



Beyond the ban:

The humanitarian initiative of nuclear disarmament
and advocacy of no-first-use nuclear doctrines



Alberto Perez Vadillo

May 2016

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About the author

Alberto Perez Vadillo worked with BASIC throughout the Spring of 2016 as a EU Non-Proliferation Consortium research intern. He holds a masters degree from King's College London in International Peace and Security, with a focus on arms control, European security and Russian foreign and security policy.

Acknowledgements

This report has been prepared as part of a research internship at the British American Security Information Council (BASIC) funded by the European Union (EU) Non-Proliferation Consortium as part of a larger EU educational initiative aimed at building capacity in the next generation of scholars and practitioners in non-proliferation policy and programming.

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Published by

British American Security Information Council (BASIC)

3 Whitehall Court, London SW1A 2EL, United Kingdom

Tel: +44 (0) 207 766 3461/5

www.basicint.org

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Introduction

Deep dissatisfaction with the lack of progress in multilateral nuclear disarmament has led a large number of states within the international community to participate in a process to highlight the humanitarian impacts of nuclear weapons. The immediate origins of the so-called humanitarian initiative can be traced back to the consensus final document of the 2010 Review Conference (RevCon) of the Nuclear Non-Proliferation Treaty (NPT). States agreed on language which, for the first time in the history of the nuclear non-proliferation regime, explicitly highlighted ‘the catastrophic humanitarian consequences that would result from the use of nuclear weapons.’¹ Since then, a large number of states and NGOs have convened regularly to discuss the nature and extent of those consequences and their implications for the future of nuclear weapons policies.

The conferences on the humanitarian impact of nuclear weapons in Oslo, in 2013, and in Nayarit (Mexico) and Vienna the following year, as well as the UN-mandated Open-Ended Working Groups (OEWG) of 2013 and 2016 (the latter still under way), show the humanitarian initiative’s evolution. One of its most relevant aspects is the gradual narrowing down of policy options towards a focus on the negotiation and adoption of a binding international treaty banning nuclear weapons. In his capacity of chair of the Nayarit conference, the Mexican delegate, ambassador Juan Manuel Gómez Robledo, surprised attendees by concluding in his closing summary that the discussions there and in Oslo ‘should lead to the commitment of States and civil society to reach new international standards and norms, through a legally binding instrument.’² That same year, at the Vienna conference, the Austrian government unilaterally pledged to ‘identify and pursue effective measures to fill the legal gap for the prohibition and elimination of nuclear weapons.’³

It seems likely that negotiations towards a ban on nuclear weapons and the eventual adoption of such an instrument would contribute to achieving the goal of nuclear disarmament.

Over time, 127 states officially endorsed the Austrian pledge, now referred to as the ‘Humanitarian Pledge.’ This process culminated in December 2015 with the adoption of the pledge by the General Assembly of the United Nations (UNGA) through Resolution 70/48.⁴ While 139 states voted in favour, there were 29 votes against and 17 abstentions coming from nuclear-armed states and their allies.⁵ The focus on the ban has also become apparent at the level of the OEWG: while in 2013 the ban was seen as one of the ‘elements necessary for maintaining a world without nuclear weapons once achieved’, at the first session of the 2016 OEWG the ban was increasingly being portrayed ‘as the most feasible, practical, and effective way forward in the current context.’⁶

It seems likely that negotiations towards a ban on nuclear weapons and the eventual adoption of such an instrument would contribute to achieving the goal of nuclear disarmament. This would be the case even if all states possessing nuclear weapons and their formal allies refuse to participate in the near to medium term. But its impact will be limited and a great deal of work would still be needed in pursuing other parallel or subsequent routes involving the nuclear armed states. One such option could be to push for the adoption of a pledge not to use nuclear weapons first.

This paper explains the logic behind the ban proposal and why it requires other steps towards effective elimination of nuclear arsenals. Under the lens of state-based sources of nuclear danger, this paper investigates what a credible no-first-use (NFU) pledge is, how it affects nuclear policies, and then makes the case for applying the humanitarian paradigm to advocate for NFU.

1 Final document 2010, p. 12

2 Government of the Republic of Mexico 2014, p.3

3 Federal Ministry of Europe, Integration and Foreign Affairs of the Republic of Austria 2014, p. 2

4 UNGA 2015a

5 UNGA 2015b

6 Fihn 2013; Gandenberger and Acheson 2016

A ban on nuclear weapons

The core idea in the humanitarian approach is that nuclear-armed states will not relinquish their nuclear arsenals as long as they are perceived as effective and legitimate. Therefore, a process to delegitimise nuclear weapons must be undertaken (the implication being that the leaderships of nuclear armed states may always think nuclear weapons are effective). The advocates of a ban treaty (referred to from this point on as ‘ban advocates’) believe that the adoption of an international treaty ‘prohibiting the use, development, production, stockpiling, transfer, acquisition, deployment and financing of nuclear weapons, as well as prohibiting assistance with these acts’ would be the key to delegitimising them. A ban would codify under international law the ‘nuclear taboo’ or moral imperative not to use nuclear weapons which has been strengthening over time since the bombing of Hiroshima and Nagasaki, and it would start to address the legal discriminatory asymmetry present in the NPT.

