

The Legality of Use or Threatening to Use a Nuclear Weapons and Feasibility of an Automated Nuclear Weapon System

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I. INTRODUCTION

The only instance of use of a nuclear bomb was in the Hiroshima-Nagasaki bombings during World War – II. After the horrific effects of the bombings which continue to this day, a lot of States have called for permanent prohibition on nuclear weapons, including its threat and use. For customary international law to prevail, the uniform practice of the State parties involved and by States most affected by it, are essential. However, the absence of a universal convention or treaty on complete prohibition of nuclear weapons, and no uniform agreement between States on the willingness to destroy their existing stock of nuclear weapons, have left the world in a peculiar position. On one hand, many countries have signed and ratified the Treaty on Prohibition on the Nuclear Weapons (TPNW), it countries most affected by it, including the US, Russia, China, India, etc. have refused to ratify the treaty (or have withdrawn their ratification instruments) and thus, a customary law or even a *jus cogens* is unable to come into form.

Whether the threat of use of nuclear weapons or the actual use of nuclear weapons go against the principles of proportionality, is a controversial issue where no one solution can be given. With the advent of tactical nuclear weapons, the proportionality principle may not be violated in every case (more later). Moreover, the principle deterrence serves as a strong defense against complete prohibition of nuclear weapons, as it prevents a nuclear war forever, as the damage to both countries may be way more than the potential gains upon use of nuclear weapons on each other.

Further, nuclear weapons also cannot be prohibited on the grounds of it being chemically enriched with chemicals. Fission (nuclear) weapons are normally

made with materials having high concentrations of the fissile isotopes uranium-235, plutonium-239, or some combination of these; however, some explosive devices using high concentrations of uranium-233 also have been constructed and tested. The primary natural isotopes of uranium are uranium-235 (0.7 percent), which is fissile, and uranium-238 (99.3 percent), which is fissionable but not fissile . But none of these chemicals are covered under Annex-I of the Chemical Weapons Convention (CWC), thereby ruling out its application to constructively prohibit nuclear weapons. Therefore, it has become increasingly difficult to find any customary law prohibiting nuclear weapons. This article explores these factors in detail and presents a full picture with regard to the jurisprudence surrounding the legality and threat of nuclear weapons.

A. PRINCIPLE OF USE OF FORCE, THE UN CHARTER AND NUCLEAR WEAPONS

There cannot be prohibition in conventional or customary international law on the threat or use of nuclear weapons. Even the Treaty on Prohibition of nuclear weapons, though in force, has not been signed by major nuclear powers. On the contrary, numerous agreements regulating the possession or use of nuclear weapons and other state practice demonstrate that their threat or use is not deemed to be generally unlawful. Moreover, nothing in the body of international humanitarian law of armed conflict indicates that nuclear weapons are prohibited *per se*. As in the case of other weapons, the legality of use depends on the conformity of the particular use with the rules applicable to such weapons . The Principle of avoiding force shall be applicable in this issue.

Article 2(4) of the United Nations Charter places an obligation on all member states to refrain from the

threat or use of force against the territorial integrity or political independence of any state. However, use of force has been regarded as being legitimate when exercised in self-defence. This may be stated in view of article 2(4) of the UN Charter and other practice. Security Council resolution 242, for example, emphasised the ‘inadmissibility of the acquisition of territory by war’, while the 1970 Declaration of Principles of International Law adopted by the UN General Assembly provides that: the territory of a state shall not be the object of acquisition by another state resulting from the threat or use of force. No territorial acquisition resulting from the threat or use of force shall be recognised as legal .

The question of legality or illegality of nuclear weapons depends on the circumstances under which they are used. It is contingent on the events surrounding the use too. In the case concerning Military and Paramilitary Activities in and against Nicaragua (Nicaragua vs. United States of America) , it was held that “there is a specific rule whereby self-defence would warrant only measures which are proportional to the armed attack and necessary to respond to it, a rule well established in customary international law.” Therefore, if the circumstances are such that a nuclear attack has already happened on the victim nation, the victim nation’s act of reprisal cannot be considered illegal in responding with a nuclear attack.

Similarly, the notion of threat of use or the use of nuclear weapons to secure territory from another state or cause it to follow or not follow certain political or economic paths is illegal, however, if the threat to use the nuclear force is in conformity to the Charter, i.e. to prevent a nuclear war through a threat to readily fire nuclear weapons to the hostile nation or a belligerent.

