



# ***The Canadian Defence Policy Review***

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## **Canadian Defence Policy and NATO's Nuclear Weapons**

***The current Canadian Defence Policy Review is not focused on questions of disarmament and arms control; Global Affairs Canada is the lead agency on those issues, and it would do well, by the way, to undertake a thorough review of related policies and priorities. Defence policies and postures do nevertheless help to either strengthen or undermine disarmament prospects. A case in point is NATO's nuclear posture. Canada is involved as a NATO member and as a participant in NATO's Nuclear Planning Group.<sup>1</sup> And as a party to the Nuclear Non-Proliferation Treaty (NPT) as well, Canada has a responsibility to pursue alliance defence policies and practices that are conducive to full implementation of the NPT and ending NATO's reliance on nuclear deterrence. That would in turn also advance the individual and collective security interests of NATO member states, including Canada, and all the states of the Euro-Atlantic.***

### **NATO's Nuclear Weapons Posture**

NATO states now collectively declare, and repeatedly so, that they want "to create the conditions for a world without nuclear weapons in accordance with the goals of the NPT..." It's a welcome intention, but it is immediately qualified when NATO insists that "as long as nuclear weapons exist, NATO will remain a nuclear alliance," or that NATO members continue to regard the strategic nuclear forces of the US as the "supreme guarantee" of their security. These NATO declarations – in the Lisbon 2010 Strategic Concept<sup>2</sup> and the 2016 Warsaw communique<sup>3</sup> – are accompanied by the assurance that "the circumstances in which any use of nuclear weapons might have to be contemplated are extremely remote." And to prepare for that ostensibly remote possibility, the alliance leader, the United States, is poised to spend upwards of \$10 billion<sup>4</sup> just to "modernize" its B61 nuclear bombs, half of which are to continue to be deployed in Europe, and to spend something like a trillion dollars in a 30-year remake of the entire American nuclear arsenal.<sup>5</sup> Those modernization plans represent a more powerful intention than any NATO declaration and they do not point to support for an early transition to a world without nuclear weapons.

That is not to deny that NATO's last Strategic Concept, the 2010 Lisbon version, included some constructive improvements over the 1999 Washington version<sup>6</sup> – with the 2016 Warsaw NATO Summit declaration largely reinforcing the status quo, but unfortunately also allowing for some erosion back to the more hawkish tones of 1999.

In 1999 NATO threat assessments pointed to “powerful nuclear forces” outside the Alliance – Russia and China in particular. In 2010 there is no reference to nuclear arsenals threatening NATO members. The focus is on the fear that nuclear weapons will proliferate to other states, to undermine global stability and prosperity, and to non-state groups, raising the specter of nuclear terrorism. Other documents, like the Chicago 2012 Deterrence and Defence Posture Review,<sup>7</sup> point to other “emerging security challenges” – like cyber threats, the security implications of environmental degradation and resource and energy scarcity, and new technologies.

Nuclear weapons are obviously no help in facing down those threats, but in the 2016 Warsaw declaration, the Russians are back: “Russia's aggressive actions, including provocative military activities in the periphery of NATO territory and its demonstrated willingness to attain political goals by the threat and use of force, are a source of regional instability, fundamentally challenge the Alliance, have damaged Euro-Atlantic security, and threaten our long-standing goal of a Europe whole, free, and at peace.” And if the Russians are back, so is nuclear deterrence.

In 1999 the fundamental purpose of nuclear weapons was described as “political: to preserve peace and prevent coercion and any kind of war.” The reference to preventing “any kind of war” reflected a very broad role for NATO’s nuclear weapons. Going well beyond deterring nuclear use by other states, NATO’s nuclear bombs were also assumed to be there to deter conventional forces, with the clear implication that NATO would be prepared to counter a conventional attack with nuclear strikes. Nuclear weapons in the European NATO context were thus described as “essential.” In 2010, with less focus on the Russian threat, NATO’s European based nuclear weapons are no longer described as “essential” – but they are also not abjured. NATO still insists on maintaining an “appropriate” mix of conventional and nuclear weapons and retains the 1999 reference to US strategic nuclear weapons as the “supreme guarantee of security.” And by 2016, NATO was back to speaking ominously about security trends and insisting that deterrence in Europe requires “United States’ nuclear weapons forward-deployed in Europe.”

