US strike fails to stem CW use in Syria

The United States responded to the use of sarin in Syria with a cruise missile strike on Shayrat Air Base. Geoffrey Chapman and Alessandra Giovanzanti assess the possible impact of future chemical attacks by the Syrian government and likely international responses.

On 7 April 2017, the United States launched 59 cruise missiles against Shayrat Air Base in response to the use of the nerve agent sarin in the town of Khan Sheikoun just three days earlier. Although a definitive report is yet to be released, international opinion has broadly coalesced around the view that the Syrian government was responsible for the attack. However, the Syrian government denies using chemical weapons (CW), and the Russian government has suggested that Syrian government airstrikes instead hit a rebel munitions stockpile, which in turn was responsible for any agent released.

Acting unilaterally, the US strike represented the first instance of active military retaliation against the Syrian government's CW use; indeed, before the strike, accusations of CW use brought Western governments closer to intervening against the government of Syrian president Bashar al-Assad than any other form of violence seen in the conflict. Nonetheless, no coherent military
action to counter CW use has been taken on this account so far, and it is uncertain whether the US effort is an isolated one or part of a broader strategy to counter chemical attacks. A consistent approach is necessary because an assessment of previous accusations against the Syrian government recorded by Jane's and IHS Markit Conflict Monitor suggests that US action is not only unlikely to dissuade Syria from using CW, but by ignoring accusations of chlorine attacks may tacitly encourage their use.

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**Testing the waters**

Although Syria's CW programme was ostensibly developed to counter Israel's superior military capabilities, after the outbreak of civil conflict in 2011 the Syrian government soon adapted its strategic capability to help suppress domestic opposition. The first accusations of CW use recorded by Jane's began in April 2012, with early uses by the Syrian government appearing to be sporadic and isolated incidents. In addition to few recorded accusations in this period, defector testimony suggested that early attacks also experimented with non-lethal agents, such as BZ. Efforts were also undertaken to disguise CW use, such as by adding tear gas to sarin that would confuse observers and minimise attention to their use.

A UN Security Council meeting in the UN New York headquarters. On 28 February, Russia and China vetoed a draft UN Security Council resolution that would have formally sanctioned Syria for past CW use. (PA)

Despite initial uses appearing to be somewhat tentative, an increase in recorded accusations suggests that the government became increasingly bold in its attacks. By early 2013, CW attacks had gained increasing international attention. Between the attack on Khan al-Assal on 18 March
2013 (one of the first widely reported uses) and the Damascus suburb of Ghouta on 21 August 2013 (which drew international consternation), Jane's recorded approximately 15 credible accusations of CW use. However, analysing allegations of CW use faces a number of serious constraints, including the presence of unsubstantiated claims, inconsistent media coverage, accidental misreporting of events, and deliberate misattribution. Nonetheless, a 3 September 2013 intelligence report released by the French government was confident enough to conclude that CW had been employed by Syrian government forces a number of times with the particular "objective[s] of seizing territory or inspiring terror".

Following the huge sarin attack on Ghouta, Syria came under intense international pressure. It acceded to the Chemical Weapons Convention (CWC) on 14 September 2013 and, under the US-Russian Framework for Elimination of Syrian Chemical Weapons, agreed to declare and surrender its CW inventory. Despite heightened attention, accusations of chemical attacks emerged only days after Ghouta, including those recorded by the Syrian American Medical Society (SAMS), whose network of hospitals documented responding to "unconfirmed poisonous gas" on three occasions across the two towns of Jobar and Ashrafiah Sahnaya between 23 and 28 August 2013. Single incidents after the CWC came into force in Syria (on 14 October 2013) were also reported by SAMS in November 2013 and January 2014. Not only do these attacks suggest a lack of sincerity in signing the CWC, but - given that they came at the height of international scrutiny - suggest that limited attacks were conducted to probe international opinion in anticipation of further use.

**Increasing refinement**

Despite formal confirmation of Syria's violation of the CWC, the international community remains divided over its response, and Damascus seems undeterred in its employment of CW. A May 2017 Human Rights Watch (HRW) report noted that between September 2016 and March 2017, Syrian government forces had continued to use "warplanes, helicopters, and ground forces to deliver chlorine and sarin in Damascus, Hama, Idlib, and Aleppo" in a "widespread and systematic" manner.

By locating reported attacks within their battlefield contexts, Jane's has previously observed that the Syrian Arab Army (SAA) most frequently uses CW in contested or rebel-held areas and their surroundings. Such usage is not as a close support weapon, but to provide support for ground operations against enemy strongholds and to instil fear among the local population.

