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EDITOR'S NOTE

Welcome to the latest issue of National Institute's *Journal of Policy & Strategy*—a quarterly, online, and peer-reviewed journal tailored for defense professionals around the world. This issue features articles in the “Analysis” section from a range of distinguished experts. Michaela Dodge examines Russian influence operations against U.S. allies the Czech Republic, Romania, and Poland as they worked with the United States on missile defense. Keith Payne helps reframe the debate on nuclear weapons and deterrence more broadly, exhorting readers and policymakers to undertake a multidisciplinary approach to studying deterrence—a more difficult, but better-informed process that such a consequential topic demands. Dean Cheng's well-timed article explores China's views on how information can be used in a potential war, the implications for China's view of deterrence, and how these views may diverge in important ways from standard views U.S. leaders might hold. Ilan Berman deftly explores some of the major sources of Russia's conduct—sources that include cultural, ideological, and even demographic influences. Finally, Christopher Harmon explains why the Shanghai Cooperation Organization deserves more attention from U.S. policymakers as Russia and China compete for control and influence.

This issue also features engaging discussions with noted experts in our “Interviews” section, including Stephan Frühling, Professor, Strategic and Defence Studies Centre at The Australian National University; Tanya Hartman, Head, Russia/Ukraine Section, Political Affairs and Security Policy Division, NATO Headquarters; and Peter Huessy, Senior Fellow at the Hudson Institute and President of GeoStrategic Analysis. Our “Proceedings” section gathers the prepared remarks of the speakers from past National Institute webinars, including the impacts of Russia's war on Ukraine on the future of arms control and nonproliferation; the deterrence implications of Russia's war on Ukraine; the state of deterrence education and national security, and the effects of Russian information operations on U.S. allies.

Readers who wish to keep up with the current literature in the field of strategic studies will benefit from the “Literature Review” section, featuring Matthew Costlow's review of David Cooper's *Arms Control for the Third Nuclear Age*, Michaela Dodge's review of Hal Brand's *The Twilight Struggle: What the Cold War Teaches Us about Great-Power Rivalry Today*, and David Trachtenberg's review of Tom Ramos' *From Berkeley to Berlin: How the Rad Lab Helped Avert Nuclear War*. The editors have also included in the “Documentation” section vital excerpts from U.S. government testimony and written products. Finally, this issue's “From the Archive” section features 1972 testimony from Dr. William R. Van Cleave. His insights, now exactly 50 years old, remain timelessly relevant for practitioners and scholars alike.





ANALYSIS

RUSSIA INFLUENCE OPERATIONS IN THE CZECH REPUBLIC, POLAND, AND ROMANIA: MISSILE DEFENSE AND COMMON TENDENCIES AND LESSONS LEARNED*

By Michaela Dodge

The 2018 U.S. *National Defense Strategy* recognized the challenges presented by activities “below the level of armed conflict,” among which are adversarial influence operations.¹ Russia’s political influence and disinformation operations aimed at U.S. allies in Europe have been an important tool in its adversarial competition with the United States. Russia (and previously the Soviet Union) has been conducting these types of operations for decades, with a short pause following the end of the Cold War.² New technologies are increasing the potency of disinformation, making such campaigns cheaper and more readily available than was the case during the Cold War. They enable the Russian Federation to compensate for disadvantages in other areas of state power. This article examines Russia’s influence operations in the context of U.S. missile defense cooperation with the Czech Republic, Romania, and Poland. It offers important lessons for alliance management and for building resilience against Russia’s malign operations, including pursuing policies that place emphasis on transparency, intelligence cooperation, and revitalization of U.S. public diplomacy efforts.

The United States and its allies have always recognized the importance of information to the conduct of warfare, but never before has the manipulation of information been possible to the degree that it is today: even if information is not concrete in revealing a number of tanks or modern aircraft, it can change the course of events. For example, in a recent simulation, researchers at NATO used open sources to gather information about soldiers participating in an exercise and manipulated behavioral outcomes using said information.³ Russia manipulated information leading to chaos and inefficiency within the Ukrainian government during Russia’s invasion of Crimea.⁴ Russia’s activities during the U.S. 2016 election cycle led to a significant increase in interest inside and outside the U.S. government in Russia’s influence and disinformation operations.

* This article is based on the author’s published works: an *Information Series* entitled “Different Countries, Different Methods, Same Goal: Destroy Democracy”; an *Occasional Paper* titled “Russia’s Influence Operations in the Czech Republic, Poland, and Romania”; a book titled *U.S.-Czech Missile Defense Cooperation: Alliance Politics in Action* (Fairfax, VA: National Institute Press, 2020); and an article “Russia’s Influence Operations in the Czech Republic during the Radar Debate,” *Comparative Strategy*, Vol. 39, Issue 2, pp. 162-170, available at <https://www.tandfonline.com/doi/full/10.1080/01495933.2020.1718989>. The author is grateful to the National Institute for Public Policy for permission to draw on this material.

¹ Department of Defense, *Summary of the 2018 National Defense Strategy of the United States of America* (2018), p. 6, available at <https://dod.defense.gov/Portals/1/Documents/pubs/2018-National-Defense-Strategy-Summary.pdf>.

² For more information on the Soviet Union/Warsaw Pact influence activities during the Cold War and NATO’s “dual-track” decision, see Vladimír Černý and Petr Suchý, “Spies and Peaceniks: Czechoslovak Intelligence Attempts to Thwart NATO’s Dual-Track Decision,” *Cold War History*, Vol. 20, Issue 3 (March 1, 2020), pp. 273–291, available at <https://doi.org/10.1080/14682745.2020.1724963>.

³ Jānis Sārts and Scott Simon, “NATO Targets Disinformation Efforts,” *NPR.org*, December 7, 2019, available at <https://www.npr.org/2019/12/07/785804847/nato-targets-disinformation-efforts>.

⁴ Daniel Bagge, *Unmasking Maskirovka: Russia’s Cyber Influence Operations* (New York, NY: Defense Press, 2019), pp. 174-186.



For the Russian Federation, disinformation is a relatively cheap tool of political warfare. Russia's efforts are massive in nature and never ending. In recent memory, it wasn't until Russia's 2014 invasion of Ukraine that the United States started to see itself in competition with the Russian Federation. Russia, however, sees itself at war with the West. Russia's activities against its perceived enemies are extensive and unchecked by constraints that democracies impose on themselves. Russia's influence operations need not be fatal to U.S. advancement of its foreign policy and national security goals at home or abroad. The Honorable Victoria Nuland, former Assistant Secretary of State for European and Eurasian Affairs, stated that Russia's attempt to exercise undue influence "is not an insurmountable challenge if we harden ourselves here, if we expose what is going on, both with digital and with money, and with corruption of politicians, and if we work in concert with our allies to pool information, and if we are willing to apply some of the same medicine to Putin himself where he is vulnerable at home, notably, on corruption."⁵

This article is a modest contribution to that goal. It gives the reader an overview of the Czech, Polish, and Romanian case studies and maps Russia's influence operations on their respective territories. Then it discusses lessons learned and recommends steps the United States can take to counter Russia's malign activities.

U.S.-CZECH MISSILE DEFENSE COOPERATION

The informal part of U.S.-Czech missile defense discussions spanned the timeframe from September 2002 to January 2007. These initial discussions were not particularly regular, partly because the Bush Administration was still internally working out the issue of how to go about deploying a long-range missile defense system. The "representatives of the Czech government expressed a rather robust willingness to participate in U.S. missile defense plans," according to one Bush Administration official.⁶

The Czech press reported the information about the Czech Republic potentially hosting a U.S. missile defense component for the first time in March 2006.⁷ The first reports started public discussions about the role the Czech Republic might play in U.S. missile defense plans in Europe. They also prompted the founding of the civic movement "No Bases Initiative" in August 2006.⁸ The movement's stated purpose was to fight "against the placement of a U.S. missile defense base on the Czech territory, in a non-violent manner."⁹ The movement

⁵ Victoria Nuland, as quoted in, U.S. House of Representatives, Committee on Foreign Affairs, *Countering a Resurgent Russia*, Hearings, 116th Congress, 1st Session (Washington, D.C.: USGPO, May 1, 2019), p. 58, available at <https://docs.house.gov/meetings/FA/FA00/20190501/109399/HHRG-116-FA00-Transcript-20190501.pdf>.

⁶ Author interview with David Trachtenberg, then-Principal Deputy Assistant Secretary of Defense for International Security Policy from 2001 to 2003, January 6, 2019.

⁷ The other two candidates were Poland and, somewhat less seriously, the United Kingdom. Ministerstvo zahraničních věcí ČR (Czech Ministry of Foreign Affairs), "Zahraničních politiků České republiky data 3/2006," (Czech Foreign Policy Data 3/2006), March 2006, available at https://www.mzv.cz/public/74/15/11/73274_491937_Data_mesicniku_ZP2006_03.pdf.

⁸ Author translation from a Czech web page. "Vznik společenské iniciativy Ne základnám," (Founding of the No Bases Initiative), August 1, 2006, available at http://www.nezakladnam.cz/cs/106_vznik-spolecenske-iniciativy-ne-zakladnam.

⁹ Ibid.

became a useful conduit for voicing Russia's anti-missile defense sentiments in the Czech Republic.

In January 2007, the United States submitted a formal request to the Czech government to host a U.S. X-band radar as part of a U.S. long-range missile defense system, on its territory.¹⁰ The government agreed to negotiate two main agreements: the Broader Ballistic Missile Defense Agreement (BMDA) and the Status of Forces Agreement (SOFA). Both required parliamentary approval. The Czech government also started limited communications and outreach efforts to educate the public and political representatives on the missile defense issue. The low level of information about missile defense undoubtedly made it easier for the Russian Federation to penetrate the information space with disinformation and influence Czech public opinion against it. The Czech government's effort came too late relative to the opponents' who were organizing and producing anti-missile defense content since summer 2006.

The U.S. and Czech governments jointly announced the conclusion of negotiations at the 2008 NATO Bucharest Summit. The announcement emphasized the project's Alliance dimension, and that U.S.-Czech security cooperation was an important contribution to NATO's collective security.¹¹ The government hoped that the project would be made more acceptable to the public if framed as a contribution to NATO, which traditionally enjoyed high levels of support among Czech citizens. Czech Foreign Minister Karel Schwarzenberg and U.S. Secretary of State Condoleezza Rice signed the BMDA on July 8, 2008.¹² The ink was not even dry on the agreements when Russia cut oil supplies to the Czech Republic by half.¹³ The supply was eventually restored.

The Czech government approved a SOFA with the United States on September 10, 2008.¹⁴ The SOFA was signed by Secretary Gates and Defense Minister Parkanová on September 19, 2008, in London.¹⁵ Despite the difficult political position of the Czech government, the Czech Senate gave its consent to the ratification of the Ballistic Missile Defense Agreement and the SOFA on November 27, 2008.¹⁶ The approval was meant to send a message to the incoming

¹⁰ The United States announced its withdrawal from the Anti-Ballistic Missile Treaty in December 2001. The Bush Administration officials briefed allies (and other countries) on the rationale for the U.S. withdrawal. The Czech media noticed the withdrawal with a passing interest.

¹¹ "Česko se dohodlo s USA na radaru, smlouvu podepíše za měsíc" (The Czech Republic and the United States Agreed on a Radar, the Agreement Will Be Signed in a Month), *Natoaktual.cz*, April 3, 2008, http://www.natoaktual.cz/cesko-se-dohodlo-s-usa-na-radaru-smlouvu-podepise-za-mesic-pm7-/na_zpravy.aspx?c=A080403_155553_na_cr_m02.

¹² Jan Wirtnitzer, Josef Kopecký, Pavel Eichler, and Adéla Dražanová, "Česko a USA podepsaly hlavní smlouvu o radaru," (The Czech Republic and the U.S.A. signed a radar agreement), *iDnes.cz*, June 8, 2008, available at https://www.idnes.cz/zpravy/domaci/cesko-a-usa-podepsaly-hlavni-smlouvu-o-radaru.A080708_143558_domaci_jw.

¹³ Judy Dempsey, "Russia further cuts its oil deliveries to Czech Republic," *The New York Times*, July 30, 2008, available at <https://www.nytimes.com/2008/07/30/world/europe/30iht-czech.4.14893867.html>.

¹⁴ "Vláda schválila smlouvu SOFA, radar i půda pod ním zůstane Česku" (The Government Approved the SOFA, Radar, and the Soil Underneath Will Remain Czech), *iDnes.cz*, September 10, 2008, available at https://www.idnes.cz/zpravy/domaci/vlada-schvalila-smlouvu-sofa-radar-i-puda-pod-nim-zustane-cesku.A080910_142601_domaci_klu.

¹⁵ "Parkanová podepsala smlouvu o pobytu amerických vojáků v ČR" (Parkanová Signed an Agreement Regulating U.S. Troops' Stay in the Czech Republic), *iDnes.cz*, September 19, 2008, available at <https://www.novinky.cz/domaci/150035-parkanova-podepsala-smlouvu-o-pobytu-americkych-vojaku-v-cr.html>.

¹⁶ Senát (Senate), "Vládní návrh, kterým se předkládá Parlamentu České republiky k vyslovení souhlasu s ratifikací Dohoda mezi Českou republikou a Spojenými státy americkými o zřízení radarové stanice protiraketové obrany Spojených států v České republice, podepsaná dne 8. července 2008 v Praze" (Government Proposal for the Parliament of the Czech Republic to Consent to Ratification of the

Obama Administration that the Czech Republic continued to be interested in hosting the radar. But that was not to be. The administration cancelled the plan in September 2009, before the Czech Parliament approved the agreements. For all intents and purposes, this was the end of U.S.-Czech missile defense cooperation.

Russian Influence Operations Methods in the Czech Republic

Russia's interference in Czech missile defense discussions was not discussed openly when negotiations between the United States and the Czech Republic were ongoing, partly thanks to Russia's penetration of the Czech media sphere. Additionally, its extensive penetration of the Czech public, business, and political sphere enabled it to spread disinformation in ways that were not obviously traceable to its origin. The lack of attribution of influence activities increased the credibility of disinformation itself. It is likely that Russia not only supported but also funded anti-radar activities on Czech territory, given its level of organization and resources. Russia's material and personnel support for anti-radar activities on Czech territory became even more difficult to trace after the Czech Republic joined the Schengen Area within the EU on December 21, 2007.¹⁷

By the time the United States started discussing missile defense cooperation with the Czech Republic, Russia had a comprehensive network of agents and pro-Russian citizens in place within the Czech Republic. The network drew on connections developed during the Cold War and in some cases, the agents' activities went uninterrupted throughout the 1990s.¹⁸ President Putin's ascendancy to power created a situation in which government's tools of power permeated Russia's economy and blurred the difference between state and private business activities.¹⁹ Consequently, Russia's intelligence services became intertwined with diplomacy, business, and private lives in ways that would be considered unseemly at best and illegal at worst in the United States and other democracies.

As Russia's system of "influence agencies" became more entrenched in the Czech Republic, including on the local level, Russia's efforts became focused on delegitimizing the Czech government, Czech foreign policy, transatlanticism, democratic institutions, and the NATO alliance writ large.²⁰ Russia's broader goals related to influence operations have remained unchanged since the end of the Cold War: the relativization of truth, undermining of pro-U.S. foreign policy in the Czech Republic, and undermining of democratic institutions in general.

Agreement Between the Czech Republic and the United States on Building a U.S. Radar Station in the Czech Republic, Signed on 8 July, 2008, in Prague), November 27, 2008, available at <https://www.senat.cz/xqw/xervlet/pssenat/hlasy?G=9432&O=7>.

¹⁷ The Schengen Area is a border-free area within which the citizens of 26 European countries may travel freely without passports.

¹⁸ Czech Security Information Service, "Bezpečnostní informační služba: Zpráva o činnosti za rok 2009" (Annual Report of the Security Information Service for 2009), 2010, p. 5, available at <https://www.bis.cz/public/site/bis.cz/content/vyrocní-zpravy/2009-vz-cz.pdf>.

¹⁹ Czech Security Information Service, "Bezpečnostní informační služba: Zpráva o činnosti za rok 2008" (Annual Report of the Security Information Service for 2008), 2009, p. 5, available at <https://www.bis.cz/public/site/bis.cz/content/vyrocní-zpravy/2008-vz-cz.pdf>.

²⁰ Czech Security Information Service, "Bezpečnostní informační služba: Zpráva o činnosti za rok 2000," (Annual Report of the Security Information Service for 2000), June 1, 2001, p. 17, available at <https://www.bis.cz/public/site/bis.cz/content/vyrocní-zpravy/vyrocní-zprava-2000.pdf>.

The network was activated with the purpose of derailing U.S.-Czech missile defense cooperation and decreasing support for it among the Czech public and Czech politicians. Russia's connections and pre-existing relations from decades of Soviet occupation made Russia's task easier. Pre-existing connections and contacts with Russia are a common denominator among many current U.S. allies that were a part of the Warsaw Pact during the Cold War. The degree of Russia's penetration is partly determined by how they managed their transitions to democracy following the breakup of the Soviet Union and how successful they were in weeding out Soviet agents from their intelligence and security apparatus.

Russia successfully built a friendly network among Czech politicians, including members of parliament and their assistants, and members of political parties responsible for their respective party's foreign policy and security agendas.²¹ Some Czech government officials do not feel particularly loyal to the Czech state, which makes them more susceptible to collaboration with Russia.²² When exposed, their collaboration with Russia undermines the public's faith in the soundness of Czech democratic institutions and plays right into Russia's hands. The penetration of Czech local governance structures is a long-term challenge for the health of Czech politics because the more that local politicians advance in their careers, the more power and access to information they have and the more damage they can cause to Czech interests if blackmailed.

Russia's intelligence services' extensive connections in all levels of Czech society provided with multiple opportunities to wage the campaign against the radar deployment, particularly after discussions between the United States and the Czech Republic became a matter of public debate in summer 2006. Russia's influence operations reached "an extremely high intensity and sophistication" in 2007, the year in which the United States and the Czech Republic intensely negotiated the SOFA and BMDA.²³ According to the Czech Military Intelligence Service 2008 annual report, stopping the U.S. radar deployment to the Czech Republic became Russia's diplomatic and intelligence priority.²⁴

The execution of an "active measures" campaign, which included media events, publications, reports, and cultural and social events, became one of Russia's significant priorities on Czech territory.²⁵ In fact, the No Bases Initiative was suspected of accepting Russia's help in organizing and funding its activities.²⁶ Russia's intelligence operatives focused on ways to influence Czech public opinion and steer it further away from supporting the U.S. radar deployment. They contacted, infiltrated, and manipulated groups and

²¹ Czech Security Information Service, "Bezpečnostní informační služba: Zpráva o činnosti za rok 2008" (Annual Report of the Security Information Service for 2008), 2009, op. cit, p. 5.

²² Czech Security Information Service, "Bezpečnostní informační služba: Zpráva o činnosti za rok 2012" (Annual Report of the Security Information Service for 2012), 2013, p. 13, available at <https://www.bis.cz/public/site/bis.cz/content/vyrocnizpravy/2012-vz-cz.pdf>.

²³ Ibid.

²⁴ Military Intelligence Service, "Výroční zpráva o činnosti Vojenského zpravodajství 2008" (Annual Report of the Military Intelligence Agency), 2009, p. 17, available at <https://www.vzcr.cz/uploads/41-Vyrocnizprava-2008.pdf>.

²⁵ Czech Security Information Service, "Bezpečnostní informační služba: Zpráva o činnosti za rok 2006" (Annual Report of the Security Information Service for 2006), 2007, p. 5, available at <https://www.bis.cz/public/site/bis.cz/content/vyrocnizpravy/2006-vz-cz.pdf>.

²⁶ ČTK and Jan Markovič, "Rusko nás neplatí, popírají odpůrci radaru reportáž ČT" (The Russians Are Not Giving Us Money, Opponents of the Radar Dispute Czech Television's News Segment), *MF Dnes*, November 27, 2007, available at https://www.idnes.cz/zpravy/domaci/rusko-nas-neplati-popiraji-odpurci-radaru-reportaz-ct.A071127_124402_domaci_mr.

individuals active in civic movements (including the No Bases Initiative), politics, and the media. They were often unwitting collaborators with the Russian Federation.²⁷

The end of U.S.-Czech missile defense cooperation did not mean the end of Russia's influence operations and intelligence efforts in the Czech Republic. Rather, Russia's efforts refocused on traditional areas of interest: obtaining economic advantages for Russian businesses, particularly in the energy sector, improving Putin's image among the Russian-speaking community in the Czech Republic, obtaining access to Czech research and development, and accessing Czech or EU funding for projects in Russia's interest.²⁸

Czech intelligence services were recently able to prove beyond doubt that Russia was involved in an ammunition depot explosion on Czech territory in October 2014. The authorities had to evacuate several villages in the vicinity of the explosion, two Czechs were killed, and over 50 tons of privately owned weapons material were destroyed. The weapons were reportedly owned by a Bulgarian with customers in Ukraine, which Russia invaded in February 2014. The Czech authorities believe that the explosion was not intended to happen on Czech territory, but later when the weapons were en route to their customers, potentially in Ukraine.²⁹

U.S.-POLISH MISSILE DEFENSE COOPERATION

Poland decided to participate in the U.S. ballistic missile program in the 2006/2007 timeframe by hosting a GMD interceptor site. From a Polish perspective, the more U.S. troops on its territory, the better deterrence against Russia's expansionism and political influence. Polish then-Foreign Minister Radoslaw Sikorski expressed this sentiment when he stated: "Come on! You [the United States] spend more on military than the rest of the world put together. Of course you have unique credibility as regards security measures. So, of course everybody assumes that countries that have U.S. soldiers on their territory do not get invaded."³⁰

A few days after the Obama Administration cancelled the Bush Administration's missile defense plan, Poland agreed to host an Aegis Ashore site, a part of the Obama Administration's new European Phased Adaptive Approach (EPAA), a regional missile defense plan for Europe. Missile defense negotiations between the two countries were less

²⁷ Czech Security Information Service, "Bezpečnostní informační služba: Zpráva o činnosti za rok 2007" (Annual Report of the Security Information Service for 2007), 2008, p. 4, available at <https://www.bis.cz/public/site/bis.cz/content/vyrocní-zpravy/2007-vz-cz.pdf>; and Czech Security Information Service, "Bezpečnostní informační služba: Zpráva o činnosti za rok 2008" (Annual Report of the Security Information Service for 2008), 2009, op. cit., p. 5.

²⁸ Czech Security Information Service, "Bezpečnostní informační služba: Zpráva o činnosti za rok 2009" (Annual Report of the Security Information Service for 2009), op. cit., 5, and Czech Security and Information Service, "Bezpečnostní informační služba: Zpráva o činnosti za rok 2014" (Annual Report of the Security Information Service for 2014), 2015, p. 10, available at <https://www.bis.cz/public/site/bis.cz/content/vyrocní-zpravy/2014-vz-cz.pdf>.

²⁹ Ondřej Kundra, Jaroslav Spurný, "Za výbuchem muničního skladu ve Vrbětčích stojí ruští agenti, kteří se pokusili zabít Skripala" (Russian Agents that Tried to Kill Skripal behind Vrbetice Munitions Depot Attack), *Respekt*, April 17, 2021, available at <https://www.respekt.cz/agenda/za-vybuchem-municniho-skladu-ve-vrbeticich-stoji-rusti-agenti-keri-se-pokusili-zabit-skripala>.

³⁰ Radoslaw Sikorski, "Remarks at the Atlantic Council," *Transcript*, November 19, 2008, available at <https://www.atlanticcouncil.org/commentary/transcript/transcript-polish-foreign-minister-radoslaw-sikorski-talks-to-council/>.

controversial in Poland than they were in the Czech Republic and enjoyed relatively broader political support. The missile defense agreement entered into force in September 2011.³¹ Poland and the United States broke the ground on a missile defense site near the Redzikowo military base in a joint ceremony in May 2016.³² The ceremony marked a milestone toward the completion of the EPAA's Phase 3, which was expected in the 2018 timeframe.³³ But the completion of the Redzikowo missile defense site has not been without challenges and the site is still not operational.

In March 2013, then-Secretary of Defense Chuck Hagel cancelled the last phase of the EPAA, which involved deploying long-range missile defense interceptors.³⁴ The Russian Federation objected to this part most. Following the cancellation, Russian Deputy Foreign Minister Sergei Ryabkov said that it "is not a concession to Russia, nor do we regard it as such," and that "all aspects of strategic uncertainty related to the creation of a US and NATO missile defense system remain. Therefore, our objections also remain."³⁵

In addition to participating in the EPAA, Poland has pursued other air and missile defense efforts—driven by Russia's belligerent foreign policy, its direct threats against Poland, and by Poland being within range of Russia's vast missile arsenal (both conventional and nuclear). Poland announced its intent to spend as much as \$4.75 billion on a mix of missile and air defense systems, including the purchase of a U.S. Patriot PAC-3 system.³⁶ According to the U.S. Department of State, "Poland jointly hosts the NATO Multinational Corps and Division Northeast Headquarters," "units from a rotational U.S. Armored Combat Brigade Team, Combat Aviation Brigade, and a NATO enhanced Forward Presence battalion (with the United States as the framework partner)."³⁷ Poland also hosts a U.S. Aviation Component and a component of MQ-9 unmanned aerial vehicles, among others.³⁸ Poland facilitated joint military exercises and will likely continue to do so. In 2021, Poland decided to buy 250 Abrams tanks, pushing the value of U.S.-Polish military cooperation to about \$6 billion.³⁹

³¹ Lukasz Kulesa, "Poland and Missile Defense: The Limits of Atlanticism," Institut Français des Relations Internationales, 2014, pp. 19-20, available at <https://www.ifri.org/sites/default/files/atoms/files/pp48kulesa.pdf>.

³² U.S. Missile Defense Agency, "U.S. and Poland Break Ground On Aegis Ashore Site In Poland," *Press Release*, May 13, 2016, available at <http://www.defense-aerospace.com/articles-view/release/3/173831/us,-poland-break-ground-on-aegis-ashore-site-in-poland.html>.

³³ *Ibid.*

³⁴ "US scraps final phase of European missile shield," *BBC News*, March 16, 2013, available at <https://www.bbc.com/news/world-us-canada-21812161>.

³⁵ Fred Weir, "US drops Europe missile defense plan – but Moscow is unimpressed," *The Christian Science Monitor*, March 18, 2013, available at <https://www.csmonitor.com/World/Europe/2013/0318/US-drops-Europe-missile-defense-plan-but-Moscow-is-unimpressed>.

³⁶ Matthew Kroenig, "Poland's Missile Defenses are Critical for the Defense of Europe," *Defence24.com*, August 19, 2019, available at <https://www.defence24.com/polands-missile-defenses-are-critical-for-the-defense-of-europe-opinion>.

³⁷ U.S. Department of State, "U.S. Relations with Poland," *Factsheet*, January 20, 2021, available at <https://www.state.gov/u-s-relations-with-poland/>.

³⁸ For a complete list, see Polish Ministry of National Defense, "Increasing the U.S. Military Presence in Poland," <https://www.gov.pl/web/national-defence/increasing-the-us-military-presence-in-poland>.

³⁹ "Poland to buy 250 U.S. tanks as it seeks to beef up defenses," *Reuters*, July 14, 2021, available at <https://www.reuters.com/business/aerospace-defense/poland-buy-250-us-tanks-it-seeks-beef-up-defences-2021-07-14/>.

Russian Influence Operations Methods in Poland

Poland “has become one of the most important targets of Russia’s state-funded information machinery.”⁴⁰ Blatantly pro-Russian narratives do not find much support in Polish society because of Polish fears over Russian expansion into the country grounded in Poland’s historical experience.⁴¹ Together with the Baltic Republics, Poland is at the forefront of NATO’s efforts to treat the threat that the Russian Federation presents to NATO seriously. To counter or moderate some of the anti-Russian sentiments, Russia tries to use pan-Slavic philosophy. Pan-Slavism is a 19th-century, relatively popular, idea that people with a common ethnic background in Central and Eastern Europe ought to unite to achieve political and cultural goals.⁴² Russia, of course, would be a leader of these Slavic countries and a counter to the West’s “malign” influence.

Poland’s fears are shaped by two significant historical factors that are ingrained in Polish strategic culture: (1) the Russian/Soviet partition of Poland, first in 1772, 1793, and 1795, and then the Soviet annexation of Poland in cooperation with Germany on September 17, 1939; and (2) the Soviet occupation of Poland during the Cold War.⁴³ The Soviet Union committed atrocities against Poland, including killing almost 22,000 of its military officers and intelligentsia in what became known as the Katyn massacre.

The Soviets denied responsibility for the Katyn massacre until after Mikhail Gorbachev came to power, have yet to disclose pertinent historical documents to Poland, and have never agreed to classify the action as a war crime or a mass murder.⁴⁴ Correspondingly, the Polish government “has consistently conditioned the improvement of relations with Moscow on the condemnation of Soviet crimes committed against the Poles.”⁴⁵ Russia, on the other hand, is in the habit of reinterpreting history to serve Putin’s agenda, which does not permit any doubt about Russia’s “greatness” in defeating the Nazi Germany.

Unlike a majority in the Czech Republic, the Poles actively resisted the Soviets throughout the Cold War. The Solidarity movement, a trade union founded in 1980, contributed to spreading anti-communist and pro-western ideas in the Eastern bloc in 1980s and is credited with being one of the main factors that led to ending communist rule in Poland. Its first president, Lech Wałęsa, was awarded the Nobel Peace Prize in 1983 and became Poland’s first freely elected head of state in over 60 years when he won the Polish presidential

⁴⁰ Stanisław Żaryn, “How Poland Views the Kremlin’s Creeping Aggression,” *Washington Examiner*, January 2, 2019, available at <https://www.washingtonexaminer.com/opinion/op-eds/how-poland-views-the-kremlins-creeping-aggression>.

⁴¹ Péter Krekó et. al., “The Weaponization of Culture: Kremlin’s Traditional Agenda and the Export of Values to Central Europe,” Political Capital Institute, August 4, 2016, p. 8, available at https://www.politicalcapital.hu/wp-content/uploads/PC_reactionary_values_CEE_20160727.pdf.

⁴² Vladislava Vojtišková, Vít Novotný, Hubertus Schmid-Schmidfelden and Kristina Potapova, “The Bear in Scheep’s Clothing,” *Wolfgang Martens Centre for European Studies*, 2016, p. 25, available at https://www.martenscentre.eu/wp-content/uploads/2020/06/russia-gongos_0.pdf.

⁴³ Łukasz Wenerski and Michał Kaciewicz, “Russian Soft Power in Poland,” Political Capital Institute, April 2017, p. 13, available at https://www.politicalcapital.hu/pc-admin/source/documents/PC_NED_country_study_PL_20170428.pdf.

⁴⁴ Katarzyna Utracka, “The Katyn Massacre – Mechanisms of Genocide,” *The Warsaw Institute Review*, May 18, 2020, available at <https://warsawinstitute.review/issue-2020/the-katyn-massacre-mechanisms-of-genocide/>.

⁴⁵ Igor Gretskey, “Poland and Russia: The Conflict of Incompatible Identities,” *Riddle*, November 26, 2018, available at <https://www.ridl.io/en/poland-and-russia-a-conflict-of-incompatible-identities/>.

elections in 1990. This historical experience gives Poland a degree of resilience against Russia's influence operations—and, important for the topic of this research, shows it is not easily replicable in other countries.

On the other hand, Poland was a part of the Warsaw Pact and a portion of its government and intelligence services were reportedly penetrated with Russian agents. Even President Wałęsa has not avoided controversy over whether he accepted money in return for reporting on his colleagues to the Polish secret service in the 1970s.⁴⁶ Poland reportedly sought a “zero option” of building its intelligence services from scratch after the fall of the Soviet Union and did not have enough qualified people to run them, which necessitated keeping people from the previous regime in place, potentially leaving Poland vulnerable to exploitation and penetration by adversaries. All former Soviet republics faced this challenge and tackled it with varying degrees of success.

Russia's goals in Poland were to secure Russia's economic interest, maintain political influence, and prevent significant geopolitical changes.⁴⁷ Russia's activities on Poland's territory include efforts to stir-up Polish-Ukrainian animosities (and therefore strip the Ukrainian government of as much Polish government support as possible), raise questions about the Polish government's historical policy, and replace historical narratives with pro-Russian versions.⁴⁸ But Russian activities can include acts of political sabotage and can involve kinetic actions that are intended to impact other allied states.⁴⁹ For example, a Polish far-right activist was reportedly hired to burn down a Hungarian cultural center in Uzhorod, Ukraine, and make it look as though Ukrainian nationalists were responsible.⁵⁰ Uzhorod has a large Hungarian minority and the act contributed to increasing tensions among the two countries—to the benefit of Russia. Russia also reportedly simulated a nuclear attack on Poland during its military exercises.⁵¹

Personal connections between Russian agents and Polish politicians, businessmen, and intelligence officers have proven critical to advance Russia's interests. In 1997, then-Interior Minister Zbigniew Siemiatkowski warned of increasing Russian penetration of Polish political and business circles, which led to efforts to strengthen the reliability of the Polish

⁴⁶ Carla Bleiker, “Former Polish President Walesa Did Help Secret Police, experts say,” *DW.com*, January 31, 2017, available at <https://www.dw.com/en/former-polish-president-walesa-did-help-secret-police-experts-say/a-37344633>.

⁴⁷ Artur Gruszcak, “The Polish Intelligence Services,” 2009, Research Gate, p. 140, available at https://www.researchgate.net/publication/241032145_The_Polish_Intelligence_Services.

⁴⁸ Stanisław Żaryn, “Poland's Internal Security Service is critical to hunting down spies,” *Defense News*, December 2, 2019, available at <https://www.defensenews.com/opinion/commentary/2019/12/02/polands-internal-security-service-is-critical-to-hunting-down-spies/>.

⁴⁹ Stanisław Żaryn, “Russia's Hybrid Warfare Toolkit Has More to Offer than Propaganda,” *Defense News*, August 9, 2019, available at <https://www.defensenews.com/opinion/commentary/2019/08/09/russias-hybrid-warfare-toolkit-has-more-to-offer-than-propaganda/>.

⁵⁰ Shaun Walker, Christian Davies, and Emily Schultheis, “Polish Far-Right Trial Raises Spectre of ‘False Flag’ Tactics,” *The Guardian*, January 27, 2019, available at <https://www.theguardian.com/world/2019/jan/27/polish-far-right-trial-raises-spectre-of-false-flag-tactics-german-journalist-russia-ukraine-fire-court>.

⁵¹ Stephen Blank, “Moscow Pulls Back the Curtain on Zapad 2013,” *Eurasia Daily Monitor*, Vol. 10, Issue 118 (June 21, 2013), <https://jamestown.org/program/moscow-pulls-back-the-curtain-on-zapad-2013/>; and Dylan Malyasov, “Russian Army Carries Out Mock Nuclear Attack on American Troops in Poland,” *Defense Blog*, September 20, 2021, <https://defence-blog.com/russian-army-carries-out-mock-nuclear-attack-on-american-troops-in-poland/>.

intelligence community, left largely intact after the fall of the Soviet Union.⁵² Attempts to rebuild the community from scratch were abandoned due to a lack of trained professionals.

In 2005, the Law and Justice (Prawo i Sprawiedliwość or PiS)-led government disbanded the Military Intelligence Service (Wojskowe Służby Informacyjne or WSI) on account of the agency's penetration by Russian interests, replaced it with two separate intelligence and counterintelligence agencies, and populated these two new agencies with PiS's own relatively inexperienced people.⁵³ In February 2007, President Lech Kaczyński (PiS) released a report on the dissolution of the WSI, which revealed previously classified and personal data of top Polish intelligence officers, effectively making it impossible for them to continue doing their jobs.⁵⁴ The stated rationale behind the step was to rid the intelligence community of Russian influence. The step was controversial in Poland. While some praised it as a step toward a more trustworthy intelligence community, others alleged that the step was politically motivated and done mainly with the purpose of strengthening the PiS's hold on the government.⁵⁵

Poland has viewed negatively the Russian invasion of Georgia in 2008 and Ukraine in 2014.⁵⁶ Polish foreign policy has traditionally been oriented toward helping Ukraine integrate into the West, with the implicit intent of creating a buffer between Poland and Russia. Russia's continued disregard for Ukraine's sovereignty and support for the separatist movement is viewed negatively by Warsaw. Following Russia's invasion, Poland suspended many cooperative endeavors with Russia and has remained one of the most vocal supporters of Ukraine internationally.

Polish-Russian relations, strained by Russia's invasion of Georgia, took a further hit in 2010 when an airplane carrying 96 high-level Polish government officials and dignitaries, including President Lech Kaczyński and his wife, crashed near Smolensk in Russia on the way to commemorate the anniversary of the Katyn massacre.⁵⁷ While a joint Polish-Russian investigation concluded that the Polish crew bore most of the responsibility for the crash, the Polish side rejected Russia's attempts to pin all the blame on Poland, for example arguing that Russia's controllers contributed to the accident by giving the Polish crew wrong information about their location.⁵⁸ Polish investigators had been objecting to Russia's obstructionism with respect to returning the aircraft's wreckage and black boxes.⁵⁹ The Russian side has claimed that it cannot return the wreckage while the investigation is still ongoing.⁶⁰

⁵² Artur Gruszczyk, "The Polish Intelligence Services," 2009, op. cit., p. 140.

⁵³ Ibid, p. 131.

⁵⁴ Loc. cit.

⁵⁵ Edmund Janniger, "Polish Spy Agencies Had Russian Moles," *Politico*, November 6, 2015, available at <https://www.politico.eu/article/polish-spy-agencies-had-russian-moles-antoni-macierewicz-pis-kaczynski-government/>.

⁵⁶ Wenerski and Kaciewicz, "Russian Soft Power in Poland," op. cit., p. 13.

⁵⁷ Loc. cit.

⁵⁸ Marcin Sobczyk, "Poland Faults Its Pilots for Crash but Implicates Russia," *The Wall Street Journal*, July 30, 2011, available at <https://www.wsj.com/articles/SB10001424053111904800304576475660195378844>.

⁵⁹ "Smoleńsk Plane Crash Wreckage to Be Examined by US Experts," *Poland In*, October 28, 2019, available at <https://polandin.com/45053521/smolensk-plane-crash-wreckage-to-be-examined-by-us-experts>.

⁶⁰ Then-President Dmitry Medvedev put then-Prime Minister Vladimir Putin in charge of the investigation.

The Smolensk tragedy has contributed to a substantive polarization within the Polish political spectrum, with some politicians accusing others of being Russian agents collaborating with Putin and participating in the tragedy's cover-up.⁶¹ It also reportedly led to trivialization of discussions about Russia's interference and influence operations campaign.⁶² This is one of the examples of Russia using a politically charged issue to introduce mistrust into the Polish political process and undermine Polish democratic institutions. As long as Russia's goals are being advanced, it does not matter whether groups or actors executing influence operations are openly affiliated with it. In fact, in the case of Poland, it is considered better for Moscow that the potential connections not be known—increasing the importance of counterintelligence activities that can shed light on precisely these types of linkages.

Only a few openly pro-Russian actors and web sites produce pro-Russian content in Poland. Most people know who they are and do not find their activities particularly convincing or effective. It also makes it easier to keep them under surveillance. The danger comes mostly from disinformation from websites that they operate finding its way to mainstream media without attributing this information to a source sympathetic or otherwise affiliated with Russia.⁶³ Most Polish politicians are careful to avoid appearing on Russian media operating in Poland (such as RT or Sputnik) to avoid giving them added credibility.⁶⁴

Nevertheless, Russia has been able to capitalize on increasing polarization within the Polish political spectrum.⁶⁵ The Russian Federation indirectly utilizes selected pro-Russian political organizations and some nationalistic organizations to spread disinformation in Poland with a broader objective of undermining the public's trust in Polish democratic institutions and the public's positive perceptions of the United States (and NATO) as viable security partners.⁶⁶

Since Russia cannot obtain significant direct influence in Poland, its activities focus on exploiting historic animosities among Poland, Ukraine and Lithuania, as well as undermining the view of NATO as a viable security partner.⁶⁷ Russia also employs several other narratives "aimed at indirect subversion of the consensus, and at encouraging social discord."⁶⁸ Experts flagged several of these as particularly effective for these purposes: assertions that the West is morally bankrupt, anti-immigration and anti-Muslim messages, narratives that overemphasize historical animosity between Poland and Ukraine, and the already mentioned narratives around the Smolensk tragedy.⁶⁹

⁶¹ Cardena, Kucharczyk, Mesežnikov, and Pleschová, "Sharp Power: Rising Authoritarian Influence," op. cit., p. 95, available at <https://www.ned.org/wp-content/uploads/2017/12/Sharp-Power-Rising-Authoritarian-Influence-Full-Report.pdf>.

⁶² Loc. cit.

⁶³ Ibid, p. 103.

⁶⁴ Loc. cit.

⁶⁵ Stanford Internet Observatory, "Poland: Presidential Election 2020 Scene-Setter," January 28, 2020, available at <https://cyber.fsi.stanford.edu/io/news/poland-scene-setter>.

⁶⁶ Krekó et. al., "The Weaponization of Culture: Kremlin's Traditional Agenda and the Export of Values to Central Europe," August 4, 2016, op. cit., p. 10.

⁶⁷ Ibid, p. 50.

⁶⁸ Cardena, Kucharczyk, Mesežnikov, and Pleschová, "Sharp Power: Rising Authoritarian Influence," op. cit., p. 100.

⁶⁹ Ibid, pp. 100-101.

Marches and protests against the United States, NATO, and the EU are among the most important events organized by pro-Russian influence networks in Poland.⁷⁰ Since Russia's annexation of Crimea, rallies against the Ukrainian government in support of Russia-supported separatists are Russia's other target.⁷¹ They generate a measure of visibility that Russia can take advantage of for its own domestic propaganda purposes. But perhaps a more effective way in which the Russian Federation can influence how it is perceived in Poland is through cultural exchanges, concerts, language classes organized by the Russian embassy, and music festivals.⁷² These events also serve the function of obtaining contacts that might prove useful in the furtherance of Russia's future goals because they generally tend to be attended by people who are likely to view Russia more positively than the general population.

Russia's other avenue of attack thrives on the fact that a large majority of Poles (as many as 87 percent) are Roman-Catholics.⁷³ Russia's propaganda portrays the West as a decadent actor threatening a traditional way of life, economy, and statehood.⁷⁴ Russia's anti-LGBT policies strike a particular chord among Poland's more conservative population.⁷⁵ Russia feeds on anti-Muslim and anti-immigration narratives promulgated by Poland's right-wing parties, including the PiS.⁷⁶ These narratives are not imported and implanted in Russia, rather they are organic to Polish society given its traditional values. Russia is merely taking advantage of existing widespread opinions.

U.S.-ROMANIAN MISSILE DEFENSE COOPERATION

Romania decided to participate in the EPAA in February 2010 by hosting an Aegis Ashore site.⁷⁷ Negotiations on the agreement with Romania commenced on June 17, 2010, and took seven rounds to complete.⁷⁸ The Deveselu Air Base in Romania was selected as a suitable location for the Aegis Ashore missile defense system.⁷⁹ The United States and Romania

⁷⁰ Krekó et. al., "The Weaponization of Culture: Kremlin's Traditional Agenda and the Export of Values to Central Europe," op. cit., p. 59.

⁷¹ Yaroslav Shimov and Aleksy Dzikawicki, "E-Mail Hack Gives Glimpse Into Russia's Influence Drive In Eastern Europe," *Radio Free Europe Radio Liberty*, March 11, 2017, available at <https://www.rferl.org/a/russia-e-mail-hack-belarusian-usorsky-piskorski-dugin/28363888.html>.

⁷² Cardena, Kucharczyk, Mesežnikov, and Pleschová, "Sharp Power: Rising Authoritarian Influence," op. cit., p. 105.

⁷³ "Poland: Population: Demographic Situation, Languages and Religions," *European Commission Eurydice*, March 4, 2021, available at https://eacea.ec.europa.eu/national-policies/eurydice/content/population-demographic-situation-languages-and-religions-56_en.

⁷⁴ Salome Samadashvili, "Muzzling the Bear—Strategic Defence for Russia's Undeclared Information War on Europe," *Wilfried Martens Centre for European Studies*, June 2015, p. 39, available at https://www.martenscentre.eu/wp-content/uploads/2020/06/russia-gongos_0.pdf.

⁷⁵ Carlie Porterfield, "Anti-LGBTQ Rhetoric Is Ramping Up In Eastern Europe, Human Rights Advocates Say," *Forbes*, June 10, 2020, available at <https://www.forbes.com/sites/carlieporterfield/2020/06/10/anti-lgbtq-rhetoric-is-ramping-up-in-eastern-europe-human-rights-advocates-say/?sh=6425bfe231ee>.

⁷⁶ Cardena, Kucharczyk, Mesežnikov, and Pleschová, "Sharp Power: Rising Authoritarian Influence," op. cit., p. 95.

⁷⁷ Kristen Chick, "Romania Agrees to Host US Missile Interceptors," *The Christian Science Monitor*, February 5, 2010, available at <https://www.csmonitor.com/World/terrorism-security/2010/0205/Romania-agrees-to-host-US-missile-interceptors>.

⁷⁸ Romanian Ministry of Foreign Affairs, "Romania's Participation in the Missile Defense System," available at <https://www.mae.ro/en/node/2161>.

⁷⁹ U.S. Department of State, "Ballistic Missile Defense Agreement Between the United States of America and Romania," *Factsheet*, September 13, 2011, accessed February 2, 2021, available at <https://2009-2017.state.gov/r/pa/prs/ps/2011/09/172258.htm>.

signed an agreement on the deployment of a missile defense system to Romania two years after the Obama Administration cancelled the Bush Administration's missile defense plan, in September 2011.⁸⁰ The agreement faced no significant opposition in the Romanian Parliament and was ratified on December 6, 2011.⁸¹ It entered into force on December 23, 2011.⁸²

While the agreement on deployment of a missile defense system was signed quickly, negotiations about its implementation details continued between 2012 and 2013.⁸³ Five implementing agreements were signed in July 2011.⁸⁴ Six additional implementing agreements were signed between December 2012 and July 2013.⁸⁵ Despite the cancellation of the SM-3 Block IIB interceptors, the Obama Administration started to implement the EPAA and the Deveselu site was operationally certified in May 2016.⁸⁶ It has continued operating without major issues since then.

Russian Influence Operations Methods in Romania

Russia has a long history of exercising its influence in Romania, although Romania sees the Russian Federation as a threat.⁸⁷ The successors of Romanian communists retained power in the country even after the end of the Cold War and did not reform until 2000, although they were not directly beholden to Moscow.⁸⁸ Even during the Cold War, the Romanian dictatorship preserved a measure of independence from the Soviet communists, winning the regime some positive attention from the West. This pragmatically independent streak carried over to Romania's post-Cold War regimes. The Nicolae Ceaușescu dictatorship was replaced by the "soft" authoritarian rule of Ion Iliescu, who wanted to uphold the appearance of formal democracy.⁸⁹ Iliescu remained in power until 1996 (and then came back after elections in 2000).

The 1996 democratically elected government wanted to integrate into Western political and military structures and took the first steps to do so. The effort was rather unwelcomed

⁸⁰ U.S. Department of State, "U.S.-Romania Agreement on the Deployment of Missile Defense," September 13, 2011, available at <https://fas.org/irp/world/romania/bmd2011.pdf>.

⁸¹ Romanian Ministry of Foreign Affairs, "Questions and Answers Regarding Romania's Participation in the US Ballistic Missile Defense System | Ministry of Foreign Affairs," accessed February 6, 2021, available at <https://www.mae.ro/en/node/2162?page=5>.

⁸² Romanian Ministry of Foreign Affairs, "Romania's Participation in the Missile Defense System," op. cit.

⁸³ U.S. Missile Defense Agency, "Agreement Between the United States of America and Romania on the Deployment of the United States Ballistic Missile Defense System in Romania," October 3, 2013, available at <https://photos.state.gov/libraries/romania/231771/PDFs/Deveselu-Agreement-English.pdf>.

⁸⁴ Ibid.

⁸⁵ Ibid.

⁸⁶ U.S. Department of Defense, "Work Helps to Inaugurate Ballistic Missile Defense Site in Romania," May 12, 2016, available at <https://www.defense.gov/Explore/News/Article/Article/758307/work-helps-to-inaugurate-ballistic-missile-defense-site-in-romania/>.

⁸⁷ Marcin Zaborowski, "Central European Security: History and Geography Matter," *NATO Defense College Policy Brief*, May 7, 2021, p. 4, available at https://www.jstor.org/stable/pdf/resrep29575.pdf?ab_segments=0%2Fbasic_search_gsv2%2Fcontrol&refreqid=fastly-default%3A618559717f2aa16e878c602d35b47ab4.

⁸⁸ Theodor Tudoroiu, "From Spheres of Influence to Energy Wars: Russian Influence in Post-Communist Romania," *Journal of Communist Studies and Transition Politics*, Vol. 24, No. 3 (August 14, 2008), p. 388, available at <https://www.tandfonline.com/doi/pdf/10.1080/13523270802267922>.

⁸⁹ Loc. cit.

by the Russian Federation, which was used to a friendly regime in Bucharest; a regime that, by and large, acted in accordance with Russia's interests. The change in political winds prompted Russia to exercise effort and spend resources to regain the influence it had previously from Romania's pro-Soviet elites without significant effort.⁹⁰ But democratic parties lost in the 2000 elections to the successor to Romania's Communist Party, the Social Democracy Party of Romania, due to corruption, political infighting and inability to pass economic reforms that would revive Romania's economy. Iliescu won the presidential race.⁹¹

Iliescu signed a Russian-Romanian Treaty on Friendly Relations and Cooperation, which he did not manage to do in his other term.⁹² The two countries signed a few other cooperative agreements.⁹³ After the signing ceremony, Russian President Putin made clear that he was particularly interested in cooperation in Romania's energy sector, machine building, metallurgy, light industry, foodstuffs and transport infrastructure spheres.⁹⁴ In parallel, Romania's efforts to join NATO and the EU continued. Russia was significantly concerned with these efforts but ultimately was unable to stop them. Romania joined NATO in 2004 and the EU in 2007.

Romania is one of the EU's least energy-dependent states due to its large domestic gas and oil reserves.⁹⁵ The Russian Federation has been intent on expanding its influence over Romania's energy and transportation sector, particularly by purchasing and increasing its share in Romania's energy companies. Russia likely tried to exercise influence to that effect over Romania's government representatives. Moreover, the Russian Federation does not appear hesitant to involve itself in Romania's domestic politics, including by covertly supporting organized protests.⁹⁶

Corruption has been a persistent problem in Romania, and has given Russia another means to influence events in the country to its liking.⁹⁷ Romania ranks 69th in Transparency International's annual Corruption Perception Index, among the lowest ranking in the EU.⁹⁸ In a survey, 20 percent of public service users "paid a bribe in the previous 12 months."⁹⁹ Personal connections and networks are an important enabling factor for bribery. This is not

⁹⁰ Loc. cit.

⁹¹ "Romania After the 2000 Elections: Background and Issues for Congress," *Congressional Research Service Report for Congress*, No. RS20886, April 12, 2001, pp. 1 and 3, available at https://www.everycrsreport.com/files/20010412_RS20886_185752dfe4b5fbf902aab902be12b86e57703dea.pdf.

⁹² Eugen Tomiuc, "Romania/Russia: Political Treaty Sealed After Decade Of Uneasy Relations," *Radio Free Europe Radio Liberty*, May 6, 2003, available at <https://www.rferl.org/a/1103137.html>.

⁹³ News release, "A Russian-Romanian Summit Was Held in the Kremlin," Office of the President of Russia, July 4, 2003, available at <http://en.kremlin.ru/events/president/news/28969>.

⁹⁴ "Press Statement and Answers to Questions at a Press Conference Following Russian-Romanian Talks," *Office of the President of Russia*, July 4, 2003, available at <http://en.kremlin.ru/events/president/transcripts/22046>.

⁹⁵ Felix Heilmann et al., "The Political Economy of Energy in Central and Eastern Europe: Supporting the Net Zero Transition," *The E3G Report*, 2020, p. 26, available at www.jstor.org/stable/resrep21847.

⁹⁶ Tudoroiu, "From Spheres of Influence to Energy Wars: Russian Influence in Post-Communist Romania," op. cit., p. 398.

⁹⁷ Jim Compton, "The Struggle for Civil Society in Post-Revolution Romania," *The Seattle Times*, October 22, 2006, available at <https://www.seattletimes.com/opinion/the-struggle-for-civil-society-in-post-revolution-romania/>.

⁹⁸ *Corruption Perceptions Index*, "Romania," Transparency International, 2020, available at <https://www.transparency.org/en/countries/romania#>.

⁹⁹ Ibid.

so different from personal connections through which Russian agents can spread Russia's disinformation and propaganda.

The 2008 "Activity Report" produced by the Romanian Intelligence Service (Serviciul Român de Informații or SRI) stated that one of its operational priorities is "protecting classified national information from unauthorized breach attempts by foreign intelligence services (non-EU/NATO, mostly *Eastern*)."¹⁰⁰ (Emphasis added.) This was the only geographically explicit mention of other states' intelligence activities on Romanian territory in SRI reports between 2008 and 2011. It likely had to do with the SRI's investigation of one Bulgarian and one Romanian spy who sold intelligence information to Ukrainian officials (and possibly to other countries, including Russia).¹⁰¹

The reports indicate the SRI's larger concern with potential terrorist activities, illegal immigration, corruption, and with improving the service's image among the Romanian population—an understandable goal given the Romanian intelligence services' rather complicated relationship with Romania's civil and democratic society.¹⁰² The 2012 "Activity Report" mentioned other states' "espionage" activities in connection with Romania's participation "in setting up the U.S. anti-missile shield (by hosting on the national territory some of its components)" and mentioned that these actions placed Romania "under the scrutiny of players with divergent interests."¹⁰³ The report also listed as one of its priorities for 2013, "hostile" activities of "certain intelligence services."¹⁰⁴ The SRI did not publicly name which countries' intelligence activities it was worried about, although it is reasonable to assume that Russia would be one of the priorities.¹⁰⁵

Since Russia's 2014 invasion of Ukraine, Romania has grown more concerned with Russia's intelligence (and other potentially adversarial) activities on its territory and its intelligence services have become more involved in countering them.¹⁰⁶ Romania's 2020 *National Defense Strategy* states that: "*The attitude and actions of the Russian Federation carried out in violation of international law lead to continued and extended divergences with a number of Western and NATO states and, represents a serious obstacle to identifying viable solutions for stability and predictability of the security environment.*"¹⁰⁷ (Emphasis in original.)

¹⁰⁰ Romanian Intelligence Service, "Report on the Activity of the Romanian Intelligence Service in 2008," p. 11, available at https://www.sri.ro/assets/files/reports/2008/REPORT_on_the_Activity_of_the_Romanian_Intelligence_Service_in_2008.pdf.

¹⁰¹ Joseph Fitsanakis, "Romania-Ukraine Spy Scandal Turning Into Full Diplomatic Row," *Internews.org*, March 6, 2009, available at <https://intelnews.org/2009/03/06/01-92/>.

¹⁰² On this point, see for example V. G. Baleanu, *The Enemy Within: The Romanian Intelligence Service in Transition* (Camberley, UK: Royal Military College Sandhurst, Conflict Studies Research Centre, 1995), available at <https://fas.org/irp/world/romania/g43.html>.

¹⁰³ Romanian Intelligence Service, "Report on the Activity of the Romanian Intelligence Service in 2012," p. 5, available at https://www.sri.ro/assets/files/reports/2012/REPORT_on_the_Activity_of_the_Romanian_Intelligence_Service_in_2012.pdf.

¹⁰⁴ *Ibid.*, p. 44.

¹⁰⁵ More comprehensive versions of Activity Reports are available for two additional years in Romanian, but they do not appear to mention Russia at all. Activity Reports after 2014 are significantly shorter and lack the comprehensiveness of their previous versions.

¹⁰⁶ "Kremlin Influence in Visegrad Countries and Romania: Overview of the Threat, Existing Countermeasures, and Recommended Next Steps," European Values and Wilfried Martens Centre for European Studies, October 23, 2017, p. 7, available at <https://www.europeanvalues.net/wp-content/uploads/2017/12/Kremlin-Influence-in-Visegrad-Countries-and-Romania.pdf>.

¹⁰⁷ "National Defense Strategy 2020–2024: Together for a Safe and Prosperous Romania in a World Marked by New

Romania is clearly concerned about differences of opinions on how to address Russia's threat within the EU and NATO. Romania feels threatened by "certain states with regional leadership ambitions" (emphasis in original), and considers "the revival of the strong and assertive policy of some non-Western powers" (emphasis in original) to be "the major variable that will influence the global distribution of power, regional equilibriums and future configuration of the international relations."¹⁰⁸ This listing of Russia as a direct threat was remarkable in that it was the first time since the end of the Cold War that Romania's strategic document described it as such.¹⁰⁹

Romania's *National Defense Strategy* for 2015 to 2019 did not directly label the Russian Federation a threat to Romania, although it mentioned that the relations between NATO and Russia were deteriorating and that Russia's actions "impact" regional stability.¹¹⁰ Romania's 2016 *Military Strategy* considered "the strategic partnership" with the United States "essential."¹¹¹ The 2016 *Military Strategy* was more explicit in calling Russia's actions in the region "destabilizing."¹¹²

Some experts reportedly consider Romania "Russia-proof," or immune to Russia's propaganda.¹¹³ That assessment appears counterintuitive because Romania's political instability and corruption create just the environment in which Russian influence operations thrive. On the other hand, there is no fondness for the Russian Federation in Romania. Romania's public sees Russia as a threat to national security and both countries compete for influence in neighboring Moldova.¹¹⁴

Russia used the issue of stationing a missile defense asset on Romania's territory to advance U.S. and NATO's security at Romania's expense.¹¹⁵ Regardless of Russia's activities, public polls indicate that the United States and U.S.-Romanian missile defense cooperation have enjoyed extensive public support with almost three quarters respondents stating in 2018 that the United States should remain Romania's main strategic partner.¹¹⁶

Russia's influence operations exploit existing societal divisions and tensions. Post-Cold War economic liberalization created as many winners as it did losers, generating swaths of

Challenges," The Presidential Administration, 2020, p. 19, available at https://www.presidency.ro/files/userfiles/National_Defence_Strategy_2020_2024.pdf.

¹⁰⁸ Ibid.

¹⁰⁹ Marcel Gascón Barberá, "Romanian Warning About Russian 'Security Threat' Riles Kremlin," *Balkan Insight*, June 12, 2020, available at <https://balkaninsight.com/2020/06/12/romanian-warning-about-russian-security-threat-riles-kremlin/>.

¹¹⁰ "National Defense Strategy 2015–2019: A Strong Romania within Europe and the World," op. cit., pp. 5 and 13.

¹¹¹ Romania Ministry of National Defence, "The Military Strategy of Romania" (2016), available at https://www.eda.europa.eu/docs/default-source/Defence-Procurement-Gateway/ro_milstrategy.pdf.

¹¹² Ibid, p. 8.

¹¹³ Stephen Flanagan and Irina Chindea, "Russia, NATO, and Black Sea Security Strategy: Regional Perspectives from a 2019 Workshop," RAND Corporation, 2019, p. 8, available at https://www.rand.org/pubs/conf_proceedings/CF405.html.

¹¹⁴ Dimitar Bechev, "The Russian Challenge in Southeast Europe," in Mai'a Cross and Paweł Karolewski (eds.), *European-Russian Power Relations in Turbulent Times* (Ann Arbor, MI: University of Michigan Press, 2021), p. 196, available at <http://www.jstor.org/stable/10.3998/mpub.10202357.10>.

¹¹⁵ Oana Popescu and Rufin Zamfir (eds.), "Propaganda Made-to-Measure: How Our Vulnerabilities Facilitate Russian Influence," *Global Focus*, February 2018, pp. 25, available at <https://grass.org.ge/uploads/other/2019-02-22/359.pdf>.

¹¹⁶ Flanagan and Chindea, "Russia, NATO, and Black Sea Security Strategy: Regional Perspectives from a 2019 Workshop," op. cit., p. 8; and Irina Marica, "Study: Romanians Are pro-US, Most See Russia as the Greatest Enemy of National Interests," *Romania Insider*, October 29, 2018, available at <https://www.romania-insider.com/study-romanians-pro-us-russia-enemy>.

society dissatisfied with their economic conditions and the personal costs incurred by Romania joining the EU.¹¹⁷ These groups of people happen to share Russia's goals and are easily targeted by tailored messages.¹¹⁸ Russia's influence operations thrive on Romania's clientelist and incompetent public administration.¹¹⁹ Russia actively conceals its operations in Romania.¹²⁰ Its activities in the country were a "source of concern" for the U.S. embassy in Bucharest in 2019.¹²¹ They included attempts to influence local politicians, weaken relations with the West, and delegitimize Romania's electoral system and democratic institutions while presenting Russia as a viable alternative model to that offered by Western democracies.¹²²

Russia maintains a "solid" intelligence presence in Romania, according to Teodor Melescanu, former Romanian Minister of Foreign Affairs.¹²³ Mihai Fifor, former Romanian Minister of Defense, stated that there is not "a single day without a challenge" from the Russian Federation, from cyber-attacks to political interference.¹²⁴ The Romanian government is aware of Russia's intelligence activities on its territory. Romania is also a subject of Russia's cyber attacks and political espionage operations.¹²⁵

RECOMMENDATIONS

The United States and its allies do not have to be passive recipients of Russia's influence operations. They can and should take the following steps to counter such activities:

1. **Expose an adversary's influence operations.** Russia's activities are hiding in plain sight. Making public authoritative and comprehensive assessments of Russia's activities on an annual basis would improve the quality of public debate on the issue. The United States and its allies ought regularly to publish comprehensive reports on Russia's influence operations, ideally in multiple languages because transparency is one of the key components of countering Russia's influence operations. For example, the Czech Security Service publishes such annual reports, written in a way that does not compromise intelligence sources and methods but that allows an informed reader

¹¹⁷ Popescu and Zamfir (eds.), "Propaganda Made-to-Measure: How Our Vulnerabilities Facilitate Russian Influence," op. cit., p. 15.

¹¹⁸ Loc. cit.

¹¹⁹ Ibid, p. 18.

¹²⁰ Flanagan and Chindea, "Russia, NATO, and Black Sea Security Strategy: Regional Perspectives from a 2019 Workshop," p. 8, and Marica, "Study: Romanians Are pro-US, Most See Russia as the Greatest Enemy of National Interests."

¹²¹ "Russia Wants to Divide Romanian Society," Warsaw Institute blog, February 27, 2019, <https://warsawinstitute.org/russia-wants-divide-romanian-society/>.

¹²² Ibid.

¹²³ "Foreign Affairs Minister: Russian Espionage, Present in Romania," *Romania Insider*, April 2, 2018, available at <https://www.romania-insider.com/russian-espionage-present-romania>.

¹²⁴ Irina Marica, "Romanian Defense Minister: I Don't Think There's a Single Day without a Challenge from Russia," *Romania Insider*, June 26, 2018, available at <https://www.romania-insider.com/defense-minister-challenge-russia>.

¹²⁵ Chris Bing, "Russia-linked hackers impersonate NATO in attempt to hack Romanian government," *Cyberscoop*, May 11, 2017, <https://www.cyberscoop.com/dnc-hackers-impersonated-nato-attempt-hack-romanian-government/>; and Marcel Gascón Barberá, "Romania: From 'Hackerville' to Cybersecurity Powerhouse," *BalkanInsight*, March 27, 2020, <https://balkaninsight.com/2020/03/27/romania-from-hackerville-to-cybersecurity-powerhouse/>.

to develop a picture of hostile actors' activities in allied countries. The United States can do much to shed light on Russia's activities in allied countries, not just through government circles but also by supporting U.S. or local nonprofit organizations.¹²⁶ The Department of State's Global Engagement Center (GEC)—specifically set up to recognize, understand, expose, and counter foreign propaganda and information—contributed to this effort by publishing a report on Russia's disinformation in August 2020 and January 2022.¹²⁷ But two reports are not enough. The Administration should make more of GEC's work publicly available.

2. **Know your enemy—and your ally.** Over six decades ago, U.S. strategist Herman Kahn made the following observation about U.S. arms control negotiations: “[W]e must do our homework. We must know what we are trying to achieve, the kinds of concessions that we can afford to give, and the kinds of concessions that we insist on getting.... All of this will require, among other things, much higher quality preparations for negotiations than have been customary.”¹²⁸ The observation about the necessity of increasing the quality of the U.S. government's preparation for negotiations is applicable to other areas of U.S. diplomacy. Russia's influence operations in allied countries are aimed at advancing Russia's interests, which are fundamentally incompatible with U.S. goals. To understand how the Russian Federation operates, the United States must not only better understand Russia's influence operations, but also the modalities of the environment in which Russia conducts its business.
3. **Increase transparency.** The Russian Federation's influence operations are conducted by a variety of intelligence services. Counterintelligence is a critical component of revealing and disrupting them and making the public aware of foreign manipulation. Not all disclosures of Russia's activities have to be made public—as long as they are securely shared with allies. The United States should not think about Russia's intelligence activities and influence operations as two separate activities; rather they represent a continuum. Especially in Poland and Romania, the Russian Federation goes the extra mile to conceal its activities—because they would lose their potency once it was revealed they originated in Russia. Additionally, the degree of transparency ought to be increased in the nonprofit sector in allied countries.¹²⁹ Many nonprofits do not have to reveal sources of their funding. Unless they are conducting illegal activities, it would not be proper to try to restrict their activities. The goal is to

¹²⁶ For an example of a good non-government product contributing to transparency see Heather Conley et al., “The Kremlin Playbook,” *Center for Strategic and International Studies*, October 13, 2016, available at <https://www.csis.org/analysis/kremlin-playbook> and its second iteration from March 2019 that can be found at https://csis-website-prod.s3.amazonaws.com/s3fs-public/publication/190326_KP2.pdf.