The Court noted in para 48 of the 1996 Opinion , “Some states put forward the argument that possession of nuclear weapons is itself an unlawful threat to use them. Possession of nuclear weapons may indeed justify a preparedness to use them. But for the policy of deterrence... to be effective,... it requires that the intention to use nuclear weapons be credible. Whether a threat to use a force is contrary to Article 2, Paragraph 4, depends upon whether the

particular use of force is directed against the territorial integrity or political independence of a State, or against the purposes of the UN, or if it is intended as a means of defence, then whether it violates the principles of necessity or proportionality. In such circumstances, the threat or use of force, shall be unlawful under the law of the Charter”.

B. THERE CANNOT BE A PRESUMPTION OF LIMITATION ON NATION STATES

The proposal for the request to consider the legality of threat or use of Nuclear weapons was introduced in the First Committee of the General Assembly. While 77 States voted for the request, 33 States opposed it and 21 abstained. The resistance increased when the matter subsequently came before the General Assembly. While 78 States voted for the resolution, 43 States opposed it and 38 abstained. One of the fundamental reasons why the United States of America was against the proposal was the fact that no law can place limitations on the level of armaments that a nation state can possess in its defence systems.

To begin with, the very contention that the Use or Threat (“UT” from hereon) of using nukes should forcibly depend on a treaty or customary international law, in order to be called legal or illegal, was not without opposition, as some member States (of the UN General Assembly) objected to the question put forward by the UNGA for the Advisory Opinion of this Court, as to whether “Is a threat or use of nuclear weapons in any circumstance permitted under International Law” , on the grounds that nations have full freedom to decide the level of armaments they wish to deploy as part of their defense measures, except if they have themselves agreed to it under a Treaty or under Customary International Law (“CIL” from hereon).

This is corroborated by the dicta of the Permanent Court of International Justice (PCIJ) in the Lotus Case, where it was held that “restrictions upon Independence of States cannot be presumed” , and thus, an automatic restriction upon States on Use or Threat of Nuclear-Weapons does not exist. Measures to prevent the spread of nuclear weapons were adopted in the Nuclear Non-Proliferation Treaty of

1968, although the possession itself of nuclear weapons does not contravene international law .

C. NO EXISTENCE OF ANY JUS COGENS or CUSTOMARY LAW WHICH PROHIBITS POSSESSION OR USE OF NUCLEAR WEAPONS
Some States have by agreement undertaken not to possess or use nuclear weapons under any circumstances and while the others have undertaken not to use such weapons in certain defined geographical areas. There is no pre-emptory norm which prohibits use or threat of nuclear weapons. For the purposes of the VCLT, a peremptory norm of general international law is a norm accepted and recognised by the international community of states as a whole as a norm from which no derogation is permitted, and which can be modified only by a subsequent norm of general international law having the same character.”

International law is replete with agreements that regulate the possession or use of nuclear weapons, providing compelling evidence that their use is not deemed to be generally unlawful. The practice of States, including the Permanent Members of the Security Council, all of which maintain stocks of nuclear weapons, further proving this point. As at 6 July 2023, 92 States had signed, 65 States had ratified and 3 States had acceded to the Treaty on Prohibition of Nuclear Weapons

There are conventions and treaties regulating nuclear weapons, however, there is no specific prohibition on nuclear weapons in the law of armed conflict. The practice of the states is the best way to determine the presence of a pre-emptory norm. For example, there are agreements that prohibit the use of nuclear weapons in particular regions of the world, for example, the Antarctica (the Antarctic Treaty) ; Latin America (the (1967 Treaty of Tlatelco)); and the South Pacific (the South Pacific Nuclear Free Zone Treaty) . 1963 Limited Test Ban Treaty, the 1967 Outer Space Treaty, the 1968 Non-Proliferation Treaty, the 1971 Seabed Arms Control Treaty, the 1972 Anti-Ballistic Missile (ABM) Treaty, the 1974 Threshold Test Ban Treaty, the 1987 Intermediate-Range Nuclear Forces (INF Treaty and the 1991 Treaty on the Reduction and Limitation of Strategic Offensive Arms (START). These treaties have been

made to regulate nuclear weapon use, and not to prohibit nuclear weapons and destroy existing stock of nuclear weapons. For example, the Limited Test Ban Treaty (to which there are well over one hundred parties) makes underground nuclear weapons testing legal, while prohibiting testing anywhere else. This is a clear acknowledgment that the possession of such weapons by the nuclear-weapon States is lawful and that the use of nuclear weapons in conformity with the UN Charter and for the purposes of the United Nations is lawful, since possession and testing of such weapons would otherwise be purposeless.

