



**TRUTH  
HOUNDS**

# **A CALIBRATED CRIME**

THE INVESTIGATION OF THE  
MISSILE ATTACK ON THE  
MYKOLAIV REGIONAL  
STATE ADMINISTRATION  
29.03.2022



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.

## CONTRIBUTIONS



International Partnership for Human Rights – is an independent, non-governmental organization founded in 2008. Based in Brussels, IPHR works closely together with civil society groups from different countries to raise human rights concerns at the international level and promote respect for the rights of vulnerable communities.

We express gratitude for the contribution of the IPHR team with the technical support and participation in the field mission on 21–23 May 2022.



The Center for Spatial Technologies – is a Kyiv-based cross-disciplinary research practice. CST works on a broad range of topics using spatial analysis and visualization techniques. Currently, all CST's efforts are directed toward analyzing civilian damage caused by the Russian invasion of Ukraine.

We extremely appreciate the contribution of the CST on developing the 3D-models of the missile and the damages caused by it. Also, we are grateful for the calculations CST provided – it helped to support our version on the type of the weapon used for the attack.



National Endowment for Democracy – is a private, non-profit foundation dedicated to the growth and strengthening of democratic institutions around the world. Each year the foundation makes more than 1,700 grants to support the projects of non-governmental groups abroad who are working for democratic goals in more than 90 countries.

We extend our gratitude to the NED for the financial support of the project.

The rocket attack on the Mykolaiv Regional State Administration building took place on 29 March 2022 at 8:35 am. A rocket struck the building's facade, causing significant damage. As a result of the attack, 37 people died, a third of the building was completely destroyed, and the rest critically damaged.

Truth Hounds and IPHR documenters visited the site of the attack on 21 and 23 May 2022, photographed and videotaped its aftermath, collected testimony from five eyewitnesses of the event, and supplemented these materials with an investigation of open-source databases. This helped to establish the type of weapon use, model its flight path and the immediate moment of impact, uncover the type and location of the launch platform, and determine the group of individuals involved in the attack. Also, in a partnership with The Center for Spatial Technologies we developed the 3D-models of the missile and the damages caused by it. Based on the results of the investigation, Truth Hounds experts concluded that this attack has the characteristics of a war crime.



The destroyed Mykolaiv RSA building. Photo by Truth Hounds, 21.05.2022.

# ANNOTATION

During the investigation, we established that the attack on the Mykolaiv Regional State Administration building (29 May 2022) was carried out by a Kalibr cruise missile. In addition to the visual similarity of this type of missile to the one that was recorded on a video surveillance camera right before hitting the Mykolaiv RSA, this version is supported by the fact that the explosion occurred inside the building. Usually, Kalibr missiles are equipped with a special penetrating warhead.

Based on the open data analysis, we managed to establish that the launch of the missile was likely from the Black Sea. This thesis is also confirmed by the testimony of an eyewitness who heard a rocket fly over their village – Ivanivka, Ochakiv district, located on the coast of the Dnipro Bay – on the morning of 29 March.

In the period preceding the attack on the RSA, there were 10 Russian Navy vessels positioned in the Black Sea that were capable of delivering a corresponding missile attack, specifically: two frigates, four submarines, and four small missile boats. Screening of the Sevastopol Bay for 28–29 March excludes the possibility of a strike from submarines since they were located in the bay at that time. Instead, the Russian frigates the "Admiral Essen" and the "Admiral Makarov", as well as two corvettes – the "Ingushetia" and the "Vyshniy Volochok" – were located in the Black Sea.

The analysis of the locations of each of these boats in the sea relative to the target, as well as the comparison of this information with the testimony of eyewitnesses of the missile's flight in the direction of Mykolayiv and the technical characteristics of missiles of the Kalibr family, indicates that a Kalibr missile was most likely launched from the Russian frigate the "Admiral Essen".

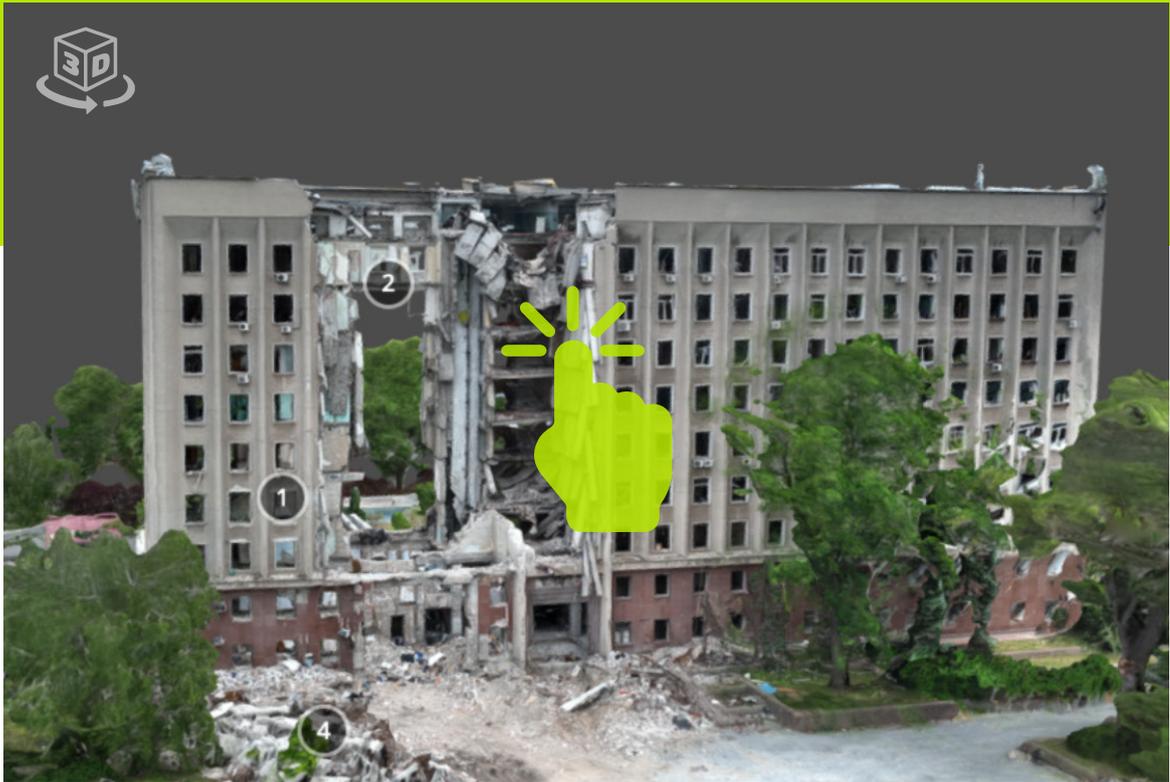
From open sources, we managed to uncover information regarding the crew of the frigate the "Admiral Essen", including the identities of its commanders: Captain of the 2nd Rank Aleksandr Smirnov and Captain-Lieutenant Anatoly Peretyatko, who control the missile and artillery combat unit of the ship

We believe that the attack on the Mykolaiv Regional State Administration should be considered precisely as an intentional attack on a civilian object which is criminally punishable under Article 8 of the Rome Statute of the International Criminal Court (ICC).

Yet, even were the civilian status of the building to be questioned, an attack on it remains a war crime. This attack killed 37 people, most of whom were civilians. Considering the deaths of civilians and the destruction of a building that served to meet the needs of the civilian population, the damage caused is clearly disproportionate to the insignificant military advantage that the Russian Armed Forces could conceivably gain as a result of such an attack.

# CIRCUMSTANCES OF THE INCIDENT

On the morning of 29 March 2022, at 8:35 am, a cruise missile struck the facade of the Mykolaiv RSA building at the level of the fourth floor. The explosion of the rocket inside the building caused the destruction of walls and inter-storey ceilings, as well as the complete collapse of the northern wing of the building.



Photogrammetry of the consequences of the attack on the Mykolaiv RSA based on the Truth Hounds survey. Source: The Centre for Spatial Technologies.

The search for the bodies of the dead continued for around a week. Rescue service workers were clearing debris for almost a month. On 5 April, the Mykolaiv Regional Military-Civilian Administration published a list of those killed in this attack. It counted 37 names. Among them were 17 employees of the RSA, 10 representatives of the Territorial Defence, six military personnel, two employees of the Commercial Court, an employee of "Mykolaivska Varta" patrol service and the director of the KP (Municipally owned corporation) "Hosptehobslugovuvannia"<sup>1</sup>.

<sup>1</sup> Facebook page of Mykolaiv Regional State Administration, "The staff of the Mykolaiv Regional Military Administration expresses its deepest condolences to the relatives, friends and colleagues of the innocent victims of the Russian aggression", 5 April 2022, available at: <https://www.facebook.com/100064554675894/posts/345176760977477/?d=n>

According to an employee of the RSA who was inside the building at the time of the missile attack, many people were already inside the building at the time of the rocket impact, as the working day had begun at 08:00 am. These were both employees of the administration itself (of its various departments) and employees of the Mykolaiv Commercial Court, located on the eighth and ninth floors of the building. As for the representatives of the Territorial Defence, the National Guard, and the military, their presence was insignificant and was explained by the fact that these bodies were responsible for guarding the premises of the administration. According to an eyewitness and an employee, there was neither a headquarters nor a military operational control centre at the RSA. There were likewise no weapons stockpiles nor any other military equipment apart from a BTR-80 armoured personnel carrier which was standing near the security checkpoint at the intersection of Admiralska and Schneierson streets, 46 metres from the main RSA building and served precisely for guarding the checkpoint<sup>2</sup>. Another eyewitness who also works at the administration and was 150 metres away from the building at the time of the attack noted that "the rocket landed in the very wing where the office of the head of the RSA was located on the fourth floor, and the office of the head of the Mykolaiv Regional Council was located on the third floor"<sup>3</sup>. He also highlighted the absence of military equipment in or near the administration itself. Both eyewitnesses claim that no military meetings or joint meetings were planned for that day and that there was no practice of periodically holding them and or was such a thing taking place at the time of the event.

As for the management and coordination of direct military operations and actions in this sector, the leadership of the operational group of "Primorya" troops who are responsible for this were not located in the premises of the Regional State Administration – neither at the time of the attack, nor at any other time.

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<sup>2</sup> Witness M-1, interviewed by Truth Hounds in May 2022.

<sup>3</sup> Witness M-2, interviewed by Truth Hounds in May 2022.

# DETERMINATION OF THE TYPE OF WEAPON USED

The moment the rocket struck the premises of the Mykolaiv RSA was captured by a camera installed on the roof of the “Admiral” residential complex, located 40 metres southwest of the RSA.



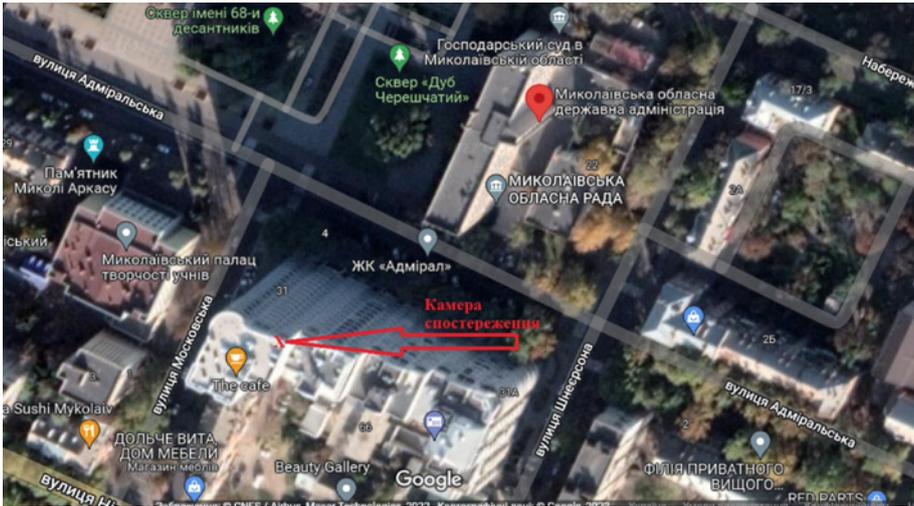
This video was posted by the head of Mykolaiv RSA, Vitaly Kim, on his Telegram channel on the day of the attack<sup>4</sup>. Truth Hounds documenters managed to locate this camera during the process of filming the object using a drone. Studying the architectural characteristics of the building made it possible to determine that the camera was installed on the roof of the twentieth-storey section of the residential complex at a height of approximately 80 metres.

