

Interim Measures to Reduce the Risks Associated with Nuclear Weapons

Compendium of Texts

No. II

Considered by Subgroup 3 in the Period of January 2021 to September 2023

These texts have been prepared under the responsibility of the Co-Chairs, Ambassador Michael Biontino and Ambassador Jarmo Viinanen, and assisted by the NGO facilitator Wilfred Wan, to facilitate the work of Subgroup 3, reflect the discussion and contribute to progress on Nuclear Risk Reduction in general. They complement texts already compiled in Compendium No. I of January 2021.

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 - could be enunciated unilaterally, bilaterally or multilaterally,
 - would not require but benefit from reciprocity and
 - would not have to be accompanied by intricate verification measures, but ideally be transparent or observable, page 15

"Doctrinal restraint (e.g. "No First Use"): benefits and challenges, in particular in specific regional settings and possible links to risks of conventional conflict"

- "Doctrinal restraint" as a nuclear risk reduction measure¹
 - o should be seen as an element of a wider process to reduce risks associated with nuclear weapons
 - o should be accompanied by other nuclear risk reduction measures to create substantial positive impact
 - o should ideally be subscribed to by all/relevant parties, possibly in a legally binding document
 - o documents a commitment both by nuclear armed states (e.g. "No First Use") and non-nuclear armed states to avert the danger of nuclear war²
 - o documents the intention of nuclear armed states to limit the role of nuclear weapons in their security policies
 - o are an integral part of Nuclear Weapons Free Zones (NWFZ³) and Negative Security Assurances (NSA)
 - by nuclear armed states in their relation to non-nuclear armed states needs to be accompanied by a mutual commitment not to employ force, of any kind, or the threat of force in accordance with the Charter of the United Nations⁴
- As a consequence, "doctrinal restraint"
 - o could enhance confidence among all/relevant parties
 - o could positively impact the global/regional security environment
 - o should minimize ambiguity and preview how States intend to act in certain circumstances⁵
 - o should pave the way for substantial reductions of nuclear arsenals

¹ Reference was made to the 2010 NPT Review Conference Action Plan, Action 5 (c), in which Nuclear Weapons States are called upon to promptly engage with a view to, inter alia: "To further diminish the role and significance of nuclear weapons in all military and security concepts, doctrines and policies".

² Joint statements can be powerful, reflecting shared understandings, as in the Reagan-Gorbachev statement of 1985 and the Joint Statement of the Leaders of the Five Nuclear-Weapon States on Preventing Nuclear War and Avoiding Arms Races of 3 January 2022.

³ The point was made that most States have made doctrinal declarations against nuclear war

⁴ The point was made that reducing the risk of conventional conflict reduces the risk of nuclear war as well.

⁵ "Doctrinal restraint" should be specific and fit-for-purpose; blanket statements could fail to have positive impact. Reference was made to "No First Use" doctrines, NWFZ and NSA.

- The validity and credibility of "doctrinal restraint" as a nuclear risk reduction measure depends on the context in terms of
 - o the prevalent international and/or regional security environment, encompassing both the nuclear and conventional domain
 - o level of trust among relevant parties⁶
 - o long standing commitment to such "doctrinal restraint"
 - o the appropriate level of transparency on nuclear weapons
 - o meaningful dialogues on strategic stability
- "Doctrinal restraint" as a nuclear risk reduction measure cannot be verified ex ante. Therefore, state commitments to a specific measure should be considered in light of its consistency with
 - o past security policies and actions, including conventional armaments⁷
 - o wider military doctrines and policies, including in the conventional field
 - o nuclear and conventional capabilities and force posture and their actual development
 - o concrete nuclear arms control and disarmament measures

⁶ Low levels of trust (as in deterrence relations) affect how "doctrinal restraint" is perceived and could lead to high skepticism. In this case "doctrinal restraint" could be perceived as insincere or to be subject to change over time, thus is unlikely to have a positive impact.

⁷ e.g. compensating nuclear doctrinal restraint by increased reliance on conventional armaments.