The Review Conference on Non-Proliferation Treaty noted that, “the non-nuclear-weapon States parties to the Treaty reaffirmed their commitment 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 nuclear explosive devices”. This too shows that the non-proliferation treaty still gave space for possession of nuclear weapons to the nuclear armed states.

States have spent a lot of money to acquire and develop nuclear weapons. So much time and money would not be spent if the States believed that nuclear weapons were illegal. The possible use of these weapons forms an important factor in their security systems and defence protocols. In a recent statement by the Director of the IAEA said, “In mid-September, the DPRK published photographs of General Secretary Kim Jong Un visiting a “uranium enrichment base.” The depicted centrifuge cascades and infrastructure are consistent with the layout of a centrifuge enrichment facility and with the structure of the main building at the Kangson Complex and its newly constructed annex. The photograph showing the installation of centrifuges in the annex is consistent with General Secretary Kim’s call “to further augment the number of centrifuges in order to exponentially increase the nuclear weapons”. This display of an undeclared enrichment facility at Kangson and the call “to further strengthen the foundation for producing weapon-grade nuclear

materials” are of serious concern. ” This further proves that even today; nuclear nations continue to spend money on increasing nuclear capabilities. This is confirmed by the WHO resolution that requested an advisory opinion, which refers to the fact that "marked differences of opinion have been expressed by Member States about the lawfulness of the use of nuclear weapons."

The position of states can be explained by their official statements made on nuclear weapons use in the context of the Non-Proliferation Treaty and the Treaty of Tlatelolco. The United States of America made the following statements: “The United States reaffirm that it will not use nuclear weapons against non-nuclear-weapon States Parties to the Treaty on the Non-Proliferation of Nuclear Weapons except in the case of an invasion or any other attack on the United States, its territories, its armed forces or other troops, its allies, or on a State towards which it has a security commitment, carried out or sustained by such a non-nuclear-weapon State in association or alliance with a nuclear-weapon State. ” The US is not a signatory to the U.N. Treaty on the Prohibition of Nuclear Weapons, and holds the position that there could be serious implications on national peace if complete nuclear disarmament is achieved. In December 2021, the US secretary of state, Antony Blinken, said: “We do not support the Treaty on the Prohibition of nuclear weapons. Seeking to ban nuclear weapons through a treaty that does not include any of the countries that possess nuclear weapons is not likely to produce any results.” Along with other nuclear-armed states, the United States has said that it does “not accept any claim that [the TPNW] contributes to the development of customary international law”. It has called on all states that are considering supporting the the TPNW “to reflect seriously on its implications for international peace and security”.

Likewise, at the time of its ratification of Additional Protocols I and II to the Tlatelolco Treaty, the United States, made a formal statement of understandings and declarations, “including a statement that effectively reserved its right to use nuclear weapons against one of the Contracting Parties in the event of ‘an armed attack by a Contracting Party, in which it was assisted by a nuclear-weapon State ’” In

2023, The Russian Federation, through its letter to the Secretary General informed that it has withdrawn the ratification instrument from the Comprehensive Nuclear Test Ban Treaty of September 24, 1996 (CTBT).

Therefore, this gives an insight on the practice of states, where it is established that the nuclear weapons wielding states do not intend to destroy the existing stocks of nuclear weapons nor do they intend to prohibit its use or threat. Additional statements of nuclear-weapon States on the use of nuclear weapons are contained in Appendix 1 to the Secretary-General's 1990 Report. Most of the governments expressed a resolve to act in a way that use of nuclear weapons should not become a necessity.

D. NUCLEAR WEAPONS CANNOT BE EQUATED TO POISONOUS WEAPONS

Nuclear weapons cannot be equated to poisoned weapons. In that case, it will be prohibited under the Second Hague Declaration , Article 23(a) of the Regulations respecting the laws and customs of War on Land annexed to the Hague Convention IV of 18th October 1907, and the Geneva Protocol which prohibits “the use of war of asphyxiating, poisonous or other gases, and of all analogous liquids, materials or devices”. There is no general definition of “poisonous gases” in any of these mentioned Conventions/ Declarations, and the definition is generally understood by the practice of states to mean, “in their ordinary sense to mean weapons whose prime, or even exclusive, effect is to poison or asphyxiate. ”