A freeze-frame from the video of the flyover of the Mykolaiv RSA building with the surveillance camera that captured the moment of the missile impact on the Mykolaiv RSA marked.

Source: Truth Hounds.

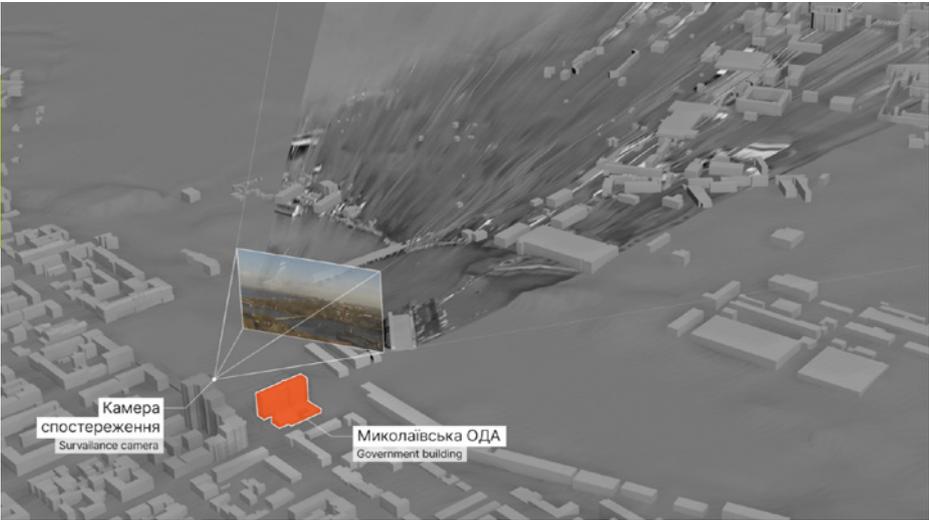


<sup>4</sup> Telegram-channel of Vitaly Kim / Mykolaivska RSA, 29 March 2022, available at: <https://t.me/mykolaivskaODA/893>



The location of the surveillance camera shown on a map.

A 3D projection of the coverage range of the surveillance camera.



First of all, it is clear that it was a cruise missile used in the attack, since the side feathers on the missile body are clearly visible in the frame. In addition, it is clearly visible that the wings are located strictly perpendicular to the main section of the rocket.

Freezeframes from the video of the missile's flight make it possible to study the missile more closely and determine its type and nomenclature based on its appearance.



A slow-motion fragment of the video of the rocket's flight.  
Source: The Centre for Spatial Technologies.

Despite the fact that – as can be seen from the camera recording – the missile was approaching from the northwest before hitting the building (i.e. from the direction of territory under the control of the Ukrainian government), we can immediately rule out the scenario that this attack was carried out by the Ukrainian side. Under the terms of the Budapest Memorandum, Ukraine rid itself of its entire arsenal of cruise missiles. In the process, it disposed of 487 Kh-55 missiles and transferred another 581 units to Russia.

As for the arsenal of cruise missiles with which the Russian military is currently armed, there are only 11 types<sup>5</sup>. At the same time, in the public reports of the General Staff of Ukraine, as well as other official sources and analytical reports by experts, seven types (or families) of missiles have been launched by Russia on Ukrainian territory, among them are four types of cruise missiles: the sea-based Kalibr 3M-54, the sea- and shore-based P-800 Oniks, the land-based Iskander 9K720 (experimental, probably there were some individual launches from ballistic missile installations), and the air-based Kh-101 and Kh-555 (a modified version of the Soviet Kh-55)<sup>6</sup>



The main types of cruise missiles used by the Russian Armed Forces

If you compare the missile shown in the video freeze-frame with other cruise missiles used by the Russian Federation, the most similar in appearance to the missile in the video are cruise missiles from the Kalibr family, as well as Kh-101 and Kh-555 missiles.

According to information provided to Truth Hounds by sources in investigative bodies, ballistics experts conducted a preliminary analysis of debris from the incident site and concluded that a cruise missile from the Kalibr family was used for the strike. While the expert examination of the remains of the missile is still ongoing in a specialised forensic laboratory, Truth Hounds analysts analysed the probability of the use of various types of cruise missiles and found additional evidence to support that the strike was carried out by a Kalibr missile.

This version of events is supported by several external factors.

<sup>5</sup> Wikipedia, "Category:Cruise missiles of Russia", 9 August 2022, available at: [https://uk.wikipedia.org/wiki/%D0%9A%D0%B0%D1%82%D0%B5%D0%B3%D0%BE%D1%80%D1%96%D1%8F:%D0%9A%D1%80%D0%B8%D0%BB%D0%B0%D1%82%D1%96\\_%D1%80%D0%B0%D0%BA%D0%B5%D1%82%D0%B8\\_%D0%A0%D0%BE%D1%81%D1%96%D1%97](https://uk.wikipedia.org/wiki/%D0%9A%D0%B0%D1%82%D0%B5%D0%B3%D0%BE%D1%80%D1%96%D1%8F:%D0%9A%D1%80%D0%B8%D0%BB%D0%B0%D1%82%D1%96_%D1%80%D0%B0%D0%BA%D0%B5%D1%82%D0%B8_%D0%A0%D0%BE%D1%81%D1%96%D1%97)

<sup>6</sup> TEXTY.ORG.UA, "Letyucha smert", 25 April 2022, available at: <https://texty.org.ua/articles/106433/letyucha-smert/>

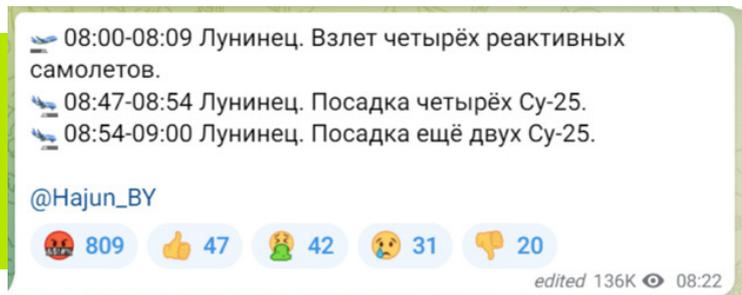
Kh-101 and Kh-555 missiles are usually launched by Tu-95 and Tu-160 bombers from Russian and Belarusian airspace bordering Ukraine, as well as from the waters of the Black and Caspian seas. As mentioned above, the video of the rocket's approach to the RSA building may indeed indicate the northern or north-western starting point of the flight's trajectory.

As for the launches of the Kh-101 and Kh-555 missiles from the territory of the Russian Federation, this scenario might be considered if solely the direction of the missile's approach is taken into account. However, in this case, the circumstances of the incident should also be considered, namely the specifics of the ammunition explosion. According to official reports, based on analysis of the nature of the damage, the explosion took place inside the building. Rockets equipped with a special penetrating warhead have such an effect. This feature is not included in the tactical and technical characteristics of the Kh-101 missile – the detonation of this missile's warhead occurs at a distance of several metres from the target – but it is almost always a feature of Kalibr type missiles.

In addition, regarding the Belarusian airspace origins of the missile (or more precisely – its impossibility), according to messages from the "Belaruski Gayun" Telegram channel that monitors military activity in the territory of the republic, several Su-25 attack aircraft took off from Luninets Airport (Brest Region) at a time that coincided with the moment of the attack in Mykolaiv. However, all of them were armed with short-range missiles such as Kh-25ML, Kh-25MLP, S-25L, or Kh-29L, which could not have hit the target in Mykolaiv.

A screenshot from the Belaruski Gayun Telegram channel<sup>8</sup>

(08:00–08:09 Luninets. Taking off of four jet aircraft.  
08:47–08:54 Luninets. Landing of four Su-25.  
08:54–09:00 Luninets. Landing of two more Su-25.)



The possible Caspian origin of the launch also seems questionable. The fact that the missile, in a hypothetical launch from the Caspian Sea, would have had to turn 120 degrees from its initial trajectory makes the possibility of such a launch unlikely. In addition, long-range missile launches (the distance from Mykolaiv to the coast of the Caspian Sea is approximately 1 300 km) are always tracked by the Ukrainian tracking system and, as a result, the early warning systems signalling the threat of an airstrike would have been activated in essentially all regions of the country. However, on 29 March, neither in Mykolaiv Oblast nor in the vast majority of Ukraine's other regions, were there any air-raid sirens sounding immediately before the attack<sup>9</sup>.

To reject the scenario of an air-launched Kalibr missile, we should immediately note that missiles of this modification and the Kalibr family as a whole are not intended for launch from the air. However, there are new models of Kalibr, in particular the "Club-A" class missiles, which are air-based and can be launched from the air. Nevertheless, there is no information to indicate that the Russian Armed Forces possess such weapons and even less so to suggest that they launch Kalibr missiles from the air.

<sup>7</sup> <https://topwar.ru/197532-potencial-i-vozmozhnosti-krylatoj-rakety-h-101.html>

<sup>8</sup> Belaruski Gayun Telegram Channel, "Take-off of airplanes", published at 08:22, 29 March 2022, available at: [https://t.me/Hajun\\_BY/3297](https://t.me/Hajun_BY/3297)

<sup>9</sup> <https://alarmmap.online/> as of 08:00, 29/03/2022 – 09:00, 29/03/2022

Therefore, it can be concluded that for the attack on the Mykolaiv Regional State Administration building on 29 March 2022 a Russian missile of the Kalibr family launched from the Black Sea was used.

For further confirmation of the launch of a missile from the Black Sea, Truth Hounds sent a field mission on 24 July 2022 to a populated area in Ochakivsky District. Mission team members met with a resident of the village of Yaselka in Ochakivsky District who had been an eyewitness to the flight of a rocket that was probably that that struck the Mykolaiv RSA. According to the woman, that day she was in a private residence located in the village of Ivanivka, Ochakivsky District (at a location with the coordinates 46.647954, 31.671917). Between 06:00 and 07:00 in the morning (the witness is not sure of the precise time), she heard – and distinguished from her previous observational experience – the rumble of a rocket flying overhead and then, about three minutes later, a loud explosion from the direction of Mykolaiv. The woman claims that she knows the direction exactly because her house is located in such a place at which the sounds of explosions in Mykolaiv can be easily heard. Often, during explosions in the city, smoke and light can be seen from the yard of the house. The witness also recalls that this was the only sound of an explosion that day. In her words:

“That day, Mykolaiv was attacked once. Even here, the windows shook a little from the explosion. A slight vibration went through the ground. Later, I saw the news that the Mykolaiv RSA was hit. I understood that what I heard was a rocket towards Mykolaiv.”