In general, NATO’s post-Cold War declarations have acknowledged the importance of arms control and disarmament to security, and in 2010 made the welcome claim that “NATO seeks its security at the lowest possible level of forces.” In 2016, however, NATO did not repeat that claim and explained “that progress on arms control and disarmament must take into account the prevailing international security environment,” and then expressed “regret that the conditions for achieving disarmament are not favourable today.”

### **The B61 Bomb in Europe**

So the B61 seems destined to stay in Europe for the time being. It is the only nuclear weapon that the US bases in European NATO, some 180 gravity bombs – in Belgium (10-20), Germany (10-20), Italy (60-70), Netherlands (10-20), and Turkey (60-70) – down from about 2,500 in the early 1990s. They are at low alert levels, requiring weeks or even months to ready them for use in an armed conflict.<sup>8</sup>

Specially modified F-16 and Tornado aircraft, and F-35 aircraft once acquired, operated by host states and the US are the designated delivery systems.<sup>9</sup> Notably, Turkey does not now operate any aircraft capable of delivering the B61s stored there, nor does the US currently have aircraft in Turkey equipped to deliver them.<sup>10</sup> A US Congressional Research Service report explains: “Turkey neither maintains nuclear-capable aircraft nor permits the United States to deploy its own at the base. As a result, the United States or other NATO partners would fly aircraft into Incirlik to retrieve the weapons and employ them during a crisis”<sup>11</sup> (meaning the 60-70 bombs in Turkey are essentially in storage – left vulnerable during the recent coup attempt, and based only some 100 kms from the Syrian border<sup>12</sup>).

B61 bombs can be dialed to deliver varying yields, from 0.3 kilotons to 340 kilotons<sup>13</sup> (compared with the 15 kiloton yields of the Hiroshima bomb), and they are scheduled to be rebuilt – “modernized” – as the B61-12 that will incorporate several versions into a single more accurate bomb with some earth-penetrating capability.<sup>14</sup> The new version will be deliverable by either tactical or long-range strategic aircraft. As noted, the cost of producing some 400 bombs by the mid-2020s will be well in excess of \$10 billion.<sup>15</sup> About half are slated for deployment in Europe and delivery by tactical fighter aircraft, replacing the bombs currently there.

Inasmuch as B61 bombs are intended to deter conventional attacks, they are quintessentially first-use nuclear weapons – that is, they are designed and deployed for responding to escalating conventional armed conflict. But in that lies an unresolvable paradox, which is why critics argue the B61 has no real military utility. Would NATO consent, for example, to the use of nuclear weapons against Russia in support of the Baltic states when such use would almost certainly trigger a nuclear counterattack, first on Europe and quite possibly escalating to include North America?<sup>16</sup> Under any sane leadership, it’s a paradox that should render the B61 unusable – so why spend billions to refit them and hundreds of millions annually to maintain them?

But, of course, proponents want those bombs to send a “political” message of solidarity – whether weapons that cannot be used send a persuasive message is another matter,

Any decision to remove B61 bombs from Europe is encumbered by NATO’s consensus decision-making structure. Furthermore, the current strategic concept insists NATO will “ensure the broadest possible participation of Allies in collective defence planning on nuclear roles,” including “in peacetime basing of nuclear forces.”<sup>17</sup> In effect, that hands a veto to those most reluctant to see nuclear weapons removed from Europe. In 2010 the NATO foreign ministers agreed that “no nuclear weapons would be removed from Europe unless all 28 member states of NATO agreed.”<sup>18</sup> As a Federation of American Scientists report notes, “countries like Lithuania now effectively dictate U.S. policy on non-strategic nuclear weapons.”<sup>19</sup>