¹²⁷ U.S. Department of State, “GEC Special Report: Russia's Pillars of Disinformation and Propaganda,” August 2020, available at <https://www.state.gov/russias-pillars-of-disinformation-and-propaganda-report/>; and U.S. Department of State, “GEC Special Report: Kremlin-Funded Media: RT and Sputnik's Role in Russia's Disinformation and Propaganda Ecosystem,” January 2022, available at https://www.state.gov/wp-content/uploads/2022/01/Kremlin-Funded-Media_January_update-19.pdf.

¹²⁸ Herman Kahn, *On Thermonuclear War* (New Brunswick, NJ: Transaction Publishers, 2007), p. 576.

¹²⁹ This idea is advanced in Vladislava Vojtíšková, Vít Novotný, Hubertus Schmid-Schmidfelden and Kristína Potapova, “The Bear in Sheep's Clothing,” 2016, op. cit., p. 66.

increase transparency, not limit freedom of speech—an essential component of a democratic society.

4. **Revitalize the U.S. communications and public diplomacy campaign.** The West needs a plan to counter Russia's disinformation narratives. Due to the shared language and cultural heritage between Central and Eastern Europeans and the Russians, these narratives are more appealing to some segments of the population in Central and Eastern Europe. Efforts to counter Russia's disinformation and influence activities were more prevalent during the Cold War. The United States aired its messaging to Soviet citizens and the citizens of captive nations, distributed books that the Soviet Union prohibited, and generated large quantities of public diplomacy material in various languages.¹³⁰ The United States ought to resurrect the United States Information Agency (USIA), a government agency that was responsible for generating U.S. public diplomacy content until its breakup in 1999. The agency's functions were subsumed most recently by the U.S. Agency for Global Media (USAGM, formerly known as the Broadcasting Board of Governors), which runs several entities including the Voice of America and Radio Free Europe/Radio Liberty. The USAGM is not considered a particularly effective successor to its Cold War predecessor.¹³¹ The United States must recognize that the media landscape today is very different from the media landscape during the Cold War and that modern technologies require adaptation of old approaches to new conditions.
5. **Go on the offensive.** The United States and its allies ought to produce material that delegitimizes Vladimir Putin and his regime in the eyes of the Russian population and Russia's sympathizers in allied countries. Russia has many self-generated problems—from widespread corruption to human rights violations to poor living standards for the population—and the Russian government can be put on the defensive. The United States and its allies should try to complicate Russian disinformation efforts, not acquiesce to them.
6. **Build capacities to counter Russian propaganda, disinformation, and influence operations.** The United States has tremendous expertise and advantages in the technology and communication fields that can be used effectively to counter Russia's malign efforts. With its prosperity, rule of law, personal freedom, and individual opportunity, the United States can also offer a much more appealing image for the future than can Vladimir Putin. As former Secretary of Defense James Mattis stated during his confirmation hearing before the Senate, "The power of inspiration of America at times has got to be employed just as strongly."¹³² There is no better time than now to use America's power of inspiration.

¹³⁰ For a brief review of U.S. Cold War public diplomacy activities and their importance see James Critchlow, "Public Diplomacy during the Cold War: The Record and Its Implications," *Journal of Cold War Studies*, Vol. 6, No. 1 (2004): pp. 75-89, available at <https://www.jstor.org/stable/26925348>.

¹³¹ Loc. cit.

¹³² Jamie McIntyre, "Top 11 Mattis Quotes from His Senate Confirmation Hearing," *Washington Examiner*, January 12, 2017, available at <https://www.washingtonexaminer.com/top-11-mattis-quotes-from-his-senate-confirmation-hearing>.

7. **Create compelling narratives as a part of rollout of strategies and policy announcements.** Important policy announcements must be accompanied by communication roll out strategies that anticipate and preemptively blunt an adversary's counter-narratives. Adversaries should not be allowed to set the terms of the debate. No team wins by being only reactive and defensive.
8. **Strengthen allied cooperation in the area of counterintelligence and countering Russia's influence operations.** The United States has a network of allies that Russia does not have, which provides the United States with strategic and tactical advantages. The United States should leverage its relationships with allies to allow greater information-sharing and closer counterintelligence cooperation. While the Czech Republic, Poland, and Romania cannot apply the same amount of resources to countering Russian disinformation that Russia can to propagating it, cooperating with the United States can help mitigate the disparity.
9. **Do not relativize the threat.** The United States and its allies must be clear eyed about threats to their interests. The absence of well-reasoned arguments that show how the Russian Federation is manipulating narratives about the West will make it more difficult to counter them—as the United States demonstrated with its ill-advised pursuit of the Russia “reset” policy. The Obama Administration's effort to “reset” the relationship with Russia had a chilling effect on allies speaking out about the true nature of Russia's threat until Russia invaded Ukraine and seized Crimea in 2014.
10. **Support local independent journalists and non-government organizations focused on countering influence operations.** New technologies and the new media environment require new ways to address and counter the spread of disinformation and Russian propaganda. They must be tailored to their respective audiences, which requires a deep understanding of the local realities on the ground. That is why the United States and its allies ought to support local independent journalists, even if they are not in support of all U.S. goals and policies.¹³³

CONCLUSION

The most significant tendency is Russia's advancement of very similar strategic goals through its influence operations. Russia wants to undermine target countries' populations' faith in democratic institutions and in the desirability of a relationship with the West and the United States. Russia clearly pursues the goal of undermining democratic institutions as one of its strategic objectives in the United States, too.¹³⁴

¹³³ Thomas Kent, *Striking Back: Overt and Covert Options to Combat Russian Disinformation* (Washington, DC: The Jamestown Foundation, 2020) elaborates on the idea in greater detail.

¹³⁴ See, for example, “Transcript: Fiona Hill and David Holmes Testimony in Front of the House Intelligence Committee,” *The Washington Post*, November 21, 2019, available at <https://www.washingtonpost.com/politics/2019/11/21/transcript-fiona-hill-david-holmes-testimony-front-house-intelligence-committee/>.

In Central and Eastern Europe, Russia wants to regain influence and offer its governance model as a viable alternative to a Western-style democracy. It wants to weaken NATO and alliance relations so it can advance its own geopolitical goals. It wants to create an image of the United States as an unreliable ally and undermine U.S. relations with the Czech Republic, Poland, and Romania. Russia wants to relativize the truth and inoculate publics in allied countries from an understanding of right and wrong. If the truth is relative, who is to say there is anything worth standing up for or objecting to? Creating such an environment makes the public more susceptible to manipulation and exploitation by Russia's intelligence services.

Russia's second goal, in some ways connected to the first, is to expand its economic influence in countries that used to be a part of the Warsaw Pact. Russia does so particularly in the energy, infrastructure development, and heavy industry sectors where it has some advantages, including knowledge of local laws and culture and familiarity with Soviet legacy systems.¹³⁵ To advance its economic interests, Russia draws on networks of personal connections developed during the Cold War and sustained throughout the 1990s. While the value of the Warsaw Pact era-connections declines with the passage of time, Russia's efforts became particularly vigorous after Putin's ascendance to power when intelligence services obtained additional resources and leadership attention. Russia does not hesitate to bribe regional and state-level government officials and even threaten them with violence. That is a potential problem in the long-run because regional-level politics feeds national politics.

Russia's intelligence operatives do not particularly care whether they stay within the bounds of law of countries in which they function when executing their intelligence and influence operations. In fact, organized crime networks were a key to sustaining Russia's intelligence services' presence in the Czech Republic in the 1990s. On the other hand, based on interviews with regional experts, these networks in Romania did not develop particularly cooperative relations with Russian intelligence services due to the former's general lack of affinity toward Russia.

In the pursuit of Russia's national goals, which include the facilitation of Russia's strategic objectives, including expanding its domination and control of states near Russia's vicinity, Russian intelligence agencies may take on interchangeable functions; for example, Russia's Federal Security Service, a domestic intelligence agency, can and does operate outside of Russia, performing functions that are generally within the purview of Russia's military intelligence service (GRU). This malleability makes it harder to understand Russia's activities. On the other hand, given Russia's strategic culture, it likely contributes to bureaucratic infighting with potential negative effects on the overall efficiency of the system.

The cyber domain has become an important tool of Russia's influence operations and information warfare. The ultimate objective is reflexive control: creating a reality in an adversary's mind so that his decisions would benefit the Russian Federation without him

¹³⁵ These are areas in which the People's Republic of China (PRC) is starting to challenge the Russian Federation. The PRC has much more resources at its disposal than Russia and the competition over influence in what Russia sees its traditional spheres of interest is not welcomed by Moscow.

knowing.¹³⁶ Modern technologies give Russia relatively cheap options for compromising the adversary's software and hardware, obtaining access to critical information, and controlling information in whatever shape it takes.¹³⁷ Disseminating false information is easy and cheap in today's information age and Russia is well positioned to take advantage of the current environment.

The case studies of the Czech Republic, Poland, and Romania illustrate that different strategic cultures matter because an ally's strategic culture will inform the approach that an adversary will choose to achieve his goals (and potentially thwart cooperation with the United States). The way Russia operates in the Czech Republic is different from the way it operates in Romania or Poland, even though the goals it advances are similar. The differences are driven by unique historical experiences with the Soviet Union and the post-Cold war transformation of each of the states for which the Russian Federation must account to maximize its chance of success.

In the battle to counter Russia's influence activities, alliances are the most important advantage that the United States and its allies have. Allies' ability to cooperate on a much deeper level than would be the case among non-allies, particularly on intelligence matters, provides one of the most important synergies that is not available to Russia. While Russia has an intelligence and resources advantage vis-à-vis the Czech Republic, Poland, and Romania, U.S. allies cooperating within a NATO framework or bilaterally and with strong U.S. backing can mitigate that advantage. Improving this cooperation and making it more effective will continue to be a critical element of any future efforts to counter Russia's influence operations.

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¹³⁶ Keir Giles, "The Next Phase of Russian Information Warfare," *NATO Strategic Communications Centre of Excellence*, 2016, p. 4.

¹³⁷ *Ibid*, p. 6.





ANALYSIS

DETERRENCE IS NOT ROCKET SCIENCE: IT IS MORE DIFFICULT*

By Keith B. Payne

In a recent published article, two physicists offered remarks that illustrate a fundamental basis for the stark differences reflected in the public debate about deterrence.¹ A “fundamental issue” raised by the authors is, “Who is qualified to participate in the debate over US nuclear weapons policy?” Their expressed concern is that “discussion of these policies” is held “within silos,” and that “one such silo is the US defense establishment,” which, they suggest, is that side of the nuclear policy debate that does not “promote arms control or disarmament.” The authors emphasize that all who engage in this discussion are “arm-chair generals” because no one has experience in nuclear warfare, and that “no political actors can know all the possible pathways of escalation from conventional to nuclear war.” Their fundamental point in this regard appears to be that the “defense establishment” has no great advantage in this discussion because, “deterrence theory is not rocket science. Except for aspects of mathematical logic or game theory applied to deterrence, this ‘theory’ is essentially a collection of suspect assumptions and speculations on how one state would respond to the actions of an adversary. We can all partake in those speculations.”²

There are points of truth in these various observations. All the possible pathways to nuclear escalation surely are *not* known, thankfully. In some important aspects of this subject—we all *are* amateurs. And, deterrence theory *is* speculative. The prediction of foreign leadership decision making in unprecedented and stressful future circumstances is particularly speculative. This much has been recognized by some for generations. More than six decades ago, Herman Kahn emphasized the speculative character of deterrence theory and questioned the prevalent expectation that the reliable functioning of deterrence can be orchestrated: “In spite of our reliance on the idea that deterrence will work, we usually do not analyze carefully the basic concepts behind such a policy....This somewhat lackadaisical interest in bedrock concepts is probably related to a subconscious fear that our foundations cannot stand close examination.”³

But the authors of the recent article appear to make these points to advance a broader conclusion that is both a *non sequitur* and mistaken, i.e., that there is not specialized knowledge and experience within the “defense establishment” regarding deterrence that enables some speculation about the functioning of deterrence to be more credible than other

* This article is adapted from Keith B. Payne, “Deterrence is Not Rocket Science: It is More Difficult,” *Information Series* No. 527, July 7, 2022, available at https://nipp.org/information_series/keith-b-payne-deterrence-is-not-rocket-science-it-is-more-difficult-no-527-july-6-2022/.

¹ Stewart Prager and Alan Kaptanoglu, “Rebuttal: Current nuclear weapons policy not safe or sane,” *Bulletin of the Atomic Scientists*, May 24, 2022, available at <https://thebulletin.org/2022/05/rebuttal-current-nuclear-weapons-policy-not-safe-or-sane/>.

² *Ibid.*

³ Herman Kahn, *On Thermonuclear War* (Princeton, NJ: Princeton University Press, 1960), p. 556.



speculation. The interested commentator supposedly is as competent speculating about deterrence as those who spend their professional careers working on U.S. deterrence policy.

SPECULATION AND PREDICTION

The basic principle of deterrence as applied to international relations in general is *not* complicated: a latent threat is posed with the expectation that an opponent may decide, via its calculation of cost, benefit, and risk, not to take an action for fear of that latent threat. “Redlines” are drawn in the hope that opponents will not cross them given this deterrent effect. This basic character of deterrence has endured for millennia as has its incomparable value for preventing war.

The principles of deterrence are simple and virtually anyone can become familiar with them and engage in speculation. Indeed, commentary by instant experts flourishes during times of international conflict and crisis. But the *application* of deterrence theory to actual deterrence strategies that can make the difference between war and peace is an extremely complex art demanding a broad range of specialized expertise to inform the speculation. Much of that expertise surely is not found *only* within the defense community responsible for deterrence policy, but it *does* have unique access to some of the information that is important, and it has the advantage of being able to assemble those with needed specialized expertise and a lifetime of invested work on the issue. On occasion, Democratic and Republican administrations have done just that.

APPLYING DETERRENCE: A COMPLEX ANALYTICAL CHALLENGE

Deterrence is a function of leadership decision making, which can be affected by many different factors. Consequently, the application of deterrence is an enormous and unavoidably difficult ongoing undertaking. Done properly, it requires understanding, to the extent feasible, the opponent to be deterred in the context of the engagement, including the opponent’s foreign and domestic goals (how those goals are prioritized and the opponent’s determination to achieve those goals), modes of decision making, willingness to accept risk, willingness to absorb and inflict hurt, cultural norms and values, perceptions of the deterrer, and even the health of key leaders, among many other factors potentially pertinent to decision making. There are few, if any, universal constants in this regard; instead there is a wide variety of operating factors, some seen, others unseen, that can vary greatly across time, place and opponent, and may be decisive in determining if and how deterrence will function.

In short, rational leadership decision making can vary greatly because unique decision-making factors can drive leaders’ perceptions and calculations of value, cost and risk in surprising, unpredictable directions. Consequently, the functioning of deterrence “is heavily

context dependent.”⁴ As a prominent historian working with a prominent political scientist observed: “Not all actors in international politics calculate utility in making decisions in the same way. Differences in values, culture, attitudes toward risk-taking, and so on vary greatly. There is no substitute for knowledge of the adversary’s mind-set and behavioral style, and this is often difficult to obtain or to apply correctly in assessing intentions or predicting responses.”⁵ Misunderstanding the opponent, however, “can result in the disintegration of even the best deterrence strategy.”⁶

For the application of deterrence, generalizations are less helpful than an understanding of the opponent’s worldview, priorities, calculations and definition of reasonable behavior. As Kurt Guthe has observed, “In matters related to deterrence, generalizations can be useful, but specifics are essential. The questions that must always be kept in mind are: Who is being deterred? From what action? By whom? For what reason? By what threats? And in what circumstances?”⁷ Applying deterrence must be based on expectations about the future decision making of foreign leaders. Doing so in an informed fashion is extremely demanding because, simply put, that future is not obvious.⁸

Who may contribute to the specialized expertise needed to help orchestrate the informed practice of deterrence? The list is very broad; it includes historians, psychologists, diplomats, anthropologists, economists, linguists, military experts, regional area experts, religious experts, physicians, and physicists, *inter alia*. Political science, which includes the study of international power relations, can be particularly helpful. But no single area of expertise or discipline is adequate.

For example, it is not a small point to note that while expertise in physics and other natural sciences led to the production nuclear weapons, it alone does not provide a basis for informed speculation about how deterrence is more or less likely to function in any real-world application. The atomic bomb helped end World War II, but it was the work of anthropologists focusing on Japan at the time that led the U.S. leadership to understand that respect for the position of the Emperor would be key to securing the surrender of Japanese armies. This lesson should not be lost on those who choose to comment on the functioning of deterrence. To use a sports analogy, knowing how to make a baseball conveys no special expertise for pitching a baseball or tailoring pitches to particular batters.

As noted, however, a broad interdisciplinary effort can help provide a measure of the informed understanding needed to best put deterrence into practice, i.e., *informed* speculation. This understanding can never be sufficient for fully confident prediction because the subject includes the inherent uncertainties of how a select leadership will make decisions in extraordinary conditions. There is incomplete data, ambiguous data, and

⁴ Gordon A. Craig, Alexander L. George, *Force and Statecraft: Diplomatic Problems of Our Time*, Third Edition (New York: Oxford University Press, 1995), p. 192.

⁵ *Ibid.*, p. 188.

⁶ *Ibid.*, p. 189.

⁷ See, Kurt Guthe, “Nuclear Weapons Acquisition and Deterrence,” in *Understanding Deterrence*, Keith Payne, ed., (New York: Routledge, 2013), p. 12. See also, Herman Kahn, *On Escalation: Metaphors and Scenarios* (New York: Praeger, 1965), p. 23.

⁸ Colin S. Gray, “The 21st Century Security Environment and the Future of War,” *Parameters* (Winter 2008-2009), p. 15.

conflicting data. But it is possible, via broad interdisciplinary study over time, to reduce ignorance and thereby avoid some potential deterrence mistakes. Of particular importance in this regard is to understand an opponent's political goals, cultural norms, communication channels, and perceptions of power relations (regardless of how Washington may judge those relations). In short, a critical need is to understand the political, historical, and cultural background of any deterrence engagement. Doing so properly is a complex, interdisciplinary undertaking.

The defense establishment does not have a monopoly in the pursuit of that needed understanding, but it has some significant advantages and often makes a concerted effort to reach out beyond its "silo" for assistance.⁹ As such, it has advantages over many others who "partake" in relatively uninformed speculation. The latter typically appear to have limited or no access to at least some of the important information needed and no recognition of its value.

The framework below is a simplified presentation of the process involved and the information sought.¹⁰

A DETERRENCE FRAMEWORK

Step 1. Identify antagonists, issue, objectives, and actions.

- 1.1 Antagonists
- 1.2 Issue
- 1.3 Adversary's objectives
- 1.4 Actions to be deterred
- 1.5 U.S. objectives

Step 2. Identify and describe those factors likely to affect the adversary's decision making in the context of this specific flashpoint and U.S. deterrent threats.

- 2.1 Degree of rationality and predictability as indicated by past behavior
- 2.2 Leadership characteristics
 - 2.2.1 Individuals with responsibilities for the issue at hand
 - 2.2.2 Leadership motivations
 - 2.2.3 Leadership determination
 - 2.2.4 Operational code (worldview and strategic style)
 - 2.2.5 Political-psychological profiles of key decision makers
 - 2.2.6 Adversary's understanding of and attention to the U.S.
 - 2.2.6.1 Previous interactions with the U.S.
 - 2.2.6.2 Attention to U.S. declaratory policy

⁹ There are numerous efforts in this regard. See, for example, Admiral Charles Richard, *Commander's Vision & Intent*, U.S. Strategic Command, May 2020, p. 3, available at https://www.stratcom.mil/Portals/8/Documents/Commanders_Vision_and_Intent_May2020.pdf?ver=2020-05-19-145747-990.

¹⁰ From, Keith B. Payne, *The Fallacies of Cold War Deterrence and a New Direction* (Lexington, KY: University Press of Kentucky, 2001) pp. 112-114.

- 2.2.6.3 Likelihood the adversary will (mis)comprehend U.S. demands and threats
- 2.3 Value and cost/risk structure
 - 2.3.1 Location of the issue in the value hierarchy of the adversary's leadership
 - 2.3.2 Other relevant values of the adversary's leadership
 - 2.3.3 Cost/risk tolerance of the adversary's leadership with regard to this issue
- 2.4 Options
 - 2.4.1 Military options available to the adversary
 - 2.4.2 Adversary's freedom to conciliate or provoke
- 2.5 Adversary's belief about the costs the U.S. will incur if its deterrent threat is executed
 - 2.5.1 Costs from the adversary's retaliation
 - 2.5.2 Political costs at home and abroad
- 2.6 Communications
 - 2.6.1 Optimal method for communicating with the adversary
 - 2.6.2 Possibilities for misperception
- 2.7 Credibility of U.S. threats
 - 2.7.1 Past pledges or actions demonstrating U.S. commitments
 - 2.7.2 Other special circumstances
- Step 3. Construct a strategic profile of the adversary with regard to the crisis in question.
 - 3.1 Predictability of the adversary's behavior
 - 3.2 Cost/risk tolerance
 - 3.3 Influence of considerations beyond immediate issue
 - 3.4 Will, determination, and freedom to conciliate or provoke
 - 3.5 Cognizance of U.S. demands and threats
 - 3.6 Credibility of U.S. deterrent threats
 - 3.7 Susceptibility to U.S. deterrent threats
- Step 4. Assess whether the challenger is likely to be susceptible to deterrence policies in this particular case, and, if so, the nature of those policies.
- Step 5. Identify available U.S. deterrence policy options.
 - 5.1 U.S. policy
 - 5.2 Punitive or denial threats
 - 5.3 Military actions
 - 5.4 Related diplomatic steps
 - 5.5 Means for communicating threats
 - 5.6 Likely adversary reactions and implications for options
 - 5.7 Indicators for determining option effectiveness
 - 5.8 Opportunities for learning
 - 5.9 Possible real-time modifications to improve option effectiveness

5.10 Domestic and allied constraints on U.S. actions

5.11 Expected results

Step 6. Identify the gap between the likely requirements for deterrence and available U.S. deterrence policy options. Describe different, new, or additional military capabilities and policies that may be needed or force reductions that could be undertaken.

6.1 Key military capabilities for supporting the deterrent options most suited to the challenger in this case

6.2 Related declaratory policy and diplomatic measures

POLITICS: “MORE DIFFICULT THAN PHYSICS”

According to some knowledgeable observers, the requirement for deterrence policy to be so informed about the political background of a deterrence engagement is more difficult than rocket science. Who thinks understanding politics is more difficult than the study of energy and matter? In 1947, Albert Einstein was asked, “Why is it that when the mind of man has stretched so far as to discover the structure of the atom, we have been unable to devise the political means to keep the atom from destroying us?” Einstein reportedly replied, “That is simple, my friend. It is because politics is more difficult than physics.”¹¹

Emanuel Derman, a trained physicist turned financial “quant” explains, in part, why this is true. Deterrence—as in finance—must confront considerable uncertainties beyond even those encountered in the physical sciences. “In physics you’re playing against God, and He doesn’t change His laws very often. In finance, you’re playing against God’s creatures, agents who value assets based on their ephemeral opinions.” And, “financial value...is therefore less inclined to yield to mathematics or science: there are no isolated social systems on which to carry out the repeated experiments the scientific method requires, and so it is hard to study the regularities that might reveal the putative laws that govern them.”¹²

The functioning of deterrence is no less subject to “agents who value assets based on their ephemeral opinions.” The application of deterrence theory is not a question of generally predictable interactions, known rules and other constants among opponents. If so, it would be relatively easy. Instead, it must follow from expectations about the decision making of multiple opponents with a variety of unique worldviews and diverse leaderships’ calculations that can determine the functioning of deterrence.

Recognition of the great variation in opponents’ worldviews and decision making, and the related need to understand them in their complexity for deterrence purposes, leads inevitably to the conclusion that speculation about deterrence that is more informed is likely to be much more useful than speculation that is not so informed. A 2014 study by the

¹¹ This reported statement can be found in many sources. For example, see *TODAYINSCI*, available at https://todayinsci.com/E/Einstein_Albert/EinsteinAlbert-PoliticsQuote500px.htm.

¹² Emanuel Derman, *Models Behaving Badly* (New York: Free Press, 2011), pp. 140, 190-191.

National Research Council of the National Academy of Sciences emphasizes that taking account of such factors is critical in considerations of deterrence.¹³ The authors of the recent article referenced above rightly observe that all may “partake” in speculation about deterrence, but not all speculation is of equal value for deterrence policy. This should be unremarkable; the more informed speculation in most endeavors usually is the more valuable.

In short, if speculation about deterrence follows from serious efforts to understand specific opponents in pertinent contexts, i.e., informed speculation, it may be useful; speculation that follows from untutored generalizations about the opponent and context may, by luck, be useful, but is more likely to be misleading than enlightening.

This conclusion is at the heart of a bipartisan recognition in the deterrence policy community of the need to “tailor” the application of deterrence according to an informed understanding of opponent and context. Corresponding to this conclusion is recognition of the potential need for a diverse and flexible deterrence force posture that can provide the spectrum of U.S. threat options that may be necessary to deter diverse opponents in diverse circumstances. That is, recognition of the complexity of deterrence and the uncertainties involved leads almost inevitably to recognition of the need to hedge against a wide range of threats by having flexible U.S. deterrence capabilities and options.

This conclusion contrasts sharply with the policy recommendation, enduring in some quarters since the 1960s, that the U.S. deterrence posture can be well-served by a single type of deterrent threat, i.e., to destroy some number of an opponent’s cities—as if it is self-evident that such a capability somehow equates to a universally-credible deterrent.¹⁴ For example: “What nuclear weapons offer that is unique is the ability to put whole cities at risk and threaten populations in the tens or hundreds of millions. It is that which gives them their strategic value.”¹⁵ That deterrence standard may be met relatively easily and cheaply, but it is not a prudent general approach to deterrence given the diversity of opponents in the contemporary threat environment and the serious moral and legal problems associated with it.

¹³ National Research Council, *U.S. Air Force Deterrence Analytic Capabilities* (Washington, D.C.: National Academies Press, 2014), pp. 35-39, 93-95.

¹⁴ “Just one boat [nuclear-armed submarine] can carry enough nuclear warheads to place two warheads on each of Russia’s fifty largest cities,” in William Perry and Tom Collina, *The Button* (Dallas, TX: BenBella Books, 2020), p. 119. “The possibility of even a few nuclear detonations in populated areas provides ample deterrence,” in McGeorge Bundy, William Crowe, Jr., Sidney Drell, *Reducing Nuclear Danger* (New York: Council on Foreign Relations Press, 1993), p. 95. See also, Bruce Blair, et al., “Smaller and Safer,” *Foreign Affairs*, Vol. 89, No. 5 (September-October 2010), p. 10; and, Jerome H. Kahan, *Security in the Nuclear Age* (Washington, D.C.: The Brookings Institution, 1975), p. 330.

¹⁵ Editorial, “The Nuclear Taboo: Thinking the Unthinkable,” *The Economist* (U.K.), June 24, 2022, p. 23.

WORKING TO UNDERSTAND OPPONENTS: FROM “ASSURED DESTRUCTION” TO “TAILORING”

The notion that deterrence could be based on a narrow and undifferentiated threat to cities and industry was reigning U.S. declared policy early in the Cold War; an “Assured Destruction” nuclear threat to population and industry supposedly would serve to deter “any industrialized nation.”¹⁶ This singular-declared approach to U.S. deterrence policy was the antithesis of the contemporary bipartisan conclusion that deterrence strategies should be informed by an understanding of the particular opponent and circumstances in a deterrence engagement. Indeed, it did not reflect any apparent attempt to connect deterrence strategy to the opponent’s unique perspectives or to the need to differentiate among opponents in this regard. Instead, expectations about deterrence appear to have been predicated on the untutored assumption that opponents adhere to familiar American values, perceptions and calculations (mirror-imaging). Broad generalizations about how deterrence *should* function essentially were based on the norms and reasoning of the U.S. leadership. The same unthinkable, deterring nightmare for U.S. leaders was presumed to be the unthinkable deterring nightmare for any “rational” leader.¹⁷ Deterrence policy correspondingly could be approached as a mechanical question *uninformed* by the opponent’s worldview and how that could affect its calculations:¹⁸ how many survivable, deliverable U.S. weapons were needed to wreck destruction on opponents’ cities and industry?¹⁹

Former National Security Adviser McGeorge Bundy captured this presumption about the type of threat needed to deter all foreign leaders with his observation that: “In the real world of real political leaders—whether here or in the Soviet Union—a decision that would bring even one hydrogen bomb on one city of one’s own country would be recognized in advance as a catastrophic blunder; ten bombs on ten cities would be a disaster beyond history; and a hundred bombs on a hundred cities are unthinkable.”²⁰ From there, identifying an adequate deterrence force posture is an easy proposition and relatively easily met given the extreme vulnerability of undefended cities to nuclear weapons.

This remains the enduring basis for much continuing public deterrence commentary. It runs counter to the bipartisan theme of the U.S. defense policy establishment emerging since the mid-1970s, i.e., that considerations of how to deter and the requirements for deterrence

¹⁶ *Draft Memorandum for the President*, Secretary of Defense [Robert S. McNamara] to the President [Lyndon B. Johnson], Subj: Recommended FY 1966-FY 1970 Programs for Strategic Offensive Forces, Continental Air and Missile Defense Forces, and Civil Defense, December 3, 1964, p. 4. (Originally classified; sanitized and declassified on January 5, 1983). See also, Robert McNamara, *The Essence of Security: Reflections in Office* (New York: Harper and Row, 1968), p. 76.

¹⁷ *Draft Memorandum for the President*, Secretary of Defense [Robert S. McNamara] to the President [Lyndon B. Johnson], Subj: Strategic Offensive and Defensive Forces, January 15, 1968, p. 8. (Originally classified; sanitized and declassified on January 5, 1983).

¹⁸ See, Alain Enthoven and K. Wayne Smith, *How Much Is Enough? Shaping the Defense Program, 1961-1969* (New York: Harper and Row, 1971), pp. 67, 174-196, 207-210. See also, *Draft Memorandum for the President*, Secretary of Defense [Robert S. McNamara] to the President [Lyndon B. Johnson], Subj: Recommended FY 1966-FY 1970 Programs for Strategic Offensive Forces, Continental Air and Missile Defense Forces, and Civil Defense, December 3, 1964, p. 17. (Originally classified; sanitized and declassified on January 5, 1983).

¹⁹ McNamara, *The Essence of Security: Reflections in Office*, op. cit., pp. 77-78.

²⁰ McGeorge Bundy, “To Cap the Volcano,” *Foreign Affairs*, Vol. 48, No. 1 (October 1969), p. 10.

should be informed by an understanding of opponents and the diverse factors driving their decision making. After considerable study of the Soviet leadership during the Cold War, for example, the United States concluded on a bipartisan basis that, “effective deterrence requires forces of sufficient size and flexibility” to threaten “a range of military and other targets,” and that “the ability to provide *measured* retaliation is essential to credible deterrence.”²¹ This conclusion was not based on opposition to arms control, but from efforts to better understand how to deter Moscow. By the mid-1980s, the United States had openly rejected its earlier declarations that its strategic deterrent was based on threatening Soviet cities.²²

Secretary of Defense James Schlesinger in the Nixon Administration and Secretary of Defense Harold Brown in the Carter Administration helped lead U.S. policy away from simplistic “counter-city” notions of deterrence by pointing to the need to pose a deterrence threat that actually spoke to the opponent and context in question, in this case, the Soviet leadership. Nevertheless, recognition of the need to understand opponents in all their possible diversity for U.S. deterrence purposes remains absent in much contemporary commentary on deterrence—which often continues to reduce deterrence to a simplistic jumble of assumptions and uninformed speculation based on mirror-imaging.

The contrary conclusion, that the practice of deterrence involves enormous complexity and requires a diversity of deterrence options, is *not* a function of an opposition to arms control or the obscure work of “siloes” government analysts. Rather, it follows from recognition of: 1) the significance of the great diversity in opponents’ perceptions and decision making for the functioning of deterrence; 2) the need for serious, ongoing, interdisciplinary efforts to understand opponents in context and to tailor U.S. deterrence strategies accordingly; and 3) the corresponding need for a diversity of deterrent options to hedge against the wide spectrum of decision making and behaviors among rational opponents and the inherent uncertainties of deterrence. This is not “worst case analysis”; it simply recognizes the realities of the contemporary threat environment and many of those in government “silos” who accept this logic and set of conclusions have also participated in the realization of arms control agreements.

SUMMARY AND CONCLUSION

In summary, *if* all opponents could be assumed to have similar world views and to calculate in predictable, familiar patterns—*if* there were a universally-accepted understanding of what constitutes reasonable decision making and behavior—deterrence policy would be a much easier endeavor. Opponents could be assumed to behave much more predictably. During the early years of the Cold War, for deterrence purposes, Washington’s mirror-imaging facilitated a belief that Soviet calculations were easily known and predictable—

²¹ Harold Brown in, *The Department of Defense Statement on Strategic Military Balance: Military Assessment*, before the U.S. Senate, Committee on Foreign Relations, Hearings, 96th Congress, 1st Session, July 11, 1979, p. 3. (Emphasis added).

²² Caspar Weinberger, “U.S. Defense Strategy,” *Foreign Affairs*, Vol. 64, No. 4 (Spring 1986), p. 682.

indeed, the same was expected to be true for *any* rational leadership. This convenient mirror-imaging essentially assumes away the factors particular to diverse leaderships' decision making that likely affect their respective deterrence calculations. Such speculation about strategic deterrence is not informed by study of the unique character of opponent and context. Correspondingly, an "Assured Destruction" nuclear threat to cities, an unthinkable prospect for U.S. leaders, became the declared U.S. deterrence standard vis-à-vis the Soviet Union, and all other opponents were conveniently deemed lesser included cases. This approach greatly simplifies the practice of deterrence, although imprudently so, because it dismisses the need for deterrence policy that is informed by the complexities of reality that matter.

By the mid-1970s, this simplistic approach to deterrence began to fade in official policy formulations on a bipartisan basis. It was replaced by recognition that Soviet decision making was unique in important ways and did not mimic the reigning thinking in Washington, and that the view from Moscow needed to be taken into consideration in U.S. deterrence policy.

Since the mid-1970s, and on a bipartisan basis, the U.S. defense establishment has increasingly accepted as a basis for deterrence policy that opponents' decision making may be driven by a wide range of factors that vary greatly, and thus that deterrence must be "tailored." Doing so greatly complicates the application of deterrence—demanding serious, interdisciplinary analysis of opponents and political contexts. A dynamic international threat environment complicates the matter further—requiring *continuing* efforts to understand opponents and to adapt deterrence policy according to that understanding; there is no last word on the subject. Nevertheless, many contemporary commentators essentially continue to subscribe to the notion that the application of deterrence is an uncomplicated endeavor and to the corresponding simplistic, early-Cold War definition of what constitutes an adequate deterrent posture.

Deterrence theory is built on speculation in which all are free to partake. But it is a non sequitur and a mistake to conclude from those two points that all such speculation is of equal value for the application of deterrence. It is not. A broad range of specialized knowledge regarding specific opponents and occasions must be brought to the table to inform speculation about deterrence policy, and the "defense establishment," writ large, is uniquely positioned to do so. Given the amount and types of information needed, it has some significant advantages in undertaking that analysis. Others can and should make every effort to be as informed as possible,²³ but they will do so without comparable access to information in at least some important areas. Those who engage in speculation that is uninformed by a serious multidisciplinary effort to understand the opponent and context are unlikely to be helpful, or worse. They will be even less aware of what they do not know and its potential importance. In short, all can indeed partake in discussions of deterrence, but not all such discussions are of comparable value for its "real-world" application.

²³ See for example, *Deterring China in the Taiwan Strait, Special Issue, Journal of Policy & Strategy*, Vol. 2, No. 2, 2022, pp. vii-115, available at <https://nipp.org/journals/volume-2-2022/>.

This does not, of course, mean that all studies conducted by the “defense establishment” will be done competently or will take advantage of its access to helpful information. Nor does it mean that all studies done outside that establishment must be incompetent. But those that do not bother to be well-informed about specific opponents and contexts are more likely to mislead real-world deterrence strategies than those that seriously seek to be informed. Such is the nature of deterrence speculation.

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ANALYSIS

DIVERGENT U.S. AND CHINESE VIEWS OF INFORMATION, DETERRENCE, AND FUTURE WARFARE

By Dean Cheng

When it comes to activities in the information domain, much of the public's attention has been focused on its information extraction activities. Hacking of U.S. government databases, such as the Office of Personnel Management (OPM) as well as various corporations have tended to dominate the American public's discourse on information activities by the People's Republic of China (PRC). But understanding the reasons and strategy underlying China's actions is essential, for this context shapes the Chinese approach to information and information technologies, which includes artificial intelligence, quantum computing, and space operations.

HOW CHINA SEES INFORMATION AND FUTURE POWER

From the perspective of the leadership of the Chinese Communist Party (CCP), information and the associated technologies, have become a foremost part of a nation's power. Information and communications technology (ICT) have permeated all aspects of society, and become an integral part of a nation's infrastructure.¹ The elevation of information and associated technologies is termed "informationization (*xinxihua*; 信息化)."

Consequently, for the CCP, information is now seen as ***inextricably linked to both the broader national interest, as well as to regime (or at least CCP) survival.*** It is important to note here that this is *not* simply about the role of information in wartime. The Chinese leadership is not solely focused how information might be applied in a military conflict; rather, they see it as being a determinative factor in the ongoing competition among states writ large.

This, as Chinese writings emphasize, is because of the ascendant role of information in the 21st Century's economic and political realities. In their view, we are living in the Information Age, and the ability to gather accurate information in a timely manner, transmit and analyze it, and then rapidly exploit it, is the key to success. These abilities are the centerpiece of any effort to achieve "information dominance"—the ability to gather, transmit, analyze, and exploit information more rapidly and accurately in support of one's own ends, while denying an adversary the ability to do the same.

As economies and societies have informationized, Chinese analysts have concluded that threats to national interests and security have also become informationized. Countries not only have unprecedented access to each others' economies, but also can seek to influence the broader population and top decision-makers. Indeed, information itself can constitute a

¹ Tan Wenfang, "The Impact of Information Technology on Modern Psychological Warfare," *National Defense Science and Technology*, No. 5 (2009), p. 72.



threat, whether by eroding the morale of key decision-makers, or being altered (such as by viruses) to devastate key networks and infrastructure.

These threats extend beyond information networks (e.g., vulnerability to denial-of-service attacks) and component computers (e.g., computer viruses, malware). Instead, the very information itself can constitute a threat, if, for example, its content erodes the morale of key decision-makers, popular support for a conflict, or the will of the military to fight. Consequently, China's interpretation of its national interests has expanded, in step with the expanding impact of information writ large on China.

At the same time, however, the free flow of information constitutes a dire potential threat to CCP rule. While the Chinese Communist Party may no longer emphasize ideological arguments of "from each according to their ability, to each according to their needs," it remains firmly committed to its role as the "vanguard party," and therefore, the sole legitimate political authority in the PRC. It also likely sees the collapse of the Soviet Union as a consequence of the failure to retain the "vanguard party" role, and as important, the liberalization of informational controls. The policies of *glasnost* and *perestroika*, of opening and reform, led to the downfall of the other major Communist Party. Just as information is the currency of economic and military power, it is also the basis for political power.

This *maodun* (矛盾), or conundrum, sets the stage for the second key assumption. As an authoritarian party, and with the fate of the Communist Party of the Soviet Union as an object lesson, the CCP cannot afford to allow the free flow of information. This would allow too many challenges to its rule. ***The Chinese leadership therefore will seek to control the flow of information.***

To some extent, efforts at exerting this control are merely sustaining longstanding policies. The CCP has long demonstrated a willingness to employ extravagant lengths, such as the massive organizational infrastructure to support censorship, to limit that flow. However, because of the nature of the Information Age, including extensive interconnections and linkages across various information networks, the CCP cannot only control the flow of information *within* China. Instead, it must also control the flow of information *to* China.

This effort to control the external flow of information constitutes a fundamental, qualitative change in how nations approach information as a resource. Of course, states have long sought to shape and influence how they are portrayed. Nor is limiting access to outside information a new phenomenon. However, the Chinese efforts, in light of their views of the qualitative changes wrought by the rise of the Information Age, are different in scale and scope. Controlling information now means limiting not just newspapers and television programs, but the functioning of the Internet, on a global scale.

Some of this may be achieved through technical means. The "Great Firewall of China," for example, is a major undertaking to examine, in detail, the data streams that are trying to enter the PRC. Chinese state-run telecoms reportedly hijack and redirect portions of the Internet that are not normally intended for Chinese destinations.

But China's efforts are not limited to the technical side. The effort to influence, if not control, the functioning of the Internet extends to how the PRC looks upon the international system, including the governance of the international common spaces. ***If the Chinese are***

going to control and influence information flow to China, then it will have to shape and mold the international structures which manage that information flow. This is not to suggest that China is about to overthrow the current system. Chinese writings regularly note that the PRC is still in the period of “strategic opportunity,” which China needs to exploit, if it is to improve itself, and elevate itself to the ranks of middle-developed powers.² Thus, China must continue to pursue policies of peaceful development and interaction.

As China has grown steadily more powerful, though, it has increasingly questioned the underlying international structures that more and more often constrain its behavior. These structures, as Chinese writings note, were often formulated without input from the PRC. A reviving China, as well as a CCP intent on staying in power, increasingly chafes at these externally imposed limitations.

Nonetheless, challenging the current structure assumes greater urgency as **the PRC, and especially the CCP, also sees itself as increasingly in competition with the other major powers, especially the United States.** It is the United States that champions Internet freedom and, more broadly, the free flow of information. Moreover, as many Chinese officials have argued, it is American policies that encourage China’s neighbors to challenge Chinese hegemony over its littoral waters, or help sustain the Dalai Lama and other sources of internal instability.

This does not mean that the PRC believes that war or armed conflict is inevitable. Indeed, there is no reason to think that, in the short-term (the next decade or so), that the PRC would actively engage in an armed attack on its neighbors. Unlike the Cold War, there is no “Fulda Gap” scenario to concentrate upon.

At the same time, the Chinese leadership is well aware of the utility of pursuing its ends through a variety of means, including “hybrid warfare.” China has demonstrated an ability to employ fishing boats and civilian law enforcement vessels to pursue its territorial agenda. If Chinese warships are not shooting at foreign craft, Chinese fishing boats have had fewer compunctions about physically interfering with foreign vessels’ operations. The world’s information networks, where attributing actions are much harder, would seem to be the ideal environment for waging the kind of gray conflict typical of hybrid warfare.

Therefore, at the strategic level, the PRC will be constantly striving to shape both domestic and foreign views of itself through the information that it transmits and projects. Meanwhile, it will be trying to determine and dictate how others view China, as well as identifying their strengths and weaknesses. These efforts are no different than how every state behaves, in terms of collecting intelligence about potential allies and adversaries.

Where the PRC has diverged from other states’ practices, however, is their growing focus on dominating the information-space in both peacetime and wartime. In particular, Chinese efforts to establish information dominance, while somewhat constrained in peacetime by the

² See Yuan Peng, “China’s Strategic Opportunity Period Has Not Ended,” *People’s Daily Online*, July 31, 2012, available at <http://en.people.cn/90883/7893886.html>; and, Xu Jian, “New Changes in the Next Decade of China’s Period of Strategic Opportunity,” *Guangming Ribao*, October 30, 2013, available at <http://cpc.people.com.cn/n/2013/1030/c83083-23372744.html>; and, Zhang Yunling, “Deeply Considering the International Environment Confronting Our Nation’s Period of Strategic Opportunity,” *Seeking Truth*, December 18, 2015, available at <http://theory.people.com.cn/n1/2015/1218/c83846-27946374.html>.

international system, are likely to be more comprehensive as well as much more pronounced in event of war.

This is reflected in Chinese military developments of the past several years, which are themselves *the culmination of nearly a quarter century of thought regarding the shape and requirements of future warfare*. The Chinese concept of “informationized local wars” reflects this ongoing evolution, with its focus on the role of information in all aspects of future warfare. This concept grows out of the lessons initially derived from observing the allied coalition in the first Gulf War of 1990-1991, leavened with observations from the Balkan wars of the 1990s and the American invasions of Afghanistan and Iraq. Thus, the PLA initially conceived of future wars as “local wars under modern, high-technology conditions,” but then concluded that not all high-technology was equally important.

With the conclusion that information technology is the foremost element of high technology, reflecting the larger strategic shift from the Industrial Age to the Information Age, the PLA has subsequently developed new doctrine, to link its concept of future wars to the kinds of forces it will field and the kinds of operations they will conduct.

From the Marxist perspective of the CCP, the growing importance of information technology in economics and society inevitably influences the nature of warfare. Informationized societies and economies lead to informationized wars, which in turn require informationized militaries to fight them successfully. In informationized warfare, information serves as both a force multiplier for people, materiel, and capability, as well as a form of combat power itself. Older weapons that are modernized with modern sensors and communications equipment (e.g., the B-52 and the A-10, or adding laser guidance modules to “dumb bombs”) can retain or even enhance their effectiveness. Improved command and control systems can better coordinate various forces. Better information can allow more effective allocation of limited resources, allowing one’s own forces to be more flexible and agile. Information weapons, such as computer viruses, in turn, can paralyze an opponent’s system-of-systems, causing them to disintegrate and decohere.

CCP lessons derived from observing other peoples’ wars, especially those of the United States but also Russia, has led the CCP and PLA to further refine its views on future warfare. From an initial focus on network warfare, electronic warfare, and psychological warfare, it is now apparently emphasizing command and control warfare, and intelligence warfare. The implication would seem to be that not all networks, electronic systems, or leaders are equally important; instead, those in key decision-making roles, and the people and systems that inform their decisions, should be higher priority targets. It is important to note here that this does not mean that the PLA will neglect other networks, systems, or personnel (e.g., logistics, combat units) in its pursuit of winning future informationized wars. Rather, it reflects priorities for allocating resources and developing capabilities.

This may be seen in the efforts of the last several years in fielding various types of new equipment and improved joint training. Alongside new fighters, warships, and self-propelled artillery are an array of new unmanned aerial vehicles, electronic warfare platforms, and sensors. The massive reorganization of late 2015 and early 2016 marks a major waypoint in this steady effort to prepare the PLA “to fight and win future local wars under

informationized conditions,” and what the PLA subsequently revised to “informationized local wars.”³

Especially important is outer space. One of the key domains of Hu Jintao’s “New Historic Missions” for the PLA (alongside the maritime and electromagnetic domains), the PLA clearly views the ability to establish “space dominance (*zhitian quan*; 制天权)” as a key element of future “informationized local wars.”⁴ But space is important not as a place or domain, but because of its role in gathering, transmitting, and allowing the exploitation of information. Consequently, efforts to establish space dominance are not necessarily focused on anti-satellite missiles or co-orbital satellite killers. A special operations force that can destroy a mission control facility, or an insider threat that can insert malware into a space tracking system, are as much means of achieving space dominance.

Deterrence Behaviors

For both the United States and the People’s Republic of China (PRC), this increasingly tense security situation places a growing emphasis on deterrence. Unfortunately, the two states define “deterrence” differently, and have very different approaches which entail very different risk calculus.

As the primary guarantor of the international order, the United States has global responsibilities and commitments. It is therefore in the American interest to forestall, or deter, threats to that international order. In order to realize this deterrence in defense of the global order, the United States maintains a global military presence, which is in turn supported by a network of space and information systems that allow the United States to conduct expeditionary operations far from its shores. At the same time, a key element of American security thinking is preserving the American homeland from nuclear attack, a task which requires maintaining global surveillance through space-based sensors linked through information systems.

The PRC has long primarily focused on defense of the homeland, including deterrence of nuclear and conventional attack. As its economy has grown, however, to the current point where it is the second largest economy, it has developed an expanding array of global economic interests. While the People’s Liberation Army (PLA) remains primarily a regional military, it has been charged with “new historic missions” which include deterring threats against these expanding economic interests.⁵ To this end, the PLA has been improving its capabilities which, coupled with its revamped organization, suggest a growing global presence as well.

³ David Finkelstein, “China’s National Military Strategy: An Overview of the ‘Military Strategic Guidelines,’” in Roy Kamphausen and Andrew Scobell, eds., *Right-Sizing the People’s Liberation Army: Exploring the Contours of China’s Military* (Carlisle, PA: Strategic Studies Institute, 2007), p. 96.

⁴ Academy of Military Science Military Strategy Research Office, *The Science of Military Strategy* (Beijing, PRC: Military Science Publishing House, 2013), pp. 146–147.

⁵ Daniel M. Hartnett, “The ‘New Historic Missions’: Reflections on Hu Jintao’s Military Legacy,” in Roy Kamphausen, David Lai, and Travis Tanner, eds., *Assessing the People’s Liberation Army in the Hu Jintao Era* (Carlisle, PA: U.S. Army War College Press, 2014), pp. 33–34.

This situation suggests that the United States and the PRC are likely to encounter each other more and more, raising the prospect for increased friction. At the same time, both sides have an interest in deterring conflict, especially with each other but with other states as well. These deterrence activities will involve not only the traditional nuclear realm, but increasingly the outer space and information/cyber domains. Unfortunately, the two states also have fundamentally divergent views of deterrence itself. This converging interest yet divergent understandings has distinct implications for regional and global stability.

Diverging Concepts of Deterrence

Part of the problem confronting the two states rests in their very different conceptions of deterrence. Western analysts have tended to link deterrence with dissuasion. Thomas Schelling, for example, in his 1966 book *Arms and Influence*, specifically defines deterrence as “the threat intended to keep an adversary from doing something,” and distinguishes it from compellence, which is defined as “the threat intended to make an adversary do something.”⁶ The two, for Schelling, are distinctly different.

Glenn Snyder makes the same point by noting that deterrence “is the power to *dissuade* as opposed to the power to coerce or compel.”⁷ Thus, Western analyses of deterrence implicitly (and even explicitly) associate deterrence with dissuasion, *and disassociate it from compellence or coercion*.

By contrast, the Chinese term *weishe*, while translated as “deterrence,” embodies both the concepts of *dissuasion* and *compellence*. As one Chinese volume notes, the concept of *weishe* is associated with the idea of bending the adversary to one’s own will, both in terms of dissuading them from doing what they would like to do (deterrence) **and** making them do what they do not wish to do (compellence).⁸ The 2011 PLA volume on military terminology describes the deterrent strategy as “a military strategy of displaying or threatening the use of armed power, in order to compel an opponent to submit.”⁹ It is similarly agnostic on whether the submission is in terms of dissuading or coercing.

Another key difference between Western and Chinese views of deterrence rests on whether it is seen as a goal or a means. For many American analysts and strategists, deterrence is often seen as a goal, especially in terms of deterring an adversary from acting in a given domain (e.g., cyberspace), or with particular weapons (e.g., nuclear deterrence).

By contrast, Chinese analysts are focused more on the political situation, with deterrence in any domain or with any weapon system seen as a *means* to achieving political ends, rather than as a *goal*, in and of itself. Success in deterring or dissuading an adversary from acting in space or cyberspace, is secondary to success in obtaining the previously established political

⁶ *Ibid.*, p. 69.

⁷ Glenn Snyder, “Deterrence and Defense,” in Robert J. Art and Kenneth N. Waltz, eds., *The Use of Force* (New York: University Press of America, 1988), p. 31. Emphasis added.

⁸ National Defence University Science Research Department, *New Perspectives on Military Transformation: Explaining 200 New Military Concepts* (Beijing, PRC: PLA Press, 2004).

⁹ All Army Military Terminology Management Committee, Academy of Military Sciences, *Chinese People’s Liberation Army Terminology* (Unabridged Volume) (Beijing, PRC: Military Science Publishing House, 2011), p. 51.

goal. If, for example, Beijing could affect reunification with Taiwan by acting in space, that would be successful deterrence (or coercion). But if Beijing could affect reunification without acting in space, that would *also* be acceptable. The goal is reunification, not acting (or not acting) in a given domain.

These differences in thinking about deterrence are further compounded by what would appear to be a very different threat and risk calculus in Beijing from those of the United States and Soviet Union. The United States and the Soviet Union and their respective alliances generally avoided direct confrontations between their armed forces. As important, there were few territorial issues that entailed the two sides' forces threatening conflict. (The status of Berlin in the early Cold War era period arguably comes closest.)

China's ongoing standoff with India suggests a very different approach towards interactions with other nuclear-armed powers. Chinese forces have crossed the Line of Actual Control (LoAC) between China and India several times since 2013. While there has been no violence, the military forces of both the PRC and India have been involved in the various confrontations in the area of Arunachal Pradesh and more recently the Doklam Plateau and near Dok-la. The very idea of dispatching military forces across a demarcation line separating two nuclear-armed powers suggests that there are very different dynamics and considerations at work in Beijing than has historically been the case in Washington or Moscow.

Chinese Conceptions of Nuclear, Information, and Space Deterrence

For the PRC, its history and resources have led to diverging views of deterrence. These different views, as well as the very different information environment of the 21st century, pose major challenges for the U.S.-PRC relationship that overlap the nuclear, space, and cyber realms. Given the different Chinese view of both deterrence and nuclear risk management, it is important to consider how the PRC thinks about not only the three realms, but the interplay among them.

Nuclear Deterrence (he weishe; 核威慑)

Chinese writings on nuclear deterrence suggest that Beijing's views in this vital arena also differ significantly from those of the West.

In one respect, the Chinese view is reassuring. For several decades, China's views seem to be consistent with a nation that is fielding a minimal or limited nuclear deterrent. There is no publicly available evidence that Chinese analysts are interested in nuclear counterforce targeting. As important, China's force structure, even with its ongoing modernization program, does not suggest development of such a capability. The United States (and Russia) therefore do not necessarily have to worry about a Chinese effort to destroy their nuclear forces in their silos and on their bases. This may be changing, as the PRC has built hundreds

of silos in its western desert, and appears intent on fielding a much more substantial nuclear force.

As important, Chinese writings on nuclear deterrence have consistently called for the ability to wage “real war (*shi zhan*; 实战)” with nuclear weapons, in addition to implementing deterrence. “Deterrence capability is based on the ability to wage real war, and the structure of deterrent strength is indistinguishable from combat strength. Deterrent strength is embedded in real combat capability.”¹⁰ In other contexts, such as space and cyber operations, “real war” means the ability to conduct actual military operations, as opposed to demonstrations or signaling, so this suggests that there is at least some PLA interest in the implementation of nuclear operations and strikes.

The interplay of “real war” and deterrence are intertwined in what appears to be a concept of an escalation ladder as part of Chinese deterrent activities. In the PLA volume *Science of Second Artillery Campaigns*, the authors suggest that the Second Artillery (and presumably the PLA Rocket Forces) has adopted an array of actions, in escalating order, to frame their deterrence activities.¹¹ The rungs comprise:

- *Public opinion pressure.* This is the public display of Chinese nuclear missiles and other capabilities to the media, to underscore to foreign audiences China’s nuclear deterrent capability.
- *Elevating weapons readiness.* Because Chinese nuclear warheads appear to be stored at centralized facilities, and are not necessarily regularly installed atop missiles, this rung incorporates increasing readiness of both warheads and launchers. Thus, demonstrating launch preparations is one element, but also deploying warheads to missile units might be a Chinese move as well.
- *Displays of actual capability.* This goes beyond public displays before the media, to include invitations to foreign attaches to inspect Chinese forces, coverage of high-level visits to forces in the field, especially during exercises, and military reviews and parades. It might also include deliberate deployment of mobile systems out of garrison while adversary surveillance systems are known to be watching. It might also include launch exercises, on their own or incorporated into broader exercises.
- *Manipulating tensions and creating impressions and misimpressions.* By deploying forces, emitting various signals and signatures, simulating launches, and/or raising readiness (in a demonstrable fashion), the PLA would seek to influence an adversary’s calculus of the likelihood and destructiveness of a conflict.
- *Demonstration launches.* A higher rung on the Chinese deterrence ladder is to conduct actual missile launches at designated land or sea areas (not directly against an adversary). Such launches might involve a variety of systems (e.g., ballistic and cruise

¹⁰ Academy of Military Science Military Strategy Research Office (PRC), *The Science of Military Strategy* (Beijing, PRC: Military Science Publishing House, 2013), p. 147.

¹¹ This section is drawn from Chinese People’s Liberation Army Second Artillery, *The Science of Second Artillery Campaigns* (Beijing, PRC: PLA Publishing House, 2003), pp. 281-296.

missiles, or different types of MRBMs), to underscore the varied nature of Chinese capabilities, and the comprehensive readiness of Chinese missile forces.

- *Demonstration launches near an adversary's forces or territory.* By engaging in test firings near an adversary's naval forces, homeland, or seized territories, the PLA would be trying to coerce an adversary into abandoning their ongoing activities. It is a form of indirect attack that seeks to deter or coerce.
- *Announcing the lowering of the nuclear threshold.* The PLA specifically associates this move with countering an adversary that has substantial nuclear capabilities, but also an advantage in high-technology conventional weapons. In order to counter the latter element, the Chinese leadership might announce a lowering of the nuclear threshold, e.g., entertaining a nuclear response to conventional attacks against vital strategic targets in the PRC. These include nuclear facilities (including nuclear power stations); targets that could cause great loss of life such as hydroelectric facilities (presumably such as the Three Gorges Dam); the nation's capital or other major urban or economic centers. Such an adjustment might also occur if the PRC found itself in a situation where it was losing a conventional war and was faced with a challenge to its national survival.

This “escalation ladder” or “deterrence ladder” underscores the Chinese belief that successful deterrence requires the PLA to be able to signal resolve. Similarly, it also reflects the Chinese focus on affecting an adversary's assessments and psychology, as much or more than the fielding of specific capabilities.

Information Deterrence (*xinxi weishe*; 信息威慑)

This approach suggests that China will integrate elements of “information deterrence (*xinxi weishe*; 信息威慑)” into their approach towards nuclear deterrence, and vice versa. Information deterrence is defined as a type of “information operation activity (*xinxi zuozhan xingdong*; 信息作战行动)” that can either display one's information advantage or announce deterring information to compel an adversary to abandon their willingness to resist, or to reduce the strength of their resistance.¹² It involves, at some level, threats against enemy information systems, such as to paralyze or disrupt them, to constrain enemy actions and thereby help achieve one's political goals.

Consistent with the Chinese view, noted earlier, that deterrence is not about dissuading activities in one or another domain or involving a particular class of weapons (nuclear, information), but in order to achieve a previously determined set of political goals, Chinese writings on both information deterrence and deterrence writ large do not emphasize deterring activities *in* information space. Rather, Chinese writings on information

¹² All Army Military Terminology Management Commission, *Chinese People's Liberation Army Terminology*, op. cit., p. 262.

deterrence discuss the use of information operations to *effect* deterrence. Information deterrence is about achieving deterrent goals *through* information operations.

Information deterrence, like nuclear deterrence and the broader concept of *weishe*, incorporates both dissuasion as well as coercion. Consequently, Chinese information deterrent actions are aimed at achieving a particular political goal by undermining the adversary's will, rather than preventing an attack on Chinese information systems. The Chinese goal is to influence an adversary's cost-benefit calculations, making them question whether their preferred course of action is worth likely damage incurred from attacks on their information networks and systems. Ideally, Chinese deterrent actions would persuade the target that the cost of non-compliance is too high, and it would be easier to accede to China's preferred course of action. Essentially, the Chinese concept of information deterrence is the use of informational means, whether attacks on information systems and networks or certain types of information itself, to erode the adversary's willingness to resist.¹³

From the Chinese perspective, information's growing role in warfare means that threatening access to information can deter and coerce an informationally comparable adversary. The degree of Internet penetration in military, political, and economic affairs allows unprecedented access to foreign infrastructure. The potential ability to massively disrupt an adversary's entire society creates deterrence opportunities. Indeed, on a day-to-day basis, states already engage in information deterrence, precisely because the scale of disruption that would otherwise erupt would be enormous. Few states are confident that their defenses could prevent such disruptions.¹⁴

Chinese writings note that cyber strength is not necessarily correlated with conventional capabilities. That is, a state might have relatively weaker conventional capabilities yet have strong network warfare capabilities that could nonetheless disrupt or even paralyze their conventionally stronger adversary. On the other hand, a side with weak set of information capabilities may be less able to effect information deterrence, even if they have relatively stronger conventional forces.¹⁵

If this is applied to the nuclear realm, then this suggests that the Chinese have a very different concept of nuclear crisis management. Where the U.S. and Soviet Union saw transparency as providing certain stabilizing effects in the nuclear context, the Chinese would seem to view uncertainty and ambiguity as preferable. Indeed, it may be that the Chinese would see the denial of information, whether collection or transmission, as strengthening deterrent effects. An adversary who is uncertain of China's capabilities is more likely to be deterred. Similarly, an adversary who is uncertain of whether it can exercise command and control of its nuclear weapons is also likely to be deterred—or coerced.

¹³ Chinese Military Encyclopedia 2nd Edition Editorial Committee, *PLA Encyclopedia, 2nd Edition, Military Strategy* (Beijing, PRC: China Encyclopedia Publishing 2007), p. 283.

¹⁴ Academy of Military Science Military Strategy Research Office, *The Science of Military Strategy*, op. cit., p. 196.

¹⁵ Academy of Military Science Operations Theory and Regulations Research Department and Informationized Operations Theory Research Office, *Informationized Operations Theory Study Guide* (Beijing, PRC: Military Science Publishing House, November 2005), pp. 15-16.

This set of views, in turn, affects both computer network exploitation (CNE), as well as computer network attack (CNA) and defense (CND), as applied against NC3. Because information and associated networks are so important in the event of conflict, mapping these networks and otherwise understanding a potential adversary's information systems requires extensive computer network reconnaissance, which in turn must happen in advance. According to Chinese analyses, this means that there will necessarily be significant CNE in peacetime. As important, by penetrating an adversary's networks, and letting them know that one has done so, one can potentially not only dissuade but even coerce them. Indeed, evidence of successful penetration can be an important element of *weishe*, since an adversary cannot be certain of the extent of said penetration, or whether Trojan horses or other malware might have been left behind.

In the Chinese view, CNE therefore complements a demonstrated CNA capability. The ability to enter an adversary's networks is necessary, in order to engage in any kind of computer network attack. At the same time, a demonstrated capability of undertaking CNA, even if not employed in a given crisis, will nonetheless make the adversary wary.

In the Chinese view, network offensive operations (which include but are not limited to CNA) are the foundation of information deterrence.¹⁶ They can be used to attack a variety of targets, threatening much of an adversary's society, economy, and military. Such operations are hard to defend against, in some ways harder than conventional, nuclear, or space attacks. In the event of a crisis, threats of information attacks (e.g., computer viruses) will affect an adversary's will, and may persuade them to cease resistance.

The lack of experience with large-scale network offensive operations also enhances deterrence. In the Chinese view, the uncertainty about the ultimate effects of network attacks is a factor forestalling large-scale network conflict.¹⁷

At the same time, Chinese analysts believe the ability to successfully defend and safeguard one's information resources and systems can also deter an adversary, by limiting their ability to establish information dominance. Without information dominance, the enemy cannot easily establish dominance over other domains (e.g., air, space, maritime), raising the costs to achieve their broader strategic objectives. They are therefore likely to be deterred from initiating aggression or may be coerced into submitting.

All of this suggests that the Chinese may try to apply CNE, CNA, and CND capabilities against an adversary's NC3 systems, as a complement to nuclear deterrence missions. Reconnaissance of those systems demonstrates an ability, and interest, in penetrating those networks, which raises questions about their reliability. This affects the ability to detect attacks, exercise command and control of forces, and assess damage.

Even if China does not actually damage any such systems in peacetime, the possibility that NC3 networks may harbor malware is likely to influence crisis and wartime decision-making. This possibility is made more real if there is a demonstrated ability to engage in damaging network attacks in other environments (or against other states). The resulting

¹⁶ Ibid., p. 15.

¹⁷ Academy of Military Science Military Strategy Research Office, *The Science of Military Strategy*, op. cit., p. 190.

reduction in stability in turn may also deter or coerce an adversary, by making them question how far they are willing to risk further deterioration.

A particular point of vulnerability is an adversary's space systems. A vital part of information deterrence, especially in the nuclear context, is the space element.