During the conversation, the witness also emphasised that she remembered exactly when the explosion occurred in the city following the sound of a rocket flying over the house. In her words

“After this hum and whistle, in about three minutes came the roar of an explosion. The sound of the explosion came from Mykolaiv.”<sup>10</sup>

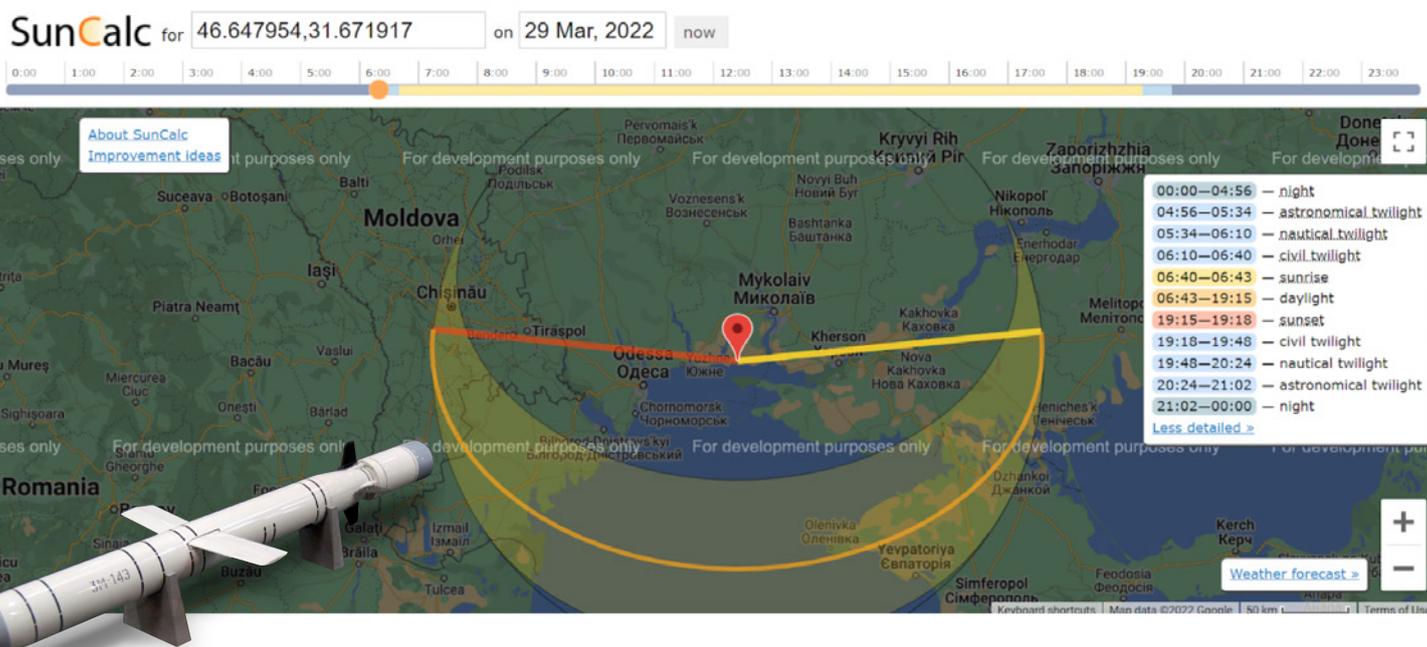
This testimony contains some inconsistencies with the actual circumstances of the case in terms of time indicators. As it is impossible to corroborate the words of the witness with the testimony of other eyewitnesses, we may rely on other methods of determining the time. If one inputs the place and time of the witness on the day of the attack in the SunCalc<sup>11</sup> resource, it indicates that the period between 6:00 and 7:00 am to which the witness refers (with the exception of the final few minutes) was the period of pre-dawn twilight. Since the woman claims that it was already light and quite warm at the time of the rocket's flight, most likely the rocket's flight occurred later and corresponded to the official version and time indicated on the video from the scene (see above).

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<sup>10</sup> Witness M-3, interviewed by Truth Hounds in July 2022.

<sup>11</sup> 29.03.2022 – SunCalc, available at: <http://suncalc.net/#/46.6448,31.6352,9/2022.03.29/06:21>

The fact that the witness spent the rest of the day in the same house in which she had been since the morning and did not hear or see any other rockets or explosions, leads one to the conclusion that she witnessed the flight of a rocket, firstly, launched from the waters of the Black Sea and, secondly, precisely the one directly at the Mykolaiv RSA. At the same time,



## IDENTIFYING THE TYPE OF MISSILE OF THE KALIBR FAMILY

To establish a more accurate nomenclature of the cruise missile that was launched at the Mykolaiv RSA, we may refer to the technical and tactical characteristics (TTC) of various types of missiles of this family. Here it is necessary to note that the TTC of the Kalibr family of missiles, which are in use by the Russian Armed Forces, are secretive and not widely known with absolute certainty. From open sources, we have an accurate description only of the "line" of Kalibr cruise missiles, that is the ones that are produced for export with detailed descriptions of their characteristics and images of their appearance. These export modifications have a "Club" marking - the Russian name contains the letter "E", for "export" - and are endowed with truncated capabilities in terms of flight range, so as not to fall foul of restrictions on the maximum permissible flight range of cruise missiles for sale<sup>12</sup>. However, according to military experts, the differences between the missiles in the service of the Russian Army and their export counterparts (except for their flight range) are insignificant and all these missiles form a single family of cruise missiles that have an extremely similar appearance and dimensions<sup>13</sup>. Moreover, from the same open sources, we have information on the nomenclature of the Kalibr missiles in service of the Russian Armed Forces, as well as their approximate characteristics. All of this makes it possible to produce a consolidated table which presents - as fully as possible - a description of all the types of such cruise missiles, including their appearance, dimensions, flight range, and so on, with certain characteristics of export modifications extrapolated to indicate those of missiles only in service with the Russian Army, but for which the relevant data remains classified and not publicly available.

<sup>12</sup> ARMS CONTROL WONK, "RUSSIAN CRUISE MISSILES REVISITED", 27 October 2015, available at: <https://www.armscontrolwonk.com/archive/207816/russian-cruise-missiles-revisited/>

<sup>13</sup> ARMS CONTROL WONK, "RUSSIAN CRUISE MISSILES REVISITED", 27 October 2015, available at: <https://www.armscontrolwonk.com/archive/207816/russian-cruise-missiles-revisited/>

**NB:** Internet resources on military topics, news reports regarding the armament of the Russian Armed Forces, and thematic forums served as the sources for the performance characteristics of Russian combat missiles of the Kalibr family. Some data may be inaccurate or contradictory.

Missile	3M-54E	3M54K	3M-54E1	3M54T	3M-14E	3M-14K	3M14T
Appearance (available only for the export modification)							
Launch platform	Submarines				Surface ships	Submarines	Surface ships
Target of strike	Surface targets (anti-ship)				Land and surface targets	Surface targets	
Length, m	8,22	8,22	6,2	8,9 (?)	6,2	6,20	6,2
Diameter, mm	533						
Starting mass, kg	2300	2300	1800	-	1770	1770	-
Warhead	Penetrating high explosive, 200 kg	200 kg	Penetrating high explosive, 400 kg	200 kg	High explosive fragmentation or cluster, 450 kg	450 kg	450 kg
Flight range	220 km	440 - 660 km	300 km	-	300 km	2500 km (possibly 1 400 km)	2500 km (possibly 1 400 km)
Flight speed, in Mach (M)	At launch: 0.8 Near target: 2.9	At launch: 0.8 Near target: 2.9	0,8	0,8	0,8	0,8	0,8
Trajectory (flight height)	At launch: 20 m Near the target: 10 m	At launch: Up to 5 m	Not more than 20 m	Not more than 20 m	Above sea: 20 m Above land: 50-150 m		
Control system	INS + radar homing				INS + radar homing + correction according to data from GLONASS or GPS		

Therefore, having compared all the characteristics of the rocket, as well as the facts that:

- the rocket came from the Black Sea;
- the missile hit a target 40 km inland;
- and on the approach to the target, the missile performed a manoeuvre from a height exceeding 80 metres, the moment of which was recorded on camera;

a final conclusion can be drawn that

the destruction of the Mykolaiv RSA building was conducted using a cruise missile of the "Kalibr" family, with the nomenclature of 3M14K for underwater basing or 3M14T for basing on surface vessels.

# CASES OF MISSILE ATTACKS FROM THE BLACK SEA RECORDED IN MYKOLAIV CITY AND OBLAST

During the period from 17 March to 23 April 2022, the Russian military fired about 30 Kalibr cruise missiles towards Mykolaiv and the Mykolaiv region, not including the shelling of the Mykolaiv RSA on 29 March. Of these, about 13 Kalibr-type cruise missiles were shot down by Ukrainian anti-aircraft units. Below is a brief description of each case of Kalibr shelling of Mykolaiv city and oblast during the specified period.

On 17 March 2022, Vitaly Kim, the head of the Mykolaiv RSA, published a video that showed the consequences of shooting down Russian Kalibr cruise missile over residential buildings in Mykolaiv<sup>14</sup>. The cruise missile was launched from the Black Sea.

On 18 March 2022, Russian forces attacked a barracks where Ukrainian troops were stationed<sup>15</sup>. The attack was carried out by Kalibr-type cruise missiles launched from the Black Sea which, as People's Deputy Oleksii Goncharenko wrote on his Telegram channel, is evidenced by the nature of the destruction<sup>16</sup>.

On 22 March 2022, the Armed Forces of Ukraine shot down a cruise missile flying in the direction of Kropyvnytskyi around Mykolaiv<sup>17</sup>. It is known that on the same day, the Russian military launched eight cruise missiles from the sea, most likely Kalibr 3M-14, in the direction of Rivne, which flew over Mykolaiv<sup>18</sup>. The likely launch point was near Sevastopol, at coordinates 44.679440, 33.502202.

On 23 March 2022, a Kalibr cruise missile was also shot down over Mykolaiv<sup>19</sup>. The type of missile can be established from a video which shows the base and "wings" characteristic of the Kalibr family of missiles.

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<sup>14</sup> Telegram channel of Vitaly Kim / Mykolaivska RSA, 29 March 2022, available at: <https://t.me/mykolaivskaODA/720>; "A cruise missile was shot down over residential buildings in the Mykolaiv region (video)", 17 March 2022, available at: <https://glavcom.ua/country/incidents/na-mikolajivshchini-nad-zhitlovimi-budinkami-zbili-krilatu-raketu-video-830559.html>

<sup>15</sup> Telegram channel of MykolaivOblast-info, 18 March 2022, available at: <https://t.me/mykolaivOblastinfo/1443>; Telegram channel of Trukha - Nikolaev, 18 March 2022, available at: <https://t.me/c/1551218501/8751>; Telegram channel of Trukha-Nikolaev, 19 March 2022, available at: <https://t.me/c/1551218501/8768>

<sup>16</sup> HONCHARENKO Telegram channel, 18 March 2022, available at: <https://t.me/oleksiihoncharenko/16455>; GlavCom, "The occupiers shelled Mykolaiv with 'Kalibrs': there are victims", 18 March 2022, available at: <https://glavcom.ua/news/okupanti-obstrilyali-mikolajiv-kalibrami-je-zhertvi--830971.html>; Telegram channel of Huevyi Nikolaev, 18 March 2022, available at: [https://t.me/huevyi\\_nikolaev/3607](https://t.me/huevyi_nikolaev/3607).

<sup>17</sup> Telegram channel of MykolaivOblast-info, 22 March 2022, available at: <https://t.me/mykolaivOblastinfo/1672>

<sup>18</sup> Twitter account of Mundo News, 22 March 2022, available at: <https://twitter.com/KyleJGlen/status/1506343470708973576>; Telegram channel of NikVesti – Novosti Nikolaieva, 23 March 2022, available at: <https://t.me/nikvesti/21215>

<sup>19</sup> Telegram channel of Vitaly Kim / Mykolaivska RSA, 23 March 2022, available at: <https://t.me/mykolaivskaODA/812>

The next day, 24 March 2022, the head of the Mykolaiv RSA, Vitaly Kim, confirmed that two cruise missiles flying from the Black Sea were shot down over Mykolaiv<sup>20</sup>. In particular, one of them was shot down over the Pivdennyi Bug River<sup>21</sup>.

