

Introduction

From the first atomic explosion above New Mexico in July 1945 to the underground nuclear test conducted by North Korea in September 2017, nuclear testing, and its prohibition has defined the nuclear age. The result of the international community's response to address the issue of control and prohibition of nuclear tests was the 1996 Comprehensive Nuclear Test Ban Treaty (CTBT).

While 185 countries have signed and 170 have ratified the CTBT as of September 2021, eight of the 44 states that must do so according to the Annex 2 of the treaty for it to enter into force have not, those states being- China, Egypt, Israel, The United States, North Korea, India and Pakistan. However, despite its non-entry into force, the treaty holds great international legitimacy (Comoros and Cuba being the latest party states to the treaty)^{1 2} in terms of upholding the norm against nuclear testing and by those means, maintaining nuclear security and stability.

Nevertheless, two decades after its drafting, the treaty remains in legal and political limbo because the requirements for the treaty's entry into force have not been met³. However, this does not strip it of its force as an element of customary international law or alter the will of other signatories to see it enter into force. In fact, many states, including the recognized nuclear weapon states that still have not ratified the treaty, are following its main obligations by maintaining a voluntary moratorium on explosive nuclear testing and providing financial support as well as technical expertise to the CTBT Organization (CTBTO)⁴, the CTBTO's International Monitoring System (IMS). In this sense, the CTBT has played a crucial role in the development of a robust global norm against nuclear testing for 25 years since its conclusion.

¹ "COMOROS BECOMES 170TH STATE TO RATIFY THE CTBT", Comprehensive Test Ban Treaty Organization. Available at: <https://www.ctbto.org/press-centre/press-releases/2021/comoros-becomes-170th-state-to-ratify-the-ctbt/>

² "CUBA JOINS THE COMPREHENSIVE NUCLEAR-TEST-BAN TREATY", *Comprehensive Test Ban Treaty Organization*. Available at: <https://www.ctbto.org/press-centre/news-stories/2021/cuba-joins-the-comprehensive-nuclear-test-ban-treaty/>

³ For more information you can visit the link: [1994-96: Entry into force formula: CTBTO Preparatory Commission](https://www.ctbto.org/the-treaty/1993-1996-treaty-negotiations/1994-96-entry-into-force-formula/o%20force%20formula%20formula)

⁴ It should be noted that the CTBTO is not yet an international organisation *stricto sensu*, but a Preparatory Commission for a future international organisation, which will only come into being once the Comprehensive Nuclear-Test-Ban Treaty has been ratified by the 44 States whose ratification is mandatory under Annex II for the treaty's entry into force.

One cannot deny the deteriorating international security situation marked by certain challenges like North Korea's nuclear weapons programme, the unravelling of the Joint Comprehensive Plan of Action (JCPOA) and the increasing trend towards an arms race derived in part from the termination of the Intermediate-Range Nuclear Forces Treaty (INF Treaty). CTBT remains an important and useful tool to help address these pressing threats. In this sense, the treaty and its global monitoring system provides opportunities to build trust and confidence, reduce uncertainty, and strengthen norms and values shared by state parties.

While there are many issues —technical and political— that need to be addressed for the treaty's entry into force, the biggest challenges remain the divide between nuclear superpowers like the U.S. and emerging nuclear Third World states like India, Pakistan and to a certain extent, China, and the inability of these two camps to come together to a workable solution. The treaty is often seen by non-recognized nuclear weapon states such as India and Pakistan as a discriminatory instrument of superpower domination in the global nuclear order, and by recognized nuclear weapon states as an agreement that jeopardizes their security and ability to effectively exercise nuclear deterrence. However, the CTBT is the only treaty where a possible compromise between the different nuclear powers can be envisioned owing to its universality.

This commentary aims to highlight the points of convergence between the United States, China, India, and Pakistan whose ratification is mandatory for the treaty to enter into force. Our purpose is to shed light on how the treaty might act as a bridge between both the recognized and unrecognized nuclear weapon states, and how addressing this crucial deterrent could possibly lead to its entry into force.

CTBT: Origin and materialization

The CTBT dates its history back to mid-1950s as an aftermath of the massive nuclear testing that was undertaken at the time by the U.S and USSR. As a result of widespread campaigns against nuclear testing in 1954, two states —India and Japan— separately, called for a total ban on nuclear testing, a demand that was seen as a first step toward nuclear disarmament.

