

**Nuclear weapons in a new geopolitical reality**  
An urgent need for new arms control initiatives

**[Executive Summary]**

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## Introduction

On 15 March 2018, the Advisory Council on International Affairs (AIV) received a request for advice on the future role of nuclear weapons (see annexe). The government asked the AIV to conduct a thorough analysis of the current and future role of nuclear weapons. In its request, the government observed that geopolitical and technological changes and changes in nuclear doctrine in particular impel us to rethink NATO's current nuclear policy and the Netherlands' policy as a member of the Alliance. First and foremost, the analysis was to concern the NATO nuclear security context, including specific developments in Russia and other countries. The government asked the AIV to assess whether NATO policy is equal to these challenges, in terms of both the required deterrence capabilities and nuclear arms control and risk reduction. Lastly, in its request the government emphasised the division of nuclear roles and tasks within NATO, partly in relation to the wider issue of transatlantic burden-sharing. It asked the AIV to focus on the role of the three nuclear powers within NATO (the United States, France and the United Kingdom), the American sub-strategic nuclear weapons in Europe and the Netherlands' nuclear task.

The report was prepared by the AIV's Peace and Security Committee (CVV), consisting of Professor J.J.C. Voorhoeve (chair), Lieutenant General (ret.) M.L.M. Urlings (vice-chair), Professor E. Bakker, D.J. Barth, A.J. Boekstijn, L.F.F. Casteleijn, Professor J. Colijn, Dr N. van Dam, Dr N. de Deugd, Dr M. Drent, Professor I. Duyvesteyn, P.C. Feith, Dr A.R. Korteweg and Lieutenant General (ret.) Dr D. Starink. The executive secretary was J.W.K. Glashouwer, assisted by Ms R.M. Guldmond, Ms F.A. den Hollander and Ms A.A. Stoetman (trainees). The civil service liaison officers were P. van Donkersgoed and H.J.R. Slettenhaar, both of the Ministry of Foreign Affairs, and H.J.A.M. van Oosterhout of the Ministry of Defence.

The AIV adopted the advisory report on 29 January 2019.

### *Nuclear policy based on two pillars*

Since the 1970s, Dutch nuclear policy has been based on two pillars: deterrence and a reduction of the role of nuclear weapons. From the 1980s onwards, an international climate developed in which there was scope for agreements and unilateral declarations on the reduction and elimination of nuclear weapons in 'the East' and 'the West'. The total number of nuclear weapons has since been reduced from around 70,000 at the time to less than 15,000, and the Netherlands has discontinued a number of its nuclear tasks within NATO. Of the once-considerable arsenal of US sub-strategic nuclear weapons in Europe, it is estimated that less than 200 nuclear free-fall bombs, stored in five different NATO countries, remained. Although nuclear weapons were relegated to the background in the political debate of the 1990s, this does not mean that they lost their significance in the Alliance's defence and in the prevention of large-scale conflict. A number of Dutch F-16 fighter aircraft remained available, as dual capable aircraft (DCA), to carry out nuclear as well as conventional missions (see historical overview in one of the annexes to the report).

Both pillars are still evident in Dutch policy today. The government seeks to promote worldwide nuclear disarmament, and in this context is working towards non-proliferation and the ultimate goal of a nuclear weapon-free world, in accordance with article VI of the Non-Proliferation Treaty (NPT). At the same time, successive governments have considered nuclear weapons to be a crucial part of NATO deterrence and defence. The Netherlands will therefore continue to meet its obligations within the Alliance, including its nuclear task involving a squadron of F-16s (DCA task). The plan is for the F-35 to take over this task from the F-16. A decision to that effect depends in part on international circumstances and the agreements made within NATO (Letters to the House of Representatives 33783, no. 5 / 34419, no. 18).

### *A new geopolitical reality*

Nuclear policy today is made in an international context that is very different from that of some 20 years ago. As a result of the actions of the current US president, it has become uncertain how the United States wishes to define its role as a major power in a multipolar world. Against that background the transatlantic relationship seems less robust than before. In European countries people are increasingly calling for Europe to reduce its security dependence on the United States. At the same time, relations with Russia have deteriorated significantly, as concluded by the AIV in its earlier advisory report 'The Future of NATO and European Security' (AIV advisory report no. 106, October 2017). Indeed, Russia may once again be the state that poses the greatest threat to the countries of Europe. In 2017 experts estimated the size of Russia's sub-strategic nuclear arsenal at around 1,850 weapons. The wide range of nuclear weapons it possesses and intends to develop suggests that Russian doctrine goes beyond (or is interpreted more broadly than) mere deterrence, and that it is partly aimed at regional nuclear use or nuclear blackmail. Meanwhile the United States is entangled in a rivalry with China, which it views as a threat to American commercial and security interests in Asia and the Western Pacific. China now possesses an impressive arsenal of – mainly intermediate-range – missiles and an almost complete triad of strategic nuclear weapons.

All nuclear-weapon states (currently nine in total: the United States, Russia, the United Kingdom, France, China, Israel, Pakistan, India and North Korea) are working on or considering modernisation programmes. Instead of taking the lead on nuclear arms control, Russia and the United States appear to be assigning a greater role to their deterrence capabilities, both nuclear and conventional. This could be counterproductive to efforts to prevent further proliferation of nuclear weapons in countries such as Iran. In today's new geopolitical reality, arms control treaties and deterrence (concepts that largely date back to the Cold War) appear vulnerable. Difficult communication increases the risk of accidents, misconceptions and unintended escalation, with potentially uncontrollable consequences. Against this background, elements in the nuclear doctrines, the large-scale programmes for military and nuclear modernisation, and technological developments give cause for concern.

