

STATE OF NUCLEAR WEAPON IN THE WORLD TODAY

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Abstract: *The problems of nuclear weapons in the contemporary international situation have been examined. The countries that own a nuclear weapon and those who have or are ready to produce and own it are presented.*

KEYWORDS: COUNTRIES, MILITARY, NUCLEAR WEAPONS, RUSSIAN FEDERATION, USA

1. Introduction

The issue of the dangers of nuclear weapons and its use today is particularly relevant in recent years. The threats of using this type of WMD arise from the fact that nuclear weapons are owned by a number of countries and are ready for their use for political, economic and other purposes.

The nuclear weapon is the main powerful weapon of mass destruction of the enemy.

The charge explosion energy of the normal explosive is released as a result of a chemical reaction during which explosive molecules become more resistant molecules of explosive products. In these explosions, the atoms do not undergo any change. In the nuclear explosion, the source of energy is nuclear reactions, as a result of which the atoms of some elements are transformed into atoms of other elements [nd word].

Nuclear weapons pose a huge threat to man and our environment. With its striking factors, this is one of the most deadly weapons ever created by man. Each of the striking factors could even alone kill thousands of people, break an ecological system, or destroy an infrastructure. [1]

2.1. Establishment of the nuclear weapon

Even before the creation of the atomic bomb and the emergence of the nuclear industry, the pollution of the environment with radioactive substances began. The harmful impact of radiation on living organisms and humans was not known at first, and its discoverers were one of the first victims. At the dawn of the nuclear age, as with almost all major discoveries, the public did not have the necessary information about this activity due to the secrecy of nuclear production, and it was not possible to accurately assess the impact and extent of this pollution [8].

Considering the nuclear madness of North Korea, what are the rules, whether official or hidden, which countries may have nuclear weapons and which ones? It is complicated, writes in The Washington Times. Victor Davis Hanson, a historian at the Hoover Institute at Stanford University. The issue of the proliferation of weapons of mass destruction (WMD) has never lost its relevance [3].

In the 1940s and 1950s when everyone was entitled, the original nuclear club included only countries with technological know-how, size and money to build nuclear weapons. These realities meant that by the early 1960s only the United Kingdom, France, the Soviet Union and the United States had nuclear capabilities.

The members of this small club did not worry that many other nations would make such weapons because it looked too expensive and difficult for most.

Actions that would be harmless under certain circumstances become a matter of life and death in the presence of radioactive material. To avoid such incidents or at least to reduce their number, strictly observe the laws and regulations outlined [5].

During the Cold War, the Soviet Union and the United States adhered to an unspoken rule that defeated World War II enemies - Germany, Italy, and Japan - should not have nuclear weapons. Irrespective of their financial and scientific ability to obtain them, all three former Axis forces had too much historical baggage to be able to obtain weapons of mass destruction. This silent agreement obviously still remains.

The Soviet Union and the United States also unofficially agreed during the Cold War that dependent allies who have the ability to become nuclear states, including Eastern bloc countries, most Western European countries, Australia and Canada, will not do so. Instead, they will depend on their supernatural patrons for nuclear deterrence.

A potential enemy with a YBC weapon can use it at a certain stage of the conflict. The use and consequences will be determined by the technical characteristics of the munitions, the desired impact on the course of operations and the environment. Risks and threats may include nuclear and radiological weapons, classical biological and chemical weapons, or new generation weapons as well as biochemical agents. It is quite possible that some of the funds were produced for commercial purposes and have not been pre-defined as YACH weapons [4].

In the 1970s, the realities changed again. Large and / or scientific entities such as China (1964), Israel (1967) and India (1974) became nuclear. Often such countries do this with the help of pro-Western or ProSotian patrons and sponsors. The rest of the world clearly shrugged, believing that it was inevitable that such nations would receive a nuclear weapon.

The next round of expanding the nuclear club, however, was far more irresponsible and more dangerous. Spreading depends on whether the poorer and more fragile states could get involved in uranium enrichment or secretly plutonium.

