

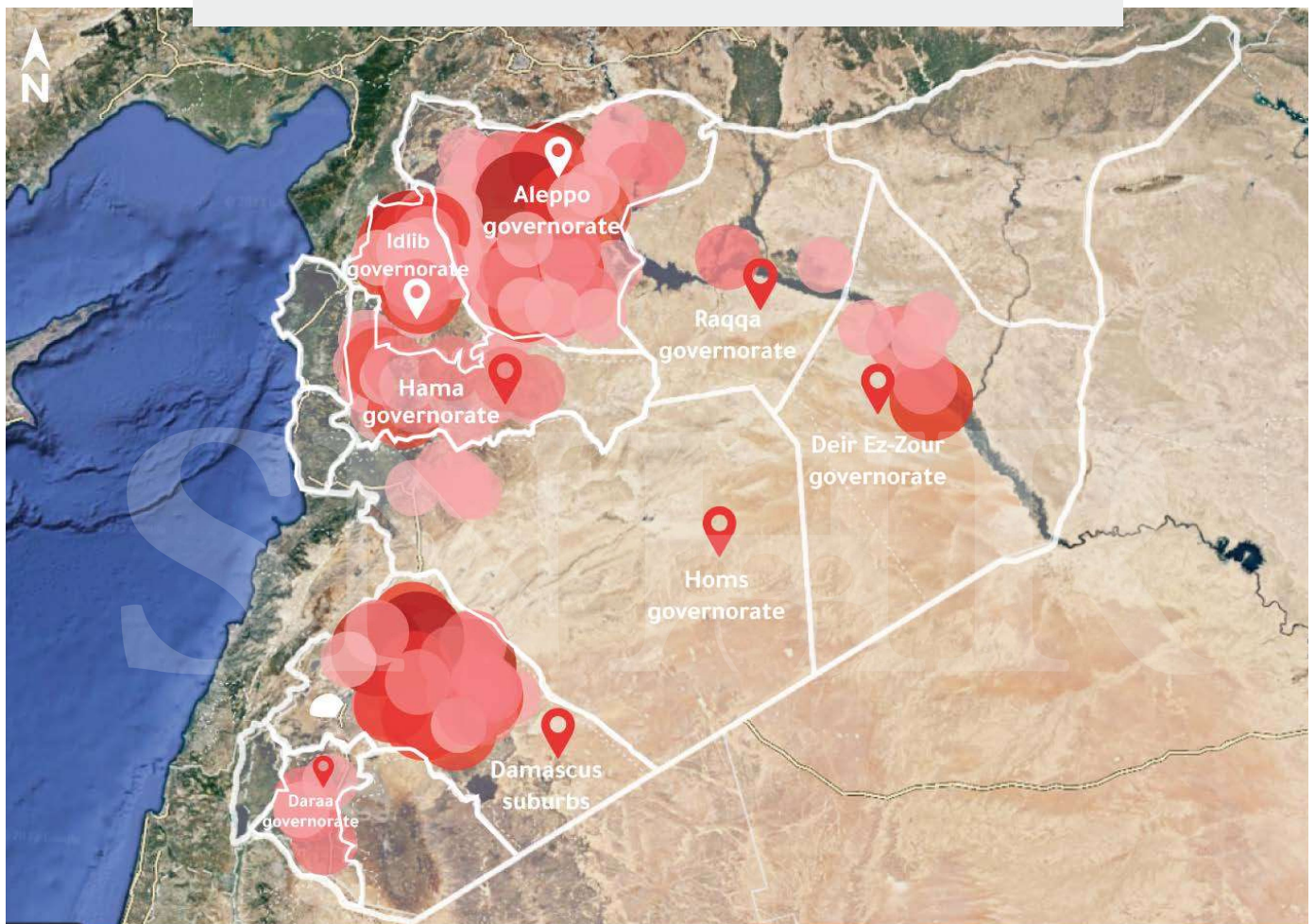
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Cluster Munitions Remnants

are an Open-Ended Threat to the Lives
of Syria's Future Generations

A total of **1,435** Syrian citizens, including **518** children, killed by cluster munitions and their remnants used by the Syrian regime and Russia



Map shows locations where cluster munition remnants are spread as a result of the Syrian-Russian alliance attacks in Syria from July 2012 to January 2023

Munition Spread Density Index
Highest Lowest

Monday 30 January 2023

The Syrian Network for Human Rights (SNHR), founded in June 2011, is a non-governmental, independent group that is considered a primary source for the OHCHR on all death toll-related analyses in Syria.

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I. Cluster Munitions Remnants are Scattered Across Many Syrian Governorates

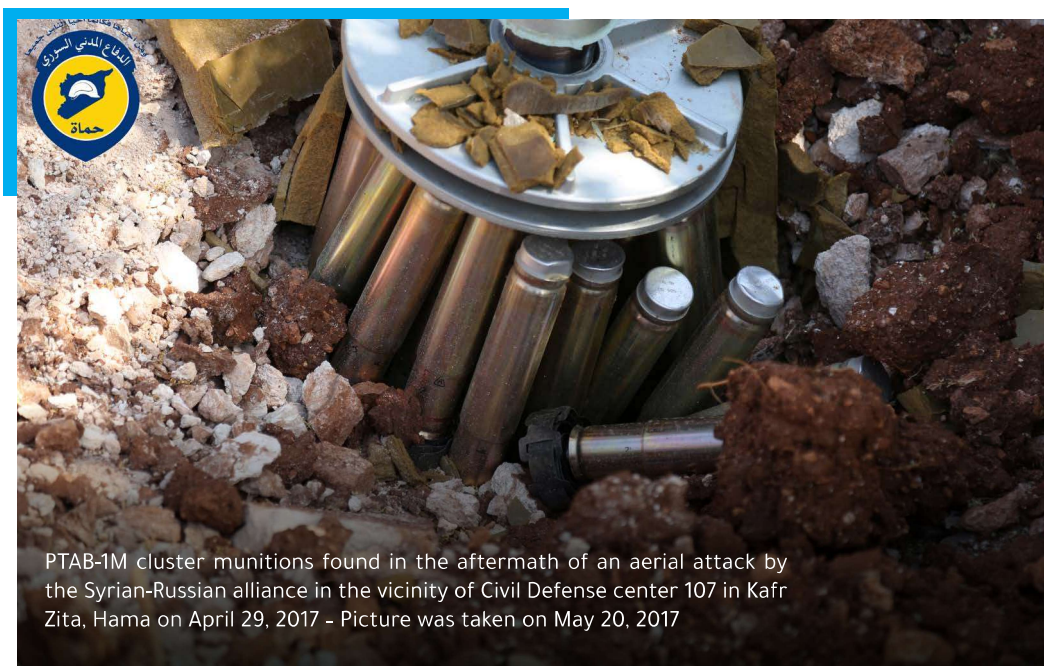
For the past 11 years, vast areas of Syria have been subjected to repeated and heavy bombardment using cluster munitions, at first solely by the Syrian regime and then also by Russian forces following the launch of Russia's military intervention. Throughout this time, our team on the ground has closely monitored the areas targeted in cluster munitions attacks and the resultant human and material losses. Indeed, cluster munitions remnants and submunitions are scattered across Syria, posing a serious threat to future generations of the Syrian people.

The investigations carried out by the Syrian Network for Human Rights (SNHR) have shown that hundreds of attacks were directed at civilian targets, including agricultural land and areas populated by civilian residents, killing, and injuring many Syrian citizens. In fact, the forces of the Syrian-Russian alliance have perpetrated these attacks in a calculated way for a number of reasons such as:

- To spread terror and fear in areas controlled by the other parties to the conflict.
- To drive residents to flee, since the dispersion of cluster munitions throughout any residential neighborhoods and across agricultural land renders them uninhabitable and unusable.
- The long-term compounded effects of cluster munitions are best demonstrated by the fears among residents of the areas targeted about their children touching or approaching these lethal live cluster submunitions. This state of constant anxiety naturally severely hinders the daily lives of children and parents, with many everyday childhood activities such as going to school or playing in parks and open areas no longer possible.

Through carrying out continuous monitoring for almost 12 years, we've identified certain patterns that have emerged in the Syrian-Russian alliance's use of cluster munitions over this time, most notably:

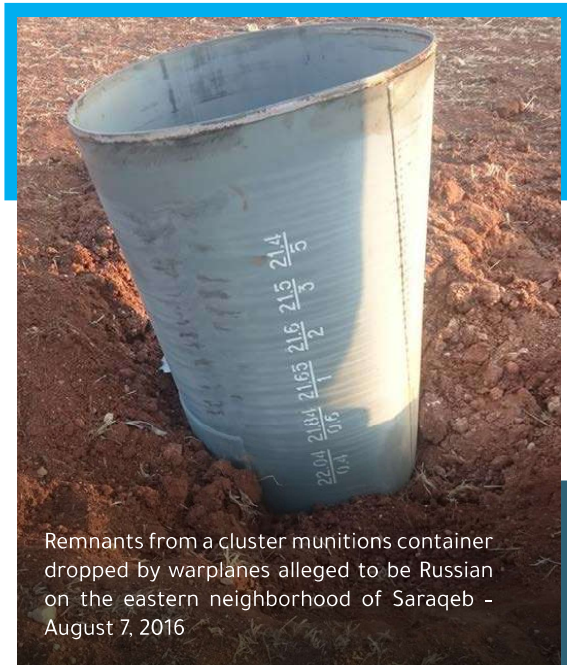
- Targeting heavily populated areas or vital civilian facilities, such as markets, medical facilities, civil defense members, etc.



- Targeting IDP camps or irregular IDP gathering places. In this context, we have documented no fewer than six attacks on IDPs camps.¹



- Escalation in cluster munitions attacks targeting specific areas for retaliatory reasons, with one case of this type being the targeting of Saraqeb city in August 2016,² after Russian forces revealed that armed opposition factions had shot down an Mi-8 helicopter in eastern Saraqeb. In that attack, cluster munitions were used to target residential neighborhoods housing civilian facilities for three consecutive days.
- Intensified cluster munitions attacks as part of tactics involving military escalation which resulted in forced displacement and change in territories.



To add to the above, the Russian-Syrian alliance forces use this type of weapon as part of operations in service of military progression.

1. Syrian Network for Human Rights (SNHR). (2019). The Syrian Regime Is Most Likely Responsible for the Bombing of an IDP Camp in Idlib and the Killing of 11 Syrian Children. Retrieved January 29, 2023, from <https://snhr.org/blog/2019/12/13/54551/>

Cluster munitions are designed with hollow interiors to allow them to hold submunitions. On exploding in the air, they eject a large number of these small bomblets or submunitions, which are dispersed over a wide area with modern models covering an area of approximately 2500 m². Cluster munitions can be launched from ground platforms or artillery systems, or dropped by an air force. The quantity of submunitions contained in each cluster bomb can be as low as in the dozens or as high as 600, with most being designed to explode on impact. Cluster munitions are random by nature in that they are not specifically directed, and as such they do not take into account the principles of distinction and proportionality,³ with their precision being affected by the weather and other environmental factors. In most cases, the munitions hit areas that are distant from the military points supposedly being targeted, particularly dangerous because of their long-term impact that last long after long after the wars or conflicts in which they were used have ended. Approximately 10 to 40 percent of the cluster submunitions or bomblets from each bomb do not explode on the initial impact, in addition to the victims killed by the explosion of cluster munitions at the time of the attack.

The military advantage found in cluster munitions lies in the excessive and spatially extensive damages they yield. Although they do not cause such extensive and immense destruction as barrel bombs, the indiscriminate weapon innovated by the Syrian regime, or as thermobaric missiles, they can inflict massive damage on property and kill as many people as possible in a certain area, especially children.

The Convention on Cluster Munitions (CCM)⁴ entered into force in August 2010. At the time of this report's release, a total of 123 countries have signed the Convention. Following the introduction of the CCM, the international community celebrated the destruction of 99 percent of all reported cluster munitions, as the use of this type of weapon fell dramatically across the globe. The UN General Assembly has condemned the use of cluster munitions in Syria in numerous resolutions with a vast majority.⁵

2. Syrian Network for Human Rights (SNHR). (2016). Russian and Government Forces Retaliate Violently against Saraqeb City. Retrieved January 29, 2023, from <https://snhr.org/blog/2016/08/16/25737/>

3. "The parties to the conflict must at all times distinguish between civilians and combatants. Attacks may only be directed against combatants. Attacks must not be directed against civilians."

International Committee of the Red Cross, [Rule 1](#) of the customary international humanitarian law.

"Launching an attack which may be expected to cause incidental loss of civilian life, injury to civilians, damage to civilian objects, or a combination thereof, which would be excessive in relation to the concrete and direct military advantage anticipated, is prohibited."

International Committee of the Red Cross, [Rule 14](#) of the customary international humanitarian law.

4. For the full text of the Convention on Cluster Muniton, see: https://www.clusterconvention.org/files/convention_text/Convention-ENG.pdf

5. United Nations General Assembly, Resolution 67/262, adopted on May 15, 2013. https://drive.google.com/open?id=10-VQG8VMV6AIUc_jXfxdfij0SbdTRPUU

United Nations General Assembly, Resolution 68/182, adopted on December 18, 2013. https://drive.google.com/open?id=1JMdNABgx47LDvKL_vXdctMunhwZuvGPu

United Nations General Assembly, Resolution 69/189, adopted on December 18, 2014. https://drive.google.com/open?id=1w37c9J5Brw-EsIMjeMO6g3OM_exTHzYZ

United Nations General Assembly, Resolution 70/234, adopted on December 23, 2015. <https://drive.google.com/open?id=1Y3agp5Vrmu1y8wASG29Vq29giDGeeW1Q>

United Nations General Assembly, Resolution 71/208, adopted on December 19, 2016. <https://drive.google.com/open?id=1cPmihR2gRwTm2fUmBh1CokXY2xegk0S9>

According to the [13th Annual Cluster Munitions Monitor Report](#) released on August 25, 2022 Syria has been the world's worst country in terms of deaths resulting from cluster munitions use every year since 2012. By analyzing the data provided by that report, we, at SNHR, have noted that Syria has accounted for over 50 percent of the worldwide death toll in the overwhelming majority of the years since then. We released a statement previously outlining the most noteworthy findings in that report.⁶

It should also be noted that SNHR is a member of [the International Campaign to Ban Landmines - Cluster Munition Coalition \(ICBL-CMC\)](#). SNHR regularly provides the campaign with data documented by our team on the ground in Syria, and from our database. On this note, we reaffirm our commitment, as part of this international campaign, to realize a world free of cluster munitions use.

