

Incident Assessment

Incident ID	CIV0091
Location	50 Balakireva Street, Kharkiv, Kharkiv Oblast
Coordinates	50.0325, 36.2386 ¹
Date	28 /02/ 2022
Time	Likely between 06:28 and 10:35 EET, but before 11:14am EET

Description of the Events

In the early hours of 28/02/2022, a 9M55K rocket motor impacted into the 11th floor of a building at 50 Balakireva Street in Kharkiv, falling down into the 10th floor below. The first video of the incident was likely filmed sometime between 06:28 and 10:35 EET, with other reports of the event beginning from 11:14 EET.

There are reports that a woman was killed in the impact. However, there were several other incidents of rockets impacting civilian infrastructure on this day and there is no clear, visible, open source evidence that her death relates directly to this incident. The direction of fire was determined using the hole created by the rocket motor's impact, visible in all sources. It is determined that it came from the east. The likely origin of rocket launch is located on a 20 - 70 km arc pointing in the direction of areas east of Kharkiv. At the time, the control of these areas was contested by Ukrainian and Russian forces.

Key Findings

- On 28/02/2022, a video of what appears to be a 9M55K rocket motor in a residential apartment appeared on social media, with a secondary image showing the hole by which the rocket motor entered the building on the floor above.
- The rocket motor entered the 11th floor of a residential apartment building at 50 Balakirjeva Street in Kharkiv ([50.0325, 36.2386](#)²) in the early hours of 28/02/2022.
- The motor then fell down into the 9th floor immediately below it.
- The video and photo from the scene were likely taken between 06:28 and 10:35 EET.
- The rocket motor appears to have entered from the east.
- The exact area of launch was not identified. However, it was possible to identify the likely direction of origin.
- No military presence was identified in the immediate vicinity, but a structure that appears to have housed military vehicles in the past was identified 452 meters to the north from where the rocket motor impacted.

¹ <https://maps.app.goo.gl/wj3TthrjEaHW2V4J6>

² <https://maps.app.goo.gl/wj3TthrjEaHW2V4J6>

Description of Searches

The CIVHARM sheet lists a single source for this incident ([Source 1](#)³). This source points to one video (S1V1) and one image (S1I11) within a Twitter thread. Further searches were conducted to find any more relevant footage of the incident, search terms included the general location as well as the specific address. Searches were conducted in English, Ukrainian, and Russian and with both non-restricted and restricted date ranges.

The original photos and videos appear to have been first posted on Facebook (see [Source 3](#)⁴) by the then Prosecutor General Irina Venediktova at 14:34 EET on 28/02/2022.

Background Summary of Significant Descriptive Content

Media Reports

- [Kharkiv Times](#)⁵ - report about shelling at 50 Balakireva Street in Kharkiv (includes the same image as S1I1);
- [Forbes](#)⁶ - a general story about attacks on Kharkiv on 28/02/2022 (includes the same image as S1I1);
- [TCH](#)⁷ - a general story about attacks on Kharkiv on 28/02/2022 (includes the same image as S1I1);
- [Kharkiv Today](#)⁸ - a general story about attacks on Kharkiv on 28/02/2022 (includes the same image as S1I1).

NGO Reports

- [Human Rights Watch](#)⁹ - the report mentions Balakiryeva street;
- [Amnesty International](#)¹⁰ - a general report on cluster munition strikes in Kharkiv, not specific to this incident.

³ https://twitter.com/kgb_files/status/1498284698690363393?s=20&t=A6jWQ4h19yCjjoYwVXLvOw

⁴ <https://www.facebook.com/irina.venediktova.31/posts/pfbid029strgHmwBqMnj3rcxKSJfPWJkwWnurx7kLvL2DWaZtCXEU6omAbhbErD5ktTQoUU1>

⁵ <https://times.kharkiv.ua/ru/2022/02/28/pri-obstrele-zhilogo-kvartala-na-ulitse-balakireva-zhenshhine-otorvalo-nogu/>

⁶ <https://www.forbes.com/sites/katyasoldak/2022/02/28/monday-february-28russias-war-on-ukraine-breaking-news-and-information-from-ukraine/>

⁷ <https://tsn.ua/ukrayina/obstril-harkova-z-gradiv-zaginula-zhinka-1991950.html>

⁸ <https://2day.kh.ua/ru/kharkow/kharkovskaya-policiya-rassleduet-sluchai-narusheniya-obychaev-voyny-rossiyskim-okkupantom>

⁹ <https://www.hrw.org/news/2022/03/04/ukraine-cluster-munitions-launched-kharkiv-neighborhoods>

¹⁰ <https://www.amnesty.org/en/latest/research/2022/06/anyone-can-die-at-any-time-kharkiv/#:~:text=A%20International%20researchers%20spent%2014,doctors%20who%20treated%20the%20injured>

Other

- None identified.

Analysis of Examinable Content

- [Source 1](#)¹¹: A Twitter post containing a video (S1V1) and an image (S1I1) posted on 28/02/2022 at 15:11 EET, depicting what appears to be a rocket motor in a residential building.

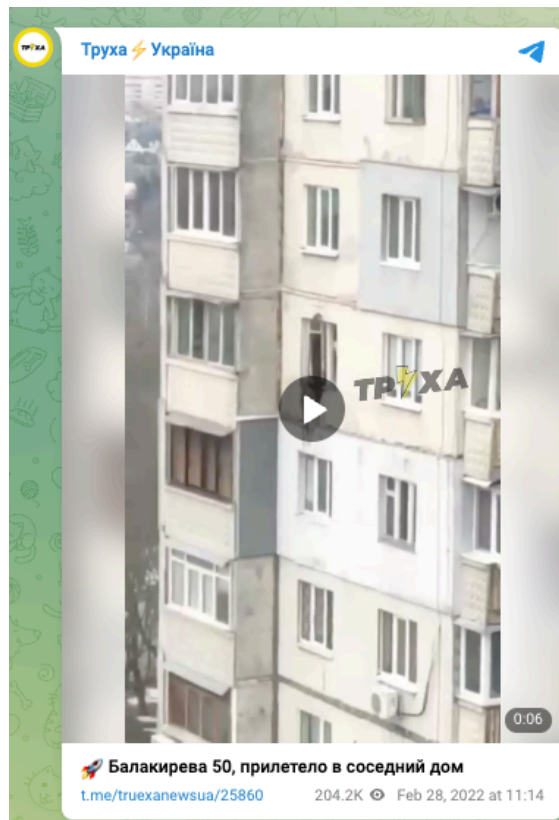


S1I1

- [Source 2](#)¹²: A Telegram post containing a video (s2V1) posted on 28/02/2022 at 11:14 EET. The video shows an outside view of the building, with what appears to be the same hole as seen in S1I1. In the background of the video voices can be heard saying that the munition impacted the 11th floor.

