



NPT: “No Progress Tomorrow” or Non-Proliferation Treaty? Analysis & solutions to a number of NPT problem areas.

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1. Introduction

‘Fractious, divided but still essential’¹. Penned at the beginning of the 2015 Non-Proliferation Treaty (NPT) Review Conference (RevCon) in New York on April 27, at the time this headline from *The Economist* represented an apt introduction to the NPT. In its aftermath, Alexander Kmentt’s appraisal of ‘divisive and bruising’² is perhaps more fitting. While some argue that despite its flaws, ‘the NPT remains the cornerstone of the non-proliferation regime’³ and ‘continues to be, the central pillar of the nuclear non-proliferation framework in the collective opinion of statesmen and diplomats worldwide’⁴, others lament the fact that ‘states continue to rely on its out-dated legal architecture toward this aging technology with no new real disarmament in sight’⁵. Despite the NPT being an unquestionable success in restraining horizontal nuclear proliferation and nuclear disarmament not originally being a principal objective of the treaty, the fact that the nuclear weapon states agreed upon a Final Document in 2000 regarding 13 practical steps to achieve disarmament, and again in 2010 with 22 of 64 steps of the 2010 Action Plan dealing with nuclear disarmament, the NPT is coming under increasing pressure. Indeed, many academics and policy makers now claim that ‘the NPT looks more and more like it is unable to deliver’⁶. Thus to continue being taken seriously as the cornerstone of the non-proliferation regime, a number of areas need to be addressed. To that end, this paper aims to analyse and, where possible, provide solutions to a number of areas desperately in need of forward momentum.

This paper’s first point regards the ‘weapons of mass destruction free zone’ in the Middle East (MEWMDZFZ). Utilizing game theory, we hope to clearly explain the root causes of the current impasse in the region and elaborate on the necessary changes in the strategic thinking of the key players in order to achieve progress. The paper’s second point seeks to demonstrate the huge extent to which each of the five NWS

¹ "Fractious, Divided but Still Essential" (*The Economist*, 30 April 2015) <<http://www.economist.com/news/international/21650103-lack-progress-nuclear-disarmament-could-lead-ill-tempered-non-proliferation> > accessed 14 December 2015

² ‘Panel Discussion on the NPT RevCon – What is next?’ (*VCNPD*, Vienna, 25 September 2015)

³ “Nuclear Posture Review Report” (*United States Department of Defense*, April 2010) 4 <http://www.defense.gov/Portals/1/features/defenseReviews/NPR/2010_Nuclear_Posture_Review_Report.pdf > accessed 12 December 2015

⁴ Richard Dean Burns and Philip E. Coyle, *The Challenges of Nuclear Non-Proliferation* (Rowman & Littlefield Publishers 2015) XIV

⁵ Denise Garcia, "Battle Bots: How the World Should Prepare Itself for Robotic Warfare" (*Foreign Affairs*, 5 June 2015) < <https://www.foreignaffairs.com/articles/2015-06-05/battle-bots> > accessed 14 December 2015

⁶ Panel Discussion on the NPT RevCon – What is next? (*VCNPD*, Vienna, 25 September 2015)

members of the NPT are failing to fulfill their pledges to act in “good faith” regarding Article 6 of the NPT. Having demonstrated this, the paper’s third point outlines a concrete proposal for an Article 6 verification mechanism. Finally, the paper’s fourth point offers an appraisal of how and why NPT Preparatory Committees can and should be improved upon.

2. Middle East Weapons-of-mass-destruction-free Zone

Failure to agree on a final document at the 2015 NPT Review Conference signified a serious crisis of the international non-proliferation regime, leaving many deeply frustrated over the lack of consensus amongst all treaty parties. Regardless of whether or not, ‘the outcome of the 2015 RevCon destroyed the mandate of the 2010 RevCon whilst seriously undermining that of 1995’⁷, the establishment of the Zone and the very vitality of the NPT are clearly closely intertwined. With prospects of progress being made in the near future being extremely low, and given that this issue was one of the main stumbling blocks at the last RevCon in New York, it merits inclusion. Instead of ignoring the problem, as seems to be the case for many academics and policy makers, this paper applies basic postulates of game theory to demonstrate the difficulty and magnitude of task facing the NPT.

2.1. Key players and definitions

For this brief analysis, we divide the states of the Middle East into two groups: nuclear weapons ‘haves’ – Israel – and nuclear weapons ‘have-nots’ – the Arab States and Iran. While the Arab States and Iran do not have a unified position on Israel and nuclear non-proliferation in general, this simplification enables a clear delineation of a major fault line in the MEWMDFZ debate. The position of the nuclear weapons ‘have-nots’ here is primarily based on Egyptian and Iranian stances, largely due to both states playing such a key role in shaping discussion on the Zoneⁱ.

2.2 Nuclear weapons ‘haves’ (Israel):

2.2.1 Overall perceptions of the security environment

For the nuclear have-nots, Israel’s nuclear exceptionalism not only causes security imbalance in the region, it also provokes them to reduce their disarmament efforts. Egypt’s refusal to sign the Chemical Weapons Convention or ratify the CTBT and the

⁷ Interview with Jean du Preez, Chief of External Relations and International Cooperation at the Comprehensive Nuclear-Test-Ban Treaty Organization (Vienna, Austria, 3 August 2015)

Biological Weapons Convention is largely due to Israel's non-signatory status regarding these documents for example⁸. For Israel however, its nuclear arsenal has been a powerful deterrent that has prevented the realization of the existential threats posed to Israel by some of its neighbours⁹. Furthermore, with the emergence of the Islamic State and magnitude of the situation in Syria and Yemen, an already volatile environment in the region has worsened, which in no way creates conditions for any sort of meaningful disarmament. Likewise, the recent Iranian nuclear deal merely reinforces Israel's conviction of the necessity of its nuclear arsenal, being convinced that the deal will not curb Teheran's nuclear program but rather provide an opportunity for its expansion. Indeed, overall hostile Israeli-Iranian relations rather create increased grounds for Israel to further develop its nuclear weapons. Israeli leaders and analysts take Iranian anti-Israeli ideology seriously and argue that it is this ideology that makes Iran's military and strategic challenges to Israel appear so severe¹⁰.

2.2.2. Game Theoretical Preference orderings

Therefore, with the perception that the very existence of the state is dependent on its nuclear capabilities, clearly there is no way cooperation (C) could leave Israel better off than defection (D), where cooperation is understood to refer to the establishment of the MEWMDFZ and constructive steps leading to it, while defection refers to the acquisition or possession of nuclear weapons. Unilateral defection (DC) is perceived as the best possible option. It not only ensures the state's security but also gives it leverage over its non-nuclear capable adversary. Mutual defection (DD) is the second best outcome. It creates nuclear balance and stability in the region and is more secure than mutual cooperation (CC) in any case. Israel's low assessment of the pay-offs to be gained from mutual cooperation is also reinforced by the lack of trust that Israel's adversary would not misuse the situation and respond with defection to Tel Aviv's cooperation, leaving Israel with the sucker's payoff - the worst outcome possible (CD). Thus Israel's preference orderings take the shape of a Deadlock game:

⁸ Nabil Fahmy, 'The Middle East Nuclear Paradigm and Prospects' (*International Commission on Nuclear Non-proliferation and Disarmament*, August 2009) <[http://icnnd.org/Documents/Fahmy_ME_Paper_10August2009121_\(3\).pdf](http://icnnd.org/Documents/Fahmy_ME_Paper_10August2009121_(3).pdf)> accessed 14 December 2015

⁹ Shlomo Brom 'Utility of Nuclear Deterrence in the Middle East' in James Goodby and George Schulz (eds), *The War that Must Never be Fought* (Hoover Press 2015) P. 165

¹⁰ Priya Singh, 'Iran and Israel: Construing the Past and Envisaging the Future' (2013) *IUP Journal of International Relations*, 7(3) < <http://search.proquest.com/docview/1434051065?accountid=17229>> accessed 1 November 2015

DC>DD>CC>CD¹¹. This model does not provide for a lot of resolution strategies, since the players feel perfectly comfortable mutually defecting and have no incentive to start cooperation.

