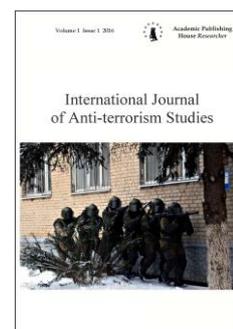


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## Bioterrorism and Chemical Attacks

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### Abstract

The article deals with issues related to biological terrorism and chemical attacks. It is noted that biological terrorism is one of the most terrible problems throughout the modern world, and the truth is that biological terrorist crimes are the result of the development of science, and also constitute a terrorist action that has received a daily dynamic spread. It also presents the main forms of technical warfare, which has become one of the most pressing problems of today, and this is the usual fight against biological terror.

The article studies the experience gained by international organizations and states in the field of combating biological terrorism as well as analyzes similar features and differences existing between them.

Here, in order to prevent a normal life in society, as well as to realize own advantage of ideas, biological terror comes into contact with such factors as fear, illness and trauma. Explanations, as well as the properties of biological and chemical weapons, are considered.

It is rightly noted that globalization is one of the main reasons for the wide spread of chemical weapons and biological terrorism. Yes, it is globalization.

Because globalization provides information and supportive environment for use of biological agents for terrorist purposes.

For this reason, there is no doubt that globalization is one of the most important moments of international terrorism.

As a result of globalization, multinational terrorist organizations emerged, terrorism was globalized, and the world became the target of terrorist acts.

It is stated here that a few kilograms of biological substances are sufficient to produce hundreds of thousands of tons of chemicals to seriously affect military operations and, if necessary, to create the same negative effect.

The article considers interesting conclusions of Western scientists as well as analyzes the essence of this issue. In principle, an explanation of the differences between the studies was provided. The article examines the issue of whether biological terrorism is one of the greatest dangers threatening peace, and whether the conclusions of local and foreign experts are in line.

At the end of the article, said that it is important to diagnose and begin effective treatment in the geographical areas of natural distribution of chemical weapons and biological factors.

**Keywords:** bioterrorism, attack, war, weapons, chemicals, bacteria, terror, impact, political, water, anthrax, organization.

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## 1. Introduction

The realization of the acts embracing the use of the weapons of mass destruction, mass murder of people, infliction of ecological damages by terrorist organizations for their political goals is among the most critical issues of the latest period. Biological terror is the damage inflicted on the life and health conditions of people by using dangerous biological agents to achieve political and material goals.

It should be noted that bio-terrorism (bio-terror) is the use of biological factors against individuals, groups or wider mass of population to generate fear, disseminate diseases or generate fear of causing diseases with an aim of ceasing a normal life or gaining an ideological advantage in society. The Western authors characterize bio-terrorism as follows, "Bio-terrorism is the destruction of human beings, food supplies (including agriculture), biological and ecological resources through biological preparations and toxins, and maintenance of them under control from outside. In a wider sense, bio-terrorism is interconnected with economic, ecological, food, genetic and agro terrorism ([Bioterrorizm, 2010](#)). In bio-terror, which appears as a new scientific research theme, the target is societies, and the aim is generation of impact, fear. Terrorist organizations make efforts to artfully use all types of modern information technologies in introducing their titles and strengths to wider masses, providing the dissemination of their political targets and ideologies, and thus meeting their goals.

Bio-terror has existed since the ancient times: contamination of water wells, transfer of birds and animals spreading different diseases to besieged cities during wartime, etc. The widespread use of biological warfare and terrorism occurred in the XX century. One can cite the increase of biotechnology specialists and the easier access to biological and bacteriological products as the main reason for the expansion of bioterrorism.

Realizing the great danger following the collapse of the USSR, the USA gave a start to active measures to solve the security problem. Sam Nunn and Richard Lugar, two senators of the USA, who gave priority to the emergency of taking the actions on a wider arena, suggested the implementation of the Cooperative Threat Reduction Program - the draft bill they produced in 1991. According to the financial report of 1992, 400 million US dollars was initially allocated from the budget on the program (the Nunn-Lugar Program) aimed to deactivate the weapons of mass destruction or if need be, to destroy all kinds of structures related to them in the former Soviet states: Russia, Georgia, Ukraine, Azerbaijan, Belorussia, Uzbekistan and Kazakhstan by the US Department of Defense in accordance with the adopted draft bill ([Cheryl, 2016](#)).

