SECURITY ENVIRONMENT AND NUCLEAR BALANCE DURING THE COLD WAR

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ABSTRACT

IN THE THEORIES OF INTERNATIONAL RELATIONS, THE PLURALITY OF PERSPECTIVES AND SHADES CANNOT MAKE ABSTRACTION OF POLITICAL REALISM, ESPECIALLY WHEN IT DEALS WITH THE REALITY OF NUCLEAR WEAPONS.

THE BALANCE OF NUCLEAR POWER HAS REMAINED ON AN UNDISPUTABLE PLANETARY STABILITY. EVEN THOUGH THE DOCTRINES HAVE PROMOTED A SERIES OF APOCALYPTIC VARIANTS IN ORDER TO DISCOURAGE THE OPPONENT TO BE THE FIRST TO USE A NUCLEAR WEAPON, THE LATEST RESEARCHES, RIGHT AFTER 1989, HAVE SHOWN ALL ALONG THAT NO SUPERPOWER HAS INTENDED TO BE THE FIRST TO EXECUTE THE NUCLEAR STRIKE.

FURTHERMORE, A NUMBER OF RECENTLY PUBLISHED STUDIES SUSTAIN THAT THE BALANCE OF THE NUCLEAR THEORY IS NOT THE ONLY EXPLANATION OF THE LACK OF AN APOCALYPTIC WAR.

THE ANALYSIS OF THE NUCLEAR TRIAD, THE SKELETON OF THE MILITARY POWER OF THE MILITARY SUPERPOWERS WILL ALWAYS BE SUPPLEMENTED BY TAKING INTO ACCOUNT THE NON-STRATEGIC NUCLEAR WEAPONS AND ESPECIALLY WITH THE RESONANCES OF THE LACK OF POLITICAL AND LEGAL GUARANTEES OF MISSILE SHIELDS.

KEYWORDS: NUCLEAR SUPERPOWER, POLITICAL REALISM, SALT I, SALT II, ABMT

The contemporary security environment is founded on the concept of power expressed through foreign policy and influence as the synthesis of control and authority, with various meanings not only in relation with the perceptions at a national level but also with the visions of various theoretical currents on international relations. In fact, there is a very interesting debate on the relationship between power and influence which essentially also relates to the realistic perspective of international relations[1].

The complexity of the concept of power is organized on three interconnected dimensions: power as attribute, power as relation and the structure of power.[2] In the literature of the field, the analysis of the relational dimension of power is done by

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[1] See, Hans Morgenthau and Kenneth Thompson, *Politics Among Nations*, 6th Ed., New York: McGraw-Hill, 1985, pp. 165 and seq.

[2] Robert Dahl offered a classic formulation of relational power when he suggested that power is the ability to neither get another actor to do what it would not otherwise have done or not to do what it would otherwise have done. See, Dahl R. (1970) *Modern Political Analysis*, New York, Prentice Hall.

quantifying the power[3] weighted by the context in which it is exercised and by the asymmetrical nature of power relations. The analysis of the expression of power within the major power relations in the past has shown that the asymmetry is more important than the context, when determining the structure of power relations. In 1939, a letter addressed to the U.S. President warned about Germany's intention to develop a new weapon with huge destructive power. The American authorities have decided to lay the basis of the Manhattan project[4], with the goal of developing and detonate nuclear weapons. In 1948, the Berlin Crisis[5] determined the U.S. President and the National Security Council[6] to approve NSC-30[7], the political document that promoted the strategic option of using nuclear weapons.[8] As an application of the power structuring, the modality of spreading technologies in the nuclear field and nuclear weapons represent an asymmetric process of globalization.

The major difficulty of quantification of the power dimensions is determined by a number of conditions which do not allow an algorithm for power analysis. It is without doubt that the notion of "balance of power" raises obvious questions: what we measure and how we can demonstrate its existence. The major economic actors, either countries or geopolitical centers of power, no longer have in view the expansion their territories, as they used to during the past historical periods, but areas rich in energy and mineral resources, which can ensure their development and supremacy on the long term. Until 1949, when the Soviets detonated their first nuclear device, the United States had held a monopoly on manufacturing technology of the most destructive weapons of all time. The first coherent American nuclear strategy, "first strike assured destruction" stipulates the release of nuclear bombs on enemy targets.[9] The NSC-68 memorandum[10], establishes, among others, the development of nuclear capabilities, the implementation of the nuclear protection measures at a military and civilian level and the development of the hydrogen bomb.[11]

In 1962, after the Cuban missile crisis[12] the United States renounced to their "first strike assured destruction" strategy for "the massive retaliation and damage limitation"

[3] Basic force model of power.

[4] Available from NetLibrary: http://www.atomicarchive.com/History/mp/; The Manhattan Project: Making the Atomic Bomb (accessed 10 August 2013).

[5] The Berlin blockade (24 June 1948 - May 11, 1949) is one of the first major international crises of the Cold War, marked by the time when the Soviet Union blocked the road and the rail access to West Berlin.

[6] Available from NetLibrary: http://www.atomicarchive.com/History/mp; United States National Security Council.

