

# Incident Assessment

Incident ID	CIV0077
Location	Saltivskyi District, Kharkiv, Ukraine
Coordinates	<a href="#">50.0296, 36.3580</a> <sup>1</sup>
Date	28/02/2022
Time	Between 06:20 - 11:10 EET

## Description of the Events

In the early afternoon of 28/02/2022, what appears to have been a cluster munition strike took place in Saltivka district of Kharkiv, Ukraine, at [50.0296, 36.3580](#)<sup>2</sup>. The earliest identified Twitter [post](#)<sup>3</sup> with a video depicting the strike at the scene of CIV0077 was posted on 28/02/2022 at 11:10 EET.

## Key Findings

- On 28/02/2022, a strike which appears to have used cluster munition rockets occurred in Saltivka district of Kharkiv, Ukraine, at [50.0296, 36.3580](#)<sup>4</sup>;
- The earliest identified post containing the video depicting the scene at the moment of the strike was posted on 28/02/2022 at 11:10 EET, indicating the latest possible time when CIV0077 might have occurred;
- Identified visual materials do not depict munition or its remnants in a way that would allow for a conclusive identification;
- Assessments of other incidents that occurred on 28/02/2022 may give an indication of the direction of origin;
- CIV0077 is possibly linked to CIV1655 and CIV0075 based on the direction of origin of fragments identified in those incidents.

## Description of Searches

The Civilian Harm Sheet ("CIVHARM") contains two links to social media posts containing videos depicting CIV0077:

---

<sup>1</sup> <https://goo.gl/maps/BwBa5gd6XrEvR4rU8>

<sup>2</sup> <https://goo.gl/maps/BwBa5gd6XrEvR4rU8>

<sup>3</sup> <https://twitter.com/Conflicts/status/1498236561816756224?s=20>

<sup>4</sup> <https://goo.gl/maps/BwBa5gd6XrEvR4rU8>

- [Source 1](#)<sup>5</sup>. A Twitter post containing a video depicting multiple explosions near Ekvator<sup>6</sup> shopping mall in Kharkiv;
- [Source 2](#)<sup>7</sup>. A Twitter post containing a video depicting multiple explosions in the area of what appear to be private garages.

The scope of online searches to identify further information concerning CIV0077, including images and videos depicting the strike, was limited to events which reportedly occurred in Saltivka district of Kharkiv on 28/02/2022. Searches were performed in English, Ukrainian, and Russian. It was identified that CIV0077 received extensive media coverage from international, regional, and local media outlets. Further posts containing visual materials relevant to CIV0077 were identified in Telegram.

## Background Summary of Significant Descriptive Content

### Media Reports

- [Al Jazeera](#)<sup>8</sup> - general report on casualties caused by rocket attacks in Kharkiv on 28/02/2022;
- [The Guardian](#)<sup>9</sup> - general report on attacks in Kharkiv on 28/02/2022, including footage of the attack on Buchmy Street;
- [The Washington Post](#)<sup>10</sup> - general report on attacks in Kharkiv on 28/02/2022;
- [24TV](#)<sup>11</sup> - general overview of events in Kharkiv on 28/02/2022, including the attack on Buchmy Street.

### NGO Reports

- [HRW](#)<sup>12</sup> - thematic report on the use of cluster munitions in Kharkiv, which mentions a rocket attack affecting Moskovskiy district (Moskovskiy district was [renamed](#)<sup>13</sup> to Saltivka district on 11/05/2022);
- [Atlantic Council](#)<sup>14</sup> - map of the attack on Kharkiv on 28/02/2022, including CIV0077 (Saltivka district).

### Other

- [Wikipedia](#)<sup>15</sup> - overview of Kharkiv shelling with cluster munition on 28/02/2022;

<sup>5</sup> <https://twitter.com/Conflicts/status/1498234510705668100?s=20>

<sup>6</sup> In Ukrainian: “ТЦ «Екватор»”

<sup>7</sup> <https://twitter.com/Conflicts/status/1498236561816756224?s=20>

<sup>8</sup> <https://www.aljazeera.com/news/2022/2/28/ukraine-reports-dozens-killed-in-kharkiv-rocket-strikes#:~:text=At%20least%2011%20people%20have,Kharkiv%2C%20according%20to%20Ukrainian%20officials>

<sup>9</sup> <https://www.theguardian.com/world/2022/feb/28/ukraine-several-killed-by-russian-rocket-strikes-in-civilian-area-s-of-kharkiv>

<sup>10</sup> <https://www.washingtonpost.com/world/2022/02/28/kharkiv-rockets-shelling-russia-ukraine-war/>

<sup>11</sup> [https://24tv.ua/ru/obstrely-harkova-28-02-2022-glavnye-novosti-za-segodnja\\_n1884294](https://24tv.ua/ru/obstrely-harkova-28-02-2022-glavnye-novosti-za-segodnja_n1884294)

<sup>12</sup> <https://www.hrw.org/news/2022/03/04/ukraine-cluster-munitions-launched-kharkiv-neighborhoods>

<sup>13</sup> <https://www.city.kharkiv.ua/uk/news/u-kharkovi-pereymenuvali-tri-vulitsi-y-rayon-50722.html>

<sup>14</sup> <https://www.atlanticcouncil.org/blogs/new-atlanticist/mapped-russias-shelling-of-civilians-in-kharkiv/>