Nuclear weapons do not mean to poison or asphyxiate civilians or military targets, and therefore, the Court affirmed in the 1996 Opinion , “The practice is clear, and the parties to the instruments have not treated them as referring to nuclear weapons... In view of this, it does not seem to the Court that there is any prohibition on the basis of the Second Hague Declaration of 1899, The Regulations annexed to the Hague Convention IV of 1907 or the 1925 Protocol.” The 1907 Hague Convention was not intended to apply, and has not been applied, to weapons that are designed to injure or cause destruction by other means, even though they also may create toxic byproducts. Other Conventions

against use of chemical weapons of toxic nature include CWC (Chemical Weapons Convention) , which does not address nuclear weapons. Its preamble states, “Recognizing that this Convention reaffirms principles and objectives of and obligations assumed under the Geneva Protocol of 1925, and the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction signed at London, Moscow and Washington on 10 April 1972,”

There is clearly no mention of prohibition of nuclear weapons in any of these above-mentioned instruments. The annex to the CWC mentions a list of chemicals which are prohibited by the convention, however, there is no mention of any nuclear weapons. This is a testimony to the fact that nation states have never expressed the intention to ban nuclear weapons through including them in the definition of chemical weapons.

E. PRINCIPLE OF DETERRENCE AND THE OPPOSITION TO UNGA RESOLUTIONS DECLARING THE USE OF NUCLEAR WEAPONS AS ILLEGAL.

UNGA Resolution 16/1653 of 1961 declared the use of nuclear weapons illegal. There have been a series of resolutions declaring the use of nuclear weapons as being against International Law. It is well established that UNGA resolutions are not legislations and are merely declarative of Customary International Law (so long as it recognized by the States directly affected by it) in nature and do not form a binding obligation on the nation states. The resolution 1653 met with significant opposition from the States which recognized it, including by the United Kingdom, which in an official statement explained the UK Government's vote on Resolution 1653, stated that "so long as States possess nuclear weapons, they will use them in self-defence." The United States, the United Kingdom and France voted against the resolution.

As stated in the advisory opinion of 1996 , the Court stated that a “signalled intention to use force if certain events occur’ could constitute a threat under article 2(4) where the envisaged use of force would itself be unlawful. Examples given included threats to

secure territory from another state or causing it to ‘follow or not follow certain political or economic paths’. The Court appeared to accept that the mere possession of nuclear weapons did not of itself constitute a threat. However, noting that the policy of nuclear deterrence functioned on the basis of the credibility of the possibility of resorting to those weapons in certain circumstances, it was stated that whether this amounted to a threat would depend upon whether the particular use of force envisaged would be directed against the territorial integrity or political independence of a state or against the purposes of the UN .”

The Cold War is often cited as the most compelling historical example of nuclear deterrence in action. During this period, the United States and the Soviet Union amassed vast nuclear arsenals, each capable of annihilating the other several times over. Despite intense ideological rivalry, proxy conflicts, and periods of brinkmanship—such as the Cuban Missile Crisis (1962)—the two superpowers avoided direct military confrontation, where both sides understood that a nuclear war would result in mutual annihilation, rendering any potential gains from conflict meaningless. It is argued that the Kargil War (1999) between India and Pakistan is a notable example where a fear of escalation of the conventional war was feared to start a nuclear exchange, and thus by stopping the war, further bloodshed had been avoided.

The Resolution adopted by the General Assembly on 23 December 2016 mentioned in its preambulatory clause, “Mindful of the absence of concrete outcomes of multilateral nuclear disarmament negotiations within the United Nations framework for two decades, and mindful also of the obligation of States to engage in negotiations in good faith on effective measures towards nuclear disarmament” . This further establishes that there has never been a consensus to complete disarmament, as nations have stressed on their sovereignty and their right to strengthen their defence system.

There cannot be a straight-jacket formula to solve all possible problems arising from the future use of nuclear weapons, which is contingent upon various factors and circumstances which caused its use in the

first place. For example, States may use force when authorized by the Security Council under Chapter VII or in the exercise of individual or collective self-defence. The exercise of self-defence is subject to the rules of necessity and proportionality, but the application of those rules to any use of nuclear weapons depends on the precise circumstances involved and cannot be judged in the abstract.

F. ENVIRONMENTAL ASPECTS OF USE OF NUCLEAR WEAPONS

When the Treaty Banning Nuclear Weapons' Testing in the Atmosphere, Outer Space and Under Water was signed, in 1963, France and China decided not to be a party of it. Australia and New Zealand sought a declaration from the ICJ to declare atmospheric nuclear testing was illegal. Since a subsequent French decision held the testing by the French Government as illegal, the issue was moot.

