

Shelling of the 5-th residential quarter in the town of Horlivka with the use of Grad Multiple Launch Rocket Systems on August 7, 2014

PUBLIC INVESTIGATION

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ABBREVIATIONS

UAF - Ukrainian Armed Formations

MP - missile part of the projectile

MLRS - Multiple Launch Rocket System

IMB - Independent Mechanized Brigade

PREAMBLE

On July 31, 2014, the Ukrainian Armed Formations (hereinafter UAF) launched a new offensive on the town of Horlivka¹. There were intense battles, many buildings in the town were destroyed. Finally, on August 7, 2014, the town came under massive shelling that **killed and injured civilians**. The power plant was destroyed, leaving most of the town without electricity². A total of 18 civilians were killed in Horlivka that day. Mayor Ivan Prikhodko published a list of the killed people³:

1. Sergey Vasilyevich Bodyan, 23.04.1965 - 05.08.2014
2. Alexander Andreevich Boldyrev, 28.12.1995 - 07.08.2014
3. Nina Andreevna Grishko, 07.04.1988 - 07.08.2014
4. Tamara Andreevna Dontsova, 23.09.1938 - 07.08.2014
5. Anna Yuryevna Kuropatkina, 27.07.1930 - 07.08.2014
6. Alexander Nikolaevich Morgul, 30.04.1969 - 07.08.2014
7. Yuliya Anatolyevna Pavlova, 23.04.1986 - 07.08.2014
8. Viktor Vladimirovich Panarin, 16.10.1941 - 07.08.2014
9. Anastasia Alekseevna Podlibskaya, 08.08.2013 - 07.08.2014
10. Valeria Yuryevna Podlibskaya, 15.02.1987 - 07.08.2014
11. Yuliya Savelyevna Ruslanova, 16.05.2000 - 07.08.2014
12. Lyubov Grigorievna Sidorenko, 07.09.1967 - 07.08.2014
13. Anatoly Nikolaevich Khomenko, 45-50 years old - 07.08.2014
14. Valentin Vladimirovich Cherkashchenko, 13.07.1981 - 07.08.2014
15. Sergey Vasilyevich Chernykh, 22.09.1939 - 07.08.2014
16. Vladislav Vladimirovich Shumeiko, 19.03.1949 - 07.08.2014
17. Alexander Vladimirovich Yukhimenko, 15.05.1938 - 07.08.2014
18. Ivan Alexandrovich Yakovlev, 08.08.1939 - 07.08.2014

¹ The Ukrainian army intensifies its offensive against Donetsk. TASS, Russian news agency. URL: <https://tass.com/world/743106> (accessed on 14.12.2021).

² In Horlivka, 5 people killed due to shelling - city council [published on 07.08.2014] BBC News Ukraine. URL: https://www.bbc.com/ukrainian/rolling_news_russian/2014/08/140807_ru_n_horlivka_died (accessed on 14.12.2021).

³ The list of civilians killed from 2014 to 2017. TGorlovka website. URL: <https://tgorlovka.com/2017/03/29/spisok-pogibshih-mirnyh-zhitelej-gorlovki-s-2014-po-2017-god/> (accessed on 14.12.2021).

This investigation will consider the shelling with the use of Grad MLRS, which occurred on August 7, 2014 at about 11:30 a.m. One of the shells exploded in the immediate vicinity of a public transport stop near Amstor supermarket at 19, Marshal Peresypkin St., Horlivka, as a result of the projectile detonation, five people died and ten civilians were wounded.

INCIDENT LOCATION

After analyzing the eyewitnesses' testimony, the photo and video materials, we were able to identify five shell hits (see Fig. 1).

Shell hit 1 (see Fig. 2, Fig. 3, Fig. 4). A projectile hit the lawn behind the "Amstor" public transport stop, located 50 meters from the south-east corner of Amstor supermarket. The projectile detonation resulted in a shell crater on the lawn behind the bus stop pavilion. Shrapnel wounds killed five and injured ten civilians waiting for public transport⁴.

Shell hit 2 (see Fig. 5). A projectile hit the asphalt pavement approximately 5 meters south of the branch of Marshal Peresykin and Promyshlennaya streets (opposite the central entrance to the Amstor supermarket). The projectile detonation resulted in a shell crater in the asphalt pavement with a metal tube in the crater center, identified as the debris of the MLRS projectile missile part (hereinafter - MP).

Shell hit 3 (see Fig. 6, Fig. 7). The shell hit occurred 7 meters south of the west corner of the residential building at 1, Sobolinaya St., Horlivka. The projectile detonation resulted in a shell crater.

Shell hit 4 (see Fig. 8). The shell hit occurred several meters south-east of the residential building backside at 25, Bogun St., Horlivka, between 1 and 2 entrance halls. The projectile detonation resulted in a shell crater. In the ground.

Shell hit 5 (see Fig. 9, Fig. 10, Fig. 11). The shell hit the asphalt pavement a few meters away from the third entrance hall of the residential building at 4, Cosmonaut Volkov St., Horlivka. The projectile detonation resulted in a shell crater in the asphalt pavement.

⁴ Five people killed and ten wounded in the shelling of Horlivka [published on 08.07.2014] MIA Russia Today website. URL: <https://ria.ru/20140807/1019172291.html> (accessed on 14.12.2021).

WEAPON TYPE

Testimonies and physical evidence

Fragments of large-diameter metal tubes were found at shell hits 1, 2, 4, and 5 (see Fig. 12, Fig. 13, Fig. 14, Fig. 15). These fragments are identified as debris of missile parts of MLRS projectiles. Moreover, a fragment of a projectile nozzle was found near shell hit 3 (see Fig. 16).

We went to the incident location and found that the MP fragment still remains at shell hit 5 (see Fig. 17). Measurements showed that its diameter is a bit above 120 mm (see Fig. 18).

As for the fragment of the rocket projectile nozzle found near shell hit 3, six holes around the perimeter are quite visible, and the central part is missing. It is worth noting, the Grad MLRS rockets are characterized by the presence of 7 holes in the nozzle as opposed to one nozzle on the Smerch MLRS and Uragan MLRS missiles⁵. Thus, the found MP debris indicate the use of BM-21 Grad MLRS.

