## NATIONAL AND INTERNATIONAL DEVELOPMENTS

### Iran sought Chemical and Biological weapons in 2015, says German intel

*Benjamin Weinthal in Berlin, July 11, 2016*

Iran aggressively pursued biological and chemical weapons technology even as it negotiated an international deal to drop its nuclear program, according to a German intelligence report that followed a similar finding the Islamic Republic sought nuclear materials.

The revelation, in a report by the state of Rhineland-Palatinate's intelligence agency, found the Islamic Republic's operatives targeted German companies whose equipment could be "implemented for atomic, biological and chemical weapons in a war."

"These goods could, for example, be applied to the development of state nuclear and missile delivery programs," said the intelligence experts.

Another passage in the document notes that, "special attention was paid in the report's time period to proliferation-relevant activities of Iran, Pakistan and North Korea."

Just last week, FoxNews.com reported that Germany's Federal intelligence agency revealed in its annual report that Iran has a "clandestine" effort to seek illicit nuclear technology and equipment from German companies "at what is, even by international standards, a quantitatively high level."

The local intelligence agencies are comparable to regional FBI offices.

This week marks the one-year anniversary of the Joint Comprehensive Plan of Action negotiated by the U.S. and other world powers to restrict Tehran's vast nuclear project. The deal with Iran's anti-American regime is widely considered to be President Obama's landmark foreign policy agreement.

A FoxNew.com review of the voluminous German intelligence data and reports show Iran's secret activities were documented in half of Germany's 16 states.

It is not known how many attempts the Islamic Republic made to illegally secure technology across Germany.

The German state of Baden-Württemberg said in its intelligence report that Iran currently lacks the ability to produce certain essential parts for nuclear, chemical and biological weaponry and instead tries to get it from Western companies.

"In addition to vacuum technology, there is special interest in machine tools, high-speed cameras, and climate test control chambers," the report said.

A militant pro-IRGC (Iran's Revolutionary Guard Corps) media website Young Journalists Club termed the German intelligence reports to be "laughable."

German and U.S. officials claim Iran's illicit procurement efforts took place before the January implementation date of the nuclear agreement. However, a Wall Street Journal report cited two German intelligence officials who said illegal procurement efforts by Iran extended into this year.

In response to the German Federal intelligence report, U.S. Sen. Mark Kirk said on Thursday:

"I strongly opposed the flawed nuclear deal because Iran would keep cheating, as shown by Iran's numerous ballistic missile tests aimed at threatening Israel, and now by the German intelligence report on Iran's aggressive efforts to secretly buy nuclear and missile technology," said Kirk, R- Ill.

The deputy head of the Revolutionary Guards, Brig. Gen. Hossein Salami, said on Friday the Islamic Republic has more than 100,000 missiles in Lebanon ready for the "annihilation" of Israel.

*http://www.foxnews.com/world/2016/07/11/iran-sought-chemical-and-biological-weapons-in-2015-says-german-intel.html*

**'Dangerous Infection' Russian biological warfare troops rushed to Arctic after outbreak of lethal Anthrax hospitalises 40**

*Will Stewart, July 29, 2016*

Biological warfare troops have been rushed to the Russian Arctic amid growing concerns over a serious anthrax outbreak. A total of 40 people - more than half of them children - are now hospitalised amid fears they may have contracted the deadly infection.

This follows the death of 1,200 reindeer suspected of contracting the disease after a contaminated corpse - buried at least 70 years ago - thawed because of a heatwave in the Yamal peninsula in northern Siberia.

Russian experts have blamed global warming for the prolonged high temperatures - of up to 35C - at the Tarko-Sale Faktoria camp, north of the Arctic Circle. There were dramatic scenes as the Russian army's Chemical, Radioactive and Biological Protection Corps, equipped with masks and bio-warfare protective clothing, flew to regional capital Salekhard on a military Il-76 aircraft to deal with the emergency.

They were deployed by Defence Minister Sergei Shoigu to carry laboratory tests on the ground, detect and eliminate the focal point of the infection, and to dispose safely of dead animals. Eight new people were admitted for observation to hospital in Salekhard on Friday, bringing the total to 40, said officials, as reported by The Siberian Times.

"As of now, there is no single diagnosis of the dangerous infection," said a spokesman for the governor of Yamalo-Nenets, Dmitry Kobylkin. Those in hospital are all from a dozen nomadic families who herd reindeer in the far north of Russia.

Medics were taking precautions to hospitalise any of the 'at risk' group who showed any symptoms of ill health. More than half those in hospital are children, some of them babies. Other herders have been evacuated at least 40 miles from the scene of the outbreak, first identified a week ago. Anna Popova, director of state health watchdog Rospotrebnadzor, warned: "We need to be ready for any manifestations and return of infection."

The concern follows an outbreak of the Bubonic Plage in the Altai Mountains in southern Siberia earlier this month. Professor Florian Stammler, of the University of Lapland, Finland, knows the site where the outbreak occurred and described it as a reindeer junction used by many herders.

"Due to the high mobility of herders using this site, utmost care has to be taken for preventing of anthrax being spread all over the Yamal Peninsula," he said.

Venison from this region is exported to Britain and other EU countries but local

officials insisted the precautions they are taking will prevent any threat to this lucrative industry. A spokesman for the governor insisted: 'This case won't affect exports or the quality of meat.'

Russian experts say the hot summer led to the frozen infection being "unlocked by the thawing of a diseased carcass from a long time ago", reported the news website. If correct, there is real concern of centuries-old infections reappearing in permafrost regions like Siberia.

The Sakha Republic, east of this region, has some 200 burial grounds of animals that succumbed to anthrax in the past. Tarko Sale Faktoriya, the focus of the outbreak at Yamal Peninsula The army unit deployed on Friday is equipped with military helicopters as well as off road vehicles.

They face what the region governor calls 'an extremely challenging task of liquidating the consequences - and disinfecting the focus - of the infection. "I think this perhaps will be the first in the world operation cleaning up a territory of mass deer mortality over such distances in the tundra," he said.

Anthrax is an infection caused by the bacterium Bacillus anthracis, which has been developed as an agent of warfare. Among its forms are inhalation, which leads to fever, chest pain, and shortness of breath. The intestinal form presents with nausea, vomiting, diarrhoea, or abdominal pain. Until the 20th century, it killed hundreds of thousands of people and livestock each year.

*https://www.thesun.co.uk/news/1525256/russian-biological-warfare-troops-rushed-to-arctic-after-outbreak-of-lethal-anthrax-hospitalises-40/*

**Dozens ill after suspected chlorine attack in Syria**

*Kareem Shaheen in Beirut, August 2, 2016*

More than two dozen people have been injured in a suspected chemical attack on a town in northern Syria, a doctor who treated the victims and aid workers said. The attack, using a gas cylinder laced with chlorine, targeted the town of Saraqeb in Idlib province, which is under opposition control, and near where a Russian helicopter was shot down on Monday. It came almost exactly a year after the UN Security Council adopted a resolution that set a 12 month-deadline to identify the perpetrators of chlorine attacks in Syria. The deadline expires next week.

Ibrahim al-Assaad, a doctor who treated the victims, said none of the 29 injured he saw exhibited physical wounds. "All of them had breathing and lung problems, spanning mild, moderate and severe symptoms, while coughing and having bloodshot eyes," he said. "They smelled of chlorine, and the civil defence workers who rescued them said the site of the attack also smelled strongly of chlorine." "It is impossible to get used to this pain we see," he added. "Impossible."

The suspected chemical attack occurred against a backdrop of escalating warfare across Syria and particularly in the neighbouring province of Aleppo, where rebels have launched a wide-ranging offensive to break a weeks-long siege on the opposition-held east of the city.

Syrian Civil Defense, a rescue service that operates in opposition-held areas, said it had transferred at least 30 victims with breathing problems to a hospital after what they described as an attack using a toxic gas that smelled like chlorine. The organisation published images and videos of the victims of the alleged attack, which it described as

being intended to "spread fear and panic among civilians". Local people said a helicopter dropped cylinders from the sky on to the town - an approach that would fit the modus operandi of previous air raids that used chlorine and were blamed on the regime of Bashar al-Assad.

Residents of Saraqeb said they heard the helicopter at 11.25pm on Monday, followed by the impact of two cylinders that caused muted explosions.

Much of Assad's chemical weapons programme was dismantled under an agreement brokered in 2013 between the US and Russia, after the Obama administration threatened military strikes in retaliation for a sarin gas attack by on the suburbs of Damascus. Assad's government was blamed for the attack, which killed 1,400 people and sparked worldwide condemnation, but he denied responsibility.

But chlorine is not banned under the terms of the treaty on the prohibition of chemical weapons, as it also has domestic and industrial uses such as water purification. Last year, medical workers said they had documented as many as 35 attacks that deployed chlorine between mid-March and May alone in Idlib, causing more than 1,000 injuries and nine deaths, including wounding civil defence workers.

