

**REPORT**

**LESSONS LEARNED FROM THE  
OPCW MISSION IN SYRIA**

**Submitted to the Director-General of the Technical Secretariat of the OPCW**

**by**

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**16 December 2015**

# Lessons Learned from the OPCW Mission in Syria

## Report

### Introduction

1. On 27 September 2013, the OPCW Executive Council adopted decision EC-M-33/DEC.1 on the elimination of the Syrian chemical weapons programme, a decision subsequently endorsed by United Nations (UN) Security Council resolution 2118 (2013). To implement that decision and resolution, it was decided to establish the OPCW-UN Joint Mission in the Syrian Arab Republic, which worked from October 2013 until September 2014. During that period, the OPCW component of the Joint Mission successfully verified the destruction of 13 mobile and stationary chemical weapons production, mixing, and filling facilities; the destruction of unfilled chemical munitions and isopropanol declared by the Syrian Arab Republic; and the removal of chemical-warfare agents and precursors from the territory of Syria for their destruction outside that country. The destruction of Syrian chemical weapons production facilities (CWPFs) is ongoing and will be completed soon. The same can be said for the destruction of the last remaining amounts hydrogen fluoride (HF) that were designated for destruction outside of Syria. The OPCW Technical Secretariat (“the Secretariat”) continues its verification and other activities in Syria as prescribed by the Chemical Weapons Convention (“the Convention”) and further instructed by the Executive Council.
2. These undertakings have been a test of the Secretariat’s ability to implement a complex and highly demanding task under extremely difficult circumstances. Important lessons can be learned for future contingencies that may pose similarly formidable challenges for the OPCW. Accordingly, the Secretariat undertook a lessons-learned exercise, the results of which are presented in this report. This exercise complements similar reviews by the UN regarding the 2013 investigation of the use of chemical weapons in Syria under the Secretary-General’s Mechanism (SGM),<sup>1</sup> and by the UN, the OPCW, and a number of OPCW Member States concerning the maritime operation to remove chemical weapons materials from Syria in view of their destruction.<sup>2</sup> A further lessons-learned project regarding the Joint Mission was commissioned by the UN Office for Disarmament Affairs (UNODA) and is still under way.
3. Although this report does not address the OPCW’s participation in either the SGM investigation, the ongoing OPCW Fact-Finding Mission (FFM) in Syria, or the newly established OPCW-UN Joint Investigative Mechanism in Syria, its findings have been informed by these activities to the extent that they form part of the wider context of the Secretariat’s activities in Syria.

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<sup>1</sup> United Nations Office for Disarmament Affairs: “The Secretary-General’s Mechanism for Investigation of Alleged Use of Chemical, Bacteriological (Biological) or Toxin Weapons – A Lessons-learned Exercise for the United Nations Mission in the Syrian Arab Republic”, United Nations, 2015.

<sup>2</sup> United Nations Office for Disarmament Affairs and OPCW joint report on the “Workshop on the Lessons Learned from the International Maritime Operation to Remove and Transport the Syrian Chemical Materials in Furtherance of Security Council Resolution 2118 (2013) and Relevant OPCW Executive Council Decisions”, held from 9 to 11 March 2015 at OPCW Headquarters in The Hague.

4. The Scientific Advisory Board (SAB) has recommended an independent review of the activities pertaining to the missions carried out in Syria, including the specific verification methodologies used there.<sup>3</sup> While this report contributes towards meeting this goal, there was neither the time nor the resources to comprehensively review all of the activities and technical methods used in support of the different missions related to Syria.

Why learn lessons from the Syria mission?

5. In its 2015 “vision paper”,<sup>4</sup> the Secretariat explained the need to draw lessons from the activities related to the Syria mission, stating that such lessons “range from the conduct at short notice of an investigation of use in adverse conditions, to the collaboration with the United Nations and other international organisations, to the in-depth involvement with a chemical demilitarisation programme. Identifying and learning lessons from these missions will help further increase the resilience of the Organisation and help it to continue to fulfil its mission under the Convention.”
6. The elimination of the Syrian chemical weapons programme during a raging internal, and increasingly regional, armed conflict was a unique undertaking that carried significant political, security, financial, and reputational risks. Thanks to the effective collaboration of all partners involved (the OPCW, UNODA, the UN Office of Legal Affairs, the UN Department for Safety and Security (UNDSS), the UN Office for Project Services (UNOPS), the Government of the Syrian Arab Republic, assisting State Parties, and all other Member States of the OPCW), and the professionalism, dedication, and experience of staff, this challenge turned into a success, not only for the OPCW but for the international community at large.
7. However, while the particular requirements and conditions of the Syria mission are unlikely to be repeated in the future, the involvement of the OPCW in similar demanding undertakings in future is a contingency for which planning is required. To sustain the competence and capacity for contingencies, the OPCW must absorb the positive experiences and practices of the Syria mission into its institutional fabric and build them back into the OPCW systems and procedures.
8. The success of the mission in Syria has also created an expectation in the international community that the OPCW is capable of performing complex and challenging tasks, even in circumstances that were not envisaged when the Convention was adopted. The recent establishment of the Joint Investigative Mechanism pursuant to UN Security Council resolution 2235 (2013) shows that the OPCW may be called upon more frequently in future to take part in complex, politically delicate, and technically demanding contingencies.
9. A systematic approach is now needed to fully absorb the lessons from the Syria mission, given that a significant number of individuals with leadership roles during the mission will soon leave, or have already left, the OPCW. Applying the

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<sup>3</sup> Report of the Scientific Advisory Board Temporary Working Group on Verification, June 2015, recommendation 7.

<sup>4</sup> The OPCW in 2025: Ensuring a World Free of Chemical Weapons (S/1252/2015, dated 6 March 2015), Annex, paragraph 10.

lessons from Syria should also prompt a wider review of how OPCW policies and objectives are being implemented, to ensure overall consistency and to provide guidance on how the OPCW can best maintain its capacity, resilience, and adaptability.

10. Finally, this lessons-learned report pays tribute to the contribution that the staff members of the Secretariat have made to the success of this unique undertaking.

#### Methodology of the lessons-learned exercise

11. The lessons-learned exercise comprised two phases. In the first, an internal task group of the Secretariat conducted a survey of staff involved in the Syria mission, in the field, and at Headquarters, including a number of former staff members who had already left the OPCW. A questionnaire (Annex 1) was sent out to 104 current and former staff members, and 39 individual and group responses from 54 individuals were received and analysed.
12. Alongside the development and use of the questionnaire, a timeline of major events (Annex 2) was reconstructed and key documents (decisions and reports, internal reports, notes, and assessments) were compiled.
13. In the second phase, an external consultant was hired to conduct group and individual interviews, to review all data collated, and to prepare this report. In total, 27 individual and group interviews were conducted in person or by videoconference through Skype, involving 33 current and former Secretariat staff members.
14. A wide range of documents were consulted, including official documents of the Executive Council, the Secretariat, and the SAB, internal reports, including situation reports and notes to file, and summary records of the Core Group meetings beginning as from 7 January 2014. The study was also cognizant of the reports of lessons-learned exercises conducted by UNODA with the support of the OPCW.
15. The analysis and conclusions prepared by the external consultant were reviewed by the Secretariat to provide additional feedback before this report was completed.

#### The challenges faced by the OPCW in Syria

16. The decision to eliminate the Syrian chemical weapons programme established extremely challenging goals and timelines. It did not, however, set out a detailed road map for how these objectives were to be achieved. When the work in Syria began, much of the information needed to plan the verified removal and destruction of the different elements of the Syrian chemical weapons programme was lacking, incomplete, or uncertain. The Secretariat had to:
  - (a) implement a complex chemical weapons disarmament project in an environment that put inspectors and other staff in Syria at significant risk;
  - (b) work against extremely tight timelines and find solutions “on the run”;

- (c) master the novelty and complexity of tasks taking into account the following challenges emanating from past practice and the demands of the operational and political context:
    - (i) sixteen years of routine disarmament verification had created an institutional culture unsuitable for work in non-routine environments, and contingency plans were theoretical rather than tested in the real world;
    - (ii) a host of legal, operational, logistical, verification, and administrative tasks that had no precedence in the OPCW's previous work, neither in magnitude nor nature, had to be addressed; and
    - (iii) some of the tasks that under normal circumstances would be the responsibility of the State Party concerned had to instead be taken on by the Secretariat and its partners, including UNDSS, UNOPS, and other Member States;
  - (d) work in synchronisation with the UN and other partners at all levels, from providing strategy and leadership to managing operations in Syria and neighbouring countries; and
  - (e) collaborate and coordinate with other stakeholders, including a large number of Member States that provided in-kind contributions as well as financial assistance, and commercial enterprises.
17. Although the OPCW is associated with the UN, at the beginning of the Syria mission it was not fully integrated into the UN system and its operational concepts. Compared to the UN and other related organisations, the OPCW is a relatively small organisation set up against clearly defined tasks and requirements established by the Convention. Its rigid design and the reduction in routine verification tasks in recent years have resulted in a loss of depth and capacity in a number of key areas. In such an organisational setting, contingencies and circumstances that require extraordinary efforts may require unorthodox approaches.
18. The Secretariat had the benefit of previous collaboration with the UN during the Secretary-General's investigation of the alleged use of chemical weapons in Syria (still ongoing at the time when the Joint Mission began). That collaboration created situational awareness and an understanding of the conditions and operational constraints on the ground. It also established working relations between the Secretariat and the UN as well as the Syrian authorities.
19. At the same time, never before had the OPCW faced an undertaking that was so politically charged, ambitious, and complex. The uncertainties that the Secretariat had to manage (and that are still being faced today) were plenty, and the safety and security as well as political, legal, reputational, and administrative risks were high.

A short summary of the measures taken to eliminate the Syrian chemical weapons programme

20. Preparations by the Secretariat for a possible contingency in Syria began as early as 2012, well before the requirements of the Executive Council decision to eliminate the Syrian chemical weapons programme had been established. These early preparations included planning for different scenarios and extracting lessons from inspector training and exercises to overcome weaknesses that had been identified.
21. After Syria deposited its instrument of ratification on 14 September 2013, declaring that it would comply with and apply the Convention provisionally pending its entry into force for it, the Executive Council formalised the framework laid down by the Russian Federation and the United States of America for the elimination of the Syrian chemical weapons programme by adopting decision EC-M-33/DEC.1 (dated 27 September 2013), setting out the order of destruction and procedures for the stringent verification of Syria's chemical weapons stockpile and chemical weapons production, mixing, and filling facilities. Subsequently, the UN Security Council adopted resolution 2118 (2013) endorsing decision EC-M-33/DEC.1 and establishing additional modalities, including the formation of the OPCW-UN Joint Mission in the Syrian Arab Republic.
22. To implement these decisions, the Secretariat dispatched a team of inspectors and verification experts to Syria at the beginning of October 2013. One element of the team responded to a request by Syria for a technical assistance visit and helped Syrian authorities prepare the Syrian disclosure and subsequent initial declaration. The rest of the OPCW team began work on operational issues, subsequently becoming a standing mission in Damascus forming part of the Joint Mission with the UN, and continuing today as the OPCW Mission in Syria. The OPCW component coordinated its activities with the UN and within the Joint Mission, and with the Syrian authorities and the authorities of Lebanon and Cyprus (where mission support offices were established), and began to plan and implement the verification, removal, and destruction activities prescribed by the relevant Executive Council decisions.
23. Given the complex security situation, the overarching principle with regard to the field mission and the teams dispatched from the OPCW to Syria was to maintain as small a footprint in Syria as possible. Consequently, teams were deployed on a when-needed and just-in-time basis.
24. At OPCW Headquarters, the Director-General formed a Core Group to plan and coordinate all activities related to the Syria mission at the OPCW and to provide strategic direction as well as tactical and technical guidance to the mission in Damascus and inspection team leaders in the field.
25. Following a request by Syria that consultations with the OPCW be initiated immediately "in order to cooperate with regards to the ways and deadlines for destruction of chemical stockpiles", the Director-General established a Destruction Planning Group. The Group drew on the technical expertise of Member States and the Secretariat and developed recommendations for the

elimination of Syrian chemical weapons and chemical weapons production capabilities. It advised and assisted Syria with the development and submission of its general plans for the destruction of its chemical weapons and CWPFs; identified suitable methods for destroying or rendering inoperable the Syrian chemical weapons production/filling capabilities; identified technologies for the destruction of the Syrian chemical weapons stockpile (munitions and agents); prioritised and recommended the order of destruction of the chemical weapons stockpile based on the threat to the object and purpose of the Convention and likely proliferation risks; and provided other advice as required. Most importantly, the Destruction Planning Group identified gaps and areas where external resources and assistance were needed as well as possible providers/suppliers.