[7]This is the first document which provided the strategic use of such capabilities. Available from NetLibrary: http://www. isodarco.it/courses/andalo09/doc/eden_sagan-Moving-Targets-Ch1.pdf. (accessed 10 August 2013)

[8] The US strategy of "preventive war" supports the carrying on of nuclear strikes on the Soviet Union and also military countermeasures in case the Soviets are preparing for a nuclear attack or develop an offensive for the occupation of the whole Europe, namely the destruction of the Soviet capabilities to initiate and lead the war. Available from NetLibrary: http://www.fas.org/irp/offdocs/pd/pd30.pdf. (accessed 10 August 2013)

[9] See, NSC-162-2; Available from NetLibrary: http://www.fas.org/irp/offdocs/nsc-hst/nsc-162-2.pdf; http://www.fas.org/irp/offdocs.htm. (accessed 10 August 2013)

[10] "United States Objectives and Programs for National Security"; Available from NetLibrary: http://legacy.wilsoncenter.org/ coldwarfiles/files/Documents/nsc68.pdf; http://www.fas.org/irp/nsc.htm. (accessed 11 August 2013)

[11] The wars in Korea and later on in Viet Nam had a significant influence on the decision making that regarded the doctrine of using nuclear weapons. Edward Teller, Stanislaw Ulam, *Ivy Mike* test. Available from NetLibrary: http://www.trumanlibrary.org/ whistlestop/study_collections/coldwar/documents/pdf/10-1.pdf. (accessed 10 August 2013).

[12] The American spy planes have discovered Soviet bases for launching SS-4 Sandal missiles in Cuba, thermonuclear warhead missiles, which were considered an imminent danger because, having an average range (2000 km), were able to strike a large number of very important American cities. The withdrawal of the

strategy.[13] The presence of Soviet missiles in Cuba has raised a series of terrifying possibilities: the use of nuclear weapons may take place because of wrong political decisions, uncontrolled escalation of a crisis, a range of technical and human errors, improper activities that generate an unsound use of nuclear installations.[14] An improper or unintentional action can be interpreted not only as a mistake of the carrying out of preventive actions but it can also be seen as a vulnerability of nuclear system as a whole. It should be noted that technical systems cannot be considered "perfect" as errors cannot be excluded, because a technical system without failures does not exist. The nuclear strikes victims remain victims regardless of whether the attack was an accident;[15] and the accidental nuclear strike launch is a very serious possibility that induces the absurd MAD.[16]

The fundament of U.S. nuclear strategy is "the balance of terror"[17]- the insurance of a number of nuclear strikes in response to aggression will result in damage and unacceptable loss of life -so that any nuclear war would involve mutual assured destruction (MAD), namely the existence of a stability of the balance of power through consequences.[18] The option is the flexibility by establishing an optimum mix of the nomination of targets, first the nuclear ones, then the others, maintaining a large number of operational nuclear warheads, on the consideration that the USA have nuclear superiority.[19]

Soviet missiles from Cuba obliged USA to withdraw intermediate range missiles (MRBM) from Turkey. Available from NetLibrary: http://www.state.gov/www/about_state/history/frusXI/index.html. (accessed 12 August 2013).

[13] Single Integrated Operational Plan, SIOP-62 was the US government's first comprehensive nuclear war plan, the first attempt to synchronize the nuclear forces of the US Air Force, Navy, and Army so that they could be used in a pre-emptive or retaliatory massive attack on the Soviet Union, China, and their communist allies. Available from NetLibrary: http://belfercenter.hks.harvard.eduCMC50/ScottSaganSIOP62InternationalSecurity.pdf. (accessed 10 August 2013).

[14] In 26 October 1962, during the Cuban missile crisis, the destroyer USS Beale attacked with grenades a Soviet submarine, equipped with 15 kilo tones torpedo nuclear warheads in order to compel it to come to the surface. The submarine, because of the oxygen consumption, was expected to rise to the surface and the presence of the American ships enabled it to take measures for self-defense, including by using nuclear torpedoes. The fact that the nuclear torpedo was not launched against the American ships led to an avoidance of nuclear counterattack from the part of the Americans. See, Scott Sagan, *The Limits of Safety: Organizations, Accidents, and Nuclear Weapons* (Princeton, NJ: Princeton University Press, 1993), and Jaya Tiwari and Cleve J. Gray, 'U.S. Nuclear Weapons Accidents'; Available from NetLibrary: http://www.cdi.org/issues/nukeaccidents/accidents.htm. (accessed 10 August 2013).

[15] Geoffrey Forden, 'False Alarms in the Nuclear Age', *NOVA documentary*, 6 November 2001, Available from NetLibrary: http://www.pbs.org/wgbh/nova/ military/nuclear-false-alarms.html. (accessed 10 August 2013).

[16] Mutual Assured Destruction – MAD.