Assaad, the Saraqeb doctor, said recent airstrikes in the vicinity of his hospital had destroyed an extension built by aid groups that provided first aid treatment to chemical attack victims, disinfecting them before they entered the main hospital structure.

"We used to have a sort of 'chemical tent' to separate the victims of chemical attacks and purify them before taking them to the hospital," he said. "But there were a lot of bombings and all the buildings around the hospital are either destroyed or damaged, and the tent is gone as well." Last week, the town's local council said its blood bank and a first aid centre were both destroyed in airstrikes, the latest in what aid groups say is a systematic campaign against medical facilities. On Monday, the Russian defence ministry said a helicopter carrying five service members was shot down near Saraqeb, hours before the suspected chlorine attack. The entire crew were killed, in what was the single deadliest incident for Moscow's troops since they intervened to shore up the Assad regime last October.

In the neighbouring province of Aleppo, thousands of rebel fighters have launched a broad offensive that they said was aimed at breaking a siege imposed by the government and its allied militias on the eastern portion of the city, which is controlled by the opposition and has a quarter of a million civilians. But the aims of the offensive appear now to be broader than simply breaking the siege, with rebel fighters apparently racing to sever government supply lines in an effort to cut off their territory in the suburbs from the city.

Moscow has continued to insist - in the face of international condemnation and US calls for restraint - that it has opened humanitarian corridors for civilians to flee the besieged eastern half of the city, but few residents appear to have taken advantage of the proposal in the midst of ongoing fighting. A statement signed by 35 humanitarian and human rights NGOs said the proposal was "deeply flawed" and urged an end to "the use of brutal siege tactics and illegal attacks on civilians."

*https://www.theguardian.com/world/2016/aug/02/chlorine-attack-syria-dozens-ill-saraqeb-idlib*

**Assessing the risk from Africa as Libya loses its chemical weapons**

*Scott Firsing, September 23, 2016*

Libya's remaining chemical weapons left over from the Gaddafi regime are now being safely disposed of in a German facility. This eliminates the risk of them falling into the wrong hands. But can these same hands acquire weapons of mass destruction from the rest of Africa?

Weapons of mass destruction are commonly broken into four categories: chemical, biological, radiological and nuclear.

Chemical agents include choking agents (chlorine), blister agents (mustard), blood agents (hydrogen cyanide and nerve agents as well as sarin or VX). Biological weapons involve a microorganism such as bacteria (anthrax is an example), fungi or a virus (such as smallpox) and toxins. Radiological attack material is usually combined with radioactive material in conventional explosives while a full nuclear detention involves fission.

There is limited open source information on African countries' current biological and chemical weapons programmes. And all African countries, with just two exceptions- Egypt and South Sudan - have signed the Chemical Weapons Convention which commits countries to destroy all stockpiles. No African state at the moment possesses nuclear weapons.

State-owned stockpiles of weapons of mass destruction on the continent are therefore not the biggest threat. Rather there is growing concern about dual-use goods. These are materials that are primarily produced for peaceful purposes but can also be used for deadly purposes.

Examples include chemical products used by industry such as herbicides or pesticides that can be turned into weapons or biological agents created using your typical research lab equipment. For example, Australian researchers exploring ways to control the mouse population unexpectedly produced a lethal mousepox virus.

Governments often have limited knowledge of chemical production since it is the preserve of the private sector. Often these facilities are not as well secured as government facilities.

Kenya, with the help of the US, has just taken steps to prevent terrorists laying their hands on biomedical toxins that could be used to make biological weapons. The country has been the target of deadly attacks by al-Shabaab terrorists in recent times.

WHAT IS KNOWN

Egypt decided to concentrate on increasing conventional forces, and chemical and biological weapons, rather than nuclear weapons. It is also one of the few states to have used chemical weapons in wartime in the 1960s. In the 1980s Egypt intensified its biological activity, working closely with Iraq. Information on its current programmes is limited.

The country has been very vocal on the subject of the Chemical Weapons Convention. It justifies the fact that it has not signed the convention on the grounds that Israel has also not ratified it.

South Sudan is the only other remaining African country that's not party to the convention. The newly established country was believed to be on the receiving end of chemical weapons attacks in early 2016. The accusation was that the Sudanese Army used

such weapons during fighting in the Lanyi and Mundri areas. The UN Mission in South Sudan investigated and declared no signs of chemical weapons and that smoke inhaled by children may have come from either conventional weapons or teargas.

Sudan was believed at one point to be pursuing biological weapons and to possess VX nerve gas. But open source evidence is inconclusive.

## THE CASE OF LIBYA

Unlike its chemical weapons programme, Libya's biological weapons never really came to life. It allegedly sought assistance for the programme from countries like Cuba and Pakistan, and tried to recruit apartheid era South African scientists. American and British specialists invited to Libya in 2003 found no concrete evidence of an ongoing biological effort.

Libya was more successful in its nuclear programme, which Gaddafi gave up in 2003. The last of Libya's highly enriched uranium left the country on a Russian chartered plane on December 21 2009. The country retains a stockpile of natural uranium ore concentrate, also known as yellow cake, which is stored in a former military facility near Sebha in the south of the country. According to the US State Department, (the risk of trafficking and proliferation of this material is low, due to) the bulk and weight of the storage containers and the need for extensive additional processing before the material would be suitable for weapons purposes.

## NUCLEAR ON THE CONTINENT

Today, highly enriched uranium is an extremely rare commodity in Africa. Since Libya's clean out in 2009, only Ghana, Nigeria, and South Africa still have stocks. Ghana and Nigeria each possess less than 1 kilogram.

During the apartheid era in South Africa the government's Project Coast focused on the development of chemical weapons and various drugs like mandrax. South Africa developed six and a half nuclear bombs that were eventually dismantled. South Africa's Pelindaba research centre still houses large quantities of weapons grade material.

Other nuclear facilities in Africa do exist. Of the world's 243 operational research reactors, only 10 are in Africa. This includes research reactors typically found at universities. Their lower enriched nuclear material can be used to make a dirty radiological bomb.

## NON-STATE ACTORS AND LESS SECURE SPACES

Intelligence reports have indicated that groups such as Al Qaeda in the Maghreb have made multiple attempts to manufacture materials for weapons of mass destruction.

Analysts also envision militants known as suicide infectors visiting an area with an infectious disease outbreak like Ebola to purposely infect themselves and then using air travel to carry out the attack. Reports from 2009 show 40 al-Qaeda linked militants being killed by the plague at a training camp in Algeria. There were claims that they were developing the disease as a weapon.

Islamic State has already produced and used toxic chemicals such as mustard and chlorine gas. In Africa, an Islamic State cell in Morocco was planning an attack involving six jars of sulphur-containing chemical fertiliser which when heated can release a fatally toxic gas and possibly the tetanus toxin. According to Iraqi and US intelligence officials, Islamic

State is aggressively pursuing further development of chemical weapons and has set up a branch dedicated to research and experiments using scientists from throughout the Middle East.

The disposal of Libya's chemical weapons has lowered the risk of weapons of mass destruction in Africa. But we have seen how far non-state actors are willing to go to either produce or steal such weapons.

The threat they pose cannot be ignored. African countries, with help from bilateral partners and the international community, has broadened its non-proliferation focus. It will need to keep doing so if the goal is to effectively counter this threat.

*http://www.news24.com/Africa/News/assessing-the-risk-from-africa-as-libya-loses-its-chemical-weapons-20160923*

**Over and over again, the [US] military has conducted dangerous biowarfare experiments on Americans**

*Kevin Loria, September 25, 2016*

On September 20, 1950, a US Navy ship just off the coast of San Francisco used a giant hose to spray a cloud of microbes into the air and into the city's famous fog. The military was testing how a biological weapon attack would affect the 800,000 residents of the city. The people of San Francisco had no idea.

The Navy continued the tests for seven days, potentially causing at least one death. It was one of the first large-scale biological weapon trials that would be conducted under a "germ warfare testing program" that went on for 20 years, from 1949 to 1969. The goal "was to deter [the use of biological weapons] against the United States and its allies and to retaliate if deterrence failed," the government explained later. "Fundamental to the development of a deterrent strategy was the need for a thorough study and analysis of our vulnerability to overt and covert attack."

Of the 239 known tests in that program, San Francisco was notable for two reasons, according to Dr. Leonard Cole, who documented the episode in his book "Clouds of Secrecy: The Army's Germ Warfare Tests Over Populated Areas."

Cole, now the director of the Terror Medicine and Security Program at Rutgers New Jersey Medical School, tells Business Insider that this incident was "notable: first, because it was really early in the program ... but also because of the extraordinary coincidence that took place at Stanford Hospital, beginning days after the Army's tests had taken place."

Hospital staff were so shocked at the appearance of a patient infected with a bacteria, Serratia marcescens, that had never been found in the hospital and was rare in the area, that they published an article about it in a medical journal. The patient, Edward Nevin, died after the infection spread to his heart. S. marcescens was one of the two types of bacteria the Navy ship had sprayed over the Bay Area. It wasn't until the 1970s that Americans, as Cole wrote in the book, "learned that for decades they had been serving as experimental animals for agencies of their government." San Francisco wasn't the first or the last experiment on citizens who hadn't given informed consent.