In 1970-2012 about 245 biological terroristic acts broke out in the world. In the period when no nuclear terroristic incident was registered at all, 200 attacks were realized with chemical weapons, 32 incidents were recorded as terroristic acts committed through biological weapons, whereas 12 incidents were registered to have been committed through radiological weapons. Besides, up to 1 December 2015 in connection with the use of nuclear and other radioactive substances 2889 incidents were recorded out of which 454 were stated as unauthorized stockpiling and related criminal activities, 762 as theft or loss, and 1622 as other activities and incidents, or unidentified acts ([IAEA, 2016](#); [Kiremitçi, 2014](#)).

The explanation, characteristics and history of biological weapons are of special importance. To give the explanation of the notion "a biological weapon" consisting of two different words, one should first consider the meanings of the two words separately. 'Biology', which originated from the Latin root *bio* (life), in this sense, is a scientific discipline studying life and the structure, function, development, origins, evolution, dissemination and classification of living beings. And 'a weapon' is the total of the means that can kill, wound the living beings, reduce them to a useless state, make the living organisms sick, disrupt or eliminate the lifeless things. It should be noted that the postal attacks that carrying Anthrax, the biological weapons drawing the attention of the world community, the micro-organisms, toxins used and cultured to leave a harmful impact, substances killing plants, as well as harmful insects and animals, etc. can be considered biological weapons. The infection introduced through the biological substances into the evaporative air spray, explosives, water or food as well as medical substances is among the vital issues of bioterrorism. Also, the biological weapons inflicting wide masses and having fatal effects differ clearly from other weapons of mass destruction due to their characteristic features, as they are accessible easily and inexpensively, their impact increases and resists, they are easily utilized, but detected belatedly. It should be reminded that a biological attack even with a small diameter can result in high

mortality rate (Rosen, 1999). At present the impacts of biological attacks are increasing on a par with technology. The developed biotechnical researchers have proven the dissemination of over 30 new infectious diseases. Given that, there is a need in new research methods and ways of fighting for the safety of the entire world.

Taking into account the above-stated, one should divide biological weapons into targets and means. By 'the means' of biological weapons, one should understand bacteria, viruses, toxins, and fungi. By 'the targets' one should identify human beings (mortality, diseases, fear), animals (food supply, economy, fear), plants (food supply, economy).

## 2. Materials and methods

The materials are mainly used from the works of the foreign scholars who had researches in the sphere of terrorism, periodicals, and official internet resources. The methodological grounds of the work consist of the basic methods of objective, systematic and chronological links between the events, comparative analysis of terrorist acts of the distant past and modern terrorist acts and their types, as well as synthesis of scholarly researches in this area, and analysis of theoretical, practical and virtual methods and techniques applied by the famous terrorist organizations.

The article provides a comparative analysis of the consequences of bioterrorism, the most common type of terrorism in the modern world, which is claimed to be a quiet death, and it is emphasized that it has become a global problem and disturbs the whole humanity.

The outcomes of the research can be used as analytical materials in the educational process of the universities as well as by specialists as a reference.

## 3. Discussion

Biological weapons have their own peculiarities: the spread of a virus is not detected for some time, and after a while there starts a process when living beings around are getting sick and destroyed. During the biological terror mainly water, soil and air are contaminated.

Biological and chemical weapons have been widely used as the weapons of mass destruction since the most ancient times. It is supposed that biological and chemical weapons, which enjoy a number of advantages over such classical weapons as confidentiality, mass destructions, causing panic and social explosions, are and will be used widely by states and terrorist organizations against the countries defined as enemies. Given that Azerbaijan is situated in a strategic region, the state of readiness for biological and chemical warfare is the basic element to define the success in future wars and the trust of a citizen in his/her state.

Like the epidemics of cholera spread in the past, bioterrorism can also cause political and social disorder. Depending on their structures, terrorist groups may or may not obtain a biological weapon with much wider effects; however, most of the nations are capable of manufacturing weapons. It is a well-known fact that some states used to support terrorism which increases the probability of a terrorist attack to be conducted biologically. Most of these countries are non-democratic countries, and encounter political non-stability (Çaşın, 2008). However, no matter what ideological hues they have, the terrorists in democratic societies are people protesting against the authorities in power, helpless and alienated from liberal democratic values. (Güzel, 2002).