"Doctrinal restraint and CSBMs⁸, including transparency: benefits and challenges to link these nuclear risk reduction measures in the light of the absence of effective verification"

- "Doctrinal restraint" as a nuclear risk reduction measure cannot be verified ex ante by traditional verification measures⁹
- As a consequence, "doctrinal restraint", in order to serve as an effective nuclear risk reduction measure should be deemed credible by other states and, in particular,
 - o should be followed by concrete actions to enhance credibility
 - o should be accompanied by verification in the broad sense, including dialogue for better understanding and open-source verification
 - o would be enhanced by confidence and security building measures, including i.a. cooperative¹⁰ and transparency measures, as appropriate
- Furthermore, "doctrinal restraint" as a nuclear risk reduction measure
 - o could be politically or legally binding in order to enhance credibility and confidence among all/relevant parties
 - o should be part of a broader process in order to positively impact risk/threat perceptions¹¹
 - o in combination with CSBMs and crises management measures can contribute towards peace and stability
- "Doctrinal restraint" as a nuclear risk reduction measure will have to account for the legitimate interests of non-nuclear weapons states, in particular in light of
 - o negative security assurance to be given by of nuclear armed states, in general
 - o negative security assurance in the framework of nuclear weapons free zones 12

⁸ The point has been made that CSBMs are not an end in itself but should facilitate meaningful progress towards conflict resolution n particular relevant when underlying regional and/or global threats to security cannot be solved in a reasonable time frame

⁹ The point has been made that the UN Security Council could play a role in ensuring compliance with e.g. a "no first use policy". Furthermore the Point has been made that verification needs to be specific and adapted to the relevant regional and/or global security environment

¹⁰ In this context reference has been made to the Helsinki Process

¹¹ In this context the point has been made, that "doctrinal restraint" could be compatible with changes in force posture/structure or modernization if warranted by changes in the general security environment or asymmetric constellations

¹² The point has been made that by joining a nuclear weapons free zone, non-nuclear weapons states are committing to a legally binding "doctrinal restraint"

"Strategic stability" and the development/deployment of certain destabilizing systems: benefits and challenges to identify these systems and how to deal with them in terms of nuclear risk reduction

- The effects of certain weapons systems and their categorization as "destabilizing systems"
 - o are a subjective concept related to specific risk/threat-perceptions
 - o depend on the prevalent international/regional security environment
 - o depend on their effects on the effectiveness of nuclear arsenals
 - o depend on the overall and regional military balance
- As a consequence, "destabilizing systems"
 - o should be defined by their effects on "strategic stability" and not merely by their technical specifications 15
 - o could be both offensive and defensive systems
 - o could be nuclear and non-nuclear systems,
 - o could be developed/ deployed both by nuclear armed and non-nuclear weapons states
- Concerns about certain weapons systems as "destabilizing" in terms of nuclear risk reduction should be addressed in a meaningful, good faith dialogue of all relevant actors,
 - o taking into account the prevalent international/regional 16 security environment
 - o being specific in terms i.a. of destabilizing to whom, under which conditions and why
 - o taking into account technological development, including disruptive technologies, and new military systems in general
 - o considering the "pros" and "cons" for possessors and non-possessors as well as specific scenarios (e.g. strategic or crises scenarios)
- The pursuit of "strategic stability" should not preclude and rather enhance
 - o progress towards enhanced security at lower level of armaments in general 17
 - o progress in nuclear arms control and disarmament

¹³ The term "Strategic Stability" is not meant to refer to any specific historical or geographic context, but is to be understood in a generic way

¹⁴ The point has been made that "strategic stability" as such is a subjective concept

¹⁵ The point has been made, that systems which undermine "deterrence" might qualify as "destabilizing systems", in particular in the context of emerging and disruptive technologies

¹⁶ The point has been made that an understanding on "destabilizing systems" at the regional level could pave the way for a global approach

¹⁷ The point has been made, that this does not necessarily require an equilibrium of military capabilities

"Transparency on nuclear arsenals, in particular on numbers of relevant weapon systems and their location etc.: benefits and challenges to nuclear risk reduction and national security"

