



Nuclear Proliferation And The Nuclear Deterrent: Will The Non-Proliferation Treaty Ever Achieve Total Nuclear Disarmament? Is The Nuclear Deterrent Worth Keeping?

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ABSTRACT

In 2009 President Obama outlined his utopic vision of a nuclear-free world, admitting that this would not be possible within his lifetime he claimed that while the US will continue to reduce its stockpile it would implement the missile defence shield as long as Iran, North Korea and terrorists pose a nuclear threat. Such a pledge raises yet again the timeless question of the place of nuclear weapons in the 21st Century, with Obama echoing the justification of other nuclear states' reasons for nuclear possession; that is nuclear blackmail; the credibility of this claim must be brought into question. And so must the validity of the nuclear deterrent itself, is such a tool necessary for a multipolar world with liberal institutionalist values? Does the nuclear deterrent really deter those rogue states and potential nuclear terrorists? The Nuclear Nonproliferation Treaty does in fact contain a clause which states that Nuclear Weapons States must work to reduce their stockpiles in order to eventually disarm; this essay investigates to see whether the NPT is equipped to accomplish total disarmament whilst also seeking to answer whether this is really desirable as we like to think.

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KEY ABBREVIATIONS AND CONCEPTS

Brinkmanship – A concept used in the context of nuclear war where one nuclear player involved will apply pressure to the point where the other is forced to back down.

Bureaucratic Politics Model – A theoretical model which rejects the rationalist approach to foreign-policy decision-making and proposes instead that Government decisions are the result of a compromise between different departments with their own agenda rather than a single policy objective.

IAEA – International Atomic Energy Agency

ICBM – Inter-continental Ballistic Missile

MAD – Mutually Assured Destruction. A concept developed following the Cuban Missile Crisis that determined if either the US or USSR began a nuclear exchange both states would both be equally obliterated.

MLF – Multilateral Force – A proposed fleet of Nuclear Sub-marines manned by NATO

NNWS – Non-Nuclear Weapon States

NWS – Nuclear Weapon States

RAF – British Royal Air Force

SLBM – Sub-marine Launched Ballistic Missile

Aim

This thesis aims to offer not only a critique to Non-Proliferation Treaty but also seeks to challenge the idea of total disarmament, while at first this may be seen as contradictory, it is in fact essential to pose these two questions together. The NPT states that it ultimately seek total global disarmament and with Obama recently setting forth his vision for a nuclear-free world we must ask the question if this is possible with the current international tools and whether a new institution is need to realise this hope. But before we can start heading towards disarmament we must ask the question of whether it is better in fact to keep nuclear weapons, since cases like India and Pakistan certainly illustrate that to have such a weapon of absolute power is better than conventional weapons of uncertain power. Ultimately this paper seeks to address the place of nuclear weapons in the 21st Century, whether can be rid of them and do we even want to be?

Problem Formulation

Nuclear weapons, as an international issue speak for themselves, but the problem set forth is inspired by Obama's vision of a nuclear free world has re-ignited interest in nuclear weapons, specifically in regards to Iran and North Korea. With much of the world's attention focused on these two nations, the issue of nuclear proliferation has become as relevant as it was when Pakistan went nuclear. Recent NPT talks also bring into question whether the NPT is equipped to deal, not only with proliferation but also disarmament.

Background

A history of the first nuclear age; proliferation and deterrence

The awesome destructive power of the nuclear weapon was demonstrated to the world on August 6th, less than a month later, when the Enola Gay flew over Hiroshima and released 'Little Boy' resulting in the total destruction and irradiation of the entire city. The Soviets were well aware of the Manhattan Project and were thus not surprised when Truman informed Stalin himself of their new weapon; they had successfully recruited spies within the project and had been working on their own nuclear weapon. It was only when the USSR took Eastern Europe that they had access to the materials necessary to developing a nuclear weapon, namely Plutonium and Uranium. And so in 1949 the USSR conducted its first test and as a result began the nuclear arms race which saw both countries quickly and aggressively build massive arsenals of nuclear weapons.

The early Cold War saw the development of Thermonuclear weapons which were a combination of fission and fusion weapons and were many times more powerful than those dropped on Hiroshima and Nagasaki. The significance of these weapons was instantly recognized by both the US and USSR as well as in the academic world. The first text discussing the impact of nuclear weapons on international politics was *The Absolute Weapon*; the text fully understood the change that the nuclear age would bring about. Inevitably over the course of the Cold War there was a mass of literature on the subject, all discussing the many issues related to nuclear weapons, the most important of which was the introduction of a new concept; nuclear deterrence¹. It was not until the Cuban Missile Crises of 1962 that this concept became official military doctrine in the form of the MAD policy; mutually assured destruction. Before 1962 both states were far too entrenched in the arms race to realize that if either side launched a nuclear strike it could very well result in total annihilation, though of course before 1962 neither side had accumulated an arsenal capable of destroying the world. Nevertheless during the 50's both sides began to advance technologically in terms of nuclear delivery; the ICBM (inter-continental ballistic missile) and the SLBM (submarine launched ballistic missile), these two types of delivery systems provided both sides with the means and capability to launch a nuclear strike at any target within almost any location on either continent. The use of rockets also gave birth to

¹ J. Bayliss *et al.* *Strategy in the Contemporary World*.

the space race as the soviets launched the first artificial satellite into space; Sputnik in 1957.

This technological advancement had a tremendous effect on the nuclear politics of the Cold War as the possession of ICBM's and SLBM's meant that both sides would retain nuclear capabilities in the event of a strike on their arsenal, this is called Second-strike capability. So if the USSR decided to initiate a disarming strike, that is eliminate the US's nuclear forces they would not be able to destroy the underground silo's that house the ICBM's nor target the submarines carrying the SLBM's. The Cuban Missile Crises saw the fostering of mutually assured destruction, when both sides witnessed the dangers of brinkmanship; that is both sides advancing the risk of nuclear war until the other gives in. Brinkmanship is therefore a weakness in nuclear deterrence theory, since deterrence theory provides that peace will be guaranteed if there is equal cost to both sides, this analysis' of deterrence theory will be covered further in chapter 2. The crises of 1962 demonstrated to both sides just how powerful their respective arsenals were, they had engaged in a game of chicken and Khrushchev buckled, according the model of brinkmanship the US could have seen seized this as an indicator of the resoluteness of the USSR and could use brinkmanship again in the future for bargaining process. Fortunately this was not the case, a level of mutuality was reached once both sides realized that in pressing the button, not only would their countries be annihilated but so would the rest of the world and so the nuclear arms race stabilized with inclusion of the MAD doctrine into military strategy.

Despite this stabilization proliferation continued with the introduction of new nuclear powers. I will look next to the nuclear programmes of the UK, China and France, those whose arsenals are currently protected by the NPT. The UK was the third country to develop nuclear weapons and had an operational nuclear force by 1953, partly in thanks to US-UK co-operation. By 1969 the UK developed a coherent nuclear strategy that offered an effective deterrent against Moscow; this was with the deployment of the Polaris delivery system – submarine launched ballistic missiles. Before then the UK relied on the RAF to drop nuclear bombs on cities with a close proximity to West Germany. As well as acting a nuclear deterrent the Polaris forces were also

part of NATO's nuclear strategy, targeting was therefore subject to command from the US Strategic Air Command².