Although a treaty-based ban would not create legal obligations for those states choosing to remain outside its remit, it could nonetheless stigmatise nuclear weapons provided a substantial number of states support it. In that new legal and political framework, the possession or continued reliance on nuclear weapons would put decision-makers under varying degrees of domestic and international pressure. Both at the national level and in military alliances, most notably in the case of NATO, nuclear policy would be seen under a stark new light, forcing a choice between upholding a delegitimised nuclear status quo or developing a renewed resolve to dismantle it.⁷

The humanitarian approach to nuclear disarmament is an effort to mirror the successes of the 1997 Mine Ban Treaty (MBT) and the 2008 Convention on Cluster Munitions (CCM), which outlawed the possession and achieved the partial elimination of anti-personnel mines and cluster munitions, respectively. The use of these weapons is deemed incompatible with the principles of international humanitarian law.⁸

Similarly, the argument goes, the possession and stockpiling of biological and chemical weapons has been outlawed in the 1972 Biological Weapons Convention and 1993 Chemical Weapons Convention, so the same must be done for nuclear weapons, which are far more inhumane.⁹

Of course, whilst the humanitarian angle adds to the evolving thinking on nuclear disarmament, it is only one angle. Whilst states acknowledged that the use of mines and cluster munitions invariably led to widespread, indiscriminate and unnecessary human suffering, it was essential that military planners came to believe that they had alternatives to these weapons to meet their operational needs.¹⁰ This might suggest that for a ban to be successful, states must believe that the weapons in question are not essential to their security. One exception to this may be Finland’s decision to join the MBT despite its dependence upon land mines for its security. The elite within Finland clearly valued its reputation and its position within the international community above the perceived value of land mines, in the context of a newly-agreed MBT.¹¹

The MBT and CCM no doubt have had a delegitimising effect on the weapon systems involved, led to the elimination of stockpiles of mines and cluster munitions in regions of concern and made the use of these weapons politically less acceptable. Nevertheless, a look at treaty hold-outs reveals that all the states which possess nuclear weapons, except France and the UK, are not members of either the MBT or the CCM and prefer to maintain these weapons in their arsenals.¹²

7 Acheson et al. 2014, pp. 2427

8 Borrie 2014, p. 626

9 Acheson et al. 2014, pp. 9, 15

10 Ware 2010, p. 27

11 Finland Joins Landmine Ban Treaty, 2012; Finland Mine Ban treaty Finland and Landmines, n.d.

12 International Campaign to Ban Landmines 2016; Cluster Munitions Coalition 2016

There may be a global norm impact, but some of the critical states still appear to exist outside of this norm. They may perhaps be more insulated from the international pressures involved, opening the possibility that a nuclear ban could have similarly unequal impact.

A similar logic applies to the 1993 Chemical Weapons Convention (CWC) and to an extent to the 1972 Biological Weapons Convention (BWC). The 1925 Geneva Protocol outlawed the use of chemical and biological weapons, initiating a process of delegitimisation, but it took almost seventy years for this to translate into the CWC. Its existence owes much to the developing perception that chemical weapons have limited and diminishing utility, but also the fear within the superpowers that chemical weapons could be used by smaller nations as power equalisers – illustrated by fears in the run-up to the 1991 Gulf War.¹³ Therefore, the delegitimising process initiated by the Geneva Protocol did not lead to the immediate elimination of chemical weapons and still required them to lose much of their appeal.¹⁴ With different time frames, the same dynamic was at work around biological weapons –and it should be noted that the BWC, unlike the CWC, lacks any verification mechanisms, so there is greater uncertainty about the state of biological weapons arsenals and programmes.

The entire edifice of international security has been built on the supposedly exceptional qualities of nuclear weapons, which are seen as a 'super-technology' figuratively acting as an infallible peacekeeper

Limitations

Eliminating weapons requires more than normative developments achieved through the adoption of legal instruments. It also requires diminishing their perceived practical utility, which varies greatly depending on the characteristics of the weapon and possessor state. This presents a daunting task in the quest for nuclear disarmament, for nuclear deterrence is credited by many states with preventing the outbreak of major inter-state war. The entire edifice of international security has been built on the supposedly exceptional qualities of nuclear weapons, which are seen as a 'super-technology' figuratively acting as an infallible peacekeeper.¹⁵ Nuclear weapons are unique in the sense that their military utility as a strategic deterrent and their legitimacy are deeply interwoven. Claims against the legitimacy of nuclear weapons on moral and legal grounds are countered by claims that nuclear weapons prevent major wars and therefore minimise human suffering.

A ban on nuclear weapons would seek to 'undermine the legitimacy of valuing their purportedly beneficial effects (that is, the social acceptability of valuing these effects even if they are contextualized by some as beneficial)'.¹⁶ It would do so '[by] demonstrating that current nuclear practices do not rest on justifiable rules in terms of the beliefs and values current in a given society; do not enjoy popular consent; and lack legal validity'.¹⁷ While this approach to delegitimisation yielded benefits in the case of the MBT, the CCM and the CWC, it could have little effect on the governments and sectors of society convinced of the strategic benefits of nuclear weapons.¹⁸ For example, the US vice-chairman of the Joint Chiefs of Staff, General Paul Selva, recently defended nuclear deterrence and nuclear modernisation plans, claiming that 'as a nation, we have to have the discussion about how much we value [nuclear] capability, why it is important, why it keeps us a great power and why each leg of the triad makes each of the other legs that much more credible'.

13 Robison 1998, p. 22

14 Ware 2010, p. 27

15 Sauer and Pretorius 2014, p. 7

16 Ritchie 2014, pp. 618619

17 *Ibid.*

18 Mehta 2016

Therefore, although a ban would certainly act as a focal point for mobilisation and debate, the political pressure derived from it will not ‘undermine the legitimacy of valuing’ a system –nuclear deterrence– which purportedly produces strategic effects seen as morally desirable –peace between major powers and the prevention of nuclear weapons use as part of it.¹⁹ It could even be counter-productive, by re-enforcing the perception that mature and responsible leaderships guide their states through morally-challenging waters, rather than shirking their responsibilities.

The humanitarian initiative is also raising awareness about the risks of accidental or unauthorised use of nuclear weapons, but deterrence advocates respond with the need to invest more in security and safety improvements to the nuclear arsenals.²⁰ The benefits of deterrence are seen as so fundamental that they justify more budget.