Fadel Abdul Ghany, Executive Director of SNHR, says:

“Every cluster munitions attack means that dozens or maybe hundreds of remnants, as high a proportion as 40 percent of the original quantity of submunitions deployed, did not explode, leaving them as lethal miniature landmines that can claim the lives of the residents of the area targeted. One of the reasons that compelled us to release this comprehensive report is the fact we have been regularly documenting new deaths and injuries from cluster munitions remnants. This also impelled us to design maps that illustrate the locations where cluster munitions were dispersed as a way to warn the residents when moving or cultivating land in those areas, and for the controlling forces to mark those areas and put them out of bounds, while making a serious effort to remove these lethal weapons.”

6. Syrian Network for Human Rights (SNHR). (2022). Cluster Munitions Monitor Thirteenth Annual Report: Quarter of All of the Victims of Cluster Munitions Globally are in Syria, Which Remains the Worst in the World. Retrieved January 29, 2023, from <https://snhr.org/?p=58441>

II. Methodology

Since the first documented use of cluster munitions in Syria, in July 2012, SNHR has been building a database specifically dedicated to the documentation of cluster munition attacks, [feeling that this type of attack warrants special attention](#). SNHR's teams work tirelessly to ensure, insofar as is possible, that the type of munitions used in each attack, as well as the containers (both rockets and shells) carrying the cluster munitions, and the quantity of submunitions contained in each, are correctly identified. Carrying out this exacting work also helps in subsequently estimating the areas that have been contaminated by unexploded cluster bomb submunitions or bomblets. We also focus on identifying the launching platforms used or the airbases from which the warplanes that carried out the airborne attacks took off. According to the data we've collected through monitoring to date, the Syrian regime and Russian forces are the only parties that have used cluster munitions in Syria. We have recorded no incidents of any cluster munitions use by the Democratic Union Party (PYD), a branch of the Kurdistan Workers' Party (PKK), or by extremist Islamic groups, armed opposition factions, or international coalition forces.

These attacks have been carried out using rockets or shells carrying dozens/hundreds of cluster submunitions that were dropped by warplanes or launched via rocket launchers or from platforms believed to be based in the Mediterranean Sea. We have tried, insofar as possible in the circumstances, to distinguish between the attacks by the Russian regime and the Syrian regime; in assessing this, we've relied on reviewing planes' movement at the time of the attack and speaking with central signal operators, as well as on the accounts provided by eyewitnesses and survivors. Notably, we have identified the deployment of new types of munitions after the Russian military intervention started in September 2015 which were not used by the Syrian regime before that.

While we at SNHR are keen to accurately attribute culpability for incidents to the responsible parties, we exclude two types of attacks from the process of assigning responsibility, namely:

- [Anti-personnel landmines](#) and anti-tank landmines (including remnants of cluster munitions)
- [Remote bombings](#), including suicide attacks and forced suicide attacks

In this context, we face immense and specific challenges especially in the process of assigning responsibility in incidents involving deaths or injuries caused by cluster submunitions that did not explode at the time of the initial attack. In fact, approximately 10 to 40 percent of cluster submunitions do not explode at the time of the attack, but might subsequently do so at any moment once touched. As such, they effectively turn into landmines, adding further challenges to those we outlined in our general methodology, most notably:

- We have recorded the use of many cluster munitions by both the Syrian regime and Russian forces.
- Many areas in Syria have been targeted in more than one attack involving the use of cluster munitions. In fact, one area can be the target of dozens of attacks of this type. In such cases, it is difficult to ascertain which munition originates from which attack.
- One area can be targeted in an attack by the Syrian regime, which leaves cluster submunitions scattered there, with the same area later being targeted in an attack by Russian forces, also leaving cluster submunitions.

In such cases when the attack in question result in deaths or injuries from the explosion of the of cluster submunitions, we assign responsibility to the Syrian-Russian alliance.

This report attempts to shed light on the use of cluster munitions in Syria and the resultant casualties. The report pinpoints the locations of many of the areas that saw the use of cluster munitions in the hopes that this can serve as a warning for local residents. Furthermore, the report provides details of the death toll from those attacks, focusing on civilian deaths; including children, women, medical personnel, media workers, and Civil Defense (White Helmets) members. The report also highlights some prominent examples of attacks involving the use of cluster munitions which resulted in casualties. These examples are merely a sample that reflect some of what we have documented on our databases.

It must be noted that not every attack involving the use of cluster munitions results in deaths. However, there are now, at the very least, hundreds of cluster submunitions scattered across Syria that have effectively turned into live landmines which can and do regularly kill or main civilians, even years after the initial attack in which they were deployed. In this context, the report also touches on the subject of the victims killed by the explosion of cluster submunitions.

The report draws primarily upon SNHR's database of extrajudicial killings, as well as on our database for cluster munitions attacks. The report incorporates a hybrid methodology grounded in a statistical methodology which we have relied upon to create graphs illustrating the running count of the toll of victims killed in attacks involving the use of cluster munitions and their distribution by year and also by governorate, before analyzing the resulting data by a process of statistical analysis.

However, in compiling the report, we have also adopted a chronological methodology in examining the context of cluster munitions use in Syria, since limiting the method used to analytical methodology alone might be insufficient to properly reflect the magnitude of and threat posed by these violation if this evidence was presented in isolation from the context of the incidents themselves.

Lastly, SNHR used an analytical descriptive methodology in creating the maps included in this report showing the areas where cluster submunitions were scattered, which are consequently still contaminated by these bomblets that pose a serious threat to civilians' lives.

SNHR's database offers the ability to sort victims according to the governorate where they died, as well as by their governorate of origin. In this report, however, we distribute the death toll according to the governorate where each victim's death took place, rather than by their governorate of origin, in order to quantify the loss of lives caused by cluster munitions in every governorate.

For the report, the field researchers who work with SNHR have obtained first-hand accounts from survivors, victims' family members, relief workers, media activists, Civil Defense members who worked on removing the cluster bomb remnants and submunitions, and central signal operators. None of the accounts included in the report, numbering seven in all, are taken from any second-hand sources. We informed all of the individuals interviewed of the purpose of the report beforehand, and they gave us permission to use the information they revealed in the service of the report's objective and in our documentation efforts, without us offering or giving them any incentives. We also tried, as always, to spare survivors and eyewitnesses the agony of having to remember the violation as much as possible. Such procedures are part of our rigorous system of internal protocols, which we have maintained for

years. We always strive to improve our protocols, so as to better take into account the victims' mental and emotional anguish.

SNHR has also analyzed relevant photos and videos published online, as well as others which we receive from local activists via e-mail, Skype, or on social media. The materials published by activists show the sites of the attack, the bodies of the victims, the injured, the massive destruction caused by the attack, and the submunitions that were found at the attack sites.

We retain copies of all the videos and pictures included in this report in a confidential database, as well as multiple backup copies on hard drives. We do not claim, however, to have documented all cluster munition attacks in light of the severe proscriptions and persecution imposed by Syrian regime forces and other armed groups. For more details, please see the [methodology](#) adopted by SNHR.

Our investigations confirm that the targeted areas are civilian areas with no military presence or weapons arsenals for armed opposition factions or extremist Islamic groups present during or even before the attack. Additionally, the attacking forces did not send out any alert prior to the attack as required by international humanitarian law.

This report represents only the bare minimum of information regarding the actual severity and magnitude of the violations documented, and doesn't include any analysis of the profound social, economic, and psychological ramifications of these events

III. The Use of Cluster Munitions, which Began in 2012, Escalated Following the Russian Military Intervention

According to SNHR's database on cluster munitions attack, the first documented use of this type of weapon was on July 10, 2012, when a fixed-wing Syrian regime warplane bombed the village of Shurlin in southwestern Idlib governorate. Up to the end of that year, the attacks were concentrated on Idlib governorate, followed by Homs. We also documented cluster munitions attacks in the governorates of Hama, Deir Ez-Zour, Damascus suburbs, and Aleppo. Among the munitions we were able to identify, through analyzing photos and videos which we received, or which had been published by open sources, were Russian-made and Egyptian-made munitions.

- **In 2013**, the Syrian regime increased its use of cluster munitions. The Syrian regime's escalation saw it carrying out many indiscriminate and deliberate attacks that failed to take into account the principles of distinction and proportionality,⁷ with SNHR documenting the targeting of dozens of areas in nine governorates using cluster munitions.
- **From the beginning of 2014**, we noticed a further escalation in the use of cluster munitions by the Syrian regime. In October 2014, we released a report stressing that "the Syrian regime is the world's worst country in terms of the use of cluster munitions", with most of the attacks concentrated on Aleppo governorate which saw no fewer than 34 attacks targeting 23 locations. On Tuesday, March 18, 2014, alone, Syrian regime forces used cluster munitions against four residential neighborhoods in Aleppo city: al-Sheikh Fares, al-Sheikh Khadr, B'iedien, and Bostan al-Basha.
- **On September 30, 2015**, Russia launched its military intervention in Syria to support the Syrian regime and at its request. Consequently, we documented an unprecedented escalation in the use of cluster munitions in Syria, where two parties to the conflict were now using this weapon - the Syrian regime and its ally Russia.
- **The year 2016** saw the highest toll in terms of cluster munitions attacks which were carried out continuously by the Syrian regime and Russian forces. Around 86 percent of all these attacks targeted the governorates of Idlib and Aleppo.
- **In 2017**, there was a noticeable decrease in terms of cluster munitions attacks in comparison to 2016, and with this a fall in deaths from cluster munitions attacks. Nonetheless, we still documented multiple cluster munitions attacks by the Syrian-Russian alliance forces in the last quarter of that year, especially in the areas where the Syrian regime was trying to regain control.

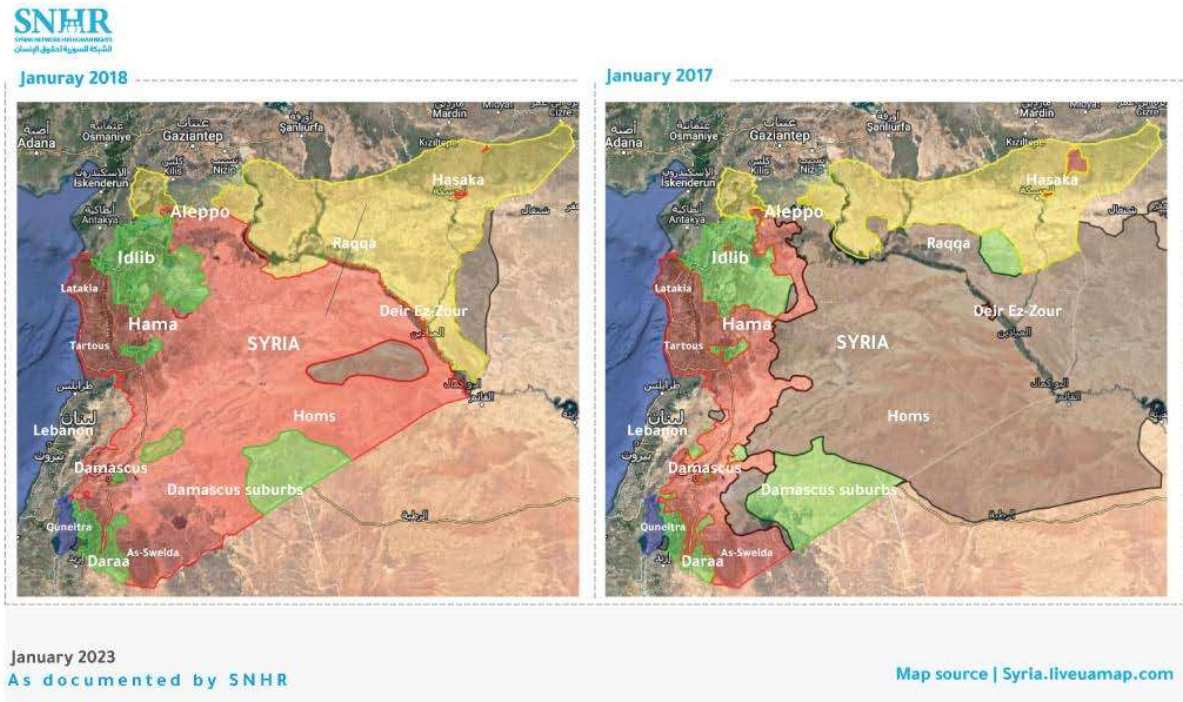
7. "The parties to the conflict must at all times distinguish between civilians and combatants. Attacks may only be directed against combatants. Attacks must not be directed against civilians."

International Committee of the Red Cross, [Rule 1](#) of the customary international humanitarian law.

