



Scott A. Cuomo



The United States and its allies need a different approach to deter China in the Western Pacific. After building islands in the South China Sea's disputed waters, claiming they were for peaceful purposes, China recently militarized them. Chinese military units then threatened U.S., allied, and civilian ships and aircraft operating in the region. These Chinese forces are backed by the world's best conventionally-armed, land-based missile force. U.S. Intermediate-Range Nuclear Forces Treaty compliance and reluctance to field autonomous weapons has limited the Pentagon's ability to counter Chinese actions. This article describes a new approach that enables achieving U.S. security goals in Asia.

he Intermediate-Range Nuclear Forces (INF) Treaty is remembered as one of President Ronald Reagan's most important strategic accomplishments. By deploying land-based intermediate-range cruise and ballistic missiles to Europe, Reagan was able to get Soviet Premier Mikhail Gorbachev to the negotiating table and eliminate that class of nuclear weapons, thereby making America's European allies more secure as well as boosting comparative U.S. advantages in air and sea domains. And while the INF Treaty deserves its hallowed place in American Cold War history, "history" is the key word. Today, the treaty forces strategic liabilities on the United States that are increasingly unacceptable — especially given the rise of Chinese military power.1

These liabilities seem to be understood in the White House. President Donald Trump has said

that he intends to withdraw the United States from the treaty, citing Russian violations of the agreement dating to 2014.² How and whether this would occur is still unclear, but, crucially, the president also expressed a willingness to remain committed to an INF-type treaty, if Russia agrees to return to compliance and China finally becomes a signatory.³ National Security Adviser John Bolton has reportedly expressed a similar sentiment.⁴

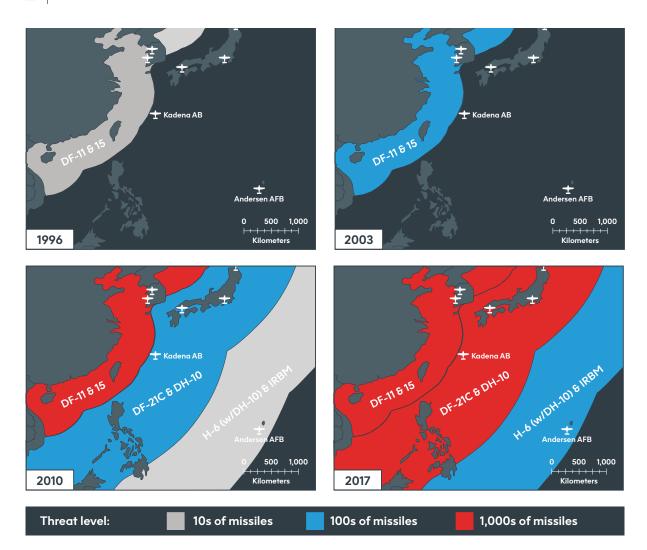
The White House arrived at this position after Congress and military leaders publicly voiced concerns about the treaty. In light of Russian violations of its treaty obligations and China's growing asymmetric advantage in land-based missiles threatening U.S. interests in Asia, the latest National Defense Authorization Act requires the president to determine if the "prohibitions set forth in Article VI of the INF Treaty remain binding

¹ Evan Braden Montgomery, "Contested Primacy in the Western Pacific: China's Rise and the Future of U.S. Power Projection," *International Security* 38, no. 4 (Spring 2014): 115-49 and James Holmes, "Visualize Chinese Sea Power," *Proceedings*, June 2018, 27-31.

² David E. Sanger and William J. Broad, "U.S. to Tell Russia It Is Leaving Landmark I.N.F. Treaty," New York Times, Oct. 19, 2018, https://www.nytimes.com/2018/10/19/us/politics/russia-nuclear-arms-treaty-trump-administration.html.

³ Radio Free Europe/Radio Liberty, "U.S. to Terminate Arms-Control Treaty Over Russia's 'Violations,'" Oct. 21, 2018, https://www.youtube.com/watch?v=vbwHLdHIMeA.

⁴ John Hudson and Paul Sonne, "Bolton Pushes Trump Administration to Withdraw from Landmark Arms Treaty," Washington Post, Oct. 19, 2018, https://www.washingtonpost.com/world/national-security/bolton-pushes-trump-administration-to-withdraw-from-landmark-armstreaty/2018/10/19/f0bb8531-e7ce-4a34-b7ba-558f8b068dc5_story.html.



