

# INTERNATIONALE SICHERHEIT

Herausgegeben von Heinz Gärtner

Heinz Gärtner (ed.)

## Obama and the Bomb

The Vision of a World Free of Nuclear Weapons

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## **A World Free of Nuclear Weapons?**

Barack Obama spoke of a world free of nuclear weapons in his April 2009 speech in Prague. This book places his goal of disarmament into the context of the non-proliferation regime, and discusses how non-proliferation and disarmament are linked. Obama also stated that the United States would maintain nuclear deterrence during the disarmament process.

After ten years of stagnation, the Obama administration has adopted a new approach to arms control and non-proliferation. The Bush administration concentrated solely on counter-proliferation: a policy that included the use of force and ranged from interception of suspicious ships to regime change. President Obama, in stark contrast, stresses both non-proliferation and disarmament in the broader context of diplomacy and negotiation. The change is profound. President Bush' approach was selective; President Obama's approach is comprehensive. This has put the Non-Proliferation Treaty (NPT) on a broader basis.

After the review conferences in 2000 and 2005, the Non-aligned States, including Iran, complained that the nuclear-weapon states were creating a system of "haves" and "have-nots". The nuclear weapon states were ignoring their commitment, enshrined in Article VI of the NPT,<sup>2</sup> to "pursue negotiations in good faith" that would ultimately lead at "an early date" to "a treaty on general and complete disarmament." This is now changing. Disarmament of the nuclear powers has come to the fore. Hence, the review conference in May 2010 ended with a consensus document.

### **The non-proliferation regime: Obama changes course**

The Nuclear Non-Proliferation Treaty (NPT) consists of three pillars:

1. Non-proliferation of nuclear weapons: nuclear weapon states should not transfer nuclear weapons to non-nuclear weapon states, and non-nuclear weapon states should not develop or accept them. (Art. I, II)

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1 The editor is grateful to Ewelina Hilger und Daniel Nelson for their helpful comments and to Andrea Schmidtberger for her assistance.

2 Treaty on the Non-Proliferation of Nuclear Weapons (Non-Proliferation Treaty, NPT), signed on July 1, 1968, and entered into force on March 5, 1970.

2. The peaceful use of nuclear energy should not be prevented but supported. (Art. IV)
3. Disarmament: nuclear weapon states commit themselves to negotiate “in good faith” to disarm. (Art. VI)

To sum up: States with nuclear weapons must move toward disarmament; states without nuclear weapons must forgo them; and all states have an “inalienable right” to peaceful nuclear energy. However, there have always been tensions between states that possess nuclear weapons and those that do not, between the haves and the have-nots.

President George W. Bush practically ignored disarmament (Art. VI) and instead concentrated on non-proliferation. Although he started some useful counter-proliferation initiatives, they all involve the use of force! For example, the Proliferation Security Initiative (PSI) comprises bilateral agreements on the interdiction of suspicious cargo on the high seas, and United Nations Security Council Resolution 1540 prohibits the transfer of weapons of mass destruction (WMD), related materials and delivery systems to non-state actors (who are terrorists).

President Barack Obama changed course. In his speech in Prague in April 2009, he not only spoke of “a world free of nuclear weapons,” but also – and even more important – of disarmament of the nuclear weapon states. It was not a general declaration but Obama suggested concrete steps: a follow-up treaty to the Strategic Arms Reduction Talks (START), ratification of the Comprehensive Nuclear Test Ban Treaty (CTBT), a Fissile Material Cut-off Treaty (FMCT), and a fuel bank to secure vulnerable and loose nuclear material.

Later in 2009, in Ankara and Cairo, Obama again stressed the other two pillars of the non-proliferation regime: the right to peaceful nuclear energy, and he reminded Iran of its non-proliferation commitments.