Space Deterrence (kongjian weishe; 空间威慑)

In the Chinese view, space deterrence is the use of space forces and capabilities to deter or coerce an opponent, preventing the outbreak of conflict, or limiting its extent should conflict occur. Space deterrence is possible because of the growing importance of space-derived information in not only military but economic and social realms. By displaying one's own space capabilities and demonstrating determination and will, the PLA would hope to induce doubt and fear in an opponent over the prospect of loss of access to information gained from and through space, and the resulting repercussions. This, in turn, would lead the adversary to either abandon their goals, or else limit the scale, intensity, and types of operations.¹⁸

It is important to note here that the Chinese concept of space deterrence is not focused on deterring an adversary from conducting attacks against China's space infrastructure, per se. Instead, it is focused on employing space systems as a means of influencing the adversary's overall perceptions, in order to dissuade or compel them into acceding to Chinese goals. Thus, it is not so much deterrence *in* space, as deterrence *through space means*.

Space capabilities are seen as contributing to overall deterrent effects in a number of ways. One is by enhancing other forces' capabilities. Thus, conventional and nuclear forces are more effective when they are supported by information from space-based platforms, such as navigational, reconnaissance, and communications information. This makes nuclear and conventional deterrence more effective, and therefore more credible.

In addition, though, space systems may coerce or dissuade an opponent on their own. Space systems are very expensive and hard to replace. By holding an opponent's space systems at risk, one essentially compels them to undergo a cost benefit analysis. Is the focus of Chinese deterrence or coercive efforts worth the likely cost to an adversary of repairing or replacing a badly damaged or even destroyed space infrastructure? Moreover, because space systems affect not only military but economic, political, and diplomatic spheres, damage to space systems will have wide-ranging repercussions.¹⁹ Is the target of Chinese deterrent or coercive actions worth the impact of the loss of information from space-based systems on other military operations, or on financial and other activities? The Chinese clearly hope that the adversary's calculations would conclude that it was better not to challenge Chinese aims. Even the threat of interference, and disruption of space systems "will impose

¹⁸ Zhou Peng and Wen Enbing, "Developing the Theory of Strategic Deterrence with Chinese Characteristics," *China Military Science*, Vol. 3, No. 20 (2004), p. 20; and, Academy of Military Science Military Strategy Research Office, *The Science of Military Strategy*, op. cit., p. 181.

¹⁹ Li Jingjun and Dan Yuquan, "The Strategy of Space Deterrence," *China Military Science*, No. 1 (2002).

a certain level of psychological terror, and will generate an impact upon a nation's policy-makers and associated strategic decision-making."²⁰

This conception of space deterrence operations has clear implications for the nuclear realm. The ability to damage the space portion of an adversary's NC3 networks (including communications and reconnaissance) will affect not only their ability to counter China, but other states as well. Thus, in the case of the United States, it would affect the American ability to deter Russia and North Korea. Interestingly, China's lack of a space-based missile early warning network would suggest that this is an asymmetric vulnerability, where China is less liable than either the United States or Russia.

PLA teaching materials suggest that there is a perceived hierarchy of space deterrence actions, akin to the nuclear "escalation ladder," involving displays of space forces and weapons; military space exercises; deployment or augmentation of space forces; and employment of space weapons.

- *Displays of space forces and weapons* (*kongjian liliang xianshi*; 空间力量显示) occur in peacetime, or at the onset of a crisis. By demonstrating space capabilities, an adversary is ideally dissuaded from escalating a crisis or pursuing certain courses of action, because their space capabilities will be potentially put at risk. The demonstrations should be accompanied by political and diplomatic gestures as well. The goal, notably, is not to prevent an adversary from acting *in space*, but from acting *at all*.
- *Military space exercises* (*kongjian junshi yanxi*; 空间军事演习) are undertaken as a crisis escalates, if displays of space forces and weapons fail to compel an adversary to change their behavior. Both physical and tabletop/computerized exercises can be part of this rung, so long as they demonstrate capabilities and signal readiness. Examples include ballistic missile defense tests, anti-satellite unit tests, exercises demonstrating "space strike" (*kongjian tuji*; 空间突击) capabilities, and displays of real-time and near-real-time information support from space systems.
- *Space force deployments* (*kongjian liliang bushu*; 空间力量部署) reflect a major escalation of space deterrent efforts. This rung involves deploying additional forces, and adjusting the location of already deployed forces. For satellites, any repositioning is a major activity, because it consumes fuel necessary to maintain operational positioning and therefore affects mission assurance. This rung can also involve the recall of certain space assets, such as space planes and space shuttles, both to secure them from possible attack and to prepare them for new taskings. This rung occurs if an adversary is believed to be preparing for war, and reflects one's own preparation for combat
- The final rung in Chinese writings on space deterrence is "*space shock and awe strikes*" (*kongjian zhenshe daji*; 空间震慑打击). If the three previous, non-violent deterrent

²⁰ Academy of Military Science Military Strategy Research Office, *The Science of Military Strategy*, op. cit., p. 181.

measures are insufficient, then the PLA suggests engaging in punitive strikes involving aerospace forces. These are intended to warn an adversary that failure to back down will lead to full-blown conflict—not just in space but terrestrially as well. Such strikes are described as “the highest, and final technique” (*zuigao xingshi he zui hou shouduan*; 最高形式和最后手段) in deterring and dissuading an opponent. Employing hard-kill methods, soft-kill methods, or a combination, one would attack an opponent’s physical space infrastructure or data links, respectively. The goal is to induce psychological shock in opposing decision-makers, leading them to cease their activities. If it fails, an opponent’s forces will nonetheless have suffered some damage and losses, and be weakened relative to one’s own forces.

These Chinese writings on space deterrence clearly suggest that there may be a willingness to consider operations against an adversary’s space-based information and surveillance networks, employing both hard-kill (e.g., kinetic anti-satellite systems) and soft-kill (e.g., cyber) methods. Such moves might be withheld until the highest stage of a crisis, but the interest in “space shock and awe strikes” suggests a search for the most psychologically damaging space targets. The space component of the NC3 infrastructure may be a logical target for such strikes.

HOW CHINESE CONCLUSIONS WILL SHAPE CHINESE ACTIONS

Given these Chinese perspectives and conclusions, there are certain implications that arise, which are reflected in Chinese behavior.

Chinese actions must be holistic and will be comprehensive. The PRC still sees itself as a developing country. Despite being the second-largest GDP in the world, this must be spread over a population of 1.3 billion. As important, China is not necessarily wealthy; while it has enormous untapped human and physical potential, until that is converted into actual capacity and capability, much of China will remain poor. In this light, the Chinese are likely to pursue more of a whole-of-government approach, if only to leverage its available resources. Thus, whereas the United States has both a military and a civilian space program (the latter divided into three substantial segments), China is unlikely to pursue such a strategy that demands extensive redundancy and overlap.

This will likely be reinforced by the high priority accorded informationization in general. While various senior level efforts have been halting at times, Xi Jinping has clearly made informationizing China a major policy focus. Insofar as the Chinese see their future inextricably embedded in the Information Age, these efforts will enjoy highest level support, with efforts to reduce stove-piping and enhance cross-bureaucracy cooperation. This, in turn, will mean not only greater cooperation within the military, but also between the military and the other national security bureaucracies, as well as with the larger range of Chinese ministries, and both public and private enterprises.

Chinese actions are determined by Chinese priorities and are unlikely to be heavily influenced by external pressure or blandishments. If the Chinese leadership sees

information as integral to national survival, and views economic espionage as part of the process of obtaining necessary information, then it will not be easily dissuaded. Similarly, insofar as the Chinese leadership links information flow with regime survival, Beijing will also restrict and channel information flow in ways that meet internal security requirements. To this end, the targets of Chinese actions will have to impose very high costs on Beijing, so that the gains are not worthwhile to the PRC, if they seek to alter the Chinese approach.

The difficulty of influencing Beijing is exacerbated by the Chinese leadership's sense that it is already in a strategic competition with various other states. The CCP perceives challenges to its security stemming not only from the United States, but also from Russia, India, and Japan, as well as certain non-state actors such as Uighur and Tibetan separatists. Indeed, it is essential to recognize that the Chinese leadership sees itself as already engaging in multilateral deterrence—a position it has adopted since at least the 1960s, when it believed it was facing threats from both the Soviet Union and the United States.

Chinese views about the extent of threats are further reinforced by the reality that the information space is both virtual and global; it is therefore not currently restricted by any national borders. For the Chinese leadership, controlling information flow and content therefore entails operating not just within the Chinese portion of information space, but globally. It requires accessing foreign information sources and influencing foreign decision-makers, while preventing outside powers from being able to do the same in China.

As a result, ***the PRC is undertaking an increasing array of actions beyond its own borders, striving to dominate what had previously been part of shared spaces.*** This applies not only to information space, such as the Internet, but also physical domains such as the seas and outer space. Indeed, one can see parallels among Chinese efforts to dominate the South China Sea, its growing array of counter-space capabilities, and its efforts to control and dominate information space. In each case, the PRC is intent upon extending Chinese sovereignty, including its rules and its administrative prerogatives, over what had previously been open domains.

In this regard, Chinese actions are justified by a very different perspective on the functioning of national and international law. Indeed, Chinese views of legal warfare occur in the context of a historical and cultural view of the role of law that is very different from that in the West. At base, the Chinese subscribe to the concept of rule ***by*** law, rather than the rule ***of*** law. That is, the law serves as an instrument by which authority is exercised but does not constrain the exercise of authority.

In the broadest sense, pre-1911 Chinese society saw the law from an instrumental perspective, i.e., a means by which authority could control the population, but not a control extended over authority. Laws were secondary to the network of obligations enunciated under the Confucian ethic. The Legalist “school” of ancient China placed more emphasis on the creation of legal codes (versus the ethical codes preferred by the Confucians), but ultimately also saw the law as a means of enforcing societal and state control of the population. No strong tradition ever developed in China that saw the law as applying to the ruler as much as to the ruled.

During the early years of the PRC, Chinese legal development was influenced by the Marxist perspective that the “law should serve as an ideological instrument of politics.”²¹ Consequently, the CCP during the formative years of the PRC saw the law in the same terms as imperial China. The law served as essentially an instrument of governance but not a constraint upon the Party, much less the Great Helmsman, Mao Zedong. In any case, the Party exercised rule by decree, rather than through the provision of legal mechanisms. Mao himself, during the Cultural Revolution, effectively abolished both the judiciary and the legal structure.²² Since Mao’s passing, while there have been efforts at developing a body of laws, most have been in the area of commercial and contract law. Moreover, the law remains an instrument that applies primarily to the masses as opposed to the Party, i.e., the law exists to serve authority, not to constrain it.

This has meant that the Chinese government employ laws, treaties, and other legal instruments to achieve their ends, even when they fly in the face of traditional legal understanding or original intentions. Thus, the Chinese do not see their efforts to extend Chinese authority over shared spaces as inconsistent with international law, but as part of political warfare; opposition to their efforts is similarly seen as an effort to contain China and to threaten CCP rule.

Consequently, Chinese efforts to dominate information space strive not only to control the flow of information, but to delegitimize the idea of the information realm as a shared space, accessible to a variety of groups. Chinese authorities have striven to limit the role of non-state players in setting the rules for the Internet. At the same time, it has also sought to limit the access of dissidents, Taiwan political authorities, Tibetan activists, and others who have tried to oppose China’s position to not only Chinese audiences, but global ones. Given the Chinese leadership’s view of the existential threat posed by information (whether inside or outside China), such efforts are perceived as defensive efforts aimed at preserving the regime.

China is likely to pursue a form of informational isolationism. The Chinese solution to the challenge of information vulnerability is to restrict the flow of information. This is not intended to replicate the extreme North Korean form of isolation, but to align information flows ideally “with Chinese characteristics.” Indeed, Beijing strives to make itself informationally autarkic, wholly self-dependent in terms of information access, information generation, and information transmission. Thus, the PRC has created Chinese versions of information companies, is pursuing a homegrown semiconductor industry to substitute for imported computer components, and otherwise tries to limit informational access to and from China.

This is an ironic rejection of the very macroeconomic policies of the past four decades that have allowed China to succeed and advance. But, just as the CCP accepts performance costs in the speed of the Chinese Internet (imposed by the nature of the Great Firewall of

²¹ Eric W. Orts, “The Rule of Law in China,” *Vanderbilt Journal of Transnational Law*, Vol. 34, No. 1 (November 2001), p. 57.

²² Murray Scot Tanner, *The Politics of Lawmaking in China* (Oxford, UK: Clarendon Press, 1999), p. 43; and Dwight Perkins, “Law, Family Ties, and the East Asian Way of Business,” chapter in Lawrence E. Harrison and Samuel P. Huntington, eds., *Culture Matters* (NY: Basic Books, 2000), p. 235.

China), they accept the economic and innovative opportunity costs that are imposed by the broader restrictions imposed on information flow. This is a dangerous bargain, however, as CCP leaders appear to be trading longer term economic growth for short-term stability and curbing immediate challenges to their authority. If the Chinese leaders are correct that future development of “comprehensive national power (CNP)” is directly tied to the ability to exploit information, then their actions are likely, in the long run, to actually limit future CNP growth.

It is important to note, however, that this isolationism does not mean closing China off from the rest of the world’s information. Reports that China actively redirects and hijacks entire segments of the Internet to Chinese servers (presumably for later examination and analysis) highlight that Chinese leaders want to control what comes into China, not simply exclude it.²³ As important, they are willing to undertake actions that affect, and could alienate, many other states and actors in pursuit of this end.

CONCLUSION

In the wake of the Russian invasion of Ukraine, it is clear that the concept of deterrence needs to be thoroughly reexamined. Biden administration comments that American threats of sanctions were intended to deter, even while also acknowledging that they probably would not, highlights the difficulties of effecting deterrence against a determined adversary, even when the states arrayed against it outmatch it economically and militarily.

Deterring the PRC (specifically the CCP) will be even more difficult. While the United States and the West developed some common terms of reference and shared concepts with the Soviet Union over the four decades of the Cold War, the same cannot be said of the PRC. China’s strategic context and history in Asia are totally different from the shared Western experience across the East-West divide. The PRC also has substantially more financial resources than the Soviets, and is more enmeshed in Western economies.

Most notably, however, the PRC has been devising a systematic approach towards the role and application of information, in the form of “informationized” development and informationized warfare. Coupled with Chinese thinking about political warfare (which is the application of information at the strategic level), this makes the CCP a very different, and far more formidable, adversary.

Deterring the PRC will require employing a similarly comprehensive array of techniques and means. It will require that we better understand both the vulnerabilities and strengths of their approach to information, and the same in our own societies.

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²³ Chris Demchak, Yuval Shavitt, “China’s Maxim – Leave No Access Point Unexploited: The Hidden Story of ChinaTelecom’s BGP Hijacking,” *Military Cyber Affairs*, Vol. 3, No. 1 (2018).





ANALYSIS

THE SOURCES OF RUSSIAN CONDUCT

By Ilan Berman

In early 1946, writing from his perch at the U.S. embassy in Moscow, the diplomat George F. Kennan laid out what would become the guiding principles for America's Cold War strategy toward the Soviet Union. His missive, which came to be known as the "long telegram," articulated what Kennan understood to be the prevailing thinking in the Kremlin about the USSR's place in the world, the permanence of its competition with the capitalist West, and the modes by which Moscow might advance its strategic position and erode that of the United States. Kennan's insights into Soviet thinking were published pseudonymously the following year in the pages of *Foreign Affairs*,¹ and were so influential that they helped lay the groundwork for NSC-68, the long war strategy that the United States erected—and subsequently prosecuted—against the Soviets across multiple administrations.

Such a framework is sorely absent today. Some three-quarters of a century after Kennan's "long telegram," the United States—and the West more broadly—has little understanding of the ideological constructs and strategic principles animating contemporary Russian decision-making.² In the absence of such awareness, successive governments have fallen short in anticipating Russia's post-Cold War foreign policy maneuvers. They have likewise floundered in formulating a cogent response to them.

It's an issue worth revisiting today, against the backdrop of Russia's new war in Ukraine. For, while the original reason given by the Kremlin—for its "special military operation"—the need to "demilitarize" and "de-Nazify" a Ukraine in the thrall of revanchist forces—has proven patently false, the true causes behind Russia's prosecution of the conflict remain murky for most Western policymakers. Precisely what those motivations are, and how they are informed by Russia's strategic culture and internal stressors, will help determine what Moscow does next—and the challenge the West will collectively be forced to meet in the years ahead.

A RENEWED IMPULSE

Confronted with the Kremlin's pattern of wanton aggression against its neighbors, Western leaders have tended to default to an all-too-familiar trope: that Putin, a former KGB agent, wants to recreate the USSR. "Make no mistake," former Secretary of State Mike Pompeo wrote at the outset of the latest Ukraine war, "Putin is about the business for trying to bring back the Soviet Union. We must not allow that to happen."³

¹ X (George F. Kennan), "The Sources of Soviet Conduct," *Foreign Affairs*, July 1947, available at <https://www.foreignaffairs.com/articles/russian-federation/1947-07-01/sources-soviet-conduct>.

² A classic scholarly effort to understand the dynamics underlying Soviet decision-making is, Nathan Leites, *The Operational Code of the Politburo* (New York, NY: McGraw-Hill, 1951), available at <https://apps.dtic.mil/sti/citations/ADA473408>.

³ Michael R. Pompeo, "Putin wants to bring back the Soviet Union. We must not allow that to happen," *Fox News*, February 24, 2022, available at <https://www.foxnews.com/opinion/bidens-approach-ukraine-russia-wrong-start-mike-pompeo>.



Unquestionably, these and similar sentiments have been fueled by Putin's own pronouncements. Back in 2005, in his annual State of the Nation address, Russia's president famously observed that he viewed the breakup of the Soviet Union as a catastrophic—and deeply traumatic—civilizational event. “The collapse of the Soviet Union,” he intoned:

...was the biggest geopolitical catastrophe of the 20th century. For the Russian people, it became a real drama. Tens of millions of our citizens and countrymen found themselves outside Russian territory. The epidemic of disintegration also spread to Russia itself.⁴

It is a refrain that Putin has repeated since in numerous other settings. In a 2014 address in Kaliningrad, he confided to audience members that “the disintegration of the Soviet Union” was the historical occurrence that he most wished he had prevented.⁵ And in a 2021 documentary entitled “Russia. New History,” Putin lamented that, following the 1991 breakup of the USSR, “[w]e turned into a completely different country. And what has been built up over 1,000 years was largely lost.”⁶

Nevertheless, ascribing Putin's actions to a mere desire to recreate the USSR is a significant simplification of his strategic thinking on at least two fronts. The first is territorial. While the contours of the Soviet Union follow—and bear a striking resemblance to—those of the Russian Empire, the two entities were not identical in either form or composition. At its peak in the late 1800s, the Russian Empire encompassed nearly 14 million square miles (36 million square kilometers) and included Finland, parts of Poland, and the territory of Alaska (which was subsequently sold to the U.S. by Alexander III).⁷ By contrast, the Soviet Union, at the apex of its power and territorial reach, covered a significantly smaller area, approximately 8.6 million square miles—22.4 million square kilometers—and excluded Poland (which, though a Soviet satellite, remained nominally independent).⁸

More significant still was the internal structure that governed the two entities. Largely agrarian, the Russian Empire functioned under ironclad control from the federal center (located first in Saint Petersburg and subsequently in Moscow). By contrast, the Soviet period saw the country undergo rapid industrialization, and while strong political control was still held by the party and the Kremlin, the USSR also erected an elaborate system of management for the various ethnicities and groupings that resided within its new confederation.⁹ Indeed, none other than the man who would go on to become the Soviet Union's most feared leader, Josef Stalin, served as its official Commissar of Nationalities, the

⁴ As cited in Claire Bigg, “World: Was Soviet Collapse Last Century's Worst Geopolitical Catastrophe?” *Radio Free Europe/Radio Liberty*, April 29, 2005, available at <https://www.rferl.org/a/1058688.html>.

⁵ “Putin: If he could, he'd try to prevent 1991 USSR collapse,” *Associated Press*, March 2, 2018, available at <https://apnews.com/article/d36b368c6ad44bb2b8e883fc8d800514>.

⁶ Andrew Osborn and Andrey Ostroukh, “Putin rues Soviet collapse as demise of ‘historical Russia,’” *Reuters*, December 12, 2021, available at <https://www.reuters.com/world/europe/putin-rues-soviet-collapse-demise-historical-russia-2021-12-12/>.

⁷ Lee Trepanier, “The Russian Empire (1721-1917),” *Voegelin View*, February 27, 2017, available at <https://voegelinview.com/russian-empire-1721-1917/>.

⁸ “Soviet Union,” *Britannica.com*, n.d., available at <https://www.britannica.com/place/Soviet-Union>.

⁹ For a comprehensive accounting of the strategies employed by the Soviet Union to manage the diverse nationalities within its borders, see Bohdan Nahaylo and Victor Swoboda, *Soviet Disunion: A History of the Nationalities Problem in the USSR* (New York: McMillan, 1989).

country's top post dealing with the harmonization of internal ethnic relations, from 1917 until 1924.

It is the former construct that Russia's president clearly admires. In his February 21, 2022 speech laying out the rationale for his impending war in Ukraine, Putin obliquely condemned Soviet leaders for having permitted a semblance of federalism among the USSR's constituent parts, thereby helping to lay the foundation for a troublesome independent Ukrainian national identity. "Let's start with the fact that modern Ukraine was entirely created by Russia, more precisely, by the Bolshevik, communist Russia," Putin chided. "This process began almost immediately after the 1917 revolution."¹⁰ The framing is telling; in Putin's conception, the Bolsheviks erred gravely by arrogating a degree of national independence, even autonomy, to the assorted Republics and ethnic groups that cumulatively comprised the USSR.

Putin, by contrast, envisions a different construct: one in which, in a throwback to tsarist times, the central government in Moscow presides over assorted, far-flung holdings deeply subservient to its rule. He thus sees himself much more as tsar than commissar—a ruler rather than merely an administrator. To this end, he has likened himself to Peter the Great, who aggressively sought to expand the borders of his empire outward during his forty-two years on Russia's throne. "Peter the Great waged the great northern war for 21 years," Putin said in June 2022, on the sidelines of an exhibition in Moscow highlighting the tsar's reign. "He did not take anything from them, he returned [what was Russia's].... Apparently, it is also our lot to return [what is Russia's] and strengthen [the country]."¹¹

It would be easy to dismiss Putin's neo-imperial aspirations as nothing more than a fringe ideology. However, it most assuredly is not. To the contrary, more than three decades after the Soviet collapse, the restoration of empire remains a popular national project in Russia. Over the years, a range of intellectuals, officials and thinkers from across the Russian political spectrum have advocated a political unification of former Russian lands, as well as the need to create the geopolitical conditions to make such a union possible.

Thus, the late dissident Aleksander Solzhenitsyn—a fierce critic of the USSR—became a proponent of the reconstitution of the Slavic nation following the Soviet collapse. In his 1995 book *The Russian Question*, Solzhenitsyn lamented that the Soviet breakup "occurred mechanically along false Leninist borders, usurping from us entire Russian provinces." The remedy, he argued, was a restoration of Russia's union with Slavic republics and at least part of Kazakhstan.¹² Solzhenitsyn's idea proved immensely popular in post-Soviet Russia, and the anti-Communist icon was invited to repeat his call for Slavic unity on the floor of the State Duma, Russia's lower house of parliament, in 1995.¹³ Similarly, Anatoly Chubais, the liberal

¹⁰ Jenni Fink, "Putin Invokes Soviet Heroes Lenin, Stalin, Says Russia 'Created' Ukraine," *Newsweek*, February 21, 2022, available at <https://www.newsweek.com/putin-invokes-soviet-heroes-lenin-stalin-says-russia-created-ukraine-1681185>.

¹¹ As cited in Andrew Roth and Agencies, "Putin compares himself to Peter the Great in quest to take back Russian lands," *Guardian* (London), June 10, 2022, available at <https://www.theguardian.com/world/2022/jun/10/putin-compares-himself-to-peter-the-great-in-quest-to-take-back-russian-lands>.

¹² Aleksandr Solzhenitsyn, *The Russian Question* (New York: Farrar, 1995).

¹³ Herman Pirchner, Jr., *Reviving Greater Russia? The Future of Russia's Borders with Belarus, Georgia, Kazakhstan, Moldova and Ukraine* (Lanham, MD: University Press of America, 2005), p. 3.

architect of Russia's economic reforms during the 1990s, weighed in in favor of imperial expansion in a 2003 article in the *Nezavisimaya Gazeta* newspaper in which he argued that "[l]iberal imperialism should become Russia's ideology and building up liberal empire Russia's mission."¹⁴ And Dmitry Rogozin, the ultra-nationalist former deputy prime minister who now heads up ROSCOSMOS, Russia's state space agency, has written in the past that Russians "should discuss out loud the problem of a divided people that has a historic right to political unification of its own land," and counseled the Kremlin that "we must create conditions to result in the environment with which Germany dealt for forty years coming out united in the end."¹⁵

Nor are these sentiments confined to Russia's elites. Polls of popular opinion have consistently found support among ordinary Russians for the Kremlin's imperial impulses. For instance, in recent years, multiple surveys have found high—and growing—levels of nostalgia for the Soviet Union, especially among older generations of Russians.¹⁶ As recently as the spring of 2021, 86% of respondents in a poll carried out by the official Russian Public Opinion Center said that Russia had been "right" to make Ukraine's Crimean Peninsula part of its territory.¹⁷

Today, despite the resulting Western sanctions and global ostracism, which has rolled back decades of progress in Russia, support for Vladimir Putin and his war aims in Ukraine remains high. Thus, in two independent sociological surveys released in March 2022, nearly three-quarters of Russians expressed support for the current war in Ukraine, and evinced "such positive emotions as pride, joy, respect, trust and hope" in their country's leadership.¹⁸ An April 2022 poll by the independent Levada Center subsequently found that 74% of respondents supported the Russian armed forces in Ukraine, and a nearly analogous number (73%) believed that the "special military operation" would end in Russia's victory.¹⁹

To be sure, polling within Russia has been profoundly influenced by the country's deepening authoritarian climate, with results skewed—because of official pressure and individual self-censorship—to mirror (and support) the Kremlin's political priorities. Moreover, recent years has seen Russian attitudes extensively manipulated by a steady diet of state-disseminated propaganda and misinformation, which has helped generate support for the Kremlin's foreign policy agenda.²⁰ Finally, it remains to be seen whether Russia's population will remain sympathetic to its government's imperial adventures when it

¹⁴ As cited in Igor Torbakov, "Russian Policymakers Air Notion of 'Liberal Empire' in Caucasus, Central Asia," *Eurasianet*, October 26, 2003, available at <https://eurasianet.org/russian-policymakers-air-notion-of-liberal-empire-in-caucasus-central-asia>.

¹⁵ As cited in Pirchner, *Reviving Greater Russia?*, p. 3.

¹⁶ See, for instance, "НОСТАЛЬГИЯ ПО СССР [Nostalgia for the USSR]," Levada Center, December 24, 2021, available at <https://www.levada.ru/2021/12/24/nostalgiya-po-sssr-3/>.

¹⁷ "Over 80% of Russians support reunification of Crimea with Russia, poll reveals," *ITAR-Tass*, March 11, 2021, available at <https://tass.com/society/1264975>.

¹⁸ "Независимые социологи: 71% россиян испытывает гордость из-за войны с Украиной [Independent sociologists: 71% of Russians are proud of the war with Ukraine]," *Radio Svoboda*, March 17, 2022, available at <https://www.svoboda.org/a/nezavisimye-sotsiologi-71-rossiyan-ispytyvaet-gordostj-iz-za-voyny-s-ukrainoy/31757535.html>.

¹⁹ "КОНФЛИКТ С УКРАИНОЙ [Conflict with Ukraine]," Levada Center, April 28, 2022, available at <https://www.levada.ru/2022/04/28/konflikt-s-ukrainoj-i-otvetstvennost-za-gibel-mirnyh-zhitelej/>.

²⁰ See Ilan Berman, "Propaganda Enables Putin's Aggression," *The Hill*, December 20, 2021, available at <https://thehill.com/opinion/international/586515-propaganda-enables-putins-aggression/>.

gradually learns of the high human and economic costs associated with them—data points that, for the moment, are being actively obscured by the Kremlin.

Nevertheless, it is clear that the potential for imperial restoration has resonated with a citizenry deeply traumatized by, and resentful of, their country's contemporary, diminished international status. In other words, Putin feels empowered to move forward with his imperial ambitions precisely because they appear to echo the wishes of a significant segment of his electorate.

REVERSING THE DEMOGRAPHICS OF DECLINE

Russia's imperial interest is not uniform, however. For all its bluster, the Kremlin does not covet its former territorial holdings equally. In fact, despite persistent trepidation in those capitals over the past decade, Moscow has given little sign of renewed designs on the majority Muslim nations of Central Asia. Rather, in their imperial yearnings, Russian officials have prioritized the re-acquisition of Slavic parts of the former USSR and Russian empire above other locales.

The reasons have everything to do with demographics. Russia, after all, has been on a trajectory of protracted demographic decline for more than a half-century. As long ago as the 1960s, early signs of a population downturn were already evident in the Soviet Union, and by the 1970s, total fertility had dropped to below "replenishment"—or just over two children per woman, on average—in almost all of the Soviet Union's European republics.²¹ The Soviet Union's collapse exacerbated the situation still further. According to World Bank statistics, in the decade following the dissolution of the USSR, Russia's total fertility rate (TFR) declined precipitously, and by the early 2000s averaged just 1.3, far below the level required to maintain a stable national population.²² Thereafter, however, it rose significantly, before ultimately settling to match European levels of fertility (roughly 1.5 live births per woman).²³ Notably, this figure remains well below the level required for a sustainable replenishment of the Russian population. It is also stubborn, having stayed largely static despite the numerous policies adopted by the Kremlin in recent years in an attempt to alter this demographic trajectory. These include the "maternity capital" campaign, initiated by the Russian government in 2007 to provide state support to families with multiple children,²⁴ or the more recent Kremlin pledge of tax breaks for bigger families.²⁵

²¹ Stephan Sievert, Sergey Zakharov, and Reiner Klingholz, *The Waning World Power: The Demographic Future of Russia and the Other Soviet Successor States* (Berlin Institute for Population and Development, April 2011), available at <http://www.berlin-institut.org/publications/studies/the-waning-world-power.html>.

²² World Bank, "World DataBank: World Development Indicators," n.d., available at <http://databank.worldbank.org/data/reports.aspx?source=2&country=&series=SP.DYN.TFRT.IN&period=#>.

²³ "Russia's Putin seeks to stimulate birth rate," *BBC*, January 15, 2020, available at <https://www.bbc.com/news/world-europe-51120165>.

²⁴ See Fabian Slonimczyk and Anna Yurko, "Assessing the Impact of the Maternity Capital Policy in Russia Using a Dynamic Model of Fertility and Employment," Bonn Institute for the Study of Labor *IZA Discussion Paper* No. 7705, October 2013, available at <http://ftp.iza.org/dp7705.pdf>

²⁵ "Russia's Putin seeks to stimulate birth rate," *BBC*, January 15, 2020, available at <https://www.bbc.com/news/world-europe-51120165>.

The drivers of this decline are manifold. They include high mortality (which, at 14.5 per 1,000 Russians,²⁶ remains considerably higher than in both Europe and the United States). Russia also lags in terms of life expectancy, with its current level of roughly 73 years having remained largely static for the last half-decade.²⁷ As a result, “Russia ranks 96 in the world—lower than comparatively poorer countries like Moldova, Vietnam and Venezuela,” explains Evgeny Gontmakher of the Russian Academy of Sciences.²⁸ And while contributing factors, like alcohol consumption and infant mortality, have improved in recent years, according to UN estimates, Russia still trails most of the developed world across a number of indices.

Another significant contributing factor is emigration. According to a 2021 study conducted by the *Takie Dela* portal, as of that October approximately five million people had fled Russia in the two decades since Vladimir Putin took power.²⁹ Nor has this emigration been uniform. Rather, it has been heavily weighted toward what demographer Judy Twigg collectively calls the “creative class”—“scientists, educators, artists and knowledge-based workers” who have left Russia to escape deepening authoritarianism and a stifling intellectual climate.³⁰

Russian officials are painfully cognizant of the problem. In Putin’s May 2018 presidential order outlining national goals and strategic priorities for his government, attaining stable population growth was listed first in order of importance.³¹ And in his January 2020 address to the Federal Assembly, Russia’s upper chamber of parliament, the Russian president admitted that Russia’s birth rate, which had been temporarily buoyed by the social measures enacted by the Kremlin in years past, is “falling again,” and stressed that the country had entered “a very difficult demographic period.”³² In the same address, he staked out a goal of raising the national fertility rate to 1.7 by the year 2024.³³ Yet even if the Russian government manages to achieve this objective, it would not reverse Russia’s demographic decline, but only slow it slightly. The long-term trendline of Russia’s population remains one of decay.

²⁶ “Mortality rate in Russia from 1950 to 2020,” *Statista*, n.d., available at <https://www.statista.com/statistics/1089615/russia-death-rate/>.

²⁷ Michael Kofman, “Russian Demographics and Power: Does the Kremlin have a long game?” *War on the Rocks*, February 4, 2020, available at <https://warontherocks.com/2020/02/russian-demographics-and-power-does-the-kremlin-have-a-long-game/>.

²⁸ Evgeny Gontmakher, “Russia’s demographic setback,” Geopolitical Intelligence Services AG, January 31, 2022, available at <https://www.gisreportsonline.com/r/russia-demographic-decline/>.

²⁹ As cited in Uliana Pavlova, “5 Million Russian Citizens Left Russia Under Putin,” *The Moscow Times*, October 13, 2021, available at <https://www.themoscowtimes.com/2021/10/13/5-million-russian-citizens-left-russia-under-putin-a75246>.

³⁰ Judy Twigg, “Russia is Losing its Best and Brightest,” *The National Interest*, June 13, 2016, available at <http://nationalinterest.org/feature/russia-losing-its-best-brightest-16572>.

³¹ “Президент подписал Указ «О национальных целях и стратегических задачах развития Российской Федерации на период до 2024 года»” [The president has signed the order “On national goals and strategic tasks for the development of the Russian Federation for the period until the year 2024”], kremlin.ru, May 7, 2018, available at <http://kremlin.ru/events/president/news/57425>.
<http://kremlin.ru/events/president/news/57425>.

³² Vladimir Putin, Presidential Address to the Federal Assembly, January 16, 2020, available at https://www.defesamet.com.br/en/e_russiadocs/noticia/35448/Vladimir-Putin---Presidential-Address-to-the-Federal-Assembly/.

³³ *Ibid.*

Just how significant is a matter of some dispute. As of early 2022, Russia's population stood at 145.8 million people³⁴—a total which includes the addition of some two million comparatively new citizens as a result of the Kremlin's 2014 occupation and subsequent annexation of Ukraine's Crimean Peninsula. But authoritative studies have painted a grim picture of Russia's long-term demographic trajectory. For instance, Russia's own state statistical service has mapped out an "average" path of decline of the Russian population to 143 million by 2035, and a "worst case" scenario of 135 million by that year.³⁵ A 2019 United Nations study tallied the data differently, and outlined a "median" scenario in which Russia experiences a population decline of some seven percent, to 135 million, by the year 2050.³⁶ Under its most "pessimistic" scenario, the same UN study projected that Russia's population could plummet to 124.6 million by 2050 and 83.7 million by the year 2100.³⁷

Other prognoses are starker still. In a 2015 report, the prestigious Russian Presidential Academy of National Economy and Public Administration (RANEPA) argued that, without significant remedial action on the part of the Russian state, the country's population could shrink to 113 million by the year 2050 owing to structural problems in Russia's population pyramid.³⁸ "In 10 years the number of women in the most active reproductive age (20-29 years, when almost two-thirds of all births take place), will fall by almost half; this will inevitably lead to a reduction in the number of births," it outlined.³⁹

Whatever the true direction of Russia's population, it is clear that under all but the most optimistic scenarios, it remains a downward trajectory rather than an upward arc. Meanwhile, the Kremlin's foreign policy priorities have significantly exacerbated this trend. By mid-March of 2022, for instance, as many as 200,000 Russians were estimated to have fled the country because of the war in Ukraine.⁴⁰ (More have departed since, although accurate tallies are not readily available as of this writing.)

Against this backdrop, Russia's imperial impulse has become something of a solution to the country's persistent population deficit. As seen from Moscow, territorial conquest has the potential to fix what social programs and state funding to date have not, and rectify the country's deeply adverse demographics.

Indeed, the concept of a "greater Slavic state" has long been a fixture in the geopolitical imagination of post-Soviet elites. In late 2001, the Russian government even passed a law establishing the legal framework for the Russian Federation to peacefully reabsorb a number

³⁴ "Total resident population of Russia from 1959 to 2022," *Statista*, n.d., available at <https://www.statista.com/statistics/1009271/population-size-russia/>.

³⁵ As cited in Kofman, "Russian Demographics and Power: Does the Kremlin have a long game?" op. cit.

³⁶ United Nations Department of Economic and Social Affairs, "World Population Prospects 2019: Russian Federation," n.d., available at <https://population.un.org/wpp/Graphs/Probabilistic/POP/TOT/643>.

³⁷ "UN Predicts Russia's Population Could Halve By 2100," *The Moscow Times*, June 18, 2019, available at <https://www.themoscowtimes.com/2019/06/18/un-predicts-russias-population-could-halve-2100-a66035>.

³⁸ Russian Presidential Academy of National Economy and Public Administration (RANEPA), *Critical 10 Years. Demographic Policies of the Russian Federation: Successes and Challenges* (Delo, 2015), available at <https://www.wilsoncenter.org/sites/default/files/10%20Critical%20years%20english%20version.pdf>.

³⁹ *Ibid.*

⁴⁰ Rayhan Demytrie, "Russia faces brain drain as thousands flee abroad," *BBC*, March 13, 2022, available at <https://www.bbc.com/news/world-europe-60697763>.

of former Soviet territories.⁴¹ Conceivably, this would include Russia's territorial acquisition of the entirety of Belarus, as well as parts of Georgia, Kazakhstan, and Ukraine. Theoretically, at least, the basis for such an expansion exists. Belarus, population 9.4 million, is 8.3% Russian, but has been formally federated with Russia as part of a "Union State" since the late 1990s⁴²—a status that makes it a prime candidate for absorption. In Georgia (population 4.9 million), Russians make up a tiny fraction of the population⁴³—although their number is now growing, thanks to immigration spurred by the current war in Ukraine. Kazakhstan's population of 19.3 million is approximately twenty percent Russian.⁴⁴ Meanwhile, more than 17 percent of Ukraine's population of 43.5 million is ethnically Russian.⁴⁵

The results would be massively beneficial to Moscow. If successful, American Foreign Policy Council president Herman Pirchner has noted, such an ethnically-based expansion would swell Russia's size by more than 20 million people.⁴⁶ Even a more modest version—one reflecting Russia's current, limping war effort in Ukraine—could see the Kremlin annex enclaves in Georgia and Ukraine cumulatively housing millions of ethnic Russians as part of efforts to erect what scholar Mark Galeotti has termed a "budget empire."⁴⁷

A EURASIAN CURRENT

But demographics alone do not provide sufficient basis to explain the Kremlin's neo-imperial maneuvers. The extent and resilience of the phenomenon is difficult to comprehend without understanding the ideological infrastructure that underpins it. That infrastructure is, at least in part, attributable to the renewed influence in Russian politics of Eurasianism, an early 20th century philosophy championing the cultural and political struggle between the West and a distinct Russia-led "Eurasian" subcontinent. In the last two decades, a noticeable reversion to "new right" balance-of-power politics has taken place among Russia's policy-making elite, providing the ideology with new salience. And the person who best embodies, and articulates, its tenets today is someone most Westerners have never heard of: the far-right Russian political thinker Aleksandr Dugin.

Since the mid-1990s, Dugin—a former KGB archivist, political agitator and activist—has emerged as both the public face and the most prominent champion of a revamped version of the philosophy previously propounded by Russian theoreticians such as Count Nikolai

⁴¹ As republished in Pirchner, *Reviving Greater Russia?* op. cit.

⁴² The *Union State Treaty between the Republic of Belarus and the Russian Federation* was signed on December 8, 1999. See President of the Republic of Belarus, "Union State," n.d., available at <https://president.gov.by/en/belarus/economics/economic-integration/union-state>.

⁴³ See, for instance, "Georgia: Ethnic Russians Feel Insulated From Tensions," *Radio Free Europe/Radio Liberty*, October 11, 2006, available at <https://www.rferl.org/a/1071955.html>.

⁴⁴ "Kazakhstan," *CIA World Factbook on Intelligence*, June 7, 2022, available at <https://www.cia.gov/the-world-factbook/countries/kazakhstan/#people-and-society>.

⁴⁵ "Ukraine," *CIA World Factbook on Intelligence*, June 6, 2022, available at <https://www.cia.gov/the-world-factbook/countries/ukraine/#people-and-society>.

⁴⁶ Pirchner, *Reviving Greater Russia?*, op. cit.

⁴⁷ Mark Galeotti, " 'Putin the Great' and his budget empire can only deliver a fake victory," *Sunday Times* (London), June 12, 2022, available at <https://www.thetimes.co.uk/article/vladimir-putin-pound-shop-empire-buys-fake-victory-russia-bpxrcsvf>.

Trubetskoi and Lev Gumilev. Dugin's magnum opus, 1997's *Osnovy Geopolitiki: Geopoliticheskoye Budushie Rossiye* [The Foundations of Geopolitics: Russia's Geopolitical Future],⁴⁸ lays out the main tenets of his revamped take on Eurasian exceptionalism. Central to them is the idea that Russia is destined to be an empire. Russia "cannot exist outside of its essence as an empire, by its geographical situation, historical path and fate of the state," Dugin has argued.⁴⁹ As a result, he posits, Russia is destined to be in perpetual conflict with the "atlanticist" West. Indeed, in a throwback to the theories of such strategists as Alfred Thayer Mahan and Sir Halford Mackinder, Dugin sees contemporary global politics as an existential battle between land powers, like Russia, and sea powers (such as the UK and U.S.). This contest, in Dugin's conception, is intrinsically anti-Western. As he explains it, "the strategic interests of the Russian people must be oriented in an anti-Western fashion (deriving from the imperative to preserve the identity of Russia's civilization)."⁵⁰

Yet how popular is Dugin, really? In the West, it has become fashionable in recent years—and especially since the February 2022 invasion of Ukraine—to overstate the man's importance to Russian strategic doctrine. In numerous Western journals and periodicals, Dugin has been depicted as a contemporary version of Grigori Rasputin, the "mad monk" who held Tsar Nicholas II in his thrall in the early 20th century.⁵¹ The reality is, naturally, more nuanced. Dugin's career has ebbed and flowed with the vagaries of the Kremlin. In the early 200s, He served as a foreign policy adviser to a number of senior Russian parliamentarians, including the communist-"patriotic" Duma speaker Gennady Seleznev, as well as to high-ranking officials in Russian defense and foreign policy circles.⁵² Subsequently, during the Russian government's more pragmatic phase—roughly coinciding to the Presidential tenure of former Prime Minister Dmitri Medvedev—the firebrand ideologue was relegated to the halls of academia.⁵³ More recently, he has reemerged as an independent political activist and thinker, agitating in favor of Putin's Ukraine campaign and laying out new targets for Russia's eventual expansion.⁵⁴

⁴⁸ Alexandr Dugin, *Osnovi Geopolitiki: Geopoliticheskoye Budushie Rossii* (Moscow: Arctogia-Centr, 1999).

⁴⁹ As cited in Charles Clover, "Will the Russian Bear Roar Again?" *Financial Times*, December 2, 2000, available at <http://eurasia.com.ru/eng/ft.html>.

⁵⁰ Dugin, *Osnovi Geopolitiki: Geopoliticheskoye Budushie Rossii*, 190.

⁵¹ See, for instance, Ayesha Rascoe, "Russian intellectual Aleksandr Dugin is also commonly known as 'Putin's brain,'" *NPR*, March 27, 2022, available at <https://www.npr.org/2022/03/27/1089047787/russian-intellectual-aleksandr-dugin-is-also-commonly-known-as-putins-brain>; see also Tara Isabella Burton, "The far-right mystical writer who's helped shape Putin's view of Russia," *Washington Post*, May 12, 2022, available at <https://www.washingtonpost.com/outlook/2022/05/12/dugin-russia-ukraine-putin/>.

⁵² Clover, "Will the Russian Bear Roar Again?" op. cit.

⁵³ From 2008 to 2014, Dugin headed the Sociology of International Relations department at the prestigious Moscow State University, where he taught courses on geopolitics and political theory. He was dismissed by the university in 2014 amid a controversy over his teachings and influence. See Catherine A. Fitzpatrick, "Russia This Week: Dugin Dismissed from Moscow State University? (23-29 June)," *The Interpreter*, June 27, 2014, available at <https://www.interpretermag.com/russia-this-week-what-will-be-twiters-fate-in-russia/>.

⁵⁴ Alexander Nazaryan, "Philosopher known as 'Putin's Brain' says Russia needs to escalate Ukraine war," *Yahoo! News*, April 14, 2022, available at [The Sun \(London\), April 4, 2022, available at <https://www.thesun.co.uk/news/18109464/vladimir-putin-mystic-rasputin-aleksandr-dugin-ukraine-russia/>.](https://news.yahoo.com/philosopher-known-as-putins-brain-says-russia-needs-to-escalate-ukraine-war-130652838.html?guccounter=1&guce_referrer=aHR0cHM6Ly93d3cuZ29vZ2xlLmNvbS8&guce_referrer_sig=AQAAAEgT53-tdPnSSl6FPUOvPUUcXsX_fGv5OtgoAudsZ1vnaEpsYnc5HnwhifExrIQ89gNT-Sap2Ca5inFMC4eqnwDAG3SPwvbwobfwcyAgB3i_bKg31wZ9vdWhwAgKuSaMXEix0HH0zP4zKxEYH5TinRe4kDUVSub8xrNV2sImX; Anthony Blair,)

Yet it would be a mistake to underestimate the impact that Dugin's ideas about Russian greatness have had upon the self-image of the Kremlin's imperialists over the years, insofar as they align with—and provide justification for—the foreign policy priorities of those actors. For instance, Dugin's formulation of the Slavic parts of Ukraine as "Novorossiia" (New Russia) in 2013 and 2014 were subsequently embraced by the Kremlin and used in official propaganda in support of the invasion and annexation of Crimea.⁵⁵ His view of the "spiritual unity" of Russia and Ukraine has similarly been echoed in President Putin's unfounded (but deeply-held) assertion that Russians and Ukrainians are "one people" that must be unified.

Indeed, Dugin's writings have become influential precisely because they so adroitly weaponize "Derzhavnost," the idea of Russia as a great power that wields great strategic and convening power in the country's conception. As former Russian parliamentarian Sergei Kovalev has explained, "Derzhavnost is the view of the state as a highly valuable mystical being that every citizen and society as a whole must serve."⁵⁶ Dugin's theorems have thus gained favor among Russian elites discontented with their country's diminished post-Cold War international status. Russia scholars Fiona Hill and Clifford Gaddy have noted that Russian president Vladimir Putin himself articulated "Derzhavnost" as central to the ideological conception of the state that he propounded in his "Millennium Message," immediately upon taking the reigns of power in Moscow in the last days of 1999.⁵⁷

Nor is Putin the only influential Russian politician to embrace these precepts. Sergey Shoigu, Russia's current Defense Minister and the Kremlin's pointman for its current campaign in Ukraine, is a known Eurasianist and adherent to imperial aspirations.⁵⁸ So, too, is Russian Foreign Minister Sergey Lavrov, who has praised the writings of Lev Gumilev, the Russian intellectual and philosopher who, in his day, championed the notion that the nations of the Soviet Union were all part of an Eurasian collective.⁵⁹ Then there is Vladislav Surkov, a top advisor to Putin and the mastermind of the Kremlin's concept of "managed democracy," who has argued in the past that "[h]aving fallen from the level of the USSR to the level of the Russian Federation," Russia has now "returned to its natural and only possible state of a great, growing ... community of peoples."⁶⁰ In a February 2019 article in the *Nezavisimaya Gazeta* newspaper, Surkov went further still, lionizing Russia's "innate status" as a great power as a "starring role... assigned to our country by world history."⁶¹

⁵⁵ Burton, "The far-right mystical writer who's helped shape Putin's view of Russia," op. cit.

⁵⁶ Sergey Kovalev, "The Putin Put-On," *New York Review of Books*, August 9, 2001, available at <https://www.nybooks.com/articles/2001/08/09/the-putin-put-on/>.

⁵⁷ Fiona Hill and Clifford Gaddy, *Mr. Putin: Operative of the Kremlin* (Brookings Institution Press, 2013), 38-39, 238.

⁵⁸ Yaroslav Trofimov, "How Far Do Putin's Imperial Ambitions Go?" *Wall Street Journal*, June 24, 2022, available at https://www.wsj.com/articles/how-far-do-putins-imperial-ambitions-go-11656085978?st=538012c5p3mb3ms&reflink=article_email_share.

⁵⁹ Luka Ivan Jukic, "A Russian Intellectual Fortified the Notion of a Eurasian Civilization," *NewLines Magazine*, November 1, 2021, available at <https://newlinesmag.com/essays/a-russian-intellectual-fortified-the-notion-of-a-eurasian-civilization/>.

⁶⁰ As cited in Nadezhda Arbatova, "Three Faces of Russia's Neo-Eurasianism," *Survival* 61, no. 6, November 2019, available at <https://www.iiss.org/publications/survival/2019/survival-global-politics-and-strategy-december-2019january-2020/616-02-arbatova>.

⁶¹ Vladislav Surkov, "Долгое государство Путина [The long government of Putin]," *Nezavisimaya Gazeta*, February 11, 2019, https://www.ng.ru/ideas/2019-02-11/5_7503_surkov.html?print=Y.

Russia's current decisionmaking elite, in other words, is united around a common vision of historical destiny—one that views their country as an expanding, revanchist imperial power at odds with the prevailing world order.

SEEING RUSSIA STRAIGHT

Cumulatively, these factors—persistent imperial nostalgia, internal demographic pressures, and an appealing ideology of expansionist destiny—help to explain a great many of Russia's contemporary foreign policy maneuvers. They can also serve as useful guideposts for what the West can expect from the Kremlin in the years ahead.

This holds true whether or not Vladimir Putin remains in the country's top post. Amid the Russian military's spectacular stumbles in the early phases of its current war in Ukraine, and as the economic and political costs of the conflict have mounted for Moscow, speculation has run rampant that Russia's president might soon leave the political scene, either willingly or by force. In a Spring 2022 interview, Sir Richard Dearlove, the former Director of Britain's Secret Intelligence Service, MI6, speculated that Putin could be pushed aside in a matter of months as part of a soft political transition in Russia that removes Putin from power.⁶² Other scenarios have posited the possibility of a successful assassination attempt against Russia's president, or a "palace coup" of some sort orchestrated by his inner circle.⁶³

What type of regime might follow any of these developments is unclear. While at least some hope in the West remains that, post Putin, Russia will trend in a more pluralistic and open direction, such a future is far from assured.⁶⁴ In fact, in historical terms, it is far more likely that Russia undergoes what political scientists Barbara Geddes, Joseph Wright and Erica Frantz have described as an "autocratic to autocratic" transition,⁶⁵ in which Putin is replaced by another strongman or analogous illiberal figure. Once he is, the same strategic factors that have preoccupied Putin to date can be expected to weigh upon his successor as well, irrespective of the way in which they ascend to power in Russia's fractious domestic political scene.

By understanding these drivers more fully, policymakers in Washington and European capitals can better predict Russia's behavior, and its foreign policy priorities, in the years ahead. They can also, at long last, begin to formulate a policy response that is calibrated to the sources of contemporary Russian conduct.

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⁶² Fatma Khaled, "Putin Will 'Be Gone By 2023,' Likely to Sanatorium, Predicts Ex-MI6 Chief," *Newsweek*, May 22, 2002, available at <https://www.newsweek.com/putin-will-gone-2023-likely-sanatorium-predicts-ex-mi6-chief-1708926>.

⁶³ See, for instance, Tom Watling, "Putin on brink of being 'deposed in some sort of palace coup' over Ukraine failure," *The Express* (London), May 10, 2022, available at <https://www.express.co.uk/news/world/1607870/Vladimir-Putin-deposed-overthrown-coup-Ukraine-failure-Russia-vn>.

⁶⁴ See, for instance, Herman Pirchner, Jr., *Post-Putin: Succession, Stability, and Russia's Future* (Lanham, MD: Rowman & Littlefield, 2019).

⁶⁵ Barbara Geddes, Joseph Wright and Erica Frantz, "Autocratic Breakdown and Regime Transitions: A New Data Set," *Perspectives on Politics*, Vol. 12, Iss. 2, June 2014.





ANALYSIS

THE SHANGHAI COOPERATION ORGANIZATION: AN EVOLUTION IN THE GLOBAL LANDSCAPE

By Christopher C. Harmon

Even two decades after its founding, the Shanghai Cooperation Organization (SCO) has remained nearly unknown to Americans, including many at work on international security. Yet it has tremendous breadth and could well become an organization of consequence. Some three billion people are represented by the SCO's member states. The group includes the two largest rivals to U.S. power, Russia and China—both more adversarial than they were just a few years ago. Remarkably, the SCO has four nuclear-armed powers. One of those, the most benign, is the democratic regional actor to which the U.S. drew nearer during the Barack Obama and Donald Trump administrations: India.

China, Russia and Central Asian states built this “permanent intergovernmental international organization.”¹ It opened for business in June 2001. With South Asian accessions in 2017, the membership now stands at eight which together have great geographical reach: China, India, Kazakhstan, Kyrgyzstan, Pakistan, Russia, Tajikistan, and Uzbekistan. All of these states see challenges which are internal, or cross borders, or do so potentially; founders spoke of “three evils” they believe justify the creation of the partnership: terrorism, separatism, and extremism.

As the Kazakh analyst Murat T. Laumullin noted at the time of the SCO founding, Islamist militants were living openly in large communities in the region.² This was most brazen in the Fergana Valley--on territory of Uzbekistan but beside lands of Tajikistan and Kyrgyzstan, and only two hundred miles west of China's Uighurs for whom the pull of Islam is marked. China spoke out often against the prospect of any movement for an “East Turkistan” carved from Xinjiang and worried over conflict between the Muslim Uighur peoples within the borders of the People's Republic of China and the vast popular majority of Han. Russia, for its part, had been repeatedly wounded by Chechen terrorists and felt threatened by armed Salafists. Pakistan has never been able to suppress insurgency in Baluchistan. Certainly, separatism is a grave concern for the members.

A “Regional Anti-Terrorist Structure” was thus created early on by the Shanghai Cooperation Organization. It has boasted of neutralizing hundreds of terrorist training camps, pre-empting outright attacks, arresting many militants, extraditing some, and sentencing others.³ Such claims are not well co-substantiated, and naturally there are fears that governments are using “counterterrorism” to repress peoples of different cultures or political views. The “RATS” headquarters is in Bishkek, Kyrgyzstan; staff come mainly from

¹ Website of the Shanghai Cooperation Organization: <http://eng.sectsc.org/>.

² Murat T. Laumullin, *The Geopolitics of XXI Century in Central Asia* (Almaty: Kazakhstan Institute for Strategic Studies, 2007), p. 138 and more generally chapter 4.

³ Data reported by SCO Secy. Genl. Rashid Alimov to the United Nations and quoted by Australian scholar Christopher Snedden, author of an excellent unpublished 14-page paper “Shanghai Cooperation Organization,” created in July 2018 at the Daniel K. Inouye Asia-Pacific Center for Security Studies [Honolulu]. Alimov's original article may be found at: <https://www.un.org/en/chronicle/article/role-shanghai-cooperation-organization-counteracting-threats-peace-and-security>.



Kazakhstan, Russia and China—also the three major financial donor of the SCO's early years. The Regional Anti-Terrorist Structure publishes task lists that include data collection, coordinating counterterror capabilities, joint work on collective response, and counterterrorist exercises.

Russia is enjoying insider advantages with leadership. Russia's Yevgeny Sysoyev has been one of those to hold charge of the Regional Anti-Terrorist Structure's top post between 2016 and 2018.⁴ Meanwhile, a Russian national controls the new, elevated United Nations (U.N.) position of Under Secretary General for Counter Terrorism.⁵ Initiatives to integrate the older Commonwealth of Independent States post on counterterrorism with both the U.N. and SCO may follow naturally for Russia, the dominant CIS power. Said differently: SCO may not be dazzling the world with innovations in global thinking on terrorism, but Moscow may be tightening its own trap lines and tracking everyone else's work, with all the advantages it has in intelligence, etc. Moscow now coordinates more-than-national-level bureaucracies.⁶ And their work is mostly un-exceptional to nearly all world countries; it is rare for a state to protest at others collaborating against international terrorism.

Martial exercises are another major category of SCO's business. This is true even though the organization's web site guides readers to other topics, including humanitarian aid. Jane's information services report on Shanghai Cooperation Organization exercises and have noted how many of them look quite conventional as to arms and maneuvering forces, suggesting they do not suit Special Operations against a few armed terrorists so much as methodical wide operations against separatist areas. Those indeed have their place in the view of the founders: the initial "Shanghai Five" states of the pre-2001 decade were most eager to resolve border differences (and conflicts) on the continent exposed by the shrinking away of the Union of Soviet Socialist Republics.⁷ More recently Inner Mongolia, Vladivostok, and Shandong have all hosted combined SCO country military exercises. Kyrgyzstan was a host in 2016. A "Peace Mission-2018" military exercise ran in the Ural Mountains.⁸

⁴ Sources here include a news story of February 16, 2022: "Joint Position of the SCO RATS, the CIS ATC and the CSTO Secretariat on Combating Terrorism and Extremism was signed," available at <https://en.odkb-csto.org/news/odkb/sostoyalos-podpisanie-sovmestnoy-pozitsii-rats-shos-atts-sng-i-sekretariata-odkb-po-voprosam-protivo/#loaded>.

⁵ Recent speeches by Vladimir Voronkov include remarks in Tajikistan in April 2022: "Opening Remarks by Mr. Vladimir Voronkov, Under-Secretary-General, United Nations Office of Counter-Terrorism (UNOCT)," available at https://www.un.org/counterterrorism/sites/www.un.org.counterterrorism/files/opening_statement_usg_tajikistan_nap_event_as_delivered.pdf.

⁶ This year has seen at least one coordinating effort between the SCO (RATS) and the Russian leading U.N. efforts, which was reported by the SCO as follows: "CONVERSATION WITH UNDER-SECRETARY-GENERAL OF THE UNITED NATIONS OFFICE OF COUNTER-TERRORISM MR VLADIMIR VORONKOV. On 7 February 2022, Mr. Ruslan Mirzaev, Director of the Executive Committee had a video call with Mr. Vladimir Voronkov, UN Under-Secretary-General of the United Nations Office of Counter-Terrorism (UNOCT). During the conversation, the parties exchanged views on bilateral cooperation issues, in particular, the possibilities of organizing and conducting joint events, as well as potential areas for further interaction. The parties paid special attention to the situation in Afghanistan and discussed the current military-political situation in this country. Expressing satisfaction at the current level of cooperation between SCO RATS and UNOCT, the parties reaffirmed their commitment to strengthen interaction in organizing and conducting practical events within their respective mandates. The meeting took place in an atmosphere of mutual understanding and partnership. SCO RATS Executive Committee."

⁷ "History of Development of SCO," *China Daily*, June 12, 2006, available at https://www.chinadaily.com.cn/china/2006-06/12/content_6020347.htm.

⁸ The SCO's website reports on such exercises. There is a useful table with some details presented in Matthew Southerland et. al, "The Shanghai Cooperation Organization: A Testbed for Chinese Power Projection," U.S.-China Economic and Security Review Commission,

Economic issues take a place well behind security issues for SCO, but their presence is marked nonetheless. SCO's Business Council, located in Moscow, labors to coordinate trade, and an Interbank Consortium with a presidency that rotates among SCO members helps with the international funding such trade requires. Recent items on the SCO web site indicate efforts to enhance food security and agriculture and to collaborate on rail and other transport systems—highly sensible propositions. Crucially, to Western interests as well as Chinese, nearly all members pledge support to aiding the Chinese “Belt and Road Initiative.” And so (as with Moscow's lead on counter-terrorism) this is one of many ways that Beijing's geopolitical ends are furthered via organizational tools of the twenty-one year old SCO. Economic projects are also safe, suitable for initiatives by the newest members. Pakistan has pushed an SCO initiative against poverty, while India adds to the agenda some objectives in innovation and business start-ups.⁹

No one doubts that China sits at a central place in all this work. Beijing's stature is enhanced by the “new” organization. China knows that an SCO structure, up and running, inherently reduces some options of Washington in the region and may parry American “intrusions” on Central Asian affairs—a clearly-expressed aim of many SCO members from the beginning. Given the collapse of America's limited efforts to help Burma politically,¹⁰ and the catastrophic withdrawal from Afghanistan, the region tilts in Beijing's direction. China is also doubtless wary of any gains Russia may seek in the region. By “hugging the belt” of its partner and rival, China might find ways to contain Russian influence in the former Soviet states too—or at least balance any initiative Russia undertakes there. In economics, Chinese dynamism has waned somewhat, yet it still swamps its regional rivals in economic power. The SCO may expand the ways in which Beijing seeks out energy sources—a near-obsession for Chinese planners. Finally, the Secretary General of the SCO is Zhang Ming, and Beijing also has one of the Deputy Secretary General slots.

What are the limits of the Shanghai Cooperation Organization? What issues are not addressed well by these eight countries working together? They are many.

The globe might well be relieved to see quiet on the first front, the nuclear. As yet there are no public suggestions of cooperation on nuclear affairs. Given Pakistan's past in proliferating bomb technology, the disturbing characters of Russian and Chinese foreign policies, and the new growth in the Chinese arsenal, it seems best (for the West) if the nuclear-armed states in SCO stay clear of arms discussions. Perhaps they have. Certainly, there are anti-proliferation slogans that sometimes issue from SCO meetings. But given energy hunger, will there be a later stage when collective work on nuclear energy is opened?

At the far end of the standard--the polar opposite where power is softest--the eight participants of SCO talk of controlling political extremism—one of the root issues for which

November 12, 2020, available at https://www.uscc.gov/sites/default/files/2020-11/Shanghai_Cooperation_Organization-Testbed_for_Chinese_Power_Projection.pdf.

⁹ Surprisingly little has been published about the 2017 accession of the two new South Asian members (who are mutual nuclear rivals) in SCO.

¹⁰ U.S. “track two” diplomacy offered limited counsel to Myanmar's National Security Council. The White House and the State Department sought to support democratization more widely in Myanmar. All that now seems swept away in the military seizure of power, succeeded by despotism. This *coup d'etat* is still contested by brave souls in the cities today and growing insurgency in the countryside.

SCO was founded. For example, there is a “Joint Appeal to Youth,” and effort towards their “spiritual and moral education.” But thus far no especially creative solutions have resulted from the discussions. It may be difficult to imagine Prime Minister Modi’s BJP (India) colluding well with Sunni Muslim leadership (in Pakistan) when New Delhi correctly identifies Islamabad as a state sponsor of some attacks by politico-religious zealots upon India, as in Mumbai, 2008. Major cultural differences also divide many of the SCO members. Finally, there remains the serious problem, apparent in the West where we have fumbled on this issue for two decades, that knowing violent extremism is bad does not get one down the road to a remedy by government.

This raises the related question of what the United States, its allies and partners, might wish for the SCO.

The present author has long-argued that opposition to Salafist Muslim international terrorism is an excellent ground for Washington to collaborate with Beijing—especially as there are so few other bilateral prospects. Horrific and totalitarian measures against the Uighurs have made this more difficult politically for persons not of the PRC, but it still is possible, as before, in dealing with international terrorism *at international levels*. The full SCO membership has intense concerns about Islamist extremism,¹¹ and the U.S. shares them. Perhaps India, acting via business councils and aid societies, could offer help, education, and technology to people in Baluchistan, that heated and violent Pakistani region, in some quiet bargain by which Pakistan holds back separatists against India in Kashmir and militants among Indian Muslims. It is unlikely, and yet *with Pakistan and India joining SCO, this is the right time for them to think creatively*.

Afghanistan has been heartbreak and disaster for the Western world, which devoted to it endless aid, good will, and martial assistance. No less than five SCO countries border on Afghanistan, which holds official “observer” status. The Shanghai group must work on the Afghan problem now, in its latest iteration, which is the return of Taliban tyranny a second time around. Never has it been so obvious that imagination and assistance are needed for this neighbor, and that regional self-interest and mutual security will be the beneficiaries.¹² U.S. policy makers would be smart to press SCO for action—and there is little down-side to Washington doing so.

The drugs problem follows realities in Afghanistan. The Taliban’s scandalous, anti-Muslim practice of furthering and heavily taxing the export of illegal narcotics must cease,¹³ and while the perpetrators never cared about Western victims, perhaps now the SCO membership can force upon them some new directions. Neighbor countries have rising drug problems—even India does (although India’s rise is not due to Afghan exports). All the

¹¹ Two decades after 9-11 I hope it goes without saying that “Islamism” is hardly the same thing as the Muslim faith. U.S. concerns spoken of here include not moderate faith but Islamist extremism and terrorism.

