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# Nuclear Signalling Between NATO and Russia

**EURO-ATLANTIC SECURITY  
REPORT**

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## About the Author

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# Nuclear Signalling Between NATO and Russia

## Executive Summary

Nuclear signalling is the core of responsible nuclear weapon ownership. It was a difficult task during the Cold War, and shaping perceptions and communication of nuclear weapon intent has become more complex, nuanced, and important in a world with multiple nuclear powers and raising tensions. A rapidly evolving information and communications paradigm that is outstripping the ability of traditional signalling to achieve coherence and stability has added to this challenge.

All four Nuclear Weapon States (NWS) in the NATO-Russia dynamic consider themselves responsible and claim to have reasonable declaratory policies aimed toward deterrence and nuclear weapon employment only in the most extreme level of national survival. Yet two of them, Russia and the US, have recently declared an expansion in the range of their nuclear arsenals, at best reversing some of the reduction gains made in the last decades. These expansions, which include dual-capable less-than-strategic capabilities, have been accompanied by speeches, tweets, and documents which could be construed as casting doubt on the endurance of the stated *in extremis* intent.

This report examines the current doctrine and signalling of all the protagonists and the effect of recent developments on the risk of misperception or unwanted escalation. It concludes that these risks are higher than they have been for several decades and are rising. Proactive effort is required to reverse this. NWS on either side of the NATO-Russian borders must carefully examine signalling options that can increase stability and reduce the risk of miscalculation.

While action is required by all relevant states, the author has drawn on his NATO and UK experience to offer some recommended actions for both these actors. The sum of the recommendations to NATO have been collectivised under a suggestion for an Alliance "Nuclear Deterrence Review".

To make effective progress, activities in the nuclear deterrence domain would need to be unshackled from other areas of contention between NATO and Russia. Whilst this is complex and difficult to achieve, the author assesses that the benefits outweigh the risks, noting that they do not necessarily require reciprocity from Russia to have a positive effect.

## Introduction

Nuclear signalling is the core rationale of nuclear weapon ownership. Signalling in the existentially bipolar world of the Cold War was deeply challenging and riven with incident and miscalculations. Shaping perceptions and communication of nuclear weapon intent has become more complex, nuanced, and important in a world with multiple nuclear tensions. It is also made more challenging by a rapidly evolving information and communications paradigm that is outstripping the ability of traditional signalling to achieve coherence and stability. Nuclear weapon states must examine every signalling option that will increase stability and reduce the risk of miscalculation.

This report will examine both NATO's and Russia's signalling, assessing their effect and offering suggestions as to how NATO, and the UK, might adjust to improve strategic stability and decrease the risk of nuclear signalling misinterpretation in peacetime and crisis. These suggestions are borne out of the author's direct experience in NATO and UK nuclear policy formulation. The paper does not make similar recommendations for Russia, though clearly resolution of the issues rests with both sides. If Russia genuinely seeks to avoid nuclear weapon employment<sup>1</sup> in a conflict with NATO it would consider similar actions to those suggested.

This analysis has been written to complement the ELN Report "Russia and NATO: how to overcome deterrence instability" published in April 2018,<sup>2</sup> which examined broader deterrence signalling as part of its discussion. It therefore does not repeat points made there.

## Elements of Nuclear Signalling

Any elements of state power may act as signals of national will, intent and internal and external resolve. Signalling is the core

rationale of nuclear weapon ownership. It occurs both existentially and by calculated design. Nuclear weapon capable states (NWCS)<sup>3</sup> send signals about their capability and intent, aimed at three important though largely unconnected audiences: domestic populations, allies and current and potential adversaries.

The components of nuclear signalling follow different timeframes: from long-term strategic signalling to short-term reactive activity and crisis signalling. The stability of signalling in each timeframe is important for maintaining credibility and reducing the risk of misinterpretation.

***"The components of nuclear signalling follow different timeframes."***

Long-term signalling often transcends changes in national governments and includes the basic status and changes to the nuclear capability; modernisation and replacement programmes; signature and ratification of treaties such as the Nuclear Non-Proliferation Treaty (NPT) or the Comprehensive Test Ban Treaty (CTBT) and the way in which these are upheld or undermined over time; and engagement in arms control measures.

National strategic policy documents, statements and speeches, most significantly from those who have nuclear release authority, are important in supporting the state's long-term signalling and narrative, although are more susceptible to political change. They outline the salience of nuclear weapons in foreign and defence policies and form part of declaratory policies detailing the circumstances in which states might employ their nuclear capabilities, and equally importantly, when they would not. Most nuclear weapons states, and the NATO alliance, use a deliberate degree of ambiguity in these statements because of a long-held

belief that this strengthens deterrence.

The implementation of these long-term policies through force readiness, posture and deployment patterns helps reinforce signals and offers opportunities to attune them to geopolitical developments. Within NATO, the implementation pattern of bilateral and multilateral agreements concerning the scale, readiness, and posture of shared nuclear forces could also be interpreted as signalling.

There are many elements of short-term and crisis signalling that reinforce or vary from established postures. These include: raising and lowering of system readiness, specific messaging and crisis-specific rhetoric, deploying systems from reserve, raising protection levels around nuclear and associated facilities, mobilisation of personnel and equipment in reserve and mating or de-mating stored warheads with delivery systems.

This paper will not examine these “short-fuse” signalling options. They are almost always scenario-specific. But they will always be viewed, interpreted and reacted to in the context of the longer-term signals. Lack of coherence in longer-term signalling directly risks catastrophic misinterpretation of short-fuse signals.

An ideal nuclear signalling strategy would harmonise long-term policy aspirations, statements and declaratory policy with the capability development programmes, short-term military readiness and deployment activity. It would seek to insulate this critical element of national strategy from political and economic turbulence. It would, in most nuclear armed states, attempt to effectively weave together civilian oversight, diplomatic activity, military capability and readiness. Tensions are inevitable, but the best signalling strategy would work to minimise the differences.

