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المركز السوري للإعلام وحرية التعبير  
Navenda Sûriyeyî ya Ragihandinê û Azadiya Derbirînê  
Syrian Center for Media and Freedom of Expression

## **KHAN SHAYKHUN SARIN ATTACK**

### **INTRODUCTION**

1. A chemical weapons attack was conducted in the morning of 4 April 2017 on the town of Khan Shaykhun in the Syrian Arab Republic (“Syria”).
2. The Joint Investigative Mechanism (the “JIM”) of the United Nations and the Organization for the Prohibition of Chemical Weapons (“OPCW”) investigated the attack and concluded that it was “confident that the Syrian Arab Republic is responsible for the release of sarin at Khan Shaykhun on 4 April 2017.”<sup>1</sup>
3. This document summarizes portions of an evidentiary brief supporting a criminal complaint filed by the Open Society Justice Initiative, Syrian Center for Media and Freedom of Expression, Syrian Archive and Civil Rights Defenders on behalf of victims of the chemical weapons attack on Khan Shaykhun.
  - First, this report details the use of chemical weapons in Khan Shaykhun on 4 April 2017.
  - Second, it analyzes evidence supporting the attribution of responsibility to the Syrian government and identifies perpetrators and chains of command that are responsible for the chemical attacks.
  - Third, it places the chemical attack on Khan Shaykhun within the broader strategy of the Syrian government and a pattern of deliberate violence against civilians in opposition-held areas.
  - Finally, it discusses the use of chemical weapons in Khan Shaykhun as a war crime and crime against humanity.
4. The complaint calls on the Swedish Police Authority and the Swedish Prosecution Authority to investigate the use of chemical weapons in Ghouta as an international crime, and to pursue arrest warrants against the suspected perpetrators.

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<sup>1</sup> Organisation for the Prohibition of Chemical Weapons (OPCW)-United Nations Joint Investigative Mechanism, 7<sup>th</sup> Report, 26 October 2017, S/2017/904 (‘JIM Report’), Annex II, para. 92.

**THE USE OF CHEMICAL WEAPONS AT KHAN SHAYKHUN**

5. The chemical weapons attack on 4 April 2017 targeted the town of Khan Shaykhun in the southern Idlib Governorate. Khan Shaykhun is located on the strategic M5 motorway, which runs as a main artery from Aleppo to Damascus and cuts through all of the country's major cities.<sup>2</sup> The subdistrict of Khan Shaykhun had a population of approximately 34,000 and the town itself at 16,000 around 2017,<sup>3</sup> including many displaced Syrians notably from the Hama countryside.<sup>4</sup>
6. Khan Shaykhun was under opposition control at the time of the chemical attack. Opposition forces captured Khan Shaykhun in May 2014 as part of an offensive moving south towards Hama.<sup>5</sup> It remained under opposition control until the Syrian government seized it in August 2019.<sup>6</sup>
7. In the weeks preceding the chemical weapons attack, opposition forces launched a coordinated attack on government positions in northern Hama on 21 March 2017 and were advancing rapidly towards Hama city.<sup>7</sup> Syrian government forces received reinforcements from other parts of the country to repel the opposition's attacks.<sup>8</sup> Syrian and Russian air support was also redirected to northern Hama.<sup>9</sup> There were regular airstrikes on Khan Shaykhun and the surrounding area between 17 March and 3 April 2017,<sup>10</sup> and particularly in the days leading up to 4 April 2017.<sup>11</sup>

**Timeline**

8. The chemical strike occurred in Khan Shaykhun between 06.30 and 07.00 hours on 4 April 2017.<sup>12</sup>

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<sup>2</sup> See e.g. Zeina Karam, 'AP Explains: Why Syria's M5 is Assad's highway to victory', AP, 14 February 2020, available at <https://apnews.com/9f6d1f6ea8866e2d82e41b9bf08e67a5>; Bethan Mckernan, 'The highway that determines the future for Syria and its citizens', The Guardian, 20 February 2020, <https://www.theguardian.com/world/2020/feb/20/the-highway-that-determines-the-future-for-syria-and-its-citizens>; Independent International Commission of Inquiry on the Syrian Arab Republic, Report, 8 August 2017, A/HRC/36/55 ('COI Report'), Annex II, para. 5.

<sup>3</sup> JIM Report, Annex II, para. 7.

<sup>4</sup> OPCW Fact-Finding Mission in Syria Regarding an Alleged Incident in Khan Shaykhun, 29 June 2017, S/1510/2017 ('FFM Report'), para. 5.11; Information from witnesses.

<sup>5</sup> Carter Center, 'Syria: Countrywide Conflict Report #4', 11 September 2014, available at [https://www.cartercenter.org/resources/pdfs/peace/conflict\\_resolution/syria-conflict/NationwideUpdate-Sept-18-2014.pdf](https://www.cartercenter.org/resources/pdfs/peace/conflict_resolution/syria-conflict/NationwideUpdate-Sept-18-2014.pdf), p. 40.