[17] The 'balance of terror'; There is a rich literature regarding this issue; Sidney Drell and Frank von Hippel, 'Limited Nuclear War', *Scientific American*, November 1976; Samuel Glasstone and Philip J. Dolen (eds.), *Effects of Nuclear Weapons*, 3rd ed. (Washington DC: US Department of Defense and Department of Energy, 1977; *Effects of Multiple Nuclear Explosions Worldwide* (Washington DC: National Academy of Sciences, 1975); *The Effects of Nuclear War* (Washington DC: US Arms Control & Disarmament Agency, April 1979); William Daugherty, Barbara Levi and Frank von Hippel, 'The Consequences of "Limited" Nuclear Attacks on the United States', *International Security*, vol. 10, no. 4, Spring 1986, pp. 3–43.

[18] The United States build a huge nuclear arsenal in order to ensure that they have enough weapons to survive to an attack initiated by the enemy and would have the capability to execute a "second retaliatory strike ", a counter-attack that would destroy the aggressor's capability to recover its strength for decades to come. Available from NetLibrary: http://www.fas.org /irp/offdocs/direct.htm. (accessed 14 August 2013).

[19]See, SIOP-63. Available from NetLibrary: http://www.dod.mil/pubs/foi/joint_staff/jointStaff_jointOperations /337.pdf; http://www.gwu.edu/~nsarchiv /nukevault/ebb236/SIOP-63.pdf. (accessed 10 August 2013)

In 1969, the nuclear strategies avoided the hitting of the urban centers as targets in the attacks or counter-attacks on a large scale and a reduction in the number of warheads deployed for immediate use.[20]

The defining of the structure of power, particularly complex, has more perspectives, tributary to some reference authors: while Waltz R.[21] promotes the idea that power is partially structured, Strange S.[22] proposes a four-level structure: knowledge, financial, industrial and political and Mann M.[23] also goes in favor for four basic subsystems: ideological, economic, military and political. The diversity of visions is the expression of the difficulties of putting together a unitary vision on relations and developments particularly complex. In 1969, because the fact that the Soviet Union had the ability to get close to the MAD capacity of the USA, the question of anti-ballistic missile systems[24] but also to limit the escalation of nuclear arms started to be considered a issue. In 1970, the Americans realized that their opponents had succeeded in overcoming the number of deployed warheads.[25] In 1974, NSDM-242[26] suggested nuclear deterrent strategies in order to destroy the political and economic capacity of the Soviet Union. In 1980, the Presidential Directive 59 promoted the insurance of the technological supremacy in order to make the enemy aware that under no circumstances he is going to win, that is a policy of détente which no longer follows the escalating arms race.[27] In 1983, the U.S. President proposed the Strategic Defense Initiative (SDI)[28] in order to protect U.S. by the strategic nuclear ballistic missile attack. The initiative is focused on strategic defense rather than on the previous MAD doctrine.[29] As an application, the insurance of the most effective, highest and performant standards of security and nuclear safety, as well as of warning and preparedness for emergency situations is at the heart of concerns relating to nuclear energy policy on all continents.[30]

According to the vision of one of the authors concerning the structuring of power it is reiterated the fact that whatever the system may be - unipolar or multipolar - the activity of regulating the power structuring is antagonic to the tendency of selfish action of states, in

[20] Available from NetLibrary: http://www.dod.mil/pubs/foi/joint_staff/jointStaff_jointOperations/337.pdf.
[21] See, Waltz R. (1993), "The Emerging Structure of International Politics", *International security* (18), pp.18-79.
[22] See, Susan Strange (1999), "The Westfailure System", *Review of International Studies* (25), pp.345-54.
[23] See, Michael Mann (1986/1993), *The sources of Social Power*, Vol. II, Cambridge, Cambridge University Press, pp.34-56 and Michael Mann (2003), *Incoherent Empire*, London, Verso, pp.23-35.
[24] Anti Ballistic Missiles system – ABM. Available from NetLibrary: http://www.jimmycarterlibrary.gov/documents/pddirectives /pd22. (accessed 13 August 2013).
[25] Available from NetLibrary: http://www.fas.org/irp/offdocs/nsdm-nixon/index.html;
[26] *National Security Decision Memorandum 242, Policy for Planning the Employment of Nuclear Weapons*, 17 January 1974; Available from NetLibrary: http://www.fas.org/irp/offdocs/nsdm-nixon/nsdm_242.pdf.
[27] Available from NetLibrary: http://worldview.carnegiecouncil.org/archive/worldview/1980/11/3468.html/_res/id=sa_File1/ v23_i011 _a005.pdf; (accessed 14 August 2013) http://www.gwu.edu/~nsarchiv/nukevault/ebb390/; http://www.jimmycarterlibrary.gov/documents/pddirectives/pd59.pdf; (accessed 10 August 2013) http://www.jimmycarterlibrary.gov/documents/pddirectives/pres_html. (accessed 17 August 2013).
[28] The Strategic Defense Initiative - SDI focused on strategic defense rather than the prior strategic offense doctrine of Mutual Assured Destruction (MAD). Available from NetLibrary: http://www.dod.mil/pubs/foi/homeland_defense /strategic_defense _initiative/; http://www.fas.org/spp/starwars/offdocs/m8310017.htm. (accessed 10 August 2013)
[29] Available from NetLibrary: http://www.fas.org/irp/offdocs/nssd/index.html. (accessed 19 August 2013)
[30] Technological accidents, natural cataclysms that have effects on nuclear installations, the experiments, even the using of nuclear weapons in the past, have continued to bring back on the public agenda and in the political attention necessary measures to minimize and limit the risks and to guarantee the maximum reliability for safety, security and nuclear non-proliferation. See, William Daugherty, Barbara Levi and Frank von Hippel, 'The Consequences of "Limited" Nuclear Attacks on the United States', *International Security*, vol. 10, no. 4, Spring 1986, pp. 3–43.