Planes, pilotless aircrafts, rockets, shells, cannons, bombs, mines, generators and other means, postal transmission or proliferation through insects, bugs, intervention into an air circulation system or provocation in food products can be used in releasing, proliferation and dispersing these micro-organisms. The biological weapons, which cannot be perceived or whose detection is very difficult and takes time in an open site, can increase fast in appropriate environments and can provide adaptation to the environment to an extent when all protective measures may turn useless. The biological weapons whose smallest amount can be lethal are at the top of the list of the greatest and most dangerous weapons harmful to living beings, whereas chemical weapons are less lethal when spilled or watered (Karayılanoğlu et al., 2006).

The biological substances can be released on the crowd in the form of aerosol cloud without any smell and taste. Then their dimensions can be 1-5 micrometers or microns (one millionth of a meter). Naturally, these extremely small particles cannot be seen with human eyes, which makes it a comfortable feature in many aspects. For instance, while chemical substance must be used in hundreds of thousands tons to cause a serious impact during the military action, a few kilograms of biological substance is sufficient to generate the similar negative effect. The mortality rate of some

biological weapons is much higher than the effects to be generated after releasing 50kg powder of Anthrax, cholera and tularemia substances on the 2 square km area in the center of a settlement with a population of 500000 people. Earlier for biological terror, men used plants and arrows infected with toxins, also tried to kill their enemies by throwing the poisonous substances obtained from feces into the water reserves (Mowatt-Larssen, 2010).

The Tatar fighters tried to generate an epidemic by throwing the corpses infected with cholera through cannons over the walls into the city of Caffa in order to defeat their enemies in the Crimean war in 1346 (Croddy, 2002; Derbes, 1966; Wheelis, 2002). On 24 June 1763 during the Rebellion of Pontiac (1763-1766) Capital Simeon Ecuyer, one of the responsible officers of General Jeffrey Amherst, the British commander-in-chief in North America provided the Indians as “a demonstration of good will” with blankets infected with viruses of chickenpox and measles, which could as well be defined as a biological weapon, in order to get rid of them. He even wrote about it in his register, “I hope that it will yield a desirable effect” (Sipe, 1929; Riedel, 2004).

The Japanese Program of Biological Weapons existing under the title “Module 731” caused the death of thousands of Chinese in Manchuria, and the English conducted numerous tests with carbons on Gruinard Island located off the Scottish coast (Gruinard, 1942). In 1942 the USA launched a program of biological weapons, and in 1969 accomplished the armament; however, following this event in his commentary President Richard Nixon stated his country’s unconditional refusal of the use of biological weapons in any way. For its attempts in the program of biological weapons, the USSR established the Sverdlovsk Production Centre with 60000 employees where most researchers and scholars in biological weapons worked in the world (Karayılanoğlu, 2006). On the other hand, Vietnam and its allies utilized mycotoxins called “yellow rain” as a biological weapon in Laos and Cambodia in 1981 (Tucker, 2001). Similarly, by the end of 1991 the UNO claimed its detection of projects based on a biological weapon with carbon and botulinum during the Gulf war (Frederich et al., 1997).