On 25 March 2022, Vitaly Kim reported that two more cruise missiles flying over Mykolaiv had been shot down<sup>22</sup>.

The next was the shelling of Mykolaiv RSA on 29 March 2022.

Following the shelling of the Mykolaiv RSA, Russian troops reduced their shelling of Mykolaiv city and oblast compared to the period prior to 29 March. Particularly, on 3 April, the air defence forces of Ukraine shot down two cruise missiles over the oblasts of Mykolaiv and Odesa<sup>23</sup>. Five days later, on 9 April, a cruise missile was shot down over Mykolaiv<sup>24</sup>. In particular, the media reported that around seven cruise missiles were launched from the Black Sea over Mykolaiv Oblast on the same day<sup>25</sup>.

Soon after, on 15 April, Russian troops shelled Mykolaiv, namely the warehouses of Nova Poshta, using a cruise missile<sup>26</sup>. From the wreckage, it appears to be a Kalibr<sup>27</sup>. Afterwards, there were only isolated instances of shelling of Mykolaiv on 18 and 23 April. On 18 April, Ukrainian air defence shot down a cruise missile flying towards Mykolaiv<sup>28</sup>, and, on 23 April, a Kalibr was used to shell Mykolaiv's Namyv neighbourhood<sup>29</sup>.

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<sup>20</sup> Telegram channel of Vitaly Kim / Mykolaivska RSA, 24 March 2022, available at: <https://t.me/mykolaivskaODA/832>

<sup>21</sup> Telegram channel of Vitaly Kim / Mykolaivska RSA, 24 March 2022, available at: <https://t.me/mykolaivskaODA/834>

<sup>22</sup> Telegram channel of MykolaivOblast-info, 25 March 2022, available at: <https://t.me/mykolaivOblastinfo/1773>;  
Telegram channel of MykolaivOblast-info, 25 March 2022, available at: <https://t.me/newspn/12124>.

<sup>23</sup> Telegram channel of Air Force of the Armed Forces of Ukraine, 3 April 2022, available at: <https://t.me/kpszsus/787>;  
Telegram channel of Prestupnosti.NET, 3 April 2022, available at: <https://t.me/newspn/13760>;  
Telegram channel of Trukha-Nikolaev, 3 April 2022, available at: <https://t.me/c/1551218501/12671>;  
Telegram channel of Novosti Nikolaieva Blacklist / Odessa / Kherson / News Ukraine, 3 April 2022, available at: [https://t.me/blacklist\\_niko/1898](https://t.me/blacklist_niko/1898).

<sup>24</sup> Telegram channel of MykolaivOblast-info, 9 April 2022, available at: <https://t.me/mykolaivOblastinfo/2356>;  
Telegram channel of MykolaivOblast-info, 10 April 2022, available at: <https://t.me/mykolaivOblastinfo/2367>;  
Telegram channel of Prestupnosti.NET, 9 April 2022, available at: <https://t.me/newspn/14859>

<sup>25</sup> UNIAN, "The occupiers launched seven rocket attacks on Mykolaiv region, there were no casualties - OK "Yug", 10 April 2022, available at: [https://www.unian.net/war/okkupanty-sovershili-sem-raketnyh-udarov-po-nikolaevshchine-postradavshih-net-ok-yug-novosti-vtorzheniya-rossii-na-ukrainu-11779947.html?utm\\_source=telegram&utm\\_medium=social&utm\\_campaign=unian\\_channel](https://www.unian.net/war/okkupanty-sovershili-sem-raketnyh-udarov-po-nikolaevshchine-postradavshih-net-ok-yug-novosti-vtorzheniya-rossii-na-ukrainu-11779947.html?utm_source=telegram&utm_medium=social&utm_campaign=unian_channel)

<sup>26</sup> Telegram channel of Nikvesti - News of Nikolaev, 15 April 2022, available at: <https://t.me/nikvesti/23971>;  
Telegram channel of Trukha-Nikolaev, 15 April 2022, available at: <https://t.me/c/1551218501/14761>;  
Telegram channel of Trukha-Nikolaev, 15 April 2022, available at: <https://t.me/c/1551218501/14772>.

<sup>27</sup> Jake Godin Twitter account, 15 April 2022, available at: <https://twitter.com/JakeGodin/status/1515013725874540548?s=20&t=SZn8NIYRGwjxSjIEyCXZBA>;  
Telegram channel of Vitaly Kim, Mykolaivska RSA, 15 April 2022, available at: <https://t.me/mykolaivskaODA/1058>.

<sup>28</sup> Telegram channel of Novosti Nikolaev Blacklist / Odessa / Kherson / News Ukraine, 18 April 2022, available at: [https://t.me/blacklist\\_niko/2323](https://t.me/blacklist_niko/2323); Telegram channel of Novosti Nikolaeva Novosti Ukraine, 18 April 2022, available at: <https://t.me/novostiniko/14970>.

<sup>29</sup> Suspilne News, "Russians hit the residential area of Mykolaiv with a cruise missile", 24 April 2022, available at: <https://suspilne.media/231792-u-spalni-j-rajon-mikolaeva-rosiani-vlucili-krilatou-raketou/>; Trukha-Nikolaev Telegram channel, 23 April 2022, available at: <https://t.me/c/1551218501/15837>

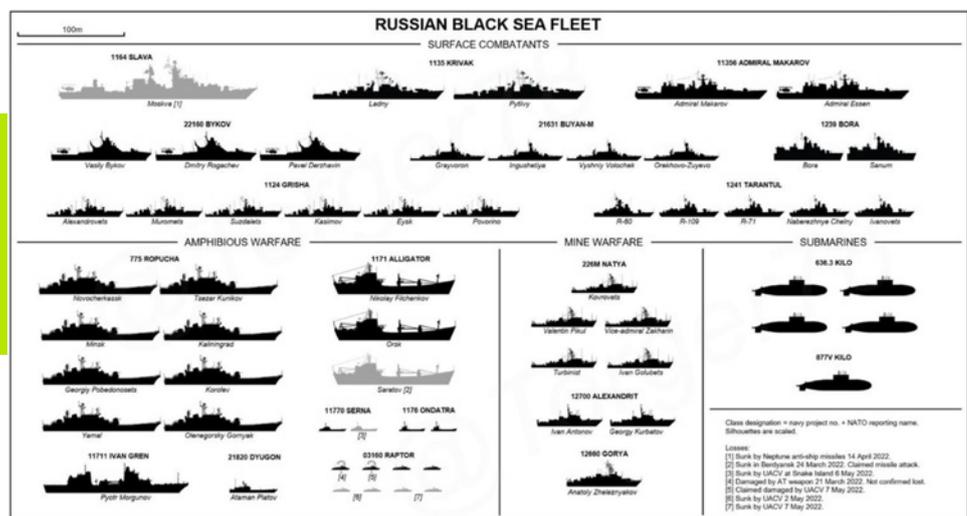
# DISLOCATION AND TRACKING OF THE MOVEMENT OF MISSILE-CARRYING SHIPS OF THE BLACK SEA FLEET OF THE RUSSIAN NAVY WHICH PROBABLY ATTACKED THE RSA.

Russian military vessels carrying 3M14K “NK Kalibr” series and 3M14T “PL Kalibr” series missiles include those at various bases, including among those of the Caspian and Black Sea fleets.

The Caspian Fleet is armed with missile carriers for launching Kalibrs. Among them are missile corvettes of the "Buyan-M" project – the Grad Sviyazhsk, Uglich, and Velikiy Ustyug. Kalibr launches from the Caspian Sea during the shelling of Lviv on 18 April<sup>30</sup> were confirmed by representatives of Ukrainian authorities. Some mass media also reported Kalibr shelling of Kyiv on 26 June<sup>31</sup>. Until now, there have been no statements regarding the launch of missiles from the Kalibr family from the direction of the Caspian Sea. The fact that there were no air raid sirens sounding over most of regions of the country on the day of the attack on the Mykolaiv RSA also testifies in favour of the scenario of a short-distance missile approach.

As for the Black Sea Fleet, the Kalibr missile carriers are the frigates of the ‘Project 11356’ (the frigate the Admiral Makarov and the frigate the Admiral Essen), small missile ships of Project 21631 (the MRC Grayvoron, MRC Ingushetia, MRC Vyshniy Volochek, and MRK Orekhovo-Zuyevo) and submarines of the Varshavyanka project (there are four of them in the Black Sea Fleet of the Russian Federation)<sup>32</sup>. As for arming patrol ships of Project 22160 – part of the Russian Black Sea Fleet – with Kalibr missiles, at most this can be declared a possibility given that there is no data confirming this explicitly<sup>33</sup>.

The Black Sea Fleet of the Russian Federation, located in the waters of the Black Sea.



<sup>30</sup> UKRINFORM, "The first Russian attack on Lviv was from the Caspian Sea, the second launch from the Black Sea was repelled", 19 August 2022, available at: <https://www.ukrinform.ua/rubric-regions/3460553-persa-ataka-rf-po-lvovu-bula-z-kaspiu-drugij-zapusk-z-cornogo-mora-vidbill.html>

<sup>31</sup> Vechirniy Kyiv, "Since the beginning of the invasion, Russian occupiers have attacked civilian objects 60 times more often than military ones", 1 August 2022, available at: <https://vechirniy.kyiv.ua/news/69682/>

<sup>32</sup> ARMY-Today, "Kalibr cruise missile, detailed review", 4 April 2022, available at: <https://army-today.ru/tehnika/kalibr>

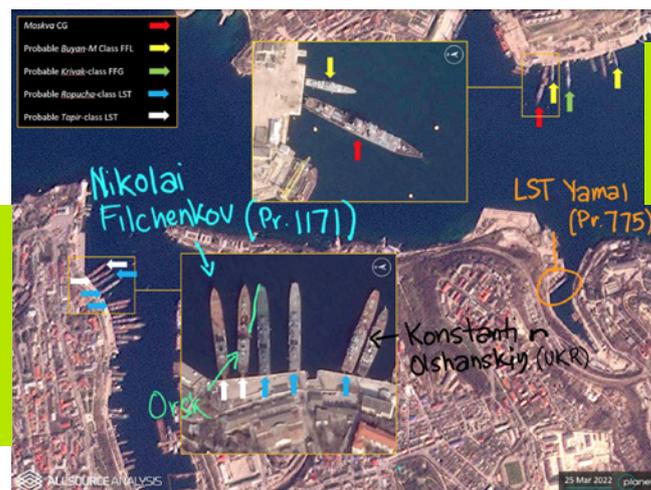
<sup>33</sup> Wikipedia, "Patrol ships of project 22160", 31 March 2014, available at: [https://ru.wikipedia.org/wiki/%D0%9F%D0%B0%D1%82%D1%80%D1%83%D0%BB%D1%8C%D0%B-%D1%8B%D0%B5\\_%D0%BA%D0%BE%D1%80%D0%B0%D0%B1%D0%BB%D0%B8\\_%D0%BF%D1%80%D0%BE%D0%B5%D0%BA%D1%82%D0%B0\\_22160](https://ru.wikipedia.org/wiki/%D0%9F%D0%B0%D1%82%D1%80%D1%83%D0%BB%D1%8C%D0%B-%D1%8B%D0%B5_%D0%BA%D0%BE%D1%80%D0%B0%D0%B1%D0%BB%D0%B8_%D0%BF%D1%80%D0%BE%D0%B5%D0%BA%D1%82%D0%B0_22160)

It is important to note instances of the use of 3M14K/T Kalibrs by the Russian Navy, mainly by the Black Sea Fleet of the Russian Federation during the latter's participation in the armed conflict in Syria. For example, it is known that in 2017 several missile attacks were carried out from the Admiral Essen on Syrian territory, including in the east of Palmyra Province, some 300 km from the country's Mediterranean coast<sup>34</sup>. Submarines carried out seven missile attacks on Syria with missiles of the 3M14K nomenclature, with the maximum distance of damage being 670 km. Ships of the Caspian Fleet also took part in the launch of Kalibrs of the same nomenclature, firing eighteen 3M14T Kalibr missiles at seven targets in Raqqa, Idlib and Aleppo provinces on 25 November 2015<sup>35</sup>.

