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# Rising Nuclear Dangers: Assessing the Risk of Nuclear Use in the Euro-Atlantic Region

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## SUMMARY

The risk of nuclear weapons use in the Euro-Atlantic region is on the rise—and it is higher than it has ever been since the end of the Cold War. Leading security experts from the United States, Russia, and Europe identify the top factors contributing to the heightened risk.

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#### **About the Nuclear Threat Initiative**

The Nuclear Threat Initiative (NTI) is a non-profit, non-partisan organization with a mission to strengthen global security by reducing the risk of use and preventing the spread of nuclear, biological, and chemical weapons and to work to build the trust, transparency, and security that are preconditions to the ultimate fulfillment of the Non-Proliferation Treaty's goals and ambitions. Founded in 2001 by former U.S. Senator Sam Nunn and CNN founder Ted Turner, NTI is guided by a prestigious, international board of directors. Joan Rohlfing serves as president.

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# Introduction

The risk of nuclear weapons use in the Euro-Atlantic region is on the rise—and it is higher than it has ever been since the end of the Cold War.

This is the conclusion of leading security experts from the United States, Russia, and Europe who responded to a questionnaire from the Nuclear Threat Initiative (NTI) in early 2015.<sup>1</sup> While the experts disagreed on the scale of the increase in risk and the reasons for the change, nearly all shared the view that the significant deterioration in relations between the United States and the Russian Federation has led to dangerous conditions under which nuclear weapons use has become more likely—although the probability of this outcome remains low.

This study examined the risk of *use* of nuclear weapons, not just the risk of nuclear *exchange* or nuclear *war*. In other words, the study did not exclude the possibility of unilateral nuclear use. Indeed, respondents identified the possibility of unilateral nuclear use by Russia to quell a conflict on its borders as a risk of particular concern.<sup>2</sup> Other possible nuclear-use scenarios identified by respondents include a rapid escalation due to miscalculation or accident (such as a mid-air collision between NATO and Russian warplanes), an escalatory response to a Russian incursion into the Baltic States, and a Russian reaction to NATO military intervention in Crimea or eastern Ukraine. The study did not assess the relative probabilities of these scenarios.

Of all the risks examined, it is the risk of *miscalculation* that is of most concern. Absent a major incident, the likelihood of deliberate nuclear exchange under current circumstances is low. But it is the possibility of a major transformative event, such as a mid-air collision or a skirmish along NATO or Russian borders, that is on the rise. Such an incident involving the world's two largest nuclear powers could plausibly shift alert postures and lead to a rapid series of escalatory measures precipitated by miscalculation and exacerbated by mistrust.

The following section describes in detail the circumstances that have led to a heightened risk of escalation and possible nuclear use in the Euro-Atlantic region.

## Risk Factors

The security experts who responded to NTI's questionnaire identified one or more of the following ten reasons as contributing factors to the heightened risk:

- 1. Competing, Irreconcilable Narratives That Drive Heightened Threat Perceptions**
- 2. A Deficit of Trust**
- 3. Domestic Political Imperatives**
- 4. Alliance Politics**
- 5. Close Military Encounters**
- 6. Broken Channels of Communication**
- 7. Failing Safeguards to Prevent Nuclear Use**
- 8. Conventional Force Disparity**
- 9. Reckless Nuclear Saber Rattling**
- 10. Lack of Nuclear Experience**

The authors of this paper provided supplementary research to expand on topics raised in the responses.

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<sup>1</sup> A full list of the experts who responded to the questionnaire is included at the end of this paper.

<sup>2</sup> The “escalate to de-escalate” doctrine is hardly new; it is the same doctrine applied by the United States to end the Second World War in the Pacific.

# 1. Competing, Irreconcilable Narratives That Drive Heightened Threat Perceptions

Moscow and Washington diverge not only in their interpretations of recent events in Ukraine but also in the basic narratives that describe their relations during the entire post-Cold War era.<sup>3</sup>

The Russian narrative is characterized by a combination of grievance and resolve. Prominent Russians frequently claim that Western powers took advantage of Moscow's weakness after the Cold War to shift NATO borders east and bomb Russia's allies in the Balkans.<sup>4</sup> Western support for Ukraine's European Union association agreement, Western sanctions against Russia, and Western demonstrations of military support for allies on Russia's borders (military exercises, supplies of arms) appear to reinforce this narrative of Russia as victim of Western bullying. Prominent Russian officials thus argue that they face no choice but to demonstrate resolve lest they invite further Western aggression against their most vital national interests.<sup>5</sup>

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*These competing, irreconcilable narratives breed heightened threat perceptions, driving a vicious cycle of confrontation and escalation.*

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The Western narrative is starkly different. The United States and its NATO allies view Russia as a revanchist power aggressively attempting to reclaim influence and territory in neighboring countries that desire a break from their Soviet legacies.<sup>6</sup> Western officials chastise Russia for employing tactics such as hybrid warfare, manipulation of gas exports, and other forms of economic and military intimidation to achieve its political aims.<sup>7</sup> They argue that Russia's annexation of Crimea and support for separatists in eastern Ukraine represent a major break with the post-war order in Europe, an order that has prioritized respect for territorial integrity and sovereignty.<sup>8</sup> Russia's behavior in Ukraine and the potential for Russian intervention in the Baltic States necessitate demonstrations of resolve lest the West invite further Russian aggression.<sup>9</sup>

These competing, irreconcilable narratives breed heightened threat perceptions, driving a vicious cycle of confrontation and escalation. By themselves, these threat perceptions would not necessarily lead to nuclear use, but—combined with the factors described below—they create dangerous conditions under which misunderstandings could escalate to unprecedented levels of confrontation between the world's two largest nuclear powers.

