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**NUCLEAR DISARMAMENT IN INTERNATIONAL LAW**

**By**

**Haralambos Athanasopoulos**

**Submitted in partial fulfillment of the requirements**

**for the degree of J.S.D.**

**at**

**Dalhousie University  
Halifax, Nova Scotia, Canada  
December 1997**

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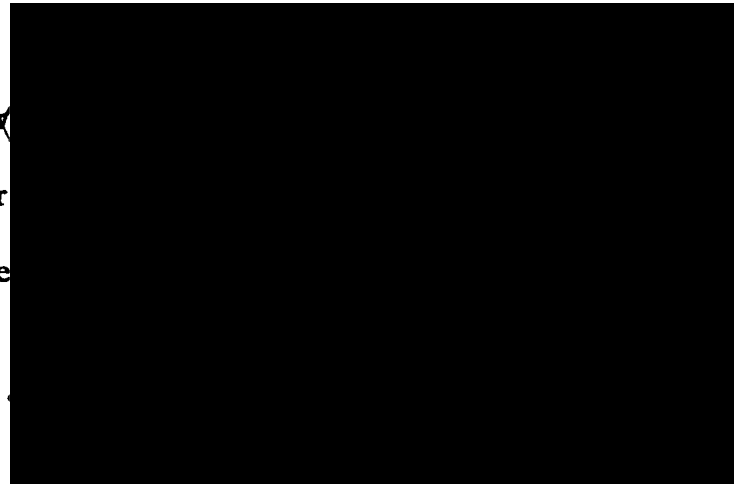
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**Dedicated In Memory Of My Father**

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## ABSTRACT

The advent of the nuclear age and the development of atomic weapons pose an immediate threat to the very existence of mankind and its civilization. Unlike their conventional counterparts, nuclear weapons, for the first time in human history, are capable of annihilating the entire human race, its civilization and our planet. The purpose of this study is to put forward the argument that global and comprehensive nuclear disarmament is required by the new international law of nuclear disarmament. This legal thesis argues further that a global and comprehensive nuclear disarmament in the Post-Cold War era and in the 21st Century is both feasible and effective. Until the last nuclear weapons have been effectively eliminated, the eventual use of nuclear weapons will not be avoided. Therefore, this study will conclude that the only way to avoid an eventual nuclear holocaust in the post-Cold War era in the 21st Century is to achieve a global and comprehensive nuclear disarmament through the instrumental value of international law.

## INTRODUCTION

### A. Nuclear Weapons: A Revolutionary Means of Warfare and Mass Destruction

#### 1. Historical Background

In December 1938, two German physicists, Otto Hahn and Fritz Strassman, working at the Kaiser Wilhelm Institute in Berlin, performed a revolutionary experiment which resulted in the splitting of the uranium atom. As a result of this experiment, it was soon realized that if proper conditions were created, the fission of uranium could provide Germany with a weapon of unprecedented explosive power and destructive capability. In 1939, Albert Einstein wrote a letter to President Franklin Roosevelt warning him about the alarming possibility that the Hahn-Strassmann scientific breakthrough could lead to the development of a German atomic bomb. This compelled President Roosevelt to take the initial step in the American effort to build an atomic bomb in 1939.

After intensive scientific research during World War II, American nuclear scientists managed to develop the first atomic bomb. Thus, in July 1945, the US War Department announced that a weapon had been developed that was potentially destructive

beyond the wildest stretches of the imagination. Subsequently, in a remote corner of the Alamogordo Air Force Base, in the state of New Mexico, at 5:30 in the morning of July 16, 1945, the first atomic bomb was successfully tested. Indeed, the successful detonation of the first atomic bomb at Alamogordo was a scientific victory of the most startling and conclusive sort in the nuclear field. Moreover, the Alamogordo nuclear test evidenced that science had entered into the inert structure of matter and revealed the secret power of the atom hidden since the creation of the universe and of the time. But, above all, the successful building of the first atomic bomb brought the nuclear age to human civilization.

In addition to the recognition that the release of the power of the atom would be a great source of energy for mankind, the splitting of the uranium atom also created the most devastating weapon ever known to the human race. In fact, the devastation of Hiroshima and Nagasaki caused by the first military use of the atomic bomb by the United States in 1945 proved to the entire world community that the atomic bomb was not just one more weapon, but that the atomic bomb was the absolute and ultimate weapon of mass and wholesale destruction.

## 2. Problems Posed by Nuclear Weapons

Unlike their conventional counterparts, nuclear weapons, because of their immediate blasting effects and because of the long-



term harmful effects of nuclear radiation and nuclear fallout, are capable of annihilating the entire human race, its civilization, and our planet. Since it is estimated that approximately 500 heavy strategic nuclear weapons would be more than enough to destroy Eurasia and North America, there should be no doubt that the present existence of about 40,000 strategic and tactical nuclear weapons are more than enough to destroy humanity and our planet many times over.

Since the beginning of the nuclear age and nuclear armaments, the technological advances made in the area of nuclear weapons and their systems of delivery have resulted in the development and production of more destructive and sophisticated nuclear weapons systems. Indeed, the existence of strategic nuclear weapons with intercontinental ranges, including the existence of various types of tactical and battlefield nuclear weapons, enables both nuclear superpowers and the other nuclear weapon states to target and destroy any part of our planet. Moreover, since nuclear weapons can be delivered by land-based intercontinental ballistic missiles, by strategic bombers and warplanes, and by submarines and surface warships, including other tactical missile systems, the entire Earth has been placed within the reach of the destructive capabilities of modern nuclear weapons.

As a result of the failure to achieve global nuclear disarmament-

ment through the instrumental value and power of international law, mankind and its civilization has been under the terror and nightmare of its annihilation in the event of a global thermonuclear war. In particular, the eruption of the Cold War between East and West, and especially the nuclear arms race and confrontation between the former Soviet Union and the United States, brought the entire world community to the brink of nuclear holocaust which could be completed within thirty minutes from the time Soviet and American strategic nuclear missiles were launched.

In the event of a global thermonuclear war, there can be no doubt that humankind and its civilization would be subject to destruction. Moreover, because of the harmful effects of nuclear radiation and fallout, the entire planet Earth would become a place of radioactive dust with unthinkable environmental and ecological disasters, which, in turn, would destroy the processes of food production and supply and, generally, the means of supporting modern forms of life. Of course, it should be noted that a global thermonuclear war might not bring about the extinction of the entire human race. Thus, humans would continue to exist on Earth. However, due to the long-term harmful effects of nuclear radiation and nuclear fallout which would cause fatal diseases and deformities to those who survived a thermonuclear holocaust, the surviving humankind would be living in a stone age and in an environment of

nuclear radioactive dust that would condemn it to slow death for thousands of years.

By any account, there should be agreement that nuclear weapons are *malum in se* and are inherently capable of destroying humanity and its civilization. In fact, for the first time in the known history of humanity, a manmade doomsday machine has been created. It is obvious that nuclear weapons pose enormous challenges and dilemmas immediately connected with the very survival of humanity.

Despite their destructive consequences, the first and second world wars (waged by conventional weapons) were not capable of annihilating humanity and its civilization. But nuclear weapons are inherently capable of achieving a global human holocaust. The very existence of nuclear weapons and the potential danger of their military use pose a challenge to the very survival of humanity and, of course, to the legal values and principles of humanity created by the UN Charter adopted in 1945.

Although the UN Charter was designed to serve the legal objective of saving succeeding generations from the scourge of war, which twice in the past has brought untold sorrow to mankind, and to maintain peace and security, including the protection of fundamental human rights and the dignity and worth of the human person, nuclear weapons pose an ultimate challenge to these funda-

mental legal principles and values. Additionally, they defeat the traditional concept of the doctrine of just war, including the waging of war on the basis of the doctrine of self-defense. In short, the very existence of nuclear weapons and the potential threat of their use threatens the rule of law.

## **B. The New International Law of Nuclear Disarmament**

### **1. The End of the Cold War and Global Nuclear Disarmament**

The failure to achieve nuclear disarmament at the beginning of the nuclear age, particularly before the eruption of the Cold War between East and West, led to the weapons race between the former Soviet Union and the United States in the postwar era. In addition to the superpowers' nuclearization and that of the other so-called great powers, namely, Britain, France and China in the postwar years, a new nuclear age began in the 1970s as a result of the proliferation of nuclear weapons in a number of states which previously were classified as non-nuclear weapon states. Despite the existence of more than 40,000 strategic and tactical weapons in the nuclear arsenals of especially the former Soviet Union and the United States and other members of the so-called club of nuclear powers, the horizontal proliferation of nuclear weapons has posed new threats to regional and global peace and security.

There can be no doubt that the Cold War phenomenon produced strategic, political, and legal obstacles to the quest for global and comprehensive nuclear disarmament through an effective international legal process. Nevertheless, even during the Cold War years a new international law of nuclear arms control and disarmament began to develop and to follow an evolutionary course on a step-by-step basis. The evolutionary development of this new international law of nuclear arms control and disarmament played a significant role in the international legal effort to place limitations on nuclear arms, and nuclear behavior, and also to prevent the eruption of a global thermonuclear war. Moreover, this new international law of arms control and disarmament formulated new legal norms, principles, and methods for approaching and resolving the problem of nuclear disarmament on a global basis and in comprehensive terms.

With the end of the Cold War in the 1980s and the emergence of a new era of global détente, it should be agreed that major causes of the nuclear arms race and major obstacles that resulted in the failure of nuclear disarmament during the Cold War years have been significantly reduced. In particular, the nuclear disarmament process between the two nuclear superpowers, as represented by their INF, START I and START II treaties, including other bilateral legal instruments, shows that a new era of superpower denu-

clearization has begun in the post-Cold War era. The superpowers' lawmaking processes have not only expanded the norms and principles of the new international law of nuclear disarmament but have also created an innovative and dynamic international verification system.

With the end of the Cold War, the constant threat and the potential danger of a direct and intentional global nuclear war between the two nuclear superpowers has been substantially reduced, at least as a political issue. However, it must be emphasized that as a strict military issue the threat of a global thermonuclear war due to an unauthorized or accidental use of nuclear weapons by the superpowers or due to their involvement in certain future conflicts still remains. The threat of a nuclear war will only be entirely eliminated when the last nuclear weapons are effectively eliminated. Until then, the quest for global nuclear disarmament must continue to be the highest priority of the entire world community and the peoples of the world.

The end of the Cold War and the beginning of a new era provide a new political and legal environment in relation to the goal of effective elimination of nuclear weapons on a global and comprehensive basis. The world community is presented with a unique opportunity to create a nuclear weapons-free world through the instrumental value and the power of international law. The study

that follows will attempt to establish the thesis that global and comprehensive nuclear disarmament is not only required by the new international law of nuclear disarmament but is also feasible and effective.

## 2. Scope and Methodological Approach

The study will focus on a comprehensive analysis of the existing and applicable rules of the new international law of peace and nuclear disarmament as they relate to the problem of nuclear disarmament.

The study will also discuss methodological approaches and institutional changes whose acceptance and adoption will assist in the creation of a nuclear weapons-free post-Cold War world. Since the world community has witnessed two diametrically opposite tendencies, namely, the nuclear arms race and the international legal race for nuclear disarmament, this study will examine the implications of these two opposite tendencies, including their mutual interaction.

The study comprises nine Chapters. Chapter 1 will discuss the advent of the nuclear age and nuclear weapons and their legal impact on global peace and security in the postwar era. It will focus on the organizational role and institutional capabilities of the United Nations to legally manage and resolve the question of nuclear disarmament through the instrumental value and power of

international law at the beginning of the nuclear age.

Chapter 2 will concentrate on the eruption of the Cold War, the beginning of the superpowers' nuclear arms race, and the initiatives of the United Nations in the sphere of nuclear disarmament in the years between 1945-1950. This Chapter will discuss the negative impact of the Cold War on the international legal effort to create an international legal regime of nuclear disarmament for the postwar years. The rejection of the Baruch and Gromyko plans for global nuclear disarmament will be addressed. Additionally, this Chapter will discuss the role of the United Nations and its Atomic Energy Commission in the sphere of nuclear disarmament and the failure to achieve nuclear disarmament on the basis of international law at the very beginning of the nuclear age and nuclear armaments.

Chapter 3 will discuss the globalization of the Cold War, the expansion of the superpowers' nuclear arms race, and the UN nuclear disarmament efforts during the period 1951-1962. It will consider the dimensions of the superpowers' relentless nuclear arms race and the Cuban Missile crisis of 1962, which brought both superpowers to the brink of a thermonuclear war. It will analyze the UN multilateral negotiations, proposals, and approaches to the resolution of the problem of nuclear disarmament and it will also examine the legal issues involved in the search for effective nuclear



disarmament.

Chapter 4 will concentrate on the further escalation of the superpowers' nuclear arms race and their efforts at détente in the years between 1963-1975. It will analyze the legal regimes and the impact of the LTBT and the SALT I Agreement on the superpowers' nuclear arms control bilateral efforts. It will point out that superpower détente during the period 1963-1975 proved capable of creating a new international law of nuclear arms control and disarmament. This new body of international law on arms control and disarmament exercised a positive impact on the management and control of the nuclear arms race.

Chapter 5 will discuss the UN nuclear disarmament initiatives and approaches in the period 1963-1975. In particular, it will discuss the Outer Space Treaty, the Nonproliferation Treaty, and the Seabed Treaty, all of which were concluded during this period, including their legal impact on the question of global nuclear arms control and disarmament. This Chapter will also analyze the Treaty of Tlatelolco of 1967, which established the Latin American NWFZ, and its legal impact on regional nuclear disarmament. The analysis involved in this Chapter will show that, during the period 1963-1975, a new body of regional and global international law on nuclear weapons was developed by the UN.

Chapter 6 will analyze the continuation of the superpowers'

nuclear arms race and their relevant legal relations in the years 1976-1985. In view of the conclusion of the Threshold Test Ban Treaty, the Peaceful Nuclear Explosions Treaty, and the SALT II agreements during this period, this chapter will discuss these treaties and their impact on the superpowers' nuclear arms control and disarmament processes. It will also discuss the START and INF negotiations and proposals. Chapter 6 will focus on analysis of the question of the legality of the US Strategic Defense Initiative program in view of the Anti-Ballistic Missile Treaty and other applicable and pertinent rules of international law.

Chapter 7 focuses on UN nuclear disarmament efforts and the expansion of the international law of nuclear arms control and regional nuclear weapons nonproliferation in the years 1976-1985. It will concentrate on the UN agenda on nuclear disarmament and its impact on nuclear arms control and nuclear disarmament through the rule of international law. It will analyze the Moon Treaty, the Convention on the Physical Protection of Nuclear Materials as well as the contribution of these treaties to the quest for nuclear disarmament.

Chapter 8 is devoted to a discussion of the factors and forces that resulted in the end of the Cold War and the end of the East-West ideological conflict, rivalry, and constant nuclear confrontation during the period from 1986 to the present. In the context of

this analysis, the disintegration of the Soviet Union and the emergence of Russia as a new nuclear superpower will be addressed. In view of the conclusion of the INF, the START I and START II Treaties during the period between 1986-1993, this chapter will discuss these treaty arrangements and their legal impact on the question of the superpowers' nuclear disarmament process. The chapter will argue that, in terms of the new international law of nuclear disarmament, a total superpower denuclearization is both feasible and effective in the post-Cold War era.

Chapter 9 discusses global nuclear disarmament in the post-Cold War era and the role of the United Nations. It examines relevant developments since 1986 and explores the feasibility and effectiveness of global nuclear disarmament in the post-Cold War. It concentrates on the question of the legality of the use, development, possession, and deployment of nuclear weapons. After concluding that the use, development, possession, and deployment of nuclear weapons is illegal under the new international law of peace and nuclear disarmament, Chapter 9 points out that global nuclear disarmament is both feasible and effective and is required by the new international law of nuclear disarmament.

The study ends with a conclusion and a comment on future prospects. It will be emphasized once again that global nuclear disarmament is both feasible and effective and that it is required by

the new international law of peace and nuclear disarmament. It will be argued that global nuclear disarmament can be achieved on the basis of international law by 2010.

CHAPTER 1  
THE ADVENT OF THE NUCLEAR AGE  
AND ITS IMPACT ON THE POSTWAR WORLD PEACE  
AND LEGAL ORDER

A. The Development of the Atomic Bomb: An Historical  
Introduction

Alfred Nobel, the inventor of dynamite, said that he wished he could produce a substance or a machine of such frightful efficacy for wholesale devastation that wars would thereafter become altogether impossible.<sup>1</sup> In that direction, in December 1938, two German physicists, Otto Hahn and Fritz Strassmann, working at the Kaiser Wilhelm Institute in Berlin, performed a revolutionary experiment: they bombarded uranium with neutrons and, in the process, split the uranium atom into two substances nearly equal in atomic weight, one of which they originally believed was radium. The two scientists could not at first explain what had happened to a small fraction of the original mass of uranium which, in the experiment, had completely vanished, since it was inconceivable to them that an atom could be divided.<sup>2</sup>

It was soon realized that Hahn and Strassmann had split the uranium atom. They had proved the validity of Einstein's equation,

$E=MC^2$ . It was further realized that if proper conditions were created, the fission of uranium could provide Germany with a weapon of unprecedented explosive power and destructive capability.<sup>3</sup>

The alarming possibility that the Hahn-Strassmann scientific breakthrough could lead to the development of a German atomic bomb persuaded President Roosevelt to take the initial step in October 1939 to build an atomic bomb in the United States.<sup>4</sup> By the end of 1942 the construction of such a weapon was beginning to look inevitable.<sup>5</sup>

Between 1943 and 1945 the United States concerned itself with the production of fissionable material, especially U235 and plutonium, the question of calculating the critical size of a chain-reacting unit, and with the technical issue of the assembly and detonation of a bomb. The determination of the size of an atomic bomb, its instantaneous assembly, and detonation represented enormous scientific problems.<sup>6</sup> Those difficulties were successfully overcome and on July 1, 1945, the U.S. War Department reported that:

A weapon has been developed that is potentially destructive beyond the wildest nightmares of the imagination; a weapon so ideally suited to a sudden unannounced attack that a country's major cities might be destroyed overnight by an ostensibly friendly power.<sup>7</sup>

In a remote corner of the Alamogordo Air Force Base, at 5:30 in the morning of July 16, 1945, the first atomic bomb was success-

fully tested. Its explosion caused an enormous fire ball as bright as several midday suns, a mushroom cloud that extended 41,000 feet into the stratosphere, a tremendous crash, a crater 1,200 feet in diameter, and a crumpled forty-ton tower one-half mile away from the explosion.<sup>8</sup>

The successful explosion of the first atomic bomb at Almagordo was a startling scientific victory for research in the nuclear field.<sup>9</sup> It was a revolutionary breakthrough that split the nuclei of the atoms of the U<sup>235</sup> by a process of nuclear fission and thus generated a huge amount of energy.<sup>10</sup> In retrospect, the costly<sup>11</sup> but successful American efforts to build an atomic bomb introduced the nuclear age to human civilization.<sup>12</sup>

Beyond the recognition that the release of the power of the atom would be a tremendous source of energy for mankind,<sup>13</sup> the splitting of the atom also created the most devastating weapon ever known to the human race. The absolute weapon of destruction, which essentially consisted of four separate weapons combined in one,<sup>14</sup> had been built. The wish of Alfred Nobel to build such a destructive weapon in order to make war impossible was fulfilled.<sup>15</sup>

#### B. The Legal Impact of the Atomic Bomb on International Law and Postwar World Peace and Order

Even though the atomic bomb had not been developed when the United Nations Charter was adopted in June of 1945,<sup>16</sup> the

Charter nevertheless provides the constitutional and structural foundation of the postwar order. The Charter fundamentally changed the concept of war as an instrument of international conflict resolution. War as an act of force was outlawed by Article 2 paragraph 4, which imposes a legal obligation on member states to refrain in their international relations from the threat or use of force.<sup>17</sup> But the Charter's initial but loose legal objective was primarily the regulation of armaments rather than the issue of global and comprehensive disarmament.<sup>18</sup>

More concretely, the Charter provided the legal regime for the establishment of a warless world community. However, it is arguable that in view of the failure of the disarmament regime of the League of Nations, the United Nations should have been more interested in providing a new disarmament legal regime and machinery.

Although Article 11 paragraph 1 of the Charter provides the General Assembly with discretionary power to consider the principles governing disarmament and the regulation of armaments, and although Article 26 imposes an obligation on the Security Council to formulate plans and to establish a system for the regulation of armaments, the Charter failed to lay down the legal framework of a mandatory disarmament system for the postwar era. Furthermore, Article 43 paragraph 1, at least in legal-technical terms, seems to



require member states to maintain their own armed forces, since the Security Council has the legal power to ask any member state to make available its armed forces to be used for the purpose of maintaining and restoring international peace and order through U.N. peacekeeping operations.<sup>19</sup> Of course, it should be accepted that the legal objective of the Charter to regulate armaments aims at the creation of a military balance among member states, which would further prevent the eruption of aggressive and expansionist wars.

We need to remember that the physical realities of the atomic bomb, as a revolutionary means of warfare and as an immediate threat to humankind's survival, had been the concern of nuclear scientists even before the use of the bomb against Japan. Nuclear scientists Niels Bohr, Leo Szilard and James Franck had maintained that the only way to effectively prevent an atomic arms race, and thus a nuclear Armageddon, was through the international legal control of atomic energy and the legal safeguards of inspection by international bodies, which would ensure that no nation possessed atomic bombs.<sup>20</sup>

Understandably, however, the advent of the bomb immediately influenced professional thinking about the management of war itself as practiced in the pre-nuclear age. The release of the destructive power of the atom profoundly changed traditional legal

thinking about the value of war as an instrument of international conflict resolution and, in particular, the military use of the atomic bomb.<sup>21</sup>

The possibility of atomic war between belligerent parties began to persuade the world community that such a war would assure mutual destruction. Atomic war would defy the objectives of war, if it ever had any, as traditionally conceived. Similarly, even the idea of waging atomic war led to a reconsideration of the doctrines of just war and of military necessity: a war fought with atomic bombs would cause unprecedented devastation; this, in turn, would put in question the conceptual and juridical justification of these doctrines. The waging of a nuclear war on the legal basis of the doctrine of self-defense, as traditionally conceived and juridically justified would clearly exceed the legal bounds.

**CHAPTER 2**  
**COLD WAR, SUPERPOWER NUCLEAR**  
**ARMAMENTS AND UN NUCLEAR DISARMAMENT**  
**INITIATIVES (1945-1950)**

**A. The Eruption of Cold War and the Atomic Bomb**  
**(1945-1950)**

As a consequence of the Cold War, the Truman administration formulated its strategy of containing the Soviet communist threat by military block building and military means.<sup>22</sup> Relying on its atomic monopoly, the United States added new military and strategic dimensions to its Cold War relations with the Soviets.<sup>23</sup> Even though President Truman had stated in 1945 that the American atomic bomb was no threat to any nation but a sacred trust, which the United States would retain indefinitely, he nevertheless viewed the American atomic bomb and nuclear monopoly as the most effective means of dictating his own terms to the Soviets in the postwar years.<sup>24</sup>

America's reliance on its atomic arsenal and the contemplation of its use to confront Soviet military aggression against the Western block led the United States to engage in a unilateral nu

clear arms race, which increased American atomic power to fifty nuclear bombs by the end of 1948;<sup>25</sup> while the Soviet Union was at the time lacking any nuclear weapon capabilities. Of course, such an atomic buildup clearly demonstrated American military superiority over the Soviets in the early years of the Cold War. This must have been perceived by the Soviets not only as a threat and even blackmail to their security but also as a provocation to their desire to proceed with the development of their own atomic bomb in order to respond to the American atomic monopoly and military superiority in terms of nuclear weapons.

#### B. UN Nuclear Disarmament Proposals and the U.N. Atomic Energy Commission (1945-1950)

President Truman was determined to retain America's atomic monopoly in the postwar years. More particularly, in 1945, he rejected proposals by some members of his administration who proposed the creation of an international legal regime to control the peaceful application of atomic energy and to prevent a nuclear arms race with the Soviets.<sup>26</sup> In the same year, the Truman administration refused to share atomic secrets with the Soviets as a scheme to prevent the development of a Soviet atomic bomb to counterweight the American atomic monopoly. Instead, President Truman stated that the Soviets had to build an atomic bomb on their own and, if they were successful, the United States would

stay ahead.<sup>27</sup>

These statements of President Truman at the very beginning of the nuclear age, at a time of growing conflict in American-Soviet relations, not only provoked the Soviets to proceed with the development of their own bomb but also clearly revealed American policy to maintain qualitative and quantitative nuclear superiority over the Soviets in the event the Soviet Union succeeded in developing its own bomb.

At this point, it must be recalled that President Truman relied on the mistaken prediction that the Soviets would need at least twenty years to develop their own bomb.<sup>28</sup> He viewed the atomic monopoly of the United States as a powerful political and military instrument by which to safeguard the global interests of his country and to further neutralize any potential Soviet obstacle to America's expanding world hegemony in the postwar era.<sup>29</sup>

Despite the growing stand-off between the United States and the Soviet Union, the legal process of nuclear disarmament got underway at the United Nations in 1946. Based on the Agreed Declaration of November 15, 1945,<sup>30</sup> the General Assembly established the United Nations Atomic Energy Commission, which was entrusted with the task of formulating plans to ensure that atomic energy would only be used for peaceful purposes.<sup>31</sup> It is also important to note that the U.N. General Assembly adopted on

January 24, 1946 resolution 1(I), which called for the total elimination of atomic weapons.

At the first meeting of the Commission, In November 1946, the United States submitted a plan for the elimination of all nuclear weapons, which became known as the Baruch Plan, after Bernard Baruch, the American representative to the United Nations and author of the American legal proposal for nuclear disarmament.

The Baruch Plan called for the creation of an international atomic energy development authority to be entrusted with all phases of the use and development of nuclear energy. This authority would enjoy a monopoly over all activities involving nuclear energy; it would have power to inspect, manage, and license all such activities. Use of the atomic bomb as a military weapon was to be legally banned; manufacturing of nuclear bombs was to stop; and existing stockpiles were to be destroyed. The Baruch Plan also included a system of sanctions that could be brought into play by majority vote of the Security Council. The Plan placed particular significance on the strengthening and effectiveness of international law as the most fundamental instrument in achieving effective nuclear disarmament and control of the peaceful applications of atomic energy.<sup>32</sup>

Although the General Assembly adopted the Baruch Plan on

December 31, 1946, the Plan was rejected by the Soviet Union and its allies. The Soviets objected to the approach of "control before disarmament."<sup>33</sup> The American initiative was also unacceptable to the Soviet leadership on the ground that Soviet research into nuclear weapons would be checked at a time when United States nuclear scientists had already acquired the knowledge to construct such weapons. In the final analysis, the Soviets felt that the Baruch Plan would require them to give up development of nuclear weapons at once whereas the United States would retain its atomic arsenal at least until after the proposed UN authority was functioning.<sup>34</sup>

At the second meeting of the U.N. Atomic Energy Commission, the Soviet Union introduced its own proposal for nuclear disarmament and control of atomic energy, the Gromyko Plan, named after Andrei Gromyko, Soviet representative to the United Nations. The Gromyko Plan comprised two stages. The first called for an international convention to prohibit the production and use of atomic weapons. This would be followed within six months by an international agreement providing penalties for violations. The second stage called for the creation of two United Nations committees; one would plan for the exchange of scientific information in the nuclear field; the other would work on a system of safeguards against violations of the treaty. In addition, the

Gromyko Plan called for the destruction of all atomic weapons within three months of the treaty's ratification.<sup>35</sup>

But the Gromyko Plan was not acceptable to the United States, which thought that it would require the United States to destroy its stocks of nuclear bombs before the international authority began to function. The United States was simply not willing to give up its atomic monopoly before a functioning and effective system of international atomic control and surveillance was in place.<sup>36</sup>

In retrospect, neither the Baruch nor the Gromyko plan was a realistic legal approach to the problem of nuclear disarmament and atomic control at the beginning of the nuclear age. While the Baruch Plan had great appeal, since the United States, possessing the monopoly of nuclear weapons, offered to dismantle them and to make its civil nuclear knowledge available to other states,<sup>37</sup> its adoption would have required the Soviets to renounce the development of nuclear weapons. Thus it would have preserved the American atomic monopoly, at least for some time. For its part, the Gromyko Plan was also flawed. The United States could hardly be expected to destroy its nuclear stockpiles without being able to verify through effective means of inspection what the Soviet side was doing.<sup>38</sup>

Although it is accurate to say that both American and Soviet proposals for an international legal regime on nuclear disarmament



were inadequate, it must be remembered that lack of good faith, mutual trust, and confidence between the two superpowers became a major negative factor in the disarmament process. In essence, this prevented both superpowers from achieving, through further negotiations and compromises, the adoption of an effective legal regime requiring nuclear disarmament and promoting the peaceful uses of atomic energy. As a result of distrust and rivalry the future arms race became largely unmanageable: the United States was seeking to extend its lead in the development of nuclear technology and weapons and the Soviets were working hard to catch up.<sup>39</sup>

Further negotiations conducted in 1946 under the auspices of the United Nations proved to be fruitless. The Soviets used their veto in the Security Council to prevent the adoption of any specific legal plan for the regulation of nuclear energy and the elimination of nuclear weapons. Even though, at the urging of the General Assembly, the Atomic Energy Commission continued its nuclear disarmament negotiating, no progress was made. Shortly thereafter, the Soviet Union refused even to participate, the reason being that the representative of the Nationalist government of China continued to represent Communist China. As a consequence, the Security Council dissolved the Atomic Energy Commission in 1952.

The first postwar attempts to achieve nuclear disarmament and prevent a superpower nuclear arms race thus proved to be a

failure.<sup>40</sup> However, despite the failure of the United Nations to legally control and regulate both atomic energy and nuclear arms, it is worth remembering that, from the perspective of bilateral treaty arrangements, the peace treaties signed by the Allies with Bulgaria, Finland, Hungary, Italy and Romania in February 19, 1947 prohibited the possession, construction or testing of nuclear weapons by the latter states.<sup>41</sup>

### C. The Soviet Atomic Bomb (1949): A Response to the American Atomic Monopoly

The inability of the United Nations to adopt a legal regime on nuclear disarmament, the continuation of the Cold War, and, most significantly, the atomic monopoly of the United States and its nuclear strategic planning against the Soviets led the Soviet Union to develop its own atomic bomb, which was successfully tested in 1949.<sup>42</sup> Although Stalin had publicly denigrated the strategic significance of atomic weapons as early as 1946, when he said that the atomic bomb was intended to intimidate the weak-nerved,<sup>43</sup> the atomic diplomacy and secrecy<sup>44</sup> of the West and the unilaterally increasing American nuclear arsenal in the early years of the Cold War had a direct negative impact on Soviet national security.

Furthermore, the Soviet leadership was persuaded that, in the nuclear age, the most effective counterweight to Western atomic monopoly and military block building was the development

of a Soviet atomic bomb, which would restore the military balance between East and West. In fact, the Soviets viewed the development of their own nuclear bomb in the belief that not only the Soviet Union, but also the world community as a whole would be safer if there were a socialist nuclear bomb to balance the capitalist one.<sup>45</sup>

Beyond these plausible Soviet arguments to justify the development of their own atomic bomb and thus end the American atomic monopoly, which admittedly posed a threat to their national security, the Soviet acquisition of atomic weapon capabilities in 1949 marked the beginning of the atomic arms race between the two superpowers. Indeed, President Truman and his advisers were shocked when they were informed that the Soviets had successfully detonated their own atomic bomb. President Truman's counteraction to the Soviet bomb was his assurance to the American public on September 23, 1949 that the United States had sufficient countermeasures to the Soviet atomic bomb capability. This, of course, meant that he was determined to expand America's atomic weapon programs, and to proceed with the development of a far more destructive weapon, the hydrogen bomb.<sup>46</sup>

CHAPTER 3  
GLOBALIZATION OF THE COLD WAR, EXPANSION  
OF THE SUPERPOWER NUCLEAR ARMS RACE AND  
U.N. NUCLEAR DISARMAMENT EFFORTS  
(1951-1962)

A. Cold War in Asia and the Korean War (1950)

The globalization of the Cold War in the 1950s and, in particular, the eruption of a “hot war” in Korea, clearly showed that the East-West ideological conflict had become a determinative factor in superpower confrontation and rivalry. The United States and the Soviet Union viewed each other as motivated mainly by aggressive and offensive designs.<sup>47</sup> Especially in 1954, when the Federal Republic of Germany was granted membership in NATO and Germany’s military rearmament began,<sup>48</sup> the Soviets felt compelled, perhaps justifiably, to proceed with the establishment of the Warsaw Pact in May of 1955.<sup>49</sup> In particular, the Soviets were deeply troubled by two related developments in American security policy during the culmination of the Cold War in the 1950s. The first was what the Soviets called American “pactomania” and “capitalist encirclement;” the second was the apparent U.S. willingness to develop nuclear weapons and strategies capable of launching a “nuclear first strike” against the Soviet Union.<sup>50</sup>

## B. The H-bomb and the Growing Club of Nuclear Powers

The successful development of the Soviet atomic bomb in 1949 ended the atomic monopoly of the United States and, above all, restored a kind of military balance between the two superpowers; both nations now possessed nuclear weapon capabilities. This restoration of nuclear balance must have convinced both superpowers, particularly the United States, that any further American strategy to maintain nuclear superiority over the Soviet Union would result in a nuclear arms race. It also persuaded both superpowers to seriously reenter the international legal process of nuclear disarmament, either on a bilateral level or under the auspices of the United Nations.

However, President Truman failed to exploit the prospects for disarmament created by the end of the American atomic monopoly and the reality of Soviet scientific potential to compete with the United States in the sphere of nuclear armaments. He chose not to initiate a new negotiation on the elimination of nuclear weapons or at least on their control. On the contrary, shocked by the Soviet Union's unexpected development of an atomic bomb, President Truman decided to further expand America's nuclear arms program, specifically by ordering the construction of the hydrogen bomb (H-bomb).<sup>51</sup> Eventually, on November 1, 1952, the hydrogen bomb was successfully tested by the United States.<sup>52</sup> Its detonation

yielded an unexpected energy equivalent to ten megatons (ten million tons of TNT), an amount about one thousand times greater than the energy released by the atomic bomb dropped on Hiroshima (some thirteen kilotons).<sup>53</sup> Once more, the continued insistence of the United States in maintaining nuclear superiority over the Soviets proved to have an unfortunate side effect: the Soviet Union almost immediately responded by successfully developing and testing its own hydrogen bomb on August 12, 1953.<sup>54</sup>

Beyond the direct rivalry of the superpowers, the successful detonation of the British atomic and H-bomb in 1952 and 1957 and the explosion of the French nuclear bomb in 1960, evidenced the proliferation of nuclear weapons that began to take place.<sup>55</sup> It can thus be seen that during the 1950s, notwithstanding the rapid expansion of the superpower arms race, the nuclear powers club was already expanding. This situation can be attributed to the inability of the United Nations to adopt a legal regime regulating nuclear disarmament and nuclear proliferation.

### C. The Expansion of the Superpower Nuclear Arms Race in the 1950s

President Eisenhower's policy of massive retaliation required for its implementation a massive American nuclear weapons buildup and expansion. Despite the fact that such a buildup would lead to the escalation of the nuclear arms race and competition with

the Soviets, the Eisenhower administration proceeded in 1954 with the development and successful testing of lightweight nuclear warheads. In the following year it decided to approve the development of the Atlas missile, America's first intercontinental ballistic missile (ICBM), which was designed to deliver a one-megaton nuclear warhead 5,500 nautical miles. In the same year, the administration approved the development of America's first intermediate range ballistic missile (IRBM), the Thor, which could carry a nuclear warhead 1,500 miles. In 1957, administration approval was given to yet another Air Force ICBM, a solid-fueled missile called the Minuteman. When the Minuteman became operational in 1962, it replaced the manned bomber as the primary component of America's strategic forces.<sup>56</sup>

On the other side, the Soviet Union, under the leadership of Khrushchev, who, after Stalin's death in 1953, became head of the Soviet Communist Party, was understandably concerned with the American nuclear buildup and expansion. In particular, the doctrine of massive retaliation as promulgated by the Eisenhower administration, the anti-communism and anti-Sovietism in the United States, and the agitation in East Germany, Poland, and Hungary became substantial factors in shaping Soviet nuclear strategy and expanding its nuclear arsenal, thus escalating the nuclear arms race and competition during the 1950s.<sup>57</sup>

Even though Khrushchev viewed the American doctrine of massive retaliation as atomic blackmail, he was conscious of his country's nuclear inferiority. As a result, the Soviets proceeded with their own nuclear weapons program; by 1955 they had amassed a nuclear arsenal of approximately 400 atomic and thermonuclear weapons.<sup>58</sup> Khrushchev's military strategy was thus the opposite of Stalin's; the latter had relied on enormous conventional forces; nuclear weapons were now given primary strategic significance by the Soviet leadership.<sup>59</sup>

#### D. The Cuban Missile Crisis (October 1962) and Its Aftermath

Beyond the continuation of America's massive nuclear buildup and the nuclearization of NATO's forces in Europe, the Kennedy administration proceeded also with the formulation of its own nuclear strategic doctrine of flexible response. More concretely, in June 1962, President Kennedy's Secretary of Defense, Robert McNamara, explained that a more flexible nuclear strategy was needed to implement a damage limitation strategy. As explained by McNamara, in the event of a Soviet nuclear attack on America's allies, or one limited to American military installations, the new nuclear strategy would enable the United States to attempt to avoid damage to its own cities by retaliating initially only against Soviet military installations (a counterforce attack), rather than Soviet cities (a countercity attack). McNamara believed that superior



American nuclear forces and weapons systems were required to implement his damage limitation strategy and give the United States an assured destruction capability—that is, sufficient nuclear forces, even after a Soviet first-strike—to retaliate against Soviet military installations and, if necessary, Soviet cities as well.<sup>60</sup>

Furthermore, during the Kennedy years, the Cold War rhetoric was intensified and concretized in the form of the Berlin crisis of 1961, which led to the erection of the Berlin Wall in the same year,<sup>61</sup> and which, in turn, became the symbol of the East-West conflict and division in the years which followed. As is well known, however, the Cuban missile crisis of 1962 became the most pivotal episode of the nuclear age, bringing both super powers to the brink of nuclear war. The Cuban missile crisis, or the Caribbean crisis as it was called by the Soviets, which lasted thirteen days in October of 1962, was, in fact, the culmination of superpower Cold War rivalry and the ultimate result of their unrestrained nuclear arms race.<sup>62</sup>

Fortunately, rational thinking prevailed. An agreement-understanding was reached between Kennedy and Khrushchev in accordance with which the Soviets agreed to withdraw their nuclear missiles from Cuba and the United States pledged not to invade Cuba and to remove its Jupiter nuclear missiles deployed in Turkey.<sup>63</sup>

Nonetheless, the Cuban missile crisis persuaded both superpowers that their confrontations could lead to nuclear war and that dispute management was necessary. In short, the Cuban missile crisis and its final deflation was a classic case study of a near nuclear war. It played an important role in convincing both superpowers of the need to avoid direct confrontation and of the need to expedite negotiations with the object of concluding nuclear disarmament and arms control agreements through the international legal process.

#### E. UN Legal Initiatives on Nuclear Disarmament (1951-1962)

##### 1. The Establishment of UN Disarmament Organs and Nuclear Disarmament Proposals (1951-1955)

Early in 1952 the General Assembly created the UN Disarmament Commission, which replaced the already dissolved UN Atomic Energy Commission and the UN Commission for Conventional Armaments and consolidated them into a single UN Disarmament Commission. This new Commission, composed of the permanent members of the Security Council and Canada, assumed responsibility to work toward both nuclear and conventional disarmament; it remained the primary institutional organ until 1957.<sup>64</sup> Its main task was to prepare legal proposals for the regulation, limitation, and balanced reduction of all armed forces and all arma-

ments, conventional and nuclear, in a coordinated, comprehensive program. Such proposals were to include legal measures for the elimination of all major weapons adaptable to mass destruction as well as measures for effective international control of atomic energy to ensure the prohibition of atomic weapons and the use of atomic energy for peaceful purposes only.<sup>65</sup>

Despite the intensity of the Cold War and the escalation of the nuclear arms race between the two superpowers in the 1950s, nuclear disarmament proposals were made by the Soviet Union and the Western powers in the United Nations. More specifically, on April 5, 1952, the United States submitted to the General Assembly a plan for disclosure and verification of all armed forces and all armaments, including atomic, as a first legal step toward disarmament. The process of disclosure and verification was to take place in five stages, proceeding from the less secret to the more secret weapons, and was to be completed within two years. The Soviet Union, however, objected to the idea of stages and rejected the U.S. plan on the ground that it was aimed at “getting information from other people while concealing data on atomic weapons and secret weapons at home.”<sup>66</sup>

On December 8, 1953, President Eisenhower, speaking in the General Assembly, put forward his “Atoms for Peace” proposal. He suggested the creation of an international atomic energy agency to

which nations would make joint contributions of fissionable materials to promote the peaceful uses of atomic energy.<sup>67</sup> While the initial and early contributions to the plan would be small, President Eisenhower maintained that his proposal had the virtue of avoiding the complicated issues and problems that would be involved in setting up a worldwide system of international inspection and control. The agency, he continued, would be responsible for the impounding, storage and protection of the contributed materials and would devise methods for their allocation and peaceful uses.<sup>68</sup> The Soviets agreed to participate in the talks and negotiations proposed by Eisenhower's "Atoms for Peace" plan, and on December 21, 1953, they put forward an additional proposal calling on all states to assume a solemn and unconditional obligation not to employ atomic, hydrogen, or other weapons of mass destruction.<sup>69</sup>

At the summit conference in Geneva on July 21, 1955, held by the United States, the Soviet Union, France and the United Kingdom, President Eisenhower stated that complete nuclear disarmament was no longer technically feasible. The number of nuclear weapons stockpiled had been greatly increased and thus there was no longer any way to verify whether a country that had agreed to destroy its nuclear weapons had in fact hidden enough of them away to be able to launch a surprise nuclear attack. In lieu, Eisenhower proposed a plan for "Open Skies," which would allow

reciprocal aerial inspection by the United States and the Soviet Union and an exchange of blueprints of their military bases.<sup>70</sup>

During its further negotiation and elaboration by the Disarmament Subcommittee, which was convened on August 29, 1955, the "Open Skies" proposal was not accepted by the Soviet Union. In fact, the Soviets continued to adhere to their traditional legal position to oppose on-site verification measures of nuclear disarmament agreements.<sup>71</sup> Moreover, on September 19, 1955, more concrete objections by the Soviet Union came directly from Soviet Premier Nikolai Bulganin in a letter to President Eisenhower. He maintained that the U.S. "Open Skies" plan did not include overseas installations and that it would not lead to successful disarmament since it omitted mention of the necessity for reduction of armaments and prohibition of nuclear weapons.<sup>72</sup>

## 2. The UN Agenda on Nuclear Disarmament and the Expansion of Its Disarmament Machinery (1956-1958)

Nuclear disarmament negotiations resumed in 1956 despite the tension caused by the Soviet Union's suppression of the Hungarian uprising and Soviet threats of war during the Anglo-French attack on the Suez Canal the previous year. Nuclear testing, in particular, had become a major problem in the process of nuclear disarmament and in the sphere of the superpower nuclear arms race.<sup>73</sup> The 1957 session of the Disarmament Subcommittee,

which proved to be its last, witnessed the most intensive effort by its members to find common ground on partial measures of nuclear disarmament through serious and extensive negotiations.<sup>74</sup>

The Soviets later submitted several proposals which, *inter alia*, included an obligation not to test nuclear weapons for five years, the prohibition of atomic military units beyond national frontiers, and the prohibition of placing nuclear weapons at the disposal of states that did not currently have them.<sup>75</sup> Additionally, Soviet Premier Bulganin accepted the Rapacki Plan submitted to the United Nations on October 2, 1957 by Polish Foreign Minister Adam Rapacki. This Plan proposed the creation of a Nuclear Weapon Free Zone (NWFZ) in Central Europe that would have included both Germanys, Poland and Czechoslovakia. The Plan provided that no nuclear weapons be stationed or produced within the denuclearized zone. But the Rapacki Plan was rejected by the Western powers.<sup>76</sup>

In July 1957 the International Atomic Energy Agency (IAEA) officially came into existence. The principal aim of the IAEA is to accelerate and enlarge the contribution of atomic energy to peace, health and prosperity throughout the world community. Above all, the Agency is to ensure that special fissionable and other nuclear materials provided by it to its member states will not be used for any military purposes by such recipient states. It also has the legal

task to make sure that assistance provided by it, or at its request, or under its supervision or control will not be used in such a way as to further any military purpose by the recipient member state.<sup>77</sup>

While the Agency was designed to encourage and assist research in the development and practical application of atomic energy for peaceful purposes, it was also vested with power to prevent the military application of nuclear material by the recipient states. To this end, a legal regime of safeguards and verification measures was created. In fact, the IAEA has been empowered with legal safeguards and verification techniques, which, *inter alia*, include: (i) the examination of the design of specialized equipment and facilities, including nuclear reactors and their approval only if they will not further any military purpose; (ii) the right to call for and receive reports from its recipient member states; (iii) the right to approve the scientific means to be used for the chemical processing of irradiated materials solely on the basis that they will not be used for military applications, and, (iv) the right to conduct on-site inspections by inspectors designated by the Agency after prior consultation with the recipient state concerned. Its inspectors have the right of access to nuclear facilities and data and to any person who by reason of his occupation deals with fissionable materials.<sup>78</sup>

In conclusion, the legal power of the Agency's inspectors to make on-site inspections on the territory of the recipient state con-

cerned constituted a legal breakthrough in the effort to verify that a recipient state does not use nuclear material received from the IAEA for military applications. This legal technique of on-site inspection could be of the utmost practicality in ensuring effective implementation of nuclear disarmament agreement as well as the prevention of the proliferation of nuclear weapons.<sup>79</sup>

In 1958 the Disarmament Commission was enlarged to twenty-five members. However, the Soviets boycotted further work of the Commission because of a dispute over its membership; the Soviets wished to enlarge it to include seven additional members, Austria, Bulgaria, Ceylon, Finland, Indonesia, Romania, and the Sudan. Nonetheless, negotiations on nuclear disarmament continued in several other fora. Also, the United States and the Soviet Union convened a group of experts who met at the Geneva Conference on the discontinuance of nuclear weapons tests in 1958. They reached the conclusion that the development of satellite technology made it technically feasible to set up a workable and effective control system for the detection of violations of an agreement on worldwide cessation of nuclear weapon tests. A second conference of experts was convened at Geneva in November 1958 to study methods to help prevent a surprise nuclear attack. However, no joint report was agreed upon.<sup>80</sup>



### 3. The UN Agenda on General and Complete Disarmament (1959-1962)

At the beginning of 1959 the United Nations established the Ten-Nation Disarmament Committee. Among other nuclear disarmament proposals and initiatives at the start of that year, the Khrushchev-MacMillan joint communique revealed that the two leaders had agreed to further study the issue of nuclear disengagement in Europe coupled with a system of inspection and the intensification of the test ban negotiations. But by the end of 1959 the UN agenda was mainly concerned with general and complete disarmament. Substantial legal efforts were then undertaken to meet the goals and objectives posed by the UN concept of general and complete disarmament. Indeed, the General Assembly, at its fourteenth session, declared general and complete disarmament to be the fundamental legal strategy and goal of the United Nations in its further negotiations on disarmament.<sup>81</sup>

At this point it should be recalled that the new item "General and Complete Disarmament" was placed on the agenda of the General Assembly's fourteenth session at the request of the Soviet Union, on whose behalf Premier Khrushchev, addressing the Assembly on September 18, 1959, proposed a new program of general and complete disarmament, which included the following proposals: (i) complete prohibition of atomic and hydrogen weapons—

discontinuance of the production of all types of these weapons, their elimination from the armaments of the states, and destruction of stockpiles of same; (ii) complete discontinuance of the production of rocket weapons of all types and ranges, including spare rockets for military purposes and their production, and, (iii) the dismantling of all rocket-launching installations.<sup>82</sup>

While the 1959 Soviet plan on general and complete disarmament (nuclear and conventional) constituted the most comprehensive disarmament proposal which, if accepted, would have led to a new order under the rule of law, the United States rejected it. On the goal of complete disarmament, the United States inappropriately raised questions as to the type of international police force to be established, what principles of international law should govern the use of force, and what internal security forces would be required by the nations of the world if existing armaments were abolished.<sup>83</sup>

Despite the failure of negotiations conducted under the aegis of the United Nations in 1959, it is worthwhile noting that the Antarctic Treaty was signed at Washington, on December 1, 1959, and entered into force on June 23, 1961. This treaty, initially signed by twelve states, including the United States and the Soviet Union, is of particular significance in the sphere of nuclear disarmament. It adopted the principle of the peaceful uses of the entire

Antarctic region. It not only prohibits the militarization of the region but specifically prohibits the installation of military bases of any type; it bans the deployment of nuclear weapons and any other kind of military weapons; it prohibits the explosion or testing of nuclear weapons in the region.

Specifically, Article I of the Treaty provides that: 1. Antarctica shall be used for peaceful purposes only. There should be prohibited, *inter alia*, any measures of a military nature, such as the establishment of military bases and fortifications, the carrying out of military maneuvers, as well as the testing of any type of weapons. 2. The present Treaty shall not prevent the use of military personnel or equipment for scientific research or for any other peaceful purpose.

Article V of the Treaty states that: 1. Any nuclear explosions in Antarctica and the disposal there of radioactive waste material shall be prohibited. 2. In the event of the conclusion of international agreements concerning the use of nuclear energy, including nuclear explosions and the disposal of radioactive waste material, to which all of the contracting parties whose representatives are entitled to participate in the meetings provided for under Article IX are parties, the rates established under such agreements shall apply in Antarctica.

The Antarctic Treaty can certainly be regarded as one of the

most fundamental legal instruments concluded since the end of World War II in so far as the creation of a demilitarized and denuclearized region is concerned. It is the first international legal instrument designed to declare and keep the Antarctic region a demilitarized and denuclearized zone, to provide a system of verification and inspection and techniques to safeguard effective implementation. It is also the first postwar multilateral treaty to shift the interest of the United Nations from the goal of general and complete disarmament to the more specific goal of regional nuclear disarmament and the prevention of regional nuclearization. It constitutes the starting point in the UN legal drive for the development of an international legal regime on the prevention of nuclear proliferation on a regional basis.<sup>84</sup>

In 1961 both superpowers announced that they had reached an understanding to continue an exchange of views on questions relating to disarmament and the resumption of negotiations in an appropriate body whose composition was to be agreed upon. Furthermore, the Soviet Union and the United States jointly submitted a statement of agreed principles on the multilateral negotiating process of disarmament to the General Assembly. As a result, the Assembly, on April 21, 1961, unanimously adopted by resolution 1617 (XV) the joint Soviet-American statement on agreed principles of disarmament. In terms of nuclear disarmament, this reso-

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lution provided that further disarmament negotiations would focus on: (i) the elimination of all stockpiles of nuclear weapons and the cessation of their production, and, (ii) the elimination of all means of delivery of nuclear weapons and generally weapons of mass destruction.<sup>85</sup>

During the year 1962 the nuclear disarmament negotiating process continued under the aegis of the United Nations. The Conference of the Eighteen-Nation Committee on Disarmament opened in Geneva on March 15, 1962 at the Foreign Ministers' level.<sup>86</sup> Although France decided not to participate, because it believed that it might be possible for the disarmament problem to be discussed later by powers that could effectively contribute to its solution, the Foreign Ministers decided to concentrate on simultaneous work on general and complete disarmament, confidence building (collateral) measures, and the discontinuance of nuclear weapon tests.<sup>87</sup>

The major documents before the Conference during the first session in 1962 were the "Draft Treaty on General and Complete Disarmament under Strict International Control," submitted by the Soviet Union on March 15 of the same year, and the United States "Outline of Basic Provisions of a Treaty on General and Complete Disarmament in a Peaceful World," submitted on April 18 of the same year. These two documents, amended during the course of the

following three years, remained the basis for negotiations at Geneva on general and complete disarmament.<sup>88</sup>

**CHAPTER 4**  
**ESCALATION OF THE NUCLEAR**  
**ARMS RACE AND THE**  
**DÉTENTE LEGAL PROCESS (1963-1975)**

**A. The Development of the Superpower Law of Détente and Arms Control (1963-1975)**

**1. Superpower Détente and Its Norm Creating-Dynamism**

Both superpowers continued to increase their nuclear weapon arsenals from 1963 to 1975.<sup>89</sup> China also, on October 17, 1964, announced that it had successfully exploded its own atomic bomb.<sup>90</sup> Thus, the acquisition of nuclear weapon capability by China increased the size of the nuclear club, which in 1964 included both superpowers, Britain, France, and now China. The increase in the number of nuclear powers since the advent of the atomic age clearly demonstrated that proliferation of nuclear weapons had created new dimensions and difficulties in the legal field of nuclear disarmament. The nuclear arms race between the two superpowers and the proliferation of nuclear weapons appeared to have become an uncontrollably evolving process, which had, in fact, overtaken

any effective international legal process aimed at the elimination and non-proliferation of nuclear weapons.

Nevertheless, the political principle of détente, which was designed to improve superpower relations through negotiation and by avoiding confrontation, had a profound impact on the normative regulation of the superpower relationship. Détente evolved into a legal principle of importance in the area of arms control and regulation. The experiment with superpower détente, which began with the opening of the SALT negotiations on November 17, 1969, produced a cluster of agreements signed at Moscow in 1972 (SALT I).

But before proceeding with an analysis of the SALT I Accords, it is important to note that détente and its legal aspects were not suddenly introduced in the superpower relations in 1969. On the contrary, superpower détente began to emerge almost immediately after the resolution of the Cuban missile crisis. As an aftermath, the near-nuclear war experience of both nations persuaded them to consciously seek a limited détente. Similarly, it was realized that, unless both sides agreed to legally manage their confrontation, they would find themselves at nuclear war. In particular, it was realized by both sides that their nuclear weapon arsenals and rivalry had transformed the nature of their competition. This dictated the need to place legal limits on the range of their permissible behavior designed to guard against the possibility that their failure to commu-



nicate and jointly manage their confrontation could lead to a nuclear exchange.

As a result of the emerging, albeit limited *détente*, on June 20, 1963, there was signed at Geneva a Memorandum of Understanding between the United States and the Soviet Union regarding the establishment of a Direct Communications Link, commonly referred to as the "Hot Line" Agreement.<sup>91</sup> While the Hot Line Agreement was designed to prevent accident, or miscalculations leading to nuclear war, it was of little legal significance in the sphere of nuclear arms control, particularly in the area of nuclear disarmament.

The limited *détente* process greatly facilitated the negotiating process, which ultimately resulted in the conclusion of the Limited Test Ban Treaty (LTBT) signed at Moscow on August 5, 1963, by both superpowers and Britain.<sup>92</sup> Although the LTBT is a multilateral treaty initially signed by both superpowers and Britain and later signed and ratified by more than one hundred countries, save France and China,<sup>93</sup> it was essentially the product of the limited *détente* between the two superpowers during the Kennedy and Khrushchev years.<sup>94</sup>

The LTBT, which bans nuclear weapon tests and explosions in the atmosphere, in outer space and under water,<sup>95</sup> removes a dangerous threat posed to human health by radioactivity released

by nuclear weapon tests and explosions in these specified areas.<sup>96</sup> It can also be characterized as a legal instrument intended to exercise a positive legal influence in the prevention of the proliferation of nuclear weapons, in the curbing of the superpower nuclear arms race, and ultimately in the facilitation of nuclear disarmament.

In more specific terms, despite the fact that the LTBT failed to prohibit the carrying out of underground nuclear weapon tests and explosions, which would, in essence, have completely outlawed the carrying out of such tests,<sup>97</sup> it was, in principle, a positive legal step in the area of the legal regulation of nuclear weapons tests and generally in the field of arms control. Indeed the LTBT must be characterized as the first international agreement of worldwide scope in the field of regulating the arms race and nuclear proliferation.<sup>98</sup> However, it must be recognized that the principal purpose of the LTBT was the protection of the human environment, and not an arms control measure.

Unfortunately, a critical appraisal of the LTBT leads to the conclusion that it has essentially failed to achieve its legal objectives. By the time it was concluded, the two main testing states, the United States and the Soviet Union, had already carried out an extensive series of nuclear explosions in the atmosphere and both knew that this activity could be continued underground.

Accordingly, both superpowers legally continued their underground nuclear tests and explosions, which provided most of the information required for further weapon development. In fact, since 1963 both superpowers have carried out considerably more nuclear explosions than they did during the period preceding the signing of the LTBT. Of course, this enabled them to develop new generations of nuclear warheads and related delivery vehicles. Essentially, the superpower nuclear arms race was allowed to continue unhampered,<sup>99</sup> and thus the underlying legal objective of the treaty to control and prevent a further superpower arms race was not achieved. Furthermore, the LTBT failed to serve the objective of preventing of the proliferation of nuclear weapons.<sup>100</sup>

Limited détente proved to be of norm-creating dynamism in that it led to the conclusion of the Hot Line Agreement and the LTBT; it also created the necessary environment for the conclusion of the SALT I Accords—the negotiations started in 1969—and was itself transformed into a legal principle in respect of the management of superpower conflict. It proved to be a progressive legal force facilitating the continuation of superpower efforts to regulate their arms race and nuclear arsenals through bilateral treaty arrangements.

In more specific terms, the détente legal process not only produced the SALT ABM Treaty and the SALT I Interim Agreement of

May 26, 1972, which are strictly related to the regulation and control of the arms race, but it also resulted in the conclusion of a series of agreements primarily designed to prevent a nuclear exchange. These agreements are the following:

1. The Agreement on Measures to Improve the U.S.-USSR Direct Communications Links, the so-called Hot Line Modernization Agreement, was signed on September 30, 1971, and entered into force on the same date. This treaty added satellite communications to earlier communication links between the parties.<sup>101</sup>

2. Also on September 30, 1971, both superpowers signed the Agreement on Measures to Reduce the Risk of Outbreak of Nuclear War Between the two Nations, the so-called Nuclear Accidents Agreement, which entered into force on the same date. This agreement requires each party to provide: (a) immediate notification and to take preventive action regarding any unauthorized incident involving possible detonation of a nuclear weapon; (b) immediate notification of the detection of an unidentified object by their respective missile warning systems or of interference with the warning systems, and, (c) advance notification of planned missile launches beyond borders in the direction of the other party.<sup>102</sup>

3. The U.S.-USSR Agreement on the Prevention of Incidents On and Over the High Seas was signed on May 25, 1972, and en-

tered into force on the same date. This agreement establishes rules of conduct between the parties with respect to military ships and aircraft in international waters and airspace. It also requires notification of situations of danger and the exchange of factual information regarding incidents or damage suffered by ships and aircraft involving the other party.<sup>103</sup>

4. The Agreement on Basic Principles of Relations Between the U.S. and USSR was signed on May 29, 1972, and entered into force on the same date. This major agreement, which constitutes the legalization of the principle of superpower détente and attributes legal meaning and instrumental value to it, established principles for the conduct of the parties towards each other, including, *inter alia*, the principle of peaceful coexistence on the basis of equality; avoidance of military confrontation and nuclear war; limitation of strategic arms, preferably in the form of concrete agreements, and the ultimate objective of general and complete disarmament.<sup>104</sup>

It is important to emphasize that this treaty not only specified the legal content of the principle of détente but also attributed to it legal merit and instrumental value. In essence, this agreement provided a legal foundation on which to deflate superpower Cold War relations. It was legally designed to substitute Cold War relations with the principle of peaceful coexistence and thus create

those confidence building measures which were further required to achieve the legal goal of final denuclearization.

5. The U.S.-USSR Memorandum of Understanding Regarding the Establishment of a Standing Consultative Commission, the so-called SCC Agreement, was signed on December 21, 1972, and entered into force on the same date. This agreement established a Standing Consultative Commission with the task of promoting the implementation of the Nuclear Accident Agreement, the SALT ABM Treaty, and the SALT I Interim Agreement.<sup>105</sup>

6. The U.S.-USSR Agreement on the Prevention of Nuclear War was signed on June 22, 1973, and entered into force on the same date. This treaty enjoins the parties not to use the threat or use of force against the other party or its allies in circumstances endangering international peace and it requires them to hold urgent consultations in situations involving risk of nuclear war.<sup>106</sup>

7. The U.S.-USSR Treaty on the Limitation of Underground Nuclear Weapon Tests, the so-called Threshold Test Ban Treaty (TTBT), was signed on July 3, 1974, and entered into force on March 31, 1976. This treaty prohibits underground nuclear weapon tests producing yields in excess of 150 KT; the parties pledged to keep the number of underground tests to a minimum. It also provides for exchanges of data to assist verification by National Technical Means (NTM). However, the TTBT excluded from consid-

eration the prohibition of underground nuclear tests for peaceful purposes.<sup>107</sup>

It is obvious that these bilateral treaties concluded between the United States and the Soviet Union, including also the SALT ABM Treaty and the SALT I Interim Agreement, were the ultimate result of the superpower détente process. They created a law of détente.<sup>108</sup>

In conclusion, it can be appreciated that détente created the required legal environment and provided positive norms and principles relevant to the central issue of arms control and nuclear disarmament. The law of détente led both superpowers from the era of Cold War relations to a new epoch of peaceful coexistence and to the beginning of the legal regulation of their nuclear armaments. It served in a positive manner the establishment and promotion of confidence building measures which, in the legal sphere of arms control and most importantly nuclear disarmament, are a *sine qua non* prerequisite.

## 2. The Development of the Superpower Law of Arms Control:

### The ABM Treaty and the Interim Agreement on the Limitation of Strategic Offensive Arms

#### a. The ABM Treaty (May 26, 1972)

## 1. An Analysis of the Legal Content and Objectives of the Treaty

After tortuous negotiations,<sup>109</sup> the Anti-Ballistic Missile (ABM) Treaty entered into force on October 3, 1972.<sup>110</sup> The Treaty was designed to safeguard the doctrine of nuclear deterrence based particularly on the logic of mutual assured destruction. In more concrete terms, the underlying rationale of the Treaty was the strategic need to safeguard and strengthen the workability of the doctrines of nuclear deterrence in the form of mutually assured destruction by legally limiting and further preventing the development and deployment of ballistic missile defenses aimed at the interception and destruction of ballistic missiles.<sup>111</sup>

The ABM Treaty codified the mutuality of nuclear deterrence in the logic of assured destruction.<sup>112</sup> In more specific terms, it constitutes the most comprehensive and detailed legal instrument of the SALT I Accords which, for the first time since 1945, established severe quantitative, qualitative, and geographical legal constraints and limits on superpower antiballistic missile defense systems.<sup>113</sup>

The key legal provisions of the ABM Treaty are Articles I and V. However, Article III of the Treaty contains an exception to the general prohibition of ABM defense systems provided by the above Articles. Both the United States and the Soviet Union reserved the right under Article III to have two deployment areas of ABM



systems: one protects the state's capital, the other protects ICBM silos.<sup>114</sup> In accordance with this exception, the Soviets were allowed to have a deployed ABM system around Moscow, and a second ABM system in defense of ICBMs silos site east of the Ural Mountains. The United States had the right to deploy an ABM system around Washington, D.C., and an ABM system to defend its ICBMs silo site west of the Mississippi.<sup>115</sup>

Another key legal provision is Article V(1), which prohibits both contracting parties from developing, testing or deploying ABM systems or components which are sea-based, space-based, or mobile land-based. Immobile land-based ABM defense systems and components are, of course, legally authorized under the terms of the treaty. But mobile land-based ABM systems and their components that are temporarily immobilized are also prohibited under Common Understanding C. Additionally, ABM launchers and radars which are not permanent fixed types are considered mobile and are, therefore, prohibited.<sup>116</sup>

Not surprisingly, the scope of the prohibitions imposed by Article V has raised questions of interpretation. Controversy over questions of interpretation first arose at the time of the ratification of the treaty and during the U.S. Senate Hearings on the SALT II Agreement. It resurfaced during the negotiating process of the Strategic Arms Reduction Talks (START),<sup>117</sup> particularly regarding

the decision of the United States to proceed with the development, testing, and final deployment of its Strategic Defense Initiative (SDI) program.<sup>118</sup> In fact, American-Soviet differences of opinion over the compatibility of the SDI program with the ABM Treaty is a significant question of interpretation in its own right and America's determination to proceed with its SDI project was a strategic and legal obstacle of negative impact on the superpower negotiating process for the conclusion of a bilateral treaty, which would provide the partial reduction and the final elimination of their nuclear arms.

## 2. Implementation of the Treaty

Effective implementation of the provisions of the treaty was to be achieved by using national technical means of verification (NTM). The parties agreed not to interfere with each other's national means of verification and not to deliberately conceal information relevant to compliance with the treaty. Although the NTM of verification are not defined by the treaty they are to be used in a manner consistent with generally recognized principles of international law. Unfortunately, such principles of international law are notoriously imprecise and are subject to varying interpretations. In essence, the nature and the extent of information gathered by NTM of verification depend on each party's technological level and ability to verify the other party's effective compliance with its legal obliga-

tions imposed by the treaty.<sup>119</sup>

While some verification techniques are established and well known, others are secret and thus are unavailable.<sup>120</sup> In more concrete terms, such national technical means in respect to the verification of the observance of the ABM Treaty include primarily space satellites, space shuttles and platforms, high-flying airplanes, and radars. In particular, both superpowers have placed more reliance on satellite technologies, which are sufficient to verify the existence of various objects such as bombers, missile sites, submarines leaving ports, factories producing means of delivering nuclear weapons, tank brigades, and armies on the march.<sup>121</sup>

Of course, NTM of verification are considered non-intrusive, at least in the sense that verification is conducted from outside the territory of the subject party<sup>122</sup> and on the legal basis of a treaty right. In particular, space satellites that can overfly and photograph most territories in a few minutes, and which are not considered, at least by common consent, to violate national sovereignty, have become the cornerstone of the superpowers' national means of verification techniques not only in terms of verifying their compliance with the provisions of the ABM Treaty but also in respect to their verification capabilities of their other arms control agreements discussed below.<sup>123</sup>

It must be noted, however, that the NTM of verification, par-

ticularly in the form of space based spy satellite technologies, do not always guarantee effective verification: the party subjected to such measures can technically interfere in an active and/or passive manner and thus prevent effective verification and therefore implementation of treaty obligations. More specifically, a state subject to verification procedures by NTM can resort to active interference, which connotes any countermeasures that interrupt or degrade the reconnaissance vehicle or facility itself. It may also undertake activities of passive interference, which means concealments and deception activities that prevent verification or are designed to permit undetected circumvention of the specifics of a given treaty.<sup>124</sup>

In order to prevent active and passive interference with the NTM designed to effectively verify the observation of the treaty's obligations, Article XII (2) and (3) impose on the contracting parties an obligation not to interfere with the NTM of verification of the other party and not to use deliberate concealment measures which impede verification by NTM of compliance. Article XIII established a Standing Consultative Commission (SCC), which, *inter alia*, has been vested with the legal duty of ensuring the effective implementation of the treaty, assuring confidence in compliance with the obligations assumed, and considering questions involving unintended interference with NTM of verification. Similarly, the preamble of the treaty states the superpowers' desire to strengthen

their mutual trust and confidence.<sup>125</sup> Thus, the effective implementation of the provisions of this treaty, beyond the use of NTM of verification, depends also on the promotion of confidence building measures between the two parties.

b. The Interim Agreement (May 26, 1972): An Analysis of Its Content, Objectives and Implementation Measures

After the BMD defense systems were legally regulated by the ABM Treaty, both superpowers on May 26, 1972, signed the Interim Agreement on the Limitation of Strategic Offensive Arms, hereinafter referred to as the Interim Agreement, which entered into force on October 3, 1972.<sup>126</sup> This Agreement was limited in both time and scope. It was intended to remain in force for five years, unless replaced earlier by an agreement on more complete measures limiting strategic arms.<sup>127</sup> Its objective was to provide a provisional accord limiting certain strategic offensive arms, pending further negotiations on the conclusion of a more comprehensive treaty.<sup>128</sup> At this point, it must be remembered that both superpowers initially failed to conclude a bilateral treaty directly regulating the limitations of their strategic offensive arms: they failed to agree on a legal and technical description of a “strategic weapon.”<sup>129</sup> Additionally, both parties were unable to resolve the problem of “unequal force aggregates,” the exclusion of strategic bombers, and the lack of precision concerning permissible ICBM

modernization.<sup>130</sup> Thus the Interim Agreement was limited only to the regulation of two central strategic offensive arms, the ICBMs and the SLBMs.<sup>131</sup>

But before proceeding to a legal analysis of some central provisions of this Agreement, it must be noted that, although at the time of the inception of the SALT I negotiations both superpowers had achieved a status of numerical parity in their ICBMs, the Soviet Union had indeed overtaken the United States both in ICBMs and SLBMs at the conclusion of the above Agreement. In more specific terms, at the time of the conclusion of the Interim Agreement, the Soviets had constructed and deployed 1,618 ICBMs and 740 SLBMs, while the United States had deployed only 1,054 and 656 SLBMs.<sup>132</sup>

The Interim Agreement aimed at maintaining and legally safe-guarding on a provisional basis the strategic balance, until a more comprehensive and complete treaty could be concluded. In essence, the objective of this Agreement was simply the safeguarding of the U.S.-Soviet strategic balance.<sup>133</sup> In the final analysis, the Agreement symbolized an attenuation of superpower rivalry and nuclear arms competition and confirmed their acceptance of the practicality of the doctrine of nuclear parity.<sup>134</sup>

The Agreement imposed legal limitations on the future construction of fixed land-based ICBM launchers and on the construc-

tion of further SLBM launchers, of course, under the specific conditions of these provisions.<sup>135</sup> While these legal limits applied only to fixed land-based ICBM launchers and SLBM launchers, it is obvious that the construction of other nuclear weapon systems and delivery vehicles, which constitute strategic offensive arms, was not prohibited by the Agreement. In effect, the Interim Agreement, even in the form of a provisional accord, did not limit the number or the payload of nuclear warheads, strategic bombers, missiles on warships, short and intermediate range ballistic missiles, land-based mobile ICBM launchers, air to surface ballistic missiles, or American forward based systems.<sup>136</sup>

On the contrary, the limits imposed by the Agreement related only to fixed land-based ICBM launchers, to SLBM launchers, and modern ballistic missile submarines.<sup>137</sup> Yet even these limitations were not of a comprehensive nature. In fact, the Agreement did not prohibit the completion of ICBM launchers under active construction at the time of the signature of the Agreement. Adversely, the completion of their construction was allowed by Agreed Statement I.<sup>138</sup> Additionally, Article IV of the Agreement allowed the modernization and replacement of those strategic offensive ballistic missiles and launchers regulated by the Agreement.<sup>139</sup>

Furthermore, it should be emphasized that both parties had managed to agree only on the imposition of legal limitations on the

above described strategic offensive arms, and that for two reasons. First, the categories of the nuclear weapons systems covered by the Interim Agreement could be verified on the basis of the use of their NTM of verification and compliance safeguards.<sup>140</sup> Second, the purpose of imposing legal limitations on these weapon systems was to maintain the strategic balance, which would further legally safeguard the nuclear deterrence doctrines.

It can now be suggested that the Interim Agreement and its Protocol<sup>141</sup> did not have any substantial legal effect either on the reduction or the elimination of the nuclear weapon arsenals. On the contrary, it was drafted with the object of temporarily maintaining and safeguarding the strategic equilibrium, the nuclear deterrence doctrines, and eventually the prevention of a nuclear war between the superpowers. Of course, this objective confirmed the *status quo*; it was not aimed at the drastic reduction and further elimination of nuclear weapon arsenals as required by the legal goal of the concept of nuclear disarmament. In essence, the maintenance of the nuclear balance meant the maintenance of nuclear arsenals, a result that was obviously inconsistent with the concept of nuclear disarmament and even of arms reductions.

It must be recognized, however, that the Interim Agreement represented a continuation of the process of détente. Indeed the Agreement's legal parameters and guidelines were designed to fur-



ther develop a legal framework for the conclusion of a more comprehensive bilateral treaty that was to be signed within prescribed time limits.