On occasions the terrorist organizations have openly expressed their intention to possess the weapons of mass destruction. For instance, Osama bin Laden, the ex-leader of the al-Qaeda terrorist organization, who was killed by the USA in a special 40-minute operation on 2 May 2011 (The interview, 2016; Cynthia, 2012), addressed his comrades-in-arms in 1999, “The pagans are in the Muslims’ land, in the land where the Prophet Muhammad was born and the Qurani-Kerim was sent. The situation is very serious”. He stated, “It might be a sin for the Muslims not to use the weapons which will prevent the pagans from harming the Muslims” (Tellen, 2008) and emphasized that the non-Muslims should either convert to Islam or live under the Muslim dominion (Forced Conversion). In parallel with this motivation, the members of the terrorist organization in the camps supported by al-Qaeda in Afghanistan were informed about the weapons of mass destruction through the internet, scientific and technological resources and conferences. The documents of al-Qaeda office in Afghanistan reflected some projects much more serious than the ones targeted at the production of nuclear weapons. For instance, the Russian Intelligence Service reported about the arrest of a group of terrorists trying to sell uranium to be used in the production of nuclear weapons to the Pakistani terrorist organization guided by bin Laden. Similarly, al-Qaeda also made some attempts to obtain dangerous chemical substances and toxins. Likewise, in his September 2006 speech Abu Ayyub al-Masri, one of the Iraqi leaders of al-Qaeda offered a joint cooperation addressing nuclear specialists and engineers specialized in explosives (Rising, 2006). The pivot of the last address was a fatwa issued in 2003 (Roberts, 2010). In general, this organization targeted at the production of Anthrax by the end of 1990s. For that reason, in 1999 it started to collaborate with food pathologist and veterinarian Rauf Ahmed, who worked for the Pakistan Council for Scientific and Industrial Research. Ahmad established a small laboratory in Kandahar and launched the production of lethal Anthrax. In early 2001 the organization employed another scientist named Yazid Sufaat, who had earlier served in the Malaysian army and got his education at the Biology Faculty of California State University (Mowatt-Larssen, 2010). Moreover, al-Qaeda came to a conclusion that the agricultural aircrafts were convenient to disseminate the biological weapons in the densely-populated areas and took some targeted actions. For instance, Zacarias Moussaoui, a US resident and the member of the organization was arrested while intending to get a documented permission from the course that trains pilots for the agricultural drug administration aircrafts in Minnesota. The contemplation over Moussaoui’s arrest first brings to mind the use of such aircrafts by al-Qaeda to release carbon

on people. However, in 2001 both Sufaat's attempts to move to Malaysia and Ahmad's arrest by the Pakistani authorities caused some interruption in such kind of actions by al-Qaeda. However, the outbreak of the 11<sup>th</sup> September 2001 attacks just in the same year and further the biological terror attacks through the letters laced with Anthrax require some contemplation.

On the other hand, the increase of the financial power of the terrorist organizations affected by globalization and the turn of the state-supported terrorism into a popular form of fighting strategy have managed to open new horizons before terrorist organizations. Thus, the training and increase of terrorists, who have dangerous chemical weapons, bacteria carrying infectious diseases in their hands or possess some effective means to open the way to the death of thousands of people, is already an inevitable reality. It is a psychological effect the use of biological weapons will impose on society and its attractiveness for the terrorist organization that interest the terrorists rather than the elements motivating the use of those weapons. The reasons for the inclination of terrorist organizations towards biological weapons can be interpreted as follows. In the terroristic acts committed through biological weapons, great masses can be affected either physically or spiritually with the substances used in small amounts. Since, the aim of these acts is the mass panics rather than mass destruction. It is possible to manufacture biological weapon substance in big amounts in a small house or 25-20-square-metre small laboratories appropriate for the terrorists' goal. Biological weapons are the weapons of mass destruction obtained at the lowest cost. Owing to this peculiarity, these weapons are also referred to as "the A bomb of poor countries". The incubation period inherent to biological weapons enables the terrorists to escape without being identified. Biological weapons cause only diseases and death of living beings. They do not have subversive effects, unlike other weapons of mass destruction. This peculiarity allows the user not to appear in the centre of actions, and makes his detection extremely difficult which is, in fact, the main reason for its choice by terrorist organizations.

Due to the above-stated technological developments, the impact generated on military and civil units through biological weapons in the recent years has reached unbelievably dangerous dimensions in which globalization has also a great impact. Since, globalization provides information on and favorable conditions for terroristic utilization of biological substances. Thus, globalization is, undoubtedly, one of the most important points of use of the international terrorism. As a result of globalization there appeared multinational terrorist organizations, terrorism got globalized, and terrorist acts began to target the world.

**As mentioned earlier, like biological weapons, the chemical weapons are also characterized by distinctive features, thus, can be classified as follows:**

After affecting the nervous system **nerve gases** cause death in a short period of time. Sarin, Tabun and Soman were prepared by Hitler's instructions in 1936-1944. It should be reminded that on 20 March 1995 Sarin was used in one sect's attack to the Tokyo underground in Japan. Consequently, 12 people died, 50 people got wounded, and 5000 people suffered temporary vision problem (Osaki, 2015).

In the utilization of **teasing and corrosive gases** eyes, skin and respiratory tract tissues are the areas that suffer first. Though they are not lethal, they can cause considerable health problems. Mustard, lewisite, phosgene oxime and others are factor substances.