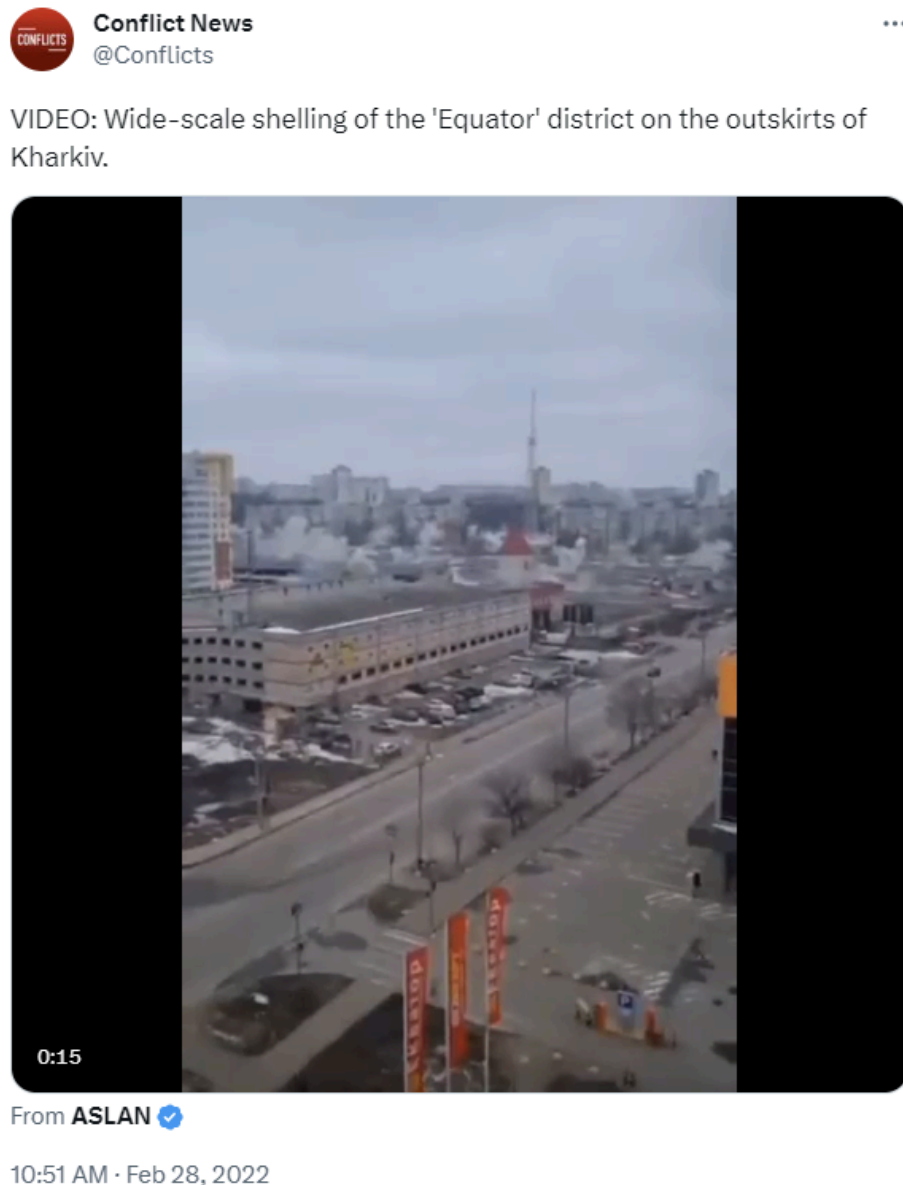
<sup>15</sup> [https://uk.wikipedia.org/wiki/%D0%9E%D0%B1%D1%81%D1%82%D1%80%D1%96%D0%BB\\_%D0%A5%D0%B0%D1%80%D0%BA%D0%BE%D0%B2%D0%B0\\_%D0%BA%D0%B0%D1%81%D0%B5%D1%82%D0%BD%D0%B8%D0%BC%D0%B8\\_%D0%B1%D0%BE%D1%94%D0%BF%D1%80%D0%B8%D0%BF%D0%B0%D1%81%D0%B0%D0%BC%D0%B8\\_\(28\\_%D0%BB%D1%8E%D1%82%D0%BE%D0%B3%D0%BE\\_2022\)](https://uk.wikipedia.org/wiki/%D0%9E%D0%B1%D1%81%D1%82%D1%80%D1%96%D0%BB_%D0%A5%D0%B0%D1%80%D0%BA%D0%BE%D0%B2%D0%B0_%D0%BA%D0%B0%D1%81%D0%B5%D1%82%D0%BD%D0%B8%D0%BC%D0%B8_%D0%B1%D0%BE%D1%94%D0%BF%D1%80%D0%B8%D0%BF%D0%B0%D1%81%D0%B0%D0%BC%D0%B8_(28_%D0%BB%D1%8E%D1%82%D0%BE%D0%B3%D0%BE_2022))



- [ISW](#)<sup>16</sup> - overview of events related to the armed conflict in Ukraine that took place on 28/02/2022, including reports of rocket attacks in Kharkiv.

## Analysis of Examinable Content

- [Source 1](#)<sup>17</sup>: A video (S1V1) posted on Twitter on 28/02/2022 at 11:51 EET depicting a series of explosions near “Ekvator” shopping mall in Kharkiv, filmed from [50.0329, 36.3570](#)<sup>18</sup>. This video was reposted by multiple accounts - see Source 4.



*Screenshot of the Twitter post containing S1V1.*

<sup>16</sup> <https://understandingwar.org/backgroundunder/russian-offensive-campaign-assessment-february-28-2022>

<sup>17</sup> <https://twitter.com/Conflicts/status/1498234510705668100>

<sup>18</sup> <https://goo.gl/maps/iKdjjpbXBzQpogMY8>

- **Source 2**<sup>19</sup>: A video (S2V1) posted on Twitter on 28/02/2022 at 12:00 EET, depicting a series of explosions in Kharkiv affecting the area of what appears to be garages, filmed from [50.0269, 36.3617](https://goo.gl/maps/3PRUm1gJauN7b9ZG7)<sup>20</sup>.



**Conflict News**  
@Conflicts

...