The newer East-European members of NATO are obviously the most keen on US nuclear weapons being based in Europe as a symbol or guarantee of alliance cooperation and solidarity against Russia – begging the question of why NATO’s Article 5 does not suffice as the core of alliance solidarity. Others would be happy to see all tactical nuclear weapons removed from European NATO, and in the

context of developing NATO's 2010 Strategic Concept, significant political leaders in several NATO countries, including Belgium, Germany, and Netherlands, among those currently hosting such weapons, as well as leaders in Norway and Denmark, called for the US to remove its nuclear weapons from Europe. Sympathetic signals along those lines also came from Turkey, Spain, Portugal, and Greece. Poland and the Baltic states, on the other hand, fear any such removal or even reduction would signal reduced US commitment to their security and thus make them more vulnerable to Russia.<sup>20</sup>

### **Defence Policy that Supports Disarmament**

NATO leaders meeting in Warsaw earlier this year were obviously not wrong when they allowed that the current security climate in Europe is not conducive to disarmament. But it is also obvious that there are many dimensions to building a political climate more conducive to disarmament, and one is disarmament itself. Removing nuclear weapons from Europe, where they are widely acknowledged to have no military utility, would be one way of helping to change the security climate. In other words, changes to defence policy and military deployments can be used to clear away some impediments to NATO's declared objective of a world without nuclear weapons.

#### *a) Move all nuclear weapons to the home territory of the state that owns them:*

Global Zero, with supporting testimony from former Cold War military officials and Cold War advocates of nuclear deterrence, reinforces the judgement that B61 bombs in Europe have virtually no military utility. And thus they advocate for *unilateral* action for the "removal of all American tactical nuclear weapons from operational combat bases in Europe to national storage facilities on U.S. territory, and all Russian tactical weapons from their European combat bases to their national storage facilities..."<sup>21</sup> Because these weapons have no military utility, both the US and Russia are genuinely free to act unilaterally, without any guarantees of reciprocity and without suffering any security disadvantages as a consequence.

There are two additional reasons why American action in particular should not be conditioned by reciprocity. First, Russia already complies with the principle that nuclear weapon states not store or deploy nuclear weapons outside of their own national territory. Russia should certainly be encouraged to reduce the overall numbers of its non-strategic weapons and to remove them from military bases in close proximity to NATO states, but it is now incumbent on the United States to match the Russian policy of not stationing weapons on the territories of other states. The second important reason why there should be no conditionality attached to the return of B61 bombs to the territory of the US is that such action is already a treaty requirement – that is, it is a necessary move to bring the US and the current European host states for those weapons into full compliance with Articles I and II of the NPT (see below).

In addition, removing the B61 from Europe would further de-legitimize tactical nuclear weapons and better align NATO's defence posture with a post-Cold War security architecture more conducive to security cooperation with Russia and less reliant on the mutually assured destruction calculation of deterrence.<sup>22</sup>

*b) Conform to the NPT:*

There is no credible way to say that the deployment of the B61 bomb in Europe, on the territories of NATO states that are non-nuclear weapon state parties to the NPT, are not in direct violation of the NPT. Foreign Minister Stéphane Dion tries, arguing that the US transfer of nuclear weapons to Germany and other European states is in accord with the NPT “because these weapons remain under strict control of the United States; Germany has no authority or control whatsoever over their use.”<sup>23</sup> But he is wrong on two counts – first, the NPT bans all such transfers, regardless of who controls the weapons in question, and, second, US control over its weapons in other states is not as absolute as he suggests.

