

# Chemical and Biological News

## DISARMAMENT

### **The 14th Annual Meeting of National Authorities**

*26 November 2012*

The Fourteenth Annual Meeting of National Authorities was held at OPCW headquarters in The Hague from 22 to 25 November 2012 with 206 participants from 118 States Parties in attendance representing all regional groups.\* Two regional organisations, CARICOM and the African Union, participated in the meeting as well.

In his opening remarks to the meeting OPCW Director-General Ahmet Üzümcü noted the high level of attendance, which he said signifies the importance the States Parties attach to the annual event. He further noted that this year's meeting has been extended an extra day to allow more time for participants to interact on a range of relevant topics, including a break-out panel on education, outreach and awareness-raising among stakeholders.

The NA meeting was structured into breakout groups focussing on six different areas. The informative segment of the meeting brought the participants up to date with latest developments in declarations, inspections and international cooperation and assistance, while regional groups met to discuss ways and means to foster sub-regional and regional cooperation for implementation of the Convention.

National Authorities are a cornerstone of the Chemical Weapons Convention, responsible for coordinating the comprehensive implementation of its provisions at the national level across all relevant government bodies.

\* Africa - 30, Asia - 27, Eastern Europe – 20, Latin America and the Caribbean – 21, Western Europe and other countries – 20

<http://www.opcw.org/news/article/the-14th-annual-meeting-of-national-authorities/>

### **First Laboratory Workshop in the Middle East for the Analysis of Chemicals Related to the CWC**

*23 November 2012*

The Technical Secretariat and the Government of Jordan co-organised a Laboratory Workshop for the Analysis of Chemicals Related to the Chemical Weapons Convention in Aqaba, Jordan from 4 to 15 November 2012. It was hosted by the Ben Hayyan Aqaba International Laboratories and attended by 11 participants from Iraq, Jordan, Oman, and Yemen.

This was the first workshop of its kind to be held in the Middle East and was modelled along the lines of the Analytical Skills Development courses previously organised in South Africa and Tunisia. The event was opened by H.E. Prof. Dr. Kamel O. Mahadin, Chief Commissioner of the Aqaba Special Economic Zone Authority. Also in attendance were their Excellencies Mr Fawaz Al-Rshidat, Governor of Aqaba, and Mr. Turki O. Arasheeda, Head of the Jordanian National Authority, as well as Dr Aiman Soleiman, General Manager of the Ben Hayyan Aqaba International Laboratories.

The Workshop provided basic training in the use Gas Chromatography (GC) and Gas Chromatography-Mass Spectrometry (GCMS) for the analysis of chemicals related to the Convention. The participants received intensive hands-on training in the handling

of different sample matrices for subsequent analysis by GC with element-selective detectors and by GC-MS in electron ionisation mode. Aspects related to good laboratory practice, sample preparation, and the applications of the OPCW Central Analytical Database (OCAD) in compound identification were also covered.

<http://www.opcw.org/news/article/first-laboratory-workshop-in-the-middle-east-for-the-analysis-of-chemicals-related-to-the-cwc/>

### **U.S. Assistant Secretary of Defense Visits the OPCW**

*12 October 2012*

The U.S. Assistant Secretary of Defense for Nuclear, Chemical, and Biological Defense Programs, the Honorable Andrew C. Weber, visited the OPCW headquarters in The Hague today for a meeting with Director-General Ahmet Üzümcü.

The Director-General updated Mr Weber on issues related to the implementation of the Chemical Weapons Convention on its fifteenth anniversary and on preparations for the Third Review Conference, which will be held in April 2013. He commended the United States for its continuing strong commitment to the Convention and support for the work of the OPCW.

As Assistant Secretary of Defense, Mr Weber is the principal advisor to the Secretary of Defense, the Deputy Secretary of Defense, and the Under Secretary of Defense for Acquisition, Technology and Logistics for matters concerning nuclear, chemical, and biological defense programs. Mr. Weber is also the Staff Director of the Nuclear Weapons Council, which manages the nuclear weapons stockpile, and oversees the Defense Threat Reduction Agency and

the Nunn-Lugar Cooperative Threat Reduction Program.