VIDEO: Additional footage of the same event, filmed from a different angle. Appears to show a multiple rocket barrage targeting a civilian area. - [@YWNReporter](#)



From **Moshe Schwartz** ✓

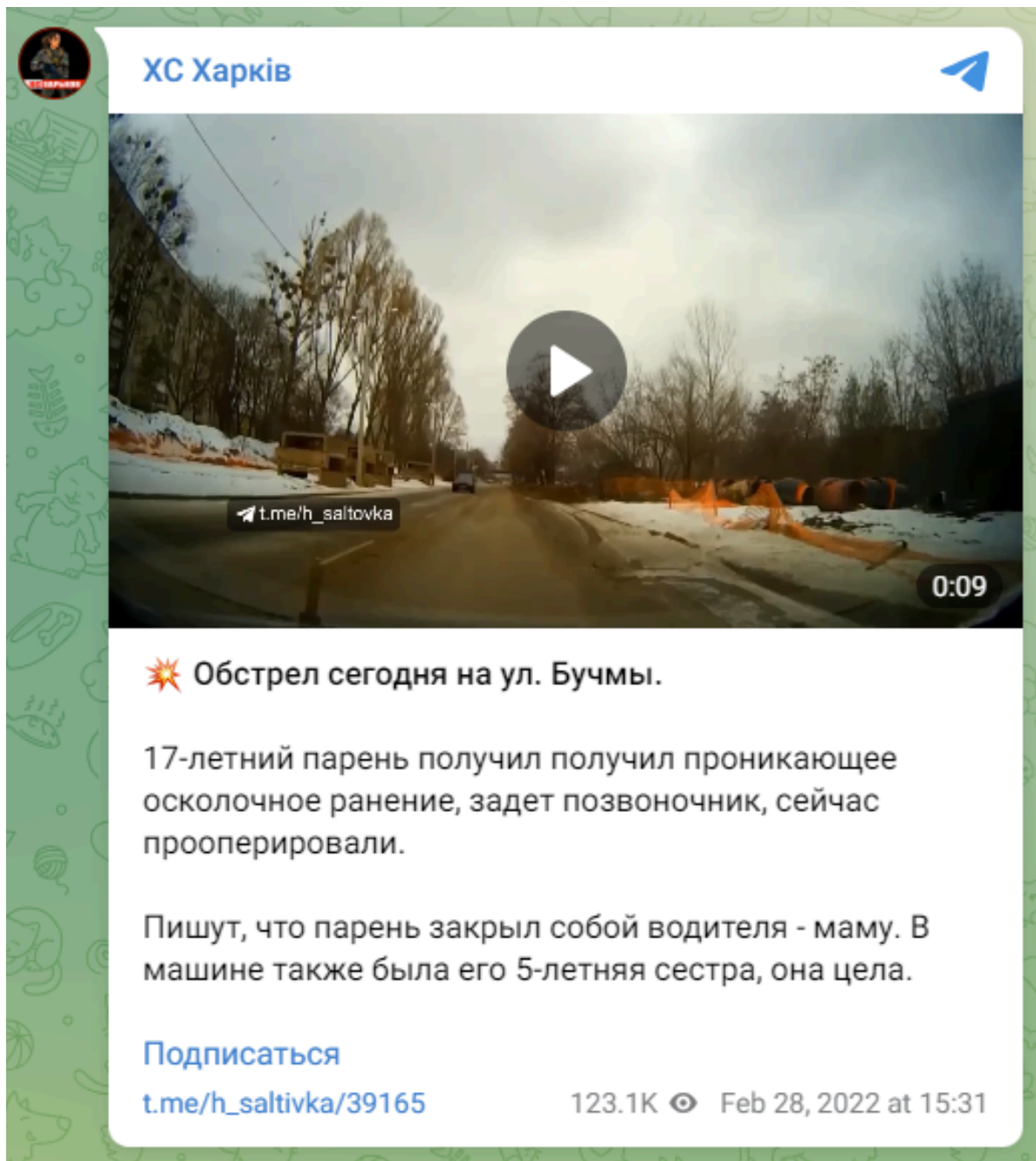
11:00 AM · Feb 28, 2022

*Screenshot of the Twitter post containing S2V1.*

<sup>19</sup> <https://twitter.com/Conflicts/status/1498236561816756224>

<sup>20</sup> <https://goo.gl/maps/3PRUm1gJauN7b9ZG7>

- **Source 3**<sup>21</sup>: A video (S3V1) posted on Telegram on 28/02/2022 at 16:31 EET, depicting a series of explosions in Kharkiv taken from the car moving down the street, filmed from [50.0277, 36.3592](https://goo.gl/maps/n1rtHZmFv1ysTDot8)<sup>22</sup>.

