

## NUCLEAR WEAPON IN THE STRATEGIES OF THE UNITED STATES AND NATO. THE CONTAINMENT STRATEGY

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### Abstract:

*The fact that the production and the use of a nuclear weapon during the World War II began a new chapter in both the development of military technology and views on the preparation and conduct of a war. Creators and supporters of the atomic bomb quickly realized that it was too powerful to force it into the framework of existing doctrines. Therefore, it proved necessary to look for other solutions as the basis for a new type of a strategy. It was expected that this would be the political-military "containment" strategy introduced in the late 1940s. This, becoming the cornerstone of the US foreign policy, treated the nuclear arsenal as the most convenient and sometimes the only tool of deterrence of the Soviet Union. In the military dimension, as a derivative of the contradictory nuclear strategy of the Truman's administration, it did not give up the bombing of cities but through deterrence and assurance of the security of allies in Europe it proposed a quick and massive nuclear attack.*

### Keywords:

*nuclear weapons, weapons of mass destruction, the atomic bomb, doctrines, strategy, containment strategy, the Cold War*

## INTRODUCTION

After the explosion of nuclear bombs in Hiroshima and Nagasaki the time began to count from the beginning – the humanity entered the nuclear age. Only a few people immediately understood that the emergence of new weapons of mass destruction with such unimaginable power that could get out of control, would change not only

the fundamental views on the nature of warfare, but also the priorities in the most important sphere of existential problems of humanity.

Starting with the construction of the first atomic bomb, through all stages of the introduction of new nuclear weapon systems<sup>1</sup> to the equipment of the army, and ending on the idea of the so-called star wars, the nuclear arms race was justified by the concern to preserve the world peace. Thanks to the effective propaganda, also and perhaps especially in the West it was believed that it was the result of "the nuclear umbrella". Some political and military circles did not oppose the view as well, since they were convinced that Europe had survived the Cold War without its transformation into a hot one, only owing to the atomic bomb and "the balance of fear" persisting for decades.

### 1. THE POLITICAL AND MILITARY CONCEPTS OF "CONTAINMENT"

In the first post-war years the American diplomacy was characterized by extraordinary chaos and a lack of a clear political line. The strategy of "patience and firmness" conducted by James F. Byrnes<sup>2</sup> was devoid of internal governance and objectives set out in advance. The so-called "long telegram"<sup>3</sup> of George Kennan turned out to be a major impetus for change in the US foreign policy, as he attempted to convince, that the conciliatory attitude towards the USSR could not produce the desired effects and the USA had to be prepared for a long struggle against communism and stop the territorial expansion of the Soviet Union<sup>4</sup>.

The main thesis of the Kennan's report received recognition in Washington where he was later employed as the Director of the Policy Planning Staff and became the brain of the long-term foreign policy at the same time. This move soon led to the development of the framework of a strategy, called the containment strategy<sup>5</sup>. Along with the Truman's Doctrine<sup>6</sup> submitted in March 1947 it assumed the long-lasting, patient but

<sup>1</sup> A nuclear weapon is a complete set (e.g. of implosive, artillery or fusion types), which in its final configuration, after the completion of arming and launching procedures, is able to initiate an uncontrolled nuclear reaction with energy release, see: Obrona przed bronią masowego rażenia w operacjach połączonych, DD/3.8(A), Bydgoszcz 2013, pp. 25. In the period of the Cold War nuclear weapons were divided into nuclear and thermonuclear ones. The nuclear weapon is based on the use of intranuclear energy launched the fission reaction of heavy nuclei, while the thermonuclear weapons use intranuclear energy triggered during the synthesis reaction of light nuclei. Since there are no significant differences in the striking effect of nuclear and thermonuclear weapons (though the latter is many times stronger) for both types of weapons the term nuclear weapon was adopted.

<sup>2</sup> The 49. US Secretary of State, holding this position from 3 July 1945 to 21 January 1947;

<sup>3</sup> The famous thoughts of 8 thousand words of an official of the US Embassy in Moscow prepared in February 1946, more: A. Gromyko, W. Łomiejkó, Życie, czy zagłada jądrowa?, translated by R. Ciszewski, Warsaw 1985, p. 36-37.

<sup>4</sup> J. Lider, Doktryna wojenna Stanów Zjednoczonych, Warsaw 1963, p. 36-39.

<sup>5</sup> "Containment" as a concept of the American foreign policy received a lot of publicity after the article entitled Sources of the Soviets' Operation by George Kennan published in "Foreign Affairs" in July 1947, see: A. Yakovlev, Od Trumana do Reagana. Doktryny i realia wieku nuklearnego, translated by M. Opiłowski, Warsaw 1987, p. 150.

<sup>6</sup> Kennan's concept of containment became a pillar of the first post-war political doctrine of the United States. Its was proclaimed at the meeting of both Houses of Congress on 12 March 1947, where

decisive and vigilant containment of the Soviet "expansive tendency" through the propaganda use of the nuclear monopoly, arranging military pacts, building a network of US bases around the borders of the communist countries, as well as economic<sup>7</sup> and military aid for countries threatened by communism and the whole Western Europe, while engaging even in armed conflicts if necessary<sup>8</sup>.

The containment strategy became the cornerstone of the US foreign policy for many years, until the end of the Vietnam War.

In the initial period its main goal was the return to the balance of power in the international arena, which was disturbed by the surrender of Japan and Germany and the territorial expansion of the USSR. The Truman's Administration supported the particularistic concept of security, i.e. the diversified arrangement of the world. American politicians came to the conclusion that it was not possible to build "one world". It became necessary to move from the theory of universalism proclaimed during the World War II. According to the successor of Byrnes in the office of the Secretary of State, George C. Marshall, the aim that the United States should have striven to was to restore the system of the balance of power in Europe<sup>9</sup>.