specific conditions of anarchy of international relations.[31] Starting from "first strike policy assured destruction" and "massive retaliation" policy, then to the "MAD" phase in which the impact and response capabilities got balanced, along with "flexible response, limited destruction", "extended deterrence"[32], is currently applied, that is a flexible form of use of the strike capabilities within all the environments of war development, without giving up to the option of the preemption execution of the first nuclear strike. By initiating the Baruch plan[33] of internationalization of arms control and nuclear technologies, it is to be noted that nuclear weapons are more than mere military weapons, being in fact weapons of terror.

The approaching of the concept of power, from the perspective of international relations, cannot ignore the "dangerous nature" of the relationships among the states and due to the fact that the main objective of the states is the survival and the lack of a world government capable of exercising coercive powers in order to preserve the requirements of a state sovereignty.[34] In the literature of the field, the notion of "security dilemma" is built on the relationship of the responsibilities of the states -"intentions" and "capabilities"- and the unsafely spiral not only because of the distrust as well as the disagreements which may arise. The danger represented by the nuclear weapons and nuclear facilities, whether new or old, is shaping up as one the greatest potential danger that the world is facing.[35] For this reason, along with the threat of nuclear terrorism, fueled by the spread of nuclear materials, know-how and sophisticated weapons, a critical situation has been reached, when the possibility that the most destructive weapons could end up in criminal hands may become probable. There are questions at all international levels whether the states and the nations which possess nuclear technology involve themselves in the reduction their own arsenals or to diminish them up to the eradication of their own vulnerabilities.

Although the fact that the states are satisfied with their situation within the current international order and do not show declared aggression, however, the existence of a feeling of insecurity makes the states preserve their means of self-defense, which means an improvement (not only defense but also offensive).

If a state strengthens its power correlatively some other states will do the same, reinforcing the spiral of "insecurity" in order to ensure a balance/balance of power.[36] According to analyses made by the *Centre for Research on Globalization* (CRG), as well as other analysis institutes,[37] there is currently a very large number of nuclear weapons on

[31] See, Waltz R. (1993), "The Emerging Structure of International Politics, *International security* (18), pp.50-52.

[32] The section 17 of NATO's Strategic Concept, Lisbon 2010, defines the policy of "extended deterrence" as a deterrence based on an appropriate mix of nuclear and conventional capabilities, as a central element of the overall strategy. As long as nuclear weapons exist, NATO will remain a nuclear alliance.

[33] The Baruch Plan was a suggestion of the United States Government, written largely by Bernard Baruch, and was based on the Acheson-Lilienthal report to the United Nations Police Commissariat for Atomic Energy (UNAEC), in its first meeting in June 1946. The United States of America, the United Kingdom and Canada have asked for the creation of an international organization with the goal to regulate and control the use of atomic energy. Available from NetLibrary: http://www.isodarco.it/courses/andalo09/doc/eden_sagan-Moving-Targets-Ch1.pdf. (accessed 10 August 2013)

[34] See, Schmitt B., (1932/1998), *The Political Discourse of Anarchy*, A Disciplinary History of International Relations, Albany, NY, State University of New York Press, pp.24-30.

[35] See, Scott Sagan (1993), *The Limits of Safety: Organizations, Accidents, and Nuclear Weapons*, Princeton, NJ: Princeton University Press, p.21-24.

[36] See, Devin T. Hagerty, *The Consequences Nuclear Proliferation*, Cambridge Mass., MIT Press, 1998, p.92.

[37] Available from NetLibrary: http://www.globalresearch.ca/europe-s-five-undeclared-nuclear-weapons-states/ 17550(accessed 10 August 2013); See, Michel Chossudovsky, "Belgium or Iran, Where's The Nuclear Threat? Europe's Five „Undeclared Nuclear Weapons States". Are Turkey, Germany, Belgium, The Netherlands and Italy Nuclear Powers?" *Global Research*, February 2010.

the territory of some states that have signed and ratified the TNP and which internationally sustain that they do not possess nuclear weapons.[38] The former Secretary General of NATO, George Robertson, confirmed that Turkey has on its territory, stored and ready to use, about 90 thermonuclear bombs anti-bunker, which can be launch from the military air base from Incirlik.[39] The United States transferred,[40] most likely, a number of up to 480 B61 thermonuclear bombs[41] on the territory of five non-nuclear states,[42] a fact which had been ignored by "the guard dog of the nuclear facilities," that is AIEA.[43] There are some other states from the U.S. entourage which had held nuclear weapons on their territory,[44] considering it a situation similar to that of the period of the Cold War when the Soviet Union had stationed nuclear warheads within the territory of the member states of the Warsaw Pact.

