

## I. Achieving clarity on Syrian chemical weapon declarations to the OPCW and continued chemical weapon use allegations

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Governments, researchers, the media and others (including social media platforms) have compiled large amounts of data on allegations of chemical weapon use in Syria. Most of this data is impossible to validate with certainty (e.g. due to the passage of time and lack of on-site access by qualified experts, as well as the possibility of deliberate disinformation). Institutional mandates, staffing and information bases also differ according to the body performing the data collection and analysis. For such reasons, the baseline data may serve to support politically preferred interpretations of the nature of the Syrian armed conflict. Nevertheless, instances of confirmed chemical weapon use in Syria exist that meet internationally accepted legal and technical standards of proof. The fundamental difficulty is not proving chemical weapon use as such; rather, it is a question of how cases that attribute responsibility can be structured so as to preclude open-ended consultations among governments on the ‘reasonableness’ and sufficiency of the multilaterally drafted text of the overarching conclusions.

General verification by the Organisation for the Prohibition of Chemical Weapons (OPCW) of Syria’s chemical weapon declarations began in November 2013.<sup>1</sup> The OPCW Declaration Assessment Team (DAT), the OPCW Fact-Finding Mission (FFM) and the OPCW–United Nations Joint Investigative Mechanism (JIM) in Syria have sought to clarify Syrian chemical weapon-related matters, including allegations of use.<sup>2</sup> All have relied, to varying degrees, on open-source reporting in the development of their information baselines.<sup>3</sup>

<sup>1</sup> Hoggins, L., ‘Evolving verification: examples from nearly two decades of chemical demilitarisation’, Presentation at 19th International Chemical Weapons Demilitarisation Conference CWD 2016, 25–27 May 2016, London, p. 11. Hoggins is a senior chemical demilitarization officer at the OPCW. Such verification is normally referred to as ‘routine’. Given the circumstances of Syria’s accession to the CWC, all OPCW verification work has—in some sense—been non-routine. The work of the DAT and the FFM is distinct from the general OPCW verification activity for other parties and, as such, is inherently non-routine.

<sup>2</sup> On earlier work carried out under the UN Secretary-General’s mechanism to investigate allegations of chemical and/or biological weapon use, and the OPCW maritime removal of chemicals from Syria for out-of-country destruction see e.g. Hart, J., ‘Chemical disarmament in conflict areas’, *SIPRI Yearbook 2015*, pp. 582–85; and Hart, J., ‘Investigation of alleged chemical weapon use in Syria and other locations in the Middle East’, *SIPRI Yearbook 2016*, pp. 728–39.

<sup>3</sup> Such baseline information in principle could have included data from the Syrian Observatory for Human Rights, Jane’s incident reporting, the Bellingcat blog and the Syrian Archive. See e.g. Syrian Archive, ‘Dataset of verified videos about chemical weapons attacks in Syria’, [n.d.].

### **OPCW verification activities in Syria**

As of mid-2016 the OPCW had: (a) inspected all declared Syrian chemical weapon storage facilities and verified that they had been emptied; (b) verified that 100 per cent of declared chemicals had been destroyed (either in Syria or outside Syria); and (c) verified that 24 of 27 declared chemical weapon production facilities (CWPFs) had been destroyed.<sup>4</sup> Of the three remaining CWPFs, one (an aircraft hangar) was in the process of being destroyed (but not verified as such by the OPCW) and two stationary above-ground CWPFs remained inaccessible to OPCW inspectors due to continued fighting in the country.<sup>5</sup>

In October 2016 the Director-General of the OPCW reported that the principal focus of the OPCW Mission in Syria's future activities is on: (a) confirming the completeness and accuracy of Syria's declarations; (b) supporting the FFM; (c) verifying the destruction of the aircraft hangar CWPF; (d) confirming the status of the two stationary above-ground CWPFs; and (e) completing annual inspections of underground facilities already verifiably destroyed.<sup>6</sup>

Other unresolved or partially resolved issues include: (a) confirming the full nature and role (if any) of the Syrian Scientific Studies and Research Centre (SSRC) in the country's prior chemical weapon programme; (b) clarifying the significance of the OPCW Technical Secretariat's (TS) sampling and analysis of at least five chemicals that some states parties to the 1993 Chemical Weapons Convention (CWC) have pointed to as evidence of undeclared chemical weapon activities and agents; and (c) transforming the tenor of consultations into a more productive approach that is better focused on confirming and clarifying technical points, especially concerning past chemical weapon activities and programmes.<sup>7</sup>

<sup>4</sup> Hoggins (note 1).