Non-proliferation efforts only began when China stepped onto the nuclear stage in 1964, though these were more arms control measures rather than non-proliferation measures and it was perhaps more to do with the combination of the dangers exhibited by the Cuban Missile Crises and the realization that other states had aspirations for nuclear weapons that drove the US and USSR to collaborate on arms control. China's entry into the nuclear club was very different to that of the UK and France because those two powers were part of NATO whereas China presented a whole new player, challenging the bi-polarity of the nuclear environment, a destabilizing factor threatening the unwritten rule of mutually assured destruction. Deterrence becomes very complicated once a third player steps, if the USSR and US have the capability to destroy each other equally then what of China? The Sino-Soviet split meant that China could not be to the USSR what France and the UK were to the US, China was an equal threat to both the US and USSR. China therefore instilled fear into US policy makers in 1964, not just for the aforementioned reasons but also because of its expansionist foreign policy in the years preceding. China was to the US what Iran and North Korea represent now; a rogue state that cannot be allowed to engage in nuclear proliferation because they do not, or are perceived as such to not follow the doctrines of mutually assured destruction and deterrence. From a post-colonialist view these fears may seem irrational but they were not totally unfounded. China had attacked India in 1962, continued to threaten Taiwan, fought directly with US forces in the Korean War and supported the Vietcong insurgency in North Vietnam, once again, against US forces. It was feared that Chinese nuclearisation was indication that China wanted to eject the US from East Asia and that it would lead to further proliferation throughout the region as other states would feel threatened by a nuclear China. The 1964 atomic test sent US policymakers into a spiral of debate over the future of US non-proliferation strategy; policy-makers faced countless dilemmas in formulating a new strategy, the arms control and non-proliferation measures taken as a result of this test will be discussed in chapter 3. In the mean time I will look at the theorisation of the nuclear deterrent, its success, failures and relevancy in the current climate.

² K. Stoddart. *Maintaining the 'Moscow Criterion: British Strategic Nuclear Targeting 1974-79*. The Journal of Strategic Studies. Vol. 31, No. 6, 897-924, December 2008. Pg. 899.

Methodology

With the chief purpose of this thesis being to answer the question of the effectiveness of the NPT in terms of total disarmament and in the process reaching a conclusion on the utility of the nuclear deterrent in the post-Cold War world. Firstly the justification for posing such questions lie in their relevance and importance to contemporary International Relations, arguably there is nothing more important than nuclear weapons because of their destructive capability, which is a threat to all mankind, therefore placing nuclear weapons high on the academic agenda. The two questions posed are naturally in-twined because in questioning whether we can eradicate nuclear weapons one must first ask whether we even *should*. It is a commonly held assumption that nuclear weapons are a menace in International Relations, because they give rise to complications in diplomacy and because of their obvious dangers to human life. This thesis will however challenge this assumption, this will be done via a case study approach utilising the cases of not only rogue states but also India and Pakistan, their case will be analysed in order to provide an understanding of the nuclear deterrent and its tactical and strategic advantages.

The case study method will also be used for the question regarding the NPT, this is necessary because a deep and complex understanding of each Nuclear Weapon state and Non-Nuclear Weapon state is required to analyse its effectiveness. I have chosen to analyse the nuclear policies of Britain and China, while giving only a little attention to the US and Russia, this is because of the uniqueness of their policies that give credence to possibility of total disarmament. The Non-signatory states will be given much focus also because they provide cases of states who still adhere to realist principles of survival, most notably Iran and North Korea, where India and Pakistan almost illustrate a Cold War type-brinkmanship in South Asia.

The theoretical framework laid out in this thesis is generally focused on realism, both classical and neo-realist; these theories are applied to the theories of nuclear deterrence in order to test its relevancy in a post-Cold War environment. When looking at nuclear deterrence I will also use the case study of the Cuban Missile Crisis as it is a real example of the failures of nuclear deterrence theory.

Methodological Approach

This project employs a very deductive approach to the research approach; the deductive approach is the most common research design as it involves the researcher providing a hypothesis and then conducting research to test their theory. The pre-supposed idea in this case is that the nuclear deterrent, while paradoxical, ultimately preserves peace, as demonstrated by the Cuban Missile Crisis, though there are more factors in play which determine a state's actions. In addition to this, there is also a presumption that the NPT is insufficient to eradicate nuclear weapons due to its inequality and hypocrisy.

Naturally this is a qualitative study as the chief research method is the case study, this because in determining the usefulness of nuclear weapons it is best gain an in-depth understanding of a States nuclear policy and their motivations in relation to disarmament, something which cannot be achieved through a quantitative approach. The data used throughout this study will chiefly be secondary data, that is, academic articles from respected journals that deal with nuclear weapons, this data is justified because a States press releases are very unreliable in regards to nuclear weapons.

Theoretical framework

The Nuclear deterrent – Success and failures

A look at inclusion of the nuclear deterrent into international politics, building on from chapter 1 this chapter will look how the nuclear deterrent ensured peace between the major powers and how it continues to ensure that peace. It will also look at its limitations in preventing conflicts between smaller states and questions whether the nuclear deterrent is fine the way it is, should be expanded or should be reduced.

Neo-realists celebrate the nuclear deterrent and flaunt its success in keeping the Cold War cold, but its detractors point to the many proxy wars and small scale conflicts that took place during not only the Cold war but also post-1990. Nuclear deterrence presents a new kind of deterrence, never before in the history of warfare has there been a weapon like the nuke, never before has a weapon offered total decimation of an entire city. What makes the nuke so genuine its destructiveness is its absoluteness, nuclear warfare is synonymous with Armageddon, it has always been assumed since the Cuban Missile Crisis that the launch of just one nuclear warhead will lead to apocalypse, Kenneth Waltz has since challenged this assumption as being 'silly'³. In acknowledging the special status that nuclear deterrence holds Robert Jervis claims that nuclear deterrence fits into neither of the structural realist world of offensive or defensive realism but in between⁴. Deterrence is essentially a situation where for both sides the cost of attacking will always outweigh the benefit; there are no varying degrees in nuclear warfare, nuclear deterrence is the ultimate form of deterrence. To say that nuclear deterrence does not fit into either of these branches of thought we must first analyse them in the context of deterrence. Defensive realists, such as Kenneth Waltz; propose that states pursue power to protect themselves, rather than for the sake of having power and achieving hegemony. Defensive realists reject the idea that states look to maximise their power with the final goal of achieving hegemony so as to achieve a guarantee of survival, instead states will band together in alliances if a hegemon emerges. According to Defensive Realists this is the natural process of the international order, they are of

³ P. Feaver. *Optimists, Pessimists and theories of nuclear proliferation management*. Security Studies, 4: 4, 754 — 772. P.755

⁴ K. Adams. *Attack and Conquer? International Anarchy and the Offense-defense-deterrence balance*. International Security, Volume 28, Number 3, Winter 2003/04, p.49

course backed up by the evidence provided by the Napoleonic conquest and the Imperial and Nazi Germany's, these aspiring hegemons were faced with lesser powers who, in their pursuit of security challenged the power of the aforementioned hegemons. With nuclear weapons this categorisation becomes complicated, if states seek power for solely security purposes then why did states such as the UK, France and China go nuclear? They were existing in a bi-polar world, there was no single hegemon and thus no need to become nuclear powers themselves, and by becoming nuclear they instead created new security problems for themselves. They would have to develop sophisticated nuclear weapon delivery systems, create a large stockpile and maintain a centralised command over their missiles. Defensive realism cannot explain this behaviour, however many defensive realists admit that great powers actions often contradict their theory, they claim that this is when those states are not acting rationally and are instead confounded by organisational and bureaucratic factors⁵.