The current crisis surrounding the 1987 Intermediate-Range Nuclear Forces Treaty (INF Treaty), which bans intermediate-range ground-launched ballistic missiles and cruise missiles, did not arise overnight. The United States considers the current situation, in which Russia is developing, testing and fielding a banned cruise missile (the 9M729) and has thus been violating its obligations under the INF Treaty with impunity for years, to be untenable. On 4 December 2018 the United States announced it would give Russia 60 days to return to compliance before it too would suspend its obligations under the Treaty. That same day the NATO member countries issued a joint statement in which they endorsed the view that it is up to Russia to preserve the Treaty, by returning to full and verifiable compliance. The Dutch government announced it was also able to independently confirm Russia's violation of the INF Treaty (Letter to the House of Representatives on the Netherlands' conclusion concerning Russia's violation of the INF Treaty, 27 November 2018). There have so far been no strong European calls for all parties to comply with the INF Treaty. This is remarkable because, although the INF Treaty applies globally, it is especially important to Europe's stability and security. The question is therefore whether the INF Treaty can be saved and, if not, what measures the NATO member countries will consider necessary.

### *A world without nuclear weapons?*

In recent years, the House of Representatives has adopted several motions calling on the government to take specific steps towards nuclear disarmament. This was prompted in part by international developments, including President Obama's vision on nuclear weapons ('global zero'), the debate on the usefulness (military and otherwise) of American nuclear weapons in Europe, and negotiations within the United Nations on an international ban on nuclear weapons. Since 2010 the Humanitarian Initiative, backed by UN institutions, the International Red Cross, the Holy See and various governmental and non-governmental organisations, has been highlighting the desirability of an international ban on nuclear weapons. In 2017 the International Campaign to Abolish Nuclear Weapons (ICAN) received the Nobel Peace Prize.

Those in favour of a nuclear weapons ban argue that possession of nuclear weapons cannot be legitimate on account of the permanent threat they pose to humans and their environment. Although it might be possible to reduce the risks of technical and human failure in handling nuclear weapons, only a ban can truly prevent a nuclear disaster scenario. In addition they argue that the use of nuclear weapons is incompatible with international humanitarian law, due to their disproportionate effects, including in the

long term, and because the very nature of the weapons contravenes the principle of distinction. The military usefulness of nuclear weapons has also been questioned, partly because a nuclear war cannot be won in the traditional sense. Lastly, they argue, it should be possible to establish a globally accepted norm that effectively prevents the possession of nuclear weapons, similar to the ban on chemical, biological and bacteriological weapons.

Dissatisfaction with the slow progress on reducing the role of nuclear weapons, and concerns about nuclear ambitions and modernisation plans, are key reasons for the international support for the new Treaty on the Prohibition of Nuclear Weapons, also referred to as the Nuclear Ban Treaty. On 7 July 2017, 122 countries voted in favour of the text of the Nuclear Ban Treaty in the United Nations General Assembly. However, the treaty lacks the support of the nuclear weapons states and their allies. The Netherlands was the only NATO member country to take part in the UN negotiations, but it was also the only participant that in the end voted against the text of the Treaty. The government said in a statement explaining the Netherlands' vote that it believed the outcome of the negotiations did not sufficiently meet the criteria that had been set, including compatibility with NATO obligations. Remarkably, the government of Switzerland, where ICAN is based, has also announced it will not sign the Nuclear Ban Treaty at this time. A notable point in their argument is the fact that, should Switzerland wish to join a nuclear alliance for self-defence purposes, signing the new Treaty would make this legally impossible. According to the Swiss media, this refers to membership of NATO. On 12 December 2018, the Swiss parliament called on the government to ratify the Treaty nevertheless.

### *The international legal framework, ethics and nuclear weapons*

For obvious reasons, a large part of society disapproves of nuclear weapons, the most destructive weapons ever invented. Apart from legal and ethical arguments, the risk of nuclear escalation is a particularly relevant factor in the event that a nuclear weapon were to be used against another nuclear-weapon state. The first use of a nuclear weapon since the Second World War would undoubtedly carry a great risk of escalation with unacceptable consequences. The AIV therefore believes that as long as nuclear weapons exist, their use should be prevented. Ethical principles and international law play an essential role in this regard.

National and international law are based on ethical principles, which are broader in scope than the law. Moreover, the law does not provide for every conceivable situation. Where there are gaps in the law, it is possible to fall back on ethical principles in order to reach a decision concerning permissible actions. A responsible government should be guided by ethical principles and international law, with due regard for the consequences that its actions – or non-action – could have on international political relations.

For the international legal framework, the distinction between the possession of nuclear weapons, on the one hand, and the threat or use of nuclear weapons, on the other, is important. Of particular importance in regard to possession of nuclear weapons is arms control law, which should be viewed in the context of the wider concept of arms control. The NPT contains the only international legislation applicable to virtually all states that obliges states to achieve verifiable general and complete nuclear disarmament through negotiation. States have consistently taken its meaning to be not only a 'best efforts'

obligation, but also an obligation to specific conduct and result. This was confirmed unanimously by the International Court of Justice in its Advisory Opinion of 1996 (see annexe to the present report).

