

# Incident Assessment

Incident ID	CIVo862
Location	Chuhuiv, Kharkiv region
Coordinates	<a href="https://goo.gl/maps/3VrSpYQGn4HFpYUKA">49.8305, 36.6913</a> <sup>1</sup> and <a href="https://goo.gl/maps/xZ3tjcbFxSAvW3Nh9">49.8335, 36.6889</a> <sup>2</sup>
Date	On or before 05/04/2022
Time	Could not be accurately assessed

## Description of the Events

On or before 05/04/2022, what appears to have been a cluster munition strike using 9M55K rockets was conducted on the city of Chuhuiv. The city had been under intense shelling since at least 01/04/2022, with reported attacks from 04/04/2022 to 06/04/2022. Two munition remnants impacted the south-central part of Chuhuiv, with one remnant landing in a public park and the other on a footpath adjacent to a hospital. The analysis of the direction of origin suggests that the rockets likely traveled over the city center and the possible area of impact for the submunitions was a mixed residential/commercial area. No footage showing the moment or aftermath of this specific strike was found. Furthermore, no military objects were identified to be present in the possibly affected area.

## Key Findings

- On 05/04/2022 images of two munition remnants were posted on Telegram channels.
- The two remnants were located approximately 380 m away from each other.
- Due to their proximity and the assessment that they possibly impacted on the same date these two motors were investigated as a single incident.
- Analysis of the remnants shows that they both appear to be rocket motors of a 9M55K cluster munition rocket for a “Smerch” system.
- Analysis also shows that the impact area for these cluster munitions was possibly the city center of Chuhuiv.
- The exact area damaged by submunitions was not identified.
- Infrastructure within the possible impact area included high rise residential housing, Chuhuiv central bus station, a kindergarten, the Public Prosecutors office, as well as other civilian locations.
- No military installations were found in the area.
- The exact location of the launch site was not identified.

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<sup>1</sup> <https://goo.gl/maps/3VrSpYQGn4HFpYUKA>

<sup>2</sup> <https://goo.gl/maps/xZ3tjcbFxSAvW3Nh9>

## Description of Searches

An internet search was carried out using search terms in Russian, Ukrainian and English matching the exact location of the remnants, as well as general search terms including: name of city, date of incident.

The searches were limited to 04/04/2022 to 06/04/2022.

Telegram channels, including private channels, were also searched for the same dates.

## Background Summary of Significant Descriptive Content

### Media Reports

- [Channel 4 News](#)<sup>3</sup> - An on the ground report from Chuhuiv, posted on 05/04/2022, reported to be at location on 04/04/2022. The Chuhuiv segment of the video is from 9:40 until 12:50. While it is filmed before the likely occurrence of the incident, it provides context for the time around the incident. Notably, one of the residents says that Chuhuiv has been under constant shelling since 01/04/2022.
- [Al Jazeera English](#)<sup>4</sup> - An on the ground report from Chuhuiv, following the State Emergency Service crew as they recover submunitions. Posted on 06/04/2022.

### NGO Reports

- None identified.

### Other

- [Telegram post](#)<sup>5</sup> - CCTV footage capturing the moment of a large explosion on the same residential housing as seen in the Telegram post of Source 1 and 2. Footage relates to a different incident, however it provides context for attacks around the time of this incident. CCTV footage features a timestamp of 14:41 EET on 05/04/2022. Geolocated to [49.8494, 36.6874](#)<sup>6</sup>.
- [Telegram post](#)<sup>7</sup> - Aftermath of what appears to have been a non-cluster munition strike occurring at [49.8289, 36.6783](#)<sup>8</sup>, posted on 04/04/2022. Footage relates to a different incident; however, it provides context for attacks around the time of this incident.
- [Telegram post](#)<sup>9</sup> - Aftermath of a strike occurring at [49.8221, 36.6583](#)<sup>10</sup>, posted on 07/04/2022, but the post claims the date of attack to be 06/04/2022. It is not possible

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<sup>3</sup> <https://youtu.be/AhBc3578lso?t=580>

<sup>4</sup> [https://youtu.be/mKKi1vq\\_Pa4](https://youtu.be/mKKi1vq_Pa4)

<sup>5</sup> [https://t.me/h\\_saltovka/43498](https://t.me/h_saltovka/43498)

<sup>6</sup> <https://maps.app.goo.gl/ZojKBbBaNCryX7HY9>

<sup>7</sup> [https://t.me/h\\_saltovka/43301](https://t.me/h_saltovka/43301)

<sup>8</sup> <https://maps.app.goo.gl/QfTcewuinHY4cVGr7>

<sup>9</sup> [https://t.me/h\\_saltovka/43589](https://t.me/h_saltovka/43589)

<sup>10</sup> <https://maps.app.goo.gl/QYD3mdcF8r8a6JFs5>



to establish if the damage is consistent with a cluster munition; however, this video may still provide useful context.

- A [Video posted to Twitter](#)<sup>11</sup> depicting what appears to be the cargo section for a 300 mm rocket at [49.8225, 36.6627](#)<sup>12</sup>, on 06/04/2022. It is possible that the remnant may be related to the attack. The same cargo section is seen in this [composite panorama](#)<sup>13</sup>, which appears to have been constructed from [this](#)<sup>14</sup> Channel 4 News video posted to Youtube on 05/04/2022. As such, it appears likely this cargo section impacted before 05/04/2022.

## Analysis of Examinable Content

- [Source 1](#)<sup>15</sup>: A Telegram post containing five images posted on 05/04/2022 at 23:18 EET. Two images show a munition remnant: Image 1 (S1I1) depicts a remnant embedded into a grassy area, Image 5 (S1I5) shows a remnant embedded into an area of bare earth next to a stump. The other three images (S1I2, S1I3 and S1I4) show what appears to be destroyed civilian housing. These three images have been geolocated to [49.8494, 36.6874](#)<sup>16</sup>, which at a distance of 1.7 km from the remnants, is too far away to be considered as part of the same incident. Additionally, the level of damage appears to be inconsistent with cluster munitions.