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<sup>3</sup> These narratives characterize the mainstream consensus; they are, of course, not universally held.

<sup>4</sup> Neil Buckley and Kathrin Hille, "Russia: Powers in the Balance," *Financial Times*, July 5, 2015, [www.ft.com/intl/cms/s/0/1b27cd0e-209e-11e5-ab0f-6bb9974f25d0.html#axzz3fjDoxpgr](http://www.ft.com/intl/cms/s/0/1b27cd0e-209e-11e5-ab0f-6bb9974f25d0.html#axzz3fjDoxpgr).

<sup>5</sup> Reid Standish and Elias Groll, "Putin Says Russian Bear Isn't about to Sit Back and Just Eat Berries and Honey," *Foreign Policy*, December 18, 2014, [foreignpolicy.com/2014/12/18/putin-says-russian-bear-isnt-about-to-sit-back-and-just-eat-berries-and-honey](http://foreignpolicy.com/2014/12/18/putin-says-russian-bear-isnt-about-to-sit-back-and-just-eat-berries-and-honey).

<sup>6</sup> Ashish Kumar Sen, "Standing up to a Revanchist Russia: NATO's Top Military Commander Says Russia Set on 'Strategic Competition with West,'" *Atlantic Council*, May 5, 2015, [www.atlanticcouncil.org/blogs/new-atlanticist/standing-up-to-a-revanchist-russia](http://www.atlanticcouncil.org/blogs/new-atlanticist/standing-up-to-a-revanchist-russia).

<sup>7</sup> Jim Garamone, "NATO Commander Breedlove Discusses the Implications of Hybrid War," *Small Wars Journal*, March 23, 2015, [smallwarsjournal.com/blog/nato-commander-breedlove-discusses-implications-of-hybrid-war?page=1](http://smallwarsjournal.com/blog/nato-commander-breedlove-discusses-implications-of-hybrid-war?page=1); Sam Jones, "Ukraine: Russia's New Art of War," *Financial Times*, August 28, 2014, [www.ft.com/intl/cms/s/2/ea5e82fa-2e0c-11e4-b760-00144feabdc0.html#axzz3fjDoxpgr](http://www.ft.com/intl/cms/s/2/ea5e82fa-2e0c-11e4-b760-00144feabdc0.html#axzz3fjDoxpgr).

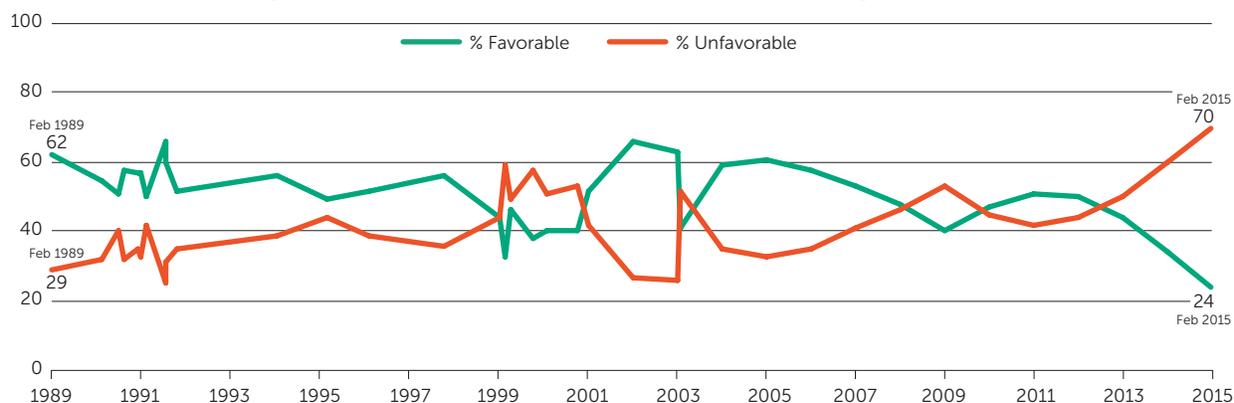
<sup>8</sup> Mikkel Vedby Rasmussen et al., "The Ukraine Crisis and the End of the Post-Cold War European Order: Options for NATO and EU," Center for Military Studies: University of Copenhagen, 8, [cms.polsci.ku.dk/english/publications/ukrainecrisis/Ukraine\\_Crisis\\_CMS\\_Report\\_June\\_2014.pdf](http://cms.polsci.ku.dk/english/publications/ukrainecrisis/Ukraine_Crisis_CMS_Report_June_2014.pdf); CBS News, "New Post-Cold War Order: Crimea Goes East, Ukraine Goes West," March 21, 2014, [www.cbsnews.com/news/crimea-goes-east-ukraine-goes-west-in-2-new-deals](http://www.cbsnews.com/news/crimea-goes-east-ukraine-goes-west-in-2-new-deals).