¹² While some of us may hope the SCO will move on Afghan problems, consider the pessimism about that from academic Eva Sewart in a September 30, 2021 article: “The Shanghai Cooperation Organization Will Not Fill Any Vacuum in Afghanistan,” available at <https://www.fpri.org/article/2021/09/the-shanghai-cooperation-organization-will-not-fill-any-vacuum-in-afghanistan/>.

¹³ Early evidences of this were marshalled by journalist Gretchen Peters, especially in the second edition of her book *Seeds of Terror* (New York, NY: St. Martin’s Press, 2010). Since that appeared, the published literature documenting Taliban malfeasance has been powerful. In modern times, no other insurgency but FARC in Colombia has made as many hundreds of millions in the dope trade.

“stans” should come together around this most obvious of human problems. SCO may or may not markedly reduce “the three evils” but the fourth is surely illegal drugs. SCO may indeed sense the significance in the opportunity; recently it has been discussing building out an international center in Dushanbe, Tajikistan.

United States policy as to the SCO lacks definition. A February 2020 paper from the Department of State on “United States Strategy for Central Asia 2019-2025”¹⁴ never mentions the organization. Nor does the February 2022 U.S. Indo-Pacific Strategy from the White House.¹⁵ The creation of the SCO was not in U.S. interests for the region, yet it exists, and it has grown recently, so a policy paper guiding U.S. officials is overdue. Probably the United States is not in position—especially given the war in Russia—to move the Shanghai group on policy. But as indicated with Afghanistan, and drug exports, the United States can work, overtly or quietly, at limited objectives and at other levels.

It is apparent that the United States hopes its limited economic and environmental assistance to the region, and border security initiatives and counterterrorism training, somewhat offset the influence of Russia and China and will create new friends in the “stans.” Washington speaks of some 70 projects conducted over the region—although the time frame on these is unclear.¹⁶

Perhaps within the State Department there are discussion of how to use “The Quad” (India, Japan, Australia, United States) and other U.S. partnerships to *counter* SCO influences. Relatedly, it might be possible for Washington to obtain Indian liaison, indirectly, to influence a few of the SCO’s activities and deter it from untoward action. By its work inside The Quad and also the SCO, perhaps India may help better inform the U.S. on what actions can be taken to *deter* aggressiveness by China or Russia.

Certainly, there will be opportunities for the United States to try to widen the differences between Beijing and Moscow. On the macro scale, few objectives could be more useful strategically; even minor gains would be important. Some of the smaller states might well quietly help with this—for their own reasons.

The most *disturbing* prospect, as suggested above, is that SCO will lead to closer Russian-Chinese cooperation. Another unpleasant thing to ponder could be possible admission of either of the two official “observer” states now linked to SCO: Afghanistan, or Iran. To have both on the inside would change the tenor of SCO discussions on many a subject. Today the SCO declarations are often bland expressions of the value of a “multipolar” world or a “polycentric” world—the meanings of which begin with a soft poke at the decline of U.S. power on the global stage. Adding one or two rogue states run by religious extremists would

¹⁴ Department of State, “United States Strategy for Central Asia 2019-2025: Advancing Sovereignty and Economic Prosperity (Overview),” February 5, 2020, available at <https://www.state.gov/united-states-strategy-for-central-asia-2019-2025-advancing-sovereignty-and-economic-prosperity/>.

¹⁵ The White House, *Indo-Pacific Strategy of the United States*, February 2022, available at <https://www.whitehouse.gov/wp-content/uploads/2022/02/U.S.-Indo-Pacific-Strategy.pdf>.

¹⁶ This author had the honor of participating in several of the counterterrorism education efforts in Central Asia launched from the George C. Marshall European Center for Security Studies. The DoS paper of 2020 as referenced takes pride in “over 200 training activities” on border security involving over 2600 Central Asian border officers.

harden the organization's positions vis-à-vis Washington, the West, and liberal interests world-wide. Fortunately, neither Iran nor Afghanistan is likely to be admitted soon; authoritarians in charge of many SCO states might be even more worried by those bordering states than are thoughtful Americans.

An altogether different path for the SCO is unlikely but possible: irrelevance. Consider the South Asian Association for Regional Cooperation, which does not prevent wars, was never strong in many respects, and now cannot even manage a full summit on schedule. SCO is no real powerhouse today, and hypothetically it could lose rather than gain influence during its third and fourth decades. Greater tension between Russia and China could cause that, as one example. Or a religious difference over proper Sunni positions on Shia issues could over-heat a future congress and thus cool collaboration.

The United States has paid virtually no attention to this massive, relatively new organization. It would be wiser to begin making serious assessments of its character and of U.S. opportunities. Rather than treat the SCO as an irrelevant and ineffective grouping of members with an overall anti-American bias, perhaps it is time for U.S. leaders and decisionmakers to consider options that might influence the organization's decisions in ways that favor U.S. foreign and national security objectives.

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INTERVIEWS

Over the past year, National Institute has conducted a series of interviews with key national security experts on a variety of contemporary defense and national security topics. In this issue of National Institute's *Journal of Policy & Strategy*, we present three interviews: one with Peter Huessy, Senior Fellow at the Hudson Institute and President of GeoStrategic Analysis; one with Stephan Frühling of the Strategic and Defence Studies Centre at The Australian National University; and another with Tanya Hartman, head of the Russia/Ukraine Section in the Political Affairs and Security Policy Division at NATO Headquarters. The Huessy and Frühling interviews were conducted by David Trachtenberg, Vice President of the National Institute for Public Policy and the Hartman interview was conducted by the Institute's Research Scholar Michaela Dodge. Mr. Huessy discusses the changing strategic nuclear balance between the United States, Russia, and China, and its implications for U.S. security. Professor Frühling addresses the rise of China and what it means for security relationships in the Indo-Pacific region. And Ms. Hartman discusses the implications of Russia's war in Ukraine for NATO's deterrence posture and assurance of allies.

These interviews provide insightful context on some of the critical national security issues of our time. In today's highly dynamic international security environment, they add important perspective to the contemporary debate on the threats to U.S. national security and what actions the United States should take to address these challenges.

An Interview with Peter Huessy, Senior Fellow at the Hudson Institute and President of GeoStrategic Analysis

An Interview with Peter Huessy, Senior Fellow at the Hudson Institute and President of Geo-Strategic Analysis, a defense consulting firm. Mr. Huessy discusses the changing strategic nuclear balance between the United States, Russia, and China, and its implications for U.S. security.

Q. The Biden Administration is facing significant decisions on modernization of the U.S. nuclear deterrent. Its new Nuclear Posture Review has been completed but not yet been publicly released. Some modernization critics called on the administration to eliminate ICBMs, forego the Long-Range Stand Off (LRSO) weapon, and reduce the size of the U.S. nuclear arsenal. While discarding those recommendations, the administration in its Nuclear Posture Review, did support the elimination of the nuclear sea-launched cruise missile (SLCM-N) and the B63 gravity bomb. How do you assess these various proposals?

A. As the leader of U.S. Strategic Command Admiral Richard has argued, the United States needs to deploy a nuclear capable Navy cruise missile and the B-83 gravity bomb particularly to restore the current worsening nuclear balance in medium-range capabilities.



On the strategic front, although not proposed by the administration, there remain strong elements within the global zero community and the administration that seek to eliminate ICBMs and reduce the buy of Columbia-class submarines.

Eliminating ICBMs would be a significant mistake with respect to U.S. strategic capabilities, as scrapping the diversity and insurance element represented by a three-legged Triad would increase risk and weaken deterrence. Cutting the number of submarines would also significantly reduce the number of on-alert deterrent warheads needed to cover key military targets.

There are also three other key factors that call for the deployment of a full-up ICBM force.

First, if the United States has zero ICBMs, the number of U.S. strategic nuclear assets/targets would fall to fewer than a dozen (3 bomber and 2 submarine bases plus some 4-6 submarines at sea on patrol or in transit), vastly simplifying an adversary's targeting plans.

Second, without ICBMs, submarines and bombers would have to be deployed and exercised to a higher tempo than they are designed for, resulting in greater force stress, higher costs, and earlier obsolescence.

Third, ICBMs provide the prompt launch capability (even after an attack has been confirmed) that enables the command authorities to hold at risk an entire range of adversary assets. This is critical to maintaining deterrence.

Fourth, maintaining the New START accountable 1,550 warheads (1,490 long-range missile warheads) with just a dyad of submarines and bombers means the 12 Columbia-class submarines each with 16 missiles would have to be loaded to their maximum potential, giving the United States no hedge or upload capability to deal with new strategic threats from Russia or China.

With respect to the Long-Range Standoff (LRSO) cruise missile, enhanced Chinese access and area denial capabilities mean that we must improve the ability of our bomber force to reach the targets that we need to hold at risk. While the long-range cruise missile—at standoff distance—cannot reach targets that a penetrating bomber can reach, its ability to penetrate air defenses allows the United States to hold at risk time urgent targets, a critical capability without which the U.S. deterrent would suffer significantly.

"Parity" in nuclear forces has long been the *sine qua non* of U.S. security policy and arms control. Unilaterally reducing our nuclear forces to 1,000 warheads, as proposed by some disarmament organizations, would *significantly stress the remaining force operationally*, making sustainment more costly and operations less predictable, undermining U.S. deterrent capability.

Proposals on the table to reduce the U.S. strategic nuclear arsenal irrespective of any arms control agreement seem to ignore the emerging security environment. Such a move could encourage U.S. adversaries to consider nuclear use in those areas where they have a perceived advantage, especially should a conventional conflict turn against them. This is precisely the opposite of what the U.S. deterrent is designed to prevent.

In addition, the United States has a serious extended deterrent responsibility that Russia and China do not have, which further requires the United States to have a multiplicity of

nuclear forces. Some have proposed that the United States reduce its nuclear capability in the face of these new challenges, while strengthening conventional capabilities.

This would be the wrong way to move forward. In particular, if we improve our conventional capability but leave open gaps in the nuclear balance, we give an opening to our adversaries to coerce us at the nuclear level where such nations assume they have a distinct advantage.

After all, arms control can't readily help us on this score. One hundred percent of Chinese and fifty-five percent of Russian nuclear forces remain unbounded by any current arms control agreement. Yet only five percent of U.S. nuclear forces are unfettered, to say nothing of emerging nuclear powers such as North Korea and Iran—both allied with China and Russia.

North Korea is variously determined to have between 12-100 nuclear weapons, with the ability to deliver some number by land-based missiles and perhaps now by sea. And as the Israeli-seized cache of Iranian nuclear material has revealed, Iran had plans in 2003 to build and deploy a limited number of nuclear weapons, the extent of which still remains hidden. Unfortunately, Iran's nuclear ambitions become unbounded even with a "JCPOA nuclear deal," as its provisions would expire circa 2030.

Thus, seeking to trade further U.S. nuclear reductions (under an arms control deal) for continued congressional funding of the long-delayed nuclear modernization program (without which the United States goes out of the nuclear business) puts arms control proponents in the catbird seat. As House Armed Services Committee (HASC) Chairman Adam Smith wisely noted, making U.S. modernization contingent on an arms control deal with Russia or China potentially—albeit indirectly—puts Russia or China in charge of the nuclear portion of our defense program.

Q. Some estimates place the cost of modernizing the U.S. nuclear deterrent at more than a trillion dollars over the next 30 years. Is the value we get from the deterrent capability of nuclear weapons worth the cost of modernizing it?

A. These cost estimates by the Congressional Budget Office (CBO) are unrealistic and inaccurate. The CBO estimates variously include 25-100 percent of the cost of the bomber force, which former DOD official Jim Miller estimates should actually reflect no more than 3 percent of the bomber acquisition cost.

The CBO cost estimates also assume sustainment of the future force will be similar to the cost of legacy systems, although switching to a modular and digital engineering force is expected to reduce sustainment costs significantly.

But most importantly, today nearly two-thirds of the costs of the annual \$44-51 billion spent on nuclear deterrence (including the National Nuclear Security Administration) is spent on sustainment of the current legacy force, while the acquisition of new platforms such as the B-21, the Sentinel ICBM (formerly known as the Ground-Based Strategic Deterrent, the Columbia-class submarine and the D5 and LRSO missiles comes to about \$11.5 billion in the current approved fiscal year 2022 budget.

In fact, the projected combined overall cost of strategic nuclear sustainment and modernization will be only 6.5-7.0 percent of the DOD budget over a 30-year period, with the cost of modernization alone roughly 3.2-3.5 percent of the defense budget. As General Mattis said, "America can afford survival."

Q. The United States and Russia have initiated a new "strategic stability dialogue" to lay the groundwork for possible future arms control agreements. Although this dialogue was suspended after Russia's invasion of Ukraine, arms control advocates suggest that an arms control treaty to follow the New START Treaty is necessary to foster greater stability and to improve the bilateral U.S.-Russia relationship, and that such a treaty should mandate further reductions in nuclear arsenals. Do you agree?

A. This all depends upon what is agreed-upon, how viable is the verification, and how it affects strategic stability. One could define stability as an improved strategic environment where there are fewer incentives over time for the use of nuclear weapons in a crisis or conflict. This is going to be difficult to achieve given widespread Russian rhetorical threats to use exactly such limited nuclear strikes against the United States or NATO allies, or even Ukraine, should Russian military plans be thwarted.

If pursuing arms control, the United States might seek a worldwide ban or significant limit on land-based multiple warhead ICBMs. If adopted, there would be a significant reduction in the coercive value of ICBMs. But another arms control deal with the Russians on strategic nuclear warheads that does not include theater or short-range nuclear weapons or does not include China in any such deal, whether done bilaterally or multilaterally, does not necessarily improve U.S. security or that of our allies.

Certainly, no further reductions in the U.S. force should be agreed to under treaty absent a major change in the transparency of Chinese nuclear forces and a finding by the Congress and the administration that the resultant strategic balance between Russia and China combined on the one hand and the United States on the other is stable and not threatening to U.S. security.

Although Congress now considers nuclear arms control and nuclear modernization to go hand in hand, the formula initiated in the proposals of the Reagan administration and continued by both the Obama and Trump administrations is not necessarily easily repeated.

Although a number of arms groups have pushed for U.S. unilateral reductions to 1,000 warheads, a host of new factors requires a rethinking of what kind of arms control we should pursue. And certainly, in my own view unilateral reductions should be completely off the table.

I think numbers matter.

While the nominal strategic nuclear force deployed by Russia is 1,550 warheads, the special bomber counting rules and the technical ability of Russian systems to carry far more warheads than allowed by the New START agreement gives the Russians a huge upload or hedge capability. On a day-to-day basis, Russia could quickly and easily surge and deploy three or four thousand on-alert strategic warheads.

This surge or break-out capability is compounded by the inadequate verification rules under New START, plus the continued deployment by the Russians of thousands of what are termed “theater” nuclear forces, not now under any arms limits. By contrast, the United States has deployed only some few hundred theater gravity bombs—all in Europe.

A new review of our nuclear posture has now been completed by the Biden administration—a process undertaken by every administration since the end of the Cold War. The current review took place in a strategic landscape complicated by the very robust Chinese build-up of their strategic nuclear forces. China’s arsenal will approach 1,000 deployed strategic nuclear weapons by the end of the current decade or before. China’s arsenal has already doubled in just the past two years according to Admiral Charles Richard, the commander of U.S. Strategic Command.

As other senior defense officials have cautioned, the Chinese modernization effort has grown considerably greater over time. For example, China is now constructing upwards of some 350 new missile silos, each with the ability to hold the 10-warhead long-range Chinese DF-41 ICBM.

All of which raises the question of whether it is a sound strategic decision for the United States to stand still or build-down while the Chinese are building up, especially as the full dimensions of the Chinese nuclear force remain known only to the Chinese.

In short, how can the United States sign a nuclear arms agreement with China or Russia when the Chinese nuclear force structure about which we are negotiating remains hidden?

As Frank Miller and Ambassador Eric Edelman have both recommended, the United States should seriously consider expanding the U.S. strategic nuclear force by acquiring more than the twelve Columbia-class submarines, as well as adding warheads to the Sentinel ICBM deployment beyond the single warhead configuration now planned.

In considering whether to further reduce or expand our nuclear deterrent, there are further considerations that need to be addressed. For example, the United States has extensive “nuclear umbrella” or extended deterrent responsibilities. The U.S. nuclear deterrent guarantee extends to some 30 nations within NATO and also to a myriad of allied nations in the Western Pacific, all of which depend on a highly credible U.S. deterrent. By contrast, China and Russia have none of these responsibilities.

From the U.S. perspective, the success of deterrence depends on nuclear or conventional conflict not breaking out—or remaining conventional in nature without escalation to the nuclear level or being terminated at the lowest level of conflict possible. Arms control should support that strategy.

However, Russia and China, unlike the United States, view nuclear forces as instruments of coercion and blackmail—not in the service of classical deterrence but in the pursuit of aggression, against the Baltic nations or Taiwan, for example.

For the United States, successful conventional deterrence—where the United States wins or deters a conventional conflict—works only if the nuclear deterrent threshold is not broken. But Russia and China, our peer conventional competitors, are nuclear armed. This conventional/nuclear imbalance is considered by many U.S. military leaders as the most important challenge facing the United States in securing credible and continued conventional deterrence.

Q. The Trump Administration attempted to involve China in any future arms control discussions; however, the Chinese government has been consistently reluctant to join any arms control talks. Given the recent discovery of hundreds of new Chinese ICBM silos, should the United States seek to include Chinese nuclear capabilities in any future arms control agreement? What do you believe is China's motivation for building hundreds of new silos?

A. I believe China should be part of any future new arms control agreements but that cannot be done until China is completely transparent with respect to its own nuclear forces. What exactly such an agreement might entail is difficult to predict, but priority should be given to U.S. strategic and conventional modernization and that of our allies irrespective of whether a new arms control deal is on the horizon or under negotiation.

What's the Chinese motivation to build up and in light of such objectives, why would China even consider an arms control deal reversing such modernization?

The "discovered" build-up of China's nuclear forces may reflect a decision to build a first-class and eventual "second to none" coercive (not deterrent-based) nuclear capability motivated by China's pursuit of hegemonic world power. That would of course run counter to the long claimed Chinese government assertion that China's growing power will only result in a "peaceful rise."

If China is in fact seeking a first-class coercive nuclear force, the discovered build-up makes sense. Three hundred fifty silos with 350 missiles, each with a missile such as the DF-41 that can carry 6-10 warheads, gives you a potential arsenal from silo-based missiles alone of some 2,100-3500 warheads, of which 98-99 percent would be on alert.

Compare this to the United States with about 1,000 warheads on alert and the balance of power picture becomes clearer. Here some analysts make the mistake of assuming the U.S. stockpile of strategic weapons—3,800—is somehow "operational" and thus the measure of comparison, when in fact the totality of the current U.S. nuclear arsenal that is operational on a day-to-day basis (but not necessarily on alert) is somewhere around 1,350 warheads.

In short, shouldn't the question be: Is China headed to an on-alert nuclear arsenal some 200-300 percent greater than that of the United States? And if so, what are the implications for U.S. security?

To answer that question adequately, one must also review whether alternative explanations for China's silo building make sense.

First, is the Chinese build-up simply a reasonable reaction to the U.S. nuclear modernization program and supposed U.S.-led nuclear "arms race" now underway or the previous deployment of our national missile defenses in 2004, as some analysts have claimed?

Let us de-construct such claims.

National missile defenses for the United States are comprised of 44 ground-based interceptors intended to deal with rogue state threats such as from North Korea and Iran. It is highly improbable that it took China two decades to figure out U.S. missile defenses required a huge expansion (56 times the number of U.S. interceptors) of China's nuclear weapons.

But critics claim the United States might deploy not 44 but 66 interceptors. Even so, such defenses may complicate a Chinese first strike against the United States but would not negate any Chinese retaliatory capability. Thus, if China is building upwards of 3,500 new ICBM warheads, it is not hard to overcome a very limited U.S. missile defense deployment but could very well be designed as a threatened first or pre-emptive strike capability, to say nothing of being the lead element in a Chinese plan of aggression, such as a military move against Taiwan. This would not be unlike Soviet designs on Ukraine or NATO members in Europe.

What about the charge the United States is starting an arms race by modernizing its own nuclear deterrent and the Chinese are simply following suit or catching up?

The current U.S. nuclear modernization program was agreed to in December 2010, but no new nuclear-armed U.S. missile, submarine or bomber will go into the operational force until 2029. The U.S. strategic arsenal is capped by the New START treaty, which was extended for five years in early 2021. The treaty cannot be described both as controlling U.S. nuclear force size and also consistent with a U.S. led “arms race.”

On the other hand, the Chinese have been fully modernizing for the past decade and are putting new forces in the field regularly. Admiral Richard previously warned they will at least double their nuclear warhead levels within the current decade, but now believes that increase has occurred in just the last two years.

A third explanation for the Chinese build-up has also been put forward by supporters of global zero. They admit the silos are real, but suggest they will be filled with fake decoy missiles, or missiles for which there are no available warheads. One analysis claimed that 90 percent of the new Chinese silos will be filled with fake missiles, with no more than one dozen being real missiles, a claim apparently based on having unique access to Chinese military plans.

Why worry then about only 12 real missiles?

This argument is also easy to de-construct.

China would still have to build roughly 100-150 real missiles for deployment and testing, (30 years of testing at 3-5 missiles a year).

The estimated cost for the United States to build that many missiles plus the significant cost of silo construction, would be \$33 billion, not including warheads or a nuclear command, control, and communications network.

Why would the Chinese pay the equivalent of \$2.75 billion per missile to add just 12 missiles to their current inventory? And at most 120 warheads?

On the other hand, using comparative costs for a U.S. system, building 350 new missiles plus the missiles needed over 30 years for testing and spares would cost the Chinese roughly \$77 billion, which would come to \$140 million per missile/silo (not including warhead, command, control and communications (NC3), and infrastructure costs), but only \$22 million per deployed warhead if each DF-41 missile were fully loaded.

This compares to \$75-225 million for each Sentinel warhead the United States builds, depending on whether the missile is deployed with 1 or 3 warheads.

Why would the Chinese spend tens of billions to build hundreds of missiles, the vast majority of which would be decoys or dummies rather than purchase the full deployment of

350 operational missiles with still a very small portion of their national economy, and acquire the capability to be a world hegemon?

Given its \$14 trillion economy, this new silo-based Chinese nuclear buildup comes to an estimated .0055% of China's GDP or \$1 out of every \$181. By comparison, the United States Sentinel ICBM costs \$1 out of every \$200 of GDP or .005 percent--nearly the same.

Comparing all U.S. nuclear modernization costs of \$450 billion over ten years comes to \$214 million per each of the 1,550-2100 warheads we are allowed under the New START agreement or 3 percent of our annual GDP. The China cost per warhead is \$22 million, hardly too expensive!

Q. Critics of U.S. nuclear modernization plans often assert that other countries nuclear programs are a reaction to U.S. developments and that if the United States foregoes developing new nuclear systems others will follow the U.S. lead and exercise similar restraint. This "action-reaction" narrative and its "inaction-inaction" corollary are not new and are frequently offered up as explanations for adversary behavior. What is your view of this narrative?

A. Former Defense Secretary Harold Brown famously said, "When we build, they build; when we stop, they build." He was referencing the United States and the Soviet Union. A number of studies recently have seriously debunked the "two apes on a treadmill" metaphor used by former arms control official Paul Warnke in his 1979 description of the U.S. and Soviet nuclear modernization efforts. Warnke was clever but wrong.

Recent studies on this subject, in particular by the National Institute for Public Policy, have shown the action-reaction description of the "arms race" is inaccurate. The United States for over thirty years (1997-2029) will not deploy a single new strategic nuclear platform while during that same period the Russians will bring to their force at least 32 new nuclear platform types with 22 being deployed after the 2010 New START agreement.

Q. U.S. missile defense policy has focused on defending the homeland against rogue state missile threats from countries like North Korea and Iran but relying on nuclear deterrence to protect against the more sophisticated nuclear forces of great-power competitors like Russia and China. Given the nuclear weapons programs being undertaken by both Moscow and Beijing, does this policy make sense, or is it time to reassess U.S. missile defense policy?

A. Given that even a robust U.S. missile defense capability could not defend the U.S. homeland 100 percent from all Russian and Chinese retaliatory nuclear strikes, it makes sense to examine how a robust, credible, and effective U.S. missile defense system (that also deals with exotic Russian systems) could significantly reduce the coercive and blackmail threats from ballistic missiles armed with nuclear weapons that are characteristic of Russian and Chinese security strategy.

Part of the American (especially congressional) reluctance to build a U.S. missile defense system aimed at blunting Russian and Chinese nuclear capabilities is an assumption that

Russian and Chinese nuclear forces are for classical deterrent purposes and not primary weapons to support aggression and the use of armed force against countries such as Moldova, Georgia, Ukraine, the Baltics, Taiwan, and Japan.

This is not to say that nuclear weapons are not a legitimate component of a nuclear-armed nation's strategy or do not come into play in geostrategic relations. However, as others have explained in some detail, the use of nuclear weapons in an "escalate to win" or "escalation dominance" strategy supports an approach by China and Russia that sees nuclear weapons as useful tools to be used to implement armed aggression—and not to deter a nation from actually engaging in aggression in the first place.

The United States is trying to prevent aggression. Russia and China seek to secure a *fait accompli* in response to their aggression, where the United States stands down and does not even try and engage to protect our allies. China and Russia are using "deterrent" forces to support aggression while the United States uses its deterrent forces to stop or prevent aggression.

Thus, while claiming the goal of enhancing deterrence is the goal of new nuclear deployments, China and Russia are actually seeking to expand avenues of aggression. And naturally, any U.S. missile defense deployments have the capability to blunt such aggressive designs that the new nuclear capabilities are designed to achieve.

However, the idea of seriously expanding U.S. missile defense capability has not gotten much attention, particularly since the United States decided to limit its deployment of national missile defenses to between 40 and 100 interceptors in Alaska and California.

The United States has also had some modest discussions of how the Aegis cruiser capability largely designed for theater missile defense might be used for defense of the continental United States (CONUS). My own view is that a very robust missile defense is needed for CONUS and our allies, and the 1991 vision laid out by officials of the Bush 41 administration and also endorsed by President Yeltsin in a UN speech have strong merit and should be seriously pursued.

One prominent criticism of missile defense was its potential role in soaking up a ragged retaliatory strike by a nation first attacked with nuclear weapons. "First the shield and then the sword" was the mantra, based on the assumption the United States would strike adversaries first with nuclear weapons and, after eliminating most of their nuclear forces, intercept any remaining small retaliatory force coming back at the United States.

But missile defense cannot be perfect and thus cannot be a substitute for deterrence nor a backstop to allow mass aggression in the first place. Any response with just dozens of nuclear warheads—the minimalist hypothetical response expected—would destroy multiple U.S. cities with millions of resulting casualties, an outcome so destructive of U.S. society that no American President would ever contemplate such a policy.

An Interview with Professor Stephan Frühling, Strategic and Defence Studies Centre, The Australian National University

An Interview with Professor Stephan Frühling of the Strategic and Defence Studies Centre at The Australian National University. Professor Frühling looks at the rise of China and what it means for security relationships in the Indo-Pacific region, as well as the impact of Russia's invasion of Ukraine on extended deterrence and assurance of allies.

Q. What do you believe are the most important deterrence lessons to be learned from Russia's invasion of Ukraine? Has the credibility of U.S. extended deterrence suffered as a result?

A. It is too early to answer this question with confidence. Importantly, whether someone is deterred or reassured is ultimately their decision or judgment. Hence, what will determine the consequences of the current war for future deterrence credibility will stem from the future interpretations that the United States, its allies and adversaries will form about what has happened. And the ultimate outcome of the conflict will likely colour how people will judge the actions of the United States and others before it started.

That said, there are I think four lessons that are becoming apparent already.

The first is that the conflict has reinforced the big difference between being a U.S. ally, and merely a U.S. 'partner'. In practical cooperation and in U.S. declaratory policy, the distinction between the two has become increasingly blurred over the last two decades, as many non-allied nations made significant contributions to U.S. operations in the Middle East, and as Washington has sought to build coalitions to manage security challenges rather than use formal alliance institutions.

Now, however, the difference is on stark display: First, in the clear red line that the United States and its allies have drawn in their determination *not* to become parties to the conflict. Half-way houses such as Sweden's and Finland's association with NATO that was as close as it could get without formal membership now look a lot less appealing than before. In that sense, even if the conflict hasn't increased confidence in U.S. extended deterrence, it has no doubt reinforced the value and importance of it for allies and U.S. partners alike.

Second, insofar as the U.S. warnings to Russia of the calamitous consequences of the planned invasion in late 2021 and early 2022 could be framed as an attempt at deterrence, they have clearly failed. Why that was so will no doubt spur long historical debates and scholarship in coming years and decades. Exploring the parallels and differences with the failure of U.S. warnings to deter Saddam Hussein's invasion of Kuwait in 1990 may provide some intriguing insights into the practical difficulties of deterrence. But in general, this, too, must reinforce the difficulty of extending deterrence to mere partners, where the United

States is reluctant to provide guarantees and U.S. credibility is not supported by many years, if not decades, of institutionalized political-military alliance cooperation.

The second main lesson is perhaps not a lesson on U.S. extended deterrence as such, but nonetheless important for its future credibility insofar as deterrence by its nature seeks to support the status quo. It pertains to the tactical and operational effectiveness of Ukrainian forces in defensive operations. No doubt there is much we are also yet to learn about the role that sharing of timely intelligence by NATO is playing in this. Russia's invasion, especially in its initial phase, was almost comically inept in many regards, and may never recover from its initial flawed assumptions. But even so, the effectiveness that is currently on display of Ukraine's territorial defence forces; of short-range anti-air and anti-tank guided missiles, and of UAV-directed artillery must be of concern to any country contemplating a cross-border invasion. Ultimately (U.S. extended) deterrence rests to a large extent on the credible threat to deny success, and the success of Ukraine's armed forces even without direct U.S. and allied intervention is thus reassuring, and must give not only Russia but also China pause.

Third, as Washington and its European allies develop their responses in terms of political objectives, sanctions and support to Ukraine in the shadow of Russia's nuclear threats, we are probably seeing play out something akin to intra-war deterrence between NATO and Russia. It is clear that real or imagined threats of nuclear war are playing heavily on the minds of some of NATO's leaders. Again, future historians' work on the debates on a possible no-fly zone early in the conflict will make for a fascinating read. But given that Ukraine wasn't an ally in the first place, my sense is that the most significant consequences for allied views (and confidence in U.S. extended deterrence) will not derive from the conflict breaking out in the first place, but from the discussions that must be ongoing now behind closed doors in Brussels and national capitals about managing perceived risks of escalation as NATO countries, individually and collectively, ramp up their support for Ukraine. What lessons they will take away from that experience, time will tell, but there can be little doubt that cabinets across all of Europe (and probably Washington) are now aware of and engaged with nuclear deterrence in practice in a way that is without parallel since the major Cold War crises.

It is far too early to tell what the overall consequences of all of this will be for post-war views of, and allied engagement and interest in, U.S. extended deterrence. We should be alert to the possibility that European and Indo-Pacific allies may come to quite different conclusions: For NATO, it will reinforce the value of the clear and unambiguous line that the alliance draws at its own border and the sanctity of Article V. In that sense, deterrence in Europe has and will remain based on maintaining a clear black-and-white distinction of what is covered by NATO guarantees, and what is not. In contrast, deterrence in the Indo-Pacific is all about managing shades of grey—not just in the ambiguous status of Taiwan as a quasi/non/kind-of ally, but also in regards to questions about U.S. guarantees relating to the Senkakus in case of Japan; the 'grey zone' opened by lack of a forceful response to the sinking of the *Cheonan* and shelling of Yongbyong island in South Korea; and the historical reluctance of both Australia and the United States to commit to each other's support in regional contingencies.

Hence, where Europeans may be reassured by the difference between allies and partners demonstrated by the conflict, Indo-Pacific allies will probably not be. Where Europeans may be reassured by the Western ability to defeat Russia in Ukraine without becoming directly involved in the conflict, Indo-Pacific allies may doubt the same would succeed against China and see an alarming reluctance to act in the face of nuclear threats. If so, such differences will increase the challenges for U.S. alliance management and extended deterrence. At one level, the need to ‘tailor’ deterrence to local circumstances as proposed in the 2018 *Nuclear Posture Review* is almost a statement of the obvious, but at the same time allies will always also draw their own conclusions from U.S. policy elsewhere.

Q. What do you see as the proliferation risks resulting from Russia’s invasion of Ukraine? There seems to be a shift in opinion regarding nuclear weapons in countries like Japan and South Korea. Are countries more likely to seek to acquire nuclear weapons for self-defense?

A. There is certainly an increasing interest in the role of nuclear weapons in managing the challenges faced by South Korea and Japan, which pre-dates the current conflict in Ukraine. U.S. and European concern about nuclear escalation of the current conflict will also do nothing to abate the existing Japanese concerns about stability-instability dynamics creating scope for Chinese expansion and coercion in Northeast Asia. The U.S. position, which was shared by both the Obama and Trump Administrations—that the denuclearization of INDOPACOM that resulted from the 1991 PNI remains appropriate regardless of the dramatic change in the Indo-Pacific balance of forces over the last 30 years—is becoming increasingly untenable.

However, it is a big leap from recognizing the value of (and need for) forward-based nuclear forces for deterrence and reassurance, to U.S. allies developing their own. Here U.S. policy remains the key element; as long as allies would have to choose between a U.S. alliance and sovereign nuclear arsenals, choosing the latter simply doesn’t make sense. Whether that would remain so under a second, and probably less constrained Trump Administration, is however a different question. Given the enormity of the events in Ukraine, and the success of the Biden Administration in maintaining and leading its allies in the crisis, it is not surprising that concerns about U.S. reliability are little heard at the moment. That could change however, even as soon as a Trump-dominated GOP regains control of Congress in November this year.

Q. The Trump Administration’s 2018 *Nuclear Posture Review* proposed modest U.S. supplemental nuclear capabilities to deter adversaries from believing they might have an exploitable nuclear advantage leading to limited nuclear use. This included deployment of low-yield nuclear weapons and support for a nuclear sea-launched cruise missile, which the Biden Administration has reportedly decided to cancel. How do you assess the value of such supplemental options today?

A. The importance of the supplementary capabilities lay in the fact that U.S. policy started to recognize again, for the first time since the Cold War, the need to be prepared for limited nuclear use in a strategic space between conventional conflict under the nuclear shadow on the one hand, and global nuclear war with the implicit loss of escalation control on the other. A lot was left unsaid, insofar as the Trump Administration stopped short of linking these capabilities explicitly to deliberate escalation (despite rejecting a no-first-use posture), and rejected the notion of limited nuclear war. But nonetheless it was a step back from simply considering nuclear use as so 'extremely remote' to make thinking about escalation management redundant, and inching back towards something akin to the Cold War posture of 'flexible response.'

In that sense, while the W76/2 does provide a new combination of attributes for the U.S. arsenal, because the United States continues to maintain B-61s in Europe anyway, their real significance is symbolic of that U.S. shift in thinking about the role of nuclear weapons in escalation management with Russia. And that means that a lot will depend on how the Biden Administration will discuss this challenge in its own, upcoming review. Even if the W76/2 hadn't been introduced in 2018, there is no doubt that in the current situation, articulating the role of U.S. nuclear weapons in managing escalation and intra-crisis or intra-war deterrence would be the key challenge for the new NPR. Getting rid of the W76/2 would have sent completely wrong signals in this regard, but the language of the upcoming NPR will even so receive much closer attention not just from the usual pundits but also allied ministers, prime ministers and chancellors than that in any of its predecessors.

The new nuclear SLCM on the other hand, as a system yet to be developed, was much less symbolically significant, and also obviously more challenging insofar as it would require bringing back nuclear certification of U.S. attack submarines (SSNs). But longer-term, I think it was of far more *practical* significance insofar as deploying it in the Indo-Pacific would have meant bringing back nuclear capabilities into the theatre. An INDOPACOM that regained a nuclear mission would have been a lot more attuned to thinking about escalation than it currently seems to be; while nuclear forward-based forces would provide important strategic coupling and create risks of (inadvertent) escalation for the Chinese. Perhaps for that very reason it was the obvious candidate for the current administration to demonstrate its willingness to make reductions at least to the planned nuclear capabilities. There are of course other options to forward-base nuclear forces in the region, so the practical consequences of the cut could be mitigated. Assuming that the current administration will not bring the B-61 back into INDOPACOM bases, however, the key challenge with regards to Asian allies will be to explain why, in the current circumstances, it has decided that it is possible and prudent to abandon the one program that would have done so. Convincing South Korea or, especially, Japan, that this was the best decision for them, and not just for a United States concerned with escalation of a regional conflict, will in my view be a challenging task.

Q. What lessons do you believe the Chinese leadership is drawing from Russia's military invasion of Ukraine? Do Russia's actions and the West's response increase the

risk of Chinese military action against Taiwan, or has it made Chinese leaders more cautious?

A. I am by no means an expert on China or Chinese defence policy. Insofar as the 1991 Gulf War and 1999 Kosovo War were closely studied by the PLA for lessons on modern conflict and their needs for modernization, one would expect China to also conduct a systematic analysis of the current conflict. This will likely take time, as will filling gaps or making changes to PLA organization, equipment or doctrine that might result. So it would be reasonable to expect that China would be less confident in the short term, but perhaps a more capable opponent in the long term.

Some probable lessons—including the basic difficulty of sustaining close combat in built-up environments at the end of a long amphibious supply chain—will remain formidable. Others—such as the importance of small-unit leadership in the Ukrainian forces—will be more problematic for China than U.S. allies. So I don't think that the consequences of the conflict will be all bad in regards to the stability across the Taiwan Straits, but where the balance will fall will depend on things—such as the ultimate outcome of the conflict and the way in which the West might react to Russian challenges yet to come—that have yet to play out.

A crucial element will be Chinese perception of the role that Russian nuclear threats have played in the conflict, which may well be different from the perceptions held by the United States and its allies. China's rapid expansion of its nuclear forces, as evident by the recently discovered silo fields, indicates that its thinking on the role of nuclear weapons is already evolving in ways that we don't really understand well. My sense is that this uncertainty is now only going to increase as China internalizes the lessons of the Ukraine conflict in ways that won't be obvious to outside observers.

Q. Do you think the Western response to China's military buildup, including Beijing's expansion of its nuclear weapons programs and its building of military bases on islands in the South China Sea, has been adequate to deter a Chinese military assault against Taiwan? What other actions do you think the United States and the West should take to reinforce deterrence in the Pacific region?

A. I think we should be cautious to draw links between U.S. and allied reaction to a clear collective defence contingency, such as an invasion of Taiwan, on the one hand, and Chinese expansion of its nuclear forces—which is deplorable and dangerous for us but neither illegal nor necessarily illegitimate as such—or island-building in the South China Sea that we have already, by labelling it 'grey zone', defined as not being worth fighting over, on the other. Entrapment concerns remain very real amongst U.S. allies in the Indo-Pacific, at least in Australia, and what is arguably missing is a clearer articulation and commitment to what we are actually willing to fight over.

The maritime nature of the Indo-Pacific presents some challenges in this regard compared to the clear NATO land border in Europe, but the principle remains the same. U.S. focus on the South China Sea and styling Freedom of Navigation operations (FONOPS) as

some kind of signal of commitment has, in my view, had the opposite effect as intended, insofar as it seemed that Washington still hadn't come to terms with the realities of the balance of power in the region; the loss of what some in Australia still like to call 'U.S. primacy', and that the challenge facing U.S. allies has become existential rather than about marginal questions.

In that sense, deterrence would be helped if U.S. alliances clearly engaged with the challenges of major war; and linked with each other to reduce the scope for China to contain the geographic scope of a conflict. Both are slowly happening, e.g. through the U.S.-Australia force posture initiative, increased attention to things like munition and fuel stocks and cooperation on long-range strike, or trilateral cooperation. But the pace of adaptation remains painfully slow—at least compared to the transformation in NATO since 2014.

There are almost no clear signals being sent that allies are really coming to grips, politically or militarily, with the costs of immediate deterrence and collective defence. Major exercises, such as Talisman Sabre, are still not reflecting the actual shape of operations that a conflict with China would entail, for example; political-military agreements on major reinforcement and flow of U.S. forces across the Pacific only exist in a most vague outline in the U.S.-Japan Defense Guidelines and not at all in the U.S.-Australia alliance; and little by way of public statements indicates allies' support for—and willingness to bear the political cost of—U.S. nuclear escalation on their behalf. The solution to all of these challenges lies in importing a so-called 'NATO model' to the Indo-Pacific. But it is also hard to see that deterrence at the level of alliances can be strengthened without greater institutionalization of political-military cooperation and demonstrated preparation for major war.

Q. Is it possible for the Western powers, working with Australia, Japan, and other regional actors, to create a collective security mechanism in the Indo-Pacific similar to NATO? What issues would need to be overcome in order to allow such a mechanism to function effectively as a deterrent to aggression in the region?

A. When John Foster Dulles tried to build an Asian NATO in the early 1950s, he quickly realized that Asian and Antipodean nations had neither the shared interests, nor shared geography that made NATO in Europe possible and necessary. Today, at least between Australia and Japan, there is more of a shared sense of threat from China than there existed even 5-10 years ago, when there was a strong sense in Canberra that there was little to be gained from getting dragged into discussions over the Senkakus. But that does not mean that a multilateral alliance akin to NATO is possible or necessary. Not even in NATO does membership remove the members' discretion of whether to agree to an invocation of Article V. NATO institutionalization reflects a need to campaign across borders, for joint command and control, logistics, and interoperability, and to demonstrate political unity for deterrence. While Indo-Pacific allies also need to address some of these issues, they can also do so without a central institution and in ways that more organically build on what already exists in bilateral alliances and trilateral cooperation and reflect the different geographic context of the Indo-Pacific. Hence, in my view it is less important to proceed at a multilateral level,

than for all alliances to beef up their political-military infrastructure in a broadly parallel manner.

Q. How strong is Australia's commitment to the defense of Taiwan? Would Canberra commit military forces to any coalition action to defend Taiwan against a Chinese invasion or attack?

A. My sense is that Australia's commitment is stronger than it has ever been, and that this is largely bi-partisan. Historically, from the negotiation of the ANZUS treaty to the 1994-5 crisis, Australia has been cautious about being dragged into such a conflict. There is still a public debate about whether Australia is legally obliged to support the United States, with legitimate concern about a lack of public debate on what Australia's commitments are and should be. But whereas Australian defence policy and thinking used to draw a neat distinction between Southeast Asia and the South Pacific, which directly mattered to us, and Northeast Asia which was of more indirect importance (and by implication left for the United States to worry about), in recent years China has come to be realized as a systemic challenge that defies such boundaries.

As such, I have little doubt that in case of a Chinese attack on Taiwan to which the United States also responds militarily, Australia would be fighting on the U.S. side. But translating that willingness into a commitment before the fact that would be able to support deterrence is another matter. Here, the challenge is not just the absence of any history in the ANZUS alliance to incorporate deterrence cooperation: The U.S. policy of strategic ambiguity itself is also a major obstacle, insofar as the United States itself doesn't have a clear position that it could ask allies to rally around.

Q. Does China or Russia pose the most serious long-term threat to a stable world order?

A. Given the overall size of Chinese economy and population, there is little doubt that China is long-term the more significant challenger. Despite all the attention on Europe at the moment, the systemic weaknesses laid bare in Russia's strategic decision making and armed forces; its possibly irreplaceable losses of modern equipment that incorporates Western technology; the increase in European defence spending already underway, and NATO's expansion to include Sweden and Finland, will all reinforce this difference once the current conflict is at an end. Indo-Pacific and European allies tend to look at U.S. engagement in either theatre as a zero-sum game, but in this case a strong U.S. engagement that leaves a weakened Russia and stronger NATO will be of great benefit to Indo-Pacific allies as well.

An Interview with Tanya Hartman, Head, Russia/Ukraine Section, Political Affairs and Security Policy Division, NATO Headquarters

An Interview with Ms. Tanya Hartman, Head, Partnership East, Political Affairs and Security Policy Division at NATO Headquarters in Brussels. Ms. Hartman discusses NATO's strategic posture following Russia's invasion of Ukraine and the implications of this war for extended deterrence and assurance.

Q. What are the most important implications of Russia's war in Ukraine for NATO's deterrence posture and for assurance?

A. NATO had been vigilant about Russia's massive military build-up in and around Ukraine throughout last year, and Allies were closely consulting on the issue. We were, therefore, well prepared. We began to increase our readiness, building on the biggest reinforcement of our collective defense in a generation—a decision Allies had taken in response to Russia's illegal and illegitimate annexation of Crimea in 2014.

Following Russia's 24 February invasion of Ukraine, NATO as a whole and Allies individually, have stepped up their military presence in the eastern part of the Alliance. This has been an important message of deterrence towards Russia, to ensure there is no room for misunderstanding or miscalculation. It shows NATO stands ready to protect and defend all Allies and all Allied territory. The increased military presence includes the placement of over 40,000 troops under direct NATO command, hundreds of ships and planes, and the doubling of the number of NATO battlegroups from the Baltic to the Black Sea from four to eight.

At our historical NATO Summit in Madrid, Allied Heads of State and Government decided to significantly strengthen NATO's longer-term posture and set a new baseline for deterrence and defence. This newly enhanced posture will apply across the land, air, maritime, cyber, and space domains. It will also include a new NATO Force Model, which will enable the Alliance to respond to a potential crisis or conflict at greater scale and higher readiness than the current NATO Response Force. More specifically, this will entail strengthening our forward defences, enhancing our battlegroups in the eastern part of the Alliance, up to brigade level, transforming the NATO Response Force, and increasing the number of high readiness forces to well over 300,000. It will also entail boosting our ability to reinforce through more pre-positioned equipment, and stockpiles of military supplies, more forward-deployed capabilities, like air defence, strengthened command and control, and upgraded defence plans, with forces pre-assigned to defend specific Allies. All this significantly increases the readiness and capability on NATO's eastern flank. NATO's enhanced deterrence and defense posture is designed to reassure Allies and to prevent the conflict in Ukraine from spilling over and escalating into a wider war.

All in all, we can say that Vladimir Putin sought to divide the Alliance over Ukraine, but he has achieved the very opposite. NATO is more united than ever, with a stronger, more diverse, and more determined military presence on the eastern flank.

Q. What would NATO like to see as the most appropriate US policy responses?

A. The US response to Russia's invasion of Ukraine has been swift, decisive, and in sync with other Allies. This highlights one of NATO's key purposes—to serve as a forum for consultations among Allies on issues of shared concern. Intelligence and information sharing in the lead up to and during the war has been unprecedented. The decisions taken by the 30 Heads of State and Government at the June Summit in Madrid are a good example of the effectiveness of this consultative process. Across the board, the Alliance has and continues to respond to Russia's war. NATO is doing this through our long-standing distinctive partnership with Ukraine, a fundamental shift in our defence posture, deepening cooperation with partners, and the adoption of a new *Strategic Concept* to guide the work of the Alliance for the next decade. A strong and independent Ukraine is vital for the stability of the Euro-Atlantic area, and the support that the United States has and continues to provide as the Ukrainian people bravely defend their homeland is crucial in this regard.

The US, Canada, and European Allies have been united and steadfast in their commitment to protect Allied territory, and this has been crucial throughout this crisis. The United States and other Allies continue to hold Russia accountable. An important aspect of holding Russia accountable is making clear that the consequences and implications of Russia's war reach far beyond Europe and North America. For example, Russia is responsible for triggering and prolonging the global food crisis by preventing the export of Ukrainian grain, and the consequences of this impacts the entire global community.

Russia's assault on international norms makes the world less safe. The deepening strategic partnership between Russia and China, as well as their mutually reinforcing attempts to undercut the rules-based order, runs counter to our values and interests. The adoption by the UN General Assembly of a resolution in March demanding that Russia immediately end its military operations in Ukraine demonstrates the vital importance of building global networks of defenders of the rules-based international order. In this regard, NATO partnerships that span from the Indo-Pacific to South America also play an essential role. As do partners in our immediate neighborhood. Following the Russian invasion, Finland and Sweden re-evaluated their security environment and decided to seek NATO membership. Finland and Sweden will make strong and important contributions to our Alliance. Our forces are interoperable. They have trained, exercised, and served with us for many years. We share the same values and we face the same challenges in the Baltic Sea, and beyond. Their accession will make them safer, NATO stronger, and the Euro-Atlantic area more secure.

Q. Does Russia's war in Ukraine increase the prospects of Russia attacking a NATO country in the long-term?

A. The Euro-Atlantic area is not at peace, and we cannot discount the possibility of an attack against Allies' sovereignty and territorial integrity. The invasion of Ukraine has demonstrated that Russia does not value or respect the foundations of international peace and security; and it is prepared to use military force against its neighbours. This is the core

tenet of the international system that Russia, as a permanent member of the United Nations Security Council, is entrusted to uphold and which—it's worth noting—it had helped build. As I mentioned, Russia's brutal and unprovoked war against Ukraine has global ramifications. Russia is engaged in a conquest; Moscow is using force to attain political goals. I don't think that anyone can be confident that Russia will stop with Ukraine. Especially since we've already seen Russia use other tools—hybrid, cyber, disinformation, assassinations – in pursuit of its goals, including in Europe. Vigilance and credible deterrence and defence are, therefore, at the forefront of our thinking. NATO's enhanced defensive posture on the eastern flank and new baseline for deterrence and defence, are not only designed to deter and defend, but to change Russia's calculus when it comes to Allied territory.

NATO Secretary General Jens Stoltenberg and Allies have been and continue to be very clear—our determination to defend each other and every inch of Allied territory is iron-clad. This was reiterated in the NATO Summit Declaration and in NATO's new *Strategic Concept*. The Russian Federation is the most significant and direct threat to Allies' security and to peace and stability in the Euro-Atlantic area. Yet, NATO does not seek conflict with Russia. We are a defensive Alliance. Our measures remain preventive, proportionate, and non-escalatory.

Q. How will NATO adapt its policy toward Russia in response to Russia's invasion of Ukraine?

A. Our relationship with Russia is now at its lowest point since the Cold War. This is a consequence first and foremost of Moscow's war against Ukraine, but it is also a result of a long-term pattern of hostile and destabilizing actions that Russia has been carrying out across the Euro-Atlantic area, including on Alliance territory, in the past years. Moscow has interfered in Allied democracies, conducted malicious cyber activities and hybrid actions, violated international law, deployed modern dual-capable missiles in Kaliningrad, and built-up a more assertive posture, novel military capabilities, and provocative activities, including near NATO borders.

With its attack on Ukraine, Russia rejected the path of diplomacy and dialogue, which had been offered by NATO and Allies, including the United States bilaterally. Russia instead fundamentally violated international law, including the UN Charter. Moscow's unprovoked and unjustified war against Ukraine is a flagrant rejection of the principles enshrined in the foundational documents of European and global security. The Kremlin's ambition to reconstitute spheres of influence and deny other countries the right to choose their own path has essentially torn up the international rulebook. Russia has also demonstrated that it is not interested in meaningful dialogue and diplomacy. Moscow's suspension of its diplomatic representation to NATO and the closure of the NATO offices in Moscow are just a few of the examples in this regard.

I believe NATO's relationship with Russia has fundamentally changed for the long-term. The unique institutional relationship Russia had with NATO could not continue. The new NATO *Strategic Concept* makes clear that Allies now consider Russia the most significant and direct threat to Euro-Atlantic security. And we cannot consider Russia to be our partner. At

the same time, we do not seek confrontation and pose no threat to Russia. NATO remains willing to keep open channels of communication with Moscow to manage risk, prevent escalation, and increase transparency. We seek stability and predictability—both in the Euro-Atlantic area and between NATO and Russia. Any change in our relationship depends on Russia halting its aggressive behavior and fully complying with international law.





THE IMPACT OF RUSSIA'S WAR ON UKRAINE ON THE FUTURE OF ARMS CONTROL AND THE NONPROLIFERATION REGIME

The remarks below were delivered at a symposium on “The Impact of Russia’s War on Ukraine on the Future of Arms Control and the Nonproliferation Regime” hosted by National Institute for Public Policy on April 19, 2022. The symposium examined the impact of Russia’s invasion of Ukraine on the prospects for future arms control, the risks of proliferation of nuclear and other weapons of mass destruction, and concerns over the credibility of U.S. security guarantees to treaty and non-treaty partners.

David J. Trachtenberg

David J. Trachtenberg is Vice President of the National Institute for Public Policy and served as Deputy Under Secretary of Defense for Policy from 2017-2019.

Before I turn the floor over to our speakers, I would like to invoke the moderator’s prerogative to offer a few comments, which I hope will help set the stage for today’s discussion.

Despite Russia’s brutal invasion of Ukraine, there are those who continue to assert not only that arms control with Russia remains imperative, but that it is even more essential now more than ever. For example, one analyst has written that the war in Ukraine means that “nuclear arms control must be strengthened and not further dismembered” and that the “strategic stability dialogue” between Washington and Moscow must be resumed.¹

Others have concluded that Russia’s actions in Ukraine—including the potential for actual nuclear use—highlight the growing dangers of nuclear weapons and lend credence to the view that because nuclear deterrence appears increasingly fragile, “The only way to eliminate the danger is to reinforce the norm against nuclear use and pursue a more sustainable path toward their elimination.”²

The notion that Russian aggression in blatant violation of international law (not to mention the norms of civilized behavior) means we should seek more arms control with Russia and move toward nuclear disarmament seems to reflect an idealistic worldview that appears completely divorced from the cold reality of an international system in which stronger autocrats and aggressors seek to conquer weaker actors in order to accumulate raw power and validate their own ruling legitimacy.

In light of Russia’s history of arms control violations and its scrapping of the 1994 Budapest Memorandum—in which Moscow pledged “to refrain from the threat or use of force against the territorial integrity or political independence of Ukraine”³—it may be that

¹ Andrei Zagorski, “Arms Control Must Remain the Goal,” *Arms Control Today*, April 2022, available at <https://www.armscontrol.org/act/2022-04/features/arms-control-must-remain-goal>.

² Daryl G. Kimball, “New Approaches Needed to Prevent Nuclear Catastrophe,” *Arms Control Today*, April 2022, available at <https://www.armscontrol.org/act/2022-04/focus/new-approaches-needed-prevent-nuclear-catastrophe>.

³ *Memorandum on Security Assurances in connection with Ukraine’s accession to the Treaty on the Non-Proliferation of Nuclear Weapons*, December 5, 1994, available at <https://www.pircenter.org/media/content/files/12/13943175580.pdf>.



Moscow is simply an unreliable security partner whose promises are not worth the paper they are written on. This hardly bodes well for future arms control efforts—not to mention the difficulty of seeking arms control with China. (Although, admittedly, arms control may be easier if we simply act unilaterally, as the Vice President announced yesterday we would do by foregoing direct-ascent anti-satellite testing in order “to lead the way and to lead by example.”⁴)

With respect to the impact of Russia’s invasion on the nonproliferation regime, perhaps we should ask the Ukrainians whether they now believe it was wise for them to surrender their nuclear weapons in exchange for promises that Russia would be a guarantor of their territorial integrity. If a nuclear power can act so brazenly against its non-nuclear neighbor, what are the lessons that other nations are learning from Ukraine’s example?

As others have noted, “How do we convince any existing nuclear weapons state to give up its nuclear arsenal if experience teaches that nukes are the guarantor against imposed regime change? It would not be unreasonable for some states feeling threatened by nuclear-armed or nuclear-aspiring neighbors to consider developing their own arsenals.”⁵

Moreover, some have suggested that Russia’s actions have “subverted” the Nuclear Nonproliferation Treaty by making it look “as if the treaty’s purpose is to keep weak countries defenseless and prey to the nuclear-weapon states.”⁶ As others have summed it up: “NOT having nukes clearly leaves one vulnerable.... If you have nuclear weapons, keep them. If you don’t have them yet, get them.”⁷

If nothing else, Russia’s invasion of Ukraine is moving states to contemplate other ways to protect their own security. Finland and Sweden are now seriously considering NATO membership, despite Russia’s threats. And the U.S. extended nuclear deterrent is increasingly under stress. A recent poll showed a large majority of South Koreans—over 70 percent—now favor possessing nuclear weapons.⁸ And even Japan, the only country to have experienced the devastation of not one but two nuclear bombs, has been rethinking its traditional anti-nuclear stance, with former Prime Minister Shinzo Abe saying Tokyo should consider hosting U.S. nuclear weapons on its territory.⁹

⁴ The White House, “Remarks by Vice President Harris on the Ongoing Work to Establish Norms in Space,” April 18, 2022, available at <https://www.whitehouse.gov/briefing-room/speeches-remarks/2022/04/18/remarks-by-vice-president-harris-on-the-ongoing-work-to-establish-norms-in-space/>.

⁵ Stephen J. Cimbala and Lawrence J. Korb, “Nuclear arms control: Still necessary, but more difficult than ever,” *Bulletin of the Atomic Scientists*, April 5, 2022, available at <https://thebulletin.org/2022/04/nuclear-arms-control-still-necessary-but-more-difficult-than-ever/>.

⁶ Andreas Umland and Hugo von Essen, “Putin’s War Is a Death Blow to Nuclear Nonproliferation,” *Foreign Policy*, March 21, 2022, available at <https://foreignpolicy.com/2022/03/21/nuclear-weapons-war-russia-ukraine-putin-nonproliferation-treaty-npt/>.

⁷ Michael E. O’Hanlon and Bruce Riedel, “The Russia-Ukraine war may be bad news for nuclear nonproliferation,” The Brookings Institution, March 29, 2022, available at <https://www.brookings.edu/blog/order-from-chaos/2022/03/29/the-russia-ukraine-war-may-be-bad-news-for-nuclear-nonproliferation/>.

⁸ Michelle Ye Hee Lee, “South Koreans overwhelmingly want nuclear weapons to confront China and North Korea, poll finds,” *The Washington Post*, February 21, 2022, available at <https://www.washingtonpost.com/world/2022/02/21/south-korea-nuclear-weapons/>.

⁹ Justin McCurry, “China rattled by calls for Japan to host US nuclear weapons,” *The Guardian*, March 1, 2022, available at <https://www.theguardian.com/world/2022/mar/01/china-rattled-by-calls-for-japan-to-host-us-nuclear-weapons>.

Finally, with Russia's increasing nuclear threats, and with the Russian Ambassador to the United States declaring that the ultimate goal of the Ukraine invasion is to overturn the U.S.-dominated "world order,"¹⁰ I wonder if the purported nonproliferation benefits of cooperation with Russia on nuclear matters are still pertinent.

For example, there is a 30-year U.S.-Russia nuclear cooperation agreement—a so-called "Section 123 Agreement"—that entered into force with congressional approval in 2011 and remains in effect until 2041.¹¹ Does this agreement, which allows for the transfer of nuclear material and equipment from the United States for peaceful uses, continue to benefit U.S. national security in light of Russia's behavior? President George W. Bush withdrew the agreement from congressional consideration after Russia invaded Georgia in 2008, but President Obama resubmitted it. I'm not sure many people—including current Members of Congress—even know about it. But it doesn't seem unreasonable to me to reassess the value of existing nonproliferation activities with Russia in light of Russia's admitted efforts to change the "world order."

In sum, it looks like the prospect for meaningful arms control may be quite dim at best, along with the future of the nonproliferation regime. Might we actually be on the cusp of the largest proliferation spike in recent memory?

So, with these comments as prelude, let me turn the microphone over to our speakers.

Kathleen C. Bailey

Kathleen C. Bailey is Senior Associate at the National Institute for Public Policy, former Assistant Director of the Arms Control and Disarmament Agency, and former Deputy Assistant Secretary of State in the Bureau of Intelligence and Research.

Prospects for additional nuclear arms control agreements have been dimming steadily over the past few decades. Some of reasons are: a realization of the technical limitations for effective verification; turmoil among states' relations; cheating; the non-inclusion of China; and the failure of past agreements to accomplish their objectives. To this mix, we must now add the impact of Russia's war against Ukraine. The outcome of this war will likely be a dominant determinant of the future of nuclear arms control and, particularly, nonproliferation, for the next decade and perhaps beyond.

I will begin with two points regarding the NPT. The first is that Russia's nuclear saber-rattling regarding Ukraine has likely already undermined the NPT. Member states that have chafed at the lack of progress by nuclear weapons states toward disarmament will likely use Putin's threat as further evidence that the weapons states ignore their treaty obligations.

¹⁰ Natalie Colarossi, "Putin Using Ukraine Invasion to Change 'World Order': Russian Ambassador," *Newsweek*, April 18, 2022, available at <https://www.newsweek.com/putin-using-ukraine-invasion-change-world-order-russian-ambassador-1698657>.

¹¹ See National Nuclear Security Administration, "123 Agreements for Peaceful Cooperation," January 10, 2022 (updated), available at <https://www.energy.gov/nnsa/123-agreements-peaceful-cooperation>.

The second point related to the NPT is that Ukraine is the first example of a state that acceded to NPT and traded its nuclear arsenal in return for promises by Russia (among others) to respect the territorial integrity and political independence of Ukraine. This promise is the principal purpose of the 1994 Budapest Memorandum. The lesson is that giving up one's nuclear weapons for security promises is foolhardy, and that joining the NPT was a loss, not a gain.

In an interview with Fox News in February, Dmytro Kuleba, Ukraine's Foreign Minister, spoke about Ukraine's forfeiting its nuclear weapons in the 1994 Memorandum. When asked if that was a mistake, Kuleba said, "What's done cannot be undone." Then he added, "... a smarter decision could have been found if the United States, together with Russia, hadn't taken a joint position to deprive Ukraine of its nuclear weapons."¹²

Russia's invasion of Ukraine is prompting several states to rethink their security needs anew. They see that nuclear weapons possession empowered Russia to invade, and that Ukraine's not having them made it vulnerable. The war is a fresh reminder to some that their most realistic chance of standing up to a powerful aggressor is to have access to nuclear weapons or be protected by a nuclear-armed defender.

Some analysts have noted that Taiwan is in a similar position to Ukraine. The United States removed its nuclear weapons from Taiwan in 1974, forced Taiwan to give up a nuclear weapons program in the late 1970s (and again squelched a revival attempt in the 1980s), and unilaterally abrogated the bilateral U.S.-Taiwan defense treaty in late 1979. Taiwan is now without nuclear deterrence of Beijing.

And there is South Korea. The United States forced South Korea to abandon its nuclear weapons program in the 1970s also, and then removed U.S. nuclear weapons from the country in 1991. Sporadically since then, South Korean officials have suggested that U.S. nuclear weapons should again be placed in South Korea. On April 6, incoming president Yoon Suk-yeol raised the issue in talks with top U.S. officials.¹³

And Japan, longtime recipient of U.S. nuclear guarantees, is also nervous. For example, influential former Prime Minister Shinzo Abe called for Tokyo to consider hosting U.S. nuclear weapons in the wake of Russia's invasion of Ukraine.¹⁴

Even the jitter among Iran's neighbors is justified, and not just because of Iran's special nuclear materials production. It is quite possible that Iran and North Korea have shared test and design data, leaving Iran poised for a very rapid nuclear breakout.

The clear message to states that are under threat by hostile nuclear neighbors is that nuclear weapons matter. To be sure, this message is not new, but it is given fresh salience by Russia's invasion of Ukraine. Fear of a similar fate is the very reason that some states historically have sought security assurances and the U.S. nuclear umbrella.

¹² Dmytro Kuleba, Ukraine Foreign Minister, Interview with Bret Baer, Fox News Special Report, February 22, 2022, (<https://www.foxnews.com/politics/american-military-firepower-rushing-to-ukraine-as-besieged-nation-faces-russian-military-invasion>)

¹³ Hyonhee Shin, "South Korea's president-elect wants US nuclear bombers, submarines to return," Reuters, April 6, 2022 (<https://www.reuters.com/world/asia-pacific/skoreas-president-elect-wants-us-nuclear-bombers-submarines-return-2022-04-06/>)

¹⁴ Justin McCurry, "China rattled by calls for Japan to host US nuclear weapons," The Guardian, March 1, 2022 (<https://www.theguardian.com/world/2022/mar/01/china-rattled-by-calls-for-japan-to-host-us-nuclear-weapons>)

But there is likely to be a difference in the future of the US nuclear umbrella due to the war in Ukraine, regardless of how that war ends. Even if Putin were to fall and Ukraine to survive, states under the shelter of the umbrella are likely to want even greater reassurance, as Japan and South Korea have already indicated. Thus, the United States needs to prepare how it will respond to states' requests for a greater say in issues such as arsenal composition, delivery systems types, stationing, and doctrine.

Yet the greater risks to proliferation will likely result from a Putin win, of course. States will see that non-aggression Memorandum was worthless, and that Ukraine lost despite the West's broad-based assistance, particularly military support. This could lead the weak and strong alike to conclude that China, North Korea, Iran, and even perhaps India will be emboldened.

In the past, U.S. nuclear assurances have been a key building block of U.S. and Western nonproliferation policy. I posit that the assurances were somewhat easier to give in the past because the likelihood of a battlefield or limited regional nuclear war was less. With Ukraine, that has already changed, and the future will be even bleaker if nuclear weapons are used. My point here is that nuclear use may increase U.S. and NATO caution about extending assurances in the future. The United States, in particular, must be sure that it is willing and able to extend the umbrella, given that limited nuclear war would be much less "unthinkable."

