OAFLMUN'25

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NATO| Nuclear Deterrence and Energy Security

STUDY GUIDE

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Letter from Secretary General

Dear Participants of OAFLMUN'25,

It is my great pleasure to welcome you all to the Özkent Akbilek Science High School Model United Nations Conference.

Our academic team has prepared these study guides with the aim of providing you, our esteemed delegates, with a comprehensive introduction to the various committees. These guides have been meticulously crafted to enhance your understanding of current global issues and historical events that have had a significant impact on the world.

We believe that by following the guidance outlined in the study guides, which are designed to offer a clear framework, you will find the conference experience both enriching and rewarding, not only during individual committee sessions but throughout the entire event.

During the conference, members of the OAFLMUN'25 academic and organization teams will be closely monitoring your progress and active participation in the committees.

As the Secretary General of this conference, I am committed to the professional development of Turkish youth, as well as all participants, whether this is your first MUN or you are an experienced delegate. I sincerely hope that this conference will be both educational and beneficial for everyone involved, helping you enhance your diplomatic skills and global awareness.

Best regards,
Secretary General
Ecem Buse KOÇAK

Letter from Deputy Secretary General

Most esteemed participants of OAFLMUN'25,

As the Deputy Secretary General of OAFLMUN'25, I am delighted to welcome you all to the 2nd Özkent Akbilek Science High School Model United Nations Conference. It is with great pleasure that I present to you the outcome of our months of preparation and planning. We are committed to ensuring that this event will be the best one yet, from our organisation to our academics. Our aim is to facilitate competent and high-level diplomatic deliberations, and to promote valuable and constructive solutions throughout the three days of OAFLMUN'25. We hope that you will enjoy the event and that it will prove to be a valuable learning experience for all participants. As a delegate, the journey toward success begins here with the Study Guide prepared by the dedicated members of our academic team. We encourage you to read the Study Guide thoroughly and to broaden your research to include different perspectives, focusing on your assigned role. It is essential to acknowledge the value of each role and perspective to ensure full preparation for engagement with the Agenda. I wish you success and enlightening discussions during these three days of OAFLMUN'25. I very much look forward to the valuable contributions you will make to our conference.

Best regards,
Deputy Secretary General
Yiğit KÖMÜRCÜ

Letter From Under Secretary General

Esteemed delegates,

My name is Burak ŞAHAN, and I am an undergraduate student of Aerospace Engineering at Ankara Yıldırım Beyazıt University. I was the Under Secretary-General of the DISEC committee last year at OAFLMUN 24. Now, this year I will be preparing for the Under Secretary-General of NATO at OAFLMUN 25.

The security problems are increasing day by day at international level. NATO is one of the most important military alliances since its establishment in 1949. Thus, NATO dedicated itself to solve problems globally and achieved success in this field. What differs NATO from other alliances is that it integrates itself for every possible outcome and never compromises from its main property which is solidarity .

As the delegates participating in the NATO committee you are expected to articulate your thoughts on the ongoing problems by securing NATO's main mission. After the takedown of Assad discussing new ideas for securing NATO have become more important and urgent than ever. Hence, NATO has started to take precautions for its own safety. So, delegates must discuss these precautions and think of new and better ways to minimize the risks of Assad's takedown for the security of NATO.

I hope that participating in the NATO committee will make you understand better about the NATO' structure, principles and mission. Furthermore, I will expect delegates to assimilate a true idea about the ongoing problems and bring it on to life.

As I am finishing my letter, I would like to thank all of the members of OAFMUN 25 for participating here. Also, a special thank you to our Secretary-General Ms. Ecem Buse KOÇAK for inviting me to this MUN.

Sincere wishes

Burak ŞAHAN

Under Secretary-General of North Atlantic Treaty Organization (NATO)

Letter From Academic Assistant

Dear participants, executive and academic team,

I am Ada GAZEL and I am currently a sophomore at Jale Tezer Science High School.

First of all I am very honored to be a part of this conference as an Academic Assistant. I want to continue with thanking the executive team for assisting us whenever we needed them, the academic team for their efforts and dear participants for choosing this conference. I am sure that this conference will stay as a great part of your life and a memorable experience.

I also am sure about another thing that NATO will be the most adventurous and exciting committee! I and my dear USG specifically chose this agenda item since it is and will be more and more important for our future.

We want you to read this study guide carefully and we think that reading this guide will be very beneficial for you since it has no unnecessary information and it is important for you to read the guide in order to fully understand the agenda item.

Lastly you should be careful about the decisions you will take in the committee and I hope you very much enjoy this committee.

With my great wishes,

Ada GAZEL

Academic Assistant of North Atlantic Treaty Organization (NATO)

Introduction To The Committee: North Atlantic Treaty Organisation (NATO)

The North Atlantic Treaty Organization (NATO) or Organisation du traité de l'Atlantique nord (OTAN) is an intergovernmental transnational military alliance which was established in 1949. The primary purpose of NATO's establishment was to protect its member countries' freedoms and securities by collaborating. Since its establishment, NATO has resolved many conflicts by playing a vital role in the problems. Hence, the North Atlantic Region has shown substantial improvement and secured its peace.

After World War II, Europe was divided into different groups and numerous security concerns occurred. The Cold War was about to break out and tension between Soviet Union and European countries was increasing thus, the USA and other European countries established NATO on 4 April 1949 in Washington D.C to determine a future Soviet Union attack. First twelve members were Belgium, Canada, Denmark, France, Iceland, Italy, Luxembourg, the Netherlands, Norway, Portugal, the United Kingdom and the United States. According to the treaty, an armed attack on one member is considered as an attack to whole members and a corporate action will be taken to preserve the peace and security.

Standing together is the basis of NATO and this regulation has served properly for 70 years and counting. After the abolition of the Soviet Union, NATO changed and started to be concerned about global issues and devoted itself to preserving the world's peace. At this

moment NATO has 31 active members with the acceptance of Finland (2023) and Sweden (2024).

1.0) Energy Deterrence

1.1) NATO's Stance on Energy Deterrences

Nuclear deterrence has been at the core of NATO's collective defence for 70 years. In an uncertain world, nuclear weapons continue to play a critical role in NATO's deterrence and defence. The purpose of NATO's nuclear capability is to preserve peace, prevent coercion, and deter aggression. Nuclear weapons are designed unique. NATO has a stability on these weapons if one of its ally's security is in danger in order to defend itself also its ally. Apart from these, NATO, generally, still wants a peaceful and non-nuclear weapon world except in the mentioned cases in line with Allies' commitments to the Non-Proliferation Treaty. After some time from the Cold War, NATO's available nuclear weapons got a critical reduction. However, as long as nuclear weapons exist, NATO will remain a nuclear Alliance and Allies will continue to take all steps necessary to ensure NATO's nuclear deterrent remains safe, secure and effective.

1.2) Nuclear Forces

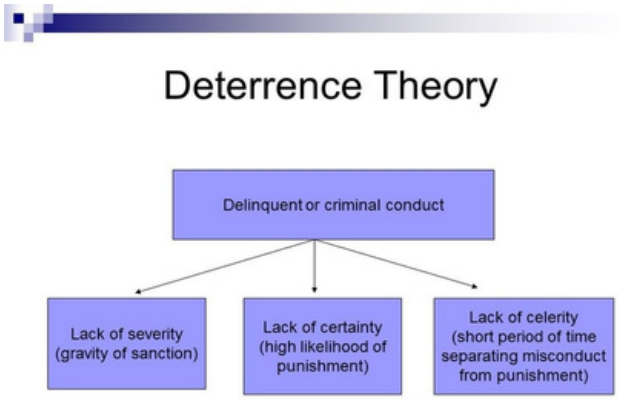
Three Member States of NATO, the United States, France, and Great Britain have a high amount of nuclear weapons in themselves. The strategic forces of the Alliance, particularly those of the United States, are the supreme guarantee of the Alliance's security. The independent strategic nuclear forces of the United Kingdom and France have a deterrent role of their own and contribute significantly to the overall security of the Alliance. NATO's nuclear deterrence also relies on US nuclear weapons deployed in Europe and supporting capabilities and infrastructure provided by Allies. A number of European NATO members have dual-capable aircraft dedicated to the delivery of these US nuclear weapons. The United States is continuing to supervise these weapons at all times and consequences. These "nuclear-sharing arrangements" predate and are fully consistent with the Non-Proliferation treaty which also consists of non-profitable articles.

1.3) Decision-Making Process

NATO Allies retain political control of all aspects of nuclear decision-making. The Nuclear Planning Group (NPG), founded in 1966, is the main forum to discuss nuclear issues within NATO. While the North Atlantic Council is the ultimate authority within NATO, the NPG acts as the senior body on nuclear matters. The NPG reviews the Alliance's nuclear policy, including the safety, security and survivability of nuclear weapons, and communications and information systems. Irrespective of whether or not they have nuclear weapons, all Allies are members of the NPG with the exception of France, which has decided not to participate.

1.4) Deterrence Theory

Deterrence theory refers to the scholarship and practice of how threats of using force by one party can convince another party to refrain from initiating some other course of action. The main topic being the use of nuclear weapons during the Cold War, which is mainly a military-based situation, and it turns out that, a nuclear attack involving second-strike capability, which is a country's assured ability to respond to a nuclear attack with powerful nuclear retaliation against the attacker, may negatively affect both parties and this is also similar with the term *Mutual Assured Destruction (MAD)*, means that a doctrine of military strategy and national security policy which posits that a full-scale use of nuclear weapons by an attacker on a nuclear-armed defender with second-strike capabilities would result in the complete annihilation of both the attacker and the defender.



The deterrence's main issue revolves around how to credibly threaten military action or nuclear punishment on the adversary despite its costs to the deterrer. For preventing any kinds of conflicts or wars, using deterrence theory is dterrence's meaning in international relationships.

Deterrence is widely defined as any use of threats or limited force intended to dissuade an actor from taking an action. Deterrence is unlike compellence, which is the attempt to get an actor (such as a state) to take an action. Both are forms of coercion. Compellence has been characterized as harder to successfully implement than deterrence. Deterrence also tends to be distinguished from defense or the use of full force in wartime. Deterrence is most successful when the attacker's success possibility is low and the attacker believes that the attack's cost is very high so that they could be frightened. One of the main steps of deterrence is transmitting and conducting the threats safe, credibility.

1.4.1) Types of Deterrences

1.4.1.1) General Deterrence

It is considered successful when an actor who might otherwise take an action refrains from doing so due to the consequences that the deterrer is perceived to take.

1.4.1.2) Immediate Deterrence

It is considered successful when an actor seriously contemplating immediate military force or action refrains from doing so.

1.4.1.3) Other Types of Deterrences

Scholars distinguish between "extended deterrence" (the protection of allies) and "direct deterrence" (protection of oneself). Rational deterrence theory holds that an attacker will be deterred if they believe that:

(Probability of deterrer carrying out deterrent threat × Costs if threat carried out) > (Probability of the attacker accomplishing the action × Benefits of the action)

1.4.2) Deterrence Theory's History

Even though the term deterrence came out after the Cold War, it was during the Cold War that the concept evolved into a clearly articulated objective in strategic planning and diplomacy, with considerable analysis by scholars.