<http://www.opcw.org/news/article/us-assistant-secretary-of-defense-visits-the-opcw/>

### **High-Level Meeting in New York to Mark 15th Year of the OPCW**

*27 September 2012*

The Organisation for the Prohibition of Chemical Weapons will hold a high-level meeting at the United Nations Headquarters in New York on 1 October 2012. The meeting coincides with the opening of the sixty-seventh session of the General Assembly.

The theme of the meeting is: “Fifteen Years of the Chemical Weapons Convention: Celebrating Success, Committing to the Future.” Its purpose is to generate support for the long-term objectives of the Convention and to provide impetus to the Third Review Conference scheduled to be convened in April 2013. UN Secretary-General Mr Ban Ki-moon will open the event. Ministers and Senior Officials from States Parties will address the meeting.

The Chemical Weapons Convention represents an unqualified success in the field of disarmament and non-proliferation and is a testament to effective multilateralism in the service of international peace and security.

The OPCW has become the fastest-growing disarmament and arms control treaty organisation in history with 188 States Parties and covers 98% of the world’s population. This represents an overwhelming global consensus to eliminate these weapons. In this time the OPCW has verified with on-site inspections the destruction of over three-quarters of all

declared chemical weapons – an unprecedented achievement in the annals of disarmament – together with the destruction or conversion for peaceful purposes of the facilities associated with the production of chemical weapons.

With the complete elimination of declared chemical weapons now in sight, the long-term goals of universality of the Convention and the prevention of the re-emergence of these weapons will assume centrality in the work of the OPCW. It is therefore crucial to ensure that the prohibitions of the Convention be upheld for all times to come and that the OPCW continue to provide an assurance of security to its States Parties against chemical threats.

The successful implementation of the global chemical weapons ban since its entry into force is proof that disarmament succeeds. Attention and commitment at the highest levels in governments will ensure its enduring validity as a barrier against an entire category of weapons of mass destruction.

<http://www.opcw.org/news/article/high-level-meeting-in-new-york-to-mark-15th-year-of-the-opcw/>

## **NATIONAL AND INTERNATIONAL DEVELOPMENTS**

### **OPCW Statement on Alleged Chemical Weapons in Syria**

*24 July 2012*

In regard to reports in the media concerning the possible use of chemical weapons in the Syrian conflict, the Director-General of the OPCW, Ambassador Ahmet Üzümcü, has issued the following statement:

“The OPCW echoes the view of UN Secretary General Ban Ki-moon that it would be ‘reprehensible’ if anybody was contemplating the use of weapons of mass destruction, like chemical weapons, in Syria. The prohibition on the use of chemical weapons is established in international law and, if stockpiles of chemical weapons exist and there is the possibility they may be deployed, this is a matter of grave concern to the international community as a whole. The Chemical Weapons Convention prohibits the development, production, stockpiling or use of these weapons and today has 188 States Parties. As we stated in our press release of 18 July, the OPCW is following media reports and other published information on Syria and will continue to monitor developments there closely.”

<http://www.opcw.org/news/article/opcw-statement-on-alleged-chemical-weapons-in-syria/>

### **Syria and the OPCW**

*18 July 2012*

The OPCW is following the recent media reports and other published information on developments in Syria. Syria reportedly possesses significant stockpiles of chemical weapons, including highly lethal nerve agents. However, without conducting physical inspections and investigations, the OPCW cannot speculate or comment on the veracity of those reports. Nevertheless, the OPCW is unreservedly concerned about the existence of chemical weapons of any sort and anywhere in the world thus it will continue to follow developments in Syria.

Syria is not a Party to the Chemical Weapons Convention (CWC) and hence is not legally committed to the Convention’s prohibitions against the development, production,

stockpiling or use of chemical weapons. Therefore, the OPCW currently has no legal mandate to conduct inspections in the country to verify the possible existence of chemical weapons or related activities.