*Telegram post containing five images marked accordingly from S1I1 to S1I5.*

<sup>11</sup> [https://twitter.com/maria\\_avdv/status/1511409582412898308](https://twitter.com/maria_avdv/status/1511409582412898308)

<sup>12</sup> <https://maps.app.goo.gl/xJ28ZNPeiRWYecHTA>

<sup>13</sup> <https://twitter.com/marksnoeck/status/1516913630285111297>

<sup>14</sup> <https://www.youtube.com/watch?v=AhBc3578lso>

<sup>15</sup> <https://t.me/kharkivlife/33989>

<sup>16</sup> <https://maps.app.goo.gl/fXMMvbcE7KykZdSq8>

- [Source 2](#)<sup>17</sup>: A Telegram post containing CCTV footage (S2V1) of the moment of impact on these residential houses.



*A still from S2V1 depicting the moment of impact, taken at 0:06.*

- [Source 3](#)<sup>18</sup>: A Twitter post containing an image (S3I1) posted on 20/04/2022 at 19:16 GMT. Shows a different angle of the remnant seen in S1I1.

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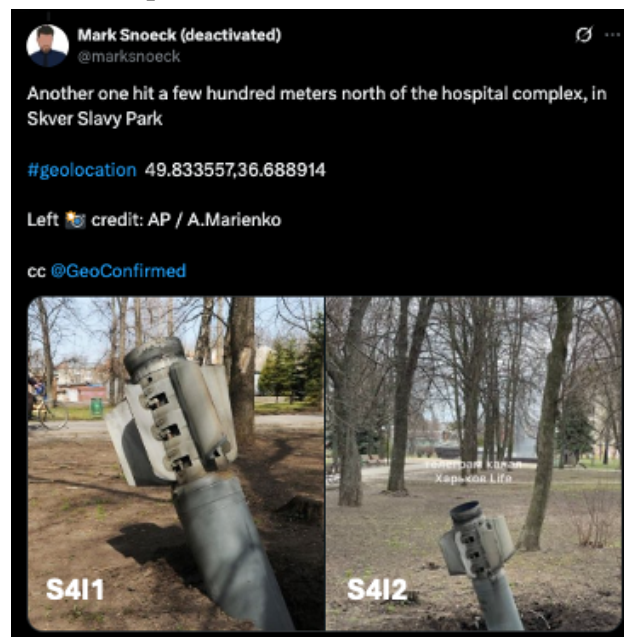
<sup>17</sup> [https://t.me/h\\_saltovka/43498](https://t.me/h_saltovka/43498)

<sup>18</sup> [https://twitter.com/Flash\\_news\\_ua/status/1516843279245008896](https://twitter.com/Flash_news_ua/status/1516843279245008896)



*S3I1, depicting a different angle of the remnant visible in S1I1.*

- [Source 4](#)<sup>19</sup>: A Twitter post containing two images posted on 20/04/2022 at 11:56 GMT. Image 1 (S4I1) shows a different angle of the remnant seen in S1I5. The second image (S4I2) in this Source is a repeat of S1I5.



*Twitter post containing two images marked as S4I1 and S4I2.*

<sup>19</sup> <https://twitter.com/marksnoeck/status/1516913653873848322>



Sources 3 and 4 show the same munition remnants as seen in Source 1, in the same location as Source 1, but from different angles.



Left: [S1I1](#).<sup>20</sup> Right: [S3I1](#).<sup>21</sup>



Left: [S1I5](#).<sup>22</sup> Right: [S4I1](#).<sup>23</sup>

<sup>20</sup> <https://t.me/kharkivlife/33989>

<sup>21</sup> [https://twitter.com/Flash\\_news\\_ua/status/1516843279245008896](https://twitter.com/Flash_news_ua/status/1516843279245008896)

<sup>22</sup> <https://t.me/kharkivlife/33989>

<sup>23</sup> <https://twitter.com/marksnoeck/status/1516913653873848322>



None of the sources displayed any obvious indication of having been manipulated. The information that two rocket motors had impacted central Chuhuiv, is consistent across the sources and is consistent with contextual information indicating that Chuhuiv was under artillery bombardment during this period of time.

## Questions to Investigate

### Where Was the Incident?

The original source claims the location to be Chuhuiv, Kharkiv oblast, Ukraine. This is further supported by the Twitter thread in Source 4.

#### *Geolocation of Remnant 1 as seen in S1I1 and S3I1:*



Left: [Satellite image](#)<sup>24</sup> with Point of View (POV) and references marked (Credit: Google Earth Pro/Maxar Technologies). Right: S1I1 with the same references. (Source: [Telegram](#)<sup>25</sup>)

<sup>24</sup> <https://goo.gl/maps/vR77WET8Y4TgV3Yx6>

<sup>25</sup> <https://t.me/kharkivlife/33989>



Left: [Satellite image](#)<sup>26</sup> with POV and references marked. (Credit: Google Earth Pro/Maxar Technologies). Right: *S3I1* with the same references.

The graphics above show that the two images were taken in close proximity to each other. Hence, the location of Remnant 1 was established to be at: [49.8305, 36.6913](#)<sup>27</sup>

#### **Geolocation of Remnant 2 as seen in *S1I5* and *S4I1*:**



Left: [Image](#)<sup>28</sup> of “Obelisk of Glory” in Chuhuiv. (Credit: Google Maps). Right: *S1I5* depicting the same monument.

<sup>26</sup> <https://goo.gl/maps/4ruvVMNoLpP8E5Sm7>

<sup>27</sup> <https://goo.gl/maps/3VrSpYQGn4HFpYUKA>

<sup>28</sup> <https://goo.gl/maps/frwGprkw8NNWqoAp6>





Left: [Satellite image](#)<sup>29</sup> with POV and “Obelisk of Glory” marked. (Source: Google Earth Pro/Maxar Technologies). Right: [S1I5](#) depicting the same monument.

S4I1 image shows a different angle of the same remnant, however does not provide additional geolocation information. The Remnant seen in S1I5 and S4I1 can be identified as the same motor not only by them being in the same location, but also by the identical marks on the cone of the motor.