<sup>9</sup> Thomas Penny, "Cameron Says NATO Must Beef up Its Forces to Respond to Russia," *Bloomberg Business*, August 1, 2014, [www.bloomberg.com/news/articles/2014-08-01/cameron-says-nato-must-beef-up-its-forces-to-respond-to-russia](http://www.bloomberg.com/news/articles/2014-08-01/cameron-says-nato-must-beef-up-its-forces-to-respond-to-russia); "NATO: Russian Aggression in Ukraine Must Be Countered," *France24*, June 24, 2015, [www.france24.com/en/20150624-nato-russian-aggression-ukraine-must-be-countered](http://www.france24.com/en/20150624-nato-russian-aggression-ukraine-must-be-countered); "U.S. House Passes Resolution Pushing Obama to Send Lethal Aid to Ukraine," *The Moscow Times*, March 24, 2015, [www.themoscowtimes.com/news/article/us-house-passes-resolution-urging-obama-to-send-lethal-aid-to-ukraine/517914.html](http://www.themoscowtimes.com/news/article/us-house-passes-resolution-urging-obama-to-send-lethal-aid-to-ukraine/517914.html); Kristina Wong, "Top Republicans Visit Ukraine in Push for Arms," *The Hill*, March 31, 2015, [thehill.com/policy/defense/237450-house-armed-services-chief-visits-ukraine-amid-push-for-arms](http://thehill.com/policy/defense/237450-house-armed-services-chief-visits-ukraine-amid-push-for-arms).

## 2. A Deficit of Trust

Russians and Americans have returned to Cold War-era levels of antagonism toward one another. According to a recent Gallup poll, Americans now view Russia as the greatest enemy to the United States, edging out both North Korea and Iran.<sup>10</sup> The same poll showed that 49 percent of Americans view Russia as a critical military threat, and only 24 percent of Americans have a favorable view of Russia. By contrast, 62 percent of Americans held a favorable view of the Soviet Union in 1989 (see Figure 1).<sup>11</sup>

**Figure 1. Americans' Favorable/Unfavorable Ratings of Russia**

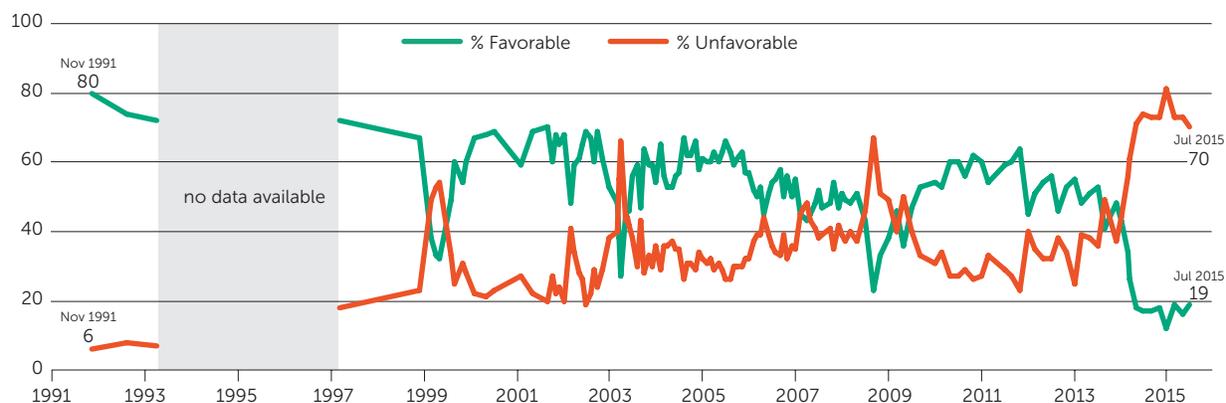


Source: Jeffrey M. Jones and Lydia Saad, "Gallup Poll Social Series: World Affairs," Gallup News Service, [www.gallup.com/poll/181568/americans-increasingly-russia-threat-top-enemy.aspx](http://www.gallup.com/poll/181568/americans-increasingly-russia-threat-top-enemy.aspx).

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In Russia, the trust deficit is even worse. According to a recent poll conducted by the Levada Center, a Russian public opinion research organization, only 15 percent of Russians have a favorable view of the United States and 73 percent of Russians hold an unfavorable view, a figure that nearly doubled in the last year (see Figure 2).<sup>12</sup> Another poll released in late June found that 62 percent of Russians believe that Russia's relations with the West will always be characterized by mistrust.<sup>13</sup>

**Figure 2. Russians' Favorable/Unfavorable Ratings of the United States**



Source: Levada Center Poll, May 22–25, 2015, (in Russian), [www.levada.ru/08-06-2015/mezhdunarodnye-otnosheniya-druzya-i-vragi-rossii](http://www.levada.ru/08-06-2015/mezhdunarodnye-otnosheniya-druzya-i-vragi-rossii).