<sup>6</sup> Carter Center, 'Weekly Conflict Summary: 19-25 August 2019', available at [https://www.cartercenter.org/resources/pdfs/peace/conflict\\_resolution/syria-conflict/weekly\\_conflict\\_summary\\_19to25august2019.pdf](https://www.cartercenter.org/resources/pdfs/peace/conflict_resolution/syria-conflict/weekly_conflict_summary_19to25august2019.pdf), p. 2; Farah Najjar, 'Syria's war: Rebels withdraw from Idlib's Khan Sheikhoun', Al Jazeera, 20 August 2019, available at <https://www.aljazeera.com/news/2019/08/syria-war-armed-rebels-withdraw-idlib-khan-shaikhoun-190820063255105.html>.

<sup>7</sup> JIM Report, Annex II, para. 9; Carter Center, 'Weekly Conflict Summary: 15-22 March 2017', available at [https://www.cartercenter.org/resources/pdfs/peace/conflict\\_resolution/syria-conflict/weekly-conflict-summary-2017.03.16-22.pdf](https://www.cartercenter.org/resources/pdfs/peace/conflict_resolution/syria-conflict/weekly-conflict-summary-2017.03.16-22.pdf), p. 1; Mohanad Hage Ali, 'The "No Motive" Myth', Carnegie Middle East Center, available at <https://carnegie-mec.org/diwan/68649>.

<sup>8</sup> JIM Report, Annex II, para. 9.

<sup>9</sup> JIM Report, Annex II, para. 9; French Intelligence, 'National evaluation: Chemical attack of 4 April 2017 (Khan Sheikhoun)', 26 April 2017, available at [https://www.diplomatie.gouv.fr/IMG/pdf/170425\\_-\\_evaluation\\_nationale\\_-\\_anglais\\_-\\_final\\_cle0dbf47-1.pdf](https://www.diplomatie.gouv.fr/IMG/pdf/170425_-_evaluation_nationale_-_anglais_-_final_cle0dbf47-1.pdf) ('French Intelligence Report'), p. 4.

<sup>10</sup> JIM Report, Annex II, para. 9.

<sup>11</sup> JIM Report, Annex II, para. 9; COI Report, Annex II, para. 6.

<sup>12</sup> JIM Report, Annex II, para. 10; Information from witnesses placing the attack between 06.30 and 06.40 hours.

9. There was one chemical strike out of four successive airstrikes carried out that morning. At approximately 06.30, aircraft observers issued a warning via radio that a Sukhoi-22 (“Su-22”) had taken off from Shayrat Airbase in the direction of Khan Shaykhun.<sup>13</sup> The planes were observed circling Khan Shaykhun, and shortly later warning radios described that the area near the “machine bakery” in Khan Shaykhun had been bombed with a chemical bomb.<sup>14</sup>

#### **Victims of the Attack**

10. The attack on Khan Shaykhun resulted in upwards of 100 deaths and hundreds of injuries. Witnesses indicated that between 70 and 100 people died,<sup>15</sup> and between 400 and 800 were injured.<sup>16</sup> External reporting corroborate approximately 100 deaths and several hundreds of injuries.<sup>17</sup> Many of the victims were women and children.<sup>18</sup> Victims were buried in mass graves.<sup>19</sup>
11. At the sites of the attack, first responders and community members reported seeing a large number of individuals lying on the ground; many were dead or unconscious.<sup>20</sup> Victims, medical staff and first responders reported that affected individuals presented the following symptoms: dizziness; burning eyes, nose, and throat; foaming from the mouth and nose; muscle spasms and/or seizures; loss of consciousness; shortness of breath; cyanosis; headache; pain in the eyes and/or blurriness; pinpoint pupils; itching of the body; and temporary paralysis.<sup>21</sup> These symptoms are consistent with exposure to nerve agents such as sarin.<sup>22</sup>

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<sup>13</sup> Information from witnesses.

<sup>14</sup> Information from witnesses.

<sup>15</sup> Information from witnesses.

<sup>16</sup> Information from witnesses.