¹¹ https://twitter.com/kgb_files/status/1498284698690363393?s=20&t=A6jWQ4h19yCjjoYwVXLvOw

¹² <https://t.me/truexanewsua/25860>



A still from S2V1 depicting the exterior of the building.

- [Source 3](#)¹³: A Facebook post containing multiple photos (including the same video and photo as contained by Source 1), posted on 28/02/2022 at 14:34 EET by the then Prosecutor General Irina Venediktova. One photo shows the outside of the building with a large hole visible, another, likely unrelated photo shows what appears to be a rocket motor in a garage.

¹³

<https://www.facebook.com/irina.venediktova.31/posts/pfbido29strgHmwBqMnj3rcxKSJfPWJkwWnurx7kLvL2DWaZtCXEU6omAbhbErD5ktTQoUU1>



Irina Venediktova
28 February 2022 · 🌐

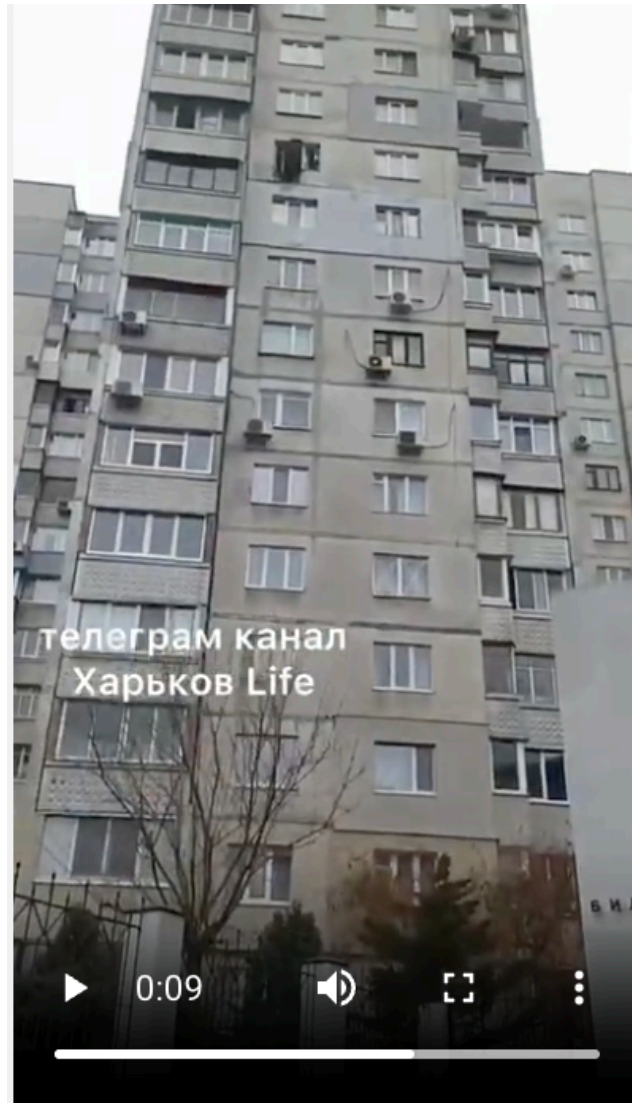
В Харкові сьогодні пекельніше, ніж вчора. Тут на фотці снаряд потрапив у кухонне вікно, жінці відірвало ногу, померла в лікарні



Source 3 containing: an image of the exterior of the impacted building (Left, S3I1); an image of the impact taken from inside (Top right, S3I2 - the same as S1I1); a video of the impact as seen from inside (Middle right, S3V1 - the same as S1V1); and a photo depicting remnants of a munition in a garage, likely unrelated to this particular incident (Bottom right, S3I3).

- [Source 4](#)¹⁴: A YouTube Video (S4V1) posted on 28/02/2022 at 11:57 EET, showing rubble on the street before panning up to the building showing the same hole as visible in S2V1 and S3I1.

¹⁴ <https://www.youtube.com/watch?v=V1OMNIIo5N8&t=3s>



A still from S4V1 taken at 00:09.

All sources are confirmed to be the same location, corroborated through geolocation of each of the photos and videos.

Questions to Investigate

Where Was the Incident?

S1V1 shows a rocket motor in a room, having dropped in from the floor above, with a large hole in the ceiling above. S1I1 shows the hole created by the motor entering the building.



Left: A still from S1V1 taken at 00:01. Right: A still from S1V1 taken at 00:04.



S1I1.

Local media and social media identified the address of the incident as 50 Balakireva street (also spelt Balakirjeva and Balakiryeva street). This is aligned with the coordinates provided by the Global Authentication Project ([50.0325, 36.2386](https://maps.app.goo.gl/wj3TthrjEaHW2V4J6)¹⁵). To check this, the Investigator pursued a hypothesis that the area in the background of S1I1 was a stadium, challenging the coordinates provided. This hypothesis proved to be incorrect (analysis can be found in verification notes).

Through the scenery visible in S1I1 through the hole in the wall, the Investigator identified a white roof with raised edges, an apartment building to its right, greenery in between the building and what was visible in the background, and a road dividing the greenery. Searching through satellite imagery on Google Earth Pro in the vicinity of the given coordinates, the Kharkiv Christian Church was identified as the building visible, with a large flat white structure, with raised edges. This was also next to tall apartment buildings, also visible in S1I1 and aligned with a large road: Derevianka Street.



Satellite imagery from 20/08/2018 showing Kharkiv Christian Church within the vicinity of the provided coordinates (Credit: Google/Maxar Technologies).

The buildings present to the south-east of the Kharkiv Christian Church are consistent with what is visible in S1I1. The Google Street View images of the church and of the apartment building complex “Белый Слон” also confirm this. These buildings are all high rise buildings as seen in the photo. Note: there only appears to be one building in the photo but this is explained by the viewpoint of the camera – the longest edge of the Kharkiv Christian Church aligns with the

¹⁵ <https://maps.app.goo.gl/wj3TthrjEaHW2V4J6>

apartment complex, hiding it from view. The road, Derevianka Street, also appears to align with the road visible in S1I1.



Left: Satellite imagery from 14/07/2021 showing the viewpoint from the apartment (Credit: Google/Maxar Technologies). Right: S1I1. Note that the matching features are highlighted by various colours.

Additionally, in S1I1 some form of a mast can be seen immediately next to a building. This matches exactly with the identified location.



