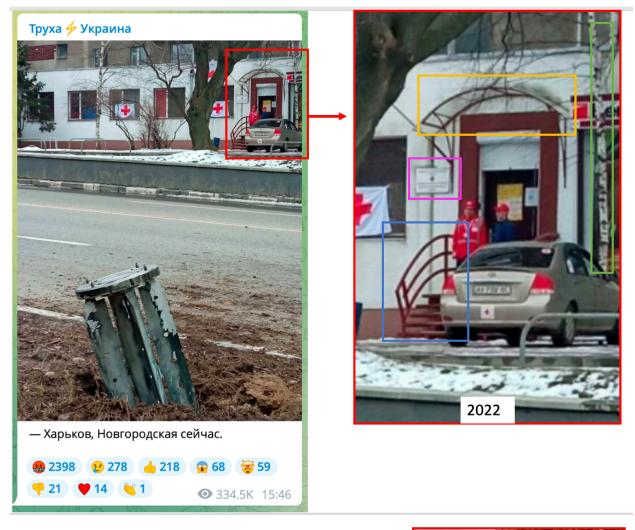
Left: A screenshot from the <u>Red Cross of Ukraine</u><sup>4</sup> website contains the address of its branch in Kharkiv. Right: The address of the Red Cross branch pinned on Google Maps (Credit: Google Maps).

A visual examination of the Google Street View <u>image</u><sup>5</sup> depicting the location at this address matches the location seen in S1I1.

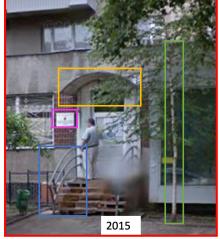
<sup>&</sup>lt;sup>4</sup> https://redcross.org.ua/contacts/

<sup>&</sup>lt;sup>5</sup> https://maps.app.goo.gl/hwsstJQEGeAcFEXy5

Next to the entrance, a white plate with a red cross is hung, indicating the presence of the Red Cross branch at this address since at least June 2015, when the Google Street View image was taken.



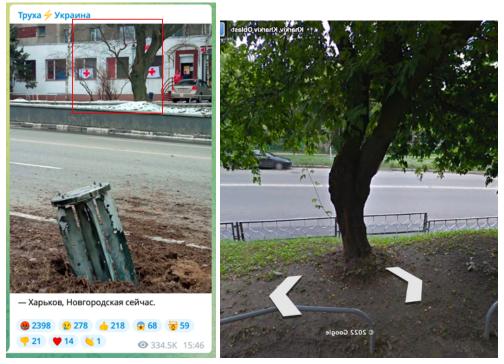




The entrance (Red Rectangle) with a matching roof (Orange Rectangle), a handrail (Blue Rectangle), a plate (Pink Rectangle), and a birch tree (Green Rectangle) as seen on S111 (Top) and the Google Street View image at the address indicated on the Red Cross of Ukraine website (Bottom).

The slight difference in facade colours between buildings depicted in S1I1 and the Google Street View image can be explained by the significant period of time (2015 and 2022) that has lapsed between them, during which the building has likely undergone a paint job.

Furthermore, the tree depicted in S1I1 to the right of the door appears to match the tree depicted in the Google Street View image.



Left: A tree with a matching shape of its trunk depicted in S111. Right: A Google Street View image, reversed for convenience (Credit: Google).

The incident occurred in close proximity to a  $\underline{\text{school}}^6$ .

<sup>&</sup>lt;sup>6</sup> http://school132.edu.kh.ua/



The location of the cargo section (Red Circle) and the location of the school (Red Rectangle) are indicated on the satellite imagery (Credit: Maxar Technologies/Google).

### When Was the Incident?

#### Date

The earliest identified post regarding this incident is S1I1, which was posted on 28/02/2022 at 16:46 EET. There is no information indicating that the area was impacted before 24/02/2022, when the Russian full-scale invasion of Ukraine started. As such, the 9M55K cargo section likely impacted the scene of CIV0463 in the period between 24/02/2022, but in no case later than at 16:46 EET 28/02/2022 when S1I1 was posted.