BM-21 Grad MLRS

The projectile for firing from 9K51 Grad MLRS consists of a fuze, head and rocket parts. As a result of contact with an obstacle, the detonator initiates an explosion of the shell head, which scatters into fragments. The rocket often remains more or less intact, though deformed. It is usually found either inside the shell crater, or in the immediate vicinity of it. For clarity, we present the design and technical characteristics of the most common projectile used for firing from the 9K51 Grad MLRS (see Fig. 27).

⁵ Shelling of the Mirny and Gaevoy residential quarters in the city of Luhansk with the use of Grad Multiple Launch Rocket Systems on July 14, 2014 [published on 29.11.2021] LOSTARMOUR website. URL: <https://lostarmour.info/articles/obstrel-kvartalov-mirnyy-i-gaevogo-goroda-luganska-s-primeneniem-rszo-grad-14-iyulya-2014-goda/> (accessed on 14.12.2021).

PROBABLE SECTOR OF SHELLING

Direction

At shell hit 5, we were able to measure (see Fig. 19, Fig. 20, Fig. 21) the distance from the building wall to the place of impact (450 mm), and the distance from the projection of the point of impact on the building wall to the traces left on the wall by the main stream of shell fragments (320 mm) and the width of the strip of fragment traces (390 mm). In the calculations, we will use the distance to the middle of the track from the main stream of fragments ($320 + 390/2 = 515$ mm).

Thus, it is possible to construct a right triangle with legs of 450 mm and 515 mm, the hypotenuse of which will be the plane intersection line of the main stream of fragments with the earth surface, and it will be perpendicular to the projectile flight direction.

By superimposing this drawing on the map and orienting it relative to the residential building at 4, Cosmonaut Volkov St., we get the shelling direction (see Fig. 22). In this case, the direction corresponds to an azimuth of 345 degrees.

In addition, in the case of shell hit 1, the shape of the crater corresponds to the crater type from high-angle shelling⁶ (see Fig. 23, Fig. 24). And the crater from the explosion of this type can be inscribed in an isosceles triangle, the base of which is on the side of the firing gun and perpendicular to the shelling direction (see Fig. 25).

Thus, the satellite image dated August 26, 2014 shows a trace of shell hit 1, which also makes it possible to determine the direction from which the shelling was carried out (see. Fig. 26). In this case, the direction corresponds to an azimuth of 350 degrees. However, the surface of the lawn with which the projectile came into contact is slightly inclined at this point relative to the horizon; therefore, determination of the direction for shell hit 5 seems more accurate. Thus, it can be asserted that the shelling in question was carried out from the direction of north - north-west to south - south-

⁶ High-explosive fragmentation shell crater analysis. "Fair Defense" Non-Government Organization. URL: <https://oosz.su/node/42> (accessed on 14.12.2021).

east, which corresponds to an azimuth of 345 degrees with a measurement error plus or minus 15 degrees.

Firing range

The firing range of the BM-21 Grad MLRS using the most common types of unguided high-explosive fragmentation projectiles is from 5 to 20.4 km⁷.

Based on the map of hostilities on August 6-15, created by blogger KOT-IVANOV, it is possible to determine quite accurately the distribution of forces on the line of contact (see Fig. 28)

By mapping a sector that considers the minimum and maximum firing range, the fire direction azimuth (345 degrees) with regard to the error of plus or minus 15 degrees, and the demarcation line, we will get a visual representation of the terrain from which Horlivka was fired on August 7, 2014 (see Fig. 29).

This sector has the shape of a truncated triangle and covers the settlements of Kurdyumovka - Andreevka - Otradovka - Zaitsevo. The entire sector was located in the territory controlled by the Ukrainian Armed Formations. It should be noted that usually Grad MLRS units are placed no closer than 3-4 km from the zone of active hostilities (not to risk unnecessarily valuable equipment).

⁷ "Grad" MLRS: history and performance characteristics. Gunsfriend URL: <https://gunsfriend.ru/rszo-grad-bm-21-tehniceskie-harakteristiki-tth-opisanie-i-istoria-sozdania-reaktivnoj-sistemy-zalпового-ogna-dalnost-ustanvki/> (accessed on 29.11.2021).

MILITARY PRESENCE

Units in the sector

The “Fair Defense” NGO conducted an investigation into the shelling of Horlivka on July 27, 2014⁸, which established the presence of at least one BM-21 Grad MLRS near the Ukrainian checkpoint, in the vicinity of Nikolaevka-2 settlement (see Fig. 30).

Among other things, the investigation states: “The fact of BM-21 Grad MLRS location near the checkpoint is confirmed by a video of the “Ukraine” TV channel of 07.27.2014. The third minute of the video shows a man in a military uniform, signed in the captions as “serviceman Anton Nikityuk”. He stands against the background of the rear of the BM-21 Grad MLRS. Anton says: “Everything is working, everything is fine. We personally fixed this machinery up. When we arrived, the equipment did not work at all. Everything works, everything shoots, everything is fine”⁹. This fact proves the presence of BM-21 Grad MLRS on July 27, 2014 at the checkpoint near Nikolaevka-2 settlement”.

It seems very likely that by August 7, 2014 (only 11 days after July 27, 2014), this Grad unit remained in positions near Nikolaevka-2 settlement and continued to fire at Horlivka.

From the above facts it follows that on August 8, 2014 near the checkpoint in the vicinity of Nikolaevka-2 settlement, there were the servicemen of the 93rd IMBr of UGF; moreover, they had at least one BM-21 Grad MLRS in service. Moreover, this checkpoint is located in the sector from where the artillery shelling of Horlivka was carried out. Furthermore, this sector at that time was entirely under the control of UAF.

⁸ Crimes of Ukraine in Donbass (Collection of analytical materials). Donetsk, 2019, 361 p. URL:<http://armiyadnr.su/sites/default/files/pictures/Сборник%2031.10.pdf> (accessed on: 14.12.2021).

⁹ Horlivka is free. Mop-up in progress. YouTube Video hosting. URL: <https://youtu.be/8rKZp0YS7ic> (accessed on 14.12.2021).

93rd IMBr

The 93rd Independent Kholodny Yar Mechanized Brigade (93rd IMBr, military unit A1302, military post V-2830) is the formation of mechanized troops as part of the Ground Forces of the Ukraine Armed Forces. It was formed on the basis of the 93rd mechanized division. The site of deployment is Cherkasskoye urban-type settlement (Novomoskovsky District, Dnepropetrovsk Region).

