WHO’S NEXT IN THE DEAD LINE?

FINDING RESPONSIBLE FOR KILLING PEOPLE QUEUING FOR A BREAD IN CHERNIHIV
Truth Hounds is a team of experienced human rights professionals that has been working on documenting war crimes and crimes against humanity in the war contexts since 2014. We aim at fighting against the impunity of perpetrators of international crimes and grave human rights violations through investigation, documentation and monitoring, advocacy, problem solving for vulnerable groups.
1. CASE SUMMARY

The Russian troops brought civilians and civil infrastructure of the city of Chernihiv under artillery fire on March 16, 2022 at approximately 9 am (10 am according to the official investigators). The attack on the queue waiting to get some bread resulted in at least 14 people killed and 27 wounded. One more person later died in hospital. North-east part of the city was targeted. The highest number of people were killed next to the house number 19 on Dotsenko street (the Soyuz no.9 shop), since exactly at that moment they were queuing in two lines in front of the main exit and the staff exit of the shop to get bread. The biggest number of people were killed and wounded specifically due to the artillery round direct hit. The residents and the residential buildings in the surrounding General Pukhov and Dotsenko streets were also adversely affected by the attack.

The Truth Hounds documentators have visited the site twice during the field missions on April 18 and June 13, 2022. They have documented the accounts of four eyewitnesses of this incident (some were not contacted for information by the law enforcement officers), as well as videorecording five points of impact, recording the damage caused by the attack. Augmenting this data with open-source information, the Truth Hounds analysts managed to recreate the event sequence of the incident, to evaluate it as a war crime, to determine the type of the weapon used, to trace the direction and the origin of fire as well as to identify the alleged perpetrators of this attack. All the findings are listed below, in the analytical report.

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2. RECONSTRUCTION OF THE ATTACK EVENTS

Based on eyewitness testimonies and strike analysis the points of impact during the attack and the strike sequence in the morning of the 16th of March 2022 were determined. On that sunny morning it was rumoured among the residents of Pukhov, Dotsenko and Kosmonavtiv streets that bread would supposedly be brought to Soyuz shop and would be handed out starting from 10 am. None of the witnesses could recall where these rumours came from. People were phoning each other and spreading this news. For this reason, people began assembling next to the abovementioned shop as early as 7.30 am. They took their children or their elderly parents with them in order to get more bread, since at that point in time the city was almost completely without power, the shops stood empty. In that situation a family could certainly use an additional loaf of bread.

Gradually two queues formed, one comprising approximately forty persons, next to the shop’s main entrance. The other queue consisted of approximately 50 persons, who were actually waiting for bread and were standing next to the east wall of the same shop (see the image below).

A quote by the witness KI–01:

On March 16 at 07.20–07.30 I went to Soyuz shop on Dotsenko street. I secured my spot in the queue for food in the western side of the shop. I saw more people gather and queue up to get some bread in the east side of the shop. I secured my spot in the first queue to the shop and went over the east side of the shop and joined the queue. Now and then I ran to the other side to check up on the queue in the west side. Approximately 20 persons gathered waiting for bread. They were waiting for the bread to be brought.

Satellite image of the incident with the legend.
Image taken on 16.06.2020
Coordinates: 51.51904700302249, 31.326338545255467

4 Testimony by KI–01
Witness KI-02 recalls that she heard sounds similar to blasts or rounds of fire that morning from the direction of construction materials supermarket Epitsentr, which is located 800 m to the north-east from Soyuz shop, before the round hit the queue for bread.

Another eyewitness of the incident KI-03 notes the following:

“This calls for additional verification, whether military equipment of this kind was firing from the residential area before it was attacked. Truth Hounds analysts, from their side, studied the satellite image of the area taken at 11 am on the day of the attack. They saw at that point in time neither military equipment nor the traces thereof in Berezovyi Hai areas and the neighbouring areas. Section 5 below offers more detail on this.

At approximately nine in the morning a MLRS GRAD rocket hit a maple tree that was growing close to the north-east wall of the house no.25 on Dotsenko street. The remains of the round penetrated the wall of the flat no.1 in that house. The hit caused a fire in the flat. Its elderly owner died inside. A woman living on the 4th floor of this house was smothered by the combustion residue. The remains of this round damaged the flat no.83 in 127 Pukhov street. 90 seconds later another round hit the queue waiting for bread next to Soyuz no.9 shop, where 15 persons died. After several minutes a series of rounds hit multiple residential houses no. 130, no.132, no.134 (138) General Pukhov street, areas adjacent to the houses, and a glade next to Berezovyi Hai park (3–4 shell-holes, coordinates 51.520315, 31.331218). Between the houses no. 134(138) and 132 the witness KI-03 discovered later the body of his neighbour. One of the rounds hit the entrance of house no.8 on Dotsenko street. The eyewitnesses of the attack pointed to additional impact sites and recalled hearing other blasts, but were unable to localize them.

Detailed information on the documented impact sites, attack timeline and its consequences are listed in the table below.