Works on the codification of the objectives of the American foreign policy towards the Soviet Union resulted in the formulation of the document of the National Security Council – NSC 20/4. This directive, considered as the bible of the containment strategy, arose both from the Kennan's Doctrine and the assessment of the then threats. According to its objectives, the primary goal of the United States was striving for the closing of the Soviet Union's influences "within the limits in which it would no longer pose any threat to peace"<sup>10</sup>.

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during his speech Harry Truman announced bringing military and economic assistance to states threatened by communism. In practice, the US President's words referred to Greece fighting with the communist guerrillas and Turkey, towards which the Soviets put forward territorial claims, more: M. Raczkiewicz, *Doktryna Trumana (aspekt Grecki)*, Łódź 2008, p. 61-63, 68.

<sup>7</sup> The important supplement to the Truman's Doctrine was the plan of economic aid for Europe, developed by the US Secretary of State George Marshall, based on the assumption that the economic crisis in Europe could push non-communist countries into the Kremlin's embrace by selecting the far-left alternative in the form of local communist parties. This program, open to all European countries, was not adopted by the government of the USSR and subordinated to it Polish and Czechoslovak governments. These countries interpreted the American offer as an attempt of "the imperialist enslavement of Europe", see: J. Tyszkiewicz, E. Czapiewski, *Historia powszechna. Wiek XX*, Warsaw 2012, p. 519; J. Kukułka, *Historia Współczesna Stosunków Międzynarodowych 1945-1996*, Warsaw 2001, p. 40-42.

<sup>8</sup> The announcement of the Truman's Doctrine was de facto the declaration of the Cold War on the Soviet Union, see: J. L. Gaddis, *Zimna wojna. Historia podzielonego świata*, Krakow 2007, p. 44-45; J. Kukułka, *op. cit.*, p. 39; J. Lider, *Wojny i doktryny wojenne XX wieku*, Warsaw 1966, p. 102-106.

<sup>9</sup> J. L. Gaddis, *Strategie powstrzymywania*, Warsaw 2007, p. 83-86.

<sup>10</sup> In the NSC 20/4 it was assumed that the Soviet Union was not able to carry out a successful attack on the United States, although it did not rule out a number of bombings on its territory. It was expected, however, that the Russians simply needed a period of six months to seize the entire continental Europe and the Middle East to Cairo, while taking over the important points in the Far East, see:

In the framework of the doctrine of containment, the United States, by their efforts, were to embrace the countries of Europe, the Far East and Latin America that were most vulnerable to Communist influences. Particular attention was paid especially to France, Britain and Germany, since these countries being plunged into economic crisis would not be able to cope with the fight against communism and a possible Soviet aggression. In Germany, therefore, the Western occupation zones were connected, thus enabling the creation of the Federal Republic of Germany (FRG) and its integration to the zone system of politico-military blocks<sup>11</sup>. France and Britain were granted economic aid in the form of loans, and later as part of the Marshall Plan.

The next stage of "the containment" were measures undertaken in European countries under the influence of the Soviet Union, involving the introduction of the economic blockade of countries such as Poland, Hungary and Czechoslovakia. Its aim was to overthrow the people's governments and support the authorities in exile.

The last and most important European accent of "the containment" was to integrate the armed forces within the area of the newly formed Western Union<sup>12</sup>, which facing the growing threats to security, i.e. the Berlin Crisis<sup>13</sup> and the apparent disproportion of forces in Europe, became the foundation of the North Atlantic Treaty (NATO) established on 4 April 1949 under the Treaty of Washington. This system had to fulfill a very important role in achieving "Pax Americana" in the world, and halt the expansion of the Soviet Union. Owing to the growth of military strength, the Soviet Union was hoped to make concessions in the international politics. It occurred that, in fact, NATO became the instrument of the US military domination in Western Europe and the policy of force against the USSR and satellite states<sup>14</sup>.

The creation of NATO forced the urgent need to develop a common strategic concept, defining the basic tasks for the armed forces of each member. Its shape and subsequent NATO strategies, as well as the direction of development of the armed forces were decisively influenced by the United States. This meant that the allied military doctrines and military strategies were, in fact, American concepts adapted to local conditions and needs of a given area and period. Their implementation by the Alliance took place usually with several years of delay, which was due to the unanimity rule binding in NATO and, above all, the opposition of European Member States to certain

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P. Grudziński, *Teologia bomby. Narodziny systemu nuklearnego odstraszenia 1939-1953*. Tom II..., p. 220-221.

<sup>11</sup> The establishment of the FRG was the success of the American policy, strengthening the US position in Europe in political, economical and military terms more: J. Kukułka, *op. cit.*, p. 43-44, 47.

<sup>12</sup> The Western Union was established by the Brussels Treaty signed on 17 March 1948 by Great Britain, France, Luxembourg, the Netherlands and Belgium. Theoretically the pact required the members to cooperate in the political, economic and economic spheres, but in fact led to the military cooperation, as evidenced by the establishment of the Military Committee and setting up of the Committee of Chief Commands of the Western Union, see: J. Lider, *Doktryna wojenna Stanów...*, p. 42.

<sup>13</sup> The blockade of Berlin, which was introduced in June and lasted nearly a year, was a reaction to the progressive integration of the Western occupation zones in Germany and the conducted currency reform striking the economy of Berlin and the Soviet zone, see: J. Kukułka, *op. cit.*, p. 42, 44-46.

<sup>14</sup> J. Lider, *Doktryna wojenna Stanów...*, p. 72-74.

American concepts. Fundamental differences on the issue boiled down to the fact that the US war doctrine and strategies responded to the global interests of the country, while NATO's ones were limited mainly to the European continent<sup>15</sup>.

