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Accommodating Proliferation: A Viable Means of Nuclear Arms Control?

By / par LCol Norman Bell

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Abstract

The issues surrounding nuclear weapon proliferation are critically examined beginning with a perspective of the nuclear nonproliferation regime. Specifically, the inadequacies of the Nuclear Nonproliferation Treaty (NPT) that create a two-tiered global nuclear structure between nuclear and non-nuclear weapon states are described. It is explained how this discriminating divide lends itself to imbuing frustration within some motivated nations, leading them to develop nuclear weapon programmes in the context of their individual national security The acceptability of internationally controlled needs. proliferation is explored and the notion of accommodating this proliferation, once a state convincingly possesses the capability to assemble and field a workable nuclear weapon, is assessed in terms of its destabilizing and stabilizing effects on regional security. Possible accommodation control measures that ensure these new nuclear arsenals remain safe and secure, primarily through assistance from Western nuclear powers, are then evaluated. Despite its varied successes, the NPT as it currently stands has been unable to universally deter the spread of nuclear weapons and on a selected basis, the global community should now accommodate new nuclear weapon states through formal recognition. It is concluded that since nuclear weapons will remain for *the foreseeable* future, limited nuclear accommodation could offer a viable means to ensure the world's ongoing nuclear weapon proliferation remains stable and controlled.

Introduction

The global nuclear situation has been evolving since 1945 when the world was suddenly awoken by the phenomenal power of nuclear weaponry. During the Cold War period, the world witnessed the nuclear arms race between the United States and the Soviet Union epitomizing "a case of buildup versus buildup."¹ The end of the Cold War has manifested itself through dramatic changes in the global security landscape, one of which is the development of nuclear weapons by previously non-possessing nations. This has led to a case of "buildup versus hold-down,"² whereby Western states continue to enhance their nuclear capabilities, while adopting nonproliferation policy to suppress nuclear weaponization by others – a policy that will continue to weaken and likely fail in the end. Despite this internationally sanctioned nonproliferation regime, several nations have successfully advanced their nuclear arms programmes, demonstrating unequivocally that nonproliferation is universally unattainable and that alternative policy options must be considered to address this changing global nuclear situation.

There are certain truths that must be accepted regarding the world's nuclear predicament. First, the knowledge of how nuclear weapons are built will always exist. Next, for the foreseeable future, the principal influences on the world's nuclear situation will be independent, sovereign nation-states and many of them have the necessary resources to easily construct nuclear arms. Finally, since the end of the Cold War, new opportunities and motivations have developed for nonnuclear weapon states to acquire them. The opportunities for nuclear proliferation are increasing and the technological capabilities of building weapons are more widespread. Coupled with

¹ Samuel Huntington, *The Clash of Civilizations and the Remaking of World Order* (New York: Simon & Schuster, 1996): 190.

² Ibid, 188-190.

determined motivation, proliferation by nuclear ambitious nations has and will continue - and why not? After all, "proliferation is a natural process that requires external intervention not to proceed but rather only for prevention."³ Most consider that the spread of nuclear weapons is dangerous and should be prevented. Others like Martin van Creveld dismiss the fears associated with nuclear proliferation as exaggeration, suggesting that the nonproliferation regime operates on the principle of *beati sunt possedentes* (blessed are those who are in possession) and has as its fundamental goal the perpetuation of the "oligopoly of the 'old' nuclear powers."⁴ These varying views concerning the global nuclear arms predicament continue to influence Western national security policies today.

National security is a complex and multi-faceted undertaking to achieve, and the prospects of any continued nuclear weapon proliferation do not simplify matters. In the last couple of decades, various diplomatic initiatives and arms control measures have met with moderate success in limiting the proliferating tendencies of some aspiring nuclear states, but there have been failures as well. In the coming decades, other cases of proliferation may arise, bringing increased risks of nuclear conflict. The abilities of the nonproliferation regime to stabilize the global nuclear situation, now and into the future, must be enhanced by somehow mitigating the imbalance between nuclear and non-nuclear weapon states. As mentioned, the process of rebalancing through proliferation regime. Once a state is "convincingly nuclear,"⁵ either by having successfully

³ David Mutimer, *The Weapons State: Proliferation and the Framing of Security* (London: Lynne Rienner, 2000): 59.

⁴ Martin van Creveld, *Nuclear Proliferation and The Future of Conflict* (New York: Free Press, 1993): 122-123.

⁵ Paul Doty and Steven Flank, "Arms Control for New Nuclear Nations," in *New Nuclear Nations*, eds. Robert D. Blackwell and Albert Carnesale (New York: Council of Foreign Relations Press, 1993): 71.

tested or fielded their weapons, and having resisted all threats of imposed arms control measures by the international community, consideration may have to be given to accommodating this new proliferant. The alternative would necessitate imposing sufficient will to force the desired outcome. The accommodation of specific cases of proliferation is a possible method of achieving this rebalancing with the goal of having the new nuclear nation adapt or fit into the nonproliferation regime. This would only be acceptable in cases where the resultant effects of the proliferation are deemed to be stabilizing as determined by the international community. Only by adopting a policy inclusive of this form of accommodation can the question of 'nuclear weapon needs' be debated and resolved by each individual nation-state relative to their desired national security postures. With this notional equilibrium, achieved through the compromise of accommodation, the nonproliferation regime could become more controlled as there would be fewer 'unknowns' of which to be wary and therefore could be more effectively governed to increase the stability of global security.

Some may be uncomfortable with ascribing benefits to nuclear weapons, but all choices involve risk. Nuclear weapons cannot be disinvented and the world must live with them. Wishing that nuclear weapons didn't exist will not alter the security needs of Western states - "since we absolutely cannot achieve the goal of abolishing both nuclear weapons and the knowledge of how to construct them, policies and actions that appear to move in that direction will always fail the test of plausibility."⁶ However, abolishment is what the current policies under the nonproliferation regime purport to do. Changing the scope of Western nuclear arms control policy by accommodating limited and controlled nuclear weapon proliferation would positively affect the stabilization of the world's changing nuclear situation.

⁶ Robert G. Spulak, "The Case in Favor of US Nuclear Weapons," Parameters 27, no. 1(Spring 1997): 116.

This study will examine Western nuclear arms control policy regarding nuclear weapon proliferation. The analysis will begin with a description and evaluation of the nonproliferation regime and the West's inadequate policies that fail to deter some nations from developing nuclear weapons. The stabilizing and destabilizing effects of emerging nuclear nations will be explored and the acceptability of proliferation discussed. The paper will then analyse some of the key arms control issues surrounding the limited accommodation of proliferation by new nuclear nations and the possible contributions of existing nuclear weapon states to establish accommodation control measures, ensuring these new nuclear arsenals remain safe and secure. Finally, the paper will discuss the need to formally recognize selected new nuclear weapon states as part of a revised Western nuclear arms control policy.

The Nonproliferation Regime

The discovery of nuclear fission in 1938 attracted the attention of the world. It also provoked concerns regarding the awesome destructive and lethal potential of nuclear weapons. Western nations have since advocated the nonproliferation of these weapons through various efforts such as controlling all nuclear activity under a single international agency, banning all nuclear weapon tests, and restricting access to critical materials and technologies through constraints on both trade and nuclear energy facilities. As the nuclear arms race between the United States and the Soviet Union intensified during the early part of the Cold War, these two superpowers did not want other states to deploy weapons for fear of adding multiple adversary uncertainties to their already tense nuclear relationship.⁷ However, by the mid-1960s, Britain,

⁷ Forrest E. Waller, "Strategic Nuclear Arms Control," in *Arms Control: Cooperative Security In A Changing Environment*, ed. Jeffery A. Larsen (Boulder: Lynne Rienner, 2002): 103.

France and China had also tested nuclear weapons prompting both the US and Soviet Union to propose what became known as the Nuclear Nonproliferation Treaty (NPT) in 1968. Because of its near-universal endorsement by the international community, the NPT was initially regarded as a successful arms control achievement and seen as "the cornerstone of the international nuclear weapons nonproliferation regime."⁸ Currently, the only nuclear states outside the NPT are India, Israel, Pakistan, and North Korea.⁹ During the Cold War, there were three principles underpinning this international policy: most states do not have legitimate reasons to have nuclear weapons, proliferation represents a grave threat, and adding nuclear powers increases the chance of nuclear war, undermining security. With these in mind, it is important to first describe and understand the fundamentals of today's nonproliferation regime that has as its primary objective the prevention of nuclear weapon proliferation by states that do not yet possess them, in order to determine why some nations still aspire to proliferate.

Over the past four decades, the nonproliferation regime has been built up into a network of interlocking international treaties, bilateral undertakings, and international inspections with the purpose of discouraging the spread of nuclear weapons. It includes "the whole of principles, standards, rules and procedures that are agreed upon voluntarily by states."¹⁰ Herein lies the key - the need for universal consensus of the NPT among the signatories. The principal player in the regime, the International Atomic Energy Agency (IAEA) was established in 1957 as an autonomous agency of the United Nations to help nations use nuclear energy for peaceful purposes. In so doing, it established a safeguards system consisting of audits and on-site

⁸ George Rathjens, "Rethinking Nuclear Proliferation," *The Washington Quarterly* 18, no. 1 (Winter 1995): 182.

⁹ North Korea was a member state; however, its support was withdrawn as of 10 April 2003.

¹⁰ Tom Sauer, *Nuclear Arms Control* (New York: St. Martin's Press, 1998): 36.

inspections to ensure materials and facilities are not used to develop nuclear weapons. When the NPT entered into force, the IAEA's role expanded as the regime's main verification agency to control nuclear proliferation.

The NPT separates the nuclear 'haves' from the 'have nots' and their obligations vary according to whether parties are nuclear weapon states (NWS) or non-nuclear weapon states (NNWS). The NPT arbitrarily defines NWS to include only those countries that had "manufactured and exploded a nuclear weapon or other nuclear explosive device prior to 1 January 1967."¹¹ These are Russia, US, UK, France and China - all United Nations Security Council (UNSC) permanent members. In essence the NPT specifies that NNWS will not acquire or seek to acquire nuclear weapons and will accept IAEA safeguards to verify this commitment. The NWS are not subject to this condition - they can retain their nuclear weapons (though not indefinitely) and, although most have, they do not have to accept the IAEA safeguards on their nuclear facilities.¹² The Treaty does commit NWS not to assist or transfer nuclear weapons to NNWS and to pursue the goal of nuclear disarmament. These provisions aim to prevent 'horizontal' proliferation – the spread of nuclear arms to NNWS, as well as the prevention of 'vertical' proliferation – enhancements to NWS nuclear arsenals.¹³

Within the framework of IAEA safeguards agreements, technical cooperation between NWS and others is allowed concerning peaceful uses of nuclear energy. This is the incentive of

¹¹ Article IX.3 of the Nuclear Nonproliferation Treaty, reprinted in Jozef Goldblat, *Nuclear Non-Proliferation: A Guide to the Debate* (London: Taylor and Francis, 1985): 43.

¹² Leonard Spector, "Nuclear Proliferation," in *Arms Control: Cooperative Security In A Changing Environment*, ed. Jeffery A. Larsen (Boulder: Lynne Rienner, 2002): 127.

¹³ The NPT is described as a bargain in that nonproliferation by NNWS is exchanged for eventual disarmament by the NWS. Vertical proliferation is addressed in Article VI of the NPT and was included at the insistence of NNWS; however, this bargain demanded that parties accept that NWS would continue to possess nuclear weapons; however, this acceptance was neither unconditional nor indefinite – see Patricia Hewitson,

the NPT, which guarantees NNWS access to nuclear technology - so long as it is not used to make weapons. Accordingly, every state party has the right to "participate in the fullest possible exchange of equipment, materials and scientific and technological information for the peaceful uses of nuclear energy."¹⁴ Although the NPT promotes nuclear energy for civil purposes, much of the equipment, materials and necessary information that facilitate this are considered to be dualuse in that they also provide the means to produce military nuclear weapons. In other words, this gives NNWS direct access to a nuclear weapons programme should they decide to pursue one.

As mentioned earlier, the NPT calls on all signatories to cease the nuclear arms race with the goal of global disarmament. Although the nuclear powers pursued strategic arms limitations in the decades following the arrival of the NPT, some NNWS wanted more substantive progress towards this goal, which eventually led to the Comprehensive Test Ban Treaty (CTBT) in 1996. This aimed at stemming vertical proliferation by restricting NWS development of advanced nuclear weapons, as well as at reducing horizontal proliferation by constraining nuclear weapon programmes of emerging nuclear states. The CTBT prohibits all nuclear test explosions and establishes an extensive monitoring capability to detect them. Notable states that have not yet ratified this treaty include China, India, Israel, North Korea, Pakistan, and the US.¹⁵

The nonproliferation regime has had its successes. During the Cold War, it enabled US and Soviet Union cooperation. Also, many countries capable of developing nuclear weapons such as Germany or Japan have not done so. Furthermore, countries that at one time seemed determined to develop nuclear weapons, such as Argentina and Brazil, have not in part because of the guarantee

[&]quot;Nonproliferation and Reduction of Nuclear Weapons: Risks of Weakening the Multilateral Nuclear Nonproliferation Norm," *Berkeley Journal of International Law* 21, no. 405 (2003): 479-480.

¹⁴ Article IV of NPT.

