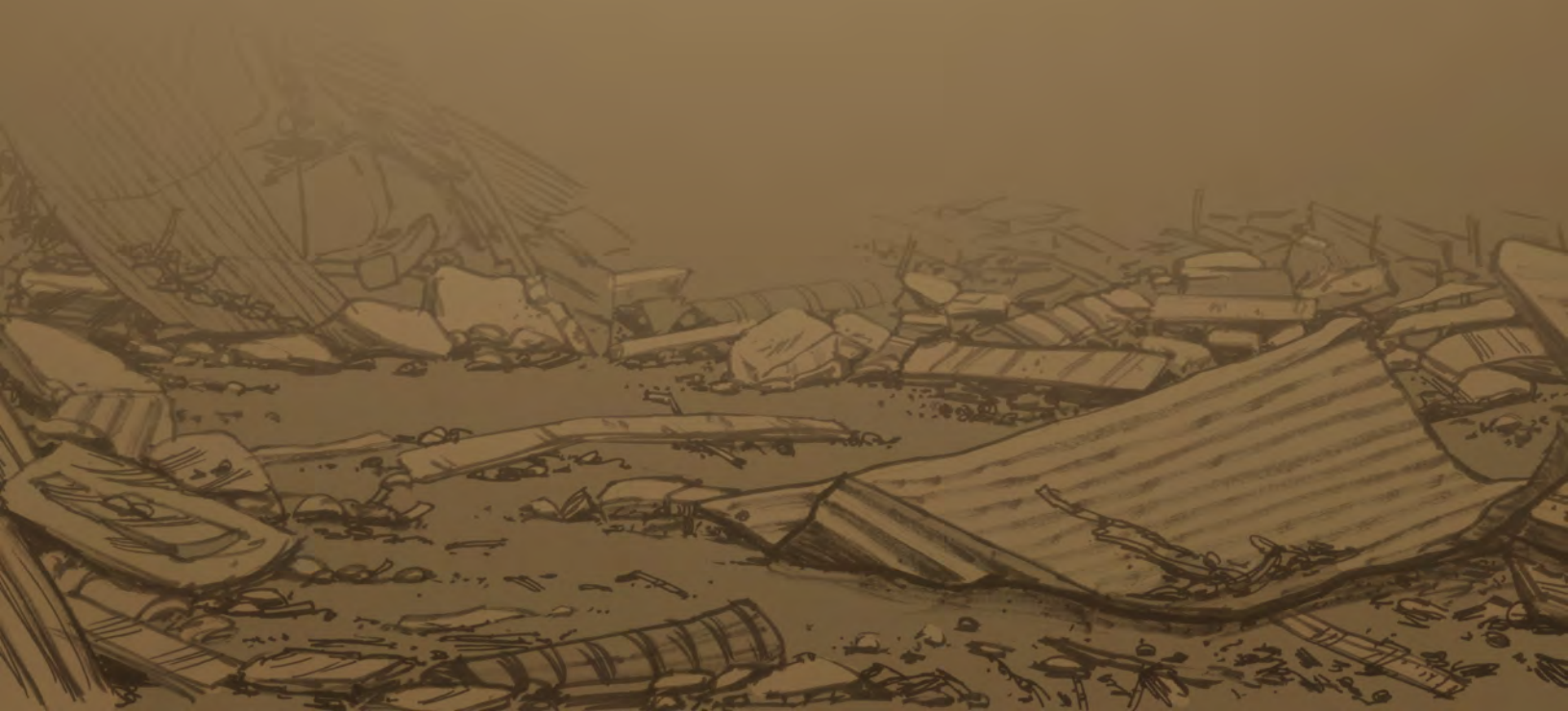


COVERED IN DUST, VEILED BY SHADOW

The Siege and Destruction of Aleppo



NEWHOUSE CENTER FOR
GLOBAL ENGAGEMENT
SYRACUSE UNIVERSITY





**COVERED IN DUST, VEILED BY SHADOW: THE
SIEGE AND DESTRUCTION OF ALEPPO**

Authors:

Kaitlyn Degnan

Zachary Lucas

Sean Mills

Contributing Authors:

Jordan Charnetsky

Cintia Garcia

Kseniia Guliaeva

Margaret Mabie

Samuel Miller

Joe Railey

William Salage

Cover Artwork By:

Jeff Passetti

Visuals By:

Margaret Mabie

Syrian Accountability Project Leadership

Project Leader: Professor David M. Crane, Former Chief Prosecutor, Special Court of
Sierra Leone

Executive Director: Zachary Lucas

Chief Registrar: Kaitlyn Degnan

Chief Investigator: Sean Mills

Additional Research By:

Brittany Clark

Samantha Netzbund

Ethan Peterson

Table of Contents

Executive Summary	5
Methodology	5
Introduction- What is the city of Aleppo?	6
Aleppo During the War.....	9
2012- The War Reaches Aleppo	9
2013- The Conflict Escalates	9
2014- Aleppo under Fire	11
2015- Russian Intervention	13
2016 – The Encirclement of Aleppo	14
The Siege Of Aleppo	17
Historical Narrative.....	17
Timelining the Changing Forces of War.....	19
The Diary of Bana Alabed	24
Documented Incidents During the Siege	25
Introduction.....	25
Siege Warfare.....	25
Indiscriminate Shelling	29
Aleppo Data	30
The Law Against Indiscriminate Shelling	31
Most Egregious Incidents of Indiscriminate Shelling During the Siege	34
Barrel Bombs	34
Chemical Weapons	39
Most Egregious Incidents of Chemical Weapon Attack During the Siege	40
Conclusions on Chemical Weapons.....	40

Attacks against Medical and Humanitarian Operations.....	41
Medical Operations.....	41
Attack on the Aid Convoy	44
Extrajudicial Killings	45
Recommendations.....	47
Appendix A: Conflict Narrative for Indiscriminate Shelling.....	47
Appendix B: Conflict Narrative for Chemical Weapon Attacks	54
Appendix C: Crime Based Matrix for Attacks on Medical Facilities.....	57
Appendix D: Parties to the Conflict.....	65
Appendix E: Weapons	70

EXECUTIVE SUMMARY

For 160 days, from 16 July through 22 December 2016, the Syrian government besieged the eastern Rebel-held portions of Aleppo. The end result was a key victory for the Syrian government in its war against armed rebellion that began more than six years ago. The siege also resulted in a brutal subjugation of the residents in eastern Aleppo, decimating its foundations.

The siege resulted in a brutal subjugation of the residents in eastern Aleppo, decimating its foundations.

This white paper gives a complete historical narrative of the city of Aleppo to show the transition of one of the world's oldest cities from cultural metropolis to rubble and dust. This includes a review of the ancient city up until modern time, including a detailed look at Aleppo's place in the Syrian Civil War from the very beginning until the end of the siege in late December 2016.

The white paper then looks at six distinct categories of incidents that are representative of the violations that occurred as an extension of siege policy: Siege Warfare, Indiscriminate Shelling, Barrel Bombs, Chemical Weapons, Attacks on Humanitarian and Medical Operations, and Extrajudicial Killings.

Finally, the paper finds that the way siege policy was carried out as pertaining to these six distinct categories amounted to war crimes, mainly committed by the Syrian government and its ally, the Russian Federation. Siege Warfare itself is not a war crime, but the manner in which the siege was undertaken by the main parties, including responses from local Rebel groups, violated international law.

METHODOLOGY

The Syrian Accountability Project is a student-run, internationally recognized organization based out of the Syracuse University College of Law. It utilizes open-source news and other widely available media, as well as direct contacts within the Levant to document crimes occurring within the Syrian conflict under international legal standards. Its purpose is to advocate on behalf of the victims of the conflict, and to provide legal analysis to aid in the eventual administration of transitional justice.

This paper analyzed documented instances from SAP's main deliverables: The Conflict Narrative and the Crime Based Matrix. The Conflict Narrative is a comprehensive account of all verified recorded and pertinent crimes documented on a daily basis. The Crime Based Matrix is a spreadsheet that pulls information from the conflict narrative and highlights each specific incident by date, location, description, and responsible party. It then provides the relevant source of potential legal liability under the Rome Statute, the Geneva Conventions, and the Syrian Penal code.

This white paper provides instances in one of 2 ways: most egregious incidents or incidents representative of a larger policy. Most egregious incidents are identified by characteristics of the incident itself based on the number of victims, the target of the incident, the type of weapon, or

other circumstances that make the incident of higher legal relevance. Representative incidents of a larger policy were used when the wealth of information was so great that it was more informative and legally pertinent to show a few incidents that represent a certain legally relevant policy (i.e. double-tapping with Barrel Bombs).

Along with individual instances, SAP also uses collected data from its Crime Base Matrices to show broader categories of legally relevant incidents over time in data visualization in portions of the paper. These visualizations were created after analyzing the Crime Based Matrix database to show various types of tracked crimes over time throughout Syria and Aleppo, in particular.

INTRODUCTION- WHAT IS THE CITY OF ALEPPO?

Throughout the Syrian Civil War, the city of Aleppo¹ has endured some of the worst fighting between Syrian Armed Forces and Rebel groups in an effort to establish control over the city. While highly publicized for the destructive impact that this war has had on the civilian population, Aleppo is no stranger to violent conflict between warring factions. Throughout its history, Aleppo served as an economic and militarily strategic hub between the Mediterranean and Eastern civilizations, often serving as the setting for militarized conflict. In addition, Aleppo traditionally served as a melting pot of various cultural and religious peoples. Throughout this history, however, one theme has come to define the city of Aleppo and its people: endurance through change, and growth through conflict.

Although records are inconclusive over the precise origins of the city of Aleppo and when it was settled, documents from the Ebla tablets date the city, then known as Ha-lam, as far back as the 3rd millennium BCE.² In fact, the current-day city of Aleppo has been built atop the ancient city site; this has made pre-historic archaeological excavations difficult to ascertain with certainty.³ Historically, Aleppo was noted for its commercial and military proficiency, particularly in its strategic location between the Mesopotamian Empires and the Mediterranean Sea.⁴ In the 18th century BCE, Aleppo came to great power and influence as the Amorite Kingdom of Yamkhad, establishing connections with famous historical figures such as Hammurabi.⁵ Later, the Hittites took over the Yamkhad kingdom; during the 17th to 14th century BCE, Aleppo rose to power, eventually establishing moderate independence as a Hittite principality.⁶ Due to a lack of historical records, little is known of the city's history during this time; by the 3rd century BCE however, the city was overtaken by

Aleppo traditionally served as a melting pot of various cultural and religious peoples.

¹ Throughout the paper, the city will be called Aleppo. In Arabic it is حلب. The ancient name of the city is Halab, which is how the city is still referenced in Arabic today.

² Throughout this paper, dates will use "BCE" to denote "Before Common Era," otherwise, all dates are "Common Era." See, *Profile: Aleppo, Syria's second city*, BBC NEWS (Nov. 28, 2016), <http://www.bbc.com/news/world-middle-east-18957096> [hereinafter *Profile: Aleppo*]. See also ALPHONSO ARCHI, *ORIENTALIA: VOL. 63* 250 (Gregorian Biblical Book Shop 1994).

³ It is unknown how extensive the damage has been to the ancient city site following the events of the Syrian Civil War.

⁴ See The Editors of Encyclopædia Britannica, *Aleppo*, ENCYCLOPÆDIA BRITANNICA, <https://www.britannica.com/place/Aleppo> [hereinafter ENCYCLOPÆDIA BRITANNICA].

⁵ *Id.* See also AMÉLIE KUHRT, *THE ANCIENT NEAR EAST 100* (Routledge 1998).

⁶ ENCYCLOPÆDIA BRITANNICA, *supra* note 4.

Alexander the Great and the Seleucids, who proceeded to rename the city Beroea.⁷

During the period of Hellenic rule, the city again rose to a level of independence and great importance as a trade route between the Mediterranean and lands to the East.⁸ In 64 BCE, Beroea was transferred to the command of Roman military leader, Pompey, becoming a Roman province.⁹ The city enjoyed prosperity and stability for centuries as a hub for caravan traffic under Byzantine rule (636-637 CE); it was conquered by Arab-Muslim troops, restoring the name of Aleppo.¹⁰ Roughly 80 years after the Muslim conquest, Umayyad Caliph Suleyman constructed The Great Mosque, serving as one of the signature symbols of Aleppo until its destruction in 2013 during the Syrian Civil War.¹¹ Aleppo enjoyed a period of growth and prosperity during this time, once again achieving relative independence. In the mid-10th century CE, Aleppo experienced a cultural revolution, led by figures such as poet al-Mutanabbi and philosopher al-Farabi.¹² Soon after this period, however, Aleppo experienced centuries of conflicts and hardship. During this time, the Byzantine Empire, Crusaders, Fatamids, and Seljuks all fought to gain control of Aleppo and the surrounding region.¹³

Muslim rule (under the Ayyubid dynasty) over Aleppo ended in 1260 with the Mongol conquest, which slaughtered the inhabitants of the city.¹⁴ This did not bring an end to the era of conflict in Aleppo, however, as the Egyptian Mamluks continued to fight for control of Aleppo for over a century. In 1400 CE, Timur re-conquered Aleppo, with one account describing Timur as having “a pyramid of some twenty thousand skulls erected outside the city, as a mute testimony to Timur’s terrible vengeance.”¹⁵ Following this battle, Aleppo experienced another economic revival as trade routes through the Black Sea and Anatolia declined in importance.¹⁶ In 1516 CE, Aleppo became a part of the Ottoman Empire and due to its commercial influence and power, Aleppo was made the capital of its own province, which stretched across parts of Anatolia and modern-day northern Syria.¹⁷ During this period, Aleppo hosted numerous European consulates and trading offices; with the further development of marketplaces, Aleppo yet again became a cultural hub for various religions and ethnicities.¹⁸

In the mid-18th century, however, Aleppo began to decline in prosperity due to the

⁷ *Id.*

⁸ *Id.* See also ROBERT R. PHENIX, THE SERMONS ON JOSEPH OF BALAI OF QENNESHIN: RHETORIC AND INTERPRETATION IN FIFTH-CENTURY SYRIAC LITERATURE 47-48 (2008).

⁹ PHENIX, *supra* note 8, at 49. See also ENCYCLOPÆDIA BRITANNICA, *supra* note 4.

¹⁰ ENCYCLOPÆDIA BRITANNICA, *supra* note 4. See also *Profile: Aleppo*, *supra* note 2.

¹¹ FSTC Limited, *The Great Mosque Of Aleppo*, MUSLIM HERITAGE, <http://www.muslimheritage.com/article/great-mosque-aleppo>. See also Jonny Weeks, *Syria: Aleppo's Umayyad mosque destroyed - in pictures*, THE GUARDIAN (Apr. 25, 2013), <https://www.theguardian.com/world/gallery/2013/apr/25/syria-umayyad-mosque-destroyed-pictures>.

¹² ENCYCLOPÆDIA BRITANNICA, *supra* note 4.

¹³ See The Editors of Encyclopædia Britannica, *Aleppo earthquake of 1138*, ENCYCLOPÆDIA BRITANNICA, <https://www.britannica.com/event/Aleppo-earthquake-of-1138> [hereinafter *Aleppo earthquake of 1138*].

¹⁴ ENCYCLOPÆDIA BRITANNICA, *supra* note 4.

¹⁵ Battle of Aleppo, EVERYTHING2, [http://everything2.com/index.pl?node=Battle of Aleppo](http://everything2.com/index.pl?node=Battle+of+Aleppo). See also ENCYCLOPÆDIA BRITANNICA, *supra* note 4.

¹⁶ ENCYCLOPÆDIA BRITANNICA, *supra* note 4.

¹⁷ *Id.* See also *Profile: Aleppo*, *supra* note 2.

¹⁸ ENCYCLOPÆDIA BRITANNICA, *supra* note 4.

development of industrial technologies, as well as a reduction of Persian commercial infiltration.¹⁹ This decline continued throughout the 19th century until the conclusion of World War I, which dramatically redefined the role of Aleppo. Following World War I and the collapse of the Ottoman Empire, the territories of the Ottoman Empire were divided amongst the Allied powers. Two treaties, the Treaty of Lausanne and later, the Treaty of Sevres, created the French Mandate of Syria and Lebanon.²⁰

Syria gained independence from France in 1946.²¹ However, the newly formed government did not last long as political turmoil through coups occurred from 1949 until the rise of Hafez al-Assad in a bloodless coup in 1970.²² He remained in power, although not devoid of political strife, until his death in 2000 when his son, Bashar al-Assad [hereinafter President Assad] took his place.²³ Upon taking office, President Assad vowed to address some of the political concerns in the country, including the demand for more political freedom by non-Alawite groups. However, these changes never came about.

Syria fell back into political turmoil a decade after President Assad took power. As an extension of the Arab Spring, protests began in Daraa on 15 March 2011 demanding the release of political prisoners, specifically the release of a minor that had written anti-government graffiti on a wall.²⁴ Security forces cracked down on protests with arrests and gunfire.²⁵ This series of events led to an escalation of violence nationwide and armed rebellion against the state in June 2011.

*Syria fell back into political
turmoil a decade after
President Assad took power.*

In August 2011, anti-government protests began in several districts of Aleppo, “where two people died during government raids.”²⁶ According to the article for Aleppo in *Encyclopædia Britannica*,

Aleppo initially remained quiet when demonstrations broke out against the regime of [President Assad] in early 2011 and was thus spared the brutal reprisals by Syrian security forces. However, as the crisis evolved into a civil war, Aleppo became a center of armed opposition activity, and the city saw full-fledged combat beginning

¹⁹ ENCYCLOPÆDIA BRITANNICA, *supra* note 4; *Profile: Aleppo* *supra* note 2.

²⁰ See ENCYCLOPÆDIA BRITANNICA, *supra* note 4. See also Verity Elizabeth Irvine et al., *Syria*, ENCYCLOPÆDIA BRITANNICA, <https://www.britannica.com/place/Syria/The-French-mandate#ref404060>.

²¹ *Syria profile – timeline*, BBC NEWS (Apr. 11, 2017), <http://www.bbc.com/news/world-middle-east-14703995>.

²² *Id.*

²³ *Id.* There were uprisings in 1973 following Hafez al-Assad removing the mandate that the President must be a Muslim. There was also an uprising by the Muslim Brotherhood in the 1980s that was put down violently leading to tens of thousands of civilians being killed in Hama. President Assad, like his father, is an Alawite which is under the Shia sect of Islam. Alawites are a minority in the predominantly Sunni Muslim population of Syria. He went to medical school for ophthalmology in London and only gained political aspirations after the death of his older brother in a car accident. *Id.*

²⁴ *Id.*

²⁵ *Id.*

²⁶ Nour Ali & Martin Chulov, *Syria violence spreads to commercial capital Aleppo*, THE GUARDIAN (Aug. 12, 2011), <https://www.theguardian.com/world/2011/aug/12/syria-violence-spreads-aleppo>.

in the summer of 2012.²⁷

Later that year in October 2011, pro-government demonstrations in support of President Assad took place in Aleppo, demonstrating both the support of the Assad regime and the instability of the climate within the city.²⁸

ALEPPO DURING THE WAR

Aleppo's tumultuous history during the Syrian Civil War provides context for understanding the scenario many Aleppans found themselves in summer 2016. A breakdown of historical events and SAP's documentation of legally-relevant instances will help illustrate Aleppo's place in the war.

2012- The War Reaches Aleppo

Anti-regime protests began in Aleppo during the first half of 2012. In February 2012, the conflict escalated within Aleppo, when car bombers targeted security forces in Aleppo, killing at least 28 and wounding an additional 235 people. The earliest protests in Aleppo began at Aleppo University, where students protested President Assad. These protests were met with force from pro-government students and security forces, who dispersed the protests. Security forces also raided university dormitories to remove anti-government students, leading to the death of four students.²⁹

Fierce fighting in Aleppo began in July 2012, in the district of Salah ad-Din. Syrian government military forces swept in in full force. A local resident said, "[t]he sound of bombardment has been non-stop since last night. For the first time we feel Aleppo has turned into a battle zone."³⁰

By August 2012, the Rebels and Syrian Armed Forces hit a stalemate. The Syrian government deployed 20,000 reinforcements to the city to combat the advancing Rebels who claimed they had control of 50% of the city.³¹ The initial violence in the city led to the exodus of some 300,000 residents into Turkey over the subsequent months.³²

2013- The Conflict Escalates

²⁷ ENCYCLOPÆDIA BRITANNICA, *supra* note 4.

²⁸ Nada Bakri, *Pro-Assad Rally Shows Syrian Government Can Still Command Support*, THE NEW YORK TIMES (Oct. 20, 2011), <http://www.nytimes.com/2011/10/20/world/middleeast/assad-supporters-hold-rally-in-aleppo-syria.html>.

²⁹ Hwaida Saad and Rick Gladstone, *Students are Assailed at a Protest in Syria*, THE NEW YORK TIMES (May 17, 2012), <http://www.nytimes.com/2012/05/18/world/middleeast/protesters-set-upon-at-aleppo-university-despite-monitors.html>.

³⁰ *Syria fighting spreads to Aleppo*, AL JAZEERA (July 22, 2012), <http://www.aljazeera.com/news/middleeast/2012/07/201272118545239117.html>.

³¹ *Syria Army Reinforcements in place for Aleppo battle*, NOW NEWS (Aug. 5, 2012), https://now.mmedia.me/lb/en/archive/syria_army_reinforcements_in_place_for_aleppo_battle.

³² See, Armenak Tokmajyan, *2012 Aleppo Conflict Timeline*, THE ALEPPO PROJECT (May 2016), <http://www.thealeppoproject.com/wp-content/uploads/2016/05/Aleppo-Conflict-Timeline-2012-2.pdf>.

Violence and killing escalated during 2013, as it did in most of Syria. On 15 January 2013, violence continued at Aleppo University when over 80 students were killed during midterm exams.³³ Later in January, over 100 bodies showing signs of torture, were pulled from the Quweiq River in the Bustan al-Qasr district.³⁴

Syrian Armed Forces were also starting to use more deadly weapons against Rebel Forces and civilians. In February of 2013, a surface-to-surface missile targeted Jabal Badro and killed at least 40 civilians.³⁵ Later, Rebel groups accused the Syrian Armed Forces of targeting residential areas with scud-type missiles, killing at least 20 civilians.³⁶ In March 2013, Syrian Armed Forces launched cluster munitions at a residential area in Masakin Hanano district, killing at least 12 civilians.³⁷ On 19 March, sarin gas was used in an attack against civilians in Khan al-Asal.³⁸ On 13 April, the Syrian government was accused of using sarin gas against civilians in the Sheikh Maqsoud neighborhood.³⁹ The use of these kinds of weapons would continue to increase as the war persisted in Aleppo.

In early June, around 2,000 Hezbollah fighters massed in the region surrounding the city of Aleppo to support Syrian Armed Forces.⁴⁰ The Syrian government announced “Operation Northern Storm” on 9 June, with the goal of reclaiming Aleppo from the Rebels. The Syrian government built up a military presence in government-held towns.⁴¹ On 22 June, Syrian Armed Forces conducted 251 extrajudicial killings of civilians—including women and children—in the al-Mazraa village of al-Safirah.⁴² The VDC reports that some of the victims were burned to death, while others were thrown in a well.⁴³ From 22-23 July, Rebel forces attacked and captured Khan al-Asal. During the takeover, 51 soldiers and officers were summarily executed after surrendering,

³³ Hwaida Saad and Rick Gladstone, *Dozens Killed as Explosions Hit Syrian University*, THE NEW YORK TIMES (Jan. 15, 2013), <http://www.nytimes.com/2013/01/16/world/middleeast/syria-violence.html>.

³⁴ *Dozens of men found ‘executed’ in Syria*, AL JAZEERA (Jan. 30, 2013), <http://www.aljazeera.com/news/middleeast/2013/01/2013129133917989266.html>; Martin Chulov and Mona Mahmood, *Syrian rebels recover scores of bodies from Aleppo river as floodwaters recede*, THE GUARDIAN (Jan. 29, 2013), <https://www.theguardian.com/world/2013/jan/29/syrian-rebel-bodies-aleppo-canal>.

³⁵ *Latest Martyrs: Feb. 18, 2013*, VICTIMS DOCUMENTATION CENTER (Feb. 18, 2013), www.vdc-sy.info/index.php/en/details/martyrs (last visited Feb. 22, 2017).

³⁶ Khaled Yacoub Oweis, *Syria “Scud-type” missile said to kill 20 in Aleppo*, REUTERS (Feb. 20, 2013), <http://www.reuters.com/article/us-syria-crisis-idUSBRE91I0GK20130220>.

³⁷ *Syria: Government Rains Bombs on Civilians*, AMNESTY INTERNATIONAL (Mar. 14, 2013), https://www.amnesty.org/nz/sites/default/files/rain_bombs.pdf.

³⁸ See, Final Rep. of the U.N. Mission to Investigate Allegations of the Use of Chemical Weapons in the Syrian Arab Republic (December 2013), <https://unoda-web.s3.amazonaws.com/wp-content/uploads/2013/12/report.pdf> [hereinafter Final Report 2013]; and see *Syrian rebels claim control of western Aleppo*, AL JAZEERA (July 24, 2013), <http://www.aljazeera.com/news/middleeast/2013/07/201372412628810967.html>.

³⁹ See, Final Report 2013, *supra* note 38.

⁴⁰ Loveday Morris, *In Syria, Hezbollah forces mass around Aleppo to aid Assad*, THE WASHINGTON POST (June 2, 2013), https://www.washingtonpost.com/world/middle_east/hezbollah-boosting-assads-forces-in-northern-syria/2013/06/02/3bb59c7e-cb9e-11e2-8f6b-67f40e176f03_story.html?utm_term=.1b753473d825.

⁴¹ *Syria Troops ‘Preparing for Aleppo Assault’*, BBC NEWS (June 10, 2013), <http://www.bbc.com/news/world-middle-east-22840728>.

⁴² *Latest Martyrs: June 22, 2013*, VICTIMS DOCUMENTATION CENTER (June 22, 2013), www.vdc-sy.info/index.php/en/details/martyrs (last visited Feb. 22, 2017).

⁴³ *Id.*

allegedly by members of Jabat Fateh al-Sham⁴⁴ and affiliates.⁴⁵ This incident is considered one of the worst mass executions carried out by Rebel forces through the course of the war.⁴⁶

Throughout the month of October, the Syrian Air Force carried out a violent warplane shelling campaign against al-Safirah.⁴⁷ Over 130,000 civilians fled the area during that period.⁴⁸ The Syrian Armed Forces recaptured al-Safirah from Rebel control by 1 November.⁴⁹ Between 15-28 December, barrel bomb attacks by Syrian Air Force helicopters against Rebel-held areas of Aleppo killed 517 people, including 171 children and 46 women.⁵⁰ On 28 December, Regime barrel bombs targeted a crowded vegetable market in Aleppo, killing at least 25 civilians. The attack also destroyed part of a hospital.⁵¹ These bombing campaigns became a staple of Syrian government policy to recapture the city of Aleppo.

Bombing campaigns became a staple of Syrian government policy to recapture the city of Aleppo.

2014- Aleppo under Fire

For most of 2014, the city of Aleppo was plagued by sustained shelling and bombardment by the Syrian Armed Forces; most civilian deaths in the city were caused by this persistent barrage. The Syrian Observatory for Human Rights (SOHR) estimated that more than 76,000 people (including 17,790 civilians) were killed in Syria during 2014, making it the deadliest year since the conflict began.⁵²

In January 2014 the Syrian Network for Human Rights (SN4HR) reported that Syrian Air Force helicopters dropped barrel bombs throughout the city over the course of the month as an extension of the campaign that occurred in December 2013.⁵³ That barrel bomb campaign was one of the deadliest aerial attacks on the city up until the start of the siege.

⁴⁴ At the time, this group was known as Jabhat al-Nusra, an affiliate of Al-Qaeda. Please see Appendix D for further details.

⁴⁵ Hania Mourtada and Rick Gladstone, *Soldiers' Mass Execution Reported by Syria Group*, THE NEW YORK TIMES (July 26, 2013), <http://www.nytimes.com/2013/07/27/world/middleeast/soldiers-mass-execution-reported-by-syria-group.html>; *Watching Syria's War*, THE NEW YORK TIMES (July 26, 2013),

<https://www.nytimes.com/interactive/projects/watching-syrias-war/video-dozens-soldiers-executed-Rebels>.