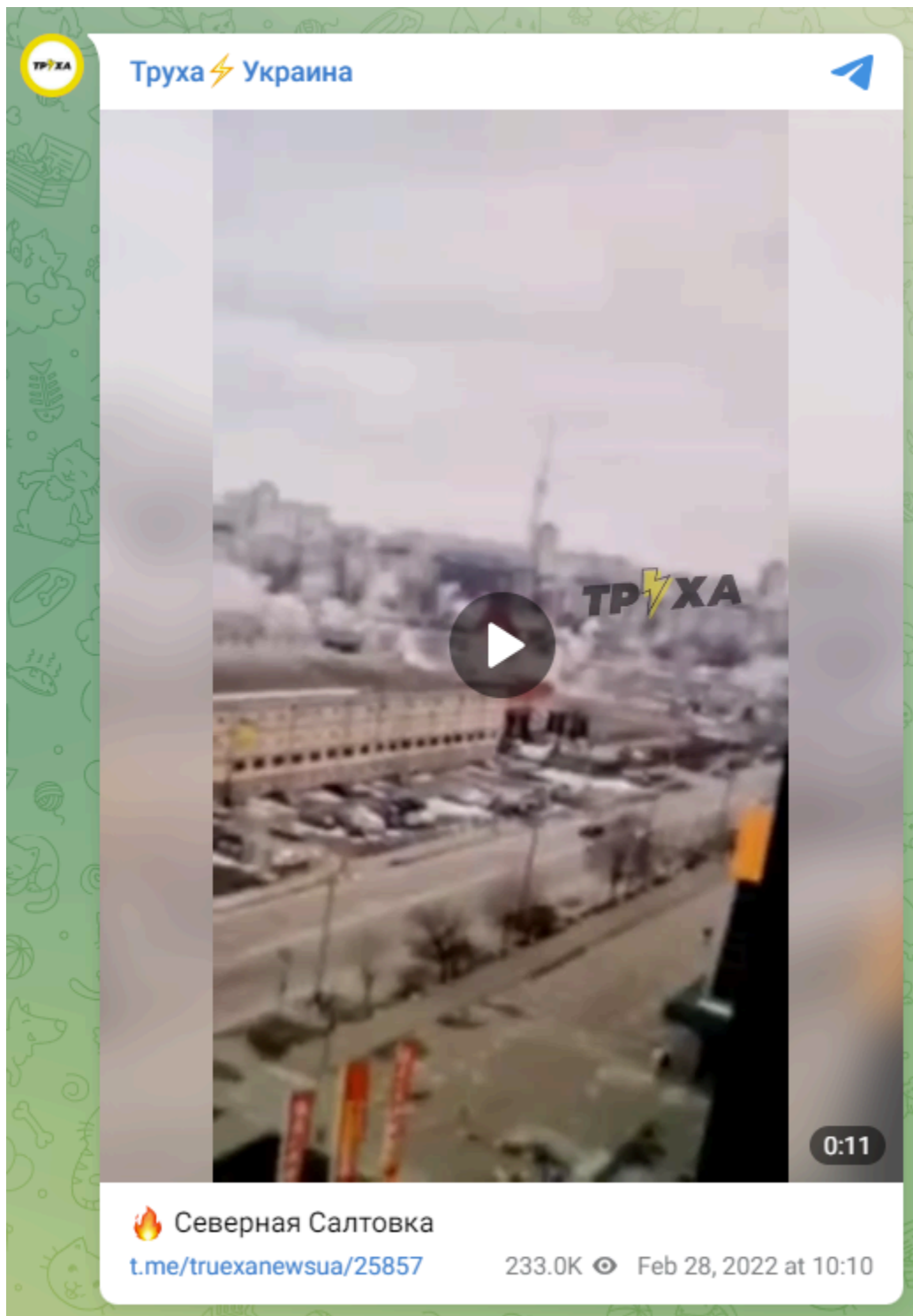


*Screenshot of the Telegram post containing S3V1. Note that the Telegram timestamp shown is in CET.*

<sup>21</sup> [https://t.me/h\\_saltivka/39165](https://t.me/h_saltivka/39165)

<sup>22</sup> <https://goo.gl/maps/n1rtHZmFv1ysTDot8>

- **Source 4**<sup>23</sup>: A video (S4V1) posted on Telegram on 28/02/2022 at 11:10 EET is the earliest identified source containing S1V1 (for coordinates, see Source 1).



*Screenshot of the Telegram post containing S4V1. Note that the Telegram timestamp shown is in CET.*

<sup>23</sup> <https://t.me/truexanewsua/25857>

## Questions to Investigate

### Where Was the Incident?

*Analysis of the visual materials identified that CIV0077 occurred in Saltivka district of Kharkiv, Ukraine, at [50.0329, 36.3570](#).<sup>24</sup>*

The accompanying caption to the S1V1 indicates that the incident affected “*the ‘Equator’ district on the outskirts of Kharkiv*”. The accompanying caption to the same video reads as “North Saltovka” (*In Russian: "Северная Салтовка"*), further indicating the location of the incident. Based on analysis of satellite imagery and Google Street View images, the location from which the S1V1 was filmed was geolocated to [50.0329, 36.3570](#).<sup>25</sup>



*Left: A Still from S1V1. Right: Angle and direction of S1V1 indicated on the satellite imagery (Credit: Maxar Technologies/Google Earth Pro).*

<sup>24</sup> <https://goo.gl/maps/iKdjpbXBzQpogMY8>

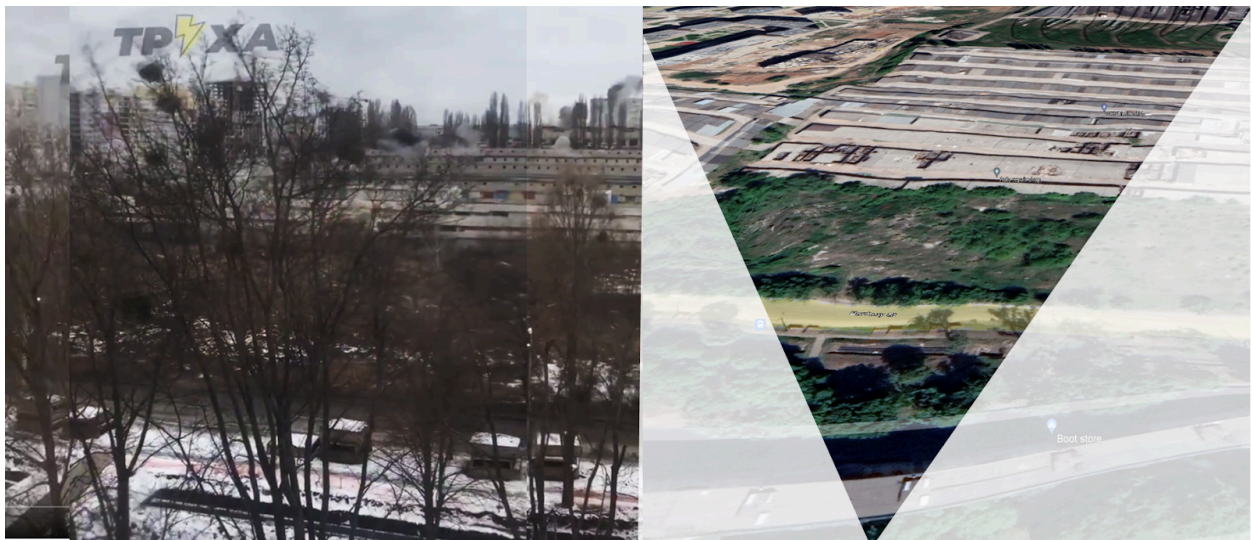
<sup>25</sup> <https://goo.gl/maps/iKdjpbXBzQpogMY8>





Left: A still from S1V1 depicting: television tower (Green Rectangle); a three-floor parking lot building (Red Rectangle); a corner of what appears to be a commercial building with orange cladding and a dark grey bottom part (Blue Rectangle); and three orange-coloured banners (Pink Rectangle). Right: Google Street View [imagery](#)<sup>26</sup> depicting the location with matching objects in a spatial layout matching the one depicted S1V1 (Credit: Google Maps).

