

**CASE STUDIES
OF EXPLOSIVE VIOLENCE**

Libya



Misrata and Sirte, March – October 2011



Introduction

Explosive weapons are weapons that share common characteristics of affecting an area around a point of detonation, through a mixture of blast, fragmentation, and heat effects.¹ They include air-dropped bombs, artillery shells, mortar bombs, rockets, missiles, and improvised explosive devices (IEDs), amongst others, and share the capacity to inflict wide-ranging damage and destruction. When used in populated areas, their impacts are often indiscriminate and can cause severe immediate and long-term harm to civilians.²

This series of case studies builds upon previous research by Action on Armed Violence, which presented a compelling need for addressing the harm caused by explosive weapons in populated areas as a distinct humanitarian problem.³ In 2011, AOAV's *100 Incidents of Humanitarian Harm* examined the broad pattern of harm caused by explosive weapons in populated areas. In 2012, AOAV published *Monitoring Explosive Violence*, analysing a 12-month dataset of incidents of explosive violence recorded by AOAV's Explosive Violence Monitoring Project (EVMP). The use of explosive weapons in populated areas was recorded to have killed and injured civilians on a daily basis in 2011.⁴ However, data on the scale of deaths and injuries does not fully convey the diverse range of harm. People affected often suffer injuries with life-long impacts, psychological trauma, and socio- and economic harm through loss of livelihoods, displacement, and damage to infrastructure and vital services, as well as from the risks posed by unexploded ordnance (UXO).

This series, entitled *Case Studies of Explosive Violence*, explores some of these diverse impacts

on individuals and communities through photographs and interviews in three different contexts. The stories and images in this series illustrate both the immediate suffering caused by explosive weapons at the time of the incident as well as some of the indirect and longer lasting impacts. The reports cover a double IED attack on a shrine in Pakistan, an explosion in a stockpile of explosive weapons in the Republic of Congo, and the sustained bombardment of cities in Libya by explosive weapons with wide-area impacts.

These cases are only a snapshot of the continuing harm caused by explosive weapons. Each demonstrates the need for urgent action to address the problem of explosive weapons in populated areas and for the establishment of stronger international standards to protect civilians from the types of suffering documented here. This need is at the heart of a civil society call—through the International Network on Explosive Weapons (INEW)—for states and other actors to take immediate action to prevent human suffering from explosive weapons in populated areas.⁵ In his 2012 report to the United Nations Security Council on the Protection of Civilians in Armed Conflict, the UN Secretary-General Ban Ki-moon called the humanitarian impact of such weapons “*disastrous*.” The report highlighted their use in Libya, Syria, Côte d’Ivoire, and Sudan, and urged parties to conflicts to refrain from using explosive weapons with a wide-area impact in densely populated areas. In tandem, Ban Ki-moon urged states, UN actors, international organizations, and NGOs to intensify their efforts on the issue, including through more focused discussion and further data collection and analysis.⁶

Explosive weapons in Libya

In Libya, thousands of civilians were killed or injured during widespread explosive violence from March to October 2011 between forces loyal to Colonel Gaddafi and opposition fighters.

During this period, data collected by AOA's Explosive Violence Monitoring Project (EVMP) found that civilians made up 67% of the casualties of explosive violence in Libya. The large majority of these were caused by ground-launched explosive weapons, often fired together in large number across populated areas. Misrata and Sirte were two cities in Libya that were particularly devastated by sustained bombardments from large-calibre mortars, rockets, and artillery and tank shells.

Misrata, the third-largest city in the country, was bombarded by shelling and Grad rocket fire from March to May 2011. In April, a third of all the casualties reported in Libya from explosive weapons were recorded by the EVMP as occurring in Misrata.⁷ A mixed residential and commercial area including Tripoli Street and Benghazi Street was most heavily

affected, where many buildings including shops, factories, and markets were destroyed by shelling.⁸

Incidents of explosive violence occurred in Sirte from 15 September to 23 October as opposition fighters of the newly-formed National Transitional Council (NTC) led an assault on the city where loyalist forces were located, supported by a campaign of NATO air strikes. Both sides were frequently reported as using explosive weapons with a wide-area impact during the four phases of fighting that took place in the city centre and in residential areas across the city. The use of these weapons in Misrata and Sirte caused damage, destruction, and enormous civilian suffering at the time of use and continued to have lasting impacts impeding humanitarian recovery efforts in both cities.