2.3 Nuclear weapons ‘have-nots’ (Arab States and Iran):

2.3.1 Overall perceptions of the security environment

The Arab states and Iran are arguably now more focused on one another than on Israel. Although ‘the Arab-Israeli conflict still remains politically and symbolically central’¹², the security focus lies on Saudi-Iranian rivalry for dominance in the region, a conflict Anthony H. Cordesman from the Center of Strategic and International Studies terms a ‘clash within a civilization’¹³.

Regarding the MEWMDFZ, the Arab states and Iran have always claimed to fully support the Zone and have actively advocated for its establishment within the NPT. Their frustrations regarding the postponement of the Helsinki Conference in 2012 are understandable, with Tehran and many Arab states viewing this willful abandonment as the perfect illustration of the fact that all three NPT Depositary States had no real interest in keeping the promise they made back in 1995. This frustration is perfectly epitomised by the closing Egyptian statement at the 2015 RevCon in which Cairo expressed its deep disappointment regarding the actions of three states that ‘blocked consensus’¹⁴. Similarly peeved, the Iranian representative, speaking on behalf of the Non-aligned Movement, would state in New York that ‘it was highly surprising to see two depositories of the Treaty so eager to squander such a valuable opportunity simply to protect a single non-signatory’¹⁵, implying Israel.

However, the Arab states and Iran themselves also create obstacles to the establishment of the Zone, with some observers seeing the stance adopted by Cairo on Israel, the United States and the nuclear weapons issue in general as merely being yet another

¹¹ see also Table 1 in the Appendix

¹² Barry Buzan and Ole Weaver, *Regions and Powers: The Structure of International Security* (New York: Cambridge University Press 2012) 215

¹³ Anthony H. Cordesman, ‘Saudi Arabia, Iran, and the ‘Clash Within a Civilization’’ (CSIS, 3 February 2014) <<http://csis.org/publication/saudi-arabia-iran-and-clash-within-civilization>> accessed 1 November 2015

¹⁴ Consensus Eludes Nuclear Non-Proliferation Treaty Review Conference as Positions Harden on Ways to Free Middle East of Mass Destruction Weapons (*United Nations: Meetings Coverage and Press Releases*, 22 May 2015) <<http://www.un.org/press/en/2015/dc3561.doc.htm>> accessed 1 November 2015

¹⁵ Ibid.

‘arena of political conflict in a broader zero-sum game’¹⁶. While many Arab states and Iran blame Washington for prioritizing Israel over all other states in the region, citing occasionally ‘the uncertainties this creates for U.S. policy and arms sales’¹⁷, the unwillingness of the Arab world to consider how to involve Israel into the discussion contributes to the current impasse nearly to the same extent as Israel’s defection.

Interestingly however, Singh notes that Israel and Iran may not be natural adversaries, as in security terms Iran is primarily focused on the Persian Gulf rather than the Levant. During the 1970s Israel was even selling weapons to Iran as the main threat posed to it at the time came from Iraq¹⁸. As Cordesman argues, currently Iran’s emphatic enmity to Israel is used to justify, among others, the Islamic Republic’s military build-up and nuclear program. The primary purpose of Tehran’s weaponising might not be balancing with Israel, but rather gaining more influence in the Gulf region. Although there is a certain utility in having a conflict with Israel, similar to the Arab states, Iran is concerned with the threat of American involvement if the conflict with Israel escalates. Regardless of the fact that the thinking behind the original Iranian proposal to establish a nuclear-weapons-free zone in the Middle East might have been different, today an additional benefit of establishing a WMDFZ in the region may well be seen as a way to disarm Israel and receive negative security assurances from the United States.

2.3.2. Game Theoretical Preference orderings

It seems that, apart from Israel, the rest of the Middle East indeed prefers a MEWMDFZ to a nuclear arms race (CC>DD). However, currently there is neither a Zone established (CC), nor do the Arab states or Iran possess a nuclear weapon (DD). That leaves the nuclear weapons ‘have-nots’ in the position of the lowest possible payoff – CD (the preference orderings of the non-nuclear weapons states are a classic Prisoner’s Dilemma: DC>CC>DD>CD)¹⁹.

¹⁶ Gerald M. Steinberg, ‘Middle East Peace and the NPT Extension Decision’ (*The Nonproliferation Review*, Fall 1996) <<http://cns.miis.edu/npr/pdfs/steinb41.pdf>> accessed 1 November 2015

¹⁷ Anthony H. Cordesman, ‘Saudi Arabia, Iran, and the ‘Clash Within a Civilization’’ (*CSIS*, 3 February 2014) <<http://csis.org/publication/saudi-arabia-iran-and-clash-within-civilization>> accessed 1 November 2015

¹⁸ Priya Singh, ‘Iran and Israel: Construing the Past and Envisaging the Future’ (2013) *IUP Journal of International Relations*, 7(3) < <http://search.proquest.com/docview/1434051065?accountid=17229>> accessed 1 November 2015

¹⁹ See also Table 2 in the Appendix

Should Israel refuse to disarm, rationale dictates that the Arab States and Iran should be endeavoring to develop their own nuclear weapons – the advice Kenneth Waltz has actually given to Iran²⁰. Why Iran or the Arab states have not yet done so might have several explanations. First of all, as it has been argued before, in terms of security, the Arabs and Iranians are now much more concerned about one another than about Israel. The nuclear ‘have-nots’ are wary about the dangers nuclear weapons acquisition by one of them would pose to the others. Secondly, it might be the very unwillingness to balance Israel and thus stabilize the situation in the region. The Arab states and Iran may still believe that they can succeed in disarming Israel and once they have done so, they would have a great military advantage over Israel and could dictate their own rules of the game. Finally, they may have actually acted as rational actors and endeavored to acquire a nuclear bomb. However, as in Libya or Iraq, their nuclear weapons programs have been discovered and stopped. In the Iranian case it still remains to be seen whether the Islamic Republic will indeed abide by the terms of the recently struck deal, or even whether it will seek to get back on the nuclear weapons path in 10-15 years when the restrictions on its uranium stockpile and enrichment activities expire.

2.4. Conclusions: playing different games

This short analysis has briefly outlined some of the problems currently impeding progress on the establishment of the MEWMDFZ. One of them is Israel’s current status quo of what the state perceives as its best strategy. With the nuclear weapons ‘haves’ and nuclear weapons ‘have-nots’ perceiving their strategic situations in different ways, Israel remains in a Deadlock while the Arab states and Iran succumb to the Prisoner’s Dilemma. To achieve any progress on the MEWMDFZ, the preference orderings of both players have to look same. The Prisoner’s Dilemma model provides for more strategies of resolution than the orderings in the Deadlock. Therefore, it may be necessary to transform the game played by Israel and alter this state’s perceptions, in that mutual cooperation becomes more favorable for it than mutual defection. However, more willingness to negotiate should also be demonstrated by the Arab states and Iran. If regional security issues were included in talks, it may eventually result in constructive dialogue with Israel that in the long term may contribute to a change in Israeli perceptions. Equally so, the reverse can also be postulated, should Israel accede to the

²⁰ Kenneth N. Waltz, ‘Why Iran Should Get the Bomb: Nuclear Balancing Would Mean Stability’ (*Foreign Affairs*, July/August 2012) <<https://www.foreignaffairs.com/articles/iran/2012-06-15/why-iran-should-get-bomb>> accessed 1 November 2015

NPT, it may lead to regional security agreements. Regardless, unfortunately until there is genuine will in the region, on both sides, no progress on the issue will be made within the NPT. The overall treaty will continue to suffer as a result.