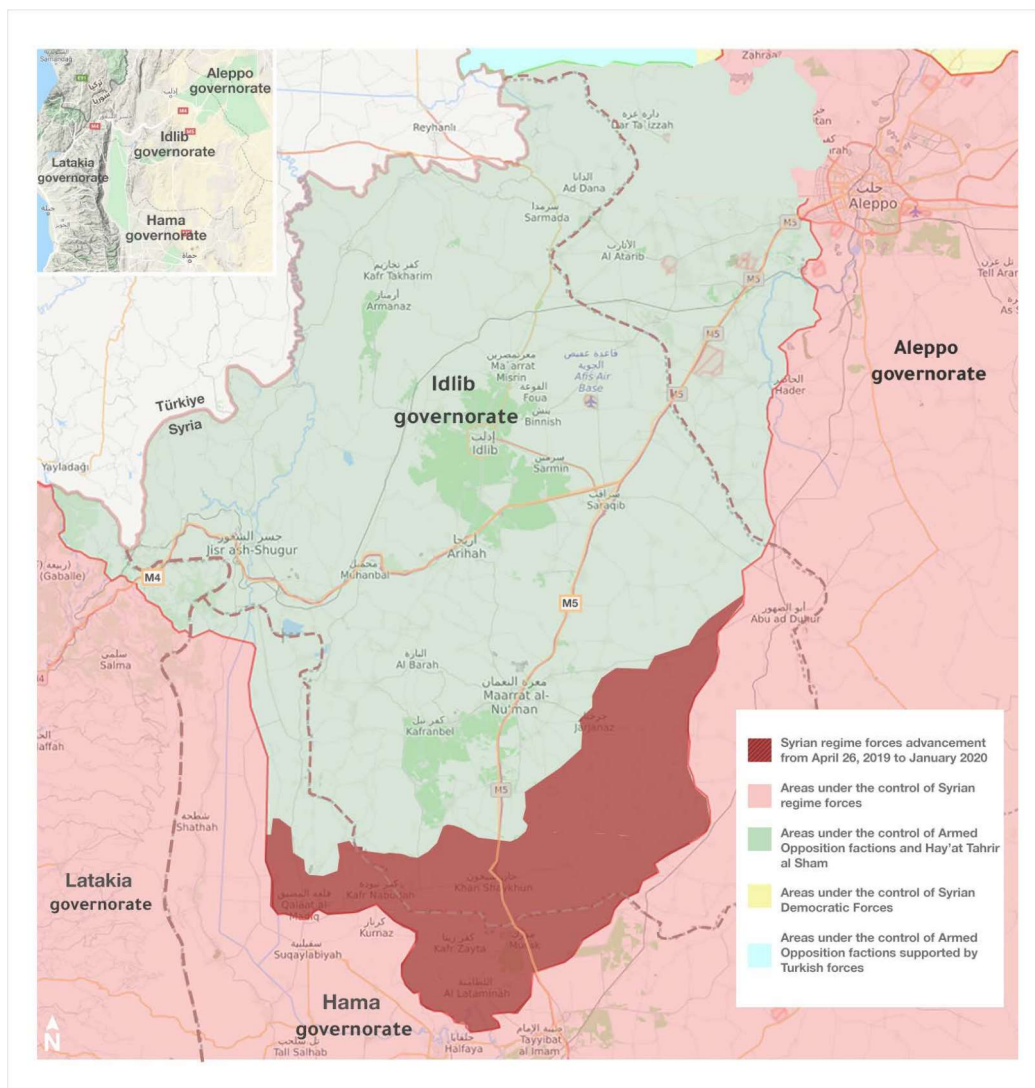
"Launching an attack which may be expected to cause incidental loss of civilian life, injury to civilians, damage to civilian objects, or a combination thereof, which would be excessive in relation to the concrete and direct military advantage anticipated, is prohibited."

International Committee of the Red Cross, [Rule 14](#) of the customary international humanitarian law.

With the start of 2018, a further decrease in the frequency of the use of cluster munitions was recorded, following the successful extensive offensives by the Syrian-Russian alliance to regain control of most areas that had been controlled by armed opposition factions in Eastern Ghouta and southern Syria. The map below compares how territories changed hands among the parties to the conflict at the beginning of 2017 and the beginning of 2018:



In Early 2019, specifically February 7, 2019, the Syrian regime carried out two attacks using cluster munitions, with the first targeting al-Tah village in the southern suburbs of Idlib, while the second targeted Talmennes village in the eastern suburbs of Idlib. In 2019, we recorded no fewer than 56 attacks involving the use of cluster munitions at the hands of the Syrian-Russian alliance, all of which targeted the Idlib region of northwestern Syria, and which were a part of a wider military escalation targeting Idlib that year, that was launched on April 26 and lasted through the year. In fact, that offensive enabled the Syrian regime to take back control of large areas of de-escalation zone 4, while displacing hundreds of thousands of residents. The map below shows the Syrian regime's advances in Idlib area, northwestern Syria, between April 26 and January 2020:



With the regime re-establishing control over wide areas of Idlib as 2020 began, we documented a significant decrease in the use of cluster munitions. Despite this, however, cluster munitions attacks have not stopped completely. The most recent attack, as documented on SNHR's database, took place on November 6, 2022; in it, a gathering of IDP camps to the west and northwest of Idlib city were targeted, killing no fewer than nine civilians, including five children and two women. Meanwhile, incidents involving the explosion of live cluster submunitions left by earlier bombardment have continued throughout Syria up to the current day.

As of January 2023, SNHR has documented no fewer than 496 attacks involving the use of cluster munitions since their first documented use in July 2012. These attacks are distributed by the attacking party as follows:

- Syrian regime forces: 251 attacks.
- Russian forces: 237 attacks.
- Russian/Syrian attacks: Eight attacks.

In total, those attacks have resulted in the deaths of 1,053 civilians, including 394 children and 219 women. We also documented that no fewer than 382 civilians, including 124 children and 31 women, were killed in the explosion of submunitions left by previous cluster munition attacks. Although it is quite difficult to accurately assess the number of injuries resulting from the explosion of cluster submunitions, SNHR estimates that around 4,410 civilians have been injured by these lethal weapons, with many of these individuals needing to have limbs amputated as a result of their injuries and still requiring artificial limbs and rehabilitation and support programs.

IV. Most Prominent Patterns of Cluster Munitions Used in Syria

Through continued monitoring and investigations, as well as analysis of the photos and videos showing cluster munitions attacks, and of remnants that did not explode, and remnants of rockets and cluster submunitions, SNHR has been able to identify dozens of munition types and their patterns. In many attacks, we have even been able to identify the types of containers used to carry cluster munitions, and in some cases we have identified the distinctive features of each munition. According to our estimates, a total of 20 munitions have been used in Syria by the Syrian-Russian alliance forces.

We noticed an increase in the frequency of the use of multiple types of cluster munitions following the launch of the Russian military intervention on September 30, 2015, with these weapons not having been used as frequently prior to that date - notably RBK-500 carrying AI-2.5RT/AO-2.5RTM submunitions, RBK-500s carrying ShOAB-0.5 submunitions, and Tochka rockets carrying 9M79s with a cluster warhead.

This section attempts to provide examples of the most prominent munitions we have been able to identify. We were able to compile a visual guide analyzing some of those examples and the munitions types, as well as cross-referencing them with photos showing remnants of containers and munitions taken from the sites of the attacks. We opted to organize this section chronologically according to the dates of the incidents involving the use of cluster munitions which we are highlighting. We selected 2016 as the year for a case study in order ensure that the report would be limited to a reasonable length and to avoid repetition.⁸

A. 2012

Saqr 'Eagle' Rocket

The Egyptian-manufactured Saqr Rocket is launched from ground platforms. We identified the 122mm model of this munition being used, with these rockets capable of carrying 72 or 98 dual-purpose - anti-personnel and anti-tank - munitions.



8. Stating that certain munitions models were deployed in a certain year does not mean that this model of munition was not used before or after that year. Our database documents nearly 500 attacks involving the use of cluster munitions. As such, each of these models has been used consistently on dozens of occasions since July 2012 and then since September 2015.

B. 2013**RBK-500s carrying ShOAB-0.5 submunitions**

The video below shows small submunitions remnants found in the town of Heesh in Idlib following an aerial attack by Syrian regime forces - March 2013

**C. 2014****9M55K rockets carrying 9N235 submunitions****D. 2015****9M55K rockets carrying 9N235**

Small 9N235 submunitions found in Kafr Nboda town, Hama in the aftermath of a cluster munitions attack launched using a rocket launcher believed to be Russian on October 7, 2015



E. 2016

According to SNHR's database on cluster munitions attacks, we documented no fewer than 186 attack involving the use of cluster munitions in 2016, which accounted for nearly 38 percent of all such attacks documented between July 2012 and January 2023. These attacks were carried out by both Syrian regime forces (12 percent) and Russian forces (88 percent), which is why we decided to use the year 2016 for a case study on the types of cluster munitions used. We have limited the scope of this study to the attacks by Russian forces, dismissing the attacks by Syrian regime forces.

Of the 164 attacks carried out by Russian forces in 2016, we were able to identify the types of shells and munition that were used in 121 attacks, as such:

RBK-500 carrying AO-RT/AO-2.5RTM submunitions: 70 attacks⁹

The AO-2.5RT/AO-2.5RTM is an oval-shaped, highly explosive, anti-personnel submunition. It consists of two halves fixed to a central metal ring and is usually silver-colored. Upon impact, the small submunition splits into two halves. It takes around 0.1-0.35 seconds to explode, after which each of the two halves becomes two separate bodies to cover a wider area.



9. Fulmer, K. (2015, October 15). Renewed use of AO-2.5RT submunitions in Syria. Armament Research Services (ARES). Retrieved January 28, 2023, from <https://bit.ly/3HigyOf>

AO-2.5 RT/RTM Submunition (n.d.). Collective Awareness to UXO. Retrieved January 30, 2023, from <https://bit.ly/3Yd6hKp>

RBK-500 carrying ShOAB-0.5:¹⁰ 38 attacks

The RBK-500 bomb carries around 565 ShOAB-0.5 submunitions, each 60mm in diameter, weighing around 417 grams, and containing approximately 304 metal balls that fragment upon impact.



10. Jenzen-Jones, N. R. (2013, April 9). Submunitions in Syria: additions and updates. The Rogue Adventurer. Retrieved January 28, 2023, from <https://bit.ly/3RfyRlv>

ShOAB-0.5 Submunition. (n.d.). Collective Awareness to UXO. Retrieved January 28, 2023, from <https://bit.ly/3XMFvbj>

RBK-500 carrying PTAB-1M:¹¹ 10 attacks

The PTAB-1M is a small, highly explosive, cylindrical anti-tank submunition, made of metal. It is usually contained in an RBK-500 bomb capable of carrying 268 small submunitions. These are dropped from the sky using warplanes such as Su-27, Su-25, Su-24, Su-17, MiG-29, MiG-27, and MiG-21.



The infographic below illustrates the PTAB-1M cluster submunitions



11. Lyamin, Y., & Jenzen-Jones, N. R. (2016, March 2). PTAB-1M submunitions documented in Syria. Armament Research Services (ARES). Retrieved January 28, 2023, from <https://bit.ly/3Y4uLW1>

PTAB-1M Submunition. (n.d.). Collective Awareness to UXO. Retrieved January 28, 2023, from <https://bit.ly/3kUnObW>

RBK-500 carrying SPBE cluster submunitions¹²: three attacks

The SPBE is an anti-tank submunition that can be carried by an RBK-500 bomb, with 15 SPBE submunitions in each RBK-500 bomb. These bombs are usually dropped by Sukhoi Su-24 warplanes. After launch, the bomb moves toward the targeted area and explodes in the sky after a pre-determined period of time to disperse the SPBE parachuted submunitions, which revolve in a calibrated way. Upon impact, they release an explosively formed penetrator (EFP), which is believed to have the ability to penetrate 70mm of rolled homogenous armor (RHA) at a 30° degree from a distance of 100m. In case the munition fails to find its target, the self-destruction function is activated upon hitting the ground. Each SPBE submunition weighs around 17.3 kilograms, with an explosive weight of 5.8 kilograms.



Cluster submunition found on the southern outskirts of Saraqeb city following an aerial attack by fixed-wing warplanes believed to be Russian - June 29, 2016



Small, unexploded SPBE submunitions found in eastern Hraitan city, Aleppo following an aerial attack by fixed-wing warplanes believed to be Russian - May 27, 2016

12. Jenzen-Jones, N. R., & Lyamin, Y. (2015, October 6). SPBE submunitions employed in Syria. Armament Research Services (ARES). Retrieved January 28, 2023, from <https://bit.ly/3WP9f6u>

SPBE Submunition. (n.d.). Collective Awareness to UXO. Retrieved January 28, 2023, from <https://bit.ly/40ey4vQ>

F. 2017**RBK-500 carrying PTAB-1M**

Those munitions were also used by Syrian regime forces.



Small PTAB-1M cluster submunitions found following an attack by fixed-wing Syrian regime forces warplanes on Dael city, Daraa - June 26, 2017

O-10 cluster submunitions

We recorded the use of these submunitions by Syrian regime forces. They are carried by shells/rockets fired from ground platforms.



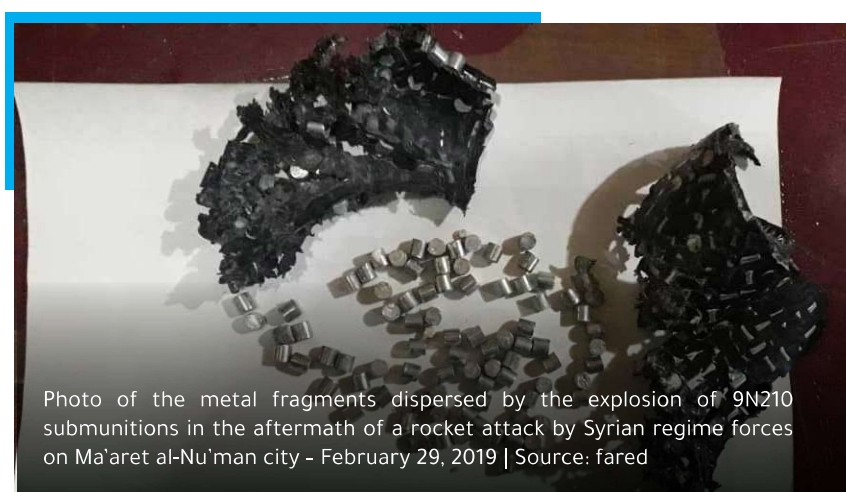
Remnants from O-10 cluster submunitions found in Saqba, Damascus suburbs following a ground-based attack by a Syrian regime rocket launcher - November 15, 2017

G. 2019

BM-30 SMERCH and BM-27 URGAN rockets carrying 9N235 - 9N210 submunitions

Since February 2019, the Syrian regime has heavily used cluster BM-30 SMERCH and BM-27 URGAN rockets. In the overwhelming majority of cases the following models are used: 9M27K1, 9M27K, and 9M55K which are fired from fixed platforms. Those rockets can carry two types of submunitions - 9N210 and 9N235 - both of which have a high fragmentation capability. [According to a report by Human Rights Watch](#) on the use of these kind of rockets, we were able to narrow down the cluster submunitions and the metal fragments of shrapnel dispersed from them:

Rocket	
9M27K	Carrying 30 9N210 submunitions that can splinter into 370 metal fragments
9M27K1	Carrying 30 9N235 submunitions that can splinter into 95 metal fragments
9M55K	Carrying 30 9N235 submunitions that can splinter into 95 metal fragments



The infographic below illustrates the 9N235 cluster submunitions carried by the 9M55K model, found in Saraqeb city, Idlib following a ground-based attack by Syrian regime rocket launchers in December 2019



A 9N235 submunition that was found in Saraqeb city in the aftermath of an attack by Syrian regime forces on December 31, 2019.



