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# PROCEEDINGS

## Controlling Chemical Weapons in the New International Order

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The rules-based international order is under increasing assault, with significant implications for the Chemical Weapons Convention (CWC) and its implementing arm, the Organization for the Prohibition of Chemical Weapons (OPCW).

Russia, derided as a declining power, is conducting a full-scale invasion of Ukraine to reclaim it for a new Russian empire<sup>1</sup> and manipulating Western nations' fear of nuclear war to deter those nations' direct military intervention.<sup>2</sup> Russia's invasion may prove to be a grave strategic error as it has exposed and exacerbated that country's military weaknesses and given Western nations greater purpose and unity, but governments representing the majority of the world's population, including China predictably but India more surprisingly, have been neutral or tolerant toward this aggression.<sup>3</sup> China, the preeminent rising power of the 21<sup>st</sup> century, is aggressively asserting territorial claims over Taiwan, the South China Sea, Japanese-administered islands in the East China Sea, and portions of India. Russia and China work together to challenge U.S. primacy.<sup>4</sup> Iran exploits America's increasing preoccupation with Russia, China, and its own domestic divisions to expand its sway in the Middle East and advance the means to construct its own nuclear arsenal, should it choose to do so. Though Russia and China joined the Western powers in opposing Iran's development of

nuclear weapons,<sup>5</sup> they more often find common ground with Iran in opposing those powers, including at the OPCW. North Korea continues to grow its nuclear arsenal and the means to deliver it.<sup>6</sup>

The United States and its Western allies endeavor to maintain primacy as they contend with more capable, assertive, and disruptive foes; however, they together are becoming just another major bloc in a more anarchic world order than the one they aspired to build after World War II and to bring to fruition following the Cold War's end. What does this new international order hold for the prohibition of chemical weapons? Can the CWC and OPCW endure, *de facto* or even *de jure*? Can they evolve to remain a meaningful force to prohibit or at least control chemical weapons? This paper focuses on the challenges posed by Russia, China, and Iran at the OPCW.<sup>7</sup>

### Historical Context

International efforts to prohibit chemical weapons predate the 20<sup>th</sup> century. The 1675 Strasbourg Agreement bound France and Germany not to use poison bullets.<sup>8</sup> The 1899 Hague Convention's Declaration Concerning Asphyxiating Gases banned "the use of projectiles the sole object of which is the diffusion of asphyxiating or deleterious gases."<sup>9</sup> Its limits were exposed during World War I when Germany employed types of chemical weapons that it deemed

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not covered by the Declaration, leading to large-scale use of various types of chemical weapons by belligerents on both sides.<sup>10</sup>

The horrific yet indecisive use of chemical weapons during World War I led to a ban on the use of any type of chemical (and bacteriological) weapon in warfare as part of the 1925 Geneva Protocol. However, not all the major powers of the time fully joined the agreement—notably, the United States and Japan each signed in 1925 but would not ratify the agreement until the 1970s.<sup>11</sup> Most of those that did ratify the Protocol reserved the right to use chemical weapons against states that were not parties to the accord or to respond in kind if attacked with chemical weapons.<sup>12</sup> During the mid-1930s, Italy used chemical weapons against Abyssinia although both states belonged to the Protocol.<sup>13</sup> During World War II, chemical weapons were not used in Europe but Japan employed them against China, which would not accede to the Protocol until 1952.<sup>14</sup>

During the Cold War, the United States and the Soviet Union built large and more advanced chemical warfare arsenals, incorporating the G-series nerve agents that Germany had developed shortly before and during World War II and creating their own V-series agents.<sup>15</sup> However, neither superpower is known ever to have employed any of those arsenals. Chemical weapons proliferated widely during this period, especially in the Middle East, where Egypt, Iran, Iraq, Libya, and Syria acquired their own arsenals.<sup>16</sup> And Egypt used chemical weapons against Yemeni rebels during the Yemen Civil War in the 1960s.<sup>17</sup>

U.S. allegations of chemical weapons use in Indochina and Afghanistan during the 1970s led to the establishment by the United Nations General Assembly (UNGA) of an ad hoc Group of Experts to Investigate Reports on Alleged Use of Chemical Weapons, under the auspices of the United Nations (UN) Secretary-General, to investigate them. The associated UNGA resolution was passed over the opposition of Vietnam, Laos, Afghanistan, and the Soviet Union, among others, and the associated investigations were handicapped by those countries' lack of cooperation. The Group of Experts was not able to draw definitive conclusions about the use of chemical weapons in Indochina and Afghanistan.<sup>18</sup>

The most extensive chemical weapons use, akin to the large-scale battlefield employment in World War I, occurred during the Iran-Iraq War of 1980–1988. The Iraqi regime of Saddam Hussein also employed chemical weapons against its own people, initially its Kurdish minority, most infamously at Halabja on March 16, 1988, and later to suppress an uprising among Shiite Arab citizens immediately following the Gulf War.<sup>19</sup>

Chemical weapons use during the Iran-Iraq War prompted a number of investigations by the UN Secretary-General, some initiated by him pursuant to his broad authority under the UN Charter rather than by any UNGA or UN Security Council (UNSC) mandate, which confirmed extensive use during the war.<sup>20</sup> It also led to the establishment by the UNGA of what is now known as the Secretary-General's Mechanism for Investigation of Alleged Use of Chemical and Biological Weapons (UNSGM), an enduring mechanism to which member states nominate experts and analytical laboratories that may be called upon to support a UNSGM investigation. In addition to investigating use in the Iran-Iraq War, the UNSGM investigated in 1992 allegations of chemical weapons use in Mozambique and Azerbaijan but was unable to confirm those allegations.<sup>21</sup>

The extensive use of chemical weapons during the Iran-Iraq War lent impetus to international efforts that had begun in 1968 to strengthen the ban on chemical as well as biological weapons. The Biological and Toxin Weapons Convention, negotiated in the relatively brief period of 1969–1972, explicitly enjoined its members to negotiate a more robust agreement to prohibit chemical weapons.<sup>22</sup> More proliferated and integrated into war plans than biological weapons, chemical weapons proved a harder subject for negotiation. The dramatically changed and more benign international environment of the early post-Cold War period, however, enabled the long-stalled negotiations to culminate in the CWC, which entered into force in 1997.<sup>23</sup>

With the establishment of the CWC, the OPCW became the focal point for investigations of alleged chemical weapons use involving states parties, and the UNSGM is now primarily seen as a tool for investigating allegations of biological weapons use.<sup>24</sup> The UNSGM was last utilized to investigate allegations of chemical weapons use in 2013 after Syria, then outside the CWC, requested the mechanism be employed to investigate allegations of chemical weapons use in the Khan al-Asal area of Syria's Aleppo Governorate. The UNSGM inspection team, however, would end up also investigating two other alleged uses of chemical weapons in Syria that year, including the large-scale, highly lethal use of sarin in Ghouta in August that is widely understood to have been perpetrated by the Syrian regime, though the UNSGM did not attribute responsibility for the attack.<sup>25</sup>

## Contemporary Situation

During the CWC's first 15 years, no states parties were known to have used chemical weapons, and substantive decisions

rarely were taken at the OPCW except by consensus,<sup>26</sup> as the CWC explicitly encourages.<sup>27</sup> The OPCW facilitated the accession of several additional states to the Convention, most notably Libya and Iraq;<sup>28</sup> oversaw the destruction of states parties' declared chemical weapons stockpiles;<sup>29</sup> and conducted thousands of routine inspections under the CWC's verification provisions.<sup>30</sup> The OPCW had its share of contentious issues and rancor among states parties but consistently found common ground. The United States and Russia even managed to broker an arrangement in response to the August 2013 sarin attack in Ghouta—the most consequential use of chemical weapons since 1991<sup>31</sup>—to avert Western military action against the Syrian regime, bring Syria into the CWC, and destroy the chemical weapons that Syria declared as part of CWC accession.<sup>32</sup>

The Syrian regime's continued use of chemical weapons following its CWC accession would end the OPCW's ability to make all major decisions by consensus.<sup>33</sup> Russia's concerted efforts to shield its Syrian ally from responsibility and consequence for repeated, blatant violation of the most fundamental obligation of every CWC states party, and the support Russia received in doing so from China and Iran, among others, made it impossible for other CWC states party to hold Syria to account without an open break with Syria's enablers.<sup>34</sup>

In 2016, the OPCW's Executive Council (EC) adopted by majority vote a decision concerning the inspection of certain sites in Syria associated with chemical weapons use.<sup>35</sup> The vote was 28 for (including the United States and its Western allies sitting on the EC at that time), four against (Russia, China, Iran, and Sudan), and nine abstentions.<sup>36</sup> In 2018, the fourth special session of the OPCW's Conference of the States Parties (CSP) established by majority vote the Investigation and Identification Team (IIT) to attribute responsibility for certain instances of chemical weapons use in Syria.<sup>37</sup> The decision was adopted with 82 votes for (including the United States and its Western allies) and 24 against (including Russia, China, and Iran).<sup>38</sup> Over the next 3 years and at an accelerating rate, the OPCW's policy bodies took 10 additional decisions (4 in the EC and 6 at the CSP) by majority vote over the opposition of Russia, China, and Iran, including the CSP's April 21, 2021, decision to suspend Syria's rights and privileges under the CWC.<sup>39</sup> Majority voting also extended beyond Syria-related policy issues. Five of those votes were on the OPCW's annual budgets,<sup>40</sup> one was on the organization's annual report on the implementation of the Convention,<sup>41</sup> and another adopted an understanding that the aerosolized use of central nervous system-acting chemicals (CNSAC) for law enforcement purposes is inconsistent with the CWC.<sup>42</sup>

Russia, China, and Iran assert that majority voting on substantive matters at the OPCW is contrary to the intent of, and highly damaging to, the Convention and organization.<sup>43</sup> They contend that the decisions to establish the IIT and regarding CNSAC are beyond the scope of the Convention as it currently exists and would require amendments to the agreement to be valid.<sup>44</sup> Russia further holds that empowering any organ of the OPCW to attribute responsibility for chemical weapons use infringes upon the authority of the UNSC.<sup>45</sup> As amending the Convention requires a positive vote by the majority of states parties and no negative votes, the procedure would give dissenting parties a veto.<sup>46</sup> Russia, China, and Iran also have criticized the decision to suspend Syria's rights and privileges as the product of an effort by Western nations politically biased against Syria to advance their own interests and one that fails to take adequate consideration of Syria's extensive efforts to address concerns about its alleged chemical weapons program, often citing the number of reports Syria has submitted to the Technical Secretariat and disregarding the substance of those reports and the copious evidence of Syria's noncompliance.<sup>47</sup>