In Article I of the Treaty “each nuclear-weapon State Party to the Treaty undertakes not to transfer to any recipient whatsoever nuclear weapons or other nuclear explosive devices.” Nuclear-weapon States also agree not to transfer “control over such weapons or explosive devices directly or indirectly.”<sup>24</sup> In Article II non-nuclear-weapon states agree not to receive the transfer of nuclear weapons or to exercise control over such weapons. It is actually rather unambiguous. As a party to the Treaty the US promises not to transfer weapons to another state, but has nevertheless transferred B61 bombs to five states (and had earlier transferred other nuclear weapons to other states, including to Canada). The five states now hosting B61 bombs in Europe are also all parties to the NPT and have promised not to receive nuclear weapons, but have nevertheless accepted B61 bombs. Furthermore, in each case, as John Burroughs of the US Lawyers’ Committee on Nuclear Policy points out,<sup>25</sup> in an armed conflict in which the US decided to actually use these weapons, they would be delivered by aircraft of the states where they are deployed – and thus would be under their control, in violation of the NPT prohibition on the transfer of control.

It goes without saying, as the Cuban missile crisis amply demonstrated, the United States would absolutely not find it acceptable for Russia to transfer nuclear weapons to friends or allies anywhere in the world, much less to the western hemisphere. Nor would the Americans be any more sanguine about such a development if Russia promised to retain control of such weapons.

The Canadian Foreign Minister would have been on more credible ground had he argued that the NPT prohibition on transfers is not applicable in these cases because they pre-date the Treaty’s entry into force. But as Burroughs points out, that argument also ultimately fails. While US weapons were already transferred to some of its non-nuclear-weapon state allies, the Treaty does not acknowledge this and certainly provides no exception to its unambiguous rule. In one of those host states, Germany, calls for an end to stationing nuclear weapons on its soil have been explicitly linked to the need to “fulfill our commitments under the NPT 100 percent.”<sup>26</sup>

NATO at least made a firm commitment in the early post-Cold War years not to deploy or store nuclear weapons on the territories of new NATO members: “The member States of NATO reiterate that they have no intention, no plan and no reason to deploy nuclear weapons on the territory of new members, nor any need to change any aspect of NATO’s nuclear posture or nuclear policy - and do not foresee any future need to do so. This subsumes the fact that NATO has decided that it has no intention, no plan, and no reason to establish nuclear weapon storage sites on the territory of those members...”<sup>27</sup> It is obviously and critically important that it not violate this commitment in the light of some of its other recent responses to the “prevailing international security environment.”

*c) No-first-use:*

The removal of US nuclear weapons from Europe is directly relevant to calls for a NATO/US commitment not to be the first to introduce the use of nuclear weapons into a conventional armed conflict.

Bruce Blair has reported<sup>28</sup> that President Obama could yet announce a decision to commit the US to a no-first-use policy, a prominent measure widely promoted as a spur to disarmament, and a no-launch-on-warning policy, a key risk reduction move. A no-first-use policy would especially engage NATO because the US tactical nuclear weapons stationed on the territories of European member states are in fact especially designed for first use. NATO's own description of its nuclear forces reinforces the idea that they are first-use and war-fighting weapons: "Nuclear weapons are a core component of the Alliance's overall capabilities for deterrence and defence alongside conventional and missile defence forces."<sup>29</sup> In other words, they are understood as just one more part of the arsenal, ostensibly useable in the same way as are other weapons systems – rather than seen as sole purpose weapons intended exclusively to deter the use of nuclear weapons by other states. In particular, European-based tactical nuclear weapons are designed to be used in the context of conventional armed conflict that is going very badly – meaning they are quintessentially first-use weapons.

Of course, there is still the nuclear paradox to contend with – namely, that the main accomplishment of any first-use of a nuclear weapon in an armed conflict would be to incur nuclear retaliation, without any guarantees that it would not escalate to the mutually assured destruction, or MAD, that is still the central nuclear logic.

*4. NATO relations with Russia:*

Reduced tensions and progress in arms control and disarmament, nuclear and conventional, will ultimately be linked to re-invented east-west relationships in the Euro-Atlantic region. Again, nuclear arms control and disarmament need to be understood not only as a potential product of improved relations, but as a key means of building such improved relations.