The works on the first strategic concept of NATO were of short duration, as the Defense Committee<sup>16</sup> approved the draft prepared for the Permanent Group<sup>17</sup> on 1 December 1949. The document called *the Strategic Concept for the Defense of the North Atlantic Area* (abbreviated *DC 6/1*) contained general guidelines for the cooperation between Member States and was much more a political declaration than a defense plan. It contained objectives and tasks of the Alliance and mentioned its defensive nature, the solidarity of members in the face of any armed aggression and the deterrent role of nuclear weapons, as well as the provision on the necessity to ensure the ability of NATO to immediately carry out strategic bombing with the use of all substances available in its arsenal. It was further specified, that in the initial stages of a war, a major defense effort would rest on the shoulders of the land forces of European states, while the United States, along with Canada, having conducted the mobilization, would send support reinforcements<sup>18</sup>.

Due to the general nature of *DC 6/1*, before the outbreak of the Korean War, the NATO's Military Committee produced two top secret executive documents: *Strategic Recommendations on Regional Planning (MC 14)* and *the Mediumterm Plan for North Atlantic Treaty Organization (DC 13)*. In the first one they assessed the strategic objectives of the enemy and the division of defense tasks<sup>19</sup>, while the second one defined the detailed assumptions of defense policy and the possible shape of the defense operations of the Alliance<sup>20</sup>. There were also estimated the needs of Alliance's conven-

<sup>15</sup> S. Zapolski, *Doktryna wojenna głównych państw Paktu Północnoatlantyckiego w latach 1945–1980*, Warsaw 1982, p. 8-10.

<sup>16</sup> The Defense Committee included Ministers of Defense of the states signatories see: *ibidem*, p. 14.

<sup>17</sup> The Permanent Group consisted of the Heads of General Staffs of the armed forces of the United States, Great Britain and France, see: *The Evolution of NATO: The Alliance's Strategic Concept And Its Predecessors, 1945-2000*, Monterey, California 2000, p. 15.

<sup>18</sup> *The Evolution of NATO Strategy 1949-1969*, (in:) G. W. Pedlow, *NATO Strategy Documents 1949-1969*, p. 11-12, [online] Available on the Internet: <http://www.nato.int/archives/strategy.htm>; *DC 6/1 - The Strategic Concept for the Defense of the North Atlantic Area - 1 December 1949* [Accessed on: 03. 09. 2015], (in:) G. W. Pedlow, *The NATO Strategy Documents 1949-1969*, [online]. Available on the Internet: [www.nato.int/archives/strategy.htm](http://www.nato.int/archives/strategy.htm) [Accessed on: 3.09.2015].

<sup>19</sup> The most important tasks in western Europe included advancing an enemy from a distance as far away from the borders of FRG as possible and supporting defense activities on other strategic directions. The task in the south and north was to avoid an opponent's intrusion on the NATO area, while in North America – to plan theaters of activities and carry out an offensive in Europe with the use of the Strategic Air Forces, see: *North Atlantic Military Committee Decision on MC 14. Strategic guidance for North Atlantic Regional Planning*, (in:) G. W. Pedlow, *NATO Strategy Documents 1949-1969*, p. 11-12, [online]. Available on the Internet: <http://www.nato.int/archives/strategy.htm> [Accessed on: 03.09.2015].

<sup>20</sup> More: *North Atlantic Defense Committee Decision on DC 13. A Report by the Military Committee on North Atlantic Treaty Organization Medium Term Plan*, (in:) G. W. Pedlow, *The NATO Strategy*



tional forces. They consisted of 90 army divisions, 8004 aircrafts of air forces, 3264 aircrafts of naval forces and 2324 ships of various types. According to the plan, these values were to be achieved no later than in 1954<sup>21</sup>.

The nuclear monopoly was forecasted to last a number of years and for this reason the Americans did not care much about the considerable advantage of conventional forces of the Red Army, but they focused on the economic reconstruction of Europe. The information on the successful Soviet nuclear test carried out on the last days of August 1949 changed the situation radically. A remedy for the pain after the loss of the nuclear monopoly and simultaneously the chance of coming out of the difficult situation was to be the expansion of conventional forces and the deployment of some of them in Europe<sup>22</sup>, and strengthening the nuclear arsenal. Finally, the United States approved three programs of defense of the American power in the world<sup>23</sup>:

- the permanent deployment of the part of nuclear weapons in Europe as an attempt to balance the Soviet's conventional weapons superiority;
- the accelerated production of next atomic bombs in order to maintain the quantitative and qualitative advantage over the Soviet Union<sup>24</sup>;
- launching the construction project of the so-called "superbomb", i.e. the thermonuclear bomb<sup>25</sup>.

The report NSC-68 (a revised synthesis of the militarized containment strategy drawn up in the late winter and spring of the year 1950) alluded to above plans. Its most important part related to nuclear weapons. It fairly pessimistically evaluated the fact, that despite the possibility of inflicting serious losses on the Soviet Union, the United States would not be able to stop it from taking Western Europe. For this reason, the United States should have been strengthening its nuclear arsenal and at the same time expanding conventional forces along with allies. Although a preventive war was out of question it was still believed that the future war would be nuclear, in which the United States would not abandon the principle of "first nuclear strike"<sup>26</sup>.

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Documents 1949-1969, [online]., Available on the Internet: <http://www.nato.int/archives/strategy.htm>, [Accessed on: 03.09.2015].

<sup>21</sup> S. Zarychta, *Doktryny i strategie NATO 1949-2012*, Gdynia 2012, p. 48; P. Schneider, *op. cit.*, p. 24.

<sup>22</sup> Such a move, however, was not provided by the North Atlantic Treaty.

<sup>23</sup> J. L. Gaddis, *Zimna wojna...*, p. 50-51.