In March 2014, the brigade was one of the first to go to Donbass, moving to the settlements of Melovoe and Troitskoe, Luhansk Region. On July 24, the soldiers of the 93rd brigade, together with the forces of the Dnepr-1, VUC Right Sector, Donbass and Shakhtersk battalions, participated in the battles for the settlement of Peski, taking control over the Dnepropetrovsk-Donetsk highway.¹⁰

Colonel of the Armed Forces of Ukraine Oleg Mikats was the commander of the 93rd IMBr in 2014.¹¹ He became known as one of the leaders of the attack on Donetsk airport.

Persons in charge

The above-mentioned serviceman of the 93rd IMBr Anton Nikityuk (see Fig. 31) could be one of the direct executors of artillery shelling of the town of Horlivka (including the one under consideration in this investigation).

The Ukrainian website “Electronic Declarations” also published information about Anton Dmitrievich Nikityuk¹², who is a serviceman of the military unit B2830 (93 IMBr), where he serves as a battalion sergeant major (apparently of a missile battalion).

¹⁰ Official website of the 93rd Independent Kholodnyi Yar Mechanized Brigade. Facebook social Network. URL: https://www.facebook.com/93OMBr/?__tn__=HHH-R (accessed on 01.07.2021).

¹¹ 93rd Independent Kholodnyi Yar Mechanized Brigade (Ukraine). Wikipedia Free Encyclopaedia (Ukrainian version) URL: https://uk.wikipedia.org/wiki/93-тя_окрема_механізована_бригада_«Холодний_Яр» (accessed on 14.12.2021).

¹² Anton Dmitrievych Nikityuk, 2016, Kirovograd Region, Military Unit B2830, battalion sergeant major, Annual, filed March 21, 2017. Electronic Declarations website. URL: https://declarations.com.ua/declaration/nacp_09281670-d7ac-4ca7-b82f-32736e1c1bec (accessed on 14.12.2021).

Also, Commander of the 93rd IMBr Colonel Mikats Oleg Mikhailovich is responsible for all actions of the brigade servicemen. Mikats is a target of other investigations related to the death of civilians in Donbass. As a side note, he was seen in friendly relations with one of the leaders of the right-wing radicals Dmitry Yarosh¹³ (see Fig. 32). In addition, Mikats voiced his attitude to the residents of Donbass in one of his interviews. He said he subconsciously hated the separatists. “And my son will hate them, and my son’s son will hate them,” Mikats stated¹⁴.

¹³ The “right sector” spends the night in the 93rd brigade of the Armed Forces :) [published on 23.01.2015] YouTube Video hosting. URL: <https://youtu.be/KIBjHOi4ruc> (accessed on 01.09.2021).

¹⁴ DOK 244. How the Armed Forces defended Donetsk airport and how they left it: shocking facts “Secrets of War” [published on 31.01.2021] YouTube Video hosting. URL: <https://youtu.be/vpD-ANWFonE?t=1017> (accessed on 01.09.2021).

CONCLUSIONS

It follows from the above that on August 7, 2014, at approximately 11:30 a.m., a densely populated residential area in the west of the town of Horlivka came under fire of the BM-21 Grad MLRS. One of the shells exploded in the immediate vicinity of the Amstor public transport stop, which resulted in civilians' casualties. 122mm shells flew in the direction from north - north-west to south - south-east (azimuth 345 degrees).

As a result of the analysis of news videos and information from the Internet, it was found that there were servicemen of the 93rd IMBr in the shelling sector, and they had at least one BM-21 Grad MLRS. Colonel Oleg Mikhailovych Mikats, who is responsible for the actions of his subordinates, undertook the general command of the 93rd Independent Mechanized Brigade of Ukrainian Ground Forces.

LEGAL QUALIFICATIONS

Indiscriminate shelling of a densely populated residential area in the town of Makeyevka, in which civilians were killed and injured, is a crime for which responsibility is provided by the norms of national legislation of Ukraine and by the norms of international law.

In compliance with **Art. 438 of the Criminal Code of Ukraine**, for “... use of methods of the warfare prohibited by international instruments, or any other violations of rules of the warfare recognized by international instruments consented to be binding by the Verkhovna Rada (Parliament) of Ukraine, and also giving an order to commit any such actions”, shall be punishable by imprisonment for a term of eight to twelve years., and if he same acts accompanied with an intended murder, shall be punishable by imprisonment for a term of ten to fifteen years, or life imprisonment.

In compliance with **Art. 13 of Additional Protocol II to the Geneva Conventions** of 12 August 1949, concerning the protection of victims of armed conflicts of a non-international character, dated 8 June 1977: “The civilian population as such, as well as individual civilians, shall not be the object of attack. Acts or threats of violence the primary purpose of which is to spread terror among the civilian population are prohibited”.

In compliance with **Rule 71 of Customary International Humanitarian Law** (Volume 1, ICRC, 2006): “States must never make civilians the object of attack and must consequently never use weapons that are incapable of distinguishing between civilian and military targets”

“The use of weapons which are by nature indiscriminate is prohibited”.

In compliance with part 2 (c), (e) of **Art. 8 of the Rome Statute**, war crimes also include acts committed in the event of an armed conflict not of an international character and which constitute a serious violation of Art. 3, which is common to the four Geneva Conventions of August 12, 1949, namely, any of the following acts committed against persons taking no active part in the hostilities, including members

of armed forces who have laid down their arms and those placed hors de combat by sickness, wounds, detention or any other cause:

Part 2 (c) i) violence to life and person, in particular murder of all kinds, mutilation, cruel treatment and torture;

Part 2 (e) i) intentionally directing attacks against the civilian population as such or against individual civilians not taking direct part in hostilities;

Part 2 (e) iv) intentionally directing attacks against buildings dedicated to religion, education, art, science or charitable purposes, historic monuments, hospitals and places where the sick and wounded are collected, provided they are not military objectives;

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Fig. 2 – Civilians killed at the “Amstor” public transport stop, located 50 meters from the south-east corner of the Amstor supermarket (19, Marshal Peresyppkin St., Horlivka)¹⁵.



Fig. 3 – A crater created behind the “Amstor” public transport stop, located 50 meters from the south-east corner of the former Amstor supermarket at 19, Marshal Peresyppkin St., Horlivka¹⁶.

¹⁵ Shelling of Horlivka. August 7, 2014. (18+) [published on 07.08.2014] Antimaydan website. URL: https://antimaydan.info/2018/08/obstrel_gorlovki_7_avgusta_2014_goda_18.html (accessed on 14.12.2021).