3. Failure of the NWS to achieve disarmament as per NPT Article VIⁱⁱ obligations

Despite entering into force in 1970, ‘at the start of 2015, nine states...possessed approximately 15,850 nuclear weapons, of which 4300 were deployed with operational forces. Roughly 1800 of these weapons were kept in a state of high operational alert’²¹. While ‘the total number of nuclear warheads in the world is declining, primarily due to the USA and Russia continuing to reduce their nuclear arsenals’, in terms of overall disarmament, the numbers belie the reality. Regardless of the ‘the numerical nuclear arms race between East and West (being) over, a dynamic technological nuclear arms race is in full swing and may increase over the next decade. Importantly, this is not just a characteristic of the proliferating world but of all nuclear-armed states. New or improved nuclear weapons programs under way... include at least 27 for ballistic missiles, 9 for cruise missiles, 8 for naval vessels, 5 for bombers, 8 for warheads, and 8 for weapons factories’²². Clearly ‘the race for ever-more nukes has become, instead, a race for ever-better, -sleeker, and -stealthier ones. And these transformations and upgrades, designed to make weapons harder to shoot down and more precise and reliable, ensure that the world will be no less dangerous...than it is now’²³. Seeking to demonstrate this, this paper’s third point will now offer an analysis of how each country in 2015 is, despite “good faith”, “steps”, “Action Plans” and countless other non-legally binding political pledges over the years, in reality, no closer to achieving nuclear disarmament than they were in 1995.

3.1. The United States

The U.S constantly reaffirms its ‘commitment to a step-by-step approach to nuclear disarmament... believing that ‘the NPT remains the cornerstone of the global non-proliferation regime and an essential foundation for the pursuit of nuclear

²¹ "Nuclear Force Reductions and Modernizations Continue; Peace Operations Increase" (*SIPRI*, 15 June 2015) <<http://www.sipri.org/media/pressreleases/2015/yb-june-2015>> accessed 20 July 2015

²² Hans Kristensen, "Nuclear Weapons Modernization: A Threat to the NPT?" (*Arms Control Today*, 1 May 2014) <https://www.armscontrol.org/act/2014_05/Nuclear-Weapons-Modernization-A-Threat-to-the-NPT> accessed 12 December 2015

²³ John Mecklin, "Disarm and Modernize" (*Foreign Policy*, 24 March 2015) <<http://foreignpolicy.com/2015/03/24/disarm-and-modernize-nuclear-weapons-warheads/>> accessed 23 October 2015

disarmament'²⁴. However, 'under the Obama administration, the U.S. national security establishment has proposed upgrades to all three legs of the nuclear triad (the ability to deliver a nuclear strike by land, air, and sea) of land-based missiles, submarine-launched missiles, and long-range bombers, something not done since the mainstay planes and missiles of the current nuclear force were built in the Cold War's early years'²⁵. Over the next decade, according to the U.S. Congressional Budget Office, 'the United States plans to spend \$355 billion on the maintenance and modernization of its nuclear enterprise'²⁶, an increase of \$142 billion from the \$213 billion the Obama administration projected in 2011. The increase in nuclear armaments spending in the U.S has also seen a return of a very much Cold War-esque thought process, as evidenced by Maj. Gen. Sandra Finan, Air Force Nuclear Weapons Center commander, when warning that 'our rival powers are investing billions of dollars to modernize and improve their nuclear systems,' ... if the U.S. is "to remain credible," it must maintain nuclear preparedness as a priority'²⁷.

While the U.S hasn't 'deployed major new strategic systems in some time, we've been modernizing the ones we've got more or less continuously — new rocket motors and guidance systems for the Minuteman missiles, lots of rebuilt parts for the B-52s, etc'²⁸. Hans Kristensen echoes this, when noting how 'the intercontinental ballistic missile (ICBM) force is in the final phase of a decade-long, \$8 billion modernization intended to extend its service life until 2030. Similarly, beginning in 2017, the Navy will begin to deploy a modified version of the Trident II D-5 submarine-launched ballistic missile (SLBM) on ballistic missile submarines (SSBNs) to extend its service life through

²⁴ ""U.S.-Japan Joint Statement on the Treaty on the Non-Proliferation of Nuclear Weapons (NPT)" (*The White House*, 28 April 2015) <<https://www.whitehouse.gov/the-press-office/2015/04/28/us-japan-joint-statement-treaty-non-proliferation-nuclear-weapons-npt>> accessed 21 July 2015

²⁵ John Mecklin, "Disarm and Modernize" (*Foreign Policy*, 24 March 2015) <<http://foreignpolicy.com/2015/03/24/disarm-and-modernize-nuclear-weapons-warheads/>> accessed 23 October 2015

²⁶ "Projected Costs of U.S. Nuclear Forces, 2014 to 2023", (*U.S. Congressional Budget Office*, December 2013) <<https://www.cbo.gov/sites/default/files/113th-congress-2013-2014/reports/12-19-2013-NuclearForces.pdf>> accessed 14 December 2015

²⁷ Christopher Harress, "US Joins Russia In Latest Race To Modernize Nuclear Arsenal" (*International Business Times*, 14 November 2014) <<http://www.ibtimes.com/us-joins-russia-latest-race-modernize-nuclear-arsenal-1724102>> accessed 14 July 2015

²⁸ Jeremy Bender, "Russia and the US Are Racing to Modernize Their Nuclear Forces" (*Business Insider*, 7 May 2015) <<http://www.businessinsider.com/russia-and-the-us-are-racing-modernize-their-nuclear-forces-2015-5>> accessed 19 July 2015

2040.²⁹ However, Steven Pifer points out that ‘the United States and Russia are on different cycles when it comes to strategic force modernization, the Soviet Union deployed significant numbers of (then) new strategic systems in the late 1970s and early 1980s... U.S. strategic modernization peaked some years later (in the 1980s and 1990s)³⁰. The reality is that ‘in the mid-2020s, the U.S. military will be building new ballistic missile submarines to replace the Ohio-class boats, a new long-range strike bomber and perhaps a new nuclear-armed cruise missile. It will also be preparing either to build a new ICBM or to modernize and further extend the life of the Minuteman III ICBM, a less expensive option. The United States will then dominate on strategic modernization³¹. Whilst not factoring in advanced conventional or hypersonic weapons, clearly the U.S is not interested in serious nuclear disarmament, regardless of what Obama may have stated in Prague in 2009 to the contrary.

3.2. Russia

Despite recent amendments to its Military Doctrine, for Russia, the main conditions governing the use of nuclear weapons remain unchanged as it ‘reserves the right to use nuclear weapons in response to the use of nuclear and other types of weapons of mass destruction against it and/or its allies, and also in the event of aggression against the Russian Federation involving the use of conventional weapons when the very existence of the state is under threat³². Similar to the U.S, Russia plans to spend considerably on its nuclear arsenal; with Russian media in 2012 reporting that Russia planned ‘to spend 101 billion rubles on nuclear weapons from 2013 through 2015³³. Despite criticism regarding their ability to support such upgrades, they are nonetheless impressive, with ‘an array of strategic modernization programs underway. It has launched the first three of what are planned to be eight Borey-class ballistic missile submarines, which carry the new Bulava SLBM. Russia is also deploying the SS-27 Topol-M ICBM and its

²⁹ Hans Kristensen, "Nuclear Weapons Modernization: A Threat to the NPT?" (*Arms Control Today*, 1 May 2014) <https://www.armscontrol.org/act/2014_05/Nuclear-Weapons-Modernization-A-Threat-to-the-NPT> accessed 12 December 2015

³⁰ Steven Pifer, "Overblown: Russia's Empty Nuclear Sabre-rattling" (*The National Interest*, 17 March 2015) < <http://nationalinterest.org/feature/overblown-russias-empty-nuclear-sabre-rattling-12432> > accessed July 23, 2015