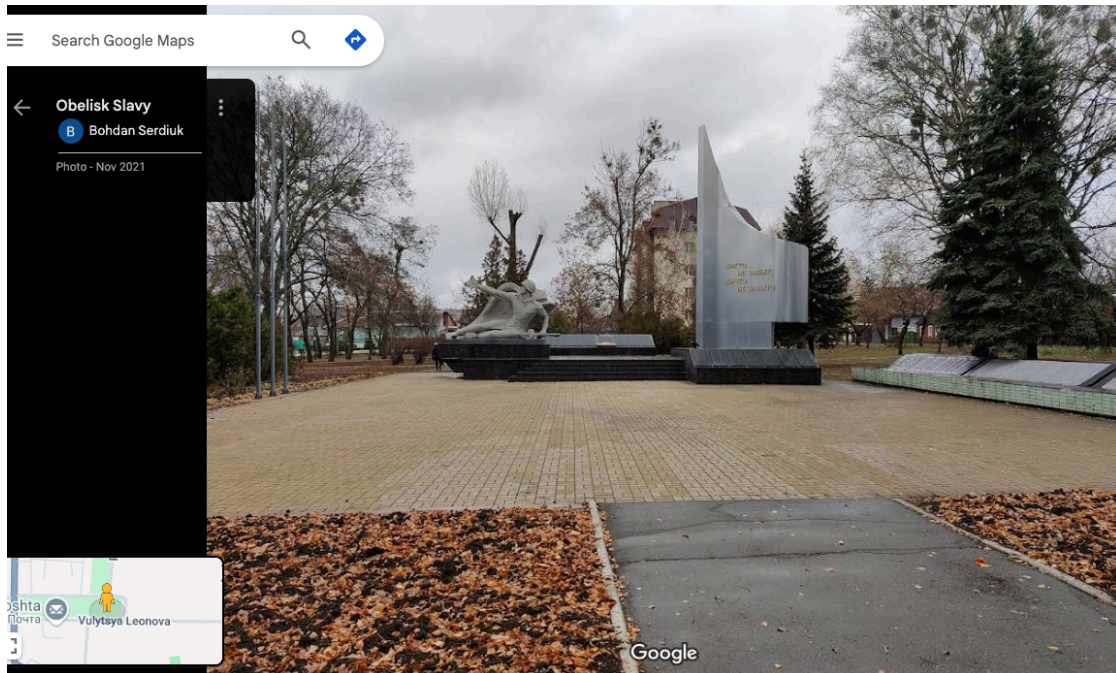
Left: [S4I1](#),<sup>30</sup> cropped and zoomed in to show the markings. Right: [S1I5](#),<sup>31</sup> cropped and zoomed in.

<sup>29</sup> <https://goo.gl/maps/osDdZZ3PM62wrsWP6>

<sup>30</sup> <https://twitter.com/marksnock/status/1516913653873848322>

<sup>31</sup> <https://t.me/kharkivlife/33989>

The fact that it is taken from the same location is further demonstrated by this [image](#)<sup>32</sup> of the park, posted to Google Maps, where the same footpath can be seen:



*Image of “Obelisk of Glory” in Chuhuiv. (Credit: Google Maps).*

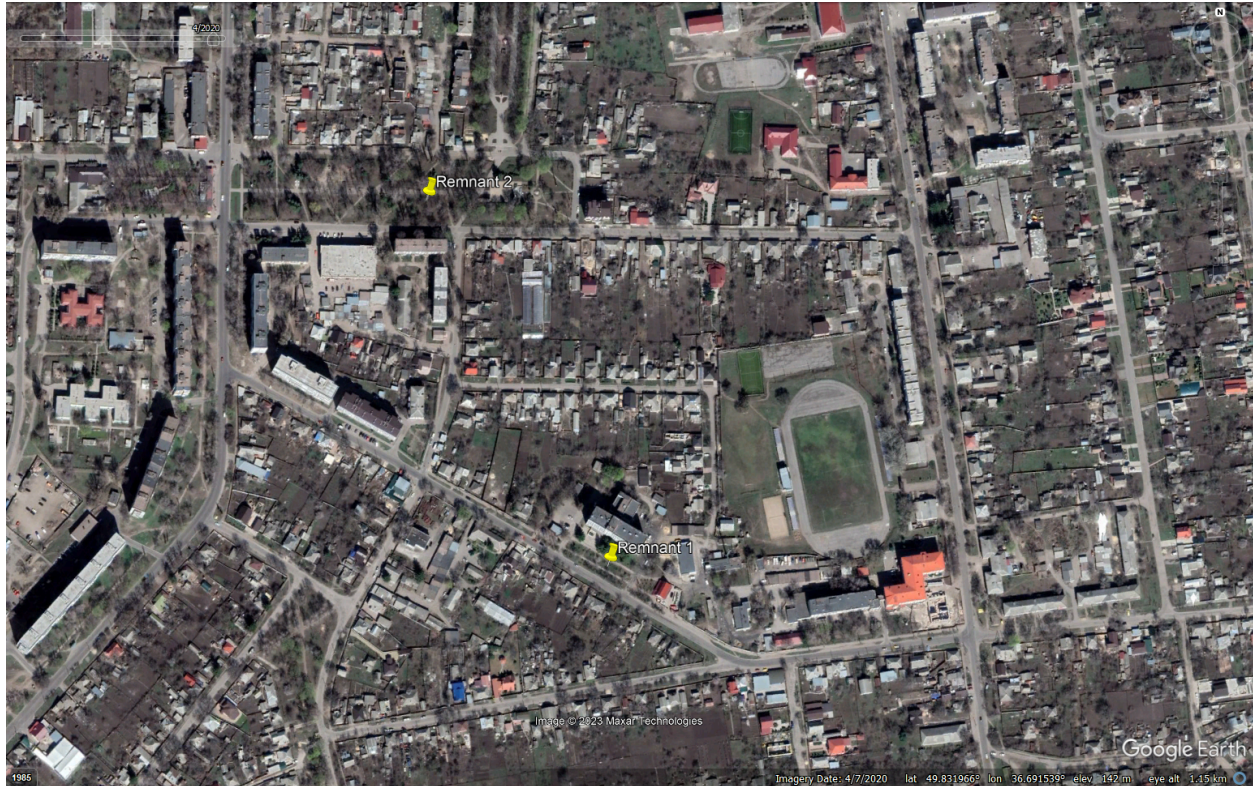
Therefore, the location of Remnant 2 was established to be [49.8335, 36.6889](#).<sup>33</sup>

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<sup>32</sup> <https://goo.gl/maps/frwGprkw8NNWqoAp6>

<sup>33</sup> <https://goo.gl/maps/xZ3tjcbFxSAvW3Nh9>





*Satellite image showing the location of both remnants (Credit: Google Earth/Maxar Technologies).*

The location of Remnant 1 is by a public footpath running along a building complex known as “Chuhuiv Central District Hospital”. Street address: 18 Gagarina street, Chuhuiv, Kharkiv Oblast, Ukraine, 63500.