NATO's recent Warsaw Summit emphasized the importance of talking to Russia "with a view to avoiding misunderstanding, miscalculation, and unintended escalation, and to increase transparency and predictability." As welcome as that is, the focus is on risk reduction in the context of ongoing tension and crisis, rather than on the broader and more fundamental call to reset the security relationship with Russia in the interests of moving beyond crisis and tension. Much of the NATO leaders' communique re-emphasized military tension and confrontation, with only a pro-forma nod to talking: "NATO has responded to this changed security environment by enhancing its deterrence and defence posture, including by a forward presence in the eastern part of the Alliance, and by suspending all practical civilian and military cooperation between NATO and Russia, while remaining open to political dialogue with Russia. We reaffirm these decisions."

NATO has thus doubled down<sup>30</sup> on deterrence, and some analysts insist that the way out, the way to raise the nuclear threshold and to prevent "excessive reliance on nuclear capabilities," is to build up NATO's conventional military capabilities. They argue that nuclear weapons can be kept in reserve as a "last resort" only in the context of robust conventional forces that are capable of deterring

conventional aggression.<sup>31</sup> But there are two dangerous fallacies in that argument. First, NATO never sees Russian efforts to bolster its conventional forces as a means of raising the nuclear threshold and creating a robust conventional deterrent – instead, NATO sees any expansion of Russian conventional forces as evidence of pernicious intent (and then wonders why Russia doesn't see NATO conventional superiority as benign). Second, any expansion of NATO conventional military capacity drives Russia to rely even more on a nuclear deterrent. Russia currently spends less than a tenth of what NATO does on its military. As long as Russia regards the states with this overwhelming collective military advantage as adversaries or at least a credible challenge to its interests, it is unlikely to be amenable to reductions, never mind the elimination, of its tactical nuclear weapons. So, increased conventional muscle on the part of NATO will only drive Russia into heightened reliance on nuclear deterrence, and the more it relies on nuclear weapons, the more NATO states, especially those that were formerly in the Warsaw Pact or Soviet Union itself, will insist on heightened, not reduced, NATO reliance on nuclear deterrence.

Building up NATO military capabilities and deployments “will only,” as the French *Fondation pour la Recherche Stratégique* has argued, “escalate tensions” – especially if there is not openness to serious exploration of a new approach to European security that acknowledges Russian security needs and vital interests. “It is crucial that [NATO] find ways not to further isolate Moscow in Europe by keeping open the door to mutually beneficial political and economic cooperation while concurrently seeking to engage all sides in building a new system of Euro-Atlantic security from the Baltics and Eastern Europe to the Black Sea and Caucasus.”<sup>32</sup>

The former Supreme Commander of Allied Forces in NATO, US General (retired) Philip Breedlove makes the same case: “We...need to establish quality communications with the Russians. If we wait for it to fall in our lap we're going to fail.”<sup>33</sup> While the NATO-Russia Council should obviously be utilized for this, a climate of cooperative and mutual security within the entire OSCE region is essential. It is a continent on which any security arrangement that is not mutual and cooperative is not actually security. The only thing mutual about “security” backed by nuclear deterrence is the mutual threat of total destruction.

Canadian defence policy in the context of European NATO should seek commitments to:

- return all US nuclear weapons in Europe back to the United States;
- end all nuclear sharing arrangements and confirm compliance with Articles I and II of the NPT;
- have NATO pledge never to be the first to use nuclear weapons; and
- build mutual and cooperative defence/security arrangements within the OSCE region.

## End Notes

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<sup>1</sup> NATO says “the Nuclear Planning Group acts as the senior body on nuclear matters in the Alliance and discusses specific policy issues associated with nuclear forces. The Alliance's nuclear policy is kept under constant review and is modified and adapted in the light of new developments.” [http://www.nato.int/cps/en/natolive/topics\\_50069.htm](http://www.nato.int/cps/en/natolive/topics_50069.htm)

<sup>2</sup> Active Engagement, Modern Defence: Strategic Concept for the Defence and Security of the Members of the North Atlantic Treaty Organisation adopted by Heads of State and Government in Lisbon, November 19, 2010. [http://www.nato.int/cps/en/natolive/official\\_texts\\_68580.htm](http://www.nato.int/cps/en/natolive/official_texts_68580.htm).