There is also the prospect of a bargaining tool; this is arguably the most important reason why states nowadays seek nuclear weapons, but how does bargaining fit into deterrence when both states involved stand an equal chance of destruction? Robert Powell investigates this theoretical problem in regards to rogue states acquiring nuclear weapons and the use of National Missile Defence. He argues that when dealing with a rogue state the stability experienced by the US and USSR cannot be applied when dealing with rogue and nuclear deterrence theory is not so absolute and clear-cut, in fact it can vary depending on the conditions to which it is applied⁶. Powell introduces a fundamental credibility problem, he questions how a state can credibly impose coercive sanctions if the threat in question was to be imposed the state issuing the threat would itself be destroyed? When mutually assured destruction is in question a state cannot threaten to deliberately launch a nuclear strike as it would result in its own demise, they can however engage in a process that heightens the risk, either through a crisis, such as the Cuban Missile Crisis or a limited war, such as the many proxy wars like Vietnam. This purposeful heightening of the risk of a nuclear exchange is known as 'brinkmanship'. Brinkmanship is indeed a thorn in the side of deterrence in theory, although in practice it has only taken place once, but nevertheless it poses a problem for the Post-Cold War world with many nuclear players now in

⁵ J. Mearsheimer. *Structural Realism in International Relations Theories*. Oxford University Press, Oxford, 2007. P.77

⁶ R. Powell. *Nuclear Deterrence Theory, Nuclear Proliferation and National Missile Defence*. *International Security*, Volume 27, Number 4, Spring 2003. P.89.

the picture. Contrary to popular thought brinkmanship is not simply reckless behaviour during a crisis but instead a bargaining process of risk-maximization in which both states take a maximizing approach and mutually accept the military risk of nuclear war. Marc Trachtenberg supports this model of brinkmanship and points to the Cuban Missile Crisis as an example where officials were willing to accept the risk of nuclear war during the crises, meaning that officials, while they may be eager to avoid nuclear war, are just as eager to out-bid the other state in the game of brinkmanship⁷. Therefore, though the nuclear deterrent did arguably prevent a nuclear exchange in 1962, this model of brinkmanship does not fully explain the dynamics of the escalation of the Cuban Missile Crises, as officials within the Kennedy administration were willing to accept the risk of nuclear war, thus they were not deterred by the threat, they used their own threat to deter Khrushchev. In regard to the Cuban Missile Crisis there was a significant human element involved, particularly in terms of bureaucratic procedures and routines, such elements easily breakdown in times of crises, which can sometimes either help or hinder the situation⁸.

This relates to a further weakness of the nuclear deterrent in times of crises; credibility. A state's ability to exert coercive pressure comes from its destructive capabilities inherent in its nuclear arsenal, this coercive pressure carries with it the threat that an adversary cannot possibly bear. The credibility problem that Powell raises is that a state cannot credibly pose a threat that would result in its own destruction. Powell suggests that the aforementioned model of brinkmanship provides a way around this problem, claiming that in a crisis both states purposefully raise the risk of a nuclear exchange in the hope that their opponent will lack the resolve to continue the process of risk-maximisation. According to Powell resolve is the fundamental element which prevents the two states nuclear arsenals from cancelling each other out and is what possibly gives an advantage to one side. Since the resolve of a leader or his government is a psychological matter there is no way for one side to know how resolute the other is, in this case brinkmanship occurs and each side tests the others resolve by gradually increasing the risk⁹. This is what occurred during the Cuban Missile Crisis Khrushchev was testing Kennedy's resolve by continuing to build missile sites and send shipments into Cuba. I posit that the model of

⁷ R. Powell. *Nuclear Deterrence Theory, Nuclear Proliferation and National Missile Defence*. International Security, Volume 27, Number 4, Spring 2003.p 90

⁸ D. Welch.

⁹ *Op.Cit.*, Powell. P.93

brinkmanship cannot be applied to crisis situations because it assumes rationality on the part of the decision maker and rationality cannot be presumed when bureaucratic politics is factored into the decision-making process. Therefore the case of the Cuban Missile Crisis ultimately demonstrates the weaknesses of the nuclear deterrent as the escalation of the crisis was due almost wholly to the nuclear deterrent itself, the Soviets were trying to place themselves on the same level as the US, that is, first-strike capability. The case study also shows us that in a time of crisis a nuclear power does not act as a rational actor but is instead confounded by bureaucratic and psychological factors, and since the nuclear deterrent rests on an assumption of rationality we can conclude that the nuclear deterrent does not guarantee prevention of nuclear exchange.

The long peace between the US and USSR has been attributed chiefly to nuclear deterrence, though the state of bi-polarity indeed also played a part we can safely say that the USSR never invaded Western Europe because of the nuclear threat that NATO posed. The nuclear deterrent is not limited exclusively to nuclear warfare but also to conventional warfare, because of the sheer size of the Red Army, NATO made it clear that if the USSR were to attack with conventional forces they would respond with a nuclear attack with which of course the USSR would respond in kind. Such a scenario does indeed have its flaws, as pointed out in the British sitcom series *Yes, Prime Minister*, where the prime Minister is probed over whether he would indeed launch a nuclear strike if the Soviets used 'salami tactics', that is take over Western Europe bit by bit, not so much an invasion but a gradual takeover and not necessarily using force. Though only a sitcom, the writers make a valid point, would a leader be willing to launch the first strike with nuclear weapons if they were only threatened with conventional weapons? The fact that a nuclear exchange never took place when a proxy war broke out suggests not, but then again these were never conflicts fought directly between the US and USSR.

So far we can say that although the nuclear deterrent achieved its aim during the Cold War and has so far been successful since 1990 my analysis has pointed to the fact during the Cold War the deterrent evolved into a kind institution, there was a significant element of mutuality between the US and USSR and both sides had secured similar numbers in terms of stockpile, had both centralised and tight control over their nuclear command structure as well as similar delivery systems. The once crisis that occurred didn't spiral out of control because of one sides knowledge of the others level of resolve, that is, Khrushchev was aware of how far Kennedy

would go before backing down. Along with a certain degree of rationality, all of this was necessary for the deterrent to be successful; in a nuclear multipolar world this is likely not to be the case especially with regards to actors considered irrational such as Iran and North Korea or even terrorists. The bipolarity that exists between Pakistan and India is also considerably more unstable than that which existed between the US and USSR, this is largely in part to geographical factors and unresolved territorial issues such as Kashmir as well as Pakistani involvement in acts of terrorism in India. In the coming century we are likely to see an increase in these

This brings me to another failure of the nuclear deterrent, its inability to prevent conventional conflict between nuclear powers' allies. Since the US and USSR were forced to avoid direct conflict and so the Cold War was characterised by espionage warfare and the exploitation of developing countries as proxies, once the nuclear race had reached its climax and both states were pushing for non-proliferation the only avenue for power and influence was through these states. Proliferation optimists point out that the spread of nuclear weapons has changed the nature of conflict for the good, as the Neo-Realist Kenneth Waltz notes "Where nuclear weapons threaten to make the cost of wars immense, who will dare to start them?"¹⁰.