For each actor, the analysis examines

declaratory statements, respect for treaty obligations and observation of international norms, leadership statements and speeches, and finally capability and posture, and uses predictability and consistency as defined above as a yardstick.<sup>4</sup>

### **NATO and Russia: Signalling Asymmetry**

Significant structural differences between NATO and Russia materially affect the content and conduct of nuclear signalling. As an autocratic state with central leadership control on all aspects of its nuclear weapons capability, policies and statements, Russia has a far greater ability than NATO to deliver coherent messaging and signals. NATO is a complex nuclear alliance with layers of nuclear ownership and involvement. It attempts to bring together independent programmes and capabilities as well as differing world views and aspirations.

***“NATO nuclear policy, doctrine and associated signalling is dominated by the US nuclear posture and policies.”***

NATO nuclear policy, doctrine and associated signalling is dominated by the US nuclear posture and policies. It is current perceived wisdom that NATO would never publicly declare an element of nuclear policy which would be at odds with the US national position. It is, however, also influenced by the independent policies of the UK and France, with peripheral input from the five countries which host the Dual Capable Aircraft (DCA) and forward based US non-strategic nuclear weapons (Belgium, Germany, Turkey, Netherlands and Italy). This produces both strength and weakness in NATO’s nuclear messaging. NATO’s public consensus always hides a degree of principled disagreements

on style and substance. It reflects a range of democratic debates and national positions on the status and posture of NATO nuclear policy, making the Alliance vulnerable to any Russian attempts to divide the alliance. Relative to Russia, NATO will always struggle to adapt its signalling to changing circumstances.

Furthermore, for the US (and the UK and France to a much lesser extent) the NATO-Russia nuclear deterrence relationship is one of several complex and interlinked security and deterrence challenges. Any signalling which seeks to address the NATO-Russia relationship must also satisfy the US posture and doctrine in the Pacific and other theatres. This further reduces NATO's flexibility to adjust its signalling to Russian activity and overtures.

There is also tension between different signalling elements, particularly within NATO. The Strategic Concept and the Deterrence and Defence Posture Review (DDPR) are at odds with the language in the 2018 Brussels Summit Declaration. There is a disparity between the direction of the Trump Administration, the collective ambition of the North Atlantic Council (NAC) - NATO's principal decision making body - and the positions of the UK and France. There is a high risk that short term signalling in a crisis might be misjudged, both on the part of the signaller and the intended recipient.

### **The Sum of Signalling**

All four nuclear weapon states in the NATO-Russia relationship (the US, Russia, UK and France) have similar declarations of extremity and unlikelihood of weapon employment, which will be further explored in this paper. Phrases such as "survival of the state", "vital interests threatened" and "most extreme circumstances" abound. Each of these states issue security assurances to non-nuclear weapon states.

However, the US and Russia, the two main protagonists in the NATO-Russia nuclear relationship, have recently ramped up the rhetoric by publicly stating their intent to broaden their warhead and delivery vehicle options. Both have signalled a greater willingness to consider nuclear weapons first in an escalating conflict or in response to an attack with strategic effects using non-nuclear weapons (including precision conventional, chemical, biological or cyber).

These developments have stressed NATO cohesion. France and the UK must work to influence the US within NATO and minimise the increasing risk from inadvertent escalation or misinterpretation. The United Kingdom, given its total declaration of nuclear forces to, and integration with, NATO has the most leverage over the developments.

### **United Kingdom**

In numerical terms the UK is the smallest contributor to NATO nuclear deterrence<sup>5</sup>, but its enduring nuclear relationship with the US provides it with a strong voice within NATO nuclear deliberations. Of the four analysed states - the US, Russia, France and the UK - London has been the most flexible in adjusting the composition of its arsenal and doctrine over time. It is thus best positioned to influence nuclear signalling evolution with the objective of brokering a P3 and NATO discussion. Like Paris, London offers NATO an alternative independent centre of decision making to Washington. Since the arrival of President Trump this independence has become more germane for nuclear signalling.

***"London has been the most flexible in adjusting the composition of its arsenal and doctrine over time."***

The UK has significantly reduced its nuclear arsenal since the height of the Cold War.

It is a signatory of the NPT, the CTBT and is a strong proponent of non-proliferation activity within the P5 group (the five Nuclear Weapon States) and the wider UN and Conference on Disarmament fora. It has also issued Negative Security Assurances (NSAs) which were updated over time.<sup>6</sup> The UK policy stresses the *in maximus extremis* nature of any UK decision to employ nuclear weapons and maintains a policy of deliberate ambiguity, both for national purposes and as part of NATO policy.<sup>7</sup>

For over four decades since the debates in 1977-78 to replace the Polaris SLBM system, successive governments have repeatedly reviewed whether the UK should retain nuclear weapons. Each of these reviews has endorsed the maintenance of the UK's submarine-based continuous nuclear deterrent. This continual and cyclical scrutiny has made delivery of a coherent and credible declaratory policy difficult. Despite the policy documents outlining clear and concise statements of intent, recurring uncertainty over the UK's nuclear status has affected, at least in some eyes, its long-term credibility.

The continuity of UK nuclear signalling has also been hampered by the ambivalence or reticence by some senior government figures, including past Prime Ministers, to articulate clearly the fundamental importance of the nuclear deterrent. This was addressed during a 2016 House of Commons debate on the UK nuclear deterrent in which Prime Minister May stated that she would not hesitate to employ nuclear weapons within the confines of the UK's declaratory policy.<sup>8</sup> Moreover in April 2017 the former Defence Secretary Michael Fallon suggested that the UK could launch nuclear weapons before being attacked by them.<sup>9</sup> This was a perhaps clumsy articulation of the long-held UK position of neither ruling out nor confirming the possibility of first use as part of its strategic ambiguity, rather than the confirmation of a first-strike policy.

The 2016 decision to replace the UK's SSBNs has, for now, removed the uncertainty around

the UK's capability, existing since at least the White Paper of 2006. However, decisions on the maintenance of a warhead capability, due to take place during "this Parliament"<sup>10,11</sup> are unlikely to pass easily. By adopting a piecemeal approach of *as much as Parliament can manage* to the maintenance of its nuclear weapons capability (with the submarine, missile and warhead dealt with separately), the UK risks long-term continuity of its nuclear weapon capability. Allies and Russia could read these uncertainties as a sign that UK's support to NATO is less than secure.