<sup>3</sup> Warsaw Summit Communiqué Issued by the Heads of State and Government participating in the meeting of the North Atlantic Council in Warsaw 8-9 July 2016. [http://www.nato.int/cps/en/natohq/official\\_texts\\_133169.htm](http://www.nato.int/cps/en/natohq/official_texts_133169.htm)

<sup>4</sup> New Approach to Managing the B61-12 Life Extension, Government Accountability Office, Report to the Committee on Armed Services, U.S. Senate, February 2016, GAO-16-218. [www.gao.gov/assets/680/674960.pdf](http://www.gao.gov/assets/680/674960.pdf)

<sup>5</sup> An August 2016 briefing by the Washington-based Arms Control Association, “U.S. Nuclear Modernization Programs,” sets out in detail US nuclear weapons modernization plans: “The United States maintains an arsenal of about 1,750 strategic nuclear warheads deployed on Intercontinental Ballistic Missiles (ICBMs), Submarine-Launched Ballistic Missiles (SLBMs), and Strategic Bombers and some 180 tactical nuclear weapons at bomber bases in five European countries. The Departments of Defense and Energy requested approximately \$23 billion in Fiscal Year (FY) 2015 to maintain and upgrade these systems and their supporting infrastructure, according to the nonpartisan Congressional Budget Office (CBO). CBO estimates that nuclear forces will cost \$348 billion between FY 2015 and FY 2024. **Three independent estimates put the expected total cost over the next 30 years at as much as \$1 trillion.** The U.S. military is in the process of modernizing all of its existing strategic and tactical delivery systems and refurbishing the warheads they carry to last for the next 30-50 years. These systems are in many cases being replaced with new systems or completely rebuilt with essentially all new parts. The planned U.S. investment in nuclear forces is unrivaled by any other nuclear power” (emphasis added). <https://www.armscontrol.org/factsheets/USNuclearModernization>

<sup>6</sup> The Alliance's Strategic Concept: Approved by the Heads of State and Government participating in the meeting of the North Atlantic Council in Washington D.C. 24 Apr. 1999. [http://www.nato.int/cps/en/natolive/official\\_texts\\_27433.htm](http://www.nato.int/cps/en/natolive/official_texts_27433.htm).

<sup>7</sup> Deterrence and Defence Posture Review, 20 May 2012, the NATO Chicago Summit. [http://www.nato.int/cps/en/natolive/official\\_texts\\_87597.htm](http://www.nato.int/cps/en/natolive/official_texts_87597.htm)

<sup>8</sup> Tom Sauer, “Just Leave It: NATO’s Nuclear Weapons Policy at the Warsaw Summit,” *Arms Control Today*, June 2016. <https://www.armscontrol.org>

<sup>9</sup> “US Nuclear Weapons on the Territories of 5 NATO State,” The Nuclear Threat Initiative, n.d. accessed in August 2016. <http://www.nti.org>

<sup>10</sup> Jeffrey Lewis, “Should the US Pull Its Nuclear Weapons From Turkey?” *New York Times*, Room for Debate, 20 July 2016. <http://www.nytimes.com>

Tobin Harshaw, “Why the US should move nukes out of Turkey,” *Japan Times*, 25 July 2016. <http://www.japantimes.co>

<sup>11</sup> Amy F. Woolf, “U.S. Nuclear Weapons in Turkey,” CRS Insight (IN10542), 02 August 2016. Available at [www.fas.org/sgp/crs/nuke/IN10542.pdf](http://www.fas.org/sgp/crs/nuke/IN10542.pdf)

<sup>12</sup> Barry Blechman and Laicie Heeley, “B61 Life Extension Program: Costs and Policy Considerations,” The Stimson Center, Issue Paper, August 2016.