In 1963, in the wake of the Cuban Missile Crisis, the Soviet Union, the United States and

the United Kingdom managed to agree on a Partial Test Ban Treaty (PTBT), which banned nuclear testing in the atmosphere, under water and in outer space, and hence halted the most visible and dangerous explosions.

Following from that, 1968 Treaty on the Non-Proliferation of Nuclear Weapons (NPT)⁵ prohibited, among other commitments, the development of nuclear weapons by the non-nuclear-weapon states (NNWS). However, nuclear testing by the five nuclear-weapon states as identified in the treaty, also known as the P-5 (China, France, Russia, the United Kingdom, and the United States) continued, mostly underground.

Twenty years after the NPT entered into force, and more than 2,000 nuclear tests later, the CTBT was put on the negotiating table in the early 1990s. The main purpose by this time was to cap nuclear weapons development by the P-5 and apply additional constraints on three states outside the NPT with *de facto* nuclear weapons status (India, Israel, and Pakistan).

By the time negotiations on the CTBT opened in the Conference on Disarmament (CD) on 25 January 1994, the dynamics among the key negotiating states illustrated not only different views on the value of a test ban but competing motivations for and against nuclear disarmament. Those in favour of a test ban argued that it would contribute to preventing the development of new and destabilizing weapon systems, protect against further environmental damage, curb proliferation and contribute to the process of disarmament. Those that sought to prevent a test ban, in contrast, opposed the CTBT on grounds that it would close off options to develop or modernize nuclear arsenals and might impair the ability of the laboratories to maintain the safety and credibility of existing nuclear warheads⁶.

Three years later, after intense negotiations, the CTBT was overwhelmingly adopted by the UN General Assembly. On 24 September 1996, it was opened for signature. and, by 7 March 1997, when the treaty was handed over to Vienna—the host city for the Comprehensive Nuclear— Test-Ban Treaty Organization (CTBTO), 142 states had signed it⁷.

⁵ "TREATY ON THE NON-PROLIFERATION OF NUCLEAR WEAPONS", *United Nations Office for Disarmament Affairs*. Available at: <https://www.un.org/disarmament/wmd/nuclear/npt/text/>

⁶ JOHNSON, Rebecca "Unfinished Business: The Negotiation of the CTBT and the End of Nuclear Testing" United Nations Institute for Disarmament Research, 2009.

⁷ *Ibid*, p. 3.

Of the nuclear weapon states recognized by the NPT, only three have ratified the CTBT. France and the United Kingdom ratified the treaty together in 1998, and Russia ratified before the NPT Review Conference in 2000⁸. In the United States, however, ratification by the Senate failed in 1999 due to internal political landscape and the difference of opinion between republicans and democrats⁹. China continues to express support for the treaty but has not yet ratified it. India and Pakistan are yet to sign.

The continued reluctance to join the CTBT by the states mentioned above presents a set of challenges that the international community is faced with today, one of them being the rise of Third World nuclear weapon powers and their challenge to the hegemonic global nuclear order. It is thus important to dissect the reasons for the reluctance of these states to join the treaty and the positions of each of the states with respect to the CTBT.

Positions of Nuclear Powers on CTBT

The negotiations on CTBT need to be seen in conjunction with the negotiations on NPT to comprehensively understand the traditional positions of Third World emerging nuclear powers like India, Pakistan and to a certain extent China on one hand and the U.S. on the other and how have these positions changed (if at all) over the last few decades.

The main tension that undergirds most of the concerns of the Third World states regarding the CTBT text is the discrimination and unfair treatment which is seen by many of these states as a continuation of exclusionary policies practiced by the global nuclear order since the negotiation of the NPT. These include concerns regarding the sovereignty, lack of concrete disarmament and arms control measures, and the entry-into-force clause, amongst others. These will be discussed in the following sections in respect with the cases of India, China, Pakistan, and the U.S.

India's Position

India has been an ardent supporter of a nuclear test ban as was evidenced in 1964 when Prime Minister Jawaharlal Nehru called for a comprehensive treaty banning all nuclear

⁸ *Ibid*, p. 4.

⁹ *Ibid*, p. 4.

test explosions. For the initial four decades when the CTBT was in its nascent stage, India advocated for its early signature and ratification by means of a concerted effort by the international community. However, India had serious concerns regarding the text of the treaty, fearing that it was a mere adjunct to the NPT and ultimately refused to sign.