26. Furthermore, an operations and planning group and maritime task force were set up to coordinate the activities of the Secretariat with Syria, the UN, and Member States that were providing in-kind assistance in such areas as security, transportation and logistics, maritime transportation, and destruction of chemical materials in facilities at sea and on land.
27. Two trust funds were established to manage Member States' contributions to the implementation of the programme to eliminate the Syrian chemical weapons programme: an initial OPCW Trust Fund for verification in Syria and subsequently the Syria Trust Fund for the Destruction of Chemical Weapons. Thirty Member States and the European Union made financial contributions to the funds. By September 2015, the Syria Trust Fund for the Destruction of Chemical Weapons had received just over EUR 50 million since the elimination of the Syrian chemical weapons programme began.
28. As required by decisions EC-M-33/DEC.1 and EC-M-34/DEC.1, regular monthly reports are submitted to the Executive Council, describing the progress made in the implementation of the decision and detailing the activities carried out by Syria and the Secretariat in Syria, and identifying any need for supplementary resources. Regular reports on the implementation of Security Council resolution 2118 (2013) have also been submitted to the UN Security Council through the UN Secretary-General. A list of these reports can be found in Annex 3. In addition, regular briefings were provided to the UN Security Council and to OPCW Member States in The Hague.
29. In April 2014, a team of Secretariat experts was dispatched to Syria for a meeting with Syrian authorities as part of an ongoing effort to streamline and complete the data regarding Syria's initial declaration of October 2013 and subsequent amendments. This team eventually became known as the Declaration Assessment Team (DAT), and since its initial visit it has continued to conduct site visits, take samples for analysis by OPCW designated laboratories, undertake technical consultations, and conduct interviews with key principals of the Syrian chemical weapons programme (the DAT's twelfth visit was conducted in November 2015).
30. The safe and effective removal and transport of the chemical weapons materials declared by Syria was completed by mid-August 2014, using two transport cargo vessels made available by Denmark and Norway. An Italian port facility was used for the transloading of the mustard agent and the key binary chemical weapon

component DF from the Danish vessel onto the United States motor vessel (MV) Cape Ray. Through an in-kind contribution, the United States destroyed these chemicals using a field deployable hydrolysis and neutralisation system that operated aboard the MV Cape Ray. The effluents generated during the destruction of mustard gas on board the MV Cape Ray were treated at a facility offered by Germany (GEKA mbH). Through an in-kind contribution, the United Kingdom of Great Britain and Northern Ireland offered to directly sponsor two of its commercial facilities (the Ellesmere Port High Temperature Incinerator operated by Veolia Environmental Services UK, and Mexichem UK Limited) to destroy some of the other chemicals declared by Syria, including two key binary chemical weapons components. Finally, the remaining chemicals and effluents were destroyed at two commercial facilities respectively in the United States (Veolia ES Solutions, Port Arthur, Texas) and Finland (Ekokem), both facilities having been selected by the OPCW through a tender process. Other Member States (China, Denmark, Italy, Germany, Norway, the Russian Federation, and the United Kingdom) supported the maritime operation with escort vessels to provide security, while Finland provided an emergency-response capacity.

31. The Joint Mission was closed down on 30 September 2014. Arrangements were therefore made with UNOPS to provide subsequent logistical, administrative, and security support to the OPCW teams in Syria, and the transition to these arrangements worked smoothly. Work to complete the elimination of all CWPFS declared by Syria is still ongoing, with administrative and logistical support provided by UNOPS through the contracting of two Syrian companies, and is nearing its final stage. Therefore, the Secretariat has continued to maintain a presence in Syria after the closure of the Joint Mission in order to coordinate and direct its continuing activities in Syria, including the work of the DAT and the FFM.

#### Key observations and findings of the lessons-learned undertaking

##### *The political context*

32. The elimination of the Syrian chemical weapons programme was a high-profile undertaking implemented under the intensive scrutiny of the OPCW Member States, the media, and the public. The OPCW—which until the operations in Syria had been working rather more quietly as a predominantly technical agency towards the complete and lasting elimination of chemical weapons worldwide—found itself operating in a highly complex environment, exposed by the high visibility of the mission, cooperating with a wide range of stakeholders, and conducting its activities under enormous political and time pressure.
33. As part of the Joint Mission, the OPCW had to quickly find its place in the multilateral structure operating in and around Syria, and build a productive and goal-oriented partnership with the UN. It was important to invest into effective working relationships at all levels—between the leadership (Director-General, Special Coordinator, and UN Secretary General), between the Secretariat’s representatives and various stakeholders, as well as with those on the ground.

34. Working in this complex environment required OPCW staff to command a mixture of political, diplomatic, legal, and technical skills. Negotiations with a broad range of stakeholders with sometimes conflicting objectives, the management of relations with the Syrian authorities, the collaboration with the UN, and the reporting of progress in the elimination of the Syrian chemical weapons programme to political audiences in The Hague and New York demanded an understanding of the political and legal context that went well beyond the Secretariat's routine verification and technical assistance measures.
35. Given these complexities and the high political and reputational stakes, lines between strategic and tactical matters were often blurred. There was a need to depart from routine procedures and find ad hoc solutions in flexible ways that would meet the specific conditions and requirements of the Syria mission, make best use of the experience and competence available to the Secretariat, and respect the political as well as operational context.

*The human factor*

36. The human factor was critical to the success of the Syria mission. The OPCW is a relatively small organisation with limited depth and capacity that needed to adapt its modus operandi to the demands of an extraordinary situation. This could only work if everyone did their part; in fact many staff members did more than that, showing remarkable initiative, dedication, a willingness to work long hours over extended periods of time, and an ability to innovate and improvise where standard procedures were inadequate or lacking. It should also be noted that all staff who deployed to Syria were volunteers.
37. It was essential that the experience and skills available in the Secretariat be used to maximum effect no matter where they resided. This required working outside of established structures and hierarchies, even if at times this meant that the Secretariat's routine systems experienced friction. This approach was necessary to match the experience and skill sets existing in different parts of the Secretariat with the extraordinary demands of the project. But such an approach relies heavily on individual performance rather than institutional strength, which creates vulnerabilities. The experience gathered in Syria now needs to be shared and converted into institutional strength to become sustainable.
38. Strong leadership at the strategic level was also critical. The work of the Director-General through the Core Group at headquarters was essential to getting things done under complicated and fluid circumstances, but also to managing the pressures emanating from the complex and demanding political and legal environment. Leadership also was called for, given the political sensitivity of the project and its confidentiality aspects (including with regard to operational security). The practice of working through a Core Group had already been established when support was being provided to the SGM investigation; it became essential for managing the OPCW aspect of the Joint Mission.
39. Strong leadership in the field was equally important to maintain trust and a clear and collective approach towards achieving the objectives of the activities in Syria, while managing the safety and security risks involved. It was a condition

for the effective collaboration and coordination with the UN and for purposeful interactions with the Syrian authorities.

40. Teamwork, a sense of purpose, dedication, and persistence were the other key success factors. Everyone involved in the project was working long hours over extended periods of time; some staff members were effectively on call at all times for weeks, given the time differences between Damascus, The Hague, and New York. The effort necessary to implement the Syria mission was not merely felt by the staff involved, but also by their families.
41. Effective teamwork requires the willingness to collaborate with others and share information and experiences—the ability to break down stovepipes. Within the Core Group and the field team, this worked well. Between the Core Group and the field mission, information was shared and objectives and activities were discussed regularly and in great detail. But the OPCW’s confidentiality and institutional cultures can also obstruct information sharing and hinder collaborations between different divisions and branches. Finding the right balance between maintaining confidentiality and treating sensitive information discreetly, and sharing information where it is needed for effective and collegial work, remains a challenge for the Secretariat.
42. Important skill sets had to be developed “on the fly”. For example, inspectors and verification officers needed to quickly develop adequate situational awareness and understanding of the political, legal, and policy requirements of the mission. They also needed to learn how to report to political audiences.
43. Beyond the staff members that deployed to Syria or were involved in the project at headquarters, the mission had a significant impact on other staff—this mission was in fact an all-Secretariat effort. The effects of a just-in-time and on-demand contingency operation that takes precedence over other business include delays or cancellations of routine activities, a loss of planning certainty, a draining of human and other resources from routine activities, and the need for extra work and backfilling where human resources become overstretched.
44. To some extent, hiring external personnel compensated for these pressures. Examples included the hiring of additional inspectors on special services agreements (SSA) to backfill gaps with regard to routine verification, the contracting of specialised expertise to assist in the unprecedented necessary procurement activities, the hiring of additional legal expertise at the beginning of the contingency, when there was a significant shortage of staff in the Office of the Legal Adviser (LAO), and the rehiring of some verification specialists on SSA contracts. However, experience has shown that rehiring and contracting out are not always easy; the right expertise may not be available when needed given the limited pool of external specialists with the relevant background and skills.
45. Given the importance of the human element, there is a need to further improve the Secretariat’s human resource management systems to prepare for contingencies as complex and demanding as the Syria mission. Many former staff members with key roles in the Syria mission have already left the OPCW. To a degree, knowledge management can help to document experience and information for others to use, but to maintain institutional competence the

Secretariat needs to build up a standing capacity in key functional areas, combined with systems and procedures that will allow it to ramp up capacity in critical areas on short notice when circumstance so require.

*Legal and policy issues*

46. The elimination of the Syrian chemical weapons programme posed a range of legal and policy challenges. At the most basic level, the question was whether the legal basis of this undertaking was primarily the Convention, being implemented under special circumstances, or the Executive Council's decisions and subsequent UN Security Council resolutions. Related to this issue was the status of the "provisional application of the Convention before its entry into force" that Syria had announced. These issues were important because certain elements of Executive Council decision EC-M-33/DEC.1 had no precedence in previous implementation practice, and entering new territory could create legal uncertainties. In the end, the political support for the Syria mission, which was forged by Security Council resolution 2118 (2013), was sufficiently constant to avoid legal challenges. At the same time, it signalled a shift from a narrow reading of the Convention towards one that understands the Convention as providing a pragmatic regulatory and policy framework that can be adapted by Member States to open up legal and operational space for effective disarmament and verification under unforeseen circumstances.
47. In addition to these rather more fundamental questions, a host of specific legal issues had to be tackled. Constant legal support and advice for the Core Group and for field teams both in Syria and in neighbouring countries was required—not an easy task given the small size of the LAO and the fact that some positions were vacant at the beginning of operations in Syria. Many of the existing templates and models for arrangements needed to be adapted to the specific context of the Syria mission, and some needed to be developed for the first time. An example of the former was the Status of Mission Agreement, which was adapted from the UN standard template for such agreements; examples for the latter included the inspection mandate template and the model facility agreement with States hosting the destruction of Syrian chemical weapons on their territory, for which there were no precedents from previous work and no point of reference in the Convention. Many other legal issues had to be worked out in relation to how the verification provisions of the Convention were to be applied under the circumstances in Syria; these are discussed further in paragraphs 71 to 79 below.
48. The Syria mission required arrangements with a large number of stakeholders, including: the UN and its relevant departments and agencies in New York, in Syria, and in neighbouring countries (UNODA, UNDSS, the UN Department of Field Support, UNOPS, and others); Member States hosting destruction activities or providing other in-kind contributions; various donors; and commercial companies. These arrangements had to cover a wide range of issues, such as privileges and immunities, funding arrangements, verification measures, procurement of equipment and disposal services, insurances, assets management, and more. In some cases, basic legal frameworks were in place (for example, the Relationship Agreement between the UN and the OPCW), but a great deal of legal groundwork and creativity was needed to get all the arrangements in place

on a legally sound basis. Much had to be based on ad hoc arrangements such as exchanges of letters—there was simply no time or capacity to develop and approve standing arrangements with all partners. Now is the time to formalise these ad hoc solutions where necessary and to create stable and predictable long-term arrangements.

49. The collaboration with the UN Office of Legal Affairs was of particular importance. The UN commands a vast experience in contingency operations that was critical to ensuring a sound legal basis for implementing the Syria mission. This cooperation worked well despite differences in institutional cultures and regulatory approaches. It will be important to maintain this productive working relationship in the future.
50. An important aspect of the legal work was to ensure the protection of staff members involved in field activities, and that of their families. Staff members who were dispatched to Syria required comprehensive insurance coverage, including with regard to service-incurred death and disability, and they needed to receive timely, accurate, and comprehensive information about the conditions that would apply to them. The LAO worked closely with the Human Resources Branch and the Inspectorate to put all these protections in place. Information on these arrangements and service conditions has now been compiled in a booklet, and forms and templates have been adapted to take account of these arrangements.
51. It is important to implement a coherent and consistent approach with regard to the legal status and treatment by the Host Government of staff deployed to field missions such as the Joint Mission in Syria, irrespective of which Member State they operate in and which organisation they work for (UN, OPCW, or other partner organisations). For the Joint Mission, this was accomplished through the Status of Mission Agreement. But there remain issues to be resolved, specifically with respect to the equal treatment of UN and OPCW staff within the same mission, and it will be important that the OPCW more closely conform with relevant regulations of the UN system that affect the status and rights of staff.
52. A significant legal challenge emerged from the logistical and procurement activities that the Syria mission entailed, including the commercial bids for the destruction of Syrian chemical weapons materials outside of Syria and for activities within Syria related to the completion of the destruction of CWPFs. Some of these procurement activities were new territory for the OPCW, and an experienced consultant with expertise in high-value commercial contracts was hired to support these processes. This ensured a transparent and professional procurement process, despite the enormous time restrictions when compared to a normal procurement cycle. Shortcuts were necessary and financial risks incurred therefrom needed to be assessed and managed against the expectations of donors and the international community as a whole.

#### *Operational concept*

53. The Syria mission was led by the Director-General through a Core Group composed of staff with the competence and skills necessary to direct and support the operations in Syria. The Core Group interacted directly with the OPCW field

component of the Joint Mission in Syria. Working outside of divisional structures and hierarchies was necessary for a number of reasons, as follows: the need to provide leadership and ensure a close link to the Executive Council and Member States; the need for swift decision making; the need to bring together operational, technical, political, legal, and policy competence under one single command and control centre; and the security situation which called for trust among all actors to ensure safe field operations. This approach allowed for frank exchanges within the group and competence-based work; missing skills could be brought in when needed.