***"Recurring uncertainty over the UK's nuclear status has affected, at least in some eyes, its long-term credibility."***

Additionally, there is real danger that the UK's retreat from the EU may affect its influence in NATO and the affordability of its defence programme, including the nuclear deterrent. This could manifest itself in three ways. First, through sheer political exhaustion. The body politic in the UK, including elected representatives and the supporting civil service, is distracted by the enormity of the challenge of Brexit. The UK will be incapable of expending significant energy outside Brexit preoccupations. Second, through negative linkages. While the EU and NATO are separate entities, the number of close allies and partners of the UK who are EU members significantly reduces the chance that the increasingly vicious infighting in one forum will not affect the other. Third, through the economic consequences. It would be a brave observer who said there would be no negative effect of Brexit on economy in the next decade, whether a blip or permanent. Any significant decline in the economic position would place further pressure on the defence budget and the deterrent. Brexit brings further uncertainty which erodes credible medium to long-term signalling, including nuclear.



## France

French declaratory policy is almost identical to that of the UK. Paris has signed and ratified the CTBT, is a signatory of the NPT and has issued NSAs like those of the UK. France maintains a policy of “strict sufficiency” with its nuclear arsenal at the lowest possible level compatible with the strategic context. The use of nuclear weapons is strictly limited to extreme circumstances of self-defence. France kept this position for many years and reiterated it again in its 2017 Defence and National Security Strategic Review.<sup>12</sup> This Review, while making the strong case for continued UK-French cooperation post Brexit and underlining the coincidence of vital national interests<sup>13</sup> also stated the necessity of French independence and strength.<sup>14</sup>

Unlike the UK, France sustains the nuclear air component in addition to sea-based one to provide the President with choices and considers the two components “*indivisible and complementary*,”<sup>15</sup> both for deterrence and signalling. France has long held that its air launched component, in addition to its deterrent and response roles, has a role in “pre-strategic” nuclear warning. The terms have changed over the years, and this role is no longer articulated explicitly in strategic documents. But France has considered a “detonation” against a legitimate target or no target as a plausible signalling mechanism, aimed at halting escalation towards strategic nuclear use. This concept sits outside any likely NATO nuclear employment concept.

France does not participate in NATO’s nuclear planning mechanisms and its forces are not formally assigned to NATO. In peacetime this has caused few issues. NATO public statements equate the UK and France’s contributions to NATO nuclear deterrence. But the lack of integration may weaken the perception of NATO’s ability to properly coordinate all contributing nuclear nations in any joint weapon employment. This cannot be devised “on the fly” in a

crisis or conflict. Whether this enhances, via the “maverick” principle, or weakens the overall NATO deterrent effect is unclear. Nonetheless, NATO should not rest the credibility of its deterrent messaging on adversary assessments on the nature and effectiveness of France’s integration.

In stark contrast to the UK, each French President in recent decades has opened his term with a speech from the missile deck of an SSBN, the SSBN base or air nuclear component base. This underlines the enduring commitment to nuclear deterrence as a fundamental component of French national security. This has established a level of credibility and constancy in external signalling which has been absent in the UK and varies in the US. The unique, amongst the P3 (UK, France, US), unity of public support for all elements of France’s nuclear weapon programme and policy enhances the durability and credibility of France’s nuclear signalling to all its audiences.

Over the last few decades, France has been modernising its nuclear arsenal through the deployment of a new class of SSBN, the replacement of nuclear-capable combat aircraft, and the upgrade of both its submarine and air-launched nuclear-armed missile capabilities. This modernisation programme, which receives little opposition within France, signals France’s intention to retain a nuclear capability well into the 21st century.

## USA

The US fields a nuclear triad (nuclear armed strategic aircraft, submarines and ground-based missiles). It has plans or extant programmes for modernisation that address capability and infrastructure deficiencies identified in the 2018 and previous Nuclear Posture Reviews (NPR). Like its NATO Allies, the US is a signatory of the NPT. It has signed but not ratified the CTBT yet observes its nuclear test prohibition. It is compliant under



the terms of the New START Treaty with Russia. It withdrew from the Anti-Ballistic Missile (ABM) treaty and considers Russia to be in material breach of the INF treaty, a charge which Russia reciprocates against the US.

The declaratory posture of the US and attendant NSAs are like those of the UK and France, except for the following in bold:

*“The United States would only consider the employment of nuclear weapons in extreme circumstances to defend the vital interests of the United States, its allies, and partners. **Extreme circumstances could include significant non-nuclear strategic attacks. Significant non-nuclear strategic attacks include, but are not limited to, attacks on the U.S., allied, or partner civilian population or infrastructure, and attacks on U.S. or allied nuclear forces, their command and control, or warning and attack assessment capabilities.** The United States will not use or threaten to use nuclear weapons against non-nuclear weapons states that are party to the NPT and in compliance with their nuclear non-proliferation obligations. **Given the potential of significant non-nuclear strategic attacks, the United States reserves the right to make any adjustment in the assurance that may be warranted by the evolution and proliferation of non-nuclear strategic attack technologies and U.S. capabilities to counter that threat.**”<sup>16</sup>*

The breadth of non-nuclear threats against which the US would consider a nuclear response is a marked change from the 2010 NPR. This was not lost on President Putin, who directly referred to it in his speech in March 2018, six weeks after the NPR’s release. The 2018 NPR accelerated and enhanced, if not precipitated, the clarity and aggression of the Russian President. This document and the responding speech have shifted the risk calculations in nuclear

signalling between NATO and Russia.

President Trump has changed the tenor and content of leadership speeches and statements on nuclear issues. This is in contrast to Russia’s signalling continuity. An examination of how Trump’s use of Twitter and “stump speeches” affect signalling and deterrence messaging could occupy a series of articles. The effect of the adoption of Twitter for nuclear communication has massively changed the landscape of nuclear signalling, the concept of restraint and coherence within an alliance, and the previously held notions of predictability and constancy.