Other experiments involved testing mind-altering drugs on unsuspecting citizens. In one shocking, well-known incident, government researchers studied the effects of syphilis on black Americans without informing the men that they had the disease - they were told they had "bad blood." Researchers withheld treatment after it became available so they could continue

studying the illness, despite the devastating and life-threatening implications of doing so for the men and their families. But it was the germ warfare tests that Cole focused on.

"All these other tests, while terrible, they affected people counted in the hundreds at most," he says. "But when you talk about exposing millions of people to potential harm, by spreading around certain chemicals or biological agents, the quantitative effect of that is just unbelievable."

"Every one of the [biological and chemical] agents the Army used had been challenged" by medical reports, he says, despite the Army's contention in public hearings that they'd selected "harmless simulants" of biological weapons. "They're all considered pathogens now," Cole says.

Here are some of the other difficult-to-believe germ warfare experiments that occurred during this dark chapter in US history. These tests were documented in Cole's book and verified by Business Insider using congressional reports and archived news articles.

*http://www.businessinsider.com/military-government-secret-experiments-biological-chemical-weapons-2016-9?IR=T*

## ISIS suspected of mustard attack against US and Iraqi troops

*Barbara Starr, September 27, 2016*

ISIS is suspected of firing a shell with mustard agent that landed at the Qayyara air base in Iraq Tuesday where US and Iraqi troops are operating, according to several US officials.

The shell was categorized by officials as either a rocket or artillery shell. After it landed on the base, just south of Mosul, US troops tested it and received an initial reading for a chemical agent they believe is mustard. No US troops were hurt or have displayed symptoms of exposure to mustard agent. US officials said Tuesday that additional testing had definitely concluded that a mustard agent was not used in the attack.

Last week, another official had said the agent had "low purity" and was "poorly weaponized." A second official called it "ineffective." A US defense official said troops had gone out to look at the ordnance after it landed. Based on seeing what they thought was a suspect substance, two field tests were conducted.

The first test was positive and the second was negative, the official said. The substance is now being sent to a lab for further examination.

DECONTAMINATION PRECAUTION

US troops involved in the incident went through decontamination showers as a precaution. No troops have shown any symptoms of exposure, such as skin blistering. CNN has reported on previous instances where ISIS has fired rounds with mustard agents in Iraq and Syria.

"I don't know of a case like this where it was proximate to US forces like this before," said one military official, noting that "potentially" the rocket round was "within hundreds of yards" of the US forces and "within the security perimeter" of the base. The US officials said they "had expected" that ISIS might try use chemical weapons as US and Iraqi forces push towards Mosul in an effort to take the city back from ISIS. Several hundred US troops are using the base as a staging area for supporting Iraqi forces.

All of this has led the Pentagon to assess on a preliminary basis that it was ISIS that fired at the base, since the terror group has been

making mustard agent for some time. In the course of its air campaign against ISIS, US airstrikes have hit several locations the US believes are production sites for mustard agent. US officials emphasized that mustard agent is relatively easy to produce, and they continue to hit suspected manufacturing sites when they find them. US troops are routinely outfitted with protective gear in the event of a chemical weapons attack.

*http://edition.cnn.com/2016/09/21/politics/mustard-gas-us-troops/*

**U.S.-Backed Forces Prepare For ISIS To Use Chemical Weapons In Mosul**

*Phil Stewart and Idrees Ali, October 19, 2016*

The United States expects Islamic State to use crude chemical weapons as it tries to repel an Iraqi-led offensive on the city of Mosul, U.S. officials say, although adding that the group's technical ability to develop such weapons is highly limited. U.S. forces have begun to regularly collect shell fragments to test for possible chemical agents, given Islamic State's use of mustard agent in the months before Monday's launch of the Mosul offensive, one official said. In a previously undisclosed incident, U.S. forces confirmed the presence of a sulfur mustard agent on Islamic State munition fragments on Oct. 5, a second official said. The Islamic State had targeted local forces, not U.S. or coalition troops.

"Given ISIL's reprehensible behaviour and flagrant disregard for international standards and norms, this event is not surprising," the second official told Reuters, speaking on condition of anonymity, and using an acronym for Islamic State. U.S. officials do not believe Islamic State has been successful so far at developing chemical weapons with particularly lethal effects, meaning that conventional weapons are still the most dangerous threat for advancing Iraqi and Kurdish forces - and any foreign advisers who get close enough.

Sulfur mustard agents can cause blistering on exposed skin and lungs. At low doses, however, that would not be deadly.

Roughly 5,000 U.S. forces are in Iraq. More than 100 of them are embedded with Iraqi and Kurdish Peshmerga forces involved with the Mosul offensive, advising commanders and helping them ensure coalition air power hits the right targets, officials said. Still, those forces are not at the front lines, they added.

HUMAN SHIELDS

The fall of Mosul would signal the defeat of the ultra-hardline Sunni jihadists in Iraq but could also lead to land grabs and sectarian bloodletting between groups that fought one another after the 2003 overthrow of Saddam Hussein. U.S. President Barack Obama estimated on Thursday that perhaps 1 million civilians were still in Mosul, creating a challenge for Iraq and its Western backers trying to expel the group through force. "If we aren't successful in helping ordinary people as they're fleeing from ISIL, then that makes us vulnerable to seeing ISIL return," Obama told reporters in Washington.

The International Organization for Migration's Iraq chief, Thomas Weiss, said on Tuesday he expected Islamic State militants to use Mosul residents as human shields and lent his voice to concerns about the dangers of chemical agents. The IOM had not managed to procure many gas masks yet, despite those risks, Weiss said from Baghdad. "We also fear, and there has been some evidence that ISIL might be using chemical weapons. Children, the elderly, disabled, will be particularly vulnerable," Weiss said.

Attacking Iraqi forces are still 12 to 30 miles (20 to 50 km) from the city itself and U.S. officials believe that Islamic State is most likely to use chemical weapons later in the campaign, in what could be a difficult, protracted battle. The leader of Islamic State was reported to be among thousands of hardline militants still in the city, suggesting the group would go to great lengths to repel the coalition. American officials believe some of Islamic State's best fighters are in Mosul.

*http://www.reuters.com/article/us-mideast-crisis-iraq-chemicalweapons-idUSKCN12I2WZ*

**ISIS could unleash car bombs and chemical weapons on Europe as new terror tactics employed, Europol warns**

*Lizzie Dearden, December 2, 2016*

Isis is likely to carry out new terror attacks across Europe in the "near future" as jihadis consider car bombings, chemical weapons and other methods to maximise casualties, security services have warned.

A new report by Europol, the EU-wide law enforcement agency, found that the terrorist group was changing its modus operandi as militants are driven out of key strongholds in Syria and Iraq. Britain is among the top targets for atrocities, with at least 12 attempted attacks foiled in the past three years, and the threat level could now be increasing with the return of defeated foreign fighters with weapons training and links to Isis commanders. Gilles de Kerchove, the EU's counter-terror coordinator, said the danger will last for years as battles against Isis continue in the Middle East and North Africa. "These people are trained to use explosives and firearms and they have been indoctrinated by the jihadist ideology," he added. "An effective response requires a comprehensive approach and long term commitment."

Intelligence services estimate that several dozen jihadis under Isis' direction are already present in Europe with the capability to commit terrorist attacks, but Europol warns of the additional risk of "lone wolf" terrorists who have no direct contact with the group. While the deadliest attacks so far, in Paris on 13 November 2015, were directed by Isis and carried out by militants deployed from its Syrian territories, the Nice attack and a succession of terrorist murders in France, Belgium and Germany were committed by extremists with no external aid or training.

Europol's report, by the European Counter Terrorism Centre, said the vast majority of attackers in Europe have been young men with a criminal past, who feel discriminated, humiliated and marginalised in society, and may have mental health issues. Not all are strict Muslims and may have recently converted to the religion, or solely to Isis ideology, either on their own or through terrorist recruiters. "Religion may thus not be the initial or primary driver of the radicalisation process, but merely offering a 'window of opportunity' to overcome personal issues," analysts said.

The report raised concern that Syrian refugees may be targeted by recruiters as Isis seeks to gather support for its cause by "inflaming the migration crisis to polarise the EU population and turn sections of it against those seeking asylum".

The group uses a network of recruiters as well as a sophisticated propaganda machine churning out videos, magazines, terror manuals and websites aimed at gathering supporters and inciting attacks.

Abu Mohammad al-Adnani, the Isis propaganda chief who was killed in a drone

strike in August, released a video in May calling on anyone prevented from travelling to the so-called "caliphate" to wage jihad in their home countries. "Make examples of the crusaders, day and night, scaring them and terrorising them, until every neighbour fears his neighbour," he urged ahead of a fresh spate of attacks in Europe. "Know that your targeting [of] those who are called 'civilians' is more beloved to us and more effective, as it is more harmful, painful, and a greater deterrent to them."