The location of Remnant 2 is in a public park known as “Skver Slavy”, which translates to “Glory Square”. The Square also features a monument known as “Obelisk of Glory”, which commemorates the soldiers fallen in WW2.

### ***Residential Housing***

Source 1 also includes imagery (S1I2, S1I3, S1I4) of destroyed residential housing. This could be geolocated to [49.8494, 36.6874](https://maps.app.goo.gl/ZojKBbBaNCryX7HY9)<sup>34</sup>. Additionally the CCTV footage from S2V1, which depicts a large explosion at this location, is inconsistent with a cluster munition. As such this report does not examine this incident in detail due to it being out of scope.

<sup>34</sup> <https://maps.app.goo.gl/ZojKBbBaNCryX7HY9>



*Left: Satellite imagery showing the POV of S2V1 (Credit: Google/Maxar Technologies). Right: The moment of impact as depicted in S2V1.*

## When Was the Incident?

The exact time of the attack could not be accurately assessed. No impact footage from 05/04/2022 was identified through open sources.

The earliest identified post of the remnants to social media was [Source 1](#)<sup>35</sup> on 05/04/2022 at 23:18 EET.

A number of sources claim Chuhuiv was under recurring shelling from 24/02/2022 to 05/04/2022, and onwards. The most relevant of which are:

- 05/04/2022 - [Channel 4 News](#)<sup>36</sup> - News report from Chuhuiv. Claims city was under shelling on 04/04/2022.
- 06/04/2022 - [Al Jazeera English](#)<sup>37</sup> - News report from Chuhuiv. It follows an ordnance disposal team, which recovers submunitions and what appears to be part of a cargo section of a rocket from Chuhuiv.

## Date

The exact date of the attack could not be accurately established. Source 1 features at least two incidents: the impact of the two rocket motors, and the attack on residential housing, which as the CCTV watermark in [S2V1](#)<sup>38</sup> indicates occurred on 05/04/2022.

<sup>35</sup> <https://t.me/kharkivlife/33989>

<sup>36</sup> <https://youtu.be/AhBc3578lso>

<sup>37</sup> [https://youtu.be/mKKi1vq\\_Pa4](https://youtu.be/mKKi1vq_Pa4)

<sup>38</sup> [https://t.me/h\\_saltovka/43498](https://t.me/h_saltovka/43498)





*S2V1; note the date indicated by the CCTV watermark in the top right.*

Further, the description of the post claims the date of occurrence to be 05/04/2022. Based on this, it can be said that the incident had to occur on or before 05/04/2022. No publicly available reports containing a copy of S2V1, which were posted earlier than 05/04/2022 were identified at the time of the assessment.

## **Time**

The exact time of the attack could not be accurately assessed as no impact footage of the attack was identified.

The Telegram post from Source 1 includes a description in Russian:

*“Три приветов из России. Чулуев утром. Был дом и нет - не прошло и 5 минут!”*

Translated to English:

*“Three hellos from Russia. Chuhuiv this morning. A house was there and now it’s gone - not even 5 minutes went by!”*

The claim that the incident occurred in the morning could not be confirmed, furthermore the second incident in the same post, in which housing was damaged, appears to have occurred at 14:41 EET according to CCTV footage in [S2V1](https://t.me/h_saltovka/43498)<sup>39</sup>, casting doubt on the claims about time made in this post.

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<sup>39</sup> [https://t.me/h\\_saltovka/43498](https://t.me/h_saltovka/43498)

S1I1 and S1I5 were taken during daytime; however, due to the lack of shadows in all source imagery, the exact time of when the images were taken could not be assessed with sufficient accuracy.

Furthermore, no high resolution satellite imagery is available from central Chuhuiv for the period 04/04/2022-06/04/2022, and cloud coverage was also present on that date during this period.

## What Kind of Munition Was Used?

Both remnants show what appears to be the rocket motor of a 9M55K rocket, a 300mm rocket fired by a BM-30 “Smerch” system(s).

Here, Remnant 1 matches the features seen in a 9M55K reference image, namely, the layout of the hinge holes match those of a 9M55K rocket.



Left: [S3I1](#)<sup>40</sup>. Right: 9M55K identification reference card (Credit: [Mark Hiznay/Twitter](#)<sup>41</sup>).

<sup>40</sup> [https://twitter.com/Flash\\_news\\_ua/status/1516843279245008896](https://twitter.com/Flash_news_ua/status/1516843279245008896)

<sup>41</sup> <https://twitter.com/MarkHiznay/status/1497741893479841797>



Remnant 2, as seen in S4I1, also shows the same hinge hole characteristic of the 9M55K tail section.



Left: [S4I1](#)<sup>42</sup>. Right: 9M55K identification reference card (Credit: [Mark Hinzay/Twitter](#)<sup>43</sup>).

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

9M55K is fired by the BM-30 MLRS system, which has a [range](#) of up to 70 km<sup>44</sup>.

Based on the assessed angle of impact of the tail section, it is possible to establish a rough area within which the launch likely took place. This is done by applying a 70 km arc to the assessed direction of origin of the rocket motors. In order to do this, the investigator visually assessed the direction of origin based upon the direction the rocket motors pointed.