The International Court of Justice declared unanimously that a threat or use of force by means of nuclear weapons that is contrary to Article 2, paragraph 4, of the United Nations Charter and that fails to meet all the requirements of Article 51 ('the inherent right of individual or collective self-defence if an armed attack occurs'), is unlawful. The Court declared unanimously that a threat or use of nuclear weapons should also be compatible with the requirements of international law applicable in armed conflict, particularly those of the principles and rules of international humanitarian law, as well as with specific obligations under treaties and other undertakings which expressly deal with nuclear weapons. The Court further declared that the threat or use of nuclear weapons would generally be contrary to the rules of international law applicable in armed conflict, and in particular the principles and rules of humanitarian law. However, in view of the current state of international law, and of the elements of fact at its disposal, the Court could not conclude definitively whether the threat or use of nuclear weapons would be lawful or unlawful in an extreme circumstance of self-defence, in which the very survival of a State would be at stake.

It is questionable whether any circumstances are conceivable in which the use of nuclear weapons would not contravene the provisions of international humanitarian law. In considering whether to use a nuclear weapon, account must be taken of both the immediate and long-term health effects of radiation, the effect on the environment and the danger to civilians far beyond the area of detonation due to the risk of radioactive fallout. If several nuclear weapons are used, cumulative effects will have to be factored in. In the AIV's opinion, there are very few if any situations or locations conceivable where the use of a nuclear weapon would not contravene international humanitarian law.

As regards the ethical principles, the AIV considers the complete rejection of nuclear weapons in accordance with the norms of deontological ethics, leading to efforts towards their elimination, unilaterally if necessary, to be understandable and respectable. This does not mean, however, that a world without nuclear weapons, or with very few nuclear weapons, would automatically be more peaceful and stable than today's world. The 20th century's two world wars remind us that highly developed societies are capable of causing suffering and destruction on an indescribable scale, even without nuclear weapons. Since the Second World War, nuclear weapons have served in part as a barrier (psychological or otherwise) against aggression on the part of a strategic rival, and as a last resort whereby states under threat could put an end to an overwhelming attack. In our part of Europe, permanently living under such a threat is something we have not experienced for a long time, but it is still a continuous presence along the border with Russia and elsewhere in the world. As yet no other weapons exist that are thought to have a similar war-preventing effect. From the point of view of consequentialist ethics therefore, there may also be important arguments in favour of not fully eliminating nuclear weapons as long as potential adversaries continue to possess or aim to possess them, and exploit that to their strategic advantage.

The AIV is of the opinion that, given the current situation, the possession of nuclear weapons is justified only for the purpose of preventing war and as a precondition and starting point for negotiations to achieve mutual nuclear arms control, arms reduction and, ultimately, disarmament. This does not mean that it rejects the principle of

humanity, nor that it is ignoring the inherent risks. Central to this view, however, is the duty to organise defence efforts in a way that reduces the risk of any war in which the use of nuclear weapons is a possibility, and the risk of accidents with nuclear weapons in peacetime, to a minimum. The use of a nuclear weapon will fundamentally change the nature of a conflict and introduce a large degree of uncertainty as regards its further development, with possibly catastrophic consequences. Even in extreme cases, the AIV believes decision-makers must be fully aware of the possible consequences.

### *New capabilities and technologies*

In the AIV's opinion, the nuclear modernisation programmes of Russia, China and the United States require particular attention. In its 2018 Nuclear Posture Review the United States announced a substantial nuclear modernisation programme, partly to replace systems dating from the Cold War, and partly to introduce new measures. The plans cannot be viewed separately from the investment programmes of the armed forces of Russia and China, which are aimed at closing the gap with the United States in terms of weapons and other technology, and military capabilities in general, over the coming decades. In some areas the United States has already been overtaken. This also applies to non-nuclear capabilities and technologies that may influence the deterrence strategies and nuclear decision-making of these three countries.

Experts say the risk of crisis instability is currently increasing due to rapid developments in different, interacting domains of military operations. This has been referred to for some time now as 'entanglement'. As a result of the increased interconnectedness and mutual dependency of nuclear and non-nuclear systems, in the event of rising tensions there is a risk of – nuclear – overreaction, because nuclear-weapon states do not want to lose their own nuclear retaliation capability. This is partly due to digitised and networked decision-making and communications systems, as well as offensive weapons that are difficult to detect and identify at an early stage, which influence the strategic considerations of nuclear-weapon states. A number of developments require further consideration, in part due to the tough questions they pose in terms of arms control and risk reduction.

Arming intercontinental missiles with a conventional payload can distort strategic relations, because a country that is under attack can no longer distinguish between conventional and nuclear offensive weapons, or only when it is much too late. Plans to arm existing intercontinental missiles (which are also used for nuclear missions) and submarine-launched missiles with conventional payloads fall under the United States' conventional prompt global strike efforts. This would enable the United States to strike targets anywhere in the world within one hour, allowing it, for example, to counterbalance the increased threat of intermediate-range missiles, which several years ago prompted John Bolton, now the US National Security Adviser, to call the INF Treaty into question.

The development of new hypersonic weapons could undermine the principles of mutual assured destruction. Russia and China may currently be ahead of the United States in this area. In mid-December 2018 President Putin announced that Russia had taken the Avangard hypersonic nuclear-capable missile system into production and that a first regiment would be operational in the coming year. Due to their speed, manoeuvrability and non-ballistic flight trajectory, these projectiles follow a very unpredictable flight



pattern, right up to the final stage. This vastly reduces the response times compared with 'ordinary' ballistic and cruise missiles, making such systems extremely difficult to intercept, even for the most advanced missile defence systems. The weapons' high speed and great precision can destroy hardened, underground military targets using a relatively limited payload. The introduction of these systems would increase the risk of an attack aimed at disarming an adversary. This is particularly true of states that possess a relatively limited strategic nuclear capability. Such a threat may encourage nuclear-weapon states to raise the readiness levels of their nuclear forces and delegate the authority to launch an attack to lower levels.