The French from resuming testing under-water. The two countries again sought a declaration that such nuclear testing could expose the "marine environment of radioactive material...". The Court held that underground testing was not within the jurisdiction of the Court in that case, as underground testing "did not fall under the purview of the relevant paragraph of the 1974 judgement for which the re-examination was sought". However, the Court did mention that "the obligations of states to respect and protect the natural environment" in the context of the case.

The Additional Protocol I to 1949 Geneva Convention on the rules of warfare does mention the importance of protection on environment during armed conflict, however, that too does not apply to nuclear weapons. Articles 35(3) and 55 of Additional Protocol 1 to the 1949 Geneva Conventions prohibited the use of "methods or means of warfare which are intended, or may be expected, to cause widespread and long-term destruction of the environment." However, the Additional Protocol I had been signed by nation states like the US and UK on the basis of the fact that it won't apply on use of nuclear weapons. Environmental conventions like the Rio Declaration on Environment and Development, like the Stockholm Declaration, is a non-legally binding political statement of principles and goals,

adopted by consensus at the 1992 United Nations Conference on Environment and Development (UNCED). Principle 2 of Rio Declaration, similar to that of Principle 21 of the Stockholm Declaration provided that "States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental and developmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction." However, a counter is hereby submitted that Principle 25 states that "Peace, development and environmental protection are interdependent and indivisible." It mentions peace first, and therefore, it may be inferred that for environmental protection, peace is the first requirement. If nuclear weapon states stop using nuclear weapons in conformance with the Charter, it would cause severe problems to world peace.

Further, environmental aspects cannot be a ground for limiting defence capabilities of a nation state. For that matter, even smaller bombs like M67 grenades produce air pollution resulting from M67 grenade detonations poses significant environmental challenges. The explosions release a plethora of toxic gases, including sulfur dioxide and nitrogen oxides, contributing to air pollution. These emissions can have detrimental effects on both human health and the surrounding ecosystem, exacerbating respiratory issues and harming vegetation. The dispersion of particulate matter from M67 explosions can lead to respiratory issues, cardiovascular problems, and exacerbate existing health conditions in exposed populations. Additionally, these particles can settle on surfaces, contaminating water sources and soil, further impacting ecosystems. Proper ventilation and containment measures are essential to minimize the spread of these hazardous particles. A weapon will inevitably cause problems to the human body.

Article 1 of the 1977 Convention on Prohibition of Environmental Modification Techniques prohibits "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." Article II

defines the term "environmental modification techniques as "any technique for changing - through the deliberate manipulation of natural processes - the dynamics, composition or structure of the Earth, including its biota, lithosphere, hydrosphere and atmosphere, or of outer space." However, then too, nuclear weapons and their use would not find any connection to the said convention since the intention of this weapon is not to harm the environment but the military establishment in that area.

G. LAW OF ARMED CONFLICT DOES NOT PUT EXPRESS PROHIBITION ON NUCLEAR WEAPONS.

Various principles of International Law are applicable when it comes to nuclear weapons, however, no such principle precludes the use of nuclear weapons in armed conflicts. The legality of use of nuclear weapons in armed conflicts depends on the circumstances surrounding it. Even the Treaty Banning Nuclear Tests in the Atmosphere, Outer Space and Under Water, makes it clear that "... Each Party shall in exercising its national sovereignty have the right to withdraw from the Treaty if it decides that extraordinary events, related to the subject matter of this Treaty, have jeopardized the supreme interests of its country. It shall give notice of such withdrawal to all other Parties to the Treaty three months in advance . " This makes it clear that the State parties do recognize that there may be situations where Nuclear Tests may be done in supreme interests of their national security. This again points out that the intention of states has never been to eliminate the use or threat of nuclear weapons.

An argument may be made that the nuclear weapons can violate the principle of neutrality, i.e., it may harm the neutral states surrounding the States at war with each other. The principle of neutrality is not a broad guarantee to neutral States of immunity from the effects of war, whether economic or environmental. Its purpose was to preclude military invasion or bombardment of neutral territory, and otherwise to define complementary rights and obligations of neutrals and belligerent .

An argument advanced while suggesting that nuclear weapons are precluded from use in Armed Conflicts is that nuclear weapons cannot differentiate between

civilian and military targets. This completely ignores the fact that today's technology enables experts to design weapons which can differentiate military targets and control the explosion to not touch civilian targets.