***“The adoption of Twitter for nuclear communication has massively changed the landscape of nuclear signalling.”***

In his analysis of the NPR<sup>17</sup>, Crispin Rovere identifies a single sentence which marks the most significant shift from the 2010 review: *“Moscow apparently believes that the United States is unwilling to respond to Russian employment of tactical nuclear weapons with strategic nuclear weapons.”*<sup>18</sup> This assertion is born from the assessment of Russia’s likely use of “tactical” weapons to cap escalation and of the US lacking options to counter it. It therefore deduces a clear requirement for the US to develop new capabilities (a low yield SLBM warhead and a new nuclear capable SLCM) in addition to the broader modernisation and replacement programme of its triad.

Following the conclusions of the 2018 NPR plans, the US triad will expand with a range of readiness profiles from near immediate to stored reserve. Whilst abiding by the New START restrictions, the US maintains a deliberate policy of “hedging” against technological or strategic shocks.

It maintains a greater diversity of warhead types across the triad than France (with its policy of “strict sufficiency”) or the UK (“minimum deterrence”). This contributes to the long-term ability of the US to assure deterrence in all theatres of interest.

## NATO - Alliance Nuclear Signalling

Aside from the signals of its constituent nuclear weapons states, NATO delivers its own declaratory nuclear signalling largely through three means: successive Strategic Concepts (the last one adopted in 2010), the 2012 Deterrence and Defence Posture Review (DDPR) and its summit declarations. It is instructive to examine the changes in tone and content of these between 2010 and 2018.

The 2010 Strategic Concept was a product of strongly diverging views of the salience of nuclear weapons. In 2010, reflecting the Strategic Concept’s tempered and calculated language, the Lisbon summit declaration restricted itself to noting:

*“Our Strategic Concept underscores our commitment to ensuring that NATO has the full range of capabilities necessary to deter and defend against any threat to the safety of our populations and the security of our territory. To that end, NATO will maintain an appropriate mix of conventional, nuclear, and missile defence forces.”<sup>19</sup>*

The internal disparity of view which led to constructing this broad-brush policy statement demanded that NATO defuse further discord also when completing the DDPR in 2012. The document expanded on the Strategic Concept but predominantly reflected the dominant US and the “older” NATO nations’ desire for restrained nuclear language, attuned to the 2009 Obama vision of working towards a world free of nuclear weapons. In addition, language elsewhere

in the 2012 Chicago Summit communique emphasised the value of partnership with Russia and a strong focus on the disarmament element of NATO-Russia security.

Subsequent events, particularly those in Ukraine, Syria and most recently the attempted Novichok assassination in the UK, have swung the language firmly in the opposite direction in the subsequent declarations. The 2014 Wales summit declaration was deliberately light on nuclear references, reflecting the strong desire of allies not to “nuclearise” the Ukraine crisis. But the next declarations side-lined NATO-Russia co-operation, strongly highlighting aggressive and destabilising Russian activity, and delivering expanded and more robust lines on the nuclear elements of NATO deterrence and security.

The relevant section of the summit declaration had thus evolved by the time of the July 2018 Brussels summit. It is considerably longer, much more robust and direct (the 2016 additions to 2014 are in blue. The 2018 addition to 2016 is emboldened):

*“The fundamental purpose of NATO’s nuclear capability is to preserve peace, prevent coercion, and deter aggression. **Given the deteriorating security environment in Europe, a credible and united nuclear Alliance is essential.** Nuclear weapons are unique. The circumstances in which NATO might have to use nuclear weapons are extremely remote. NATO reiterates that any employment of nuclear weapons against NATO would fundamentally alter the nature of a conflict. If the fundamental security of any of its members were to be threatened, however, NATO has the capabilities and resolve to impose costs on an adversary that would be unacceptable and far outweigh the benefits that any adversary could hope to achieve.”<sup>20,21,22</sup>*

These declarations are aimed at multiple audiences. The 2018 additions are as much about cementing Alliance unity in the face of uncertainty generated by President Trump as they are about messaging towards Russia.

The nature of Alliance consensus-building and policy formulation means that Secretaries-General deliver far fewer speeches that affect nuclear signalling than national leaders. When they do, the script is drawn directly from the agreed North Atlantic Council's declarations and so to date has largely been discounted as an additional source of signalling. Since the Alliance's policy remains at best the "lowest common denominator" of its constituent nuclear weapon states, this will likely endure. In the recommendations I suggest there is room for the Alliance to evolve its policy in a way that would make the voice of the NATO Secretary General better heard and more effective.

***"NATO considers that the detectable act of shortening readiness is a strong signal available to the Alliance in crisis."***

Most of the nuclear weapons declared to NATO are in national programmes and in postures set by national policy. NATO as such sends nuclear signals by the existence, readiness levels and programme endurance of the DCA capabilities and the US gravity bombs forward deployed in Europe.

Successive Alliance documents and NATO Secretaries-General have emphasised the value of these weapons to burden-sharing and the intent to maintain these capabilities. The US has announced a programme to extend the life and modernise weapons assigned for NATO. After some considerable doubt, most of the European DCA nations have committed to maintain their nuclear-capable aircraft.

At the same time, NATO keeps the majority of these DCA at relatively long readiness levels. NATO considers that the detectable act of shortening readiness is a strong signal available to the Alliance in crisis. Although, as with all long-readiness military capabilities set against swift crises, it should always be aware of the dangerous escalatory potential of too-early mobilisation. For that reason, the relative stability afforded by continuous high readiness of Alliance strategic forces (US ICBM and SLBM, French and UK's SLBM) is a valuable counterbalance.

### **Russia's Nuclear Signalling**

There is no shortage of assessments on the current state of Russia's nuclear forces, their nuclear strategy and prospects for arms control.<sup>23</sup> Russia is a signatory of the NPT and the CTBT and has strong public stance on non-proliferation and counter-proliferation. Russia remains compliant with New START and, despite US allegations to the contrary, considers itself still a compliant signatory of the Intermediate Nuclear Forces (INF) Treaty - which it considers the US to have breached - and an abandoned partner in the Anti-Ballistic Missile (ABM) Treaty.