<sup>24</sup> At the time of the Soviet test the United States had about two hundred bombs in their arsenal, and the development made by the Pentagon demonstrated that their number was not enough to defeat the Soviet Union in the event of war, see: *ibidem*, p. 51; Table of Global Nuclear Weapons Stockpiles, 1945-2002, (in:) *Archive of Nuclear Data From NRDC's Nuclear Program*, [online]. Available on the Internet: <http://www.nrdc.org/nuclear/nudb/datab19.asp>, [Accessed on: 06.09.2015].

<sup>25</sup> Despite many doubts and sceptical views of some scientists and advisers of US President on starting work on a hydrogen bomb, Truman was determined that work should have started as soon as possible. As it was commonly believed, there was no assurance that the Soviets would not conduct thermonuclear diplomacy, if they were the first to produce a superbomb, see: J. L. Gaddis, *Teraz już wiemy... Nowa historia zimnej wojny*, Warsaw 1998, p. 135.

<sup>26</sup> More: *A Report to the National Security Council - NSC 68*, Washington 1950.

The outbreak of the Korean War in June 1950<sup>27</sup> became the impetus for starting the intensive arms race. Most European countries, in line with the Alliance assumptions, launched programs of the expansion of their armed forces, thus starting preparations for a possible conflict on a global scale<sup>28</sup>. The peace and the international order maintained over the next years was just the result of "fragile balance of terror", which produced the state of the mutual belief that the use of nuclear weapons by one side would lead immediately to a quick, inevitable and devastating retaliation from the other side<sup>29</sup>.

In September 1950, during the NATO Council in New York, there was adopted the concept of the so-called advance strategy aimed at the transfer of combat operations onto the territory of the Eastern bloc in the event of a war in Europe. In the subsequent months General Dwight Eisenhower was appointed the first Supreme Commander of the Allied Forces in Europe. At the same time the NATO area was divided into the Strategic Atlantic Zone and the European Strategic Zone, calling the latter the European War Theater. It consisted of three theaters of war: North (Norway, Denmark and the North Sea and the Baltic Sea), Central (Western Europe) and South (Italy and the Mediterranean Sea)<sup>30</sup>.

In autumn 1951, after analyzing the military situation in the countries of the Eastern bloc, NATO made a decision to speed up the pace of armaments. It was assumed that by the end of 1952 forty divisions<sup>31</sup> would reach the state of full operational readiness within the Armed Forces of the Alliance. These forces were to be "a shield" protecting Western Europe from a possible attack from the East. At the same time the United States and the United Kingdom were to create power of "the sword", consisting of strategic bombers armed with nuclear weapons, being able to carry out "massive retaliation"<sup>32</sup>.

The changing political and military situation in the world<sup>33</sup> raised the need to update the Alliance's strategy. In December 1952 the new *Strategic Concept for the Defense of the North Atlantic Area – MC 3/5* was approved, which foresaw the conduct of massive operations in the European Theater of War by all means, including the use of a nuclear

<sup>27</sup> Although the conflict in Korea (1950-1953) on a global scale was of local nature and was in fact a civil war, after its internationalization, i.e. the direct involvement of the United States and the Soviet Union, it extremely exacerbated the international tension and the danger of a nuclear war, more: J. Kukułka, op. cit., p. 88–92. M. Rojszczak, Broń jądrowa. Boży gniew, Edition 2001, [online]., Available on the Internet: <http://www.atominform.pl/archiwum/atominform.pdf>, [Accessed on: 13.01.2014].

<sup>28</sup> The Federal Republic of Germany was planned to be involved in this process. However, the opposition of France slightly postponed the rearmament of Germany see: J. Kukułka, op. cit., p. 73.

<sup>29</sup> M. Howard, *Wojna w dziejach Europy*, translated by T. Rybowski, Wrocław 1990, p. 178, 182.

<sup>30</sup> S. Zarychta, op. cit., p. 66.

<sup>31</sup> The plans to form the 90<sup>th</sup> division proved to be unrealistic.

<sup>32</sup> J. Kukułka, op. cit., p. 116-117.

<sup>33</sup> The final division of the German state, the seizure of power by the communists in China, the proclamation of the Peoples Republic of China in 1949, the outbreak of the war in Korea, the United States' proposal of rearmament of West Germany in 1950, and the accession of Turkey and Greece to NATO in 1952.

weapon<sup>34</sup>. *MC 3/5* was accompanied by the detailed *Strategic Guidelines – MC 14/1*, which contained the general assumptions of the NATO defense policy, emphasizing, among other things, that the Alliance did not pose a threat to the Soviet Union and did not intend to fight against it, but usurped the right to protect its territory against hostile attacks through the development of military force. The document was also the general concept of organization of defense on the European theater and the objectives to be achieved<sup>35</sup>.

The modified NATO's strategy remained in force for five years. But already in 1954 it was completed with the new guidelines of the Military Committee so as to increase the defense capabilities of the Alliance. The documents *MC 48* and *MC 48/1* presented directions of the most effective military development of NATO. In contrast to previous strategic concepts, the role of a nuclear weapon in a future war was pointed there, as well as the importance of planning and preparation for the defense with its use from the very beginning of the conflict. Thereby, it was the first NATO's strategy document containing guidelines for the implementation of the new US strategy – the strategy of "massive retaliation"<sup>36</sup>.

## 2. NUCLEAR "CONTAINMENT" CONCEPTS

A nuclear weapon caused turmoil in the US military doctrine, which had been verified in victorious campaigns of the World War II. The attempts were made to adapt the new type of weapon of mass destruction to the doctrine of strategic bombing, but the atomic bomb turned out to be too powerful to force it into the framework of existing doctrines<sup>37</sup>. The search for new solutions as the foundation for a new type of a strate-

<sup>34</sup> More: Note by the Secretary to the North Atlantic Military Committee on The Strategic Concept For The Defense Of The North Atlantic Treaty Area, (in:) G. W. Pedlow, *The NATO Strategy Documents 1949-1969*, [online]. Available on the Internet: <http://www.nato.int/archives/strategy.htm>, [Accessed on: 09.09.2015].