<table>
<thead>
<tr>
<th>Time</th>
<th>Location</th>
<th>Short description/ consequences</th>
</tr>
</thead>
<tbody>
<tr>
<td>07:50 am</td>
<td>Berezovyi Hai park Epitsentr store</td>
<td>Howitzer fire in Berezovyi Hai area, a total of 12 rounds. Fire from the direction of Epitsentr store and in the park area</td>
</tr>
</tbody>
</table>

Testimony by KI-02

Testimony by KI-03

The eyewitness KI-03 testifies that a round hit a house no.138 on Pukhov street at the level of the 7th floor as a result of the attack. However, having compared the panoramic images of the streets and documented materials we can see that it’s the house no. 134 on the level of the 8th floor that was actually hit. This inaccuracy in the witness account is caused by the fact that houses no. 134, 136 and 138 on General Pukhov street are, in fact one house partitioned perpendicularly by the section with a separate entrance.
<table>
<thead>
<tr>
<th>Time</th>
<th>Location</th>
<th>Impact Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>08.50 am - 9 am</td>
<td>127 General Pukhov street</td>
<td>Flats 83 and 86 hit</td>
</tr>
<tr>
<td></td>
<td>25 Dotsenko street</td>
<td>Flat no. 1 hit, the female resident of the flat died, as well as the female resident of a flat located on the 4th floor of the same house</td>
</tr>
<tr>
<td>Approximately</td>
<td>19 Dotsenko street (Soyuz no.9 shop)</td>
<td>14 persons immediately killed and 1 died in hospital later. Over 27 persons wounded</td>
</tr>
<tr>
<td>9 am - 9.15 am</td>
<td>130 General Pukhov street</td>
<td>The north–east façade hit at the level on 5th floor</td>
</tr>
<tr>
<td></td>
<td>132 General Pukhov street</td>
<td>The house roof and flat no.19 hit, a man living in flat no.20 died, his body was found between this house and house no.134</td>
</tr>
<tr>
<td></td>
<td>134 (138) General Pukhov street</td>
<td>The north–east façade hit at the level on 8th floor</td>
</tr>
<tr>
<td>09:00 – 10:17</td>
<td>8 Dotsenko street</td>
<td>An entrance of a five-storey house hit</td>
</tr>
</tbody>
</table>

Overall, on March 16, 2022 between 8.50 am and 9.15 am the Truth Hounds documentators have located 12 impact sites of the munitions covering the area of approximately 75 000 square metres (7.5 hectares) on Dotsenko and General Pukhov streets.

* The full picture of the attacks. Google Earth pins. Available at: https://earth.google.com/earth/d/lljcTLyjD76ewpiHR2bC3WfOzkXCLW8L?usp=sharing
2.1 ATTACK BEGINNING TIME

The official investigators and certain media claim that the round hit the queue waiting for bread next to Souyz no.9 shop at 10 am on March 16. However, Truth Hounds have every reason to believe that the attack took place at least on hour earlier. First, two out of four immediate witnesses of the event simultaneously testify that 9 am is the time the queue was attacked, as well as the massive shelling of the area began. Two other witnesses are doubtful about the time. Another indirect evidence pointing that the events began before 10 am is the satellite image of the incident site taken that day. Traces of round burst and possibly the bodies of the deceased are visible in the impact site in the premises of Soyuz shop. The attack, therefore, had already happened. If one juxtaposes the shadows of the objects during this sunny day with the data from SunCalc - a website showing sun position in a certain place, date and time, one can see that the satellite image was taken on March 16 at approximately 11.10 am local time, i.e., one hour after the strike, as determined by the investigators. We do not see in the image, however, any smoke in the places of fires, caused when the rocket hit, for example, the flats located in the 132 and 134 General Pukhov street and 25 Dotenko street. It’s unlikely that extinguishing fires required so little time, taking into account how long it takes for a fire engine with the fire fighters to arrive.

A video that the abovementioned witness KI-02 passed on to the documentators can serve as an additional proof that the attack was carried out earlier. According to the woman the video was filmed at 10 am, after she left the shelter where she hid after the queue was attacked. The consequences of the attack can be seen in the video -- blood on the asphalt, crowdedness and human activity in the site of strike. The witness herself comments on the events on camera as such that happen after the attack⁹.

⁹ Video of the attack on 8 Dotenko street made by KI-02
2.2 PHOTOS FROM THE IMPACT SITES

The site of the attack after the round hit on 16.03.2022. 
A freeze-frame from the video (timeline 00:45)
Date of filming: 18.04.2022.

Photo from 8 Dotsenko street 
hit by the rocket

The round photo made by KI-02
A freeze-frame from the impact site - a house on 130 General Pukhov street

A freeze-frame from the impact sites - houses on 25 Dotsenko street and 127 General Pukhov street

A freeze-frame from the impact site - a house on 132 General Pukhov street
3. WEAPONS USED TO ATTACK CIVIL OBJECTS AND CIVILIANS ON MARCH 16, 2022 IN THE CITY OF CHERNIHIV

Witness testimonies contain a rather accurate description of munition fragments, found in the shell-holes or apertures in buildings after impact. The witnesses describe these objects as “a half-cylinder-shaped object that has the same colour as duralumin, approximately 30 cm in length, with the 12-15 cm diameter” or “the splinter of the silver cylinder-shaped projectile, approximately 50 cm in length, 120 mm in diameter”. The witnesses recorded, inter alia, such splinters in impact sites on 25 Dotsenko street, and in the courtyard of 132 Pukhov street. The eyewitnesses also note small intervals between the explosions, flashing of the rounds in the sky, as well as the density of “incoming rounds”. All of this points to the use of Grad multiple launch rocket systems during this attack. If one compares the photo of the round splinter, photographed by the witness on impact site on 8 Dotsenko street and the photo of MLRS Grad rockets from other sources, one can see that the very configuration of these rockets, their calibre, tail section, material and coating colour are to all intents and purposes identical.
Attack on the military by GRAD-P artillery rockets. "The military were attacked by GRAD-P artillery piece", dated 03.02.2021.
Available at: https://mil.in.ua/uk/news/vijskovyh-obstrilyaly-z-reaktyvnoyi-ustanovky-grad-p/


