STUDENT NOTE

Requesting a Challenge Inspection Against Syria Under the Chemical Weapons Convention: Venturing into Uncharted Territory

Jonathan E. Greengarden*

INTRODUCTION

On the evening of April 7, 2018, Syrian government helicopters circled above Douma, one of the last remaining rebel-held territories in Syria.[1] One of the helicopters dropped a gas-cylinder bomb atop the balcony of a residential building,[2] killing approximately 43 people and leaving more than 500 injured.[3] Upon impact, the bomb unleashed a haze of chlorine gas, permeating the entire building with the pungent smell of bleach, killing entire families in a matter of minutes, some of whom were only infants.[4] Once inhaled, chlorine mainly affects the respiratory tracts, causing air sacs in the lungs to secrete fluids, and ultimately causes the victim to drown in the resulting fluids,[5] leaving them foaming at the mouth and gasping for air.[6] Due to the rampant bombing campaigns by the Assad regime, many of the remaining civilians in Syria have dug shelters beneath their homes for protection. Since chlorine turns into a gas once it is released, it becomes heavier than air and sinks to low-levels,[7] essentially turning these underground bunkers into death traps. Unfortunately, the chemical attack on April 7 was just one of the many devastating chemical attacks that have been ordered by the Syrian government under the order of President Bashar al-Assad.[8]

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* Jonathan E. Greengarden is a J.D. Candidate at Georgetown University Law Center, Class of 2020. He would like to express his deepest thanks to Professor David Koplow for his invaluable input, helpful guidance, and thoughtful comments on earlier drafts. He would also like to express his sincere appreciation to Kelsey Davenport, Paul F. Walker, and Jean Pascal Zanders who agreed to be interviewed for this article.

1. *See* Rick Gladstone & Maggie Haberman, *Horrific Details on Syria Chemical Attacks Left Out, for Now, From U.N. Report*, N.Y. TIMES (June 20, 2018), https://perma.cc/BJ5B-C54A.

2. *See id.*

3. *See Syria War: What we know about Douma 'chemical attack'*, BBC NEWS (July 10, 2018), https://perma.cc/Y7JS-YJL3.

4. *See* Statement, World Health Org., *WHO Concerned About Suspected Chemical Attacks in Syria* (Apr. 11, 2018), https://perma.cc/5THN-AEL9.

5. *See* Michelle Nichols, *U.N./OPCW Inquiry Blames Syria Govt for Gas Attacks, Likely Sanctions Fight Looms*, REUTERS (Aug. 24, 2016, 3:51 PM), https://perma.cc/KPT4-5T5J.

6. *See* Sheena McKenzie, *Suspected Syria Chemical Attack May Have Affected 500 People, WHO Says*, CNN (Apr. 11, 2018, 6:01 PM), https://perma.cc/Y73F-R52R.

7. *See* Nawal al-Maghafi, *How Chemical Weapons Have Helped Bring Assad Close to Victory*, BBC NEWS (Oct. 15, 2018), https://perma.cc/VR4D-KG35.

8. *See Why is there a war in Syria?*, BBC NEWS (Feb. 25, 2019), https://perma.cc/8KLJ-CRGG.

Researchers have documented at least 336 chemical attacks in Syria over the course of the Syrian civil war,[9] which began in 2011 and has led to the deaths of more than 350,000 people and caused over five million Syrians to flee the country as refugees.[10] The majority of these attacks, approximately 98 percent, have been attributed to the Assad regime.[11] The first allegation of a "poisonous gas" being used by the Assad regime occurred on December 23, 2012, with the most recent one having taken place on April 7, 2018.[12] The main characters involved in what has been deemed to be the "worst humanitarian crisis since the Second World War"[13] consist of the rebels (comprised of over 1,200 different factions)[14] and the Assad regime. Various foreign powers have also become involved in the war, the most significant of which are the United States, Russia, and Iran.[15] While the United States has provided support to the rebels, Russia and Iran have consistently backed the Assad regime.[16]

In response to the April 7, 2018 chemical attack, the United States, joined by France and Britain, led an airstrike on April 14, 2018, with more than 100 missiles, targeting three Syrian government chemical weapons storage and research facilities.[17] While reports from the Department of Defense (DoD) stated that the U.S.-led coalition had "taken out the 'heart' of President Bashar al-Assad's chemical weapons program,"[18] the DoD also acknowledged that the Assad regime "most likely retained some ability to again attack its own people with chemical agents."[19] Dr. Paul Walker, Director of Green Cross International's Environmental Security and Sustainability Program,[20] raised a key question regarding the U.S.-led missile strike against Syria: if the United States had enough specific intelligence regarding the facilities associated with Syria's chemical weapons program prior to launching missiles, then why did the U.S. decide against utilizing the challenge inspection mechanism included within the Chemical Weapons Convention of 1997 (CWC)?[21] Rather than launching this airstrike, which many have argued violated

9. *See* Tobias Schneider & Theresa Lütkefend, *Nowhere to Hide: The Logic of Chemical Weapons Use in Syria*, GLOBAL PUB. POL'Y INST. 3-4 (Feb. 2019), https://perma.cc/Z45X-9EGM.

10. *See Syrian Refugee Crisis: Facts, FAQs, and how to help*, WORLD VISION (Oct. 18, 2018), https://perma.cc/5KSL-WJ42.

11. Schneider & Lütkefend, *supra* note 9, at 3.

12. Alicia Sanders-Zakre, *Timeline of Syrian Chemical Weapons Activity, 2012-2019*, ARMS CONTROL ASS'N (Mar. 2018), https://perma.cc/LGA6-BKC2.

13. Kathy Gilsinan, *The Confused Person's Guide to the Syrian Civil War*, THE ATLANTIC (Oct. 29, 2015), https://perma.cc/8TTY-WUDP.

14. *See id*.

15. *See id*.

16. *See id*.

17. *See* Zachary Cohen & Kevin Liptak, *US, UK and France Launch Syria Strikes Targeting Assad's Chemical Weapons*, CNN (Apr. 14, 2018, 11:33 AM), https://perma.cc/8P6V-6JFX.

18. Helene Cooper & Ben Hubbard, *Pentagon Says Syria Strikes Hit 'Heart' of Chemical Weapons Program*, N.Y. TIMES (Apr. 14, 2018), https://perma.cc/DH66-QW9E.

19. *Id*.

20. *Paul F. Walker*, GREEN CROSS, https://perma.cc/EDB2-EHTY.

21. Interview with Paul Walker, Dir. of Green Cross Int'l's Envtl. Sec. and Sustainability Program, in D.C. (Mar. 1, 2019).

international law, the U.S.-led coalition should have instead mitigated any potential harm by requesting a challenge inspection under Article IX of the CWC.[22]

Section I of this paper will first examine the U.S.-led airstrikes against Syria that took place on April 14, 2018, in response to the April 7 chemical weapon attack in Douma. In particular, this section will discuss the justification the United States put forward for launching the strike, the reasoning behind why specific targets were selected, and why the selection of one of those sites was questionable. Section II will provide a brief history of the Syrian chemical weapons program, including the events that led up to Syria's accession to the CWC on September 14, 2013. Section III will examine the obligations that Member States undertake upon acceding to the CWC, some of the shortfalls of the Convention's verification mechanisms, as well as introduce two types of inquiry activities under the CWC: investigations into the alleged use of chemical weapons under Article X and challenge inspections under Article IX. Section IV of this paper will provide an overview of investigations into the alleged use of chemical weapons. Section V will provide an analysis of the procedure for requesting a challenge inspection, the contentious aspect of negotiating a perimeter with the inspected State Party, and the potential concerns from the U.S. perspective with requesting a challenge inspection. Section VI of this paper will argue why it is not too late for the United States and its allies to request a challenge inspection against Syria. Finally, this paper will conclude by looking at the importance of the challenge inspection framework in reinforcing the international norm against the use of chemical weapons.

I. U.S.-LED AIRSTRIKES AGAINST SYRIA IN APRIL 2018

In reaction to the Douma chlorine attack on April 14, 2018, the United States, France, and Britain launched airstrikes against three locations across Syria. These airstrikes targeted the following sites: the Barzah Research and Development Center outside Damascus,[23] a chemical weapons storage facility located outside of Homs, and a chemical equipment storage facility and important command post, also located outside of Homs.[24] Both facilities outside of Homs were part of the Him Shinshar chemical weapons complex, an underground bunker that was the primary location of Syrian sarin and precursor production equipment.[25] The United States and its allies chose this measure instead of requesting that a challenge inspection be conducted in the suspected Syrian government facilities associated with chemical weapons proliferation. According to a DoD Press Briefing,

22. Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on Their Destruction, *opened for signature* Jan. 10, 1993, 1974 U.N.T.S. 45, 32 I.L.M. 800, S. Treaty Doc. No. 103-21 (entered into force Apr. 29, 1997) [hereinafter CWC].