¹⁵ Spector, "Nuclear Proliferation," 129-131.

that the IAEA ardently monitors both. Also, South Africa, once in possession of nuclear weapons, subsequently renounced and eliminated them. Most recently, the nonproliferation regime experienced success as witnessed by Libya's renunciation of its nuclear weapons programme in December 2003. In addition to the policies of denial associated specifically with the NPT,¹⁶ these successes may have been contributed to by various other nonproliferation regime initiatives designed to impede proliferation incentives and reduce the desire for nuclear weapons. To start with, the provision of security guarantees helps to strengthen the security of NNWS signatories to the NPT, although such guarantees are not a formal part of the Treaty.¹⁷ Another initiative focuses on efforts to reduce the role of nuclear weapons in world politics. This can take the form of reductions in strategic forces and arsenals, test bans, and NWS 'no-first use' declarations,¹⁸ all reinforced by valid NNWS perceptions that the utility of nuclear weapons is affected to some degree by NWS' nuclear policies, postures and doctrines. The tone of Western foreign policy can play a key role in affecting an aspiring nuclear nation's proliferation decision and can either dilute or reinforce incentives to "go nuclear."¹⁹ Although there are several *de facto* nuclear states that remain outside the pact, "the NPT has helped to establish an international norm against the spread of nuclear weapons,...[which]...has supported the nonproliferation diplomacy of the US and other

¹⁶ George Rathjens, "Nuclear Proliferation Following the NPT Extension," in *The Nuclear Non-Proliferation Regime*, ed. Raju G.C. Thomas (New York: St. Martin's Press, 1998): 35.

¹⁷ Security guarantees are comprised of either positive or negative assurances. Positive assurances constitute a collective defence arrangement whereby NWS must help NNWS if nuclear weapons are used or threatened against them. Negative assurances stipulate that any NNWS party would not have nuclear weapons used against them by declared NWS, unless they themselves were the aggressors - see Zafer Nawaz Jaspal, "NPT in 2000: Challenges Ahead," *Strategic Studies* 20, no. 4 (Autumn 2000): 15, Sauer, *Nuclear Arms Control*, 41 and Jozef Goldblat, *Nuclear Non-Proliferation: A Guide to the Debate*, 13-14.

¹⁸ On this issue, all NWS insist on 'first use' of nuclear weapons except China – see Jaspal, "NPT in 2000: Challenges Ahead," 15.

¹⁹ Lewis A. Dunn, *Controlling the Bomb* (New Haven: Yale University Press, 1982), 132-133.

interested countries."²⁰ Alliance connections are also key aspects of proliferation prevention, since for many states, keeping ties with NWS de-emphasizes their need for nuclear weapons. Simply stated, from a global nuclear security governance perspective, if NWS didn't get involved then there would likely be a greater risk of degradation of the nonproliferation norm.²¹

In addition to the CTBT, another effort to cap nuclear programmes is to establish materials production cut-offs for new nuclear states. The proposed Fissile Material Cut-Off Treaty (FMCT) would prohibit further weapons-grade production of fissile materials; however, it would entail a greater effort on the part of IAEA to inspect uranium enrichment and spent fuel-reprocessing facilities not currently monitored.²² Furthermore, the nonproliferation regime is reinforced by export control organizations such as the NPT Exporters Committee and the London Nuclear Suppliers Group that restrict materials and sensitive technologies related to both nuclear weapon production and civil applications. Assurance is provided that these items are only exported to NNWS that have fully accepted IAEA full-scope safeguards.²³

Confidence-building measures can also reduce proliferation by lessening uncertainties about the nuclear intentions of neighbouring countries. Despite being a means to voluntarily attest to its peaceful intentions, some countries don't want to sign the NPT and accept the diminished status of a permanent nuclear have-not state, because they must give up their nuclear weapons option. Acceptance of the full-scope safeguards required of NPT signatories, covering all civilian nuclear activities, would be a confidence-building measure. As well, 'Nuclear Weapons-Free

²⁰ Leonard S. Spector, *Nuclear Ambition: The Spread of Nuclear Weapons* (Boulder: Westview Press Inc., 1990), 14.

²¹ Dunn, *Controlling the Bomb*, 125-128.

²² Spector, "Nuclear Proliferation," 131.

²³ Ibid, 129-130.

Zones' have proven to be valuable assets, whereby countries of a region accept external verification of their intentions to reduce mutual uncertainty and suspicion relative to their rivals.²⁴

No nonproliferation initiative will suffice by itself. It is necessary to combine and synthesize the preceding measures to reduce specific countries' incentives for acquiring nuclear weapons. It is important to support those initiatives with the threat and use of sanctions.²⁵ However, there are limits and efforts to impede proliferation can be constrained by domestic pressures within states, often forcing nonproliferation policy to take a backseat to foreign policy and national security concerns. There are instances when no initiatives by Western states can be taken to reduce NNWS incentives to develop nuclear weapons, and available sanctions may be insufficient. This being the case, it is important to think about responses to the emergence of new undeclared nuclear states, where accommodation measures to control the scope of these states' nuclear activities may become important.

Nonproliferation Regime On The Ropes?

The nonproliferation regime forms a solid basis for Western policy, but it has difficulty enforcing its rules – emphasis is on the benefits of cooperative relations with others. States that have not signed the NPT cannot be pressured by the IAEA and even those states that have, are not obliged to follow IAEA regulations – though most do. Determined and nuclear ambitious NNWS, such as Iraq in the 1980s, could potentially acquire weapons grade material and the IAEA, unable to conduct coercive inspections, would have difficulty uncovering the violation. Since 1995, the

²⁴ Doty and Flank, "Arms Control for New Nuclear Nations," 58-59.

²⁵ Dunn, Controlling the Bomb, 104-118.

IAEA's ability to detect clandestine activities was strengthened through majority agreement of an additional protocol to the IAEA Safeguards Agreement.²⁶ However, the IAEA has limited enforcement power and can only call on member-states to sanction those that are caught violating the NPT. Consequently, the nonproliferation regime is not infallible and continuing along the same path that it is currently on, it will be ultimately ineffectual in reaching its goal of halting proliferation outright. The current status of the world's nuclear and non-nuclear states, and the nuclear threshold states is summarized in Table 1.

NPT NWS	Non-NPT NWS	NW Renouncers	Threshold States	NPT States
China France United Kingdom United States Russia	India Israel Pakistan North Korea* *North Korea may possess nuclear weapons (either a NWS or threshold state)	Argentina Brazil Canada Libya South Africa	Algeria Egypt Iran Iraq (no longer) North Korea Saudi Arabia Syria *all are NPT states except North Korea	188 states of 193 total *Includes Taiwan, but it is officially recognized under China. These NPT states do not include North Korea, India, Pakistan, Israel, Cook Islands, and Niue
Other Notes: Non-IAEA members NPT States with safeguards agreements in force NPT States with safeguards agreements signed NPT States with no safeguards agreements Non-NPT States with safeguards agreements (Israel, India, Pakistan) States with limited-scope safeguards in force (Israel, India, Pakistan, Brazil, Cuba, + 5 NWS) NPT States with Additional Protocol in force NPT States with Additional Protocol signed				52 141 3 34 3 5 NWS) 10 36 26

 Table 1 – Current Status of NPT States²⁷

Some see the foreign policy realm of nuclear nonproliferation to date as a failure with its credibility weakened by countries having developed new nuclear programmes. Such programmes

²⁶ Jaspal, "NPT in 2000: Challenges Ahead," 11-12.

²⁷ Details taken from Institute for Defense & Disarmament Studies, "The Non-Proliferation Treaty," *The Arms Control Reporter*, (Cambridge, MA, 2003) and discussions with Dr Walter Dorn, CFC.

are expensive and rely on support from the major nuclear powers to be technically viable. For instance, China seems to support Pakistan, while Russia supports Iran in this regard.²⁸ Credibility has also weakened with the refusal of the US to ratify the CTBT in October 1999. Despite the successes mentioned earlier, gradual failure of nonproliferation policy is seen in the number of nuclear-armed states that now exist, in the difficulty of using political and economic sanctions in persuading states to refrain from developing nuclear weapons, and in the lack of ability of international mechanisms for controlling the spread of nuclear weapon technologies.²⁹ Although the number of nuclear weapons held by NWS has dropped, vertical proliferation by NWS has also continued, as seen in the recent conduct of US research into tactical "bunker-buster" nuclear warheads.³⁰ The question arises of whether the NPT can survive "if the most powerful states appear to 'cherry pick' the obligations they wish to follow and exempt themselves from those commitments they wish to disregard."³¹ This 'double standard' behaviour encourages similar action by other states by having them deviate from long standing obligations that no longer serve their immediate security interests. But realistically, an international regime does not require perfect adherence in order to have a significant constraining effect and to be effective:

The prospects that proliferation may be destabilizing in many instances, that nuclear weapons need not enhance the security position of states, and that the superpowers cannot fully escape the effects of proliferation provide the common international interest upon which the nonproliferation regime is based. Under such conditions, some inequality in weaponry is acceptable to most states because the alternative – anarchic equality – is more dangerous.³²

³¹ Tanya Ogilvie-White and John Simpson, "The NPT and Its 2003 PrepCom Session: A Regime in Need of Intensive Care," *The Nonproliferation Review* 10, no. 1 (Spring 2003): 50.

³² Joseph S. Nye, "To Manage Is Human, To Prevent Is Divine," in *The Nonproliferation Predicament*, ed. Joseph E. Pilat (New Brunswick, New Jersey: Transaction Inc., 1985): 134.

²⁸ William Martel, "The End of Non-Proliferation," *Strategic Review* 28, no. 4 (Fall 2000): 16.

²⁹ Ibid, 16-17.

³⁰ "A World Wide Web of Nuclear Danger," *The Economist* 370, no. 8364 (28 February 2004), 27.

A New Proliferation Regime?

The fact remains that proliferation of nuclear weapons is slowly happening. The current nonproliferation regime has not been able to fully stop the spread of nuclear weapons and the initiatives mentioned earlier serve only as "restraining factors."³³ Notwithstanding the benefits accrued since the introduction of the NPT, the world has witnessed renewed nuclear testing, a withdrawal from the NPT itself, safeguard violations, increased availability of technical information and assistance regarding nuclear weapons programmes, and increased accessibility to nuclear weapons markets. For example, the recent confessions by Pakistani nuclear scientist Abdul Qadeer Khan revealed that he ran a global nuclear-smuggling network, and sold bomb design and uranium enrichment secrets to NPT signatory countries such as North Korea, Iran and Libya.³⁴ By understanding why proliferation occurs, it is possible to consider the question of whether proliferation is acceptable and whether it should be accommodated in concert with the established nonproliferation regime.

The Director-General of the IAEA, Mohamed El Baradei, has stated that the potential for continued proliferation remains in large part because the nonproliferation regime has important aspects of inadequacy.³⁵ For instance, the development of indigenous capacities for producing fissionable materials that could be used in nuclear weapons is not prohibited by the NPT. This gap is significant since a member could develop uranium enrichment and spent fuel-processing

³³ Sauer, Nuclear Arms Control, 57.

³⁴ "Bush, El Baradei, Discuss Proposals of Nuclear Non-Proliferation Talks," *Arms Control Today* 34, no. 3 (April 2004) [journal on-line]; available from <u>http://www.armscontrol.org/act/2004_04/NonproliferationTalks.asp;</u> Internet; accessed 6 April 2004.

³⁵ Mohamed El Baradei clarified this during an interview in an interview published in "Curbing Nuclear Proliferation," *Arms Control Today* 33, no. 9 (November 2003): 4.

facilities, and stockpile plutonium or enriched uranium under the guise of peaceful nuclear power purposes. This would not be easy, but by doing so and then legitimately withdrawing from the NPT with three months notice, this state could quickly build up a significant stockpile of nuclear weapons.³⁶ Should this happen, there are no specific provisions under the NPT for sanctions; however, they could be imposed by the UNSC once alerted by the IAEA. This being the case, a member could progress a nuclear weapons programme 'opaquely', which implies a covert development programme publicly denied, while seemingly compliant to the obligations of the NPT.³⁷ This was the case with Iraq during the 1980s, whereby it "had been a party to the NPT and had accepted IAEA inspections of its declared nuclear facilities, [while] its very large nuclear weapons program had escaped IAEA notice."³⁸ These actions exposed a procedural weakness in the NPT in that there is limited allowance for loss of privileges by any party that breaches its rules while remaining in the treaty.³⁹ Henry Sokolski echoed this idea regarding Iran, which "acquired most of its nuclear capabilities covertly, and yet, was able to do so, for the most part, without violating the NPT."⁴⁰ The problem was that there were states such as Iraq and Iran that

³⁸ Rathjens, "Rethinking Nuclear Proliferation," 184.

³⁹ Ogilvie-White and Simpson, "The NPT and Its 2003 PrepCom Session...," 55.

³⁶ Rathjens, "Rethinking Nuclear Proliferation," 182.

³⁷ There are seven characteristics that define opaque proliferation: 1) no nuclear tests are done, 2) possession is denied, 3) the state makes no explicit nuclear threats, 4) they have no declared nuclear doctrine, 5) there is no overt deployments of these weapons – although they may do so covertly, 6) there is no debate domestically, and 7) the state's nuclear programme is separate from its foreign policy and defence organizations – see Avner Cohen and Benjamin Frankel, "Opaque Nuclear Proliferation," *The Journal of Strategic Studies* 13, no. 3 (September 1990): 21-22. Proliferation propensities in the Arab states, including Iraq's opaque nuclear programme are discussed in Saira Khan, *Nuclear Proliferation Dynamics in Protracted Conflict Regions* (Hants, England: Ashgate Publishing Limited, 2002): 219-266. See also, Devin T. Hagerty, *The Consequences of Nuclear Proliferation: Lessons from South Asia* (Cambridge: the MIT Press, 1998): 39-62, and Bradley A. Thayer, "The Causes of Nuclear Proliferation and the Utility of the Non-proliferation Regime," in *The Nuclear Non-Proliferation Regime*, ed. Raju G.C. Thomas (New York: St. Martin's Press, 1998): 105-111.