In 1945, while World War II was happening, the leader of the attacks from the US to Japan was thinking how the next war should be managed. Next month, at a speech that she gave involved: “No air attack, once it is launched, can be completely stopped”, and he stated that his country is in need of an air strike which is capable of retaliating immediately: “If we are prepared it may never come. It is not immediately conceivable that any nation will dare to attack us if we are prepared.” Most of the innovator workings made for deterrence theory, happened between the ends of 1940 and middles of 1960. Historically the works made for deterrence focused on nuclear deterrence. Since the end of the Cold War, there has been an extension of deterrence scholarship to areas that are not specifically about nuclear weapons. NATO was founded in 1949 with deterring aggression as one of its goals. A distinction is sometimes made between nuclear deterrence and "conventional deterrence." Most significant 2 deterrence strategies are “denial” (denying the attacker the benefits of attack) and “punishment” (inflicting costs on the attacker). Lesson of Munich, where appeasement failed, contributes to deterrence theory. In the words of scholars Frederik Logevall and Kenneth Osgood, "Munich and appeasement have become among the dirtiest words in American politics, synonymous with naivete and weakness, and signifying a craven willingness to barter away the nation's vital interests for empty promises." They claimed that the success of US foreign policy often depends upon a president withstanding "the inevitable charges of appeasement that accompany any decision to negotiate with hostile powers.

1.4.3) Rational Deterrence Theory

One approach to theorizing about deterrence has entailed the use of rational choice and game-theoretic models of decision making (see game theory). Rational deterrence theory entails:

1. *Rationality:* actors are rational
2. *Unitary actor assumption:* actors are understood as unitary
3. *Dyads:* interactions tend to be between dyads (or triads) of states
4. *Strategic interactions:* actors consider the choices of other actors
5. *Cost-benefit calculations:* outcomes reflect actors' cost-benefit calculations

Deterrence experts supported the idea that when a defendant country's deterrence threat is convincing for the attacker country, it is more possible for the deterrence to come out successful. Huth outlines that the defendant country should have the military capacities to economically affect the attacker country in any conflict, also the defendant country should make the attacker country believe that they have a great military power and are determined about using it. Huth continues to explain the 4 main factors for the deterrence theory: the military balance, signaling and bargaining power, reputations for resolve, interests at stake. The American economist Thomas Shelling, made classic research on deterrence and said that the military strategy cannot be victory knowledge. Apart from this, military strategy can now be defined as the art of coercion, intimidation and deterrence. Shelling also stated that the capacity of negatively affecting a country is being used as a motivational factor for other countries to avoid this and have an effect on other countries' decisions. It can therefore be summarized that the use of the power to hurt as bargaining power is the foundation of deterrence theory and is most successful when it is held in reserve.

In an article celebrating Schelling's Nobel Memorial Prize for Economics, Michael Kinsley, *Washington Post* op-ed columnist and one of Schelling's former students, anecdotally summarizes Schelling's reorientation of game theory thus: "You're standing at the edge of a cliff, chained by the ankle to someone else. You'll be released, and one of you will get a large prize, as soon as the other gives in. How do you persuade the other guy to give in, when the only method at your disposal—threatening to push him off the cliff—would doom you both? Answer: You start dancing, closer and closer to the edge. That way, you don't have to convince him that you would do something totally irrational: plunge him and yourself off the cliff. You just have to convince him that you are prepared to take a higher risk than he is of accidentally falling off the cliff. If you can do that, you win."

1.4.3.1) Military Balance

Deterrence is often directed against state leaders who have specific territorial goals that they seek to attain either by seizing disputed territory in a limited military attack or by occupying disputed territory after the decisive defeat of the adversary's armed forces. In both cases, the strategic aim of the possible attacker countries is short-termed.

1.4.3.2) Signaling and bargaining power

The central problem for a state that seeks to communicate a credible deterrent threat by diplomatic or military actions is that all defending states have an incentive to act as if they are determined to resist an attack in the hope that the attacking state will back away from military conflict with a seemingly resolved adversary. If all defending states have such incentives, potential attacking states may discount statements made by defending states along with any movement of military forces as merely bluffs. In that regard, rational deterrence theorists have argued that costly signals are required to communicate the credibility of a defending state's resolve. Those are actions and statements that clearly increase the risk of a military conflict and also increase the costs of backing down from a deterrent threat. States that bluff are unwilling to cross a certain threshold of threat and military action for fear of committing themselves to an armed conflict.

1.4.3.3) Interests at Stake

Although costly signaling and bargaining power are more well established arguments in rational deterrence theory, the interests of defending states are not as well known. Attacking states may look beyond the short-term bargaining tactics of a defending state and seek to determine what interests are at stake for the defending state that would justify the risks of a military conflict. The argument is that defending states that have greater interests at stake in a dispute are more resolved to use force and more willing to endure military losses to secure those interests. Even less well-established arguments are the specific interests that are more salient to state leaders such as military interests and economic interests.

Furthermore, Huth argues that both supporters and critics of rational deterrence theory agree that an unfavorable assessment of the domestic and international status quo by state leaders can undermine or severely test the success of deterrence. In a rational choice approach, if the expected utility of not using force is reduced by a declining status quo position, deterrence failure is more likely since the alternative option of using force becomes relatively more attractive.

1.4.3.4) Tripwires

International relations scholars Dan Reiter and Paul Poast have argued that so-called "tripwires" do not deter aggression. Tripwires entail that small forces are deployed abroad with the assumption that an attack on them will trigger a greater deployment of forces. Dan Altman has argued that tripwires do work to deter aggression, citing the Western deployment of forces to Berlin in 1948–1949 to deter Soviet aggression as a successful example.

A 2022 study by Brian Blankenship and Erik Lin-Greenberg found that high-resolution, low-capability signals (such as tripwires) were not viewed as more reassuring to allies than low-resolve, high-capability alternatives (such as forces stationed offshore). Their study cast doubt on the reassuring value of tripwires.

1.4.3.5) Reputations for Resolve

There are three different arguments that have been developed in relation to the role of reputations in influencing deterrence outcomes. The first argument focuses on a defending state's past behavior in international disputes and crises, which creates strong beliefs in a potential attacking state about the defending state's expected behaviour in future conflicts. The credibilities of a defending state's policies are arguably linked over time, and reputations for resolve have a powerful causal impact on an attacking state's decision whether to challenge either general or immediate deterrence. The second approach argues that reputations have a limited impact on deterrence outcomes because the credibility of deterrence is heavily determined by the specific configuration of military capabilities, interests at stake, and political constraints faced by a defending state in a given situation of attempted deterrence. The argument of that school of thought is that potential attacking states are not likely to draw strong inferences about a defending state's resolve from prior conflicts because potential attacking states do not believe that a defending state's past behaviour is a reliable predictor of future behavior. The third approach is a middle ground between the first two approaches and argues that potential attacking states are likely to draw reputational inferences about resolve from the past behaviour of defending states only under certain conditions. The insight is the expectation that decision makers use only certain types of information when drawing inferences about reputations, and an attacking state updates and revises its beliefs when a defending state's unanticipated behavior cannot be explained by case-specific variables.

An example shows that the problem extends to the perception of the third parties as well as main adversaries and underlies the way in which attempts at deterrence can fail and even backfire if the assumptions about the others' perceptions are incorrect.

1.4.4) Nuclear Deterrence Theory

In 1966, Schelling was prescriptive in outlining the impact of the development of nuclear weapons in the analysis of military power and deterrence. In his analysis, before the widespread use of assured second strike capability, or immediate reprisal, in the form of

SSBN submarines, Schelling argues that nuclear weapons give nations the potential to destroy their enemies but also the rest of humanity without drawing immediate reprisal because of the lack of a conceivable defense system and the speed with which nuclear weapons can be deployed. A nation's credible threat of such severe damage empowers their deterrence policies and fuels political coercion and military deadlock, which can produce proxy warfare.

According to Kenneth Waltz, there are three requirements for successful nuclear deterrence:

1. Part of a state's nuclear arsenal must appear to be able to survive an attack by the adversary and be used for a retaliatory second strike
2. The state must not respond to false alarms of a strike by the adversary
3. The state must maintain command and control

The stability–instability paradox is a key concept in rational deterrence theory. It states that when two countries each have nuclear weapons, the probability of a direct war between them greatly decreases, but the probability of minor or indirect conflicts between them increases. This occurs because rational actors want to avoid nuclear wars, and thus they neither start major conflicts nor allow minor conflicts to escalate into major conflicts—thus making it safe to engage in minor conflicts. For instance, during the Cold War the United States and the Soviet Union never engaged each other in warfare, but fought proxy wars in Korea, Vietnam, Angola, the Middle East, Nicaragua and Afghanistan and spent substantial amounts of money and manpower on gaining relative influence over the third world.

Bernard Brodie wrote in 1959 that a credible nuclear deterrent must be always ready. An extended nuclear deterrence guarantee is also called a nuclear umbrella.

Scholars have debated whether having a superior nuclear arsenal provides a deterrent against other nuclear-armed states with smaller arsenals. Matthew Kroenig has argued that states with nuclear superiority are more likely to win nuclear crises, whereas Todd Sechser, Matthew Fuhrmann and David C. Logan has challenged this assertion. A 2023 study found that a state with nuclear weapons is less likely to be targeted by non-nuclear states, but that a state with

nuclear weapons is not less likely to target other nuclear states in low-level conflict. A 2022 study by Kyungwon Suh suggests that nuclear superiority may not reduce the likelihood that nuclear opponents will initiate nuclear crises.

Proponents of nuclear deterrence theory argue that newly nuclear-armed states may pose a short- or medium-term risk, but that "nuclear learning" occurs over time as states learn to live with new nuclear-armed states. Mark S. Bell and Nicholas L. Miller have however argued that there is a weak theoretical and empirical basis for notions of "nuclear learning."

2.0) Historical Background

2.1) Cold War (1949-1993)

During the early Cold War, in the face of Soviet superiority in terms of conventional capabilities, the Alliance made nuclear weapons a central element of its deterrence and defence doctrine. The first NATO strategy in 1949 envisioned ensuring “the ability to carry out strategic bombing promptly by all means possible with all types of weapons, without exception.” In the third strategy from 1957, the approach was refined by adopting the concept of ‘massive retaliation’. In July 1953 Washington announced the deployment of tactical nuclear warheads in Europe. Their number quickly grew, and the systems of delivery (while maintained under US control) were varied, ranging from artillery shells to gravity bombs to short-range and ballistic missiles. By 1960 the US had signed bilateral agreements on nuclear weapons storage with Germany, Belgium, the Netherlands, the UK, Italy, Turkey, and Greece. In the early 1960s, concerned about the development of nuclear weapons by some European countries (France conducted its first nuclear weapon test in 1960), Washington took a dual-track approach. It supported the development of the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) at the UN and proposed the creation of a nuclear multinational force under the auspices of NATO. The latter never materialised, but bilateral arrangements between the US and the aforementioned European allies regarding nuclear sharing were formalised. Under this programme, the US stored nuclear warheads on their territories, and the European allies provided the systems of delivery. In 1966, the Nuclear Planning Group (NPG) was established, and this body still decides NATO’s nuclear policy. As the Soviet

Union achieved relative nuclear parity with the US, and as NATO's conventional capabilities were strengthened over time, the Alliance moved away from the concept of 'massive retaliation' and adopted the strategy of 'flexible response' in 1968. The late 1960s and early 1970s marked the peak of the US tactical nuclear presence in Europe (around 7300 warheads) and the beginning of the *détente* era in relations with the Soviet Union, resulting in arms control agreements between Washington and Moscow (including the 1987 INF Treaty on eliminating ballistic and cruise missiles, as well as missile launchers with ranges of 500 to 5500 km). After the end of the Cold War, NATO decided to transition from the 'flexible response' doctrine to 'reduced reliance on nuclear weapons' in 1991. This led to significant reductions in US tactical nuclear forces in Europe, abandoning artillery shells and ground-launched short-range nuclear missiles, and ceasing the deployment of tactical nuclear weapons on surface vessels and attack submarines "in normal circumstances." By 1993, the number of US nuclear warheads in Europe had dropped below 1000, and the next two decades saw further reductions in the number of warheads, storage sites, and allies actively participating in the nuclear sharing programme.