23. *See* Paul Sonne, *Details Emerge About Syrian Sites Targeted by U.S.-led Airstrikes*, WASH. POST (Apr. 15, 2018), https://perma.cc/Z7Y2-7E48.

24. Cohen & Liptak, *supra* note 17.

25. *See* Justin Carissimo, *A Closer Look at the Sites the U.S. Targeted in Syria Strikes*, CBS NEWS (Apr. 14, 2018, 8:44 PM), https://perma.cc/VM9M-AHAX.

"The strikes were [a] justified, legitimate and proportionate response to the Syrian regime's continued use of chemical weapons on its own people."[26] The Pentagon also noted that the President authorized these airstrikes pursuant to his power under Article II, Section 2 as the "Commander in Chief" in order to "defend important U.S. national interests" overseas.[27]

While President Trump, Prime Minister May, and President Macron agreed that the military strikes were successful in "sending a clear message that the use of chemical weapons can never become normalized,"[28] others criticized the strikes for their illegality and lack of foresight. Senator Tim Kaine, a member of the Senate Foreign Relations and Armed Services Committees, described President Trump's decision to launch airstrikes against Syria as "illegal and – absent a broader strategy, it's reckless."[29] Peace Action, the largest grassroots peace group in the United States,[30] also spoke out against the airstrikes calling the President's decision "impulsive, dangerous, and a clear violation of domestic and international law."[31]

It was not even a year prior that the United States launched fifty-nine Tomahawk missiles aimed at the Shayrat air base located in Syria's Homs province on April 7, 2017.[32] The U.S. believed that this airfield was the location from which the Assad regime launched a sarin attack on Khan Sheikhoun killing more than 80 people.[33] The Pentagon reported that the airstrikes "severely damaged or destroyed Syrian aircraft and support infrastructure . . . reducing the Syrian government's ability to deliver chemical weapons."[34] However, many have disagreed with this assessment including Kelsey Davenport, the Director of Nonproliferation Policy at the Arms Control Association.[35] According to Ms. Davenport, "[t]he U.S. decision to strike Syrian bases was irresponsible, disproportionate, and did not address the core U.S. concern which is the continued use of chemical weapons. This was not an effective way to address a consistent violation of international law."[36] Rather than resolving the underlying concern, the continued research,

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26. Press Release, Dana W. White, U.S. DoD, Press Briefing by Pentagon Chief Spokesperson Dana W. White and Joint Staff Director Lt. Gen. Kenneth F. McKenzie Jr. in the Pentagon Briefing Room (Apr. 14, 2018), https://perma.cc/ZL22-787M [hereinafter April 2018 Pentagon Press Briefing].

27. Andrew Rudalevige, *Attacking Syria Wasn't Legal a Year Ago. It's Still Not*, WASH. POST (Apr. 13, 2018, 5:00 AM), https://perma.cc/S479-K78N.

28. Cohen & Liptak, *supra* note 17.

29. *Kaine: Trump Strikes in Syria 'Illegal,' 'Reckless,'* AUGUSTA FREE PRESS (Apr. 13, 2018, 10:50 PM), https://perma.cc/25MH-8AZP.

30. *See About Peace Action*, PEACE ACTION, https://perma.cc/4F28-CDJQ.

31. Michael Crowley & Andrew Restuccia, *Trump strikes Syria*, POLITICO (Apr. 13, 2018, 9:11 PM), https://perma.cc/BHS6-7AMD.

32. *See* Morgan Winsor et al., *Syrian Jets Take Off from Air Base Hit by US*, ABC NEWS (Apr. 7, 2017, 9:08 PM), https://perma.cc/RUS2-7UDB.

33. *See Timeline of Key Chemical Attacks in Syria and US Response*, THE STRAITS TIMES (Apr. 7, 2017, 12:35 PM), https://perma.cc/9MTV-KTS8.

34. Michael R. Gordon, Helene Cooper & Michael D. Shear, *Dozens of U.S. Missiles Hit Air Base in Syria*, N.Y. TIMES (Apr. 6, 2017), https://perma.cc/SPL3-M4VU.

35. *See Kelsey Davenport*, ARMS CONTROL ASS'N, https://perma.cc/98NJ-4GD2.

36. Telephone Interview with Kelsey Davenport, Dir. for Nonproliferation Pol'y, Arms Control Ass'n (Feb. 22, 2019).

proliferation, and development of chemical weapons, the United States only targeted a symptom of the problem.

Following the 2017 airstrikes, the Syrian government quickly repaired the Shayrat airbase, and aircraft were taking off again just hours after the U.S. strike.[37] These strikes did not effectively reduce the Syrian government's ability to conduct further chemical attacks, nor did it deter Assad from committing future atrocities. Unsurprisingly, in the morning following the April 2018 U.S.-led airstrikes, video footage surfaced of Assad sauntering through an administrative building, smiling and unfazed, as if nothing had happened at all.[38]

According to the Pentagon, the three facilities targeted in the 2018 airstrikes were specifically chosen based on their participation in the research, development, and deployment of chemical weapons.[39] The Barzah site, in particular, is part of the Syrian Scientific Studies and Research Center (SSRC), an organization the U.S. Treasury has described as the "Syrian government agency responsible for developing and producing non-conventional weapons and the means to deliver them."[40] Given this reputation of the Barzah facility, the Executive Council of the Organization for the Prohibition of Chemical Weapons (OPCW), the implementing body that has been overseeing the removal of chemical weapons from Assad's regime, issued a decision on November 11, 2016, stating that it would "conduct inspections, including sampling and analysis, twice a year at the Barzah facilities of the Syrian Scientific Studies and Research Centre . . . until the Council decides to cease them."[41] Significantly, a note by the OPCW Director-General on March 23, 2018 indicated that the previous two inspections of the Barzah facility, the most recent of which was conducted on November 17, 2017, "did not indicate the presence of scheduled chemicals in the samples, and the inspection team did not observe any activities inconsistent with obligations under the Convention."[42] Given that the Barzah facility did not raise any issues of noncompliance for the previous two OPCW inspection teams, it is unclear why the U.S.-led coalition decided to conduct airstrikes against this specific facility.

Following the chemical attack, scientists who worked in the facility were adamant that it was "totally incorrect" that the Barzah facility developed chemical weapons, and they claimed it was actually a research institution for

37. *See* Josie Ensor, *Syrian Warplanes Take Off Once Again from Air Base Bombed by US Tomahawks*, THE TELEGRAPH (Apr. 8, 2017, 11:07 AM), https://perma.cc/7FBS-2N4R.

38. *See* Frederik Pleitgen, *Airstrikes Hit Syria, but Assad Is Unfazed*, CNN (Apr. 14, 2018, 9:36 AM), https://perma.cc/CXB3-ZDS8; Ruptly, *Syria: Syrian Presidency Releases Footage of Bashar al-Assad Following Airstrikes*, YOUTUBE (Apr. 14, 2018), https://www.youtube.com/watch?v=eIN5jMmuWfM.

39. *See* Casey Quackenbush, *Satellite Images Show a Research Center in Syria Before and After Airstrikes*, TIME (Apr. 16, 2018), https://perma.cc/6RUU-CQA6.

40. Sonne, *supra* note 23.

41. Executive Council, *Decision: OPCW-United Nations Joint Investigative Mechanism Reports on Chemical Weapons Use in the Syrian Arab Republic*, EC-83/DEC.5 at 4 (Nov. 11, 2016), https://perma.cc/7MVR-MMDT [hereinafter OPCW-UN JIM Reports Nov. 2016].

42. Note by the Director-General, *Progress in the Elimination of the Syrian Chemical Weapons Programme*, EC-88/DG.1 ¶ 12 (July 24, 2018), https://perma.cc/5XPQ-XVWG.

pharmaceuticals.[43] During a CBS News video showing the site after the attack, one scientist picked up an anti-venom package that was on the side of the road and said it was one of the products being produced inside the facility.[44] Other reports claimed the Barzah facility was devoted to preparing chemical compositions for cancer drugs and conducting chemical analyses of the materials entering Syria which are used in pharmaceuticals and food industries.[45]

Even though chemical weapons like sarin or mustard gas, both of which serve no other purpose outside of chemical warfare, were not being stored or produced at the Barzah facility, there is still a high-likelihood that another chemical was being stored there, one that is not officially listed as a chemical weapon, such as chlorine. Chlorine is widely-used in many pharmaceutical products,[46] yet it has also constituted the "bulk of chemical weapons attacks" in Syria.[47] While the CWC does not classify chlorine itself as a chemical weapon in the same way as sarin and mustard gas, the mere possession of which would violate the CWC, it is still considered a chemical weapon when it is intended to be used as one.[48] Thus, uncovering stockpiles of chlorine that are not being used for pharmaceutical or commercial purposes could give rise to a potential CWC violation if such stockpiles can be tied to the chlorine attacks launched by the Assad regime.