54. Operating in this way has pros and cons. It is based on trusted relationships and creates a robust and dynamic environment—essentially a crisis management approach. But this approach has also drawbacks. It is exclusive and has limited reachback into the institutional strength of the Secretariat. There is also a risk that the operation relies heavily on improvisation and ad hoc solutions, that roles and responsibilities remain unclear and somewhat arbitrary, that priorities are not sufficiently communicated outside this inner circle, and that group cohesion becomes more important than problem solving. In the case of the Syria mission, this “worked itself out”. To be sustainable, it will be important for future contingency operations to pre-structure and train in exercises the Core Group approach to back up individual performance with institutional strength. This would also help ensure that all functional areas are represented in the Core Group (in a complex operation such as Syria, some required functions are not necessarily obvious from the start); that the structures of the Core Group and field mission mirror each other; that responsibilities, rules, and priorities are explicit; and that action points are communicated clearly to the rest of the Secretariat.
55. The setting up of a field mission was another new approach for the OPCW. This was an effective way of coordinating the work of the OPCW teams in the field, organising collaboration within the Joint Mission, and working with the Syrian authorities. It enabled good integration with UN partners in an environment that required inspectors to take on broader responsibilities than they would normally have, including negotiations with partners as well as the host country.
56. Effective collaboration with the UN in the Joint Mission was particularly important in the field. The working relations that had already been developed during the previous SGM investigation, as well as new partnerships built up during the initial phase of operations in Syria helped iron out differences in organisational and operational culture. A common sense of purpose resulted in productive interactions at all levels. This relationship with the UN will be important in any future contingency of a similar nature, and needs to be cemented into standing arrangements that are regularly exercised.
57. Operating with a small footprint in Syria required just-in-time and on-demand deployment of teams. This gave team leaders a strong hand in selecting team members. This was justified by the circumstances, but had also undesirable side effects. Longer-term planning of deployments to Syria and for routine verification missions elsewhere became difficult, given the unpredictability of how exactly the removal/destruction operations would evolve. Short-notice changes and last-minute assignments became frequent practice. The Secretariat’s capacity to absorb such interferences is limited, creating significant additional

workload and friction. Also, it meant that team in and out-briefings were not conducted in the systematic manner that is usually required. While such practices cannot be avoided at the beginning of a contingency operation such as the Syria mission, the basis from which staff is drawn for field operations in an ongoing contingency should gradually be enlarged for such operations in the future.

*Managing information flows and content*

58. Another challenge was to balance the requirements of protecting sensitive and confidential information with the sharing of information where necessary. Daily phone conferences between the Core Group and field teams became important tools of process management, problem resolution, and communication. Beyond this small group of people, maintaining a rigid confidentiality system was essential. But there always is a risk of interpreting the “need-to-know” principle in too narrow a way, ignoring genuine functional needs for information sharing.
59. The transfer of confidential information between the Core Group and the field mission and the handling of such information in the field should be reviewed to ensure that methods of information management satisfy the requirements of contingency operations without compromising confidentiality. While working through exemptions sometimes needs to be done, in the long run it is important to develop methods and rules that can actually be applied in the field. A good example was the way in which electronic data transfer was improved over time using encryption and a secure information exchange tunnel.
60. Another issue was the sharing of information between the Core Group and the field mission on the one hand, and Secretariat units not involved directly in the Syria mission on the other. Confidentiality and sensitivity of the information required that information flows be tightly controlled, and at times that information was not shared, or was only shared at the last moment. This can cause friction, which is why it is important to manage information sharing along functional needs, even if they relate to activities that are not part of the core activities of the contingency mission.
61. An important aspect of high-profile missions such as the one in Syria is how to communicate information in ways that allow the recipients to understand the reported events and activities in their context, and to communicate assessments in ways that are relevant for political audiences such as the Executive Council. The ability to prepare such reports was not part of previous routine reporting of OPCW inspection teams, and skill sets needed to be improved as the mission progressed. Other challenges resulted from the enormous time pressure, which made it difficult at times to get clear and accurate information, communicate priorities, and ensure adequate distribution of information to avoid overload and unnecessary repetition. A reporting cell in the field would have been useful to ensure adequate capacity, better quality control, and reporting in ways suitable for political audiences.

*Safety and security*

62. Safety and security was paramount. In the past, Secretariat staff had not received training on how to manage safety and security risks in hostile environments. Some staff members possessed such experience from previous employment, but there was an urgent need to provide security training to additional staff deployed to Syria (or, in cases where this was not possible given the circumstances, to ensure security briefings upon arrival in the field). This training, known as Safe and Security Approaches in Field Environment (SSAFE), was accomplished with the support of the UNDSS and in-kind contributions from Germany and the United States.
63. As a result, the OPCW today has a significant number of staff members with basic training for operating in hostile environments. This level of training—skills, equipment, institutional approach, and mindset—must be maintained if the OPCW is to engage in contingency operations in the future. At the same time, it is important to recognise the limits of what was still a fairly compressed training effort, in comparison with other organisations, and to structure security training into the routine training system for all staff likely to become involved in future contingency deployments.
64. The collaboration with UNDSS was critical to ensure careful security risk management. This partnership had been developed during the previous SGM investigation and was an important asset. It has now been anchored in the institutional partnership between the OPCW and the UN by means of a memorandum of understanding.
65. Health and safety management and support are organic elements of contingency operations. Working in hostile environments requires both physical and mental fitness, and staff who are required to work in such environments must be assessed and prepared before deployment, supported while in the field, debriefed and, as necessary, supported after return from mission.
66. A formal system for such assessments, debriefing, and support had not been set up as part of OPCW health and safety procedures when the Syria mission began, as there had been no previous practice of dispatching staff into a warzone. Such a system was established in response to the needs of the Syria deployment as they became clear. This system should now become part of the institutional structure of the Secretariat, to support staff and as a management tool to ensure effective and safe work in the field.
67. The health and safety system implemented in Syria was assessed as clinically safe. Paramedics supported each team, and the medical backup in Damascus and elsewhere in the field was assessed as adequate. That included medical assets available to the OPCW itself, the UN, and UNOPS, as well as local medical facilities in Syria. Medical advice by telephone was available at all times from OPCW Headquarters.
68. Post-deployment medical debriefings have been started by the Secretariat; it will be equally important to monitor any long-term impact of staff having operated under hostile and high-stress conditions. Other measures such as decompression time and counselling after field work in hostile environments or traumatic experiences and support for families should also be considered as the OPCW

addresses how to maintain readiness to support contingency operations in hostile environments.

*Verification requirements*

69. The mission in Syria was a non-routine activity with an immediate focus on securing, disabling, and destroying or removing critical components of the Syrian chemical weapons programme to ensure that chemical weapons from that programme could not be used in the ongoing armed conflict. There was a risk that, with this particular focus and given the conditions in Syria, as well as the time pressure, normal standards of verification might not be met. There were also many legal issues that needed to be worked out as a result of the Executive Council's decision on the elimination of the Syrian chemical weapons programme, and subsequent Security Council resolutions (see also paragraph 46 above). However, despite the special objectives and circumstances of the Syria mission, the mission still needed to meet the normal standards of assurance required by the Convention's verification system.
70. Finding the correct balance between the immediate need to render inoperable the chemical weapons and related facilities in Syria and the requirement to ensure that the Convention's standards of verification of compliance were met created a number of challenges, including:
  - (a) how to move from a routine approach that is based on what a State Party has provided in its declaration to application of the provisions and principles of the Convention in circumstances of great uncertainty, using creative and adaptable ways that take account of the context and circumstances; and
  - (b) how to apply verification standards in a systematic manner in a context where conditions were fluid and unpredictable, requiring ad hoc measures, and where the operation was undertaken under enormous time pressure and had an immediate focus on removal/destruction and operational security.
71. The routine methodology for verifying destruction operations was adjusted at times to resolve access problems, considering the particular security challenges. In lieu of the continuous on-site presence of inspectors throughout a particular operation, in certain cases the verification system applied relied on remote monitoring and the review of recorded data and documentation, with care taken to ensure the authenticity of the data. In the end, this approach was successful and it can be stated with confidence that destruction was carried out properly and that no diversion had occurred. This approach should be carefully reviewed by the Secretariat to see whether the use of remote monitoring techniques in other routine verification tasks would result in efficiency gains without sacrificing verification rigidity. Such equipment would then have to be added to the list of approved equipment, in accordance with adopted procedures, including the involvement of the SAB.
72. Another novel approach to the analysis and, as necessary, clarification and amendment of declaration data is the Declaration Assessment Team (DAT). This initiative signalled a willingness of the Secretariat to work more closely with States Parties on the content of their declarations—along lines well established

under other verification systems. Already during the very first visit to Syria in October 2013, the Secretariat had in fact already begun working with the Syrian authorities on their declaration, providing technical assistance in response to a request from Syria. The focus then shifted to the removal/destruction operations before more systematic work on the declaration recommenced in 2014, when progress in the destruction and removal activities permitted this. While it could be argued that the DAT ideally should have begun working with the Syrian authorities right from the start, circumstances demanded different priorities at the beginning of the mission.

73. The DAT is a new mechanism to provide support to National Authorities and assist them in correctly applying the provisions of the Convention to their specific situation, to clarify issues related to declarations and to ensure their completeness. The DAT approach has been designed to lead to more accurate national declarations and to help with the consolidation of declaration and verification data in a systematic manner. It therefore should remain part of the tools that the OPCW has at its disposal to resolve problems and concerns related to the completeness and accuracy of declarations.
74. To ensure that the required high standards of verification were met despite the special circumstances in Syria, the collaboration between different parts of the Secretariat and in particular between the inspectors and officials from the Verification Division was essential. This worked well in the field, where officials from the Chemical Demilitarisation Branch and inspectors worked alongside and supported one another. Verification tools, including facility agreements and combined plans for destruction and verification, were adapted to the situation and used whenever possible (including on board the MV Cape Ray and in relation to destruction activities at commercial facilities), and significant efforts were made to maintain control over the accountancy, integrity, and chain of custody of chemical weapons materials and specialised equipment during the removal process. Although the reporting of inventory data was different from normal reporting for chemical weapons storage facility and destruction facility inspections, the combined data flows from the initial inspections, the movement reports, and the documentation available from the loading of materials onto the cargo vessels at the port of Latakia and their unloading at the ports of disembarkation, as well as from the destruction operations, provided adequate assurances that no diversion of material had taken place.
75. The sampling and analysis of declared chemicals to confirm their identity was carried out off-site and postponed until the materials had left Syria. There was an initial, random screening of the chemicals using infrared Raman spectroscopy, before they were loaded aboard the maritime transport vessels at the port of Latakia. Subsequently, samples were taken and analysed as part of the verification activities related to the destruction operations, rather than during initial inspections, and subsequent periods of preparation for movement out of country. The Syria mission also raised the question of whether investigative activities would require different types of chemical analysis which, thus far, have not been included in the OPCW tool kit—for example, inorganic or metallurgical analysis to characterise and identify materials used in the weapons or

dissemination devices. This is an issue that may call for technical consideration and advice by the SAB.

76. In terms of sampling and analysis methodology, the experience from the Syria mission shows that there is a need for a stronger link between the OPCW Laboratory and inspectors in the field. Advice and guidance from the Laboratory about what, where, and how to sample is important to avoid subsequent difficulties in interpreting analytical results. This worked well in the SGM investigation of alleged use (not subject to this lesson-learned exercise), and should be replicated as standard practice in other inspection and investigation activities of the OPCW.

*Equipment and new methods*

77. The analytical and other equipment used during the Syria mission worked generally well, and the support rendered by the mission planners and the equipment store was effective and responded to the urgency and particular needs of the Syria mission. The OPCW systems for procurement were hard at work and in sync with the needs of the teams in the field. Flexible approaches, such as direct contacts with companies and expedited decision-making procedures (fast-track procedures used by the Committee on Contracts) were developed to shorten procurement times.
78. Specialised equipment for operation in conflict zones had not been part of previous planning, so there were urgent needs to fill in the gaps. New equipment of course requires some time and training for staff to become familiar with and develop confidence in using it. This was a challenge given the time pressure of the operation. In preparing for future contingencies, training prior to deployment and proper resourcing should ensure adequate time for orderly procurement and asset management.
79. Mobile (portable) infrared Raman spectrometry was used for the first time in the field and found useful to confirm the identity of the chemicals leaving Syria. This analytical field method could be an asset in other types of inspections as well, and the experience with this analytical technique should be further considered with a view to developing the necessary databases and procedures for its wider use for verification purposes, including at industrial facilities.
80. Communications systems and other equipment used in the command post worked well. There were problems in providing dependable coverage for field communications in Syria, but these were caused by poor connectivity rather than equipment failure. Cooperation with the UN helped address these problems and more reliable landlines were identified and used.
81. A technique that has been used already for some time by the UN and other international organisations for verification, incident response, and other purposes was the acquisition and interpretation of satellite imagery. Satellite imagery had first been used by the OPCW in support of activities in 2011 in Libya, and then again during the SGM investigation of the allegations of the use of sarin in Syria, and subsequently in other missions there. Satellite imagery proved very beneficial for the preparation and planning of field activities and team support with regard

to ensuring safety and security, and provided a way of independently assessing security-related and site-specific information. The capacity to acquire and interpret satellite imagery was developed with support from the UN Institute for Training and Research (UNITAR) Operational Satellite Applications Programme (UNOSAT) and the European Union. The technique could be integrated into the technical support systems of the Secretariat for future use, both with regard to providing planning and safety/security support for field operations and as a means of independently checking certain verification data.

82. Even before the Syrian declaration was received, monitoring open sources was a useful tool to collect and check information that might become important for subsequent operational planning and preparations of verification activities. The Syria mission clearly demonstrated the utility of this method for developing situational awareness and understanding, and open source monitoring should be integrated into the Secretariat's toolbox to support security and safety risk assessments, operational planning, and independent checks on information received from external sources.
83. New techniques also had to be found to deal with situations where access to sites for OPCW personnel was not possible given security constraints. The use of GPS-controlled tamper-proof video cameras for remote verification of sites was used for the first time by the OPCW, and was an acceptable method for accessing and inspecting locations that were not accessible to the inspectors given security constraints. Other examples of innovative approaches and new methods included the use of remote monitoring systems (RMS) to ensure that tunnel structures that had been used as CWPFs and were closed off as part of the destruction operations remain closed and, thus, inoperable.