⁴⁰ As Executive Director of the Nonproliferation Policy Education Center, Sokolski testified before the US House International Relations Committee in Jun 2003 as cited in Gregg Sangillo, "Is The Nonproliferation Treaty in Tatters?" *National Journal* 35, Issue 28 (7 December 2003): 2268-2271.

"remain[ed] within the NPT framework because they calculate[d] that it provides an effective route to nuclear weapons."⁴¹ There have also been suspicions concerning the nefarious nuclear activities of other countries such as Saudi Arabia, Syria, Egypt and Algeria, although "hard evidence of cheating is devilishly difficult to come by."⁴²

The NPT actually makes indirect provision for accommodation of nuclear ambition in that it allows for the withdrawal from it. It seems that all states could profess the right to acquire nuclear weapons as implied in Article X. Specifically, a NNWS government, under the rationale of national sovereignty has "the right to withdraw from the Treaty if it decides that extra-ordinary events, related to the subject matter of this Treaty, have jeopardized the supreme interests of its country."⁴³ With written justification, a member in good standing can be released of its NPT obligations after 90 days notice to the international community and engage in an overt nuclear weapons programme legally, though undoubtedly with great international resistance. This doesn't mean they can acquire nuclear weapons, but one should ask - why else would such action be taken? If the rationale for doing so is justified within the NPT, the withdrawal action should be acknowledged by the international community, followed by accommodation of the country's subsequent nuclearization, if it ultimately lends itself to regional stability.

Another observation focuses on the North Korean facilities capable of processing, separating and stockpiling plutonium in quantities large enough for military purposes. This activity may be rejected by Western nations, yet countries like Japan have done similar things in the past.⁴⁴ With such examples, the degree to which governments find this activity objectionable

⁴¹ Shai Feldman, "Is There A Proliferation Debate?" *Security Studies* 4, no. 4 (Summer 1995): 790.

⁴² "A World Wide Web of Nuclear Danger...," 26.

⁴³ Article X.1 of the NPT.

⁴⁴ Rathjens, "Rethinking Nuclear Proliferation," 184.

depends on the case in question. This uneven treatment stems from current difficulty in structuring a universally acceptable nonproliferation regime, which is based upon discrete classes of states, especially when this division is solely based upon the increasingly irrelevant criterion of whether a state had openly conducted a nuclear weapon test prior to when the NPT came into force.

There seems to be incongruence between the nonproliferation regime and the few countries that try to remain legally outside it. In these non-signatory NPT states, nuclear weapons programmes could progress without violating treaty conditions despite other political pressures that may be applied. Sanctions that may be imposed by the international community on undeclared new NWS, independent of the NPT, often lack longevity and lose influence as a deterrent or a 'stick' in the complicated environment of international relations. This happened with India and Pakistan, resulting in proliferation being accommodated over time. The problem then comes back to inadequacies with the NPT, since its Article I obliges NWS not to assist others to acquire nuclear weapons - a grey zone since the obligations of the NPT only impinge upon the signatory states.

Reinforcing the emerging 'proliferation regime' is the reality that control of access to nuclear weapons technology grows increasingly difficult with time, since barriers to weapons design and nuclear material processing have diminished. The sheer diversity of applicable technology affects its controllability and availability. The pre-1991 Iraqi nuclear programme pursued at least six uranium-enriching processes through ties with more than ten countries to acquire essential equipment and specialized materials for possible weapons use.⁴⁵ This was possible because civilian nuclear-power reactors use fuel enriched by a variety of available technologies. Such dual-use technologies are not restricted under the NPT and therefore not illicit

⁴⁵ Mohamed El Baradei, "Towards a Safer World," *The Economist* 369, no. 8346 (18 October 2003), 48.

in NNWS. With a fully developed fuel-cycle capability enabling the processing of weapons-grade nuclear material⁴⁶ coupled with weapon-making know-how available in open literature, a state could develop a nuclear weapon should they opt out of the NPT. The number of countries capable of doing this is estimated at 35 to 40,⁴⁷ since "fabricating simple fission weapons are...not beyond...[their]... organizational, technological, and economic capabilities."⁴⁸

Hypocrisy and Ignorance are Bliss?

Since 1974 for India and 1989 for Pakistan, South Asian nuclear weapons programmes have progressed - like Israel before them. As well, South Africa had a nuclear weapon programme and tested weapons in 1979, prior to renouncing them and eliminating its nuclear arsenal in 1991.⁴⁹ Throughout these nuclear activities, the NWS seemed to pretend that it wasn't happening. Not until the Indian and Pakistani testing occurred in 1998 did South Asia move towards refined nuclear development and actual weaponization. These successful tests impacted on international affairs, where nuclear power brokerage is an important national security tool.⁵⁰ Western misjudgement towards the likelihood of such tests illustrates the ignorance and wishful thinking towards NNWS proliferation activities that dominate the inflexible nonproliferation regime. The

⁴⁶ The key technologies are those for plutonium separation and uranium enrichment.

⁴⁷ El Baradei, "Towards a Safer World," 48-49. El Baradei suggests that considerable safety, security and nonproliferation advantages would be gained through measures involving international cooperation on the nuclear fuel cycle of processing material, designing and deploying nuclear energy systems, and disposal of spent fuel and radioactive waste.

⁴⁸ David J. Karl, "Proliferation Pessimism and Emerging Nuclear Powers," *International Security* 21, no. 3 (Winter 1996/97): 103.

⁴⁹ Spector, "Nuclear Proliferation," 120-121.

⁵⁰ Victor Gilinsky, "Nuclear Proliferation After the Indian and Pakistani Tests," in *Twenty-first Century Weapons Proliferation*, ed. Henry Sokolski and Jame M. Ludes (London: Frank Cass Publishers, 2001): 5.

NPT was intended to avoid dangerous situations like this. Its imbalanced division of states was not intended to be indefinite as all NWS parties agreed to eliminate their nuclear arsenals over time in accordance with Article VI of the NPT. However, despite significant reductions to date, such weapons remain an integral part of their national security strategies.⁵¹ India had long opposed the NPT, dubbing it 'nuclear apartheid,' since it sanctioned vertical proliferation within the five NWS through the modernization and improvement of their weapons, while it disallowed horizontal proliferation amongst all other states.⁵² The failure of the nuclear powers to slow the expansion of their nuclear forces during the 1980s lent credibility to India's adopted proliferation posture, which called upon substantial reductions in NWS arsenals among its conditions for accepting formal nuclear restraints.⁵³ Yet, there is still no indication that the NWS "have any intention of moving towards total nuclear disarmament in the foreseeable future...[because this may]...tempt several threshold nuclear weapons states to acquire nuclear weapons."⁵⁴

Until recently, India, Pakistan and Israel were the only NPT non-signatories that developed their own nuclear weapons. At the time, as long as these states' nuclear status remained ambiguous by their not performing tests, the number of NWS according to the NPT was pretence. When the Indian and Pakistani tests happened, all five NWS stated that no recognition of their nuclear status would be given under the NPT. Such testing by non-members does not violate the NPT; however, despite thinking that serious penalties should be imposed, there was not much that could be done in response over the long term. The situation posed a dilemma for the NWS,

⁵¹ Gilinsky, "Nuclear Proliferation...," 6.

⁵² Hilary Synnott, *The Causes and Consequences of South Asia's Nuclear Tests*, International Institute for Strategic Studies Adelphi Paper 332 (Oxford: Oxford University Press, 1995): 22.

⁵³ Spector, *Nuclear Ambition...*, 14.

⁵⁴ Raju G.C. Thomas, "The Renewed NPT: Old Wine in New Bottles?" in *The Nuclear Non-Proliferation Regime*, ed. Raju G.C. Thomas (New York: St. Martin's Press, 1998): 10.

forcing them either to stand behind the nonproliferation regime or to look after what they saw as more important regional economic and political interests. The US imposed sanctions, but these in essence were lifted after several months because they created political and economic problems. Similarly, Russia basically accepted the course of events for it did not stop the sale of two nuclear reactors to India shortly after the testing.⁵⁵ These actions, coupled with continued US support for Israel, illustrate that these three countries have been given "a degree of informal recognition as nuclear weapon states."⁵⁶ This, however, will not serve as a disincentive to disarm. For these *de facto* NWS, dialogue with NPT parties is important and it has been suggested that they be included in discussions at NPT conferences.⁵⁷ There is no doubt that NPT parties want India's and Pakistan's cooperation to end testing and control nuclear technology, but to do so will entail some type of acknowledgement of their nuclear status and will demand that control measures be pursued.⁵⁸

Other aspects of the India-Pakistan situation appear to bring attention to the hypocrisy of the nonproliferation regime. The nuclear development capabilities of both these new nuclear nations' programmes are not wholly indigenous, especially Pakistan's. External technology has been relied upon by Pakistan having acquired uranium enrichment technologies from the Netherlands and Germany, and having subsequently incorporated them into its Kahuta enrichment plant with the help of European industry.⁵⁹ With no uranium enrichment reactors, this weapons

⁵⁹ Ibid, 10.

⁵⁵ Gilinsky, "Nuclear Proliferation...," 8.

⁵⁶ Ogilvie-White and Simpson, "The NPT and Its 2003 PrepCom Session...," 51.

⁵⁷ William C. Potter, Mary Beth Nikitin, and Tariq Rauf, "Ambassador Henrik Salander on the 2002 NPT Preparatory Committee," *Nonproliferation Review* 9, no.2 (Summer 2002): 3.

⁵⁸ Gilinsky, "Nuclear Proliferation...," 6.

grade material was likely being used for military purposes. As well, Pakistan is developing a plutonium production reactor with what is believed to be long-term assistance from China.⁶⁰ By doing so, China has likely violated the NPT; ⁶¹ however, this points to a willingness to accommodate selective proliferation as part of a calculated strategy.

The case of North Korea further illustrates the inadequacy of the NPT and subsequent abuse. In 1993, North Korea refused IAEA inspections of its suspected nuclear weapons grade plutonium and threatened withdrawal from the NPT. At the time, Western focus was on extension of the NPT rather than on its enforcement. Consequently, few sanctions were imposed on North Korea for its violations, but rather incentives were offered in the form of two nuclear reactors in exchange for stopping its nuclear development programme.⁶² However, these failed to stop North Korea's ambiguous proliferation efforts and further violations of the NPT, such as failing to fulfil its NPT safeguards obligations.⁶³ By being the first nation to withdraw from the NPT in April 2003, North Korea continues to opt for venues of nuclear blackmail⁶⁴ – for more carrots⁶⁵ through its nuclear programme. Some South Korean analysts feel that "North Korea may still believe that it can secure both *quid pro quo* and some of its WMD options through similar nuclear diplomacy and proven negotiation tactics."⁶⁶

⁶⁶ Taewoo Kim, "Living with North Korean Bomb? Current Debates in and Future Options for South Korea," *The KIDA Papers*, no. 2 (Seoul: Korea Institute for Defense Analyses, June 2003): 6.

⁶⁰ "Learning the Hard Way," The Economist 368, Issue 8338 (23 Aug 2003): 11.

⁶¹ Gilinsky, "Nuclear Proliferation...," 10.

⁶² Henry Sokolski, "Taking Proliferation Seriously," *Policy Review*, no. 121 (October/November 2003): 54.

⁶³ Gilinsky, "Nuclear Proliferation...," 7.

⁶⁴ David C. Kang, "The Avoidable Crisis in North Korea," Orbis 47, no. 3 (Summer 2003): 495.

⁶⁵ North Korea acquired nuclear technologies worth several billion dollars as an incentive from the US by threatening to withdraw from the NPT – see A. Walter Dorn, "Carrots, Sticks and Bombs," *World Order For A New Millennium*, ed. A Walter Dorn (New York: St. Martin's Press, 1999): 28.

Why Do States Want Nuclear Weapons?

To put into effect a policy of controlled proliferation, it is necessary to understand the appeal of nuclear weapons. Different states have different perspectives and motives regarding their acquisitions. Nuclear weapons are seen by some as a source of global influence and are valued for their perceived deterrent effect. As long as some countries have them while others do not, the imbalance will perpetuate global insecurity, since "the very existence of nuclear weapons gives rise to the pursuit of them."⁶⁷ The nonproliferation regime focuses on restricting the supply or availability of nuclear weapons rather than on the demand for them. This demand includes a nation's resolve to retain their arsenals once obtained as a result of various economic, strategic, and social incentives.⁶⁸ Some states could be motivated by prestige and enhanced power status or by economic reasons in that they could be used as a sales or trade commodity for cash or economic aid.⁶⁹ The main motivation, however, is for national security, underpinned by the reality that nations want independence and the ability to protect themselves. When facing rivals with military capability, there is uncertainty of their intentions. A relative military advantage, or at least parity, could be achieved with a nuclear arsenal, since it has been assumed that "nuclear weapons prevent the regional states that have them from fighting each other."⁷⁰ Nuclear weapons, as essential

⁶⁷ El Baradei, "Towards a Safer World," 47.

⁶⁸ Richard Stanley and Michael Ryan Kraig, "The NPT: Can This Treaty Be Saved?" *Bulletin of the Atomic Scientists* 59, no. 5 (September/October 2003): 65.