Research for this case study was carried out in May 2012 by Simon Conway, former Director of Landmine Action (now Action on Armed Violence). Mr Conway conducted research through visits to Misrata and Sirte and through interviews with survivors, medical officials, and humanitarian aid-workers. AOA has compiled Mr Conway's research with media reports in this case study.⁹



Graffiti on a damaged wall in Misrata

The sustained shelling and bombardment of areas populated by civilians is causing widespread suffering. Moreover, the damage to buildings and infrastructure will lead to long term and far reaching problems for people as they try to rebuild their lives after fighting has ceased.¹⁰

Valerie Amos, UN Humanitarian Chief,
17 March 2011

GRAD ROCKETS

Rockets were used extensively by both sides during the violence in Libya. Evidence of the use of Soviet-manufactured 122mm BM-21 Grad rockets, as well as the smaller Chinese-made 107mm rockets, was found by the UN Commission of Inquiry in Libya.¹¹ The use of Grad rockets was met with widespread condemnation, highlighting the harm they present to civilian lives.

Grad rockets weigh over 60kg and are roughly three metres in length, containing a high explosive fragmentation warhead in the nose section.¹² They have a range of around 20km and up to 40 rockets are fired from launchers over a period of twenty seconds.¹³ The Grad rocket system is an 'area-effect' weapon designed for use against troops massed in the open.¹⁴ Their wide 'Circular Error Probable' (CEP) makes them unsuitable for attacks on point targets.¹⁵ However, during the violence in Libya there were a number of incidents where Grad rockets were fired into towns and cities, effectively saturating civilian areas with explosive blast and fragmentation from unguided rockets.

Pro-Gaddafi forces repeatedly used Grad rockets during the siege of Misrata, as well as in towns and villages in the west of Libya.¹⁶ In one incident on 14 April 2011, at least 14 people were killed when rockets fell on a queue of people waiting outside a bakery in Misrata.¹⁷

Rocket attacks caused severe damage to homes, schools, medical facilities, and places of worship in the besieged city.¹⁸ Grad rocket launchers seized in battle were also used by anti-Gaddafi forces during the assault on Sirte. The report of the UN Commission of Inquiry on Libya described how *"the most common damage and weapon debris observed was from Grad rockets that seemed to have fallen in every part of the city."*¹⁹ Residents spoke of *"night-long Grad rocket barrages fired indiscriminately, without the aid of spotters or other attempts to aim fire at military objects."*²⁰



BM21 Grad rocket launcher, Sirte

Peter Bouckaert, emergencies director at Human Rights Watch, stated in regard to their use in Libya that Grad rockets are *"one of the world's most inaccurate rocket systems and should never be fired in areas with civilians."*²¹

MORTARS

Mortars are weapons which fire a distinctive fin-stabilised bomb from a smooth-bore tube.²² The mortar bomb is then fired across a high trajectory.²³ The high trajectory of a mortar means that they fall almost vertically. Because they fall at this angle, they project a large number of small fragments at a high velocity over a wide 360-degree area as they detonate.²⁴

Mortars are indirect-fire weapons. They enable users to fire at targets that are outside of their line of sight.²⁵ As such, they are not appropriate for striking a precise target within a populated area where there is no opportunity to establish a clear line of sight.²⁶ Mortars have a high rate of fire, as the system is ready to receive and fire another bomb as soon as the previous bomb has left the muzzle.²⁷ Mortars can therefore fire large numbers of bombs across an area in a relatively short space of time. In Libya, large-calibre mortars were often fired in large numbers into heavily populated areas.²⁸

During fighting in the city of Sirte in October, a journalist based with the forces of the National Transitional Council claimed that *"in a whole week here I've only seen one mortar team actually take a bearing on a target."*²⁹



81 mm mortars awaiting disposal near Misrata

Libyan forces were known to possess large-calibre mortars³⁰ and the country's stockpiles reportedly included 81, 82, 120, and 160mm mortars.³¹ The 82mm mortar system has a typical range of up to 5km.³² According to Human Rights Watch, one of these mortars struck the car park of the Zawiyat el-Mahjoub medical clinic on 16 April 2011. The blast from the mortar sprayed shrapnel into the clinic, wounding civilians inside the building.³³ The use of mortars in the heavy shelling of Misrata led the UN