Europol warned that potential targets are difficult to predict as all countries participating in the US-led coalition's air strikes have been singled out in propaganda videos, with a growing preference for "soft targets" like public transport that have little security and provoke "maximum fear".

"Indiscriminate attacks have a very powerful effect on the public in general, which is one of the main goals of terrorism: to seriously intimidate a population," the report said, adding that attacking critical infrastructure like power grids and nuclear facilities is "currently not a priority".

Europol also says the consensus among intelligence agencies in EU member states is that "the cyber capabilities of terrorist groups are still relatively low", but adds that "the possibility of terrorist-affiliated cyber groups engaging in cyber warfare sponsored by Nation States - those with capacities to engage in this type of attacks - should not be discounted."

Terrorists are known to have acquired hand grenades, rocket launchers, and high-grade plastic explosives and detonators from organised crime groups in Europe, while Isis magazines contain instructions on making TATP - the homemade explosive used in the Paris and Brussels attacks, as well as the 2005 London bombings. Europol said suicide bombings, shootings, car rammings and stabbings are likely to remain the main mean of attacks as terrorists turn to the most easily available weapons. But its report warned that methods used in atrocities in Syria and Iraq may be exported to Europe, including car bombs, kidnappings, extortion and the possible use of chemical or biological weapons. Moroccan authorities dismantled an Isis cell planning attacks potentially involving chemical weapons in February, discovering biological agents among a cache of weapons from Libya to foil a "catastrophic" attack.

Libya, which remains locked in a continuing civil war following the British-backed ousting of Muammar Gaddafi, threatens to become "a second springboard" for Isis attacks on Europe, Europol's report warned. Militants are losing ground in their stronghold of Sirte, but the country is still a major destination for foreign fighters, bolstered by a free flow of weapons and "unlimited places in which jihadists could be trained for future terrorist attacks".

The report also warned that Isis was not the only group with the intent and capability to carry out atrocities in the West, with al-Qaeda and its former affiliate Jabhat al-Nusra continuing to inspire attacks including the Charlie Hebdo massacre.

Rob Wainwright, the director of Europol, said police and security services were intensifying cooperation to combat the threat, causing an increase in terror arrests and the foiling of several plots.

"This shows that the increased cooperation and exchange of data between all relevant services across Europe is a successful means to mitigate the threat posed by Isis," he added. "Nevertheless, this report shows that the threat is still high and includes diverse components which can be only tackled by even better collaboration."

The report concluded that the scale, frequency and impact of terror attacks was rising in the EU and that new attempts are "likely to take place in the near future", adding: "As long as Isis remains a factor in Syria and Iraq, and even if they are defeated there, they will continue with their attempts to encourage and organise terrorist attacks in the EU."

*http://www.independent.co.uk/news/world/europe/isis-terror-attacks-plots-europe-uk-britain-france-islamic-state-europol-report-car-bombs-chemical-a7451591.html*

## DISARMAMENT

### Three States Parties Welcome Assistance in Implementing the Chemical Weapons Convention

*December 5, 2016*

Myanmar, Nepal and Tanzania gained specialist knowledge in drafting national legislation to implement the provisions of the Chemical Weapons Convention (CWC), at the Sixteenth Session of the Internship Programme for Legal Drafters and National Authority Representatives in The Hague from 14 - 18 November 2016.

During the five-day Internship Programme, the Implementation Support Branch (ISB) of the Organisation for the Prohibition of Chemical Weapons (OPCW) equipped participants with the skills needed to complete draft legislation that fulfils the provisions of the CWC and meets the requirements of their respective States Parties' national legislation.

After two days of presentations on the CWC and three days of drafting sessions, each of the six participants presented their draft proposals along with a comprehensive national implementation action plan. The plan included a provisional timeline for the adoption of the CWC implementing legislation; the main stages of their national legislative adoption process; and outlined factors that could impede the process.

The participants acknowledged the significance and effectiveness of the Internship Programme for enhancing their knowledge of the CWC and the ability in drafting national legislation.

Since its launch in 2012, the Internship Programme has benefited 32 States Parties. Among these, Cape Verde, Grenada, Panama, Paraguay and Uganda have successfully enacted national legislation, while the others are at various stages of the adoption process.

The next session of the Internship Programme will take place in February 2017.

*https://www.opcw.org/news/article/three-states-parties-welcome-assistance-in-implementing-the-chemical-weapons-convention/*

### FG, ECOWAS move against Chemical, Biological weapons

*Omeiza Ajayi, November 1, 2016*

As part of measures to stave off a possible terrorist resort to the use of chemical and biological weapons, the Federal Government is working with the Economic Community of West African States, ECOWAS, to halt the proliferation of such weapons. This, the government hopes to achieve, by ensuring stricter control of the purchase and use of the weapons. Permanent Secretary, Political Affairs, in the Office of the Secretary to the Government of the Federation, Ambassador Olukunle Bamgbose, announced at the opening of a five-day National Workshop on Assistance and Protection Against Chemical Weapons in Abuja yesterday. The workshop, which was organized in collaboration with the

Organization for the Prohibition of Chemical Weapons, seeks to strengthen the understanding of actors in handling issues relating to chemical and biological weapons. Olukunle, who is also the Chairman, National Authority on Chemical and Biological Weapons Convention, said the collaboration with ECOWAS would deepen import controls within the sub-region. He said: "The chemical weapons imported into the country are used for the purposes for which they are meant and government also makes sure that these chemicals do not get into the hands of non-state actors like Boko Haram or the Niger Delta Avengers." "There are many companies in Nigeria that make use of these chemical weapons and, of course, their importation is also being controlled by NAFDAC and that is why NAFDAC and the security agencies are here to make sure that these chemicals which have multiple uses don't get into the hands of non-state actors in Nigeria. If not well-managed, if it gets into the wrong hands, it would have great repercussions," he stated. He expressed optimism that the workshop would improve the relationship between Nigeria and its allies, while also assisting participants to discharge their mandates effectively. On its part, Head of ECOWAS Political Affairs Office, Mrs Halima Ameh, said the workshop was aimed at promoting chemical awareness and safety in the sub-region and "to support our member-states in responding to threats of use of chemical and biological weapons. "It is our desire that at the end of the project, our members should be able to provide assistance and protection to their citizens and where possible to other member-states in the sub-region." Ameh added that ECOWAS Commission was committed to assisting member-states in eliminating the threats posed by chemical and biological weapons.

*http://www.vanguardngr.com/2016/11/fg-ecowas-move-chemical-biological-weapons/*

**The Universality of Disarmament Norms is Strongest Guarantee for Security - OPCW Director-General during Visit to Korea**

*September 9, 2016*

OPCW Director-General, Ambassador Ahmet Üzümcü, visited the Republic of Korea on 8 and 9 September. In his keynote speech at the Fifth Seoul Defence Dialogue, he spoke about the crucial role that rule-based norms play in removing security threats, and the imperative for all states to join the Chemical Weapons Convention (CWC).

He held meetings with The Minister of National Defence, Mr Han Minkoo; Unification Minister, Mr Hong Yongpyo; First Vice Minister of Foreign Affairs, Mr Lim Sungnam and the Vice Minister of National Defence, Mr Hwang Inmoo. Discussions covered a variety of disarmament and non-proliferation issues, including possible avenues for engaging in dialogue with the DPRK to bring about that country's accession to the Chemical Weapons Convention.

Speaking at the Seoul Defence Dialogue 2016, Ambassador Üzümcü recounted the success of the CWC in ridding the world of an entire class of weapons of mass destruction. "The unique strength of the Chemical Weapons Convention is that it combines a comprehensive legal norm with a robust verification regime," said the Director-General, when highlighting the OPCW's role in monitoring the destruction of chemical weapons and conducting inspections of industrial facilities, adding that "the Convention's verification regime represents the gold standard in disarmament."

The goal of global chemical disarmament is still a work in progress, however. Ambassador Üzümcü described new and

emerging threats, most notably "the spectre of chemical terrorism." He stressed that this challenge must be addressed by fully implementing the CWC's provisions in domestic law and enforcement.

Another important task noted by the Director-General was strengthening of the universality of chemical disarmament norms, which can only be achieved when all remaining four non-Member States, including North Korea, join the Convention. Ambassador Üzümcü, stated that the country "is strongly suspected of harbouring a large chemical weapons stockpile and production capability," and that "whatever efforts the international community is able to make with North Korea on WMD, it must also oblige North Korea to join the Chemical Weapons Convention."

During his visit to Korea, the OPCW Director-General also met with generations of future leaders from Hanguk University of Foreign Studies and Korean National Diplomatic Academy.

*https://www.opcw.org/news/article/the-universality-of-disarmament-norms-is-strongest-guarantee-for-security-opcw-director-general-during-visit-to-korea/*

## Keeping the Biological Weapons Convention relevant

*Gabrielle Tarini*

Officials gathering in Geneva next week to examine the status of the Biological Weapons Convention (BWC) will have a choice between plodding along with the current, broken process or taking concrete steps to reinvigorate a treaty that is integral to the international security landscape. For the 41-year-old treaty, the upcoming Eighth Review Conference is a pivotal opportunity for countries to take action to ensure that the treaty remains a relevant and useful tool for preventing the development, spread, and use of biological weapons. A failure by member states to invest the necessary attention, time, and political capital in the conference could mean decreased interest and weakened multilateral engagement in a treaty that was the first to ban an entire category of weapons of mass destruction.

