

**NOTE BY THE DIRECTOR-GENERAL****UPDATE ON THE TECHNICAL SECRETARIAT'S READINESS TO CONDUCT
A CHALLENGE INSPECTION OR AN INVESTIGATION OF ALLEGED USE****Introduction**

1. The First Review Conference¹ requested the Technical Secretariat (hereinafter “the Secretariat”) to “continue maintaining a high standard of readiness to conduct a challenge inspection in accordance with the provisions of the Convention, to keep the Council informed about its readiness, and to report any problems that may arise in relation to maintaining the necessary level of readiness to conduct a challenge inspection” (paragraph 7.91 of RC-1/5, dated 9 May 2003).
2. The Second Review Conference reiterated this request to the Secretariat (paragraph 9.90 of RC-2/4, dated 18 April 2008).
3. The First Review Conference also “stressed the importance of investigations of alleged use or threat of use of chemical weapons. For such situations, the OPCW must have the capacity, and be ready at all times, to investigate the need for follow-on action by the OPCW and by individual Member States” (paragraph 7.100 of RC-1/5). The Second Review Conference reiterated this concern (paragraph 9.105 of RC-2/4).
4. The Third Review Conference made two requests of the Secretariat with respect to the conduct of a challenge inspection (CI) or an investigation of alleged use (IAU) (paragraph 9.111 of RC-3/3*, dated 19 April 2013). The first was that the Secretariat continue to improve the standard of readiness to conduct a CI or an IAU in accordance with the provisions of the Chemical Weapons Convention (hereinafter “the Convention”). The second was to keep the Executive Council (hereinafter “the Council”) informed about its readiness and to report any problems that may arise in relation to maintaining the necessary level of readiness to conduct a CI or an IAU.
5. The Secretariat has previously submitted to the Council several updates on its readiness to conduct a CI or an IAU. This Note concentrates on the activities the Secretariat has undertaken since the last update (EC-97/DG.14, dated 24 June 2021), and highlights issues that still require further consideration and attention by States Parties and by the Secretariat.

¹ Review Conference = Special Session of the Conference of the States Parties to Review the Operation of the Chemical Weapons Convention.



The Capacity Building and Contingency Planning Cell, the Mission Support Group, and the Situation Centre

6. Since 2016, the Secretariat has assigned a cadre of inspectors to the Capacity-Building and Contingency Planning Cell (CBCP), with the goal of strengthening States Parties' capacity to respond to the use or threat of use of chemical weapons, maintaining the Secretariat's readiness to provide assistance and protection against the use of chemical weapons, as well as lead and support the conduct of non-routine missions, including CIs and IAUs, in accordance with Articles IX and X of the Convention or the mandate of the Council.
7. The experience gained during the preparation and conduct of previous and ongoing non-routine missions has permitted the Secretariat to remedy procedural and short notice deployment issues and to ensure a steady state of readiness to conduct a CI and IAU.
8. With the aim of maintaining and further enhancing the Secretariat's ability to conduct CIs and IAUs as well as other non-routine missions, there has been a recent focus on developing compact and well-trained teams. Members selected from across the Inspectorate Division and other parts of the Secretariat are provided with regular, specialised training based on recognised needs, operational procedures, and activities and lessons learned from previous non-routine missions. Diverse team composition is continually updated to promote sharing of knowledge and experiences and to reflect staff changes in the Secretariat.
9. To properly manage the command-and-control elements of a CI, IAU, or other non-routine mission, the Secretariat continues to utilise the concept of a Mission Support Group (MSG), which has been created specifically for each non-routine deployment and provides support to deployed teams. Other operational working groups continue to actively pursue solutions to complex operational problems in a CI, IAU, or other non-routine mission.
10. To actively manage ongoing CI and IAU missions, the Situation Centre (SITCEN) provides 24-hour real-time mission support to deployed teams. The SITCEN maintains the capability to provide a comprehensive common operating picture, ensures secure and reliable communications, and provides information analysis to facilitate senior management decision making. Additionally, to provide an initial analysis of the alleged use of chemical weapons, the SITCEN maintains Secretariat experts on standby outside normal duty hours.

Operational procedures and training of inspectors

11. Inspectorate training programmes in 2021 and 2022 continued to maintain the mandatory requirements under the Quality Management System for the conduct of inspection activities and for the preparation of inspectors and inspection team leaders to perform inspection duties for CIs, IAUs, or other non-routine missions. Inspectors undertook a variety of trainings and exercises, which focused on maintaining and increasing readiness capabilities for the conduct of CI and IAU activities in both permissive and high-risk, conflict-prone environments.