Photo from the Ukrainian OSCE Mission after the attack on January 31, 2021. Whole part including the tail section. Photo published on: 03.02.2021

Photo of the exploded ordnance of MLRS GRAD BM-21
In addition, the analysis of other circumstances of this attack leads to the conclusion that during the incident not only multiple launch rocket systems could be used, but also the howitzer artillery systems. For instance, in the incident when the projectile hit the queue for bread next to the Soyuz no.9 shop. The witness that was nearby reported the whistling sound characteristic of howitzer shells, with which they flew immediately before hitting\textsuperscript{16}. Another fact corroborating howitzer shell use is as follows: no splinters, characteristic of MLRS rounds (rocket base cylinders, tail sections with or without fins), depicted above, were found in the shell-hole. However, both Explosive Ordnance Disposal (EOD) specialists and Truth Hounds documentators have identified and removed from the site of the explosion the splinters of the shell, that resemble a part of howitzer complete round in appearance. Pre-trial investigators, conducting the explosive ordnance evaluation of the shell splinters came to the conclusion that the following weapon type was used: the projectile that hit the queue next to Soyuz shop was fired from a 152 mm calibre artillery piece (for reference – the calibre of MLRS GRAD round is 122 mm).

\textsuperscript{16} Testimony by KI-03
We can therefore ascertain that in the morning of March 16, 2022 the residential houses located on General Pukhov and Dotsenko streets in the city of Chernihiv and their residents were shelled by MLRS GRAD BM-21 and, possibly, by howitzer artillery pieces that hit the people who were waiting for bread next to the side entrance to Soyuz no.9 shop.

In order to put together more accurate criteria for further locating the firing positions we will use the characteristics of the weapons that are likely to have been used during the attack. However, a reservation needs to be made here: for the purposes of this investigation, we use and list here only those having material significance.

So, the characteristics of MLRS GRAD BM-21 are as follows:

<table>
<thead>
<tr>
<th>MLRS GRAD</th>
<th>БМ-21</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area coverage with one salvo, hectares</td>
<td>6</td>
</tr>
<tr>
<td>Number of tubes</td>
<td>40</td>
</tr>
<tr>
<td>Full salvo durations, sec</td>
<td>20</td>
</tr>
<tr>
<td>Calibre, mm</td>
<td>122,4</td>
</tr>
<tr>
<td>Quadrant elevation, degrees:</td>
<td></td>
</tr>
<tr>
<td>- minimum</td>
<td>0</td>
</tr>
<tr>
<td>- maximum</td>
<td>55</td>
</tr>
<tr>
<td>Range of fire, m:</td>
<td></td>
</tr>
<tr>
<td>- minimum</td>
<td>1600</td>
</tr>
<tr>
<td>- maximum</td>
<td>20400</td>
</tr>
</tbody>
</table>
We assume that most likely the city was attacked using the rockets of MLRS GRAD. However, one should keep in mind that the Armed Forces of the Russian Federation have extended range rockets (up to 40 km) in their arsenal of free rockets, which can be used to attack with fire from remote positions by using another launch rocket system – MLRS Tornado. The photos of fragments and points of impact, including typical patterns of fragmentation spray, allow for establishing only the type of the rounds used, namely high explosive fragmentation rounds. The shortage of data prevents us from the establishing a more accurate nomenclature, as the photos do not show any marks or labels on the bodies of the rounds. The general characteristics of the rockets of this type (appearance, calibre, length, warhead type -- everything, except the range) of different nomenclatures, overall, are the same. One therefore shouldn’t reject the possibility that the extended range rockets (up to 40 km) 9M521 or 9M522 with MLRS Tornado launchers could have been used. Most probable, however, is firing from a close distance for greater accuracy, given that the operational situation on the date of the attack allowed it. So, we shall opt for the version that MLRS GRAD and intermediate-range rockets, i.e., with the maximum range of fire of 20 km were used.

As for the accuracy of this weapon, these multiple launch rocket systems were developed for and are used to strike against area targets, defeating a big number of the enemy’s military equipment and personnel. The salvo pattern was 130 m in length and 200 m in width, that’s why the point of impact looks like an elongated ellipse. Therefore, the statement about the exceptional accuracy of multiple launch rocket systems is far from true.