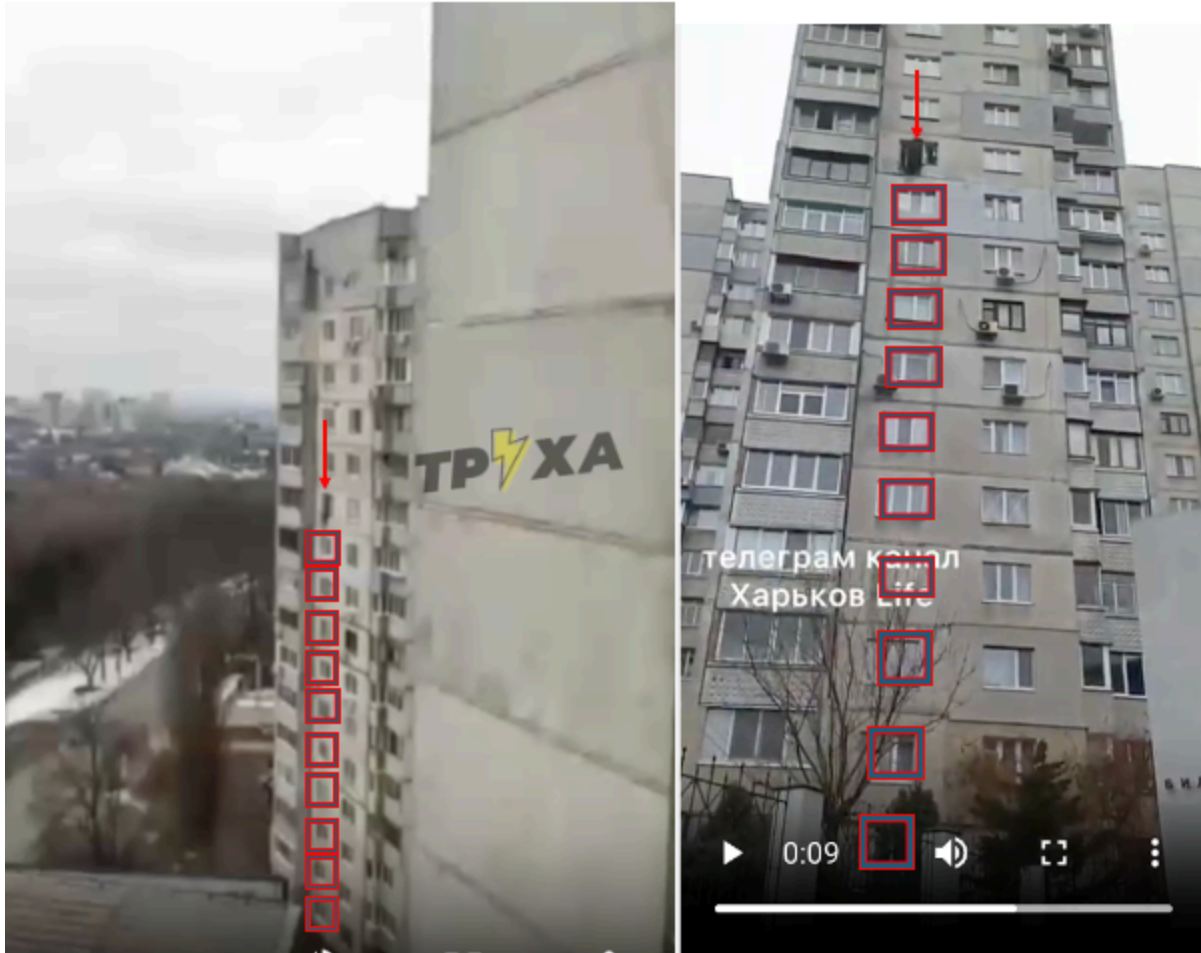
Left: Satellite imagery from 14/07/2021 showing the viewpoint from the apartment (Credit: Google/Maxar Technologies). Right: S1I1. Note the mast and building are highlighted in red.

S2V1, S3I1, as well as S4V1 appear to depict the same large hole visible in a nearby apartment block - which appears to be very similar to the one visible in S1I1, but taken from outside.



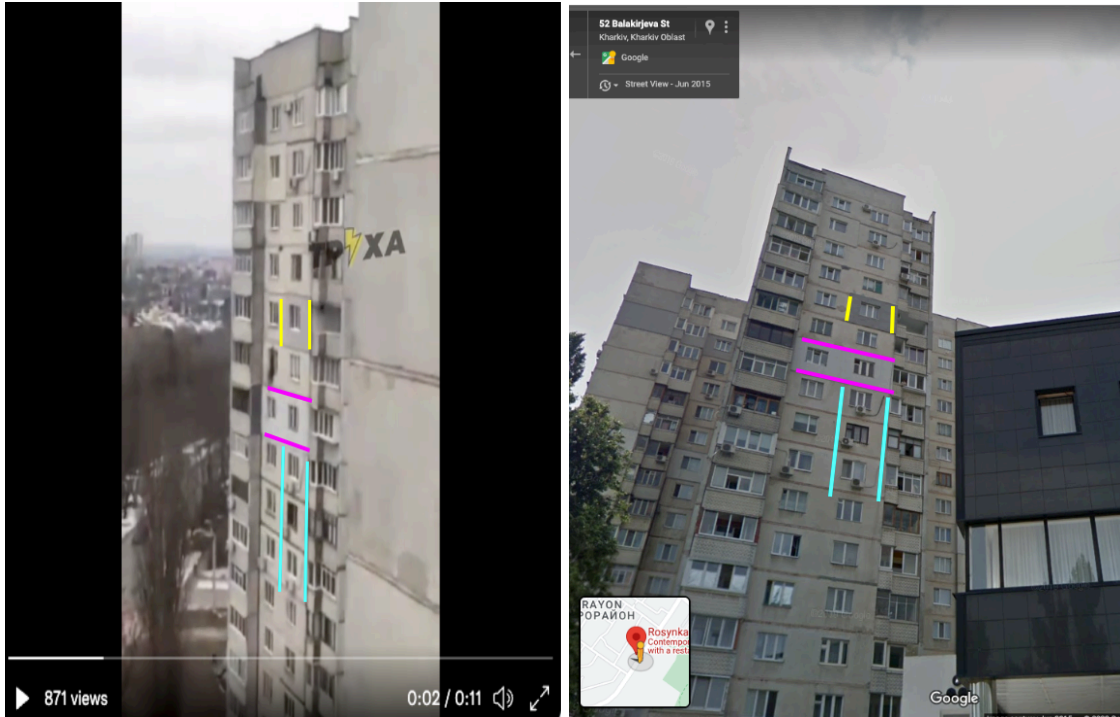
Top left: A still from S2V1 depicting a hole in the neighboring building (cropped). Top right: S3I1 depicting what appears to be the same hole (cropped). Bottom: A still from S4V1 (cropped).