¹⁶ Shelling of Horlivka. August 7, 2014. (18+) [published on 07.08.2014] Antimaydan website. URL: https://antimaydan.info/2018/08/obstrel_gorlovki_7_avgusta_2014_goda_18.html (accessed on 14.12.2021).



Fig. 4 – A crater created behind the “Amstor” public transport stop, located 50 meters from the south-east corner of the former Amstor supermarket at 19, Marshal Peresykin St¹⁷.



Fig. 5 – Debris of the projectile missile part in the asphalt pavement 5 meters south of the branch of Marshal Peresykin and Promyshlennaya streets, opposite the central entrance to the Amstor supermarket¹⁸.

¹⁷ Shelling of Horlivka. August 7, 2014. (18+) [published on 07.08.2014] Antimaydan website. URL: https://antimaydan.info/2018/08/obstrel_gorlovki_7_avgusta_2014_goda_18.html (accessed on 14.12.2021).

¹⁸ 5th residential quarter, AMSTOR after the shelling [published on 07.08.2014] VKontakte Social Network. URL: https://vk.com/wall-66833222_123131 (accessed on 14.12.2021).



Fig. 6 - A crater located 7 meters south of the west corner of the building at 1, Sobolinaya St., Horlivka¹⁹.

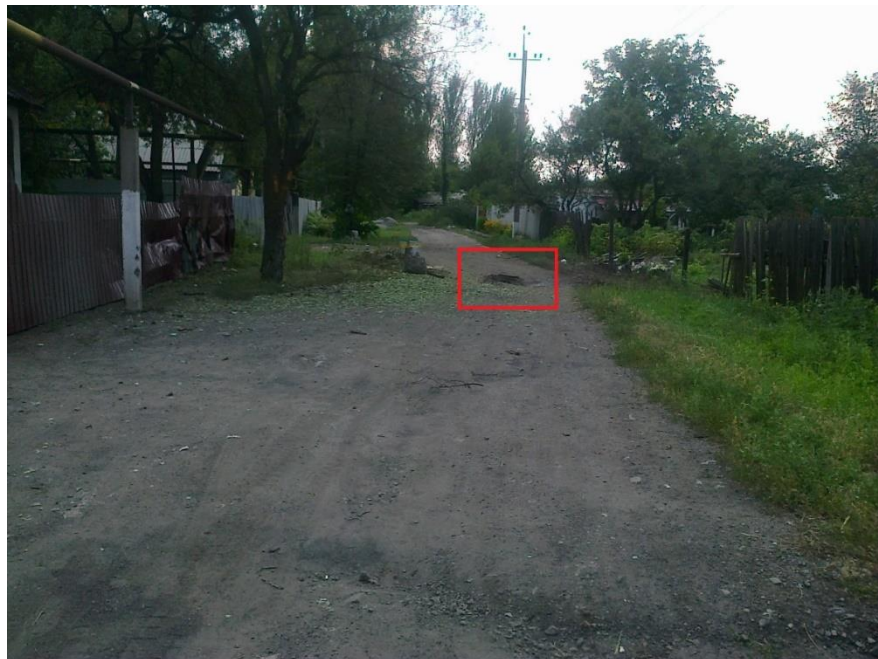


Fig. 7 - A crater located 7 meters south of the west corner of the building at 1, Sobolinaya St., Horlivka²⁰.

¹⁹ 5Th Quarter. Settlement. Elevatornaya St. after the shelling!!!!!!!! to be continued ... I can't post more than 10 photos ... Anonymous. !!!!!!!!! [published on 07.08.2014] VKontakte Social Network. URL: https://vk.com/wall-66833222_123168 (accessed on 14.12.2021).

²⁰ 5Th Quarter. Settlement. Elevatornaya St. after the shelling!!!!!!!! to be continued ... I can't post more than 10 photos ... Anonymous. !!!!!!!!! [published on 07.08.2014] VKontakte Social Network. URL: https://vk.com/wall-66833222_123168 (accessed on 14.12.2021).



Fig. 8 – The place where the projectile hit the ground a few meters north-east of the residential building backside in 25, Bogun St., Horlivka, between 1 and 2 entrance halls²¹.



Fig. 9 - Debris of the projectile missile part a few meters away from the third entrance hall of the residential building at 4, Cosmonaut Volkov St., Horlivka²².

²¹ 5th residential quarter, Solnechny, 4, Volkov St. anonymously [published on 07.08.2014] VKontakte Social Network. URL: https://vk.com/wall-66833222?day=07082014&w=wall-66833222_123130 (accessed on 14.12.2021).

²² Ukraine, Donbass, Shelling of Horlivka, 5th residential quarter. August 7, 2014, 11:30; 4, Volkov St. YouTube Video hosting. URL: <https://youtu.be/d-LeLceBucE> (accessed on 14.12.2021).