<sup>5</sup> Hoggins (note 1). The OPCW has implemented a remote monitoring system for 5 underground structures. United Nations, Security Council, Letter dated 25 March 2015 from the Secretary-General addressed to the President of the Security Council, S/2015/211, 25 Mar. 2015, p. 6.

<sup>6</sup> OPCW, Executive Council, 'Note by the Director-General: progress in the elimination of the Syrian chemical weapons programme', EC-84/DG.1, 25 Oct. 2016, para. 17.

<sup>7</sup> The 5 chemicals have not yet been officially confirmed in public. For an authoritative summary of Syrian chemical weapon declarations and destruction operations see Anelli, D. and Rouzbahani, M., 'Chemical demilitarisation in Syria: an overview', ed. L. MacFaul, *Verification and Implementation: A Biennial Collection of Analysis on International Agreements for Security and Development* (VERTIC: London, 2015), pp. 121–28. For a summary and other details of the Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction (Chemical Weapons Convention, CWC) see annex A, section I, in this volume.

## Statements by states parties to the CWC

In a statement to the OPCW's Executive Council at a meeting in July 2016, the European Union (EU) noted that inconsistencies relating to Syria's chemical weapon declarations had increased. The EU concluded that 'The Syrian authorities have been unable to provide sufficient and verifiable evidence that they do not retain chemical capabilities and that their chemical weapons programme is fully declared and completely and irreversibly dismantled'.<sup>8</sup>

In its statement to the Executive Council in July 2016, Switzerland characterized the TS's sampling and analysis results as 'alarming' in part because four of the five additional chemical warfare agents had yet to be 'adequately explained' by Syria.<sup>9</sup> Switzerland further observed that 'the lack of original documentation and physical evidence, and the difficulty for the DAT to interview high-ranking officials within the chemical weapons program, are further elements that point to a lack of cooperation from the Syrian government'.<sup>10</sup>

The United States stated at the Executive Council meeting in July 2016 that the TS's sampling results 'are indicative of production, weaponization, and storage of CW [chemical weapon] agents by the Syrian military that has never been acknowledged by the Syrian government'.<sup>11</sup> The USA also stated that it remained concerned that 'CW agent[s] and associated munitions, subject to declaration and destruction, have been illicitly retained by Syria'.<sup>12</sup>

In its July 2016 statement to the EC, India noted that it 'would encourage further consultations with an aim to fully resolve all the outstanding [issues] in the spirit of trust and cooperation'.<sup>13</sup> The Non-Aligned Movement (NAM) and China caucus group's July 2016 statement noted:

The NAM CWC States Parties and China welcome the complete destruction of the Syrian chemical weapons and the significant progress made in the destruction of its chemical weapons production facilities, and also welcome the continued cooperation of the Syrian Arab Republic regarding the implementation of the relevant Executive Council decisions towards the elimination of its chemical weapons.<sup>14</sup>

<sup>8</sup> OPCW, Executive Council, 'Slovakia: statement on behalf of the European Union delivered by H.E. Ambassador Roman Buzek, Permanent Representative of Slovakia to the OPCW at the eighty-second session of the Executive Council', EC-82/NAT.22, 12 July 2016, p. 2.

<sup>9</sup> OPCW, Executive Council, 'Statement by Mr. Urs Breiter, Permanent Representative of Switzerland to the OPCW, item 5: general debate', 12 July 2016, p. 4.