⁶⁹ Thayer, "The Causes of Nuclear Proliferation...," 77-84.

⁷⁰ van Creveld, *Nuclear Proliferation...*, 92.

elements of national security, are not a new idea.⁷¹ The traditional claim has been that if more, or even all nations possessed nuclear weapons, the very devastating nature of these weapons would dissuade aggression by any state, hence strengthening international peace and security. This speaks to the theory of universal deterrence. In response to aggression, deterrence is a tool designed to prevent war by threatening unacceptable risks and costs. According to nuclear 'realists', this appeal is firmly grounded in the relationship between security policy and military force, and is directly related to nuclear weapons' "latent power in the form of risk manipulation and threat of war, instead of power directly on the battlefield."⁷² Possessing a credible nuclear capability can be a major influence in defining a nation's power and in this post-Cold War era, "the international system's new architecture creates powerful incentives to proliferate."⁷³

Motivations for nations to possess nuclear weapons are mixed, as witnessed over the last sixty years. For countries such as the US, Russia, China, Israel and Pakistan, the main reason centres on security from military threats. Britain's desire to maintain influence as a 'power' nation prevails, while France's key security factor is a need for independence. For India, security concerns, coupled with its aspirations as a South Asian regional power, dominate.⁷⁴ National pride and self-respect figured prominently in India's motivation, since after successful testing, India felt that it had ascended to its rightful place as a 'great nation' and expected to command enhanced

⁷¹ Goldblat, *Nuclear Non-Proliferation: A Guide to the Debate*, 17-20. Also, Mearsheimer suggests that "highly insecure states are most likely to acquire nuclear weapons" – see John F. Mearsheimer, "The Case for a Ukrainian Nuclear Deterrent," *Foreign Affairs* 72, no. 3 (Summer 1993): 61.

⁷² Stephen J. Cimbala, *Nuclear Strategy in the Twenty-First Century* (Westport: Praeger, 2000): 70.

⁷³ Mearsheimer, "The Case for a Ukrainian Nuclear Deterrent," 61.

⁷⁴ G.W. Rathjens and M.M. Miller, "Nuclear Proliferation After the Cold War," *Technology Review (1997)* 94, No. 6 (August/September 1991): 25.

international respect with a nuclear arsenal.⁷⁵ Looking still deeper at the nuclear rationale in South Asia, we see geopolitical factors at play. India fears China, China supports Pakistan's missile and nuclear programmes,⁷⁶ and India has doubts concerning 'great power' security guarantees. On the other hand, Pakistan sees nuclear weapons as a cost-effective counter to India's superior conventional military capabilities and a negotiating tool in the Kashmir dispute.⁷⁷ Neither is likely to give up their nuclear arms and in both countries "the weapon programme itself continues to generate powerful bureaucratic and public advocacy for its continued existence."⁷⁸

Despite these particular motivations, nuclear weapons don't seem to hold their previous sway as a deterrent to war. For instance, Argentina's seizure of the Falkland Islands in 1983 prompted no nuclear reprisal from the UK. In such a case of limited war aims, there was no deterrence at play or fear of a nuclear response. Arguably, it could be said, "nuclear weapons have no use other than to deter nuclear attack."⁷⁹ Perhaps nuclear weapons have lost some prestige as an enabler of national power, giving way to elements such as economic strength. However, economic power alone cannot guarantee security, but does allow the creation and deployment of greater military force, which in turn provides a backdrop for enhanced diplomatic advantage. Although most nations have renounced nuclear weapons, some strongly feel that deterrence remains

⁷⁵ Peter R. Beckman, Paul W. Crumlish, Michael N. Dobkowski, and Steven P. Lee, *The Nuclear Predicament: Nuclear Weapons in the Twenty-First Century* (Upper Saddle River, New Jersey: Prentice Hall, 2000): 214.

⁷⁶ Victor Zaborsky, "What to Control and How to Control: Nonproliferation Dilemmas," *World Affairs* 161, no. 2 (Fall 1998): 96.

⁷⁷ Scott D. Sagan and Kenneth M. Waltz, *The Spread of Nuclear Weapons: A Debate Renewed* (New York: W.W. Norton, 2003): 111.

⁷⁸ Robert E. Rehbein, "Managing Proliferation in South Asia: Case for Assistance to Unsafe Nuclear Arsenals," *The Nonproliferation Review* 9, no. 1 (Spring 2002): 93.

⁷⁹ Argument put forward by former Secretaries of Defence Robert McNamara and Solly Zukerman as stated in Rathjens and Miller, "Nuclear Proliferation After the Cold War," 25.

significant after the Cold War.⁸⁰ In defending the continuance of US nuclear weapons, Robert Spulak posits that their great destructive potential creates power and influence, and that "possession creates a threshold of antagonism which no nation can cross."⁸¹ Declared NWS have clearly not relinquished the use of nuclear weapons as ultimate deterrents and, despite the end of the Cold War, still continue to incorporate them into their security policies and military modernization plans.⁸² Why then shouldn't other states do likewise since "developing countries, which for economic or technical reasons have not yet produced their own nuclear deterrence forces, may wish in the future to have their own minimum deterrent?"⁸³ Wherever a significant imbalance in conventional capabilities is evident, a weaker power that feels threatened may have an impetus to acquire nuclear weapons. Exemplified in both Pakistan and Israel, where military forces of their primary adversaries outnumber their own conventional forces, nuclear weapons appear to be plausible deterrents. Since nuclear weapons exist today, they will always be considered in balancing global and regional power struggles. Having such weapons allows these smaller nations to project greater national power than otherwise possible, since they are relatively "inexpensive force equalizers and/or neutralizers,"⁸⁴ yet NWS' efforts "to prevent nuclear proliferation by denying...[some]...nations access to nuclear technology or by destroying a nascent nuclear infrastructure might delay the attainment of such capabilities, but military actions

⁸⁰ Stephen J. Cimballa, "Nuclear Crisis Management and Information Warfare," *Parameters* 29, no. 2 (Summer 1999), 117-128.

⁸¹ Spulak, "The Case in Favor of US Nuclear Weapons," 112.

⁸² Jaspal, "NPT in 2000: Challenges Ahead," 15.

⁸³ Jack Steinberger, Essam Galal, and Mikhail Milstein, "A Nuclear-Weapon Free-World: Is It Desirable? Is It Necessary?" in *A Nuclear-Weapon-Free World: Desirable? Feasible?* Exec ed. Frank Blackaby (Boulder: Westview Press Inc., 1993): 58.

⁸⁴ Paul Braken, Fire in the East (New York: Perennial, 2000): 37-70.

are unlikely to eliminate motivations, and may even reinforce them.⁸⁵ Security guarantees to vulnerable states serve as the best chance to reduce their motivation to proliferate, but if this is not possible, then allowing controlled possession of these weapons may be the sensible course to reduce the dangerous risks of security imbalance.

Motivation Without Capability

A nation may possess the motivation to become a new NWS, but it must first acquire the capability. From a technical perspective, high-power reactors to generate weapons grade fuel are complex. Typically, only technically developed countries have the expertise and capabilities to process the required fuel, and build nuclear weapons through costly and time-consuming programmes.⁸⁶ A less-developed country would likely have no recourse but to buy weapons materials from a technologically experienced nation – a transaction that, if legally pursued, would fall under the IAEA safeguards.⁸⁷ Any third world state considering acquiring nuclear weapons must evaluate the risks and difficulties in addition to the potential advantages, but if they are determined, technical barriers can eventually be overcome. Of course, any such nation suspected of developing a nuclear weapons programme will also face political resistance from major world powers and non-nuclear third world states.⁸⁸ If they persist, however, accommodation by the international community may offer the means to ensure these new arsenals are maintained in a

⁸⁵ Rathjens and Miller, "Nuclear Proliferation After the Cold War," 25.

⁸⁶ Spector, "Nuclear Proliferation," 124-125.

⁸⁷ Robert F. Mozley, *The Politics and Technology of Nuclear Proliferation* (Seattle: University of Washington Press, 1998): 64.

⁸⁸ Patrick J. Garrity and Steven A. Maaranen, "Introduction," Nuua

stabilized manner. By doing so, arms control measures could subsequently be applied in keeping with the goals of the nonproliferation regime. Although this may seem 'to take a step backward to move forward', the idea is to instil responsibility in the new NWS and have them work towards disarmament in concert with other NWS in a mutually acceptable manner.

Today's technological advances enable countries and non-state actors who have limited resources to access information, material and expertise required for nuclear weapons, without having to undertake the complexity of developing an autonomous nuclear arms programme. Along this line of thinking NWS have abetted proliferation. For instance after the break up of the Soviet Union, the Russian Ministry for Atomic Energy of the Russian Federation provided an opportune source for weapons materials.⁸⁹ Of the 45,000 Soviet nuclear bombs and warheads produced, many were decommissioned and stored. Altogether the resulting stockpile of nuclear materials comprises 1,200 tons of highly enriched uranium (HEU) and plutonium, enough to produce thousands of nuclear devices, as well as a stockpile of low enriched uranium (LEU) and plutonium for nuclear power stations, which can be enriched into weapons-grade materials.⁹⁰ These nuclear substances are widely dispersed and have proven difficult to control. Cooperative efforts with the US have helped, but "even with massive aid from the US Government, sensitive weapons, enriched uranium, and technology are not safe from illicit acquisitions by rogue states or terrorists."⁹¹ This Russian situation has proven dangerous to the nonproliferation regime in the past - they have openly proliferated to China, Iran, and North Korea, and the reasons for this were

⁸⁹ Joseph Cirincione, "Nuclear Free-Fall," *The Washington Quarterly* 22, no. 1 (Winter 1999): 19.

⁹⁰ Ariel Cohen, "Russian Rule and the Regional Military Industrial Complexes," in *Beyond Nunn-Lugar: Curbing the Next wave of Weapons Proliferation Threats From Russia*, ed. Henry Sokolski and Thomas Riisager (Carlisle, PA.: Strategic Studies Institute, U.S. Army War college, 2002): 69.

⁹¹ Over a ten year period, the US spent \$2.2 Billion to secure only 14% of Russia's weapon grade material - see "Plutonium for Sale," *New Scientist*, May 12, 2001, 6.

not necessarily state driven, but may have resulted from private interests.⁹² This post-Cold War situation exposes motivated NNWS to new acquisition opportunities, and factors of technological capability and political motivation foretell the likelihood of further nuclear weapon proliferation. In this sense, "capability without the motivation is innocuous," whereas, "motivation without the capability is futile."⁹³ A state's capability and accessibility to nuclear materialities, and fa

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traditional view is that world security is undermined, unnecessarily increasing the risks and dangers of war. Kenneth Waltz, a leading nuclear optimist, argues theoretically that nuclear deterrence would induce caution and restraint from reckless behaviour, making the "measured spread of nuclear weapons" a stabilizing effect.⁹⁵ Others argue that those opposing proliferation fail to see the historical precedence and claim that an increase in danger "flies in the face of the inherent logic of nuclear deterrence, as well as the history of the Cold War."96 With understandable reasons for a state to proliferate, this spread of nuclear weapons may not necessarily be a negative phenomenon by serving to establish new stabilizing deterrents between regional adversaries.⁹⁷ Following this logic, possession of nuclear weapons by third world states may stabilize regional conflict, just as stabilizing deterrent relationships have emerged among the major powers. The problem is that some regional leadership is not "rational by Western standards and would not necessarily share the same culture of deterrence."98 Technical competence by these states may be missing, as may be sufficient resources to build secure 'no first use' arsenals and safe command and control (C2) systems. If such a state did attempt to deploy a first-strike force for purposes of achieving regional superiority, they would likely be technically unstable by Western standards and have higher risk of accidents and miscalculation.

The downside of an accommodation policy that is based on the soundness of the proliferating government and its willingness or ability to comply with the NPT, is that more radical governments can quickly replace stable ones. A country facing possible revolution, such as

⁹⁵ Sagan and Waltz, *The Spread of Nuclear Weapons...*, 43.

⁹⁶ Mearsheimer, "The Case for a Ukrainian Nuclear Deterrent," 57.

⁹⁷ Edward M. Spiers, *Weapons of Mass Destruction: Prospects for Proliferation* (New York: St. Martin's Press, 2000): 141.

⁹⁸ Garrity and Maaranen, "Introduction," Nuclear Weapons..., 9.

Pakistan, may be such an example. There are inherent risks in judging and accepting a new NWS based upon a 'snapshot' of its regional stabilizing influences. For such reasons, pessimists assert that proliferation is destabilizing, yet we recognize that it cannot be wholly eliminated in a world where possession of nuclear weapons is legitimate for some states but not others. This is why accommodation must 'adapt' or 'fit in' with the various nonproliferation regime goals and initiatives that are sound, and the influential international pressures that accompany them.

How different nations react to another's power is important to the question of stability. Extended periods of peace have often existed when there has been a balance of power and as such, "the nuclear era has been a most peaceful time."⁹⁹ The danger of war only arises "when a nation becomes infinitely more powerful in relation to its potential competitors."¹⁰⁰ Joseph Nye asserts that countries will always try to right the imbalance and pursue policies that will prevent others from developing power that could be threatening.¹⁰¹ This describes the nonproliferation regime, but the dynamics of global security ultimately suggest, "it is inevitable that another great power or a coalition of powers will arise to oppose the hegemony of the United States."¹⁰² In this context, Charles Krauthammer describes nuclear devices as easily obtained power multipliers that influence this global power balance. He discusses the shift from Cold War bipolarity whereby the world's nuclear system was predictable and stable, to a unipolar world in which nuclear capacity proliferates to reside in smaller, peripheral states.¹⁰³ This strategic situation demands that these new NWS must be subjected to strict external controls.