It is also possible that the previous OPCW inspections of the Barzah facility provided the Assad regime with enough advanced notice that it was able to prepare for the inspection and move or conceal any potential signs of noncompliance from the inspection team. A June 2, 2017 report by the Director-General following the first inspection of the Barzah facility stated that the Syrian regime was notified on January 19, 2017 that the Barzah facility would be inspected on January 29, 2017.[49] However, two days prior to the planned deployment of the inspection team, the Syrian government contacted the Secretariat "in order to postpone the inspection due to security concerns."[50] As a result, it was not until February 25, 2017 that the Syrian government finally allowed the inspection team to visit.[51] Given the 38-day lead time, if there were in fact cylinders of chlorine being stored at the Barzah facility, Assad may have been able to move or conceal

43. Seth Doane, *Scientist Gives Tour of Smoldering Site of Missile Strike in Syria*, CBS NEWS (Apr. 14, 2018, 6:19 PM), https://perma.cc/3TNC-RMNX.

44. *See id.*

45. *See Pharmaceutical Research Institute One of the Triple Aggression's Targets*, SANA (Apr. 14, 2018), https://perma.cc/RVX5-P94L.

46. *See Chlorine Chemistry*, AM. CHEMISTRY COUNCIL, https://perma.cc/8839-CYJF.

47. Jeff Daniels, *US Claims on Setting Back Syria Chemical Weapons Capability Likely Exaggerated, Say Experts*, CNBC (Apr. 15, 2018, 11:28 AM), https://perma.cc/4877-63KC.

48. *What is a Chemical Weapon?*, ORG. FOR THE PROHIBITION OF CHEM. WEAPONS, https://perma.cc/Z9ZM-PR3Z.

49. Report by the Director-General, *First Inspections at the Barzah And Jamrayah Syrian Scientific Studies and Research Centre Facilities in the Syrian Arab Republic in Accordance with Decision Ec-83/Dec.5 (Dated 11 November 2016)*, Ec-83/Dec.5 ¶ 3 (June 2, 2017), https://perma.cc/HG43-EVLP [hereinafter June 2017 Director-General Report].

50. *Id.*

51. *Id.*

any remaining evidence of his chemical weapons program, as he has done in the past.[52]

The June 2, 2017 report also stated, "[n]ot all areas were inspected during these first inspections" of the Barzah facility.[53] The report does not explain why the inspectors were unable to have "unfettered access to all buildings at these sites and all rooms within these buildings," as required by the OPCW Executive Council decision EC-83/DEC.5.[54] The report also does not identify the specific methods of inspection that the team used (such as the types of tools, electronics, or testing practices), nor does it state the types of samples taken, or for which kinds of chemicals the samples were tested. Subsequent OPCW reports recounting additional inspections of the Barzah facility remain similarly vague about which specific scheduled chemicals were tested, the thoroughness of the investigations, and what level of access the inspectors had inside the facilities.[55] Given the inconsistencies between U.S.-intelligence related to the Barzah facility and the findings of the OPCW's inspections, this would have been an excellent opportunity for the United States to request a challenge inspection of the Barzah facility.

A challenge inspection would have allowed the United States to send a representative to observe the inspection to ensure that the team was conducting a thorough and legitimate examination. It also would have allowed inspectors to conduct an even more extensive investigation of the facility. For example, inspectors would have been able to use any types of monitoring instruments that the inspecting state deemed were necessary to fulfil the inspection requirements, take air, soil, or effluent samples, check filters in the ventilation system, detect residues that are difficult to clean up without advance warning, and inspect a broader perimeter.[56]

Perhaps most importantly, a challenge inspection would also establish an exit monitoring system of the inspected State Party, Syria. The exit monitoring system requires the inspected State Party to "begin collecting factual information of all vehicular exit activity from all exit points for all land, air, and water vehicles of the requested perimeter" within 12 hours after the arrival of the inspection team at the point of entry.[57] Such factual information might consist of "traffic logs, photographs, video recordings, or data from chemical evidence equipment."[58] This documentation would help ensure that no evidence of illicit activity was

52. Amy E. Smithson, *Kim and Assad: The Chemical Cluelessness of Dictators*, BULL. ATOMIC SCIENTISTS (Mar. 3, 2017), https://perma.cc/7E7V-PFTN.

53. June 2017 Director-General Report, *supra* note 49, ¶ 8.

54. OPCW-UN JIM Reports Nov. 2016, *supra* note 41, ¶ 11.

55. *See, e.g.*, Note by the Director-General, *Progress in the Elimination of the Syrian Chemical Weapons Programme*, EC-89/DG.1 ¶ 12 (July 24, 2018), https://perma.cc/M7EW-4EV6.

56. CWC, *supra* note 22, Verification Annex, pt. II, ¶ 27. A challenge inspection allows the inspection team to inspect an area outside of the facility that extends 10 meters outside any buildings or other structures. CWC, *supra* note 22, Verification Annex, pt. X, ¶ 8(a).

57. CWC, *supra* note 22, Verification Annex, pt. X, ¶ 23.

58. CWC, *supra* note 22, Verification Annex, pt. X, ¶ 24.

removed from the inspected site between the time in which the inspection team is cleared through the point of entry and when the inspection team secures the site of the inspection.[59] In effect, this would prevent Assad from being able to relocate chemical weapons from the inspected site without detection.

II. SYRIA'S CHEMICAL WEAPONS PROGRAM

The Syrian government first publicly acknowledged that it had a stockpile of chemical weapons in July 2012, after Jihad Makdissi, the Foreign Ministry spokesman of the Syrian government, stated, "[a]ny stocks of WMD or any unconventional weapons that the Syrian Arab Republic possesses will never be used against civilians or against the Syrian people during this crisis in any circumstance."[60] However, all of that changed on December 23, 2012, when the Assad regime conducted its first chemical attack using a "poisonous gas" against its own people.[61] While other smaller-scale chemical attacks continued to occur throughout 2013, it was not until August 21, 2013, that the Assad regime demonstrated its ability to conduct a large-scale chemical attack using sarin nerve gas that killed over 1,400 people, including over 400 children.[62]

In response to the August 2013 attack, President Obama threatened to seek authorization for the use of force from Congress in order to conduct a limited military strike against Syria as a deterrent from further use of chemical weapons.[63] In order to thwart any military action by the United States, Russia urged Syria to become a party to the CWC.[64] While Syria was already a party to the 1925 Geneva Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare since 1968,[65] it was not yet a member to the CWC, the first international treaty to prohibit the use, development, production, and stockpiling of chemical weapons.[66] Under pressure from Russia, the Syrian government acceded to the CWC on September 14, 2013.[67]

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59. *See* Per Runn, *Verification Annex, Part X*, *in* THE CHEMICAL WEAPONS CONVENTION: A COMMENTARY 632 (Walter Krutzsch et al. eds., 2014).

60. Sam Dagher & Laurence Norman, *Syria Says It Has Chemical Weapons*, WALL ST. J. (July 24, 2012, 9:56 AM), https://perma.cc/R32F-CJZA.

61. Josh Rogin, *Exclusive: Secret State Department Cable: Chemical Weapons Used in Syria*, FOREIGN POL'Y (Jan. 15, 2013, 5:45 PM), https://perma.cc/ZU9V-JMPP.

62. *See* Press Release, Office of the Press Sec'y, The White House, Government Assessment of the Syrian Government's Use of Chemical Weapons on August 21, 2013 (Aug. 30, 2013), https://perma.cc/38LE-T2GR.

63. Sanders-Zakre, *supra* note 12.

64. Nawal al-Maghafi, *supra* note 7.

65. Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare, June 17, 1925, 26 U.S.T. 571, 94 L.N.T.S. 65, https://perma.cc/L99C-2S4Q.

66. *See* Dorian Geiger, *How Chlorine Gas Became a Weapon in Syria's Civil War*, AL JAZEERA (Mar. 23, 2017), https://perma.cc/9RRZ-LSZU.

67. *See Member States*, ORG. FOR THE PROHIBITION OF CHEM. WEAPONS (2018), https://perma.cc/TVW8-QE4K.