Commission of Inquiry on Libya in its first report in June 2011 to conclude that *“Mortars are weapons that kill or maim whoever is within the impact zone after they explode and they are unable to distinguish between combatants and civilians.”*³⁴

HIGH EXPLOSIVE ARTILLERY SHELLS

High explosive shells produce fragments from the shell casing, blast waves, and flash from heated gases.³⁵ Shells containing a high quantity of explosive material, such as the 152 and 155mm shells used in Misrata and Sirte, will disperse these effects over a wide area. This weapon has a range of up to 30km and fires projectiles weighing 43.5kg at a rate of six rounds per minute.³⁶

Amnesty International reported how in Misrata, during the night of 23-24 April 2011, several 155mm artillery shells, believed to have been fired from a self-propelled gun located in the outskirts of Misrata, killed at least six residents, including two children, while they slept in their homes.³⁷

***Our family has been decimated.
Our homes were destroyed. We
live in a poor neighbourhood, the
houses are simple old houses and
they crumbled under the shelling.***³⁸

Aseila Ba'ayu,
grandmother of the children killed

Similar high explosive shells were reported to have a lethality radius of between 50 and 150 meters and an expected casualty radius of between 100 and 300 metres.³⁹ The use of these shells in populated areas where civilians are likely to be located in proximity to a target therefore exposes them to severe risk of death or injury.

Shells which are delivered by means of indirect-fire are targeted by a process of error correction known as ‘bracketing’ in which shells are aimed over and short of a target before adjusting to find the correct range.⁴⁰ The Independent Civil Society Mission to Libya claimed that this process *“will inevitably result in death, injury, or damage to any individuals or objects in the vicinity of the target.”*⁴¹

TANK SHELLS

Battle tanks are armed with a powerful main gun between 75mm and 125mm in diameter.⁴² Tank shells are the large-calibre projectiles which are fired from these armaments.



125mm HEAT tank shells awaiting disposal near Misrata

Crates of used 125mm high explosive fragmentation tank rounds were found after fighting at Misrata’s airport in May 2011.⁴³ The rounds were fired from T-72 tanks, of which Libya is known to have had more than 200 operational in its stockpiles.⁴⁴ Once fired, the shell breaks up into anti-personnel fragments which cover an area of 520 square metres.⁴⁵ In Misrata, it was reported that these tank shells were fired randomly into the city.⁴⁶ Tank rounds fly in a much flatter trajectory than mortars or artillery shells which travel in an arc, and they can therefore cover this distance in just a few seconds.⁴⁷ The T-72 tank fires a high explosive shell across a range of up to 4km.⁴⁸

In Misrata, the UN Commission of Inquiry found damage to buildings caused by several types of high explosive tank rounds, including High Explosive Squash Head (HESH) shells.⁴⁹ HESH shells, like those that were found in Sirte in October 2011, squash a ‘plaster’ of explosive across a building on impact.⁵⁰ The widened surface area and the direct contact with the building mean that when the explosive in the shell detonates, it projects a violent blast wave which can cause significant damage to the building.⁵¹ On 29 April, tank shells were fired into residential areas of Misrata, causing high numbers of civilian casualties including three young children whose home was struck by a shell.⁵²

Casualties

While accurate numbers are not available, the United Nations estimates that in total 30,000 to 50,000 people died or were injured in the Libyan conflict.⁵³

The EVMP recorded 1,031 civilian casualties from explosive violence within the city of Misrata, most of which occurred in April. According to doctors in the city, by 15 April more than 267 bodies had been brought to hospital morgues, the majority of them civilians. The number of dead was probably higher because some families did not bring their relatives to the morgue, and ongoing heavy shelling meant that others had to be buried in small makeshift burial grounds.⁵⁴

On 9 September, the Health Minister for the newly-formed National Transitional Council (NTC) said that at least 2,000 rebels and civilians had been killed in the Misrata area and that at least 900 people had suffered injuries that had resulted in loss of limbs.⁵⁵ At the height of the violence in Sirte on 26 September, a doctor at the city's Ibn Sana hospital said that many of the wounded people they were treating had injuries caused by shelling.⁵⁶ The full scale of civilian harm caused during widespread explosive violence in September and October in Sirte is likely to have been under-reported because journalists were largely unable to access the besieged city.⁵⁷

HEALTHCARE

The use of explosive weapons in populated areas in Libya placed an enormous strain on public health and emergency medical services, both at the time of use and subsequently thereafter. Medics had to treat thousands of civilian casualties of explosive weapons in Misrata and Sirte. Many people suffered traumatic, complex, and life-long injuries from the blast and fragmentation effects of explosive weapons.