⁹⁹ "Scrap the Nucs?" Wilson Quarterly 21, no. 3 (Summer 1997): 121.

¹⁰⁰ Joseph Nye, *The Paradox of American Power* (London: Oxford University Press, 2002), 12.

¹⁰¹ Ibid, 14.

¹⁰² Spulak, "The Case in Favor of US Nuclear Weapons," 110.

¹⁰³ Charles Krauthammer, "The Unipolar Moment Revisited," *The National Interest*, no. 70 (Winter 2002/03): 10.

What Comprises Acceptable Proliferation?

From a scholarship point of view, two academic debates have been ongoing regarding proliferation. The first is the optimist-pessimist debate, which focuses on the spread of nuclear weapons and their effects on geopolitical stability. The proliferation optimism view is that nuclear weapons spread is a positive regional stabilizing influence since they are conducive to mutual deterrence. The logic of rational deterrence theory is applied to proliferation and it is thought that even small arsenals can deter war, and that due to the easily managed size of new proliferator's arsenals, few safety and security problems would arise. Furthermore, there is a notion that "states behave with robust circumspection when confronted with even a modicum of nuclear risk."¹⁰⁴ Martin van Creveld points out that in "region(s) where these weapons have been introduced, largescale interstate warfare has disappeared."¹⁰⁵ This has been the case with India and Pakistan, where recent conflicts over Kashmir have been avoided in a large part due to the two countries' fear of nuclear escalation between them.¹⁰⁶ Proliferation of nuclear weapons is seen as a positive eventuality, "so much so that some...[optimists]...advocate its selective abettance by current nuclear powers."¹⁰⁷ In fact, US Secretary of Defense Rumsfeld has said the US and "other interested countries" should encourage India and Pakistan to "learn that it is possible to live with nuclear weapons and not to use them."¹⁰⁸

¹⁰⁴ Karl, "Proliferation Pessimism...," 90.

¹⁰⁵ van Creveld, *Nuclear Proliferation...*, 124.

¹⁰⁶ Feldman, "Is There A Proliferation Debate?" 791.

¹⁰⁷ Karl, "Proliferation Pessimism...," 91.

¹⁰⁸ Spoken at a 9 June 2001 news conference in Finland, as cited in "News Briefs: U.S. Shifts Its South Asia Nuclear Policy," *Arms Control Today* 31, no. 6 (July/August 2001): 30.

Proliferation pessimism is the counter-argument that views these weapons as destabilizing since new nuclear arsenals are prone to higher accidental, unauthorized, or intentional use than those possessed by the nuclear powers of the Cold War.¹⁰⁹ Here there is a fear that new nuclear nations might not be deterrable, since elements such as robust C2 that made Cold War deterrence work, are unlikely to be replicated in proliferating states.¹¹⁰ This would be the case with Pakistan where conflict in the civil-military command relationship may lead to precipitous action by India.¹¹¹ The 'pessimist' position underpins the nonproliferation regime, whereas no state officially endorses the 'optimist' school. This debate has had little effect on Western proliferation policy-makers, who clearly see the spread of nuclear weapons as manifestly wrong as espoused by the pessimist point of view.

The second academic debate, borne of the first one, concerns the methods by which proliferation is managed. Since proliferation still seems to be occurring, the logic here is that some proliferation is better than others. Although not ideal from a nonproliferation viewpoint, accommodating it demands that it be safe, which is preferable to an uncontrolled alternative. This does not mean that a proliferation-acceptant world should exist without specification, but rather that it should be selective based upon a rationality determination of the proliferating state. Since more proliferation is likely to occur, policy-makers are faced with an option of "slowing, but not stopping, proliferation through…facilitating proliferation on a selective basis."¹¹² For regions

¹⁰⁹ Karl, "Proliferation Pessimism...," 95.

¹¹⁰ Peter D. Feaver, "Proliferation Theory and Nonproliferation Practise," in *Twenty-first Century Weapons Proliferation*, ed. Henry Sokolski and James M. Ludes (London: Frank Cass Publishers, 2001): 173-174.

¹¹¹ Gregory F. Giles, "Safeguarding the Undeclared Nuclear Arsenals," *The Washington Quarterly* 16, no. 2 (Spring 1993): 178.

¹¹² Bruce Bueno de Mesquita and William H. Riker, "An Assessment of the Merits of Selective Nuclear Proliferation," *Journal of Conflict Resolution* 26, no. 2 (June 1982): 303.

where dangers of imbalance in nuclear power exist between rival states, "it behoves the American foreign policy establishment to consider, on a case-by-case basis, the merits of promoting nuclear proliferation."¹¹³ Careful deliberation is important, as there is a risk that proliferation may generate 'chain-reaction' asymmetries of nuclear capabilities between new NWS and other NNWS rivalries. Furthermore, there could be a slight increase in the chance of accidental war because new NWS may not have the capabilities to implement suitable technical safeguards against accidental or unauthorized use. Also, proliferation without responsible controls may create opportunities for terrorist-type activities. These are very low-probability events, but underscore reasons why appropriate accommodation measures must accompany selective proliferation if this path is to be followed to ensure stability is retained.

It is therefore imperative that to ensure proliferation can be accommodated, new proliferant states must maintain acceptable standards. Again, we must look at the problems that worsen the situation, since by preventing all proliferation, nuclear weapons in the hands of those that succeed may be less safe than they should be. This is because a harmful effect of current policy is that it impels states to develop weapons opaquely and with a minimum of testing. With the understanding of why nations desire nuclear weapons in the first place, both sides of the academic debate would concur that C2 deficiencies are of serious concern. If prospects for persuading these *de facto* NWS to relinquish their nuclear weapons were small, it would be prudent for Western NWS to help them solve these problems to ensure adequate deterrence requirements are met. Otherwise, an unchecked proliferant may possess a nuclear arsenal with unknown C2 processes and present intolerable security risks. The 1998 case of India and Pakistan highlights the relevance of these debates. In keeping with Western policy, the proliferation activity was condemned and sanctions imposed, only to be lifted shortly thereafter. Now, information sharing regarding C2 is

¹¹³ Ibid, 303.

being considered for both parties "as part of a carrots-and-sticks policy designed to bring both arsenals under a robust confidence building and arms control regime."¹¹⁴

The academic debate must be tempered by reality since "it does matter who the proliferators are and what kinds of regimes they have."¹¹⁵ In practical terms, selective accommodation is a necessary forbearance to balance against 'counterproliferation' as a means to prevent the proliferation of nuclear weapons.¹¹⁶ The optimist argument has not made its way into policy simply because it is incomplete or rather it is absolute in that wide-spread proliferation would be an uncontrolled phenomenon realizing the pessimist's worst fears. National security policies are based upon many variables and Western policy-maker thought is that there are those states that simply should not possess nuclear weapons because the net result would be destabilizing.¹¹⁷ However, policy could reflect a controlled optimist outlook, tempered by sufficient control measures to mitigate pessimist concerns. A limited accommodation policy would distinguish between better and worst kinds of proliferation and hence contribute to the management of its associated risks.

Whether or Whither Accommodation?

The policies of the nonproliferation regime have not prevented some states from developing nuclear weapons. A new proliferation policy should be considered – one that makes

¹¹⁴ Feaver, "Proliferation Theory...," 175.

¹¹⁵ Stephen J. Cimbala, *Through A Glass Darkly: Looking at Conflict Prevention, Management, and Termination* (Westport, CT: Praeger Publishers, 2001): 136.

¹¹⁶ Counterproliferation strategy, a main element of the current US National Security Strategy, involves a combination of export controls, deterrence, coercive diplomacy, global military superiority, and the preventative/pre-emptive use of military force – see Stanley and Kraig, "The NPT: Can This Treaty Be Saved?" 60.

¹¹⁷ Peter D. Fever, "Optimists, Pessimists, and Theories of Nuclear Proliferation Management," *Security Studies* 4, no. 4 (Summer 1995): 771.

the most of the current situation in which a nuclear-free world is a long way off. Stabilizing the effects of proliferation requires selective accommodation strategies to cope with it.

Accommodation is a compromise that would allow the adaptation of the nonproliferation regime to changing circumstances. Even though we must accept the realism that proliferation will likely continue, unlimited accommodation is not prescribed, as this may lead to lack of control in some situations. Supporting the concept of a proliferation policy framework to be used for global governance, scholars such as William Martel suggest that any state could own nuclear weapons provided they behave in accordance with international standards, and the international community should judge each case individually.¹¹⁸ However, any determination of the impact of a new NWS on regional stability (and beyond) should include an evaluation of the proliferating nation's current and developing capabilities for weapons delivery. If the case is not inherently destabilizing or contrary to international security, this new nuclear ownership should be accommodated rather than opposed. This deliberation and final judgement would have to be done by the international community at large, administered through the UN, and consider all nations' views, including those of neighbours to possible proliferants. To reiterate, accommodation must only be accepted if it can fit within the nonproliferation regime to ensure that a standard is adhered to for subsequent arms control and disarmament efforts. A policy that accommodates rampant proliferation would destroy the NPT - a pitfall that must be avoided.

The emphasis is on selectivity, based upon each new case of proliferation. For example, if it is determined that Pakistan's nuclear capability deters aggression by India and vice versa, then arguably nuclear weapons have a stabilizing effect. However, a lack of confidence exists that a stable situation of Cold War-like deterrence can or ought to be achieved through relations with

¹¹⁸ Martel, "The End of Non-Proliferation," 17.

new proliferators such as North Korea or Iran.¹¹⁹ There seems to be an implicit consensus that "rogue states should be prevented from possessing atomic weapons," although the criteria of what constitutes a rogue state are ill defined.¹²⁰ In addition to this idea concerning the irresponsible ownership of nuclear arms, a US drafted nonproliferation resolution was proposed to the UNSC in March 2004, calling on all UN members to adopt laws making it illegal for "non-state actors," individuals or groups not belonging to governments, to acquire, develop or possess weapons of mass destruction and their means of delivery.¹²¹ Proliferation can be dangerous, especially if one considers the prospect of nuclear terrorism. In the hands of some states, perhaps sympathetic to terrorist groups, nuclear weapons would have destabilizing consequences that would demand interceding political, economic or military action. To be sure, the breakup of the Soviet nuclear complex has increased the risks that nuclear weapons and materials are more readily available to rogue states and terrorist organizations. It may be unlikely for terrorist organizations to develop nuclear weapons; however, the possibilities of them acquiring such devices should not be discounted. If this is proven to be the case, "there is no substitute for a political will to act decisively once an irresponsible state seeks nuclear weapons."¹²²

In India's case, the possession of nuclear weapons seems more or less accepted by the international community. There is a realization that it was India's security concerns about China's desire to dominate the Asian region,¹²³ rather than concerns about Pakistan, that led to India going

¹¹⁹ Robert Ayson, "Management, Abolition, and Nullification: Nuclear Nonproliferation Strategies in the 21st Century," *The Nonproliferation Review* 8, no. 3 (Fall 2001): 71.

¹²⁰ Feldman, "Is There A Proliferation Debate?" 791.

¹²¹ "U.S. Non-proliferation Resolution Advances at UN," *Arms Control Today* 34, no. 3 (April 2004) [journal on-line]; available from <u>http://www.armscontrol.org/act/2004_04/US.asp</u>; Internet; accessed 6 April 2004.

¹²² Martel, "The End of Non-Proliferation," 20.

¹²³ Khan, Nuclear Proliferation Dynamics..., 167.

nuclear in 1998; concerns that will continue as long as China's nuclear and missile threat remains.¹²⁴ Also part of this acceptance is that, whereas the US Senate did not ratify the CTBT, India and Pakistan have adopted the position of voluntarily adhering to both the main provisions of the CTBT and the export control provisions of the NPT.¹²⁵ The resulting Western view is that it would be better to have India "co-opted into the nonproliferation regime rather than treated as a pariah."¹²⁶ However, a country such as North Korea would not likely be accepted in the same way due to assumptions about its irrationality.¹²⁷

If managed carefully, this selective accommodation approach would not be reckless and destroy the fundamentals of the nonproliferation regime, but may offer a means to overcome the current impasse to bring all nuclear weapon possessing states under a strict international system of checks and balances, and to work to abolish their arsenals in parallel. The obligations of the NPT would not be made void, but rather be universally applicable to all states - a situation that does not currently exist. Therefore, Western focus could shift its focus from universal opposition to all nuclear proliferation and adopt new policies for governing the proliferation of nuclear weapons - policies that distinguish between stabilizing and destabilizing types. William Kincade reminds us that in 1993, the US had begun to shift towards accommodation when the Clinton administration softened its threat-based approach to Ukraine regarding ex-Soviet nuclear weapons. In this case the conciliatory policy adopted, emphasizing rewards rather than punishments, was successful in steering Ukraine away from nuclear weapons, as was a similar approach taken with North Korea in

¹²⁴ Mohammed Ayoob, "India Matters," The Washington Quarterly 23, no. 1 (Winter 2000): 33-34.

¹²⁵ Jaspal, "NPT in 2000: Challenges Ahead," 10, 12.

¹²⁶ Ayoob, "India Matters," 34.