<sup>17</sup> FFM (approximately 100 fatalities and at least 200 injuries), FFM Report, para. 6.13; Syrian Centre for Media and Freedom of Expression (SCM) (100 victims), Information on file with SCM; Justice of Life Organization (103 dead), Justice for Life Organization, تقرير خاص حول الهجوم الكيميائي الذي تعرضت له مدينة خان شيخون في محافظة ادلب April 2017, available at <https://jfl.ngo/wp-content/uploads/2017/04/PDF-A.pdf>, p 27-41; Idlib Health Directorate (557 injuries, 73 fatalities), Idlib Health Directorate, Facebook post, 5 April 2017, available at [https://www.facebook.com/Idleb.Health.Directorate/photos/a.648305141939511.1073741828.648124961957529/965085320261490/?type=3&\\_rdc=1&\\_rdr](https://www.facebook.com/Idleb.Health.Directorate/photos/a.648305141939511.1073741828.648124961957529/965085320261490/?type=3&_rdc=1&_rdr); Human Rights Watch (at least 90 fatalities, 30 of whom children), Human Rights Watch, ‘Death by Chemicals’, 1 May 2017, available at <https://www.hrw.org/report/2017/05/01/death-chemicals/syrian-governments-widespread-and-systematic-use-chemical-weapons#>; AIRWARS (90 fatalities), AIRWARS, ‘Russian airstrikes and civilian deaths in Syria are rising fast’, 26 April 2017, available at <https://airwars.org/news-and-investigations/russian-airstrikes-on-rise/>; Syrian American Medical Society (90 fatalities and 560 injuries), Syrian American Medical Society, ‘Remembering Victims of Sarin Gas Attack on Khan Sheikhoun: Two Years Now’, 4 April 2019, available at [https://www.sams-usa.net/press\\_release/remembering-victims-of-sarin-gas-attack-on-khan-sheikhoun-two-years-now/#](https://www.sams-usa.net/press_release/remembering-victims-of-sarin-gas-attack-on-khan-sheikhoun-two-years-now/#).

<sup>18</sup> FFM Report, p. 32-33.

<sup>19</sup> Witness information; photos and videos of large graves circulated on social media, e.g. <https://twitter.com/MohmdKerndl/status/1113567470344912896> (video showing large grave, potentially at coordinates 35.432087, 36.647473); <https://www.gettyimages.fr/detail/photo-d'actualit%C3%A9/syrians-bury-the-bodies-of-victims-of-a-a-suspected-photo-d'actualit%C3%A9/664818306> (photo showing large grave, potentially at coordinates 35.431389, 36.648537).

<sup>20</sup> Information from witnesses.

<sup>21</sup> Information from witnesses.

<sup>22</sup> Centers for Disease Control and Prevention, ‘Toxic Syndrome Description: Nerve Agent and Organophosphate Pesticide Poisoning’, available at <https://emergency.cdc.gov/agent/nerve/tsd.asp>.

12. Casualties were taken to several medical facilities in the area; many of which became overwhelmed by the number of casualties.<sup>23</sup> Rescue treatment included stripping the victims of their clothing; rinsing bodies with water; and administering atropine and oxygen.<sup>24</sup> First responders and medical personnel were affected by chemical as they transported or administered treatment to the victims of the chemical attacks.<sup>25</sup>
13. Witnesses report long-term effects of the attacks, including lasting physical and psychological impacts.<sup>26</sup>

**Impact Sites**

14. Four munitions struck Khan Shaykhun between 06:30 and 07:00 on 4 April 2017. Two conventional munitions and the chemical bomb struck in the northern part of Khan Shaykhun. A fourth conventional strike was carried out in the western part of the city.<sup>27</sup>
15. The chemical munition struck near the “machine bakery,”<sup>28</sup> near the grain silos,<sup>29</sup> at the coordinates: 35°26'59.75"N, 36°38'55.91"E.<sup>30</sup> A large number of open source photographs and videos show the chemical impact site from different angles.<sup>31</sup> The diameter of the crater was approximately 1.5 – 1.65m, with a depth of 42 – 51cm.<sup>32</sup>



*Figure 1: Chemical impact site at 35°26'59.75"N, 36°38'55.91"E with the grain silos to the northeast of the site*

**Munitions and Delivery Systems**

16. The JIM concluded that the munition used in Khan Shaykhun was thin-walled with a diameter of 300mm – 500mm and that the munition had likely been dropped from an aircraft.<sup>33</sup>

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<sup>23</sup> Information from witnesses.

<sup>24</sup> Information from witnesses.

<sup>25</sup> Information from witnesses.

<sup>26</sup> Information from witnesses.

<sup>27</sup> Information from witnesses.

<sup>28</sup> Information from witnesses.

<sup>29</sup> Information from witnesses.

<sup>30</sup> JIM Report, Annex II, para. 40.

<sup>31</sup> Bellingcat, ‘The Khan Shaykhun Attack, The Evidence so Far’, 5 April 2017, available at <https://www.bellingcat.com/news/mena/2017/04/05/khan-sheikhoun-chemical-attack-evidence-far/>.

<sup>32</sup> JIM Report, Annex II, para. 46; Witnesses described the chemical impact strike as being less than 1m in depth and approximately 1.5 m wide; Information from witnesses.

<sup>33</sup> JIM Report, para. 40.