<sup>10</sup> OPCW (note 9).

<sup>11</sup> OPCW, Executive Council, 'Statement by Ambassador Kenneth D. Ward, United States delegation to the eighty-second session of the Executive Council, Organization for the Prohibition of Chemical Weapons', 12 July 2016, p. 2.

<sup>12</sup> OPCW (note 11).

<sup>13</sup> OPCW, Executive Council, 'Statement by Ambassador J. S. Mukul, Permanent Representative of India to the OPCW at the 82nd session of the Executive Council', 12 July 2016, p. 2.

<sup>14</sup> OPCW, Executive Council, 'Islamic Republic of Iran: statement on behalf of the member states of the Non-Aligned Movement that are states parties to the Chemical Weapons Convention

The JIM issued its third and fourth public reports in August and October 2016 respectively. The reports found that both Syrian government forces and the Islamic State (IS) had been involved in the use of chemical weapons in Syria (see below).

In September 2016 the Syrian Government issued a letter categorically denying the use of chemical weapons.<sup>15</sup> A Syrian military official rejected the JIM findings stating: 'The Syrian state ... and we, the Syrian army, have said more than once that the army has not and will not use any banned weapon, especially chemical or poison weapons. This issue is completely void of truth. We consider the United Nations to be a tool in the hands of some countries which support terrorists.'<sup>16</sup>

On 11 November 2016 the reconvened Executive Council issued a decision taken by majority vote, which condemned the use of chemical weapons in Syria by all parties identified by the JIM reports. The Executive Council's decision included an instruction to the TS to conduct inspections—including sampling and analysis—at the SSRC's Barzah and Jamrayah facilities twice a year with 'full and unfettered access to all buildings at these sites and all rooms within these buildings' until the Executive Council decides to end these inspections.<sup>17</sup> In addition, the Executive Council made the OPCW's Director-General personally responsible for informing the Executive Council on the implementation of this decision, including through his monthly reporting to the UN Security Council through the UN Secretary-General.<sup>18</sup>

During the 21st Conference of the States Parties (CSP) to the CWC, which took place in The Hague on 28 November–2 December 2016, Russia issued a joint paper on behalf of itself, Belarus, Burundi, China, Cuba, Iran, Sudan, Syria and Venezuela that criticized the Executive Council's November decision and countered the broader narrative of Syrian Government responsibility for chemical weapon use.<sup>19</sup> The paper stated:

and China, delivered by H.E. Ambassador Dr Alireza Jahangiri, Permanent Representative of the Islamic Republic of Iran to the OPCW at the eighty-second session of the Executive Council', EC-82/NAT.24, 12 July 2016, p. 2.

<sup>15</sup> United Nations, Security Council, Identical letters dated 9 September 2016 from the Permanent Representative of the Syrian Arab Republic to the United Nations addressed to the Secretary-General and the President of the Security Council, S/2016/773, 14 Sep. 2016, pp. 1–2.

<sup>16</sup> Deutsch, A., Irish, J. and Nichols, M., 'Exclusive: UN inquiry blames Syrian military for chlorine bomb attacks: source', Reuters, 16 Sep. 2016.

<sup>17</sup> OPCW, Executive Council, 'Decision: OPCW–United Nations Joint Investigative Mechanism reports on chemical weapons use in the Syrian Arab Republic', EC-83/DEC.5, 11 Nov. 2016, para. 11.

<sup>18</sup> The UN Secretary-General transmits the OPCW Director-General's reports using a cover letter. OPCW, EC-83/DEC.5 (note 17), para. 12(a).

<sup>19</sup> OPCW, Conference of the States Parties, 21st session, 'Russian Federation: joint paper on behalf of nine states parties to the Chemical Weapons Convention addressing concerns over politicisation of the work and scope of the OPCW and the need to preserve the integrity of the Organisation', C-21/NAT.16, 2 Dec. 2016.