**Suffocating gases** cause lung cancer damaging the respiratory tract seriously. Phosgene, chlorine, chloropicrin are important factor substances.

**Blood toxins** are fatal. Cyanide has a composition of Sian-chloride. Cyanide substances were also used in Hitler's gas chambers (Bioloji, 2012).

Although **Anthrax** is not contagious from person to person, it has a potential to disseminate massively in a large area through aerosol (air-powder) due to its capability to survive in environment for a long time. Being a serious infectious disease, anthrax is characterized by septicemia, inflammation of intestines, lungs, lymphatic nodes and appearance of carbuncles ranging in size. It should be pointed out that Vozrozhdeniye Island belonging to both Uzbekistan and Kazakhstan used to be the centre of factories of biological weapons testing on animals the agent of anthrax as well as other special preparations. However, as a result of the formation of an area of land between the island and the continent due to the fall of the level of the Aral Sea, there is a likelihood of contacts of animals and human beings with the contaminated soil (Samye strashnye, 2013).

In 1979 an occasional spread of spores aerosolized in the military laboratory in Sverdlovsk in the former Soviet Union resulted in the 75 registered cases of death from anthrax. In 1995 Aum Shinrikyo terrorist grouping disseminated the aerosolized cells of anthrax in the Tokyo underground system in the Japanese capital. Consequently, 13 people died, over 6000 people were hospitalized with different levels of intoxication (Yuki et al., 2011). Six years later in October 2001 another incident similar in nature was recorded in Washington D.C., as letters laced with the cells of anthrax were sent by the postal system; consequently, 22 cases of anthrax were registered (Inhalational..., 2001).

Due to the following reasons, anthrax is one of the frequently used agents in bio-terrorism:

- 1) It switches to the form of a spore in a short period of time;
- 2) The spores enjoy high resistance against environmental factors and disinfections;
- 3) As aerosolized spores lack any smell or colour, their dissemination occurs unexpectedly (Shannon, 2004);
- 4) Disease results in death in a short period of time;
- 5) The strain resistant to antibiotics can easily be prepared.

In-between the First and Second World Wars stability seemed to reign in the world. However, the USA would try any means to expand its pervasive policy and its dominion in the world. In this period Japan did not provide any support to the consolidation of the US alliance in Great Britain. Despite all this, the USA rendered assistance to Japan following the war under the Commander-in-chief General Douglas. Taking advantage of the quiet situation, Japan turned out to have developed its biological weapon. And even after Japan's assault on China, in the 1930s experiments were conducted on Chinese schoolchildren among whom Japanese military personnel had distributed special chocolate bars infected with anthrax spores which had irresistible effects (Ernest, 1992). By the way, despite the existence of the Geneva Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare adopted in 1925 in connection with chemical and biological weapons, two research centres for biological warfare – Unit 731 and Unit 100 were created (Japanese..., 2012). Under the leadership of General Ishii Siron 3000 Japanese researchers studied the person afflicted with plague and anthrax at the Headquarters of Unit 731 in Harbin (Experiments). Despite the rare occurrence of the intestinal form of anthrax, the fact of its appearance as a result of bio-terrorism is of importance.

#### 4. Results

Initiatives to prohibit the use of chemical and biological weapons had been launched by the late 19<sup>th</sup> century. The Brussels Declaration published in 1874 was the first to consider the use of poisonous weapons illegal (Project, 1874). Twenty-five years later in 1899 The Hague Peace Conference reached an agreement to avoid the use of any weaponry comprising any gas suffocating or harmful to health (Convention, 1899). Despite these rules, World War I saw the intensive use of chemical and biological weapons. In accordance with the 1925 Geneva Protocol the suffocating, poisonous and other types of gases, the methods of bacteriological warfare were banned. The enforcement of this agreement began in 1928. Further this protocol became obligatory for all the countries (Protocol, 1925).