The evolution of non-proliferation

As discussed in chapter 2 the nuclear deterrent of the Cold War was effective because the US and USSR had developed a well-established mutual understanding and similar nuclear strategies, equally large stockpiles and both had centralised command over their stockpiles. The danger of proliferation was recognised by both states immediately, the bipolarity of the Cold War was considered to be what kept the Cold War stable, therefore the possession of nuclear weapons also had to be exclusively bipolar. Since the UK and France were part of NATO and formed the European deterrent against the Soviet Union, their inclusion into the nuclear club was considered acceptable, or at least tolerable. When China conducted its first atomic bomb test however the

¹⁰ Blight, James G. and Welch, David A. (1995) 'Risking "The Destruction of Nations": Lessons of The Cuban Missile Crisis for New and Aspiring Nuclear States', *Security Studies*, 4: 4. p.815

CIA began to fear that this would start a trend of other 'unstable' states becoming nuclear, since China had just undergone a violent revolution with the Communist Party emerging as the victor the CIA viewed them as a state that couldn't be trusted to be responsible with nuclear weapons. China only increased American official's worries that nuclear proliferation would increase and therefore greatly increase the risk involved in regional conflicts, most importantly proliferation would add a new dimension to the relations between the two alliance systems and opening up the possibility that a small hostile confrontation could escalate into a major nuclear confrontation between the two major powers¹¹. The Non-Proliferation Treaty was born out of these fears, which are arguably realist orientated, in that the existing nuclear powers, especially the US and USSR were primarily concerned with the potential erosion of their power and hoped that a display of mutual superpower solidarity would set an example and show the rest of the world that nuclear weapons were of such importance that despite all the tension between the US and USSR they could in fact agree over non-proliferation.

The element of realism surrounding the NPT talks was indeed prevalent, as both states were concerned with the relative gains that such an agreement would bring. Kennedy hoped that the Soviet Union recognised that it had as much to lose as the US did from proliferation and that by consolidating their positions in the bipolar system they would create a stable international environment. The Soviet Union respectively saw the NPT as an opportunity to elevate the USSR to a diplomatic status equal to that of the US as well giving a degree of legitimacy to its status as a nuclear power. The NPT also represented an element of détente that had previously been unseen in the Cold War; this was particularly significant especially in the context of the Cuban Missile Crisis and the Berlin crisis¹². As previously mentioned there is a significant degree of relative gains theory here in that both the US and USSR were equally concerned with a nuclear China, the Sino-Soviet split had occurred during the 1950's and so China represented a threat to both superpowers. Mao Zedong was viewed with heavy suspicion as being a leader that had little regard for the tactics of modern warfare and so would be very unlikely to develop a sensible nuclear policy that would subscribe to the mutuality of mutually assured destruction. In addition to China the superpowers also feared a nuclear West Germany; they recognised that Germany

¹¹ Brands, Hal(2007) 'Non-Proliferation and the Dynamics of the Middle Cold War: The Superpowers, the MLF, and the NPT', Cold War History. P. 391

¹² *Ibid*, p.392

may seek to go nuclear out of a security necessity with France having achieved nuclear status. This of course raises another issue of deterrence; the security dilemma, the acquisition of nuclear weapons creates a kind of domino effect where a neighbouring state or perhaps a rival state will pursue nuclear weapons in response to a neighbour's acquisition of the weapons. This phenomenon is what eventually led to the signing of the treaty and provides a strong justification for what many claim is an unfair treaty. Non-proliferation was decided on immediately following China's atomic test – or when the CIA realised that China had nuclear capabilities, the American-European proposal for a Multilateral Force (MLF) was put forward as a strategy to stymie any possible German aspirations for the bomb and also 'share the load' as it were of the NATO nuclear deterrent. The proposal was that there would be a nuclear-equipped submarine fleet that come under the command of NATO central headquarters rather than have a collection of independent nuclear powers. The MLF would be in effect 'nuclear sharing', as control of NATO's nuclear forces would not be exclusive to Washington, this naturally provided much anxiety to Moscow as it raised the possibility of a German-controlled nuclear force which was regarded by the USSR as unacceptable. The signing of the NPT arose out of a compromise that originated from the MLF; Kennedy recognised that Khrushchev would be very unlikely to agree to non-proliferation while the US was increasing its nuclear reach by extending control of its nuclear forces to its allies¹³.

The pre-NPT negotiations reveal much of the anxiety felt by the nuclear powers, while it may seem that agreeing they should remain the only nuclear powers would be a simpler process due to the mutuality of the agreement. The complexity arises from the fact that even small arsenals deter, the prospect of a German controlled nuclear force worried Khrushchev such to the extent that he was willing to allow the MLF but that it exclude West Germany. This tells us that for all the supposed realist style anarchy that surrounds nuclear politics there is in fact a high degree of co-operation and mutuality, not just out of fear of each other's arsenals but those of other states. This might suggest that the nature of non-proliferation, as previously mentioned fits into the category of structural realism, which supports the idea that states recognise the need for co-operation and compromise in an anarchic environment. There is also perhaps a degree of liberal institutionalism or even the regime theory of Stephen Krasner in regards to the Non-Proliferation

¹³ *Ibid.*, p.395

Treaty itself. Before delving too much into the theory behind non-proliferation I will give an account of the agreements and structure behind the NPT.

The NPT is made up of three so-called 'pillars', those being proliferation, disarmament and peaceful use. There is some controversy being the equality of these pillars since the name of the treaty suggests that the first pillar; non-proliferation holds a significant amount of importance over the other two pillars¹⁴. This is a major focus of the thesis as the problem raises many questions as to the intent of the NW states and the NNW (Nuclear Weapon and Non-Nuclear states) to completely disarm their arsenals and whether the NPT can deliver this and also whether this is in fact desirable. The first pillar; non-proliferation, as mentioned is easily the most important provision of the treaty it recognises five states as Nuclear Weapon States, these are of course, the UK, US, Russia, China and France. Under this provision these states are allowed to possess nuclear weapons but cannot transfer nuclear weapon technology or encourage or induce Non-Nuclear Weapon States to engage in the development of nuclear weapons. The NNW states are of course not allowed to manufacture or acquire nuclear weapons or seek assistance in the manufacturing of nuclear weapons, they must also agree to the safeguards of the International Atomic Energy Agency (IAEA). The second pillar; disarmament, is less well established, only in the preamble of the NPT is the desire to disarm expressed, strongly suggesting that this is not a top priority for any of the Nuclear Weapon States. This is of course very understandable when the context of the treaty is taken into account; the signing took place in 1968, during the height of the Vietnam War, a time when the relationship between the US and USSR were extremely strained. The second pillar was most likely inserted as an incentive for Non-nuclear Weapon states to sign, to create a bargain and foster international trust, if some states were outright not allowed to possess nuclear weapons and others were the only way to include a degree of fairness is for the Nuclear Weapon states to at least disarm gradually and to create an expectation that at some point in the future they would eventually disarm completely. Along with the rhetoric of the Treaties preamble it is Article VI that is dedicated to the second pillar, it fails to create an obligation for future disarmament, instead it asks that states only:

¹⁴ This view was expressed by Christopher Ford, the U.S. NPT representative at the end of the Bush Administration. See "The 2010 Review Cycle So Far: A View from the United States of America," presented at Wilton Park, United Kingdom, December 20, 2007.

“Negotiate in good faith on effective measures relating to the cessation of the nuclear arms race at an early date and on a treaty on general and complete disarmament”¹⁵.

A major problem of the NPT is not just that there is no legal obligation to completely disarm but that proliferation and disarm work hand in hand, if the treaty fails to prevent non-proliferation in the cases such as North Korea, Iran, Pakistan, India and Iran there is no possibility, in regards to security at least, that the nuclear weapon states would reduce their arsenal, it would break the most fundamental laws of deterrence. A further evaluation of the NPT will be carried in chapter 4.