## B. Renewed Superpower Tensions and the End of the SALT I Process (1973-1975)

### 1. President Nixon's Détente Legacy and the Revival of Superpower Tensions

President Nixon was willing, after active negotiations, to proceed to the conclusion of a bilateral treaty which would implement the Interim Agreement.<sup>142</sup> But his resignation in mid-1974 due to the Watergate scandal prevented him from doing so. Although his successor, President Ford, continued his détente legacy, the legal environment created by the Nixon détente process had begun to wane. Indeed, in 1973 Cold War relations between the two superpowers revived. In particular, the Arab-Israeli war of October 1973 led the superpowers to place their strategic nuclear forces on alert. In addition, the Kremlin's involvement in so-called "wars of national liberation" in Angola in 1974 and other regions negatively affected the process of détente.<sup>143</sup>

With the revival of Cold War relations in 1973 the equilibrium which was to have been maintained by the Interim Agreement was challenged by the Soviet Union. In that year the Soviets began de-

ploying a new generation of ICBMs with a greater payload capacity, each equipped with multiple warheads. The largest of these new categories of Soviet MIRVed ICBMs, the SS-18, was armed with ten independently-targetable reentry vehicles. As a result of these deployments, the number of Soviet land-based MIRVed ICBMs was further increased by a factor of four: from approximately 1500 in 1972 to about 6000 warheads in the early 1980s. Moreover, these new Soviet MIRVed intercontinental ballistic missile systems were significantly improved in terms of their accuracies. Beginning in 1974, the Kremlin also initiated procurement of a new type of strategic bomber, code-named "Backfire."<sup>144</sup>

## 2. Continuation of the Superpower Détente Process and the Vladivostok Declaration (November 23, 1974)

Despite renewed tensions between the superpowers and the rapid increase of the Soviet strategic nuclear forces, both superpowers continued the spirit and process of détente in their bilateral approach to the problem of arms control. As a result, the summit meeting between Premier Brezhnev and President Ford in Vladivostok on November 23, 1974, produced the Joint American-Soviet Statement on the Limitation of Strategic Offensive Arms, known as the Vladivostok Declaration. While the Vladivostok Declaration announced a general agreement which signaled a new stage in their negotiations on the limitations of their strategic of-

fensive arms, it did not reduce the nuclear arsenals of the parties.<sup>145</sup> It only outlined the elements of a further proposed SALT Treaty on the limitation of the superpowers' strategic offensive nuclear weapons.<sup>146</sup>

The Vladivostok Declaration did not provide any specific figures; it merely forecast limitations on the total numbers of strategic vectors, ICBMs and SLBMs equipped with MIRVs. However, the figures which were made public by President Ford on December 2, 1974, revealed that each party would be limited to a total of 2,400 strategic vectors, of which 1,320 ICBMs and SLBMs would be allowed to be loaded with MIRVs. It was also agreed that both parties would be left free within the above limits to determine the distribution of the various weapon systems of their strategic forces.<sup>147</sup>

In retrospect it can be seen that the Vladivostok Declaration constituted a positive legal measure designed to further promote the bilateral approach to the regulation and imposition of specific limitations on nuclear armaments. It was intended to continue the step by step approach to the issue of arms control. Importantly, the Vladivostok Declaration also provided a legal basis and framework for future negotiations, which led to the conclusion of the SALT II Agreement on June 18, 1979.<sup>148</sup>

**CHAPTER 5**  
**UN NUCLEAR DISARMAMENT LEGAL**  
**INITIATIVES AND THE DEVELOPMENT OF THE UN LAW**  
**OF REGIONAL AND GLOBAL NUCLEAR WEAPONS**  
**NONPROLIFERATION (1963-1975)**

**A. The UN Multilateral Legal Approach to the Question of  
Nuclear Disarmament**

**1. Continuation and Failure of the UN Agenda on  
General and Complete Disarmament**

The period 1963 to 1975 was one of active UN negotiations on a number of legal proposals aimed at general and complete disarmament.<sup>149</sup> The Eighteen Nation Disarmament Committee, enlarged to include twenty-six member states in 1969, became known as the Conference of the Committee on Disarmament. Its representation was further increased to thirty-one members in 1974. Finally, in 1978, it was renamed the Committee on Disarmament and its membership increased to forty, including the five permanent members of the UN Security Council.<sup>150</sup>

Nevertheless, by the mid-1960s, the escalation of the nuclear arms race and competition, and the increase in size of the club of

nuclear powers had convinced even the most ardent of UN disarmament activists of the impossibility of achieving general and complete disarmament by means of a single sweeping and comprehensive plan. Indeed, by the mid-1960s it was realized both inside and outside the UN that general and complete disarmament, including nuclear disarmament, was a very long-term legal goal. In the final analysis, although the General Assembly, in 1969, turned to the Conference on Disarmament and directed it to draft a comprehensive program for the cessation of the nuclear arms race with a view to general and complete disarmament, this initiative did not produce any positive legal results at least in the sphere of comprehensive and global nuclear disarmament.<sup>151</sup>

Despite its failure to achieve general and complete disarmament during the 1960s, the General Assembly, still determined to pursue the objective of general and complete disarmament, during the 1970s, proclaimed the 1970s as the First Disarmament Decade. The decade was designed to be a period during which nations and governments were required to intensify their efforts to achieve effective measures relating to the cessation of the nuclear arms race.<sup>152</sup>

Unfortunately, the First Disarmament Decade failed to meet its objective of ending the nuclear arms race. While the Decade produced a series of conferences and pronouncements by various

world leaders on the imperative need to slow down and finally reverse the nuclear arms race, it did not generate any legal results in the sphere of nuclear disarmament. During the period of the Decade, both nuclear superpowers not only failed to reduce their nuclear arsenals by the elimination of even one nuclear warhead but they expanded their nuclear weapons systems and warheads. Unfortunately, the First Disarmament Decade also failed to prevent nuclear proliferation, as shown by the case of India.<sup>153</sup>

## 2. The UN Failure to Outlaw the Use of Nuclear Weapons For War Purposes

During the period in review the United Nations failed to conclude a multilateral treaty proscribing the unlawfulness and prohibiting the use of nuclear weapons as a means of warfare. It will be recalled that in 1967 the Soviet Union had submitted a draft convention to the General Assembly under which the parties would agree to refrain from using or from threatening to use nuclear weapons and from inciting other states to use them. This Soviet draft provided that the parties would also undertake to reach an early agreement on ceasing production and destroying stockpiles of nuclear weapons in conformity with a treaty on general and complete disarmament.<sup>154</sup>

Although this Soviet draft, which called on member states to

undertake negotiations for the conclusion of a convention banning the use of nuclear weapons for war purposes, was adopted by General Assembly resolution 2289 (XXII) in December 1967, the matter received no significant attention at the Conference of the Eighteen-Nation Committee on Disarmament; the Western powers rejected the draft convention.<sup>155</sup> It can now be seen that the UN failure to absolutely ban the use of nuclear weapons by means of an international agreement had a negative impact on UN efforts to achieve the elimination of nuclear weapons. If the United Nations had, at that particular time, outlawed nuclear weapons by adopting the Soviet draft convention, it would have promoted attempts to achieve the conclusion of an international agreement on the elimination of nuclear weapons on a comprehensive and global basis through an effective process of nuclear disarmament.

### 3. The UN Failure to Adopt a Comprehensive Test Ban Treaty (CTBT)

During the period 1963 to 1975 the United Nations repeatedly, but with no success, attempted to conclude a CTBT. Of course, this failure must be primarily attributed to American-Soviet disagreement on the issue of accepting a total nuclear test ban. It will be remembered that in 1974 Soviet leader Brezhnev had renewed previous Soviet proposals and proposed the conclusion of a CTBT imposing a total ban on underground weapons tests and their com-

plete cessation in accordance with an agreed-upon timetable. The United States rejected that proposal because the American side continued to insist that the verification of such a treaty had to be conducted on the basis of on-site inspection. The Soviets rejected on-site inspection techniques; they accepted only NTM of verification.<sup>156</sup>

As discussed above, both superpowers (and the United Kingdom) had concluded the LTBT in 1963, which allowed them to carry out only underground nuclear weapon tests. They also had concluded the TTBT in 1974, which prohibited underground nuclear weapon tests having a yield greater than 150 kilotons. These treaties, which were acceded to by other member states of the United Nations, became the subject of a prolonged ratification process particularly in the U.S. Senate. In 1990 both superpowers ratified these treaties, but both have conducted numerous nuclear weapon tests in contravention of them.<sup>157</sup>

Importantly, both the LTBT and TTBT were drafted with a view to allowing the nuclear superpowers to legally conduct nuclear weapon tests, sufficient for the development of new generations of nuclear weapons and the modernization of their older types of nuclear arsenals. In addition, the restrictions imposed by these treaties on the conduct of nuclear weapon tests did not have any effect in preventing nuclear proliferation as clearly shown by the un-



derground nuclear explosion conducted by India in 1974, a party to the LTBT.

In view of the inadequacies of the LTBT and the TTBT to prohibit the carrying out of nuclear weapon tests, it is obvious that the conclusion of a CTBT by the United Nations, imposing a total ban on nuclear weapon tests, would have played a significant legal role in the area of nuclear disarmament. In more concrete terms, since the development and reliable functioning of nuclear weapons primarily depend on their prior successful testing, the conclusion of a CTBT under the auspices of the United Nations banning all forms of nuclear weapon tests would have legally prevented both superpowers from further expanding their nuclear arsenals and also from the modernizing of their older types of nuclear weapons. Similarly, it would have made a positive contribution to the legal effort to prevent non-nuclear weapon states, non-parties to the NPT, from acquiring nuclear weapon capabilities, since the testing of such weapons would have been prohibited.

## B. The UN Legal Approach to Regional Nuclear Weapons Nonproliferation

### 1. The Development of the UN Law of Regional Nuclear Weapons Nonproliferation

UN efforts to prevent the spread of nuclear weapons on a re-

gional basis as a collateral measure for achieving the goal of a comprehensive and global nuclear disarmament on a region by region basis, produced a body of international law, namely: 1) The Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon, and Other Celestial Bodies, which was concluded on January 27, 1967, is known as the Outer Space Treaty; 2) The Treaty for the Prohibition of Nuclear Weapons in Latin America, signed on February 14, 1967, known as the Treaty of Tlatelolco, and 3) The Treaty on the Prohibition of the Emplacement of Nuclear Weapons and Other Weapons of Mass Destruction on the Seabed and the Ocean Floor and in the Subsoil Thereof. This Treaty was concluded on February 11, 1971, and is known as the Seabed Treaty.

These treaties have generated a set of positive principles and norms which can be termed the UN Law of Regional Nuclear Weapons Nonproliferation. They seek to prevent the nuclearization of entire regions and geographic areas. They represent a significant legal breakthrough and the starting point of the UN process to cope with the problem of comprehensive nuclear disarmament by following a step-by-step approach as part of an overall legal strategy to achieve global and comprehensive denuclearization.

## 2. The Outer Space Treaty (January 1967) and the Prevention of the Nuclearization of Outer Space

a. **The Outer Space Treaty: An Analysis of Its  
Content and Objectives**

The Outer Space Treaty, concluded under United Nations auspices on January 27, 1967, entered into force on October 10 of the same year. This treaty has been ratified by both nuclear superpowers and by a large number of other UN member states. Its conclusion under the aegis of the United Nations was due to widespread fear that the nuclear arms race would be extended to outer space.<sup>158</sup>

A review of the Outer Space Treaty shows that it was designed to promote and regulate the peaceful exploration and uses of outer space generally, including the moon and other celestial bodies. It was drafted with a view to promoting scientific, economic and peaceful cooperation among states parties with respect to their space activities. It restated the general legal principle of the peaceful uses of its subject-matter, which was first codified by the Antarctic Treaty for its own purposes.<sup>159</sup>

Article IV is the key legal provision on the prevention and prohibition of the militarization and nuclearization of outer space. It imposes a duty to refrain from placing in orbit around the earth objects carrying nuclear weapons or any other kind of weapons of mass destruction. It also prohibits states parties from installing nuclear weapons and weapons of mass destruction on celestial bod-

ies or stationing such weapons in any other manner. Article IV explicitly states that the moon and other celestial bodies must be used only and exclusively for peaceful purposes. Thus the establishment of military bases, installations, and fortifications, the testing of any type of weapons, and the conduct of military maneuvers generally in outer space is forbidden.<sup>160</sup>

Reduced to its essence, Article IV was drafted to prevent the militarization, particularly the nuclearization of outer space in general. Indeed, this Article explicitly prohibits the militarization of the entire outer space region by any military means, particularly by nuclear weapons and weapons of mass destruction.

#### b. Implementation of the Treaty

Despite the absence of an international verification system, some provisions of the treaty are designed to play a role in safeguarding compliance, particularly as regards obligations to refrain from any attempt to nuclearize outer space, the moon and other celestial bodies. Article XI of the treaty provides that, in order to promote international cooperation in the peaceful exploration and use of outer space, the contracting parties conducting activities in outer space, including the moon and other celestial bodies, agree to inform the Secretary-General as well as the public and the international scientific community of the nature, conduct, locations, and results of such activities.<sup>161</sup>

Article XI can play a legal role in ensuring effective compliance with Article IV. Article XI could be interpreted to mean that states have the legal obligation to inform the Secretary-General of any activity in outer space which is not compatible with the content of Article IV. On this interpretation, those contracting parties involved in activities in outer space, including the moon and other celestial bodies, have a legal obligation in good faith, and by avoiding any sort of collaboration, to monitor and verify by their NTM of verification that other states parties to the treaty do not violate the terms of Article IV.

Article XII provides, *inter alia*, that all installations, stations, equipment, and space vehicles on the moon and other celestial bodies must be open to representatives of other contracting parties on a basis of reciprocity. Such representatives must give reasonable advance notice of their projected visit. This provision adopts a form of on-site inspection (on the basis of reciprocity) by which contracting parties have the legal right to visit the stations, installations, equipment, and space vehicles of other contracting parties on the moon and other celestial bodies, but not in outer space in general. By virtue of Article XII contracting parties can verify that stations, installations, equipment, and space vehicles on the moon and other celestial bodies are not in violation of Article IV. If they find that there are violations of Article IV, they are under a legal obligation

to report it to the Secretary-General in accordance with Article XI.

Nonetheless, it must be noted that such on-site inspections and visits may be rendered impossible because of the legal obstacle posed by the reciprocity clause in Article XII. Since on-site inspections and visits are not unconditional but can be effectuated only on a basis of reciprocity, a contracting party involved in activities incompatible with Article IV may deliberately and on various grounds refuse to reciprocate to such on-site inspections and visits in order to conceal military activities in violation of Article IV.<sup>162</sup>

### 3. Nuclear Weapon-Free Zones (NWFZs)

#### and the Establishment of the Latin American NWFZ

##### a. The Development of the Concept of NWFZ and Some Early Proposed NWFZs

The formulation of the legal concept of NWFZs began to take place in the United Nations during the 1950s. Supporters of the establishment of such zones argued that NWFZs (a) constitute a measure for achieving general disarmament; (b) contribute to global peace and security; (c) reduce nuclear proliferation, and (d) assist the reorientation of foreign policies, particularly for smaller states.<sup>163</sup>

The first legal plan, which gave concrete content to the concept of NWFZs and which was submitted to the United Nations in

1957, was the Rapacki Plan for an NWFZ in Central Europe. The proposal was rejected. Nevertheless, since the 1950s the United Nations has witnessed the submission and discussion of various proposals for the creation of NWFZs in different regions of the globe. In the 1950s, Bulgaria conceived and advanced the idea for the creation of a NWFZ in the Balkans, which would include Albania, Bulgaria, Greece, Romania, Turkey and Yugoslavia.<sup>164</sup> With the exception of the Latin American NWFZ established in 1967, during the 1960s and the first half of the 1970s, the United Nations received proposals for the creation of NWFZs in several other regions of the world. These proposals are: 1) The proposed Nordic NWFZ;<sup>165</sup> 2) the proposed African NWFZ;<sup>166</sup> 3) the proposed Central European NWFZ;<sup>167</sup> and 4) the proposed Near East NWFZ.<sup>168</sup>

b. The Latin American NWFZ and the Treaty of Tlatelolco (February 14, 1967)

1. The Genesis of the Zone and the Treaty of Tlatelolco: A Legal Critical Analysis

After complex negotiations among the Latin American states concerned, the Treaty for the Prohibition of Nuclear Weapons in Latin America, which established the Latin American NWFZ, was signed on February 14, 1967 at Tlatelolco in Mexico City. This

treaty, known as the Treaty of Tlatelolco, entered into force on April 22, 1968. The conclusion of that Treaty was characterized by General Assembly resolution 2286 (XXII) as an event of historic significance.<sup>169</sup>

The Treaty of Tlatelolco constitutes a significant starting point in the evolutionary development of the International Law of Regional Nuclear Weapons Nonproliferation. This Treaty is the first multilateral regional treaty to give legal substance to the concept of NWFZ in a heavily populated region of the globe. In contrast, the Antarctic and Outer space treaties apply to vast but unpopulated regions.<sup>170</sup>

The treaty has been ratified by thirty two nations of the Latin American region. The treaty has entered into force for all but three states, which are Guyana, St. Kitts and Nevis, and St. Lucia. It is important to note that the treaty has entered into force for Argentina, Brazil and Chile, which are militarily significant countries in the region, and with advanced nuclear programs.<sup>171</sup> Cuba, which is involved in the construction of a nuclear power plant, has signed the treaty. But the treaty has not entered into force for Cuba.<sup>172</sup>

The object of the treaty is to prevent and prohibit the nuclearization of the Latin American NWFZ. To serve this objective, Article 1 (1) imposes on the contracting parties the obligation to



prohibit and prevent in their respective territories: (i) the testing, use, manufacture, production or acquisition by any means or type of nuclear weapons by the states parties themselves, directly or indirectly, on behalf of anyone else or in any other way, and (ii) the receipt, installation, storage, deployment and any form of possession of any type of nuclear weapons in the same manner as above. Under para. 2 of Article 1, the contracting parties have assumed the obligation to refrain from engaging in, encouraging or authorizing, directly or indirectly, or in any way participating in the testing, use, manufacture, production, possession or control of any nuclear weapon.<sup>173</sup>

Although, in accordance with Article 1 (1), the contracting parties have undertaken to use exclusively for peaceful purposes the nuclear material and facilities which are under their jurisdiction, it is important to note that Article 17 provides that states parties have the right to use nuclear energy for peaceful purposes, particularly for their economic development and social progress, but, of course, in conformity with the provisions of the treaty. In addition, Article 18 provides that the contracting parties are allowed to carry out explosions of nuclear devices for peaceful purposes, including explosions which involve devices similar to those used in nuclear weapons. The same Article allows the contracting parties to collaborate with third parties in carrying out nuclear tests and explosions

for peaceful purposes.<sup>174</sup>

Article 5 defines “nuclear weapon” as any device which is capable of releasing nuclear energy in an uncontrolled manner and which has a group of characteristics that are appropriate for use for warlike purposes. However, this Article fails to prohibit the contracting parties from developing and building launchers and other delivery vehicles for nuclear weapons. On the contrary, Article 5 provides that the contracting parties have the right to build instruments for the transport or propulsion of a nuclear device on condition that such instruments are separable from the nuclear device and are not an indivisible part of them.

Because Article 5 allows contracting parties to develop and construct ballistic missile delivery systems or any delivery vehicles that can be used for the delivery of nuclear weapons, it is important to underline that this permission represents a substantial defect and failure in relation to the treaty’s overall aims and objectives. Indeed, Article 5 may not only have a negative effect on the realization of the treaty’s objective to maintain the Latin American region free from any type of nuclear weapons on a permanent basis but it may also play a negative role as regards the prevention of the proliferation of nuclear weapons delivery systems and, consequently, as regards the non-proliferation of nuclear weapons in general. Although both Argentina and Brazil possess ballistic missile capa-

bilities. But both have agreed to ban the production of nuclear-capable ballistic missiles.<sup>175</sup>

## 2. Implementation of the Treaty

The treaty has created a specific control system and machinery, which has been vested with power to ensure the implementation of the treaty's legal objectives through a system of verification techniques and procedures. Articles 7 and 8 create the Treaty Agency for the Prohibition of Nuclear Weapons in Latin America, known as the OPANAL. This Agency, which comprises the General Conference, the Council, and the Secretariat, constitutes the control machinery.<sup>176</sup>

Each of the Agency's principal organs has been vested with power and responsibility to ensure the effective compliance of the contracting parties with their treaty obligations. The General Conference, as the supreme organ of the Treaty Agency, has, *inter alia*, the authority to supervise compliance with the treaty by the contracting parties, to establish procedures for the control system of the treaty in order to ensure the observance of the treaty provisions, and to receive and consider biennial and special reports submitted to it by the Council and the General Secretary.<sup>177</sup>

The Council has also been vested with power and responsibility to ensure the operation of the treaty's control system and safeguards in relation to effective implementation. The Secretary

General enjoys discretionary power to request any of the contracting parties to provide the Agency with complementary or supplementary information regarding any event or circumstance connected with compliance with the provisions of the treaty. The parties are obligated to cooperate fully and promptly with requests for complementary and supplementary reports concerning conformity with provisions of the treaty.<sup>178</sup>

It is interesting to observe that while the Treaty of Tlatelolco created its own control machinery it also saw fit to link itself to the international control system of the IAEA. Under Article 13, the contracting parties agreed to allow the IAEA to be involved in the implementation of the treaty indirectly and subject to conditions. The IAEA is permitted to apply its international control system and safeguards on condition that prior agreements have been signed on an individual basis between the IAEA and the contracting parties to the Treaty of Tlatelolco. In particular, since the Treaty of Tlatelolco can be in full force for the states parties without the conclusion of a prior agreement between the IAEA and the contracting parties, the involvement and the legal role of IAEA with respect to the international control over the verification and implementation of the treaty appears to be limited.<sup>179</sup>

In accordance with Article 12, the control system established by the treaty serves the objective of verifying: (a) that nuclear de-

vices, services and facilities of the contracting parties are only used for peaceful purposes and applications and are not used in the testing or manufacture of nuclear weapons; (b) that none of the nuclear activities prohibited by Article 1 of the treaty are carried out in the territory of the states parties with nuclear materials or weapons introduced from abroad, and, (c) that explosions for peaceful purposes are compatible with Article 18 of the treaty.

The Treaty of Tlatelolco authorizes both the IAEA and the Council to carry out special inspections, namely, on-site inspections, designed to verify effective compliance with the treaty. Article 16 (1) (a) provides the IAEA with the right to carry out on-site inspections apparently on the nuclear facilities and installations of the contracting parties. Nevertheless, as has been explained, the IAEA has no direct right to carry out on-site inspections and apply its atomic safeguards by virtue of this treaty. The IAEA is allowed to carry out on-site inspections only on the basis of separate agreements concluded between states parties to the treaty and the IAEA and in accordance with the terms of Article 13 of the treaty.

Article 18 (2) of the treaty requires the contracting parties which intend to carry out or to cooperate in carrying out permissible nuclear tests and explosions to notify the Treaty Agency and the IAEA of the date of the explosion. Such parties must supply

both the IAEA and the Treaty Agency with the following information: (a) the nature of the nuclear device and the source from which it was obtained; (b) the place and purpose of the planned explosion; (c) the expected force of the device, and, (e) the fullest possible information on any radioactive fall-out, which may result from the planned explosion or explosions and the measures taken to avoid danger to the population, flora, fauna, and territories of any of the other contracting parties.

Article 18 (3) provides the General Secretary of the Treaty Agency, the technical personnel designated by the Council, and the IAEA with the legal right, whose exercise is discretionary, to observe the preparations and the detonation of the nuclear device. If these organs decide to exercise their right of observation they are accorded the right of unrestricted access to any area in the vicinity of the site of the scheduled nuclear explosion. The purpose served by this provision is to ascertain whether the nuclear device used and the information supplied by the contracting party or parties concerned is in conformity with the required procedures and purposes of the treaty.

Article 24 provides for the judicial settlement of disputes and questions concerning the interpretation or application of the treaty by reference to the International Court of Justice. It is appropriate to underline that Article 24 is the first legal provision of an interna-

tional treaty pertaining to the prevention of the proliferation of nuclear weapons and generally in the sphere of the legal issue of nuclear disarmament, which provides directly for judicial settlement.

### 3. External Guarantees to the Latin American NWFZ: Additional Protocols I and II

Notwithstanding the fact that the treaty prohibits the production or acquisition, deployment or stockpiling, use or threat of use of nuclear weapons by its Latin American states parties, it is obvious that maintaining the Latin American region as a NWFZ on a permanent basis significantly depends also on the respect of the zone as such by outside nuclear weapon states and outside states having *de facto* or *de jure* control and possession over territories included in the zone established by the treaty. Thus there was a need for such outside states to legally guarantee that their behavior and involvement in this zone would be consistent with the objectives of the treaty.

To this end, the treaty has been accompanied by Additional Protocols I and II. Protocol I was designed to ensure the effective implementation of the objectives and purposes of the treaty by those extra-continental states which, *de facto* or *de jure*, are internationally responsible for territories lying within the limits of the geographical zone established by the treaty.<sup>180</sup> According to Article 1 of this Protocol, the extra-continental states, upon becoming par-

ties to Protocol I, agree to apply the statute of denuclearization in respect of warlike purposes as defined in Articles 1, 3, 5 and 13 of the treaty to such territories. Protocol I has been signed and ratified by the United States, the United Kingdom, France, and the Netherlands. This Protocol, like the Treaty of Tlatelolco itself, is of unlimited duration, and it has entered into full force.<sup>181</sup>

Additional Protocol II is aimed at securing legal guarantees from nuclear weapon states that: (i) they will respect in all its express aims and provisions the statute of denuclearization of the Latin American region in respect of warlike purposes, as defined, delimited and set forth in the Treaty of Tlatelolco; (ii) they will not contribute in any manner to the performance of acts in violation of the prohibitions and obligations of Article 1 of the treaty with respect to the established Latin American NWFZ, and, (iii) they will not use or threaten to use nuclear weapons against the states parties to the treaty.<sup>182</sup> This Protocol has been signed and ratified by China, the United Kingdom, the United States, France, and the Soviet Union.<sup>183</sup>

The legal guarantee given by the nuclear weapon states shows that they can play a significant role in the recognition and preservation of NWFZs as such. Of particular legal significance is the obligation undertaken by the nuclear weapon states (under Protocol II) that they will not contribute in any way to the acquisi-



tion of nuclear weapon capabilities by states parties to the Treaty of Tlatelolco. This guarantee can be an important contribution to the development of an international legal regime of nonproliferation on a regional basis and in the form of NWFZs. Also, the legal obligation of the nuclear weapon states under Protocol II not to use or threaten to use nuclear weapons in the Latin American NWFZ constitutes a positive legal step in the development of an international legal regime on the prohibition of the use of nuclear weapons by nuclear weapon states against the states parties of a NWFZ.

4. The Prevention of the Nuclearization of the Seabed, Ocean Floor and Subsoil and the Seabed Treaty (February 1971)
  - a. An Analysis of the Legal Content and Objectives of the Seabed Treaty

After extensive bilateral negotiations, both superpowers submitted on October 7, 1969 a joint draft treaty to the Eighteen-Nation Disarmament Committee, where the final text of the treaty was agreed upon. Thus, on December 7, 1970, the General Assembly by resolution 2660 (XXV) adopted the Seabed Treaty, and expressed the hope for the widest possible adherence to it by the contracting parties. The treaty entered into force on May 18, 1972, when the Soviet Union, the United States, the United Kingdom and

more than 22 countries deposited their instruments of ratification.<sup>184</sup>

The fundamental legal provision of the Seabed Treaty is to be found in Article 1 (1). In this provision, the contracting parties agree not to emplant or emplace on the seabed and the ocean floor and their subsoil any nuclear weapons or any types of weapons of mass destruction, including structures, launching installations or any type and form of facilities specifically designed and constructed for storing, testing or using of nuclear weapons and weapons of mass destruction. The wording of Article I (1) suggests that this prohibition applies only to fixed objects and fixed installations of nuclear weapons and weapons of mass destruction and only in specified maritime spaces, namely, the seabed and the ocean floor and their subsoil. In accordance with Article II, these maritime regions are beyond the outer limit of a seabed zone, which is further defined as being coterminous with the 12-mile outer limit of the zone referred to in Part II of the Geneva Convention on the Territorial Sea and the Contiguous Zone of 1958.<sup>185</sup>

The treaty does not prohibit the installation of nuclear weapons in the superjacent waters.<sup>186</sup> States parties, while not allowed to emplant or emplace fixed nuclear weapon systems and fixed nuclear weapon installations in the seabed and the ocean floor and their subsoil, can achieve the same military ends by installing

nuclear weapon systems and constructing nuclear weapon facilities exactly above the prohibited maritime spaces and in the superjacent waters as well as in any other part of the hydrospace. Moreover, the prohibitions laid down by Article I (1) in relation to the prevention of the emplacement and emplanting of fixed nuclear weapon systems and fixed nuclear installations in the aforesaid maritime spaces do not seem to be invulnerable to the activities of a state party determined to nuclearize these maritime regions. In more specific terms, states parties, depending on their technological capabilities, are able, without committing any treaty violation, to nuclearize the seabed and the ocean floor by placing in these areas non-fixed (mobile) nuclear weapon systems. The placement of such non-fixed and mobile nuclear weapons systems on the seabed and the ocean floor would not be in violation of Article I (1) since that Article prohibits only the emplacement or emplanting of fixed nuclear weapon systems and installations in these maritime zones.

It is obvious that the treaty fails to keep the seabed and the ocean floor completely free of nuclear weapons. The treaty is susceptible to legal exploitations in the manner just explained. Additionally, the treaty fails to prohibit the placement of nuclear weapons and installations of such weapons in the superjacent waters of the prohibited maritime zones. Furthermore, and most significantly, it fails to prohibit in any way the navigation of sub-

marines and surface warships capable of carrying and delivering strategic and tactical nuclear warheads. The treaty surely does not apply to naval forces capable of carrying and delivering nuclear weapons or even conventional warheads.

It is obvious that naval nuclear disarmament in the context of sea-based nuclear ballistic systems and their means of carriage and delivery, such as submarines and surface warships equipped with nuclear missiles, constitutes a substantial part of the problem of global and comprehensive nuclear disarmament. However, both nuclear superpowers, heavily relying on the strategic importance of their naval nuclear arsenal and machinery for purposes of maintaining nuclear deterrence and enhancing their nuclear war fighting capabilities, have failed to conclude any bilateral treaty specifically dealing with the reduction and gradual elimination of their naval nuclear arsenal and machinery.

#### b. Implementation of the Seabed Treaty

Article III deals with compliance. Article III (1) provides for a system of observation. Each contracting party has the right to verify through observations the activities of other contracting parties on the seabed and the ocean floor and their subsoil, provided such observations do not interfere with the activities in these maritime areas.

Paragraph 2 of Article III provides that if a contracting party

has reasonable doubts that another contracting party has been involved in nuclear activities on the seabed and the ocean floor and their subsoil in violation of its obligations under the treaty, then both contracting parties must consult with each other in order to remove these doubts. If such doubts persist after consultations then the state party that continues to have doubts has the legal obligation to notify states parties to the treaty. Furthermore, the contracting parties concerned have the legal duty to cooperate on the determination of the verification techniques and procedures required for ensuring that the activities of the state party on the aforesaid specified maritime areas are in conformity and compliance with the treaty. Such verification techniques and procedures include inspection of objects, structures, installations or other facilities, which are reasonably expected to be in violation of the provisions of Article I of the Treaty.

Paragraph 3 of Article III provides that if the contracting party responsible for the activities on the aforesaid maritime spaces, and whose activities gave rise to the reasonable doubts of violating the terms of the treaty, is not identifiable by the aforesaid verification procedures and techniques, then the contracting party having the doubts has an obligation to notify and make appropriate inquiries of the activities of the states parties in the region concerned and of any other party. If, after such notification and in-

quiries, the state party responsible cannot be identified, the contracting party having the doubts and making the inquiries has a discretion to exercise the right of verification measures, including inspection. Such a contracting party must invite the other parties in the region to participate in the process of identifying the responsible party to the activities, whose conformity with the treaty raised reasonable doubts.

If this consultation and cooperation, as provided by paragraphs 2 and 3 of Article III, have not removed the doubts and there remains a serious question concerning the compliance of the responsible party with its legal obligations with respect to its activities in the seabed and the ocean floor and their subsoil, then any state party has the discretionary right to refer the matter to the Security Council, which may take action in accordance with the Charter. At this point, it should be noted that the verification measures and activities allowed to ensure the effective implementation of the treaty by its contracting parties must not interfere with the legitimate activities of other contracting parties and must be conducted with respect for the rights of such parties as recognized by international law, which, *inter alia*, include the freedom of the high seas and the rights of the coastal states in relation to the exploration and exploitation of their continental shelves.

It is important to underline that pursuant to Article III (5),

the verification of the effective implementation of the treaty by its contracting parties may be conducted by any state party using its own means of verification or with the full or partial assistance of any other contracting party or through appropriate procedures within the framework of the UN and in accordance with the U.N. Charter. It is clear that the Seabed Treaty does not create a treaty organ or authority which, vested with appropriate legal powers and technological capabilities, would be able to ensure the effective implementation of the treaty. Instead, the treaty entrusts its effective function and compliance upon the desire and discretionary right of its parties to check on each other's conformity with their obligations under the treaty.

C. The Development of the UN Legal Regime on  
Global and Comprehensive Nuclear Weapons  
Nonproliferation and the Treaty on the  
Nonproliferation of Nuclear Weapons (NPT)  
(July 1, 1968)

1. The UN Legal Approach to the Problem of  
Nuclear Weapons Nonproliferation and the  
Genesis of the NPT

The problem of preventing the proliferation of nuclear weapons is as old as nuclear weapons and nuclear energy. Indeed,

the question of how to enable the world community to enjoy the benefits derived from the peaceful applications and uses of fissionable nuclear materials and nuclear technology without spreading the technological capability of developing nuclear weapons has been a primary legal concern at the United Nations since the advent of the nuclear age.<sup>187</sup>

The superpower nuclear arms race and the proliferation of nuclear weapons by other powers increased danger of a nuclear war.<sup>188</sup> In addition, earlier assumptions about the scarcity of nuclear materials and the difficulty of mastering nuclear technology for the development of nuclear weapons by additional states were inaccurate. Indeed, in the early 1960s the search for peaceful applications of nuclear energy had brought technological advances in the technology of nuclear reactors for the generation of electric power and had also increased the fears of using such nuclear materials and technologies for the development of nuclear weapons.<sup>189</sup>

Accordingly, it was realized by the international community that if the diversion of nuclear materials from peaceful purposes and uses was not prevented by an international system of safeguards, and if a growing number of states were involved in the proliferation of nuclear weapons, the danger of nuclear war as a result of accident, unauthorized use, or escalation of regional conflict would be greatly increased. It was realized that the uncontrolled



spread of nuclear weapons would increase the difficulties of legal control and the ultimate elimination of nuclear weapons through the process of effective nuclear disarmament.<sup>190</sup>

On November 23, 1965, the General Assembly adopted resolution 2028 (XX) by which it called for the conclusion of a nuclear nonproliferation treaty and asked the Eighteen-Nation Disarmament Committee to assume and carry out this legal task. This resolution also provided the legal framework for an NPT on the basis of the following five principles: (i) the treaty should be devoid of any loop-holes which might permit nuclear or non-nuclear weapon states to proliferate, directly or indirectly, nuclear weapons in any form; (ii) the treaty must incorporate an acceptable balance of mutual responsibilities and obligations of the nuclear and non-nuclear weapon states; (iii) the treaty should be a step towards the achievement of general and complete disarmament and, more particularly, nuclear disarmament; (iv) there should be devised acceptable and workable provisions to ensure the effective implementation of the treaty, and, (v) the treaty must not adversely affect the right of any group of states to conclude regional treaties in order to achieve and ensure the total absence of nuclear weapons in their respective territories.<sup>191</sup>

These five principles promulgated by the Assembly resolution 2028 (XX), were to become the fundamental legal objectives of the

nuclear non-proliferation treaty regime. After extensive negotiations the two superpowers filed a joint and agreed upon draft treaty to the Eighteen-Nation Disarmament Committee on March 1, 1968. This joint draft was submitted to the General Assembly which, on June 12, 1968, adopted it by 95 to 4 votes with 21 abstentions. This was the first time in the UN history of disarmament that a resolution sponsored by both nuclear superpowers failed to gain the unanimous approval of the General Assembly. Despite the fact that the four states which voted against the adoption of the final text of the NPT were of minor rank and military importance, the twenty-one abstentions included France, which was a nuclear weapon state at the time of the conclusion of the NPT, and other states approaching the nuclear threshold, such as India and Brazil. The NPT was opened for signature on July 1, 1968 and entered into force on March 5, 1970.<sup>192</sup>

2. The NPT and the Formulation of the International Legal Regime on the Nonproliferation of Nuclear Weapons

- a. An Analysis of the Legal Objectives of the NPT

Articles I and II of the NPT serve the objective of preventing and prohibiting horizontal proliferation of nuclear weapons,

namely, proliferation of nuclear weapons by non-nuclear states.<sup>193</sup> In order to achieve this aim, Article I provides that “Each nuclear-weapon State Party to the Treaty undertakes not to transfer to any recipient whatsoever nuclear weapons or other nuclear explosive devices or control over such weapons or explosive devices directly, or indirectly; and not in any way to assist, encourage, or induce any non-nuclear-weapon State to manufacture or otherwise acquire nuclear weapons or other nuclear explosive devices, or control over such weapons or explosive devices.”

Article II provides that “Each non-nuclear-weapon State Party to the Treaty undertakes not to receive the transfer from any transferor whatsoever of nuclear weapons or other nuclear explosive devices or of control over such weapons or explosive devices directly, or indirectly; not to manufacture or otherwise acquire nuclear weapons or other nuclear explosive devices; and not to seek or receive any assistance in the manufacture of nuclear weapons or other explosive devices.”

b. The NPT Division Between Nuclear and  
Non-Nuclear Weapon States and the  
Implications of Their Imbalanced  
Obligations

Although the horizontal nuclear nonproliferation legal regime created by Articles I and II of the NPT constitutes a positive legal

step in the direction of the nonproliferation of nuclear weapons, it is obvious, nevertheless, that these two Articles create a juridical division between the member states of the United Nations into nuclear and non-nuclear weapon states. This results from the differential treatment of these two categories of states with respect to their legal rights and obligations under the NPT. In this regard, it must be noted that Article IX (3) of the NPT defines a nuclear weapon state as that state which had manufactured and exploded a nuclear weapon or other nuclear explosive device prior to January 1, 1967. Thus, based on this Article, the nuclear weapon states established as such before the aforesaid date are: the United States, the Soviet Union, the United Kingdom, France, and China. Accordingly, all the other states were categorized as non-nuclear weapon states by application of Article IX (3) of the NPT; and by acceding to this treaty they are legally obliged to maintain their legal status as such.

However, the legal division of member states of the United Nations into nuclear and non-nuclear weapon states by the NPT has become an issue. It is increasingly observed that it would be rational and legitimate to expect the NPT to serve the objective of global and comprehensive nuclear disarmament by equally requiring non-nuclear weapon states to maintain their legal status as such and at the same time requiring nuclear weapon states to elim-

inate their nuclear weapons within a concrete time frame.

The distinction between nuclear and non-nuclear weapon states by the NPT gives the impression that the treaty legitimizes the *de facto* status of those states which were capable of acquiring nuclear weapon capabilities before January 1, 1967. Thus, the treaty represents a form of legal discrimination against these states, which were not capable of acquiring nuclear weapon capabilities before the above date, since these states on the basis of the NPT are legally prevented and prohibited from any form of horizontal nuclear proliferation. In other words, the NPT gives the impression that it has been drafted with the implied objective of legitimizing the nuclear hegemony and monopoly of the nuclear weapon states while prohibiting the non-nuclear weapon states from acquiring nuclear weapons capabilities and requiring them to maintain their status as such.

A literal interpretation of Article VI suggests that the NPT fails to impose concrete legal obligations on the nuclear weapon states to refrain from any further vertical nuclear proliferation, namely, to abstain from any further development, production and deployment of nuclear weapons. Also, Article VI and, generally speaking the NPT legal regime, fails to impose on the nuclear weapon states a concrete legal obligation to eliminate or at least drastically reduce their nuclear weapon arsenals through the pro-

cess of nuclear disarmament and within a specified timetable.

On the contrary, Article VI imposes on all states parties to the treaty, not specifically on the nuclear weapon states, the obligation to undertake to pursue negotiations in good faith on the effective cessation of the nuclear arms race and nuclear disarmament. While it is obvious that this provision particularly applies to the nuclear weapon states, it is, nevertheless, obvious that the NPT fails to refer specifically to the obligation of the nuclear powers to cease their vertical nuclear proliferation and actively pursue denuclearization. Thus the NPT fails to create a specific and dynamic legal regime requiring nuclear weapon states to eliminate their nuclear weapons. On the other hand, as regards the prohibition of horizontal nuclear proliferation the treaty imposes clear and categorical legal obligations on the non-nuclear weapon states and unconditionally requires them to maintain their legal status as such.

By virtue of Article VI, the nuclear weapon states are required to negotiate in good faith the cessation of their vertical nuclear proliferation and nuclear disarmament. However, in clear violation of Article VI, both superpowers increased six-fold their nuclear arsenals.

It is obvious therefore that the demand of the non-nuclear weapon states to establish an effective direct and conditional legal linkage between their obligation to renunciate the acquisition of

nuclear weapon capabilities themselves and the commitment of the nuclear weapon states to cease their nuclear arms race and achieve their nuclear disarmament do not seem to have been legally recognized by the NPT. Indeed, the NPT fails to create balanced legal obligations between these two categories of states. The treaty fails to embody an acceptable balance of mutual responsibilities and obligations between the nuclear and non-nuclear weapon states in relation to the ultimate goal of the nuclear disarmament of the nuclear powers and the preservation of the non-nuclear status of the non-nuclear weapon states. In any case, the non-nuclear weapon states, on the basis of their legal obligations under Article II as compared to the obligations of the nuclear powers under Article IV, are legally in a disadvantageous position.

In relation to the issue of a legal guarantee by the nuclear powers to the non-nuclear weapon states that the latter will not be militarily disadvantaged and subjected to intimidation by the nuclear monopoly of the former, the Security Council has attempted to provide a legal assurance as to the security of the non-nuclear weapon states against nuclear attack by the nuclear weapon states. Specifically, the Soviet Union, the United States, and the United Kingdom sponsored resolution 255 of the Security Council on June 19, 1968, prior to the signature of the NPT; this resolution provides that the Security Council welcomes the intention expressed by cer-

tain states, namely, by the above three nuclear powers, that they will provide or support immediate assistance, in accordance with the U.N. Charter, to any non-nuclear weapon state party to the NPT, which is a victim of an act or an object of a threat of aggression in which nuclear weapons are used.<sup>194</sup>

It is evident that the NPT fails to incorporate in itself any provision which would directly provide the legal pledge and guarantee of the nuclear weapon states not to use or threaten to use nuclear weapons against non-nuclear weapon states parties to this treaty. At this point, it should be recalled that Soviet Premier Kosygin had proposed the inclusion of a security guarantee in the treaty, which would forbid the use of nuclear weapons against non-nuclear powers which signed the treaty and on the condition that such states held no nuclear weapons in their territories. However, this Soviet proposal, which is known as the no-use proposal or the Kosygin Clause, was rejected by the NATO allies and was not incorporated in the NPT.<sup>195</sup>

Despite the failure of the NPT to embody a security guarantee prohibiting the use or the threat of use of nuclear weapons by the nuclear powers against the non-nuclear weapon states parties to the NPT, it must be observed that Security Council resolution 255 could have developed binding legal effect on the aforesaid three nuclear powers on the basis of their parallel declarations. It is



important to note that the International Court of Justice, in its judgement on the nuclear test cases (Australia v. France) of December 20, 1974, held that unilateral declarations of a state's intention can have binding legal effects on that particular state.<sup>196</sup>

It is obvious that the NPT reflects a form of legal inequality between the nuclear and non-nuclear powers in their respective obligations on vertical and horizontal nuclear nonproliferation. Furthermore, it is important to note that while Article II was specifically designed to prevent and prohibit any form and in any manner the proliferation of nuclear weapon capabilities by non-nuclear weapon states through horizontal nuclear proliferation, a literal interpretation of Article I clearly suggests that the nuclear powers reserved for themselves legal rights which cannot be compatible with the legal principle of state equality and with the legal objectives of nuclear disarmament and international security. Unlike non-nuclear weapon states, the nuclear powers are not barred transferring nuclear weapon technology among themselves. Also, they may receive assistance in the manufacture of nuclear weapon or other nuclear devices and in testing them. Moreover, they are not subject to safeguards on any of their nuclear activities.

While, by virtue of the NPT, the non-nuclear weapon states must remain completely alienated from the acquisition of any nuclear weapon capability, the treaty fails to prohibit the nuclear

powers from installing nuclear weapons in the territories of the non-nuclear weapon states parties to the NPT. It thus seems that the NPT is an international legal instrument characterized by a dose of legal irony and contradiction in relation to its legal objectives. Indeed, while the non-nuclear weapon states are obliged by the treaty to remain non-nuclearized, the nuclear powers are not prevented from the nuclearization of non-nuclear weapon states. As a result, the nuclearization of non-nuclear weapon states, as has been the case of the nuclearization of the respective allies of the two superpowers, does not assist the NPT in imposing an effective and dynamic legal regime of vertical and horizontal nuclear non-proliferation with the ultimate objective of achieving global and comprehensive denuclearization.

Despite these defects and inadequacies, Article IX recognizes the legal role of NWFZs in the prevention of horizontal nuclear proliferation on a regional basis. This Article recognizes and also favors the right of the contracting parties to establish NWFZs in their respective regions. However, it must be pointed out that the feasibility of the establishment of NWFZs by non-nuclear weapon states in their respective regions has generally been hindered by the fact that a large number of such states, being members of the superpower military alliances and blocks, have been nuclearized by the two nuclear superpowers.

Although 188 member states of the United Nations have become parties to the NPT,<sup>197</sup> the comprehensiveness and effectiveness of the nuclear nonproliferation regime established by the NPT has been challenged since the time the treaty entered into force. Key non-nuclear weapon states have become *de facto* nuclear weapon states. In more analytical terms, by the mid-1970s, both India and Israel, which are not parties to the NPT, acquired nuclear weapon capabilities. The acquisition of nuclear weapon capabilities by these two countries marked the beginning of a new nuclear age.<sup>198</sup>

### 3. The IAEA and the NPT Verification System

Article III of the NPT imposes on each of the non-nuclear weapon states parties to the treaty an obligation to accept safeguards on the basis of a separate agreement between each of the non-nuclear weapon states and the IAEA; the aim of the agreement is to prevent diversion of nuclear energy from peaceful uses to nuclear weapons or other nuclear explosive devices. Article III also imposes on each state party either nuclear or non-nuclear an obligation not to provide: (i) source or special fissionable material, or (ii) equipment or material especially designed or prepared for the processing, use or production of special fissionable material to any non-nuclear weapon state for peaceful purposes, unless the source or special fissionable material is subjected to the nuclear safe-

guards of the IAEA. The application of the nuclear safeguards by the IAEA must be carried out in a manner designed to ensure the prevention of any form of horizontal nuclear proliferation of nuclear weapons and not to hamper the peaceful uses of nuclear energy.

The IAEA has become the central institutional machinery for the implementation of the NPT. It has emerged as a cornerstone of the nuclear nonproliferation international legal regime. In more analytical terms, a few weeks after the entry into force of the NPT, the Board of Governors of the IAEA established a safeguards committee. This committee drafted the model nuclear safeguards agreement INFCIRC/153, known and referred to as the Blue Book, which constitutes the basis of the nuclear safeguards applied to states parties. It sets out the content of comprehensive, full scope safeguards agreements covering all nuclear material in peaceful nuclear activities or under control of a state party.<sup>199</sup>

IAEA inspectors have the legal task of proving the absence of nuclear material diversion to military uses by a state party: for this purpose they use various accounting and surveillance measures and procedures. Thus movement of nuclear material into and out of each nuclear plant and as it goes through various plant processes must be accounted for by the plant's operator. The operating country is required to send reports to the IAEA indicating any changes in the quantities of nuclear materials possessed. Inspectors at

IAEA Headquarters audit these reports and verify the validity of the submitted reports by on-site inspections of each facility of the states parties.<sup>200</sup>

Furthermore, Auditing Inventory Change Reports, Material Balance Reports (giving a physical inventory of nuclear material in a material balance area), and Physical Inventory Listings (inventories of material by batch) are verified during on-site inspections to check for discrepancies. Occasionally the IAEA performs simultaneous physical inventory verifications. In addition, to verify the accuracy of the accounting reports, measurements are taken on the spot and samples are sent to IAEA Headquarters for analysis by the Agency's Safeguards Analytical Laboratory. During some inspections, 30% percent in 1984, nuclear material is verified by non-destructive assay (NDA). However, new technologies are being developed and field tested by the IAEA that will make on-site analysis of nuclear materials possible on a wider scale in the near future.<sup>201</sup>

To carry out its task of overseeing the implementation of the NPT, the IAEA has developed the verificational technique of visual surveillance. Specifically, automatic cameras, TV cameras, and recorders are used to record material movements for several months at a time. When IAEA inspectors retrieve the filmed results, the results are then used by Agency inspectors to check the

accuracy of accounting records covering the movement of nuclear materials, and to help in the analysis of any discrepancies. At the present time, the Agency is expanding the use of visual surveillance measures; since 1983 it has operated approximately 230 photo and TV surveillance systems in the field.<sup>202</sup>

In addition, the IAEA uses tamper-proof seals as a verification technique. Between on-site inspections, tamper-proof seals are used to seal off stores of nuclear materials and the reactor cores themselves. During inspection, these seals can be detached and later checked at IAEA Headquarters for tampering. Also, Agency inspectors check the functioning and calibration of plant instruments, accountability tanks, and other measuring and control equipment to verify that they have not been tampered with or modified. In the end, the IAEA publishes annually through its Annual Report a safeguards statement for the relevant year. The Safeguards Implementation Report summarizes the safeguards results for each type of facility on the basis of the latest state reports, Agency inspections, and Agency analyses of discrepancies.<sup>203</sup>

In brief, the verification measures and techniques, namely, the safeguards for the implementation of the NPT, particularly on the prevention of the diversion of nuclear materials for peaceful purposes to the development of nuclear weapons, which have been developed by the IAEA and which have been included in individual

agreements between the IAEA and the states parties include the following verification techniques: (a) the submission of reports by states parties to the IAEA in relation to their nuclear materials and activities, (b) on-site inspection by Agency inspectors for the auditing of inventory change reports, material balance reports, and physical inventory listings; (c) samples; (d) visual surveillance; (e) tamper-proof seals; (f) maintenance, and, (g) results and publication.<sup>204</sup>

**CHAPTER 6**  
**CONTINUATION OF THE SUPERPOWER NUCLEAR**  
**ARMS RACE AND THEIR ARMS CONTROL AND**  
**DISARMAMENT LEGAL PROCESS (1976-1985)**

**A. Expansion of the Superpower Treaty Law of Nuclear Weapon  
Test Limitations**

**1. The Peaceful Nuclear Explosions Treaty (PNET)  
(May 1976)**

**a. Genesis and Objectives of the PNET**

During the period between 1976 and 1985, both superpowers continued their nuclear arms race.<sup>205</sup> Nevertheless, the détente process proved to be a dynamic force in the Soviet-American step-by-step treaty lawmaking process to regulate their nuclear relationship. It also proved to be a substantial force in the bilateral process of adopting legal regulations and measures in the area of nuclear weapon tests. Indeed, the détente legal process contributed to the adoption of both the LTBT and the TTBT, both of which represent positive measures in the development of an international legal regime on the control and regulation of nuclear weapon tests.

In the process of implementing their undertaking in Article III of the TTBT, the United States and the Soviet Union, after in



tensive negotiations for approximately eighteen months, concluded the Treaty on Underground Nuclear Explosions for Peaceful Purposes (PNET), on May 28, 1976. The PNET was supplemented by a Protocol and an Agreed Statement.<sup>206</sup>

Although the PNET was submitted to the U.S. Senate on July 29, 1976, senatorial debate on ratification of the PNET, including also the ratification of the TTBT, was prolonged. The main obstacle was the issue of effective verification and implementation. In the end, the Senate on September 25, 1990 consented to ratification of both the TTBT and the PNET but with the addition of a long resolution on effective verification of both treaties. The Supreme Soviet unanimously ratified both treaties on October 9, 1990. Thus, after approximately 25 years from the time of signature, both the TTBT and PNET entered into full force for both parties.<sup>207</sup>

The PNET has been drafted with a view to permit the development of the atom and its peaceful applications through appropriate testing procedures. While the TTBT allows underground testing of nuclear weapons not exceeding a yield of 150 kilotons for each exploded nuclear weapon or device, the PNET was designed to ensure that underground nuclear tests by the contracting parties would not be used for nuclear military purposes and applications. In other words, the fundamental objective of the PNET is to draw a legal boundary between permissible underground nuclear tests for

military and peaceful purposes and thus ensure that such nuclear tests by the contracting parties, except those allowed for nuclear weapons purposes by the TTBT, would only be used for the further development and peaceful applications of the atom.

In order to achieve this objective, the PNET imposes certain controls and limits. Article III (1) (a) of the treaty requires the parties, in exercising their reserved right, to carry out underground nuclear explosions outside the geographical boundaries of those test sites designated for the testing of nuclear weapons under the TTBT. This geographical separation of the underground test sites for peaceful purposes from those test sites for military nuclear explosions is intended to ensure that the same nuclear test sites are not used for both military and peaceful purposes.

Article III (2) imposes limits on the ceiling of the yield of underground nuclear explosions for peaceful purposes. It requires that any individual underground nuclear explosion of any nuclear device mechanism or system conducted by the contracting parties must not exceed a yield of 150 kilotons. This yield limit imposed by the PNET is the same as that permitted by the TTBT for the underground tests of nuclear weapons.

Article III (2) does not allow the carrying out of underground nuclear testing of any group explosion of any nuclear devices having an aggregate yield in excess of 150 kilotons. But such a group

explosion, even if it has a yield exceeding the limit of 150 kilotons, is legally permissible if it permits identification of each individual explosion in the group in accordance with Article IV of the PNET and in accordance with the provisions of its Protocol. Both Article IV and the provisions of the Protocol require the verification of the effective compliance of the contracting parties with their treaty obligations by both NTM and on-site inspections.

While the LTBT and TTBT adopted certain legal measures and imposed certain legal limitations on the testing of nuclear weapons, the PNET attempted to resolve the issue of safeguarding peaceful versus the military applications of the atom derived by the testing of nuclear devices and systems. Of course, the legal problem of drawing a boundary between peaceful and military applications of the atom is as old as the beginning of the nuclear age. The PNET, however, laid down certain important rules designed to ensure the development and promotion of the peaceful application of the atom and atomic energy by allowing the conducting of nuclear tests within legal parameters.

b. The Problem of the Effective Implementation of the  
PNET

Effective compliance is a major legal issue in relation to this treaty. Since there is no essential distinction between the technology and the nuclear materials tested for peaceful and military ap-

plications, it is obvious that the PNET is inherently vulnerable to circumventions by its contracting parties.

Even if the contracting parties test for peaceful purposes in full compliance with the PNET they still test nuclear explosive devices, which tests can be useful for the development of nuclear weapons. In other words, because there is one nuclear testing for both peaceful and military applications of the atom, legal permission to test for peaceful purposes paves the way for the prior testing of nuclear devices and mechanisms. It will be remembered that India, which in 1974 successfully exploded a nuclear device and thus acquired nuclear weapon capabilities, has argued that it had exploded a peaceful nuclear device.<sup>208</sup>

In addition, even though the PNET outlaws the carrying out of nuclear tests which do not entail any peaceful application, and although the treaty imposes a limit ceiling of 150 kilotons yield on each individual nuclear test explosion, the 150 kilotons limit for the carrying out of peaceful nuclear explosions can still assist in the development of nuclear weapons by non-nuclear weapons states. Such permissible nuclear tests will assist, in a legitimate fashion, non-nuclear weapon states in developing of nuclear explosive devices and weapons far more destructive than the atomic bomb dropped on Hiroshima.

Article IV of the treaty provides two verification techniques,

namely, the use of NTM and on-site inspections. With respect to the use of NTM, it must be underlined that this verification technique was becoming a consolidated verification system in both arms control and the limitation of the nuclear tests of both superpowers. The permissibility and use of NTM of verification was not only incorporated in SALT I but also was agreed and accepted as fundamental legal method of the verification of both TTBT and PNET.

On-site inspection under PNET was for the first time adopted by both superpowers. The approval and adoption of on-site inspection, at least for purposes of the implementation of the PNET, constituted a significant legal breakthrough.<sup>209</sup>

Article IV (2) of the treaty obliges both parties to provide full information, access, and assistance to the inspection teams in order to carry out their task. Additionally, the Protocol to the PNET deals with rules on the designation of on-site inspection teams, their rights and functions, their privileges and immunities in carrying out their task of ensuring the effective compliance.

Article V provides for the establishment of a Joint Consultative Commission to coordinate and promote the objectives of the PNET vested with the legal power to assure confidence in compliance with the obligations assumed by both contracting parties. This Commission has authority to consider questions regarding ambiguous issues of compliance with the treaty, to consider and

resolve issues concerning the unintended interference of the contracting parties with the verification means of the treaty, and to consider changes in technology which have a bearing on the provisions of the treaty.

In conclusion, the legal acceptance and adoption by the PNET of NTM and on-site inspections constituted a positive legal development in the formulation of the verification system of the treaty. In particular, the adoption of on-site inspections constituted a breakthrough in the development of superpower lawmaking in the area of verification.

## 2. The SALT II Agreement (June 18, 1979) and Its Non-ratification

During the period between 1975 and 1980, both superpowers were involved in the continuation of the process of the modernization and the production of more powerful and sophisticated strategic nuclear weapon systems. In addition, both the United States and the Soviet Union proceeded in an uncontrolled manner with the modernization and the introduction of new INF and TNF missiles in Europe.<sup>210</sup> Notwithstanding the continuation of the superpower nuclear arms race during the mid-1970s, both nuclear superpowers continued their détente political and legal process, and through their negotiations were seeking to impose limits and restrictions on their strategic nuclear forces and generally on their

nuclear arms race.

Although bilateral relations of the two superpowers had been characterized to some extent by the revival of their Cold War rivalries, both countries were negotiating to limit and control their offensive strategic nuclear forces. After extensive and complicated negotiations,<sup>211</sup> they concluded the SALT II Agreement on the limitation of their strategic offensive arms on June 18, 1979. This was accompanied by a Protocol and a number of Agreed Statements and Common Understandings.<sup>212</sup>

The parties failed to finally ratify SALT II. Although President Carter had heralded the SALT III Agreement as a national accomplishment,<sup>213</sup> the majority of U.S. senators were skeptical of the terms of the Agreement. Many senators were not inclined to ratify it without attaching to its terms on its verification procedures conditions and changes that would have amounted to a substantial legal restructuring of the Agreement requiring, in essence, its renegotiation.<sup>214</sup>

#### B. The Reagan SDI Program: Its Strategic and Legal Implications

On March 23, 1983, President Reagan announced his decision to embark on a program to counter the awesome Soviet nuclear missile threat with measures of a defensive nature. This program, which became known as the Strategic Defense Initiative (SDI), or

the so-called Star Wars program, would be designed to intercept and destroy strategic ballistic missiles before they reached America's soil or that of its allies.<sup>215</sup> President Reagan asserted that U.S. strategic thinking, technological research and weapons development in the future would focus on systems which would give the United States the means of rendering offensive nuclear weapons impotent and obsolete.<sup>216</sup>

The SDI program focused on three areas of research and technology. The first, and probably most critical, aims to develop sensors for detecting the launching of nuclear warheads of enemy missiles, tracking them during flight, discriminating nuclear warheads from non-threatening objects, such as decoys, and providing intercept guidance to the managers of the various defensive weapons systems. Development of the actual weapons for use in the space battle is the goal of the other areas. Two kinds of such weapons are being explored. Kinetic energy weapons would be ground or space based and would be launched by chemical rocket boosters or projected by hypervelocity electromagnetic or electrothermal guns. According to the U.S. Pentagon, this is the most mature SDI technology. But the technological development of directed energy weapons for SDI purposes is far behind.<sup>217</sup>

The efforts to build an SDI system bring together four basic concepts identified as promising to the needs of a multitiered anti-



ballistic missile SDI system: space based lasers, ground based lasers, space based particle beams, and nuclear directed energy weapons.<sup>218</sup> Phase I of the program, whose code name is Brilliant Pebbles and which was expected to be deployed in late 1993, would involve space based lasers and a particle beam anti-ballistic missile defense system.<sup>219</sup>

The SDI system as announced by President Reagan had a negative impact on the superpowers' nuclear disarmament process.<sup>220</sup> Additionally, it created a major controversy between the United States and the former Soviet Union over its legality. The implementation of the SDI system would be in violation of the ABM Treaty and contrary to other applicable legal rules and principles of international law.<sup>221</sup> Although, President Clinton recently announced his decision to abandon the development and deployment of a space-based SDI program; it is important to note that the United States has not abandoned the work on ABM defenses. In 1996, the United States spent \$3.7 billion on that weapon system.<sup>222</sup>

**CHAPTER 7**  
**UN NUCLEAR DISARMAMENT EFFORTS**  
**AND THE EXPANSION OF THE UN LAW**  
**OF ARMS CONTROL AND REGIONAL NUCLEAR**  
**WEAPON NONPROLIFERATION (1976-1985)**

**A. The UN and Its Legal Strategy for Global  
Nuclear Disarmament (1976-1985)**

**1. The UN Final Document and Report on Nuclear  
Weapons and the UN Program Action for  
Nuclear Disarmament (1976-1980)**

By the beginning of the period 1976-1980, the United Nations was not only facing the issue of the arms race and its implications for international peace and security but the Organization was also experiencing the first setbacks to the NPT of 1968. The acquisition of nuclear weapon capabilities by India and Israel (non-parties to the NPT) by the mid-1970s seemed to usher in a new nuclear age for the non-nuclear weapon states.

The nuclearization of both India and Israel showed the international community that the NPT had failed to provide effective legal safeguards against horizontal proliferation. In these circum-

stances, the United Nations began to play a more active role in relation to nuclear disarmament. The General Assembly, aided by the Ad Hoc Committee on the World Disarmament Conference,<sup>223</sup> rendered the issue of nuclear disarmament an urgent priority. On June 30, 1978, the General Assembly adopted by consensus the so-called Final Document, which was incorporated in its resolution S-10/2.<sup>224</sup> The Final Document, for the first time in the history of the United Nations, set out an agreed Program of Action on disarmament containing priorities and measures that states should undertake as a matter of urgency. It also established a Disarmament Commission comprising all U.N. member states.<sup>225</sup>

In the Final Document, the General Assembly placed particular emphasis on the need to eliminate nuclear weapons on a comprehensive and global basis through an effective nuclear disarmament process. Existing arsenals alone were more than sufficient to destroy all life on Earth and human civilization.<sup>226</sup>

The General Assembly proposed a series of measures. It called on the nuclear-weapon states, particularly the two nuclear superpowers, to halt and reverse their nuclear arms race through effective disarmament agreements and verification measures. It urged the club of nuclear powers, especially the United States and the Soviet Union, to negotiate agreements to: (a) cease the qualitative improvement and development of nuclear weapon systems; (b)

cease the production of all types of nuclear weapons and their means of delivery, and of the production of fissionable material for weapons purposes; (c) cease their nuclear weapons testing, and, (d) agree on a comprehensive, phased program with agreed time-frames for progressive and balanced reduction of stockpiles of nuclear weapons and their means of delivery leading to their ultimate and complete elimination at the earliest possible time.<sup>227</sup>

The Final Document called on the nuclear weapon states to provide effective legal guarantees and thus assure non-nuclear weapon states against the use or threat of use of nuclear weapons. In this context, it was pointed out that the provision of such guarantees to the non-nuclear weapon states would strengthen the security of the latter category of states and also international peace and security. The Final Document called for the effective prevention of the horizontal proliferation of nuclear weapons and the strengthening of the NPT legal regime and its safeguards. At the same time, it pointed out the need for the peaceful uses and applications of nuclear material and technologies under effective international controls by the non-nuclear weapon states without discriminatory practices and preferences by the nuclear supplier countries. It was emphasized that, in light of the NPT, an acceptable balance of mutual responsibilities and obligations for nuclear and non-nuclear weapon states must be attained and strictly ob-

served.<sup>228</sup>

The Final Document also dealt with the concept of NWFZs. It characterized the NWFZ approach to the prevention of regional proliferation of nuclear weapons as an important measure for regional nuclear disarmament. It called on the nuclear weapon states to fully respect and guarantee the nuclear weapons free status of such established NWFZs and it called on the nuclear weapon states to refrain from the use or threat of use of nuclear weapons against the states parties to a NWFZ. At the end, the Final Document called for a World Disarmament Conference.<sup>229</sup>

In 1978, the General Assembly adopted resolution 33/91 D, which requested the Secretary General to carry out a comprehensive study on nuclear weapons. The study was to focus on a discussion of the factual information on nuclear weapon arsenals, the trends in the technological development of nuclear weapon systems, the effects of their use, and their implications for international peace and security. This study was also to assess the legal impact of the issue of nuclear disarmament and would further propose measures for a global nuclear disarmament.

In 1979, the General Assembly declared the 1980s the Second Disarmament Decade. Although the First Disarmament Decade (1970s) did not produce any essential results, the goals of the Second Disarmament Decade were, *inter alia*, to halt and reverse

the nuclear arms in particular, and to conclude disarmament agreements in accordance with the priorities and the proposals outlined in the Final Document.<sup>230</sup>

The 1980 Report of the Secretary General on Nuclear Weapons was a comprehensive study on all aspects of nuclear weapons, including their technical description, technological advances in the building of more powerful, sophisticated, and accurate nuclear weapon systems, military implications of proliferation of nuclear weapons and their impact on the maintenance of world peace and security. While the Report pointed out the failure of the U.N. multilateral approach and, in particular, the failure of both superpowers to eliminate nuclear weapons on a global basis, of specific importance are the conclusions reached on the effects of a nuclear war and the measures that were recommended by this Report for the elimination of nuclear weapons on a global basis.<sup>231</sup>

With respect to the effects of the military use of nuclear weapons, the Report reaffirmed the view that in view of the enormous power of destruction released by nuclear weapons, in the event of a nuclear war exchange, the consequences in terms of human casualties and physical destruction would be virtually incomprehensible. Radioactive contamination will continue to exist for tens or thousands of millions of years; it will have "late effects" on humans and other living organisms, causing cancerous and other

genetic diseases for prolonged period of time. A superpower nuclear war would cause the annihilation of both countries in terms of human and material destruction; it would not be restricted to the nuclear weapon states involved. Fallout nuclear radiation after a large nuclear war would affect the entire world (although predominantly the hemisphere in which the war was fought). The same could be applied with respect to some other physical effects influencing the environment, such as the dispersal of nitrous oxides and dust in the atmosphere.<sup>232</sup>

Of the global effects associated with nuclear warfare, that of global fallout nuclear radiation is the most dangerous and devastating. As an example, global fallout nuclear radiation from a large nuclear war involving a total explosive yield of 10,000 megatons of nuclear weapons would cause several millions of deaths from cancer within 40 years. Genetic damage would appear in about as many instances as lethal cancers, half of which would be manifest in the following two generations and the rest in generations thereafter.<sup>233</sup>

The Report pointed out that ionizing radiation could possibly also cause many mutations in plants and animals; some of these mutations might change the ecosystem in unpredictable ways. A sizable depletion of the ozone layer in the stratosphere would be caused within a few months from the time of a nuclear warfare.

This would result in an increase of radiation at the surface of the Earth and cause serious biological implications to the Earth's ecosystem. In particular, the increase of ultraviolet radiation on Earth would cause skin cancer as well as mutations in plants and animals.<sup>234</sup>

The Report pointed out that a large scale nuclear war would cause unprecedented economic, social and political effects on a global scale. In particular, the phenomenon of a nuclear winter, mainly caused by the fall in temperature as a result of a major nuclear war exchange, would cause further changes in the Earth's climate detrimental to the production of grain and other agricultural products. This, in turn, would substantially decrease the production of such products and food supplies and the entire world community would be subjected to famine.

Since a nuclear war would result in the destruction of the industrial and agricultural infrastructure of developed countries, this would result in the destruction of all means that are required to sustain human life on Earth. Particularly in view of the economic interdependency existing in the world community, a major nuclear war will result in the destruction of the production and food supplies to the world population.<sup>235</sup>

In other words, a major nuclear war would bring the end of the present human civilization; the remnants of human civilization



would be a primitive and archaic form of societal organization continuously subjected to the post-nuclear war harmful effects. The Report called for complete and comprehensive elimination of nuclear weapons on a global basis as the only sure way to prevent a nuclear holocaust.<sup>236</sup>

While the nature of verification methods and techniques varies with the particular disarmament measure under consideration, the Report suggested that a significant example is the IAEA and its nuclear safeguards system to verify non-diversion of fissionable materials from peaceful uses to military purposes and thus effectively implement the NPT legal regime. In relation to the issue of effective implementation of agreements the international community must be legally vested with the power, machinery, and means to verify reliable compliance with nuclear disarmament agreements and measures. In this context, the Report suggested that the establishment of a disarmament organization, and of an international satellite monitoring agency, as well as other institutions based on similar proposals is extremely relevant.<sup>237</sup>

With respect to the issue of the superpower nuclear arms race and the doctrinal foundation of their nuclear predicament and their overkill nuclear arms race, the Report correctly suggested that if nuclear disarmament is to become a reality, the superpower commitment to mutual deterrence through a balance of nuclear terror

must be discarded. It emphasized that the legal goal to maintain world peace and security, and especially the effective prevention of a nuclear war clearly show that superpower nuclear balance through the process of deterrence is perhaps the most dangerous collective fallacy that exists.<sup>238</sup>

As a result of the Final Document and the 1980 Report, the United Nations began to adopt a more specific agenda on nuclear disarmament on a global basis. Both these UN documents obviously constitute the most detailed and comprehensive study on the issue of vertical and horizontal proliferation of nuclear weapons as well as the question of global nuclear disarmament since the advent of the nuclear age. At this point, it is important to underline that the UN agenda on global nuclear disarmament, as defined by the Final Document and the Report, was also essentially a reflection of the conclusions reached and the proposals made during the 1975 NPT Review Conference.<sup>239</sup>

## 2. Failure of the UN Program Action for Global Nuclear Disarmament (1976-1980)

A critical review and evaluation of the United Nations role in the effort to promote the objectives and goals of global nuclear disarmament during the period 1975-1980 clearly shows its failure to adopt a comprehensive legal regime on global nuclear disarmament. Indeed, the United Nations approach to the legal manage-

ment of the issues connected with the concept of nuclear disarmament proved to be a failed and frustrating legal process.

During the aforesaid period the United Nations failed to adopt a body of rules of international law imposing an end to vertical and horizontal proliferation of nuclear weapons and requiring the nuclear weapon states, especially the two nuclear superpowers, to proceed with the drastic reduction of their nuclear stockpiles and their ultimate denuclearization within the context of a concrete timetable for a phased nuclear disarmament. Moreover, the United Nations failed to outlaw and ban by positive rules of international law the military use of nuclear weapons, including also the production and possession of such weapons. It also failed to adopt a CTBT.<sup>240</sup>

Despite the failure of the United Nations to adopt a legal regime on global and comprehensive nuclear disarmament during the period 1975-1980, the United Nations managed to conclude in 1977 the Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques. This convention entered into force on October 5, 1978, and was ratified by both superpowers as well as by other UN member states.<sup>241</sup>

The object of this convention is to prevent and prohibit the use of any environmental or geophysical modification activity as a weapon of war. To this end, Article I (1) obligates each state party

“not to engage in military or any other hostile use of environmental modification techniques having widespread, long-lasting or severe effects as the means of destruction, damage or injury to any other State Party.” The convention declares the peaceful uses of the environment and its geographical structure. At this point, it should be explained that at the time of the conclusion of the Convention the use of environmental modification techniques for hostile purposes did not play a major role in the military planning of the two nuclear superpowers. However, in view of the future development of techniques capable of using the environment through modification techniques for hostile and military purposes, the United Nations as a whole, and, in particular, the United States and the Soviet Union, undertook the legal initiative to ban the military use of the environment in the future, which culminated in the signature of the convention.<sup>242</sup>

It is important to underline that while the United Nations prohibited the use of futuristic technologies capable of using the environment itself as a military weapon it failed to outlaw the use of nuclear weapons that are undoubtedly capable of resulting in destructive and harmful effects on the environment. During the period 1975-1980, the United Nations also proved unable to expand and reinforce the NPT legal regime. In addition, in spite of the recommendations made by the 1975 NPT Review Conference on the

horizontal proliferation, it failed to adopt effective legal measures for the prevention and reversal of such a proliferation. Of specific importance was the failure of the UN member states to strengthen and expand the IAEA's nuclear safeguards system.<sup>243</sup>

However, as we have already seen, during the years 1975-1980, some multilateral approaches to the issue of horizontal proliferation began to emerge. The Nuclear Suppliers Group, known as the "London Club," which was formed in 1974, met in 1977. During this conference, the 15 participant countries agreed on a set of principles and guidelines to govern and regulate their nuclear exports in relation to the problem of the horizontal proliferation of nuclear weapons. The guidelines agreed on and adopted by the London Club are based on a list of equipment and material whose transfer to a non-nuclear weapon state triggers the application of the nuclear safeguards of the IAEA.<sup>244</sup>

Also, in 1977, the International Nuclear Fuel Cycle Evaluation (INFCE) was formed with the participation of approximately 40 states. The objective of the INFCE was to undertake a technical study on the issue of the nuclear fuel cycle and thus ensure that the export of nuclear materials and technologies to non-nuclear weapon states would only be used for peaceful purposes and not diverted into military applications.<sup>245</sup>

In addition, in 1980, the UN General Assembly by its resolu-

tion 35/112 established a Preparatory Committee for the United Nations Conference for the Promotion of International Cooperation in the Peaceful Uses of Nuclear Energy. While the objective of this Conference was to ensure international cooperation in the promotion of peaceful and non-military uses of sensitive nuclear technologies and materials, the Conference ran into differences between developed and the developing countries as to the purpose of the Conference. In the end, it failed to agree on the adoption of legal measures for international cooperation in the peaceful uses of nuclear energy.<sup>246</sup>

Notwithstanding the formation of these multilateral organs and their approaches to the issue of the non-proliferation on a horizontal basis, their political guidelines were devoid of any legal nature and binding effect. Particularly in relation to the need to strengthen the role of the IAEA in the implementation of the NPT and to expand the Agency's safeguards system and verification techniques, the United Nations failed to make any legal progress to this end.<sup>247</sup>

During the 1980 General Conference of the IAEA, a series of positive measures and recommendations were made for the strengthening of the NPT legal regime and the role of the IAEA in the implementation of the NPT. In more concrete terms, these proposed measures included the technical improvement of the

Agency's nuclear safeguards system, the universal adherence to the NPT and the universal acceptance of the Agency's nuclear safeguards system, the application of the Agency's safeguards to all nuclear facilities of the non-nuclear weapon states, the strict policies and multinational arrangements for the export of sensitive nuclear materials and technologies and for the sensitive stages of the nuclear fuel cycle.<sup>248</sup>

The Board of Governors of the IAEA proposed in 1980 the establishment of a Committee on Assurances of Supply (CAS) to deal with: (a) ways and means by which supplies of nuclear materials, equipment, and technology, and fuel cycle services could be assured on a more predictable and long-term basis in accordance with mutually acceptable considerations of non-proliferation; and, (b) the Agency's role and responsibilities in relation to this issue. The IAEA proposed the adoption of a series of multilateral approaches to the issue of the prevention of the horizontal proliferation. Specifically, it proposed the establishment of an international plutonium storage, an international spent fuel management, and regional nuclear fuel cycle centers.<sup>249</sup>

Unfortunately, neither the Agency's member states nor the members of the United Nations adopted the proposed measures. As a result, by the end of the 1970s, the United Nations had failed to achieve global and comprehensive nuclear disarmament. Indeed,

the United Nations had failed to halt and reverse both vertical and horizontal proliferation of nuclear weapons. This conclusion had been reached by the 1980 NPT Review Conference.<sup>250</sup>

### 3. The UN Agenda On Global Nuclear Disarmament and Its Failure (1980-1985)

#### a. The UN and the Issue of Vertical and Horizontal Nuclear Weapons Proliferation (1980-1985)

The General Assembly launched a Second Disarmament Decade for the 1980s. Its agenda on global disarmament included not only the issue of halting vertical and horizontal proliferation of nuclear weapons and their ultimate elimination but also the linkage between the obligation of non-nuclear weapon states parties to the NPT not to acquire nuclear weapon capabilities and the obligation of the nuclear-weapon states to begin their denuclearization. The issue of legal assurances and guarantees by the nuclear-weapon states not to use or threaten to use nuclear weapons against the non-nuclear weapon states became a significant element of the UN agenda during this period. In addition, the conclusion of a CTBT particularly by the nuclear weapon states, and the non-discriminatory participation of the non-nuclear weapon states in the benefits and the peaceful uses of nuclear energy became major aspects of the UN multilateral initiatives during the first



half of the 1980s.

While the UN agenda on global and comprehensive nuclear disarmament for the period 1980-1985 reaffirmed continuing concern to resolve the global issue of nuclear disarmament the legal environment both with respect to strategic relations between the two superpowers and with respect to the United Nations in general was not favorable for the cause of denuclearization. As we have seen, the end of SALT, the revival of Cold War rhetoric by President Reagan, the nuclear buildup of the United States, the proposed development of SDI, and plans to nuclearize Western European countries were major factors in preventing both superpowers from negotiating and concluding a SALT III treaty. In relation to horizontal proliferation, the situation had substantially deteriorated: by the beginning of the first half of the 1980s, in addition to the nuclearization of both Israel and India, a number of militarily significant states in various regions of the globe appeared to be at the threshold of acquiring nuclear weapon capabilities.