Map 1: How China's Land Attack Capacity Has Grown Between 1996 and 2017 6

on the United States as a matter of United States law."⁵ In April 2018, the incoming commander of U.S. Pacific Command (what soon became U.S. Indo-Pacific Command) told the Senate Armed Services Committee that "China is now capable of controlling the South China Sea in all scenarios short of war with the United States." A year earlier, his predecessor told the same committee that the INF Treaty, signed in 1987, was one of

the primary reasons for Chinese dominance in the disputed waters. Reagan and Gorbachev agreed in the treaty to prohibit their militaries from possessing, producing, and flight-testing ground-launched ballistic and cruise missiles that could hit targets at distances of 500 to 5,500 kilometers. This prohibition applies to both nuclear and conventionally armed missiles. China possesses an arsenal of land-based conventional and nuclear

^{5 &}quot;Adherence to and Compliance with Arms Control, Nonproliferation, and Disarmament Agreements and Commitments," State Department, July 2014, https://www.state.gov/documents/organization/230108.pdf; Thomas Shugart and Javier Gonzalez, First Strike: China's Missile Threat to U.S. Bases in Asia (Washington, DC: Center for a New American Security, June 2017); Karoun Demirjian, "Lawmakers Take Steps Toward Nullifying Nuclear Arms Treaty with Russia," Washington Post, May 10, 2018, https://www.washingtonpost.com/powerpost/lawmakers-seek-to-void-nuclear-arms-treaty-with-russia/2018/05/10/a3f07d70-545d-11e8-9c91-7dab596e8252_story.html; H.R. 5515, "John S. McCain National Defense Authorization Act for Fiscal Year 2019," July 2018, 1029–34, https://docs.house.gov/billsthisweek/20180723/CRPT-115hrpt863.pdf.

⁶ This map has been reprinted here with permission from the RAND Corporation. It is an adaptation of the original, which can be found in Eric Heginbotham et al., *The U.S.-China Military Scorecard: Forces, Geography, and the Evolving Balance of Power, 1996–2017*, RR-393-AF, (RAND Corporation, September 2015), https://www.rand.org/pubs/research_reports/RR392.html.

^{7 &}quot;Advance Policy Questions for Admiral Philip Davidson, USN, Expected Nominee for Commander, U.S. Pacific Command," April 17, 2018, https://www.armed-services.senate.gov/imo/media/doc/Davidson_APQs_04-17-18.pdf.

^{8 &}quot;Hearing to Receive Testimony on United States Pacific Command and United States Forces Korea," Senate Armed Services Committee, April 27, 2017, https://www.armed-services.senate.gov/imo/media/doc/17-36_04-27-17.pdf.

^{9 &}quot;Treaty Between the United States of America and the Union of Soviet Socialist Republics on the Elimination of Their Intermediate-Range and Shorter-Range Missiles (INF Treaty)," State Department, Dec. 8, 1987, https://www.state.gov/t/avc/trty/102360.htm.

intermediate-range missiles that threaten U.S. basing facilities and ships in the Western Pacific.¹⁰ These missiles are also a threat to U.S. allies and partners in the region that allow American military forces to operate from their territory.

If China were a signatory to the INF Treaty, approximately 95 percent of these missiles would be illegal as they fall within the range prohibition. Beijing is not a signatory, however, and has made clear that it has no desire to be. Hence, China has a strategic asymmetric advantage over the United States in the Western Pacific.

Many scholars and analysts of international security have joined the growing number of senior U.S. military leaders publicly acknowledging this Chinese threat.¹³ Members of Congress have voiced concerns as well.¹⁴ Before the president's October comments about withdrawal, such discussions had not generated a sense of urgency to act. And even since President Trump's intent to withdraw from the INF Treaty was reported, arms control advocates have continued to push for the United States to remain committed without adequately accounting for the treaty's debilitating impact on U.S. security interests in Asia.¹⁵

This must change if the United States is to regain its military dominance and associated deterrent capabilities in the Western Pacific. To be clear, China's ground-launched ballistic and cruise missiles are among the U.S. military's core conventional-warfighting challenges in Asia today. Beijing has exploited Washington's compliance with the 31-year-old INF Treaty in three primary ways. First, it has fielded thousands of ground-launched ballistic and cruise missiles that put at risk the U.S. military's forward-basing posture in the Western Pacific, along with American ships

at sea in the region. These include around 2,000 conventionally armed, land-based short-range ballistic missiles (those with a range of 300 to 1,000 kilometers), medium-range ballistic missiles (1,000 to 3,000 kilometers), intermediate-range ballistic missiles (3,000 to 5,500 kilometers), and ground-launched cruise missiles (range of more than 1,500 kilometers).¹⁶

Second, while China has fielded relatively inexpensive ground-launched missiles, the U.S. military has attempted to counter or offset them with exponentially more expensive missiledefense systems, as well as short-range, low observable tactical aircraft, ships, submarines, and long-range bomber delivery-based platforms. In other words, the United States is on the wrong side of an exponential cost-curve imbalance when it comes to trying to deter China conventionally. This approach would not have been as problematic in 1987, when the United States' gross domestic product was 18 times the size of China's.¹⁷ It is today though. The United States' gross domestic product is now only one and a half times the size of China's. Worse, except for the option of limitedcapacity long-range bombers, employing the other capabilities would require putting thousands of Americans in harm's way well within range of China's ground-launched missiles.

Third, China is simultaneously leveraging its asymmetric advantage in ground-launched ballistic and cruise missiles to increasingly build and occupy key terrain within what Beijing considers its "blue soil" marked by the "nine-dash line" in the South China Sea. That includes emplacing advanced areadenial systems such as HQ-9 surface-to-air missiles and YJ-12 supersonic anti-ship cruise missiles. China views this terrain as vital to its interests

¹⁰ Shugart and Gonzalez, First Strike, 4.