It has become clear that some countries are developing nuclear weapons, and have been stopped by preventive military strikes - such as Iraq and Syria. Others, including South Africa, Ukraine and Libya, were convinced to stop their nuclear projects. Therefore, it is imperative to use modern methods for assessing the radiation situation. The presence of detectors of different design and function allows for the timely detection, determination and measurement of all known up to now ionizing radiation [2].

Pakistan was a rare fraudster who managed to hide his nuclear enrichment, shocking the world when he tried a bomb in 1998. Pakistan rightly assumed that once a country proves its nuclear capability, it is considered too dangerous to be turned back by disarmament.

By 2012, eight countries in the world have developed and tested their own nuclear weapons. Five of these are officially recognized nuclear powers under the NPT.

Chronologically, these are the United States, Russia (inherited from the former USSR arsenals), Britain, France and China. Three more countries have tested atomic weapons outside the NPT - India, Pakistan and North Korea.

North Korea has been part of the NPT since 1985, but has not complied with the terms of the treaty and left in 2003. Israel neither denies nor confirms the possession of a nuclear weapon on its side, and has never tested it. However, many researchers suggest that Israel is a nuclear power. South Africa is the only state she owned and subsequently abandoned its nuclear arsenal.

This is a table listing the nuclear forces, the year of testing their first weapon, and the approximate number of nuclear warheads and bombs they have. This is the so-called. "Nuclear Club". Most of the nuclear units figures presented here are approximate, and in the case of North Korea, Israel and Pakistan may be quite inaccurate. It is also the number of nuclear weapons that are ready to go, and there is no mention of the number of those that are simply stored.

According to Rabohchiiska, the signatories of the Nuclear Non-Proliferation Treaty must strictly abide by all the terms of the agreement. The mechanism developed in the relevant multilateral multilateral nuclear proliferation treaties is binding on everyone and no one can interpret it in its own way [6]. Worrying is the exit from the treaty of the two major world powers - Russia and the United States.

Of nearly 65,000 nuclear weapons in 1985, just over 23,000 have remained today, of which only 4400 are available for use.

№	Country	Active nuclear warheads	Total Nuclear Heads
1.	Russian Federation	2430	11000
2.	United States	2150	8000
3.	Great Britain	300	350
4.	France	290	300
5.	China	Unknown.	240
6.	Israel	Unknown.	200
7.	India	Unknown.	100
8.	Pakistan	Unknown.	110
9.	North Korea	Unknown.	18

2.2. Nuclear weapons on the sides

The United States developed the first nuclear weapons during the Second World War. The Americans began work on the first atomic bomb in the early 1940s, with the cooperation of Canada and the United Kingdom. US military fears that Nazi Germany can develop its own nuclear weapons. The first bomb trial ("Trinity") was conducted in Alamogordo, New Mexico, in 1945.

The American land-based intercontinental ballistic missiles have stopped their development in the 70s of the twentieth century.

The only type of ground-based intercontinental ballistic missile that the United States has on arms is the LGM-30G "Minnet III". Each rocket carries a W87 nuclear power head up to three hundred kilotonnes (although it can carry up to three nuclear warheads). The last rocket of this type was produced in 1978, which means that the "youngest" among them is 38 years old. Rockets have been upgraded many times since then, and the intention is to be used by 2030.

The United States' new intercontinental ballistic missile system, known as the Ground-Based Strategic Deterrent (GBSD), or a ground based ground based nuclear deterrent system, seems to have frozen in its debating phase. The United States Air Force has requested \$ 62.3 billion for the development and production of new missiles and hopes for \$ 113.9 million in 2017. The White House, however, does not support this request. This idea actually has a lot of opponents. Development is essentially postponed by one year, and what will happen next with the Air Force plan depends largely on the outcome of the forthcoming presidential elections in 2016 [nd usa].