As noted above, submarines and surface vessels are the carriers of Kalibr missiles of the 3M14K and 3M14T nomenclatures. Of those that were part of the Black Sea Fleet of the Russian Federation and stationed in the Black Sea at the time of the attack, there are four submarines, two frigates, and four small missile boats. Other ships of this type were located in the Mediterranean Sea in the territorial waters of Turkey and could not have launched missiles.

With the help of open-source intelligence (OSINT) tools, we monitored the location and movement of the vessels of the Black Sea Fleet of the Russian Federation starting from 25 March 2022 in order to determine – as accurately as possible – the launch platform of the missile that hit the Mykolaiv RSA.

Satellite images of the Sevastopol Bay, dated 25 March 2022, illustrate that at the time neither of the two missile-carrying frigates were present at their location of deployment. Therefore, at that time they were already on the Black Sea. Moreover, individual OSINT investigators confirmed the fact that on 24 March 2022, both frigates had gone to sea<sup>36</sup>. As for the small missile ships, the picture below shows that at least two of them – probably the Ingushetia and the Vyshnyi Volochok – were still in the bay.



Satellite image of Sevastopol Bay from 25 March 2022, with conventional designations of ships<sup>37</sup>

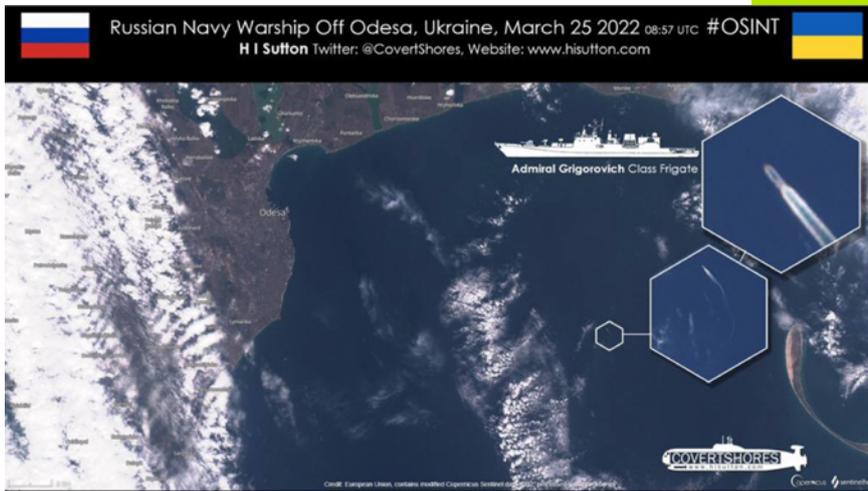
<sup>34</sup> Reobzor, "Kalybr-NK – Cruise Missile, Technical Characteristics (TSH) of the 3m54 anti-missile missile, Flight speed and range, Complex's radius of defeat", 21 January 2021, available at: <https://reobzor.ru/news/2021/01/kalibr-nk-krylataya-raketa-texnicheskie-xarakteristiki-ttx-pkr-3m54-skorost-i-dalnost-poleta-radius-porazheniya-kompleksa>

<sup>35</sup> ARMY-Today, "Kalibr cruise missile, detailed review", 4 April 2022, available at: <https://army-today.ru/tehnika/kalibr>

<sup>36</sup> Twitter account of TheShipYard NavalConsultancy, 25 March 2022, available at: <https://twitter.com/TheShipYard2/status/1507386803665444891>

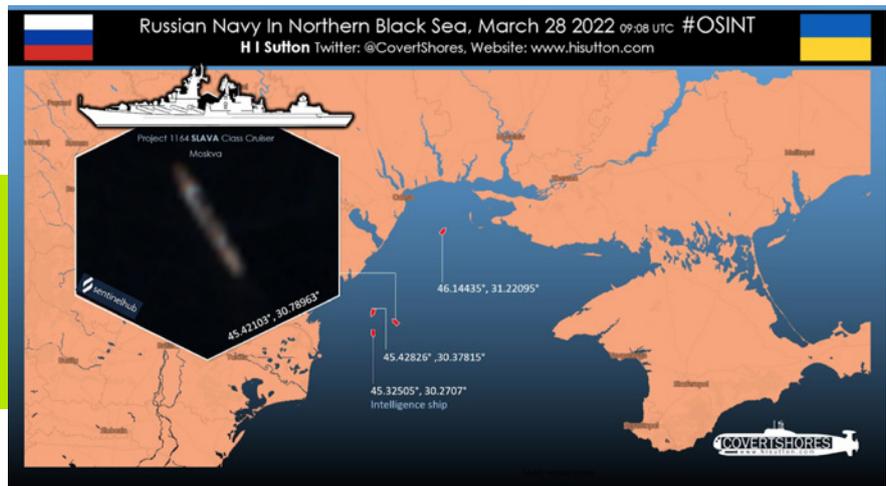
<sup>37</sup> Twitter account, 30 March 2021, available at: <https://twitter.com/grangere04117/status/1509127377305354249?s=21&t=TWUSHB6jAnjPYWm4tqsDKg>

However, starting from 27 March, both corvettes were already on the Black Sea near the Admiral Makarov<sup>38</sup>. The Admiral Essen was also moving northwest by sea. The picture below shows a satellite image of this.



Movement and photo of frigate the Admiral Essen dated 25 March 2022<sup>39</sup>

Another OSINT source geolocates the Admiral Essen, indicating its precise coordinates as of 28 March 2022 as 46.14435, 31.22095.



Location of the Admiral Essen on 28 March 2022. Coordinates: 46.14435, 31.22095<sup>40</sup>

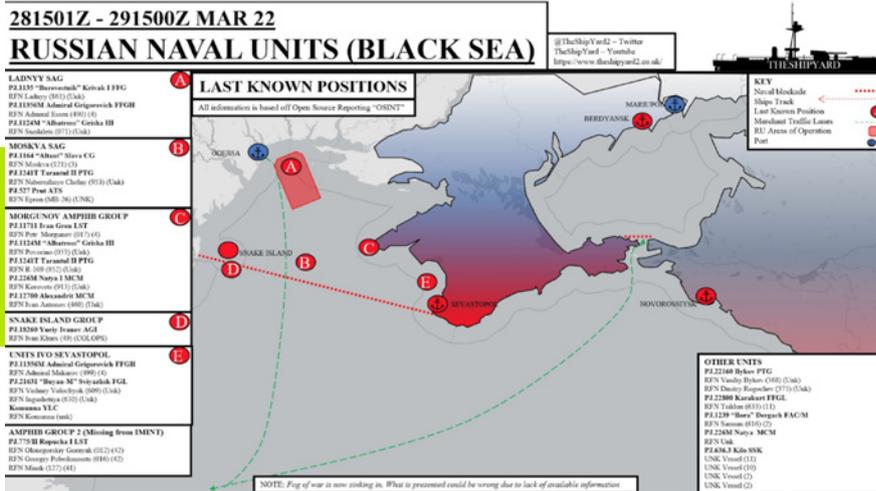
In general, this data coincides with the scheme below. It shows the approximate location of all missile-carrying vessels of the Black Sea Fleet of the Russian Federation on the Black Sea on 28–29 March 2022: frigates the Admiral Essen and the Admiral Makarov and corvettes the Ingushetia and the Vishniy Volochok. The last three were in a small group at coordinates 44.90589721327387 33.19072862512197, relatively close to Sevastopol<sup>41</sup>.

<sup>38</sup> Twitter account of TheShipYard NavalConsultancy, 29 March 2022 available at: <https://twitter.com/TheShipYard2/status/1508554190263668739>

<sup>39</sup> Twitter account of H I Sutton, 25 March 2022, available at: <https://twitter.com/covertshores/status/1507341624078225408?s=21&t=TWUSHB6jAnjPYWm4tqsDKg>

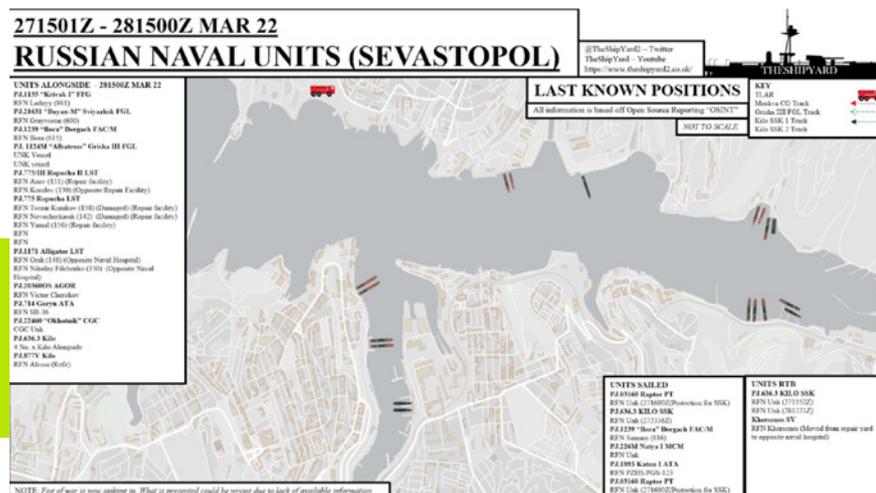
<sup>40</sup> Twitter account of H I Sutton, 28 March 2022, available. at: <https://twitter.com/CovertShores/status/1508541640046166029>

<sup>41</sup> Twitter account of TheShipYard NavalConsultancy, 29 March 2022, available at: <https://twitter.com/TheShipYard2/status/1508554190263668739>



The illustration schematically shows: "E" - the location of frigate the Admiral Makarov and corvettes the Ingushetia and the Vyshniy Volochok; and "A" - the location of frigate the Admiral Essen<sup>42</sup>.

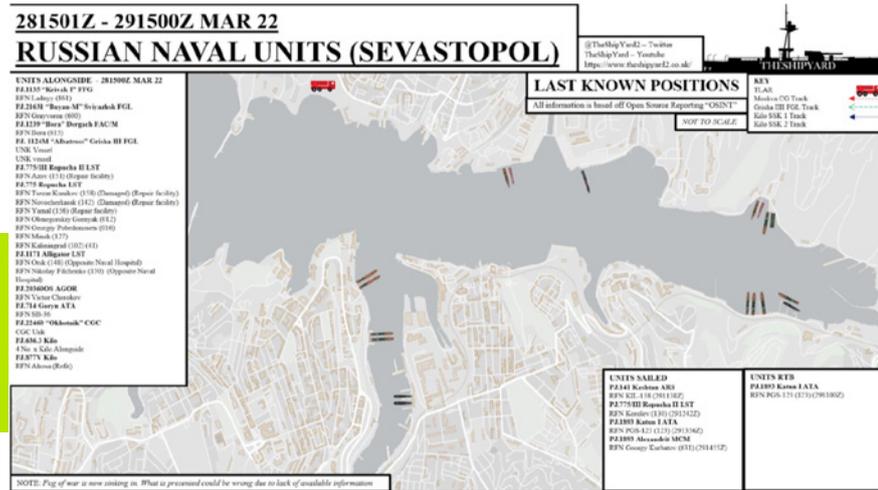
If one considers the screening of the Sevastopol Bay on the same days, 28–29 March, you can see that the two frigates and two missile-carrying corvettes were indeed not present. Instead, all four submarines and the missile-carrier the Grayvoron were at the place of permanent deployment. From this, it is revealed that neither these submarines, nor the corvette the Grayvoron, could have been the launch platforms for the missile attack against the Mykolaiv Regional State Administration on the morning of 29 March 2022. The circle of probable launch platforms is therefore narrowed down to the corvettes the Ingushetia and the Vyshniy Volochok, as well as the frigates the Admiral Essen and the Admiral Makarov, which we have established were all on the Black Sea at the time of the attack.