¹¹ Eric Sayers, "The Intermediate-Range Nuclear Forces Treaty and the Future of the Indo-Pacific Military Balance," War on the Rocks, Feb. 13, 2018, https://warontherocks.com/2018/02/asia-inf/.

¹² Ankit Panda, "The Uncertain Future of the INF Treaty," Council on Foreign Relations, Oct. 22, 2018, https://www.cfr.org/backgrounder/uncertain-future-inf-treaty.

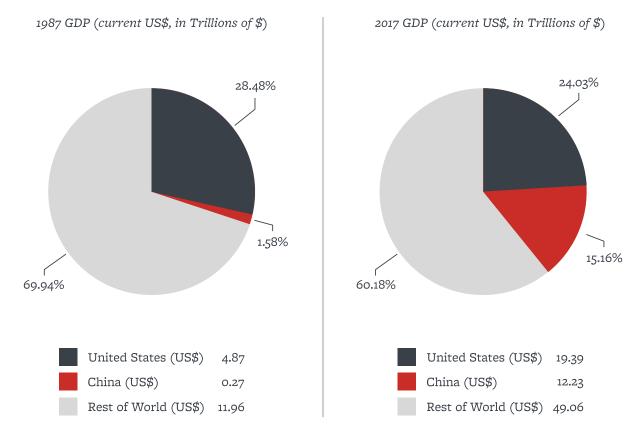
¹³ See, for example, Jim Thomas, "Statement Before the House Armed Services Subcommittee on Strategic Forces on the Future of the INF Treaty," July 17, 2014, https://csbaonline.org/research/publications/future-of-the-intermediate-range-nuclear-forces-inf-treaty/publication; Sayers, "The Intermediate-Range Nuclear Forces Treaty and the Future of the Indo-Pacific Military Balance"; Patrick M. Cronin and Hunter Stires, "China Is Waging a Maritime Insurgency in the South China Sea. It's Time for the United States to Counter It," National Interest, Aug. 6, 2018, https://nationalinterest.org/feature/china-waging-maritime-insurgency-south-china-sea-its-time-united-states-counter-it-28062; Elbridge Colby and Jonathan F. Solomon, "Avoiding Becoming a Paper Tiger: Presence in a Warfighting Defense Strategy," Joint Force Quarterly 82, no. 3 (2016), 24-32, http://ndupress.ndu.edu/Portals/68/Documents/jfq/jfq-82/jfq-82_24-32_Colby-Solomon.pdf; and David Ochmanek et al., U.S. Military Capabilities and Forces for a Dangerous World: Rethinking the U.S. Approach to Force Planning (RAND Corporation, 2017), xii and 10-11, https://www.rand.org/pubs/research_reports/RR1782.html.

¹⁴ As one example, see the dialogue between Sen. Tom Cotton and Adm. Harry B. Harris Jr. in "Hearing to Receive Testimony on United States Pacific Command and United States Forces Korea," Senate Armed Services Committee, April 27, 2017, https://www.armed-services.senate.gov/imo/media/doc/17-36_04-27-17.pdf.

¹⁵ See, for example, Steven Pifer, "The Trump Administration Is Preparing a Major Mistake on the INF Treaty," Brookings Institution, Oct. 19, 2018, https://www.brookings.edu/blog/order-from-chaos/2018/10/19/the-trump-administration-is-preparing-a-major-mistake-on-the-inf-treaty/.

¹⁶ Defense Department, "Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2017," 57, https://www.defense.gov/Portals/1/Documents/pubs/2017_China_Military_Power_Report.PDF.

¹⁷ The gross domestic product comparative data are from the World Bank, https://data.worldbank.org/indicator/NY.GDP.MKTP.CD?locations=CN.



(Data taken from the World Bank)

for military and economic purposes and claims historical rights to it. These claims continue despite the Philippines — a U.S. mutual defense treaty ally for 67 years — and multiple U.S. partner nations doing the same, despite the U.N. Convention on the Law of the Sea, and despite the Permanent Court of Arbitration in The Hague ruling in Manila's favor in *Philippines v. China.*¹⁸

With Russia continually refusing to return to compliance and China unlikely to become a party to the INF Treaty, the Trump administration had four policy options. First, Washington could have continued to surrender U.S. conventional warfighting superiority in the Western Pacific and leaned ever more heavily on its nuclear deterrent. Second, the United States could have deepened and broadened investments in sea- and air-launched missile delivery platforms — which are not proscribed by the INF Treaty — in an attempt to regain conventional superiority. Third, Washington

could have looked to emerging technologies, such as hypersonic weapons and artificial intelligence (AI)-enabled lethal autonomous weapons systems, as possible alternative solutions. Finally, the United States could have sought to somehow renegotiate the INF Treaty or, failing that, exercised its right to withdraw from the treaty in order to field ground-launched ballistic and cruise missiles. It seems that the Trump administration determined the fourth option was the soundest, including leaving the renegotiation option on the table.¹⁹