As for the howitzer weapons, the artillery pieces of the 2C19 type (or its successors 2C3, 2C35,2C5) and MSTA–B were most likely used. They have the following characteristics:

<table>
<thead>
<tr>
<th>Name</th>
<th>2C19 MSTA–S</th>
<th>MSTA–B</th>
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</thead>
<tbody>
<tr>
<td>Calibre</td>
<td>152,4</td>
<td>152,4</td>
</tr>
<tr>
<td>Range of effective fire, km</td>
<td>6,5–29,06</td>
<td>6,4–24,7</td>
</tr>
<tr>
<td>Rate of fire, rounds per minute</td>
<td>6–8</td>
<td>up to 7–8</td>
</tr>
<tr>
<td>Ranges, degrees:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- elevation range</td>
<td>from -4 to +68 360</td>
<td>from -3 to +70</td>
</tr>
<tr>
<td>- traverse range</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Muzzle round speed, m/s</td>
<td>810</td>
<td>810</td>
</tr>
<tr>
<td>Grouping, range</td>
<td>1/342</td>
<td>1/363</td>
</tr>
<tr>
<td>Grouping, deflection</td>
<td>7,9</td>
<td>11</td>
</tr>
</tbody>
</table>

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9M522 High explosive fragmentation round with ejectable warhead. Available at: http://web.archive.org/web/20220922092142/https://missilery.info/missile/grad/9m522
The Russian Federation claims that howitzer`s MSTA-S fire accuracy is 96% if high-precision rounds are used. These include Krasnopol, Gran and Kitolov-2 rounds. They have automated homing head, whereas the howitzer itself is equipped with automated fire control system, which, taken together, produces the 96% accuracy of fire. As regards MSTA-B howitzers, they can use homing rounds as well (for instance, Krasnopol rounds), but this isn`t the main projectile used for firing from this howitzer. Overall, MSTA-B does not have guidance systems, but has double speed tube elevation mechanisms that ensure 70 degrees of elevation and has the grouping of 1/363 (distance) and 11 m (deflection) with effective range of 25 km. In other words, 10 rounds fired in a row will burst within an approximate radius of 320 metres. Overall, one can conclude that if MSTA-S or MSTA-B with homing rounds are the howitzers in question, then one can claim to be firing with pinpoint accuracy. Having said that, firing regular rounds from self-propelled MSTA-B has a rather low accuracy with great dispersion error.

4. THE ORIGIN OF FIRE

If one juxtaposes points of impact, documented in this incident, it becomes self-evident that rockets were launched from the north-east. For instance, this is evidenced by:

- projectile direct hit aperture at the level of the 5th floor in the house no. 130 on General Pukhov street, in the wall facing north-east;
- traces of impact in the houses no.127 on General Pukhov street, and no. 25 on Dotsenko street;
- projectile direct hit aperture in the wall at the level of the 8th floor in the house no. 134 on General Pukhov street, in the wall facing north-east;
- witness testimonies that point out the flashes in the sky from north-east side vis-a-vis their position during the attack.

As regards Soyuz shop that was hit, one can make a conclusion about rockets launched from north-east upon analysing the shape and location of the shell-hole. The projectile hit the ground very close to non-residential building, as you can see at the freeze-frame below from Truth Hounds video. Shell-hole edges have the shape of uneven oval, elongated along the north-east to south-west axis. One can rule out southern, western and strictly northern projectile approach trajectory, since were this the case the projectile would have hit the neighbouring structures: the brick building on the other side, the gates or the main building of Soyuz shop and created a shell-hole with a different orientation.

Later in this report, after establishing additional circumstances of the incident, we shall illustrate the possible artillery round approach trajectory to the point of impact in the queue before the shop. Meanwhile, using a freeze-frame from Truth Hounds documentators` video, it is possible to determine the approximate azimuth of the projectile trajectory. As you can see, it forms a sector with the approximate boundaries of 40 and 50 degrees.
5. LOCATION OF FIRING POINTS

Having determined the origin of fire (and azimuth for howitzer shells) and knowing the characteristics of the weapon used, first and foremost maximum range capability of the projectiles, Truth Hounds analysts have analysed satellite imagery from the sector located to the northeast from Chernihiv and have geolocated the possible firing positions. The only satellite image covering the sector of search dated March 16, 2022 was selected for examination. The analysts limited its radius to primarily north-east quadrant, as well as to minimum and maximum projectile range capabilities, listed in section 3 above. A subsector with the established artillery shell approach azimuth was distinguished separately. Unfortunately, the satellite image does not cover all possible search areas, so the analysts studied only the part thereof, available for intelligence.
Finally, the military equipment concentration was found in two open locations:

1) 24 military equipment pieces in the field between the settlements of Chernysh and Stasy with the coordinates 51.60965, 31.45947;
2) 11 military equipment pieces in the field next to the forest to the south of the previous positions, with the coordinates 51.59571, 31.44649.

The straight line distance from the impact zone to both positions amounts to approximately 14,000 metres. According to information from the General Staff of Ukrainian Armed Forces, this area at the time was occupied by the Russian Armed Forces, so it can be maintained without a shadow of a doubt that it is the Russian military hardware in the images.

Since the azimuth difference is quite insignificant, we can perceive both geolocations as possible launch sites of the ammunition targeting the city.