#### *Administrative issues and standing arrangements*

84. The proper functioning of the Secretariat's administrative systems and procedures was essential to ensure full support for the implementation of the requirements of the Syria mission, without compromising transparency and accountability. These systems and procedures were adequate, but had to perform under enormous time pressures. The urgency of the removal and destruction operation and the sheer volume of administrative tasks required shortcuts and extra work. This could be partially compensated by hiring external consultants with the appropriate expertise in key areas. At the same time, the hiring of consultants and additional staff on SSA itself created significant demands on the human resource management system, affecting the Administration Division and others. Such expedited procedures, however, are not sustainable over extended periods of time and carry many risks. It is important therefore that the administration processes return to normal and follow accepted administrative rules.
85. Member States supported the Syria mission generously, both financially and with contributions in kind. Working with two Trust Funds posed significant administrative, accounting, and regulatory challenges given the size of the funds in comparison to the regular OPCW budget, the need to develop template agreements concerning the donations received, and a multitude of conditions with regard to how the contributions could be used (purposes, reporting details,

expenses tracking, and other conditions). This financing scheme created considerable complexities and uncertainties, resulted in extra workload, and points to a more general need for the OPCW to streamline its work with donors and voluntary contributions.

86. It should be noted that some of the activities carried out in Syria were not included in the regular budget of the OPCW. Therefore, those Secretariat activities not covered under the trust funds had to be financed from the general fund. As a rule of good management, when Member States assign additional tasks requiring work over extended periods of time, they should also provide additional funding. A special fund for future special missions and contingency operations has been established to provide a certain buffer capacity, using initially unspent funds from the 2013 budget (C-20/DEC.11, dated 3 December 2015). To this reviewer, this seems a sensible approach.
87. The Syria mission posed particular challenges to the OPCW's procurement system, both with respect to the urgent acquisition of equipment that was needed in the field and to the commercial tender for the destruction of the chemicals removed from Syrian territory. The proposals received following the tender process required both a technical evaluation to ascertain their compliance with the technical requirements stipulated, and a separate commercial evaluation. Both evaluations were carried out independently by separate groups of experts from within the Secretariat, assisted by two external consultants with pertinent competence in their respective areas. The tender process was completed in a competent manner in spite of its complexity and the associated high financial and reputational risks. It is worth noting that the commercial tender for destruction operations alone exceeded the routine annual procurement volume of the OPCW by a factor of two. The OPCW administrative systems were not built to deal with tasks of this magnitude, which resulted, for example, in setting-up ad hoc expert groups to conduct the evaluation of the bids received, drawing from expertise spread across the Secretariat. For future contingencies, decision making by Member States must be informed by the financial and reputational risks so incurred and, where possible, more time should be allowed for high-value procurement processes.
88. A related issue is the proper management of OPCW assets acquired during the Syria mission. A number of legal issues needed to be clarified with regard to assets that remain in Syria after completion of destruction operations (an example being the RMS used for the surveillance of closed underground structures). The collaboration with the UN, and subsequently UNOPS, with regard to support operations in Syria, local procurement, and assets management worked well. This enabled a smooth transition from the Joint Mission to UNOPS. On the other hand, information flows from UNOPS about the implementation of its contracted services could be improved.
89. An important condition for the functioning of the Syria mission was the timely issuance of visas, both by Syria and neighbouring countries, to OPCW officials travelling to Syria and for Syrian officials who needed to attend meetings in The Hague. The visa processes by and large worked satisfactorily, but the visa rules as set out in Part II of the Verification Annex to the Convention were not implemented. Only a limited number of staff received multiple entry visas as

required by the Convention, and these were for only a six-month period. This created unnecessary operational strains. Similarly, visa issuance for Syrian representatives conflicted with the Schengen rules and special procedures have become the rule. These approaches are not satisfactory and should be brought in line with the provisions of the Convention.

90. Another issue that emerged during the Syria mission relates to the arrangements with designated laboratories. The Syria mission was the first occasion since entry into force of the Convention that the analysis of authentic samples at designated laboratories was undertaken. The DAT process continues to generate requirements in this respect, and it is possible that future FFM visits may also bring back authentic samples for off-site analysis. Long-term arrangements with designated laboratories are needed on a number of issues (not merely for sample analysis itself but also for the long-term storage of samples and laboratory records, and other issues). These arrangements, however, are currently being negotiated on an ad hoc basis rather than as standing arrangements, which creates extra workload and uncertainty. The reasons underlying the reluctance of designated laboratories to enter into long-term agreements should be reviewed. Considering that the OPCW may have to participate in contingency operations in the future, a system of ad hoc arrangements will not be sustainable for long.

#### *Partnerships and stakeholder relations*

91. Partnerships are essential in contingency operations such as the Syria mission, and the Secretariat was quick and effective in establishing the necessary relations with UN entities and offices. A genuine partnership evolved as a result, which enabled the Joint Mission to accomplish its objectives.
92. At the beginning of the Syria mission, however, the OPCW was not fully integrated with the rest of the international system. The connections that the Secretariat had with the UN and its relevant offices and entities were only partly institutionalised. Although the OPCW-UN relationship appeared clear on paper, in reality the details had to be worked out in the field and between The Hague and New York as the mission progressed. This was accomplished, and these partnerships should now be further formalised and, where necessary, turned into standing arrangements with focal points, regular exchanges of information, and joint activities.
93. The implementation of the Syria mission involved a large number of stakeholders which, in addition to the Secretariat, the different UN partners and the authorities of Syria, also included several neighbouring countries acting as transit points or hosting elements of the Joint Mission (Cyprus, Lebanon, and Italy) and Member States that had made financial or in-kind contributions. The Operations and Planning Group (OPG) and the Maritime Task Force provided critical support for the planning and coordination of the operation, including the support rendered by the international community.
94. A novel feature of the Syria mission was the maritime operation to remove chemical weapons materials from Syria. This remarkable undertaking had significant legal and operational complexities and involved a large number of stakeholders. Legal challenges and operational issues were addressed at a

stakeholder meeting in late 2013 in Stuttgart, Germany (the details of the outcome were reported in EC-M-36/DG.3, dated 15 December 2013). UNODA, the Secretariat and Member States involved participated in a separate lessons-learned workshop held from 9 to 11 March 2015 at the OPCW Headquarters in The Hague.

#### *Outreach to the media and the public*

95. Outreach to civil society and the wider public, and productive relations with the media, are important elements of a high-profile undertaking such as the Syria mission. The coordination of media outreach with the UN was important and at times challenging given the vast experience that the UN commands in this area. The cultural differences in terms of information policy between the UN and the OPCW made it difficult at times to accurately project the role and achievements of the OPCW within the Joint Mission. The impression was, nevertheless, that the portrayal of OPCW and its work in Syria by the media was positive. A dedicated website of the Joint Mission was an effective tool to inform the public about the work in Syria.
96. There were significant challenges with respect to engaging with civil society, including with regard to the destruction of Syria's chemical weapons materials at sea. Member States and, as a consequence, the Secretariat were slow in responding to concerns by environmental groups in countries of the Mediterranean Sea. Information on what was actually planned was often missing or late, thus leaving the field open to speculation and misunderstandings. The engagement with civil society remained reactive and defensive, rather than proactive and constructive. In future contingencies, more effort must be invested into the work with the media and the public, including proactive pushing of information and background material, and closer coordination with partners, in particular Member States and the UN.

#### Conclusions and recommendations

97. The conclusions of this lessons-learned exercise mirror those drawn by the UN in relation to the 2013 SGM investigation in Syria and include the following: the importance of understanding the critical components of a mission; the need to ensure unity and consistency of the mission; the desirability to build and sustain strategic partnerships; and the necessity to ensure multidisciplinary training and information sharing, including at times when no contingency operation is under way.
98. The Secretariat has already begun applying lessons from the Syria mission in certain areas, and is considering further changes (see for example the proposed inclusion of a capacity-building and contingency-planning cell in the mid- to long-term staffing plan, set out in document S/1292/2015, dated 30 June 2015). In addition, there are important lessons for how the Secretariat's readiness and capacity can be enhanced so that the demands of future contingency operations can be met. These are set out below.

### *The political context*

99. The Secretariat's "vision paper" states as follows: "Chemical weapons-related knowledge and expertise needs to be retained by the Organisation, combined with a rapidly deployable surge capacity in case of requests for CIs<sup>5</sup> or IAUs<sup>6</sup>, or to provide support for United Nations-led operations." (paragraph 18 (d) of the Annex to S/1252/2015).
100. The Syria mission has confirmed the strategic importance of maintaining an adequate level of critical technical knowledge, operational expertise, and mobilisation capacity in the chemical weapons area, even as the OPCW moves towards the post-destruction phase of its work. Despite the progress made in the elimination of chemical weapons programmes worldwide, and in bringing the remaining few States not Party into the realm of the Convention, there still remain chemical weapons outside the reach of the Convention. The threat that they may be used in armed conflict remains real.
101. Developments in Syria and the wider region have also underlined that even after the elimination of State chemical weapons programmes, threats involving chemical weapons, including improvised devices for the dissemination of toxic chemicals, must not be ignored. The security environment continues to evolve and certain non-State actors have shown a constant interest in acquiring and using chemical weapons capability for some time.
102. The OPCW therefore must continue to improve its planning and preparedness for contingency operations involving the use of chemical weapons, and further develop strategic partnerships with the UN and other relevant partners with which it would need to collaborate in contingency operations.

### *The human factor*

103. Investing in people is critical. This review has confirmed the need for multidisciplinary work and multitasking, maintaining leadership potential, and extending competence through training, exercises, and practical field work. This requires careful management and Member States' support to enable the Secretariat to maintain sufficiently deep and broad in-house capacity, as well as the ability to ramp up capacity when needed. Specific measures should include:
- (a) a strategic and sustainable personnel policy implemented with a robust human resource management system to ensure that:
    - (i) an adequate number of staff members with critical skill sets and expertise (political, technical, leadership potential) is maintained at all times within the Secretariat to fill the key operational functions of a contingency operation;
    - (ii) regular relations are maintained with a pool of external experts who would be available at short notice to be rehired, seconded, or work on loan, to be able to ramp up capacity in critical areas if in-house

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<sup>5</sup> CI = challenge inspection.

<sup>6</sup> IAU = investigation of alleged use.

capacity is not sufficient to implement a contingency operation (this relates not only to experts with the technical skill sets of inspectors but should also include other skills and experiences critical for such missions); and

- (iii) administrative processes for the rehiring or secondment/engagement of experts on loan can be implemented on very short notice (which may include expedited administrative procedures);
- (b) motivation, training, and exercise: training should be objectives-based, include cross-training of multiple skills sets, and ensure that an adequate number of staff maintain certifications or otherwise recognised levels of training, including in areas of particular relevance to operations in hostile environments (policy and legal issues; SSAFE);
- (c) systematic attention paid to ensuring that the OPCW meets its duty of care for staff and their families, given that no contingency operation can ever be free of risks—including measures already taken in this direction (counselling, physical and mental health checks, and debriefings, welfare officer), and consideration of additional measures if required; and
- (d) a review of how the tenure policy is being applied. The Syria experience has shown that some assumptions underlying the tenure policy were not realistic. New staff, even though technically highly competent, will need considerable time to build up the arms control and political/legal experience needed to meet the requirements of the Convention. This becomes even more important in complex circumstances such as the Syria mission. Building up this competence requires time and exposure to the practice of disarmament work. Too high a frequency of staff rotation may lead to a thinning out of expertise. The rehiring on SSA or contracting out, on the other hand, is not always a reliable solution to address shortfalls. Finally, motivation is critical in contingency operations and needs to be part of the organisational culture. However, in a non-career organisation, one needs to find and apply other motivators than promotion.

#### *Legal and policy issues*

- 104. Legal and policy support is essential in contingency operations, both for the Core Group at headquarters and missions in the field. By their very nature, the details of a contingency cannot be predicted, and it is important that OPCW activities in such circumstances stand on sound legal ground. There should always be adequate capacity (in the LAO and through collaborations with partners) to provide legal counsel on short notice on issues that have not come up in the past, and for adapting existing models and templates to the specific requirements of an operation as it unfolds.
- 105. At the same time, policy officers should be involved in the work of the Core Group of contingency operations to ensure consistent application of OPCW policies, to provide policy advice, and to initiate any review of adopted policies upon completion of contingency operations should the lessons from such contingencies warrant such review.

### *Operational concept*

106. The Syria mission has shown the usefulness of the Core Group concept, as well as the need for systematic preparation and planning of contingencies, both in terms of procedures and personnel. This review supports the conclusion that a dedicated cell for contingency operations should be set up—a concept already included in the Secretariat’s proposed long-term staffing plan (S/1292/2015). It would be desirable, however, not to limit these preparations to inspectors. The Syria mission has shown that there are other areas of expertise that a contingency operation is likely to require (verification methodology, policy, legal, security, health and safety, administration), so the cell must be working in close concert with other parts of the Secretariat.
107. Other issues that need to be addressed in setting up a dedicated structure for contingencies through a Core Group-like command and control centre include:
  - (a) strong leadership and adequate capacity so that a contingency operation can be implemented without the need for the Director-General to personally take the lead on tactical issues, leaving his or her hands free for strategic decisions and work with the policy-making organs and Member States;
  - (b) development and documentation of an operational concept for contingencies, with clearly defined roles and responsibilities, clear lines of decisions-making authority, and robust internal processes to record decisions and events (e.g., a small mission secretariat);
  - (c) training and exercises in-house and together with partner organisations, including the UN and relevant international organisations such as the World Health Organization (WHO); and
  - (d) development of a stronger skill set of field mission personnel to operate in a political environment, deal with legal and policy challenges, and report to political audiences.

### *Managing information flows and content*

108. Contingency operations require close and effective cooperation and collaboration between divisions and branches, with better information sharing oriented on common objectives (care taken of the requirements of the confidentiality policy). The establishment of a dedicated cell for contingency operations must not lead to self-isolation of that cell, but there should be collaborative relationships and reachback procedures that connect the cell with other parts of the Secretariat that it needs to interact with to be effective (such as, but not limited to, Secretariat units in the areas of verification, legal and policy work, and administration).
109. The technical capacity and related procedures to exchange confidential information (voice and data) between OPCW Headquarters and missions in the field must be maintained and regularly exercised.