By analyzing S2V1 and S4V1, it was established that the hole is visible on the 11th floor, which is further supported by the conversation heard in the background of the S2V1.



Left: A still from S2V1 depicting the exterior of a building with a hole in it. Right: A still from S4V1 depicting the same incident and the exterior of a building with a hole in it. Note that the squares mark 10 separate floors of the highrise in each image, while the red arrows point to the hole in the exterior.

In a comparison of the identified location with the Google Street View imagery, the investigator found that the coloration, number of floors, the placement and amount of air conditioning units visible, as well as a smaller building below, all appeared to match.

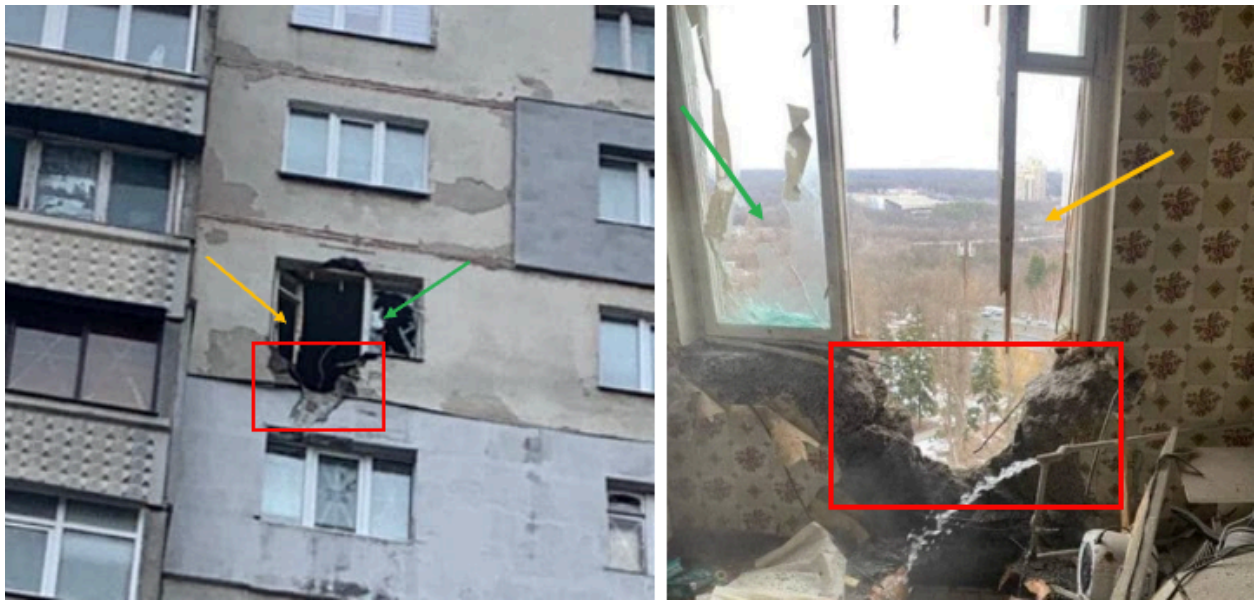


Left: A still from S2V1 taken at 00:02. Right: A Google Street View image of 50 Balakireva street (Credit: Google Maps). Note that the yellow lines refer to discoloration on the 12th floor, purple lines to even coloration and number of window panes, blue lines to placement of air conditioning units.

S3I1 shows a closer-up external view of the building, which aligns with the features highlighted above – including coloration of the building, number and placement of air conditioning units, and location of the hole.



S3I1 (cropped).



Left: A close up from S3I1 of the hole of impact from exterior. Right: A close up from S1I1 of the hole taken from inside. Note the matching damage to window panes (marked with arrows) and the wall under the window (marked with rectangle).

Notably, the same design of crosses in the window seen in S1V1 at 00:07 can be seen in the photo of the building in S3I1.



Left: S3I1, showing a cross-shaped pattern on the window pane. Right: a still from S1V1 taken at 00:07, showing the same cross-shaped pattern on the window pane.

When Was the Incident?

Date

All early sources related to this incident were posted on 28/02/2022. The earliest reference to this incident was the [Source 2](#)¹⁶ - a Telegram post claiming to show the view of the neighboring house at Balakireva 50. This video was posted on 28/02/2022, uploaded at 11:14 EET. This video established an end range of the date when the rocket motor could have landed.

The invasion of Ukraine began on 24/02/2022, before which it is assessed as extremely unlikely that such an incident would take place. As such this incident almost certainly took place between 24/02/2022 and 28/02/2022, but most likely on 28/02/2022.

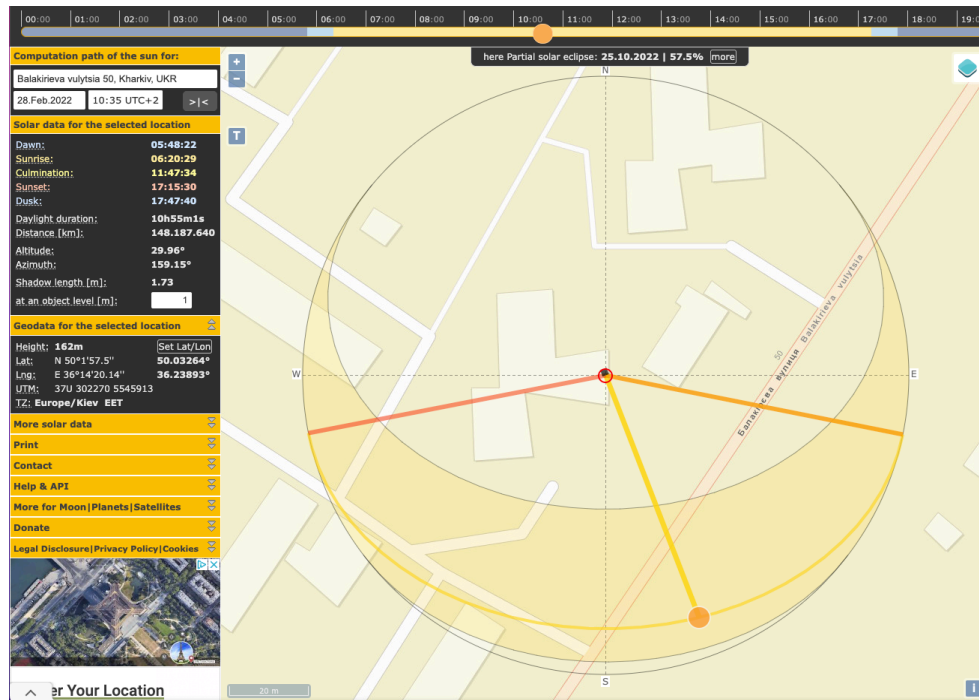
Time

No exact time can be determined for when the building was hit. However, a range can be determined for when [S1V1](#)¹⁷ was filmed. In the video the sun appears to be directly visible through the window. On 28/02/2022 the sun rose at 06:20 EET, and would have been in a direct view of the building from 06:23 until 11:15 EET.

