

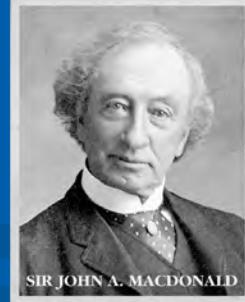
James Fergusson

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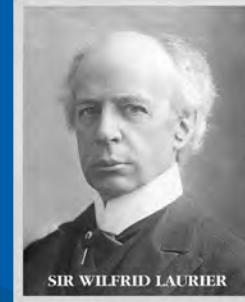
Why the demise of the Cold War's INF Treaty will not alter the strategic military balance

October 2020





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Executive Summary

On August 2, 2019, the Intermediate-Range Nuclear Forces (INF) Treaty officially ended. Its demise has raised concerns about defence and security in Europe and globally, the possibility of a new nuclear arms race, and potentially the collapse of the nuclear non-proliferation regime. Yet, these concerns, echoing Cold War thinking, fail to take into account profound strategic, military, and political changes that occurred since 1987, when the treaty was signed. The defence and security implications for Europe and the world without the treaty are likely to be limited.

The INF Treaty prohibited the United States and the Soviet Union from using and testing medium- and intermediate-range ballistic missiles (M/IRBMs) and ground-launched cruise missiles (GLCMs) with a 500 to 5500 kilometre range. In so doing, the treaty tactically decoupled the US strategic deterrent from NATO Europe, and served to reassure particularly West Germany and to appease the vocal European anti-nuclear/peace movement. What is often overlooked, however, is that the political, strategic, and military reality at the time largely negated the demand for nuclear INF systems; thus, neither side gave up anything essential in signing the treaty.

What are some of the issues that led up to the demise of the treaty?

1. *GLCMs*: In 2014, the US State Department publicly accused the Russian Federation of violating its treaty obligations by deploying the SSC-8, a GLCM within the prohibited range. In January 2019, Moscow offered Washington access to the SSC-8 to demonstrate its compliance to the treaty; in return, Russia requested proof that the US MK-41 launcher could not be converted into a GLCM launcher. No question was raised about M/IRBMs, as both Russia and the US deploy long-range cruise missiles that enable them to threaten targets originally covered by these ballistic missile systems.

2. *Change in the strategic environment*: The concerns that spawned the INF Treaty evaporated when the Cold War ended. The US/NATO extended deterrence issue of the Cold War era no longer exists due to advanced US weapon systems and targeting capabilities, withdrawal of Soviet (Russian) military forces from Central/Eastern Europe, and NATO's eastward expansion. Nu-

clear weapons in US and NATO deterrence thinking have been downgraded from a central to a peripheral role.

3. Change in the political environment: Although US and NATO's relationship with Russia is largely antagonistic, this is no longer a standoff between two diametrically opposed systems. For all its shortcomings, the Russian economic, political, and social system has moved away from the Soviet system of the Cold War.

Another development is the return of great power politics due to the rise of China. Senior American and Russian officials have long argued that the INF Treaty was discriminatory in prohibiting only the US and Russia from possessing INF ballistic missile systems, while such systems proliferated in other countries, most notably China. China's emergence as a "near-peer" competitor to the US and its passing of Russia in the global political hierarchy potentially provides the basis for a tacit agreement between Russia and the US not to deploy INF systems in the European theatre and restrict their deployments to Asia.

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central to a peripheral role.*

4. Change in the arms control environment: Whereas the initial INF decision and subsequent deployment in the 1980s sparked anti-nuclear protests in Europe, the end of the INF Treaty resulted in no public backlash. NATO allies supported the US decision to withdraw, and there has been no real political pressure to drive either side back to the bargaining table.

Today, both the US/NATO and Russia possess strategic ballistic missiles and air/sea-launched cruise missiles that can undertake theatre-level functions. A new generation of existing and emerging advanced military technologies have also expanded their defence and deterrence capabilities, further negating the requirement for dedicated INF systems.

For all intents and purposes, the INF Treaty is a relic of the past. The defence and security implications of its demise will depend on US and Russian governments' decisions regarding INF. Yet, even though both sides are able to break out quickly from INF limitations, neither has undertaken significant

steps to do so. Russia faces economic and resource constraints, especially in a post-COVID-19 environment. For the US, presidential and congressional elections this fall are likely to push any INF decision further into the future.

The current political environment, following Russian aggression in Ukraine, is not conducive to the renegotiation of the treaty. Yet the China card provides the potential basis for a tacit agreement between Russia and the US to limit deployments to the Asia-Pacific, which might eventually evolve into a formal treaty. There is low probability, based upon past Chinese behaviour, that either US or Russian M/IRBM deployments in Asia would lead to a theatre nuclear arms race, and a low probability of a nuclear arms race between the US and Russia elsewhere.

Arms control agreements have always been a symbol of the political conditions of their time. The INF Treaty was set in a different strategic, military, and political environment. Nothing suggests that its absence per se will create major defence and security challenges for Europe and the world. When, or if, the relationship between the US/NATO and Russia improves, we can expect a European theatre-limited, new INF treaty.

Sommaire

Le 2 août 2019, le Traité sur les forces nucléaires à portée intermédiaire – ou traité FNI – a officiellement pris fin. Cette extinction a soulevé des préoccupations quant à la défense et la sécurité en Europe et dans le monde, à la possibilité d'une nouvelle course à l'armement nucléaire et à un éventuel effondrement du régime de non-prolifération nucléaire. Toutefois, ces préoccupations, en se faisant l'écho de la « mentalité de Guerre froide », occultent les profonds changements stratégiques, militaires et politiques survenus depuis 1987, date de signature du traité. Dans les circonstances, les répercussions en matière de défense et de sécurité pour l'Europe et le monde risquent d'être limitées.

Le traité FNI interdisait aux États-Unis et à l'Union soviétique de mettre en service et à l'essai des missiles balistiques à portée moyenne (MRBM) et intermédiaire (IRBM) et des missiles de croisière à lanceur terrestre (GLCM) dotés d'une portée comprise entre 500 et 5 500 km. Ce faisant, il a tactiquement découpé de l'Europe de l'OTAN la force de dissuasion stratégique américaine et servi à rassurer l'Allemagne de l'Ouest en particulier, tout en apaisant le mouvement antinucléaire et pacifiste européen. Ce qu'on oublie souvent, cependant, c'est que la réalité politique, stratégique et militaire de l'époque a pratiquement éliminé la demande de systèmes nucléaires FNI; ainsi, aucune des deux parties n'a renoncé à quoi que ce soit d'essentiel en adhérant au traité.

Certains des enjeux responsables de l'extinction du traité

1. *Missiles GLCM* : En 2014, le département d'État des États-Unis a accusé publiquement la Fédération de Russie de violer le traité en déployant le SSC-8, un missile GLCM d'une portée interdite. En janvier 2019, pour démontrer sa conformité avec les règles du traité, Moscou a offert à Washington l'accès au missile SSC8; en contrepartie, la Russie a exigé la preuve que le système de lancement américain MK-41 ne pouvait pas être converti en système GLCM. Comme la Russie et les États-Unis déplacent tous les deux des missiles de croisière à longue portée (LRBM) qui leur permettent de menacer des cibles également dans la portée des missiles MRBM et IRBM, aucune question n'a été soulevée à propos de ces derniers.

2. *Changement de l'environnement stratégique* : Les préoccupations ayant mené à l'adoption du traité FNI se sont évanouies avec la fin de la Guerre froide. La dissuasion élargie de la Guerre froide n'est plus un enjeu pour les É.-U./OTAN en raison des capacités d'armement et de ciblage perfectionnés des États-Unis, du retrait des forces soviétiques (russes) de l'Europe centrale et orientale et de l'expansion de l'OTAN vers l'Est. Les armes nucléaires sont passées d'un rôle central à un rôle accessoire dans la posture de dissuasion des É.-U./OTAN.

Les armes nucléaires sont passées d'un rôle central à un rôle accessoire dans la posture de dissuasion des É.-U./OTAN.

3. *Changement de l'environnement politique* : Bien que la relation des É.-U./OTAN avec la Russie est largement antagoniste, elle ne dégénère plus en affrontement stérile entre deux systèmes diamétralement opposés. Malgré toutes ses lacunes, le système économique, politique et social russe s'est éloigné du système soviétique de la Guerre froide.

Un autre développement, provoqué par l'ascension de la Chine, est le retour de la notion de « politique des grandes puissances ». Les hauts responsables américains et russes ont longtemps soutenu que le traité FNI était discriminatoire, parce qu'il interdisait uniquement aux États-Unis et à la Russie de posséder des systèmes de missiles balistiques FNI, alors que ces systèmes proliféraient dans d'autres pays, notamment en Chine. Le fait que la Chine se soit élevée au rang de rival presque aussi puissant que les États-Unis et qu'elle ait surpassé la Russie dans la hiérarchie politique mondiale pourrait constituer le fondement d'un accord tacite entre la Russie et les États-Unis à

l'égard du non-déploiement des FNI sur le théâtre d'opérations européen et de la limitation de ces systèmes en Asie.

4. Changement de l'environnement de maîtrise des armements : Alors que la décision initiale relative aux FNI et le déploiement ayant suivi dans les années 1980 ont déclenché des manifestations antinucléaires en Europe, l'extinction du traité FNI n'a suscité aucune réaction publique. Les alliés de l'OTAN ont appuyé la décision de retrait des États-Unis, et aucune réelle pression politique n'a été exercée pour ramener l'une ou l'autre des parties à la table de négociations.

À l'heure actuelle, tant les É.-U./OTAN que la Russie possède des missiles balistiques stratégiques et des missiles de croisière air-mer pouvant remplir des fonctions de théâtre. Une nouvelle génération de technologies militaires de pointe existantes et à venir a également élargi les capacités de défense et de dissuasion de ces rivaux, freinant encore plus le besoin de systèmes axés sur les FNI.

En définitive, le traité FNI est un vestige du passé. Les répercussions de son extinction sur la défense et la sécurité dépendront des décisions relatives aux FNI des gouvernements américain et russe. Ainsi, même si les deux parties peuvent se libérer rapidement des limitations sur les FNI, aucune n'a pris de mesure déterminante à cet égard. La Russie est confrontée à des contraintes sur le plan de l'économie et des ressources, en particulier dans l'après-COVID. Aux États-Unis, les élections présidentielles et législatives de l'automne sont susceptibles de repousser dans le temps toute décision en matière de FNI.

L'environnement politique actuel n'est pas propice, compte tenu de l'agression russe en Ukraine, à la renégociation du traité. Pourtant, la carte de la Chine fournit des motifs à l'appui d'un accord tacite entre la Russie et les États-Unis en vue de limiter les déploiements en Asie-Pacifique, ce qui pourrait évoluer vers un traité officiel. Il y a un faible risque, en fonction du comportement passé de la Chine, que les déploiements de missiles MRBM et IRBM en Asie, qu'ils soient américains ou russes, mènent à une course aux armes nucléaires de théâtre, et un faible risque de course aux armes nucléaires entre les États-Unis et la Russie ailleurs.

Les accords de maîtrise des armements ont toujours été représentatifs de la situation politique de leur temps. Le traité FNI s'inscrivait dans un environnement stratégique, militaire et politique différent. Rien n'indique que son absence créera en soi des problèmes majeurs en matière de défense et de sécurité pour l'Europe et le monde. On pourra s'attendre à un nouveau traité FNI axé sur le théâtre d'opérations européen lorsque la relation entre les É.U./OTAN et la Russie s'améliorera ou si elle le fait.

Introduction

On February 2, 2019, the United States gave official notice of its intent to withdraw from the Intermediate-Range Nuclear Forces (INF) Treaty, as permitted under Article XV, and suspended its treaty obligations. Russia immediately followed suit. Six months later, on August 2, 2019, the treaty came to an official end. The immediate cause was US claims, dating back to 2013, that the Russian SSC-8 mobile ground-launched cruise missile (GLCM), with an estimated range of 2500 kilometres, violated the bilateral treaty's global provisions prohibiting the development, testing, and deployment of ballistic and cruise missiles with a range between 500 and 5500 kilometres. Russia continues to claim, however, that the SSC-8 is treaty-compliant with a range of less than 500 kilometres.