17. The JIM found the chemical munition's filler cap with two closure plugs to be "uniquely consistent" with Syrian chemical aerial bombs.<sup>34</sup> It also tested samples from the filler cap and found them to be positive for sarin and a byproduct generated by the reaction of sarin and hexamine.<sup>35</sup>
18. As of 2013, the Syrian government had two types of aerial bombs: the M4000 and the MYM 6000.<sup>36</sup> The OPCW-Investigation and Identification Team (IIT) described the M4000 as a munition "designed by, and manufactured in, the Syrian Arab Republic to deliver chemical agents, including sarin" as an unguided chemical air-delivered munition, weighing 350 kilograms.<sup>37</sup> The online investigation journalism group Bellingcat determined, through open-source investigation, that the bomb used on Khan Shaykhun was likely an M4000 chemical bomb.<sup>38</sup>
19. A metal piece which protruded from the impact site was found to have been part of the casing of an aerial bomb.<sup>39</sup> The dimensions of the crater were also consistent with an aerial bomb with a small explosive charge.<sup>40</sup> Witness testimonies and video footage also support the fact that the crater was created by a bomb dropped from an aircraft.<sup>41</sup>
20. The JIM investigated whether a Syrian Arab Air Force Su-22 had taken off from Shayrat air base and carried out the aerial weapons attack on Khan Shaykhun that day. It confirmed that there had been air activity around Khan Shaykhun around the time of the sarin attack, including with aircrafts having taken off from Shayrat airbase.<sup>42</sup>

#### **Presence of Sarin**

21. The FFM concluded that "the only determination that could be made was that sarin had been used as a weapon"<sup>43</sup> and that "a significant number of people were exposed to sarin, of which a proportion died from that exposure".<sup>44</sup> The findings drew from biomedical samples; medical records; and interviews with survivors and medical personnel.<sup>45</sup>

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<sup>34</sup> JIM Report, Annex II, para. 56.

<sup>35</sup> JIM Report, Annex II, para. 56.

<sup>36</sup> OPCW-Investigation and Identification Team, Report on Ltamenah (Syrian Arab Republic) 24, 25, and 30 March 2017, 8 April 2020, S/1867/2020 ('IIT Report'), para. 7.21.

<sup>37</sup> IIT Report, para. 7.22.

<sup>38</sup> Bellingcat, 'Did Russia Accidentally Provide the Best Evidence of the Syrian Government's Involvement in Sarin Attacks?', 13 November 2017, available at <https://www.bellingcat.com/news/mena/2017/11/13/russia-accidentally-provide-best-evidence-syrian-governments-involvement-sarin-attacks/>; Bellingcat, 'The First Images of the Type of Chemical Bomb Used in Syria's Sarin Attacks', 24 September 2019, available at <https://www.bellingcat.com/news/mena/2019/09/24/the-first-images-of-the-type-of-chemical-bomb-used-in-syrias-sarin-attacks/>.

<sup>39</sup> JIM Report, Annex II, para. 55.

<sup>40</sup> JIM Report, para. 40.

<sup>41</sup> JIM Report, Annex II, para. 17.

<sup>42</sup> JIM Report, Annex II, para. 28.

<sup>43</sup> FFM Report, para. 1.7.

<sup>44</sup> FFM Report, para. 6.18.

<sup>45</sup> FFM Report, para. 6.1.

22. Witnesses describe seeing a white cloud that moved downward.<sup>46</sup> This is consistent with sarin, which is heavier than air.<sup>47</sup> Witnesses report that the chemical strike did not make a loud noise on impact.<sup>48</sup> There was no odor.<sup>49</sup>
23. The symptoms of the victims were widely consistent with exposure to a nerve agent, and specifically sarin, as detailed below.

#### **PERPETRATORS OF THE ATTACK**

24. This section analyses the responsibility of the Syrian government for the chemical attack on Khan Shaykhun on 4 April 2017.

#### **Aircraft from Shayrat Airbase**

25. The plane that dropped the chemical warhead on Khan Shaykhun was a Su-22 originating from Shayrat airbase is supported by witnesses.<sup>50</sup> Reports from Syria Sentry, an organization working with aircraft spotters,<sup>51</sup> publicly released Western intelligence reports,<sup>52</sup> the JIM which found that there had been air activity around Khan Shaykhun and that missions had been executed from Shayrat airbase at the time of the chemical weapons attack on Khan Shaykhun,<sup>53</sup> and the Commission of Inquiry which noted that only the Syrian government operated Su-22s in Syria.<sup>54</sup>
26. The complaint presents defector witnesses who have described the role of Shayrat Airbase in the chemical attack on Khan Shaykhun on 4 April 2017.<sup>55</sup> One insider witness once saw members of the Syrian Scientific Research Centre (SSRC) as they installed what the SSRC members described as special bombs, which the witness understood to be chemical bombs on aircrafts.<sup>56</sup>
27. The two Su-22 which left Shayrat airbase in the early morning of 4 April 2017 had the call signs “Quds 1” and “Quds 6”.<sup>57</sup> In the case of “Quds 1”, evidence indicates that this is a Su-22 from Squadron 685, flown by commander Brigadier General Mohammed Yousef Hasouri.<sup>58</sup> Open sources indicate that Brigadier General Mohammed Yousef Hasouri was responsible for the chemical attack on Khan Shaykhun, and Hasouri’s responsibility for the attack is confirmed by an insider witness who knew Hasouri personally.<sup>59</sup>

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<sup>46</sup> Information from witnesses.