The treaty prohibits the possession of biological and toxin weapons. It covers a broad range limited primarily by intent: Parties to the Biological Weapons Convention agree not to develop, acquire, or retain agents, toxins, or delivery systems for non-peaceful purposes. The treaty has been tremendously successful in building a broad agreement that the life sciences should only be used for benign purposes, and a robust norm against the use of disease as a means of warfare. While membership in the BWC is not yet universal, no state claims that biological weapons are a legitimate means of national defense. Even countries that are thought to be pursuing biological weapons, such as North Korea, do not assert that they have a right to these weapons, or that biological weapons are a legitimate means of strategic deterrence.

The parties to the BWC agree that it is an important disarmament treaty representing a strong norm against biological weapons, but that is one of their few areas of agreement. Translating consensus into action has been difficult; the language adopted at previous Review Conferences has often repeated broad generalities and failed to advance a common agenda. This time around, the countries that are parties to the treaty should aim for fresh language and delineate specific actions to take.

## KEEPING PACE WITH BIOTECHNOLOGY.

The purpose of the Review Conference, held every five years, is to review the operation of the treaty and consider whether any new scientific and technological developments could enable activities that are inconsistent with the aims and objectives of the treaty, and that are not already covered by its provisions. There are several key issues at stake in the upcoming conference, scheduled for November 7-25.

Perhaps most critically, the BWC must find a more effective way to adapt to the rapid pace of scientific and technological change. Biotechnology methods and equipment are more powerful than ever, and barriers to their acquisition and use have eroded. For example, new gene-editing methods, such as Crispr, have significant biosecurity implications. Crispr has grabbed national headlines as the latest example of the dangers of dual-use technology. Earlier this year, Director of National Intelligence James R. Clapper named genome editing as a development with potential implications for the development of weapons of mass destruction, alongside North Korea's nuclear weapons, new Russian cruise missiles, and undeclared chemical weapons in Syria.

Crispr is currently the most popular gene-editing method and has been revolutionizing scientific research. It is a unique technology that enables geneticists and medical researchers to edit parts of the genome by cutting out, replacing, or adding snippets to the DNA sequence. While genome editing itself is not a new process, older techniques are more difficult, less accurate, and quite expensive. The Crispr system is faster, more reliable, and cheaper. (The basic ingredients can be bought online for approximately $60.) The low cost and increased availability of these techniques have policymakers concerned that they could be used by individuals or groups with limited expertise and a lack of knowledge of safety and security precautions-or, even worse, by sub-state groups seeking to produce an enhanced pathogen to inflict harm on civilian populations.

Given the speed at which science and biotechnology are advancing, more effective arrangements are needed to present, digest, and discuss relevant developments-including Crispr and others-and their implications for the BWC. There are already inherent challenges in meaningfully addressing science and technology in a diplomatic meeting, and the current process only exacerbates these difficulties rather than providing effective workarounds.

## INCORPORATING EXPERT INPUT.

Other international agreements, such as the Chemical Weapons Convention, have permanent advisory boards to track and respond to scientific change; the BWC, however, does not have a dedicated process to inform and advise member states. The Review Conference only occurs once every five years, so it cannot ensure timely consideration of scientific advances. Furthermore, the Review Conference must accomplish a myriad of other objectives, leaving insufficient meeting time to do justice to science and technology issues.

The most recent intersessional process added a Standing Agenda Item on developments in science and technology to the BWC's annual Meeting of Experts, which has meant that, at the very least, treaty members will discuss relevant developments once a year. But even at the experts' meeting, the latest developments are still getting lost in the general work of the BWC, and there is no opportunity for the experts' conversations to be fed back into the policy process. What's

more, many countries do not show up to the Meeting of Experts, so they remain uninformed about new developments-and potential policies to deal with them. Treaty members should take action at the Review Conference to replace the current ad hoc process with a separate, structured, expert-led regime that will allow for the continuous monitoring and evaluation of developments in science and technology relevant to the BWC.

A STRONGER FRAMEWORK.

The Eighth Review Conference not only provides an opportunity to establish a stronger, more strategic scientific review process, but also offers a platform to revamp the intersessional process and institutional structures more broadly. Again, this is important because review conferences are not frequent enough to accomplish the laundry list of important objectives. Treaty members will have to think about new intersessional meetings, what format they should take, and which topics they should cover.

The countries that are part of the BWC will also have to consider the future of the Implementation Support Unit, because its mandate will expire next year. That unit is tasked with enormous responsibilities that far exceed the capabilities of its three-person staff: helping nations implement the treaty, providing support and assistance for confidence-building measures, administering a database of assistance requests and offers, and facilitating exchanges of information, to name just a few of its duties. It is high time for the Implementation Support Unit to be expanded.

The way in which discussions are planned and held should be restructured, with a stronger steering body and increased time for preparation and multilateral engagement. Adding more meetings, and limiting what gets discussed at each of those meetings, would allow the BWC to begin operating more like an international organization and would provide oversight equivalent to that for other non-proliferation treaties.

While the norm embodied in the BWC remains strong, the international community must go beyond raising awareness and toward more specific understandings about what countries should do to enhance the strength and influence of the treaty. Establishing a more strategic science and technology advisory process and strengthening the intersessional process and institutional structures are sound places to start.

*http://thebulletin.org/keeping-biological-weapons-convention-relevant10093*

**India Calls for Global Action Against Chemical Weapons**

*United Nations, October 20,2016*

India voiced deep concern over terror groups acquiring chemical weapons, asserting that the international community must take urgent measures and decisive actions to prevent possibility of any future use of such weapons.

"It has been our consistent position that the use of chemical weapons anywhere, at anytime by anybody under any circumstances cannot be justified and the perpetrators of such abhorrent acts must be held accountable," Ambassador D B Venkatesh Varma, Permanent Representative to the Conference on Disarmament, Geneva said at a debate on weapons of mass destruction on Wednesday.

He said India is "deeply concerned with reports of acquisitions of chemical weapons and their delivery system by terrorist groups

and continuing use of chemical weapons and toxic chemicals in Syria and Iraq by terrorists.

"We believe that the international community must take urgent measures and decisive actions to prevent the possibility of any future use of chemical weapons," he said at the First Committee session of the 71st Session of the United Nations General Assembly.

Varma said India has a large and growing chemical industry and also has the second largest number of declared facilities and receives among the largest number of inspections from Organisation for the Prohibition of Chemical Weapons (OPCW).

He underscored that India has a "flawless track record" of verification inspections and believes that the OPCW needs to evolve transparent and objective criteria and modalities for inspections.

"The provisions of the Convention should be implemented in a manner that does not hinder legitimate activities, especially in countries like India with a large and growing chemical industry," he said.

Varma told the committee, which deals with disarmament and international security, that India has strong and law-based national export controls consistent with the highest international standards with reference to control of nuclear, chemical, biological and toxin weapons and their means of delivery.

India contributed to international efforts under UN and the OPCW for destruction of Syrian chemical weapons and chemical weapons production facilities (CWPFs) and welcomed the progress made so far in their destruction.

"We would encourage further consultations between Syria and the OPCW with an aim to fully resolve all the outstanding issues in the spirit of trust and cooperation," he said.

He reiterated India's commitment to improving the effectiveness of the Biological Weapons Convention and strengthening its implementation and its universalisation.

Varma also added that India shares the widespread interest amongst States Parties to strengthen the effectiveness and improve the implementation of the Convention through the negotiation and conclusion of a Protocol for that purpose.

"We believe this is necessary in view of the new challenges to international peace and security emanating from proliferation trends, including the threat posed by terrorists or other non-state actors seeking access to biological agents or toxins for terrorist purposes," he said.

India is also actively participating in the preparatory process among States Parties leading to the Eighth Review Conference to be held in November 2016.

*http://www.news18.com/news/india/india-calls-for-global-action-against-chemical-weapons-1303311.html*

## ARMS CONTROL

### FG moves to stop Boko Haram from using dangerous weapons

*Jerrywright Ukwu, November 2016*

Nigeria's federal government and sub-regional body ECOWAS are working hard to ensure terrorists in the region do not resort to the use of chemical and biological weapons.

This was the submission of permanent secretary, political affairs, in the Office of the Secretary to the Government of the Federation, Ambassador Olukunle Bamgbose.

Bamgbose says the government hopes to achieve its objective, by ensuring stricter control of the purchase, use and proliferation of such weapons.

Bamgbose made the comment at the opening of a five-day national workshop on Assistance and Protection Against Chemical Weapons in Abuja yesterday, October 31.

According to Vanguard, he also spoke in his capacity as the chairman, National Authority on Chemical and Biological Weapons Convention.