Today, Russia has deployed several batteries of the SSC-8 at four bases, and the US has tested, but not deployed, a modified sea-launched Tomahawk cruise missile as a GLCM. Although the Russian RS-26 intercontinental ballistic missile (ICBM), currently under development, has been tested at a range below 5500 kilometres, as permitted under the provisions of the New START Treaty, and the US has tested a medium-range ballistic missile (MRBM) at the range of 500 kilometres, neither Russia nor the US has indicated any plans to proceed to ballistic missile deployments within INF ranges. Instead, Russia has proposed a moratorium on INF deployments, which the US and its NATO allies have rejected unless Russia eliminates its SSC-8 systems.

The demise of the INF Treaty has raised concerns about defence and security in Europe and elsewhere, strategic stability, a new nuclear arms race, and potentially the collapse of the Nuclear Non-Proliferation Treaty (NPT). These concerns, however, are largely a hangover of Cold War thinking and fail to take into account the significant changes that have occurred at the strategic, military, and political levels since the negotiation and subsequent signing of the INF Treaty in 1987.

Although competing and conflicting strategic considerations related to stability and the credibility of the US extended deterrence were central to the debate in the process that would lead to the INF Treaty, political consider-

ations were the key factor. NATO's 1979 "dual-track" decision to link INF deployments to arms control negotiations with the Soviet Union, followed by President Reagan's 1981 "double zero" offer to eliminate all US and Soviet INF systems from Europe, was designed to manage public opinion, especially in light of the large anti-nuclear/peace movements in Europe sparked by the collapse of *détente*, the beginning of the Second Cold War, and a deep dislike and distrust of President Reagan. Similarly, the Soviet Union, in initially rejecting INF arms control negotiations and then initially withdrawing from subsequent negotiations when US/NATO deployments began in 1983, sought to exploit European/NATO public fears and divide the alliance.

Whether Reagan and the NATO allies ever expected the Soviet Union to accept the "double zero" option remains an open question. But when the Soviet Union under Gorbachev did so, the political and military situation had changed dramatically. Gorbachev transformed the political climate, and with the Reykjavik Summit, the subsequent signing of the INF Treaty became a symbol of the beginning of the end of the Cold War. At the same time, new advanced military technologies, embodied in US AirLand Battle and NATO's follow-on-forces attack (FOFA) doctrine, provided a conventional solution to the longstanding problem of Soviet conventional military superiority in Europe, largely negating US/NATO INF requirements. In other words, the new political and strategic/military reality largely curtailed the demand for nuclear INF systems, and thus neither the US/NATO nor the Soviet Union in the INF Treaty gave up anything essential to their political and defence and security needs.

In the process, which publicly began in 2014 with the US Bureau of Arms Control's report of Russian non-compliance, leading to the demise of the INF Treaty, and in the current and foreseeable future, none of the conditions which had led to the INF question in the late 1970s are present. Both the US, and by default NATO, and Russia possess a range of strategic ballistic missiles and air/sea-launched cruise missiles that can undertake a theatre-level function, if necessary. In addition, a new generation of existing and emerging advanced military strike technologies augment their respective defence and deterrence postures, further negating the requirement for dedicated INF systems.

As a result, the US extended deterrence guarantee is not at issue, as it was at the time of NATO's INF decision. There are no discussions within the alliance, at least in the public domain, that NATO will, or should, respond by matching the Russian SSC-8 deployment or, in the future, Russian MRBM/IRBM deployments. Instead, greater emphasis will be placed on more advanced air and missile defence capabilities, in particular. Moreover, there is no political appetite to place NATO nuclear weapon modernization on the table, which might reignite quiescent anti-nuclear/peace movements and undermine current NATO solidarity on the INF issue. Finally, the defence and security situation confronted by the frontline NATO states in Eastern Europe

has not appreciably changed with the Russian SSC-8 deployments, nor would Russian MRBM/IRBM deployments undermine the US/NATO commitments to their defence. On the contrary, the likelihood of a US/NATO conventional response may significantly improve their defence and security from the current “trip wire” posture of a limited forward deployment to a more robust conventional defence posture.

Nor does the Russian deployment of SSC-8 nuclear-capable GLCMs, or possible future MRBM/IRBM, appreciably enhance Russian nuclear forces and its deterrent posture, given its existing capabilities and its development of more advanced supersonic nuclear-powered cruise missiles and hypersonic glide systems. Nor is Russia in any economic position, a problem magnified by the COVID-19 pandemic, to engage the US/NATO in any form of an INF nuclear arms race, and this partially explains Putin’s INF moratorium offer. Finally, if the Russian government believed it could advance its political and defence and security interests by placing the blame on the US for ending the INF Treaty and exploiting European hostility to President Trump to divide the alliance, it has been clearly mistaken. If anything, it has further united the alliance in opposing Russia, and the US/NATO response is likely to only reduce Russia’s defence and security situation.

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These factors, of course, raise the question of why Russia undermined the treaty by developing and deploying the SSC-8. Although multiple explanations exist, including internal political dynamics, the dominant one is a function of the treaty’s bilateral (Russia and US) global prohibition on INF systems. For some time, officials in both countries have raised concerns about the proliferation of INF missiles by numerous other countries. Of these, the central concern is China and its existing INF systems, which threaten American and Russian interests in Asia. China, however, on the basis of its longstanding position, has rejected any engagement in strategic arms control talks until the American and Russian strategic arsenals are reduced to parity with China. Nonetheless, the issue of China provides the basis for a potential tacit agreement between Russia and the US not to deploy INF systems in the European theatre and restrict their deployments to Asia. The current political situation,

however, is not amenable for a formal renegotiated INF Treaty that prohibits INF systems only in Europe and would, at a minimum, require Russia to remove its SSC-8 deployments from its two bases in European Russia.

Relatedly, fears that the demise of the INF Treaty and the current political situation might spark a nuclear arms race, occasioned by the potential collapse of the New START Treaty in 2021 and the NPT, are also misplaced. While President Putin has proposed to extend New START for five years, as allowed under its provisions, and the US response has linked extension to the implicit inclusion of INF systems, whether it survives or not is moot. As the history of strategic arms control indicates, states do not surrender their vital capabilities, but rather agree on a mutual basis to codify them. In other words, it is unlikely even with the formal end of New START that either will go beyond existing strategic force levels. As for the NPT, its future will be largely determined by state, local, and regional defence and security beliefs and requirements, rather than by what America and Russia do.

In the end, Europe and the world without the INF Treaty do not appreciably alter the strategic, military, and political reality as it exists. The treaty is a relic of the past, rooted in a different strategic, military, and political environment. Nothing suggests that in its absence, the central defence and security interests of all the actors will change significantly. This does not mean that all the actors face no significant defence and security challenges. Rather, these challenges will not be greatly affected by a Europe and world without the INF Treaty. As for the central place of arms control in the Cold War, the political conditions do not exist for the time being for a future formal agreement related to INF. When, or if, the political relationship between the US/NATO and Russia shifts onto positive grounds, expect a European theatre-limited, new INF treaty. In this regard, arms control agreements, as they have always been, will be a symbol of the state of political relations.

Arms Control and the Origins, Logic, and Politics of INF

The 1987 Intermediate-Range Nuclear Forces (INF) Treaty is unique in the world of arms control. While other agreements, such as the chemical and biological weapons conventions, ban the use of weapons, they permit research and testing for defensive purposes. INF, however, not only banned an entire class of ground-based weapons on the basis of range, it also prohibited testing, provided for rigorous on-site verification mechanisms to oversee their elimination, and gave each party access to production facilities over a period of 13 years. Finally, the treaty also established a Special Verification Committee for the discussion and resolution of compliance issues.¹ Overall, the treaty

resulted in the elimination of 2692 medium- and intermediate-range ballistic missiles and ground-launched cruise missiles on the part of the United States and the Soviet Union.²

The origins, logic, and politics of INF are central to understanding the defence and security implications for a world and Europe without the treaty, and at its core is arms control.³ In its original sense, arms control is a subspecies of nuclear deterrence, and its initial manifestation directly relates to the development of strategic nuclear weapons – specifically long-range intercontinental ballistic missiles (ICBMs) and shortly thereafter submarine-launched ballistic missiles (SLBMs) – capable of striking the superpowers' homelands.⁴ The net result is mutual strategic vulnerability expressed by the concept of Mutual Assured Destruction (MAD).

*The logic of arms control
is directly linked to the
concept of stability.*

While the American literature on nuclear deterrence is vast, in its basic form it is underpinned by the assumption that under the condition of MAD, nuclear war is unthinkable and unwinnable.⁵ Yet, under the hostile, adversarial conditions of the Cold War, the United States and the Soviet Union threatened to do the unthinkable and unwinnable, as the backbone of their defence and security. This raised major debates, particularly in the United States, around the credibility of the nuclear threat and its requirements. The net result was the primary question that informed the debate: how much is enough? The answers did not simply revolve around numbers of deliverable strategic nuclear warheads, but also types, deployment, capability, and command and control.

In this environment, defence and security (peace) are premised exclusively on offensive forces and the inability to defend. The logic of arms control is directly linked to the concept of stability, which can be understood in three forms: *strategic stability*, whereby both parties' strategic nuclear retaliatory (or second-strike) forces are invulnerable to pre-emptive destruction; *crisis stability*, whereby in a political crisis neither side's strategic nuclear forces would be perceived as threatening the other's strategic retaliatory forces; and *arms race stability*, whereby neither side would undertake the development of forces that might threaten strategic and crisis stability.

Of these, relative to arms control, crisis stability is central. A crisis generates the conditions in which one or both sides may be contemplating the use of

force, or may believe that the other side is contemplating the use of force as a means to resolve the crisis. Depending upon how one side interprets the force structure, posture, and doctrine of the other, there is a danger that it may come to believe that the other is about to strike. The logic underlying this is straightforward. Whatever “victory” might mean in a nuclear exchange, one might conclude that it is much better to go first than second. If both parties come to this conclusion, then the dangerous condition outlined by Thomas Schelling (1958) of the “mutual fear of surprise attack” exists.⁶

This is basically at the core of arms control relative to nuclear deterrence. As each side develops and deploys its strategic nuclear forces for deterrence, the other side may perceive that their purpose is to prepare for a disarming “first strike.” If both perceive each other this way, this generates Schelling’s condition. Neither may believe its force structure is threatening, and thus neither intends to attack first, but a nuclear exchange still may be the result. Nuclear war may be unthinkable and unwinnable, but nuclear war may occur as an accident per se, as a function of strategic capabilities.⁷



Nuclear war may be unthinkable and unwinnable, but nuclear war may occur as an accident.

It is in this context that the deployment of intermediate-range ballistic missiles (IRBM) can be viewed as destabilizing. At the time, the 108 US Pershing II IRBMs, carrying three warheads apiece, were insufficient to destroy any significant portion of Soviet strategic nuclear forces. However, their short flight time (roughly under five minutes, depending upon launch location) and precise accuracy could enable the United States to undertake a decapitation strike against the Soviet Union’s political and military command.⁸ Such a strike would severely disrupt the ability of the Soviet Union to launch a coordinated retaliatory strike against the continental United States. If coordinated with an American strategic first-strike, it would severely damage Soviet retaliatory capabilities, thus undermining strategic stability, and in the case of a political crisis, generate incentives for the Soviet Union to strike first.⁹ In other words, for the Soviet Union, the Pershing II was a strategic first-strike system.

On the American side,¹⁰ the central concern or focus of the debate that would emerge was the deployment of a new generation of Soviet IRBMs – the

SS-20.¹¹ The SS-20 lacked the range to strike at the continental United States, and thus by definition was not a strategic weapon. However, it could strike at targets throughout the Eurasian continent and into the Middle East and North Africa with a comparatively short flight time. In so doing, the Soviet Union possessed the potential capacity to strike at major political and military targets within Western Europe to decapitate NATO and possibly destroy its conventional and nuclear forces.

In such a scenario, the United States' only option would be to undertake a strategic retaliatory strike in response. Yet, even if successfully launched, the Soviet Union would still possess the capability to retaliate against the US homeland. As such, the threat of a US strategic retaliatory strike – as a response to the Soviet use of the SS-20s against Europe – lacked credibility.¹² Thus, the SS-20 threatened to decouple the US strategic deterrent from its extended deterrence commitment to Europe, and could potentially generate strategic and crisis instability.