The accompanying caption to S2V1 contains the following information: “Additional footage of the same event, filmed from a different angle. Appears to show a multiple rocket barrage targeting a civilian area.” The location from where S2V1 was filmed was geolocated at [50.0269, 36.3617](#).<sup>27</sup>



Left: A panorama made of still frames extracted from S2V1. Right: The angle and direction of S2V1 indicated on the satellite imagery (Credit: Maxar Technologies/Google Earth Pro).

The geolocation of S2V1 was further confirmed by its comparison with the Google Street View imagery depicting the area in May 2022.

<sup>26</sup> <https://maps.app.goo.gl/WuxeMxnZv3aJVbPm9>

<sup>27</sup> <https://goo.gl/maps/3PRUm1gJauN7b9ZG7>



*Left: A panorama made from still frames S2V1 showing: a road (Blue Line); a pathway connecting the building with the road (Orange Line); a sequence of four concrete box culverts (Red Rectangle); followed by two more similar concrete culverts (Pink Rectangle). Right: Satellite imagery of the area with matching objects in a matching spatial layout as the one depicted in S2V1 (Credit: Maxar Technologies/Google Earth Pro)*

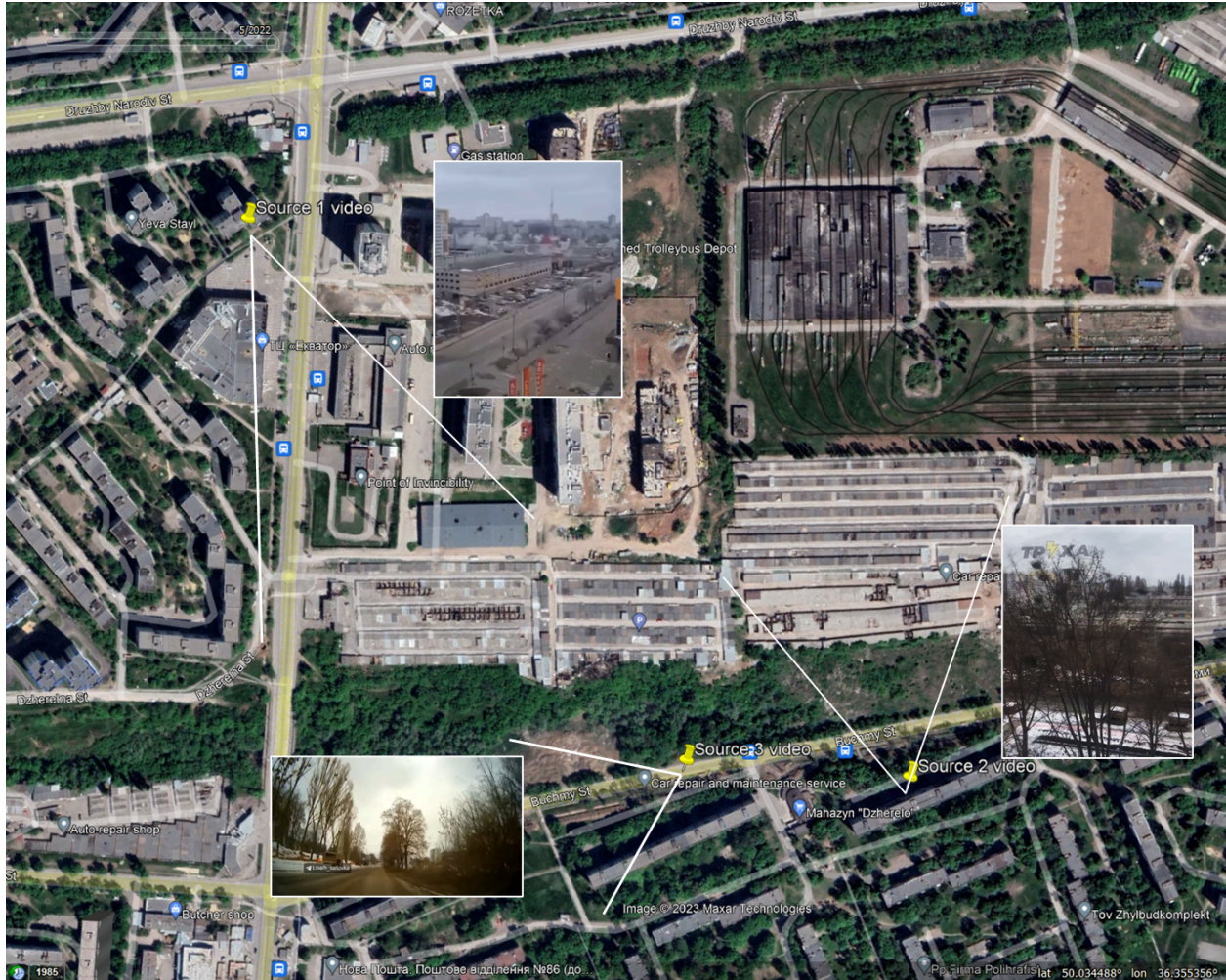
S3V1 is accompanied by a caption in Russian: “Обстрел сегодня на ул. Бучмы” (In English: “Shelling today on Buchmy Str.”). The location from which S3V1 was taken was geolocated to [50.0277, 36.3592](https://goo.gl/maps/n1rtHZmFv1ysTDot8)<sup>28</sup>.