As mandated by Article I of the CWC, Syria agreed to "destroy chemical weapons it owns or possesses, or that are located in any place under its jurisdiction or control."[68] To further ensure the successful destruction of the Syrian chemical weapons program, the United States and Russia crafted the Framework for the Elimination of Syrian Chemical Weapons, which the United Nations (UN) Security Council adopted in Resolution 2118 on September 27, 2013.[69] Part of this resolution required Syria to abide by several demands. This included submitting a list containing all of the chemical weapons in its stockpile, the locations of all of its chemical weapons, chemical weapons storage facilities, chemical weapons production facilities, and a requirement to eliminate all of its chemical weapons material and equipment by the first half of 2014. The resolution also required that Syria provide access to OPCW personnel to inspect any declared sites involved in the Syrian chemical weapons program.[70] The resolution further stated that in the event of noncompliance by Syria, including "any use of chemical weapons . . . in the Syrian Arab Republic," the Security Council would impose measures under Chapter VII of the UN Charter.[71] Such measures could include economic sanctions, travel bans, and, if necessary, military action.[72]

In accordance with Resolution 2118, Syria submitted a declaration of its stockpile of chemical weapons on September 20, 2013 which consisted of 1,308 metric tons of chemical weapons.[73] However, military experts have pointed to a flaw in Resolution 2118 which they say did not require Syria to include in its declaration the rockets and weapons it used in the August 2013 attack which were untraceable to a specific factory or plant.[74] If Syria did not declare the weapons used in this attack, then this resolution excluded the very weapons that prompted this international proposal in the first place.[75] Nonetheless, on June 23, 2014, the OPCW Director-General reported that the remaining eight percent of Syria's declared chemical weapons stockpile was shipped out of the country and would be destroyed.[76] While one of the inspectors stated, "[e]verything that we knew to be there was either removed or destroyed," he also explained that because the only information the inspectors received about Syria's declared chemical weapons came from Syria, they were only able to verify the removal of what they were told was there.[77]

68. CWC, *supra* note 22, art. I, ¶ 2.
69. S.C. Res. 2118, ¶ 3 (Sept. 27, 2013), https://perma.cc/4M27-N4WM.
70. *Id*. ¶ 7.
71. S.C. Res. 2118, *supra* note 69, ¶ 21.
72. U.N. Charter art. 41, https://perma.cc/6MUW-WBB4.
73. Sanders-Zakre, *supra* note 12.
74. William J. Broad & C. J. Chivers, *Chemical Disarmament Hard Even in Peacetime*, N.Y. Times (Sept. 10, 2013), https://perma.cc/MFQ2-H8HL.
75. *Id*.
76. Sanders-Zakre, *supra* note 12.
77. Nawal al-Maghafi, *supra* note 7.

According to Julian Tangaere, the head of the OPCW mission in Syria, "[t]he thing about the Chemical Weapons Convention is it's all based on trust."[78] The Russian-American-brokered deal with Syria in 2013 was dependent on Assad being truthful about Syria's chemical weapons program and providing inspectors with "immediate and unfettered access" to "any and all sites in the Syrian Arab Republic."[79] Kenneth Ward, the American ambassador to the OPCW, believes that Syria almost certainly abused this trust in the CWC declaratory process by providing "a grossly incomplete declaration to the OPCW of its chemical weapons program."[80]

Not surprisingly, the OPCW reported to the UN Security Council in April 2018 that questions still remained regarding the accuracy of Syria's initial declaration in September 2013 and that it "was still unable to verify that Syria's initial declaration on its chemical weapons programme was accurate."[81] As indicated by the ongoing chemical attacks that have plagued the country since Syria's accession to the CWC in September 2013, it is clear that Syria's declaration was either incomplete or that Syria was subsequently able to manufacture or obtain additional weapons from other countries such as North Korea, Iran, and Russia.[82]

III. THE CHEMICAL WEAPONS CONVENTION OF 1997

The CWC has been extremely successful in verifiably destroying over ninety-seven percent of the world's chemical weapons stockpiles that possessor states have declared.[83] However, it seems that one of the main shortfalls of the CWC is that it lacks a sufficient mechanism to verify the accuracy of the declarations made by States Parties. As part of Article III of the CWC, each State Party shall "[d]eclare whether it owns or possesses any chemical weapons, or whether there are any chemical weapons located in any place under its jurisdiction or control."[84] A country could theoretically declare a portion of its chemical stockpiles to the OPCW while at the same time secretly store additional chemical weapons in an undisclosed location that would almost certainly go undiscovered.[85] Tom

78. Nawal al-Maghafi, *supra* note 7.

79. S.C. Res. 2118, *supra* note 69, ¶ 1(e).

80. Mike Corder, *US Ambassador to Organization for the Prohibition of Chemical Weapons: Syrian Attack Was 'A Direct Affront to Human Decency'*, BUS. INSIDER (Apr. 13, 2017, 10:12 AM), https://perma.cc/35Q4-VQM4.

81. Press Release, Sec. Council, Questions Remain over Syria's Chemical Weapons Programme, Security Council Hears, as Speakers Call for Agreement on Suitable Accountability Mechanism SC/13276 (Apr. 4, 2018).

82. *See* Daniels, *supra* note 47; Scott Shane, *Weren't Syria's Chemical Weapons Destroyed? It's Complicated*, N.Y. TIMES (Apr. 7, 2017), https://perma.cc/GUP4-RAAP.

83. *See OPCW by the Numbers*, ORG. FOR THE PROHIBITION OF CHEM. WEAPONS (2018), https://perma.cc/7EXY-JMEZ.

84. CWC, *supra* note 22, art. III, ¶ 1(a)(i).

85. *See* Josh Rogin & Eli Lake, *U.S. Says Assad Caught with Sarin. Again.*, BLOOMBERG (May 13, 2015, 6:00 AM), https://perma.cc/U3JR-HPXG ("Former director of the Defense Intelligence Agency Lt. Gen. Mike Flynn said his assessment was that Assad was concealing many chemical weapons sites and most likely still has chemical weapons capability.").

Inglesby, the director of the Johns Hopkins University Center for Health Security, commented on the impracticability of being able to actually verify a country's entire chemical weapons stockpile. According to Mr. Inglesby, "There is no magic scanner in the sky that can tell you whether there's a chemical weapon in a particular crate, or a particular car, or on a person."[86]

In order to uphold the CWC's objectives in prohibiting the development, production, stockpiling, acquisition, and use of chemical weapons, the framers established three distinct types of inspections to verify that States Parties are abiding by these objectives.[87] States Parties are required to undergo initial and routine inspections at chemical weapons-related facilities that were included in their initial declarations upon joining the CWC as required by Article III. Because States Parties have already declared these facilities, they will have planned and prepared in advance of on-site inspections.[88] Under Article X, the Director-General must initiate an investigation in response to the request by a State Party to receive "assistance and protection against the use or threat of use of chemical weapons."[89] Under Article IX, each State Party has the right to request a short-notice challenge inspection if it suspects another State Party is not in compliance with the CWC.[90]

IV. ARTICLE X: INVESTIGATING THE ALLEGED USE OF CHEMICAL WEAPONS

The CWC provides States Parties with the ability to submit a request to the Director-General of the OPCW for an investigation under Article X in the event of an alleged use of chemical weapons against that State Party.[91] However, as its name suggests, a request for investigation is predicated upon the alleged use of chemical weapons, meaning its use is less of a verification mechanism and more of a fact-finding one.[92] These investigations are also designed to establish whether chemical weapons have been used, not to determine who is responsible.[93] As further explained under Part XI of the Verification Annex, in response to a request by a State Party, the Director-General must dispatch an inspection team "at the earliest opportunity" (usually within twenty-four hours), to visit "any and all areas which could be affected by the alleged use of chemical weapons."[94]

86. Brian Barrett, *Why It's So Hard to Wipe Out All of Syria's Chemical Weapons*, WIRED (Apr. 8, 2017, 7:00 AM), https://perma.cc/YP8L-KJFQ.

87. ORG. FOR THE PROHIBITION OF CHEM. WEAPONS, FACT SHEET 5: THREE TYPES OF INSPECTIONS 1 (Nov. 2017), https://perma.cc/2KMU-M4CQ [hereinafter OPCW Fact Sheet 5].

88. DEF. TREATY INSPECTION READINESS PROGRAM, CWC CHALLENGE INSPECTIONS: ON-SITE VERIFICATION WITHOUT ADVANCE PREPARATION 2 (Sept. 2004), https://perma.cc/5NMK-DELZ.