A ban on nuclear weapons will reignite debate and urge action, but achieving the delegitimization of nuclear weapons requires acknowledging the existence of this competing source of legitimacy.²¹ Therefore, ‘the critical need is to change perceptions of their role and utility: in effect, to achieve their progressive delegitimation, from a position in which they occupied a central strategic place to one in which their role is seen as quite marginal, and eventually wholly unnecessary as well as undesirable.’²² Certainly, work has been done to challenge the quasi-mythical qualities of nuclear weapons and the deep-seated belief in the effectiveness of nuclear deterrence.²³ Together with this, reducing the role and utility of nuclear weapons would also involve a process of devaluing them through ‘qualitative changes in nuclear doctrine, posture and practice that restrict the compass of nuclear deterrence.’²⁴ As the perceived utility of nuclear weapons diminishes and their role is restricted, the ban’s delegitimising power will increase, progressively bringing the world closer to effective nuclear abolition.

19 Cousins 2014

20 Acheson *et al.* 2014, pp. 89

21 Berry *et al.* 2010, pp. 15

22 Evans and Kawaguchi 2009, p. 59

Sources of nuclear danger

The United States, Russia, France and the UK keep in total around 1,800 warheads on high alert, ready to be launched at a moment’s notice.²⁵ Moreover, nuclear weapons are considered suitable and acceptable for a spectrum of missions besides deterring a nuclear strike; particularly, in the case of Russia, Pakistan and, most likely, North Korea, nuclear weapons are seen as legitimate means to deter and counter conventional aggression.

Launch-on-warning postures

The launch-ready status of the US, Russia, France and UK nuclear forces has its origins in the East-West struggle of the Cold War, and the continued requirement of an assured second strike capability. Despite the 2010 New START agreement by Washington and Moscow to reduce the number of their deployed warheads to 1,550 on each side by 2018, both sides have kept their launch-on-warning (LOW) postures off the negotiating table; around half of their strategic warheads can be used in a matter of minutes after a decision is made.²⁶ French and British nuclear weapons are capable of an early launch, though at a lower alert level than Russian and American forces.²⁷ This poses a greater risk of nuclear launch by accident or in response to a false alarm caused by human or technical error, and opens up vulnerabilities saboteurs and terrorists could exploit.²⁸ One way or another, LOW has played a central role in documented cases of nuclear scares.²⁹ The problems stemming from LOW featured prominently in discussions both at the 2015 NPT RevCon and during the first session of the 2016 OEWG.³⁰

23 This is explored significantly in work done by Ward Wilson at BASIC. See: Wilson 2013

24 Ritchie 2014, pp. 608609

25 Kristensen and Norris 2016

26 Blair *et al.* 2010, pp. 9

27 Kristensen and McKinzie 2013

28 *Ibid*, pp. 10, 13

29 Lewis *et al.* 2014, 28

30 Rauf 2016, pp. 79

LOW perpetuates mutual dependency on nuclear weapons and heightens their salience as both offensive and defensive tools. On the one hand, it ensures that the less survivable nuclear forces – normally land-based missiles – are not lost to a surprise attack and remain a second-strike option. On the other hand, retaining a first-strike, pre-emptive capability also facilitates deliberate risk-taking and nuclear blackmail, using the fear of escalation and miscalculation as a coercive tool to pressurise opponents.³¹ This dynamic was seen at play, for example, during the 1962 Cuban missile crisis.³² It also lies behind Russia's nuclear sabre-rattling in the context of the conflict in Ukraine, when President Vladimir Putin entertained the possibility of putting Russia's nuclear forces on alert during the takeover of Crimea, and stated 'it's best not to mess with' Russia 'one of the leading nuclear powers' when acting in eastern Ukraine in August 2014.³³ Therefore, LOW pushes nuclear weapons to the fore of international politics.

Nuclear warfighting

Nuclear warfighting relates to the preparation for nuclear exchange beyond the deterrence of nuclear attack, involving doctrinal concepts, military planning and associated procurement policies. Paradoxically, the end of the Cold War and relaxation in the tension between the United States and Russia opened the door for planners to contemplate the 'actual combat employment of nuclear weapons to perform various military missions.'³⁴ This manifested in George W. Bush's 2001 Nuclear Posture Review and in calls for the development, as part of the US counter-proliferation policy, of nuclear weapons against deeply buried and hardened targets connected to WMD capabilities, but these plans were eventually abandoned.³⁵

On the Russian side, nuclear warfighting is mostly associated with deterrence against a conventional attack from vastly superior NATO forces, mirroring NATO's own doctrine during the Cold War. In keeping with a policy first initiated in 1993, Russia's 2014 military doctrine reserves the right to use nuclear weapons if attacked with other WMDs or 'in case of an aggression against her with conventional weapons that would put in danger the very existence of the state.'³⁶ This first use of nuclear weapons has been further operationalised by Russian strategists through the concept of the 'de-escalatory' use of nuclear weapons.³⁷ If facing conventional defeat, Russia believes it could use a small number of low-yield tactical nuclear weapons (TNWs) against opposing military forces in a manner which, while stopping short of triggering a nuclear response, would force an end to the confrontation on terms favourable to the Kremlin.

Threatening such an attack, Russia expects to deter an intervention by European governments and Washington in situations where their interests are perceived as being comparatively less important than those of Moscow. Russian strategists believe that, in such situations, the asymmetry of interest and resolve would induce risk-averse behaviour in the enemy. Of course, this is a very high-risk calculus, and a de-escalatory strike could easily simply manifest as the first strike of an all-out nuclear exchange.