Obama also scrapped the strategic missile defense system in Poland and the Czech Republic initiated by the Bush administration. He suggested moving the system closer to Iran to intercept its medium-range missiles. He also hoped to gain Russia’s opposition to Iran’s nuclear program. What the United States does not admit is that this step made the START follow-up treaty easier to achieve. It was a smart move by Obama to give up a non-working system in exchange for potential Russian concessions. However, for the United States, officially there is no link between missile defense and START, between defensive and offensive systems. Since President Obama and Russian President Dmitry Medvedev signed the New START Treaty in April 2010, the U.S. administration has repeatedly stressed that the treaty does not limit or constrain U.S. options for deploying missile defenses.

## **Non-proliferation and disarmament**

How does non-proliferation relate to disarmament? It is more complex than one would think. The simplest link is: fewer nukes, less proliferation. Also, if the nuclear weapon states do not disarm, there is no incentive for emerging nuclear powers to give up their ambitions.

Opponents of disarmament argue that there is no link. In their view, if the U.S. disarms, Iran and North Korea will not follow. However, there have been cases of unilateral nuclear disarmament: South Africa, Ukraine, Belarus, Kazakhstan, and Libya. Opponents call these special cases. Yet 189 states signed the NPT, including several that had nuclear weapon programs, like Germany, Sweden, Brasil, South Korea, and Taiwan.

The strongest link between non-proliferation and disarmament is indirect and long term. It is a change of atmosphere. START, FMCT, CTBT, a fuel bank, and dismantlement of warheads are only pieces in this puzzle.

Disarmament should demonstrate that nuclear weapons do not enhance power, do not bring prestige and higher status, and are not an insurance policy.

## **Disarmament and arms control**

In Prague, Obama also said that the United States will retain a deterrent capability as long as nuclear weapons exist. What does nuclear deterrence mean? It is the capability to retaliate if one is attacked or threatened by attack by a nuclear weapon power.

So how, then, does disarmament relate to deterrence? How can a state abolish nuclear weapons yet retain and modernize them at the same time?

Opponents of disarmament, again, argue that it is impossible to have both disarmament and deterrence, that you can't have the cake and eat it too. Deterrence would require specific targeting. Push and pull factors determine nuclear planning. This would not be changed by political decisions. This observation is based on the Nuclear Posture Review (NPR) of George W. Bush that was capabilities-based rather than threat-based, which means that it was not based on a threat analysis but on all kind of contingencies and cases. Targeting in this type of nuclear planning is a driving force for modernization of nuclear weapons. Some say targeting and modernization also require testing; they also oppose ratification of the CTBT. Obama's NPR does not follow this line. It does not take into consideration all kind of contingencies. It rejects the notion that the U.S. could effectively prevent proliferation by maintaining a robust nuclear arsenal and a

credible threat to use nuclear weapons in a variety of situations. Instead, the NPR maintains strategic deterrence at reduced nuclear force levels. The “fundamental role” of nuclear weapons is not to be war-fighting weapons but to deter a nuclear attack as long as nuclear weapons exist.

In the book the authors discuss several areas of arms control and disarmament. These are steps towards a world free of nuclear weapons that do not endanger nuclear deterrence on a lower level.

1. Nuclear weapons should be seen as strictly for retaliation against a nuclear attack. They are not necessary for any offensive or preventive purpose, nor are they useful for defense, except as a deterrent to an intentional nuclear attack. The notion of nuclear weapons as war-fighting weapons that are essentially no different than conventional weapons should be abandoned. Nuclear weapons should be retained only for a second strike. A first step in this direction is the NPR’s declaration that the United States will not use or threaten to use nuclear weapons against non-nuclear weapons states that are party to the NPT and in compliance with their nuclear non-proliferation obligations. However, the NPR shied away from the political and diplomatic consequences associated with a “no-first-use” pledge.
2. The U.S. Senate should ratify the Comprehensive Nuclear Test Ban Treaty (CTBT). This would be a barrier to new nuclear warheads, and it would send a strong signal to other Annex II states to do the same. The NPR pledges that the United States will not develop new nuclear warheads. Life Extension Programs (LEPs) will use only nuclear components based on previously tested designs, and will not support new military missions or provide for new military capabilities. This includes: refurbishment of existing warheads, reuse of nuclear components from different warheads, and replacement of nuclear components.
3. The United States and the Russian Federation signed the New START treaty; ratification followed. This is a good start for the nuclear weapon states to demonstrate their willingness to disarm and meet their commitments in the NPT. The treaty limits the number of deployed strategic nuclear weapons to 1,550 and its delivery systems to 800. Some experts say that about 500 strategic nuclear weapons would constitute sufficient deterrence, however.
4. Nuclear weapon states should commit themselves to “negative security assurances.” This is the guarantee not to use nuclear weapons against non-nuclear weapon states. According to the NPR, the U.S. is not prepared at the present time to adopt a universal policy that deterring nuclear attack is the “sole purpose” of nuclear weapons, but will work to establish conditions under which such a policy could be safely adopted.