The third pillar lays out the approved peaceful uses of nuclear energy, it allows for the Nuclear Weapon States to aid the other signatory's in their development of civilian nuclear programs through the transfer of materials and technology, those states with civilian nuclear programs must demonstrate however that their program are not being used to develop nuclear weapons. The IEAE is responsible for conducting inspections of nuclear sites to ensure this. With the use of the light water reactor nuclear power station which uses enriched uranium as fuel there is a fine line between the capabilities for civilian and military use, this lead the Director-General of the IEAE, Mohamed El Baradei, to label the third pillar as the 'Achilles heel' of the NPT¹⁶. With the right to pursue a peaceful nuclear program comes the right to possess uranium enrichment technology and plutonium reprocessing technology, therefore all states who pursue a civilian program not only have the knowledge but also the technology to develop nuclear weapons, El Baradei estimates that 35-40 states currently possess this capability¹⁷. At a glance this may seem a precarious situation that seriously threatens the security of the NPT, but these fears are in actuality irrational, while the assumption that peaceful nuclear assistance will inevitably lead to the acquirement of nuclear weapons is popular, it is in fact a lazy assessment of how and why states pursue power. Those who take this view assume that all seek power for the sake of power; this is the offensive branch of structural realism which does not take into account the rationality of most states that recognise the security problems that nuclear weapons cause rather than solve.

¹⁵ IEAE. Treaty On the Non-proliferation of Nuclear Weapons. 1970. INF. p.4

¹⁶ Daniel Dombey (19 February 2007). "Director General's Interview on Iran and DPRK". Financial Times. <http://www.iaea.org/NewsCenter/Transcripts/2007/ft190207.html>. Retrieved 2006-05-04. Cited on 17/12/2010.

¹⁷ Mohamed ElBaradei (2004) . *Preserving the Non-Proliferation Treaty*. Disarmament Forum. <http://www.unidir.org/pdf/articles/pdf-art2185.pdf>, p.5 Retrieved 2007-11-17. Cited on 17/12/10

Nuclear proliferation in relation to civilian use will be explored further in the chapters evaluating the NPT in relation to Iran and non-signatory states.

The third pillar is reinforced by the safeguards employed the IEAE; these safeguards include verification measures and inspections of nuclear sites. There are two sets of verification methods that the IEAE employ, the first is verification of reports that declare the use of nuclear material and activities, which accounts for nuclear materials by way of containment and surveillance techniques; these include tamper-proof seals and cameras that are installed by the IEAE at the nuclear sites. The second set relates to the inspections the IEAE carries out, it includes a legal document, known as the 'Additional Measures' protocol which allows the IEAE to verify the non-diversion of nuclear materials as well as investigatory powers as to the absence of undeclared nuclear materials. In addition to these verification measures the IEAE has the power to carry out five types of inspections, these being; ad hoc, routine, special and safeguard visits. The Additional Protocol provision significantly enhances the effectiveness of these inspections as it allows the inspector access to all parts of a State's nuclear fuel cycle, short-notice access to all building on a nuclear site, collection of environmental samples beyond declared locations and state provision of information relating to the nuclear fuel cycle and the manufacture and export of sensitive nuclear-related technologies¹⁸.

Evaluation of the NPT

The NPT represents a very unique element in international relations, the effect that it has had on the five nuclear weapon states is in particular interesting, not only because these five states are also on the UN Security Council but also that it has consolidated the position of those states as being higher than the rest of the world. Their prestige is recognised on a legal basis while other states have been condemned to remain lower in the global hierarchy, this can be said to be a significant failure as some states do seek prestige as well as security through the acquirement of nuclear weapons. The NPT cannot stop a state that is determined to develop nuclear weapons; we have of course seen this with the cases of India and Pakistan, the treaty can only be effective if it is mandatory to sign. Furthermore those states that are signatories and wish to develop nuclear weapons only have to move their project underground, Bradley Thayer refers to this as opaque

¹⁸ <http://www.world-nuclear.org/info/iaeasafeguards.html> (Retrieved on 17/12/10)

proliferation. According to Thayer this kind of proliferation has seven characteristics, the first being that the state does not conduct nuclear tests; second they deny any possession of nuclear weapons; third it has no declared nuclear doctrine; fourth it has no open military deployment of nuclear weapons; fifth the state makes no explicit nuclear threats; sixth there is no public debate among the nation's elite regarding the development of nuclear weapons and finally the program is insulated from the nation's military and foreign policy institutions¹⁹. These characteristics are of course very true with the current North Korean, Iranian and Israeli regimes, but I will further discuss these regimes in chapter 7, in this chapter I will focus on the NWS and what they have done to implement the second pillar of the NPT; disarmament.

The first step towards disarmament was the Strategic Arms Reduction Talks I (START I) signed by the US and USSR in 1991, coming into force into 1993. The treaty set a limit of 6,000 nuclear weapons to be deployed by both sides and no more than 1,600 ICBMS, SLBMS and strategic bombers. Before the signing of this treaty a number of states abandoned their nuclear weapons programs and then joined the NPT as non-weapon states, these were South Africa, Belarus, Kazakhstan and Ukraine. Despite such advances in nuclear disarmament the US, supposedly the leading proponent of disarmament has enacted several policy initiatives that only serve to improve their strategic nuclear forces. The most significant aspect of US nuclear policy is that it still retains its first strike policy which was the chief deterrent for NATO during the Cold War, not only did the Bush administrations continue this policy but they also attempted to start the Reliable Replacement Warhead program, which sought to replace existing with a smaller number of warheads that would not need testing and would be easier to maintain, this program was not approved by congress. They also did not approve of the proposed Complex Transformation program which sought to upgrade the thermonuclear weapons complex. The Nuclear Bunker Buster was also a controversial proposed program which looked to develop a gravity bomb which could penetrate into earth in order to destroy underground targets; again congress did not fund this program²⁰.

¹⁹ Thayer, Bradley A.(1995) 'The Causes of Nuclear Proliferation and the Utility of the Nuclear Non-Proliferation Regime', Security Studies, p.467

²⁰ <http://www.guardian.co.uk/world/2003/nov/30/usa.georgebush>. P. Harris. The Guardian. 'Bush Plans new nuclear weapons'. 2003. Retrieved 17/12/2010.

The NPT and its signatories

What these proposals reveal about US nuclear policy following the Cold War is interesting because we can clearly see that there is still very much a Cold War mentality within US policy-making, such nuclear posturing is of course very dangerous to credibility of the US and indeed to the NPT. It only serves to further damage the NPT by inviting claims of hypocrisy, since not only can the US continue to possess nuclear weapons without any real obligation to disarm they are also permitted to enhance their current nuclear arsenal. Perhaps most controversial of all were the plans for a 'Missile Shield' in Poland and the Czech republic in order to continue a NATO deterrence against Russia, these plans if implemented would have been disastrous for the non-proliferation regime and could have potentially kick-started a second Cold War, Putin himself warned the US that Russia would place short-range nuclear missiles on the Russian border if the US did actually place interceptor missiles and a radar in Poland and Czech Republic and would withdraw itself from the Intermediate-Range Nuclear Forces Treaty of 1987²¹. The change in government however has brought about massive changes to US nuclear policy, Obama's speech in Prague envisioning a world free of nuclear weapons set the tone for the NPT review conference which achieved significant steps forward for the non-proliferation regime with the signing of the new START Treaty. The new START aims to reduce the number of deployed strategic nuclear warheads on both sides to 1,550 each, though the number of stockpiled weapons will remain the high thousands. Despite the advances made in this treaty Obama's Nuclear Posture review strategically retains not only the first-strike policy but also rules out a nuclear strike against a non-nuclear state who is party to the treaty, which of course allows for a first-strike against not only Russia and China but also North Korea and Iran²². Most interesting of all the treaty fails to address short-range tactical and strategic nuclear weapons for use against conventional armies, though these weapons do not pose a threat to the US from Russia, they pose a massive security risk as there are thousands scattered throughout Russia, the risk of stolen Russian nuclear materials will be discussed in chapter 7. The fact that Obama rushed to get the treaty passed with the current Democratic upper house suggests that American

²¹ <http://www.telegraph.co.uk/news/worldnews/1569495/Russia-piles-pressure-on-EU-over-missile-shield.html>. A. Blomfield, The Telegraph. 2007. Retrieved 17/12/2010.