Proportionality principle cannot be presumed to be violated in the use of nuclear weapons because whether an attack with nuclear weapons would be disproportionate depends entirely on the circumstances, including the nature of the enemy threat, the importance of destroying the objective, the character, size and likely effects of the device, and the magnitude of the risk to civilians. Nuclear weapons are not inherently disproportionate. In fact, there are tactical short-range nuclear weapons, which have shorter range of damage. Another development has been in short-range nuclear weapons. Tactical (nonstrategic) nuclear weapons (TNWs) typically refer to short-range weapons; within the U.S.-Soviet (Russian) context, TNW means land-based missiles with a range of less than 500 km (about 300 miles) and air- and sea-launched weapons with a range of less than 600 km (about 400 miles) . However, these definitions are not universally accepted: France classifies all its currently deployed nuclear weapons as strategic; China also classifies many weapons as strategic that in the U.S.-Russian context would be considered tactical weapons . It may be noted by the Court that this is a flawed argument: In some respects, TNWs are more dangerous than strategic weapons. Their small size and the absence of electronic locks or Permissive Action Links (PALs) on older versions contribute to their vulnerability to theft and unauthorized use. TNWs are the least-regulated category of nuclear weapons covered in arms control agreements . However, the Martens Clause shall notwithstanding be applicable to these weapons. In the 1996 Opinion, the Court opined that Martens Clause, whose continuing existence and applicability is not to be doubted, as an affirmation that the principles and rules of humanitarian law apply to nuclear weapons".

TNWs constitute a large percentage of the arsenals of the nuclear weapon states: 30-40% of the American and Russian arsenals, nearly 100% of the Chinese and French arsenals, and all of the Israeli, Indian, and Pakistani arsenals; Great Britain no longer has short-

range nuclear weapons. TNWs are also the category of weapons about which the least is known. The environmental and human impact of these weapons is the same though, “In the long-term, producing ionizing radiation, which kills or sickens those exposed, contaminates the environment, and has long-term health consequences, including cancer and genetic damage.”

Principle of unnecessary harm is also not violated if nuclear weapons are used. The prohibition was intended to preclude weapons designed to increase the injury or suffering of the persons attacked beyond that necessary to accomplish the military objectives. It does not prohibit weapons that may cause great injury or suffering if the use of the weapon is necessary to accomplish the military mission. For example, it does not prohibit the use of anti-tank munitions which must penetrate armour through kinetic-energy or incendiary effects, even though it can cause severe burns to the soldiers inside the tank. In that case, even nuclear weapons cannot be prohibited just because of the radiation it produces.

The use of nuclear force in a retaliation to a nuclear attack is not illegal if read with article 51 of the UN Charter. Specifically, the reprisals taken with the intent to cause the enemy to cease violations of the law of armed conflict, should not be considered as illegal as they are aligned with the principle of nuclear deterrence. As in the case of other requirements of the law of armed conflict, a judgment about compliance of any use of nuclear weapons in advance would not be accurate without considering the circumstantial evidence.

International Committee of the Red Cross (ICRC) during the negotiations which led to the Additional Protocol I of the Geneva Convention, 1949, noted in particular the important function of nuclear weapons in deterring the outbreak of armed conflict. The United Kingdom, while signing the Additional Protocol I, did so with the understanding that “the new rules introduced by the Protocol are not intended to have any effect on and do not regulate or prohibit the use of nuclear weapons.” Belgium, Canada, Italy, Germany, the Netherlands, Spain and the United States made similar formal statements on signature or ratification.

In page 593-594 of the Commentary of the ICRC on the Additional Protocol I, considered it inappropriate to consider that the protocol extended to nuclear weapons. It said, “there is no doubt that during the four sessions of the Conference agreement was reached not to discuss nuclear weapons”; that the principles reaffirmed in the Protocol “do not allow the conclusion that nuclear weapons are prohibited as such by international humanitarian law”.

The UDHR, 1948 in Article 3 provides that “everyone has the right to life, liberty and security of person.” Nowhere in the Universal Declaration is there any mention of a limitation or prohibition on the use of any form of weaponry, especially if this weapon may even save them when fired in retaliation and self-defence. The Comment of the UN Human Rights Committee in 1984 does recognize Nuclear weapons as being extremely destructive and a big threat to human life, however, it does not prohibit nuclear weapons, but merely states “that the production, testing, possession, development and use of such weapons “should” be prohibited, thereby expressing an aspirational goal to be achieved and not a binding rule of international law”.