While South Africa, Pakistan, Argentina, Spain and Brazil were classified as near-nuclear weapon countries, Iran, Iraq, Libya, Taiwan, North Korea, for instance, were classified as nuclear-problem states because of their efforts to expand their nuclear programs and thus enable themselves to acquire nuclear weapon capabilities.<sup>251</sup> In addition to this trend of potential horizontal proliferation

of nuclear weapons for the decade of the 1980s, the spread of ballistic missile systems that could be used for the delivery of nuclear warheads in various regions of the world added a more complicated dimension to the already difficult problem of the horizontal proliferation.<sup>252</sup>

Of particular importance to the issue of the prevention of the horizontal spread of nuclear weapons was the Israeli destruction of the Iraqi Osirak research nuclear reactor in 1981. Notwithstanding the fact that the Security Council unanimously condemned the Israeli air attack on Osirak as an act of aggression violating the UN Charter, this attack underlined the need to adopt a more specific international legal regime in order to protect and safeguard the nuclear facilities of non-nuclear weapon states against military attacks by any state interested in doing so.

b. The UN Failure to Conclude a CTBT (1980-1985)

Despite the General Assembly resolutions on the conclusion of a CTBT, despite concrete efforts by the Committee on Disarmament and the Conference on Disarmament, and despite a 1982 suggestion that the formation of an international seismic monitoring system would play a significant role in the implementation of a CTBT, the UN failed to adopt a positive international legal regime banning all nuclear weapon tests on a comprehensive basis. Although in 1982 the United States stated that a comprehensive

test ban was its ultimate goal, it announced that it was not prepared to resume negotiations with the Soviet Union and Britain to this end.<sup>253</sup>

The United States did not accept the view that a CTBT would be useful. Both superpowers not only failed to conclude a CTBT but they also failed to ratify their bilateral agreements on the partial restriction of their nuclear weapon tests concluded in 1976, namely, the TTBT and the PNET. In addition, the Reagan administration's program to expand America's nuclear weapon arsenals in the 1980's essentially became a negative factor which worked to prevent the conclusion of a CTBT.

c. The Issue of Vertical Proliferation of Nuclear Weapons  
and the UN Nuclear Arms Freeze Proposal  
(1980-1985)

In 1982 the General Assembly supported the idea of a nuclear arms freeze, a proposal, sponsored by India, Mexico and Sweden. According to this proposal, all nuclear weapon states, particularly the two nuclear superpowers, were to freeze the production of nuclear weapons at levels existing in 1982.<sup>254</sup>

The nuclear arms freeze proposal was fully adopted by a resolution by the UN General Assembly in 1982. Under the resolution, the UN General Assembly called, for the first time, for a general freeze on nuclear weapons and their delivery systems. It urged the

United States and the Soviet Union to proclaim an immediate nuclear arms freeze and it called on all nuclear weapon states to cease the production of fissionable material for nuclear weapon purposes.<sup>255</sup>

During the following two years, at the 1983 and 1984 sessions of the Conference on Disarmament, the Soviet Union and other socialist countries pointed out that a nuclear arms freeze might be carried out initially by the two nuclear superpowers, provided there was a commitment that other nuclear weapon states (France, Britain and China) would follow suit. Nevertheless, the United States (in the Conference on Disarmament) rejected this idea that a freeze on nuclear weapons and delivery systems would offer a sound basis for a more stable nuclear balance or for subsequent nuclear arms reductions. The United States added that American and Western strategy viewed the function of nuclear weapons as a means for the prevention of war and the preservation of peace.<sup>256</sup>

Although during 1983 and 1984 the General Assembly adopted three resolutions calling for a nuclear arms freeze on the basis of proposals supported by the Soviet Union, India and Mexico, these resolutions, albeit approved by large majorities, were widely opposed and rejected by the Western military establishment.<sup>257</sup> As a result, the nuclear arms freeze proposal, as a means for the prevention of any further vertical proliferation of nuclear weapons in

the 1980s, failed to produce positive legal results. However, a nuclear arms freeze would have halted vertical proliferation and the continuation of the nuclear arms race; and it would have focused efforts of the international community on the issue of the gradual elimination of nuclear weapons on a global basis.

Notwithstanding the failure of the proposal for a nuclear arms freeze, the United Nations in the period 1980-1985 attempted to introduce an additional measure whose acceptance would have assisted in the halt of vertical proliferation. This proposal called for putting an end to the production of fissionable material for weapon purposes. Indeed, the General Assembly justifiably called this measure a strategy of suffocation of the nuclear arms race.<sup>258</sup>

Despite General Assembly resolutions to this end, and although the Conference on Disarmament had been in the process of considering a verifiable halt and prohibition of the production of fissionable material for the production of nuclear weapons and other nuclear explosive devices, the club of nuclear powers reacted negatively to this proposal. While the Soviet Union initially rejected this proposal, in 1984 it voted in favor. On the other hand, the United States, Britain, France and China abstained from voting for its adoption of this proposal.<sup>259</sup>

d. The World Popular Movement and the Five Continent  
Peace Initiative for Nuclear Disarmament (1980-1985)

By the beginning of the 1980s, the issue of nuclear disarmament had become a concern not only for governmental bodies but also for non-governmental organizations, as well as most importantly for the peoples of the world. While by the beginning of the 1980s the public movement, particularly in the United States and Western Europe, was pressing for a nuclear arms freeze and for the elimination of nuclear weapons, a new player appeared on the scene in 1984. In this year, the so-called Five Continent Peace Initiative was formed by the leaders of India, Tanzania, Mexico, Argentina, Sweden, and Greece (a NATO member). This Peace Initiative was designed to create a worldwide voice calling for a global solution to the problem of nuclear disarmament. In particular, it assumed the task of convincing both nuclear superpowers to end their uncontrolled nuclear arms race and immediately proceed with their denuclearization.<sup>260</sup>

Notwithstanding that India is a *de facto* nuclear weapon state, and Argentina is considered to be a near-nuclear weapon state, the Peace Initiative, which met in New Delhi in May 1984, issued a declaration. This declaration urged the United States and the Soviets, as well as France, Britain and China, to halt all nuclear testings, production and deployment of nuclear weapons and

their delivery systems, and immediately follow substantial reductions in their nuclear forces. It called both nuclear superpowers to focus especially on the prevention of an arms race in outer space and a comprehensive test ban treaty.<sup>261</sup> But the conclusion is all too familiar: during this period 1980-1985, neither the United Nations nor the Peace Initiative and the world popular anti-nuclear movement produced any positive legal results.

e. The UN and the Issue of the Horizontal  
Proliferation of Nuclear Weapons (1980-1985)

By the beginning of the 1980s, the issue of horizontal proliferation of nuclear weapons became a crucial and complicated issue which added a further difficult dimension to the issue of global nuclear disarmament. While India and Israel, non-parties to the NPT, had become *de facto* nuclear weapon states by the 1970s, by the beginning of the 1980s a number of militarily significant states in various parts of the globe were classified as near-nuclear or nuclear-problem states on the basis of the degree of their involvement and technological capabilities in relation to the acquisition of nuclear weapon capabilities. The United Nations expressed its deep concern over this issue.

The United Nations, in the early 1980s, began to seriously examine the problem of horizontal proliferation. A United Nations study (South Africa's Plan and Capability in the Nuclear Field)

concluded that South Africa possessed the technical capability to manufacture nuclear weapons and their delivery systems. On December 12, 1980, the General Assembly adopted resolution 35/146A by which it condemned the technological capability of South Africa to develop nuclear weapons and its failure to accede to the NPT. The General Assembly called on South Africa to sign the NPT and accept the nuclear safeguards system of the IAEA.<sup>262</sup> It requested the Security Council to prohibit all forms of collaboration with South Africa in the nuclear field, and to institute effective enforcement action against South Africa, and thus prevent it from endangering international peace and security through its acquisition of nuclear weapons.<sup>263</sup> But in 1991 South Africa acceded to the NPT. In 1993, South Africa confirmed that it had developed six nuclear weapons and it had destroyed all of them. In 1993, intensive IAEA inspections in South Africa did not prove that South Africa still had nuclear weapons.<sup>264</sup>

Similarly, the United Nations paid particular attention to the issue of the Israeli nuclear weapons capability. In 1981 the United Nations conducted a study entitled Study on Israeli Nuclear Armament and on December 9, 1982, it adopted resolution 37/82, by a recorded vote of 106 to 2 (Israel and United States), with 34 abstentions. This resolution, after having condemned the collaboration of Israel and South Africa in the nuclear weapons field,



pointed out the grave consequences which would endanger international peace and security particularly as a result of Israel's nuclear weapon capability.

The Assembly demanded that Israel renounce, without delay, any possession of nuclear weapons and place all of its nuclear facilities and activities under international safeguards. It called upon Israel to accede to the NPT and accepted the IAEA's nuclear safeguards. It called upon all states and other parties and institutions to terminate forthwith all nuclear collaboration with Israel. The Assembly condemned the Israeli air attack on the Iraqi Osirak nuclear facilities in 1981 as an act of sheer aggression and condemned Israel's officially declared intention to repeat its armed attack against nuclear facilities.<sup>265</sup> But Israel has not acceded to the NPT, and Israel is reported to possess 100 to 200 nuclear weapons.<sup>266</sup>

Notwithstanding these resolutions on South Africa and Israel, the United Nations in the period 1980-1985 failed to expand and strengthen the NPT legal regime. It did attempt to create an international storage of fissionable material, which would undertake to supply interested non-nuclear weapon states on condition that the recipient states would agree to accept the nuclear safeguards system of the IAEA and thus make available all of their nuclear programs and facilities subject to the on-site inspections of the Agency.<sup>267</sup>

Despite the failure of the United Nations to conclude a CTBT, which was demanded by the non-nuclear weapon states during the 1980 NPT Review Conference, and which would have made a positive contribution not only in the vertical, but also in the horizontal prevention of the proliferation of nuclear weapons, the United Nations also failed to formulate and adopt a specific international legal regime explicitly banning the use or the threat of use of nuclear weapons by the club of nuclear powers against the non-nuclear weapon states.

In this regard it must be mentioned that since 1968 and afterwards the club of the nuclear weapon states through the Security Council recognized that aggression using nuclear weapons, or the threat of doing so against non-nuclear weapon states parties to the NPT would warrant immediate action by the Council. Furthermore, at the 1978 special session on disarmament, the five nuclear weapon states individually declared, while each in keeping with its specific perceived security requirements, their intention not to use, or threaten to use nuclear weapons against non-nuclear weapon states. Since then, particularly during the period 1980-1985, the General Assembly called for international legal arrangements that would further provide the non-nuclear weapon states with such security assurance. The Assembly has favored the formulation and adoption of an international treaty signed by the

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nuclear weapon states with the explicit obligation of these states not to use, or threaten to use nuclear weapons against those non-nuclear weapon states, which have no nuclear weapons in their territories.<sup>268</sup>

Despite widespread support for such a convention, no legal progress has been made to this end. Although each year since 1979 the Conference on Disarmament has been engaged in the active negotiation and elaboration of proposals for effective international legal guarantees and arrangements that would assure non-nuclear weapon states against the use or threat of use of nuclear weapons by the club of nuclear powers, the 1985 Disarmament Conference reported to the General Assembly that states' differing perceptions of national security interests continued to impede any progress on this issue.<sup>269</sup>

While it can be acknowledged that the aforesaid legal guarantee would protect non-nuclear weapon states against a direct nuclear attack by any of the nuclear weapon states, this guarantee would not protect non-nuclear weapon states from the disastrous effects (nuclear radiation) of a nuclear war. Nor would it reduce the nuclear weapon status of the nuclear weapon states, and, therefore, the ultimate danger posed of a nuclear war exchange. However, the most effective legal guarantee for the protection of the nuclear weapon states and generally the entire world community, including

the club of nuclear powers itself, is the elimination of all nuclear weapons on a global and comprehensive basis. Only global denuclearization can provide the ultimate guarantee.

In conclusion, it must be admitted that the UN effort to prevent and reverse horizontal proliferation during the period 1980-1985 failed to produce results as far as the NPT and the emergence of the new nuclear age were concerned. Although by 1985 the NPT had been ratified by 130 countries, including the club of nuclear powers, except France and China, and although by 1985 78 non-nuclear weapon states with significant nuclear industries had concluded safeguard agreements with the IAEA, the United Nations failed, unfortunately, to strengthen the NPT and the role of the IAEA in the implementation of the NPT.<sup>270</sup>

The Israeli attack on the Iraqi Osirak nuclear facilities in 1981, which resulted in their destruction, raised a significantly delicate legal issue in relation to the effective legal protection of the nuclear facilities of non-nuclear weapon states against a military action by an enemy state. While the Security Council and the IAEA condemned the Israeli action as an act of aggression in violation of the Charter, the United Nations was unable to follow up with a specific legal regime to protect nuclear facilities against an enemy military action.<sup>271</sup>

**B. The UN Regional Nuclear Weapons Nonproliferation,  
and New NWFZ Proposals (1976-1985)**

**1. New NWFZ and NFPZ Proposals (1976-1985)**

**a. The Proposed Middle East NWFZ**

In 1975 the Shah of Iran proposed the establishment of a NWFZ in the Middle East particularly because of the rapid diffusion of nuclear material and technology in the region.<sup>272</sup> Subsequently, Egypt co-sponsored the proposal for a Middle-East NWFZ, which would include the Arab states, Israel and Iran. Although the General Assembly in 1975 by its resolution 128-0 supported the establishment of the proposed zone, and although the General Assembly has since then passed annual resolutions urging the Middle Eastern states to declare and maintain the Middle East region free from nuclear weapons, Israel has not cooperated in convening a Middle East conference that would elaborate and promote the establishment of a NWFZ in this region. In addition, the United States has not played a positive role in the effort to establish a Middle East NWFZ.<sup>273</sup>

After the bombing of the Osirak Iraqi nuclear reactor in 1981 by Israel, the attempt to convene a regional conference to discuss the legal and technical issues connected with the establishment of a Middle East NWFZ was intensified, but interest soon waned. By

1985, a number of countries in the region were reported to be nuclear-problem countries due to their involvement in the effort to acquire nuclear weapon capabilities. In particular, Iraq and Iran have intensified their efforts to develop nuclear weapons.<sup>274</sup>

b. The Proposed South Asian NWFZ

After the nuclear test carried out by India in 1974, and in view of the acquisition of nuclear weapons capabilities by India by the mid-1970s, Pakistan proposed to the General Assembly the establishment of a South Asian NWFZ. Since 1976, the General Assembly has passed a string of resolutions calling for the establishment of a NWFZ in this region. Meanwhile, Pakistan's nuclear capacity was rapidly progressing.<sup>275</sup>

The proposed South Asian NWFZ would have, except India and Pakistan, included the other states of the region such as Afghanistan, Bangladesh, Nepal, Butan, Sri Lanka, and the Maldives. Although since the late 1970s, Pakistan has proposed to India to jointly sign the NPT and agree to full-scope safeguards, or bilateral inspection, India has rejected not only these Pakistani proposals but also any effort to establish a South Asian NWFZ. However, in 1985, both India and Pakistan agreed not to attack each other's nuclear facilities.<sup>276</sup>

India is not in favor of a South Asian NWFZ. The Indian government has repeatedly maintained that, since China had already

introduced nuclear weapons in the Asian region, it was inappropriate to consider the establishment of a NWFZ in the South Asian region. China's nuclear weapon capability and the unabated Indian-Chinese conflict in the region prevent India from agreeing on the establishment of a South Asian NWFZ, which would result in the denuclearization of India while China's nuclear capability would be left intact. India favors a more global and comprehensive nuclear disarmament.<sup>277</sup>

To conclude, in the period 1975-1985 regional and international efforts to prevent the nuclearization of South Asia by establishing a NWFZ were without results. By 1985, Pakistan was reported to be a near-nuclear weapon country.<sup>278</sup>

### c. The Proposed Indian Ocean Zone of Peace

The proposal to declare and establish the Indian Ocean as a zone of peace was initially raised by Sri Lanka in October 1964 at the Non-aligned Heads of State Conference in Cairo. This proposal was later made at the Conference of Non-Aligned States in September 1970. During the Singapore Conference of Commonwealth Heads of State in 1971 a Sri Lankan memorandum stated that the British withdrawal from east Suez had opened up an opportunity, which could be seized to create a peace zone to stabilize the Indian Ocean as a power vacuum. In view of these proposals for the adoption of an Indian Ocean peace zone, the

General Assembly in 1971 declared the Indian Ocean region, along with the air space and the ocean floor subjacent thereto, to be for all time a zone of peace.<sup>279</sup>

Nevertheless, the invasion of Afghanistan in 1979 by the Soviet Union and the eruption of the Iran-Iraq war in 1980 caused the United States to intensify its military buildup in the region, and to decrease its interest in the elaboration and establishment of the proposed Indian Ocean peace zone. Moreover, the Ad Hoc Committee, which had assumed the duty to convene a conference in 1981 to negotiate and legally establish the Indian Ocean as a zone of peace, proved unable to reach a consensus to hold such a conference because a number of the states concerned did not believe that the political and security climate in the region would favor such a conference for the exchange of views and proposals for the establishment of an Indian Ocean peace zone.<sup>280</sup>

Although both nuclear superpowers during the period between 1977-1978 held bilateral talks on demilitarizing the Indian Ocean, during the period between 1980-1985, due to the revival of their Cold War relations and nuclear arms antagonism, the United States and the Soviet Union failed to continue their bilateral approach and negotiating process with a view of achieving the demilitarization of the Indian Ocean region. At this point, it is worthwhile to note that the Soviet Union, and generally the Eastern European



countries had favored a multilateral treaty legal arrangement by which the Indian Ocean region would be established as a zone of peace, and a NWFZ, and generally a completely demilitarized region. In particular, the Soviet Union had firmly supported the convocation of the aforesaid conference and has also proposed that all countries refrain from sending there large naval formations, from carrying out military exercises in the area, and from enlarging and modernizing bases by the non-litoral states having military in the Indian Ocean.<sup>281</sup>

Additionally, the Soviet Union had indicated its readiness to resume bilateral negotiations with the United States on the limitation and reduction of their military activity in the region. It had also proposed the withdrawal of all foreign naval powers from the Persian Gulf and the creation of an international peace-keeping force and mechanism for the Persian Gulf.<sup>282</sup>

Despite the positive statements and proposals of the Soviet Union for the complete demilitarization of the Indian Ocean region both in terms of conventional and nuclear naval armaments, and despite the efforts of the non-aligned states to this end, the Western military establishment has played a negative role in the negotiating and legal process for the declaration and establishment of the Indian Ocean region as a zone of peace. In particular, the United States, in order to defend its strategic interests in the re-

gion, is not willing to withdraw its naval and other military forces from the area. Similarly, both the United Kingdom and France, which maintain naval and other military forces in the region, have opposed the creation of the proposed Indian Ocean peace zone.<sup>283</sup>

In general terms, it must be noted that the Western military powers have attempted to justify their opposition to such a legal development by maintaining the rather fallacious view that the complete demilitarization of the Indian Ocean cannot be possible while regional conflicts in this area remain unresolved. Furthermore, it is worthwhile to note that although India favors the negotiating and legal process for the purposes of achieving the goal of the demilitarization of the Indian Ocean, it must be, nevertheless, pointed out that the Indian political leadership has indicated that its priority is to pursue the removal of the bases and the presence of the great powers from the region. On the other hand, Sri Lanka, because of its conflict with India, is afraid that such a development would leave India as the only major and dominant power in the region.<sup>284</sup>

However, it must be pointed out that any treaty arrangement for the demilitarization of the Indian Ocean must include legal restrictions on India's naval and military power in the region with the view that India will not threaten the security of the other states in the region. To this end, it can be proposed that the formation and

presence of an international organ under the aegis of the United Nations in the Indian Ocean region to maintain peace and monitor the compliance of states with their legal obligations of an international agreement imposing the demilitarization of the Indian Ocean would be a positive legal development.

d. The Proposed Southeast Asian NWFZ

In 1971, the ASEAN states declared Southeast Asia as a Zone of Peace, Freedom and Neutrality (ZOPFAN). Furthermore, Indonesia suggested at the UN Conference on Disarmament on April 12, 1983 that those states in the Southeast Asian region establish a NWFZ to enhance the declaration of ZOPFAN.<sup>285</sup>

While in 1985 a working group was formed to look at the proposal for the legal establishment of a Southeast Asian NWFZ, by the end of 1985 the Southeast Asian nations had failed to proceed with the legal elaboration and negotiation of a draft treaty which would lead to the establishment of the proposed Southeast Asian NWFZ. Of course, the establishment of the proposed Southeast Asian NWFZ would declare the Southeast Asian region free of nuclear weapons. It would have also exercised a positive legal impact on the question of the superpower nuclear disengagement in this region.<sup>286</sup>

Despite the fact that the Southeast Asian states, namely, the ASEAN countries of Brunei, Indonesia, Malaysia, the Philippines,

Singapore and Thailand, the three socialist states of Laos, Cambodia and Vietnam plus Burma, Australia and New Zealand have favored the establishment of a Southeast Asian NWFZ, and despite the fact that both the Soviet Union and China support such a zone, the United States, however, opposes. *it.*<sup>287</sup>

e. The Proposed Korean Nuclear-Free Peace Zone  
(NFPZ)

In 1981, the Japanese Socialist Party and North Korea proposed the establishment of a NFPZ in the Northeast Asian region. In particular, the North Korean government, by launching its anti-imperialism, anti-war and anti-nuclear campaign has made active efforts to establish such a zone in the above region. While North Korea signed the NPT in 1985, and it had announced that it would refrain from testing, producing, stockpiling, and introducing nuclear weapons on its soil and it would not permit any foreign military bases or the passage of foreign nuclear weapons through its land, air space and territorial water, North Korea, however, notwithstanding its leading role in the direction for the creation of a Korean NFPZ, has been since the mid-1980s reported to be a nuclear-problem state which is near the point of acquiring nuclear weapons capabilities.<sup>288</sup>

Nevertheless, the division and the continuous conflict and distrust between the North and South Korea has become a negative

factor in the adoption of a Korean NFPZ. While South Korea has since 1975 signed the NPT, with respect to legal and negotiating efforts to adopt the aforesaid zone in the Northeast region it has somewhat played a negative role towards this goal. This can be attributed to America's political influence on the South Korean regime and America's military presence in this country.<sup>289</sup>

Although the South Korean government has proposed a disarmament plan for the region, which would include the building of confidence through contacts, the conclusion of a non-aggression pact, and the beginning of disarmament negotiations between the two Koreas, the South Korean government has refused to confirm or deny the presence of nuclear weapons on its soil. Nevertheless, it must be pointed out that its ships could deploy nuclear weapons in an emergency military situation. In addition, it must be pointed out that, as of early 1985, the United States reportedly had deployed nuclear weapons on the soil of South Korea.<sup>290</sup>

With respect to the creation of a Korean NFPZ, China has expressed its support for a nuclear-free Korean peninsula, and also for an independent, peaceful and reunified Korea. China has further called the United States to withdraw its military presence from South Korea. Similarly, the Soviet Union advocated the adoption of a declaration of non-aggression between the two Koreas. Moreover, the Soviet Union under the leadership of Gorbachev

since 1985 and afterwards had supported the proposal for the creation of a nuclear-free Korean peninsula. In particular, Gorbachev had pointed out that such a development would contribute to the goal of preventing the proliferation and buildup of nuclear weapons in Asia and the Pacific.<sup>291</sup>

However, the United States, which maintains a strong military presence in South Korea and generally in the Northeast Asian region, has played a negative role in the effort to promote the negotiations over the adoption of a Korean NWPZ. In fact, although the United States has not officially stated its position on the proposed Northeast NFPZ, it is obvious that the United States has not indicated its desire to withdraw its military presence from the region, a move that would facilitate the legal process for the establishment of the aforesaid NFPZ. In addition, it must be underlined that such a move on the part of the United States would constitute a significant legal step in the direction of a superpower nuclear disengagement and denuclearization in the Pacific Ocean region. In particular, the present efforts by North Korea to acquire nuclear weapon capabilities have exercised a negative impact on the prospects of establishing a nuclear weapon-free Korean Peninsula.<sup>292</sup>

## 2. The Establishment of the South Pacific NFZ and the Treaty of Rarotonga (August 1985)

a. **An Analysis of the Legal Content and Objectives  
of the Rarotonga Treaty**

The Rarotonga Treaty,<sup>293</sup> which in August 1985 established the South Pacific Nuclear-Free Zone, has been signed and ratified by Australia, New Zealand, the Cook Islands, Western Samoa, Kiribati, Fiji, Niue, Tuvalu, Nauru, the Solomon Islands, and Tonga. However, the Marshall Islands have refused to sign the treaty.<sup>294</sup> The Rarotonga Treaty constitutes after the Treaty of Tlatelolco that established the Latin American NWFZ, the second international legal instrument designed to declare and preserve, for unlimited time and duration, free from nuclear weapons a populated and vast geographic region. Indeed, the South Pacific NFZ declares the entire South Pacific region a denuclearized zone, including, of course, the application of this Treaty to the internal waters, the territorial sea and archipelagic waters, the sea-bed and subsoil beneath, the land territory and the air space above of the states parties to this Treaty.<sup>295</sup>

Accordingly, the Treaty has been primarily designed to serve the legal objective of the exclusion of nuclear weapons from the South Pacific region. Indeed, to achieve this legal end, the Treaty imposes the legal prohibition and obligation upon its states parties to refrain from the production or acquisition, deployment or stockpiling of nuclear weapons or nuclear explosive devices within the

South Pacific NFZ region. In addition, the Treaty prohibits the use or the threat of use of nuclear weapons by the member states.<sup>296</sup>

In more specific terms, by virtue of Article 3 of the Treaty, each contracting party undertakes the legal obligation: (a) Not to manufacture or otherwise acquire, possess or have control over any nuclear explosive device by any means anywhere inside or outside the South Pacific NFZ; (b) Not to seek or receive any assistance in the manufacturing or acquisition of any nuclear explosive device, and (c) Not to take any action to assist or encourage the manufacture or acquisition of any nuclear explosive device by any state.<sup>297</sup>

Furthermore, pursuant to Article 5 of the Treaty, each state party undertakes to prevent in its territory the stationing of any nuclear weapon and nuclear explosive devices.<sup>298</sup> However, in accordance with this Article, each contracting party in the exercise of its sovereign rights and powers remains free to decide itself whether to allow visits by foreign ships or aircraft, some of which may be equipped with nuclear weapons, to its ports or airfields, to transit its airspace or navigate its territorial sea or archipelagic waters. In essence, the Treaty by virtue of Article 5 leaves each contracting party free to decide itself whether to permit port visits and landings by nuclear-capable vessels and aircraft.<sup>299</sup>

Moreover, Article 6 of the Rarotonga Treaty imposes the legal obligation upon the contracting parties to prevent in its territory



the testing of any nuclear explosive device. Also, this Article requires each state party not to take any action to assist or encourage the testing of any nuclear explosive device by any state.<sup>300</sup>

Notwithstanding the prohibitions imposed by this Article and by the previously discussed provisions, the Treaty does not prohibit the production and possession of ballistic missile systems and other delivery systems capable of delivering nuclear weapons. It is also important to add that Article 4 of the Treaty, which apparently allows the states parties to carry out peaceful nuclear activities and uses, requires each of the contracting parties not to provide source or special fissionable material, or equipment or material especially designed or prepared for the processing, use or production of special fissionable material for peaceful purposes to any non-nuclear weapon state unless they are subjected to the nuclear safeguards required by Article III of the NPT and the nuclear safeguards applied by the IAEA. Therefore, it is obvious that the legal objective of this Article is to enhance the effectiveness of the international legal regime on the non-proliferation of nuclear weapon materials and technologies, which is provided by the NPT and which is to be implemented by the IAEA safeguards and verification system and techniques.<sup>301</sup>

While the primary legal objective of the Rarotonga Treaty is to keep the South Pacific region free from nuclear weapons, the

Treaty also by virtue of its Article 7 imposes upon the states parties the obligation not to dump radioactive waste and other radioactive material at sea anywhere within the South Pacific NFZ. In addition, each contracting party has assumed the legal obligation to prevent the dumping of such substances by anyone in its territorial sea and not to assist or encourage anyone to do so within the South Pacific region covered by the Treaty.<sup>302</sup>

Accordingly, the Rarotonga Treaty, which has legally established the South Pacific NFZ, does not only contain provisions aimed primarily at the exclusion of nuclear weapons from the South Pacific region, but also includes provisions that impact on the export of nuclear materials and technologies to non-nuclear weapon states. Additionally, the Rarotonga Treaty prohibits the dumping of radioactive waste and other radioactive matter at sea within the region covered by the zone. Therefore, the South Pacific zone is characterized as a nuclear free zone rather than, more narrowly a nuclear weapon-free zone.<sup>303</sup>

Indeed, it must be recognized that the prohibitions against the unsafeguarded export of nuclear materials to non-nuclear weapon states and the prohibitions against the dumping of the aforesaid radioactive materials within the South Pacific region along with the exclusion of nuclear weapons from the region constitute additional legal elements that elevate the Rarotonga Treaty to

the status of establishing a NFZ in the region in contrast with the Treaty of Tlatelolco, which has only established a nuclear weapon-free zone in the Latin American region. Nevertheless, it must be agreed that the use of the term “nuclear free zone” is in a sense misleading because the Treaty of Rarotonga requires its states parties to prohibit only the stationing of nuclear weapons and nuclear explosive devices in their territories. This means that the Treaty is limited to prohibiting the permanent land-based presence of nuclear weapons.<sup>304</sup>

On the other hand, the Treaty appears to fully respect international legal rights with respect to the passing of nuclear weapons aboard ships and planes in the high seas. In addition, in relation to the issue of the permission of foreign nuclear-capable ships or aircraft to visit the ports and airfields of the states parties, the Treaty allows the contracting parties, in the exercise of their sovereign rights, to decide whether or not to permit such visits by foreign nuclear-capable vessels and planes. Therefore, the South Pacific NFZ is not a fully nuclear free zone. However, it must be acknowledged that it constitutes a positive legal element in the direction of halting further nuclearization of the South Pacific region.<sup>305</sup>

b. The Rarotonga Treaty and Its Verification and  
Dispute Resolution Legal System

With respect to the issue of the effective implementation of its provisions, it must be noted that the Rarotonga Treaty, unlike the Treaty of Tlatelolco, does not establish a permanent secretariat to ensure the full and effective compliance of the contracting parties with their treaty obligations. Instead, the Treaty of Rarotonga renders the Director of the South Pacific Bureau for Economic Cooperation responsible for verification under the control system established by Articles 8, 9 and 10 and the Annexes to this Treaty.<sup>306</sup>

In more concrete terms, the control and verification system for ensuring the implementation of the Treaty by its states parties requires each state party to submit reports to the Director with respect to any significant event within its jurisdiction affecting the implementation of the Treaty and also to exchange information on matters arising under or in relation to it. Moreover, the Treaty has established a Consultative Committee to consider any matter arising in relation to this Treaty or for reviewing its operation.<sup>307</sup>

Furthermore, the Treaty provides a complaints procedure system by which a state party can make a complaint to the Consultative Committee against another party for which the complainant party has grounds to believe that the respondent party

has violated the terms of the Treaty. It must be noted, however, that before such a complaint is brought to the Director of the above Committee, the complainant party must bring the matter to the attention of the complained of party and must allow the latter reasonable opportunity to provide explanations and resolve the matter. If the matter is not resolved, then the Consultative Committee has the legal power to entertain and consider the complaint of the alleged violation of the Treaty by the party accused.<sup>308</sup>

In the event that the Committee decides that there is sufficient substance in the complaint to warrant a special inspection in the territory of the respondent party or elsewhere, the Consultative Committee has the legal obligation and power to order an immediate on-site inspection. In order to facilitate the conduct of on-site inspections, paragraph 6 of Annex 4 of the Treaty imposes the legal obligation upon the states parties to grant full and free access to all information and places within their territory which may be relevant to enable the special inspection team to implement the directives given to it by the Consultative Committee.<sup>309</sup>

In addition, in accordance with paragraph 7 of Annex 4, the states parties have undertaken the legal duty, whenever they are subject to on-site inspection, to take all appropriate actions and steps to facilitate the inspection. They also must grant to the members of the special inspection team privileges and immunities nec-

essary for the performance of their functions for the purpose of the on-site inspection, including inviolability for all papers and documents, and immunity from arrest, detention and legal process for acts done and words spoken and written during and with respect to the performance of the special inspection.

Furthermore, by virtue of paragraph 8 of Annex 4, after the on-site inspection team has performed and completed its inspection, it has the legal obligation to submit its findings in a written report as soon as possible to the Consultative Committee. This inspection report must outline the activities of the inspectors, set out relevant factors and information as ascertained by them, with supporting evidence and documentation as appropriate, and state their conclusions. After having received the above report, the Consultative Committee must submit a full report to all member states of the South Pacific Forum, and also give its decision as to whether the part complained of is in violation of its legal obligations under the Rarotonga Treaty.

Moreover, in accordance with paragraph 9 of Annex 4, if the Consultative Committee has decided that the state party complained of is in breach of its obligations under the Treaty and has not complied with the provisions of this Treaty, then, at any time, at the request either of the complainant or the complained of party, the states parties must meet promptly at a meeting of the South

Pacific Forum. However, it must be noted that the Rarotonga Treaty does not provide any specific legal regime and procedure with respect to the measures and sanctions that would be imposed upon the state party found to be in violation of the Treaty. Nevertheless, it must be underlined that by virtue of Article 13(1) of the Treaty, if a state party has violated a provision of this Treaty, which is essential to the achievement of the legal objectives and goals or of the spirit of this Treaty, then every other state party has the right to withdraw from the Treaty.

Accordingly, any essential violation of the Treaty by any state party grants, as a legal remedy to the other parties of the Treaty, the right to withdraw from it. Of course, it must be pointed out that this peculiar remedy and resolution of the issue of the breach of the Treaty by a state party apparently imposes upon all states parties the collective legal responsibility to comply with the Treaty, or terminate it if any state party has committed a material violation of the Treaty.

Moreover, it is worth noting that with respect to the issue of dispute settlement, the Rarotonga Treaty fails to involve any international authority or judicial mechanism to deal with the resolution of the legal issues arising out of the interpretation and application of the provisions of the Treaty. This, of course, is in striking contrast to the dispute settlement legal mechanism and resolution

measures provided by the Treaty of Tlatelolco.<sup>310</sup>

Notwithstanding the fact that the Rarotonga Treaty provides its own legal system and mechanisms for the purposes of ensuring the compliance of its states parties with the provisions of the Treaty, with respect to the issue of ensuring the use of nuclear material and technology only for peaceful uses and applications by the states parties, which is allowed under the terms of this Treaty, Annex 2 of this Treaty further accords upon the IAEA the right to apply its nuclear safeguards and verification procedures to the states parties to this Treaty in this respect. In more concrete terms, Annex 2 requires each state party to separately negotiate and conclude an agreement with the IAEA for the purposes of ensuring the compliance of such a state party with the provisions of the Treaty against the diversion of nuclear material and technology to the development of nuclear weapons. But most importantly, Annex 2 of the Treaty renders compulsory the application of IAEA safeguards and verification measures to all states parties of the Treaty.<sup>311</sup>

Of course, this constitutes a significant legal innovation and development in regard to the legal role of the IAEA, as the appropriate international authority, to ensure through its verification techniques and procedures that the states parties to the Rarotonga Treaty fully comply with their right to use, within their territories under their jurisdiction or anywhere under their control, nuclear



material and technology only for peaceful activities and applications and not to divert them to the development of nuclear weapons. Accordingly, by virtue of Annex 2 of the Rarotonga Treaty, the IAEA has become an essential player in ensuring by the application of its nuclear safeguards, including, of course, on-site inspections, the compliance of the states parties with their treaty obligations.

c. External Legal Guarantees and the South Pacific  
NFZ

By virtue of its juridical nature, a nuclear weapon-free zone has a dual legal objective. The first is to ensure through effective verification measures and procedures that the states parties to a treaty establishing such a zone will maintain themselves and therefore the zone free from nuclear weapons. The second legal objective of a NWFZ is to make sure that such a zone will be respected and guaranteed by particularly the nuclear weapon states that such states will not use or threaten to use nuclear weapons against any member state of a NWFZ, including also their responsibility to refrain from any involvement resulting in the nuclearization of such a zone.

As has been previously explained, the Rarotonga Treaty provides the legal regime and control system for ensuring the implementation of its content by its states parties with respect to its le-

gal objective to maintain the South Pacific NFZ free from nuclear weapons in its internal context. With regard to the external legal element of the zone, namely, the legal respect and guarantee of the nuclear free status of the zone by third states, and particularly the nuclear weapon states, the Treaty incorporates three Protocols designed to implement and achieve the external effect of the South Pacific NFZ.<sup>312</sup>

In specific terms, Protocol I has been opened to signature and ratification by the United States, France and Great Britain, since these states in addition to their nuclear weapons status also possess and control territories within the zone. Thus, these three states, in accordance with Article 1 of this Protocol, are to undertake the legal obligation, in respect of the territory situated within the zone and for which they are internationally responsible, to apply the prohibitions included in Articles 3, 5 and 6, insofar as they relate to the manufacture, stationing and testing of any nuclear explosive device within those territories. They are also obliged to apply the safeguards contained in Article 8(2)(c) and Annex 2 of the Treaty in relation to their territories situated within the bounds of the South Pacific NFZ.<sup>313</sup>

Protocol II was addressed to the five nuclear weapon states, the United States, the Soviet Union, China, France and Great Britain. Pursuant to Article 1 of this Protocol, each of the five nu-

clear powers is to undertake the legal obligation not to contribute to any act that would constitute a violation of the Rarotonga Treaty and its Protocols. Furthermore, Article 2 of these Protocols imposes the legal duty and obligation upon each of the above nuclear weapon states not to use or threaten to use any nuclear explosive device against the states parties to the Treaty, or against any territory within the South Pacific NFZ for which the state that has become a party to Protocol I is internationally responsible. Additionally, Protocol III of the Rarotonga Treaty, which has been opened for signature and ratification by the five nuclear powers, requires them not to test any nuclear explosive device anywhere within the zone.

China has since 1987 signed and ratified Protocols II and III. However, the Chinese government has reserved the right to reconsider its legal obligation under these Protocols if other nuclear weapon states or treaty signatories have taken any action in gross violation of the Rarotonga Treaty and its Protocols, which changes the status of the South Pacific NFZ and endangers the security interests of China.<sup>314</sup> But notwithstanding its legal obligations under these Protocols, China has used the international waters east of the Solomon Islands for missile tests.<sup>315</sup>

The Soviet Union, under the nuclear disarmament oriented leadership of Gorbachev, on December 15, 1986, signed Protocols II

and III of the Rarotonga Treaty, which were further ratified by the Soviet Union in May, 1988.<sup>316</sup> At this point, it is worthwhile to note that the Soviet Union at the time of the signature of these Protocols issued a statement in accordance with which the "Soviet Union proceeds from the fact that the establishment of such a zone in the South Pacific will serve an important contribution to the formation of an effective system of security in the Asian Pacific region, will strengthen the international nuclear nonproliferation regime and will contribute to the realization of the task of doing away completely and forever with nuclear weapons on earth."<sup>317</sup>

Furthermore, the Soviet Union made a declaration stating that allowing transit of nuclear weapons through visits by ships and aircraft carrying nuclear weapons would contradict the aims of the Rarotonga Treaty and would be inconsistent with the aims of a nuclear free zone. Nevertheless, this form of Soviet reservations was criticized by the 1987 Apia Forum, and in 1988 the Soviet Union ratified Protocols II and III without any reservations.<sup>318</sup> In the context of the positive Soviet legal reaction and unreserved acceptance of the above Protocols with respect to the South Pacific NFZ, it is also important to add that in July 1986 Gorbachev urged the other nuclear weapon states to guarantee the Rarotonga Treaty. Moreover, the Soviet leadership proposed to the Western military establishment, and particularly to the United States to

impose legal limits, controls and reductions of their military activities in the Pacific region.<sup>319</sup>

Despite the fact that the Rarotonga Treaty and the Gorbachev proposals aim at the gradual and ultimate denuclearization of the South Pacific and generally the Pacific region, which has been uncontrollably militarized and nuclearized primarily by the naval forces of the two superpowers,<sup>320</sup> the Western military and nuclear establishment had, nevertheless, negatively reacted both to the Rarotonga Treaty and to the Gorbachev proposals. In fact, the United States, France and Great Britain had opposed the Rarotonga Treaty and had failed to sign its Protocols.<sup>321</sup>

But, in March 1996, France, after conducting in January 1996 six nuclear weapon tests in the region, along with the United States and Britain signed all three protocols to the Rarotonga Treaty. This constitutes an apparent significant legal development for the realization of the legal objectives of the treaty, which are to denuclearize the region and maintain it free from nuclear weapons and nuclear tests. In the past, the South Pacific region had become the ground for the concentration of strategic nuclear forces by the two superpowers. Additionally, this region had become the ground of American, British and French nuclear weapon tests in the past and as recently as in January 1996 by France. It has been estimated that the nuclear weapon states have conducted 226 nuclear

tests, including 89 atmospheric tests on the territory covered by the Rarotonga Treaty. In conclusion, the signature of the Protocols to the treaty by all nuclear weapon states promotes the international legal process of regional denuclearization and disarmament.<sup>322</sup>

C. Expansion of the UN Treaty Law On Regional and Global Nuclear Disarmament Measures

1. The Moon Treaty (1979) and Its Legal Impact on Regional Nuclear Disarmament

a. An Analysis of the Treaty's Content and Legal Objectives

The Moon Treaty, which was signed in 1979, and whose official name is Agreement Governing the Activities of States on the Moon and other Celestial Bodies,<sup>323</sup> constitutes the legal product and result of the East-West détente political and norm creating dynamic process in the sphere of expanding and concretizing the international legal regime for the uses of the Moon and the other celestial bodies. Unlike the Outer Space Treaty, the Moon Treaty does not require its acceptance by the United States, the Soviet Union and the United Kingdom in order to enter into force. At this point, it must be added that the Moon Treaty entered into force on July 11, 1984.<sup>324</sup> But the United States has not signed this Treaty.

The Moon Treaty has been designed to serve the legal objec-

tive of preventing the Moon from becoming an area of international conflict. In fact, this Treaty constitutes a multilateral legal instrument that does not only promote the norms and principles of the Outer Space Treaty of 1967, but also creates a more specified legal regime and order with respect to the regulation of the exploration and uses of the Moon and other celestial bodies within our solar system.

In more concrete terms, the Moon Treaty does not only embody the legal principle of the exploration and use of the Moon for exclusively peaceful purposes in view of the precedent of the Outer Space Treaty, but also expressly declares the Moon and its natural resources to be the Common Heritage of Mankind. Indeed, this new legal principle adopted by the Treaty clearly shows a new legal direction in the effort to place the Moon and its natural resources to serve the mutual benefit of mankind in all of its aspects.<sup>325</sup>

With respect to the question of the legal input and impact of this Treaty on the issue of the denuclearization and demilitarization of the Moon, it is Article III of this Treaty which clearly embodies the legal norm of the demilitarization and denuclearization of the Moon. In more specific terms, this Article clearly and categorically prohibits any threat or use of force, or any other hostile act or threat of hostile act on the Moon. This provision also imposes the legal obligation upon the contracting parties not to use the Moon in

order to commit any such act or to engage in any such threat in relation to the Earth, including the Moon itself, spacecraft, the personnel of spacecraft or man made space objects.<sup>326</sup>

Moreover, in accordance with the above Article, the contracting parties have assumed the legal obligation to refrain from placing in orbit around or any other trajectory to, or around the Moon objects carrying nuclear weapons or any other kind of weapons of mass destruction or placing or using such weapons on or in the Moon. Moreover, the establishment of military bases, installations and fortifications, the testing of any type of weapons and the conduct of military manoeuvres on the Moon are explicitly prohibited by virtue of Article III of the Moon Treaty. At this point, it must be stated that the prohibitions of the nuclearization and militarization of the Moon apply equally and to the other celestial bodies within our solar system by virtue of Article I of the above Treaty.<sup>327</sup>

Accordingly, there should be no doubt that, by virtue of this Treaty, the Moon and other celestial bodies are to be exclusively used only for peaceful purposes, and their exploration and uses must serve the common interests and benefits of mankind. Also, it is clear from the wording and the spirit of the provisions of the Moon Treaty that this international legal instrument creates a legal order which requires and imposes the complete denuclearization and demilitarization of the Moon and other celestial bodies



from any kind of weapons of mass destruction.<sup>328</sup> In the final analysis, it must be accepted that the legal regime established by the Moon Treaty imposes an additional legal restriction on the implementation of the American proposed SDI system and the deployment of ASAT weapon systems on the Moon and the other celestial bodies.

b. The Moon Treaty and Its Verification System

With respect to its effective implementation, the Moon Treaty, by virtue of its Article 15, provides each state party to this Treaty with the right to ensure that the activities carried out by the other states parties in the exploration and use of the Moon are compatible with the provisions of the Treaty. To this end, all space vehicles, equipment, facilities, stations and installations on the Moon must be open to on-site inspections of the other states parties. But, in order for on-site inspections to be carried out, the inspecting state party must give reasonable advanced notice to the party subject to such inspection.<sup>329</sup>

Furthermore, for the implementation of such on-site inspection, the parties concerned should consult with each other before such an inspection takes place in order to ensure that maximum precautions are taken to assure safety, and to avoid interference with normal operations in the facility to be visited and inspected. Also, in accordance with this Article, the inspecting state party may

act on its own behalf or with the full or partial assistance of any other state party through appropriate international legal procedures and regulations.<sup>330</sup>

Moreover, any state party, which has reason to believe that another state party does not fulfill its legal obligations under the Moon Treaty, in pursuance of Article 15(2), the parties concerned must enter into consultations in order to peacefully resolve the controversy. Also, the UN Secretary General must be informed of the results of the consultations and he must transmit the information received to all states parties concerned. If such consultations fail to resolve the controversy, then, by virtue of Article 15(3), any state party has the right to seek the assistance of the UN Secretary General, without seeking the prior consent of any other party concerned, to resolve and settle the controversy.<sup>331</sup>

Therefore, it can be concluded that the Moon Treaty consolidates further the legal norm of on-site inspection for verification purposes. It also provides a legal system of inter-party consultations for the resolution of any controversy involving the implementation of the Treaty. Moreover, the UN Secretary General may, upon the request of any state party, offer his good offices for the peaceful resolution and settlement of any legal controversy concerning the implementation of the Moon Treaty.

2. **The Convention on the Physical Protection of Nuclear Material (1980) and Its Legal Impact on the Prevention of the Spread of Nuclear Material**
  - a. **An Analysis of the Convention's Content and Legal Objectives**

Along with the imperative concern of the United Nations to ensure that the horizontal proliferation of nuclear material and technology by the recipient states would be used only for peaceful purposes and applications and not for the development of nuclear weapons, the United Nations, and particularly the IAEA began also to express their great interest in legally safeguarding the physical protection of nuclear material against the unlawful taking and use of such material.<sup>332</sup> In particular, the legal need to ensure that nuclear material will not be acquired by terrorist groups convinced both the United Nations and the IAEA to enter the negotiating legal process with a view to conclude a multilateral treaty arrangement and thus safeguard the physical protection of nuclear material against unlawful taking or use.

After active negotiations, which formally started in October 1977 under the auspices of the IAEA, by the end of 1979 the drafting of the Convention on the Physical Protection of Nuclear Material was completed and agreed upon by the participant states.

As a result, the Convention was concluded and opened to signature on March 3, 1980.<sup>333</sup> The Convention entered into force on February 8, 1987. Insofar, nearly 30 states have become parties to this Convention, including the United States, the Soviet Union, China and other states engaged in the production and possession of nuclear material. However, it should be noted that several of these states parties have accepted the Convention by filing their respective declarations and reservations.<sup>334</sup>

For the purposes of this Convention, Article 1(a) and (b) defines the nuclear material which is to be physically protected. Thus, by virtue of these provisions, the term “nuclear material” means plutonium, uranium-233; uranium enriched in the isotopes 235 or 233; uranium containing the mixture of isotopes as occurring in nature other than in the form of ore or ore residue; and any material containing one or more of the foregoing. In particular, with respect to the definition of the term “uranium enriched in the isotope 235 or 233,” paragraph b of the aforesaid Article provides that it means uranium containing the isotopes 235 or 233 or both in an amount such that the abundance ratio of the sum of these isotopes to the isotope 238 is greater than the ratio of the isotope 235 to the isotope occurring in nature.<sup>335</sup>

Since the fundamental legal objective of the Convention is to safeguard against the potential dangers posed by the unlawful tak-

ing and use of nuclear material, it is, therefore, obvious the legal need to ensure the physical protection of nuclear material requires not only the protection of such material in domestic use and storage, but most importantly the safeguarding of the international transfer and transportation of such material. In fact, the international transport of nuclear material increases the potential dangers for the unlawful taking of nuclear material. To this end, and for the purposes of this Convention, Article 1(c) defines the term "international nuclear transport" as the carriage of a consignment of nuclear material by any means of transportation intended to go beyond the territory of the state where the shipment originates beginning with the departure from a facility of the shipper in that state and ending with the arrival at a facility of the receiver within the state of ultimate destination.<sup>336</sup>

A general critical overview of the various legal provisions of the Convention on the Physical Protection of Nuclear Material clearly suggests that the legal objective and scope of this multilateral treaty arrangement is to ensure through the rule of international law that the previously described nuclear material will be physically safeguarded and effectively protected against unlawful taking or use either such material is in domestic use or storage, or during the international transportation and transfer of this material. While the provisions of the Convention apply to nuclear mate-

rial used for peaceful purposes which very same nuclear material can be used under proper technologies for the development of nuclear explosive devices and weapons, it must be, nevertheless, pointed out that the Convention has been designed not to pose any obstacles and restrictions to the international transfer of such nuclear material. On the contrary, the Convention has been drafted with a view to ensure that nuclear material, which is in domestic use or storage or during its international transportation and transfer, will not be unlawfully taken and used by any other entity than the responsible authorities.<sup>337</sup>

In view of the potential danger that nuclear material can be unlawfully taken by theft, robbery, embezzlement and by any other relevant criminal act by individuals, corporate and even state agencies engaged in such a criminal activities, and, in particular, in view of the potential danger that nuclear material, which is unlawfully taken, can be used by terrorist groups with international networks and ramifications, the Convention constitutes a positive international legal measure for the physical protection of nuclear material. In fact, it must be accepted that the unlawful taking and use of nuclear material, which can be converted into military applications, would contribute to the proliferation of such material outside the prohibitions and controls provided by the NPT international legal regime and the safeguards of the IAEA.

Due to these obvious, compelling and imperative reasons, the Convention, by virtue of Article 7, has made punishable criminal offenses in international level the intentional commission of the following acts: (a) an act without lawful authority which constitutes the receipt, possession, use, transfer, alteration, disposal or dispersal of nuclear material and which causes or is likely to cause death or serious injury to any person or substantial damage to property; (b) a theft or robbery of nuclear material; (c) an embezzlement or fraudulent obtaining of nuclear material, and (d) an act constituting a demand for nuclear material by threat or use of force or by any other form of intimidation. Moreover, Article 7 renders a criminal offense the international use of nuclear material to cause death or serious injury to any person or substantial property damage or to commit any of the previous offenses in order to compel a natural or legal person, international organization, or state to do or refrain from doing any act. It is also important to add that any attempt or participation in the commission of any of the previously described offenses constitutes a punishable act.<sup>338</sup>

Furthermore, in accordance with Article 7 of the Convention, each state party has assumed the legal obligation to make punishable these criminal acts under its national law, and impose appropriate criminal penalties which take into account the grave nature of the aforesaid offenses. Also, the Convention, in order to ensure

the prosecution and criminal punishment of the actors of the previously described offenses, pursuant to Article 8, requires its states parties to take the necessary legal measures to establish their criminal jurisdiction over the offenses set forth in Article 7 in the following cases: (a) when the offense is committed in the territory of a state party or on board a ship or aircraft registered in that state, and (b) when the alleged offender is a national of that state.<sup>339</sup>

Additionally, by virtue of paragraphs 2, 3 and 4 of Article 8 of the Convention, each state party has undertaken the legal obligation to take the necessary legal measures to establish its criminal jurisdiction over the offenses described by Article 7 in cases where the alleged offender is present in its territory and it does not extradite such an offender to the state of his nationality. Even more, the states parties to the Convention have the legal obligation to establish their criminal jurisdiction over the offenses of Article 7 when they are involved in international nuclear transport either as exporting or importing states.<sup>340</sup>

The Convention, with respect to facilitating the criminal prosecution and punishment of the offenders of the offenses of Article 7, by virtue of Article 9 requires the state party in whose territory the alleged offender is present to take appropriate measures, including detention, under its national law and ensure his presence for the purpose of prosecution or extradition. In addition, Article 10 pro-



vides that the state party in whose territory the alleged offender is present must, if it does not extradite him, submit, without any exception and without undue delay, the case to its competent authorities for the purpose of prosecution, through proceedings in accordance with the laws of that state. Moreover, it is important to note that Article 11 of the Convention, in order to facilitate and expedite the legal process of the criminal prosecution and punishment of the offenders, provides that the offenses prescribed by the Convention must be deemed to be included as extraditable offenses in any extradition treaty existing between the states parties to the Convention.<sup>341</sup>

In view of the preceding analysis of the fundamental legal objectives of the Convention reflected by its provisions, it must be acknowledged that this international legal instrument constitutes a positive legal measure for the prevention and the prohibition of the unlawful taking, use and spread of nuclear material which can also be used for the development of nuclear explosive devices and weapons. Moreover, it is important to point out that the Convention is the first multilateral treaty arrangement in the legal history of nuclear arms control and disarmament that renders the unlawful taking and use of nuclear material an internationally punishable criminal offense. In the final analysis, it must be agreed that the Convention constitutes a positive legal measure, which strengthens

the NPT legal regime.

While it must be accepted that the Convention is designed to serve the legal objective of safeguarding the physical protection against any unlawful taking and use, the Convention, nevertheless, fails to criminalize the proliferation of nuclear material through clandestine and black market operations, which can be carried out by state authorities, and also by corporate and individual entities. In fact, the legal need for the criminalization of such a proliferation of nuclear material that can be used for the development of nuclear explosive devices and weapons seems to be an obvious danger in the post-Cold War era. In particular, recent reports regarding the cases of theft or illicit transnational trafficking of nuclear weapon grade material from the former Soviet Union clearly show the grave dangers of the uncontrolled spread of said material, which can be obtained and used by states aspiring to acquire nuclear weapon capabilities.<sup>342</sup> Therefore, it is an imperative legal need to expand and widen the legal role of the Convention with respect to the physical protection of nuclear material by adding provisions criminalizing and further effectively sanctioning the clandestine transfer and proliferation of nuclear material.

b. The Problem of the Implementation of the  
Convention and Its Legal Mechanisms

For the purpose of its implementation, the Convention con-

tains a number of provisions and measures designed to ensure the implementation of its legal objectives through the effective compliance of its states parties with their treaty legal obligations. In more specific terms, Article 3 of the Convention requires each state party to take appropriate and necessary steps and measures, and thus ensure as far as practicable that, during international nuclear transport, nuclear material within its territory, or on board a ship or aircraft under its jurisdiction insofar as such ship or aircraft is engaged in the transport to or from that state party, is physically protected against any act of unlawful taking. Also, Article 4 of the Convention imposes the legal obligation upon each state party not to export or authorize the export of nuclear material unless the state party has received assurances that such nuclear material will be protected during its international transport.<sup>343</sup>

Furthermore, in accordance with Article 5, the Convention requires its states parties to identify and make known to each other directly or through the IAEA their central authority and point of contact having responsibility for the physical protection of nuclear material and for coordinating recovery and response operations and actions in the event of any unauthorized removal, use or alteration of nuclear material or in the event of credible threat thereof. Additionally, pursuant to Article 5, in the case of the unlawful taking of nuclear material the state parties have assumed the legal

obligation to provide cooperation and assistance to the maximum feasible extent in the recovery and the physical protection of the nuclear material, which has been unlawfully taken.<sup>344</sup>

While in accordance with Article 5(2), the Convention provides that the means of implementation of the required cooperation with respect to the physical protection and recovery of unlawfully taken nuclear material must be agreed upon and determined by the states parties concerned, it is also important to note that by virtue of this provision the Convention requires the states parties concerned to exchange information with each other or international organizations with a view to protecting threatened nuclear material, verifying the integrity of the shipping containers, or recovering unlawfully taken nuclear material. Moreover, Article 5(3) requires the states parties to cooperate and consult as appropriate, with each other directly or through international organizations, with a view to obtaining guidance on the design, maintenance and improvement of systems of physical protection of nuclear material in international transport. In addition, pursuant to Article 5(2) (iii), the states parties are obliged to ensure the return of nuclear material stolen or missing as a consequence of the previously described criminal offenses.<sup>345</sup>

In relation to the issue of its implementation, the Convention, according to Article 17, provides the legal mechanisms for the set-

tlement of a dispute among the states parties concerning the interpretation or application of this Convention. In more specific terms, in accordance with this Article, the states parties concerned must consult with a view to the settlement of any dispute concerning the interpretation or application of the content of the Convention by negotiation, or by any other peaceful means of settling disputes acceptable to all parties. But if a dispute of this nature cannot be settled in the legal manner previously prescribed, then, at the request of any party concerned, such a dispute must be submitted to arbitration or referred to the International Court of Justice for decision.<sup>346</sup>

Accordingly, it must be observed that Article 17 of the Convention, by providing the peaceful and judicial settlement of disputes concerning the interpretation and application of this Convention, constitutes a positive legal step in the direction of the judicial settlement of disputes of this nature. Since the Convention, on the basis of its legal objectives, exercises a positive legal impact on the control and physical protection of nuclear material, whose unlawful taking and use can further assist in the development of nuclear explosive devices and nuclear weapons, the legal mechanisms of Article 17 for the peaceful, and, in particular, for the judicial settlement of the disputes previously described are apparently of significant legal value in the sphere of the judicial settlement of

controversies and disputes arising out of multilateral treaty arrangements dealing with the regulation and control of nuclear material, which can be ultimately used for the development of nuclear weapons.

Although the Russian government is assuring the world community about the control and safety of its nuclear material, it must be pointed out that the potential danger of the unauthorized possession and clandestine transfer of nuclear weapon grade material from the former Soviet Union raises grave global concerns. It is estimated that there is enough nuclear weapon grade material spread across the former Soviet Union to make 100,000 nuclear weapons. Although the end of the Cold War has essentially ended the nuclear confrontation between Russia and the United States, the potential danger of the spread of nuclear weapon material from the former Soviet Union and its acquisition by terrorist groups and states involved in the quest to acquire nuclear weapon capabilities pose new dangers of uncontrolled and clandestine international nuclear material proliferation in the post-Soviet world. Of course, these dangers pose a new threat to the international community's security of a new nuclear proliferation and nuclear anarchy .<sup>347</sup>

**CHAPTER 8**  
**THE END OF THE COLD WAR, THE END**  
**OF THE SOVIET UNION, AND THE BEGINNING OF**  
**SUPERPOWER NUCLEAR DISARMAMENT**  
**(1986-1997): THE INF AND START TREATIES**

**A. The Gorbachev-Reagan Summitry and NST Negotiations**  
**(1986-1988)**

**1. The US-Soviet NST Negotiations and the Gorbachev-**  
**Reagan Geneva Summit Meeting (November 1985)**

After walking out of the Intermediate Nuclear Forces (INF) and the Strategic Arms Reductions Talks (START) negotiations by the end of 1983 in protest of American deployment of new INF nuclear missiles in Western Europe, the Soviet Union refused to return to the negotiating table in Geneva throughout 1984. But, in January 1985, both superpowers agreed to resume their negotiations. Their overall negotiations, falling under the umbrella of Nuclear and Space Talks (NST), covered separate negotiations on START, INF and defensive weapons in space.<sup>348</sup> At this point, it should be underlined that while the START and INF negotiations were facing their own difficulties and complexities, the announce

ment of the SDI program by President Reagan in March 1983 and the determination of his administration to proceed with its developmental testing and final deployment in outer space in contravention of the ABM Treaty, became a major obstacle that complicated even more the START and INF negotiations.<sup>349</sup>

Nevertheless, almost immediately after his rise to the leadership of the Soviet Union in March 1985, Gorbachev began to introduce not only to the United States and generally to the Western nuclear military and capitalist establishment, but also to the entire world community, his revolutionary and radical thinking and changes with respect to the military and foreign policies of the Soviet Union designed to build a new system of global peace and common security in the nuclear age. As far as the issues of the US-Soviet nuclear arms race and their constant nuclear confrontation are concerned, the Soviet leader introduced a new strategic thinking and a dynamic and radical nuclear disarmament oriented leadership.<sup>350</sup>

To this end, it must be noted that in March 1985 Gorbachev stated the readiness of the Soviet Union not to continue the nuclear arms race. He also proposed to the United States to agree on the termination of the nuclear arms race and further offered a freeze of nuclear arsenals and an end to deployment of more nuclear missiles. Additionally, Gorbachev in his address to the French



Parliament on October 3, 1985, stressed the need to cease immediately the “infernal train” of the nuclear arms race before it is too late and to start the reduction of nuclear arms.<sup>351</sup>

Particularly with respect to the NST negotiations in Geneva, Gorbachev, in April 1985, announced his unilateral decision to cease the deployment of SS-20s in Europe until November of that year. He also offered to reduce the SS-20 INF missiles already deployed in Europe to 243, a number equal to the level prior to the breaking off of the INF negotiations. Moreover, in Fall 1985, the Soviet Union made a comprehensive proposal for the entire range of nuclear weapon systems dealt with in Geneva. In return for a settlement on the ban of development, testing and deployment of space weapons and especially the U.S. SDI proposed system, the Soviets were prepared to agree on the reduction of their strategic nuclear forces by 50%.<sup>352</sup> Because of the US-Soviet legal controversy over the SDI program, and because of the negative implications of the SDI in the superpowers’ strategic balance, both superpowers had failed to make any substantial legal progress and breakthroughs in their NST Geneva negotiations.<sup>353</sup>

In spite of these failures, both Gorbachev and Reagan agreed to have a summit meeting, which was held in Geneva in November 1985.<sup>354</sup> In accordance with the joint US-Soviet communiqué released after the Gorbachev-Reagan Geneva summit meeting, both

leaders set out the principles underlying their intentions to cooperate in the prevention of the eruption of a nuclear war between themselves, and to accelerate the legal process for their nuclear disarmament through gradual and drastic reduction in their nuclear arms. In more specific terms, both sides agreed that a nuclear war cannot be won and must never be fought. They also recognized that a US-Soviet nuclear war conflict would have catastrophic consequences for the entire human race and its civilization. In addition to their agreement to accelerate their NST negotiations with the objective to terminate their nuclear arms race on Earth and prevent their arms race in space, both world leaders expressed their willingness to achieve the goal of the reduction of their countries' nuclear arms by 50%, and to conclude through negotiations an interim INF agreement. Moreover, Gorbachev and Reagan agreed to study the question of establishing joint centers to reduce nuclear risk. They also agreed to modernize the already existing US-Soviet hotline communications system.<sup>355</sup>

2. Continuation of the US-Soviet NST Negotiations and the  
Gorbachev-Reagan Reykjavik Summit Meeting  
(October 1986)

On the basis of the principles agreed between the United States and the Soviet Union during the Geneva summit meeting with respect to making legal progress in their NST negotiations

held in Geneva, Gorbachev by the beginning of 1986 assumed a revolutionary and radical leadership in the sphere of superpower nuclear disarmament. Indeed, on January 15, 1986, the Soviet leader in his speech, which is known as The Year 2000 Nuclear Disarmament Speech, proposed a step-by-step and consistent process of ridding the earth of nuclear weapons, to be undertaken and completed within the next fifteen years, before the end of the century, and pointed out the need that the third millennium should begin without nuclear weapons.<sup>356</sup>

In more concrete terms, the Gorbachev dynamic and radical proposal to free the world of all nuclear weapons by the year 2000 on a global basis and in comprehensive terms contained new aspects and detailed steps. The Gorbachev plan for a global nuclear disarmament included two stages for its implementation. In accordance with the first stage, which would take five to eight years, all ground-launched Long-Range Intermediate Nuclear Forces (LRINF) in Europe had to be eliminated. Within this period of time, both superpowers would be prohibited from transferring LRINFs to third parties. Also, in the first stage, a freeze would be imposed on the French and British nuclear weapon arsenals at their existing levels at that particular time.<sup>357</sup>

According to the second stage, as of 1990 while both the United States and the Soviet Union would continue with the total

elimination of their INF weapons, including the imposition of a freeze on their remaining tactical nuclear weapons, the other nuclear powers had to participate in the nuclear disarmament process. Additionally, during the second stage a global elimination of tactical nuclear weapons with ranges below 1,000 km would take place. At the end, by the year 2000, all nuclear weapons had to be eliminated by all nuclear weapon states.<sup>358</sup>

In addition to his radical proposal for a global and comprehensive nuclear disarmament by the year 2000, Gorbachev, in his address to the Soviet Communist Party Congress on February 25, 1986, stated that it is time to realize to the full extent the harsh reality that nuclear weapons can produce a hurricane that would sweep the human race from the face of the Earth. He also added that continuation of the nuclear arms race on Earth, let alone its spread to outer space, will accelerate the already critically high rate of stockpiling and perfecting nuclear weapons.<sup>359</sup>

Although the United States and its Western allies failed to positively react to the Gorbachev proposal for world nuclear disarmament by the year 2000, the Reagan administration found some positive elements included in this Soviet proposal for the elimination of INF nuclear missiles, particularly in Europe. In light of this common ground, both the United States and the Soviet Union accelerated their negotiations in Geneva with the objective to remove

the remaining obstacles and eventually conclude an agreement requiring the elimination of all U.S. and Soviet INF nuclear missiles in Europe.<sup>360</sup>

As a result of their INF negotiations in a breakthrough mode, by September 1986 both nuclear superpowers had managed to remove some substantial obstacles, which prevented legal progress in the conclusion of an INF treaty. At this point, it is of particular significance to note that Gorbachev had since 1985 insisted on the condition that the Soviet Union would conclude an INF treaty if both the French and British nuclear systems were included in any form in such an agreement. Of course, because this Soviet condition was firmly rejected by the Western allies, this became a major obstacle to the conclusion of an INF agreement. But, on September 19, 1986, Gorbachev made a unilateral concession, and finally agreed to drop his condition that French and British nuclear systems be included in any form in an INF agreement.<sup>361</sup>

Moreover, by September 1986 both the United States and the Soviet Union had made substantial legal progress concerning the issue of the effective implementation of an INF agreement. Specifically, the parties had agreed in principle that the verification system of such a treaty would, *inter alia*, include the verification technique of on-site inspection.<sup>362</sup> In essence, the adoption of on-site inspection as a verification measure for the INF agreement

does not only constitute a significant breakthrough in the area of verifying nuclear disarmament agreements, but also constitutes a dynamic and innovative legal measure for the effective verification and implementation of nuclear disarmament agreements.

In spite of the failure of the two nuclear superpowers to make any substantial legal progress in their negotiations in the area of space defense weapons and reductions in their strategic nuclear arms, the legal progress and breakthroughs made by Fall 1986 in relation to the INF negotiations increased the expectations that an INF agreement could be signed by Gorbachev and Reagan during their summit meeting, which was to take place in Reykjavik in October 1986.<sup>363</sup> Nevertheless, the Gorbachev-Reagan summit failed to produce any positive legal results in the superpowers' NST negotiations in general, and particularly with respect to the conclusion of an INF agreement.<sup>364</sup>

In more concrete terms, the Reykjavik summit was dominated by the US-Soviet legal controversy over the SDI system in light of the ABM Treaty. In particular, Reagan's lack of flexibility and his insistence to proceed with the developmental testing and deployment of the SDI system in outer space, albeit in a clear violation of the ABM Treaty, prevented both nuclear superpowers from making any legal progress in relation to the elimination of their INF missiles in Europe and reductions of their strategic nuclear arms.

Indeed, it must be acknowledged that Reagan's inflexibility concerning his SDI system led the Reykjavik summit to failure notwithstanding Gorbachev's readiness for making legal progress in the nuclear disarmament process both with respect to the INF and strategic nuclear arms.<sup>365</sup>

Specifically, in Reykjavik Gorbachev stated his readiness to sign an INF agreement by which both the U.S. and Soviet INF nuclear missiles would be eliminated in Europe.<sup>366</sup> Also, the Soviet leader proposed to the American side the conclusion of an agreement by which the US-Soviet strategic nuclear armaments would be reduced by 50% so that these most deadly nuclear weapons would be abolished by the turn of the century. Moreover, Gorbachev stated his intention to extend his moratorium on any nuclear weapons tests and explosions.<sup>367</sup>

But Gorbachev pointed out that the Soviet Union would proceed with the conclusion of an INF Treaty and a START treaty on the basis of his proposals under the condition that the United States would agree to adhere to its ABM Treaty obligations and make an official commitment that it would not proceed with the developmental research, testing and deployment of its SDI program.<sup>368</sup> Apparently the implementation of the SDI program by the United States would provide it with a strategic superiority over the Soviet Union.<sup>369</sup> Nevertheless, President Reagan failed to show

any form of flexibility and compromise on the SDI system.<sup>370</sup>

### 3. The US-Soviet NST Negotiations After Reykjavik

#### a. The Gorbachev-Reagan Washington Summit Meeting and the INF Treaty (December 1987)

After intensive negotiations in a breakthrough mode in February 1987 Gorbachev made a major unilateral announcement in accordance with which the Soviet Union would delink INF from the SDI and START.<sup>371</sup> Based on this significant unilateral concession made by Gorbachev, a new legal impetus was provided for the conclusion of an INF treaty. Finally, at a Moscow meeting in September 1987, US Secretary of State Shultz and Soviet Foreign Minister Shevardnadze announced that they had agreed in principle to conclude an INF treaty which was to be formally signed by Gorbachev and Reagan at a special summit meeting to be held in Washington by the end of Fall 1987.<sup>372</sup>

In view of the Shevardnadze-Shultz Moscow Agreement in principle with respect to the elimination of all American and Soviet INF nuclear missiles on a global basis, finally the INF Treaty was signed during the Gorbachev-Reagan summit meeting held in Washington in December 1987.<sup>373</sup> Both leaders characterized the INF Treaty as a historic achievement both for its objective, namely, the complete elimination of an entire class of American and Soviet



nuclear arms, and for the innovative character and scope of its verification system.<sup>374</sup> But, at this point, it must be observed that the conclusion of the INF Treaty should be primarily attributed to Gorbachev who by his unilateral concessions made possible the conclusion of this agreement.

b. The INF Treaty: Analysis of Its Content and Objectives

The formal name of the INF Treaty is Treaty on the Elimination of Intermediate-Range and Shorter-Range Missiles. The INF Treaty consists of: (a) the text of the Treaty; (b) a Memorandum of Understanding (MOU) concerning the establishment of the data base which contains all the information given in the first data exchange on respective Soviet and American intermediate and shorter-range missiles including missile numbers, technical characteristics and locations; (c) a Protocol on Procedures governing the elimination of missile systems which provides a detailed outline of the procedures to be followed in eliminating each element of a given missile system, and (d) a Protocol concerning inspections giving procedural guidelines to be followed during the inspection process.<sup>375</sup>

Additionally, in order to improve the viability and effectiveness of the Treaty, as well as to resolve questions of compliance, the Soviet Union and the United States signed a Memorandum of Agreement (MOA) in December 1989 concerning the application of

verification provisions to the INF Treaty.<sup>376</sup> Furthermore, it should be noted that the Treaty, which according to its Article XV(1) is of unlimited duration, was ratified by both parties in May 1988 when they exchanged their instruments of ratification by signing the required protocol, and since then the INF Treaty has been in force.<sup>377</sup>

In accordance with the Preamble to the INF Treaty, both parties state their consciousness that nuclear war would have devastating consequences for all mankind. Also, both parties, guided by the objective of strengthening strategic stability, express their conviction that the measures set forth in the INF Treaty are designed to help reduce the risk of outbreak of war and strengthen international peace and security. Moreover, both the United States and the Soviet Union point out that the conclusion of the Treaty is consistent with their legal obligations under Article VI of the NPT Treaty to proceed with the legal process of their denuclearization.<sup>378</sup>

Article I of the INF Treaty states in succinct terms that each party must eliminate its INF ballistic nuclear missiles and must not have such systems thereafter. According to Article II of the Treaty, the INF nuclear missile systems, which must be eliminated, include: (a) intermediate-range ground-launched cruise missiles (GLCM) and ground-launched ballistic missiles (GLBM) having a range capability in excess of 1000 kilometers but not in excess of

5500 kilometers, and (b) shorter-range GLBMs and GLCMs having a range capability equal to or in excess of 500 kilometers but not in excess of 1000 kilometers. Additionally, Article II provides legal-technical definitions of the missiles, their operating bases and support facilities as well as a legal description of other elements related to the INF missiles that have to be eliminated under the Treaty.<sup>379</sup>

Article III of the Treaty provides a list of the Soviet and American INF systems to be eliminated. On the American side, the list includes the Pershing II, the BGM-109G cruise missile, and the Pershing IA. As far as the Soviet side is concerned, the list includes the SS-20, SS-4, SS-5, SS-12 and SS-23. Moreover, pursuant to Article X(6) of the Treaty, the Soviet cruise missile SSC-X-4 and the American Pershing IB, which both had been tested but not yet deployed, have been added to the list of the INF missiles to be eliminated.<sup>380</sup>

Based on the data exchanged between the two parties on the number of their respective INF systems, 846 American and 1,846 Soviet intermediate and shorter range delivery vehicles then deployed in Europe and elsewhere had to be eliminated under the INF Treaty. Specifically, on the American side, this would involve the elimination of 846 nuclear warheads from the European theater; and in the case of the Soviets, the elimination of 3,154 nuclear

warheads worldwide.<sup>381</sup>

In accordance with Article IV(1) of the Treaty, each party has undertaken the obligation to eliminate all its intermediate-range missiles and launchers of such missiles, and all support structures and support equipment of the categories listed in the Memorandum of Understanding associated with such missiles and launchers, so that no later than three years after entry into force of the INF Treaty and thereafter no such missiles, launchers, support structures or support equipment shall be possessed by either party. Based on Article IV(2), the two parties have assumed the legal obligation to eliminate all their intermediate-range missile systems in a two-stage process, which must have been completed within three years after the INF Treaty entered into force. Thus, since the Treaty entered into force in May 1988, the parties must have completed the process for the elimination of all their intermediate-range nuclear missiles and launchers, and all support structures and support equipment by approximately mid-1991.<sup>382</sup>

With respect to the elimination of all their already deployed shorter-range missiles and launchers of such missiles, and all support equipment for these missile systems, Article V of the Treaty provides that the process for the elimination of these missile systems is to take place in two stages and to be completely implemented within 18 months after the Treaty's entry into force. Thus,

since the Treaty entered into force in May 1988, the complete elimination of all US and Soviet shorter-range missile systems must have been implemented by approximately the end of fall 1989. In relation to the elimination of the parties' non-deployed shorter-range missile systems, Article V provides that each party, no later than 12 months after the Treaty's entry into force, must complete the removal of all its non-deployed shorter-range missiles to elimination facilities.<sup>383</sup>

Furthermore, the INF Treaty prohibits both parties from the production or flight-test of new INF missile systems upon its entry into force. Thus, upon the Treaty's entry into force and thereafter, while the parties had assumed the legal obligation to begin the process for the implementation of the elimination of all their INF nuclear missile systems, Article VI requires the parties not to produce or flight-test any intermediate-range missile or produce any stages of such missiles or any launchers of such missiles; or produce, flight-test or launch any shorter-range missiles or produce any stages of such missiles or any launchers of such missiles.<sup>384</sup>

In relation to the elimination of all US and Soviet INF missile systems, the INF Treaty provides a specific legal regime to this end. In addition to Article X of the Treaty which sets out the processes and the ways for the elimination of all American and Soviet INF missile systems, the Protocol on Procedures Governing the

Elimination of the INF missile systems that constitutes an integral part of the Treaty provides a very lengthy and detailed process aimed at achieving the elimination of these nuclear weapon systems through specific processes and ways.<sup>385</sup>

In accordance with Article X of the Treaty and particularly with its Protocol on Elimination, distinctions should be made among the specific arrangements for the elimination of the missiles, launchers and reentry vehicles of the INF systems covered by the Treaty. Specifically, with regard to the elimination of the missiles, first of all the reentry vehicles must be removed, i.e., the front sections that carry the nuclear warheads must be dismantled. Rocket stages may either be burned or exploded. The airframe of the cruise missiles must be cut in two pieces lengthwise.<sup>386</sup>

With respect to the elimination of the launchers, the erector launcher mechanisms must be dismantled from the launcher chassis and cut into two pieces. The same applies to the chassis. As far as the elimination of the reentry vehicles is concerned, the reentry vehicles must be crushed, once the nuclear warheads and parts of the guidance system have been removed. These will likewise be returned to the parties' nuclear arsenals, which nuclear material may be re-used by the parties for either military or civilian purposes.<sup>387</sup> Moreover, both parties must also destroy all of their support structures and support equipment associated with the INF missile sys-

tems.<sup>388</sup>

In view of the preceding discussion of the Treaty's legal regime for the elimination of the INF missile systems through appropriate processes and technical procedures, there should be no doubt that these legal measures greatly assist in ensuring the elimination of the above nuclear weapon system, so that they cannot be reassembled and used by the parties in the future. With respect to the implementation of the elimination of the INF missile systems, it must be underlined that both parties in conformity with their treaty obligations and particularly with the treaty timetable by the end of 1989 successfully completed the elimination of their shorter-range INF missile systems.<sup>389</sup> Additionally, it is presently reported that both parties by mid-1991 have completed the legal process for the elimination of all of their intermediate-range INF missile systems.<sup>390</sup>

Nevertheless, it should be observed that the term "elimination" used by the INF Treaty to denote the complete destruction of the INF missile systems does not seem to literally correspond to its legal and technical meaning. In fact, since both parties have the right to retain the nuclear warheads and the guidance systems from their destroyed INF systems and further re-use them for military purposes, this clearly shows that the term "elimination" rather means the destructive dismantling of INF mis-

sile systems.<sup>391</sup> Of course, it would be more consistent with the legal and technical meaning of the term “elimination” employed by the INF Treaty and generally with the juridical concept of nuclear disarmament if both parties had agreed either to completely destroy the nuclear warheads and guidance systems taken out of their dismantled INF missile systems, or not to reuse them for military purposes and to use them exclusively for peaceful civilian purposes.