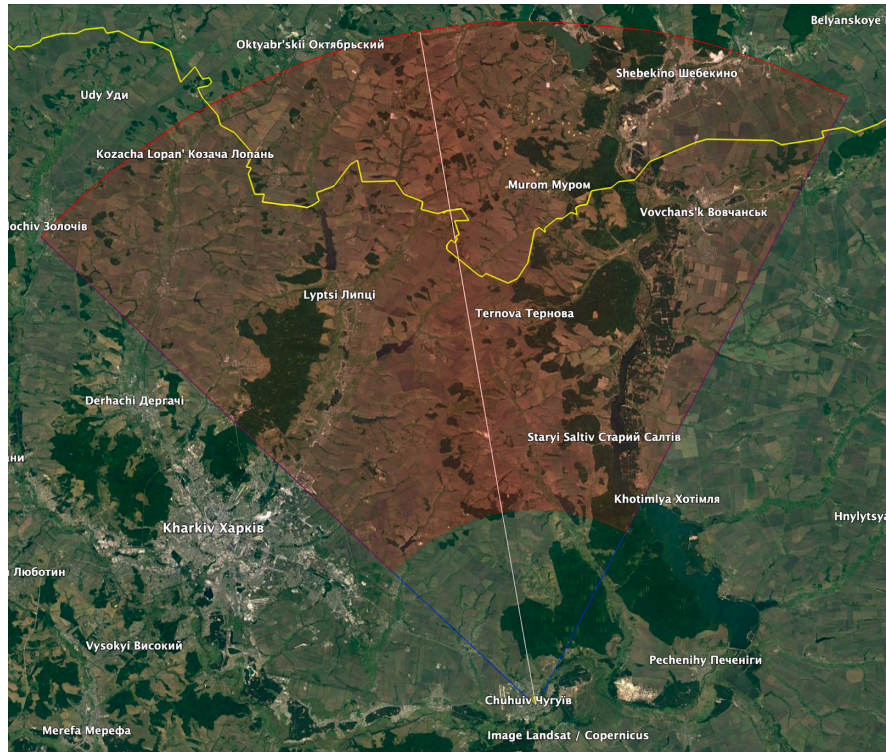
The assessed direction of origin of Remnant 1 was 350 degrees from north.  
The assessed direction of origin of Remnant 2 was 344 degrees from north.

<sup>42</sup> <https://twitter.com/marksnock/status/1516913653873848322>

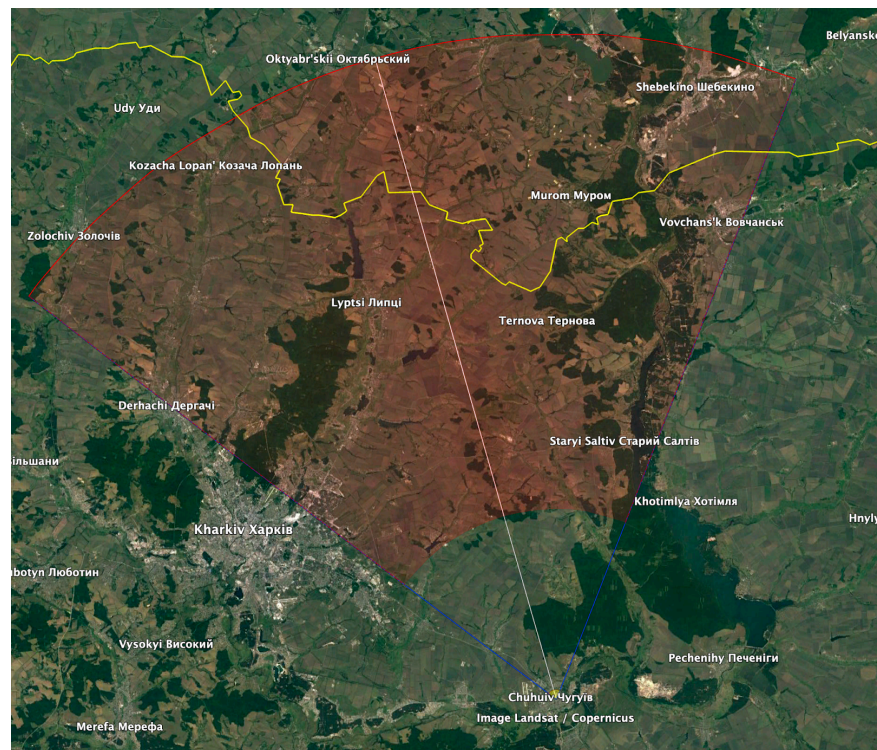
<sup>43</sup> <https://twitter.com/MarkHinzay/status/1497741893479841797>

<sup>44</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](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)



*Satellite image showing a 70 km direction of origin arc, from Remnant 1, with possible launch area highlighted in red (Credit: Google Earth Pro/Landsat/Copernicus).*



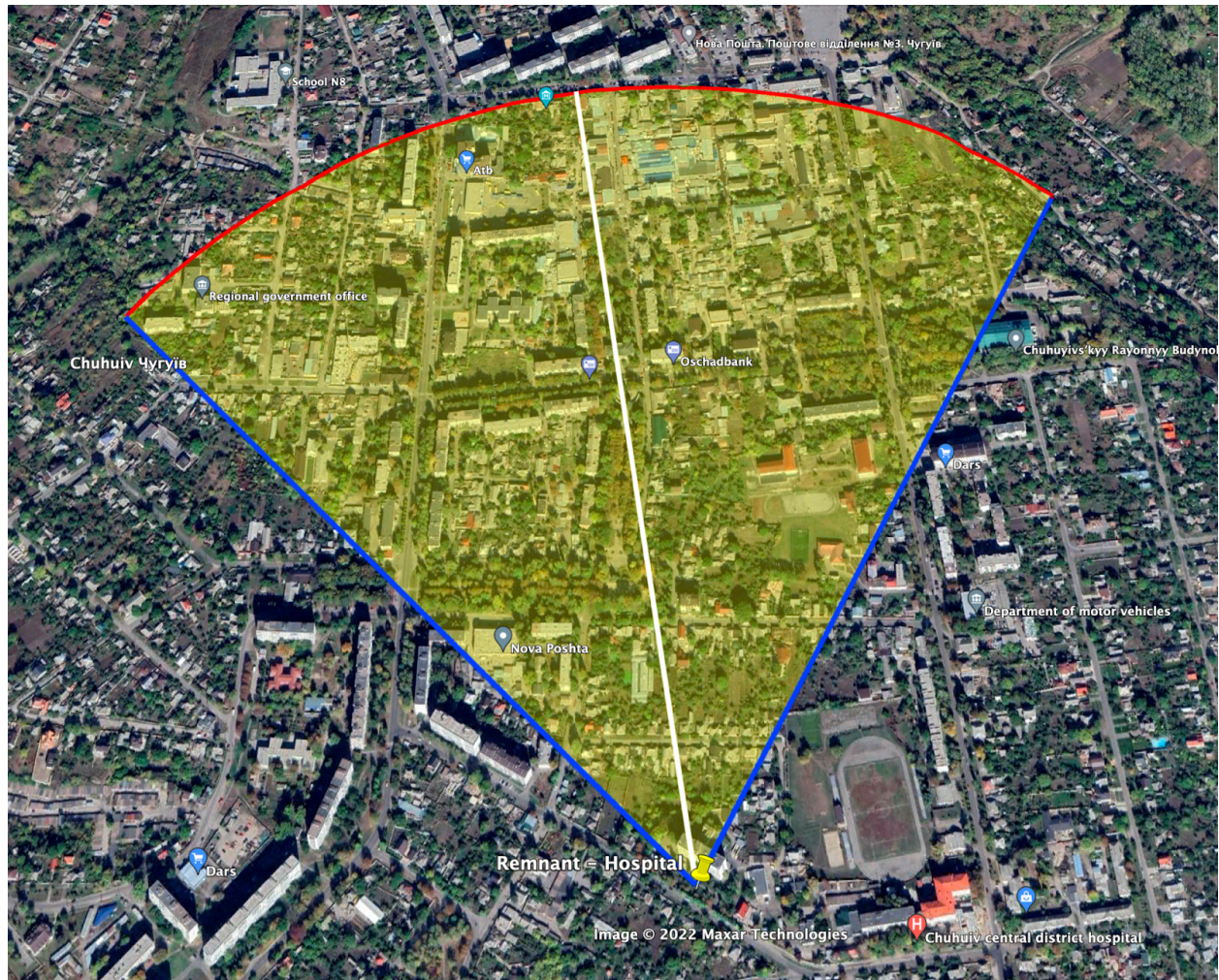
*Satellite image showing a 70km direction of origin arc, from Remnant 2, with possible area of launch highlighted in red (Credit: Google Earth Pro/Landsat/Copernicus).*