As an application, the non-proliferation of fissile and fissionable nuclear stock by exercising strict control, by totally fulfilling the agreements and the international treaties, by neutralizing illegal traffic networks, by informing and educating human society, is currently one of the most noble and notable concerns within the frame of international relations. It is to be noted that, nuclear technology, once available only to the most technologically advanced and industrialized nations, is at the moment, and sometimes practically, at the use of some rather poor states with a basic scientific and industrial development, provided that these countries should have the determination and the financial resources available.

To consider that there is hostility where actually there is no hostility is better than to regret later, but it is important to have the security ensured. In other words, the states want to preserve and strengthen their armed forces even if other states consider it as a potentially hostile act. It matters less if their intentions are defensive – it is more difficult to prove it than to authorize it - or offensive.[45] The developments in North Korea, the Iranian nuclear

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http://www.nrdc.org/nuclear/euro/contents.asp (accessed 12 August 2013); Prof. Michel Chossudovsky, *Multibillion Dollar War Budgets: Proponents of „First Strike" Nuclear War against Iran rob billions from their own citizens*, RT Op-Edge, 10 April 2013, Global Research, 8 May 2013. Available from NetLibrary: http://www.global research.ca/multibillion-dollar-war-budgets-proponents-of-first-strike-nuclear-war-against-iran-rob-billions -from-their-own-citizens/5334289(accessed 20 August 2013).

[38] See, http://www.stimson.org/images/uploads/research-pdfs/RESOLVING_FP_4_no_crop_marks.pdf; (accessed 10 August 2013).

[39] See, The National Council of Defense Resources, *U.S. Nuclear Weapons in Europe: A review of post-Cold War policy, force levels, and war planning*, February 2005.

[40] The nuclear exchange is a concept in NATO's nuclear deterrence policy, which involves member countries that do not possess their own nuclear weapons in the planning and training for the use of nuclear weapons, which makes the armed forces of these countries, be involved in the launch of nuclear warheads. As part of a nuclear exchange, the participating countries conduct consultations and take joint decisions with regard to the policy of using nuclear weapons as well as to maintain the technical equipment necessary for the use and storage of nuclear weapons, including aircraft capable to carry them. See, *The International Atomic Energy Agency* http://www.iaea.org/(accessed 10 August 2013).

[41] See, Available from NetLibrary: http://www.globalresearch.ca/europe-s-five-undeclared-nuclear-weapons-states/17550(accessed 15 August 2013).

[42] Belgium, Germany, Italy, Netherlands and Turkey.

[43] See, *The International Atomic Energy Agency*; Available from NetLibrary: http://www.iaea.org/(accessed 10 August 2013).

[44] South Korea, Canada, Greece, South Africa, Australia.

[45] We do not have access to the intentions of states – we can only see their capabilities and work back from these. It is in the nature of the "self-help" system in which states exist than they are likely to take a pessimistic view of the world, even in an international society. National leaders consider themselves to have a responsibility to their populations to be cautions and prudent and not to turn a blind eye to potential threats. See, Costas Constantinou (1996), *On the Way to Diplomacy.* Available from NetLibrary: http://www.fas.org/irp/offdocs /direct.htm. (accessed 16 August 2013).

dossier[46] which remains open and the reports about the smuggling of nuclear stock from some republics, former members of the Soviet Union, highlight the risks and threats of the appearance of new nuclear powers.

The possibility of unanticipated clashes as part of a nuclear crisis cannot be ignored. In 1995, a weather missile launched from Norway was considered to be a possible U.S. attack against Russia, with a serious escalation scenario.[47]

The industrial and military nuclear facilities, often contemporary instruments of destruction, are, officially, in the hands of a chosen club of countries, even if not all of these countries have a high socio-economic or technological living standard.[48] Without its nuclear weaponry, Russia would lose the status of a great military power, especially given the fact that Russia has a very slow economic development and is left behind in technological terms.[49]

The nuclear weapons play an essential role in the political-military power relations.[50] The destructive capacity of the existing nuclear weapons is so great that any projection of a possible open geopolitical conflict cannot be but catastrophic.[51] Fairly recent history shows us how fragile the world security can be and how the arms race involving nuclear and thermonuclear weapons, especially between the two centers of world power, the United States and the Soviet Union, has lasted for more than 30 years.[52] Storing nuclear waste for

[46] Iran, according to a report of *the International Atomic Energy Agency* (IAEA), is suspected, often incriminated that, even before 2003, and would have undertaken research and experiments, adapted to the development of a nuclear weapon. The fiercest opponent countries to the Iranian nuclear program are Israel and the United States. Available from NetLibrary: http://www.iaea.org/(accessed 10 August 2013)

[47] The ensuring of a perfect security of nuclear weapons does not exist. In September 2007, six nuclear warheads missiles were mistakenly loaded and transported by a B-52 bomber from North Dakota to Louisiana, where they were stored without ensuring security because nobody knew what they were. See, Barbara Starr, 'Air Force Investigates Mistaken Transport of Nuclear Warheads', CNN, 5 September 2007, Available from NetLibrary: http://articles.cnn.com/2007-09-05/us/loose.nukes_1_nuclear-weaponsnuclear-warheads-missiles? PM:US. (accessed 12 August 2013).