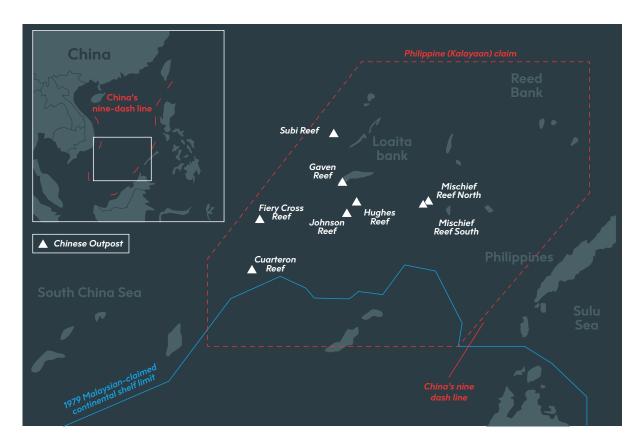
Given where things stand, U.S. policy responses going forward should be anchored in three main goals: First, seek to maximize America's alliances and security partnerships in Asia, which represent asymmetric advantages.²⁰ Second, when doing so, appreciate that for the \$13 billion cost of a single new U.S. Gerald Ford-class aircraft carrier, China can field an estimated 1,227 DF-21D "carrier killer" medium-range ballistic missiles.²¹ By shifting U.S.

¹⁸ Gregory B. Poling and Conor Cronin, "The Dangers of Allowing U.S.-Philippine Defense Cooperation to Languish," War on the Rocks, May 17, 2018, https://warontherocks.com/2018/05/the-dangers-of-allowing-u-s-philippine-defense-cooperation-to-languish/; and Cronin and Stires, "China Is Waging a Maritime Insurgency in the South China Sea."

¹⁹ Radio Free Europe/Radio Liberty, "U.S. to Terminate Arms-Control Treaty Over Russia's 'Violations.'"

²⁰ Michael J. Green, By More Than Providence: Grand Strategy and American Power in the Asia Pacific Since 1783 (New York: Columbia University Press, 2017), 543.

²¹ Henry J. (Jerry) Hendrix, "At What Cost a Carrier," Center for a New American Security, March 2013, 8, https://s3.amazonaws.com/files.cnas.org/documents/CNAS-Carrier_Hendrix_FINAL.pdf?mtime=20160906080533.



Map 2: China is increasingly militarizing artificial islands in the South China Sea.²⁴

military acquisition priorities away from "few and exquisite" to "small, many, and smart" systems, ²² America could complicate Chinese targeting processes and political leaders' calculus of risk escalation as well as increase interoperability opportunities with allies. Third, as part of the shift in acquisition strategy, prioritize relatively low-cost and quickly fieldable long-range, conventionally-armed, ground-launched weapons systems, including ones capable of operating autonomously after a human "starts the loop."²³

To achieve these goals, the United States should remain open to renegotiating the INF Treaty to account for an increasingly multipolar world. If such efforts prove untenable, the United States should finalize the president's tentative decision to withdraw from the treaty. As President Trump has indicated,²⁵ this is certainly not the optimal course, but it is still a better option than the status quo. U.S. policymakers should also clarify the intent of Defense Department Directive 3000.09, "Autonomy in Weapons Systems."²⁶ Specifically, they should clearly define what is meant by "human judgment" when the policy says that "[a]utonomous and semi-autonomous weapon systems shall be designed to allow commanders and operators to exercise appropriate levels of human judgment over the use of force."²⁷ Simultaneous with these efforts, the United States should work with treaty allies and potential partners in Asia to leverage these types of

²² T.X. Hammes, "The Future of Warfare: Small, Many, Smart Vs. Few & Exquisite?" War on the Rocks, July 16, 2014, https://warontherocks.com/2014/07/the-future-of-warfare-small-many-smart-vs-few-exquisite/.

²³ Thomas, "Statement Before the House Armed Services Subcommittee on Strategic Forces on the Future of the INF Treaty"; Jeff Cummings, Scott Cuomo, Olivia Garard, and Noah Spataro, "Marine Warbot Companies: Where Naval Warfare, the U.S. National Defense Strategy, and Close Combat Lethality Task Force Intersect," War on the Rocks, June 28, 2018, https://warontherocks.com/2018/06/marine-warbot-companies-where-naval-warfare-the-u-s-national-defense-strategy-and-close-combat-lethality-task-force-intersect/. Additionally, for more information on lethal autonomous weapons, including those reported in China's inventory, see Paul Scharre, Army of None: Autonomous Weapons and the Future of War (New York: W.W. Norton, 2018), 47–50.

²⁴ This image, which has been modified, is from the Defense Department's "Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2017," 11, https://www.defense.gov/Portals/1/Documents/pubs/2017_China_Military_Power_Report.PDF.

²⁵ Radio Free Europe/Radio Liberty, "U.S. to Terminate Arms-Control Treaty Over Russia's 'Violations."

²⁶ Department of Defense Policy Directive 3000.09, "Autonomy in Weapon Systems," May 8, 2017, http://www.esd.whs.mil/Portals/54/Documents/DD/issuances/dodd/300009p.pdf.

^{27 &}quot;Autonomy in Weapon Systems."

weapons to offset Chinese asymmetric advantages. Washington will also have to enhance its strategic communications and operational war plans to account for the increased capabilities.