At the 1960 Geneva Conference on Disarmament there were discussions on the expansion of the Geneva Protocol and the ban of biological weapons. Despite the fact that the USA had not signed the Geneva Protocol, in 1969-1970 it unilaterally issued a declaration that it would not use biological weapons and the ones containing toxins, and signed the Convention on Banning the Development of Bacteriological and Toxin Weapons concluded in 1972. The Convention on the Ban of Biological Weapons of 10 April 1972 (Public health, 2004) was signed by 146 UN-member countries, and in 1975 it was enforced (Biological Weapons, 1972). The agreement banned the development, production, collection, purchase, granting and sales of the biological weapon by the member countries; also, restriction was imposed on the use of the tools and devices related to the development and production of biological weapons. The application of the Biological Weapons Convention is supervised by review conferences convened in every 5-6 years. By the decision adopted at the third review conference convened in 1992, the member countries were requested to provide explanation for their use of biological weapons until 1992. Consequently, Canada, France,

Great Britain and the USA declared their production of biological weapons prior to the enforcement of the Biological Weapons Convention, while Russia admitted its partial production of biological weapons in 1946-1992 (Moodie, 2001). As mentioned earlier, along with the USA, many countries including Canada, Great Britain, France and the former USSR continued the research on biological weapons. In 1947 Great Britain established the Research Department of Microbiology, and in 1951 extended its activities further to make experimental biological war plans. Also, researches continued to develop new biological agencies and to improve the design of weapons. Although in 1957 the British government decided to reject the research of nasty biological weapons along with the elimination of its reserves, Britain nevertheless tested military biological weapons several times on the Bahamas, the Isle of Lewis and in the waters of Scotland (Moodie, 2000). At that time the development of the biological defence researches was also founded. Meanwhile, the Soviet Union developed its efforts in both fields – the study of biological weapons and the defence from biological attack. Despite the official claim of the Soviet Union against its possession of any biological and chemical weapons, the reverse was continually revealed in its 1960 and 1970 reports on attack researches (Carter, 1992).

## 5. Conclusion

It should be noted that the study of geographical regions where the biological factors develop naturally, the epidemiological data and the development of the systems of epidemiological control are the measures to be taken prior to any attack. In the state of attack, it is essential to diagnose the biological factors and immediately start an effective treatment.

## 6. References

- Biological Weapons, 1972** – Biological Weapons. The Biological Weapons Convention. Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction. 10 April 1972. [Electronic resource]. URL: <https://www.un.org/disarmament/wmd/bio/>
- Biooloji, 2012** – Biooloji və kimyəvi müharibə təhdidi [Bioterrorizm 12 noyabr 2012-ci il]. [Electronic resource]. URL: [http://www.faktxeber.com/biooloji-v-kimyvi-mharib-thdidi---boterrorizm\\_h414026.html](http://www.faktxeber.com/biooloji-v-kimyvi-mharib-thdidi---boterrorizm_h414026.html)
- Bioterrorizm, 2010** – Bioterrorizm – ugroza XXI veka [Bioterrorism is a threat to the 21st century]. Oruzhie dlya upravleniya chelovechestvom., 28 iyulya 2010. [Electronic resource]. URL: <https://www.liveinternet.ru/community/3629085/post131329794/> [in Russian]
- Carter, 1992** – Carter, G.B. (1992). Biological warfare and biological defense in the United Kingdom 1940–1979. *Royal United Service Institute Journal*. 137: 67-74.
- Çaşın, 2008** – Çaşın, M.H. (2008). Uluslararası terörizm. Ankara, Nobel Yayın Dağıtım. 939 p. P. 681.
- Cheryl, 2016** – Cheryl P. (2016). Cooperative Threat Reduction Program – You want to do WHAT for the Soviet Union? DoD News, Defense Media Activity, May 10, 2016. [Electronic resource]. URL: <http://science.dodlive.mil/2016/05/10/cooperative-threat-reduction-program-you-want-to-do-what-for-the-soviet-union/>
- Convention, 1899** – Convention (II) with Respect to the Laws and Customs of War on Land (Hague, II) (29 Jul 1899). // Organisation for the prohibition of chemical weapons. [Electronic resource]. URL: <https://www.opcw.org/chemical-weapons-convention/related-international-agreements/chemical-warfare-and-chemical-weapons/hague-convention-of-1899>
- Croddy, 2002** – Croddy E. (2002). Chemical and Biological Warfare. A Comprehensive survey for the concerned citizen. New York, Copernicus Books. 303 p., pp. 3-18.
- Cynthia, 2012** – Cynthia R. Fagen (2012). Navy SEAL's firsthand account of Osama bin Laden's death September 2, 2012. [Electronic resource]. URL: <http://nypost.com/2012/09/02/navy-seals-firsthand-account-of-osama-bin-ladens-death/>
- Derbes, 1966** – Derbes V.J. (1966). De Mussis and the great plague of 1348. A forgotten episode of bacteriological warfare. *JAMA*, 196 p., pp. 59-62.
- Ernest, 1992** – Ernest T. (1992). History of biological warfare. A significant events: A historical perspective. September. [Electronic resource]. URL: <http://www.gulfwarvets.com/biowar.htm>