Dr Ahmad Haman is a junior orthopaedic surgeon at Misrata Central Hospital. He was responsible for triage and assisting in surgeries during the heaviest shelling in March and April. This included one eight-hour operation on Mehmet Bashir, a 12 year old boy who was injured in an RPG attack. Mehmet's right arm was amputated and he lost two fingers on his left



Amram Diab at his house in Sirte

Amram Diab lost his wife and child when a NATO bomb demolished his house in District No. 2, Sirte, on 29 September 2011.

After the bombing the residents slept in the street rather than risk being trapped in a collapsed building.



The rubble of Mr Diab's house

hand and his right eye. In one incident Dr Hassan had to collect the body parts of a family who were killed by a tank shell as they tried to escape in their car.

The injured were more than 1,300. About 115 serious cases were kept in hospital. Everyone without life threatening injuries was sent home. I've seen people who've just had a leg amputated sent home.⁵⁸

Mohammed Ali,
IT engineer at Misrata Central Hospital



Dr Ahmed Hassan,
Misrata Central Hospital

I was in and out of the operating theatre with no food, no drink. There were patients everywhere and sometimes you couldn't find a place to sleep. I still have trouble sleeping.⁵⁹

Dr Ahmed Hassan, Surgeon at
Misrata Central Hospital, May 2012

In Libya there is an identified lack of training in dealing with specific injuries associated with conflict. Casualties with particularly severe injuries have had to be sent abroad, and as of May 2012 there were more than 150 casualties who were still receiving treatment in Austria and Germany.⁶⁰ There is a limited

capacity for the Libyan medical system to provide or continue to pay for the specialised aftercare that is necessary to respond to the specific needs of victims of explosive violence.⁶¹ This includes physiotherapy and prosthetics that are now required by many victims of explosive weapons.

CHILD VICTIMS

Children were particularly affected by the fighting in Misrata and Sirte, unable to attend school and unable to go outside and play. The principal risks to children were death or injury during the fighting, death or injury from explosive remnants of war, or from celebratory weapon fire. Children were also at risk from attacks on and military occupation of schools and attacks on medical facilities. Adolescent boys were also particularly at risk of participating in the conflict, especially in support roles and manning checkpoints.



Amar Nese



Mifta Fatala

MIFTA FATALA 8 years old, Sirte.

Mifta lost his left hand and injured his feet after picking up a 23mm artillery round. His uncle says that he does not like to show people his injury and refuses to use the plastic hand that he has been given.

AMAR NESE 13 years old, Abu Haid, near Sirte. In January, Amar returned to his school where he picked up a cannon round that had been left after fighting in the area. Medical facilities in Sirte did not have the capacity at the time to respond sufficiently to his injuries, and after initial treatment he was transferred to Tripoli. He now has to re-learn how to write with his other hand.