The key documents outlining current Russian nuclear policy are the December 2014 Russian Military Doctrine Paper<sup>24</sup> and the Russian National Security Strategy (2015)<sup>25</sup>. These use language very similar to the other NWS regarding the possession and utility of its nuclear arsenal. Russia maintains a policy of strategic "nuclear deterrence at sufficient level" although, like the US, it appears ready to deploy these capabilities to a broad range of threats, including conventional and non-kinetic.

Russia issued unilateral negative security assurances not to attack non-nuclear-weapon states in 1978 and 1995, but stated in 1995 that those pledges would not apply "*in the case of an invasion or any other attack*

*on the Russian Federation, its territory, its armed forces or other troops, its allies or on a State toward which it has a security commitment, carried out or sustained by such a non-nuclear-weapon State in association or alliance with a nuclear-weapon State.”*<sup>26</sup> This was coherent with the then-NATO position, but all three NATO NWS have removed the so called “Warsaw Pact Clause” from their NSAs in 2010.

Following a scholarly paper by three Russian officers in 1999<sup>27</sup>, many Western analysts have come to believe that the Russian doctrine enshrines also an “escalate to de-escalate” strategy. The notion is that, in the event of a large-scale conventional conflict, the Kremlin would employ or threaten to employ low-yield nuclear weapons to coerce an adversary to cease attacks or withdraw. NATO and especially the US have used this widely articulated understanding of Russian policy<sup>28</sup> as a rationale to develop the matching capabilities and doctrines, most noticeably in the 2018 NPR. Eminent analysts have recently cast doubt on whether this thesis has doctrinal Russian reality, most notably Kristin ven Bruusgaard<sup>29</sup> and Bruno Tertrais<sup>30</sup>.

Other analysts point to terminology within “The Fundamentals of State Policy of the Russian Federation in the Field of Naval Operations for the Period until 2030”<sup>31</sup> as a convincing argument for the formal existence of this as doctrine<sup>32</sup>:

*“During the escalation of military conflict, demonstration of readiness and determination to employ non-strategic nuclear weapons capabilities is an effective deterrent.”*

This language can be construed as deliberately ambiguous and insufficient to draw the conclusions which have been drawn. In balance, as ven Bruusgaard and Tertrais assert, the evidence that an “escalate to deescalate strategy” is formal Russian doctrine is weak. This misinterpretation is

already having significant consequences and risks skewing assessment of and reaction to all other Russian doctrinal positions.

As regards public pronouncements, President Putin has been remarkably consistent on the security issues causing Russia concern. In every relevant speech since his remarks at the 2007 Munich Security Conference<sup>33</sup>, he has identified the following themes: Western interference in other states; its development of highly capable and strategic conventional military capabilities, US and NATO’s missile defence, and NATO expansion and “aggression”. What has changed is the increased emphasis on Russia’s nuclear capabilities, culminating in the speech to the Federal Assembly on 1 March 2018,<sup>34</sup> where he delivered a triumphant and robust challenge to the US and NATO focusing on current and novel nuclear capabilities.

***“The evidence that an ‘escalate to deescalate strategy’ is formal Russian doctrine is weak.”***

Like the US, Russia maintains a complex triad of nuclear capabilities with readiness range between near immediate (ICBM) and longer (for example SLBM and ALCM). It not only pursues modernisation of its current forces, but also a broad swathe of new capabilities in each element of the triad. Of particular concern, Putin announced the development of a fourth arm of the first nuclear tetrad, a trans-oceanic nuclear capable unmanned underwater vehicle (UUV), and a global-range nuclear armed and powered cruise missile. These were possibly originally conceived as means to defeat Reagan’s Strategic Defense Initiative. They are now intended to counter (the Russian perception of) the threat from the combination of US nuclear weapons, precision conventional overmatch and effective BMD systems. The sustenance of these programmes through dire economic times in the 1990s indicates their importance



to the leadership. If followed through, they would deliver the most serious nuclear arms race accelerants since the invention of the hydrogen bomb.

Russia has maintained a consistent position on how it views nuclear weapons in its strategic vision of Russian security and international prestige. It continues to signal the centrality of nuclear weapons in its security policy and commitment to maintaining at least parity with the US. When coupled with its concerns over US non-nuclear and BMD capability, this also drives the desire for nuclear overmatch.

Despite the adoption of what may be defined as the “NWS norms” in its official strategic declaratory policy, Russia believes in the value of overt or inferred nuclear coercion. This was most evident during the Ukraine crisis. While NATO worked hard not to emphasise the nuclear component of the crisis, Russia had no such qualms. Nuclear force exercises continued as planned during the crisis, and threatening profiles were flown by nuclear-capable aircraft, particularly near the Baltic NATO members’ borders.

***“Russia believes in the value of overt or inferred nuclear coercion.”***

There is a growing view that the recently announced novel nuclear delivery systems show an increased malevolence and challenge from Russia to the post-Cold War order. Compared to six years ago, there is now no doubt in NATO that nuclear weapons play an increased role in Russian grand strategy and are highly salient in current and future Russian state policy. They also offer an immediate way through which to divide and conquer NATO, either existentially or through their employment or threat of employment in crisis.

There is insufficient evidence to draw the assertions present in the NPR and elsewhere that Russia has a deliberate policy of

“escalate to de-escalate” but there is also a clear discrepancy between their declaratory policies (narrow circumstances of use, strictly defensive and last resort) and the development of new nuclear capabilities.

## **The Trump Effect**

The bedrock of Alliance security is the simple premise articulated in Article 5 of the Washington Treaty that assures that an attack on one is an attack on all. In no element of that security is Article 5 more important than nuclear deterrence. The US considers Paris and other NATO cities equivalent to New York. Up until now it was explicit that the US would set its homeland at equal risk to that of its allies. The 45<sup>th</sup> President of the United States has placed that in doubt.

