

**General Assembly
Security Council**

Distr.: General
23 May 2019
English
Original: Russian

General Assembly
Seventy-third session
Agenda item 101 (k)

**General and complete disarmament: implementation of
the Convention on the Prohibition of the Development,
Production, Stockpiling and Use of Chemical Weapons
and on Their Destruction**

Security Council
Seventy-fourth year

**Letter dated 20 May 2019 from the Permanent Representative of
the Russian Federation to the United Nations addressed to the
Secretary-General and the President of the Security Council**

I have the honour to transmit herewith an aide-memoire from the Russian Federation on Russian assessments of the report of the Organisation for the Prohibition of Chemical Weapons fact-finding mission in the Syrian Arab Republic regarding the incident of alleged use of toxic chemicals as a weapon in Douma, Syrian Arab Republic, on 7 April 2018 (see annexes I and II).*

I should be grateful if you would have the present letter and its annexes circulated as a document of the General Assembly, under agenda item 101 (k), and of the Security Council.

(Signed) V. Nebenzia

* Annex II is being circulated in English and Russian only.



Annex I to the letter dated 20 May 2019 from the Permanent Representative of the Russian Federation to the United Nations addressed to the Secretary-General and the President of the Security Council

[Original: Russian]

Aide-memoire from the Russian Federation on Russian assessments of the report¹ of the Organisation for the Prohibition of Chemical Weapons fact-finding mission in the Syrian Arab Republic regarding an incident in which toxic chemicals were alleged to have been used as a weapon in Douma, Syrian Arab Republic, on 7 April 2018

Experts from the Russian Federation have carefully reviewed the materials of the report of the fact-finding mission on the incident related to the alleged use of a toxic chemical in Douma on 7 April 2018 and do not question the competence of the experts of the Organisation for the Prohibition of Chemical Weapons (OPCW) who conducted the investigation. At the same time, they wish to draw attention to a number of questions that arose following a detailed analysis.

The conclusions based on witness statements, video materials and sample analysis are probabilistic, and sometimes inconsistent and questionable in nature.

(1) Paragraph 2.5 of the report: “All the environmental samples from Douma were collected by the FFM team on Syrian territory in the presence of representatives of the Syrian Arab Republic. Fractions of the aforementioned samples were handed over by the FFM to the Syrian National Authority representative.” However, it is not mentioned in the report that the samples were not separated in the territory of the Syrian Arab Republic. They were taken to the OPCW central laboratory in The Hague, were separated there and were handed over to the Syrian side only six months after completion of the work of the mission in Douma.

(2) Paragraph 8.5 of the report: “129 samples in total were collected and transported to the OPCW Laboratory.² To expedite analysis of those environmental samples considered to be of greatest probative value or of highest susceptibility to degradation, 31 samples were selected for the first round of analysis by the OPCW designated laboratories. An additional batch of 13 samples was sent for a second round of analysis at a later stage.” However, 11 of the 44 samples mentioned (4 ecological and 7 biomedical samples) were received from alleged witnesses of the incident. There is no information in the report about the circumstances in which the samples were collected by the mission team, from whom the biomedical samples were taken and whether the chain of custody had been observed for these samples. In our opinion, these samples cannot have much probative value.

(3) Paragraph 8.6 of the report: The environmental and biomedical samples were analysed in two unnamed designated OPCW laboratories. Based on the analysis results and the analytical methods used, it can be concluded that these are the same designated OPCW laboratories that were involved in the investigation of previous incidents involving alleged chlorine use. The question arises as to why, when there are 20 designated laboratories, 13 of them having technical agreements with OPCW,

¹ S/2019/208.

² The fact-finding mission received 35 of the samples from unknown persons.

the same 2 laboratories are used for the analysis of samples from the Syrian Arab Republic. The results also raise a number of questions.

For example, in the analysis of the same samples (33 environmental samples), the data on chlorinated products in the results provided by two laboratories are the same in just one case (bornyl chloride in sample 22).

It should also be noted, however, that the analysis of samples (samples 18–21 and 23) taken from Location 4 indicated the presence of the explosive trinitrotoluene. It must be concluded that the hole in the roof was caused by an explosion and not by a falling cylinder that did not sustain any serious damage.

(4) Paragraph 8.72 of the report: “The FFM interviewed 4 physicians, 7 medical support staff and 28 witnesses/casualties.” It is indicated (para. 8.43) that witness statements regarding the Douma events, which were presented at the briefing held by the Russian Federation at OPCW headquarters on 26 April 2018, were dealt with by the mission as other open-source video material. However, 10 of the 16 individuals who took part in the briefing had been interviewed two days earlier in Damascus by the fact-finding mission.