- "Transparency" as a nuclear risk reduction measure
 - o constitutes a cross-cutting key element to nuclear disarmament, non-proliferation and development of peaceful nuclear activities
 - o is essential, in particular, in terms of confidence-building both among nuclear armed states and with non-nuclear armed states
 - o contributes to accountability of States for the implementation of their international obligations
- "Transparency" as a nuclear risk reduction measure can take many forms which add to and complement one another
 - o measures¹⁸ such as, inter alia, national reports and clarification on nuclear doctrines and policies
 - o clarity on nuclear arsenals, such as, inter alia, size, location, format, components, alert status
 - o strategic dialogues¹⁹ among relevant actors, both nuclear armed states and non-nuclear armed states, as appropriate to better understand each other's risk and threat perception
 - o increased communication and outreach of nuclear armed states towards non-nuclear armed states
- As a consequence, "transparency"
 - o counterbalances trends towards deteriorating international security environment
 - o can provide assurances that States are committed to preventing new arms races and strategic competitions
 - o constitutes a primary measure of strategic risk reduction and confidence-building
 - creates predictability and minimizes the risk of misperception, miscommunication and misunderstanding
 - o contributes to reinforcing and increasing credibility and viability of the existing collective security as well as arms control and disarmament architecture
 - o benefits both nuclear armed states and non-nuclear armed states alike
 - o should be enhanced, in order to ensure its clear benefits, as outlined above

¹⁸ Such measures could be unilateral and voluntary as well as multilaterally agreed

¹⁹ In this context reference has been made in particular to the P5 dialogue and the US-Russia Strategic Stability Dialogue

- However, the point has been made, that "transparency" needs to be balanced with and finds its limitations in
 - o obligations in compliance with international legal obligations²⁰
 - o considerations of international stability and national security²¹
 - elements of transparency which could encourage or permit pernicious action against nuclear arsenals, including nuclear terrorism
 - o and should be addressed in meaningful and good faith dialogue among both among nuclear armed states and with non-nuclear armed states about the appropriate level of transparency without a risk of degrading international stability and national security

²⁰ In this context reference has been made, in particular, to the non-proliferation obligations under the Non-Proliferation Treaty. This dilemma is particularly visible when addressing the issue of nuclear disarmament verification, which, to be effective and safe, needs to combine both high levels of transparency and of protection of sensitive information.

²¹ In this context the point has been made that transparency efforts have to be balanced with nuclear deterrence strategies as an element of national security and, therefore, some degree of ambiguity remains indispensable to the credibility and viability of nuclear deterrence.

"Negative Security Assurances (NSA) as a nuclear risk reduction measure:

benefits and challenges"

- "NSA" as a nuclear risk reduction measure refers to the commitments made by the Nuclear Weapon States (NWS) of not using or threatening to use nuclear weapons against Non-Nuclear Weapon States (NNWS).
- "NSA" as a nuclear risk reduction measure can be enshrined in
 - o political commitments and as an element of national nuclear doctrines of NWS, e.g. as no-first-use policies,
 - o protocols to Nuclear Weapon Free Zones (NWFZ) to be ratified by NWS
 - o an international legally binding document or a Resolution of the UN Security Council or of the UN General Assembly
- "NSA" as a nuclear risk reduction measure, as a consequence
 - o enhance security of NNWS in the sense that they constitute commitments by the NWS not to use nuclear weapons against them
 - o constitute an effective non-proliferation instrument, since they reduce or eliminate the incentives for NNWS to acquire nuclear weapons for reasons of national security and provide them with greater incentives to comply with their nonproliferation obligations,
 - can also serve as a mechanism to encourage dialogue and cooperation between NWS and NNWS, in particular by providing a platform to address the concerns of NNWS about the potential use or threat of use of nuclear weapons against them,
- As a consequence, "NSA" as a nuclear risk reduction measure
 - reduces the contingencies where nuclear weapons might be used and can serve as an
 effective tool to reduce the risk associated with nuclear weapons use based on intention,
 miscalculation or accident.
 - enhance security for all states.
 - o enhance regional stability and may help to reduce tensions in regions where NWS are
 - o act as an effective interim measure to increase confidence in the international security environment,
 - o create predictability and minimizes the risk of misperception, miscommunication and misunderstanding,
 - o strengthen mutual trust and serve as a confidence-building measure,