When zooming in on the image, the hardware type can be identified. For instance, howitzers of both types - self-propelled MSTA-S and towed MSTA-B - are well visible in both locations. This is indicated by clear barrel contours and special features of the hardware appearance - one can guess self-propelled artillery pieces by the size and barely visible track chassis, whereas towed pieces can be recognised because they are flanked by trenches.
Truth Hounds analysts plotted the flight paths of shells of the howitzers, identified in the field, connecting their coordinates with the point of impact near Soyuz shop coordinates with straight lines. Then they contrasted these flight paths with the known firing azimuth. As a result, it turned out that the flight paths fall within the predetermined azimuth (see the image below). One can therefore claim that the projectile was launched by one of the howitzers, that was located in the field with the coordinates mentioned above.
Unfortunately, the analysts did not detect the exact location of MLRS GRAD that day in the area in question. This is explained, first and foremost, by the limited scope of search with greater amplitude of possible GRAD locations. The following fact should also be taken into account: as established above, this image was made after 11 am, whereas the attack happened at approximately 9 am. During this time the rocket system could vanish without a trace from the firing site, even if it operated in the locations that we identified. We also note that Truth Hounds recorded the location of a big number of military equipment in Stasy village, situated next to the localised Russian positions in the field.
Russian equipment’s presence not far from the determined firing points is additionally supported by the testimonies of witnesses, interviewed by Truth Hounds documentators.

Witness KI-05 from Chernysh village notes the following:

“Beginning from late February I observed the movements of the Russian military equipment along Myru street on multiple occasions. I do not remember the exact dates, there was no possibility to track time. I saw “O” symbol on the Russian equipment. In these convoys I saw APCs, petrol tank vehicles, track chassis equipment, for example, Tunguskas. However, I am not certain that they were specifically Tunguskas, because the equipment was covered by tarpaulin. I also saw the Grads mounted on Ural chassis. I am certain that these were Grads, not the Uragans, because there were guide rails of smaller diameter. I know that Grads were located and fired from the lake shore (coordinates: 51.615941, 31.509768) Approximately on March 12, 2022, roughly two weeks into the occupation, the Russians moved to the forests to the west of Chernysh. Towed artillery continuously moved along my street, towed by Urals. I also saw the movement of self-propelled artillery pieces with humongous barrels on a buttress and cockpits that looked like huge boxes. I think it’s calibre 152 mm artillery. I also saw the Uragans with my own eyes.”

Satellite images dated 19.03.2022 support the eyewitness account of the movement and location of the Russian military equipment in the centre of the village and next to the lake. They show two pieces of the equipment resembling military trucks. These are usually used for personnel, ammunition and food transportation. Multiple launch rocket systems like Grad can also be transported in similar bodies.

Testimony by KI-05.
6. ALLEGED PERPETRATORS IDENTIFICATION

Truth Hounds investigators found the list of all military brigades and regiments of the Russian Armed Forces, where 152 mm artillery pieces and MLRS GRAD are in service:

- 21st Independent Omsk-Novobugsk Motorized Rifle Brigade (heavy), military unit No.12128 (Totskoe settlement, Orenburg region)
- 385th Guards Artillery Brigade, military unit No. 32755 (Totskoe settlement, Orenburg region)
- 41st Combined Arms Red Banner Army, military unit No. 64128 (the city of Novosibirsk), three units of which have 152 mm munitions;
- 9th Tank Brigade;
- 32-nd Independent Leningrad-Pavlovsk Red Banner Motorized Rifle Brigade or military unit No. 22316, with duty station at Shylovsk range (or Shylovsk garrison) 45 km from the city of Novosibirsk.
- 35th Independent Guards Motorized Rifle Brigade, military unit No. 41659 (the town of Aleysk);
- 74th Independent Guards Motorized Rifle Brigade military unit No.21005 (the town of Yurga, Kemerovo);
- 149th Guards Motorized Rifle Regiment, military unit No.54306;
- 91-st Independent Motorized Rifle Regiment, military unit No. 83364;
- 120-th Guards Artillery Brigade, military unit No. 59361 (the town of Yurga and Chistyye Kliuchi village of Kemerovo region);

On the day of the attack (March 16, 2022) 35th Independent Guards Volgograd-Kiev Order of Lenin, Suvorov and Kutuzov Red Banner Motorized Rifle Brigade (35 IMR brigade, military unit No. 41659, the town of Aleysk) was to the north-east of Chernihiv. Only one type of 152 mm artillery piece (SP howitzer 2C19 MSTA-S) - 36 pieces, and only one type of multiple launch rocket system (MLRS GRAD) - 18 pieces, are in service with this brigade.

Therefore, only one brigade, namely 35th Independent Motorized Rifle Brigade, which is a part of the 41st Army of the Russian Federation, could engage the city of Chernihiv from the north-east.

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18 The list of weapons and military units of the Russian Federation. "Central military district". Available at:

19 Video with the person who witnessed the Russian troops in Chernihiv.

20 The list of weapons and military units of the Russian Federation. Available at:

21 The list of weapons and military units of the Russian Federation. Available at:
Oleg Kurygin\textsuperscript{22}, born on 06.03.1977, is the commander of the brigade. His location: Uiskoe settlement, Cheliabinsk region, Russian Federation. Rank – colonel. Truth Hounds also discovered the following personal data of Kurygin:

- ITN (individual tax number): 660303992221;
- passport number: 6504 488369;
- phone number: +79826042767\textsuperscript{23}

At the same time the commander of the 41st Army, that includes the 35th brigade, is Sergey Ryzhkov\textsuperscript{24}

In addition, another female eyewitness from the TV coverage of Syspine.Novyny TV broadcaster indirectly confirms the presence of the 41st Combined Arms Red Banner Army, military unit No. 64128 (administered from the city of Novosibirsk)\textsuperscript{25}. The woman in the video (timecode 2:40) claims that “they (note: the Russian soldiers) were from Novosibirsk and from the Urals”. Truth Hounds collected open source information about the 35th brigade personnel, including personal data and photos of the servicemen. Truth Hounds handed over this data base to the representatives of Chernihiv Regional Prosecution Office.