RBK250-275 carrying AO-1 SCh cluster submunitions



AO-1 SCh cluster submunitions found in Ma'aret al-Nu'man city, Idlib following a Syrian regime aerial attack on the city - August 14, 2019

Tochka 9M79 rockets with a 9N123K warhead carrying 9N24 cluster submunitions

The 9M79 - Tochka are Russian-made ballistic rockets with internal navigation systems (INS), by whereby each rocket is equipped with a computer that maintains the missile's trajectory in order to enable it to hit the desired target as accurately as possible with an error margin of around 150 meters. This rocket is known for its method of operation, where it explodes about 15-20 above the target, with the submunitions covering an area of 500 meters. Those munitions are launched from a 9P129 vehicle. The 9M79 - Tochka rockets can be equipped with cluster, chemical, or nuclear warheads.

Numerous expert sources have indicated that [the Syrian regime possesses a stockpile of those rockets, especially those with a range of 70 and 120 kilometers](#). In February 2017, [Fox News](#) reported that Russia has supplied the Syrian regime with a large batch of Tochka rockets - about 50 rockets with a range of 120 kilometers.

As SNHR's database confirms, we documented no fewer than 12 attacks by Syrian regime forces involving the use of Tochka rockets. However, we could not obtain enough data to ascertain the types of warheads used on those rockets. In any case, we affirmed that at least three of them carried cluster munitions.

The infographic below shows a Tochka - 9M79 rocket equipped with a 9N123K warhead and carrying 9N24 cluster submunitions which was found following an attack targeting the Qah IDP Camp in Idlib - November 20, 2019



V. Approximate Maps of Where Cluster Munitions Remnants are Scattered in a Number of Syrian Governorates

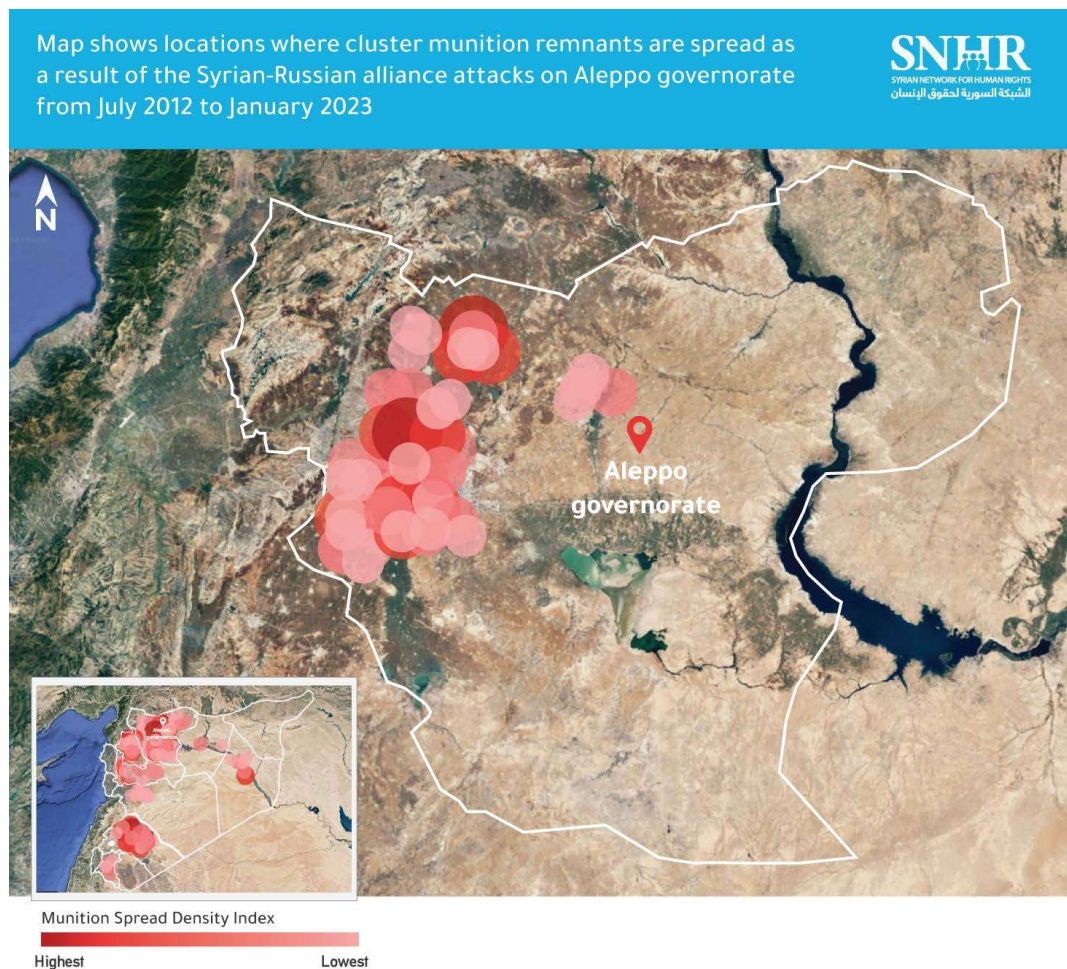
Using data from SNHR's database on the use of cluster munitions which includes information on the sites of the attack and the resultant casualties, as well as the victims' data, including information on the victims killed or injured in attacks involving the use of cluster munitions or by the explosions of remnants from those attacks, we have designed a number of maps of some Syrian governorates showing the locations which we suspect are contaminated with remnants and submunitions left from cluster munitions attacks. It should be noted that those areas marked on the maps reflect only the cluster munitions attacks we have been able to document and the resulting deaths from the explosion of submunitions. As such, they reflect the bare minimum of the scope of the dispersion of those submunitions. We have faced various challenges in creating those maps which hamper our ability to estimate the numbers of submunitions remaining in the areas marked on the maps. Those challenges include:

- Dozens of cluster munitions have been used in Syria. Each type and model has a different scope of dispersion, power, and each submunition contains a different number of fragmenting contents released on explosion
- When the container carrying the submunition explodes, it is not possible to ascertain the number of cluster submunitions that explode immediately. As such, there is no way to exactly determine how many live submunitions remain undetected, turning them into landmines that can explode when anyone touches or approaches them.
- A certain area can be targeted in more than one attack. Some neighborhoods have been targeted in 10 separate attacks involving cluster munitions, while others were targeted in two. The number of attacks, and of rockets/shells used in each attack, as well as the type of cluster submunitions from each attack, their quantity, the percentage of those cluster submunitions that exploded, and the number remaining are all factors that affect the accumulation and distribution of cluster submunition in each area.

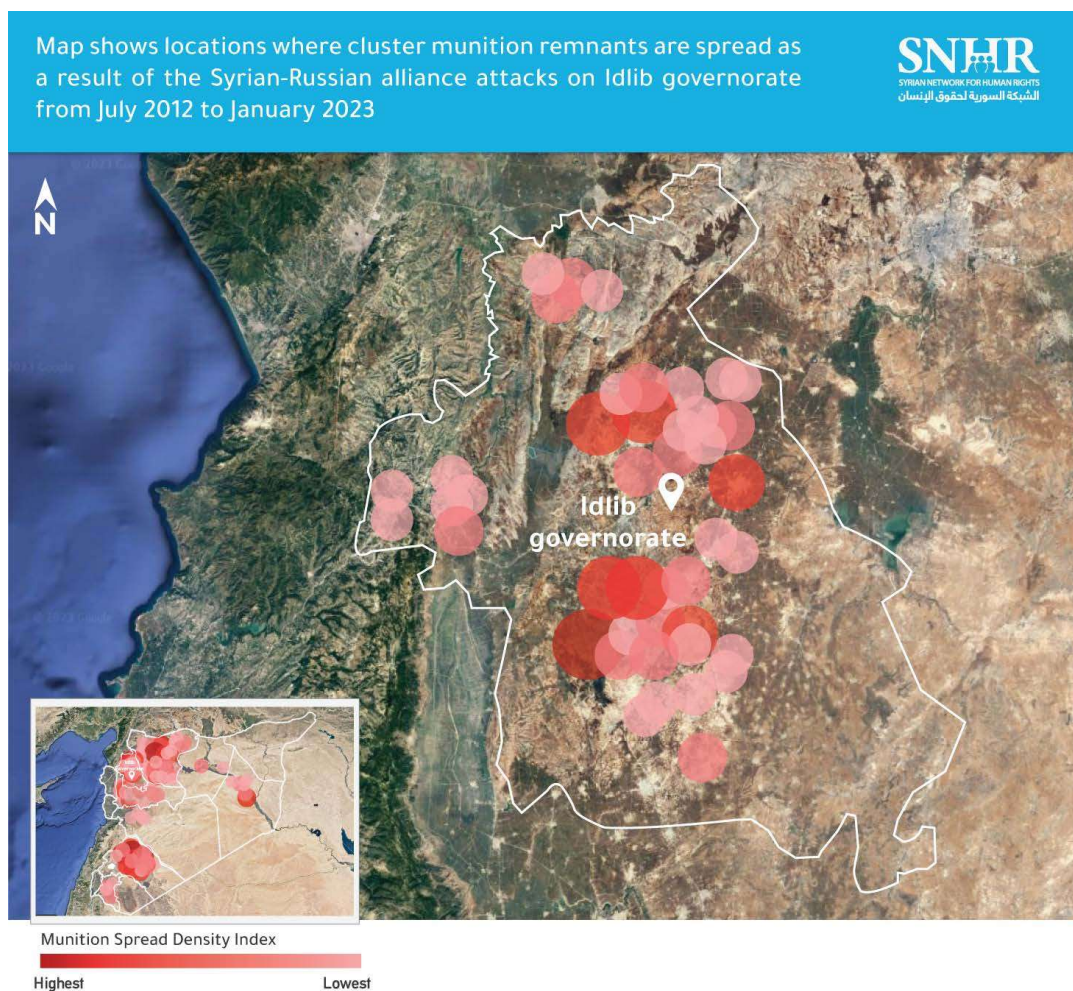
We have tried, insofar as possible, to design these maps in a way that shows the areas that saw a high frequency of cluster munitions attacks and a high death toll.

Below are six maps:

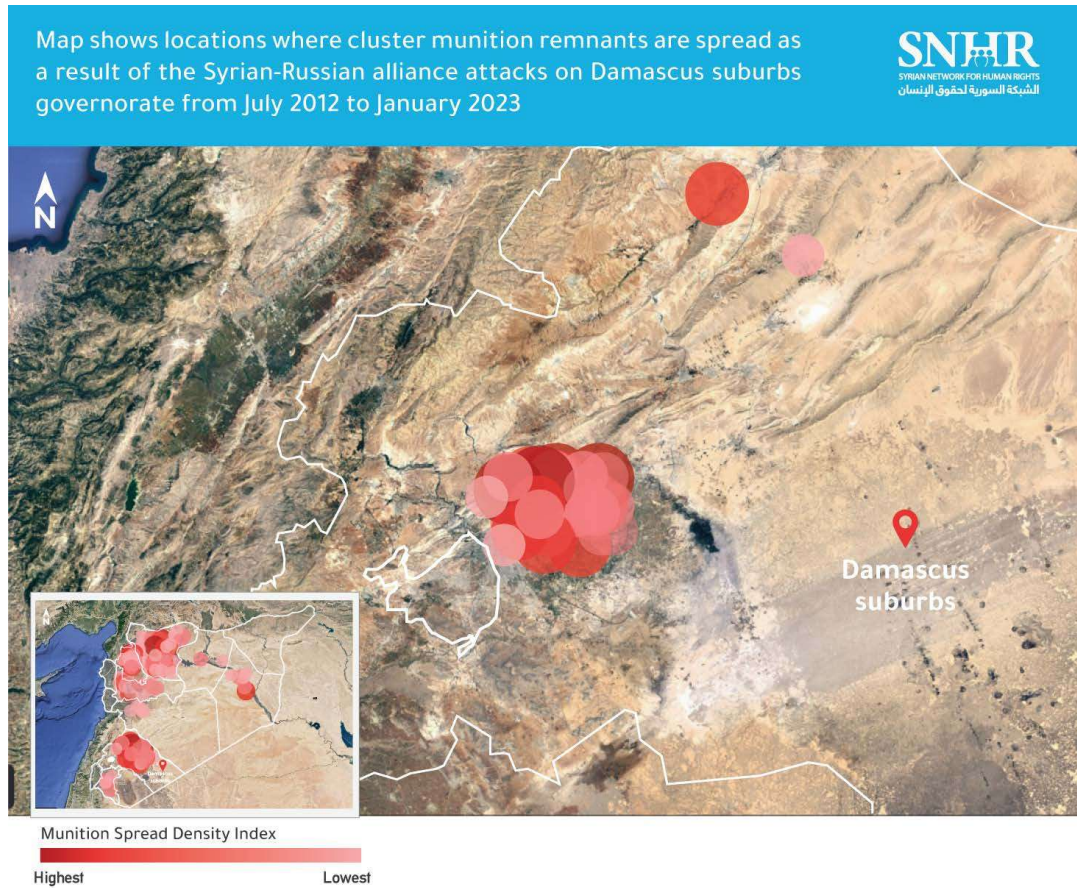
Aleppo governorate



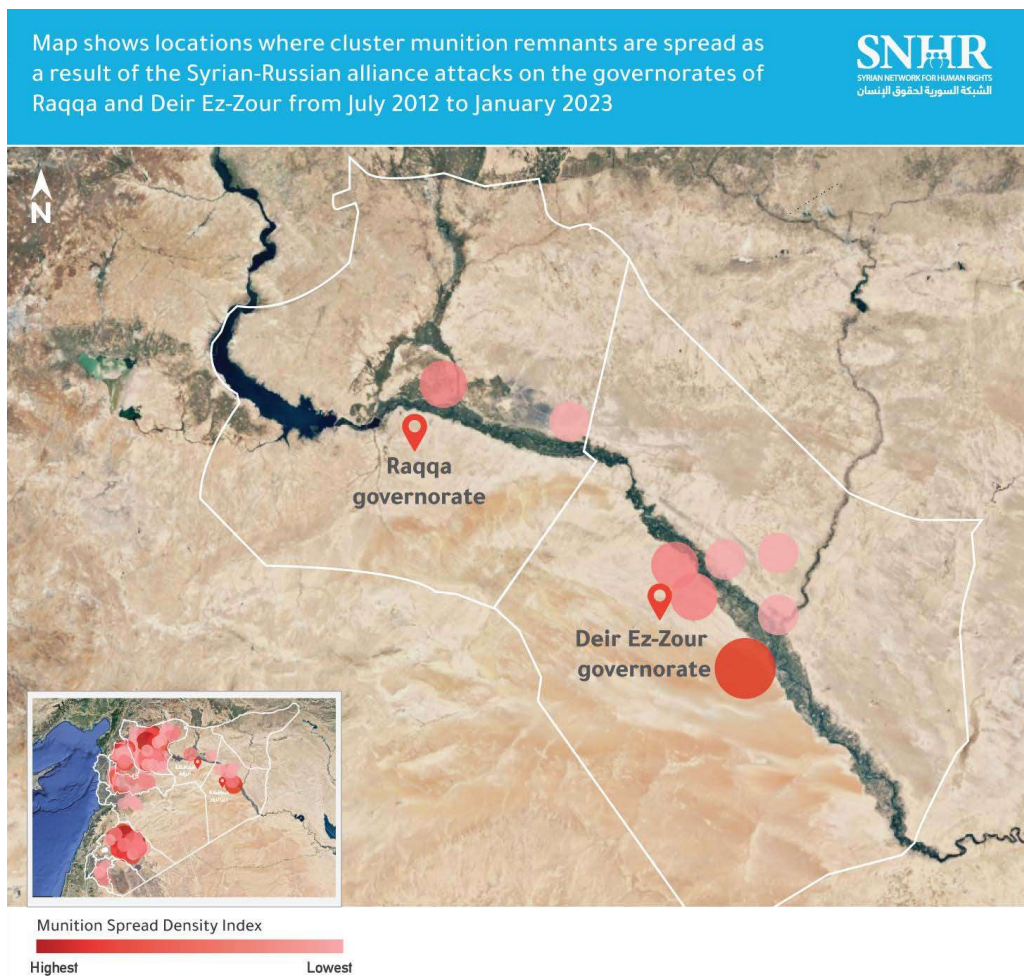
Idlib governorate



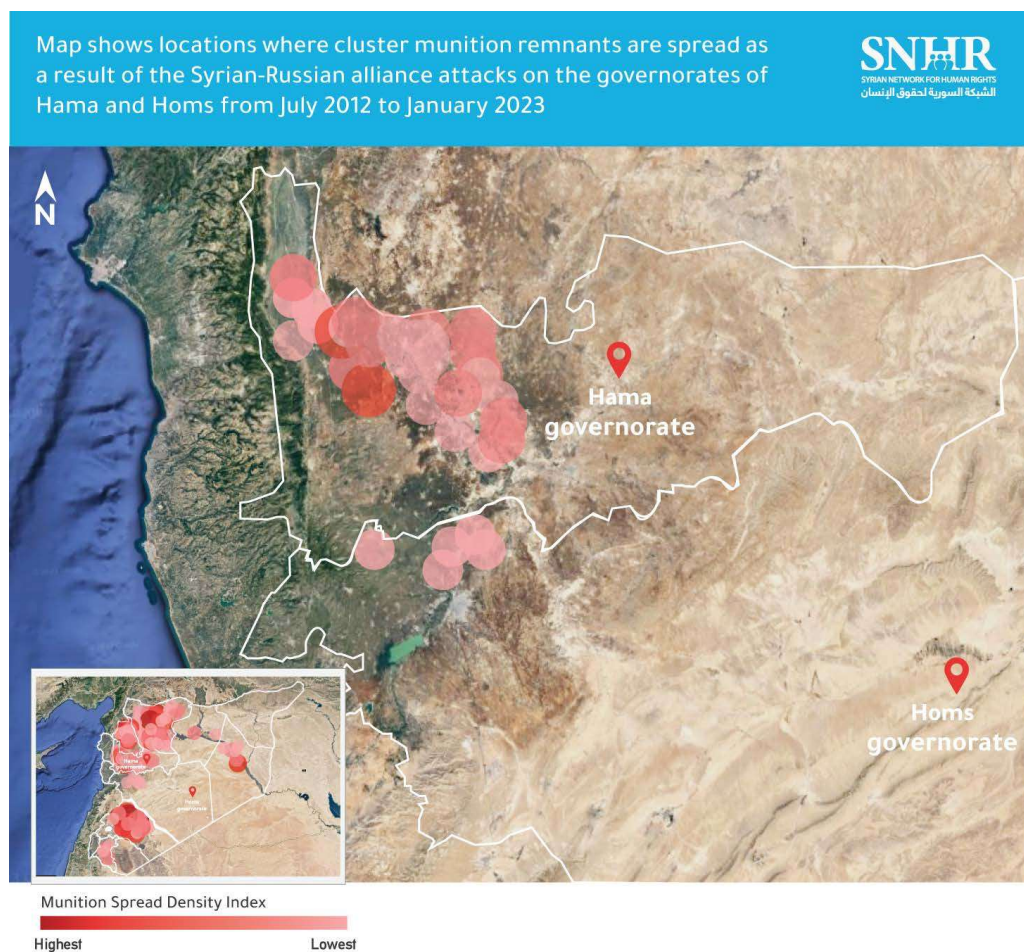
Damascus suburbs governorate



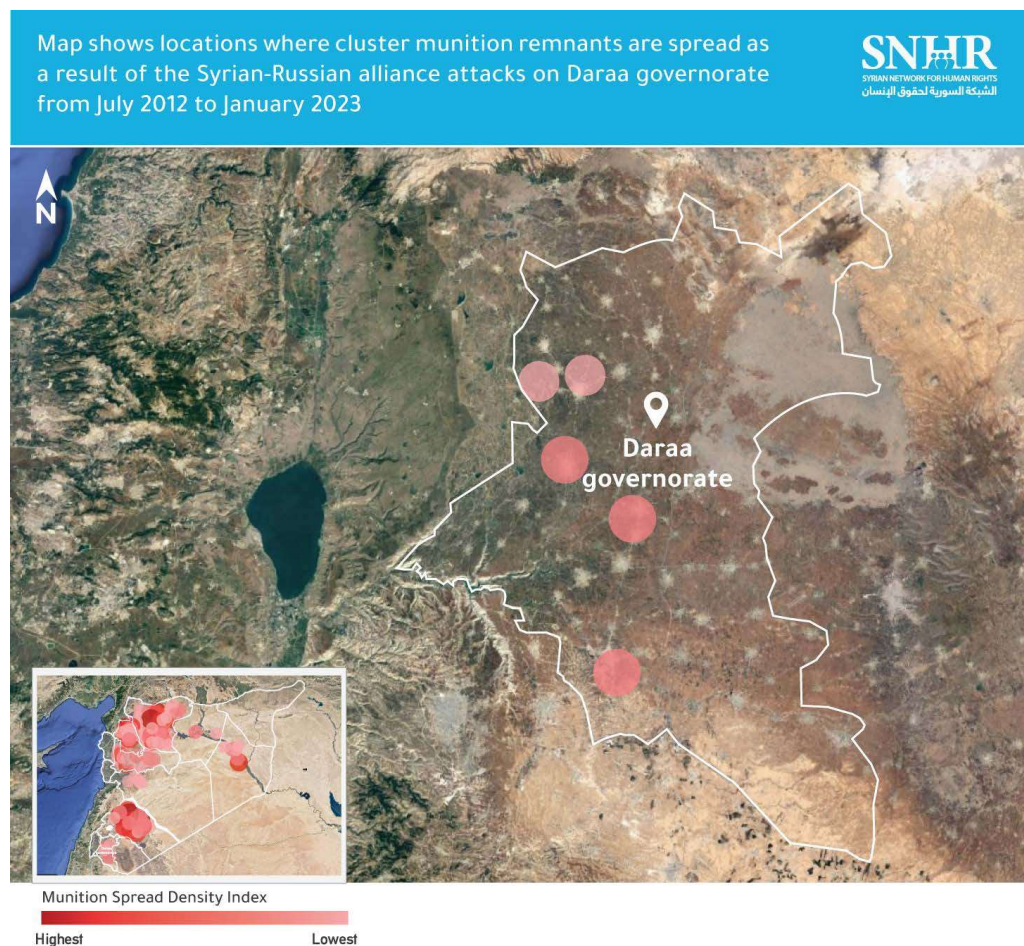
Deir Ez-Zour and Raqqa governorates



Homs and Hama governorates

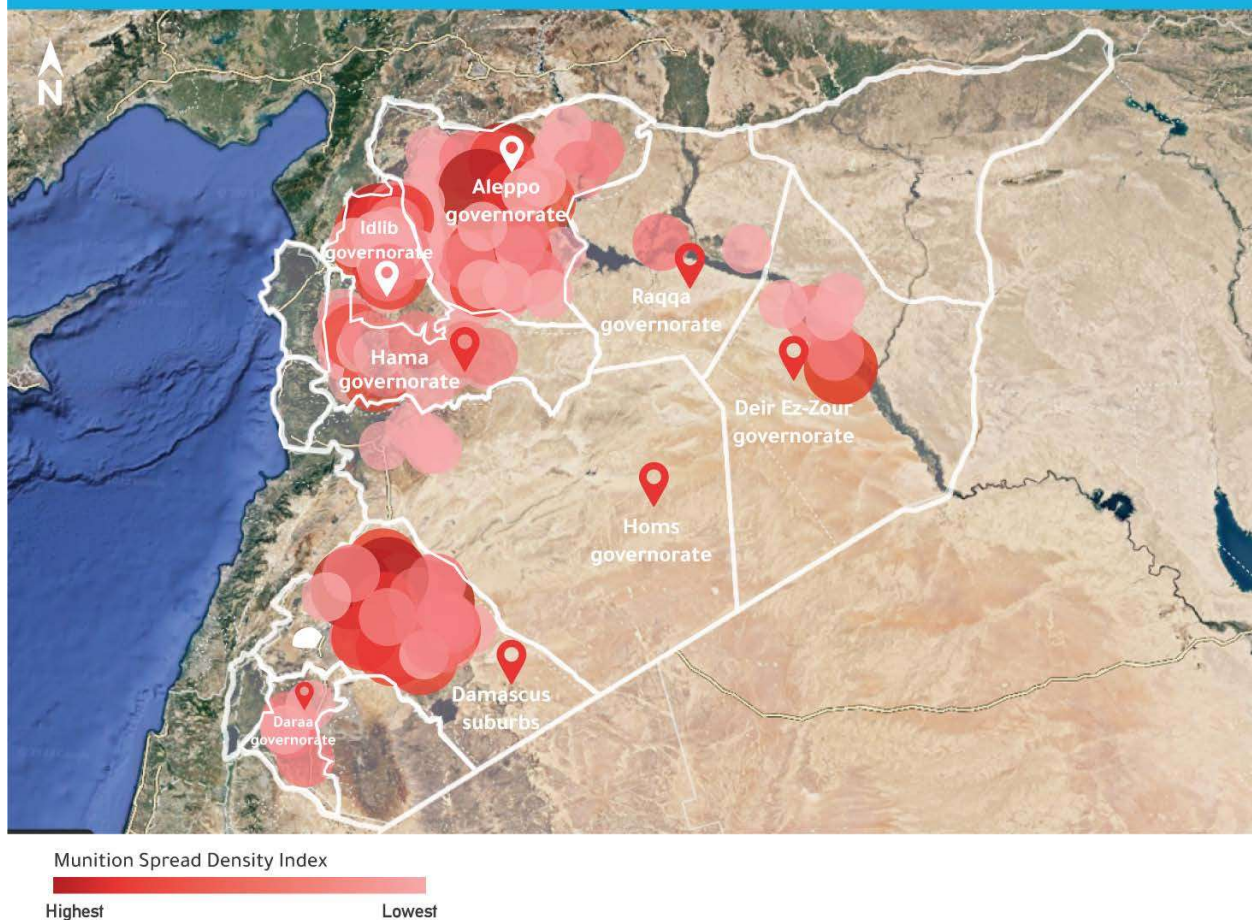


Daraa governorates



Map shows locations where cluster munition remnants are spread as a result of the Syrian-Russian alliance attacks in Syria from July 2012 to January 2023

SNHR
SYRIAN NETWORK FOR HUMAN RIGHTS
الشبكة السورية لحقوق الإنسان



Cluster munitions remnants and submunitions will continue to pose a serious, long-term threat to the lives of Syrian citizens for decades to come

The damages caused by cluster munitions are certainly not limited to the immediate threat they pose to civilians' lives. In fact, cluster munitions have far-reaching effects in terms of the devastation they causes to agricultural fields, residential buildings, water networks, sewage networks, and other facilities indispensable to people's everyday lives. The deliberate use of cluster munitions by the Syrian-Russian alliance forces have brought the lives of people in the areas targeted to a complete halt, since those areas are effectively turned into minefields containing hundreds of lethal unexploded cluster submunitions. Those submunitions or bomblets remain active until they self-detonate when any object, person or animal approaches them, and as such they have the ability to kill and maim dozens of innocent people. This is why civilians living in the areas targeted in cluster munitions attacks cannot live safely until the sites contaminated with cluster submunitions, including homes, agricultural land, shopping areas and markets; are identified and demined to get rid of these small but deadly submunitions. Accordingly, most of the residents of the areas that were targeted using cluster munitions continue to endure forced displacement, considering that it is no longer possible to sustain life in those areas.

SNHR stresses that at least hundreds of cluster submunitions dispersed across Syria have turned into what are effectively live landmines capable of killing or maiming civilians, as well as causing serious injuries, with hundreds of fragments from these bomblets penetrating victims' bodies. These injuries can lead to amputations, or tear open arteries and blood vessels, in addition to potentially causing injuries to the eyes or ears. These lethal submunitions are heavily spread across Syria, in a way that obstructs the return of IDPs and the movement of relief workers, Civil Defense rescue workers and vehicles. They also pose a serious threat to the process of reconstruction and development. Their greatest danger, however, remains the threat they pose to children, with their bright primary colors attracting the curiosity and attention of younger children unaware of their lethal nature, who face the worst threat from them.