Some critics might argue that these suggestions merely replicate what China is doing to the United States and its allies. This is not the case. Instead, the proposed solutions are based on a multipolar

[A]ppreciate that for the \$13 billion cost of a single new U.S. Gerald Ford-class aircraft carrier, China can field an estimated 1,227 DF-21D "carrier killer" mediumrange ballistic missiles.

international system in which the Western, rules-based international order that has existed since the end of World War II is in jeopardy. While appreciating these realities, the strategy seeks to ensure that the United States can maintain its mutual defense treaty obligations, assure regional partners, and deter further Chinese military aggression in the Western Pacific.²⁸ Simultaneously, the strategy seeks to provide increased escalation options for U.S. policymakers with the continued goal of securing American interests and maintaining peace in Asia.

The remainder of this article proceeds in six parts. Before looking ahead, I begin with a history of how the United States arrived at its disadvantageous position. Only then can one fairly analyze possible options to enable the American military to restore full-spectrum conventional — in parallel with nuclear — warfighting dominance in the Western Pacific in accordance with the latest *National Security Strategy*. Next, the four potential options discussed above must be weighed. Based on that analysis, I recommend a new strategic approach for the U.S. military in

the Western Pacific rooted in renegotiating or exercising America's right to withdraw from the INF Treaty. Then, I consider possible objections to the recommended strategic approach. Finally, this paper summarizes the recommended way forward to provide policymakers with the best chance for achieving America's security interests in Asia.

Blunted Edge: How America Lost Its Conventional Dominance in the Western Pacific

To understand America's perilous position in Asia, one has to wind back the clock 40 years to explore the INF Treaty, which was a product of strategic challenges in Europe. The late 1970s and early 1980s ushered in one of the tensest periods of the Cold War. Most Americans of a certain age and those who work in national security likely have seared in their minds images of U.S. helicopters lifting evacuees from a rooftop in Saigon in 1975. America's defeat in Vietnam was followed a year later by the Soviet Union fielding the SS-20 "Saber" intermediate-range ballistic missile in Europe.30 The Soviet military leadership believed that deploying this advanced missile system was essential to ensuring that the Warsaw Pact had equal or greater ability than the United States to deliver nuclear strikes in the European theater. This would enable the Soviet Union to undermine "the credibility of the U.S. nuclear guarantee to Western Europe."31 After extensive debates and deliberations, NATO's leadership announced a dual-track decision on Dec. 12, 1979, in response to the Soviet SS-20 fielding: The United States would deploy 108 Pershing II intermediate-range ballistic missiles and 464 Tomahawk groundlaunched cruise missiles in Britain, Italy, West Germany, Belgium, and the Netherlands, unless the SS-20s were removed.32 Five weeks earlier, 52 U.S. diplomats and citizens were taken hostage in Tehran, starting their 444-day detention inside an Iran that had just transitioned from a strategic Western ally to a fierce opponent.33 Twelve days

²⁸ Michael J. Mazarr, "The Real History of the Liberal Order: Neither Myth Nor Accident," Foreign Affairs, Aug. 7, 2018, https://www.foreignaffairs.com/articles/2018-08-07/real-history-liberal-order.

²⁹ National Security Strategy of the United States of America, White House, December 2017, https://www.whitehouse.gov/wp-content/uploads/2017/12/NSS-Final-12-18-2017-0905-2.pdf.

³⁰ David Holloway, "The Dynamics of the Euromissile Crisis, 1977–1983" in *The Euromissile Crisis and the End of the Cold War*, ed. Leopoldo Nuti, Frederic Bozo, Marie-Pierre Rey, and Bernd Rother (Washington, DC: Woodrow Wilson Center Press, 2015), 11–12; and Richard Rhodes, *Arsenals of Folly: The Making of the Nuclear Arms Race* (New York: Alfred A. Knopf, 2007), 134–35.

³¹ Holloway, "The Dynamics of the Euromissile Crisis, 1977–1983," 12–13.

³² Holloway, "The Dynamics of the Euromissile Crisis, 1977–1983," 16–17.

³³ Martin Walker, The Cold War: A History (New York: Henry Holt, 1993), 246–48.

after NATO's announcement on the Pershing II and Tomahawks, Soviet troops invaded Afghanistan.³⁴ Cold War tensions were arguably higher than at any point since the Cuban missile crisis.

After campaigning on increasing military might and statements such as "peace is not obtained or preserved by wishing and weakness," Ronald Reagan was elected U.S. president on Nov. 4, 1980. He received 489 electoral votes, the highest number in history by a non-incumbent. Between 1981 and 1987, the Pentagon's budget increased in real terms by 45 percent. On March 23, 1983, Reagan announced his Strategic Defense Initiative, the bold and controversial proposal often referred to as "Star Wars," which he described as having the "ultimate goal of eliminating the threat posed by strategic nuclear missiles" by "means of rendering these nuclear weapons impotent and obsolete." 37

On Sept. 1, 1983, Korean Air Lines Flight 007 departed New York en route to Seoul via Anchorage. The Korean flight veered 360 miles off course and into Soviet airspace,³⁸ where a Soviet Sukhoi-15 and MiG-23 intercepted it. Shortly thereafter, KE007 crashed into the Sea of Okhotsk, killing on impact all 269 passengers, including 61 Americans, one of whom was U.S. Rep. Larry P. McDonald.³⁹ Reagan described the incident as "an act of barbarism" and a "crime against nature."⁴⁰ Soviet leaders suggested that the event was a "pre-planned American provocation" and that the United States was "on a collision course with the Soviet Union."⁴¹