### c. Analysis of the INF Treaty Verification Regime and System

In order to ensure the effective compliance of the parties with their treaty obligations, the INF Treaty by its main text and by its Protocol on Inspections provides a detailed and significant verification system.<sup>392</sup> While the Treaty allows the parties to use their NTM of verification, it also allows the parties to conduct on-site inspections in order to ensure their effective compliance with the Treaty. In particular, the adoption of the verification technique of on-site inspection by the Treaty, which is accepted by the parties for the first time in their legal history of nuclear arms control in the pre-INF Treaty period, admittedly constitutes an innovative and dynamic legal breakthrough and approach in relation to their efforts to ensure their effective compliance with the terms of the Treaty.



As far as the permission of the use of NTM of verification by the parties is concerned, Article XII of the INF Treaty provides each party with the right to use NTM of verification at its disposal and in a manner consistent with generally recognized principles of international law. The NTM used by the parties to ensure their verified compliance with their treaty obligations to eliminate all of their INF missile systems include, *inter alia*, systems which range from high and low-orbiting satellites employed to collect images and signals from space down to submarines used for tapping into undersea communications lines, aircraft patrolling outside monitored borders, ships at sea and a variety of ground-based sensors, including over-the-horizon radar for aircraft and missile detection systems.<sup>393</sup>

Furthermore, in order to ensure the verification of the parties' compliance with their treaty obligations by using their NTM, Article XXII of the Treaty is drafted with a view to guarantee transparency of the territory of each party to be checked by their NTM by prohibiting interference with such verification systems, and also by prohibiting each party from using concealment measures which impede verification by such means. Thus, in accordance with Article XII (1) (2), both parties are prohibited from interfering with each other's NTM used for the verification of their compliance with the Treaty, and from using concealment measures

which impede treaty verification by NTM. Additionally, in order to enhance observation of what is to be verified under the Treaty by NTM, Article XII (3) requires both parties to carry out the following cooperative measures: (a) The party whose base is to be observed by NTM no later than six hours after such a request has been made by the other party, such a party must have opened the roofs of all fixed structures for launchers located at the base, removed completely all missiles on launchers from such fixed structures for launchers and displayed such missiles on launchers in the open without using concealment measures; and (b) Such a party must leave the roofs open and the missiles on launchers in place until twelve hours have elapsed from the time of the receipt of a request for such an observation.<sup>394</sup>

While both nuclear superpowers have traditionally relied heavily on the use of the NTM for the verification of their nuclear arms control agreements in the pre-INF Treaty years, the INF Treaty, based on the preceding analysis, has adopted specific legal measures designed to guarantee transparency of the territory of each party for the use of NTM verification for the purpose of ensuring the effective compliance of the parties with their treaty obligations to eliminate all of their INF missile systems. Moreover, it should be noted that by the time of the conclusion of the INF Treaty both nuclear superpowers had made great technological ad-

vancements in their NTM. Indeed, such an enhancement of the capabilities of their NTM combined with the Treaty's provisions requiring each party to maintain the transparency of its territory has significantly increased the usefulness and the reliability of NTM to effectively verify their compliance not only with the INF Treaty, but also with any other nuclear disarmament treaty between the two nuclear superpowers.<sup>395</sup>

As has been already noted, in addition to the use by the parties of their NTM to verify their effective compliance with their treaty legal obligations to eliminate their INF missiles, the INF Treaty also has added to its verification system the verification technique of on-site inspection. At this point, it must be underlined that the legal adoption of on-site inspection as a verification measure for the implementation of the Treaty constitutes a major legal breakthrough in relation to the resolution of the issue of strengthening the verification legal system, which is required to ensure that both parties comply with their legal obligations under the INF Treaty.

In accordance with Article XI of the INF Treaty and the Protocol on Inspections, which is an integral part of the INF Treaty, five different forms of on-site inspections are provided. Specifically, they include: (1) Baseline Inspections to verify the accuracy of the initial data provided by the parties; (2) Close-Out

Inspections to be conducted after one of the parties declares a facility to be free of INF equipment and no longer supporting intermediate or shorter-range missile operations; the other party has the right to visit the facility to confirm its new status within 60 days of the declared close-out date; (3) Quota Inspections to be carried out in a similar way to baseline inspections, with only minor differences. All facilities listed in the Memorandum of Understanding are subject to these inspections for the entire 13-year period. Each party is permitted a total of 185 inspections during this period: 20 per year for the first 3 years, 15 per year for the next 5, and 10 per year for the last 5 years; (4) Elimination Inspections for on-site monitoring of the elimination of certain treaty-limited items, namely missiles, launchers and associated support equipment, and (5) Portal Monitoring that allows a continuous, long-term monitoring for a period of up to 13 years. Based on this type of on-site inspection, a US inspection team is monitoring the Soviet Votkinsk plant near the Urals that formerly assembled INF missile systems. Also, a Soviet inspection team is monitoring the Hercules Corporation's Bacchus Works near Salt Lake City, Utah, which used to produce rocket motors for the US Pershing II INF missiles.<sup>396</sup>

An overview of the conduct of on-site inspections by both parties, which have been taking place after 30 days since the INF

Treaty entered into force involving 200 inspectors for each party, clearly shows that these on-site inspections are carried out smoothly and in conformity with the provisions of Article XI and the Protocol on Inspections of the INF Treaty. In addition to the US and Soviet inspection teams respectively at the Votkinsk and Hercules INF missile plants, other Soviet and American inspection teams have been conducting on-site inspections on each other's territories, thus making sure that the INF missile systems are eliminated in accordance with the Treaty.<sup>397</sup>

In addition to the on-site inspections on the above US and Soviet INF missile production facilities, 19 American and 77 Soviet sites associated with the deployment, launcher production facilities, testing, repair, training sites, storage facilities and missile elimination sites have been the subject of on-site inspection.<sup>398</sup> Notwithstanding the fact that the INF Treaty is a bilateral agreement by which the United States and the Soviet Union are subject to on-site inspections with respect to the elimination of their INF missile systems, since such nuclear weapon systems were deployed by the two nuclear superpowers in Eastern and Western European states, after consultations with the states concerned, the territories of such third states are affected by the elimination measures and by verification procedures involved under the INF Treaty.<sup>399</sup> Of course, this means that the Treaty develops a third party legal ef-

fect in some manner.

Aside from the verification legal system of the Treaty involving both NTM and on-site inspections, the verification structure and mechanism of the Treaty includes the creation by the parties of a Special Verification Commission (SVC). Thus, in accordance with Article XIII, the SVC has generally assumed the responsibility to promote the objectives and the effective implementation of the terms of the INF Treaty. It also has undertaken the legal duty to resolve questions relating to compliance with the obligations assumed by the parties, and further to agree upon the adoption of such measures which may be necessary to improve the viability and effectiveness of the INF Treaty. Furthermore, pursuant to the above Article, the Nuclear Risk Reduction Centers, which were created by the two nuclear superpowers in summer 1987, have assumed the task to deal with the exchange of data and the announcement of dates for the elimination of the INF missile systems.<sup>400</sup>

With respect to the issue of the effective implementation of the INF Treaty by its parties, it is of particular significance to underline that both parties have proceeded with its implementation in a successful and effective manner. Indeed, by the end of 1989, both parties had completed the elimination process of all their shorter-range INF missile systems.<sup>401</sup> Also, it is reported that by mid-1991

both parties had successfully completed the elimination of all their long-range INF missile systems.<sup>402</sup>

Despite the recognition that both parties have proceeded with the elimination of all their INF missile systems in an effective manner in accordance with their obligations under the INF Treaty, the United States has allegedly accused the Soviets of committing some violations against the Treaty. But these American allegations concern minor violations, and in any case the American side has not been able to substantiate and pursue them.<sup>403</sup> In the final analysis, it must be pointed out that both parties have successfully and effectively proceeded with their treaty obligation to eliminate all of their INF missile systems.<sup>404</sup>

#### d. The Legal Impact of the INF Treaty on the US-Soviet Nuclear Disarmament Process

The INF Treaty admittedly constitutes the first nuclear disarmament treaty instrument<sup>405</sup> between the two nuclear superpowers. Indeed, there should be no doubt that the INF Treaty has become the starting point in the superpower bilateral legal process for their gradual and ultimate denuclearization. Additionally, it should be pointed out that the INF Treaty constitutes an unprecedented legal breakthrough in making possible the superpowers' transition from the counterproductive model of nuclear arms control to that of gradual nuclear disarmament, which is consistent

with the juridical concept and legal goal of nuclear disarmament.

As far as the legal impact of the INF Treaty on the superpowers' bilateral legal process for their gradual and ultimate denuclearization is concerned, it must be emphasized that the INF Treaty is the first US-Soviet bilateral treaty arrangement in their legal history of nuclear arms control and limitations by which the entire class of their INF nuclear weapons and missile systems has been eliminated on a global basis and in comprehensive terms. In pure arithmetical terms, by virtue of the INF Treaty, the overall American and Soviet nuclear weapon arsenals have been only reduced by approximately 4,000 nuclear warheads. Of course, this represented only 8% reduction in the global total of American and Soviet strategic and tactical nuclear warheads, which at the time of the conclusion of the Treaty consisted of more than 50,000 nuclear warheads.<sup>406</sup>

Despite the recognition that the INF Treaty has been designed to reduce the superpowers' total nuclear weapon arsenal by a very small percentage, and despite the fact that such a reduction does not reduce their first-strike capabilities, and generally their capabilities to destroy the entire world many times over,<sup>407</sup> it must be, nevertheless, underlined that even this small reduction in the US-Soviet nuclear arsenals resulted in the elimination of the US-Soviet INF missiles deployed in Europe. However, the United



States still maintains in Europe tactical nuclear weapons,<sup>408</sup> a part of which is deployed in U.S. bases in Greece and Turkey.<sup>409</sup>

Additionally, it is significant to point out that the INF Treaty constitutes a positive legal development compared to the US-Soviet failure in the pre-INF Treaty period to reduce their nuclear arsenals by at least one nuclear warhead. In fact, their legal model of nuclear arms control and limitation, which ironically resulted in the continuous expansion of their nuclear arms race, proved to be counterproductive to the objective of a superpowers' nuclear disarmament. Moreover, it must be acknowledged that the INF Treaty provides a new dynamic legal impetus for the reversal of their constant nuclear arms race and the promotion of the prospects for their gradual and ultimate nuclear disarmament on a global basis and in comprehensive terms.

In essence, the conclusion of the INF Treaty, which has been characterized by President Reagan and the Soviet leader Gorbachev as historic both for its objective, namely, the complete elimination of an entire class of US-Soviet INF nuclear arms, and for the innovative character and scope of its verification structure and system,<sup>410</sup> became possible particularly due to Gorbachev's nuclear disarmament-oriented leadership, and generally because of his new strategic thinking for world peace and security. In fact, there must be no doubt that Gorbachev's flexibility and his unilat-

eral concessions greatly contributed in making possible the final signature of the INF Treaty. At this point, it is of particular significance to note that Gorbachev during the signature of the Treaty stated that it is the first step down the road leading to a nuclear-free world, and that it is the start of nuclear disarmament.<sup>411</sup> Therefore, it is an inescapable conclusion that the INF Treaty, both in political and legal terms, constitutes a dynamic legal instrument which marks the beginning of the superpowers' nuclear disarmament process as well as the beginning of the end of their Cold War relations, unrelentless nuclear arms race and constant nuclear confrontation.

In relation to the verification structure and system adopted by the INF Treaty for the purposes of ensuring the effective compliance of the parties with their treaty obligations, it is of particular importance to underline that the Treaty has made an unprecedented and dynamic legal breakthrough in this respect. In more concrete terms, the INF Treaty provides the parties with the right to use their NTM of verification for ensuring the effective implementation of the Treaty. Also, the Treaty imposes upon the parties the legal obligation not to interfere and generally impede the verification of their treaty compliance in any manner. Moreover, it must be added that at the time of the conclusion of the Treaty both parties had made significant advances in their NTM of verification,

and thus had substantially increased their technological capabilities to verify their compliance with the Treaty by using their NTM.

Beyond the usefulness of NTM for purposes of ensuring the effective implementation of the Treaty by its parties, the INF Treaty, for the first time in the legal history of the superpowers' nuclear arms control and disarmament bilateral process, has adopted an unprecedented system of verification in the form of on-site inspections. Indeed, it must be recognized that the verification measure of on-site inspections used for the purpose of ensuring the effective implementation of the Treaty by the parties constitutes an unprecedented, innovative and dynamic legal breakthrough in this respect. Additionally, it must be underlined that the verification system of on-site inspections established by the Treaty does not only create a dynamic and vigorous system of verification capable of ensuring the parties' effective compliance with their legal obligations under the INF Treaty by carrying out intrusive on-site inspections on each other's territories, but also the new legal system of on-site inspections created by the Treaty has made a major legal breakthrough of innovative and dynamic nature in resolving the issue of the effective implementation of US-Soviet treaty arrangements concerning their nuclear disarmament.

An overall critical evaluation of the INF Treaty verification structure and system of NTM and on-site inspections clearly sug-

gests that it has been designed to guarantee transparency, reliability and non-interference in relation to the effective implementation of the Treaty. Particularly in view of the fact that both parties have proceeded with the elimination of their INF missile systems in an effective manner, this obviously shows that the INF Treaty has been properly and successfully implemented by the parties, and that the Treaty's innovative and dynamic system of verification has made it possible.

The effective implementation of the INF Treaty has already set a major legal precedent that has positively impacted on the creation of a new favorable and dynamic legal reality with respect to the nuclear superpowers' new nuclear disarmament relationship through the instrumental value of the rule of international law. At this point, it should be emphasized that in the pre-INF Treaty period both nuclear superpowers, due to their Cold War relations, their nuclear arms race and constant nuclear confrontation, and also due to their failure to legally adopt effective verification measures such as on-site inspections, failed to proceed with their nuclear disarmament process. However, the successful legal experience of the INF Treaty has clearly demonstrated its political and legal dynamism in the effort to overcome the Cold War and verification obstacles, which had become leading factors in the prevention of the beginning of the superpowers' denuclearization process.

In the final analysis, it must be point out that the INF Treaty's legal impact on the cause of the elimination of all American and Soviet nuclear weapons on a global basis and in comprehensive terms is of enormous and extraordinary significance and dynamism. In particular, the fact that both parties have proceeded with the implementation of their legal obligations under the INF Treaty in a successful and effective manner, this legal precedent clearly supports the argument forwarded by this study that, in terms of international law, a total denuclearization of both nuclear superpowers is legally feasible and effective, provided that there exists the required political will of the two parties to achieve this legal objective.

**B. The Gorbachev-Bush Summitry, the End of the Cold War and the Road to the START I Treaty (1989-1991)**

**1. The US-Soviet START Negotiations, the End of the Cold War and the Gorbachev-Bush Malta Summit (December 1989)**

When President Bush assumed his presidential duties in January 1989, he decided to postpone the resumption of the START negotiations with the Soviets for a period of seven months. To justify this delay, the Bush administration argued that it needed it to conduct a comprehensive review of America's policy toward the

Soviet Union. Nevertheless, it must be pointed out that Bush's speeches and statements during his first months in the White House clearly showed his Cold War posture and his nuclear strategies toward the Soviets.

In May 1989, the US Secretary of State Baker and the Soviet Foreign Minister Shevardnadze agreed to round 11 of their START negotiations in Geneva. Thus, in June of 1989, both nuclear superpowers began their negotiations with the objective to reach an agreement on the reduction of their strategic offensive nuclear weapons. While during these negotiations the parties discussed a variety of issues associated with substantive verification and procedural questions, by the end of November 1989 the parties had failed to make any substantial legal progress in relation to the conclusion of a START I Treaty.<sup>412</sup>

In spite of the failure of the parties to make any legal breakthrough in the area of START, the START negotiations became the dominant issue during the Gorbachev-Bush summit meeting held in Malta in December 1989. Although the two leaders did not achieve the resolution of many substantive and technical issues preventing the conclusion of a START I Treaty, both sides agreed to accelerate their START negotiations in a breakthrough manner in order to resolve these issues, and thus to conclude the START Treaty during their next summit to be held in June 1990.

Moreover, both sides agreed to complete work on the TTBT and the PNET for signature at their 1990 summit.<sup>413</sup>

## 2. The Gorbachev-Bush Moscow Summit Meeting and the Signature of the START I Treaty (July 1991)

### a. The START I Treaty: Analysis of Its Legal Content and Objectives

During their Moscow summit meeting on July 31, 1991, President Gorbachev and President Bush signed the START I Treaty. The conclusion of the START I Treaty became possible due to the end of the US-Soviet Cold War relations and their conversion into a new post-Cold War relationship of cooperation and security. It also constitutes the end legal result of the protracted START negotiations for approximately ten years. Moreover, the START I Treaty is the first treaty arrangement in the legal history of the US-Soviet nuclear arms control process which requires the parties to make reductions in their strategic offensive nuclear arms.<sup>414</sup> The treaty entered into force in December 1994.<sup>415</sup>

The START I Treaty<sup>416</sup> consists of a very lengthy and complicated legal document of seven hundred pages. In addition to its main text, the Treaty has been accompanied by the following: (a) an Annex on Definitions; (b) a Protocol on Notifications; (c) a Protocol on Conversion or Elimination; (d) a Protocol on ICBM and SLBM

Throw-Weight; (e) a Protocol on the Joint Compliance and Inspection Commission; (f) a Protocol on Telemetry; (g) a Protocol on Inspections and Continuous Monitoring (with 12 annexes), and (h) a Memorandum of Understanding. Furthermore, the Treaty is supplemented by a separate Annex of Agreed Statements, Related Agreements, Letters Signed by US and Soviet Representatives, Supporting Documents, and Declarations.

In accordance with the Preamble to the Treaty, both parties are conscious that nuclear war would have devastating consequences for all humanity and that such a war cannot be won and must never be fought. Also, the two nuclear superpowers state their conviction that the measures for the reduction and limitation of strategic offensive arms and the other obligations provided by the START I Treaty will assist in reducing the risk of outbreak of nuclear war, and strengthen international peace and security by particularly recognizing that their interests and the interests of international security require the strengthening of strategic nuclear stability. Moreover, both parties note that the reduction and limitation of their strategic nuclear forces under the START I Treaty corresponds to their commitments under Article VI of the NPT.<sup>417</sup>

In accordance with Article II of the Treaty, the parties have assumed the legal obligation to reduce and limit their ICBMs and ICBM launchers, SLBMs and SLBM launchers, heavy bombers,



ICBM warheads, SLBM warheads and heavy bomber armaments. By virtue of the above Article, the reductions and limitations of these strategic nuclear weapon systems will be implemented in three phases with equal interim levels at the end of each of the three phases. Thus, by the end of the third phase, that is, no later than 84 months, namely, seven years after entry into force of the START I Treaty, the Soviet and American strategic offensive nuclear arms will be reduced and limited to 1,600 strategic nuclear delivery vehicles and 6,000 "accountable" nuclear warheads, including no more than 4,900 ballistic missile warheads, and in the Soviet case no more than 1,540 nuclear warheads on 154 heavy intercontinental ballistic missiles. In a side letter, the Soviets have agreed to eliminate 22 SS-18 launchers every year for seven years to achieve this level.<sup>418</sup>

Moreover, each side has agreed to deploy no more than 1,100 nuclear warheads on mobile ICBMs, and to limit the aggregate throw-weight of its deployed ICBMs and deployed SLBMs so that seven years after the Treaty's entry into force and thereafter such aggregate throw-weight must not exceed 3600 metric tons. Also, the Treaty ceiling of 1,600 strategic nuclear delivery vehicles includes deployed ICBMs and their associated launchers, deployed SLBMs and their launchers, and deployed heavy bombers. Additionally, the "accountable" warhead ceiling of 6,000 will in-

clude the actual number of warheads on deployed ICBMs and SLBMs. But the number of long-range, nuclear-armed air-launched cruise missiles carried by heavy bombers will be adjusted by a formula that understates the actual number of weapons. Heavy bombers equipped only with nuclear-armed gravity bombs and short-range attack missiles (SRAMs) will be counted as single warheads, a decision that greatly discounts the number of nuclear weapons carried by such heavy bombers.<sup>419</sup>

With respect to the ballistic missile warheads, the Treaty provides that no missile type may be flight-tested with more than its existing number of nuclear warheads, and on-site inspections will verify that deployed ballistic missiles contain no more reentry vehicles than the number of nuclear warheads that have been attributed to them. Both parties have also agreed not to deploy new or modified ICBMs and SLBMs that carry more than ten nuclear warheads.<sup>420</sup>

As far as the issue of the downloading is concerned, by virtue of the START I Treaty, the number of nuclear warheads on three existing categories of ballistic missiles may be reduced or “downloaded,” but neither party may reduce accountable nuclear warheads by more than 1,250 through downloading. Each Soviet SS-N-18 SLBM (not to be confused with the Soviet SS-18 ICBM) will be counted as having three nuclear warheads, although the SS-

18 has been deployed with both a three-and seven-nuclear warhead platform; but 896 SS-N-18 warheads will count toward the Soviet overall downloading limit. Also, the American Minuteman III ICBMs may be downloaded by one or two nuclear warheads.<sup>421</sup>

With the 1,250 limit, up to 500 other reentry vehicles may be downloaded on two other existing ballistic missile types, but no missile may be downloaded by more than four reentry vehicles. In addition, new types of multiple-warhead missiles will not be developed and later downloaded, nor will either side develop new missiles designed to carry more nuclear warheads than on any downloaded type, with the exception of the Minuteman III and the SS-18. Yet, any ICBM downloaded by more than two reentry vehicles must be equipped with a new front section platform, and all old platforms must be destroyed.<sup>422</sup>

In relation to the reduction of the US and Soviet heavy ICBMs, the START I Treaty requires both parties to reduce their deployed heavy ICBMs and their nuclear warheads by 50%. In addition, the Treaty imposes other constraints on heavy ICBMs which include: no downloading; no increase in launch weight or throw weight; no mobile launchers for heavy ICBMs; and no new types of heavy missiles. New heavy ICBM silo construction is allowed, but only in exceptional cases, for relocation or to replace eliminated heavy ICBM silos in extraordinary circumstances. However, the

number of such heavy ICBM silos may not exceed 154. But modernization and testing of existing heavy ICBMs may be continued by the parties. Moreover, other ICBMs or SLBMs will be considered new types if they exceed certain variances in size, weight and throw weight; the throw weight of existing types of ICBMs and SLBMs may not be increased by more than 21%.<sup>423</sup>

With regard to the heavy bombers, the Treaty provides that heavy bombers equipped to carry only gravity nuclear bombs and SRAMs will be counted as single nuclear warheads. In addition, an agreed number of heavy bombers may be removed from accountability, within the 1,600 delivery vehicle limit if they are converted to a non-nuclear capability. Heavy bombers equipped with long-range nuclear ALCMs must be made distinguishable from other heavy bombers. In exchange for not including the Tupolev 22-M (Backfire) bomber in START, the Soviet Union has made a declaration by which it will not deploy more than 300 air force and 200 naval Backfires, and that these bombers will not be given intercontinental capability.<sup>424</sup>

As far as the limitation of ALCMs is concerned, new long-range conventionally armed cruise missiles that are distinguishable from nuclear-armed ALCMs are not limited under the START I Treaty and they may be deployed on any aircraft. But nuclear-armed ALCMs with a range in excess of 600 kilometers are affected

by the Treaty. Thus, each current and future US heavy bomber equipped for long-range nuclear ALCMs will be counted as 10 nuclear warheads, but may actually carry up to 20. Also, each current and future Soviet heavy bomber so equipped will be counted as carrying eight nuclear warheads, but may actually be equipped for up to 16. The United States can use the above counting rule in accounting for 150 heavy bombers; and the Soviet Union may apply it to 180 heavy bombers. But if the number of heavy bombers carrying long-range nuclear missiles exceeds these levels, they will be counted as carrying the number of missiles with which they are actually equipped. However, multiple-warhead long-range nuclear ALCMs are banned under the START I Treaty.<sup>425</sup>

Although Sea-Launched Cruise Missiles (SLCMs) are not constrained under the START I Treaty, each side has provided the other with a declaration concerning long-range (over 600 kilometer) nuclear SLCMs. In accordance with their declarations on nuclear SLCMs, both parties will declare annually the maximum number of SLCMs to be deployed by each of the parties in each of the following five years. But the parties have agreed not to deploy a number of nuclear SLCMs exceeding a total of 880. Furthermore, the parties have agreed that nuclear-armed SLCMs with a range of 300-600 kilometers will be the subject of confidential annual data exchanges. Both sides also have agreed not to produce or deploy nu-

clear SLCMs with multiple warheads.<sup>426</sup>

Based on the preceding analysis of the START I Treaty with respect to its legal impact on the reduction of the US and Soviet long-range strategic nuclear weapon systems, it should be agreed that this Treaty is the first bilateral treaty arrangement between the two nuclear superpowers in their more than four decades old nuclear arms competition which imposes significant reductions in their strategic offensive nuclear arms, namely, ICBMs, SLBMs and ALBMs. By the end of the implementation of the third and final phase of the reduction of the US and Soviet strategic nuclear arms under the START I Treaty, namely, by the end of 1999 the United States will have approximately 9000 strategic nuclear warheads. On the other hand, by the end of 1999 the Soviet strategic nuclear arsenal will consist of about 7000 strategic nuclear warheads. Also, by the end of 1999 the ballistic missile throw-weight capabilities for each party will be reduced to 3600 metric tons.<sup>427</sup>

Since by the time of the signature of the START I Treaty the United States had deployed about 12,000 strategic nuclear warheads and the Soviet Union had deployed nearly 11,000 strategic nuclear warheads, the reduction of the American strategic nuclear arsenal to about 9000 nuclear warheads and the reduction of the Soviet strategic nuclear arms to about 7,000 strategic nuclear warheads<sup>428</sup> by the end of 1999, the Treaty will reduce the US strategic

nuclear forces by 25% and the Soviet strategic nuclear arms by 35%. Of course, these reductions in the US-Soviet strategic nuclear arms constitutes a significant legal step in their bilateral legal process for the elimination of their strategic nuclear weapons by a gradual nuclear disarmament process.

Although both parties have failed by the START I Treaty to reduce their strategic offensive nuclear arms by 50% as they had agreed during the START negotiations, it must be, nevertheless, underlined that by virtue of the START I Treaty the US and Soviet strategic nuclear warheads by the end of 1999 will be reduced by approximately 7000 strategic nuclear warheads. Of course, this reduction clearly means that the START I Treaty constitutes a significant international legal instrument in the US-Soviet nuclear disarmament process. Furthermore, it must be added that the Treaty will reduce the ballistic missile throw-weight to 3600 metric tons, which particularly with respect to the Soviet Union's missile throw-weight capability means a 50% reduction.<sup>429</sup>

Additionally, it is of particular significance to note that, while the START I Treaty imposes reductions on the triad of the US-Soviet strategic nuclear weapons, namely, land-based, sea-based and air-based strategic nuclear arms, the Treaty develops a significant legal impact on the reduction in the Soviet land-based SS-18 ICBMs, which are the largest, most accurate and most destructive

Soviet strategic nuclear weapons that have terrorized the United States in the context of a first-strike nuclear war scenario with the Soviets. In accordance with the Treaty, the Soviet SS-18 ICBMs, which had 3080 nuclear warheads at the time of the signature of the Treaty, will be reduced to 1,540 strategic nuclear warheads. This means a 50% reduction in these lethal Soviet strategic nuclear weapons, which are capable of annihilating the United States and the entire world community in thirty minutes.<sup>430</sup>

b. The START I Treaty and Its Elimination Process of  
Strategic Nuclear Arms

While Article VII of the START I Treaty generally regulates the process for the conversion and elimination of the strategic offensive nuclear arms and weapon systems which are to be reduced by this Treaty, it is the Protocol on Conversion or Elimination of the Treaty that provides a specific legal regime of procedures and processes for the conversion and elimination of the above strategic nuclear weapon systems. In specific terms, in relation to the elimination process of ICBMs for mobile launchers of ICBMs and their launch canisters, Article I (2) of the above Protocol requires the parties to carry out the following actions and procedures: (a) they must remove the missile's reentry vehicle or vehicles; (b) they may remove the electronic and electromechanical devices of the missile's guidance and control system from the missile and its launcher



canister; (c) they may remove the missile from its launch canister, remove the missile attachment devices from the launch canister, and disassemble the missile into stages; (d) they may remove propellant from stages; (e) they may remove or actuate auxiliary pyrotechnic devices installed on the missile and its launch canister; (f) they may remove penetration aids, including devices for their attachment and release; and (g) they may remove propulsion units from the self-contained dispensing mechanism.

Furthermore, in accordance with Article I (4) of the Protocol on Conversion or Elimination, for the elimination process of ICBMs for mobile launchers of ICBMs the parties must carry out the following actions: (a) if solid fuel has not been removed from stages, the stages must be destroyed by explosive demolition or burned; (b) rocket nozzles, motor cases as well as the interstage skirts of a missile must be crushed, flattened, cut into two pieces of approximately equal size, or destroyed by explosion; and (c) the self-contained dispensing mechanism, as well as the front section, including the reentry vehicle platform and the front section shroud, must be crushed, flattened, cut into two pieces of approximately equal size, or destroyed by explosion.

Additionally, with regard to the elimination process for launch canister of ICBMs for mobile launchers of ICBMs, in accordance with Article I (5) the parties have the responsibility to carry

out the following actions: (a) the body of the launch canister must be crushed, flattened, or destroyed by explosion; or (b) if the body of the launch canister is composed of segments, each of the segments must be cut into two pieces at a location that is not an assembly joint. A launcher canister, the body of which is of unitary construction, must be cut into two pieces of approximately equal size, or cut into three pieces in such a manner that pieces no less than 1.5 meters long are cut from the ends of the body of such a launch canister. At this point, and in connection with the above discussed process for the elimination of ICBMs for mobile launchers of ICBMs, it is important to note that in accordance with Article I (1) and (2) of the aforesaid Protocol, the elimination of these systems must be carried out at the elimination facilities for ICBMs, and the elimination of these systems must be subject to on-site inspections by the parties' inspection teams.

As far as the elimination of silo launchers of ICBMs, silo training launchers, and silo test launchers is concerned, Article II (1) of the aforesaid Protocol provides that the elimination process for these systems must be carried out *in situ* and be subject to verification by NTM. Also, pursuant to paragraph 2 of the above Article, prior to the initiation of the elimination process for silo launchers of ICBMs and silo test launchers, all missiles and shipping containers for ICBMs or ICBM stages, as well as all support

equipment, must be removed at least 1000 meters from each such ICBM launcher to be eliminated.

Specifically, with respect to the elimination process for silo launchers of ICBMs or silo test launchers, Article II (6) of the aforesaid Protocol provides that: (a) the silo door must be removed, dismantled or destroyed, and the silo headworks and the silo must be destroyed by excavation to a depth of no less than eight meters, or by explosion to a depth of no less than six meters; and (b) following the completion of the elimination of the ICBM silo, the silo may be filled to the level of the bottom of the hole created by excavation or explosion. With regard to the elimination process for silo training ICBM launcher, paragraph 7 of the above Article provides that the elimination of this system must be accomplished by removing, dismantling, or destroying the silo door and by destroying the silo headworks by excavation or explosion.

Moreover, in accordance with Article II (8) of the Protocol of Elimination or Conversion, the elimination process for a silo launcher of ICBMs, a silo training launcher, and a silo test launcher must be completed no later than 180 days after its initiation, which initiation by virtue of paragraph 3 of the above Article commences as soon as the doors of the silo launchers of ICBMs, silo training launchers and silo test launchers have been opened. Also, according to paragraph 9 of the above Article, the ICBM silos must

remain visible to national technical means of verification during the entire elimination process and for the following 90-day period, after which the silos may be filled with earth.

With regard to the elimination process of mobile launchers of ICBMs, mobile training launchers and fixed structures for mobile launchers of ICBMs, Article III (1) of the aforesaid Protocol provides that the elimination of road-mobile launchers of ICBMs, road-mobile training launchers, rail-mobile launchers of ICBMs, and rail-mobile training launchers must be carried out at conversion or elimination facilities for mobile launchers of ICBMs and must be subject to on-site inspection. In specific terms, in relation to the elimination process for road-mobile launchers of ICBMs and road mobile training launchers, Article III (3) requires the parties to carry out the following actions: (a) the erector-launcher mechanism and leveling supports must be removed from the launcher chassis; (b) framework of the erector-launcher mechanism on which the ICBM is mounted and erected must be cut at locations that are not assembly joints into two pieces of approximately equal size; (c) missile launch support equipment, including external instrumentation compartments, must be removed from the launcher chassis; (d) the mountings of the erector-launcher mechanism and of the launcher leveling supports must be cut off, and the launcher chassis and each mounting must be cut into two pieces of approximately equal

size at a location that is not an assembly joint; (e) a portion of the self-propelled launcher chassis, at least 0.78 meters in length, must be cut off and that portion of the rear axle must be cut into two pieces of approximately equal size; and (f) if a road-mobile launcher of ICBMs is not mounted on a self-propelled launcher chassis, the trailer chassis must be cut into two pieces of approximately equal size and at a location that is not an assembly joint.

As far as the elimination process for rail-mobile launchers of ICBMs and rail-mobile training launchers is concerned, paragraph 4 of Article III provides the following: (a) the erector-launcher mechanism must be removed from the railcar (or flatcar); (b) the framework of the erector-launcher mechanism on which the ICBM is mounted and erected must be cut into two pieces of approximately equal size; (c) missile launch support equipment, including external instrumentation compartments, must be removed from the railcar (or flatcar); and (d) the railcar (or flatcar) must be cut into two pieces of approximately equal size. Additionally, with respect to the elimination of fixed structures for mobile launchers of ICBMs, according to paragraph 7 of Article III, the elimination must be carried out *in situ* and must be subject to NTM of verification. Moreover, in accordance with paragraph 8 of the above Article, the elimination process for fixed structures for mobile launchers of ICBMs requires the following actions: (a) the superstructure of

each fixed structure must be dismantled or demolished and removed from its base or foundation; and (b) the base or foundation of each such structure must be destroyed by excavation or explosion.

With respect to the elimination process of SLBM launchers, Article IV(1) of the aforesaid Protocol generally provides that the elimination of these systems must be carried out at conversion or elimination facilities for SLBM launchers and must be subject to NTM of verification. While paragraph 2 of the above Article provides that prior to the initiation of the elimination process for SLBM launchers, all missiles must be removed from such launchers, paragraph 5 of Article IV requires the following actions for the elimination of SLBM launchers: (a) the missile section must be removed from the submarine; or (b) the missile launch tubes and all elements of their reinforcement, including hull liners and segments of circular structural members between the missile launch tubes, as well as the entire portion of the pressure hull, the entire portion of the outer hull, and the entire portion of the superstructure through which all the missile launch tubes pass and that contain all the missile launch-tube penetrations must be removed from the submarine. In addition, the missile launch tubes that have been removed must be cut into two pieces of approximately equal size and must remain in the open vicinity of the submarine until completion of the elimination procedures. Moreover, by virtue of para-

graph 7 of Article IV, a ballistic missile submarine must remain visible to NTM of verification during the entire elimination process for SLBM launchers.

In relation to the elimination process for soft-site launchers, Article V (1) of the aforesaid Protocol provides that the elimination of these systems must be carried out *in situ* and be verified by NTM. Also, pursuant to paragraph 2 of the above Article, prior to the initiation of the process for the elimination of soft-site launchers, all missiles, launch canisters, and shipping containers for ICBMs or SLBMs or for their stages must be removed at least 1000 meters from each soft-site launcher to be eliminated. Furthermore, in accordance with paragraph 4 of Article V, the elimination process for soft-site launchers requires the following actions: (a) all fixed launch and propellant-handling equipment, as well as erecting and handling equipment and fuel tanks associated with such a launcher must be removed at least 1000 meters from the soft-site launcher to be eliminated; (b) the entire area, at least 20 meters in diameter and centered on the soft-site launchers, must be excavated or exploded to a depth of no less than two meters; and (c) to enhance safety, after the elimination is completed, the resultant hole may be filled with earth.

In relation to the conversion or elimination process of strategic bombers, including both heavy and former heavy bombers, their

elimination, by virtue of Article VI (1) and (2) of the aforesaid Protocol, must be carried out at conversion or elimination facilities for strategic bombers and be verified by NTM of verification and by on-site inspections. Furthermore, for the elimination of heavy bombers or former heavy bombers, paragraph 5 of the above Article provides the following process: (a) the tail section with tail surfaces must be severed from the fuselage at a location obviously not an assembly joint; (b) the wings must be separated from the fuselage at any location by any method; and (c) the remainder of the fuselage must be severed into two pieces, within the area of attachment of the wings to the fuselage, at a location obviously not an assembly joint. Additionally, it must be noted that, in accordance with Article VI (6), (7) and (8), the strategic bombers concerned during their elimination process and upon the completion of their elimination process must remain visible to NTM of verification and be subject to on-site inspections ensuring their elimination.

Moreover, paragraph 9 of Article VI provides a specific process for the conversion of strategic bombers, which has as follows: (a) to convert a heavy bomber so that it is no longer equipped for long-range nuclear ALCMs, all weapons bays equipped to carry long-range nuclear ALCMs must be modified so as to render them incapable of carrying long-range nuclear ALCMs; and all external



attachment joints for long-range nuclear ALCMs and all external attachment joints for pylons for long-range nuclear ALCMs must be removed or modified so as to render them incapable of carrying long-range nuclear ALCMs; (b) to convert a heavy bomber so that it is no longer equipped for nuclear armaments, all weapons bays equipped to carry nuclear armaments must be modified so as to render them incapable of carrying nuclear armaments. In addition, all external attachment joints for nuclear armaments and all external attachment joints for pylons for nuclear armaments have to be modified or removed so as to render them incapable of carrying nuclear armaments. Moreover, it must be added that, in accordance with paragraph 13 of Article VI, upon the completion of the process for the conversion of heavy bombers, such converted bombers must not be flown, but must be moved directly to the viewing site at the conversion or elimination facility, where they will be inspected by on-site inspections.

Finally, Article IX of the Protocol of Conversion or Elimination provides procedures for elimination of facilities, which, in accordance with paragraph 2 of Article XII of the Inspection Protocol to the START I Treaty, include: ICBM bases; submarine bases; ICBM loading facilities; SLBM loading facilities; repair facilities for ICBMs, SLBMs, or mobile launchers of ICBMs; storage facilities for ICBMs, SLBMs, mobile launchers of ICBMs, heavy

bombers, or former heavy bombers; training facilities for ICBMs, SLBMs, or heavy bombers; conversion or elimination facilities for ICBMs, SLBMs, or mobile launchers of ICBMs; test ranges; air bases for heavy bombers; and air bases for former heavy bombers. The elimination process for these facilities is to be verified by close-out on-site inspections. Also, the elimination process of any other declared facility and the completion of such a process are to be verified by NTM of verification.

Based on the preceding analysis of the procedures and processes for the elimination and conversion of the US and Soviet strategic nuclear weapon systems that have to be reduced by the START I Treaty, it is obvious that the START I Treaty and its Protocol on Conversion or Elimination provide a specific legal regime which is designed to ensure through NTM of verification and on-site inspections that the elimination and conversion process of such strategic nuclear arms and delivery systems renders them inoperable and thus precludes their use for their strategic original purpose prohibited under the Treaty. Nevertheless, it must be observed that the elimination system of the START I Treaty does not mean the literal and complete elimination and destruction of the strategic nuclear weapons systems that have to be reduced under the terms of this Treaty. On the contrary, the Treaty's elimination system requires the technological dismantlement of these strategic

nuclear weapons and their delivery systems so that they become inoperable for the purposes prohibited under the Treaty.

Accordingly, it should be agreed that the parties have failed to agree on the complete destruction of their strategic nuclear warheads or the reuse of such nuclear warheads only for peaceful purposes. Thus, the parties may retain such nuclear warheads and they may reuse them on new nuclear weapon systems. Moreover, since the parties have primarily agreed to dismantle the delivery vehicles for their strategic nuclear weapons covered by the Treaty, the parties may retain their launchers, boosters and they may reuse them for new nuclear weapon systems not prohibited under the START I Treaty or for other purposes.<sup>431</sup>

### c. Analysis of the START I Treaty Verification Regime and System

For the purposes of ensuring the effective compliance of the parties with their legal obligations under the START I Treaty, the Treaty has established a legal regime and verification system which consists of NTM of verification and on-site inspections. The verification structure created by the START I Treaty has been based upon the verification system of the INF Treaty, which has ensured the successful and effective implementation of this Treaty by its parties with respect to the elimination of their INF nuclear missile systems. Indeed, the verification legal regime of the INF

Treaty, particularly in relation to on-site inspections, has provided both parties with the required legal experience and mutual trust showing that the implementation of their nuclear disarmament treaty arrangements is feasible and effective.<sup>432</sup>

Concerning the use of national technical means of verification by the parties to ensure their effective compliance with their legal obligations under the START I Treaty, Article IX of this Treaty provides each party with the right to use its own NTM of verification in a manner consistent with generally recognized principles of international law. Moreover, Article IX of the START I Treaty imposes upon the parties the legal obligation not to interfere with each other's national technical means used for the verification of the implementation of the Treaty. In particular, paragraph 3 of the above Article requires both parties not to use concealment measures that impede treaty verification. In this connection, it is of significance to note that, pursuant to the above paragraph of Article IX, the parties' legal obligation not to use concealment measures includes the obligation not to use such measures at test ranges, including measures that result in the concealment of ICBMs, SLBMs, mobile launchers of ICBMs or SLBMs and their launchers during testing.<sup>433</sup>

According to Article X of the START I Treaty, during each flight test of an ICBM or SLBM, the parties have undertaken the

legal obligation not to engage in any practice that denies full access to telemetric information during such ballistic missile flight tests. In particular, both parties have assumed the legal duty to broadcast telemetric information from test flights of ICBMs and SLBMs and not to engage in the use of encryption; in the use of jamming; broadcasting telemetric information from an ICBM or SLBM using narrow directional beaming, and encapsulation of telemetric information, including the use of ejectable capsules or recoverable reentry vehicles. In addition, the parties have agreed to exchange telemetry tapes, interpretive data, and acceleration profiles for every flight test of a ballistic missile. This issue is specifically regulated by the Protocol on Telemetric Information attached to the START I Treaty.<sup>434</sup>

Moreover, to reinforce and supplement the use of their NTM of verification of the Treaty, both parties have agreed to provide each other with data exchange and notifications on their strategic systems covered by the Treaty. In fact, before the signature of the Treaty, both sides exchanged data on numbers, locations, and the technical characteristics of START-accountable strategic nuclear weapon systems and facilities. Also, both parties have assumed the legal obligation under the Treaty to provide each other with regular notifications and data updates thereafter with respect to the above strategic nuclear weapon systems. It is also important to add that,

in order to enhance the effectiveness of their NTM used for the verification of their compliance with the Treaty, in accordance with Article XII of the Treaty each party must, if the other party makes a request pursuant to the Notification Protocol attached to this Treaty, carry out several cooperative measures, which, *inter alia*, include: (a) a display in the open of the road-mobile launchers of ICBMs located within restricted areas specified by the requesting party; (b) a display in the open of the rail-mobile launchers of ICBMs located at parking sites specified by the requesting party; and (c) a display in the open of all heavy bombers and former heavy bombers located within an air base specified by the requesting party.<sup>435</sup>

As far as the verification of the START I Treaty by on-site inspections is concerned, the Treaty has established a detailed legal system of such a dynamic form of on-site inspections capable of ensuring the effective compliance of the parties with their obligations under the START I Treaty. Specifically, in addition to Article XI of the Treaty that provides each party with the right to conduct on-site inspections and continuous monitoring activities for the purpose of ensuring verification of compliance with the provisions of this Treaty, the Protocol on Inspections and Continuous Monitoring Activities, which is attached to this Treaty and which is supplemented by twelve Annexes specifically regulating the conduct of on-

site inspections and continuous monitoring activities, provides a detailed and dynamic system of on-site inspections designed not only to ensure that both parties effectively comply with their treaty obligations, but also to ensure that both parties comply with the elimination process of their strategic nuclear weapon systems, which are to be reduced under the START I Treaty.

Based on a careful consideration of the verification regime of on-site inspections provided by Article XI of the START I Treaty, its Protocol on Inspections and Continuous Monitoring Activities and the Annexes attached to this Protocol, there are adopted 12 types of on-site inspections and exhibitions, including continuous monitoring at mobile ICBM final assembly facilities and other cooperative measures. In more specific terms, these on-site inspections are: (1) baseline data inspections; (2) data update inspections; (3) new facility inspections; (4) suspect site inspections; (5) reentry vehicle inspections, (6) post-exercise dispersal inspections; (7) conversion or elimination inspections; (8) close-out inspections; (9) formerly declared facility inspections; (10) technical characteristics exhibitions, (11) distinguishability exhibitions; and (12) heavy bomber baseline exhibitions.<sup>436</sup>

In order to carry out their on-site inspections and monitoring on each other's territory, both parties have agreed that such on-site inspections and continuous monitoring activities, for the purposes

of verifying the parties' compliance with the legal obligations under the START I Treaty, be conducted by their own inspectors and monitors on each other's territory. The list of inspectors must not contain at any one time more than 400 individuals, and the list of monitors must not contain at any one time more than 300 individuals. Additionally, it must be noted that in order to exercise their functions effectively for the purpose of implementing the START I Treaty, the inspectors and monitors, including their air crew members operating the airplanes for the transportation of the former, are accorded the required immunities and privileges.<sup>437</sup>

With respect to the verification technique of continuous monitoring, it should be explained that the START I Treaty establishes such a continuous monitoring at the perimeter and portals of each party's mobile ICBM assembly facilities. Pursuant to the Treaty, the United States has the right to establish two monitoring facilities in the Soviet Union, namely, one at Votkinsk, which is the final assembly facility for the SS-25, and the other at Pavlograd, which is the final assembly facility for the SS-24. Similarly, the Soviet Union has the right to monitor the Thiokol strategic operations facility at Promontory, Utah, which is the final assembly facility for the accountable stage of the MX ICBM. Such monitoring will also be established at any future US and Soviet facilities at which mobile ICBM assembly takes place.<sup>438</sup>



As far as the conduct of on-site inspections is concerned, it is important to note that under the START I Treaty the parties have agreed that each party has the right to carry out fifteen on-site inspections per year to update data-at any identified aircraft, submarine, or ballistic missile base or deployment area for mobile ICBMs—by which each side will be able to verify compliance with limits on numbers and physical properties. Moreover, the Treaty allows each party to carry out ten additional on-site inspections a year, which allow their inspectors to verify that the number of nuclear warheads deployed on their ballistic missiles does not exceed the treaty limits. These ten additional inspections will be done on short notice. Specifically, within nine hours of the time the inspectors arrive in the country under inspection they are to be transported to the base they select. Upon arrival, they will designate the missile to be inspected, which must remain buttoned up until the inspectors can look at it—and inspection must begin within eight hours. In essence, these “challenge” inspections add confidence that the provisions on warhead numbers and on downloading are obeyed by the parties. Also, these inspections guard against uploading warheads and swapping old types of ballistic missiles for new ones.<sup>439</sup>

In addition to the use of NTM and on-site inspections and continuous monitoring activities designed to verify the parties’ ef-

fective compliance with their legal obligations under the START I Treaty, it is also important to add that the Treaty, to promote its objectives and its effective implementation, by virtue of its Article XV requires the parties to establish a Joint Compliance and Inspection Commission. Both parties have agreed to meet, if either party so requests, within the framework of this Commission to: (a) resolve questions relating to compliance with the obligations assumed; (b) agree upon such additional measures as may be necessary to improve the viability and effectiveness of this Treaty; and (c) resolve questions related to the application of relevant provisions of this Treaty to a new kind of strategic offensive nuclear weapon. At this point, it should be noted that, according to the Protocol on the Joint Compliance and Inspection Commission attached to the START I Treaty, no later than 30 days after the signature of the Treaty, the above Commission must begin to meet the start implementing verification measures, such as the review of site diagrams and the details of the exchange of telemetry tapes.<sup>440</sup>

Furthermore, of relevant importance to the beginning of the process of the implementation of the START I Treaty soon after its signature is to note that, according to associated documents with the Treaty and before the Treaty enters into force by its ratification by both parties, the following actions are to take place: (a) lists of inspectors exchanged and approved; (b) exhibitions of strategic nu-

clear delivery vehicles (SNDV); (c) photographs of certain equipment exchanged; (d) engineering data provided to facilitate establishment of the continuous monitoring sites, and (e) telemetry, including demonstration of tapes and equipment, exchange of examples of interpretive data and acceleration profiles. Additionally, 120 days after the signature of the Treaty, both parties are obliged to cease encryption and jamming practices with respect to their strategic nuclear arms and systems covered by the Treaty. Also, at this point, it must be added that both parties have already carried out practice inspections.<sup>441</sup>

In addition to its verification system of NTM and on-site inspections adopted with the objective to ensure its effective implementation by its parties to further ensure the viability and effectiveness of the START I Treaty, pursuant to Article XVI of this Treaty, both parties are obliged not to assume any international obligations or undertakings that would be in conflict with its provisions. Also, both parties have agreed to hold consultations within the framework of the Joint Compliance and Inspection Commission in order to resolve any ambiguities that may arise in this regard. Furthermore, in the interest of the viability and effectiveness of this Treaty, by virtue of their First Agreed Statement attached to this Treaty, both parties have agreed not to transfer strategic offensive arms subject to the limitations of this Treaty to third states.

In view of the preceding legal analysis of the verification structure and system adopted by the START I Treaty with the objective to ensure the effective implementation of its provisions by the parties, it should be underlined that the Treaty's verification system consisting of the use of NTM of verification and on-site inspections constitutes a dynamic verification system which is capable of ensuring the effective compliance of the parties with their treaty legal obligations to reduce through the process of elimination or conversion those strategic offensive nuclear weapons covered by the Treaty. In addition to the recognition that the use of advanced NTM of verification possessed by both parties, such as satellite surveillance systems, ensures the effective implementation of the START I Treaty, the conduct of on-site inspections and continuous monitoring activities by the parties on each other's territories provides a dynamic verification system capable of guarding against violations of the Treaty by its parties. Moreover, it should be pointed out that the verification regime created by the START I Treaty, which has been essentially built on the verification system of the INF Treaty and its legal experience and success, is capable of ensuring not only the transparency of the parties to verification, but also the permission of particularly on-site inspections provides both parties with intrusive and dynamic verification means for the effective implementation of the START I Treaty.<sup>442</sup>

d. The Legal Impact of the START I Treaty on the  
US-Soviet Nuclear Disarmament Process

A legal evaluation of the impact of the START I Treaty on the US-Soviet bilateral nuclear disarmament process clearly shows that the START I Treaty constitutes a significant development to this end. Indeed, the fact that both parties are obliged to reduce through the process of elimination and conversion their lethal strategic offensive nuclear arms by approximately 7000 strategic nuclear warheads, which at the time of the signature of the Treaty had deployed a total of about 23,000 strategic nuclear warheads, leads to the conclusion that the START I Treaty requires a substantial reduction in the US-Soviet strategic nuclear arsenals. But, it should be observed that despite these reductions, both parties will still have deployed nearly 16,000 strategic nuclear warheads, which are more than enough to destroy not only themselves, but also the entire world community and its civilization many times over in the event of the eruption of a US-Soviet nuclear war exchange.<sup>443</sup>

Nevertheless, in view of the deflation of a direct and intentional nuclear war exchange between the two nuclear superpowers caused by the end of their Cold War, which, in turn, has greatly facilitated the legal process for the conclusion of the START I Treaty, the United States and the Soviet Union by virtue of this Treaty are

moving in the right direction of the legal process to reduce their strategic offensive nuclear weapon systems that have enabled them to have a first strike nuclear capability against each other. In essence, the START I Treaty is designed to serve the legal objective to enhance their mutual security against a first nuclear strike by reducing such strategic nuclear weapons in a gradual manner and through balanced reductions. Of course, at this point, it should be emphasized that the strategic nuclear weapons covered by the START I Treaty constitute the most destabilizing nuclear weapon systems in relation to the US-Soviet security against a first nuclear strike. Also, these strategic nuclear weapons, and particularly the land-based US-Soviet ICBM nuclear weapons present the principal threat to the survivability of each other's nuclear retaliatory deterrent.<sup>444</sup>

Furthermore, it must be noted that the verification structure and system incorporated into the START I Treaty constitutes a dynamic and innovative verification system which is capable of ensuring the effective implementation of this Treaty. Notwithstanding the recognition that verification of nuclear disarmament treaties cannot be absolute, it must be acknowledged that the legal regime of verification measures established by this Treaty does not only ensure its effective implementation by its parties, but also, in the event of the one party covertly violates its treaty obligations on a

scale and of a nature that could threaten the security of the other party by acquiring a significant strategic advantage to this end, the other party by virtue of the Treaty's verification system will be able to promptly discover such a violation.<sup>445</sup>

Moreover, it should be agreed that the international law created by the START I Treaty provides the required legal framework and background for the facilitation of the easier and quicker conclusion of further US-Soviet treaty arrangements requiring deeper reductions in their strategic nuclear arsenals, including also the total elimination of their nuclear arsenals. In the final analysis, it should be agreed that the international law created by the START I Treaty supports the legal argument forwarded by this study that, in view of the end of the Cold War which has deflated the mutual threat of nuclear war between the United States and the Soviets and which has established their cooperative and friendly relationship, in terms of international law, the total and comprehensive elimination of all types of American and Soviet nuclear weapons is both feasible and effective.

In spite of the recognition that the START I Treaty generally develops a positive legal impact on the US-Soviet process for their denuclearization, it is, however, of particular significance to underline that the START I Treaty has some shortcomings and negative elements, which can undermine its role in reversing the US-Soviet

nuclear arms race and its legal objective to reduce their strategic nuclear weapons to the extent this Treaty does, including its general legal impact on the US-Soviet denuclearization process. In more specific terms, as has been already discussed during the preceding analysis of the elimination and conversion of the strategic nuclear weapons covered by this Treaty, the START I Treaty has failed to impose the legal obligation upon its parties to proceed with the complete destruction of all launchers and all nuclear warheads belonging to the strategic nuclear weapons systems that are to be reduced under this Treaty, or, at least, require the parties to reuse such systems exclusively for peaceful purposes. Accordingly, both parties may reuse such launchers and nuclear warheads for developing the nuclear weapons systems which are not prohibited under the START I Treaty.<sup>446</sup>

Additionally, it is important to note that the Treaty requires reductions in the US and Soviet strategic nuclear weapons already deployed. Except the prohibition on the development and deployment of future mobile ICBMs, the Treaty has failed to impose a ban on the production and deployment of nuclear weapon systems under development at the time of the signature of this Treaty or newer ones to be developed in the future. Also, the Treaty has failed to prohibit the modernization of those US and Soviet strategic nuclear arms remaining after their reductions by virtue of this



Treaty.<sup>447</sup> As a result of these failures, by the time of the completion of the final stage of the elimination of the strategic nuclear weapons covered by the Treaty, namely, by the end of 1999, the structure of the US-Soviet strategic nuclear forces will comprise more sophisticated nuclear weapon systems.<sup>448</sup>

With respect to the duration of the START I Treaty, it should be noted that according to its Article XVII (2), the Treaty will remain in force for 15 years unless superseded by a subsequent agreement requiring deeper reductions in the US-Soviet strategic offensive nuclear arms. Thus, the START I Treaty will remain in force until the year 2007. Also, both parties, one year before the expiration of the 15-year period, must meet to consider the extension of the Treaty, which upon their relevant agreement can extend it for successive five-year periods if this Treaty is not superseded by a subsequent treaty further reducing the US-Soviet strategic nuclear forces.

During the duration of the START I Treaty, both parties have the right to amend it by their agreed amendments pursuant to its Article XVIII. Thus, the START I Treaty will remain. Article XVII (3) provides each party with the right to withdraw from the START I Treaty if it decides that extraordinary events related to the subject matter of this Treaty have jeopardized its supreme interests, provided that the withdrawing party gives a notice to that extent to

the other party six months before its final withdrawal, including a statement of the extraordinary events having jeopardized its supreme interests.

In connection with the above provision of the Treaty, it must be also added that the Soviet side by virtue of its statement of June 13, 1991, which has been attached to the START I Treaty, had stated that the START I Treaty may be effective and viable only under the conditions of compliance with the ABM Treaty of 1972. Also, this Soviet statement has added that the extraordinary events referred to in Article XVII (3) of the START I Treaty also include events related to withdrawal by one of the parties from the ABM Treaty, or related to its material breach. Thus, it is obvious that the Soviet side has linked the viability and success of the START I Treaty to the adherence of the United States to its legal obligations under the ABM Treaty, which prohibits the development, testing and the final deployment of the US SDI program in outer space.<sup>449</sup>

### C. The Bush-Yeltsin 1992-1993 Summitry and Its Impact on the US-Russian Denuclearization in the Post-Cold War Era

#### 1. The Bush Unilateral Nuclear Disarmament Initiatives and START II Proposals (January 28, 1992)

In September 1991, President Bush and President Gorbachev

announced unilateral measures for the withdrawal of mainly tactical nuclear weapons.<sup>450</sup> By the beginning of January 1992, the Soviet Union had legally and officially ceased to exist. Although Russia has emerged as a new nuclear superpower, Russia, nevertheless, is facing severe economic problems and its President Boris Yeltsin has demonstrated his willingness to be an ally and partner with the West and particularly with the United States. In view of this situation, President Bush, during his State of the Union address to the US Congress on January 28, 1992, announced a number of unilateral measures affecting US strategic nuclear weapon systems in the post-Cold War era, including proposals for further deeper reductions in the US and former Soviet strategic nuclear weapons in addition to those required by the START I Treaty.

In specific terms, President Bush announced that the United States would complete the acquisition of only 20 B-2 nuclear-capable strategic bombers although the Bush administration had previously decided to acquire a number of 75 of such strategic bombers. He further stated that his administration will cancel the Midgetman small ICBM program, including the ceasing of production of new strategic nuclear warheads for SLBMs which refers to the ceasing of production of the Trident II D5/W88 MIRVed SLBM. Furthermore, President Bush announced his decision to cease all new production of the MX (Peacekeeper) MIRVed ICBM and not to

acquire any additional advanced nuclear cruise missiles.<sup>451</sup>

In addition to these unilateral measures, President Bush made the following proposals on the reduction in the US strategic nuclear weapons: (1) The US would eliminate all of its MX ICBMs, which means that it would eliminate 500 strategic nuclear warheads; (2) The US would reduce the number of nuclear warheads on its Minuteman ICBMs to one, and this means that 500 strategic nuclear warheads would be eliminated; (3) The US would reduce the number of nuclear warheads on its SLBMs by approximately one-third, which means that the United States would reduce its current sea-based strategic nuclear weapons by more than 1300 nuclear warheads; and (4) The US would convert a substantial portion of its strategic bombers to primarily conventional military use. But President Bush pointed out that the United States would agree to make the above reductions in the US strategic nuclear weapons if the Russian President agreed to eliminate all former Soviet land-based multiple-warhead ICBMs.<sup>452</sup>

Of course, it is obvious that these Bush proposals on the reduction in US and former Soviet strategic nuclear weapons constituted proposals for the negotiation and conclusion of a START II Treaty. Their final adoption by such a treaty arrangement would mean that the US and the former Soviet strategic nuclear weapons would be reduced to approximately 5000 strategic nuclear war-

heads for each side in addition to those reductions required by the START Treaty. Such a legal development would mean the reduction of the US and former Soviet strategic nuclear arms by approximately 50% in addition to those required by the START I Treaty.<sup>453</sup>

2. The Yeltsin Response: His Unilateral Nuclear  
Disarmament Initiatives and START II Proposals  
(January 29, 1992)

Almost immediately after the announcement of the Bush proposals, the President of Russia, Boris Yeltsin, responded by announcing a number of initiatives and proposals, which can be considered more drastic than those proposed by President Bush. Specifically, President Yeltsin announced that Russia has taken off alert about 600 land and sea-based strategic nuclear missiles carrying a total of 1,250 nuclear warheads. In addition, Yeltsin stated that Russia is prepared to proceed with the elimination of 130 land-based ICBM silos, and that it has already halted programs for developing or modernizing several types of offensive strategic nuclear weapons.<sup>454</sup>

Furthermore, Yeltsin announced that he will halt the production of the TU-160 "Black Jack" and TU-95MS "Bear" heavy strategic bombers. Also, Russia will cease building long-range air and sea-based cruise nuclear missiles and it will not design new cruise

missiles and will destroy existing sea-based cruise nuclear missiles if the United States does the same. Moreover, Yeltsin stated that the launching systems aboard six submarines armed with nuclear missiles will be dismantled, and that Russia has cut by 50% the number of nuclear missile submarines on combat patrols and is prepared to stop such patrols altogether if the United States follows suit.<sup>455</sup>

With respect to the issue of further reductions in the Russian and the US strategic nuclear weapon arsenals in addition to those required by the START I Treaty, Yeltsin did not directly accept Bush's chief proposal, which called for elimination of all US and former Soviet land-based, multiple-warhead ICBMs. Nevertheless, the Russia President stated that he would propose to President Bush during their meeting in Washington on February 1, 1992 an overall proposal for strategic nuclear arms reductions. In this regard, Yeltsin stated that, in accordance with his overall proposal both the United States and Russia would be required to reduce their strategic nuclear weapons to just 2500 nuclear warheads for each side.<sup>456</sup> Of course, it is obvious that this Yeltsin proposal for a START II Treaty with the United States would be a very drastic measure for the sharp reduction of the US-Russian strategic nuclear weapons. It is also obvious that this Russian proposal was more far reaching than that proposed by Bush that would leave

each side with about 5000 strategic nuclear warheads.

Moreover, the Russian leader reiterated Russia's adherence to the 1972 ABM Treaty. However, Yeltsin announced that Russia is ready to develop, create and jointly operate a global defense security system with the United States against a ballistic nuclear attack, a system which can be based on the US SDI program. Although Yeltsin did not specify how such a system might work, he nevertheless made clear that such a system of global defense could only be deployed instead of the US SDI program aimed at building a space-based defense system under American control. In view of this Yeltsin proposal for a global defense system against a ballistic missile nuclear attack, it seems that Russia is in the process of making a substantial policy shift on ballistic missile defenses, which the former Soviet Union viewed as an effort by the United States to gain strategic advantage.<sup>457</sup>

Additionally, President Yeltsin pointed out that Russia and the United States should no longer target each other with nuclear missiles. To this end, Yeltsin announced that Russia would no longer target US cities and military targets with its ICBM nuclear missiles.<sup>458</sup> Initially, the United States had not reciprocated. But in 1994 Russia and the United States signed an agreement to that extent.<sup>459</sup> Also, Yeltsin renewed his proposal to the United States to join Russia in ceasing all underground nuclear weapon testing, a

significant step toward a US-Russian CTBT that the Bush administration has rejected. Moreover, the Russian President proposed the establishment of a new International Monitoring Agency (IMA) to monitor nuclear disarmament as well as the production of nuclear weapon materials. In the end, Yeltsin stated that Russia will immediately ratify the START I Treaty and will implement it within three years, rather than in seven years as required by the Treaty.<sup>460</sup>

### 3. The Yeltsin-Bush Moscow Summit Meeting (January 1993) and the Signature of the START II Treaty

#### a. A Legal Analysis of the START II Treaty and Its Objectives

After intensive negotiations, on January 3, 1993, during their Moscow summit meeting, Yeltsin and Bush signed the START II Treaty.<sup>461</sup> Although the United States has ratified the treaty, Russia has failed to do so. By virtue of this treaty both parties are required to make deeper reductions in their strategic nuclear arsenals in addition to those required by the START I Treaty of July 1991 signed between the former Soviet Union and the United States. In essence, it should be agreed that the START II Treaty constitutes a dynamic legal measure for the process of nuclear disarmament between the two nuclear military superpowers.<sup>462</sup>

In more specific terms, based on the START II Treaty, both



parties have undertaken the legal obligation to further reduce their strategic offensive nuclear arms in addition to those reductions required by the START I Treaty. Thus, upon the entry into force of the START II Treaty, the United States and Russia will proceed with the implementation of the legal terms of this Treaty in two stages. Specifically, in the first stage, namely, within the seven-year period following entry into force of the START II Treaty, and, of course, in combination with the ratification of the START I Treaty of 1991, both parties have assumed the legal obligation to reduce their strategic nuclear forces to no more than an overall total number of warheads for each between 3800 and 4,250 (as each nation shall determine) or such lower number as each nation shall decide. Assuming that the START II Treaty will be ratified by the parties in 1993, the complete implementation of the first phase of the reductions required by the START II Treaty will take place in 2000. Accordingly, by 2000 each party will have reduced its strategic nuclear offensive arms to an overall total number of no more than 4,250 strategic nuclear warheads. At this point, it should be noted that the reductions in strategic nuclear warheads during the first stage as required by the START II Treaty will affect the triad of the parties strategic nuclear forces.<sup>463</sup>

In accordance with the second stage of the implementation of the START II Treaty which will be completed no later than

January 1, 2003 (or by the end of the year 2000 if the United States can contribute to the financing of the destruction or elimination of strategic offensive arms in Russia), both parties will: (a) reduce the overall total number of their strategic offensive nuclear arms to no more than a number of nuclear warheads for each between 3000 and 3500 (as each nation shall determine) or such lower number as each nation shall decide; (b) eliminate all of their MIRVed ICBMs; and (c) reduce their SLBM warheads to between no more than 1700 to 1750 (as each nation shall determine).<sup>464</sup>

For the purpose of calculating the overall totals of strategic nuclear weapons on the basis of the reductions required by the START II Treaty, and particularly with respect to the calculation of strategic nuclear weapons carried by heavy (strategic) bombers, the START II Treaty provides the following procedures and measures: (a) The number of warheads for heavy bombers with nuclear roles will be the number of nuclear weapons which they are actually equipped to carry; and (b) Under agreed procedures, heavy bombers not to exceed 100 that were never equipped for long-range nuclear ALCMs and that are reoriented to conventional roles will not count against the overall total established by this agreement. Additionally, the START II Treaty provides that: (1) Such heavy bombers will be based separately from heavy bombers with nuclear roles; (2) No nuclear weapons will be located at bases for heavy

bombers with conventional roles; (3) Such aircraft and crews will not train or exercise for nuclear missions; and (4) Current inspection procedures already agreed on in the START I Treaty will help affirm that these bombers have conventional roles.<sup>465</sup>

With respect to the question of the verification of the effective implementation of the terms of the START II Treaty by its parties, the START II Treaty incorporates the verification procedures and means of NTM and on-sites inspections, which are already provided and described in detail by the START I Treaty.<sup>466</sup> It is of particular legal importance to note that the issue of the effective verification of the implementation of nuclear disarmament agreements between the United States and the former Soviet Union had in the past become a major legal obstacle which prevented both nuclear superpowers from proceeding with their denuclearization. Nevertheless, the end of the Cold War, the effective implementation of the INF Treaty, and the mutual trust and confidence building between the two nuclear superpowers, and above all their legal acceptance and openness to advanced national technical means of verification and particularly the adoption and permission of intrusive on-site inspections have marked an unprecedented legal breakthrough in the sphere of the effective verification of nuclear disarmament agreements between the two nuclear superpowers. In essence, the issue of the effective verification of nuclear disarmament agreements be-

tween the two nuclear superpowers is no longer a major legal obstacle to the denuclearization process between the United States and Russia in the post-Cold War era.

Of course, this conclusion can be safely supported by the fact that during the negotiation of the START II Treaty between the United States and Russia the issue of the effective verification of this Treaty did not even become the focus of contention between the two nuclear superpowers. In the final analysis, it should be agreed that the new international law of verification procedures consisting primarily of advanced NTM and intrusive on-site inspections, which has been developed by the nuclear disarmament treaty law-making of the two nuclear superpowers, clearly supports the legal argument that in terms of the new international law of nuclear disarmament not only a US-Russian total nuclear disarmament, but also a global and comprehensive nuclear disarmament is both legally possible and effective in the post-Cold War era.

Based on the legal terms and objectives of the START II Treaty, it should be pointed out that this Treaty, and in conjunction with the START I Treaty, constitutes a major legal breakthrough in the US-Russian legal process of denuclearization in the post-Cold War era. Even though the START II Treaty is separate from but builds upon the START I Treaty of 1991,<sup>467</sup> both treaties, assuming their entry into force by their prompt ratification by the parties,

will effect a dramatic reduction in the US-Russian strategic nuclear forces by the completion of their implementation by the end of the year 2003. While currently the United States possesses 11,602 strategic nuclear warheads, and Russia (including the strategic nuclear warheads deployed in the former Soviet Republics of Ukraine, Kazakhstan and Belarus) possesses a total of 10,877 strategic nuclear warheads, after the implementation of the START I Treaty, the United States will be left with 8,592 strategic nuclear weapons and Russia with 8,592 strategic nuclear weapons.<sup>468</sup> By the end of the year 2003 when the final phase of the implementation of the START II Treaty will take place, the United States and Russia will each possess no more than an overall total number of 3,500 strategic nuclear weapons.<sup>469</sup>

In terms of how the START II Treaty will reduce the triad of both nuclear superpowers', the START II Treaty by the time of the completion of its implementation in the year 2003 will eliminate all multiple-warhead and land-based ICBMs on both sides. In specific terms, this means that Russia will eliminate its SS-18 and SS-24 land-based multiple-warhead ICBMs. Also, the United States will eliminate its MX and Minuteman II land-based ICBMs. Moreover, the United States by the end of the year 2003 will have downloaded its 500 Minuteman III land-based ICBMs from three strategic nuclear warheads each to one each. Similarly, Russia by the end of

the year 2003 will be only left with a total number of 500 single-warhead land-based mobile SS-25 ICBMs.<sup>470</sup>

In addition to those reductions required by the START II Treaty in both parties' air-based ICBMs and their strategic bombers, the Treaty requires the United States and Russia to reduce their respective sea-based ICBMs. Based on the legal terms of this Treaty, Russia will be left with a total of 1744 submarine-launched ICBMs. Also, the United States will be left with only 1728 submarine-launched ICBMs. Thus, the United States by virtue of the START II Treaty will reduce by 50% its overall total of sea-based ICBMs and it will further reduce its D-5 Trident submarine-launched strategic missiles from eight warheads to four.<sup>471</sup>

b. The Impact of the START II Treaty on the US-Russian Denuclearization Legal Process

Based on the preceding legal analysis of the START II Treaty with respect to its legal objectives and its reductions in the US-Russian strategic nuclear weapon arsenals, it must be underlined that the START II Treaty in combination with the START I Treaty of 1991 constitutes a significant legal measure on the US-Russian bilateral nuclear disarmament process under the rule of international law for the post-Cold War era. Indeed, the fact that the two nuclear superpowers by virtue of the START II Treaty in combination with the START I Treaty will each be left with a total number

of no more than 3500 strategic nuclear warheads by the year 2003, this means that both the United States and Russia will reduce their current strategic offensive nuclear arms by approximately 60%. Of course, this reduction and elimination of the US-Russian strategic nuclear weapon arsenals clearly constitutes an unprecedented and dynamically drastic legal breakthrough in their bilateral nuclear disarmament process by the beginning of the post-Cold War era.

Furthermore, a critical legal evaluation of the legal impact of the START II Treaty on the nuclear disarmament process between the two nuclear superpowers clearly leads to the conclusion that by the end of the Cold War and by the beginning of the new post-Cold War era both former nuclear rivals, whose constant nuclear competition and confrontation had brought the entire world community to the brink of its nuclear annihilation, have entered a new era of their denuclearization under the rule of international law. This significant legal development clearly shows that the evolving new Russo-American legal relationship in the sphere of their drastic nuclear disarmament and de-escalation does not only further diminish the threat of a superpower nuclear war exchange, but also exercises a positive impact on the prospects of enhancing world peace and security against the threat of a global nuclear holocaust in the post-Cold War era.