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31 Blair 2014, pp. 56

32 Rauf 2016, p. 7

33 Ukraine conflict: Putin 'was ready for nuclear alert', 2015; Anishchuk 2015; Sokov 2014a.

34 Arbatov 2008, p. 4

35 Miller 2002, pp. 45; Feiveson and Hogendoorn 2003, pp. 9394

36 Podvig 2014

37 Sokov 2014b

To put this concept into practice, Russia is updating some of its tactical nuclear warheads, which are estimated to number around 2,000 units.³⁸ These warheads are kept in central storage facilities and not mated to their delivery vehicles. These encompass a variety of short and longer-range systems, the latter category including the new Kalibr sea-launched cruise missile (SLCM) and the Kh-101 air-launched cruise missile (ALCM), both dual capable, able to carry either conventional or nuclear payloads.³⁹ Russia is also accused of violating the 1987 Intermediate-Range Nuclear Forces (INF) Treaty after testing what seemed to be a ground-launched cruise missile. Russia's alleged breach is consistent with a pattern of seeking capabilities to offset NATO's conventional advantage and compromises the future of the treaty since the United States might decide to terminate it in response.⁴⁰ Together with the improvement of its TNWs, Russia has conducted various military exercises combining conventional and nonstrategic nuclear weapons or dual-capable systems.⁴¹

Russia's notion of de-escalatory strikes seems to be circumscribed by its military doctrine to defensive actions, that is, situations where 'the very existence of the state is at stake'. However, some consider that Russia might also resort to limited strikes in an invasion of the Baltic states to secure some territorial gains by forcing NATO to accept a *fait accompli*. There is also the possibility that, as part of a NATO counter-offensive, Russia might fear its own territory and sovereignty to be in danger, especially if the battlefield expands to include areas deep within Russia.⁴²

38 Kristensen and Norris 2015a, p. 10

39 *Ibid.*, p. 11; Kistensen 2015a

40 Kristensen and Norris 2015a, p. 10; Fieldhouse 2016

41 Kulesa 2016, pp. 78, 42 - 44

42 Colby in Pomper et al. 2015, p. 18

43 Fisher 2016

44 Kroenig 2016, pp. 57

45 B61 bombs in Europe and the US Life Extension Program, 2016, p. 1

All this plays against the background of NATO and Russian military build-ups around Kaliningrad and in the broader region, which increases the risk of unintended conflict arising from miscalculation or accident.⁴³ Facing the possibility of war and a Russian resort to nuclear weapons, some Western strategists consider that the only way to prevent Moscow from launching a limited nuclear attack on NATO requires the threat to retaliate in kind, showing NATO can also control escalation and offset any advantages Russia might expect to gain from the early use of nuclear weapons.⁴⁴ Consequently, the United States is modernising its nuclear free-fall B61 bomb and developing a new nuclear air launched cruise missile, known so far as the Long Range Stand-Off weapon (LRSO).

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As a legacy of the Cold War, the United States forward deploys between 160 and 200 of its B61 bombs in Europe. They are scattered in bases in Germany, Belgium, the Netherlands, Italy and Turkey and will be used, except in the case of Turkey, as part of dual-key arrangements – in essence, at time of war the United States hands over the bombs to the host-nation, which then delivers them to the targets.⁴⁵ As part of a life extension programme, the existing models of this bomb are being rolled into one single model, the B61-12.⁴⁶ Like previous versions, this model will have variable yield, delivering a 0.3 to a 50 kiloton explosion, and will have increased accuracy and earth-penetrating capabilities.⁴⁷ It has been said that the B61-12 should be considered a new weapon, able to execute more missions and hold a wider range of targets at risk at lower yields. The belief that its use will have less collateral damage, by virtue of its accuracy and lower yield, could make the bomb appear more usable and therefore appropriate for a very high risk 'de-escalation' tactic.⁴⁸

46 *Ibid.*

47 Kristensen 2016a

48 Krepon and Kendall 2016

Beyond the deterrence rationale, the B61s could theoretically be used for a first strike, leading to the nuclearisation of a Russia-NATO conflict. Unlike strategic weapons, TNWs are deployed closer to the battlefield and are more vulnerable to pre-emptive attack. This creates a ‘use them or lose them’ situation.⁴⁹ Therefore, during a crisis the readiness level of TNWs is increased; in essence, the warheads are mated to delivery systems and uploaded to platforms and loose command and control arrangements based on the pre-delegation of launch authority to field commanders might be arranged. At the moment, NATO’s B61s are at a very low readiness level, deployed away from potential battlefields and their use is tightly politically controlled.⁵⁰ However, a continuous deterioration of the security situation in Europe could eventually lead to a decision to acquire the necessary capabilities to relocate the bombs further east in order to enable their quick release and reduce operational difficulties in combat operations. The result of such changes in posture would be that, in a crisis situation, parallel moves by NATO and Russia to alert their TNWs would incentivise early use by both sides.

Prominent US military officials see in the LRSO a tool to destroy advanced anti-access area-denial systems (A2AD), be those air defences, land attack missiles or coastal defences.

The earth-penetration capabilities of the B61-12 fit into the Bush Administration’s idea of using nuclear bunker busters against the nascent nuclear arsenals of potential proliferators, like Iran, or new nuclear states, like North Korea.⁵¹ Given that capabilities often exert influence over doctrine and posture, competitors will account for the B61-12 capabilities and assume first-use intent.⁵² Therefore, developing bunker-buster capabilities will trigger strategic response from competitors, whether this or future US administrations have an explicit policy of first use as bunker buster or not.

The thinking behind the LRSO mirrors certain aspects of the discussion around the B61-12. As a replacement of the current ALCM (AGM-86B), the LRSO is presented by its advocates as a way to retain a functional bomber-leg of its nuclear triad in the face of advanced Russian air-defence systems that may detect and destroy stealth bombers.⁵³ The LRSO could also be used in tactical mode to deter Russian limited nuclear escalation or to engage in nuclear warfighting.⁵⁴ Prominent US military officials see in the LRSO a tool to destroy advanced anti-access area-denial systems (A2AD), be those air defences, land attack missiles or coastal defences.⁵⁵ Therefore, ‘since A2AD systems would likely be some of the first targets to be attacked in a war, a nuclear LRSO anti-A2AD mission appears to move nuclear use to the forefront of a conflict instead of keeping nuclear weapons in the background as a last resort where they belong.’⁵⁶

49 Sokov 1997, p. 21

50 Coletta 2013, p. 78; Nichols 2014

51 Nuclear Posture Review, 2002

52 Miller 2002, p. 4

53 Scher 2015, p.13

54 Kristensen 2014; Reif 2016

55 Kristensen 2016b

56 *Ibid.*

What is NFU and why does it matter?