Tensions escalated even higher later in 1983. NATO exercise Able Archer, executed Nov. 2 through Nov. 11,42 focused on practicing the

coordination requirements within the alliance's command structure to authorize the use of nuclear weapons. In a key difference from previous exercises, this one involved actual U.S. and NATO leadership.43 Soviet intelligence closely followed these leaders' movements and assessed that they indicated a U.S. intent to "ensure a reliable first nuclear missile strike."44 Soviet leaders responded by ordering the forward-loading of tactical nuclear weapons onto aircraft in East Germany capable of striking into West Germany.45 The situation escalated to the point where one analyst described the United States and Soviet Union as "apes on a treadmill," inadvertently stumbling ever closer to nuclear war. Further intensifying matters, the first 16 Tomahawk missiles that were part of the 1979 dual-track decision arrived in England on Nov. 14.46 Eight days later, the first Pershing II missiles arrived in West Germany. Soviet leaders responded by walking out of pre-scheduled INF talks and lifting a voluntary moratorium on their own intermediate-range nuclear weapon deployments.⁴⁷

Fortunately, the tensions never reached a boiling point. Reagan's fervent beliefs that "no one can 'win' a nuclear war" and his desire to engage with Soviet leadership were the primary reasons. 48 From his initial days in office, Reagan wanted to reduce the risks of nuclear war, including by cutting U.S. and Soviet arsenals, eventually to zero. As early as November 1981, he offered Soviet leaders a zero-zero plan to eliminate all INF-range missiles in Europe. 49 When the Soviets continued to refuse these offers, however, Reagan, together with NATO leaders, shared that the alliance would proceed with

- 36 Rhodes, Arsenals of Folly, 149.
- 37 Rhodes, Arsenals of Folly, 175.
- 38 Rhodes, Arsenals of Folly, 160–63.
- 39 Rhodes, Arsenals of Folly.
- 40 Rhodes, Arsenals of Folly, 162; and Ronald Reagan, An American Life (New York: Simon and Schuster, 1990), 582–86.
- 41 Dmitry Adamsky, "Not Crying Wolf': Soviet Intelligence and the 1983 Scare," in *The Euromissile Crisis and the End of the Cold War*, ed. Leopoldo Nuti, Frederic Bozo, Marie-Pierre Rey, and Bernd Rother (Washington, DC: Woodrow Wilson Center Press, 2015), 56-57.
- 42 Adamsky, "'Not Crying Wolf.'"
- 43 Rhodes, Arsenals of Folly, 164.
- 44 Adamsky, "'Not Crying Wolf,'" 56-57.
- 45 Rhodes, Arsenals of Folly, 165.
- 46 Rhodes, Arsenals of Folly, 166.
- 47 Rhodes, Arsenals of Folly, 166.
- 48 Reagan, An American Life, 550; and Melvyn P. Leffler, "Ronald Reagan and the Cold War: What Mattered Most," Texas National Security Review 1, no. 3 (May 2018): 77–89, http://hdl.handle.net/2152/65636.

³⁴ Rhodes, Arsenals of Folly, 60-61.

³⁵ Andrew Axelrod, "Hours After Assassin's Release Ronald Reagan's Family Publish Controversial Statement," *Life Aspire*, Aug. 10, 2016, http://www.lifeaspire.com/6613/man-who-attempted-to-kill-reagan-released-from-psychiatric-hospital/.

⁴⁹ Reagan, An American Life, 550; and Marilena Gala, "The Euromissile Crisis and the Centrality of the 'Zero Option," in *The Euromissile Crisis and the End of the Cold War*, ed. Leopoldo Nuti, Frederic Bozo, Marie-Pierre Rey, and Bernd Rother (Washington, DC: Woodrow Wilson Center Press, 2015), 161–62.

the Tomahawk and Pershing II deployment. Reagan became increasingly convinced, as he explained to the British Parliament in June 1982, that "our military strength is a prerequisite to peace." In logic that is almost inconceivable more than three decades later, the tension-filled stumbling toward nuclear war in November 1983 helped provide for the United States what Reagan later described as "its strongest position in two decades to negotiate with the Russians from strength." ⁵¹