H. Feasibility of an Automated Nuclear Weapon System

The integration of artificial intelligence into weaponry, as discussed in preceding chapters, presents concerns to its capability to follow laws and customs of war, with probable loopholes in the realm of state responsibility. A more dangerous concern is the delegation of decision-making authority to automated systems within the Nuclear Command and Control (“NC2” from hereon). If the Responsibility and accountability in conventional autonomous weapons is a humanitarian concern, its integration into nuclear architectures is potentially an apocalyptic delegation. This chapter expands upon historical contexts to analyze how an AWS can trigger a potential sequence of planetary destruction. Historically, nuclear stability has relied on the rationality of Governments to see the bigger picture and not annihilate each other. It was this rationality which avoided the Cuban escalation (popularly known as the Cuban missile crisis). The 1962 Cuban Missile Crisis was resolved through diplomatic channels, thanks to the rationality of Leaders of both

sides. The historical record of the 1962 Cuban Missile Crisis serves as an important precedent for the indispensable role of human discretion in preventing catastrophic flash wars. Initiated by the clandestine installation of Soviet Medium-range ballistic missiles (MRBMs) and intermediate-range ballistic missiles (IRBMs) in Cuba to deter U.S. intervention, that was resolved through talks held between key stakeholders. President Kennedy's choice of a naval quarantine was an example of passive diplomacy, demonstrating a rational assessment of the situation which helped avoid dooming the world to a catastrophic thermonuclear war. Finally, it was the negotiations between Nikita Khrushchev, Chairman of the Council of Ministers in the USSR and the White House which avoided a major flash war built on misunderstanding. Crucially, the crisis was mitigated by the human capacity to tolerate ambiguity and ignore conflicting signals, such as Kennedy's strategic decision to ignore Khrushchev's second, more aggressive telegram in favour of his first. In Autonomous NC2, such negotiations may be replaced by algorithmic decision making limited to the machine's continuously evolving intelligence. Kennedy and Khrushchev struggled to understand each other's communications over thirteen days, while an AI-enabled system might have initiated a full retaliatory response in thirteen seconds, interpreting an attack and takedown of a U-2 reconnaissance jet as a definitive signal for a full blown nuclear armed conflict. Thus, the 1962 crisis stands as proof that the preservation of the 'human veto' is a prerequisite for strategic stability, a safeguard that the Author argues must now be codified through forensic traceability and mandatory veto-windows. The preservation of a "decision window", a period of time where leaders can verify the situation and the intention behind each other's actions, before launching a retaliatory strike, is the only point lacking in an automated NC-2 system. The introduction of AI-enabled early warning and response systems, such as "Launch-on-Warning" (LoW) protocols, threatens to compress this window to a point where human "veto-power" becomes a practical impossibility. As sensors become increasingly automated, the risk of flash nuclear exchange triggered by an algorithmic misinterpretation of a non-lethal event becomes extremely foreseeable. The USSR developed

'Perimeter', infamously known as the 'Dead Hand,' this automated nuclear architecture functions as a 'fail-deadly' mechanism. The strategic introduction of automated retaliation as a tool of coercive diplomacy was formalized during the November 1985 arms control negotiations in Geneva. Faced with the Reagan administration's refusal to abandon the Strategic Defense Initiative (SDI), Soviet General Secretary Mikhail Gorbachev articulated a stark warning: the USSR would be compelled to delegate critical nuclear authorisation to computers. In the contemporary landscape, the legacy of the 'Dead Hand' is still very much functional. In the context of this dissertation, the 'Dead Hand' represents the early, primitive ancestor of the Autonomous Nuclear Weapon System. While Perimeter still relies on the absence of a command during periods of high tension, modern AI-driven NC2 seeks to automate the target selection and launch process. The operational logic of the 'Perimeter' architecture is predicated on a cold, automated sequence of existential inferences. In the event that its seismic and radiation sensors detect nuclear detonations on Russian soil, the system activates a comprehensive audit of the situation, finding that there is an absence of communication from the Kremlin's primary command center, (known as Kazbek) and found to be severed or unresponsive, the system's internal system assumes the total incineration of the national leadership and the onset of a final apocalyptic event. From a legal standpoint, this automated inference of complete annihilation, bypasses the necessity of human verification, transforming a technical failure into a *casus belli*. On a literal note, this represents an early ancestor to AWS and the world's first Automated Nuclear System.

The operational architecture of 'fail-deadly' systems like Perimeter, by design, an automated nuclear response intended to function 'after the state has fallen' lacks a human arbiter to weigh the necessity of such force. It replaces the legal balancing test with a binary algorithmic mandate based on situational triggers, ensuring that the resulting civilian catastrophe is both inevitable and legally indiscriminate.