**Experiments** – Experiments. Japan's Biological Warfare Project. [Electronic resource]. URL: <http://www.unit731.org/Experiments.html>

**Forced Conversion** – Forced Conversion, What does Islam really teach about forced conversion? [Electronic resource]. URL: <https://www.thereligionofpeace.com/pages/quran/forced-conversion.aspx>

**Frederich et al., 1997** – *Frederich R. Sidell, Ernest T. Takafuji, David R. Franz* (1997). “Historical Overview of Biological Warfare”. Introduction early use during and after World War II The 1972 Biological weapons convention recent events: 1972 to 1994 conclusions. Textbook of Military Medicine, Part I: Warfare, Weaponary, and the Casualty: Medical Aspect of Chemical and Biological Warfare. Washington, DC: Borden Institute, Walter Reed Army Medical Center, pp. 415-423. P. 721.

**Gruinard, 1942** – Gruinard Island Anthrax Biological Warfare Experiment Great Britain 1942. [Electronic resource]. URL: <https://www.youtube.com/watch?v=TIpB2gV1iyk>

**Güzel, 2002** – *Güzel C.* (2002). Silinen yüzler karşısında terör. Ankara – Toplumbilim – Siyasetbilim. 07. 456 p. P. 177.

**IAEA, 2016** – IAEA Incident and Trafficking Database (ITDB) Incidents of nuclear and other radioactive material out of regulatory control 2016 Fact Sheet, p. 2. [Electronic resource]. URL: <https://www.iaea.org/sites/default/files/17/12/itdb-factsheet-2017.pdf>

**Inhalational..., 2001** – Inhalational Anthrax Outbreak among Postal Workers, Washington, D.C., 2001. Emerging infectious diseases. Centers for Disease Control and Prevention. *Bioterrorism-related Anthrax*. Vol. 8, № 10.

**Japanese..., 2012** – Japanese use of plague during World War II. Contagions, July 14, 2012. [Electronic resource]. URL: <https://contagions.wordpress.com/2012/07/14/japanese-use-of-plague-during-world-war-ii/>

**Karayılanoğlu et al., 2006** – *Karayılanoğlu T., Kenar K., Ortatath M. ve Öztuna A.* (2006). Şarbon şüpheli pakete NBC laboratuvarlarının yaklaşımı: Olgu sunumu. Türk Hijyen ve Deneysel Biyoloji Dergisi NBC Özel Sayısı. LXIII (1, 2, 3), 165-169.

**Kiremitçi, 2014** – *Kiremitçi İ.* (Kasım/November 2014). Küresel Boyutta Biyolojik Terör Tehdidi. Savunma Bilimleri Dergisi The Journal of Defense Sciences Cilt/Volume 13, Sayı/Issue 2, 27-58.

**Moodie, 2000** – *Moodie M., Carpenter W.D.* (2000). “Industry of Arms Control” in biological Warfare: Modern Offence and Defence, edited by Raymond A. Zilincas (Boulder, Colo.: Lynne Rienner, 2000), p. 178.

**Moodie, 2001** – *Moodie M.* (2001). The Soviet Union, Russia, and the Biological and Toxin Weapons Convention. The Nonproliferation Review/Spring. pp. 59-69, 61-65.

**Mowatt-Larssen, 2010** – *Mowatt-Larssen R.* (2010). Al Qaeda Weapons of Mass Destruction Threat: Hype or Reality? January 2010 [Electronic resource]. URL: <https://www.belfercenter.org/publication/al-qaeda-weapons-mass-destruction-threat-hype-or-reality>

**Mowatt-Larssen, 2010** – *Mowatt-Larssen R.* (2010). Al Qaeda Weapons of Mass Destruction Threat: Hype or Reality? A Timeline of Terrorists' Efforts to Acquire WMD. Belfer Center for Science and International Affairs, January 2010.