[48] There are countries that possess nuclear weapons and technologies that do not meet the requirements laid down in international treaties on the non-proliferation or non-threatening with such capabilities. Those states which possess, modernize and can use nuclear weapons are: U.S.A., Russia, the United Kingdom, France, China, India, Pakistan and, more recently, North Korea. Israel vehemently denies that it would possess nuclear arsenal. Available from NetLibrary: http://www.iaea.org/(accessed 10 August 2013).

[49] See, Dmitri Petrov, "Nuclear Zero aze naz abstained", *Rossiia*, 6-14 June, 2009.

[50] While the modernization budget appropriated to the Pentagon for preventive nuclear option is about ten billion US dollars (excluding the expenditures of the NATO countries), the budget for the modernization of strategic offensive nuclear forces from the U.S. arsenal reaches the amount of 352 billion dollars for the next ten years. See, Russell Rumbaugh, Nathan Cohn, *Resolving Ambiguity: Nuclear Weapons, Costing* The Henry l. Stimson Center, June 2012; Available from NetLibrary: http://www.stimson.org/images/uploads/research-pdfs/RESOLVING_ FP_4_no_crop_marks. pdf. (accessed 10 August 2013).

[51] A nuclear war would take days, if not hours, thus the statistical approach of premises (military effectives, the quality of armaments, the industrial power, the political-military alliances, etc.) is no longer relevant and the current geopolitics loses its meaning. See, John a. Battilega, 'Soviet Views Of Nuclear Warfare: The Post-Cold War Interviews', in Henry Sokolski (ed.), *Getting Mad: Nuclear Mutual Assured Destruction, Its Origins and Practice*, November 2004. Available from NetLibrary: http://www.strategicstudies institute.army.mil/pdf.files/pub585.pdf. (accessed 18 August 2013).

[52] Since the beginning of the 8th decade of the last century, it has been expected that the USA and the USSR had in store for immediate release approximately 32,000 and, respectively, 45,000 nuclear devices. These arms, each of them dozens and hundreds of times more destructive than the bombs infamously dropped, according to several military analysts, on the Japanese cities of Hiroshima and Nagasaki, at the end of the Second World War, continue to be positioned in fortified silos, on submarines, on automotive platforms, on railway platforms, on airplanes and quite possibly on space-based and circumterrestrial platforms. Available from NetLibrary: http://www.ctbto.org/fileadmin/user_upload/pdf/Sipri_table12b.pdf. (accessed 10 August 2013).

more than 50 years is a delicate matter because no country in the world has a technology of decommissioning, the storage methods being ineffective and potentially dangerous.[53] Moreover, despite the government's commitments not to use the plutonium obtained in a Canadian-type reactor for the production of a bomb, however the practice of some states to break their commitments has already been observed.[54]

The organization and regulation of nuclear safety activities and radiation protection is now a major component of the security environment. International organizations and institutions that govern, authorize and control the nuclear activities must operate in an impartial manner, through the exercise of powers conferred by treaties and international law ruling.

Nuclear weapons holder states are obliged to cooperate against proliferation both for war and for high-risk industries capacities, for the imposing of standards to prevent the destructive impact accidents. However, it states that "Nuclear facilities and systems in the future will remain the cornerstones of security."[55]

States producing materials and components used in nuclear technology must be subject to legislation and checks that will block their uncontrolled use.

During the Cold War, the U.S.A. and the Soviet Union, nuclear weapons possessing superpowers have reached certain agreements outlined in the bilateral agreements on arms control and disarmament which are the angular stone of the international system. After the breakup of the Soviet Union, Russia continues its geo-strategic partnership with the U.S. in the field of strategic nuclear arsenals and disarmament of conventional forces in Europe. In 1969, it begun the first Negotiations for Strategic Limitation of Strategic Armament (SALT I)[56] in order to limit the number of intercontinental ballistic missiles (ICBM)[57] and submarine launchers for ballistic missiles (SLBM).[58] Limiting their number will lead

[53] "It is a very serious problem, taking into account the fact that uranium, especially the highly enriched one, is a powerful radioactive element, and the storage methods will have to be guaranteed for periods of thousands of years. Over the years, some states have tried to "resolve" this issue, throwing this waste in oceans, contaminating waters and marine wildlife then the whole food chain." Available from NetLibrary: http://www.iaea.org/(accessed 17 August 2013).

[54] As it was in the case of India.

[55] See, V.L. Kokoshin, "Bomba spravliaet iubilei", *Nezavisimoe voennoe obozrenie*, 26 November, 2010.