However, instability in the SS-20 case was of a different kind from that in the Pershing II case. The elimination of the Pershing II was arguably strategically stabilizing, insofar as it eliminated what could be seen as first-strike weapons. But it also threatened stability at the theatre (Europe) level by removing a type of weapon that could be used to buttress US extended deterrence guarantees to Europe; without it, as noted earlier, the US strategic deterrent was decoupled from its extended deterrence commitment. That provided incentives for the Soviet Union to threaten, and if necessary use force in a European political crisis. It increased the likelihood that in such a crisis, Soviet decision-makers might conclude that the US/NATO would have little choice but to capitulate. For Western Europe, it generated the possibility of a limited nuclear war in which the superpowers tacitly agreed to treat their homelands as sanctuaries.

This condition, in turn, presented major political challenges for alliance solidarity in a crisis. Even with the elimination of the Soviet SS-20s, Europe still faced the prospect of a limited conventional and/or tactical nuclear war restricted to the continent, with the Soviet Union and the United States as sanctuaries. The American strategic threat to deter Soviet aggression in Europe in the absence of an ability to threaten the Soviet Union from within the European theatre was simply incredible.

The political ramifications of this situation were significant, especially from the Soviet perspective. The American security commitment to Europe through NATO would be questioned or doubted by the Europeans. Politically, this outcome might also lead the Europeans to seek alternative options for their security, and raise significant issues of alliance solidarity in the face of a Soviet political challenge.

In other words, the resultant INF Treaty tradeoff placed the Pershing II and the SS-20 into the same stability baskets, when in reality they belonged in separate stability baskets. It also left the misguided perception that the Pershing II was a response to the earlier SS-20 deployment decision, and thus a bargaining chip to get the Soviet Union to eliminate this category of weapon. In reality, however, the Pershing II decision was a direct response to the gap in the US's extended deterrence.¹³ It was independent or unrelated to Soviet intermediate nuclear forces; the core drivers behind the decision were the European NATO and the West Germans.

From the beginning of bilateral strategic arms control talks, the West Europeans privately feared a possible “secret” deal between Moscow and Washington to make their homelands sanctuaries in the case of war in Europe. Once Moscow could threaten the American homeland with its strategic nuclear arsenal, whether as a first-strike or a second-strike force, the major question in the West European mind was whether the United States would sacrifice New York or Washington to save Bonn or Brussels. No matter what the Soviets might believe or do, if the West Europeans concluded that the US would not make the sacrifice, and thus the American extended deterrence coupled to its strategic forces was bankrupt, then they might have no other option than seeking an alternative solution for their defence and security.

The INF Treaty strategically decoupled the US strategic deterrent from NATO Europe.

In other words, the decoupling of US strategic forces from Western Europe could potentially undermine, if not destroy, NATO – a longstanding objective of the Soviet Union. This result was naturally understood in Washington as well. Thus, Washington and the West Europeans both recognized the vital importance of being able to threaten the Soviet Union directly at the theatre level, regardless of Soviet intermediate nuclear force capabilities.¹⁴

Nonetheless, the INF Treaty strategically decoupled the US strategic deterrent from NATO Europe. This outcome was not the result of a Soviet initiative, but rather the product of the initial NATO 1979 INF dual-track decision and President Reagan’s 1981 “double zero” proposal, both driven by political considerations, as discussed below.¹⁵ NATO’s dual track entailed the decision to deploy the US Pershing II IRBMs and US ground-launched cruise missiles in NATO Europe (track 1) and an offer to negotiate limitations on INF systems with the Soviet Union (track 2). As American systems to be operated under

NATO “dual key” arrangements, the negotiations would be strictly bilateral between the US and the Soviet Union under the strategic arms control umbrella.¹⁶ President Reagan went one step further in proposing the elimination of all INF systems from the European theatre.

In the academic debate that would follow, some would argue that existing British and French nuclear forces solved the problem for the alliance and the US. As they were capable of hitting major targets within the Soviet Union, their existence ensured the coupling of US strategic forces. Any British or French nuclear strike against these targets would drive the Soviet Union to retaliate against the US, which would bring their nuclear retaliatory forces into play. Otherwise, the Soviet Union would suffer major damage, whereas the US would escape unscathed. Indeed, in the INF negotiations that followed, the Soviet Union sought to include British and French forces, given their strategic nature relative to the Soviet Union, but the US, with the backing of its allies, refused.

However, whether the British and/or the French would actually threaten and undertake this action is problematic. While British nuclear forces were technically assigned to NATO and Britain was a member of the NATO Nuclear Planning Group (NPG),¹⁷ London faced the same extended deterrence problem as the US. Whether Britain would sacrifice London for Bonn was an open question. While uncertainty complicated Soviet calculations, and thus generated deterrent value for the alliance, it was equally likely that the British nuclear deterrent was really a national one. Basically, the British could threaten Moscow with significant damage to ensure Britain itself could remain a sanctuary in a European war – a “stop at the Channel” or else posture.

The French, in contrast, had strictly defined their nuclear forces as independent from the alliance.¹⁸ In 1966, France under de Gaulle left the NATO Defence Committee and military planning side of the alliance, ejected NATO forces from France, and thus was not a member of the NPG. One of the rationales for the French *“force de frappe”* was significant doubt about the credibility of the US strategic component of its extended deterrence. Militarily, the French spoke about the two battles for Europe – first over West Germany, in which it would participate, and the second for France. In this context, its nuclear forces would prevent the second battle – a “stop at the Rhine” or else posture.

Of course, it is difficult to know exactly what would have occurred in a worst-case scenario. British and French nuclear forces complicated Soviet calculations, and Moscow’s initial INF negotiating position was that these forces should be included as strategic forces capable of striking the Soviet Union itself. At best, British and French strategic nuclear forces generated uncertainty, and uncertainty is a recipe for miscalculation and thus instability. NATO did have its own nuclear forces under the “dual key” arrangement, but these were air-launched tactical weapons that lacked the range to strike at the Soviet homeland and in any event confronted significant Soviet/Warsaw Pact air defences.

This situation in the absence of the INF Treaty was particularly problematic for West Germany and its leadership. With the US strategic deterrent decoupled, and British and French strategic forces of questionable value for the alliance's deterrence, West Germany was strategically and politically "singularized" – in the sense that its fate was isolated from that of its key allies (Kieninger 2020). The spectre of a "limited" nuclear war in Germany, in which its allies would be sanctuaries, confronted the German leadership. In effect, the alliance did not provide a credible defence and security umbrella, and, as such, the political value of the alliance was open to question. Thus, it is not surprising that West German leadership led the way in driving INF deployment forward, usually traced back to Chancellor Helmut Schmidt's famous "1977 Alastair Buchanan Memorial Lecture" in London (Schmidt 1978).



Arms control had become a political end in itself, which Western decision-makers could not simply ignore.

Notwithstanding the strategic side of the equation, the real issue surrounding INF involved its political implications for alliance solidarity and West Germany as the frontline state in the Cold War. Beyond eliminating a theatre-level threat to the Soviet Union, NATO without INF portended the possibility of a divided NATO and a West Germany seeking an alternative defence and security path relative to NATO. Paradoxically, the Soviet Union had potentially the most to gain from what would ultimately become the "global zero" option, which called for the elimination of US and Soviet INF systems globally; yet, it was NATO's 1979 "dual-track" decision that put this option on the table.¹⁹

The answer to this paradox resided in the world of politics. Although purists saw arms control as apolitical, in which the adversarial relationship was taken for granted and arms control was neither designed nor expected to alter this relationship, once the first Strategic Arms Limitation Talks (SALT) began and the first agreements were signed in 1972, politics was at play.²⁰ Indeed, emerging during the period labelled by the Soviet Union as peaceful co-existence, and coming to initial fruition in the West-labelled era of *détente*, arms control became synonymous with, and a symbol of, a reduced likelihood of war, and improved political relations between the East and the West.²¹ In other words, arms control had become a political end in itself, which Western decision-makers could not simply ignore.

By the time of the NATO Brussels Foreign and Defence Ministers' Summit in December 1979, where the dual-track decision was made, however, the political relationship between the East and the West had deteriorated significantly,

with *détente* coming to a screeching halt with the Soviet invasion of Afghanistan. To a lesser degree in the US, but of major significance for the West Europeans in general and the West Germans in particular, the death of *détente* and emergence of what would come to be called the “Second Cold War” raised domestic fears of war, especially within a large and politically vocal anti-nuclear/peace movement. To manage potential domestic political fallout (which would eventually produce massive demonstrations in the streets of Europe over the deployment decision and subsequent deployment of the weapons in 1983), arms control offered a political solution. By linking the deployment of INF to negotiations on INF with the Soviet Union (which the Soviet Union initially rejected), this decision might serve to deflect a hostile domestic political response, or at least contain its political scope. If the negotiations failed, potentially blame could be placed at the door of the Soviet Union.

Reflecting the strategic importance of INF to the alliance, the initial offer by the US, agreed to at the Brussels Summit in 1979, was not Reagan’s 1981 “double zero” ban on US and Soviet INF systems in Europe.²² Rather, the official communiqué proposed limitations based upon equality (NATO 1979). Once the Soviet Union returned to negotiations in October 1980, initial discussions would revolve around limitations, not elimination. President Reagan’s November 1981 “double zero” proposal represented a significant departure from the Brussels decision.

It is difficult to know whether Reagan ever truly expected the Soviet Union to accept the “double zero” option. Negotiations, when they resumed in October 1985 (the Soviets walked away a second time when US INF deployments began in late 1983), remained centred on limitations, not “double zero,” or what would eventually become “global zero.”²³ The US would not formally introduce the “global zero” option until June 1987, and within a month, the Soviet Union would agree – and this would ultimately become the basis for the INF Treaty.²⁴ By then, the political environment had changed dramatically, and, as in the past, arms control in general (and INF in particular) was a key indicator and symbol.

Nonetheless, US/NATO deterrence requirements strongly suggest that the “double zero” was simply a negotiating ploy driven by the political reality surrounding the initial dual-track decision. From the beginning of Reagan’s campaign for presidency and throughout at least his first term in office, Reagan was extremely unpopular in Europe (reminiscent of Trump today). His harsh Cold War rhetoric, labelling the Soviet Union as the “evil empire,” a massive buildup (more accurately modernization) of American military capabilities,²⁵ and initial rejection of arms control as a “one-way street” in favour of the Soviet Union raised fears in Europe of nuclear war.

West European governments had long been sensitive to the large, highly vocal anti-nuclear/peace movement, and Reagan exacerbated these fears. Thus, they had a significant reason to seek to alter the political climate, and Rea-

gan's "double zero" was arguably a means to do so. Whether they lobbied Reagan to make this dramatic proposal remains open to speculation.²⁶ Nonetheless, it had little effect. Combined with the INF decision, further escalated with the beginning of INF deployment in late 1983, the movement resulted in hundreds of thousands of Europeans taking to the streets in protest and, closely related, the fall of the Schmidt coalition government in Germany.²⁷

At the same time, the politics of INF relative to Western Europe also significantly explains Soviet behaviour. As Ranger (1979) argued before INF, the Soviet Union had a distinctly different take on arms control than the US. For Soviet elites, arms control was political, not technical, and being political, it simply was another weapon to advance Soviet political interests. As they were clearly aware of deep divisions in West European public opinion, attempting to exploit these divisions as a means to hopefully divide NATO explains their initial decision to reject negotiations in 1979 and then walk away from negotiations in 1983. Both attempts failed, and although INF would contribute to the collapse of Schmidt's SDP-led coalition in 1982, the successor Helmut Kohl-led CDU coalition, as well as all the NATO governments, remained firm.

With the signing of the INF Treaty, it was immediately argued that the treaty was an unmitigated disaster for NATO (see Layne 1988). However, this technical, strategic argument surrounding the decoupling of the US strategic deterrent was void on several grounds. The treaty was a symbol of improving political relations between the East and the West, reinforced by a range of political initiatives undertaken by Gorbachev, including the Reykjavik Summit.²⁸ The treaty also included strict and wide-reaching on-site verification measures – something that the Soviet Union had always opposed in the past. Dramatic domestic reforms implemented by Gorbachev, under the labels of *perestroika* and *glasnost*, further signalled a new, more open Soviet Union.