<sup>35</sup> North Atlantic Military Committee Decision on M.C. 14/1. A report by the standing group on strategic guidance, (in:) G. W. Pedlow, *The NATO Strategy Documents 1949-1969*, [online]. Available on the Internet: <http://www.nato.int/archives/strategy.htm>, [Accessed on: 09.09.2015].

<sup>36</sup> S. Zarychta, op. cit., p. 52; North Atlantic Military Committee Decision on M.C. 48. A report by the Military Committee on The most effective pattern of NATO military strength for the next few years, (in:) G. W. Pedlow, *The NATO Strategy Documents 1949-1969*, p. 235-236, 241-242, [online]. Available on the Internet: <http://www.nato.int/archives/strategy.htm>, [Accessed on: 09.09.2015]. The containment strategy became the foundation of the massive retaliation strategy announced in January 1954 by the Eisenhower's administration. However, the official concept of "massive retaliation" was introduced to NATO only in 1957, while the USA had already developed a new doctrine of "flexible response" in their own strategic concepts, see: J. Kukuła, op. cit., p. 117; S. Zapolski, op. cit., p. 13.

<sup>37</sup> Nuclear weapons introduced fundamental changes in military planning. The strategy was revolutionized under its influence. It was also the cause for serious disputes, especially between the air forces and the navy, which already before the end of the war had been in a privileged position in the American Armed Forces. The effectiveness of the atomic bombing in Japan and a monopoly on the delivery of weapon decided, however, that the strategic air forces were supposed to be a guarantee of victory in a future war, see: Cz. Madajczyk, *Pax Americana jako Pax Atomica*, p. 215-216, [online]., Available on the Internet: [http://www.rcin.org.pl/Content/53322/WA303\\_72080\\_A507-DN-R-17-1\\_Madajczyk.pdf](http://www.rcin.org.pl/Content/53322/WA303_72080_A507-DN-R-17-1_Madajczyk.pdf), [Accessed on: 07.09.2015].



gy began. Its evolution was influenced by the changing US policy, which treated the nuclear arsenal as the most convenient, and over the time – the only tool of deterrence of the Soviet Union, especially in Europe, where the Soviet superiority in conventional weapons was undisputable until the end of the Cold War<sup>38</sup>.

In 1945-1947 the atomic bomb was rather an element of propaganda than strengthening the military capabilities of the United States. The first war plans taking into account the new weapon proved to be documents detached from reality. The scale of the planned nuclear attack grew much faster than the stocks of bombs, which at that time were surprisingly small<sup>39</sup>.

The first American concept of a war from the category of "wishful thinking" was "Pincher" – the "temporary" war plan drawn up by the Joint War Plans Committee of Chiefs of Staff for the period from 1945 to the beginning of 1947. In various versions, this planning study assuming the outbreak of a war against the Soviet Union between mid 1946 and mid 1947 postulated the use of from 20 to 200 atomic bombs. The plan did not indicate the specific targets to drop them, but it was assumed that bombing would be carried out within the framework of an attack rather than defense, at a time when the United States did not expect nuclear retaliation<sup>40</sup>.

"Broiler", the plan drawn up in 1947, had a similar vision of the course of a war. But it contained a list of goals of atomic bombing. The use of 34 bombs on 24 cities was initially foreseen; then the list of targets expanded to about 100 towns. The plan did not call the legitimacy of a nuclear attack into question, because, as Air Force planners claimed, a city was a concentration of the industry. Hence, urban agglomerations seemed to be the most convenient objects for nuclear attack, which would terrorize the population, upset the functioning of the socio-political order, and additionally destroy industrial plants and military installations<sup>41</sup>.

On the other hand, in 1948 "Fleetwood" assumed the destruction of 70 Soviet cities using 133 bombs, 8 of which were to be dropped on Moscow and 7 on Leningrad. In the case of prolongation of a war, 200 bombs were expected to be used and destroy 40% of Soviet industry and take the life of 7 million inhabitants of this country<sup>42</sup>.

<sup>38</sup> P. Grudziński, *Teologia bomby. Narodziny systemu nuklearnego odstraszenia 1939-1953*. Tom II..., p. 5-6.

<sup>39</sup> The reason for this state of affairs was the ignorance of military planners as to the actual state of the nuclear arsenal.

<sup>40</sup> Ibidem, p. 145-146; Cz. Madajczyk, op. cit.

<sup>41</sup> In the case of Pincher and Brolier, American planners did not have knowledge of the major industrial and the military centres of the Soviet Union. Moreover, they used the pre-war German maps and aerial photographs from the World War II. Notably, Pincher and Brolier plans and the next ones were not operational plans. Until 1947 neither a short-term nor long-term plan of a war using nuclear weapons was agreed upon and approved by the Chiefs of Staff, see: P. Grudziński, *Teologia bomby. Narodziny systemu nuklearnego odstraszenia 1939-1953*. Tom II..., p. 150-152.

<sup>42</sup> Cz. Madajczyk, op. cit. p. 213.

Assumptions of most war plans developed during the American nuclear monopoly did not correspond to the real capabilities of the armed forces<sup>43</sup>. The US nuclear arsenal in April 1947 amounted to only 7-8 bombs<sup>44</sup>. This was mainly due to a lack of President Truman's interest in strategic aspects of nuclear energy. His attention was focused on entrusting the nuclear project to the US Atomic Energy Commission<sup>45</sup>, and the possible use of the US monopoly for obtaining the advantageous formula of nuclear disarmament<sup>46</sup>. Truman's attitude to the use of nuclear weapons in a potential war with the Soviet Union changed after the Berlin Crisis, which turned out to be a direct test of the American strategy<sup>47</sup>. Although, solving the crisis was considered by Washington as the unquestionable success of the United States, however, the effectiveness of the threat of the use of nuclear bombs, especially with their small amount in the US arsenal, left room for doubts.