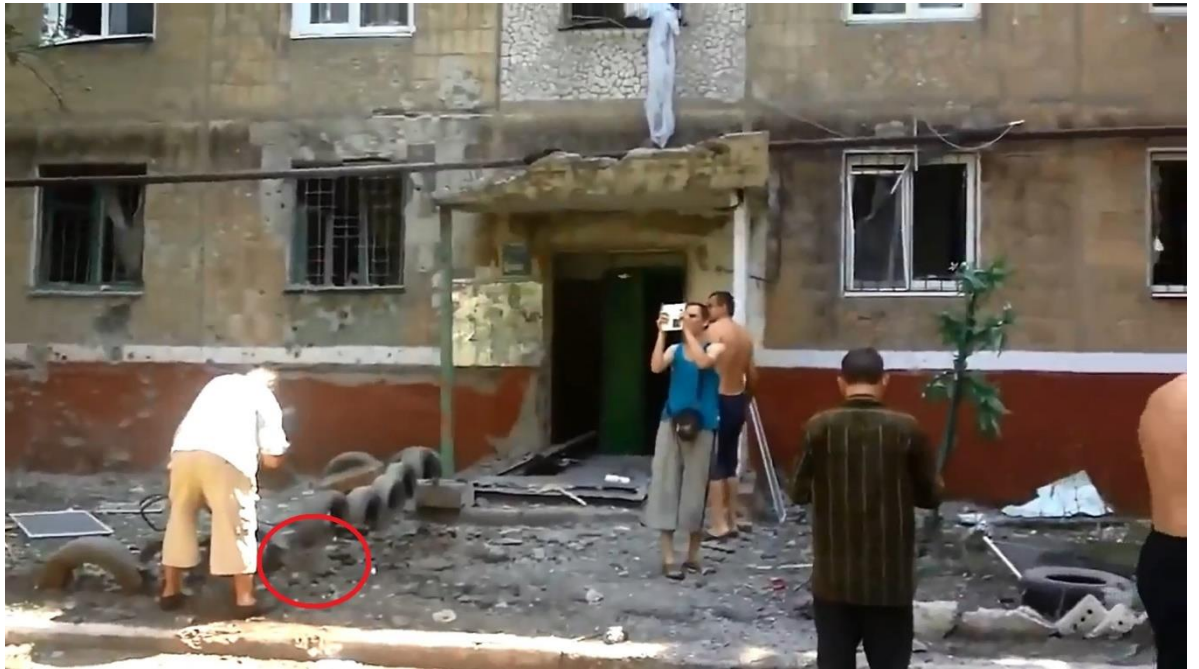


Fig. 10 - Place of the shell hit on the asphalt pavement a few meters away from the third entrance hall of the residential building at 4, Cosmonaut Volkov St., Horlivka²³.



Fig. 11 - A shell fragment found near the projectile detonation site beside the residential building at the address 4, Cosmonaut Volkov St., Horlivka, near the third entrance hall²⁴.

²³ Ukraine, Donbass, Shelling of Horlivka, 5th residential quarter. August 7, 2014, 11:30; 4, Volkov St. YouTube Video hosting. URL: <https://youtu.be/d-LeLceBucE> (accessed on 14.12.2021).

²⁴ Ukraine, Donbass, Shelling of Horlivka, 5th residential quarter. August 7, 2014, 11:30; 4, Volkov St. YouTube Video hosting. URL: <https://youtu.be/d-LeLceBucE> (accessed on 14.12.2021).



Fig. 12 – A fragment of the MLRS projectile missile part (shell hit 1).



Fig. 13 - A fragment of the MLRS projectile missile part (shell hit 2).



Fig. 14 - A fragment of the MLRS projectile missile part (shell hit 4).



Fig. 15 - A fragment of the MLRS projectile missile part (shell hit 5).



Fig. 16 - Debris of a rocket nozzle found near the detonation site of the projectile, at 1, Sobolinaya St., Horlivka²⁵ (shell hit 3).

²⁵ 5Th Quarter. Settlement. Elevatorная St. after the shelling!!!!!!! to be continued ... I can't post more than 10 photos ... Anonymous. !!!!!!!!!!! [published on 07.08.2014] VKontakte Social Network. URL: https://vk.com/wall-66833222_123168 (accessed on 14.12.2021).



Fig. 17 – Shell hit 5 (photo of 14.12.2021).



Fig. 18 – Measurement of the projectile missile part debris at the shell hit 5, conducted on 14.12.2021.



Fig. 19 – Measuring the distance from the wall of the residential building to the center of the crater from the explosion at the shell hit 5 (14.12.2021).

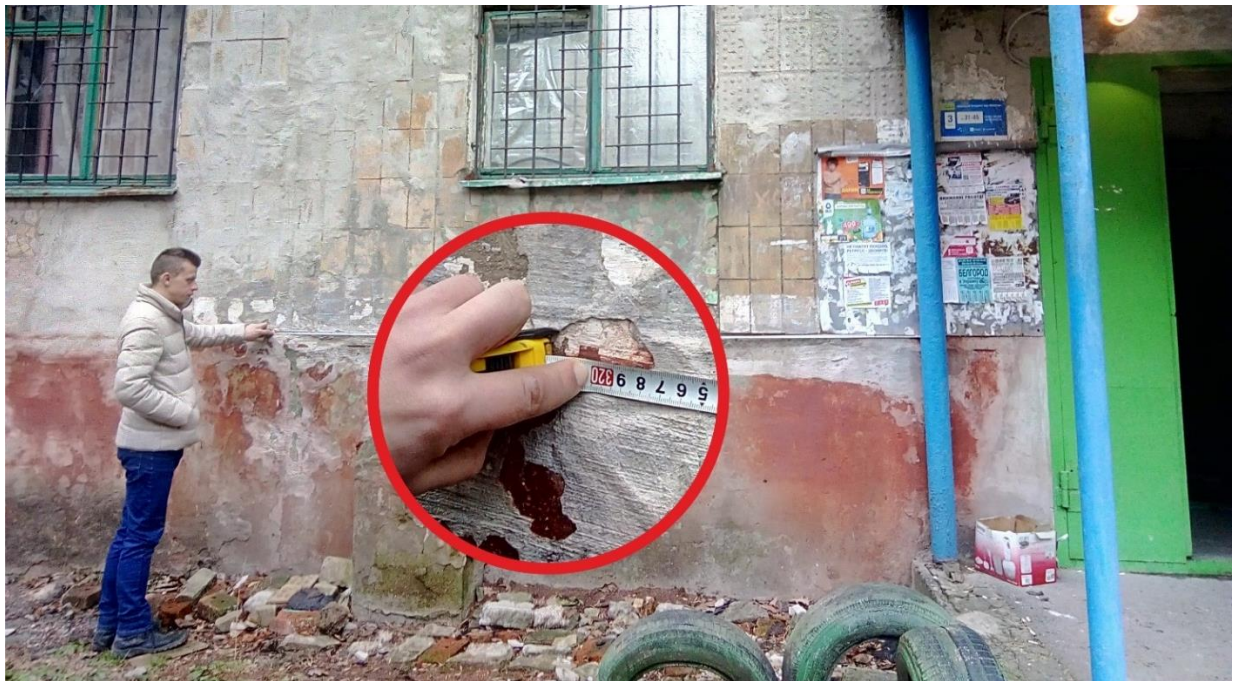


Fig. 20 – Measuring the distance from the shell crater center projection on the wall of the residential building before the beginning of the traces from the fragments on the building wall, the shell hit 5 (14.12.2021).



Fig. 21 - Measuring the width of traces of the main stream of fragments on the wall of the building, shell hit 5 (14.12.2021).



Fig. 22 – Fire direction determination using satellite imagery dated 16.07.2014 based on geometric constructions (shell hit 5).