The primary concern was the failure of the draft text to include any measures on nuclear disarmament or arms control. India had wanted a time-bound framework towards nuclear disarmament and a commitment from the nuclear weapons states to come up with a workable solution for complete and verifiable elimination of nuclear weapons. Seeing as the NPT failed to bring in any substantial call for action for universal disarmament in 1960-70s, the CTBT proved to be yet another disappointment¹⁰. Another point of contention was the Annex II clause which made the treaty's entry-into-force contingent upon the signature and ratification by 44 states which included India¹¹. This re-enforced the discrimination and unequal treatment that India and other like countries were meted out during the NPT negotiations. There were also concerns regarding the intrusive verification measures and India possibly losing its technical and political autonomy in the process¹². It can't be denied that at the time of negotiations, India was well on the path to its second and to-be-most definitive nuclear test and could have used all these hurdles to buy time. This created a large domestic opposition to the deal with domestic pressures ultimately translating into international nuclear decision making when India decided to not sign the treaty.

Pakistan's Position

Pakistan's position on almost all international nuclear-related agreements and treaties has been reactionary to India's actions at the global nuclear order and CTBT is no exception¹³. Like India, Pakistan began by supporting the call for a ban on all nuclear tests. As a result, Pakistan supported India's standstill agreement on nuclear tests in the UN General Assembly in 1954¹⁴. In the 1950s, it also supported nuclear test ban

¹⁰ GOPALASWAMY, Bharath. "India and Comprehensive Nuclear-Test-Ban Treaty: To Sign or Not to Sign?" *SIPRI Policy Brief*, 2010. Available at: <https://www.sipri.org/sites/default/files/SIPRIPB1001.pdf>

¹¹ Comprehensive Test Ban Treaty, Annex 2 which mentions the list of states

¹² GOPALASWAMY, *op cit*.

¹³ CHAKMA, Bhumitra, "The NPT, the CTBT and Pakistan: Explaining the Non-adherence Posture of a De Facto Nuclear State" *Asian Security*, vol 1(3), p. 270. 2005

¹⁴ *Ibid*, p. 274.

proposals like Colombo Plan Conference, 1954 and Bandung Afro-Asia Conference, 1955. Pakistan supported close to *ten resolutions at the UN for a nuclear test ban treaty between 1984 and 1986. Further, Pakistan supported a regional test ban treaty in 1987*¹⁵.

However, it had a few concerns that it felt were not addressed in the CTBT negotiations. These included the loophole in the treaty text for allowing sub-critical¹⁶ and computer simulation tests. It was also deeply concerned about the intrusive verification measures that the treaty put in place¹⁷. More than preventing other states like India from acquiring nuclear weapon capabilities, Pakistan was more concerned about the CTBT arresting its nuclear capabilities especially because it wanted to keep the nuclear option open following India's lead.

However, the most important and ultimate deterrent to Pakistan not signing the treaty remained India's nuclear ambitions and Pakistan made this abundantly clear on numerous occasions. Getting a wind of India's plans to test, Pakistan insisted that *The CTBT without India would be meaningless in South Asia*¹⁸. Some experts argue that making its signature to the treaty contingent upon India was just a ruse to divert the attention from itself and put pressure on India to sign while Pakistan continued to work on building its nuclear deterrent in the background. This is the reason why despite supporting the final draft of the treaty, Pakistan refused to sign the treaty in 1996. Today, Pakistan occupies an 'observer' status at the CTBTO, however till date, Pakistan's position on CTBT remains highly reactive to India's stance.

China's Position

China, unlike India and Pakistan which haven't signed the treaty, has signed but is yet to ratify the CTBT. China's case is a peculiar one since its trajectory regarding most nuclear-related treaties and agreements has been quite opposite to that of India and Pakistan. After a decade or two of opposing the international nuclear arms control and non-proliferation efforts, China started engaging with the nuclear order in a much greater

¹⁵ *Ibid*, p. 275.

¹⁶ Sub-critical tests are all kinds of tests with nuclear materials and possibly high explosives that purposely do not produce any yield. The name refers to the failure to create a critical mass of fissile material. They are the only type of tests permitted under the interpretation of the Comprehensive Nuclear-Test-Ban Treaty tacitly agreed by the major atomic powers.