Historical polling data (1991–2015) described in this graphic was provided to the authors by the Levada Center on September 9 2015. No polling data was available between April 1993 and March 1997.

<sup>10</sup> Jeffrey M. Jones, "Americans Increasingly See Russia as Threat, Top U.S. Enemy," Gallup, February 2015, [www.gallup.com/poll/181568/americans-increasingly-russia-threat-top-enemy.aspx](http://www.gallup.com/poll/181568/americans-increasingly-russia-threat-top-enemy.aspx).

<sup>11</sup> Ibid.

<sup>12</sup> Levada Center Poll, May 22–25, 2015, (in Russian), [www.levada.ru/08-06-2015/mezhdunarodnye-otnosheniya-druzya-i-vragi-rossii](http://www.levada.ru/08-06-2015/mezhdunarodnye-otnosheniya-druzya-i-vragi-rossii).

<sup>13</sup> Levada Center Poll, June 19–22, 2015, (in Russian), [www.levada.ru/26-06-2015/rossiya-zapad-voispriyatie-drug-druza-v-predstavleniyakh-rossii](http://www.levada.ru/26-06-2015/rossiya-zapad-voispriyatie-drug-druza-v-predstavleniyakh-rossii).

### 3. Domestic Political Imperatives

With such deep antagonism permeating public opinion, it becomes highly improbable for elected officials to support conciliatory measures. Instead, policy hawks who advocate resolve and confrontation tend to prevail in such environments.

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This is especially true in Russia where President Vladimir Putin brandishes a public image as Russia's best guardian against Western bullying. Indeed, President Putin's domestic approval ratings have never been higher. In June, a Levada Center poll revealed that 89 percent of Russians hold a favorable opinion of their President—Putin's highest approval rating since he succeeded Boris Yeltsin 15 years ago.<sup>14</sup> Considering that Russia's economy continues to reel from the combination of low oil prices, Western sanctions, and structural economic problems, Putin's high public approval rating indicates that the Russian people strongly support his handling of the Ukrainian crisis and his relations with the West. Any departure from the current course would almost certainly come with a heavy political price for Putin.

In the United States, although anti-Russian rhetoric is much less prevalent, many public officials and political candidates also have voiced positions favoring resolve over restraint. For example, General Joseph Dunford, the Obama Administration's nominee for Chairman of the Joint Chiefs of Staff, in July 2015 told a Congressional committee that Russia poses the number one threat to the United States and that he favors sending heavy weaponry to Ukraine. The Islamic State, by contrast, was fourth on his list of security threats facing the United States.<sup>15</sup> In August, the outgoing U.S. Army Chief of Staff General Raymond Odierno echoed General Dunford's comments by labeling Russia "the most dangerous threat" facing the United States today.<sup>16</sup>

As the 2016 U.S. presidential election approaches, it is also unlikely that political candidates will depart significantly from this anti-Russia rhetoric given how closely it aligns with record-high public antagonism toward Russia.

Such domestic political imperatives—from public opinion to political posturing—in Russia and the United States create strong incentives for demonstrations of resolve, diminishing the chances of a resolution to the current standoff and leading to a high risk of a continued cycle of confrontation and escalation.

### 4. Alliance Politics

Alliance politics also contributes to the rhetoric of resolve and confrontation. NATO's Eastern European and Baltic members increasingly view Russia as a major threat and voice concerns that NATO is ill-prepared to fulfill its Article 5 obligation for collective defense.<sup>17</sup> Meanwhile, recent public opinion polls show that most Germans, Italians, and French believe that their countries should not use military force to defend a NATO ally (see Figure 3).<sup>18</sup> In this context, NATO publics increasingly view the United States as the only credible military opposition to potential Russian aggression against the Alliance (see Figure 4).<sup>19</sup> The Obama Administration is thus faced with both political and policy imperatives to demonstrate readiness to

<sup>14</sup> Henry Meyer, "Putin's Approval Rating Rises to Record 89%, Poll Shows," Bloomberg Business, June 24, 2015, [www.bloomberg.com/news/articles/2015-06-24/putin-s-public-approval-rating-rises-to-record-89-poll-shows](http://www.bloomberg.com/news/articles/2015-06-24/putin-s-public-approval-rating-rises-to-record-89-poll-shows).

<sup>15</sup> Dan Lamothe, "Russia Is Greatest Threat to the U.S., Says Joint Chiefs Chairman Nominee Gen. Joseph Dunford," *Washington Post*, July 9, 2015, [www.washingtonpost.com/news/checkpoint/wp/2015/07/09/russia-is-greatest-threat-to-the-u-s-says-joint-chiefs-chairman-nominee-gen-joseph-dunford](http://www.washingtonpost.com/news/checkpoint/wp/2015/07/09/russia-is-greatest-threat-to-the-u-s-says-joint-chiefs-chairman-nominee-gen-joseph-dunford).