It is not clear why the OPCW experts did not pay due attention to these valuable actual witnesses of the incident, whose identities had been unequivocally confirmed and identified in the staged videos of “White Helmets” from the Douma Hospital (Location 1).

(5) Paragraph 8.73 of the report: “The FFM could not establish the precise number of casualties; however, some sources reported that it ranged between 70 and 500. Other sources denied the presence of chemically-related casualties.”

Nevertheless, it is indicated both in paragraph 8.74 and then in the conclusions of the mission activities (para. 9.5) that the number of deaths caused by the alleged chemical exposure was reported by a number of witnesses to be 43, including men, women, adults and children. There is no documentary evidence and no substantiation in the report for this number of victims.

The witness interviews conducted by the mission team and the summary of witness interviews provide inconsistent figures for the number of deaths (injuries) and the number of alleged chlorine cylinders found.

Cylinders allegedly used for chlorine application were found on the top floors of the buildings (Locations 2 and 4). There were no casualties at Location 4, and just two individuals there suffered a burning sensation in their eyes, lacrimation, coughing and vomiting. At Location 2, where the alleged victims were found, the wall of the building and part of the ceiling of the room where the chlorine cylinder allegedly struck were destroyed. Because of that, the inside of the room where the cylinder was found was well ventilated, and the tank itself, which was found at Location 2 by the mission team, was slightly deformed, so that the chlorine would have leaked from the cylinder through an opening about 3 cm in diameter (annex 6).

How could chlorine flowing from a cylinder (with a capacity of about 60–70 kg) through a 3 cm opening into a well-ventilated room on the fourth floor of the building have such a significant impact on the alleged victims, who were mainly on the second and first floors of the house? No explanation of this fact is provided in the report.

(6) A significant part of the report is dedicated to the conclusion that the post-impact location of the cylinders in the apartments was consistent with the nature of the damage caused, but the specific calculations used and the names of the experts and their competence and credentials are not provided. It should be noted that the experts who constructed the model and evaluated the interaction between the cylinder

and the roof of the building do not mention in the report the drop height on which their calculations were based, although this is a crucial detail.

According to the diagrams and figures in the report (figures 10, A.6.6 and A.6.7(b)), the calculation was carried out for the collision of a cylinder with an obstacle at a speed of from 30 to 60 m/s, which corresponds to a drop height of from 45 to 180 m. Figure 12 shows the schedule of residual speeds of cylinders when dropped from a height of 150 m.

However, owing to security concerns, Syrian air force helicopters do not fly over human settlements at altitudes below 2,000 m. A helicopter flying at an altitude of 200 m over an area of hostilities will be targeted at the very least by small arms and will definitely be shot down.

If the cylinder were dropped from such a height, it would have reached a vertical speed of about 200 m/s at the time of impact and would definitely not only have penetrated the roof (20 cm thick) but also have sustained significant damage.

In fact, we observe the following.

At Location 2, the shape and dimensions of the resulting aperture are more consistent with the penetration of a solid body through the reinforced concrete obstacle at an angle of 80–90 degrees from the surface. This is consistent with the deformation of the rebar of the obstacle (the roof of the building).

The condition of the observed cylinder is not consistent with the deformation that a cylinder full of liquid chlorine would sustain under the above-mentioned circumstances. The front end of the cylinder would have sustained more significant deformation in the penetration described.

The impact of the cylinder on the roof should have altered its trajectory and angle of approach to the obstacle, but this is not consistent with the aperture in the roof as described.

A detailed study of the aperture in the reinforced concrete obstacle, and also the scorch marks and the destruction of the rebar inside the aperture, are more consistent with the explosion of a 120 mm mortar shell or artillery projectile of the same calibre approaching the obstacle on a high-angle trajectory. The fragments on the balcony walls attest to this. The likelihood that the funnel was formed by a mortar/artillery shell or similar ammunition is also confirmed by the presence of more than one very similar aperture in the concrete slabs at the top of nearby buildings (figure A.6.3).

At Location 4, the size of the aperture is not consistent with the size of the cylinder found on the bed inside the room. The cross section of the aperture is more than twice the diameter of the cylinder, which contradicts the calculated and practical results for solid bodies penetrating reinforced concrete obstacles.

The presence of protruding mild steel rebar within the aperture indicates that it had been expanded from the outside; it is less indicative of the aperture being caused by penetration of a solid body.

The condition of the cylinder described is not consistent with the deformation that a cylinder full of liquid chlorine would sustain under the conditions described. Under those conditions of penetration, the body of the cylinder would have a more flattened form, and the stabilizing fins, the valve and other elements would be severely deformed or missing.