- o can help to create a more conducive environment for constructive dialogue and cooperation on security and disarmament issues,
- o counterbalance trends towards a deteriorating international security environment,
- o contribute to reinforcing and increasing credibility and viability of the existing collective security as well as arms control, disarmament and non-proliferation architecture,
- o facilitate further steps in nuclear disarmament and towards a world without nuclear weapons,
- o may facilitate the establishment of NWFZs where they do not yet exist
- o benefit both nuclear NWS and NNWS alike.
- In this context, the point has been made, that "NSA" as a nuclear risk reduction measure
 - subscribed to by NWS in the framework of NWFZs alone cannot protect NNWS from the
 use or the threat of use of nuclear weapons, due to their limited universality, exclusion of
 some regions and the fact that not all NWS have ratified the respective protocols,
 - o need to be enshrined in an international legally binding document, since political commitments have only limited value in reducing the risks associated with nuclear weapons,
 - o need to be unconditional and irrespective of a concrete political context in light of the ethical, moral, humanitarian and legal imperatives against any use of nuclear weapons,
 - o are contingent on NPT compliance or compliance
 - o need to be complemented by corresponding commitments concerning other relevant weapon systems (e.g. substantial conventional asymmetries, "emerging and disruptive technologies"),
 - need to be accompanied by dialogue and cooperation mechanisms to address security concerns in general.

"Nuclear Weapons Free Zones (NWFZ) as a nuclear risk reduction measure: benefits and challenges"

- "NWFZ" as a nuclear risk reduction measure
 - o contain commitments of the states of a certain region "to assure the total absence of nuclear weapons in their respective territories" (Article VII NPT),
 - o are an element of national security doctrines, excluding nuclear weapons as part of the respective defense postures in the free exercises of sovereignty,
 - o should be accompanied by an international system of verification and control to guarantee compliance with the relative obligations (GA-Res 3472(XXX)B)
 - o should be established on the basis of arrangements freely arrived at among the States of the region,
 - o contain protocols to be ratified by Nuclear Weapon States (NWS) on Negative Security Assurances (NSA) enshrining commitments made by them of not using or threatening to use nuclear weapons against the states in a certain NWFZ or within the geographic zone of a certain NWFZ.
- As a consequence, "NWFZ" as a nuclear risk reduction measure
 - o are considered as one of the most effective means for preventing the proliferation of nuclear weapons,
 - o serve, in this context, as a means for establishing comprehensive safeguards agreements,
 - o serve as an effective tool to reduce the risk associated with nuclear weapons use based on intention, miscalculation or accident,
 - o contribute to the elimination of the danger of a nuclear holocaust,
 - o lower the risk of conflict, in particular nuclear conflict, between states of a NWFZ and NWS.
 - o facilitate further steps in nuclear disarmament and towards a world without nuclear weapons,
 - o benefit both NWS and NNWS states alike
- Further, "NWFZ" as a nuclear risk reduction measure
 - create predictability and minimizes the risk of misperception, miscommunication and misunderstanding,
 - o strengthen mutual trust and serve as a confidence-building measure,

- o can help to create a more conducive environment for constructive dialogue and cooperation on security and disarmament issues,
- o contribute to reinforcing and increasing credibility and viability of the existing collective security as well as arms control, disarmament and non-proliferation architecture,
- o counterbalance trends towards a deteriorating international security environment,
- o enhance global and regional peace and security, in particular in light of the devastation that would be visited upon all mankind by a nuclear war,
- Further the implementation of agreed NPT RevCon commitments on strengthening the role of existing NWFZs and the establishment of such zones where they do not yet exist.
- In this context, the point has been made, that "NWFZ" as a nuclear risk reduction measure
 - o would be further strengthened with the ratification by all NWS of the protocols on NSA and the withdrawal of any unilateral declarations attached to their ratification
 - o are substantially enhanced by effective institutional and implementation mechanisms,
 - o require careful preparations, before all states of a certain region do join.