³¹ *ibid.*

³² Vladimir Dvorkin, "Nuclear Weapons in Russia's Amended Military Doctrine" (*Carnegie Moscow Center*, 22 January 2015) <<http://carnegie.ru/2015/01/22/nuclear-weapons-in-russia-s-amended-military-doctrine>> accessed July 10, 2015

³³ "Russia to Spend 100 Billion on Nuclear Weapons" (*Pravda*, 18 October 2012) <http://www.pravdareport.com/news/russia/18-10-2012/122499-russia_nuclear_weapons-0/> accessed 19 July 2015

multiple-warhead variant, the RS-24 Yars, and plans to begin deployment of the RS-26 ICBM in 2016. The Russian Air Force is developing a new strategic bomber, the PAK-DA, to augment or replace its Tu-160 Blackjack and Tu-95 Bear-H aircraft³⁴. Russia has also been ‘developing a controversial ground-launched cruise missile (GLCM), reportedly named the R-500. In its annual Compliance Report released in July 2014, the U.S. State Department determined Russia had tested a GLCM in violation of the INF Treaty, which obligates the United States and Russia "not to possess, produce, or flight-test" missiles with maximum ranges between 500 and 5,500 km³⁵. While doubtless one could make a counter charge of US non-compliance with the INF, evidently Article 6 is not high on the list of Russian priorities, for Moscow still views national security as a zero sum game where sophisticated nuclear weaponry is the ultimate guarantee of state survival.

3.3. China

While China traditionally advocates a policy of minimum nuclear deterrence, the Pentagon recently announced unexpectedly that ‘China’s ICBM (Intercontinental Ballistic Missile) force now worryingly includes a ‘multiple independently targetable re-entry vehicle (MIRV)-equipped Mod 3 (DF-5)’³⁶. The deployment of such sophisticated weapons systems such as the MIRV strongly ‘strains the credibility of China’s official assurance that it only wants a minimum nuclear deterrent and is not part of a nuclear arms race³⁷. Indeed Bruno Tertrais believes that ‘declaratory policy, or “what states claim they would do”, is distinct from “action policies”, or states’ plans for a conflict, and thus does not necessarily restrict nuclear policy³⁸. Regardless of its NFU policy, China is the only nuclear power which is slightly increasing the size of its nuclear arsenal. Beijing is also moving away ‘from relatively inaccurate, liquid-fueled, silo/cave-based missiles, like the DF-3, DF-4, and DF-5, to more accurate, solid-fueled,

³⁴ Steven Pifer, "Overblown: Russia's Empty Nuclear Sabre-rattling" (*The National Interest*, 17 March 2015) <<http://nationalinterest.org/feature/overblown-russias-empty-nuclear-sabre-rattling-12432>> accessed 23 July 2015

³⁵ ‘Country Profiles: Russia’ (*Nuclear Threat Initiative*, July 2015) <<http://www.nti.org/country-profiles/russia/>> accessed 21 July 2015

³⁶ “Annual Report to Congress: Military and Security Developments Involving the People’s Republic of China 2015” (*Office of the Secretary of Defense*, 2015) 8 <http://www.defense.gov/Portals/1/Documents/pubs/2015_China_Military_Power_Report.pdf> accessed 14 December 2015

³⁷ Hans M. Kristensen, "Pentagon Report: China Deploys MIRV Missile" (*Federation Of American Scientists*, 11 May 2015) <<https://fas.org/blogs/security/2015/05/china-mirv/>> accessed 12 June 2015

³⁸ Stephanie Spies, "China's Nuclear Policy: (No) First Use?" (*CSIS*, 20 October 2011) <<http://csis.org/blog/chinas-nuclear-policy-no-first-use>> accessed 21 July 2015

road-mobile missiles, such as the DF-11, DF-15, and DF-21, and the DF-31 ICBM, as well as the JL-2 submarine-launched ballistic missiles (SLBMs) as a way to increase the survivability of its force'³⁹. Although 'given the geographical constraints and the superiority of U.S. attack submarines, it will be a challenge for China to operate SSBNs effectively'⁴⁰ ... equally one should not underestimate the fact that China now possesses three Jin Class submarines with 'the potential to carry 36 missiles, up from the previous total of 12, which were carried on one submarine that entered service in 1986 and is no longer considered operational.'⁴¹ This new capability is perhaps well reflected in the fact that 'since the middle of the last decade, China's military activities in the Indian Ocean have been expanding (in 2012, at least 22 contacts were recorded with vessels suspected to be Chinese nuclear attack submarines patrolling the Indian Ocean')⁴². Finally, there is evidence that 'China is adding a nuclear capability to some of its ground- and air-launched cruise missiles, which could greatly increase the number of nuclear-weapons delivery systems in the country'⁴³ ... something which John Mecklin believes 'would mark a significant change in China's deterrence posture and concern neighboring countries, from Japan to South Korea and beyond, that worry about Beijing's increasingly confrontational ways'⁴⁴. Chinese modernization efforts have ensured that the country now has a credible second strike capability, with an overwhelming preemptive strike on the mainland now sufficient to subdue the nation. China is clearly not achieving any progress in terms of Article 6, and could actually in fact risk ramping up nuclear tension in the region due to the fact that, 'most of China's nuclear experts, including officials who have great influence over Chinese defense

³⁹ "Country profiles: China" (*NTI*, July 2015) <<http://www.nti.org/country-profiles/china/>> accessed 21 July 2015

⁴⁰ Hans Kristensen, "Nuclear Weapons Modernization: A Threat to the NPT?" (*Arms Control Today*, 1 May 2014) <https://www.armscontrol.org/act/2014_05/Nuclear-Weapons-Modernization-A-Threat-to-the-NPT> accessed 12 December 2015

⁴¹ John Mecklin, "Disarm and Modernize" (*Foreign Policy*, 24 March 2015) <<http://foreignpolicy.com/2015/03/24/disarm-and-modernize-nuclear-weapons-warheads/>> accessed 23 October 2015

⁴² Satoru Nagao, "Japan, the United States, and India as Key Balancers in Asia" (*CSIS*, 2015) 6, <http://csis.org/files/publication/150331_Nagao_JapanUSIndia.pdf> accessed 14 December 2015

⁴³ John Mecklin, "Disarm and Modernize" (*Foreign Policy*, 24 March 2015) <<http://foreignpolicy.com/2015/03/24/disarm-and-modernize-nuclear-weapons-warheads/>> accessed 23 October 2015

⁴⁴ *Ibid.*

policy, concur that the country should adopt “a flexible approach to the no-first-use policies”, including a “more offensive-oriented nuclear strategy”⁴⁵.