<sup>47</sup> Centers for Disease Control and Prevention, ‘Facts About Sarin’, available at <https://emergency.cdc.gov/agent/sarin/basics/facts.asp>.

<sup>48</sup> Information from witnesses.

<sup>49</sup> Information from a witness.

<sup>50</sup> Information from witnesses.

<sup>51</sup> Syria Sentry, Twitter Post, 4 April 2017, 05.47, available at [https://twitter.com/Sentry\\_Syria/status/849106234837958656](https://twitter.com/Sentry_Syria/status/849106234837958656).

<sup>52</sup> French Intelligence Report, p. 4; United States, ‘The Assad Regime’s Use of Chemical Weapons on April 4, 2017’, available at <https://assets.documentcloud.org/documents/3553049/Syria-Chemical-Weapons-Report-White-House.pdf> (‘US Intelligence Report’), p. 1.

<sup>53</sup> JIM Report, Annex II, paras. 20 and 28.

<sup>54</sup> COI Report, para. 74.

<sup>55</sup> Information from witnesses.

<sup>56</sup> Information from a witness.

<sup>57</sup> Christiaan Tribert, ‘The Khan Shaykhun Chemical Attack — Who Bombed What and When’, Bellingcat, 10 April 2017, available at <https://www.bellingcat.com/news/mena/2017/04/10/khan-sheikhoun-chemical-attack-bombed/>.

<sup>58</sup> Tribert, ‘The Khan Shaykhun Chemical Attack’; Information from witnesses.

<sup>59</sup> Information from a witness.

**Chain of command**

28. President Bashar al-Assad is the Commander in Chief of the Army and Armed Forces.<sup>60</sup> President Al-Assad directly exercised, and continues to exercise, control over the military.<sup>61</sup> French intelligence report confirms that Bashar al-Assad would make the decision to use chemical weapons.<sup>62</sup>
29. A defector witness indicated that chemical weapons attacks had special significance and were carried out with the knowledge of the General Commander of the Army, the Minister of Defense, Chief of Staff, Commander of the Air Force and Air Defense, and the Director of the Air Force Intelligence.<sup>63</sup> The former Chief of Staff of the Army and Armed Forces at the time of the attack, and current Minister of Defence, Imad Ali Abdullah Ayyoub is implicated in the Khan Shaykhun Attack.<sup>64</sup> Major General Ahmad Ballul, the commander of the Syrian Arab Air Force and Syrian Arab Air Defense Forces, is also implicated.<sup>65</sup>
30. A defector witness indicated that orders at Shayrat Airbase directed from top down began at the highest level within the Command of the Air Force and the Air Force Intelligence Directorate to the Command of 22<sup>nd</sup> Air Division and then onto 50<sup>th</sup> Brigade.<sup>66</sup> Witness information indicates that 22<sup>nd</sup> Division Commanders Major General Sajih Darwish and Major General Malik Hasan, as well as the Commander of the Air Force Major General Ahmad Ballul are likely responsible for ordering the massacres that took place in the central and northern sectors of Syria, including the chemical attack at Khan Shaykhun.<sup>67</sup>

**Units and Individuals who are Allegedly Responsible**

31. The following individuals should be investigated for their alleged role in the sarin attack at Khan Shaykhun.
32. President Bashar al-Assad: As President of the Republic and Commander in Chief, President Assad held the highest responsibility in authorizing the attack on Khan Shaykhun, which would not have taken place at minimum without his knowledge.
33. Ali Abdullah Ayyoub: Currently the Syrian Minister of Defence, Ayyoub was the Chief of Staff of the Army and Armed Forces at the time of the Khan Shaykhun attack and is one of the government's most trusted individuals. According to an insider witness, Ayyoub played a significant operational role in the Khan Shaykhun attack. Following the attack, Ayyoub visited Shayrat Airbase and awarded Hasouri for his role in destroying an al-Qaeda location in Khan Shaykhun. He has been sanctioned by several entities.<sup>68</sup>

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<sup>60</sup> Article 103, Syrian Constitution (1973); Article 105, Syrian Constitution (2012).

<sup>61</sup> Chinese State News Network, Interview of Bashar Al-Assad, 23 September 2013, available at <https://www.youtube.com/watch?v=5pCvYZww0fM>.

<sup>62</sup> French Intelligence Report, p. 4.

<sup>63</sup> Information from a witness.

<sup>64</sup> Information from a witness.