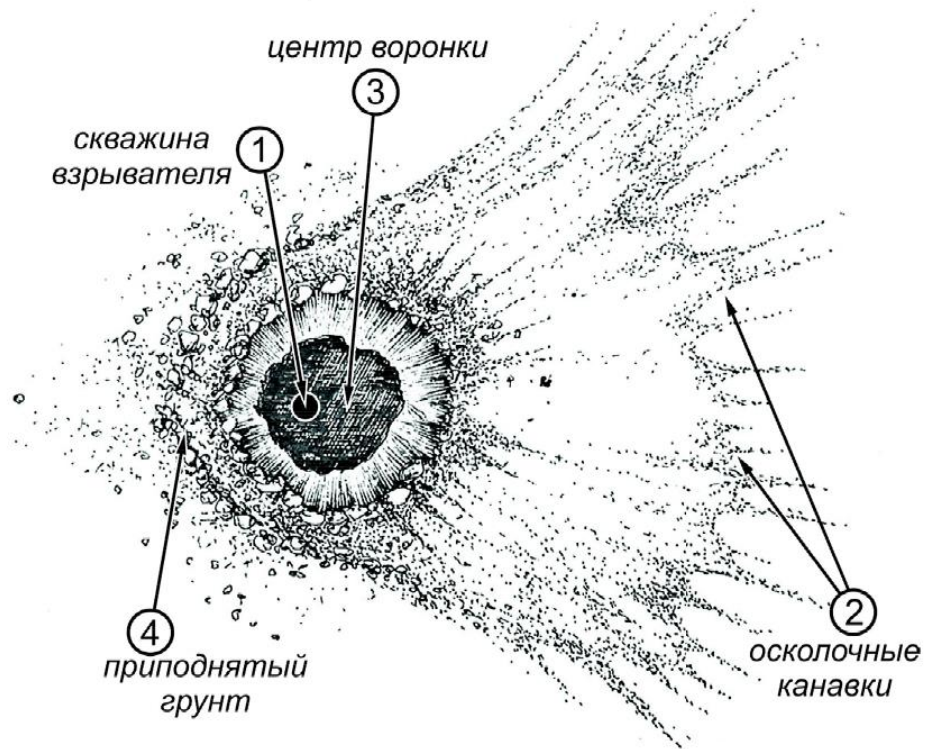


Fig. 23 – A crater from a projectile that hit the surface at a high striking angle.

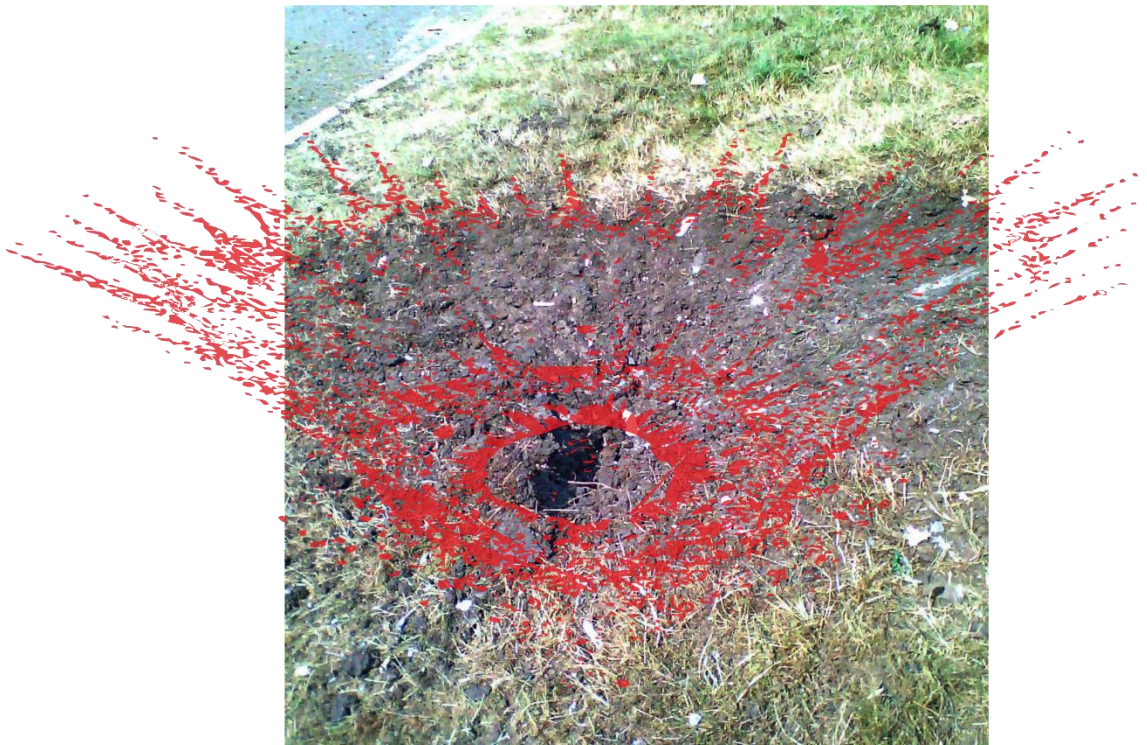


Fig. 24 – Shell hit 1: the crater corresponds to the shape of craters from high-angle shelling.