The conditions in which the cylinder entered the top floor room do not allow for its subsequent lateral deflection from the path of penetration without causing concomitant damage to the furniture, floors, walls and windows, but no traces of such damage are observed.

When a similarly shaped body with a developed stabilization system is dropped from a height of 100 m or more from an aircraft, the angle of approach is from 45 to 60 degrees from the surface of the obstacle. This fact excludes the possibility of that the cylinder was dropped from an aircraft and fell in a horizontal position.

Accordingly, in the locations where the cylinders were found, the damage caused to the roofs of the buildings and the apartments underneath them, as well as the visible deformation of the shape of the cylinders and their final position, are not consistent with a scenario in which cylinders of chlorine were dropped from an aircraft.

The Russian Federation does not contest the findings in the report that the cylinders may have contained molecular chlorine. However, the parameters, characteristics and appearance of the cylinders and the locations where the incidents occurred are not consistent with what should be observed if they had been dropped from an aircraft. The evidence suggests that both cylinders were most likely placed in locations 2 and 4 by hand, and not dropped from an aircraft.

In our view, the evidence presented in the report does not lead to a conclusion regarding the use of a toxic chemical as a weapon. The Russian Federation insists that evidence has been fabricated and that the incident in Douma has been staged.

Annex II to the letter dated 20 May 2019 from the Permanent Representative of the Russian Federation to the United Nations addressed to the Secretary-General and the President of the Security Council

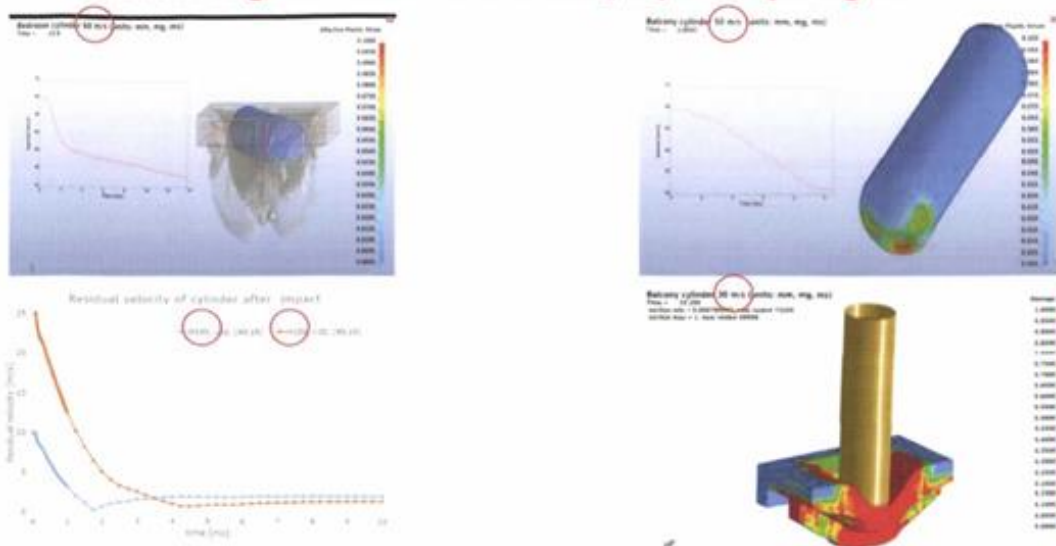
[Original: English and Russian]

Discrepancies observed while comparing the results of chemical analysis by two OPCW designated laboratories