Adding insult to injury regarding the purpose and workings of the CWC and OPCW, Russia was directly implicated<sup>48</sup> in the use of *Novichok* nerve agents in two assassination attempts, one against a former Russian agent in 2018 in Salisbury, England, and the other against contemporary Putin regime opponent Alexei Navalny in Tomsk, Russia, in 2020. Russia has denied involvement in both cases but the evidence of its responsibility is compelling, especially in the Salisbury case where United Kingdom (UK) authorities and OPCW inspectors had direct access to the crime scene.<sup>49</sup> In the Navalny case, German authorities were able to ascertain that he was poisoned by a *Novichok* agent because Russia allowed him to be evacuated to Germany for treatment.<sup>50</sup> Moscow, however, has denied the OPCW and others access to Russia to investigate the scene of the poisoning. Russia also has not directly answered questions about the Navalny poisoning that were submitted jointly by 45 states parties under Article IX of the Convention.<sup>51</sup> Moscow asserts that the allegations of its responsibility by the UK, United States, and 56 other countries at the OPCW are unfounded and politicized. It says that the OPCW, UK, and Germany, among others, have refused to disclose all they know about the cases and to cooperate with Russia to determine what occurred.<sup>52</sup> Iran has not addressed the Navalny poisoning, while China has only called for a constructive and cooperative approach to it.<sup>53</sup>

Following the Salisbury poisonings but before the Navalny one, the CWC states parties did find their way to a consensus decision

to add two families of Novichok agents and another individual Novichok agent, as well as elements of a different class of agents known as carbamates, to the Convention's Annex on Chemicals.<sup>54</sup> This was a significant achievement. It was the first time that the Schedules had been amended.<sup>55</sup> It also formally recognized new classes of chemical agents, providing the basis for the OPCW's Technical Secretariat to adjust its equipment and procedures to monitor for those agents during its inspections and for information to be shared with states parties to help them to recognize and protect against those agents. No such consensus achievement would follow the Navalny poisoning, however, which only served to deepen the rift at the OPCW between the Western nations and Russia and its supporters.

The use of Novichoks or other chemical agents for assassination<sup>56</sup> is clearly different from the battlefield use of chemical weapons that drove the nonproliferation efforts culminating in the CWC; however, the use of chemical agents for assassination or in other small-scale scenarios is just as prohibited by the CWC as battlefield employment and it erodes the norm against using such weapons.

There is greater evidence to suggest that Russia, China, and Iran are more interested in chemical agents for small-scale operations, such as special operations, counterterrorism, counterinsurgency, or domestic riot control (beyond the CWC-permitted use of riot control agents), than for large-scale, battlefield use.<sup>57</sup> Recent public U.S. intelligence assessments do not highlight those three nations as posing significant military chemical weapons threats.<sup>58</sup> The United States, however, has expressed concern that those three countries are pursuing pharmaceutical-based agents (PBAs) for offensive purposes.<sup>59</sup>

PBAs are chemicals that are authorized and used for legitimate medical purposes, such as fentanyl, ketamine, and medetomidine, but also could be utilized as chemical weapons. Developed or applied as anesthetics, analgesics, or calmatives, PBAs are more amenable to low-lethal applications than traditional chemical warfare agents. However, PBAs can be lethal in uncontrolled settings, and some are as toxic as nerve agents. Prior to the CWC, several countries, including the United States, investigated some PBAs as nonlethal agents for military and law enforcement use. The United States never discovered a PBA formulation that was reliably safe for nonlethal employment, nor did it develop a PBA-based chemical weapon. In contrast, Russia employed fentanyl analogues—types of PBAs—to resolve a Chechen terrorist hostage situation at a

Moscow theater in 2002, rescuing more than 700 hostages but causing the deaths of nearly another 130 from fentanyl exposure.<sup>60</sup>

Recognizing that different states can define acceptably low-lethal outcomes differently, the low-lethal applications of PBAs may have appeal to some states for law enforcement and some counterterrorism and counterinsurgency operations where their preference is to subdue rather than to kill. Low-lethal applications also may have appeal for military operations in the “gray zone,” where the objective is to gain advantage without provoking open, armed conflict.<sup>61</sup> In that regard, it is notable that of the hundreds of chemical weapons uses attributable to the Syrian regime over the last decade, the vast majority resulting in no or only a few fatalities, only the several highly-lethal chemical weapon attacks (Eastern Ghouta in 2013, Khan Shaykhun in 2017, and Douma in 2018) provoked the direct threat or actual use of military force by Western nations.<sup>62</sup>

Today, only North Korea, which is not a CWC states party, and, to a more limited extent, Syria, are understood to have chemical weapons capabilities primarily postured for battlefield use.<sup>63</sup> Yet, it cannot be ruled out that Russia, China, or Iran currently have or in the future could manifest the intent to apply their chemical weapons capabilities also to military uses, possibly on a large scale. One of the rationales that the United States used in advocating for the CSP's CNSAC decision was that tolerating the use of CNSAC for law enforcement purposes could provide cover to disingenuous nations to openly develop, produce, stockpile, and train with chemical agents that can be as lethal as traditional chemical warfare agents.<sup>64</sup> Russia also has shown that it still possesses and is willing to use Novichok agents, a class of nerve agents originally developed for the Soviet Union's large-scale military chemical weapons program.

## What the Future May Bring

The breakdown of consensus at the OPCW in the last decade over substantive issues is reflective of a more contentious security environment in which Russia, China, and Iran are aggressively challenging the norms and rules of a U.S.-led international order. The authors observed in their 2014 paper on the future of weapons of mass destruction that arms control and nonproliferation agreements are not immutable but are products of their time and subject to change or dissolution as times change. They also noted that the United States and its Western allies have been the driving force in establishing, promoting, and enforcing contemporary nonproliferation agreements. They anticipated that as other major state

actors with different interests, values, and records of supporting and complying with nonproliferation agreements gained a bigger share of global power, these agreements would come under greater pressure. This is what has occurred in recent years, as detailed in their 2021 update of the 2014 paper.<sup>65</sup>

It is worthwhile to consider how an increasingly assertive and disruptive Russia, China, and Iran will impact the utility and function of the CWC and OPCW going forward. They have stated that recent decisions taken by majority vote are not legitimate and have fervently called for a return to consensus decisionmaking on substantive matters. They, along with Syria, have even stated about the recent CNSAC decision, “We do consider the decision as an *ultra vires* act which goes beyond the powers and functions of the Policy-Making Organs of the OPCW, [and] so could not have any legal effect(s) on the States Parties’ rights and obligations under the Convention.”<sup>66</sup> In this statement, they also contend that the CNSAC decision should have followed the procedures for amending the Convention. As such, they are claiming a continued right to employ CNSAC agents and to define which toxic chemicals are permitted under the Convention’s law enforcement provision.<sup>67</sup> In addition, Russia has criticized the CNSAC decision for failing to adequately define which chemicals constitute CNSAC and proposed the formation of an expert group to agree on a list of these substances.<sup>68</sup>

Other countries, especially those in the Non-Aligned Movement,<sup>69</sup> also have decried the adoption of majority voting, agreeing that it threatens to undermine the “technical nature” of the OPCW. However, it appears that Russia, China, and Iran have lost support in both the EC and the CSP during the past several years. Whereas in 2018, 21 other states parties joined them in voting at the CSP against the decision to establish the IIT (26 others abstained), only 12 did so in 2021 to oppose suspending Syria’s rights and privileges under the CWC (34 others abstained), and 7 later that same year against the CNSAC decision (33 others abstained). Similarly, they progressively lost support at each CSP between 2019 and 2021 in failed bids to block the annual OPCW programme and budget.<sup>70</sup> While many countries would prefer to return to consensus decisionmaking, they apparently did not consider that more important than opposing chemical weapons use, constraining new chemical weapons threats, and keeping the OPCW operating.<sup>71</sup>

It is not clear how far Russia, China, and Iran intend to take their argument against majority voting in general and against the specific decisions arising from it. If they conclude that the political costs of further defying the CWC and OPCW exceed the security opportunities afforded by such defiance, they may continue to decry

decisions taken by majority voting over their opposition but abide, at least outwardly, by those decisions. If this is the case, the OPCW could continue to function largely as provided for in the CWC.

It is possible, though, that Russia, Iran, and less likely, China will refuse, in word and deed, to abide by majority voting decisions with which they disagree. Russia already has flouted by deed its most fundamental CWC obligation by twice employing Novichok agents, and the United States has found Russia in noncompliance with the Convention as a result thereof, as well as for other, earlier transgressions. Russia also has shown disdain for the Convention by shielding and even enabling Syria in the latter’s blatant violations; indeed, the United States recently expressed its concern that Russia assisted Syria in the latter’s use of chlorine against Douma in April 2018.<sup>72</sup> The United Kingdom has joined the United States in publicly declaring that Russia is in violation of the Convention,<sup>73</sup> and other countries have noted that Russia’s failure to investigate the Navalny poisoning and to respond to the questions submitted by 45 States Parties indicated that it was not meeting its treaty obligations.<sup>74</sup> The United States has found Iran to be noncompliant with the CWC for longstanding failings regarding its declarations under the Convention. The United States has said that it cannot certify China’s compliance due to concerns regarding its research of PBAs and toxins with potential dual-use applications, concerns that also pertain to Iran and Russia.<sup>75</sup>

It is even conceivable that Russia, China, and Iran could take their objection to majority voting and the specific decisions arising from it to the point of suspending their participation in the OPCW or withdrawing from the CWC altogether, probably with the often already used and self-fulfilling justification that the OPCW has become another instrument of Western interests rather than the embodiment and monitor of a universal norm and obligation. Such decisions would reflect a very different calculation of the political costs and security benefits of defiance.

Should defiant states withdraw from the CWC or participation in the OPCW, *de jure* or *de facto*, it is reasonable to assume that they would continue and perhaps expand any chemical weapons programs that they are or may already be pursuing. They may also become more open about it. It is possible that other states may follow their example out of a perceived security necessity or opportunity, though there is no evidence of that currently. Notwithstanding the continuing prohibition on use contained in the 1925 Geneva Protocol, chemical weapons use could become more common in a more proliferated world with a less universal CWC.

In such a future, the United States, its Western allies, and other like-minded states parties would need to be able to identify and rely on measures to prohibit, or at least control, chemical weapons use and proliferation that do not necessarily depend on Russia, China, and Iran's support at the OPCW or even their continued adherence to the CWC.<sup>76</sup> Over the last decade, the OPCW has created new investigative mechanisms and clarified aspects of the Convention, for example, the Syria-focused Investigation and Identification Team, Fact-Finding Mission, and Declaration Assessment Team that presumably could be utilized, adapted, and built upon more readily in the absence of Russian, Chinese, and Iranian obstructionism. However, the ostensible writ of those mechanisms and interpretations of the Convention would be more obviously constrained to areas not under the effective control of those states. Other states also may be more resistant to the OPCW's dictates if they view the organization as less representative of the will of the broader international community and less likely to be backed by the UNSC, where Russia and China hold vetoes.