Unfortunately, on 11 November 2016, the Executive Council took a decision [by majority vote] on the JIM reports, a matter the United Nations Security Council is still seized with, thus posing a threat to the unity of the Organisation and making the OPCW a surrogate body of the United Nations Security Council. Further politicisation of the work of the OPCW runs the risk of undermining the credibility of the Organisation ... certain States Parties have advanced the position that proposes to embark on the path of further escalation of tensions. It is all the more regrettable given that the task of requiring us to join hands to combat a real—not an imaginary—scourge is relevant more now than ever: the challenge posed by terrorists who have the potential to implement their criminal plots not only by using toxic chemicals, but also real chemical warfare.<sup>20</sup>

Sixty-one states parties at the CSP publicly supported the JIM findings that Syrian government forces had used chemical weapons.<sup>21</sup> The remaining CWC states parties refrained from taking a public position.

### **Allegations of chemical weapon use in Syria in 2016**

On 24 May 2016 Syria stated at the Conference on Disarmament (CD) that al-Qaeda possessed chemical laboratories and was conducting tests on Syrian territory.<sup>22</sup>

Following on from allegations made in 2015, allegations of chemical weapon attacks in Marea (Aleppo Governorate) also continued. On 16 August 2016 IS allegedly fired approximately seven missiles filled with toxic chemicals at Marea that resulted in at least 10 people seeking medical assistance for breathing difficulties, impaired motor coordination, nausea and vomiting.<sup>23</sup>

In September 2016 multiple social media reports of IS chemical weapon attacks were published by Bellingcat—an investigative research network

<sup>20</sup> OPCW, C-21/NAT.16 (note 19), p. 1.

<sup>21</sup> OPCW, Conference of the States Parties, 21st session, 'Statement by sixty-one concerned states parties to the Chemical Weapons Convention concerning the confirmed use of chemical weapons in the Syrian Arab Republic', C-21/NAT.17, 30 Nov. 2016. The states are: Albania, Andorra, Australia, Austria, Bahrain, Belgium, Bosnia and Herzegovina, Bulgaria, Canada, Costa Rica, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Kuwait, Latvia, Liechtenstein, Lithuania, Luxembourg, the Former Yugoslav Republic of Macedonia, Malaysia, Malta, Mexico, Monaco, Mozambique, the Netherlands, New Zealand, Norway, Papua New Guinea, Poland, Portugal, Qatar, Romania, San Marino, Saudi Arabia, Senegal, Slovakia, Slovenia, South Korea, Spain, Sweden, Switzerland, Thailand, Trinidad and Tobago, Turkey, Ukraine, the United Arab Emirates, the United Kingdom, the United States and Zambia.

<sup>22</sup> United Nations Office at Geneva, 'Conference on Disarmament discusses Russian proposals on a Convention on Chemical and Biological Terrorism and on a programme of work', Press release, 24 May 2016.

<sup>23</sup> For interviews with local people concerning alleged IS chemical weapon attacks on Marea on 16 Aug. 2016 see al-Khatib, H., 'Evidence from the August 16, 2016 chemical attack on Marea by ISIS', Bellingcat, 31 Aug. 2016.

that uses open sources and social media—in the form of summaries of on-site social media testimonies.<sup>24</sup>

In November 2016 Russia requested the OPCW to investigate alleged chemical weapon use in Aleppo (Aleppo Governorate). This led to consultations on the modalities for how to conduct such an inspection, including its mandate and the physical safety of the inspection team. Russia then offered to provide samples and ‘other materials in relation’ to the incidents in Aleppo. The OPCW agreed to accept such material.<sup>25</sup>

Human Rights Watch collected data on allegations of helicopter-borne chlorine dispersal in Aleppo for the period 18 November–9 December 2016.<sup>26</sup> The OPCW’s Director-General reiterated that ‘such allegations are taken very seriously by the OPCW’.<sup>27</sup>

In December 2016 there were further allegations in various media reports of chemical weapon use in Uqayribat (Hama Governorate), located northwest of Palmyra in IS-controlled territory. The OPCW stated that it takes this (and similar) allegations seriously, and reiterated that the FFM would continue to ‘examine any credible reports it receives including pertinent information that might be shared by [the] States Parties to the Chemical Weapons Convention’.<sup>28</sup>