The angling of the building, the direct sunlight, and the fact that the balcony to the right side of the window would be present, makes it likely that the video was taken between 06:28 and 10:35 EET. This aligns with the first available reference to the incident being at 11:14 EET.

¹⁶ <https://t.me/truexanewsua/25860>

¹⁷ https://x.com/kgb_files/status/1498284698690363393?s=20&t=A6jWQ4h19yCjjoYwVXLvOw



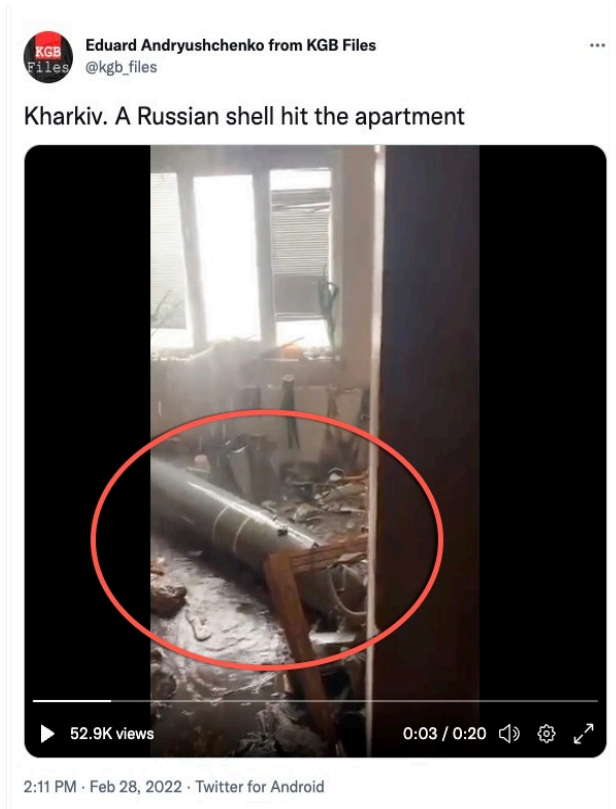
Screenshot of [SunCalc](https://www.suncalc.org/),¹⁸ showing the upper limit of direct sunlight for this building on 28/02/2022.

What Kind of Munition Was Used?

The rocket visible in [Source 1](#)¹⁹ appears to be a rocket motor of a 9M55K rocket based on its apparent size and markings. It was likely launched from a BM30 Smerch. Notably, there are no easily identifiable tails. However, when compared to reference photos (see below) of 9M55k rockets the markings appear to align. Additionally, the size appears to be much more consistent with a 300m rocket rather than a 220mm rocket as fired by a BM27.

¹⁸ <https://www.suncalc.org/>

¹⁹ https://x.com/kgb_files/status/1498284698690363393?s=20&t=A6jWQ4h19yCjjoYwVXLvOw



Left: A still from S1V1 taken at 00:03. Right: [9M55K Reference photo](#)²⁰.

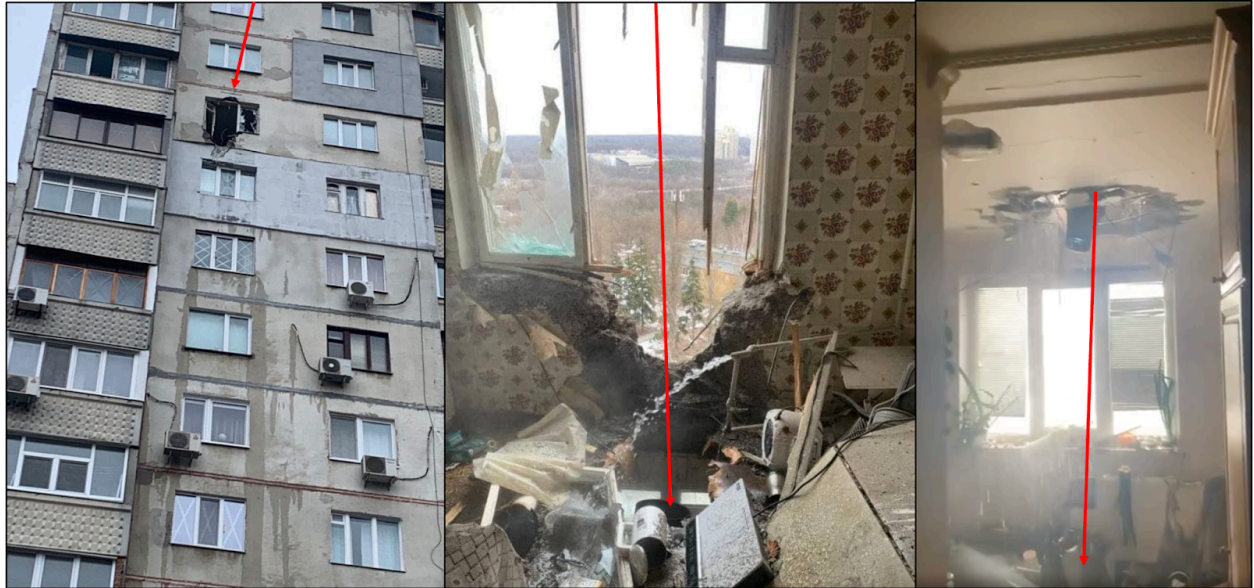
Is There Any Evidence of the Direction the Munition Came from?

The BM30 “Smerch” system has a range of 20 to 70 km according to [Army Recognition](#)²¹. The circular hole as a result of the hit to 50 Balakireva Street’s facade appears to indicate that the rocket motor impacted it straight on from a relatively high angle, before continuing into the apartment below.