In a situation where the states currently of most concern regarding the possession or pursuit of chemical weapons are formally or effectively operating outside of the CWC and OPCW, and where other states of potential future concern may be more inclined to resist the OPCW's attentions, the United States, its Western allies, and other like-minded states parties must anticipate a world where chemical weapons could be more proliferated and used. This will require on their part greater innovation, investment, and deployment of defensive countermeasures against a range of chemical weapons threats. As previously discussed, adversary use of chemical weapons in small-scale operations is more likely but larger-scale, battlefield use cannot be precluded. Hopefully, it will not come to the point where states otherwise committed to prohibiting chemical weapons consider it necessary to contemplate once again whether deterrence of chemical weapons use requires their possession of a retaliation-in-kind capability. This would be the final acknowledgment that an approach premised on prohibition no longer offers sufficient protection against a resurgent chemical weapons threat.

Let us consider further the prospects for Russia, China, and/or Iran taking these progressively more extreme measures in response to OPCW decisions taken by majority vote over their opposition and how the United States and like-minded states parties could respond.

### ***Russia, China, and Iran Ignore Majority Decisions***

The most likely near-term development of the adverse possibilities listed above is that Russia, China, and Iran will refuse to

accept and implement major decisions taken by majority vote over their opposition. A prime candidate for non-compliance is the recent CSP decision on the aerosolized use of CNSAC. As previously discussed, the United States publicly assesses that all three of these states have ongoing PBA programs that may have offensive purpose, and Russia had used types of CNSAC (fentanyl analogues) in 2002.

In contrast to its denial of responsibility for the use of Novichok agents in two assassinations attempts, Russia has more exploitable grounds in resisting the CNSAC decision. There is a gray area in the text of the CWC regarding law enforcement use of chemicals, beyond riot control agents, which are not intended to kill (though they often do).<sup>77</sup> It was the purpose of the December 2021 CNSAC decision to clarify the application of that text to a class of such agents when delivered as aerosols.<sup>78</sup> Russia, China, and Iran also are not the only states party to be intrigued by the possible law enforcement utility of CNSAC. Others, including some stalwart proponents of the CWC, accept that currently available CNSAC are too dangerous for law enforcement use but do not rule out the possibility that subsequent scientific and technological developments may yield more suitable chemicals.<sup>79</sup> The final CNSAC decision makes clear that the understanding is based on the current state of science and technology and directs the OPCW's Scientific Advisory Board to continue to follow and report on scientific and technological developments in this area.<sup>80</sup> Russia, China, and Iran may be able to exploit such variances in perspective to keep challenges to their continued CNSAC work relatively muted.

Russia, China, and Iran also are likely to continue to obstruct—to the extent they can—investigative work and other mechanisms established by majority vote despite their opposition and any actions arising from that work which they consider to be averse to their interests. This is already occurring regarding the IIT.

The United States, its Western allies, and other like-minded states parties have limited and unsatisfying options under the Convention to respond to Russia, China and/or Iran's disregard of OPCW decisions taken over their opposition or other measures of non-compliance. Together, they could seek a majority decision to suspend an offending party's rights and privileges under the CWC or to refer associated issues to the UN. Individually or jointly, states parties can submit questions to other states parties under Article IX of the Convention that the recipients are obliged to answer, or they can request challenge inspections. Russia is the more likely of the three to be the subject of such actions in that it has been accused of both perpetrating its own and assisting Syria's chemical weapons

use, whereas Iran and China have offered Russia and Syria voting and other political support at the OPCW and in other forums.

**Suspend Rights and Privileges.** The United States, its Western allies, and like-minded states parties could seek a majority decision to suspend an offending states party's rights and privileges under the treaty, just as was done to Syria in 2021. Suspension only denies the affected states party's ability to vote or hold positions in CWC bodies, but other states parties, including some Western nations, likely would be more hesitant to support taking such a step against countries far more influential within and beyond the CWC than Syria. Consider that while Russia's illegal and brutal invasion of Ukraine may dispose many Western countries to tougher action against that country on a range of issues in a variety of forums, including the OPCW, it did not move India, Israel, and the United Arab Emirates, and numerous other countries dependent on Russia in various ways even to condemn the invasion. When in conflict, narrow interests can be expected to give way to broader ones. Just the effort to push for a suspension in the OPCW would escalate the confrontation between, on the one hand, the United States and its Western allies, and, on the other, Russia, China, and Iran, making it more difficult to conduct routine business in the organization.

**Submit Questions Under Article IX.** Any state party (or group thereof) can submit specific questions to any other member about a suspected violation and that other member is required to respond in a timely manner.<sup>81</sup> As previously referenced, this recently was done by a group of Western nations to Russia regarding the Navalny poisoning. Russia demonstrated the limits of this course of action by providing nonresponsive answers.

**Request Challenge Inspection.** An option that has never been exercised under the Convention, but which the Navalny poisoning most recently has provoked consideration of by some states parties, is a challenge inspection. A states party may present a request for a challenge inspection to the EC and to the Director-General of the Technical Secretariat of any facility or location in the territory or in any other place under the jurisdiction or control of any other states party for the sole purpose of clarifying and resolving any questions concerning possible non-compliance. The challenge inspection will proceed unless the EC decides otherwise within 12 hours of having received the request by a vote of at least three-quarters of its membership. The Director-General will transmit the request to the inspected state party not less than 12 hours before the planned arrival of the inspection team.<sup>82</sup>

In theory, the challenge inspection affords unprecedented and timely access to any facility or location for the purpose of

determining facts relating to possible non-compliance. However, there are practical and political considerations that can make a challenge inspection undesirable and likely explain why one has never been requested. A challenge inspection may not uncover anticipated evidence of a suspected case of non-compliance. If the absence of evidence confirmed that there in fact was no case of non-compliance, that would be a desirable outcome. But the absence of evidence might only reflect that the requesting state party had not identified the right facility or other location or that the inspected state party was able to remove incriminating evidence from the site before the inspection occurred. While the intent of the challenge inspection authority is to minimize the opportunity of the inspected state party to sanitize suspect sites of incriminating evidence, an inspected state party can exploit various aspects of the challenge inspection procedure to delay the inspection team from entering the inspection site by up to 120 hours (5 days) from the time that the inspected state party was informed of the request and to limit what the inspection team can actually view while there.<sup>83</sup>

A challenge inspection that does not uncover evidence of non-compliance that in fact has occurred could exonerate the non-compliant state party or at least make it more difficult for other states parties to get the requisite Director-General or EC support to conduct subsequent inspections. Any challenge inspection request also could provoke one or more retaliatory challenge inspection requests from the inspected state party or another state party acting on behalf of the original inspected party. While the Convention explicitly prohibits frivolous or abusive challenge inspection requests, it may not always be possible to get the Director-General or three-quarters of the EC membership to rule that way.

**Referral to the United Nations.** In cases "of particular gravity," the Convention provides for the CSP, or even the EC, if the case is also a matter of particular urgency, to refer the matter to the UNGA or the UNSC.<sup>84</sup> The effort to secure a decision to refer a matter involving Russia, China, and/or Iran to the UN could be expected to be highly contentious within the OPCW and, if successful, to encounter additional obstacles to effective action at the UN.

The General Assembly can take decisions on important matters, including recommendations regarding the maintenance of international peace and security, by a two-thirds majority of members present and voting (if at least a majority of the members of the UN is present to constitute a quorum).<sup>85</sup> However, it is a large and unwieldy body, and the Charter of the UN accords primary responsibility for the maintenance of international peace and security to the Security Council. Indeed, Article 12 of the UN Charter

precludes the General Assembly from making any recommendation regarding a dispute or situation on which the Security Council is engaged, unless the Security Council so requests, with an exception explained below.<sup>86</sup>

The Security Council can take a decision if at least 9 of its 15 members vote to do so, but only if all the 5 permanent members (China, France, Russia, the UK, and the United States) are among those 9 members. Thus, while the Security Council is a smaller and more nimble body than the General Assembly, Russia and China can block action on chemical weapons-related decisions to which either or both are opposed.

There is, however, a procedure, originally established in 1950 by a U.S.-sponsored UNGA resolution (UNGA 337, also known as the Uniting for Peace resolution), whereby any nine members of the Security Council (without being subject to veto) or a majority of the membership of the General Assembly can call an emergency session of the General Assembly to consider a matter before the Security Council if the Security Council is failing to exercise its primary responsibility for the maintenance of international peace and security because of the lack of unanimity of the permanent members. It was used to get around Soviet opposition to certain UN actions during the Korean War. This provision has been successfully exercised only 12 times since its inception,<sup>87</sup> most recently on February 27, 2022, to secure a condemnation of Russia's invasion of Ukraine.<sup>88</sup>

### ***Russia, China, and Iran Cease to Participate in the CWC and OPCW***

Even if the United States and its Western allies refrain from requesting a challenge inspection in Russia, China, Iran or one of their allies, the former's success in using majority voting to directly challenge the latter's interests conceivably could motivate the latter to suspend participation in the OPCW or even withdraw from the Convention altogether.

Russia, China, and/or Iran's failure to participate in the functioning of the OPCW's governing and even technical bodies would not preclude those bodies from continuing to function. The CSP only requires a majority of members to achieve a quorum, and there is no quorum established for the EC.<sup>89</sup> Indeed, the refusal of obstructive states parties to participate could enable the OPCW's governing bodies to take decisions more quickly and with less regard for the concerns and interests of non-participating states.

In 1950, the Soviet Union learned the hard way the folly of boycotting the UNSC when that body authorized a U.S.-led

international military force to oppose North Korea's invasion of its southern neighbor—an invasion instigated and enabled by Moscow.<sup>90</sup> The Soviet Union's absence not only kept it from influencing the debate; it prevented Moscow from wielding its veto. The Soviet Union, and its Russian successor, have not subsequently boycotted the Security Council, and the same lesson no doubt has been taken by China and Iran, among others. This is not to deny that the failure of countries representing such a substantial portion of the global population and power to participate in the work of the OPCW would detract from that body's legitimacy in the view of some states parties,<sup>91</sup> particularly among the Non-Aligned Movement, but the benefits that might confer upon the non-participating states would be trumped by the practical risks and consequences of non-participation.

It is unlikely, therefore, that Russia, China, or Iran would choose to cease participating in the OPCW's governing, as well as technical, bodies if they had not also decided to withdraw from the Convention. If they choose to remain in the Convention, they could influence the debate and shape the decisions of the OPCW's governing bodies, even if those decisions ultimately are passed by a majority vote over their opposition. They would continue to have the access and insight that participation affords into the execution of those decisions, providing opportunities for obstruction and perhaps even reconsideration. They even could withhold funding or cease cooperation with certain activities or subordinate entities without withdrawing from the overall organization. Moreover, they can continue to covertly disregard OPCW decisions or violate fundamental CWC obligations while outwardly professing support for and compliance with the Convention.