⁴⁶ *Soldiers' Mass Execution Reported by Syria Group*, *supra* note 45 and *Watching Syria's War*, *supra* note 45.

⁴⁷ *Syria: Civilians Forced to Flee Al Safira Under Heavy Bombardment*, MEDECINS SANS FRONTIERES (Oct. 25, 2013), <http://www.msf.org/article/syria-civilians-forced-flee-al-safira-under-heavy-bombardment>.

⁴⁸ *Id.*

⁴⁹ Erika Solomon, *Syrian army catches strategic town at approaches to Aleppo*, REUTERS (Nov. 1, 2013), <http://www.reuters.com/article/us-syria-crisis-safira-idUSBRE9A00LO20131101>.

⁵⁰ *Barrel bombs 'kill 517 in Aleppo since 15 December'*, BBC NEWS (Dec. 29, 2013), <http://www.bbc.com/news/world-middle-east-25541726>.

⁵¹ Anne Barnard, *Deadly Syrian Bomb Strikes Crowded Aleppo Market*, THE NEW YORK TIMES (Dec. 28, 2013), <http://www.nytimes.com/2013/12/29/world/middleeast/deadly-syrian-bomb-strikes-crowded-aleppo-market.html>;

Erika Solomon, *Syrian forces kill 25 in Aleppo barrel-bomb attack: activists*, REUTERS (Dec. 28, 2013), <http://www.reuters.com/article/us-syria-crisis-bombs-idUSBRE9BR05P20131228>.

⁵² Rick Gladstone and Mohammad Ghannam, *Syria Deaths Hit New High in 2014*, THE NEW YORK TIMES (Jan. 1, 2015) https://www.nytimes.com/2015/01/02/world/middleeast/syrian-civil-war-2014-deadliest-so-far.html?_r=0.

⁵³ *Id.*

On 7 January, Jabhat Fateh al-Sham leader Abu Mohammad al-Golani announced that his organization would be joining forces with other Rebels.⁵⁴ By early January, nearly all elements of ISIS and its affiliates were expunged from the city of Aleppo due to conjoined efforts of Rebels in the city.⁵⁵ However as they fled, ISIS executed dozens of Rebel fighters captured in the fighting.⁵⁶ Aron Lund, a researcher who edits a website on the Syrian conflict for the Carnegie Endowment for International Peace said “[t]heir ideologies are very much the same, but [Jabhat Fateh al-Sham] is really embedding itself in the Islamic landscape, working with other groups and trying to compromise, while ISIS has been doing the opposite, which is why they have no more friends.”⁵⁷ ISIS would reassert its presence in the city later, but carried most of its battles out in the larger Aleppo governorate to the north.

The Syrian Air Force continued to use barrel bombs throughout the spring.⁵⁸ By late April 2014, the city of Aleppo was divided: the western half controlled by the Syrian Armed Forces while the eastern half of the city was under the control of a loose alliance of Rebel groups.⁵⁹ By May 2014, estimates of civilians killed by the Syrian Air Force’s barrel bombing campaign neared 2,000 (including 283 women and 567 children).⁶⁰ Aerial bombardment campaigns continued throughout the summer.

On 5 June, President Assad won his third term as president by securing 88.7% of votes cast.⁶¹ On 23 June, the Organization for the Prohibition of Chemical Weapons (OPCW) reported that Syria has removed its entire known stockpile of chemical weapons.⁶² Despite this, chemical weapons would continue to be used in Aleppo, as discussed later in this report.

⁵⁴ ‘Hardly any’ Qaeda militants left in Aleppo, AL ARABIYA (Jan. 8, 2017) <http://english.alarabiya.net/en/News/middle-east/2014/01/08/Syria-jihadist-HQ-in-Aleppo-falls-to-Rebels.html>.

⁵⁵ *Id.*

⁵⁶ Ben Hubbard, *Syrian Rebels Deal Qaeda-Linked Group a Reversal*, THE NEW YORK TIMES (Jan. 8, 2014), <https://www.nytimes.com/2014/01/09/world/middleeast/syrian-Rebels-said-to-oust-qaeda-linked-group-from-its-aleppo-headquarters.html>.

⁵⁷ *Id.*

⁵⁸ *Id.*

⁵⁹ *Aleppo Now a De Facto ‘Partition City’ in Syria*, NATIONAL PUBLIC RADIO (Apr. 27, 2014), <http://www.npr.org/2014/04/27/307473375/aleppo-now-a-de-facto-partition-city-in-syria>.

⁶⁰ ‘Almost 2,000’ killed by Syria barrel bombs in 2014, BBC NEWS (May 30, 2014), <http://www.bbc.com/news/world-middle-east-27633656>.

⁶¹ *Syrian President Bashar al-Assad wins third term*, BBC NEWS (June 5, 2014), <http://www.bbc.com/news/world-middle-east-27706471>.

⁶² Ashley Fantz and Diana Magnay, *Global watchdog: Syria has shipped out its last ‘declared’ chemical weapons*, CNN (June 23, 2014), <http://www.cnn.com/2014/06/23/world/meast/syria-chemical-weapons/>.

On 22 September, the U.S. launched a series of air and missile strikes in Syria.⁶³ Eight of the 14 initial missile strikes targeted the Khorasan Group west of Aleppo.⁶⁴ This marked the entrance of the U.S. and its Coalition allies as parties to the conflict.⁶⁵ Despite U.S. intervention and numerous attempts at peace, the war remained persistent. Daily bombing campaigns and clashes between warring parties made 2014 the deadliest year to date in Aleppo.

“Daily bombing campaigns and clashes between warring parties made 2014 the deadliest year to date in Aleppo.”

2015- Russian Intervention

In the beginning of January, Rebels recaptured northern districts, forcing the Syrian Army to escape to the north.⁶⁶ These gains by Rebel forces would be few and far between, as 2015 marked a significant push by the Syrian Armed Forces to retake Aleppo, propped up by the entrance of their Russian allies.

The Syrian Army executed “Operation Rainbow,” which was designed to encircle Aleppo and cut Rebel supply lines into the city.⁶⁷ Between 2-6 February, the Syrian Regime dropped about 140 barrel bombs in Aleppo resulting in numerous civilian deaths.⁶⁸ On 9 March, Rebels launched an attack on Handarat, north of Aleppo.⁶⁹ However, after around 10 days of fighting, they were expelled from the area by Syrian Armed Forces.⁷⁰ The fighting continued and on 23 March, Rebel shelling killed 13 civilians and wounded as many as 30 others, some of them children.⁷¹ On 13 April, Rebel forces attacked the Air Force Intelligence building with a tunnel bomb.⁷²

Late spring and early summer saw an increased intensity to aerial and artillery strikes by both sides. On 2 May, Syrian Rebel forces shelled residential government-held districts in Aleppo

⁶³ Shane Harris, John Hudson, Yochi Dreazen and Kate Brannen, *U.S. Begins Airstrikes Inside Syria*, FOREIGN POLICY (Sep. 23, 2014), <http://foreignpolicy.com/2014/09/23/u-s-begins-airstrikes-inside-syria/>.

⁶⁴ *Id.*

⁶⁵ *Syrian rebels reject UN's Aleppo truce plan*, AL JAZEERA (Nov. 12, 2014), <http://www.aljazeera.com/news/middleeast/2014/11/syrian-Rebels-rejects-un-aleppo-truce-plan-20141112172139629558.html>.

⁶⁶ *Soldiers in Regime Forces Killed during Clashes in al Brej Area*, SYRIAN OBSERVATORY FOR HUMAN RIGHTS (Jan. 20, 2015), <https://web.archive.org/web/20150202045023/http://syriahr.com/en/2015/01/20-soldiers-in-regime-forces-killed-during-clashes-in-al-brej-area/>.

⁶⁷ Armenak Tokmajyan, *2015 Aleppo Conflict Timeline*, THE ALEPPO PROJECT (May 2016), <http://www.thealeppoproject.com/aleppo-conflict-timeline-2015/>.

⁶⁸ *2015 Aleppo Conflict Timeline*, *supra* note 67.

⁶⁹ Bassem Mroue and Albert Ajil, *Syrian rebels shell city of Aleppo, killing at least 13*, THE DAILY STAR (Mar. 23, 2015), <http://www.dailystar.com.lb/News/Middle-East/2015/Mar-23/291840-12-dead-in-syria-Rebel-shelling-of-aleppo-state-media.ashx>.

⁷⁰ *Id.*

⁷¹ *Id.*

⁷² Patrick Cockburn, *Syria conflict: Government again accused of using chemical weapons on civilians as villagers are treated following gas attacks*, THE INDEPENDENT (Apr. 14, 2015), <http://www.independent.co.uk/news/world/middle-east/syria-conflict-report-strongly-suggests-government-used-toxic-chemicals-in-bombings-10176342.html>.

city killing at least 12 civilians.⁷³ On 12 May, the Syrian Air Force bombed near Jisr el-Hajj junction in Firdous killing 54 civilians, including 2 women and 1 child.⁷⁴ On 30 May, the Syrian Air Force killed another 139 civilians in a bombing campaign near the Citadel.⁷⁵

On 30 September, Russia's Federation Council unanimously authorized the use of force in Syria. This came after a formal request from President Assad asking Russia to intervene. On 7 October, Russia began launching attacks against Aleppo, Raqqa and Deir Ezzor.⁷⁶ Emboldened by Russian interventions, the Syrian Armed Forces launched offenses in the south towards the International Highway and east towards the Kuweires Airport.⁷⁷ On 10 November, the Syrian Army finally broke the siege of the Airport, relieving around 800 soldiers who were trapped there.⁷⁸

With Russia actively helping the Syrian government, not only did attacks intensify, but their effectiveness did as well. By the end of 2015, the goal of the Syrian Army was to cut off supply routes into Aleppo. Their next offensive in 2016 saw the fulfilment of this goal.

2016 – The Encirclement of Aleppo

The beginning of 2016 saw the Regime continuing to press its offensive southwest of Aleppo, focused mainly in the Khan al-Asal area.⁷⁹ The Syrian Army inflicted heavy losses on Rebel forces in both personnel and equipment while advancing towards the southern entrance of Aleppo.⁸⁰ At the same time, the Syrian Army, with Russian air support, continued to fight Rebel forces in Aleppo, largely focused in the northern districts surrounding Castello Road.⁸¹ Castello Road was a strategic goal of the Syrian government's objective to besiege Aleppo.

The U.S. and Russia continued efforts to bring the Syrian government and Rebel forces to peace talks, for both sides to collectively fight against ISIS.⁸² However, despite the talks of peace,

⁷³ *Rebel shelling kills 12 in Aleppo: Syria state TV*, THE DAILY STAR (May 2, 2015), <http://www.dailystar.com.lb/News/Middle-East/2015/May-02/296561-rebel-shelling-kills-12-in-aleppo-syria-state-tv.ashx>.

⁷⁴ *Latest Martyrs: May 12, 2015*, VICTIMS DOCUMENTATION CENTER (May 12, 2015), www.vdc-sy.info/index.php/en/details/martyrs (last visited Apr. 19, 2017).

⁷⁵ *Latest Martyrs: May 30, 2015*, VICTIMS DOCUMENTATION CENTER (May 30, 2015), www.vdc-sy.info/index.php/en/details/martyrs (last visited Apr. 19, 2017).

⁷⁶ *See, 4 Russian warships launch 26 missiles against ISIS from Caspian Sea*, RUSSIA TODAY (Oct. 7, 2015), <https://www.rt.com/news/317864-russian-warships-missiles-launch>; *and see, Syria: The Executive Summary, 10/8*, SYRIA DEEPLY (8 Oct. 2015), <https://www.newsdeeply.com/syria/executive-summaries/2015/10/08>. *See also, Russian cruise missiles hit ISIS from Mediterranean & Caspian; 600 killed in one strike*, RUSSIA TODAY (20 Nov. 2015), <https://www.rt.com/news/322881-russia-cruise-missiles-isis/>.

⁷⁷ *2015 Aleppo Conflict Timeline*, *supra* note 67.

⁷⁸ Sam Jones and Noam Raydan, *Syria regime forces claim recapture of key airbase*, FINANCIAL TIMES (Nov. 10, 2016), <https://www.ft.com/content/013d6244-87d4-11e5-9f8c-a8d619fa707c>.

⁷⁹ *New areas under Army control*, SYRIAN ARAB NEWS AGENCY (Jan. 11, 2016), <http://sana.sy/en/?p=66201>.

⁸⁰ *Id.*

⁸¹ *The army establishes control over more areas in Aleppo and Latakia countryside*, SYRIAN ARAB NEWS AGENCY (Jan. 15, 2016), <http://sana.sy/en/?p=66686>.

⁸² Anne Barnard and Eric Schmitt, *Russia and U.S., While Pushing for Peace Talks, Jockey for Position in Syria*, THE NEW YORK TIMES (Jan. 21, 2016), <https://www.nytimes.com/2016/01/22/world/middleeast/russia-and-us-while-pushing-for-peace-talks-jockey-for-position-in-syria.html>.

the Syrian and Russian military continued air raids and shelling attacks all throughout Aleppo.⁸³ On 1 February, the Syrian Armed Forces, aided by Russian air support, Hezbollah, and Iraqi and Afghan Shia militias, launched a massive offensive in Northern Aleppo, focused on Nubbul and al-Zahra.⁸⁴ The attack's aim was to cut supply lines critical to both Rebel forces and civilians inside Aleppo. Rebel forces were quoted to say that "the assault [was] the most intense yet" with approximately 45 civilians being killed.⁸⁵ By 3 February, the Syrian Army had reached Nubbul and al-Zahra with the help of an estimated 320 airstrikes by Russia.⁸⁶ The airstrikes killed 127 civilians and wounded 34.⁸⁷ Only 3 kilometers remained separating the Syrian Army from cutting all supply routes into Rebel-held portions of Aleppo.⁸⁸ After this success only one supply route into eastern Aleppo remained: Castello Road.

The U.N. Special Envoy responded immediately to the attacks by postponing the peace talks until 25 February.⁸⁹ U.S. Secretary of State John Kerry and his Russian counterpart, Sergey Lavrov, announced on 11 February, that they had agreed on the delivery of needed aid to Aleppo followed by a "cessation of hostilities" within a week.⁹⁰ The cessation of hostilities would mark the first sustained and formally declared halt to fighting in Syria since the civil war began in 2011.⁹¹ This ceasefire excluded ISIS.⁹² The Syrian government and major Rebel forces agreed to observe this conditional pause in fighting set to begin 27 February. The agreement did not include ISIS or Jabhat Fateh al-Sham.⁹³ The ceasefire successfully began on 27 February but was immediately marred the next day by a number of airstrikes and artillery attacks demonstrating the challenges of the deal.⁹⁴ The Syrian Armed Forces and Rebel forces both accused one another of violating the truce.⁹⁵

Throughout March, the ceasefire remained relatively intact and reduced casualties and

⁸³ *Id.*

⁸⁴ *Syrian army encircles Aleppo as ceasefire talks fade*, AL JAZEERA (Feb. 3, 2016), <http://www.aljazeera.com/news/2016/02/syrian-army-encircles-aleppo-ceasefire-talks-fade-160203033045269.html>.

⁸⁵ *Id.*

⁸⁶ *Id.*

⁸⁷ *See, Massacre due to regime forces shelling on Izaz city*, SYRIAN NETWORK FOR HUMAN RIGHTS (Feb. 15, 2016), <http://sn4hr.org/blog/2016/02/15/18470/>; and *Latest Martyrs: Feb. 16, 2016*, VICTIMS DOCUMENTATION CENTER (Feb. 16, 2016), www.vdc-sy.info/index.php/en/details/martyrs (last visited Apr. 19, 2017); and also *The Killing of 9 Media Activists and the Injury of 5 others February's 2016 Death Toll*, SYRIAN NETWORK FOR HUMAN RIGHTS (Mar. 4, 2016), http://sn4hr.org/wpcontent/pdf/english/9_killed_journalists_in_February_2016_en.pdf.

⁸⁸ Laila Bassam, *Syrian army and allies breaks Rebel siege of Shi'ite towns – army*, REUTERS (Feb. 4, 2016), <http://uk.reuters.com/article/uk-mideast-crisis-syria-aleppo-idUKKCN0VC1WI>.

⁸⁹ *UN suspends Syria peace talks until end of February*, THE GUARDIAN (Feb. 3, 2016), <https://www.theguardian.com/world/2016/feb/03/faltering-un-syria-peace-talks-paused-until-end-of-february>.

⁹⁰ David E. Sanger, *U.S. and Russia Announce Plan for Humanitarian Aid and a Cease-Fire in Syria*, THE NEW YORK TIMES (Feb. 2, 2017), <https://www.nytimes.com/2016/02/12/world/middleeast/us-and-russia-announce-plan-for-humanitarian-aid-and-a-cease-fire-in-syria.html>.

⁹¹ *Id.*

⁹² *Id.*

⁹³ Mark Landler, *U.S.-Russia Deal on a Partial Truce in Syria Raises More Doubt Than Optimism*, THE NEW YORK TIMES (Feb. 22, 2016), <https://www.nytimes.com/2016/02/23/world/middleeast/us-russia-cease-fire-in-syria-obama-putin.html>, last visited.

⁹⁴ *Fragile Syria ceasefire enters second day*, THE GUARDIAN (Feb. 28, 2016), <https://www.theguardian.com/world/2016/feb/28/fragile-syria-ceasefire-enters-second-day>.

⁹⁵ *Id.*

improved access to humanitarian aid.⁹⁶ However, the ceasefire did not completely spare the entire province, as at least 135 civilians were still killed between 27 February and 6 March. The focal point for the attacks was the Kurdish residential quarter in Sheikh Maqsood.⁹⁷ These attacks continued throughout March and April, killing approximately 83 civilians, including 30 children, and wounding over 700 civilians.⁹⁸ The Syrian Armed Forces and Russian Air Force also continued sporadic attacks throughout March on Rebel held portions of Aleppo.⁹⁹ On 14 March, Russian President Vladimir Putin ordered the withdrawal of the “main part” of Russian forces in Syria.¹⁰⁰

The ceasefire collapsed on 28 April. At least 27 civilians and 3 children were killed in a warplane attack on a hospital backed by Médecins Sans Frontières and the International Committee of the Red Cross.¹⁰¹ The next day, Rebel forces launched a mortar attack, killing 14 civilians.¹⁰² Over the course of the next week, an additional 226 civilians were killed during the heavy bombardment of Aleppo.¹⁰³

U.S. and Russian officials attempted to revive the ceasefire, with some moderate success.¹⁰⁴ By 5 May a new partial truce was extended into Aleppo.¹⁰⁵ The truce was extended several times until fighting resumed on 12 May.¹⁰⁶ Over the remaining weeks of May, three major massacres occurred in Aleppo, killing 23 civilians.¹⁰⁷ Additionally, Syrian Armed Forces and

⁹⁶ *Water returns to Syria's war-torn Aleppo*, AL ARABIA ENGLISH (Mar. 4, 2016), <http://english.alarabiya.net/en/News/middle-east/2016/03/04/Water-returns-to-Syria-s-war-torn-Aleppo.html>.

⁹⁷ U.N. Office for the Coordination of Humanitarian Affairs Rep. on Developments in Northwestern Syria (as of 5 March 2016), (Mar. 5, 2016), <http://reliefweb.int/report/syrian-arab-republic/turkey-syria-flash-update-developments-northwestern-syria-5-march-2016>; *Syria: Armed opposition groups committing war crimes in Aleppo city*, AMNESTY INTERNATIONAL (May 13, 2016), <https://www.amnesty.org/en/latest/news/2016/05/syria-armed-opposition-groups-committing-war-crimes-in-aleppo-city/>. There are around 30,000 civilians living in Sheikh Maqsood which is a predominately Kurdish part of Aleppo city. The area is controlled by YPG forces and surrounded from the northern, eastern and western fronts by opposition armed groups who have targeted it from all three sides. *Id.*

⁹⁸ AMNESTY INTERNATIONAL, *supra* note 97.

⁹⁹ *Massacre due to regime forces shelling on al Saleheen neighborhood in Aleppo city in March 11*, SYRIAN NETWORK FOR HUMAN RIGHTS (Mar. 11, 2016), <http://sn4hr.org/blog/2016/03/11/19286>; *Civilians died in armed opposition factions shelling on Al Sheikh Maqsood neighborhood in Aleppo city in March 19*, SYRIAN NETWORK FOR HUMAN RIGHTS (Mar. 19, 2016), <http://sn4hr.org/blog/2016/03/20/19608/>.

¹⁰⁰ Neil MacFarquhar and Anne Barnard, *Putin Orders Start of Syria Withdrawal, Saying Goals are Achieved*, THE NEW YORK TIMES (Mar. 14, 2016), <https://www.nytimes.com/2016/03/15/world/middleeast/putin-syria-russia-withdrawal.html>.

¹⁰¹ Anne Barnard, *Divided Aleppo Plunges Back Into War as Syrian Hospital is Hit*, THE NEW YORK TIMES (Apr. 28, 2016), <https://www.nytimes.com/2016/04/29/world/middleeast/aleppo-syria-strikes.html>.

¹⁰² *Id.*

¹⁰³ *About 226 civilians including over 50 women and children killed in 8 days of heavy bombardment on Aleppo city*, SYRIAN OBSERVATORY FOR HUMAN RIGHTS (Apr. 29, 2016), <https://www.facebook.com/syriahroe>.

¹⁰⁴ Lisa Barrington and Denis Dyomkin, *Rebels launch assault in Syria's Aleppo, diplomats try to revive truce*, REUTERS (May 3, 2016), <http://www.reuters.com/article/us-mideast-crisis-syria-hospital-idUSKCN0XU0X9>.

¹⁰⁵ Anne Barnard, *Partial Truce in Syria is said to Extend to Aleppo*, THE NEW YORK TIMES (May 4, 2016), <https://www.nytimes.com/2016/05/05/world/middleeast/syria-aleppo-partial-truce.html>.

¹⁰⁶ *Russia says Aleppo truce extended for 72 hours*, EURONEWS (May 7, 2016), <http://www.euronews.com/2016/05/07/russia-says-aleppo-truce-in-syria-extended-for-72-hours/>.

¹⁰⁷ *Not Less than 25 Massacres Were Committed in May 2016 Increasing number of committed massacres despite the Cessation of Hostilities Agreement*, SYRIAN NETWORK FOR HUMAN RIGHTS (Jun. 7, 2016), http://sn4hr.org/wpcontent/pdf/english/At_least_25_massacre_in_May_2016_en.pdf; *Civilians died in government*

Russian warplanes targeted Castello Road, the last supply line for Rebel forces.

Regime and Russian bombing continued throughout the beginning of June, with over 550 civilians killed since April.¹⁰⁸ President Assad promised to retake “every inch” of the country from his foes in a speech on 7 June that appeared to reject the humanitarian relief effort and peaceful transition of power.¹⁰⁹ The speech by President Assad was his first major address since the effort to mediate an end to the civil war broke down in Geneva in April. It reflected his sense that Russian

“*President Assad promised to retake “every inch” of the country from his foes.*

intervention in the war has bolstered his position.¹¹⁰ The day after, Syrian Air Force warplanes bombed three hospitals in Rebel held portions of Aleppo, including a pediatrics center supported by the U.N., killing at least 20 civilians and wounding dozens of patients.¹¹¹

The bombing of hospitals illustrates a key component of the Syrian Armed Forces’ strategy for retaking Aleppo. By the end of June, the Syrian Army was in position to institute a siege around Eastern Aleppo. The siege would come after years of fighting among multiple parties, aerial bombardment, and atrocities committed by all sides.

THE SIEGE OF ALEPPO

Historical Narrative

As shown, Aleppo was plagued with persistent aerial bombardment and battles between the warring parties. Aerial bombardment left much of the city crippled, laying bare the foundations of a once thriving metropolis of culture and diversity. But, for the last few years, the goal of the Syrian government was to cut off supply lines to the eastern part of Aleppo. This goal was realized in July 2016.

According to Merriam-Webster’s dictionary, a siege is “a military blockade of a city or fortified place to compel it to surrender.”¹¹² The word derives from the Latin word *sedere*, which means “to sit.” The intent or purpose of a siege is built into its definition, as the

“*Aerial bombardment left much of the city crippled, laying bare the foundations of a once thriving metropolis of culture and diversity.*

forces shelling on Tareeq Al Bab neighborhood in Aleppo city in May 29, SYRIAN NETWORK FOR HUMAN RIGHTS (May 30, 2016), <http://sn4hr.org/blog/2016/05/29/victims-diedgovernment-forces-shellingkherbet-habasho-farms-idlibgovernorate-may-29/>.

¹⁰⁸ *577 casualties including 208 children and women in 52 days of hysterical intense bombing on Aleppo city*, SYRIAN OBSERVATORY FOR HUMAN RIGHTS (Jun. 12, 2016), <http://www.syriahr.com/en/?p=47360>.

¹⁰⁹ David E. Sanger and Rick Gladstone, *Defiant Bashar al-Assad vows to retake ‘every inch’ of Syria*, THE NEW YORK TIMES (Jun. 7, 2016), <https://www.nytimes.com/2016/06/08/world/middleeast/defiant-assad-vows-to-retake-every-inch-of-syria-from-his-foes.html>, last visited: 3 Mar. 2017.

¹¹⁰ *Id.*

¹¹¹ Hwaida Saad and Rick Gladstone, *Three Hospitals Attacked in Rebel Side of Aleppo, Syria*, THE NEW YORK TIMES (Jun. 8, 2016), <https://www.nytimes.com/2016/06/09/world/middleeast/aleppo-syria-hospitals-airstrikes.html>.

¹¹² *Siege*, MERRIAM-WEBSTER, <https://www.merriam-webster.com/dictionary/siege>.

military objective is to force those besieged to give up the fight. Sieges have been used as a military tactic for as long as there has been war. Some of the most famous military battles and stories involve the siege of a city.¹¹³

As technology has advanced, sieges look less like an army surrounding a castle on the hill, and more like a storm of explosives and shrapnel. Erich Maria Remarque, in his famous novel, *All Quiet on the Western Front*, described the deadliness of modern warfare in World War I, “Bombardment, barrage, curtain-fire, mines, gas, tanks, machine-guns, hand-grenades - words, words, but they hold the horror of the world.”¹¹⁴ Development of artillery and the use of aerial combat, specifically, changed warfare drastically. In World War II, Nazi Germany besieged the city of Leningrad for 900 days after Germany invaded the Soviet Union in the summer of 1941.¹¹⁵ The result of the siege, after constant artillery and aerial bombardment, was the death of at least 632,000 civilians.¹¹⁶ In Syria, sieges compel surrender through a campaign of terror by raining hell from the heavens.

“*Sieges compel surrender
through a campaign of terror.*”

Aleppo is a similarly sized city to Leningrad with a pre-war population of approximately 2.5 million.¹¹⁷ Unlike Leningrad, the entire city was not under siege, just Rebel-held portions mainly in the eastern side of Aleppo. The control of the city split the parties in almost a yin-yang type design: a Syrian government controlled west and a Rebel-held east.

¹¹³ Homer's Iliad describes a fictional ten-year siege of Troy by a confederation of Greek city-states and is the most famous battle in Greek Mythology. While the Trojan war has not been confirmed to be a real battle and is subject to ongoing debate among scholars, it's description of ancient siege warfare is impeccable.

¹¹⁴ ERICH MARIA REMARQUE, *ALL QUIET ON THE WESTERN FRONT* 132 (Random House 2013) (1929).

¹¹⁵ C.N. Trueman, *The Siege of Leningrad*, THE HISTORY LEARNING SITE (May 15, 2015), <http://www.historylearningsite.co.uk/world-war-two/world-war-two-and-eastern-europe/the-siege-of-leningrad/>.

