

ST. ANDREW'S JUNIOR COLLEGE
HISTORY: PAPER 3 (INTERNATIONAL HISTORY, 1945-1991)
THE NUCLEAR ARMS RACE, 1945-1991
LECTURE 2: NUCLEAR ARMS CONTROL

- I. Introduction
- II. Moves towards Control: The 1963 Test Ban Treaty & The 1968 Nuclear Non-Proliferation Treaty
- III. The SALT Treaties
- IV. The INF Treaty
- V. Conclusion

- questy:
- ① evaluate reasons, sig of treaties
 - ② How does international impact on these treaties & arms control.

I. Introduction

- The superpowers, in perpetuating the nuclear arms race, also sought to control the escalation of arms. This resulted in the signing of some treaties which set limits on the nuclear forces of both countries.
- While these treaties may be significant by themselves in the short run, their abilities to control and curb the arms race seemed limited if viewed from a larger perspective. More importantly, these treaties signify a change in the relationship between the two superpowers. It should be noted that these nuclear arms control treaties were largely bilateral in nature.

China, France & Great Britain do have nuclear arms.

largely sign by 2 ctry eg. USA & USSR.

In this lecture, you will learn:

- (a) Some of the nuclear arms control treaties
- (b) Evaluation of the treaties

SALT I - highlight of detente
- yet there's negligence w/ probs of verification since USSR did not allow inspecty.

II. Moves towards Control: The 1963 Test Ban Treaty & The 1968 Nuclear Non-Proliferation Treaty

→ juz show there's greater awareness. To prepare us 4 SALT treaties.

- The move towards arms control also found its roots in the Nuclear Conversation between USA and USSR in the 1950s. These nuclear conversations took place as a result of growing concern during this time of the consequences of atomic testing in the atmosphere. This

talkg more abt nuclear energy & nuclear weapons.

→ quabbel over inspecty.

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was brought to international attention when the fall out from an American test in the Pacific contaminated some islanders and crew members of a Japanese fishing boat. ^{killed}

This led to the formation of a disarmament subcommittee in the UN to compile proposals by East and West. While nothing concrete came out of this and tests continued to multiply, at least both sides felt the pressure to appease the public.

- There were some attempts to cease nuclear testing in the 1958 when both sides started on talks for a general test ban treaty. Both governments came under a fair bit of domestic pressure to continue its tests. There was a breakthrough after the Cuban Missile Crisis and an agreement was reached. This led to the signing of the Nuclear Test Ban Treaty where the signatories foreswore atmospheric testing.

↳ they test it underground

- The 1963 Test Ban Treaty was a very significant postwar arms agreement simply because it removed a source of radioactive fall out which was very harmful.

But the treaty did not stop the arms race. In fact, some countries like China and France went ahead with atmospheric testing until they felt that their weapons were sufficiently developed.

One major problem was that of inspection. Most countries were quite willing for external inspection and verification and this made the ban difficult to adhere to. Many of the testing simply went underground.

As the main proponents of the treaty, USA, USSR and UK gained status as chief nuclear powers and it was a status they were keen to maintain. This distaste for further nuclear proliferation led to strained relations between USA and the French, and more importantly, USSR and China. It also led to the pursuit of a non-proliferation treaty to ensure that nuclear weapons are kept in existing hands. During this time, atomic energy was becoming an attractive source of energy and there was a need to ensure that countries do not turn this source of energy into nuclear weapons.

↳ is it still in use now?

- Thus in 1968, the Nuclear-Non Proliferation Treaty was signed and ratified by 131 states. Inspection was to be conducted by the International Atomic Energy Agency (IAEA). While the treaty did not stop some

. defn of safe is # Nuclear arms shd not spread 2 those who does not hold these weapons. who ctry.

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countries from trying to develop nuclear weapons, it was still significant because it continued the habit of East-West nuclear negotiation. Such negotiation was reinforced by other UN-sponsored treaties like "Principles of the Exploration and Use of Outer Space."

III. The SALT Treaties

SALT I

- The signing of the Test Ban and the Non-Proliferation Treaties did not prevent both USA and USSR from developing and stockpiling nuclear weapons.
- There was a ^{velv:} continued growth in nuclear weapons, particularly "strategic weapons". These were weapons which possessed a long-range capacity of hitting the enemy's territory (eg: ICBMs)
- Although the Cuban Missile Crisis brought about the easing of tensions between East and West and a temporary slowing of the arms race, the Soviets were eventually even more determined to catch up with the West because they perceived themselves to be at a disadvantage. USSR launched into an aggressive program of rearmament.
- By the mid 1960s, the West was under the impression that USSR had attained nuclear parity and that the missile gap was closing.
- Gradually, both sides decided that they needed to do something about the escalation of the arms race. Why was there this change in attitude? Simply put, both sides had something to gain by negotiating.
- Firstly, the escalation of the arms race was a threat to the American idea of **MAD** (mutual assured destruction). Part of the American strategic thinking involved military experts coming up with calculations involving a scenario of a future war and how much nuclear weapons was needed not only to absorb a surprise "first strike" by the enemy, but also to allow retaliation with a "second strike" that would inflict massive damage upon the aggressor's population and industry. Ironically, the idea of a nuclear war was thought to diminish as each superpower became

but made S.U. worried they are lagging behind.