Reduction of nuclear arsenals as nuclear risk reduction measure, benefits and challenges

- Nuclear weapons are among the greatest dangers to the survival of mankind.
- The obligation for removing and, as an interim measure, to reduce this danger rests primarily with the nuclear armed States, whereas the risk emanating from them equally are borne by the non nuclear armed States.
- As agreed in the Final Document of the UN Special Session on Disarmament (SSOD-I),
 States with the largest military arsenals have a special responsibility in pursuing the process
 of nuclear armaments reductions and the adoption of disarmament measures should take
 place in such an equitable and balanced manner as to ensure the right of each State to
 security and to ensure that no individual State or group of States may obtain advantages
 over others at any stage.
- At each stage the objective should be an improved overall international security environment, promote international stability, peace and security for all states and without prejudice to national security, without creating a conditionality for disarmament.
- Only the total and irreversible abolition of nuclear weapons, requiring additional measures, would eliminate all risks associated with these weapons. A world without nuclear weapons is and should remain the shared objective of the international community.
- Every single nuclear weapon has the potential to eradicate a high number of human lives and negatively impact the environment, trigger misunderstandings, accidents and potentially even lead to an all out nuclear war.
- The stabilizing reduction of nuclear arsenals has long been considered as a most effective way to lower the risk deriving from nuclear weapons.

- Pending the total elimination of nuclear weapons and acknowledging that conventional and nuclear capabilities are interlinked, states possessing nuclear weapons should undertake measures to reduce all risks²² associated with nuclear weapon detonations, including:
 - (a) Reduce the number of deployed strategic nuclear weapons;
 - (b) Reduce the number of non-strategic nuclear weapons;
 - (c) Reduce the number of non-deployed nuclear weapons;
 - (d) Reduce nuclear weapons designated as inactive stockpiles;
 - (e) Urgently move towards an overall reduction of the global stockpile of any type of nuclear weapons;
 - (f) Reduce risks associated with nuclear weapon delivery vehicles, in particular those considered as particularly destabilizing, such as e.g.
 - nuclear armed hypersonics
 - cannisterized missiles
 - forward-deployed ground-launched nuclear-armed cruise missiles;
 - (g) Commit to freeze, the number of nuclear weapons in holding pending the commencement and conclusion of negotiations on nuclear weapons reductions;
 - (h) Agreements or other measures on nuclear weapons reduction should be resolutely pursued on a bilateral, regional and multilateral basis with the aim of strengthening peace and security through gradual and verifiable reduction of all armaments, taking into account the need of States to protect their security, bearing in mind the inherent right of self-defence embodied in the Charter of the United Nations;
 - (i) Refrain from developing new types of nuclear weapon systems, including their delivery systems;
 - (j) Refrain from deploying nuclear weapons at hair-trigger alert and launch on warning levels;
 - (k) acknowledging that conventional and nuclear capabilities are interlinked.

As appropriate these measures should be undertaken transparently, verifiably and irreversibly and be accompanied by an adequate compliance mechanism. Furthermore, mechanism for the peaceful resolution of conflicts should be strengthened.

• This list does not represent completeness nor an order in accordance to the highest danger. It can be argued e.g. that non-strategic nuclear weapons are particularly prone to be used and - as

²² Intentional use - in accordance with declaratory policies and ambiguities thereof, Use by miscalculation - based on incorrect assumptions or linked to a conflict or crisis spiraling out of control, Accidental use - linked to error, technical malfunction or false alarm, Unauthorised use – non sanctioned use or use by non-state actors

simulations have shown - would lead to an escalation to an all out nuclear war with a high likelihood.

• Reductions can be made multilaterally, bilaterally or unilaterally. However, to serve as a risk reduction measure they must at minimum be transparent, and, ideally, verifiable and irreversible.

Concept Note

This text was prepared under the responsibility of the Co-Chairs, Ambassador Michael Biontino and Ambassador Jarmo Viinanen, and assisted by the NGO-facilitator Wilfred Wan, to facilitate the work of Subgroup 3, reflect the discussion and the diverging view and contribute to progress on nuclear risk reduction in general.