#### Time

The time period when the 9M55K might have impacted the location could not be established as no visual materials depicting the impact were identified in open sources.

### What Kind of Munition Was Used?

The munition depicted in S1I1 appears to be the cargo section for a 9M55K rocket, a surface-to-surface cluster munition rocket, based on the shape and distinctive position of the holes on the fins of the cargo section.



Left: The appearance and features of the cargo sections (Red Circle) depicted in S111. Right: Cargo sections in the 9M55K <u>reference imagery</u><sup>7</sup> (Credit: <u>Mark Hiznay / Human Rights Watch</u><sup>8</sup>).

### Is There Any Evidence of the Direction the Munition Came from?

The general direction of origin was established by assessing the furthest left and furthest right arcs that the cargo section could have originated from based on the observed cargo section's angle of inclination depicted in S1I1, estimated to be 41 degrees from north.

<sup>&</sup>lt;sup>7</sup> https://x.com/MarkHiznay/status/1496719886009126912/photo/1

<sup>&</sup>lt;sup>8</sup> https://twitter.com/MarkHiznay/media

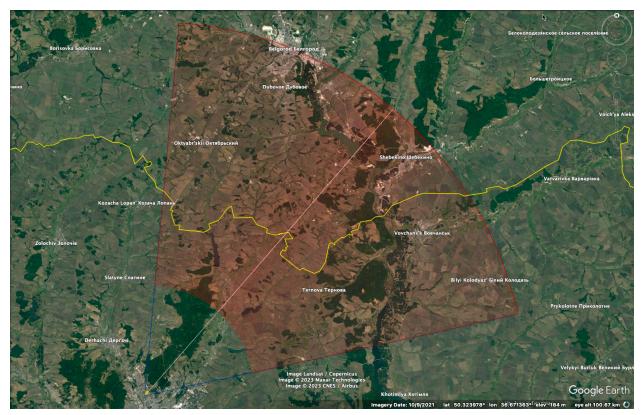


Left: Assessment of the angle of origin using S1I1. Right: Representation of the angle in satellite imagery from 25/05/2021 (Credit:Google Earth Pro/Maxar Technologies).

A 9M55K rocket is fired from a BM 30 MLRS which, according to <u>Army Recognition</u><sup>9</sup>, has a range of 20 to 70 km. A standardised arc was overlaid upon the assessed direction of origin to indicate the general area from which the munition possibly originated. When combined with the arc of the direction of origin, this gives us an area of origin within which this 9M55K was likely fired.

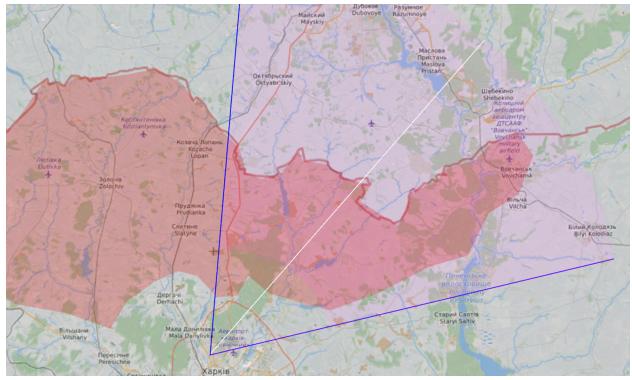
<sup>9</sup> 

 $https://www.armyrecognition.com/russia\_russian\_army\_vehicles\_system\_artillery\_uk/bm-30\_smerch\__9k58\_300mm\_multiple\_rocket\_launcher\_system\_technical\_data\_sheet\_information\_description.html$ 



The centre of the arc (White) and the 20-70 km area (Red) placed over satellite imagery indicate a possible direction and area of the munition's origin (Credit: Landsat/Copernicus/Maxar Technologies/CNES/Airbus/Google Earth Pro).