The establishment of the Atomic Energy Commission speeded up the rate of the nuclear weapon production and the start of work on new types of bombs with significantly increased capacity<sup>48</sup>. As a result, only in the late 1940s the United States passed from

<sup>43</sup> In the years 1946-1949 nine war plans were developed, i.e. Pincher, Broiler, Grabber, Bushwacker, Offtackle, Fletwood, Dropshot. In each of them a nuclear weapon played a decisive role, see: *ibidem*. The plans developed at the end of Eisenhower's presidency targetted at every major city in the Soviet Union and other communist countries. It was estimated that it could result in 360 - 525 million deaths, see: M. McKinzie, T. Cochran, R. Norris, W. Arkin, *The U.S. Nuclear War Plan. A Time For Change*, Natural Resources Defense Council 2001, p. 114.

<sup>44</sup> Starting in September 1945, the production of atomic bombs did not probably exceed one bomb a month. According to various sources, in 1946, the Americans held from 9 to 11 Mark III implosive bombs (the improved version of the so-called "Fat Man" used in Nagasaki, equipped with uranium and plutonium fissile cores). After the July tests of Able and Baker at Bikini Atoll their number even more decreased. P. Grudziński, *Teologia bomby. Narodziny systemu nuklearnego odstraszania 1939-1953*. Tom II..., p. 138-139; *Table of Global Nuclear Weapons Stockpiles, 1945-2002*, (in:) *Archive of Nuclear Data From NRDC's Nuclear Program*, [online]. Available on the Internet: <http://www.nrdc.org/nuclear/nudb/datab19.asp>, [Accessed on: 06.09.2015].

<sup>45</sup> Under the Act of 1946 a nuclear weapon was recognized as a distinct part of the arsenal, the use of which was to be decided only by the president of the United States.

<sup>46</sup> On 15 June 1946, at the forum of the Atomic Energy Commission created under the aegis of the United Nations, the United States presented the 14-point program referring to the establishment of an authority, which would have in its resources all kinds of fissile materials, and would supervise all institutions interested in using them at the same time. Owing to this concept, the United States wanted to maintain their monopoly on nuclear weapons. After two years of work on this concept and approx. 200 sittings held, the Commission informed the Security Council that it was impossible to reach a compromise between the concept supported by the majority of the members of the Commission, including the USA, and the Soviet Union, which suggested the unconditional renunciation of nuclear weapons by the USA and leaving the peaceful activities under control of individual states, more: *The United Nations and Disarmament 1945-1970*, United Nations, New York 1970, p. 12-34.

<sup>47</sup> Deploying sixty bombers B-29 (the so-called atomic-capable) to bases in England was a very meaningful sign of the possibility of using the threat of a nuclear attack. Planes were neither armed with nuclear bombs nor even adapted to their delivery, that was not unveiled by Truman's administration, see: A. J. Rotter, *Bomba atomowa – Świat wobec zagrożenia*, Warsaw 2011, p. 228.

<sup>48</sup> The introduction of numerous structural changes ultimately allowed more than 10-fold increase in yield, from 18-49 kt in the case of Mark III to 500 kt in the model Mark 18 Super Oralloy (U-235). In

the era of relative nuclear poverty to the era of nuclear abundance. The huge expansion of nuclear plants more than covered the demands of the armed forces<sup>49</sup>. In the autumn 1948, the Commission announced its intention to produce 400 bombs two years earlier than expected. In 1952, the nuclear arsenal increased to more than 1000 bombs, and at the end of the decade for another 18 times<sup>50</sup> (Table 1).

The end of the 1940s was a turbulent period, not only in the American foreign policy. At that time US ideologists and commanders had to face the question as to the choice of the type of a war that was necessary to get ready for. The answers were searched for the questions: *Should it be a total or local war? Which component of the armed forces was to take the lead in military operations?* The war experiences justified the theory of a war on a large scale, where the air forces had to play a strategic role<sup>51</sup>. They were very powerful at the beginning of the new decade. The core was constituted by the Strategic Air Command, which enjoyed almost exclusive right for the implementation of the nuclear strategy. In fact, the development of the nuclear striking force was treated as a substitute for the harmonious development of all the armed forces. At the end of 1949 SAC had 72 thousand people and 610 planes, and four years later, already 171 thousand people and more than a thousand bombers<sup>52</sup>.

The first Strategic Air Operational Plan was created in 1949 and anticipated the use of the entire nuclear arsenal in a single massive attack on the main Soviet urban-industrial agglomerations. It assumed that attacking 70 cities would cause the paralysis of Soviet control and industrial centres, as well as a drastic reduction of offensive and defensive capabilities of their armed forces. However, another plan developed after breaking the US nuclear monopoly and the outbreak of the Korean War focused not on cities but on the particular branches of industry of exceptional importance for the Soviet military potential. The highest priority set by the Chiefs of Staff was to be the destruction of 'targets related to the Soviet's ability to carry nuclear bombs'. The second

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the meantime, there were used new cores in Mark IV bombs (the mass-produced from 1949 until April 1951), which increased their power by 75% at an unchanged mass of fissile material. In May 1952 the arsenal was enlarged by Mark V produced in Los Alamos, the first light bomb for the tactical use, which soon was followed by five other types of Mark IX, with a nuclear missile designed for 280 mm howitzer at the head, see: P. Grudziński, *Teologia bomby. Narodziny systemu nuklearnego odstraszania 1939-1953. Tom II...*, p. 240, 247.

<sup>49</sup> Determining the appropriate quantity of the nuclear arsenal was associated with the clarification of war objectives. Their continuously increasing number resulted in the need for the development of a long-term project of the army's demands for nuclear weapons. At the end of 1947, Heads of Staff wanted the Atomic Energy Commission to produce 400 Nagasaki-type bombs before 1 January 1953. During the period of the American nuclear monopoly this number was recognized to be sufficient to carry out the attack on 100 Soviet towns within the so-called concept of killing a nation, see: *ibidem*, p. 152, 154.