### *Safety and security*

110. Ensuring safety and security in contingency operations is paramount. The Secretariat units responsible for planning and advising on security, confidentiality, and health and safety play important roles in all phases of the planning and implementation of contingency operations. They can effectively contribute to realistic and objectives-based training, maintaining preparedness, and supporting field operations. The steps taken to marshal their advice and support for contingency and other field operations should remain firmly anchored into the structures and processes of the Secretariat.

### *Verification requirements*

111. The Syria mission has shown the need to carefully balance between operational requirements and constraint on the one hand, and the need to uphold the Convention's standards of verification on the other. Future contingency operations in non-permissible environments will again call for close cooperation within the Secretariat, clear legal and policy direction on principles and criteria of mission success, and innovative adaptation of methods and procedures to the specifics of the situation while maintaining the required standards of verifiability and quality assurance.
112. The Syria mission also confirmed a need for what might be called a "culture shift" in the way in which Secretariat staff understand their function:
  - (a) a shift from adhering to well-exercised, but at times inflexible, procedures to working towards objectives, taking advantage of opportunities and responding appropriately to risks;
  - (b) an understanding of the political and legal dimensions of the OPCW's work, including by staff whose function is primarily technical;
  - (c) a less mechanical understanding of the objectives of verification that remains constrained by what States Parties declare, and instead a stronger cooperative interaction with States Parties to assist them in fully understanding and implementing their obligations; and
  - (d) the ability to innovate and develop solutions to problems when established practices cannot be applied given the circumstances.

### *Equipment and new methods*

113. The Secretariat should continue to review new methods, procedures and equipment that it found useful during the Syria mission, and retain/further develop the technical aspects of its verification methodologies and techniques (see also the suggestions of the SAB Temporary Working Group on Verification). Examples of processes, methods, and equipment that should be retained and further developed by the Secretariat include: open-source monitoring to gain situational awareness before a situation develops into a contingency, as well as during contingency operations; the use of satellite imagery for safety, security, and verification planning purposes; and the use of remote techniques and equipment/systems for inspecting/investigating and securing sites and structures,

including methods for data authentication and tamper-proofing while ensuring compliance with the verification requirements under the Convention.

*Administrative issues and standing arrangements*

114. The Secretariat has now been working in contingency mode for more than two years. There has been little time for reflection and analysis, and there are signs of attrition and mission fatigue. A lesson to draw from the experience in Syria and the feedback received from former and current staff during the lessons-learned project is that the current mode of operation is increasingly less sustainable. For future contingencies, it will be important to reduce the reliance in critical areas on what is a fairly limited number of highly competent individuals, and to provide stronger reachback into the institutional strength of the Secretariat.
115. This review has confirmed the importance of effective administrative systems and other support functions of the Secretariat that can adapt their pace to the demands of contingency operations, including but not limited to: human resource management with regard to the need to quickly bring on board experts with mission-critical experience and skill sets or to back-fill; procurement with regard to mission-critical equipment as well as the outsourcing of certain functions for which the Secretariat lacks capacity or expertise; financial services, for example with regard to the management of trust funds and voluntary contributions; language services for field missions; and support for the policy-making organs. At the same time, when expedited procedures are being used it is important to keep under review the operational, reputational, and financial risks incurred and to allow sufficient time and space for considering options and identifying appropriate risk-mitigation strategies.
116. While setting up a contingency operations cell will go some way towards establishing an operational capacity for contingency missions, it will be equally important to establish a balance between contingency and routine operations that is consistent with the mandate given to the Secretariat by the Convention, and that is communicated to all Secretariat staff. Contingencies will affect and require the contribution of the entire Secretariat, including from staff not directly involved in a mission. It is essential that objectives and priorities be clearly established and communicated to all staff.
117. An important tool for enhancing readiness and preparing for contingencies is scenario planning. In developing its capacity to implement contingencies, the Secretariat should make a systematic and cross-divisional effort to identify the different processes that will be required in a range of likely scenarios; review their criticality for mission success; review the available expertise and resources within the Secretariat and identify gaps; and decide on how to remedy any shortfalls. Such a review should not be limited to operational planning aspects but also address legal, policy, verification, and administrative issues.

*Outreach to the media and the public*

118. High-profile operations require careful management of the relations with the media, civil society, and the public. This is important for the reputation of the OPCW, to manage expectations, and to maintain public and political support for its work. A lot of good work has been done in the past to develop and maintain productive and trust-based relationships with representatives of the media and civil society. However, more can and should be done, in particular with regard to the early identification of issues that have the potential to draw public attention, the careful preparation of background information and argumentations that can be used proactively without compromising the confidentiality aspects of operations, and regular briefings for the media and civil society before, during, and after contingency operations to maintain a dialogue and shape the way in which critical issues are portrayed and being perceived.

*Partnerships and stakeholder relations*

119. Future contingencies will again require the OPCW to operate in concert and close collaboration with other organisations, and in particular the UN. It is therefore essential that the Secretariat further develop and structure its partnerships with the UN, the WHO, Interpol, and other relevant organisations, through standing arrangements. The Secretariat should share experience with its partners on a regular basis, engage in joint training and exercises, establish and maintain focal points in critical functional areas, and engage in regular discussions of procedural and institutional issues that are relevant to future collaborations.
120. None of this can be achieved by the Secretariat alone. The Member States and the policy-making organs are essential partners in this endeavour; they need to adopt and maintain common policies and directions in this regard, and should not only be encouraged to render political support, but also strengthen the budgetary and personnel capacity of the Secretariat to enable it to implement future contingencies. It is essential for a sustainable approach that organisational policies, assigned tasks, and provided resources match accordingly.

Annexes:

Annex 1: Questionnaire Used in the Survey of Technical Secretariat Staff

Annex 2: Major Milestones and Events in the Elimination of the Syrian Chemical Weapons Programme

Annex 3: Reports on the Elimination of the Syrian Chemical Weapons Programme

## **Annex 1**

### **Questionnaire used in the survey of Technical Secretariat staff**

1. Was readiness sufficient when the elimination mission started in September 2013?
2. Were human resources, equipment, institutional mechanisms, working environment, etc. sufficient?
3. Please identify the types and locations of records and documents referred to, created, and or used during the operation.
4. What was successful?
5. What were the main difficulties?
6. How were these difficulties overcome?
7. Which mitigation/correction measures (if any) have already been adopted?
8. What could have been done differently?
9. How can they be improved in future similar activities?

## Annex 2

### Major milestones and events in the elimination of the Syrian chemical weapons programme

**12 September 2013** – In its communication to the Secretary-General of the United Nations (UN), the Syrian Arab Republic notifies its intention to apply the Chemical Weapons Convention provisionally.

**14 September 2013** – Syria deposits with the Secretary-General of the United Nations its instrument of accession to the Convention. It also declares that it shall comply with its stipulations and observe them faithfully and sincerely, applying the Convention before its entry into force.

**27 September 2013** – The Executive Council adopts decision EC-M-33/DEC.1 on the elimination of the Syrian chemical weapons programme. The decision provides, inter alia, that Syria will complete as soon as possible, and in any case not later than 1 November 2013, the destruction of chemical weapons production and mixing/filling equipment and will complete the elimination of all chemical weapons material and equipment in the first half of 2014.

**27 September 2013** – The United Nations Security Council adopts resolution 2118 (2013) which endorses Executive Council decision EC-M-33/DEC.1 and stipulates measures additional to it.

**1 October 2013** – In accordance with subparagraph 2(b) of decision EC-M-33/DEC.1 and paragraph 8 of resolution 2118 (2013), the Secretariat deploys a team totalling 19 persons to Syria. At the request of the Syrian authorities, some members of the team conduct a technical assistance visit. The rest of the team begins with operational planning and preparations to implement the Executive Council decision.

**10 October 2013** – Additional personnel are deployed to Syria. The overall objectives of this initial deployment are to:

- (a) assess the information submitted by Syria pursuant to subparagraph 1(a) of the Executive Council decision;
- (b) develop a programme of activities; and
- (c) verify the destruction of critical items of chemical weapons production, mixing, and filling equipment.

**14 October 2013** – Syria becomes the 190th State Party to the Convention.

**16 October 2013** – The Secretariat establishes a trust fund in support of the verification of the destruction of Syrian chemical weapons, and issues a call for voluntary contributions for the destruction of Syrian chemical weapons.

**16 October 2013** – The OPCW and the UN establish the OPCW-UN Joint Mission in Syria.

**23 October 2013** – Syria submits its initial declaration required by Article III of the Convention (under subparagraph 1(b) of EC-M-33/DEC.1, this declaration was due by 27 October 2013).

**25 October 2013** – In accordance with subparagraph 2(f) of decision EC-M-33/DEC.1, the first monthly report by the Director-General on progress in the elimination of the Syrian chemical weapons programme and the implementation of

the Executive Council decision is submitted to the Executive Council. In accordance with paragraph 12 of Security Council resolution 2118 (2013), this and subsequent monthly reports of the same type are also submitted to the UN Security Council through the UN Secretary-General.

**1 November 2013** – The functional destruction (rendering useless or inoperable) of chemical weapons production and mixing and filling equipment in Syria is completed.

**6 November 2013** – The second rotation of OPCW personnel into Syria is completed with an OPCW logistics officer being based in Beirut, Lebanon. The Operational Planning Group (OPG) commences its work in The Hague.

**6 to 9 November 2013** – The OPG meets in The Hague with a Syrian delegation to develop an “Outline Plan for the Removal of Chemical Weapons in Syria for Destruction Outside its Territory”.

**11 November 2013** – The Director-General addresses a letter to the Special Coordinator of the Joint Mission in which he forwards the conclusions and recommendations of the OPG, along with a consolidated list of requirements for the safe removal of Syrian chemical agents outside Syrian territory.

**14 November 2013** – The OPG, comprising 30 experts from various backgrounds, starts developing an “Outline Plan for the Removal of Chemical Weapons in Syria for Destruction Outside its Territory”.

**15 November 2013** – The Executive Council adopts decision EC-M-34/DEC.1 setting forth the detailed requirements for the destruction of Syrian chemical weapons and Syrian chemical weapons production facilities (CWPF). In addition to other matters, this decision:

- (a) establishes destruction completion dates and other requirements with regard to the destruction of Syria’s chemical weapons and CWPFs;
- (b) clarifies that the majority of declared chemical weapons would be removed from the territory of Syria for destruction outside its territory;
- (c) establishes “effective destruction dates”;
- (d) requests that the Director-General establishes a special Trust Fund for the completion of these destruction activities, recognising that Syria was unable to meet these costs;
- (e) requests that the Director-General, in consultation with States Parties offering to assist the destruction of Syria’s chemical weapons outside Syrian territory, prepare a destruction plan by 17 December 2013;
- (f) requests Syria to submit its own plan for the destruction of those chemicals and containers it was to destroy on its territory, by 1 January 2014; and
- (g) requests that the Director-General urgently explore options for destruction of certain binary chemical components and associated reaction masses, and other declared chemicals, in commercial chemical disposal facilities.

**18 November 2013** – Syria informs the Secretariat that it had destroyed all unfilled chemical munitions (Category 3 chemical weapons). The Secretariat was able to verify the destruction of more than 60% of these unfilled munitions; the verification of the remaining Category 3 chemical weapons was accomplished by the end of December 2013.

**19 November 2013** – The Secretariat establishes a second trust fund for the financial resources needed for the activities related to the complete destruction of the Syrian chemical weapons outside the territory of Syria.

**21 November 2013** – Syria submits an amendment to its initial declaration increasing the total amount of declared munitions to approximately 1,260 items and providing information regarding receipts of chemicals and production equipment for its chemical weapons programme between 1982 and 2010.

**21 November 2013** – The Secretariat issues a call for expressions of interest from companies interested in participating in a future tender for the treatment and disposal of hazardous and non-hazardous organic and inorganic chemicals and related packaging materials and containers/drums, or parts thereof. The deadline for receipt of expressions of interest by companies is set at 29 November 2013.

**25 November 2013** – Second progress report by the Director-General on the elimination of the Syrian chemical weapons programme. The Director-General also informs the Executive Council of the formation of a “Maritime Planning Group” to make arrangements between States Parties offering to assist in transportation and to support the Joint Mission.

**2 December 2013** – Packaging materials for the reloading and transport of chemical agents are due to begin arriving in Damascus. A training programme for Syrian officials directly involved in packing and reloading of chemicals is held from 25 to 30 November 2013 in Beirut. The verification of the destruction by the Syrian Arab Republic of eight CWPFs (two mobile units at two sites in the Damascus area and six mobile units at six sites in the Homs area) by Secretariat personnel commences.

**2 December 2013** – Report issued by the Director-General on the implementation of Executive Council decision EC-M-34/DEC.1 “Detailed Requirements for the Destruction of Syrian Chemical Weapons and Syrian Chemical Weapons Production Facilities”.

**3 December 2013** – A small team of Joint Mission personnel deploys to Latakia, Syria to prepare for the arrival of the chemical weapons identified for removal from Syria and for the conduct of verification activities at the port.

**6 December 2013** – Syria submits the final version of its detailed plans for destruction in respect of CWPFs. The OPG commences its review of the plans.

**10 and 11 December 2013** – A team of the Secretariat tours the United States Motor Vessel (MV) Cape Ray as part of the work to develop an agreed detailed plan for verification and a draft facility agreement for the destruction facilities on board the vessel.

**11 to 13 December 2013** – Secretariat staff from The Hague, Joint Mission personnel from Damascus, and States Parties’ representatives participate in a meeting in Stuttgart, Germany to coordinate the maritime contributions offered by States Parties.

**15 December 2013** – The Director-General submits a plan for the destruction of chemical weapons outside Syria to the Executive Council. The plan involves:

- (a) transportation of priority chemicals from 12 storage locations in Syria to the port of Latakia (resources for packaging and transport are to be provided by Russia, the US and China; Syria remains responsible for all packaging and transportation);

- (b) the removal from Syria of these priority chemicals by Danish and Norwegian maritime vessels;
- (c) the transloading of the materials using an Italian port, and subsequently;
- (d) the destruction of these chemicals at sea on board the United States MV Cape Ray, which has been configured as a chemical weapons destruction facility (CWDF); and
- (e) the removal and destruction of other chemicals declared as part of the Syrian chemical weapons programme, and of the reaction masses resulting from the hydrolysis of the “priority chemicals”, at commercial facilities.