VI. Analyzing the Death Toll from Cluster Munitions Attacks and Cluster Munitions Remnants

At SNHR, we've documented increasing numbers of fatalities from cluster munitions attacks, whether immediately in the original attacks, or at a later date from the subsequent explosion of cluster submunitions remnants left over from these attacks. Such tragedies continue to occur despite our repeated and urgent calls for the intervention of international teams to help reveal the locations of cluster remnants, and to put pressure on the Syrian and Russian regimes to specify the locations targeted in their attacks, in order to pinpoint the impact zone of these lethal weapons, so as to limit or at the very least minimize casualties.

As of January 2023, SNHR has documented the deaths of 1,053 civilians, including 394 children and 219 women, in cluster munitions attacks in Syria, since the first documented use of cluster munitions in July 2012 as recorded on our database. Children and women account for 59 percent of the overall death toll from cluster munitions attacks, which indicates that the Syrian-Russian alliances forces have deliberately targeted civilians in their use of this indiscriminate weapon.

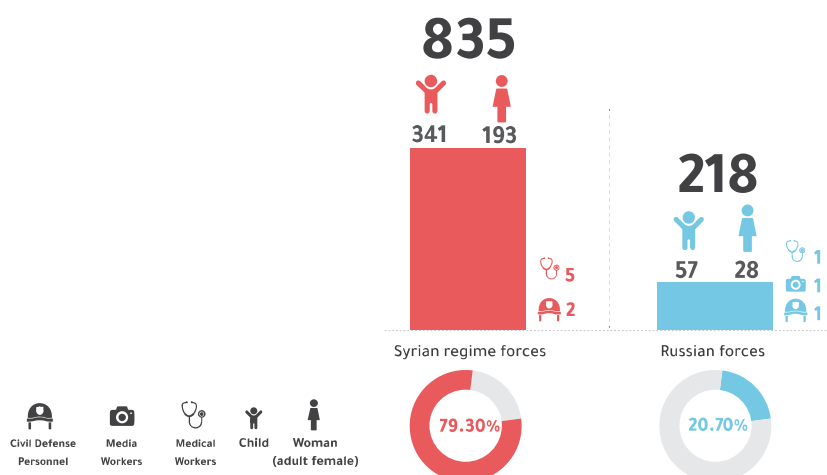
Furthermore, we have documented that no fewer than 382 civilians, including 124 children and 31 women, have been killed by the explosion of cluster submunitions left over from previous attacks involving the use of these weapons by Syrian regime forces and Russian forces since July 2012.

A. Victims killed in cluster munition attacks

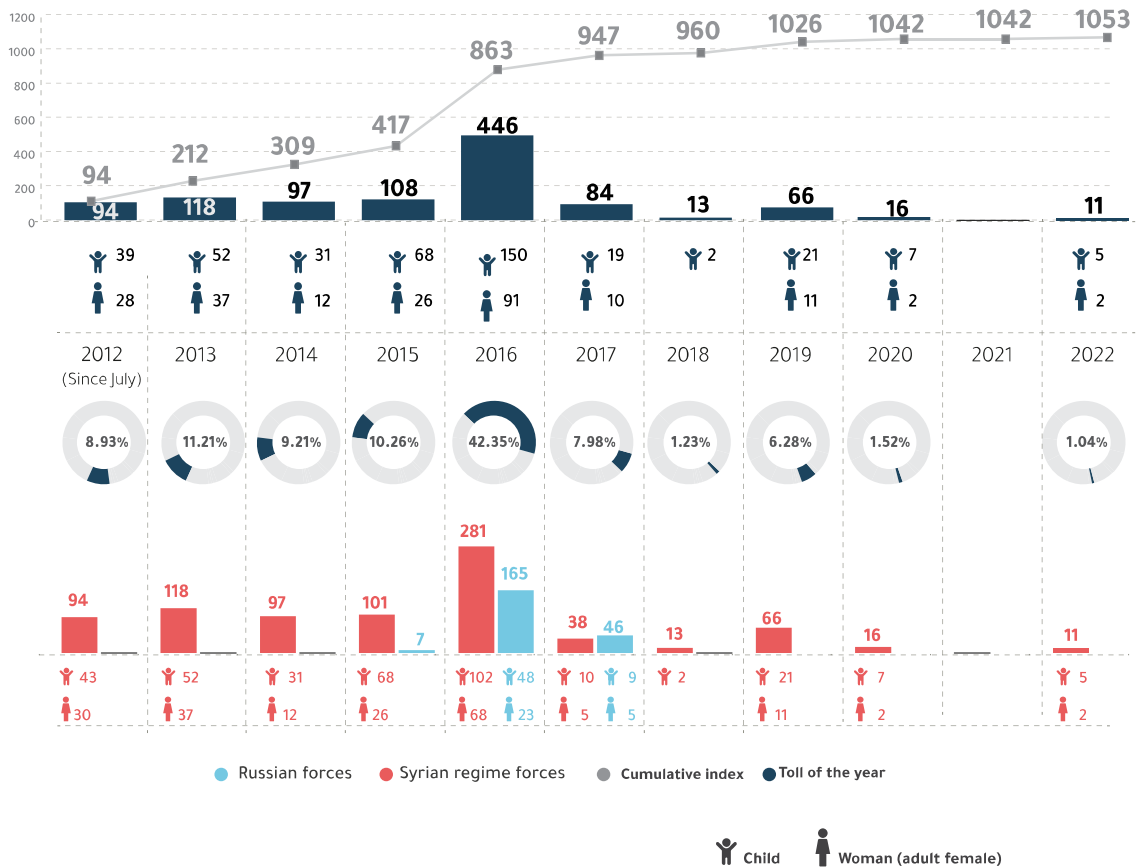
As of January 2023, SNHR has documented the deaths of 1,053 civilians, including 394 children and 219 women, in cluster munitions attacks in Syria, since the first documented use of cluster munitions in July 2012 as documented on our database. Among the 1,053 victims, we documented the deaths of six medical personnel, one media worker, and three civil defense workers. This death toll is distributed according to the perpetrator party as follows:

- Syrian regime forces: 835 civilians; including 337 children, 191 women, five medical personnel, and two civil defense workers.
- Russian forces: 218 civilians; including 57 children, 28 women, one medical personnel, one media worker, and one civil defense member.

The death of at least
1053 civilians
as a result of attacks by cluster munitions
in Syria from July 2012 to January 2023

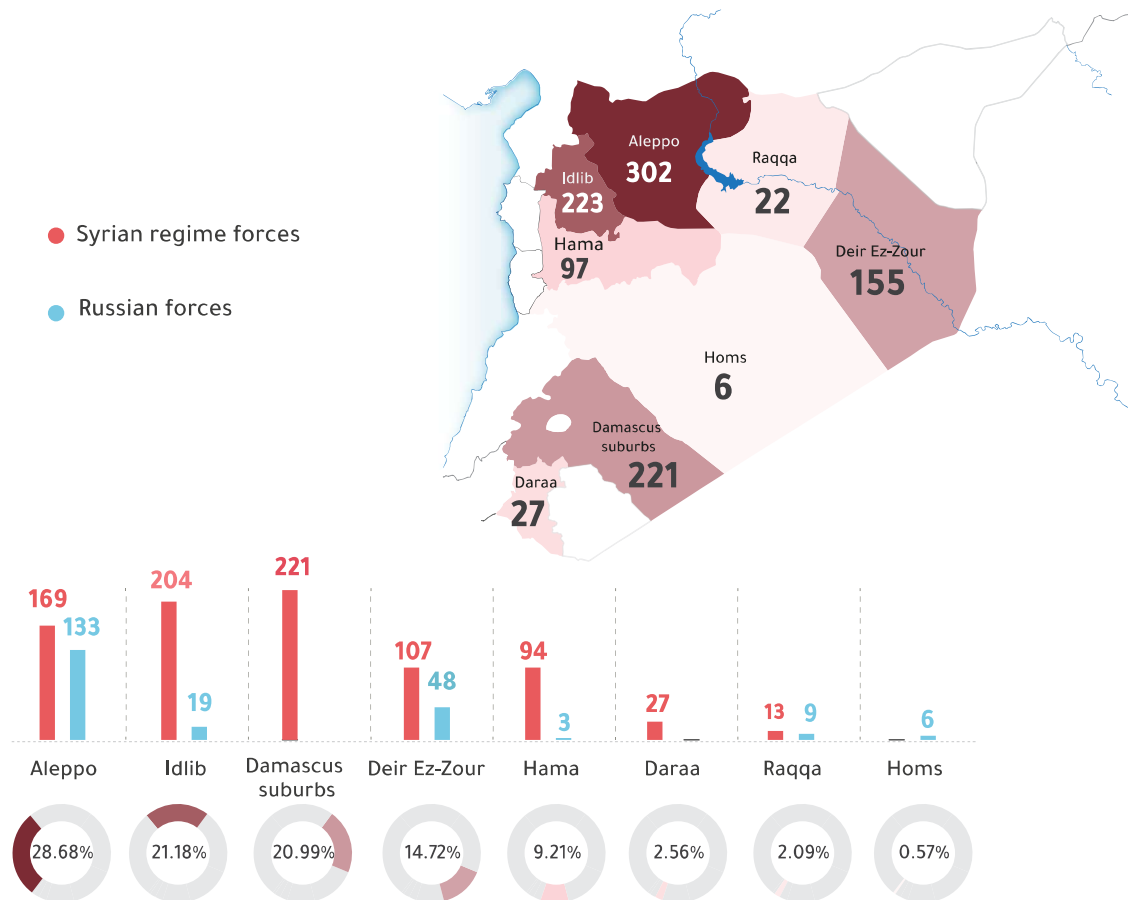


This death toll is distributed by year as follows:



The graph above shows that approximately 42 percent of all deaths resulting from cluster munitions attacks were documented in 2016. It is noteworthy that the vast majority of the deaths in 2016 were recorded in attacks in Aleppo governorate. Further analysis of the 2016 figures shows that Syrian regime forces were responsible for approximately 63 percent of these deaths. The second highest number of cluster munitions fatalities was documented in 2013, which accounted for approximately 11 percent of all such deaths, followed by 2015, the last quarter of which saw Russia launch its military intervention. Moreover, approximately 40 percent of all cluster munitions deaths were recorded between 2012 and 2015, with Syrian regime forces responsible for all but seven of these fatalities.

The nationwide cluster munitions death toll is distributed across the Syrian governorates as follows:



The map above shows that fatalities in Aleppo governorate accounted for the largest percentage of the cluster munitions death toll with approximately 29 percent. Analysis of the data shows that Russian forces were responsible for 44 percent of the cluster munitions deaths in Aleppo, with 61 percent of all the deaths documented in such attacks by Russian forces across Syria taking place in Aleppo governorate.

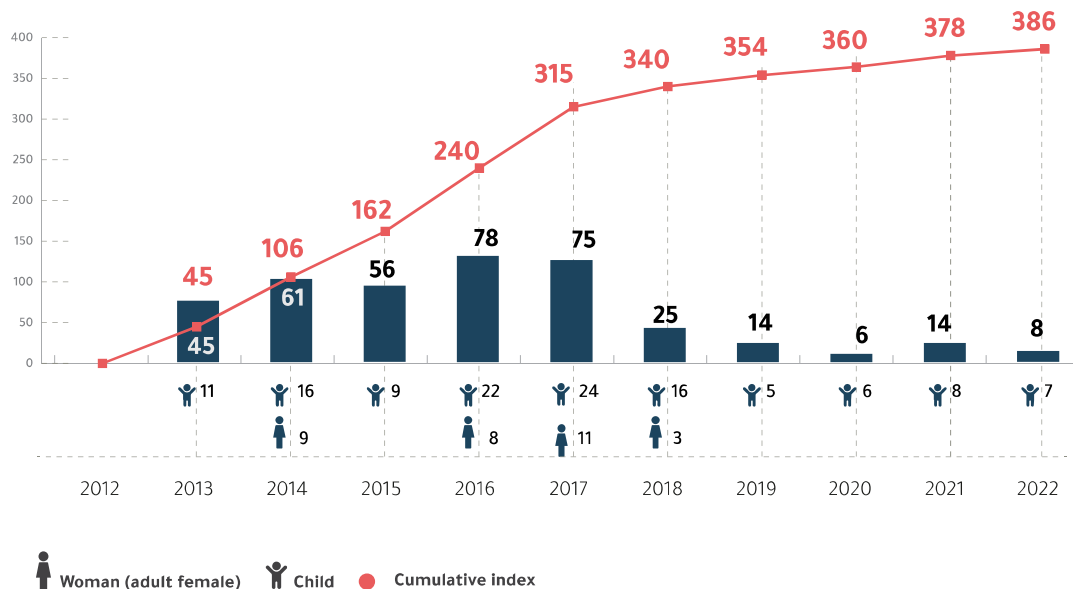
The second highest cluster munitions death toll was seen in the two governorates of Idlib and Damascus suburbs governorate, which accounted collectively for 42 percent of all deaths from such attacks. Syrian regime forces are responsible for approximately 93 percent of all cluster munitions deaths in these two governorates.