2.2) Post Cold War (1993-2025)

NATO's current nuclear policy is based on the 2012 Deterrence and Defence Posture Review (DDPR), the 2022 NATO Strategic Concept, and declarations from NATO summits post-2012. The DDPR states that nuclear weapons are a core component of NATO's overall capabilities for deterrence and defence, and they form part of an "appropriate mix" of capabilities alongside conventional ones including missile defence capabilities. The latest documents include two additional elements of the mix: space and cyber capabilities. NATO's current strategy for using nuclear weapons reflects the US doctrine of ambiguity, which does not specify the circumstances under which the US would be willing to employ nuclear weapons. NATO's documents state that the circumstances in which nuclear weapons might have to be used are extremely remote, and the current NATO nuclear force posture meets the criteria for an effective deterrence and defence posture. NATO's nuclear potential includes strategic and tactical nuclear weapons. The former includes higher-yield nuclear warheads delivered by long-range missiles designed to hit strategic targets (cities, military bases, industrial compounds, etc.). The latter can be used primarily on the battlefield. The strategic nuclear forces in NATO are provided particularly by the US, and constitute the supreme guarantee of the security of the Alliance. This is complemented by US tactical nuclear

weapons, which are deployed in six bases located on the territory of five European allies (Germany, Belgium, the Netherlands, Italy, and Turkey) under the nuclear sharing programme (see Map). Currently, the US maintains around 100 gravity bombs in Europe, which are being modernised to a precision version with limited guiding capability (B61-12). Under the nuclear sharing programme, the European allies provide so-called dual capable aircraft (DCA). Decisions on the use of nuclear weapons and doctrine are made by all NATO members (except France) within the NPG. Once a year, NATO conducts a "Steadfast Noon" nuclear exercise in Europe. These involve US strategic bombers, European DCA aircraft, and fighter jets from other European NATO countries (including Poland) within the Conventional Support to Nuclear Operations (CSNO) strategy. The nuclear forces of the UK and France complement the US's nuclear potential and contribute to overall Alliance security, which was first recognised at the Ottawa summit in 1974. NATO acknowledges that three separate decision-making centres contribute to deterrence by complicating the calculations of potential adversaries. While the UK assigned its nuclear forces to the defence of NATO as early as the early 1960s, France maintains a more ambiguous policy. As the only NATO member which does not participate in the NPG, its nuclear doctrine envisions the use of nuclear weapons for self-defence and the defence of Paris's vital interests. The latter term is deliberately vague as it is up to the president of France to continuously assess threats and select proper response measures case by case.

3.0) Nuclear Weapons

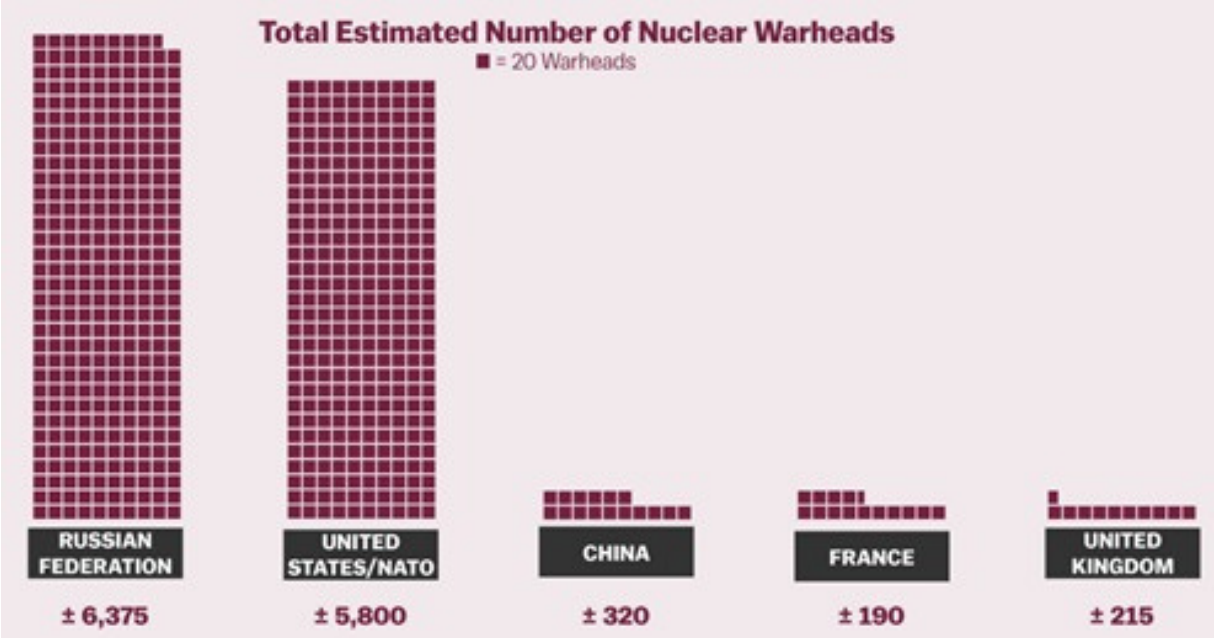
3.1) Nuclear Weapon Owners

The Russian Federation's deterrent (± 6,375 nuclear warheads) is directed at deterring aggression and existential threats via an extensive triad of capabilities (some of them novel) to provide second-strike and limited-use options (potentially including war termination). Some of the Russian Federation's nuclear weapons are deployed at a high level of operational readiness (that is, ready to fire within minutes of receiving an order), which is considered necessary for effective deterrence. The Russian Federation opposes US missile defences as destabilizing but is upgrading its own legacy missile defence system, for completion in 2025.

The United States/NATO deterrent (± 5,800 nuclear warheads) is intended to deter nuclear attack on the United States and nuclear/conventional attacks on allies via an extensive triad of

nuclear capabilities that are tailored to provide secure second strike and offer limited nuclear-use options (restricted for use in response to a limited nuclear attack). Like the Russian Federation, some US nuclear weapons are kept ready to fire within minutes of an order to do so. US and NATO deterrence is backed up by ballistic missile defence. The United States is also assisting some non-NATO allies in the development of missile defence systems.

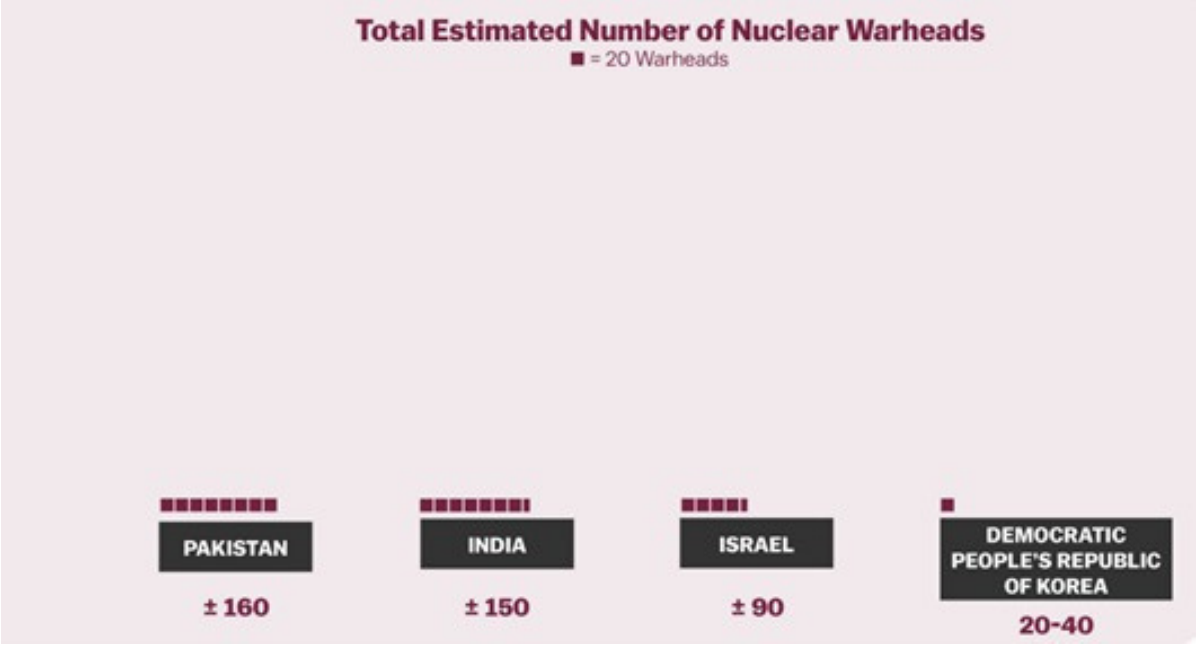
China (±320 nuclear warheads) is expanding and modernizing its nuclear arsenal and has a secure second-strike capability. None of the nuclear forces in its recently completed triad are thought to be fully deployed, and its nuclear doctrine emphasizes no-first-use and delayed retaliation. China strongly opposes US missile defence. It currently relies on Russian missile defence capabilities and it is reportedly planning its own missile defence systems, including a sea-based, mid-course system for deployment in the Asia–Pacific and Indian Ocean.



France (± 290 nuclear warheads) retains two legs of its nuclear triad, which it is modernizing, with some nuclear forces kept at a high level of readiness. France does not have a no-first use policy and although its practice roughly fits within minimum deterrence, it might shift towards flexible deterrence—in that 1) there could be circumstances in which France would conduct a limited nuclear strike as a warning to an adversary that they have crossed a line; and 2) a policy announcement in February 2020 pledged a role for France's nuclear forces in non-NATO defence of the European Union.

The United Kingdom's (± 215 nuclear warheads) nuclear triad has been reduced to one leg, its sea-based deterrent, which is dependent on US technology and is being modernized with US assistance. The United Kingdom is also reducing its operationally available warheads, which are deployed at a reduced alert status (requiring several days' notice to fire). The United Kingdom does not have a no-first-use doctrine. Its nuclear weapons can be used independently or as part of NATO.