*Left: Three concrete precast culverts (Red Rectangle); a street light pole (Green Rectangle) between the first and second concrete culverts; and two high rise apartment buildings (Blue and Orange Rectangles) as depicted in a still from the S3V1. Right: Satellite imagery taken over Buchmy Street from May 2022 (Credit: Maxar Technologies/Google Earth Pro).*

<sup>28</sup> <https://goo.gl/maps/n1rtHZmFv1ysTDot8>



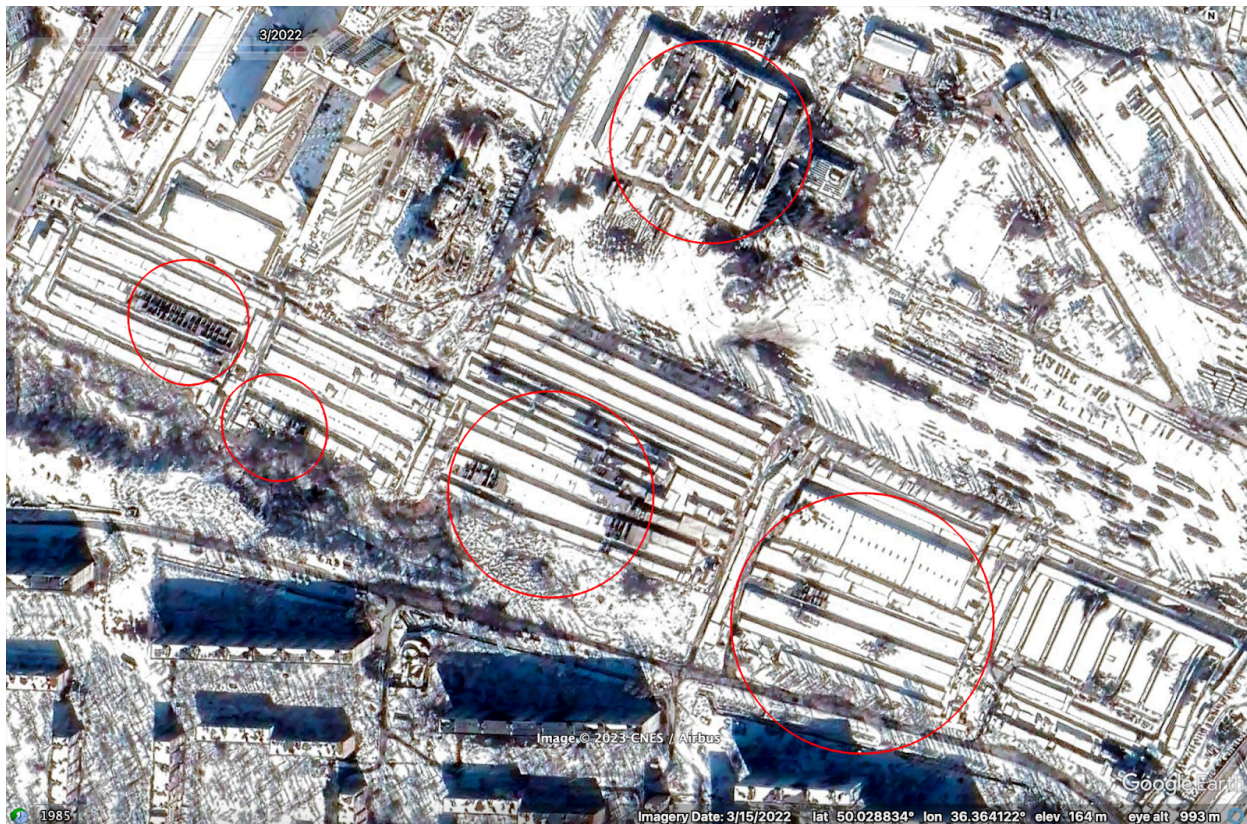


*The locations depicted by S1V1, S2V1 and S3V1 (Pins), and the direction of cameras (White Lines) indicated on satellite imagery (Credit: Maxar Technologies/Google Earth Pro).*









*Satellite imagery from 15/03/2022 with the damage highlighted (Credit: Maxar Technologies/Google Earth Pro).*

## **When Was the Incident?**

The earliest identified material depicting the incident was S4V1 posted on 28/02/2022. Due to the cloudy weather conditions, it was not possible to perform a chronolocation based on shadow analysis using [SunCalc](https://www.suncalc.org/)<sup>29</sup>.

According to the identified materials, CIV0077 occurred during the daytime (i.e., after the sunrise and before the sunset). The earliest identified material depicting the incident was S4V1 posted on 28/02/2022 at 11:10 EET, indicating the latest possible date and time when the incident could have occurred. Since no information indicating that the incident could have occurred earlier than 28/02/2022 was identified in open sources, and due to the fact that on 28/02/2022 the sunrise [reportedly](https://www.timeanddate.com/sun/ukraine/kharkiv?month=2&year=2022)<sup>30</sup> commenced at 06:20 EET, CIV0077 likely occurred on 28/02/2022 between 06:20 and 11:10 EET.

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

It is not possible to conclusively identify the direction of the munitions' origin based solely on the information contained in the identified visual materials depicting CIV0077.