Notwithstanding the recognition that the START II Treaty will effect deep and drastic reductions in both nuclear superpowers' triad of strategic offensive nuclear arms, namely, their land-based, air-based and sea-based strategic nuclear weapons, it should be of particular legal importance that the START II Treaty requires both parties to eliminate all of their land-based (silo-based) multiple-warhead ICBMs. Indeed, as has been already discussed during the legal analysis of the content and terms of the START II Treaty, by the year 2003 when this Treaty will be completed in terms of its implementation all American and Russian land-based (silo-based) multiple warhead and MIRVed ICBMs will be eliminated. As a result of the elimination of their land-based multiple warhead MIRVed ICBMs, both Russia and the United States will each be left with a total number of 500 single-warhead land-based and mobile ICBMs.

Moreover, it must be noted that the elimination of all US-Russian land-based multiple warhead MIRVed ICBMs by virtue of the START II Treaty constitutes an unprecedented legal breakthrough and development in the denuclearization process of the two nuclear superpowers in the post-Cold War era. At this point, it is of particular importance to underline that these strategic nuclear weapons have constituted the backbone of both nuclear superpowers' strategic offensive nuclear arms in their respective strategic



nuclear weapon arsenals. In fact, these strategic nuclear weapon systems are most accurate, sophisticated and destructive nuclear weapons which have been designed by both nuclear superpowers to serve the purpose of initiating a pre-emptive first strike against each other in the scenario of a superpower nuclear war conflict.<sup>472</sup> Accordingly, the elimination of all US-Russian land-based (silo-based) multiple warhead MIRVed ICBMs by virtue of the START II Treaty does not only drastically reduce the backbone of both nuclear superpowers' strategic nuclear forces, but also the elimination of such strategic nuclear forces will radically reduce the possibility of a superpower nuclear war conflict in the future regardless of who is in power in the Kremlin or Washington since Russia and the United States will be deprived of the strategic nuclear arms to launch a pre-emptive first strike against each other.<sup>473</sup>

Despite the fact that the START II Treaty exercises a positive legal impact on the reduction of the two nuclear superpowers' strategic nuclear arsenals, and despite the recognition that this Treaty will further reduce the threat of a superpower nuclear war conflict in the post-Cold War era, it must be pointed out that even after the effective and complete implementation of the START II Treaty by the year 2003, both Russia and the United States will each still have in their possession approximately 3000 to 3500 strategic nuclear weapons. Thus, Russia and the United States will

be left with a combined total number of about 6000 to 7000 strategic nuclear weapons at the beginning of the 21st century.

While it should be agreed that a nuclear war conflict between Russia and the United States in the post-Cold War era at least as a political issue appears to be remote, it must be, nevertheless, noted that still the possibility of a nuclear war exchange between the two nuclear superpowers as a strictly technical military issue remains even though it has been significantly reduced. In spite of the end of the Cold War and the evolving political cooperation and partnership between Russia and the United States, it cannot be precluded that uncertain and unforeseeable regional and international crises and most importantly leadership changes in Russia might again bring Russia and the United States to a collision course in the future. If such a renewed Russian and American collision course evolves to a new nuclear confrontation in the future, both Russia and the United States in the scenario of a nuclear war conflict between themselves will have several thousands of strategic nuclear warheads to destroy each other and the entire world community many times over.

Moreover, it must be added that although President Yeltsin proposed to President Bush to eliminate all of the Russian and American land-based and submarine-based strategic nuclear weapons by the conclusion of the START II Treaty, President Bush

rejected this dynamic Russian proposal. Additionally, it should be noted that the START II Treaty fails to prohibit both parties from developing new types of more advanced and sophisticated strategic nuclear weapons in the future.<sup>474</sup>

But, in spite of these failures of the Treaty, there should be agreement that the START II Treaty constitutes a major nuclear disarmament treaty arrangement between the two nuclear superpowers. In particular, the conclusion of this Treaty and its positive impact on the US-Russian bilateral legal process for the denuclearization in the post-Cold War era clearly shows that the new international law of nuclear disarmament has become a significantly valuable instrument and a positive force which can ensure that a US-Russian total and comprehensive nuclear disarmament can be both possible and effective in terms of international law in the post-Cold War era.

#### D. The Yeltsin-Clinton Summitry and the Continuation of the US-Russian Nuclear Disarmament Process (1993-1997)

##### 1. The Yeltsin-Clinton Moscow Summit (January 1994) and Its Results

President Bill Clinton, the successor to former President Bush, has been actively involved in the continuation of the nuclear disarmament process between the United States and the former

Soviet Union since he took office in January 1993. Additionally, the Clinton administration has focused its efforts on building more confidence measures and developing a new partnership for peace with Russia and the other former Soviet republics, including the former Warsaw Pact member states in the context of the NATO military organization.<sup>475</sup>

During their Moscow summit meeting in mid-January 1994, President Yeltsin and President Clinton issued a bilateral statement, which is known as the Moscow Declaration. Based on the Moscow Declaration, both parties agreed to de-target the strategic nuclear missiles from aiming at each other and target them at open ocean areas. Of course, the Moscow Declaration constitutes a significant legal measure because for the first time since the dawn of the nuclear age and the eruption of the Cold War the United States and Russia will not operate their strategic nuclear forces in a manner targeting each other as adversaries. At this point, it should be noted that the two nuclear superpowers are able by using their computer technology to re-target each other with their nuclear missiles within minutes in the event of a US-Russian nuclear confrontation. Nevertheless, the Moscow Declaration constitutes a positive legal step in the direction of removing the threat of a US-Russian nuclear confrontation with global devastation. Additionally, the Moscow Declaration greatly assists in strengthen-

ing further the peaceful cooperation and existence between the two nuclear superpowers.<sup>476</sup>

Moreover, during their Moscow summit meeting, both President Clinton and Yeltsin agreed to a nuclear testing moratorium and they called the other nuclear powers to refrain from carrying out underground nuclear explosions. They also called for the negotiation and conclusion of a CTBT preferably by March 1995 when the conference for the review and extension of the NPT would begin. Although the United States, Russia, France and Britain had accepted a moratorium on nuclear testing, in October 1993 China conducted an underground nuclear test.<sup>477</sup>

It is also important to add that during the Yeltsin-Clinton Moscow summit meeting, both parties began to negotiate an accord which would permit the United States and Russia to conduct on-site inspections on each other's storage facilities where they keep the plutonium triggers from dismantled nuclear warheads. Such an accord would assist both nuclear superpowers in calculating how much plutonium had been removed from their dismantled warheads in the process for the reduction of their nuclear arsenals. Finally, this accord was completed and signed in March 1994. This accord could represent the beginning of a new international control regime over plutonium, which is the basic building block of nuclear weapons.<sup>478</sup>

Furthermore, during the Moscow summit meeting in January 1994, Russia, the United States and Ukraine, and in conformity with the Lisbon Protocol of May 1992, signed a trilateral agreement. By virtue of this agreement, Russia, the United States and Ukraine agreed that Ukraine will transfer all of its nuclear weapons to Russia, at least within seven years and as quickly as three years to undertake legal obligation to be a nuclear-weapons-free state. After the Moscow summit, the Ukraine Parliament ratified the START I Treaty and Ukraine acceded to the NPT. Similarly, the former Soviet Republics of Belarus and Kazakhstan have already ratified the START Treaty and have joined the NPT. Also, Belarus and Kazakhstan have already agreed to transfer all of their nuclear weapons to Russia. Thus, Russia has become the sole heir to the former Soviet nuclear weapons, and thus a superpower. Additionally, Russia has stated that it has also become the legal successor to the former Soviet Union's obligations and rights under international arms control and disarmament agreements.<sup>479</sup>

## 2. The Yeltsin-Clinton Moscow Summit (April 1996)

The Moscow summit meetings between President Yeltsin and President Clinton in April 1996 did not produce any results in the field of further nuclear arms reductions between the two superpowers. On the contrary, this summit, and with the participation of the other members of the Group of Seven, dealt primarily with is-

sues involving the nonproliferation of nuclear material. At the summit, the participants reached a common understanding on nuclear material accounting and control, and on the physical protection of nuclear material. To this end, the participants called for the urgent ratification by all states of the Convention on the Physical Protection of Nuclear Material. Moreover, the participants agreed on several measures to combat the illegal trafficking of nuclear material, and they endorsed various measures related to the production, storage, and disposal of weapon-based fissile material.<sup>480</sup>

#### E. The Legal Dynamics and Prospects for a US-Russian Total Nuclear Disarmament in the Post-Cold War Era

##### 1. The End of the Cold War and the 1986-1997 US-Russian Nuclear Disarmament Process

Due to their Cold War relations, their unrelentless nuclear arms race and their constant nuclear confrontation, by 1985 the two nuclear superpowers had placed in their possession more than 50,000 nuclear weapons. Of course, it is for the first time in the history of mankind that two nations possessed so much explosive nuclear power capable of not only destroying themselves, but also the entire planet and human civilization many times over in the event of a nuclear war conflict between themselves. In particular, the US-Soviet uncontrolled nuclear arms race and competition, and their

constant nuclear confrontation had placed them on an inevitable collision course and had brought the entire world community to the brink of nuclear annihilation. In view of the superpowers' nuclear predicament, many experts, including the renowned Sovietologist, George Kennan, the architect of the Cold War containment American doctrine, had clearly expressed the fear that the deepening of the confrontation between the two nuclear superpowers was leading to a global thermonuclear war.<sup>481</sup>

Although in the pre-1985 period both nuclear superpowers were deeply involved in their unrelentless nuclear arms race and competition, it is worthwhile to note that during that period the United States and the Soviet Union, in order to control and manage their nuclear behavior and adversarial relationship and most importantly to maintain their nuclear peace, resorted to the instrumental value of international law by developing and adopting the bilateral legal model of nuclear arms control. Notwithstanding the recognition that this nuclear arms control legal model and approach has played a positive role in the management of their constant nuclear confrontation and might have prevented their nuclear conflict, the nuclear arms control model adopted by the two nuclear superpowers during the Cold War years apparently failed to promote the legal concept of nuclear disarmament and thus materialize its legal objectives. As a result, by 1985 both nuclear superpow-



ers had built more nuclear weapons with more sophisticated and destructive capabilities. In conclusion, by 1985 both the United States and the Soviet Union had failed to eliminate even one single nuclear warhead from their vast nuclear weapon arsenals. This failure clearly shows that nuclear arms control is not nuclear disarmament.

But Mikhail Gorbachev's rise to Soviet power in 1985 set the central stage for changing not only the Soviet Union itself and the Soviet bloc, but also for changing the bipolar world system and its dangerous and regressive political and military rules upon which the East-West political, ideological and nuclear military confrontation were based and conducted since the eruption of the Cold War and the beginning of the superpowers' nuclear arms race and rivalry. Particularly with respect to the issue of the American and Soviet nuclear arms race and constant nuclear confrontation, Gorbachev managed to begin the US-Soviet nuclear disarmament process by the signature of the INF and the START I and II Treaties. In addition, Gorbachev, by his 1986 proposal for the Year 2000 global nuclear disarmament obviously showed his determination to create a nuclear weapons free world by the end of this century.

In addition to the positive impact of the INF and START Treaties on the elimination of the US-Soviet nuclear weapons

covered by these Treaties, which is, of course, an unprecedented legal development in their entire history of nuclear arms control, it must also be pointed out that these treaty arrangements have created a dynamic new international law of nuclear disarmament, which clearly shows that a US-Soviet nuclear disarmament is both feasible and legally effective. In the final analysis, it must be recognized that the legal adoption of intrusive verification measures and procedures involving advanced and sophisticated available NTM and especially on-site inspections, has created a dynamic international verification legal system which ensures the effective implementation of nuclear disarmament treaties between the two nuclear superpowers.

While during the Gorbachev era the US-Soviet nuclear disarmament legal process had begun, the dissolution of the Soviet Union and the end of Soviet communism by the end of December 1991 inherited to the newly formed Commonwealth of Independent States a vast nuclear weapon arsenal of approximately 27,000 strategic and tactical nuclear warheads. Of course, the disintegration of the former Soviet Union as a nuclear superpower has raised significant questions as to the safety and control of the former Soviet nuclear weapons against the potential danger of the unauthorized possession and use of such weapons, including also the illegitimate transfer of former Soviet nuclear weapons to third states

involved in the effort to acquire nuclear weapon capabilities. In addition, the disintegration of the Soviet Union has raised crucial questions of the illegitimate and clandestine transfer of former Soviet nuclear weapons grade materials and technologies to third nuclear proliferant states, including the potential immigration of former Soviet nuclear scientists to such states to work on their nuclear weapons programs.

Nevertheless, these problems which are of apparent international concern, seem to have been insofar responsibly handled by the CIS. In particular, the fact that Russia has become the sole heir of the former Soviet Union in the nuclear field and the control of the former Soviet nuclear weapons, and the fact that the Republics of Belarus, Ukraine and Kazakhstan have agreed to transfer all nuclear weapons deployed in their respective territories to Russia and which have acceded to the NPT, all these developments clearly show that Russia as the sole successor to the former Soviet nuclear arsenal has become a new nuclear superpower. However, the Russian President, Boris Yeltsin, by his January 1992 nuclear disarmament unilateral initiatives and proposals, has already demonstrated his determination to continue Gorbachev's legacy for a US-Russian nuclear disarmament process in the post-Cold War era.

In particular, the January 1992 Yeltsin-Bush unilateral initiatives and measures for making further reductions and elimina-

tions in their nuclear weapon arsenals, and also the Bush-Yeltsin Camp David meeting in February 1992 by which the two leaders declared the establishment of a new political partnership and alliance between the two nuclear superpowers in the post-Cold War era clearly show the political willingness of the two nations for their nuclear de-escalation and disengagement in the emerging new post-Cold War era. In conclusion, it should be emphasized that this evolving unique and dynamic Russo-American political relationship provides the required strategic legal environment for the elimination of all US-Russian nuclear weapons through the rule of international law in the post-Cold War period.

But, above all, the START II Treaty, signed between Russia and the United States in January 1993, in combination with the START I Treaty, signed between the former Soviet Union and the United States in July 1991, clearly shows that both nuclear superpowers have entered a new dynamic era of their drastic denuclearization in the emerging new post-Cold War period. Indeed, the fact that both Russia and the United States by virtue of the START I Treaty and the START II Treaty are obliged to reduce through the process of elimination their strategic nuclear weapon arsenals to no more than a total of 3500 strategic nuclear warheads by the year 2003 leaves no doubt that the two nuclear superpowers are legally committed to a dynamic legal process under the rule of interna-

tional law for the drastic reduction and elimination of their vast nuclear weapons arsenals.

Furthermore, it should be added that in general legal terms the INF Treaty of 1987 whose effective implementation has already eliminated all of the US-Soviet INF nuclear weapons on a global basis, the recent Soviet-American unilateral initiatives and measures for making deep reductions and eliminations in their tactical nuclear weapon arsenals, and the signature of the START I Treaty and the START II Treaty respectively in 1991 and in 1993 lead to the conclusion that this bilateral treaty lawmaking between the two nuclear superpowers has created a dynamic body of international law designed to effect deep nuclear weapon reductions in the superpowers' vast nuclear weapon arsenals. In particular, the fact that both nuclear superpowers have undertaken the legal obligation under the START I and START II Treaties to reduce their current total of approximately 20,000 strategic nuclear warheads to no more than a total of 3500 for each side by the year 2003, and the fact that pursuant to the START II Treaty both Russia and the United States are legally obliged to eliminate all of their land-based (silo-based) MIRVed multiple warhead strategic nuclear missiles by the year 2003 clearly show that these treaty arrangements constitute dynamic legal measures of enormous positive effect in the superpower denuclearization process in the post-Cold

War era.

Furthermore, it must be added the evolving Russo-American new nuclear relationship, political alliance and partnership for the post-Cold War era has created a new dynamic strategic and legal environment between the two nuclear superpowers in relation to their bilateral strategic nuclear postures. In more analytical terms, the superpowers' constant nuclear confrontation during the Cold War years no longer exists, and the legal process for their nuclear de-escalation and disengagement, including their nuclear building down, has already begun. To this extent, it is of significant importance to underline that Russia under the leadership of President Yeltsin has officially declared that the United States and generally the Western military and nuclear establishment are no longer considered enemies by Russia. In conformity with this new Russian strategic posture and attitude towards the West, President Yeltsin has already stated that Russian strategic nuclear forces will no longer target military and civilian targets in the United States and in Western Europe. To this end, Russia and the United States have agreed not to target each other with their strategic nuclear weapons. This constitutes a significant legal development in the removal of the constant fear of nuclear confrontation and exchange between the two superpowers.

In spite of the legal recognition of the impact of the START I

Treaty and the START II Treaty, including the other US-Russian unilateral nuclear disarmament measures, on the drastic nuclear disarmament process between the two nuclear superpowers and generally their impact on the strengthening of world peace and security against a thermonuclear war in the post-Cold War world, it must be pointed out that by year 2003, when the implementation of the START II Treaty will be finally completed, both Russia and the United States, unless in the mid-time they have agreed on further reductions in their nuclear weapon forces, will be each left with no more than a total of 3500 strategic nuclear warheads and significant numbers of tactical nuclear weapons. In pure strategic and military terms, this will mean that by the beginning of the 21st century the United States and Russia will be in the possession of such a number of nuclear weapons, which are more than enough to cause a human holocaust in the event of the use of such nuclear weapons.

Although it should be agreed that a direct and intentional nuclear war conflict between Russia and the United States will no longer exist in the post-Cold War era, it must be underlined that unforeseeable and uncertain regional and global developments in the future might cause the creation of crises and conflicts, which, in turn, will result in a new nuclear confrontation and possible nuclear war conflict. In fact, the continued existence of nuclear

weapons in the post-Cold War world will always raise the possibility of the use of such weapons of mass destruction, since the very existence of such weapons inherently includes the potential danger of their military use. Therefore, it can be safely concluded that until the last nuclear weapon has been effectively eliminated, and until a fully and effectively nuclear weapon disarmed post-Cold War world has been achieved through the rule of international law, the possibility will continue to exist in the post-Cold War era and in the 21st century.

## 2. The Legal Dynamics and Prospects for a US-Russian Total Nuclear Disarmament In the Post-Cold War Era

In view of the end of the Cold War, the evolving US-Russian political relationship, partnership and alliance, and generally in view of the emerging global détente and integration, there exists a unique strategic environment and the most fundamental legal dynamics for an effective and comprehensive settlement of the issue of nuclear weapons disarmament not only between the two nuclear superpowers, but also on a global basis. In addition to valid political, military and economic arguments for a US-Russian and generally for a total and global nuclear disarmament in the post-Cold War period, the new international law of nuclear disarmament, which has been developed by bilateral and multilateral treaty arrangements to that extent, ensures that a US-Russian and a total



and comprehensive global nuclear disarmament is both feasible and effective in the post-Cold War era. In fact, the new international legal system of verification procedures can ensure effective nuclear disarmament.

But before proceeding with a legal analysis and exploration of the existing legal dynamics and future prospects for a total and comprehensive Russo-American nuclear disarmament, it is of particular importance to analyze the new strategic and military nuclear planning of both Russia and the United States for the post-Cold War era. Based on the present military nuclear formulation and planning of the two nuclear superpowers for the 1990s and, perhaps, for the 21st century, and in view of their nuclear arms reductions to be effected by the START I Treaty, the START II Treaty and their unilateral nuclear disarmament measures on their tactical nuclear weapon forces, it can be safely concluded that both nuclear superpowers have entered a new era of drastic nuclear weapon reductions. Moreover, both the United States and Russia, as a result of the end of their Cold War conflict and nuclear arms race competition, have moved from their Cold War offensive strategic nuclear posture against each other to a new strategic military nuclear posture of defensive nuclear strategies against the eruption of nuclear war.

In more specific terms, and as far as the new strategic mili-

tary nuclear planning of the United States for the post-Cold War era is concerned, it can be stated that the United States is presently formulating and planning its new nuclear strategy for the post-Cold War period. The new American nuclear strategy and posture will be basically underlined by the new nuclear doctrine of minimum nuclear deterrence capability.<sup>482</sup> Thus, the United States in view of the disintegration of the former Soviet Union and in view of its evolving political partnership and alliance with Russia, will substitute its Cold War nuclear doctrine of strategic superiority and overkill nuclear capabilities against the former Soviet Union with its new strategic nuclear doctrine of minimum nuclear deterrence capability for the post-Cold War world.

The Bush administration and, in particular, the former Secretary of Defense, Richard Cheney, who was the main architect of America's new strategic nuclear doctrine of minimum nuclear deterrence capability for the 1990s and the 21st century, had pointed out that America's minimum nuclear deterrence capability for the post-Cold War era will be absolutely irreducible because it is required to defend the United States.<sup>483</sup> However, the Bush administration had avoided stating the approximate number of the required strategic nuclear forces to serve the objectives of the new American strategic nuclear doctrine of minimum nuclear deterrence capability.

But, in order to find out the approximate number of strategic nuclear forces that would be needed to meet the objectives of minimum nuclear deterrence capability in the post-Cold War era, and after having taken into account the reductions in US nuclear forces required by the START I and START II Treaties by the year 2003, it has been estimated that by the year 2010 the current total number of approximately 20,000 nuclear warheads will be reduced approximately to a total number of 2000 nuclear warheads. At this point, it should be noted that the Bush administration in February 1991, projecting about 85% reduction in the current US nuclear weapon arsenal by the 2010, instructed the US Department of Energy to substantially shrink America's nuclear bomb-building complex to a capability of providing fissile material for 3000 nuclear warheads in the post-Cold War era.<sup>484</sup> An overview of President Clinton's nuclear strategy in the post-Cold War era appears to be consistent with that of Bush.<sup>485</sup>

As far as Russia's new nuclear strategy for the post-Cold War era is concerned, it should be noted that Russia, which has emerged as a global nuclear superpower since the end of the former Soviet Union, is presently formulating its own strategic nuclear doctrine and posture for the post-Cold War years. The new Russian strategic nuclear doctrine for the post-Soviet and post-Cold War world will be based on the doctrine of minimum nuclear sufficiency. In order

to meet the objectives of its minimum nuclear sufficiency doctrine for the post-Cold War era, the Yeltsin administration is prepared to retain approximately 2000 strategic nuclear warheads, including also some tactical nuclear weapons. Furthermore, it must be added that President Yeltsin has assured the Russian military complex and apparatus that Russia's nuclear doctrine of minimum nuclear sufficiency will not undermine the security of Russia and the CIS in general in the post-Cold War era.<sup>486</sup>

Based on the preceding analysis of the new American and Russian strategic nuclear military planning for the 1990s and the 21st century, it should be obvious that both the United States and Russia, even after the final implementation of the START II Treaty by the year 2003 and unless they have agreed to deeper reductions in their nuclear forces in the interim, will each possess approximately 2000 strategic nuclear warheads. Despite the drastic reductions in their current nuclear weapon arsenals, it seems that after the year 2003 both Russia and the United States will continue to maintain their status as nuclear superpowers since they will be in the possession of a combined total number of approximately 4000 strategic nuclear weapons.

Based on the new strategic nuclear doctrines of minimum nuclear deterrence or minimum nuclear sufficiency presently formulated by the United States and Russia in the nuclear military field

in the post-Cold War era, it can be safely concluded that both the United States and Russia are determined to retain significant numbers of nuclear weapons for the purpose of their nuclear deterrence strategies in the post-Cold War era. Thus, it seems highly unlikely that the United States and Russia would accept a total and comprehensive elimination of their nuclear weapons in the post-Cold War world. At this point, it must be noted that neither the United States nor Russia have even mentioned the likelihood of their total denuclearization in the post-Cold War era, unlike the former Soviet President, Mikhail Gorbachev, who had proposed a global nuclear disarmament by the year 2000.

In particular, the military-industrial complex of the United States remains still a powerful force that has managed to maintain a Cold War military planning and budget for at least the 1990s. Indeed, the US military spending for the 1990s will clearly reflect a Cold War military planning designed to maintain large nuclear and conventional military forces for at least the 1990s. In this respect, it should be noted that by the year 1997 US military spending will be approximately 250 billion dollars per year. In turn, this means that the American military spending by the end of this century will still be reflective of a regressive Cold War military structure in the post-Cold War era unless drastic political changes and military building down restructuring are undertaken in this regard.

Additionally, it must be pointed out that although the United States is left virtually with no strategic enemy in the post-Cold War era, the American industrial and military complex and establishment for its own narrow economic interests of various aspects has already begun the campaign for creating new scare tactics and fears to the American public for the post-Cold War era. To this end, the American military-industrial complex argues that, although the potential danger of a global thermonuclear war with Russia has been essentially eliminated, the future threat to the United States' national security interests will be posed by particularly the horizontal proliferation of nuclear weapons and ballistic missile capabilities to third world countries, including regional conflicts. Moreover, it is presently reported that the United States, in addition to its determination to remain the sole military superpower in the entire world in the 21st century, is also determined to seek to prevent the emergence of new superpowers or even regional powers in any part of the globe in the post-Cold War years.<sup>487</sup>

Accordingly, it may be suggested that this new strategic planning of the United States in the post-Cold War era might be causative of a new kind of a post-Cold War phenomenon. In particular, any effort of the United States to impose on the members of the world community a new form of a global Pax Americana in the post-Cold War years will be disruptive of any future effort for world

integration and will also be counterproductive in the area of strengthening world peace and security. In any case, it should be emphasized that any attempt of the United States to rule the post-Cold War world by its nuclear military might and arrogance will not be productive and will cause the chain reaction of a post-Cold War multi-dimensional and multi-level rivalry with other emerging global powers, such as Germany, Japan and China, including, of course, Russia, which is already a nuclear superpower.

On the other hand, and by necessary implication, Russia cannot possibly accept its own unilateral nuclear disarmament in the post-Cold War era while the United States will not follow suit. Although Russia has every economic interest in the reduction of its nuclear forces and in the drastic building down of its conventional military forces, it will be, nevertheless, difficult to envision Russia in the post-Cold War era to have accepted any legal arrangement on its denuclearization while particularly the United States will continue to remain a nuclear superpower in the post-Cold War world. In this context, it is of particular importance to underline that already the Russian military apparatus and complex has pointed out that Russia as a great power cannot afford not to have strategic nuclear weapons, and that Russia cannot accept its unilateral nuclear disarmament in the post-Cold War era if the United States does not follow suit.<sup>488</sup>

In view of the preceding analysis, it can safely be suggested that both the United States and Russia as the world's nuclear superpowers are determined to retain sufficient nuclear forces in the post-Cold War era for the purposes of serving the objectives of their new strategic nuclear doctrines of minimum nuclear deterrence in the post-Cold War world. Despite the fact that the end of the Cold War, the emerging global *dé tentione* and the new international law of nuclear disarmament provide both the required strategic political environment and impetus and the legal dynamics not only for a total US-Russian nuclear disarmament, but also for a global and comprehensive nuclear disarmament, neither the United States nor Russia has introduced a dynamic strategic legal plan to this end.

A further analysis of the emerging political and legal debate over the question of a total and comprehensive Russo-American nuclear disarmament in the post-Cold War era reveals the existence of diametrically opposite views and approaches to this issue. More concretely, the opponents of a US-Russian total nuclear disarmament, despite the fact that they favor drastic reductions in the US-Russian nuclear weapon stockpiles in the post-Cold War era, argue that the retention of some 500 to 1000 nuclear warheads by each side will serve the military objectives of the new US-Russian strategic doctrines of minimum nuclear deterrence and sufficiency, which are designed to prevent the eruption of a nuclear or even a



conventional war on a large scale in the post-Cold War years.<sup>489</sup>

Accordingly, it can be concluded that the proponents for the permanent retention of minimum nuclear forces, some 500 to 1000 nuclear warheads, by the United States and Russia for the purposes of minimum nuclear deterrence in the post-Cold War era, accept this new strategic nuclear doctrine as an appropriate lesser evil. They also seem to accept the notion that the world community could live with nuclear weapons in the future post-Cold War world. In the final analysis, it should be emphasized that since the opponents to a US-Russian total nuclear disarmament support the permanent retention by the two nuclear superpowers of very low levels of nuclear forces, they reject the juridical concept and legal goal of a total and comprehensive US-Russian nuclear disarmament. In particular, they maintain that such a legal goal would not enhance strategic stability and would not prevent any potential threat to global peace and security in the post-Cold War years.<sup>490</sup>

On the other hand, the proponents for a US-Russian and a global and comprehensive nuclear disarmament in the post-Cold War years maintain that the permanent retention of minimum nuclear forces by both Russia and the United States in the future for the sake of their new strategic nuclear doctrines of minimum nuclear deterrence and sufficiency cannot be able to guarantee that the retention of such low level American and Russian nuclear

forces will not be used in the post-Cold War era either intentionally because of future military crises and conflicts, or accidentally, or even due to unauthorized use of such nuclear warheads. Moreover, it should be agreed that the permanent retention of approximately 500 to 1000 nuclear warheads by both Russia and the United States in the post-Cold War years for the purpose of minimum nuclear deterrence will maintain forever the likelihood of the use of such nuclear weapons.

Since the most fundamental legal objective for the post-Cold War era should not only be the prevention of the eruption of a nuclear war, but also the literal elimination of the threat of such war, it must, therefore, be accepted that for apparent and self-evident reasons the permanent retention of even low level nuclear forces by Russia and the United States by virtue of their new strategic doctrines of minimum nuclear deterrence and sufficiency cannot achieve these legal ends. On the contrary, it must be emphasized that the permanent retention of even minimum numbers of nuclear weapons by both Russia and the United States in the post-Cold War years will maintain and perpetuate itself the danger and potential threat of the use of such nuclear forces in the future.

In the final analysis, it must be pointed out that, in spite of the view that the doctrine of nuclear deterrence might have prevented a nuclear war between the two nuclear superpowers during

the years of their Cold War, this very same doctrine has constantly kept both the United States and the former Soviet Union as well as the entire world community under the perpetual menace and terror of a global thermonuclear holocaust and annihilation. Additionally, the doctrine of nuclear deterrence had not only fueled the vertical expansion of the nuclear weapon arsenals of the two nuclear superpowers and their overkill capabilities by producing more powerful and sophisticated nuclear weapon systems, but also had played a negative role in the international legal process for a total US-Soviet nuclear disarmament, which is the most effective way to eliminate the threat of nuclear war once and for all.

Therefore, it can be suggested that in addition to valid and persuasive political, military and economic arguments which in view of the end of the Cold War clearly support the case for the abolition of the doctrine of nuclear deterrence of any form and version and for a total and comprehensive Russo-American nuclear disarmament in the post-Cold War era, it is also of particular importance to underline that in terms of international law the permanent retention, even if at a very low level, of US-Russian nuclear armaments will be contrary to the legal objectives of the NPT. In more specific terms, according to Article VI of the NPT, both nuclear superpowers, as nuclear weapon states, have assumed the legal undertaking to pursue through negotiations in good faith the

aim to cease the nuclear arms race as soon as possible, and also to pursue the aim of nuclear disarmament as part of the ultimate legal objective of general and complete disarmament.

While it must be noted that the end of the Cold War, the emerging global détente, and more importantly the new international law of nuclear disarmament clearly support the argument forwarded by this legal study that a total and comprehensive US-Russian denuclearization is both legally possible and effective, in order to achieve this legal objective in the post-Cold War era, the adoption of a new strategic legal plan by both Russia and the United States is required. In more concrete terms, based on this proposed strategic legal plan, the United States and Russia must expedite the implementation of the START Treaties. Both Russia and the United States should begin active negotiations on the conclusion of a START III Treaty by which the parties will agree to reduce the total number of their nuclear weapons to a level of no more than 500 nuclear warheads for each side.<sup>491</sup> Of course, it would be of particular legal importance not only to the promotion of the legal process for a US-Russian total denuclearization, but also for the beginning of the multilateral international legal process for a global and comprehensive nuclear disarmament if the United States and Russia managed to conclude a START III Treaty, which seems to be feasible. Russia has already expressed its interest in

the negotiation and conclusion of a START III Treaty.<sup>492</sup>

Furthermore, in addition to the beginning of active negotiations for a START III Treaty, the United States and Russia, in order to strengthen their mutual trust and their national security concerns in relation to their drastic denuclearization process, should agree on the legal adoption of the following measures and actions: (1) Both states must sign a pact of peace and non-aggression; (2) Both states must agree on banning the use of nuclear weapons against each other either in the context of a first-use scenario, or in any other context of hostilities, including self defense; (3) The United States must begin the process of building down and not expanding eastward the NATO alliance whose military presence in Western Europe no longer serves any legitimate and valid purpose because the dissolution of the Warsaw Pact and the disintegration of the Soviet Union leave NATO with no strategic enemy in sight;<sup>493</sup> (4) Both Russia and the United States must agree on banning the development of any new nuclear weapon systems based on any future technological and physical principles, and must generally prohibit any future nuclear arms race between themselves; (5) Both states must ban the production of any nuclear materials used for the construction of nuclear weapons and explosives; (6) Both states must agree to dispose of their nuclear warheads by effective procedures and not to re-use them for military applica-

tions, and (7) Both Russia and the United States must each sign the required agreements with the IAEA and thus place all of their nuclear facilities under the control and the full scope nuclear safeguards of the IAEA, which can ensure that neither country is involved in the production of nuclear weapons materials and in the construction of nuclear weapons or nuclear explosive devices.

The preceding strategic legal plan and the other proposed legal measures and actions with respect to the drastic reduction and elimination of the US-Russian nuclear weapons to a level of approximately 5% to 3% of their current numbers of their nuclear weapons arsenals should be undertaken by the two nuclear superpowers in view of the 1995 NPT Review Conference which extended the NPT indefinitely, and in conformity with Article VI of the NPT.

Of course, if the aforesaid legal plan and actions were legally undertaken by both Russia and the United States with respect to their drastic reductions in their nuclear warheads, this development will undoubtedly provide the most dynamic political and legal environment, for the first time in the legal history of nuclear arms control and disarmament, for a comprehensive and multilateral legal settlement of the issue of the complete and global elimination of nuclear weapons under a new multilateral treaty arrangement to this end. In fact, the reduction of the current American and Russian nuclear weapons stockpiles to a level of 1,000 and 600 nu-

clear warheads on the basis of the previously proposed legal plan will provide all the required positive elements for the conclusion of a multilateral treaty which in accordance with Article VI of the NPT will impose a new international legal regime of effective measures and international controls requiring the complete elimination of all nuclear weapons possessed by the *de jure* and *de facto* nuclear weapon states on a global basis and further safeguarding against the proliferation of such weapons in the post-Cold War era.

Notwithstanding the legal complexities posed by the issue of the total elimination of nuclear weapons from the planet, in view of the evolving new post-Cold War legal order, and in view of the legal dynamics presented by the new international law of nuclear disarmament, there exists the required legal basis to argue that a global and comprehensive nuclear disarmament can be possibly achieved. In the final analysis, it can be suggested that in view of the emerging new post-Cold War era the entire world community is presented with a unique strategic environment and a unique legal opportunity for a comprehensive settlement of the nuclear weapons issue not only in terms of the United States and Russia, but also on a global basis. Of course, the United States and Russia will never agree to eliminate their nuclear arsenals without applying the same requirement to China, France, United Kingdom and Israel.

**CHAPTER 9**  
**THE END OF THE COLD WAR, THE UN AND THE**  
**QUESTION OF GLOBAL NUCLEAR DISARMAMENT**  
**(1986-1997)**

**A. The UN and the Question of Global Nuclear Disarmament**  
**1986-1997**

**1. The UN and Nuclear Disarmament Initiatives**  
**(1986-1997)**

During the pre-1985 years, the United Nations had persistently retained the issue of global and comprehensive nuclear disarmament as an integral part of its permanent agenda of general and complete disarmament both in terms of nuclear and conventional weapons. Even though since the mid-1970s the United Nations has placed particular significance on the issue of nuclear disarmament, the United Nations has failed to reach a comprehensive legal solution on this question. In spite of the recognition that the United Nations has played a positive role in the evolutionary development of the new international law pertaining to the legal regulation of issues related to the question of nuclear disarmament, the United Nations has essentially failed to deal effectively through the rule of international law with the problem of the vertical



and horizontal proliferation of nuclear weapons and their ultimate elimination.

However, it should be recognized that the failure of the United Nations to legally manage the multilateral issue of nuclear disarmament, and thus to bring about the elimination of nuclear weapons on a global and comprehensive basis must be primarily attributed to the world bipolarization, to the East-West Cold War, and to the superpower uncontrolled and unrelentless nuclear arms race and competition. Although the issue of nuclear disarmament apparently constitutes a multilateral problem of imperative global concern, since the early 1960s both nuclear superpowers have taken the issue of their nuclear arms control and disarmament outside the UN forum and have treated it as a bilateral issue. In addition, both the United States and the Soviet Union had opposed any UN multilateral legal effort and proposed measures in the sphere of nuclear disarmament whenever such UN initiatives were contrary to the US and Soviet strategic interests. As a result, the United Nations has been improperly undermined and weakened with respect to its legal role and organizational dynamism in the solution of the question of global nuclear disarmament through effective international processes and measures.

Notwithstanding its past failures, since 1985 and afterwards the United Nations through its competent institutional organs has

been actively involved in the solution of the question of global nuclear disarmament. While by 1985 the vertical and the horizontal proliferation of nuclear weapons had led to a dangerous nuclear predicament involving the deployment of approximately 55,000 strategic and tactical nuclear weapons on the planet, capable of destroying the entire human race and its civilization many times over, Gorbachev's rise to the leadership of the Soviet Union in March 1985 marked the beginning of a new era in the sphere of global peace and security. In particular, Gorbachev's new strategic thinking for world peace, his peace offensive to the West and generally to the world, and his leadership to end the Cold War and to begin the US-Soviet nuclear disarmament legal process have created a new world political and legal environment in relation to the pursuit of a global and comprehensive nuclear disarmament. In essence, Mikhail Gorbachev, by virtue of his dynamic and nuclear disarmament leadership, has set the legal and political foundations not only for the total elimination of US and Soviet nuclear weapons, but also for a global and comprehensive nuclear disarmament.

In view of these positive international developments, the United Nations since 1985 has begun to assume a more dynamic role in the sphere of global nuclear disarmament, including other related issues. In more concrete terms, while since 1985 and after-

wards the United Nations has continued to retain its permanent agenda on general and complete world disarmament, the United Nations in general and in particular its appropriate disarmament organs and institutions have placed primary emphasis on the legal need for reaching the objective of global and comprehensive nuclear disarmament. Indeed, to this end, the UN multilateral disarmament forums have been actively involved in the implementation of the UN specific agenda on three nuclear items, namely, the cessation of the nuclear arms race both in vertical and horizontal terms and nuclear disarmament, a comprehensive test ban, and the prevention of nuclear war. Moreover, the UN agenda on nuclear disarmament has been occupied by the need to outlaw the use of nuclear weapons and to adopt effective and innovative nuclear disarmament verification procedures and measures.<sup>494</sup>

As far as the question of global and comprehensive nuclear disarmament is concerned, since 1985 and afterwards the UN General Assembly, the UN Disarmament Commission, and the UN Conference on Disarmament have intensified their efforts and initiatives to achieve the legal objective of the elimination of all nuclear weapons on a global and comprehensive basis under effective international nuclear disarmament procedures. In particular, the UN General Assembly has adopted a significant number of resolutions which have consistently called especially both nuclear super-

powers and the other members of the club of nuclear powers to expedite the international legal process for their ultimate denuclearization. Furthermore, the UN General Assembly has placed specific emphasis on the legal need to prevent the horizontal proliferation of nuclear weapons by urging the universalization and the strengthening of the NPT legal regime and its verification system. In addition, the UN General Assembly by its resolutions has condemned the acquisition of nuclear weapon capabilities by *de facto* nuclear weapon states, such as India, Israel, South Africa and Pakistan, and has called for their denuclearization and their accession to the NPT.<sup>495</sup>

As a positive response to the calls and resolutions of the UN General Assembly and of the other appropriate UN disarmament organs and forums, as has been already explained, in January 1986 Mikhail Gorbachev proposed a concrete time-table for the complete elimination of all nuclear weapons by the year 2000. Nevertheless, the Western nuclear establishment, and particularly the United States unjustifiably and inappropriately rejected the Gorbachev plan for a global and comprehensive nuclear disarmament by the year 2000. But it must be noted that because of the Gorbachev proposal for complete nuclear disarmament by the year 2000, the legal objective for the creation of a nuclear weapons-free world has been firmly placed on the UN multilateral agenda of peace negotiations.

Moreover, India, a non-party to the NPT, and a *de facto* nuclear weapon state, in June 1988 submitted to the Third UN Special Session on Disarmament its "Action Plan for Ushering in a Nuclear Weapon-free and Non-violent World Order." In accordance with its action plan on global nuclear disarmament, India had proposed that, in 1995 when the future extension of the NPT will be decided, international negotiations should begin on a new treaty to replace the NPT that would commit all nuclear weapon states to eliminate all of their nuclear weapons by the year 2010, and all non-nuclear weapon states not to cross the nuclear-weapon threshold.<sup>496</sup> Although the Soviet Union, China and France have positively reacted to the Indian plan for global nuclear disarmament by the year 2010, and although these three nuclear weapon states are generally committed to the legal goal of global and comprehensive denuclearization, the United States and the United Kingdom have essentially rejected the Indian proposal.<sup>497</sup>

In addition to its multilateral legal initiatives and proposals in the sphere of global and comprehensive nuclear disarmament, the United Nations since 1985 and afterwards has also concentrated its efforts on the cessation of the nuclear arms race. To this end, in December 1989 the UN General Assembly adopted its Resolution 44/117 D, by which it called upon the nuclear weapon states to agree, through a joint declaration, to a comprehensive nu-

clear-arms freeze. Furthermore, in December 1989 the UN General Assembly adopted Resolution 44/116 H, by which it called upon the UN member states concerned to agree on banning the production of fissionable materials for weapons purposes. Also, by the above Resolution the General Assembly requested the UN Conference on Disarmament to consider the question of adequately verified cessation and prohibition of the production of fissionable materials for nuclear weapons and other nuclear explosive devices.<sup>498</sup>

In relation to the role of the United Nations in the sphere of nuclear disarmament, it is worthwhile to note that, in 1989 by virtue of its Resolution 44/118 Q, the UN General Assembly, while reviewing the role and activism of the United Nations in the field of disarmament, emphasized that the United Nations in accordance with its Charter has assumed a central role and primary responsibility in the sphere of disarmament in general. Also, by the above Resolution the General Assembly stressed the need for the United Nations to play a more active role in the field of both conventional and nuclear disarmament, and further pointed out the necessity to strengthen the role of the United Nations in this area. Additionally, Resolution 44/116 Q requested the UN Disarmament Commission and the Conference on Disarmament to intensify their role in the field of disarmament.<sup>499</sup>

While the United Nations has defined and specified its agenda

on the legal goal of a global and comprehensive nuclear disarmament for the 1990s, in December 1989 the UN General Assembly adopted Resolution 44/119 H, by which it declared the 1990s as the Third Disarmament Decade. By the above resolution the UN General Assembly did not only reaffirm the central legal responsibility of the United Nations in the attainment of both nuclear and conventional disarmament in the 1990s, but also, and in view of the beginning of the nuclear disarmament process between the two nuclear superpowers, the General Assembly expressed the desire for maintaining the current momentum in the nuclear disarmament process and the conviction that the Third Disarmament Decade will accelerate the multilateral disarmament process. Also, by Resolution 44/119 H, the UN Secretary-General was requested to render all necessary assistance to the Disarmament Commission in implementing this resolution. Additionally, in 1989 by its Resolution 44/117 A the UN General Assembly decided to pursue the UN World Disarmament Campaign. In particular, this resolution emphasized that it is essential that not only governments, but also the peoples of the world recognize and understand the dangers relating to all aspects of the arms race and war, and especially nuclear war. To this end, the General Assembly pointed out the need for mobilizing world public opinion on behalf of disarmament, and requested the UN Secretary-General to play an active role in this

effort.<sup>500</sup>

With respect to the issue of the prevention of a nuclear war and the use of nuclear weapons, the United Nations has played a significantly active role in the attainment of this end. In more concrete terms, in addition to the 1978 UN Final Document which was reaffirmed in 1982 by the UN General Assembly which has pointed out the catastrophic consequences of a nuclear war globally and has stressed the necessity to prevent such a war by outlawing the use of nuclear weapons, in 1989 the UN General Assembly based on the 1988 UN Study on the Climatic and Other Global Effects of Nuclear War has proposed specific legal measures for the prevention of nuclear war and for banning the use of nuclear weapons. Although the most effective way to remove once and for all the danger of the eruption of a nuclear war is the total elimination of nuclear weapons, the UN General Assembly in 1989 adopted resolution 44/119B, by which it reaffirmed the world recognition that the prevention of nuclear war has been and still remains the utmost priority and concern of the entire world community, and also stressed the need that specific efforts, bilateral, regional, or multilateral, must be vigorously pursued and measures should be strengthened to reduce and ultimately eliminate the risk of nuclear war. To this end, resolution 44/119 B, while it pointed out the legal need for a global and comprehensive nuclear disarmament, pro-



posed the establishment of a multilateral nuclear alert center to reduce the risk of fatal misinterpretation of unintentional and accidental nuclear launchings, and the conclusion of a multilateral convention on the prohibition of the first use of nuclear weapons.<sup>501</sup>

Particularly with respect to the legal necessity to prevent the eruption of a direct and intentional nuclear war, in 1989 the UN General Assembly adopted resolution 44/117 C, by which it repeated its conviction that the existence and use of nuclear weapons pose the greatest threat to the survival of mankind. In addition to its conviction that the only ultimate and the most effective guarantee against the use of nuclear weapons is their total elimination, the General Assembly proposed the conclusion of a multilateral convention prohibiting the use or threat of use of nuclear weapons. Specifically, in accordance with the preamble of the proposed by the General Assembly draft convention which has been annexed to resolution 44/117 C, it is provided that any use of nuclear weapons constitutes a violation of the UN Charter and a crime against humanity. Moreover, Article 1 of the above draft convention would impose the legal obligation upon its states parties not to use or threaten to use nuclear weapons under any circumstances.<sup>502</sup>

Despite the recognition that the legal adoption of the aforesaid draft convention would ban the first use of nuclear weapons and would also be a positive legal measure and step towards the

complete elimination of nuclear weapons under strict and effective international legal control, the Western nuclear establishment, namely, the United States, the United Kingdom and France, has opposed the conclusion of such a convention.<sup>503</sup> On the other hand, both the Soviet Union and China have categorically supported it. Particularly with respect to the Soviet and Chinese legal policy on the no first use of nuclear weapons, it should be mentioned that both the Soviet Union and China have by their legally binding unilateral declarations renounced their resort to the first use of nuclear weapons. At this point, it should also be added that in October 1991 Mikhail Gorbachev proposed that all nuclear weapon states make a joint statement on no first use of nuclear weapons. However, the Western nuclear establishment and particularly the United States had failed to positively react to this Gorbachev proposal.<sup>504</sup>

At the beginning of 1990, the United Nations through its Disarmament Commission included on its nuclear disarmament agenda for the 1990s a number of items and priorities. The U.N. agenda on nuclear disarmament would focus mainly on: (1) the arms race and nuclear disarmament; (2) naval arms race and disarmament; (3) the Third Disarmament Decade; (4) regional nuclear disarmament; and (5) process of nuclear disarmament in the framework of international peace and security. Additionally, the

United Nations by the beginning of the 1990s was determined to place particular importance on the preparation and success of the 1995 NPT review conference and on the conclusion of a CTBT.<sup>505</sup>

In 1990, intensive negotiations had begun between the United States and Russia, and with the involvement of the United Nations, with the aim to conclude a treaty on “open skies”. Although the idea for “open skies” was first proposed by U.S. President Eisenhower in 1955, in 1989 Canada suggested to U.S. President Bush the need for the legal establishment of open skies as a positive measure for nuclear disarmament and verification purposes. Finally, on March 24, 1992, the Treaty on Open Skies was signed in Helsinki. A critical evaluation of the treaty clearly shows its legal importance in the confidence building measures among the states and their mutual openness to aerial inspection. In turn, this legal development and breakthrough constitutes a positive legal measure for the effective verification and implementation of nuclear disarmament agreements.<sup>506</sup>

In addition to the indefinite extension of the NPT in 1995, and the conclusion of the CTBT in 1996, which are significant legal breakthroughs in the quest for nuclear disarmament and which will be separately discussed later in this chapter, a number of nuclear disarmament proposals are being currently introduced in the United Nations. The Group of 21 presented in August 1996 a

“Program of Action for the Elimination of Nuclear Weapons” to the Conference on Disarmament. This program has three phases. The first phase, from 1996 to 2000, called for: (a) measures to reduce the nuclear threat and ending the qualitative improvement and advancement of nuclear weapons, and (b) measures of nuclear disarmament, such as ratification of the START III Treaty and removal of nuclear weapon systems from operational readiness.<sup>507</sup>

The second phase of this proposal, which covers the period between 2000 and 2010, requires the conclusion and entry into force of a treaty to eliminate nuclear weapons and reduce ballistic missiles for the delivery of nuclear weapons. In the third phase, from 2010 to 2020, this proposal requires the elimination of all nuclear weapons and the application of verification safeguards and measures to all nuclear facilities. Similarly, in 1996, Sweden, New Zealand, Australia and Japan had called on the United Nations and its member states to undertake international efforts to drastically reduce nuclear weapons on a global basis with the aim of achieving a world without nuclear weapons. Nevertheless, the nuclear weapon states have failed to support a global nuclear disarmament arrangement in the post-Cold War era.<sup>508</sup>

In view of the preceding analysis of the UN multilateral legal initiatives and efforts to resolve the issue of the elimination of nuclear weapons on a global and comprehensive basis during the pe-

riod between 1985 and up to the present, it is obvious that the United Nations, as the most appropriate and legitimate world organization to legally manage and resolve the issue of the elimination of nuclear weapons on a global basis, has failed to make any significant legal breakthrough to this end. Although the indefinite extension of the NPT in 1995, and the conclusion of the CTBT in 1996 admittedly constitute significant legal developments in the area of nuclear disarmament, they do not eliminate even one nuclear weapon from the world's nuclear weapon arsenals. However, during the above period the international legal process for the reduction and gradual elimination of the US and former Soviet nuclear weapons has already begun. This apparently constitutes a significant legal development in the sphere of global nuclear disarmament since both the US and former Soviet nuclear weapon stockpiles represent more than 90% of the existing nuclear weapons on Earth. It must be, nevertheless, pointed out that the United Nations has not been able to assume a leading and decisive legal role in the sphere of global nuclear disarmament.

## 2. The New Nuclear Age and Expansion of Horizontal Nuclear Weapons Proliferation (1986-1997): An Overview

Along with the vertical increase in production and deployment of nuclear weapons by the nuclear weapon states and particularly

by the United States and the former Soviet Union, by 1985 India,<sup>509</sup> Israel<sup>510</sup> and South Africa<sup>511</sup> had become *de facto* nuclear weapon states. In fact, these three states have not only developed nuclear weapons, but also they have acquired the ballistic missile capabilities to deliver such weapons.<sup>512</sup> Furthermore, by 1985 a number of states in various regions of the globe have been classified as threshold nuclear weapon states and as problem nuclear weapon states on the basis of how close their nuclear weapon programs have been to the development of nuclear weapons. Thus, Argentina, Brazil and North Korea were reported to be near the point of developing nuclear weapons. Also, Taiwan, Libya, Iran and Iraq were reported to have launched a significant effort to acquire nuclear weapon capabilities. Accordingly, by 1985 it has been obvious that not only a new nuclear age had begun, but also this new nuclear age for the nuclearization of non-nuclear weapon states was expanding despite the NPT legal regime.<sup>513</sup>

An overview of the trend to the horizontal proliferation of nuclear weapons on a global basis from 1985 and afterwards clearly shows the expansion of the new nuclear age. In more concrete terms, in addition to India, Israel and South Africa which had already established themselves as *de facto* nuclear weapon states, by 1986 Pakistan had become the newest member of the *de facto* nuclear weapon states' club by acquiring nuclear weapon capabili-

ties.<sup>514</sup> Also, while both Brazil and Argentina are widely considered to possess the technological capabilities to produce nuclear weapons within a short notice,<sup>515</sup> North Korea, which has signed the NPT, was reported to be very close to the point of developing nuclear weapons.<sup>516</sup>

At the present time, it is reported that Israel, not a party to the NPT, has developed and possesses between 100 to 200 nuclear warheads, some with thermonuclear fusion. India, not a party to NPT has developed about 20 to 50 first-generation nuclear fission bombs. Pakistan, not a party to NPT, has developed nearly 12 first-generation nuclear fission bombs. It is also important to note that Israel, India and Pakistan possess ballistic missile systems capable of delivering their nuclear weapons in case of conflict.<sup>517</sup> Regarding South Africa, in 1993 it acceded to the NPT immediately after it publicly admitted that it had developed and possessed a number of nuclear weapons. South Africa has further stated that it has destroyed all the nuclear weapons which it had developed. In fact, the IAEA, which conducted thorough and comprehensive on-site inspection in South Africa, did not discover the existence of any nuclear weapons.<sup>518</sup>

It should be agreed that the new nuclear age in terms of the horizontal proliferation of nuclear weapons, which began in the mid-1970s, has been expanded despite the NPT legal regime that

prohibits the proliferation of nuclear weapons by non-nuclear weapon states. Indeed, it can be maintained that whichever non-nuclear weapon state was determined to acquire nuclear weapon capabilities, such a state successfully managed to obtain the required materials and technologies to develop and construct nuclear weapons. Of course, this clearly shows the failure of the United Nations and the NPT regime to effectively enforce and implement the non-proliferation of nuclear weapons by non-nuclear weapon states.

With the exception of Iraq, whose nuclear weapons program has been effectively dismantled by the United Nations, there is presently a number of threshold nuclear states, such as Iran, North Korea, Brazil and Argentina, which are very near to the point of developing nuclear weapons. There are also a number of nuclear-problem states, which have been actively involved in the quest to acquire nuclear weapon capabilities. Such states are Libya, Syria, and Algeria. Furthermore, due to the involvement of more states in the acquisition of nuclear technologies and materials for peaceful applications, it is obvious that because of the dual use of nuclear-technologies and materials for peaceful purposes and military applications, in the post-Cold War era more states will be in a technological position to be able to have the technologies and the means to develop nuclear weapons. It is estimated that by the year 2000 ap-



proximately 30 to 40 countries will possess nuclear programs, which will enable them to develop nuclear weapons.<sup>519</sup>

In particular, the disintegration of the former Soviet Union has created the realistic dangers of the illicit trafficking of nuclear weapon grade materials and nuclear weapon making technologies from former Soviet republics to countries which are eager to obtain them and to advance their nuclear weapons program. Due to the poor conditions of nuclear weapon scientists and engineers in the former Soviet Union, there is the potential problem of their immigration to countries willing to hire them, and thus to use their skills and knowledge to develop their own nuclear weapon programs. Additionally, current reports involving the black market of nuclear weapon grade materials raise the high risks that such materials can be obtained by terrorist groups and rogue states.<sup>520</sup>

In addition to the potential spread of nuclear technologies and materials in the post-Cold War era, which can enable more states with the capability to develop nuclear weapons, it is also of equal importance to note that in the post-Cold War era more states will be able to process ballistic missile systems capable of carrying and delivering nuclear warheads.<sup>521</sup> In view of the already existing nuclear weapon arsenals of the nuclear weapon states that are more than enough to destroy the planet and its civilization many times over, and the projected proliferation of nuclear weapons to more

non-nuclear weapon states in the post-Cold War era, it is obviously an imperative need for the United Nations to deal effectively with the prevention of nuclear weapon proliferation and global nuclear disarmament in the post-Cold War era, and in the 21st century.

**B. The NPT Extension and the Legal Dynamics for  
Global Nuclear Disarmament in the Post-Cold War  
Era**

**1. The 1995 NPT Review Conference and the  
Extension of the NPT.**

Article X(2) of the NPT required that: "Twenty-five years after the entry into force of the Treaty, a conference shall be convened to decide whether the Treaty shall continue in force indefinitely, or shall be extended for an additional fixed period or periods. This decision shall be taken by a majority of the Parties of the Treaty." Accordingly, pursuant to this provision of the NPT in 1995 when twenty-five years had passed since the NPT entered into force in 1970 a review conference of the NPT was held. After intensive negotiations, in May 1995, the NPT was extended indefinitely. It was also decided that the next NPT review conference will be held in the year 2000.

The indefinite extension of the force of the NPT obviously constitutes a significant development in the legal efforts of the inter-

national community to deal with and resolve the issue of the proliferation of nuclear weapons, and generally to resolve the problem of global nuclear disarmament. The NPT has presently been signed by 188 states.<sup>522</sup> Apparently, the NPT is a widely accepted international legal instrument, and the first multinational treaty arrangement in the sphere of nuclear disarmament since the advent of the nuclear age and nuclear armaments. Indeed, the indefinite extension of the NPT clearly indicates that the entire world community is prepared through the rule of law to face and resolve the issue of global nuclear disarmament in the post-Cold War era and the 21st century.

Despite its indefinite extension, the NPT has arbitrarily divided the world community into two classes of states, namely, those with nuclear weapons and those without nuclear weapons as of 1968 when it entered into force. In essence, this legal division between nuclear and non-nuclear weapon states constitutes a structurally discriminatory element of the NPT, which has adversely and negatively affected the universal and dynamic effect of the NPT in the sphere of nuclear disarmament. In particular, the NPT discriminatory division and treatment between nuclear weapon states and non-nuclear weapon states leads to the conclusion that the NPT legal regime provided with legal cover the world power structure and power distribution for the post-World War II era.

Thus, since 1968, when the NPT was concluded, the world community has been arbitrarily and discriminatorily divided into two categories of states, namely, the nuclear weapon states and the non-nuclear weapon states. Accordingly, the United States, the former Soviet Union, Britain, France and China, which had acquired nuclear weapon capabilities in 1968, formed the club of nuclear powers. On the other hand, states, which by 1968 had not acquired nuclear weapons, undertook the explicit legal obligation by acceding to the NPT to denounce the acquisition of nuclear weapons and not to acquire such weapons.<sup>523</sup>

The fundamental legal objective of the NPT has been, since 1968, to prevent the horizontal proliferation of nuclear weapons by non-nuclear weapon states and to achieve the nuclear disarmament of the nuclear weapon states. Additionally, the NPT legal regime was designed to serve the objective of providing the non-nuclear weapon states under international control with the required nuclear technologies and materials to develop their peaceful nuclear energy programs. To this end, the nuclear weapon states and the nuclear power supplier states were required under the NPT to assist non-nuclear weapon states in the peaceful application and use of the atom.

A critical review of the NPT legal objective clearly shows that the NPT has fundamentally failed to achieve its legal objectives

and aims in the sphere of global nuclear disarmament. Despite its signature in 1968, the NPT had been not even an obstacle to the continued nuclear arms race between the former Soviet Union and the United States. Notwithstanding their legal obligation under Article VI of the NPT as parties to the NPT to negotiate in good faith on effective measures relating to the cessation of their nuclear arms race and their nuclear disarmament, both nuclear superpowers developed and deployed thousands of nuclear weapons and they were holding the entire world community and its civilization under the constant nightmare of nuclear annihilation. Even in view of the post-Cold War era, and the new strategic relationship of peaceful co-existence and partnership between the United States and Russia, both Russia and the United States still are in the possession of large numbers of nuclear warheads. It is presently estimated that the United States possess about 10,500 nuclear warheads, and Russia nearly 15,000 nuclear warheads.<sup>524</sup> Even after the successful implementation of their START I and START II treaties, both the United States and Russia at the beginning of the 21st century will still be nuclear superpowers with each of them possessing approximately 3,500 strategic nuclear weapons. It is also reported that both Russia and the United States are presently involved in the production of more advanced nuclear weapon systems for the 21st century.<sup>525</sup>

As far as the other three nuclear weapon states, namely, Britain, France and China, are concerned in relation the NPT, it is important to note that Britain which acceded to the NPT in 1968 continued to expand its nuclear weapons program contrary to its obligation of Article VI of the NPT. On the other hand, France and China refused to sign the NPT and continued their involvement in the expansion of their nuclear weapon arsenals. Finally, in 1992 both China and France accede to the NPT. It is presently estimated that Britain possesses nearly 200 nuclear warheads, France possesses about 524 nuclear warheads, and China has approximately 450 nuclear warheads.<sup>526</sup> In particular, it is presented reported that China has been actively involved in the expansion of its strategic nuclear arsenal and the advancement of its strategic nuclear missile capabilities for the 21st century.<sup>527</sup> Moreover, Japan,<sup>528</sup> Germany and Canada, which are parties to the NPT, have the technological capability and enough nuclear material to produce nuclear weapons within a short period of time.

Furthermore, it must be noted that the NPT has failed to include an explicit security guarantee that the nuclear weapon states will be completely prohibited from using or threatening to use nuclear weapons against non-nuclear weapon states. Thus, the non-nuclear weapon states by accepting the NPT legal regime have placed themselves under a militarily disadvantageous position. As

a result of this legal shortcoming of the NPT, non-nuclear weapon states can become victims of nuclear blackmail by the club of nuclear powers.

The NPT, which has legally divided the world into nuclear and non-nuclear weapon states, has been basically underlined by the bargain that while the nuclear weapon states would retain their nuclear weapon capabilities, in return for forgoing the acquisition of nuclear weapons the non-nuclear weapon states extracted from the nuclear states the legal commitment to provide the former with nuclear technology and materials suitable to the development of their peaceful nuclear energy programs. Nonetheless, it must be emphasized that there have been many instances where non-nuclear weapon states have been in a discriminatory manner denied by the nuclear weapon states and other nuclear power supplier states the acquisition of nuclear technology and materials needed for the development of their peaceful nuclear energy programs. On the other hand, it should be observed that *de facto* nuclear weapon states have managed to have easier access to nuclear technologies and materials for the development and expansion of their nuclear bomb-building programs.

Notwithstanding the inherent structural discriminatory division between nuclear and non-nuclear weapon states caused by the NPT and the negative implications of such a discriminatory treat-

ment, it is also important to note that the United Nations has failed to adopt a positive international legal regime of nuclear security guarantees against the threat of use or the use of nuclear weapons by the nuclear weapon states against the non-nuclear weapon states. In addition to the failure on the part of the United Nations to provide explicit nuclear security guarantees to the non-nuclear weapon states, it is further worthwhile to point out that, in view of the horizontal proliferation of nuclear weapons in various volatile regions of the world, there exists the potential danger that enemy states in such regions might use military means to prevent other states in the same region from acquiring nuclear weapon capabilities by destroying the nuclear facilities and programs of such states. Accordingly, the United Nations should adopt an international legal regime by which individual states will be prohibited from any military action or aggressive act designed to destroy the nuclear facilities and programs of another state, and thus prevent such a state from acquiring nuclear weapon capabilities. On the contrary, such a legal task and responsibility must be carried out in an effective manner by the appropriate organs of the United Nations.

During the 1995 NPT review conference all problems and failures of the NPT regime were actively discussed and negotiated. Although at the 1995 NPT review conference, the NPT was indefi-



nitely extended, the parties to the NPT basically failed to resolve the problems and shortcomings of the NPT, and thus failed to strengthen the NPT for the 21st century. In fact, the 1995 NPT review conference failed to address the NPT discriminatory division between nuclear and non-nuclear weapon states, particularly with respect to their unequal obligations and status under the NPT. In essence, the indefinitely extended NPT has failed to impose upon the nuclear weapon states, as required by Article VI, a concrete timetable within which to actively negotiate and conclude the required treaty arrangements for their nuclear disarmament in the 21st century.

The NPT, after its indefinite extension, has failed to legally require the nuclear weapon states to provide explicit security guarantees that the nuclear weapon states would be prohibited from using or threatening to use nuclear weapons against non-nuclear weapon states. The NPT review negotiations failed to produce an agreement outlawing the first use and generally the use of nuclear weapons under any circumstances by *de jure* and *de facto* nuclear weapon states. Additionally, the NPT review conference failed to strengthen the role of the IAEA in the effective implementation of the NPT. Accordingly, it can be concluded that the indefinitely extended NPT is a repetition and perpetuation of the old and failed NPT regime in the quest for global nuclear disarmament. Thus, it

can also be maintained that the 1995 NPT review conference was a lost historic opportunity to establish a new and dynamic NPT legal regime to solve the failures of the old NPT regime and to achieve through the rule of international law global nuclear disarmament by the beginning of the 21st century.

## 2. The Future of the NPT and the Legal Dynamics for Global Nuclear Disarmament.

The NPT legal regime, as established in 1968, has apparently failed to achieve its legal goals and objectives for a global and comprehensive nuclear disarmament. Although the overwhelming approval of the indefinite extension of the NPT in 1995 constitutes a significant legal step in the international effort in the sphere of nuclear weapons nonproliferation and nuclear disarmament, the 1995 NPT review conference failed to create a new and dynamic NPT legal regime capable of effectively resolving the world issue of nuclear disarmament. Indeed, it can be agreed that the 1995 NPT review conference was a lost historic opportunity of a world conference, which failed to make dynamic breakthroughs in the legal settlement of the question of global and comprehensive nuclear disarmament in the post-Cold War era and the 21st century. In conclusion, in 1995 the world community lost a unique opportunity to effectively resolve the old, but always contemporaneous, problem of nuclear weapons and the constant nightmare of nuclear holocaust

and annihilation of humanity and its civilization.

Of course, the issue of nuclear weapons nonproliferation and global nuclear disarmament is obviously a complex world problem, which primarily involves complicated questions of national security, national prestige of military might and power, and global peace and security. Although the old NPT has played some positive role in the proliferation of nuclear weapons, the perpetuation of the old and ineffective NPT regime for the solution of the nuclear disarmament problem in the 21st century is not the proper legal means even to approach this problem of such magnitude and global importance. The approval of the continuation of the old NPT regime by the 1995 NPT review conference clearly shows that the entire agenda of nuclear weapons and nuclear disarmament in the post-Cold War era and the 21st century is totally controlled by the club of nuclear weapon states, which appear to be determined to possess nuclear weapons in the 21st century.

But it is important to underline that the end of the Cold War, and particularly the end of the constant nuclear arms race and confrontation between the United States and the former Soviet Union provide a unique political, military, and strategic legal environment for a comprehensive settlement of the issue of the elimination of nuclear weapons on a global basis. In fact, the emerging and steadily evolving new Russo-American strategic partnership and

cooperation creates the fundamental basis for a post-Cold War détente, which, in turn, provides the required legal dynamics and prospects for a global denuclearization in the 21st century and for a post-Cold War nuclear weapons free-world.

The collapse of communism, the disintegration of the former Soviet Union, and the expanding new era of strategic relations between Russia and the United States deprive both nuclear superpowers of any rational and valid argument for maintaining their Cold War strategies and approaches to the nuclear weapons problem in the post-Cold War era. The nuclear disengagement between the United States and Russia as a result of the end of the Cold War, and their bilateral legal engagement in their gradual denuclearization clearly show that both nuclear superpowers have substituted their model of Cold War nuclear arms control with the new model of nuclear arms reductions in the new post-Cold War era.

The effective implementation of the INF Treaty, the presently ongoing implementation of the START I Treaty, and the conclusion of the START II Treaty obviously support the legal argument forwarded by this study that a complete US-Russian nuclear disarmament is both feasible and effective. Additionally, the current US-Russian bilateral treaty arrangements for their gradual denuclearization are important legal developments in the expansion of the new international law of nuclear disarmament, which show that

the two nuclear superpowers have already begun to carry out their legal obligations under Article VI of the NPT. Although neither the United States nor Russia has currently made a US-Russian and global total nuclear disarmament proposal, it must be underlined that the current superpower nuclear disarmament process under the rule of international law constitutes a significant breakthrough and development in the area of nuclear disarmament.

The accession of both France and China to the NPT in 1992 is a new development that opens up the prospects for a multilateral approach to the issue of the nonproliferation of nuclear weapons and nuclear disarmament in the post-Cold War era. The indefinite extension of the NPT in 1995, and the conclusion of the CTBT in 1996 have set the legal basis and dynamics for a new world environment to manage and solve the question of nuclear weapons in the 21st century on a global basis.

Accordingly, the prospects to bring about global and comprehensive nuclear disarmament do not only seem to be feasible and realistic, but also it can be verifiably effective. The new law and techniques developed by the superpower nuclear disarmament process and their effectiveness in the implementation of their relevant agreements clearly show that the question of the effective verification is not any longer a problem of achieving nuclear disarmament agreements. In particular, the role of the United Nations in the ef-

fective elimination and destruction of the Iraqi nuclear weapons program by the application of intrusive and advanced verification measures and techniques clearly shows that the IAEA can play a central role in the effective implementation of nuclear weapon disarmament agreements on a broader world basis.

In 1995, in the context of the NPT review conference, the world community lost a historic opportunity to set the legal basis and framework for global and comprehensive nuclear disarmament in the post-Cold War era. The existing large numbers of nuclear weapon arsenals possessed by the club of the nuclear weapon states, the proliferation of nuclear weapons by Israel, Pakistan and India, and generally the beginnings of a new nuclear age in the proliferation of nuclear weapons obviously shows the legal need for a global nuclear disarmament in the 21st century. In view of the end of the Cold War and the evolving and expanding global détente of peace and security, no military theory and rationale can be able to justify the retention of large numbers of nuclear weapons well into the 21st century. In fact, the permanent retention of even very low levels of nuclear weapons in the 21st century cannot be accepted as an appropriate lesser evil by the world community.

For the past approximately fifty years the entire world community has been under the constant threat of nuclear holocaust due to the very existence of nuclear weapons. In view of the end of

the Cold War, it must be agreed that it is a great mistake to assume that the international community would continue to live with nuclear weapons perpetuating the potential danger of a nuclear holocaust in the 21st century. Indeed, the very existence of nuclear weapons poses an inherent danger to world peace, and security, and the very survival of humanity and its civilization. Thus, the permanent retention of nuclear weapons in the 21st century will, of course, perpetuate the potential danger of an intentional and even an unauthorized and accidental use of nuclear weapons. Also, the permanent retention of nuclear weapons in the 21st century would be contrary to the legal objectives of Article VI of the NPT. In conclusion, it must be emphasized that the most effective way to prevent a nuclear holocaust in the 21st century is to eliminate the world's nuclear weapon arsenals through the legal process of nuclear disarmament, which is both feasible and effective.

Of course, the problem of a global and comprehensive nuclear disarmament is a complicated and difficult one. It is also clear that the international legal process for nuclear arms control and disarmament in the past fifty years has failed to produce any positive results. Nevertheless, the question of global nuclear disarmament in the 21st century still remains the most important problem and the most imperative concern of the international community. Until the last nuclear weapons are effectively eliminated and destroyed,

the world community can by no means be assured that it will avoid a nuclear holocaust.

To properly approach, and effectively manage and solve the issue of global and comprehensive nuclear disarmament in the post-Cold War era and the 21st century, the old legal approaches and models of nuclear arms control and nuclear weapons nonproliferation should be abandoned because they have failed to produce any positive results in the sphere of nuclear disarmament. Thus, it is obvious the need to consider the adoption of the below proposed legal strategic plan for a global and comprehensive nuclear disarmament in the post-Cold War era and the 21st century. The below proposed legal strategic plan should be legally adopted by the world community in the year 2000 when the next NPT review conference will take place.

This proposed legal strategic plan for global and comprehensive nuclear disarmament in the post-Cold War era and the 21st century suggests the following:

(1) Russia should ratify the START II Treaty. Russia and the United States should expedite the implementation of both START I and START II treaties. Both nuclear superpowers should cease the modernization of their nuclear weapon arsenals and their delivery systems, and the production of new nuclear weapons and delivery systems. The United States and Russia should cease the production



of nuclear weapon making material, and open all of their nuclear weapon facilities and nuclear weapon making production material to the inspections and safeguards of the IAEA. The United States and Russia must conclude a START III Treaty before the year 2000 requiring them to reduce their nuclear weapons to a total of no more than 500 nuclear weapons for each side.

(2) Britain, France and China, as the lesser members of the club of nuclear weapons powers, should assume their responsibility in the area of global nuclear disarmament.<sup>529</sup> These three nuclear powers should abandon their present plans for the modernization of their nuclear weapons for the 21st century. In particular, China, which is presently involved in the effort to expand its nuclear weapons arsenal and its ballistic missile capability, must abandon its plans to become a nuclear superpower in the 21st century. These three states must stop the production of new nuclear weapons and the production of nuclear weapon making materials. They should place all of their nuclear weapon facilities and nuclear weapon making material production facilities under the safeguards system of the IAEA. Immediately after the proposed conclusion of the START III Treaty between the United States and Russia before the year 2000, all nuclear weapon states, namely, the United States, Russia, France, China and Britain, should sign a treaty which will require China, France and Britain to agree on the total

elimination of their nuclear weapons within a certain time period, and thus to become nuclear weapons free countries on the condition that in the year 2000 Russia and the United States will agree on the total elimination of their nuclear weapons.

(3) The *de facto* nuclear weapon states, namely, Israel, India and Pakistan, should immediately accede to the NPT and legally accept the elimination and destruction of their nuclear weapons. They should place all of the nuclear weapon facilities under the safeguards of the IAEA. If Israel, India and Pakistan refuse to cooperate to this end and to become nuclear weapons free countries, the United Nations should apply pressure and strong sanctions on these states and thus force them to give up their nuclear weapons. The legal precedent set by the elimination and destruction of the Iraqi nuclear weapons program and facilities by the United Nations provides an appropriate model for achieving the denuclearization of these three *de facto* nuclear weapon states, and the international community should apply the same standard to them.

(4) In view of the new nuclear age in terms of the horizontal proliferation of nuclear weapons and facilities which had begun by the mid-1970s, after an agreement has been concluded for the denuclearization of Israel, India and Pakistan, all near nuclear weapon states, all nuclear weapon problem states, and all states with peaceful nuclear programs should open all of their nuclear

programs and facilities to the inspections and safeguards of the IAEA.

(5) The NPT's discriminatory structure and unequal treatment between nuclear and non-nuclear weapon states should be abolished. Article VI of the NPT should be amended to legally and explicitly require the nuclear weapon states to proceed immediately with their total nuclear disarmament. Additionally, the NPT regime should prohibit the unequal and discriminatory practices of the nuclear supplier powers against the countries involved in the effort to develop their peaceful nuclear programs. To this end, it would be appropriate to create an international organization to supervise and control the provision and transfer of nuclear technologies and materials by the nuclear supplier states to the states pursuing the development of their peaceful nuclear programs and the peaceful applications of the atom.

(6) All nuclear weapon states, including the *de facto* nuclear weapon states, should immediately, categorically and unconditionally agree to renounce the resort to the first use of nuclear weapons against each other, and against the non-nuclear weapon states. Immediately after reaching such an arrangement, an international agreement should be concluded which should explicitly prohibit the use or threat of use of nuclear weapons under any circumstances and even in the case of self defense by nuclear weapons states

against each other or against non-nuclear weapon states.