5. Negative security assurances can be supported by nuclear-weapon-free zones that would create vast areas free of targets for nuclear weapons. The Final Document of the 2010 Review Conference of the Parties to the NPT of May 2010 establishes such a link. It calls on the nuclear weapon states to bring into effect the negative security assurances provided by nuclear-weapon-free-zone treaties and their protocols (Art. VI/106, C/ii/9).
6. For the United States, the next step should be to adopt a policy of “no first use” of nuclear weapons. Both the Republican Party and the Pentagon strongly resisted including “no first use” in the NPR. A weaker version has been enshrined instead: The document stresses the “fundamental role” of nuclear weapons for deterrence, which does not exclude a preemptive strike against nuclear installations. It foregoes the formula “primary use,” however, which would not change anything because nuclear weapons still could be used against chemical or biological weapons. The 2010 NPR reserves the right to make any adjustment in the assurance that may be warranted by the evolution and proliferation of the biological weapons threat and U.S. capacities to counter that threat. This appears to be an unnecessary exception since the origin of a biological weapons attack is hard to detect. Moreover, biological weapons would not be effective military or terrorist tools because they would be too slow for a successful attack.
7. If the United States is going to follow a policy of deterrence, it cannot rely on strategic missile defense to intercept large numbers of long-range missiles. The efficacy of deterrence can be reduced by a strategic missile defense system. There has been a connection between offensive and defensive weapons since the invention of the sword and the shield. The preamble of the New START Treaty recognizes this interrelationship between strategic offensive arms and strategic defensive arms. It will become more important as strategic nuclear arms are reduced. Strategic missile defense can be a driving force for new offensive weapons. Whether strategic missile defense actually works will always remain uncertain, so it cannot replace deterrence. This was the logic behind the 1972 Anti-Ballistic Missile (ABM) Treaty that George W. Bush scrapped in 2002. However, the official U.S. position is that the limitation of the number of strategic warheads (New START) is independent of missile defense. If the New START Treaty had included an explicit link between offensive and defensive weapons, it would have jeopardized ratification by the Senate. Russia still has reservations about U.S. missile defense plans in the Middle East and in South East Europe. However, tactical missile defense on an operational level (e.g., Patriot, Aegis, Thaad) should not be a danger for Russia.

The situation changed after the end of the East-West conflict. Why would the U.S. want to destroy the Russian arsenal by an all-out surprise attack? Even if it did, it would have terrible consequences for the United States. A missile defense shield will never be 100 percent effective. The problem with missile defense is that it could at some point be a serious obstacle to further reduction of the number of nuclear warheads on the road toward a nuclear free world.