Pakistan's deterrent (± 160 nuclear warheads), known as 'full spectrum nuclear deterrence', provides a role for nuclear weapons (including tactical) to deter conventional and nuclear attack and to ensure national survival. None of these warheads are thought to be deployed. Pakistan is expanding its nuclear arsenal and working on a sea-based nuclear capability to complete its nuclear triad. Officials are critical of India's development of ballistic missile defence.



India (± 150 nuclear warheads) is expanding and modernizing its nuclear triad with the deterrence of Pakistan and China in mind. India's nuclear forces are not deployed, and its doctrine is one of qualified no-first-use (nuclear weapons could be used in response to attacks with chemical or biological weapons). India has reportedly completed the first developmental phase of a ballistic missile defence programme, which, if approved, could be installed by 2025.

Israel (± 90 nuclear warheads) practices opaque nuclear deterrence, neither confirming nor denying that it possesses nuclear weapons. Its arsenal (believed to comprise a triad) is intended as a last-resort hedge against regional threats and is bolstered by extensive air defences.

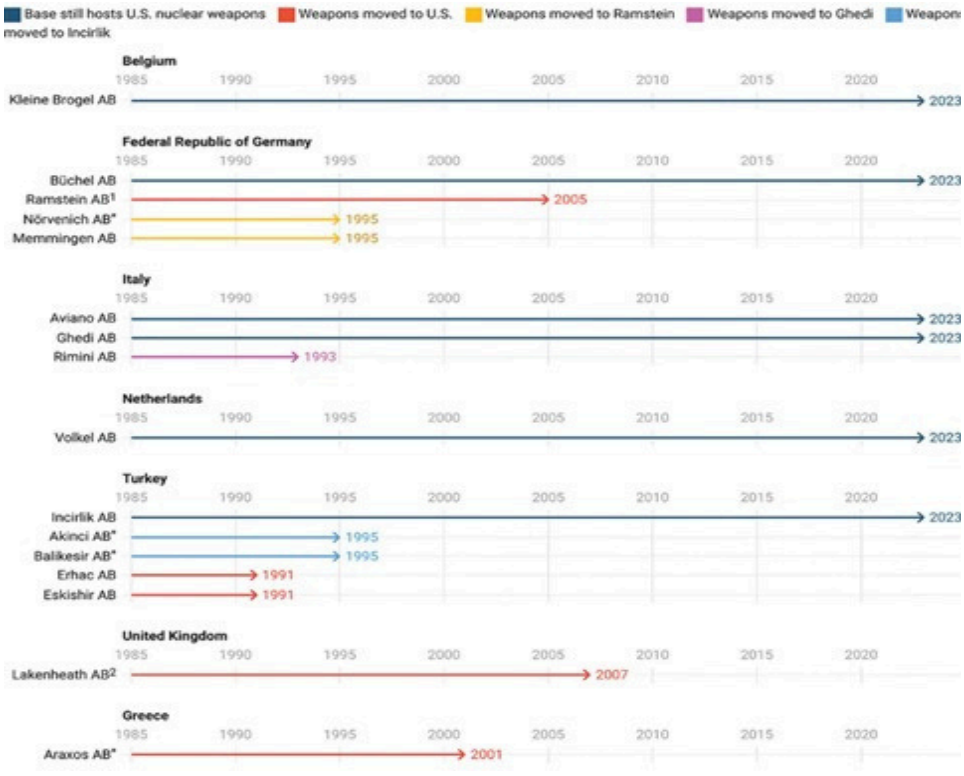
The Democratic People's Republic of Korea's (20-40 nuclear warheads?) deterrence practices are difficult to assess due to its intense secrecy, but it is believed to have developed nuclear devices to fit its ballistic missiles and to be expanding and improving its nuclear and missile capabilities. The regime claims its deterrent is intended to ensure regime survival, but some analysts fear it is developing a coercive nuclear warfighting capability.

3.2) Nuclear Sharing

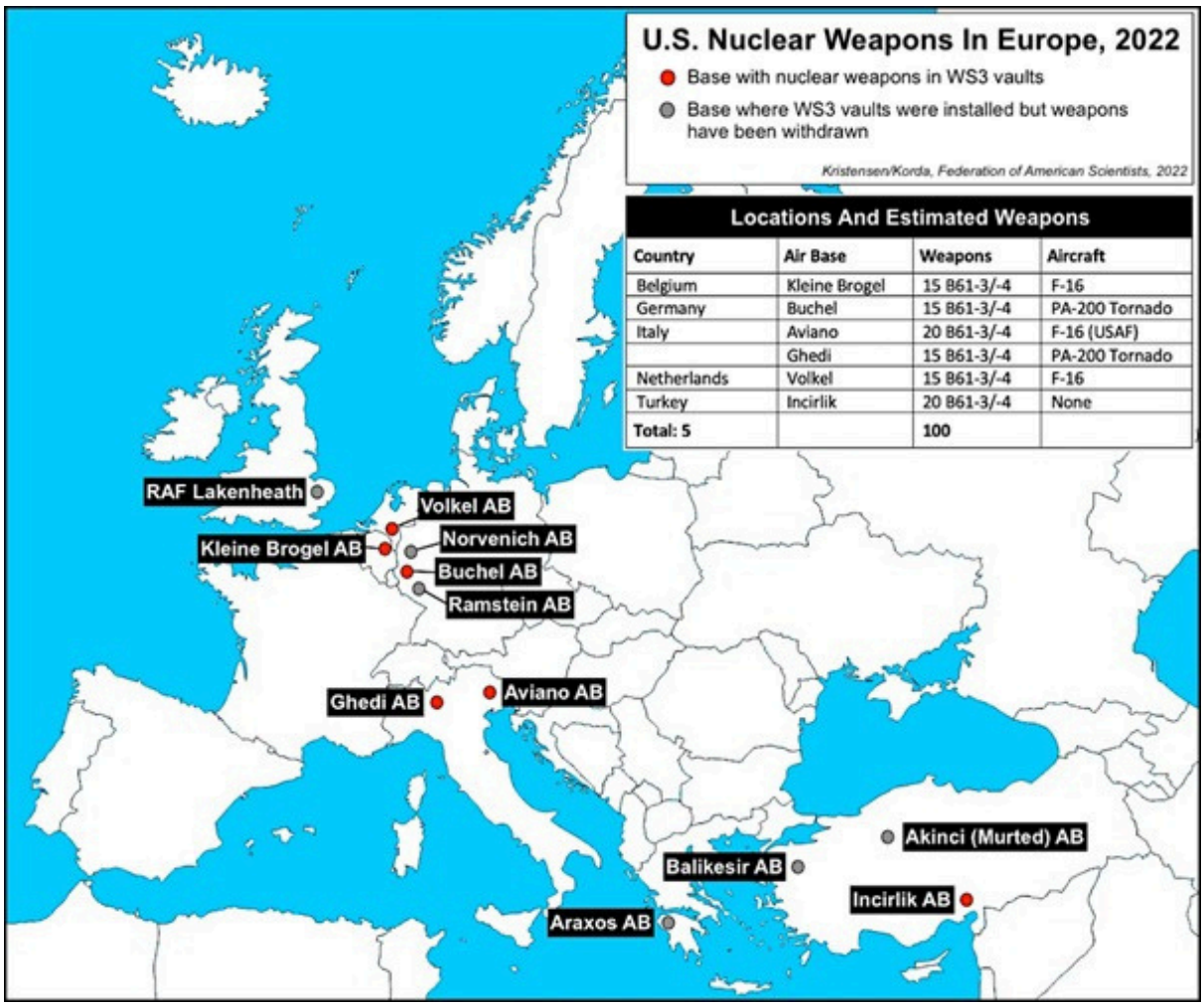
Nuclear sharing is a concept in NATO's policy of nuclear deterrence, which allows member countries without nuclear weapons of their own to participate in the planning for the use of nuclear weapons by NATO. In particular, it provides for involvement of the armed forces of those countries in delivering nuclear weapons in the event of their use.As part of nuclear sharing, the participating countries carry out consultations and make common decisions on nuclear weapons policy, maintain technical equipment (notably nuclear-capable airplanes) required for the use of nuclear weapons and store nuclear weapons on their territory. In case of war, the United States has told NATO allies the Non-Proliferation Treaty (NPT) would no longer be controlling.

In July 1953, the United States committed nuclear weapons to NATO, with the first warheads arriving in Europe in September 1954. Following the integration of nuclear weapons into NATO strategy via the approval of Military Committee 48 (MC 48), the Eisenhower administration conducted courses and training for NATO senior officers on the use of atomic weapons and began considering nuclear stockpile agreements. Concerns over the Soviet launch of the Sputnik satellite in October 1957 brought urgency to the discussions on nuclear sharing within NATO, leading to a US Joint Chiefs of Staff (JCS) proposal for NATO nuclear stockpile arrangements in December 1957. Under the agreement, the United States would maintain control and custody of the weapons, and the president possessed sole authority for their launch. However, the president could delegate authority to the NATO Supreme Allied Commander (SACEUR) to use the weapons in the case of war (US Congress 1961). The

warheads and their delivery vehicles had to remain separate and unarmed until the United States released the warheads for launch and, once released, the weapons would be under NATO control . The North Atlantic Council (NAC) agreed to the JCS proposal, which became NATO's first formal nuclear arrangement (NATO 1957). US nuclear weapons deployed to Europe were kept under US custody and control and would only be released to the user nation in a nuclear crisis. Despite US custodianship, security of the nuclear weapons was the responsibility of the user nation (US Congress 1961). After some meetings and debatesPresident Kennedy to temporarily stopped halt deployment of nuclear weapons to NATO allies until the security of those weapons was improved, and the recommendations led to the development of Permissive Action Links (PALs), a combination of an electronic code system and physical hardware placed on or within the weapons to prevent their unauthorized use (The White House 1962). At its peak in 1971, the United States deployed more than 7,000 nuclear weapons in Europe, including Belgium, Greece, Italy, the Netherlands, Turkey, the United Kingdom, and West Germany. Starting in 1991-1992, the United States withdrew all its ground-launched and naval tactical nuclear weapons from Europe, leaving 700 nuclear gravity bombs behind. The United States then consolidated many of these weapons to a smaller number of European bases; between 1985 and 1995, the number of nuclear air bases in Europe was reduced from 23 to 16. By 2000, there were 480 bombs left, a number that dropped to 180 around 2007.



Today, approximately 100 US nuclear weapons are estimated to be stored at six bases in five countries, with one additional base (RAF Lakenheath) currently undergoing modernization to potentially store nuclear weapons in the future. Each year, NATO practices its nuclear sharing arrangements in a two-week-long exercise known as "Steadfast Noon," hosted by a different NATO member state each year. The most recent iteration of the exercise, which was hosted by Belgium, involved 14 countries and up to 60 aircraft and practiced the employment of US nuclear weapons by NATO DCA.