Russia appears to be increasingly militarising space: it is actively developing anti-satellite (ASAT) weapons and has placed assets in space that display 'abnormal behaviour'. In 2007 China also demonstrated its ASAT capability, and it is likely to have developed this capability further since then. The US government recently announced it would restructure and strengthen its space programme. The vulnerability of command, control and communications systems, which have become increasingly dependent on assets in space, gives cause for concern. These systems are a pivotal part not only of conventional military operations, but also of detection and early-warning capability in the event of a nuclear attack. When tensions run high, an opponent may be tempted to attack their adversary's chain of command, or parts thereof, in order to disrupt their military operations.

In addition to offensive cyber capabilities, the major powers (including the nuclear powers) also possess increasingly advanced assets for electronic warfare and data manipulation. These technologies make it possible to achieve a major impact without immediately causing casualties. What is more, it can be difficult to verify who carried out the attack. Such an action can, however, be interpreted as a precursor to a larger, possibly nuclear follow-up attack. In that case, a powerful pre-emptive attack (cyber or otherwise) in order to protect one's own warfare capability cannot be ruled out.

A logical extension of this digital development is the use of artificial intelligence. Given the speed and complexity of the attack scenarios described above, it is conceivable that major nuclear powers will resort to autonomous decision-making systems, supported by specially developed digital algorithms. In the nuclear domain in particular, human intervention, assessment and decision-making must always be ensured. Artificial intelligence can potentially search millions of data items and images and detect and monitor enemy missiles that were previously 'hidden', providing earlier warning in the event of a launch. This would be a positive development.

However, there is scepticism too about the scope for early and reliable detection of hidden nuclear-weapons programmes. A scenario in which artificial intelligence provides a greater ability to pre-emptively eliminate offensive nuclear weapons could have a destabilising effect. Experts say that there is a real chance that artificial intelligence will undermine countries' belief in the infallibility of their mutual retaliation capabilities, and that they will thus come to consider themselves vulnerable to a first strike. Although this prospect might seem a long way off, the United States, China and Russia already appear to be competing in this area.

### *Nuclear arms control under pressure*

A number of treaties that are important for nuclear arms control are at risk of non-compliance or non-extension on expiry. This is due to a wide range of obstacles and uncertainties. Of direct importance to Europe, and thus to the Netherlands, is compliance with the INF Treaty signed in 1987, which prevented an arms race involving intermediate-range ballistic and cruise missiles stationed in Europe. If Russia does not demonstrate convincingly that it has complied with the provisions of the INF Treaty in developing and deploying the new 9M729 cruise missile, the United States will definitively withdraw from the Treaty. Indirectly, the New START treaty, signed in 2011, is also in jeopardy. This strategic arms reduction treaty between the United States and Russia is at risk of not being extended under the current circumstances. If negotiations to extend New START do not begin in the near future, there is a major risk that after 2021 a period will begin in which neither country is bound any longer by the treaty limitations agreed in the past. The United States may not want to extend New START because, in view of the changing geopolitical context, it sees no point in further reducing or freezing the strategic part of its nuclear arsenal. Against this background, the future of the NPT of 1970 also requires attention. At individual country level, Iran and a number of non-NPT signatories (Israel, Pakistan, India and North Korea) have nuclear programmes that are relevant in regard to regional and global nuclear arms control, but are very difficult to contain. For the future of the NPT, the recognised nuclear-weapon states must fulfil their obligations under article VI and stick to the promises and agreements laid down at successive review conferences. The United States and Russia must set an example, as together they still possess more than 90% of the total number of nuclear weapons. The new Nuclear Ban Treaty will not bring a nuclear weapons-free world any closer as long as no nuclear-weapon states are party to it.

The uncertain future of the treaties raises the question of whether the treaties themselves are failing and becoming obsolete, or whether the fundamental consensus on which they are based is eroding. The former seems to be a factor in the case of the INF Treaty. It is not unreasonable for the United States and Russia to object to the fact that China and other countries can produce intermediate-range weapons unchecked, because they are not party to the Treaty, which dates back to the Cold War. It would be highly problematic if the major nuclear powers were to lose sight of the underlying goal of promoting strategic stability. Arms control has little chance of success if it cannot rely on that fundamental consensus. The unravelling of nuclear arms control could also lead to loss of the related system of agreements and contacts, a system which sets norms, creates trust and can ease tensions. Lack of communication and cooperation in this area could lead to uncertainty and a sense of insecurity, and in such a situation, miscommunication, incidents and a lack of understanding could give rise to deep-rooted mistrust and crises that are difficult to control. In view of the developing nuclear context, this scenario should be avoided at all cost.

### *NATO policy and nuclear sharing*

The political and military significance of the nuclear weapons within NATO lies in their contribution to preventing war by means of deterrence and defence, and thus their role as the ultimate guarantee of the Alliance's security. All nuclear measures taken by NATO that contribute to credible deterrence ultimately serve to ensure that these weapons will never have to be used. Even in the current security situation, the chance of nuclear

weapons being used is highly remote; only in the most extreme circumstances would this be considered. Despite the changes over the past few decades, NATO's nuclear policy is characterised by continuity. As long as nuclear weapons exist, fostering credible deterrence against aggression and nuclear blackmail is essential, according to NATO's strategic concept. The nuclear capabilities of France and the United Kingdom, although different in nature, both contribute to NATO's deterrence. The basis of that deterrence is formed by the United States' strategic nuclear arsenal. Besides the United States, five European NATO member countries (Belgium, Germany, Italy, the Netherlands and Turkey) have fighter aircraft available that can carry out nuclear missions, while other countries can provide operational support with their conventional air forces.