B. Deaths from explosions of cluster submunitions left over from previous attacks

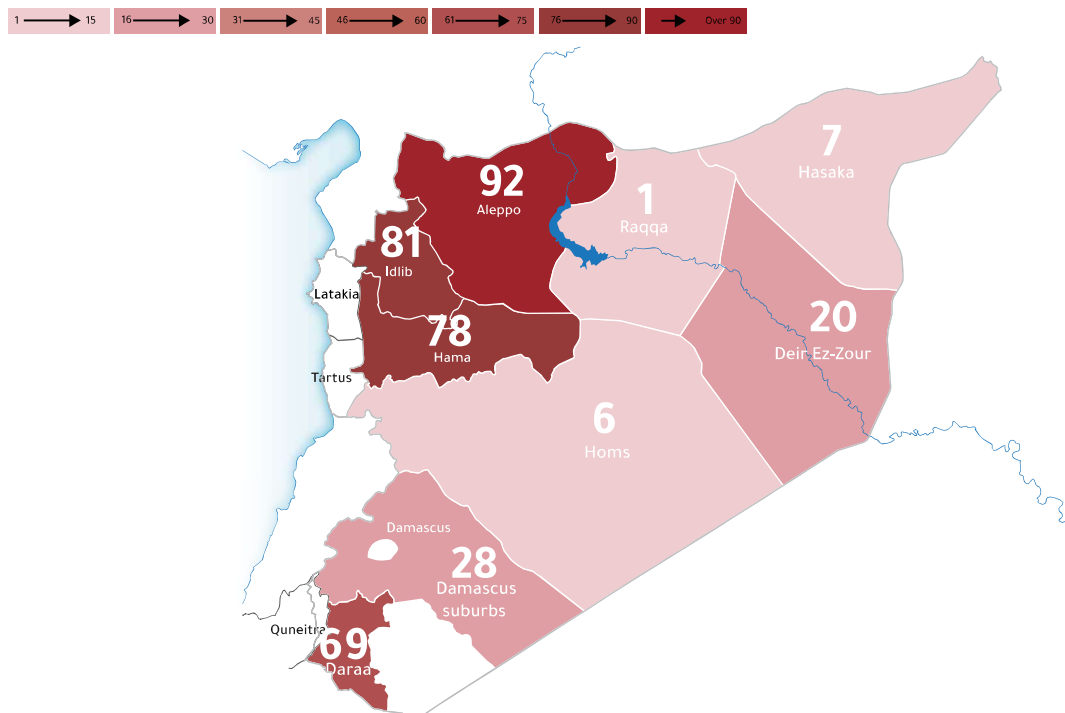
Hundreds of live, unexploded cluster submunitions were dispersed in the attacks using these bombs, effectively turning into landmines. These lethal remnants are still heavily scattered across Syria, as shown in the maps above. To this day, we continue to document the deaths of Syrian citizens from the explosion of these leftover cluster submunitions. Since it is particularly challenging to conclusively assign responsibility in such incidents to either of the two parties who have used cluster munitions, namely the Syrian regime and Russian forces, we usually assign responsibility for deaths caused by the explosion of cluster submunitions jointly to the Syrian-Russian alliance.

As of January 2023, SNHR has documented the deaths of no fewer than 382 civilians, including 124 children and 31 women, as a result of the explosion of cluster submunitions left by earlier attacks involving the use of cluster munitions by Syrian regime forces and Russian forces since the first documented use of cluster munitions in July 2012.

The cluster munitions death toll is distributed by year as follows:



Distributed across the governorates as follows:



VII. Examples of Notable Attacks Involving the Use of Cluster Munitions that Resulted in Casualties

On Monday, October 29, 2012, fixed-wing Syrian regime forces warplanes fired a [rocket/bomb carrying cluster submunitions](#), targeting al-Bara town in Idlib suburbs. The attack resulted in the killing of four civilians, including one child.

On Thursday, January 17, 2013, fixed-wing Syrian regime forces warplanes fired a rocket/bomb carrying cluster submunitions, targeting Kafr Nbouda village in Hama suburbs. The attack resulted in the killing of one girl.

On Wednesday, December 17, 2014, fixed-wing Syrian regime forces warplanes fired a rocket/bomb carrying cluster submunitions, targeting Tareeq Ma'ara Street in Kafr Hamra town, Aleppo suburbs. The attack resulted in the killing of one civilian, while around five others were injured.

SNHR spoke to Hassan Radwan, a resident of Kafr Hamra town, who gave us his account of the attack: **"The time was around 2:00 pm, when I heard Syrian regime warplanes flying in the sky, followed by the sound of small and consecutive explosions. I headed for Tareeq al-Ma'ara Street and I saw small bombs coming out from a cluster rocket that dispersed over 40 bombs, some of which exploded immediately and injured six individuals, including one child and one woman. One of the injured was in critical condition and I learned he died of his injuries."** Hassan adds, **"The attack created small crates in the street, and shattered the glass fronts of seven shops. Some of the remnants did not explode until an armed opposition faction came and dismantled it."**

On Thursday, December 24, 2015, fixed-wing warplanes believed to be Russian dropped two RBK-500 bombs, at least one of which contained ShOAB-0.5 cluster submunitions, targeting a group of cargo vehicles on the road between the villages of Ihris and Harbal, both located in the suburbs of Aleppo governorate and both controlled by ISIS at the time. A total of five civilians, including one girl, were killed in the attack, while a number of the cargo vehicles were burnt. It should be noted that the vehicles were loaded with food supplies and gas tanks, which were being transported for sale in ISIS-held areas.

SNHR spoke with Mohannad, a Civil Defense (White Helmets) member at the Tal Ref'at Center, who travelled to the bombsite and told us what he saw there: **"The vehicles were still on fire when we got there. We extinguished the fires and pulled out the wounded and victims. Some of the bodies were incinerated. The fires were made more intense because there were vehicles carrying gas tanks, and that is why some of the fires continued for many hours. I learned from the people there that the bombardment took place at around 1:30 pm and involved multiple missiles, including one carrying cluster submunitions. I saw cluster remnants scattered across the place. The targeted place was a point where cargo vehicles are usually gathered between Harbal and Ihris villages, and they were carrying food supplies and gas tanks on their way to the ISIS-held village of Harbal. Eight individuals were killed in the airstrikes, including two children."**

Video showing the moment of bombardment by fixed-wing warplanes believed to be Russian that targeted civilian trucks on the road between the villages of Ihris and Harbal in Aleppo suburbs - Thursday, December 24, 2015



Video showing trucks burnt as a result of bombardment by fixed-wing warplanes believed to be Russian that targeted a gathering of civilian cargo trucks on the road between the villages of Ihris and Harbal in Aleppo suburbs. The video shows cluster munition remnants - December 24, 2015



On Tuesday, January 19, 2016, fixed-wing warplanes believed to be Russian dropped an RBK-500 bomb carrying AO-2.5RTM/AO-2.5RT cluster submunitions on the Rwayda neighborhood of al-Boulayl town in the eastern suburbs of Deir Ez-Zour, killing seven civilians, including two children, and injuring at least 25 others. The area was under the control of ISIS at the time of the attack.



Cluster munition remnants found in Rwayda neighborhood in al-Boulayla town, Deir Ez-Zour suburbs in the aftermath of Russian airstrikes - January 19, 2015



On Wednesday, January 27, 2016, fixed-wing warplanes believed to be Russian dropped an RBK-500 bomb [carrying AO-2.5RTM/AO-2.5RT cluster submunitions](#) on the building housing the [Andan Charity Hospital](#) in Andan city, northern Aleppo suburbs. The airstrike killed one medical worker named as Abdul Rahman Ibeied, and injured other civilians, including the hospital's midwife, as well as a number of patients, as well as damaging the hospital building.

On Wednesday, January 27, 2016, fixed-wing warplanes believed to be Russian dropped four RBK-500 bombs carrying AO-2.5RTM/AO-2.5RT cluster submunitions on the northeastern side of Ibta' town in Daraa suburbs. One woman, named as Radwa Abdul Razzaq al-Talfah, was killed in the bombardment, which also almost completely destroyed two houses and two shops. The area was under the control of armed opposition factions at the time of the airstrikes.

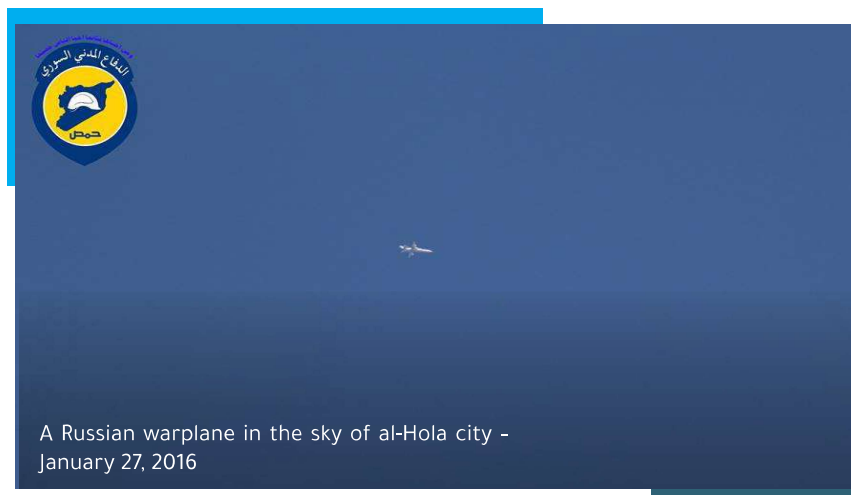
SNHR spoke with eyewitness Mahmoud al-Nseirat, a local media activist, who told us that the observers (central signal operators) had determined that the source of the attack was Russian, adding that local residents were not used to the Syrian regime launching attacks at night-time, as was the case in this attack. He recalled: **"Around 9:40 pm, Russian warplanes fired four missiles. Two of the missiles landed in the northeastern side of the town from the direction of the Qarfa area. The locals there told me that one of the missiles was thermobaric, while the other carried cluster bombs,"** adding, **"The other two missiles landed in the al-Souq al-Jadid Street near me."** Mahmoud continued, **"One of the two missiles carried cluster submunitions that exploded successively in the area and scattered over 300 meters, although some of the remnants did not explode. The two missiles destroyed at least nine shops and two houses, in addition to causing the death of one woman."**

Mahmoud shared photos with us of a cluster submunition that did not explode, which he confirmed was a remnant from the attack



On Wednesday, January 27, 2016, fixed-wing warplanes believed to be Russian dropped an RBK-500 bomb [carrying ShOAB-0.5 cluster submunitions](#) on a residential neighborhood of Kafrlaha city, which is administratively a part of the Nahiyat al-Houla area in Homs suburbs. A total of five civilians were killed in the attack, including two children and one woman, while about 30 others were injured. The attack also resulted in minor material damage.

SNHR spoke with Abu Ali, a local media activist and an eyewitness, who told us: **"I heard a medium-intensity explosion followed by successive explosions in west of the city. The time was around 14:10. The bombardment involved a cluster missile dropped by a Russia warplane from a very high altitude, which is why the explosion was subdued. Some of the remnants hit children and young men who were playing in the nearby schoolyard, while other landed on homes. Over 45 civilians were injured, and six others were killed, including one woman."**



On January 29, 2016, fixed-wing warplanes believed to be Russian dropped an RBK-500 bomb [carrying AO-2.5RTM/AO-2.5RT cluster submunitions](#) on a southern neighborhood in Marea city, Aleppo suburbs. The bombardment resulted in the deaths of four civilians, including one girl. The area was under the control of armed opposition factions at the time of the airstrike.

On Tuesday, June 7, 2016, fixed-wing warplanes believed to be Russian dropped an RBK-500 bomb [carrying ShOAB-0.5 cluster submunitions](#) on al-Layrmoun neighborhood in Aleppo city. The attack resulted in the deaths of two civilians, and injured around four others. The neighborhood was under the control of armed opposition factions at the time of the airstrike.

On Friday, June 17, 2016, fixed-wing warplanes believed to be Russian dropped two RBK-500 bombs [carrying AO-2.5RTM cluster submunitions](#) on residential neighborhoods in Khan Sheikhoun city in the southern suburbs of Idlib. The airstrikes resulted in the death of one woman, and injured around five others, including two children, as well as damaging a car. The city was under the joint control of armed opposition factions and the HTS at the time of the attack.

SNHR spoke with Hamid,¹³ a Civil Defense member, who gave us his account of what happened, recalling: **“Around 05:20, I heard a roaring sound followed by the sound of two successive explosions. The house shook and the windows shattered from the pressure generated by the explosions. I went down to the street and noticed fires and smoke rising near the market area. I heard the Free Syrian Army’s observatories’ alert about an airstrike by Russian warplanes from an altitude of six kilometers. The attack was carried out using cluster missiles, the remnants of which scattered over a wide area, while one of the remnants exploded in the car and burnt it. The attack also killed one woman and injured six others, including two children.”**

On Sunday, September 25, 2015, fixed-wing warplanes believed to be Russian dropped a missile carrying cluster submunitions that landed on the road between Salah al-Din neighborhood and al-Zibdiya neighborhood in eastern Aleppo city. The missile killed four civilians, including two children and one woman, and injured about 20 others. The neighborhood was under the control of armed opposition factions at the time of the attack.



The tail of a cluster submunitions container found in Salah al-Din neighborhood, Aleppo - September 25, 2016

On Friday, September 30, 2016, fixed-wing warplanes believed to be Russian dropped two RBK-500 bombs [carrying AO-2.5RT/AO-2.5RTM cluster submunitions](#) on Ma'aret al-Nu'man city in the southern suburbs of Idlib. The first missile targeted a residential neighborhood of the city, whereas the second targeted the southern neighborhoods, killing a child and a woman, and injuring about 15 other civilians. The explosions also led to a fire breaking out in a residential building. The city was under the joint control of armed opposition factions and HTS at the time of the attack.

13. On his Facebook account.

On Thursday, September 15, 2016, fixed-wing warplanes believed to be Russian dropped multiple RBK-500 bombs [carrying ShOAB cluster submunitions on Garage Square](#) in al-Mayadeen city in the eastern suburbs of Deir Ez-Zour. The square is a bustling, vital area frequented by passenger buses and street vendors. A total of 25 civilians, including nine children and three women, were killed and around 30 others injured in the airstrikes. The area was under the control of ISIS at the time of the attack.. On December 26, 2016, [we released a detailed report documenting the attack.](#)

On Saturday, April 8, 2017, at around 15:20, fixed-wing warplanes believed to be Russian dropped [an RBK-500 bomb carrying ShOAB-0.5 cluster submunitions on the public road on the eastern outskirts of Urm al-Jouz town](#) in the southern suburbs of Idlib. The attack killed three civilians and injured three others. The town was under the joint control of armed opposition factions and the HTS at the time of the airstrike.

On Saturday, July 1, 2017, fixed-wing warplanes believed to be Russian dropped multiple RBK-500 bombs [carrying AO-2.5RT/AO-2.5RTM cluster submunitions](#) on al-Mjawda village, which is administratively a part of the Nahiyat Boukamal in the eastern suburbs of Deir Ez-Zour. The airstrikes killed two civilians, a husband and a wife, and injured about 15 others. The village was under the control of ISIS at the time of the attack.