\textsuperscript{22} Wikipedia. 35th Independent Guards Motorized Rifle Brigade. Available at: https://web.archive.org/web/20220725174417/https://ru.wikipedia.org/wiki/35-%D1%8F_%D0%BE%D1%82%D0%B4%D0%B5%D0%BB%D1%8C%D0%BD%D0%B0%D1%8F_%D0%B3%D0%B2%D0%B0%D1%80%D0%B4%D0%B5%D0%BD%D0%BA%D0%BE%D1%81%D1%82%D1%8C%D0%BD%D1%82%D1%8B

\textsuperscript{23} O.V.Kurygin page on NACP website. Available at: https://sanctions.nazk.gov.ua/sanction-person/18993/

\textsuperscript{24} TASS. “Major General Sergei Ryzhkov became the new commander of the 41st Combined Arms Army of the central military district”. Available at: https://web.archive.org/web/20220725175229/https://tass.ru/sibir-news/9352237?utm_refferer=ru.wikipedia.org

\textsuperscript{25} Video interview with the victims of occupation, “Some people were not touched, some were tortured” – stories from de-occupied villages in Chernihiv Oblast. Available at: https://www.youtube.com/watch?v=pK1SngGBCZU&t=168s
It should be noted that some of the Russian military from the 35th brigade were captured by the Ukrainian forces, in particular:

- Schotkin Leonid Petrovych (born in 1987, major, tank battalion commander) – captured on February 26, 2022;
- Babin Stepan Oleksiyovych (born in 2001, senior sergeant, private) – captured on March 4, 2022;
- Tsaryuk Oleksiy Evgenovich (born in 2000, lieutenant, platoon commander) – captured on March 4, 2022;

At the time of writing this reference, it is known from open sources (media26, social networks Instagram27 and Vkontakte28) that all the listed persons were once on the lists for exchange and are now in the territory of the Russian Federation.

**7. VICTIMS AND THOSE AFFECTED**

On March 16, 2022 14 persons were killed on 19 Dotsenko street (Soyuz no.9 shop). One person died29 in hospital later, moreover, 27 persons were wounded. Other victims died due to the projectiles hitting the houses located on Dotsenko and General Pukhov street.

26 Livejournal. Overview of the blogosphere and social networks. "Russian tanker Kulikov, who shot at a residential building in Chernihiv, was sentenced to 10 years in prison", dated 10.08.2022. Available at: https://zhzh.info/news/2022-08-10-49506?fbclid=IwAR0WDyuc6UocAjs4LdnOT1PvBKHDDucNwvr79pP4Rf7mQx6x2o20IArmTM
27 Oleksiy Tsaryuk's personal Instagram page: https://www.instagram.com/lexa5175/
28 Stepan Babin's personal Vkontakte page: https://vk.com/sexcar321?fbclid=IwAR1ASqZGGROSFCtrGjz5z5onOW8NL9fq314YTunU8wZdLdYw0q4nDYL–2c
30 Media initiative for human rights. "I open my eyes: people are lying down": those who survived after shelling the line for bread tell", dated 06.06.2022. Available at: https://mipl.org.ua/vidkryvyu-ochi-lyudy-lezhat-i-ne-ruxayutsya-rospovidayut-vizhivshi-u-cherzi-za-xlibom-u-cernigovi/
Below is the list of successfully identified persons:

**Killed:**

1. Bohdan Hryhorovych Nazarenko
2. Mykola Volodymyrovych Fedorets
3. Ivan Mykolaiovych Oliinuk
4. Serhii Volodymyrovych Hrynko
5. Ihor Oleksandrovych Bony
6. Oleksandr Volodymyrovych Sovenok
7. Volodymyr Iakovych Davydenko
8. Ielyzaveta Petrivna Misachenko
9. Volodymyr Ivanovych Pipelo
10. Mykola Oleksandrovych Kuliesh
11. A man who could not be identified (had a moustache and a mobile phone)
12. A man who could not be identified (had a Xiaomi phone with him)
13. A woman who could not be identified (was wearing a dark green coat). This could be Valentyna Zakharivna Novikova, who was mentioned in his testimony by KI-04
14. A woman who could not be identified (was wearing a green top and a red scarf). This could be Valentyna Zakharivna Novikova, who was mentioned in his testimony by KI-04
15. Volodymyr Stepanovych Vysotskyi
17. The female resident of flat no.1 in 25 Dotsenko street. The deceased could not be identified.
18. The female resident of the 4th floor of house no. 25 on Dotsenko street. The deceased could not be identified.