¹¹⁶ *Id.* The Germans ultimately failed in their attempt to take the city due to numerous factors not discussed here. They retreated as the Red Army came, but the destruction of the city was already solidified. Some think that disease and starvation might have put the civilian death toll over 1 million and upwards of 1.5 million. This was the single costliest loss of life in a city in world history. *Id.*

¹¹⁷ *Id.*

The Siege in Aleppo



TIMELINING THE CHANGING FORCES OF WAR

02.27.16

The Syrian Accountability Project documents incidents of violence in the Syrian Conflict. The Syrian Accountability project documented 7,126 incidents of violence in Aleppo from January, 2016 to the end of the year. The actual number is likely much larger. The Syrian Regime is accountable for most violent incidents in the conflict.

The following timeline shows approximate changes in control over Aleppo city in 2016. Key players are: The Syrian Regime; Syrian Rebels; and The Kurdish. Each image represents a strategic milestone in the siege.

-  Syrian Rebels (various groups)
-  The Syrian Regime
-  Kurdish Forces

February 27, 2016, marked the beginning of a cease-fire in Syria. Russia and the United States brokered this pause.



July 16, 2016, was the official start date of the siege in Aleppo. The Syrian Regime cut off roads around rebel groups and civilians in Eastern Aleppo.



On August 6, 2016, rebel factions took the Ar-Ramouseh military complex. It was too dangerous to get civilians out, but rebel groups developed a supply route.



On November 28, 2016, The Syrian Regime captured all of the northern districts of Aleppo besides those held by the Kurdish. This followed weeks of intense aerial bombardment.



On December 7, 2016, Regime Forces recaptured the Old City in Aleppo. Only a few districts were left in rebel control. Trapped civilians cried out for international help.



12.07.16

The Syrian Accountability Project documented 19,147 incidents of violence in Aleppo from January of 2011 to the end of 2016. The actual number is much larger.

The military objective of the Syrian government was to cut off the last supply route into Eastern Aleppo, Castello Road. Castello Road is a road that loops above the north of the city and served as a supply route for goods to Rebel groups from Turkey. On 25 June, the Syrian Army, in conjunction with Russian aerial strikes, targeted al-Mallah farms in the northern part of Aleppo.¹¹⁸ By 7 July, most of al-Mallah farms had been taken by the Syrian Army, putting Castello Road within range of artillery fire.¹¹⁹ This effectively made Castello Road useless, as any supplies that attempted to get through were fired upon.¹²⁰ By 16 July, Syrian Armed Forces backed by Hezbollah fighters reached Castello Road and shut it down completely.¹²¹ On this date the siege began.¹²² By 26 July, the government had taken districts along the road and “closed the gap” to completely encircle Rebel forces within the eastern portion of the city.¹²³

The start of the siege immediately placed 250,000 civilians in need within the city. The U.N. called on all parties to institute a weekly 48-hour truce to allow humanitarian aid in.¹²⁴ An aid worker stated, “Humanitarian convoys are ready, humanitarian workers are ready. We have the supplies. We need a break in the fighting.”¹²⁵ The Syrian government and Russia stated they would allow three corridors for civilians to leave, and one corridor for combatants to leave.¹²⁶ The roads for civilians would have medical and food outposts to assist those fleeing.¹²⁷ President Assad promised that fighters who left would be granted amnesty by saying, “Everyone carrying arms... and sought by justice... is excluded from full punishment if they hand themselves in and lay down their weapons.”¹²⁸

The corridors proved wholly ineffective. Very few civilians were able to use them due to the constant bombardment by warplanes.¹²⁹ Some Aleppans called them “corridors of death.”¹³⁰ Rebel groups also refused to use them due to lack of independent monitors.

¹¹⁸ Izat Charkatli, *Heavy Russian airstrikes on Aleppo amid preparations for huge ground offensive*, AL MASDAR NEWS (Jun. 25, 2016) <https://www.almazdarnews.com/article/heavy-russian-airstrikes-aleppo/>.

¹¹⁹ Lisa Barrington and Tom Perry, *Syrian army fire cuts only road into rebel-held Aleppo*, REUTERS (Jul. 7, 2016), <http://www.reuters.com/article/us-mideast-crisis-syria-aleppo-idUSKCN0ZN0U2>.

¹²⁰ *Id.*

¹²¹ *Id.*

¹²² While July 16 is when Castello Highway was effectively shut down and the siege instituted, it is arguable that a constructive siege had been going on since July 7. The road was within range of artillery fire and no supplies could get in or out.

¹²³ <http://www.alhayat.com/Articles/16698392/>

¹²⁴ *UN pleads for weekly 48-hour truce in Syria's Aleppo*, AL-MONITOR (Jul. 21, 2016), <http://www.al-monitor.com/pulse/afp/2016/07/syria-conflict-un-aid.html>.

¹²⁵ *Id.*

¹²⁶ *Syria conflict: 'Exit corridors' to open for Aleppo, says Russia*, BBC NEWS (Jul. 28, 2016), <http://www.bbc.com/news/world-middle-east-36912718>.

¹²⁷ *Id.*

¹²⁸ *Id.* There have been numerous amnesties offered by President Assad, although this was the broadest one as past decrees granted amnesty if the person did not have “blood on their hands.”

¹²⁹ Jamey Keaten, *UN Syria envoy tells Russia: Leave Aleppo corridors 'to us'*, BOSTON GLOBE (Jul. 29, 2016), <https://www.bostonglobe.com/news/world/2016/07/29/syria-envoy-tells-russia-leave-aleppo-corridors/P78nZk9T5UIJu5RN9dGccP/story.html>.

¹³⁰ *Confusion over 'humanitarian routes' in Syria's Aleppo*, AL JAZEERA (Jul. 30, 2016), <http://www.aljazeera.com/news/2016/07/syria-war-families-leave-Rebel-held-parts-aleppo-160730124401589.html>.

On 31 July, various Rebel groups within Eastern Aleppo initiated a counterattack to take back lost ground and break the siege.¹³¹ The counter-offensive was said to include upwards of 10,000 fighters and included tanks, rocket launchers and suicide bombers.¹³² By 6 August, the counterattack was successful and Rebel groups took ar-Ramouseh Artillery Facility and Industrial district in the southwest part of the city.¹³³ The offensive led to the deaths of over 100 civilians in Aleppo.¹³⁴ While the offensive broke the siege after just three weeks, the opened supply route proved unable to allow civilians through due to the constant clashes and bombardments by all sides in the area.

But this was short lived, as the Rebels gains in the south collapsed a month later. On 6 September, the Syrian Army retook sections of ar-Ramouseh district and closed off the supply route, effectively reinstituting the siege.¹³⁵ Siege policy had begun to worsen as a local Rebel fighter on the ground put it, “Starve or surrender is now surrender or we wipe you out.”¹³⁶

The negotiations between the U.S. and Russia became more urgent, and by 10 September a ceasefire was negotiated.¹³⁷ The Syrian government publicly agreed to the ceasefire, which would end shelling of Rebel-held areas two days later.¹³⁸ If the ceasefire was successful for 7 days, then a permanent ceasefire would ensue allowing for peace talks and joint strikes against radical groups like ISIS and Jabhat Fateh al Sham.¹³⁹

There were no recorded deaths or bombardments on the first day of the ceasefire, a respite rarely seen in Aleppo.¹⁴⁰ However, aid convoys were still not able to get in because the Syrian government had not provided “facilitation letters” to the humanitarian workers.

The ceasefire came crumbling down following two events. First, on 17 September, U.S.-led Coalition jets struck a Syrian Army position near Deir Ezzor airport, killing more than 60 Syrian soldiers.¹⁴¹ The second event occurred on 19 September. An aid convoy, stopped at a warehouse near Urum al-Kubra on Castello Road, was hit by aerial strikes, killing at least 21

¹³¹ Suleiman Al-Khalidi, *Syrian army, allies counter attack to regain lost ground in Aleppo*, DAILY MAIL (Aug. 2, 2016), <http://www.dailymail.co.uk/wires/reuters/article-3720636/Syrian-army-allies-counter-attack-regain-lost-ground-Aleppo.html>.

¹³² *Id.*

¹³³ Patrick Lion, *Syria rebels claim to have broken Assad regime’s siege of Aleppo after more than 600 deaths during five days of bloody fighting*, DAILY MAIL (Aug. 6, 2016), <http://www.dailymail.co.uk/news/article-3726662/Syria-Rebels-key-positions-south-Aleppo-monitor.html>.

¹³⁴ *Seven children killed in Syria’s rebel-held Aleppo*, THE NEW ARAB (Aug. 5, 2016), <https://www.alaraby.co.uk/english/news/2016/8/5/seven-children-killed-in-syrias-Rebel-held-aleppo>.

¹³⁵ Leith Fadel, *Syrian Army opens key southern Aleppo road*, AL MASDAR NEWS (Sep. 9, 2016), <https://www.almasdarnews.com/article/syrian-army-opens-key-southern-aleppo-road/>.

¹³⁶ Tom Miles, *Syrian opposition says Aleppo battle hides ‘cleansing’ of siege towns*, REUTERS (Sep. 1, 2016), <http://www.reuters.com/article/us-mideast-crisis-syria-kodmani-idUSKCN1175OC>.

¹³⁷ *Syria’s civil war: US, Russia clinch deal*, AL JAZEERA (Sep. 9, 2016), <http://www.aljazeera.com/news/2016/09/syria-civil-war-russia-clinch-syria-deal-160910031517683.html>.

¹³⁸ Ryan Browne and Elise Labott, *Kerry announces US-Russian deal on Syrian ceasefire*, CNN (Sep. 9, 2016), <http://www.cnn.com/2016/09/09/politics/syria-ceasefire-kerry-lavrov/>.

¹³⁹ *Id.*

¹⁴⁰ Tim Hume and Schams Elwazer, *Syrian ceasefire appears to hold, but aid deliveries are on standby*, CNN (Sep. 14, 2016), <http://edition.cnn.com/2016/09/13/middleeast/syria-ceasefire/>.

¹⁴¹ Angus McDowall, *U.S.-led jets kill dozens of Syrian soldiers: Russia, monitor*, REUTERS (Sep. 17, 2016), <http://www.reuters.com/article/us-mideast-crisis-syria-usa-idUSKCN11N0PT>.

people and destroying 18 of the trucks carrying supplies for civilians.¹⁴² The next day, bombardments and clashes by all sides resumed, ending the ceasefire after only 7 days.

The collapse of the ceasefire pushed the Syrian Armed Forces and Russian forces to carry out more strikes throughout Eastern Aleppo, with fierce bombardments daily. As it pertains to warplane and artillery shelling, September was one of the deadliest months in Aleppo.¹⁴³ Starting in early October, Syrian Armed Forces began an offensive and pushed past the frontlines into Rebel-held Eastern Aleppo for the first time in four years.¹⁴⁴ The Syrian Army, with cover from Russian airstrikes, were attempting to choke the Rebel groups from three fronts: Bustan al-Basha from the north,¹⁴⁵ Salah al-Din in the west, and Shaikh Said in the south.¹⁴⁶

The final push by the Syrian Armed Forces to retake Aleppo began on 15 November, when Russia announced renewed airstrikes in Rebel-held areas.¹⁴⁷ The major push came in the northern districts, namely the Masakin Hanano district.¹⁴⁸ By 26 November, the Syrian Army had fully taken this district,¹⁴⁹ which led to retaking the rest of the northeastern portion of Rebel-held Aleppo.¹⁵⁰ On 28 November, the Syrian Armed Forces moved to take Old Aleppo by entering Tareq al-Bab district.¹⁵¹ Like Masakin Hanano, the “Old City” had been under Rebel control since 2012 and was a symbol of the revolution in the city. By 7 December, Old Aleppo was also retaken by the Syrian Army.¹⁵²

The retreat by Rebel forces from Old Aleppo pushed new international concern for the well-being of civilians left within the city. The U.S. and other western powers issued a joint statement asking for a ceasefire to allow aid to get to civilians within the besieged portion of the city.¹⁵³ On 8 December, the Syrian Air Force halted strikes to allow some 8,000 civilians to

¹⁴² *Syria conflict: Aid convoy hit by ‘air strike’ near Aleppo*, BBC NEWS (Sep. 19, 2016), <http://www.bbc.com/news/world-middle-east-37413411>. It was later determined that Syrian warplanes had carried out this attack; See *Attack on the Aid Convoy* for more on this attack.

¹⁴³ This takes into account that there were at least a few days of pause due to the negotiation of the ceasefire.

¹⁴⁴ *Syria: Government tanks roll into rebel-held Aleppo*, AL JAZEERA (Oct. 4, 2016), <http://www.aljazeera.com/news/2016/10/syria-government-tanks-roll-Rebel-held-aleppo-161004190513206.html>.

¹⁴⁵ Leith Fadel, *Syrian Army captures strategic district in east Aleppo*, AL MASDAR NEWS (Oct. 6, 2016), <https://www.almasdarnews.com/article/syrian-army-captures-strategic-district-east-aleppo/>.

¹⁴⁶ Leith Fadel, *Syrian Army, Hezbollah advance in southern Aleppo amid the crumbling jihadist defenses*, AL MASDAR NEWS (Oct. 7, 2016), <https://www.almasdarnews.com/article/syrian-army-hezbollah-advance-southern-aleppo-amid-crumbling-jihadist-defenses/>.

¹⁴⁷ Emma Graham-Harrison, *Aleppo airstrikes restart as Russia announces major Syria offensive*, THE GUARDIAN (Nov. 15, 2016), <https://www.theguardian.com/world/2016/nov/15/aleppo-airstrikes-resume-as-russia-announces-major-syria-offensive>.

¹⁴⁸ The Masakin Hanano district was the first district taken by Rebels back in 2012 and was one of the largest held-districts in the city.

¹⁴⁹ *Regime forces takes control on Hanano housings neighborhood*, SYRIAN OBSERVATORY FOR HUMAN RIGHTS (Nov. 26, 2016), <http://www.syriahr.com/en/?p=55683>.

¹⁵⁰ Lisa Barrington and Tom Perry, *Syrian army captures part of rebel-held east Aleppo*, REUTERS (Nov. 26, 2016), <http://www.reuters.com/article/us-mideast-crisis-syria-aleppo-idUSKBN13L0KR>.

¹⁵¹ *Aerial bombardment targets eastern Aleppo and continued clashes in the city*, SYRIAN OBSERVATORY FOR HUMAN RIGHTS (Nov. 28, 2016), <http://www.syriahr.com/en/?p=55799>.

¹⁵² *Id.*

¹⁵³ *Id.*

evacuate Rebel-held Aleppo.¹⁵⁴ On 10 December, Russian news agency, Russia Today, reported that over 50,000 civilians had been evacuated and 1,000 Rebels surrendered.¹⁵⁵

However, while the evacuations were occurring, bombardments by both Syria and Russia continued as they pushed into the final areas of Rebel-held Aleppo. On 12 December, Shaikh Said was taken by the Syrian Army.¹⁵⁶ On 13 December, the remaining portions held by the Rebels was estimated to be at just 5% of the city.¹⁵⁷

At this point, the U.N., western governments, and the international community asserted that a cessation of hostilities needed to occur to prevent a massacre of the civilians that remained in the city. Besieged Aleppans posted final goodbyes on social media while others pleaded for the international community to step in. Russia and Turkey quickly negotiated a ceasefire on 13 December. Under the ceasefire, bombardments would end so that evacuations of the city could take place for the 50,000 civilians still in the city.¹⁵⁸ On 16 December, SOHR reported that 8,500 people had been evacuated, including 3,000 fighters.¹⁵⁹ On 22 December, the U.N. and the ICRC stated that the city had been completely evacuated after the last 4,000 fighters were taken out of the city.¹⁶⁰ Over the course of a few days, 34,000 people, civilians and fighters, had been evacuated.¹⁶¹ President Assad and the Syrian Army announced that they had retaken the city on the same day.¹⁶²

¹⁵⁴ *Russia says Syria army halts Aleppo attacks as rebels cornered*, DAILY MAIL (Dec. 8, 2016), <http://www.dailymail.co.uk/wires/afp/article-4013062/Syrias-Assad-confident-victory-Aleppo.html>.

¹⁵⁵ *Russian Reconciliation Center evacuated 50,000 civilians from E. Aleppo in past 2 days*, RUSSIA TODAY (Dec. 10, 2016), <https://www.rt.com/news/369869-syria-evacuation-civilians-aleppo/>.

¹⁵⁶ *Terrifying" scene as thousands penned in by Syrian army advance*, CBS NEWS (Dec. 12, 2016), <http://www.cbsnews.com/news/aleppo-syria-civilians-trapped-shrinking-bombed-opposition-territory/>.

¹⁵⁷ *'It is past time for you to act' to end carnage in Aleppo, UN Chief tells emergency Security Council session*, UN NEWS CENTRE (Dec. 13, 2016), <http://www.un.org/apps/news/story.asp?NewsID=55789#.WFKG69LNzIU>.

¹⁵⁸ *Syrian rebels say Aleppo truce deal struck, to take effect shortly*, REUTERS (Dec. 13, 2016), <http://www.reuters.com/article/us-mideast-crisis-ceasefire-idUSKBN1421Y9>.

¹⁵⁹ *8500 including 3000 rebels leave eastern Aleppo in less than 24 hours*, SYRIAN OBSERVATORY FOR HUMAN RIGHTS (Dec. 16, 2016), <http://www.syriahr.com/en/?p=57103>.

¹⁶⁰ *Stephanie Nebehay, 4,000 fighters have left Aleppo in latest stage, thousands await evacuation: Red Cross*, REUTERS (Dec. 22, 2016), <http://www.reuters.com/article/us-mideast-crisis-syria-aleppo-redcross-idUSKBN14B14O>.

¹⁶¹ *Id.*

¹⁶² *Ellen Francis, Syrian army announces victory in Aleppo in boost for Assad*, REUTERS (Dec. 22, 2016), <http://www.reuters.com/article/idUSKBN14B1NQ>.



The Diary of Bana Alabed

"The Face of Aleppo" Has a Powerful Voice

This child kept a digital diary during the siege.

The Syrian Accountability Project documents incidents of violence in the Syrian Conflict. The Syrian Accountability project documented 7,126 violent incidents in the Aleppo governorate from January of 2016 to the end of the year. The Syrian Accountability Project documented 19,147 violent incidents in the Aleppo governorate from January of 2011 to the end of 2016. The actual numbers are much larger.

Bana Alabed is a 7-year-old girl from Syria. She lived in East Aleppo during the time of the siege. She has a huge heart and uses her voice to speak for the children of Syria. Her mom, Fatemah, helps her tweet. Bana is a young activist. She wants to be a teacher when she grows up. The Syrian Accountability Project matched records with Bana's tweets to show more details about her life in Aleppo during the siege.



The Syrian Accountability Project's records for November 4th, 2016 account for at least 1 shelling in Aleppo. Russian forces killed 12 civilians in a warplane shelling. In this instance, 7 kids and 4 women passed away.



The Syrian Accountability Project's records for November 11th, 2016 document widespread violence in Aleppo. Russian forces killed 9 civilians in a shelling, 3 of which were kids. The Syrian Regime killed 2 civilians in a shelling, 2 civilians in a shooting, and 1 civilian by torture. ISIS killed 2 civilians in a bombing, 1 was a child. ISIS kidnapped another child that later passed away. Bana and her family heard the bombs from their house.

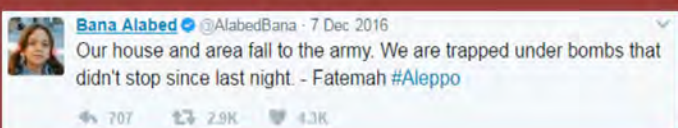
The communities in Aleppo were hit hard at the end of 2016. After weeks of bombardment, The Syrian Regime captured most of the northern districts of Aleppo on November 28th, 2016.



The Syrian Accountability Project's records for November 28th, 2016, account for many tragedies. The Syrian Regime killed 40 civilians in a shelling, 3 were women and 14 were kids. Rebel groups killed 10 civilians in a shelling, 3 were women and 5 were kids. Kurdish forces kidnapped and executed 3 civilians. Bana and her family lost their home and she was injured during the bombings.

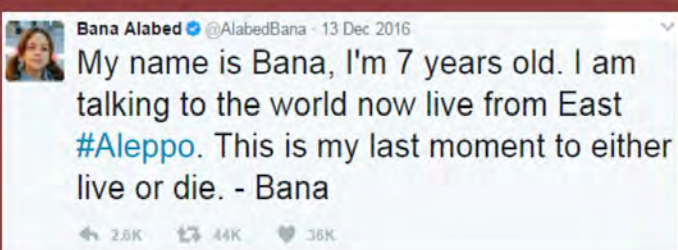


On December 7, 2016, Syrian Regime Forces recaptured the Old City in Aleppo. This trapped many civilians inside a war zone. Children like Bana could not avoid the bombs.



The Syrian Accountability Project's records for December 7th, 2016, document the recapture of Aleppo. Russian forces killed 9 civilians in a shelling. This included 1 woman and 4 kids. The Syrian Regime killed 2 civilians in a shelling, 1 was a woman. The Syrian National Coalition killed 7 civilians in a shelling including 1 woman and 6 children. Rebel grounds killed 3 civilians in a shelling, 2 were kids. Bana's family could not escape the bombardments.

Mid-December evacuations of Aleppo city pushed many civilians out of their homes. Bana escaped Aleppo before the end of December.



The Syrian Accountability Project's records for December 13th, 2016, documented 2 shellings in Aleppo. The Syrian Regime killed 1 female civilian in a shelling. Rebel groups killed 4 civilians in a shelling and 2 were kids. This war traumatized Bana and many children in her community.



According to the Violations Documentation Center, no deaths were recorded in Aleppo on December 19th, 2016. This day of limited violence allowed Bana and her family to escape Aleppo.

From 16 July to 22 December, or 160 days, the Syrian Armed Forces besieged Aleppo.¹⁶³ The result of the siege was a successful military victory for the Syrian government and their Russian allies, while a crucial hit to the various Rebel forces in the area. However, the siege, the conditions it imposed, and actions taken by parties in furtherance or in response to the siege, left the city resembling a shadow of its former beauty.

DOCUMENTED INCIDENTS DURING THE SIEGE

Introduction

The following sections contain a list of various legally relevant instances categorized as: Siege Warfare, Indiscriminate Shelling, Barrel Bombs, Chemical Weapons, Attacks on Medical and Humanitarian Operations, and Extrajudicial Killings.¹⁶⁴ This does not purport to be a complete list of legally relevant categories in the context of the siege of Aleppo, but a list of instances that are representative of the siege itself. Some categories include various types of instances that represent the wealth of instances not included, while others show a series of instances that illustrate the gravity of this type of category. All categories are brought back in the context of the siege itself to show how they were done in furtherance of the siege that brought the end of Rebel-held Aleppo.

Siege Warfare

Throughout the course of the Syrian Conflict, the Syrian government has used siege warfare as a tool to weaken Rebel strength and resolve. The tactic was used during the Middle Ages, wherein armies would surround a city or other populated area and cut it off from supplies.¹⁶⁵ While it may take some time, eventually, the thinking is, fighters and civilians trapped inside will run out of supplies and starve, surrender, or lose the ability to fight back.¹⁶⁶ The fate of civilians trapped in besieged areas is often bleak: they might starve, freeze to death, or die from lack of medical care. Throughout the siege of Aleppo, civilians were subjected to frequent targeting with barrel bombs and other weaponry.

The fate of civilians trapped in besieged areas is often bleak: they might starve, freeze to death, or die from lack of medical care.

The U.N.'s Special Advisor for Syria reported that no significant humanitarian aid deliveries reached eastern Aleppo after July 2016.¹⁶⁷ Aleppo-based Rebel groups reported that “nobody [could] get in or out of Aleppo.”¹⁶⁸ On 29 September 2016, it was announced that all

¹⁶³ While the siege was formally broken in early August for a few weeks, the siege will be discussed as if it were persistent.

¹⁶⁴ Not included but researched extensively are instances pertaining to sexual assault.

¹⁶⁵ Beth Van Schaack, *Mapping War Crimes in Syria*, 92 NAVAL COLLEGE INT’L L. STUDIES SERIES 282 (2016).

¹⁶⁶ See, Van Schaack, *supra* note 165.

¹⁶⁷ *Transcript of press stakeout by Mr. Jan Egeland, Special Advisor to the U.N. Special Envoy for Syria, 10 November 2016*, RELIEFWEB (Nov. 10, 2016), <http://reliefweb.int/report/syrian-arab-republic/transcript-press-stakeout-mr-jan-egeland-special-advisor-united-nations>.

¹⁶⁸ Dominic Evans and Sulieman al-Khalidi, *Syrian army seizes only road into Rebel-held Aleppo*, REUTERS (July 17 2016), <http://www.reuters.com/article/us-mideast-crisis-syria-aleppo-idUSKCN0ZX09Q>.

three criteria used to define a “besieged area” were met in eastern Aleppo: military encirclement, lack of humanitarian access, and lack of free movement for civilians.¹⁶⁹

The Rome statute prohibits the intentional use of “starvation of civilians as a method of warfare by depriving them of objects indispensable to their survival, including willfully impeding relief supplies as provided for under the Geneva conventions,”¹⁷⁰ and “intentional infliction of conditions of life, *inter alia*, the deprivation of access to food and medicine, calculated to bring about the destruction of part of a population.”¹⁷¹ Further, the Additional Protocol II of the Geneva Conventions requires the protection of objects indispensable to the survival of the civilian population:

Starvation of civilians as a method of combat is prohibited. It is therefore prohibited to attack, destroy, remove or render useless, for that purpose, objects indispensable to the survival of the civilian population, such as foodstuffs, agricultural areas for the production of foodstuffs, crops, livestock, drinking water installations and supplies and irrigation works.¹⁷²

Three issues best illustrate the widespread impact of the siege of Aleppo: lack of corridors for civilians to escape or bring humanitarian aid in, rising food prices, and the targeting of “objects indispensable to the survival of the civilian populations.”¹⁷³

The Syrian Armed Forces finally seized full control of Castello Road in mid-July,¹⁷⁴ and fully cut off access to eastern Aleppo by 27 July.¹⁷⁵ There were initially 250,000 people in besieged eastern Aleppo.¹⁷⁶ The Syrian Armed Forces began an information campaign urging residents to leave and designated passages for the evacuation of civilians.¹⁷⁷ The Russians proposed a plan that would allow for a number of corridors out of Aleppo.¹⁷⁸ Although the U.N. considered this plan to be “deeply flawed,” it considered playing a role in the oversight of these corridors.¹⁷⁹ Local activists, however, expressed concerns that these routes would actually lead to arrest and

¹⁶⁹ U.N. Secretary-General, *Implementation of Security Council resolutions 2139 (2014), 2165 (2014), 2191 (2014) and 2258 (2015)*, Box 3, U.N. DOC. S/2016/873 (Oct. 18, 2016).

¹⁷⁰ Rome Statute of the International Criminal Court, 37 ILM 1002, Article 8(2)(b)(xxv) (1998).

¹⁷¹ Rome Statute of the International Criminal Court, 37 ILM 1002, Article 7(2)(b).

¹⁷² Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of Non-International Armed Conflicts (Protocol II) art. 14, 8 June 1977, 1125 UNTS 609.

¹⁷³ *Id.*

¹⁷⁴ Dominic Evans and Sulieman al-Khalidi, *Syrian army seizes only road into Rebel-held Aleppo*, REUTERS (July 17 2016), <http://www.reuters.com/article/us-mideast-crisis-syria-aleppo-idUSKCN0ZX09Q>.

¹⁷⁵ *Syrian army says cut off all supply routes into east Aleppo*, REUTERS (July 27, 2016), <http://uk.reuters.com/article/uk-mideast-crisis-syria-aleppo-idUKKCN1071FO>.

¹⁷⁶ *Eastern Neighborhoods of Aleppo are being Bombed and Besieged*, SYRIAN NETWORK FOR HUMAN RIGHTS (July 25, 2016), <http://sn4hr.org/blog/2016/07/25/24794/>

¹⁷⁷ REUTERS, *supra* note 175.