Finally, new significant military developments had also provided an alternative non-nuclear solution to the Cold War problem of Soviet conventional military superiority on the continent. Under development for some time, and initially tested by the United States in the last year of the Vietnam War, a range of new sensor systems and the computer revolution married to precision-guided weapons (PGMs) provided a conventional solution. Under the US doctrine of AirLand Battle and the NATO equivalent, follow-on-forces attack (FOFA), the US could apply technology to alter the conventional military balance in Europe, a reality quickly recognized by elements of the Soviet military led by Marshal Ogarkov. What the Soviets would call a military technical revolution (MTR) and the Americans a revolution in military affairs (RMA) fundamentally changed the nature of war, and with it deterrence requirements (Adamsky 2008). In basic terms, INF had become an obsolete or irrelevant issue.

This, in turn, raises one final consideration regarding arms control. Notwithstanding the communicative²⁹ and political value of arms control discussions,

the treaty codification of limits, and, in the case of INF, elimination, simply reflected each side's existing strategic arsenals and requirements. In the cases of SALT I, the Vladivostok accord, and SALT II, neither side truly gave up anything. Both had reached sufficient levels of strategic forces for their purposes. The ABM Treaty limited ballistic missile defences, but both parties had no interest in pursuing large missile defence capabilities not least of all because of cost and the nature of technology at the time. Large reductions in the post-Cold War process were a function of changed strategic requirements related to the political environment. INF could be given up because a military alternative had emerged, notwithstanding the new political environment.

Regardless, in the end, the INF story is one of politics. Whether Gorbachev had simply sought a respite from the Cold War to repair the Soviet economy in part by reducing military demands, and lost control of the process, or sincerely desired to end the Cold War and create a Common European House remains open to debate. The INF Treaty is clearly an example of Lawrence Freedman's statement long ago that one needs arms control when tensions are high, but you can't get it, and when you don't need arms control because relations are good, you can get all you want.

“INF could be given up because a military alternative had emerged.”

Finally, the missing element in the debate surrounding INF as it unfolded, ironically, is the ground-launched cruise missile (GLCM) component – the one that would lead to the demise of the INF Treaty. Although the Soviet leadership sought to define GLCMs as a first-strike strategic weapon, the reality was the opposite. It is a slow-moving (subsonic at the time) air-breathing missile (e.g., relying on the intake of air for its engine, rather than a rocket that could go beyond the atmosphere), with a small radar signature, flying at low altitudes to avoid ground-based radar coverage and capable of manoeuvre in flight through a sophisticated terrain-mapping system. At best, it is a second-strike capability. But it is better understood as a theatre interdiction weapon to enhance existing NATO air-delivered nuclear gravity bombs, whose capability had been undermined by extensive Soviet/Warsaw Pact air defences. In that sense, they were arguably the real replacement for the Pershing 1.

In addition, the elimination of GLCMs underneath the INF Treaty's inclusion of all missiles in the 500- to 5500-kilometre range did not occupy negotiating attention until the later stages of discussions. Both the United States and the

Soviet Union also possessed long-range air- and sea-launched cruise missiles, which were excluded from the agreement and could readily substitute for the loss of GLCMs. In the end, arguably, neither side truly gave anything up in agreeing to include GLCMs.

In the end, the INF Treaty had all the marks of a disarmament treaty. An entire category of weapon systems was eliminated. Yet, to view it as such is misleading and deeply problematic for the reasons noted above. Importantly, all the factors that explain the origins, logic, and politics of the treaty are important to understand and explain the factors that would lead to its demise, and the implications of a Europe without INF. Of course, the world dramatically changed with the end of the Cold War, and again following the Russian intervention into Georgia, Crimea, and Ukraine. The factors underlying the creation of the treaty remain important in this regard. It is only their manifestation in different political and strategic environments that changed.

The Demise of the INF Treaty

On August 2, 2019, the INF Treaty legally met its end. The official process began on October 20, 2018, when President Trump announced at a campaign rally that if Russia did not return to compliance, the US would withdraw. Roughly six weeks later, Secretary of State Pompeo publicly gave the Russian government 60 days to return to compliance. Upon Moscow's failing to do so, and invoking Article XV of the treaty, on February 2, 2019, the United States government suspended its obligations under the treaty and provided six months notice of its intention to withdraw. Russia followed suit the same day in suspending its obligations.

The issue surrounding Russian compliance and the US decision to withdraw relates only to one of the two missile categories covered by the treaty – ground-launched cruise missiles with a range exceeding 500 kilometres. Russian non-compliance was originally identified by US intelligence employing national technical means (NTM) in 2008.³⁰ In the State Department's July 2014 annual arms control compliance report, the US publicly announced "that the Russian Federation is in violation of its obligations under the INF Treaty not to possess, produce, or flight-test a ground-launched cruise missile (GLCM) with a range capability of 500 km to 5,500 km, or to possess or produce launchers of such missiles" (USA 2014). The report also added that the issue had been taken up with the Russians in 2013, and that the United States would continue to seek resolution. Of note, NATO was briefed on Russian non-compliance in January 2014.³¹

No details on the specific type of GLCM emerged until the 2017 report. In that report, the United States noted that the missile in question was not the

short-range SSC-7 (R-500) GLCM or the RS-26 ICBM.³² In 2018, the United States identified the GLCM as the SSC-8 (9M729; see USA 2018b, 12). Several months later, the US director of national intelligence reported that Russia had tested the SSC-8 from a fixed and mobile launcher in 2015, which, combined, clearly indicated a violation of the INF Treaty. Subsequently, Secretary of State Pompeo stated that several SSC-8 battalions had been deployed, also in violation of the treaty (Woolf 2017, 3).

After a series of failed bilateral discussions, the US reconvened the Special Verification Commission (SVC) in November 2016 – the first meeting since 2003.³³ A second meeting followed in December 2016. Neither meeting provided any resolution to the issue of Russian non-compliance; nor did repeated bilateral entreaties. Russian authorities continued to deny any violation of the treaty. Of importance, on January 15, 2019, at the SVC, Russian officials proposed to give the US access to the SSC-8 to demonstrate that its range was below the 500-kilometre range. In return, Russia requested the US demonstrate that the MK-41 launcher for the Aegis Ashore missile defence interceptor, the Standard Missile-3 (SM-3), could not be converted into a GLCM launcher.



*Of note, NATO was briefed
on Russian non-compliance
in January 2014.*

As background, Aegis Ashore is the third phase of the European Phased Adaptive Approach (EPAA) for theatre ballistic missile defence, initially announced by President Obama in September 2009 and approved by the alliance at the NATO Lisbon Summit in November, with the initial phase declared operational at the Chicago Summit in 2010.³⁴ Russian officials initially condemned the program on the grounds that it posed a threat to Russian strategic retaliatory forces. Only somewhat late in the INF compliance process did Russian officials raise the issue of MK-41 launcher conversion. In this regard, the Aegis-class missile defence cruisers and destroyers are able to launch Tomahawk cruise missiles, along with the SM-3 interceptor, from the same launch tubes. Thus, Russia argued that the ashore variant could potentially be converted into a GLCM launcher, placing the US in non-compliance of the INF Treaty. Regardless, US officials rejected the Russian argument and refused the aforementioned offer.³⁵

The issues at play in the process leading to the demise of the INF Treaty stand in stark contrast to those at its origin, and this contrast is useful in under-

standing the implications of a world/Europe without the treaty. **First, the central issue was GLCMs.** No attention or question was raised about medium/intermediate-range ballistic missiles (M/IRBMs). GLCMs in the origins, at least in the public/political domain, were largely an afterthought for the INF Treaty, thrown into the mix late in the negotiating process.³⁶ In addition, the absence of M/IRBMs can simply be explained by the ability of either party to employ long-range (5500-plus kilometres) land- or submarine-based missiles to threaten targets originally covered by M/IRBMs.³⁷ Even with New START levels of 700 strategic launchers and 1550 warheads, this is still sufficient to threaten strategic homeland targets, as well as other theatre targets.

This raises one of the puzzles of the demise. The same argument applies to cruise missiles. Air-launched cruise missiles (ALCM) and sea-launched cruise missiles (SLCMs) can also be employed to cover GLCM targets and, according to the treaty's provisions, can be tested from a fixed, ground-based launcher.³⁸ In addition, both Russia and the US deploy very long-range cruise missiles, which enable them to strike ground targets from a distance across Europe. The only difference is that ALCM/SLCMs are limited by the capacity of aircraft (primarily long-range bombers) and naval vessels (surface and sub-surface) to carry cruise missiles. In contrast, GLCMs can be reloaded from cruise missile storage facilities. Regardless, it is difficult to explain from a military perspective why Russian officials would undertake an expensive, lengthy GLCM development process, likely knowing that it would be uncovered by US intelligence assets.

Second, the strategic environment, and the concerns within it that spawned the INF controversy, evaporated with the end of the Cold War. While recent academic studies on INF usually mention the treaty's importance to strategic stability, none explains why it is still important and what its nature is. The US/NATO extended deterrence problem no longer exists, or at least not in the same form as during the Cold War. Advanced US weapon systems and targeting capabilities, along with the aforementioned intercontinental and sea-launched ballistic missiles and ALCM/SLCM capabilities, enable the US and NATO to hold at threat targets in Russia, historically assigned to Pershing IIs, thereby coupling US strategic forces to European defence and security. The withdrawal of Soviet (Russian) military forces from Central/Eastern Europe, and the expansion of NATO eastward eliminated the problem of geographical distance that also plagued the US extended deterrence commitment in the Cold War.

Closely related, the place of strategic nuclear weapons and strategic deterrence in the international system and national strategies has changed dramatically. Whereas in the Cold War the United States/NATO maintained a first-use nuclear posture, with an emphasis on dominating nuclear escalation, today US strategic nuclear forces have receded into the background, not least of all as a function of American conventional superiority emanating from the RMA and transformation. This has been clearly evident in the series of con-

gressional mandates *Nuclear Posture Reviews* (NPRs) over the past several decades. All basically conclude that the US needs to maintain its strategic nuclear force as a hedge against an uncertain future, but its specific purpose is undefined. Moreover, the United States, beginning with President George H. Bush in 1991, no longer forward-deploys tactical nuclear weapons. Overall, from their central place in American deterrence, nuclear weapons in American thinking today appear to deter only nuclear weapons' use.

“*Nuclear weapons in American thinking today appear to deter only nuclear weapons' use.*

Mirroring the United States, nuclear weapons in NATO have also been downgraded from a central to a peripheral role. Although an attempt was made in the late 1990s, led by Canadian Foreign Minister Axworthy, to eliminate nuclear weapons from the alliance entirely, NATO has continued to maintain its small, tactical air-delivered nuclear weapons. For NATO and the Europeans in particular, keeping nuclear weapons also represents a hedge against an uncertain future, when or if nuclear weapons return to prominence, or as a means to deter future nuclear threats to the alliance. Also, without nuclear weapons, the alliance may find it more difficult politically to re-nuclearize than to simply expand its existing capabilities. In many ways, nuclear weapons for Western Europe at least are a “sleeping dog” not to be disturbed. Finally, NATO nuclear weapons have also not been forward-deployed eastward under the “dual key” arrangement with the new allies.

In contrast to the United States and NATO, the place of strategic nuclear weapons in Russian thought has risen significantly. With formal adoption of a first-use policy in the 1990s, the enunciation of the conditions in which Russia would use nuclear weapons, and the adoption of the doctrine of “escalate to de-escalate” by threatening or employing nuclear weapons in a crisis or conflict, nuclear weapons are now central in Russian strategic and military thinking, at least in declaratory terms. Generally, this is attributed to Russian recognition of its conventional military inferiority and the lack of resources to modernize and match American advanced conventional military technology. In other words, the United States and Russia have switched sides per se, with the Russians adopting the US Cold War strategic posture.

Third, along with the strategic environment, the political environment has transformed in several distinct ways, especially concerning arms

control, notwithstanding those observers who suggest that the Cold War has returned. Sparked by the Russian annexation of Crimea, its intervention in support of eastern Ukrainian (largely ethnic Russian) separatists, and active military support to the Assad regime in the Syrian civil war, the US and NATO's relationship with Russia has largely, but not exclusively, become adversarial. Even so, the existential nature of the Cold War adversarial relationship as a function of diametrically opposed economic, political, and social systems does not exist today. While Russian democracy does not come close to meeting Western standards, its economic, political, and social system is well removed from the Soviet system of the Cold War.