<sup>16</sup> Kristina Wong, "Top US General: Russia Is Most Dangerous Threat," *The Hill*, August 12, 2015, [thehill.com/policy/defense/250962-odierno-russia-is-the-most-dangerous-threat-to-us](http://thehill.com/policy/defense/250962-odierno-russia-is-the-most-dangerous-threat-to-us).

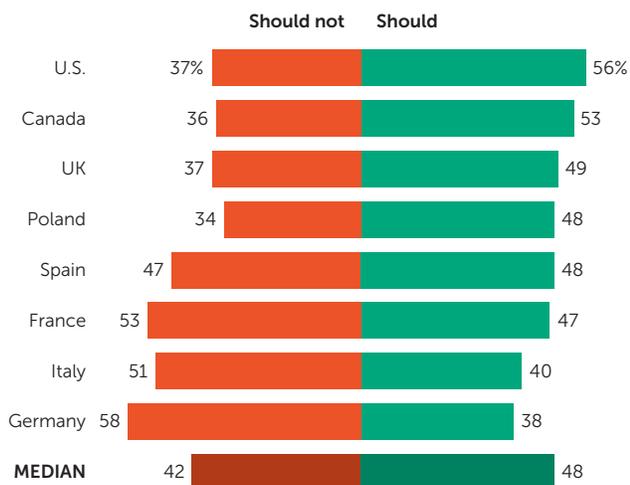
<sup>17</sup> Katya Adler, "Baltic States Shiver as Russia Flexes Muscles," BBC, March 6, 2015, [www.bbc.com/news/world-europe-31759558](http://www.bbc.com/news/world-europe-31759558); "Poland's New President Calls for Stronger NATO Presence to Counter Russia," *The Guardian*, August 6, 2015, [www.theguardian.com/world/2015/aug/06/poland-president-andrzej-duda-stronger-nato-presence-counter-russia](http://www.theguardian.com/world/2015/aug/06/poland-president-andrzej-duda-stronger-nato-presence-counter-russia); Jeremy Bender, "Why Lithuania Is Preparing for a Russian Invasion," *Business Insider*, March 16, 2015, [www.businessinsider.com/lithuania-preparing-for-feared-russian-invasion-2015-3](http://www.businessinsider.com/lithuania-preparing-for-feared-russian-invasion-2015-3).

<sup>18</sup> Katie Simmons, Bruce Stokes, and Jacob Poushter, "NATO Publics Blame Russia for Ukrainian Crisis, but Reluctant to Provide Military Aid: In Russia, Anti-Western Views and Support for Putin Surge," Pew Research Center Poll, April 6–May 15, 2015, [www.pewglobal.org/files/2015/06/Pew-Research-Center-Russia-Ukraine-Report-FINAL-June-10-2015.pdf](http://www.pewglobal.org/files/2015/06/Pew-Research-Center-Russia-Ukraine-Report-FINAL-June-10-2015.pdf).

<sup>19</sup> *Ibid.*, 9.

**Figure 3. Many NATO Countries Reluctant to Use Force to Defend Allies**

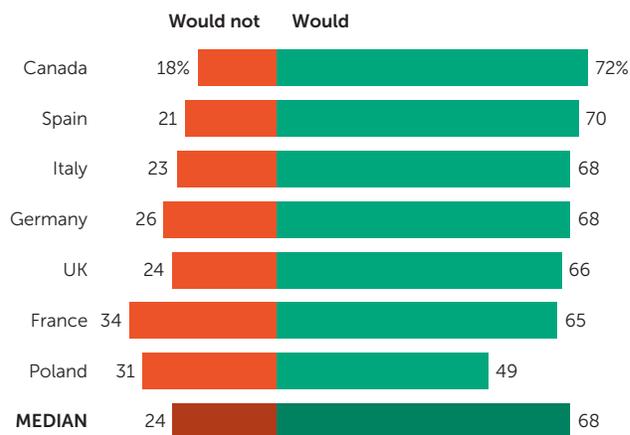
*If Russia got into a serious military conflict with one of its neighboring countries that is our NATO ally, do you think our country should or should not use military force to defend that country?*



Source: Katie Simmons, Bruce Stokes, and Jacob Poushter, "NATO Publics Blame Russia for Ukrainian Crisis, but Reluctant to Provide Military Aid," June 2015, Pew Research Center. The content is used with permission.

**Figure 4. NATO Countries Believe U.S. Will Come to Defense of Allies**

*If Russia got into a serious military conflict with one of its neighboring countries that is a NATO ally, do you think the U.S. would or would not use military force to defend that country?*



Source: Katie Simmons, Bruce Stokes, and Jacob Poushter, "NATO Publics Blame Russia for Ukrainian Crisis, but Reluctant to Provide Military Aid," June 2015, Pew Research Center. The content is used with permission.

fulfill its Article 5 commitments, creating a situation that is not conducive to promoting a conciliatory tone in relations with Russia. This, in turn, exacerbates the risk of further demonstrations of resolve and increases the chance of miscalculation.