Nuclear deterrence, and its associated signalling, depends to a large degree upon predictability and relative constancy. President Trump’s (at best) ambivalence to NATO, his mantra of “America First”, his personal preferences for totalitarian dictators and his inconsistency all jeopardise both belief in long term US adherence to the NATO founding objectives and principles, and the credibility of its nuclear signalling.

The largest relevant inconsistency is between statements about the extant and increasing threat posed by Russia included in his 2018 NPR and his public comments about Putin and Russia in almost every other context. This dissonance weakens deterrence and its associated signalling.

Through the intemperate utterances, near-continuous flipping on important issues surrounding his (and by extension the US’) relationship with Putin and Russia, Trump is acting as a geopolitical singularity around which time and truth bend. Most previously-agreed norms are already failing in the strength of its uncertainties. Trump’s currently unbridled ability to drive US policy through his pure whim and his ignorance

of strategy and diplomacy has made the normally challenging NATO mission to deliver clear and unambiguous nuclear signalling well-nigh impossible.

What works well for a chosen internal audience is likely to be extremely toxic for other audiences. Alliance unity, stretched by this foray into the unknown, has been further stressed by the nature of Trump's very public disagreements with NATO leaders in other areas. New trade wars, the excoriation of close allies, and the denigration of NATO as an alliance sponging off the US all affect both NATO unity and the credibility and endurance of the Alliance's nuclear signalling.

If this proves to be an aberrant period in history, then the Alliance should be able to recover, in time, a more coherent and enduring message. If this marks the end of traditional diplomacy-centric messaging, then a new workable paradigm will swiftly have to be found before it contributes to an escalation in the current new arms race, or worse, the nuclearization of any future crisis.

Today, the likely US response to a future crisis between NATO and Russia is very hard to predict and while there is some deterrence in unpredictability, the risk of failure through misinterpretation is made manifold.

### **Risk of Escalation from Misinterpretation**

Save an unexpected deliberate first strike with nuclear weapons, miscalculation or misinterpretation connected with signalling failure presents the greatest threat to Euro-Atlantic stability. This risk extends across the spectrum of possible conflict, and is arguably higher now than in the Cold War for at least the following reasons:

- A projected expansion (in both the US NPR and Russian modernisation plans) of dual use or dual capable systems,

causing doubt upon deployment and launch in crisis and or conflict. There is a risk that countering Russia, as detailed in the US NPR, lowers nuclear thresholds and blurs traditional NATO separation of conventional and nuclear conflict;

- A renewed focus on shorter range systems to "match" capabilities of the other side, leading to closer engagements and shorter reaction times. This increases demand for swift and possibly delegated employment decisions, perhaps on incomplete information;
- The most complex information environment in conflict history: an explosion of misinformation, data masking, and an international and domestic environment with highly polarised biases. Both the leaders of the US and Russia deliberately exploit this environment to achieve internal and external policy goals increasing the destabilising potential in nuclear signalling in peace and crisis;
- A more trenchant polarisation across the NATO/Russia divide: a combination of Russian paranoia faced with a military Alliance that encompasses liberal wishful thinking, conservative pessimism and increasingly bellicose confrontation;
- The potential for activities in cyberspace, deliberate or unintentional, to tip any or all these factors into a destabilising effect on the communication of intent, deterrence and mutual understanding;

The louder the shout and the more simplistic the arguments deployed, the more likely the signals will be misinterpreted with escalatory effect, particularly in the prominent use of social media which has accompanied the current US administration.



“Neither other NATO members nor the US should have issues with NATO having a more restrained nuclear policy than any of its nuclear members, including the US.”

## Improving Matters

This report makes recommendations for both NATO and the UK, noting that - provided the risk to UK and NATO security does not significantly rise - some of these ideas could be adopted without requiring advance pledges of reciprocity. The focus is thus on easing the growing tensions.

## Recommended Actions for NATO

What can NATO and its nuclear weapon state members do to be more effective in nuclear signalling in peacetime and crisis? While there are undoubtedly some enduring issues which have dogged signalling since the advent of the nuclear capability, as well as those introduced by 21<sup>st</sup> century challenges, the greatest risk today is undoubtedly miscalculation and misinterpretation.

At the heart of this new uncertainty is the erratic behaviour, intemperate messaging and lack of consultation from the current US President. This risks negating Alliance diplomacy and manoeuvring especially in a crisis with Russia. Since any crisis between NATO and Russia has a nuclear dimension, NATO needs to understand how it can remain relevant in the crisis communications which could swiftly descend into a personal Trump-Putin exchange.

***“The greatest risk today is undoubtedly miscalculation and misinterpretation.”***

The salutary example of the US-DPRK twitter storm is significant. While they are not in a formal alliance with the US together, both Japan and South Korea were largely sidelined in real time, publicly, and it could be inferred, also privately. There is nothing in Trump’s demeanour which suggests a similar crisis in the European theatre would be handled differently. Both the UK and

France have a role to play in ensuring NATO’s posture, policy and intent are reflected in how such a crisis may develop.

To address proactively these burgeoning risks, NATO should consider a Nuclear Deterrence Review (NDR). An NDR would be based upon the nuclear elements of the 2012 DDR, which would need to be expanded given the significant changes in the NATO-Russia relationship, particularly in the nuclear deterrence domain since then. This would undoubtedly be a significant body of work firmly under the aegis of the High Level Group (HLG), working for the Nuclear Policy Group (NPG). While NATO has struggled in recent years to focus any review exclusively on the articulation of its nuclear policies, and the time is right for it to do so.