The United States could become more hesitant about reaffirming the umbrella, extending the umbrella to additional states, or providing assurances that the deterrent is effective. If this occurs, and states seek alternative nuclear protection, we will have lost one of the most valuable tools in restricting nuclear proliferation.

The usual proponents of nuclear disarmament will continue their calls for further arms control regardless of the outcome of war in Ukraine. But Putin's war, for those whose responsibility is the security of their state's territory and existence, has a countervailing message: unless you have nuclear weapons, or someone backing you with their nuclear weapons, you might be at risk of being gobbled up. And it is now evident that past arms control agreements, let alone future ones, are unlikely to change this.

The focus of these remarks has been on the implications of Putin's war against Ukraine for nonproliferation. But it should be noted in conclusion that this invasion is but one of a few of the tremendous challenges to preventing the spread and potential use of nuclear weapons. A case could be made that the Joint Comprehensive Plan of Action is a meaningless fig leaf regardless of its terms, that China is hellbent on taking Taiwan and becoming the dominant military force worldwide regardless of outcome in Ukraine, that worldwide recession and food shortages will foster turbulence in all regions, and so on.

These bleak scenarios are what should guide our planning and readiness. To be sure, there are alternative futures. After all, I suppose it is possible that Putin could be ousted and that Russia would cease its aggression, that Iran's populace could overthrow their repressive regime, or even that China's Xi could be replaced. But we can't count on any of these. So, for at least the next decade or two, military alliances and preparedness will be more practical than arms control regimes in keeping peace and security. The task facing the United States

is to make sure that its nuclear deterrent is effective and to convince those under U.S. and/or NATO protection not to pursue their own nuclear weapons.

Susan J. Koch

Susan J. Koch is former Director for Proliferation Strategy on the National Security Council Staff and Deputy Assistant Secretary of Defense for Threat Reduction Policy.

First, please let me mention two limiting assumptions.

My remarks assume that Russia will not use nuclear weapons in its war with Ukraine or expand the conflict to a NATO ally.

If either or both of those assumptions prove unfounded, the world will be so dramatically changed that I could not speculate about the future—for arms control, proliferation or anything else.

I need not take long to discuss the effects of Russia's war on Ukraine on arms control. Before February 24, the prospects for any US-Russia arms control treaty were bleak—and even worse for any including China.

The war has made those prospects nonexistent. Some of my colleague probably consider that good news. I do not.

But it would be difficult for even the most fervent arms controller to believe that an agreement is possible with a government of such appalling lawlessness.

The implications of the war for nuclear proliferation are not quite as straightforward.

On the positive side, our recent verbal reassurances to our NATO allies, our reinforcement of their defenses, and perhaps Putin above all, have helped to repair NATO unity and our European allies' faith in the US extended deterrent.

I also believe—or at least hope—that Putin has persuaded the Biden Administration of the folly of policies like No First Use and Sole Purpose. I hardly need to mention how disastrous those would be for strategic and extended deterrence, allied reassurance, and proliferation prevention.

While the Russian invasion of Ukraine may not have increased the danger of nuclear proliferation among our European allies, that may not be the case in Asia.

Opinion polls have for years found that a majority of South Koreans strongly support a national nuclear deterrent. That appears to have grown since the Russian invasion of Ukraine.

Many South Koreans point to our earlier failure to implement the Budapest Memorandum as evidence that they cannot rely on the United States.

Others who recognize that we are now doing quite a lot to aid Ukraine—short of direct military engagement—may still question whether we would do the same for Asia.

Many probably doubt that, in order to protect them, the United States would pay the price of war with China, or event of sanctions like those that we have imposed on Russia. They

fear—perhaps justifiably—that China’s enormous economic power would deter us from either path.

More broadly, our allies and partners worldwide must question whether we would respond militarily to Russian or Chinese attack on them—especially now that we have been deterred from direct engagement in Ukraine by the fear of nuclear attack.

Moreover, all that the United States and our allies are doing to help Ukraine in this war has not erased the memory of our inaction in 2014. Our performance then was a disgrace.

The December 1994 Budapest Memorandum, and the January 1994 Trilateral Statement, were critical to Ukraine’s decision to denuclearize.

There were important elements to the January Trilateral Statement that are not well remembered.

With US assistance to get the process underway, Russia agreed to compensate Ukraine, in the form of fuel rods for nuclear power plants, for the value of the HEU in the warheads removed from Ukraine. Russia also committed to destroy all of those warheads under Ukrainian monitoring. The Ukrainians told us that they were satisfied with Russian compliance with all of those commitments.

Further, the United States committed to Cooperative Threat Reduction assistance to help Ukraine with warhead removal and elimination of its strategic nuclear delivery vehicles, and nuclear infrastructure.

But the parts of the January Trilateral Statement and Budapest Memorandum that are best remembered are the security assurances.

Those were neither new nor legally binding. They reiterated earlier assurances, primarily from the UN Charter, the Helsinki Final Act, and associated with the NPT.

But they were still important.

Unlike Belarus and Kazakhstan, Ukraine resisted denuclearization because it feared a resurgent, expansionist Russia. The 1994 assurances were designed to reassure Ukraine that Russia would respect its independence and territorial integrity, and that the United States and United Kingdom would respond if Russia violated those assurances.

Technically, we did respond when Russia invaded Ukraine in 2014. We called a meeting of the UN Security Council.

But we denied Ukraine the type of military assistance that has proven so important this year. We ousted Russia from the G-8 and instituted some sanctions, but those were meager compared to what we and our allies have imposed in response to this Russian invasion. Further, we failed to galvanize our allies to do more to punish Russia and assist Ukraine.

The fate of the Budapest Memorandum means that no other nuclear-armed state, or potential nuclear proliferation, will agree to denuclearize in light of such security assurances. States might still find sound reasons to abandon nuclear weapons programs—as South Africa, Brazil and Argentina did in the early 1990s—but US security assurances will not be among them.

Our security commitments to our Treaty allies are very different from the assurances to Ukraine. Will they be enough to persuade our allies not to proliferate—as they persuaded

Japan, West Germany and Italy to join the NPT as non-nuclear weapons states? The answer will depend in large part on us.

Finally, was Ukraine right to have denuclearized? I believe so, for several reasons.

First, Ukraine had no nuclear warhead expertise, command and control system, or production facilities for warheads or fissile material. After it returned its short-range nuclear systems to Russia in May 1992, its only delivery vehicles were strategic-range, and it had no interest in threatening us.

Further, I question whether Russia would have stood idly by if Ukraine retained all of those nuclear warheads on its territory. If Russia sought to remove those by force, the consequences could have been horrendous—even worse than we are seeing today.

Finally, denuclearization was a requirement for good relations with the West. Those did not count for much militarily in 2014, but they mean a lot in military training and equipment over the past 8 years.

On the economic front, denuclearization was required for extensive, essential assistance from the World Bank, International Monetary Fund, United States and European Union.

So, I believe that denuclearization was the right path for Ukraine a quarter of a century ago. But will it be for others in the future?

Robert G. Joseph

Robert G. Joseph is former Under Secretary of State for Arms Control and International Security and Special Envoy for Nonproliferation.

Both of the previous speakers have done a good job covering the nonproliferation implications stemming from the war in Ukraine. So, what I would like to do is address the question: is arms control dead?

With the bloody assault on Ukraine and the shocking images of Russian atrocities, the U.S.-Russia relationship is at its lowest point since the fall of the Soviet Union—perhaps going as far back as the Cuban missile crises or the large-scale deployment of SS-20s in the late 70s and early 80s.

President Biden has declared President Putin to be a war criminal responsible for the ongoing—what he calls—genocide in Ukraine. Perhaps for this reason, some observers have stated—or rather predicted—that this is the death of arms control—at least the classic notion of arms control with large interagency delegations meeting in Geneva or Vienna to negotiate new treaties to reduce or restrict the nuclear arsenals of the two major nuclear states.

After all, how can we return to arms control business as usual with a genocidal war criminal? That may be the right question to ask but to me, the prediction of the death of arms control seems both premature and wrong.

Let me pose three ironies associated with the future of arms control.

The first irony is that Russia's aggression will be cited as the very reason that we must resume arms control negotiations with Moscow. Soon after the daily images of the war in Ukraine subside from public view, perhaps after a convenient pause in the fighting that freezes in place Russian gains in the east and south—at least until the Russians are prepared to continue the war—there will almost surely be urgent calls from the arms control community—in and out of government—to reengage in the strategic stability talks that the Biden Administration had been pursuing with little success prior to the war in Ukraine.

Why do I think this will happen? What evidence is there? Well, in the very face of Russia's aggression in Ukraine, the administration reportedly turned to none other than Sergey Lavrov, Russia's Foreign Minister—and the principal purveyor of disinformation on Ukraine—to encourage Iran to return to the JCPOA negotiations and accept the deal that we were told was 90 percent or more complete. In those negotiations, the administration has demonstrated that arms control agreements—even bad arms control agreements—are their first priority.

In the nuclear talks with Iran, the U.S. has made concession after concession to the point that the U.S. deputy negotiator and others in the delegation have resigned because the positions taken by the U.S. side were deemed to be too weak—an extraordinary occurrence.

The second irony is that by conceding point after point, the Iranians have become convinced that they need not take yes for an answer—instead they keep coming back for more concessions. The latest issue, the demand by Teheran that the U.S. delist the IRGC as a Foreign Terrorist Organization is instructive. Press reports suggest that the U.S. side agreed to this outrageous demand in exchange for a promise by Iran that it will not attack U.S. forces or interests, including a pledge not to assassinate former officials.

We all know that would be an empty promise that would never be fulfilled—but that may be far from the worst of it. What I am told is that the U.S. initially responded to the Iranian demand by saying that Iran must agree not to attack U.S. citizens and interests and those of our allies. Iran replied that the promise would only extend to the U.S. and, shockingly, the U.S. side agreed.

In other words, the U.S. would abandon our allies and delist a terrorist organization with the blood of hundreds of Americans on its hands—and thousands of lives of our allies—to get an agreement—an agreement that will provide the mullahs with billions and billions of dollars to fund more aggression, more terrorism, more missiles, and the very nuclear program that is supposed to be constrained by the agreement. There is apparently nothing this administration has not and will not accept to get an agreement.

The third irony is that the Biden Administration, by renewing the New START agreement for five years, gave Russia exactly what it wanted and, thereby has undercut any real incentives for Moscow to negotiate a strategic agreement beneficial to American interests.

The New START treaty is fatally flawed on any number of counts—Russia went up in numbers and we went down, failure to limit so-called theater, tactical or non-strategic weapons, even the failure to account for new weapon systems that would clearly be considered strategic by any normal definition, such as the Status 6—the new intercontinental nuclear-powered and nuclear-armed super torpedo.

So now Moscow can take time—up to five years—to reject any U.S. efforts to limit these exempted nuclear forces in which it has large advantages—to the point of providing Moscow with escalation dominance—a long term goal of the Soviet Union and now Russia.

And I haven't even mentioned China—currently in the middle of what our STRATCOM commander has described as a breathtaking nuclear buildup, while refusing to engage in any arms control negotiations.

Does that mean the end of arms control? No, not at all. When Wendy Sherman comes knocking on the door of the Kremlin to talk about strategic stability, she will be invited in.

Moscow will see it both as an opportunity to regain its legitimacy and, more importantly, as an opportunity to finally place limitations on U.S. strategic defenses—which I believe the administration is not just willing, but eager to give up. On this point, I have no doubt our president longs for the days of the ABM Treaty and considers our strategic defenses to be destabilizing—a seductive myth disproven by the facts but still prominent with arms control ideologues.

The Russians, like the Soviets before them, have always been willing to accept a one-sided deal in their favor. If the Biden Administration is willing to sacrifice the interests and lives of our allies for Potemkin constraints on Iran's nuclear weapons program, it will be willing to sacrifice American security for the sake of an equally bad—and dangerous—agreement with Russia.

The primary metric of success seems to be getting to an agreement—not whether that agreement advances U.S. security. And the Senate's constitutional power of consent to ratification—not a problem as the Obama Administration demonstrated with the JCPOA. So, to answer the question I posed at the start, is arms control dead? No, it is not.





DETERRENCE IMPLICATIONS OF RUSSIA'S INVASION OF UKRAINE

The remarks below were delivered at a symposium on “Deterrence Implications of Russia’s Invasion of Ukraine” hosted by National Institute for Public Policy on March 29, 2022. The symposium examined the impact of Moscow’s military aggression on the credibility of U.S. extended deterrence security guarantees and what lessons can be learned about the functioning or failure of deterrence in conditions where aggressors are willing to attack others despite the prospects of sanctions and penalties in response.

David J. Trachtenberg

David J. Trachtenberg is Vice President of the National Institute for Public Policy. Previously, he served as Deputy Under Secretary of Defense for Policy from 2017-2019.

Before I turn the floor over to our speakers, I would like to offer a few remarks of my own, with the same caveat that these are my personal views and do not necessarily reflect the position of any employer or organization with which I am or have been affiliated.

First, what we see in Ukraine today is a clear failure of deterrence. The Russian invasion of Ukraine has demonstrated the fallacy of what some have called “Deterrence by Detection” or “Deterrence by Disclosure.”¹ Simply telling Russia we know what they are up to by publicly releasing information about their military buildup on Ukraine’s borders was clearly inadequate to prevent them from invading.

Nor did the forewarning of severe sanctions serve as an effective deterrent. Despite the president’s recent comment that “Sanctions never deter,” the Secretary of State declared, “The purpose of those sanctions is to deter Russian aggression”; the Pentagon spokesman stated, “we believe there’s a deterrent effect” to sanctions; and the National Security Advisor stated, “The president believes that sanctions are intended to deter.”

Let me be clear: this is not a failure of NATO’s deterrence policy, which is intended to prevent an attack on the Alliance or any of its members, but it is still a failure of deterrence in that Russia was not dissuaded from invading Ukraine despite the Biden Administration’s public declarations that its actions—including the imposition of harsh sanctions—were intended to deter such a conflict.

Second, where deterrence has worked is in limiting the parameters of the American and Western response. Arguably, it is the United States that has been deterred. The U.S. government has set red lines—only these red lines demarcate what the United States will NOT do. For example, the United States has made clear that:

¹ See, for example, Justin Katz, “US Should Pursue ‘Deterrence By Detection,’ Says Marine Corps Commandant,” *Breaking Defense*, September 1, 2021, available at <https://breakingdefense.com/2021/09/us-should-pursue-deterrence-by-detection-says-marine-corps-commandant/>; also see Eric Edelman, “The Pros and Cons of ‘Deterrence by Disclosure,’” *The Dispatch*, February 21, 2022, available at https://thedispatch.com/p/the-pros-and-cons-of-deterrence-by?utm_source=url.



- No U.S. troops will be sent to Ukraine—Ukraine is not a NATO member and there is no Article 5 commitment requiring us to defend it
- No U.S. special operations personnel will go to train Ukrainian forces in unconventional warfare
- No transfer of Polish MiGs to Ukraine will be sanctioned because it could be seen by Russia as escalatory
- No Patriot or THAAD defensive systems will be sent to Ukraine because they would require U.S. operators, which could be seen as escalatory
- A “no-fly zone” is out of the question, because it would be escalatory and could lead to direct confrontation with Russia
- Indeed, the United States even cancelled a previously planned Minuteman ICBM test launch out of concern that it could be seen as provocative and escalatory

Such actions and statements may be interpreted by an opponent as weakness, or at least an unwillingness to risk escalation. Deterrence is more likely to fail if one side believes the other is unwilling to respond forcefully to its threats or actions.

Third, because Russia is a nuclear power, it seems as though the United States feels compelled to de-escalate and search for “off ramps” that give Vladimir Putin a way to “save face.” The deterrence message this sends to aggressors everywhere is that the United States does not want to confront a major nuclear power directly, because of fear that any such confrontation would mean, in the president’s words, “World War III.”

As an Indian analyst wrote last week, “a powerful nuclear weapon state can mount a conventional military offensive without fearing nuclear retaliation by nuclear allies of the targeted state.” This gives powerful nuclear countries a “protective shield to further their interests using conventional military might. Such strategic benefits are why nuclear weapons are so sought after.”

Fourth, in this context, the proliferation aspects of this deterrence failure are troubling. Why shouldn’t hostile powers seek nuclear weapons to deter the United States from challenging their aggression? And why shouldn’t allies seek their own nuclear arsenals as insurance against nuclear-armed aggressors in the face of doubts over the credibility of the U.S. extended deterrent? Indeed, would Russia have seized Crimea and invaded Ukraine if Kyiv had retained its legacy Soviet nuclear weapons?

Fifth, the implications for deterrence of Russia’s actions are global. The U.S. response has not been lost on China, which sees Taiwan as a “renegade” province that needs to be brought under the control of the Chinese Communist Party. And, like Ukraine, there is no Article 5-like legal obligation for the United States to come to Taiwan’s defense should China decide the time is ripe for military action.

Yet on numerous occasions, the United States has upheld the principle that wanton aggression by one state against another should not be allowed to succeed, and U.S. troops have repeatedly been deployed as a symbol of America’s commitment to this principle. For example, the United States led a global coalition to expel Saddam Hussein’s troops from Kuwait although the United States had no legal treaty obligation to do so. What is different

now, however, is that the aggressor is a nuclear-armed one. One might be forgiven for questioning if the United States will act on principle only when the risks of escalation are small, when the opponent is a non-nuclear one, and when there is a legally binding treaty commitment to do so.

If the U.S. commitment to this principle is to be taken seriously by others, then doing what's right should not depend on whether there is a written legal obligation that compels the United States to act. Failing to act because there is no treaty obligation to do so may be perceived as an act of cowardice, not strength. And it may reinforce a dangerous, if mistaken, belief in the minds of potential aggressors regarding where their aggression is likely or not likely to be challenged by the United States. It is on such perceptions that the efficacy and reliability of deterrence rests.

With these introductory comments, I look forward to the remarks of our panelists.

Keith B. Payne

Keith B. Payne is President of the National Institute for Public Policy and Professor Emeritus at Missouri State University's Defense and Strategic Studies graduate program.

There have been significant developments in the threat environment that, together, present a deterrence challenge beyond anything we have experienced in the past. The difficulty of deterring today's great powers exceeds that of our Cold War experience and policy—with which I am very familiar.

It is critical that we adjust our deterrence strategies to these developments, and dangerous not to do so.

The Commander of Strategic Command, ADM Charles Richard, has rightly identified this deterrence challenge with two points he has emphasized:

- First, ADM Richard points out that all of our military planning depends on nuclear deterrence working. If nuclear deterrence fails, we are in an unknown world in which our planning may be upended.
- Second, ADM Richard points out we must rethink deterrence in light of current threat circumstances.

Reflect on these two realities for just a minute:

1. Nuclear deterrence working as expected is necessary for our military plans to have coherence, and,
2. our thinking about deterrence is in serious need of updating.

We have a significant problem: the basic deterrence principles have not changed for 2000 years, but we must now rethink how to apply it—a difficult job that must be done carefully and effectively.

The new developments that have so upended much of our assumed wisdom about deterrence are on display in Ukraine and in China's aggressive posturing against Taiwan.

I will take just a few minutes to discuss these developments.

The first involves how our opponents see their stakes in the contemporary crises, and how they see U.S. stakes.

In short, they see an enormous asymmetry in stakes to their coercive advantage in any engagement.

Russia and China see their respective prizes, Ukraine and Taiwan, as rightfully theirs, and as having been wrongfully stolen from them.

Recovering these prizes is central to the reigning nationalist myths in Moscow and Beijing. For those leaders, recovering what has been taken from them, and from past national humiliation, is a matter of correcting a great wrong. The United States is deemed the impediment to setting history right.

For deterrence purposes, it does not matter if our opponents' visions of national redemption are reasonable, or reflect any historical truth; it only matters if they are deeply committed—which appears to be the case in Moscow and Beijing.

Why does this particular political context matter for deterrence? Because decades of cognitive studies show that decision makers who consider themselves aggrieved and responding to loss will accept increased levels of risk to achieve their needed prize. They have a high tolerance for inflicting hurt and accepting hurt in pursuit of their prize because achieving it is their due and a national and personal necessity. For a historical analogy, think of Hitler's drive to destroy the 1919 Versailles Treaty and his pursuit of Lebensraum.

This may sound like irrelevant psychology and history to some of you, but it is wholly relevant to deterrence considerations. Deterrence is all about leadership decision making involving national goals, perceptions of power, communication, and the willingness to inflict and tolerate hurt. Deterrence is much more than the usual line that it is about capability and credibility—no, it is much more than that.

Equally important for U.S. deterrence considerations in this regard is a pertinent conclusion, based on a careful examination of historical case studies by academics, that: "To the extent that leaders perceive the need to act, they become insensitive to the interests and commitments of others that stand in the way of the success of their policy." In this case, the United States is deemed the party standing in the way.

Why is this relevant to today's discussion of deterrence? Because deterring Russia and China from seeking their respective cherished prizes is not simply about creating some level of threatened pain that we hope they will find unacceptable, and thus the threat will deter.

Deterrence now is about creating and communicating the type and level of cost that is greater than what our opponents will have to endure if they do not secure their cherished prize. That means we must pace our deterrence threats not according to what we think is intolerable for the opponent in general, but according to what opponents deem to be more intolerable than continuation of the hated status-quo.

There is no methodology that allows us to estimate that measure with confidence. The talking heads who claim to have a precise answer are guessing; there can be more or less informed or ignorant speculation, but it is all speculation.

It is natural to want an easy and obvious solution to our deterrence problems; we tend to want easy deterrence. One way to ease our deterrence problem is to assume that opponents share our own understanding of what is rational in terms of inflicting and accepting cost. If we know how opponents calculate these things, it is far easier to understand how to make deterrence work.

Unfortunately, Washington has a long tradition of expecting opponents to calculate cost and behave based on projecting our own values and perceptions onto them, i.e., mirror-imaging. The result is our great surprise when opponents think and behave differently. This tendency is disastrous for our deterrence hopes and plans. There are many historical examples.

In 1941, Dean Acheson told President Roosevelt that the Japanese would be deterred from attacking; this was at the same time that Tojo was informing Japan's Emperor that there was no alternative to attacking the United States.

In 1950, the IC reported to President Truman that China would be deterred from moving against us in Korea; shortly thereafter, China sent almost 200,000 troops into the war.

In 1962, the CIA reported that Khrushchev would be deterred from placing missiles in Cuba. Shortly thereafter he did just that.

Henry Kissinger has reported that in 1973, Washington could not conceive that Egypt and Syria would again attack Israel. It would be unreasonable for them to do so after the disastrous 1967 war. They launched the Yom Kippur war nonetheless.

In 1990, U.S. officials apparently believed that Saddam would likely not attack Kuwait because he had been warned. He did so anyway.

In 2014, to our surprise, Russia invaded and occupied parts of Ukraine--a first step in Putin's vision of dismantling Ukraine as an independent country.

And now, in 2022, again to our surprise, Russia again invades Ukraine, in a second step of Putin's vision. And we now try to figure out how not to provoke Putin in this context.

These examples illustrate how often we tame opponents in our image of them by casting our own definition of what is reasonable thinking and behavior onto them. And we then are surprised and perplexed when they are much more aggressive.

As a consequence, and we are confronted with crises that might have been deterred had we bothered to better understand what they actually would dare to do in pursuit of their cherished goals.

In discussions of deterrence, I often hear the confident prediction that, "they won't dare do that," referring of course to an opponent's provocation of us. It is a comforting expectation, and the usual policy recommendation that follows from this confident expectation is that we do not need to have some capability or another for deterrence because opponents would never dare to so cross us.

Let me suggest that American commentators who so often assert their favored expectation of what opponents will dare to do typically have little idea what they are talking

about. They simply are projecting their own enlightened definition of what is reasonable onto opponents. Of course, it greatly eases our problems if we assume that opponents will behave reasonably, as we would like them to.

This optimistic, ethnocentric assumption about what Russia and China will and will not dare to do has been in full bloom for 30 years. It was the basis for all the naïve optimism about a cooperative “new world order” after the Cold War, and the associated vapid belief that nuclear threats and nuclear deterrence have become passé.

The same shock that typically follows such naivete now is apparent in our reactions to Russia’s nuclear threats in the context of its bloody drive to conquer Ukraine, and in China’s drive to end Taiwan’s autonomy.

Yes, Moscow will use nuclear first-use threats to help expand the empire. The debate about that is over. And those threats appear to have their desired effect on Washington. That too is now apparent to all.

The truth is that when opponents deem the prizes they seek to be their rightful due and a national necessity per their respective national myths, there should be zero optimistic assumptions about what the opponent will not dare to do.

This is the case with regard to Russia’s views of Ukraine and China’s views of Taiwan. Our deterrence strategies and capabilities must reflect those truth; I fear they do not.

We are not tasked with simply coming up with a deterrence strategy that promises some level of cost if opponents cross our redlines; anyone can do that—it is easy. Instead, we are tasked with knowing and credibly presenting a deterrence strategy that promises greater cost if they violate our redlines than what they will have to endure if they continue to accept the status quo.

If you understand this deterrence problem, you understand our current deterrence challenge vis-à-vis Moscow and Beijing.

My colleagues and I at National Institute are now completing a study regarding the deterrence of Beijing in this difficult context—which we will soon release.

I will close by noting that it is an American tradition, when opponents behave in ways outside our expected norms, for U.S. officials and commentators to label them unhinged, or “mad”; most recently seen with Putin. No, opponents typically are not “mad”; they simply are following a version of rational behavior that we, in supreme egocentrism, have declared impossible for any rational opponent.

Narrowing our expectations of opponents’ likely behavior to conform to our own definitions of what constitutes rationally permissible behavior is comforting, but again, it is disastrous for our deterrence strategies. Doing so has led to deterrence failures in the past and will likely do so again—not because the opponent is irrational and suffering from some psychopathy, but because, if we continue our past ways of thinking, deterrence may well fail because of our inability to move beyond the mirror imaging of the past. This has happened vis-à-vis Moscow, and I fear is happening vis-à-vis Beijing.

Curtis McGiffin

Curtis McGiffin is Professor and Associate Dean of the School of Strategic Force Studies at the Air Force Institute of Technology.

Thank you, Prof. Trachtenberg. I very much appreciate the invitation to be here today and it is an honor to share this panel. Let me first start with the standard disclaimer. Anything I say today represents my own thoughts, ideas, and assessments and does not represent those of the United States Air Force, the Air Force Institute of Technology, or Missouri State University.

I'd like to start my comments off from my perspective as a deterrence educator and address what my students can learn from observing this live case study.

To better posture my students for learning, I like to bin material so they can better process the challenge. Today I'm going to use a bin similar to the famous 1966 Western movie with Clint Eastwood called "The Good, The Bad, and The Ugly," except today I'm going to reverse it and we're going to call it The Ugly, The Bad, and The Good.

The Ugly

So, let's first start with the **ugly**. It's all pretty clear to us on this panel that what we've witnessed over the last 35 days is **the failure of deterrence** and when deterrence fails the result is war... death and destruction and suffering. This is really felt by the Ukrainian people, of which 10 million have been forced to flee their homes with another 3.8 million fleeing the country...becoming what Reuters has called the "worst Refugee crisis since WWII."

Next, as this conflict drags on and Putin becomes more desperate to win (or not lose) the **risk of conflict escalation** grows. Either horizontally—by crossing NATO borders—or vertically with the use of chemical or nuclear weapons.

And then there are the veiled but unambiguous **nuclear threats** from Russia. Through the use of nuclear **brinkmanship**, Putin seeks to coerce (by that I mean to both deter and intimidate) the NATO allies into NOT taking direct action...or measures of indirect action in the case of Polish MiG-29 transfers. I think we are witnessing the most deliberate use of a nuclear coercive threat since the end of the cold war...certainly by Russia.

This is what happens when you have a generation of statesmen, government officials and military leaders who don't understand the theory of deterrence or how to apply it. The misapplication of deterrence theory and the clumsiness of deterrence messaging has at best confused and at worst contributed to this dire situation. This is the same foreign and defense policy team whose watch included the first Ukraine invasion almost 8 years ago to the day, the 2011 Libyan War, the 2012 rise of ISIL (and later ISIS), Russian intervention in the Syrian Civil war in 2015, and the Joint Comprehensive Plan of Action (JCPOA). However, the ugly failure of economic sanctions as a deterrent will be the biggest lesson to study. Indeed, this over reliance on soft power deterrence without explicit hard power deterrence has shown yet again to be a recipe for disaster. On March 3, 2022, Congressman Gallagher who sits on the House Armed Services Committee (HASC) identified that the failure to deter Russia from

invading Ukraine is the administration's first attempt to apply their new strategy of "integrated" deterrence ... and that it failed.

The Bad

Now, let's move on to the **bad**. There is much to study as we watch this tragedy unfold and there are a number of lessons to garner from the BAD influencers.

It is often said "The first casualty of War is Truth." This is made much worse in today's world of **social media and fake news**. One example of this Clausewitzian fog of war is the reported casualty numbers: Russia says they've only lost 1,500 soldiers, while the Ukrainians estimate almost 15,000 Russian dead and U.S. intelligence recently estimated somewhere in the 7,000 range; NATO estimates that up to 40,000 Russian troops have been captured, injured, or killed. It's difficult to know what truth to believe.

Bad deterrence messaging is another problem for this conflict. President Biden stated just days ago, "I did not say that in fact the sanctions would deter him. Sanctions never deter." Yet on February 11, 2022, the national security adviser, Jake Sullivan, stated, "the President believes that sanctions are intended to deter." Vice President Harris said on February 20 in Munich, "the purpose of sanctions has always been and continues to be deterrence." And Secretary of State Tony Blinken said on the same date in a CNN interview that "The purpose of the sanctions in the first instance is to try to deter Russia from going to war." These attempts at unambiguous communication have at best been confusing and at worst disadvantaged our deterrence credibility. Still, President Biden reiterated just days ago that no U.S. troops will fight in Ukraine; instead reemphasizing allied unity and a commitment to Article 5. However, NATO has continued to be deterred by Russian threats and is reluctant to make the major muscle movements of Western deterrence mechanics such as an increased bomber presence, a Reforger-like airlift exercise deployment to demonstrate the U.S. ability to deploy large amounts of warfighting capability quickly, a maritime quarantine of the Black Sea, or the transfer of familiar Russian made jets. To quote Seth Cropsey: "**Deterrence fails when leaders tell adversaries we are trying to deter, what we won't do.**"

Next, is the **failure of "non-treaty agreements"** that ultimately impact U.S. credibility. These agreements are largely conciliatory assurances that are generally non-binding and unratified. The 1994 Budapest memorandum is a classic example of a non-treaty agreement made with regard to sovereignty and security issues. On Dec. 5, 2013, President Xi Jinping and then-Ukrainian President Viktor Yanukovich signed a nuclear agreement that described both countries as "strategic partners." A joint statement on the agreement declared: "China pledges unconditionally not to use or threaten to use nuclear weapons against the nuclear-free Ukraine and China further pledges to provide Ukraine nuclear security guarantee when Ukraine encounters an invasion involving nuclear weapons or Ukraine is under threat of a nuclear invasion."² Non-treaty agreements pose some risk to smaller nations who accept

² Bill Gertz, "Putin's war tests China's nuclear pact with Ukraine," *The Washington Times*, February 28, 2022, available at <https://www.washingtontimes.com/news/2022/feb/28/putins-war-tests-chinas-nuclear-pact-ukraine/>.

these relationships in lieu of a binding treaty. This may be why Finland and Sweden are actively considering moving from the “enhanced opportunities partnership” status to full NATO membership and a more binding Article 5 treaty.

As the Obama-Biden Administration sought to reduce the role of U.S. nuclear weapons in U.S. national security strategy in the 2010 NPR, we see this continued effort today. A letter written and released this past December by some 700 noted scientists, engineers and academics called for the elimination of ICBMs, a unilateral reduction in warheads, and a No-First-Use (NFU) pledge. This was followed by a January letter, signed by 13 U.S. senators and 43 U.S. House representatives urging the United States to take bold steps to reduce its reliance on nuclear weapons, elevate arms control, install a No-First-Use policy and retire former President Donald Trump’s new, unnecessary nuclear weapons...this as the Ukrainian war was warming up. Again, this represents a fundamental ignorance regarding the application and function of deterrence theory.

The Good

Finally, let’s talk about the **good**. Despite all the Ugly and the Bad the Russo-Ukrainian conflict has yielded, good lessons can be found.

First, the value of **energy independence** when it comes to national security is paramount. The warnings presented by President Reagan and later from President Trump have now been corroborated. Buying energy from your adversary is a two-fer...and by that, I mean, not only is that nation compensating their potential adversary with currency for that supply; but it also transfers to that adversary the ability to manipulate the flow of energy and thus negatively impacts your own national security perspective. If you can’t be self-sufficient in energy production, then doing business with reliable partners and not potential adversaries is now key to waging deterrence.

The value of **collective deterrence**. NATO and the countries that make up NATO seem to have found their spine and their wallets. We now see Germany changing course in its defense policy and spending; Denmark publicly moving to 2 percent contributions; and, as I mentioned, neutral nations now contemplating joining NATO. These are all second and third order effects that Putin did not want to see.

Next, it is probably fair to say that the invasion of Ukraine has single-handedly saved **America’s nuclear Triad** as we know it today. I think there was a real desire by this administration in February of 2021 to reduce the U.S. nuclear posture; in March of 2022 those ambitions have been washed away by the realism of the world and nuclear modernization will likely continue apace. But even the rumored language change in the upcoming Nuclear Posture Review (NPR) leaves some ambiguity as to nuclear first use. The United States has been nuclear hedging for 30 years; to the great dismay of the anti-nuclear crowd, the fear that this kind of Ukrainian event could happen has been vindicated.

The obvious **Russian failures** on the battlefield may not be enough to suggest Russia is a paper tiger. But Putin’s over confidence, coupled with botched planning and logistics, has

proved costly to Russian credibility. The result will be an increased reliance on their nuclear power and increased risk of an escalation event to save face.

And finally, a **renewed interest in the study of deterrence theory**. On any given news broadcast, the “d” word is used and misused on a daily basis. This public discussion is an opportunity to educate the masses on the value of deterrence, the difficulty of deterrence, and the peace-keeping value of nuclear deterrence. There will also be renewed attacks on all three of those sentiments in the coming months and years, which will require diligent and persistent messaging in response. Remember, deterrence fails every time it’s not competently and consistently employed. The 2022 Ukrainian conflict will serve as a stark reminder of that.

Matthew R. Costlow

Matthew R. Costlow is Senior Analyst at the National Institute for Public Policy and former Special Assistant in OSD’s Office of Nuclear and Missile Defense Policy.

The U.S. deterrence community, loosely defined as those analysts, scholars, and practitioners whose jobs require some familiarity with the concepts of deterrence, are rightly focused on what they can learn about the functioning of deterrence from real world events happening in Ukraine as we speak. In one sense, those deterrence “lessons learned” have not even been completed yet—ongoing events have a tendency of changing the “real” lesson to be learned. On the other hand, U.S. policymakers do not have the luxury of historians to wait for the definitive history of this conflict to be written to then begin drawing lessons for the functioning of deterrence.

So, in this spirit of being fully aware that the deterrence lessons I discuss today could change tomorrow due to unforeseen events, I want to focus my remarks on what deterrence lessons China may learn from the Russo-Ukrainian war. Now, to be clear, I think most of the work we—as U.S. analysts—should contribute to is learning deterrence lessons from this conflict for the betterment of U.S. planning and policy with regard to Russia. After all, Russia—despite its battlefield failures—will likely remain an opponent that the United States and NATO must deter for decades to come. Yet, we would do well to remember that just because China is not, for the moment at least, directly involved in the Russo-Ukrainian conflict, it is watching all sides very closely. To put it bluntly, U.S. officials must be aware that China is watching their policies and practices toward Russia and Ukraine, and may learn deterrence lessons about U.S. behavior that could be detrimental to U.S. interests in the future. If there is one bottom line conclusion of my remarks today, it is that U.S. officials can influence what deterrence lessons Chinese officials may learn from this conflict, but they cannot determine the lessons Chinese officials may draw.

Influencing China

Although much of China's official military policies and intentions are unclear, due to its policy of deliberate opacity, I believe Western analysts have correctly pointed out that external events to China have influenced China's deterrence policies. This indicates that the United States may have some, and I emphasize only some, ability to influence China's deterrence perceptions.

Within the span of three years, 1989-1991, Chinese officials experienced three world-altering events. First, in 1989, Tiananmen Square taught Chinese officials—in their mind—the value of repressive internal security and surveillance tools to minimize the chance of domestic revolution. Second, in 1991, the fall of the Soviet Union taught Chinese officials the value of a market-based economic system—although tightly regulated with heavy state influence—as a means of building national wealth. Third, also in 1991, the resounding U.S. victory in the Gulf War against Iraq taught Chinese officials that they needed to modernize their military and pursue asymmetric means of threatening American power.

I do not know of any official U.S. statements to this effect at the time, but I am sure many U.S. officials would have hoped that the deterrence lesson other states should learn from the Gulf War was: "Do not mess with the United States of America. You will lose." In short, U.S. officials would have hoped other states would focus on America's strength as demonstrated by the Gulf War, but China chose instead to focus on its perception of America's weakness—dependence on modern technology.

My point in this short historical summary is that we can be sure China is watching unfolding events and forming deterrence conclusions as we speak. But we do not know precisely what those deterrence lessons are, and we do not know precisely how much weight Chinese officials will place on them. As our Keith Payne, and Robert Jervis, have pointed out—a major problem for deterrence is confirmation bias—that is, Chinese officials will likely draw lessons from the Ukraine conflict that conform or fit into their already pre-existing beliefs.

I contend this is likely bad news for U.S. hopes of deterring a Chinese invasion of Taiwan. First, China could draw a deterrence lesson that Russia's tacit nuclear signaling had a deterrent effect on the United States and NATO. Even worse, Vladimir Putin's nuclear signaling was not even very explicit—a rescheduled exercise and a vaguely worded call for extra manning for nuclear operations was all it took for U.S. and allied officials to warn about World War III. If CCP leaders already believe that the United States is unwilling to risk escalation, and it appears they do already believe this, then the United States not directly intervening in the Ukraine conflict will further reinforce this belief.

Second, the Russian experience in Ukraine may only reinforce the apparent CCP belief that a war of attrition allows the United States to send in deadly military aid—even from afar—that can significantly increase losses and even imperil victory. To be sure, the United States sending military aid to Ukraine is orders of magnitude easier than it would be to do the same for Taiwan. But, Russia's losses only one month into the conflict may only further support the existing CCP belief that if deterrence is going to fail (i.e., they choose to no longer

be deterred), then it should fail quickly—and, in the words of Colin Gray, “fail deadly.” This may or may not mean Chinese nuclear employment, but U.S. officials should at least be aware of the possibility that a lesson the CCP draws from the Ukraine conflict is that a slowly evolving conflict only benefits the West.

Third, and last, we can only speculate about how this Russo-Ukrainian war will end, or if it will end in any kind of formal sense—and the deterrence implications that result. It is incredibly difficult to tell whether President Putin believes he has any political room to conciliate on Ukraine or accept political aims well below what his initial war aims are. One can easily imagine Putin believing he has no room to conciliate and that victory in Ukraine is the only thing that will maximize the likelihood of staying in power. On the other hand, one can also imagine a wounded Putin that claims a limited victory in Ukraine and turns inward, focusing on domestic purges that shore up his support until such time as he may wish to try attacking Ukraine again.

In either case, CCP leaders may derive some deterrence lessons from Putin’s political fate. If Putin conciliates in Ukraine, and claims a partial victory, but is forced out by the Russian people, a palace coup, or some mysterious unexplained illness, CCP leaders may become only further convinced that failure is not an option with Taiwan. Chinese officials remember the 1990s and the ignominious fates of various Warsaw Pact leaders.

Conclusion

Allow me to conclude by saying I am not advocating that the United States orient its policy on Ukraine to influencing a potential Chinese invasion of Taiwan. Influencing China’s perception should be a factor, but not the factor, in U.S. decisions. I will restate my conclusion that CCP officials are the only ones to determine what the “right” deterrence lessons are from the Ukraine conflict. The United States is allowed to say what lessons it thinks China should draw from the conflict, but U.S. officials cannot be so naïve as to think those are the lessons CCP officials inevitably will draw from the conflict. The United States should be worried that CCP officials are watching the Ukraine conflict and confirming all their prior biases—which are all not to the U.S. advantage to put it mildly.

My final thought is that we, as deterrence practitioners, should study more when state leaders refer to historical events as evidence for their beliefs. We know that North Korean officials have cited the case of Moammar Gaddafi in Libya and Saddam Hussein in Iraq as evidence for what happens when a state fights the United States without nuclear weapons. What other times have foreign leaders looked abroad and found deterrence lessons they have applied to their own policies? These questions need some further study.

Franklin C. Miller

Franklin C. Miller is a Principal of The Scowcroft Group and a former senior DoD official and Senior Director for Defense Policy and Arms Control on the National Security Council staff.

In light of what my colleagues have said thus far, I come before you today as a contrarian. Actually, however, I see myself more as someone who's practicing realpolitik.

I have eight points I'd like to make quickly.

First, as I told a group of British Parliamentarians a few days ago, I do not see Putin's invasion of Ukraine –cruel, unjustified, and reckless though it is—as representing “a failure of NATO's deterrent.”

- NATO's deterrent exists to deter attack on NATO's 30 nations. Ukraine is not in NATO. Ukraine wanted to be in NATO—but we all know what happened.
- We can say that the failure to deter Putin's aggression is akin to Acheson excluding South Korea from the US security perimeter in 1950; in that sense it may have been a failure of national policy.
- But it was not a failure of deterrence and to say that it was is dangerous because false narratives are poisonous and have a way of spreading.

Second, the idea that we have been deterred by Russia's nuclear weapons from putting troops on the ground to assist the Ukrainian armed forces is also completely wrong. If NATO had decided to defend Ukraine, I must have missed it. And NATO would not have so decided, because the question would have fractured the Alliance. It is counter-intuitive to say NATO was deterred from taking an action it never intended to take.

Third, the selective release of intelligence information by the US and British government's (among others) was not a failure of deterrence because those “leaks” were intended not to deter but to hamper and confound Russian military activities....which they did. For the first time in many years the West played a good hand in the so-called ‘gray area’. It should keep doing so.

Fourth, the imposition of sanctions was not threatened to deter because sanctions are not a good deterrent against an enemy determined to attack his neighbor. They are, however, intended to induce pain in the enemy's homeland and to light the fires of political change. They may yet do so.

Fifth, a narrative has sprung up in some quarters that our “failure” to engage militarily in Ukraine stems directly from our unwillingness to confront a nuclear-armed adversary directly. The last time I looked, we are today engaged directly confronting three nuclear-armed adversaries: deterring Russia from aggression against ourselves and our NATO and Pacific allies; deterring China from aggression against ourselves and our Pacific allies; and deterring North Korea from aggression against our Pacific allies.

Sixth, there is a notion that Putin's rhetorical nuclear saber-rattling was the “real deal”. That may well turn out to be true at some point, (but hopefully not) but at this point the rhetoric is all there is. Were additional SSBNs put to sea? No. Did mobile ICBM's exit

garrisons? No. Were shorter-range nuclear weapons moved from storage areas? No. Were explicit threats to halt or take certain actions made to accompany the nuclear rhetoric? No. So according to my experience, this wasn't (thankfully) "the real deal"

Seventh, critics have been quick to say that the Russian invasion represents a failure of the Administration's "Integrated Deterrence" strategy. I'm not here to defend the Administration (or criticize it) but I think it's a bit rich to suggest that "Integrated Deterrence" has failed when Team Biden hasn't even defined what it is. Based on my own experience and work, including recently advising some DoD officials, I believe "integrated deterrence" is much simpler and less complex than is usually described.

- First, I believe it means engaging with our adversaries in the Gray Zone, fighting disinformation and misinformation and working ourselves to develop overt and covert messaging to support US and allied policy objects. We've been missing in action in this area since the end of the Cold War and it is a major vulnerability, especially since our adversaries are very busy in this space. The US and UK release of information about intended Russian military action was, I believe, an excellent step back into the gray area. And such gray area activities need to be integrated into our various contingency plans and war plans to help shape the battlefield—every day.
- Second, I believe it means that we must begin to integrate our military planning to bring space, and cyber, and nuclear into the various geographic combatant commanders' war plans. For too many decades we have allowed those geographic commanders to plan as if they should focus on air, land and naval campaigns without much need to integrate space, cyber, and nuclear. That is a fundamental mistake, and it needs to be corrected. If it takes an "Integrated Deterrence" push from the top of the Pentagon to accomplish this, I'm all for it.

Finally, I want to make an observation about one lesson of the Ukraine situation for Taiwan. I will be writing a piece on this soon. As we watch the US and other NATO nations trying to stuff equipment into the hands of the Ukrainian armed forces at literally the eleventh hour it should be apparent this is not a good way to bolster defenses. Now imagine a last-minute decision to try to do the same for Taiwan in the midst of an impending attack by the PLA. If we are serious that Taiwan should remain independent until if and when the time comes when it decides it wants to become part of the PRC, we need to begin sending advanced equipment and trainers now to Taiwan. Last minute resupply is a risky proposition. As I said, more on this in the near future.





PROCEEDINGS

DETERRENCE EDUCATION AND NATIONAL SECURITY

The remarks below were delivered at a symposium on “Deterrence Education and National Security” hosted by National Institute for Public Policy on January 25, 2022. The symposium focused on how issues of deterrence and nuclear strategy are taught at colleges and universities and discussed the prospect for greater collaboration between academics and the official deterrence community, some of the impediments to such collaboration, and how they might be overcome.

Keith B. Payne

Keith B. Payne is President of the National Institute for Public Policy and Professor Emeritus of Missouri State University’s Defense and Strategic Studies graduate program.

Since the beginning of the nuclear age, there has been considerable de facto collaboration between the deterrence and academic communities. The broad outlines of U.S. nuclear deterrence policy have followed from the original work of a small number of brilliant scholars, including Herman Kahn, Thomas Schelling, Bernard Brodie, and Colin Gray.

More recently, an even smaller number of scholars has led the rethinking of Cold War approaches to deterrence to accommodate the great changes in the threat environment—although we are not yet far down that road of rethinking.

One could be forgiven for assuming that the engagement of the academic community and the deterrence policy community would require no deconfliction. After all, we work on the same general subject matter and typically speak the same language.

However, let me suggest that it is critical to recognize that these two communities work in very different contexts, have different professional cultures, different modes of operation, different measures of professional merit, different professional languages, different goals, and very different measures of success.

Ideally, academics educate each new generation of students and push the boundaries of conventional thinking, offering up hypotheses toward the further accumulation of knowledge. This is a never-settled process. It is, and should be, rough and tumble intellectually. Every nuance is open to question in a remarkably decentralized process. It is an intellectual free-for-all, governed by little more than generally shared, but occasionally discarded, norms of process integrity. Professional success for the academic often is determined by the prominence of one’s participation in this rough and tumble process, measured largely by the number of publications and conference appearances in academically-accepted venues.

The development of U.S. deterrence policy is a wholly different matter. It is not a forum for testing hypotheses and building knowledge, per se. The deterrence community’s goal is much more directed and the process much more structured: it is responsible for the policies and practices needed to deter external threats with available resources.



There is a well-defined hierarchy of executive authority that ends discussion by deciding what is the correct policy. Civilian political leaders, who typically are not highly knowledgeable about the subject, are responsible for deciding what the correct answers are. In contrast to much academic work, their decisions carry enormous potential real-world regrets for getting it wrong, while spectacular deterrence success is marked by nothing much appearing to happen. Academics often critique this process, but often are themselves ignorant of how it operates.

The academic searching for knowledge and the national security community seeking practical answers should be a natural match. But it is hard to imagine more different professional contexts. My 44 years of experience in each community tells me that if these differences are not seriously taken into account, collaboration will be mutually frustrating and even unhelpful for either.

Allow me to offer a personal, real-world example of the gulf separating these two communities. From 2005 until I retired in 2019, I served as department head for Missouri State University's graduate Defense and Strategic Studies (DSS) program. This program was founded by Prof. William Van Cleave at the University of Southern California in 1971. His explicitly expressed purpose was to provide a graduate curriculum that prepared students for the harsh realities of government service in the field of national security. When asked to comment on the DSS curriculum in 2011, the late Professor Robert Jervis, himself a true expert on deterrence theory and policy, said that the Department's curriculum was outside the academic mainstream, but well within the policy mainstream. I took that comment as a profound complement, but it was a devastating comment on the state of deterrence education. It reflected the truth that, in this subject area, the policy community and the academic communities are far apart.

This gulf has, if anything, widened since Bob Jervis' comment. Much academic and think-tank commentary on U.S. deterrence policy harkens back to the deterrence policy contours of the 1960s, i.e., notions of "Mutually Assured Destruction (MAD)," which the policy community, on a fully bipartisan basis, departed from in the mid-1970s, never to return. Whenever I start reading an article on deterrence in which the author claims, seemingly knowingly, that U.S. deterrence policy is based on MAD, I simply stop reading. The authors, usually academics or journalists who have talked to academics, clearly are ignorant of a half century of actual U.S. deterrence policy development.

There are numerous examples of how these two communities' mutual lack of understanding can lead to problematic engagement. An ongoing example revolves around their generally differing perspectives about the foreseeable feasibility of cooperative global nuclear disarmament.

Yale professor Paul Bracken observed about the campaign for nuclear disarmament: "All were on board to oppose nuclear arms... Academics, think tanks and intellectuals quickly jumped on the bandwagon. For a time, it really looked like there was going to be an antinuclear turn in U.S. strategy." Yet, many, probably most, with positions of serious deterrence responsibility, were deeply skeptical of the prospects for global nuclear disarmament. An Air Force general officer quipped that he so favored global nuclear

disarmament that he would throw a party when it occurred, but that he would advise guests not to feed hors d'oeuvres to his pet unicorn.

Why this divide? In a most insightful comment on this question, the late Oxford Professor Sir Michael Howard—a person with considerable experience in national security and academia—suggested that the different professional contexts of the academic and the policy maker can shape views on the subject of nuclear disarmament:

Nobody who has been brought into contact with that inner group of civil and military specialists who are responsible for the security of this country can fail to notice the almost physical pressure exerted on them by that responsibility, affecting their processes of thought (and often their manner of speech) in much the same way as the movements of a man are affected when he tries to walk in water....they share a common skepticism as to the possibility of disarmament, or indeed of the creation of any effective international authority to whom they can turn over any portion of their responsibilities.

Sir Michael then added his observation that, “the impatient onlookers, who have never themselves been plunged into that element, cannot understand why.”

This divide can be seen in deterrence education. Several years ago, I had an opportunity to examine course offering on deterrence in professional military education. Without going into any detail, I can tell you, at least as of a few years ago, that the gulf between the policy community and the academy is not limited to civilian universities. Indeed, it appeared that the very few military courses on the sought to mimic the discussion of deterrence generally presented in civilian universities. They were, to turn Professor Jervis' comment around, within the academic mainstream, but well outside the policy mainstream.

Based on my general survey of deterrence education, there were two different but related problems. First, there simply was very little offered on the subject of deterrence, particularly nuclear deterrence, which may have reflected the general view following the Cold War that the subject had become passé.

Second, what I found that was offered tended to present the subject from a particular point of view, i.e., that one side of the U.S. deterrence debate is in favor of stable deterrence, minimal nuclear capabilities, and arms control, and the other side of the debate is interested in war-fighting strategies opposed to deterrence, wants unlimited nuclear capabilities, and is inherently opposed to arms control. This characterization is as silly as it is prevalent. It conveys an underlying theme, apparent in much academic discourse on the subject, that there exists a clearly responsible way to think about deterrence that is juxtaposed to a clearly reckless way to think about it—the former generally following Thomas Schelling's deterrence narrative and the latter Herman Kahn's.

In fact, an honest presentation of the deterrence debate must give full recognition to the fact that each side is focused first on deterring war, each has thoughtful, responsible advocates, and that each is built on speculative assumptions regarding the opponent and the threat environment. Either may be more or less responsible or reckless, depending on the character of the opponents, the threat environment and U.S. deterrence goals. Yet, typically,

one side seemed consistently to be favored as the more responsible approach to deterrence, while the other was held up for implicit or explicit criticism. That approach to deterrence education is inadequate at best.

This was the state of play as I found it several years ago. There have since been notable efforts to do better and, I believe, notable improvement.

I look forward to the presentations of the panel—hopefully we will hear more about the improvement in the state of deterrence education from what I found a few years ago.

* * * * *

Mark Mattox

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In the touchstone document for today's discussion, Professor Payne astutely and, I trust to this audience, uncontroversially, observes that "a consequence of limited shared experience is limited mutual understanding."¹ Nowhere in my experience has that been more evident than in what I have encountered through the semiannual exercise of recruiting federal personnel attending senior service college to undertake coursework in weapons of mass destruction- and nuclear deterrence-related topics.

The recruitment exercise to which I refer is necessary for two reasons:

First, these topics receive only superficial coverage, if at all, in the university's core curriculum. It is true that the students we succeed at recruiting are at least tacitly aware that the United States' principal adversaries either possess or seek to possess nuclear weapons, and the core university instruction they receive assumes that realization to be part of their background knowledge. However, little effort seems to be made to point out to these future strategic-level leaders that the principal adversaries of the United States are its principal adversaries largely, if not primarily, because they possess or seek to possess nuclear weapons. This is no inconsequential cognitive connection. While these students have many shared experiences, this connection is one that falls outside of those experiences and hence, true to Professor Payne's dictum, their mutual understanding of the problem is likewise limited.

The second reason appears to be the assumption that a general understanding of "deterrence" will suffice to ensure their appreciation of the special function deterrence plays vis-à-vis nuclear weapons. That perspective, born of a lack of shared experiences, leads many of them to conclude that deterrence is a monolithic concept; that if you can deter, for example, a drone strike, you can deter a nuclear strike; and that the events of the last three-

¹ Keith B. Payne, *Cultivating Intellectual Capital – Linking Deterrence Practitioner to Academician*, Information Series No. 506 (Fairfax, VA: National Institute Press, October 26, 2021), available at <https://nipp.org/wp-content/uploads/2021/10/IS-506.pdf>.

quarters of a century demonstrate that the real risk of their having a nuclear encounter is really very low; and that as long as, by some means, the state can ratchet up some combination of instruments of national power until an adversary considers the cost of action too high, the deterrence task has been accomplished, and there really isn't anything else to discuss. Unfortunately, the logic of that position parallels that of the equally ridiculous claim that if we were simply to move the sun farther from the earth, the problem of global warming could be held in check. Indeed, what clearly seems to be missing is an appreciation of the special sense—if for no other reason than that of the seriousness of the stakes involved—in which deterrence applies to the special case of nuclear weapons, as well as to WMD more broadly. No shared experience, no mutual understanding.

I am happy to report that some of what seem to me to be among the University's brightest, most thoughtful students, tend to gravitate toward courses offered in nuclear deterrence and other aspects of WMD. They seem to come from two distinct groups. The first group comprises those with operational experience generally associated with WMD: some from backgrounds in chemical or biological defense, others from consequence management, and still others from nuclear operations. One might be pardoned for thinking that these students do not need instruction in nuclear deterrence because the tactical-level experiences—in many cases, shared experiences—they bring to the classroom would render the topic all too familiar. Not so. The epiphany that awaits these students is the realization that their tactical-level experiences do almost nothing to prepare them to understand deterrence—especially nuclear deterrence—and related concepts at the strategic level. They have shared tactical experiences, alright; but this does not imply shared understanding of strategic-level concepts. They must be formally introduced to these, if they are not to learn them through the trial-and-error school of hard knocks—and no one should think that a trial-and-error education in nuclear deterrence is a good thing.

Then there is a second group of recruits, namely, those who come to this field of study without any experiential background but whose interest in our program has been piqued if for no other reason than out of morbid curiosity aroused by the creative recruitment efforts in which we take some pride and by which we seek to distinguish our courses from a plethora of other elective courses in the offing.

At the completion of our courses, several interesting outcomes are evident: First, students from both groups, virtually without exception, are glad they chose to take these courses, as evidenced by consistently praise-filled student feedback. Second, students from both groups, virtually without exception, are quite surprised at what they have learned about nuclear deterrence. And finally, students from both groups, again virtually without exception, find themselves asking the question, "Why are these topics not dealt with more substantively as part of the core curriculum? Why did we have to stumble upon them in the forest of elective course offerings?"

We can only respond by saying, "Those are some good questions. Why indeed are these topics not dealt with more substantively in the core curriculum?"

While the educational effort I described awards a master's level area of concentration to students graduating from the host institution, those completing the concentration typically

represent less than 10 percent of the graduating class of students, all of whom are bound for positions of strategic-level leadership in the Department of Defense and elsewhere in the federal government. That means two things: first, that most of those selected for in-resident senior service college instruction acquire little or no such shared understanding of the things we are talking about today and, hence, have no common vocabulary or conceptual framework with which to exchange ideas; and second, that the still larger number of persons continuing in their uniformed service or executive agency career that are not selected for in-residence instruction but who will go on to occupy responsible staff positions, have even less exposure to these topics.

While we are thankful for such small victories as our educational efforts yield, we are also aware that much work remains to be done. There are, of course, no switches that can be easily flipped to change the status quo, and the number of people entering the strategic-level ranks of federal service fortified with the education I have described remains quite low. At present, the best outcome we can hope for is that, the students having had a positive experience from their engagement with the subject matter, then leave our institution with a disposition to be interested in the topic and perhaps even to recognize important cognitive connections between what they encountered in their WMD- and deterrence-related classes and what they experience in the real world. This may seem like a rather thin thread to hang our hopes on for linking future deterrence practitioners to the academicians, and it is—especially, given the gravity of the subject matter.

In a similar vein, it is important for both sides—academicians and deterrence practitioners—to be aware of just how thin the thread really is. We who teach the subject can be lulled into persuading ourselves and each other that our effect on the larger machinery of government is more significant than it really is, and actual deterrence practitioners may suppose that there are more potential future deterrence practitioners in the pipeline than there really are.

In the period between the end of the Cold War and the fairly recent acknowledgment of “great power” or “strategic” competition—pick whichever branding you will, it may have been sufficient for some few at the strategic level of leadership to understand something about deterrence, especially as it manifests in the case of nuclear weapons. Be that as it may, surely the time has come, once again, for practically everyone at the strategic level of leadership to understand something about it. While shared experience does indeed yield shared understanding, this might be a case in which we might at least hope that shared understanding can result in avoidance of the worst imaginable kind of shared experience.

Brendan Melley

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Thank you, Professor Trachtenberg, for the opportunity to join this distinguished panel, and I hope I can make half as good a contribution as they are making. It's good to see so many friends and colleagues attending.

Candidly, I was thrilled when David asked me to be part of this webinar to discuss "Deterrence Education and National Security," for education on WMD issues broadly has become a bit of a focus for me in the past few years.

I come at this with a somewhat parochial (no pun intended) perspective to emphasize the critical importance of improving the military education system with an integrated appreciation of both deterrence and countering WMD concepts to meet the demand for adaptive and agile leaders—across all functional areas—who can think critically in a complex strategic environment.

As all of us here recognize, strategic deterrence cannot be stovepiped within any education program, but must be integrated with an appropriate understanding of the broad contours of the security environment, history, and the role of all instruments of national power.

In my view DoD is challenged in appropriately integrating, within PME, the range of activities to address the "WMD problem," from deterrence to actions post-crisis or post-war. One aspect of this challenge is an underappreciated disagreement, or perhaps more kindly, a lack of agreement, on a common lexicon; this serves to separate DoD professionals into their own two cultures.

There are definitional differences of "weapons of mass destruction" within the Federal government, as Dr. Seth Carus wrote 10 years ago in his seminal occasional paper, "Defining 'Weapons of Mass Destruction.'"² These differences are generally not a problem outside of formal plans, but terminology does play a role to complicate how some leaders look at WMD challenges.

Especially in DoD, the term "countering WMD," or CWMD, is used to describe a broad range of strategies, policies and activities used to address WMD threats. Most other parts of the Federal government look at the "left of boom" WMD challenge through the lenses of counterproliferation and nonproliferation. For DoD, if it isn't deterrence, it likely is considered CWMD.

CWMD is a doctrinal term and not to be challenged lightly, but I do not believe it is consistently used or understood within DoD. One result is that strategic deterrence often is

² W. Seth Carus, *Defining "Weapons of Mass Destruction" (Revised)*, Occasional Paper 8 (Washington, D.C.: National Defense University, January 2012), available at https://wmdcenter.ndu.edu/Portals/97/Documents/Publications/Occasional%20Papers/08_Defining%20Weapons%20of%20Mass%20Destruction.pdf.

not automatically incorporated into how most major elements of DoD go about planning, resourcing, or executing CWMD activities – and this includes how WMD is addressed in PME.

Stepping back to the perspective of broad WMD challenges, education and leader development are essential to prepare today's and tomorrow's leaders to be able to blend an understanding of the role of chemical, biological, radiological, and nuclear weapons in competition and conflict, into a strategic appreciation of geopolitical risk, whole of government responses, and military planning and operations.

While we do not know yet the details of the Biden Administration's security policy documents, it seems likely that an enduring objective will continue to be what the 2018 NDS stated, "Dissuading, preventing, or deterring state adversaries and non-state actors from acquiring, proliferating, or using weapons of mass destruction."

The demand for the development of adaptive and agile leaders was emphatically stressed in the 2018 National Defense Strategy. In 2020, the Joint Chiefs of Staff released a vision paper for PME that states, "The evolving and dynamic security environment, which includes disruptive changes in the character and conduct of warfare, demands immediate changes to the identification, education, preparation, and development of our joint warfighters."³

A subsequent implementation plan for this guidance states that "Gaining and sustaining an intellectual overmatch in the future will require joint warfighters who can conceive, design, and implement strategies and campaigns and can globally integrate U.S., Allied, and partner capabilities in conflicts that have not yet been imagined."⁴ There is a high demand for trained, educated and informed planners, strategists, and leaders to be prepared to fight through and win after an adversary uses any WMD – should deterrence fail.

In meeting their responsibilities in a crisis, leaders and their staffs continually will be challenged to apply deterrence and countering WMD strategies and concepts to their plans and operations, and to organize and prioritize resources for an optimal balance of capabilities.

Any adversary employment of WMD would create compounding and cascading effects on friendly forces and plans, and likely lead to unforeseen operational and strategic challenges. The Joint Force must be cognitively prepared for adversary use of WMD across the full spectrum of competition and conflict, including:

- Use below the level of armed conflict by actors who believe that such use could be accomplished covertly and/or with plausible deniability;
- Early employment in conflict to prevent the joint force from gaining air supremacy, assembling offensive capabilities, supplying forces, or maintaining freedom of maneuver; and
- Threats of use to raise the risk of escalation to limit US strategic options.

³ Joint Chiefs of Staff, *Developing Today's Joint Officers for Tomorrow's Ways of War*, May 1, 2020, p. 2, available at https://www.jcs.mil/Portals/36/Documents/Doctrine/education/jcs_pme_tm_vision.pdf?ver=2020-05-15-102429-817.

⁴ *Implementation Plan for The Joint Chiefs of Staff Vision and Guidance for Professional Military Education & Talent Management*, July 11, 2020.

The preceding points were intended to describe “why” WMD education is important. “How” we can best deliver this education is a work in progress.

Task 20 of the 2018 Nuclear Posture Review’s Implementing Guidance tells us that is imperative that PME provide a “stronger common understanding of nuclear issues across the force, and stronger understanding among planners of how the conventional and nuclear dimensions of possible conflict must be integrated into planning.”⁵

This imperative was captured in the Chairman’s Officer Professional Military Education Policy (OPMEP) of 2020, which recognized that great power competition requires PME to address the risks of deterrence failure in the context of conventional conflict, and to assess various forms of escalation in an effort to achieve operational and strategic advantage.⁶

Strategic deterrence was identified in 2015 as a Special Area of Emphasis of the Chairman for PME, and since then, CSWMD has been providing each CAPSTONE class of new General and Flag officers and Senior Executives at NDU their primary module on deterrence.

Mindful of the next speaker but also true, I don’t want to suggest that there is no treatment of deterrence education in some JPME II programs and senior service schools, and that will certainly expand. However, I will assert that outside of the nuclear deterrence communities in the Air Force and Navy, military officers should not have to wait until they are Lieutenant Colonels to receive formal instruction on this.

In June 2021, two of my colleagues at CSWMD, Dr. Amy Nelson and Mr. Paul Bernstein, wrote an article in the online site Real Clear Defense entitled, “Toward Nuclear and WMD Fluency in Professional Military Education.”⁷ I recommend that this article be on your reading list. It describes the path from the 2018 NPR to the 2020 OPMEP’s guidance to include “nuclear capabilities and concepts” in PME. An important contribution of the article is suggesting how DoD can improve the integration of broader WMD topics into education for the Joint Force.

The authors state, “This is an era in which nuclear deterrence and the potential nuclear dimension of conflict are not some distant rung on an escalation ladder but something that shadows the full spectrum of competition and conflict and therefore is foundational to how the joint force prepares for war.”

One of Nelson’s and Bernstein’s recommendations is to “Provide a progressive learning process that seeks to connect theory to practice, addressing historical experience; concepts, strategy and policy; capabilities; technical, operational and organizational factors; and partner and competitor approaches.”