Screening of bays in Sevastopol where the Black Sea Fleet of the Russian Federation is stationed, dated 28 March 2022<sup>43</sup>.

<sup>42</sup> Note: "Admiral Hryhorovych: is a class of frigate that includes the Admiral Hryhorovych, the Admiral Essen, and the Admiral Makarov. The frigate the "Admiral Hryhorovych" itself is currently on the Mediterranean Sea. See: [https://www.kchf.ru/ship/skr/admiral\\_grigorovich.htm](https://www.kchf.ru/ship/skr/admiral_grigorovich.htm)

<sup>43</sup> Twitter account of TheShipYard NavalConsultancy, 29 March 2022, available at: <https://twitter.com/TheShipYard2/status/1508554190263668739>



Screening of bays in Sevastopol where the Black Sea Fleet of the Russian Federation is stationed, dated 28 March 2022<sup>44</sup>.

Additional confirmation of the absence of the frigates the Admiral Makarov and the Admiral Essen from the bay is provided by a photo taken on 28 March 2022 in the Sevastopol Bay. There are no frigates present in it<sup>45</sup>.



Photo from Sevastopol Bay from 28 March 2022. Source: Krym.Realii.

Following the movement of ships after the shelling of the Mykolaiv Regional State Administration on the morning of 29 March, we see that already on 30 March 2022, the frigate the Admiral Essen had begun to move away from the position indicated in the photo above<sup>46</sup>.



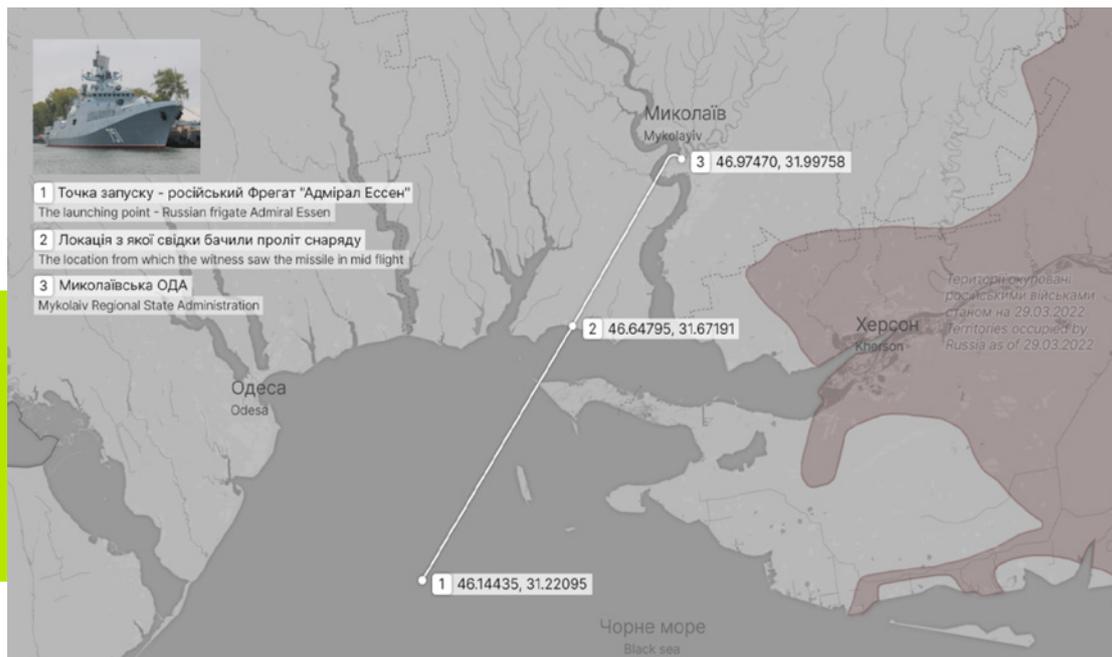
30 March 2022. The change of position of the frigate the Admiral Essen.

<sup>44</sup> Twitter account of TheShipYard NavalConsultancy, 30 March 2022, available at: <https://twitter.com/TheShipYard2/status/1508917889776369664>

<sup>45</sup> Krym.Realii, "In Sevastopol, a frigate similar to the damaged Admiral Essen frigate was spotted", 5 April 2022, available at: <https://ru.krymr.com/a/news-sevastopol-fregat/31785412.html>

<sup>46</sup> H I Sutton Twitter account, 30 March 2022, available at: <https://twitter.com/CovertShores/status/1509269115193679872>

Thus, the most likely party to have executed the shelling of the Mykolaiv Regional State Administration are the leadership of the frigate the Admiral Essen, which fired one 3M14T Kalibr missile towards the building. This conclusion is based on information regarding the location of the frigate on the sea relative to the target and is also confirmed by the testimony of an eyewitness who heard the flight of the rocket and the explosion in Mykolaiv that immediately followed it. If one connects the approximate coordinates of the location of the frigate with the location of the witness at that moment and extends the line further, taking into account the manoeuvre that the missile performed on the approach to the target, one can accurately reach the Mykolaiv Regional State Administration building as shown in the diagram below.



The trajectory of the Kalibr flight on 29 March 2022. Source: the Spatial Technologies Centre.

One more important point is that, knowing now the exact type of missile used and, hence, its speed, one can return to the local resident's testimony to compare it with mathematical calculations. The speed of the Kalibr missile is 0.8 M (Mach), or 981 km/h<sup>47</sup>. The distance from the witness's house to the Mykolaiv Regional State Administration building is 45 km. Accordingly, a rocket of this type would have flown past in approximately two and a half minutes. It would take slightly less time for the sound of the explosion to cover this distance – roughly one and a half to two minutes<sup>48</sup>. Therefore, on average, between four and five minutes should have passed from the moment the witness heard the rumble of the rocket to the moment she heard the explosion. In her words:

"After this hum and the whistle, in about three minutes came the roar of an explosion. The sound of the explosion came from Mykolaiv."

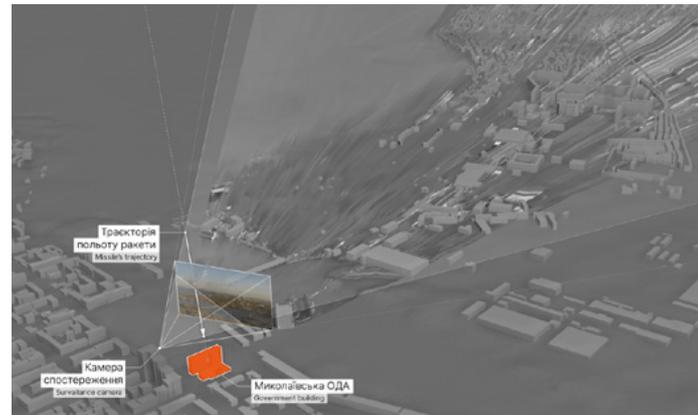
In general, this corresponds to the calculations. Greater reliability would, however, necessitate further data, specifically accurate times, distances, weather conditions, temperatures, and so on.

<sup>47</sup> Metric Conversions, "Conversion from Mach to Kilometers per hour", available at: <https://www.metric-conversions.org/ru/speed/mach-to-kilometers-per-hour.htm>

<sup>48</sup> Female witness M-3, interviewed by Truth Hounds in July 2022.

Additional confirmation of the indicators of this speed and, therefore, the speed of the Kalibr missile is obtained from mathematical calculations derived from the data from the above-mentioned video of the rocket's approach to the State Administration building.

This was conducted by specialists from the Centre for Spatial Technologies using video to perform 3D modelling of the Kalibr trajectory. This approach made it possible to perform the necessary measurements and calculations. The distance between the main part of the rocket in frames #14 and #31 is 170 metres. The video was shot at a frame rate of 25 frames per second. This means that the rocket covered a distance of 170 metres in 0.64 seconds, in other words, its speed during this segment of its trajectory was 266 m/s. This is close to the speed of the identified type of 3M-14 “Kalibr” missile – 275 m/s (a deviation of 3.2%).



The trajectory of the rocket in 3D space.  
Source: the Centre for Spatial Technologies.



Combined frames 14–32 showing the position of the missile on each of them.  
Source: the Centre for Spatial Technologies.

## AN ALTERNATIVE VERSION OF THE SHELLING.

However, we do not rule out the possibility that the shelling was carried out from Sevastopol by the crews of the three other missile-carrying ships mentioned above: the frigate Admiral Makarov and the corvettes the Ingushetia or the Vyshniy Volochok. As we noted above, on 20 March, at least two cases were recorded in which Kalibr cruise missiles were launched near the coast of Sevastopol in the direction of Mykolaiv. In particular, on 22 March, videos of rockets being launched from the sea near Sevastopol appeared in the public domain and, on 25 March, Zhytomyr Oblast was shelled, most likely from the Ingushetia or the Vyshniy Volochok, located near the coast of Sevastopol<sup>50</sup>.

However, residents of settlements (Solonchaka and Dmytrivka) located along the likely flight path of the missile from the launch point near Sevastopol, in a conversation with Truth Hounds documenters, could not recall anything similar on 29 March to confirm such a version of events<sup>51</sup>.

<sup>49</sup> Kyle Glen Twitter account, 22 March 2022, available at: <https://twitter.com/KyleJGlen/status/1506343470708973576?s=20&t=tSUE4jFppTrwIYIz3sxxgaw>, Mundo News Twitter account, 22 March 2022, available at: [https://twitter.com/Mundo\\_News/status/1506346507406090250?s=20&t=voqYm4Dpf47y7KDgw8WTVg](https://twitter.com/Mundo_News/status/1506346507406090250?s=20&t=voqYm4Dpf47y7KDgw8WTVg)

<sup>50</sup> Trukha Nikolaev Telegram channel, 26 March 2022, available at: <https://t.me/c/1551218501/10781>

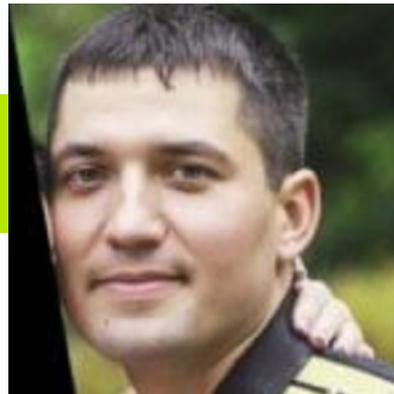
<sup>51</sup> Witness M-4, female witness M-5, interviewed by Truth Hounds in July 2022.

# WHO GAVE THE ORDER AND FIRED?

In open sources, quite complete information can be found regarding the leadership of the ships of the Russian Navy's Black Sea Fleet, including the Kalibr-carriers. Since we have limited the circle of probable executors of the shelling of the Mykolaiv Regional State Administration, the captains of only four of them are presented below: those of the frigates the Admiral Makarov and the Admiral Essen, as well as small missile ships the Ingushetia and the Vyshniy Volochok. But since, in our reasoned opinion, the Admiral Essen was the missile's most likely launch platform, we will present its crew in full:

## Frigate the Admiral Essen

Command: Captain of the 2<sup>nd</sup> Rank Oleksandr Smirnov (Aleksandr Smirnov); and commander of the missile and artillery combat unit of the ship, Lieutenant Captian Anatolii Peretyatko (Anatoliy Peretyatko).<sup>52</sup>.