Conversely, Syria is a party to the 1925 Geneva Protocol, which bans the use of chemical and bacteriological methods of warfare. It ratified the Protocol in 1968 without reservations, except for the proviso that the protocol did not represent recognition of Israel. Thus, Syria has formally renounced both first and retaliatory use of chemical or biological weapons against any State.

The OPCW has made representations to Syria over the years to encourage her to join the Treaty, which have never produced an official response. Even so the OPCW remains available at all times to engage with the Syrian government and provide technical assistance for Syria to join the Convention.

Although not a United Nations (UN) organisation, the OPCW has a working relationship with the UN. For instance, if requested to do so by the UN Secretary-General, the OPCW has a mandate in accordance with paragraph 27 of Part XI of the Verification Annex of the Convention for closely cooperating with the UN, by placing its resources at the disposal of the Secretary General to conduct an investigation of alleged use of chemical weapons in a State not Party to the CWC.

<http://www.opcw.org/news/article/syria-and-the-opcw/>

### **Obama Warns Syria Against Using Chemical, Biological Weapons**

*By Army Sgt. 1st Class Tyrone C. Marshall Jr. American Forces Press Service Washington, 3 December 2012*

President Barack Obama today warned Syria's Bashar Assad regime that the use of chemical and biological weapons would be "unacceptable."

Speaking at the Nunn-Lugar Cooperative Threat Reduction Symposium at the National Defense University here, Obama addressed concerns of the use of nuclear, chemical and biological weapons in Syria.

"Today, I want to make it absolutely clear to Assad and those under his command [that] the world is watching," he said. "The use of chemical weapons is, and would be, totally unacceptable. And if you make the tragic mistake of using these weapons, there will be consequences, and you will be held accountable."

The president said it has been critical to continue investing in threat reduction programs over the past four years of his administration.

"We simply cannot allow the 21st century to be darkened by the worst weapons of the 20th century," Obama said. "And even as we make some very tough fiscal choices, we're going to keep investing in these programs, because our national security depends on it."

The president noted even after the destruction of thousands of missiles, elimination of bombers and submarines and deactivation of warheads, much work remains to be done.

"There's still much too much material — nuclear, chemical, biological — being stored without enough protection," he said. "There are still terrorists and criminal gangs doing everything they can to get their hands on it."

If these criminals get these weapons, they will use them, potentially killing hundreds of



thousands of innocent people and perhaps triggering a global crisis, the president said.

“[This is] why I continue to believe that nuclear terrorism remains one of the greatest threats to global security,” he added. “[And] why working to prevent nuclear terrorism is going to remain one of my top national security priorities as long as I have the privilege of being president of the United States.”

The president emphasized that the United States must sustain efforts across the government to strengthen threat reduction programs such as the Nunn-Lugar Cooperative Threat Reduction Program, which he called “one of our most important national security programs.”

“[This is] why we haven’t just sustained programs like Nunn-Lugar over the past four years,” Obama said. “We’ve worked with all of you to strengthen it, expanding it to some 80 nations, far beyond the old Soviet Union - moving ahead with the destruction of chemical weapons - partnering with others, countries from Africa to Asia and global health organizations to prevent the spread of deadly diseases and bioterrorism.”

The work ahead will not be easy, Obama said. “It took decades and extraordinary sums of money to build those arsenals,” he explained. “It’s going to take decades and continued investments to dismantle them.”

Obama also said while this painstaking work rarely makes headlines, it is “absolutely vital to our national security and to our global interests.”

“Missile by missile, warhead by warhead, shell by shell, we’re putting a bygone era behind us,” he said. “Inspired by Sam Nunn and Dick Lugar, we’re moving closer to the future we seek — a future where these weapons never threaten our children again,

[and] a future where we know the security and peace of a world without nuclear weapons.”