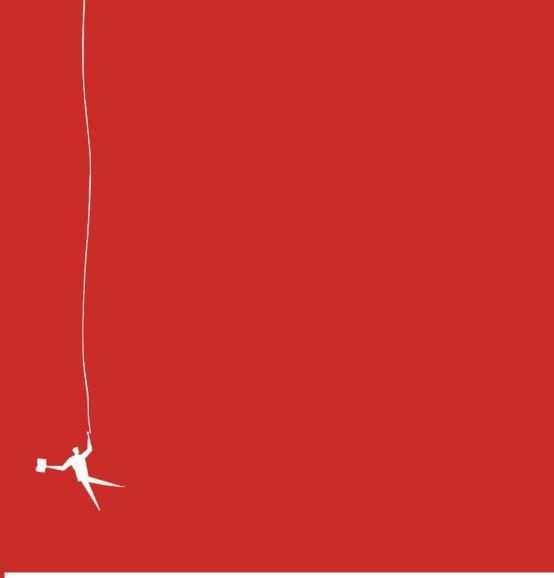
This position of strength was soon reinforced by a key change within the Soviet Union. In March 1985, Mikhail Gorbachev became general secretary of the Communist Party.52 Similarly to Reagan, Gorbachev believed that "nuclear war cannot be won and must never be fought."53 He also believed, perhaps in part due to the Soviet Union's deep economic challenges, that these facts "made meaningless the arms race and the stockpiling and modernizing of nuclear weapons."54 When he made these comments, Washington and Moscow possessed the combined equivalent of "1.5 million Hiroshimas" worth of nuclear weapons.55 And on the central front in Europe, roughly 975,000 Warsaw Pact troops stood opposite NATO's 814,300 soldiers.⁵⁶ Something had to give.

In April 1985, Gorbachev announced that he was suspending SS-20 missile deployments in Europe.⁵⁷ He met with Reagan for the first time at the Geneva summit in November.⁵⁸ Five months

after this breakthrough summit, tragedy struck in the Soviet Union when a nuclear reactor exploded at the Chernobyl power plant.⁵⁹ The explosion caused more than 4,300 casualties.⁶⁰ The accident reinforced for Reagan and Gorbachev just how tenuous the proposition of mutually assured destruction really was and why it was so important to make serious progress on nuclear weapons reductions.⁶¹ This belief served as the foundation for their signing the INF Treaty in December 1987.⁶²

Over the next four years, the Soviet Union and United States eliminated 1,800 and 800 groundlaunched missiles, respectively, with ranges of 500 to 5,500 kilometers.⁶³ After the Soviet Union's demise in 1991, the United States decided to maintain the treaty with the Russian Federation and the other Soviet successor states, and the compliance inspection regime continued until 2001.⁶⁴ Of note, due to concerns from Japan that the Soviet Union might remove missiles aimed toward Western Europe east of the Urals and turn them toward Tokyo, American negotiators insisted that the treaty ban both signatories from possessing a single missile within these ranges anywhere in the world. 65 Additionally, in the late 1980s, China's emergence as a major world power - one that would eventually field around 2,000 missiles banned by the INF Treaty — was not anticipated.66 Thus, China's inclusion as a treaty signatory was never considered.

- 50 Reagan, An American Life, 554.
- 51 Reagan, An American Life, 586-87.
- 52 Reagan, An American Life, 11–13.
- 53 Rhodes, Arsenals of Folly, 212; Elizabeth C. Charles, "Gorbachev and the Decision to Decouple the Arms Control Package," in *The Euromissile Crisis and the End of the Cold War*, ed. Leopoldo Nuti, Frederic Bozo, Marie-Pierre Rey, and Bernd Rother (Washington, DC: Woodrow Wilson Center Press, 2015), 66–84; and James Graham Wilson, "The Nuclear and Space Talks, George Shultz, and the End of the Cold War," in *New Perspectives on the End of the Cold War: Unexpected Transformations?* ed. Bernhard Blumenau, Jussi M. Hanhimaki, and Barbara Zanchetta (New York: Routledge, 2018). 35.
- 54 Rhodes, Arsenals of Folly, 212
- 55 Rhodes, Arsenals of Folly, 69.
- 56 Rhodes, Arsenals of Folly, 219.
- 57 Howard A. Tyner, "Gorbachev Offers Gesture on Missiles," *Chicago Tribune*, April 8, 1985, http://articles.chicagotribune.com/1985-04-08/news/8501200149_1_gorbachev-plan-soviet-leader-soviet-american-relations.
- 58 Reagan, An American Life, 11–16.
- 59 Rhodes, Arsenals of Folly, 3–26 and 227–28.
- 60 Rhodes, Arsenals of Folly, 21.
- 61 Reagan, An American Life, 676, 685, and 710; Charles, "Gorbachev and the Decision to Decouple the Arms Control Package," 81; and Svetlana Savranskaya, "Learning to Disarm: Mikhail Gorbachev's Interactive Learning and Changes in the Soviet Negotiating Positions Leading to the INF Treaty," in The Euromissile Crisis and the End of the Cold War, ed. Leopoldo Nuti, Frederic Bozo, Marie-Pierre Rey, and Bernd Rother (Washington, DC: Woodrow Wilson Center Press, 2015), 90–91.
- 62 INF Treaty, https://www.state.gov/t/avc/trty/102360.htm.
- 63 INF Treaty, https://www.state.gov/t/avc/trty/102360.htm.
- 64 Panda, "The Uncertain Future of the INF Treaty."
- 65 Sayers, "The Intermediate-Range Nuclear Forces Treaty and the Future of the Indo-Pacific Military Balance"; and David T. Jones, "Asian Arms Control Attitudes Post-INF," in *The Reagan-Gorbachev Arms Control Breakthrough: The Treaty Eliminating Intermediate-Range Nuclear Force Missiles*, ed. David T. Jones (Vellum, 2012), 263–76.
- 66 Jones, "Asian Arms Control Attitudes Post-INF," 272-76.