The USSR tested its first atomic bomb (RDS-1) in 1949. Part of the information needed for the Soviet project was acquired through espionage. The Russians set up their nuclear program to create a nuclear balance between the USSR and the United States after the Second World War. In 1953 a one-stage hydrogen bomb (RDS-6) was tested and then two-stage (RDS-37) in 1955.

Russia currently has a wide range of ground-based intercontinental ballistic missiles including mobile launching facilities. In 2015, the Missile Force with Strategic Purpose of the Russian Federation (RSCN RF) received 24 new missile complexes of the RS-24 "Yars" type (classified as SS-27 Mod 2 in the NATO classification) both in mobile and in shaft variant. These missiles can carry three or four self-directed nuclear warheads capable of penetrating missile defense systems. It can certainly be assumed

that the volume of supplies of such missiles in 2016 will not yield to the quantity delivered in 2015. So Russia will be able to replace the Topol missiles (which are basically the equivalent of the LGM-30G Missile III) with the latest generation of missiles specifically designed to overcome enemy missile defense systems [9].

Britain became the third nuclear power in the world in 1952, testing its first atomic bomb ("Hurricane") near the islands of Montebello, Australia. Nearly all of the scientific and technical information needed for the British nuclear program was acquired during the US Manhattan project. Britain sets up its nuclear weapons on the pretext that they would serve to protect in the event of a possible assault by the Soviet Union. Today, almost all British nuclear warheads are mounted on Trident missiles, which are transported by submarines.

France tested its first atomic bomb in 1960 ("Gerboise Bleue") and its first hydrogen bomb in 1968 (Operation Canopus). France's decision on nuclear weapons is motivated by its weakened status of Great Power after the Second World War and the first British nuclear experiment in 1952. After the end of the Cold War, the French cut their nuclear arsenal with 175 warheads and reformed their nuclear troops. Today, the French Army has deployed almost all its warheads of underwater missiles and bombers (such as Rafal). Some warheads are also mounted at the ICRB, fired by underground silos.

China becomes the last official nuclear power in the world. The first Chinese atomic bomb was blasted in 1964, and only three years later, the first hydrogen bomb (both attempts were made near Lop Nur). China is the first Asian nation to acquire nuclear weapons. For their creation, the Chinese government is motivated by the growing US power of the Cold War at the time.

Israel is not a member of the NPT, and does not recognize (but does not deny) the existence of its own nuclear program and weapons. Although Israel claims that the Nežjev research center near Dimona is a "research reactor," there are no published studies that have been conducted there. According to the Federation of American Scientists (FAU), Israel has nuclear material to produce a maximum of 200 atomic bombs, or they are already built. Satellite pictures reveal weapon bunkers, rocket launchers and mobile missiles, but traces of nuclear weapons have never been identified.

India is the first country to test nuclear weapons after the creation of the NPT. In 1974, a "peaceful atomic device" was blown up, as the Indian government calls it "Smile Buddha". The test was carried out near Poznań, Rajasthan. The creation of nuclear weapons in India may have been motivated by the military threat from neighboring China. India claims to have tested a hydrogen bomb in 1998, although most experts believe the test was unsuccessful because the power of the weapon was probably less than 50 kilotonnes of trotyl equivalent.

Pakistan kicks off its nuclear program in the early 1970s. The first Pakistani nuclear power plant was built in Karachi at that time, mostly with materials supplied by Western countries. Following the surrender of the Pakistani troops and India's victory in the 1971 war, Pakistani Prime Minister Zulfikar Ali Bhutto said the Pakistanis would build their own nuclear weapons even if they had to "eat grass." After the first Indian nuclear test, Pakistani scientist and metallurgist Abdul Kadir Khan steals the uranium enrichment centrifuge schemes from the Dutch company URENCO [12].

North Korea is the last country to test nuclear weapons. On October 9, 2006, North Koreans tested a small atomic bomb at 2000 meters underground. Since the power of the device is very small (about 1 kiloton), most experts believe that the experience has not been completely successful (see North Korean Nuclear Experience). The country was a member of the NPT but withdrew on January 10, 2003.