89. CWC, *supra* note 22, art. X, ¶ 8.

90. CWC, *supra* note 22, art. IX, ¶ 8.

91. CWC, *supra* note 22, Verification Annex, pt. XI, ¶ 1.

92. CWC, *supra* note 22, Verification Annex, pt. XI, ¶¶ 25(a)–(b).

93. *Responding to the Use of Chemical Weapons*, ORG. FOR THE PROHIBITION OF CHEM. WEAPONS, https://perma.cc/WJ3U-38N5.

94. CWC, *supra* note 22, Verification Annex, pt. XI, ¶¶ 11–15.

Part XI also provides that the inspection teams investigating the alleged use of chemical weapons only have access to the areas "which could be *affected* by the alleged use of chemical weapons."[95] Thus, the text of Part XI limits the scope of the investigation to areas such as hospitals, refugee camps, and areas neighboring the location in which "chemical weapons are alleged to have been used.[96] While it would depend on the precise location of a chemical attack, this likely means that inspectors are unable to investigate the actual facilities in which the chemicals may be stored and produced, unless those facilities happen to be within the area which could be affected by the attack. Investigators are therefore limited in terms of the evidence they can obtain.

One major concern with this type of inspection relates to the difficulty in allowing an inspection team to reach the site of the alleged use due to safety concerns as a result of ongoing fighting. In relation to the situation in Syria, for example, Laura Holgate, the former Senior Director of WMD & Terrorism in the Obama Administration, explains, "'[w]hat's particularly novel about this situation is that it's happening in the middle of a war zone."[97]

A delay in the investigation into alleged use until after the fighting stops leads to a second concern – the durability of evidence. For chemicals that leave little to no trace of evidence, even if an inspection team deployed within twenty-four hours after an attack, there is no guarantee that there will be any physical evidence remaining in the environment.[98] This, however, would be entirely dependent on the particular type of suspected chemical used, its chemical properties, its persistence in the environment, and the types of evidence being collected, as some chemicals disperse fairly quickly and may not leave strong enough trace of evidence for inspectors. For example, a forensic team that travelled to a Kurdish village in northern Iraq, which Iraqi warplanes had bombed over four years earlier, was still able to find traces of sarin and mustard gas.[99] In contrast, due to its volatility, chorine evaporates and disperses quickly in the environment, leaving very little evidence behind and making it extremely difficult to prove that any attack ever took place.[100] Unless inspectors are able to quickly reach the site of the attack, there is very little, if any, physical evidence that remains in the environment.[101]

Without clear evidence indicating that an attack has taken place, the OPCW has been hesitant to dispatch a team of inspectors out of fear that it may cause them physical harm.[102] In order to maintain the credibility of the OPCW, the Director-General is reluctant to send a team because, according to Ms. Holgate,

95. CWC, *supra* note 22, Verification Annex, pt. XI, ¶ 15 (emphasis added).
96. CWC, *supra* note 22, Verification Annex, pt. XI, ¶¶ 3(c), 15-16.
97. Barrett, *supra* note 86.
98. Nawal al-Maghafi, *supra* note 7.
99. Broad & Chivers, *supra* note 74.
100. Nawal al-Maghafi, *supra* note 7.
101. Nawal al-Maghafi, *supra* note 7.
102. Nawal al-Maghafi, *supra* note 7.

"[i]f the OPCW goes into Syria and finds nothing, that just gives Assad-allied Russia ammunition to discredit the organization's efforts."[103] This risk, however, is not a sufficiently compelling reason against conducting such an investigation. Investigating the alleged use of chemical weapons in Syria would likely add credibility to the OPCW for implementing the CWC in the way it was intended to be used.

In response to the April 7, 2018 chemical attack in Douma, the OPCW Technical Secretariat dispatched an OPCW Fact-Finding Mission ("FFM") on April 12, 2018 in order to gather facts regarding the alleged use of toxic chemicals, specifically chlorine.[104] The FFM was created in 2014 "to establish the facts surrounding allegations of the use of toxic chemicals, reportedly chlorine, for hostile purpose in the Syrian Arab Republic."[105] Since its establishment, the FFM has gone on to serve a similar function as an inspection team under Part XI of the CWC.[106] According to the OPCW, the FFM's activities regarding the "alleged" chemical attack in Douma included: on-site visits, chemical detection, environmental sample collection, biomedical sample collection, and witness and casualty interviews, including on Syrian territory.[107]

Just as an investigation into the alleged use of chemical weapons under Article X does not identify who used chemical weapons, the FFM's mandate similarly "does not include identifying who is responsible for alleged attacks."[108] As a result, it seems likely that the Technical Secretariat dispatched the FFM in order to circumvent the need to wait for Syria to request an investigation into the alleged use of chemical weapons under Article X. Due to the high security risk, explosives, and the confrontation by a hostile crowd during a reconnaissance visit to two sites of interest, the FFM team was unable to enter Douma until almost a week after its arrival in 2018. The FFM ultimately concluded that a toxic chemical containing reactive chlorine was used in the attack on Douma on April 7, 2018.[109]

Investigations into the sites of the alleged use of chemical weapons are limited in scope to the specific sites at which attacks have already taken place. A request by a State Party against whom chemical have been used can also trigger these

103. Barrett, *supra* note 86.

104. *See* Note by the Technical Secretariat, *Report of the Fact-Finding Mission Regarding the Incident of Alleged Use of Toxic Chemicals as a Weapon in Douma, Syrian Arab Republic, on 7 April 2018*, S/1731/2019 ¶ 2.1 (Mar. 1, 2019), https://perma.cc/K2SL-3FXT [hereinafter Report of the 2018 Fact-Finding Mission].

105. Press Release, Org. for the Prohibition of Chem. Weapons, OPCW Issues Fact-Finding Mission Reports on Chemical Weapons Use Allegations in Douma, Syria in 2018 and in Al-Hamadaniya and Karm Al-Tarrab in 2016 (July 6, 2018), https://perma.cc/42NN-YCNX.

106. *Id.*

107. Report of the 2018 Fact-Finding Mission, *supra* note 104, ¶ 2.4.

108. *See Responding to the Use of Chemical Weapons*, ORG. FOR THE PROHIBITION OF CHEM. WEAPONS, https://perma.cc/WJ3U-38N5; *OPCW Issues Fact-Finding Mission Reports on Chemical Weapons Use Allegations in Douma, Syria in 2018 and in Al-Hamadaniya and Karm Al-Tarrab in 2016*, ORG. FOR THE PROHIBITION OF CHEM. WEAPONS (July 6, 2018), https://perma.cc/UWR5-XRWC.

109. Report of the 2018 Fact-Finding Mission, *supra* note 104, ¶ 9.12.

investigations. As has been the case with the chemical attacks that have occurred in Syria, when the State Party is the one launching these attacks against its own people, it is not feasible to expect the State Party to request an investigation against itself. In contrast, a challenge inspection is a forward-looking approach that targets the actual facilities that manufacture and store chemical weapons. And any State Party that has doubts about another State Party's compliance with the CWC can request a challenge inspection.[110]

V. ARTICLE IX: CHALLENGE INSPECTION FRAMEWORK

Article IX of the CWC states:

> Each State Party has the right to request an on-site challenge inspection of any facility or location in the territory or in any other place under the jurisdiction or control of any other State Party for the sole purpose of clarifying and resolving any questions concerning possible non-compliance with the provisions of this Convention.[111]

Three of the most significant differences between the challenge inspection and the investigation into the alleged use of chemical weapons are the following: (1) a State Party need not wait until a chemical attack occurs before requesting a challenge inspection; (2) a challenge inspection is not restricted to inspecting only the site of the chemical attack; and (3) a State Party need only raise "questions concerning non-compliance by another State Party" in order to satisfy the standard required to request a challenge inspection under Part X of the Verification Annex.[112]

Under the challenge inspection framework, the 193 States Parties to the CWC are obligated by the principle of "anytime, anywhere inspections with no right of refusal."[113] This level of access is tempered by the right of the inspected State Party to apply "managed access" measures to protect national security by removing sensitive papers, displays, and equipment from the inspected locations.[114] Unlike the 6,600 routine on-site verification inspections that have occurred between April 1997 and October 2017 of facilities that States Parties have already declared, a challenge inspection provides an added level of spontaneity as it can be "launched against any site, whether declared or not, military or civilian, open or sensitive."[115] Furthermore, unlike the declared facilities which are being monitored by the OPCW, the undeclared facilities are the ones that are most likely to

110. CWC, *supra* note 22, art. IX, ¶ 2.

111. CWC, *supra* note 22, art. IX, ¶ 8.

112. Runn, *supra* note 59, at 646.

113. Andrea Salazar, *International Chemical Weapons Convention Treaty tested at JB Charleston*, DEF. VISUAL INFO. DISTRIB. SERV. (Feb. 1, 2019), https://perma.cc/VPL6-43HA.