(7) The IAEA, as the central international organ for the effective implementation of the NPT and global nuclear disarmament, in view of its past failures and present inadequacies, should be provided with the required resources and advanced technological means to carry out its duty on the effective implementation of a post-Cold War global nuclear disarmament regime. Since the permissibility of the peaceful application of the atom constitutes the legal path and cover to the development of nuclear weapons, the IAEA must be empowered with a dynamic and intrusive verification system of advanced technical means, of on-site inspections at random to all nuclear facilities and programs of all states, and with the legal power to destroy the nuclear program of a proliferant state. In view of the current incidents of illicit and black market transfer of nuclear technologies and nuclear weapon grade materials, the IAEA should also have an intelligence system, which will assist it to ensure the effective prevention of the proliferation of nuclear weapons by states and other entities.

(8) To increase the confidence of the nations and peoples of the world in the ability of the United Nations to preserve peace and security in the post-Cold War era, and thus to facilitate the international legal process of global nuclear disarmament in the post-Cold War era, the United Nations should be empowered with the

required means not only to carry out peacekeeping operations, but also to be capable of preventing the eruption of military conflicts, to make peace and even to enforce peace. To this end, and in conformity with Chapter VII of its Charter, the United Nations must proceed with the creation of its own military machine equipped with all advanced and sophisticated weapons and systems enabling it to effectively deal with peacemaking and peacekeeping operations on a worldwide scale. Also, the discriminatory organizational formation and structure of the Security Council and the veto powers of its five permanent powers, namely, the United States, Russia, Britain, France and China, should be abolished. Indeed, the domination of the Security Council and thus of the entire United Nations by the five permanent members has not only been anachronistic and counter-productive in the area of global nuclear disarmament, but this elite of powers with their veto rights have essentially dominated the world arena and agenda and in many instances to the detriment of the entire world community. Accordingly, the legal classification of the five powers as permanent members of the Security Council and their veto powers should be abolished. The proposed new Security Council should be composed of a rotating number of member states serving for a limited time and adopting its decisions and resolutions based on the majority rule. Also, the composition of the new Security Council must be representative of

the global nature of the United Nations.

(9) The previously suggested measures and their legal adoption will set the basis and prepare the ground for achieving the conclusion of multinational treaty arrangement for a global and comprehensive nuclear disarmament, and for the final settlement of the question of nuclear disarmament in the year 2000 when the NPT review conference is scheduled to take place. Thus, in the year 2000 and in the context of the NPT, the United States and Russia should agree to the total elimination of their nuclear weapon arsenals. Similarly, the lesser nuclear weapon states, France, Britain and China should agree to their total nuclear disarmament. Additionally, the *de facto* nuclear weapon states must agree to destroy their nuclear weapons and to destroy their nuclear weapon making programs and facilities. Moreover, in the year 2000 all countries of the world must conclude a global disarmament treaty, which should require the verified elimination and destruction of all nuclear weapons of the world no later than the year 2010, including their ballistic missile systems. The proposed conclusion of a nuclear disarmament treaty in the year 2000 should also impose the obligation upon all states to dismantle and destroy their nuclear weapon making facilities and to open all of their nuclear facilities to the IAEA. Furthermore, the above proposed disarmament treaty should incorporate the individual suggestions and measures previ-

ously proposed.

(10) Even the most effective and sophisticated systems of the implementation of the proposed nuclear disarmament treaty early in the 21st century cannot be a foolproof safeguard ensuring the continued existence of a world free of nuclear weapons. There is always the possibility that one or more states will illegally attempt or even illegally possess nuclear weapons. Such states, armed with nuclear weapons, in any given situation of conflict can be in a powerful position to blackmail the entire world community with the threat to use their nuclear weapons. To counter a situation of this nature, it should be proposed that only the United Nations should have in their possession a very limited number of nuclear weapons. Thus, the United Nations will be able in a collective way to effectively deal with situations of that nature, and to have also the means to ensure the denuclearization of any nuclearized states in the 21st century

Based on the preceding analysis and the proposed new strategic legal plan for a global and comprehensive nuclear disarmament through the rule of international law, it should be agreed that there is currently the appropriate legal environment and legal dynamics for the final settlement of the nuclear disarmament problem in the post-Cold War era and in the 21st century. Indeed, the preceding discussion shows that, in terms of the new international law of nu-

clear disarmament, is both feasible and effective. The legal adoption of the proposed new strategic legal plan and the conclusion of a global nuclear disarmament treaty in the year 2000 in the context of the NPT review conference seems to be realistic. Also, the proposed elimination and destruction of all nuclear weapons no later than the year 2010 seems to be feasible.

The fact that presently the United States, Russia and the other nuclear weapon states have not put forward a global nuclear disarmament plan for the 21st century and have not at least stated their political willingness to establish a nuclear weapons free world in the post-Cold War era should not discourage the nations of the world and particularly the peoples of the world from applying continued pressure upon the two nuclear superpowers and the other members of the club of nuclear powers to finally agree on their nuclear disarmament. At this point, it is important to note that in December 1996 approximately seventy former generals from all over the world, including American and Russian former generals who were in charge of launching nuclear weapons in wartime, launched their campaign by calling upon Russia and the United States and the other nuclear weapon states to begin their process of nuclear disarmament with the ultimate objective of establishing a nuclear weapons free world in the 21st century. Additionally, the conclusion of the CTBT in September 1996, which comprehensively



prohibits nuclear weapon testing, is a significant legal breakthrough, which greatly facilitates the legal process for a global nuclear disarmament in the 21st century.

More than half a century has passed from the advent of the nuclear age and the development of the atom bomb. For more than half a century the entire world community has lived under the constant fear of nuclear war and its nuclear holocaust. During the past fifty years the world community has lost several historic opportunities for the final settlement of the question of nuclear weapons and their elimination. As has been already explained, the end of the Cold War and the evolving global détente provide a unique opportunity and the required legal dynamics for the final conclusion of a global and comprehensive nuclear disarmament treaty in the year 2000. The conclusion of such a proposed treaty by the year 2000 and the elimination of all nuclear weapons by the year 2010 seem to be feasible.

In the year 2000, the world community is called to make its most important choice in the history of its modern civilization. Either to achieve through the rule of international law the elimination of all nuclear weapons and thus to establish at the beginning of the 21st century a nuclear weapons free world, or to begin the 21st century with the continued existence of nuclear weapons, whose very existence represents a clear and inherent danger to the very

survival of humanity and its civilization. The most effective way to prevent a nuclear holocaust in the 21st century is only the total elimination of nuclear weapons through the legal process of nuclear disarmament. Until the last nuclear weapons are eliminated, no assurance can be given that humanity will eventually avoid experiencing the lethal and unimaginably catastrophic consequences of nuclear war in the 21st century and its poisonous effects on the remnants of humanity for many centuries to come. The beginning of the new nuclear age in terms of the horizontal proliferation of nuclear weapons and its expansion in the 21st century requires a global nuclear disarmament for the 21st century. In contrast with the 20th century, the international community should begin the 21st century with creating a nuclear weapons free world.

C. The Comprehensive Nuclear Test Ban Treaty  
(September 1996) and Its Impact on Global Nuclear  
Disarmament.

1. The CTBT and Its Legal Objectives.

Since the first nuclear explosion in 1945, which brought to the world the nuclear age and the atomic bomb, the international community has been involved in the quest for achieving the establishment of an international legal regime on the global prohibition of nuclear weapon testing. Since 1945, nuclear weapon testing has

been a significant means for the qualitative advancement of nuclear weapons, both in terms of vertical and horizontal proliferation of nuclear weapons. It is also important to note that nuclear weapon testing has significantly contributed to the development of advanced new types of nuclear weapons with far more destructive power.

Although the United States and former Soviet Union were involved since 1945 in continuing nuclear weapon testing due to their nuclear arms race, the other lesser nuclear weapon states, Britain, France and China were also involved in conducting their own nuclear weapon testing. In fact, both China and France carried out nuclear weapon testing in 1996 and not too long before the conclusion of the Comprehensive Nuclear Test Ban Treaty in September 1996. An estimate of the known nuclear weapon tests conducted on a worldwide scale from 1945 to 1996 in the atmosphere and underground shows a total of about 2,045 of such tests. Clearly this high number of tests in the past half century clearly demonstrates the fundamental importance of nuclear weapon testing in the field of nuclear weapon armaments on a global basis.<sup>530</sup>

Despite intensive negotiations and the proposal of significant proposals for the legal prohibition of nuclear weapon testing on a global basis and in a comprehensive manner, the world community had failed to make any legal progress and breakthroughs to that

end. Nevertheless, the end of the Cold War and the emerging global détente created a more favorable world environment for the creation of a nuclear weapon testing free world for the 21st century. After extensive negotiations, particularly in the last five years, and the undertaking of the conclusion of a comprehensive nuclear test ban by the nations of the world in 1995 in the context of the NPT indefinite extension, on September 11, 1996 the U.N. General Assembly by a large majority of member states adopted the Comprehensive Nuclear Test Ban Treaty (CTBT), and thus the treaty was formally opened to the signature of individual countries.<sup>531</sup>

Thus, half a century since the first atomic weapon explosion in 1945, and after the production of approximately 100,000 nuclear weapons on a global basis, the world community by concluding the CTBT has concluded a vicious cycle of fifty years of nuclear weapon testing. Indeed, the conclusion of the CTBT constitutes a great legal development and breakthrough in the effort to achieve a global and effective nuclear disarmament in the 21st century.

The preamble to the CTBT clearly stresses the need for continued systematic and progressive efforts to reduce the number of nuclear weapons on a global basis with the ultimate goal of eliminating all nuclear weapons and achieving complete nuclear disarmament under effective verification means and international con-

trol. Additionally, the treaty emphasizes that the cessation of all nuclear weapon test explosions and all other nuclear explosions do not only contribute in the prevention of the development and qualitative improvement of nuclear weapons and the development of more advanced new nuclear weapons, but also constitute an effective measure of nuclear disarmament and nonproliferation of nuclear weapons. The preamble of the treaty recognizes that the ending of all nuclear weapon explosions will be a significant step in the realization of a systematic process to achieve nuclear disarmament.

The most fundamental legal objective and purpose of the CTBT is the cessation of all nuclear weapon test explosions and all other nuclear explosions. To this end, Article I in paragraph 1 states that: "Each state party undertakes not to carry out any nuclear weapon test explosion or any other nuclear explosion, and to prohibit and prevent any such nuclear explosion at any place under its jurisdiction." Paragraph 2 of Article I states further that: "Each state party undertakes, furthermore, to refrain from causing, encouraging, or in any way participating in the carrying out of any nuclear weapon test explosion or any other nuclear explosion." Accordingly, it is obvious from the wording of Article 1 of the CTBT that the treaty legally provides and imposes a total and comprehensive ending of all nuclear weapon explosions and all other nuclear weapons.

After half a century of nuclear weapon testing, the adoption of the CTBT brings to an end through the rule of international law an entire era of continuous development of more destructive nuclear weapons through their testing. The legal prohibition of all nuclear weapon explosions and all other explosions constitutes a significant legal breakthrough in constraining the development and qualitative improvement of nuclear weapons and putting an end to the development of more advanced and newer generations of nuclear weapons with more lethal power. Also, the ending of nuclear weapon testing and nuclear explosions apparently constitutes a significant breakthrough in the field of global nuclear disarmament and the nonproliferation of nuclear weapons in the post-Cold War era and in the 21st century.

The legal impact of the CTBT on the issue of achieving nuclear disarmament is of fundamental significance and contribution. Indeed, the ending of nuclear weapon testing by the treaty will greatly assist in the international legal effort to realize a nuclear weapons-free world in the 21st century. Specifically, the older types of existing nuclear weapons and the aging nuclear weapons stockpiles throughout the world will be finally eliminated and destroyed due to the prohibition of their nuclear testing to ensure their proper function. This will substantially reduce the nuclear weapons of the nuclear weapon states, and this development will, in return, pro-

mote the legal goal of global nuclear disarmament. Additionally, the ending of all nuclear test explosions by the CTBT will prevent the nuclear weapon states from developing new generations of nuclear weapon states in the 21st century. It will also prevent the proliferation of nuclear weapons by non-nuclear weapon states in the coming new century. Thus, the legal ground for a global nuclear disarmament will be prepared.

Although the CTBT outlaws all nuclear weapon tests and all other explosions, the treaty fails to explicitly and specifically prohibit the carrying out of computer simulations or tests of nuclear weapons involving what are known as “sub-critical” blasts with no radioactive yield. At this point, it should be noted that all nuclear weapon states and other technologically developed countries are in the possession of sophisticated and advanced laboratories and computer systems, which allow them to conduct computer simulated tests of nuclear weapons, which are not prohibited by the treaty. Of course, this shortcoming of the treaty may be exploited by the nuclear weapon states and other technologically advanced countries to pursue a new kind of nuclear arms race in the 21st century by using their sophisticated laboratories and computer systems to carry out unverifiable simulated illegal tests of their nuclear weapons. On the other hand, states, which have no such technological capabilities, will be prohibited by the treaty from carrying out nuclear

weapon tests and explosions.<sup>532</sup>

This will create a new inequality and division between states parties to the CTBT, and this will further provide countries with advanced laboratories and computers with a great advantage over most countries of the world which do not have them in the sphere of nuclear weapon testing and the advancement of their nuclear weapons. Therefore, it is obvious that this shortcoming of the treaty will have a negative impact on the universal acceptance of the treaty, and it may jeopardize its legal objective to outlaw nuclear weapon testing on a global basis. Accordingly, it is apparent the need to adopt an amendment of the CTBT, which will prohibit also the carrying out of laboratory and computer simulated tests and explosions of nuclear weapons under effective international controls. Such an addition to the CTBT will greatly facilitate the universal acceptance of the treaty and the end of nuclear weapon testing in the 21st century.

As far as the entry of the CTBT into force is concerned, it should be noted that Paragraph 1 of Article XIV of the treaty provides that it will enter into force 180 days after the date of deposit of the instruments of ratification by all states listed in Annex 2 of the treaty, but in no case earlier than two years after its opening for signature. According to Annex 2 of the treaty, there are 44 states which have nuclear power reactors and research reactors



that must all of them sign and ratify the treaty in order to enter into force. Even if all 44 states proceed now and sign and ratify the treaty, the treaty will not enter into force until after September 1998.

Since its opening for signaturing in September 1996, the CTBT has been signed by 158 states. All nuclear weapon states have signed the treaty. Also, Israel, a *de facto* nuclear weapon state, has signed the treaty, including other states with nuclear power and research reactors listed in Annex 2 to the treaty. However, both India and Pakistan, *de facto* nuclear weapon states, have announced that they will not sign the treaty. In particular, India has officially announced that it will not sign it. India justifies its refusal to sign the treaty by arguing that the treaty is unequal, and that the nuclear weapon states have not legally committed themselves to a certain deadline for the total elimination of their nuclear weapons.<sup>533</sup>

If India does not sign the CTBT, then the treaty will not enter into force, and it will not develop the legal effect of an international treaty. But if the treaty has not entered into force three years after the date of the anniversary of its opening for signature, then according to Paragraph 2 of Article XIV of the treaty, a conference of states that have already deposited their instruments of ratification must convene to decide what measures may be undertaken to ac-

celerate and facilitate the early entry into force of the treaty. Additionally, it should be noted that the CTBT is of unlimited duration. But even if the CTBT does not enter into force, the treaty still can develop legal effect if it becomes a customary rule of international law.

## 2. Implementation of the CTBT and Its Verification System

To ensure its effective implementation, the CTBT has created an organizational structure and a verification system which are underlined by innovative legal approaches to carry out the objectives of this treaty. Specifically, Article II of the treaty establishes a treaty Organization. The Organization consists of all states parties to the treaty. The fundamental objective of the Organization is to achieve the object and purpose of the treaty, to ensure the implementation of its provisions, including those provisions of the treaty for international verification of compliance with it, and to provide a forum for consultation and cooperation among the states parties to the treaty. In particular, the Organization has been empowered with the responsibility of verification activities provided by the treaty, and thus to ensure the effective implementation of the treaty. The Organization enjoys under the treaty all privileges and immunities, which are necessary to exercise its functions.

The Conference, which has been established by the CTBT,

constitutes a principal organ of the Organization. The Conference consists of all states parties. According to Article II, Section B, the Conference has the power to consider any questions and issues within the scope of the treaty. Additionally, the Conference can make recommendations and take decisions on issues pertaining to the scope of the treaty. The Conference has the obligation under the treaty to oversee the implementation of the treaty, to review its effective compliance and to act in a manner that promotes the objectives of the treaty.

The Executive Council consists of 51 states parties. Although all states parties to the treaty have the right to serve on the Executive Council, state representation to this organ of the treaty is required to be done on the basis of an equitable geographical distribution. This organ of the treaty has the responsibility to promote the effective implementation of the treaty and to ensure its compliance. To this end the Executive Council has been provided with a wide range of powers and responsibilities. But of particular importance are the powers of this organ to receive, consider, and take actions on requests for on-site inspections, and the reports of such inspections in accordance with Article IV of the treaty. This organ also has the power to approve and oversee the operation of agreements or arrangements relating to the implementation of verification activities with states parties and other states. Moreover, the

Executive Council has the power to consider any concern raised by a state party regarding possible non-compliance with the treaty and abuse of the rights provided by the treaty. It is further the responsibility of this organ to take appropriate measures to redress the situation.

The Technical Secretariat consists of all states parties to the treaty. This organ is designed by the treaty to assist the Conference and the Executive Council in the performance of their functions under the treaty. The Technical Secretariat is a significant treaty organ with a wide scale of powers and responsibilities to carry out the difficult task of achieving the effective implementation of the treaty. To this end, the functions of the Technical Secretariat with regard to verification of compliance with the treaty, pursuant to Article IV and the Protocol include, *inter alia*: (a) the responsibility for supervising and coordinating the operation of the International Monitoring System; (b) the operation of the International Data Center; (c) the routine receivings, processing, analyzing and reporting of International Monitoring System data; (d) the provision of technical assistance and support for the installation and operation of monitoring stations; and (e) the receiving of requests for on-site inspections and their processing, and also the carrying out of preparations in connection with the conduct of on-site inspections.

As far as the verification of the effective implementation of

the CTBT is concerned, the treaty has established an innovative and elaborate system to achieve this objective. Article III of the treaty provides a system of national implementation measures designed to implement the obligations of states parties to the treaty. Specifically, Article III imposes upon states parties to the treaty to prohibit natural and legal persons anywhere on their territories or in any other place under their jurisdiction from undertaking any activities prohibited by the treaty. Additionally, Article III requires states parties to the CTBT to form a National Authority, which will serve as the national focal point for liaison with the Organization and with other states parties.

But, most importantly, the CTBT has created a significant international verification system to verify compliance with the treaty and carry out its implementation in an effective manner. Article IV of the treaty creates a verification regime consisting of the following elements: (a) an International Monitoring System; (b) consultation and clarification; (c) on-site inspections, and (d) confidence-building measures. At this point, it should be noted that the verification activities of the CTBT are to be carried out on the basis of full respect for the sovereignty of states parties, and in the least intrusive manner possible consistent with the effective and timely accomplishment of their objectives. The treaty also requires states parties to refrain from any abuse of the right of verification.

According to the treaty, each state party undertakes the obligation to cooperate with the Organization and the other states parties, and thus to facilitate the verification of compliance with the treaty. In particular, the treaty requires states parties to perform the following: (a) to establish the necessary facilities to participate in the verification measures; (b) to provide data obtained from national stations that are part of the International Monitoring System; (c) to permit the conduct of on-site inspections, and (d) to participate in confidence-building measures.

The CTBT clearly provides that all states parties, regardless of their technical and financial capabilities, must enjoy the equal right of verification and assume the equal obligation to accept verification. Of course, the provision of equal rights and obligations of states parties to the verification of the treaty by on-site inspections in particular creates a new international legal system and regime of intrusive verification, which is capable of ensuring the effective implementation of the treaty. The legal adoption of on-site inspections on the international level by the CTBT creates further a new international law of verification measures, which can be of imperative importance in ensuring the effective implementation of international nuclear disarmament agreements.

Although consultation and clarification, and confidence-building measures can play a positive role as verification measures for

ensuring the effective compliance with the treaty, it should be agreed that the International Monitoring System and the system of on-site inspections are obviously the most effective and dynamic means of verifying the effective implementation of the objectives of the treaty. A brief analysis of the International Monitoring System is comprised of means and facilities for seismological monitoring, radio-nuclide monitoring, including certified laboratories, hydroacoustic monitoring, infrasound monitoring and respective means of communication. In particular, the technological advancement and sophistication of seismological means of monitoring can play a significant role in the verification of compliance with the treaty.<sup>534</sup>

With respect to the use of on-site inspections as a means for treaty compliance verification, it should be noted that the sole purpose of on-site inspections is to clarify whether a nuclear weapon test explosion or any other nuclear explosion was carried out in violation of Article I of the CTBT. To this end, the treaty provides each state party with the right to request on-site inspections. Thus, if a state party makes a request of on-site inspections, and after several procedural requirements have been met, the Executive Council can approve the conduct of on-site inspections on the territory of the state party to be inspected. Then, an inspection team must be sent to conduct the approved on-site inspection. The state party to be inspected is required by the treaty to permit the on-site inspection

and to enable the inspection team to fulfill its mandate. In particular, the state party, subject to on-site inspection, is required by the treaty not to impede the inspection team from moving within the inspection area and to carry out its inspection activities. At this point, it should be noted that the inspection team in carrying out on-site inspections must conduct them in the least intrusive manner possible and to collect only information to ensure compliance with the treaty. Thus, the Executive Council has the power not to approve frivolous or abusive on-site inspections or to terminate such inspections for the same reasons.

If there is sufficient information that a state party has acted in violation of the treaty, the Executive Council should take the necessary measures to redress and remedy the situation to ensure compliance with the treaty. To this end, the treaty provides a system of peaceful resolution of the issues and disputes involved, including resort to the International Court of Justice in accordance with the Statute of the Court. But if the Executive Council has failed to resolve issues involving the compliance of a state party with the treaty, then the Conference may decide to restrict or suspend the violator state party from the exercise of its rights and privileges under the treaty until the Conference decides otherwise.

There should be agreement that the preceding analysis of the structural organization of the treaty and its verification system for



ensuring its effective implementation clearly shows that the CTBT has adopted a verification system of significant and innovative means to effectively achieve the purpose of the treaty. In particular, the international verification system of on-site inspections, adopted by the treaty, constitutes a substantial legal step not only for the effective implementation of the CTBT, but also the new international law of on-site inspections verification system can play a significant role in the field of effective nuclear disarmament.

Nevertheless, it must be noted that the CTBT has failed to adopt random on-site inspections. Contrary to on-site inspections that can be carried out only by request and approval procedures of the treaty which are fairly expedited, random on-site inspections would be obviously more effective to ensure compliance with the treaty because inspection teams would be empowered with the right to go to any territory of any state party to conduct on-site inspection without advanced notice. Thus, states parties violating the terms of the treaty would not have any notice that they would be subject to on-site inspections, and then, such states would not have the required time to destroy and conceal any evidence from the inspection team that would show violations of the treaty.

Indeed, the legal need for the adoption of a system of random on-site inspections by the treaty becomes important in view of the fact that technologically and scientifically small nuclear-weapon

testing explosions of one, or two, or a few kilotons will be possible to carry out in a large underground cavity. Of course, this kind of small nuclear weapon explosion could not be detected by the International Monitoring System because the small nuclear energy released by the seismic signal will lay below the technical capability of the International Monitoring System to detect it. The International Monitoring System is capable of monitoring all seismic events down to a seismic magnitude of 4.25 and to be able to locate these seismic events within an area of a thousand square kilometers.<sup>535</sup>

However, random on-site inspections, combined with the establishment by the CTBT of an international intelligence system designed to collect information and data relating to the adherence to the treaty, would have created a more effective and dynamic verification system to guard against violations of the treaty. Additionally, the treaty has failed to prohibit the conduct of computer simulations or tests of nuclear weapons. In view of the fact that several states have advanced computer technologies capable of carrying out computer simulations or tests involving what are known as "subcritical" blasts with no radioactive yield, this technological capability poses a serious challenge to the effective implementation of the treaty. To remedy this problem, the treaty should be amended so as to prohibit the conduct of computer simulations

or tests involving “subcritical blasts”. Additionally, the treaty should establish a sophisticated system capable of verifying and monitoring against the carrying out of computer “subcritical” blasts.

In view of the legal precedent set by the direct involvement of the United Nations in the successful dismantlement and destruction of the Iraqi nuclear weapons program on the basis of the agreements concluded in the aftermath of the Persian Gulf War, the CTBT, in addition to the proposed adoption of random on-site inspections, should have also empowered its inspection teams with the right to physically destroy, or to seize, or to remove from any inspected territory and facility any nuclear material and other means, which could be used for nuclear weapon explosions and testing in violation of the treaty. Moreover, the CTBT, in view of the precedent set by the severe international sanctions imposed upon Iraq, should have provided the imposition of international sanctions of severe form upon the states parties to the treaty and any other states not party to the treaty, which are involved in nuclear testing.

#### D. NWFZs and the Future of Regional Nuclear Disarmament in the Post-Cold War Era

##### 1. NWFZs Established Between 1986-1997

a. The Korean Peninsula NWFZ (December 1991)

After several years of negotiations, North and South Korea signed an agreement in December 1991, which provides the establishment of a nuclear weapon-free zone in the Korean peninsula. In their Joint Declaration for a Non-Nuclear Korean Peninsula (denuclearization agreement), both nations undertook not to test, produce, receive, possess, store, deploy or use nuclear weapons. However, any progress toward implementation of the denuclearization agreement and the final establishment of a nuclear weapon-free Korean peninsula has moved slowly, and suffered a major setback when North Korea withdrew from the NPT in 1993.<sup>536</sup>

China, a significant nuclear weapon state with the ambition to become a nuclear superpower in the 21st century, has continuously supported the establishment of a nuclear weapon-free Korean peninsula, including the peaceful reunification of both Koreas. Similarly, Russia, a nuclear superpower, has been supportive of a nuclear weapon-free Korean peninsula, and has withdrawn its technical support for the North Korean nuclear facilities and program. Also, the United States has supported a Korean NWFZ, and since 1991 has removed all of its nuclear weapons from South Korea. Additionally, Japan has been in support of the establishment of a nuclear weapon-free Korean peninsula.<sup>537</sup>

But the decision of North Korea to withdraw from the NPT in 1993, and not allow the IAEA to conduct on-site inspections on its nuclear facilities has exercised a negative impact on the legal effort for the denuclearization of the Korean peninsula. Although North Korea suspended in the same year its withdrawal from the NPT, reports that North Korea had created an advanced nuclear weapon program and that it had the technological capability to develop nuclear weapons caused more friction between the two Koreas, but also it had negative impact on the region. Nevertheless, after intensive negotiations between North Korea and the United States, both parties agreed in 1994 that North Korea would freeze its nuclear activities and that it would allow IAEA inspectors to verify the freeze.<sup>538</sup>

Further negotiations between the United States and North Korea led to a new agreement, in the fall of 1995, in which North Korea agreed to dismantle its existing nuclear facilities in exchange for receiving light water reactors and interim energy supplies. Also, South Korea in 1995 ratified the NPT. Furthermore, the United States agreed that it would not use or threaten to use nuclear weapons against North Korea. Of course, these developments have deflated the tension in the Korean peninsula and may further facilitate the process for a nuclear weapon-free Korean peninsula by implementing the relevant denuclearization agreement. Moreover,

the denuclearization of the Korean peninsula will greatly facilitate the process for achieving and maintaining a Northeast Asian NWFZ.<sup>539</sup>

But the failure to finally establish a Korean peninsula NWFZ will obviously exercise a negative impact on the region. If North Korea acquires nuclear weapons, then Japan will be within the range of North Korea's ballistic missiles capable of carrying and delivering nuclear weapons. Such a development would provide the required justification to the Japanese government to proceed immediately with the development of nuclear weapons. At this point, it should be noted that Japan is an NPT member state, which supported its indefinite extension in 1995. However, Japanese government officials in 1993 had expressed their desire to acquire the nuclear bomb as an option. It is further important to note that Japan has already the technological capabilities and the required materials to develop nuclear weapons. Japan has accumulated more than 10 tons of plutonium, which enables Japan to make a large number of nuclear weapons.<sup>540</sup>

Accordingly, the denuclearization of the Korean peninsula will provide the environment not only for final establishment of a nuclear weapon-free Korean peninsula, but it will also facilitate the process for a Northeast Asian nuclear weapon-free area. Thus, the implementation of the denuclearization agreement between the two

Koreas will greatly assist in the denuclearization of the region. But most importantly, it will prevent the eruption of a nuclear arms race in the region in the 21st century, which would involve the acquisition of nuclear weapons by Japan in violation of its obligations under the NPT. Indeed, Japan, a global economic superpower, will not accept remaining nuclear weapon-free if North Korea finally develops nuclear weapons enabling it to threaten it with nuclear war and nuclear blackmail.

b. The Southeast Asian NWFZ (December 1995)

On December 15, 1995, the leaders of all ten Southeast Asian nations signed the treaty, which established the Southeast Asian NWFZ. This NWFZ comprises Myanmar, Burma, Laos and Cambodia, plus the ASEAN countries of Brunei, Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Vietnam.<sup>541</sup> The fundamental objective of this NWFZ is, pursuant to its Article 3, to prohibit its states parties from developing, manufacturing or otherwise acquiring or having control over nuclear weapons anywhere inside or outside this zone; and from stationing or transporting nuclear weapons by any means, or test nuclear weapons. Additionally, Article 3 of the treaty imposes the obligation upon the states parties not to allow in their respective territories any other state to carry out the above activities. Moreover, the treaty prohibits the dumping of nuclear materials and radioactive wastes in

the region.<sup>542</sup>

The treaty further has provided an organizational system to implement the purposes and objectives of the treaty. The principal organs of the treaty are the Commission and the Executive Committee. Although the Commission has the power to supervise the implementation of the treaty, the Executive Committee has, as its primary function, the duty to ensure the proper operation of verification measures in accordance with the provisions of the control system of the treaty, which are stipulated in its Article 10. In fact, the control system of the treaty, which is designed to ensure the verified compliance with the treaty, provides, as verification means, the application of the IAEA safeguards system, report and exchange of information, request for clarification, and request and procedures for a fact-finding mission.<sup>543</sup>

Despite the fact that both China and the United States do not support the Southeast Asian NWFZ,<sup>544</sup> an overall evaluation of the objectives of this zone clearly shows the legal commitment of its states parties to create and nuclear weapon-free zone in their region. The establishment of this zone does not only promote peace and security in the region, but also it is a safeguard against the proliferation of nuclear weapons in the region. Thus, this NWFZ is a significant legal measure against regional nuclear weapons non-proliferation, and a substantial step in the quest for a global nu-



clear disarmament.

c. The African NWFZ (April 1996)

Since 1964, the Organization of African Unity had begun under the aegis of the United Nations the negotiating process for the conclusion of a treaty establishing an African NWFZ. Notwithstanding negotiations to that end in the past, it was in 1990 when the hopes for the establishment of the zone were heightened because South Africa had announced that it would sign the NPT. Indeed, South Africa, which had become a *de facto* nuclear weapon state, signed the NPT in 1991. In 1993, South Africa stated publicly that it had developed nuclear weapons, but it had destroyed all of them.<sup>545</sup>

The accession of South Africa to the NPT and its verified denuclearization by the IAEA, paved the road for the conclusion of the African NWFZ, which was signed in Cairo on April 11, 1996.<sup>546</sup> The treaty constitutes a significant legal development in the field of regional nuclear disarmament. This treaty is the first international legal instrument in the field of nuclear weapons nonproliferation and disarmament, which requires the denuclearization of an entire continent.

The African NWFZ covers 53 states. So far 45 states have signed the treaty. South Africa has signed the treaty. Also, Ghana and Zaire, which have nuclear research reactors, have signed the

treaty. Moreover, Nigeria, which threatened in the past to acquire nuclear weapons, has signed the treaty. The North African states of Egypt, Libya and Algeria, which have been involved in nuclear activities, have all signed the treaty.<sup>547</sup>

The fundamental legal objective of the treaty is to denuclearize and maintain the entire African continent free of nuclear weapons. To this end, the treaty prohibits its states parties from stationing nuclear explosive devices and from testing nuclear explosive devices. The treaty further provides for the declaration, destruction, dismantling or conversion of nuclear explosive devices and the facilities for their manufacture. The treaty prohibits the dumping of radioactive wastes, and it is the first multinational legal instrument that provides for the physical protection of nuclear materials and facilities and prohibits explicitly the armed attack on nuclear installations.<sup>548</sup>

To ensure the peaceful application and use of nuclear energy, the treaty has created a mechanism of compliance placed under the African Commission on Nuclear Energy, formed by the treaty. The treaty further provides a system of verification for ensuring the effective implementation of the treaty purposes. Thus, the treaty requires the involvement of the IAEA in the verification of compliance with the treaty by applying its nuclear safeguards. It also provides a system for annual reporting and exchanges of information

regarding the implementation of the treaty. The treaty, which is of unlimited duration and indefinite force, provides, as means of the settlement of disputes over treaty issues, negotiations and arbitration.<sup>549</sup>

An overall evaluation of the establishment of the African NWFZ clearly shows that it is a significant legal achievement in the field of regional nuclear weapons nonproliferation. Indeed, it is the first time in the history of nuclear disarmament that an entire continent consisting of 53 states has been declared and established as a NWFZ. This constitutes an important legal development, which can be used as a model for the denuclearization of the other continents of the Earth. At this point, it should be noted that, as far as the legal relationship of the nuclear weapon states and of those states controlling territories in Africa are concerned, China, France, Britain and the United States, except Russia, have signed both Protocols I and II to the treaty. Protocol I requires the nuclear weapon states not to use or threaten to use a nuclear explosive device against the parties to the treaty. Protocol II requires the nuclear weapon states not to test any nuclear explosive devices within the zone. Protocol III, already signed by France and Spain, requires both countries to cooperate with the treaty since these two countries are internationally responsible for territories within the African NWFZ.<sup>550</sup>

## 2. The Prospects for New NWFZs In the Post-Cold War Era

Since the late 1950s when the concept of NWFZ was introduced as an international legal measure for the prevention of the proliferation of nuclear weapons in the various regions of the globe, a number of NWFZs and even Peace Zones have been proposed to be established. Nevertheless, so far only the Latin American, the South Pacific, the Korean Peninsula, the Southeast Asian, and African NWFZs have been established. But there exist the old, but still open, proposals for the establishment of the following NWFZs and Peace Zones: (1) a Central European NWFZ; (2) a Balkan NWFZ; (3) a Nordic NWFZ; (4) a Mediterranean NWFZ; (5) a Middle East NWFZ; (6) a South Asian NWFZ; (7) an Indian Ocean Zone of Peace, and (8) an Arctic NWFZ.<sup>551</sup>

The legal establishment of the proposed NWFZs and Peace Zones, which cover vast regions of the world, will be a dynamic regional measure for regional nuclear weapons nonproliferation and generally for regional denuclearization and nuclear disarmament. It is also important to underline that the adoption of these proposed NWFZs will exercise a positive legal impact on the question of global and comprehensive nuclear disarmament. In essence, it should be agreed that the legal adoption of any proposed NWFZ in any region of the world will make a significant contribution to the

cause of nuclear disarmament.

Although the prospects for the establishment of each of the proposed NWFZs in the post-Cold War era and in the 21st century demand their own analysis, the following discussion will concentrate on the prospects and legal need for the creation of NWFZs in the Middle East and the South Asian regions. The introduction of nuclear weapons in these two regions, the existence of historic conflicts and the volatile situation in these regions clearly demand the denuclearization of both regions. It should be emphasized that existence of nuclear weapons in these regions, and the potential for their use in the event of a military conflict in these regions will not only cause a regional nuclear holocaust, but also will pose a grave danger to global peace and security by triggering a global nuclear war.

As far as the international efforts for the creation of a Middle East NWFZ are concerned, it should be remembered that the proposal for the creation of a Middle East NWFZ, which would comprise the Arab states, Israel and Iran, was proposed in 1974 by Iran because of the rapid diffusion of nuclear technology and materials in the region. But, despite the UN resolutions and the regional efforts for the legal adoption of a Middle East NWFZ, such a proposed NWFZ has not been established.<sup>552</sup> In particular, the historic conflict and confrontation between Israel and the Arab states, and,

above all, the nuclear weapons monopoly by Israel in the region have become great obstacles to the establishment of a Middle East NWFZ.

Indeed, the nuclear weapons monopoly of Israel, which has refused to accede to the NPT and to accept the nuclear safeguards of the IAEA, and the Israeli reserved reaction to the creation of a Middle East NWFZ<sup>553</sup> have decreased the legal prospects for the establishment of such a NWFZ in the Middle East region. On the other hand, a number of militarily significant Arab states have expressed support for a Middle East NWFZ. Additionally, the destruction and dismantling of Iraq's nuclear weapons program during the Persian Gulf War in 1991 and afterwards by the United Nations inspection teams<sup>554</sup> after the war should increase the legal prospects for a Middle East NWFZ. In fact, the dismantling of Iraq's nuclear weapons program should prevent any Israeli argument not to support a Middle East NWFZ because the danger of the building of nuclear weapons by Iraq to be primarily used against Israel no longer exists.

Although, at the present time, none of the Arab states in the Middle East possesses nuclear weapons, and although it is unlikely that any Arab state will be able to acquire nuclear weapon capabilities in the near future, Israel's nuclear weapons monopoly in the region does not only negatively affect the prospects of a denucle-

arized Middle East region, but also increases the possibility of the acquisition of nuclear weapons by the Arab states in the future in order to counter Israel's nuclear monopoly in the region. This, in turn, will pose a constant threat of nuclear war in the Middle East, particularly due to the historic conflict between Israel and the Arab states. Additionally, it should be noted that Iran, which does not possess nuclear weapons, has launched a major effort to build a nuclear weapons program. If Iran will be finally able to build nuclear weapons, this development will further increase the threat of a nuclear war in the Middle East region. Nonetheless, the Iranian government has recently expressed its support for a Middle East NWFZ.<sup>555</sup>

In addition to Israel's nuclear weapons monopoly and its determination to retain its nuclear weapon capabilities which have become major obstacles to any legal breakthrough in the creation of a denuclearized Middle East region, it must also be added that the United States has played a negative role in the effort to establish a Middle East NWFZ. Despite the recognition that the United States has supported the creation of a Middle East NWFZ, and despite the fact that almost immediately after the end of the Persian Gulf War President Bush proposed that Middle Eastern states halt the production of enriched uranium and processed plutonium, the United States has failed to be a catalyst in ending Israel's nuclear

monopoly and in establishing a Middle Eastern NWFZ. Of course, it should be noted that the recent Bush proposal for halting the proliferation of nuclear bomb-building materials in the Middle East was rejected by Egypt and other Arab states, because the legal adoption of this proposal would permit Israel to retain its nuclear weapons.<sup>556</sup>

Moreover, it is important to underline that the United States has played a negative role in the establishment of a NWFZ in the Middle East. In fact, the United States has applied an unacceptable double standard of policy on the question of the proliferation of nuclear weapons in the Middle East. In more specific terms, the United States has vigorously opposed any Arab state in its effort to acquire nuclear weapon capabilities. Indeed, the United States was so quick during the Persian Gulf War in 1991 and afterwards to destroy the Iraqi nuclear program and facilities, and then prevent it from building nuclear weapons. On the other hand, the United States has deliberately failed not only to pressure Israel to forgo its nuclear weapon capabilities, but also, and most importantly, the United States has not even acknowledged that Israel has nuclear weapons.

Although it will be a difficult legal task to create a nuclear weapons-free Middle East due to the historic conflict and animosity between Israel and the Arab states, it should be pointed out that



the end of the Cold War conflict which had involved both nuclear superpowers in the Middle East and the presently evolving Arab-Israeli peace negotiations and agreements provide the legal environment and dynamic prospects for the final adoption of a Middle East NWFZ in the post-Cold War era. But to achieve this legal objective, Israel should abandon its argument that its nuclear weapons are a deterrent against Arab aggression and against a possible Arab nuclear threat.<sup>557</sup> Moreover, Israel should accede to the NPT, to open up and place all of its nuclear facilities and material under the control of the IAEA and to verifiably destroy all of its nuclear weapons.

Of course, Israel and the Arab states have a great security interest in ensuring that their region remains free from nuclear weapons in the future. Because, at the present time, no Arab state has acquired nuclear weapon capabilities, it would be, of course, easier to create a Middle East NWFZ. Also, Israel has an enormous security interest in forgoing its nuclear weapons capability with the objective to establish a Middle East NWFZ before the Arab states acquire nuclear weapons in order to end Israel's nuclear weapons monopoly. But if Israel insists on retaining its nuclear weapons, then some militarily significant Middle Eastern states will be pushed to acquire nuclear weapons in order to end the Israeli nuclear weapons monopoly. In view of the existing proliferation of nu-

clear technologies and materials, some Arab states will be able to build nuclear weapons in the future. But, an Arab-Israeli nuclear arms race in the Middle Eastern region will pose a grave threat of nuclear war in the region with an immediate threat to world peace and security. Despite the existing difficulties which lower the prospects of a Middle East NWFZ in the foreseeable future, it is obvious the legal need for the final establishment of such a zone.

The proposal for the creation of a South Asian NWFZ was made by Pakistan in 1974 when India carried out a test of a nuclear explosive device. Since 1976, the United Nations General Assembly has passed a string of resolutions calling for the establishment of a NWFZ in the South Asian region. Additionally, since the late 1970s, Pakistan has proposed to India: joint signing of the NPT, and joint agreement to full-scope safeguards, or bilateral inspection. However, India has rejected these Pakistani proposals. Moreover, in 1987 and in 1990 Pakistan also offered a joint declaration of South Asia as a NWFZ.<sup>558</sup>

In December 1985, both India and Pakistan agreed not to attack each other's nuclear facilities and to resume negotiations on a non-aggression pact or friendship treaty. The agreement on not attacking nuclear facilities was signed on December 31, 1988 and ratified by Pakistan on August 10, 1989. Finally, the two sides exchanged instruments of ratification on January 27, 1991, at which

point the treaty entered into force. The latest effort by Pakistan for the creation of an NWFZ in the South Asian region was made on June, 1991, when Pakistan offered five-power nuclear disarmament talks with the former Soviet Union, China and the United States mediating between India and Pakistan. Although such a meeting was initially scheduled to be held within the year 1992 in the capitol of the United States, this meeting has not yet taken place.<sup>559</sup>

Despite the repeated efforts for the establishment of a South Asian NWFZ, these efforts have not produced any positive legal results. But, above all, the reported acquisition of nuclear weapon capabilities by Pakistan by the end of the 1980s has exercised a great negative impact on the legal prospects for the creation of a South Asian NWFZ. Although the five *de jure* nuclear weapon states basically support the creation of such a NWFZ in the South Asian region, it must be pointed out that the establishment of such a zone in the region seems to face enormous difficulties.<sup>560</sup>

In more specific terms, while India opposes the legal adoption of a South Asian NWFZ because it has abandoned attempts at regional disarmament in favor of a global nuclear disarmament, the fundamental reasons for the failure to denuclearize this region can be found in the historic conflicts and animosities existing between India and Pakistan, and India and China. Thus, India, which has fears of a nuclear-armed China with whom it had a war conflict in

the past, is prevented from agreeing with Pakistan alone on the creation of a South Asian NWFZ. Accordingly, India will not accept to forgo its nuclear weapon capabilities by agreeing on a South Asian NWFZ while China would remain a nuclear power in the region. Furthermore, since India is determined because of the Chinese nuclear factor to retain its nuclear weapon capabilities, Pakistan, because of its conflict with India over Kashmir, will not forgo its nuclear weapon capabilities by accepting an NWFZ in the region while India would retain its nuclear weapon capabilities.<sup>561</sup>

In view of the preceding analysis, it seems that the legal prospects for the establishment of a South Asian NWFZ are substantially decreased. In essence, the historic conflicts and animosities between India and China, and India and Pakistan have become major obstacles which prevent both Pakistan and India from forgoing their nuclear weapon capabilities by the legal adoption of a South Asian NWFZ. In particular, the conflict between India and Pakistan over Kashmir might fuel a nuclear arms race between these two states in the region. Of course, such a development would increase the threat of a nuclear war in the region between India and Pakistan in the event of a major military conflict between themselves. Therefore, the establishment of the proposed South Asian NWFZ between Pakistan and India, including also the other states in the region, would put an end to a nuclear war conflict be-

tween Pakistan and India. Moreover, in order to dispel the fears of a Chinese nuclear attack against India and thus assist in the participation of India in the South Asian NWFZ, China should provide a nuclear security guarantee to India.<sup>562</sup>

The end of the Cold War and the end of the nuclear war confrontation between the United States and the former Soviet Union, and the beginning of a new post-Cold War global détente have become dynamic political and legal factors in the international efforts for both regional and global nuclear disarmament. In fact, it should be agreed that the deflation of the constant nuclear confrontation between the two nuclear superpowers, their nuclear disengagement and the withdrawal of their nuclear arms from various regions of the globe substantially increase the legal dynamics and prospects for regional nuclear disarmament by establishing new NWFZs.

During the Cold War years, the European continent was considered to be the main nuclear battlefield of a US-Soviet nuclear war exchange. However, the dissolution of the Warsaw Pact, the disintegration of the former Soviet Union, and the withdrawal of the former Soviet nuclear forces from Eastern Europe leave the United States and generally the NATO powers in Western Europe with no strategic enemy in sight. Similarly, the deflation of the superpower nuclear confrontation in the Asian continent and their nuclear disengagement from the various regions of this continent

constitute significant developments with respect to the regional legal efforts for regional nuclear disarmament.<sup>563</sup>

In general, it should be agreed that the end of the Cold War and the beginning of the new post-Cold War era provide the required legal dynamics and prospects for regional nuclear disarmament in all of the regions of the globe through the establishment of NWFZs. Of course, the dynamic pursuit for the creation of NWFZs in the various regions of the world and the expansion of the regional nuclear disarmament and anti-nuclear war movement will enhance the legal prospects for regional denuclearization. Additionally, the creation of NWFZs will be a significant legal measure for the prevention of the proliferation of nuclear weapons in the regions of the world. In the final analysis, it must be pointed out that the legal promotion of regional nuclear disarmament will, in turn, greatly facilitate the international legal process for a global and comprehensive nuclear disarmament in the post-Cold War era. Moreover, it should be noted that the end of the Cold War and the beginning of the new post-Cold War era present a unique legal opportunity for regional and thus global nuclear disarmament.

E. The Question of the Legality of the Use,  
Development, Possession and Deployment of  
Nuclear Weapons

## 1. The International Court of Justice and the Question of the Legality of the Threat or Use of Nuclear Weapons

The U.N. General Assembly had made, in 1994, a request to the International Court of Justice (ICJ) to render an advisory opinion on the following question: "Is the threat or use of nuclear weapons in any circumstance permitted under international law?" The ICJ, on July 8, 1996, handed down its advisory opinion on the above question. Although the advisory opinion of the ICJ deserves its own analysis and critical evaluation, the following discussion will focus on a brief and concise analysis of the main legal conclusions reached by the ICJ with respect to this question of paramount legal significance and of ultimate practical concern to the entire humanity and its civilization.

The ICJ unanimously concluded that there is in neither customary nor conventional international law any specific authorization of the threat or use of nuclear weapons. The ICJ also by eleven votes to three stated that there is in neither customary nor conventional international law any comprehensive and universal prohibition of the threat or use of nuclear weapons as such. The ICJ further unanimously concluded that a threat or use of force by means of nuclear weapons that is contrary to Article 2, Paragraph 4, of the United Nations Charter and that fails to meet all the requirements

of Article 51, is unlawful.

Additionally, the ICJ unanimously stated that a threat or use of nuclear weapons should also be compatible with the requirements of the international law applicable in armed conflict particularly those of the principles and rules of international humanitarian law, as well as with specific obligations under treaties and other undertakings which expressly deal with nuclear weapons. To this end, the ICJ, by seven votes to seven, reached the conclusion that the threat or use of nuclear weapons would generally be contrary to the rules of international law applicable in armed conflict, and in particular the principles and rules of humanitarian law. But the ICJ concluded that in view, however, of the current state of international law, and of the elements of fact at its disposal, the Court cannot conclude definitively whether the threat or use of nuclear weapons would be lawful or unlawful in an extreme circumstance of self defense, in which the very survival of a state would be at stake. Moreover, the ICJ unanimously concluded that there exists an obligation to pursue in good faith and bring to a conclusion negotiations leading to nuclear disarmament in all of its aspects under strict and effective international control.

A short critical evaluation of the advisory opinion of the ICJ on the fundamental question of whether the threat or use of nuclear weapons is consistent with international law clearly shows



that the Court, as a judicial organ of the United Nations, concluded that the threat or use of nuclear weapons generally would be contrary to international laws of war and the principles and rules of humanitarian law. In essence, the Court concluded that the threat or use of nuclear weapons to wage an aggressive nuclear war is generally unlawful under international law. Thus, it can be argued that the threat or use of nuclear weapons as means of an aggressive war are prohibited by international law. Of course, this conclusion reached by the ICJ constitutes a significant legal development and contribution generally in the areas of nuclear war and nuclear disarmament.

It is also of particular legal significance the conclusion of the Court that there exists a legal obligation to pursue in good faith and to bring to an end negotiations leading to nuclear disarmament in all its aspects under strict and effective international legal controls. Indeed, the Court recognizes that there is a legal obligation under international law that requires general nuclear disarmament. Apparently, this conclusion exercises a positive legal impact on the requirement for global and comprehensive nuclear disarmament as an international legal obligation, which imposes upon all nuclear weapon states to carry out their respective obligations by achieving their nuclear disarmament. In particular, this conclusion of the Court provides significant support to the argument put

forward by this study that nuclear disarmament is required by international law.

Although the Court concluded that the threat or use of nuclear weapons as a means of waging an aggressive war is against international law, the Court proved to be unable to reach a conclusion in a definitive way as to whether the threat or use of nuclear weapons would be lawful or unlawful in an extreme circumstance of self-defense, in which the very survival of a state would be at stake. In fact, the ICJ, which consists of fourteen judges, by seven votes to seven, expressed its indecisiveness and inability to render its opinion on the legality of the threat or use of nuclear weapons in an extreme circumstance, in which the very survival of a state would be at stake under the current state of international law. Nevertheless, it must be noted that the Court appears to agree that generally in the normal context of self-defense, and generally in situations which do not involve an extreme circumstance placing at stake the very survival of a state, the threat or use of nuclear weapons in such situations of self defense would be unlawful and prohibited under international law.

Due to its inability to reach a definitive conclusion and to resolve the question of whether the threat or use of nuclear weapons by a state would be lawful or unlawful to defend its very survival and in extreme circumstances of self defense under current inter-

national law, the Court failed to state its position on the supreme issue of the threat or use of nuclear weapons by a state to defend itself and its very survival. The court had simply nothing to say. But, the Court lost a historic opportunity of global dimensions by failing to declare by its advisory opinion that the threat or use of nuclear weapons is illegal in any circumstances whatsoever, and such an opinion of the Court would find support in international law. Simply, since the Court accepts that the threat or use of nuclear weapons is unlawful under the principles and rules of international humanitarian law, in the same legal rationale the Court should have concluded that even if the threat or use of such weapons were lawful in an extreme circumstance of self defense involving the very survival of a state, still the international humanitarian law would prohibit the use or threat of use of nuclear weapons even to defend the very survival of a state.

## 2. The Legality of the Threat or Use of Nuclear Weapons and the UN Charter

No problem is more serious than that of the nuclear warfare which could result in the devastation of mankind. Indeed, the use of nuclear weapons as means for warfare will provide an unprecedented capability to destroy the physical integrity of the planet and to threaten the very existence of humanity and its civilization. Accordingly, because the whole issue of nuclear weapons and their

potential use for war purposes is such a pivotal one for humanity, ever since the initial development of the first atomic bomb in 1945 by the United States and the first military use of atomic weapons against Japan in 1945 by the United States, nuclear weapons and their military use have been the subject of intense debate. In particular, the question of the legality of the use of nuclear weapons by a nuclear weapon state against an enemy state for aggressive purposes has been posed with ever-increasing frequency and intensity.<sup>564</sup>

As far as the question of the legality of the use<sup>565</sup> of nuclear weapons by a nuclear weapon state against an enemy state for aggressive purposes under the UN Charter is concerned, it should be noted that the UN Charter has not regulated their military use because the Charter was adopted before the atomic bomb was developed, and thus before its unprecedented destructive capabilities had become known. Nevertheless, Article 2 (4) of the UN Charter provides that: "All Members shall refrain in their international relations from the threat or use of force against the territorial integrity or political independence of any state, or in any other manner inconsistent with the purposes of the United Nations."

Based on the rule of law created by Article 2 (4) of the UN Charter, the threat or use of force for waging an aggressive war is absolutely prohibited. At this point, it is worthwhile to note that

the prohibition of the threat or use of force is not only a positive rule of international law, but also it has been established as a customary and as *jus cogens* rule of international law. Accordingly, since any threat or use of force for waging an aggressive war involves almost necessarily the threat or use of weapons, it can be further suggested that by virtue of Article 2 (4) of the UN Charter and by necessary legal implications the threat or use of nuclear weapons is prohibited under Article 2 (4) of the UN Charter.<sup>566</sup>

In relation to the question of the legality of the first use of nuclear weapons for waging an aggressive war, it should be further noted that China, by its legally binding declaration, has undertaken not to be the first to use nuclear weapons at any time or under any circumstances. China has also undertaken not to use or threaten to use nuclear weapons against non-nuclear weapon states or nuclear weapon-free zones at any time or under any circumstances. On the other hand, the United States, Russia, France and Britain, by their respective and legally binding declarations, have stated that they will not use nuclear weapons against non-nuclear weapon states parties to the NPT, except in the case of an invasion or other attack on their territories, their armed forces, their allies, or states with which they have security commitments, carried out or sustained by a non-nuclear weapon state, in association or alliance with a nuclear weapon state.<sup>567</sup>

However, it should be agreed that, under Article 2 (4) of the UN Charter, all nuclear weapon states, either *de jure* or *de facto*, are prohibited from resorting to the first use of their nuclear weapons, including the threat of using such weapons against any nuclear or non-nuclear weapon state for the purpose of waging aggressive war or making first use of nuclear weapons.<sup>568</sup> Of course, this legal conclusion is further supported by the UN General Assembly 1653 (XVI), adopted in 1961, which stated *inter alia* that the use of nuclear and thermonuclear weapons is a direct violation of the Charter.<sup>569</sup> The ICJ has reached the same conclusion on this question in its advisory opinion.

In spite of the conclusion that the threat or use of nuclear weapons in a first use scenario or for the purposes of waging an aggressive nuclear war is prohibited by necessary implication of the application of Article 2 (4) of the UN Charter, Article 51 of the UN Charter, which embodies the doctrine of self-defense, permits a state to use armed force in self-defense if an armed attack occurs against it. But since Article 51 of the Charter permits the use of armed force, the question arises whether nuclear weapons could be used in terms of self-defense and under what circumstances and criteria.

With respect to this question, it should be observed that the use of force in terms of self-defense under Article 51 of the UN

Charter constitutes an exception to the rule adopted by Article 2 (4) of the Charter, which outlaws war and the threat or use of force for the waging of aggressive wars. Therefore, the use of force in exercising the inherent right of a state in self-defense when an armed attack occurs against it must be exceptionally applied and it must be in conformity with the legal doctrine of self-defense. However, it must be emphasized that since war has been outlawed by virtue of Article 2 (4) of the UN Charter, then it should be agreed that the UN Charter has established a new legal order of a warless world community. Accordingly, in view of the law of peace established by the UN Charter, the use of armed force in terms of the doctrine of self-defense must be in conformity with the law of peace and must not defeat the objectives of this body of law.

Although the juridical concept of the right to use armed force in terms of self-defense constitutes a traditional concept of international law, the advent of nuclear weapons and particularly the unprecedented destructive capabilities of such weapons of mass destruction necessitates the philosophical and legal rethinking of the doctrine of self-defense and its validity in the nuclear age. In more specific terms, the concept of self-defense has always been predicated on the notion that an attacked country will be able to respond to the attack of the aggressor. But with the development of nuclear weapons, this assumption seems to be no longer valid.<sup>570</sup> Indeed,

the massive potential for wholesale destruction, which can be caused by the military use of either strategic or tactical nuclear weapons<sup>571</sup> even in the scenario of exercising the right of self-defense between the parties in conflict, clearly will not only exceed the limits imposed by the doctrine of self-defense, but also will defeat in the very objective of this doctrine.

In relation to the question of the legality of the use of nuclear weapons in terms of self-defense, it should be noted that the legal analysis of this question can revolve principally upon three scenarios. The first hypothesis would occur when a nation has been attacked by conventional weapons. In the context of this scenario, the proportionality principle mandates that the force used, even in a defensive posture, must be proportional to the quantum of force used by the aggressor. Because of the vast disparity in magnitude between any nuclear weapons and any conventional weapons of warfare, it can be suggested that it is difficult to conceive of a proportionate nuclear defense to a conventional attack.<sup>572</sup> Therefore, it can be concluded that the use of nuclear weapons by a state to defend itself against a conventional armed attack launched by the aggressor state would constitute a violation of Article 51 of the UN Charter.

The second scenario can involve a nuclear response to an actual nuclear attack. Although this situation could present the



stronger case for permitting a nuclear strike in some capacity, it is, however, still difficult to ascertain what degree of response is appropriate. The doctrine of self-defense is applicable only to prevent further damage to citizens and territories of the state under armed attack by the aggressor state. Moreover, the right to self-defense does not include the right to an armed attack for retaliatory purposes. Thus, any nuclear attack on the civilian population would be unlawful, since it would not further a defensive objective. Defending against the threat of additional nuclear attack could only be achieved by a counter force strike against the aggressor's available nuclear weapons.<sup>573</sup>

Either military strategy would result in a violation of international law: a full scale assault on all of the aggressor's nuclear forces would undoubtedly result in incalculable destruction and would therefore be disproportionate to all but an all-out assault; a more limited counter force strike would not achieve the objective of self-defense to eliminate the aggressor's nuclear forces and, hence, to prevent the aggressor from inflicting additional damage. Therein lies the flaw with nuclear responses in self-defense to a nuclear attack: the degree of force needed to effectively defend against future attacks is inherently disproportionate to the destruction that it would necessarily cause, particularly given the fact that there is no guarantee that the aggressor would launch additional weapons.<sup>574</sup>

Therefore, it can be concluded that the use of nuclear weapons by a state in defending itself against the nuclear attack launched against by an aggressor state cannot be permitted under Article 51 of the UN Charter, which embodies the legal doctrine of self-defense. Furthermore, it must be emphasized that a nuclear weapons exchange in the context of the scenario involving a nuclear response to an actual nuclear attack would result in the annihilation of the parties involved in such a conflict. Therefore, the nuclear holocaust of the parties involved would not only exceed the purposes of the doctrine of self-defense, but also, and most importantly, would defeat its legal objectives.<sup>575</sup>

The third scenario contemplates anticipatory self-defense or the use of nuclear weapons in order to prevent an imminent attack. Although Article 51 of the UN Charter restricts the use of force in self-defense to reactions against armed attack, several commentators have proffered reasons for which Article 51 should be interpreted to sanction anticipatory self-defense. In more specific terms, it is argued that the definition of an armed attack must be altered to take account of the advent of nuclear weapons. Because of the enormous potential for destruction caused by the military use of nuclear weapons, it is imperative that such an attack be prevented if it is, in fact, imminent. Moreover, it is argued that the traditional assumptions underlying the right of self-defense are no longer valid

with the development of nuclear weapons. Thus, it is proposed that for self-defense to retain its effectiveness, Article 51 of the UN Charter must be interpreted to allow a proportionate armed strike in anticipatory self-defense.<sup>576</sup>

Nevertheless, it should be pointed out that the proposed permissibility of the use of nuclear weapons under the doctrine of anticipatory self-defense cannot find any legal basis in Article 51 of the UN Charter. Because of the unprecedented destruction caused by the use of nuclear weapons, any doctrine that purports to broaden a state's right to resort to the use of nuclear weapons cannot be legally justified and accepted. Additionally, based on the legal argument forwarded by this thesis that even the defensive use of nuclear weapons is not permitted by the doctrine of self-defense under Article 51 of the UN Charter, then by the same legal rationale it can be suggested that the use of nuclear weapons on the basis of the doctrine of anticipatory self-defense is not permissible under international law.

Furthermore, the military use of nuclear weapons has been defended by invoking the legal defense of the doctrine of military necessity under the principle of proportionality. More specifically, the doctrine of military necessity has been defined as the necessity of those measures which are indispensable for securing the ends of war, and which are lawful according to the modern law and usages

of law. But a more useful concept of evaluating the lawfulness of wartime conduct under the military necessity doctrine is the principle of proportionality. Proportionality is the fundamental concept that balances the legitimacy of military ends against the means used to achieve these ends. Under the test of proportionality, it is suggested that the relevant inquiry is not whether a particular weapon violates international law but instead whether the destruction caused by a weapon is proportionate to a legitimate military objective.<sup>577</sup>

Of course, the doctrine of military necessity is by no means unlimited. It is universally recognized that international law places constraints on military necessity. In essence, the mere presence of a military objective does not in itself permit unlimited destruction. Also, destruction as an end in itself is a violation of international law.<sup>578</sup> Even if the doctrine of military necessity is evaluated and specified by the test of the principle of proportionality, it must be pointed out that with the development of nuclear weapons and their unprecedented destructive capabilities the doctrine of military necessity under the test of proportionality cannot be accepted as a valid legal ground and defense for justifying the use of nuclear weapons.

While it should be agreed that the doctrine of military necessity under the test of proportionality can be applied when conven-

tional weapons are employed, this doctrine cannot be invoked as an appropriate legal defense for permitting the use of nuclear weapons. In fact, the doctrine of military necessity under the test of the principle of proportionality can be an equally effective tool to condemn any use of nuclear weapons. Necessarily, an attack on a single target by a nuclear weapon would cause a proportionally greater degree of destruction to people, property and the environment than would its conventional counterpart. Additionally, the element of radioactive fallout gives these weapons an inhumane quality that contravenes several principles of international law. The cumulative effect of these destructive properties lead to the conclusion that no degree of military necessity would justify using nuclear weaponry.<sup>579</sup> In the final analysis, it must be emphasized that nuclear weapons are an inherently disproportionate means of warfare. But the ICJ has concluded in its advisory opinion that the principle of proportionality may not in itself exclude the use of nuclear weapons in self-defense in all circumstances. But the proportionate use of force in self-defense to be lawful must be in compliance with the rules and principles of international humanitarian law.

In view of the preceding analysis of the question of the legality of the threat or use of nuclear weapons in self-defense, it can be argued that the threat or use of nuclear weapons even in self-de-

fense is prohibited by international law. But, as far as the question of the legality of threat or use of nuclear weapons by a state to defend itself in an extreme circumstance in which the very survival of such a state is at stake is concerned, it should be remembered that the ICJ was unable in its advisory opinion to resolve this question. In fact, the Court left the question unanswered and said nothing.

However, nuclear weapons are the ultimate means of causing wholesale destruction and devastation. The use of nuclear weapons can cause a nuclear holocaust and bring to an end human civilization. Nuclear weapons pose an ultimate threat to the very survival of mankind. Nuclear weapons, because of their nature and inherent capabilities, when used are incapable of distinguishing between civilians and military personnel and would result in the death of thousands if not millions of civilians. The use of nuclear weapons would cause superfluous injury and unnecessary suffering to survivors, affect the future generations, damage hospitals, and contaminate the natural environment, food, drinking water with radioactivity. Thus, nuclear war survivors would be deprived of the means of survival in violation of the Geneva Conventions of 1949 and the 1977 Additional Protocol I.<sup>580</sup>

In conclusion, it can be argued that the use of nuclear weapons by a state even in the event of an extreme circumstance placing the very survival of such a state at stake is prohibited by

international law. Even if the use of nuclear weapons by a state to defend its very survival were accepted as lawful, the use of such weapons would be still prohibited under the principles and rules of international humanitarian law. Therefore, it can be argued that the use of nuclear weapons under any circumstances even in the event of defending a state's very survival is prohibited and unlawful under international law.

### 3. The Legality of the Use of Nuclear Weapons and the Laws of War.

#### a. The Use of Nuclear Weapons and Unnecessary Suffering

The laws and principles of humanity require combatants to minimize the degree of suffering and destruction caused to opposing forces. To this end, the Declaration of St. Petersburg of 1868<sup>581</sup> emphasizes in its preamble that the only legitimate object which a state should endeavor to accomplish during war is to weaken the military forces of the enemy. For this purpose it is sufficient to disable the greatest possible number of men. But this objective would be exceeded by the employment of arms which uselessly aggravate the suffering of disabled men or render their death inevitable. Additionally, the preamble to the Declaration of St. Petersburg has pointed out that the employment of such arms would be contrary to

the laws of humanity.<sup>582</sup>

This convention has been the first legal document to recognize a limitation on the means available to accomplish military objectives. The legal principles enunciated in the Declaration of St. Petersburg were reiterated and expanded upon in the Regulations annexed to the Fourth Hague Convention of 1907. Thus, Article 23(b) prohibits the treacherous killing or wounding of enemy soldiers, while Article 23(e) forbids the employment of arms, projectiles or material which is calculated to cause unnecessary suffering.<sup>583</sup> Additionally, a more recent international agreement prohibiting the use of weapons which are of a nature to cause unnecessary suffering is Protocol I of 1977 Additional to the Geneva Conventions of 1949 and Relating to the Protection of Victims in International Armed Conflicts.<sup>584</sup> Moreover, it should be added that the prohibition of the use of weapons capable of causing unnecessary suffering to enemy forces is not only established as a positive rule of international law, but also it has become a customary rule of international law of universal applicability and binding legal force.

With respect to the question of whether or not the use of nuclear weapons would cause unnecessary suffering to enemy forces, it must be pointed out that despite the existing legal controversy over the subject, even the smallest of nuclear weapons would be in-



herently incapable of avoiding destruction unnecessary to the military goal. Additionally, the long-lasting effect of radioactive fallout caused by the use of nuclear weapons on the immediate victims and their offspring are certainly unnecessary to any military objective. Also, in the event of a nuclear attack, victims would be in a heavily contaminated area by nuclear radiation. Thus, adequate medical care and treatment would be impossible, causing additional suffering.<sup>585</sup> In the final analysis, the military use of nuclear weapons would be in violation of the established rule of international law prohibiting the causing of unnecessary suffering to enemy forces because nuclear weapons are inherently capable of causing unnecessary and excessive human suffering. This legal conclusion is further supported by the judgment of the Tokyo District Court in the Shimoda Case, which concerned the legality of the atomic bombings of Hiroshima and Nagasaki.<sup>586</sup> At this point, it should be noted that the ICJ, in its previously discussed advisory opinion, has reached the same conclusion.

b. The Use of Nuclear Weapons and the  
Prohibition of the Use of Poison  
and Gas Weapons

The legal principles embodied in the Declaration of St. Petersburg regarding the prohibition of weapons causing unnecessary and excessive suffering are also the basis for the prohibition

against the use of poison or poisoned weapons found in Article 23(a) of the Regulations annexed to the Hague Convention of 1907.<sup>587</sup> Furthermore, the Geneva Gas Protocol of 1925, which establishes a set of principles of humanity, accepts the universal recognition that the use in war of poisonous or other gases and all other related substances are illegal under international law. Additionally, it must be noted that the prohibition of the military use of poison and gas weapons has become a customary rule of international law. Thus, the prohibition of the military use of poison and gas weapons is universally binding.<sup>588</sup>

The question which arises is whether nuclear weapons would be legally described as poison and gas weapons and therefore their military use would be prohibited under Article 23(a) of the Regulations annexed to the Hague Convention and the Geneva Gas Protocol. With respect to the first part of this question, namely, whether nuclear weapons can be legally characterized as poison weapons, it must be pointed out that the military use of nuclear weapons will result in the release of radiation or radioactive fallout which taken into the human body would produce symptoms indistinguishable from, and in some respects more serious than, those induced by poison. In essence, it must be agreed that uranium, a central element in a nuclear weapon, is highly toxic. Also, a nuclear weapon explosion releases a variety of other toxic chemicals and

substances, including some whose toxicity endures for thousands of years.<sup>589</sup>

Accordingly, it can safely be concluded that the release of such substances in the course of nuclear explosions in the case of their military use renders these weapons poison weapons. In particular, since nuclear weapons cause radioactive fallout, which contaminates and poisons people, property and the environment, the effect of such contamination seems sufficiently analogous to the effect of a poison or poisoned weapon. Therefore, there is sufficient legal ground to argue that, at least by legal analogy, the military use of nuclear weapons as poison weapons is prohibited by Article 23(a) of the Regulations annexed to the Hague Convention.<sup>590</sup>

As far as the question of whether nuclear weapons constitute poison gas prohibited under the Geneva Gas Protocol, it can be argued that human exposure to radiation or radioactive fallout released by the explosion of nuclear weapons in the course of their military use produces symptoms and effects indistinguishable from, and in some respect more serious than those of poison, including delayed disease and genetic distortion. In any case, it should be agreed that the poisonous effects of nuclear radioactive contamination renders the military use of nuclear weapons illegal regardless of whether nuclear radiation is treated as a gas, liquid or solid. Therefore, it can be concluded that nuclear weapons are poisonous

and gas weapons and generally weapons capable of releasing substances whose military use is prohibited under the Geneva Gas Protocol.<sup>591</sup> However, the ICJ in its advisory opinion has stated that nuclear weapons seem not to be gas, or poison or asphyxiating weapons, and thus their use is not prohibited by the aforementioned rules of international law.

c. The Use of Nuclear Weapons and the  
Protection of Civilians During War

Another fundamental legal principle of humanity and international law that would be endangered by the military use of nuclear weapons is the distinction between combatants and civilians. It is a well established precept of international law that noncombatants are immune from enemy attack.<sup>592</sup> That the legal protection of civilians is at the very heart of the laws of war was also evident in the Declaration of St. Petersburg of 1868, which stipulated that the only legitimate object which states should endeavor to accomplish during war is to weaken the military forces of the enemy. Thus, as long as a civilian population does not participate actively in combat, it is shielded from direct attacks.<sup>593</sup>

The legal protection of and respect for the civilian population was the major premise of the 1923 Hague Draft Rules on Aerial Warfare. In accordance with Article 24 (3) of these rules only military targets could be bombed, and only if this could be done without

indiscriminate bombardment of civilians. Additionally, the 1923 Hague Draft Rules have sought to prohibit aerial bombardment of a civilian population undertaken with the clear objective of terrorizing it to win the war. Although these Hague Draft Rules were never translated into an international treaty, it should be agreed that these rules provide sufficient evidence that customary international law recognizes that attacks upon military targets which cause indiscriminate killing and suffering to a civilian population should be prohibited.<sup>594</sup>

Moreover, the legal protection of and respect for the civilian population during an international armed conflict is further incorporated in Protocol I of the 1977 Additional to the Geneva Conventions of 1949. Specifically, Article 48 of Protocol I provides that: "in order to ensure respect for and protection of the civilian population and civilian objects, the Parties to the conflict shall at all times distinguish between the civilian population and combatants and between civilian and military objectives and accordingly shall direct their operations only against military objectives." Moreover, Article 51 of Protocol I provides, *inter alia*, that the civilian population as such, as well as individual civilians, must not be the object of attack, that acts and threats of violence whose primary purpose is to spread terror among the civilian population are prohibited, and that indiscriminate attacks are also prohibited.<sup>595</sup>

Based on the preceding legal analysis, it can safely be concluded that both customary and positive rules of international law provide for the protection of civilian population against indiscriminate attacks and killing as well as their protection against attacks designed to spread terror among the civilian population during an international armed conflict. In view of this legal conclusion, it can be argued that the use of nuclear weapons in an international military conflict is prohibited under the rules of war because nuclear weapons either strategic or tactical are inherently capable of resulting in the indiscriminate destruction and terror of civilian populations. Also, since the stated threat and potential objective of the use of nuclear weapons is the assured destruction of the enemy state on the premise of nuclear deterrence, then the terrorization of civilian populations is an inevitable result and a partial annihilation or extermination of such populations would be caused if nuclear weapons were used. In conclusion, it can be argued that any effort to legitimize the use of nuclear weapons would result in the elimination of the international legal rules of war, since the use of nuclear weapons would obviously result in the destruction of the very objects intended to be protected by these rules of law.<sup>596</sup> Similarly, the ICJ has arrived at the same legal conclusion on this matter by its advisory opinion.

#### 4. The Use of Nuclear Weapons and

### Inviolability of Neutrals

There should be no doubt that the military use of nuclear weapons in the course of an international armed conflict would intrude upon the territory of non participating states, which have assumed a status of neutrality. Indeed, it should be agreed that since the radioactive fallout released by the explosion of nuclear weapons can be carried by wind hundreds of miles in an unpredictable direction, the region of nuclear warfare cannot be confined with any precision to the belligerent territories, and the air and sea which go with them. Thus, with the uncontrollable, unpredictable, and indiscriminate effects of nuclear bombardment, the theater of a nuclear war conflict along with its vast area of damaging effects can be spread to any part of the globe, affecting neutral states and permanently neutralized territories.<sup>597</sup>

But international law has long recognized two related principles: first, that belligerent states cannot be allowed to extend the field of combat onto the territory of a neutral party; and, second, that neutral states have a right to exclude belligerents who enter their territory. The prohibition against violating a neutral state's territory is absolute, and it cannot be excused by invoking any of the traditional defenses of international law. In this respect, it should be noted that the Hague Convention states that the territory of neutral powers is inviolable.<sup>598</sup>

Based on the international legal principles of neutrality and the inviolability of the territoriality of neutral states, it can be concluded that the military use of nuclear weapons in an international armed conflict, with the attendant uncontrollable effects of nuclear radiation and radioactive fallout, certainly will have a direct impact upon neutral states. Thus, the military use of nuclear weapons would intrude upon the territory of neutral states, and this would be in violation of the international law of neutrality and to the basic intent of the laws of war and the dictates of humanity. It can also be argued that, because the uncontrollable harmful effects of nuclear radiation and radioactive fallout caused by the use of nuclear weapons cannot guarantee the nuclear neutrality of non participating states in an international nuclear conflict, the use of nuclear weapons would constitute a violation of the international law that protects the inviolability of the territoriality of neutral states.<sup>599</sup> The ICJ has reached the same conclusion on this question in its advisory opinion.