<sup>65</sup> Information from a witness.

<sup>66</sup> Information from witnesses.

<sup>67</sup> Information from witnesses.

<sup>68</sup> EU, 'Consolidated Financial Sanctions', updated on 24 September 2020, available at <https://webgate.ec.europa.eu/europeaid/fsd/fsf/public/files/pdfFullSanctionsList/content?token=dG9rZW4tMjAxNw> ('EU Sanction List'); United Kingdom, 'Consolidated List of Financial Sanctions Targets in the UK', updated on 21 September 2020, available at <https://ofsistorage.blob.core.windows.net/publishlive/ConList.pdf> ('UK Sanctions List'); US, 'Specially Designated Nationals and Blocked Persons List', updated on 24 September 2020, available at <https://www.treasury.gov/ofac/downloads/sdnlist.pdf> ('US Sanction List').

34. Major General Ahmad Ballul: Major General Ahmad Ballul is the commander of the Syrian Arab Air Force and Syrian Arab Air Defense Forces. Due to his senior position, it is extremely unlikely that a chemical weapons attack on Khan Shaykhun would have taken place without his knowledge, at minimum. He has been sanctioned by the US, UK and EU for his use of chemical weapons against civilians.<sup>69</sup>
35. 22<sup>nd</sup> Division Commanders Major General Sajih Darwish and Major General Malik Hasan: UK and EU sanctions list Darwish and Hasan both as senior officers and commanders of the 22nd Division responsible for the use of chemical weapons by aircraft.<sup>70</sup> The US sanctioned Darwish as a senior official in the Syrian Arab Air Force for his connection with the Syrian government's use of chemical weapons.<sup>71</sup> While it remains unclear which of them held the role of commander at the exact time of the attack, their senior positions in the 22nd Division have led to them both being sanctioned for crimes committed by the unit and its subordinates. Both individuals warrant further investigation to determine their culpability for the Khan Shaykhun attack.
36. Brigadier General Muhammed Yousef Hasouri: Hasouri was the Commander of the 685th Squadron at the time of the attack, and is named by insider witnesses and open sources as the pilot who carried out the attack on Khan Shaykhun. He is known by his callsign, "Quds-1", and was personally awarded after the attack by Ayyoub. He has been sanctioned by the UK and EU, including specifically for his involvement in the chemical weapons proliferation sector.<sup>72</sup>

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<sup>69</sup> UK Sanctions List states Ballul 'Operates in the chemical weapons proliferation sector', EU Council Decision amending Decision 2013/255/CFSP concerning restrictive measures against Syria, 28 May 2020, available at <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32020D0719&from=EN> ('EU Decision on Restrictive Measures against Syria') states that Ballul 'Operates in the chemical weapons proliferation sector and, as a senior ranking officer of the Syrian Arab Air Force, is responsible for the violent repression of the civilian population, including the use of chemical weapons attacks by the Syrian regime identified in the report of the Joint Investigative Mechanism'; US, 'Treasury Sanctions Syrian Officials In Connection With OPCW-UN Findings Of Regime's Use Of Chemical Weapons On Civilians', 12 January 2017, available at <https://sy.usembassy.gov/treasury-sanctions-syrian-officials-connection-opcw-un-findings-regimes-use-cw-civilians/> ('US Sanctions Linked to OPCW-UN Findings').

<sup>70</sup> EU Decision on Restrictive Measures against Syria states about Darwish 'Operates in the chemical weapons proliferation sector and is responsible for the violent repression of the civilian population. As a senior ranking officer of the Syrian Arab Air Force and Commander of the 22nd Division until April 2017 he holds responsibility for the use of chemical weapons by aircraft operating from airbases under the control of the 22<sup>nd</sup> Division, including the attack on Talmenes that the Joint Investigative mechanism reported was conducted by Hama airfield-based regime helicopters' and describes Hasan as 'a senior officer of the Syrian Air Force and in the chain of command of the 22nd Division, he is responsible for the violent repression of the civilian population in Syria, including the use of chemical weapons by aircraft operating from airbases under the control of the 22nd Division, such as the attack on Talmenes that the Joint Investigative Mechanism established by the United Nations reported was conducted by Hama airfield-based regime helicopters'. UK Sanctions List describes Darwish as 'A senior officer and Commander of the 22nd Division of the Syrian Arab Air Force until April 2017. Operates in the chemical weapons proliferation sector. Responsible for the use of chemical weapons by aircraft, including the attack on the Talmenes' and Hasan as 'Responsible for the use of chemical weapons by aircraft operating from airbases under the control of the 22nd Division, such as the attack on Talmenes.'

<sup>71</sup> US Sanctions Linked to OPCW-UN Findings.