114. CWC, *supra* note 22, Verification Annex, pt. X, ¶ 41.

115. Press Release, Org. for the Prohibition of Chem. Weapons, Trial Challenge Inspection Completed in the United States of America (Aug. 1, 2001), https://perma.cc/KDA9-HW2W [hereinafter Trial Challenge Inspection Completed].

be locations in which "proliferating countries may conduct clandestine illegal activities."[116] Challenge inspections also provide a "safety net in the event that a routine verification inspection fails" to uncover any definitive indications of non-compliance because it always leaves open the possibility of revisiting the same facility with "an unrestricted time frame on short notice.[117] However, in order to act as an effective deterrent, States Parties must show they are willing to use the challenge inspection mechanism.

A. Procedure for Requesting a Challenge Inspection

In order for a State Party to request a challenge inspection, the Verification Annex provides that the requesting State Party must first submit an "inspection request" to the Executive Council and the Director-General of the OPCW containing at least the following information: (a) the State Party to be inspected, (b) the point of entry to be used into the inspected State Party, (c) the size and type of the inspection site, (d) the concern regarding possible non-compliance with the CWC and information used in making the allegation of noncompliance, and (e) the name of the observer of the requesting State Party.[118]

In following this procedure, the United States would have been able to satisfy each of the required elements of a challenge request and thereby make a compelling case for a challenge inspection against Syria in April 2018. Starting with element (b), the point of entry is usually an international airport.[119] The United States could have proposed using the same undisclosed point of entry that was used by the FFM on April 16 to investigate the chemical attack in Douma.[120] Alternatively, the United States could have suggested using one of the following international airports as a point of entry: Damascus International Airport, Aleppo International Airport, or Bassel Al-Assad International Airport. After receiving the inspection request, the Director-General shall then dispatch an inspection team "as soon as possible" to the point of entry specified in the request.[121]

B. Negotiating a Perimeter Around the Inspected Site

According to the challenge inspection procedure as explained in the CWC's Verification Annex, the requesting State Party must submit a requested perimeter surrounding the site to be inspected.[122] Under paragraph 7 of Part X of the Verification Annex, the requesting State Party must designate the inspection site "as specifically as possible by providing a site diagram related to a reference point

116. Masahiko Asada, *The Challenge Inspection System of the Chemical Weapons Convention: Problems and Prospects*, *in* THE CHEMICAL WEAPONS CONVENTION: IMPLEMENTATION, CHALLENGES, AND OPPORTUNITIES 77 (Ramesh Thakur & Ere Haru, eds., U.N. Univ. Press 2006).

117. Tatsuya Abe, *Challenge Inspections Under the Chemical Weapons Convention: Between Ideal and Reality*, 24 NONPROLIFERATION REV. 167, 168, 181 (2017).

118. CWC, *supra* note 22, Verification Annex, pt. X, ¶ 4.

119. OPCW FACT SHEET 5, *supra* note 87, at 2.

120. Report of the 2018 Fact-Finding Mission, *supra* note 104, annex 3, at 37-38.

121. CWC, *supra* note 22, Verification Annex, pt. X, ¶ 13.

122. CWC, *supra* note 22, Verification Annex, pt. X, ¶¶ 7-8.

with geographic coordinates, specified to the nearest second if possible."[123] In addition, the requesting State Party must notify the Director-General of the inspection site far enough in advance so that the inspected State Party is provided with this information at least 12 hours prior to the planned arrival of the inspection team at the point of entry.[124]

The CWC provides further clarification that the perimeter consists of an "external boundary of the inspection site, defined by either geographic coordinates or description on a map."[125] As previous practice challenge inspections have indicated, and which is almost certainly to be expected in the event that one occurs, one of the most difficult aspects for the requesting State Party in conducting a challenge inspection is negotiating the perimeter of the inspection site with the inspected State Party.[126] It is not until the inspection team reaches the point of entry of the inspected State Party that negotiations actually commence "with the aim of reaching agreement on a final perimeter" of the inspection site.[127] In the likely event that the inspected State Party does not accept the perimeter proposed by the requesting State Party, the inspected State Party "shall propose an alternative perimeter as soon as possible, but in any case not later than 24 hours after the arrival of the inspection team at the point of entry."[128]

Had the United States requested a challenge inspection in April 2018 of the Barzah facility, for example, the United States would have likely requested a perimeter that encompassed the entire facility containing all three of its buildings.[129] Upon arrival of the inspection team at the designated point of entry, Syria would have likely proposed an alternate, much narrower, perimeter in order to limit the scope of the inspection. If Syria and the inspection team did not reach an agreement on the final perimeter within 24 hours of the inspection team's arrival, Syria would have been required to transport the inspection team to the alternative perimeter in order to further finalize negotiations.[130] If an agreement over the final perimeter still had not been reached after 72 hours of the inspection team's arrival at the alternative perimeter, the alternative perimeter would have been designated as the final perimeter.[131]

Based on the high degree of accuracy with which the United States, France, and United Kingdom conducted targeted airstrikes in Syria in order to mitigate harm to civilians, the United States and its allies would have likely been able to specify a requested perimeter for the inspection. According to his address to the

123. CWC, *supra* note 22, Verification Annex, pt. X, ¶ 7.

124. CWC, *supra* note 22, Verification Annex, pt. X, ¶ 6.

125. CWC, *supra* note 22, Verification Annex, pt. I, ¶ 21.

126. OPCW, *Challenge Inspection Exercise 2011*, YOUTUBE (Dec. 5, 2011), https://www.youtube.com/watch?v=3b_CDLDKkhE [hereinafter Challenge Inspection Exercise 2011].

127. CWC, *supra* note 22, Verification Annex, pt. X, ¶ 16.

128. CWC, *supra* note 22, Verification Annex, pt. X, ¶ 16.

129. *The Attack in Syria: Three Significant Structures at the Barzah Research and Development Site Were Damaged*, IMAGESAT INT'L (Apr. 14, 2018), https://perma.cc/8JU3-GCW2.

130. CWC, *supra* note 22, Verification Annex, pt. X, ¶ 21.

131. CWC, *supra* note 22, Verification Annex, pt. X, ¶ 20.

nation, President Trump stated that he "ordered the U.S. armed forces to launch *precision strikes* on targets associated with the chemical weapons capabilities of the Syrian dictator Bashar al-Assad."[132] The military also emphasized the effectiveness of the executed strikes in "significantly reduc[ing] the risk of collateral damage to civilians" as well as using a specific "attack profile" in order to mitigate the dispersal of chemical agents that were likely inside the facilities.[133] Thus, since the United States, French, and British forces were so "confident about the evidence"[134] they had in deciding to launch 76 missiles at the Barzah facility alone,[135] this certainly would have provided them with enough intelligence to pinpoint the exact geographic coordinates of the inspection sites under paragraph 7 of Part X of the Verification Annex.

The selection of a final inspection site perimeter, to be negotiated by the inspected State Party and the inspection team, is such a highly contentious interaction because the entire premise of the challenge inspection is that, "one state party is challenging another state party that you are not doing your obligation under an international convention which you have signed."[136] Not surprisingly, the inspected State Party whose compliance is being called into question is "going to feel very offended."[137] In planning for negotiations with the inspected State Party, the inspection team may have to deal with one of the following scenarios: (1) a State Party that actually has been in compliance with the CWC is so offended by the accusations that it wants to make any negotiations with the inspection team as difficult as possible, or (2) a State Party has been violating the CWC and therefore has little regard for the CWC framework and is unlikely follow the rules of a challenge inspection and may cause unnecessary delays to prevent an inspection that will reveal its noncompliance.[138] Either way, "the most probable scenario" is that the inspection team will be dealing with a "non-cooperative inspected State Party."[139]

For example, the inspection team may face an inspected State Party that wants to reduce the size of the proposed perimeter in order to prevent the team from entering certain areas. Alternatively, the inspected State Party may want to expand the perimeter to such an extent that it would keep inspectors away from sensitive buildings during the perimeter monitoring phase.[140] Additionally, an inspected State Party may also try to dilute the inspection site by proposing a

132. *Profile: Bashar al-Assad: President Assad Has Ruled Syria With an Iron Fist for Nearly Two Decades. We Take a Look at His Life and Legacy*., AL JAZEERA (Apr. 17, 2018), https://perma.cc/RW89-GWCK (emphasis added).