⁵ Joint Staff J-7, Joint Force Development, *Nuclear Posture Review Implementing Guidance Task 20 (Professional Military Education)*, September 4, 2018, p. 2, available at <https://wmdcenter.ndu.edu/Portals/97/NPR%20Implementing%20Guidance%20Task%2020%20%28PME%29.pdf>.

⁶ Chairman of the Joint Chiefs of Staff Instruction (CJCSI) 1800.01F, *Officer Professional Military Education Policy*, May 15, 2020, available at https://www.jcs.mil/Portals/36/Documents/Doctrine/education/cjcsi_1800_01f.pdf?ver=2020-05-15-102430-580.

⁷ Amy J. Nelson and Paul I. Bernstein, “Toward Nuclear and WMD Fluency in Professional Military Education,” *RealClear Defense*, June 26, 2021, available at https://www.realcleardefense.com/articles/2021/06/26/toward_nuclear_and_wmd_fluency_in_professional_military_education_783078.html.

This would produce in students what the authors termed “nuclear fluency,” which is “the acquisition of both foundational knowledge as well as sufficient specialized knowledge to contribute to the formulation and execution of strategic level concepts.” As with studying languages or complex topics, fluency “accumulates over time and requires continual maintenance.”

An important question for DoD PME institutions who will implement the 2020 OPMEP guidance is to understand how DoD’s Services and cultures connect with the joint concepts about nuclear topics: Do you want military leaders to comprehend and be able to apply the concepts, or just be able to say, “I graduated”? The same is true for PME on the range of WMD issues beyond deterrence.

To us, the answer is straightforward: the entire joint force and defense community—future strategists, planners, and commanders in all functional areas—requires WMD fluency. This can be understood as a common baseline knowledge of all aspects of WMD to be responsive to current and emerging WMD challenges, from deterrence to countering WMD activities. This fluency needs to be developed and maintained from post-Commissioning to senior JPME, and be supported by appropriate professional continuing education opportunities.

We need to bridge the frequent communications divide between those with strategy and policy responsibilities, and those with technical know-how and adversary-specific knowledge. We need to ensure that appropriate and consistent resources are available to support the development, delivery, and regular updates of learning outcomes and objectives to meet changing circumstances.

The NPR Task 20 plan reminds us that “As competition among nations intensifies, so does the risk of conflict, and as the United States has recognized for a number of years, the most likely path to a nuclear confrontation is a regional war that escalates.”

All military and civilian leaders must understand the dynamics of competition and conflict that could lead to regional confrontation. Even before the nation’s senior leadership invokes a policy or chooses a strategic course of action, operational commanders need to comprehend the possible strategic effects of WMD threats and use on military operations before it happens.

Dr. Keith Payne, in the NIPP information paper “Cultivating Intellectual Capital – Linking Deterrence Practitioner to Academician,” notes that often “change comes only after major threat developments compel new thinking.”⁸ I tend to agree, unfortunately. But for military leaders, PME is an essential and cost-effective means to equip decision makers with an understanding of WMD risk and the range of actions to prevent or respond, as we cannot and should not rely on “on the job” training brought on by a crisis or catastrophe.

⁸ Keith B. Payne, *Cultivating Intellectual Capital – Linking Deterrence Practitioner to Academician*, Information Series No. 506 op. cit.

Stephen J. Cimbala

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I appreciate the opportunity provided by the National Institute to comment on this important and timely issue. If you have seen as many scholar-lifetimes as I have witnessed, you realize that there have been ups and downs in the relationship between academia and defense policy analysis. During the Cold War, there was a considerable amount of interchange between the academic and defense policy worlds. Nuclear deterrence and arms control were topics of interest among leading university political science and other departments, within a broader spectrum of courses devoted to national security policy. As a result, a number of the most important concepts about nuclear issues that were marinated in academia found their way into government documents and policy pronouncements.

After the Cold War, academic interest in security studies, including nuclear deterrence and arms control, became more of a fugitive enterprise. The decline of nuclear expertise in the government occurred in parallel with academic disinterest during the first two decades after the end of the Cold War. Studies on nonproliferation dominated whatever attention academia or leading think tanks devoted to nuclear issues. Deterrence studies in particular were under-serviced in both military and civilian higher education. In part, this declining interest in deterrence studies reflected changed priorities in the government: the “war on terror” and expeditionary wars of choice seemed to occupy most of the government and Beltway attention span, and apparently harmonious relationships with aspiring peer competitors (Russia and China) created an atmosphere of obsolescence for nuclear policy studies.

On the other hand, the second decade of the twenty-first century reminded policy makers and academics that nuclear weapons did not go away with the end of the Cold War. In addition to the enduring challenge of preventing nuclear weapons spread, a new assertiveness by Russia and China, and new controversies about their military doctrines for nuclear deterrence and war fighting, attracted additional interest in deterrence from the U.S. government and think tank community. Academia, however, remained largely indifferent to the issue of nuclear deterrence, for various reasons. Postmodern thinking in the social sciences and humanities regarded national security and defense studies as *passé*, or even dangerous, preoccupations for scholars. In my own case, one of my erstwhile supervisors who was not particularly hostile nevertheless acknowledged that she found my research “creepy.” There are exceptions to this generalization of academic indifference to deterrence studies, but not many. Therefore, the armed services and DOD were forced to develop their own islands of excellence on these topics, and some of those efforts have been successful.

Looking forward, we can identify at least five potential areas of interest where the subject of nuclear deterrence could be interrogated with useful impact by soldiers and scholars.

First, the topic of human-machine interaction and the larger evolution of information technology toward a “noosphere” that favors cognitive warfare, bio-engineered advanced brain and muscle development, and synergistic “system of system” configurations of decision making in real time, is getting academic and military attention. For nuclear deterrence, this

raises issues of “human in the loop” with regard to decisions for nuclear first use, first strike or retaliation. Even the use of nuclear weapons for coercive diplomacy might need recalibration as the speed of nuclear crisis management is boosted by complex networks of interaction. Designers of software for nuclear targeting plans will have to ensure that forces and C3 systems are adaptive, flexible, resilient and impenetrable by adversary-deposited malware. Offensive missile and future antimissile defensive systems based terrestrially and in space, will require synthesized and transitive software and command-control protocols.

Second, the evolving relationship between offensive missile and defensive antimissile technologies will require rethink of prior assumptions about nuclear deterrence stability. Cold War assumptions were to the effect that offensive missile technologies were predominant over defensive antimissile systems. Since the end of the Cold War, antimissile defenses have improved, especially with respect to theater and tactical systems. Strategic missile defenses against large scale attacks are still challenging, but advanced technologies in research and development are promising. Part of the reason for skepticism about antimissile defenses relates to the yardstick used for assessment. Strategic antimissile systems do not need to be perfect to be militarily useful or cost-effective at the margin. They need only operate with enough success to complicate the calculations of prospective attackers. In addition, defenses need not necessarily be tasked only for the defense of areas or populations. Ballistic missile defenses can also be designed to protect strategic retaliatory forces in order to improve their second-strike survivability. Beyond strategic antimissile defenses, theater and tactical BMD and air defense technologies are already a growth industry, and more are coming. The spread of medium and intermediate-range conventional missiles for precision strike will spur development and deployment of antimissile defenses, including some based on new physical principles. Drone swarms, for example, have been suggested for possible use in offensive and defensive nuclear-strategic roles. The preceding discussion also suggests we are overdue for a “reboot” of traditional approaches to nuclear arms control. Familiar experiences from the Cold War may be inadequate to take account of the complexity of future military modernization and its implications for nuclear-strategic stability. In addition, the looming dangers of regional wars among nuclear armed states with increasingly agile conventional military systems, especially in Asia, deserve further attention from academics and military experts.

The third area in which academic and defense communities might collaborate with respect to deterrence studies is nuclear command, control and communications (NC3). Since the days of the Cold War, the Nuclear Response Plan (formerly SIOP) has evolved in the direction of distributed networks and communications, tailored deterrence, additional kinds of selective options (including lower-yield warheads for some strategic launch systems), and discriminate targeting instead of overkill. In turn, combatant commanders can plan for a continuum of military responses that includes both conventional and nuclear options. All of this requires NC3 systems that can support decision makers and force commanders with a clear picture of what is happening and a matrix of realistic choices under exigent conditions of warning or attack.

NC3 systems will be under stress, not only in the event of an actual nuclear crisis or attack, but even earlier as, for example, in precursor cyberattacks on the NC3 system itself, or on force components and command centers. On the other hand, the U.S. nuclear C3 system is not as vulnerable to cyberattacks as some pessimists assume. Redundancies and backups exist, cyber defenses are improving, and experience in crisis and war gaming has contributed to greater awareness of NC3 potential vulnerabilities.

Another challenge for nuclear C3 is the human factor. During President Trump's administration, critics in Congress and elsewhere objected to the President's singular ability to authorize nuclear attacks. Critics' proposals included adding selected members of Congress or members of the President's cabinet for concurrence in any decision for nuclear use. The reality of the American political system is that, in practice, Presidents have the initiative over many decisions, but checks and balances exist against any Presidential decision that is arguably bizarre or unnecessarily dangerous. A President who insisted upon a nuclear first strike which made no sense in existing circumstances would face bureaucratic resistance within the chain of command, possible resort to the 25th Amendment by the Vice President and majority of the Cabinet, and-or resolutions for impeachment in the Congress. In addition, the protocols for delegation of authority and devolution of control over U.S. nuclear forces originated in the early Cold War years and assumed that the "Presidential center" was the safety catch that would hold back retaliation otherwise favored or authorized by military commanders. Therefore, a more likely scenario than a President gone amok would be a situation in which military advisors favored nuclear first use or retaliation and the President balked.

A fourth area of convergent interest as between academic and military professional analysts would be cyberwar. The relationship between nuclear deterrence and cyber is complicated. On the one hand, nuclear weapons are the most emblematic instruments of mass destruction. On the other hand, cyber attacks can theoretically create havoc without necessarily causing any significant physical destruction. Another difference between nuclear war and cyber attacks is that, in the former case, the identity of the attacker will almost always be immediately known. But in the case of cyber attacks, attribution is a major problem. Anyone with a modem and a laptop is a potential cyber attacker. The Casablanca doctrine ("round up the usual suspects") will not always yield proof of culpability in good time. Both Russia and China, among others, reportedly use "volunteer" or "patriotic" hackers for purposes of deniability, and Russian organizations such as the Internet Research Agency are masquerades for attacks planned by GRU and SVR operatives.

The most interesting question nowadays is whether cyber attacks will escalate from pinprick annoyances to major catastrophes, such as the paralysis of electric power systems, banks, and military C3 systems. U.S. military lawyers are already discussing the conditions under which a cyber attack would justify a kinetic response. This is one example of the disturbing fact that cyber technology is racing ahead of the thinking and analysis that are required to keep cyber developments within the boundaries of strategic effectiveness and military common sense. Some proposals have been put forward for international cyber arms

control, but states differ on their willingness to be transparent about their defense-related cyber activities.

The question of “cyberdeterrence” has sparked considerable debate among analysts and policy makers. Some feel that the concept of “deterrence” does not apply in the cyber realm; others, that deterrence, by means of denial or by retaliation in kind, can be made to work. Another difficulty for scholars and commanders would be to establish after the fact that an exercise in “cyberdeterrence” actually worked to deter certain behaviors that might have been avoided for other reasons.

A fifth domain for soldier-scholar collaboration would be military uses of space and the question of deterrence in space operations. U.S. policy documents now concede that space is a conflict domain and the establishment of U.S. Space Force is a marker in that regard. Like cyber, space is an enabling domain for other domains as well as an operational domain in its right. U.S. space control is necessary in order to protect assets for reconnaissance, surveillance, targeting, C3, warning and attack assessment, and other requirements. In this day and age, any nuclear attack against U.S. forces or territory would almost certainly be preceded by, or accompanied by, cyber attacks and strikes against American space-based assets. Satellites are complicated but light objects that can easily be destroyed by collision or by other means. Both Russia and China have tested RPO operations in space with highly maneuverable satellites that can shadow another satellite in low earth orbit or at higher orbital planes. Russia and China have also tested ground-based ASATs that have destroyed their own test satellites in space. War games have simulated conflicts in space between the United States and China, among other scenarios.

On the other hand, many states have a shared interest in the peaceful uses of space for commercial purposes, and the United States and Russia still have important collaborations for space exploration and scientific discovery. The possibility of space arms control has been advocated by various sources, but it is not clear whether and how this would be implemented by their respective governments. The possibility of getting space-related arms control “off the ground” in line with the growth of military space systems has a certain appeal, since there are some obvious common interests even among rival powers, e.g., not cluttering up space with dangerous debris.

Concluding Observations

The preceding categories are neither mutually exclusive nor exhaustive—there are obvious overlaps, and other pertinent topics are certainly worthy of discussion. Some final points suggest themselves, as below.

First, deterrence is not only nuclear—indeed, deterrence is not only military. It requires a “whole of government” approach that includes diplomatic, informational, military, economic, and political-psychological approaches. (See, for example, David Kilcullen’s discussion of Russian approaches to “liminal warfare”) or China’s concept of Unrestricted Warfare.

Second, in the American case, the credibility of our deterrence also includes the state of our domestic politics: the coherence of our political institutions; the credibility of our historical narrative; our confidence in the uniqueness of the American experience; and, most important, our willingness to “cross the aisle” for political compromise as opposed to deadlocked extreme partisanship. Foreign adversaries not only “target” our military assets. They also aim at our belief systems and culture. Remember that one hallmark of authoritarian political systems is that they rewrite history to suit each generation of power holders. As former Soviet citizens used to joke: “predicting the future is difficult; predicting the past is even more difficult.”

Curtis McGiffin

Curtis McGiffin is Professor and Associate Dean of the School of Strategic Force Studies at the Air Force Institute of Technology.

Thank you, Prof. Trachtenberg. I very much appreciate the invitation to be here today. Let me first start with the standard Disclaimer. Anything I say today represents my own thoughts, ideas, and assessments and does not represent those of the United States Air Force, the Air Force Institute of Technology, or Missouri State University.

The former STRATCOM Commander, General Kevin Chilton (USAF, Ret.) wrote in a 2017 article: “The underlying principles and rationale for the deterrent have not gone away, but we have stopped educating, thinking, and debating, with informed underpinnings, the necessity and role of the US nuclear deterrent in today’s world. Even more concerning has been the lack of informed debate on the subject. We have raised three generations of Air Force officers who may not have been exposed to the most fundamental and yet relevant arguments surrounding deterrence from the late nuclear theorists Herman Kahn and Thomas Schelling.”

In my role as Associate Dean of the School of Strategic Force Studies at the Air Force Institute of Technology, I have made it my mission to address, if not correct General Chilton’s poignant observation. I have the privilege of overseeing the continuing education of thousands of Air Force nuclear mission professionals. What I have found is that every one of these nuclear mission professionals are starving for more education regarding their profession. They seek to understand the “why” of what they do with regard to nuclear deterrence operations and sustainment. What I have found is that due to the age of these professionals many of them know very little about the Cold War nor the roots of nuclear deterrence as it has matured to today’s posture and policy over time. Moreover, they know little of the great deterrence theorists and in some cases suffer from the misguided pop culture regarding U.S. nuclear disarmament, U.S. induced arms racing, and the mythical high cost of nuclear modernization.

This should not surprise anyone. In 2016, when many of our young Airmen were in college, a global literacy survey by The Council on Foreign Relations and National Geographic

illustrated that most college-age Americans at that time had extremely limited understanding of deterrence, only 9 percent of respondents learned about deterrence in college, 49 percent could correctly select the definition of “nuclear deterrence” in a multiple-choice test and only 28 percent of respondents knew that the United States was bound by a treaty to protect Japan.

As most of these Airmen grew up in the era of the Global War on Terror, they are now just becoming acculturated to this new era of Great Power Competition, or what the DoD now refers to as Strategic Competition. I have also found that these students are extremely interested in understanding why our adversaries are doing what they do or have the perspectives that they have. Moreover, our nuclear Airmen are very in tune to the cyber threat, the space threat, and the potential for misinformation and disinformation across the media spectrum. But when it comes to nuclear deterrence, they still lack the fundamental understanding of concepts and theory. The problem with this, of course, is that when the thinking nuclear workforce lacks the understanding of concepts and theory it becomes that much more difficult either to properly employ those concepts or advocate for that theory during budgetary decisions.

In my opinion, in order to cultivate intellectual capital through professional continuing education one must convince the practitioner Airmen to open their minds. And when I say that I mean that it is imperative that government employees, whether they are in or out of uniform, be willing and able to confront the controversies and politics that are integrated within any meaningful nuclear deterrence or nuclear weapon policy discussion. And to their credit...they are! This requires a lot of assurance and confidence that the government student is in some sort of non-attributional “safe space” when discussing this kind of subject matter in the classroom. I think it’s important to remind Airmen that they will spend much of their career studying the operational and logistical arts of warfighting and weapons employment in the pursuit of political goals; how we wage war. But when students attend lessons or courses on or relating to nuclear deterrence, it is that rare opportunity for Airmen to spend a few hours studying about how to wage peace while still pursuing political goals.

Finally, I’d like to make a comment or two on the amount of education offered and provided to the deterrence practitioner. Frankly there’s not enough. Despite pleas for more nuclear deterrence education from the commander of USSTRATCOM, or the previous administration’s *Nuclear Posture Review*, it appears that education below the level of PME is often the first to be either cut from or reduced in any fiscal year budget and this year is no different. Education is a key component of force modernization. Investing a trillion dollars in nuclear deterrence modernization will mean much less if we fail to modernize our nuclear workforce along the way. We cannot afford both in time and in cost to send every nuclear deterrence artisan or practitioner to a year-long PME program in order to grasp the basic concepts and theory of how to employ policy and force structure to create the desired deterrence effect. So, innovation will be key. One way to close the gap is thru Distance Learning scholarship programs focused on graduate level courses steeped in national security and nuclear deterrence-related areas of study. Other methods include focused online short-courses, micro-certifications and even synchronous remote learning. Any one

of these methods can increase the education pipeline at pennies on the dollar when compared to traditional PME costs.

There remains much work to be done if we are to ready the next generation of deterrence thinkers and advocates. In a crawl-walk- run success metric, I assess that we are just now beginning to “stagger”—as we transition from the crawl to walk status.





PROCEEDINGS

RUSSIAN INFLUENCE OPERATIONS AND ALLIED RELATIONS

The remarks below were delivered at a symposium on “Russian Influence Operations and Allied Relations” hosted by National Institute for Public Policy on November 10, 2021. The symposium focused on how best to counter Russian efforts to spread disinformation, sow division, conduct cyber attacks on critical infrastructure, and propagate false narratives that seek to undermine Western democracy and generate support for Russian policies and perspectives.

Michaela Dodge

Michaela Dodge is a Research Scholar at the National Institute for Public Policy.

My upcoming publication on Russia influence operations stemmed from research of Russia’s activities in the Czech Republic during the radar debate. During that debate, the Russians were extremely active (and successful) in trying to influence the public opinion against the radar. That made me wonder whether missile defense cooperation was a factor in Russia’s influence operations in Poland and Romania. Each country agreed to host an Aegis Ashore site. The site in Romania became operational in 2016. We are looking at 2022 for Poland. While Russia’s influence operations were not a significant factor in these countries’ missile defense cooperation, research nevertheless uncovered interesting differences and similarities in how the Russian Federation approaches influence operations in these countries.

Two factors appear to be most significant for determining which approach to influencing audiences Russia will take. One, the level of permissiveness with which Russia can operate in a society of a target country. Two, the access that Russia’s agents are able to obtain within different influential communities (policy, business, economic, journalist, and academia). Russia’s goals, however, remain the same across each of the examined countries. The most important goal is undermining people’s faith in democratic institutions. That goal is both an internal and external goal to the Putin regime. Internally it allows President Putin to contrast desirability of his own authoritarian regime to the messiness of the democratic process. Externally, it allows him to weaken NATO from within. Putin wants to disrupt the U.S. alliance system in Europe. That would have repercussions for U.S. credibility and alliances beyond Europe. Not a bad side benefit for Putin.

In conducting influence operations, Russia takes advantage of pre-existing societal cleavages and polarization within the society. This is its preferred method of operations in Poland, and to some degree in Romania, where directly-linked Russian operations would not be successful. It is likely becoming Russia’s preferred method of operation in the Czech Republic, where Russia’s public image suffered as a consequence of recently revealed Russia’s terrorist attack on a Czech munitions depot in 2014 during which two Czechs died. One can only imagine how happy Russia must be about continuing polarization in the United States. For each of the countries, and for Poland and Romania in particular, Russia’s activities



will be more successful if they are not directly tied to Russia. This is a consequence of their respective strategic cultures and historical experience with Russia's belligerence.

In each of the cases, personal connections between Russia's agents and a Czech, Polish, or Romanian person of power or influence played an extremely important role in terms of Russia's ability to execute its active measures/influence operations campaigns. These can be connections between politicians and Russian agents (like has been often the case in the Czech Republic) or between businessmen and Russia's agents (as appears to be the case in Poland or Romania). Personal connections and corruption culture are Romania's Achilles heel when it comes to providing opportunities for Russia's influence operations.

Influence operations are an old tool of statecraft. Russia (and the Soviet Union and Russian Empire before) has been employing them for over a hundred years. Especially during the Cold War, the Soviet Union revived this indirect asymmetric approach because it was aware of its own weakness vis-à-vis the United States. The United States, a dominant ruler of its surroundings for a better part of its existence, has not had to spend as much time thinking about manipulating its adversaries. Deception isn't a part of our strategic culture. If anything, we confuse our opponents by making any and all information available publicly. And think about all the different oversight and legal bodies that check our own influence (and intelligence) operations. Admittedly, for good reasons.

There is a big difference between today and Russia's first large-scale influence operation in the Czech Republic during the radar debate. Influence operations can be carried out cheaper than before due to the use of modern technologies. While the United States carefully analyzes audiences and figures out how to tailor its messaging, the Russians attempt to use modern technologies get in our heads. They manipulate our sensory inputs to create a perception of reality that would make us decide according to Russia's preferred course of action—without us even realizing it. This is an extremely important point of departure in U.S. and Russia's approach to influence operations. And since deterrence is in minds of an opponent, implications of Russia's approach likely go beyond just information operations.

How to counter Russia's influence operations?

Here I would like to recommend our esteemed co-panelist Mr. Kent's book "Striking Back Overt and Covert Options to Combat Russian Disinformation." It really is a fantastic book. My favorite part of it were recommendations: actionable and realistic. They did not require unicorn tears and performative dances in Congress to be enacted.

I think that transparency is one of our strongest counters to Russia's activities on our and allied territories. Fight the darkness with light. It is clear that Russia's influence operations tend to lose potency when exposed for what they are: a ruthless manipulation preying on politics, people's greed, insecurities, and pre-conceived notions; all with a purpose of advancing Mr. Putin's goals. We should be using our tremendous advantage in resources and technologies to publicize Russia's shady connections and help allied government highlight potentially problematic sources of funding in politics, local newspaper, and think tanks.

Countering Russia's influence operations begins with us. It is never too late to hone critical thinking skills – and teaching them to our children. Our education ought to have a digital literacy component to it. It is easier to recognize influence operations for what they are when one is familiar with adversaries' methods. Our population has access to incredible amount of information, but that does not necessarily mean that it is better informed.

Conclusion

Alliances and transparency are the most important advantage that the United States and allies have in their efforts to counter Russia's activities. Alliances enable us to cooperate on a much deeper level than would be the case among non-allies. Russia has an advantage vis-à-vis each the Czech Republic, Poland, and Romania when it comes to intelligence and information operations resources. But allies cooperating together can mitigate it to some degree. Making our cooperation more effective will continue to be a critical element of any future efforts to counter Russia's malign activities on NATO member states' territories.

Otakar Foltýn

*Otakar Foltýn is an expert on hybrid warfare with combat experience in the Balkans and Afghanistan.*¹

What Is Happening to Democracies in the U.S. and in Europe?

We cannot help but notice that Western civilization is threatened by a combination of external and internal negative developments, even though the West is economically, and in the case of the United States militarily, strongest. Internal divisions within democratic societies are made worse by the ever-stronger radicalization of increasingly larger segments of the population. The reasons for this radicalization do not have to do with competitors' and de facto adversarial states' actions per se, but in a surprising abuse of Western inventions, primarily the new media environment and social networks.

In our quest for using modern technologies to better our conditions, we did not realize how dangerous Western inventions in the mass communications field can be. For tens of

¹ The author of this text is a soldier; his views are his own and do not necessarily reflect the official positions or policies of the Czech Army. These comments are partially based on previously published work. See Otakar Foltýn, "Právo na zveřejnění vlastního názoru na soukromé internetové platformě není a být nesmí" (There Is No Right Nor Should There Be to Have One's Opinion Published on a Private Internet Platform), *CEVRO Arena*, February 2, 2021, available at https://www.cevroarena.cz/post/pr%C3%A1vo-na-zve%C5%99ejn%C4%9Bn%C3%AD-vlastn%C3%ADho-n%C3%A1zoru-na-soukrom%C3%A9-internetov%C3%A9-platform%C4%9B-nen%C3%AD-a-b%C3%BDt-nesm%C3%AD?fbclid=IwAR00NdMliNaHdZzOJCbmqW_DUgEvL1krW9CA4mmLTNH_oDQ-mHqLnhZZv94; and Otakar Foltýn, "Autocenzura sociálních sítí: nejméně špatné řešení z těch, které aktuálně máme" (Self-Censorship of Social Networks: the Least Bad Option in the Universe of Currently Available Options), *CEVRO Arena*, February 10, 2021, available at <https://www.cevroarena.cz/post/autocenzura-soci%C3%A1ln%C3%ADch-s%C3%ADt%C3%AD-nejm%C3%A9n%C4%9B-%C5%A1patn%C3%A9-%C5%99e%C5%A1en%C3%AD-z-t%C4%9Bch-kter%C3%A9-aktu%C3%A1ln%C4%9B-m%C3%A1me>. The author is grateful to *CEVRO Arena* for its permission to draw on this work in this article.

thousands of years, evolution has wired our brains for communication in small primitive groups. Our brains managed previous information revolutions, like the invention of a printing press or the internet. But social media, especially Facebook and search engine algorithms, return us to a tribal way of thinking.

Evolution wired our brains in relatively simple ways. For example, from an evolutionary perspective, it is better to be wrong in a group than to be right alone, and that is a logical consequence of the fact that for a better part of human history the survival outside of one's tribe was not possible. And it is this simplistic notion of "US" versus "THEM" that our brain goes to most often to make sense of increasingly complex social interactions. To make matters worse, Russia and China are excellent in using the knowledge generated by advances in social psychology, understanding of biochemical aspects of cognitive processes, and big data analysis against us. This new knowledge is a product of Western innovation—and innovation, traditionally an area of the West's comparative advantage, is now being used by our adversaries against us with a minimal expenditure of energy and resources on their part.

We must succeed in regulating cyberspace, not only because it is becoming a hybrid warfare battlefield. We are threatened by authoritarian states that do not care about freedom of speech. Each one of their successes in the hybrid warfare domain threatens our liberty, including our freedom of speech.

Russia's New Generation Warfare

Russia's new strategic objective is not a victory in conflict, but a regime change in democratic countries. Such an objective can be achieved by multiple means. The Russian Federation follows a complex process and uses every useful phenomenon to its advantage, including the fragility of the democratic system itself. Russia employs a "judo approach" that uses democratic countries' strengths, like open society and freedom of speech, against them. This approach is not unique in Russia's history, but Russia now uses new instruments to achieve its objectives: reflexive control and elite capture boosted by Russia's operations in cyberspace; advanced knowledge of social psychology; and intelligence operations. Russia's goals are increased polarization of society, undermining citizens' faith in democratic rule of law and democratic institutions, and growth in the population's support of foreign interests, particularly Russia's.

While we love soccer with its straightforward tactics and simple counting, we should think about countering influence operations as akin to playing tennis. In tennis, the match is a process and if a player wins the right games, he can win the whole match even if he lost more exchanges than his opponent.

A Right to Have One's Personal Opinion Published on a Private Internet Platform Does Not Exist

There is a substantive confusion regarding the question of what constitutes freedom of speech. Freedom of speech does not mean that somebody else (including administrators of

social media networks) has an obligation to publish one's opinions. There is no such right. Everyone is entitled to promote his own opinions through his own means, including with help from someone who has the potential to promote them with a larger impact. But one cannot coerce other people to do so. He can either pay to have one's opinions published or convince others to promote his opinions by the quality of content or their attractiveness (the two can be quite distinct).

Because the relationship between one who wishes to have his opinion published and one who has means to publish it is private, the former has to take into consideration that the latter may not wish to publish the former's opinion in its entirety, if at all. This is where censorship (in a wider sense) comes in. Here we have that ugly word that everyone is using these days. Under some circumstances, censorship is completely normal and appropriate in a private sphere. Self-censorship is common. For example, some of us do not tell our spouses exactly what we think. We also have a right to prohibit a street artist from using our house as a canvas for projecting his legitimate opinion that a leader of this or that political party is dumb. We must understand the concept of freedom of speech in the context of a state's coercive powers. A democratic state cannot abuse its powers to silence weaker participants, citizens or non-governmental organizations in a public debate. That is why a state is prohibited from censorship, but this prohibition is not absolute. States can interfere in cases of hate speech, libel, slander, and the sharing of classified information, for example.

Another good reason for not mandating that everyone's opinions be shared by privately owned internet platforms is that the quality of a non-regulated discussion will inevitably decrease. A public discussion is bound by written and unwritten rules; a thin thread of customs, norms, and traditions that moderate what we post and how we share. Nobody expects a nation-wide media to publish an essay on the utility of tin foil hats in preventing brain damage from 5G networks. We generally do not let the world know about our most private activities.

Why States Should Not Mandate that Everyone's Opinion Be Promoted on Private Platforms

According to the Massachusetts Institute of Technology, lies spread about 70 percent faster than the truth on Twitter (in retweeting cascades it means spreading 10-20 times faster than the truth).² Sometimes they can be much more impactful than the truth. Emotions stirred by lies are more likely to attract our brain. "Never let the truth get in the way of a good story," as a saying attributed to Mark Twain goes. At first glance, lies appear to be more original, surprising, exciting—even when the dominating emotion is disgust. A cocktail of chemicals released when reading such content is just what our brain craves.

There is another way in which social media makes the situation worse today. While a person's social bubble changed only rarely in the past and served to a degree as a quality

² Peter Dizikes, "Study: On Twitter, false news travels faster than true stories," *MIT News Office*, March 8, 2018, available at <https://news.mit.edu/2018/study-twitter-false-news-travels-faster-true-stories-0308>.

check on members' opinions, today one can change his social bubble instantly with a click of a mouse. He can surround himself with an environment predisposed to agree with his point of view. Conspiracy theory victims assure each other of their own "truth," which then becomes their norm. Additional problems arise when they act upon these "norms," for example by ramming a car through Christmas parade attendees.

Social media networks brought a mass and extremely cheap way to mislead and lie to many people. Past social mechanisms designed to regulate relatively slow opinion sharing are inadequate for the speed with which disinformation spreads. An unprecedented number of people are publishing their opinions without regard for relevance, expertise, or logic.

Social network algorithms set to the maximum level of polarization have a business purpose: to target advertising campaigns to make them more effective. But their inadvertent effect is polarization and diminishment of a society's ability to be tolerant of other points of view. In the process of getting the advertisement that may be most useful to us, we radicalize. Additionally, social media companies like Facebook use tools to trick our brains to remain on the Facebook web page as long as possible, because that is what generates its revenue. Facebook pries on people's desire to get "likes" and achieve popularity through posting emotive content. People expect their content to be posted regardless of the fact that such a right cannot exist on a privately owned platform and has never existed.

The Way Forward

Looking for a solution to the problem of social media sharing will be difficult and compromise will be inevitable. For example, because humans cannot possibly monitor the large quantity of shared information, they will have to rely on technologies that make different kinds of errors than humans. This involvement of technologies will give a new dimension to questions about which opinions are publishable and which are not. The perennial question about who will guard the guardians will remain. A related problem is the current monopoly of the internet giants, which might require stricter anti-monopoly legislation. Freedom of speech means that a state cannot punish us for what we think, speak, or write. It does not mean that private social media platforms have an obligation to publish every stupid opinion out there. But what is much more important: they must not artificially give stronger preference to content that evokes powerful but dangerous emotions. Let us limit the society dividing algorithms as soon as possible. There are at least two lethal threats for democracy. The first one is totalitarianism, as we well know. Stupidity is the second one.

Thomas Kent

Thomas Kent is a consultant on disinformation issues and Adjunct Associate Professor at the Harriman Institute at Columbia University. He is also a former president of RFE/RL.

The other speakers have provided very impressive examples of Russian influence successes. I can only agree that Russia presents substantial challenges. At the same time, I think it's important, for our own mental health and to spur ourselves to action, to remember that Russia is not always successful, and has some pretty important weaknesses.

The Putin government failed for years to build a decent, good-neighborly relationship with Ukraine. It hasn't obtained any significant recognition of its annexation of Crimea. It has not been able to roll back Western sanctions imposed in 2014. It was unable to block the independence of Kosovo. Recently it has suffered a series of reverses at the ballot box – in Slovakia, the Czech Republic, Moldova and elsewhere. It snatched defeat from the jaws of victory with its Sputnik COVID vaccine by putting geopolitical grandstanding over the scientific process. Its society and economy are envied by almost no one in the world.

Col. Foltyn pointed out its very limited economic strength. It also has almost no military allies, or respectable civil society organizations campaigning to advance its agenda. Its international cultural influence is miniscule. It is a country whose strategy is often to attach itself to dictatorial regimes for political or economic advantage, with that advantage disappearing when those regimes ultimately collapse. Dictatorial governments these days are much more likely to be supported by Russia than the West—which is an interesting switch from the Cold War period, when the West was usually viewed as the force propping up all sorts of dictators while the Soviet Union was the friend of genuine popular revolutions.

Now the Russians do have very professional information operators and intelligence services. They punch way above their weight. They have their victories in Europe, Africa and elsewhere. They will do anything to advance their interests, including brutal, kinetic force. Ruthlessness has its benefits.

But the Kremlin is particularly spectacular at creating an image that its influence always works. Moscow is also expert at stoking the insecurities of Western societies. They want us to think—and some in the West do—that we need to correct all the ills of our societies before we have the moral authority to counter their aggression. In my view, one can improve our own societies and counter Russian aggression at the same time.

So what strategies work best in countering Russian influence? Since my focus is information influence, I'll talk about that.

First, we need to lose our fear of conducting aggressive, pro-democracy communication. I've been at various government tabletop exercises that all seemed to involve the Russians doing awful things in the information environment, and us having to scramble to counteract them. I'd like to see some exercises where we start the action with true information and the projection of our values, and they're the ones who then have to scramble to counter us.

A lot of Westerners are frightened at the idea of our doing anything that smacks of “propaganda.” They think that any kind of vigorous information activity would descend into our spreading disinformation. In my view, there is nothing wrong with the assertive promotion of our beliefs, grounded in true facts. For example, Radio Free Europe/Radio Liberty, where I worked, has been projecting democratic values for seven decades, and has always stuck to accurate reporting. It isn’t lies from RFE/RL that dictators fear; lies can be proven to be wrong. What they fear is the truth about how they run their countries.

Western countries do need new and improved channels for messaging. RFE/RL and other international broadcasters are highly effective. They deserve additional support. But they are independent news organizations, not public diplomacy bureaus, as Jamie Fly mentioned. No one in the U.S. government can tell Jamie what RFE/RL needs to say.

So I would propose two things in addition to companies like RFE/RL. First, that Western governments create, alongside the independent broadcasters, their own official communication channels that they can precisely calibrate to their messaging needs. And second, I would propose a sharp increase in support to local non-government actors, who have a native authenticity that no organization based abroad can match.

Non-government civil society groups—and the independent media outlets that Jamie mentioned—can be very powerful. Dictators wouldn’t be cracking down on them so vigorously if they didn’t recognize how powerful they are. These actors do need more scale, and better training, which we are perfectly capable of providing if we’d actually focus on it. In particular these groups have to learn to use audience segmentation and targeting as well as our adversaries do.

Western organizations and local actors also need to talk to target audiences with the words and idioms and references that resonate with them. A lot of the content that gets presented to audiences in at-risk countries is produced by pro-Western elites, and it sounds like it. Much is concerned with inside political and economic wrangling that goes far beyond the ordinary person’s interests. All of this to say, we need to create material more compelling than what gets produced now.

Content that produces the kinds of outcomes we want can be done in so many attractive ways ... through humor, video games, rap and soap operas. Outlets that we fund shouldn’t always be about politics; it’s not degrading to put in the mix some sports, fashion and recipes to build audiences. We might include religious content, too. In Russia and East Europe, religion is often used by right-wing, pro-Moscow interests to advance their positions. Most of the human rights advocates I run into aren’t very religious themselves, and don’t feel comfortable using religious references and imagery. But maybe we ought to take back Jesus ... he believed in a lot of things that could serve our cause.

We spend a lot of time mourning internet blockages. Russia, and other oppressive regimes, block pro-democracy websites. They slow down the internet. Call me Pollyanna, but my feeling is that compelling content will always make its way through to an audience that wants it. I covered the Iranian revolution in 1979 for the Associated Press. That was powered by tape cassettes of Ayatollah Khomeini, painstakingly duplicated by his supporters and

passed around hand-to-hand. The American revolution was powered by committees of correspondence that delivered letters on horseback.

If you think about it big-picture, there are still so many ways now to distribute content these days even without internet sites ... from email attachments, to smuggling flash drives, to transmitting text and photos by radio. When the first VCRs reached Russia, a whole underground industry appeared overnight to smuggle in tapes and distribute them nationwide. People figured it out. So beyond devising ways to counter Russia's internet blockages—which we certainly should do—the challenge for us and our allies is to create content so compelling that we can count on the excitement and ingenuity of the audience to do the redistribution.

I'll stop here, and will be glad to expand on these points or address other issues in the discussion.





LITERATURE REVIEW

Tom Ramos, *From Berkeley to Berlin: How the Rad Lab Helped Avert Nuclear War* (Annapolis, MD: U.S. Naval Institute Press, 2022), 240 pp.

The debate over nuclear weapons and deterrence policy often revolves around numbers, types, and capabilities of the weapons themselves and how they fit into U.S. national security strategy. Seldom is attention paid to those who created these awesome weapons and how their intellectual and scientific contributions more than half a century ago have helped keep the nuclear peace for nearly eight decades. In *From Berkeley to Berlin: How the Rad Lab Helped Avert Nuclear War*, Tom Ramos addresses the important role played by the scientists, engineers, and weapons developers laboring in secret at the national laboratories to develop the nuclear arsenal that served as an effective deterrent to Soviet aggression and helped prevent the Soviet leadership from unleashing a nuclear Armageddon.

Ramos' work chronicles the efforts of American giants in the field of nuclear physics and related disciplines who initially set out to ensure that Nazi Germany would not be the first to develop nuclear weapons. Some of these brilliant scientists were emigres from Europe who fled the tyranny that befell the continent in the 1930s and 1940s and who understood the ramifications of a German nuclear weapon in the hands of the Nazi regime. These included Italian physicist Enrico Fermi, Hungarian-born physicist Edward Teller, Polish-American mathematician Stanislaw Ulam, and German-born scientist Hans Bethe. Each played a seminal role in the development of the U.S. nuclear arsenal.

Much of their work was carried out at Los Alamos Laboratory and the Livermore National Laboratory in Berkeley, California, co-founded by Teller and Ernest Lawrence. Herbert York was the first director of the University of California's Radiation Laboratory, or "Rad Lab." The Rad Lab's most significant accomplishment at the time was development of a thermonuclear weapon that could be carried on a submarine-launched ballistic missile. To this day, sub-launched ballistic missiles comprise the bulk of the U.S. nuclear deterrent force and are considered the most survivable "leg" of the U.S. strategic nuclear "Triad."

From Berkeley to Berlin describes the relationships between Lawrence, Teller, and other prominent scientists responsible for the development of America's nuclear arsenal, including Robert Oppenheimer, Herman Kahn, Johnny Foster, Harold Brown, Mike May, and Glenn Seaborg. It is a fascinating account, and Ramos intersperses the historical narrative with personal details about the key individuals. For example, he describes how during World War II, Johnny Foster (who will celebrate his 100th birthday this year) "got his hands on a captured German radar unit, took it apart and studied it, and, once he knew how it worked, developed tactics for bomber crews to outwit German radar units that guided air defenses to shoot them down." He also recounts Foster's love of motorcycles, noting, "He owned a Vincent HRD motorcycle and used it to transport himself and his new bride, Barbara, from Montreal to Berkeley." Foster was also the impetus behind the design of the Permissive Action Link (PAL) feature to safeguard the security of nuclear weapons, winning support from President Kennedy. The safety and security of the nuclear stockpile has been a consistent priority for every subsequent administration and remains an issue of the utmost importance today.



Lawrence's contributions are also highlighted throughout. As Ramos explains:

Ernest Lawrence left a huge legacy. He was a natural leader: a Nobel laureate himself, five physicists who worked for him also won the Nobel Prize. He took an experimental apparatus he invented and made it a tool that opened our knowledge of the atom and its nucleus. The mix of his intellectual abilities and his managerial skills made him a formidable individual. Lawrence, often alone, most consistently kept the American atomic-bomb project alive during World War II. When the Soviet Union appeared to be developing the means to overcome the United States in military prowess during the early Cold War, he became a formidable advocate for developing the hydrogen bomb. His influence on events around him was remarkable. West Point recognized Lawrence's contributions to the nation several months before he died by making him the first recipient of the Sylvanus Thayer Award.

Interestingly, many of the debates among the principals in Ramos' book revolved around issues still being debated today. For example, Mike May authored a paper advocating for a counterforce strategy in place of the Eisenhower's Administration's emphasis on "Massive Retaliation." A series of RAND studies involving William Kaufmann, Andy Marshall, and others had earlier developed the predicate for such a strategy. The arguments pivoted on whether the threat of massive nuclear retaliation in response to a Soviet attack made sense or whether smaller and "cleaner" nuclear weapons that could provide more limited nuclear options would provide a more credible deterrent. The debate was so intense that Army General Matthew Ridgeway, who commanded the Eighth Army in Korea, resigned as Army Chief of Staff, arguing, as Ramos notes, that Eisenhower's policy "opened the door for the Soviet Union to engage in foreign adventures at a lower level than would prompt the United States to use its nuclear forces," which could actually encourage Soviet aggression.

Today, this debate is evident between those who advocate for greater flexibility in targeting options to tailor deterrence to specific adversaries and to bolster the credibility of U.S. deterrent threats and those who argue that such capabilities are unnecessary and make nuclear war more "thinkable." Controversy over the Trump Administration's 2018 *Nuclear Posture Review* and its call to supplement existing U.S. nuclear capabilities with low-yield ballistic missile warheads and a nuclear sea-launched cruise missile is emblematic of this ongoing debate.

The debate over whether to develop a hydrogen thermonuclear bomb after the successful use of atomic weapons against Hiroshima and Nagasaki also reflected contrasting views over the wisdom of developing new weapons capabilities. Oppenheimer was opposed while Teller was in favor of proceeding. Even today, arguments over the deterrent value of developing new nuclear capabilities continue.

There is no question that *From Berkeley to Berlin* is a valuable contribution to the literature on nuclear weapons and strategy. It is well written, and documents the rivalry between the various nuclear weapons laboratories—the "Rad Lab" at Berkeley (now Lawrence Livermore National Laboratory), Los Alamos, and Sandia—and how they

ultimately complemented each other in their efforts to provide for American security. To his credit, Ramos explains complex physics problems in English that is eminently understandable to the non-scientific reader. The story he tells is remarkable for its historical detail and for giving the reader insights into the personalities at the center of one of the most significant scientific endeavors in American history. It is well worth reading.

Today, concerns are rising over the possible use of nuclear weapons by Russia in its unjustifiable war with Ukraine and the bellicose nuclear threats emanating from both Moscow and Beijing against those who seek to preserve a stable and peaceful international order. In this environment, it is worth recalling the valiant efforts of those brilliant scientists whose work helped enable the United States to avert a third World War over the course of several generations.

*Reviewed by David J. Trachtenberg
National Institute for Public Policy*

Hal Brands, *The Twilight Struggle: What the Cold War Teaches Us about Great-Power Rivalry Today* (New Haven, CT: Yale University Press, 2022), 328 pp.

The U.S. 2017 *National Security Strategy* speaks about the return of the great power competition, particularly with Russia and China.¹ This is not the first time in recent memory that the United States has had to compete with a great power adversary, and fortunately for the Free World, in that existential clash with the Soviet Union, the United States prevailed. In his book, *The Twilight Struggle: What the Cold War Teaches Us about Great-Power Rivalry Today*, Hal Brands examines why the United States prevailed and what lessons can be learned from the Cold War struggle that are applicable to today's great power competition.

Brands' examination could not be timelier, or more important. As he notes, the upcoming "competitions will determine whether the twenty-first century extends the relatively peaceful, prosperous world to which Americans have become accustomed or thrust us back to a darker past. They will influence the fate of freedom in countries around the globe." Brands divides the book into several chronological chapters, each of which highlights a different aspect of the Cold War rivalry between the United States and the Soviet Union: the origins of the strategy to compete with the Soviet Union, capitalizing on U.S. strength, the nuclear aspects of the competition, the importance and perils of competing on the periphery, taking the fight to the enemy, finding the balance between a comprehensive competition and resource exhaustion, highlighting the importance of understanding the adversary, reforming the government to sustain the competition in the long-run, the benefits of highlighting the ideological aspects of the competition, and giving an adversary a graceful

¹ The White House, National Security Strategy of the United States of America, December 2017, p. 27, available at <https://www.whitehouse.gov/wp-content/uploads/2017/12/NSS-Final-12-18-2017-0905.pdf>.

way to lose. The organization is clever and enables a reader to follow both the substantive lessons learned in different areas of the competition and its Cold War unfolding.

The book concludes by offering lessons for future U.S. competition with Russia and China. Chief among them is being able to navigate between unacceptable extremes, being willing to wage war but not seeking out the conflict, an alternative between a “disastrous escalation” and a “disastrous retreat.” The book makes the case for the multiplying the strength of U.S. alliances and underscores the importance of military capabilities. In order to compete effectively in the long-run, the United States must be able to set and maintain a steady pace of competition without needlessly exhausting its resources. Yet, as Brands points out, “sustainability involves morale as well as matériel,” and values are an essential weapon in the great power struggle. As a related matter, so are political warfare (efforts to increase short and long-term strain on an adversary’s system) and negotiations, “as a way of creating enough stability to permit the determined pursuit of advantage.” In order to compete well, the United States must appreciate the importance of appropriate timing, not only being perceptive to windows of opportunity but also to windows of its own vulnerability. The U.S. government must organize its bureaucracy to compete while resisting broader forces “of democratic self-destruction while exploiting the pressure for democratic self-improvement.” According to Brands, a successful competition requires blocking the opponent’s way forward, but not his way out. And lastly, the United States must see the competition as a way of life. America should plan on being exposed to high costs and real dangers. The key to prevailing in a rivalry in the long-run is to create space for the persistent accumulation of advantage.

If there is one missed opportunity and a downside to the narrative Brands presents in his otherwise insightful and well-researched book, it is that situations in which the United States did not get its policies quite right (for example McCarthyism or the U.S. conflict in Vietnam) are explained as necessary offshoots of selected strategies always leading to the betterment of U.S. approaches and competitive positions in the long run. Were U.S. failures really inevitable for the betterment of U.S. policies? Was there a way to avoid them? The book appears to answer the first question with a rather mechanistic “yes” and the second is left unanswered.

*Reviewed by Michaela Dodge
National Institute for Public Policy*

David A. Cooper, *Arms Control for the Third Nuclear Age: Between Disarmament and Armageddon* (Washington, D.C.: Georgetown University Press, 2021), 248 pages.

In this highly polarized political climate, rare is the book that “crosses the aisle” to study a subject considered to be the other side’s purview. Self-styled “realists” have largely

abandoned scholarly book-length studies of the post-Cold War arms control environment, with the regrettable side effect of allowing an echo chamber to form among those who already favor arms control—only debating amongst themselves the scope and pace of disarmament, not its prudence. David Cooper, now Professor Emeritus for the U.S. Naval War College, attempts, and largely succeeds, in penetrating this echo chamber via heavy doses of history and realism.

His book, *Arms Control for the Third Nuclear Age*, is meant to help educate others about the U.S. history of negotiating arms control agreements on nuclear weapons, both during and after the Cold War, and how the lessons U.S. officials learned the hard way might have enduring value as Russia and China continue to grow their nuclear arsenals.

What sets this book apart from the broader literature on nuclear arms control is its foundation in the classic commentaries on the subject—and not simply those of Thomas Schelling, Morton Halperin, and Hedley Bull, but Herman Kahn, Albert Wohlstetter, and Colin Gray as well. It is a sad commentary on the state of the nuclear arms control literature that another reviewer of Cooper's work chides him for (gasp) seeming to approve of some of Gray's insights.² Such commentary only further reinforces Cooper's point that he makes repeatedly throughout the book, that there seems to be little room for "owls" between "hawks" and "doves" in the debate over nuclear arms control.

While this reviewer would quibble with Cooper's over-simplifying commitment to the avian categorization, his broader point is well taken—analysts can support using arms control to enhance U.S. security while being (necessarily) realistic about its limitations and prospects for success. Cooper contends that this "owlish" approach to nuclear arms control featured heavily in U.S. negotiating strategy during the Cold War, in which U.S. officials sought to preserve or expand technical areas where the United States had an advantage over the Soviets.

In the chapter that recounts U.S. arms control efforts during and after the Cold War, Cooper does cite instances where U.S. officials supported hard-ball tactics to retain strategic U.S. advantages, but gives short shrift to the expected outcome of those tactics versus the actual outcome. For example, U.S. officials used their advantage in ballistic missile defense technology to secure limits on the Soviet's ballistic missile defenses, with the confident prediction that once the missile defense issue was resolved, the Soviets would have no reason to increase their nuclear arsenal anymore once they reached parity with the United States. The Soviet Union, of course, did not stop building once they reached parity. Overall though, while trying to portray U.S. ambitions and outcomes in nuclear arms control during and after the Cold War is an undoubtedly ambitious task for one chapter, Cooper mostly succeeds in presenting the good, the bad, and the ugly in a way that reasonable "hawks" and "doves" would agree is largely accurate.

² Nancy Gallagher, as quoted in, "H-Diplo/ISSF Roundtable 13-9 on Arms Control for the Third Nuclear Age: Between Disarmament and Armageddon," *H-Diplo*, March 22, 2022, available at <https://networks.h-net.org/node/28443/discussions/9953940/h-diploissf-roundtable-13-9-arms-control-third-nuclear-age>.

After reviewing the history of nuclear arms control, Cooper seeks to distill some lessons that can help guide U.S. policymakers in the “third nuclear age” that features the entrance of a third nuclear superpower, China. He proposes the United States pursue “strategic stability” through a “dual-track approach” and “controlling what can be verified.” According to Cooper, “strategic stability” can be categorized as “first-strike stability,” “crisis stability,” “escalation stability,” and “arms racing stability.” He argues that the “first-strike stability” and “crisis stability” are the highest priorities in a tripolar nuclear deterrence environment.

How then should the United States pursue these kinds of stability via arms control negotiations? Here, Cooper clearly breaks ranks with the majority of arms control analysts by advocating U.S. nuclear arms buildups as the most realistic approach to bringing Moscow and Beijing to the negotiating table. The historic evidence for this position is clear, and Cooper convincingly cites both the primary documents and a range of interviews of former U.S. government officials from across the political spectrum. The “dual-track” approach, in his preferred strategy, would then be supported by U.S. arms control proposals that keep things simple, focusing specifically on the systems that can most easily be verified through national technical means, i.e., large strategic weapons, as a way to get around Russian and Chinese reluctance to agree to intrusive on-site verification.

Nobody can fairly accuse Cooper of being overly-optimistic about his preferred strategy, he is clear throughout the book that prospects for nuclear arms control among the United States, Russia, and China, are “iffy” at best. Cooper repeatedly emphasizes that the larger security environment, and political relations between the superpowers, determines arms control outcomes. Indeed, just after this book was published, non-government researchers revealed the newly discovered expansion of three different ICBM fields in China and, even more recently, Russia renewed its invasion of Ukraine. These developments only reinforce Cooper’s pessimism concerning the prospects for nuclear arms control in the following decades.

Nevertheless, Cooper contends that even if there is a small chance that arms control could help head off some of the more dangerous aspects of an arms race, then work should begin now on crafting some arms control principles that conform and support U.S. national interests and will receive bipartisan support. Cooper then proposes some specific potential U.S. arms control efforts, ones the reader suspects are more in the spirit of getting the conversation started than having his deeply-rooted support. They range from the eminently sensible (proposing to expand the U.S. and Russian nuclear risk-reduction centers to include Chinese participation) to the less-sensible (Cooper claims that a U.S. declaration of “mutual vulnerability” with China would be a “cost free” gesture, a suggestion that Japanese defense officials would very likely beg to differ on). His proposals to consider limitations on missile defenses or a renewed bilateral U.S.-Russian INF Treaty are particularly disconcerting and only somewhat offset by his listing of the domestic and international concerns these proposals might raise.

Cooper’s commitment to realist principles for arms control, while generally visible throughout his analysis, occasionally slips. He, for example, discusses the “vanishing nuclear guardrails” of arms control agreements—as if the agreements themselves were what kept

the nuclear competition in check. Yet, Russia's violation of the INF Treaty, which Cooper amply documents, demonstrates that arms control treaties have only as much power as the signatories allow them to have; they are not independent "guardrails." Cooper also relies too heavily on the "action-reaction" dynamic to explain the dangers of an unrestrained nuclear future without the New START Treaty. As William Van Cleave, considered by some to be the dean of realist thought on nuclear arms control, stated, "We should remind ourselves that in the democratic states of the West there is *always* arms control, even without negotiated agreements. Arms are controlled and limited by the West's traditional values, by its political and budgeting process, and by the influence of the media and of public opinion."³

In summary then, *Arms Control for the Third Nuclear Age* is a refreshing break from the current nuclear arms control literature that is dominated by "the triumph of hope over experience." Cooper provides a necessary, if incomplete, corrective to those who believe that if the United States just tries a little harder and perhaps makes a few more concessions, Moscow and Beijing will see the light. Cooper, on the other hand, demonstrates that the U.S. history of nuclear arms control negotiation is full of lessons for those with eyes to see them—that politics drive arms control and not vice versa, that negotiating from a position of strength is critical, and that concessions are a reward for negotiating seriously, not bait to begin negotiations.

Neither arms control "hawks" nor "doves" will be fully satisfied with all of Cooper's conclusions, but those seeking a middle way will find this book a useful guide. Given that one of Cooper's goals for the book is to provoke a more historically-informed debate about the desirability and limits of arms control, this reviewer believes it will succeed, but only through an unrelenting commitment by realists to re-enter the debate and demand arms control proposals be judged by the hard-learned lessons of history.

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³ Emphasis in original. William R. Van Cleave, "The Arms Control Record: Successes and Failures," chapter in, Richard F. Staar, ed., *Arms Control: Myth Versus Reality* (Stanford, CA: Stanford University Press, 1984), p. 3.





DOCUMENTATION

Document No. 1. Selections from Commander, United States Strategic Command (USSTRATCOM) ADM Charles A. Richard, Testimony before the Senate Armed Services Committee, March 8, 2022 (all emphases appear in original.)

INTRODUCTION

United States Strategic Command (USSTRATCOM) is the global combatant command (CCMD) responsible for Strategic Deterrence, Nuclear Operations, Global Strike, Joint Electromagnetic Spectrum Operations, Analysis and Targeting, and Missile Threat Assessment. In addition, the January 2021 Unified Campaign Plan (UCP) designated the Commander, USSTRATCOM (CDRUSSTRATCOM) as the Nuclear Command, Control, and Communications (NC3) Enterprise Operations lead. It takes a team of dedicated individuals to execute our mission set, and I am honored and privileged to lead the 150,000 Soldiers, Sailors, Airmen, Marines, Guardians, and Civilians dedicated to the DoD's highest priority mission.

I want to thank Secretary Austin and Chairman Milley for their leadership and continued support to the strategic defense of this Nation. USSTRATCOM is committed to Secretary Austin's integrated deterrence initiative and remains dedicated to his priorities of defending the Nation, taking care of our people, and succeeding through teamwork. I also want to thank Congress for your continued support to ensure USSTRATCOM is equipped with the resources necessary to maintain strategic deterrence on behalf of the Nation, our Allies, and our partners.

Since my last testimony, there should be no doubt we are contending with a rapidly changing and dynamic strategic security environment where potential adversary actions challenge us in ways we have not experienced in over 30 years. ***In September 2021, I formally declared the strategic breakout of the People's Republic of China (PRC) to the Secretary of Defense. A strategic breakout denotes the rapid qualitative and quantitative expansion of military capabilities that enables a shift in strategy and requires the DoD to make immediate and significant planning and/or capability shifts.*** The PRC continues the breathtaking expansion of its strategic and nuclear forces with opaque intentions as to their use. The recent test of an intercontinental ballistic missile (ICBM)-launched hypersonic glide vehicle (HGV) with fractional orbital bombardment (FOB) is just one example of these growing capabilities. Meanwhile, Russia conducted the invasion of Ukraine backing its actions with the coercive potential of the world's largest nuclear arsenal. ***The strategic security environment is now a three-party nuclear-peer reality, where the PRC and Russia are stressing and undermining international law, rules-based order, and norms in every domain. Never before has this Nation simultaneously faced two nuclear-capable near-peers, who must be deterred differently.***



I applaud Secretary Austin for his vision of integrated deterrence across the Joint Force, our Allies and partners as the foundation of the National Defense Strategy. ***Every operational plan in the DoD, and every other capability we have, rests on the assumption that strategic deterrence, and in particular nuclear deterrence, will hold. If strategic or nuclear deterrence fails, integrated deterrence and no other plan or capability in the DoD will work as designed. The Nation's nuclear forces underpin integrated deterrence and enable the U.S., our Allies and partners to prevent and, if necessary, confront aggression around the globe using all instruments of national power.***

Our operational requirements exist to execute Presidential directives and decisions we make today will have lasting strategic impacts on our ability to do so. Maintaining and strengthening deterrence for the long-term requires a modern infrastructure and industrial base able to develop credible capabilities necessary for a more challenging security environment. While the command is ready to execute its mission today, we must make threat-informed decisions regarding our nuclear capabilities to provide strategic deterrence well into the future.

STRATEGIC THREAT ENVIRONMENT

Chairman Milley rightly stated that we are experiencing one of the largest shifts in global geostrategic power the world has ever witnessed. ***Today, both the PRC and Russia have the capability to unilaterally escalate a conflict to any level of violence, in any domain, worldwide, with any instrument of national power, and at any time.*** USSTRATCOM measures the risk of strategic deterrence failure every day considering this reality. The DoD can no longer have the luxury of assuming the risk is always low, particularly during a crisis. Potential adversaries, as they have for years, have the capability to threaten to inflict catastrophic effects on the U.S. homeland, and on our Allies and partners to achieve their national objectives.

Our potential adversaries continue to rapidly advance the capability to conduct these attacks. Their growing capabilities will pose a danger to U.S. They will continue to expand and diversify their nuclear forces over the next decade and the PRC, in particular, will increase the role of nuclear weapons in its defense strategies. The range of their new systems complement growing nuclear stockpiles, and includes the development and modernization of survivable nuclear triads, counter-intervention, and power projection capabilities intended to deter and deny our regional influence.

The Nation faces significant risk as our potential adversaries develop and deploy emerging technologies, such as anti-satellite, hypersonic, and FOB capabilities. They are also pursuing leadership in key technologies with significant military potential including, artificial intelligence (AI), autonomous systems, advanced computing, quantum information sciences, biotechnology, and advanced materials and manufacturing. USSTRATCOM supports

Secretary Austin's call for measures to protect critical U.S. capabilities, technologies, and operations as the Nation also faces risks from the threat of foreign theft of U.S. technology, penetration of U.S. information and weapons systems, supply chain disruptions, and cyberespionage campaigns designed to erase U.S. advantages. Cyber threats from the PRC, Russia, and the Democratic People's Republic of Korea (DPRK) are determined and unrelenting. Even now, Russia threatens cyberattacks against the U.S. as tensions over Ukraine increase. To that end, USSTRATCOM implemented a new construct to operationally harden NC3 systems against cyber threats to improve force readiness during competition and crisis. We must mitigate these threats for future programs to field new uncompromised capabilities.

People's Republic of China

We should carefully consider the PRC's actions rather than their rhetoric. The breathtaking expansion of land-, sea-, and air-based nuclear delivery platforms, command and control survivability, novel and asymmetric weapons, and supporting infrastructure is inconsistent with a minimum deterrent posture. When I testified last year, I warned that the PRC was capable of executing any plausible nuclear strategy. ***I am fully convinced the recent strategic breakout points towards an emboldened PRC that possesses the capability to employ any coercive nuclear strategy today.***

Just three months after my April 2021 testimony, commercial satellite imagery revealed three new nuclear missile fields in western China, each with approximately 120 missile silos. With this discovery, it is clear the People's Liberation Army Rocket Force (PLARF) will soon achieve a robust ICBM capability. The new silos can be equipped with the solid-fueled, roadmobile CSS-10 Mod 2 capable of reaching the continental United States (CONUS). This is in addition to the fixed ICBM arsenal of CSS-4 Mod 2 and multiple independently targetable reentry vehicle (MIRV) equipped CSS-4 Mod 3 ICBMs. While only a developmental concept in 2019, the PRC has already fielded the road-mobile, MIRV-capable, CSS-20 with launch options including silo or rail-mobile basing. Counting both conventional and nuclear-armed missiles, the PLARF employs over 900 theater-range intermediate and medium-range ballistic missiles (IRBM / MRBM), some of which are capable of doing catastrophic damage to United States, Allied, and partner forces in the region. Combined, this formidable arsenal is cause for concern.

Further advancements in the last year include ground-based, large phased array radars and at least one geostationary satellite capable of detecting ballistic missile launches. These capabilities, plus a rapidly expanding silo-based ICBM force, indicate the PRC increased the peacetime readiness of its nuclear forces and seeking a Launch-on-Warning posture, all while the PLARF now rotates its nuclear and conventional brigades to "high alert duty" posture for unspecified periods. Enhancing the survivability of its sea-based deterrent, the third generation JL-3 submarine launched ballistic missiles (SLBM) allows the People's

Liberation Army Navy's (PLAN) now six JIN-class ballistic missile submarines (SSBN) to target CONUS from a protected bastion within the South China Sea.

The PRC's pursuit of an ICBM delivered HGV with FOB capability is a technological achievement with serious implications for strategic stability. On 27 July 2021, the PRC's first HGV FOB test resulted in 40,000 kilometers distance flown and over 100 minutes of flight time—the greatest distance and longest flight time of any land attack weapon system of any nation to date. The PRC is investing heavily in HGV and directed energy weapons technology for global strike and defeat of missile-defense systems, anti-satellite, anti-missile, and antiunmanned aircraft system capabilities.

The PRC is increasing its capacity to produce and enrich plutonium by constructing fast breeder reactors and reprocessing facilities, which may be used to support a growth in China's nuclear weapons stockpile. While the PRC may use a portion of this infrastructure for civilian nuclear technology programs, it is highly likely some infrastructure will support their expanding nuclear weapons program. This accelerated nuclear expansion may enable the People's Liberation Army (PLA) to field over 700 nuclear warheads by 2027. The PRC likely intends to have at least 1,000 warheads by 2030, greatly exceeding previous DoD estimates. Unlike the U.S., The growth of the PRC's nuclear arsenal is not constrained by any treaty limits.

Finally, the PLA continues to develop and field precision strike nuclear delivery systems. The dual-capable DF-26 IRBM can range critically important ports, airfields and bases in the western Pacific with conventional and nuclear payloads. Survivable road-mobile transporter erector launchers can deliver the DF-31A ICBM at ranges in excess of 11,000 kilometers. The PLA's H-6N air-to-air refueling-capable bomber, which can carry the nuclear air-launched ballistic missile (ALBM), is entering its second year of operational service. The 2020 Annual Report to Congress, released in November 2021, surmises that the PRC may be building a new conventional- and nuclear-capable stealth strategic bomber with global reach in addition to medium and long-range stealth bombers. These nuclear-related advancements are additive to the PRC's ongoing conventional modernization and expansion efforts, where they already have a substantive overmatch in regional- and theater-class weapons and capabilities.

Russia

Russia is in its second decade of investing substantial resources to expand their strategic and non-strategic nuclear capabilities. In a recent statement, President Vladimir Putin recounted that in 2000 Russian nuclear deterrent forces were only 12% modernized. By late 2020, President Putin stated that 86% of Russia's nuclear forces had been modernized, including components from all legs of their strategic nuclear triad, and promised to increase modernization to 89% by the end of 2021. Nuclear weapons are an integral part of Russia's

national security strategy and Moscow appears to utilize them to demonstrate political stake, deter outside actors, and support resolutions acceptable to Russia. In June 2020, Russia publicly revealed its official nuclear deterrence strategy for the first time, describing threats and conditions for the use of nuclear weapons. Within this strategy, Russia acknowledges it could use nuclear weapons first, including in response to conventional attacks that threaten the “existence of the state.”