This section explains what NFU is, presents Chinese nuclear policy as an exemplary case, considers it in light of the sources of nuclear danger mentioned above and assesses the limits and criticism of NFU advocacy.

Beyond declaratory policy

Under NFU, nuclear weapons are seen exclusively as a means to deter nuclear attacks or explicit threats, and would only be released in a second strike. The credibility of a NFU pledge rests upon policies, preparation and capabilities.⁵⁷ NFU rules out any nuclear weapons policy not in line with a 'purely second strike retaliatory deterrent strategy and forces'.⁵⁸ After its enunciation by the political leadership of a state, NFU 'provide[s] intellectual background for the classified guidance given to military leaders, identifying the geopolitical context and assumptions that they should use when developing operational war plans and weapons-alert procedures, and, more indirectly, when developing future procurement requirements'.⁵⁹ In other words, NFU leads to a practical and visible shaping of nuclear doctrine, posture, planning, training and procurement, determining or limiting the physical qualities of nuclear forces in a way that renders them unsuitable for missions other than deterrence of nuclear attacks.⁶⁰

The only campaign described in Chinese doctrinal writings is the 'nuclear counterstrike campaign', which plans for the use of nuclear forces only after nuclear warheads have detonated on Chinese soil.

A comparison between the 1982 Soviet NFU pledge and Chinese nuclear policy since the 1960s illustrates the varying degrees of credibility around NFU. Irrespective of whether Leonid Brezhnev and the subsequent Soviet leaders were themselves sincere about their intention not to use nuclear weapons first in a conflict, the USSR did not change or limit in any way its nuclear posture and war plans, which still enabled the option for first use of nuclear weapons at the beginning of hostilities.⁶¹ Because of that, the Soviet NFU pledge never appeared credible to Western governments.⁶²

This notably differs from Chinese NFU.

Since acquiring nuclear weapons in 1964, China has maintained that it would 'not be the first to use nuclear weapons at any time or under any circumstances'.⁶³ Chairman Mao Zedong did not assign the same

importance to nuclear weapons as other armed states; he saw them as a 'paper tiger'. As he stated after China's first nuclear test: 'We don't wish to have too many atomic bombs ourselves. What would we do with so many? To have a few is just fine'.⁶⁴ His views on the limited utility of nuclear weapons were shared by his contemporaries and inherited by successive political leaders, including President Xi Jinping.⁶⁵ The leadership's beliefs have effectively constrained military planning on nuclear weapons: the only campaign described in Chinese doctrinal writings is the 'nuclear counterstrike campaign', which plans for the use of nuclear forces only after nuclear warheads have detonated on Chinese soil.⁶⁶

57 Tertrais 2009, pp. 10, 11

58 Arbatov 2008, p.7 [emphasis added]

59 Sagan 2009, p. 165

60 *Ibid.*, p. 177

61 Feiveson and Hogedorn 2003, p. 92

62 Tertrais 2009, p. 23

63 Berry *et al.* 2010, pp. 6869

64 Zhang 2013

65 Cunningham and Fravel 2015, p. 12

66 *Ibid.*, p. 13

The structure and readiness of Chinese nuclear forces is consistent with this mission: the country possesses a very small number of ICBMs and keeps its warheads in separate storage;⁶⁷ it lacks an early-warning system, so it bases its retaliatory option on mobility and a network of tunnels built deeply underground;⁶⁸ and whether it has operational TNWs is uncertain, but unlikely.⁶⁹ For China the key to deterrence is force survivability, not options for quick launch: if the country were to be attacked with nuclear weapons, sooner or later the surviving nuclear forces would be readied and used. Therefore, no adversary could be certain of taking out all of China's nuclear forces in a first strike, and this uncertainty upholds strategic deterrence.

Although China has recently developed submarines (SSBNs) with ballistic missiles (SLBMs) which potentially could sustain an operational sea-based counterstrike capability (in which warheads would have to be mated with their missiles), no Chinese SSBN has ever been on deterrent patrol.⁷⁰ A possible explanation is that if Chinese warheads were to be continuously deployed at sea, this would be a substantial deviation from the way China has traditionally implemented its NFU policy. Additionally, China still lags behind in the sort of underwater stealth technology which would allow it to field a submarine force capable of eluding US and Japanese anti-submarine capabilities.⁷¹

There is an ongoing debate in China as to whether it should put its nuclear forces on high alert, and there are indications there could soon be a shift in posture.⁷² The Chinese military increasingly fears that the combination of US missile defence systems at home and in the Asia-Pacific region, together with the accuracy of US nuclear forces and improvements in targeting intelligence, might give confidence to some in Washington that they could launch a disarming first strike able to destroy most of Chinese ICBMs and then intercept those few missiles launched in retaliation.⁷³ LOW would allow China's 'lean and effective' nuclear force to hedge against this risk.