##### 5. The Use of Nuclear Weapons, the Crime of Genocide and the Crime Against Humanity

The development of the atomic bomb and its military use in Hiroshima and Nagasaki, which caused their nuclear annihilation and devastation has irrevocably changed the nature and objective of war. Since the beginning of the nuclear age in 1945, the world



has witnessed not just the development of one more weapon, but the development of the ultimate and the most destructive weapon in the history of mankind. Indeed, since 1945, humanity has lived on the edge of its nuclear holocaust, with human history and civilization hanging in the balance. The existence of more than 50,000 nuclear weapons has the distinct potential for annihilating a substantial portion of the earth's population, devastating and contaminating vast areas of the earth's surface and producing unpredictable and uncontrollable biological and environmental consequences. In the final analysis, it must be emphasized that the devastating capabilities of nuclear weapons in terms of their immediate and long-term destructive and harmful effects have, for the first time in the history of humankind, threatened not only the devastation of the modern forms of life and civilization, but most importantly the danger of the massive use of nuclear weapons has constantly threatened the very existence of humanity.<sup>600</sup>

In view of the destructive capabilities of nuclear weapons, the following legal analysis will explore the question of whether the military use of nuclear weapons would constitute a crime of genocide and a crime against humanity. As far as the international legal prohibition and the criminal punishment of the act of genocide are concerned, it should be explained that in 1948 the UN Convention on the Prevention and Punishment of the Crime of Genocide was

adopted. By specifically criminalizing the act of genocide, the international community has spoken as forcefully as it can about its commitment to the protection of the rights of individual civilians and groups to be free from and protected against the wanton depredations of an enemy based on their national, ethnic, racial and religious characteristics. Furthermore, it should be noted that the prohibition of the commission of the crime of genocide is not only a positive norm of international law, but also it has become customary on a *jus cogens* rule of international law with universal applicability and binding legal force.<sup>601</sup>

Based on the preceding discussion, a nuclear holocaust that would be caused by the use of nuclear weapons represents either an individual commission of genocide or the incrementally greater crime of universal genocide. In essence, to target an enemy state with nuclear weapons is tantamount to planning the mass extinction of that state. Additionally, to engage in a nuclear exchange which will inevitably destroy all or nearly all higher forms of life in the enemy state under nuclear attack will constitute a crime of national genocide. Moreover, to resort to a massive nuclear attack in the scenario of a large scale or a global nuclear war which will inevitably destroy all or almost all higher forms of life on this planet must constitute mega-genocide.<sup>602</sup>

Therefore, it can be concluded that the use of any nuclear

weapons and under any circumstances against an enemy state or in the context of a total nuclear war will be obviously in a direct violation of the Genocide Convention and it will constitute a punishable crime of genocide. Furthermore, because the Genocide Convention, in addition to the prohibition and criminal punishment of the commission of genocide, prohibits and punishes conspiracy to commit genocide, incitement to commit genocide, attempt to commit genocide and complicity in genocide, those policy makers who establish the contingency plans for nuclear exchange can be guilty of the crime of conspiracy to commit genocide. Also, since the Genocide Convention imposes individual criminal liability on those engaged in the commission of genocide, or inciting, or attempting to commit such a crime, or are in complicity in genocide, national rulers, public officials and even private individuals who commit such criminal acts of genocide through nuclear weapons are criminally liable for genocide on an individual basis.<sup>603</sup>

With respect to the question of whether the military use of nuclear weapons would constitute a crime against humanity, it should be noted that, by virtue of Article 6 of the Charter of the International Military Tribunal of 1945, the commission of murder, extermination and other inhumane acts committed against any civilian population before or during the war constitute crimes against humanity. Also, the UN General Assembly resolution 1653

(XVI), adopted by an overwhelming majority, provides that the use of nuclear and thermonuclear weapons would exceed even the scope of war and cause indiscriminate suffering and destruction to mankind and civilization and, as such, is contrary to the rules of international law and to the laws of humanity. The above resolution also states that the use of nuclear and thermonuclear weapons is a war directed not against an enemy or enemies, but also against mankind in general, since peoples of the world not involved in such a war will be subjected to all the evils generated by the use of nuclear weapons. Moreover, the UN General Assembly resolution 36/100, adopted by an overwhelming majority, states, *inter alia*, that states and statesmen that resort to the first use of nuclear weapons will be committing the gravest crime against humanity.<sup>604</sup>

Since the use of nuclear weapons in a scenario of a limited war would result in the mass extermination of civilian populations, and since the use of nuclear weapons in a scenario of a global thermonuclear war would threaten the very existence of humanity, it can be argued that under existing rules of international law the use of nuclear weapons would obviously constitute a crime against humanity.<sup>605</sup> It can further be submitted that if the Nazi war criminals were indicted and tried by the International Military Tribunal in 1945 for committing crimes against humanity, then by the same legal rationale there should be no doubt that the use of any nuclear

weapons and under any circumstances must be characterized as a crime against humanity.

In view of the preceding legal analysis, it can be suggested that the use of any nuclear weapons and under any circumstances will constitute a punishable crime of genocide and a crime against humanity. It can further be submitted that the military use of nuclear weapons will not only constitute a crime of war,<sup>606</sup> but also a crime against peace,<sup>607</sup> since the military use of nuclear weapons under any circumstances will be in direct violation of the international rules of law and the laws of humanity. In this context, it must be pointed out that the new legal order, created by the end of World War II and which evolved thereafter, has established a new warless legal order and a new international of peace and humanity. Of course, the use of nuclear weapons, which by virtue of their destructive capabilities and characteristics are inherently evil, will destroy humanity and it will end the rule of international law aimed at the protection of humanity. But the ICJ in its advisory opinion has concluded that the use of nuclear weapons would constitute genocide if nuclear weapons were intentionally used against a specific group as such.

## 6. The Use of Nuclear Weapons and the International Legal Protection of the Environment

The UN Convention on the Prohibition of Military or Any Other Hostile Use of Environment Modification Techniques of 1977 has as a fundamental legal objective to prevent and prohibit the use of any environment or geographical modification activity as a weapon of war. To this end, Article I (1) of the Convention sets forth the legal obligation that: "Each State Party to this Convention undertakes not to engage in military or any other hostile use of environmental modification techniques having widespread, long-lasting or severe effects as the means of destruction, damage or injury to any other State Party." Although this Convention constitutes a positive legal measure declaring the peaceful uses of the environment and its geophysical structure, it fails to explicitly prohibit and outlaw the military use of nuclear weapons.<sup>608</sup>

Nevertheless, by legal implication, it can be suggested that the military use of nuclear weapons in a limited or even worse in a global nuclear war will result in catastrophic environmental and ecological disasters. In turn, the environmental holocaust caused by the use of nuclear weapons will set in motion forces of environmental and geophysical modification techniques which will become destructive to world population on this planet. Indeed, the use of nuclear weapons will release harmful nuclear radiation and radioactive fallout which will cause catastrophic climatic changes. This, in turn, will render the environment and its ecology a place of hostile

use and a weapon of war against humankind.<sup>609</sup>

Additionally, Protocol I of the 1977 Additional to the Geneva Conventions of 1949 by virtue of its Article 35 (3) provides that it is prohibited to employ methods or means of warfare, which are intended, or may be expected, to cause widespread, long-term and severe damage to the natural environment. Although it should be noted that under this provision of Protocol I there are definitional problems to be faced, as well as the status of the rule with regard to states not parties to this Protocol,<sup>610</sup> it can be argued that this positive rule of international law clearly prohibits the use of nuclear weapons because of their catastrophic effects on the natural environment. In the final analysis, it must be emphasized that the evolving new international environmental law and various international agreements and conferences, which have addressed significant environmental and ecological issues, are unanimous in their condemnation of nuclear weapons.<sup>611</sup> Nevertheless, the ICJ in its advisory opinion has expressed the opinion that the existing international law relating to the protection of the environment does not specifically prohibit the use of nuclear weapons.

#### 7. The Question of the Legality of the Development, Possession and Deployment of Nuclear Weapons

Since there does not exist an international treaty which

specifically and explicitly prohibits the development, possession and deployment of nuclear weapons, the following legal analysis will attempt to explore the question of whether the development, possession and deployment of nuclear weapons is prohibited in the context of existing applicable rules of international law. But before proceeding with an analysis of this question, and for the purpose of legally approaching this question, it should be noted that the issue of the development, possession and deployment of nuclear weapons constitutes a strictly interrelated problem. Specifically, any legal argument that would support the illegality of either the development, or the possession, or the deployment of nuclear weapons would eventually determine the illegality of nuclear weapons in terms of their development, possession and deployment in a comprehensive manner. Therefore, for methodological reasons in approaching the question of the legality of the development, possession and deployment, the ensuing legal discussion will first concentrate on the issue of the legality of the deployment of nuclear weapons, and then on the issues of the possession and development of such weapons.

As far as the issue of the legality of the deployment of nuclear weapons is concerned, it is worthwhile to note that, despite the nonexistence of a positive rule of international law prohibiting the deployment of such weapons on a global basis, a variety of interna-



tional treaties clearly prohibit the deployment of nuclear weapons in several regions. Under pertinent international treaties, the deployment of nuclear weapons in Antarctica, Latin America, South Pacific, on the seabed beyond the twelve-mile limit of national territorial waters, in outer space and on celestial bodies is clearly prohibited.<sup>612</sup> Therefore, the deployment of nuclear weapons in these regions would constitute a violation of positive rules of international law. But since there is no legal prohibition of nuclear weapons on a global basis, it would seem, at first glance, that the deployment of nuclear weapons in other regions than the aforesaid regions would not be prohibited.

Nevertheless, the deployment of nuclear weapons is an extremely serious threat to the inherent right to life, the supreme right which is protected and guaranteed by both customary and positive international law and which is not subject to derogation even in time of public emergency threatening the life of a nation. To this end, it is important to note that the UN Human rights Committee has declared that states have the supreme duty to prevent wars, and that every effort made to avert the danger of war, especially thermonuclear war, would constitute the most important condition and guarantee for the protection of the right to life. Moreover, the Committee has declared that the designing, testing, manufacture, possession and deployment of nuclear weapons are

among the greatest threats to the right to life which confront mankind. Based on this legal rationale and philosophy, the Committee has concluded that the production, testing, possession, deployment and use of nuclear weapons should be prohibited and recognized as crimes against humanity.<sup>613</sup>

Instead of averting the danger of a nuclear holocaust, the deployment of nuclear weapons makes nuclear war more likely and therefore undermines the right to life. Furthermore, it should be added that the deployment of nuclear weapons would be in violation of Article 6(a) of the Charter of the International Military tribunal of 1945, which represents customary international law, and which provides that crimes against peace include the planning or preparation of a war of aggression or a war in violation of international treaties, assurances or agreements. Since a war involving the use of nuclear weapons would be in violation of international law under any circumstances, then it can be argued that the deployment of nuclear weapons would constitute a crime against peace because the deployment of nuclear weapons would be a planning or a preparatory act for the launch of a nuclear war.<sup>614</sup>

Additionally, it should be agreed that the deployment of nuclear weapons would constitute a conspiracy to commit the crime of genocide which is prohibited and punishable under the 1948 Genocide Convention.<sup>615</sup> Of course, it is also important to add that

by necessary legal implication the deployment of nuclear weapons should be prohibited under the international legal norms prohibiting the crime against humanity, since the deployment of nuclear weapons would constitute an immediate step in the commission of the crime against humanity. In the final analysis, it must be emphasized that since nuclear weapons are *malum in se* due to their inherent destructive capabilities, and since their use is illegal *per se* under international law and the laws of humanity, then it can be argued that the deployment of such weapons is illegal *per se* under international law and the laws of humanity.<sup>616</sup>

In view of the preceding legal argument which supports the illegality of the deployment of nuclear weapons under international law, in the context of the same legal rationale it can further be argued that the mere possession and the development of nuclear weapons are illegal under international law. Similarly, and in the same legal rationale, nuclear testing for the purpose of developing nuclear weapons or for testing the reliability of already existing nuclear weapons is illegal under international law.

With respect to the question of the legality of the possession and development of nuclear weapons, it is worthwhile from a legal point of view to underline that, despite the nonexistence of a positive norm of international law explicitly prohibiting the development and possession of such weapons on a global basis, the peace

treaties signed by the Allies with Bulgaria, Finland, Hungary, Italy and Romania on February 10, 1947 explicitly prohibits the possession, construction and the testing of nuclear weapons by the latter states. Similarly, the Austrian State Treaty of May 15, 1955 prohibits Austria from becoming a nuclear weapons power.<sup>617</sup> Additionally, the new international law of regional nuclear disarmament and denuclearization, which has been created by the creation of nuclear weapon-free zones, clearly forbids the development, possession and deployment of nuclear weapons in the covered regions in absolute terms.

But, most importantly, the NPT of 1968, which has been accepted by approximately 188 states<sup>618</sup> and which has the legal potential of evolving into a customary rule of international law, absolutely prohibits the development, possession and testing of nuclear weapons of any kind by the non-nuclear weapon states. Although the NPT allows the club of nuclear powers, of course, for reasons which are inherently, and structurally discriminatory, to engage in the development and possession of nuclear weapons, it should be stressed that Article VI of the NPT imposes the legal obligation upon its states parties to pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race and to nuclear disarmament. Therefore, Article VI of the NPT recognizes the inherent illegality of nuclear weapons and requires their elimi-

nation. Nevertheless, the ICJ in its advisory opinion seems to conclude that there is no general prohibition of development, deployment, acquisition and possession of nuclear weapons under international law.

While under the pre-atomic rules of international law the use of nuclear weapons is prohibited,<sup>619</sup> it should be further agreed that the new international law which was founded by the end of World War II and which is a law of peace, and particularly the new international law of nuclear disarmament render nuclear weapons absolutely unlawful in all of their aspects and under any circumstances. In this regard, it should be noted that this legal conclusion can be further supported by the Declaration that was made by the Nuclear Warfare Tribunal, which was convened in London in January 1985 to consider the legal, moral and scientific implications of nuclear weapons. Specifically, the Nuclear Warfare Tribunal held that current and planned nuclear weapons developments, strategies and deployments violate the basic rules and principles of international law both customary and conventional. The procurement and use of such weapons involve infringements of the UN Charter and the Laws of War. Moreover, the Tribunal held that the Nuremberg Principles and the Genocide Convention are being violated in the most extreme fashion by ongoing preparation to wage nuclear war, especially to the extent

that plans include indiscriminate, poisonous and massive destruction of civilian populations, amounting to a conspiracy to wage aggressive war.<sup>620</sup>

Consequently, any legal effort to argue the legality of the use, deployment, development and possession of nuclear weapons would not only defy the rules of international law and humanity prescribing the absolute illegality of nuclear weapons in all of their aspects and under any circumstances, but also such a legal argument would obviously defy human rationale and reason. In essence, to argue the legality of nuclear weapons, which are capable of threatening the very existence of mankind and civilization, such a legal argument would be preposterous and contrary to the fundamental norms and principles of humanity that are embodied in the new international law of peace and nuclear disarmament.<sup>621</sup>

In the final analysis, it must be emphasized that, since nuclear weapons as weapons *malum in se* and as capable of causing a human holocaust would destroy humanity and its civilization, any legal attempt to justify the development, possession, deployment and the use of nuclear weapons would be equal with permitting the existence and use of means of warfare capable of bringing to an end the body of the laws and values of humanity designed to protect humanity and its civilization. Therefore, it can be concluded that any legal argument supporting and justifying the legality of the

use, development, possession and deployment of nuclear weapons through legalistic views would not stand under the norms and principles of the new international law of peace and nuclear disarmament.

Based on the preceding legal analysis, it can safely be concluded that, particularly under the new international law of nuclear disarmament, not only the use, deployment, possession and development of nuclear weapons is illegal, but also the new international law of nuclear disarmament requires the elimination of nuclear weapons in comprehensive terms and on a global basis. Moreover, since this legal study has already established the argument that a global and comprehensive nuclear disarmament is both feasible and verifiably effective under the new international law of nuclear disarmament, it follows that these legal conclusions establish the thesis of this legal study that global and comprehensive nuclear disarmament is both feasible and verifiably effective and is also required by the new international law of nuclear disarmament. Although there is no specific rule of international law requiring nuclear disarmament, the new international law of nuclear disarmament supports this thesis that the elimination of nuclear weapons is legally required.

## CONCLUSION AND FUTURE PROSPECTS

Since the advent of the nuclear age and the development of nuclear weapons as means for warfare, the entire world community has witnessed that nuclear weapons are not just one more weapon, but, on the contrary, nuclear weapons are the ultimate weapons of unprecedented destructive power and effects, which are capable of destroying the physical integrity of our planet and the very existence of humanity and its civilization. Indeed, the use of atomic weapons by the United States against Hiroshima and Nagasaki in 1945, which resulted in their nuclear holocaust and annihilation, clearly showed to the entire world community that nuclear weapons are weapons of mass destruction posing an immediate threat to the very existence of humankind and its civilization for the first time in its entire history. There should be no doubt that since the beginning of time, the release of the unprecedented and massive destructive power of the atom has placed in the hands of humans, for the first time in the known history of mankind, a man-made means of unimaginable mass destruction capable of threatening the very existence of humanity.



With the end of World War II in 1945 and in view of its destructive consequences, the adoption of the Charter, which gave birth to the United Nations, has provided the fundamental constitutional basis for a new international legal order for the post-World War II era under the rule of international law. Particularly based on the UN Charter, the United Nations, which became a global international organization in the history of world organizational structure, has assumed the ultimate legal task to preserve succeeding generations from the scourge of war and to reaffirm faith in the dignity and worth of the human person, and generally to preserve international peace and security. But, most importantly, the UN Charter has created a new international law of peace, which has outlawed war as an instrument of national policy for the postwar era. In essence, it should be agreed that the new international law of peace created by the UN Charter has provided the juridical and constitutional foundation for a new warless international legal order, and for peaceful coexistence and integrative cooperation in the postwar era under the rule of world law and through the organizational power of the United Nations.

However, the advent of the nuclear age, the development of nuclear weapons and the first military use of such weapons against Japan in 1945 posed an ultimate legal challenge to the UN Charter and its legal principles and norms of peace and humanism. Indeed,

the revolutionary and unprecedented destructive capabilities of nuclear weapons posed a critical challenge to the very legal principles and values of peace and humanity enshrined in the UN Charter, since the use of these weapons is capable of bringing to an end the very existence of humanity and its civilization, and thus the rule of law. Therefore, in view of the advent of the nuclear age and the development of nuclear weapons, it was a great and juridically justified legal expectation of the entire world community that the United Nations through the instrumental value of the rule of international law would eliminate the existence of nuclear weapons on a global basis and in comprehensive terms by creating a global and effective nuclear disarmament legal regime.

Nevertheless, as has been already pointed out during the analysis of this legal study, the United Nations failed to establish an international legal regime of nuclear disarmament at the very beginning of the new postwar international legal order. Despite the submission of the Baruch and the Gromyko plans to the United Nations in 1946 aimed at the creation of a global nuclear disarmament legal regime for the postwar era, the United Nations failed to adopt such a legal regime particularly due to the growing tension and conflict between the United States and the former Soviet Union. In fact, the growing ideological and military conflict and confrontation almost immediately after the end of World War II be-

tween the United States and the former Soviet Union and generally between East and West severely undermined the United Nations in playing a dynamic and central role in the sphere of nuclear disarmament.

In particular, the failure of the United Nations to bring about global nuclear disarmament through the power of the rule of international law at the very beginning of nuclear armaments clearly showed that the United Nations was not a dynamic and self-powered international organization capable of effectively resolving world problems such as the question of nuclear disarmament. Accordingly, it became clear that the United Nations was just another international organization, which could be effective to the extent its member states agreed to provide it with the required legal powers and means. But, above all, the lack of organizational dynamism of the United Nations and its inability to create and impose an effective international legal regime of global nuclear disarmament at the very advent of nuclear weapons and nuclear armaments and at the very beginning of the new postwar international legal order resulted in the predicament of the nuclear armaments in the postwar era. In turn, this nuclear predicament apparently rendered the new postwar international legal order a new international legal disorder and lawlessness in terms of the existence of nuclear weapons and nuclear armaments.

Most importantly, the eruption of the Cold War phenomenon between the former Soviet Union and the United States and generally between East and West almost immediately after the end of World War II became the most negative factor in the paralysis of the new international legal order in the postwar years and in the failure to establish a global nuclear disarmament legal regime during the Cold War years. Moreover, it must be agreed that the unrelentless ideological conflict between the communist and capitalist political systems and ideologies became the focal point of the East-West nuclear arms race, antagonism and constant nuclear confrontation during the Cold War years. As has been pointed out throughout this legal study, the Cold War relations between the two nuclear superpowers, namely, the former Soviet Union and the United States, resulted in their nuclear arms race and in their constant nuclear confrontation during the Cold War years.

Of course, the American-Soviet nuclear arms race resulted in the development and construction of more destructive and sophisticated nuclear weapons of any kind and form. Thus, by the end of the Cold War, both nuclear superpowers had placed in their possession a combined total of approximately 50,000 strategic and tactical nuclear weapons. Since the use of about 500 strategic nuclear warheads is more than enough to annihilate humanity and its civilization, there should be no doubt that, for the first time in the history

of mankind, only two nations had placed in their possession so much destructive power capable of causing the nuclear annihilation of humanity and its civilization many times over.

During the Cold War years, as a result of the nuclear arms race and the constant nuclear confrontation between the two nuclear superpowers and their respective military alliances, the entire world community and its civilization was under the constant nightmare and terror of a nuclear holocaust. Indeed, it must be agreed that, for the first time in its known history, the very existence of humanity was brought to the brink of its nuclear annihilation in the event of a global nuclear war. In this regard, it must be underlined that modern and sophisticated nuclear weapons have the obvious capabilities of annihilating our planet within 30 minutes from the time of launching a massive strategic nuclear attack. Thus, the existence of massive nuclear armaments has kept humanity just 30 minutes away from its nuclear holocaust. While during the Cold War years both nuclear superpowers many times came close to a nuclear war conflict, the Cuban missile crisis of 1962 constitutes the most pivotal episode in the nuclear age which brought both superpowers to the brink of a global nuclear war and holocaust.

Despite the recognition that the Cold War phenomenon had become the ultimate factor in the superpowers' nuclear arms race

and their constant nuclear confrontation during the Cold War years and in the failure of a global nuclear disarmament through the power of international law, in the postwar era, it should be, nevertheless, noted that, perhaps the eruption of the Cold War was necessarily inevitable particularly because of its nature and characteristics. As has been emphasized throughout this legal study, there should be no doubt that the eruption of the Cold War as the principal cause of the superpowers' nuclear arms race and confrontation in the postwar era was in contravention of the legal norms and political principles of the UN Charter, which provided the legal foundation for building a peaceful and integrative world order in the postwar years. Additionally, it should be stressed that the eruption of the Cold War became a significant legal and political obstacle to any international legal initiative for global and comprehensive nuclear disarmament in the postwar years.

Due to the failure of global nuclear disarmament, and in addition to the superpowers' nuclear arms race, the proliferation of nuclear weapons began to take place. Thus, the so-called great powers, namely, Britain, France and China, acquired nuclear weapon capabilities by the early 1960s. As a result of this development, the question of nuclear disarmament became a more difficult and complicated problem. Moreover, in spite of the adoption of the NPT in 1968, since the early 1970s a new nuclear age has begun in terms

of the horizontal proliferation of nuclear weapons. Thus, India, Israel, South Africa and Pakistan acquired nuclear weapon capabilities and became *de facto* nuclear powers. Consequently, the question of global nuclear disarmament became even more difficult and complicated.

Although it should be agreed that during the Cold War years the legal quest for global and comprehensive nuclear disarmament was obviously not feasible and realistic, it must be underlined that during the Cold War years the United Nations, despite its organizational limitations, played a positive role in the creation and development of the new international law of nuclear disarmament. As has been specifically analyzed throughout this legal study, the United Nations during the Cold War era adopted the legal model of nuclear arms control and on a step-by-step legal basis pursued its nuclear arms control legal strategy. Furthermore, the United Nations by resorting to the instrumental value and the power of the rule of international law, formulated legal norms and principles designed to legally manage the question of nuclear weapons and nuclear war during the Cold War era.

Similarly, it must be pointed out that during the Cold War years and especially after the near nuclear war experience created by the Cuban missile crisis of 1962, a new era of *détente* emerged between the two nuclear superpowers in relation to their nuclear

behavior and their bilateral relations. As has been already explained in this legal study, during the superpower détente era, the United States and the former Soviet Union attempted to convert their ideological conflict and their unrelentless nuclear arms race and constant nuclear confrontation into a new era of peaceful coexistence, cooperation and controlled and nuclear behavior. In fact, during the era of superpower détente, a significant number of nuclear arms control agreements were adopted between the two nuclear superpowers. As a result, this superpower law of détente promoted and expanded even further the new international law of nuclear arms control and disarmament.

In a legal synthesis, it should be pointed out that during the Cold War years the legal model and approach of nuclear arms control, which was adopted both by the United Nations and the two nuclear superpowers, was inherently incapable of resolving the problem of global nuclear disarmament because nuclear arms control is not nuclear disarmament. Nevertheless, it must be underlined that both nuclear superpowers and generally the international community recognized the instrumental value and power of the rule of international law in controlling the nuclear arms race and behavior and in preventing the eruption of a global thermonuclear war. In general, it can be suggested that during the Cold War era, the foundations of the norms and principles of the interna-



tional law of nuclear disarmament were created, despite the failure of achieving global and comprehensive nuclear disarmament during that era.

There should be no doubt that the Cold War phenomenon because of its nature and characteristics did not only cause the nuclear predicament in the postwar era, but also, and most importantly, posed strategic political and legal obstacles to the question of global and comprehensive nuclear disarmament. However, the end of the Cold War has marked the beginning of a new post-Cold War world era which provides a new dynamic and strategic political and legal environment in relation to the strategic legal goal and objective for the effective elimination of nuclear weapons on a global and comprehensive basis. In particular, with the end of the Cold War, it should be agreed that all causes of the nuclear arms race and all obstacles that resulted in the nuclear predicament during the Cold War years and in the failure of nuclear disarmament during that era have been significantly removed. In any case, it can be suggested that with the end of the Cold War there can be no valid reasons, arguments and justifications for continuing the nuclear predicament in the post-Cold War era, and in the 21st century.

With the end of the Cold War, a new dynamic multidimensional political and nuclear relationship has been established be-

tween the United States and Russia, which has emerged as a new nuclear superpower after the disintegration of the former Soviet Union. As a result of the evolving normalization of the bilateral relations between the United States and Russia, their nuclear arms race and their constant nuclear confrontation have ended. Thus, the constant threat and the potential danger of a direct and intentional nuclear war between the two nuclear superpowers has been substantially reduced at least as a political issue. However, it must be emphasized that as a strict military issue the threat of a nuclear war between the two nuclear superpowers due to the unauthorized, or accidental use of their nuclear weapons, or their involvement in certain military conflicts still remains. Of course, the threat of a nuclear war will be entirely eliminated when the last nuclear weapons are effectively eliminated. Until then, the world community will continue to be under the constant threat and nightmare of a nuclear war and nuclear holocaust.

Although the end of the Cold War has created a new political bilateral relationship between the two nuclear superpowers, namely, the United States and Russia, it is of significant importance to underline that the evolving superpower bilateral relationship for the post-Cold War era is at a very critical stage of transition. In particular, to ensure that a new version of a Cold War will not reoccur in the post-Cold War era, the Western world and gen-

erally the entire international community must play a positive role in assisting Russia and the other states of the Commonwealth of Independent States in their efforts for political and economic democratization and reforms. To this end, the United States and the Western capitalist establishment must provide particularly Russia as well as the other states of the CIS with all possible economic and technical assistance to succeed in their efforts for democratic reforms on the basis of their own pertinent plans and terms.

If, however, the United States and the Western capitalist and nuclear establishment attempt to exploit the economic predicament of Russia and thus to undermine its power in the post-Cold War era, this would be a great mistake. Moreover, any effort of the United States to undermine and undercut Russian power in the post-Cold War world and to impose a Pax Americana in the emerging new post-Cold War era would be entirely counterproductive and capable of re-igniting a new post-Cold War Cold War with Russia. At this point, it must be emphasized that Russia, despite its enormous economic problems, is a military nuclear superpower capable of destroying the entire planet by its nuclear weapons. In the final analysis, it must be pointed out that if the democratic reforms in Russia fail, if Russia is encircled by the Western capitalist and nuclear establishment, by an eastward NATO expansion presently proposed, and if the normal transition to a democratic and free

post-Soviet world is not secured, such failures will possibly cause a new confrontation between Russia and the West. In turn, such a development will negatively affect the normalization of East-West relations in the post-Cold War era and this might reignite a new version of a Cold War between Russia and the West in the 21st century.

On an international level, it must be agreed that the end of the Cold War has brought to an end the East-West military block building, their unrelentless nuclear arms race, and their constant ideological and nuclear conflict and confrontation, which have kept the entire world community under the constant terror and nightmare of a nuclear holocaust for the past forty-five years. Furthermore, the end of the Cold War has begun the process for ending the system of world bipolarization, which was forced upon the world community by the ideological and nuclear confrontation between the former Soviet Union and the West almost immediately after the end of World War II. In essence, the end of the Cold War provides a new strategic environment for establishing a new post-Cold War era of global détente, peaceful coexistence and integrative cooperation under the value and the power of international law.

Nonetheless, it should be emphasized that the normal transition from the Cold War to a post-Cold War new international legal order and era is at a critical stage. In spite of the fact that the end

of the Cold War has removed a threat to global peace and security, the end of the Cold War has released the forces of ethnic war conflicts resulting in the dissolution of traditional nation-states, including the potential of major regional conflicts, which were suppressed during the Cold War years. Therefore, the evolution of world affairs and the preservation of regional and international peace and security seem to be uncertain and dangerous in many respects. In the end, it must be noted that the new post-Cold War era has begun with the existence of thousands of nuclear weapons in the nuclear arsenals of the United States, the former Soviet Union and the other members of the club of nuclear powers. Additionally, a dangerous new nuclear age has been established and is presently expanding in terms of the horizontal proliferation of nuclear weapons.

Any effort to manage and resolve global and regional problems, as they relate to international and regional peace and security, by resorting to approaches and solutions applied during the Cold War years would be obviously a great mistake. Thus, in order to ensure a safe transition to a functional new post-Cold War era and world era, new dynamic approaches are required for the institutional and organizational shape and foundation of the post-Cold War world. To this end, as has been already suggested by this legal study, the United Nations, restructured and empowered as specifi-

cally proposed by this legal study, can be able to ensure the proper function of the new post-Cold War era under the value and the power of the rule of world law.

In order to effectively meet the challenges and the dangers that will be posed to regional and global peace and security in the post-Cold War era, the United Nations must cease to be a bureaucratic and powerless world forum used by the so-called great powers to serve their unilateral interests. The United Nations must be the center of world power and integration under the power of the rule of international law. Moreover, the United Nations, as has been proposed by this legal study, must be empowered with the required legal powers and means not only to carry out peacekeeping operations, but also, and most importantly, to carry out peacemaking operations in an effective manner. Additionally, the United Nations must be a global organizational institution with powers of policy making and lawmaking, and with the powers and means to enforce the rule of international law.

The end of the Cold War and the beginning of the new post-Cold War era do not only provide a unique historic opportunity for the restoration of the international legal order established by the end of World War II, but also provide a new strategic environment and dynamic legal prospects for the resolution of the problem of global and comprehensive nuclear disarmament. Indeed, with the

end of the Cold War, there exists a realistic historic opportunity since the beginning of the nuclear age and nuclear armaments to effectively eliminate all nuclear weapons through rule of international law and thus to restore the international legitimacy which has been violated by the existence of such unlawful weapons of mass and wholesale destruction. Of course, the feasibility and effectiveness of a global nuclear disarmament in the emerging post-Cold War era is clearly shown by the recent nuclear disarmament legal arrangements between the two nuclear superpowers and the stated willingness of the other nuclear powers to participate in a multilateral international legal process for nuclear disarmament.

Based on the thesis established by this legal study, it is suggested that global and comprehensive nuclear disarmament is both feasible and verifiably effective, and is also required by the new international law of nuclear disarmament. Thus, this legal thesis provides the juridical rationale for a global and comprehensive nuclear disarmament in the post-Cold War era, and in the 21st century. Moreover, this legal thesis has shown that, under the new international law of peace and nuclear disarmament, the development, deployment, and use of nuclear weapons, including the testing of such weapons, are illegal. Additionally, this thesis has also shown that any legalistic argument proposing the permanent retention of nuclear armaments under the doctrine of nuclear deter-

rence and the use of such arms would be in violation of the applicable rules of international law. In the end, this legal thesis has emphasized that until the last nuclear weapons have been effectively eliminated, the eventual use of nuclear weapons will not be avoided.

As has been specifically proposed by this legal study, the NPT Review Conference in the year 2000 can become a global forum where a multilateral legal arrangement on global and comprehensive nuclear disarmament can be reached. As has been further proposed by this thesis, by the end of the year 2010 all nuclear weapons can be effectively eliminated, and thus a new post-Cold War nuclear weapons-free world can be achieved early in the 21st century. To this end, the United Nations, the IAEA and generally other appropriate organs of the international community can play a dynamic and central role in the effective denuclearization of the planet and in safeguarding against the acquisition of nuclear weapons in a new nuclear disarmament era.

The international community must continue to reinvigorate and expand its movement and constant pressure for achieving a global nuclear disarmament in the 21st century. The world community of peoples and their governments must continue to treat the issue of nuclear war and the question of nuclear disarmament as the number one item and priority on the world agenda in the post-



Cold War era and the 21st century. Nuclear war has been, still is and will be in the future a real threat due to the very existence of nuclear weapons. Until the last nuclear weapons are effectively eliminated and destroyed, no assurance can be given to the international community that the intentional military use, the unauthorized or accidental use, and the use of nuclear weapons by terrorist groups will be avoided in the 21st century.

Accordingly, the international community has only one choice to avoid an eventual nuclear holocaust in the post-Cold War era and in the 21st century, and this is to achieve a global and comprehensive nuclear disarmament through the instrumental value of international law. To this end, this study has suggested the legal basis and rationale for a legally required global and comprehensive nuclear disarmament under the new international law of nuclear disarmament. This study has further suggested that a global and comprehensive nuclear disarmament is both feasible and effective under the new international law of nuclear disarmament. This study has also proposed a strategic plan for achieving a global and comprehensive nuclear disarmament agreement in the context of the NPT review conference in the year 2000, and to create a new nuclear weapons free world in the year 2010. There is presently the most proper political environment in the world to pursue vigorously the global cause for achieving a global and comprehensive nuclear

disarmament. Mankind cannot afford to lose present historic opportunities in the quest to establish a nuclear weapons-free world. If humanity loses its quest for a global nuclear disarmament, then humanity and its civilization will be the holocaust of future nuclear war.

## ENDNOTES

### CHAPTER 1

1. Quoted in Drell, S. D., *Facing the Threat of Nuclear Weapons*, pp. 5-6 (1989).
2. I have heavily relied on Powaski, R. E., *March to Armageddon: The United States and the Nuclear Arms Race, 1939 to the Present*, p. 3 (1987). See also Smyth, H. D., *Atomic Energy for Military Purposes: The Official Report on the Development of the Atomic Bomb under the Auspices of the United States Government, 1940-1945*, p. 5 et seq. (1945)
3. (Powaski) *Ibid.*
4. The foreboding news of the Hahn-Strassmann discovery was brought by Niels Bohr, a Danish physicist, to the American physicists at the conference of theoretical physicists, which was held in Washington, D.C. on January 26, 1939. Note also that Enrico Fermi and Leo Szilard had conducted similar experiments, which had shown that uranium, if present in sufficient quantity (called its "critical mass"), could generate enough neutrons to produce a chain reaction, without which nuclear fission could not be sustained. See Powaski, *Ibid.*, p. 4. Furthermore, Fermi, Szilard and Einstein attempted to persuade the American government to launch its own program in order to build the atomic bomb first. See Grodzins, M., and Rabinowitz, E., *The Atomic Age: Scientists in National and World Affairs*, pp. 1-2 (1963).
5. In fact, on December 2, 1942, Fermi engineered the first nuclear chain reaction at the University of Chicago. See Powaski, *Ibid.*, note 2, p. 6. It should be also added that in the

summer of 1941 the British Maud Committee, the agency that headed the British atomic research project, based on the scientific progress made in the nuclear research field, informed the American government that if an all-out effort were to begin, an atomic bomb could be developed within two years. See Gowing, M., *Britain and Atomic Energy*, p. 389 *et seq.* (1964).

6. See generally: Smyth, *op. cit.*, note 2, p. 208 *et seq.*; Noel-Baker, P., *The Arms Race, A Programme for World Disarmament*, p. 95 *et seq.* (1958); and Gowing M., "Britain, America and the Bomb" in *British Foreign Policy, 1945-56*, eds. Dockrill, M., and Young, J. W., p. 33 *et seq.* (1989).
7. The full text of this report can be found in Smyth, *op. cit.*, note 2, p. 918.
8. For a fuller description of the destructive capability of the atomic bomb see the views of Dr. J. Robert Oppenheimer quoted in Feis, H., *The Atomic Bomb and the End of World War II*, p. 55 (1966).
9. See also Dunn, F. S., "The Common Problem" in *The Absolute Weapon: Atomic Power and World Order*, ed. Brodie, B., p. 3. *et seq.* (1972).
10. See also Noel-Baker, *op. cit.*, note 6, p. 94 *et seq.*
11. The entire American nuclear project to develop the atomic bomb cost 2 billion dollars. See Johnson, L. K., "Three Windows on Armageddon" in *Through the Straits of Armageddon: Arms Control Issues and Prospects*, eds. Diehl, P. F., and Johnson, L. K., p. 243 (1987).
12. See further Mandelbaum, M., *The Nuclear Revolution: International Politics Before and After Hiroshima*, p. 23 *et seq.*

(1981).

13. For a discussion of the peaceful uses of atomic energy as envisaged by nuclear scientists in 1945 see Noel-Baker, *op. cit.*, note 6, p. 111 *et seq.*
14. The atomic bomb is four weapons in one: (1) Its blast is many thousands of times more powerful than the largest TNT bombs; (2) Its heat-flash is a potent fireraiser; (3) Its explosion is accompanied by highly penetrating and harmful, but invisible rays called "gamma radiation"; and (4) The substances remaining after a nuclear explosion, known as the "residual radioactivity," are radioactive for an extended period of time. *Ibid.*, pp. 120-121. See also Singh, N., and McWhinney, E., *Nuclear Weapons and Contemporary International Law*, p. 29 *et seq.* (2nd ed. 1989).
15. See also Drell, *op. cit.*, note 1, pp. 5-6.
16. The full text of the U.N. Charter can be found in Henkin, L., *et al.*, *Basic Documents Supplement to International Law, Cases and Materials*, p. 99 *et seq.* (2nd ed. 1987).
17. See also the analysis of Shaw, M. N., "Nuclear Weapons and International Law" in *Nuclear Weapons and International Law*, ed. Pogany, I., p. 6 (1987). Note, however, that war can be exceptionally waged in self-defense in accordance with Article 51 of the U.N. Charter. For a comprehensive legal analysis of this Article see Singh and McWhinney, *op. cit.*, note 14, p. 86 *et seq.*
18. See also Kelsen, H., "The Old and the New League: The Covenant and the Dumbarton Oaks Proposals," 39 *American Journal of International Law*, p. 83 *et seq.* (1945); and Reitzel, W., *et al.*, *United States Foreign Policy 1945-1955*, p. 237 *et seq.* (1956).

19. See Article 43 para. 1 of the U.N. Charter, *op. cit.*, note 16.
20. For a fuller discussion of these early proposals for the prevention of a nuclear arms race in the postwar years see generally: Powaski, *op. cit.*, note 2, p. 7 *et seq.*; and Grodzins and Rabinowitz, *op. cit.*, note 4, p. 13 *et seq.*
21. Beyond the almost entire material destruction of both Hiroshima and Nagasaki, the atomic bomb killed approximately 100,000 people and left wounded 90,000 in both Hiroshima and Nagasaki, whose total population before the atomic bombings was about 600,000 people. See Cassese, A., *Violence and Law in the Modern Age*, p. 9 *et seq.* (1988). See further Boyle, F. A., *The Future of International Law and American Foreign Policy*, p. 331 *et seq.* (1989). Also, for a revisionist view, which argues that the military use of the atomic bomb by the United States was not required to achieve Japan's capitulation and that the atomic bomb was used against Japan to intimidate the Soviets in respect to their communist expansion in Eastern Europe, see generally Alperovitz, G., *Atomic Diplomacy: Hiroshima and Potsdam, The Use of the Atomic Bomb and the American Confrontation with Soviet Power*, p. 226 *et seq.* (1965). Additionally, for some persuasive views which argue the illegality of the use of the atomic bomb against Japan in light of the prenuclear age Laws of War applicable in 1945, see generally: Cassese, *Ibid.*, p. 14 *et seq.*; Falk, R., "Shimoda Case: A Legal Appraisal of the Atomic Attacks upon Hiroshima and Nagasaki," 59 *American Journal of International Law*, pp. 759-793 (1965); and Boyle, *Ibid.*, p. 317 *et seq.*

## CHAPTER 2

22. For a further discussion of American efforts to confront the

expansion of communism since the end of World War II see Paterson, T. G., *Meeting the Communist Threat: Truman to Reagan* (1988).

23. For an interesting analysis of the strategic and political implications of the American atomic monopoly in American-Soviet relations in the early years of the Cold War see Herken, G., *The Winning Weapon: The Atomic Bomb in the Cold War 1945-1950*, p. 195 *et seq.* (1980).
24. See Powaski, *op. cit.*, note 2, p. 33.
25. See also Lundestad, G., *East, West, North, South: Major Developments in International Politics 1945-1986*, p. 147 (1986).
26. For an extensive analysis of the proposals made by H. Stimson and V. Bush see Powaski, *op. cit.*, note 2, p. 32 *et seq.*
27. *Ibid.*
28. *Ibid.*, p. 30.
29. See also Herken, *op. cit.*, note 23, p. 97 *et seq.*
30. The Agreed Declaration made by the United States, Britain and Canada proposed the establishment of a Commission under the United Nations to prepare recommendations to be further submitted to the United Nations for the legal prohibition of the use of atomic energy for warfare purposes. See Sethna, J. M. J., *International Legal Controls and Sanctions Concerning the Production and Use of Atomic Energy*, p. 3 (1966).
31. See *The United Nations and Disarmament: 1945-1985*, ed. United Nations (Department for Disarmament Affairs), p. 1 *et seq.* (1985). Note further that the U.N. Atomic Energy

Commission was composed of those states permanently represented on the U.N. Security Council, including also Canada. See Schoenbaum, T. J., "A Historical Perspective on Arms Control Agreements" in Diehl and Johnson, *op. cit.*, note 11, p. 23.

32. In analyzing the Baruch Plan, I have relied on Sheehan, M., *Arms Control, Theory and Practice*, p. 3 (1988); Sethna, *op. cit.*, p. 3 *et seq.*; and Schoenbaum in Diehl and Johnson, *op. cit.*, p. 23. It must also be added that the Baruch Plan proposed the criminal punishment of the violators of international agreements imposing nuclear disarmament and the peaceful use of atomic energy. (Sethna) *Ibid.*, pp. 5-6.
33. (Sheehan) *Ibid.*, p. 3.
34. See Schoenbaum in Diehl and Johnson, *op. cit.*, note 11, p. 24.
35. For a concise and comprehensive discussion of the Gromyko Plan see Powaski, *op. cit.*, note 2, p. 44.
36. See Schoenbaum in Diehl and Johnson, *op. cit.*, note 11, p. 24.
37. See Sheehan, *op. cit.*, note 32, p. 3.
38. See Schoenbaum in Diehl and Johnson, *op. cit.*, note 11, p. 24.
39. *Ibid.*
40. *Ibid.*, p. 25. Furthermore, for an early detailed legal analysis of the failure of the U.N. Atomic Energy Commission to lay down the legal framework for the peaceful uses of nuclear energy, and generally for the failure of the United Nations to legally control the atomic bomb and initiate the process of nuclear disarmament see generally: Shills, E., "The Failure of the United Nations Atomic Energy Commission: An Interpretation," 15 *University of Chicago Law Review*, pp.



855-876 (1947-1948); and Farmer, F., "The Atomic Bomb Can Be Controlled," 19 *Tennessee Law Review*, pp. 40-43 (1945-1947).

41. See Shaw in Pogany, *op. cit.*, note 17, pp. 9-10.
42. For a fuller discussion of the Soviet efforts to build their own atomic bomb see Powaski, *op. cit.*, note 2, p. 53.
43. See Noguee, J. L., and Donaldson, R. H., *Soviet Foreign Policy Since World War II*, p. 81 (3rd ed. 1988).
44. In fact, the Soviet Union had been deliberately excluded from the scientific secrets for the development of the atomic bomb which were shared by the United States and Britain. Nevertheless, the Soviets by their spying activities in both the United States and Canada acquired crucial scientific information and thus accelerated the scientific process for the development of their own atomic bomb. See Lundestad, *op. cit.*, note 25, p. 149; and Davies, T. H., "Soviet Atomic Espionage" in Grodzins and Rabinowitz, *op. cit.*, note 4, p. 361 *et seq.*
45. See also the views of Andrei D. Sakharov quoted in Drell, *op. cit.*, note 1, p. 64 *et seq.*
46. See Powaski, *op. cit.*, note 2, p. 53.

### CHAPTER 3

47. See Rourke, J. T., *Making Foreign Policy: United States, Soviet Union, China*, p. 22 (1990).
48. For an extensive discussion of West Germany's incorporation into NATO and its rearmament see generally Cioc, M., *Pax Atomica: The Nuclear Defense Debate in West Germany During the Adenauer Era*, p. 12 *et seq.* (1988).

49. For a general analysis of the creation of the Warsaw Pact and its military implications see Holden, G., *The Warsaw Pact, Soviet Security and Block Politics* (1989).
50. See McNamara, R. S., *Out of the Cold, New Thinking for American Foreign and Defense Policy in the 21st Century*, p. 46 (1989).
51. Indeed, on January 30, 1949, President Truman directed the U.S. Atomic Energy Commission to accelerate its scientific work on all forms of atomic energy weapons, including the hydrogen bomb. See *Disarmament: Negotiations and Treaties, 1946-1971*, ed. Keesing Publications, Ltd., p. 4 (1972). Furthermore, it must be pointed out that although the United States possessed more than enough atomic weapons to deter Soviet aggression in the event the Soviets developed a hydrogen bomb, the development of the H-bomb by the United States had already caught the imagination of both the Congressional and military people. See Powaski, *op. cit.*, note 2, p. 55.
52. For an analysis of the chemical reaction of the H-bomb see Johnson in Diehl and Johnson, *op. cit.*, note 11, p. 243 *et seq.*
53. See Powaski, *op. cit.*, p. 59. For a further analysis of the nuclear effects of the H-bomb as a superbomb and as a thermonuclear weapon see Noel-Baker, *op. cit.*, note 6, p. 130 *et seq.*
54. See *Disarmament Negotiations and Treaties, 1946-1971*, *op. cit.*, note 51, pp. 5-6.
55. For a concise analysis of the development of the British and French nuclear bombs see Lundestad, *op. cit.*, note 25, pp. 157-159.

56. I am indebted to Powaski, *op. cit.*, note 2, p. 63.
57. See Rourke, *op. cit.*, note 47, p. 18. Furthermore, while Khrushchev had started the process of the de-Stalinization of the Soviet Union, the most serious unrest and anti-Soviet outbreak in Eastern Europe occurred in 1956, when the Hungarians openly rebelled, replaced their government and proclaimed their intention to withdraw from the Warsaw Pact. But the Soviets, in their effort to maintain their block control and cohesion in Eastern Europe, reacted violently by invading Hungary and bloodily suppressing the uprising. *Ibid.*
58. *Ibid.* See also Powaski, *op. cit.*, note 2, p. 65 *et seq.*; and Lundestad, *op. cit.*, note 25, p. 156.
59. For a fuller analysis of Khrushchev's shifting from conventional forces to the reliance on nuclear weaponry see Rourke, *op. cit.*, note 47, p. 19.
60. I am indebted to (Powaski) *Ibid.*, p. 93. See further Boyle, *op. cit.*, note 21, p. 318.
61. For an extensive discussion of the 1961 Berlin crisis see McNamara, *op. cit.*, note 50, p. 61 *et seq.* See also Rourke, *op. cit.*, note 47, p. 22.
62. See also Pope, R. R., *Soviet Views on the Cuban Missile Crisis: Myth and Reality in Foreign Policy Analysis*, p. IX *et seq.* (1982); (Rourke) *Ibid.*; and Allison, G. T., "Conceptual Models and the Cuban Missile Crisis" in *International Relations, Contemporary Theory and Practice*, eds. Lopez, G. A. and Stohl, M. S., p. 107 *et seq.* (1989).
63. See Rourke, *op. cit.*, note 47, p. 23.
64. See *The United Nations and Disarmament: 1945-1985*, *op.*

- cit.*, note 31, p. 2.
65. I am indebted to Schoenbaum in Diehl and Johnson, *op. cit.*, note 11, p. 25.
  66. See Warburg, J. P., *Disarmament: The Challenge of the Nineteen Sixties*, p. 46 (1961).
  67. *Ibid.*, p. 54.
  68. See *The United Nations and Disarmament: 1945-1965*, ed. United Nations, p. 50 (1965).
  69. See Warburg, *op. cit.*, note 66, p. 54.
  70. For the session of the 1955 Geneva summit conference on disarmament see *The United Nations and Disarmament: 1945-1965*, *Ibid.*, pp. 57-58. Regarding the "Open Skies" proposal, see Schoenbaum in Diehl and Johnson, *op. cit.*, note 11, pp. 26-27. For a more detailed discussion of the "Open Skies" proposal see generally Rostow, W. W., *Open Skies, Eisenhower's Proposal of July 21, 1955* (1982).
  71. See also Schoenbaum in Diehl and Johnson, *op. cit.*, note 11, pp. 26-27.
  72. See Warburg, *op. cit.*, note 66, p. 60. It must also be added that the UN General Assembly by its resolution 914 (X) on December 16, 1955, after having recognized that special technical difficulties had arisen in regard to the detection and control of nuclear weapons material, and that inspection and control of disarmament could best be achieved in an atmosphere which is free of fear and suspicion, urged the conclusion of an international agreement of such confidence building measures as the "Open Skies" plan and the Bulganin plan for establishing control posts at strategic centers. It further suggested the suspension of experimental explosions

of nuclear weapons as had been proposed by India and recommended that further scientific search should be continued by states for the discovery of methods that would make possible effective inspection and control of nuclear weapons material, which could facilitate the solution of the problem of comprehensive nuclear disarmament. For the full text of this resolution see *The United Nations and Disarmament: 1945-1965*, *op. cit.*, note 68, pp. 58-62.

73. See Schoenbaum in Diehl and Johnson, *op. cit.*, note 11, p. 27.
74. See generally *The United Nations and Disarmament: 1945-1965*, *op. cit.*, note 68, p. 64 *et seq.*
75. See Schoenbaum in Diehl and Johnson *op. cit.*, note 11, p. 28.
76. For a comprehensive analysis of the Rapacki Plan see generally Ozinga, J. R., *The Rapacki Plan, The 1957 Proposal to Denuclearize Central Europe, and an Analysis of Its Rejection* (1989).
77. For an extensive discussion of the UN negotiations, which led to the establishment of the IAEA and the adoption of its Statute, see *Disarmament Negotiations and Treaties, 1946-1971*, *op. cit.*, note 51, p. 58 *et seq.*
78. For an early and detailed legal analysis of the Agency's objectives and legal mechanisms for the promotion of the peaceful applications of nuclear energy and the prevention of the military applications of such energy, I am indebted to Bechoefer, B. G., and Stein, E., "Atoms For Peace: The New International Atomic Energy Agency," 55 *Michigan Law Review*, pp. 747-798 (1956-1957). Additionally, for an analysis of the legal need for international cooperation in the peaceful application and use of nuclear energy see generally Cavers, D. F., "International Cooperation in the Peaceful Uses of Atomic

Energy,” 12 *Vanderbilt Law Review*, pp. 17-49 (1958-1959).

79. With respect to the Agency’s legal techniques of verification and safeguards to ensure the non-diversion of nuclear material and technology for peaceful purposes to military applications see generally McNight, A., *Atomic Safeguards, A Study in International Verification* (1971). See also *The Washington Post*, p. A 17 (April 10, 1995).
80. See Schoenbaum in Diehl and Johnson, *op. cit.*, note 11, pp. 28-29. See further Warburg, *op. cit.*, note 66, p. 72 *et seq.*; and *The United Nations and Disarmament: 1945-1965*, *op. cit.*, note 68, p. 78.
81. See further *The United Nations and Disarmament: 1945-1965*, *Ibid.*, p. 78.
82. For the full text of this Soviet proposal on General and Complete Disarmament of September 18, 1959, see *The Soviet Stand on Disarmament*, ed. Crosscurrents Press, pp. 9-24 (1962).
83. For a fuller analysis of the reasons for which the United States rejected the Soviet plan on general and complete disarmament see *The United Nations and Disarmament, 1945-1965*, *op. cit.*, note 68, p. 79.
84. For a comprehensive analysis of the negotiations which led to the conclusion of the Antarctic Treaty see generally Myhre, J. D., *The Antarctic Treaty System: Politics, Law, and Diplomacy*, p. 23 *et seq.* (1986). Also, for the full text of this Treaty see *Arms Control: A Survey and Appraisal of Multilateral Agreements*, ed. Stockholm International Peace Research Institute (SIPRI), pp. 72-75 (1978). See further Almond, H. H., Jr., “Demilitarization and Arms Control: Antarctica” 17 *Case Western Reserve Journal of International*

*Law*, pp. 229-284 (1985). In addition, note that the Treaty for the purpose to ensure its effective compliance by its states parties in its Article VII provides that the contracting parties have the right to carry out on-site inspections by their designated observer and inspection teams. In fact, these teams have the right of complete freedom of access at any time to any or all areas of the Antarctica. Specifically, they have the right of on-site inspections to all areas of the Antarctica, including all stations, equipment, ships, aircraft, etc. Insofar, Argentina, Australia, New Zealand, the United Kingdom and the United States have exercised their right of inspections. See Blechman, B. M., *Preventing Nuclear War, A Realistic Approach*, p. 32 (1985). Moreover, it must be pointed out that the history of compliance to the Treaty shows that it has been fully observed. Indeed, the already conducted inspections have not discovered any activities violating the Treaty. Accordingly, the verification technique of on-site inspection as provided by the Treaty has proved to be of imperative legal practicality and importance in the UN effort to maintain Antarctica a non-nuclearized and generally a non-militarized zone.

85. See *The United Nations and Disarmament: 1945-1965*, *op. cit.*, note 68, pp. 86-88.
86. The Eighteen-Nation Committee on Disarmament was established as a result of an agreement between the United States and the Soviet Union, which was endorsed by the UN General Assembly resolution 1722 (XVI) on December 31, 1961. See *The United Nations and Disarmament: 1945-1985*, *op. cit.*, note 31, p. 3.
87. See *The United Nations and Disarmament: 1945-1970*, ed. United Nations, p. 91 (1970).
88. *Ibid.*

## CHAPTER 4

89. See generally Moulton, H. B., *From Superiority to Parity: The United States and the Strategic Arms Race, 1961-1971* (1973).
90. For a discussion of the development of the Chinese atomic bomb see Moulton, *op. cit.*, note 89, pp. 181-182.
91. For the full text of the Hot Line Agreement, which entered into force on the date of its signature, see 14 U.S. T. 825. Note further that the Hot Line Agreement had called for a direct and wholly private teletype link passing through Helsinki, Stockholm and London and it became operable even before the end of the summer of 1963. Additionally, this hot line communication between the White House and the Kremlin has been activated in several international crises since its establishment, as one side or the other has sought to prevent misunderstanding of some action it had taken or was about to take. See Seaborg, G. T., *Kennedy, Khrushchev and the Test Ban*, pp. 206-207 (1981). See also Ury, W. L., *Beyond the Hotline, How Crisis Control Can Prevent Nuclear War*, p. 145 *et seq.* (1985).
92. For the full text of the LTBT whose official title is "Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space, and Under Water," and which entered into force on October 10, 1963, see 14 U.S.T. 1313.
93. See Schoenbaum in Diehl and Johnson, *op. cit.*, note 11, p. 31. Note further that the French atmospheric nuclear tests in the South Pacific in 1973 and 1974 became the subject of judicial review by the International Court of Justice upon the action brought by both Australia and New Zealand against France. While the ICJ was asked by the applicant states to declare the



illegality of the French tests and order their prohibition, the Court in its final judgement declared the case moot, since the French government had declared its intention to cease its nuclear tests in the region. See generally: Nuclear Tests (Australia v. France), Interim Protection Order of June 22, 1973; and Nuclear Tests (Australia v. France), Judgment of December 1974, I.C.J. Reports, 1974. Also, for a legal analysis of this case see Singh and McWhinney, *op. cit.*, note 14, p. 295 *et seq.*

94. For a comprehensive discussion of the superpower limited détente and negotiations which ultimately resulted in the conclusion of the LTBT see Seaborg, *op. cit.*, note 91, p. 235 *et seq.*; McBride, J. H., *The Test Ban Treaty: Military, Technological, and Political Implications* (1967); and Dean, A. H., *Test Ban and Disarmament: The Path of Negotiation* (1966).
95. See Article I of the LTBT, *op. cit.*, note 92.
96. See also Schoenbaum in Diehl and Johnson, *op. cit.*, note 11, p. 31. Nevertheless, even the allowed underground nuclear explosions by the LTBT often also release radioactive substances into the air. See *Agreements for Arms Control: A Critical Survey*, ed. SIPRI, p. 24 (1982).
97. Note that the Preamble of the LTBT emphasizes the contracting parties' determination to further seek to achieve the prohibition of all underground nuclear explosions and tests by concluding such an agreement. But since underground nuclear explosions and tests of nuclear weapons were not banned by the LTBT, both nuclear superpowers, the United Kingdom, and other powers which were about to acquire nuclear weapons capabilities could legally continue to carry out underground nuclear weapon tests. See the Preamble and

Article I 1(b) of the LTBT, *op. cit.*, note 92.

98. See *Agreements for Arms Control: A Critical Survey*, *op. cit.*, note 96, p. 25.
99. *Ibid.* Note further that the Soviet Union had been accused by the U.S. government that its test practices resulted in the release of nuclear debris into the atmosphere beyond the Soviet borders and constituted a practice banned by the LTBT. See Menos, D., *The Superpowers and Nuclear Arms Control: Rhetoric and Reality*, p. 77 (1990).
100. See also *Ibid.*, pp. 25-26.
101. For the full text of this Agreement see 22 U.S.T. 1598.
102. For an analysis of this Agreement, I have heavily relied on Dahlitz, J., *Nuclear Arms Control With Effective International Agreements*, p. 29 (1983).
103. For the full text of this Agreement see 23 U.S.T. 1168; and for a brief analysis see Schoenbaum in Diehl and Johnson, *op. cit.*, note 11, p. 38.
104. See further Blacker, C. D., *Reluctant Warriors, The United States, The Soviet Union and Arms Control*, pp. 110-111 (1987). See also the brief analysis by Dahlitz, *op. cit.*, note 102, p. 30.
105. See (Dahlitz) *Ibid.* It must also be added that, on May 30, 1973, a U.S.-USSR Protocol was signed. It entered into force on the same date, and provides the procedural rules for the functions of the SCC. *Ibid.*
106. For a brief analysis of this Agreement see Schoenbaum in Diehl and Johnson, *op. cit.*, note 11, p. 37.
107. For the full text of the TTBT see *Arms Control and*

*Disarmament Agreements*, 1980 Edition, ed. United States Arms Control and Disarmament Agency, pp. 167-168 (1980). Note also that the TTBT specifies the test sites of the contracting parties and also deals with the issue of the verification of the Treaty by the exchange of data. However, the question of the effective implementation of the TTBT led the U.S. Senate to a prolonged debate over the ratification of this Treaty. While on September 25, 1990 the U.S. Senate ratified this Treaty, and its instrument of ratification is followed by a 107-page verification protocol. See Bailey, K., "This Is Not Arms Control" in *The Washington Post*, p. A11 (December 17, 1990).

108. See also generally the views of McWhinney, E., *The International Law of Détente* (1978); and Singh and McWhinney, *op. cit.*, note 14, p. 223 *et seq.*
109. For a comprehensive discussion of the negotiating record of the SALT I process which led to the conclusion of the ABM Treaty see "The History of Nuclear Arms Negotiations Between the United States and the Soviet Union" 15 *Journal of Legislation*, pp. 210-217 (1989); and Newhouse, J., *Cold Down: The Story of SALT* (1989).
110. See Dahlitz, *op. cit.*, note 102, p. 29. For the full text of the ABM Treaty see 23 U.S.T. 3435.
111. See further Blacker, *op. cit.*, note 104, p. 106 *et seq.*; Kinter, W. R., and Pfaltzgraff, R. L., Jr., *SALT Implications for Arms Control in the 1970s* (1973); and Payne, S. B., Jr., *The Soviet Union and SALT* (1980).
112. See also Blacker, *op. cit.*, note 104, p. 106.
113. See Article I (2) of the ABM Treaty, *op. cit.* See also Singh and McWhinney, *op. cit.*, note 14, p. 263.

114. See Article III of the ABM Treaty. Note also that the exception of Article III, which permitted under certain terms each superpower to have two separate deployed ABM systems, was intended to protect them in case of a surprise nuclear attack, thereby permitting them to respond to this nuclear attack by using the ICBMs protected by the second ABM systems area.
115. See Singh and McWhinney, *op. cit.*, note 14, p. 263.
116. See Article V(1) of the ABM Treaty; and Common Understanding C. See also the legal analysis of Calvo-Goller, N. K. and Calvo, M. A., *The SALT Agreements: Content-Application-Verification*, pp. 18-19 (1987).
117. (Calvo-Goller and Calvo), *Ibid*, pp. 18-19.
118. The American SDI was born with President Reagan's "Star Wars" speech of March 1983. The SDI pronouncement brings together four basic concepts identified as promising to the needs of a multi-layered ABM defense according to which SDI would consist of: space-based lasers, ground-based lasers, space-based particle beams, and nuclear directed energy weapons. See Menos, *op. cit.*, note 99, p. 16.
119. See Calvo-Goller and Calvo, *op. cit.*, note 116, p. 229.
120. *Ibid*.
121. I am indebted to Sohn, L. B., "Verification Dilemmas" in Diehl and Johnson, *op. cit.*, note 11, p. 194. Additional NTM of verification are: far-reaching listening devices that can monitor distant conversations, sensors able to detect large underground explosions, equipment for testing the atmosphere for traces of telltale radioactive elements, and underwater sonars for spotting submarines. *Ibid*.

122. *Ibid.*
123. See Potter, W. C., *Verification and SALT: The Challenge of Strategic Deception* (1980).
124. For an extensive analysis of active and passive interference to prevent NTM from serving their objective of effective verification, I am indebted to Cohen, S. A., "The Evolution of Soviet Views on SALT Verification: Implications for the Future" in (Potter) *Ibid.*, p. 154 *et seq.*; and Sohn in Diehl and Johnson, *op. cit.*, note 11, p. 195.
125. See Article XIII (2) and (3); and the Preamble of the ABM Treaty, *op. cit.* note 110.
126. For the full text of the Interim Agreement see *Arms Control and Disarmament Agreements*, *op. cit.*, note 107, pp. 150-152. For a brief and concise analysis of the superpower negotiations, which led to the conclusion of the Interim Agreement, See George, J. L., *The New Nuclear Rules: Strategy and Arms Control after INF and START*, p. 82 *et seq.* (1990).
127. See Article VIII(2) of the Agreement. See also Singh and McWhinney, *op. cit.*, note 14, p. 265.
128. See Articles VII and VIII(2) of the Interim Agreement. See also Calvo-Goller and Calvo, *op. cit.*, note 116, p. 31.
129. See Schoenbaum in Diehl and Johnson. *op. cit.*, note 11, p. 36.
130. See further Blacker, *op. cit.*, note 104, p. 107. Note, however, that it was believed by President Nixon that these issues could be resolved through negotiations with the Soviets, and that a superpower bilateral treaty imposing limitations on their offensive nuclear arms would be concluded before Nixon's presidential term was over.

131. See Schoenbaum in Diehl and Johnson, *op. cit.*, note 11, p. 36.
132. I am indebted to George, *op. cit.*, note 126, pp. 83-84. Note further that the Soviets had in operation 62 strategic submarines while the United States had only 41. *Ibid.*
133. See also George, *Ibid.*, p. 84.
134. See also Calvo-Goller and Calvo, *op. cit.*, note 116, p. 30.
135. Note that these limitations apply both the "soft" and "hard" launchers. See Calvo-Goller and Calvo, *op. cit.*, note 116, p. 31.
136. See Schoenbaum in Diehl and Johnson, *op. cit.*, note 11, p. 36. Note further that the Interim Agreement failed to legally describe the term "start of construction." But according to the Nixon administration construction was to begin only with construction of a silo or a launcher in the field or when the digging or drilling of an ICBM hole started. See Calvo-Goller and Calvo, *Ibid.*, p. 32. Similarly, the Interim Agreement also failed to provide the definition of the term "ICBM launchers." But its definition was later given by the Agreed Statement H, which defined that launchers for strategic ballistic missiles capable of ranges in excess of the shortest distance between the North Eastern border of the continental United States and the North Western continental Soviet Union were considered as ICBM launchers. In fact, their range of distance was approximately 5,500 kms. *Ibid.*
137. See Schoenbaum in Diehl and Johnson, *op. cit.*, note 11, p. 36.
138. See Calvo-Goller and Calvo, *op. cit.*, note 116, p. 32. Note further that at the time of the signature of the Interim Agreement the Soviet Union had 91 land-based ICBM launchers under active construction whose completion was

allowed. *Ibid.*

139. See Article IV of the Interim Agreement. Note, however, that according to the Agreed Statement C, the parties agreed that modernization and replacement of their land-based ICBM silo launchers could not be significantly increased. This meant that they would not be increased more than 15% percent. See also Schoenbaum in Diehl and Johnson, *op. cit.*, note 11, p. 36.
140. See also *Ibid.* In fact, the Interim Agreement concentrated on launchers rather than warheads or missiles, primarily because launchers could be easily and adequately verified by national technical means of verification. *Ibid.* Indeed, to this end, Article IV of this Agreement provided that the verification of the content and compliance with its provisions would be conducted on the basis of using NTM of verification. See further Calvo-Goller and Calvo, *op. cit.*, note 116, pp. 35-36.
141. For a further analysis of the Interim Agreement and its Protocol see Singh and McWhinney, *op. cit.*, note 14, pp. 265-268.
142. It must be noted that the Nixon-Brezhnev summit meeting in Washington in June 1973 resulted in the signature of the U.S.-Soviet Accord on Principles of Negotiations on the further Limitation of Strategic Offensive Arms of June 21, 1973. This accord, *inter alia*, provided that over the course of the next two years both sides agreed to undertake serious negotiating efforts to replace the Interim Agreement by a permanent agreement on more complete measures on the limitation of their strategic offensive arms. For the full text of this accord see *Ibid.*, pp. 366-367.
143. For a comprehensive analysis of the causes which resulted in the deterioration of the superpower relations since 1973 see Blacker, *op. cit.*, note 104, p. 14 *et seq.*

144. See further Blacker, *Ibid.*, p. 114 *et seq.* See also Calvo-Goller and Calvo, *op. cit.*, note 116, p. 39.
145. I am indebted to Calvo-Goller and Calvo, *Ibid.*, p. 43, The full text of the Vladivostok Declaration can be found in *Ibid.*, p. 370.
146. See Dahlitz, *op. cit.*, note 102, p. 31.
147. See Calvo-Goller and Calvo, *op. cit.*, note 116, p. 44.
148. For a further analysis and critical assessment of the Vladivostok Declaration see Singh and McWhinney, *op. cit.*, note 14, pp. 270-271.

## CHAPTER 5

149. For a general and comprehensive discussion of the various UN proposals on general and complete disarmament, including also nuclear disarmament, see generally: *The United Nations and Disarmament, 1945-1965*, *op. cit.*, note 68, p. 98 *et seq.*; *The United Nations and Disarmament: 1945-1985*, *op. cit.*, note 31, p. 25 *et seq.*, and *The United Nations and Disarmament, 1970-1975*, ed. United Nations, p. 1 *et seq.*
150. See Dahlitz, *op. cit.*, note 102, p. 15.
151. See Menos, *op. cit.*, note 99, p. 53.
152. *Ibid.*, p. 50.
153. See also *Ibid.*
154. For an extensive discussion of the UN failed efforts to adopt a treaty absolutely banning the use of the nuclear weapons for war purposes see Epstein, W., *The Prevention of Nuclear War, A United Nations Perspective*, p. 18 *et seq.* (1984).



155. *Ibid.*, pp. 24-25.
156. For a concise discussion of the UN negotiations on the conclusion of a CTB Treaty see Epstein, W., *The Last Chance, Nuclear Proliferation and Arms Control*, pp. 185-187 (1976) [Hereinafter referred to as *The Last Chance*].
157. For an analysis of the violations of these treaties committed by both superpowers see Menos, *op. cit.*, note 99, pp. 77-78.
158. For the full text of this Treaty see *Arms Control and Disarmament Agreements*, *op. cit.*, note 107, pp. 51-55.
159. For a comprehensive legal analysis of the Outer Space Treaty see Singh and McWhinney, *op. cit.*, note 14, pp. 234-237. Furthermore, for a detailed discussion of the principle of the peaceful uses of outer space as opposed to its military uses, see generally Goldman, N. C., *American Space Law, International and Domestic*, pp. 73-74 (1988).
160. See (Goldman) *Ibid.*, pp. 73-74.
161. For the full content of Article XI see (the Outer Space Treaty) *Ibid.* Note also that Article X of the Treaty can play a legal role in ensuring the conformity of the contracting parties with the purposes of the Treaty. Indeed, Article X provides that contracting parties can request to be afforded with an opportunity to observe the flight of space objects launched by those contracting parties involved in space activities. But such an opportunity to observe the flight of space objects can be legally possible only on the basis of the conclusion of a separate agreement among the interesting contracting parties. Nonetheless, it must be observed that mere observation of the flight of space objects is not a complete and effective inspection technique. In essence, contracting parties afforded the opportunity of mere observation of the flight of space objects,

without having the right to inspect the payload to be launched, cannot normally ascertain whether such payload contained nuclear weapons, mass destruction weapons systems, and other military weapons, which the launching state is determined to place in outer space in violation of its treaty obligations.

162. See further Goldman, *op. cit.*, note 159, p. 73. Note further that the on-site inspection provided by Article XII does not extend to space objects in orbit or in free space. *Ibid.*, see also Menos, *op. cit.*, note 99, pp. 59-60; and George, *op. cit.*, note 126, pp. 165-166.
163. For a discussion of these four rationales for the creation of NWFZs see Macdonald, R. St. J., "Nuclear Weapon-Free Zones and Principles of International Law" in *International Law and Its Sources*, ed. Heere, W. P., p. 48 (1988).
164. For an analysis of the efforts to create a Balkan NWFZ see generally Pamir, P., "The Quest for a Balkan Nuclear-Weapons-Free-Zone" in *Nuclear-Free Zones*, eds. Pitt, D., and Thompson, G., pp. 94-105 (1987).
165. See Pitt, D., "Nuclear-Free Zones: An Idea Whose Time Has Come," in (Pitt and Thompson) *Ibid.*, p. 2. For a further short and concise discussion of the evolution of the negotiations and the progress made on the proposed Nordic NWFZ since 1961 and afterwards see Macdonald in Heere, *op. cit.*, note 163, pp. 53-54.
166. For a more detailed analysis of the negotiating efforts and prospects for the establishment of an African NWFZ see generally Epstein, W., "A Nuclear-Weapon-Free-Zone in Africa?" in Pitt and Thompson, *op. cit.*, note 164, pp. 110-127.
167. For this modified version of the Rapacki Plan, which was in-

troduced to the United Nations, see Coates, K., "For A Nuclear-Free Europe" in (Pitt and Thompson), *Ibid.*, p. 82.

168. For a short discussion of the proposed Near East NWFZ see *Ibid.*, p. 84.
169. See Epstein (*The Prevention of Nuclear War, A United Nations Perspective*), for the full text of the Treaty of Tlateloco see *Arms Control and Disarmament Agreements* (1980 Edition), *op. cit.*, note 107, pp. 63-76. Also, for a fuller analysis of the negotiations which led to the conclusion of this Treaty see generally Robles, A. G., *The Denuclearization of Latin America* (1967).
170. I am indebted to Macdonald and Heere, *op. cit.*, note 163, p. 57.
171. See *The 1996 Arms Control Reporter*, Section 452 A. pp. 1-3.
172. In particular, Brazil and Argentina are rapidly approaching the threshold of developing nuclear weapons. They also possess ballistic missile capability. For a more detailed analysis of the involvement of both Brazil and Argentina in the development of nuclear weapons see *New Threats: Responding to the Proliferation of Nuclear, Chemical, and Delivery Capabilities in the Third World*, ed. The Aspen Strategy Group, pp. 3-4, and 107 (1990). [Hereinafter referred to: *New Threats: An Aspen Strategy Group Report*].
173. For a further analysis of the content of Article 1 see Robles (The Treaty for the Prohibition of Nuclear Weapons in Latin America) in Pitt and Thompson, *op. cit.*, note 164, p. 16; and MacDonald in Heere, *op. cit.*, note 163, p. 57.
174. For a further short and concise discussion of the permission for the peaceful uses of nuclear energy and the carrying out of

nuclear explosions for the same purpose see Robles (The Treaty for the Prohibition of Nuclear Weapons in Latin America) in Pitt and Thompson, *Ibid.*, pp. 17-18.

175. See *The 1996 Arms Control Reporter*, *op. cit.*, note 171, Section 706.A., p. 3 and Section 706.E., p. 1.
176. For a more detailed discussion of the composition of the Treaty Agency see Robles (The Treaty for the Prohibition of Nuclear Weapons in Latin America) in Pitt and Thompson, *op. cit.*, note 164, p. 15.
177. For a further analysis of the legal role of the Agency's organs in the implementation of the Treaty as specifically provided by Articles 9-11 see *Ibid.*
178. See *Ibid.*
179. See *Ibid.* I have heavily relied on Macdonald in Heere, *op. cit.*, note 163, p. 60.
180. For the full text of Additional Protocol I see *Arms Control and Disarmament Agreements* (1980 Edition), *op. cit.*, note 107, p. 75.
181. See *The 1996 Arms Control Reporter*, *op. cit.*, note 171, Section 452.A., p. 4.
182. For the full text of Additional Protocol II see *Arms Control and Disarmament Agreements* (1980 Edition), *op. cit.*, note 107, p. 76.
183. See *The 1996 Arms Control Reporter*, *op. cit.*, note 171, Section 452.A., p. 4.
184. I have heavily relied on Singh and McWhinney, *op. cit.*, note 14, pp. 247-248. For a general discussion of the negotiations which led to the conclusion of the Treaty see *International*

*Negotiations of the Seabed Arms Control Treaty* ed. United States Arms Control and Disarmament Agency (1973). For the full text of the Treaty see *Arms Control and Disarmament Agreements* (1980 Edition), *op. cit.*, note 182, pp. 102-105.

185. See (Singh and McWhinney), *Ibid.*, note 14, p. 249.

186. *Ibid.*

187. See Wilmshurst, M. J., "The Development of Current Non-Proliferation Policies" in *The International Nuclear Non-Proliferation System, Challenge and Choices*, eds. Simpson, J., and McGrew, A. G., p. 19 (1984).

188. See also Epstein, (*The Prevention of Nuclear War*), *op. cit.*, note 169, p. 48; and Singh and McWhinney, *op. cit.*, note 14, p. 238.