¹⁷⁸ Kareem Shaheen, *Syria: UN considers role in Russia's 'deeply flawed' humanitarian corridors plan*, THE GUARDIAN (Aug. 5, 2016), <https://www.theguardian.com/world/2016/aug/05/syria-un-considers-role-in-russias-deeply-flawed-humanitarian-corridors-plan>

¹⁷⁹ *Id.*

detention.¹⁸⁰ International organizations called for the protection of civilians, whether or not they chose to leave.¹⁸¹ Additionally, Kurdish forces prevented civilians from travelling into or out of Rebel-held neighborhoods of Aleppo through Sheikh Maqsoud.¹⁸²

The siege held until a Rebel counterattack on ar-Ramouseh, led by jihadist Rebel groups, including Jabhat Fateh al-Sham,¹⁸³ which opened a southern corridor into the city.¹⁸⁴ International observers hoped that the corridor would allow aid into the city.¹⁸⁵ The two parties struggled for control of the ar-Ramouseh area until the Syrian Armed Forces finally wrested control of the district from the Rebels on 6 September.¹⁸⁶

The U.S. and Russia brokered a cease-fire on 10 September, purportedly to allow humanitarian aid into Rebel-held areas.¹⁸⁷ However, aid convoys were stuck at the Turkish border days after the cease-fire went into effect because of the difficulty of securing Syrian government and Rebel assurances of safe passage.¹⁸⁸ Some Rebel groups, including Jabhat Fateh al-Sham, said that they would not accept the foreign aid because they disagreed with the terms of the cease-fire.¹⁸⁹ Just days after the start of the cease-fire a Red Crescent humanitarian aid convoy and warehouse was targeted by airstrikes, killing 20 civilians and a Red Crescent staff member.¹⁹⁰

¹⁸⁰ *The Alleged Passages Announced by Government Forces are for Killing and Disappearance*, SYRIAN NETWORK FOR HUMAN RIGHTS (July 31, 2016), http://sn4hr.org/wp-content/pdf/english/Alleged_crossings_are_crossings_disappearances_and_killings_en.pdf.

¹⁸¹ *Syria: Civilians must be protected, whether they stay in Eastern Aleppo or not*, INTERNATIONAL COMMITTEE OF THE RED CROSS (July 28, 2016), <https://www.icrc.org/en/document/syria-civilians-must-be-protected-whether-they-stay-eastern-aleppo-or-not>.

¹⁸² *Eastern Neighborhoods of Aleppo are Being Bombed and Besieged*, SYRIAN NETWORK FOR HUMAN RIGHTS (July 24, 2016), http://sn4hr.org/wp-content/pdf/english/Neighborhoods_in_Aleppo_under_siege_and_bombardment_en.pdf.

¹⁸³ *Syrian jihadi rebels launch offensive to break Aleppo siege*, DEUTSCHE WELLE (Aug. 1, 2016), <http://www.dw.com/en/syrian-jihadi-Rebels-launch-offensive-to-break-aleppo-siege/a-19440704>.

¹⁸⁴ *Timeline: The battle for Aleppo*, REUTERS (Dec. 14, 2016), <http://www.reuters.com/article/us-mideast-crisis-syria-aleppo-timeline-idUSKBN1430PJ>; Suleiman al-Khalidi, *Rebels launch major assault to try to break Aleppo siege*, REUTERS (Aug. 1, 2016), <http://www.reuters.com/article/us-mideast-crisis-syria-aleppo-idUSKCN10B0ZU>.

¹⁸⁵ *Syrians celebrate as Rebels and jihadists break the Assad regime*, THE TELEGRAPH, <http://www.telegraph.co.uk/news/2016/08/06/syrians-celebrate-as-Rebels-and-jihadists-break-the-assad-regime/>.

¹⁸⁶ AL-MASDAR NEWS, *supra* note 135.

¹⁸⁷ Raf Sanchez, *Syrian regime steps up airstrikes ahead of ceasefire agreed by US and Russia*, THE TELEGRAPH (Sept. 10, 2016), <http://www.telegraph.co.uk/news/2016/09/10/assad-steps-up-airstrikes-head-of-deadline-for-ceasefire-agreed/>.

¹⁸⁸ Raf Sanchez, *UN says armed Syrian groups blocking Aleppo aid for 'political gain'*, THE TELEGRAPH (Sept. 14, 2016), <http://www.telegraph.co.uk/news/2016/09/14/un-says-armed-syrian-groups-blocking-aid-to-aleppo-for-political/>.

¹⁸⁹ *Id.*

¹⁹⁰ *Syria: Attack on humanitarian convoy is an attack on humanity*, INTERNATIONAL COMMITTEE OF THE RED CROSS (Sept. 20 2016), <https://www.icrc.org/en/document/syria-attack-humanitarian-convoy-attack-humanity>

Once the siege began, food and fuel prices in Rebel-held areas rose as stores of flour, fuel, and produce dwindled.¹⁹¹ Activists reported hours-long lines for bread.¹⁹² Because the siege prevented civilians from leaving Aleppo and humanitarian aid from entering Aleppo, many Aleppan markets stood empty. From August to September 2016, the price of a standard food basket in eastern Aleppo rose 13%.¹⁹³ Further, by November, the U.N. reported that the last food rations were being distributed in Aleppo.¹⁹⁴ The price of milk, when available, had quadrupled from the start of the siege and many items were completely unavailable.¹⁹⁵

Buying what little food was available also proved to be dangerous. A double-tap airstrike targeted a vegetable market in Firdous on 12 August, killing at least 15 civilians.¹⁹⁶ On 28 September, at about 3 am, an airstrike targeted a bakery in al-Maadi district.¹⁹⁷ Civilians were lining up to purchase bread at the time of the strike and at least 8 civilians were killed in the attack (including an owner of the bakery).¹⁹⁸ Another attack on 30 September targeted the Azizi bakery in al-Haydaria also killing the owner.¹⁹⁹

Aleppans also faced the destruction of essential infrastructure. On 31 July, clashes damaged an electricity transmission station that powered the water supply to the city of Aleppo.²⁰⁰ As many as 2 million people were without running water by mid-August,²⁰¹ and with water tanks in the city already low, many civilians, especially in eastern Aleppo, were forced to obtain water from unsafe sources.²⁰² The 12 August airstrike on the Firdous vegetable market also damaged a

¹⁹¹ *Eastern Neighborhoods of Aleppo are Being Bombed and Besieged*, SYRIAN NETWORK FOR HUMAN RIGHTS (July 24, 2016), http://sn4hr.org/wp-content/pdf/english/Neighborhoods_in_Aleppo_under_siege_and_bombardment_en.pdf; Zena Tahhan, *Syria war: Aleppo's civilians face humanitarian crisis*, AL JAZEERA (Aug. 23, 201), <http://www.aljazeera.com/news/2016/08/syria-war-aleppo-civilians-face-humanitarian-crisis-160823153958687.html>.

¹⁹² *Eastern Neighborhoods of Aleppo are Being Bombed and Besieged*, SYRIAN NETWORK FOR HUMAN RIGHTS (July 24, 2016), http://sn4hr.org/wp-content/pdf/english/Neighborhoods_in_Aleppo_under_siege_and_bombardment_en.pdf.

¹⁹³ A standard food basket includes bread, rice, lentils, sugar, and vegetable oil to feed a family of five 1,930 kcal a day for a month. *Syria County Office: Market Price Watch Bulletin*, WORLD FOOD PROGRAM (Sept. 2016), http://documents.wfp.org/stellent/groups/public/documents/ena/wfp287851.pdf?_ga=1.258700042.1053205769.1491854635.

¹⁹⁴ Bethan McKernan, *Aleppo on last food packages, says UN as harsh winter approaches*, INDEPENDENT (Nov. 10, 2016), <http://www.independent.co.uk/news/world/middle-east/aleppo-conflict-latest-un-warns-residents-brink-starvation-appeals-putin-assad-a7410281.html>.

¹⁹⁵ *Id.*

¹⁹⁶ Report of the Independent International Commission of Inquiry on the Syrian Arab Republic, ¶ 43, Feb. 2, 2017, U.N. DOC. A/HRC/34/64.

¹⁹⁷ *Id.*, ¶ 42.

¹⁹⁸ *Id.*

¹⁹⁹ *Id.*

²⁰⁰ *Id.*, ¶ 45.

²⁰¹ Camila Domonoske, *2 Million Residents Of War-Ravaged Aleppo Now Without Running Water*, NATIONAL PUBLIC RADIO (Aug. 9, 2016), <http://www.npr.org/sections/thetwo-way/2016/08/09/489296670/2-million-residents-of-war-ravaged-aleppo-now-without-running-water>.

²⁰² *Id.*

water line, which decreased access to water in that district.²⁰³ Airstrikes targeted the water substation in Bab Nayrab on 22 September, which put it out of service and left 200,000 civilians without water.²⁰⁴

Civilians in Aleppo were in a destitute state of emergency.

With decreasing access to food, water, the lack of humanitarian aid, and the rising cost of food, the people of Aleppo found themselves in a horrific situation. They were encircled and bombarded daily. Civilians in Aleppo were in a destitute state of emergency where the choices were limited to dust or famine.

Indiscriminate Shelling

The civilians of Aleppo have suffered from constant explosive shelling from Syrian Army artillery, and Syrian Air Force helicopters and warplanes. They have also faced shelling from stolen or homemade artillery employed by various Rebel groups, as well as missile strikes by the Russian Air Force and U.S. led Coalition Forces. Despite this plethora of actors and the various means by which they lob explosives into Aleppo, it is clear, that most of the collective death and destruction that has occurred in Aleppo has been the result of persistent and massive aerial bombardment.

On 24 July 2012 the Syrian Air Force initiated²⁰⁵ what would become one of history's lengthiest campaigns of heavy aerial bombardment. Over time, this bombardment eventually became more sustained and destructive and was perhaps the most important tool that the Syrian government used to ultimately subjugate Aleppo in December 2016.²⁰⁶ Between 2011 and February 2016, the Syrian Accountability Project documented a total of 24,102 civilian deaths

At least 3,037 civilians were killed during the final stages of the Aleppo siege, between July and December 2016.

from combined shelling incidents (i.e. ground based artillery and aerial bombardment). In Aleppo, SAP documented 10,951 civilian deaths in Aleppo from the start of the war until the end of 2016. Further, SAP documented that at least 3,037 civilians were killed during the final stages of the Aleppo siege, between July and December 2016. Thus, it is clear that civilian deaths

from shelling in Aleppo have contributed significantly to overall casualty statistics coming from the Syrian Civil War.

²⁰³ Report of the Independent International Commission of Inquiry on the Syrian Arab Republic, *supra* note 196, ¶ 43.

²⁰⁴ *Id.*, ¶ 46.

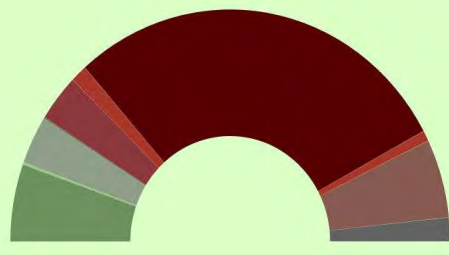
²⁰⁵ Ian Pannell, *Aleppo: BBC journalist on Syria warplanes bombing city*, BBC NEWS (July 24, 2016), <http://www.bbc.com/news/world-middle-east-18976690> (Ian Pannell: “[Today] the military’s response marked a sharp escalation in this battle. Helicopter gunships... sustained artillery... an unmistakable sound that has so far been absent in this conflict – the roar of fighter jets.”).

²⁰⁶ Tim Eaton, *Six decisive points that changed Syria’s war*, BBC NEWS (Mar. 15, 2017), available at: <http://www.bbc.com/news/world-middle-east-39233357>. (Tim Eaton (Research fellow, Chatham House: “The recapture of Rebel-held eastern Aleppo by the government and government-aligned forces in December 2016 was the most significant victory for President Assad in the conflict to date.”).

Covered in Dust, Veiled by Shadows: The Siege and Destruction of Aleppo



The Syrian Accountability Project documented incidents of violence in the Syrian Conflict from 2011 to 2016. The following data pertains to the Aleppo governorate in Syria. The actual number of violent incidents is larger.



The Battle of Aleppo began on July 19, 2012.

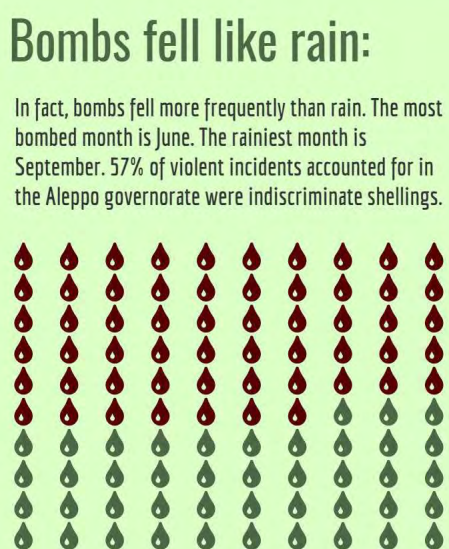
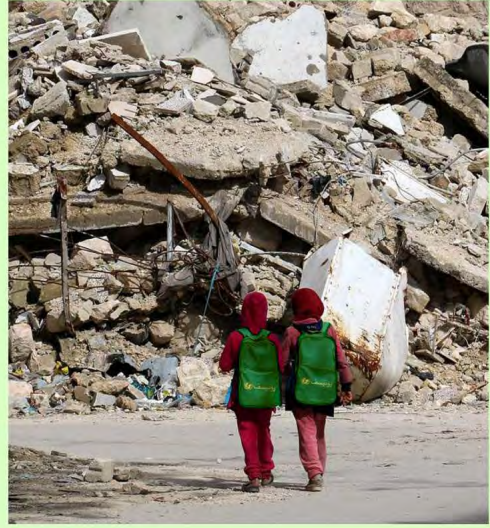
2,066 barrel bombs make up 10.8% of the incidents documented in Aleppo, 2011-2016.

1,286 civilian shootings make up 6.7% of the incidents documented in Aleppo, 2011-2016.

10,951 shellings make up 57.2% of the incidents documented in Aleppo, 2011-2016.

"Shellings"

Indiscriminate shellings were the most common form of violence documented in Aleppo. This is similar throughout the Syrian conflict. Shelling attacks are bombings or bombardments that occur with reckless disregard for civilians in the area.



The Syrian Accountability Project: Aleppo from 2011 to 2016



- 1 Aleppo was the largest and most prosperous city in Syria before the conflict began. The entire governorate faced trauma.
- 2 Six years of war turned half of the city into ruins. The Aleppo governorate changed in many ways.
- 3 The primary victims of siege warfare in the Aleppo governorate were civilians.

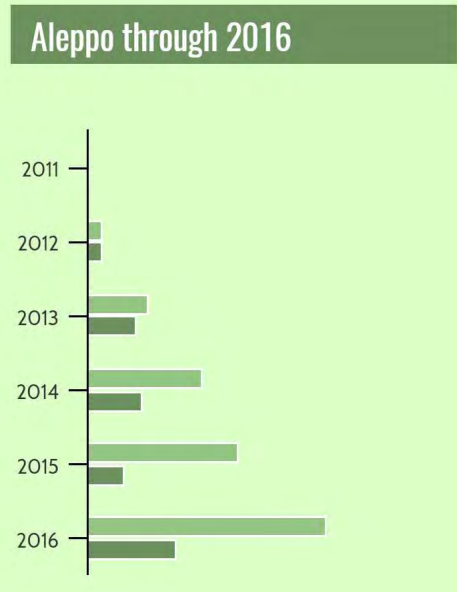
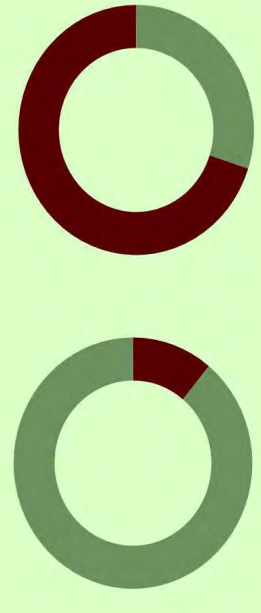
Aleppo through 2016	Period	Total
All Incidents in 2011	8	8
All Incidents in 2012	1,050	1,058
All Incidents in 2013	3,832	4,890
All Incidents in 2014	4,303	9,193
All Incidents in 2015	2,828	12,021
All Incidents in 2016	7,126	19,147

At least 70% of the documented incidents involved bombs.
At least 11% of the documented incidents involved children.

Between indiscriminate shellings and barrel bombs, roughly 70% of the 19,147 incidents SAP documented in Aleppo were bombings. Indications of "Violence Against Children" make up 11% of all documents. The actual numbers are greater than what is recorded.

- 1,262**
The Syrian Accountability Project documented 1,262 field executions in Aleppo from 2011 to 2016.
- 292**
The Syrian Accountability Project documented 292 instances of torture in Aleppo from 2011 to 2016.
- 638**
The Syrian Accountability Project counted 638 uses of "Weapons Designed to Cause Unnecessary Suffering" in Aleppo from 2011 to 2016.

- 2,066**
The Syrian Accountability Project documented 2,066 barrel bombs in Aleppo from 2011 to 2016.
- 2,098**
The Syrian Accountability Project documented 2,098 incidents of "Violence Against Children."
- 10,951**
The Syrian Accountability Project documented 10,951 indiscriminate shellings in Aleppo from 2011 to 2016.



On average, the Syrian Accountability Project documents roughly 10 incidents of violence in Aleppo each day.

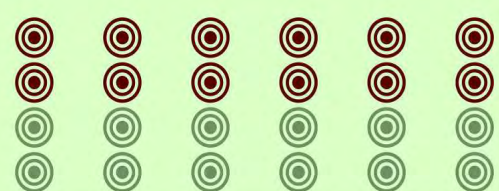
798 Per Quarter

SAP documents an average of 798 incidents of violence in Aleppo every three months.

The number of documented incidents in Aleppo per quarter counted above average half of the time.

The communities in Aleppo were hit hard at the end of 2016.

The Syrian Accountability Project's account of violence in Aleppo was consistently more than double the average over the final nine months of 2016. SAP documented 1,733 incidents of violence from March, 2016 to June, 2016. SAP documented 2,727 incidents of violence from July, 2016 to September, 2016. SAP documented 2,024 incidents of violence from October, 2016 to the end of the year.



By the 1,000s:

Before 2012, Aleppo housed roughly two million people. The Syrian Accountability Project breaks down data on the Syrian Conflict into quarter year terms. The average number of violent incidents counted per quarter is 798. There were many quarters with over 1,000 incidents. SAP documented 1,010 incidents of violence from January to March of 2013. SAP documented 1,394 incidents of violence from October, 2013 to the end of 2013. SAP documented 1,652 incidents of violence from January, 2014 to the end of March, 2014. SAP documented 1,024 incidents of violence from April, 2015 to June, 2015. More than 1,000 incidents of violence occurred every quarter for the final nine months of 2016.

A silhouette of a mosque with a dome and minarets.

History is replete with a sordid assortment of sustained and heavy aerial bombardments that deliberately targeted civilian populated urban areas. The first dropping of a bomb via aerial vehicle occurred in 1849, when Hapsburg forces launched 200 pilotless balloons loaded with fuse-timed bombs against the besieged city of Venice, Italy.²⁰⁷ Incidents of aerial bombardment that followed the invention of warplanes ushered in a new era of wartime destruction. During the Second World War, Germany's assault on London upped the ante considerably when the Luftwaffe incurred at least 43,000 deaths in London and its suburbs between September 1940 and May 1941.²⁰⁸ U.S. bombing campaigns in Germany and Japan pushed the mass casualties and destruction caused by aerial bombardment to a new extreme. Bombings conducted by the U.S. during World War II reached its ultimate crescendo in Japan with the first use of atomic weapons on the cities of Hiroshima and Nagasaki.

Despite the fact that the practice of dropping bombs from aircraft has become a fixture of modern armed conflict, indiscriminate "carpet-bombing" has been recognized as an intolerable practice.²⁰⁹ Yet, the use of aerial bombardment is still one of the most important facets of modern warfare.

The situation in Aleppo is different than its historical predecessors as an example of indiscriminate shelling of civilians. Aleppo marks the most sustained bombing campaign ever perpetrated upon a city; and by its own national government no less. Four and a half years of constant aerial bombardment reduced much of Aleppo to an apocalyptic landscape of *smoke and dust*. SAP research of area bombing in Aleppo shows signs of indiscriminate use that disproportionately affects civilians in the city. Further, the totality of these incidents suggests a deliberate practice of bombing in order to terrorize or disproportionately impact civilians.

Four and a half years of constant aerial bombardment reduced much of Aleppo to an apocalyptic landscape of smoke and dust.

The Law Against Indiscriminate Shelling

The Geneva Conventions and its Additional Protocols contain several provisions that pertain to incidents of indiscriminate shelling that kill civilians. The Geneva Conventions designates those persons not taking part in hostilities as a protected class who must be treated "humanely".²¹⁰ To this end the Geneva Conventions prohibits any acts of "violence to life and

²⁰⁷ Dr. Russell Naughton, *Remote Piloted Aerial Vehicles: An Anthology*, MONASH UNIVERSITY (February, 2 2003), http://www.ctie.monash.edu.au/hargrave/rpav_home.html.

²⁰⁸ *The Blitz*, BBC HISTORY (2017), http://www.bbc.co.uk/history/events/the_bltz.

²⁰⁹ Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts (Protocol I) art. 51, 8 June 1977, 1125 UNTS 3; Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of Non-International Armed Conflicts (Protocol II) art. 26, 8 June 1977, 1125 UNTS 609; Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May be Deemed to be Excessively Injurious or to Have Indiscriminate Effects (and Protocols) (As Amended on 21 December 2001) art. 3, 10 October 1980, 1342 UNTS 137; The Hague Rules of Air Warfare, Art. 24 (3), Feb. 1923.

²¹⁰ Geneva Convention Relative to the Treatment of Prisoners of War, art. 3, Aug. 12, 1949, 6 U.S.T. 3316, 75 U.N.T.S. 135.

person, in particular murder of all kinds...”²¹¹ Additional Protocol I (AP I) calls for the protection of civilian populations from dangers imposed by military operations, to that end, acts of violence or threats of violence against civilians are prohibited.²¹² Indiscriminate attacks, defined as those attacks that are not directed at a specific military objective, or which employ combat methods which cannot discriminate adequately against specific military objectives, are prohibited.²¹³ Of particular concern in relation to Aleppo is the prohibition of an attack “by bombardment” that treats a number of clearly separated and distinct military objectives located in an urban area with concentrations of civilians as a single military objective.²¹⁴

Additional Protocol II (AP II) restates the earlier iterated protected class and again calls for their humane treatment.²¹⁵ AP II follows with a specific prohibition against “violence to the life, health and physical or mental well-being of persons, in particular murder...”²¹⁶ AP II also contains a general requirement to protect civilian populations. In furtherance of this objective, civilians are not allowed to be the “object of attack” and any acts or threats of violence that have the purpose of terrorizing civilians is also prohibited.²¹⁷

The Rome Statute restates the same protected class of persons in the Geneva Conventions and proscribes acts of violence against them.²¹⁸ The Rome Statute also sets forth war crimes and crimes against humanity that necessarily entail situations of indiscriminate shelling that kills civilians. First, a “crime against humanity” entails any act of murder that is committed as part of a “widespread or systematic attack” against a civilian population.²¹⁹ Second, the Rome Statute, pursuant to the Geneva Conventions proscribes any of the following acts as “war crimes”: willful killing²²⁰; willfully causing “great suffering or serious injury”.²²¹ Attacks that are intentionally directed against civilians are prohibited no matter the circumstances of armed conflict.²²² In the case of international armed conflict the Rome statute prohibits the launch of an attack with knowledge that such attack will cause “incidental loss of life or injury” amongst civilians in the area.²²³ Also during international armed conflict armed forces should not attack an undefended “town, villages, dwellings or buildings” which are not military objectives.²²⁴

²¹¹ *Id.*

²¹² Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts (Protocol I) art. 51, 8 June 1977, 1125 UNTS 3.

²¹³ *Id.*

²¹⁴ *Id.*

²¹⁵ Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of Non-International Armed Conflicts (Protocol II) art. 4, 8 June 1977, 1125 UNTS 609, (“All persons who do not take a direct part or who have ceased to take part in hostilities...”).

²¹⁶ *Id.*

²¹⁷ *Id.* at art. 13.

²¹⁸ Rome Statute of the International Criminal Court, 37 ILM 1002, Article 8(2)(c)(i) (1998).

²¹⁹ Rome Statute of the International Criminal Court, 37 ILM 1002, Article 7(1)(a) (1998).

²²⁰ *Id.* at Article 8(2)(a)(i).

²²¹ *Id.* at Article 8(2)(a)(iii).

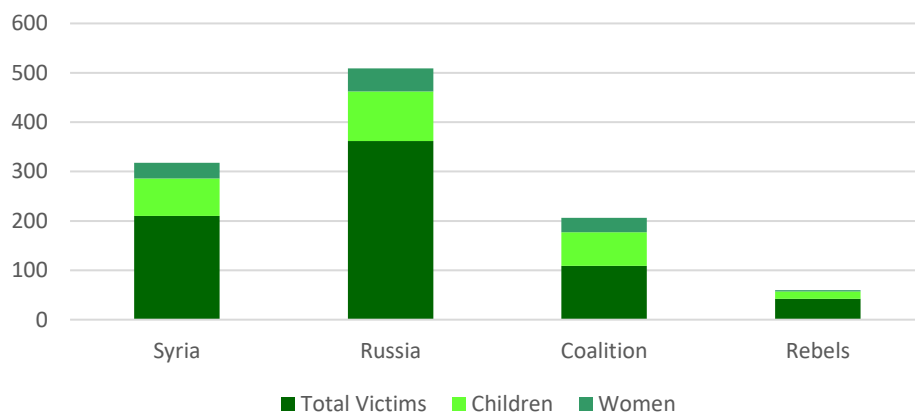
²²² *Id.* at Article 8(2)(b)(ii) (international armed conflict); *Id.* at Article 8(2)(e)(i) (non-international armed conflict).

²²³ *Id.* at Article 8(2)(b)(iv).

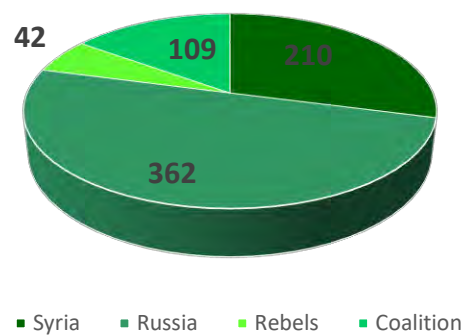
²²⁴ *Id.* at Article 8(2)(b)(v).



Shelling Victims by Perpetrator



Most Egregious Shelling Incidents



Most Egregious Incidents of Indiscriminate Shelling During the Siege

Located in Appendix A, there are documented incidences of indiscriminate shelling throughout the siege of Aleppo. This includes accounts of warplane shelling and artillery shelling. For warplane shelling, it will consider the Syrian Regime Air Force, the Russian Air Force, and U.S. Coalition forces. The types of weapons include conventional bombs and missiles as well as barrel bombs.²²⁵ The instances below are ones that were considered most egregious due to the number of victims, the target of the strikes, or the type of weapon used. While most instances are ones that took place in the city, some that occurred outside the city are included to provide context to the war surrounding and affecting the siege in Aleppo.

These incidents are representative of continuous and indiscriminate use of explosive bombardment of Aleppo. While there are legitimate targets throughout Rebel-held Aleppo, the disregard for the well-being of civilians and the disproportionate impact these attacks had on civilians goes to the indiscriminate nature of the bombing campaign. Most telling is that the Syrian government does not distinguish between combatants and non-combatants for areas in “rebellion” and instead considers all to be “terrorists.” Thus, the existence of legitimate targets does not exonerate a bombing campaign that does not distinguish between legitimate and illegitimate targets.

Instead the indiscriminate shelling campaign ties into the campaign of terror brought on the city as a way of striking fear in the residents of the city. The campaign compelled surrender by raining bombs on a daily basis.

Barrel Bombs

The story of aerial bombardment and other forms of indiscriminate shelling in Aleppo is not as conventional as most historical instances. As seen above, a significant percentage of the aerial bombardment of Aleppo involve the use of improvised explosive devices that have earned the media moniker “barrel bomb.”