3.4. France

French efforts at achieving progress on nuclear disarmament have also proven extremely lacking, despite what they may claim to the contrary. Early 2015 saw Hollande continuing the French tradition whereby ‘the President of the Republic – uniquely responsible for military nuclear matters – announces his policies on nuclear weapons during a single high-profile speech, and then remains silent on the topic for the remainder of his term of office’⁴⁶. However the speech was ‘typical of the positions being adopted by the world’s nuclear armed states: making only the most limited concessions towards disarmament; defiantly proclaiming that they will retain their nuclear arsenals; yet aiming to advance their own non-proliferation agenda’⁴⁷. While France admittedly does now only possess a sea and air based nuclear delivery capability, this should not detract from the fact that ‘France has undertaken a comprehensive upgrade of its arsenal, deploying an improved submarine-launched missile, the M-51— a multiple-warhead missile with increased accuracy, intercontinental range, and payloads—that will also be outfitted with a new nuclear warhead later this year. An air-launched cruise missile, the Air-Sol Moyenne Portée Amélioré, which has a range of 500 kilometers (311 miles) and an improved warhead, has (also) been integrated into two fighter-bomber squadrons, one at Istres on the Mediterranean coast and the other at Saint-Dizier, in northeastern France’⁴⁸. Burt also outlines how ‘by 2018 the last nuclear capable Mirage 2000Ns will have been replaced by modern Rafale aircraft armed with the ASMPA nuclear cruise missile, and a fleet of 12 new tanker aircraft will be brought into service to allow the range of the Rafale to be extended’⁴⁹. Indeed rather than France being exemplary in terms of disarmament, the country ‘is in the final phase of a

⁴⁵ Stephanie Spies, "China's Nuclear Policy: (No) First Use?" (CSIS, 20 October 2011) <<http://csis.org/blog/chinas-nuclear-policy-no-first-use>> accessed 21 July 2015

⁴⁶ Peter Burt, “Contradiction and Conservatism: Hollande Outlines France's Nuclear Posture” (*Nuclear Information Service*, 27 February 2015) <<http://www.nuclearinfo.org/blog/peter-burt/2015/02/contradiction-and-conservatism-hollande-outlines-frances-nuclear-posture>> accessed 10 July 2015

⁴⁷ *ibid.*

⁴⁸ John Mecklin, "Disarm and Modernize" (*Foreign Policy*, 24 March 2015) <<http://foreignpolicy.com/2015/03/24/disarm-and-modernize-nuclear-weapons-warheads/>> accessed 23 October 2015

⁴⁹ Peter Burt, “Contradiction and Conservatism: Hollande Outlines France's Nuclear Posture” (*Nuclear Information Service*, 27 February 2015) <<http://www.nuclearinfo.org/blog/peter-burt/2015/02/contradiction-and-conservatism-hollande-outlines-frances-nuclear-posture>> accessed 10 July 2015

comprehensive modernization of its nuclear forces intended to extend the arsenal into the 2050s⁵⁰. What is even more remarkable is the fact that despite large cuts to the rest of the French armed forces, a French white paper released in 2013 commissioned by Hollande not only affirmed ‘the role of a modernised deterrent force’⁵¹, it has ensured that there was no reduction in spending in terms of French nuclear capability. Clearly, to take Hollande at face value regarding French nuclear disarmament is a mistake.

3.5. United Kingdom

Of all the nuclear powers, the UK has probably come closest to fulfilling disarmament pledges, for example ‘in its Strategic Defence and Security Review, published in September 2010, the UK government announced that it had a total stockpile of ‘not more than 225’ Trident nuclear warheads and that this would be reduced to ‘not more than 180’ by the mid 2020s’⁵². Trident is currently capable of being ‘deployed on four Vanguard-class nuclear-powered ballistic missile submarines’⁵³. However, akin to the other NWS, the UK government appears determined to replace its Vanguard class submarines and maintain its second strike capability in the form of ‘continuous at sea deterrence’ (CASD). All signs point to the UK keeping this policy and developing 3-4 modern nuclear submarines capable of delivering trident. Consider for example this statement made on by Defence Secretary Liam Fox, in which he told parliament how new British submarines ‘will be powered by a nuclear propulsion system known as Pressurised Water Reactor 3, which will incorporate the latest safety technologies and ensure our future nuclear-armed submarines have the performance required to deliver our minimum credible deterrent out until the 2060s’⁵⁴. Like the other NWS, Britain is clearly not serious about Article 6.

⁵⁰ Hans Kristensen, "Nuclear Weapons Modernization: A Threat to the NPT?" (*Arms Control Today*, 1 May 2014) <https://www.armscontrol.org/act/2014_05/Nuclear-Weapons-Modernization-A-Threat-to-the-NPT> accessed 12 December 2015

⁵¹ Frank Klotz, "France Isn't Aiming for Nuclear Zero" (*The National Interest*, 8 May 2013) <<http://nationalinterest.org/commentary/france-isnt-aiming-nuclear-zero-8440>> accessed 23 July 2015

⁵² *ibid.*

⁵³ *Ibid.* 37

⁵⁴ The United Kingdom’s Future Nuclear Deterrent: The Submarine Initial Gate Parliamentary Report, (*Gov.UK*, May 2011) 2 <https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/27399/submarine_initial_gate.pdf> accessed 22 July 2015

4. Proposal for an Article 6 verification mechanism – A New Start for New START’s verification mechanism?

It is imperative to be realistic with how far the NWS are willing to go to. Therefore, a realistic solution could lie in an adapted version of the bilateral ‘New START’ treaty, or more specifically, its verification mechanism. There is nothing idealistic about New Start, as Steven Piper points out, ‘at the start of the Obama administration, the Kremlin clearly wanted a new treaty to cap U.S. nuclear forces and provide predictability after START I. New START achieved this objective... New START requires both countries to reduce arsenals to no more than 1,550 deployed strategic warheads on 700 deployed strategic missiles and bombers by February 2018... The two sides have carried out more than one hundred inspections and exchanged almost 6,000 treaty notifications’⁵⁵. This sort of real world, realistic application is exactly what the NPT’s Article 6 lacks.

Rather than imposing unrealistic demands on the NWS or allowing them to continue deceiving the world using diplomatic language to mask their true intentions, a verification mechanism offering each NWS something to gain makes sense. Whether in the guise of each NWS signing a single bilateral treaty with a nuclear peer, akin to that of the U.S. and Russia, or new treaty encompassing all five NPT NWS is largely irrelevant. What is relevant is that each NWS receives the means to utilise all tools of the present New START verification mechanism with any or all of its nuclear peers in the NPT should it choose to do so. The following demonstration of the New Start verification mechanism shows just why this may be of interest to each NWS, with the seven tools of Table 3 appearing in the same order as outlined by U.S. Acting Undersecretary of State Rose Goettmueller at a P5 Conference in Geneva.⁵⁶

4.1 National Technical Means (NTM)

Article X of the New Start Treaty, ‘establishes obligations relating to the use of national technical means of verification in compliance with the provisions of the Treaty. “National technical means” is a term used in a variety of arms of arms control treaties; it refers to those systems, such as reconnaissance satellites, used to collect information

⁵⁵ Steven Pifer, "New START at Three ... and What Next?" (*The Brookings Institution*, 4 February 2014) <<http://www.brookings.edu/research/opinions/2014/02/04-new-start-treaty-three-years-old-what-next-pifer>> accessed 8 September 2015

⁵⁶ “The New Start Treaty: An Overview of the Verification Regime” (*US Department of State*) <<http://www.state.gov/documents/organization/208183.pdf>> accessed 9 September 2015

useful in verifying compliance with the provisions of the Treaty'.⁵⁷ Article X states that parties are allowed and agree 'to use national technical means of verification at their disposal in a manner consistent with generally recognized principles of international law; (b) not to interfere with the national technical means of verification of the other Party operating in accordance with this Article; and (c) not to use concealment measures that impede verification'⁵⁸. Mutschler defines NTM as being 'assets for monitoring the compliance with the provisions of an agreement that are under national control, which means chiefly photographic reconnaissance satellites and aircraft-based radars and optical systems; but also sea- and ground based systems such as radars as antennas for collecting telemetry. Of course, any means or actions that are inconsistent with international law, such as espionage and aircraft over flight of the other side's territory, are not included'⁵⁹. Nations are suspicious of each other's intentions; perhaps none more so than the NWS. Therefore, it is only natural that they be allowed to make use of all NTM at their disposal and while NTM capabilities are not equal across the NWS, not to cater for their use in any Article 6 verification mechanism would simply be naive and by allowing their use, it lends further credibility to the buildup of trust that is necessary for nuclear weapon disarmament to enjoy even the remotest chance of success.