¹²⁷ Ayson, "Management, Abolition, and Nullification...," 75.

the early 1990s.¹²⁸ For legitimacy though, global stability must be secured using the nonproliferation regime as a backdrop and with a new focus on a policy of accommodation that facilitates policies more tailored to the various motivations for nuclear weapons acquisition.¹²⁹ It is still imperative that Western efforts continue to reverse vertical proliferation in order to reduce incentives for unnecessary horizontal proliferation.

The main counter-argument against accommodation is that such a policy may encourage even more proliferation. Accommodating the spread of nuclear weapons could result in catastrophic consequences should such 'evil' devices ever be used. This would be akin to gambling that accommodation may mitigate some of the evil effects and reduce some of the 'nuclear unknowns' in the short term, but may prove to legitimize the evil as acceptable in the end. Nuclear proliferation does not axiomatically promote peace and could in some cases result in war. Smaller powers might lack resources to make their nuclear force survivable, and vulnerable nuclear forces would invite a first strike in a crisis. If proliferation was widespread, there would be more 'fingers on the nuclear trigger' and this increases risk of accidental use, unauthorized use, terrorist seizure or irrational decision-making.¹³⁰ Recognizing that, in a global perspective, nuclear weapon activity has, is, and will likely continue unabated in the foreseeable future, a way for strengthening regional stability may be to selectively have some nations with safe, secure and stable nuclear deterrents. The necessary control measures to be adopted by these nations should be considered as the 'indirect' ways and means to stabilize the global nuclear weapons situation as

¹²⁸ William H. Kincade, *Nuclear Proliferation: Diminishing Threat?* INSS Occasional Paper 6 Proliferation Series (Colorado: USAF Institute for National Security Studies, 1995), 40.

¹²⁹ Ibid, 42.

¹³⁰ Mearsheimer, "The Case for a Ukrainian Nuclear Deterrent," 51.

part of the larger strategy to contain proliferation. They would ultimately bring about greater control, limit the scope, and reduce the pace of existing nuclear weapons activities.

What Approaches To Take?

Nuclear security is a very topical global concern. The Cold War demonstrated the effectiveness of deterrence and the associated reasons for possessing nuclear weapons. Western nonproliferation policy has not been able to persuade all states that such weapons will not necessarily increase their security. Although ridding the world of nuclear arms may be ideal, it is unlikely in the near-term. Opposition to proliferation poses problems in that it effectively weakens the ability to influence new NWS when cooperation is critical. For any new NWS, policies and practices must be developed to maintain this capability in a safe and secure fashion, and to prevent nuclear weapon use to the maximum extent possible. The original NWS have the technical and operational expertise to help new NWS ensure practical measures are implemented to achieve this stability. This includes transferring some 'unclassified' knowledge of selected nuclear weapon C2 systems, procedures, and technologies that are adequate, reliable, and time-proven to provide some protection when the inevitable permanent deployment of their weapons occurs. Even amongst the NWS themselves, the US has helped Russia dismantle nuclear arsenals and employed nuclear scientists. This policy could help both Pakistan and India develop C2 systems with reliability acceptable to the West. US Secretary of Defense Donald Rumsfeld has rightly stated that the US should "be helpful to both India and Pakistan, to see that they develop the kind of capabilities, management, controls and confidence-building measures, and warning systems and

understandings" to marginalize the chance of nuclear war.¹³¹ Such safeguards, comprising mechanisms and procedures, kept US forces secure throughout the Cold War and must be accessible by all nuclear states to contribute to peacetime and crisis stability.¹³²

Western policy-makers could adopt new solutions to help manage proliferation in certain cases. Accommodating new NWS entails a responsibility to mitigate risk through active measures such as safety and security assistance by declared NWS. There is historical precedent for such action in that the US has provided this type of assistance formally to Great Britain and France by sharing technology, and to the republics of the former Soviet Union by providing information.¹³³ Without a new policy, the current problem is that assisting unacknowledged NWS is laden with legal and policy implications. In the case of India and Pakistan, not much information has been provided about their nuclear weapons' security capabilities, prompting various ideas of how the international community might assist in improving security throughout this region. Under the NPT, obligations on the part of NWS raise questions about whether the provision of such assistance is legal. Article I of the NPT disallows actions from the five NWS "to assist, encourage, or induce any non-nuclear weapon state to manufacture or otherwise acquire nuclear weapons."¹³⁴ Accommodating these new nuclear arsenals requires measures to enhance security, but this necessitates trusted cooperation with the old NWS and solutions are possible only through varied approaches over the long term. Relevant lessons can be drawn from the experiences of the US and Russia, especially on the process of cooperation in matters of extreme sensitivity; however, in the

¹³¹ As quoted in Rehbein, "Managing Proliferation in South Asia...," 106.

¹³² Martel, "The End of Non-Proliferation," 19.

¹³³ Steven E. Miller, "Assistance to Newly Proliferating Nations," *New Nuclear Nations*, eds. Robert D. Blackwell and Albert Carnesale (New York: Council on Foreign Relations Press, 1993): 97.

¹³⁴ NPT Treaty Article I.

case of Pakistan, uninvited US assistance may be viewed suspiciously.¹³⁵ Although India and Pakistan are both members of the IAEA, Western concerns persist over insufficient security of their infrastructure and state of their nuclear doctrine. There is a fear that new NWS cannot create a robust C2 system because as countries, they face economic, technological and institutional barriers. Scott Sagan asserts that these arsenals will be "considerably less safe than those of current nuclear powers...[since new NWS]...may not be able to afford even a modicum of mechanical safety devices and modern warning sensors and will therefore be more prone to accidents and false warnings."¹³⁶ To alleviate this pessimism, mechanisms could be implemented to provide information to decision makers about nuclear weapon and material security, and accountability.

Accommodation Measures

Accommodation measures supported by Western states can take several forms to reduce risks of regional nuclear war involving new NWS. These include C2 and other technical aspects to ensure security, safety and stability of nuclear arsenals; initiatives to affect new NWS doctrine and decision-making efforts; and political/diplomatic pursuits such as arms-controls and confidence building to improve regional security affairs. Such measures would address many aspects of a new NWS' nuclear programme, but would rely upon dialogue between all players and be based upon previous nuclear learning of old NWS. Assistance to new NWS would have to be determined to

¹³⁵ Arian L. Pregenzer, "Securing Nuclear Capabilities in India and Pakistan: Reducing the Terrorist and Proliferation Risks," *The Nonproliferation Review* 10, no. 1 (Spring 2003): 125.

¹³⁶ Scott D. Sagan, *The Limits of Safety: Organizations, Accidents, and Nuclear Weapons* (Princeton: Princeton University Press, 1993): 266.

be necessary and if it is, it must be decided how much to give and when to give it, taking into account any constraints in doing so.

Lacking appropriate skills and fiscal ability will be a problem in developing technical 'fixes' for safety and C2.¹³⁷ Therefore, approaches to be taken could include unilateral action, bilateral cooperation or other international activities. For new NWS to take action on their own, knowledge and funding would have to be sufficient to analyse threats against their nuclear facilities, develop indigenous physical security technology, upgrade systems, and enhance more rigorous personnel reliability programs.¹³⁸ Cooperative bilateral efforts between the US and each country depend upon political relations, but violations against US obligations under Article I of the NPT must be dealt with. Arguably, a solution could be to provide security cooperatively through civil rather than military nuclear applications. Along these lines, the international community is well postured to provide specific services such as through the IAEA.¹³⁹ Precedent was established in the 1990s for these approaches to ensure security of Russian nuclear weapons and nuclear materials, and reduce threats when the collapse of the Soviet Union resulted in inadequate and threatening nuclear security conditions. Most work was accomplished through bilateral agreements with Russia and the newly independent states - international organizations featured prominently, namely IAEA and the International Science and Technology Centre (ISTC).¹⁴⁰

¹³⁷ Lewis A. Dunn, *Containing Nuclear Proliferation*, International Institute for Strategic Studies Adelphi Paper 263 (Oxford: Oxford University Press, 1991): 24-25.

¹³⁸ Pregenzer, "Securing Nuclear Capabilities...," 126.

¹³⁹ For instance, services could be provided to the South Asian region such as IAEA physical security training courses and IAEA International Physical Protection Advisory Service (IPPAS) assistance to consult on national laws and regulations. Also the World Association of Nuclear Operators (WANO) could assist South Asian interests regarding best security practices of nuclear power production - see Pregenzer, "Securing Nuclear Capabilities...," 126.

¹⁴⁰ The ISTC, established as a nonproliferation programme in 1992, coordinates numerous government, international organization, and private sector industry efforts in providing weapons scientists from Russia and the Commonwealth of Independent States with research and commercial opportunities. The ISTC provided funding to

Lessons learned from this experience focus on flexibility, mutual respect, political will, and the need for pragmatic approaches.¹⁴¹ Despite restrictions imposed by the NPT on nuclear cooperation, civilian security applications could be permitted to provide assistance that the new NWS would then apply unilaterally to secure their nuclear capabilities and reach the long-term goal of reassuring each other and the world. However, each case of new proliferation may require different assistance measures and approaches with the international community.

Command and Control Measures

If nuclear deterrence worked during Cold War, this optimist way of thinking might just work for the smaller arsenals of India and Pakistan, but to do so, effective C2 systems must deal with safety and security issues. Proponents argue that these new NWS will "adopt a more cautious, less bellicose approach toward each other"¹⁴² following Waltz's theory that "the gradual spread of NW is more to be welcomed than feared."¹⁴³ But maintenance of nuclear stability is not easy and it "takes great conscious effort as does the safety, security and accountability of nuclear warheads and materials from unauthorized transfer and theft."¹⁴⁴ In satisfying the pessimist viewpoint, compensatory measures must be taken since they assert it is inevitable that "political

prevent the emigration of nuclear scientists to countries illicitly seeking to progress their nuclear weapons programmes. Cooperative efforts between the US and Russia covered activities relating to transport of weapons, warhead safety and security, protection of nuclear materials, border detection, cessation of plutonium production, disposition and conversion of highly enriched uranium and plutonium, conversion of defence complexes and non-defence job creation, and nuclear security infrastructure.

¹⁴¹ Pregenzer, "Securing Nuclear Capabilities...," 128.

¹⁴² Rehbein, "Managing Proliferation in South Asia...," 94.

¹⁴³ Sagan and Waltz, *The Spread of Nuclear Weapons...*, 45.

¹⁴⁴ Rehbein, "Managing Proliferation in South Asia...," 94.

miscalculation, leadership failure, geographical propinquity, or technical mishap could lead to a nuclear clash.¹¹⁴⁵ Nuclear C2 provides increased stability by increasing physical security of arsenals, providing mutual (re)assurances between regional adversaries, and enhancing credible mutual deterrence. In other words, they must guard against accidental, inadvertent, or unauthorized detonation or transfer of nuclear weapons. Inadequate C2 is directly proportional to increased risk of unauthorized or accidental launches/detonations. Successful crisis management and de-escalation is aided by making it known that there are no known rogues in the nuclear C2 chain of the other country, reducing chances of misunderstandings, and accepting that one's own control is unchallenged.¹⁴⁶ The knowledge of an effective C2 system in the hands of the other would indicate that the possibility of accidental and inadvertent weapons release is low and prove to be a robust confidence-building measure, both regionally and globally. Western accommodation policy should have as an objective for new NWS, C2 systems that deter adversaries and give reassurances that the owner is in control and not liable to err or lose control of warheads and radioactive material to rogue elements.¹⁴⁷

C2 systems are critical and new NWS will face unique challenges in developing them. India and Pakistan claim that because their small arsenals are simple, then the C2 support to ensure a credible deterrence can also be small and simple.¹⁴⁸ Conversely, "a bigger and better nuclear arsenal does not necessarily translate into a harder arsenal to control."¹⁴⁹ Either way, leaders of any

¹⁴⁵ Ibid, 94.

¹⁴⁶ Cimballa, "Nuclear Crisis Management...," 121-122.

¹⁴⁷ Peter R. Lavoy, "Managing South Asia's Nuclear Rivalry: New Policy Challenges for the United States," *The Nonproliferation Regime* 10, no. 3 (Fall-Winter 2003): 90.

¹⁴⁸ Clayton P. Bowen and Daniel Wolvén, "Command and Control Challenges in South Asia," *The Nonproliferation Review* 6, no. 3 (Spring-Summer 1999): 26.

¹⁴⁹ Lavoy, "Managing South Asia's Nuclear Rivalry," 90.

NWS require their weapons to work on demand, while at the same time they never want them used without authority. This "always/never or positive/negative control dilemma"¹⁵⁰ is not simple since it requires keeping nuclear weapons stable and safe, and ensuring their credible use when demanded. A C2 system will have a mixture of "negative/assertive" or "positive/delegative" control types,¹⁵¹ and the key to stability is which end of the control spectrum is adopted. Delegative systems would likely fail deadly, while assertive command systems would likely fail safely.¹⁵² As an accommodation measure, NWS should lead India and Pakistan to a C2 construct that has central control of nuclear weapon release or unintentional use, with less emphasis on positive/delegative mechanisms.¹⁵³

It is only logical that 'assistance' or advice be provided to find solutions to unresolved C2 problems. Without outside help, variable crisis-driven demands may determine how their arsenals will be controlled by default. Fewer safeguards might be employed simply due to the inability to afford development and testing of measures promoting safety that doesn't compromise weapon reliability. If it is clear that a new NWS has developed an imbalanced C2 system, the world community should help with financial or technical aid.

¹⁵³ Ibid, 170.

¹⁵⁰ Peter D. Feaver, "Command and Control in Emerging Nuclear Nations," *International Security* 17, no. 3 (Winter 1992/93): 163.