If Russia, China, or Iran were to decide to cease participating in the OPCW (Russia is the more likely candidate given its recent and blatant transgressions), it makes sense that they would do so as part of a withdrawal from the CWC itself. They presumably would have concluded that, despite their best efforts to influence, shape, obstruct, and/or covertly disregard OPCW decisions and fundamental CWC obligations from within, they could no longer hold back intolerable OPCW actions without dropping the mask of a compliant member. This might be occasioned by a failure to prevent or obstruct a challenge inspection that revealed incontrovertible evidence of fundamentally violating or abetting fundamental violations of CWC obligations. This is another risk from requesting a challenge inspection: so fully exposing the target that it withdraws from the CWC, paring the Convention's nearly universal nature and effect. Yet, if a states party's actions already have become so



flagrant as to undermine the Convention, such exposure may be all that can be achieved.

### ***Russia, China, and Iran Enhance Chemical Weapons Programs***

Russia's, or, less likely, China's or Iran's withdrawal from the CWC should be expected to be accompanied by enhancement of their chemical weapons programs. Withdrawal from the CWC would end their legal obligation to abstain from the development, production, and stockpiling of chemical weapons. While already suspected of having such programs, they would no longer need to pursue such programs covertly. They would, however, remain legally prohibited from using chemical weapons by the 1925 Geneva Protocol unless they also chose to renounce that obligation. As the 1925 Geneva Protocol has achieved the status of customary international law,<sup>92</sup> they may perceive the political costs of renunciation to be too high. Should they choose to employ chemical weapons once out of the CWC, they could still endeavor to do so with deniability or with an asserted legal right, for example, they were attacked first with chemical weapons (while neither Russia, China, nor Iran ever or currently has such a reservation in place to their ratification of the 1925 Geneva Protocol, there is a history of some states making such reservations, as previously discussed), or the chemicals they used do not constitute chemical weapons (in continued exploitation of the gray area of the CWC's law enforcement exception).

### ***Erosion of the CWC and the Norm Against Possession and Use***

Other states may react to Russia's current disregard of its CWC obligations and China's and Iran's tolerance thereof—or any more extreme measures that one or more of them may take in the future regarding their participation in the OPCW and CWC—by initiating their own chemical weapons programs, though there is no current evidence that this is occurring. Some might do this out of perceived opportunity, judging the likelihood or severity of an international response will be mitigated if Russia and Syria have paved the way. This impetus could be enhanced by scientific and technological developments that may make chemical weapons more appealing. In their 2014 paper, the authors projected that by 2030 chemical as well as biological weapons agents will be 1) more accessible to both state and nonstate actors due to lower barriers to the acquisition of current and currently emerging CBW technologies; 2) more capable, particularly in terms of their ability to

defeat current or currently-emerging defensive countermeasures; 3) more discriminate—that is, more precisely targeted and/or more reliably low- or nonlethal; and 4) harder to attribute (using hitherto unknown agents and/or delivery mechanisms) than the traditional forms known today.<sup>93</sup>

Others may initiate or enhance their own chemical weapons programs out of perceived necessity: they anticipate a greater chemical weapons threat from Russia, Syria, or even China or Iran, and/or allies thereof. This will be mitigated to the extent that such worried states perceive their rivals' chemical weapons efforts as latent or modest, and exacerbated if they view those efforts as of a broader scope and scale. Consider that after World War I, chemical weapons use was initiated only against states or other actors that lacked their own chemical weapons and often also effective chemical defenses, and that during World War II even Germany, who possessed superior chemical weapons capabilities, did not employ them against its chemical weapons-armed enemies, even to the point of its utter destruction and total defeat. In the context of deterrence, where the inability to prove the negative makes it hard to attribute success, the post-World War I history of chemical weapons use suggests that chemical weapons possession is an effective deterrent against chemical weapons aggression.

If the CWC and OPCW are seen as less effective in preventing the proliferation and use of chemical weapons, then some states that are concerned that their rivals may possess or are pursuing such weapons may feel a need to have chemical weapons of their own to at least deter their rivals' use of such weapons, especially if they lack an alternative source of deterrence, such as their own nuclear weapons or the protection of a nuclear-armed ally. At a minimum, one would expect a greater number of states to accord more priority and higher investment in their ability to detect, protect against, and recover from potential chemical weapons use.

In that vein, a more immediate and troubling spur to greater chemical weapons proliferation and use would be Russia's unambiguous employment of chemical weapons as part of its ongoing invasion of Ukraine. Such employment would more clearly expose Russia's malicious disregard of its CWC obligations and whether China and Iran, as well as other Russian allies or clients, are prepared to allow the CWC and OPCW to become a hollow instrument rather than harm their relations with Russia. The temptation for Russia to resort to chemical weapons in Ukraine must surely exist as chemical weapons were developed to overcome an adversary able to resist conventional attack. It is encouraging, therefore, that Russia is not known to have employed chemical weapons

during its siege of Mariupol to force Ukrainian defenders to abandon their underground strongholds in the Azovstal Iron and Steel Works. But Russia may confront more such choices as the war continues and when Putin may be more desperate. It would not be surprising if regional states that feel threatened by Russia and lack alternate means of deterrence at least contemplate their need for a retaliation-in-kind chemical deterrent.

## Conclusion

There is a limit to which material differences among the major players in the OPCW can be papered over before the organization and Convention become ineffective in holding back proliferation and deterring significant use. That limit has been sorely tested by the repeated and undeniable use of chemical weapons by two states parties and, most significantly, that one core member of the organization and Convention—Russia—has been central to those uses, either as an enabler (in the case of Syria's use) or as a perpetrator (in the case of the Salisbury and Navalny Novichok poisonings). That testing would become a breach should Russia unambiguously employ chemical weapons in its ongoing invasion of Ukraine. Events to date have necessitated that the United States and like-minded nations abandon the consensual approach to taking substantive decisions at the OCPW and exercise the procedures provided for in the Convention to take decisions by a qualified majority of states parties. Russia, China, Iran, and a few other states decry such actions as leading the OPCW and Convention on a road of dissolution, yet it is their actions or enabling of such actions that has forced most states parties to pursue this approach.

If some key members, especially Russia, are willing to violate their CWC obligations, it must be recognized that the OPCW will be unable to be the truly universal instrument that its authors envisioned. But the United States and like-minded states parties can continue to use the OPCW and Convention to represent a broadly held norm; to investigate, confirm and attribute violations of that norm; and thus provide the basis for most states parties to continue to pursue the Convention's goal of a world without chemical weapons. At the same time, those nations must recognize that the likelihood of chemical weapons proliferation and use will increase in this more contested international security environment and must augment active nonproliferation diplomacy with enhanced chemical defense capabilities to deter and protect themselves against chemical aggression.

The United States should take the steps listed below to address the current threats to the CWC. They will not preclude the

challenges discussed above, but they can help keep the CWC and OPCW relevant to the international cause of prohibiting chemical weapons while preparing the United States and its allies for a world where chemical weapons threats are more prevalent.

- ◆ First, the United States should view attacks on the CWC as part of a concerted effort by Russia, China, and Iran to undermine norms and institutions that support the liberal international order. In particular, the actions by those three states threaten to undermine both arms control and nonproliferation regimes that have taken decades to develop. For that reason, the United States should not treat violations as matters of import only for the CWC but should consider them in a broader context.
- ◆ Second, the United States should continue to support the CWC and the activities of the OPCW. Despite concerns about treaty violations, the United States benefits more by addressing its concerns from within the treaty framework than it would from outside. The rationales that motivated U.S. support for the treaty in the 1980s and 1990s remain valid. In addition, it should continue its support for other activities that reinforce the norm in various ways, including Australia Group activities to control exports, UNSC Resolution 1540 efforts to enhance the nonproliferation activities of other countries, the UN Secretary-General's Mechanism, and the Proliferation Security Initiative.
- ◆ Third, the United States must reinvigorate its chemical weapons defense and recovery programs, both for military forces and for civilian populations and for a broad range of use scenarios. Chemical defense and recovery, constituting a collection of capabilities that include detection, personal and collective protection, medical countermeasures, post-event consequence management, and cadres of trained personnel, can significantly reduce the impact of chemical weapons employment and contribute to deterrence. The chemical defense effort must also look beyond traditional chemical warfare agents and just merely more existing countermeasures. Resources need to be devoted to ensuring that all responders—civilian and military—understand and are equipped and trained to recognize and counter emerging agents, such as Novichoks and PBAs, and resurgent old threats, such as chlorine. More attention needs to be directed to how scientific and

technological developments could yield new threats but also new and more effective countermeasures.

- ◆ Fourth, the United States also should collaborate with allies and coalition partners to ensure that they can protect themselves against chemical weapons attacks. They have suffered more chemical attacks than the United States and may continue to do so, so it is particularly important that they have effective chemical defenses.
- ◆ Fifth, the United States should adopt streamlined mechanisms to enable support for any party that is a victim or in imminent danger of a chemical weapons attack. During the past decade, the United States was slow to respond to chemical weapons attacks by both the Syrian government and the so-called Islamic State. This should not happen again. It is commendable that the United States and others have proactively transferred chemical defense capabilities to Ukraine following Russia's invasion. They need to be prepared, whether in Ukraine or elsewhere, to respond quickly with additional assistance in the event of an actual chemical attack.
- ◆ Finally, the United States should continue its support for efforts to bring accountability for violations of the CWC. This will require a long-term focus, given that it can take years—even decades—to bring violators to account. The United States should continue to support nongovernmental organizations involved in the collection and retention of information that could be used by prosecutors.

## Notes

1 As German Chancellor Olaf Scholz said during his February 27, 2022, address to the Bundestag, “Anyone who reads Putin’s historicizing essays, who has watched his televised declaration of war on Ukraine, or who has recently—as I have done—held hours of direct talks with him, can no longer have any doubt that Putin wants to build a Russian empire.” See “Policy Statement by Olaf Scholz, Chancellor of the Federal Republic of Germany and Member of the German Bundestag, Sunday, 27 February 2022 in Berlin,” The Federal Government (Germany), February 27, 2022, available at <<https://www.bundesregierung.de/breg-en/news/policy-statement-by-olaf-scholz-chancellor-of-the-federal-republic-of-germany-and-member-of-the-german-bundestag-27-february-2022-in-berlin-2008378>>.

2 Robert S. Litwak, “Russia’s Nuclear Threats Recast Cold War Dangers: The ‘Delicate Balance of Terror’ Revisited,” Wilson Center, May 3, 2022, available at <<https://www.wilsoncenter.org/article/russias-nuclear-threats-recast-cold-war-dangers-delicate-balance-terror-revisited>>.