South Africa produced six atomic bombs in the 1980s but dismantled them in the early 1990s. It is possible that the 1979 test was a South African atomic bomb. South Africa signed the NPT in 1991 after the fall of apartheid.

Belarus gained 81 nuclear warheads after the collapse of the USSR in 1991. All were handed over to the Russians in 1996. Belarus signed the NPT the same year.

Kazakhstan inherits 1400 nuclear weapons as a result of the collapse of the Soviet Union. All weapons were handed over to Russia in 1995. Kazakhstan signs the NPT.

Ukraine inherited nearly 5,100 nuclear weapons after the collapse of the USSR, becoming the third largest nuclear power in the world. All weapons were voluntarily handed over to the Russians in 1996, and Ukraine signed the NPT.

Australia has had a joint military nuclear program with Britain since the Second World War. The Australian Government has provided the English for missile and nuclear sites, as well as expert assistance in the field of nuclear research. In the 1960s, however, the program was discontinued and Australia joined the NPT in 1971. Still, Australians maintain an Argentine research reactor capable of producing plutonium for atomic bombs [13].

Other countries also had nuclear technology development programs and projects, but at this stage of human development, they are members of international nuclear weapons constraints and do not formally work to develop nuclear weapons [14]. But international non-governmental organizations must monitor the actions of potential producers and make objective assessments of the situation without falling under the influence of this or any other country.

However, until the North Korea became officially a nuclear state in 2006, the nuclear club remained small (eight countries) and was believed to be manageable. Why?

First, it seemed unlikely that these nuclear states, which were relatively transparent and democratic (Britain, France, India, Israel and the United States), would start a nuclear war.

Second, it was believed that advanced, but autocratic nuclear states (China and Russia) would lose too much of globalized trade and national prosperity to start a nuclear war that everyone would lose.

Third, any fragile and violating international nuclear nations (Pakistan) are considered to be deterred and kept under control by a nuclear rival (India).

The nuclear power of dictatorial North Korea (and possibly theoretically Iran) is putting new dangers far beyond the simple arithmetic of "more nuclear peoples, a more likely nuclear war."

Neither North Korea nor Iran are democratic. None of them is a stable country.

Neither has an immediate nuclear rival to deter them and persuade them not to dare to use nuclear weapons. Both countries have begun secret nuclear programs. They both hate the United States and its allies.

More importantly, their apparent violations of Nuclear Non-Proliferation Agreements and their noticeable aggression will cause relatively powerful regional neighbors - such as Egypt, Japan, Saudi Arabia, South Korea and Taiwan - to consider developing their nuclear capabilities.

Then the club can get big fast [11].

Not all of these potential nuclear powers are democratic. But they share a pro-American perspective.

A disappointed America may feel that China and Russia have encouraged fraudulent countries such as Iran and North Korea to develop nuclear weapons programs, having self-assured that the missiles of these countries will be directed to the West and not to the East.

So now the United States is in a paradoxical position. They want to stop the full proliferation of nuclear weapons. But America also suggests that the next nuclear forces (unlike the previous one) will be pro-American - a kind of revenge to China and Russia that allow their uncontrollable friends to develop nuclear capabilities.

The United Nations and international non-proliferation organizations, albeit with good intentions, have so far proved impotent.

But despite the chaos, by 2006 there were implicit rules for the eight-member nuclear club. Now, following the crazy threats of North Korea, these general assumptions about nuclear poker are null and void. And nobody knows what to expect.

3. Conclusions:

1. Nuclear Weapons would reach the destruction of hundreds of planets like our Earth;

2. The presence of a nuclear weapon has a more deterrent effect on opponents than it would be in real use;

3. The development of nuclear weapons must be under control and the military-industrial complexes must not be uncontrollable. The control bodies must also be public and accountable to society to reduce the amount of space for weapons;

4. The use of nuclear weapons would be detrimental to the inhabitants of the Earth and terrorist organizations should not have access to such weapons.

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