Closely related, great power politics have returned to dominance, occasioned by the rise of China, as a function of its dramatic, export-driven economic growth over the last several decades, which has funded its large military modernization program. Along with a resurgent, albeit economically weak, energy-reliant Russia, the “new” international system is now characterized as one of “near-peer” competitors to the United States. Although there is a significant level of cooperation between China and Russia, especially through the sale of advanced Russian military hardware to China, they are not official allies per se, and the system is not polarized into two distinct camps, as during the first part of the Cold War. Indeed, Russia has its own political concerns with regard to China, as a function of Chinese military growth and their long border in Asia.

“Great power politics have returned to dominance, occasioned by the rise of China.

For the United States, China poses as an emerging major global challenge, and especially to its interests in Asia, as a function of its development of significant theatre-level military capabilities designed to deny US military/naval access into its adjacent waters – what the Americans call China’s anti-access/area denial capabilities – and aggressive behaviour in the East and South China Seas. Reflecting growing American concerns, in 2009 President Obama announced an American “pivot to Asia” in redeploying its distribution of naval assets to the Asia-Pacific on a rough 60-40 basis. For many American analysts, China is the primary threat to the United States today, and Russia secondary and limited to America’s interests in Europe.

Although not formally identified in the literature, there exists a sense that Russia and the United States share common interests with regard to the Chinese

challenge. This might become the basis for tacit security cooperation similar in some ways to tacit American cooperation with China in the 1970s and 1980s. Importantly, this idea is linked to INF.

Predating the INF compliance debate, senior American and Russian officials, as well as the current presidents, have argued that the INF Treaty is problematic, if not obsolete, because only their two countries are prohibited from possessing intermediate-range missile systems. In so doing, they both point to the significant development and deployment of IRBMs by many states, but especially China.³⁹ These systems are able to threaten eastern sections of Russia and the US forward-deployed presence in the Western Pacific. Neither possesses the capability to match Chinese IRBMs, notwithstanding that the existing arsenals of both countries can be adapted to do so (O'Rourke 2018). As such, the US has called for multilateralizing the INF Treaty, which is simply a code for engaging China in renegotiating the treaty.⁴⁰ China, to date, has refused, as it has done consistently in the past with regard to its participation in strategic arms control.⁴¹

In this context, both the United States and Russia share a common interest in modernizing or reopening the INF Treaty through trilateral negotiations with China, as a means either to generate a three-party “global zero” or, more likely, to allow for limited INF deployments for all parties. Likely knowing that China would refuse, however, such an offer would be simply a political means to legitimize bilateral renegotiation. Yet, neither the United States nor Russia have shown any interest in such renegotiations that might have maintained “double zero” in Europe and permitted limited deployments in Asia. Instead, both tacitly agreed to end the treaty. Finally, of note, the China component is about IRBMs; yet the compliance component is about GLCMs – another part of the INF puzzle.

Fourth, the arms control political environment has also transformed dramatically, especially in Europe. Whereas the initial INF decision and subsequent deployment in the 1980s raised significant domestic political problems in Europe, the end of the INF Treaty has been met by a deafening silence. All the NATO allies, including the French, firmly support the American decision to withdraw. There has been no public backlash, and no real political pressure to drive either the United States or Russia back to the bargaining table. Arms control has simply dropped off the political agenda, and there are few, if any, indications that it will return to political prominence. While the dedicated academic arms control community bemoans the death of the INF Treaty and raises concerns of a new nuclear arms race, especially if New START is not extended in 2021, these appear to have no political salience whatsoever. The earlier Russian decision to suspend its obligations under the Conventional Forces in Europe (CFE) Treaty and the most recent US announcement of its intent to withdraw from the Open Skies Treaty have also had no political relevance.

This reality, in turn, puts paid to the argument that Russia, as the Soviet Union had attempted and failed, sought to use the INF issue as a means to drive a wedge between the United States and Europe. Certainly, Trump's rhetorical hostility toward Washington's European allies as "free riders" and the deep dislike of Trump within European political circles would appear as an opportunity for Russia to exploit. The Kremlin's willingness to negotiate with France and the Germans over Ukraine, without American involvement, may also be understood as part of Moscow's strategy to break the alliance. However, if Russian officials believed that INF would support this objective, they have clearly been proven wrong.

The INF Treaty may have simply suffered the fate of any treaty that is designed to last forever.

On the other side of the equation, if American officials thought that the INF compliance issue would have some significant effect on Russian behaviour, they also appear to have been mistaken. Politically, the Obama administration did not bring the compliance issue into the public domain until after the Russian annexation of Crimea and intervention into eastern Ukraine. Indeed, the administration did not raise the issue privately with Russia until 2013, even though intelligence had identified non-compliance in 2008. Some have suggested that the delay was simply a function of US concerns that raising the compliance question earlier would have derailed the ratification of New START in 2011, which the administration had sold as a symbol of a new, more positive relationship with Moscow. Others have argued that the intelligence was insufficient at the time, and the United States needed time to consider its defence and security options, including beginning the development of its own non-compliant INF systems. Yet, New START did not symbolize a new relationship, and the US ability to "break out" of the treaty did not require a significant amount of time.

In the end, the INF Treaty may have simply suffered the fate of any treaty that is designed to last forever. The strategic and political world, especially related to the treaty's origins had simply transformed, and the INF Treaty had become irrelevant. For that matter, arms control had become irrelevant, simply because it had been lost to time. This is not to suggest that the death of the INF Treaty will have no implications for future international and European defence and security. Rather, it would suggest that these implications and future options undertaken by the key actors involved are unlikely to revolve around arms control solutions as the means. But arms control for political reasons might still be the end result.

Defence and Security in a Post-INF World

The INF Treaty began with a proverbial “bang” and ended with a proverbial “whimper.” Within the small, residual academic arms control community, several concerns have been raised regarding stability, the future of New START, a nuclear arms race, and the potential collapse of the Nuclear Non-Proliferation Treaty. These concerns have also been noted in varying degrees by several governments and by the secretary-general of the United Nations. Even so, they simply echo longstanding Cold War rhetoric, with little in the way of detailed analysis. In short, the international defence and security world and the key actors involved have been largely silent about the implications of a world and Europe without the INF Treaty.⁴²

A bipartisan consensus supporting withdrawal exists in the US, and ironically, even the Democrats in Congress, traditional advocates of arms control, show no willingness to engage Russia in future negotiations, including Putin’s offer to extend New START for another five years (as per the treaty’s provision), unless Russia returns to INF compliance.⁴³ In this regard, US officials at the most recent strategic arms control meeting in Vienna explicitly linked extension to INF (Gould 2020). The NATO allies also fully support the decision, and have also been silent on any specific implications for European defence and security, with no domestic public reaction. Russian officials, maintaining Moscow’s position that the SSC-8 is compliant, have also said very little about the future without the INF Treaty, although Putin has proposed a moratorium on INF deployments, and stated that if the United States does not deploy INF in Europe, neither will Russia.⁴⁴ As for China and the rest of the world, the silence has been “deafening.”

For all intents and purposes, one might quickly conclude that the INF Treaty is simply a relic of a distant past and a strategic-political environment that no longer exists. This is probably an overstatement, not least because it is still early days in a post-INF world. Much will hinge upon the decisions of the American and Russian governments regarding INF. To date, neither has undertaken significant steps to break out from INF limitations. According to American intelligence reports prior to the end of the treaty, Russia had deployed two SSC-8 GLCM battalions at two different sites. Since then, a recent study identified four sites, of which only two have European implications (see below). Regardless, for Russia, the SSC-8 is compliant with INF limitations, as officials argued from the onset. The United States has recently tested both a conventional GLCM version of the Tomahawk cruise missile and a conventional theatre ballistic missile, although the missile flew only 500 kilometres at the lowest limit of the treaty’s prohibitions (Ali 2019). Even so, there has been no decision on deployment of either. More importantly, neither has shown any clear inclination to develop and deploy either me-

dium- (MRBMs) or intermediate-range ballistic missiles (IRBMs) in the Eurasian theatre.⁴⁵

Nonetheless, **defence and security implications will be a product of whether either or both proceed to develop and deploy a new generation of INF systems**, and if they do, whether the decision will include MRBMs, IRBMs, and GLCMs. Relative to these systems, a second important consideration will be the location of deployments, and whether they will be deployed across the Eurasian continent and its periphery, just in Europe, or just in Asia, depending upon their range.

Both the US and Russia have the ability to break out quickly from INF limitations, simply by going back to the blueprints of the prohibited systems and moving quickly into production and deployment. In addition, existing modern ICBM and ALCM/SLCM technology can also provide the basis for a new generation of INF.⁴⁶ Either way, it would take little time to proceed from research and development to testing, production, and deployment.

However, having the ability to break out from INF limitations does not necessarily mean that the decision will be made to do so. Certainly, there will be internal voices, especially within military and defence industrial circles, who will advocate breakout, employ arguments about their vital role for national defence and security, and point to the likelihood that the other side is about to do the same. In this context, Putin's statement that Russia would not deploy INF unless the US does may be simply an attempt to dampen internal pressure for deployment – an explanation, for example, underlying the now-defunct 1972 ABM Treaty.⁴⁷

At the same time, however, neither the military nor the defence industry is monolithic; each contains multiple competing and conflicting perspectives and preferences on military requirements and resource investments. Even if a consensus does emerge to acquire one or all of the three types of INF systems (MRBM, IRBM, and GLCM) beyond the current Russian GLCM deployment, it does not mean that the political decision-makers will agree, and economic and resource constraints, especially in a post-COVID-19 world, will play a significant role in this regard.

For Russia, especially with its resource-dependent economy already deeply shattered by the collapse of oil and gas prices, its capacity to invest in new weapon systems is significantly constrained. Russia has developed over the last several decades new generations of ballistic and cruise missiles, and has taken significant steps forward to modernize its conventional forces (Nichol 2011). However, its bold 2011 military modernization plan to invest US\$698.4 billion has been derailed by the collapse of oil prices long before the COVID-19 pandemic and subsequent economic downturn. Moreover, one would expect that Putin is well aware of the role of military overinvestment in the process

leading to the collapse of the Soviet Union. Overall, economic reality suggests that the Russian government is unlikely to allocate funds for a new generation of INF, or expand significantly its SSC-8 forces, and, reflective of Putin's aforementioned statement, has little interest in initiating an INF response from the United States and NATO or any form of a nuclear arms race for the foreseeable future.

While the United States is certainly not as economically constrained, the US economy has also taken a battering from COVID-19, and whether Congress will be willing to fund new INF weapon systems is difficult to predict. With presidential and congressional elections this fall, which may produce a new administration and new balance in Congress, it is likely that no decision on INF systems will be made at least until the new year. Even then, rarely is a new US administration or Congress able to act quickly for a variety of reasons, and it is unlikely that INF will be an immediate, top priority. This will also likely push an INF decision further into the future. In addition, a decision to deploy INF is unlikely to find a consensus within the Pentagon and among the military services, especially with other pressing requirements, including the modernization of its ICBM fleet, the replacement for the *Ohio*-class ballistic missile submarine (SSBN), and the growing emphasis on artificial intelligence research and investment.

The post-COVID-19 economic environment is not conducive for new major military investments.

Overall, the post-COVID-19 economic environment is not conducive for new major military investments, of which INF would be one. It is likely, thus, that at least for the time being, post-INF will not generate a nuclear or conventional INF arms race between Moscow and Washington. This observation is reinforced by an assessment of the strategic/political value of INF systems in the current US-Russian military balance. In this regard, it is important to distinguish between the two categories of INF systems – cruise and ballistic missiles.

The strategic/political divide between cruise and ballistic missiles has blurred significantly since the Cold War origins of INF, and will blur even further if or when nuclear-powered hypersonic cruise missiles emerge. Nonetheless, distinct differences exist between them. Cruise missiles are slow (subsonic with an estimated speed of between 804 and 885 kilometres per hour) and ground-hugging, and manoeuvre through the use of terrain-match-

ing technology. They also come in nuclear and conventional variants, and in some cases one variant may possess either type of warhead.

As such, in their strategic role, cruise missiles are generally classified as second-strike, retaliatory weapons. In terms of battlefield functions, they are generally designed to strike at fixed military sites (or, to use a more esoteric nuclear strategy term, counterforce targets), such as command and control, transportation, logistical, and force concentration sites. By adapting existing drone technology or, in the future, fully autonomous guidance systems, they would also benefit from greater targeting flexibility. Regardless, cruise missile development over time was significantly motivated in response to sophisticated and advanced air defence systems, which undermined the ability of strike aircraft to penetrate enemy airspace and release their gravity bombs.