There is no singular, authoritative definition of a “barrel bomb.” Most frequently, the term is used to refer to an “improvised container ... dropped from an aircraft and filled with explosive, incendiary or other substances and often additional materials to increase fragment projection.”²²⁶ The bomb’s casing is typically an oil drum or a similar container and may contain up to 2,000 pounds of TNT.²²⁷ Dropped from high altitudes, barrel bombs contain no mechanism for directing the projection of their fall.²²⁸ Although earlier versions may have been cruder, today they usually utilize impact fuses, which detonate upon impact with the ground.²²⁹ They are unstable, and some

²²⁵ The succeeding section will discuss barrel bombs in more detail.

²²⁶ *Barrel Bomb*, WEAPONS LAW, <http://www.weaponslaw.org/glossary/barrel-bomb>.

²²⁷ See *Death Everywhere: War Crimes and Human Rights Abuses in Aleppo, Syria*, AMNESTY INTERNATIONAL (May 2015), <https://amnesty.dk/media/1203/deat-everywhere-aleppo.pdf>, p. 19 (for an illustrated anatomy of a barrel bomb).

²²⁸ Torie Rose Deghett, *The Build-it-Yourself Bombs*, FOREIGN POLICY (July 3, 2014), <https://foreignpolicy.com/2014/07/03/the-build-it-yourself-bombs/>.

²²⁹ *Death Everywhere*, *supra* note 227; See also, Deghett, *supra* note 228.

will detonate prior to ever hitting the ground.²³⁰ The Regime likely turned to the use of barrel bombs, which are relatively inexpensive to produce and detonate, after depleting stores of more traditional weaponry.²³¹

Throughout the siege, and for years prior, the civilian population in Aleppo lived in constant fear of barrel bomb attacks.²³² One civilian, speaking to Amnesty International, described them as “the most miserable weapon.”²³³ Barrel bombs give very little warning of their approach, giving civilians very little time to seek shelter. Upon impact, a barrel bomb may cause immense damage: doctors in Aleppo have reported victims suffering from burns and blunt force trauma.²³⁴ Many victims require amputations and suffer from damage to their eyesight.²³⁵ Barrel bombs may also cause severe structural damage.²³⁶

Barrel bombs frequently target civilian areas. Adding to the damage, they often come in “double-tap” strikes, wherein a barrel bomb will fall, cause destruction, and about 30 minutes later another barrel bomb will target the same area, likely to take out first responders and other emergency personnel. Additionally, there have been several reports of barrel bombs containing poisonous gases or incendiary material.

Barrel bombs are not per se prohibited under international law, but their use (and especially the way in which they are used by the Syrian Air Force) is likely unlawful. International humanitarian law requires that the principles of military necessity,²³⁷ distinction,²³⁸ and proportionality²³⁹ guide any use of force in an armed conflict. Barrel bombs, dropped from any height, contain no steering mechanism and therefore cannot target with precision. It is nearly impossible to accurately target a barrel bomb dropped from high altitudes, as they frequently are.²⁴⁰

²³⁰ Deghett, *supra* note 228.

²³¹ Report of the independent international commission of inquiry on the Syrian Arab Republic, Aug. 13, 2014, U.N. Doc. A/HRC/27/60 [hereinafter 2014 Report].

²³² *Aleppo's Reality: Daily Life under Barrel Bombs*, DOCTORS WITHOUT BORDERS (Mar. 2015), https://www.doctorswithoutborders.org/sites/usa/files/attachments/aleppos_reality_daily_life_under_barrel_bombs.pdf

²³³ Death Everywhere, *supra* note 227.

²³⁴ 2014 Report, *supra* note 231 at 16.

²³⁵ *Id.*

²³⁶ *No less than 12,958 Barrel Bombs Dropped in 2016*, SYRIAN NETWORK FOR HUMAN RIGHTS (Jan. 9, 2017), <http://sn4hr.org/blog/2017/01/09/30900/>.

²³⁷ *Military Necessity*, INTERNATIONAL COMMITTEE OF THE RED CROSS, <https://casebook.icrc.org/glossary/military-necessity> (Military necessity “permits measures which are actually necessary to accomplish a legitimate military purpose and are not otherwise prohibited by international law. In the case of an armed conflict the only legitimate military purpose is to weaken the military capacity of the other parties to the conflict.”).

²³⁸ *Distinction*, INTERNATIONAL COMMITTEE OF THE RED CROSS, <https://casebook.icrc.org/glossary/distinction> (“Civilians enjoy their protection from direct attack unless and for such time as they take a direct part in hostilities.”).

²³⁹ “[P]roportionality prohibits attacks against military objectives which are ‘expected to cause incidental loss of 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.’” *Proportionality*, INTERNATIONAL COMMITTEE OF THE RED CROSS, <https://casebook.icrc.org/glossary/proportionality>.

²⁴⁰ 2014 Report, *supra* note 231.

In eastern Aleppo, barrel bombs targeted mostly civilian areas: residential complexes, hospitals, mosques, electricity plants, and others. Throughout the siege, eastern Aleppo was held by Rebel forces (whom themselves are lawful military targets). However, despite the Syrian Regime and its allies' claims that they only target "terrorists", the most frequent victims of these attacks are civilians. Throughout the siege of Aleppo, barrel bombs killed over 300 civilians and damaged mosques, hospitals, housing complexes, markets, and emergency vehicles. The obvious civilian harm that results from barrel bomb attacks, compounded with their imprecise nature, illustrates that barrel bombs, as used by the Syrian Regime, do not comply with international law.

Article 13 of AP II to the Geneva Convention provides that "civilian populations... as well as individual civilians, shall not be the object of attack. Acts or threats of violence the primary purpose of which is to spread terror among the civilian population is prohibited."²⁴¹ Throughout the Siege, and the conflict generally, barrel bombs were used predominantly to target civilian areas. The unique nature of a barrel bomb attack further speaks to this violation: civilians in Aleppo report living in constant fear of barrel bomb attacks, because of their unpredictability and the severity of the damage that results.

Throughout the siege of Aleppo, approximately 2,591 barrel bombs targeted the Aleppo Governorate.²⁴² At least 373 civilians died as a result of these attacks, including at least 79 children.²⁴³ These figures are likely underreported.

Around 25 July, Regime barrel bombs targeted a residential complex in al-Mashhad, Aleppo.²⁴⁴ The attack destroyed multiple residential buildings, trapping a number of civilians

²⁴¹ Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of Non-International Armed Conflicts (Protocol II) art. 13, 8 June 1977, 1125 UNTS 609.

²⁴² *No less than 12,958 Barrel Bombs Dropped in 2016*, SYRIAN NETWORK FOR HUMAN RIGHTS (Jan. 9, 2017), <http://sn4hr.org/blog/2017/01/09/30900/>; *No less than 10987 Barrel Bombs since Russian intervention*, SYRIAN NETWORK FOR HUMAN RIGHTS (Aug. 8, 2016), http://sn4hr.org/wp-content/pdf/english/1183_explosive_barrels_in_July_2016_en.pdf; *No less than 12366 Barrel Bombs since Russian intervention*, SYRIAN NETWORK FOR HUMAN RIGHTS (Sep. 7, 2016), http://sn4hr.org/wp-content/pdf/english/1379_explosive_barrels_in_August_2016_en.pdf; *No less than 13,024 Barrel Bombs have been Dropped since the Beginning of the Russian Military Campaign in Syria*, SYRIAN NETWORK FOR HUMAN RIGHTS (Oct. 7, 2016), http://sn4hr.org/wp-content/pdf/english/13024_barrels_volatile_since_the_start_of_the_Russian_intervention_en.pdf; *No less than 14,152 Barrel bombs since the Russian Intervention Started*, SYRIAN NETWORK FOR HUMAN RIGHTS (Oct. 7, 2016), http://sn4hr.org/wp-content/pdf/english/1128_explosive_barrels_in_October_2016_en.pdf; *No less than 16,098 Barrel Bombs since the Start of the Russian Intervention*, SYRIAN NETWORK FOR HUMAN RIGHTS (Dec. 8, 2016), http://sn4hr.org/wp-content/pdf/english/The_explosive_barrels_in_Syria_in_November_2016_en.pdf.

²⁴³ *No less than 12,958 Barrel Bombs Dropped in 2016*, *supra* note 242; *No less than 10987 Barrel Bombs since Russian intervention*, *supra* note 242; *No less than 12366 Barrel Bombs since Russian intervention*, *supra* note 242; *No less than 13,024 Barrel Bombs have been dropped since the Beginning of the Russian Military Campaign in Syria*, *supra* note 242; *No less than 14,152 Barrel bombs since the Russian Intervention Started*, *supra* note 242; *No less than 16,098 Barrel Bombs since the Start of the Russian Intervention*, *supra* note 242.

²⁴³ *Syrian regime pounds Aleppo, thousands of people face food shortage*, DAILY SABAH (July 26, 2016), <https://www.dailysabah.com/syrian-crisis/2016/07/27/syrian-regime-pounds-aleppo-thousands-of-people-face-food-shortage>.

²⁴⁴ *Syrian regime pounds Aleppo, thousands of people face food shortage*, DAILY SABAH (July 26, 2016), <https://www.dailysabah.com/syrian-crisis/2016/07/27/syrian-regime-pounds-aleppo-thousands-of-people-face-food-shortage>.

under the rubble.²⁴⁵ Reports in the days following the attack placed the death toll at 18 persons and dozens injured, but that number is likely higher.²⁴⁶

A month later, on 25 August, 15 civilians, including 11 children, were killed in a double-tap barrel bomb attack in Bab-al-Nayrab.²⁴⁷ Civilians and emergency groups, such as the White Helmets, worked following the attacks to rescue civilians trapped under the rubble. Regime forces targeted the same area with barrel bombs several days later, during the funeral for those killed in the 25 August attack. At least 25 civilians died in the second attack.²⁴⁸

In October, Regime barrel bombs destroyed the largest hospital in Rebel-held Aleppo, known as “M10.”²⁴⁹ The hospital had been rendered out of service several days prior, on 28 September. On that day, shelling put the two largest operational hospitals, “M2” and “M10”²⁵⁰ out of service.²⁵¹ The destruction of M10 severely crippled access to medical care in Rebel held areas.²⁵²

On several occasions, barrel bombs included containers filled with toxic gases, which implicate additional violations of international law. The Convention on the Prohibition of the

²⁴⁵ *No Less than 56 Massacres in July 2016*, SYRIAN NETWORK FOR HUMAN RIGHTS (Aug. 10, 2016), http://sn4hr.org/wp-content/pdf/english/At_least_56_massacre_in_July_2016_en.pdf; DAILY SABAH, *supra* note 244.

²⁴⁶ *Syrian army 'cuts off last supply route to east Aleppo'*, AL JAZEERA (July 27, 2016), <http://www.aljazeera.com/news/2016/07/syrian-army-cuts-supply-route-east-aleppo-160727133458560.html>; *Barrel Bomb Attack in the Mashhad District of Aleppo*, GETTY IMAGES, http://www.gettyimages.com/album/barrel-bomb-attack-in-the-mashhad-district-of-aleppo-children-rescued-from-the--k7nOS5oxsEiUSgzEJF_46g#search-and-rescue-team-members-rescue-a-child-from-the-debris-of-picture-id579865120.

²⁴⁷ *Barrel bombing kills 11 children in Syria's Aleppo*, MIDDLE EAST EYE (Aug. 25, 2016), <http://www.middleeasteye.net/news/barrel-bombing-kills-11-children-syrias-aleppo-405573351>; *In Bab al-Nayrab neighborhood... a massacre kills and injures tens of people who were mourners of a massacre carried out a few days ago in the same neighborhood*, SYRIAN OBSERVATORY FOR HUMAN RIGHTS (Aug. 27, 2016), <http://www.syriahr.com/en/?p=49950>; Ollie Gillman, *Eleven Syrian children among 15 people killed in horror barrel bomb attack by Assad's forces in Aleppo*, DAILY MAIL (Aug. 25, 2016), <http://www.dailymail.co.uk/news/article-3695902/Activists-US-led-coalition-airstrikes-kill-15-Syria.html>; *Latest Martyrs: Aug. 25, 2016*, VICTIMS DOCUMENTATION CENTER (Aug. 25, 2016), www.vdc-sy.info/index.php/en/details/martyrs (last visited Feb. 22, 2017).

²⁴⁸ *In Bab al-Nayrab neighborhood... a massacre kills and injures tens of people who were mourners of a massacre carried out a few days ago in the same neighborhood*, SYRIAN OBSERVATORY FOR HUMAN RIGHTS (Aug. 27, 2016), <http://www.syriahr.com/en/?p=49950>; *Latest Martyrs: Aug. 27, 2016*, VICTIMS DOCUMENTATION CENTER (Aug. 27, 2016), www.vdc-sy.info/index.php/en/details/martyrs (last visited Feb. 22, 2017); Louisa Loveluck, *Airstrike in east Aleppo hits funeral*, WASHINGTON POST (Aug. 27, 2016), https://www.washingtonpost.com/world/airstrike-in-east-aleppo-hits-childrens-funeral/2016/08/27/2917db58-6c69-11e6-91cb-ecb5418830e9_story.html?utm_term=.cc22256462da.

²⁴⁹ Jamie Grierson, *Syria: Aleppo hospital hit by barrel bombs and cluster bombs, reports say*, THE GUARDIAN (Oct. 1, 2016), <https://www.theguardian.com/world/2016/oct/01/-syriaairstrikes-major-offensive-against-Rebel-held-areas-of-aleppo>.

²⁵⁰ Hospitals in Aleppo are given code names to disguise their location. This became especially important in the past few years as the Assad Regime and its allies began boldly targeting medical and humanitarian facilities.

²⁵¹ Kareem Shaheen and Julian Borger, *Two Aleppo hospitals bombed out of service in 'catastrophic' airstrikes*, THE GUARDIAN (Sep. 28, 2016), <https://www.theguardian.com/world/2016/sep/28/aleppo-two-hospitals-bombed-out-of-service-syria-airstrikes>.

²⁵² For more information concerning the bombing of the M10 hospital, please see the Attacks on Humanitarian and Medical Operations Section.

Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction of 1992 (Chemical Weapons Convention) defines certain chemical agents whose use is unlawful. Further, the use of chemical weapons is “prohibited in all circumstances under customary international humanitarian law and is a war crime under the Rome Statute of the International Criminal Court.”²⁵³

Throughout the siege, there were at least two instances of the use of toxic gas within a barrel bomb to target civilian areas. Reports indicate that these bombs contained chlorine, a chemical agent specifically prohibited by the Chemical Weapons Convention and customary international humanitarian law.

Activists reported the use of such weapons to attack a residential neighborhood in al-Zebdiyah, controlled by Rebels, on the evening of 10 August.²⁵⁴ Regime helicopters reportedly dropped barrel bombs containing canisters of a toxic gas with a smell of chlorine.²⁵⁵ The attack killed two children and their mother, and at least 60 other civilians required medical care.²⁵⁶ Doctors reported victims with “suffocation, coughing, wheezing ... rash, [and] excessive tearing.”²⁵⁷ These reports are consistent with previous reports of suspected chlorine gas attacks.²⁵⁸

Less than a month later, on 6 September, barrel bombs containing a toxic gas targeted the Wafaa Kharsaa pharmacy in Sukari during the early afternoon.²⁵⁹ Victims reported to medical staff at Aleppo hospitals that, although there was no explosion, there was a strong smell of chlorine, and that they had seen a greenish-colored gas.²⁶⁰ 2 civilians died as a result of the attack, and over 150 others received medical treatment.²⁶¹

Many essential services, such as hospitals, had to move underground because of constant targeting.

Barrel bombs have added a particularly horrific aspect to the Syrian Civil War, because of their frequency and the intensity of the destruction that they cause. The fear of barrel bomb attacks works to instill

fear in and to paralyze the civilian population. Throughout the course of the siege, many essential services, such as hospitals, had to move underground because of constant targeting by barrel bombs. The Regime’s attack of a funeral in August is particularly illustrative, because, as one

²⁵³ 2014 Report, *supra* note 231, ¶ 117.

²⁵⁴ *1379 Barrel Bombs that resulted in the death of 111 civilians including 35 children and 16 women in August 2016*, SYRIAN NETWORK FOR HUMAN RIGHTS (Sep. 7, 2016), http://sn4hr.org/wp-content/pdf/english/1379_explosive_barrels_in_August_2016_en.pdf.

²⁵⁵ *Syria: New Deadly Chemical Attacks*, HUMAN RIGHTS WATCH (Sep. 28, 2016), <https://www.hrw.org/news/2016/09/28/syria-new-deadly-chemical-attacks>.

²⁵⁶ *Id.*

²⁵⁷ *Id.*

²⁵⁸ 2014 Report, *supra* note 231, ¶ 117.

²⁵⁹ *658 Barrel Bombs dropped in September 2016 Killing 71 civilians including 15 children and Nine women*, SYRIAN NETWORK FOR HUMAN RIGHTS (Oct. 7, 2016), http://sn4hr.org/wp-content/pdf/english/13024_barrels_volatile_since_the_start_of_the_Russian_intervention_en.pdf.

²⁶⁰ *Syria: New Deadly Chemical Attacks*, HUMAN RIGHTS WATCH (Sep. 28, 2016), <https://www.hrw.org/news/2016/09/28/syria-new-deadly-chemical-attacks>.

²⁶¹ *Id.*

resident commented: “The regime is telling us that we can’t be sad, we can’t cry for our children who die. They want us to think that if we hold funerals for them, we will risk death, too.”²⁶²

Chemical Weapons

The people of Aleppo have faced one of the most universally despised of all weapons, toxic chemical gas, often delivered in a barrel bomb.

On 19 March 2013, more than 20 civilians were killed in the Khan al-Assal suburbs of Aleppo when Syrian Armed Forces attacked with Sarin gas.²⁶³ This incident was part of series in 2013 that brought the international community to action on the problem of chemical weapons in Syria, but the problem remains unsolved, and incidents persist.

World War I is the theatre where chemical weapons made their major debut. The horrors they inflicted on the battlefield led resolute disapproval by a growing body of States. This eventually led to the development of a treaty at the 1925 League of Nations called the Protocol for the Prohibition of the Use of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare (1925 Geneva Protocol). Syria did not accede to the 1925 Geneva Protocol until 1968.²⁶⁴

The U.N. continued its legislative reinforcement of the 1925 Geneva Protocol and further principles against using chemical weapons when the Conference on Disarmament presented the Chemical Weapons Convention in its annual report on 3 September 1992.²⁶⁵ The Chemical Weapons Convention was signed by 165 States by its date of entry in 1997. The Convention goes beyond the 1925 Geneva Protocol’s prohibition on the use of chemical weapons and restricts the creation, storage, transport and trade of chemical weapons and their implements.²⁶⁶ The Convention is administered by the Organization for the Prohibition of Chemical Weapons (OPCW).

On 10 September 2013, Syria’s Foreign Minister Walid Moallem stated that the Syrian Armed Forces possessed chemical weapons in contravention of the Chemical Weapons Convention.²⁶⁷ Moallem also stated that Syria aimed to comply with the Convention by ceasing production of chemical weapons and open its facilities to international investigation.²⁶⁸ UNSC Resolution 2118 established that Syria had until 30 June 2014 to destroy its chemical weapons

²⁶² Louisa Loveluck, *Airstrike in east Aleppo hits funeral*, WASHINGTON POST (Aug. 27, 2016), https://www.washingtonpost.com/world/airstrike-in-east-aleppo-hits-childrens-funeral/2016/08/27/2917db58-6c69-11e6-91cb-ecb5418830e9_story.html?utm_term=.cc22256462da.

²⁶³ Final Report, *U.N. Mission to Investigate Allegations of the Use of Chemical Weapons in the Syrian Arab Republic*, U.N. OFFICE FOR DISARMAMENT (Dec. 13 2013), <https://unoda-web.s3.amazonaws.com/wp-content/uploads/2013/12/report.pdf>.

²⁶⁴ 17 December 1968 marks Syria’s ascension to the Convention with the reservation that its ascension in no way indicates recognition of Israel’s statehood.

²⁶⁵ The Harvard Sussex Program on CBW Armament and Arms Limitation, *The 1993 Chemical Weapons Convention* (Jan. 31, 2001), <http://www.fas.harvard.edu/~hsp/chemical.html>.

²⁶⁶ *Id.*

²⁶⁷ Anne Barnard, *In Shift, Syrian Official Admits Government Has Chemical Arms*, NY Times (Sept. 10, 2013), http://www.nytimes.com/2013/09/11/world/middleeast/Syria-Chemical-Arms.html?_r=0.

²⁶⁸ *Id.*

arsenal.²⁶⁹ The Syrian government met this deadline according to oversight provided by the OPCW.²⁷⁰ Accordingly, by the end of August 2014, the OPCW saw to the destruction of 94% of Syria's declared stockpile of chemical weapons including all Category 1 chemical weapons (Sarin etc.) in the Syrian arsenal.²⁷¹ Yet, despite these significant achievements the intrusion of chemical weapons on the battlefield of Syria and in the city of Aleppo persists. Of concern are reports that Syrian Armed Forces have continued to use chlorine gas as a weapon. Chlorine is not a banned substance under the Convention, but its use as a weapon certainly is.

Most Egregious Incidents of Chemical Weapon Attack During the Siege

Appendix B includes documented incidences of chemical weapons being used throughout the siege of Aleppo. The most significant report on the use of chemical weapons during the final months of siege in Aleppo was issued by Human Rights Watch (HRW). HRW reported that there were at least 8 chemical gas attacks in Aleppo, likely all chlorine gas attacks, conducted by the Syrian government, between 17 November and 13 December 2016.²⁷² The 8 chemical weapon attacks launched by the Syrian Armed Forces killed 9 civilians (including 4 children) and injured 200 others.²⁷³ According to HRW, the use of chlorine gas attacks by Syrian Armed Forces appears to precede major advances by the Syrian Armed Forces within the city of Aleppo.²⁷⁴ It is also important to note that HRW believes that the actual number of chemical attacks may be as many as 12 but due to limited availability of evidence these additional incidents could not be confirmed.²⁷⁵

Conclusions on Chemical Weapons

Subsequent to repeated reports of chemical weapon attacks perpetrated by the Syrian government, like those outlined above, on 13 January 2017, the OPCW announced that President Assad and his brother Maher Assad are suspected commanders implicated in the use of chemical weapons.²⁷⁶ On 28 February 2017, Russia and China vetoed a UN Security Council resolution (drafted by the US, UK and France) that banned the sale of helicopters to Syria and sought to sanction 11 commanders from the Syrian Armed Forces due to allegations of chemical attacks.²⁷⁷ On 4 April 2017, reports of a chemical weapon attack in Khan Sheikhoun, Idlib Governorate

²⁶⁹ OPCW Executive Council, Decision [on the] Destruction of Syrian Chemical Weapons, EC-M-33/DEC.1 27 (Sept. 2013). https://www.opcw.org/fileadmin/OPCW/EC/M-33/ecm33dec01_e_.pdf.

²⁷⁰ *Last of Syria's chemical weapons shipped out*, BBC News (June 23, 2014), <http://www.bbc.com/news/world-middle-east-27974379>.

²⁷¹ *OPCW: All Category 1 Chemicals Declared by Syria Now Destroyed*, Organisation for the Prohibition of Chemical Weapons (Aug. 28, 2014), <https://www.opcw.org/news/article/opcw-all-category-1-chemicals-declared-by-syria-now-destroyed>.

²⁷² *Syria: Coordinated Chemical Attacks on Aleppo*, Human Rights Watch (Feb. 13, 2017, 10:57 AM), <https://www.hrw.org/news/2017/02/13/syria-coordinated-chemical-attacks-aleppo>.

²⁷³ *Id.*

²⁷⁴ *Id.*

²⁷⁵ *Id.*

²⁷⁶ Anthony Deutsch, *Exclusive: Assad linked to Syrian chemical attacks for first time*, Reuters (Jan. 13, 2017, 2:08 PM), <http://www.reuters.com/article/us-mideast-crisis-syria-chemical-weapons-idUSKBN14X1XY>.

²⁷⁷ *Syria war: Russia and China veto sanctions*, BBC News (Feb. 28, 2017), <http://www.bbc.com/news/world-middle-east-39116854>.

(approximately 100 kilometers south of Aleppo) emerged. The substance used in this attack is Sarin as opposed to chlorine.²⁷⁸

Attacks against Medical and Humanitarian Operations

In maybe one of the most basic principles of international humanitarian law, the overriding goal is mitigating the effects war has on combatants, civilians, and property. Thus, respect for medical and humanitarian operations within armed conflict is an important means to achieving that goal. The siege, as it pertained to hospitals, disregarded the protection turning their emblems into crosshairs.

Protecting humanitarian and medical operations in armed conflict is a custom practiced by warring parties throughout history. This protection was done for both moral reasons by participants and utilitarian reasons of reciprocity. However, modern warfare made the battlefield more dangerous for these operations and reciprocity concerns increasingly waived in favor of military advantage. The battlefield, as seen in the siege of Aleppo, ceased to distinguish between lawful targets as seeking medical help put a crosshair on a civilian's back. Attacking humanitarian and medical operations become a policy done in furtherance of the siege.²⁷⁹

Medical Operations

There are various sections under the Geneva Conventions and its protocols along with the Rome Statute pertaining to medical operations. Under the Fourth Geneva Convention, Article 18 protects medical units from attack stating, "Civilian hospitals organized to give care to the wounded and sick, the infirm and maternity cases, may in no circumstances be the object of attack, but shall at all times be respected and protected by the Parties to the conflict"²⁸⁰ Article 20 provides for the protection of the medical units' staff: "Persons regularly and solely engaged in the operation and administration of civilian hospitals, including the personnel engaged in the search for, removal and transporting of and caring for wounded and sick civilians, the infirm and maternity cases, shall be respected and protected."²⁸¹ This protection is absolute in saying these facilities and their workers shall not be the "object of an attack."²⁸² AP II provides similar protections in Articles 9, 10, and 11.²⁸³ The Rome Statute of the ICC echoes these sentiments as well making it a crime to

²⁷⁸ For more information see the report titled: Idlib Left Breathless

²⁷⁹ In the siege of Sarajevo, no place including schools and hospitals were left untouched by bombardment.

²⁸⁰ Geneva Convention Relative to the Protection of Civilian Persons in Time of War (Fourth Geneva Convention) art. 18, 12 August 1949, 75 UNTS 287.

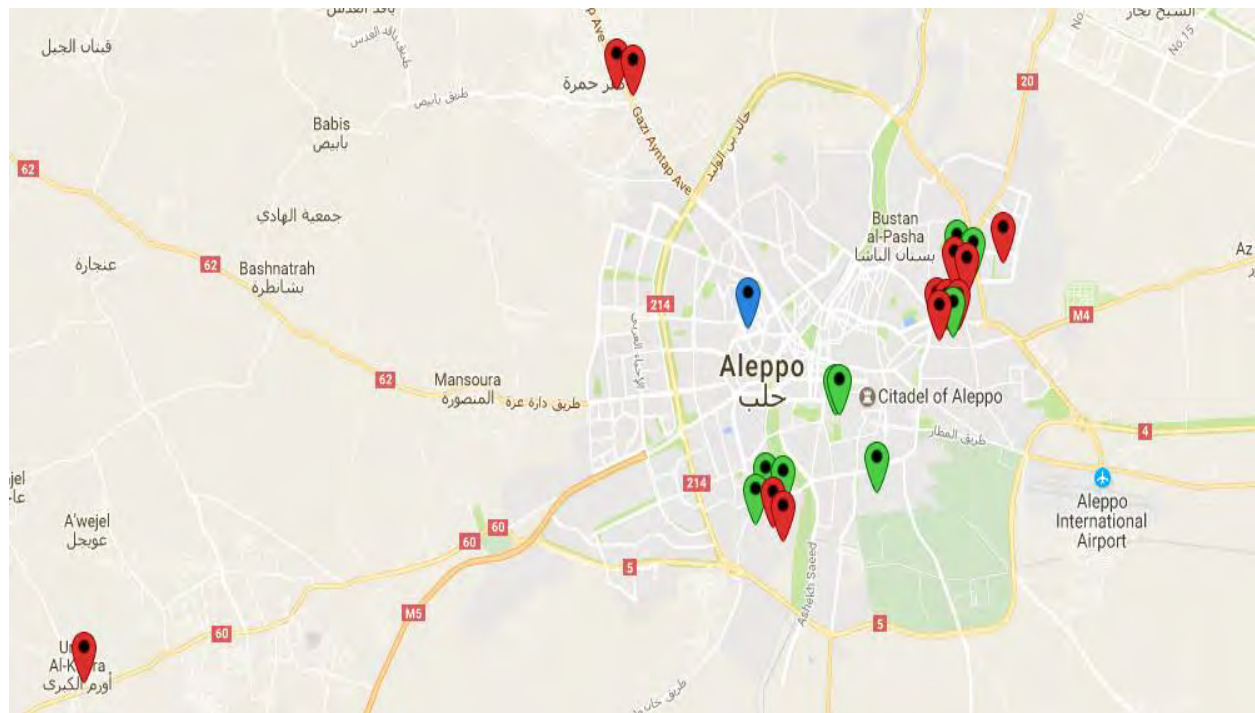
²⁸¹ Geneva Convention Relative to the Protection of Civilian Persons in Time of War (Fourth Geneva Convention) art. 20, 12 August 1949, 75 UNTS 287; The Convention also provides that such facilities can lose their protection if they engage in activities that aren't in furtherance of their humanitarian work and harmful to the enemy.