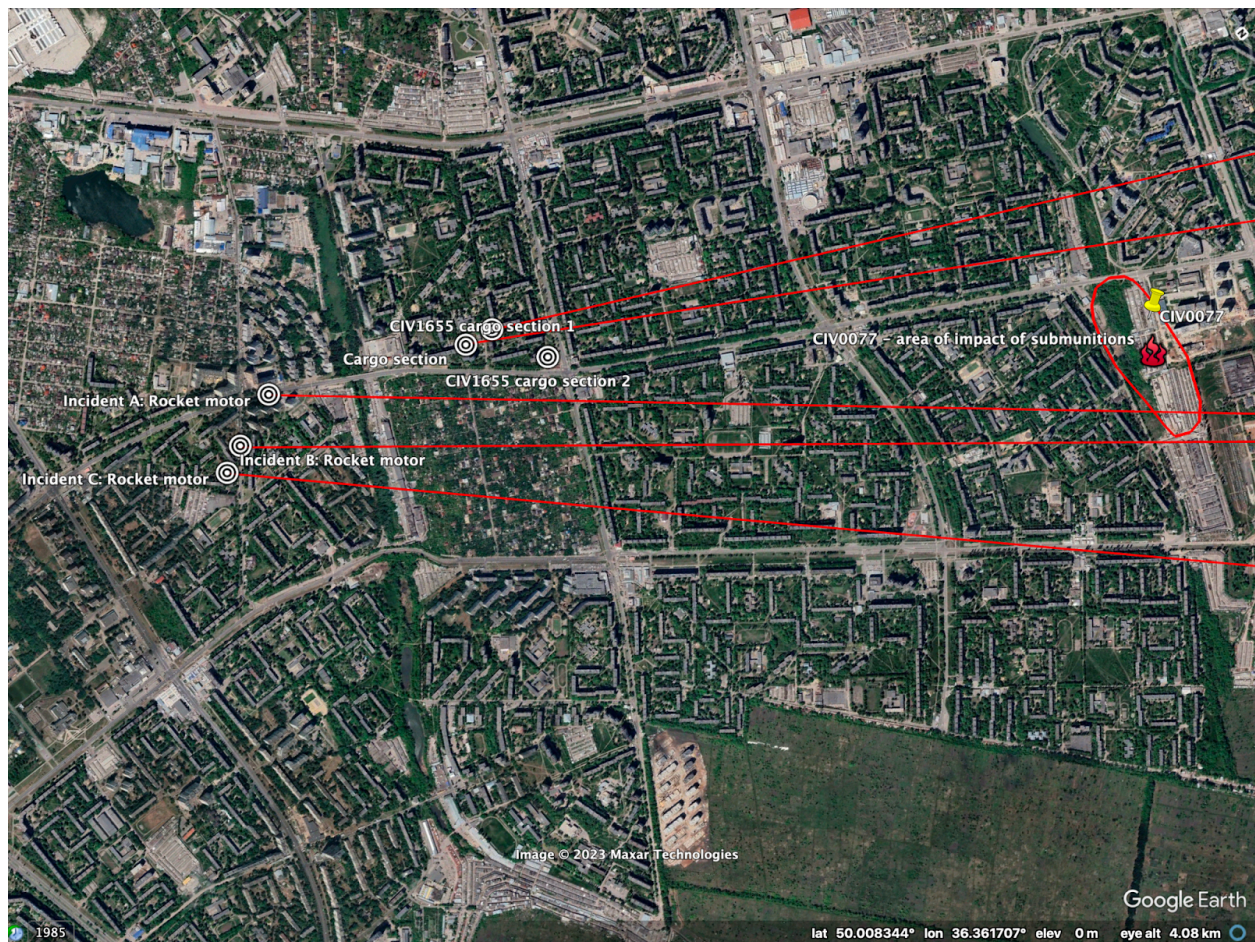
<sup>29</sup> <https://www.suncalc.org/>

<sup>30</sup> <https://www.timeanddate.com/sun/ukraine/kharkiv?month=2&year=2022>



The location impacted by munitions in CIV0077 falls within the direction of origin estimated for other incidents which occurred on 28/02/2022 in the areas located in the vicinity of CIV0077. The following incidents may indicate the direction of origin of the munitions for CIV0077:

- **CIV1655.** Two cargo sections impacted an area approximately two and a half kilometers away from CIV077 in a south-westerly direction.
- **CIV0075.** Three rocket motors impacted the area approximately three and a half kilometres away from CIV0077 in a south-westerly direction, and one cargo section which impacted the area approximately two and a half kilometres away from CIV0077 in a south-westerly direction.



*Screenshot from Google Earth Pro showing location of the area of impact of submunitions as seen in CIV0077 (Red Polygon); as well as the location of the cargo section and rocket motors identified within CIV0075 and CIV1655 (White Targets) and their assessed directions of origin (Red Lines).*



## What Kind of Munition Was Used?

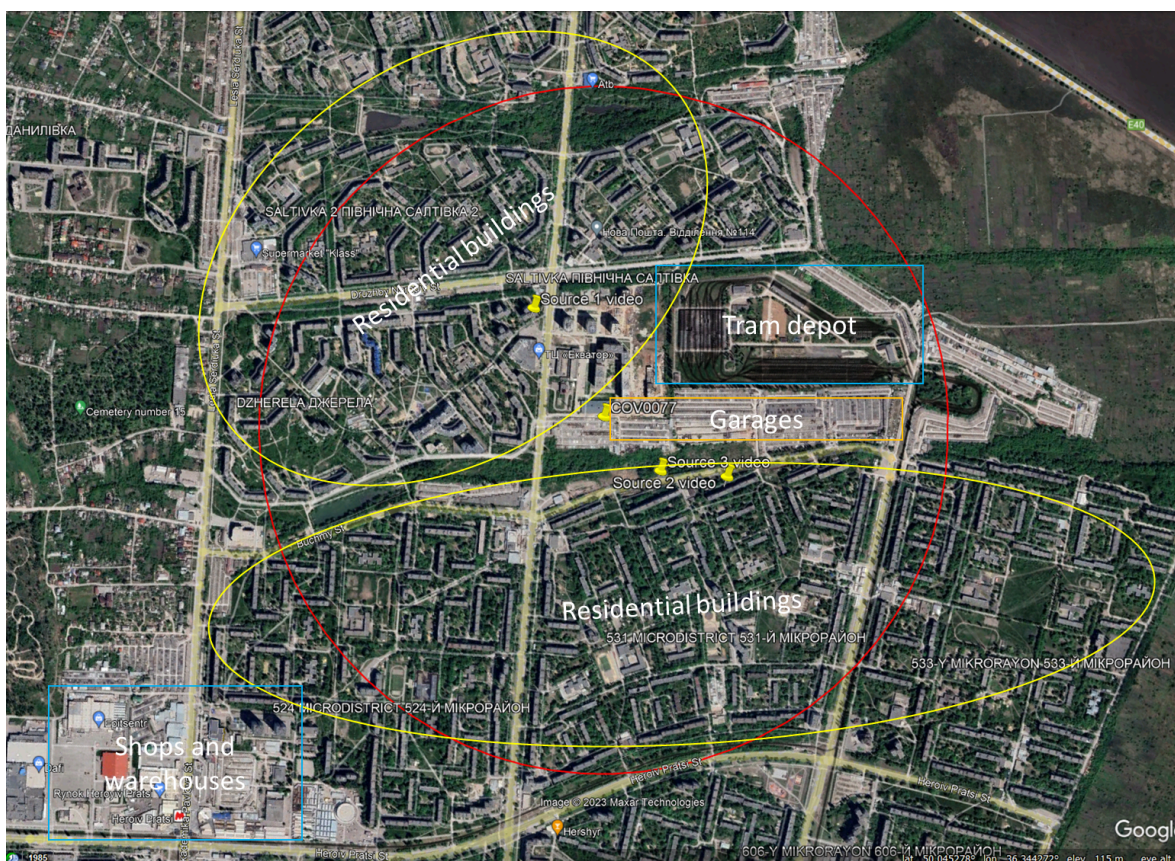
S1V1, S2V1 and S3V1 do not depict any actual submunitions as they were filmed from a distance at the moment of explosions. However, footage of the attack is indicative of cluster munitions due to the large number of multiple smaller detonations occurring over a very short period of time.