¹⁵¹ Negative control is the prevention of nuclear weapon release and positive control is the permissive release of the weapons. Assertive control indicates the authority to launch nuclear weapons is highly centralized and limited, while delegative control is the decentralized authority to launch the weapons once certain criteria are met. For deterrence purposes a purely negative/assertive C2 set-up would be avoided - see Feaver, "Command and Control in Emerging Nuclear Nations," 169-170.

¹⁵² Ibid, 169-170.

Technical Measures

Various technical methods and devices exist which protect against inadvertent and unauthorized use of nuclear weapons. During the early days of nuclear weapons, they were kept dismantled and separated; however, military readiness later demanded that they be stored as fully assembled bombs. Efforts to prevent detonation spurred the development of environmental sensing devices (ESDs) used to prevent critical arming of a weapon until preconditions were met such as 'free fall' or specific launch accelerations. Further measures include decoupling the control of a weapon's use from its possession; achieved using permissive action links (PALs). These include various coded electromechanical locking devices designed to block unauthorized detonations, but are only as effective as the code-management processes that go with them. A dilemma arises in that using ESDs and PALs could encourage new NWS to store assembled weapons; therefore, assistance in this regard may be construed as violating the NPT. However, countries such as Pakistan do not yet use these measures;¹⁵⁴ therefore, to alleviate the constraints of US policies, a reassessment of them regarding safety and security information classification is necessary.¹⁵⁵ A declassified data package on proven ESDs and PALs (or the devices themselves) could be provided to the new NWS that would not enable them to substantially improve their own weapons. A better understanding of safety and security technology as it relates to weapon design is also needed to give new NWS the confidence to adopt such safeguards.

The scope of assistance to improve security could range from procedures for the control, handling and transport of nuclear weapons to exchanges on practical physical security measures or

¹⁵⁴ Sagan and Waltz, *The Spread of Nuclear Weapons...*, 103.

¹⁵⁵ Gregory F. Giles, "Safeguarding the Undeclared Nuclear Arsenals," *The Washington Quarterly* 16, no. 2 (Spring 1993): 180.

even advanced PAL technology itself. Arming and safety features of weapons design could also be examined, such as those in ESDs. As well, technical discussions, unclassified document transfers, formal training, liaison missions and technology transfers could comprise such assistance.¹⁵⁶ Nuclear weapon design philosophy could be discussed such as the 'strong and weak link' concept¹⁵⁷ to lessen risk of accidental detonation in abnormal environments and the 'onepoint' concept.¹⁵⁸ Discussions could also include design features that disable weapons in the absence of proper arming signals, such as the Enhanced Nuclear Detonation Safety (ENDS) system, or fire resistant pits (FRP) that prevent gaseous fissile material to spread if fire breaks out.¹⁵⁹ Another design option worth proposing is insensitive high explosives that will improve safety and provide negative control without compromising positive control.¹⁶⁰ These discussions could also extend to manufacturing techniques and the associated transfer of materials, components or technology.

Operational Measures

Another accommodation measure would be to stabilize operational procedures. From a new NWS perspective, just having nuclear weapons8393 304.29eit0.0004 12 365.96533 427579998 Tm(eapons

operational procedures, may be the price of nuclear survival. The concern is that under pressures of a crisis situation, nuclear weapon accidents, C2 failures, or ineffectual alert procedures could evoke nuclear escalation.¹⁶¹ This was almost the case with India and Pakistan during recent crises, which prompted them both to focus "the long-neglected issues of strategic force structure, targeting policy, positive and negative [C2] arrangements, declaratory nuclear doctrine, and strategic signalling to communicate the credibility of deterrent threats during times of peace, crisis, and possibly war."¹⁶² Standardized rules must exist to govern how nuclear weapons shall be handled and by whom. These efforts should be enhanced with lessons-learned from old NWS. Both the US and Russia have experience in peacetime and crisis operational procedures to lessen the risk of mutual nuclear war.¹⁶³ The US procedural security of nuclear weapons is based on the 'two-man rule,' whereby the launch or detonation of a device requires positive action by two persons. Careful screening of individuals authorized to control the weapons also adds security. To date the combination of these precautions has proven successful.¹⁶⁴ The transfer of information on special use control measures from the US to the Soviet Union in 1963 exemplifies assistance in this area.¹⁶⁵ Proliferators should consider a combination of operational measures, yet to what degree they should be used will depend upon what type of threat they are countering. On a caseby-case basis, assessment of operation plans and a C2 system for an emerging nuclear nation

¹⁶¹ Dunn, Containing Nuclear Proliferation, 47.

¹⁶² Lavoy, "Managing South Asia's Nuclear Rivalry," 86.

¹⁶³ Examples are fail-safe bomber missions, cross-checking warning information before shifting to higher levels of alert; phasing alerts, providing redundant channels of information flow and communication, and checks and balances in decision-making, less provocative alert procedures and exercises – see Dunn, *Containing Nuclear Proliferation*, 48.

¹⁶⁴ Giles, "Safeguarding the Undeclared Nuclear Arsenals," 174.

¹⁶⁵ In the early 1960s, the US was concerned about the USSR's protection against unauthorized use of their nuclear weapons and ultimately provided them an unclassified training tape about the two-man operating procedure – see Miller, "Assistance to Newly Proliferating Nations," 103-104.

would comprise the identification and analysis of rationale that makes one preferable to another. Because of this complexity, nuclear C2 exercises should be held to get the structure 'right' prior to operational deployment of nuclear weapons.¹⁶⁶ Operation plans could also include the deployment of specialized Western teams designed to contain nuclear weapon accidents. Coupled with these efforts, aspects of intelligence information and early warning network knowledge could also be selectively shared with both countries, but trust of both countries would have to be carefully managed.¹⁶⁷

Nuclear Learning and Arms Control Measures

Accommodation measures must embrace 'nuclear learning' to influence strategic thinking and practices of new NWS.¹⁶⁸ Detailed assistance may improve their readiness and effectiveness, provided the assisted government remains stable.¹⁶⁹ New proliferators must behave responsibly, since nuclear weapons "are sufficiently terrifying to sober all but the most irrational of leaders."¹⁷⁰ If this is the case, then efforts should be undertaken to influence a new NWS' nuclear doctrine, which in turn can positively affect regional nuclear stability. To this end, new NWS must accept the basic principles of nuclear restraint. These nations should be assisted in learning to live with nuclear arsenals through the lessons of those that have gone before. Although, in the case of

¹⁶⁶ Rehbein, "Managing Proliferation in South Asia...," 100.

¹⁶⁷ Sagan and Waltz, *The Spread of Nuclear Weapons...*, 108.

¹⁶⁸ Dunn, *Controlling the Bomb*, 152-153.

¹⁶⁹ Dunn, Containing Nuclear Proliferation, 50.

¹⁷⁰ Feaver, "Command and Control in Emerging Nuclear Nations," 172.

Israel's covert nuclear programme, their ambiguity may arguably inhibit deployment and warfighting doctrine, and most likely nuclear learning as well.¹⁷¹

During the Cold War, the US and Soviet Union developed a variety of bilateral confidence measures to manage tensions between them such as the 'hot line' to help resolve crises or misunderstandings, limits on troop concentrations, visits and exchanges, and pledges to warn each other of tests and training exercises.¹⁷² A secure line of communication "could reinforce other efforts to keep a low-level crisis from escalating; bring a limited conventional clash to a close before it erupted into a nuclear conflict; or offer a last chance to avoid a nuclear war following a nuclear weapons accident."¹⁷³ Such regional arms control agreements could be extended as an accommodation measure to new NWS. In this approach, it makes inordinate sense to share appropriate C2 information with de facto NW states that have proliferated outside the nonproliferation regime, yet failed to incorporate adequately assertive C2 systems.¹⁷⁴ Once proliferation has occurred, the task is for the international community to enact a policy that reliably keeps the situation under control while addressing and defusing any further escalation. Such arms controls rely on dialogue and can be viewed as co-operative efforts with one's adversary to offset concerns regarding each other. Discussions could cover methods to increase political and military transparency (for purposes of confidence building), control technologies/methods, storage or dismantlement of nuclear weapons, and limitations on means of delivery.¹⁷⁵ In transitioning to

¹⁷¹ Joesph Nye, "Diplomatic Measures," *New Nuclear Nations*, eds. Robert D. Blackwell and Albert Carnesale (New York: Council on Foreign Relations Press, 1993): 84-85.

¹⁷² Doty and Flank, "Arms Control for New Nuclear Nations," 62.

¹⁷³ Dunn, Controlling the Bomb, 157.

¹⁷⁴ Feaver, "Command and Control in Emerging Nuclear Nations," 186.

¹⁷⁵ Garrity and Maaranen, "Introduction," Nuclear Weapons..., 13.

such a manageable regional nuclear situation between two new NWS, stability could be increased through the use of this cooperative mechanism by reducing the possibility that one side would feel pressure to use its weapons in a crisis. The US has encouraged discussions between India and Pakistan regarding "confidence-building measures that could reduce the likelihood that such weapons would ever be used."¹⁷⁶ In building peace, political efforts are paramount to show resolve and reassurance of one's defensive intentions – a readiness to compromise or at least cooperate with a view to preserving deterrence.¹⁷⁷

Security guarantees from a powerful nation such as the US could act as an accommodation measure by providing suitable leverage to keep a new NWS from deploying, using, transferring, or vertically proliferating nuclear weapons.¹⁷⁸ From a regional point of view, security guarantees could be offered either bilaterally or multilaterally to non-nuclear neighbouring countries of new NWS to keep them from obtaining nuclear weapons themselves. Perhaps this would be applicable in the Middle East if Israel were formally recognized as a NWS. This could be important since the impact of new proliferating states will extend beyond the immediate antagonists and the ripple effect to nearby states may cause these 'others' to be threatened by blackmail, either explicitly or implicitly - for example, North Korea could threaten Japanese interests as a means to undermine support to South Korean defences.¹⁷⁹ However, these guarantees may not prove fully satisfactory - if they could deter a new NWS to achieve the desired regional security, then perhaps they could be used to prevent this country from becoming a NWS in the first place.

¹⁷⁶ Karen Yourish, "India, Pakistan Move Forward With New Weapons," *Arms Control Today* 33, no. 9 (November 2003): 39.

¹⁷⁷ Eckhard Lublemeier, "Building Peace under the Nuclear Sword of Damocles," in *Nuclear Weapons in the Changing World*, eds. Patrick J. Garrity and Steven A. Maaranen (New York: Pleum Press, 1992): 234.

¹⁷⁸ Nye, "Diplomatic Measures," 86.

¹⁷⁹ Dunn, Containing Nuclear Proliferation, 25.

Appropriate Assistance - Pros and Cons

Providing assistance at the proper time could subdue the possible belligerence of overconfident new NWS, without emboldening them. How much, what kind of assistance and to whom must be determined. A balance must be struck such that restricting assistance doesn't diminish safety, security and stability of the new nuclear forces.¹⁸⁰ Initially, it may be best to make Western assistance available in a low-key manner unless dire concerns intercede. It could begin with unofficial contacts between scientists, academics and policy-makers to discuss concepts and heighten awareness of the hazards of nuclear weapon ownership prior to any official efforts.¹⁸¹ For Israel, such an effort could lead to enhanced nuclear accountability and have a "more immediate, positive impact on stability in the region than a traditional nonproliferation approach alone."¹⁸² In the case of Pakistan, a dialogue would be useful to explain nuclear weapon hazards and associated physical security requirements in technical terms rather than political terms.

The downside is that providing assistance stands to undermine the nonproliferation regime by appearing to be hypocritical. However, if proliferation is inevitable as has been suggested, it is clearly sensible to do what can be done to make new nuclear arsenals as safe as possible by finding an appropriate balance and mix of measures. Therefore, as a prerequisite to restructuring the nonproliferation regime, "the technology dealing with nuclear weapons' safety and stability of command and control needs to be delinked from the nonproliferation agenda of the developed

¹⁸⁰ Miller, "Assistance to Newly Proliferating Nations," 103-115.

¹⁸¹ Dunn, Containing Nuclear Proliferation, 69.

¹⁸² Giles, "Safeguarding the Undeclared Nuclear Arsenals," 181.

world."¹⁸³ Assistance may also lull leaders into thinking their safety and stability concerns may be solved completely by PALs, and therefore adopt operational deployment schemes that destabilize matters. For instance, by maintaining higher states of readiness, regional tensions could rise, so new NWS should be encouraged to adopt assertive controls. Having devices that allow the storage of fully assembled nuclear weapons, coupled with a lack of confidence in an adversary's C2, could encourage more aggressive behaviour by new NWS who may be inclined to rely upon them in a crisis. Also, declassification and dissemination of nuclear weapon safety and security measures could increase chances that they fall into the hands of terrorist groups, allowing them to circumvent the safeguards. Even now, there are deep concerns that rogue fundamentalists could seize Pakistani nuclear weapons or that technical know-how and radioactive materials could be passed to al-Qaida or other non-state actors for 'dirty bombs'.¹⁸⁴ Furthermore, assistance may send a message to other countries with nuclear ambitions that NWS are prepared to accommodate any proliferation of nuclear weapons so long as some security is applied. There are also national security constraints on the assisting nations. Discussion of anything other than broad concepts and design philosophy may jeopardize Western national security concerns regarding nuclear weapon design and force postures. For instance, providing PAL technology may reveal information about US security measures that may also give insight to important vulnerabilities in those measures. A work-around could therefore necessitate an export-version of PALs.