[56] Arms Limitation Talks - SALT I *SALT I, the first series of Strategic Arms Limitation Talks, extended from November 1969 to May 1972. During that period the United States and the Soviet Union negotiated the first agreements to place limits and restraints on some of their central and most important armaments. Soviet and American weapons systems were far from symmetrical. The Soviet Union had continued its development and deployment of heavy ballistic missiles and had overtaken the U.S. lead in land-based ICBMs. During the SALT I years alone Soviet ICBMs rose from around 1,000 to around 1,500, and they were being deployed at the rate of some 200 annually. Soviet submarine-based launchers had quadrupled. The huge payload capacity of some Soviet missiles („throw-weight") was seen as a possible threat to U.S. land-based strategic missiles even in heavily protected ("hardened") launch-sites. The United States had not increased its deployment of strategic missiles since 1967 (when its ICBMs numbered 1,054 and its SLBMs 656), but it was conducting a vigorous program of equipping missiles with „Multiple Independently-targeted Re-entry Vehicles" (MIRV). MIRVs permit an individual missile to carry a number of warheads directed at separate targets. MIRVs thus gave the United States a lead in numbers of warheads. The United States also retained a lead in long-range bombers. The Soviet Union had a limited ABM system around Moscow; the United States had shifted from its earlier plan for a „thin" ABM defense of certain American cities and instead began to deploy ABMs at two land-based ICBM missile sites to protect its retaliatory forces. (The full program envisaged 12 ABM complexes.)*. Available from NetLibrary: http://www.armscontrol.org/documents/salt; http://www.fas.org/irp/offdocs/nsdm-nixon/nsdm-51.pdf (accessed 10 August 2013).

[57] Intercontinental Ballistic Missile – ICBM.

[58] Submarine Launched Ballistic Missiles – SLBM.

indirectly to increasing the number of missiles carrying multiple nuclear warheads (MIRVs)[59] and independent development of anti-ballistic systems.

In 1972, as a result of bilateral negotiations held in the SALT I, there was signed by the United States and the Soviet Union the Treaty for the Limitation of Anti-Ballistic Missile (ABMT)[60] regarding the defense systems against ballistic missiles carrying nuclear warheads. The agreement limits the number of "heavy" ICBM facilities at 380,[61] based on the belief that there will not be deployed rockets bigger than SS-11.[62] The delicate question regarding the treaty is related to the concept of "heavy ICBM", whether for Americans it includes SS-11 the Soviet side did not agree to this interpretation. The consequence was that the SS-11 has been replaced with SS-19 ICBM, i.e. an increase of 3.5 of weight per missile.[63]

In 1979, the SALT II is signed. The Soviet Union conducted ICBM SS-16, despite the provisions of SALT II, whose status will be settled in the 2009 treaty.[64] According to SALT II, SS-25 (Topol) is an "improvement of the SS-16" type of missile beyond the treaty; it cannot be considered a "new" type of ICBM category, allowed just one single through the provisions of the agreement, because Russia had declared the "new type" being the SS-24 ICBM powered by improving SS-13. According to American sources, the projection of the originary SS and SS-13-16 meet in different places, which would not have allowed the similarities.[65]

The Soviets showed that SS-13 have a weight of 600 kg, while the SS-25 weigh 1,000 kg; Moreover, launching installations weighing 51 tones for SS-13 and 45 tones for SS-25, almost double compared with variation allowed.[66]

In 1988, there enters into force the Treaty on Intermediate-range Missiles in Europe (INF),[67] signed by the US and the Soviet Union. INF Treaty bans whole categories of

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[59] Multiple Independently Targetable Reentry Vehicles – MIRVs Installed on an intercontinental vector may diminish the ability to destroy the enemy by simultaneously hitting all launch bases, in the case of execution of the first nuclear strike.

[60] Anti-Ballistic Missile Treaty – ABMT. *By 1972 an agreement had been reached to limit strategic defensive systems. Each country was allowed two sites at which it could base a defensive system, one for the capital and one for ICBM silos (Art. III). The treaty was signed during the 1972 Moscow Summit on May 26 by the President of the United States, Richard Nixon and the General Secretary of the Communist Party of the Soviet Union, Leonid Brezhnev*.

[61] *SALT I Interim Agreement on Strategic Offensive Forces.*

[62] *SALT I Reconsidered—The Debate over Ratification of the SALT I Treaty and Its Relevance Today* (Washington, DC: Institute of American Relations, 1979), p. 34.

[63] *SALT I Reconsidered—The Debate over Ratification of the SALT I Treaty and Its Relevance Today* (Washington, DC: Institute of American Relations, 1979), p. 21.

[64] Principal Findings on the Capabilities of the United States to Monitor the SALT II Treaty—Report of the Senate Select Committee on Intelligence, United States Senate, October 1979, pp. 3–4.

[65] View, *The President's Unclassified Report to The Congress on Soviet Noncompliance with Arms Control Agreements*, Washington, DC: The White House, February 1, 1985, p.6. The Reagan Administration considered that SS-25 violates SALT II because these missiles are "a second new type" of prohibited missiles. President Reagan stated, The SS-25, a clear and irreversible violation of the Soviet Union's SALT II commitments, also has important political and military implications . . . Under the guise of permitted modernization, the Soviets . . . have deployed a prohibited second new type of missile, the SS-25, which is a mobile [ICBM] and could be made more lethal. *Soviet Noncompliance with Arms Control Agreements, Special Report 136* (Washington, DC: U.S. Department of State, December 1985), p. 2. Also see, *Soviet Noncompliance* (Washington, DC: The U.S. Arms Control and Disarmament Agency, February 1, 1986).