## 5. Close Military Encounters

With increasing frequency and alarming regularity, Russian warplanes and warships are coming dangerously close to Western military and civilian assets, creating heightened risks for accidents that could lead to further escalation. As described in a recent report by the European Leadership Network, these close encounters include two near-collisions between Russian military jets and Swedish commercial airliners, repeated incidents of Russian fighter jets “buzzing” U.S. warships in the Black Sea, and incursions and near-incursions by Russian military aircraft into NATO airspace during the last 18 months.<sup>20</sup> Russia has insisted that NATO also has engaged in such behavior, arguing that NATO military exercises close to Russian borders have “destabilizing” effects on the region.<sup>21</sup> In the absence of routine military-to-military communications (a factor described in more detail later in this paper), these close encounters and military exercises create conditions under which dangerous misunderstandings and accidents could happen—accidents with the potential to prompt rapid escalation.

<sup>20</sup> A full list of close military encounters could be found in the European Leadership Network’s online report “Dangerous Brinkmanship: Close Military Encounters Between Russia and the West in 2014” and an updated list of military encounters can be found at [www.europeanleadershipnetwork.org/russia--west-dangerous-brinkmanship-continues-\\_2529.html](http://www.europeanleadershipnetwork.org/russia--west-dangerous-brinkmanship-continues-_2529.html).

<sup>21</sup> “Russia Accuses NATO of ‘Destabilizing’ Northern Europe,” *The Moscow Times*, December 1, 2014, [www.themoscowtimes.com/news/article/russia--accuses-nato-of-destabilizing-northern-europe-/512157.html](http://www.themoscowtimes.com/news/article/russia--accuses-nato-of-destabilizing-northern-europe-/512157.html).

## 6. Broken Channels of Communication

During the past 18 months, institutions designed to promote dialogue between Western powers and Russia have been suspended or rendered powerless. In March 2014, Russia's membership in the Group of Eight (G8) was revoked and its participation in G8-linked processes, such as the Global Partnership against the Spread of Weapons and Materials of Mass Destruction, suspended.<sup>22</sup> In April 2014, Russia's representation at the NATO-Russia Council—the mechanism designed to foster security-related consultation and consensus building—was limited to the Ambassador-level, practically stripping it of any meaningful working-level interactions.<sup>23</sup> Meanwhile, Russia withdrew from the Nuclear Security Summit process<sup>24</sup> and suspended most of its nuclear security cooperation with the United States.<sup>25</sup> Military-to-military engagement on Euro-Atlantic issues between NATO and Russia, as well as the United States and Russia, has—for all practical purposes—been terminated. Security confidence-building engagement only continues in the context of arms control verification, an area that has also come under considerable strain as Western powers and Russia accuse each other of Intermediate-Range Nuclear Forces (INF) Treaty violations.<sup>26</sup> Such severe curtailment of communications creates little room for confidence-building and increases the likelihood of misunderstandings that could lead to escalation.

## 7. Failing Safeguards to Prevent Nuclear Use

News that Russia's space-based ballistic missile early warning system has stopped functioning and that a replacement satellite system is not likely to be launched until November 2015 is troubling.<sup>27</sup> Such systems are not only useful for increasing warning time for decisionmakers, they can also be instrumental in preventing an inadvertent nuclear exchange. This is most likely what happened 20 years ago when Russian ground-based radar misidentified a Norwegian weather satellite as an incoming submarine-launched ballistic missile (SLBM) on a trajectory toward Moscow. Russian early-warning satellites were able to confirm that a missile launch had not taken place and an exceptionally dangerous escalation was averted.<sup>28</sup> Although Russia's space-based early warning systems have never had the ability to monitor potential launches around the world at all hours of the day, their complete absence now renders Russia without an important redundancy that once served as a safeguard to prevent inadvertent nuclear use.

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<sup>22</sup> Alison Smale and Michael Shear, "Russia Is Ousted from Group of 8 by U.S. and Allies," *New York Times*, March 24, 2014, [www.nytimes.com/2014/03/25/world/europe/obama-russia-crimea.html?\\_r=0](http://www.nytimes.com/2014/03/25/world/europe/obama-russia-crimea.html?_r=0).

<sup>23</sup> "Statement by NATO Foreign Ministers," April 1, 2014, NATO, [www.nato.int/cps/en/natohq/news\\_108501.htm](http://www.nato.int/cps/en/natohq/news_108501.htm).

<sup>24</sup> Karen DeYoung, "Russia to Skip Nuclear Security Summit Scheduled for 2016 in Washington," *Washington Post*, November 5, 2014, [www.washingtonpost.com/world/national-security/russia-to-skip-nuclear-security-summit-scheduled-for-2016-in-washington/2014/11/05/1daa5bca-6535-11e4-bb14-4cfea1e742d5\\_story.html](http://www.washingtonpost.com/world/national-security/russia-to-skip-nuclear-security-summit-scheduled-for-2016-in-washington/2014/11/05/1daa5bca-6535-11e4-bb14-4cfea1e742d5_story.html).