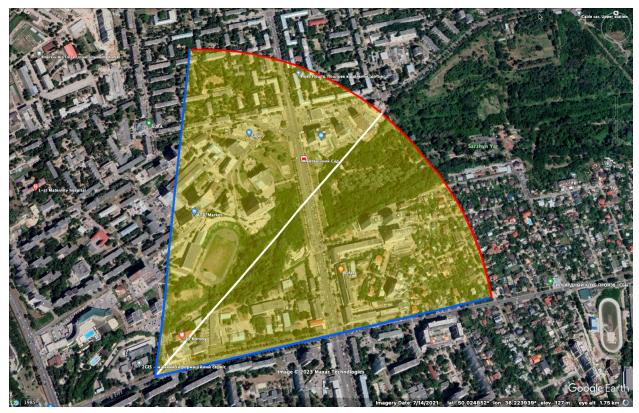
The 20-70 km arcs can be compared to a map with the presence of military troops reported on 28/02/2022. It should be noted that the areas indicated in the graphic below should be regarded as estimates.



The areas with the presence of the Russian armed forces reported on 28/02/2022 (Credit: <u>Liveuamaps</u><sup>10</sup>).

According to an expert consulted by Bellingcat, the cargo section of a cluster munition rocket typically lands in an area located approximately 1 km further away from the area impacted by the submunitions it carried, indicating the possible area that could have been affected by the 9M55K rocket.

<sup>&</sup>lt;sup>10</sup> https://liveuamap.com/en/time/23.02.2022



An area (Yellow Arc) indicating a possible area impacted by the submunitions of the 9M55K rocket was placed over satellite imagery (Credit: Maxar Technologies/Google Earth Pro).

### Are There Any Indications of What the Location Was Being Used for?

The cargo section impacted the public road between a school and a Red Cross branch.

Within the estimated area possibly impacted by the submunitions, only objects of civilian nature were identified, namely a park, residential housing, a sports stadium, a public transport station, and small commercial objects.

#### Were There Military Structures, Installations, or Other Assets in the Area?

The Kharkiv Air Force University named after Ivan Kozhedub (*In Ukrainian:* "Харківський національний університет Повітряних Сил імені Івана Кожедуба"), the closest structure of possible military use, is located approximately 800 metres away from the scene of CIV0463 at 50.0295, 36.2109<sup>11</sup>.

<sup>&</sup>lt;sup>11</sup> https://goo.gl/maps/hzTkWQQFrCcaHQuH8



Kharkiv Air Force University is located within the estimated area of the munition's origin indicated on satellite imagery (Credit: Maxar Technologies/Google Earth Pro).

## **Statements from Parties of the Conflict**

### Ukraine

A Telegram <u>post<sup>12</sup></u> made on 28/02/2022 on the official Telegram account *"Головне управління ДСНС України у Харківській області*" about receiving reports on 169 pieces of ammunition from the residents of Kharkiv region.

#### Russia

• Kremlin's spokesperson Dmitry Peskov, <u>denies</u><sup>13</sup> the use of cluster munition by the Russian armed forces in Ukraine.

<sup>&</sup>lt;sup>12</sup> https://t.me/DSNS\_Kharkiv/1092

<sup>&</sup>lt;sup>13</sup> https://www.gazeta.ru/politics/2022/03/01/14589073.shtml

### Conclusion

On 28/02/2022, a Telegram post was made containing an image depicting what was identified as a 9M55K cargo section embedded into the road surface next to the Red Cross branch and the school located in the Shevchenkivs'kyi district of Kharkiv.

It was not possible to identify the exact time of the incident. Only objects of civilian nature were identified within the possible area impacted by the submunitions. No military presence was identified in the impacted area. The exact location of the launch site from which the 9M55K rocket was fired was not identified.

### **Further Action**

- Obtain and compare satellite imagery for for the period between 24/02/2022 and 28/02/2022;
- Conduct further research to identify materials depicting the moment of impact at the scene of CIV0463.