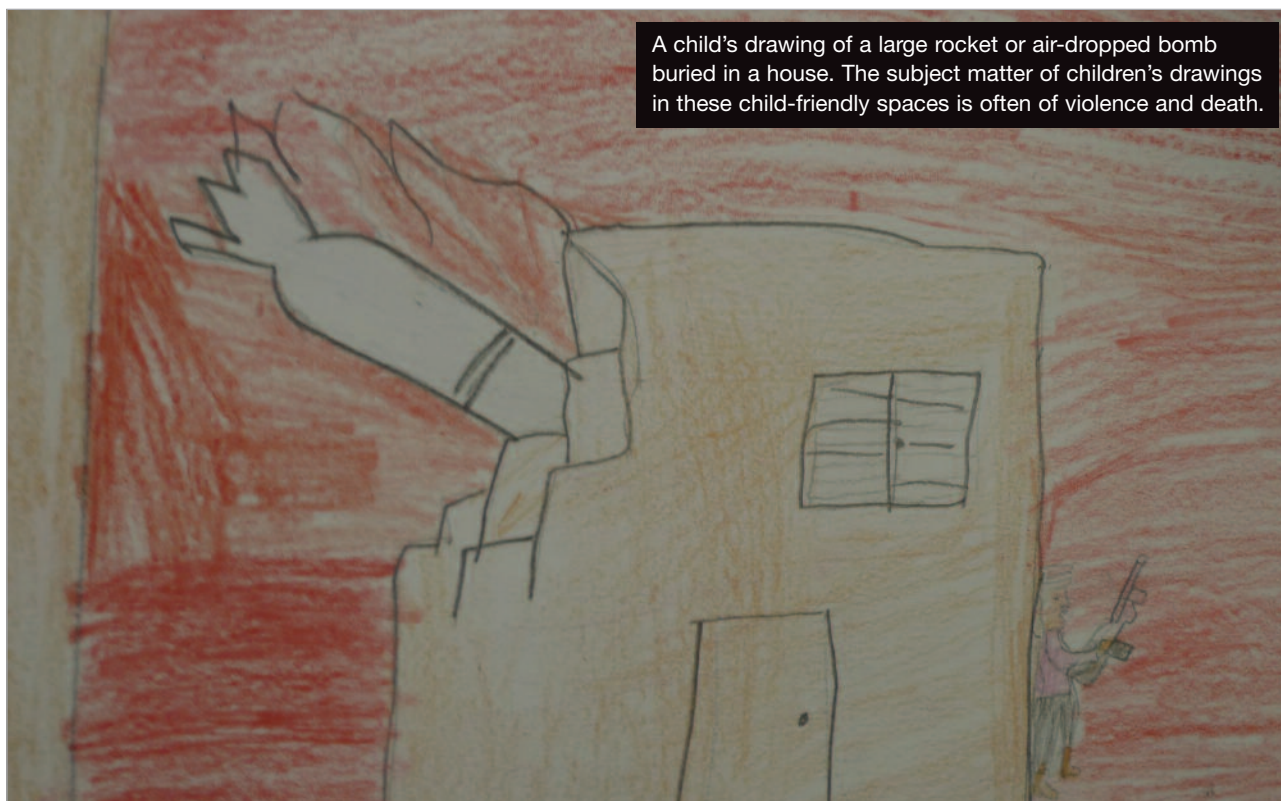
Psychological impacts

ASMA GARGOUM and her family lived near the vegetable market on Tripoli Street, which was one of the areas where the worst explosive violence took place from March to May 2011. Attacks on the Tripoli Street area involving 120mm mortars killed 18 people and injured more than 250 on 20-21 April 2011.⁶² For 15 days, Asma's family were trapped in the basement of their home during heavy bombardment of the area before finally escaping on the night of 26-27 April. One of Asma's brothers was killed in the fighting, while her younger brother was traumatised and was only beginning to recover a year later.



Almost all the children are affected in some way or another. They have seen a lot of blood and death.

Asma Gargoum,
Information Officer
for Danish
Church Aid



A child's drawing of a large rocket or air-dropped bomb buried in a house. The subject matter of children's drawings in these child-friendly spaces is often of violence and death.

Libya has few psychologists trained to meet the needs of people who might be suffering with trauma following their experiences of surviving months of bombardment in Misrata or Sirte. According to Elias Abi-Aad, a psychologist with Médecins Sans Frontières (MSF), *"Prior to the war, there were only child psychology services in Misrata for treating conditions such as Down Syndrome or autism, nothing else, and even psychiatry wasn't really*

being offered effectively. They had no experience in normal clinical psychology at all, let alone trauma and war-related mental health disorders."⁶³

Danish Church Aid has reported a large increase in behavioural problems amongst children in Misrata since the fighting with typical symptoms including aggressive behaviour in public, nightmares, bedwetting, and fear of the dark.⁶⁴

Displaced families

It is estimated that at least 500,000 people were internally displaced in Libya in 2011 as a result of the fighting between rebel and loyalist forces and the NATO-coordinated bombardment of the country.⁶⁵ Between February and September 2011, more than 700,000 people crossed Libyan borders. According to the International Organization for Migration (IOM) it was “one of the largest migration crisis [sic] in modern history.”⁶⁶