8. It would be helpful to rethink and reduce the list of target countries. Bush's classified NPR as well as the current Operations Plan (OPLAN) 8010 of February 2009, which is based on Bush administration guidance, list various hostile target countries, including China, Russia, North Korea, Iran, Syria, Cuba (only in the NPR), and an unnamed country that hosts terrorists.
9. For a transition period in the disarmament process, it might be necessary to rely more on deterrence by conventional weapons and other non-nuclear options (e. g., damaging telecommunication networks). The United States already is planning the conventional "Prompt Global Strike" system that can reach every corner of the globe. Programs for bunker-breaking nukes should be abandoned. Tailored conventional strikes with smaller amounts of firepower are useful alternatives to Cold War-era strategic nuclear deterrence. Militarily they can be more effective and they drastically reduce unintended casualties.
10. It should be recognized that nuclear weapon states and states that want to achieve this status cannot actually use nuclear weapons. Nukes are useless to fight and win a war. For the United States and Russia, 500 nukes each are enough to inflict unacceptable damage to the other side, but they are not enough to destroy all of the other side's nuclear weapons. The 1962 Cuban Missile Crisis already showed that, even in a brinkmanship crisis, nuclear weapons cannot be used without catastrophic consequences for both sides. There is no historical evidence that nuclear weapons increase the options of regional powers. North Korea would not gain any military advantage. Against whom should it launch a nuclear missile? It already can cause unacceptable damage to Seoul with conventional weapons. Nuclear weapons are important only for internal reasons and to increase the country's status. If Iran became a nuclear weapon state, it would become a target itself. Nuclear weapons would not enhance Iran's power or regional influence, and it would not give Iran additional options. Neighboring countries might side with the United States or even Israel. Iran would be blamed for any nuclear attack by terrorists.

## **Nuclear terrorism**

In fact, terrorists are the only ones who would use nuclear weapons. The more nuclear weapons proliferate, the more likely is it that terrorists will get their hands on them. Moreover, non-state actors are also dangerous proliferators (e. g., Pakistan's A. Q. Khan). Both the Nuclear Posture Review and the final document of the nuclear summit in April 2010 concentrate on nuclear terrorism. This analysis then would be threat-based and not capabilities-based. Securing vulnerable nuclear material and a Fissile Material Cut-off Treaty – two proposals from Obama's Prague speech – are elements of a disarmament process, of non-proliferation, and they can prevent nuclear terrorism. The danger of a catastrophic nuclear attack should not be exaggerated, however. The dire predictions of many experts after 9/11 did not happen. It turns out to be far more difficult than conventional wisdom suggests for a non-state actor to acquire, assemble, transport and detonate a nuclear device, especially without the infrastructure of a modern state.

As part of the broader nuclear disarmament goals the United States hosted the first Nuclear Security Summit in Washington D.C. on 12–13 April 2010, bringing together 49 world leaders in an effort to foster cooperation and consensus on taking another step toward nuclear zero. The Summit participants issued a broad Communiqué that affirmed their dedication to preventing nuclear terrorism and adopted the four-year timeline proposed by Obama.

## **Perspective**

“Global Zero” will take a long time to be achieved, and it might never be achieved at all. Obama himself said: “maybe not in my lifetime.” What is important, however, is the new attitude toward nuclear weapons. It is increasingly recognized that nuclear weapons confer neither prestige nor status nor security. George Shultz, former U.S. secretary of state and one of the “four horsemen” together with Henry Kissinger, Bill Perry and Sam Nunn who pleaded for a nuclear-free world, said: “Nobody believed it when the Declaration of Independence avowed that ‘all men are created equal.’ But look what we have achieved today!”

## **The book**

Nuclear threats have become more dangerous and more complex in recent years. The number of states possessing nuclear weapons now stands at nine. Roughly



25,000 nuclear warheads still remain in the arsenals of those states. Strategic reliance on these weapons by nuclear weapons states and their allies undoubtedly motivates others to do the same. Extremist groups are showing interest in acquiring nuclear weapons and at the same time nuclear materials are becoming more difficult to control. A world free of nuclear weapons is clearly not going to happen overnight and will be a long-term process. *Mohamed ElBaradei* proposes certain steps that could be taken to help to curb proliferation and move towards disarmament. These include: reductions in nuclear arsenals; changes in the operational status of nuclear weapons systems; resumption of multilateral disarmament negotiations; development of a new framework for the utilization of nuclear energy; improved security of nuclear materials; and strengthening the verification authority and capability of the IAEA.