On Thursday, September 21, 2017, at around 18:10, fixed-wing warplanes believed to be Russian dropped two missiles carrying cluster submunitions on the main market in the center of Qal'at al-Madiq town in the northwestern suburbs of Hama. Around 25 minutes later at approximately 18:35, the same warplanes returned, firing one missile carrying cluster submunitions that landed about 700 meters from the first missile in the town's al-Zahra neighborhood. The airstrikes resulted in the deaths of six civilians, including one child and one woman, and injured 10 others. The town was under the control of armed opposition factions at the time of the attack.

We spoke with two central signal operators¹⁴ stationed in Hama suburbs who confirmed that the airstrikes were carried out by Russian warplanes which took off from Hmeimim Airbase. One of the operators told us he identified the warplane model as an Su-35 bearing a number '5' insignia.

SNHR spoke with eyewitness Sami,¹⁵ who told us that he identified a white plane with a blue cockpit, flying at a high altitude: **"[The plane] fired two missiles that landed in the main market, where a massacre had taken place one day before this attack. About 20 minutes later the attack was resumed with a third missile, before the warplane left the area."** Sami added that the third missile landed in al-Zahra neighborhood to the south of the town's ancient citadel: **"The remnants scattered over an area of 500 m2. The destruction was massive in the market, and seeing the cluster bombs exploding was terrifying."**

14. Via WhatsApp on October 28, 2017.

15. On the "Qallat almalayq nywz" [Qal'at al-Madeeq News] account on October 28, 2017.

On Friday, September 29, 2017, fixed-wing warplanes believed to be Russian dropped multiple RBK-500 missiles carrying ShOAB cluster submunitions on al-Taman'a town in the southern suburbs of Idlib. The attack resulted in the deaths of three civilians (one child and two women), and injured a number of others. The area was under the joint control of armed opposition factions and HTS at the time of the attack.



Small ShOAB-0.5 cluster munitions found following airstrikes believed to be Russian on al-Taman'a, Idlib - September 29, 2017

On Thursday, April 4, 2019, Syrian regime forces used a rocket launcher to fire [three SMERCH-9M55k rockets carrying 9n235 cluster submunitions](#), which exploded in the sky with the remnants scattering over an area of 1.1 km², targeting the 'Thursday Market', a busy public market, and adjacent residential buildings in [the center of Kafranbel city](#) in the southern suburbs of Idlib. The initial explosion resulted in [the deaths of 13 civilians, including five children and two women](#), and injured over 42 others. Some of the victims died in the market, while others were killed inside their homes in the middle of the city, with [the attack also causing heavy damage to the market area](#). We found cluster munitions near the building of the first aid dispensary building near the Abu Bakr School for Elementary Education in the middle of the city. The area was under the joint control of armed opposition factions and HTS at the time of the attack.



Two young girls, sisters Nourya and Khansa Khaled al-Kad'a, were killed in a ground-based attack by Syrian regime forces that involved cluster munitions on Kafranbel city - April 4, 2019

SNHR spoke with Obayda Othman, director of the Civil Defense center in Kafranbel city, who recalled: **"I rushed with the Civil Defense teams to aid the victims in the market area. We provided aid for 50 individuals who'd sustained varying wounds. We also pulled out around 12 victims from different areas. We examined the remnants that did not explode, and our engineering teams collected them and disposed of them outside the city, where they were safely detonated."** Obayda added that the site targeted was a popular market that usually gets extremely crowded on Thursdays. He confirmed that there was no military presence there: **"I was able to identify three rockets that were used to target the city on that day. Before the attack, reconnaissance planes for the regime flew over the city."** Obayda described the shape of the rockets: **"It was longitudinal and had fin-like features at its tail."** He said that the cluster munitions used in this attack are different from the ones used in previous attacks, where this one's remnants were small and more oval-shaped.

On Sunday, April 7, 2018, Syrian regime forces stationed in Abu al-Thoghour in the eastern suburbs of Idlib governorate used a rocket launcher to [fire two SMERCH-9m55k rockets carrying 9n235 cluster submunitions](#) which reached the southern neighborhood of al-Nayrab village in the northern suburbs of Idlib. The explosion of the cluster remnants killed seven civilians, including two children and one woman, who died in different areas of the southern neighborhood, and injured six others. We also documented the explosion of many of the remnants near the Mus'ab bin Umair School for Elementary Education during school hours. The area was under the joint control of armed opposition factions and the HTS at the time of the attack.

On Wednesday, November 20, 2019, between 19:45 and 20:00, Syrian regime forces and Iranian militias we believe were stationed in the area of Jabal Izzan in the southern suburbs of Aleppo used a rocket launcher to fire a Tochka 9M79 rocket carrying 9N24 cluster submunitions that landed in the Qah IDP Camp.¹⁶ [A total of 16 civilians were killed in the attack, including 11 children and three women \(adult female\), and at least 50 others were injured.](#) Some of the cluster munitions scattered over an area where tents had been erected, damaging no fewer than 10 of these tents, in addition to damaging the [maternity hospital](#) about 150 meters from the camp, which is supported by the Syrian-American Medical Society ([SAMS](#)). The hospital is one of the health facilities included on the list of the UN Human Deconfliction Mechanism.



Hamza al-Ibrahim: an infant who died of wounds sustained in a rocket launcher attack by Syrian regime forces who used Tochka 9M79 rockets to target the Qah IDP Camp in Idlib – November 20, 2019

16. The Qah IDP Camp is one of the camps located in northern Idlib governorate. Established at the end of 2012, it housed about 2,000 people before the attack, mostly IDPs from the northern suburbs of Hama and southern suburbs of Idlib.



On Wednesday, January 1, 2020, at around 11:43, Syrian regime forces who we believe were stationed in the Jabal Izzan area in the southern suburbs of Aleppo used a rocket launcher to fire a Tochka 9M79 rocket carrying 9N24 cluster submunitions which landed in the eastern neighborhood of Sarmin city in the eastern suburbs of Idlib. Most of the cluster submunitions scattered over a civilian area containing a school, a Sharia Institute, and a center sheltering IDPs who had fled there from areas in the southern suburbs of Idlib. A total of 12 civilians, including seven children and three women (adult female), were killed in the attack, and at least 20 others were injured.

[Some of the cluster munitions scattered in the main market in Sarmin city](#) near the two mosques of al-Ferdous and Othman bin Affan. Their explosions caused various types of damage to the market facilities and the two mosques. The city was under the joint control of armed opposition factions and the HTS at the time of the attack.

VIII. Conclusions and Recommendations

- The use of cluster munitions by Syrian regime forces, under the leadership of the Commander-in-Chief, Marshal Bashar Assad, and by Russian forces violates both the principles of distinction and proportionality according to international humanitarian law, which constitute a war crime.
- The evidence included in this report clearly shows that the use of cluster munitions by Syrian regime forces and Russian forces has been directed against civilian targets, rather than for a specific military purpose, which constitutes a war crime.
- Syrian-Russian alliance forces have categorically violated Security Council resolutions 2139 and 2254 that call for ending indiscriminate attacks, as well as violating a large number of the customary international humanitarian law rules. Furthermore, through the crime of murder, the Syrian-Russian alliances forces have violated Article 7 & 8 of the International Criminal Court's Rome Statute, with these violations constituting war crimes and crimes against humanity.
- The bombardment operations have collaterally caused loss of civilian lives, injuries, and/or heavy damages to civilian objects. There are significant strong indicators suggesting that the damage was exceptionally excessive in relation to the anticipated military advantage. In most cases, the attacks did not distinguish between civilians and military fighters, while it seems some of the attacks deliberately targeted vital facilities and civilian areas.
- States unanimously agreed at the World Summit 2005 that every state is responsible for the protection of its residents against crimes against humanity and war crimes. This responsibility entails the prevention of such crimes, including the prevention of incitement to commit them by all possible means, and when the state clearly fails to protect its population from crimes of atrocity, or is itself committing such crimes, as in the case of the Syrian regime, this means that it is the responsibility of the international community to intervene to take protective measures in a collective, decisive and timely manner.
- The cluster munition attacks on IDPs camps and civilian gatherings have created a state of terror and fear among the displaced, substantially exacerbating their already-catastrophic situation which already suffers from an extremely poor humanitarian response.

17. "The parties to the conflict must at all times distinguish between civilians and combatants. Attacks may only be directed against combatants. Attacks must not be directed against civilians."

International Committee of the Red Cross, [Rule 1](#) of the customary international humanitarian law.

"Launching an attack which may be expected to cause incidental loss of civilian life, injury to civilians, damage to civilian objects, or a combination thereof, which would be excessive in relation to the concrete and direct military advantage anticipated, is prohibited."

International Committee of the Red Cross, [Rule 14](#) of the customary international humanitarian law.

18. United Nations General Assembly, 2005 World Summit Outcome <https://undocs.org/en/A/RES/60/1>

19. United Nations General Assembly, 2005 World Summit Outcome <https://undocs.org/en/A/RES/60/1>

20. "Commanders and other superiors are criminally responsible for war crimes committed pursuant to their orders." International Committee of the Red Cross, [Rule 152](#) of customary international humanitarian law.

21. "Commanders and other superiors are criminally responsible for war crimes committed by their subordinates if they knew, or had reason to know, that the subordinates were about to commit or were committing such crimes and did not take all necessary and reasonable measures in their power to prevent their commission, or if such crimes had been committed, to punish the persons responsible." International Committee of the Red Cross, [Rule 153](#) of the customary international humanitarian law.

- Syrian-Russian alliance forces have violated the de-escalation agreement in all the zones to which it applies, as well as in the areas of Idlib. Those forces have violated the Sochi agreement by bombing a number of villages in towns in de-escalation zone 4, which are demilitarized zones for the most part, in the eastern suburbs of Hama and the southeastern suburbs of Idlib. Those attacks have resulted in civilian casualties.
- The Russian regime has been involved in backing the Syrian regime, which has committed crimes against humanity and war crimes against the Syrian people, through shielding the regime politically on the international stage, as well as through supplying the Syrian regime with weapons and military expertise. This has been abundantly clear since the start of Russia's direct military intervention in favor of the Syrian regime. Supporting a regime that has been involved in crimes against humanity constitutes a categorical violation of international law and makes Russia subject to accountability.
- Commanders and other superiors are criminally responsible for war crimes committed by their subordinates pursuant to their orders, if they knew, or had reason to know, that the subordinates were about to commit or were committing such crimes and did not take all necessary and reasonable measures in their power to prevent their commission, or if such crimes had been committed, to punish the persons responsible.

Recommendations

Security Council

- The Security Council should adopt a special resolution prohibiting the use of cluster munitions in Syria, as with the prohibition of the use of chemical weapons. This resolution should address how to remove the remnants of this dangerous weapon.
- Russia's permanent Security Council membership should not be a barrier to holding it accountable by the Security Council. Otherwise, the Security Council will lose its remaining credibility.
- The use of cluster munitions by the Syrian and Russian regimes threatens the safety and security of tens of thousands of Syrians. The Security Council should intervene directly and urgently to protect the Syrian people from the onslaught of the ruling authority, which constitutes a war crime.
- Send peace-keeping forces to protect IDPs and their camps from the attacks of Syrian regime forces.

Human Rights Council and the Independent International Commission of Inquiry on the Syrian Arab Republic

- Issue a statement condemning the use of cluster munitions by the Syrian-Russian alliance.
- Pay special attention to documenting the incidents that indicate the use of cluster munitions by the Syrian-Russian alliance forces.
- Prepare extensive studies on the sites where the Syrian-Russian alliance forces have used cluster munitions to warn the residents of those areas and work quickly on removing the munitions that have yet to explode. Thousands of hectares of Syrian land have been contaminated by cluster munition remnants. SNHR is willing to contribute to this undertaking.

UN General Assembly

- Hold the Syrian and Russian regimes responsible for the attacks included in this report and previous reports, and put pressure on the Security Council to act to protect Syrian civilians, and prevent Russia from enjoying impunity simply because it is a permanent member of the Security Council.

'Friends of Syria' states

- Condemn the use of cluster munitions by Syrian-Russian alliance forces against the Syrian people, and put pressure on the Syrian and Russian regimes in order to put an end to the repeated and continued attacks by those forces, which reflect a policy for the Russian state.
- Reject Russia as a party to the dialogue and political transition in Syria so long as it persists in committing widespread and systematic violations against the Syrian people. The use of cluster munitions is blatant and explicit evidence of these violations by Russia.

Office of the UN High Commissioner for Human Rights

- Condemn the widespread and excessive use of cluster munitions against civilians in the Idlib area and submit a letter to the Security Council on this matter.
- Train Syrian organizations on the proper removal of landmines and unexploded cluster munitions, and raise awareness at the local level about such threats.
- Establish a platform to bring together the Syrian groups that are active in the two fields of documenting violations and humanitarian relief aid in order to exchange expertise with the Syrian people.

UNICEF

- Condemn the Syrian regime's targeting of educational facilities, particularly schools and kindergartens.
- Shed a light on the dangers of the use of cluster munitions by the Syrian regime and its ally, the Russian regime, to children in Syria now and in the future.

Russian government

- Immediately cease the production and use of cluster munitions in Syria, start working on the destruction of the cluster munition stockpile, and join the Convention on Cluster Munitions (CCM).
- Launch an investigation into all the violations included in this report. We are willing to assist, provide all the detailed evidence, and contribute to holding those responsible accountable.
- Publish detailed maps of the sites where attacks involving the use of cluster munitions were carried out, while providing the UN with copies of those maps, as well as making them public to the Syrian people, which will facilitate the removal of the unexploded cluster munitions remnants.

- Compensate the Syrian people, particularly the victims and their families, for all the material and moral damages caused by the attacks.
- Abide by the outcomes of the Sochi summit, and avoid situations like that of the de-escalation zone agreements which have experienced many violations.
- Cease the support of war crimes and crimes against humanity that are still being perpetrated by Syrian regime after 12 years. This support constitutes direct involvement in those crimes.

Acknowledgment and Condolences

We extend our most heartfelt condolences to the families of the victims and the affected who we were able to identify and document, and express our sincere gratitude to residents, local activists, and victims' families for their much-valued contribution to our database and to this report.



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