Both side think they can benefit from arms control

what if S.U attacks USA? + survive 1st strike [1st try to hit other 1st]

→ Global holocaust of mutual destructⁿ.

so powerful that full-scale conflict between them would be suicidal because it would lead to a global holocaust of MAD. ^{a deterrent to Nuclear war.}

Reassurance that MAD would "deter" the superpowers from starting a war was undermined by the development of a new weapons system consisting of anti-ballistic missile (ABM) that were designed to intercept and destroy incoming enemy missiles. ^{Although it was developed as a purely defensive weapon, the ABM, theoretically, made it possible for one side to win a nuclear war.} ^{g. U can prevent destructⁿ (defensive) - may allow S.U to win Nuclear war} How? You can now launch a "first strike" against your enemy, knowing that your ABM defences would limit the damage which would be incurred from a retaliatory "second strike". ^{USA did not have ABM till 1970s.}

The Soviets first came out with the ABM system in the mid 1960s. The Americans had theirs by the early 1970s.

- Secondly, the continued escalation of the arms race was ^{way to expensive.} costly and resulted in less rather than more security. During this time, the Soviet economy was slowing. ^{Agriculture crisis.} The Americans were also involved in a costly war in Vietnam and was giving aid to other countries. Likewise, the Soviets were engaged in Third World entanglements.

Increasingly, on the part of the Americans, there was a growing recognition that it was more economically and strategically sensible to seek Nuclear sufficiency rather than Nuclear superiority in nuclear weapons. ^{→ just 2 sustain.} Absolute superiority in every area of weapons would be meaningless. There was a point in arms development at which each action had the capacity to destroy the earth. ^{reason to encourage} There was greater impetus for the superpowers to establish an acceptable military balance to reduce the risk of nuclear holocaust.

- Moreover, the fact that USSR was close to nuclear parity with the USA also played a role. It would have been very difficult for USSR to accept a curb on nuclear arms while they were still very much behind USA as this would be disadvantageous to them. On the other hand, the idea of USSR reaching nuclear parity prompted the USA to want to put a curb on the growth of nuclear weapons.
- Thus, in November 1969 in Helsinki, American and Soviet officials began negotiations under the title of Strategic Arms Limitation Talks (SALT)

Further sessions took place in Vienna and Helsinki and eventually resulted in the agreements signed by Nixon and Brezhnev in Moscow in 1972.

This was **SALT I**.

- SALT I was made up of TWO separate agreements, one with regard to defensive capabilities known as the **ABM Treaty**. The other was with regard to offensive capabilities, known as the **interim agreement on offensive weapons**.
- The ABM Treaty was to be of unlimited duration and sought to prevent either side from fully developing ABMs and thus gaining a strategic advantage over the other. The main stipulation was to allow each side to deploy no more than 2 ABM systems, one to protect the national capital, the other a designated ICBM base.
Washington & Moscow
- The interim agreement on offensive weapons sought to freeze the number of land and sea launchers capable of firing offensive nuclear missiles. The agreement was to last for 5 years, during which time it would be subject to renegotiation and eventual renewal. *temporarily expire in 1977.*

During this period, USA agreed to hold their current number of land-based ICBMs at 1,054 while the Soviets could expand from 1,530 to 1,610. A limit was also placed on SLBMs (submarine-launched ballistic missiles) at 710 for the US and 950 for the Soviets.

*USA actually have an advantage.
- US missile more accurate, less wastage.
- also they have MIRV, more warhead.*

- Evaluation of SALT I
- Although the terms of SALT I appeared more generous to the Soviets, the balance of strategic power in 1972 actually remained in favour of USA.

The agreement stipulated that there would be fewer American missiles but these were known to be a lot more accurate than Soviet ones. It should be remembered that missiles did not always hit their intended targets at first try.

Moreover, the actual significance of the numbers was diminished by the technical superiority enjoyed by USA. This was because USA had developed MIRV and this meant that a single missile would be equipped with several nuclear warheads, each of which could be aimed to hit a separate target. *MIRVs were not included because the Americans underestimate the ability of the Soviets to come up with it quickly.

In addition, USA was also much superior to USSR in the number and quality of its long-range and fighter-bombers. After all, SALT I excluded aircraft.