The growing debate within NATO about the transatlantic relationship is a cause for concern. Tensions between the United States and Europe are all the more risky if they also concern the nuclear dimension of Europe's defence. President Trump has sown doubt as to whether US security guarantees are 'hard'. Both during and after the Cold War, informal talks were held on several occasions between Germany and France on the expansion of France's autonomous nuclear deterrence policy to cover its Allies, but no concrete plans were ever developed. The fact that the debate surrounding a 'Eurodeterrent' re-emerged in the past few years, and that there even appears to be scope for discussion of an autonomous European nuclear capability, is indicative of the uncertainty regarding transatlantic ties.

It is hard to imagine a European nuclear deterrent being a feasible alternative in the near future to the security guarantee the US nuclear triad provides to the European Allies. None of this detracts, however, from the need to strengthen Europe's Common Foreign and Security Policy. True 'strategic autonomy' for Europe, as advocated by some, requires not only a military component (with a nuclear dimension) and a strong industrial and economic basis, but above all, political unity. In that regard there is still a long way to go.

The question is whether NATO should take extra measures now in light of the evolving nuclear security context. In general terms there is no need to 'mirror' every single development in Russia's nuclear doctrine. In contrast to the conventional balance of power, the deterrent effect of nuclear weapons does not depend on full parity. Moreover, while it may be the case that in the event of a large-scale, lengthy conflict, NATO's conventional strength would exceed Russia's, Russia is nonetheless able to assemble a large force very quickly at regional level. Provocations and – unannounced – operations can cause a great deal of damage and must not go without a response. Lowering the nuclear threshold is compounded first of all by neglecting the conventional strength of NATO forces in Europe, because in the event of a military confrontation the 'last resort' must be taken into consideration at an earlier stage. Credible deterrence also implies the ability to respond to a limited nuclear attack by an aggressor. Such a scenario would not only be the ultimate test for the European NATO countries, but would also expose how far the United States is willing to go in order to stop aggression against an Ally that does not have nuclear weapons at its disposal.

For the Netherlands, the role of sub-strategic nuclear weapons requires specific attention, in particular the US nuclear gravity bombs stationed in Europe. Over the past decade doubts have been raised as to whether the current dual capable aircraft (DCA) are capable of penetrating Russia's air defence. In recent years Russia has invested heavily in highly advanced and effective air defence systems and Anti-Access and Area

Denial (A2/AD) systems. Using these NATO assets is thus becoming increasingly difficult. On the other hand the F-35, which is set to replace current fighter aircraft in several countries, is less vulnerable in this respect. In addition, the United States' life extension programme for the B61 gravity bombs, which date back to the Cold War, will make this weapon not only safer, but also more precise and effective. Some critics point out that after the modernisation one variant will remain, the B61-12, which could be used strategically but could also lower the threshold if used at a low-yield setting. The lowest yield setting will, however, remain the same after modernisation, so there will be no undesirable 'miniaturisation' (no reintroduction of battlefield weapons). Some of the current versions of the B61 can already be used against strategic targets. The AIV concludes that there are no plans to modify the current nuclear task/mission of the Dutch F-16s and that this will be no different after the F-35 and the B61-12 become operational. The AIV calls for as much information as possible to be made available in the decision-making process on the continuation of the nuclear task.

Of even greater importance is the fact that nuclear sharing goes to the very essence of collective defence. In its 2018 Nuclear Posture Review (NPR) the United States presented its plans to increase the flexibility of its nuclear capabilities by arming existing sea-launched missile systems with low-yield warheads and developing nuclear-armed sea-launched cruise missiles (SLCM). Deployment of these maritime nuclear weapons does not require Allied support. If the focus shifts mainly to US systems that do not operate from European territory, there is a risk of marginalising the political involvement of the European Allies. In that context, the DCA and their conventional support form essential pillars of the United States' involvement in Europe's security.

Nuclear sharing has probably helped prevent more European countries from pursuing nuclear ambitions and thus contributes to the aim of the NPT. It is also important to note that, unlike other nuclear capabilities, DCA can be used to send easily observable signals about higher or lower readiness levels, which is an important step on the escalation ladder that can help avoid a nuclear confrontation. Moreover DCA aircraft, once airborne, can be recalled (re-tasked) at the last minute, which contributes to their flexibility in use. The Netherlands and the other DCA countries occupy a special position when it comes to discussing nuclear matters. Another relevant point to consider is whether unilateral discontinuation of the DCA task by the Netherlands would destabilise the security situation. It is conceivable that other European NATO member countries closer to Russia would be willing to take over this task, which the Kremlin would probably interpret as a serious provocation.

In the light of current developments concerning the INF Treaty, it is important to consider whether, if Russia ultimately does not respond to the urgent request by the United States and the other NATO member countries to return to full verifiable compliance, NATO should consider also stationing intermediate-range missiles or other nuclear or conventional weapons in Europe. NATO's Secretary-General has announced that the stationing of nuclear missile systems in Europe is unlikely. The German foreign minister has spoken out against stationing intermediate-range missiles in Germany or elsewhere in Europe. The AIV believes that from the European point of view it will be easier to gain support for countermeasures in other areas, such as missile defence, tighter sanctions and amendments to the Treaty (for instance limiting the geographical scope of the Treaty to Europe and the European part of Russia, or expanding it to include China and other countries).