12. The CBCP coordinated and delivered 29 trainings, including initial inspector training, certifications, recertifications, general and specialised trainings, and exercises, comprising a total of 1,634 participant training days. The training programme involved both inspectors and Secretariat staff participants.
13. A group of 10 new inspectors (Group T) joined the OPCW and completed all mandatory training, cross-trainings, and certifications to fulfil the required standards; this includes gaining the requisite knowledge and practical experience required to conduct both routine and non-routine missions.
14. Multiple iterations of toxic chemical training (TCT) were organised and conducted, in June and November 2021 in Serbia, and in October 2021 and March 2022 in Sweden and the Czech Republic, respectively. A total of 83 Secretariat staff members were involved either as participants or training staff. TCT is mandatory for inspectors and provides the practical and advanced skill set to safely encounter, detect, and respond to chemical warfare agents during the conduct of a mission, including a CI or IAU.
15. The Secretariat delivered multiple sessions of the Schedule 1 chemistry course in June and October 2021 and in May 2022 in The Hague. A total of 30 inspectors were either certified or recertified during this mandatory course. The course provides detailed knowledge about the chemistry of Schedule 1 chemicals, including their physical and chemical properties, synthesis routes, decontamination, toxicological properties, and degradation pathways. The overall knowledge gained, in combination with other trainings, provides insight to determine the presence or absence of Schedule 1 chemicals during the conduct of all OPCW inspections, including CIs and IAUs.
16. To improve the Secretariat's ability to work in complex environments where forensic artifacts may provide value to an overall investigation during the conduct of a non-routine mission such as a CI or IAU, the Netherlands Forensic Institute delivered a forensic awareness course from 16 to 19 November 2021. Eight inspectors received theoretical and practical training, which provided awareness of forensic methodologies that could be employed in an inspection, such as identifying potential forensic traces, biometric collection, specialised photography, chemical profiling, and decontamination of chemically contaminated samples.
17. To maintain and enhance interview skills during the conduct of a CI or IAU, the Secretariat organised a basic interview skills training course from 21 to 25 March 2022. The training was conducted using an IAU-based scenario and included practical exercises, role playing, and knowledge-sharing sessions led by experienced inspectors and Secretariat staff. A total of 12 inspectors participated in the course and received training in the basic procedures and good practices to conduct interviews. Furthermore, in April 2022 the Institute for International Criminal Investigations (IICI) in the Netherlands provided a tailored OPCW interview course, consisting of a blend of theory and role-playing exercises. A total of 14 participants whose work is related to non-routine missions took part in this activity.

18. Open-source information can provide valuable data throughout an IAU. Accordingly, from 4 to 8 April 2022 the IICI provided an advanced open-source investigation course which focused on the professional standards and guidelines for digital investigations and on the tools and techniques required for the safe, ethical, and effective gathering of online information. Three participants whose work is related to non-routine missions took part in this activity.
19. Because of the likelihood of a CI or IAU being conducted in a conflict-prone or high-risk environment, multiple iterations of the Safe and Secure Approaches in Field Environments (SSAFE) course were conducted during the reporting period. The course, which is a requirement of the United Nations Department of Safety and Security (UNDSS) for operations in high-risk environments, was held in July, August, and November 2021 and in May 2022, and was provided and sponsored by Germany as part of the Hostile Environment Awareness Training (HEAT). The HEAT training was augmented by the Secretariat's certified SSAFE trainers to provide participants with the necessary modules to obtain SSAFE certification, which was obtained by a total of 55 Secretariat staff members. One additional Secretariat staff member whose work is related to non-routine missions obtained SSAFE certification at the United Nations System Staff College (UNSSC) in Italy in September 2021. A further two Secretariat staff members participated in the SSAFE Trainer Development and Certification Course at the UNSSC in November 2021. As of 31 May 2022, 57 inspectors held SSAFE certification.

Specialised trainings and exercises

20. Inspectorate training programmes include specialised courses that provide advanced qualifications for inspectors following initial training. Inspectors work in multidisciplinary teams, for which a variety of special skills enable the effective conduct of CIs or IAUs, regardless of the environment. Moreover, practical exercises provide valuable lessons that strengthen procedures, remedy capability gaps, and validate continual readiness to conduct a CI or IAU.
21. Specialised analytical chemistry training was provided to three inspectors from 10 January to 4 February 2022 at the OPCW Laboratory and Equipment Store in Rijswijk, resulting in successful analytical chemist inspector certification. Certification includes chemical analysis and reporting techniques, field-based chemical detection and identification, sampling techniques, sample preparation, the scientific principles and practical application of gas chromatography (GC) and mass spectrometry (MS), and data analysis. Additionally, from January to May 2022, three senior analytical chemist inspectors successfully completed their recertification to maintain operational status.
22. A specialised field deployment exercise was conducted with analytical chemist inspectors from 21 to 25 February 2022 at the Netherlands Organisation for Applied Scientific Research (TNO). The aim of the activity was to exercise the set-up and operation of the on-site laboratory under various scenarios in field-like conditions. The exercise included setting up instrumentation and processing equipment, conducting sample preparation, GC-MS analysis, and data interpretation. Eight analytical chemist inspectors and additional staff from the OPCW Laboratory participated in the exercise.