Locations And Estimated Weapons

Country	Air Base	Weapons	Aircraft
Belgium	Kleine Brogel	15 B61-3/-4	F-16
Germany	Buchel	15 B61-3/-4	PA-200 Tornado
Italy	Aviano	20 B61-3/-4	F-16 (USAF)
	Ghedi	15 B61-3/-4	PA-200 Tornado
Netherlands	Volkel	15 B61-3/-4	F-16
Turkey	Incirlik	20 B61-3/-4	None
Total: 5		**100**	

4.0) Treaties about Nuclear Deterrence

4.1) Cold War

4.1.1) Partial Test Ban Treaty-PTBT

The Partial Test Ban Treaty (PTBT), also known as the Limited Test Ban Treaty, is an international treaty that was signed on August 5, 1963 and entered into force on October 10, 1963. The PTBT bans all nuclear explosions in three specific environments: the Earth's atmosphere, outer space, and underwater. These prohibitions were seen as necessary to reduce the global spread of radioactive fallout and the environmental and health risks associated with nuclear testing. The treaty allows for underground nuclear testing, provided that it does not result in the release of radioactive debris into the atmosphere. Underground testing is less environmentally hazardous compared to atmospheric, space, or underwater tests. The treaty was initially signed by three major nuclear powers: the United States, Soviet Union and United Kingdom. Over time more than 100 countries signed the treaty including Türkiye, Germany, Brazil, Japan and Italy. Despite the majority, France, India, and China did not sign the treaty and continued their nuclear tests. The Partial Test Ban Treaty (PTBT) of 1963 was a significant achievement in the realm of nuclear disarmament. While it did not completely halt nuclear weapons development, it was a crucial step toward reducing global radioactive pollution and fostering U.S.-Soviet cooperation during the Cold War. The treaty's legacy continues to influence modern arms control policies, highlighting the ongoing need for global efforts toward nuclear disarmament.

4.1.2) Non-Proliferation Treaty-NPT

Negotiated in the 1960s and in force since 1970, the Non-Proliferation Treaty's main aim is to stop the spread of nuclear weapons to more countries. It has been largely successful in doing that: only a few countries have acquired a nuclear capability since its negotiation. But the treaty also includes an obligation to "pursue negotiations" for nuclear disarmament. In that respect, it has been less successful, as nuclear-armed countries continue to spend tens of billions of dollars every year enhancing their nuclear arsenals, with no plans to disarm. A third element of the NPT is its promotion of the use of nuclear energy for "peaceful purposes", such as electricity generation, subject to international safeguards. The NPT does not establish an outright ban on nuclear weapons for all of the countries that have joined it, nor does it include any detailed provisions stipulating how and when disarmament should take place. Most of the world's countries have joined the NPT and are therefore legally required to abide by it. This includes five of the nine countries that possess nuclear weapons:

China, France, Russia, the United Kingdom and the United States. Their obligations under the treaty are different from the obligations of other countries. Many of the NPT's parties believe that these five countries are failing to fulfil their obligations under the treaty, as they still possess thousands of nuclear weapons between them and are not engaging in disarmament negotiations. Three countries with nuclear weapons have never joined the NPT: India, Israel and Pakistan. North Korea, which also has nuclear weapons, withdrew from the treaty in 2003.

4.1.3) Strategic Arms Limitation Treaty-SALT

SALT I

During the late 1960s, the United States learned that the Soviet Union had embarked upon a massive Intercontinental Ballistic Missile (ICBM) buildup designed to reach parity with the United States. In January 1967, President Lyndon Johnson announced that the Soviet Union had begun to construct a limited Anti-Ballistic Missile (ABM) defense system around Moscow. Johnson therefore called for strategic arms limitations talks (SALT), and in 1967, he and Soviet Premier Alexei Kosygin met at Glassboro State College in New Jersey. " While abolition of nuclear weapons would be impossible, limiting the development of both offensive and defensive strategic systems would stabilize U.S.-Soviet relations. Johnson's successor, Richard Nixon, also believed in SALT, and on November 17, 1969, the formal SALT talks began in Helsinki, Finland. Over the next two and a half years, the two sides haggled over whether or not each nation should complete their plans for ABMs; verification of a treaty; and U.S. concern that the Soviets continued to build more Submarine-Launched Ballistic Missiles (SLBMs). Nixon and Soviet General Secretary Leonid Brezhnev signed the ABM Treaty and interim SALT agreement on May 26, 1972, in Moscow. For the first time during the Cold War, the United States and Soviet Union had agreed to limit the number of nuclear missiles in their arsenals. The ABM Treaty limited strategic missile defenses to 200 interceptors each and allowed each side to construct two missile defense sites, one to protect the national capital, the other to protect one ICBM field. To promote the objectives and implementation of the Agreement, the Parties shall use the Standing Consultative Commission (SCC) established under the 1972 ABM Treaty (Article VI). The Agreement

obligated the Parties to continue active negotiations for limitations on strategic offensive arms, whose scope or terms would not be prejudiced by the obligations provided for in this Interim Agreement (Article VII). The Parties agreed that they would observe the obligations of the Agreement and would not take any action prohibited by the Agreement, as well as the ABM Treaty, pending their ratification or acceptance.

SALT II

Negotiations for a second round of SALT began in late 1972. Since SALT I did not prevent each side from enlarging their forces through the deployment of Multiple Independently Targeted Reentry Vehicles (MIRVs) onto their ICBMs and SLBMs, SALT II initially focused on limiting, and then ultimately reducing, the number of MIRVs. Negotiations also sought to prevent both sides from making qualitative breakthroughs that would again destabilize the strategic relationship. The negotiations spanned the Nixon, Gerald Ford, and Jimmy Carter administrations. At the November 1974 Vladivostok Summit, Ford and Brezhnev agreed on the basic framework of a SALT II agreement. This included a 2,400 limit on strategic nuclear delivery vehicles (ICBMs, SLBMs, and heavy bombers) for each side; a 1,320 limit on MIRV systems; a ban on new land-based ICBM launchers; and limits on deployment of new types of strategic offensive arms. Even after the Vladivostok agreements, the two nations could not resolve the two other outstanding issues from SALT I: the number of strategic bombers and the total number of warheads in each nation's arsenal. The first was complicated by the Soviet Backfire bomber, which U.S. negotiators believed could reach the United States but which the Soviets refused to include in the SALT negotiations. Meanwhile, the Soviets attempted unsuccessfully to limit American deployment of Air-Launched Cruise Missiles (ALCMs). Verification also divided the two nations, but eventually they agreed on using National Technical Means (NTM), including the collection of electronic signals known as telemetry and the use of photo-reconnaissance satellites. On June 17, 1979, Carter and Brezhnev signed the SALT II Treaty in Vienna. SALT II limited the total of both nations' nuclear forces to 2,250 delivery vehicles and placed a variety of other restrictions on deployed strategic nuclear forces, including MIRVs. On December 17, 1979, 19 Senators wrote Carter that "Ratification of a SALT II Treaty will not reverse trends in the military balance adverse to the United States." On December 25, the Soviets invaded Afghanistan, and on January 3, 1980, Carter asked the Senate not to consider SALT II for its advice and consent, and it was never ratified. Both Washington and Moscow subsequently pledged to

adhere to the agreement's terms despite its failure to enter into force. Carter's successor Ronald Reagan, a vehement critic of SALT II during the 1980 presidential campaign, agreed to abide by SALT II until its expiration on December 31, 1985, while he pursued the Strategic Arms Reduction Treaty (START) and argued that research into the Strategic Defense Initiative (SDI) adhered to the 1972 ABM Treaty.

4.1.4) Intermediate-Range Nuclear Forces Treaty-INF Treaty

The INF Treaty proved a milestone in the changingrelationship between Washington and Moscow during the 1980s. Reagan took office in 1981, at a timeof considerable concern about the ongoing Soviet military expansion, including a growing advantage in INF missile systems with the deployment of the new, multi-warhead SS-20 ballistic missile. NATO had decided in 1979 to respond to the SS-20 by deploying new U.S. INF missiles—the Pershing II ballistic missile and ground-launched cruise missile (GLCM)—to gain leverage in negotiating lower levels of Soviet INF or to address a perceived gap in the nuclear escalatory ladder if an agreement was not possible. Negotiations began in late 1981. Deployment plans and preparations proceeded in parallel with preparations for and conduct of the arms control negotiations. Negotiations resumed in 1985. Gorbachev had taken the helm in Moscow and questioned the rationale for devoting so many resources to the military, given the Soviet economy's dire situation. For his part, in his second term, Reagan showed a greater interest in concluding serious arms reductions. Over the next two years, U.S. and Soviet negotiators moved past old roadblocks, found increasing common ground, and by the end of 1987 agreed on terms for the elimination of all their INF missiles. Twenty-five years later, the INF Treaty stands as a milestone in nuclear arms control. Not only did it eliminate an entire class of nuclear missiles, it did so relatively quickly, in just three years. The treaty, moreover, applied the most innovative and intrusive verification measures that any arms control agreement to that point had seen. The INF Treaty provided for the elimination of all ground-based intermediate-range and shorter-range missile systems—that is, missiles with ranges between 500 and 5,500 kilometers—worldwide from the inventories of the two nations. As a result, the United States eliminated all of its Pershing II, GLCM, and Pershing IA missiles and launchers. The Soviet Union eliminated all of its SS-20, SS-4, SS-5, SS-12, and SS-23 missiles and launchers. The treaty set a three-year period, following entry into force, for the elimination of all the systems that were to be destroyed under its terms. The INF Treaty included what were the most detailed and intrusive verification measures ever negotiated.

Those measures included a detailed exchange of data, which among other things specified the number of missiles and launchers at each INF The treaty also established a dispute settlement regime, the Special Verification Commission (SVC), which was modeled on the earlier Standing Consultative Commission in the SALT II agreement. The SVC worked effectively in the joint settlement of compliance issues and cooperative implementation of the INF Treaty. By the end of May 1988, both sides had ratified the treaty. The U.S. Senate moved relatively quickly (for consideration of treaties), giving its consent to ratification five months after signature, despite some opposition from conservative quarters. The treaty went into force on June 1, 1988. The U.S. and Russian governments established agencies to conduct inspections and to insure that the terms of the treaty were observed. In July, the first inspections began, and the Soviets carried out their first treaty-required missile eliminations; the United States initiated its eliminations in September. By the time the treaty's reduction period ended in June 1991, the United States had eliminated 846 missiles, while the Soviet Union had eliminated 1,846.

Withdrawal of USA from INF

The US suspended its compliance with the INF Treaty on 2 February 2019 following an announcement by US Secretary of State Mike Pompeo the day prior. In a statement, Trump said there was a six-month timeline for full withdrawal and INF Treaty termination if the Russian Federation did not come back into compliance within that period. The same day, Putin announced that Russia had also suspended the INF Treaty in a 'mirror response' to Trump's decision, effective that day. The next day, Russia started work on new intermediate range (ballistic) hypersonic missiles along with land-based 3M-54 Kalibr systems (both nuclear capable) in response to the US announcing it would start to conduct research and development of weapons formerly prohibited under the treaty. Following the six-month US suspension of the INF Treaty, the Trump administration formally announced it had withdrawn from the treaty on 2 August 2019. On that day, Pompeo stated that "Russia is solely responsible for the treaty's demise".On the day of the withdrawal, the US Department of Defense announced plans to test a new type of missile that would have violated the treaty, from an eastern NATO base. The US withdrawal was backed by most of its NATO allies, citing years of Russian non-compliance with the treaty. In response to the withdrawal, Russian Deputy Foreign Minister Sergei Ryabkov invited the US and NATO "to assess the possibility of declaring the same moratorium on deploying intermediate-range and

shorter-range equipment as we have, the same moratorium Vladimir Putin declared, saying that Russia will refrain from deploying these systems when we acquire them unless the American equipment is deployed in certain regions." This moratorium request was rejected by NATO's Stoltenberg who said that it was not credible as Moscow had already deployed such warheads.