²² David E. Sanger; Peter Baker (5 April 2010). "Obama Limits When U.S. Would Use Nuclear Arms". *New York Times* (New York, NY: Arthur Ochs Sulzberger, Jr.). <http://www.nytimes.com/2010/04/06/world/06arms.html>. Retrieved 17/12/2010

nuclear policy is subject to bipartisanship, however the current composition of the lower house and the passing of treaty would suggest that this is not the case. Those who praise the treaty will of course say that it is a massive precedent and though it is lacking in reducing the presence of nuclear weapons in international politics it is a step forward nonetheless that can only lead to further disarmament. In response to this I argue that the treaty simply allows far too much scope for the US and instead sets the precedent for future treaties to continue to do the same, this is again a revisiting of the defensive realist branch of structural realism because the nuclear powers are seeking to maximise security instead of just power. The essence of deterrence has deteriorated significantly of course but the problem with the second nuclear age is primarily the threat from rogue states and terrorists, this is why the US is keeping its options open with retaining its right to attack those states.

British nuclear policy provides an interesting contrast with American and Russian because if we say that the policies of the US and Russia are acceptable and tolerable in light of rogue states and possible nuclear terrorism and one cannot exist without the other then what relevance does British nuclear policy hold? Britain now holds the least number of strategic nuclear weapons out of the five NWS; 160. William Walker claims that because of this Britain is a 'Threshold State' not in the sense that it was in between possessing and not possessing nuclear weapons when the NPT was signed but instead that it is moving towards disarmament more than any other state. Walker seems to hold hope that the UK could perhaps be the first nuclear power to completely abandon its nuclear weapons²³, along with this it has also been discussed that nuclear weapons no longer hold any relevancy for the UK's security. If these claims are true, that the UK not only does no longer need nukes but is moving towards disarmament then it would lay down a significant precedent of a Nuclear Weapon state abandoning its nuclear status and could provide inspiration for the states to eventually do the same, regardless of NPT commitments. Such a case of disarmament would certainly raise hopes of future disarmament, though these would be premature and realistically speaking we could only hope to see France next in line for disarmament, this is because these two states have no 'rivalry' with another nuclear state, Russia pose more of a conventional threat than nuclear to the European theatre. Walker sees the UK as a responsible nuclear power and attaches to this label the duty to place priority on the collective

²³ W, Walker. *The UK, Threshold Status and Responsible Nuclear Sovereignty*. *International Affairs* 86: 2 (2010) 447–464. P.447

rather than individual interest in regard to nuclear weapons, this means creating a shared understanding of norms of responsible nuclear sovereignty an agreement between nuclear states to collectively move toward disarmament while simultaneously opening themselves up to a certain amount of risk in doing so²⁴. A major problem with this approach to disarmament is that there is of course a shared understanding and loyalty to disarmament norms with the NPT and it is this current understanding which provides a pretext *not* to move towards disarmament, those states claim that because they have such control over their nuclear forces there is no need to completely disarm. This, along with the likelihood of a collective simultaneous movement towards the threshold of disarmament only decreases the chances of total disarmament.

British Nuclear Policy: Reluctance and Persistence

Now to use the case of the UK in regard to second core issue of this thesis; deterrence and its relevancy. In the Cold War the UK government's justification for the possession of nuclear weapons was that because the UK was such a small country that a nuclear attack of any scale would totally annihilate the British people and its infrastructure and so to insure deterrence the British military would need the Soviet government to believe they had the capability to inflict unacceptable losses on the Russian people so as to deter an attack, the UK was certainly a viable target for a Soviet attack as it was home to many US forward bases.

Though the US and Russia were the leading actors in non-proliferation and disarmament, the UK would certainly claim that nuclear arms control is at the centre of its interests and has always been the most responsible power by employing a minimum deterrent through the deployment of a single nuclear force operated by one branch of the military, that is the Trident system which is operated by the Navy²⁵. The only real hurdle to total British disarmament is the resultant nuclear position of Europe; Walker points out that France itself, as well as the rest of Europe would be uncomfortable with France ever being the sole nuclear power in Europe. A collective EU deterrent is a commitment which would require such high levels of political and military integration that would be unacceptable to British policy. Walker also suggests that British

²⁴ *Ibid.*, p.448

²⁵ *Ibid.*, p.452

disarmament would be more damaging to Anglo-European relations than Anglo-American relations because not only is France reluctant to be the sole Nuclear power in Europe but that such unilateral disarmament would create rifts and political dilemma's within the EU that would be difficult to overcome²⁶. There may be some truth to this claim, while it may be true that the UK is tied very closely to the US in terms of nuclear trade and policy the US does not depend on British nuclear support, it is much more concerned about political support and British commitments under the UKUSA security agreement, namely the NSA listening post at Menwith Hill in South Yorkshire.

A major justification of continuing the nuclear deterrent, by both the UK and US is that they need to deter 'rogue states', again this issue relates back to the deterrence debate discussed in previous chapters. There are major flaws in this argument, the most obvious being that if the UK or US were ever threatened with nuclear blackmail by a small 'rogue state' or even an actual attack, a nuclear response by the UK would easily constitute a disproportionate and unnecessary response that would invite damaging political controversy that would destroy the UK's reputation to a much higher extent than the Iraq War ever did. In terms of deterrence the nuclear arsenals of the UK and US offer no more threat than the highly advanced capabilities of their conventional forces, especially when used against Rogue States whose defence against such weapons are severely limited. The rationality of a rogue state can be called into question when its very existence is questioned, a state that feels its existence is threatened and possess' nuclear weapons is very unlikely to be deterred by a major powers' nuclear arsenal, such a crisis would not hold the same characteristics of the crisis' experienced during the Cold War, the mutuality and understanding between the US and USSR would never exist between a major power and a state such as North Korea and Iran, in short nuclear deterrence would be wasted on such actors. This point relates again to the major issue of whether the nuclear deterrent is still relevant in the present climate. UK possession does not provide a 'failsafe' guarantee to operations and interventions in rogue states nor does it provide protection against nuclear blackmail and we have also surmised that rogue states are not even deterred by a major powers' arsenal, this coupled with the fact that any nuclear response by the UK or US would be politically devastating to the point that their credibility would be permanently tainted surely leads us to the conclusion

²⁶ *Ibid.*, p.455

that in regard to rogue states at least nuclear weapons have no relevance. We can also conclude from this section that although Britain is the closest of the five to disarmament, this progress will continue to be only a gradual movement based on participation in disarmament talks and a non-threatening position of minimal deterrence. Total disarmament for the UK can only be achieved on a multilateral level, the UK itself has perhaps been the most active nuclear state in arms control treaties but this does not mean that it would unilaterally disarm; this would in fact be irresponsible chiefly because of the implications for France and the rest of Europe. The UK is also unique the way in which the nuclear issue is discussed publicly especially with the recent questioning of whether or not to renew Trident due to financial constraints, a move to not renew the weapons system may force the UK to give up their deterrent sooner or at the least a 'best before date' sometime around the 2050's, the British Parliament is currently delaying the decision to renew until 2015.

China's Nuclear Policy: A paradox in structuralism.