Graffiti on a shop wall, off Tripoli Street, Misrata

A year after people fled the explosive violence in Misrata and Sirte there were still many displaced families who faced very significant threats and barriers to their recovery. At the end of 2011, tens of thousands of people were still unable to return to their place of origin because their homes had been damaged or destroyed during the bombardment or they did not think it was safe. When asked by an assessment team why their house was still unoccupied, more than 3,500 interviewees from Misrata said that their house had been too badly damaged.⁶⁷

Many displaced families were living in improvised shelters in the desert where they largely remained out of the reach of support.⁶⁸ In Abu Hadi (40km south of Sirte), twenty-two families lived in unfinished buildings with no windows or doors and no electricity. The families combined their financial resources in order to rent a generator, which cost 500 dinar a month, and to buy supplies of clean water. The men, women, and children who lived in this makeshift camp were in an extremely vulnerable position; in May 2012 large amounts of abandoned ordnance were photographed in houses directly adjacent to where they were currently living.⁶⁹



Mabrika Jabelle is a displaced resident of Tawergha, which was badly damaged in August by explosive weapons. Along with 120 displaced families from



Tawergha and Misrata, Mabrika found shelter in unfinished housing units in Abu Grain, without electricity or running water.

Education

Schools in Misrata were closed for several months during the heaviest fighting.⁷⁰ According to local authorities, there were 122 public and 50 private schools for children from grade 1-9 in Misrata.⁷¹ In many cases these schools were used as military camps. They were often damaged during the fighting and their contents including textbooks, student records, and furniture were destroyed. After the conflict ended, education continued to be disrupted as schools were used to house the displaced.⁷²

By February 2012, schools were open and functioning but often amenities were limited and there was a shortage of appropriately trained staff. Many of the teachers were from other countries and had fled Misrata because of the fighting. When schools reopened, many of them were staffed by inexperienced volunteers.⁷³ During the cold weather children were studying in scarves and hats.⁷⁴

The schools in Sirte were closed for a shorter period than in Misrata but the damage to the buildings was much more acute. Satellite images from December 2011 identified the widespread damage that was caused to buildings in Sirte. Seven primary schools and two secondary schools were categorised as enduring medium to high damage. Two more schools were totally destroyed.⁷⁵



Yarmuk school was one of those that were severely damaged. The school, which normally houses 500 pupils, was struck by shelling in Sirte in October 2011. According to Abraham Saad, the school manager, the building was empty and was not being used by the city's defenders at the time.

In May 2012, the upper floors of the school were still extensively damaged. Although classrooms on the upper levels were still clearly unsafe, students were being taught in rooms on the ground floor. All the school records were lost. No government support had been received and the school relied on voluntary donations from the local community.⁷⁶





Sirte University bookstore, destroyed by a tank round fired on 7 October 2011

Abdul Dhim, a student at the faculty of journalism, stands ankle-deep in the ashes of burnt books, (see right) which were destroyed on 7 October when tank rounds struck Sirte's University. Although there were no students at the university at the time of the attack some of the teaching staff were present. The University has a 2,000-seat lecture theatre, which despite ongoing repair work still bore visible fire damage and could not be used. There was extensive damage to the main lecture hall, the guesthouse and the bookstore. Computers and student records were destroyed.



Academic books reduced to ashes, Sirte University



Sirte University

Damage to infrastructure and buildings

The combination of fragmentation and blast in Misrata and Sirte destroyed residential buildings, commercial businesses and shops, and damaged infrastructure including vital public utilities (water mains, sewage systems and electricity networks), schools and universities, local government buildings, hospitals and health clinics, and mosques.

We need to repair a lot of things like telephone connections, water and the sewage system. All of these were ruined in the market.⁷⁷

Mohamed Alghwail,
Chairman of a market that housed
750 traders in Misrata



A shop front on Tripoli Street

A Grad rocket which struck the warehouse of the Al-Naseem Dairy in Misrata's port area on 16 April caused approximately GBP 12.7 million worth of damage and the company was forced to close.⁷⁸

The Libyan Insurance Company building in Misrata was struck by a tank round on 6 March 2011. More than a year later, the building was still badly damaged.