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

The two remnants are located in the southern part of Chuhuiv city center, based on the direction of origin analysis, it is assessed that the rockets possibly traveled over Chuhuiv city center and deployed submunitions within a one 1 km arc from the remnants. This indicates that the possibly damaged area was civilian in nature, with some government buildings also located within the 1 km arc.

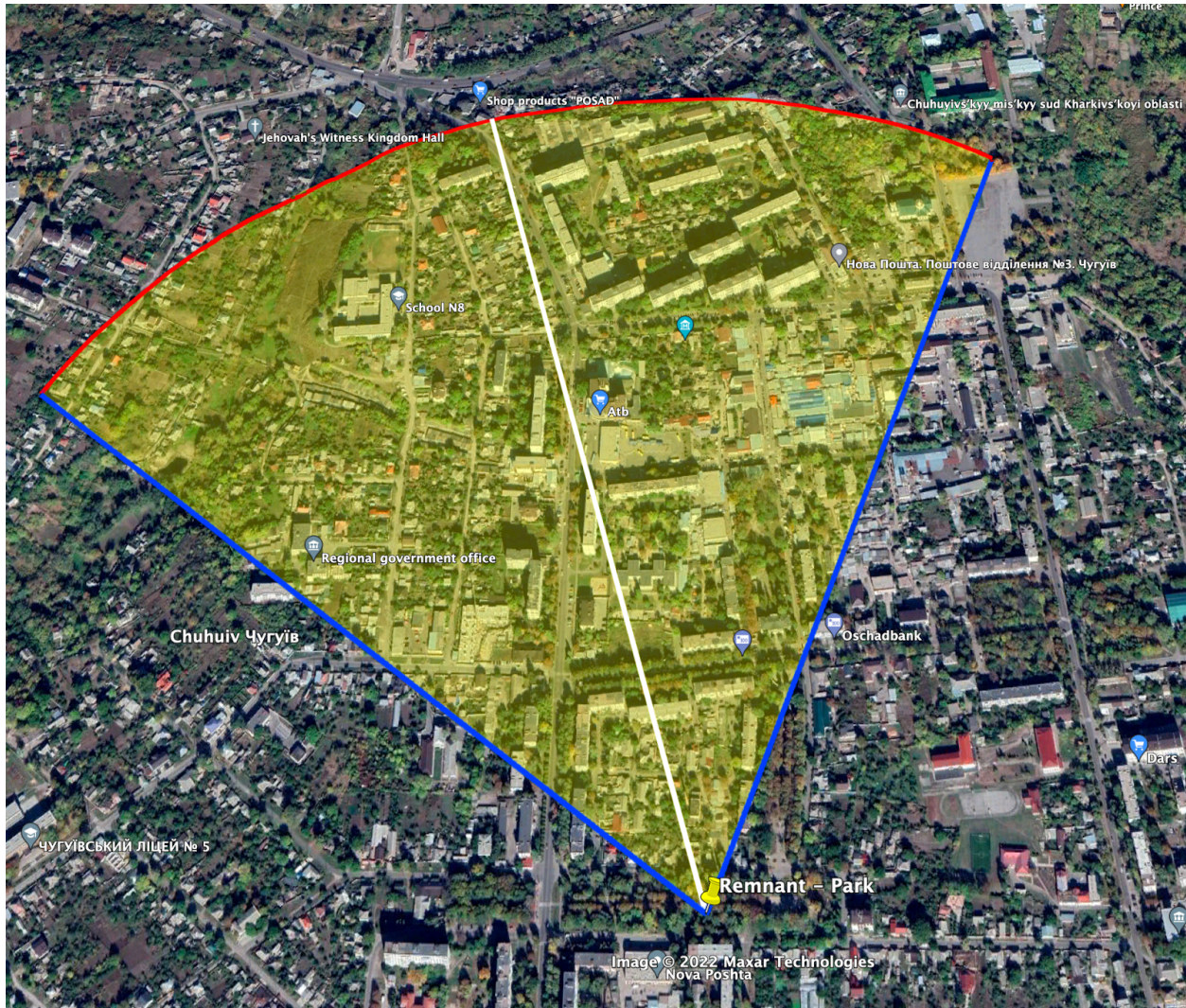
Remnant 1 landed immediately outside a hospital which is labeled on [Google Maps](https://maps.app.goo.gl/XF3J9n4EG5fdX3qS6)<sup>45</sup> as Chuhuiv district center of primary health care.