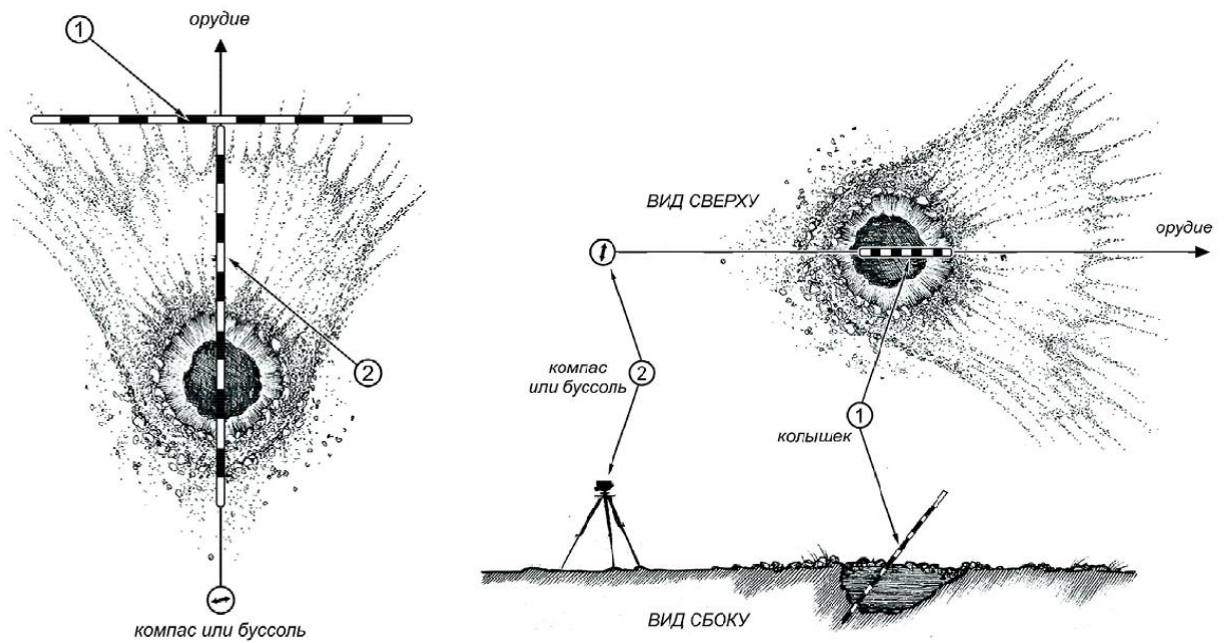


Fig. 25 – Methods for determining the fire direction: on the left - the method of fragmentation grooves; on the right - the fuse hole method.



Fig. 26 – Fire direction determination using satellite imagery (shell hit 1).

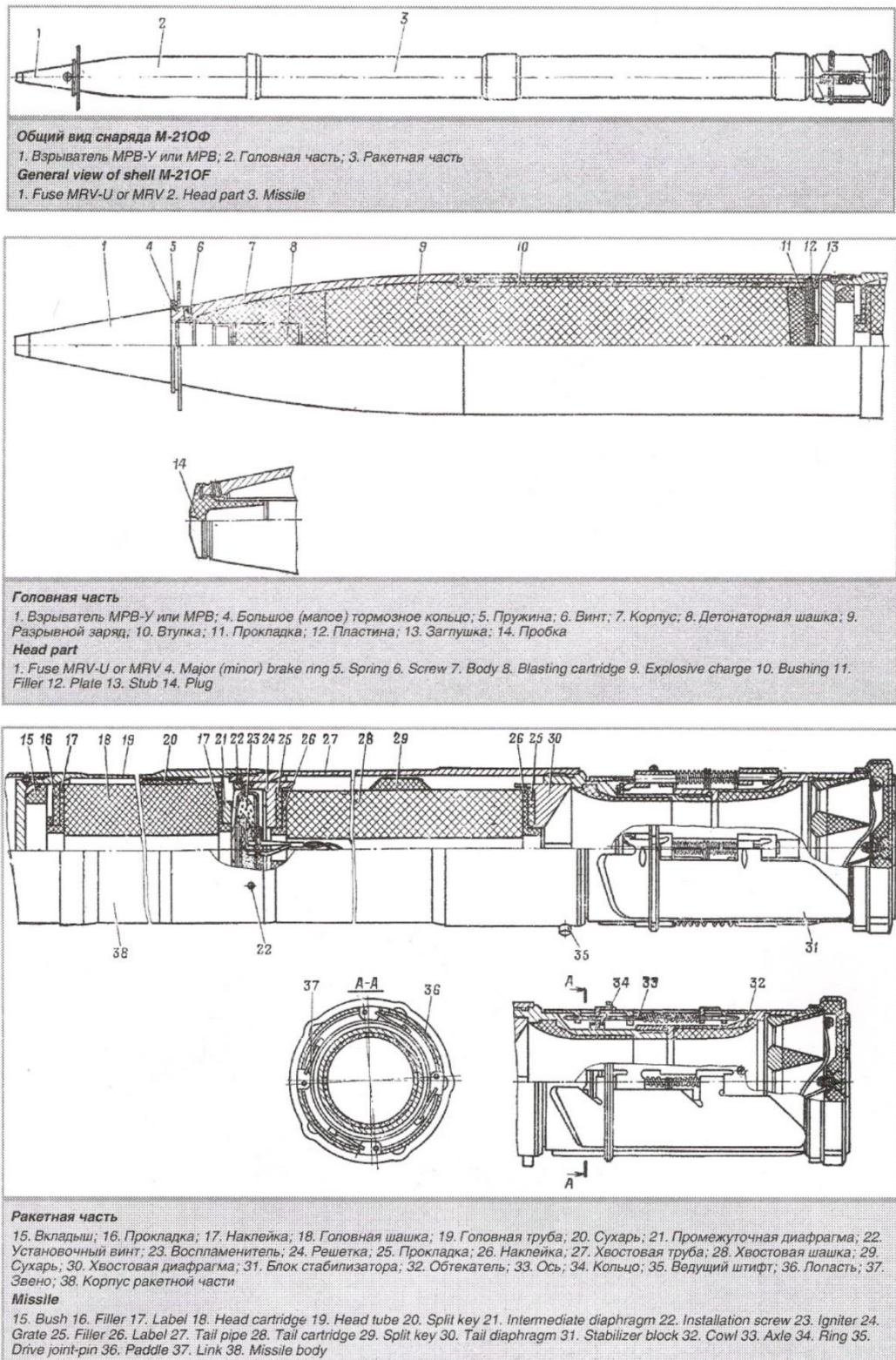


Fig. 27 - M-21OF projectile design (a high explosive fragmentation projectile, used for firing from 9K51 Grad MLRS)²⁶.

²⁶ Gun in Russia – BM-21 GRAD. Russian motor books 2002. 37 p.



Fig. 28 – Map of military operations on August 6-15, 2014²⁷.

²⁷ Maps of hostilities in the territory of DPR and LPR on August 9-15 [published on 11.08.2014] LiveJournal Online Journal Service. URL: <https://kot-ivanov.livejournal.com/1755.html> (accessed on 14.12.2021).