²⁸² Geneva Convention Relative to the Protection of Civilian Persons in Time of War (Fourth Geneva Convention) art. 20, 12 August 1949, 75 UNTS 287.

²⁸³ Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of Non-International Armed Conflicts (Protocol II) art. 9, 8 June 1977, 1125 UNTS 609 (protects medical personnel); Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of Non-International Armed Conflicts (Protocol II) art. 10, 8 June 1977, 1125 UNTS 609 (medical personnel can't be penalized for performing medical acts); Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of Non-International Armed Conflicts (Protocol II) art. 11, 8 June 1977, 1125 UNTS 609 (protects medical units and transports from attack).

intentionally direct attacks against “hospitals and places where the sick and wounded are collected.”²⁸⁴

According to SN4HR, there were at least 227 attacks against vital medical facilities within Syria in 2016.²⁸⁵ According to Doctors Without Borders, every major hospital in Aleppo had been hit and suffered some kind of damage, and alleged in early October that at least 377 civilians had died while in a hospital due to an aerial strike.²⁸⁶



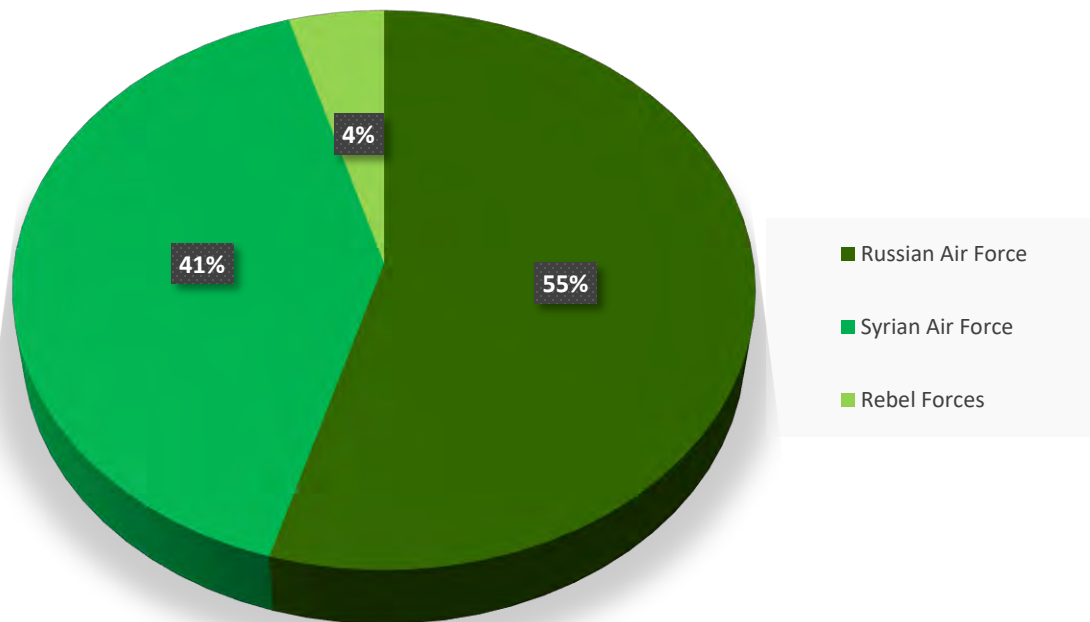
Hospital Attacks Plotted in Aleppo

²⁸⁴ Rome Statute of the International Criminal Court, 37 ILM 1002 Article 8(b)(ix) (1998).

²⁸⁵ *1373 Incidents of Attack on Vital Civil Facilities in 2016*, SYRIAN NETWORK FOR HUMAN RIGHTS (Jan. 9, 2017), http://sn4hr.org/wp-content/pdf/english/1373_Incident_assault_on_the_vital_civilian_centers_in_2016_en.pdf (Medical facilities are defined as hospitals, ambulances, medical staff, or makeshift medical centers).

²⁸⁶ *Eastern Aleppo: 23 Attacks on Hospitals Since July; No Hospital Left Undamaged*, DOCTORS WITHOUT BORDERS (Oct. 7, 2016), <http://www.doctorswithoutborders.org/article/eastern-aleppo-23-attacks-hospitals-july-no-hospital-left-undamaged>.

Hospital Attacks by Perpetrator



During the siege of Aleppo, there were at least 22 individual instances documented of attacks against medical facilities, usually by warplane bombing. While there are a lot more instances of hospitals being hit during the siege, these 22 instances were used to illustrate the campaign and policy against medical facilities in Aleppo. These 22 instances can be found in Appendix C in Crime Base Matrix form.

Of the 22 attacks, 12 of them were perpetrated by Russian forces, 9 by government forces, and 1 by Rebel forces. The attacks ranged in neighborhoods across the eastern part of the city, 1 in the western part of the city, and a few within the suburbs just outside the city.²⁸⁷ At least 19 people were killed in these documented strikes and another 14 medical personnel were wounded.

The attacks against the M10 hospital in early October and the Children's Hospital on 19 November were especially egregious. The M10 hospital was hit at least 5 times according to the sources. Various weapons were used including barrel bombs, cluster munitions, and supposedly a "chlorine bomb." At least 5 people were killed in the attacks and 10 were wounded. There were no reports that the facility had been used as a base for Rebel fighters or that the functions of the building had yielded its purpose of providing medical care. There were also no reports that the hospital was hit collaterally from an indirect attack. Instead the opposite was reported and the building was hit directly. The Children's Hospital hit on 19 November also had no reports of it being under the control of any warring party. The hospital was hit directly by barrel bombs from

²⁸⁷ While some of these instances were located in areas not directly besieged, they were still included for context of the greater conflict happening.

government helicopters. This left the hospital inoperable and constructively shut down the last operating hospital in the eastern part of the city.

Both of these attacks amount to a war crime. Both incidents show a lack of a legitimate target within the area and the hospitals had not lost their character of providing medical operations. Furthermore, both were known and designated medical facilities to all parties to the conflict. The attacks cannot be said to be an accidental strike considering the M10 hospital was directly hit multiple times.

However, more telling is the fact that by 19 November, all hospitals and makeshift medical operations were effectively out of commission.²⁸⁸ Civilians stated they feared to go to the hospital to treat injuries or seek medical care out of fear of an aerial strike. With the hospitals shut down or people simply refusing to seek basic medical attention, this shows how the policy of the siege worked to eliminate medical facilities. Siege policy was to choke civilians and combatants alike by preventing recovery from the bombing campaign.

Attack on the Aid Convoy

Under Article 59 of the Fourth Geneva Convention:

If the whole or part of the population of an occupied territory is inadequately supplied, the Occupying Power shall agree to relief schemes on behalf of the said population, and shall facilitate them by all the means at its disposal. Such schemes, which may be undertaken either by States or by impartial humanitarian organizations such as the International Committee of the Red Cross, shall consist, in particular, of the provision of consignments of foodstuffs, medical supplies and clothing. All Contracting Parties shall permit the free passage of these consignments and shall guarantee their protection.²⁸⁹

The Rome Statute provides similar protection to humanitarian workers and aid convoys.²⁹⁰ Like medical operations, these humanitarian operations can lose their protection if they engage in activities that are not towards their humanitarian purpose and hostile to a warring faction.

There have been a few instances of humanitarian workers being targeted during the Syrian conflict. In 2014, a British aid worker, David Haines, was kidnapped and later executed by ISIS.²⁹¹ In 2015, an aid worker for Support to Live was kidnapped and executed by ISIS.²⁹² Within the

²⁸⁸ *Syria conflict: Aleppo hospitals 'knocked out by bombardment'*, BBC NEWS (Nov. 19, 2016), <http://www.bbc.com/news/world-middle-east-38039282>.

²⁸⁹ Geneva Convention Relative to the Protection of Civilian Persons in Time of War (Fourth Geneva Convention) art. 59, 12 August 1949, 75 UNTS 287.

²⁹⁰ Rome Statute of the International Criminal Court, 37 ILM 1002 Article (8)(b)(iii) (1998).

²⁹¹ Andrew Osborn and Guy Faulconbridge, *UK's Cameron resists calls for air strikes despite hostage killing*, REUTERS (Sep. 14, 2014), <http://www.reuters.com/article/2014/09/14/us-iraq-crisis-execution-idUSKBN0H80SE20140914>.

²⁹² James Gordon Meek, *TIMELINE: Kayla Mueller in ISIS Captivity*, ABC NEWS (Aug. 24, 2016), <http://abcnews.go.com/International/timeline-kayla-mueller-isis-captivity/story?id=41398733>.

Aleppo siege, one instance will be discussed as it represents how bombing of the convoy was done in furtherance of the siege with the purpose of forcing surrender.²⁹³

On 19 September, the Syrian Arab Red Crescent (SARC) was sending a convoy consisting of approximately 31 trucks to reach besieged eastern Aleppo.²⁹⁴ This came after a negotiated ceasefire between the warring parties and a part of the ceasefire was to allow humanitarian aid access to around 78,000 civilians. The items in the trucks contained non-food items, clothes, and medicine. During the afternoon, the trucks reached a SARC warehouse in Urum al-Kubra which is around 12 kilometers west of Aleppo. The whereabouts, location, and goals of the aid convoy was known to all parties.

At around 19:10 local time, an attack on the trucks began as they were unloading. The attack lasted for about three hours. A local volunteer, said they heard helicopters in the air just before the attack.²⁹⁵ The attack left 21 civilians dead including 1 SARC staff member. Another 21 people were injured in the area. There were no reports of armed Rebel groups within the area or of armed Rebel groups carrying out the attack.²⁹⁶

This attack on the aid convoy and its workers is a war crime. A UN investigation came to the same conclusion when it placed blame on Syrian government helicopters for deliberately using barrel bombs in the attack.²⁹⁷ The UN confirmed after the attack that they had received proper permits from the Syrian government, thus acknowledging that the government knew of their presence and actions.²⁹⁸

International law is clear that in besieged areas, there is a duty to allow aid and medical necessities to those not participating in the hostilities and to not harm those providing medical attention to combatants and non-combatants alike. These various attacks against hospitals and an aid convoy show a deliberate disregard for the safety of civilians in furtherance of the siege.

Extrajudicial Killings

An extrajudicial killing is an "unlawful and deliberate killing carried out by order of a government or with its complicity."²⁹⁹ SAP defines extrajudicial killing as the execution of detainees or civilians without cause or without the benefit of a trial in a regularly constituted court, and includes execution of soldiers so long as they have laid down arms. The term also applies to

²⁹³ Other notable instances include bombing of Syrian Civil Defence Workers who go to rescue civilians after a bombing attack.

²⁹⁴ *Syria aid convoy attack: What we know*, BBC NEWS (Oct. 5, 2016), <http://www.bbc.com/news/world-middle-east-37430824>.

²⁹⁵ *Syria: Investigate Attack on UN Aid Convoy*, HUMAN RIGHTS WATCH (Sep. 20, 2016), <https://www.hrw.org/news/2016/09/20/syria-investigate-attack-un-aid-convoy>.

²⁹⁶ *Id.*

²⁹⁷ Nick Cumming Bruce and Anne Barnard, *U.N. Investigators say Syria bombed convoy and did so deliberately*, NEW YORK TIMES (Mar. 1, 2017), https://www.nytimes.com/2017/03/01/world/middleeast/united-nations-war-crimes-syria.html?_r=0.

²⁹⁸ *Syria: Investigate Attack on UN Aid Convoy*, HUMAN RIGHTS WATCH (Sep. 20, 2016), <https://www.hrw.org/news/2016/09/20/syria-investigate-attack-un-aid-convoy>.

²⁹⁹ *Terms in International Justice*, AMNESTY INTERNATIONAL, https://www.amnestyusa.org/sites/default/files/pdfs/ij_intllawdefinitions.pdf, 2.

"field executions" carried out against civilians or enemy fighters, so long as there was no cause or benefit of trial in a regularly constituted court.³⁰⁰ Summary executions describe the execution of a group of people, civilians or soldiers, without cause or following insufficient legal proceedings.³⁰¹

These killings are prohibited under the Rome Statute, the Geneva Conventions, and the Syrian Penal Code as potential crimes against humanity, war crimes, and murder. Responsible parties such as the Syrian Regime, ISIS and others, often refer to such events as "executions." The Syrian Regime may legally carry out executions, but only after sufficient legal process and a final ruling by a competent court.³⁰² The executions discussed here, carried out without these processes, are unlawful. Killings carried out by ISIS and other non-state actors are unlawful under international law.

International law prohibits the use of murder as a widespread or systematic attack against civilian populations. Actors may not willfully kill or deprive a protected person (civilians, prisoners of war, etc.) of the right to a fair and regular trial. Further, the passing of sentences and carrying out of executions without a previous judgement pronounced by a regularly constituted court, which affords all judicial guarantees that are generally recognized as indispensable, are prohibited, particularly when committed against persons not actively engaging in hostilities (civilians, prisoners of war, hors de combat, etc.).³⁰³

Throughout the whole of the Syrian Conflict, there were at least 6,980 extrajudicial killings.³⁰⁴ Of those, 1,206 occurred in Aleppo Governorate. During the siege of Aleppo, there were at least 97 identified instances of extrajudicial killings, the majority of which occurred during the final push into eastern Aleppo.³⁰⁵

On 13 December 2016, the U.N. and other international observers reported that they had received allegations of mass extrajudicial killings by Regime forces throughout the final days of the Siege. The VDC reported the field execution of 65 civilians in Aleppo on 12 December: 25 civilians executed in Kallaseh, 20 civilians executed in Firdous, and 20 civilians executed in Salheen.³⁰⁶ Women and children were included among the dead and many of those executed were members of the same family. These executions happened quickly, as the Syrian Regime gained more and more ground in Eastern Aleppo. There is no indication that the Regime provided any process to these civilians prior to executions. Many reports describe the killings as "arbitrary".³⁰⁷

³⁰⁰ See, Rome Statute Art. 8(2)(c).

³⁰¹ *Summary execution*, U.N.,

http://untermportal.un.org/UNTERM/Display/record/UNHQ/summary_execution/A3FC669077A3BD98852569FD0002A401 (last visited Apr. 22, 2017).

³⁰² ICCPR Art. 6.

³⁰³ Rome Statute Art. 8(c)(i); (iv).

³⁰⁴ It should be noted that these figures do not include those killed in detention.

³⁰⁵ *Latest Martyrs: December 2016*, VICTIMS DOCUMENTATION CENTER (December 2016), www.vdc-sy.info/index.php/en/details/martyrs (last visited Apr. 22, 2017).

³⁰⁶ *Id.*

³⁰⁷ Bethan McKernan, *Aleppo's civilians 'massacred' as Assad's forces take back city*, THE INDEPENDENT (Dec. 13, 2016), <http://www.independent.co.uk/news/world/middle-east/aleppo-syria-latest-syrian-army-poised-victory-civilian-executions-safety-plea-a7471226.html>.

Although these executions happened at the end of the siege, they served to further the siege by instilling a sense of fear and helplessness into the civilian populations of the remaining territory controlled by Rebels. Further, civilians feared fleeing the city, as many of those executed were reportedly executed as they tried to flee the area.³⁰⁸ This fear, combined with low supplies, low morale, and general exhaustion, likely increased the Regime's ability to regain control over the area.

Civilians feared fleeing the city, as many of those executed were reportedly executed as they tried.

RECOMMENDATIONS

SAP recommends that all warring parties adhere to the negotiated ceasefire of 28 December 2016, so that the peace process can continue. The Syrian government and local Rebel groups should allow independent monitors and investigators into Aleppo to allow for a full and thorough investigation. The findings from these attacks should be documented and turned over to the International, Impartial and Independent Mechanism on International Crimes Committed in the Syrian Arab Republic. Furthermore, all parties should seek to protect civilians and other non-combatants at all times on the battlefield and ensure that non-combatants are not the object of any attack or disproportionately affected in an attack. Finally, the international community should continue to push for an end to the conflict and pursue accountability for those most responsible for crimes committed in the Syrian Civil War.

APPENDIX A: CONFLICT NARRATIVE FOR INDISCRIMINATE SHELLING

16 July 2016

The Syrian Air Force conducted missile strikes in Bab al-Nasr, then under Rebel control, and killed 11 people, including 5 children and 3 women.³⁰⁹ Additionally, the Russian Air Force conducted missile strikes on residential buildings in the Firdous district (then under Rebel control). The attack killed 11 people, including 2 children and 3 women.³¹⁰

19 July 2016

Coalition Forces' warplanes conducted missile strikes in the village of al-Tokhar (north of Manbej city and under ISIS control at the time). The attack killed 106 civilians, including 68 children and 29 women.³¹¹

5 August 2016

³⁰⁸ Stephanie Nebehay and Tom Miles, *Syrian army, Iraqi militia accused of 'slaughter' of civilians in Aleppo*, REUTERS (Dec. 13, 2016) <http://www.reuters.com/article/us-mideast-crisis-syria-aleppo-un-idUSKBN1420ZX>.

³⁰⁹ *No less than 56 Massacres in July 2016 Including 43 Massacres at the hand of Syrian and Russian regime*, SYRIA NETWORK FOR HUMAN RIGHTS (Aug. 20, 2016), http://sn4hr.org/wp-content/pdf/english/At_least_56_massacre_in_July_2016_en.pdf.

³¹⁰ *Id.*

³¹¹ *Id.*

Russian Air Force warplanes conducted missile strikes on residential areas of al-Marjeh neighborhood (then under Rebel control). The attack killed 10 people including 7 children and 1 woman.³¹²

8 August 2016

Syrian Armed Forces utilized a long-range missile loaded with cluster munitions to target Darat Izza city, killing 6 people, including 1 child.³¹³

10 August 2016

Rebel forces based in al-Rashideen neighborhood launched home-made rocket artillery that struck residential areas in al-Hamdaniyeh district (then under Syrian Army control). The attack killed 12 civilians, including 5 children.³¹⁴ Additionally, a Syrian Air Force helicopter allegedly dropped a barrel bomb loaded with a chemical gas that smelled of chlorine in al-Zebdiyah. The attack killed 3 civilians (1 woman and 2 children) and injured numerous others (one hospital reportedly treated more than 60 people).³¹⁵

12 August 2016

Russian Air Force warplanes dropped cluster munitions on a vegetable market in the town of Kafr Naha (then under Rebel control) and killed 6 people.³¹⁶ Additionally, Russian Air Force warplanes conducted missile strikes in the town of Hayyan (northern Aleppo suburb then under Rebel control) and killed 14 civilians, including 10 children and 4 women.³¹⁷

16 August 2016

Syrian Air Force warplanes conducted missile strikes in Tareq al-Bab district (then under Rebel control). The attack killed 15 people, including 1 child.³¹⁸ Additionally, Russian Air Force warplanes conducted missile strikes on al-Amiriyah neighborhood (then under Rebel control) and killed 14 people.³¹⁹ Furthermore, HRW reported that ISIS launched mortar shells loaded with chemical irritants at Marea (northern Aleppo suburbs, then under FSA control) and injured at least 10 people.³²⁰

17 August 2016

³¹² *Id.*

³¹³ *Id.*

³¹⁴ *No less than 56 Massacres in July 2016 Including 43 Massacres at the hand of Syrian and Russian regime, supra* note 309.

³¹⁵ *Syria: New Deadly Chemical Attacks*, HUMAN RIGHTS WATCH (Sep. 28, 2016), <https://www.hrw.org/news/2016/09/28/syria-new-deadly-chemical-attacks>.

³¹⁶ *No less Than 62 Massacres Recorded in August 2016 Including 53 Massacres at the Hands of the Syrian and Russian Regimes*, SYRIA NETWORK FOR HUMAN RIGHTS (Sep. 6, 2016), http://sn4hr.org/wp-content/pdf/english/At_least_62_massacre_in_August_2016_en.pdf.

³¹⁷ *Id.*

³¹⁸ *Id.*

³¹⁹ *Id.*

³²⁰ *Syria: New Deadly Chemical Attacks, supra* note 315.

Rebels based in ar-Ramouseh launched home-made rocket artillery that struck Salah ad-Din district (then under Syrian Army control). The attack killed 10 civilians, including 2 children and 2 women.³²¹

18 August 2016

A Syrian Air Force helicopter dropped a barrel bomb in a residential area of the Salheen district (then under Rebel control) and killed 6 people, including 1 child and 1 woman.³²²

20 August 2016

A Syrian Air Force helicopter dropped a barrel bomb on residential buildings in al-Jalloum district (then under Rebel control). The attack killed 7 civilians, including 4 children and 2 women.³²³ Additionally, Russian Air Force warplanes conducted missile strikes on Urum al-Kubra (a western Aleppo suburb then under Rebel control) and killed 12 people, including 3 children and 2 women.³²⁴

21 August 2016

A Syrian Air Force helicopter dropped a barrel bomb on a vegetable market in Bustan al-Qasr district (then under Rebel control). The attack killed 7 people.³²⁵

22 August 2016

Russian Air Force warplanes conducted missile strikes in Sukari district (then under Rebel control) and killed 13 people including 4 children.³²⁶

25 August 2016

A Syrian Air Force helicopter dropped a barrel bomb on residential areas in Bab Nayrab district (then under Rebel control). The attack killed 14 civilians, including 11 children and 3 women, and injured 10 civilians.³²⁷

27 August 2016

³²¹ *No less Than 62 Massacres Recorded in August 2016 Including 53 Massacres at the Hands of the Syrian and Russian Regimes*, *supra* note 316.

³²² *Id.*

³²³ *Id.*

³²⁴ *Id.*

³²⁵ *Id.*

³²⁶ *No less Than 62 Massacres Recorded in August 2016 Including 53 Massacres at the Hands of the Syrian and Russian Regimes*, *supra* note 316.

³²⁷ *Id.*

A Syrian Air Force helicopter dropped a barrel bomb on residential areas in Bab Nayrab neighborhood (then under Rebel control) and killed 15 people, including 4 children, and injured 15 other civilians.³²⁸

6 September 2016

A Syrian Air Force helicopter dropped a barrel bomb on the district of Sukari. The bomb emitted a yellow-green chemical gas that smelled of chlorine killing 2 civilians (including a 13 year old child) and injured numerous others (one hospital reportedly treated 37 children and 10 women).³²⁹

7 September 2016

Syrian Air Force warplanes launched a missile strikes on the public square in the Sukari district (then under Rebel control). The attack killed 13 people, including 2 children.³³⁰

9 September 2016

Syrian Air Force helicopters dropped a barrel bomb on residential buildings in the Salah ad-Din district (then under Rebel control) and killed 9 people, including 4 children.³³¹ Additionally, 9 civilians including 7 children were killed by homemade rocket artillery launched by Rebels stationed in the al-Meshued district.³³²

19 September 2016

Syrian Air Force warplanes conducted a missile strike and dropped barrel bombs that targeted a Syrian Arab Red Crescent (SARC) warehouse in the town of Urum al-Kubra.³³³ The attack killed 21 people including the head of the SARC operations in Urum al-Kubra, and wounded several others.³³⁴

21 September 2016

Russian Air Force warplanes conducted a missile strike that targeted a camp in the town of Khan Tuman (then under Rebel control) and killed 10 people.³³⁵

23 September 2016

³²⁸ *Id.*

³²⁹ *Syria: New Deadly Chemical Attacks*, *supra* note 315.

³³⁰ *No less than 49 Massacres in September 2016 Including 46 at the Hands of the Russian and Syrian regimes*, SYRIA NETWORK FOR HUMAN RIGHTS (Oct. 5, 2016), http://sn4hr.org/wp-content/pdf/english/At_least_49_massacre_in_September_2016_en.pdf.

³³¹ *Id.*

³³² *Id.*

³³³ *Id.*

³³⁴ *Id.*

³³⁵ *No less than 49 Massacres in September 2016 Including 46 at the Hands of the Russian and Syrian regimes*, *supra* note 330.

Russian Air Force warplanes launched a missile strike in the Killaseh district (then under Rebel control) and killed 10 people.³³⁶

24 September 2016

Russian Air Force warplanes launched missiles in Bustan al-Qasr district (then under Rebel control) and killed 13 people, including 1 child.³³⁷

25 September 2016

Syrian Air Force helicopters dropped a barrel bomb on a residential area of the Karm al-Myassar neighborhood (then under Rebel control) and killed 7 people.³³⁸ Additionally, Syrian Air Force helicopters dropped a barrel bomb on homes in Bustan al-Pasha (then under Rebel control). The attack killed 7 civilians, including 6 children.³³⁹

27 September 2016

On 27 September, Russian Air Force warplanes launched missile strikes against residential buildings in the district of Sha'ar (then under Rebel control). The attack killed 15 people, including 6 children and 3 women, and 20 others were wounded.³⁴⁰

30 September 2016

On 30 September Russian Air Force warplanes fired missiles at residential buildings in the Helleck district, and killed 14 people, including 7 children and 4 women.³⁴¹

4 October 2016

Russian Air Force warplanes launched a missile strike on the Mouselly baby powder factory in Bustan al-Qasr district (then under Rebel control). The attack killed 40 people, including 10 children and 5 women.³⁴²

6 October 2016

Homemade rocket artillery launched by Rebels stationed in the Bustan al-Qasr district into Jamiliyeh district killed 11 civilians, including 1 child and 1 woman.³⁴³

³³⁶ *Id.*

³³⁷ *Id.*

³³⁸ *Id.*

³³⁹ *Id.*

³⁴⁰ *No less than 49 Massacres in September 2016 Including 46 at the Hands of the Russian and Syrian regimes, supra* note 330.

³⁴¹ *Id.*

³⁴² *Id.*

³⁴³ *Id.*

11 October 2016

Russian Air Force warplanes launched a missile strike on residential buildings in the Bustan al-Qasr district (then under Rebel control). The attack killed 40 people, including 10 children and 5 women.³⁴⁴ Additionally, Russian Air Force warplanes launched missiles on the Firdous district (then under Rebel control). The attack killed 13 civilians, including 2 children and 2 women.³⁴⁵

12 October 2016

Russian warplanes targeted the Firdous district (then under Rebel control) and killed 15 civilians, including 2 children.³⁴⁶

16 October 2016

Russian Air Force warplanes launched missile strikes on the residential buildings in the Karm al-Katerji district (then under Rebel control). The attack killed 24 civilians, including 10 children and 6 women.³⁴⁷

4 November 2016

Russian Air Force warplanes launched a missile strike on residential buildings in the town of Kafr Naha (then under Rebel control). The attack killed 10 civilians, including 5 children and 3 women.³⁴⁸

6 November 2016

Russian Air Force warplanes launched a missile strike on residential buildings in the city of Darat Izza (a western Aleppo suburb, then under Rebel control) and killed 11 civilians, including 7 children and 2 women.³⁴⁹

16 November 2016

Russian Air Force warplanes launched a missile strike on homes in the Sukari district (then under Rebel control). The attack killed 10 civilians including 3 children and 1 woman.³⁵⁰

18 November 2016

³⁴⁴ *Id.*

³⁴⁵ *No less than 49 Massacres in September 2016 Including 46 at the Hands of the Russian and Syrian regimes, supra* note 330.