The workshop, which was organized in collaboration with the Organization for the Prohibition of Chemical Weapons, seeks to strengthen the understanding of actors in handling issues relating to chemical and biological weapons.

"The chemical weapons imported into the country are used for the purposes for which they are meant and government also makes sure that these chemicals do not get into the hands of non-state actors like Boko Haram or the Niger Delta Avengers."

"There are many companies in Nigeria that make use of these chemical weapons and, of course, their importation is also being controlled by NAFDAC and that is why NAFDAC and the security agencies are here to make sure that these chemicals which have multiple uses don't get into the hands of non-state actors in Nigeria.

"If not well-managed, if it gets into the wrong hands, it would have great repercussions," Bamgbose told his audience.

*https://www.naij.com/1030174-fg-moves-stop-boko-haram-using-chemical-biological-weapons.html*

**Pakistan stresses need for chemical, biological weapons' prevention from non-state actors**

*Parvez Jabri, October 19, 2016*

Pakistan has underscored the need for measures to prevent non-state actors and terrorist groups from obtaining and using chemical and biological weapons, while sharing international community's concern over the danger of those arms falling into the wrong hands.

Speaking in the General Assembly's Disarmament and International Security Committee, Ambassador Tehmina Janjua said the key tools for preventing non-state actors from acquiring; producing or using chemical and biological weapons included national physical protection efforts, international assistance and capacity building.

In that regard, Ambassador Janjua, who is Pakistan's permanent representative to the UN in Geneva, pointed out that Pakistan had supported the Russian proposal for a Bio-Chemical Terrorism Convention.

The Pakistani envoy, who was participating in a debate on weapons of mass destruction, said Pakistan condemns the use of chemical weapons by anyone, anywhere, and welcomed milestones that had been achieved in the destruction of Syrian and Libyan chemical weapons.

"We remain committed to the full and effective implementation of the Biological and Toxin Weapons Convention (BTWC),' she said.

"We attach high priority to the Convention's provisions relating to international cooperation and assistance as well as peaceful uses of chemical technology."

Pakistan, Ambassador Janjua said, had instituted comprehensive legislative, regulatory and administrative measures including Codes of Conduct to regulate life sciences in Pakistan, to enhance bio-safety and bio-security regulations, and to strengthen our export controls on biological agents and toxins. "Our robust export control regime imbibes the best international standards."

Pakistan also reaffirmed its commitment to the objectives of the Chemical Weapons Convention and continues to participate in the work of the OPCW (Organisation for the Prohibition of Chemical Weapons).

Pakistan also continues to conduct basic and advanced regional and international assistance and protection courses, she said.

"As a mainstream partner in the global non-proliferation regime, Pakistan has elaborated and implemented an export control regime that is comprehensive and fully harmonized with international standards," Ambassador Janjua said. "Our comprehensive export control regime and its effective implementation has been recognized and appreciated by our partners."

*http://www.brecorder.com/top-news/pakistan/323729-pakistan-stresses-need-for-chemical-biological-weapons-prevention-from-non-state-actors.html*

**Russia questions peaceful nature of US Biological Research**

*Andrei Akulov, September 3, 2016*

On September 1, Russian Foreign Minister Sergey Lavrov spoke in front of the students of Moscow State Institute of International Relations (MGIMO), an academic institution run by the Ministry of Foreign Affairs of Russia. Dubbed the "Harvard of Russia" by Henry Kissinger, it is widely considered the most elite university in the country, which educates Russia's political, economic, and intellectual elite.

In his remarks Lavrov said Russia is concerned over the US refusal to negotiate monitoring of biological weapons. According to him, the refusal leads to the conclusion that the US may be involved in biological research for military purposes. This is not the first time Russia expressed its concern over the US covert activities conducted in violation of international law.

The Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction, commonly known as the Biological Weapons Convention (BWC) or Biological and Toxin Weapons Convention (BTWC), opened for signature in 1972 and entered into force in 1975.

The Convention effectively prohibits the development, production, acquisition, transfer, retention, stockpiling and use of biological and toxin weapons and is a key element in the international community's efforts to address the proliferation of weapons of mass destruction. The BWC has 175 States Parties as of September 2016.

The BWC does not currently have compliance details as none were included when it was formulated during the Cold War. Since then, nations have been negotiating to agree on a way to implement the Convention ban. Negotiations towards an internationally binding verification protocol to the BWC took place between 1995 and 2001 in a forum known as the Ad Hoc Group. The microbiological activity of the member states under the developed protocol would have been subject to on-site inspections by an independent authority. In 2001, the US refused to sign up. It has not changed its

stance since then. Due to the refusal of the US to approve the verification mechanisms, the effectiveness of the BWC is questioned.

Recent developments have raised concerns that the US may be pursuing research that is outlawed by the BWC. Such concerns are expressed in the Russian Federation's National Security Strategy. The document lists biological weapons as primary threats to Russia.

In February, 2008, the Government Accountability Office (GAO) released report GAO-08-366 titled, Chemical and Biological Defense, DOD and VA Need to Improve Efforts to Identify and Notify Individuals Potentially Exposed during Chemical and Biological Tests".

The report stated that tens of thousands of military personnel and civilians may have been exposed to biological and chemical substances through DOD tests. In 2004, the DOD reported it had identified 5,842 military personnel and estimated 350 civilians as being potentially exposed during the testing known as Project 112.

Many reports from different sources keep on saying the US is developing a new generation of weapons that undermine and possibly violate international treaties on biological and chemical warfare.

The Defense Department has been continuously expanding worldwide its military biological infrastructure. These facilities have sprung up in many countries, and in recent years they are being created increasingly closer to Russian borders. For instance, the US Richard G. Lugar Public Health Research Center in Tbilisi is actually a high level biological research laboratory overseen by the US Defense Threat Reduction Agency.

The Central reference Laboratory near Almaty, Kazakhstan, is to become operational this month according to the Cooperative Biological Engagement Program led by the US Department of Defense. There is another smaller US-controlled lab at a military base in the town of Otar in western Kazakhstan on the Caspian Sea.

In 2013 a Chinese Air Force officer accused the US government of creating the new strain of bird flu now afflicting parts of China as a biological warfare attack. People's Liberation Army Senior Colonel Dai Xu said the United States released the H7N9 bird flu virus into China in an act of biological warfare.

At that time, America was fighting in Iraq and feared that China would take advantage of the opportunity to take other actions", he said.

This is why they used bio-psychological weapons against China. All of China fell into turmoil and that was exactly what the United States wanted. Now, the United States is using the same old trick. China should have learned its lesson and should calmly deal with the problem.

Ukraine is of particular interest to the US military. The Mechnikov Anti-Plague Research Institute in Odessa. In 2013 alone, US-sponsored biolaboratories were opened in Vinnitsa, Ternopil, Uzhhorod, Kiev, Dnepropetrovsk, Simferopol in Crimea, Kherson, Lviv and Lugansk.

In April 2011, a Central Reference Laboratory supported by the US Department of Defense Cooperative Biological Engagement Program (CBEP) was inaugurated in Azerbaijan.

The practice of using such facilities in other countries shows they operate outside of

national control. The secrecy is tight and quite often the laboratories are managed by former military or special services officials.

The illegal biological research activities is part of the process aimed arms control erosion. It began with the United States withdrawing from the 1972 Anti-Ballistic Missile Treaty. It has not ratified the Comprehensive Nuclear Test Ban Treaty (CTBT) 20 years after it was adopted by the United Nations General Assembly in 1996. The United States is in violation of the 2000 Plutonium Management and Disposition Agreement (PMDA).

Russia and the US agreed to transparently dispose of weapons-grade plutonium, thereby preventing it from being reused for military purposes.

The US Congress is debating the possibility to kill the Open Skies Treaty.

The United States is in clear violation of the Intermediate-Range Nuclear Forces Treaty (INF) by deploying in Romania and Poland Mk-41 Aegis Ashore launchers capable of firing ground-launched cruise missiles (GLCMs).

The violation of the BSW is just part of the picture. With the US taking one step after another to undermine the arms control regime puts into jeopardy the entire system of international security. Hopefully, a new US president will be wise enough to realize it's time to turn the tide before it's too late.

*http://www.strategic-culture.org/news/2016/09/03/russia-questions-peaceful-nature-us-biological-research.html*

## Governance or Arms Control? The Future of the Biological and Toxin Weapons Convention

*Oliver Meier, October 26, 2016*

The world is a safer place thanks to the effective implementation of the Biological and Toxin Weapons Convention (BWC). The convention, which was opened for signature in 1972, prohibits the development, production, acquisition, and storage of biological weapons. While chemical weapons are being used in Syria and it is uncertain whether the Iran nuclear agreement will continue to block Tehran's path to the nuclear bomb, all seems quiet on the biological weapons front.

No biological weapons have been used in conflict since World War II. United Nations Special Commission inspectors dismantled Iraq's biological weapons program in the early 1990s. The huge Soviet biological weapons program was officially shut down in 1990. There have been zero fatalities from biological weapons since the 2001 anthrax attacks in the United States Anthrax attacks in the United States. Furthermore, no country admits to having a biological weapons program. Most importantly, there is a strong feeling that the deliberate use of disease for hostile purposes is abhorrent. The taboo against biological warfare remains intact.