*Satellite image showing a 1km arc of the possibly damaged area by submunitions from Remnant 1 (Credit: Google Earth Pro/Maxar Technologies).*

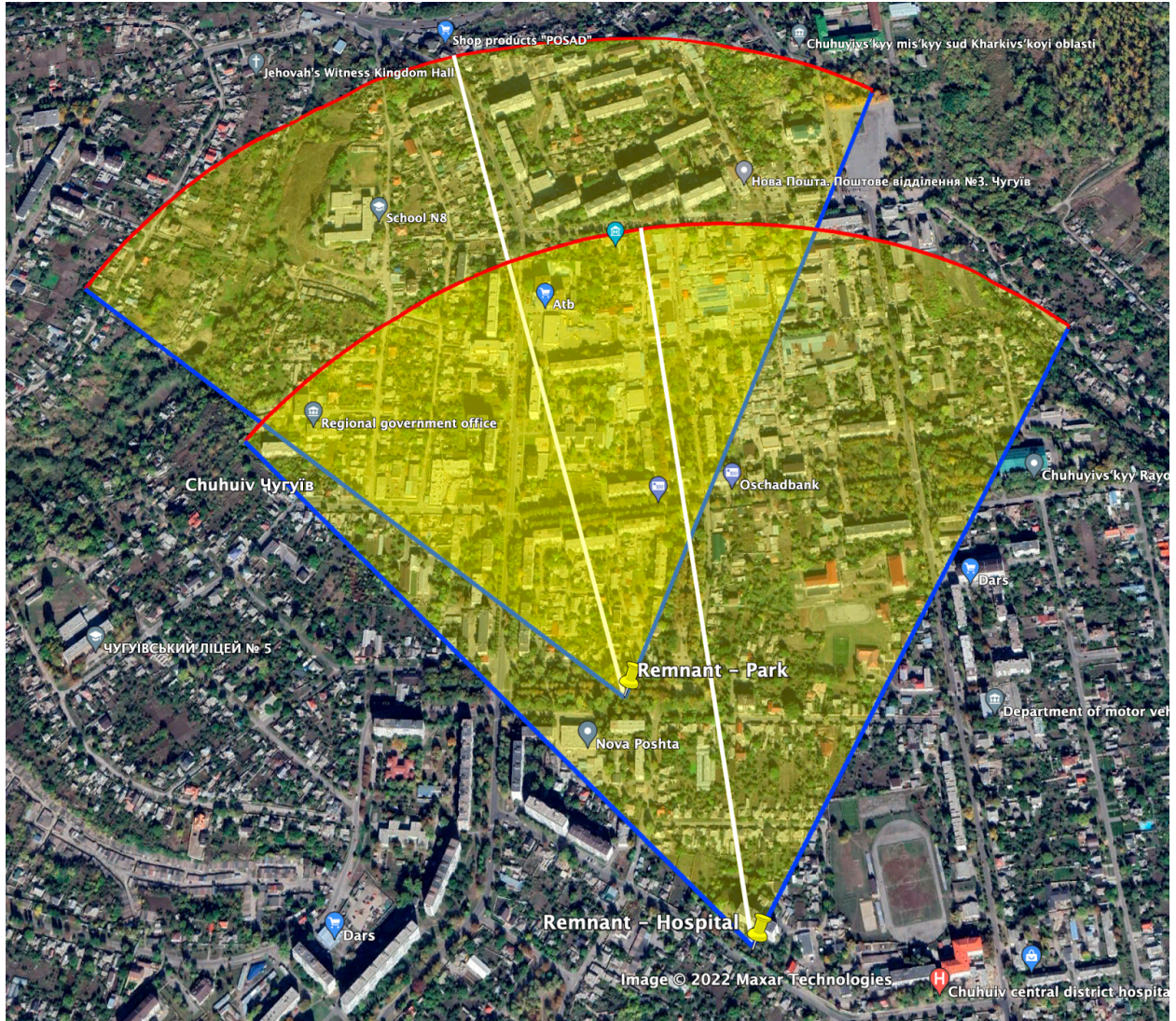
<sup>45</sup> <https://maps.app.goo.gl/XF3J9n4EG5fdX3qS6>





*Satellite image showing a 1km arc of the possibly damaged area by submunitions from Remnant 2 (Credit: Google Earth Pro/Maxar Technologies).*





*Satellite imagery showing the two overlapping 1 km arcs of the possibly damaged area by the submunitions from Remnants 1 and 2 (Credit: Google Earth Pro/Maxar Technologies).*

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

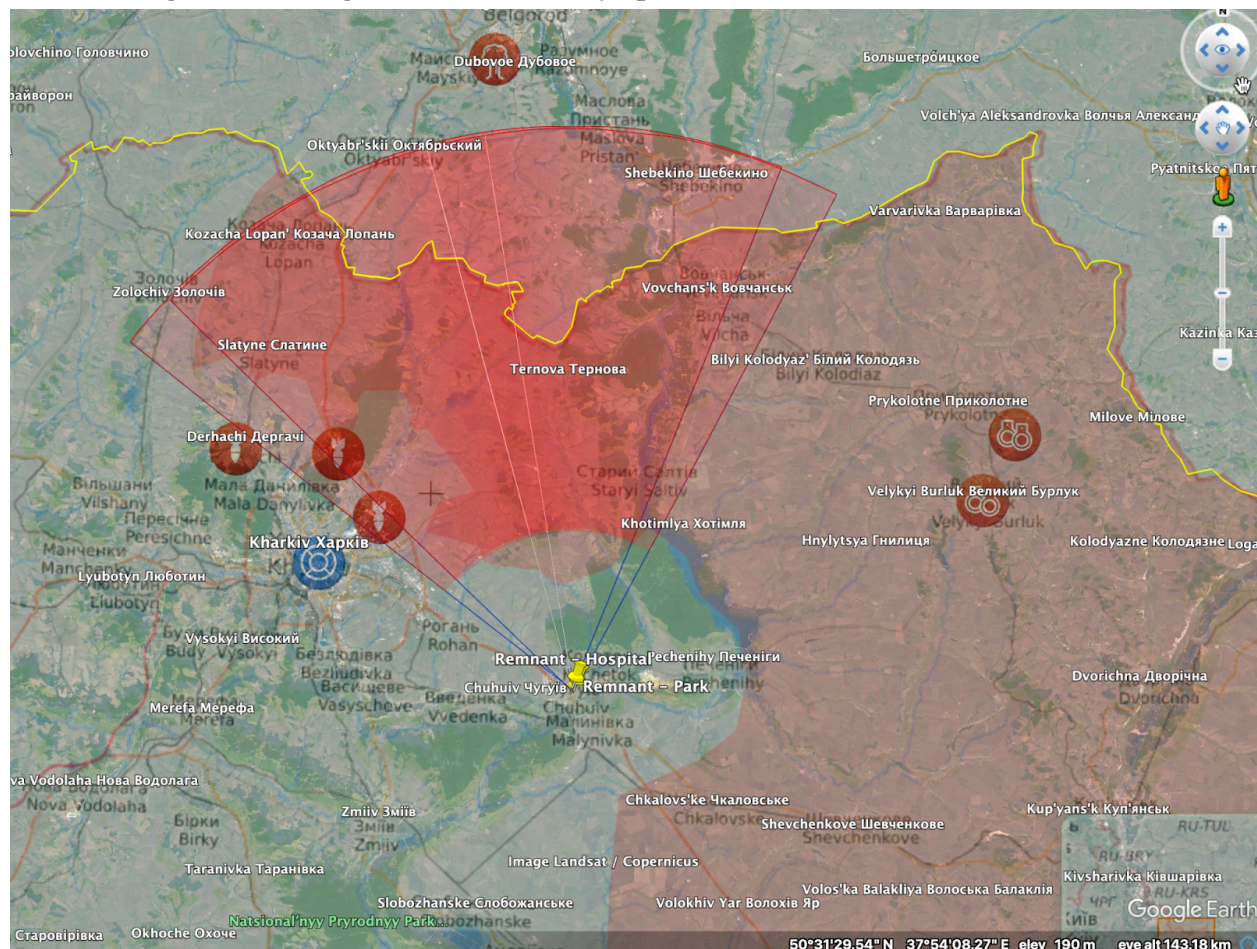
No military installations were identified in the area through open source research. As shown above, the possibly damaged area is the central district of Chuhuiv. This area is residential in nature, with some government buildings present. Notably, the city's "[Prosecutors office](https://goo.gl/maps/agiCkTKs7BgLeRao8)"<sup>46</sup> is located within the 1 km arcs.