133. April 2018 Pentagon Press Briefing, *supra* note 26.

134. April 2018 Pentagon Press Briefing, *supra* note 26.

135. April 2018 Pentagon Press Briefing, *supra* note 26.

136. Challenge Inspection Exercise 2011, *supra* note 126.

137. Challenge Inspection Exercise 2011, *supra* note 126.

138. *See* Challenge Inspection Exercise 2011, *supra* note 126.

139. Challenge Inspection Exercise 2011, *supra* note 126.

140. Jonathan B. Tucker, *The Conduct of Challenge Inspections Under the Chemical Weapons Convention*, *in* PROCEEDINGS OF AN EXPERT WORKSHOP HELD ON MAY 29-31, 2002, IN WASHINGTON, D.C., at 25 (2002), https://perma.cc/7K5F-ZB7W.

larger perimeter in order to provide more locations in which it can hide incriminating objects from buildings of concern.[141] Absent specific intelligence about which buildings are of concern, a perimeter that is too large may result in a "needle in the haystack" problem for inspectors.[142]

As a result, the requesting State Party will have to anticipate that the inspection team will face difficult negotiations and therefore prepare in such a way as to minimize any possibility of a delay. One way of combating unnecessary delays may be for the inspection team to have alternative perimeters selected in advance of the perimeter negotiations for when the inspected State Party inevitably does not accept the requested perimeter. Neither Article IX nor Part X of the Verification Annex place a limit on the number of perimeters that can be requested at one time. Preparing multiple perimeters and inspection sites in advance for the inspected State Party to choose from could minimize some of the time-consuming back-and-forth negotiations that would otherwise ordinarily take place and help streamline this process.

C. Areas of Disagreement Over the Operation of a Challenge Inspection

Member States largely disagree over whether the requesting State Party must satisfy any prerequisites prior to the request of a challenge inspection according to the CWC.[143] This disagreement primarily boils down to the varying interpretations of Article IX, paragraphs 2 through 7, which state, in part, "[w]ithout prejudice to the right of any State Party to request a challenge inspection, *States Parties should, whenever possible, first make every effort to clarify and resolve*, through exchange of information and consultations among themselves, any matter which may cause doubt about compliance with this Convention."[144]

In issuing a challenge inspection against Syria, Syria would likely argue for the same interpretation of this CWC provision as its allies, China, Iran, and Russia have in the past. This interpretation states that a State Party can only request a challenge inspection "after all bilateral and multilateral consultative procedures for resolving compliance questions have been exhausted."[145] However, if Syria were to respond to a challenge inspection by arguing that the United States and its allies must first exhaust all consultative measures, the United States could use the text-based and legislative-history-based interpretation put forth by the European Union as to why exhausting those measures is not a prerequisite. According to the EU, the first clause of paragraph 2 that begins by stating, "[w]ithout prejudice to the right of any State Party to request a challenge inspection," is synonymous with saying "without diminishing,

141. *Id.*
142. *Id.*
143. Asada, *supra* note 116, at 92.
144. CWC, *supra* note 22, art. IX, ¶ 2 (emphasis added).
145. Jonathan B. Tucker, *The Chemical Weapons Convention: Has It Enhanced U.S. Security?*, ARMS CONTROL ASS'N (Apr. 2001), https://perma.cc/D988-BN54.

affecting, or detracting from an existing right."[146] Thus, despite the suggestion that States Parties should make an effort when possible to clarify and resolve noncompliance issues, the treaty drafters explicitly sought to ensure that no State Party is deprived of its right to request a challenge inspection when consultative measures would be infeasible or ineffective.

The European Union also pointed to the negotiation record of the CWC to demonstrate that the text of the treaty was changed to indicate that the request for clarification was not an obligatory first step. According to the record, the original text of Article IX, paragraph 2 was changed from, "States Parties *shall* make every effort" to the less assertive language, "*should*, whenever possible, first make every effort."[147] Therefore, while the text of the Convention does indicate that requesting clarification is a possible prelude to a challenge inspection in order to first clarify or resolve any potential issues of noncompliance, the text makes clear that it merely "encourages, but does not oblige" States Parties to use bilateral or multilateral consultative mechanisms as a prerequisite to issuing a challenge inspection.[148] Had the United States requested a challenge inspection in April 2018, or if it issues one in the future, this is the interpretation of the treaty for which it should have argued, and still should argue going forward.

D. Potential Concerns with Issuing a Challenge Inspection

Although the inspected State Party cannot legally refuse a challenge inspection under the CWC,[149] a three-quarters majority of the OPCW Executive Council can vote to block the request within 12 hours of receiving it if it considers the inspection request to "be frivolous, abusive or clearly beyond the scope of this Convention."[150] This, however, seems highly unlikely. In order to ensure that a request for a challenge inspection is not blocked, the requesting State Party would need to secure at least a quarter of the majority, eleven Member States, from the forty-one-member Executive Council. Based on the statements of at least twelve Member States that both condemned Syria's use of chemical weapons and supported the U.S.-led coalition airstrikes against Syria, a three-quarters majority of the OPCW Executive Council is unlikely to block the request.[151] Nonetheless, given the Syrian regime's history of noncompliance with the CWC, there is also a likely possibility that Syria will illegally but successfully block a challenge inspection. For example, the Assad regime might flat-out refuse to participate in any perimeter negotiations with the inspection team and refuse to provide access

146. Abe, *supra* note 117, at 173.
147. Abe, *supra* note 117, at 174.
148. OPCW FACT SHEET 5, *supra* note 87.
149. Trial Challenge Inspection Completed, *supra* note 115.
150. CWC, *supra* note 22, art. IX, ¶ 17.
151. The twelve Member States on the OPCW Executive Council that are likely to support a request for a challenge inspection against Syria include: The United States, United Kingdom, France, Saudi Arabia, Canada, Turkey, South Korea, Germany, The Netherlands, Denmark, Japan, and Portugal.

to any inspection sites. Such a situation would be detrimental to any future effectiveness of the challenge inspection regime.

There is also a concern that Syria will respond to a challenge inspection by requesting a retaliatory challenge inspection of its own against the requesting State Party.[152] In order to alleviate this concern, the requesting State Party, such as the United States, should establish a coalition with several other States Parties and jointly request a challenge inspection against Syria. In doing so, responsibility for requesting the inspection would be diffused and no single State Party would be viewed as being individually responsible. This reduces the risk that any single State Party would receive a retaliatory inspection. In the event that Syria does respond by requesting a challenge inspection either against one of the requesting States Parties or against all of the requesting States Parties, such a request would likely be blocked by the Executive Council. Absent any evidence, or at least credible evidence, that a State Party is violating the CWC, the Executive Council would likely view such a retaliatory request by Syria as frivolous, abusive, and beyond the scope of the CWC.[153]

Under Part X of the Verification Annex, the requesting State Party is required to provide "all appropriate information on the basis of which the concern" of non-compliance of another State Party has arisen.[154] As a result, there is also a risk that the requesting State Party or States Parties will have to disclose confidential intelligence sources in order to verify the basis of their concerns.[155] For example, in response to public allegations the United States made in 2000 that Iran was continuing to produce chemical weapons and possessed "several thousand metric tons of weaponized and bulk agent" in violation of the CWC, the United States never followed up on its allegations by requesting a challenge inspection.[156] Jonathan Tucker, former director of the Chemical and Biological Weapons Nonproliferation Program in Washington, D.C., postulated that the United States may have been reluctant to disclose sensitive intelligence information on which it based its assessment of Iran's noncompliance.[157]

The situation in Syria today is quite different from Iran for a number of reasons, namely the rapid rise in the use of technology and social media. There are thousands of videos taken by victims' phones inside Syria that have been posted all over social media which clearly depict the use of chemical weapons against innocent civilians. As a result, there is ample public information on which a requesting State Party can base its claim of Syria's noncompliance without having to disclose any sensitive intelligence sources. Many prominent figures have also been active on social media in discussing the substantial evidence that the Syrian government launched chemical attacks against its own people. For

152. Asada, *supra* note 116, at 89.
153. CWC, *supra* note 22, art. IX, ¶ 17.
154. CWC, *supra* note 22, Verification Annex, pt. X, ¶ 4(d).
155. Asada, *supra* note 116, at 90.
156. Tucker, *supra* note 140.
157. Tucker, *supra* note 140.

example, one tweet by Lithuania's mission to the UN stated, "Connect the dots: @OPCW sure chlorine used in #Syria, witnesses saw it dropped by helicopters, which only Assad has. Who's responsible?"[158] With the breadth of publicly available information, the United States and other requesting States Parties would not have to disclose sensitive intelligence in requesting a challenge inspection against Syria.