CHALLENGES

Given the nonuse of biological weapons over the years and widespread state disinterest in pursuing them, it should follow that the eighth BWC review conference, to be held November 7-25, should be an unremarkable affair. However, three structural problems threaten to undermine existing international norms against the use of bioweapons and biological warfare.

First, the assumption that biological weapons, when compared to chemical or nuclear weapons, are militarily unattractive should be reassessed. A surprising finding of the international investigation into Syria's chemical weapons program was that Damascus, which is a signatory to the BWC but has not ratified it, had a production facility for ricin, a toxin whose misuse is prohibited under the BWC and Chemical Weapons Convention. This was the first time in twenty years that a state had been found to be working on biological weapons. While Syria claims that its ricin program had served peaceful purposes and its failure to declare the program was an oversight, there is insufficient information to know the real rationale for the program. However, Syria's unconventional uses of chemical weapons, as a tool of terror, coercion, and influence in its civil war, should lead the BWC states parties to consider the possibility that states might be open to using biological weapons beyond deterrence and intrastate warfare. Keep in mind that North Korea may also be working on biological weapons.

Second, biotechnology is making tremendous leaps forward, and emerging technologies, such as CRISPR, could increase the military attractiveness of biological weapons. Future biowarfare may be less about infecting people with deadly or debilitating diseases than manipulating the way humans function. Thus, future misuse of biotechnology may differ from what the original BWC drafters imagined as the primary role of bioweapons. For example, state-sponsored bioterrorism similar to South Africa's biological weapons program in the 1980s, which was aimed at the development of toxins to kill the regime's political opponents, could be among the threats that at this moment do not appear prominently on decision-makers' radars.

Third, the threat of nonstate actors using biological weapons is growing. Until recently, the risk of a bioterrorism attack by nonstate actors appeared to be greatly exaggerated. However, well-funded and -organized groups like the self-proclaimed Islamic State may now hold sufficient territory for long enough to enable them to develop and use biological weapons.

## FORUM OR TREATY? DIFFERENT VISIONS FOR THE BWC

Seen by themselves, none of these challenges are new, but their convergence multiplies the risk that biological weapons might be considered weapons of war. Yet the responses of BWC states parties to these trends are similar to what they had been in the past. Since the collapse in 2001 of talks on a BWC verification and compliance protocol, two evolving visions for the BWC have framed discussions at meetings of states parties.

Broadly speaking, the United States and other Western states see the convention primarily as a forum where states can discuss and elaborate joint measures to address the deliberate or accidental spread of disease. For Washington, the BWC is part of its broader global health security agenda. According to this view, the convention should be a place to set standards for national measures; discuss best practices on issues such as biosecurity; and facilitate assistance for states that have insufficient capacities to establish stricter domestic checks on dangerous pathogens. To be sure, these are important measures, but they are insufficient to address the dangers of military misuse of biotechnology by governments or international terrorist networks.

Others still see the BWC through the lens of a classical arms control instrument. Russia, for example, has recently revived ideas to negotiate a legally binding protocol to the BWC. Nonaligned states emphasize the need

to close the verification gap, which sets the BWC apart from the Chemical Weapons Convention and Nuclear Non-proliferation Treaty. Those behind the push to resume talks on a BWC verification protocol may not be pursuing the idea seriously. They know that Western states hold divergent ideas on how to move forward. For example, the EU still maintains that verification "remains a central element of a complete and effective disarmament and non-proliferation regime," while the United States has rejected the notion that compliance with the BWC can be effectively monitored. By pushing such proposals, Russia and nonaligned states may hope to expose such differences. But even if there are no ulterior motives behind these ideas, such a course of action is not well suited to take into account the transnational and technological dynamics that threaten the foundations of the BWC.

## WHAT TO EXPECT

It is far from clear that states parties' representatives at the November review conference will be able or willing to bridge these fundamental differences on the future of the BWC. The antagonism between Russia and the West, the uncompromising position of some key nonaligned states, and the lack of willingness of moderate groupings, such as the European Union, to play a lead role in refreshing and bolstering the convention make it unlikely that there will be a coordinated push for a major overhaul of the BWC.

The timing of the conference is also a complicating factor. The opening of the review conference coincides with the U.S. presidential elections. News about the next U.S. administration will not only be a distraction, but could also make it harder for the U.S. delegation to commit to any new, substantive measures.

Given this complicated picture, it is difficult to conceive of a scenario in which BWC states parties would be willing to agree to a thorough review of the threats and urgently needed measures to update the regime's instruments. States parties at the review conference should therefore aim first at refocusing the convention on its core purpose, prohibiting the hostile use of biotechnology. Secondly, representatives should strengthen the treaty's decision-making procedures so that the regime becomes more operational and less deliberative. Four measures would be useful toward these ends.

First, the most important task of the review conference is to reconfirm the comprehensive prohibition of all types of misuse of biological agents and toxins based on the "general-purpose criterion," which defines the scope of the convention. States parties must make it clear that gray zones do not exist. They should clearly state that tinkering with genes and developing novel means of biological-agent delivery and other burgeoning biological technologies are all prohibited unless they serve prophylactic, protective, or other peaceful purposes. Moreover, additional transparency measures would be useful to reduce the risk of misperception about the intentions behind biodefense programs.

Second, states parties should exercise caution when tinkering with the scope of the BWC. Russia has recently proposed creating a new convention to suppress acts of biological and chemical terrorism. It is unclear whether this proposed convention would compete with or complement the BWC. Likewise, the U.S. approach of discussing the BWC as one of many instruments to tackle threats at the intersection of security and global health may also be problematic. It could lead to a

loss of focus, particularly because other scientific communities have begun to see the BWC as a useful platform to advance their own agendas.

Third, numerous state parties have expressed support for a regular, independent review of scientific and technological developments. The review conference could launch a scientific advisory committee comprised of experts that report annually on scientific developments relevant to the BWC.

Fourth, institutional reform of the treaty's bodies is urgently needed. Currently, binding decisions can only be made at the review conference, which is only held every five years. This snail's pace of diplomacy is an anachronism. It suits only those that are opposed to flexible and strong international control mechanisms. Among other things, the review conference should empower annual meetings of states parties to address compliance concerns and to make decisions, including on additional transparency measures and the applicability of the treaty's prohibitions to new technologies. Such an annual review would make the BWC more adaptable and could trigger higher-level diplomacy. To support this process, states parties should upgrade the Implementation Support Unit, which is a meagrely staffed, three-person secretariat already strained by providing necessary support for BWC implementation by states parties.

Unfortunately, the above measures would still be insufficient to address the need of a BWC compliance mechanism. Monitoring treaty compliance is hampered by the lack of a dedicated permanent organization to implement the convention. This major deficiency sets the BWC apart from treaties like the Chemical Weapons Convention, which has the Organisation for the Prohibition of Chemical Weapons. In the long term, a mix of tried and tested instruments and methods as well as new ones will have to be created to verify BWC compliance, follow up on violations of the treaty, implement the convention, and foster the further evolution of the regime. At the very least, states parties at the eighth review conference in November should begin to work toward this goal.

*http://www.cfr.org/councilofcouncils/global_memos/p38432*

## Keep chemical weapons out of Terrorist Hands

*John V Parachini, September 23, 2016*

The recent removal of dangerous chemical weapons precursors from Libya prevented the Islamic State group from adding these heinous weapons to its arsenal of terror. The Libyan Government of National Accord sought the help of the Organization for the Prohibition of Chemical Weapons when it feared Islamic State group militants were advancing towards a facility that contained these deadly chemicals. Preventing the Islamic State group from adding deadly chemicals to its grisly cache of weapons in Libya is an extremely important counterterrorism success. Unfortunately the same has not been true in Syria.

U.S. Director of National Intelligence James Clapper noted in congressional testimony that the Islamic State group's use of chemical warfare agents in Syria is the first time a terrorist group demonstrated this capability since the 1995 Japanese cult Aum Shinryko used sarin on the Tokyo subway. Since the Toyko attack, terrorists have crashed passenger airplanes into the World Trade Towers; taken students hostage on the first day of school in Breslan, Russia, killing hundreds; and beheaded scores of hostages in Iraq. Terrorists have certainly talked

about using poison, disease and radioactivity as weapons, but generally, they have pursued other weapons that were more readily available and easier to deploy.

In Syria and Iraq, the Islamic State group and the Nusra Front are breaking with this historical pattern and making chemical weapons part of their deadly arsenal. A United Nations panel investigating the use of chemical weapons in Syria reported last month that it found evidence that the Islamic State group and the Nusra Front have acquired and used chemical weapons.