For the authors in this book there is no doubt that a new atmosphere has arisen thanks to new policies pursued by the Obama administration and the response it has evoked in the world. *Hans Blix* as others see that a window of opportunity that was opened at the end of the Cold War around 1990 and that closed in the second half of the nineties has reopened. Most significant is the START follow up treaty signed with Russia. The reductions of warheads and carriers are relatively modest but the treaty is a springboard for further – possibly more difficult – agreements and it preserves mutual inspection that is vital to maintain mutual confidence. *Hans Blix* identifies several obstacles, however: the part of U.S. public opinion and in the Congress that wants the US to stay far ahead of all other countries in military power. Russia and China remain wary and want to see evidence of the US winding down. The nuclear related cases of the DPRK and Iran can influence the strategic situation in the Far East and the Middle East. But for him the aim of a Global Zero is not necessarily naïve. The actual political challenges are issues like the entry into force of a comprehensive test ban and the negotiation of a cut off of production of fissile material. For *Blix* a world without nuclear weapons will not be today's world minus nuclear weapons! After the end of the Cold War it further depends on the reduction of the risk of war. Today's problems need to be tackled not by more military alliances but by conciliation, cooperation and the development of joint institutions, like the United Nations.

*Terrence Hopmann* examines US President Barack Obama's vision of a world without nuclear weapons and his initial steps to realize that vision during his first two years in office. He places his vision in the context of previous efforts in the United States to eliminate nuclear weapons, while also highlighting Obama's concrete proposals to make this ambitious goal become reality. *Hopmann* looks at the Obama administration's initial steps to move along the path toward zero, especially the negotiation of New START in 2010. His analysis reveals substantial

domestic hostility toward Obama's abolitionist vision, but even more importantly towards the president himself, especially among a group of Republicans in the Congress who seek his defeat in 2012 at any price. This opposition led to specious criticism of New START, which President Obama managed to overcome to achieve the Senate votes necessary to ratify this first step towards zero in late 2010. The paper argues, nonetheless, that the Obama administration should move ahead with additional negotiations and agreements that will be necessary over the next few years to advance toward the goal of nuclear zero.

A key element of President Obama's nuclear non-proliferation and disarmament agenda is to pursue U.S. ratification of Comprehensive Nuclear Test-Ban Treaty (CTBT) and thus reversing the Senate rejection of the treaty in 1999. To address the concerns of the 1999 debate, the administration should point to the new technical evidence available. This relates especially to CTBT verifiability and the U.S. ability to maintain the safety and reliability of its nuclear weapons stockpile without nuclear testing. *Alexander Kmentt* looks at the new evidence and concludes that the technical case for the CTBT has become considerably stronger in the past decade. Neoconservative opponents of the CTBT are focusing their attention on this issue, largely with the same ideological arguments as in 1999, however. For *Kmentt* a successful attempt at ratification now will require more than highlighting the technical advances of the past decade. President Obama will have to build the political case for the CTBT aggressively by confronting the neoconservative positions against the CTBT specifically and to multilateral arms control in general.

*Tom Sauer* and *Linda Michalech* analyse the U.S. Nuclear Posture Reviews (NPR) from president Clinton to president Obama. One could have expected a substantial change in US nuclear weapons policy after the Cold War. In particular, one could have expected that the Cold War maximum deterrence counterforce posture would have been replaced by a minimum deterrence policy (or at least by fundamental steps in that direction). *Tom Sauer* focuses on the NPR in 1993–1994 in the beginning of the Clinton administration. The objective of the NPR was, indeed, to adapt US nuclear weapons policy to the changed circumstances. He found that despite this bold initiative on behalf of Secretary of Defence Les Aspin and Assistant Secretary of Defence Ash Carter, who were both personally involved and willing to initiate change, the force structure, declaratory and operational policy did *not* change substantially. The cause of this inertia has not to be found in the international political system, but in US domestic and bureaucratic politics. *Sauer* concludes that this episode has offered important lessons for the Obama administration. Barack Obama showed leadership by personally intervening in the 2009–2010 NPR, which led to substantial changes in US nuclear weapons policy, especially with respect to declaratory policy.