*Multiple Independently targetable Re-entry Vehicle.
eg. Poseidon + Polaris missile*

Western allies of USA > USSR.

plus Sino-Soviet split, China & USSR.

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USA also continued to maintain *its ring of land bases* and continuous submarine patrols spanning the globe which allowed it to strike easily at USSR. By contrast, USSR was relatively landlocked, and in the event of a war, it would be heavily dependent on its long-range ICBMs.

- The apparent Soviet advantage in SALT I also did not affect other members of the Nuclear Club. For example, it did not take into account the existence of British and French nuclear weapons. Britain and France were not party to the interim agreement although they were allies of USA. In fact, SALT I actually validated their continued possession of independent nuclear weapons.
- The signing of the treaty also led to domestic political dissent in USA. This led to the dominance of the hawks in the late 1970s who claimed that USSR was aiming for nuclear superiority to win a nuclear war and harped on the superiority of USSR's conventional forces. One of these men was Carter's National Security Adviser, Brzezinski. On the opposite sides were the doves who felt that the Soviets were genuine about disarmament negotiation and that the Soviets were only aiming to attain parity for their own security. The end of détente would ensure that a harder line towards USSR was to be adopted.

SALT II

- The signing of SALT I took place during the period of détente. This was followed by the signing of the Helsinki Accords in 1975. → agreement to prevent large scale military manoeuvres. However, the advent of détente did not bring about the end of the Cold War, in fact, it established a "relationship between adversaries" rather than friendship between the two sides.
- Brezhnev still remained an avowed communist and reminded his American counterparts of the ideological struggle between the two sides. The Vietnam War was still on and USA continued to frown upon Soviet involvement in other countries.
- Within USA, there were also domestic difficulties which signaled a change in leadership which would mean a change in the relationship between East and West. The Watergate scandal forced Nixon to resign in 1974.

- All these contributed to the failure to negotiate a new treaty to replace the interim one in SALT I which was due to expire in 1977.
- Despite détente, both superpowers still refused to give up the arms race. In fact, SALT I had not effectively curbed the development of nuclear weapons.
- The freeze in numbers imposed in SALT I allowed both sides to modernize existing weapons. For example, USA developed the cruise missile, the Trident and the B1 bomber. USSR developed the bomber, "Backfire" and also finally developed MIRVs.
- As Kissinger puts it, "the Soviets were using the quantitative freeze to engage in qualitative race."
- The main task was to recalculate the freeze on the number of missiles so that it would include weapons omitted in 1972. The Americans also insisted on numerical equality.
- The negotiations for a new treaty started again.
- Nixon's successor, Gerald Ford ^{- Republican}, met Brezhnev in Vladivostok in November 1974 and they both approved a *drafted agreement* which was to be the basis of SALT II. ^{S.U}
• which was to replace interim agreement for parity.
- This draft agreement stressed parity and both sides were to be given the same number of offensive weapons. This was fixed at 2,400. This agreement was deemed to be too advantageous to the Soviets because by this time, they had developed MIRVs which could hold more warheads than American ones.
- In 1976, Ford lost the presidential elections to a Democrat, Jimmy Carter. When Carter took over, he was reluctant to sign this draft treaty of 1974. As a Democrat, he did not want to be too closely associated with what the Republican administration had done.
Instead, Carter proposed an alternative, asking for "deep cuts" on both sides, which was about 1/3 of the figure agreed upon at Vladivostok and which would largely affect land-based ICBMs.
- This was rejected by the Soviets who depended heavily on them. *- SALT II was not signed
- SALT I expired*
- Thus, between 1977 and 1979, both sides concentrated on modernizing nuclear weapons although both continued to observe the limits imposed by SALT I (even though it had expired in 1977).

- Eventually, a new treaty was signed in Vienna in June 1979. This was SALT II.
 - SALT II was to last until 1985.
 - It limited each side to 2,250 strategic weapons, of which no more than 1,320 were to be MIRVs.
- Evaluation of SALT II
- The acceptance of equality implied a gain for USA as they were lagging behind in terms of land-based strategic weapons. Moreover, the high number of missiles allowed showed a rejection of Carter's proposal of deep cuts.
 - SALT II also left out some weapons and did not place many restrictions of research and development. For example, the "Backfire" was not included because it was termed "middle range". Research on the American Trident, Cruise and MX was also allowed to continue.
 - Perhaps the greatest problem with SALT II was the opposition it generated in USA. There was a lot of opposition in the American Senate which had to ratify the treaty before it became official. The Senate felt that SALT II was too advantageous for the Soviets. To appease domestic criticism, Carter announced an increase in military expenditure.
- However in 1980, Carter finally withdrew the treaty from the Senate for ratification with the Soviet invasion of Afghanistan. This was reflective of faltering détente.
- SALT II was NEVER ratified by the US government.