### **The Fact-Finding Mission’s activities in 2016**

In 2016 the FFM focused on four additional alleged use incidents in Syria, all of which were widely reported in the media: an incident in Saraqib (Idlib Governorate) and three incidents in Aleppo, Zubdiya and al-Sukkari (Aleppo Governorate).<sup>29</sup> The FFM remains a key vehicle for the further clarification or confirmation of Syrian Government and opposition group responsibility for some chemical weapon use allegations. The FFM assesses these incidents as high, medium or low credibility. It has identified at least 65 incidents from open sources for the period December 2015–14 November 2016. For this period there were 5 high-credibility incidents of which most were in Aleppo Governorate. In addition, there were at least 16 medium-credibility incidents and 7 low-credibility incidents. It is likely that some of the incidents involved the use of incendiaries or obscurants (e.g. phosphorus, thermite or similar).

<sup>24</sup> Higgins, E., ‘Signs of mustard gas use in September ISIS chemical attacks’, Bellingcat, 21 Sep. 2016.

<sup>25</sup> OPCW, ‘Statement from the OPCW spokesperson in response to media inquiries about the Russian Federation’s offer to provide samples and other material’, Press release, 22 Nov. 2016.

<sup>26</sup> Human Rights Watch, ‘Syria’, [n.d.], <<https://www.hrw.org/middle-east/n-africa/syria>>.

<sup>27</sup> OPCW, ‘Statement from the OPCW Director-General on recent allegations of toxic chemical use in Aleppo’, Press release, 7 Sep. 2016.

<sup>28</sup> OPCW, ‘Statement from the OPCW Director-General on allegations of chemical weapons use in Uqayribat, Hama Governorate, Syria’, Press release, 13 Dec. 2016.

<sup>29</sup> OPCW, EC-84/DG.1 (note 6), para. 14.

The TS has also received *notes verbales* from the Syrian Government, some of which allege chemical weapon use and, as such, are being evaluated by the FFM for possible further investigation.<sup>30</sup>

### **The Joint Investigative Mechanism**

#### *A revised mandate in 2016*

The JIM was established in accordance with UN Security Council Resolution 2235 (2015). It follows up on specific cases of chemical weapon use identified by the OPCW's FFM. The JIM's mandate was originally scheduled to expire on 23 September. The UN Security Council extended this deadline to 31 October, and the deadline for the JIM's fourth and final report to 21 October.<sup>31</sup> On 31 October 2016 the UN Security Council adopted Resolution 2314 (2016) which extended the mandate of the JIM for 18 days.<sup>32</sup>

On 17 November the UN Security Council adopted Resolution 2319 (2016).<sup>33</sup> This renewed the JIM's mandate for 12 months with the possibility of 'further extension and update' by the UN Security Council. The resolution modifies the JIM's mandate to reflect a greater emphasis on non-state/terrorist threats. For example, it encourages the JIM to consult with the UN Security Council's Committee Pursuant to Resolutions 1267 (1999) and 1989 (2011) and 2253 (2015) Concerning ISIL (Da'esh), Al-Qaida and Associated Individuals, Groups, Undertakings and Entities (the ISIL and Al-Qaida Sanctions Committee), and the 1540 Committee 'in order to exchange information on non-State actor perpetration, organization, sponsorship, or other involvement in [the] use of chemicals as weapons ... [where the FFM] determines or has determined that a specific incident in the Syrian Arab Republic involved or likely involved the use of chemicals as weapons'. The JIM is mandated to brief 'as appropriate' the 1540 Committee, the ISIL and Al-Qaida Sanctions Committee or 'other relevant counter-terrorism or non-proliferation bodies on relevant results of their work'. Non-state actors, including IS and the al-Nusra Front, are specifically flagged for JIM analysis (including supply chains), while no explicit mention is made of investigating the Syrian Government.