4.2) Post Cold War

4.2.1) Comprehensive Nuclear Test/Ban Treaty-CTBT

The CTBT is a multilateral treaty that bans nuclear weapons test explosions, for either civilian or military purposes. Adopted by the United Nations General Assembly in 1996, the CTBT seeks to halt the development of nuclear weapons and foster global disarmament. The Treaty sets up a global monitoring system to detect nuclear tests and provides a framework for on-site inspections. The CTBT traces its origins to the Partial Nuclear Test Ban Treaty (PTBT), signed in 1963. The PTBT emerged from growing concerns about hydrogen bombs and nuclear fallout. Although the PTBT was initially intended as a comprehensive test ban, many states, including the USSR, objected to its proposed verification methods. Despite these objections, the PTBT's implementation led to a significant decrease in atmospheric radioactive particles and set the stage for the CTBT years later. The PTBT was also cited in the formation of the NPT. Towards the end of the Cold War, several states began to reevaluate the prospect of a comprehensive test ban. After an amendment conference for the PTBT, negotiations for the CTBT began in 1993. The CTBT was then adopted by over two-thirds of the United Nations General Assembly. While 185 states have signed and 174 have ratified the CTBT, it has not yet entered into force because eight specific states have not ratified it. The CTBT represents a crucial step towards achieving a nuclear-free world. The CTBT contains two obligations as specified under Article 1. Those include: 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 or control. 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. Essentially, states have a duty to respect the prohibition of nuclear weapons test explosions, and seek out methods of preventing further incidents. As such, the CTBT is often seen as a corollary to other disarmament-adjacent efforts, including the TPNW or general fissile-material restriction treaties. A core pillar of the CTBT are its verification and

monitoring measures. These measures include a global network of seismic, hydroacoustic, infrasound, and radionuclide stations to detect nuclear explosions. Additionally, the treaty provides for on-site inspections to investigate suspicious events and mandates the use of satellite and other remote sensing technologies. This robust verification regime aims to detect and deter any nuclear testing by member states. The Preparatory Commission for the CTBT, headquartered in Vienna, strives to advance the adoption of the CTBT and prepare a global verification regime for when the treaty enters into force. As it is an interim organization, the preparatory commission will form into the CTBTO, contingent on eight key states ratifying the treaty. Those states include China, North Korea, Egypt, India, Israel, Iran, Pakistan, Russia, and the United States. Upon these states' ratification of the CTBT, the treaty will enter into force. Since the CTBT opened for signature in 1996, three countries– India, Pakistan, and North Korea– have carried out nuclear weapons tests. The CTBTO Preparatory Commission had successfully detected all of those test explosions. While the CTBT has not yet entered into force, it has successfully advanced the cause of nuclear disarmament.

4.2.2) New START Treaty

The New Strategic Arms Reduction Treaty (New START) was signed April 8, 2010, in Prague by the United States and Russia and entered into force on Feb. 5, 2011. New START replaced the 1991 START I treaty, which expired December 2009, and superseded the 2002 Strategic Offensive Reductions Treaty (SORT), which terminated when New START entered into force. New START continues the bipartisan process of verifiably reducing U.S. and Russian strategic nuclear arsenals begun by former Presidents Ronald Reagan and George H.W. Bush. New START is the first verifiable U.S.-Russian nuclear arms control treaty to take effect since START I in 1994. The United States and Russia agreed on Feb. 3, 2021, to extend New START by five years, as allowed by the treaty text, until Feb. 5, 2026. On Feb. 21, 2023, Russia announced it was suspending implementation of New START.

New START's Key Provisions Nuclear warhead limit: Seven years after entry into force (Feb. 5, 2018), New START limits went into effect that capped accountable deployed strategic nuclear warheads and bombs at 1,550, down approximately 30 percent from the 2,200 limit set by SORT and down 74 percent from the START-accountable limit of 6,000. Each heavy bomber is counted as one warhead. Missile, bomber and launcher limits: Deployed intercontinental ballistic missiles (ICBMs), submarine-launched ballistic missiles (SLBMs), and heavy bombers assigned to nuclear missions are limited to 700. Deployed and

non-deployed ICBM launchers, SLBM launchers, and bombers are limited to 800. This number includes test launchers and bombers and Trident submarines in overhaul and is approximately a 50 percent reduction from the 1,600 launcher-limit set under START (SORT did not cover launchers). The 800 ceiling is intended to limit the ability for “break out” of the treaty by preventing either side from retaining large numbers of non-deployed launchers and bombers. New START does not limit the number of non-deployed ICBMs and SLBMs, but it does monitor them and provide for continuous information on their locations and on-site inspections to confirm that they are not added to the deployed force. Non-deployed missiles must be located at specified facilities away from deployment sites and labeled with “unique identifiers” to reduce concerns about hidden missile stocks. Moreover, the strategic significance of non-deployed missiles is reduced given that non-deployed launchers are limited. Both sides agreed under the treaty to prohibit systems designed for “rapid reload” of non-deployed missiles (Fifth Agreed Statement).

4.2.3) Treaty on Prohibition of Nuclear Weapons-TPNW

By resolution 71/258, the General Assembly decided to convene in 2017 a United Nations conference to negotiate a legally binding instrument to prohibit nuclear weapons, leading towards their total elimination. The Assembly encouraged all Member States to participate in the Conference, with the participation and contribution of international organizations and civil society representatives. The Conference took place from 27 to 31 March and from 15 June to 7 July in New York. The Treaty on the Prohibition of Nuclear Weapons (TPNW) includes a comprehensive set of prohibitions on participating in any nuclear weapon activities. These include undertakings not to develop, test, produce, acquire, possess, stockpile, use or threaten to use nuclear weapons. The Treaty also prohibits the deployment of nuclear weapons on national territory and the provision of assistance to any State in the conduct of prohibited activities. States parties will be obliged to prevent and suppress any activity prohibited under the TPNW undertaken by persons or on territory under its jurisdiction or control. The Treaty also obliges States parties to provide adequate assistance to individuals affected by the use or testing of nuclear weapons, as well as to take necessary and appropriate measures of environmental remediation in areas under its jurisdiction or control contaminated as a result of activities related to the testing or use of nuclear weapons. The Treaty on the Prohibition of Nuclear Weapons was adopted by the Conference (by a vote of 122 States in favour, with one vote against and one abstention) at the United Nations on 7

July 2017, and opened for signature on 20 September 2017. Following the deposit with the Secretary-General of the 50th instrument of ratification or accession of the Treaty on 24 October 2020, it entered into force on 22 January 2021 in accordance with its article 15 (1).

5.0) Challenges

5.1) Nuclear Bombs on Japan

The Manhattan Project, created by the United States with the support of the United Kingdom and Canada, was a top-secret World War II programme spurred by the fear that the German government under Adolf Hitler had been working on a new type of weapon that utilised nuclear technology. In the hopes of creating such a weapon faster, a deadly endeavour began, eventually leading to the development of two types of atomic bombs: a uranium-based design called Little Boy and a plutonium-based weapon called Fat Man. On 16 July 1945, as a part of the Manhattan Project, the world's first nuclear weapon was successfully detonated, testing an implosion-design plutonium device, nicknamed the Gadget. Known as the Trinity Test, this explosion created a gigantic mushroom cloud approximately 12 kilometres high. Witnessing the fiery blast, Oppenheimer famously quoted a piece of Hindu scripture: "Now I am become Death, the destroyer of worlds." He was not wrong; this test ushered in the atomic age, triggering a nuclear arms race that ultimately resulted in more than 2,000 nuclear tests being conducted at more than 60 sites around the world. At 8.15 on the morning of 6th August 1945, the Japanese city of Hiroshima was devastated by the first atomic bomb to be used as a weapon of war. The bomb, nicknamed `Little Boy', was dropped from the USAAF B29 bomber `Enola Gay' and exploded some 1,800 feet above the city. Delivering the equivalent of around 12.5 kilotons of TNT, the bomb reduced 5 square miles of the city centre to ashes and caused the deaths of an estimated 120,000 people within the first four days following the blast. Many were instantly vaporized by the explosion, others died afterwards from the effects of burns and radiation. Three days later, just after 11 on the morning of 9th August, a second atomic bomb nicknamed `Fat Man' exploded above the city of Nagasaki. Although it was even more powerful than `Little Boy', the destruction caused by this bomb was less than at Hiroshima due to the nature of the terrain (the original target had been the city of Kokura, but the B29 carrying the bomb had been diverted to Nagasaki because of heavy cloud cover). Nonetheless, over 2 square miles of the city were pulverised and some 73,000 people killed. The two atomic explosions had the effects desired by the Allies. On 10th August the Japanese government indicated its readiness to accept defeat,

subject to certain conditions. On 14th August it finally accepted the demand for unconditional surrender. The following day was declared `Victory over Japan' or VJ Day, although it was not until 2nd September that the final Japanese surrender was signed, thereby bringing the Second World War to a formal close. Why had the Allied powers considered it necessary to inflict such unprecedented destruction on Japanese civilians in order to bring the war to an end? At the Potsdam Conference (17th July – 2nd August 1945) the Allies formulated their terms for ending the war with Japan, which centred on that country's acceptance of unconditional surrender, as had been the case with Nazi Germany in May. However, the Allies were also aware that whilst the Japanese Emperor Hirohito desired an end to hostilities, and would probably accept the unconditional capitulation demanded, the `hawks' of the Japanese military and civilian leadership were totally opposed to such a humiliating condition and were ready to fight to the finish – whatever that might look like.

Pilot Paul Tibbets: "We turned back to look at Hiroshima. The city was hidden by that awful cloud... boiling up, mushrooming, terrible and incredibly tall. No one spoke for a moment; then everyone was talking. I remember (copilot Robert) Lewis pounding my shoulder, saying 'Look at that! Look at that! Look at that!' (Bombardier) Tom Ferebee wondered about whether radioactivity would make us all sterile. Lewis said he could taste atomic fission. He said it tasted like lead." After the explosion of the nuclear bomb on Hiroshima.