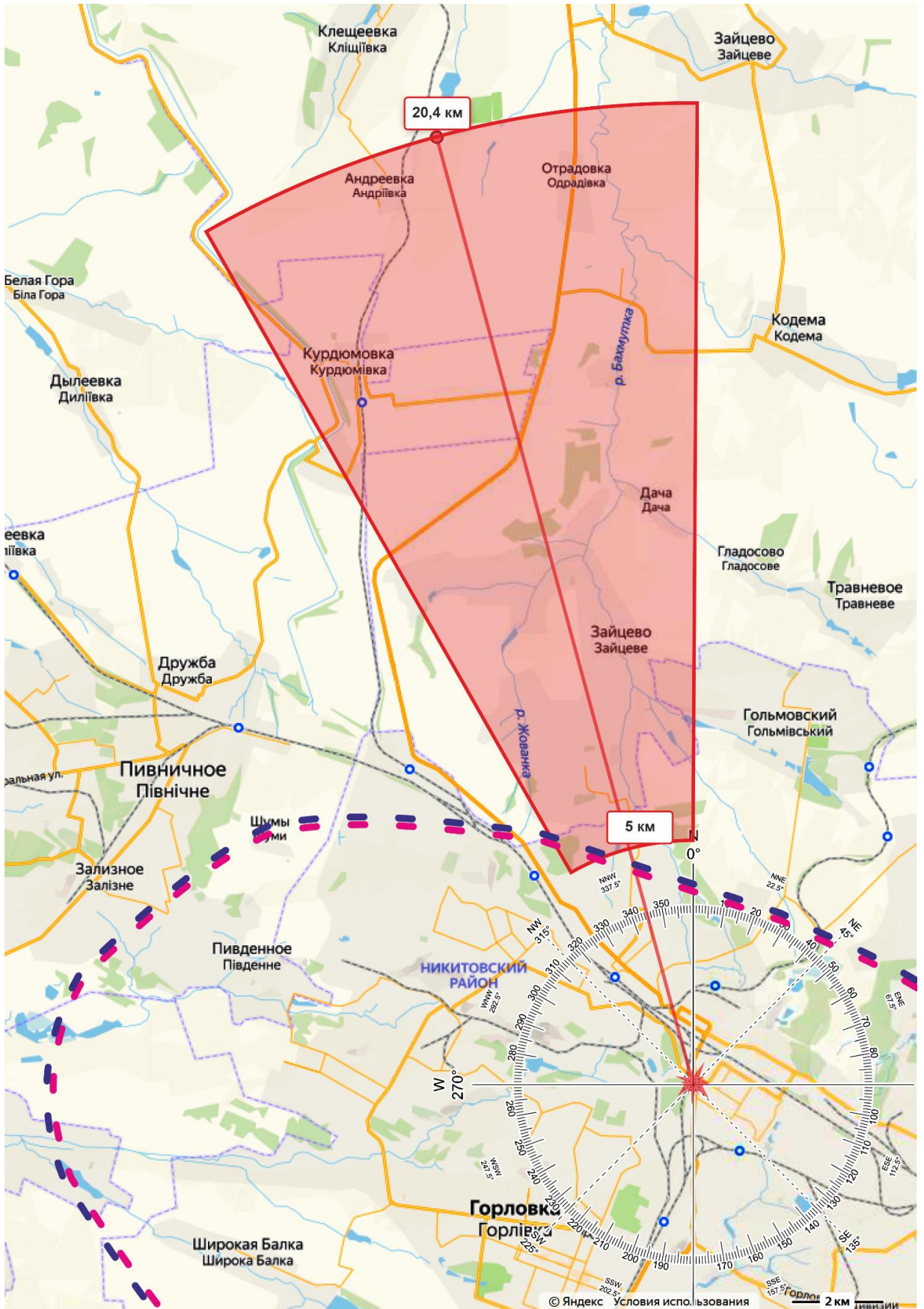


Fig. 29 – A scheme of Horlivka shelling sector on 08.07.2014.



Fig. 30 – Location of the Ukrainian checkpoint near Nikolaevka-2 settlement (drawing from investigation of the “Fair Defense” NGO).

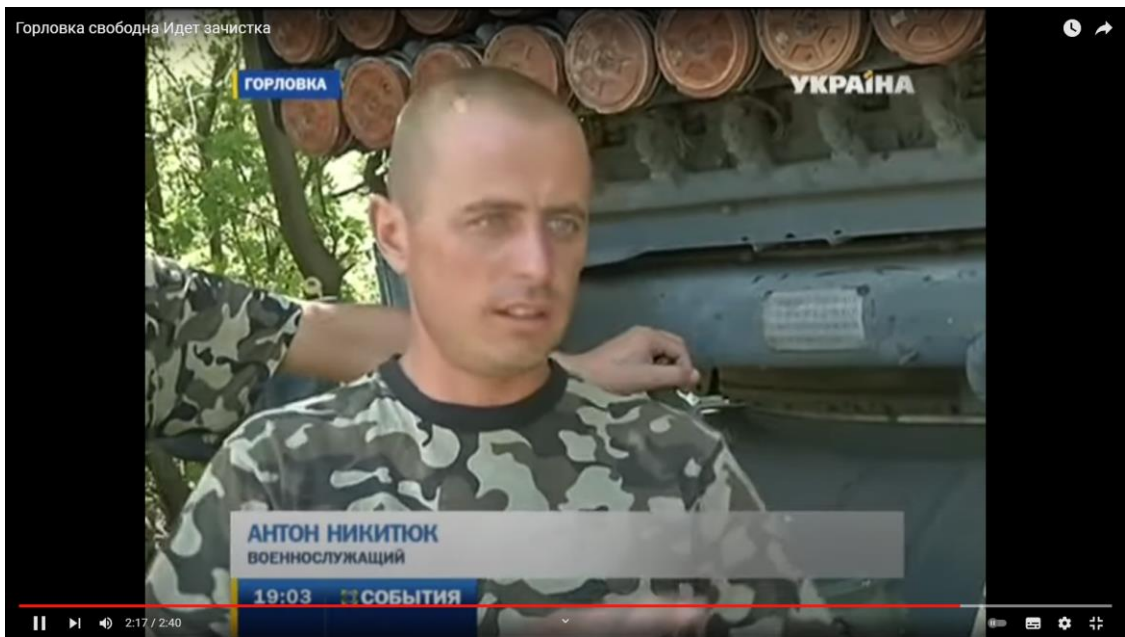


Fig. 31 – Anton Nikityuk, a serviceman of the 93rd IMBr against the background of the charged Grad MLRS.



Fig. 32 - Right to left: Oleg Mikats, Dmitry Yarosh, Lyudmila Negriu²⁸.

²⁸ "We hung over them like a sword of Damocles over the heads" [published on 13.01.2016] ARGUMENT e-journal. URL: <http://argumentua.com/stati/my-viseli-nad-nimi-kak-damoklov-mech-nad-golovoi> (accessed on 19.10.2021).