¹⁷ CHAKMA, Bhumitra, *op cit*.

¹⁸ *Ibid*, p. 276.

capacity since 1980s and 1990s.

In the initial phase of CTBT negotiations, China voiced its concerns about de-linking the goal of disarmament from arms control, non-proliferation, and test bans. It believed that for any concrete progress to take place, it was important for the superpowers to realize their special responsibility towards disarmament first. Concerning CTBT, China had primarily four primary demands as a pre-requisite to signing the CTBT.

The first of these demands was to expand the scope of the CTBT to include Peaceful Nuclear Explosions (PNE). China stressed that CTB should allow for the latter subject to stringent verification procedures¹⁹. The second point of contention, in line with India and Pakistan's positions was the verification regime which included- International Monitoring System (IMS), consultation and clarification, on-site inspections (OSI), and confidence building measures²⁰. China's concern was mainly regarding the level of intrusion by OSI and that conflicting with state sovereignty. The third issue was with the list of Annex II countries as it did not want to be included in that list. Finally, China wanted all nuclear weapons and nuclear-capable states to pledge No-First Use (NFU). However, China became flexible on most of its demands later in the negotiations and finally signed the treaty²¹. Although China blames domestic bureaucratic procedures as the reason for the failure to ratify the treaty so far, it is anyone's guess that the real reason is the U.S' failure to ratify.

U.S.' Position

The U.S. has had a complicated relationship with the CTBT as various U.S. administrations have had different stance on the issue. The U.S. being one of the first proponents and signatories of the treaty is yet to ratify it. There were both domestic and international factors at play that have prevented the ratification of the treaty by the U.S. Domestically, the treaty had failed to achieve a majority vote in the U.S. Senate on essentially three accounts.

Firstly, the CTBT text as it was passed for signature did not seem to contain enough

¹⁹ JOHNSON, Rebecca "A Comprehensive Test Ban Treaty: The Endgame" ACRONYM (8), p. 4. 1996

²⁰ CHA, Chang Hoon. "Beyond Anti-Hegemonism to Security Regime: China's Perspectives, Institutions and Engagement in the Comprehensive Test Ban Treaty" University of Warwick, PhD Thesis, p. 238. 2002

²¹ JOHNSON, Rebecca 2009, *op cit* p.5

robust verification tools and measures to detect all nuclear tests. The International Monitoring System (IMS) to be instituted under CTBT was understood to lack the ability to catch instances of cheating like conducting explosions in an ‘underground cavity’²².

Second, the U.S. was concerned about failing to keep up with the advancements in nuclear technology and weapon systems without being able to credibly test and hence, the U.S. did not want to completely give up the option of testing.

Third, the U.S. was certain that other states would not ratify the treaty and hence, even if the U.S. ratified and kept its end of the bargain, that wouldn’t prevent other states from flagrantly flouting their obligations. This was realized especially considering the 1998 nuclear tests conducted by India and Pakistan which further pushed back any hope of the U.S. ratifying the treaty. There were some additional reasons like the convoluted language in the treaty on what exactly constituted a ‘nuclear explosion’ that is whether the threshold for testing meant a ‘zero-yield’ or ‘minimum detectable yield’. As of now, in addition to the domestic-political hurdles, international factors like the growing assertiveness of China regionally and globally and concerns around Russia violating the CTBT obligations by conducting a low-yield test remain very real challenges to the U.S. ratification of the CTBT.

CTBT as the Middle-Ground between Nuclear Powers?

Most of the concerns of both the camps (recognized and non-recognized nuclear states) regarding the CTBT rest on the complex nuclear deterrence dynamics between the four states. The primary con that both the sides see of signing the CTBT is giving up the possibility to test indefinitely and as a result, not being able to maintain a credible and updated nuclear deterrent. However, the treaty in its current form does not cover computer-simulated tests and allows for *experiments using simulants to replace nuclear materials*²³. This means that all such experiments are permitted under all interpretations of the CTBT.