The principal components and aims of the NDR would be:

- Improve balance and coherence between all “timeframes of signalling” by studying and eliminating inconsistencies between the long-term and shorter-term policies and pronouncements. Having set and agreed upon a coherent set of messages, work with all Alliance leaders to articulate them regularly, or if that is too difficult, at least do not contradict them. NATO has, in recent years, reenergised NAC involvement in nuclear policy and thinking; this work would be a natural extension of this renaissance;
- Continue to raise horsepower and frequency of nuclear thought and experience in the Alliance. This would not necessarily need to be promoted as an increase in salience of nuclear weapons in Alliance posture (with likely accompanying escalatory response), but as a proper expression and consideration of cohesion of deterrence. In support of this, NATO leaders could improve the relevance of and participation in its routine nuclear exercises;

- Work within the NPG and HLG for even closer synergy of NWS members' policies where practicable, while exploring the potential for NATO to have a more moderate nuclear policy than any or all its constituent NWS. Such a position, where NATO policy is more nuanced to the European theatre than simply a distillation of the common ground of the P3 policies, would increase the value of the Secretary Generals' interventions on deterrence;
- Conduct a thorough analysis of the risks and benefits of the continuance of the 1970s-era concept of deliberate ambiguity in declaratory statements. Opportunities exist to clarify and streamline security assurances and to reduce the "doubt overhead" present in any policy of ambiguity, which always brings additional risk of misinterpretation. This is a more sensitive area, but this work would be folded into the NDR suggested above.

While perhaps "sole use" is a bridge too far for NATO today, there is room for discussion and perhaps signalling a difference with the US on their growing list of non-nuclear threats countered by nuclear weapons.<sup>35</sup> Neither other NATO members nor the US should have issues with NATO having a more restrained nuclear policy than any of its nuclear members, including the US.

- Taking the example of US-Soviet nuclear arms reduction and limitation talks and treaties at the height of distrust in the Cold War, examine the opportunities to understand better Russian nuclear signalling, firstly through deeper analysis and internal discussion and then by establishing a dialogue with Russia. This should be a priority for the NATO Russia Council and would require the rediscovery of what today seems increasingly difficult - but essential - statecraft: the ability to de-link progress in this area from other points of contention between the Alliance

and Russia;

- Continue efforts to bring France inside the NPG and thus increase the likelihood of increased coherence of policy and posture. The need for this anomaly to be resolved is made more urgent by the imminent departure of the UK from the EU and a likely fracture in some regard of the UK-French security relationship. An additional benefit would be enhanced credibility of the Alliance's nuclear deterrence.

### **Recommended Actions for the UK**

While there have been signalling negatives, explored above, with the UK's constant re-examination of its nuclear policies and posture, it has shown itself the most flexible and open to change of the three NWS in the Alliance in recent years. Thus, notwithstanding the Brexit challenges detailed earlier, the UK has some advantages as a catalyst and lead for innovative change within NATO, or unilaterally to counter the risks identified above.

There is clarity in the UK's position on a response to the employment of a non-strategic nuclear weapon against NATO: it only has SLBM to deliver a suitable strategic response. The current prime minister has placed on record the resolve of the UK to employ its deterrent, which has significantly enhanced the credibility of its deterrent signalling.

Within the NATO review outlined above, the UK could:

- Continue to make the case regarding the advantages of its restrained capability and declaratory policies to best influence NATO policies and counter the more inflammatory and potentially destabilising options that are arising;
- Oppose policy and posture options

identified earlier (especially the renaissance of dual capable platforms and less-than-strategic weapons) which have arisen or may arise within NATO and P3 allies and that weaken strategic stability or risk lowering of nuclear thresholds in crisis and conflict;

- Advocate a genuine path of increased restraint within the P3 and NATO and, by expansion, the P5 and other nuclear weapon capable states.

Both within a potential NATO NDR review and independently, the UK should seek further opportunities to signal UK restraint without diminishing strategic deterrence. These could include, but not be constrained to:

- In parallel with the NATO activity advocated above, re-examining the risk and benefit balance in maintaining a broadly ambiguous declaratory policy (including examining no first use and sole purpose);
- researching means by which the 21<sup>st</sup> century challenges to signalling and interpretation can be actively reduced by establishing direct dialogue and mechanisms with adversaries, and
- examining additional options which would emphasise the strong self-restraint inherent in the UK posture and encouraging NATO to adopt them.

## Endnotes

1 Since nuclear weapons are “in use” every day in their deterrent role, I use “employment” to denote their launch and detonation.

2 Thomas Frear, Lukasz Kulesa & Denitsa Raynova, “Russia and NATO: How to overcome deterrence instability?”, *ELN Euro-Atlantic Security Report*, 26 Apr 2018, <https://www.europeanleadershipnetwork.org/wp-content/uploads/2018/04/26042018-Deterrence-Russia-NATO-Thomas-Frear-Lukasz-Kulesa-Denitsa-Raynova.pdf>

3 This term, introduced in a Carnegie Paper (<http://carnegieendowment.org/2018/03/06/dangerous-illogic-of-twenty-first-century-deterrence-through-planning-for-nuclear-warfighting-pub-75717>), is designed to include all states with an active nuclear weapon programme, regardless of the formal definitions frozen within the Nuclear Non-Proliferation Treaty.

4 There are many more detailed references and resources available on each of these areas. I will include only detail sufficient to underpin the analysis and recommendations. For the last area, I will cover only those elements, particularly where they are changing, which most directly affect current and future signalling.

5 The UK SLBM are held continuously at several days’ notice to fire, are untargeted and no more than 40 warheads are deployed in the single patrolling SSBN.

6 The UK updated its Negative Security Assurances (NSAs) in 2010 to take account of the end of the Cold War and to codify the potential for deterrence of the most egregious use of other WMD.

7 “We would use our nuclear weapons only in extreme circumstances of self-defence, including the defence of our NATO Allies. While our resolve and

capability to do so if necessary is beyond doubt, we will remain deliberately ambiguous about precisely when, how and at what scale we would contemplate their use, in order not to simplify the calculations of any potential aggressor.”- UK National Security Strategy and Strategic Defence and Security Review 2015, Art 4.68, CM9161 Nov 2015

8 “Yes. The whole point of a deterrent is that our enemies need to know that we would be prepared to use it, unlike the suggestion that we could have a nuclear deterrent but not actually be willing to use it, which seemed to come from the Labour Front Bench.” - Hansard Vol 613, UK’s Nuclear Deterrent, 18 July 2016, <https://hansard.parliament.uk/Commons/2016-07-18/debates/7B7A196B-B37C-4787-99DC-098882B3EFA2/UKSNuclearDeterrent>

9 Michael Fallon, Today Programme BBC R4 Interview, Apr 2017

10 “Decisions on replacing the warhead will not therefore be required in this Parliament.” UK National Security Strategy and Strategic Defence and Security Review 2010, Art 3.12, CM7498 Oct 2010

11 “A replacement warhead is not required until at least the late 2030s, possibly later. Given lead times, however, a decision on replacing the warhead may be required in this Parliament or early in the next.” UK National Security Strategy and Strategic Defence and Security Review 2015, Art 4.72, CM9161 Nov 2015

12 “Nuclear deterrence is the ultimate guarantee of the security, protection and independence of the Nation.” And it “protects us from any aggression against our vital interests emanating from a state, wherever it may come from and whatever form it may take. It rules out any threat of blackmail that might paralyze its freedom of decision and action”.