5.2) Cuban Missile Crisis

The Cuban Missile Crisis of October 1962 served as a pivotal moment in Cold War history. Several events precipitated the crisis. First, the United States placed medium-range ballistic nuclear missiles at bases in Turkey, which threatened the Soviet Union. Second, communist revolutionary Fidel Castro overthrew the government of Cuba in 1959. Third, the United States government backed a failed invasion of Cuba in April 1961 at the Bay of Pigs. After the failure at the Bay of Pigs, Soviet Premier Nikita Khrushchev, frustrated at the inability of the Soviet Union to match the nuclear arsenal of the United States and upset by the presence of nuclear missiles in Turkey, decided to increase Soviet military support to Cuba to place pressure on the United States. In addition to bolstering the Castro regime, in August 1962 Khrushchev sought to equalize the strategic balance by building intermediate range and medium range ballistic missile sites in Cuba. To prove the construction in Cuba, Strategic Air Command (SAC) tasked two officers from the 4080th Strategic Wing, Majors Richard S. Heyser and Rudolf Anderson, Jr., to fly U-2 reconnaissance aircraft over Cuba to verify the

presence of the missile sites. The two aircraft flew over Cuba on October 14 and 15, 1962, and photographs taken from the flights confirmed their construction. On 22nd of october President John F. Kennedy made a speech to the American nation. With tensions mounting, President John F. Kennedy, Khrushchev, and their diplomatic and political advisors maneuvered to resolve the crisis. Kennedy sought the removal of all missiles from Cuba. While he privately did not believe a nuclear strike against Cuba was likely because of Soviet retaliation, Kennedy did support a conventional air attack and invasion of the island nation should the Soviets fail to remove the missiles. While the world hovered on the brink of nuclear war for nearly two weeks, Khrushchev finally promised to remove the missiles if the United States would lift the blockade and pledge not to invade Cuba. He then raised the stakes by demanding the United States remove its nuclear-armed PGM-19 Jupiter missiles from Turkey. After much debate, Attorney General Robert F. Kennedy met with Soviet Ambassador Anatoly Dobrynin and promised to remove the missiles from Turkey. The Soviets accepted the offer and soon began shipping the missiles back to the Soviet Union, bringing the crisis to an end.

5.3) Able Archer 83

At the height of the Cold War, the Soviets designed an early-warning radar system meant to track fast-moving threats to increase the chance of reprisal. On September 26, 1983, however, the system, code-named Oko, malfunctioned. At around midnight, Oko's alarms rang out, alerting the base of one incoming nuclear missile. The screen read, "LAUNCH," which was not a warning, but an automatic order to prepare for retaliation. Believing that a U.S. intercontinental ballistic missile (ICBM) was incoming, the base went into a panic. However, some officers on duty were skeptical that the United States would choose to send only one ICBM, knowing that it could not affect the Soviets' counter-strike capability. Stanislov Petrov, an officer that helped create the code for the early-warning software, also knew that Oko was prone to error. He reset the system, but the alarms persisted. Rather than following

protocol, which entailed alerting superiors up the chain of command, Petrov awaited corroborating evidence. No evidence came, and the alarms soon stopped. Petrov's actions, or inaction, almost certainly averted a nuclear disaster. Just 11 days later, NATO forces in Brussels took part in a joint military exercise that simulated a response to a hypothetical Soviet nuclear attack. The exercise was code-named Able Archer 83. The primary purpose of the exercise was to test the command-and-control procedures for NATO's nuclear forces in the event of a global crisis. Unlike previous wargames, however, Able Archer 83 featured new elements specifically meant to confuse and disorient the Soviets. KGB observers alerted Moscow of the unusual activity, and paranoia set in. Working off dubious intelligence that a NATO offensive against the U.S.S.R. could be cloaked under the guise of a military exercise, the Soviets began preparations for a large-scale retaliation. Then Soviet leader Yuri Andropov mobilized entire military divisions, transported nuclear weapons to their launch sites, and scrambled a fleet of bombers carrying nuclear warheads. Military command handed Andropov the nuclear briefcase, known in Russia as the "cheget." Leonard Perroots, a high-ranking intelligence officer for the U.S. Air Force stationed in Europe, observed that the Soviets were responding as though the exercise was real. In what the Foreign Intelligence Advisory Board has called a "fortuitous, if ill informed" decision, Perroots did not reciprocate by raising western asset alert levels. Instead, he waited. The Soviets eventually realized that the exercise was not a surprise attack and aborted their planned response.

6.0) Historical Background 2

6.1) 1973 Oil Crisis

Arab oil embargo, temporary cessation of oil shipments from the Middle East to the United States, the Netherlands, Portugal, Rhodesia, and South Africa, imposed by oil-producing Arab countries in October 1973 in retaliation for support of Israel during the Yom Kippur War; the embargo on the United States was lifted in March 1974, though the embargo on the other countries remained in place for some time afterward. The Arab oil embargo was the first oil crisis, an oil-supply disruption leading to major price increases and a worldwide energy crisis. The embargo caused the United States and western European countries to reassess their dependence upon Middle Eastern oil. It also led to far-reaching changes in domestic energy policy, including increased domestic oil production in the United States and

a greater emphasis on improving energy efficiency. On October 6, 1973, Egypt and Syria launched a surprise attack against Israel on the Jewish holy day of Yom Kippur. Egyptian and Syrian forces made early gains across the Suez Canal and Golan Heights, but Israel quickly turned the tide, and within a few weeks Israeli troops had pushed forward into Egyptian and Syrian territory. In an attempt to pressure Western countries to force Israel to withdraw from seized lands, Arab members of OPEC (Organization of the Petroleum Exporting Countries) announced sharp production cuts and then banned the sale of oil to the United States and the Netherlands. Until that time, OPEC, which was formed in 1960, had kept a relatively low profile, mainly negotiating with international oil companies for better terms for member countries. Enmity toward the United States among OPEC members had risen in the years preceding the embargo as a result of actions taken by U.S. President Richard M. Nixon to boost the sluggish American economy. For example, Nixon ordered the release of the dollar from the gold standard, which had been in place since the end of World War II. The resulting devaluation of the currency led to financial losses on the part of oil-producing countries, whose revenues consisted largely of U.S. dollars. Enormous increases in Western oil consumption—more than doubling over approximately the preceding 25 years—also contributed to the severity of the crisis, as people in the developed world had become accustomed to cheap gasoline and relatively stable prices. After the imposition of the embargo, the price of a barrel of oil quadrupled by 1974. As a result, the United States experienced its first fuel shortage and first significant increase in gasoline prices since World War II. In response to the embargo, the U.S. government imposed fuel rationing and lowered speed limits to reduce consumption. Nixon seriously considered military action to seize oil fields in Saudi Arabia, Kuwait, and Abu Dhabi as a last resort. However, negotiations in Washington, D.C., led to the lifting of the embargo in March 1974.

The effects of the embargo were immediate. OPEC forced oil companies to increase payments drastically. The price of oil quadrupled by 1974 from US$3 to nearly US$12 per 42 gallon barrel. Saudi Arabia had 25% of the world's oil, but only 4% of the oil used in the United States in 1973 came from the kingdom. However, Saudi Arabia plays an over-sized role within the Arab world, and as a Beirut oil consultant noted in 1974: "If Saudi Arabia moves from A to B, then every other oil producer must move at least as far, if not to C." In 1973, about 25% of the oil used in the United States came from Arab countries. The mere shortage of oil caused by the Arab oil embargo within the United States forced prices to raise, which in turn led prices to rise everywhere all over the world as oil producers that had not

joined the embargo such as Iran, Venezuela, Libya and Iraq demanded higher prices in Japan and Europe as an initiative to ship oil to those places instead of the United States, thus settling off a worldwide inflationary spiral. The only European nations subject to the oil embargo were the Netherlands and Portugal, but the shortage of oil in the United States led to sharp price rises in all of the European nations. Some of the nations that were classified as "friendly" to the Arab viewpoint in regards to the Arab-Israeli dispute such as France and Belgium were the ones who suffered the most from the worldwide inflation caused by the embargo. Western Europe began switching from pro-Israel to more pro-Arab policies. The US, which imported only 12% of its oil from the Middle East (compared with 80% for the Europeans and over 90% for Japan), remained staunchly committed to Israel. With the embargo in place, many developed countries altered their policies regarding the Arab-Israeli conflict. These included the UK, which refused to allow the United States to use British bases and Cyprus to airlift resupplies to Israel, along with the rest of the members of the European Community. Canada shifted towards a more pro-Arab position after displeasure was expressed towards Canada's mostly neutral position. "On the other hand, after the embargo the Canadian government moved quickly indeed toward the Arab position, despite its low dependence on Middle Eastern oil".

6.2) Estonia Cyber Attack

Estonia has been subject to an unprecedented amount of coordinated “cyber violence” against public administration and private sector documents in 2007. The cyber attacks, which mainly included denial of service (DoS) and distributed denial of service (DDoS) attacks, were triggered by the decision to relocate the Soviet World War II risk in Tallinn’s universal Tõnismägi Park to the Tallinn Central Cemetery. Estonian government institutions, banks, media outlets and private corporate websites were targeted. During the attacks, data transfer targeting non-Estonian and government institutions was 30 times greater than normal data transfer. Although the intensity or targeting of the attacks was not completely unprecedented, the scope, quantity, duration of the combined attacks and the style of coordination used, the administrative experience of any single nation, were incomparable. As a result, these cyber attacks quickly attracted worldwide attention. The attacks began on 27 April 2007 and ended on 18 May 2007 after a three-week follow-up flight. This first significant cyber attack, although disrupting normal life and causing economic costs for Estonia, was never intended to cause irreversible or permanent damage. It has been shown that cyber systems can effectively be used to monitor and monitor data such as financial transfers, news, and e-mail.

The cyber attacks have been an example of how isolation can be initiated without warning and how maneuvers can be completed. Estonia has become the first nation to be subjected to a large-scale DDoS attack, widely referred to in the media as “cyber warfare” and described by the Estonian President as the “First Web War”. The attacks have ignited a series of policy commitments, ranging from the legal regulations designed to make Estonia's networks more secure to the Cyber Security Strategy and Cyber Defense League. The attacks have drawn strong attention to the increasing international expansion of politically motivated and systematic cyberattacks on nation-states and modern information societies in general, which are increasingly dependent on information technology.

The online communication channels between the government and Estonians were temporarily disabled. Given that important public services can only be accessed online, the lack of access to these services had a “noticeable impact” for many people. The flow of information to other countries was also significantly hindered due to the congestion of legitimate internet traffic. Since cyberattacks do not constitute an overt military operation for NATO, the attacks meant that NATO allies were not obliged to respond. Although the impact of these coordinated online protests on business, government and society was noticeable, they did not have devastating consequences. The most important long-term outcome of this incident was that NATO established the Cooperative Cyber Defence Centre of Excellence (CCDCoE) in Tallinn as a permanent unit, at the initiative of Estonia. Estonia: NATO's failure to respond adequately to cyberattacks has had another significant impact, transforming the CCDCoE into a critically important center. This has brought Estonia closer to the EU (European Union), the United States (United States of America) and NATO. In the face of cyber attacks, the international community, with the desire to bring order to these extremely complex legal issues, has for the first time comprehensively addressed cyber operations and cyber warfare and has prepared guides to contribute to international law studies. An International Expert Group of approximately twenty people has examined how existing international legal norms can be applied to this new form of warfare and as a result of a three-year effort, the Tallinn Handbook of International Law Applied to Cyber Warfare (Tallinn Handbook), which is not an official document, has been prepared (CCDCOE, 2013). Although the Tallinn Handbook is not an official NATO set of standards, it is an important guide for situations that may arise in cyberspace. This guide takes existing international norms of armed conflict, such as the 1868 Petersburg Declaration and the 1949 Geneva Conventions, and applies them to cyberspace. After the publication of this book, countries such as Russia, aware of the need for new laws

in this area, have stated that the document will completely legitimize the concept of cyber warfare. The first version of the Tallinn Manual, prepared in 2013 (Tallinn 1.0), defines the principles of international law applicable to cyber warfare, lists 95 strict rules governing such conflicts, and provides comprehensive explanations for each rule. The second version of the Tallinn Manual (Tallinn 2.0) was published in 2017, expanding on the highly influential first edition. Tallinn 2.0 expands on malicious cyber activities that do not amount to acts of war, and defines 154 strict rules for addressing such events, and provides detailed explanations for each. Tallinn 2.0 includes informal contributions from expert authors, many states, and more than 50 peer reviewers. Briefly, with this incident, it became clear how important the cyber defense of critical systems such as energy infrastructure is.