IV. The INF Treaty

- The nuclear arms race escalated when Ronald Reagan became President in 1981.
- During his election campaign, he has promised to restore USA to a position of strength and prestige by rebuilding its military power. As part of his pledge to "close American window of vulnerability", he increased defence expenditure. The result was a drastic arms build-up since NSC-68. Under Reagan, USA was not longer seeking nuclear parity with USSR, but nuclear superiority over USSR.

- never implemented
- As part of his policy, Reagan embarked on his SDI which was a plan to set up weapons in outer space which forms a protective shield to defend USA from a missile attack. When it was announced, SDI was still in the experimental stages and there was a fair amount of ridicule. However, USSR was concerned about it and was certain that American technology and scientific knowledge would make the SDI possible. Soviet leaders started to condemn the SDI as an infringement on the ABM Treaty of 1972.
 - While there were fears that USA was now out to win a nuclear war, Reagan surprised everyone by agreeing to observe the limits imposed in SALT II (even though it was not ratified) and even wanted to conduct talks on intermediate-range nuclear forces (INF) based in Europe. These would include the American Cruise and Pershing missiles (to be deployed in 1983), and the Soviet SS-20s (already deployed).

In the Geneva talks in 1981, Reagan proposed the idea of zero option. This meant that American cancellation of plans to deploy Cruise and Pershing missiles would be matched by the dismantling of Soviet INFs. In other words, USA was offering to maintain its INFs at zero if the Soviets reduced their number of INFs to zero.

This was vehemently rejected by the Soviets. This was because the Soviets would be removing missiles which were already there in exchange for an American promise not to deploy missiles which might not even be deployed at all! Moreover, the arms build up instituted by Reagan caused a great deal of alarm in Europe and there were public demonstrations against the deployment of American INFs to Europe. The Soviets hoped that such public and diplomatic pressure would force the Americans to give up the idea of deploying INFs to Europe after all. The Soviets were also hoping for a split in the Western alliance over this issue.

However, the INFs were deployed in 1983 and this upset the hopes of the Soviets.

- Reagan later started the talks in 1982 for the reduction of nuclear weapons (as opposed to limitation). This was known as START but they were suspended in 1983 because of Soviet suspicion. strategic arms reduction talks.
- Thus, during this time, there were no agreements made on nuclear arms control.

- Things started to change when Gorbachev came into power in USSR. This led to the signing of a major arms control treaty between USA and USSR.
- When Gorbachev met Reagan in 1985, the two men got along very well. Gorbachev broached the subject of the arms race and proposed the restarting of talks which had been suspended for a while.
- In **October 1986**, the two men met in ^{Iceland} **Reykjavik** to discuss the issue of arms control. While they almost came close to an agreement, the issue of SDI proved to be a major stumbling block. Gorbachev's request that the research for the SDI be discontinued was rejected by Reagan. While the failure of the meeting to come up with anything conclusive was a major disappointment, it was a major relief for many leaders of Europe who feared being shut out of the decision-making process. The Western European leaders were afraid that with cuts in INFs, they would be at a disadvantage because ultimately, USSR had a much larger conventional force.
- However, by **February 1987**, Gorbachev was ready to compromise and wanted to restart talks by leaving the issue of the SDI out of the negotiations.
- The **INF Treaty** was signed at the Washington summit in **December 1987**. The treaty called for the elimination of all American and Soviet INFs from Europe within **3 years**. This effectively implemented the "zero option" which was rejected some time back. In fact, the signing of the treaty led to a global double zero because USSR also removed INFs from Asia and the US in North America. USSR also accepted Western inspection and verification of the dismantling process. The INF Treaty also excluded British and French missiles. The agreement was ratified by the US Senate in May 1988.
- Evaluation of the INF Treaty
 - 1st strategic Arms agreement b/w 2 superpowers for almost a decade.
 - INF not just reduce / limited by eliminated an entire class of nuclear weapons. (INFs)
 - led to improve r/s b/w 2 ctry. (Huge public r/s of Gorbachev)
 - * - led to further military cuts on 2 part of S.U.
 - military cuts were unilateral
 - S.U took initiative to cut its own military simply coz it felt a great threat from America has been eliminated.

V. Conclusion

- The negotiation of arms control should not be seen in isolation, but should be placed in the wider international context. Events within and outside the superpower countries often shaped the politics and direction of negotiations.
- The process of arms control continued in the 1990s. The new American President, George Bush signed the **START I with Gorbachev in 1991 which further cut nuclear weapons**. With the impending collapse of the Soviet Union, there were increasing **fears that Soviet nuclear weapons deployed outside Russia would come under the control of peripheral feuding republics**.

Read:

Peter Calvoconnessi . Pg 52 - 70 .

Arms Race