In either role, speed and flight pattern indicate that they are not pre-emptive, first-strike weapons. Politically, however, as retaliatory strategic weapons, they can be employed to threaten conventional and nuclear counterforce targets, and as mobile-launched weapons, whether air, ground, or sea, they are also difficult to pre-empt. Therefore, their existence, depending upon range and launch location, may be designed to alter political calculations in the case of crisis or war.

The SSC-8 would be able to threaten cities and military targets in Central and Western Europe.

The Russian SSC-8, which can be deployed with a low-yield nuclear or a conventional warhead, is now apparently deployed at four bases (Kubiak 2020, 15) – Kapustin Yar missile test site (located in the Astrakhan Oblast east of Volgograd), Shuya (northeast of Moscow near Novgorod), Kamyshlov (in the Sverdlovsk Oblast near Yekaterinburg), and Mozdok (in North Ossetia). Of these, given the estimated range of 2500 kilometres, only Kapustin Yar and Shuya can target NATO frontline states, and possibly reach as far west as Berlin.⁴⁸ Importantly, however, cruise missiles do not fly in a straight line, so their operational reach likely only extends to the frontline NATO allies, such as the Baltic states, Poland, and Romania.⁴⁹

Of course, existing deployed short-range cruise missiles, as well as ballistic missiles, already are able to threaten these frontline states. The SSC-7 deployed in Kaliningrad Oblast is capable of threatening both population centres (or coun-

tervalue targets, to use nuclear strategy parlance) and military counterforce targets in frontline NATO states. Eastern SSC-8 deployments are, however, less vulnerable to pre-emptive air- or sea-based attack, especially in response to longstanding US pre-emptive doctrine and its conventional forward-deployed global strike capabilities. Even so, eastern deployments of the SSC-8 do not materially change the strategic situation faced by the frontline states.

Deployed further forward in western Russia and the Kaliningrad Oblast, the SSC-8 would be able to threaten cities and military targets in Central and Western Europe. In particular, it raises the threat to Berlin as a city and the major American air base at Ramstein, as well as key command and control, transportation, and logistic points vital for the movement of allied military reinforcements in the case of war.

Of course, these targets are already under threat from long-range Russian ALCM/SLCMs, although a GLCM capability does serve to augment numerically Russian capabilities, especially given the number of air- and sea-launched cruise missiles devoted to a strategic retaliatory role against North America. It may also be the case that GLCMs are more cost-effective than investing in the other two, because of the costs of additional aircraft and naval vessels – a potential solution to Russian investment constraints. Regardless, the current SSC-8 deployment may be sufficient to augment existing theatre-level capabilities.

It is also useful to consider GLCM deployments in the context of Russian doctrine. As noted earlier, since the collapse of the Soviet Union, the Russian government has emphasized the role of nuclear weapons, initially evident in the enunciation of a first-use doctrine. Closely related, Russian doctrine in a crisis is to threaten and, if necessary, escalate to limited, low-yield nuclear strikes as a means to de-escalate a crisis or stop a limited war. Both are a product of Russian conventional military inferiority, notwithstanding local quantitative (but not qualitative) superiority at the NATO frontline. At the same time, Russia, as evident from its cyberattack on Estonia, annexation of Crimea, and support for eastern Ukrainian separatists, has militarily operated in the grey zone of conflict, employing hybrid warfare. This too is a product of conventional military inferiority. As such, the escalation threat may be understood as a political means to deter US/NATO intervention in the grey zone, and, if unsuccessful, to bring an unexpected limited war to a rapid conclusion on reasonably favourable grounds.

From this perspective, expanded GLCM deployments do not appear to appreciably enhance the Russian deterrence or escalation threat, nor do they suggest that they would appreciably alter internal alliance decision-making dynamics in the case of a crisis. Of course, this does not mean that Russia will not expand GLCM deployments. But even if this occurs, the strategic-political situation still does not change in any significant way.

A similar strategic/political logic exists relative to a possible American decision to deploy GLCMs to Europe. The existing forward-deployed US arsenal can readily cover the targets that would be assigned to GLCMs. Long-range air-and sea-launched cruise missiles are already capable of targeting both population centres and military targets in European Russia, including Moscow. In this regard, according to the most recent US *Nuclear Posture Review* (NPR), the US will proceed to develop and deploy low-yield, nuclear-capable sea-launched cruise missiles (USA 2018a). Moreover, new generations of strike technologies employing drone systems provide another valuable deterrence option. There is also the option of responding to Russian GLCM deployments by employing new generations of anti-cruise missile air defence systems, in which both the US and Russia are investing.

In this regard, the underlying arms race argument in which states match capabilities in a “tit for tat” process may be misleading. Instead, rather than matching GLCM for GLCM, the alternative is to attempt to negate the strategic and political value of an offensive system through the deployment of defensive systems. Anti-cruise missile air defences, in the case of the US, already exist in limited form as a function of the American Airborne Warning and Control System (AWACS) platform with its ability to look down onto cruise missile targets in flight and vector fighters to intercept. Both the US F-22 and F-35 fifth-generation fighters also possess “look down/shoot down” capabilities. In addition, Russia’s new generation of long-range air- and sea-launched cruise missiles have made anti-cruise missile defences a priority for binational North American Aerospace Defence Command (NORAD) modernization.⁵⁰



Air defence technologies offer a valuable alternative to matching Russian GLCM deployments.

Overall, existing and new air defence technologies offer a valuable alternative to matching Russian GLCM deployments relative to the old adage that cruise missiles are hard to find but easy to kill.

Alongside the questionable strategic utility of a GLCM for GLCM response, **the US also faces the political issue of allied willingness to locate US GLCMs in Europe**. For now, the NATO allies are unified in their response to INF, and current NATO thinking, at least for now, eschews a GLCM for GLCM response (which also applies to M/IRBM if Russia were to proceed; Kubiak 2020, 13). But such unity may not necessarily expand to an agreement to deploy. In this regard, Germany in particular stands out, and it is difficult to know whether

the next German government, regardless of political stripe, would be willing to support GLCM deployments on its territory. At the same time, the US administration has demonstrated no inclination to reverse President George H. Bush's decision to withdraw forward-deployed tactical nuclear weapons. As such, a US decision limited to the deployment of conventional GLCMs in Europe is not likely to be politically contentious, unless it is accompanied by a reversal of the Bush decision and the deployment of a nuclear variant.⁵¹ Closely related, the aforementioned US decision to proceed with the development and deployment of low-yield, nuclear-capable surface and sub-surface cruise missiles is beyond NATO's scope. Finally, expanded anti-cruise missile air defences as a response would also be less problematic politically.

NATO's frontline states would likely support deployments on their territory. Poland has already indicated a willingness to do so, as well as host a larger NATO/US conventional military presence. Related, an expanded Russian long-range GLCM capability threatening NATO/US reinforcement lines might be sufficient to push NATO/US to expand their conventional military presence in the frontline states and shift NATO's posture from a reassurance "trip wire" to a more robust "defence for deterrence" purposes. Concerns, of course, already exist among the NATO allies that such expanded deployments would be perceived as provocative to Russia, and whether expanded Russian GLCM deployments would suffice to overcome these concerns is difficult to predict. Indeed, Russian fears of such a NATO/US response to expanded GLCM deployments may be a key factor that leads Russia not to do so. Regardless, beyond the pressure that would result from a US/NATO deployment for Russia to respond in kind, the strategic-political situation in European NATO and for the frontline states does not appear to change significantly regardless of what decisions are made in the future on GLCM deployments into the European theatre.

Overall, GLCM deployments do not represent a threat to strategic or theatre-level stability, nor is it the case that they would generate or be part of a nuclear arms race. Their primary value is in a warfighting role, and with or without a new generation of GLCMs, the impact on European defence and security in general and the frontline states is marginal at best. They do nothing to change the reality of the existing strategic and political situation, despite Russian rhetoric.

The ballistic missile side of the equation is somewhat different. For now, neither the US nor Russia has demonstrated a clear intent to deploy MRBMs or IRBMs into the European theatre. Importantly, it was the IRBM issue in particular that raised questions about strategic stability and was the focus of INF negotiations. Its linkage to stability concerns is directly related to the high speed, accuracy, and short flight time characteristics from launch points in Western Europe or Warsaw Pact/Soviet territory. In addition, ballistic missiles as a class of weapon systems are generally conceived as strictly nuclear

weapons, notwithstanding Iraq's employment of conventional MRBMs in the Gulf War, and China's DF-26 IRBM, which has a nuclear and conventional variant. Regardless, for all the nuclear powers in Europe, and most likely in any future debate on INF ballistic missiles and their implications, they will be conceptualized as nuclear weapons.

As argued in the first section, the original arms control debate focused around the SS-20 and Pershing II's short flight times to countervalue political and counterforce military targets, generating crisis instability. Yet, the US/NATO INF deployment decision was strategically driven to close the gap in the Western deterrence, ensuring the coupling of US strategic nuclear forces to Europe, and eliminate the sense that West Germany's fate was isolated from that of its allies. Arms control was the political component to manage intra-alliance politics.

The Soviet deployment of the SS-20 appears primarily as a modernization decision to replace its aging SS-4 and SS-5 systems. In addition, the SS-20 was a theatre-level deterrent in threatening NATO European capitals, whereas the Pershing II was a strategic-level deterrent in threatening the Soviet homeland and Moscow. Finally, politically, the Pershing II served a political reassurance function, whereas the SS-20 served a politically divisive function relative to NATO solidarity in a crisis.



Theatre ballistic missiles were absent in the process leading to the treaty's end.

As noted above, neither the US nor Russia undertook any known violations of the ballistic missile prohibitions of the INF Treaty. Theatre ballistic missiles were absent in the process leading to the treaty's end, except in terms of China, and there has been little indication that either is in the process of developing a new generation of theatre ballistic missiles, notwithstanding the single US test last year.⁵² Both parties also possess sufficient strategic nuclear systems that can be adapted relatively quickly to a theatre deterrent function. Taken at face value, Putin's position that Russia will not deploy INF systems, interpreted as ballistic missiles, unless the US does, can be considered as a means to eliminate internal pressures to deploy and thus avoid a costly INF nuclear arms race in Europe. In addition, it may also be understood as a starting position to renegotiate the INF Treaty from a global range-based prohibition to a theatre ballistic missile treaty related to Europe only.

If this is the case, and it is highly unlikely that Russia could covertly develop and deploy theatre ballistic missiles without US national technical means uncovering these developments, perhaps the central issue is whether the US/NATO will proceed in developing and deploying INF ballistic missiles. For now, this is highly unlikely. The probability of a NATO consensus is near zero, even if Russia moved to deploy. It is likely that discussions of options in response to a Russian decision are already underway in NATO's Nuclear Planning Group (NPG) and Military Committee. While the allies all agree that NATO must remain a nuclear-based alliance for deterrence purposes and as a last resort, a decision to modernize its nuclear deterrent is likely to produce significant political differences. Certainly, a Russian decision would put NATO nuclear modernization on the table, not least of all in creating the conditions for replacing NATO's current obsolete capability. But it would also potentially reawaken anti-nuclear forces within Europe, already evident in Germany, whose political ramifications are difficult to predict.

At the same time, the logic that drove NATO's INF deployment decision does not appear relevant in the current environment. Even though the US is modernizing its strategic deterrent, nuclear weapons remain de-emphasized in US strategic thought; their function arguably is to deter nuclear weapons, rather than war. Advanced US military technology underpinning its global strike capabilities will remain for the foreseeable future the key element of the US deterrent of war posture. The geopolitical situation has also transformed since the end of the Cold War, with the withdrawal of Russian forces to within its own borders (notwithstanding, for example, the Russian military presence in Moldova) and NATO's expansion to the Russian border per se creates an entirely different set of military requirements and thinking for all the actors.