²² LARIOUX, Alais “The U.S. Debate on the Ratification of the Comprehensive Nuclear-Test-Ban Treaty” Peace Research Center Hague, p.5. 2021

²³ ZIMMERMAN, Peter D. and DORN, David W. “Computer Simulation and the Comprehensive Test ban Treaty”, *Defense Horizons*, No. 17, Center for Technology and National Security Policy, National Defense University, p.3. 2002. Available at: <https://www.files.ethz.ch/isn/135139/DH17.pdf>

The U.S' stockpile stewardship program, launched in the 1995 *aims to prove the safety and reliability of U.S. nuclear weapons without nuclear explosive testing* by means of predictive modelling. These tests have been helpful in *refurbishing, remanufacturing, or replacing weapons as needs arise*²⁴. Similarly, India established computer simulation *ability to predict he yields of nuclear explosives whose designs are related to the designs of explosives used in this test*²⁵. The option of conducting sub-critical tests has been considered seriously by most nuclear weapon powers and has been put into practice by some like the U.S. and Russia. It is true that the U.S has an advantage over nuclear powers like India, Pakistan, and China in terms of advanced technology, expertise and know-how required to conduct computer-simulated tests. Nonetheless, the latter states have shown real possibility and ability to use that option, if need be²⁶.

While critics of the CTBT point out that the exclusion of sub-critical tests makes the treaty unreliable and prone to cheating, the very same argument could be used instead, to encourage the above states to join the treaty as they are able to retain their ability to test notionally. At the same time, it is highly unlikely that any of these states would consider testing anyway given the strong taboo against nuclear testing, which could cost them their position and legitimacy in the global nuclear order. More so, once the U.S (which is operationally and technologically in a better position to conduct computer-simulated tests) joins the treaty, it would encourage China and by extension, India, and Pakistan to get on board, thereby normatively reducing the trust deficit, increasing good faith and arresting the possibility of nuclear tests. Hence, a middle ground can be struck.

Pros of the U.S. joining the CTBT are as follows:

1. Since the U.S has already declared a unilateral moratorium on nuclear testing, it has nothing to lose from ratifying the treaty.
2. Joining the treaty would enhance its overall nuclear non-proliferation goals through robust-hybrid verification measures including both the National Technical Means (NTM) and International Monitoring System (IMS).

²⁴ Stockpile Stewardship Program, Weapons and Complex Integration, Lawrence Livermore National Laboratory.

²⁵ Press Statement by Dr. Anil Kakodkar and Dr. R. Chidambaram on Pokhran-II tests, Press Information Bureau, Government of India, Department of Atomic Energy, 2009. Available at: <https://pib.gov.in/newsite/PrintRelease.aspx?relid=52814>

²⁶ RAJEN, Gaurav. "Sub-Critical Nuclear Tests: An Option for India", *The Nonproliferation Review*. 2003. Available at: <https://www.nonproliferation.org/wp-content/uploads/npr/103raj.pdf>

3. The treaty would assuage the primary concerns of many middle nuclear powers about exclusion and discrimination as the U.S. could appear to be accommodating by addressing the grievances of these states.
4. Lastly, the nuclear tests conducted by India and Pakistan in 1998 shortly after the CTBT was adopted in 1996 proved to be a major deterrent for the U.S in finalising the treaty ratification. However, more than two decades later, it is no secret that both India and Pakistan possess nuclear weapons and have been accepted as de facto nuclear weapon powers. U.S' position hence seems outdated, especially given that both the states have declared a testing moratorium. Ratifying the CTBT could thus be a goodwill gesture by the U.S. while accepting the critical reality of the times.

Similarly, the pros of joining the treaty by India, Pakistan and China are as follows:

1. Just like the U.S., the three states mentioned have already declared a unilateral moratorium on nuclear testing and hence they won't be committing to anything new by joining the CTBT.
2. CTBT does not codify the categories of Nuclear Weapon States (NWS) and Non-Nuclear Weapon States (NNWS) as the NPT does. Instead, the treaty text treats all states which possess nuclear weapons capability equally and at par with each other, thereby avoiding any inadvertent and normative re-enforcement of inequality or discrimination if these states were to join the treaty.
3. Joining the treaty would aid the process of equal and long-due accommodation of these states into the global nuclear order, at virtually no added cost. This could also enhance India and Pakistan's bid to export control groups like the Nuclear Supplier's Group (NSG) and present these states as credible nuclear partners.

There are some technical issues that need to be smoothed over concerning all states before a middle ground between these two sets of states can be envisioned. These include the Annex 2 clause that mandates the treaty's entry-into-force to be contingent upon the ratification by 44 states, the exclusion of the disarmament goals from the treaty text and the IMS verification measures that could obstruct sovereignty of states. However, most of these issues are technical in nature and can be resolved if nuclear superpowers and emerging nuclear middle powers come to the negotiating table. The advantages of joining the treaty as listed above far outweigh the costs of not signing and thus can be

used to arrive at a consensus.