3 During the United Nations (UN)’s 11<sup>th</sup> Emergency Special Session,

called to address the Ukraine invasion, governments representing 54 percent of the world’s population either voted against or abstained on the first two resolutions that were adopted, the first of which, (A/ES-11/L-1), condemned the invasion and demanded the immediate withdrawal of Russian forces, and the second, (A-ES-11/L-2), reiterated the demand for implementation of the first resolution and additionally demanded, *inter alia*, respect for the protection of civilians and access for humanitarian personnel and supplies. (The percentages were calculated using the voting information provided in “UN General Assembly Demands Russia Withdraw Troops from Ukraine,” *Al Jazeera*, March 3, 2022, available at <<https://www.aljazeera.com/news/2022/3/3/un-general-assembly-demands-russia-withdraw-troops-from-ukraine>>; and “Ukraine: General Assembly Passes Resolution Demanding Aid Access, by Large Majority,” *UN News*, March 24, 2022, available at <<https://news.un.org/en/story/2022/03/1114632>>; and 2020 world population data in “Population, Total,” The World Bank, available at <<https://data.worldbank.org/indicator/SP.POP.TOTL?end=2020&start=1960&view=chart>>.

4 John P. Caves, Jr., and W. Seth Carus, *The Future of Weapons of Mass Destruction: An Update* (Washington, DC: National Intelligence Press, 2021), 10–13, available at <[https://ni-u.edu/wp/wp-content/uploads/2021/04/Future\\_of\\_WMD\\_Final.pdf](https://ni-u.edu/wp/wp-content/uploads/2021/04/Future_of_WMD_Final.pdf)>. A more recent and fulsome articulation of Sino-Russian strategic alignment against the U.S.-led international order is found in the joint statement issued by Chinese President Xi and Russian President Putin in Beijing on February 4, 2022. See “Joint Statement of the Russian Federation and the People’s Republic of China on the International Relations Entering a New Era and the Global Sustainable Development,” China Aerospace Studies Institute, February 4, 2022, available at <<https://www.airuniversity.af.edu/Portals/10/CASI/documents/Translations/2022-02-04%20China%20Russia%20joint%20statement%20International%20Relations%20Entering%20a%20New%20Era.pdf>>. Russia’s invasion of Ukraine just 20 days after the issuance of the joint statement has put China in an awkward position within the international community. China has refused to condemn Russia for the invasion and has blamed the North Atlantic Treaty Organization for threatening Russian security through its eastern expansion but has called for a peaceful resolution and appears not to have transgressed Western sanctions against Russia or provided Russia with military assistance. See Paul Haenle and Sam Bresnick, “China’s Ukraine Calculus Is Coming into Focus,” *Carnegie Endowment for International Peace*, April 4, 2022, available at <<https://carnegieendowment.org/2022/04/04/china-s-ukraine-calculus-is-coming-into-focus-pub-86801>>.

5 Russia and China joined the United States, France, Germany, European Union, and the United Kingdom in signing the Joint Comprehensive Plan of Action (JCPOA) in 2015 to prevent Iran from developing nuclear weapons and have been part of the effort to negotiate the United States’s re-entry and Iran’s return to compliance after President Trump withdrew the United States from the agreement in 2018. “The Joint Comprehensive Plan of Action (JCPOA) at a Glance,” Arms Control Association, March 2022, available at <<https://www.armscontrol.org/factsheets/JCPOA-at-a-glance>>.

6 Scott Berrier, Director of the Defense Intelligence Agency, observed in May 2022, “Strategic competition is intensifying because China, Russia, Iran, and North Korea have become more confident in the force modernization they have undertaken for years and perceive more opportunity to advance their ambitions. Both, China and Russia perceive that the United States is a nation in decline and use that view as a pretext for advancing their authoritarian models and executing their global ambitions.” Scott Berrier, Lieutenant General, U.S. Army, Director, Defense Intelligence Agency, *Statement for the Record, Worldwide Threat Assessment—2022*, Senate Armed Services Committee, 117<sup>th</sup> Cong., 2<sup>nd</sup> sess., May 10, 2022,

2, available at <<https://www.dia.mil/Portals/110/Documents/SFR/DIA%202022%20ATA%20SFR.pdf>>.

7 North Korea is not a states party to the Chemical Weapons Convention and thus not a member of the Organization for the Prohibition of Chemical Weapons (OPCW).

8 “History: Looking Back Helps Us Look Forward,” OPCW, available at <<https://www.opcw.org/about-us/history#:~:text=Looking%20back%20helps%20us%20look%20forward&text=History%20was%20made%20on%2029,within%20a%20fixed%20time%20frame>>.

9 The ban applied only to the states that agreed to the ban in the case of war between them and ceased to apply if one of those states was joined in war by another who was not a state party. Hague Declaration (IV, 2) Concerning Asphyxiating Gases, July 29, 1899, International Committee of the Red Cross, available at <<https://ihl-databases.icrc.org/applic/ihl/ihl.nsf/Article.xsp?action=openDocument&documentId=2531E92D282B5436C12563CD00516149>>.

10 William V. O’Brien, “Biological/Chemical Warfare and the International Law of War,” *Georgetown Law Journal* 51, no. 1 (Fall 1962), 17–24. The 1907 Hague Convention, Article 23, also prohibited the use of “poison or poisoned arms,” but O’Brien doubts that it was intended to apply to chemical warfare as opposed to “poisoned spears, swords, arrows, daggers, or bayonets.”

11 Geneva Protocol for the Prohibition of the Use of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare (hereafter 1925 Geneva Protocol), June 17, 1925, International Committee of the Red Cross, available at <[https://ihl-databases.icrc.org/applic/ihl/ihl.nsf/States.xsp?xp\\_viewStates=XPages\\_NORMStatesParties&xp\\_treatySelected=280](https://ihl-databases.icrc.org/applic/ihl/ihl.nsf/States.xsp?xp_viewStates=XPages_NORMStatesParties&xp_treatySelected=280)>.

12 George Bunn, “Banning Poison Gas and Germ Warfare: Should the United States Agree,” *Wisconsin Law Review* 1969, no. 2 (1969), 389–394.

13 Italy used chemical weapons against Abyssinia (now known as Ethiopia) from December 1935 to April 1936. Lina Grip and John Hart, “The Use of Chemical Weapons in the 1935–36 Italo-Ethiopian War,” SIPRI [Stockholm International Peace Research Institute] Arms Control and Nonproliferation Programme, October 2009, available at <<https://www.sipri.org/sites/default/files/Italo-Ethiopian-war.pdf>>. Italy and Abyssinia both signed the 1925 Geneva Protocol on June 17, 1925; Italy ratified it on April 3, 1928, and Abyssinia on October 7, 1935. See 1925 Geneva Protocol.

14 Ping Bu, “A Research Report on Japanese Use of Chemical Weapons During the Second World War,” *Journal of Modern Chinese History* 1, no. 2 (December 2007), 155–172; Bob Tadashi Wakabayashi, “Research Notes on Japanese Poison Gas Warfare in China,” *Sino-Japanese Studies* 5, no. 1 (October 1992), 4–10; and 1925 Geneva Protocol.

15 Jonathan B. Tucker, *War of Nerves* (New York: Anchor Books, 2007), chap. 5–9. The G-series were the first nerve agents, including tabun, sarin, cyclo-sarin, and soman, and were more toxic than the chemical warfare agents used during World War I. The V-series nerve agents, including the United States’s VX and Soviet Union’s VR, among others, were even more toxic than the G-series agents, and also more persistent. In addition, it would become widely known in 2018 that Russia also had covertly developed the Novichok series of nerve agents during the Cold War.

16 See, for example, Julian Perry Robinson, “Chemical Weapons Proliferation in the Middle East,” in *Non-Conventional-Weapons Proliferation in the Middle East: Tackling the Spread of Nuclear, Chemical, and Biological Capabilities*, ed. Efraim Karsh, Martin S. Navias, and Philip A.G. Sabin (New York: Clarendon Press, 1993), 69–98; and Yair Evron, *Weapons of Mass Destruction in the Middle East*, Occasional Paper No. 39 (Washington, DC: The Henry L. Stimson Center, March 1998), available at <[No.%2039%20March%201998.pdf](http://stimson.org/wp-content/files/file-attachments/Occasional%20Paper%20</a></p></div><div data-bbox=)>.

17 W. Andrew Terrill, “The Chemical Warfare Legacy of the Yemen War,” *Comparative Strategy* 10, no. 2 (1991), 109–119; SIPRI, *The Problem of Chemical and Biological Warfare; A Study of the Historical, Technical, Military, Legal, and Political Aspects of CBW, and Possible Disarmament Measures*, vol. 1: *The Rise of CB Weapons* (New York: Humanities Press, 1971), 159–161, 336–341, and vol. 5: *The Prevention of CBW*, 225–238.

18 Jez Littlewood, “Investigating Allegations of CBW Use: Reviving the UN Secretary-General’s Mechanism,” *Compliance Chronicles*, no. 3, December 2006, available at <[https://www.researchgate.net/publication/313096227\\_Investigating\\_allegations\\_of\\_CBW\\_use\\_reviving\\_the\\_UN\\_Secretary-General's\\_mechanism](https://www.researchgate.net/publication/313096227_Investigating_allegations_of_CBW_use_reviving_the_UN_Secretary-General's_mechanism)>.

19 Joost R. Hiltermann, *A Poisonous Affair: America, Iraq, and the Gassing of Halabja* (New York: Cambridge University Press, 2007); and Richard L. Russell, “Iraq’s Chemical Weapons Legacy: What Others Might Learn from Saddam,” *Middle East Journal* 59, no. 2 (Spring 2005), 197–199, 203–204.

20 Littlewood, “Investigating Allegations of CBW Use,” 14–15.

21 *Ibid.*, 14–21.

22 UN General Assembly, Convention on the Prohibition of the Development, Production, and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction, April 10, 1972, entry into force March 26, 1975, Article IX, available at <<https://front.un-arm.org/wp-content/uploads/2020/12/BWC-text-English-1.pdf>>.

23 Julian Perry Robinson, “The Negotiations on the Chemical Weapons Convention: A Historical Overview,” in *The New Chemical Weapons Convention—Implementation and Prospects*, ed. Michael Bothe, Natalino Ronzitti, and Allan Rosas (The Hague: Kluwer Law International, 1998), 17–35; and “History: Looking Back Helps Us Look Forward,” OPCW.

24 “Secretary-General’s Mechanism for Investigation of Alleged Use of Chemical and Biological Weapons (UNSGM),” UN Office for Disarmament Affairs, available at <<https://www.un.org/disarmament/wmd/secretary-general-mechanism/>>.