Certainly, one could argue that NATO's frontline states are "singularized," or isolated, as West Germany was in the past. However, they have been in this state from the beginning of their NATO affiliation. Even since 2014, when NATO-Russian relations deteriorated following Crimea and Ukraine, the issue of singularization has been absent. MRBM deployments in the frontline states would certainly bring Moscow in range, but whether they would substantially alter the strategic-political situation for the frontline states is questionable. Certainly, depending upon numbers, NATO MRBMs in Poland, for example, would hold Moscow at higher risk in terms of a pre-emptive decapitation first-strike, generating instability as defined during the Cold War. But a Moscow response in kind including long-range intermediate forces would not significantly change the situation. Nonetheless, Putin's call for a moratorium may also be an attempt to avoid creating a much more dangerous and threatening environment for Moscow.

As for the frontline states, their security is unlikely to improve significantly if a decision was made to deploy US/NATO INF ballistic missiles, assuming, of course, that the respective governments would consent. The INF question

may, however, create political conditions for expanded conventional ground force deployments, which could enhance frontline security. Some US Army officials have openly mused about the possible deployment of an armoured division to Poland, which would increase the US presence from the current estimated level of 4500 to around 20,000.⁵³ Such a deployment might then also include increased American and European forces in the Baltics as a more viable political solution if pressures mount for ballistic missile deployments from within NATO.

As in the GLCM case, the US and NATO, rather than seeking to match Russian MRBM/IRBM deployments, possess the option to expand relatively quickly the existing NATO theatre ballistic missile defence, now deployed in limited numbers in Romania and Poland, and potentially upgrade the interceptor to be able to intercept longer-range Russian theatre ballistic missiles.⁵⁴ This option could also accompany a limited MRBM/IRBM deployment decision, although there is no indication that NATO will do so, at least for now (see Kubiak 2020). Either way, this outcome would potentially introduce a degree of theatre instability, and may also explain Putin's moratorium offer to avoid an offensive-defensive INF arms race in Europe and an increased burden on the Russian economy.

For now, Russia has not responded with its own test of a theatre ballistic missile.

A final consideration is President Macron's proposal to extend the French nuclear deterrent over the EU area. This would put to rest any concerns about US strategic decoupling. Even so, a credible French nuclear umbrella over Europe raises significant issues about political and strategic command and control, the implications of – and/or potential demand from some EU members for – the forward deployment of “EU” nuclear forces, and the nature of command and control arrangements in conjunction with NATO and US nuclear forces. Similar issues bedevilled the US and NATO in the 1960s, and led the French to keep their nuclear forces under national command and control and the US/NATO to create the Nuclear Planning Group. In addition, Macron's proposal may be more about internal EU defence and security politics relative to his recent criticisms of NATO and US leadership under Trump than about a post-INF Europe and potential Russian decisions. Even more, it is likely that Macron's proposal will also meet with significant internal political and military opposition.

For now, the US and NATO have rejected Putin's proposal for a moratorium on INF deployments, at least until Russia takes steps to eliminate existing SSC-8 deployments, although the French and German governments took a somewhat softer line in indicating a willingness to examine the proposal. Even so, NATO solidarity remains, and no government has defected from the NATO consensus. The US December 2019 INF MRBM test, at the lowest range of treaty prohibitions, also did not solicit a negative response from the NATO allies. For now, Russia has not responded with its own test of a theatre ballistic missile. This lends arguably greater credence to Putin's position not to deploy unless the US does, and as an attempt not to provoke an action-reaction process that could unintendedly lead to both sides deploying.

In this regard, **the US test can be understood primarily in two ways**, given the hostile political environment between Russia and the US/NATO. First, it is a tacit signal to Moscow of the ability to respond in kind if necessary, and can also be interpreted as a tacit US acceptance of Putin's moratorium proposal. The current political situation in the US and Europe clearly does not permit negotiations on the status quo relative to INF. To enter into negotiations for the time being tacitly legitimizes not only the Russian GLCM deployment, but also provides a measure of legitimacy to Russia's annexation of Crimea and intervention into Ukraine. Whereas the political environment of the late 1980s was conducive to negotiations and the treaty, the political environment of today is not. Until this political deadlock is overcome, the likelihood that future arms control negotiations will be undertaken remains very low. The only caveat resides in the hands of Beijing.

In this regard, the US MRBM test is not directed at Russia per se, but rather at China. From the beginning of the process leading to the unraveling of the INF Treaty, both American and Russian senior officials argued that the treaty was discriminatory. Only the US and Russia were prohibited from possessing INF ballistic missile systems, whereas MRBM/IRBM systems had proliferated in China, North Korea, India, Iran, Israel, and Saudi Arabia. Of course, the key concern was, and remains, China, as a function of its emergence as a "near-peer" competitor to the US and its passing of Russia in the global political hierarchy. Its new-generation MRBM/IRBM capabilities are also central to Chinese military doctrine of anti-access/area denial (A2/AD), as it is defined in US military circles. Their purported capabilities are designed to threaten forward-deployed US Navy assets and US regional bases, and thereby obtain control over the eastern maritime approaches to China, and politically affect US relations with its formal and informal Asian allies.

The strategic and political complexities of the Asia-Pacific are beyond the scope of this study. It is sufficient to note that the US test may be a signal to Beijing, designed to bring it to the negotiating table or face US MRBM/IRBM (and GLCMs as well) deployments into the region, and to provide the US with pre-emptive options. A US decision would likely result in Russia following

suit, with a tacit understanding between them not to deploy such missiles in the European theatre, or for Russia, west of the Urals.

China's longstanding position on arms control negotiations is clear. Until the US and Russia agree to reduce their strategic arsenals to rough parity with China, there can be no negotiations. Nor is it likely that either a US or Russian decision to develop and deploy MRBM/IRBM systems in the Asia-Pacific will bring China to the table. From the beginning, Chinese strategic doctrine has defied standard explanations and predictions emanating from the two superpowers. Although its strategic forces have been modernized and are much more capable than 20 years ago, they have long been vulnerable to an American or Russian first-strike. Predictions that China would eventually seek to reach parity with the US and/or Russia, both for strategic and political reasons, have remained wrong. It is thus unlikely that even significant American/Russian deployments will either bring China to the negotiating table or result in a rapid expansion of Chinese strategic or theatre-level forces. Nonetheless, the China card provides the potential basis for a tacit agreement between Russia and the US to limit deployments to the Asia-Pacific, which might under different political conditions evolve into a formal treaty.

The low probability, based upon past Chinese behaviour, that US and/or Russian MRBM/IRBM deployments in Asia would lead to a theatre nuclear arms race also speaks to the low probability of a nuclear arms race between the US and Russia. Both countries' strategic arsenals are clearly sufficient to meet the strategic deterrent challenges of the foreseeable future, including at the theatre level. Whether the US agrees over the next year to respond to Putin's offer to extend New START for another five years, as per the treaty's provisions, remains to be seen. For now, the US has clearly communicated a willingness to extend New START, but only if it also includes non-strategic nuclear weapons (read INF), stronger verification measures, and Chinese participation (the latter unlikely to be a make-or-break issue if Russia concedes; see Gould 2020). Politically, Russian actions beginning with Crimea, the fall-out from Russian cyber interference in the 2016 US presidential election, and continued suspicions of the real nature of Trump's relationship with Putin remain a fundamental obstacle for arms control negotiations.

Certainly, a new US administration may agree to an extension of New START. Regardless, as in the case of SALT II, the collapse of New START does not mean that either Russia or the US will suddenly undertake a rapid expansion of their strategic arsenals. Arguably, the levels agreed to in 2011 were as much a product of the path of reductions that began with START I, which in turn reflected their respective national security assessments and requirements. Despite the nature of the political relationship, there is little to suggest from a strategic and military perspective that either will deviate from New START levels even if the treaty collapses, and the political ramifications *à la* the 1980s simply do not obtain.

This also extends into arguments that the demise of the INF Treaty, or for that matter New START, might significantly undermine the Nuclear Non-Proliferation Treaty and regime. While states within the regime have already pointed at INF as a blow to the NPT Article VI commitment in the context of the review process,⁵⁵ the future of the NPT and state adherence will be the product of national and regional political and military considerations and interests, not of what Russia or the US does or does not do. The overwhelming majority of adherents have little, if any, interest in acquiring nuclear weapons, or need to do so, and the reassurance provided by the NPT remains in their interests. As for suspected proliferators, such as Iran, the motives for a decision to acquire an operational capability have not changed and will not change in either a post-INF or New START world.

Conclusion

In the end, the defence and security situation in the post-INF world is not likely to significantly change the current state of affairs, even if Russia and the US become locked in an action-reaction arms race deployment outcome, which is itself highly unlikely. The creation of the INF Treaty in 1987 was primarily a product and symbol of the unique political conditions of that time. The demise of the treaty is also a product and symbol of the unique political conditions of today. At the same time, the strategic and military capabilities, requirements, and technology within today's political environment are significantly transformed from the 1980s. Nuclear weapons, while remaining as the ultimate deterrent to ensure national survival in the worst-case scenario, no longer are central to immediate deterrence requirements, at least for the US.

The defence and security situation faced by NATO's frontline states, as well as the alliance as a whole, will not appreciably change even if new INF systems come to be deployed by Russia. Certainly, it will generate a debate on whether the US via NATO should or needs to respond in kind. Moreover, Russian decision-makers may conclude that deployment might have a deleterious effect on intra-alliance solidarity or generate the conditions for the US/NATO to propose new negotiations on INF. Either way, these are simply political calculations, rather than a new threat to stability, given the range of alternative military options available in response. Whether the age of arms control has come to an end remains to be seen. But, as in the Cold War, arms control in whatever future form is not a means to an end, *per se*, only an end driven by political means.

Appendix

Russian, American and Chinese Missiles (INF and Greater Ranges)

Russia

Type	Missile	Platform	Payload	Range	Warheads
ICBM	SS-18	Silo	Nuclear	16,000 km	Ten
	SS-19	Silo	Nuclear	10,000 km	Single
	SS-25	Road Mobile	Nuclear	11,000 km	Single
	SS-27	Silo/Road Mobile	Nuclear	11,000 km	Single
	SS-24 ⁱ	Silo/Road Mobile	Nuclear	10,500 km	Three
	SS-28	Silo	Nuclear	10,500 km	Multiple
IR/ICBM ⁱⁱ	RS-26	Road Mobile	Nuclear	5,800 km	Single ⁱⁱⁱ
MRBM	KH-47M2	Air	Nuclear/Conventional	2,000 km	Single
SLBM	SSN-N-18	Submarine	Nuclear	6,500 km	Three
	SSN-N-23	Submarine	Nuclear	8,300 km	Multiple
	SSN-N-32	Submarine	Nuclear	8,300 km	Ten
Cruise	KH-55	Air	Nuclear	2,500 km	Single
	KH-101	Air	Conventional		
	KH-102	Air	Nuclear		
	SSC-8 ^{iv}	Ground	Nuclear/ Conventional		
	SS-N-21 ^v	Submarine	Nuclear/ Conventional		
	SS-N-30A	Ship/Submarine	Conventional (possible nuclear)		

United States

Type	Missile	Platform	Payload	Range	Warheads
ICBM	Minuteman III	Silo	Nuclear	13,000 km	Three
	Trident D-5	Submarine	Nuclear	12,000 km	Eight
Cruise	AGM-86	Air	Nuclear/ Conventional	2,500 km	Single
	JASSM/ER	Air	Conventional	1,000 km	Single
	Tomahawk	Ship/Submarine	Conventional ^{vii}	2,500 km	Single

China

Type	Missile	Platform	Payload	Range	Warheads
ICBM	DF-5	Silo	Nuclear	13,000 km	Single
	DF-31	Road/Rail Mobile	Nuclear	11,7000 km	Single
	DF-41	Silo/Road/Rail	Nuclear	15,000 km	Ten
SLBM	JL-2	Submarine	Nuclear	9,000 km	Eight
IRBM	DF-26	Road Mobile	Nuclear/ Conventional	4,000 km	? ^{viii}
MRBM	DF-21	Road Mobile	Nuclear/ Conventional	2,150 km	Single
	DF-16	Road Mobile	Nuclear/ Conventional	1,000 km	Three
Cruise	HN-1/2/3	Air/Ground/Sea	Nuclear/ Conventional	600-3,000 km	Single

i RS missiles are in development

ii ICBM under New START protocols; CSIS labels it also as an IRBM

iii May potentially be adapted for multiple warheads.

iv Reportedly a variant of the SS-N-30A (Kalibr) SLCM

v Originally both a sea and ground launched system. The ground version prohibited by INF Treaty.