67 *Ibid.*

68 Zhang 2012,

69 Kulacki 2011, p.2; Kristensen and Norris 2015b, p. 2, 4

70 Kristensen and Norris 2015b, p. 6

However, Chinese strategists, engineers and scientists outside the military, the people with whom the political leadership has traditionally devised the country's nuclear policy, contend that LOW would not be compatible with NFU, since it would make the nuclear force susceptible of being launched in an intended or unintended first strike.⁷⁴

NFU and its potential for change

Irrespective of any speculation around a future change in Chinese nuclear policy, the discussion about alert levels gives weight to the case for NFU as a way of reducing the risk of accidental, unauthorised, mistaken or pre-emptive use. NFU should also protect against the temptation to prepare for nuclear warfighting, 'making absolute the boundary between conventional and nuclear weapons', as illustrated by the lack of interest in TNWs in China.⁷⁵ Beyond the reduction of nuclear risk, NFU doctrines and the measures to implement it are 'an important means of "de-coupling" nuclear weapons from the broad, day-to-day calculus of national security by demonstrating that NWS can learn to live without nuclear weapons on high alert, or even operationally deployed on a permanent basis, as a precursor to learning to live without nuclear weapons at all'.⁷⁶

A NFU pledge could be withdrawn as a result of changes in the security environment.⁷⁷ However, this does not make NFU, whether adopted unilaterally or as part of an international agreement, 'more fragile than any other arms-control regime'.⁷⁸ The unilateral abrogation of the 1972 Anti-Ballistic Missile Treaty by the United States in 2002 shows how even commitments under a treaty considered a 'cornerstone of strategic stability' are vulnerable.⁷⁹

71 Cunningham and Fravel 2015, p. 29

72 Kramer 2015; Kulacki 2016, p. 45

73 *Ibid* p. 23

74 Kulacki 2016, p. 6

75 Ullman 1972, p. 673, 681; Arbatov 2008, p. 11, 13

76 Ritchie 2014, p. 614

77 Sagan 2009, pp. 177-178

78 Ullman 1972, p. 681

79 Boese 2002

In fact, it could be argued that mutual NFU agreements could generate commitments which might become partially self-enforced insofar as NFU and the policies whereby the pledge is materialised have already produced cooperative dynamics.⁸⁰ If the NFU policy and transparent practice of a state leads to changes in the policies of others, such as reductions in alert levels or the adoption of a parallel NFU pledge, defection can be expected to provoke a similar defection, reducing the security for all. A defector is unlikely to achieve strategic surprise, since changes away from NFU to enable pre-emption or nuclear warfighting would be noticed. For example, the adoption of LOW by China would require an early-warning system, which is something difficult to hide.⁸¹ Similarly, a hypothetical Russo-American NFU agreement could involve verification mechanisms on force de-alerting and tactical nuclear weapons withdrawal, so detection of noncompliance would be possible.⁸²

Some states would be more resistant than others to adopting NFU or any of the associated measures. Russia is very unlikely to consider NFU before its concerns about ballistic missile defences are addressed.⁸³ Even after that it would still keep its doctrine of de-escalatory strikes for as long as it perceives a conventional imbalance. Absent a dramatic improvement of the Russian armed forces relative to NATO, this imbalance cannot be solved without addressing the issue of NATO enlargement and rearranging the regime of conventional arms control in Europe.⁸⁴

80 Ullman 1972, p. 680

81 Kulacki 2016, p. 4

82 Arbatov 2008, p. 13, 14

83 *Ibid.*, pp. 1112

84 *Ibid.*, p. 9

85 Panda 2015, Khan 2015, p. 165

86 Blair 2014, p. 4

87 Joshi 2015

Similarly, Pakistan sees its nuclear forces, especially its TNWs, as a compensation for its conventional inferiority vis-à-vis India, so it is also unlikely to consider NFU without some compensatory measures that give assurance.⁸⁵ It should be noted, however, that both India and Pakistan do not have their nuclear forces on alert.⁸⁶ On its part, India adopted a formal NFU doctrine after its 1998 nuclear test, but in 2003 stated it could respond to a major chemical or biological attack with nuclear weapons, mirroring the US position.⁸⁷ Despite this reservation, India's nuclear policy maintains the traits of NFU, including reluctance to develop TNWs.⁸⁸

Western nuclear powers have in the past been more resistant to NFU, but may become more open to explore policies consistent with it.

Although regarding de-alerting the US probably sees itself locked to Russia's posture because of the way strategic stability is linked to current alert levels under New

START, France and the UK have more leeway.⁸⁹ For example, the UK has an

ongoing debate about the necessity to maintain Continuous at Sea Deterrence (CASD), and the promise of a formal debate on the posture later this year in Parliament.⁹⁰

More importantly, the gradual emergence of doctrines in support of nuclear warfighting in Washington and the investment in related capabilities provides an important focal point for NFU advocacy in the United States. The LRSO and the B61-12 programmes have been criticised both on financial and security grounds.⁹¹ NFU advocacy could become highly relevant to the debate over nuclear LRSO as a weapon to destroy A2AD systems and highlight the pre-emption incentives inherent in the deployment of the B61-12 in Europe.

88 Biswas 2015

89 Blair *et al.* 2010, pp. 10, 13

90 Ritchie and Ingram 2010

91 Korb and Mount 2016, p. 2728

The gradual emergence of doctrines in support of nuclear warfighting in Washington and the investment in related capabilities provides an important focal point for NFU advocacy in the United States.

NFU and the humanitarian initiative

Ban advocates are aware that a new legal instrument will not by itself achieve the elimination of nuclear weapons. They believe that the ban 'should be seen as one step in the process' and working towards it 'would not preclude work continuing on other aspects of the established disarmament and arms control agenda'.⁹² Admittedly, the push for a ban was born out of frustration with the failure to achieve any progress on Action 5 of the 2010 NPT RevCon Final Document, the so called step-by-step approach to nuclear disarmament.⁹³ But for any impact the ban would depend upon Action 5 or similar step-by-step frameworks. They are complementary.⁹⁴

Action 5 requires states 'to further diminish the role and significance of nuclear weapons in all military and security concepts, doctrines and policies', as well as to 'discuss policies that could prevent the use of nuclear weapons and eventually lead to their elimination [and] lessen the danger of nuclear war'.⁹⁵ This must be done in regards to 'all nuclear weapons regardless of their type or their location'.⁹⁶ NFU sits well with these imperatives. Nevertheless, some will perhaps fear that a focus on the use of nuclear weapons, instead of on possession, might 'entrench the legitimacy of indefinite possession and further remove political pressure for disarmament' or that 'a prohibition on use also risks being co-opted as an end in itself, rather than serving as a means to an end'.⁹⁷

This fear seems perverse. The humanitarian initiative and the ban are meant to create a 'context of renewed engagement on nuclear disarmament', and in this context there should be a 'rethinking [of] the doctrine of first use ... as part of the fabric of nuclear disarmament'.⁹⁸ No-one suggested in the 1980s that the withdrawal of intermediate nuclear forces (INF) in Europe could potentially reinforce the legitimacy of other types of nuclear weapons. Reduced pressures for nuclear disarmament in the early 1990s were entirely down to the changed strategic relationship, not the success specifically of the INF agreement.⁹⁹ A mutual NFU would be a valuable interim step towards nuclear abolition and should be communicated as such.