<sup>72</sup> UK Sanctions List states 'Senior Officer of the Syrian Air Force. He operates in the chemical weapons proliferation sector'; EU Decision on Restrictive Measures against Syria states 'Brigadier General Muhammad Hasouri operates in the chemical weapons proliferation sector. As a senior military officer he is responsible for



**Characteristics linking sarin to the Syrian government**

37. Additional evidence connects the sarin attack to the Syrian government. The JIM analyzed the sarin samples taken from Khan Shaykhun and concluded that the sarin was “most likely” made with a precursor chemical, methylphosphonyl difluoride (DF) from the Syria government’s pre-2014 stockpile.<sup>73</sup>
38. The IIT compared the chemical signature in the samples from the 24 and 30 March 2017 incidents it investigated in Ltamenah with that of the samples collected in relation to the Khan Shaykhun incident and found “significant similarities”.<sup>74</sup> The IIT suggested that the evidence strongly suggest that the sarin collected in all three incidents was manufactured through the same process,<sup>75</sup> which was not known to be used except by the Syrian government.<sup>76</sup>

**CONTEXT OF THE CHEMICAL ATTACKS**

39. The Syrian government’s chemical attack on Khan Shaykhun appeared to have aimed at halting the advance of opposition forces towards Hama city and regain key strategic areas. Pro-government forces and their allies rapidly advanced north towards Khan Shaykhun in the wake of the chemical weapons attack and had recaptured most of the territories it had lost to the opposition’s Hama Offensive by 19 April.<sup>77</sup>
40. The chemical weapons attack on Khan Shaykhun Ghouta is part of a broader pattern of deliberate, indiscriminate and widespread attacks perpetrated by the Syrian government against civilians in opposition-held areas. Syrian Archive has documented 212 chemical weapons attacks between 2011 and 2019, of which at least five were sarin attacks.<sup>78</sup>
41. The Syrian government has pursued a military strategy of punitive counterinsurgency and collective punishment against the civilian population in areas held by opposition forces.<sup>79</sup> As a result, civilians have been the first casualties of the Syrian government’s repeated attacks. By some estimates, the indiscriminate violence led the share of civilian casualties to rise dramatically from 4% in 2011 to 48% in 2012.<sup>80</sup>
42. Consistent with the Syrian government’s strategy of deliberately targeting civilians, the chemical attack on Khan Shaykhun was not an isolated incident. The Khan Shaykhun attack was closely preceded by two other Sarin attacks carried out from Shayrat Airbase on Ltamenah, a town less than 15 kilometers from Khan Shaykhun. The Ltamenah attacks on 24 March and 30 March 2017 bear striking similarities to the 4 April 2017 attack on Khan Shaykhun. The OPCW Investigation and Identification Team (IIT) concluded that in relation to the 24 and 30 March 2017 incidents, there were reasonable grounds to believe that M4000 aerial bombs containing sarin were dropped by a Su-22

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the violent repression of the civilian population in Syria’.

<sup>73</sup> JIM Report, Annex II, paras. 91, 92(h).

<sup>74</sup> IIT Report, para. 11.8.

<sup>75</sup> IIT Report, para. 11.8.

<sup>76</sup> IIT Report, para. 11.3.

<sup>77</sup> Carter Center, ‘Weekly Conflict Summary: April 13-19 2017’, available at [https://www.cartercenter.org/resources/pdfs/peace/conflict\\_resolution/syria-conflict/weeklyconflictsummary-2017.04.13-19.pdf](https://www.cartercenter.org/resources/pdfs/peace/conflict_resolution/syria-conflict/weeklyconflictsummary-2017.04.13-19.pdf), p. 2.

<sup>78</sup> Syrian Archive, ‘Chemical Weapons Database’, <https://syrianarchive.org/en/datasets/chemical-weapons> and <https://syrianarchive.org/en/datasets/chemical>.

<sup>79</sup> Tobias Schneider and Theresa Lütkefend, ‘Nowhere to Hide: The Logic of Chemical Weapons Use in Syria’, GPPI, February 2019, p. 26; Luke O’Brien and Aaron Stein, ‘The Military Logic behind Assad’s Use of Chemical Weapons’, War on the Rocks, 15 June 2018, <https://warontherocks.com/2018/06/the-military-logic-behind-assads-use-of-chemical-weapons/>.