Such areas are usually near strategic infrastructure, such as key roads and airfields, or are simply long-standing rebel pockets in otherwise government-controlled regions. The majority of accusations involve chlorine dropped by helicopters or unspecified 'chemical shells' - with the 253rd and 255th squadrons, both belonging to the 63rd helicopter brigade (itself subordinate to the 22nd Division) being identified by the JIM as CW users.

In addition to systematic patterns, CW attacks appear to be taking place with increasing co-ordination and sophistication. Notwithstanding the difficulties in tracking CW reports, if the accusations captured by IHS Markit Conflict Monitor are correct, then the pattern of use points towards increasing refinement, with co-ordinated chemical attacks (among other weapons) to support ground operations. In the case of Aleppo in late 2016, the employment of chemicals appears intended to not only help government forces cut across rebel-held territory, but a second cluster to the south may have been used to weaken rebel forces, to create a division in the rebel
line, or to disrupt reinforcements from accessing the contested area. The pattern of increasing coordination has also been described by HRW, with deputy emergencies director Ole Solvang observing, "The pattern of the chlorine attacks shows that they were co-ordinated with the overall military strategy for retaking Aleppo, not the work of a few rogue elements."

Reintroduction of sarin

In addition to the apparent refinement of TIC use by government forces in support of ground operations, the Syrian government appears to have reintroduced sarin to the battlefield. The first reliable report of the use of nerve agents came in December 2015, when the Syrian Observatory for Human Rights (SOHR) reported accusations from local activists that government forces had used sarin in an attack on the Moadamiyeh suburb of Damascus. Several other accusations identifying nerve agents have also been recorded throughout 2016-17, including an attack on 12 December 2016, in which at least 93 people were reported killed by a government gas attack after airstrikes hit a cluster of five villages in the eastern Hama district.

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Collectively, these incidents suggest that prior to the attack on Khan Sheikoun, as with previous chemical campaigns, the Syrian government adopted a pattern of initially low employment, followed by carefully increased uses.

Not only does this suggest that Syria did not fulfil its obligations to the joint Russia-US agreement and provide a complete declaration of its CW stockpile, but it also supports suggestions that Damascus has retained a small CW production capability. For example, in May 2017, the BBC cited a ‘Western intelligence agency’ that had claimed that three sites across Syria - at Masyaf in Hama province, and at Dummar and Barzeh, both outside Damascus - were continuing to produce chemical munitions as, "despite monitoring of the sites by the [OPCW] … manufacturing and maintenance continues in closed sections". This allegation came after the 2016 Declaration Assessment Team (DAT) reported that an underground laboratory and weapon filling station on the outskirts of Damascus, known as Hafir 1, had tested positive for samples of VX and sarin. At present, it is unclear if Hafir 1 relates to any of the sites referred to by the BBC.

Suspicions over omissions in Syria's declaration of its CW sites and stockpile are an ongoing source of concern and debate. On 11 May 2017, the US Director of National Intelligence's Worldwide Threat Assessment before the Senate noted that the US continued "to assess that Syria has not declared all the elements of its chemical weapons programme to the Chemical Weapons Convention [CWC] and has the capability to conduct further attacks".
From Ghouta to Khan Sheikoun

With 86 reported fatalities, the 4 April 2017 attack on Khan Sheikoun appears to have been one of the largest CW attacks since that on Ghouta in August 2013. In the aftermath of Ghouta, coloured by fears of repeating the mistakes of 2003 in Iraq, Western preferences shifted away from military action and towards a diplomatic solution. Such concerns were exacerbated by the absence of an established framework to verify and hold accountable perpetrators of chemical attacks in Syria, which significantly reduced the options for prompt action.

Since 2013, various UN resolutions establishing the OPCW's FFM and JIM have progressively laid down the foundations for identifying those responsible for CW use. Both the Syrian government and the Islamic State's use of CW has been confirmed by an impartial international body. As such, the events of 4 April occurred in a different context, in which the international community has the power to cut through the competing narratives (see 'Russian and Syrian narratives') and verify the nature of any chemical attack, albeit with actions based on any findings dependent on the UN Security Council.

The US missile strikes represent the first instance of active military retaliation against the Syrian government's CW use and mark a clear departure from the caution of former president Barack Obama's administration. Although the strikes were welcomed by some as a means of cutting...
through the seeming inaction caused by international deadlock, the decision to strike was likely the product of a confluence of other factors. These may have included a welcome chance for US president Donald Trump's administration to appear decisive in the face of increasingly bitter domestic controversy, and signalling US willingness to act unilaterally in the context of relations with China and North Korea. Given Trump's 'America First' policy, the strike was unlikely motivated by a desire to reinforce the taboo surrounding CW use, and it was notable in its absence of appeals to international law.