23. Advanced Health and Safety Specialist (AHSS) Inspectors underwent specialised medical training related to emergency care in austere and conflict environments. The training was conducted with five AHSS Inspectors who completed tactical emergency casualty care courses in the Czech Republic in September 2021 and April 2022. A further four AHSS Inspectors will participate in the Advanced Hazmat Life Support course in Switzerland in June 2022. The course is specifically related to the treatment of patients exposed to hazardous materials. AHSS Inspectors will continue to participate in mandatory specialised medical training in June 2022 under the Offshore Medic Course in the United Kingdom of Great Britain and Northern Ireland.
24. Specialised ultrasound and radiographic theoretical and practical training was organised by the Inspectorate in January 2022 and attended by seven Chemical Weapons Munitions Specialist (CWMS) Inspectors at the OPCW Equipment Store in Rijswijk. The qualification and certification training cycle will be completed in June 2022 after the conduct of non-destructive evaluation (NDE) practical training in Belgium, following which these CWMS Inspectors will receive their work permit and certification as Level 1 NDE operators with the OPCW.
25. A reconnaissance and sampling exercise at the *Munitie Technologisch Museum* in the Netherlands was conducted from 4 to 8 April 2022 for seven inspectors with various specialties. The exercise consisted of theoretical and practical scenarios involving explosive ordnance awareness and recognition and safety precautions related to such ordnance. It also included chemical-filled munition and environmental sampling.
26. As reported previously, the Secretariat continues to regularly update its existing training programmes and to develop and implement new ones aimed at strengthening and adapting capabilities to conduct non-routine missions such as CIs and IAUs, including against novel chemical threats. Training and exercises promote the enhancement of inspectors' individual skill sets and improve organic capabilities within a multidisciplinary team. Courses are organised internally by the Secretariat but also provided by external providers, tailoring content to OPCW needs whenever possible.
27. The Secretariat continues to employ a hybrid model using online platforms developed during the COVID-19 pandemic to complement in-person training activities. This methodology provides a flexible and improved learning experience in which theoretical skills can be maintained or reviewed, and makes it possible for staff to attend online training courses provided by both the OPCW and external providers.

Equipment and laboratories

28. Since last year's report (EC-97/DG.14), the Secretariat has kept States Parties informed of the procurement of several items of approved inspection equipment that conform to the operational requirements and technical specifications approved by the Conference of the States Parties. The Secretariat informed the States Parties of the newly procured items of approved equipment through Notes S/1981/2021 (dated 12 August 2021), S/2000/2021 (dated 3 November 2021), and S/2046/2022 (dated 12 April 2022). This NDE and personal protective equipment has helped to increase the operational readiness and capabilities of the OPCW, particularly for the conduct of CIs, IAUs, and other non-routine missions.

29. The OPCW Equipment Store maintains the necessary supplies and equipment and is prepared to support a CI or IAU inspection team deployment within the time frames specified in the Convention, or to meet other short-notice operational requirements.
30. The Secretariat maintains a network of designated laboratories available to carry out off-site analysis of samples in support of a CI, an IAU, or other non-routine mission. The list of designated laboratories is updated following proficiency testing. The current list of laboratories designated for the analysis of authentic environmental samples can be found in Notes S/1988/2021 (dated 31 August 2021) and S/2045/2022* (dated 6 April 2022). The current list of laboratories designated for the analysis of authentic biomedical samples can be found in Note S/1987/2021 (dated 31 August 2021).