In discussing the success of the NPT and its likelihood in forever erasing the nuclear threat China poses a unique position among the NWS, throughout the Cold War its nuclear force was wholly inferior to that of the US and USSR, they had no real delivery capabilities and left themselves vulnerable despite partaking in the security competition it failed to match the nuclear capabilities of its main rivals. It seemed almost as if China went nuclear simply out of necessity, America's coercion of China during the Korean led to China to believe that Nuclear weapons would be a useful tool to protect itself against further coercion or a conventional attack by either the US or Russia. The reason for China's policy of minimal deterrence is due to China's unique perspective on nuclear weapons, that is that they were tools for securing deterrence and protecting against coercion, the Chinese believed that deterrence was an easy objective to achieve and that it only took a few weapons to deter an enemy, Mao Zedong and Deng Xiaoping never viewed nuclear weapons in a strategic or military sense²⁷. As well general policy there were also operational and technological constraints, the PLA lacked the expertise and experience to properly formulate a nuclear strategy up until the 1990's, even by this point China only possessed 20 ICBM's that had the capability to strike either Washington or Moscow and even these missile were vulnerable and

²⁷ M. Fravel & E. Medeiros., *China's Search For Assured Retaliation; The Evolution Of Chinese Nuclear Strategy and Force Structure*. International Security, Volume 35, Number 2, Fall 2010, p.51

took a long time to prepare due to liquid-fuelled propulsion systems and thus would be near useless in a second-strike scenario. In addition to this China retained a weak command structure over its nuclear force, since it was dependent on radio-communication it would be immediately disabled by a nuclear first-strike²⁸. One of the paradoxes that China's position presents is that because it has been slow to modernise its nuclear force it is continuing to improve its delivery systems, increase its number of strategic warheads to improve the credibility of its second-strike retaliation but at the same time is a major champion of non-proliferation. This paradox however is not unsolvable, thanks to the prudence of China's nuclear posture, it has not sought to upgrade its missile defences to such a degree that would counter US conventional efforts to pre-emptively destroy China's warheads, instead it has employed a deliberately ambiguous stance in regard to its nuclear doctrine in an attempt to deter any conventional attack on its nuclear weapons²⁹. Such a move only provides more evidence that China will only ever seek assured second-strike capability and will not attempt to 'out-do' its rivals such as engage in arms races or develop weapon systems such as Multiple Independently Targeted Re-entry Vehicles which would only serve to increase tensions with not only the US but also Russia and India. To date China has acquired MIRV's but have only equipped them with conventional weapons³⁰.

China's Non-proliferation Stance

China has certainly helped the NPT achieve its non-proliferation goals, because of China's concern, thanks to Deng Xiaoping, with economic success non-proliferation and deterrence reduction are top priorities. In recent years China has been proactive in relation to the Proliferation Security Initiative (PSI), it has reportedly intercepted chemicals being transported to the DPRK (Democratic Republic of Korea), taken part in the Six-Party talks regarding the DPRK's nuclear program and supported the UNSC Resolution 1718 condemning North Korea's actions and increasing its border inspections of cargo transfers across the DPRK-PRC checkpoint³¹. China has also joined the Nuclear Suppliers Group in 2004 thus committing not

²⁸ *Ibid.*, p.55

²⁹ *Ibid.*, p.86

³⁰ *Ibid.*, p.84

³¹ D. Shen., *China's Nuclear Perspective: Deterrence Reduction, Nuclear Non-Proliferation, and Disarmament*. Strategic Analysis, Vol. 32, No. 4, July 2008, p.642

engage in nuclear trade with the DPRK, Iran, Pakistan and India, the restrictions of the NSG are much stricter than that of the NPT and IEAE by controlling the export and transfer of materials that may be applicable to nuclear development as well as improving the existing control measures.

Overall China and the UK provide inspirational models for the US and Russia to follow, that is, if either have any ambition for total disarmament they must adapt policies similar to that of the UK and China. China has demonstrated that a major power possessing nuclear weapons can function with a minimal nuclear force without being open to blackmail, intimidation or coercion, which are arguably the main concerns of the nuclear powers in the second nuclear age. The UK on the other hand is a state that reached a point where there is open public discussion of its nuclear weapons but there is serious questioning by the government itself of whether to renew its only delivery system thereby bringing into question the relevancy of the nuclear deterrent to its foreign policy. The UK may seem to represent a beacon of hope for the abandonment of the nuclear deterrent but also highlights the political difficulties in eliminating the deterrent, while none of the British Governments justification for the deterrent survive scrutiny, we are still left with political problems such as the reluctance of bureaucratic institution to surrender the status quo, uncertainty of conventional weapon deterrence and fear of rogue states breaching nuclear agreements. These problems are best to be tackled by such responsible states as the UK with support from China and France therefore setting the precedent for the US and Russia to follow. While relations between Russia and the US have certainly improved the domestic politics of both states may threaten the situation, such as was demonstrated by Putin's warning of a second cold war if American plans for a missile shield were to go ahead, such tensions may only increase if the US continues such hawkish diplomacy with Iran. The New START treaty no doubt is a positive step forward but there many possibilities for disagreement between the two which can only slow down disarmament, destroying any hope that we can see a nuclear-free world in the next century.

Perhaps what the NPT has contributed most is the precedent of non-proliferation and the beginning of détente in the Cold War, a wave of arms limitation treaties followed in the 70's including SALT I and II (Strategic Arms Limitation Talks), the Anti-Ballistic Missile Treaty, the Prevention of Nuclear War Treaty (an obligation for the US and USSR to consult each other

during a nuclear confrontation) and the Threshold Test Ban Treaty. From looking at its function and structure we can see that its design is very much built around a Cold War mentality that does not fit into the current climate, the challenges that it faces with the non-signatory states and the rogue states cannot be resolved without a serious restructuring and prioritising of the three pillars.

The Non-signatory States

Much has been mentioned about these states throughout this thesis so now I will move the focus onto them and look at what dangers they pose to the non-proliferation regime as well as seek to explain why they have or are trying to acquire the bomb and if there is any hope of them joining the non-proliferation effort.

North Korea

The DPRK has indeed been a thorn in the side of the non-proliferation regime, especially for the past decade in which it has withdrawn from the NPT, conducted a successful nuclear test, expelled IEAE inspectors and vowed to no longer take part in the Six-Party Talks. Similar to the reasons China acquired the bomb, North Korea sought to go nuclear out of insecurity, Kim Il-Sung recognised the effectiveness of the bomb as a tool to prevent coercion by larger state. Kim was also a keen proponent of self-reliance, meaning that if the USSR ever abandoned the DPRK, as it did when the Soviet Empire collapsed; North Korea would be on its own and would have to deter any attempts at coercion. The threats made by the US during the Korean War in using the bomb also contributed to ambitions to acquire nuclear status. Within realism there is a theory that a powerful motivator for acquiring nuclear weapons is simply the prestige it brings³², while this may be true of major powers, I do not believe it is applicable to states such as North Korea. This is partly due to success of the non-proliferation regime in stigmatising the development of nuclear weapons and the erratic behaviour of North Korea, to acquire the bomb simply for

³² Thayer, Bradley A.(1995) 'The Causes of Nuclear Proliferation and the Utility of the Nuclear Non-Proliferation Regime', *Security Studies*, 4: 3, p.472

prestige or influence in the DPRK's case would be irrelevant, for their arsenal would be of such a small size and would no doubt have poor command and control as well as unreliable storage and delivery systems that could easily be incapacitated by conventional means. Instead it is much likely that Kim Il-Sung saw the utility of nuclear weapons and saw what many others saw in them as an absolute infallible weapon of defence that would guarantee security.