<sup>25</sup> Bryan Bender, "Russia Ends US Nuclear Security Alliance," *Boston Globe*, January 19, 2015, [www.bostonglobe.com/news/nation/2015/01/19/after-two-decades-russia-nuclear-security-cooperation-becomes-casualty-deteriorating-relations/5nh8NbtjitUE8UqVWF1ooL/story.html](http://www.bostonglobe.com/news/nation/2015/01/19/after-two-decades-russia-nuclear-security-cooperation-becomes-casualty-deteriorating-relations/5nh8NbtjitUE8UqVWF1ooL/story.html).

<sup>26</sup> Michael R. Gordon, "U.S. Says Russia Tested Cruise Missile, Violating Treaty," *New York Times*, July 28, 2014, [www.nytimes.com/2014/07/29/world/europe/us-says-russia-tested-cruise-missile-in-violation-of-treaty.html](http://www.nytimes.com/2014/07/29/world/europe/us-says-russia-tested-cruise-missile-in-violation-of-treaty.html); Bill Gertz, "Russia Stonewalls U.S. on Charges of Nuclear Missile Treaty Breach: Moscow Turns Tables, Accuses U.S. of INF Treaty Violations," September 16, 2014, *The Washington Free Beacon*, [freebeacon.com/national-security/russia-stonewalls-u-s-on-charges-of-nuclear-missile-treaty-breach](http://freebeacon.com/national-security/russia-stonewalls-u-s-on-charges-of-nuclear-missile-treaty-breach).

<sup>27</sup> Pavel Podvig, "Russia Lost All Its Early Warning Satellites," Russian Strategic Nuclear Forces, [russianforces.org/blog/2015/02/russia\\_lost\\_all\\_its\\_early\\_warn.shtml](http://russianforces.org/blog/2015/02/russia_lost_all_its_early_warn.shtml); "Russian Nuclear Missile Detection Capability Limited by Satellite Launch Delays," *The Moscow Times*, February 11, 2015, [www.themoscowtimes.com/business/article/russian-nuclear-missile-detection-capability-limited-by-satellite-launch-delays/515748.html](http://www.themoscowtimes.com/business/article/russian-nuclear-missile-detection-capability-limited-by-satellite-launch-delays/515748.html).

<sup>28</sup> Robert Johnson, "The World Was Never Closer to Nuclear War Than on January 25, 1995," *Business Insider*, August 7, 2012, [www.businessinsider.com/the-world-has-never-been-closer-to-nuclear-war-than-it-was-during-this-1995-event-2012-8](http://www.businessinsider.com/the-world-has-never-been-closer-to-nuclear-war-than-it-was-during-this-1995-event-2012-8).

## 8. Conventional Force Disparity

Although Russia has invested significantly in upgrading its conventional force capabilities, they remain considerably less advanced than those of NATO.<sup>29</sup> In particular, the U.S. military's anticipated Prompt Global Strike (PGS) system has raised concerns in Russia that it gives the United States a significant qualitative edge in military capabilities that could create security vulnerabilities for Russia.<sup>30</sup> First, these factors have created strong incentives for Russia to increase its reliance on nuclear weaponry for both political and military reasons. Doing so, many Russians believe, would help Russia assert its "superpower" status—a status that many in Russia think is under threat by Western sanctions and recent Western labels of Russia as a regional power.<sup>31</sup> Second, by increasing reliance on its nuclear arsenal, Russia hopes to compensate for its conventional force inferiority, to project military power in the region, and to deter Western interference in Russia's foreign policy pursuits.<sup>32</sup>

## 9. Reckless Nuclear Saber Rattling

In March 2015, a Russian documentary featured an interview with President Putin in which he indicated that he considered placing Russian nuclear forces on alert during the Crimea annexation—no doubt a veiled threat against Western meddling in future Russian activities in the region.<sup>33</sup> The same month, a Russian ambassador threatened Denmark with a nuclear attack if it joined NATO's missile defense shield, and a prominent Russian news anchor emphatically declared on state television that Russia is "the only country in the world realistically capable of turning the United States into radioactive ash."<sup>34</sup> Much like the close military encounters and Russia's frequent nuclear-related military exercises, bellicose references to Russia's nuclear capabilities are likely part of the Kremlin's strategic messaging aimed at intimidating and deterring potential Western interference in Russia's actions in the region. By exaggerating nuclear risks, however, they also increase the likelihood of miscalculation, which could lead to a serious confrontation.

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<sup>29</sup> Jonathan Masters, "The Russian Military," Council on Foreign Relations, March 20, 2015, [www.cfr.org/russian-federation/russian-military/p33758](http://www.cfr.org/russian-federation/russian-military/p33758).