Russia made extensive efforts to update their ICBM force with single and multiple warhead missiles, including the developmental silo-based SS-X-29 Sarmat heavy ICBM with the capacity to carry ten or more warheads on each missile; the deployed, more capable silo-based variant of the SS-27; and the silo-based or road-mobile “KEDR” ICBM to be fielded by 2030. To support the expansion and modernization of the sea-leg of its triad, Russia plans to complete the production of ten DOLGORUKIY-class SSBNs and deploy them equally across the Northern and Pacific Fleets by 2028. These SSBNs will carry the new SS-N-32 Bulava SLBM, enhancing Russia’s strategic reach while retiring the older Delta IV SSBNs.

Russia also continues to invest in strategic air capabilities, fitting its heavy bombers with a new advanced nuclear cruise missile. On 12 January 2021, Russia accepted delivery of the first of ten brand-new Tu-160M strategic bombers with updated NV-70M radar and NK-32-02 engines. An accomplishment not seen since the Cold War, restarting the Tu-160M production line required cooperative efforts between the Kremlin and the Russian industrial base. The opening of new manufacturing and production lines further illustrates Russia’s ability to rapidly increase its industrial production capacity to support its strategic forces.

In my last testimony, I highlighted Russia’s novel and advanced weapon delivery systems, many of which are capable of hypersonic speeds and flight path adjustments designed to avoid U.S. missile defense systems. They pursue these capabilities despite the United States clearly relying on its strategic nuclear forces to deter any large attack by Russian nuclear weapons. The Avangard HGV, Tsirkon hypersonic anti-ship and land-attack missile, and Kinzhal ALBM are operationally fielded now. Meanwhile work continues on the Skyfall nuclear-powered intercontinental cruise missile and the nuclear-armed Poseidon autonomous underwater vehicle. All provide Russia with an even more diverse and flexible nuclear force while posing a challenge for us. Defense Minister Sergei Shoigu asserted that hypersonic weapons will make up the core of Russia’s non-nuclear deterrence capability in the future. Russia is not limiting itself to these new systems and claims to have already completed serious research and technological groundwork on pieces of equipment that have no counterpart in the world. They continue to develop additional strategic systems with new hypersonic warheads to expand the range of threats against the U.S., our Allies and partners.

Russia’s stockpile of approximately 1,000 to 2,000 non-treaty accountable nuclear weapons is anticipated to grow. These weapons fall entirely outside of the U.S.-Russia New Strategic Arms Reduction Treaty (START) and provide Russia with a diverse stockpile of theater and

tactical weapons systems employable by naval, air, and ground forces. In a conventional conflict, if Russia perceives an irreparable imbalance of forces, it may escalate to non-treaty accountable nuclear weapons use.

In October 2019, Russia conducted their largest strategic nuclear exercise since the collapse of the Soviet Union. The exercise was notable for the size and scope of the nuclear forces involved and strategic messaging. President Putin participates in these exercises, indicating a high-level of readiness across Russia's strategic nuclear forces and intending to serve as a visible message to the U.S. and NATO. These major strategic exercises include command and control operations with participation of the entire nuclear triad; an ICBM combat training launch; and long-range aviation cruise missile launches. More importantly, Russia rescheduled and completed the strategic exercise to coincide with the invasion of Ukraine in February 2022.

DPRK

The DPRK remains a strategic security challenge as it continues to conduct activities that threaten regional stability and defy international norms. The DPRK previously tested ICBM class missiles designed to reach the U.S., and they have a large arsenal of theater-class missiles. The recent missile launches demonstrate their ongoing desire to develop a credible missile threat. USSTRATCOM supports the Department's efforts with regional partners to reduce military tensions and encourages diplomatic efforts to pursue the DPRK's denuclearization. At the same time, USSTRATCOM will continue to contribute to the extended deterrence commitments of the Republic of Korea and Japan.

INTEGRATED DETERRENCE

While deterrence is not a new concept, the emerging security environment necessitates integrated deterrence to leverage all elements of national power, while enabling the Joint Force to synchronize actions across domains and time on an unprecedented scope and scale. ***Yet, the foundation of the Nation's strategic deterrent is unchanged: a powerful and ready nuclear force, a survivable NC3 system, and a responsive nuclear weapons infrastructure. Absent this foundation, the credibility of integrated deterrence will not work.***

Sustaining and strengthening our Nation's deterrence is imperative. Our potential adversaries employ coercion or threat of force as a means to challenge U.S. security commitments and undermine the existing international order. To confront aggressive and coercive behaviors of nuclear-capable near-peers, the Nation must leverage all elements of national power with our nuclear enterprise at its foundation. Integrated deterrence orients the DoD toward stability and cooperation, and clearly communicates the folly and cost of aggression and that diplomacy is always the best option.

Alliances and partnerships remain our greatest strength and are enabled by our credible extended assurance and deterrence. Our policies and postures must enable our Allies to contribute to collective defenses even in the face of adversary nuclear coercion. We share with our Allies and partners a collective of like-minded states who believe a free and open world should be the foundation of the international order. ***Our alliances are only as strong as the guarantee of extended deterrence and assurance backed by credible U.S. nuclear forces, which are essential to integrated deterrence.***

WHAT WE NEED TO DO OUR MISSION

Fundamentally, strategic deterrence relies on credible capabilities backed by a safe, secure, reliable, and effective nuclear enterprise. We no longer face a singular operational problem set but must consider two nuclear-capable near-peers simultaneously. The attributes provided by all three legs of the triad, forward-deployed regional capabilities, a robust NC3, and a weapons complex able to adapt to future threats offers the President flexible options and enhances the credibility of deterrence. Our strategic capability and capacity must evolve with the threat to achieve our National strategy. USSTRATCOM encourages Congress, the Department, and the Services to continue their decades-long support for these vital national security capabilities.

LAND-BASED TRIAD COMPONENT

The Minuteman III (MM III) ICBM force has stood on continuous alert every hour of every day for the past 50 years, ready to deliver a responsive and highly reliable strategic deterrent capability—and our potential adversaries know it. MM III represents half of the Nation's day-to-day available deterrent and its geographic dispersion presents an intractable targeting challenge. I previously testified that without the Nation's ICBMs the PRC becomes a strategic nuclear peer. ***The discovery of three new ICBM missile fields in the last year demonstrates the value the PRC places on land-based forces. If we choose not to continue investing in the landbased leg of our triad, the PRC will soon have a superior, modernized nuclear force with elevated day-to-day readiness.***

Requirement for MM III Sustainment

The MM III is well beyond its intended 10-year design life, yet still provides a high availability rate, testifying to its robust design, past modernization efforts, and the dedication of the Airmen of the U.S. Air Force. Exhaustive Air Force analysis decisively demonstrated that another MM III life extension is more costly than recapitalization, and the debate has moved well beyond funding. We cannot continue to rely on an aging ICBM force with end-of-life challenges and the inability to pace the threat. We must complete Ground Based Strategic

Deterrent (GBSD) recapitalization on time and avoid the “sunset mentality” prevalent when replacing old systems.

Requirement for Ground Based Strategic Deterrent

GBSD is the program of record to recapitalize the ICBM force and is critical for maintaining a strong deterrent posture. GBSD will be able to pace the threat and is integral to our strategy to navigate the three-party nuclear-capable peer reality. Its development, procurement, and deployment are the best approach to ensure the land-based leg of the triad remains effective and affordable. GBSD preserves the MM III’s key attributes while improving operational effectiveness against a rapidly developing threat. USSTRATCOM encourages continued Congressional support for the Air Force’s ongoing GBSD strategy – pursue mature, low-risk technologies; design modularity; advanced cyber security; open system architecture; and state-of-the-art model-based systems engineering.

SEA-BASED TRIAD COMPONENT

The Navy’s OHIO-class SSBN fleet, paired with the Trident II D5 Strategic Weapon System (SWS), combines a highly effective, survivable, worldwide launch capability with continuous and virtually undetectable strategic deterrent patrols. Since their first deployment, early in the Cold War, we have relied on our SSBN fleet for a resilient, reliable, and survivable deterrent.

Requirement for Trident Sustainment and Modernization

No single Navy submarine has served longer than 37 years, yet the entire OHIO-class SSBN fleet has been life extended to an unprecedented 42 years. USSTRATCOM requires OHIO-class sustainment and modernization until completely replaced in 2042 by the COLUMBIA-class SSBN. OHIO-class sustainment is critical to ensure operational availability of the submarine force to minimize significant transition risk throughout the COLUMBIA-class deployment timeline. The COLUMBIA-class SSBN remains a high priority strategic deterrent program for USSTRATCOM. The program of record delivers twelve SSBNs, the absolute minimum required to meet at-sea requirements, especially during triad recapitalization and future intensive fleet maintenance periods. Continued Congressional support for the COLUMBIA program is vital to strategic deterrence. It must deliver on time to avoid a triad capability gap.

To guarantee uninterrupted SSBN capability, we must continue investing in our SSBN SWS programs. The Navy previously life extended the Trident II D5 weapon system (D5LE) to outfit the OHIO-class through retirement and deployment of the first eight COLUMBIA-class SSBNs. A second D5 life extension (D5LE2) is required to ensure a viable SSBN deterrent through the 2080s. D5LE2 will continue reliable, high performing D5LE design elements and

components in order to mitigate cost and technical risk. Additionally, D5LE2 meets current D5 demonstrated performance while offering added flexibility to support future missions and payloads in response to advancing threat environments.

Anti-Submarine Warfare

Anti-submarine warfare threats continue to evolve rapidly as potential adversaries continuously look for new and innovative ways to gain an advantage in the undersea domain. The Navy's Integrated Undersea Surveillance System (IUSS) provides vital information concerning submarine and surface ship operations, and acoustic characteristics of interest. It allows U.S. forces to maintain favorable tactical and strategic positions while supporting deterrent patrol operations. Surveillance performed by IUSS directly contributes to the theater anti-submarine warfare commander's maritime defense of the homeland. Advances in Russian submarine stealth and detectability makes IUSS recapitalization a national imperative.

While our submarines are formidable weapon systems, we must address potential adversary's undersea security advances to ensure our current and future SSBN fleet remains effective and viable well into the future. Evolving submarine quieting, acoustic arrays, and processing capabilities challenge our acoustic superiority and subsequently, SSBN survivability. Advanced modifications of large vertical arrays, advanced materials science and coatings, and other efforts within the Acoustic Superiority Program are vital. Funding for these emerging passive long-range detection/wide area search programs secure our SSBN fleet advantages through the OHIO to COLUMBIA transition.

AIR-BASED TRIAD COMPONENT

The bomber fleet is our most flexible and visible leg of the triad. We are the only nation with the capability to provide bombers in support of our Allies and partners, enabling the U.S. to signal our resolve while providing a flexible option to de-escalate a conflict or crisis. Bombers support both strategic deterrent and conventional employment options, and execute global strike, nuclear, and conventional deterrent mission sets around the globe to achieve National objectives. USSTRATCOM executed 127 Bomber Task Force (BTF) missions over the past year. BTFs remain the iconic example of dynamic force employment across the entire Joint Force and potential adversaries watch these missions closely. We strongly encourage continued Congressional support for full funding of the bomber fleet.

B-52H Sustainment

The B-52H is a 60-year-old platform with plans to remain in service for another 30 years. Achieving this unparalleled milestone carries maintenance and operational challenges, which require dedicated technical and funding resources. Critical B-52 modernization

upgrades include the Commercial Engine Replacement Program (CERP), Radar Modernization Plan (RMP), and survivable NC3. These improvements are necessary to keep the B-52 flying and able to pace the evolving threat. The Air Force recently selected Rolls-Royce to execute CERP to replace the B52's 1960s-era TF-33 engines, enabling longer unrefueled range with lower emissions while solving supply chain issues afflicting the current engines. The B-52's very low frequency (VLF) and extremely high frequency (EHF) modernization programs will provide mission critical, beyond-line-of-sight strategic connectivity, and must field on time to meet USSTRATCOM's operational requirements.

B-2 Sustainment

The B-2 fleet remains the world's only low-observable bomber, able to penetrate denied environments while employing a wide variety of munitions against high-value strategic targets. The DoD must protect this unique operational advantage as the Air Force transitions from the B2 to the B-21. The Air Force can only achieve a successful transition with full funding for the B2 sustainment and modernization programs until the B-21 completes development and certification, both conventional and nuclear missions. A carefully synchronized transition is necessary to mitigate operational risk associated with executing the triad-wide multi-platform recapitalization.

Requirement for B-21

The B-21 Raider will support the nuclear triad with a visible deterrent capability and provide strategic and operational flexibility across a wide range of military objectives. The program is on track to meet USSTRATCOM operational requirements, with five test aircraft currently in development and the first operational aircraft scheduled for delivery in the mid2020s. USSTRATCOM supports fully funding the Air Force's B-21 strategy to prevent operational shortfalls in the bomber force.

Air-Delivered Weapons / Long Range Standoff

The air-delivered weapons portfolio consists of the Air Launched Cruise Missile (ALCM), the B83 gravity bomb, and the B61 family of weapons providing the right mix of standoff and direct attack munitions to meet near-term operational requirements. The long range standoff (LRSO) weapon will replace the ALCM as our Nation's only air-delivered standoff nuclear capability. It will provide the President with flexible and scalable options, and is capable of penetrating and surviving against advanced air defenses – a key attribute and critical component in all USSTRATCOM operational plans. Without LRSO, B-2 and B-21 bombers will have no option but to fly directly over targets to drop gravity-delivered weapons unnecessarily increasing risk to the mission and the lives of Air Force bomber aircrews.

The LRSO complements the ICBM and SSBN programs as they transition from legacy to modernized weapon systems. The LRSO on-time delivery is important to sustaining strategic stability, as potential adversaries will exploit gaps resulting from technical problems or production delays. Finally, fielding LRSO is cost-effective. Using gravity weapons to deliver similar effects would require ten-times the current bomber allocation and four times the current tanker allocation, with more gravity weapons, or employment of additional triad elements. LRSO full funding is absolutely imperative to reduce operational risks we face during triad recapitalization.

NUCLEAR COMMAND, CONTROL, AND COMMUNICATIONS

NC3 provides the critical assured communications link between the President and our nuclear forces. On-going NC3 Enterprise Center (NEC) modernization efforts bridge the gap between legacy and future systems to ensure this critical link does not fail. While aging capabilities provide the nuclear triad with sufficient viable assured strategic communications; today, sustainment issues increasingly compromise the reliability of these stalwart systems. Modernizing our NC3 systems is key to ensuring the nuclear capability of the Nation remains fully positioned to provide an assured response if called upon. Our NEC Next Generation capabilities must pace adversary emerging and future technological developments.

NC3 Next Generation / Modernization

Potential adversaries continue to rapidly research, develop, and field emerging technologies and weapon systems. We are at a point where end-of-life limitations and the cumulative effects of underinvestment in our nuclear deterrent and supporting infrastructure leave us with no operational margin. The Nation simply cannot attempt to indefinitely life-extend leftover Cold War weapon systems and successfully support our National strategy. Pacing the threat requires dedicated and sustained funding for the entire nuclear enterprise and NC3 Next Generation modernization must be a priority.

The DoD operates, maintains, and defends the current NC3 enterprise every single day from cyber threats. In coordination with the Services, USSTRATCOM led an enterprise-wide approach to harden the current architecture until complete fielding of the NC3 Next Generation. As an example, the Air Force is leading the effort to modernize the NC3 data pathways for the Strategic Automated Command and Control System (SACCS), replacing legacy telephony to sustainable and secure modern technology with upgraded at-risk cryptographic devices.

The NEC and DoD stakeholders fielded the NC3 Next Generation Increment 1 capabilities, including the Family of Advanced Beyond Line of Sight Terminals (FAB-T) to replace antiquated survivable satellite communications equipment. The NEC, the National Security

Agency (NSA), and the Services also began replacing outdated encryption equipment with newer, upgraded capabilities. The NC3 Enterprise continues segment upgrades to legacy telecommunications capability from analog to digital working closely with the Defense Information Systems Agency. This conversion is the first step to standardize our enterprise-wide terrestrial communications highway. Additionally, the NEC collaborated with U.S. Cyber Command (USCYBERCOM) to execute a cybersecurity pilot program to provide real-time, persistent monitoring across various NC3 networks to detect, characterize, and mitigate adversary network actions.

The NEC, Navy, and Air Force completed the first step in a digital high frequency (HF) demonstration to enable advanced beyond line-of-sight communication between our command centers and operational forces. USSTRATCOM developed, installed, and deployed a mobile communications suite providing an alternative communications capability supporting continuity of operations and force direction. This new capability will enable USSTRATCOM to rapidly create requirements and field systems in the future.

The NEC is undertaking several efforts to more rapidly develop and deliver NC3 enterprise capabilities. The NEC established a digital modeling and engineering environment (DMEE), a collaborative platform in the standard development of and test engineering specifications for the NC3 enterprise. The NEC and the University of Nebraska-Lincoln, through a Partnership Intermediary Agreement (PIA), established the Nebraska Defense Research Corporation (NDRC). The PIA fosters collaboration between commercial entities, defense industry, academia, Federally Funded Research and Development Centers (FFRDCs), and other government agencies. The NDRC is already prototyping of future NC3 Next Generation Incremental capabilities. All of these efforts are currently ongoing and will posture delivery of NC3 Next Generation Increments and provide increased operational margin within our NC3 Enterprise.

NC3 Cybersecurity, Technological Improvements, and AI / Machine Learning (ML)

USSTRATCOM continues to realize the benefits from the investment in our world class Command and Control Facility, the DoD's newest NC3 command center. Confidence in our ability to protect, defend, and execute the nuclear deterrent mission in the face of advanced cyber threats remain high. The relative isolation and the redundancies of the systems comprising the Nuclear Command and Control System (NCCS), combined with ongoing cybersecurity enhancements, ensure our ability to respond under adverse cyber conditions. To preserve our critical information and command and control advantages, USSTRATCOM is investing in cybersecurity protections that exceeds the DoD baseline standard while looking for opportunities to improve that posture.

Near-term efforts to enhance cybersecurity of the NC3 enterprise include: the establishment of quarterly cybersecurity reporting for all NC3 information technology (IT) systems;

ongoing efforts with USSTRATCOM system program managers to correct cybersecurity shortfalls; piloting of a persistent cyber sensing and monitoring capability for NC3 IT systems; and the development and execution of Defensive Cyber Operations (DCO) Internal Defensive Measures (IDM) to harden and defend the NC3 cyber terrain. As the threat evolves; however, the DoD must continue to fund and rapidly implement required cybersecurity capabilities. CyberSecurity Service Provider (persistent cyber defense); persistent sensing and monitoring across the NC3 enterprise; and cryptographic modernization will ensure the confidentiality of our information and decision making capabilities. A responsive cyber Command and Control construct will enable the rapid dissemination of defensive cyber operations orders, facilitate action, and enable follow-up reporting. These efforts will ensure continued readiness of the nuclear deterrent mission and set conditions for the success of our conventional forces.

Deep learning and advanced data management concepts are also fueling new demands for infrastructure that can scale to capacity on demand. Acting on the guidance of the Deputy Secretary of Defense and recommendations from the National Security Commission on AI, USSTRATCOM implemented the Command Data and AI Center (CDAI) to solve the command's most intractable problems through the application of advanced AI/ML methods. The command is recruiting a highly skilled workforce to build and maintain a resilient and scalable cloud and on-premise infrastructure to provide the capabilities to maintain information advantage over our potential adversaries.

We will do this in ways consistent with the DoD Ethical Principles for Artificial Intelligence, while continuing to lead in developing best practices for the development and application of AI and ML technologies to ensure their use is safe, secure, reliable, and consistent with our values. In an effort to "go faster," USSTRATCOM completed a 90-day pilot to assess opportunities to leverage commercial industry and use of non-traditional unclassified data sources to solve some of our most challenging problems. I strongly endorse Deputy Secretary of Defense Hicks's AI and ML initiatives in this critical focus area.

USSTRATCOM continues to collaborate with USCYBERCOM, the Services, and agencies to leverage technologies in development, security, and operations (DevSecOps), code delivery, cloud computing, and data analytics to accelerate the development and delivery of new capabilities. Initiatives in these areas will jumpstart development of frameworks and governance necessary to pace the threat. Likewise, these new areas require stable, consistent, and on-time funding.

NUCLEAR WEAPONS AND SUPPORTING INFRASTRUCTURE

The Nation faces a confluence where triad delivery platforms, weapons, and infrastructure must modernize simultaneously. As with DoD programs, the Department of Energy (DoE) and the National Nuclear Security Administration (NNSA) fill a vital role providing the

weapons and components required to maintain the Nation's strategic deterrent mission. The NNSA's programs of record must be prioritized and executed on schedule to ensure the DoD retains a credible and modern triad. The NNSA's ability to sustain the Nation's nuclear weapons stockpile is underpinned by a resilient and responsive production infrastructure and robust science and technology programs. All of these elements are critical to maintaining a safe, secure, and effective deterrent force. The objective is to restore the weapons complex to a resilient, responsive and modern condition; capable of sustaining the health of the Nation's stockpile and keeping pace with the evolving threat environment.

Nuclear Weapons and Stockpile Challenges

While today's stockpile is safe, secure and militarily effective, I am increasingly concerned with reliability and performance degradations in the majority of our systems. We must execute stockpile modernization programs on time to reverse this trend. In compliance with national policy, the NNSA has done an excellent job reducing the weapons stockpile. As we shift focus beyond life extension to modernizing our remaining weapons, we must overcome obstacles that delay program execution. Failure to do so results in accumulation of operational risk from continued deferral of necessary modernization programs and aging weapons in the stockpile decades longer than intended. For example, both the B61 life extension and W88 alteration programs were delayed 24-months and are now late-to-need. The W80-4 program is a just-in-time modernization for airborne standoff capability, and any program delay incurs operational impacts.

Stockpile modernization programs take 10-15 years to execute. Without a concerted effort to reduce these timelines, today's issues will continue to manifest as the Nation undertakes more complex ballistic missile modernization programs. Specifically, W87-1 is the "pathfinder" weapons program for modernizing our land- and sea-based ballistic missile systems and will develop the infrastructure and technology processes needed in the future. Any W87-1 program delays will cascade through each follow-on program, beginning with the W93/Mk7. W93/Mk7 must deploy on time to reduce our over-reliance on a single SSBN warhead type, avoid future simultaneous SLBM modernization and support the United Kingdom's modernization to its deterrent force.

Weapons Complex Infrastructure

The DoE, NNSA, and DoD work closely to ensure the nuclear weapons infrastructure complex is postured to ensure the stockpile remains safe, secure, and militarily effective. However, today's Manhattan Project-era infrastructure is in poor condition, challenging NNSA's ability to successfully meet basic sustainment needs. Long-term deferred infrastructure investments have significant impacts, and there are heightened concerns with every major site providing critical stockpile capabilities to include uranium, tritium, high explosives,

lithium, radiation-hardened electronics, testing, experimentation, and weapon assembly/disassembly.

Infrastructure modernization must be accomplished to prevent delays in fielding required capabilities. Prioritizing crucial NNSA infrastructure modernization programs is the best and only option to pace projected threats and sustain strategic deterrence.

In 2021, it became clear the production complex would not meet the Nation's plutonium pit production requirements, necessitating pursuit of less optimal approaches to meet stockpile modernization programs in the 2030s. Pit production shortfall is a leading indicator of how our current infrastructure is unable to execute the needed and planned stockpile modernization strategy. The atrophied condition of the infrastructure, coupled with delays in fielding necessary state of the art capabilities, significantly increases operational risk in sustaining a safe, secure, and effective nuclear deterrent.

CONVENTIONAL HYPERSONIC WEAPONS

Hypersonic weapons development remains a top USSTRATCOM priority. Hypersonic weapons will provide a highly responsive, non-nuclear global strike capability against distant, defended, and/or time-critical threats when other forces are unavailable, denied access, or not preferred. Conventional hypersonic weapons will enhance our overall strategic deterrence posture by providing the President additional strike options to rapidly project power and hold high-value targets at risk without crossing the nuclear threshold. USSTRATCOM will be ready to command and control hypersonic weapons the day they are fielded, as these weapons directly contribute to the Command's Strategic Deterrence and Global Strike missions. We appreciate and encourage continued Congressional funding as we quickly develop, procure, and field this enhancement to our strategic deterrence portfolio.

CONCLUSION

Potential adversary actions are challenging us in ways we have not experienced in over 30 years. USSTRATCOM will continue to deter strategic attack and employ forces as directed by the President to guarantee the security of the Nation, our Allies, and our partners. We must remember deterrence is not a static concept – it evolves – and the current evolution of the world's strategic security environment will result in three nuclear-capable near-peers. **The PRC and Russia actively seek to change the international rules-based order, while the U.S., with our Allies and partners, seek to defend it.** Our military can contribute to an integrated whole-of-government approach only if we make clear-eyed and threat-informed decisions regarding the capabilities needed to protect and defend the Nation. The Nation's nuclear force is the backstop of integrated deterrence. Today, we stand ready to execute our assigned missions. Failure to pace the threat from potential adversary technological advances today may inhibit our ability to do so in the future. To execute a National strategy

resistant to adversarial coercion, we need modern, effective, and reliable capabilities. Above all else, USSTRATCOM will continue to provide strategic deterrence, underwriting every U.S. military operation around the world and deterring great power conflict. Peace is our Profession...

Document No. 2. Selections from United States Northern Command (USNORTHCOM) Gen. Glen D. VanHerck, Testimony before the House Armed Services Committee, Subcommittee on Strategic Forces, March 1, 2022 (all emphases appear in original.)

Chairman Cooper, Ranking Member Lamborn, and members of the Subcommittee: thank you for the opportunity to testify today. I am proud to lead the men and women of United States Northern Command (USNORTHCOM) and North American Aerospace Defense Command (NORAD) as we defend the United States and Canada in an increasingly complicated and dynamic strategic environment. Our commands continue to face multiple simultaneous challenges from capable, highly advanced competitors who have openly declared their intent to hold our homelands at risk in an effort to advance their own strategic interests.

Today, strategic competitors, rogue nations, and non-state actors possess the capability to strike institutions and critical infrastructure in the United States and Canada. These threats, along with the realities of modern global competition, drive USNORTHCOM and NORAD to think globally and seek innovative capabilities that increase senior leader decision space and help to expand the range of available options for deterring in competition, de-escalating in crisis, and—if necessary—defeating in conflict.

As the U.S. combatant command responsible for homeland defense, for providing defense support of civil authorities, and security cooperation with allies and partners in our area of responsibility, USNORTHCOM is facing the most dynamic and strategically complex set of challenges in the history of the command. Together with NORAD, the distinct, complementary U.S.-Canada bi-national command responsible for aerospace warning, aerospace control, and maritime warning for the United States and Canada, our commands are taking decisive institutional and operational measures to defend our homelands.

DEFENDING THE HOMELANDS

In my testimony before the Committee last year, I described a rapidly evolving geostrategic environment in which our competitors were continuing to take increasingly aggressive steps to gain the upper hand in the military, intelligence, economic, and diplomatic arenas. For decades, the United States has been accustomed to choosing when and where the nation will employ the military lever of influence and project power around the globe from a homeland that was assumed to be secure. Our competitors have studied this operating model for the

last 30 years and have developed strategies and capabilities intended to offset our military advantage and disrupt our force flows.

Quite bluntly, my ability to conduct the missions assigned to USNORTHCOM and NORAD has eroded and continues to erode. Our country is under attack every day in the information space and cyber domain. Competitors are spreading disinformation, actively sowing division and fanning the flames of internal discord with the intent to undermine the foundation of our nation, our democracy, and democracies around the world. These competitors are also constantly seeking to exploit security vulnerabilities and policy gaps, especially in the cyber domain. They are preparing for potential crisis or conflict with the intent to limit decision space for our senior leaders by holding national critical infrastructure at risk, disrupting and delaying our ability to project power from the homeland, and undermining our will to intervene in a regional crisis.

The threat to North America is complex. Over the last year, our competitors have accelerated their fielding of kinetic and non-kinetic capabilities specifically designed to threaten our homeland. Of equal or greater concern is their relentless, coordinated effort to weaken the institutions and alliances at the core of our strength and influence while expanding their own influence internationally. Today, our competitors hold our homeland at risk in multiple domains and are working constantly to exploit perceived vulnerabilities.

Russia and China continue to aggressively pursue and field advanced offensive cyber and space capabilities, cruise missiles, hypersonic weapons, and delivery platforms designed to evade detection and strike targets in our homeland from multiple vectors of attack and in all domains. USNORTHCOM and NORAD's ability to defend against modern threats requires improved all domain awareness, updated capabilities, and policies and strategies that reflect the current strategic environment and the advanced capabilities of our competitors. Meanwhile, I require access to ready and trained forces to operate throughout the USNORTHCOM area of responsibility, including the Arctic, to respond in crisis and quickly execute homeland defense campaign plans.

My mission to provide timely and accurate threat warning and attack assessment requires increased domain awareness and breaking down information stovepipes that restrict the flow of needed information to decision makers in the United States and Canada. The ability to detect a threat, whether from a cyber-actor or a cruise missile, is a prerequisite to defeating the threat. Timely and accurate detection, tracking, and assessment of potential threats provides critical decision space and time to national leaders, while an inability to do so limits available response options.

Lack of domain awareness contributes to increased risk of miscalculation, unnecessary escalation, and potential for strategic deterrence failure. Maintaining our strategic advantage begins with improving domain awareness globally, including in the approaches to North

America. Incorporating artificial intelligence and machine learning into existing capabilities will allow users to pull needed information from existing data sets and share that data with leaders at all levels to expand their decision space and options necessary to achieve desirable outcomes.

To ensure our ability to compete in the current strategic environment, DoD plans, force structure, and logistics must evolve beyond 9/11-era threats and outdated assumptions regarding competitor capabilities, strategies, and ambitions. In order to deter modern competitors, we must make clear that we have the capability to fight in and from the homeland. Further, policy determinations are needed regarding what key infrastructure is to be defended, and from what threats, in order to develop realistic assessments and plans for the defense of critical infrastructure that fully account for advancing competitor capabilities and strategies.

In order to defend the homeland in this complex strategic environment, USNORTHCOM and NORAD have shifted our efforts to left-of-conflict strategies, emphasizing integrated deterrence in competition, and dramatically improving our ability to provide leaders with needed decision space on a day-to-day basis. To be successful in competition, DoD must develop and implement globally integrated plans, strategies, operations, and exercises that incorporate all levers of influence, to include the essential contributions of our international allies and partners.

COMPETITORS AND THREATS

Russia

Russia is the primary military threat to the homeland, and their focus on targeting the homeland has provided the model other competitors are beginning to follow. First, Russia has invested significant resources to modernize all three legs of its nuclear triad in an effort to ensure its ability to deliver unacceptable damage on our homeland during a conflict. In December 2019, Russia fielded the world's first intercontinental ballistic missiles (ICBMs) equipped with a hypersonic glide vehicle (HGV) payload. These weapons are designed to glide at extremely high speeds and maneuver at low altitudes in order to complicate our ability to detect and track. In the next few years, Russia seeks to field a new heavy-lift ICBM that President Putin claims will be able to deliver nuclear warheads to North America from both northern and southern trajectories. Weapons such as these are designed to circumvent the ground-based radars utilized by USNORTHCOM and NORAD to detect and characterize an inbound threat, and challenge my ability to provide threat warning and attack assessment. The impact is the loss of critical decision space for national-level decision makers regarding continuity of government and the preservation of retaliatory capabilities, resulting in an increase in the potential for strategic deterrence failure.

Over the last 15 years, Russia has also executed a systematic program to develop offensive capabilities below the nuclear threshold that Russian leaders believe will constrain U.S. options in an escalating crisis. Their capabilities include very capable cyber capabilities like those demonstrated by Russia-based actors during last year's ransomware attack on the Colonial Pipeline. Russia has also invested in counter-space capabilities like the direct-ascent antisatellite weapon that Russia recklessly tested in November 2021.

To augment these non-lethal capabilities, Russia has fielded a new family of advanced air-, sea-, and ground-based cruise missiles to threaten critical civilian and military infrastructure. The AS-23a air-launched cruise missile, for instance, features an extended range that enables Russian bombers flying well outside NORAD radar coverage—and in some cases from inside Russian airspace—to threaten targets throughout North America. This capability challenges my ability to detect an attack and mount an effective defense. In the maritime domain, Russia has fielded the first two of their nine planned Severodvinsk-class guided missile submarines, which are designed to deploy undetected within cruise missile range of our coastlines to threaten critical infrastructure during an escalating crisis. This challenge will be compounded in the next few years as the Russian Navy adds the Tsirkon hypersonic cruise missile to the Severodvinsk's arsenal. All of the Russian cruise missile capabilities present a significant domain awareness challenge. Additionally, these advanced cruise missiles and their supporting platforms will limit national leadership decision space and my ability to provide threat warning and attack assessment, which directly influences my ability to support continuity of government operations and provide support to USSTRATCOM missions. Again, the potential consequence is an increased risk of strategic deterrence failure.

China

China is our pacing threat and a long-term geostrategic challenge. China is increasingly exerting its economic and military clout around the globe as its leaders pursue a national goal of supplanting the rules-based international order with an approach that is more aligned with China's national interests. Like Russia, China has begun to develop new capabilities to hold our homeland at risk in multiple domains in an attempt to complicate our decision making and to disrupt, delay, and degrade force flow in crisis and destroy our will in conflict.

China has maintained the ability to strike our homeland with strategic nuclear weapons since the early 1980s, but today its nuclear capabilities are growing rapidly in quantity and sophistication. China's Fractional Orbital Bombardment System test in July 2021 delivered a hypersonic glide vehicle (HGV) and demonstrated the weapon's ability to survive reentry and perform high-speed and maneuvering glide after orbiting around the globe—a feat Russia never attempted before fielding their own HGV-equipped ICBMs two years ago. When fielded, China's ICBM-class HGV will be able to evade current ground and space-based early

warning capabilities due to its low-altitude approach and ability to maneuver midcourse, which compounds the detection and warning challenges I already face from Russia's Avangard HGV and advanced cruise missiles.

In the coming years China will augment its homeland-threatening cyber capabilities with a growing long-range conventional strike capability of its own. In October 2019, China unveiled its first bomber capable of air-to-air refueling, the H-6N, which will be able to threaten targets in Alaska with air-launched ballistic or cruise missiles. Later this decade, China seeks to field its Type 095 guided missile submarine, which will feature improved quieting technologies and a probable land-attack cruise missile capability. While China's intent for employing its long-range conventional strike capabilities is not fully known, these weapons will offer Beijing the option of deploying strike platforms within range of our critical infrastructure during a conflict, adding a new layer of complication to our leaders' crisis decision-making.

North Korea and Iran

North Korea's successful flight testing of an ICBM capable of reaching the continental United States and detonation of a thermonuclear weapon underscores its leaders' determination to develop capabilities to threaten our homeland and constrain our options in crisis and conflict. In October 2020, North Korea unveiled a new ICBM that is probably even more capable than the weapons it last tested in 2017. Moreover, North Korea's launch last October of a submarine-based ballistic missile suggests Kim Jong Un may soon resume flight testing his most capable weapon systems, including a new ICBM design.

Iran maintains asymmetric capabilities to threaten our homeland in the cyber domain. In 2022, Iranian officials have threatened to carry out terror operations inside the United States and elsewhere around the world, in addition to its persistent support of threats by terrorist organizations like Lebanese Hezbollah. While Iran has announced a self-imposed range limit of 2,000 kilometers on its fielded ballistic missile force, its persistent advancement of ballistic missile technologies probably could increase its missile range outside of the region.

Violent Extremist Organizations

While the strategic capabilities of our peer competitors are the most pressing concern for USNORTHCOM and NORAD, violent extremist organizations such as ISIS and al-Qa'ida remain committed to attacking the United States and our allies. The Taliban's takeover in Afghanistan will likely provide new opportunities for groups like al-Qa'ida to plot against the West, while homegrown violent extremists (HVEs) challenge our law enforcement partners by using simple attack methods that continue to present the most likely international terrorist threat to the homeland. Violent extremist groups continue to hone their tactics in

response to a shifting operational environment and have maintained their focus on attacking civil aviation and U.S. military personnel and installations.

Transnational Criminal Organizations

Transnational Criminal Organizations (TCOs) continue to inflict enormous damage and create instability through corruption, violence, and illicit trafficking. International criminal syndicates have flooded the United States with illegal drugs that contributed to the deaths of over 100,000 U.S. citizens in the 12-month period from April 2020 to April 2021, while harming people and weakening institutions throughout the Western Hemisphere. As TCOs battle over territory and brazenly undermine the rule of law, they create obvious opportunities for exploitation by strategic competitors seeking to broaden their global coercive strategies and increase influence and presence in the Western Hemisphere.

Mitigating the harm done by TCOs is a national security imperative for the United States and our international partners that requires an overarching whole-of-government policy and plan for interagency action that takes into consideration the vast resources and widespread influence wielded by the TCOs and their international criminal confederates. USNORTHCOM's ability to counter malign influence in our region is complicated by the destabilizing influence of TCOs in our area of responsibility, and national policy and DoD planning must take that reality into account.

INTEGRATED DETERRENCE

Strategic deterrence remains the foundation of homeland defense, and I believe it is absolutely necessary to maintain a reliable and effective nuclear triad. However, reliance on deterrence by cost imposition is currently over-weighted and significantly increases the risk of miscalculation by limiting our national leaders' options following an attack. Given our competitors' advanced conventional capabilities, it is vitally important to move toward a model of integrated deterrence that employs all elements of national influence, leverages alliances and partnerships, and provides leaders with a wide range of timely deterrence options.

Integrated deterrence fuses traditional deterrence by cost imposition—in which an adversary is deterred by fear of costs that outweigh the benefit of an attack—with deterrence by denial, which causes a potential adversary to doubt the likelihood of a successful attack. Imposing costs on an aggressor that outweigh the potential benefits of an attack, demonstrating resiliency, and displaying a range of kinetic and non-kinetic response capabilities are all elements of deterrence by denial. This approach dramatically expands the military, diplomatic, and economic options available to national leaders in competition, crisis, and conflict and helps to avoid miscalculation and unnecessary escalation.

Integrated deterrence also involves competing in the information space under a strategic framework, while working with allies and partners to counter competitors' malign influence in the USNORTHCOM area of responsibility and beyond. Building the capacity to compete in the information environment reduces the risk of instability and strategic miscalculation that can stem from disinformation and other influence operations.

Demonstrations of resiliency, hardening, and the ability to recover from damage to communities and infrastructure also generate a deterrent effect. USNORTHCOM's defense support of civil authorities (DSCA) mission in the aftermath of wildfires, hurricanes, floods, and other contingencies in communities across the United States routinely showcases the ability of USNORTHCOM and the interagency community to respond quickly and effectively to natural and manmade disasters.

USNORTHCOM's track record of supporting coordinated responses and rapid recovery is the direct result of ongoing interagency planning, coordination, and exercises that ensures our readiness to support our partners at a moment's notice. To be clear, DSCA is a homeland defense mission, and USNORTHCOM's visible support to civil authorities remains a critical focus for the command, especially as environmental change contributes to more frequent and intense fires and damaging storms.

Finally, we must continue to foster the partnerships and alliances that provide the United States and our international partners with what is perhaps our most distinct asymmetric advantage. NORAD is an obvious example of the enormous benefit to shared security and regional stability generated by international cooperation. In addition, it must be noted that our relationships with NATO, the FIVE EYES community, and our regional defense and security cooperation partners in Canada, Mexico, and The Bahamas have a profound deterrent effect for the common benefit of all. USNORTHCOM and NORAD continue to foster these valuable alliances and partnerships.

HOMELAND DEFENSE DESIGN

Homeland defense starts well outside the USNORTHCOM area of responsibility and necessarily involves our fellow combatant commands as well as our international allies and partners. Deterring and defending against advanced competitors that have the capability to hold the homeland at persistent risk requires an approach that emphasizes increased decision space and leverages all elements of national power over cost-prohibitive and narrowly focused kinetic defenses. DoD's ability to deter and defend against advanced global threats requires a shift from regional approaches to a global perspective that accounts for the realities of the modern strategic environment.

I believe it is necessary to accept near-term risk in order to compete against advanced, globally focused peers well into the future. Leaders must make difficult choices today in

order to avoid impossible dilemmas tomorrow—to include divesting legacy systems and capabilities that consume significant personnel and fiscal resources and are of little to no use in today’s strategic environment.

Therefore, a homeland defense enterprise that is capable of deterring and defeating threats is essential to a globally integrated forward fight and supporting broader national strategic objectives. The ability of the United States to deter in competition, de-escalate in crisis, and defeat in conflict is dependent on our collective ability to detect and track potential threats and friendly forces anywhere in the world, while delivering data to decision makers as rapidly as possible. This provides leaders with the time and informed options needed to achieve a favorable outcomes for the United States. That reality is the basis for the central principles of USNORTHCOM and NORAD homeland defense design: **all-domain awareness, information dominance, decision superiority, and global integration.**

Domain Awareness can be achieved through an integrated network of sensors from the seafloor to space, including cyberspace, in order to detect, track, and deter potential threats. I need improved domain awareness to increase warning time and provide leaders at all levels with as many options as possible to deter or defend against an attack. Global all-domain awareness will generate a significant deterrent effect by making it clear that we can see potential aggressors wherever they are, which inherently casts doubt on their ability to achieve their objectives.

I am grateful to the Committee for your support of the over-the-horizon radar (OTHR) that was included on USNORTHCOM’s unfunded priority list for Fiscal Year 2022. OTHR is a proven technology that will provide persistent surveillance of the distant northern approaches to the United States and mitigate the limitations of the Cold War-era North Warning System, while contributing to broader domain awareness challenges including space domain awareness. The ability to detect air-breathing and spaceborne threats in the approaches to Canada and the United States will be significantly enhanced by fielding OTHR as soon as possible. It is also vital to move quickly toward advanced space-based sensors capable of detecting hypersonic weapons, including hypersonic cruise missiles, and other advanced systems designed to evade detection. Modernizing and expanding the Integrated Undersea Surveillance System (IUSS) is equally important as Russia and China continue to field highly advanced guided missile submarines.

While some new domain awareness platforms will be required, it is possible to make exponential improvements in our nation’s ability to detect and track potential threats by improving the ways data is collected, processed, and shared. As I testified last year, the technology already exists to apply artificial intelligence and machine learning to collect and rapidly distribute information gathered from sensors around the globe. Current processes rely on human analysts to comb through enormous volumes of data, and it can take days or weeks to process, exploit, and distribute critical information—if it is ever processed at all.

We will always need expert human analysts in the loop, but I need the ability to tap into that technology to dramatically speed the delivery of information to leaders at all levels who need it.

Success in competition, crisis, and conflict depends on effectively distributing and integrating the data collected from domain awareness capabilities to establish **information dominance** over competitors and adversaries. To unlock the full value and potential of our intelligence and sensor networks, information must be integrated, appropriately classified, and rapidly shared to allow commands, agencies, allies, and partners to collaborate globally in real time and across all domains.

The potential for this capability has already been demonstrated in USNORTHCOM's Global Information Dominance Experiments (GIDE), which provided combatant commanders, intelligence and operations directors, and other participants at multiple sites with a shared, customizable, and near real-time data set. The data gathered by existing global sensors provided leaders, analysts, and operators with the information needed to make assessments and recommended courses of action that were coordinated across multiple commands in a matter of hours. Speeding the flow of information to senior civilian decision makers and commanders enabled significantly more options to achieve desired outcomes.

Decision superiority means increasing decision space and options to provide senior leaders. The ultimate goal of decision superiority is to provide multiple paths to avoid conflict through the application of all available elements of national power, rather than emphasizing options that are only available after a conflict has already begun. To successfully defend the homeland, we must provide leaders with pertinent information and as much time as possible to deter and de-escalate before a situation escalates out of control.

Finally, I believe it is critical for the entire defense enterprise to shift its culture and vision toward global all-domain integration. Too often, DoD posture development, communications, planning, exercises, and operations are stovepiped and isolated in ways that do not reflect the reality that all challenges are global and all-domain in nature. The Department increasingly understands that competitors would likely intend to strike the homeland in an effort to prevent flowing U.S. forces toward a regional crisis or conflict. And, in the event that the United States and our allies become engaged in a regional crisis or conflict, other competitors would likely exploit that opportunity to their own advantage—which could quickly lead to simultaneous crises in multiple theaters.

Global challenges cannot be overcome with a hodgepodge of isolated regional plans. Success in competition, crisis, or conflict is increasingly dependent on moving past outdated parochial approaches in favor of greater focus on competition rather than restricting options and absorbing unnecessary costs by continuing to over-emphasize crisis and conflict. With that in mind, USNORTHCOM, our fellow combatant commands, the Services, and our

Canadian partners have demonstrated the immediate impact of improved information sharing and collaboration between commands and allies in all phases of competition, crisis, and conflict.

The current regional approach to plans, strategies, and force design is outdated and more influenced by bureaucratic inertia than the realities of the modern strategic environment. The same is true of stagnant acquisition practices and cumbersome civilian hiring rules that only impede progress and hinder the Department's ability to move at the speed of relevance necessary to compete in today's environment.

RISK MITIGATION

Risk mitigation must be a shared whole-of-government responsibility focused on broad nodes, enterprises, and capabilities rather than attempting to establish a priority-ranked list of specific sites or facilities to be protected. Mitigating the risk associated with an attack on the United States requires policy determinations about what must be defended from kinetic and nonkinetic attack. Those policy decisions, in turn, allow USNORTHCOM, NORAD, and our mission partners to determine the best ways to protect priority assets and resources.

Importantly, risk mitigation is the responsibility of the DoD, as well as a number of other interagency partners at the federal, state, and local levels. Risk mitigation requires a dedicated policy framework and deliberate interagency planning and coordination. Notably, the deterrent effect of resiliency and effective consequence management requires far fewer resources and less expense than direct defense systems.

Ballistic missile defense (BMD): Defending the United States against intercontinental ballistic missile (ICBM) threats from rogue nations remains a critical priority for USNORTHCOM and an important component of integrated deterrence. While current BMD capability and capacity is sufficient to defeat a limited ballistic missile attack from a rogue nation, North Korea's ongoing development of increasingly complex and capable strategic weapons requires the Next Generation Interceptor to be fielded on time or early, and for the Long Range Discriminating Radar in Alaska to achieve full operational capacity on schedule.

The ballistic missile defense system is not capable of intercepting hypersonic glide vehicles; I cannot defend, nor am I tasked to defend, against a hypersonic glide vehicle attack. It is imperative that the Department of Defense develop and field an integrated space-based domain awareness network capable of detecting and tracking ICBMs, hypersonic weapons, and cruise missiles as quickly as possible. I require the ability to detect, track, and assess potential missile threats of all types to immediately determine whether an attack is underway and provide national leaders with as much time and as many options as possible.

Cruise Missile Defense: Russia has the capability today to hold targets in the United States and Canada at risk with long-range air- and submarine-launched conventional cruise

missiles. These highly precise and stealthy systems highlight the need for policy determinations regarding what must be defended along with continued demonstrations of resiliency and hardening. It is also necessary to quickly improve domain awareness by fielding sensors such as OTHR and the integrated undersea surveillance system (IUSS)—and by integrating and sharing the collected data with global stakeholders. To successfully deter aggression and defend the homeland, we must be able to detect and track the submarines, aircraft, and surface ships that carry weapons systems capable of striking the homeland before they depart from their home stations. We also need to improve our capability to defeat those launch platforms before they are within range of their targets.

It is vital that we accept risk today in order to compete against highly advanced and determined peers in the near future. As an example, the military Services must be allowed to retire aging platforms, especially those that cannot survive in combat against highly advanced and lethal capabilities already fielded and proliferated by our peer competitors. The Department must re-invest the savings from those divestments to resilient domain awareness and other capabilities necessary to increase the decision space that will provide national leaders with options to deter, de-escalate, and defeat threats. Those difficult choices are critical to integrated deterrence today and avoiding the unthinkable tomorrow.

CONCLUSION

The global strategic environment will remain complex and extraordinarily dynamic for the foreseeable future. Our competitors already possess the capability to strike the homeland with kinetic and non-kinetic means, and they will take full advantage of slow responses, technological shortfalls, and policies that do not reflect the realities of the modern era.

USNORTHCOM and NORAD, in concert with our interagency colleagues, will continue our unending mission to defend our homelands and protect our citizens from threats in all domains, institutions, culture, and process. However, our commands' ability to effectively deter threats to the homeland will increasingly rely on improved domain awareness and providing leaders with the time and options necessary for success. Just as important, it is critical for military leaders and civilian policymakers to acknowledge that all regional challenges have global implications and present potential risk to the U.S. homeland. Our competitors have demonstrated their intent to leverage any opportunity to advance their own interests—often to the detriment of our own.

Defense of the homeland and continental defense remains the absolute priority for both USNORTHCOM and NORAD, and our commands' constant vigilance will be a key element of the integrated deterrence that safeguards our citizens and advances our vital national interests. It is my profound honor to lead all of the proud U.S. and Canadian military and civilian personnel of USNORTHCOM and NORAD as they stand our never-ending watch over

our nations. I look forward to working with all of our vital partners as we continue to advance those efforts in the defense of our nations. We Have the Watch.

Document No. 3. Office of the Under Secretary of Defense for Policy, “The Sea-Launched Cruise Missile-Nuclear (SLCM-N): Policy and Strategy,” as printed in, “Strengthening Deterrence and Reducing Nuclear Risks, Part II, The Sea-Launched Cruise Missile-Nuclear (SLCM-N),” *Arms Control and International Security Papers*, Vol. 1, No. 11 (July 23, 2020).

Executive Summary

A nuclear-armed sea-launched cruise missile (SLCM-N) is one of two supplemental capabilities identified in the 2018 Nuclear Posture Review (NPR) as needed to address specific regional deterrence problems that have emerged in recent years as a result of developments in the forces and doctrine of nuclear competitors.

First, there is a growing disparity between the nonstrategic nuclear weapons (NSNW) fielded by the United States and the Russian Federation. While in the past this imbalance was manageable, changes in Russian behavior in recent years, their continued investment in these systems, and their refusal to consider an arms control alternative has created a more serious risk, requiring the United States to take countervailing steps to address this disparity.

Second, there are credible concerns that these capabilities are central to a Russian approach to regional conflict that envisions the early, limited use of nonstrategic weapons to end a war on terms favorable to Russia. This approach may be premised on Russia’s belief that its expanding anti-access/area denial (A2AD) networks will be able to neutralize the airborne nuclear deterrent forces of the United States and NATO. In the future, it is possible that China could adopt a similar doctrine. Developing and fielding SLCM-N signals the leaders of nuclear competitors in a concrete way that the United States has the capability and will to maintain operationally effective nuclear options to deter regional aggression.

Third, the deteriorating global nuclear threat environment is a source of concern to regional allies and partners, who are looking to the United States to strengthen the framework for assurance and extended deterrence vital to their own security and non-nuclear status. SLCM-N will bolster allied confidence in U.S. security guarantees.

Through its unique attributes, SLCM-N is a tailored response to these challenges to deterrence stability. It will lower the risks of nuclear conflict, bolster the confidence of allies, and restore a degree of balance in nonstrategic nuclear weapons that could create conditions

more conducive to addressing this category of forces through arms control. This approach does not require nuclear testing or new nuclear weapons nor does it violate any treaty.

Nuclear Sea-Launched Cruise Missile: Policy and Strategy

“Russia’s non-strategic nuclear weapons stockpile is of concern because it facilitates Moscow’s mistaken belief that limited nuclear first use, potentially including low-yield weapons, can provide Russia coercive advantage in crises and at lower levels of conflict. The 2018 Nuclear Posture Review calls for adjustments to U.S. nuclear forces to close this perceived gap on the escalation ladder and reinforce deterrence against low-yield nuclear use.”

—General Scaparrotti, Former CDRUSECOM, March 5, 2019

I. Overview

This paper addresses the strategic requirement for and deterrence benefits of a nuclear-armed sea-launched cruise missile (SLCM-N). The 2018 Nuclear Posture Review (NPR) identified this system as a necessary supplement to the Triad. The paper focuses on the deterrence rationale for SLCM-N, the unique attributes of SLCM-N in the emerging operational environment, arms control and stability considerations, and frequently heard critiques of SLCM-N.

The key points put forward in this paper are as follows:

1. The NPR supplemental capabilities are modest and sensible adaptations that respond to genuine deterrence risks that have arisen in recent years.
2. SLCM-N responds in a unique way to a deteriorating nuclear threat environment and a growing imbalance in nonstrategic nuclear weapons.
3. SLCM-N will play an important role in tailored deterrence strategies in both Europe and Asia.
4. SLCM-N’s operational attributes reinforce its value as a regional deterrence capability.
5. SLCM-N is not a redundant capability and does not duplicate the mission of other existing or planned nuclear systems.
6. Developing SLCM-N is an urgent task and initial steps in the acquisition process are underway.

II. The Deterrence Requirements for Supplemental Capabilities in the Nuclear Posture Review

The NPR is part of a larger set of strategic initiatives reshaping U.S. national security to strengthen the nation’s ability to deter conflict, defend vital interests, and promote global security. The National Security Strategy (NSS) and the National Defense Strategy (NDS)

emphasize new challenges to deterrence arising from renewed great power competition and the growing capabilities of rogue regimes. To respond to these challenges, the United States must restore its competitive advantage and develop the capabilities needed to deter and defend across an increasingly dynamic set of threats. Although nuclear forces are but one element of this, they remain foundational to U.S. strategy and an effective means to deter a number of significant threats to the United States and its allies and partners. Accordingly, we will sustain a nuclear force that both meets the requirements of credible deterrence today and anticipates future risks.

Key among the adaptations identified in the NPR are modest enhancements intended to supplement the capabilities provided by Triad forces (submarines, intercontinental ballistic missiles, and strategic bombers). These supplemental capabilities are a response to developments in competitor forces and doctrine that undermine deterrence stability at the regional level. Several challenges stand out: a deteriorating global nuclear threat environment, a growing disparity in nonstrategic nuclear weapons (NSNW), a more complex operating environment for nuclear-capable aircraft, the requirements of allied assurance and extended deterrence; and the possibility that an adversary will employ a limited number of nuclear weapons—including low-yield weapons—to deter U.S. military responses to regional aggression. To address this range of risk, we have adapted one existing capability and we will reconstitute—in updated form—a second. We have fielded a small number of existing submarine-launched ballistic missile (SLBM) warheads with a low-yield capability. In the longer-term, we will develop a modern nuclear-armed sea-launched cruise missile—a capability previously fielded but retired by 2012 in hopes of persuading other states to eliminate these and related weapon systems.

These programmatic initiatives are not being undertaken lightly, but in the belief they are necessary to provide greater flexibility in tailoring strategies to deter and if necessary respond to limited nuclear threats, and to signal to Russia—and to China, which is also developing theater-range, dual capable systems—that there is no exploitable advantage to be gained from the threat or use of nuclear weapons in a regional conflict. Despite arguments that are commonly heard, the goal is not to mimic Russia's strategy or match its much more expansive nonstrategic arsenal. The NPR supplemental capabilities fall well short of doing so. Nor do they signal a shift toward a strategy emphasizing nuclear warfighting or a lower threshold for nuclear employment. To the contrary, they are intended to ensure that nuclear war is less rather than more likely by demonstrating to adversaries that the United States is fully prepared to deter nuclear threats at every stage of an escalating crisis or conflict. This will raise, not lower, the "nuclear threshold." The supplemental capabilities are consistent with U.S. obligations under the New START Treaty. They will not add to the number of nuclear weapons in the U.S. nuclear stockpile, create arms race pressures, upset the overall nuclear balance, or undermine stability. They will leverage existing missile and warhead programs. Deployed at sea, these systems will not place added burdens on allies for basing and support.

III. SLCM-N: Unique Attributes and Benefits

SLCM-N Directly Addresses the Growing Disparity in Nonstrategic Nuclear Weapons

SLCM-N has particular value as a response to one of the more troubling trends in adversary nuclear capabilities—the imbalance in NSNW and the continued and increasing Russian investment in this category of forces. This investment indicates Russian authorities may view these capabilities as flexible and usable on the battlefield as an adjunct to conventional forces. Russia is modernizing an active stockpile of up to 2,000 such weapons that it can deploy on naval platforms, aircraft, and with ground forces. This includes at least twenty individual weapons or weapon systems that encompass ballistic missiles, ground-, air- and sea-launched cruise missiles, gravity bombs, torpedoes, depth charges, and surface-to-air missiles. By contrast, NSNW deployed by the United States in Europe in support of NATO remain modest in number and limited to one type of weapon. This capability is being modernized but not expanded in size.

The asymmetry in NSNW in Europe has long been a source of concern precisely because of the fear that it could contribute to deterrence instability in a crisis. This danger was highlighted a decade ago by the Strategic Posture Commission led by former secretaries of defense William Perry and James Schlesinger, by the United States Senate in the New START Resolution of Ratification, and by the 2010 NPR.

Strategic Posture Commission: “The imbalance in NSNW is of rising concern and an illustration of the new challenges of strategic stability as reductions in strategic weapons proceed.”

New START Resolution of Ratification: “The US will seek to initiate...not later than one year after entry into force of the New START Treaty, negotiations with the Russian Federation...to address the disparity between the non-strategic (tactical) nuclear weapons stockpiles of the Russian Federation and of the U.S.”

2010 NPR: “...large disparities in nuclear capabilities could raise concerns on both sides and among US allies and partners, and may not be conducive to maintaining a stable, long-term strategic relationship.”

For this reason the United States has consistently called on Russia to extend the bilateral arms control framework to include NSNW. With equal consistency Russia has refused to consider these offers. Still, the risk posed by this persistent asymmetry in capability was manageable during a period in which a nuclear crisis seemed a remote possibility. Today, in light of Russia’s recent conduct and its continued investment in these forces, this possibility is less remote and the risk therefore higher. Although the context is different, China’s improved nuclear capabilities, which feature modern, theater-range nuclear systems, may lead to similar risks. Accordingly, mitigating these risks is now a priority, though it does not

require matching Russia's large, diverse NSNW capabilities. It does, however, require conveying, to Moscow in particular, that absent a viable arms control approach, the United States will take steps to develop and field a capability that lessens our strategic vulnerability, tangibly strengthens our regional deterrence posture, and ensures a credible response to any nuclear escalation.

SLCM-N Will Play an Important Role in Tailored Deterrence Strategies

While the disparity in NSNW in Europe is troubling on its own, of greatest concern is the marriage of Russia's large, modern, and diverse nonstrategic nuclear force to a military doctrine that seems to allow for the use of nuclear weapons on a limited scale to protect Russian gains in a local aggression and deter an effective NATO response. Russian leaders might execute such a strategy if they believed it was their best chance to terminate or freeze a conflict on favorable terms—and that the United States and NATO would be constrained in responding proportionately because most available nuclear options carry a high risk of further, unintended escalation or could be defeated by Russia's growing anti-access/area denial (A2/AD) capabilities. This would be a high-risk approach, but Russia's leaders could conclude the risk is acceptable if the stakes were sufficiently high and they believed they enjoyed "escalation advantage" at the nonstrategic nuclear level.

Based on everything we know, this is a credible scenario. To be sure, we understand that the exact elements of Russia's nuclear doctrine are subject to public interpretation and debate—and that nations like Russia are not necessarily transparent in describing their nuclear doctrine publicly. Some degree of ambiguity in assessing adversary doctrine is the norm, not the exception. Therefore, it is not realistic to expect to know with certainty or even a high degree of confidence Russia's policy regarding the circumstances that would trigger limited nuclear use against NATO.

But it would be irresponsible to base our policy on a benign reading of Moscow's intentions and how Russian leaders think about the nuclear threshold and the risks of escalation. Regardless of official doctrine, there are simply too many other factors leading to the inescapable conclusion that Russia is prepared to use force, take risks, and leverage its nuclear weapons to advance its security goals. Prudence dictates that the United States and its allies consider seriously the possibility that Russian leaders could see advantage in the limited use of nuclear weapons in a failed or failing conflict, or to consolidate gains made through a successful local conventional aggression.

The 2018 NPR adopts this prudent stance and outlines an appropriate tailored deterrence strategy for Russia. This strategy emphasizes ensuring Russian leaders do not miscalculate the consequences of a limited initial use of nuclear weapons against NATO and understand clearly that a policy of nuclear escalation will yield no significant advantage and carry grave risks. SLCM-N directly supports this tailored deterrence strategy by providing additional

limited employment capabilities that an adversary will have to consider if contemplating the coercive use of nuclear weapons. The availability of such systems will give an adversary pause, especially if paired with other demonstrations of U.S. and allied resolve, and thus lessen the risk of a catastrophic miscalculation. If a crisis escalates, leaders will have a wider range of options available in the event that the use of nuclear weapons is necessary to restore deterrence. Leadership will want options that are operationally effective and that signal unmistakably the will to defend vital interests and impose significant costs on an adversary—but that can be executed in a way that is perceptibly restrained and has some prospect of managing the risk of further escalation. SLCM-N provides such a capability.

The same deterrence logic applies to East Asia, where we expect a nuclear-armed SLCM to play an equally important role in deterring adversaries and assuring allies. The NPR outlines a tailored deterrence strategy for China that recognizes its push for regional dominance, its goal of countering U.S. power projection operations, its growing theater-range nuclear capabilities, and the potential for any U.S.-China conflict to escalate to the nuclear level. The tailored strategy for China intends to prevent Beijing from mistakenly concluding that it could secure an advantage by, for example, attempting to decouple the United States from its allies through the limited use or threatened use of its theater nuclear capabilities. SLCM-N conveys a clear signal that the United States will maintain graduated nuclear employment options that provide the means to respond effectively to any level of Chinese nuclear escalation.

SLCM-N's Operational Attributes Reinforce Its Deterrence Value

Regional deterrence of both Russia and China requires nuclear forces that are responsive, reliable and effective in the operational environment likely to characterize a future conflict with either power. The credibility of regional nuclear forces as a deterrent lies not simply in their existence but in their known ability to conduct operations that will impose unacceptable costs on a nuclear aggressor. This is why the NPR outlined a requirement for a theater nuclear system capable of proportional, discriminate response based on survivable, regionally present platforms, and with the necessary range, penetration capability, and effectiveness to hold critical adversary targets at risk.

In particular, regional nuclear systems must be able to operate effectively in the face of Russian and Chinese A2/AD strategies intended to deny U.S. forces the freedom of action to project power and hold adversary operations and territory at risk. Given the major investment both Russia and China have made in A2/AD capabilities (especially advanced integrated air defense systems), each may come to believe it can effectively impede U.S. regional nuclear capabilities in executing their deterrence missions, and thereby secure an exploitable coercive advantage. Dual-capable aircraft may be vulnerable, or perceived as vulnerable, to advanced defensive systems despite enhancements to their stealth and standoff features. As defensive systems continue to improve, there is a risk a potential

adversary may believe it can constrain U.S. ability to respond in a proportional manner to limited nuclear use and that the United States would be deterred from a more escalatory response by the adversary's withheld nuclear capabilities.

This is why SLCM-N is an important capability. Based on highly survivable undersea platforms, SLCM-N will reinforce the credibility of tailored deterrent options in both European and East Asian contingencies. Sea-based systems can exploit an extensive operating area in which they will be difficult to find and destroy, preserving the ability to respond in a timely way to nuclear aggression even if other nonstrategic systems are degraded. In this way, SLCM-N will add to the flexibility and diversity of regional deterrence forces and provide an assured and prompt response capability in demanding operational environments.

Promptness is an important consideration. Employment options that use the airleg of the Triad generally are not considered prompt; they require time to generate and reach the target or launch point. Some time-sensitive, high-priority targets may disperse or launch prior to the arrival of an air asset, potentially making U.S. deterrent threats less credible. Regionally present sea-based systems require far less notice. Operating at a high level of readiness, SLCM-N could strike a target quickly once the order to execute is received. The adversary could not be assured that its high-value mobile strike systems are immune to attack, or that a U.S. response to limited nuclear use would be delayed. This contributes to deterrence credibility.

Finally, a nuclear-armed SLCM force would help to hedge against the possibility of (i) a major technical or operational failure of the SSBN force or another leg of the Triad, and (ii) a significant Russian breakout from arms control limits or a Chinese decision to rapidly expand its nuclear forces. In this way, SLCM-N would enhance the overall reliability and survivability of the U.S. nuclear posture while also supporting tailored deterrence strategies.