There is still a very real possibility that even with highly reliable intelligence, a challenge inspection in Syria may not reveal evidence of suspected non-compliance. Assad would likely use the absence of a finding of evidence as an opportunity to discredit the OPCW, the challenge inspection regime, and reinforce his claims against any allegations of wrongdoing. As a result, "a challenge inspection might serve as a means to declare the 'innocence' of a suspected State Party even when it is still being doubted by other States Parties."[159]

However, the absence of evidence does not exonerate Assad by any means. A challenge inspection that fails to uncover a smoking gun does not prevent a State Party from requesting another challenge inspection in the future. The CWC does not place a limit on the number of challenge inspection requests that a State Party may request or receive. According to Masahiko Asada, a professor of international law at the Graduate School of Law in Kyoto,[160] there is "no quota or limit system applicable to the number of inspections that a State Party of a facility may receive. Nor is there any quota or limit to the number of inspections that a State Party may request."[161] According to Article X, paragraph 9, "Each State Party shall refrain from unfounded inspection requests, care being taken to avoid abuse."[162] Therefore, as long as a State Party is able to present "appropriate information on the basis of which the concern [of non-compliance] has arisen," it can continue to request challenge inspections until it either uncovers actual evidence of non-compliance or it feels confident that there is no longer a concern of non-compliance.[163]

VI. REQUESTING A CHALLENGE INSPECTION AGAINST SYRIA

Images of chemical attacks in Syria have largely disappeared from the headlines for the first time in over eight years.[164] U.S.-backed fighters in Syria have declared victory over the Islamic State.[165] According to Jean Pascal Zanders, author of The Trench:

158. *Syria Discloses Four Secret Chemical Weapons Facilities, UN Says*, THE GUARDIAN (Oct. 7, 2014, 1:48 PM), https://perma.cc/TR38-BQZU.

159. Asada, *supra* note 116, at 76.

160. *Faculty Directory*, UNITED NATIONS: OFFICE OF LEGAL AFFAIRS: AUDIOVISUAL LIBRARY OF INT'L LAW, https://perma.cc/SG37-JFDW.

161. Asada, *supra* note 116, at 79.

162. CWC, *supra* note 22, art. X, ¶ 9.

163. CWC, *supra* note 22, Verification Annex, pt. X, ¶ 4(d).

164. Derek Stoffel, *Syria Is Out of the Headlines After 8 Years of Brutal War, but People Still Die Every Day*, CBC NEWS (Mar. 15, 2019, 4:00 AM), https://perma.cc/MCZ4-FP65.

165. Linda Givetash, *ISIS Defeated say U.S.-Backed Forces, Declaring Total Victory in Syria*, NBC NEWS (Mar. 23, 2019), https://perma.cc/6X9S-A7RS.

> States tend to resolve these types of conflicts at the lowest levels of consensus. The war in Syria is coming to an end, and there is eventually going to be restoration of compliance with the CWC for Syria without a formal decision or resolution condemning the country for its past chemical weapon use. States do not wish to rock the boat, and they want to return to business as usual.[166]

There is some concern that requesting a challenge inspection now, when the situation in Syria appears to be quieting down, may be counterintuitive and trigger a hostile reaction by the Assad regime. However, those who violate the CWC must be held accountable if the CWC is to remain an effective deterrent against the use of chemical weapons. The reduction in fighting in Syria might also make it easier for an inspection team to conduct a thorough inspection of sites that had previously been inaccessible due to safety concerns.

Chemical weapons are not easy to erase without a trace. Even if the machinery used to produce chemical weapons can be concealed from plain sight, the remnants of the chemical agents themselves last in the environment for years.[167] For example, even if chlorine decomposes rapidly in the environment, the gas itself and its decomposition products react with organic materials and metals in the environment that leave long-lasting chemical signatures of chlorine exposure.[168] A challenge inspection may still uncover chlorinated derivatives in wood and textile samples, concrete, and soil that are not naturally present in the environment, such as chloral hydrate.[169] Finding these types of derivatives that are only generated from a reaction with a chlorine species would suggest past exposure to chlorine gas and provide compelling evidence of non-compliance.[170]

While the likelihood of detecting chemical agents is a highly technical question that would depend on the types of chemicals used, the locations in which the samples are taken, and types of detection devices used, U.S. intelligence indicates that there are still chemical weapons scattered around Syria waiting to be found.[171] Following the April 2018 airstrikes on the Barzah and Him Shinshar facilities, although U.S. officials assessed that the strikes degraded Syria's chemical weapons capability, officials also stated that a "large quantity of the chemical weapons was stored elsewhere."[172] In fact, U.S. officials determined that available intelligence indicated "Assad's stock of chemicals and precursors was believed to be scattered far beyond the three targets."[173] Some of it is even

166. *Id.*
167. Broad & Chivers, *supra* note 74.
168. Report of the 2018 Fact-Finding Mission, *supra* note 104, ¶ 8.9.
169. Report of the 2018 Fact-Finding Mission, *supra* note 104, ¶ 8.14.
170. Report of the 2018 Fact-Finding Mission, *supra* note 104, ¶ 8.14.
171. John Walcott & Phil Stewart, *Despite Strikes, Syria's Assad Can Still Wage Chemical Attacks: U.S. Sources*, REUTERS (Apr. 18, 2018, 10:01 PM), https://perma.cc/7QUE-EJNF.
172. *Id.*
173. *Id.*

believed to be stored in schools and civilian apartment buildings.[174] As a result, it is certainly not too late to request a challenge inspection against Syria.

CONCLUSION

Past attempts to impede the Assad regime's chemical weapons program as well as deter the future use of chemical weapons have largely proved ineffective. When the United States, France, and Britain proposed that the UN impose sanctions against the Syrian government over the alleged use of chlorine or tried to refer the situation to the International Criminal Court, Russia and China have repeatedly used their UN Security Council veto power to block such proposals as a way to protect their Syrian ally.[175] Additionally, Russia vetoed an extension of the OPCW-UN Joint Investigative Mechanism's (JIM's) mandate which was established to identify the "individuals, entities, groups or Governments perpetrating, organizing, sponsoring or otherwise involved in the use of chemicals as weapons in Syria."[176] This was most likely due to Russia's dissatisfaction with the JIM's findings that Syria was guilty of violating international law.[177] The United States has also previously imposed economic sanctions against 271 SSRC employees and senior regime officials[178] and even resorted to military action.

The Assad regime's use of industrial chlorine barrel bombs after acceding to the CWC is the first-ever documented case of a CWC member using chemical weapons.[179] This has left the international community in uncharted territory in which the path forward remains unclear. The most effective path forward would be to utilize the challenge inspection framework that was included in the CWC for this exact purpose. As Jonathan Tucker rightfully stated, "[t]he longer the challenge inspection mechanism remains unused, the more politically charged the process will become and the greater the burden of proof the requesting state will have to bear."[180] If States Parties do not take advantage of the challenge inspection framework and use it exactly in the way for which it was intended, "this powerful tool will lose all credibility."[181] Now is the time for the United States to join with its allies and request the first ever challenge

174. *Id.*

175. *See* Press Release, U.N., Double Veto Prevents Security Council from Adopting Draft Resolution Intended to Impose Sanctions for Use of Chemical Weapons in Syria (Feb. 28, 2017), https://perma.cc/PJ53-ZTS5; Michelle Nichols, *supra* note 5.

176. Press Release, U.N., Security Council Unanimously Adopts Resolution 2235 (2015), Establishing Mechanism to Identify Perpetrators Using Chemical Weapons in Syria (Aug. 7, 2015), https://perma.cc/H435-WK9G.

177. Daryl G. Kimball, *Hold Syria Accountable on the CWC*, ARMS CONTROL ASS'N (Nov. 2016), https://perma.cc/JA8Q-6JR3.

178. Press Release, U.S. Dep't of the Treasury, Treasury Sanctions 271 Syrian Scientific Studies and Research Center Staff in Response to Sarin Attack on Khan Sheikhoun (Apr. 24, 2017), https://perma.cc/9UCW-HZVG.

179. Kimball, *supra* note 177.

180. Tucker, *supra* note 140.

181. Tucker, *supra* note 140.

inspection in order to prevent any further use of chemical weapons by the Assad regime and to reinforce the international norm against using such weapons. As Daryl Kimball, Executive Director of the Arms Control Association, stated, "[c]hemical Weapons belong in a history book, not on the front page of newspapers."[182]

182. *'Everyone Has a Lot at Stake': A Q&A with Fernando Arias, the New Director-General of the Organisation for the Prohibition of Chemical Weapons*, ARMS CONTROL ASS'N (Oct. 2018), https://perma.cc/VW29-NMP8.