Issues requiring further action by the Technical Secretariat

31. CIs and IAUs are key deterrent elements of the Convention, aimed at eliminating the risk of production, storage, and use and threat of use of chemical weapons. Since entry into force of the Convention, no CIs or IAUs have been requested by a State Party.
32. Some activities planned for the conduct of field exercises in 2021 continued to be affected by the restrictions imposed by the COVID-19 pandemic, but with easing restrictions the training is planned to continue as normal in 2022 to ensure that the Secretariat staff is well prepared for a CI or IAU. Other trainings and exercises continue to be planned for 2022.
33. The Secretariat has further enhanced the rapid deployment preparedness by selecting and training Secretariat staff to be prepared, certified, and trained to deploy and conduct CIs and IAUs. In addition, experiences and lessons learned from non-routine missions, relevant trainings, and exercises have been used to maintain the Secretariat's readiness. This approach has been assessed to be the most efficient and lessens the impact on the conduct of routine missions. The Secretariat fully appreciates the support of Belgium, the Czech Republic, Germany, the Netherlands, Serbia, Slovakia, Sweden, Switzerland, and the United Kingdom of Great Britain and Northern Ireland in supporting training opportunities in 2021 and 2022.
34. Moving forward, the Secretariat will sustain its efforts in maintaining and enhancing its preparedness to conduct CIs and IAUs. Emerging chemical threats and associated challenges require the Secretariat to adapt and constantly evolve its capabilities. Several aspects are currently being studied, and include staffing, operating procedures, interagency cooperation, and emerging technologies. Work in this area thus far has been realised by developing a core of inspectors and experts, updating the job descriptions of inspectors to include forensic experience and criminal investigation expertise, developing cooperation initiatives with the relevant United Nations and other multilateral agencies, such as the International Criminal Police Organization, the World Health Organization, and the Implementation Support Unit of the Biological Weapons Convention, and developing and facilitating relevant training programmes and exercises. It should be noted that fewer potential inspector candidates have previous chemical weapons experience or related skills, and therefore tailored trainings, which require financial resources, are essential for maintaining readiness to conduct a CI or IAU.

35. The Secretariat is currently pursuing bilateral agreements with interested States Parties to provide independent air transport within short notice to ensure the rapid deployment of inspection teams. States Parties' support in providing air transport and pre-approved flight clearances for non-scheduled aircraft will further solidify the Secretariat's preparedness to conduct CIs and IAUs. This will prove to be especially important in case commercial transport limitations are imposed, as was the case during the COVID-19 pandemic.

Issues requiring further action by States Parties

36. As mentioned in previous reports, the ability of the OPCW to respond promptly to requests for a CI and/or an IAU could be seriously affected by a lack of standing arrangements that require action by States Parties in accordance with Part II of the Verification Annex to the Convention (hereinafter "the Verification Annex"), as follows:
- (a) In accordance with paragraph 10 of Part II of the Verification Annex, States Parties are under an obligation to provide designated OPCW inspectors with multiple-entry visas that are valid for at least two years. As at 31 May 2022, 135 States Parties (70%) had either issued, or promised to issue, two-year multiple-entry visas, or had no visa requirements for OPCW inspectors travelling with a United Nations laissez-passer (UNLP); 31 States Parties (16%) had issued multiple-entry visas valid for one year (or less); and 27 States Parties (14%) had either not responded or had provided incomplete general visa information that does not apply to OPCW inspectors travelling on UNLPs. It may be worthwhile recalling that States Parties that impose visa requirements on UNLP holders could also consider agreeing to a waiver of the standard visa requirements for UNLP holders in the event of a CI or IAU.
 - (b) In accordance with paragraph 16 of Part II of the Verification Annex, States Parties are under an obligation to designate the points of entry that are to be used by mission teams. As at 31 May 2022, 138 States Parties had provided information regarding points of entry.
 - (c) In accordance with paragraph 22 of Part II of the Verification Annex, States Parties are under an obligation to inform the Secretariat of the standing diplomatic clearance number (SDCN) for non-scheduled aircraft. As at 31 May 2022, 33 States Parties had provided SDCNs on a permanent basis, while 16 had provided information on expediting them in the event that a requirement arises. It should be noted that an additional 39 States Parties provide SDCNs on an annual basis.
 - (d) In accordance with paragraph 44 of Part II of the Verification Annex, inspectors shall have the right to communicate with the Headquarters of the Organisation and to use their own two-way system of communications between team members during inspections. Accordingly, States Parties must inform the OPCW of the radio frequencies available for use by the inspection teams for such purposes. As at 31 May 2022, 82 States Parties had provided frequencies or had given the Secretariat authorisation to use OPCW default frequencies and/or had provided conditions for their use, or confirmed or provided information on an expedited method for obtaining the necessary frequencies in 2022. As at the same date, 111 States Parties had not provided any records regarding radio frequencies.

37. The Secretariat continues to encourage States Parties to jointly organise and host exercises and trainings that can enhance the investigative and response capabilities required for CIs or IAUs in complex environments. Furthermore, the Secretariat urges States Parties to openly share research and development on technologies pertaining to personal protection equipment, medical countermeasures, identification, and decontamination with regard to emerging chemical threats.

Conclusion

38. During the reporting period, the Secretariat maintained and strengthened its readiness to conduct CIs and IAUs within short notice. Relevant, tailored, and hybrid trainings and exercises have enhanced and will continue to enhance the Secretariat's ability to effectively deploy skilled inspection teams. The Secretariat will continue to adapt to emerging chemical threats and complex environments by conducting advanced trainings and exercises and exploring novel technologies with the support and cooperation of the States Parties. The Secretariat reiterates its appreciation for the assistance that States Parties have contributed thus far and encourages their continuing support.

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