[66] See, "Shevardnadze Addresses Supreme Soviet, Moscow Domestic Service," October 23, 1989; and "Yeniseysk (Krasnoyarsk)," Global Security Organization, www.globalsecurity.org/wmd/world/russia/yeniseysk.htm; "Anti-Ballistic Missile Treaty Chronology," Federation of American Scientists, available at: www.fas.org/nuke/control/abmt/chron.htm(accessed 12 August 2013).

[67] Intermediate-Range Nuclear Forces Treaty – INF.

tactical nuclear weapons as opposed to co-operative agreements START which establish the maximum levels of nuclear arsenals.[68] Three years after signing, there sets up the Strategic Forces of the Soviet Union by taking from each category of nuclear forces, from the tactical to the strategic ones. Two years later, for the purpose of deterrence and against nuclear war threat to the country it s determined to maintain nuclear operational rafters; Russian Strategic Forces, administrators of the nuclear triad has also in command all the networks and military satellites.[69] Moscow "retains the right to use nuclear weapons in response to using the nuclear weapons or other weapons of mass destruction (WMD) against Russia or its allies, as well as in response to an attack or large-scale conventional aggression, in critical situations for the national security of Russia."[70]

The occurrence and use of nuclear weapons for the first time by the U.S. open the era of the use of weapons with tremendous power of destruction. The acquisition of nuclear weapons by the Soviet Union nuclear balance generates the basis for a half-century of cold war bipolarism. However, a number of studies question the fundamental role of nuclear weapons in the balance of power: thus the Japanese surrender after nuclear strikes from Hiroshima and Nagasaki is not due to them but to some reasons that emerge from rather conventional force ratio between on the one hand, Japan and the USA-Soviet Union, on the other side;[71] the absence of a war between the Soviet Union and the USA on the European continent is due to the adversity against the devastating consequences of the two world wars;[72] the existence of the military blocs and the development of the security dialogue and the development of European integration.[73] However, the claim that the nuclear threat has been the main cause of avoiding war is questionable.

The two superpowers nuclear doctrines based on the claim that "the other believes it will be the winner" and that it is possible to initiate a nuclear war have induced the need for communication between adversaries. The researches on archives and historical evidence show that neither superpower was reluctant to be the initiator of such a conflict.[74]

The policy of reforming the Soviet Union led to the cold war commemoration of new perspectives on the balance of weapons of mass destruction, in particular of the nuclear field, in the negotiations for limiting and controlling the nuclear weapons in the United States and the Soviet Union.

In May 2010, in the framework of the Conference for Reviewing the Treaty on the Non-proliferation of Nuclear Weapons, the UN Secretary-General, Ban Ki-Moon in the

[68] The elimination of intermediate and short action range missiles, destruction of nuclear or conventional systems for ballistic and cruise, with the launch on the ground, who range between 500 and 5,500 kilometers (300-3,400 miles). At a tactical and operative nuclear-level, these are removed by the American Pershing II missiles and Ground-Launched Cruise Missile-GLCM) as well as the Soviet SS-4 Sandal, SS-5 Skean, SS-12 Scaleboard, SS-20 Saber, SS-22 Scaleboard B, and SS-23 Spider, CSS-4 or RK-55.

[69] View, *The Guiding Principles of the Russian Federation Military Doctrine and the National Security Concept*.

[70] View, *The 2000 Military Doctrine*, the Presidential Edict 706, April 21, 2000.

[71] See, Ward Wilson, 'The Myth of Nuclear Deterrence', Nonproliferation Review, vol. 15, no. 3, November 2008; John Mueller, *Atomic Obsession: Nuclear Alarmism from Hiroshima to Al-Qaeda* (Oxford: Oxford University Press, 2010); and McGeorge Bundy, 'The Unimpressive Record of Atomic Diplomacy', in Robert J. Art and Robert Jervis (eds.), *International Politics: Enduring Concepts and Contemporary Issues* (New York: HarperCollins, 1996), pp. 227–35.

[72] See, John Mueller, 'The Essential Irrelevance of Nuclear Weapons: Stability in the Postwar World', in *The Cold War and After: Prospects for Peace* (Cambridge, MA: MIT Press, 1997), pp. 45–69.

[73] See, John S. Duffield, 'Explaining the Long Peace in Europe: the Contributions of Regional Security Regimes', *Review of International Studies*, vol. 20, no. 4, October 1994, pp. 369–88.

[74] See, Vojtech Mastny, *War Plans and Alliances in the Cold War: Threat Perceptions in the East and West* (Abingdon: Routledge, 2006), pp. 3, 27.

opening of the Conference, remarked that "after sixty-five years after the world's first nuclear explosions the world still lives under the nuclear threat."[75]

[75] Address to the 2010 Review Conference of the States Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, Secretary-General Ban Ki-moon, General Assembly, 03 May 2010; available at: http://www.un.org/news/infocus/sgspeeches/statments_full.asp?statID=802#.UZywsrUvlyI (accessed 12 August 2013).

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