Conclusions

It has now been 25 years since the CTBT was opened for signature, and the treaty is still in limbo. However, political transition domestically as well as nuclear confidence-building measures amongst some of the 8 states that must ratify the treaty is foreseeable in the future.

It is important to recognize the transformational nature of the CTBT if it comes into force. The treaty is intended to halt vertical proliferation by preventing the modernization of nuclear arsenals, especially by foreclosing the possibility of new low-yield and 'third-generation' weapons that could be used in accordance with a regional nuclear war-fighting doctrine²⁷. Additionally, the treaty would also play a key role in preventing further horizontal proliferation by formalizing a strong international norm against nuclear testing. It is true that vertical proliferation and the doctrine of flexible or graduated response by the nuclear powers would remain largely unaffected, and therefore, as several representatives of the US Department of Energy have stated, a return to nuclear testing could still be a possibility²⁸.

However, on the positive side there are also some technical controls attached to the CTBT²⁹: which could be an effective non-proliferation tool for verification and monitoring. This includes an International Monitoring System (IMS) network encompassing seismic monitoring, atmospheric monitoring, satellite surveillance, intelligence, and on-site inspections. In this sense, the verifiability of the treaty is attractive to states as a confidence-building measure³⁰.

There are added benefits for states joining the treaty to enhance their status and legitimacy in the international order by signalling their NPT obligation of eventual

²⁷ ARNETT, Eric. "Nuclear Weapons After the Comprehensive Test Ban", *Oxford University Press*, New York. 1996.

²⁸ MCDONALD, Eryn. "Is the United States Planning to Resume Nuclear Testing?", *Union of Concerned Scientists*. 2020. Available at: <https://allthingsnuclear.org/emacdonald/is-the-united-states-planning-to-resume-nuclear-testing/org>

²⁹ HOEKEMA, Jan. "CTBT and NPT: An Essential Linkage?" in VAN LEEUWEN, Marianne. "The Future of the International Nuclear Non-proliferation Regime", Martinus Nijhoff Publishers, Leiden. 1995

³⁰ FINDLAY, Trevor. "A Comprehensive Nuclear Test Ban: Post-Cold War Prospects" Peace Research Centre, Australian National University, Canberra. 1992

disarmament under Article VI and a concerted effort towards fulfilling one of the 13 Steps towards the implementation of Article VI outlined in the 2000 NPT Review Conference^{31 32}. As a result, CTBT participation could contribute to the broader nuclear non-proliferation and disarmament architecture and would partially redress the discriminatory nature of the NPT, which divides the world into nuclear ‘haves’ and ‘have-nots’³³, by holding all states equally responsible and accountable.

Although currently, the CTBT suffers from challenges-both normative and technical-towards its entry into force, as discussed, the benefits of joining the CTBT far outweigh the costs of not signing.

Despite unclear prospects for the CTBT, the international *de facto* norm against nuclear testing seems well established, and the already semi-functioning CTBTO plays an important role in monitoring and verification. It is also important not to view the CTBT as an end, as independently it will not be so effective in making nuclear weapons obsolete³⁴. Rather, the CTBT should be seen to an end of nuclear non-proliferation and the aspiration of eventual nuclear disarmament. The full entry into force of the CTBT would represent a major practical and symbolic achievement for the international nuclear architecture and as this article argues, bridging the gap between the emerging nuclear powers and nuclear superpowers could be a very important step in that direction.

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³¹ AUST, Anthony. ASADA, Masahiko. IFFT, Edward. KYRIAKOPOULOS, Nicholas. MACKBY, Jennifer. MASSINON, Bernard. MEERBURG, Arend. SITT, Bernard. “A New Look at the Comprehensive Nuclear Test Ban Treaty”, International Group on Global Security. Netherlands Institute of International Relations. 2008

³² It should be noted, however, that the last NPT Review Conference was a failure to reach the consensus necessary to draft a final document. The postponement of the last one has shown that there are significant divergences among NPT states parties.

³³ *Ibid*

³⁴ O’HANLON, Michael. “Resurrecting the Test-Ban Treaty”, *Survival*, 50(1), pp.119-132. 2008.