*Linda Michalech* compares the 2001 NPR of George W. Bush to the 2010 NPR of Barack Obama. In the aftermath of the 9/11 terrorist attacks, George W. Bush's administration proclaimed that the changed global environment insistently requires a new approach to current threats and challenges. The NPR 2001 therefore reflected a switch from the old threat-based to a more flexible capabilities-based approach. The New Triad opened a broad range of options for a possible adoption of nuclear weapons including preemptive actions in order to maintain the safety and security of the U.S., its allies and partners. Guided by the principle of unilateralism, the Bush administration rejected international nuclear arms control treaties such as the CTBT, and harmed the fragile U.S.-Russian relations by withdrawing from the Anti Ballistic Missile Treaty (ABM). In contrast, Barack Obama's NPR highlights the importance of mutual trust and cooperation with the former Soviet counterpart to meet the requirements of today's most immediate security challenges; nuclear terrorism and proliferation. Obama and his administration's officials signed the New Strategic Arms Reduction Treaty (START) and made commitments for further reductions in nuclear weapons stockpile. By pursuing an early U.S. ratification of the CTBT, strengthening the Non-Proliferation Treaty (NPT) and the International Atomic Energy Agency (IAEA) verification measures, but first and foremost, by Obama's commitment to work toward a world free of nuclear weapons, Obama is for *Michalech* showing strong willingness to completely eliminate the role of nuclear weapons for U.S. security strategy.

The Final Document of the 2010 Review Conference of the Parties to the NPT of May 2010 calls on the nuclear weapon states to bring into effect the negative security assurances provided by nuclear-weapon-free-zone treaties and their protocols. Negative security assurances are those guarantees by the nuclear weapon states not to use or threaten to use nuclear weapons against states that have renounced them. *Marco Roscini* observes that the only means by which it has so far been possible to secure legally binding negative security assurances has been through the protocols attached to the treaties establishing nuclear weapon-free zones. To protect their security interests, however, the nuclear weapon states have formulated statements on signing and/or ratifying the protocols, the nature of which is controversial. The main challenge is now to secure the protocols' ratification by those nuclear weapon states that have so far refused to do so. From this perspective, the attitude of the Obama's Administration is for *Roscini* encouraging. He sees other problems concerning the reversible character of the nuclear powers' undertakings under the protocols, the lack of specific enforcement mechanisms in case of their violation, as well as the emergence of new nuclear weapon states not addressed by the protocols.

Regulating tactical nuclear weapons in Europe – a neglected and even forgotten topic – has risen to the fore to test the possibility of reducing the number

and role of nuclear weapons. For *Kari Möttölä* the discussion within NATO and beyond has demonstrated the predominantly political nature of the issue in the new security environment. He sees in the asymmetry of stockpiles left from the Cold War an obstacle to any arms control solutions, however. In the new Strategic Concept, the NATO member states are seeking to adjust the nuclear deployment strategy and declaratory policy of the Alliance – and the retention of extended deterrence – to the nuclear abolition discourse. *Kari Möttölä* rightly points out that a step towards the elimination nuclear weapons would have implications for global non-proliferation. Ultimately, the outcome will depend on Russian accommodation, and the wider change in European security, and the U.S.-Russian nuclear arms control negotiations.

It is often argued that a nuclear armed Iran constitutes a nightmare scenario because this is likely to set off a nuclear chain reaction in the region and prompt countries such as Saudi Arabia, Egypt or Turkey to seek out their own nuclear arms; such an eventuality would more or less mean the collapse of the entire non-proliferation regime. *Hakan Akbulut* examines the case of Turkey. He concludes that acquiring weapons of limited utility would expose Turkey to punitive measures, undermine its international standing and constitute a blow to the foreign policy objectives of recent and previous periods. A simple cost-benefit analysis is likely to make Turkish decision makers conclude that a nuclearization would require a price too high to pay and that the costs of doing so would by far exceed any expected gains. Therefore, *Hakan Akbulut* argues that when faced with nuclear proliferation and related threats Turkey is more likely to stick to the same principles that have been guiding its policies for decades – namely, reliance on the US/NATO alliance while simultaneously investing in indigenous conventional capabilities, and abiding by and working towards the goal of strengthening the non-proliferation regime.