4.2 On-Site Inspections

The New START Treaty provides for 18 on-site inspections per year, with two types of inspections possible, Type One or Type Two. The US State Department notes that 'type one inspections focus on sites with deployed and non-deployed strategic systems; (while) type two inspections focus on sites with only non-deployed strategic systems. Permitted inspection activities include confirming the number of reentry vehicles on deployed ICBMs and deployed SLBMs, confirming numbers related to non-deployed launcher limits, counting nuclear weapons onboard or attached to deployed heavy bombers, confirming weapon system conversions or eliminations, and confirming facility eliminations. Each side is allowed to conduct ten Type One inspections and eight Type

⁵⁷ Ctia: Consolidated Treaties & International Agreements 2009: Volume 4. Oxford University Press, 2009. 45

⁵⁸ "Treaty between the United States of America and the Russian Federation on Measures for the Further Reduction and Limitation of Strategic Offensive Arms", (*US Department of State*) <<http://www.state.gov/documents/organization/140035.pdf>> accessed 9 September 2015

⁵⁹ Max M. Mutschler, '*Arms Control in Space: Exploring Conditions for Preventive Arms Control*' (Palgrave Macmillan 2013) 86

Two inspections annually'⁶⁰. Inspections allow both parties access to the most sensitive areas of their opponents facilities and, like NTM, serve to prevent a buildup of uncertainty and distrust. This can swiftly sour relations, as evidenced by uncertainties regarding Kaliningrad in the early 2000s and epitomised by the Polish Defence Minister remarking at the time that 'the problem is whether we can treat assurances that there are no nuclear weapons in Kaliningrad as credible'⁶¹. In what all of the NWS clearly perceive to be an anarchical international world, assurances count for nothing, inspections on the other hand, assuage doubts and build trust.

The ability for all NWS nuclear facilities party to this expanded verification mechanism to inspect each other is a powerful incentive. We believe that renewed impetus to universal disarmament could follow on from peer nuclear power inspections, with these potentially having the same effects as traditional international inspections, the benefits of which were outlined by then IAEA Director General Mohamed El Baradei in 2002 when stating that 'where the intent exists to develop a clandestine nuclear weapons programme (Or for that matter new capabilities and numbers of warheads in nuclear capable states), inspections serve effectively as a means of both detection and deterrence'⁶². At present the IAEA safeguard system for example is currently limited to ensuring that the peaceful use of nuclear energy remains just that, yet achieving Article 6 commitments falls outside this remit. Given the success rate enjoyed by the third pillar of the NPT in ensuring the peaceful use of nuclear power and the non-proliferation of nuclear weapons through international inspections to date, why not have a similar system in place for the NWS of the NPT? After all, has this group not so frequently and readily proclaimed its commitments of being serious about nuclear disarmament in the past? Commitments, steps, action plans and good faith aside, mutual inspections have the potential to work, for the difference with this idea is that NWS themselves have something to gain from cooperating; for if security and maintaining nuclear deterrence is the sine qua non of NWS policies, surely there exists no greater advantage than seeing directly what one's peer competitor's capabilities at any given moment are?

⁶⁰ "New START" (*U.S. Department of State*) < <http://www.state.gov/t/avc/newstart/index.htm> > accessed 10 September 2015

⁶¹ Taina Susiluoto (ed.), *Tactical Nuclear Weapons: Time for Control*, Band 119 (United Nations Publications UNIDIR, 2002) 69

⁶² IAEA Director General, Mohamed ElBaradei in *Washington Post*, October 2002 <https://www.iaea.org/sites/default/files/S1_Safeguards.pdf> accessed 14 December 2015

4.3. Exhibitions

Article X of New START states that ‘each Party shall conduct exhibitions and have the right to participate in exhibitions conducted by the other Party. The purpose of such exhibitions shall be to demonstrate distinguishing features and to confirm technical characteristics of new types, and to demonstrate the results of conversion of the first item of each type of strategic offensive arms subject to this Treaty’⁶³. Under our envisaged expanded version of the New START verification mechanism, would the U.S military turn down the opportunity to inspect China’s new multiple independently targetable re-entry vehicle mentioned in the previous section? Would the Peoples Republic in return walk away from the chance to inspect any successor SSBN to the Ohio? Surely the lure of being able to know exactly what your competitors were developing trumps the desire of maintaining the utmost secrecy for your own material. Critics may argue naivety in surmising this, yet consider the faith each NWS places in nuclear deterrence. Now consider that nuclear deterrence is defined as ‘the ability through the nuclear threat to make an opponent refrain from what he might otherwise want to do...For deterrence to succeed, the enemy has to be persuaded that the deterror has the capacity to act, that in acting (he) could inflict costs greater than the advantages to be won from attaining the objective’⁶⁴. Thus what better way of deterring your perceived opponent than to willingly allow exhibitions of systems in your arsenal, thereby ensuring that there can be no doubt of the destruction which could be wrought should one’s enemy be foolish enough to escalate a situation to a nuclear conflict?

4.4. Data Exchanges and Notifications

This process relates to the ‘ongoing exchanges of data on numbers, locations, and technical characteristics of weapons systems and facilities, with regular notifications and updates’⁶⁵. Again self explanatory as to why all NWS would be keen to possess such information on their nuclear peers, aside from seeking to gain advantage or intimidate opponents, data exchanges should be viewed as a trust building exercise, as ‘there are security gains for all parties from mutual assurance of compliance not just

⁶³ "Treaty between the United States of America and the Russian Federation on Measures for the Further Reduction and Limitation of Strategic Offensive Arms", (*US Department of State*) <<http://www.state.gov/documents/organization/140035.pdf>> accessed 9 September 2015

⁶⁴ Eugene V. Rostow, *Power and Policy in Quest of Law: Essays in Honor of Eugene Victor Rostow* (Dordrecht: M. Nijhoff Publishers 1985) 319-320

⁶⁵ “The New Start Treaty: An Overview of the Verification Regime” (*US Department of State*) <<http://www.state.gov/documents/organization/208183.pdf>> accessed 9 September 2015

through reconnaissance satellites, ground- or sea-based technical intelligence collection and other national technical means (NTM) of verification, but also through improved telecommunications and routinisation of contacts between or among adversaries'⁶⁶. After all, it was a former U.S ambassador to Moscow who had extensive personal experience with Nikita Khurshev during the Cuban Missile Crisis and who understood how the Soviet leader's mind worked who correctly counseled Kennedy to adopt a softer approach when many others were calling for immediate strikes which would have resulted in nuclear catastrophe. The exchange of data and the fostering of personal relationships on either side of any given nuclear divide should not be underestimated.

4.5. Unique Identifiers (UIDs)

Indelibly linked to data exchanges and notification, 'each newly-produced and existing ICBM, SLBM, and heavy bomber is assigned a UID, with UIDs included in the data exchanges and in Treaty notifications and verified during inspections in order to confirm the declared data'⁶⁷. In practical terms, this requires for example that 'each party use whatever non-repeating alpha-numeric identifier it deems appropriate for a heavy bomber UID, including a tail number, aircraft name, or aircraft production number. The location of the UID is also left to each Party's discretion'⁶⁸. This enables states to identify and note competitor's delivery capabilities and ensures that there can be no deception when inspections do occur.

4.6. Telemetric Information

Article XI of New START states that 'by mutual agreement of the Parties, telemetric information on launches of ICBMs and SLBMs shall be exchanged on a parity basis. The Parties shall agree on the amount of exchange of such telemetric information'⁶⁹...with 'the exchange of telemetric information of launches of ICBMs and SLBMs being on a parity basis, up to five flights annually'⁷⁰. John Kerry provides a decent appraisal of what this actually means when outlining how 'in other words, within that five-launch cap, the actual number of launches for which telemetric information

⁶⁶ Robert E. Williams and Paul R. Viotti, *Arms Control History, Theory, and Policy* (Santa Barbara, Calif.: ABC-CLIO 2012) 13

⁶⁷ Ibid

⁶⁸ Ctia: Consolidated Treaties & International Agreements 2009: Volume 4, 110

⁶⁹ "Treaty between the United States of America and the Russian Federation on Measures for the Further Reduction and Limitation of Strategic Offensive Arms", (*US Department of State*) <<http://www.state.gov/documents/organization/140035.pdf>> accessed 9 September 2015

⁷⁰ "The New Start Treaty: An Overview of the Verification Regime" (*US Department of State*) <<http://www.state.gov/documents/organization/208183.pdf>> accessed 9 September 2015

will be exchanged each year is by mutual agreement of the Parties. If one side insists on providing telemetric information on only three launches in a given year, it may do so; it will simply have to live with the fact that in return the other Party will provide telemetric information on just three launches of its own'⁷¹. We feel that such a no nonsense and practical approach clearly has the potential and incentive to see NWS engage in more co-operation with each other than they are currently engaging in to date.