A nuclear North Korea is considered very dangerous to the non-proliferation regime because of Kim Jong-Il's unpredictability and perceived irrationality as well as accidental use due to poor technology or intelligence are very real fears³³. So far measures taken by the NPT, IEAE and the Six-Party talks have failed to stop development of nuclear sites, the North has continuously failed to live up to agreements and continues to test long-range missiles, the current naval exercises undertaken by South Korea and the US have only provoked further fighting rhetoric by the North but it is unlikely that a war will break out because of the Artillery clash while the DPRK has yet to develop a nuclear bomb, something which is believed to be still underway. Bennett believes that the best way to deal with the North Korean question is through confidence building, first the US must recognise Pyongyang as legitimate government, though in the light of both sides refusing take part in further Six-Party talks this is extremely unlikely. He also suggests that it would be best for the US to accept that there is no way to guarantee in any circumstance that the nuclear program has been abandoned without a full invasion and replacement of the regime. With this it is best to accept and live with a nuclear North Korea but to offer it recognition of legitimacy while allowing it to keep the bomb to satisfy its security concerns, Bennett argues that this is far better than the alternative; an unpredictable, uncontrollable Stalinist state on nuclear high-alert selling nuclear materials to terrorists for cash³⁴.

³³ Ramberg, Bennett(2009) 'Living with Nuclear North Korea', *Survival*, 51: 4, p.7

³⁴ *Ibid.*, p.17

Iran

The case of Iran is very similar to that of North Korea, it is considered just as dangerous as unpredictable as the Communist regime, the US regards also a nuclear Iran absolutely unacceptable. Unlike North Korea however Iran flatly denies attempting to develop nuclear weapons and continues to insist that its continued uranium enrichment program is for peaceful use only. What is interesting to note about the Iran case is that it has not actually violated the NPT which states that Non-Nuclear Weapon states are well within their rights to enrich uranium, Iran has so far only violated IEAE safeguards by denying them access to certain facilities, this however is not in breach of its agreement under the NPT. The real crux of the issue is however not whether Iran is indeed in possession or in the process of developing nuclear weapons but the extent to which Israel believes it is. Though there has been recent talk in the media of the US taking pre-emptive military action in Iran, this is increasingly unlikely due to the controversy that still surrounds the intervention in Iraq and Afghanistan; it is much more probable that Israel will take military action, especially since it has more to lose from a nuclear Iran. Austin Long discusses the possibilities of Israel disabling Iran's nuclear capabilities, he claims that a large-military intervention or full-scale invasion are not possible with Israel's military so the best option would be use airstrikes to individually take out Iran's uranium conversion facility in Isfahan, the uranium enrichment plant at Natanz and the plutonium production centre at Arak³⁵. Long discusses Israel's recent purchase of precision munitions and bunker busters and comes to the conclusion that it would be very possible if Israel wished to take out the key facilities of Iran's nuclear programme, the only obstacle would be the political cost and Iran's response³⁶.

Without concrete evidence of a nuclear weapons program it is difficult to provide anymore analysis on Iran in regard to the NPT, at the moment we are seeing a diplomatic approach being employed via sanctions that appear to make no change to the government's position. All we can say at this point is that as long as Iran is suspected to have nuclear weapons it will remain an issue that will continue to keep the US and Russia at an almost Cold War stance as they are backing respective rivals in the crisis. Iran also teaches us that current IEAE safeguards do not

³⁵ A. Long., *Osirak Redux? Assessing Israeli Capabilities to Destroy Iranian Nuclear Facilities*. International Security, Volume 31, Number 4, Spring 2007, p.11

³⁶ *Ibid.*, p.31

perhaps go far enough in monitoring facilities and more should be done by the UN to enforce the control measures of the NPT.

India and Pakistan: A Cold War in South Asia

The India and Pakistan issue have long presented a huge problem for the NPT, that non-signatory states have no obligation to sign the treaty and can continue to engage in proliferation unencumbered. India in particular causes problems because of its deal with the US, effectively consolidating the hypocrisy of the NPT deal by sending the message that if you are an ally of the US you can engage in nuclear trade but if your enemy, like Iran, you will be pushed into the ground with harsh economic sanctions. For many the situation in South Asia is a case of a second cold war and is at the heart of the problem of proliferation, Sumit Ganguly however argues that nuclear weapons and the deterrent they bring have helped to prevent conventional conflict in the region³⁷. Crisis' such as the Kargil conflict have remained at low-levels, with both sides showing restraint, especially India in the face of Islamic terror, proliferation pessimists point Pakistan's comfort in probing India, safe in the knowledge that India has no real response due to its exercising of restraint. India has been careful not to cross the border when dealing with Kashmir even though Pakistan has been more war prone over the years, though there is a strong sense of mutual caution. The chief focus for the NPT in South Asia should be to prevent theft and illegal export of nuclear materials from Pakistan while the international community should focus on pressuring Pakistan to withdraw support from Jihadist groups operating in Kashmir while India works on bringing the Kashmir people into a political dialogue. The proliferation and the relationship between the two states is probably best deal with separately as it is very unlikely that either will surrender their nuclear arsenals, resolution of the Kashmir issue must first be achieved before there is any move of bringing India and Pakistan are brought into the NPT.

³⁷ S. Ganguly., *Nuclear Stability In South Asia*. International Security, Volume 33, Number 2, Fall 2008, p.69

Conclusion

So far I have discussed the theories behind the nuclear deterrent, why states pursue nuclear weapons, what has been done to ring in nuclear proliferation, the likelihood of total disarmament and whether the nuclear deterrent is worth keeping. I have surmised that proliferation, in addition to other factors is chiefly caused by security concerns which relates back to realism, the concept of relative and absolute gains and most importantly the defensive realist branch of structural realism. Nuclear weapons are an extremely attractive option for those states that have genuine concern for their security, and the concerns that exist in the current climate are genuine and are often caused by intimidation of major powers. From a realist perspective the nuclear deterrent makes sense, since all states have offensive capabilities there exist many levels of differing threats for states with security concerns, this combined with the anarchic environment and uncertainty about states intentions, the absolute capabilities of another state causes states to act in an irrational way inevitably leading to conflict. When nuclear weapons are in the picture however, there is a clear picture of offensive capabilities, nuclear weapons represent the 'glass ceiling' of weapon capabilities, an absoluteness that does not exist with conventional weaponry, along with this there is also certainty that they will never be used unless as a retaliatory response, making the actions and intentions of nuclear states much more predictable. All of this however is characteristic of the Cold War and the current climate between the US and Russia, such certainty does not exist between India and Pakistan, nor Israel and Iran. For these states to reach the levels of mutuality of the US and Russia during the Cold War, new treaties that do not carry post-colonialist elements like the NPT must be drawn up to increase understanding between these states. This leads me to the unlikely conclusion that the nuclear deterrent is worth keeping, however irrelevant it may seem in the post-Cold War climate it is needed as the world continues to climb down from bipolar world into an uncertain multipolar world and new powers emerge, so as to avoid security dilemma's involving conventional weapons.

Despite this I do believe that a nuclear-free world is possible as long as globalisation continues to increase the irrelevancy of nuclear weapons and there is full economic integration of so-called rogue powers, this can only be done with delicate diplomacy and a draw back on harsh economic sanctions that only serve to isolate. The hypocrisy of the NPT also needs to be seriously addressed as it severely undermines the credibility non-proliferation efforts of the UK and US.

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New treaties possibly need to be drawn up that outline legal obligations to disarm and there of course needs to be constant continuation of the START treaties with possible changes in language to prevent hypocrisy. Overall, the nuclear-free world the Obama envisioned in his Prague speech is possible but only with multilateral efforts can this be achieved, the world must work towards a state where the deterrent against war and conflict is no longer weaponry but instead economic, a globalised world where conflict is as impossible as it is now in the European Union.

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