In January 2012, the UN Commission of Inquiry found that nearly every building they encountered in Sirte exhibited damage, mostly caused by Grad rockets and machine guns.⁷⁹ The shelling destroyed the banking system, and residents and humanitarian agencies raised concerns about the lack of liquidity and credit in the city, as a lack of secure access to money would inhibit any efforts by residents to recover from the damage caused by explosive weapons in the city.



Wahda Bank, Sirte



Shop fronts in Sirte, showing the long-term damage from both the blast and fragmentation effects of explosive weapons.



Homes



Tripoli Street, Misrata

This residential building in central Misrata bears the scars of heavy shelling from two directions. The worst damage is on the higher floors of the property, where fire damage can also be seen alongside pockmarks from shrapnel. More than 3,000 homes in Misrata and

the surrounding areas were recorded as suffering medium, heavy, or complete damage (almost half of all those surveyed by an assessment team at the end of 2011).⁸⁰

Homes in Sirte in several residential areas were hit by barrages of Grad rockets in September 2011.⁸¹ Despite having no power or utilities, and in some cases being unsafe to live in, residents in District No.2 of Sirte were living in these houses that were damaged by mortars, rockets, and artillery during September and October 2011.



Damaged homes in Sirte

Dozens of buildings are uninhabitable due to their structural integrity being compromised, with multiple walls and roofs collapsed. Numerous buildings exhibited impacts from shells consistent with fire from 106mm recoilless rifles and 107mm rocket artillery, using both High-Explosive Anti-Tank rounds and High Explosive Squash Head rounds.⁸²

UN Commission of Inquiry on Libya, March 2012



Residents in front of their homes in Giza district, Sirte

Preventing safe return

The presence of unexploded ordnance in both Misrata and Sirte has made it harder for internally displaced persons (IDPs) to return safely and re-establish their livelihoods. Misrata and Sirte were both contaminated with unexploded rockets, artillery and tank shells, as well as other ordnance. While the centres of both cities had been largely cleared by May 2012, including through informal efforts from local clearance teams, many outlying districts remained affected. The police station in Dafniya, to the west of Misrata (pictured below), was one such site that in May 2012 was still littered with unexploded ordnance and was far too dangerous to use.

Common ordnance found in Misrata and Sirte included 57mm rockets and 125mm High-Explosive Anti-tank (HEAT) rounds. As of 19 June 2012, the Joint Mine Action Coordination Team had cleared more than 300,000 explosive remnants of war (ERW). Remnants were found at 89 schools across the country, and in 2,818 houses.⁸³ Unexploded ordnance had only just



A warning pointing to unexploded Grad rockets, Sirte

been cleared from the Sirte Power Plant, allowing construction to recommence.⁸⁴ There was a nationwide shortage of explosives available for the vital work of destroying ordnance. The problem was particularly acute in Sirte, where operators instead were only able to mark dangerous items, and relocate those that were safe to move to storage areas south of the city, where they were vulnerable to looting.



Unexploded ordnance (UXO), Dafniya police station, Misrata

Conclusion

Civilians in Misrata and Sirte are still living with the effects of explosive weapons. The use of explosive weapons with a wide-area impact in these populated areas destroyed their homes and shops. Many families were unable to resume their lives because of the disruption and knock-on effects of the damage caused by Grad rockets and heavy shells and bombs. Over a year later, many still remained displaced and endured economic hardships due to loss of livelihood and property. Children in Libya were particularly affected. Many children were unable to attend safe schools, still suffered the traumatic effects of witnessing the use of explosive weapons, and were at particular risk from unexploded or abandoned explosive ordnance.

This case study presents a snapshot of some of the ways in which Libyans have been affected by the sustained use of explosive weapons. AOAV has documented similar patterns of harm from the use of explosive weapons in many other countries and contexts, some of which are discussed further in AOAV's companion case-studies from Pakistan and Republic of Congo.

The evidence in this case study of the lasting impacts of explosive weapons in Libya reinforces the conclusions of the UN Secretary-General in his most recent report on the Protection of Civilians in Armed Conflict. States and other actors must take urgent action to ensure that the harm to civilians seen in Libya is not repeated.