**Wounded:**

1. Oleh Mykolaiovych Levadskyi
2. Anatolii Ivanovych Khmelynok
3. Kateryna Ivanivna Yushchenko
4. Olha Vasylivna Bubra
5. Nadiia Petrivna Donets
6. Oleksandra Ivanivna Shtreml
7. Leonid Mykhailovych Cherednyk
8. Serhii Mykhailovych Shybyryn
9. Raiisa Anatolivna Umnova
10. Volodymyr Ivanovych Shyk

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31 Testimony by KI-04
32 Testimony by KI-04
11. Valentyna Petrivna Zelenukha
12. Mykhailo Mykhailovych Kliuch
13. Halya Ivanivna Iemets
14. Hanna Ivaniyva Kuriuk
15. Oleksandra Andriivna Bulash
16. Mykola Vasylivych Nasinnyk
17. Andrii Mykolaiovych Nevidomyi
18. An unknown woman
19. Viktoria Mykhaliivna Bolohon
20. Artem Mykolaiovych Hryshchenko
21. Maksym Ihorovych Klopotovskyi
22. Ihor Hennadiyovych Hofman
23. Stanislav Ivanovych Piddubnyi (blast injury)
24. Oliha Serhiivna Vereshchako (blast injury)
25. Kateryna Anatoliivna Volokhovska (blast injury)
26. Natalia Viktorivna Kobyn (gunshot wound)
27. Serhii Vikrotovych Bahlei (blast injury)

The attack resulted in a total of 53 persons killed that day. There is no certainty whether they were all civilians, or the number of the persons dead also includes the military.\(^{33}\)

## 8. MILITARY TARGETS NEXT TO THE POINTS OF IMPACT

One of the witnesses, KI-01, said the following when interviewed by the documentators:

> "The howitzer fire started. At approximately 07:50 am. Too little space for a tank to start a fire here, in my view. I heard rounds of fire somewhere in the direction of Berezovyi Hai. Quite close. The impact of the first round was so strong, that everyone in the queue squatted. And then they remained standing. The howitzer fired approximately once per minute. There was a total of approximately 12 rounds. The fire stopped. I continued standing in the queue."\(^{34}\)

During their visit to Chernihiv on April 18, 2022 Truth Hounds documentators studied the area, indicated by the witness. They found the caterpillar track traces which could possibly establish the presence or movement of military hardware and probably a howitzer, mentioned by the abovementioned witness.

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\(^{33}\) TV coverage on the number of dead as a result of the attacks. "The bodies of 53 persons killed by the Russian attacks were delivered to Chernihiv morgues during March 16," dated 17.03.2022. Available at: https://suspilne.media/218438-protagom-16-berezova-do-morgiv-cernigova-dostavili-tila-53-zagiblhih-vid-rojskhih-obstriliv/

\(^{34}\) Testimony by KI-01.
We also received other testimonies of the military equipment presence in this place.

For instance, the witness KI-03 mentioned the following:

On another day I saw a tank drive into Berezovyi Hai park. It drove in from Pukhov street and stopped, shut the engine at the place with coordinates 51.520802, 31.331343 (note – fully matches the place where the traces were found), stood there for a while, without shooting. Next day in the morning it was no longer there.

Satellite imagery augmented witness’ accounts with additional information: first, by illustrating that the caterpillar track traces, recorded by the documentators, appeared in Berezovyi Hai back on February 28. Second, by establishing that no other tracks appeared there since then until March 16 inclusive. Likewise, a thorough examination of the nearby areas located in the vicinity of Berezovyi Hai, depicted in the satellite image taken on March 16, 2022 did not establish the presence of the any military equipment tracks.

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35 Testimony by KI-03.
One can therefore conclude that the track on the ground were left, most likely, by a Ukrainian Armed Forces tank that entered in this position before February 28, 2022. However, according to the eyewitness, it did not stay there for long and did not fire. Caterpillar tracks width (600 mm), documented by Truth Hounds, matches the characteristics of certain tank modifications, some of them are in service with the Ukrainian Armed Forces\textsuperscript{a8} (the track width for T-64 and T-72 tanks is 580 mm\textsuperscript{a7}).

We know about another location of Ukrainian equipment from KI-04 who testified the following:

“A Ukrainian Armed Forces tank was standing next to 37 Belov street during the entire time of the city siege\textsuperscript{a8}

We also verified this account. No traces of the hardware were found.

\textsuperscript{a8} Wikipedia. Ukrainian Ground forces equipment. Available at: https://uk.wikipedia.org/wiki/%D0%A1%D1%83%D1%85%D0%BE%D0%BF%D1%83%D1%82%D0%BD%D0%B0 _%D0%B2%D1%96%D0%B9%D1%81%D1%8C%D0%BA%D0%BE%D0%B2%D0%B0 _%D1%82%D0%B5%D1%85%D0%BD%D1%96%D0% BA%D0%B0_%D0%A3%D0%BA%D1%80%D0%B0%D1%97%D0%BD%D0%B8

\textsuperscript{a7} Chassis of the T-64 and T-72 tanks. Available at: http://btvt.info/linservice/t64_t72.htm

\textsuperscript{a8} Testimony by KI-04.
As for other potential military targets, thanks to the accounts of the same eyewitness, it was successfully established that Territorial Defence Force was located at the time of the attack in the premises of the kindergarten no.4.

Quote:

“The territorial defence was quartered in the kindergarten in this area (51°31'17.8"N 31°19'51.3"E). I didn’t see how many they were. But I was on the premises. I went there to get water. There were minibuses standing. I didn’t see any combat equipment”

Truth Hounds examined the above mentioned location of the Territorial Defence Force on the map that day and discovered neither any equipment, nor any tracks thereof. They also calculated that the distance between the kindergarten premises to the closest point of impact amounts to 45 m.
9. LEGAL ASSESSMENT

The information on the Chernihiv attack of March 16, 2022, collected by Truth Hounds experts suggests that the representatives of the Armed Forces of the Russian Federation, responsible for this attack, committed the war crime of non-discriminate attack that resulted in disproportional damage to civilians and civil objects.