SLCM-N Provides Unique Political and Operational Benefits in the Indo-Pacific Region

In this vast region, we do not permanently station nuclear-capable forces, but rely instead on systems based in or rotating from the continental United States. For many years the now-retired Tomahawk Land Attack Missile-Nuclear (TLAM-N) made an important contribution to assuring regional allies and underwriting our extended deterrence strategy. The ability to provide a regional nuclear presence signaled a high degree of resolve and readiness in a crisis and did not require allies to base nuclear systems on their territory. Restoring that capability with SLCM-N will bolster allied confidence in U.S. nuclear security guarantees and strengthen our comprehensive extended deterrence framework for the region, which also includes non-nuclear strike capabilities, missile defense, exercises and consultation, and the capability, if needed, to forward deploy nuclear-capable bombers and tactical aircraft. As former Under Secretary of Defense for Policy James Miller and former Vice Chairman of the

Joint Chiefs of Staff Admiral Sandy Winnefeld (USN, Ret.) have argued in reference to SLCM-N, “Such a capability not only would provide a credible and survivable option for extended deterrence in Europe, but also would bolster deterrence and assurance in the Pacific.”¹

IV. Arms Control Considerations

The existing U.S.-Russia strategic arms control framework, the New START Treaty, does not limit sea-launched cruise missiles or their launchers.² While it is conceivable that a future framework could capture these capabilities, this does not seem a realistic basis for planning in the current political environment.

The United States is hopeful that its stated intention and concrete plans to develop and field SLCM-N will lead Russia to conclude that its interests are best served by discussing reductions to or limits on nonstrategic nuclear weapons. Witnessing U.S. resolve to buttress its deterrent forces with a credible, effective capability that can hold important Russian military targets at risk could influence the thinking of Russian leaders. The history of U.S.-Russia nuclear arms control demonstrates that Moscow will engage in serious negotiations only when it faces military capabilities that match or exceed its own and that can impose severe costs. At present, Russia’s leaders see no compelling reason to negotiate on NSNW. In the absence of concrete steps by the United States to bolster its deterrence forces to begin to offset Russian advantages in this category of weapons, Russia is unlikely to change its approach. U.S. policy remains unchanged: should Russia agree to discuss NSNW, and moderate its destabilizing behaviors, it may be possible to reconsider the need for SLCM-N. But we are realistic about the prospects for this outcome.

SLCM-N will not affect the central deterrence relationship between the United States and Russia or the balance between the two side’s strategic nuclear triads. These remain defined by the principles of mutual deterrence, the aforementioned New START agreement (as long it remains in force), and nuclear risk reduction measures (e.g., crisis communications mechanisms). SLCM-N will not be based on a strategic nuclear platform and will not be subject to the New START Treaty limits. SLCM-N will not have intercontinental range. In addition, the destructive power and range of U.S. SLCMs—even if launched as a salvo—would not threaten the ballistic missile forces of major nuclear powers. It is a nonstrategic capability that will not threaten the survivability, or otherwise affect the second strike capability, of an adversary’s strategic deterrent forces.

¹ “Bring Back the Nuclear Tomahawks,” Admiral Sandy Winnefeld (USN, ret.) and Dr. James N. Miller, *Proceedings Today*, U.S. Naval Institute, May 2017.

² Note that under New START, ballistic missile submarines converted to carry cruise missiles are subject to a limited number of inspections to confirm this conversion process.

V. Responses to Frequently Heard Critiques of a Nuclear Arms SLCM

Challenge: SLCM-N responds to a problem that likely does not exist or is overstated.

Response: There is indeed an asymmetry in U.S. and Russian forces and doctrine, and evidence that Russia has acted to widen and exploit it. Our concern is that these gaps in capability and approach are from Russia's vantage highly dynamic—not a static phenomenon but something that provides an exploitable advantage in crisis or war. This could shape the course of regional conflict in a profoundly destabilizing way with a high degree of nuclear escalation risk. This gap therefore has important implications for pre-and intra-war deterrence, and also for extended deterrence and the assurance of allies. The contention offered by some that this gap has been created as a result of our talking about it defies common sense. It will not disappear if we simply stop referring to it. It will only begin to close when we take actions that work to close it. If we ignore it, it will get worse and risks will grow.

More fundamentally, deterrence is concerned with shaping the adversary's perceptions and calculations of risk. Determining the capabilities required for deterrence cannot rely solely on our own sense of what is sufficient with respect to the size or cost of a force. To avoid the dangers of mirror imaging, we must consider how adversaries are likely to view the robustness of U.S. forces, applying the standards, criteria and metrics the adversary might apply based on what we can learn from doctrine, exercises, training, and leadership statements. We must do this even if it challenges our own assumptions. A force that many might consider comprehensive and sufficient for maintaining deterrence even in very challenging contingencies may be viewed differently by adversaries prepare do take risks and in constant search of exploitable advantages derived from perceived or actual asymmetries in capabilities and doctrine. If an adversary appears to believe such advantages exist or can be created, it is a strong signal that our deterrent posture needs to be strengthened in a way that the adversary understands unambiguously.

Challenge: SLCM-N is a nuclear warfighting capability that will lower the nuclear threshold and make nuclear war more likely.

Response: The United States deploys nuclear weapons to deter attacks on itself, its deployed forces, and its allies and partners. Our nuclear strategy is not premised on preparation for or expectation of extended nuclear exchanges with an adversary. Strategy, doctrine, forces, and exercises all attest to this. The United States maintains a high threshold for nuclear use and would use nuclear weapons only in an extreme circumstance. All Nuclear Posture Reviews, including the current one, have been clear on this point. The fact that SLCM-N adds to the options leadership has for the limited use of nuclear weapons to restore deterrence is not a departure from past policy and practice. For decades the United States has maintained selective use options and has continually assessed the credibility of these options in light of

changing strategic and operational conditions. The decision to pursue SLCM-N simply reflects our current assessment of what is required to ensure stable deterrence going forward.

Challenge: SLCM-N will lead to or accelerate a nuclear arms race.

Response: The United States is doing nothing to encourage a new arms race in nonstrategic nuclear weapons. SLCM-N (as is the low-yield SLBM) is a modest response to Russia's comprehensive program to modernize and expand its broad, multi-domain suite of NSNW. It is not our goal to match Russia's deployments. Our purpose is to strengthen deterrence and reduce the risks associated with what will continue to be an imbalance in NSNW. The United States has long sought to advance this objective by extending the arms control regime to account for NSNW, but has repeatedly been rebuffed by Russia. It is possible that our decision to develop and field SLCM-N will give pause to Russia's leaders and lead them to reconsider their opposition to negotiated NSNW limits or reductions. However, should this materialize and should Moscow in tandem take other important steps to promote stability, it may be possible to reconsider the need for SLCM-N.

Challenge: SLCM-N operations will detract from conventional operations.

Response: Potential tradeoffs with conventional operations will be addressed as the programmatic options for SLCM-N are evaluated, the number of required weapons is defined, and a concept of operations is developed. Before these factors are fully examined, it is difficult to assess possible tradeoffs. There is no basis today to conclude that SLCM-N operations will unduly degrade other naval missions. Our expectation is that platforms will have capacity to deploy a large number of cruise missiles, and that other naval platforms not assigned the SLCM-N mission will be able to deliver a significant amount of conventional firepower.

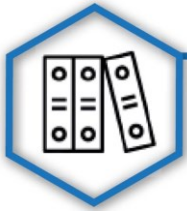
Challenge: How is DoD rapidly developing a modern SLCM-N?

Response: The development of SLCM-N will follow the Joint Capabilities Integration and Development System (JCIDS). The Navy has published an Initial Capabilities Document (ICD) to identify the attributes of a system to fill the requirement identified in the NPR. OSD's Office of Cost Assessment and Program Evaluation (CAPE) has provided initial and supplementary guidance for a SLCM-N Analysis of Alternatives (AoA) study. The AoA guidance encompasses a full range of alternatives, but focuses effort on likely solutions to provide the best opportunity to establish funding in the FY 2022 budget request with the strongest of the alternatives.

VI. Conclusion

We cannot ignore the disparity in U.S. and Russian nonstrategic nuclear capabilities. While we hope that an arms control solution to this problem will be possible, Russia has made and continues to make a significant investment in these forces. Nor can we dismiss China's development of theater-range nuclear-capable systems. These investments raise a compelling concern that Russia and China may see some exploitable advantage in the use or threatened use of these systems. This raises the risk of nuclear war. To lower this risk, and to ensure the nuclear threshold remains as high as possible, we must be certain we possess highly credible response options for any adversary's limited use of nuclear weapons. The SLCM-N directly addresses this deterrence requirement.





FROM THE ARCHIVE

MILITARY IMPLICATIONS OF THE TREATY ON THE LIMITATIONS OF ANTIBALLISTIC MISSILE SYSTEMS AND THE INTERIM AGREEMENT ON LIMITATION OF STRATEGIC OFFENSIVE ARMS

Dr. William R. Van Cleave, associate professor, School of Politics and International Relations, University of Southern California, Testimony before the U.S. Senate, Committee on Armed Services, July 25, 1972

The committee met, pursuant to recess at 10:05 a.m., in room 114, New Senate Office Building, Hon. John C. Stennis, chairman.

Present: Senators Stennis (presiding) and Jackson.

Also present: John T. Ticer, chief clerk; Nancy Bearg, research assistant, and Richard Perle, special assistant to Senator Jackson.

The CHAIRMAN: The committee will please come to order.

We are glad to have our visitors here this morning. This is an open session and we will proceed immediately.

We are pleased to have with us this morning a witness who has been intimately involved in planning for the SALT talks and who brings to his testimony today a keen analysis of the central issues in SALT. Since advising the SALT delegation, Dr. Van Cleave has had an opportunity to reflect objectively and with detachment on U.S. policy at SALT.

Dr. William R. Van Cleave is now associate professor, School of Politics and International Relations at the University of Southern California, a post he has held since 1967. Dr. Van Cleave initially began research in nuclear arms deterrence in 1964 at the Strategic Studies Center of the Sanford Research Institute, where he is currently a consultant. During a leave of absence from the University of Southern California from 1969 to 1971, he was special assistant, Office of the Secretary of Defense. In this capacity he served as an advisor to the U.S. SALT delegation.

Dr. Van Cleave's publications have appeared in many leading military and strategic journals including *Survival*, *Military Review*, U.S. Naval Institution *Proceedings*, and *Nuclear Journal*.

Doctor, may I add a word of welcome here. I am glad that you could come and that you are going to testify. I regret exceedingly, though, that I will not be able to stay. I am floor manager of the military procurement bill that is the pending business in the Senate now, and I am

compelled to report to the Senate floor in the next few minutes. But I certainly will follow your testimony completely and I am sure it will be of value.

With that understanding, I am going to ask you and the committee to excuse me now for this other urgent and demanding duty and my interest is certainly continuing with your testimony.

Senator Jackson (presiding). Dr. Van Cleave, you may proceed with your statement and we will have a period of questioning.

**STATEMENT OF DR. WILLIAM R. VAN CLEAVE, ASSOCIATE PROFESSOR,
SCHOOL OF POLITICS AND INTERNATIONAL RELATIONS,
UNIVERSITY OF SOUTHERN CALIFORNIA**

Dr. Van Cleave. Mr. Chairman, I regard it as a privilege to have the opportunity to discuss the proposed strategic arms agreements with you and to give you my views on them. Needless to say, my views are solely personal ones.

I apologize for the lengthy and somewhat repetitious nature of my written statement. It was hastily prepared. I will submit it but only summarize it in my remarks.

In the testimony so far you have heard two contrasting general approaches to the evaluation of these agreements.

SALT PROMISSORY IN NATURE

The administration and other supporters of the agreements have argued essentially that, whatever the defects of the agreements, they do constitute a worthwhile first step that will promote future agreements more clearly beneficial to the United States. They are basically promissory in nature. In addition, while the interim agreement does allow much higher levels of launchers and total throw weight or payload for the Soviet Union, and does give the Soviets considerable latitude in area defense for the United States and limited defense of retaliatory forces to only one ICBM site, the balance of forces established is still better than a no-agreement case. This argument compares the agreement levels with presumed 5-year no-agreement levels—it purposely ignores any comparison of agreement levels with levels that existed at the beginning of SALT—and holds that the agreements halt Soviet momentum and thereby curb the “arms race.”

Those who are unhappy with the agreements point to the specific terms of the agreements and their effect on U.S. strategic and political interests. While the extent to which the agreements will be promotional of further agreements is anyone’s guess—the possibility must be allowed—but the evidence that good agreements will grow out of unsatisfactory

ones and that the Soviets will be any more willing in SALT II than they were in SALT I to ease U.S. strategic problems is scant indeed. This approach is skeptical of hypothetical nonagreement projections and prefers to deal with the actual projections derivable from the agreements, which are really not much different from the nonagreement projections previously used the administration. What now is most threatening are the normally expected improvements in Soviet forces, which the agreements seem to encourage. Moreover, the comparison that should be made is with the balance that existed when SALT began and earlier U.S. expectations about SALT. These comparisons show a rapid process of erosion of the strategic balance in the favor of the Soviet Union, and apparently a similar erosion of U.S. SALT positions and expectations.

AGREEMENTS UNSATISFACTORY IN AND OF THEMSELVES

The gap between these two approaches is bridged by the administration's acknowledgment, made most clearly by the SALT delegation, the Secretary of Defense, and the Joint Chiefs of Staff, that the agreements in and of themselves are unsatisfactory unless certain future conditions are met. On May 9, the delegation formally warned that if "an agreement providing for more complete strategic offensive arms limitations were not achieved within 5 years, U.S. supreme interests could be jeopardized" and that the United State would then have to withdraw from the agreements. The Secretary of Defense and the Joint Chiefs of Staff have insisted that the agreements are acceptable only if a vigorous R. & D. program and modernization of permitted strategic forces are conducted, the B-1 and ULMS are funded, and safeguards are built for the possibility of abrogation.

The apparent inconsistency between arguing, on the one hand, that the agreements "provide for a more stable strategic balance" and constitute "an important first step in checking the arms race," and, on the other hand, that the agreements are tolerable only if such conditions are met, is eased by the recognition that the agreements are a calculated risk designed to enhance the prospects of a better agreement. Despite all of the rhetoric about how these agreements improve the strategic situation and curb arms competition—they do neither—the real argument for them boils down to, first, their promotional value, and, second, that value being worth the risks and disadvantages they entail.

What I would first say is that if you find these agreements acceptable—if the Senate consents to them, as I believe it undoubtedly will—it is essential that you recognize the calculated risk nature of the agreements and reflect that recognition in your advice on them, and in your subsequent handling of defense appropriations.

Agreements of this nature inherently include many uncertainties and ambiguities, combining prices to be paid, risks to be taken, and hopefully opportunities to be created. Any position taken on agreements, for or against, must be taken on balance. It cannot be unqualified. Your vote will have to be yes or no. If it is yes, I would argue that it must be

“Yes, but...” and the but should be reflected in the required support for safeguards, defense programs, and the mandatory limited time of the interim agreement.

That, in my view, is the necessary minimum condition for acceptance of these agreements.

SALT GIVES UP TOO MUCH

Personally, of the two general approaches I described, I believe the second to be the more valid and to represent the closer approximation to truth. This will make it clear from the outset that I do not believe that we have good or sufficient reason to be happy with these agreements. I will go another step. Dr. Teller, as I understand, has agreed that we should not be happy with the agreements, but nevertheless—because we are left with little else we can do—we should accept them. In fact, that actually seems to be what the administration collectively is saying. I believe that, on balance, the agreements give up too much and are more likely to be detrimental to U.S. security and U.S. foreign relations than beneficial. Consequently, I could not personally recommend that they be approved and ratified.

I want to make it clear that that is my personal point of view for reasons set forth below. I wish also to be clear that I do not believe it is a very realistic position to maintain at this time. I do not support the agreements, but I really cannot imagine them, having been negotiated and signed by the President, being rejected by the Senate. I register my dissent to let you know that not everyone believes the agreements are in the best interests of the United States.

The most useful approach at this point of time would undoubtedly be for us to examine realistically the drawbacks of the agreements so that we are very clear about the risks being assumed, and then to turn to how we best provide for essential U.S. interests in the presence of the agreements and how we approach the next phase of SALT. I believe that our strategic problems with the Soviet Union and our problems in negotiating arms limitation agreements should be frankly open and understood if there is to be any prospect of future success. Personally, I am sorry that the full record of SALT cannot be made available to the public.

I would like to set forth now some general observations or points of view elaborating on what I have said and giving some of the reasons for my concern.

SALT DOES NOT SOLVE US. STRATEGIC PROBLEMS

1. The agreements are not of themselves good arms limitations agreements. Acceptance of them should not lead to the position that they are in themselves good agreements or promote complacency. The Defense Department is absolutely correct in insisting that acceptance of these agreements requires reinvigorated R. & D. and modernization programs. Those who have attacked these programs as inconsistent with strategic arms limitation should direct

their unhappiness at the agreements, not at the proposition that they require such safeguards.

It should be made very clear that the agreements do not solve or even ease our strategic force problems. They do not arrest the expected development of the threat or competition in strategic arms. They do, unfortunately, accept higher numerical levels of the threat than we ever before contemplated and do restrict at the same time U.S. ability to cope with the threat. Their tendency, therefore, is toward less rather than more stability. Unless our expectations of their promotional value are shortly fulfilled and unless in the meantime we push compensatory programs, there is a strong risk that they could be wildly destabilizing.

EROSION IN U.S. POSITION

2. The current agreements, taken together, are in fact a light year removed from the outcomes contemplated in the studies and planning for SALT in 1969. While I cannot discuss earlier U.S. positions or proposals in open hearings, I believe I can say on the basis of information already publicly revealed that these agreements do not resemble those deemed acceptable in 1969 or 1970. There has since the start of SALT been a constant erosion of U.S. SALT positions and expectations.

I state this frankly not to criticize the delegation or those responsible for decisions during the course of the talks, but to point out that, while we were engaged in SALT, the strategic balance continued to deteriorate rapidly, and to suggest that arms negotiations are a process in and of themselves, and that erosion of positions and expectations should be expected. I think that it is important for us to be aware of this in our approach to SALT II.

Moreover, the observation that such erosion occurred does not necessarily imply that it was wise or unwise, right or wrong. The criticism has been levied that concession after concession was made in the pursuit of an agreement. But specific concessions may be good or bad depending upon their nature, the available alternatives, and the eventual outcome. The agreements have to stand or fall on their own merits in the final analysis.

The same record shows that the United States tried to achieve better agreements but that more worthwhile ones (from our point of view) were rebuffed by the Soviet Union. Changes in U.S. positions or expectations may be regarded as erosion or as an attempt to find a common denominator upon which the two sides could agree.

A brief review of the course of SALT, based upon the public record, might help one draw his own conclusions.

INITIAL POSITION OF SALT

As SALT was about to begin in November 1969, the declared objective was to negotiate an agreement that would stabilize the balance at the same relative position that then existed. At that time, the Soviet Union had about the same number of ICBM launchers as the United States (some 1,040) and had just begun deployment of modern Y-class submarines and SLBM's. A freeze at that time would have preserved some U.S. numerical advantage.

In the spring of 1970, according to the President's foreign policy reports, the United States set forth in the talks two alternative comprehensive agreements, one that would include qualitative limitations, including MIRV, and one that would involve actual reductions in strategic offensive forces. When it became clear that the Soviet side was interested in neither approach, according to the President, the United States submitted a changed position taking into account Soviet objections. That proposal, known as the August 4 proposal, has not been made public, but according to press reports would have established equal levels of offensive forces limited at about the situation that then prevailed. With that proposal, equal ceilings then were substituted for a freeze that, would have preserved some U.S. edge.

It is quite clear that the Soviet Union was not then, and has not been at any time since SALT began, interested in such equality, or in agreements at those levels. The Soviet approach in the meantime, according to the President, remained very general and unspecific ("lacked the specificity and detail to permit firm conclusions about overall impact"), and focused upon a definition of "strategic" systems that would limit U.S. forward-based theater forces (but not those of the Soviet Union) rather than giving priority to the core strategic offensive systems. The U.S.S.R. also wanted a separate ABM limitation agreement.

At the same time, the U.S. position on ABM limitations continued to be that defensive limitations depended upon offensive levels permitted by any agreement. The United States might be willing to forego a light area defense in return for an agreement stabilizing the United States-U.S.S.R. strategic balance, but levels of defense of retaliatory systems depended upon the level of the threat.

In May 1971, the President acknowledged a deadlock, which, in an attempt to break, we would agree to concentrate "on working out an agreement for the limitation of deployment of antiballistic missile systems." Such an agreement would be accompanied by "certain measures with respect to the limitation of offensive strategic weapons."

At that time, the Soviet Union reportedly had about 1,450 ICBM's and 400 SLBM's operational or under construction. News reports at the time speculated that the new U.S. position would freeze existing levels of ICBM and SLBM launchers and give an equal choice to each side of defending either its national capital (NCA defense) or three ICBM sites. (That

level of ICBM defense presumably being necessary with those levels of strategic offensive forces.)

Now, the interim agreement on offensive forces permits the Soviet Union (by our calculations) something over 1,600 fixed ICBM launchers and 740 SLBM launchers on modern nuclear-powered submarines (or up to 62 boats or 950 SLBM's through substitutions for certain old systems). Neither diesel missile launching submarines nor existing types of SLBM's on such submarines are limited. The ABM Treaty would limit U.S. defense of its retaliatory forces to one ICBM site and would permit the United States to deploy a defense around Washington, an option that does not seem likely to be picked up.

One way of putting this is that in 2 1/2 years of SALT the United States has managed to trade away Safeguard, and most of the important options to assure retaliatory force survivability, for a doubling of the threat. Another observation is that if the news accounts of a year ago were correct, in 1 year's time the United States has changed from insisting on defense of three ICBM sites compared with a somewhat lower threat and Soviet defense of Moscow, to what in practical terms will be on one ABM site for us against a larger threat and the equivalent of three ABM sites for the Soviet Union (considering that, according to public testimony, the Moscow defense may also defend some 300 ICBM launchers).

One might suggest that, on the basis of this record, future Soviet historians could regard this as the golden age of Soviet negotiation. Two other points emerge from this.

INCOMPATIBILITY OF ABM TREATY AND INTERIM AGREEMENT

First, an enormous change has taken place since the beginning of SALT. SALT 1972 is not SALT 1969. That may lend weight to the argument that we had best accomplish whatever we can now. It might also help put these agreements, and the strategic situation—and the process of negotiating arms limitations—in perspective. It certainly shows that there is ample ground for disappointment in what has been achieved in SALT and for insisting that we look to our own solution of strategic problems rather than primarily to SALT.

Second, it suggests that the ABM treaty and the agreement on offensive forces are not complementary but are incompatible. They do not go together. We are cornering levels of ABM with levels of ABM and offensive levels with offensive levels, which is politically important and which may be strategically important, but which blurs the really significant offensive-defensive relationships and the need to match defense to offense and vice versa. If ABM is to be limited as stipulated by the Treaty, the offensive capability is to be permitted, higher levels of ABM are necessary to protect our retaliatory forces and other survivability options should not be precluded.

SOVIET OFFENSIVE SUPERIORITY

3. The offensive limitations agreement clearly does allow Soviet offensive force superiority.

It could be argued that the agreements do not themselves grant this superiority but only recognize an existing situation and at least freeze it before it becomes worse. There are major problems with that view:

First, politically and psychologically it is going substantially beyond recognition of the existing balance for the U.S. Congress formally to consent to it and for the U.S. Government formally to ratify it. To the world, we seem to be not only assuring an adverse balance but to be giving it our stamp of approval, codifying it as the law of the land, amid proclaiming it to all. This cannot help but have a deleterious effect on our foreign relations.

As the Secretary of Defense testified just last February, drawing upon only one force component as an example: "if we were placed in an inferior position where the Soviet Union would have substantially more ballistic missile submarines than the United States had, for instance, using this as an example, this could have a tremendous effect upon the future course of the United States from a foreign policy standpoint and from the standpoint of the will and determination of the United States." That is essentially what the third Sufficiency Criterion means. Yet, the agreement accepts that unhappy situation.

Many will find in U.S. acceptance of these agreements acceptance of a position of relative weakness for the decade of the 1970's, and will make their foreign policy decisions accordingly. It will seem to affirm that the United States is entering a period of introversion. The effects of this might be lessened somewhat by clear evidence that we do not intend to accept this permanently, but the acceptance of the terms of these agreements nonetheless will tend to be a dramatic testament to new Soviet strength and U.S. weakness.

THE CHANGING STRATEGIC BALANCE

Second, the terms of the agreements themselves could well make the balance more adverse than it now is by permitting the U.S.S.R. to build up its strategic offensive and defensive forces well beyond the existing situation, and by denying to the United States options necessary to cope with the growth and provide safe force survivability. While it is hoped that U.S. modernization programs will not be slowed by these agreements, the terms of the agreements do allow the threat to increase considerably and do require that the United States refrain from force survivability options during the lifetime of the agreement.

Third, to conclude that the situation 5 years from now would be much worse without these agreements requires the dual assumption that the Soviets will continue to deploy new ICBM's and SLBM's at a rate comparable to or higher than that of recent years (and that this

represents more of a risk than Soviet force modernization), and that the United States does nothing in response. Yet, the President has suggested that we would do quite a lot of response (an additional \$15 billion per year more) if there were no agreements. It is difficult to see how these agreements change the threat \$15 billion per year worth. In fact, while limiting such U.S. response, the agreements do not much change the expected 1975-77 threat. If the Soviets do a lot in the presence of the agreements, and we do comparatively little—as seems probable—the agreements could lead to a situation in 1977 much worse than that without the agreements.

The case that the situation would be worse 5 years from now without these agreements is based upon new projections that the Soviets would build 1,000 more ICBM's over the next 5 years and would increase their fleet of Y-class submarines to over 90. This is not only a curious reversal of past perennial predictions that such construction would soon level off and stop (the President has earlier wondered why the Soviets should want higher levels of launchers), it seems inconsistent with preagreement projections and expressions of concern.

From the last 2 years' Defense reports we get a picture of Soviet ICBM launcher construction coming to a stop, with no evidence that we expected—in the absence of these agreement—ICBM silo construction at the rate of 200 per year for 5 years. This year's report stated that the Soviets may have completed the construction of SS-9s, 11s, and 13s.

Y-class submarine construction, in contrast, was expected to continue at the present rate, which Dr. Kissinger has given as eight boats per year. In the spring of 1971 before this committee, the Secretary of Defense reported that the number of Soviet Y-boats "could reach 50 by mid-1975." At eight per year, that would imply 66, 5 years from now, not 90. This year's Defense report projects 41 to 42 boats by the end of 1973, which implies come 69 boats 5 years from now if the Soviets were to continue their present rate of rapid construction. This range of projections is far from the now suggested 90 boats but not a lot different from the 62 boats permitted the Soviet Union by the terms of the agreement. And, so far as I can tell, the agreement sets no limits on the number of Y-class submarines the Soviets could have in various stages of completion at the end of the 5-year period.

By contrast, in this year's Defense Report, the Secretary of Defense emphasized not an expected continued buildup of strategic offensive missile levels so much as their expected improvement, which the agreement follows. He stated that "future significant development in Soviet forces will probably lie in qualitative improvements," which, he said, constitute our "greatest concern." Similarly, in this year's State of the World message, the President observed that "The Soviet forces, even at current levels, have the potential of threatening our land based ICBM's." He further stated that the Soviets have the necessary technology for such improvements.

Finally, it must be concluded that, because of these considerations, the agreements do not promise a better situation 5 years from now, due to the agreements, nor do they themselves prevent a deterioration of the situation. Only we can do that.

SOVIET OBJECTIVES NOT KNOWN

4. We do not have as firm a foundation of knowledge about Soviet programs and capabilities as implied by the agreements or suggested by Dr. Kissinger at the Moscow press conference. And, despite 2 ½ years of strategic arms limitation talks, we certainly have no clear idea of Soviet objectives.

We are unable to know all we need to know about the qualitative capabilities of Soviet weapons systems, much less the nature and direction of Soviet R. & D., far less the extent of Soviet knowledge and the nature of Soviet interest in strategic forces. We have not been very good at predicting Soviet technology and objectives. Such matters are inherently uncertain. Our ability to assess Soviet weapons development contains many gaps, even in such critical areas as radar capability, missile accuracy, ballistic missile defense capability of SAM systems, warheads, and space activities. In testimony last year, the Assistant to the Secretary of Defense for Atomic Energy acknowledged that “We have little knowledge of the Soviet warhead designs, of their vulnerability, or of Soviet testing and development philosophy.”

ERRORS IN PAST ESTIMATES

Our projections of Soviet objectives and future capabilities have been seriously in error many times, a fact that should make us a bit humble about current projections and expectations. In 1965, even after the Soviet ICBM buildup had begun, Secretary of Defense McNamara publicly stated that the Soviets clearly had no intention of trying to close the gap in strategic forces or to compete quantitatively with the United States. Our projections of the Soviet buildup over the past several years regularly had it leveling off and stopping at far lower levels than were actually attained. When the buildup continued, we then predicted that the Soviet objective was to narrow the gap somewhat; then we predicted that it was, at most, to reach a rough equality in numerical ICBM levels (never in SLBM levels); and then to obtain an overall parity so that strategic arms limitations reflecting that parity could be reached.

The President recalled in his Foreign Policy Report this year that in 1969, we looked upon the drawing abreast of the Soviet Union in strategic forces as the opportunity for strategic arms limitations that would, for the first time, reflect a genuine parity. The Secretary of State acclaimed SALT in the fall of 1969 as the means to preserve the balance that then existed. The Secretary of Defense acknowledged in 1970, that we had not responded to the Soviet buildup because we believed that it was aimed at most at achieving numerical parity.

The fact is that all of our preparations for SALT in 1969 were based upon the premise, since proved erroneous, that the Soviet goal was only to narrow or at most overcome the strategic gap, that the Soviets had attained a strategic position satisfactory to them, and that Soviet willingness to engage in strategic arms limitation talks reflected the seriousness of their desire to reach an agreement establishing that position. The motivations we generally attributed to them, for no good reason, were mirror-image projections of our own principally based upon mutual assured destruction concepts and pressure of nondefense economic imperatives.

Neither the SALT record nor Soviet activities since SALT began supports such a premise.

DIFFERENCES IN U.S. AND SOVIET STRATEGIC DOCTRINE

5. Similarly, our uncertainty concerning Soviet strategic concepts remains greater than our knowledge, yet we continue to assume in our strategic and SALT planning that Soviet concepts and objectives are similar to our own. The weight of available evidence, I believe strongly suggests the opposite.

For some time in the United States it has been commonly believed that there are certain truths about strategic stability and the optimum strategic relationship, which only need to be learned to be accepted. We have tried to read our truths into Soviet activities. Where they did not fit it was a matter of Soviet error or misunderstanding, rather than a deliberate, considered, or final rejection of these truths. Little thought seems to have been given to the political insensitivity of these truths or to the fact that they were formulated in a different set of conditions than we face in the 1970's. The development of hardened silo launches for ICBM's and subsurface launching of missiles from submarines, together with an early stage in the development of missile accuracies and ASW capabilities, seemed to guarantee the survivability of second-strike retaliatory forces. ABM was undeveloped and, compared to money spent for offensive forces, unpromising. There were a few good prospects for damage limiting, for counterforce, and if one assumed that any efforts in those directions would only precipitate offsetting measures there was little reason to pursue such efforts. All of this led to the sanctity of assured destruction concepts, which—if followed by both sides—would lead to stability based upon mutual assured destruction. As Senator Brooke put it, "mutual deterrence depends on mutual vulnerability. It is in neither side's interest to threaten the other side's retaliatory forces."

Yet, developing a counterforce capability that threatens U.S. retaliatory forces is precisely what the Soviet Union has been doing. There is little evidence that the Soviets share our views on stability and preferred strategic relationships. And I know of nothing in the SALT record or the record of Soviet strategic force activities that persuades me that they do.

One of the major changes that should be made in approaching the next phase of SALT is in our general assumption of similarity of strategic concepts and objectives, or even compatibility of them.

POLITICAL CONSEQUENCES OF SOVIET STRATEGIC SUPERIORITY

6. There is a growing recognition that the Soviets would realize and exploit a political advantage from some form of strategic superiority or from the stalemate of U.S. strategic power. This itself is a reversal of the long prevailing notion in the U.S. that strategic forces confer no political benefits and have no political utility. The recognition is belated, but perhaps not so much that it is not useful to the formulation of U.S. and Allied policies. The realization that strategic superiority of the type the Soviet Union now seems to be seeking might also be usable militarily absorbs, I know, a good deal of the energies of the Department of Defense, but is not very widely accepted. One can only hope that the general recognition of this possibility is not too late.

Few seem to recognize this as a problem, probably due to lack of appreciation of the nature of the Soviet strategic buildup and to a residual conviction that deterrence will continue to exist and render a first strike irrational. Yet, Soviet strategic force development points clearly toward a possible future capability for a substantially disarming first strike with a fraction of the total force, enabling an overwhelming assured destruction capability to be held in reserve. Even if U.S. calculations show that surviving U.S. forces would retain some magical assured destruction capability (20 to 25 percent fatalities?), the question remains whether the United States would respond in such fashion given its reduced force, and only call down greater retaliatory destruction on itself. In other words, instead of the simple model of aggressive Soviet first strike and U.S. retaliation, we may face a situation where the Soviets could strike first and still retain their own assured destruction retaliatory force, leaving the United States in the position of being the initiator of nuclear war against civilian populace, and the Soviet Union in the position of being a retaliator. This is to what the President referred when he asked in his 1970 foreign policy statement if a President should “in the event of a nuclear attack, be left with the single option of ordering the mass destruction of enemy civilians, in the face of the certainty that it would be followed by the mass slaughter of Americans?” In his 1971 foreign policy statement, he emphatically rejected this—yet, it is precisely the situation we seem headed toward, and one that these agreements promise to ratify.

INTERIM AGREEMENT CANNOT BE PERMANENT

7. Because of all of these considerations, as I suggested at the outset, acceptance of these agreements must actually be based on the premise that the interim agreement is in fact interim and will lead directly to a better agreement. The agreements must be believed to be both interim and promotional of better agreements in the near future, or, as the delegation

stated, "U.S. supreme interests could be jeopardized." Further, as I have argued, the minimal condition for the acceptance of these agreements is the pursuit of the programs not disallowed by the agreements, including R. & D. and modernization.

That these agreements will promote the necessary follow-on agreements is possible. But this is only a promise, and we must recognize, first, that time promise may not be fulfilled, and, second, that its chances will be affected by what we do and do not do.

There is certainly ground for pessimism. If two and a half years of "serious and businesslike" negotiation would produce only these agreements, one may doubt the prospects that more beneficial agreements will necessarily follow. The President seemed to share this pessimism in his 1971 Foreign Policy Report when he said, "If all the effort that has gone into SALT were to produce only a token agreement, it could be counterproductive. There would be no reason to be confident that this could serve as a bridge to a more significant agreement."

When so much has been placed on the promise of a follow-on agreements justifying the risks of those agreements, we must very seriously consider the prospects of the Soviets agreeing to a future agreement that would correct the defects of the first and rescue the United States from a difficult situation. Why should they give up in SALT II what they gained or refused to give up in SALT I?

U.S. POSITION WEAKER IN SALT II

We will be entering SALT II relatively in a much weaker position than we entered SALT I. That is indisputable. What leverage will we have to encourage the negotiation of a corrective follow-on agreement? The only leverage we can possibly have, and the only prospect of a successful outcome for SALT II (however minimal), will be the clear demonstration that we intend to push forward to improve our forces and solve our own strategic problems in the presence of these agreements. If we do not show that we intend to disallow the Soviets meaningful superiority and substantial counterforce capabilities, I do not see that the Soviet Government will have much incentive to reach an agreement limiting those capabilities.

8. Finally, to wax a bit philosophically, we have clearly attributed too much to SALT and to what could be accomplished through strategic arms limitation agreements. From past official statements, the writings of some arms control specialists, and the news media, the theme issued that SALT represented about the last chance to do something about strategic arms control and the penalty for failing to do that something or other would be very high. The putative benefits from a SALT agreement and the dire consequences attributed to non-apocalyptic in nature at times. This has been an exaggeration in the extreme. Inasmuch as the strategic balance and the state of our security 5 years from now will be determined more by what we do and not do than by the agreements concluded—although, in my opinion, the agreements may make the handling of these problems more difficult—one may wonder

whether the real significance of the agreements lies in what they reflect rather than what they do.

UNITED STATES LACKS COHERENT NATIONAL STRATEGY

For various reasons, we have been unable to face realistically and cope with a dramatically changing strategic balance. We have not been able to firm up and hold to a coherent, agreeable national strategy, or to offer our citizens a strategic objective better than the guarantee of their assured destruction should deterrence fail. We have not even been able to maintain the four minimum criteria for strategic sufficiency that were determined just 3 years ago. We do not even use them as a measure of the effectiveness, success, or failure of these agreements.

We are evaluating these arguments by the narrow, shortsighted, and subminimal criterion of whether they leave us with an assured destruction capability. We are, in other words, using what was originally intended to be one analytical tool to use in evaluating forces as the sole strategic objective. And it appears that our energies over the next few years will be devoted primarily to the maintenance of that capability.

I do not believe that we can afford to rely upon assured destruction as the sole standard of strategic force sufficiency. Nor should we allow the Soviet Union a counterforce capability, measurable superiority, or the ability to limit our strategic flexibility and to coerce. The trends seem to be however, that we are doing all of that. I cannot imagine that most U.S. citizens will long remain satisfied with this situation.

Thank you, Mr. Chairman.

SITUATION WITH AND WITHOUT SALT

Senator JACKSON. Thank you, Dr. Van Cleave, for an excellent presentation here this morning.

I have a number of questions that I would like to ask.

One method of assessing the impact of the SALT accords on Soviet programs would be to compare what they are free to do under the agreement with what we have projected that they might have done in the agreement. Speaking generally, and without getting into precise estimates, how does the lower end of the spectrum of official estimates of the Soviet strategic offensive force for mid-1977 compare with the force permitted the Soviets under the SALT accords?

Dr. VAN CLEAVE. Senator I don't think there is much difference in these two levels. It depends upon what estimates and what projections we look at. The argument that the situation would be much worse 5 years from now is based on new projections that the Soviets would build 1,000 more ICBM launchers in the next 5 years and build up to a level of 90 or more Y-class submarines. As I stated this is a curious change from past perennial predictions that such construction would not continue at the rates we experienced in the 1965 to 1969 period. According to the last two defense reports and other pre-agreement public reports, except for construction activity related to a new, heavier ICBM, Soviet ICBM launchers construction slowing down with no evidence that we expect ICBM silo construction at the rate of 200 per year in 5 years. Y-class submarine construction, of course, was expected to continue at the present rate but Dr. Kissinger has given us eight boats a year. As I noted in my statement, recent, preagreement projections seemed to place expected levels of Y-boats 5 years from now in the neighborhood of 66 to 69 at that production rate.

It is clear that for the past 2 years expected modernization of Soviet forces has been regarded as most likely contingency and the greatest matter of concern to us and this is not at all stopped by the agreements. The significant and disturbing fact is that the threat permitted by the agreements, no matter with what it is compared, is too great particularly when we have denied ourselves important counter-measures.

Senator JACKSON. That is especially true of the land-based ICBM forces.

Dr. VAN CLEAVE. Yes, sir.

Senator JACKSON. Have estimates been subordinated to the need to defend the SALT agreements?

Dr. VAN CLEAVE. I have no way of answering that question.

Senator JACKSON. One begins to wonder, though, when one looks at what has been used to support the administration's momentum argument.

Dr. VAN CLEAVE. I have no knowledge of the reasons or basis for the projections given, although to one on the outside their credibility does not appear very great. I do not think they contribute to a proper evaluation of the agreements.

RETROFITTING OF SS-9'S

Senator JACKSON. The Soviets are very likely going to deploy a new missile as a follow-on to the SS-9. Under the terms of the interim agreement they are free to retrofit their 313 heavy silos to accommodate this new missile. How would the deployment of 313 new "heavy"

ICBM's over the next 5 years compare with what the Soviets could do in absence of the SALT agreement?

Dr. VAN CLEAVE. I don't see any difference between the two myself?

Senator JACKSON. It is virtually the same.

Dr. VAN CLEAVE. Virtually the same. In fact, to deploy 313 such missiles in 5 years would be to exceed somewhat the rate of deployment of heavy ICBM's to date. Again, though, I think we really have to expect maximum Soviet effort in the next few years to be in the modernization and improvement of existing forces toward a counterforce capability. They have sufficient force levels to afford that capability and we need now only improvements in those forms.

Senator JACKSON. The fact is that the introduction of MIRV into the Soviet force will require a very large retrofitting program. That alone will take up a large portion of their resources in this area alone. As you testified earlier, this is the more probable course they would follow, even without a SALT agreement; isn't that correct?

Dr. VAN CLEAVE. I agree, sir; I see nothing in the current agreements that would make me change my expectations of the Soviet activities over the next 5 years, or the development of the threat—unless, of course, it is in what we have and will deny to ourselves.

Senator JACKSON. How does a deployment, of 60 heavy ICBM's per year compare with the history of the deployment of the SS-9 force?

Dr. VAN CLEAVE. Sixty per year is, if we consider that the SS-9 deployment began around 1964, and looking only at SS-9 deployment, a somewhat greater pace. Looking at all ICBM deployment, SS-11's and 13's along with SS-9a, it is less than the peak ICBM deployment pace.

UPGRADING OF SOVIET FORCES

Senator JACKSON. Is it correct that an aggressive Soviet program of qualitative upgrading in which they were to replace SS-9 missiles with a follow-on, and SS-11's with a follow-on, could absorb virtually the entire Soviet ICBM production capability as we have seen that capability demonstrated in the past?

Dr. VAN CLEAVE. I should certainly imagine it would.

Senator JACKSON. Do you agree with the statement that the interim agreement halts the momentum of the Soviet ICBM program over the next 5 years?

Dr. VAN CLEAVE. I do not and if one takes the February defense reports expression of what constitutes greater concern, I think it would support that statement.

Senator JACKSON. Based on the statement of the Department of Defense itself?

Dr. VAN CLEAVE: That's right.

Senator JACKSON. In October 1970, I asked Ambassador Smith what options would be open to the United States if the Soviets, without adding to their land-based missile force, improved qualitatively so that it threatened the survival of Minuteman. Ambassador Smith replied as follows, and I quote:

You can harden to a certain extent: you can under the present proposal put in as many as 250 large missiles of any sort you like under any conditions of hardening you like. You can also become less vulnerable by switching to some form of seaborne missile system.

In view of the fact that the right to deploy credible hard point defense was given up some time ago and we later gave up the right to deploy 250 large, hardened missiles or to deploy a seaborne missile system, or by unilateral declaration, to deploy land mobile ICBM's, how are we to defend the Minuteman force from an upgraded Soviet offensive force?

VULNERABILITY OF MINUTEMAN

Dr. VAN CLEAVE: If these things are given away, it seems to me that the answer is clearly that we cannot. Certainly we cannot defend the force, and we have apparently by unilateral declaration given up mobility for the duration of the agreement. I am aware that there are options that have been suggested, such as converting the Minuteman force to surface ships, aircraft, things of that nature, which presumably would be allowed by the agreements, although to my knowledge, these have never seriously been considered major options for improving Minuteman survivability.

The question of Minuteman vulnerability, as you well know, can get involved in an inordinate numbers game depending upon the assumptions about the threat and so forth.

What should perhaps bother us more than anything else, I think, here is that having given up the options to defend Minuteman force, and having given up other attractive options for survivability, including the option of mobility by our own unilateral statement—

Senator JACKSON. By going to sea, for example?

Dr. VAN CLEAVE. Even giving up going to sea in terms of substituting more submarines and SLBM's for some Minuteman.

Senator JACKSON. We have given that up.

Dr. VAN CLEAVE. Yes, sir.

DISABLING ALTERNATIVES

What we should be very concerned about, therefore, is that we may find ourselves faced 5 years from now with an increased upgraded Soviet offensive force and very little alternative to launch on warning, which is not a desirable policy. Yet that seems to be the trend—giving up the survivability options.

Senator JACKSON. That would hardly be stabilizing, would it?

Dr. VAN CLEAVE. I would think people should be very concerned about that eventuality.

Senator JACKSON. The world as a whole ought to be deeply concerned that having given up means by which we can defend Minuteman—the ABM or the flexibility of moving some of that force to sea—our remaining option is a destabilizing one. Certainly, it should not be reassuring to people who say they are deeply concerned about the danger of accidental nuclear war. Launch-on-warning is one of the most destabilizing things one could imagine, isn't it?

Dr. VAN CLEAVE. It is certainly inconsistent with the President's repeated requests for flexibility of forces and for strategic options.

Senator JACKSON. I take it, then, that you are deeply concerned at the prospect, in the 1975-77 period, of a vulnerable Minuteman?

Dr. VAN CLEAVE. Yes, I am.

Senator JACKSON. Do you have any proposals that you would like to outline in connection with SALT II that might be useful in reducing the vulnerability of the Minuteman force?

Dr. VAN CLEAVE. I have no well thought out SALT II proposals on this. One of the major reasons is that it is now going to be very difficult to come up with any realistic proposal to reduce the threat to the survivability of forces by a follow-up SALT agreement. A MIRV ban is unrealistic, and coupled with what it would do to the effectiveness and adequacy of surviving forces would not do it anyway. We are either going to have to build up or convince them to come down. I don't know how we are going to convince them to come down, to

reduce the threat to our forces that they have built, particularly since all of their activities are looking as if they are pointed in the direction of a counterforce capability. It seems to me that we are left with a large measure of wishful thinking if we expect SALT II to solve such problems.

It would seem to me we have to put our attention now on whatever we can do to insure the necessary survivability and flexibility ourselves, including rethinking our attitudes about defense and about assured destruction.

Senator JACKSON. When you talk about counterforce, you are talking about a first-strike capability?

Dr. VAN CLEAVE. Yes, sir; in the connection of a Soviet threat to the survivability of our forces.

Senator JACKSON. I think it is important for the public record, Dr. Van Cleave, that you expand on precisely that point.

Dr. VAN CLEAVE. What I am concerned about here is not counterforce capabilities per se. I would like to see counterforce capabilities emphasized more for the United States. They are essential to any flexibility.

What I am concerned about is the Soviets having a significant—even though perhaps partially disarming—first-strike counterforce capability.

IMPLICATIONS OF SOVIET FIRST-STRIKE CAPABILITY

Many people now begin to appreciate the political implications of apparent first-strike disarming capability on the part of the Soviet Union. Not enough people, I think, yet recognize the possibility of the military implications of having this type of situation and yet I think it is clearly what we are going to be faced with.

If we look back at the way our strategy of assured destruction was developed, it was essentially based on a very simple model, which was that the Soviet Union would launch a strike at the United States and the only thing we had to be concerned about was that we had a sufficient force surviving to retaliate and inflict unacceptable urban and population damage in the Soviet Union. The very simple model presumed that essentially all Soviet forces would be launched in point of time before all of our response, that we would be free to retaliate and that the threat of this retaliation would rest not only on capability but also on its credibility. If we now get into a situation where a Soviet first disarming strike could be conducted with a fraction of Soviet strategic forces, with a large Soviet assured destruction force held in

reserve, then our assured destruction retaliatory capability doesn't seem to me to be very credible.

What we have then is not a situation of retaliation with a free ride. With only a reduced assured destruction force remaining, the United States is left in a position of being the initiator of a counter-city war at a time when that is the last thing I should think we would want to do.

Senator JACKSON. Could you sketch out a scenario that would cover what you have been discussing? I think it is a very important point.

Dr. VAN CLEAVE. Even if U.S. calculations show that surviving U.S. forces would retain some magic assured destruction capability, 20 to 25 percent of Soviet population, or whatever, the question now is more one of whether it is credible that the United States would so respond with the reduced force and only call down on itself retaliatory destruction.

The President himself has said that he has to have other options than that. The situation here is that the land-based retaliatory forces, if they are not survivable, may well be vulnerable to a Soviet counterforce-only strike with a small fraction of the Soviet strategic forces, perhaps as low as one-fourth, maybe even one-fifth depending upon what they do in MIRV's and accuracy and so forth. The question is, would we use our surviving force to Soviet industrial urban complexes when we would be faced at the time with a Soviet residual assured destruction force far greater than our own. It is the threat of that type of situation that may make us feel very, very insecure during the mid-1970's period and the later years of the 1970's and the spectre of that type of scenario cannot help but have the most profound political implications for our Government, our foreign relations, and Soviet behavior.

Senator JACKSON. As far as our diplomacy is concerned?

Dr. VAN CLEAVE. As far as anything we do in any confrontation or contest with the Soviet Union and as far as what any of our allies or any of the other nations in the world do when they are choosing how to conduct their own foreign and defense policy.

Senator JACKSON. In other words, let us suppose that, between now and 1977, the Soviets develop the capability to knock out Minuteman and our land-based bomber force, leaving us with whatever Polaris boats happened to be on station. I take it that it is your judgment that this remaining force is hardly a credible deterrent for an American President in dealing with the Soviet Union, especially since the Soviets would have their SS-11's and Y-boats in reserve, a force which could knock out all of our cities and certainly all human life in North America.

In your judgment, that is hardly a credible deterrent, is that right?

Dr. VAN CLEAVE. I should think that would be a wholly unsatisfactory situation and yet that is one I see us heading toward.

Senator JACKSON. That is what you foresee unless some very strong measures are taken?

Dr. VAN CLEAVE. That's right.

Senator JACKSON. This could well be the kind of situation we could find ourselves in by the end of 5 years or even before, is that what you're saying?

Dr. VAN CLEAVE. That's right, particularly with the Soviet Union having a 62-boat force of Y-class submarines with an overwhelming retaliatory capability.

You recall the 1969 Safeguard debates really presented the threat only in terms of the SS-9. The SS-11 was never at that time expected to figure the problem of Soviet counterforce capabilities and yet according to testimony by the Director of Defense Research and Engineering, now we have the spectre of an accurate SS-11 force which may even have multiple reentry vehicles, and that means it is not any longer solely a counter urban-industrial force if it ever was.

Senator JACKSON. So that in the time frame that we are talking about here, we have to recognize the fact that unless strong measures are taken, the Soviets could be in a position to knock out Minuteman and or land-based bombers?

Dr. VAN CLEAVE. That's right.

SOVIET RISK-TAKING

Senator JACKSON. In your judgment, when the Soviets know they have this capability, and they know we don't have the means to provide for the survivability of our own land-based strategic forces, what impact will this knowledge have on Soviet diplomatic, military, and political behavior in the world?

Dr. VAN CLEAVE. I would expect to be faced with a Soviet Union that is much more adventuresome and willing to take risks than anything that we have had in the past.

Senator JACKSON. The level of Soviet risk-taking will go up?

Dr. VAN CLEAVE. The level of risk-taking will go up considerably.

Senator JACKSON. When the Soviets faced a confrontation with the United States in Cuba in October of 1962, as I recall, we had about a 7 to 1 strategic advantage over the Soviets. Isn't that correct?

Dr. VAN CLEAVE. Thereabout, I would say, in intercontinental force.

Senator JACKSON. Nevertheless, one would say that Cuba involved a high level of risk taking on Moscows part, since they were trying to sneak missiles into Cuba in order to tilt the strategic balance. Isn't that correct?

Dr. VAN CLEAVE. Yes, sir.

Senator JACKSON. What you are saying, then, is that even when the Soviets were in a nuclear inferior position, they nevertheless took risks which were considered dangerous both to the cause of peace and to our vital national security interests.

Dr. VAN CLEAVE. That's right.

Senator JACKSON. Would you say that their risk-taking and their intransigence, and their toughness in negotiations during confrontations are all going to increase?

Dr. VAN CLEAVE. I would say that. I would say that we had a difficult enough time checking the Soviet Union and extending strategic deterrence to allies when we had a 5 to 1 superiority. I can't imagine what it is going to be like with the situation that these agreements seem to freeze.

Senator JACKSON. Dr. Van Cleave, it is said over and over again we have enough nuclear warheads to kill everyone in the world five times over. This is the standard response that is made when one talks about the need to improve our strategic forces qualitatively and quantitatively.

Some of these people say there are over 7,000 nuclear warheads in Europe alone, and that is enough, by itself, to deter the Soviets. I would appreciate having your comments on this so-called "overkill doctrine."

"OVERKILL" FALLACY

Dr. VAN CLEAVE. The "overkill doctrine" was developed several years ago on a very simple proposition that numbers of nuclear warheads could be compared with the amount of population in urban centers and if there were more than enough warheads to kill a number of undefended Soviet cities we had overkill. No strategic considerations were involved and the U.S. apparently struck first. The crux of the matter, however, is that the United States has

a very clear second strike doctrine, and the number of surviving warheads is the important consideration; it is not the number of warheads we have now. Indeed, the number of warheads we have now is almost irrelevant to this type of consideration; it is the number of warheads we expect to survive. We deploy forces to deter, to promote stability, and hopefully to be effective if deterrence fails. We don't know how many warheads it takes to deter—nobody knows that—but what we do know is that 7,000 tactical nuclear warheads in Europe, if that is what there is would be considerably reduced by any expected serious Soviet first strike in Europe, and the same thing with the strategic forces. In both cases our concern is with the surviving forces and the credibility of their employment. Moreover, while we might put 16 missiles on one Poseidon boat with 10 warheads each and count that as 160 warheads, it might look to the other side as one aim point.

Senator JACKSON. But an adversary who strikes first has a tremendous advantage; isn't that true?

Dr. VAN CLEAVE. I am concerned about the capability to reduce my force levels and force effectiveness and I can't determine that capability by comparing numbers of warheads. I can look at his capability, including the combination of warheads, accuracy and payload, and I can look at the vulnerability of my systems. That is the strategically relevant thing.

Senator JACKSON. We have to ask not only how many warheads we will have left after a first strike but also how many effective delivery vehicles we will have left after a first strike.

Dr. VAN CLEAVE. And not only that, what can I expect to do with them. If I base deterrence solely on the threat of counter city retaliation, the simple fact that this might be a convenient tool for an analyst to evaluate strategic forces doesn't mean the President of the United States is going to want to conduct military operations according to that standard. So I have to know what I have left, what the effectiveness of the delivery vehicles might be, what the probability of penetration is and what range of targets I can attack.

SOVIET ABM SYSTEM

Senator JACKSON. Do you believe that, in the absence of a SALT Agreement, the Soviets would have deployed a nationwide ABM system?

Dr. VAN CLEAVE. In the absence of a SALT agreement?

Senator JACKSON. Yes; in this time period.

Dr. VAN CLEAVE. In this time period?

Senator JACKSON. Five years.

Dr. VAN CLEAVE. No; I certainly don't think so in that time period, not an active deployed nationwide system—I don't see how they could. Although I do believe that the Soviets are more interested in defense than we are and I doubt that SALT has changed that.

Senator JACKSON. It would be pretty difficult to deploy a nationwide ABM system in the Soviet Union in the next 5 years.

Dr. VAN CLEAVE. On the other hand, the Department of Defense is on record many, many times testifying that the Soviet ABM radar base that currently exists lends itself to at least a thick regional defense in the Moscow area and that certainly is not limited by the agreement.

SOVIET STRATEGIC DOCTRINE

Senator JACKSON. Do you have any reason to believe the Soviets accept a simple doctrine of assured destruction?

Dr. VAN CLEAVE. None whatsoever. I know of nothing in their literature, nothing in their doctrine, nothing in their force activities, nothing in the record of the past 2 years that would support that.

Senator JACKSON. The overall strategic capability that they have developed to date would indicate just the reverse—

Dr. VAN CLEAVE. They are not playing the game by our rules; that is pretty clear.

Senator JACKSON. Did any of your discussions in SALT reflect in any way on this particular aspect of strategic doctrine, that is, the Soviet attitude with regard to assured destruction?

Dr. VAN CLEAVE. I cannot comment in open hearings on any discussions that actually went on during the strategic arms limitation talks. I could only say generally that I haven't changed my view on the basis of my participation in them.

Senator JACKSON. Should the President be left with the single option of striking Soviet cities with submarine-launched missiles in the event that the U.S. land-based deterrent is destroyed in a Soviet first strike?

Dr. VAN CLEAVE. I think that would be an intolerable situation. The President himself has said that. Further, I wouldn't expect the President to exercise that option if that were his only option available.

Senator JACKSON. What other options should he have available to him if we are going to have a sound strategic policy?

Dr. VAN CLEAVE. It seems to me we have to have the options conducting limited strategic operations, particularly counterforce, and of limiting damage to ourselves in a significant way, and I think we ought to look very seriously again at our position on defense, including civil defense. I think we ought to look very seriously at the capabilities we have for rapid force reprogramming and retargeting and for the ability to conduct timely counterforce operations; and, furthermore, I don't think that doing that, contrary to existing majority opinion, would create a more destabilizing situation in our strategic relationships with the Soviet Union. It is quite clear to me that is the way they are going. I don't see that anything they have done in the last 5 years suggests otherwise.

Senator JACKSON. Then you don't accept the view that Soviet behavior reflects only what we do?

Dr. VAN CLEAVE. I think that is an erroneous mechanistic proposition.

Senator JACKSON. The action-reaction model?

Dr. VAN CLEAVE. I think one could very clearly make use of that action-reaction on the other way around and have much of the record support that the Soviets take the opportunities that we present to them, not for the purpose of stability in our terms but for their own purposes. We don't know what the Soviets' intentions were when they started their strategic force buildup; it may even have been as we expected in the 1960's, simply to achieve a situation of rough equality with us in numerical indexes, probably because they didn't expect that we would give them the opportunity to reach strategic superiority; but when it became clear that our declaratory statement of the 1960's represent our policy, and the opportunity arose that strategic superiority could be gained, the Soviet leaders seized the opportunity.

The same thing goes for a counterforce, first strike. If we indicate clearly we are not going to defend our retaliatory forces, we are not going to take the necessary survivability measures, I think we merely encourage development of a counterforce capability rather than the prevailing concept that our abstinence discouraging it. It doesn't make any sense to me.

U.S. STRATEGIC OPTIONS

Senator JACKSON. Are you satisfied that these agreements leave us in 1977 with adequate forces to enable the President to carry out other options?

Dr. VAN CLEAVE. Not the agreements by themselves. On the other hand, the agreements by themselves do not necessarily preclude all modernization necessary to carry out many options.

Senator JACKSON. Let me put it this way: Do you feel that under the treaty and under the interim agreement we have left to us the means by which we can provide for a credible strategic deterrent?

Dr. VAN CLEAVE. Well—

Senator JACKSON. I am not saying we will necessarily do it. But given what is permitted in the agreements could we do it if the right decisions are made?

Dr. VAN CLEAVE. We have to approach the answer to that by asking deter what? If we mean deterring, for example, attack on allies such as NATO by the threat of U.S. strategic action, I don't think that deterrent exists any longer and I think the agreement tends to guarantee that it won't exist and tell the world it won't exist. This is the nuclear umbrella type of deterrent. If we mean deterring the type of counterforce only attack or types of situations that would arise in a crisis, this depends upon our ability to guarantee that we have no vulnerable tempting forces. The agreements themselves do not do that. They do not promise the situation will not deteriorate. In terms of deterring all-out attacks on the United States, I think there are things we can do even with the agreements and should do that would indeed increase the chances of a credible deterrent against that type of an attack in 1977. It is just a matter of whether or not we are going to do these things or whether we are going to be very complacent about the fact that we have reached strategic arms limitation agreements, whether we are going to continue putting an awful lot of importance on reaching future strategic limitation agreements as the way to solve our strategic problems.

The case can be made, disregarding Safeguard ABM, that the position we are in now is that we are not going to be ready to deploy new programs in the next few years and what we need to do now is to conduct a very vigorous program in research and development especially in those various areas where we have options for survivability of forces and those areas where we could increase force effectiveness and flexibility. I think if we push on those programs during the next 2 or 3 years it is the minimum conditions we have to do in the presence of these agreements.

Senator JACKSON. In other words, to really achieve a survivable force that will be credible in the eyes of the Soviet Union?

Dr. VAN CLEAVE. It is the minimum that we can do and, also, it is the only thing that I can see that will at all hold out any hopes for a beneficial follow-on agreement.

Senator JACKSON. Dr. Van Cleave, you are spending the summer in Europe teaching. What have you observed of European reaction to SALT?

Dr. VAN CLEAVE. Many of the people I have talked to in Europe, and this includes some defense and foreign policy specialists, are quite concerned about the implications of these SALT agreements and what it means for the United States to accept this drastically changed balance. They are very concerned themselves about the implications for Europe, for extended deterrence, very concerned about what indications these may give of the major trends that I noted in my opening remarks.

Senator JACKSON. Especially by the people who have the responsibilities in connection with defense planning?

Dr. VAN CLEAVE. By people who work on defense problems. I found that much attention is given not only to the changed strategic balance but also to anything that will give them perception of the way we are regarding the strategic balance, and the decade of the seventies. Many of them tend to look at the agreements this way.

There is wide knowledge of statements by U.S. officials about the changed strategic balance implication. They are quite well aware that Dr. Kissinger has said, for example, that it is a more difficult decision for the President of the United States to risk general nuclear war when the strategic equation is this than it was throughout most of the postwar period, therefore, the possibility of defending other countries with strategic American power is fundamentally changed and no amount of reassurances on our part can change these facts.

OUTCOME AT SALT II

Senator JACKSON. Would the present agreements be acceptable as a permanent agreement?

Dr. VAN CLEAVE. Definitely not. The present agreements, as I said before, may be acceptable as a calculated risk only upon the premise they are indeed interim agreements. In my view, the two agreements themselves don't even go together.

Senator JACKSON. Do you have any reason to believe the Soviets will be more generous in SALT II than SALT I? If not, what moves on our part would be most effective in getting from SALT II, the kind of permanent arrangement which will provide both sides with survivable strategic forces that will protect their vital national interests?

Dr. VAN CLEAVE. Personally I am afraid there is not a lot of evidence that one can adduce to reach the conclusion that the Soviet Union will be more malleable in terms of helping us solve our strategic problems in SALT II than the Soviet Union was in SALT I. If there are any prospects of success at all, I think it will come only from a clear demonstration that we are

now going to turn our attention to solving our own strategic force problems, that we are going to push the modernization programs that are consistent with the agreements, push the research and development we are allowed to do, particularly toward survivability and flexibility options. If we don't push these things strongly—indeed it seems to me, the agreements require a new reinvigoration of R. & D. and force modernization—and make clear the intent of the United States to abrogate both agreements, when required, we will not reach a more beneficial agreement.

Senator JACKSON. You said a moment ago that the two SALT agreements don't even go together. I wonder if you could elaborate a bit on that point.

Dr. VAN CLEAVE. What I mean by that is simply that with the restrictions on defense, on ABM, in the ABM Treaty, the offensive levels allowed by the agreements are intolerable. With the offensive levels allowed by the agreements, we need a much freer rein on defense. That was always the position of the U.S. Government, to my knowledge, in the past. The levels of defense and the levels of offense had to be linked and the current levels of offense seem to me to be totally intolerable with the restrictions we have put on our defense, particularly when we have given up, as well, other important options for survivability.

CREDIBILITY OF U.S. ABM

Senator JACKSON. On that point, what do you think of the limitation of 100 interceptors at each of the two ABM sites?

Dr. VAN CLEAVE. Well—

Senator JACKSON. Is that credible?

Dr. VAN CLEAVE. I obviously don't think very much of it at all. On the other hand, I would say if we go ahead and build the structure of radar and other supporting elements, the interceptors themselves can be deployed very, very rapidly. The important thing is the radar support and if we will do it we are allowed quite a bit of development in that area.

Senator JACKSON. But we have always maintained that in connection with our hard point defense, that we need far more than 100 interceptors to have a credible ABM defense at a given site. Isn't that correct?

Dr. VAN CLEAVE. Well, 100 interceptors per se is just not strategically significant in site defense or defense of retaliatory forces. About the worst thing one can do is to limit the defense to a particular level, then allow an offensive threat that is greater than that. We have told the Soviet Union or anybody else what margin of forces they need to overcome it.

Senator JACKSON. The public gets the idea that we have two sites now that can help protect our retaliatory capability—the one in North Dakota to defend ICBM’s and the Washington, D.C., site to protect the vital decisionmaking process.

In your judgment are these ABM defense arrangements credible or effective?

Dr. VAN CLEAVE. The ABM defense arrangements for the defense of our retaliatory forces are not very effective in a strategic sense. They are important to keep the program alive and to give us operational experience. I think continuation of that program is absolutely necessary if we are going to keep options open in 1975 to 1977 and I believe very strongly we have to keep ABM defense options open for that period.

Senator JACKSON. I was only addressing myself to effectiveness.

Dr. VAN CLEAVE. The effectiveness of 100 Interceptors—

Senator JACKSON. Under the limitations imposed.

Dr. VAN CLEAVE. It isn’t very much as far as ICBM defense goes. It could be significant for the defense of the NCA, particularly if we develop the type of radar capability that we possibly could for the area and deploy new, longer-range and improved interceptor missiles. If we did it right we could get an enormous amount of area coverage in the NCA defense that could be quite significant.

Senator JACKSON. Dr. Van Cleave, we’re in your debt for making this long trip to be here and to offer, I think, some extremely helpful comments. You have the unique advantage of coming from the academic world with a background of real experience in the decisionmaking process in the strategic arms field. This cannot help but aid us in the review and analysis of the testimony that has been offered here in connection with the ABM treaty and the interim agreement. So I want to commend you for your help to the committee by your presence here today, for your very fine statement and for your enlightening responses.

Dr. VAN CLEAVE. Thank you, Senator.

Senator JACKSON. Thank you.

The committee will stand adjourned.

(Whereupon, at 11 :20 a.m., the hearing was adjourned, to reconvene subject to the call of the chair.)