## Crew:

1. Deputy commander – Captain of the 3rd Rank Oleh Lepisevich (Oleg Lepisevich);
2. Commander of Combat Unit 1 (CU-1) – Captain-Lieutenant Denys Myasoedov (Denis Myasoedov);
3. Commander of CU-2 – Captain-Lieutenant Volodymyr Petrov (Vladimir Petrov);
4. Commander of the rocket battery – Senior Lieutenant Serhii Rovba (Sergei Rovba);
5. Technician of the artillery battery of CU-2 – Midshipman Valery Payusov (Valery Payusov);
6. The commander of the targeting group – Senior Lieutenant Serhii Gavrilchenko (Sergei Gavrilchenko);
7. Miner of CU-3 – Senior Sailor Vitalii Kasyanenko (Vitaly Kasyanenko);
8. Commander of CU-5 – Captain-Lieutenant Oleksandr Gruzyntsev (Aleksandr Gruzyntsev);

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<sup>52</sup> The Main Directorate of Intelligence of the Ministry of Defence of Ukraine, "List of war criminals of the Russian Navy, who participate in the murders of civilians of Ukraine and the launching of missile attacks on Ukrainian cities", available at: <https://gur.gov.ua/con-tent/spysok-viiskovykh-zlochynsiv-vmf-rosii-iaki-berut-uchast-u-vbystvakh-myrynykh-hromadian-ukrainy-ta-zdiisnenni-raketnykh-obstriliv-ukrainskykh-mist.html#:~:text=%D0%9F%D0%BE%D0%B4%D0%BB%D0%BE%D0%B4%D0%BA%D0%B0%20C2%AB-,%D0%92%D0%B5%D0%BB%D0%B8%D0%BA%D0%B8%D0%B9%20%D0%9D%D0%BE%D0%B2%D0%B3%D0%BE%D1%80%D0%BE%D0%B4,-%C2%BB,http://red-star.ru/wp-content/uploads/2022/02/020-22-02-2022.pdf>

10. Machinist of the CU-5 turbine group – Sailor Pavel Gusev (Pavel Husev);
11. Senior electrician of CU-5 – Senior Sailor Maxim Rudenko (Maxim Rudenko);
12. Radio operator of CU-4 – Senior Sailor Oleksiy Lapin (Aleksey Lapin);
13. Commander of CU-7 – Captain–Lieutenant Viktor Smirnov (Viktor Smirnov);
14. The leader of the group – Chief Warrant Officer Volodymyr Krymov (Vladimir Krymov);
15. Hydroacoustic of CU-7 – Senior Sailor Vitalii Hrebenyuk (Viyaliy Greben);
16. Operator of the CU-7 automatic control system group – Sailor Serhii Galas (Sergei Galas).<sup>53</sup>

## Frigate the Admiral Makarov

Command: Captain of the 2<sup>nd</sup> rank Serhii Romanenko.<sup>54</sup>



## Corvette (small missile boat) the Vyshnyi Volochyok

Command: Captain of the 3rd Rank Sukhar Dmytro Oleksiyovych (under investigation in a case under Article 408 of the Criminal Code of Ukraine); commander of the navigator combat unit, Senior Lieutenant Stanislav Pokhodoschuk; and commander of CU-5, Senior Lieutenant Pavel Gushchyn.<sup>56</sup>



<sup>53</sup> Irakli Komaxidze, "I present another list of sailors of the Black Sea Fleet of the 30th division of surface ships, carriers of 'Kalibr' cruise missiles", published at 14:17, 18 July 2022, available at: <https://www.facebook.com/irakli.komaxidze/posts/pfbid0D8QSV8u2LJJFjDPNhCtUHgrxirmFTtRnFDvmsC42ojFERzkV4JgNREZuEcy18i3I>

<sup>54</sup> Independent Military Review, "Stand in place, anchor off", published at 21:54, 29 March 2021, available at: [https://nvo.ng.ru/realty/2021-04-29/3\\_1139\\_anchor.html](https://nvo.ng.ru/realty/2021-04-29/3_1139_anchor.html)

<sup>55</sup> Myrotvorets, Sukhar Dmitrij Alekseevich, 1 August 2014, available at: <https://myrotvorets.center/criminal/sukhar-dmitrij-alekseevich/>

<sup>56</sup> Military–industrial courier All-Russian weekly newspaper, "Esche odin podkaliberny", 29 August 2017, available at: <https://vpk-news.ru/articles/38634>

Corvette the Ingushetia

Command: Captain of the 3rd rank Alexander Yermolenko<sup>57</sup>.



## WHY IS THIS A WAR CRIME?

The information presented in the analytical report provides reasonable grounds to believe that the shelling of the Mykolaiv Regional State Administration at 8:35 am on 29 March 2022 seriously violated international humanitarian law (IHL) and should be considered a war crime under Article 8 of the Rome Statute of the International Criminal Court and Part 1 of Article 438 of the Criminal Code of Ukraine (Violation of the Laws and Customs of War).

The Rome Statute of the International Criminal Court criminalises attacks on civilian objects under Article 8(2)(b)(ii). In addition, Article 8(2)(b)(iv) also criminalises an indiscriminate attack when it is known that such an attack will cause excessive loss of life, injury to civilians, or damage to civilian objects.

Although these elements of war crimes are not directly mentioned in Article 438 of the Criminal Code of Ukraine, they are undoubtedly implied by the Ukrainian Criminal Code through a general reference to "violation of the laws and customs of war provided for by international treaties, the binding consent of which has been given by the Verkhovna Rada of Ukraine"

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<sup>57</sup> INGUSHETIA - HIALGIAYCHE "The crew of the small missile ship 'Ingushetia' was headed by captain of the third rank Alexander Yermolenko", 21 May 2021, available at: <https://gazetaingush.ru/news/ekipazh-malogo-raketnogo-korablya-ingushetiya-vozglavil-kapitan-tretego-ranga-aleksandr>.

One such international treaty is Additional Protocol I to the Geneva Conventions, which in Article 85 defines two serious violations of IHL which are de facto war crimes, namely: (a) turning the civilian population or individual civilians into targets of attack; (b) carrying out an indiscriminate attack on the civilian population or civilian objects, knowing that such an attack will cause excessive loss of life, injury to civilians, or damage to civilian objects.

The Mykolaiv Regional State Administration building is a civilian object protected by IHL. Accordingly, the shelling of the administration by the troops of the Armed Forces of the Russian Federation is a war crime in the form of a deliberate attack on a civilian object. Alternatively, even assuming that the Mykolayiv RSA could be considered a legitimate military target, its shelling violated IHL regardless because it did not comply with the principle of proportionality, resulting in numerous injuries and deaths among the civilian population.

In order for the shelling of Mykolaiv Regional State Administration to be considered a war crime in the form of a deliberate attack on a civilian object, whether under the Rome Statute or Ukrainian criminal law, it is necessary to demonstrate the presence of the following elements inherent in this crime, namely:

- a. The perpetrator carried out the attack.
- b. The target of the attack was a civilian object – that is to say an object that is not a military target – or a civilian population or group of civilians.
- c. The perpetrator deliberately chose such a civilian object or group of civilians as the target of the attack.
- d. The act took place in the context of an international armed conflict or was related to it.
- e. The perpetrator was aware of the actual circumstances that indicated the existence of an armed conflict.

## The perpetrator carried out the attack.

According to the practice of the ICC, an attack is a "violent action against an opponent, whether offensive or defensive"<sup>58</sup>. The use of heavy weapons by a party to an international armed conflict, namely Kalibr-type missiles, indicates the existence of an attack, as their use is a violent action that results in damage to civilian infrastructure, injury, and death of civilians.

## The object of the attack was a civilian object that was not used for military purposes.

The principle of distinguishing civilian objects from military targets is codified in Article 48 of Additional Protocol I to the Geneva Conventions (AP I) and is one of the most important foundations of IHL. It determines that an attack may be directed only at military objects. Any deliberate targeting of civilian objects is prohibited and seriously violates IHL.

According to Article 52(3) AP I,

"military objectives are limited to those objects which, by their nature, location, purpose, or method of use, effectively contribute to the conduct of military operations and whose partial or complete destruction, capture, or neutralisation in the circumstances prevailing at a specific moment in time, provides a clear military advantage".

In particular, in order to define an object as a military objective, a criterion mentioned above (the object's nature, location, purpose, or method of use) must have a military nature.

By its very *nature*, the Mykolaiv Regional State Administration is a government building, on the upper floors of which the Commercial Court is located. According to the information obtained by Truth Hounds researchers, the building was not used for military meetings or planning involving any participation by armed units in military operations.

In order for an object to be considered a military objective due to its location, the capture of the territory in which it is located must provide a clear tactical advantage to the party to the conflict. In addition, the location of civilian objects directly on the territory of military objects or in militarily important areas may turn such civilian objects into legitimate military targets. From this geographical perspective, the destruction of the Mykolaiv Regional State Administration neither provided any tactical advantage nor allowed for the assumption of control over a strategically important territory.

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<sup>58</sup> Katanga and Ngudjolo, ICC PT. Ch. 1, ICC-01/04-01/07-717, para. 798.

<sup>59</sup> Benin, *Le droit de la Guerre*, III fascicules, Forces Armées du Bénin, Ministère de la Défense nationale, 1995, Fascicule I, pp. 12-13; Elmar Rauch, *The Protection of the Civilian Population in International Armed Conflicts and the Use of Landmines*, 24 GERMAN YEARBOOK OF INTERNATIONAL LAW 262, 273-277 (1981).

<sup>60</sup> Australia's LOAC Manual (2006)

As for the *purpose* and *method* of use, the Mykolaiv Regional State Administration was used exclusively for the needs of governance and the judiciary, serving the needs of the civilian population. Thus, meetings of the supreme military command of the Ukrainian armed forces or units of the territorial defence were not held in the building of the Regional State Administration, weapons were not stored, and units of the armed forces were not quartered. The presence of Territorial Defence Forces representatives in the immediate vicinity of the RSA and directly in it did not affect the object's status as a civilian. From the point of view of IHL, the presence of the police or other groups assigned to maintain public order does not make an object a military target.<sup>61</sup>

It is also worth noting that in order to define an object as a military objective, its partial or complete destruction, capture, or neutralisation must provide a clear military advantage. Such an advantage must be straightforward and direct, substantial, and relatively close in time. On the other hand, any advantage that is barely perceptible or will be noticeable only after a long period of time is not sufficient to establish that the object is used for military purposes or is intended to strengthen the military capability of the adversary. Taking into account that there were no representatives of Ukrainian military command on the territory of the State Administration at the time of the shelling, no weapons or military equipment were stored there, and the building was used exclusively to meet the needs of the civilian population, it is impossible to refer to a military advantage that could supposedly be achieved and that would have transformed the State Administration into a military object

In addition, Article 52(3) AP I indicates that in case of doubt regarding whether a civilian object is used for military purposes for the purpose of effectively contributing to military operations, there is a presumption that it is not a military objective. Thus, in terms of its purpose and method of use, the Mykolaiv Regional State Administration could similarly not have been considered a military facility.

Therefore, the Mykolaiv Regional State Administration does not meet any of the alternative criteria for it to have been considered a military facility and, accordingly, was a civilian facility. Thus, the shelling of Mykolaiv Regional State Administration was a war crime.