Over the course of the last several months, the United States and coalition partners fighting both groups have bombed suspected Islamic State group chemical weapons store houses and production facilities. Earlier this week, U.S. Air Force Lt. Gen. Jeffrey Harrigian said in a press conference that coalition forces had struck a pharmaceutical plant that the Islamic State group was using to produce chemical agents. This will certainly curb the Islamic State group's and the Nusra Front's chemical weapons production efforts for now, but the long-term impact is uncertain.

But what may have led to these groups doing what no other terrorist group has done in the last 21 years? In a word, opportunity.

As the Islamic State group and the Nusra Front seized territory in Syria and northern Iraq, they came upon military sites where chemical munitions were hidden, abandoned or lost. In their land grab, they also captured industrial facilities with toxic chemicals. When these toxic capabilities became available, they used them. Tragically, the victims of these indiscriminate weapons were generally innocent civilians.

Not only did the Islamic State group and the Nusra Front exploit captured weapons resources, they also seized the opportunity to develop some of their own capabilities. Just as al-Qaida once enjoyed a safe haven in Taliban-controlled Afghanistan, both the Islamic State group and Nusra Front have had the freedom to develop capabilities in Islamic State group-controlled territory and ungoverned spaces that neither the Syrian nor the Iraqi government has been able to control.

Corralling and securing exotic weapons and toxic materials is not always a priority when forces are engaged in heated conventional battle, but it should be.

Corralling and securing exotic weapons and toxic materials is not always a priority when forces are engaged in heated conventional battle, but it should be. The late al-Qaida leader Osama bin Laden's interest in toxic weaponry never got beyond testing and some crude efforts at production, but when U.S. forces invaded Afghanistan and overthrew the Taliban regime, al-Qaida's chemical and biological weapons efforts came to an abrupt halt. Libyan leaders have wisely taken a preventative action on the remaining chemical weapons left over from Libyan dictator Moammar Gadhafi's chemical weapons program.

Recent U.S. and coalition military action has likely forestalled use of toxic chemicals by the Islamic State group and the Nusra Front, but it has probably not eliminated it. Given how many of these toxic industrial chemicals are available at industrial sites in the region, this would be a difficult challenge complicated by the potential for collateral damage. Nonetheless, for the sake of protecting civilians, reducing the opportunity for these groups to obtain chemical weapons should be a priority as the U.S. and coalition military campaign continues.

*http://www.rand.org/blog/2016/09/keep-chemical-weapons-out-of-terrorist-hands.html*

## Legal perspectives on the Use of Chemical Weapons in Syria and Iraq

*Steve Wilkinson, October 4 2016*

On the 21st of September, CNN reported that ISIS was suspected of firing a shell containing mustard gas at an airbase in Iraq used by United States and Iraqi troops. This is by no means the first reported use of chemical weapons in recent months and years. In fact just one month earlier, on the 25th of August, a United Nations Security Council mandated investigation team (OPCW Joint Investigative Mechanism (JIM)) concluded that both the Assad regime and ISIS had undertaken chemical attacks in Syria in 2014 and 2015. This is the first time that the UN had made an authoritative assertion of attribution and responsibility in relation to the use of chemical weapons in the Syrian conflict. These findings came barely a few weeks after it was widely reported that chlorine gas had been used in Aleppo and Saraqeb.

The alleged use of chemical weapons in Syria can be traced back to 2013, where the first reports came through concerning the use of sarin gas in a multitude of locations, including Khan Al Asal; Sarqib; Ghouta and Jobar. Both the Syria Commission of Inquiry and treaty based Organisation for the Prohibition on Chemical Weapons (OPCW) investigated such attacks, with the Syria Commission concluding that "Chemical weapons, specifically sarin, were found to have been used in multiple incidents during the conflict." The report of the 25th of August 2016 is significant in specifically identifying those responsible, as aspect absent from these previous reports.

As the use and presence of chemical weapons appears to be spreading from Syria to Iraq, this troubling dynamic to the conflict landscape has serious implications not only legally but also from a humanitarian perspective.

The use of chemical weapons has long triggered an elevated level of revulsion and abhorrence, not only in terms of legal regulation, but also in the mind of the wider public. Effects of sarin, such as sensations of suffocation, respiratory struggles, paralysis, and retching often occurring without the victims' awareness of what they are being subjected to, all combine to reinforce the egregious nature of these weapons.

Thankfully, until the more recent uses in Syria and potentially Iraq, the use of such weapons in the modern conflict context has been relatively rare, with notable exceptions being during the Iraq-Iran conflict in 1988; and again in 1988 with the use by Iraqi forces in Halabja against Iraqi Kurds. In terms of historical context the first modern use of large-scale chemical warfare can be dated back to 1915 when the German army released 150 tons of chlorine gas against Allied soldiers.

LEGAL FRAMEWORK

Unlike other aspects of conflict regulation, which have been subject to more modern regulation, the specific and strict prohibitions on the use of chemical weapons date back to the late 19thCentury and were further crystalized in direct terms in The 1925 Geneva Protocol. Importantly the prohibitions are strict and unambiguous. Chemical weapons are prohibited as a means of warfare. Therefore unlike other protection gaps highlighted in the Second World War, chemical weapons regulation was already robust and comprehensive in terms of setting out the prohibition on use. Throughout the 1960s and 1970s the United Nations General Assembly adopted several resolutions consistently reiterating the need for strict respect for the 1925 Geneva

Protocol and condemning in clear terms all and any actions that ran contrary to them.

It is also important to not forget that the specific nature of chemical weapons goes against some of the most basic notions of humanitarian law set out in the Geneva Conventions and its protocols, such as the requirement for distinction in attacks, the prohibition on indiscriminate attacks, and the prohibition on causing unnecessary suffering and superfluous injury. In case of any possible lingering doubt, the ICRC Customary International Law Study of 2005 confirmed that the strict prohibition on the use of chemical weapons applies both in non-international armed conflict and international armed conflict.

Whilst restating the historical nature of the prohibition on the use of chemical weapons the legal regulation of chemical weapons was further indeed strengthened in disarmament terms in the early 1990s. The main developments under the 1993 Chemical Weapons Convention (CWC) was to move beyond prohibition of use but take steps to reduce the risk of use, addressing: the prohibition on the development; production; stockpiling or; acquisition or retention of biological agents which have no peaceful purpose. These prohibitions also extend to equipment or means of delivery designed to use such agents. Importantly, these treaties demand that states actively destroy existing stockpiles.

## CHALLENGES IN THE DUAL PURPOSE OF THESE PRODUCTS

Despite the clear terms of the legal prohibition on the use, development, production and stockpiling, etc., there are important activities in relation to chemical components that fall outside of the disarmament and stockpile destruction obligations of the CWC. Such as is the nature of utility of the chemical components as such, the idea that risk of misuse of these chemicals can be fully eradicated is impossible. For example, precursors for nerve agents are also necessary materials for the production of a range of products, including pesticides, flame-retardants. In addition, sulfur mustard is used as a cancer treatment. Pragmatism demands that products with dual use functions escape and sidestep the comprehensive disarmament requirements, but at the same time it must be accepted that they pose a degree of risk in terms of weaponization and/or proliferation.

## INTERNATIONAL CRIMINAL LAW

While it does not mention chemical or biological weapons by name, the Rome Statute of the International Criminal Court does list as war crimes in international armed conflict "employing poison or poisoned weapons and employing asphyxiating, poisonous or other gases, and all analogous liquids, materials or devices". The use of chemical and biological weapons in general can be considered to fall within this provision, although not all international lawyers hold the same view. Whichever view is taken, the failure to specifically use the terms chemical and biological weapons does lead to a degree of unwelcome ambiguity.

A further weakness of the Rome Statute's approach to criminalizing the use of chemical and biological weapons is the failure to apply the prohibitions to non-international armed conflict. The Review Conference of the Rome Statute in 2010 thankfully corrected this unjustifiable absence and unnecessary loophole. However, such an amendment only binds those states that ratify it; to date only 30 states have done so.

In short, it can be concluded that whilst the IHL framework is clear and fairly robust, is

it more difficult to make the same clear case for the international criminal framework.

## CONCLUSIONS

As evidenced by recent incidents in Syria, there is grave concern that foundational concepts of modern IHL are being directly and continually violated by both states and armed non-state actors. Moving forward, this raises huge concerns that the erosion of will further undercut its utility to operate as an effective and relevant tool of humanitarian protection in modern conflict.

Aside from the destruction of weapons caches the challenge remains in probing and continually questioning states' claims that supplies of chemical agents are truly intended for the permitted peaceful purposes. In addition, states themselves need to take all steps to reduce the risk of proliferation, including assessing risks associated with the outbreak of conflict in their country or region.

Finally in regard to accountability, the recent use of chemical weapons demands a response from the international community. The global community must come to together and take the necessary steps to ensure that those committing such egregious acts are held to account. At the forefront of this should be the referral by the UN Security Council of the situation in Syria to the ICC. Otherwise, there is a significant risk that such behaviour will repeat itself not only in Syria, but in other conflicts as well, such as what may have occurred in Iraq on the 21st of September 2016.

*http://atha.se/blog/legal-perspectives-use-chemical-weapons-syria-and-iraq*