<sup>30</sup> Unclassified briefing by official, 2016.

<sup>31</sup> United Nations, Security Council, Letter dated 16 September 2016 from the Secretary-General addressed to the President of the Security Council, S/2016/806, 21 Sep 2016; United Nations, Security Council, Letter dated 21 September 2016 from the President of the Security Council addressed to the Secretary-General, S/2016/807, 21 Sep. 2016; and 'October 2016 monthly forecast', Security Council Report, 30 Sep. 2016.

<sup>32</sup> United Nations, 'Security Council unanimously adopts Resolution 2314 (2016), extends mandate of Joint Investigative Mechanism to identify perpetrators of chemical weapons use in Syria', SC/12571, 31 Oct. 2016.

<sup>33</sup> UN Security Council Resolution 2319, 17 Nov. 2016.

*The Joint Investigative Mechanism's findings in 2016*

The JIM issued four public reports in 2016.<sup>34</sup> The third and fourth reports summarized its attribution of responsibility findings regarding the use of chemical weapons in Syria. The JIM concluded that an Islamist-inspired insurgent group was responsible for at least one instance of sulphur mustard use (Marea, 21 August 2015), while Syrian government forces had been involved in the use of chemical weapons in at least three instances in Idlib Governorate: Talmenes (21 April 2014), Qmenas (16 March 2015) and Sarmin (16 March 2015).<sup>35</sup> The JIM is based on the work of the FFM, which enabled it to narrow the list of cases under investigation to nine. Interpol assisted with investigation methodology, while the World Health Organization contributed advice on medical and health issues. The JIM relied on open-source data for much of its information baseline. Members of the JIM have carried out at least five visits to Syria since its establishment. However, during these visits access to victims or sites was either limited or not possible.<sup>36</sup>

In its dealings with and responses to the JIM, Syria has generally restated the previous positions it has taken with the OPCW and the UN Security Council. These include Syria's position on the provision of what it deems to be sufficient on-site access to SSRC facilities, and statements reiterating its non-use of chemical weapons and the unavailability of documentation from its prior chemical weapon programme.

The JIM's methodology focused on: (a) chemicals, (b) munitions, (c) means of delivery, and (d) the context of a given incident. Based on this, it then attempted to reduce or eliminate the possibilities. In practice, the JIM focused its attention on delivery methods in an iterative elimination process. Once the it had reduced the possibilities to a minimum, it proceeded to draw conclusions. It also attempted to demonstrate *means, motive and opportunity*. For example, the JIM sought to confirm which parties were present at a given incident. All nine cases occurred in 2014 or 2015 and, with the exception of the 2015 Marea incident, all occurred in Idlib Governorate.

<sup>34</sup> United Nations, Security Council, First report of the Organization for the Prohibition of Chemical Weapons–United Nations Joint Investigative Mechanism, S/2016/142, 12 Feb. 2016; United Nations, Security Council, Second report of the Organization for the Prohibition of Chemical Weapons–United Nations Joint Investigative Mechanism, S/2016/530, 10 June 2016; United Nations, Security Council, Third report of the Organization for the Prohibition of Chemical Weapons–United Nations Joint Investigative Mechanism, S/2016/738, 24 Aug. 2016; and United Nations, Security Council, Fourth report of the Organization for the Prohibition of Chemical Weapons–United Nations Joint Investigative Mechanism, S/2016/888, 21 Oct. 2016.

<sup>35</sup> The cases investigated by the JIM under its 2015 mandate are: (a) Kafr Zita, Hama Governorate, 11 Apr. 2014; (b) Kafr Zita, Hama Governorate, 18 Apr. 2014; (c) Talmenes, Idlib Governorate, 21 Apr. 2015; (d) al-Tamanah, Idlib Governorate, 29 and 30 Apr. 2014; (e) al-Tamanah, Idlib Governorate, 25 and 26 May 2014; (f) Qmenas, Idlib Governorate, 16 Mar. 2015; (g) Sarmin, Idlib Governorate, 16 Mar. 2015; (h) Binnish, Idlib Governorate, 24 Mar. 2015; and (i) Marea, Aleppo Governorate, 21 Aug. 2015. United Nations, S/2016/738 (note 34).