vi Ground variant tested in 2019

vii Nuclear variant phased out with 1991 Bush decision to withdraw tactical nuclear weapons

viii Unspecified

Source: missilethreat.csis.org/missile

About the author



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Endnotes

- 1 The treaty also includes a Memorandum of Understanding providing technical details, as well as a Protocol on Elimination and a Protocol on Inspections (USA 1987).
- 2 During the negotiation process, Chancellor Kohl of West Germany unilaterally declared that its 72 Pershing 1A short-range ballistic missiles, although not part of the treaty, would be eliminated following conclusion of the treaty.
- 3 Arms control is generally understood as agreements between two or more adversarial states that set limits on weapon systems. Although arms control agreements generally set ceilings (in the first modern iteration launchers, and the second warheads and launchers), arms control does not necessarily mean reductions, even though many mistakenly believe that it is a path to disarmament. The purpose or objective is to reduce the likelihood of war as a function of weapon systems, and if this fails, to limit the damage caused by war. In this regard, arms control is essentially technical and relates directly to the relationship between weapons technology and decisions to go to war.
- 4 While some scholars point to the 1899 Hague Convention or the 1922 Washington Naval Treaty as the first examples of arms control, arms control in its modern sense is a post-World War II phenomenon, largely synonymous with nuclear weapons and the development of advanced delivery systems. Its roots are American in origin, arising primarily out of the civilian/academic world, and generally associated with the special 1960 issue of the journal *Daedalus*.
- 5 The origins date back to Bernard Brodie's seminal work published in 1946 and encapsulated in his famous statement: "Thus far the chief purpose of our military establishment has been to win wars. From now on its chief purpose must be to avert them. It can have almost no other useful purpose" (Brodie 1946, 76).
- 6 In the original study, Schelling (1958) employed the term "reciprocal", rather than "mutual" as it came to be defined.
- 7 This is one of the reasons that attention was paid to the outbreak of World War I as a function of military decisions, strategy, and deployment, or, as A. J. P. Taylor called it, the war of railway timetables.
- 8 The Pershing II IRBM carried a single nuclear warhead with an estimated yield of 200 kilotons (KT).

- 9 Although the Soviet leadership would also identify American ground-launched cruise missiles (GLCMs) as a first-strike weapon, they were slow subsonic weapons, designed largely for interdiction missions against Soviet and Warsaw Pact forces.
- 10 Although the INF issue was a NATO one, as part of the 1979 dual-track decision, the alliance agreed to place negotiations under the bilateral SALT umbrella, referred to at the time as SALT III. SALT III never took place, as the US shifted to Strategic Arms Reduction Talks (START), which would be stalled until the end of the Cold War.
- 11 Alongside the SS-20, the Soviet Union also had two types of older generation IRBMs – the SS-4 and SS-5. One version carried a single warhead and the other three multiple independently targetable (MIRVs) warheads.
- 12 Within deterrence thinking, credibility is the sum of the capability to strike, the communication of the conditions in which the threat to strike would be carried out, and the political will to do so under these conditions. The SS-20 in the above scenario raises significant doubts about US political will.
- 13 Although it has also been seen as simply modernization, its predecessor, the Pershing 1 was a short-range ballistic missile with a range of 450 kilometres and designed to strike at interdiction targets in Eastern Europe.
- 14 This problem also underpinned the American Flexible Response proposal, initiated by Secretary of Defense McNamara in the early 1960s and NATO Europe's objections (see Stromseth 1988).
- 15 The origins of NATO's dual-track approach date back to the 1967 Harmel Report (see NATO 1967).
- 16 "Dual key" refers to NATO command and control regarding the use of nuclear weapons, whereby the US controlled the nuclear warheads and European NATO the delivery systems relative to deployment locations.
- 17 On the NPG and its origins, see Buteux (1983).
- 18 At the time, French forces consisted of submarine, air, and ground-based intermediate-range ballistic missiles; the latter located in the Vosges Mountains. The ground-based forces were eliminated with the end of the Cold War.
- 19 "Global zero" simply expanded Reagan's "double zero" from a European prohibition on INF to a complete, or global, prohibition for the US and the Soviet Union.

- 20 The outcome of SALT talks led to three agreements. The first two were signed at the Moscow Summit in 1972, and consisted of the Strategic Arms Limitation Treaty (SALT I), which set ceilings on launchers or delivery systems, and the Anti-Ballistic Missile (ABM) Treaty, which set limits on ballistic missile defences. The third, the Agreement on the Prevention of Nuclear War, was signed in June 1973, and committed both parties to provide notification of possible events that might generate the conditions for war.
- 21 Yet, arms control in its original conceptualization could entail an increase in weapons to promote stability.
- 22 In addition, at the 1979 summit, the alliance agreed to eliminate 1400 nuclear warheads from its stockpile, followed, at the Montebello NPG Summit in 1983 with INF deployment underway, by the elimination of an additional 1400 warheads (NATO 1983).
- 23 “Double zero” was geographically limited to the European theatre, which, if adopted, would have enabled both parties to maintain some level of forces outside the theatre. The core problem of such an arrangement was that both could relatively quickly “break out” from the agreement. “Global zero” eliminated this problem.
- 24 For chronological details of the negotiations, see FAS (n.d.).
- 25 The American military buildup or modernization, which Reagan claimed credit for, was actually initiated by President Carter. Reagan in reality simply inherited modernization.
- 26 This had occurred before INF on the issue of the neutron bomb – a capability desired for strategic reasons by the West Europeans, but politically dangerous if the governments were to be seen to advocate publicly for the weapon (the neutron bomb was a low-yield, short radiation half life without an explosion. It killed living things, but not buildings). In the absence of public endorsement by the West Europeans, Carter decided not to proceed with deployment. This experience was one of the reasons that West European public endorsement via the dual-track decision was sought.
- 27 France was the only real anomaly, as nuclear weapons were widely supported by the French people, and, of course, France was not a party to the INF issue.
- 28 At the Gorbachev-Reagan Summit, the two came to an initial agreement to eliminate nuclear weapons, which horrified their respective military leadership. This initial agreement collapsed over Reagan’s refusal to give

up the Strategic Defense Initiative. Even so, the overall political response was extremely positive in viewing the summit as the start of a new era.

- 29 Communicative value refers to the utility of face-to-face discussions in each side communicating its beliefs and understanding of the role and function of nuclear weapons in particular as a means to limit misunderstandings and miscalculations.
- 30 Upon the treaty's entering into force in 1988, the United States and the Soviet Union would eliminate the prohibited missiles in three years, to be followed by a 10-year on-site inspection protocol. Following their conclusion in 2001, verification became solely based on national technical means, usually referring to earth observation satellites. Whether other forms of intelligence gathering were at play is unknown in the public domain.
- 31 Congressional Research Service reports on INF have occurred on an annual basis for some time, and several versions may be released in a year. This study employs the most recent version. This report provides the most detailed and authoritative chronological study of INF from its origins until today. See Woolf (2017, 19).
- 32 The R-500/SSC-7 GLCMs include the short-range 9K723 and 9M728 (SSC-7) employed on the Iskander-M/K launch system, and are deployed primarily in the Kaliningrad Oblast. The RS-26 Rubezh is a road mobile ICBM under development, but apparently not yet deployed, and falls under the New START agreement. As discussed below, it had been tested to a range below 5500 kilometres, but according to the treaty, was not in violation (USA 2017).
- 33 As part of the treaty, either party can convene a meeting, which the others must attend. Also, Belarus, Ukraine, and Kazakhstan attend as successor states to the Soviet Union that possessed nuclear weapons until their signing of the Lisbon Protocols in 1992, related to START 1 and entailing their adherence to the Non-Proliferation Treaty (Arms Control Association 2017).
- 34 The EPAA was designed into three phases (the initial fourth phase was cancelled by President Obama several years later). The first phase was the assignment of Aegis missile defence vessels into the Mediterranean, along with a forward-based x-band radar in Turkey. Phase Two followed with the deployment of the Aegis Ashore system in Romania, followed by their deployment in Poland as Phase Three.
- 35 Roughly a week later, Russia showed the launch canister for the 9M729 GLCM to military attachés and the press, but no US official attended (Woolf 2019, 1).

- 36 There were public demonstrations directed against GLCM deployments, especially at Greenham Common in the United Kingdom. This was simply because the UK only deployed GLCMs, as did Belgium and the Netherlands. Only West Germany deployed the Pershing II.
- 37 An ICBM or SLBM's range can be reduced by either depressing its trajectory, increasing its ballistic loft, reducing its payload, or as a function of its launch location.
- 38 The only prohibition on ALCM/SLCMs' testing is ground-based mobile launchers. Similarly, ICBM/SLBMs can be tested at ranges below 5500 kilometres, as long as they are initially tested at a range of 5500-plus kilometres.
- 39 The list, especially from Russia, also includes North Korea, Iran, Israel, and Saudi Arabia.
- 40 Russia has not publicly called for INF multilateralization, but has raised the same issues as the US regarding INF proliferation (see Woolf 2019, 24).
- 41 The traditional Chinese position is that Beijing will not engage in strategic arms control discussions until Russia and the United States have reduced the arsenals to rough equivalence with China (for details, see Charap 2019).
- 42 Indicative, in either a recent Atlantic Council or Canadian study, no mention is made of INF (see Binnendijk and Rodihan 2020; Hilton 2020).
- 43 According to the treaty, New START, set to expire in 2021, can be extended for five years upon mutual agreement without the need for ratification (Reif and Bugos 2020).
- 44 This proposal, enunciated in September 2019, received measured support from French President Macron (Griffith 2020).
- 45 MRBMs are classified with a range of between 500 and 3000 kilometres, and IRBMs between 3000 and 5500 kilometres.
- 46 For example, according to US intelligence sources, the SSC-8 is a modified version of the Russian Kalibr SLCM. The US GLCM test was a modified version of the Tomahawk SLCM.
- 47 Both the Soviet Union and the US faced internal arguments to proceed with large-scale ABM deployments on the grounds that the other was going to do so. The ABM Treaty served to eliminate these pressures, while

allowing for initially two limited sites for the defence of the national capital and an ICBM field, reduced to one site of their choice by the 1974 Protocol (for details, see Gray 1999).

- 48 This range appears simply drawn from the range of the Russian Kalibr SLCM, assuming the SSC-8 is a modified version.
- 49 For example, the estimated distance from Volgograd to Warsaw and Riga is 1706 and 1643 kilometres, and from Shuya, 1580 and 1253 kilometres, respectively. The estimated distance to Berlin is 2226 kilometres and 2143 kilometres, respectively.
- 50 Among the new technologies is the idea of employing fixed, high-altitude aerostats, known as the Joint Land Attack Cruise Missile Defense Elevated Netted Sensor System (JENS). The program has, however, been plagued with problems to date (see Judson 2016). For details on NORAD, see Charron and Fergusson (2019).
- 51 In this regard, the German Social Democratic Party leadership is opposed to the continued deployment of US nuclear weapons assigned to NATO on its territory (Grull and Brzozowski 2020).
- 52 The Center for Strategic and International Security (CSIS) identifies the Russian RS-26, under development, as both an IRBM and ICBM, although the US Bureau of Arms Control classifies it an ICBM (see note 32; CSIS 2020).
- 53 It is now expected an announcement will be made shortly on the Polish-US agreement to increase the US military in Poland, which may entail the transfer of existing US military now deployed in Germany (Vandever 2020).
- 54 In the initial iteration of a European ballistic missile defence system in Poland under President George W. Bush, the plan, cancelled by President Obama, was to deploy the ground-based, mid-course phase interceptor designed to intercept ICBMs and currently deployed to defend North America at Fort Greely, Alaska. The SM-3 lacks the speed to be able to intercept long-range missiles, as US officials argued in response to Russian claims that the current European system does not threaten Russia's strategic forces.
- 55 The 2020 Review Conference was postponed until 2021 due to the COVID-19 pandemic. For background on the review conferences and their outcomes, see UN (n.d.).

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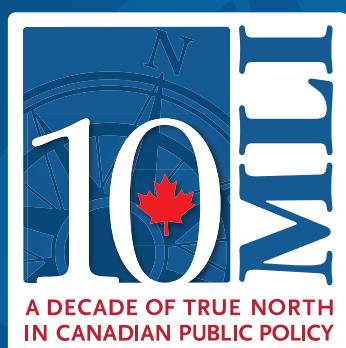
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