4.7. Bilateral Consultative Commission (BCC)

Finally, Article VII (5) of the Treaty states that 'the Parties shall hold consultations within the framework of the Bilateral Consultative Commission on releasing to the public data and information obtained during the implementation of this Treaty. The Parties shall have the right to release to the public such data and information following agreement thereon within the framework of the Bilateral Consultative Commission. Each Party shall have the right to release to the public data related to its respective strategic offensive arms'. The BCC can be used 'as a forum for discussing changes to the main treaty text and changes to the Protocol and its integral Annexes that do not affect substantive rights or obligations under the treaty, but any such changes take effect only pursuant to the procedures required to bring the agreement into force in the first place.'⁷² Its utility is therefore self-explanatory.

4.8. Why not extend the IAEA's mandate to ensure NWS progress in disarming?

Given that the IAEA is already tasked with ensuring that the peaceful uses of nuclear material remains just that, doubtless there are those who would suggest that any new form of article 6 verification mechanism should fall to the IAEA to ensure compliance. However, this would be a mistake, for the 'New START' verification process would simply have a higher chance of being successfully adopted if it were policed by the NWS themselves. With the US and Russia already both intimately familiar with the process, having designed and implemented it for several years, it is clearly acceptable to both in its current guise. Thus logic would dictate a higher chance of success than if they were, hypothetically, to be subjected to investigation by the IAEA or any other international entity, especially given that the actions and thought processes of both nations have traditionally been considerably more Hobbesian than Kantian. While the

⁷¹ John F. Kerry, *Treaty with Russia on Measures for Further Reduction and Limitation of Strategic Offensive Arms (the New START Treaty): Congressional Report* (Diane Publishing 2011) 43

⁷² *ibid.*

NPT makes it obligatory ‘for all its non-nuclear weapon State parties to submit all nuclear material in nuclear activities to IAEA safeguards, and to conclude a comprehensive safeguards agreement with the Agency’⁷³, a similar IAEA verification mechanism for the five NWS of the NPT would almost certainly risk a higher chance of failure than if a modified New START verification process were to be utilised in the guise suggested above. Evidence for this can be found in table 4 in the Appendices, which demonstrates just how difficult, if not impossible, it would be for the IAEA to place NWS facilities under international safeguards. If they have proven unwilling to cooperate in this area to date, the notion of expecting them to place their weapons programmes under any form of international monitoring where they have little or nothing to gain is fanciful at best.

5. Reforming Preparatory Committees

With traditional forums for nuclear disarmament and non-proliferation increasingly unable to achieve any real consensus, it should come as no surprise that numerous initiatives focusing on nuclear weapons related issues have started emerging outside of the traditional framework. Whilst endeavoring to produce fresh impetus on issues pertaining to nuclear disarmament, the humanitarian consequences of a nuclear weapon detonation, the role of nuclear weapons in the current security environment or the creation of a legally binding instrument to ban nuclear weapons, these are the very issues the NPT is supposed to deal with. Although these initiatives have greatly contributed to the debate, it must be acknowledged that if things continue in a similar vein, whereby the NPT remains deadlocked in the face of the ongoing proliferation of other nuclear-related forums, the NPT will simply continue to lose credibility. This is not to claim, as nuclear-weapons states often do, that these new conferences and working groups ‘divert attention from the practical steps to create conditions for further nuclear weapons reductions’⁷⁴. On the contrary, they are of pivotal importance in achieving progress on nuclear disarmament, with many of those forums only emerging due to the frustrations of NNWS who wish to achieve forward momentum on nuclear disarmament. Critics of these initiatives will state that they are not likely to produce results, or that they are pointless due to the NWS remaining absent, yet that is to miss

⁷³ "IAEA Safeguards: Stemming the Spread of Nuclear Weapons" (*IAEA*) <www.iaea.org> accessed 19 August 2015

⁷⁴ ‘P5 Announcement not to Attend the Oslo Conference’ (2013) <<http://www.reachingcriticalwill.org/disarmament-fora/hinw/oslo-2013>> accessed 14 December 2015

the point entirely. For the very fact that the NPT is being usurped as a multilateral entity where states engage in constructive dialogue towards a total elimination of nuclear weapons clearly indicates that if progress were made within the NPT, there would be no need for these forums or at the very least they could merely complement the NPT's work. If the situation carries on in its current vein however, with states feeling the need to operate outside the NPT, there is the worry that the Treaty will lose its credibility. Therefore, the NWS should take these frustrations seriously, lest countries start sending third secretaries or nobody at all to NPT RevCons and progress in the other two pillars is undone.

One area which could help to address feelings of frustration lies in making structural modifications to the work of the NPT Preparatory Committees (PrepComs), potentially opening up more space for constructive dialogue during the preparatory process. In the current situation, when almost any substantial discussion of nuclear disarmament and other related issues immediately sets the NWS and NNWS at odds with each other, PrepCom reform offers a good place to achieve fresh progress. For although some observers have described the atmosphere at PrepComs as 'relaxed and constructive'⁷⁵ or full of 'optimism and a spirit of cooperation'⁷⁶, until now it has not yielded many results. In fact, despite the 1995 NPT Review and Extension Conference assigning PrepComs with the additional task of giving substantial recommendations to RevCons, no preparatory process has resulted in official adoption of recommendations. While states are often reluctant to make any preliminary commitments, perhaps being guided by the principle that 'nothing is agreed until everything is agreed'⁷⁷, on the other hand, it happens often that by the end of the preparatory cycle, there is simply not enough time left to bridge existing gaps in order to adopt recommendations.

Current PrepComs see states not keeping to the speaking time limits, thereby extending the debate on one particular issue and ensuring the schedule is delayed. As Ambassador Alexander Kmentt notes, the interactive debate time is not made use of, so no real discussion takes place at PrepComs⁷⁸. A considerable amount of time is spent at every

⁷⁵ 'Preparing for the 2015 Non-Proliferation Treaty Review Conference: Day 1' (*SIPRI*) <<http://www.sipri.org/research/disarmament/2014-npt-prepcom/day-1>> accessed 14 December 2015

⁷⁶ 'The Wrap-Up: Day Nine of the NPT PrepCom 2012' (*CNS*) <http://cns.miiis.edu/treaty_npt/2012_npt_prepcom_report_day_09.htm> accessed 14 December 2015

⁷⁷ Interview with Ambassador Alexander Kmentt, Director of the Department for Disarmament Issues in the Austrian Federal Ministry for Europe, Integration and Foreign Affairs (Vienna, 19 November 2015)

⁷⁸ *ibid.*

PrepCom on the general statements, in which states pledge their commitment to the objectives of the NPT and call for immediate action. This partially happens because of the same agenda which every PrepCom in any given review cycle possesses. Every cluster issue discussion commences by restating general objectives and views, with the effect of this being that after all introductory statements have been made, there is little, if any, time left for more detailed or substantial discussion of specific issues within the clusters.