The International Court of Justice (ICJ) recognized that the sheer destructive capacity of nuclear weapons

makes their reconciliation with the laws of armed conflict nearly impossible. It stated:

'The destructive power of nuclear weapons cannot be contained in either space or time. They have the potential to destroy all civilization and the entire ecosystem of the planet... The use of such weapons in fact seems scarcely reconcilable with respect for such requirements [distinction and proportionality].'

To add automation to such destructive systems which have already been held by the ICJ to be catastrophic to the principles of IHL, no matter how they are used will further pose challenges to escalating future nuclear flash wars and unintended nuclear escalations.

In the context of the Author's thesis, the delegation of such uncontrollable force to an autonomous nuclear system creates a double violation- first, through the inherent nature of the weapon itself, and second, through the removal of the human verification of the situation (though it would only fire if no officer gives an answer to the system) that serves as the final barrier to a disproportionate and indiscriminate strike.

India, on the contrary, has a no-first-use Policy. The evolution of India's nuclear doctrine is intrinsically linked to the global failure of the P5 nations to adopt a universal 'No First Use' (NFU) policy. After the May 11, 1998, Pokhran-II tests what successful, Prime Minister Vajpayee, made it abundantly clear in the Parliament on May 27, 1998, that India's success in becoming a nuclear state was a defensive necessity, made necessary by the continuous development of nuclear weapons by the Permanent Five members of the UN Security Council. Specifically, he contended that the established nuclear powers continued to modernize their arsenals and maintained doctrines that permitted first use, India was left with no alternative but to develop its own defence against such nuclear attacks if they happen. Consequently, the Indian position suggests that its nuclear acquisition was a direct response to the lack of normative NFU constraints among established nuclear states—a factor that remains critical when considering the risks of automated 'first use' in modern NC2 architectures.

If India's nuclear posture was born out of a reaction to the 'first use' doctrines of others, then the introduction of 'Dead Hand' or autonomous retaliatory systems by adversaries represents a new, high-velocity version of that same threat. By maintaining a strict NFU policy, India possesses a 'Moral High Ground' to develop similar automated weapons in their nuclear arsenal. If such systems continue to develop, all capable States will develop such automated nuclear systems, which may lead to a possible apocalypse in the worst-case scenario.

CONCLUSION

The author does not support the notion that nuclear weapons should be banned completely. There cannot be a limitation on the level of disarmaments of a nation imposed by an international or national entity. Nuclear weapons have not been completely prohibited by any Jus Cogens nor by a CIL. Only their use has been regulated through prohibition on using them in specific areas and in specific situations. Nuclear weapons, like other weapons, need to be used in confirmation with the Charter and the principles of proportionality and necessity. The proposal to form a Treaty on Prohibition on nuclear weapons, however it did not receive assent from major nuclear powers like the US, France, etc. This points out that the practice of States is not to prohibit but regulate the use of nuclear weapons and thereby prevent a nuclear war. From the perspective of the environment, a weapon cannot be precluded from use on the grounds of environmental pollution as any weapon would ultimately have some or the other environmental issues associated with them. It is further pointed out that the law of armed conflict does not preclude the use of nuclear weapons. This further proves that there has never been an intent to completely ban nuclear weapons.

An even more significant hurdle involves restricting nations from implementing automated Nuclear Command and Control (NC2) architectures, a move that essentially guarantees catastrophic outcomes. Historical precedents such as the 1962 Cuban Missile Crisis and the 1999 Kargil War highlight the indispensable role of human judgment when deciding whether to deploy nuclear armaments. By their very nature, such weapons fail to uphold the International

Humanitarian Law principles of distinction and proportionality, a reality underscored by the International Court of Justice in its 1996 Advisory Opinion. While the resolution of the Cuban Missile Crisis was made possible through direct communication and rational compromise between human leaders, the rise of automation raises critical questions regarding the "human veto". Even if a human supervisor technically maintains oversight, their ability to intervene becomes questionable once an Autonomous Weapon System (AWS) has initiated a launch sequence. If an automated NC2 system has already fired a nuclear missile, the window for meaningful human intervention may effectively be closed, rendering a "veto" useless in preventing a global disaster.

It is therefore concluded that so long as there is not a universal adherence to a prohibition on nuclear weapons, both its threat and use, there cannot be a complete nuclear disarmament. As defence technology expands, so shall the nuclear weapon technology and therefore, there doesn't seem to be an end to the constant fear of a possible apocalypse arising out of a future nuclear war, which may be worse than before, as nuclear technology has greatly expanded and its capabilities way more than the primitive nuclear technology during World War-II.

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