**16 December 2013** – In advance of the 1 January 2014 deadline, Syria submits to the OPCW a plan for the destruction of isopropanol and residual mustard agent. The Secretariat begins clarifying some aspects of this plan.

**20 December 2014** – Syria submits its first monthly report regarding activities on its territory related to the destruction of its chemical weapons and CWPFs.

**22 December 2013** – The Secretariat issues a call for proposals and launches an international competitive tender for the treatment and disposal of hazardous and non-hazardous organic and inorganic chemicals and related packaging materials and containers/drums, or parts thereof. The deadline for receipt of the bids by companies is set at 20 January 2014.

**23 December 2013** – Third report by the Director-General on progress in the elimination of the Syrian chemical weapons programme.

**26 December 2013 to 2 January 2014** – An OPCW inspection team trains in the United States of America in preparation for conducting verification activities on board the MV Cape Ray.

**5 and 6 January 2014** – Oversight of the packing and loading of the chemicals at the storage sites, prior to their transportation to the port of embarkation at Latakia, is conducted.

**7 January 2014** – The first movement of chemicals takes place to the port of Latakia. Verification activities are performed at Latakia upon arrival of the chemicals referred to above.

**7 January 2014** – The Director-General submits a report to the Executive Council on the implementation of the plan for destruction of the Syrian chemical weapons outside the territory of Syria.

**8 January 2014** – The Executive Council approves the detailed plan for verification of the destruction of the chemical weapons on board of the MV Cape Ray using the Field Deployable Hydrolysis System Chemical Weapons Destruction Facility.

**14 January 2014** – Another team of OPCW personnel departs from The Hague to conduct a final engineering review of the CWDF on board the MV Cape Ray.

**14 January 2014** – Following consultations with the Secretariat, Syria submits a modified version of the plan for destruction of isopropanol submitted on 16 December, as set out above.

**16 January 2014** – Syria submits its second monthly report regarding activities on its territory related to the destruction of its chemical weapons and CWPFs.

**16 and 17 January 2014** – The Secretariat hosts technical discussions between experts from the Russian Federation, the Syrian Arab Republic, and the United States of America regarding modalities for the destruction of 12 declared CWPFs in Syria.

**20 January 2014** – The Secretariat hosts the public opening of the tenders submitted in response to the “Call for Proposals for the Treatment and Disposal of Chemicals, Effluents, and Related Packaging Materials with Respect to the Destruction of Syrian Chemical Weapons”.

**23 January 2014** – Fourth report by the Director-General on progress in the elimination of the Syrian chemical weapons programme.

**27 January and 10 February 2014** – Further limited shipments of priority chemicals are transported to the port of embarkation at Latakia and loaded onto the Danish and Norwegian cargo ships.

**30 January 2014** – The Executive Council adopts a model agreement and a decision on the destruction of Syrian chemical weapons at commercial facilities and arrangements governing on-site inspections authorising the Director-General to enter into contracts for the destruction of certain specified chemicals and reaction masses at qualified commercial facilities selected pursuant to the OPCW tender process and to accept in-kind contributions made by States Parties to directly sponsor commercial entities to carry out the destruction of Syrian chemical weapons or reaction masses.

**5 February 2014** – The OPCW and the UN conclude an agreement concerning the status of the Joint Mission with the Syrian Government as required by UN Security Council resolution 2118 (2013). A memorandum of understanding for the provision of medical services and emergency medical evacuation services is signed at the same time.

**14 February 2014** – The Syrian authorities provide a timeline for the removal of chemicals outside the territory of Syria with proposed completion at the end of May 2014. This timeline is discussed in the framework of the OPG, which develops an alternative plan envisaging that chemicals could be removed by 31 March 2014.

**14 February 2014** – The Director-General announces that contracts for the transport, treatment, and disposal of hazardous and non-hazardous organic and inorganic chemicals, effluents, and related materials with respect to the destruction of Syrian chemical weapons had been awarded to Veolia ES Technical Solutions L.L.C, Texas, United States of America, and Ekokem OY AB, Finland.

**18 February 2014** – Syria submits its third monthly report regarding activities on its territory related to the destruction of its chemical weapons and CWPFs.

**23 February 2014** – Syria submits to the Director-General an amended time frame for the removal of all chemicals by 13 April 2014, which is discussed in the framework of the OPG.

**25 February 2014** – Fifth report by the Director-General on progress in the elimination of the Syrian chemical weapons programme.

**5 March 2014** – The Executive Council approves an arrangement between the OPCW and the United Kingdom of Great Britain and Northern Ireland for the disposal of certain Syrian chemicals at the Ellesmere Port High Temperature Incinerator (in-kind contribution). It also approves an agreement with Finland for the disposal of other chemicals by Ekokem OY AB (commercial contract).

**7 March 2014** – Syria submits an amendment to its initial declaration. The Secretariat seeks clarifications on this amendment.

**11 to 21 March 2014** – The Secretariat deploys a team of experts to Syria to carry out the necessary studies and to render appropriate advice to Syria to facilitate the preparation by the Syrian authorities of the revised detailed plan for destruction for the remaining 12 CWPFs.

**17 March 2014** – Syria submits its fourth monthly report regarding activities on its territory related to the destruction of its chemical weapons and CWPFs.

**27 March 2014** – Sixth report by the Director-General on progress in the elimination of the Syrian chemical weapons programme. The report notes, inter alia, that almost 35% of the declared Priority 1 chemicals and more than 80% of the declared Priority 2 chemicals (making a combined total of 49.3% of Priority 1 and 2 chemicals) planned for destruction outside of Syria had been removed from Syrian territory. With a total of 93% of the declared isopropanol verified as destroyed on Syrian territory, the total percentage of chemicals both removed and destroyed came to 53.6%. While progress in the removal of chemicals from Syria has accelerated, the target date of 31 March 2014 for the effective destruction of Priority 1 chemicals would not be met. As for the 26 CWPFs, eight mobile units had been destroyed and verified; at one CWPF, all declared specialised buildings and equipment had been destroyed and verified; at four CWPFs, all declared specialised/standard buildings and equipment had been destroyed but verification was pending; and at 12 CWPFs, either standard equipment and/or specialised/standard buildings remained to be destroyed and verified.

**4 April 2014** – After a hiatus in movements to the port of Latakia due to the security situation in the country, removal activities recommence.

**10 April 2014** – The United States of America and the OPCW co-host a visit by international media and NGOs aboard the vessel MV Cape Ray, while it is anchored at the port of Rota in Spain.

**15 April 2014** – Syria submits its fifth monthly report regarding activities on its territory related to the destruction of its chemical weapons and CWPFs.

**16 April 2014** – Syria submits an amendment to its initial declaration clarifying a previous amendment submitted on 7 March 2014 and provides exact numbers of quantities of declared chemicals.

**16 and 17 April 2014** – A management retreat is organised in Cyprus for members of the Joint Mission and the Secretariat regarding the need to adjust the Joint Mission's footprint and to possibly terminate the Mission following the anticipated removal of all chemical weapons from Syrian territory before 30 June 2014.

**22 to 28 April 2014** – A team of technical experts from the Secretariat travels to Damascus to meet with Syrian authorities as part of continuing efforts to streamline and complete the data regarding the initial declaration submitted by Syria in October 2013, and subsequent amendments, as well as the verification work.

**25 April 2014** – Seventh report by the Director-General on progress in the elimination of the Syrian chemical weapons programme. The report notes, inter alia, that a total of 18 movements of chemicals from CWSFs to the port of embarkation at Latakia had taken place. A total of 96.45% of declared Priority 1 chemicals and 81.09% of declared Priority 2 chemicals (making a combined total of 92.03% of

Priority 1 and 2 chemicals) planned for destruction outside of Syria have been removed from Syrian territory. A total of 93.1% of the declared isopropanol has been verified as destroyed on Syrian territory. Syria has continued the destruction of equipment and buildings at several of the 18 remaining declared CWPFs. Activities relating to the destruction of aircraft hangars and underground structures at 12 of the CWPFs were awaiting a decision by the Executive Council on the combined plans for destruction and verification.

**29 April 2014** – The Executive Council approves an arrangement between the OPCW and Germany for the disposal of certain Syrian chemicals at GEKA mbH, Munster, Germany (in-kind contribution).

**30 April to 2 May 2014** – A team of technical experts of the Secretariat visits Veolia ES Technical Solutions, L.L.C., selected for the disposal of Priority 2 inorganic chemicals, and at the port of Port Arthur, Texas, in the United States of America. They review practical aspects related to the receipt, transportation, temporary storage, and destruction/disposal of the Syrian chemicals at the facility, and discuss practical verification arrangements.

**2 May 2014** – The Special Coordinator of the Joint Mission visits The Hague to discuss the future orientation of the Mission with the Director-General.

**15 May 2014** – Syria submits its sixth monthly report regarding activities on its territory related to the destruction of its chemical weapons and CWPFs.

**15 May 2014** – The Syrian Government transports the required packaging material to Site Number 2 by chartered aircraft.

**19 and 20 May 2014** – Technical-level discussions take place in Beirut regarding the destruction of 12 chemical weapons production facilities CWPFs.

**21 to 28 May 2014** – A team of technical experts from the Secretariat deploys to Damascus for a second mission in order to engage in consultations with the Syrian National Authority on any outstanding issues and to seek clarification with regard to its Article III declaration.

**23 May 2014** – Eighth report by the Director-General on progress in the elimination of the Syrian chemical weapons programme. The report notes, inter alia, that no further movements of chemicals had taken place to the port of Latakia since the last report, and that the Syrian authorities had informed that this was due to the inaccessibility of the CWSF holding the remaining chemicals. Preparatory activities to move these chemicals had been carried out. All other declared chemicals had been transported to Latakia and 11 out of the 12 declared CWSFs had been verified as empty.

**5 June 2014** – The Norwegian vessel Taiko departs from the port of Latakia prior to receiving all the cargo for the shipment. It leaves the area of operations by 8 June, carrying Priority 2 chemicals to Finland and the United States of America for disposal in those countries.

**9 to 11 June 2014** – An additional technical meeting between the Secretariat and representatives of the Government of Syria is conducted in Beirut regarding the five remaining underground CWPFs.

**11 to 14 June 2014** – OPCW experts conduct an inspection of two items declared by the Government of Syria as abandoned chemical weapons. Samples were taken and their subsequent analysis identified the agent contained in them as Sarin.

**16 June 2014** – Syria submits its seventh monthly report regarding activities on its territory related to the destruction of its chemical weapons and CWPFs.

**17 June 2014** – Pending removal of all chemical weapons from Syria, the Executive Council encourages the States Parties concerned to reach an agreement on the combined plans for destruction and verification for 12 CWPFs and requests Syria to initiate, as appropriate, any preparatory work necessary for the destruction of the CWPFs. The Executive Council further requests the Director-General to start preparatory work for the conclusion of a contract without calling for tenders, quotations, or proposals with a commercial company for the provision of expertise and equipment, as appropriate. As a result, the Secretariat initiates contacts with the Global Offshore Projects (GOP) Company requesting advice in respect of the destruction of the CWPFs in Syria.

**19 June 2014** – The Secretariat facilitates a telephone conference between Secretariat experts and representatives of civil society, in particular from the Mediterranean region. The conference call allows for an exchange of views on the environmental aspects of the removal and destruction of Syrian chemical weapons, and also enables the participants to receive more information about the operations.

**21 June 2014** – The Norwegian vessel Taiko arrives at the port of Hamina Kotka in Finland and offloads the chemicals destined for destruction at the Ekokem waste treatment and disposal facility. A team of OPCW inspectors is present during the offloading at the port to verify the receipt and arrangements for transportation of chemicals and related materials to the facility, and to provide assurance against diversion.

**22 and 23 June 2014** – The twentieth and final movement of chemicals to the port of Latakia takes place. The final shipment of chemicals identified for removal from the territory of Syria takes place. The Danish cargo ship Ark Futura takes on board the remaining 8% of chemicals for transportation to their destination.

**24 June 2014** – The Secretariat concludes a contribution agreement with the United Nations Office for Project Services (UNOPS) providing for UNOPS' assistance to the OPCW's transloading operations in the Italian port of Gioia Tauro through the contracting of the port operator Medcenter.

**25 June 2014** – Ninth report by the Director-General on progress in the elimination of the Syrian chemical weapons programme. The report notes, inter alia, that 36.6% of the Category 1 chemicals and 12.4% of the Category 2 chemicals had been destroyed, representing a combined total of 32%, including the isopropanol previously destroyed in Syria.

**26 to 28 June 2014** – Technical meeting in Moscow relating to the destruction of aircraft hangars and underground structures at 12 CWPFs, between representatives of the Russian Federation, the Syrian Arab Republic, and the United States of America, as well as representatives of the Secretariat.

**30 June to 5 July 2014** – A team of experts from the Secretariat visits Syria as part of ongoing consultations regarding the Syrian declaration and related disclosures.

**2 July 2014** – Transloading of priority 1 chemicals (HD and DF) from the Danish vessel Ark Futura onto the United States MV Cape Ray takes place at the Italian port of Gioia Tauro and is completed within 48 hours. The Secretariat deploys teams of OPCW inspectors to verify that no diversion of declared chemicals takes place during the transloading in Gioia Tauro.

**4 July 2014** – The Director-General submits an overall report on the elimination of the Syrian chemical weapons programme to the Executive Council.

**8 July 2014** – The Secretariat and the United Kingdom of Great Britain and Northern Ireland conclude an exchange of letters regarding the United Kingdom's new in-kind contribution to dispose of certain quantities of hydrogen fluoride (HF) at Veolia UK and Mexichem Rocksavage Site. (This chemical was originally to be disposed of by Veolia US, however, due to the early departure of the Norwegian vessel Taiko from Latakia, it could not be shipped to the United States and is thus shipped to the United Kingdom on board the Danish vessel Ark Futura).