25 A.R. Fooks and L.K. Holmstrom, “United Nations Secretary-General’s Mechanism,” *Revue scientifique et technique (International Office of Epizootics)* 36, no. 2 (2017), 633–634, available at <<http://boutique.oie.int/extrait/21fooks629637.pdf>>; and UN General Assembly Security Council, *Report of the United Nations Mission to Investigate Allegations of the Use of Chemical Weapons in the Syrian Arab Republic on the Alleged Use of Chemical Weapons in the Ghouta Area of Damascus on 21 August 2013*, A/67/997-S/2013/553 (New York: UN, September 16, 2013), 16, available at <[https://www.un.org/ga/search/view\\_doc.asp?symbol=S/2013/553](https://www.un.org/ga/search/view_doc.asp?symbol=S/2013/553)>.

26 In December 2011, Iran objected to a decision adopted by the OPCW’s Conference of the States Parties (CSP) that effectively afforded the United States, Russia, and Libya more time to complete the destruction of their declared chemical weapons. See CSP, “Report of the Sixteenth Session of the Conference of the States Parties, 28 November–2 December 2011,” C-16/5, OPCW, December 2, 2011, § 9.4, available at <[https://www.opcw.org/sites/default/files/documents/CSP/C-16/en/c1605\\_e\\_.pdf](https://www.opcw.org/sites/default/files/documents/CSP/C-16/en/c1605_e_.pdf)>; and CSP, “Decision, Final Extended Deadline of 29 April 2012,” C-16/DEC.11, OPCW, December 1, 2012, available at <[https://www.opcw.org/sites/default/files/documents/CSP/C-16/en/c16dec11\\_e\\_.pdf](https://www.opcw.org/sites/default/files/documents/CSP/C-16/en/c16dec11_e_.pdf)>.

27 Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on Their Destruction (hereafter Chemical Weapons Convention), Geneva, January 13, 1993, entered into force on April 29, 1997, Article VIII.B.18, available at <[https://www.opcw.org/sites/default/files/documents/CWC/CWC\\_en.pdf](https://www.opcw.org/sites/default/files/documents/CWC/CWC_en.pdf)>.

28 Libya acceded to the Chemical Weapons Convention on January 6, 2004, and Iraq on January 13, 2009; see “Member States,” OPCW, avail-

able at <<https://www.opcw.org/about-us/member-states>>.

29 Destruction of the U.S. declared stockpile of chemical weapons continues and is expected to be concluded in 2023. David Vergun, “DOD Approaches Goal of Destroying All Stockpiled Chemical Weapons,” *DOD News*, September 21, 2020, available at <<https://www.defense.gov/News/News-Stories/Article/Article/2354786/dod-approaches-goal-of-destroying-all-stockpiled-chemical-weapons/>>.

30 “History: Looking Back Helps Us Look Forward,” OPCW.

31 Ned Price, “Syria: Eighth Anniversary of the Ghouta Chemical Weapons Attack,” U.S. Department of State, August 21, 2021, available at <<https://www.state.gov/syria-eighth-anniversary-of-the-ghouta-chemical-weapons-attack/>>.

32 “U.S. and Russia Agree Syria Chemical Weapons Deal,” BBC, September 14, 2013, available at <<https://www.bbc.com/news/world-middle-east-24091633>>.

33 A February 2019 report by the Global Public Policy Institute concluded that at least 336 chemical weapons attacks occurred over the course of the Syrian civil war, most of which after Syria had joined the Chemical Weapons Convention, and around 98 percent of those attacks can be attributed to the Syrian regime. See Tobias Schneider and Theresa Lütkefend, *Nowhere to Hide: The Logic of Chemical Weapons Use in Syria* (Berlin: Global Public Policy Institute, February 2019), 3, available at <[https://www.gppi.net/media/GPPI\\_Schneider\\_Luetkefend\\_2019\\_Nowhere\\_to\\_Hide\\_Web.pdf](https://www.gppi.net/media/GPPI_Schneider_Luetkefend_2019_Nowhere_to_Hide_Web.pdf)>. A more recent estimate by the Global Public Policy Institute of the number of chemical weapons attacks in Syria as of May 2020 raised the number to 349; see “Data Portal,” Global Public Policy Institute, available at <<https://chemicalweapons.gppi.net/data-portal/>>.

34 Caves and Carus, *The Future of Weapons of Mass Destruction: An Update*, 29–34.

35 See “Decision: OPCW–United Nations Joint Investigative Mechanism Reports on Chemical Weapons Use in the Syrian Arab Republic,” EC-83/DEC.5, OPCW, November 11, 2016, available at <[https://www.opcw.org/sites/default/files/documents/EC/83/en/ec83dec05\\_e\\_.pdf](https://www.opcw.org/sites/default/files/documents/EC/83/en/ec83dec05_e_.pdf)>.

36 Executive Council (EC), “Report of the Eighty-Third Session of the Executive Council,” EC-83/5, OPCW, November 11, 2016, § 6.27, available at <[https://www.opcw.org/sites/default/files/documents/EC/83/en/ec8305\\_e\\_.pdf](https://www.opcw.org/sites/default/files/documents/EC/83/en/ec8305_e_.pdf)>.

37 The Investigation and Identification Team (ITT) is charged with investigating and identifying the perpetrators of the use of chemical weapons in Syria in those instances where the OPCW Fact Finding Mission in Syria determines or has determined that use or likely use has occurred and case for which the OPCW–United Nations Joint Investigation Mechanism has not issued a report. CSP, “Decision: Addressing the Threat from Chemical Weapons Use,” C-SS-4/DEC.3, OPCW, June 27, 2018, available at <[https://www.opcw.org/sites/default/files/documents/CSP/C-SS-4/en/css4dec3\\_e\\_.doc.pdf](https://www.opcw.org/sites/default/files/documents/CSP/C-SS-4/en/css4dec3_e_.doc.pdf)>.

38 CSP, “Report of the Fourth Special Session of the Conference of the States Parties,” C-SS-4/3, OPCW, June 27, 2018, § 3.15, available at <[https://www.opcw.org/sites/default/files/documents/CSP/C-SS-4/en/css403\\_e\\_.pdf](https://www.opcw.org/sites/default/files/documents/CSP/C-SS-4/en/css403_e_.pdf)>. This report does not address abstentions on the vote to establish the IIT, but an informal tally by a U.S. State Department official involved in the effort showed 26 abstentions.

39 The following rights and privileges of Syria under the Chemical Weapons Convention were suspended: 1) to vote in the CSP and EC; 2) to stand for election to the EC; and 3) to hold any office in the CSP, EC, or any subsidiary bodies. CSP, “Decision: Addressing the Possession and Use of Chemical Weapons by the Syrian Arab Republic,” C-25/DEC.9, OPCW, April 21, 2021, available at <<https://www.opcw.org/sites/default/files/documents/2021/04/c25dec09%28e%29.pdf>>. The CSP vote to

suspend Syria’s rights and privileges under the Chemical Weapons Convention was 87 for (including the United States and its European allies), 15 against (including Russia, China, and Iran), and 34 abstentions. CSP, “Report of the Twenty-Fifth Session of the Conference of States Parties,” C-25/5, OPCW, April 22, 2021, § 9.24, available at <<https://www.opcw.org/sites/default/files/documents/2021/04/c2505%28e%29.pdf>>.

40 In 2019, the CSP adopted the OPCW’s draft programme and budget for 2020 by a vote of 106 for, 19 against, and 17 abstaining. See CSP, “Report of the Twenty-Fourth Session of the Conference of the States Parties,” 25–29 November 2019,” C-24/5, OPCW, November 29, 2019, §14.4, available at <<https://www.opcw.org/sites/default/files/documents/2019/12/c2405%28e%29.pdf>>. In 2020, the EC advanced the OPCW’s draft program and budget for 2021 by a vote of 33 for, 3 against, and 5 abstaining. See EC, “Report of the Ninety-Fifth Session of the Executive Council,” EC-95/4, OPCW, October 9, 2020, § 10.33, available at <<https://www.opcw.org/sites/default/files/documents/2020/10/ec9504%28e%29.pdf>>; and the CSP later adopted it by a vote of 103 for, 14 against, and 13 abstaining. See CSP, “Report of the Twenty-Fifth Session of the Conference of the States Parties,” April 22, 2021, § 13.4. A similar story played out later in 2021 for the draft OPCW programme and budget for 2022–2023, with the EC advancing it by a vote of 31 for, 3 against, and 7 abstaining. EC, “Report of the Ninety-Eighth Session of the Executive Council,” EC-98/5, OPCW, October 7, 2021, § 10.19, available at <<https://www.opcw.org/sites/default/files/documents/2021/10/ec9805%28e%29.pdf>>; and the CSP later adopting it by a vote of 102 for, 12 against, and 18 abstaining. See CSP, “Report of the Twenty-Sixth Session of the Conference of the States Parties,” C-26/5, OPCW, December 2, 2021, § 13.4, available at <<https://www.opcw.org/sites/default/files/documents/2021/12/c2605%28e%29.pdf>>.

41 CSP, “Report of the Twenty-Sixth Session of the Conference of the States Parties,” OPCW, December 2, 2021, § 10.5.

42 The specific wording of the decision is “the aerosolized use of CNS [central nervous system]–acting chemicals is understood to be inconsistent with law enforcement purposes as a ‘purpose not prohibited’ under the Convention.” CSP, “Decision: Understanding Regarding the Aerosolised Use of Central Nervous System-Acting Chemicals for Law Enforcement Purposes,” C-26/DEC.19, OPCW, December 1, 2021, available at <<https://www.opcw.org/sites/default/files/documents/2021/12/c26dec10%28e%29.pdf>>. The CSP vote on CNS-acting chemicals was 85 in favor (including the United States and its Western allies), 10 against (including Russia, China, and Iran), and 33 abstentions. OPCW, “Report of the Twenty-Sixth Session of the Conference of the States Parties,” December 2, 2021, § 26.7.

43 See, for example, CSP, “Statement by the Delegation of the Russian Federation to the OPCW at the Twenty-Fifth Session of the Conference of the States Parties in Exercise of the Right of Reply to the Statements by the Delegations of the United Kingdom of Great Britain and Northern Ireland and the United States of America to the OPCW and the Collective Statements of 58 States and the European Union,” C-25/NAT.48, OPCW, February 19, 2021, available at <<https://www.opcw.org/sites/default/files/documents/2021/04/c25nat48%28e%29.pdf>>; CSP, “Statement by the Delegation of the Islamic Republic of Iran to the OCPW at the Twenty-Sixth Session of the Conference of the States Parties,” C-26/NAT.33, OPCW, November 29, 2021, available at <<https://www.opcw.org/sites/default/files/documents/2022/03/c26nat33%28e%29.pdf>>; and CSP, “Statement by Vice Minister Wang Zhijun of the Ministry of Industry and Information Technology of the People’s Republic of China During the General Debate of the Twenty-Fourth Session of the Conference of the States Parties to the Chemical Weapons Convention,” OPCW, November 25, 2019, available at <<https://www.opcw.org/sites/default/files/docu->

ments/2019/11/China%20CSP-24%20Statement.pdf>.