Another problem area concerns statement content. The NWS especially tend to reiterate their positions and views without suggesting new ways forward. Even from NNWS, many working papers submitted to PrepComs are sometimes simply reprinted from year to year with only some insignificant changes in content. Indicative of everything that is currently ineffective regarding the NPT, this practice also raises the question on whether or not states take PrepComs seriously at all. Rather the manner in which discussion at PrepComs takes place merely seeks to avoid direct confrontation between contradictory parties. Simpson and Nielsen, in an analysis of the 2004 PrepCom demonstrate the aforementioned problems of the current system when stating that ‘the question of recommendations on subsidiary bodies to the main committees was not discussed in any detail, mainly because of lack of time and the apparently irresolvable differences between the Non-Aligned Movement (NAM) states and the positions taken by states such as the United States, the United Kingdom, and France’⁷⁹. In the end, at the final PrepCom where recommendations have to be adopted and there is no possibility to postpone the decision, states discover that the differences in their views are so immense that there is simply no time to overcome them.

If the political will and willingness to compromise existed, modifying PrepComs would avoid these issues. Consider the benefits for example, if each of the three ten-day meetings were given one cluster issue on the agenda. The first PrepCom could primarily deal with traditional ‘Vienna issues’, discussing peaceful uses of nuclear energy at full length. In Geneva, home to the Conference on Disarmament, the PrepCom could focus on disarmament and non-proliferation. The final PrepCom in New York could then discuss safeguards and nuclear-weapon-free zones. At the end of each, a final list of

⁷⁹ John Simpson and Jenny Nielsen, ‘Fiddling while Rome burns? The 2004 Session of the PrepCom for the 2005 Review Conference’ (*The Nonproliferation Review*, Summer 2004) 6 <<http://cns.miiis.edu/npr/112toc.htm>> accessed 14 December 2015

recommendations pertaining to the specific cluster issue discussed over the course of the PrepCom could take place. In order to counter the inevitable argument that ‘due to the cluster issues being tightly intertwined they cannot be discussed in complete separation from one another’, a designated time period for general debate could still be allocated at every PrepCom. Civil society organizations and academics specializing in the particular issue could also receive time to present analysis, lending to a more comprehensive political debate. Restructuring the NPT PrepComs in this manner would not only allow states to focus on one area at every PrepCom, it would enable a higher chance of adopted recommendations for the RevCon. Focusing on one issue area also decreases the probability of states making identical statements at every PrepCom or submitting hugely similar working papers. Instead, in their speeches and reports, NPT signatories could elaborate their vision of further steps in greater detail. In addition, setting a more specific timeframe for making recommendations on each cluster issue would put pressure on delegations to yield feasible results at each PrepCom. Finally, the work of every PrepCom could be assessed more accurately, being based on actual results rather than rehashed statements.

6. Conclusion

This paper’s first point dealt with attempts to form a ‘weapons of mass destruction free zone’ in the Middle East. Concerned with the increasingly sour atmosphere surrounding the issue within the NPT, yet not seeing any feasible way of achieving forward momentum, the paper nevertheless offered a game theoretical perspective which demonstrated the root causes of the current impasse. This should allow academics and future policy makers to better understand why progress has not been forthcoming and what needs to change to achieve this. This paper’s second point demonstrated the failings of the NWS to fulfill their pledges to act in “good faith” regarding Article 6. Given the extent of their nuclear weapon modernisation programmes, they are acting completely contrary to the whole spirit of the NPT. By claiming otherwise, they are simply further undermining the NPT. Yet, as Brezhnev wryly remarked to Nixon at the 1972 Moscow Summit, ‘if we are trying to trick each other, why do we need a piece of paper’? The paper’s third point focused on outlining a concrete proposal for an Article 6 verification mechanism based on an expanded version of the New START Treaty. Having pointed out the realist nature of this verification mechanism, it was argued that such a mechanism would enable the NWS to cooperate and put pressure on each other,

something that NNWS acting either uni- or multilaterally in 2015 are clearly unable to do. It would also enjoy a far higher chance of success of being implemented given that the NWS themselves have something to gain. The paper's fourth point offered an appraisal of how NPT Preparatory Committees could be improved. Be that by setting a more specific timeframe for making recommendations on each cluster issue, or by having each Prepcom by and large dealing with only one topic, the potential benefits are obvious.

Finally, regardless of whether one considers each of the four points mentioned in this paper together or in isolation, one factor must remain constantly in the reader's thoughts: there is a total lack of political will amongst the NWS to change. Also internal differences permeating NNWS hinder progress on the issues discussed. Yet the NPT state parties must acknowledge that if well chosen diplomatic language akin to that present in the final documents adopted at previous NPT RevCons continues to be used, with little to no substance, it is only a matter of time before the NPT becomes little more than a footnote in history. Simply postponing this moment until, having run out of ambiguous wording and excuses, the nuclear haves and nuclear have-nots eventually disagree with each other to such an extent that the NPT breaks apart, or slowly fades to insignificance, is extremely ill-advised. Rather, all actors should keep in mind the words of Dr. Camille Grand, upon being asked whether the NPT was irrelevant or not. Not content to simply say no, the Frenchman hastily stated that the NPT 'is not just a non-proliferation treaty, it is a security and arms control agreement'⁸⁰... ultimately, given the potential consequences of its failing, both NWS and NNWS would do extremely well to remember that.

⁸⁰ "Panel Discussion on the NPT RevCon – What is next?" (*VCNPD*, Vienna, 25 September 2015)

Appendix

Table 1: Israel's perceived structure of pay-offs

	Nuclear weapons 'haves'		
Nuclear weapons 'have-nots'		Cooperate	Defect
	Cooperate	-50, -50	-100,100
	Defect	100, -100	50, 50

Table 2: Arab states' and Iran's structure of pay-offs

	Nuclear weapons 'haves'		
Nuclear weapons 'have-nots'		Cooperate	Defect
	Cooperate	50, 50	-100,100
	Defect	100, -100	-50, -50

Table 3: New Start Verification Mechanism

1) National Technical Means (NTM)	2) On-Site Inspections	3) Exhibitions
4) Data Exchanges and Notifications	5) Unique Identifiers (UIDs)	6) Telemetric Information
7) Bilateral Consultative Commission (BCC)		

Table 4: Number of facilities under safeguards or containing safeguarded material.

Facility type	Number of facilities (number of installations)			Total
	Comprehensive safeguards agreements ^a	INFCIRC/66 ^b	Nuclear weapon States	
Power reactors	186 (223)	11 (14)	1 (1)	198 (238)
Research reactors and critical assemblies	141 (152)	7 (7)	1 (1)	149 (160)
Conversion plants	13 (13)	1 (1)	— (—)	14 (14)
Fuel fabrication plants	38 (39)	3 (3)	— (—)	41 (41)
Reprocessing plants	5 (5)	1 (1)	— (—)	6 (6)
Enrichment plants	8 (8)	— (—)	2 (4)	10 (12)
Separate storage facilities	67 (68)	3 (3)	7 (8)	77 (79)
Other facilities	82 (92)	1 (1)	1 (1)	84 (94)
Subtotals	540 (600)	27 (30)	12 (15)	579 (645)
Other locations	325 (423)	3 (30)	— (—)	328 (453)
Non-nuclear installations	— (—)	1 (1)	— (—)	1 (1)
Totals	865 (1023)	31 (61)	12 (15)	908 (1099)

^a Covering safeguards agreements pursuant to NPT and/or Treaty of Tlatelolco and other comprehensive safeguards agreements.
^b Excluding installations in nuclear weapon States; including installations in Taiwan, China.

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ⁱ We also focus predominantly on Iran, Egypt, and Israel due to the fact that they are the Comprehensive Nuclear-test-ban Treaty Annex 2 states in the Middle East whose signature and ratification of the CTBT is impeded due to the impasse described in this chapter

ⁱⁱ Article 6 of the NPT states that ‘each of the Parties to the Treaty undertakes to pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament, and on a treaty on general and complete disarmament under strict and effective international control’.