To legally qualify this attack as a war crime several mandatory elements need to be established, namely:

1. The perpetrator directed an attack
2. The attack was such that it would cause incidental loss of life or injury to civilians or damage to civilian objects which would be clearly excessive in relation to the concrete and direct overall military advantage anticipated.
3. The perpetrator knew that the attack would cause incidental death or injury to civilians or damage to civilian objects and that such death, injury or damage would be of such an extent as to be clearly excessive in relation to the concrete and direct overall military advantage anticipated.
4. The conduct took place in the context of and was associated with an international armed conflict.
5. The perpetrator was aware of factual circumstances that established the existence of an armed conflict.
The perpetrator directed an attack. According to the ICC caselaw, an attack is “a violent action against the enemy, either defensive or offensive⁴⁴. The use of heavy weapons, namely MLRS GRAD and 152 mm self-propelled howitzers points to the existence of an attack, since they are violent actions that lead to damaging civil infrastructure, injury and deaths of the civilians.

The attack was such that it would cause incidental loss of life or injury to civilians or damage to civilian objects which would be clearly excessive in relation to the concrete and direct overall military advantage anticipated. First, it needs to be noted the Elements of Crime (added to the ICC Rome Statute) establish that the expression “concrete and direct military advantage refers to a military advantage that is foreseeable by the perpetrator at the relevant time. Such advantage may or may not be temporally or geographically related to the object of the attack.” In other words, to establish whether the desired military advantage exists, only the targets directly associated with the attack need to be studied. Based on the information that Truth Hounds managed to document one can conclude that the only object, an attack on which could give at least some military advantage to the Russian Armed Forces was the house where the representatives of the Territorial Defence Force of Chernihiv were located. Another potential target, even though the presence thereof was not proved successfully, was 1 tank of the Ukrainian Armed Forces. Nevertheless, as noted above, the attack left 15 persons dead and at least 27 injured. In addition, civilian houses no. 19, 8, 25 on Dotsenko street, and no. 127, 130, 132, 134 on General Pukhov street in Chernihiv were damaged. This significant loss of life of the civilians and damage of the civilian objects could be justified only by exceedingly highly valued military advantage, that should have been gained as a result of the attack. However, the attack was not targeting the military equipment. The attack was not conducive to the Russian Armed Forces advancing to a more advantageous position, it did not deter Ukrainian Armed Forces from such an advance. The only gain was a possible engagement of a certain part of a non-professional military group of the Territorial Defence Force. One can therefore maintain that there are reasonable grounds to believe that the attack was disproportional and, therefore, the element of crime in question is evident here.

The perpetrator knew that the attack would cause incidental death or injury to civilians or damage to civilian objects and that such death, injury or damage would be of such an extent as to be clearly excessive in relation to the concrete and direct overall military advantage anticipated. The Chernihiv attack on March 16, 2022 pattern clearly indicates that the Russian Armed Forces did not seek to engage a specific target, since the rounds were fired with small intervals from a distance that allows the identification of the objects as non-military targets.

⁴⁴ Katanga and Ngudjolo, ICC PT. Ch. 1, ICC-01/04-01/07-717, para. 798.
The conduct took place in the context of international armed conflict. The war crime of non-discriminate attack can be committed only in the context of the armed conflict of international character. The Crimean international armed conflict on the territory of Ukraine started on February 26, 2014 at latest. According to the ICC Prosecutor’s Report an international armed conflict in Eastern Ukraine starts from July 14, 2014. Needless to say, undoubtedly an all-out full-scale invasion of the Russian Armed Forces of the territory of Ukraine on February 24, 2022 is an international armed conflict. This invasion is coordinated with the Russian-controlled forces of so-called “DNR” and “LNR”. However, the Chernihiv attacks were directed by specifically Russian Armed Forces (Truth Hounds experts identified the authors – 35th Independent Motorized Rifle Brigade, which is a part of the 41st Army of the Russian Federation). This excludes the need to prove in this particular situation that “DNR” and “LNR” are Russian-controlled. The fact that the Russian Armed Forces are a part of that part of the armed conflict, in the context of which that attack took place, is a sufficient ground for suggesting the existence of an international armed conflict and that the attack is associated with it.

The perpetrator was aware of factual circumstances that established the existence of an armed conflict. In order to ascertain this element, one needs to establish that the attack perpetrator was aware of factual circumstances that established the existence of an armed conflict, such as: the presence of armed groups in the attack area, armed hostilities between the enemies, shelling etc. The unit directing the attack has on multiple occasions participated in the hostilities, used non-small arms, was on the territory of another state etc, so no doubts regarding the awareness of the armed conflict arise.

All things considered, Truth Hounds believe that there are reasonable grounds to believe that the attack on Chernihiv conducted by the Russian Armed Forces was the war crime of non-discriminate attack.

ALTERNATIVE QUALIFICATION

Should the investigators prove the use of high-precision howitzer artillery pieces in the episode where the queue was attacked, as well as the fact that there were no plans to hand out bread that day, but rumours were spread with the goal of bringing a great number of people together in one place, then the form of accountability would differ and this episode would be defined as a deliberate attack against civilians.
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