13 France: Strategic Review of Defence and National Security 2017 Art 197, Oct 2017, <https://>

[www.defense.gouv.fr/layout/set/popup/content/download/520198/8733095/version/2/file/DEFENCE+AND+NATIONAL+SECURITY+STRATEGIC+REVIEW+2017.pdf](http://www.defense.gouv.fr/layout/set/popup/content/download/520198/8733095/version/2/file/DEFENCE+AND+NATIONAL+SECURITY+STRATEGIC+REVIEW+2017.pdf)

14 France: Strategic Review of Defence and National Security 2017 - Key Points, Oct 2017, <http://www.defense.gouv.fr/english/content/download/514659/8664385/Strategic%20review%20of%20defense%20and%20national%20security%202017%20%E2%80%93%20Key%20points.pdf> “After Brexit, France will be the European Union’s only permanent member of the United Nations Security Council, and nuclear-weapon State. As a founding member of NATO and the European Union with a full-spectrum forces model, France must have two objectives: preserving its strategic autonomy and helping to build a stronger Europe to address the growing number of common challenges. Maintaining its freedom of analysis, decision-making and action will primarily depend on renewing both components of its nuclear deterrent.”

15 France: Strategic Review of Defence and National Security 2017 Art 244, Oct 2017, <https://www.defense.gouv.fr/layout/set/popup/content/download/520198/8733095/version/2/file/DEFENCE+AND+NATIONAL+SECURITY+STRATEGIC+REVIEW+2017.pdf>

16 US Nuclear Posture Review 2018, p. 21, <https://media.defense.gov/2018/Feb/02/2001872886/-1/-1/1/2018-NUCLEAR-POSTURE-REVIEW-FINAL-REPORT.PDF>

17 Crispin Rovere, “US 2018 Nuclear Posture Review: It’s the Baltic states, stupid!”, *The Defense Post*, 8 Feb 2018, <https://thedefensepost.com/2018/02/08/us-2018-nuclear-posture-review-baltic-states-stupid/>

18 US Nuclear Posture Review p.7, Feb 2018

19 Lisbon Summit Declaration Issued by the Heads of State and Government participating in the meeting of the North Atlantic Council in Lisbon, 20 Nov 2010, [https://www.nato.int/cps/en/natolive/official\\_texts\\_68828.htm](https://www.nato.int/cps/en/natolive/official_texts_68828.htm)

20 Summit Declaration Issued by the Heads of State and Government participating in the meeting of the North Atlantic Council in Wales, 5 Sep 2014, [https://www.nato.int/cps/en/natohq/official\\_texts\\_112964.htm](https://www.nato.int/cps/en/natohq/official_texts_112964.htm)

21 Summit Declaration Issued by the Heads of State and Government participating in the meeting of the North Atlantic Council in Warsaw, 9 Jul 2016, [https://www.nato.int/cps/en/natohq/official\\_texts\\_133169.htm](https://www.nato.int/cps/en/natohq/official_texts_133169.htm)

22 Summit Declaration Issued by the Heads of State and Government participating in the meeting of the North Atlantic Council in Brussels, 12 Jul 2018, [https://www.nato.int/cps/su/natohq/official\\_texts\\_156624.htm](https://www.nato.int/cps/su/natohq/official_texts_156624.htm)

23 In recent testimony to Congress RAND articulated a concise assessment. Austin Long, “Russian Nuclear Forces and Prospects for Arms Control”, *Testimony of Austin Long of The RAND Corporation before the Committee on Foreign Affairs Subcommittee on Terrorism, Nonproliferation, and Trade United States House of Representatives*, 21 Jun 2018, <https://www.rand.org/pubs/testimonies/CT495.html>

24 “Voennaya Doktrina Rossiiskoi Federatsii 2014” (The 2014 Military Doctrine of the Russian Federation, Art 27), in English, <https://www.rusemb.org.uk/press/2029>

25 The Russian Federation’s National Security Strategy, 31 Dec 2015, para 36

26 The Conference on Disarmament and Negative Security Assurances, March 2011, <http://>



- unidir.org/files/publications/pdfs/the-conference-on-disarmament-and-negative-security-assurances-369.pdf
- 27 Major General V.I. Levshin, Colonel A.V. Nedelin and Colonel M.E. Sosnovskii, "O primenenii yadernogo oruzhiya dlya deeskalatsii voennykh deistvii" (On the use of nuclear weapons for the purposes of de-escalation of military confrontation), *Voennaya Mysl' (Military Thought)*, Moscow, January 1999, <http://dlib.eastview.com/browse/doc/2449543>
- 28 Mark B. Schneider, "Escalate to De-Escalate", *USNI Proceedings Vol 143/2*, Feb 2017, <https://www.usni.org/magazines/proceedings/2017-02/escalate-de-escalate#footnotes>
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- 33 Putin's speech and the Following Discussion at the Munich Conference on Security Policy, Munich, 10 Feb 2007, <http://en.kremlin.ru/events/president/transcripts/24034>
- 34 President Putin address to the Russian Federal Assembly, 1 Mar 2018, <http://en.kremlin.ru/events/president/news/56957>
- 35 US Nuclear Posture Review 2018, p. 21, <https://media.defense.gov/2018/Feb/02/2001872886/-1/-1/1/2018-NUCLEAR-POSTURE-REVIEW-FINAL-REPORT.PDF>