**9 July 2014** – The MV Cape Ray starts neutralisation of priority 1 chemicals in international waters in the Mediterranean. An OPCW inspection team is on board the Cape Ray to verify the destruction and to ensure compliance with the Convention.

**9 July 2014** – Veolia ES Technical Solutions, LLC, Texas, United States of America receives the chemicals transported by the Norwegian vessel Taiko. Destruction activities at Veolia begin on 11 July 2014.

**11 July 2014** – The Executive Council at its Seventy-Sixth Session approves amendments to the facility agreement with the United Kingdom reflecting that country's new in-kind contribution to dispose of certain quantities of HF at Veolia UK and Mexichem Rocksavage Site.

**14 and 15 July 2014** – A technical meeting between the Secretariat and representatives of the Government of Syria is conducted in Beirut regarding the submission of revised plans for destruction of the 12 CWPFs. By then the destruction of 14 other CWPFs had already been completed by Syria.

**14 July 2014** – Syria submits a further amendment to the initial declaration that it submitted on 23 October 2013. In the amendment, Syria declares as a CWPF a facility for the production of ricin ("Al-Maliha"). The newly declared facility is subject to verification and destruction, although it is located in an area that is not under government control.

**14 July 2014** – Syria also submits to the Secretariat a destruction plan for the two items declared by it as abandoned chemical weapons, and which the Secretariat has verified as containing the chemical agent sarin.

**15 and 16 July 2014** – Veolia Environmental Services UK receives for disposal additional chemicals transported from Syria by the Ark Futura.

**17 July 2014** – Based on the submission by Syria of the two supplements to the revised detailed plans for the destruction of the 12 declared CWPFs (EC-M-40/P/NAT.2/Add.1 and EC-M-40/P/NAT.2/Add.2, both dated 20 July 2014), the Secretariat submits to the Executive Council a supplement to the combined plans for destruction and verification for the 12 declared CWPFs in Syria (seven aircraft hangars and five underground structures) (EC-M-40/DG.2/Add.1, dated 20 July 2014).

**18 July 2014** – Syria submits its eighth monthly report regarding activities on its territory related to the destruction of its chemical weapons and CWPFs.

**20 July 2014** – The last consignment of four maritime shipping containers with chemicals is offloaded from the Danish vessel Ark Futura at the port of Hamina Kotka in Finland for disposal by Ekokem.

**24 July 2014** – The Executive Council approves the combined plans for the destruction and verification of 12 CWPFs in Syria and decides to authorise the Director-General to enter into such contracts and arrangements as he considers necessary to assist Syria in the destruction of these facilities using funds from the OPCW Syria Trust Fund for the Destruction of Chemical Weapons following close consultations with donors, whose contributions are to be used with a view to commencing destruction of the aircraft hangars within 60 days and the destruction of the underground structures within 90 days.

**25 July 2014** – Tenth report by the Director-General on progress in the elimination of the Syrian chemical weapons programme.

**31 July 2014** – The Office of the UN Secretary General sends a letter to the Director-General recommending arrangements for the provision of logistical, administrative, and security support to the OPCW through a partnership with UNOPS in view of the transition of the Joint Mission on 30 September 2014.

**6 to 8 August 2014** – A planning meeting to discuss modalities for the destruction operations concerning the 12 CWPFs is held in Beirut between the Secretariat, representatives of the Government of Syria, the Joint Mission, and UNOPS, which is expected to deliver the procurement of the required services, equipment, explosives, and chemicals within the time frame envisaged.

**12 August 2014** – A meeting is held at OPCW Headquarters between Secretariat staff and UNOPS regarding the role of UNOPS in the transition of the Joint Mission and necessary legal arrangements.

**15 August 2014** – A further planning meeting is held in Beirut on 15 August 2014 which includes representatives of GOP, a company identified by the OPCW to provide specialist technical advice to Syria and two companies identified by Syria to undertake destruction activities.

**18 August 2014** – Destruction operations of HD and DF on board the MV Cape Ray are completed.

**18 August 2014** – Syria submits its ninth monthly report regarding activities on its territory related to the destruction of its chemical weapons and CWPFs.

**25 August 2014** – Eleventh report by the Director-General on progress in the elimination of the Syrian chemical weapons programme. The report notes, inter alia, that 100% of the Category 1 chemicals and 65% of the Category 2 chemicals had been destroyed, representing a combined total of 93%, including the isopropanol previously destroyed in Syria. With regard to the destruction of the 12 remaining CWPFs, the planning of the destruction operations was expected to be finalised in early September.

**4 to 10 September 2014** – A meeting is held in Beirut between the Secretariat, representatives of the Government of Syria, UNOPS, companies identified by Syria to conduct destruction of the 12 CWPFs, and GOP, providing technical advice regarding

the implementation of the methodologies for destruction. The discussions lead to the conclusion that chemical expansion is not a viable method for three aircraft hangars and needs to be replaced with a combination of controlled detonation and mechanical destruction.

**9 September 2014** – The Syrian Government, UNOPS, and the OPCW sign a tripartite agreement setting out the parties' roles and responsibilities regarding the destruction of 12 CWPFs.

**12 September 2014** – Syria submits a detailed plan for the destruction of the "Al-Maliha" ricin production facility.

**17 September 2014** – Syria submits its tenth monthly report regarding activities on its territory related to the destruction of its chemical weapons and CWPFs.

**17 to 19 September 2014** – The Secretariat and Syrian authorities meet in Beirut to continue discussing outstanding issues regarding the Syrian declaration.

**24 September 2014** – Twelfth report by the Director-General on progress in the elimination of the Syrian chemical weapons programme. The report notes, inter alia, that 87.8% of the Category 2 chemicals had now been destroyed, representing a combined total of 97.6% of all Category 1 and 2 chemicals declared. Discussions were under way in Beirut, aimed at finalising the selection of companies that will carry out work relating to the destruction of the 12 remaining CWPFs in Syria.

**25 September 2014** – UNOPS and the OPCW conclude a contribution agreement for EUR 20 million (subsequently agreed to be increased to EUR 25 million) regarding the provision by UNOPS of equipment and services for the destruction of 12 CWPFs by Syria and for the OPCW's operations in Syria.

**24 to 26 September 2014** – Negotiations take place in Beirut between UNOPS and the OPCW and two companies pre-selected by the Syrian Government concerning the contracts for the destruction respectively of the five underground structures and seven aircraft hangars (CWPFs).

**30 September 2014** – The Joint Mission completes its activities in Syria. Support services are taken over by UNOPS.

**2 October 2014** – The Secretariat briefs States Parties on the activities of the Declaration Assessment Team (DAT) and issues a report on the DAT's activities.

**15 October 2014** – Syria submits its eleventh monthly report regarding activities on its territory related to the destruction of its chemical weapons and CWPFs.

**23 October 2014** – Thirteenth report by the Director-General on progress in the elimination of the Syrian chemical weapons programme. The report notes, inter alia, that 88.8 % of Category 2 chemicals had been destroyed by the report's cut-off date. The Secretariat intended to retain at the OPCW Laboratory samples taken on the MV Cape Ray and the other destruction facilities for future reference.

**2 to 10 November 2014** – Meeting in Damascus with Syrian authorities concerning outstanding clarification issues regarding the Syrian declaration.

**13 November 2014** – Syria submits its twelfth monthly report regarding activities on its territory related to the destruction of its chemical weapons and CWPFs.

**19 November 2014** – The Executive Council adopts the combined plan for the destruction and verification of the "Al Maliha" ricin production facility.

**21 to 25 November 2014** – Ambassador José Artur Denot Medeiros of Brazil, in his capacity as Special Adviser to the Director-General on Syria, visits Damascus, where he holds meetings with senior Syrian officials and UNOPS.

**24 November 2014** – Fourteenth report by the Director-General on progress in the elimination of the Syrian chemical weapons programme. The report notes, inter alia, further progress with the completion of the destruction of the remaining Category 2 chemicals. Destruction activities of the 12 CWPFs were scheduled to begin in November 2014, and the first CWPF was expected to be destroyed by no later than December 2014. The completion of the destruction of all 12 CWPFs was expected by the end of June 2015.

**10 to 15 December 2014** – Visit to Damascus of the DAT, including interviews with principal individuals of the Syrian chemical weapons programme, technical meetings with the National Authority of the Syrian Arab Republic, and visits of two sites.

**17 December 2014** – Syria submits its thirteenth monthly report regarding activities on its territory related to the destruction of its chemical weapons and CWPFs.

**23 December 2014** – Fifteenth report by the Director-General on progress in the elimination of the Syrian chemical weapons programme. The report notes, inter alia, significant progress with the destruction of the 12 CWPFs (aircraft hangars and underground structures). UNOPS had signed contracts with two pre-selected Syrian companies for the planned destruction operations. Destruction operations were expected to commence at the end of December 2014, and all 12 facilities were planned to be destroyed by June 2015. Destruction of the chemicals removed from Syria was nearing completion: 88.8 % of the Category 2 chemicals had been destroyed, bringing the combined total of Category 1 and 2 chemicals destroyed to 97.8 %.

**24 December 2014** – Destruction operation at two of the five underground structures declared as CWPFs begin.

**14 January 2015** – Second status report of the DAT.

**16 January 2015** – Syria submits its fourteenth monthly report regarding activities on its territory related to the destruction of its chemical weapons and CWPFs.

**16 to 18 January 2015** – Three additional staff members are present in Damascus for liaison with UNOPS, the Syrian authorities, and Syrian companies, with a view to handling the outstanding issues related to the destruction of Syrian CWPFs, and visited two sites. A meeting of the Steering Committee also takes place.

**23 January 2015** – Sixteenth report by the Director-General on progress in the elimination of the Syrian chemical weapons programme. The report note, inter alia, that 89.1% of the Category 2 chemicals had been destroyed, bringing the combined total of Category 1 and 2 chemicals destroyed to 97.8%. Further progress is also noted with regard to the destruction of the 12 CWPFs.

**25 January – 5 February 2015** – Seventh visit of the DAT to Syria to continue interviews, site visits, and technical discussions on issues still requiring clarification. Visits are carried out at two sites where samples were collected. These samples, together with those taken during previous visits, are transported to the OPCW Laboratory and to two designated laboratories for analysis.

**31 January 2015** – The destruction of the first underground structure declared by Syria as a CWPF has been completed.

**16 February 2015** – Syria submits its fifteenth monthly report regarding activities on its territory related to the destruction of its chemical weapons and CWPFs.

**23 February 2015** – Seventeenth report by the Director-General on progress in the elimination of the Syrian chemical weapons programme. The report notes, inter alia, significant progress with the destruction and verification of the 12 CWPFs declared by Syria. Destruction operations were under way at two of the three other underground structures. Regarding the destruction of the aircraft hangars, the preparatory works have been completed at five sites. A total of 89.8% of the Category 2 chemicals had already been destroyed, representing a combined total of 98%.

**4 March 2015** – Third status report of the DAT.

**18 March 2015** – Syria submits its sixteenth monthly report regarding activities on its territory related to the destruction of its chemical weapons and CWPFs.

**22 March to 3 April 2015** – Eighth visit of the DAT to Syria to continue interviews, site visits, and technical discussions on issues still requiring clarification.

**23 March 2015** – Eighteenth report by the Director-General on progress in the elimination of the Syrian chemical weapons programme. The report notes, inter alia, that three underground CWPF structures had been verified as destroyed while destruction operations were continuing at one of two other such structures. One underground structure and two hangars remained inaccessible. Destruction of HF and the effluents of previous destruction operations of DF and HD were making progress. With regard to the implementation of additional special monitoring measures, fibre-optic cables had been installed and successfully tested at three underground structures, and the construction of the base monitoring stations for these structures had been verified as complete at one site. The installation of cables and construction of the base stations for the other two structures was nearing completion.

**17 April 2015** – Syria submits its seventeenth monthly report regarding activities on its territory related to the destruction of its chemical weapons and CWPFs.

**20 April 2015** – A training organised by Aquila Technologies for the operators on the installation, operation, and maintenance of the remote monitoring system to be installed at four underground facilities in Syria takes place at the Secretariat. The Secretariat has received the first set of the remote monitoring system equipment to be installed in Syria.

**23 April 2015** – Nineteenth report by the Director-General on progress in the elimination of the Syrian chemical weapons programme. The report notes, inter alia, that four accessible underground CWPF structures had been verified as destroyed and the drilling to accommodate the explosive charges at four of five accessible aircraft hangars declared as CWPFs completed. Destruction of HF and of the effluents of the destruction of DF and HD was well under way; destruction of HF at Veolia ES however was on hold pending the resolution of technical issues. The construction of the base monitoring stations and cables at the four underground structures had been completed.

**1 May 2015** – Fourth status report of the DAT.

**15 May 2015** – Syria submits its eighteenth monthly report regarding activities on its territory related to the destruction of its chemical weapons and CWPFs.

**17 to 29 May 2015** – Ninth visit of the DAT to Syria to continue interviews, site visits, and technical discussions on issues still requiring clarification.

**22 May 2015** – Twentieth report by the Director-General on progress in the elimination of the Syrian chemical weapons programme. The report notes, inter alia, that five hangars declared as CWPFs were ready to accommodate explosives for which the supplier had received the export license; delivery was expected in mid-June. Mexichem UK Limited had completed the destruction of HF allocated to it, while a viable option for the destruction of the remainder of the HF by Veolia ES Technical Solutions, LLC, United States of America had been identified. GEKA mbH Germany had completed the destruction of HD effluent; the destruction of DF effluent by Ekokem Finland was nearing completion. The preparatory work to install monitoring equipment at four underground structures had been completed.

**17 to 29 May 2015** – Ninth mission of the DAT to Syria to continue interviews, site visits, and technical discussions on issues still requiring clarification.