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<sup>13</sup> The B61 (Mk-61) Bomb: Intermediate yield strategic and tactical thermonuclear bomb. The Nuclear Weapons Archive, 09 January 2007. <http://nuclearweaponarchive.org/Usa/Weapons/B61.html>

<sup>14</sup> "Video Shows Earth-Penetrating Capability of B61-12 Nuclear Bomb," Federation of American Scientists, 14 January 2016. <https://fas.org>

<sup>15</sup> "US Nuclear Weapons on the Territories of 5 NATO State," The Nuclear Threat Initiative. <http://www.nti.org>

<sup>16</sup> Tom Sauer, "Just Leave It," 2016.

<sup>17</sup> Paragraph 19; NATO 2010 Strategic Concept.

<sup>18</sup> Amy F. Woolf, "Nonstrategic Nuclear Weapons, Congressional Research Service, CRS Report RL32572, available at the Federation of American Scientists. <http://www.fas.org/spp/crs/nuke/>

<sup>19</sup> Hans M. Kristensen, "New Nuclear Weapons Employment Guidance Puts Obama's Fingerprint on Nuclear Weapons Policy and Strategy, Federation of American Scientists, FAS Blog, 20 June 2013. <https://fas.org/blogs/security/2013/06/nukeguidance/>

<sup>20</sup> Amy F. Woolf, "Nonstrategic Nuclear Weapons," Congressional Research Service.

<sup>21</sup> "Global Zero NATO-Russia Commission Report: Removing US and Russian Tactical Nuclear Weapons from European Combat Bases," Global Zero 2012. <http://www.globalzero.org/de/nato-russia-commission-report>

<sup>22</sup> "Global Zero, 2012

<sup>23</sup> Stéphane Dion Letter to the President of Physicians for Global Survival, 11 August 2016.

<sup>24</sup> The text of the Treaty is available at the website of the United Nations Office for Disarmament Affairs: <https://www.un.org/disarmament/wmd/nuclear/>

<sup>25</sup> John Burroughs, "The Legal Framework for Non-Use and Elimination of Nuclear Weapons," Lawyers' Committee on Nuclear Policy, Briefing Paper for Greenpeace International, February 2006. <http://lcnp.org/disarmament/Gpeacebrfpaper.pdf>

<sup>26</sup> Martin Butcher, "The Latest Word on NATO Nukes," *The NATO Monitor*, 10 December 2009, <http://natomonitor.blogspot.com>.

<sup>27</sup> Founding Act on Mutual Relations, Cooperation and Security between NATO and the Russian Federation signed in Paris, France 27 May. 1997.

<sup>28</sup> Bruce Blair, "How Obama Could Revolutionize Nuclear Weapons Strategy Before He Goes," *Politico*, 22 June 2016. <http://www.politicco.com>

<sup>29</sup> "NATO's nuclear deterrence policy and forces," <http://nato.int> (last updated 03 December 2015).

<sup>30</sup> "Double down" meaning "to engage in risky behavior, especially when one is already in a dangerous situation."

<sup>31</sup> Camille Grand, "Nuclear deterrence and the Alliance in the 21<sup>st</sup> century," NATO Review Magazine, June 2016. <http://www.nato.int/docu/review/2016/Also-in-2016/nuclear-deterrence-alliance-21st-century-nato/EN/>

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<sup>32</sup> “A Critical Response to NATO Rethink, Realign, React,” Fondation pour la Recherche Stratégique, 13 June 2016. <https://www.frstrategie.org/publications/notes/a-critical-response-to-nato-rethink-realign-15-2016>

<sup>33</sup> Alex Lockie, “Former NATO Commander: We need to talk to Russia about nuclear de-escalation,” *Business Insider*, 11 June 2016. <http://www.businessinsider.com>