Risk reduction measures that address current nuclear risks, and constitute a contribution to improving the present security environment and

- could be enunciated unilaterally, bilaterally or multilaterally,
- would not require but benefit from reciprocity and
- would not have to be accompanied by intricate verification measures, but ideally be transparent or observable.

In recent years the international security environment has deteriorated and great power strategic competition has re-emerged. The threat of nuclear weapons use today remains real and nuclear risks have become again a prime concern.

Before this backdrop the relevance of nuclear risk reduction measures has been amplified, in particular, by developments with the potential of contributing to instabilities and imbalances, which were highlighted in previous work undertaken by Subgroup 3²³.

It is generally understood, that nuclear risks will persist as long as nuclear weapons exist, and that the total elimination of nuclear weapons is the only way to eliminate all risks associated with these weapons and that nuclear risk reduction measures

- are neither a substitute nor a prerequisite for nuclear disarmament,
- should contribute to advancing nuclear disarmament,
- are interim measures to enhance security and reduce risks associated with nuclear weapons and the likelihood of nuclear weapons use,
- should contribute to an improved overall international security environment, promote international stability, peace and security for all states and without prejudice to national security, without creating a conditionality for disarmament.

²³ see, in particular Compendium of Texts, Considered by Subgroup 3 in the Period of November 2019 to December 2021

- should be aimed at preventing nuclear weapons use, taking into account i.a. the prevention and mitigation of the humanitarian consequences of their use,
- require commitments from nuclear possessor states, in particular concerning disarmament commitments and the role of nuclear weapon in doctrines, as well as active participation by Non-Nuclear-Weapons States,
- are not universally applicable, given different security environments of nuclear possessor states and Non-Nuclear-Weapons States,
- depend on the level of mutual trust between relevant actors,
- are a special responsibility for nuclear possessor states,
- require national voluntary consent on unilateral, bilateral or multilateral basis.

It also recognized that conflict prevention should take precedence over crisis management.

Therefore, inclusive dialogues of NWS among themselves as well as with NNWS should consider risk reduction measures that address current nuclear risks and constitute a contribution to improving the security environment.

Elements for such a dialogue could be, in particular:

Political-doctrinal measures:

- Commitment to the principles and norms as laid out by the Charter of the United Nations,
- Commitment to peaceful conflict resolution through negotiations,
- Commitments of no first use of nuclear weapons,
- Commitment to a cooperative, collective and non-adversarial approach to security,
- Commitment to diminish the role of nuclear weapons in security doctrines,
- Political statements against the use of nuclear weapons, threat of use and a nuclear arms race,
- Political statements stressing the catastrophic humanitarian consequences of the possible use of nuclear weapons.
- Implementation of existing treaty obligations

Further concomitant commitments should be considered such as

- Commitment to the total elimination of nuclear weapons in a verifiable and irreversible manner,
- Support the establishment of NWFZs where they do not exist,
- Commitment to provide NNWS with legally binding security assurances against the use of nuclear weapons,
- Commitment to revive and reform the UN Disarmament Machinery and to enable the multilateral nuclear disarmament fora to execute their agreed mandates.

Strategic and operational measures:

- Commitment not to attack civilian nuclear-related facilities,
- Commitment to increase protection of nuclear-related facilities, materials and systems,
- Commitment to reducing operational readiness and de-targeting on a day-today basis of nuclear weapons.

Further concomitant commitments should be considered such as

- Commitment to mutual reductions in the number of deployed nuclear warheads,
- Commitment to a moratorium on the development of new types of nuclear weapons delivery systems and on the expansion of existing ones,
- Commitment to address the issue of fissile material.

Confidence and security building measures:

- Commitment not to conduct military exercises specifically directed against other parties,
- Commitment to a comprehensive security dialogue and consultations on reducing conflict risks, including the role of nuclear deterrence as well as nuclear arms control and disarmament.

Crisis and conflict prevention and management measures:

 Commitment to establishment and utilization of crisis and conflict prevention and management mechanisms, including, as appropriate dedicated communications networks/ hot and clear lines of communication in crisis situations, consultations and co-operation as regards unusual military activities.