²⁰ <https://brown-moses.blogspot.com/2014/02/more-evidence-of-bm-30-smerch-launched.html>

²¹

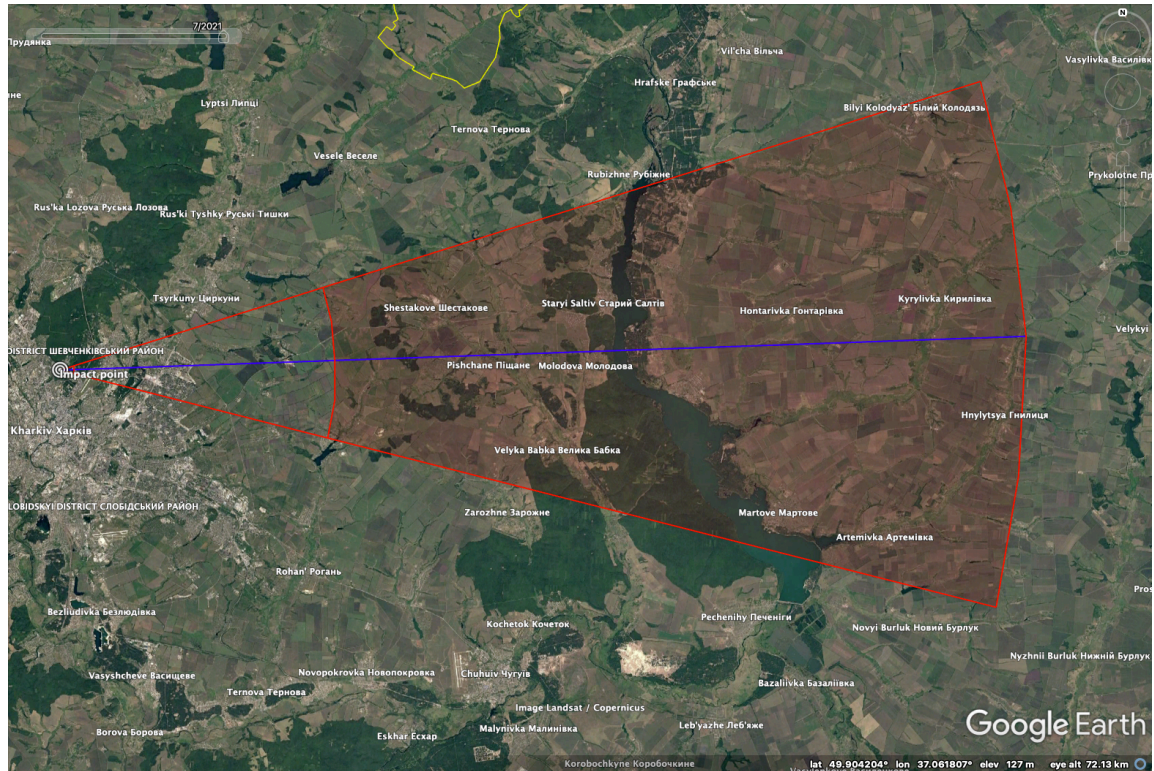
https://www.armyrecognition.com/russia_russian_army_vehicles_system_artillery_uk/bm-30_smerch_9k58_300mm_multiple_rocket_launcher_system_technical_data_sheet_information_description.html



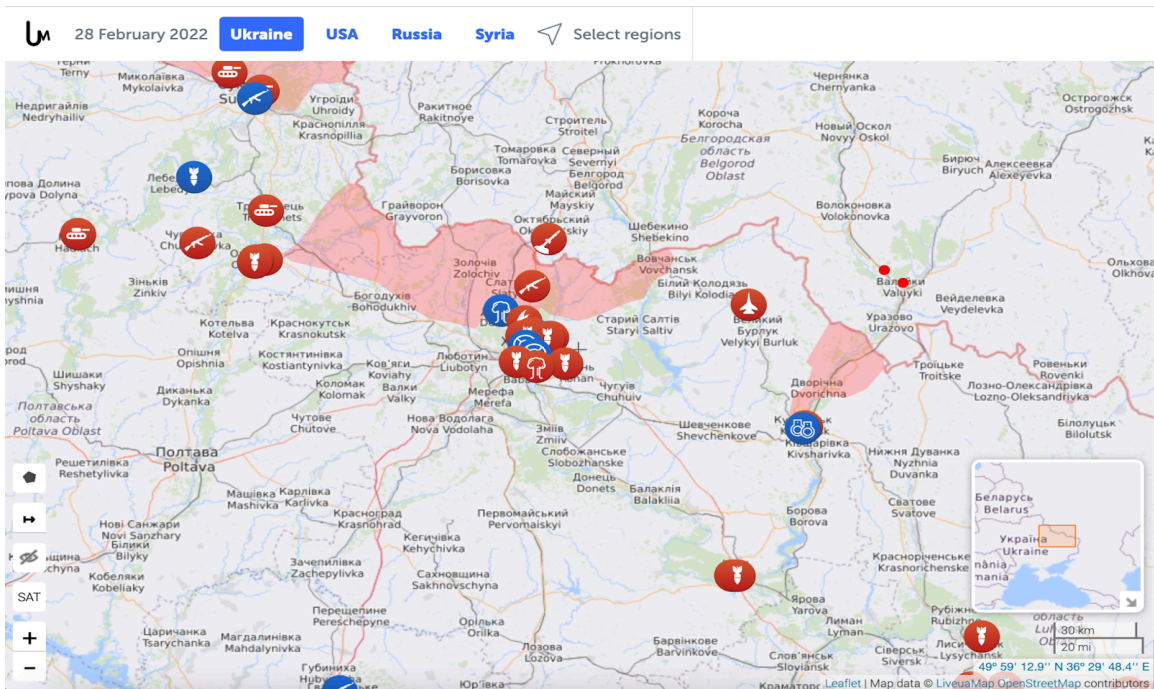
Damage indicates the progression of the rocket motor through the building. Left: S3I1, note the damage both to the top and bottom of the window frame. Middle: S1I1, note the hole visible in the floor immediately below the window. Right: A still from S1V1 (taken in the apartment immediately under the one where the two images were taken), Note the hole in the ceiling.

The damage visible allows for the plotting of a rough angle from in which the rocket motor may have landed. Plotting a 70km long line shows that the launch could have originated from territories east of Kharkiv. According to [LiveUAmap](https://liveuamap.com/),²² Russia was not reported to have had control over these territories at 28/02/2022. However their assessment of territories held at the time should be regarded as rough.

²² <https://liveuamap.com/>



Area from which this attack was likely to have originated from, with 20km and 70km arcs drawn (Credit: Google/Maxar Technologies).



Screenshot of [LiveUMap](https://liveuamap.com/en/time/27.02.2022)²³ from 22/02/2022 showing areas reported to be controlled by the Russian forces (Credit: LiveUMap).

²³ <https://liveuamap.com/en/time/27.02.2022>

Are There Any Indications of What This Location Was Used for?