**Osaki, 2015** – *Osaki T.* (2015). Deadly sarin attack on Tokyo subway system recalled 20 years on. March 20, 2015 [Electronic resource]. URL: <http://www.japantimes.co.jp/news/2015/03/20/national/tokyo-marks-20th-anniversary-of-aums-deadly-sarin-attack-on-subway-system/#WWCGuoS9Wxl>

**Project, 1874** – Project of an International Declaration concerning the Laws and Customs of War. On military authority over hostile territory. Brussels, 27 August 1874. International Committee of The Red Cross. [Electronic resource]. URL: <https://www.icrc.org/applic/ihl/ihl.nsf/ART/135-70006?OpenDocument>

**Protocol, 1925** – Protocol for the Prohibition of the Use of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare. Geneva, 17 June 1925. International Committee of the Red Cross. [Electronic resource]. URL: <https://ihl-databases.icrc.org/ihl/INTRO/280?OpenDocument>

**Public health, 2004** – Public health response to biological and chemical weapons. WHO guidance. World Health Organization Geneva, 2004. p. 339, pp. 110-113.

**Riedel, 2004** – *Riedel S.* (2004). Biological warfare and bioterrorism: a historical review. Proc (Bayl Univ Med Cent). October, 17 (4): 400-406. [Electronic resource]. URL: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1200679/>

**Rising, 2006** – *Rising D.* (2006). Al Qaeda in Iraq beckons nuclear scientists Also calls for kidnappings of Westerners. Associated Press, September 29, 2006. The Boston Globe [Electronic resource]. URL: [http://www.boston.com/news/world/articles/2006/09/29/al\\_qaeda\\_in\\_iraq\\_beckons\\_nuclear\\_scientists](http://www.boston.com/news/world/articles/2006/09/29/al_qaeda_in_iraq_beckons_nuclear_scientists)

**Roberts, 2010** – *Roberts G.* (2010). Preventing weapons of mass destruction terrorism: Building international partnership to meet the challenge, 4 February 2010 pp. 9-17. [Electronic resource]. URL: [http://www.nato.int/science/2010-02-04-presentations/Osman%20Aytac\\_COEDAT\\_cmp.pdf](http://www.nato.int/science/2010-02-04-presentations/Osman%20Aytac_COEDAT_cmp.pdf)

**Rosen, 1999** – *Rosen P.* (Ed.). (1999). Chemical and Biological Terrorism: Research and Development to Improve Civilian Medical Response, Institute of Medicine, National Research Council, The National Academy Press, Washington D.C. pp. 128-138.

**Samye strashnye, 2013** – Samye strashnye ostrova mira [The scariest islands in the world]. 3 fevralya 2013. [Electronic resource]. URL: <http://lifeglobe.net/entry/1569> [in Russian]

**Shannon, 2004** – *Shannon M.* (2004). Management of infectious agents of bioterrorism. Clinical Pediatric Emergency Medicine. March, pp. 63-72.

**Sipe, 1929** – *Sipe C.H.* (1929). The Indian Wars of Pennsylvania. Harrisburg, PA: Telegraph Press. 1205 p. P. 560.

**Tellen, 2008** – *Tellen P.C.* (2008). Deference and nuclear terrorism. Washington D.C. American University. 165 p. P. 9.

**The interview, 2016** – The interview of US president Barak Obama to CNN – 5 years ago the U.S. killed Osama bin Laden. Did it matter? [Electronic resource]. URL: <http://edition.cnn.com/2016/05/02/politics/terrorism-bin-laden-raid-2016-isis/>

**Tucker, 2001** – *Tucker J.B.* (2001). The “Yellow Rain” Controversy: Lessons for Arms Control Compliance. The Nonproliferation Review/Monterey, Spring 2001, p. 25-42., p. 27.

**Wheelis, 2002** – *Wheelis M.* (2002). Biological Warfare at the 1346 Siege of Caffa. *Emerging Infectious Diseases Journal*. Vol. 8, № 9.

**Yuki et al., 2011** – *Yuki, H., Hough, L., Sageman, M., Danzig, R., etc.* (2011). Aum Shinrikyo: Insights Into How Terrorists Develop Biological and Chemical Weapons. Center for New American Security. July, P. 5, 68.