AOAV is a founding member of the International Network on Explosive Weapons (INEW), which calls

for immediate action to prevent human suffering from the use of explosive weapons in populated areas. States and other actors should:

1. Acknowledge that use of explosive weapons in populated areas tends to cause severe harm to individuals and communities and furthers suffering by damaging vital infrastructure;
2. Strive to avoid such harm and suffering in any situation, review and strengthen national policies and practices on use of explosive weapons and gather and make available relevant data;
3. Work for full realisation of the rights of victims and survivors;
4. Develop stronger international standards, including certain prohibitions and restrictions on the use of explosive weapons in populated areas.

In developing such standards, INEW urges states and all other actors to refrain from using explosive weapons in populated areas. The evidence of the continuing suffering caused by such explosive weapons in Libya in this case study strongly supports this call.

AOAV believes that the harm caused by explosive weapons is both predictable and preventable. In order to address this harm in a comprehensive manner, greater efforts are urgently needed aimed at preventing further human suffering from the use, stockpiling, and contamination from explosive weapons. At the same time, greater efforts should be taken to address the existing harm caused by explosive weapons through rehabilitation and recovery for victims and survivors.

NOTES

- 1 The characteristics of explosive weapons are further detailed in Maya Brehm and John Borrie, "Explosive Weapons: Framing the Problem," Background Paper No 1 of the Discourse on Explosive Weapons (DEW) project, UNIDIR, explosiveweapons.info/wp-content/uploads/2011/04/DEW-paper-No-1.pdf
- 2 The term populated area is based on the definition in Protocol III of the 1980 Convention on Certain Conventional Weapons (CCW) of a concentration of civilians as : *any concentrations of civilians, be it permanent or temporary such as in inhabited parts of cities, or inhabited towns or villages, or as in camps or columns of refugees or evacuees, or group of nomads.* "Protocol on prohibitions or restrictions on the use of incendiary weapons (Protocol III)," 10 October 1980, www.icrc.org/ihl.nsf/FULL/515
- 3 Explosive violence: the problem of explosive weapons (2009) established explosive weapons as a category, identifying a common series of effects which follow their use in populated areas. Richard Moyes, "Explosive Violence: the problem of explosive weapons," Landmine Action 2009, www.aoav.org.uk/uploads/changing_policy/august_2009_explosive%20violence_the_problem_of_explosive_weap.pdf
- 4 AOAV found that at least 21,499 civilians were killed or injured by explosive weapons in 2011. Henry Dodd and Robert Perkins, "Monitoring Explosive Violence: The EVMP dataset 2011," AOAV, March 2012, www.aoav.org.uk/uploads/changing_policy/reports/Monitoring%20Explosive%20Violence%202011.pdf
- 5 International Network on Explosive Weapons, "Call Commentary," www.inew.org/about-inew/inew-call-commentary
- 6 United Nations Secretary-General Ban Ki-moon, in "Report of the Secretary-General on the protection of civilians in armed conflict," UN Security Council, S/2012/376, 22 May 2012, www.un.org/Docs/sc/sgrep12.htm

- 7 Henry Dodd and Robert Perkins, "Monitoring Explosive Violence: The EVMP dataset in 2011," AOA, March 2012, www.aoav.org.uk/uploads/changing_policy/reports/Monitoring%20Explosive%20Violence%202011.pdf
- 8 Cluster munitions were also fired in the city on 14 April 2011, where they landed near the Misrata hospital. Cluster munitions disperse submunitions or 'bomblets' indiscriminately over a wide area, and have been banned by the international community as an inhumane weapon. For more information see International Campaign to Ban Landmines and Cluster Munition Coalition, [The Landmine and Cluster Munition Monitor 2011](http://www.the-monitor.org/index.php/cp/display/region_profiles/theme/1130), Libya, Cluster Munition Ban Policy, Last Updated: 14 September 2011, www.the-monitor.org/index.php/cp/display/region_profiles/theme/1130
- 9 Names of officials interviewed have been withheld when requested.
- 10 Baroness Valerie Amos, UN Humanitarian Chief, "United Nations Humanitarian Chief Highlights Humanitarian Consequences of Continued Fighting in Libya," 17 March 2011, http://reliefweb.int/sites/reliefweb.int/files/resources/1E371B71D2AF5F0349257857001021BC-Full_Report.pdf
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Top photo- Buildings damaged by explosive weapons on Tripoli Street, Misrata, May 2012.

Bottom photo- A boy stands in front of a ruined house, Misrata, May 2012.