Shifting the burden of proof

The humanitarian initiative could embrace NFU advocacy as a part of its activities in pursuit of nuclear disarmament. NFU would reduce nuclear salience and associated dangers, which directly addresses humanitarian concerns.

Whilst humanitarian considerations have been absent from the traditional discourse around NFU up to now, a humanitarian reframing of the issue is possible. The humanitarian approach could be transferred from anti-personnel mine to cluster munitions, and from conventional weapons to nuclear ones, because of the possibility of a 'linkage of two or more ideologically congruent but structurally unconnected frames regarding a particular interest or problem'.¹⁰⁰

Ban advocates are aware that a new legal instrument will not by itself achieve the elimination of nuclear weapons.

92 Banning nuclear weapons: responses to ten criticisms, 2013, p. 2, 4

93 Gandenberger *et al.*, p. 2247

94 Sauer and Pretorius 2014, p. 1718

95 Final Document 2010, p. 21

96 *Ibid.*

97 Acheson *et al.* 2014, p. 14

98 Berry *et al.*, p. 53

99 Wittner 2010, p.9

100 Borrie 2014, p. 636

Since NFU advocacy is nested in the wider framework of nuclear disarmament and motivated by the same humanitarian concerns underpinning the advocacy of the ban, a humanitarian reframing of NFU is possible. The humanitarian reframing is also supported by the fact that ‘most states claim to adhere to the notion that although civilian suffering is probably inevitable in armed conflict, users of military force should not deploy weapons that put these people at particular, foreseeable risk.’¹⁰¹ US Senator Dianne Feinstein illustrated this in her recent intervention in the Senate by saying that the plans to use LRSO to attack A2AD, ‘ratchets up warfare and ratchets up deaths and I thought there was a certain morality that we should have with respect to these weapons.’¹⁰²

NFU advocacy under humanitarian lenses would involve shifting the burden of proof so that those we want to use a certain weapon because of its apparent military utility are the ones expected to make a convincing case about the humanitarian acceptability of its employment.¹⁰³ In its advisory opinion on the legality of the threat or use of nuclear weapons, the ICJ found it could not reach ‘a definitive conclusion as to the legality or illegality of the use of nuclear weapons by a State in an extreme circumstance of self-defence, in which its very survival would be at stake.’¹⁰⁴ The court was unable to agree whether there could in principle be a most extreme case for nuclear use that might meet the proportionality principle, which ‘advances the notion that an attack that would cause collateral destruction (civilian casualties and injuries and damage to civilian objects) disproportionate to the anticipated military advantage is prohibited.’¹⁰⁵

Some consider that nuclear weapons, if configured to allow for small and surgical nuclear detonations with the aim of limiting collateral damage, could also be legally used in conflict.

Given that nuclear weapons are seen as the ultimate guarantee of state survival, both by deterring a nuclear attack and by allowing a pre-emptive strike which would prevent it, some would argue that in those situations the threat and use of nuclear weapons would be legal.¹⁰⁶ Moreover, beyond nuclear deterrence or pre-emption against imminent and certain attack, some also consider that nuclear weapons, if configured to allow for small and surgical nuclear detonations with the aim of limiting collateral damage, could also be legally used in conflict.¹⁰⁷ These are controversial and highly contested views, challenged amongst others by the ICRC, which stated, in line with the opinion of other international law practitioners, that it ‘finds it difficult to envisage how any use of nuclear weapons could be compatible with the rules of international humanitarian law, in particular the rules of distinction, precaution and proportionality.’¹⁰⁸

Shifting the burden of proof under NFU advocacy builds precisely on the uncertainty around the proportionality principle. Both for analytical and advocacy purposes, discussion of NFU should keep separate tracks to address specifically the two groups of policies related to the implementation of NFU: de-alerting and the prevention of nuclear warfighting. As suggested in the previous sections, while LOW creates the risk of pre-emption by miscalculation or accidental launch of a first strike, the element most vulnerable to pressure in nuclear doctrines and postures is nuclear warfighting, especially among the western nuclear powers. The United States, with a clear superiority in conventional capabilities, could adopt NFU and abandon nuclear warfighting policies unilaterally, without the need to wait for Russia.

101 *Ibid.*, p. 639

102 Senate Appropriations Committee hearing on 16th March 2016, Kristensen 2016b

103 Borrie *et al.* 2009, p. 20

104 Legality of the threat or use of nuclear weapons, 1996, p. 263

105 Sauer and Pretorius 2014, p. 4

106 Anderson 2016

107 Krepon 2016

108 Sauer and Pretorius 2014, p. 6

Therefore, in the light of the growing international diplomatic pressures on nuclear doctrines created by the humanitarian initiative, NFU advocates could focus on the question of whether any first use of nuclear weapons could exist within the bounds of international humanitarian law, especially for a state with a multitude of alternative, non-nuclear capabilities.

Exotic scenarios in which there would be little collateral damage from nuclear use are 'unlikely to present themselves in the course of reasonably foreseeable armed conflicts.'¹⁰⁹ The discussion must be 'realistic in view of current nuclear deployment and targeting doctrines and the sheer destructiveness of nuclear weapons.'¹¹⁰ It is unrealistic to suggest, for example, that the use of a nuclear LRSO against a Russian S400 unit deployed in Kaliningrad for air defence would not have dire consequences for the population living in the tiny enclave, let alone for the likely escalation it would trigger.