<sup>80</sup> Schneider and Lütkefend, ‘Nowhere to Hide’, p. 26-27 based on data from the Violations Documentation Centre.

military airplane belonging to the 50th Brigade of the 22nd Air Division of the Syrian Arab Air Force, departing from Shayrat airbase.<sup>81</sup>

43. The attack on Khan Shaykhun and the two attacks on Ltamenah on 24 and 30 March 2017 were carried out by the same Su-22 military airplanes which departed from the Shayrat airbase in the early morning; and used the same munitions delivery system to release sarin, namely M4000 aerial bombs. The IIT analyzed in detail the chemical profile of the sarin used in Ltamenah and found it strongly correlated to the chemical profile of sarin manufactured by the Syrian government's manufacturing process, using the same precursors and raw materials.<sup>82</sup>
44. The IIT compared the chemical signature in the samples from the March 2017 incidents in Ltamenah with that of the samples collected in relation to the Khan Shaykhun incident and found "significant similarities".<sup>83</sup> The IIT concluded that the evidence "strongly indicates" that the sarin used in the 24 and 30 March incidents in Ltamenah and Khan Shaykhun were manufactured through the same process.<sup>84</sup>
45. The pattern of violence against civilians also included the deliberate targeting of medical facilities near Khan Shaykhun around the time of the Khan Shaykhun Sarin attack. In the days preceding the chemical weapons attack on 4 April 2017, the Syrian government carried out a number of strikes targeting medical facilities in the area, diminishing their capacity to give effective care.<sup>85</sup> The National Hospital in Ma'aret al-Noman was hit with three delayed fuse aerial bombs on 2 April 2017 which wounded up to 25 people, destroyed the upper floors of the hospital where the inpatients room and intensive care unit were located.<sup>86</sup> The damage caused to the Ma'aret al-Noman hospital, which would otherwise have been the facility best equipped to provide medical care to victims of a chemical attack, meant that the hospital was only able to treat 15 victims of the 4 April 2017 chemical attack.<sup>87</sup>
46. Approximately 4.5 hours after the chemical weapons attack on Khan Shaykhun, the Syrian and Russian governments targeted the Al-Rahma Hospital and civil defense center in Khan Shaykhun with multiple successive airstrikes.<sup>88</sup> These medical facilities were treating hundreds of victims of the chemical attack.<sup>89</sup> Eyewitnesses reported they were carried out by jetfighters.<sup>90</sup> The first attack was reportedly carried out by a Syrian MiG-23 between 12.20 and 12.42 hours. The second attack was reputedly carried out by two Russian jets at approximately 1.30pm. The Commission of Inquiry concluded that the use of ZAB 2.5SM cluster incendiary munitions provided reasonable grounds to conclude that either Syrian and/or Russian forces conducted the attack.<sup>91</sup>
47. The use of chemical weapons by the Syrian government in Khan Shaykhun and other opposition-held areas throughout the country is part of its strategy of indiscriminate

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<sup>81</sup> IIT Report, para. 11.1.

<sup>82</sup> IIT Report, para. 11.3

<sup>83</sup> IIT Report, para. 11.8.

<sup>84</sup> IIT Report, para. 11.8.

<sup>85</sup> Information from a witness.

<sup>86</sup> COI Report, Annex II, para. 15.

<sup>87</sup> COI Report, Annex II, para. 15.

<sup>88</sup> Syrian Archive, 'Medical Facilities under Fire', July 2017, available at <https://syrianarchive.org/en/investigations/Medical-Facilities-Under-Fire/Incident-2.html>.

<sup>89</sup> Syrian Archive, 'Medical Facilities under Fire', July 2017, available at <https://syrianarchive.org/en/investigations/Medical-Facilities-Under-Fire/Incident-2.html>.

<sup>90</sup> COI Report, Annex II, para. 17.

<sup>91</sup> COI Report, Annex II, para. 18.

violence against civilians. The use of chemical weapons is a method to inflict terror on civilians in opposition-held areas.

**THE CHEMICAL WEAPONS ATTACK IS AN INTERNATIONAL CRIME**

48. The use of chemical weapons on Khan Shaykhun constitutes a war crime prohibited under international criminal law. The chemical weapons attack also constitutes war crimes under the Act (2014:46) on Criminal Responsibility for Genocide, Crimes against Humanity and War Crimes (“2014 Act”), specifically the war crime of using poisonous or chemical weapons<sup>92</sup> and the war crimes of killing<sup>93</sup> and causing serious pain or harm and severe suffering to protected persons<sup>94</sup>.
49. The chemical weapons attack on Khan Shaykhun further constitutes crime against humanity under international law and the 2014 Act, specifically through murder<sup>95</sup> and other inhumane acts intentionally causing serious pain or harm and severe suffering to civilians.<sup>96</sup>
50. Swedish authorities have universal jurisdiction over these crimes in accordance with chapter 2, section 3 (6) of the Swedish Criminal Code.

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<sup>92</sup> Section 10, Act on Criminal Responsibility for Genocide, Crimes against Humanity and War Crimes.

<sup>93</sup> Section 4 (1) Act on Criminal Responsibility for Genocide, Crimes against Humanity and War Crimes.

<sup>94</sup> Section 4 (2) Act on Criminal Responsibility for Genocide, Crimes against Humanity and War Crimes.

<sup>95</sup> Section 2 (1) Act on Criminal Responsibility for Genocide, Crimes against Humanity and War Crimes.

<sup>96</sup> Section 2 (2) Act on Criminal Responsibility for Genocide, Crimes against Humanity and War Crimes.