³⁴⁶ *Id.*

³⁴⁷ *Id.*

³⁴⁸ *Id.*

³⁴⁹ *Id.*

³⁵⁰ *No less than 49 Massacres in September 2016 Including 46 at the Hands of the Russian and Syrian regimes, supra* note 330.

Russian Air Force warplanes conducted missile strikes on homes in the village of Yaqiz al-Adas (a northern Aleppo suburb then under Rebel control) and killed 13 civilians including 5 children and 4 women.³⁵¹

20 November 2016

Syrian Air Force helicopters dropped a barrel bomb on the residential neighborhood of Al Sakhour (then under Rebel control). The attack killed 6 civilians, including 4 children and 1 woman.³⁵²

29 November 2016

Russian Air Force warplanes conducted missile strikes that targeted gatherings of internally displaced persons gathered on the road between Jub al-Quba and Bab Nayrab (then under Rebel control) and killed 17 civilians.³⁵³

30 November 2016

Syrian Army artillery fired upon internally displaced persons who had gathered in the Jub al-Quba district and killed 45 civilians including 15 children and 15 women.³⁵⁴

4 December 2016

Russian Air Force warplanes launched a missile strike that targeted residential buildings in the Killaseh district (then under Rebel control). The attack killed 15 people, including 6 children and 2 women.³⁵⁵

7 December 2016

Russian Air Force warplanes launched a missile strike that targeted the neighborhood of Killaseh district (then under Rebel control). The attack struck in the vicinity of the Sabhan Mosque and killed 12 people.³⁵⁶

9 December 2016

On 9 December, Syrian Air Force helicopters dropped a barrel bomb near the Abdul Qader Al Najjar School in the residential neighborhood of al-Jalloum. The attack killed 25 civilians including 15 children and 6 women.³⁵⁷

³⁵¹ *Id.*

³⁵² *Id.*

³⁵³ *Id.*

³⁵⁴ *Id.*

³⁵⁵ *No less than 49 Massacres in September 2016 Including 46 at the Hands of the Russian and Syrian regimes, supra* note 330.

³⁵⁶ *Id.*

³⁵⁷ *Id.*

APPENDIX B: CONFLICT NARRATIVE FOR CHEMICAL WEAPON ATTACKS

3 August 2016

The Syrian government alleged that Rebel forces utilized artillery shells filled with toxic gases and killed 5 civilians and injured 8 others.³⁵⁸

11 August 2016

3-4 civilians were killed and at least 80 others injured, when a Syrian Air Force helicopter dropped a barrel bomb loaded with toxic gas in the neighborhood of Zebdieh.³⁵⁹ Amongst those civilians killed was a woman and 2 children.³⁶⁰ A hospital medic who attended to victims of the attack stated: “When we examined these casualties, we realized it was due to chlorine.”³⁶¹

16 August 2016

ISIS fighters based in the town of Arshaf launched projectiles loaded with toxic gas at parts of Marea city. The attack killed 8 civilians including 1 woman and 1 child.³⁶²

6 September 2016

Syrian Air Force helicopters dropped cylinders loaded with toxic gas on the neighborhood of Sukari.³⁶³ The attack killed 1 civilian named Mohammad Abdul Karim Afifa and injured as many as 80 others including children.³⁶⁴ One additional report stated that 1 female child was killed by chlorine gas used by Syrian forces in the Sukari neighborhood on 6 September.³⁶⁵

³⁵⁸ Angela Dewan, *Reports of chemical gas attacks in 2 Syrian cities*, CNN (Aug. 3, 2016), <http://www.cnn.com/2016/08/02/middleeast/syria-aleppo/>; *Chemical attack kills five Syrians in Aleppo: SANA*, PRESSTV (Aug. 3, 2016), <http://www.presstv.com/Detail/2016/08/03/478214/Syria-Aleppo-gas-attack-Saraqib>.

³⁵⁹ *Syria: Fresh chemical attack on Aleppo a war crime*, AMNESTY INTERNATIONAL (Aug. 11, 2016), <https://www.amnesty.org/en/latest/news/2016/08/syria-fresh-chemical-attack-on-aleppo-a-war-crime/>; *Syria conflict: Aleppo ‘chlorine gas attack’ investigated*, BBC NEWS (Aug. 11, 2016), <http://www.bbc.com/news/world-middle-east-37049555>; *Syria’s civil war: Suspected chemical attack in Aleppo*, AL JAZEERA (Aug. 11, 2016), <http://www.aljazeera.com/news/2016/08/syria-civil-war-suspected-chemical-attack-aleppo-160811051215993.html>.

³⁶⁰ *Latest Martyrs: Aug. 11, 2016*, VICTIMS DOCUMENTATION CENTER (Aug. 11, 2016), www.vdc-sy.info/index.php/en/details/martyrs (last visited Apr. 22, 2017).

³⁶¹ *Syria conflict: Aleppo ‘chlorine gas attack’ investigated*, *supra* note 359.

³⁶² *139 Chemical attacks after Resolution 2118*, *supra* note 359.

³⁶³ Anne Barnard, *Doctors in Aleppo Tend to Scores of Victims in Gas Attack*, THE NEW YORK TIMES (Sep. 7, 2016), https://www.nytimes.com/2016/09/08/world/middleeast/syria-attack-peace-plan.html?_r=0; Angela Dewan, Hamdi Alkhshali, and Donie O’Sullivan, *Children left gasping for air after suspected gas attack in Aleppo*, CNN (Sep. 6, 2016), <http://www.cnn.com/2016/09/06/middleeast/syria-aleppo-chemical-attack/>; Jared Malsin, *Assad’s Regime is Still Using Chemical Weapons in Syria*, TIME (Sep. 14, 2016), <http://time.com/4492670/syria-chemical-weapon-aleppo-assad-regime/>; *The Syrian Regime Uses Chemical Weapons and Insults the Security Council for a 137th Time*, SYRIA NETWORK FOR HUMAN RIGHTS (Sep. 8, 2016), http://sn4hr.org/wp-content/pdf/english/Syrian_regime_used_chemical_weapons_again_en.pdf, [hereinafter *Insults the Security Council for a 137th Time*].

³⁶⁴ *Insults the Security Council for a 137th Time*, *supra* note 364; Dewan, Alkhshali & O’Sullivan, *supra* note 364.

³⁶⁵ *Latest Martyrs: Hajar Kayali*, VICTIMS DOCUMENTATION CENTER (Sep. 6, 2016), www.vdc-sy.info/index.php/en/details/martyrs (last visited Apr. 22, 2017).

30 October 2016

The Russian Ministry of Defense reported that Rebel groups launched shells filled with a deadly chemical agent, which struck Dahiyat Assad and al-Hamdaniya; the attack killed 2 Syrian soldiers and injured at least 37 civilians.³⁶⁶

31 October 2016

Syrian Air Force helicopters dropped two barrel bombs on al-Rashideen in western Aleppo; 10 civilians were affected by breathing difficulties from poison gas.³⁶⁷ A nurse who assisted victims of the attack stated: “They were agitated and experiencing breathing difficulties. One guy was foaming. The bombing took place at roughly 11:00 AM, when two bombs loaded with chlorine were dropped....”³⁶⁸

3 November 2016

Syrian Air Force helicopters dropped 3 barrel bombs loaded with a toxic gas on the village of Khan Al Assal, the attack injured 15 people (presumed civilian).³⁶⁹

7 November 2016

Syrian Air Force helicopters dropped a barrel bomb in the village of Khan al-Assal; 32 civilians were affected by breathing difficulties attributed to a toxic gas.³⁷⁰

8 November 2016

Syrian Air Force helicopters dropped a barrel bomb on the neighborhood of Firdous (eastern Aleppo), then under Rebel control. There were no reported casualties but a video shows a helicopter drop a device that emits green smoke.³⁷¹

18 November 2016

Syrian Air Force helicopters dropped 1 barrel bomb loaded with a toxic gas in the residential neighborhood of Masakin Hanano (eastern Aleppo); 4 civilians (including 3 children) exhibited breathing difficulties caused by the attack.³⁷² Additionally, a chlorine gas attack was

³⁶⁶ *Chemical Attack in Syria's Aleppo Leaves 2 Dead, Dozens of Civilians Injured*, SPUTNIK (Oct. 31, 2016), <https://sputniknews.com/middleeast/201610311046936140-aleppo-chemical-attack/>.

³⁶⁷ *Despite the U.N. Confirming its Responsibility, the Syrian Regime Uses Chemical Weapons Again*, SYRIA NETWORK FOR HUMAN RIGHTS (Feb. 20, 2017), http://sn4hr.org/wp-content/pdf/english/the_Syrian_Regime_Uses_Chemical_Weapons_Again_en.pdf.

³⁶⁸ *Id.*

³⁶⁹ *Id.*

³⁷⁰ *Id.*

³⁷¹ *Id.*

³⁷² *Despite the U.N. Confirming its Responsibility, the Syrian Regime Uses Chemical Weapons Again*, *supra* note 368.

carried out in Masakin Hanano and Ard al-Hamra.³⁷³ One reporter stated that there were 3 helicopters flying above Masakin Hanano and that he witnessed the helicopters drop 5 objects without hearing any subsequent explosion.³⁷⁴ Witnesses reportedly smelled chlorine and experienced difficulty breathing.³⁷⁵ Civil Defense reported that at least 12 people were injured (including 5 children) and none died, but other witnesses reported that as many as 30 people were injured.³⁷⁶

20 November 2016

Syrian Air Force helicopters dropped 2 barrel bombs loaded with a toxic gas on the residential neighborhood of Sakhour (eastern Aleppo). This attack resulted in the death of 6 civilians (including 4 children and 1 woman) and 18 others were injured.³⁷⁷ Additionally, Syrian Air Force helicopters dropped 2 barrel bombs loaded with a toxic gas on the neighborhood of Tareq al-Bab (eastern Aleppo) injuring 5 individuals (potentially Rebel fighters).³⁷⁸

22 November 2016

Syrian Air Force helicopters dropped a barrel bomb loaded with toxic gas in the neighborhood of Tareq al-Bab (eastern Aleppo), then under the control of Rebel fighters).³⁷⁹ There were no reported casualties, but a video shows a helicopter dropping a device which spread green-colored smoke upon impact.³⁸⁰ Additionally, multiple witnesses reported a chlorine gas attack upon Karm al-Qaterji where local Civil Defense workers reported at least 15 civilians were injured.³⁸¹

23 November 2016

A Syrian Air Force helicopter dropped a barrel bomb loaded with a toxic gas on the neighborhood of Al Myassar (eastern Aleppo) injuring two individuals (potentially Rebel fighters).³⁸² Additionally, a Syrian Air Force helicopter dropped a barrel bomb loaded with a toxic gas on the neighborhood of Masakin Hanano (eastern Aleppo); the attack injured one female

³⁷³ *Syria: Coordinated Chemical Attacks on Aleppo*, HUMAN RIGHTS WATCH (Feb. 13, 2017), <https://www.hrw.org/news/2017/02/13/syria-coordinated-chemical-attacks-aleppo>.

³⁷⁴ *Id.*

³⁷⁵ *Id.*

³⁷⁶ *Id.*

³⁷⁷ *Despite the U.N. Confirming its Responsibility, the Syrian Regime Uses Chemical Weapons Again*, *supra* note 368.

³⁷⁸ *Id.*

³⁷⁹ *Despite the U.N. Confirming its Responsibility, the Syrian Regime Uses Chemical Weapons Again*, *supra* note 368.

³⁸⁰ *Id.*

³⁸¹ *Syria: Coordinated Chemical Attacks on Aleppo*, *supra* note 373.

³⁸² *Despite the U.N. Confirming its Responsibility, the Syrian Regime Uses Chemical Weapons Again*, *supra* note 368.

civilian who experienced difficulty breathing.³⁸³ Furthermore, multiple witnesses reported a chlorine gas attack in Karm al-Jazmati killing 1 civilian woman and injuring 10 other civilians.³⁸⁴

28 November 2016

Multiple witnesses reported a chlorine gas bomb dropped in a public park and playground in Karm Al-Qaterji killing 2 civilians and injuring 20 more civilians.³⁸⁵

9 December 2016

A Syrian Air Force helicopter dropped a barrel bomb loaded with a toxic gas on the neighborhood of Kalleseh (eastern Aleppo); the attack appears to have targeted the Al Hayat medical center injuring 29 people.³⁸⁶ A nurse at Al Hayat gave his report to SN4HR: “[W]e heard a helicopter soaring and then we heard a collision sound. We didn’t hear a strong explosion. A few minutes later, a strong smell, which was similar to chlorine’s, started spreading. Everyone in the hospital was affected to various degrees.”³⁸⁷ On 9 December, 2016, multiple witnesses reported a chlorine gas attack in the vicinity of the Kallaseh clinic injuring 30 civilians and staff inside the clinic and another 20 outside of the clinic.³⁸⁸

APPENDIX C: CRIME BASED MATRIX FOR ATTACKS ON MEDICAL FACILITIES

Date	Location	Description	Perpetrator	Rome Statute	Geneva Convention	Syrian Penal Code
------	----------	-------------	-------------	--------------	-------------------	-------------------

³⁸³ *Id.*

³⁸⁴ *Syria: Coordinated Chemical Attacks on Aleppo*, *supra* note 373; *Latest Martyrs: Nov. 23, 2016*, VICTIMS DOCUMENTATION CENTER (Nov. 23, 2016), www.vdc-sy.info/index.php/en/details/martyrs (last visited Apr. 22, 2017).

³⁸⁵ *Syria: Coordinated Chemical Attacks on Aleppo*, *supra* note 373.

³⁸⁶ *Id.*

³⁸⁷ *Despite the U.N. Confirming its Responsibility, the Syrian Regime Uses Chemical Weapons Again*, *supra* note 368.

³⁸⁸ *Syria: Coordinated Chemical Attacks on Aleppo*, *supra* note 373.

July 14, 2016	Aleppo-Kafr Hamra	Warplane bombing targeted a makeshift hospital. The attack killed 3 medical personnel, partially destroyed the building, and rendered the hospital inoperable for a short time. ³⁸⁹	Russian Air Force	Art. 7(1)(a) Art. 8(2)(a)(i) Art. 8(2)(a)(iii) Art. 8(2)(b)(iii) Art. 8(2)(b)(ix) Art. 8(2)(b)(xxiv) Art. 8(2)(c)(i) Art. 8(2)(e)(i) Art. 8(2)(e)(ii) Art. 8(2)(e)(iii) Art. 8(2)(e)(iv)	GIV Art. 18 GIV Art. 20 AP II Art. 4(1) AP II Art. 4(2)(a) AP II Art. 9 AP II Art. 10 AP II Art. 11 AP II Art. 13	Art. 533; Art. 534; Art. 535; Art. 536
July 16, 2016	Aleppo-Al Ma'adi neighborhood	Warplane missiles hit near the Oman Bin Abdul Aziz makeshift hospital. This moderately damaged the hospital and rendered it inoperable temporarily. ³⁹⁰	Syrian Air Force	Art. 8(2)(b)(iii) Art. 8(2)(b)(ix) Art. 8(2)(b)(xxiv) Art. 8(2)(e)(i) Art. 8(2)(e)(ii) Art. 8(2)(e)(iii) Art. 8(2)(e)(iv)	GIV Art. 18 GIV Art. 20 AP II Art. 4(1) AP II Art. 4(2)(a) AP II Art. 9 AP II Art. 10 AP II Art. 11 AP II Art. 13	

³⁸⁹ 139 Incidents of Attacks against Vital Civil Facilities in July 2016, SYRIA NETWORK FOR HUMAN RIGHTS (Aug. 10, 2016), http://sn4hr.org/wp-content/pdf/english/Vital_civilian_centers_in_July_2016_en.pdf.

³⁹⁰ *Id.*

July 20, 21, and 31, 2016	Aleppo-Al Sukari neighborhood	Warplanes fired missiles at the forensic medicine committee building. This partially destroyed the upper floor. The building was attacked again by government warplanes a day later. This further destroyed the building and rendered it inoperable temporarily. The building was hit a third time by surface to surface missiles destroying it completely and killing 2 of its staff. ³⁹¹	Syrian Air Force	Art. 7(1)(a) Art. 8(2)(a)(i) Art. 8(2)(a)(iii) Art. 8(2)(b)(iii) Art. 8(2)(b)(ix) Art. 8(2)(b)(xxiv) Art. 8(2)(c)(i) Art. 8(2)(e)(i) Art. 8(2)(e)(ii) Art. 8(2)(e)(iii) Art. 8(2)(e)(iv)	GIV Art. 18 GIV Art. 20 AP II Art. 4(1) AP II Art. 4(2)(a) AP II Art. 9 AP II Art. 10 AP II Art. 11 AP II Art. 13	Art. 533 Art. 534 Art. 535 Art. 536
July 24, 2016	Aleppo-Al Sha'ar neighborhood	Warplanes bombed near al Daqqaq hospital, a surgical hospital. This attack moderately damaged the building. ³⁹²	Russian Air Force	Art. 8(2)(b)(iii) Art. 8(2)(b)(ix) Art. 8(2)(b)(xxiv) Art. 8(2)(e)(i) Art. 8(2)(e)(ii) Art. 8(2)(e)(iii) Art. 8(2)(e)(iv)	GIV Art. 18 GIV Art. 20 AP II Art. 4(1) AP II Art. 4(2)(a) AP II Art. 9 AP II Art. 10 AP II Art. 11 AP II Art. 13	
July 24, 2016	Aleppo-Al Sha'ar neighborhood	Warplanes bombed the Hakim hospital, the Children's Hospital in the area. This moderately damaged the building. ³⁹³	Russian Air Force	Art. 8(2)(b)(iii) Art. 8(2)(b)(ix) Art. 8(2)(b)(xxiv) Art. 8(2)(e)(i) Art. 8(2)(e)(ii) Art. 8(2)(e)(iii) Art. 8(2)(e)(iv)	GIV Art. 18 GIV Art. 20 AP II Art. 4(1) AP II Art. 4(2)(a) AP II Art. 9 AP II Art. 10 AP II Art. 11 AP II Art. 13	

³⁹¹ *Id.*

³⁹² *Id.*

³⁹³ *Id.*

July 24, 2016	Aleppo-Al Sha'ar neighborhood	Warplanes bombed near the blood bank rendering the medical facility inoperable. ³⁹⁴	Russian Air Force	Art. 8(2)(b)(iii) Art. 8(2)(b)(ix) Art. 8(2)(b)(xxiv) Art. 8(2)(e)(i) Art. 8(2)(e)(ii) Art. 8(2)(e)(iii) Art. 8(2)(e)(iv)	GIV Art. 18 GIV Art. 20 AP II Art. 4(1) AP II Art. 4(2)(a) AP II Art. 9 AP II Art. 10 AP II Art. 11 AP II Art. 13	
Aug. 12, 2016	Aleppo-Kafr Hamra	Warplanes targeted and bombed the children's and maternity hospitals. These attacks killed 2 medical personnel, the radiology and receptions rooms, and rendered the hospitals out of commission. ³⁹⁵	Russian Air Force	Art. 7(1)(a) Art. 8(2)(a)(i) Art. 8(2)(a)(iii) Art. 8(2)(b)(iii) Art. 8(2)(b)(ix) Art. 8(2)(b)(xxiv) Art. 8(2)(c)(i) Art. 8(2)(e)(i) Art. 8(2)(e)(ii) Art. 8(2)(e)(iii) Art. 8(2)(e)(iv)	GIV Art. 18 GIV Art. 20 AP II Art. 4(1) AP II Art. 4(2)(a) AP II Art. 9 AP II Art. 10 AP II Art. 11 AP II Art. 13	Art. 533; Art. 534; Art. 535; Art. 536
Aug. 14, 2016	Aleppo-Urum al Kubra	Warplanes fired missiles that targeted and hit the Al Eman Children's and maternity hospital. This killed 1 of the staff members and heavily damaged the hospital yard. ³⁹⁶	Russian Air Force	Art. 8(2)(b)(iii) Art. 8(2)(b)(v) Art. 8(2)(b)(ix) Art. 8(2)(b)(xxiv) Art. 8(2)(e)(i) Art. 8(2)(e)(ii) Art. 8(2)(e)(iii) Art. 8(2)(e)(iv)	GIV Art. 18 GIV Art. 20 AP II Art. 4(1) AP II Art. 4(2)(a) AP II Art. 9 AP II Art. 10 AP II Art. 11 AP II Art. 13	

³⁹⁴ 139 Incidents of Attacks against Vital Civil Facilities in July 2016, *supra* note 389.

³⁹⁵ 128 Incidents of Attack on Vital Civil Facilities in August 2016, SYRIA NETWORK FOR HUMAN RIGHTS (Sep. 20, 2016), http://sn4hr.org/wp-content/pdf/english/assault_on_the_vital_centers_of_civilian_in_August_2016_en.pdf.

³⁹⁶ *Id.*

Aug. 22 and 27 2016	Aleppo-Al Sukari neighborhood	Warplanes fired missiles near the Forensic Medicine Commissions. This injured one of the medical workers, moderately damaged the building, and rendered the building temporarily inoperable. The building was hit a second time on August 27 which damaged multiple exterior walls. ³⁹⁷	Russian Air Force	Art. 8(2)(b)(iii) Art. 8(2)(b)(ix) Art. 8(2)(b)(xxiv) Art. 8(2)(e)(i) Art. 8(2)(e)(ii) Art. 8(2)(e)(iii) Art. 8(2)(e)(iv)	GIV Art. 18 GIV Art. 20 AP II Art. 4(1) AP II Art. 4(2)(a) AP II Art. 9 AP II Art. 10 AP II Art. 11 AP II Art. 13	
Aug. 27, 2016	Aleppo-Bab al Nayrab neighborhood	Government helicopters dropped a barrel bomb near an ambulance. The ambulance and its workers were providing aid after an attack. This wounded the driver and destroyed the ambulance. ³⁹⁸	Syrian Air Force	Art. 8(2)(b)(iii) Art. 8(2)(b)(ix) Art. 8(2)(b)(xxiv) Art. 8(2)(e)(i) Art. 8(2)(e)(ii) Art. 8(2)(e)(iii) Art. 8(2)(e)(iv)	GIV Art. 18 GIV Art. 20 AP II Art. 4(1) AP II Art. 4(2)(a) AP II Art. 9 AP II Art. 10 AP II Art. 11 AP II Art. 13	
Sept 9, 2016	Aleppo-Al Muhafaz a neighborhood	Rocket shells fired from mortars hit the children's and maternity hospital which heavily damaged the first floor. ³⁹⁹	Rebel Forces	Art. 8(2)(b)(iii) Art. 8(2)(b)(ix) Art. 8(2)(b)(xxiv) Art. 8(2)(e)(i) Art. 8(2)(e)(ii) Art. 8(2)(e)(iii) Art. 8(2)(e)(iv)	GIV Art. 18 GIV Art. 20 AP II Art. 4(1) AP II Art. 4(2)(a) AP II Art. 9 AP II Art. 10 AP II Art. 11 AP II Art. 13	

³⁹⁷ *Id.*

³⁹⁸ *Id.*

³⁹⁹ 96 Incidents of Attack on Vital Civil Facilities in September 2016, SYRIA NETWORK FOR HUMAN RIGHTS (Oct. 14, 2016), http://sn4hr.org/wp-content/pdf/english/the_vital_centers_of_civilian_in_September_2016_en.pdf.

Sept 28, 2016	Aleppo-Al Ma'adi neighborhood	Warplanes directly attacked and hit the M2 hospital causing extensive damage and leaving the hospital temporarily out of service. The attack was reported to have killed at least 6 civilians within the building. ⁴⁰⁰	Syrian Air Force	Art. 7(1)(a) Art. 8(2)(a)(i) Art. 8(2)(a)(iii) Art. 8(2)(b)(iii) Art. 8(2)(b)(ix) Art. 8(2)(b)(xxiv) Art. 8(2)(c)(i) Art. 8(2)(e)(i) Art. 8(2)(e)(ii) Art. 8(2)(e)(iii) Art. 8(2)(e)(iv)	GIV Art. 18 GIV Art. 20 AP II Art. 4(1) AP II Art. 4(2)(a) AP II Art. 9 AP II Art. 10 AP II Art. 11 AP II Art. 13	Art. 533 Art. 534 Art. 535 Art. 536
Oct. 1 and 3, 2016	Aleppo-Al Sakhour neighborhood	Warplanes targeted and bombed a makeshift hospital. This moderately damaged it. A second attack two days later further damaged the unit and rendered the hospital out of commission. ⁴⁰¹	Russian Air Force	Art. 8(2)(b)(iii) Art. 8(2)(b)(ix) Art. 8(2)(b)(xxiv) Art. 8(2)(e)(i) Art. 8(2)(e)(ii) Art. 8(2)(e)(iii) Art. 8(2)(e)(iv)	GIV Art. 18 GIV Art. 20 AP II Art. 4(1) AP II Art. 4(2)(a) AP II Art. 9 AP II Art. 10 AP II Art. 11 AP II Art. 13	

⁴⁰⁰ *Deadly air strikes hit two Aleppo hospitals*, AL JAZEERA (Sep. 28, 2016), <http://www.aljazeera.com/news/2016/09/air-strikes-put-aleppo-hospitals-service-160928102656036.html>.

⁴⁰¹ *144 Incidents of Attack on Vital Civil Facilities in October 2016*, SYRIA NETWORK FOR HUMAN RIGHTS (Nov. 12, 2016), http://sn4hr.org/wp-content/pdf/english/144_assault_on_the_vital_centers_in_October_2016_en.pdf.

Oct. 2, 2016	Aleppo-Al Sakhour neighborhood	Warplanes dropped barrel bomb on the city's biggest hospital, M10 trauma hospital. Reports say this is the third time it was hit in a few days. A radiologist stated the hospital was left inoperable. A manager said the hospital had been hit by barrel bombs, cluster munitions, and a "chlorine bomb" over the last few days. 10 people were injured and 2 people were killed in the attack. ⁴⁰²	Syrian Air Force	Art. 7(1)(a) Art. 8(2)(a)(i) Art. 8(2)(a)(iii) Art. 8(2)(b)(iii) Art. 8(2)(b)(ix) Art. 8(2)(b)(xxiv) Art. 8(2)(c)(i) Art. 8(2)(e)(i) Art. 8(2)(e)(ii) Art. 8(2)(e)(iii) Art. 8(2)(e)(iv)	GIV Art. 18 GIV Art. 20 AP II Art. 4(1) AP II Art. 4(2)(a) AP II Art. 9 AP II Art. 10 AP II Art. 11 AP II Art. 13	Art. 533; Art. 534; Art. 535; Art. 536
Oct. 3, 2016	Aleppo-Al Sakhour neighborhood	Warplane bombing hit the M10 trauma hospital again with reports that 3 maintenance workers died in the strikes. Other sources said as many as 7 people had died. The hospital was said to be in disrepair for the time being. ⁴⁰³	Syrian Air Force	Art. 7(1)(a) Art. 8(2)(a)(i) Art. 8(2)(a)(iii) Art. 8(2)(b)(iii) Art. 8(2)(b)(ix) Art. 8(2)(b)(xxiv) Art. 8(2)(c)(i) Art. 8(2)(e)(i) Art. 8(2)(e)(ii) Art. 8(2)(e)(iii) Art. 8(2)(e)(iv)	GIV Art. 18 GIV Art. 20 AP II Art. 4(1) AP II Art. 4(2)(a) AP II Art. 9 AP II Art. 10 AP II Art. 11 AP II Art. 13	Art. 533; Art. 534; Art. 535; Art. 536

⁴⁰² *Syria conflict: Aleppo bombing shuts largest hospital*, BBC NEWS (Oct. 2, 2016), <http://www.bbc.com/news/world-middle-east-37528260>.

⁴⁰³ *Syria conflict: Hospital in rebel-held Aleppo 'bombed again'*, BBC NEWS (Oct. 3, 2016), <http://www.bbc.com/news/world-middle-east-37542860>.