6.3) Colonial Pipeline Attack

On May 7, 2021, Colonial Pipeline, an American oil pipeline system that originates in Houston, Texas, and carries gasoline and jet fuel mainly to the Southeastern United States, suffered a ransomware cyberattack that afflicted computerized equipment managing the pipeline.The Colonial Pipeline Company halted all pipeline operations to contain the attack. Overseen by the FBI, the company paid the amount that was asked by the hacker group (75 bitcoin or $4.4 million USD) within several hours; upon receipt of the ransom, an IT tool was provided to the Colonial Pipeline Company by DarkSide to restore the system. However, the tool required a very long processing time to restore the system to a working state. The Federal Motor Carrier Safety Administration issued a regional emergency declaration for 17 states and Washington, D.C., to keep fuel supply lines open on May 9. It was the largest cyberattack on an oil infrastructure target in the history of the United States. The FBI and various media sources identified the criminal hacking group DarkSide as the responsible party.The same group is believed to have stolen 100 gigabytes of data from company servers the day before the malware attack. On June 7, the Department of Justice announced that it had recovered 63.7 of the bitcoins (about 84% of the original payment) from the ransom payment, but due to a crash in the value of Bitcoin in late May, the recovered bitcoins were worth only around $2.3 million USD roughly half of their original value.

Ransom and Recovery Costs. Although the Department of Justice (DOJ) managed to recover most of the bitcoin used in the ransom payment, the change in value (combined with the

unrecovered bitcoins) resulted in a significant financial loss. Additionally, the company experienced a multi-day shutdown of its pipeline, which resulted in a substantial business interruption and loss of income. The company also likely incurred expenses when it hired a security firm to investigate and respond to the cyberattack. Other expenses typically involved in these situations include public relations and crisis management costs, as well as the costs of replacing damaged hardware or software while strengthening cybersecurity. Implementing these updates can also contribute to productivity losses as system changes occur.

Reputational Damage. Colonial Pipeline's decision to pay the ransom was met with scrutiny as the FBI encourages organizations not to make such payments. The bureau notes that paying a ransom does not guarantee the return of the data and that paying it can incentivize malicious actors to continually engage in this illicit behavior. The ransom may also be used to fund criminal activities. Additionally, the cyberattack and subsequent pipeline shutdown resulted in a significant disruption of services widely covered by the media, ultimately damaging the company's public perception. These long-term reputational effects can substantially damage consumers' and partners' trust in a business and its commitment to cybersecurity.

Legal Ramifications. Shortly after the cyberattack, plaintiffs in a class action lawsuit sued Colonial Pipeline for negligence. The complaint stated the incident negatively impacted over 11,000 fuel retailers. Another lawsuit brought several allegations, including negligence, unjust enrichment and consumer protection law violations. A third lawsuit claimed personally identifiable information had been exposed in the incident.

6.4) Annexation of Crimea and Russian-Ukrainian War

Annexation of Crimea

The annexation of Crimea by Russia in 2014 and the Russo-Ukrainian War that began in 2022 have had major impacts not only on regional security and political equations, but also on global energy security. These events have accelerated Russia's use of energy resources as a tool, the damage to Ukraine's energy infrastructure, and the strategic changes Europe has made towards energy independence. Both the annexation of Crimea and the ongoing war have had profound effects on energy supply, supply lines, and energy markets. Crimea is a very important region for Russia due to its strategic location in the Black Sea. The annexation of Crimea is not only a military strategic gain, but also of great importance in terms of

energy. Although Crimea is not a region with natural gas and oil deposits, it is in a position where it controls the energy transit routes in the Black Sea. By taking control of this region, Russia has increased its access to energy resources in the Black Sea and its ability to transport these resources to regions dependent on foreign sources. The annexation of Crimea has caused significant damage to Ukraine's energy infrastructure. In particular, it has had direct effects on Crimea's electricity and water supply, and Ukraine's connection to the eastern regions. Russia's deactivation of Ukraine's infrastructure in order to provide energy to Crimea after the annexation has threatened Ukraine's internal energy security. After the annexation of Crimea, Russia's energy investments in Crimea have increased, and the energy infrastructure in this region has been rapidly strengthened. However, Ukraine's energy supply has been severely weakened, and Crimea has experienced problems with electricity and water supplies. Immediately after the annexation in 2014, significant uncertainty arose over Russia's natural gas supply. The annexation of Crimea also threatened the security of natural gas pipelines that run through Ukraine to Europe. Ukraine has begun to seek alternative energy routes to safely route Russian energy supplies.

2022 Russian-Ukrainian War

With the outbreak of war in 2022, Russia began using Ukraine's energy infrastructure as a strategic target. Power plants, natural gas pipelines, and energy transmission lines have become some of the critical infrastructure areas targeted by Russia. Since the beginning of the war, Russia has targeted Ukraine's energy infrastructure, attempting to both cut off energy supplies within Ukraine and take various military actions to block the flow of energy to Europe. The Russo-Ukrainian War has led to a global increase in natural gas and oil prices. This increase has made it even more difficult for Europe, in particular, to secure its energy supply. Russia's restriction of natural gas supplies has accelerated Europe's search for alternative supply sources, particularly bringing LNG (liquefied natural gas) imports and renewable energy investments to the agenda. Russia's energy resources have played a more strategic role in the global market as the war continues. Russia, in particular, uses the energy dependency of some countries in Europe to its advantage, exerting economic pressure by cutting or limiting their energy supplies. This has prompted a rapid shift towards Europe's energy independence, and new policies have been developed for secure energy supply with renewable and alternative energy sources. In the later stages of the war, damage to Ukraine's energy infrastructure has increased. Ukraine has jeopardized not only its domestic supply, but

also its energy supply to Europe. Pipelines and power transmission lines to Europe have been constantly targeted by the effects of the war, threatening Europe's energy security. NATO has taken various strategic aid and support measures to reduce damage to Ukraine's energy infrastructure. In addition, NATO members and other international actors have provided various forms of assistance to Ukraine to ensure its energy security. This assistance has helped rebuild Ukraine's energy infrastructure and strengthen its supply lines.

7.0) Conflict Resolution

Conflict resolution is conceptualized as the methods and processes involved in facilitating the peaceful ending of conflict and retribution. Committed group members attempt to resolve group conflicts by actively communicating information about their conflicting motives or ideologies to the rest of the group (e.g., intentions; reasons for holding certain beliefs) and by engaging in collective negotiation. Dimensions of resolution typically parallel the dimensions of conflict in the way the conflict is processed. Cognitive resolution is the way disputants understand and view the conflict, with beliefs, perspectives, understandings and attitudes. Emotional resolution is in the way disputants feel about a conflict, the emotional energy. Behavioral resolution is reflective of how the disputants act, their behavior. Ultimately a wide range of methods and procedures for addressing conflict exist, including negotiation, mediation, mediation-arbitration, diplomacy, and creative peacebuilding.

Dispute resolution is conflict resolution limited to law, such as arbitration and litigation processes. The concept of conflict resolution can be thought to encompass the use of nonviolent resistance measures by conflicted parties in an attempt to promote effective resolution.

7.1) Conflict Resolution Mechanisms

One theory discussed within the field of peace and conflict studies is conflict resolution mechanisms: independent procedures in which the conflicting parties can have confidence. They can be formal or informal arrangements with the intention of resolving the conflict. In *Understanding Conflict Resolution* Wallensteen draws from the works of Lewis A. Coser, Johan Galtung and Thomas Schelling, and presents seven distinct theoretical mechanisms for conflict resolutions:

1. A *shift in priorities* for one of the conflicting parties. While it is rare that a party completely changes its basic positions, it can display a shift into what it gives highest priority. In such an instance new possibilities for conflict resolutions may arise.
2. The contested resource is *divided.* In essence, this means both conflicting parties display some extent of shift in priorities which then opens up for some form of "meeting the other side halfway" agreement.
3. *Horse-trading* between the conflicting parties. This means that one side gets all of its demands met on one issue, while the other side gets all of its demands met on another issue.
4. The parties decide to *share control*, and rule together over the contested resource. It could be permanent, or a temporary arrangement for a transition period that, when over, has led to a transcendence of the conflict.
5. The parties agree to *leave control to someone else*. In this mechanism the primary parties agree, or accept, that a third party takes control over the contested resource.
6. The parties resort to *conflict resolution mechanisms*, notably arbitration or other legal procedures. This means finding a procedure for resolving the conflict through some of the previously mentioned five ways, but with the added quality that it is done through a process outside of the parties' immediate control.
7. Some issues can be *left for later*. The argument for this is that political conditions and popular attitudes can change, and some issues can gain from being delayed, as their significance may pale with time.

Here is a list of organizations that you could cooperate with while international mediation:

- *Mediators Beyond Border International (MBBI)*
- *The Union of International Associations*
- *Search for Common Ground (SFCG)*

8.0) Questions To be Addressed

- What is the current role of nuclear deterrence in NATO's collective defense strategy?
- How can NATO ensure credible deterrence without escalating global nuclear tensions?
- Should NATO modernize its nuclear arsenal or focus on arms control and disarmament?
- What are the strategic implications of nuclear sharing among NATO allies?
- How can NATO members without nuclear weapons contribute to the Alliance's nuclear posture?
- What lessons can be learned from Cold War-era nuclear crises such as the Cuban Missile Crisis or Able Archer 83?
- What should be NATO's position on treaties such as the NPT, CTBT, and New START in the context of deterrence?
- How should NATO address the nuclear threat posed by non-member states like Russia, China, North Korea, and Iran?
- Can nuclear deterrence remain effective in an era of asymmetric warfare and hybrid threats?
- How should NATO define energy security as part of its overall strategic concept?
- How can NATO balance disparities in energy supply security among its member states?
- What role should NATO play in securing critical energy infrastructure from both physical and cyber threats?
- How can NATO support its members in diversifying energy sources and reducing dependency on hostile actors?
- How has the 2022 Russia–Ukraine war reshaped NATO's approach to energy security?
- What collective response mechanisms should NATO develop to manage energy crises caused by geopolitical tensions?
- Can NATO intervene in energy-related security threats without violating the sovereignty of its members or partners?
- What kind of partnerships should NATO pursue with energy-producing nations and international organizations to enhance resilience?

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