44 See, for example, CSP, “Statement by Mr. Oleg Ryazantsev, Head of Delegation of the Russian Federation, Deputy Minister of Industry and Trade of the Russian Federation, at the Twenty-Sixth Session of the Conference of States Parties,” OPCW, November 24, 2021, available at <<https://www.opcw.org/sites/default/files/documents/2021/11/CSP-26.%20Russian%20Federation%20-%20general%20debate%20%28English%29.pdf>>; CSP, “Statement by the Delegation of the Islamic Republic of Iran to the OCPW at the Twenty-Sixth Session of the Conference of the States Parties, November 29, 2021”; and CSP, “Joint Statement on Behalf of 4 Delegations Delivered by the Delegation of the Islamic Republic of Iran at the 26<sup>th</sup> Session of the Conference of States Parties of the OPCW under the Subitem 26.1, ‘Any Other Business’ on the Draft Decision entitled ‘Understanding Regarding the Aerosolized Use of Central Nervous System—Acting Chemicals for Law Enforcement Purposes,’” OPCW, November 29, 2021, available at <<https://www.opcw.org/sites/default/files/documents/2021/11/Joint%20Statement%20on%20behalf%20of%204%20Delegations%20delivered%20by%20the%20Delegation%20of%20the%20Islamic%20Republic%20of%20Iran%20at%20the%2026th%20Session%20of%20the%20Conference%20of%20States%20Parties%20of%20the%20OPCW.pdf>>; and CSP, “Statement by H.E. Ambassador Tan Jian, Head of the Delegation of the People’s Republic of China, at the General Debate of the Twenty-Sixth Session of the Conference of the States Parties to the Chemical Weapons Convention,” OPCW, November 25, 2021, available at <<https://www.opcw.org/sites/default/files/documents/2021/11/%5BEnglish%20Translation%5DChinese%28incl.HKSAR%29%20Statement%20During%20the%20General%20Debate%20at%20CSP-26%EF%BC%88Cong1%EF%BC%89.pdf>>.

45 CSP, “Statement by Georgy Kalamanov, Deputy Minister of Industry and Trade, Head of the Delegation of the Russian Federation at the Twenty-Third Session of the Conference of the States Parties Under Agenda Item 8,” C-23/NAT.2, OPCW, November 19, 2018, available at <<https://www.opcw.org/sites/default/files/documents/2018/11/c23nat02%28e%29.pdf>>.

46 Chemical Weapons Convention, Article XV, ¶¶ 1–3.

47 For example, see CSP, “Statement by the Delegation of the Islamic Republic of Iran to the OPCW at the Twenty-Fifth Session of the Conference of the States Parties—Explanation of Vote on the Draft Decision ‘Addressing the Possession and Use of Chemical Weapons by the Syrian Arab Republic,’” C-25/NAT.108, OPCW, April 21, 2021, available at <<https://www.opcw.org/sites/default/files/documents/2021/12/c25nat108%28e%29.pdf>>; CSP, “Statement by the Delegation of the People’s Republic of China to the OPCW at the Twenty-Fifty Session of the Conference of the States Parties,” C-25/NAT.13, OPCW, November 30, 2020, available at <<https://www.opcw.org/sites/default/files/documents/2021/03/c25nat13%28e%29.pdf>>; and CSP, “Statement by H.E. Ambassador A.V. Shulgin, Deputy Head of the Delegation of the Russian Federation Permanent Representative of the Russian Federation to the OPCW at the Twenty-Fourth Session of the Conference of the States Parties, Agenda Item 9(D),” C-24/NAT.57, OPCW, November 28, 2019, available at <<https://www.opcw.org/sites/default/files/documents/2020/02/c24nat57%28e%29.pdf>>.

48 Though not in the OPCW itself.

49 A succinct statement of the case against Russia is provided in CSP, “Statement by the Delegation of the United Kingdom of Great Britain and Northern Ireland to the OPCW at the Twenty-Fifty Session of the Conference of the States Parties in Exercise of the Right of Reply to the Statement by the Delegation of the Russian Federation to the OPCW,” C-25/NAT.81, OPCW, December 1, 2020, available at <<https://www.opcw.org/sites/default/files/documents/2021/06/c25nat81%28e%29.pdf>>.

50 Caves and Carus, *The Future of Weapons of Mass Destruction: An Update*, 32–33.

51 Leanne Quinn, “45 OPCW States Demand Answers About Navalny,” *Arms Control Today*, November 2021, available at <<https://www.armscontrol.org/act/2021-11/news/45-opcw-states-demand-answers-about-navalny>>. The requesting document is EC, “United Kingdom of Great Britain and Northern Ireland, Request for Circulation of a Document at the Ninety-Ninth Session of the Executive Council,” EC-99/NAT.1, OPCW, November 5, 2021, available at <<https://www.opcw.org/sites/default/files/documents/2021/11/ec99nat01%28e%29.pdf>>.

52 See, for example, CSP, “Statement by the Delegation of the Russian Federation to the OPCW at the Twenty-Fifth Session of the Conference of the States Parties in Exercise of the Right of Reply to the Statements by the Delegations of the United Kingdom of Great Britain and Northern Ireland and the United States of America to the OPCW and the Collective Statements of 58 States and the European Union,” OPCW, February 19, 2021.

53 CSP, “Statement by H.E. Ambassador Tan Jian, Head of the Delegation of the People’s Republic of China, at the General Debate of the Twenty-Sixth Session of the Conference of the States Parties to the Chemical Weapons,” OPCW, November 25, 2021.

54 Stefano Costanzi and Gregory D. Koblenz, “Updating the CWC: How We Got Here and What Is Next,” *Arms Control Today*, April 2020, 17–18, available at <<https://www.armscontrol.org/act/2020-04/features/updating-cwc-we-got-here-what-next>>.

55 However, the Chemical Weapons Convention’s Verification Annex was amended in 1999 by the EC to facilitate the transfer of saxitoxin for medical diagnostic purposes. See EC, “Report of the Executive Council on the Performance of Its Activities (5 September 1998–29 April 1999),” EC-MV/2, OPCW, June 4, 1999, § 3.35, available at <[https://www.opcw.org/sites/default/files/documents/CSP/C-IV/en/C-IV\\_1-EN.pdf](https://www.opcw.org/sites/default/files/documents/CSP/C-IV/en/C-IV_1-EN.pdf)>.

56 North Korean agents used VX to assassinate Kim Jung Nam, the half-brother of current North Korean leader, Kim Jong Un, in Malaysia in 2017. “North Korea Used VX Nerve Agent to Kill Leader’s Brother, Says US,” BBC, March 7, 2018, available at <<https://www.bbc.com/news/world-asia-43312052>>.

57 Michael Crowley, *Chinese “Wide Area” Riot Control Agent Means of Delivery: Implications for the Chemical Weapons Convention* (Bradford, UK: Bradford Non-Lethal Weapons Project and Omega Research Foundation, 2015), available at <<https://omegaresearchfoundation.org/sites/default/files/uploads/Publications/Revised%20Chinese%20RCA%20munitions%20paper%20041115.pdf>>; and Michael Crowley and Malcolm Dando, *Down the Slippery Slope? A Study of Contemporary Dual-Use Chemical and Life Science Research Potentially Applicable to Incapacitating Chemical Agent Weapons*, Policy Paper Series No. 8 (Bradford, UK: Bradford Non-Lethal Weapons Research Project, 2014), available at <<https://www.statewatch.org/media/documents/news/2014/nov/Down-the-Slippery-Slope.pdf>>.

58 Berrier, *Statement for the Record, Worldwide Threat Assessment—2022*; and *Annual Threat Assessment of the U.S. Intelligence Community* (Washington, DC: Office of the Director of National Intelligence, February 2022), available at <<https://www.dni.gov/index.php/newsroom/reports-publications/reports-publications-2022/item/2279-2022-annual-threat-assessment-of-the-u-s-intelligence-community>>.

59 *Compliance with the Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on Their Destruction (Condition (10)(C) Report)* (Washington, DC: Department of State, April 2022), 10–22, available at <<https://www.state.gov/wp-content/uploads/2022/04/Condition-10-c-Report.pdf>>.

60 John P. Caves, Jr., *Fentanyl as a Chemical Weapon*, CSWMD Proceedings (Washington, DC: NDU Press, December 2019), available at <<https://wmdcenter.ndu.edu/Portals/97/CSWMD%20Proceedings%20Dec%202019.pdf>>.

61 Caves and Carus, *The Future of Weapons of Mass Destruction: An Update*, 35.

62 *Ibid.*, 29–30.

63 For North Korea, see, for example, Berrier, *Statement for the Record, Worldwide Threat Assessment—2022*. That Syria has chemical weapons postured for battlefield use is evident from its repeated use of chemical weapons during its civil conflict since 2013, and most recently in 2020.

64 Based on the coauthor's participation in the larger effort that ultimately led to the December 1, 2021, central nervous system-acting chemicals (CNSAC) decision.

65 John P. Caves, Jr., and W. Seth Carus, *The Future of Weapons of Mass Destruction: Their Nature and Role in 2030*, Occasional Paper 10 (Washington, DC: NDU Press, June 2014), available at <[https://ndupress.ndu.edu/Portals/68/Documents/occasional/cswmd/CSWMD\\_Occasional-Paper-10.pdf](https://ndupress.ndu.edu/Portals/68/Documents/occasional/cswmd/CSWMD_Occasional-Paper-10.pdf)>; and Caves and Carus, *The Future of Weapons of Mass Destruction: An Update*.

66 CSP, "Joint Statement on Behalf of 4 Delegations Delivered by the Delegation of the Islamic Republic of Iran at the 26<sup>th</sup> Session of the Conference of States Parties of the OPCW under the Subitem 26.1, 'Any Other Business' on the Draft Decision entitled 'Understanding Regarding the Aerosolized Use of Central Nervous System-Acting Chemicals for Law Enforcement Purposes,'" OPCW, November 29, 2021.

67 The legal significance of *ultra vires* claims is discussed in Ebere Osieke, "The Legal Validity of Ultra Vires Decisions of International Organizations," *The American Journal of International Law* 77, no. 2 (1983), 239–256.

68 CSP, "Statement on Behalf of the Member States of the Collective Security Treaty Organization Delivered by the Russian Federation at the Twenty-Fifth Session of the Conference of the States Parties," C-25/NAT.124, OPCW, April 20, 2021, available at <<https://www.opcw.org/sites/default/files/documents/2021/12/c25nat124%28e%29.pdf>>.