Oct. 14, 2016	Aleppo- Al Sha'ar neighbor hood	Warplanes targeted and hit the al Bayan Surgical hospital which destroyed some administration rooms. ⁴⁰⁴	Russian Air force	Art. 8(2)(b)(iii) Art. 8(2)(b)(ix) Art. 8(2)(b)(xxiv) Art. 8(2)(e)(i) Art. 8(2)(e)(ii) Art. 8(2)(e)(iii) Art. 8(2)(e)(iv)	GIV Art. 18 GIV Art. 20 AP II Art. 4(1) AP II Art. 4(2)(a) AP II Art. 9 AP II Art. 10 AP II Art. 11 AP II Art. 13	
Oct. 18, 2016	Aleppo- Masakin Hanano neighbor hood	Warplanes targeted and hit the Charity Aiding Network building which wounded 3 paramedics and moderately damaged the building. ⁴⁰⁵	Russian Air Force	Art. 8(2)(b)(iii) Art. 8(2)(b)(ix) Art. 8(2)(b)(xxiv) Art. 8(2)(e)(i) Art. 8(2)(e)(ii) Art. 8(2)(e)(iii) Art. 8(2)(e)(iv)	GIV Art. 18 GIV Art. 20 AP II Art. 4(1) AP II Art. 4(2)(a) AP II Art. 9 AP II Art. 10 AP II Art. 11 AP II Art. 13	

⁴⁰⁴ 144 Incidents of Attack on Vital Civil Facilities in October 2016, *supra* note 401.

⁴⁰⁵ *Id.*

Nov. 16-19, 2016	Aleppo-Al Sha'ar district	Helicopters dropped barrel bombs and directly hit a hospital, a blood bank, and ambulances. The hospital was a Children's hospital. The Independent Doctor's Association said there were Rebel fighters within or near the hospital. The hospital was left inoperable along with a few people injured. The facility was providing 4000 consultations a month for residents. ⁴⁰⁶	Syrian Air Force	Art. 8(2)(b)(iii) Art. 8(2)(b)(ix) Art. 8(2)(b)(xxiv) Art. 8(2)(e)(i) Art. 8(2)(e)(ii) Art. 8(2)(e)(iii) Art. 8(2)(e)(iv)	GIV Art. 18 GIV Art. 20 AP II Art. 4(1) AP II Art. 4(2)(a) AP II Art. 9 AP II Art. 10 AP II Art. 11 AP II Art. 13	
------------------	---------------------------	--	------------------	---	--	--

APPENDIX D: PARTIES TO THE CONFLICT

Syrian Government

The Syrian government represents state and military actors within Syria. The Syrian government is under the direction of Syrian President Assad and the ruling Ba'ath Party⁴⁰⁷. The Syrian government seeks to regain control over Syria and is opposed by a variety of parties including ISIS, Jabhat Fateh al-Sham, the FSA, Turkey, the Kurds, the SDF, and some of the Coalition Forces. The Regime is backed by Russia, Iran, and Hezbollah,⁴⁰⁸ and has militia support from the Shabiha.⁴⁰⁹

ISIS

The Islamic State of Iraq and Syria (ISIS) is a jihadist organization holding territory in Iraq and Syria.⁴¹⁰ The group calls itself "the Islamic State," styling itself a sovereign state, although that claim is unrecognized by the international community. The organization is also known as ISIL

⁴⁰⁶ *Syria conflict: Children's hospital hit in deadly Aleppo strikes*, BBC NEWS (Nov. 16, 2016), <http://www.bbc.com/news/world-middle-east-37998751>; Basma Atassi, *Aleppo: Eyewitness describes aftermath of hospital attack*, CNN (Nov. 21, 2016), <http://www.cnn.com/2016/11/21/middleeast/syria-aleppo-hospital-horror/>.

⁴⁰⁷ *Profile: Syria's Ruling Baath Party*, BBC NEWS (Jul. 9, 2012), <http://www.bbc.com/news/world-middle-east-18582755>.

⁴⁰⁸ *Who Backs Whom in the Syrian Conflict*, THE GUARDIAN (Dec. 2, 2015), <https://www.theguardian.com/world/ng-interactive/2015/oct/09/who-backs-whom-in-the-syrian-conflict>.

⁴⁰⁹ *Syria Unrest: Who are the Shabiha*, BBC NEWS (May 29, 2012), <http://www.bbc.com/news/world-middle-east-14482968>.

⁴¹⁰ Richard Allan Green & Nick Thompson, *ISIS: Everything You Need to Know*, CNN (Aug. 11, 2016, 12:12 PM), <http://www.cnn.com/2015/01/14/world/isis-everything-you-need-to-know/>.

(Islamic State of Iraq and the Levant) or Da'esh, and was founded in 2004 as an Iraqi affiliate of Al Qaeda.⁴¹¹ Today, ISIS claims to have established a caliphate and seeks to expand their control across the whole of the Middle East.⁴¹² ISIS was disowned by al Qaeda leadership in 2014, and since has been an independent actor.⁴¹³ The organization is headquartered in Raqqa (in Ar Raqqa Governorate) and they consider the city to be the capital of their caliphate.⁴¹⁴ The Syrian government, its allies, and every state actor in the region opposes ISIS.⁴¹⁵ Additionally, the International Coalition was formed with the specific purpose of destroying ISIS.⁴¹⁶

Jabhat Fateh al-Sham (formerly Jabhat al-Nusra)

Jabhat Fateh al-Sham began the war as an affiliate of Al-Qaeda.⁴¹⁷ In 2016, the group broke away from Al-Qaeda and changed its name to Jabhat Fateh al-Sham.⁴¹⁸ The organization is a fundamentalist Sunni Islamic organization that seeks to establish an Islamic emirate within Syria.⁴¹⁹ Jabhat Fateh al-Sham is generally seen as slightly more moderate and less “violent” than some other Islamic jihadist groups (notably ISIS).⁴²⁰ The group opposes ISIS, the Regime, Coalition forces, Russia, and Iran.⁴²¹ The organization is currently a part of a conglomerate of Rebel groups fighting on the ground.⁴²² At this time, it is unclear how Jabhat Fateh al-Sham’s split from al-Qaeda will affect international views toward the organization and the Syrian War or how it will affect actions on the ground.⁴²³

Shabiha

The Shabiha (a derivative of the Arabic word for “Ghost”) is a para-military organization largely drawn from the minority ruling Alawite Muslim sect.⁴²⁴ Originally a mob-like organization that rose to power under Hafez al-Assad, the Shabiha today is a network of organized criminals who, among other things, work to prevent unrest by using extreme violence against protestors.⁴²⁵ Dressed in all black and heavily armed, Shabiha members are often seen alongside the Syrian

⁴¹¹ *Id.*

⁴¹² Adam Chandler, *What is an Islamic Caliphate and why did ISIS Make One*, THE ATLANTIC (Jun. 30, 2014), <https://www.theatlantic.com/international/archive/2014/06/what-is-an-islamic-caliphate-and-why-did-isis-make-one/373693/>.

⁴¹³ Green & Thompson, *supra* note 410.

⁴¹⁴ Jim Michaels, *Battle for ISIL’s Syrian Headquarters is a Huge Test for U.S. Backed Forces*, USA TODAY (Nov. 21, 2016, 3:41 PM), <http://www.usatoday.com/story/news/world/2016/11/21/battle-isils-syrian-headquarters-huge-test-us-backed-forces/94089936/>.

⁴¹⁵ *Who Backs Whom*, *supra* note 408.

⁴¹⁶ *Coalition*, OPERATION INHERENT RESOLVE, <http://www.inherentresolve.mil/About-Us/Coalition/>.

⁴¹⁷ Bryony Jones, Clarissa Ward, & Salma Abdelaziz, *Al-Nusra Rebranding: New Name, Same Aim? What you need to Know*, CNN (Aug. 2, 2016, 5:26 AM), <http://www.cnn.com/2016/08/01/middleeast/al-nusra-rebranding-what-you-need-to-know/>.

⁴¹⁸ *Id.*

⁴¹⁹ *Id.*

⁴²⁰ *Id.*

⁴²¹ *Who backs Whom*, *Supra*, note 408.

⁴²² *Id.*

⁴²³ Jones, Ward, & Salma, *supra* note 417.

⁴²⁴ *Syria Unrest*, *supra* note 409.

⁴²⁵ *Id.*

government.⁴²⁶ Some have suggested that the Syrian government recruited and empowered the Shabiha to commit acts that the military could not do directly.⁴²⁷ Many of the Shabiha are Alawites who were previously on death row and released around the start of the Syrian War to serve in the Shabiha.⁴²⁸ Although there is no identified direct chain of command between the Syrian government and the Shabiha, many believe that the Shabiha are under government command.⁴²⁹

Russia

Russia militaristically supports the Syrian government and opposes most parties that are against the Syrian government.⁴³⁰ While they oppose ISIS, Russia is not formally a member of the U.S. lead Coalition against the Islamic State.⁴³¹ Russia is among one of President Assad's closest allies and has been supportive of Assad for much of the war.⁴³² Russia has a deep personal connection to the Assad government and also seeks to maintain their naval base at Tartous (its sole port in the Mediterranean) and an air-base at Latakia.⁴³³ Russia has supported Syria at the UN Security Council by vetoing anti-Assad measures⁴³⁴ and militaristically by attacking anti-Syrian government forces. Their involvement in the Battle of Aleppo has been instrumental.⁴³⁵

Iran

Like Russia, Iran is another staunch supporter of the Syrian government.⁴³⁶ Iran's support is largely in the form of funding and diplomatic support, but has also provided military aid to the Syrian government.⁴³⁷ In general, Iran sees Syria as critical to maintaining influence in the region: the fall of President Assad could be detrimental to Tehran's role in international affairs.⁴³⁸ Iran diplomatically opposes all groups that are fighting against the Assad regime (the coalition, FSA,

⁴²⁶ *Id.*

⁴²⁷ Salwa Amor & Ruth Sherlock, *How Bashar al-Assad Created the Feared Shabiha Militia: an Insider Speaks*, THE TELEGRAPH (Mar. 23, 2014, 6:00 A.M.), <http://www.telegraph.co.uk/news/worldnews/middleeast/syria/10716289/How-Bashar-al-Assad-created-the-feared-shabiha-militia-an-insider-speaks.html>.

⁴²⁸ *Id.*

⁴²⁹ *Id.*; *Syrian Unrest*, *supra* note 409.

⁴³⁰ *Who Backs Whom*, *supra* note 408.

⁴³¹ *Id.*; *Coalition*, *supra* note 416.

⁴³² Andrea Booth, *Why the U.S. and Russia are Involved in the Syrian Civil War and what Lies Ahead*, SBS WORLD NEWS (Oct. 6, 2016), <http://www.sbs.com.au/news/explainer/why-are-us-and-russia-involved-in-syrian-war-and-what-lies-ahead>; *Syria Crisis: Where Key Countries Stand*, BBC NEWS (Oct. 30, 2016), <http://www.bbc.com/news/world-middle-east-23849587>.

⁴³³ Booth, *supra* note 434; *Syria Crisis*, *supra* note 434; *Russia-Iran Alliance Complicates Role in Syrian Conflict*, NPR (Dec. 16, 2016, 4:30 P.M.), <http://www.npr.org/2016/12/16/505892967/russia-iran-alliance-complicates-u-s-role-in-syrian-conflict>.

⁴³⁴ *Syria Crisis*, *supra* note 432.

⁴³⁵ *Slaughter or Liberation: A Debate on Russia's Involvement in the Syrian War & The Fall of Aleppo*, DEMOCRACY NOW (Dec. 14, 2016), https://www.democracynow.org/2016/12/14/slaughter_or_liberation_a_debate_on.

⁴³⁶ Booth, *supra* note 432; *Syria crisis*, *supra* note 432; *Russia-Iran Alliance*, *supra* note 433; *Who Backs Whom*, *supra* note 408.

⁴³⁷ *Syria Crisis*, *supra* note 432.

⁴³⁸ Booth, *supra* note 432.

ISIS, Jabhat Fateh al-Sham, etc.) and is not a member of the Coalition.⁴³⁹ Iran is also a strong supporter of Hezbollah.⁴⁴⁰

Free Syrian Army (FSA)

Syrian Army deserters in Turkey founded the FSA in 2011.⁴⁴¹ Numerous Rebel factions across Syria have since adopted the FSA banner.⁴⁴² In the early phases of the FSA, the leadership in Turkey had very little influence on what actually happened on the ground.⁴⁴³ In 2012, a number of brigades of the FSA created a Supreme Military Counsel (SMC).⁴⁴⁴ The intent behind the SMC was to create a more moderate option to the radical Islamic jihadi organizations.⁴⁴⁵ The SMC is comprised of 30 members, with 6 representatives for each of the five fronts in the war (Northern, Eastern, Southern, Western, and Central).⁴⁴⁶ Each front has its own command apparatus.⁴⁴⁷ Thus, although the FSA is often described as a singular entity, it is actually a loosely affiliated network of various Rebel forces.⁴⁴⁸

The role of FSA has central leadership is mainly to advocate for the FSA internationally.⁴⁴⁹ As such, each brigade has its own individual leadership, ideology, and networks of alliances that contribute to the wildly diverse and complex nature of the FSA.⁴⁵⁰ The FSA may be more properly thought of as five independent militias rather than one central organization.⁴⁵¹

Some of the prominent FSA brigades are Martyrs of Syria (active in Idlib and the North-West), Northern Storm (active in the North along the Syrian/Turkish Border), and Ahrar Souriya.⁴⁵² The brigades are prone to infighting and do not have a single cohesive enemy (most fight the Regime while others focus more on ISIS or fight the Kurds).⁴⁵³

Kurds

The Kurds are a regional ethnic group found in Syria, Turkey, Iraq, and Armenia.⁴⁵⁴ Collectively, the Kurds comprise the fourth largest ethnic group in the Middle East, however, they lack their own State.⁴⁵⁵ Many Kurdish people are Sunni Muslims and generally oppose both ISIS

⁴³⁹ *Who backs Whom*, *supra* note 418; *Coalition*, *supra* note 416.

⁴⁴⁰ *Syria Crisis*, *supra* note 432.

⁴⁴¹ *Guide to the Syrian Rebels*, BBC NEWS (Dec. 13, 2013), <http://www.bbc.com/news/world-middle-east-24403003>.

⁴⁴² *Id.*

⁴⁴³ *Id.*

⁴⁴⁴ *Id.*

⁴⁴⁵ *Id.*

⁴⁴⁶ *Guide to the Syrian Rebels*, *supra* note 441.

⁴⁴⁷ *Id.*

⁴⁴⁸ *Id.*

⁴⁴⁹ *Id.*

⁴⁵⁰ *Id.*

⁴⁵¹ Zvi Bar'el, *The Free Syrian Army Follows Orders from Turkey*, HAARETZ (Nov. 26, 2016), <http://www.haaretz.com/middle-east-news/.premium-1.755348>.

⁴⁵² *Guide to the Syrian Rebels*, *supra* note 441.

⁴⁵³ Bar'el, *supra* note 451.

⁴⁵⁴ *Who are the Kurds*, BBC NEWS (Mar. 14, 2016), <http://www.bbc.com/news/world-middle-east-29702440>.

⁴⁵⁵ *Id.*

and the Syrian government.⁴⁵⁶ A major Kurdish organization, the Popular Protection Units (YPG) is a major force fighting with the SDF against ISIS.⁴⁵⁷ The Kurds have long desired to create an independent Kurdish state in the region.⁴⁵⁸ As such, the Kurds are heavily opposed by Turkey, which has affected the Kurd's ability to effectively fight ISIS (Turkey will generally not let Turkish Kurdish people cross in to Syria) and has allowed ISIS to maintain greater control near the Turkish border (as Turkey will not assist Kurdish towns).⁴⁵⁹ Because of the Kurdish involvement in the SDF, Turkey has also been hesitant to assist that organization.⁴⁶⁰

SDF

The Syrian Democratic Forces (SDF) is a moderate U.S. backed militia in Syria fighting against ISIS and other Islamic militant organizations.⁴⁶¹ The SDF is a largely non-hierarchical organization made up of a variety of different ethnic backgrounds and comprises nearly 30,000 fighters.⁴⁶² The organization is led by the YPG, and therefore many members of the SDF are Kurdish. This has led to unrest in Turkey as well.⁴⁶³ Founded in 2015, the SDF seeks to create a secular federal state in Syria.⁴⁶⁴

Hezbollah

Hezbollah is a Lebanese Shi'ite Muslim political party and military organization.⁴⁶⁵ While historically working to oppose Israel, Hezbollah has been involved in Syria since the present conflict started in 2011.⁴⁶⁶ They are a staunch supporter of the Syrian government and President Assad publicly commended the group in 2015.⁴⁶⁷ Hezbollah is aligned with the Syrian government and opposes the various rebel groups within the region.

Coalition Forces

The Coalition (officially Joint Task Force—Operation Inherent Resolve) is a multi-national military operation targeting ISIS.⁴⁶⁸ The U.S. and the United Kingdom lead the Coalition,⁴⁶⁹ joined by numerous countries and international organizations.⁴⁷⁰ The other nations in the coalition are:

⁴⁵⁶ *Id.*

⁴⁵⁷ *Id.*; Michaels, *supra* note 414.

⁴⁵⁸ *Who are the Kurds*, *supra* note 454.

⁴⁵⁹ *Id.*

⁴⁶⁰ Michaels, *supra* note 414.

⁴⁶¹ *Id.*

⁴⁶² *Id.*

⁴⁶³ *Id.*

⁴⁶⁴ Zeina Karam & Bassem Mroue, *U.S.-Backed Syrian Democratic Forces Emerge as Force Against ISIS*, THE STAR (Dec. 2, 2015), <https://www.thestar.com/news/world/2015/12/02/us-backed-syrian-democratic-forces-emerges-as-force-against-isis.html>.

⁴⁶⁵ Tom Perry, Laila Bassam, Suleiman al-Khalidi, & Tom Miles, *Hezbollah, Other Shi'ite Allies Helped Assad Win in Aleppo*, REUTERS (Dec. 14, 2016, 10:55 A.M.), <http://www.reuters.com/article/us-mideast-crisis-syria-aleppo-fall-insi-idUSKBN1431PV>.

⁴⁶⁶ *Id.*

⁴⁶⁷ *Id.*

⁴⁶⁸ *About CJTF-OIR, OPERATION INHERENT RESOLVE*, <http://www.inherentresolve.mil/About-Us/>.

⁴⁶⁹ *CJTF-OIR Leaders, OPERATION INHERENT RESOLVE*, <http://www.inherentresolve.mil/About-Us/Biographies/>.

⁴⁷⁰ *Coalition*, *supra* note 416.

Afghanistan, Albania, Australia, Austria, Bahrain, Belgium, Bosnia & Herzegovina, Bulgaria, Canada, Croatia, Cyprus, Czech Republic, Denmark, Egypt, Estonia, Finland, France, Georgia, Germany, Greece, Hungary, Iceland, Iraq, Italy, Japan, Jordan, Kosovo, Saudi Arabia, Kuwait, Latvia, Lebanon, Lithuania, Luxembourg, Macedonia, Malaysia, Moldova, Montenegro, Morocco, Netherlands, New Zealand, Nigeria, Norway, Oman, Panama, Poland, Portugal, Qatar, Romania, Serbia, Singapore, Slovakia, Slovenia, Somalia, South Korea, Spain, Sweden, Tunisia, Turkey, the United Arab Emirates, and Ukraine.⁴⁷¹ The international organizations in the coalition are the Arab League and the Europe Union.⁴⁷²

In addition to their involvement with the coalition, different nations also independently support or oppose different parties in the conflict. For example, the U.S. diplomatically opposes the Syrian government and has attacked Jabhat Fateh al-Sham, Turkey opposes the Syrian government, while Iran continues to support the Syrian government.⁴⁷³ Other states in the region (Saudi Arabia and Jordan) also oppose President Assad and have provided military support to anti-Assad and anti-ISIS Rebel groups.⁴⁷⁴

APPENDIX E: WEAPONS

Cluster Munitions

Cluster Munitions is a, “conventional munition that is designed to disperse or release explosive submunitions weighing less than 20 kilograms, and includes those explosive submunitions.”⁴⁷⁵ The definition excludes the following:

- (a) munition or submunition that releases flares, smoke, pyrotechnics or chaff; or munition solely used for air defense role;⁴⁷⁶
- (b) munition of submunition created for the production of electrical or electronic effects⁴⁷⁷
- (c) munition that evades indiscriminate area effects and risks, with the characteristics below⁴⁷⁸:
 - i. less than ten explosive submunitions
 - ii. explosive submunitions weighs greater than 4 kilograms
 - iii. explosive submunition detects and engages a target
 - iv. explosive submunition has an electronic self-destruction mechanism
 - v. explosive submunition is electronically self-deactivated

In 2008, the Diplomatic Conference for the Adoption of a Convention on Cluster Munitions, was created and signed by 108 state party signatories agreeing to never use cluster munitions, develop or produce, prevent stockpiling, and destroy current stockpiles.⁴⁷⁹ In addition

⁴⁷¹ *Id.*

⁴⁷² *Id.*

⁴⁷³ *Who Backs Whom*, *supra* note 408.

⁴⁷⁴ *Id.*

⁴⁷⁵ Convention on Cluster Munitions, Dec. 3, 2008, 2688 U.N.T.S. 39 [hereinafter CMC].

⁴⁷⁶ *Id.*

⁴⁷⁷ *Id.*

⁴⁷⁸ *Id.*

⁴⁷⁹ *Id.*

it is forbidden to transfer or assist others to engage in the activity.⁴⁸⁰ Russia and Syria did not sign the document.

Thermobaric bombs

Thermobaric bomb is a volumetric weapon also known as a “vacuum bomb.” The materials within the bomb casing consists of monopropellant and energetic particles in liquid or solid form, as well as, two explosive charges.⁴⁸¹ Once released, the first charge of the bomb produces a cloud of vapor that ignites with high-temperatures reaching up to 5,000 Fahrenheit to create an explosive reaction.⁴⁸² The explosion is intensified by burning rapidly through atmospheric oxygen.⁴⁸³ The second charge detonates the vapor cloud that sends a blast.

The effects of thermobaric bombs are indiscriminate and cause widespread damage stretching many meters.⁴⁸⁴ The use of the weapon is not banned under international humanitarian law.⁴⁸⁵ Military forces are asked to use extreme caution and refrain from using them in populated areas.⁴⁸⁶

Incendiary bombs

An incendiary weapon is, “any weapon or munition which is primarily designed to set fire to objects or to cause burn injury to persons through the action of flame, heat, or combination thereof, produced by a chemical reaction of a substance delivered on the target.”⁴⁸⁷ An incendiary weapon includes within its definition an incendiary bomb. The most common substance used within the weapon includes napalm and white phosphorous.⁴⁸⁸ Incendiary bombs have the power to create fireballs with such intensity to light up the sky as if it were daylight.⁴⁸⁹

Protocol III of the 1980 Protocol on Prohibitions or Restrictions on the use of Incendiary Weapons prohibits under any circumstance the use of incendiary weapons against civilian individuals or civilian objects.⁴⁹⁰ The protocol went into law in 1983 and currently 121 states are parties to this agreement.⁴⁹¹

⁴⁸⁰ CMC *supra* note 475.

⁴⁸¹ *Thermobaric Explosive*, GLOBAL SECURITY (Jul. 7, 2011), <http://www.globalsecurity.org/military/systems/munitions/thermobaric.htm>.

⁴⁸² *Thermobaric bomb*, THE ENCYCLOPEDIA OF MIDDLE EAST WARS 1235-1237 (Spencer C. Tucker ed., 2010)

⁴⁸³ *Thermobaric Explosive*, *supra* note 481.

⁴⁸⁴ *Thermobaric bomb*, *supra* note 482.

⁴⁸⁵ *Backgrounder on Russian Fuel Air Explosives*, HUMAN RIGHTS WATCH (Feb. 1, 2000), <https://www.hrw.org/report/2000/02/01/backgrounder-russian-fuel-air-explosives-vacuum-bombs>.

⁴⁸⁶ *Id.*

⁴⁸⁷ Protocol on Prohibitions or Restrictions on the Use of Incendiary Weapons, Dec. 2, 1983, 1342 U.N.T.S. 171 [hereinafter Protocol III].

⁴⁸⁸ *Weapons Used in Aleppo are Devastating for Civilians*, DAILY STAR (Sep. 27, 2017), <http://www.dailystar.com.lb/News/Middle-East/2016/Sep-27/373897-weapons-used-in-aleppo-are-devastating-for-civilians.ashx>.

⁴⁸⁹ Steffan de Mistura (Special Envoy for Syria), *Briefing to the Security Council on Syria* (Sep. 25, 2016).

⁴⁹⁰ Protocol III, *supra* note 487.

⁴⁹¹ *Id.*

Tunnel bombs

A tunnel bomb is tactical and undetectable tunneling under or near targets, then planting and setting off bombs within the tunnel.⁴⁹² The tunnels can range from 107 meters to 800 meters in length.⁴⁹³ The objective is to make the tunnel long enough to reach your target and emplacing explosives.⁴⁹⁴ The explosives can be improvised bombs.⁴⁹⁵ Tunnel bombs are a deadly and modern version of ancient tactics.⁴⁹⁶ There are no laws governing tunnel bombs.⁴⁹⁷ Currently, the U.S. is attempting to introduce a bill in congress that would allow them to research, develop, and test anti-tunneling capabilities.⁴⁹⁸

Improvised Explosive Devices (IED) / Landmines

A landmine is used as a defensive or offensive weapon. It is an explosive device designed to destroy or damage objects such as vehicles, or to wound, kill or restrict individuals.⁴⁹⁹ The mine can be activated by the individual, a vehicle by stepping on or being triggered by direct pressure, a command detonation, or a combination.⁵⁰⁰ The landmines can be booby trapped.⁵⁰¹

Additionally, a landmine can be used as part of an IED.⁵⁰² An IED is a homemade destructive device meant to destroy, incapacitate, harass, or distract.⁵⁰³ An IED can be almost anything with any type of material and initiator.⁵⁰⁴ The common components of an IED include a switch/trigger, an initiator, main charge/explosive fill, a power source, and a container.⁵⁰⁵ IEDs can be packed or surrounded by additional material to enhance the amount of shrapnel propelled by the explosion.⁵⁰⁶

Landmines and IEDs are currently regulated, not prohibited, by the Protocol on Prohibitions or Restrictions on the Use of Mines, Booby-Traps and Other Devices, which was amended and passed in 1996.⁵⁰⁷

⁴⁹² Jamie Dettmer, *Tunnel Bombs Highlight Savagery of Aleppo Fight*, VOICE OF AMERICA (Mar. 5, 2015), <http://www.voanews.com/a/tunnel-bombs-highlight-savagery-in-fight-in-alepo/2668562.html>.

⁴⁹³ *Id.*

⁴⁹⁴ Marcus Weisgerber, *ISIS is Using Tunnel Bombs in Iraq*, DEFENSE ONE (Jun. 8, 2015), <http://www.defenseone.com/threats/2015/06/isis-using-tunnel-bombs-iraq/114730/>.

⁴⁹⁵ Dettmer, *supra* note 492.

⁴⁹⁶ Weisgerber, *supra* note 494.

⁴⁹⁷ *Id.*

⁴⁹⁸ *Id.*

⁴⁹⁹ Landmine, Explosive Remnants of War and IED Safety Handbook, U.N. MINE ACTION SERVICE (2015), http://www.mineaction.org/sites/default/files/publications/Handbook_English.pdf [hereinafter UNMAS].

⁵⁰⁰ *Id.*

⁵⁰¹ *Id.*

⁵⁰² *Id.*

⁵⁰³ *IED Attack Improvised Explosive Devices*, DEPARTMENT OF HOMELAND SECURITY (Jul. 8, 2015), https://www.dhs.gov/xlibrary/assets/prep_ied_fact_sheet.pdf.

⁵⁰⁴ *Improvised Explosive Devices (IEDs)/Booby Traps*, GLOBAL SECURITY (May 7, 2011), <http://www.globalsecurity.org/military/intro/ied.htm>.

⁵⁰⁵ *Id.*

⁵⁰⁶ *IED Attack Improvised Explosive Devices*, *supra* note 503.

⁵⁰⁷ Protocol on Prohibitions or Restrictions on the Use of Mines, Booby-Traps and Other Devices, May 3, 1996, 1342 U.N.T.S. 168.