<sup>46</sup> <https://goo.gl/maps/agiCkTKs7BgLeRao8>



## Any Other Relevant Information?

[LiveUAMap](#)<sup>47</sup>, which uses open source information to assess areas held by Ukrainian and Russian forces, was consulted to establish which forces were in which areas. This information should be regarded as rough, since it is entirely open source.



*Screenshot of a map showing presence of Russian forces on 05/05/2022, with 70 km arcs indicating the possible area of origin (Source: [LiveUAMap](#)<sup>48</sup>).*

## Timeline of the Incident

On 05/04/2022 at 23:18 EET, imagery was posted to Telegram, which depicted a destroyed building and two munition remnants. While these munition remnants are unlikely to be related to the destroyed house depicted by the images of the same post, the damage to the houses may provide context for the timeline of the attack.

CCTV footage showing the moment of impact on the housing was identified in S2V1. The footage is time and date stamped, 05/04/2022 at 14:41 EET.

<sup>47</sup> <https://liveuamap.com/>

<sup>48</sup> <https://liveuamap.com/en/time/04.04.2022>

There is, however, no footage or images showing the moment of impact of the two Remnants identified in this report, and as such the exact date of the incident cannot be clearly established. It appears that the incident must have taken place on, or likely shortly before, 05/04/2022, when the first imagery appeared online.

## Statements from Parties of the Conflict

### Ukraine

Kharkiv Regional Prosecutor's statement on the shelling of Chuhuiv on 04/04/2022 on [Telegram](#)<sup>49</sup>:

***In Ukrainian:*** “Двоє загиблих внаслідок обстрілу окупантами м.Чугуїва - розпочато розслідування

*За процесуального керівництва Харківської обласної прокуратури слідчими СВ Управління СБУ в Харківській області розпочато досудове розслідування у кримінальному провадженні за фактом порушення законів та звичаїв війни, поєданого з умисним вбивством (ч. 2 ст. 438 КК України).*

*За даними слідства, 4 квітня 2022 року російські окупанти здійснили артилерійський обстріл м. Чугуїв Харківської області.*

*Внаслідок цього низку будинків пошкоджено та зруйновано.*

*В одному із житлових будинків внаслідок обстрілу загинули 38-річний чоловік та 63-річна жінка.*

*Досудове розслідування триває.”*

***English Translation:*** “Two dead as a result of shelling of Chuhuiv by occupants - investigation initiated.

*Under the procedural supervision of the Kharkiv Regional Prosecutor's Office, investigators of the SBU Office in Kharkiv region initiated a pre-trial investigation in criminal proceedings over violation of the laws and customs of war, combined with intentional murder (Part 2 Art. 438 of the Criminal Code of Ukraine).*

*According to the investigation, on April 4, 2022, the Russian occupiers carried out an artillery shelling of the city. Chuhuiv, Kharkiv region.*

*As a result, a number of houses were damaged and destroyed.*

*In one of the residential buildings, a 38-year-old man and a 63-year-old woman died as a result of the shelling.*

*The pre-trial investigation is ongoing.”*

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<sup>49</sup> [https://t.me/prokuratura\\_kharkiv/3280](https://t.me/prokuratura_kharkiv/3280)

## Russia

Russian Ministry of Defence Press briefing on 05/04/2022, posted on [Facebook](#)<sup>50</sup>. The press briefing mentions a strike on Chuhuiv:

***In Russian:*** “Высокоточными ракетами воздушного базирования в районах населенных пунктов Золочев и Чугуев уничтожен командный пункт подразделения территориальной обороны, хранилище топлива и завод по ремонту бронетанковой техники.”

***English Translation:*** “High-precision airborne missiles near the villages of Zolochiv and Chuhuiv destroyed the command post of a territorial defense unit, a fuel storage facility and an armored vehicles repair plant.”

## Conclusion

On 05/04/2022, images were posted showing two 9M55K rocket motors embedded in the ground next to a park and hospital, in the city of Chuhuiv. It is unknown what the intended target was. Although open sources demonstrate that Chuhuiv was under bombardment at this time, it was not possible to identify exactly where the submunitions from this cluster munition impacted. Furthermore, the exact launch site was not identified.

## Further Action

- Obtain and compare satellite imagery for dates 24/02/2022-28/02/2022.
- Conduct further research to identify impact footage and location.

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<sup>50</sup> <https://www.facebook.com/watch/?v=697189508124935>