Whilst there was some speculation that this attack may have been a result of a multiple launch rocket strike (MLRS), the very large number of explosions are more indicative of cluster munitions than a MLRS strike.

The rocket motors and cargo sections identified as part of CIV1655 and CIV0075 were consistent with 9M55K missiles, and as such it is possible that this incident may be the area of impact of the submunitions from these munitions.

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

No military objects were identified through open sources within a 1 km radius around the incident.



*The 1 km radius area (Red Circle) indicating the location impacted by submunitions includes residential areas (Yellow Circles), as well as shopping and warehouse areas (Blue Rectangle) (Credit: Google/Maxar Technologies).*

## Any Identifiable Crimes?

A [report](#)<sup>31</sup> by the Governor of the Kharkiv region, as well as the [Washington Post's](#)<sup>32</sup> report on events in Kharkiv on 28/02/2022 mentions 11 people in total killed in suspected cluster munition attacks. According to media reports by [Izvestia](#)<sup>33</sup> and [Hromadske](#)<sup>34</sup>, at least nine persons were killed as a result of attacks in Kharkiv on 28/02/2022. The media reports do not indicate the number of people killed in the specific area of Kharkiv on this day.

## Any Other Relevant Information?

According to social media posts, Kharkiv was shelled several times on 28/02/2022, with the shelling reportedly starting at [04:00 EET](#)<sup>35</sup>. Many other incidents happened on this day in Kharkiv, including: CIV0082, CIV0084, CIV0086, CIV0088, CIV0090, CIV0091, CIV0093, CIV0095, CIV0097, and others.

## Timeline of the Incident

**27/02/2022:** Fighting occurred inside the city limits of Kharkiv, but according to the Kharkiv Regional Governor, Russian forces were repelled by 12:00 EET that day:

- [Official Facebook page of the Governor of Kharkiv](#)<sup>36</sup>;
- [The Guardian](#)<sup>37</sup>;
- [CNN](#)<sup>38</sup>.

**28/02/2022:** According to various sources mentioned below, shellings in Kharkiv started from the early hours of the morning and continued periodically during the day causing multiple casualties and damage:

- [CNN](#)<sup>39</sup>;
- [NYTimes](#)<sup>40</sup>;
- [Reuters](#)<sup>41</sup>.

---

<sup>31</sup> <https://t.me/synegubov/2475>

<sup>32</sup> <https://www.washingtonpost.com/world/2022/02/28/kharkiv-rockets-shelling-russia-ukraine-war/>

<sup>33</sup>

<https://izvestia.kharkov.ua/proisshestvija/harkiv-zaznav-masovanogo-udaru-gradami-ie-zagibli-video-18/>

<sup>34</sup> <https://hromadske.ua/posts/unaslidok-obstriliv-u-harkovi-zaginulo-9-lyudej-she-desyatki-poraneni>

<sup>35</sup> <https://t.me/truexanewsua/25541>

<sup>36</sup>

<https://www.facebook.com/synegubov.oleg/posts/pfbidoNwGd5Bxe4UkM7cKja8jdd1F8TPKcwovhAMF9Hsmx5byJLPaynrZuniEVqTWjW84GI>

<sup>37</sup> <https://www.theguardian.com/world/2022/feb/27/kharkiv-fighting-russia-ukraine-invasion>

<sup>38</sup>

[https://www.cnn.com/europe/live-news/ukraine-russia-news-02-27-22/h\\_b78f64afe6aabdcea47f11a27f22906e](https://www.cnn.com/europe/live-news/ukraine-russia-news-02-27-22/h_b78f64afe6aabdcea47f11a27f22906e)

<sup>39</sup> <https://www.cnn.com/2022/02/28/europe/ukraine-russia-invasion-monday-intl-hnk/index.html>

<sup>40</sup> <https://www.nytimes.com/2022/02/28/world/europe/russia-ukraine-war-kharkiv.html>

<sup>41</sup>

<https://www.reuters.com/world/dozens-killed-rocket-strikes-ukrainian-city-kharkiv-says-ukrainian-official-2022-02-28>

## Statements from Parties of the Conflict

### Ukraine

- The President of Ukraine in his [daily address on the war](#),<sup>42</sup> mentions attacks on Kharkiv without direct reference to the investigated incident.

### Russia

- Kremlin spokesperson Dmitry Peskov, [denies](#)<sup>43</sup> the use of cluster munitions in Ukraine by the Russian forces.

## Conclusion

What appears to have been a cluster munition strike took place in Saltivka district of Kharkiv on 28/02/2022 in the period between 06:20 and 11:10 EET, affecting residential and commercial buildings.

No military structures, installations, or other assets were identified within a 1 km distance of the affected area.

## Further Action

To conduct further research to identify possible links between CIV0077 and CIV0075 and CIV1655 - the incidents which affected adjacent areas on 28/02/2022.

---

<sup>42</sup>

<https://www.president.gov.ua/news/zlo-ozbroyene-raketami-bombami-j-artileriyeyu-treba-zupiniti-73257>; <https://youtu.be/kTavdD6ob6I>

<sup>43</sup> <https://www.gazeta.ru/politics/2022/03/01/14589073.shtml>