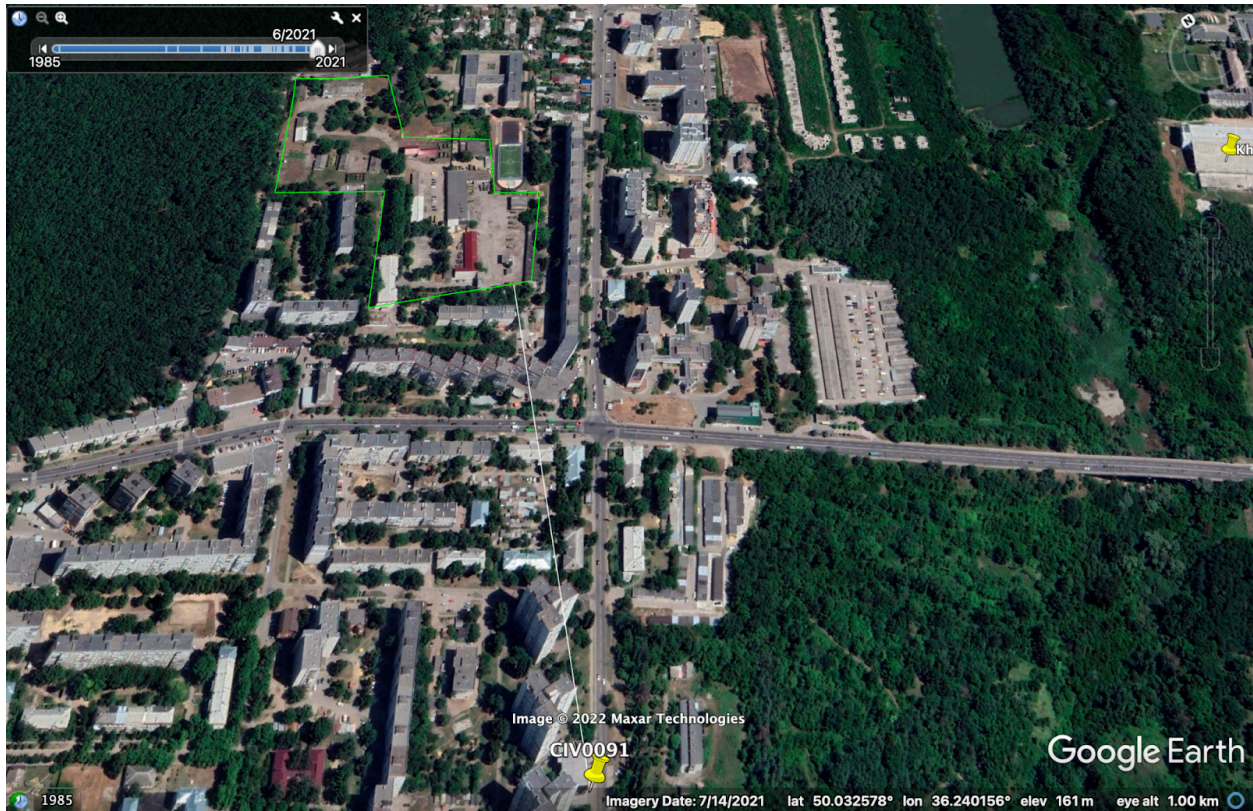
The building hit was a residential apartment building. At the time of the attack this location was under Ukrainian control, and there does not appear to have been any direct military use for it. Within 1 km from the impact with a 360m arc drawn, the area likely affected by the submunitions seems to be residential apartments, parts of Derevianka Street, the Kharkiv Christian Church, and a football field.



Satellite imagery from 25/05/2021 showing an arc with a 1 km radius from the impact zone (Credit: Google/Maxar Technologies).

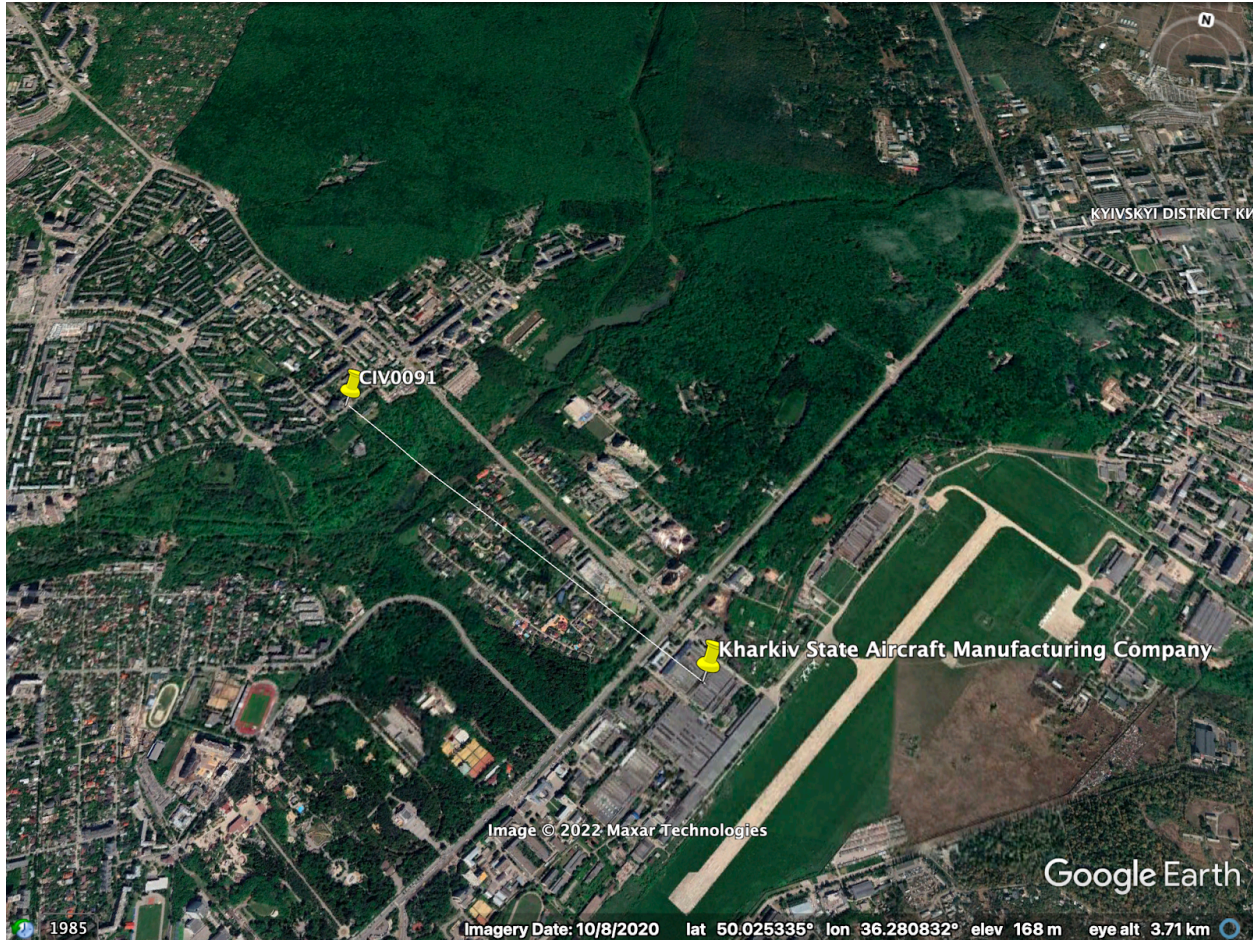
Were There Military Structures, Installations or Other Assets in the Area?