<sup>50</sup> Table of Global Nuclear Weapons Stockpiles, 1945-2002, (in:) Archive of Nuclear Data From NRDC's Nuclear Program, [online]. Available on the Internet: <http://www.nrdc.org/nuclear/nudb/datab19.asp>, [Accessed on: 06.09.2015].

<sup>51</sup> J. Lider, *Doktryna wojenna Stanów...*, p. 51-55.

<sup>52</sup> P. Grudziński, *Teologia bomby. Narodziny systemu nuklearnego odstraszania 1939-1953. Tom II...*, p. 237.

crucial task to perform was the delay of a Soviet attack and destroying energy complexes, including the nuclear industry<sup>53</sup>.

**Table 1.** The US and Soviet nuclear arsenals in the years 1945-1960

The year end	The USA						The USSR					
	Strategic warheads			Non - strategic warheads	TOTAL	Strategic warheads			Non - strategic warheads	TOTAL		
	ICBM*	SLBM**	BOMBS			ICBM*	SLBM**	BOMBS				
1945	0	0	6	0	6	0	0	0	0	0	0	
1946	0	0	11	0	11	0	0	0	0	0	0	
1947	0	0	32	0	32	0	0	0	0	0	0	
1948	0	0	110	0	110	0	0	0	0	0	0	
1949	0	0	235	0	235	0	0	0	1	1	1	
1950	0	0	369	0	369	0	0	0	5	5	5	
1951	0	0	549	91	640	0	0	0	25	25	25	
1952	0	0	800	205	1005	0	0	0	50	50	50	
1953	0	0	1000	436	1436	0	0	0	120	120	120	
1954	0	0	1500	563	2063	0	0	0	150	150	150	
1955	0	0	2200	857	3057	0	0	0	200	200	200	
1956	0	0	3000	1618	4618	0	0	126	300	426	426	
1957	0	0	4200	2244	6444	0	0	160	500	660	660	
1958	0	0	5700	4122	9822	0	6	263	600	869	869	
1959	6	0	7000	8462	15468	0	35	326	700	1061	1061	
1960	13	34	6954	13433	20434	2	32	372	1200	1606	1606	

\* ICBM - Intercontinental Ballistic Missile

\*\* SLBM - Submarine Launched Ballistic Missile

Source: Own study based on: Table of US Nuclear Warheads, (in:) Archive of Nuclear Data From NRDC's Nuclear Program, [online]. Available on the internet: <http://www.nrdc.org/nuclear/nudb/datab9.asp>; Table of USSR/Russian Nuclear Warheads, [Accessed on: 06.09.2015], (in:) Archive of Nuclear Data From NRDC's Nuclear Program, [online]. Available on the internet: <http://www.nrdc.org/nuclear/nudb/datab10.asp>. [Accessed on: 06.09.2015].

<sup>53</sup> Ibidem, p. 233.

A hydrogen bomb<sup>54</sup> became a kind of breakthrough in the development of a strategic deterrence system.

Although the decision to construct it and introduce to the nuclear arsenal was accompanied by serious, not only moral, dilemmas<sup>55</sup>, the vision of an opportunity to regain nuclear advantage over the Soviet Union prevailed. Regardless of the opinions of many scientists and military experts, who considered a superbomb as "a terrible weapon" falling outside – like an atomic bomb – the category of "military weapons", which instead of destroying military purposes may have been an effective means to the destruction of large cities<sup>56</sup>, the principle of economics ordered to make every effort so as to obtain it. As demonstrated in the reports, one bomb of a new type could replace 143 nuclear bombs destroying everything in the area of 1000 square miles. The cost of

<sup>54</sup> The program to verify the operating principles of "H-bomb" was developed in the spring 1951. The first experiment with the fusion device Mike took place within the series of Ivy on 31 October 1952 in the Eniwetok Atoll. The test was a success in the form of an explosion estimated at 10.4 Mt. Because the 21-ton mechanism of frozen liquid fuels occupied an area of a building size, it could not be treated as a bomb. Only Bravo of 28 February 1954, which was the first model of a superbomb from the series of tests codenamed Castle reaching 15 Mt was considered as the first American thermonuclear bomb, see: Operation Ivy, [online]. Available on the Internet: <http://www.nuclearweaponarchive.org/Usa/Tests/Castle.html>, [Accessed on: 09.09.2015]; Operation Castle, [online]. Available on the Internet: <http://www.nuclearweaponarchive.org/Usa/Tests/Castle.html>, [Accessed on: 09.09.2015].

<sup>55</sup> The successful Soviet atomic tests gave rise to numerous discussions and debates on the construction of a hydrogen bomb in the United States at the turn of 1949/1950. George Kennan called for an end to the use of such weapons as a tool of warfare. In his opinion, it was to be primarily a tool of deterrence. The Atomic Energy Commission and the Department of State shared Kennan's opinion. The Congress and the Joint Chiefs of Staff took completely different position on this issue, arguing that a nuclear weapon should be used as an offensive means of warfare. In fact, there was no guarantee that the USSR would not conduct hydrogen weapon tests after the USA had ceased such activities. On 31 January 1950 the President Truman signed an authorization to start a program to build a hydrogen weapon. The government was convinced that the very idea of building such a weapon would give the United States an advantage over the Soviet Union, see: J. L. Gaddis, *Strategie powstrzymywania...*, p. 109-113. In the Soviet Union the distinction between nuclear and thermonuclear bombs has never been as important as in the United States. The construction of a hydrogen bomb was treated as a logical continuation of the previously initiated process and did not cause dilemmas encountered by the Americans. One of the creators of the Soviet thermonuclear bomb, Andrei Sakharov, stated that every decision of Washington aimed at withholding or terminating work on a hydrogen bomb would be seen in the Soviet Union as a trick, a masking maneuver or the evidence of weakness. Soviet leaders were aware of the possibility of new weapons and nothing was able to dissuade them from achieving the goal. On 8 August 1953 the Prime Minister Malenkov informed public opinion that the United States had lost their monopoly not only on nuclear but also hydrogen weapon. The test of a thermonuclear device made four days later was only the fourth Soviet nuclear test, see: J. L. Gaddis, *Teraz już wiemy...*, p. 135.