SNAPSHOT ON KHAN SHEIKOUN
The town of Khan Sheikoun is located outside Hama city and on the M5 highway, a strategic north-south pathway that connects Syria's major cities. Between 2012 and 2013, the area around Khan Sheikoun and the M5 highway was intensively fought over by both rebel and government forces, and by early 2014, a protrusion had been formed in government lines. This area has been subject to numerous reported chemical attacks, including in the nearby town of Al-Tamanah (8 km to the east). The attacks were confirmed by the OPCW's FFM in December 2014, although the JIM was subsequently unable to provide attribution. Since the ousting of government forces, the town has been occupied by various factions. In February 2017, the rival Jund al-Aqsa and Tahrir al-Sham began to fight each other around Khan Sheikoun, then only 15-20 km behind the frontline with the Syrian government. Eventually, a negotiated settlement was reached whereupon Jund al-Aqsa left to join the Islamic State. By March 2017, Tahrir al-Sham, emboldened by its successes against other rebel factions and strengthened by Ahrar al-Sham defectors, launched a renewed offensive down the M5 highway towards Hama. After capturing key settlements along the way, al-Sham forces were halted just 5 km away from Hama on 23 March by Syrian government forces, including the elite Tiger Forces that were called in from Deir Hafer overnight to support the defence of the city. From then on, the rebels were progressively pushed back. By 3 April, Islamist militants and regime forces were fighting for Maardis, a village captured by the rebels on the first day of the offensive. At around 06:30-07:00 AM local time on 4 April, the inhabitants of Khan Sheikoun reported being awoken by a series of explosions. The immediate aftermath of the event was caught on camera: several dust plumes were seen rising from the town. Shortly after this blast, victims reported symptoms including laboured breathing, convulsions, foaming at the mouth, and pin-point pupils. These symptoms are consistent with nerve gas exposure. Within several hours, multiple civilian and rebel-affiliated media outlets broadcasted footage of survivors being brought into local hospitals. In contrast with previous incidents involving chlorine, this attack quickly produced numerous fatalities, many of whom reportedly died within minutes of the munitions' impact, and the first wave of responders was heavily affected as well. Estimates vary, but approximately 86 fatalities and 300 wounded have been reported by authoritative sources. Khan Sheikoun also suffered multiple conventional airstrikes at around mid-day on 4 April that are reported as hitting the town's hospitals and civil defence centres. Collated testimony from alleged witnesses of the morning attack indicated that the town had been struck by four munitions, launched from a single Su-22 aircraft. Syrian opposition aircraft observers saw a Syrian government Su-22 take off from Shayrat Air Base (Hama) and tracked it as it flew to Khan Sheikoun. In addition, the chemical-release site was promptly identified by the media. In addition to the accounts given by those in Khan Sheikoun, Western governments have provided additional information that supports the rebels' narrative. White House officials claimed that signals intelligence and the presence of regime personnel at Shayrat Air Base who had been connected with previous CW attacks proved the Syrian government's culpability.

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RUSSIAN AND SYRIAN NARRATIVES

After the chemical incident at Khan Sheikoun, both Syrian and Russian authorities immediately denied responsibility. The initial explanation for the incident was that a Syrian conventional airstrike had hit a rebel munitions warehouse, which had released stored toxic chemicals. To support this claim, the Russian ministry of defence maintained that it had "objective monitoring data" that indicated the 4 April strike had occurred between 11:30 AM and 12:30 PM on the "eastern outskirts [of Khan Sheikoun]". This narrative was repeated by Syrian minister of foreign affairs Walid Muallem on 6 April, who further upheld that his government "has never used and will never use" CW. In an apparent shift, on 11 and 12 April, Russian president Vladimir Putin suggested that multiple chemical false flag attacks were being planned across Syria and that the two leading theories behind the 4 April incident were that an airstrike had hit an "underground workshop" or that it was an "orchestrated event." On 13 April, Assad released an interview in which he argued that the entire event was a "fabrication" orchestrated by Jabhat Fateh al-Sham; he contended that the videos of the incident had been faked and questioned whether anyone had died at Khan Sheikoun. This was reiterated the next day by Russian minister of foreign affairs Sergei Lavrov, who maintained that "there's growing evidence that [the chemical incident at Khan Sheikoun] was staged". In contrast, on 24 April, a Russian official at the ministry of foreign affairs affirmed that CW "may" have been used at Khan Sheikoun, but questioned who had delivered them. In tandem with supporting their own account, Syrian, Iranian, and Russian officials and affiliated media have attempted to discredit the Western narrative. Questions have been raised over the 'white helmets' civil defence organisation's affiliation, its ability to handle victims of toxic chemicals with minimal protective gear, and why the West has supposedly failed to disclose further evidence. Russia, Syria, and Iran have also repeatedly asserted that rebel forces have used CW, conflating use by the Islamic State with the wider opposition.

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