452 meters to the north from where the rocket motor impacted there is a structure that appears to have housed military vehicles. Satellite imagery shows that these vehicles were present in July 2021 - it is unclear whether it was an active military structure as of February 2022. However, this may have been the intended target of the attack.



Satellite imagery from 14/07/2021 showing a line from the point of impact to a location where military vehicles were present (Credit: Google/Maxar Technologies).

1.74 km to the south-east from where the rocket motor impacted is the Kharkiv airport, as well as the Kharkiv State Aircraft Manufacturing Company. It is unclear if these served as military structures at the time, but they may have been the intended target of the attack.



Satellite imagery from 08/10/2020 showing line from the point of impact to the Kharkiv State Aircraft Manufacturing Company (Credit: Google/Maxar Technologies).

Were There Any Casualties?

Several sources associated with the S1V1 and S1I1 report a woman having her leg traumatically amputated and dying as a result of her injuries in relation to the incident, including Source 3 by then Prosecutor General Irina Venediktova. However, this appears to be related to a separate, but possibly related incident (see CIV0082).

Any Other Relevant Information?

Fighting between Ukrainian and Russian forces took place on 27/02/2022 within the city limits of Kharkiv. According to a [Facebook post](#)²⁴ of the Regional Governor, Ukrainian forces had expelled Russian forces from the city by 12:00 EET on 27/02/2022. According to a [social media](#)

²⁴

<https://www.facebook.com/synegubov.oleg/posts/pfbidoNwGd5Bxe4UkM7cKja8jdd1F8TPKcwovhAMF9Hsmx5byJLPaynrZuniEVqTWjW84Gl>

[post](#),²⁵ Kharkiv was shelled during the early hours of the following morning - 28/02/2022 at. Many other incidents happened on this day in Kharkiv, including: CIV0082, CIV0083, 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 Regional Governor, Oleh Sinegubov, Russian forces had been expelled by 12:00 EET:

- [A Facebook post of Oleh Sinegubov](#)²⁶;
- [Al Jazeera](#)²⁷;
- [BBC](#)²⁸;
- [Telegram](#)²⁹.

28/02/2022: According to sources on Telegram, shellings occurred in the early hours of the morning in Kharkiv:

- At 1:18 am EET, first post about shelling on [Telegram](#)³⁰;
- At 4:00am EET, a post on [Telegram](#)³¹ talking about shelling in Kyiv and Kharkiv from 4:00am;
- At 4:13am EET, a [Telegram](#)³² post reportedly showing a “night shelling”;
- At 10:23am EET, a [Telegram](#)³³ post warning of an air alarm, telling people in Kharkiv to take shelter;
- At 11:10am EET, a post on [Telegram](#)³⁴ showing the earliest found video of a “barrage” hitting Kharkiv (see Incident CIV0086);
- At 11:14am EET, a post on [Telegram](#)³⁵ showing S2V2– showing the latest time when the incident could have happened.

²⁵ <https://t.me/truexanewsua/25541>

²⁶

<https://www.facebook.com/synegubov.oleg/posts/pfbidoNwGd5Bxe4UkM7cKja8jdd1F8TPKcwovhAMF9Hsmx5byJLPaynrZuniEVqTWjW84Gl>

²⁷

<https://www.aljazeera.com/news/2022/2/27/street-battles-in-kharkiv-as-russians-enter-ukraines-2nd-city>

²⁸ <https://www.bbc.com/news/world-europe-60543087>

²⁹ <https://t.me/uniannet/32867>

³⁰ <https://t.me/truexanewsua/25530>

³¹ <https://t.me/truexanewsua/25577>

³² <https://t.me/uniannet/33203>

³³ <https://t.me/hueviykharkov/46954>

³⁴ <https://t.me/truexanewsua/25857>

³⁵ <https://t.me/truexanewsua/25860>

Statements from Parties of the Conflict

Ukraine

- 1) President Zelensky in his [speech](#)³⁶ on the war mentions attacks on Kharkiv but not specifically this incident.
- 2) Zelensky, in his [speech](#)³⁷ on 01/03/2022, calls the strike on the central square in Kharkiv a war crime.
- 3) A Facebook post of then Prosecutor General Irina Venediktova containing imagery of this incident ([Source 3](#)³⁸).

Russia

- 1) Kremlin spokesperson Dmitry Peskov [denying](#)³⁹ the use of cluster munitions in Ukraine.
- 2) Ria Novosti [article](#), saying that the Russian Ministry of Defence is only using “high precision” weapons on military assets.

Conclusion

In the early hours of 28/02/2022, 50 Balakireva Street was hit on the 11th floor by a rocket motor. It was likely the rocket motor of a 9M55K rocket fired from a BM30 Smerch. This was determined based on the size and markings of the munition remnants. However, the tail section is not visible to make a conclusion with the highest certainty. The intended target is unknown, though an airport and an aircraft manufacturing company was within 1 km of the impact of the rocket motor. Although open sources demonstrate that Kharkiv was under bombardment at this time, it was not possible to identify where exactly the submunitions from this cluster munition impacted. The exact launch site of this munition was also not identified.

Further Action

To take on the investigation of what is believed to be related incidents: CIV0083, CIV0086, and CIV0090.

³⁶

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

³⁷

<https://www.president.gov.ua/news/raketa-po-centralnij-ploshi-harkova-ce-terorizm-i-rosiya-may-73261>

³⁸

<https://www.facebook.com/irina.venediktova.31/posts/pfbid029strgHmwBqMnj3rcxKSJfPWJkwWnurx7kLvL2DWaZtCXEU6omAbhbErD5ktTQoUU1>

³⁹ <https://www.gazeta.ru/politics/2022/03/01/14589073.shtml>