<sup>36</sup> Unclassified briefing by official, 2016.



Eight of the cases concerned alleged chlorine use, while the remaining case was related to alleged sulphur mustard use.

The nine case histories, contained in annexes, make up the bulk of the third report.<sup>37</sup> For some locations, multiple alleged attacks were evaluated. As previously noted, the JIM made four cases of attribution: one against IS (sulphur mustard) and three against the Syrian government forces (chlorine or chlorine-like substances).<sup>38</sup> The sulphur mustard case against an IS affiliate was non-controversial, unlike those against the Syrian Government (either specific bodies or as a whole). The three-member JIM Leadership Panel decided whether and how to attribute responsibility (i.e. final attribution was not performed by the supporting investigators and analysts). The four JIM reports are summaries of a much larger baseline of data and analysis.

Between September 2015 and August 2016 members of the JIM held more than 150 bilateral meetings with members of the UN Security Council and other UN member states.<sup>39</sup> The JIM reviewed more than 8500 pages of documentation, transcripts of over 200 interviews, more than 950 items of photographic material, over 450 videos obtained from open sources and by witnesses, more than 300 pages of forensic analysis, and more than 3500 files (including audio recordings, further photographic materials and videos).<sup>40</sup>

The JIM attempted to correlate the alleged impact locations with information concerning the combat operations, including indications as to whether the attack was aerial or ground-based. If the attack was aerial, it could imply that Syrian government forces were responsible. On the other hand, if the attack was ground-based, it could imply that armed opposition groups were responsible. The JIM's attempts to attribute responsibility for non-standard munition configurations and delivery methods were context dependent. Cases in which both the Syrian Government and armed opposition group(s) confirmed that chemical weapons had been employed appeared to prompt the JIM to employ more definite language in its findings.

#### *Points for further consideration*

The JIM's methodology and findings suggest a number of points for possible further consideration, including the following.

1. Can impact locations be reliably connected to a given munition type one or two years after the fact (in general and in the Syrian civil war context)?
2. What is the theory and practice of identifying and handling false flag and evidence tampering by or on behalf of governments?

<sup>37</sup> United Nations, S/2016/738 (note 34), pp. 20–98.

<sup>38</sup> United Nations, S/2016/888 (note 34).

<sup>39</sup> United Nations, S/2016/738 (note 34), para. 17, pp. 6–7.

<sup>40</sup> United Nations, S/2016/738 (note 34), para. 15, p. 6.

3. To what extent and how have armed opposition groups deployed air assets (i.e. helicopters)?

4. Finally, to what extent have combat operations in Syria been documented by governments' national technical means?

It remains to be seen whether future reports from the JIM ultimately provide clarity on responsibility for use of such weapons or if the mandate becomes increasingly diffuse and open-ended in nature.

#### *Reaction to the Joint Investigative Mechanism's findings*

As noted above, while the JIM's findings in 2016 prompted condemnation of Syria from some states parties to the CWC, others refrained from taking a public position. Deadlocked consultations among governments at the UN Security Council on a December 2016 draft sanctions resolution (proposed by France and the United Kingdom) against Syria based on the JIM findings illustrated the depth of the political split within the UN Security Council.<sup>41</sup>

The process of accumulating and assessing technical information will continue. However, incompatible government positions informed by politically preferred interpretations and outcomes have continued to result in ambiguous statements and the removal of more definitive language from documentation drafted in multilateral forums. The final legal and political consequences therefore remain uncertain.

<sup>41</sup> Nichols, M., 'Britain, France push U.N. Syria helicopter ban, sanctions over gas attacks', Reuters, 21 Dec. 2016. Unofficial summaries of UN Security Council meetings and outcomes are available at the What's in Blue website, <<http://www.whatsinblue.org/>>.