Assistance programmes need domestic support and they must also be acceptable to nations directly affected by the proliferator's actions. New NWS will probably have mixed reactions to

¹⁸³ Shireen M. Mazari," Comment: Nuclear Safety vs Nonproliferation," *Strategic Studies* 20, no. 4 (Autumn 2000): 6.

¹⁸⁴ 'Dirty' bombs combine radioactive material with conventional bombs – see Rehbein, "Managing Proliferation in South Asia...," 92.

offers of assistance. Although the US is cited as the most likely provider of nuclear stability assistance, other mature NWS could be as well.¹⁸⁵ Trusting and co-operative relations with the US must overcome pride, fear (of revealing programme weaknesses), and suspicion. They might not accept Western help and resist any form of safeguard technology in fear that they may lose some control over their weapons. As well, countries may not wish to adopt existing NWS structures and procedures. Recognition of the potential benefits and a well-managed assistance programme would likely overcome this reluctance. As mentioned earlier, constraints also exist, legal or otherwise, on such assistance in relation to NWS domestic legislation or in terms of undermining the nonproliferation regime; however, it is suggested that these may not be difficult to overcome.¹⁸⁶ In fact, selected assistance could be argued for, under the nonproliferation regime. Providing help to establish effective negative/assertive nuclear C2 is in keeping with NPT objectives: "to make every effort to avert the danger of [nuclear] war and to take measures to safeguard the security of people."¹⁸⁷ But in order to reduce ambiguity on this issue, some elements of the NPT could be restructured to embrace international co-operation in nuclear safety technology.¹⁸⁸ By doing so, accommodation policies would make the most of a less-than-desirable situation, since the dangers of inaction by the international community are even greater than these concerns.

¹⁸⁵ Dunn, Containing Nuclear Proliferation, 49.

¹⁸⁶ Rehbein, "Managing Proliferation in South Asia...," 104.

¹⁸⁷ Text as detailed in "Preamble" to the NPT.

¹⁸⁸ Rehbein, "Managing Proliferation in South Asia...," 104.

Changing Western Nuclear Arms Control Policy

Managed proliferation is questioned if it will weaken the international consensus against nuclear proliferation and weaken a fundamental pillar of Western foreign policies. Fears exist that any assistance at all to a new NWS will only spur other nuclear ambitious nations to follow suit. The NPT and the nonproliferation regime have suffered from acts of non-compliance by states such as Iraq and North Korea, continued reliance of the US and Russia on nuclear weapons in defence planning, and the removal of sanctions in South Asia. Yet, understanding the rationale behind some proliferation, as in the case of India and Pakistan, there is less reason not to accommodate their nuclear status. As for other states following suit, they too would have to weigh the benefits of having nuclear weapons against the risks and costs. Accommodation will not unilaterally disrupt the intricate balance of the nonproliferation regime, since the taboo against proliferation will likely remain as long as carrots and sticks are applied judiciously. For instance, some feel that India by virtue of its new nuclear status should not automatically be considered a priority candidate for a permanent membership on the UNSC, but rather such carrots should go to those who eschew or have abandoned nuclear weapons.¹⁸⁹

Selective accommodation, even if carefully undertaken, will have its detracting aspects. Pessimists argue this precedent would counter the principles of the NPT by expanding the NWS membership and thus further weakening the nonproliferation regime. But this regime, despite its strengths, must be reformulated to eliminate its inadequacies in order to have the new NWS commit to binding responsibilities. As it now stands, to be part of the current NPT in any capacity, non-member countries such as India, Pakistan and Israel would have to renounce their nuclear

¹⁸⁹ Ibid, 105.

weapons and declare themselves as non-nuclear weapon states to join. If new NWS joined without altering treaty terms, they would inevitably create an "asymmetry in rights and obligations" between states parties."¹⁹⁰ It has been suggested that these *de facto* nuclear powers stay out of the NPT, but conform to the obligations of the overall nonproliferation regime, or at least become signatories to the CTBT and a proposed FMCT.¹⁹¹ Arguments also persist that workable special security arrangements outside the NPT must be found for these regions.¹⁹² The Canadian Government recommends that efforts should be undertaken "to pursue creative multi-level policies for reducing regional tensions,"¹⁹³ but without re-opening negotiation of the NPT to recognize India and Pakistan as formal NWS. Such proposals don't seem to go far enough. Efforts could be taken to accommodate selected new nuclear nations as members within the nonproliferation regime regardless of their current "official" NWS status. The regime could reflect changes that are globally accepted by "either eliminating the discriminating elements of the [NPT] or accommodating India, Pakistan and Israel in the framework of these discriminating elements."194 In this context, Peter Lavoy wisely suggests that this approach would be different than that for North Korea or Iran, who should still be obliged to their NPT commitments.¹⁹⁵

The 'international community,' through the UN, should take an active role in managing proliferation once it has occurred. A policy of accommodation would astutely recognize the reality

¹⁹⁰ *The Challenge of Regional Nuclear Arsenals*, Policy Bulletin, 32nd United Nations Issues Conference, The Stanley Foundation (23-25 February 2001): 3.

¹⁹¹ Synnott, *The Causes and Consequences...*, 73-74.

¹⁹² The Challenge of Regional Nuclear Arsenals, 2.

¹⁹³ Canada, *Canada and the Nuclear Challenge: Reducing the Political Value of Nuclear Weapons for the Twenty-First Century*, Report of the Standing Committee on Foreign Affairs and International Trade, The Honourable Bill Graham, Chair (Ottawa: DFAIT Canada, 1998), 64.

¹⁹⁴ Jaspal, "NPT in 2000: Challenges Ahead," 19.

¹⁹⁵ Lavoy, "Managing South Asia's Nuclear Rivalry," 85.

that India and Pakistan have proliferated for political and military reasons, and embrace the goal of reducing the risk of nuclear conflict by improving strategic stability. Western dialogue with both India and Pakistan should continue with a clear acceptance of their "compulsions for the development of a relatively small number of survivable, second-strike nuclear forces."¹⁹⁶ This would encourage these states to establish arms control measures, including those dealing with means of weapon delivery, which may alleviate some national security concerns. An accommodation policy should also continue to emphasize the criticality of export controls on nuclear material and imposition of sanctions for violations. It should reinforce the provision of appropriate assistance and information sharing on safety, security and operational measures as part of "dialogues about the requirements of effective nuclear deterrence, for best practices are only 'best' if they satisfy military as well as political needs."¹⁹⁷ Therefore, options could be examined to amend the NPT's definition of a NWS for purposes of formally recognizing new nuclear nations such as India and Pakistan, and even undeclared Israel, and in so doing, provide the benefits of obliging them to adhere overtly to the Treaty's provisions. Issues regarding pledges of no-first use or no nuclear technology transfer/assistance could also be incorporated into some form of NPT revision or addendum. Without revisiting the NPT, alternative options could be to create special protocols by which new NWS, whether full NPT signatories or not, could be offered some form of 'associate status' in the nonproliferation regime if they agree to no deployment, use, transfers, and testing of nuclear weapons.¹⁹⁸ Such protocols could be put in place until the feasibility of a formal NPT amendment is determined. Additionally, the IAEA's role could be expanded into post-

¹⁹⁶ Ibid, 92.

¹⁹⁷ Ibid, 93.

¹⁹⁸ Nye, "Diplomatic Measures," 92.

proliferation policies regarding nuclear material management.¹⁹⁹ It is important that any reformulation of the NPT not jeopardize the impetus for all signatories to consent voluntarily to its obligations - this could be difficult to accomplish since it may generate precedent for others to follow in future. Even so, subsequent proliferation, evaluated on the legitimate merits of individual cases, could be universally accepted if its effects are deemed by international consensus to stabilize regional security over the long-term.

Since a policy of accommodation would deal with states that convincingly possess the capability to assemble and field a workable nuclear weapon in a short period of time, this is perhaps more accurately within the realm of post-proliferation. Here the policy objective should not be to prevent the spread of technology, but rather to slow the rate of spread in order to manage its destabilizing effects. This includes limiting the arsenals of new NWS. The number of new proliferators may not increase dramatically over the next couple of decades, and if this proves so, a comprehensive revision of policy may not be immediately required. For the near-term, appropriate continuity between nonproliferation and post-proliferation policy would be prudent to contain damage to the current regime.²⁰⁰ In the end, new diplomatic instruments embracing an accommodation policy would rebalance the current discriminating and destabilizing inequalities of the nonproliferation regime, and have as their realistic objective, the universal and manageable reduction of nuclear weapon proliferation.

¹⁹⁹ Ibid, 94.

²⁰⁰ Ibid, 80.

Conclusion

As the first half of the Cold War ended, proliferation concerns culminated in the Nuclear Nonproliferation Treaty (NPT), which is the centrepiece of the global nonproliferation regime. This forms the basis of current Western nuclear arms control policy to stem proliferation and ultimately lead to disarmament. Through universal endorsement of the NPT and other treaties, this regime attempts to prevent the spread of nuclear weapons by offering the incentive to non-nuclear weapon states of access to nuclear energy technology for peaceful purposes. In doing so, all nuclear activities must adhere to safeguards that are monitored through the International Atomic Energy Agency. Also, signatories to the NPT must not assist others or accept assistance in the development of nuclear arms. Despite these efforts, universal consensus has not been fully achieved. Although still useful, this regime is flawed, primarily because the Treaty is based upon a demarcation between the 'haves' or the privileged five who were legitimized as nuclear weapons states (NWS) and the 'have nots' or rest of the international community who were in violation if they engaged in nuclear proliferation. As a result, undeclared NWS see this double standard of nuclear ownership as discriminatory and unjust. Furthermore, the regime has limited means to enforce its rules and administer punishment to violators.

The world is proliferating its nuclear weapons and several nations, not having signed the NPT, have established nuclear arsenals. Today's nonproliferation policy has no means to deal with these new nuclear nations. The question of why these nations have proliferated must be answered. There is a variety of motivations to acquire nuclear weapons, but the main reason is the insecurity of states. Acquisition offers a means to equalize regional power disparities and generate a viable deterrent to stabilize potential conflict zones. If these security concerns cannot be

mitigated by security guarantees to the satisfaction of all parties, then the resultant nuclearlization actions are understandable. The rationale is that if nuclear deterrents are accessible to the NWS, in keeping with the nonproliferation regime, then they should be accessible to the rest. This is a policy pitfall that should be addressed, since nuclear weapons exist and are legitimate for some nations, but not for all.

With motivation, an aspiring nuclear nation may achieve nuclear status by illicitly acquiring technology and weapons material from others, or developing its own indigenous capability. In today's global environment, the barriers can be breached in either case to achieve the desired objectives. The result is that nuclear weapons are being developed and proliferation continues to occur. The issue for the international community is one of determining if this proliferation is stabilizing in its effects upon the region in which it is happening. Referring to the academic debate between proliferation optimists and pessimists, we see that a compromise is required. The pessimist viewpoint that all nuclear weapons are harmful to world peace and dangerous because of potential safety and security inadequacies of new NWS may be tempered by the optimist view that global proliferation of nuclear weapons is intrinsically good rather than harmful. There are truths in both camps and policy should reflect an acceptance of nuclear weapon proliferation in regions where it generates a stabilizing effect, provided sufficient measures are implemented to prevent accidents or inadequate control of the weapons. The circumstances of each case of proliferation must be evaluated individually and instances of destabilizing proliferation must be suppressed by all means necessary. Non-state actors or nations sympathetic to rogue causes would fall into this destabilization category.

Since some proliferation is definitely occurring for understandable reasons, consideration should be given to accept it on a case-by-case basis. The nonproliferation regime, despite its

inadequacies, is a solid baseline for goals and objectives of Western policy and as a means to strengthen it, this proliferation could be accommodated and current policy changed to reflect this compromise. In a sense, accommodation is already occurring, albeit not officially. Informal recognition of Israel, India and Pakistan as *de facto* new NWS is already being made; however, those nations have not been brought under the umbrella of obligations associated with the nonproliferation regime and are therefore not subject to the terms of the NPT.

To put such a policy into effect, a variety of accommodation measures must be established within the nonproliferation regime to ensure the safety, security and stabilization of new nuclear arsenals of emerging nuclear weapon states. Such measures should come through NWS assistance by sharing requisite information, technology, and experience. However, how much assistance, if any, and when it should be given must be determined. Technical measures that must be implemented encompass reliable, centralized command and control systems, security safeguards, and safety devices. Although care must be taken in establishing sensitive exchanges regarding nuclear weapon design, operating procedures and even doctrine, these co-operative efforts are of paramount importance to enable 'nuclear learning' to occur. This will ensure that regional deterrent effects are in place as intended and that arsenal management remains stable by Western standards. The NPT should be reformulated, in part, to eliminate its intrinsic inequalities that have prevented its universal acceptance. Its definition of a nuclear weapon state could be revisited to entice new nuclear nations to voluntarily subscribe to the obligations of the Treaty. In so doing, the conditions would be set to rebalance the nuclear weapon states of the world and positively enhance global security and stability.

At a time when the world is struggling to deal with terrorism and rogue factions that destabilize international security, there is no better opportunity than the present to address

ownership concerns about the world's nuclear arms. Selective and controlled accommodation would allow the post-Cold War nuclear weapon situation to be realistically reflected in a viable Western proliferation policy. This change in scope is needed to bring all legitimate nuclear weapon states into the nonproliferation regime and consequently strengthen its universal resolve to deal cohesively with any future destabilizing and dangerous effects of nuclear weapons. Ignoring the problem is a course of action that the world can ill afford to take.

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