The president also told the audience that the United States will continue to support the “legitimate aspirations of the Syrian people” by engaging with the opposition and providing them with humanitarian aid and by working for a transition to a Syria that’s free of the Assad regime.

<http://www.defense.gov/News/newsarticle.aspx?ID=118698>

### **ProMED-mail published its weekly *Dengue Update*.**

Reporting on the ongoing epidemic of dengue fever in India, the high number of cases reported were in each instance followed by the word: “increasing.”

Also increasing is the sense of alarm that hundreds of millions of people, not just in India but around the world, are at risk. Fifty years ago dengue was reported in just a handful of countries, now it is endemic in over 100. WHO has estimated that dengue fever threatens about 2.5 billion people, more than 40 percent of the world’s population. “The global dengue problem is far worse than most people know, and it keeps getting worse,” said Dr. Raman Velayudhan, the World Health Organization’s lead dengue coordinator, quoted in a recent New York Times article.

In a world of rapid travel, viruses, vectors, and their victims can introduce new diseases into previously uninfected areas. The Asian tiger mosquito *Aedes albopictus*, globally an important vector of human pathogens such as the chikungunya and dengue viruses as well as filarial nematodes, has spread from South-East Asia to the Americas, parts of Africa, northern Australia, and 19 European countries during the last decades. The

mosquito seems to have been transported by trucks and cars from southern Europe. Its eggs have reportedly been transported via the used tire trade and the importation of lucky bamboo from southern China to the nurturing warmth of greenhouses in the Netherlands.

In areas where this mosquito has become relatively abundant, all that is needed to initiate a dengue outbreak is the appearance of an infected individual similar to the introduction of chikungunya virus into Italy from India, triggering a small outbreak. Arrival of travelers from dengue-endemic areas into dengue virus-free areas is not an uncommon event. Local dengue transmission has occurred in southern France, Croatia and Key West, Florida; health officials in Miami announced a case of locally acquired dengue infection last month. More outbreaks can be expected in the future wherever competent dengue virus vectors are present, underscoring the need for ongoing surveillance to detect local transmission early on.

<http://www.promedmail.org/>

## NEW DEVELOPMENTS IN SCIENCE AND TECHNOLOGY

### **New military apparel repels chemical and biological agents**

*October 17, 2012 by Anne M Stark Enlarge*

The highly breathable membranes have pores made of a few nanometer-wide vertically aligned carbon nanotubes that are surface modified with a chemical warfare agent-responsive functional layer. (Phys.org)—Lawrence Livermore National Laboratory scientists and collaborators are developing a new military uniform material that repels chemical and biological agents using a novel carbon nanotube fabric.

The material will be designed to undergo a rapid transition from a breathable state to a protective state. The highly breathable membranes would have pores made of a few-nanometer-wide vertically aligned carbon nanotubes that are surface modified with a chemical warfare agent-responsive functional layer. Response to the threat would be triggered by direct chemical warfare agent attack to the membrane surface, at which time the fabric would switch to a protective state by closing the CNT pore entrance or by shedding the contaminated surface layer. “The uniform will be like a smart second skin that responds to the environment,” said Francesco Fornasiero, LLNL’s principal investigator for the Defense Threat Reduction Agency (DTRA)-funded project. “Without the need of an external control system, the fabric will be able to switch reversibly from a highly breathable state to a protective one in response to the presence of the environmental threat. In the protective state, the uniform will block the chemical threat while maintaining a good breathability level.” High breathability is a critical requirement for protective clothing to prevent heat-stress and exhaustion when military personnel are engaged in missions in contaminated environments.

Current protective military uniforms are based on heavyweight full-barrier protection or permeable adsorptive protective overgarments that cannot meet the critical demand of simultaneous high comfort and protection, and provide a passive rather than active response to an environmental threat. To provide high breathability, the new composite material will take advantage of the unique transport properties of carbon nanotube pores, which have two orders of magnitude faster gas transport rates when compared with any other pore of similar size.

<http://phys.org/news/2012-10-military-apparel-repels-chemical-biological.html#jCp>