**21 May 2015** – The Secretariat verifies the destruction of two items declared by Syria as abandoned chemical weapons (not as part of its stockpile).

**15 June 2015** – Syria submits its nineteenth monthly report regarding activities on its territory related to the destruction of its chemical weapons and CWPFs.

**23 June 2015** – Twenty-first report by the Director-General on progress in the elimination of the Syrian chemical weapons programme. The report notes, inter alia, that the destruction of the DF and HD effluent by Ekokem Finland and GEKA Germany, respectively, had now been completed. Veolia ES Technical Solutions, LLC in the United States had finalised arrangements to safely process the corroded HF cylinders. The main focus of the future activities of the OPCW Mission in Syria would continue to be on the destruction of the seven remaining CWPFs and on installing and operationalising the remote monitoring system in the underground structures.

**1 July 2015** – Fifth status report of the DAT.

**13 to 15 July 2015** – Ambassador José Artur Denot Medeiros of Brazil, in his capacity as Special Adviser to the Director-General on Syria, travels to Damascus for meetings with senior Syrian officials and UNOPS staff.

**15 July 2015** – Syria submits its twentieth monthly report regarding activities on its territory related to the destruction of its chemical weapons and CWPFs.

**19 to 31 July 2015** – Tenth visit of the DAT to Syria to conduct technical consultations, interviews with key principals of the Syrian chemical weapons programme, including discussion of issues related to previous sampling and analysis, and additional sample taking.

**23 July 2015** – Twenty-second report by the Director-General on progress in the elimination of the Syrian chemical weapons programme. The report notes, inter alia, that the Secretariat has now verified the destruction of all five underground structures. Additionally, one of the seven aircraft hangars has been destroyed using explosives, with some residual destruction activities remaining. Progress in destroying the remaining six hangars was expected if the security situation remained stable. Veolia

ES Technical Solutions, LLC in the United States had made progress in ensuring the safe temporary storage and further processing of the 49 remaining corroded HF cylinders. The destruction activities were expected to be completed before the end of 2015.

**18 August 2015** – Syria submits its twenty-first monthly report regarding activities on its territory related to the destruction of its chemical weapons and CWPFs.

**24 August 2015** – Twenty-third report by the Director-General on progress in the elimination of the Syrian chemical weapons programme. The report notes, inter alia, that four of the seven aircraft hangars have now been verified as destroyed. Verification of the recent destruction of the fifth hangar was pending due to some residual mechanical work that remains to be completed. Two hangars were inaccessible due to the security situation. With regard to completing the destruction of the remaining Category 2 chemicals, Veolia ES Technical Solutions, LLC in the United States was making preparations to further process and destroy the remaining quantity of HF.

**27 August 2015** – A meeting of the Steering Committee of the tripartite arrangement between the OPCW, UNOPS, and the Syrian Arab Republic is held in Beirut. Options for procuring additional explosives for the destruction of the remaining two CWPFs are discussed, as well as modalities to ensure the security of the remote monitoring systems that have been installed at four underground structures.

**28 August to 12 September 2015** – Eleventh visit of the DAT to Syria to conduct technical consultations, interviews with key principals of the Syrian chemical weapons programme, including discussion of issues related to previous sampling and analysis, and additional sample taking.

**8 September 2015** – The Secretariat completes verification of the destruction of the fifth of seven aircraft hangars declared as CWPFs.

**17 September 2015** – Syria submits its twenty-second monthly report regarding activities on its territory related to the destruction of its chemical weapons and CWPFs.

**23 September 2015** – Twenty-fourth report by the Director-General on progress in the elimination of the Syrian chemical weapons programme. The report notes, inter alia, that Veolia ES Technical Solutions, LLC in the United States was making the final preparations to implement the selected technical solution that will allow for the safe processing of the remaining cylinders and the destruction of the HF contained therein. This activity was expected to commence in October 2015 and to be completed before the end of the year. The destruction of five of the seven hangars declared as CWPFs had been verified; two hangars remained inaccessible due to the security situation. Procurement of the additional explosives required for the destruction of those hangars was being discussed between the OPCW, UNOPS, the contractor, and the Syrian National Authority.

**25 September 2015** – The Secretariat issued a report on the work of the DAT covering the period from April 2014 to September 2015.

**13 October 2015** – Syria submits its twenty-second monthly report regarding activities on its territory related to the destruction of its chemical weapons and CWPFs.

**22 October 2015** – Twenty-fifth report by the Director-General on progress in the elimination of the Syrian chemical weapons programme. The report notes, inter alia, that the sixth of the seven aircraft hangars had been destroyed; the seventh hangar remained inaccessible due to the security situation. A combined total of 98.9% of all declared chemical weapons had been verified as destroyed. A total of 55% of the remaining Category 2 chemical, HF, had been destroyed. Veolia ES Technical Solutions, LLC in the United States had resumed its destruction activities after having completed the implementation of its technical solution to ensure the safe processing of the badly corroded HF cylinders. The main focus of the future activities of the OPCW Mission in the Syrian Arab Republic would be on the DAT and FFM activities, as well as the destruction and verification of the remaining aircraft hangar.

**2 to 12 November 2015** – Twelfth visit of the DAT to Syria to conduct technical consultations and interviews with key principals of the Syrian chemical weapons programme.

### Annex 3

#### Reports on the Elimination of the Syrian Chemical Weapons Programme

No.	Title	Document	Date
1.	Letter dated 7 October 2013 from the Secretary-General addressed to the President of the Security Council (Presenting, in consultation with the Director-General of the OPCW, a proposal for a Joint Mission of the UN and the OPCW to implement their respective roles and responsibilities pursuant to resolution 2118(2013))	S/2013/591*	7 October 2013
2.	Progress in the Elimination of the Syrian Chemical Weapons Programme (First Progress Report)	EC-M-34/DG.1	25 October 2013
3.	Letter dated 28 October 2013 from the Secretary-General addressed to the President of the Security Council (Transmitting the first monthly report of the Director-General of the OPCW)	S/2013/629	28 October 2013
4.	Progress in the Elimination of the Syrian Chemical Weapons Programme (Second Progress Report)	EC-M-35/DG.1	25 November 2013
5.	Report on the Implementation of the Executive Council Decision EC-M-34/DEC.1 “Detailed Requirements for the Destruction of Syrian Chemical Weapons and Syrian Chemical Weapons Production Facilities”	EC-M-36/DG.1	2 December 2013
6.	Progress in the Elimination of the Syrian Chemical Weapons Programme (Third Progress Report)	EC-M-37/DG.1	23 December 2013
7.	Report on the Implementation of the Plan for Destruction of the Syrian Chemical Weapons Outside the Territory of the Syrian Arab Republic	EC-M-37/DG.2	7 January 2014
8.	Progress in the Elimination of the Syrian Chemical Weapons Programme (Fourth Progress Report)	EC-M-38/DG.1	23 January 2014
9.	Letter dated 27 January 2014 from the Secretary-General addressed to the President of the Security Council (Transmitting the fourth monthly report of the Director-General of the OPCW)	S/2014/52	27 January 2014
10.	Progress in the Elimination of the Syrian Chemical Weapons Programme (Fifth Progress Report)	EC-75/DG.6	25 February 2014
11.	Letter dated 27 February 2014 from the Secretary-General addressed to the President of the Security Council (Transmitting the fifth monthly report of the Director-General of the OPCW)	S/2014/133	27 February 2014

<b>No.</b>	<b>Title</b>	<b>Document</b>	<b>Date</b>
12.	Letter dated 26 March 2014 from the Secretary-General addressed to the President of the Security Council (Transmitting the sixth monthly report of the Director-General of the OPCW)	S/2014/220	26 March 2014
13.	Progress in the Elimination of the Syrian Chemical Weapons Programme (Sixth Progress Report)	EC-M-40/DG.1/Rev.1	27 March 2014
14.	Progress in the Elimination of the Syrian Chemical Weapons Programme (Seventh Progress Report)	EC-M-40/DG.4	25 April 2014
15.	Letter dated 26 March 2014 from the Secretary-General addressed to the President of the Security Council (Transmitting the seventh monthly report of the Director-General of the OPCW)	S/2014/300	25 April 2014
16.	Progress in the Elimination of the Syrian Chemical Weapons Programme (Eighth Progress Report)	EC-M-42/DG.1	23 May 2014
17.	Progress in the Elimination of the Syrian Chemical Weapons Programme (Ninth Progress Report)	EC-76/DG.14	25 June 2014
18.	Letter dated 26 June 2014 from the Secretary-General addressed to the President of the Security Council (Transmitting the ninth monthly report of the Director-General of the OPCW)	S/2014/444	26 June 2014
19.	Overall Report on the Elimination of the Syrian Chemical Weapons Programme	EC-76/DG.16	4 July 2014
20.	Destruction and Verification of Twelve Declared Chemical Weapons Production Facilities in the Syrian Arab Republic	EC-M-43/DG.1/Rev.1	21 July 2014
21.	Progress in the Elimination of the Syrian Chemical Weapons Programme (Tenth Progress Report)	EC-M-44/DG.1	25 July 2014
22.	Letter dated 25 July 2014 from the Secretary-General addressed to the President of the Security Council (Transmitting the tenth monthly report of the Director-General of the OPCW)	S/2014/533	25 July 2014
23.	Progress in the Elimination of the Syrian Chemical Weapons Programme (Eleventh Progress Report)	EC-M-44/DG.2	25 August 2014
24.	Progress in the Elimination of the Syrian Chemical Weapons Programme (Twelfth Progress Report)	EC-77/DG.22	24 September 2014
25.	Progress in the Elimination of the Syrian Chemical Weapons Programme (Thirteenth Progress Report)	EC-M-46/DG.1	23 October 2014

<b>No.</b>	<b>Title</b>	<b>Document</b>	<b>Date</b>
26.	Letter dated 27 October 2014 from the Secretary-General addressed to the President of the Security Council (Transmitting the thirteenth monthly report of the Director-General of the OPCW)	S/2014/767	27 October 2014
27.	Progress in the Elimination of the Syrian Chemical Weapons Programme (Fourteenth Progress Report)	EC-78/DG.3	24 November 2014
28.	Progress in the Elimination of the Syrian Chemical Weapons Programme (Fifteenth Progress Report)	EC-M-48/DG.1	23 December 2014
29.	Progress in the Elimination of the Syrian Chemical Weapons Programme (Sixteenth Progress Report)	EC-78/DG.5	23 January 2015
30.	Letter dated 26 January 2015 from the Secretary-General addressed to the President of the Security Council (Transmitting the sixteenth monthly report of the Director-General of the OPCW)	S/2015/56	26 January 2015
31.	Progress in the Elimination of the Syrian Chemical Weapons Programme (Seventeenth Progress Report)	EC-78/DG.9	23 February 2015
32.	Letter dated 25 February 2015 from the Secretary-General addressed to the President of the Security Council (Transmitting the seventeenth monthly report of the Director-General of the OPCW)	S/2015/138	25 February 2015
33.	Progress in the Elimination of the Syrian Chemical Weapons Programme (Eighteenth Progress Report)	EC-79/DG.1	23 March 2015
34.	Letter dated 25 March 2015 from the Secretary-General addressed to the President of the Security Council (Transmitting the eighteenth monthly report of the Director-General of the OPCW)	S/2015/211	25 March 2015
35.	Progress in the Elimination of the Syrian Chemical Weapons Programme (Nineteenth Progress Report)	EC-M-49/DG.1	23 April 2015
36.	Letter dated 28 April 2015 from the Secretary-General addressed to the President of the Security Council (Transmitting the nineteenth monthly report of the Director-General of the OPCW)	S/2015/295	28 April 2015
37.	Progress in the Elimination of the Syrian Chemical Weapons Programme (Twentieth Progress Report)	EC-79/DG.8	22 May 2015
38.	Letter dated 28 May 2015 from the Secretary-General addressed to the President of the Security Council (Transmitting the twentieth monthly report of the Director-General of the OPCW)	S/2015/391	28 May 2015

<b>No.</b>	<b>Title</b>	<b>Document</b>	<b>Date</b>
39.	Progress in the Elimination of the Syrian Chemical Weapons Programme (Twenty-first Progress Report)	EC-79/DG.15	23 June 2015
40.	Letter dated 26 June 2015 from the Secretary-General addressed to the President of the Security Council (Transmitting the twenty-first monthly report of the Director-General of the OPCW)	S/2015/485	26 June 2015
41.	Progress in the Elimination of the Syrian Chemical Weapons Programme (Twenty-second Progress Report)	EC-80/DG.2	23 July 2015
42.	Letter dated 29 July 2015 from the Secretary-General addressed to the President of the Security Council (Transmitting the twenty-second monthly report of the Director-General of the OPCW)	S/2015/572	29 July 2015
43.	Progress in the Elimination of the Syrian Chemical Weapons Programme (Twenty-third Progress Report)	EC-80/DG.4	24 August 2015
44.	Letter dated 26 August 2015 from the Secretary-General addressed to the President of the Security Council (Transmitting the twenty-third monthly report of the Director-General of the OPCW)	S/2015/668	26 August 2015
45.	Progress in the Elimination of the Syrian Chemical Weapons Programme (Twenty-fourth Progress Report)	EC-80/DG.20	23 September 2015
46.	Letter dated 24 September 2015 from the Secretary-General addressed to the President of the Security Council (Transmitting the twenty-fourth monthly report of the Director-General of the OPCW)	S/2015/737	24 September 2015
47.	Report on the Work of the Declaration Assistance Team Covering the Period April 2014 to September 2015	EC-80/P/S/1	25 September 2015
48.	Progress in the Elimination of the Syrian Chemical Weapons Programme (Twenty-fifth Progress Report)	EC-81/DG.1	22 October 2015
49.	Letter dated 26 October 2015 from the Secretary-General addressed to the President of the Security Council (Transmitting the twenty-fifth monthly report of the Director-General of the OPCW)	S/2015/820	26 October 2015