<sup>30</sup> James M. Acton, "Conventional Prompt Global Strike and Russia's Nuclear Forces," Carnegie Endowment for International Peace, [carnegieendowment.org/2013/10/04/conventional-prompt-global-strike-and-russia-s-nuclear-forces](http://carnegieendowment.org/2013/10/04/conventional-prompt-global-strike-and-russia-s-nuclear-forces); Prokhor Tebin, "Should We Be Afraid of Prompt Global Strike?" Russian International Affairs Council, [russiancouncil.ru/en/inner/?id\\_4=5004#top-content](http://russiancouncil.ru/en/inner/?id_4=5004#top-content).

<sup>31</sup> Tom Nichols, "Welcome to Russian Nuclear Weapons 101," *The National Interest*, [nationalinterest.org/feature/welcome-russian-nuclear-weapons-101-10432](http://nationalinterest.org/feature/welcome-russian-nuclear-weapons-101-10432); Steven Pifer, "Russian Nukes in Crimea? A Better Way to Respond," *The Brookings Institution*, February 2, 2015, [www.brookings.edu/research/opinions/2015/02/02-russia-nuclear-weapons-crimea-better-us-response-pifer](http://www.brookings.edu/research/opinions/2015/02/02-russia-nuclear-weapons-crimea-better-us-response-pifer).

<sup>32</sup> Paul Sonne, "As Tensions with West Rise, Russia Increasingly Rattles Nuclear Saber," *The Wall Street Journal*, April 5, 2015, [www.wsj.com/articles/as-tensions-with-west-rise-russia-increasingly-rattles-nuclear-saber-1428249620](http://www.wsj.com/articles/as-tensions-with-west-rise-russia-increasingly-rattles-nuclear-saber-1428249620).

<sup>33</sup> "Putin Says Russia Was Ready for Nuclear Confrontation over Crimea," Reuters, March 15, 2015, [www.reuters.com/article/2015/03/15/us-russia-putin-yanukovich-idUSKBN0MB0GV20150315](http://www.reuters.com/article/2015/03/15/us-russia-putin-yanukovich-idUSKBN0MB0GV20150315).

<sup>34</sup> "Russia Threatens to Aim Nuclear Missiles at Denmark Ships if It Joins NATO Shield," Reuters, March 22, 2015, [www.reuters.com/article/2015/03/22/us-denmark-russia-idUSKBN0MI0ML20150322](http://www.reuters.com/article/2015/03/22/us-denmark-russia-idUSKBN0MI0ML20150322); Lidia Kelly, "Russia Can Turn US to Radioactive Ash—Kremlin-Backed Journalist," Reuters, March 16, 2015, [www.reuters.com/article/2014/03/16/ukraine-crisis-russia-kiselyov-idUSL6N0MD0P920140316](http://www.reuters.com/article/2014/03/16/ukraine-crisis-russia-kiselyov-idUSL6N0MD0P920140316).

## 10. Lack of Nuclear Experience

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*Indeed, it is unclear whether today's political leaders in the United States and Russia adhere to even a common understanding of the notion of strategic stability.*

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President Vladimir Putin was 11 years old during the Cuban Missile Crisis. President Barack Obama was 1. Both leaders and many of their closest advisors developed their public careers well after the Berlin Wall collapsed and the Cold War was over. Consequently, many political leaders in Moscow and in Washington lack the experience of managing the brinkmanship and the constant state of fear that characterized those times. This fear no doubt had a tempering effect on nuclear policy and politics—leaders came to appreciate the limitations of nuclear threats, sought steps to reduce the risks of misunderstandings, and recognized the need to ensure strategic stability. The absence of such experience among today's political leaders, particularly in Russia, makes the nuclear saber rattling from Moscow quite worrying.<sup>35</sup> Indeed, it is unclear whether today's political leaders in the United States and Russia adhere to even a common understanding of the notion of strategic stability. Considering the deficit of trust described earlier, if confronted with a crisis of such magnitude as the Cuban Missile Crisis, it is uncertain whether Russian and American leaders would manage to cooperate and avoid catastrophe.

## Conclusion

Informed by the responses to the questionnaire, the authors sought to describe the factors creating heightened nuclear risks to better educate policymakers, journalists, and the general public about the threat posed by today's increasingly volatile political environment. Although the possibility of nuclear use remains low, the authors are increasingly concerned that current circumstances might change due to an escalation caused by a misunderstanding or miscalculation. Taken together, the risk factors described in this paper create dangerous conditions under which such transformative events are more likely to happen, leading to heightened risk of nuclear use.

Although the authors do not offer policy recommendations on reducing these nuclear risks in this paper, they hope that by becoming more informed about the dangers, policymakers can make prudent decisions that will restore some degree of trust between the world's two largest nuclear powers, reinforce strategic stability, and help prevent the unthinkable from happening.

A subsequent NTI report will address confidence-building measures that the United States and the Russian Federation should take to reduce the nuclear dangers described throughout this paper.

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<sup>35</sup> Alexei Arbatov, "Protecting Nuclear Sanity," Defense News, June 15, 2015, [carnegie.ru/2015/06/15/protecting-nuclear-sanity/ianq](http://carnegie.ru/2015/06/15/protecting-nuclear-sanity/ianq).

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*The views expressed in this report do not necessarily reflect those of the experts listed above, nor the institutions with which they are affiliated.*

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