The debate around NFU addresses questions which directly pertain to the politics and policies of military alliances, particularly NATO, in a way which fits within the overall strategy behind the proposal for a ban.

109 Joyner 2016

110 Borrie 2014, p. 635

111 Miller 2002, p. 14

112 Acheson *et al.* 2014, p 26.

113 Williams 2014, p. 5; Meier, 2016

114 Graham and Mendelson 1999, p. 9; Sagan 2009, 169

115 NATO 2010, p. 23

116 Kristensen 2015b; US Department of Defense 2013, p. 5

Conclusion

NFU advocacy from a humanitarian standpoint provides a framework and series of goals that are relevant to curb some of the most worrying developments regarding nuclear weapons. In doing so, it promotes measures which will progressively reduce the salience of nuclear arsenals and facilitate their eventual elimination by showing it is possible to live without them. Certainly, 'once nuclear weapons have been restricted to the narrow purpose of neutralizing the nuclear weapons of others, a familiar logic comes into play: if the only purpose for nuclear weapons is deterrence, then if no one has them no one needs them.'¹¹¹

Importantly, the debate around NFU addresses questions which directly pertain to the politics and policies of military alliances, particularly NATO, in a way which fits within the overall strategy behind the proposal for a ban.¹¹² A focus on doctrines and posture might allow states that are reluctant to support a ban on nuclear weapons, like Germany, to continue engagement with the humanitarian initiative and directly contribute towards its goals.¹¹³ In the context of a renewed push towards disarmament on humanitarian grounds, the question of NFU would enable NATO states to reconsider their continued long-term reliance on nuclear weapons given NATO's unchallenged conventional superiority and the stated desire to increase the credibility of conventional deterrence.¹¹⁴ NATO is also committed to seeking 'a safer world for all and to create the conditions for a world without nuclear weapons.'¹¹⁵ NFU would disincentivise investment and planning around first-strike weapons such as the B61s and the LRSO, and this is in line with official NATO and US policy.¹¹⁶ Most importantly, a credible NFU pledge would go to the heart of the narrative within Russia of an aggressive, expansionary NATO.

Ultimately, NFU advocacy is a way of directly involving nuclear-armed states and nuclear-dependent NNWS states in an inclusive way within the humanitarian initiative. Advancing nuclear disarmament requires sensitivity to the concerns of those critical to the process.

This is the case in international institutional settings, and holds true for domestic dialogue.¹¹⁷

There have been voices in the military and strategic community raising against nuclear weapons and calling for actions to de-emphasise their role. As early as 1948, US Army General Omar Bradley warned that nuclear weapons were a 'monstrous' technology.¹¹⁸ In 1979 Lord Mountbatten, who served in the British Royal Navy, claimed that the arms race had 'no military purpose' and that 'wars cannot be fought with nuclear weapons'.¹¹⁹ In the post-Cold War era, General Lee Butler, a former commander-in-chief of the US Strategic Air Command and member of the Canberra Commission on nuclear disarmament (1995-1996), claimed that 'present policies, plans and postures governing nuclear weapons make us prisoner still to an age of intolerable danger'.¹²⁰ Butler's participation in the Canberra Commission was seen as a way to facilitate the inclusion of its findings in arms control and disarmament debates in Washington and other western capitals.¹²¹ Also, it should be noted that many in the military establishments are painfully aware of the investment trade-off between conventional and nuclear forces, and could shed light on the potential humanitarian implications of nuclear warfighting.¹²²

Professor Lawrence Freedman, a supporter of nuclear deterrence, sees the strengthening of the nuclear taboo as a cornerstone of international security.¹²³ TNWs and nuclear warfighting are highly controversial within the strategic communities.¹²⁴ NFU advocacy could be seen as coming from within a realist tradition.

At the height of the Cold War the eminent British military historian Michael E. Howard wrote a cautionary note on nuclear warfighting, its dire consequences and how military planning tended to be divorced from political reality.

Even though he was focusing on strategic nuclear weapons, not tactical ones, his words are worth recalling:

*When I read the flood of scenarios in strategic journals about first-strike capabilities, counterforce or countervailing strategies, flexible response, escalation dominance and the rest of the postulates of nuclear theology, I ask myself in bewilderment: this war they are describing, what is it about?*¹²⁵

He also adds that

*[engaging in nuclear] 'warfighting' would be to enter the realm of the unknown and the unknowable, and what little we do know about it is appalling.*¹²⁶

Successful strategies will 'encourage convergence' and avoid polarisation.¹²⁷ NFU advocacy has a particular potential to achieve this in the current climate. It could provide a new point of engagement and foster discussions between different actors. It might or might not lead to quick change, but as Lawrence S. Wittner, a historian of peace movements and activist, would put it:

*It also is necessary to integrate incremental advances into [a] broad, inspiring framework. Without working on incremental changes, social movements become cut off from the reality of everyday life and strike observers as demanding pie in the sky. Not surprisingly, effective social movements have understood the utility of linking immediate demands to a long-range, visionary goal. In this model, the visionary goal generates the inspiration, while the short-term gains provide a sense of accomplishment to activists along the way. Admittedly, short-term gains sometimes lead to complacency. But this is an unavoidable price of success.*¹²⁸

A nuclear weapon free world is the visionary goal; an international NFU, one realistic step that does not demand a revolution of thinking.

117 Potter 2016, p. 172

118 Berry *et al.* 2010, p. 47

119 *Ibid.*

120 *Ibid.*, p. 48

121 Kamimura 2004, p. 13

122 *Ibid.*, p. 49

123 Friedman 2013, p. 97

124 Krepon 2012

125 Howard 1981, p. 9

126 *Ibid.*

127 Borrie *et al.* 2009, 21

128 Wittner 2010, 11

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