<sup>56</sup> According to analyzes carried out at the turn of 1951/1952 the 5-10 Mt bomb would kill anyone who would be placed in the area of 130 square kilometers around the zero point, and all others in the area of 777 km<sup>2</sup> would suffer burns. After transferring the data on maps, it turned out that 55 superbombs of the yield of 20 Mt each would destroy 50 Soviet cities, killing 35 million inhabitants provided that they had been able to hide in shelters, which remained after the World War II, see: P. Grudziński, *Teologia bomby. Narodziny systemu nuklearnego odstraszenia 1939-1953*. Tom III, *Bomba termojądrowa*, Warsaw 1988, p. 251.



the fusion program was estimated at only \$200-300 million, that is a small part of the sum spent on the nuclear program<sup>57</sup>.

The unquestionable advantage of a superbomb, in addition to relatively low costs of its production, was huge, theoretically unlimited power, with much smaller sizes than those of an atomic bomb<sup>58</sup>. This fact became the impetus for intensive work on the development of ballistic missiles, thus ending a period of supremacy of strategic air forces. Their development in the two powers meant that for the first time the Americans recognized that their strategic bases were at risk. This resulted, in turn, in a huge emphasis on the speed and nature of a massive nuclear attack targeted primarily at Soviet strategic nuclear forces<sup>59</sup>. But it did not seem to be commonly realized that this way of using hydrogen bombs, connected with an attack on urban areas and the lack of precision of missiles, would undoubtedly lead to the destruction of the civilian population.

The new conditions and, above all, the fact of the establishment of Soviet strategic forces influenced the evolution of the American nuclear doctrine. According to its assumptions, taking the preparations for the first task – an pre-emptive nuclear attack with the relevant strengthening the protection of their own striking forces – would be the response to the threat to US strategic forces. The construction of the effective anti-aircraft defense of the United States, especially American cities, against a nuclear attack remained the costly alternative. This postulate of civil defense was raised practically to the end of the 1950s, that is the last days of limiting the validity of the next American strategy – "massive retaliation". In the 1960s, under the influence of successive doctrinal transformations, it was replaced by the concept of perceiving urbanised targets as a guarantee of stability of the strategic deterrence system<sup>60</sup>.

## CONCLUSION

After the end of the World War II, the United States benefiting from material and technology advantage focused on expanding its nuclear arsenal while neglecting the development of strategic thinking. Its exceptional deficiency was proved by the attachment to the concept of nuclear strikes aimed at the cities, which had been modeled on the choice of objectives of strategic bombing in Germany and Japan, launched

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<sup>57</sup> Ibidem, p. 103, 120.

<sup>58</sup> Increasing the yield of a thermonuclear yield of one kiloton could have been achieved by adding deuterium of value of 60 cents (prices of 1950). Opponents of a hydrogen weapon feared that the principles of economics would force the construction of larger and larger bombs, of the yield of gigatons. However, after a short period of time of producing bombs with the yield of more than 5 or even 20 megatons it was recognised that the construction and technological development of relatively "small" yields, to 1 megaton, is more advantageous from the strategic point of view, see: ibidem, p. 229-230; T. Pióro, *Broń jądrowa (geneza - działanie - skutki)*, Warsaw 1971, p. 46.

<sup>59</sup> The first air strikes were to be directed against the Soviet nuclear arsenal and laboratories. The possibility of destroying US nuclear bombs in Europe by the enemy was also taken into consideration, see: P. Grudziński, *Teologia bomby. Narodziny systemu nuklearnego odstraszania 1939-1953*. Tom III..., p. 153.

<sup>60</sup> Ibidem, p. 188.

in the containment strategy and continued in the following years under the heading of "massive retaliation". As a result, in the late 1940s and early 1950s there were conducted preparations for a nuclear war in line with the strategy, the actual purpose of which was not to break the enemy's armed forces but destroy the whole population, even though the actual condition of the nuclear arsenal did not allow that.

The thermonuclear bomb did not change the main direction of the US strategic thinking as well. Even after losing the nuclear monopoly by the USA, the weakness of their conventional troops revealed in Korea, or during the general fear of the Soviet superbomb, it was still regarded as the only tool to effectively deter the Soviet Union from the breach of the post-war governance in Europe. What is worse, it was also the mass substitute of the land forces, which was perfectly attuned to the budgetary constraints in the period of "containment", and it was cheaper and more convenient not only for the US but also for the Western society. It was believed that a nuclear weapon was the best and the most versatile instrument to resolve any problems of a future war.

The desire to balance and exceed the Soviet conventional potential led the United States on the track of the nuclear arms race. This, in turn, was driven by the technological spiral and faith in the philosophy of deterrence, which assumed that peace could be maintained only through making an opponent aware of inevitable punishment awaiting in the form of nuclear retaliation. This philosophy was, after all, derived from the contradictory Truman's administration's nuclear strategy, which, as a military strategy, did not resign from bombing of cities and while scaring and ensuring the security of the Allies it proposed a rapid and massive nuclear attack at the same time.

This fact, as well as the unequivocal Americans and their European allies' opting for such a strategy, was the harbinger of the nuclear arms race, which might have been long and exhausting for both superpowers. The race, which was really getting started then, rising to absurd dimensions often led the world to the verge of nuclear annihilation.

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