189. See *Arms Control and Disarmament Agreements* (1980 Edition), *op. cit.*, note 107, p. 82.

190. *Ibid.*

191. See Singh and McWhinney, *op. cit.*, note 14, p. 240.

192. *Ibid.*, pp. 240-241. For the full text of the NPT see *Arms Control and Disarmament Agreements* (1980 Edition), *op. cit.*, note 107, pp. 90-94.

193. For a short and concise description of the technical concept of horizontal nuclear proliferation see Epstein, (*The Prevention of Nuclear War*), *op. cit.*, note 109, p. 48.

194. I am indebted to Marks, A. W., *NPT: Paradoxes and Problems*, p. 4, (1975); and Singh and McWhinney, *op. cit.*, p. 241. Also, for a more detailed analysis of the nuclear weapon states' security guarantees and assurances to the non-nuclear weapon states in view of the U.N. Security Council Resolution

255 see generally Lenefsky, D., "The United Nations Security Council Resolution on Security Assurances for Non-Nuclear Weapons States," 3 *New York University Journal of International Law and Politics*, pp. 56-71 (1970).

195. (Singh and McWhinney) *Ibid.*
196. *Ibid.*
197. See *The 1996 Arms Control Reporter*, *op. cit.*, note 171, Section 602.B., p. 310.
198. For a further specific analysis of the Israeli and Indian nuclear weapon capabilities and their ballistic missile systems see, The Aspen Strategy Group, *op. cit.*, note 172, pp. 49-56.
199. See Shaker, M. I., "The Non-proliferation Treaty Regime, A Reading Before 1995" in *Beyond 1995, The Future of the NPT Regime*, eds. Pilat, J. F., and Pendley, R. E., p. 10 (1990).
200. See *The 1990 Arms Control Reporter*, Section 602A, p. 5.
201. *Ibid.*, pp. 5-6.
202. *Ibid.*
203. *Ibid.*
204. *Ibid.*

## CHAPTER 6

205. See Krepon, M., *Arms Control In the Reagan Administration*, p. 11 (1989).
206. See generally Calvo-Golder and Calvo, *op. cit.*, note 116, p. 46 *et seq.*; Menos, D., *World at Risk, The Debate Over Arms*

*Control*, p. 15 *et seq.* (1986). [Hereinafter referred to as Menos, *World at Risk*]; and *Arms Control and Disarmament Agreements*, ed. U.S. Arms Control and Disarmament Agency, p. 171 (1984). [Hereinafter referred to as *Arms Control and Disarmament Agreements* (1984 Edition)]. Also, for the full text of the PNET, its Protocol and the Agreed Statement see *Ibid.*, pp. 173-189.

207. For a concise and comprehensive discussion of the ratification of the TTBT and PNET by the U.S. Senate and the resolution of the Senate, which lists a number of safeguards in relation to the effective verification and implementation of both Treaties see *The 1990 Arms Control Reporter, op. cit.*, note 200, Section 605.B., pp. 109-113.
208. For this justification provided by India see Halsted, T. A., "Nuclear Testing - No End In Sight?" in Carlton and Schaerf, *infra*, note 217, p. 215.
209. See also the similar views expressed in *Ibid.*, pp. 216-217. In fact, it must have been an extraordinary wrench for the Soviet Union to agree to allow adversary inspectors on Soviet soil, and to grant them at least some latitude in the activities which they may conduct at the site of a nuclear explosion. *Ibid.*
210. See George, *op. cit.*, note 126, pp. 54-55. See also Risse-Kappen, T., *The Zero Option, INF, West Germany, and Arms Control*, p. 10 (1988).
211. For a general discussion of the superpower negotiations, which led to the conclusion of SALT II see Wolfe, T. W., *The SALT Experience*, p. 219 *et seq.* (1979).
212. For the full text of the SALT II Agreement, its Protocol and the Agreed Statements and Common Understandings see

*Arms Control and Disarmament Agreements* (Edition 1984), *op. cit.*, note 206, pp. 246-271.

213. This characterization of the SALT II made by President Carter is quoted in Menos, *op. cit.*, note 99, p. 80.
214. For a general discussion of the U.S. Senate's severe criticism and opposition to the ratification of the SALT II, I have heavily relied on Krepon, *op. cit.*, note 205, p. 1 *et seq.*; (Menos) *Ibid.*, pp. 80-81; and Calvo-Goller and Calvo, *op. cit.*, note 116, p. 4 *et seq.*
215. See Meredith, P. M., "The Legality of a High-Technology Missile Defense System: The ABM and Outer Space Treaties," 78 *American Journal of International Law*, p. 418 (1984).
216. See Lopez, G. A., "Forward: The Reagan Legacy and the Strategic Defense Initiative," 15 *Journal of Legislation*, p. 77 (1988-1989). Also, for a discussion of the military, industrial, political, scientific and bureaucratic lobbying and influence over President Reagan to adopt and announce the SDI system see generally Grossman, J., "The Politics of 'Star Wars'" in *Ibid.*, pp. 93-101. Moreover, it is important to note that Reagan's SDI was born in an American popular culture dominated by space adventure movies like *Star Trek*, *Star Wars*, and *Close Encounters of the Third Kind*. Thus, in SDI, both fantasy and policy merged. *Ibid.*, p. 96.
217. See Menos, *op. cit.*, note 99, p. 16. For a further analysis of the technical description of the SDI system see generally: Dallmeyer, D. G., "Space Weapons: Arming Man's Last Frontier" in Diehl and Johnson, *op. cit.*, pp. 91-117; Johnson, T. H., "Technologies of Ballistic Missile Defense" in *The ABM Treaty: To Defend or Not to Defend?* eds. Stützle, W., *et al.*, pp. 91-102 (1987); York, H. F., "'Star Wars': Origins and Overview" in *The Arms Race in the Era of Star Wars* eds.



Carlton, D., and Schaerf, C., pp. 213-231 (1988); Lin, H. *New Weapon Technologies and the ABM Treaty* (1988); Gall, R., "Militarization of Space" in *Scientists, Peace and Disarmament* eds. Lemarchand, G. A., Pedace, A. R., pp. 326-333 (1988); and Westerkamp, J. F., "On the Strategic Defense Initiative and the Anti-ballistic Missile Treaty" in (Lemarchand and Pedace) *Ibid.*, pp. 334-352; and Bes, D., "The Vertical Meaning of the Strategic Defense Initiative" in *Ibid.*, pp. 360-378.

218. See (Menos) *op. cit.*, note 99, p. 16. See also Dallmayer (in Diehl and Johnson) *op. cit.*, note 11, p. 93 *et seq.*
219. For a more detailed discussion of the Phase I scheduled deployment of the U.S. SDI system into the outer space in late 1993 and the technological development and continued tests and improvement of the Brilliant Pebbles see *The 1990 Arms Control Reporter*, *op. cit.*, note 200, Section 575.E., pp. 2 and 11, and Section 505.0., p. 5 *et seq.*
220. See generally the views of Sagdeyev, R. Z., Velikhov, Y. P., and Kokoshin, A. A., "Strategic and Political Aspects of the Strategic Defense Initiative: A Soviet Viewpoint," 15 *Journal of Legislation*, pp. 179-198 (1988-1989).
221. Abraham Sofaer, the former Legal Adviser to the State Department, was the inventor and supporter of the broader interpretation of the ABM Treaty in order to justify the compatibility of the Reagan proposed space based SDI program. See generally Sofaer, A. D., "The ABM Treaty and the Strategic Defense Initiative," 99 *Harvard Law Review*, pp. 1972-1985 (1986). It must be noted, however, that Sofaer in his legal efforts to justify the legality of the initial objective of the Reagan administration to develop and test its SDI program argued, on the basis of what he called "the treaty lan-

guage” or a “restrictive interpretation” of the ABM Treaty, that in accordance with Agreed Statement D the contracting parties have the right to develop and test substitute devices for anti-ballistic missile systems or components based on other physical principles than those used in developing ABM missile defense systems at the time of the signature of the Treaty. Thus, Sofaer suggests that Agreed Statement D is a qualification (or amplification) of Article V(1) of the Treaty which, *inter alia*, prohibits the deployment of space based ABM systems or components. Accordingly, Sofaer concludes that since the SDI contemplates other physical principles than those that existed at the time of the signature of the Treaty, the development, testing and the deployment of a space based SDI system by the United States would be compatible with the ABM Treaty, and that any limitations on the SDI anti-ballistic missile defenses, as provided in Agreed Statement D, would be the subject to further negotiation between the two parties under Article XIII of the Treaty, and, if need be, to agreement for amendment of the Treaty under Article XIV. See *Ibid.* See also Singh and McWhinney, *op. cit.*, note 14, pp. 333-334; and De Tar, R. A., “The Proposal for Reinterpreting the ABM Agreement: Death of a Treaty,” 3 *American University Journal of International Law and Policy*, p. 427 *et seq.* (1988). Furthermore, it must be noted that while the U.S. administration initially argued the legality of the development and testing of its space based proposed SDI system in view of the ABM Treaty, by the end of 1985, President Reagan’s Secretary of State, George Shultz stated that the Reagan administration had adopted a broader interpretation of the ABM Treaty, which was legally justified and which allowed the United States to proceed with the development, testing and deployment of the SDI program. Nonetheless, Shultz indicated that the issue of the SDI deployment as

based on other physical principles would be the subject of U.S.-Soviet negotiations. See Gross, D. G., "Negotiated Treaty Amendment: The Solution to the SDI-ABM Treaty Conflict," 28 *Harvard International Law Journal*, p. 46 *et seq.* (1987).

222. See further *The Washington Post*, P. A21 (July 15, 1993). See also *The 1996 Arms Control Reporter*, *op. cit.*, note 171, Section 576.A., p. 1. See further *The Defense Monitor*, p. 5 (June 1997).

## CHAPTER 7

223. The *Ad Hoc* Committee on the World Disarmament Conference was established by the UN General Assembly in 1973. Its main task was to examine the possibility and the preparation of the ground for a world disarmament conference. For a further analysis see generally *The United Nations Disarmament Year Book*, ed. United Nations, p. 53 *et seq.* (1977).
224. For the full text of the Final Document see *The United Nations Disarmament Year Book*, ed. United Nations, pp. 473-490 (1979). Indeed, for the first time in the history of disarmament negotiations, the international community unanimously agreed on a comprehensive strategy for disarmament. See *Everyone's United Nations*, ed. United Nations, p. 150 (1986).
225. See generally, *The United Nations Disarmament Year Book* (1979), *op. cit.*, note 224, pp. 478-487.
226. *Ibid.*, pp. 476-477.
227. *Ibid.*, p. 479.
228. *Ibid.*, pp. 477-478.

229. *Ibid.*, p. 490.
230. See also *Everyone's United Nations*, *op. cit.*, note 224, p. 151.
231. The complete title of the 1980 Report of the UN Secretary General is: General and Complete Disarmament: Comprehensive Study on Nuclear Weapons: Report of the Secretary-General. For the full text of this Report see *Nuclear Weapons: Report of the Secretary General*, ed. United Nations (1980).
232. *Ibid.*; and for a more detailed discussion see Appendix I in *Ibid.*, p. 193 *et seq.* Note also that in accordance with the Report the largest nuclear weapon ever tested released an explosive power nearly 4,000 times greater than that of the atomic bomb that levelled Hiroshima. *Ibid.*, p. 8.
233. *Ibid.*, p. 89 *et seq.*
234. *Ibid.*
235. *Ibid.*, p. 92 *et seq.*
236. *Ibid.*
237. *Ibid.*, p. 188.
238. *Ibid.*
239. *Ibid.*, p. 192. For a further consideration of the 1975 NPT Review Conference see generally *The United Nations and Disarmament 1970-1975*, ed. United Nations, pp. 82-92 (1976).
240. For a general discussion of the UN initiatives in relation to the question of global nuclear disarmament during the period between 1975-1980 see generally: *The United Nations Disarmament Yearbook* (1979); and *The United Nations*

*Disarmament Yearbook*, ed, United Nations (1980). See also *Everyone's United Nations*, *op. cit.*, note 224, p. 164. Note further these trilateral negotiations on the formulation of a CTBT proved unable to overcome the legal and technical difficulties raised by the question of verification of such a treaty by seismic monitoring, on site-inspection and the participation of other parties in its implementation. *Ibid.*

241. For the full text of this Convention see *Arms Control and Disarmament Agreements* (Edition 1984), *op. cit.*, note 206, pp. 193-198.
242. *Ibid.*, p. 190.
243. For a further discussion of the 1975 NPT Review Conference see generally *The United Nations and Disarmament 1970-1975*, ed. United Nations, pp. 82-92 (1976).
244. See *The United Nations Disarmament Yearbook*, ed. United Nations, pp. 199-200 (1981).
245. *Ibid.*, pp. 201-202.
246. *Ibid.*, p. 228. See also *Everyone's United Nations*, *op. cit.*, note 224, pp. 168-169.
247. See (*The United Nations Disarmament Yearbook*), *Ibid.*, p. 208.
248. *Ibid.*
249. *Ibid.*, pp. 204-206.
250. For a general consideration and analysis of the 1980 NPT Review Conference see *Ibid*, p. 126 *et seq.*
251. For a discussion of the trends in horizontal nuclear weapons proliferation by the near-nuclear weapon states and the nu-

clear-problem states by the beginning of the 1980s and afterwards see generally: *Limiting Nuclear Proliferation*, eds. Snyder, J. C. and Wells, S. F. Jr., p. 3 *et seq.* (1985); and *Nuclear Non-Proliferation: An Agenda for the 1990s*, ed. Simpson, J., p. 24 *et seq.* (1987). See further *The 1996 Arms Control Reporter*, *op. cit.*, note 171, Section 602.A., p. 1 *et seq.*

252. In relation to the issue of the prevention of the proliferation of ballistic missiles, it should be added that in the late 1970s the Missile Technology Control Regime (MTCR) was to be formed with the objective of dealing with the question of the export of ballistic missiles and technologies to produce such missiles for non-nuclear weapon states. Finally, the MTCR was formally created in April 1987 with the simultaneous announcement by the United States, Canada, France, West Germany, Italy Japan and Britain of a new policy to restrict exports that could contribute to the acquisition of ballistic missiles capable of delivering nuclear warheads. However, it must be pointed out that the MTCR does not constitute a multilateral treaty arrangement and thus it is lacking of any legal force. On the contrary, it constitutes a multilateral organ setting out the policies of its participant states for a joint regulation of the prevention of the proliferation of ballistic missiles to the non-nuclear weapon states. See further *The Aspen Strategy Group Report*, *op. cit.*, note 172, pp. 13-15. For a detailed list of countries presently possessing ballistic missile capabilities, see *The 1996 Arms Control Reporter*, *op. cit.*, note 171, Section 706.E., pp. 1-2.

253. See *Everyone's United Nations*, *op. cit.*, note 224, p. 165.

254. *Ibid.*, p. 156.

255. *Ibid.*, p.157.

256. *Ibid.*, pp. 157-158.

257. *Ibid.*
258. *Ibid.*
259. *Ibid.*
260. For a further detailed analysis of the popular movement for a nuclear arms freeze and nuclear disarmament particularly in Western Europe and the United States in the 1980's see Menos, *op. cit.*, note 99, p. 61 *et seq.*
261. *Ibid.*
262. See *The United Nations Disarmament Yearbook* (1981), *op. cit.*, pp. note 244, 190-191.
263. See *The United Nations Disarmament Yearbook*, pp. 277-278 (1982).
264. See *The 1996 Arms Control Reporter*, *op. cit.*, note 171, Section 455.A., p. 1
265. See *The United Nations Disarmament Yearbook*, *op. cit.*, note 263, pp. 277-278.
266. See *The 1996 Arms Control Reporter*, *op. cit.*, note 171, Section 453.A., p. 4. See also *The Washington Times*, p. A10 (April 8, 1996).
267. See *The United Nations Disarmament Yearbook*, *op. cit.*, note 263, pp. 277-278.
268. See *Everyone's United Nations*, *op. cit.*, note 224, pp. 168-169.
269. *Ibid.*
270. *Ibid.*
271. For a further analysis of the trends towards regional proliferation of nuclear weapons during the 1980s see generally:

*Everyone's United Nations*, *op. cit.*, note 224, pp. 58-60.

272. For a general discussion of the prospects for the nuclearization of the Middle East region and its implications see generally Bhatia, S., *Nuclear Rivals in the Middle East* (1989).
273. As has been previously discussed, while by the mid-1970s Israel, a non-NPT state party, had acquired in a *de facto* manner nuclear weapon capabilities, by the beginning of the 1980s a number of Middle East states were in the possession of significant nuclear programs. In fact, Iraq and Iran were considered as nuclear weapon problem states. For a more detailed analysis of the proliferation of nuclear technologies and materials for the development of nuclear weapons in the Middle East see *Ibid.*, p. 34 *et seq.*
274. See *The 1990 Arms Control Reporter*, *op. cit.*, note 200, Section 453.A., pp. 1-2 and Section 453.B., p. 77 *et seq.* See also *Everyone's United Nations*, *op. cit.*, note 224, p. 172.
275. See *The 1990 Arms Control Reporter*, *Ibid.*, Section 454.A., p. 1. See also *Everyone's United Nations*, *Ibid.*, pp. 172-173.
276. See (*The 1990 Arms Control Reporter*) *Ibid.*
277. *Ibid.*, p. 2. See further *Everyone's United Nations*, *op. cit.*, note 224, p. 172.
278. See *The 1990 Arms Control Reporter*, *op. cit.*, note 200, Section 454.B., p. 3 *et seq.* It is also worthwhile to note that the Soviet Union favored a South Asian NWFZ. It also had warned Pakistan about acquiring nuclear weapon capabilities. Similarly, the United States favors the nonproliferation of nuclear weapons in the region and has asked both Pakistan and India to discuss a common approach. *Ibid.*
279. *Ibid.*, Section 503.A., p. 1.



280. *Ibid.*
281. *Ibid.*
282. *Ibid.*, p. 2.
283. See also *Ibid.*, p. 4 and p. 6.
284. *Ibid.*
285. *Ibid.*
286. *Ibid.*
287. (See Section 458.A.) *Ibid.*, pp. 1-2.
288. *Ibid.* For a more detailed discussion of the obstacles and prospects for the demilitarization and denuclearization of the Korean Peninsula see generally: *The Korean Peninsula: Prospects for Arms Reduction under Global Détente*, eds. Taylor, W. J., Jr., Young-Koo, C. and Blodgett, J. Q. (1990).
289. See *The 1990 Arms Control Reporter*, *op. cit.*, note 200, Section 457.A., p. 12.
290. *Ibid.*
291. *Ibid.*
292. See further *The Washington Post*, p. A1 and A12 (March 22, 1994).
293. For a general discussion of the establishment of the South Pacific NWFZ see Fyfe, N. and Beeby, C., "The South Pacific Nuclear Free Zone Treaty," 17 *Victoria University of Wellington Law Review*, p. 34 *et seq.* (1987). For the full text of this Treaty, including its Annexes and Protocols attached to it see 24 I.L.M., pp. 1442-1463 (1985).
294. See *The 1996 Arms Control Reporter*, *op. cit.*, note 171,

Section 840, p. 323 *et seq.*

295. Note further that, in contrast with the Treaty of Tlatelolco, the Rarotonga Treaty is not plagued by a complex system of acceptance. In fact, Article 12 provides a more flexible acceptance mechanism of the Treaty. It calls simply for signature and ratification. It is also important to note that Article 14 of the Treaty states that the Treaty is not subject to reservation. See MacDonald in Heere, *op. cit.*, note 163, pp. 64-65. Note further that Article 14 of the Treaty states that the Treaty is of permanent nature and shall remain in force indefinitely.
296. See MacDonald in Heere, *op. cit.*, note 163, p. 63. For a specific geographic description and delimitation of the South Pacific NFZ see Annex 1 of the Rarotonga Treaty.
297. See (MacDonald) *Ibid.*, p. 62. Furthermore, it must be added that the adoption and acceptance of the Rarotonga Treaty was certainly made easier due to the fact that the South Pacific region was already a *de facto* NFZ. See further Thakur, R., "The Treaty of Rarotonga: The South Pacific Nuclear-Free Zone" in Pitt and Thompson, *op. cit.*, note 164, p. 29.
298. See Article 5 of the Rarotonga Treaty. See also MacDonald in Heere, *op. cit.*, note 163, pp. 62-63; and Lippman, M., "The South Pacific Nuclear Free Zone Treaty: Regional Autonomy Versus International Law and Politics," 10 *Loyola of Los Angeles International and Comparative Law Journal*, p. 125 (1988).
299. See also (Lippman) *Ibid.*, pp. 125-126; and Gibbs, E. L., "In Furtherance of A Nuclear-Free Zone Precedent: The South Pacific Nuclear Free Zone Treaty," 4 *Boston University International Law Journal*, p. 402 *et seq.*

300. See MacDonald in Heere, *op. cit.*, note 163, pp. 62-63.
301. See further Gibbs, *op. cit.*, note 299, pp. 402-403.
302. See also MacDonald in Heere, *op. cit.*, note 163, p. 62; and (Gibbs) *op. cit.*, note 299, p. 402.
303. See (MacDonald) *Ibid.*, p. 63. Note further that the impetus for the conclusion of the Rarotonga Treaty did not only stem from long-standing concerns in the South Pacific region over the testing of nuclear weapons and missiles, but also from the fear that Japan was about to dump radioactive waste and other radioactive matter at sea within the region. *Ibid.* Thus, Article 7 of the Rarotonga Treaty is designed to prevent and prohibit the pollution and contamination of the environment and the natural resources against the dumping of low radioactive materials by states inside and outside the South Pacific NFZ. See also Gibbs, *Ibid.*, pp. 405-406.
304. See the view of MacDonald in Heere, *op. cit.*, note 163, p. 62.
305. See also Gibbs, *op. cit.*, note 299, p. 407.
306. (Gibbs) *Ibid.*, p. 400 *et seq.*
307. See MacDonald in Heere, *op. cit.*, note 163, p. 64.
308. *Ibid.* See also Thakur in Pitt and Thompson, *op. cit.*, note 164, p. 29.
309. (Thakur) *Ibid.*
310. *Ibid.*
311. See also MacDonald in Heere, *op. cit.*, note 163, p. 64. For a more detailed comparative legal analysis between the Rarotonga Treaty and the Treaty of Tlatelolco see Gibbs, *op. cit.*, note 299, pp. 407-412.

312. (MacDonald) *Ibid.*; and Thakur in Pitt and Thompson, *op. cit.*, note 164, p. 30.
313. For the full text of Protocol I, II and III, which are attached to the Rarotonga Treaty see 24 I.L.M., *op. cit.*, pp. 1459-1463.
314. See also the analysis of MacDonald in Heere, *op. cit.*, note 163, pp. 64-65.
315. See *The 1996 Arms Control Reporter*, *op. cit.*, note 171, Section 840.B., p. 23.
316. See also Fyfe and Beeby, *op. cit.*, note 293, pp. 48-49.
317. See *The 1996 Arms Control Reporter*, *op. cit.*, note 171, p. 4.
318. Quoted in MacDonald in Heere, *op. cit.*, note 163, p. 65.
319. *Ibid.*
320. See *The 1996 Arms Control Reporter*, *op. cit.*, note 171, Section 456.A., p. 4.
321. For a more detailed analysis of the militarization and nuclearization of the Pacific region by the naval and aircraft nuclear capable forces by the two superpowers see Lippman, *op. cit.*, pp. 115-119.
322. See *The 1996 Arms Control Reporter*, *op. cit.*, note 171, Section 840.B., pp. 23-24.
323. For the full text of the Moon Treaty see 18 I.L.M., pp. 1434-1441 (1979).
324. See Christol, C., "The Moon Treaty Enters Into Force," 79 *American Journal of International Law*, p. 163 (1985).
325. See further Singh and McWhinney, *op. cit.*, note 14, p. 237. For a more detailed analysis of the legal regulation of the

exploration and uses of the Moon and other celestial bodies for the common benefit of mankind under the Moon Treaty see (Christol) *Ibid.*, pp. 164-165.

326. See also Singh and McWhinney, *op. cit.*, note 14, p. 237.
327. See also *Ibid.*
328. See also Dore, I. I., "International Law and the Preservation of the Ocean Space and Outer Space As Zones of Peace: Progress and Problems," 15 *Cornell International Law Journal*, pp. 47-48 (1982).
329. See Article 15 of the Moon Treaty, *op. cit.* See also Christol, *op. cit.*, note 324, p. 164.
330. See also (Christol) *Ibid.*
331. See also *Ibid.*
332. See further 18 I.L.M., pp. 1419-1421 (1979).
333. *Ibid.* The full text of the Convention and its Annexes can be found in *Ibid.*, pp. 1422-1433.
334. See *Treaties in Force* ed. U.S. Department of State, p. 356 (1990).
335. For the full content of Article 1(a) and (b) see the Convention, *op. cit.* See also Annex II attached to this Convention, *Ibid.*, p. 1433.
336. See the Preamble and Article 1(c) of the Convention.
337. Indeed, the Convention serves the legal objective to avert the potential dangers posed by the unlawful taking and use of nuclear material while it encourages the transfer of such material for peaceful applications under the legal regime and controls of the NPT and under the safeguards of the IAEA. See

also the Preamble of the Convention.

- 338. See Article 7 of the Convention.
- 339. See Articles 7 and 8 of the Convention.
- 340. *Ibid.*
- 341. See Articles 9, 10 and 11 of the Convention.
- 342. See *The Washington Times*, p. A15 (April 3, 1996).
- 343. See Articles 3 and 4 of the Convention.
- 344. See Article 5 of the Convention.
- 345. *Ibid.* See also Article 6 *Ibid.*
- 346. *Ibid.* See also Article 17 of the Convention.
- 347. See *The Washington Times*, p. A4 (March 18, 1996).

## CHAPTER 8

- 348. For a more detailed analysis of the US-Soviet NST negotiations in the 1980s with a specific concentration on the Gorbachev agenda on nuclear disarmament see McCain, M., *Understanding Arms Control: The Options*, pp. 176-198 (1989).
- 349. For a further discussion of the negative impact of the US SDI program on the START and INF negotiations see Risse-Kappen, *op. cit.*, note 210, p. 104.
- 350. See generally Gorbachev, M., *Perestroika: New Thinking for Our Country and the World* (1987), where Gorbachev himself provides the fundamental principles for a new all-embracing system of international security and for the global elimination of nuclear weapons. Also, for a further discussion of

Gorbachev's leadership and new thinking about international security, global peace and nuclear disarmament see Sagadeev, R., "Soviet 'New Thinking' About International Security" in *Challenges For the 1990s For Arms Control and International Security*, ed. National Academy of Sciences, Committee on International Security and Arms Control, pp. 28-35 (1989).

351. See Menos, *op. cit.*, note 99, pp. 30-31.
352. For an analysis of these Soviet proposals, I am indebted to Risse-Kappen, *op. cit.*, note 210, p. 106.
353. For this Soviet concession to the US SDI system see Bennett, P. R., *The Soviet Union and Arms Control, Negotiating Strategy and Tactics*, p. 81 (1989).
354. For a discussion of the Gorbachev-Reagan Geneva summit meeting and a specific description of what transpired between the two leaders see Adelman, K. L., *The Great Universal Embrace: Arms Summitry-A Skeptic's Account*, pp. 121-160 (1989).
355. For some basic excerpts of the communiqué of the Geneva summit meeting see Menos, *op. cit.*, note 99, pp. 155-156. Also, for a critical evaluation of the results of the Geneva summit meeting see Risse-Kappen, *op. cit.*, note 210, p. 108.
356. See (Menos) *Ibid.*, p. 31.
357. I am indebted to Risse-Kappen, *op. cit.*, note 210, p. 109.
358. *Ibid.*
359. See Menos, *op. cit.*, note 99, p. 31.
360. See Risse-Kappen *op. cit.*, note 210, pp. 109-110. But, with respect to the Gorbachev proposal for a world nuclear

disarmament by the year 2000, it must be noted that the NATO allies unanimously rejected this proposal. *Ibid.*, p. 117.

361. For a more detailed discussion of the INF negotiations between February and September 1986 see *Ibid.*, pp. 110-115.
362. *Ibid.*, p. 112.
363. For a general analysis of the preparation of the Reykjavik summit meeting, including a specific account of what transpired between Gorbachev and Reagan in their NST negotiations, see Adelman, *op. cit.*, note 354, pp. 19-88.
364. See also the view of Risse-Kappen, *op. cit.*, note 210, p. 115.
365. See also, *Ibid.*, p. 114, *et seq.*
366. *Ibid.*
367. See Menos, *op. cit.*, note 99, p. 156. For a further discussion of the Gorbachev proposals at Reykjavik for the beginning of a substantial legal process for superpower denuclearization and their impact on this question see Aderinan, T., "Nuclear Weapons: Toward Nuclear Arms Limitation and Global Disarmament after Reykjavik" in *Multilateral Aspects of the Disarmament Debate*, *op. cit.*, pp. 32-47; Bessmerthykh, A., "Reykjavik and Prospects for a Nuclear-Free World" in *Ibid.*, pp. 49-53; Carasales, J. C., "Possibilities After Reykjavik: Let Us Not Waste Them" in *Ibid.*, pp. 54-59; and Payne, K. B., "The Dilemmas of Deterrence, Defense, and Disarmament," in *Strategic Arms Control after SALT*, ed., Cimbala, S. J., pp. 115-133 (1989).
368. See Risse-Kappen, *op. cit.*, note 210, p. 114 *et seq.*
369. I am indebted to Menos, *op. cit.*, note 99, p. 156. Note further



that Gorbachev in August 1986 stated that, although mountains of nuclear weapons were accumulated, yet the nuclear arms race continued, and that there existed a danger that it may extend into outer space. *Ibid.*, p. 31.

370. See Risse-Kappen, *op. cit.*, note 354, p. 115.
371. For a more detailed discussion of the US-Soviet NST after the Reykjavik summit see Risse-Kappen, *op. cit.*, note 210, p. 143 *et seq.*; and Panofsky, W. K. H., "Reykjavik and Beyond: Implications of Deep Reductions in Strategic Nuclear Arsenals and the Future Direction of Arms Control" in *Reykjavik and Beyond, Ibid.*, pp. 1-10. For a more detailed discussion of the progress and breakthroughs made in the INF negotiations after the Reykjavik summit, which led to the final conclusion of the INF Treaty in December 1987 see McCain, *op. cit.*, note 348, pp. 194-196.
372. For a more specific analysis of the Shevardnadze-Shultz Agreement in Principle on the INF agreement see Singh and McWhinney, *op. cit.*, note 14, p. 367.
373. For a general discussion of the Washington summit meeting between Gorbachev and Reagan see Adelman, *op. cit.*, note 354, pp. 199-250. Note also that the author provides a detailed account on what transpired during this summit between Gorbachev and Reagan.
374. See Menos, *op. cit.*, note 99, p. 157.
375. The full text of the INF Treaty, including its Protocols and Annex, can be found in Singh and McWhinney, *op. cit.*, note 14, pp. 568-593. Also, for a brief description of the Treaty's legal framework see Kokoski, R., and Koulik, S., *Verification of Conventional Arms Control in Europe: Technological Constraints and Opportunities*, p. 203 (1990).

376. For a short description of the MOA of December 1989 see (Kokoski and Koulik) *Ibid.*
377. See Menos, *op. cit.*, note 99, p. 158; and Risse-Kappen, *op. cit.*, note 210, p. 149. Note further that the ratification of the INF Treaty by the US Senate was simpler than it was initially expected. In fact, the US Senate approved the INF Treaty by an overwhelming majority of 93 US Senators. See (Risse-Kappen) *Ibid.*
378. See the Preamble to the INF Treaty.
379. See the full text of Articles I and II of the Treaty.
380. See the full text of Articles III and X (6) of the Treaty. For a more detailed analysis of these provisions see (Risse-Kappen) *Ibid.*, pp. 150-151.
381. See Menos, *op. cit.*, note 99, p. 17.
382. See Article IV of the INF Treaty. Also, for an analysis of this Article see Risse-Kappen, *op. cit.*, note 210, p. 151.
383. See Article V of the Treaty. See also (Risse-Kappen) *Ibid.*, p. 153. Note further that according to Article V (2), both parties, within 90 days after the Treaty's entry into force, had the legal duty to remove all of their non-deployed launchers of their shorter-range INF missiles to the elimination facilities.
384. See Article VI of the INF Treaty. Note, however, that Article VI (2) allows both parties to continue to use specific missile stages and boosters which would count as medium-or short-range missile systems. For a further analysis see Risse-Kappen, *Ibid.*, p. 154.
385. See Article X of the INF Treaty and its Protocol on

## Elimination.

386. See Risse-Kappen, *op. cit.*, note 354, pp. 153-154. Note also that INF missiles can be eliminated by their launching pursuant to Article X (5) of the Treaty and Article III of its Protocol on Elimination. But this process for the elimination of missiles was subject to inspection and observation by the parties.
387. *Ibid.* See also Menos, *op. cit.*, note 99, p. 17; and Kokoski and Koulik, *op. cit.*, note 375, p. 203.
388. See Article X (4) of the Treaty and Article IV of its Protocol on Elimination. See also Singh and McWhinney, *op. cit.*, note 14, p. 378.
389. I am indebted to Kokoski and Koulik, *op. cit.*, note 375, p. 214 (note 1).
390. See *The 1996 Arms Control Reporter*, *op. cit.*, note 171, Section 403, pp. A1-A2.
391. See also the views of Menos, *op. cit.*, note 99, p. 17.
392. See Article XII of the Treaty and its Protocol on Inspections.
393. For a more detailed and comprehensive description and analysis of the US and Soviet NTM of verification see generally Kokoski, "National Technical Means" in Kokoski and Koulik, *op. cit.*, note 375, pp. 17-55, Spitzer, H. "Aerial Observations and Overflights" in *Ibid.*, pp. 89-122; Altmann, J. "Short-distance Sensors" in *Ibid.*, pp. 123-138; and Fetter, S. and Garwin, T., "Tags" in *Ibid.*, pp. 139-154.
394. See Article XII of the Treaty. Note further that, in accordance with this Article, each party has the right to make six such requests per calendar year, and that only one de-

ployment base must be subject to these cooperative measures at any one time. Also, for a short and concise analysis of this Article of the INF Treaty see Singh and McWhinney, *op. cit.*, note 14, p. 379.

395. I am indebted to Kokoski and Koulik, *op. cit.*, note 375, pp. 206-209. Note further that the US Arms Control and Disarmament Agency had submitted a classified report to the US Senate stating that the United States by its NTM and intelligence capabilities could effectively verify Soviet compliance with the INF Treaty. *Ibid.*
396. See Article XI of the Treaty and its Protocol on Inspections, *op. cit.* See also Kokoski and Koulik, *op. cit.*, note 375, p. 205.
397. See Rissen-Kappen, *op. cit.*, note 210, pp. 155-156; and (Kokoski and Koulik) *Ibid.* Note further that the Annex attached to the INF Treaty provides a specific legal regime in relation to the protection of the privileges and immunities of the inspectors and aircrew members.
398. See Risse-Kappen, *Ibid.*, p. 155.
399. See Kokoski and Koulik, *op. cit.*, note 375, p. 204. Based on the Memorandum of Understanding, there existed seven facilities in Eastern European countries and twelve in Western European countries associated with INF missile systems. See Risse-Kappen, *op. cit.*, note 210, p. 155.
400. See Article XIII of the INF Treaty. See further (Kokoski and Koulik) *Ibid.*, p. 206. Additionally, with respect to the Nuclear Reduction Centers, it must be noted that they were established on September 15, 1987 by a relevant agreement between the Soviet Union and the United States. The fundamental purpose of the Nuclear Reduction Centers is to reduce and ultimately eliminate the risk of outbreak of

nuclear war between the two parties, particularly as a result of misinterpretation, miscalculation, or accident.

401. See Kokoski and Koulik, *op. cit.*, note 375, p. 214 (note 1).
402. See *The 1996 Arms Control Reporter*, *op. cit.*, note 171, Section 403.A., pp. 1-2.
403. The US allegations of Soviet violations of the Treaty, *inter alia*, included transferring of SS-23 missiles to some Eastern European countries, practices interfering with roof-opening cooperative measures and undeclared SS-4 and SS-5 treaty-limited items. For a further analysis see *Ibid.*, Section 403.B., pp. 757-758. See also *The Washington Post*, p. A20 (July 24, 1991).
404. For a further discussion of the present status of the INF Treaty, see *The 1996 Arms Control Reporter*, *op. cit.*, note 171, Section 403.A., p. 1 *et seq.*
405. See also the view of Risse-Kappen, *op. cit.*, note 210, p. 157.
406. See further *Ibid.*, p. 157 *et seq.*; and Menos, *op. cit.*, note 99, p. 17.
407. See (Menos) *Ibid.*
408. Note that after the signature of the INF Treaty the Soviet Union and the United States together maintained more than 10,000 tactical nuclear weapons in Europe consisting of short-range missiles, nuclear artillery, and nuclear capable aircraft. See Brauch, H. G., "Nuclear Weapons in Europe after the INF Agreement" in *Europe in Transition: Politics and Nuclear Security*, eds. Harle, V., and Sivonen, P., pp. 155-178 (1989).
409. See *The Washington Times*, p. A17 (October 31, 1996).

410. See Menos, *op. cit.*, note 99, p. 157. Also, for a further analysis of the legal impact of the INF Treaty on the effective verification of nuclear disarmament treaties see generally: Orphanos, P. P., "INF Treaty On-Site Verification: An Emerging Standard for Policing Arms Control Treaty Obligations," 10 *New York Law School Journal of International and Comparative Law*, pp. 421-450 (1989); and Trimble, P. R., "Beyond Verification: The Next Step in Arms Control," 102 *Harvard Law Review*, pp. 885-912 (1988-1989).
411. I am indebted to Singh and McWhinney, *op. cit.*, note 14, pp. 377-378.
412. For a short and concise analysis of the US-Soviet START negotiations during 1989 see *The 1996 Arms Control Reporter*, *op. cit.*, note 171, Section G11.A., p. 3.
413. For a more detailed discussion of the Gorbachev-Bush Malta summit see *The 1996 Arms Control Reporter*, *Ibid.*, Section 611.B., pp. 595-597. Note also that during the Malta summit both leaders agreed to: (a) sign an agreement at their 1990 summit requiring the destruction of the US-Soviet chemical weapons down to 20% of the current US level; (b) provide joint US-Soviet support for a Conventional Forces Accord in Europe reducing their conventional forces and to be signed into a treaty at the 1990 summit in Europe; and (c) jointly undertake the efforts to constrain missile proliferation more effectively by observing the limits developed by the United States and its allies in the Missile Technology Control Regime. *Ibid.*, p. 596.
414. For a general discussion of the US-Soviet negotiations on the START issues after the Malta summit and until the Washington summit see *The 1996 Arms Control Reporter*, *Ibid.*, Section 611.B., p. 630 *et seq.* See also Lacayo, R., "A

- Hurry-Up Summit” in *Time*, pp. 22-24 (April 16, 1990); and Cox, D. “A Review of the Geneva Negotiations: 1989-1990” in 32 *Background Paper* ed. Canadian Institute for International Peace and Security, pp. 1-8 (1990).
415. See *The 1996 Arms Control Reporter, op. cit.*, note 171, Section 611.A., p. 1
416. The full text of the Treaty and its related documents can be found in the special issue of *Arms Control and Disarmament Agreements*, ed. U.S. Arms Control and Disarmament Agency (1991).
417. See the Preamble to the START Treaty.
418. See Article II of the Treaty, *Ibid.* See also “A START Briefing Book” in *The Bulletin of the Atomic Scientists*, p. 24 (Issue of November 1991), which provides a detailed and concise summary of the entire START Treaty provided by the U.S. Arms Control and Disarmament Agency on July 29, 1991. Moreover, for a legal definition and technical description of the various strategic nuclear weapon systems covered by the START Treaty see the Definitions Annex to this Treaty, pp. 24-29. Additionally, for a list of all categories to strategic nuclear arms covered by the Treaty see the Memorandum of Understanding and its Annexes, attached to this Treaty, pp. 120-244. Also, for a discussion of the counting rules for the reduction of the strategic nuclear arms covered by the Treaty see Article III of the Treaty, pp. 1-5.
419. See Article II of the Treaty, p. 1. See also A START Briefing book, *Ibid.*, p. 24.
420. *Ibid.*
421. *Ibid.* Also, for a specific analysis of the issue of downloading

regulated by the Treaty in relation to the reduction of the number of nuclear warheads of multiple-warhead ballistic missiles see Marsh, G., "The Ups and Downs of Downloading" in *The Bulletin of the Atomic Scientists*, *op. cit.*, pp. 21-23.

422. See (A START Briefing Book) *op. cit.*, note 418, p. 24.
423. *Ibid.*
424. *Ibid.*
425. *Ibid.*, pp. 24-25.
426. *Ibid.*, p. 25.
427. See also Krass, A. S., "START" in *The Bulletin of the Atomic Scientists*, *op. cit.*, note 418, p. 13.
428. See *The 1996 Arms Control Reporter*, *op. cit.*, note 171, Section 611.B., p. 686. Also, for a more detailed analysis of the US and Soviet strategic nuclear forces and their strategic nuclear delivery vehicles in terms of ICBMs, SLBMs and strategic bombers by the end of 1999 see *Ibid.*, Section 611.E-O, pp. 3-4.
429. See also *Ibid.*, Section 611.B., p. 686.
430. I am indebted to Warnke, P. , "Success Linked to ABM Treaty" in *The Bulletin of the Atomic Scientists*, *op. cit.*, note 418, p. 18. For a further discussion of the Soviet SS-18 ICBM and its destructive capabilities see Menos, *op. cit.*, note 99, p. 9.
431. See also *The 1996 Arms Control Reporter*, *op. cit.*, note 171, Section 611.B., pp. 689-690. Note further that the START Treaty does not require the destruction of nuclear warheads particularly because the American side wanted to reuse



them on new weapons. In addition, the American side feared that observation of the destruction of nuclear warheads by the Soviets could compromise design secrets. Also, with respect to the elimination of launchers used for the delivery of strategic nuclear warheads, it should be clarified that some of these launchers must be destroyed while the remaining can be used for other purposes. Indeed, the American side wanted to use such launchers for the needs of its SDI system. *Ibid.*

432. For a further analysis of the verification system of the START Treaty see also Drell, S. D., "Verification Triumphs" in *The Bulletin of the Atomic Scientists*, *op. cit.*, note 418, pp. 28-29.
433. See also "A START Briefing Book," *Ibid.*, p. 25.
434. See also *Ibid.*
435. See also *Ibid.*
436. See also "A START Briefing Book," *Ibid.*, p. 25.
437. See Article II of the Protocol on Inspections and Continuous Monitoring, *op. cit.*, pp. 37-38. Note further that almost immediately after the signature of the START Treaty both parties were preparing for the visit of each other's START inspection teams. See *The 1996 Arms Control Reporter*, *op. cit.*, note 171, Section 611.B., pp. 691-692.
438. See also "A START Briefing Book," *op. cit.*, note 418, p. 25.
439. See Drell, "Verification Triumphs" in *The Bulletin of the Atomic Scientists*, *Ibid.*, pp. 28-29.
440. See also *The 1996 Arms Control Reporter*, *op. cit.*, note 171, Section 611.B., p. 691.

441. See further *The 1996 Arms Control Reporter, Ibid.*, Section 611.B., pp. 691-692.
442. I have heavily relied on Drell, "Verification Triumphs" in *The Bulletin of the Atomic Scientists, op. cit.*, note 418, p. 29. Note further that both parties have recognized that the START Treaty has incorporated the most thorough and innovative verification provisions ever negotiated. *Ibid.* Additionally, for a general discussion of the reduction of US-Soviet strategic nuclear weapons through effective verification procedures see *Reversing the Arms Race: How to Achieve and Verify Deep Reductions in the Nuclear Arsenals*, eds. Hippel, F., and Sagdeev, R. (1990). See also *The 1996 Arms Control Reporter, op. cit.*, Section 614.A., p. 2 *et seq.*
443. See also the similar views of Krass, "START" in *The Bulletin of the Atomic Scientists, op. cit.*, note 418, p. 13.
444. See further Warnke, "Success Linked to ABM Treaty" in *Ibid.*, p. 18; and Drell, "Verification Triumphs" in *Ibid.*, p. 28.
445. See also (Drell) *Ibid.*, p. 29.
446. See also *The 1996 Arms Control Reporter, op. cit.*, note 171, Section 611.B., p. 689.
447. See also *Ibid.*; and Arbatov, A. G., "We Could Have Done Better" in *The Bulletin of the Atomic Scientists, op. cit.*, note 418, p. 36.
448. For a specific list of the US-Soviet strategic nuclear forces by the end of 1999 see *The 1996 Arms Control Reporter, op. cit.*, note 171, Section 611.E-O., pp. 3-4.
449. For a further analysis of this issue see Warnke, "Success Linked to ABM Treaty" in *The Bulletin of the Atomic Scientists, op. cit.*, note 418, pp. 18-19.

450. See *The 1996 Arms Control Reporter*, *op. cit.*, note 171, Section 611.B., p. 697, and p. 700 for a detailed analysis of the Soviet tactical nuclear weapons affected by the Gorbachev initiative see *Ibid.*, Section 408.E., pp. 10-11; and also *The Washington Post*, p. A1 (October 6, 1991).
451. See *The Washington Post*, p. A14 (January 29, 1992).
452. *Ibid.*
453. See also *Ibid.*, p. A12.
454. See *The Washington Post*, p. A18 (January 30, 1992).
455. *Ibid.* Note further that Yeltsin announced that production of nuclear warheads for land-based tactical missiles had been stopped, and that Russia was eliminating one-third of sea-based tactical nuclear weapons and half the nuclear warheads for anti-aircraft missiles. *Ibid.*
456. *Ibid.*
457. *Ibid.*
458. *Ibid.*
459. See *The Washington Times*, p. A15 (September 24, 1996).
460. See *The Washington Post*, p. A18 (January 30, 1992).
461. The full text of the START II Treaty can be found in U.S. Senate Executive Report 104-10, pp. 2-40 (December 15, 1995).
462. For a discussion of Russia's failure to ratify the START II Treaty see *The 1996 Arms Control Reporter*, *op. cit.*, note 171, Section 614.B., p. 63 *et seq.* The United States ratified START II in January 1996. See *The Washington Times*, p. A1 (October 1996).

463. See *USA Today*, p. 2A (January 4, 1993).
464. *Ibid.*
465. See the START II Treaty.
466. *Ibid.*
467. See Friedman, T. L., "Reducing the Russian Arms Threat" in *The New York Times*, p. A11 (June 17, 1992).
468. See the START II Treaty, *op. cit.* Furthermore, it should be noted that based on the terms of the START II Treaty, the parties have reached the legal understanding that by the end of the year 2003 they may reduce their respective strategic nuclear warheads to no more than 3000 strategic nuclear warheads for each side. See also *The Washington Post*, p. A30 (June 17, 1992).
469. For a further analysis see *The Washington Post*, p. A1 and A18 (January 4, 1993).
470. *Ibid.*
471. For a more detailed analysis see *The Washington Post*, p. A30 (June 17, 1992). See also *The 1996 Arms Control Reporter, op. cit.*, note 171, Section 614.A., p. 1 *et seq.*
472. See *The New York Times*, p. A11 (June 17, 1992). See also *The 1992 Arms Control Reporter*, Section 614.B., p. 4 *et seq.*
473. See further *The New York Times*, p. A11 (June 17, 1992).
474. While it is not known whether the United States is engaged in the development and production of new types of nuclear weapon systems for the post-Cold War era, American intelligence sources are presently reporting that Russia is developing a new version of the SS-25 mobile ICBM known as

Fatboy, and other types of sophisticated nuclear weapon systems. See *The Washington Times*, p. A19 (June 10, 1996).

475. Based on the partnership for peace plan, the NATO alliance would be expanded to include former Soviet republics and former Warsaw Pact member states. Presently, NATO and Russia are involved in negotiations because Russia is opposing the eastward NATO expansion. See *The Washington Times*, p. A13 (December 9, 1996)
476. See *The 1994 Arms Control Reporter*, Section 608.B., p. 291.
477. See *The Washington Post*, p. A1 and p. A14 (March 16, 1994).
478. See *The 1994 Arms Control Reporter*, Section 611.B., p. 835.
479. See *The 1996 Arms Control Reporter*, Section 611.A., p. 2.
480. *Ibid.*, Section 602.B., p. 296. See also *The Washington Times*, p. A12 (April 22, 1996).
481. See *The Washington Post*, p. A6 (February 5, 1992).
482. See *The Washington Post*, p. A7 (February 7, 1991). Furthermore, it should be noted that the United States has already made plans to keep a strategic reserve force of about 1,200 strategic nuclear warheads in order to ensure a US post-nuclear war strategic advantage. See *The Washington Post*, p. A29 (July 21, 1991).
483. See *The Washington Post*, p. A18 (January 30, 1992).
484. For a more detailed analysis See *The Washington Post*, p. A1 and A23 (May 24, 1992).
485. See *The 1996 Arms Control Reporter*, *op. cit.*, note 171, Section 611.E-2, p. 12. Moreover, it must be noted that President Yeltsin has stated that Russia needs nuclear arms

to deal with any possible eventuality which might arise anywhere in the world and threaten Russia's security. See *The New York Times*, p. A11 (June 17, 1992). See also *The Washington Post*, p. A1 and A14 (November 25, 1992). Also, for a discussion of President Clinton's nuclear strategy in the post-Cold War era, see *The Washington Post*, p. A1 and A26 (September 22, 1994).

486. For an analysis of this approach, I am indebted to Rotblat, J., and Goldanskii, V. I., "The Elimination of Nuclear Arsenals: Is It Desirable? Is It Feasible?" in *Verification, Monitoring Disarmament*, eds. Calogero, F., Goldberger, M. L., and Kapitza, S. P., p. 210 (1991).
487. See also *Ibid.*, pp. 205-208.
488. See also *Ibid.*, p. 211.
489. For a further analysis of the feasibility of such a proposal see generally: Davis, E., *Assuring Peace In A Changing World: Critical Choices for the West's Strategic Arms Control Policies*, p. 55 *et seq.* (1990); Sagdeev, R. J., and Kokoshin, A. A., "Stability of the Nuclear Balance after Deep Reductions" in *Reversing the Arms Race: How to Achieve and Verify Deep Reductions in the Nuclear Arsenals*, eds. Hippel, F., and Sagdeev, R. Z., p. 19 *et seq.* (1990); and Gayler, N., "The Way Out: A General Nuclear Disarmament," 5 *Yale Law and Policy Review*, pp. 134-156 (1986-1987). In addition, it must be noted that the Committee of Soviet Scientists for Peace and Against the Nuclear Threat has concluded on a scientific basis that a reduction of US-Russian nuclear weapons to a level of approximately 600 to 700 nuclear warheads for each side is feasible by the conclusion of a START III Treaty. (See (Hippel and Sagdeev) *Ibid.*, p. 19.
490. In particular, the conclusion of a START III Treaty between

Russia and the United States would increase the possibility of settling the question of global and comprehensive nuclear disarmament. See also *The Washington Post*, p. A19 (January 30, 1992).

491. See *The 1996 Arms Control Reporter*, Section 614.C., p. 10.
492. In his September 1997 interview, the Russian Foreign Minister, Yevgeny Primakov, stated that Russia is ready to start immediately START III negotiations. See *The Washington Post*, p. C2, (September 21, 1997).
493. See generally *The United Nations Disarmament Yearbook*, ed. U.N. Department for Disarmament Affairs, p. 87 (1990). [Hereinafter referred to as *The 1990 UN Disarmament Yearbook*]; and *The 1991 Arms Control Reporter*, *op. cit.*, Sections 801 *et seq.*

## CHAPTER 9

494. See generally *Ibid.*, p. 85 *et seq.*
495. See further Rotblat and Goldanskii in Calogero *et al.*, *op. cit.*, note 486, p. 205.
496. For a detailed analysis of the Indian proposal, I am indebted to Davydov, V. "The Indian Proposal at UNSSOD-III: Problems and Prospects" in *Nuclear Non-Proliferation and the Non-Proliferation Treaty* eds. Fry, M. P., Keatinge, N. P., and Rotblat, J., pp. 181-184 (1990).
497. See further Rotblat and Goldanskii in Calogero *et. al.*, *op. cit.*, note 486, p. 205 *et seq.* Note also that Russia, France and China are committed to a nuclear weapons-free world under certain conditions. China in 1988 sponsored resolution

44/116D entitled "Nuclear Disarmament," which was adopted by the UN General Assembly and which urged both nuclear superpowers to expedite their denuclearization and thus facilitate the multilateral legal process for global and comprehensive nuclear disarmament. See *The 1990 UN Disarmament Yearbook*, *op. cit.*, pp. 103-104.

498. See (*The 1990 UN Disarmament Yearbook*) *Ibid.*, pp. 105-108.
499. *Ibid.*, pp. 27-28.
500. See generally *Ibid.*, pp. 24-36, and pp. 386-387.
501. *Ibid.*, pp. 117-120. Note also that in 1989 the UN General Assembly adopted resolution 44/119 E referring to the need for the cessation of the nuclear arms race and nuclear disarmament and prevention of nuclear war. *Ibid.*, pp. 120-121.
502. *Ibid.*, pp. 122-123.
503. *Ibid.*, p. 109 *et seq.*
504. For the Gorbachev proposal for a pledge on a no first use of nuclear weapons by all nuclear weapon states, see *The 1996 Arms Control Reporter*, *op. cit.*, note 171, pp. 699-700.
505. See *The 1996 Arms Control Reporter*, *Ibid.*, Section 806.A., p. 2.
506. For a general discussion of the "Open Skies" Treaty, see *Ibid.*, Section 409.A., p. 1 *et seq.*
507. See *Ibid.*, Section 850, p. 423.
508. See *Ibid.*, p. 415 *et seq.*
509. For a more detailed analysis of India's nuclear weapon capabilities see generally: Hart, D., "India" in *A European Non-*



*Proliferation Policy, Prospects and Problems*, ed. Muller, H. , pp. 135-162 (1987); and Thomas, R. G. C., "Should India Sign the NPT?" in Pilat and Pendley, *op. cit.*, pp. 133-150. Additionally, it should be noted that recently the Indian Foreign Secretary, J. N. Dixit, denied reports that India possesses approximately 60 nuclear bombs. However, he acknowledged that India has the capacity to build and deliver one atomic bomb. See *The Washington Post*, p. A24 (March 11, 1992). See also *The Washington Post*, p. C2 (January 5, 1997).

510. For a more specific analysis of Israel's nuclear weapon capabilities see: Fischer, D. "Drawing the Threshold States into a Regime of Restraint, by Joining the NPT or Otherwise" in Fry et al., pp. 41-42; and Spector, L. S., "Nuclear Proliferation in the 1990s: The Storm after the Lull" in *New Threats: An Aspen Strategy Group Report*, pp. 49-53. Although Israel has neither denied nor confirmed the reports on its nuclear weapon capabilities, it is widely believed that Israel has constructed approximately 200 nuclear weapons. Accordingly, Israel has become the 6th nuclear power in terms of the number of its nuclear warheads. See generally, Hersh, S. M., *The Sampson Option, Israel's Nuclear Arsenal and American Foreign Policy* (1991). See also *The Washington Times*, p. A10 (April 8, 1996).
511. For a detailed discussion of South Africa's nuclear weapon capabilities see (Spector) *Ibid.*, pp. 58-59. Note further that the South African government recently announced that South Africa had developed six atomic bombs. See, *The Washington Post*, p. A1 and p. A31 (March 25, 1993).
512. See generally *New Threats: An Aspen Strategy Group Report*, *op. cit.*, note 172, p. 1.

513. For a general discussion of the emergence of the new nuclear age in the early 1970s and its evolution afterwards see Kapur, A., "World and Regional Power Relations without the NPT" in Pilat and Pendley, pp. 117-130. Moreover, it should be noted that Iraq had launched a vigorous effort to acquire nuclear weapon capabilities before the Persian Gulf War. It is presently reported that the Iraqi nuclear weapons program has been dismantled by the United Nations carrying out the pertinent UN Security resolutions to destroy the Iraqi nuclear weapons program. See *The Washington Post*, p. A14 (June 2, 1992). Also, for a report on Iran's launched effort to acquire nuclear weapons, see *The Washington Post*, A33 (October 9, 1990). See also *The Washington Times*, p. A10 (April 8, 1996).
514. For a detailed discussion of Pakistan's nuclear weapon capabilities, including also its ballistic missile capabilities of delivering such weapons, see Fisher in Fry et al., pp. 37-39. See further *The Washington Post*, p. A21 (April 5, 1996).
515. For a more detailed discussion of the advanced nuclear programs of both Argentina's and Brazil's and their threshold nuclear weapons development capabilities see Spector in *New Threats: An Aspen Strategy Group Report, op. cit.*, note 172, pp. 40-44.
516. For a general discussion of the North Korean advanced nuclear program and its threshold nuclear weapon development status see *Ibid.*, pp. 37-40. See also Oberdorfer, D., "N. Korea Seen Closer To A-Bomb" in *The Washington Post*, pp. A1 and p. A26 (February 23, 1992). See also *The Washington Times*, p. A10 (April 8, 1996).
517. See *The Washington Times*, p. A10 (April 8, 1996).
518. See *The 1996 Arms Control Reporter, op. cit.*, note 171,

Section 455.A., p. 1.

519. See further *New Threats: An Aspen Strategy Group Report*, *op. cit.*, note 172, p. 2 *et seq.*
520. See also *The Washington Times*, p. A4 (March 13, 1996).
521. For a detailed discussion of the issue of the horizontal proliferation of ballistic missile systems capable of delivering nuclear weapons, I am indebted to Nolan, J. and Wheelon, A., "Ballistic Missiles in the Third World" in *New Threats: An Aspen Strategy Group Report*, *op. cit.*, note 172, pp. 89-103.
522. See *The 1996 Arms Control Reporter*, *op. cit.*, note 171, Section 602.A., pp. 1-6-A1-A6 and p. 309. See also *The Washington Post*, p. A1 and p. A12 (May 12, 1995).
523. *Ibid.*, p. B.310.
524. For a discussion of India's opposition to the NPT, see *The 1996 Arms Control Reporter*, *op. cit.*, note 171, Section 602.B., p. 295.
525. See also *The Washington Post*, p. A22 (March 24, 1994).
526. See generally *The Washington Times*, p. A19 (June 10, 1996), and *The Washington Times*, p. A15 (September 24, 1996).
527. For a discussion of China's efforts to expand its nuclear weapons arsenal and its intercontinental ballistic capabilities, see *The Washington Times*, p. A16 (December 10, 1996).
528. See *The 1992 Arms Control Reporter*, Section 602.B., p. 213.
529. Britain, France and China have expressed their willingness to participate in international treaty arrangements to reduce their nuclear weapons after both nuclear superpowers had made major reductions in their nuclear forces. See *The*

*Washington Post*, p. A1 and p. A191 (February 1, 1992).

530. See *The New York Times*, p. A3 (September 1, 1996).
531. For a discussion of the negotiations which led to the conclusion of the CTBT, see generally *The 1996 Arms Control Reporter*, *op. cit.*, note 171, Section 608.B., p. 427 *et seq.*
532. In particular, India has raised this problem of the CTBT. See further *The Washington Times*, p. A11 (September 11, 1996).
533. See *The 1996 Arms Control Reporter*, *op. cit.*, note 171, Section 608.B., p. 444 *et seq.*
534. For a general discussion of the CTBT verification measures, see *The 1996 Arms Control Reporter*, *Ibid.*, Section 608.B., p. 448 *et seq.*
535. *Ibid.*, p. 455.
536. *Ibid.*, Section 457.A., p. 1.
537. *Ibid.*, p. 5.
538. *Ibid.*, p. 1.
539. *Ibid.*, p. 2.
540. *Ibid.*, p. 1. Also, for a discussion of Japan's plutonium, see *Japan's Nuclear Future, the Plutonium Debate and East Asian Security*, Ed. Harrison, S. S., p. 98 (1996).
541. *Ibid.*, Section 458.A., p. 1.
542. An outline of treaty establishing the Southeast Asian NWFZ can be found in *Ibid.*, Section 458.D., pp. 1-4.
543. *Ibid.*, p. 10.
544. China is dissatisfied with the treaty establishing this zone

because China alleges that the treaty could include parts of the South China Sea claimed by China. Also, the United States disapproves of the treaty because it may bar the transit of nuclear powered or nuclear-arm ships. See *Ibid.*, Section 458.A., p, 2.

545. See *Ibid.*, Section 455.A., p. 1. South Africa had built six nuclear bombs. See *The Washington Post*, p. A31 (March 25, 1993).
546. *Ibid.*, Section 455.B., p. 115.
547. *Ibid.*, Section 455.A., p. 2.
548. For an outline of the treaty establishing the African NWFZ, see *Ibid.*, p. 3.
549. *Ibid.*
550. *Ibid.*, pp. 4-5.
551. For a discussion of these proposed NWFZs, see *The 1996 Arms Control Reporter*, *op. cit.*, note 171, Section 850.A., p. 2 and pp. 6-8.
552. *Ibid.*, Section 453.A., p. 1.
553. *Ibid.*, p. 4. Israel has stated that it would agree to establish a Middle East NWFZ as the last step in a peace process. *Ibid.*
554. *Ibid.*, pp. 1-2.
555. Algeria, Egypt and Libya have research nuclear reactors. Syria has no such reactor. Iran has an advanced nuclear program, and it is reported that Iran will be capable of building a nuclear bomb within the next seven years. *Ibid.*, p. 3.
556. *Ibid.*, p. 4.

557. See *The 1992 Arms Control Reporter*, Section 453.B., p. 129.
558. See *The 1996 Arms Control Reporter*, *op. cit.*, note 171, Section 454.A., p. 1.
559. *Ibid.*
560. *Ibid.*, p. 2 *et seq.*
561. *Ibid.*
562. For an analysis of a future Indian-Pakistani Cold War and a catastrophic nuclear arms race, see generally *The Washington Post*, p. A21 (April 5, 1996). See also *The Washington Post*, p. C2 (January 5, 1997).
563. See also Adelman, K. L. "Just A Sideshow," *The Bulletin of the Atomic Scientists*, pp. 19-21 (November 1991). Furthermore, for a discussion of the withdrawal of tactical nuclear weapons by the United States and Russia from Europe and Asia, including other parts of the world see *The 1992 Arms Control Reporter*, Section 408.A., p. 1 *et seq.*
564. See also Shaw, M. N. "Nuclear Weapons and International Law" in Pogany, *op. cit.*, note 17, p. 1.
565. It should be explained that first use of nuclear weapons means that a nuclear weapon state to be the first to use nuclear weapons against an enemy state for aggressive purposes. See further Fujita, H., *International Regulation of the Use of Nuclear Weapons*, p. 43 *et seq.* (1988).
566. *Ibid.*, pp. 82-83. See also Shaw in Pogany, *op. cit.*, note 17, pp. 15-16.
567. *The 1996 Arms Control Reporter*, *op. cit.*, note 171, Section 850.A., pp. 4-5.

568. I am indebted to Falk, R., "Toward a Legal Regime for Nuclear Weapons," 28 *McGill Law Journal*, pp. 520-541 (1983); Bleimaier, J. K., "Nuclear Weapons and Crimes against Humanity under International Law," 33 *The Catholic Lawyer*, pp. 161-172 (1990); and Fujita, *op. cit.*, note 566, pp. 82-83.
569. For a short and concise analysis of the UN General Assembly resolution 1653 (XVI) of 1961, see Grief, N., "The Legality of Nuclear Weapons" in Pogany, *op. cit.*, note 17, pp. 38-39.
570. I have heavily relied on Corwin, D. M., "The Legality of Nuclear Arms Under International Law," 5 *Dickinson Journal of International Law*, p. 285 (1987).
571. For a detailed analysis of the use of strategic and tactical nuclear weapons in a self-defense scenario and the legal implications of the use of such weapons, see Weston, B. H., "Nuclear Weapons and International Law: Illegality in Context," 12 *Denver Journal of International Law and Policy*, pp. 1-15 (1983).
572. I am indebted to Corwin, *op. cit.*, note 571, p. 284.
573. *Ibid.*, pp. 284-285.
574. *Ibid.*
575. Note further that since a state cannot legally use bacteriological weapons in self-defense, it also cannot use nuclear weapons in self-defense. See Meyrowitz, E. L. "The Laws of War and Nuclear Weapons," 9 *Brooklyn Journal of International Law*, p. 243 (1983).
576. See Corwin, *op. cit.*, note 571, pp. 285-286.
577. *Ibid.*, *op. cit.*, note 571, pp. 280-281.

578. *Ibid.*
579. *Ibid.*, pp. 282-283. Furthermore, it should be added that the use of nuclear weapons for the purpose of reprisals cannot be legally justified and permitted. *Ibid.*
580. I am indebted to the dissenting opinion of Judge Koroma to the Advisory Opinion of the ICJ of 8/7/1996.
581. It should be added that the Declaration of St. Petersburg of 1868 was the result of a conference of European military officers who met to take action on a new type of bullet that expanded on entry into the body, causing painful wounds which were difficult to treat medically. The conferees reached an agreement forbidding the use of "any projectile of a weight below 400 grams which is either explosive or charged with fulminating or inflammable substance," and adopted more general principles which have had a lasting effect upon the development of the laws of war. See Meyrowitz, *op. cit.*, p. 233.
582. I am indebted to Grief in Pogany, *op. cit.*, note 17, pp. 3-4.
583. I have heavily relied on Meyrowitz, *op. cit.*, note 576, pp. 234-235.
584. See further Grief in Pogany, *op. cit.*, note 17, p. 24.
585. I am indebted to Corwin, *op. cit.*, note 571, p. 277. For a further discussion of the effects of the use of nuclear weapons, see generally Bates, D. G., "The Medical and Ecological Effects of Nuclear War," 28 *McGill Law Journal*, pp. 716-731 (1983).
586. For a detailed discussion of the Shimoda case, I have heavily relied on Falk, R. A., "The Shimoda Case: A Legal Appraisal of the Atomic Attacks upon Hiroshima and Nagasaki," 59



*American Journal of International Law*, p. 759 *et seq.* (1965).

587. See Meyrowitz, *op. cit.*, note 576, p. 235.
588. I am indebted to Corwin, *op. cit.*, note 571, p. 276. See also (Meyrowitz) *Ibid.*
589. I have heavily relied on (Meyrowitz) *Ibid.* For a further analysis of the immediate and long-term poisonous effects of the detonation of nuclear weapons on human, other living organisms and the environment, see generally Bates, *op. cit.*, note 586, p. 717 *et seq.*
590. I am indebted to Meyrowitz, *Ibid.*, pp. 235-236. See also Bleimaier, *op. cit.*, note 569, p. 164.
591. See (Meyrowitz) *Ibid.*, p. 237. See also Corwin, *op. cit.*, note 571, pp. 276-278.
592. See (Corwin) *Ibid.*, p. 278.
593. I have heavily relied on Meyrowitz, *op. cit.*, note 576, p. 238.
594. *Ibid.*, p. 239.
595. For an analysis of Protocol I, I have heavily relied on Singh and McWhinney, *op. cit.*, note 14, pp. 319-320.
596. I am indebted to Meyrowitz, *op. cit.*, note 576, pp. 240-241. Furthermore, it must be noted that the use of atomic weapons against Hiroshima and Nagasaki in 1945 resulted in the indiscriminate killing of civilians. *Ibid.*
597. See Singh, N., *Nuclear Weapons and International Law*, p. 106 (1959) cited in (Meyrowitz) *Ibid.*, p. 242.
598. See Corwin, *op. cit.*, note 571, p. 279. It is suggested that the legal principle providing the protection of the territoriality of neutral states in an international armed conflict has become

a customary rule of international law. *Ibid.* But for an opposite view, see Macdonald in Heere, *op. cit.*, note 163, pp. 71-72.

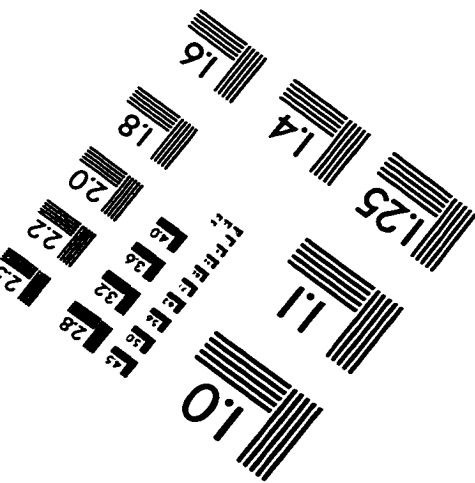
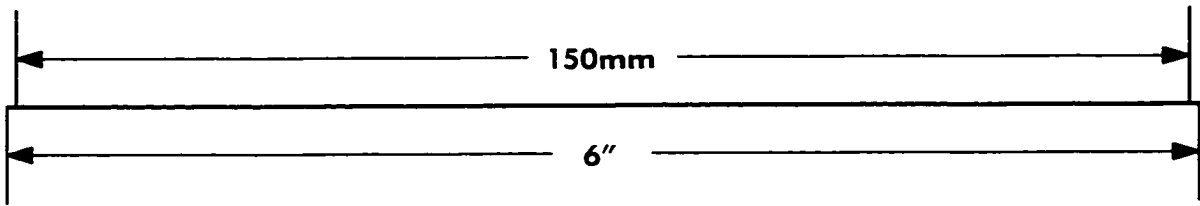
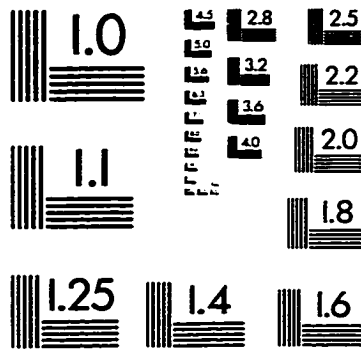
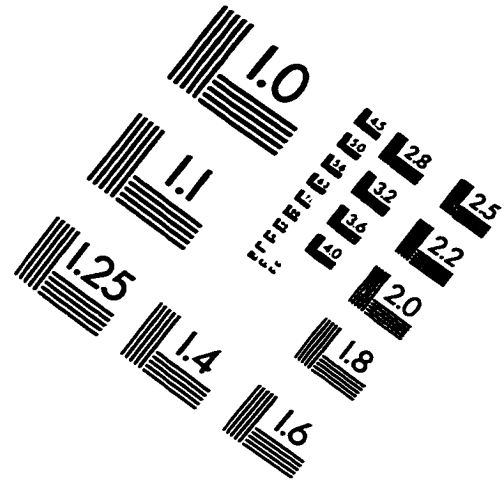
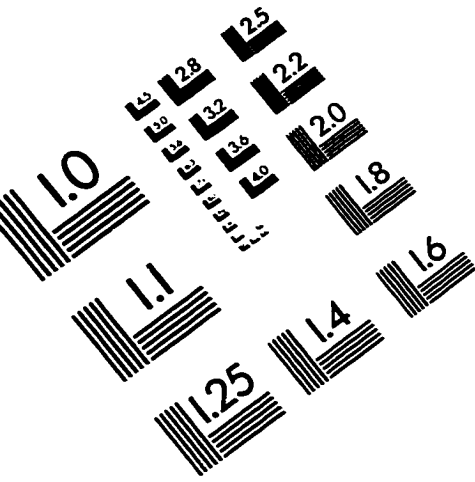
599. It has been further argued that if the German invasion of Belgium was condemned as a violation of international law in World War II and declared a war crime, then the use of nuclear weapons in circumstances in which the user knows that it is bound to injure neutral states, must be considered as a violation of international law and, if it involves the killing of innocent neutrals, a clear war crime. See Singh, *op. cit.*, note 598, p. 106.
600. I am indebted to Meyrowitz, *op. cit.*, note 576, p. 227. Also, for a more detailed analysis of the destructive capabilities and effects of the military use of nuclear weapons, see generally Bates, *op. cit.*, note 586, p. 717 *et seq.*
601. See Bleimaier, *op. cit.*, note 569, p. 167. For a further analysis of the Genocide Convention and its legal impact on the use of nuclear weapons, see Grief in Pogany, *op. cit.*, note 17, p. 36 *et seq.*
602. See (Bleimaier) *Ibid.*
603. *Ibid.*, p. 168.
604. I am indebted to Grief in Pogany, *op. cit.*, note 17, p. 37.
605. See Bleimaier, *op. cit.*, note 569, pp. 169-170.
606. See further Grief in Pogany, *op. cit.*, note 17, p. 37.
607. For detailed discussion of the question of the use of nuclear weapons as a crime against peace, see Nanda, V. P., "Nuclear Weapons and the Right to Peace Under International Law," 9 *Brooklyn Journal of International Law*, pp. 282-296 (1983).

608. For the full text of this Convention, see *Arms control and Disarmament Agreements* (Edition 1984), pp. 193-198.
609. I am indebted to Bleimaier, *op. cit.*, note 569, p. 166.
610. See Shaw in Pogany, *op. cit.*, note 17, p. 6.
611. See also Bleimaier, *op. cit.*, note 569, p. 166.
612. For a discussion of the prohibition of the deployment of nuclear weapons in these regions, I am indebted to Paust, J. J., "Controlling Prohibited Weapons and the Illegal Use of Permitted Weapons," 28 *McGill Law Journal*, p. 611 (1983).
613. See Grief in Pogany, *op. cit.*, pp. 39-40. For the statement of the UN Human Rights Committee, see UN General Assembly Official Records, 37th Session, Suppl. No. 40 (Doc. A/37/40, Report of the Human Rights Committee, p. 93, Annex V, paragraph 2).
614. *Ibid.*, pp. 40-41.
615. *Ibid.*
616. See further the similar views expressed in *Ibid.*, pp. 40-42; and Bleimaier, *op. cit.*, note 569, pp. 165-167.
617. See Shaw in Pogany, *op. cit.*, note 17, pp. 9-10.
618. See *The 1996 Arms Control Reporter*, *op. cit.*, Section 602.B., p. 310.
619. For a general analysis of the question of the illegality of the use of nuclear weapons under the pre-atomic rules of international law, see Fujita, *op. cit.*, note 566, p. 101 *et seq.* Moreover, it should be added that the Tokyo District in the Shimoda Case has reached the conclusion that the use of nuclear weapons against Hiroshima and Nagasaki in 1945

was in violation of the pre-atomic rules of international law. See Corwin, *op. cit.*, note 571, pp. 286-290. Particularly with relation to the justification for the use of atomic bombs on Hiroshima and Nagasaki in 1945, the Truman administration maintained that the use of atomic weapons spared the United States and the Allies from carrying out an invasion of the Japanese homeland, where the cost in lives would have been quite heavy. However, it must be noted that revisionist assessments cast doubt upon whether the atomic attacks were ordered primarily for the achievement of the main war goals or whether there had been more geopolitical motivations, principally the intimidation of the Soviet Union. See generally, Alperovitz, *op. cit.*, note 21, p. 26, *et seq.*

620. I am indebted to Grief in Pogany, *op. cit.*, note 17, p. 42. Note further that the Nuclear Warfare Tribunal was organized by the British group of Lawyers for Nuclear Disarmament. *Ibid.*, p. 52.
621. For a general discussion of the question of the legality of nuclear weapons under international law, see Meyrowitz, E. L., *Prohibition of Nuclear Weapons: The Relevance of International Law* (1990).

# IMAGE EVALUATION TEST TARGET (QA-3)



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