№	Description	DL 02	DL 03	№	Description	DL 02	DL 03
2	Swab with water from inside the cylinder orifice	Dichloroacetic acid, chloride	No CWC-scheduled chemicals detected	17	Dry wipe from nozzle, front part next to thread	Trichloroacetic acid Trinitrotoluene	Chloride Iron, zinc, manganese
3	Dry wipe of the cylinder thread	Dichloroacetic acid	Chloride Iron, zinc, manganese	18	Wipe with DCM of cylinder nozzle and headbed	No chemicals relevant to CWC have been found	Chlorine containing organic compounds (CLOC) Trinitrotoluene
4	Concrete debris from the crater-edge in front of the cylinder nose	Dichloroacetic acid, trichloroacetic acid, chloral hydrate, trichlorophenol	2,4,6-Trinitrotoluene	19	Blanket under cylinder	Dichloroacetic acid, trichloroacetic acid, chloral hydrate, chloride, trichlorophenol Trinitrotoluene	Trinitrotoluene
5, 6	Wipe from the burnt wall in the room	No chemicals relevant to CWC have been found	Chlorine containing organic compounds (CLOC)	20	Blanket under cylinder	Dichloroacetic acid, trichloroacetic acid, chloral hydrate, chloride, trichlorophenol Trinitrotoluene	Trinitrotoluene
7	Wood fragment from kitchen door	Dichloroacetic acid, trichloroacetic acid, chlorophenol	Phenol 2,4,6-trichlorophenol 2,4,6-Trinitrotoluene	21	Wet wood from under the cylinder	BORNYL CHLORIDE chloride	BORNYL CHLORIDE alpha-pinene, phenol 2,4,6-trichlorophenol
8	Dry wipe from kitchen wall above the oven	No chemicals relevant to CWC have been found	Chlorine containing organic compounds (CLOC) Chloride Iron, zinc, manganese	22	Dry wipe from stains on the wall	No chemicals relevant to CWC have been found	Trinitrotoluene
9	Concrete debris near the window	Dichloroacetic acid, trichloroacetic acid, chlorophenol 2,4,6-trinitrotoluene	2,4,6-Trinitrotoluene	23	Chips of paint from wall behind bed	Tetrachlorophenol Trinitrotoluene Amino dinitrotoluene	Chloride, chlorine containing organic compounds (CLOC) Zinc
10	Concrete debris near the window	Dichloroacetic acid, trichloroacetic acid, chlorophenol 2,4,6-trinitrotoluene	2,4,6-Trinitrotoluene	24	Gloves from stairs	Дихлоруксусная кислота Трихлоруксусная кислота Перметрин Trinitrotoluene, amino dinitrotoluene	Chloride, chlorine containing organic compounds (CLOC) Zinc
12	Water tank wood support in basement	Dichloroacetic acid, trichloroacetic acid	Alpha-pinene, phenol bornyl chloride, 2,4,6-trichlorophenol 2,4,6-trinitrotoluene	25	Concrete dust	Trichlorophenol, permethrin, tetrachlorophenol, linuron Deltamethrin, Malathion, Trinitrotoluene, amino dinitrotoluene	Chloride, chlorine containing organic compounds (CLOC) Trinitrotoluene
14	Wood from partition frame in basement	Dichloroacetic acid, trichloroacetic acid	Phenol 2,4,6-trichlorophenol 2,4,6-trinitrotoluene	26	Grouting from 5-13 c. 1 m out from LHS wall	No chemicals relevant to CWC have been found	Triethanolamine

No dangerous chemicals have been found in samples 1, 11, 13, 15, 16 by both DLs
 Chlorine containing compounds coincide in one case only (sample 22)
 Nitrotoluene have been found in 6 samples by DL 02 and in 9 samples by DL03

The assessment of the interaction of the cylinders with the roof of the buildings was made for the improper drop heights



The calculation was carried out for the conditions of the collision of the cylinder with the barrier at a speed of 30-60 meters per second. It is consistent with the drop heights assumed between 45 m and 180 m

Disproof of the hypothesis, that the cylinder was dropped from an aircraft at Location 2



Black scorching on the crater and the destruction of steel rebar inside the aperture



Traces of blast fragmentations on the balcony's walls



Presence of more than one crater of very similar appearance in concrete slabs on top of nearby buildings

Indications and signs, expected as a result of a blast of a 120-mm HE mortar shell or artillery projectile of the same caliber



The shape and dimensions of the resulting aperture are consistent with the penetration of a solid body through the reinforced concrete barrier under the angle of 80-90 °

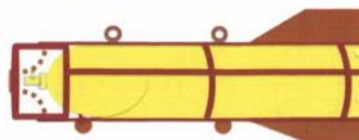


The cylinder's condition is not consistent with the deformation and damage it could suffer. The cylinder's front end should suffer much more significant deformation

Disproof of the hypothesis, that the cylinder was dropped from an aircraft at Location 4



A crater in the roof has dimensions of 166 x 105 cm
The presence of fragments of mild steel rebar inside the crater and wire netting indicates that it has been widened mechanically and intentionally



The cylinder found has dimensions of 140 x 35 cm

The lateral dimensions of the crater outmeasure the cylinder's diameter more than twofold. It does not comply with the calculated and practical results, expected after the penetration of solid bodies through the reinforced concrete barriers



The cylinder should have more flattened form for the flat penetration. The stabilizing fins, valve and other elements should have more significant deformation or be absent



The penetration of the cylinder inside the top floor apartment does not allow its subsequent deflection laterally post-impact within the room without causing related damage to the furniture, floor, walls and windows of the room

Image sources: [S/2019/208](#), Ministry of Defence of the Russian Federation.