The puzzling phenomenon of non-use of nuclear weapons has become over the decades an intrinsic part of the nuclear age. The absence of a nuclear attack since 1945 is often labeled a paradoxical phenomenon that induces many explanations. One of them holds a “nuclear taboo” responsible for the lack of use of nuclear weapons over the last several decades. This concept focuses on the role that norms have played in international relations and emphasises that the development of a normative prohibition against the use of nuclear weapons is essential to explain the nuclear non-use. A nuclear war would be so detrimental that one should undertake every action possible to prevent such an event. *Magdalena Skrzypczyk* argues that despite this optimistic explanation there is a vast amount of ambivalence shown by countries who would like to abolish nuclear weapons, however. These weapons remain a focal point of strategic war planning. Nevertheless, this is a subject matter which is hotly debated and inherent to the

military's disutility of nuclear weapons within the discussion on "Global Zero". *Magdalena Skrzypczyk* analyzes the origins of the nuclear non-use and the existing explanations. Among others the existence of the nuclear taboo is found even if it is less profound, and most notably does not have overarching magnitude in decisions made on security policy.

*Markus Kornprobst's* and *Charlotte Spencer-Smith's* chapter highlights the salience of legitimacy for the workings of the non-proliferation regime in general. For them carrots and sticks alone do not make for a successful regime. On a more fundamental level the authors observe that the parties to a regime have to believe that abiding by its constitutive rules is the right thing to do. When it comes to the legitimacy of the non-proliferation regime, however, they see some enduring problems. Many parties are sceptical to what extent the master plan (nuclear weapons states disarm, others do not arm) can be implemented. Furthermore, many parties are sceptical to what extent the execution of the master plan distributes obligations equally among states. Working towards Obama's vision of global zero requires addressing these challenges.

*Wolfgang Bednarzek* sees similar contradictions and tensions within the non-proliferation regime. International Atomic Energy Agency (IAEA) safeguards play a crucial role in the investigation of countries suspected of clandestinely developing nuclear weapons capabilities. In order to be able to implement these safeguards, the IAEA must respect competing and often contradictory international norms, however. In addition it must act independently of the interests of individual or groups of its member states. *Bednarzek* applies Nils Brunsson's theory of "organized hypocrisy" to explain how political institutions can achieve independence from their stakeholders. The empirical evaluation of IAEA talk, decision and action provides new insights as to how the Agency has managed to implement safeguards and to advance the overall non-proliferation framework in a context of competing and contradicting political norms and interests.

Probably, one of the most challenging threats to international security is the possibility of non-state actors possessing and using nuclear weapons. The first and one of the most important international instruments ever created in this respect is the United Nations Security Council Resolution 1540 from 2004. It proposes cooperative action to prevent non-state actors from acquiring any type of weapons of mass destruction (WMD). While the implementation of the Resolution is crucial for international security, progress has been sluggish. *Simon Tauer* identifies the main challenges that slow down full implementation of this important instrument. Furthermore, he points out possible areas that could help implementing 1540 more effectively and sustainably.

*Markus Woltran* presents the existing eleven proposals on a multilateral fuel bank and examines some of the advantages and disadvantages which seem to

arise from the different recommendations. Although some of them might look similar at first glance, the defined details are what sets them apart. Hence, following a brief historical introduction and overview of the most important steps toward an international fuel bank, *Woltran* evaluates the existing eleven proposals briefly which allows a comprehensive synopsis. Settled in the framework of the transmitted EU Non-Paper, the he intends to provide a holistic and intelligible picture of a possible future “International Fuel Bank”. In a final part, *Woltran* highlights thoughts about the potential benefits of a multilateral fuel bank. Finally he looks at the most promising proposals.

In the conclusion *Heinz Gärtner* relates President Barack Obama’s arms control and disarmament efforts to the concept of engagement. Engagement offers all participants a chance to come closer to a solution. Iran and North Korea are not easy test cases, however. If they fail, Obama’s efforts to move toward non-proliferation and disarmament may well be decisively weakened – especially at home. Obama should not give up on the effort of disarmament that is an indispensable part of the NPT. It is the only way to convince states to support non-proliferation initiatives although Iran and North Korea will not give up their nuclear programs immediately. Obama also can continue to work on the creation of a nuclear weapon free zone in the Middle East. However, there is no quick fix. Patience is an essential prerequisite for engagement.