**The perpetrator deliberately chose such a civilian object as the object of the attack.**

The practice of international criminal courts requires that the choice of a civilian object as a target of attack be deliberate. This means that targeting a civilian target cannot have been carried out carelessly or accidentally. Determining the intentionality of targeting civilian targets is possible based on several characteristics of the attack, namely: the locations of military targets relative to the affected civilian objects, the type of weapon used, the pattern of attacks, etc.

There were no objects that could be used for military purposes near to the Mykolaiv Regional State Administration building, neither were military facilities located directly within the RSA itself.

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<sup>61</sup> PCNICC/1999/WGEC/DP.20 of 30 July 1999, див. також Dörmann, K., Doswald-Beck, L., & Kolb, R. (2004). Elements of War Crimes under the Rome Statute of the International Criminal Court, CUP, p. 177.

<sup>62</sup> Yves Sandoz, Christophe Swinarski, Bruno Zimmerman (eds.), Commentary on the Additional Protocols, ICRC, Geneva, 1987, para. 2209.

A Kalibr-type cruise missile was used to fire at the RSA, a highly accurate weapon capable of striking targets with minimal error. This indicates the deliberate choice of the Mykolaiv Regional State Administration as the target of the attack.

The shelling of the RSA is far from the first case of the Armed Forces of the Russian Federation inflicting damage on civilian objects near to which no military personnel were stationed since 24 February 2022. In particular, a similar tactic of shelling government institutions located near to residential areas has become a common war tactic for the Russian Federation, allowing the Russian Armed Forces to sow panic in frontline cities and endanger Ukraine's political leadership<sup>63</sup>.

Taking into account the above facts, it is possible to conclude that the perpetrator deliberately chose Mykolaiv Regional State Administration as the target of the attack.

The action took place in the context of an international armed conflict.

A war crime in the form of an attack on a civilian object can be committed only in the context of an international armed conflict. The international armed conflict on the territory of Ukraine in relation to Crimea began on 26 February 2014 at the latest. According to the Report of the Prosecutor of the International Criminal Court, the international armed conflict eastern Ukraine began on 14 July 2014. In addition, there is no doubt that the open, full-scale invasion of the Russian Armed Forces of the territory of Ukraine on 24 February 2022 constitutes an international armed conflict. This open and full-scale invasion of Ukraine by the Russian Federation has been carried out in coordination with the forces of the so-called "Donetsk People's Republic" (DNR) and "Luhansk People's Republic" (LNR) which it controls. However, shelling against the Mykolaiv section of the front and from the Black Sea area is carried out solely by the Armed Forces of the Russian Federation, excluding the need to prove Russia's control over the "DNR" or "LNR" in this particular case. The fact of the participation of the Armed Forces of the Russian Federation in the theatre of the armed conflict in which the shelling took place is a sufficient basis to confirm the existence of an international armed conflict and the connection of the shelling to it.

All of the above provides reasonable grounds for asserting that the shelling of Mykolaiv Regional State Administration on 29 March 2022 was a war crime.

If there is any doubt regarding the civilian status of the Mykolaiv Regional State Administration, an attack on it regardless seriously violates IHL and remains a war crime in the form of an indiscriminate attack when it is known that such an attack will cause excessive loss of life, injury to civilians, or damage to civilian objects.

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<sup>63</sup> <https://www.city.kharkov.ua/uk/news/u-kharkivskiy-oblasti-stalosya-devyat-pozhezh-cherez-obstrili-51280.html>; Suspilne News, "Shelling of the Kharkiv Regional State Administration: the number of victims has increased to 24", 23 March 2022, available at: <https://suspilne.media/220768-obstril-harkivskoi-oda-kilkist-zertv-zroslo-do-24/>; "The Kharkiv Court of Appeal will resume work in Valky from August 8", 26 July 2022, available at: <https://suspilne.media/264517-harkivskij-apelacijnij-sud-vidnovit-robotu-u-valkah-z-8-serpna/>

Such an alternative qualification requires the presence of the following elements of the crime:

- a. The perpetrator committed an attack;
- b. The attack was of such a nature that it caused the accidental death or maiming of civilians or damage to civilian objects and such death, maiming, or damage was of a nature clearly disproportionate to the expected specific and immediate general military advantage;
- c. The perpetrator knew that the attack would cause accidental death or maiming of civilians or damage to civilian objects and that such death, maiming, or damage was of a nature clearly disproportionate to the expected specific and immediate overall military advantage.
- d. The action took place in the context of an international armed conflict or was related to it.
- e. The executor was aware of the actual circumstances that indicated the existence of an armed conflict.

The first and final two elements have already been covered in the preceding section. The second and third, however, require a separate analysis.

First of all, it is worth noting that the Elements of Crimes (added to the Rome Statute) indicate that the expression "concrete and immediate military advantage" means: "the military advantage envisaged by the perpetrator at a specific moment in time. Such an advantage may or may not be temporally or geographically related to the target of the attack".

As already noted above, the Mykolaiv Regional State Administration served exclusively for answering the needs of the civilian population in the sphere of governance and, according to its powers, is not a state institution that directly affects the course of hostilities. In addition, the Commercial Court is located on the upper floors of the building, a judicial that by its very nature has nothing to do with military operations.

The concept of an immediate military advantage requires that the obtained results of the attack be substantial and relatively close to the time of the attack. The advantage received cannot be only potential and indirect. However, meetings of the higher military command of the Armed Forces of Ukraine were not held in the Mykolaiv Regional State Administration either on the day of the shelling or prior to it. No combatants were stationed inside or near to the building, no weapons or ammunition were stored there, and no military equipment was placed there. Thus, the shelling itself could not have borne a visible and direct impact on the course of hostilities or the combat capability of the Armed Forces.

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<sup>64</sup> Otto Triffterer and Kai Ambos (eds), *The Rome Statute of the International Criminal Court: A Commentary*, 3rd edn, p. 377

<sup>65</sup> *Ibid*

The attack was of such a nature as to cause the accidental death or maiming of civilians or damage to civilian objects and such death, maiming, or damage was clearly of a nature disproportionate to the expected specific and immediate overall military advantage. As mentioned above, 37 people died as a result of the attack, the majority of them civilians, specifically employees of the Mykolaiv Regional State Administration and the Commercial Court. Among the dead were also several representatives of the Territorial Defence and military personnel who were on the territory of the building for the purpose of its enhanced protection in the conditions of martial law. However, taking into account the ratio of civilian deaths, the destruction of a building that served the needs of the civilian population, and the killing of several representatives of special groups meant to maintain law and order, the damage caused is clearly disproportionate to any indistinct, indirect and, in any case, non-essential military advantage that the Russian Federation might potentially have gained as a result of the attack.

The perpetrator knew that the attack would cause accidental death or maiming of civilians or damage to civilian objects and that such death, maiming, or damage was of a nature clearly disproportionate to the expected specific and immediate overall military advantage. Although the weapon used by the Russian Armed Forces for the attack on the Mykolaiv Regional State Administration was highly accurate and strikes its target with minimal deviation, the technical characteristics of the chosen type of missile undoubtedly provide for high lethality and a wide radius of damage.

In addition, the shelling was carried out at 8:35 am, after the working day in government institutions had begun at 8:00 am - information that can be found readily via internet search engines. Moreover, an attack on a government institution assumes the presence not only of government employees, but also civilians who make use of the services they provide. In this case, a high-precision strike on the Mykolaiv Regional State Administration, where the Commercial Court is also located, after the beginning of the working day clearly indicates that the perpetrator anticipated that civilian casualties would be such that they would clearly exceed any expected military superiority.

All of the above allows us to state that the attack on the Mykolaiv Regional State Administration, even under the assumption that the administration itself could possibly have been considered a military target, was in any case indiscriminate and did not comply with the principle of proportionality. According to this scenario, such an attack should be considered a war crime under both Ukrainian criminal law and the Rome Statute.

# APPENDIX 1.

## THE LIST OF COMMANDS OF OTHER MISSILE-CARRYING VESSELS OF THE BLACK SEA FLEET OF THE RUSSIAN FEDERATION DEPLOYED IN THE BLACK SEA.

### 1. Corvette the Grayvoron

Command: Captain of the 3<sup>rd</sup> Rank Kozakov Hlib (Kozakov Gleb).<sup>66</sup>



### 2. Submarine the Rostov-on-Don

Command: Captain of the 3<sup>rd</sup> Rank Oleksandr Aleksandrov (Aleksandr Aleksandrov).

### 3. Submarine the Stary Oskol

Command: Captain-Lieutenant Oleksandr Dudukin (Aleksandr Dudukin).<sup>67</sup>



<sup>66</sup> The Main Directorate of Intelligence of the Ministry of Defence of Ukraine, "List of war criminals of the Russian Navy, who participate in the murders of civilians of Ukraine and the launching of missile attacks on Ukrainian cities", available at: <https://gur.gov.ua/content/spysok-viiskovykh-zlochyntsyvmf-rosii-iaki-berut-uchast-u-vbyvstvakh-myrynykh-hromadian-ukrainy-ta-zdiisnenni-raketnykh-obstriliv-ukrainskykh-mist.html#:~:text=%D0%9F%D0%BE%D0%B4%D0%BB%D0%BE%D0%B4%D0%BA%D0%B0%20%C2%AB-,%D0%92%D0%B5%D0%BB%D0%B8%D0%BA%D0%B8%D0%B9%20%D0%9D%D0%BE%D0%B2%D0%B3%D0%BE%D1%80%D0%BE%D0%B4,-%C2%BB,https://www.belpressa.ru/35564.html>

<sup>67</sup> BEZFORMATA, "Starooskol citizens did not get into the crew of the 'Stary Oskol' submarine", 13 September 2021, available at: <https://stariyoskol.bezformata.com/listnews/ekipazh-podlodki-stariy-oskol/97486612/>

## Submarine the Velikiy Novgorod

Command: Captain of the 2<sup>nd</sup> Rank  
Mykhaylov Serhiy (Mykhaylov Serhiy)<sup>68,69</sup>



## 5. Submarine the Kolpino

Command: Captain of the 2<sup>nd</sup> Rank  
Serhii Nerusin (Sergei Nerusin)<sup>70</sup>.

<sup>68</sup> The Main Directorate of Intelligence of the Ministry of Defence of Ukraine, "List of war criminals of the Russian Navy, who participate in the murders of civilians of Ukraine and the launching of missile attacks on Ukrainian cities", available at: <https://gur.gov.ua/content/spysok-viiskovykh-zlochyn-tziv-vmf-rosii-iaki-berut-uchast-u-vbyvstvakh-myrnykh-hromadian-ukrainy-ta-zdiisnenni-raketnykh-obstriliv-ukrainskykh-mist.html#:~:text=%D0%9F%D0%BE%D0%B4%D0%BB%D0%BE%D0%B4%D0%BA%D0%B0%20%C2%AB-,%D0%92%D0%B5%D0%BB%D0%B8%D0%BA%D0%B8%D0%B9%20%D0%9D%D0%BE%D0%B2%D0%B3%D0%BE%D1%80%D0%BE%D0%B4,-%C2%BB>, <https://www.belpressa.ru/35564.html>

<sup>69</sup> Vesti, "On Navy Day, the Novgorod delegation visited a submarine named after our city", 26 July 2021, available at: <https://vesti53.com/projects/vesti-velikij-novgorod/7646-v-den-vmf-novgorodskya-delegatsiya-pobyvala-na-podvodnoj-lodke-nosyashchej-imya-nashego-goroda.html>

<sup>70</sup> Zvezda weekly, "Combat Service of 'Chornaya dyra'", 13 December 2021, available at: <https://zvezdaweb.ru/news/2021121155-MqLv8.html>



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