## Conclusions

Society at large is rightly concerned about the role that nuclear weapons still play – to an increasing extent even – in international relations. In the new geopolitical reality, the role of nuclear weapons appears to be growing rather than diminishing. According to the norms of deontological ethics, the complete rejection of nuclear weapons, leading to efforts towards their unilateral elimination if necessary, is understandable and respectable. From the point of view of consequentialist ethics, there are also important arguments in favour of not eliminating nuclear weapons while potential adversaries continue to possess or aim to possess them, and could exploit that to their strategic advantage. Since the Second World War, nuclear weapons have served in part as a barrier (psychological or otherwise) against aggression on the part of a strategic rival, and as a last resort whereby states under threat could put an end to an overwhelming attack. As yet no other weapons exist that have a similar effect where preventing war is concerned.

It is uncertain how long the supposedly stabilising effect of mutual assured destruction between the superpowers can still be relied on. In this light, it is all the more urgent that nuclear-weapon states make agreements to prevent escalation – whether intentional or not. The risks associated with the possession and threat of nuclear weapons must be recognised and strong action be taken to reduce those risks. The development and deployment of hypersonic weapons, of conventional prompt global strike, and of artificial intelligence in detection and launch systems could seriously disrupt stability, but they do not fit into the framework of traditional nuclear arms control. Pursuing strategic dominance carries an inherent risk of new arms races and destabilisation of the global balance of power.

Although the current context is not a hopeful one in terms of specific next steps in nuclear disarmament, and NATO is not in a position to unilaterally change this state of affairs, arms control has been surprisingly successful in post-war East-West relations, especially in difficult periods. Current efforts are falling short, however, which is increasing the tendency towards precautionary military measures ('hedging'). The non-military alternative should now focus on consolidating existing treaties. But it should also go beyond that. Arms control cannot be viewed separately from the broader strategic and security policy agendas of the major nuclear powers. Those powers share the same interest on this front, as new arms races could lead to large-scale waste of scarce resources that could be put to better use for other purposes. There is a clear need for constructive strategic dialogue, based on the shared understanding that an armed balance of power requires the acceptance of a certain degree of vulnerability. The United States and Russia have a major responsibility in this respect, but in the changing global order China and other nuclear-weapon states must also be involved in such dialogue.

The AIV concludes that it is paramount to promote consultation between the nuclear powers. As the governments in question have taken no steps towards negotiations on multilateral nuclear arms control, preparations for consultations could be made by an authoritative international commission, similar to the World Commission on Environment and Development (the Brundtland Commission), which in 1987 published the report entitled 'Our Common Future' on global environmental threats and development issues. Such a commission could outline the path towards fruitful consultations on controlling risks, and types and quantities of weapons.

Besides conventional deterrence, in today's world order, nuclear deterrence is unfortunately unavoidable for NATO to keep adversaries at bay and protect the integrity of Allied territory. Credible nuclear deterrence requires various conceivable defensive options, which an aggressive adversary will have to take into account. Flexible options, complementary to the strategic nuclear arsenal, remain preferable to a situation in which one can 'only' trust in the deterrent effect of a capability whose use would probably result in total annihilation. The fact remains that there is still every reason to be critical of nuclear weapons with a very low yield, which would lower the threshold (similar to miniaturisation during the Cold War). At some point in the future a decision will be made regarding the continuation of the nuclear task the Netherlands currently fulfils within NATO with its fighter aircraft. In the AIV's opinion, discontinuation of the nuclear task by one of the European member countries would damage the Alliance's cohesion, undermine the United States' willingness to guarantee the security of the European countries, and negate those countries' influence on US policy.

Owing to the uncertainty over how much the current US government seems to value the NATO Alliance, not only is a more self-reliant and powerful European defence effort required in any event, but also a greater effort in the area of nuclear arms control. Over and above the efforts within NATO (the transatlantic security relationship still being the most preferable option), it could be worth trying to conduct a dialogue with Russia in the EU context if the United States does not take any useful initiatives. That would, however, require considerable enhancement of the European conventional military contribution to NATO, as well as greater political unity. It is hard to imagine a common European nuclear deterrent being a feasible alternative in the near future to the security guarantee the US nuclear triad provides to the European Allies.

The Netherlands has only limited influence on these developments. However, as a NATO member country and a DCA country that has not shied away from negotiations on the Nuclear Ban Treaty, the Netherlands can influence prioritisation in both nuclear (and nuclear deterrence) policy and nuclear arms control and disarmament, and it can help improve political and diplomatic communications between nuclear-weapon states and non-nuclear-weapon states.

As long as nuclear weapons exist, the main priority for all states should be to prevent them from ever being detonated – intentionally or by accident – anywhere in the world, on account of the unacceptable humanitarian consequences. Strict compliance with and enforcement of the NPT, including the requirement in article VI of that Treaty for all nuclear possessor states to pursue negotiations to achieve general and complete disarmament under strict and effective international control, remains the key aim in the area of nuclear weapons. There is an urgent need for new talks between the nuclear powers. We are at risk of a new arms race which includes nuclear weapons. The 20th-century nuclear arms control treaties and deterrence concepts no longer suffice in the 21st century. There is increased strategic rivalry involving more actors and new weapon systems, and there is a real risk of further nuclear proliferation. There is a lot at stake for Europe, which wants to – and must – take steps towards greater self-reliance, but will for the foreseeable future remain dependent on the United States' deterrence capabilities. Against this background, the AIV believes it is necessary to focus the Netherlands' efforts with regard to nuclear weapons on three areas:

- renewed consultations between the nuclear powers on reducing the role of nuclear weapons and extending and enhancing existing arms control treaties;

- promoting strategic stability through a reduction of tensions, a balanced positioning of military capabilities and risk reduction;
- maintaining transatlantic security cooperation.

The recommendations below elaborate on these three areas.