69 The Non-Aligned Movement (NAM), originally created in 1961, remains an active grouping at the OPCW. Among its prominent members are India, Pakistan, South Africa, and Egypt, and among its prominent observer states are China, Brazil, and Mexico. See "Non-Aligned Movement (NAM)," Nuclear Threat Initiative, available at <<https://www.nti.org/education-center/treaties-and-regimes/non-aligned-movement-nam/>>; and, as an example, EC, "Azerbaijan: Statement on Behalf of the Members of the Non-Aligned Movement That Are States Parties to the Chemical Weapons Convention and China, Delivered by H.E. Mr. Fikrat Akhundov, Permanent Representative of the Republic of Azerbaijan to the OPCW, at the Ninety-Sixth Session of the OPCW Executive Council," EC-96/NAT.12, OPCW, March 9, 2021, available at <<https://www.opcw.org/sites/default/files/documents/2021/12/ec96nat12%28e%29.pdf>>.

70 At CSP-24 in November 2019, 19 states voted against the OPCW programme and budget for 2020. CSP, "Report of the Twenty-Fourth Session of the Conference of the States Parties, 25–29 November 2019," CSP-24/5, OPCW, November 29, 2019, § 14.4, available at <<https://www.opcw.org/sites/default/files/documents/2019/12/c2405%28e%29.pdf>>. At CSP-25 in April 2021, 14 voted against the OPCW programme and budget for 2021. CSP, "Report of the Twenty-Fifth Session of the Conference of the States Parties," April 22, 2021, § 13.4. At CSP-26 in 2021, 12 states voted against the OPCW programme and budget for 2022–2023. CSP, "Report of the Twenty-Sixth Session of the Conference of the States Parties," CSP-26/5, OPCW, December 2, 2021, § 13.4, available at <<https://www.opcw.org/sites/default/files/documents/2021/12/c2605%28e%29.pdf>>. In each case, Russia, China, and Iran were among the opposing votes.

71 See, for example, the statements of Ghana and Mexico, both of which voted in favor of the CNSAC decision but expressed a desire to return to consensus decisionmaking. CSP, "Statement by Dr Kwaku Afriyie,

Minister of Environment, Science, Technology, and Innovation (Mesti) of the Republic of Ghana at the Twenty-Sixth Session of the Conference of the States Parties," C-26/NAT.31, OPCW, November 26, 2021, available at <<https://www.opcw.org/sites/default/files/documents/2022/03/c26nat31%28e%29.pdf>>; and CSP, "Statement by the Delegation of the United Mexican States to the OPCW at the Twenty-Sixth Session of the Conference of the States Parties Explanation of Vote," C-26/NAT.55, OPCW, December 1, 2021, available at <<https://www.opcw.org/sites/default/files/documents/2022/03/c26nat55%28e%29.pdf>>.

72 *Compliance with the Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on Their Destruction (Condition (10)(C) Report)*, 16–22. Beyond Russia's use of Novichok agents, the United States also has found Russia to be noncompliant for failing to completely declare its chemical weapons production facilities, development facilities, and stockpiles

73 EC, "Statement by Her Excellency [Ambassador] Joanna Roper, Permanent Representative of the United Kingdom of Great Britain and Northern Ireland, to the OPCW at the Ninety-Ninth Session of the Executive Council," OPCW, March 4, 2022, available at <<https://www.opcw.org/sites/default/files/documents/2022/03/EC%2099%20-%20UK%20National%20Statement%20-%20FINAL.pdf>>.

74 See, for example, the views of Estonia and Japan: CSP, "Statement by H.E. Ambassador Lauri Kuusing, Permanent Representative of the Republic of Estonia, to the OPCW at the Twenty-Sixth Session of the Conference of the States Parties," OPCW, November 29, 2021, available at <<https://www.opcw.org/sites/default/files/documents/2022/03/c26nat40%28e%29.pdf>>; and CSP, "Statement by H.E. Ambassador Hidehisa Horinouchi, Permanent Representative of Japan, to the OPCW at the Twenty-Sixth Session of the Conference of the States Parties," OPCW, November 29, 2021, available at <<https://www.opcw.org/sites/default/files/documents/2022/03/c26nat35%28e%29.pdf>>.

75 *Compliance with the Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on Their Destruction (Condition (10)(C) Report)*, 10–16. The United States has found Iran to be non-compliant for failure to declare its transfer of chemical weapons to Libya during the 1978–1987 Chadian-Libyan conflict, failure to declare its complete holdings of riot control agents, and failure to submit a complete declaration of its chemical weapons production facilities.

76 This is not to preclude Russia, China, and/or Iran, if they were still active members, from supporting actions at the OPCW that they considered to be in their own interests, comparable to how they all supported in a different context the JCPOA along with France, Germany, European Union, United Kingdom, and United States, despite major differences in other areas of international security and in their relationships with each other.

77 For a review of this issue in the context of the Chemical Weapons Convention, see Robert J. Mathews, "Central Nervous System-Acting Chemicals and the Chemical Weapons Convention: A Former Scientific Adviser's Perspective," *Pure and Applied Chemistry* 90, no. 10 (2018), 1559–1575, available at <<https://doi.org/10.1515/pac-2018-0502>>. While the Chemical Weapons Convention prohibits the use of toxic chemicals (defined as those that cause death, temporary incapacitation, or permanent harm to humans and animals) as weapons for military purposes (note: U.S. Senate Resolution 75, *An Executive Resolution to Advise and Consent to the Ratification of the Chemical Weapons Convention, Subject to Certain Conditions*, 105<sup>th</sup> Cong., 1<sup>st</sup> sess., 1997, § 2(26), requires as a condition of its ratification of the Chemical Weapons Convention that the President certify that the Chemical Weapons Convention does not interfere with U.S. ability to use riot control agents for peacetime military or peacekeeping operations in specified circumstances), it does not

comprehensively prohibit their use for law enforcement purposes. Rather, the Chemical Weapons Convention includes “law enforcement including domestic riot control purposes” among “purposes not prohibited” by the Chemical Weapons Convention (Article II.9(d)). While the law enforcement exception generally is applied to riot control agents, such as tear gas and pepper spray, that are temporarily incapacitating rather than lethal, there is ambiguity as to its application to other chemicals, including PBAs, that can be nonlethal in certain circumstances.

78 For a discussion of the CNSAC decision, see Michael Crowley and Malcolm Dando, “Central Nervous System Weapons Dealt a Blow,” *Science* 375, no. 6577 (January 13, 2022), 153–154, available at <<https://doi.org/10.1126/science.abn6132>>. In 2002, Russia security forces pumped aerosolized analogues of fentanyl into a Moscow theater to incapacitate Chechen terrorists and the hostages they held there in an effort to resolve the situation with minimal loss of life, resulting in the rescue of more than 700 hostages but also the deaths of almost 130 hostages and 40 terrorists from fentanyl exposures. Whether Russia had violated the Chemical Weapons Convention through its use of fentanyls in that situation was unclear. Subsequent appreciation that PBAs generally are too dangerous to be used in law enforcement, that they could be used as both lethal and low-lethal chemical weapons for military and other security purposes, and indications that countries like Russia, Iran, and China were pursuing PBA programs potentially for offensive purposes, led to an effort led by Australia, Switzerland, and the United States to reduce the ambiguity of the Chemical Weapons Convention’s law enforcement exception.

79 Based on the coauthor’s participation in the larger effort that ultimately led to the December 1, 2021, CNSAC decision.

80 CSP, “Understanding Regarding the Aerosolized Use of Central Nervous System-Acting Chemicals for Law Enforcement Purposes,” C-26/DEC.10, OPCW, December 1, 2021, available at <<https://www.opcw.org/sites/default/files/documents/2021/12/c26dec10%28e%29.pdf>>.

81 Chemical Weapons Convention, Article IX, §§ 3–7, available at <<https://www.opcw.org/chemical-weapons-convention>>.

82 Ibid., Articles XI and XII and pt. X of the Verification Annex, available at <<https://www.opcw.org/chemical-weapons-convention>>.

83 Ibid., Part X of the Verification Annex. For a discussion of this authority, see Tatsuya Abe, “Challenge Inspections Under the Chemical Weapons Convention: Between Ideal and Reality,” *The Nonproliferation Review* 24, no. 1–2 (January 2, 2017), 167–184.

84 Chemical Weapons Convention, Article VIII.36 and Article XII.4.

85 “Rules of Procedure and Comments,” A/520/Rev. 19, UN General Assembly, available at <<https://www.un.org/en/ga/about/ropga/>>.

86 “UN Charter, Chapter V: The Security Council,” UN, available at <<https://www.un.org/en/about-us/un-charter/chapter-5>>.

87 “What Is the Uniting for Peace Resolution?” Dag Hammarskjöld Library, available at <<https://ask.un.org/faq/177134>>.

88 “Security Council Calls for Emergency Session of General Assembly on Ukraine Crisis, Adopting Resolution 2623 (2022) by 11 Votes in Favour, 1 Against, 3 Abstentions,” *ReliefWeb*, February 27, 2022, available at <<https://reliefweb.int/report/ukraine/security-council-calls-emergency-session-general-assembly-ukraine-crisis-adopting>>.

89 Chemical Weapons Convention, Article VII.B.16.

90 “The United Nations: Fifty Years of Keeping the Peace,” *Constitutional Rights Foundation*, BRIA 12:3 a [Bill of Right in Action, Summer 1996 (12:3)], June 2020, available at <<https://www.crf-usa.org/bill-of-rights-in-action/bria-12-3-a-the-united-nations-fifty-years-of-keeping-the-peace>>.

91 In 1950, the Soviet Union believed that their boycott of the Security Council would remove legitimacy from that body and the larger UN, though it failed to halt the Security Council from authorizing UN military intervention in the Korean War. At that time, however, UN mem-

bership was much smaller as the subsequent influx of many new non-Western nations who achieved their independence from the dissolution of the European empires. Overview of a Kennan Institute event on March 13, 2006, “The Lost Battle: The Soviet Union and the United Nations under Stalin, 1945–1953,” featuring Ilya Gaiduk, Senior Research Fellow, Institute of World History, Russian Academy of Sciences, Moscow, and Fellow, Woodrow Wilson Center. For a description of the event, see “The Lost Battle,” Wilson Center, available at <<https://www.wilsoncenter.org/event/the-lost-battle-the-soviet-union-and-the-united-nations-under-stalin-1945-1953>>.

92 For example, “General Assembly Resolution A/RES/42/37C (30 November 1987),” UN, available at <<https://biosecuritycentral.org/resource/requirements-and-protocols/un-secretary-general%E2%80%99s-mechanism-a/res/42/37c/>>, includes the 1925 Geneva Protocol among customary international law in observing in paragraph 4, “Requests the Secretary-General to carry out investigations in response to reports that may be brought to his attention by any Member State concerning the possible use of chemical and bacteriological (biological) or toxin weapons that may constitute a violation of the 1925 Geneva Protocol or other relevant rules of customary international law in order to ascertain the facts of the matter, and to report promptly the results of any such investigation to all Member States.”

93 Caves and Carus, *The Future of Weapons of Mass Destruction: Their Nature and Role in 2030*, 28.

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