## Recommendations

1. The AIV recommends that the Netherlands submit a proposal to the General Assembly of the United Nations to the effect that an authoritative international commission – similar to the World Commission on Environment and Development (the Brundtland Commission), which published the report entitled ‘Our Common Future’ on global environmental threats and development issues – should outline the path towards agreements on controlling risks, quantities and types of weapons.
2. The Netherlands and other European countries should speak out more forcefully in favour of preserving the INF Treaty. They can call on the two nuclear superpowers to continue working to that end over the next six months (withdrawal process). It is very much in Europe’s interests to make effective agreements to prevent an arms race involving intermediate-range weapons, and to involve states other than Russia, particularly China. Should Russia ultimately prove unwilling to negotiate on the removal of weapon systems banned under the INF Treaty, and should the United States subsequently withdraw definitively from the Treaty, NATO should consider further steps. In view of the importance of the INF Treaty for Europe’s stability and security, the European NATO member countries should take the lead on this. Through the EU as well, European leaders should make it clear to President Putin that Russia’s violation of the INF Treaty is seriously damaging relations with Russia and that such actions will not be without consequences. If required, the AIV is willing to advise on possible further steps if the INF Treaty collapses.
3. The AIV is of the opinion that within NATO the Netherlands should propose opening a strategic dialogue with Russia on shared interests in relation to controlling and reducing nuclear weapons, in order to gradually bring about multilateral nuclear disarmament. Initially, this would focus on confidence-building measures and nuclear risk reduction. A concerted effort to stop further proliferation of nuclear weapons is also key. Ideally, negotiations on the drastic mutual reduction of sub-strategic nuclear weapons should lead to their total elimination from Europe (including the European part of Russia). Within NATO, the Netherlands could take the lead in initiating these negotiations, but the talks must not jeopardise the security of our country or the Alliance.
4. The Netherlands must fulfil its obligations as agreed within NATO concerning conventional military capabilities. The prevention of war is based on a balanced mix of diplomatic conflict management and deterrence. A substantial enhancement of NATO’s conventional capabilities in Europe and compliance with NATO obligations are crucial in order for Allied policy aimed at preventing war to be credible and effective. Balanced conventional capabilities in Europe reduce the risk of a military conflict between Russia and NATO and with it, the risk of nuclear weapons being used. A solid conventional defence not only raises the nuclear threshold but also provides opportunities for arms control and disarmament.
5. Partly in the light of the United States’ current foreign policy, which is weakening the international multilateral order, there must be scope for discussion on greater European military self-reliance. Europe is dependent on the US military, both in conventional and nuclear terms. This is not expected to change in the near future. A strong security relationship with the United States therefore remains essential for Europe. The AIV would consider it highly undesirable for new nuclear-weapon states to emerge in Europe.



6. For military and, above all, political reasons, having only US nuclear assets that are not stationed in Europe to fall back on for the implementation of NATO's nuclear policy is undesirable, not least due to the current state of relations within the Alliance. By making their fighter aircraft available for possible nuclear operations, European governments demonstrate their willingness to take on extra responsibility, which strengthens the credibility of NATO's defence. Against that background, in the light of the international security situation and given the importance of continued Allied burden-sharing, the AIV recommends that the current nuclear task of the Dutch fighter aircraft (the DCA task) be maintained when the F-35 replaces the F-16. The AIV calls for as much information as possible to be made available in the decision-making process on the continuation of the nuclear task.

7. The AIV considers it important for NATO to continue conducting thorough exercises for the procedures regarding nuclear weapons, using generic scenarios. This also applies to the procedures surrounding political decision-making and operational readiness. Regular procedural exercises are important in relation to not only the credibility of the deterrence but also risk reduction, with a view to avoiding unintentional use, for instance due to miscommunication between decision-makers or as the result of an accident.

8. The modernisation of systems for nuclear decision-making and communication includes the use of digital technologies and possibly, in the future, artificial intelligence. To prevent the unintentional use of nuclear weapons, the AIV considers it essential that the states that possess nuclear weapons have access to direct and reliable means of communications (hotlines). Artificial intelligence can help speed up the creation of an accurate picture of the situation in a complex environment in which there is a lot of information to process, but it can also entail new risks. This underscores the importance of meaningful human intervention, assessment and decision-making in this respect.

9. It is important to improve knowledge of and information sharing on NATO's nuclear policy. NATO and the governments of its member countries should make a much greater effort to explain NATO's nuclear and security policy and provide information about all the relevant facts.

10. The AIV, aware of the Netherlands' limited direct influence at global level, believes that continuation of the multilateral process of arms control, including non-proliferation, whether it be led by the United States or not, is of crucial importance, from both a global and national point of view. The Netherlands can contribute to this – particularly in the context of the Non-Proliferation Treaty – in a variety of ways: by using its good knowledge position to participate in a wide network within the global arms control community, by working with like-minded actors, by emphasising the importance of nuclear arms control in its bilateral contacts with the United States and other countries, by stressing the responsibility inherent in the protective, example-setting role of key countries, and – where it can operate as a bridge builder – by seizing every opportunity to facilitate dialogue as concretely as possible.

### *Background*

The AIV advisory report on nuclear weapons goes further than merely providing commentary and making recommendations on current and anticipated nuclear developments within NATO. In its request for advice, the government observed that nuclear expertise and knowledge of nuclear issues have declined since the end of the Cold War. For that reason the AIV wants its advisory report to contribute to a deeper insight into this wide-ranging field, which can be difficult to get to grips with. To this end, a historic overview beginning in 1945 has been included as an annexe to the report. In addition to the subjects on which the government requested advice, the advisory report also deals with matters such as international law and ethics, and the basis for nuclear arms control. In addition to security experts from within the AIV and elsewhere, the authors of this report also consulted legal professionals, academics and representatives of civil society organisations.

### *Terminology*

In the interests of clarity, a list of terms and definitions has been included as an annexe to the advisory report. The oft-made distinction between 'strategic' and 'tactical' nuclear weapons is not based on authoritative definitions. The term 'tactical' was also used for nuclear battlefield weapons. These weapons, such as nuclear artillery with its short range and often relatively limited explosive power, have been fully banned by NATO. In the AIV's view, the use of any nuclear weapon, regardless of its characteristics, fundamentally changes the nature of a conflict and therefore always has a strategic significance. For the nuclear weapons that are not viewed as belonging among the strategic nuclear weapons to which the United States and Russia have attached treaty limitations, the AIV considers 'sub-strategic' to be the least problematic term.

Professor Jaap de Hoop Scheffer  
Chairman of the Advisory Council  
on International Affairs  
P.O. Box 20061  
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Annexe

Date 15 March 2018

Re Request for advice on the future role of nuclear weapons

Dear Professor De Hoop Scheffer,

The shifting international situation requires us to reflect on the current and future role of nuclear weapons. Geopolitical and technological changes and changes in nuclear doctrine in particular impel us to rethink NATO's current nuclear policy and the Netherlands' policy as a member of the Alliance.

NATO is a nuclear alliance. Its Deterrence and Defence Posture Review (2012) states that its greatest responsibility is to protect and defend its territory and our populations against attack of any kind. The three nuclear powers in the Alliance – the US, the UK and France – play a central part in NATO nuclear policy, but every other NATO member has a contribution to make to this policy as well. At the same time, the Alliance states that the circumstances in which any use of nuclear weapons might have to be contemplated are extremely remote. Nuclear non-proliferation also plays an important role in the achievement of the Alliance's security objectives, and NATO is resolved to create the conditions for a world without nuclear weapons.

As a member of NATO, the Netherlands has a nuclear mission. One squadron of Dutch F-16 fighter aircraft is charged with this mission, and the F-35s ordered to replace the F-16s are intended to take it over. In addition to meeting its NATO obligations, the Netherlands gives high priority to working on arms control and disarmament. A Dutch diplomat was for example the Chair in 2017 of the Preparatory Committee for the 2020 (Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons). The Netherlands also plays an active role in the Fissile Material Cut-off Treaty (FMCT), the Comprehensive Nuclear-Test-Ban Treaty (CTBT), the Non-Proliferation and Disarmament Initiative (NPDI) and the International Partnership for Nuclear Disarmament Verification (IPNDV).

After the end of the Cold War, the number of nuclear weapons declined worldwide, and they came to play a subordinate role for NATO and Russia, both militarily and politically. During that same period, nuclear expertise, familiarity with nuclear issues, nuclear deterrence and nuclear arms control also declined. In recent years, however, more states have been trying to acquire nuclear arms, and nuclear weapon states have been modernising their arsenals. Moreover, in the defence doctrine Russia adopted in 2014 it assigns a major role to nuclear weapons, including in an offensive capacity. This can have consequences for the European security situation. In addition, there is a range of challenges around the world in the field of nuclear proliferation, with North Korea as the most obvious problem. The United States, a NATO ally, also once again assigns a greater role to nuclear weapons for its national security in its most recent Nuclear Posture Review (2018).

Against the backdrop of this shifting international landscape, the Dutch government needs a thorough analysis of the current and future role of nuclear weapons and of the appropriate role for NATO in general, and the Netherlands in particular, in this area. The Ministers of Foreign Affairs and of Defence therefore request that the AIV issue an advisory report on this subject, with specific attention to the following questions:

1. What is the AIV's assessment of NATO's nuclear security situation, in the light of the geopolitical and technological changes and changes in nuclear doctrine in the Euro-Atlantic region and beyond? Specifically, how does it assess the consequences for NATO of nuclear and ballistic missile developments in Russia? Furthermore, what are the consequences of the nuclear aspirations of, and nuclear developments in, North Korea, Iran and possibly other countries as well? What role do non-state actors play in this security situation?
2. To what extent are NATO's nuclear doctrine, nuclear policy and nuclear capabilities equal to these challenges? How can NATO ensure that its nuclear policy can be successfully implemented? What relation do NATO's conventional defence policy and conventional capabilities bear to its nuclear policy and capabilities?

3. How does the AIV assess NATO's role in the field of nuclear arms control, disarmament and non-proliferation? How closely does NATO's nuclear policy correspond to its values and aims in this area? What practical opportunities are there to help create the conditions for a world without nuclear weapons?
4. What part do the three nuclear weapon states play in NATO, and how do their national nuclear doctrines influence the overarching nuclear policy of the Alliance? What is the role in NATO nuclear policy of American sub-strategic nuclear weapons deployed in Europe? What value should NATO place on the concept of burden sharing?
5. Like all other NATO member countries, the Netherlands has a nuclear mission as part of the Alliance. How can the Netherlands carry out this NATO mission properly? What value should the Netherlands place on the concept of burden sharing?
6. Preventing nuclear incidents and accidents and the use of nuclear weapons as a result of miscalculation or miscommunication promotes the security of the Alliance. How can NATO contribute to nuclear risk reduction?

This request for advice has been included in the AIV's programme of work for 2017-2019. We look forward to receiving your report. We would be particularly pleased to receive it before the NATO Summit set for mid-July 2018.

Yours sincerely,

Stef Blok  
Minister of Foreign Affairs

Ank Bijleveld-Schouten  
Minister of Defence