FORTUNATELY, THE TENSIONS NEVER REACHED

A BOILING POINT. REAGAN'S FERVENT

BELIEFS THAT "NO ONE CAN 'WIN'

A NUCLEAR WAR" AND HIS DESIRE

TO ENGAGE WITH SOVIET LEADERSHIP

WERE THE PRIMARY REASONS.

Nearly 30 years after Reagan and Gorbachev signed the INF Treaty, the U.S. State Department determined in July 2014 that Russia had violated its commitment when developing the SSC-8 ground-launched, intermediate-range missile.67 Since then, Russia reportedly has deployed the illegal missile system on training exercises.68 In March 2017, U.S. Air Force Gen. Paul Selva, the vice chairman of the Joint Chiefs of Staff, confirmed the violation and deployment in a House Armed Services Committee hearing.69 He also explained that there is no reason to believe that Russia intends to resume compliance with the INF Treaty, which arguably should not have been a surprise given that as early as 2005, then-Russian Defense Minister Sergey Ivanov proposed to Defense Secretary Donald Rumsfeld that both countries should jointly withdraw from the treaty as it was no longer consistent with contemporary security conditions.70 A month later, in a Senate Armed Services Committee hearing about Chinese ballistic and cruise-missile developments, the head of Pacific Command reconfirmed the Russian violation of the INF Treaty and agreed with Republican Sen. Tom Cotton of Arkansas when he stated, "that means the United States is the only country in the world — the only country in the world — that unilaterally refuses to build missiles that have a range of 500 to 5,500 kilometers."71 A year after this exchange, when commenting on the INF Treaty language in the 2019 National Defense Authorization Act, Republican Rep. Michael R. Turner of Ohio said that "you cannot have a treaty with oneself, and that's the situation we're in ... we need to recognize reality."72

China's Strategy

Over the past two decades, China has aggressively pursued and heavily invested in land-based missiles as part of an anti-access/area-denial strategy.73 This strategy has focused on countering U.S. military capabilities in the Western Pacific, including forward bases throughout Japan and Guam, as well as locations of frequent rotational positioning in the Philippines and Australia.⁷⁴ Pentagon estimates indicate that China possesses around 1,200 conventionally armed short-range ballistic missiles, 200 to 300 conventionally armed mediumrange ballistic missiles, an unknown number of conventionally armed intermediate-range ballistic missiles, and 200 to 300 conventionally armed ground-launched cruise missiles.75 In 2015, RAND estimated that China's ballistic missiles have improved guidance systems that allow them to strike within minutes fixed targets accurate to within only a couple of meters.⁷⁶

These missiles are all part of China's "projectile-centric strategy," which includes close integration of cyber, counterspace, counter-air, and electronic warfare capabilities. It seeks to take advantage of China's geographic "home turf" position relative to the United States, to exploit American and U.S. allied lack of depth (particularly given the concentration of forces in Japan), and to leverage financial asymmetries such as the aforementioned "carrier killer" medium-range ballistic missile versus U.S. aircraft-carrier cost imbalance." Notably, this strategy also seeks to exploit the United States' obligation to abide by the INF Treaty, while China has no such hindrance. Put another

^{67 &}quot;Adherence to and Compliance with Arms Control, Nonproliferation, and Disarmament Agreements and Commitments," State Department, 2018, https://www.state.gov/t/avc/rls/rpt/2018/280532.htm; and Nuclear Posture Review, Defense Department (February 2018), 10, https://media.defense.gov/2018/Feb/02/2001872886/-1/-1/1/2018-NUCLEAR-POSTURE-REVIEW-FINAL-REPORT.PDF.

⁶⁸ Matthew Kroenig, "Washington Must Respond to Russia's New Nuclear Missile," Atlantic Council, Feb. 14, 2017, http://www.atlanticcouncil.org/blogs/new-atlanticist/trump-must-respond-to-russia-s-new-nuclear-missile.

⁶⁹ John M. Donnelly, "Hill Wants Answers on Russia's Fielding of New Missiles," Roll Call, March 8, 2017, https://www.rollcall.com/news/hill-wants-answers-russias-fielding-new-missiles.

^{70 &}quot;Consequences and Context for Russia's Violations of the INF Treaty," House Armed Services Committee, March 30, 2017, https://armedservices.house.gov/legislation/hearings/consequences-and-context-russias-violations-inf-treaty; and Jeffrey Lewis, "So Long, INF?" Arms Control Wonk, March 10, 2005, https://www.armscontrolwonk.com/archive/200470/so-long-inf/.

^{71 &}quot;Hearing to Receive Testimony on United States Pacific Command and United States Forces Korea," https://www.armed-services.senate.gov/imo/media/doc/17-36_04-27-17.pdf.

⁷² Demirjian, "Lawmakers Take Steps Toward Nullifying Nuclear Arms Treaty with Russia."

⁷³ Stephen Biddle and Ivan Oelrich, "Future Warfare in the Western Pacific: Chinese Antiaccess/Area Denial, U.S. AirSea Battle, and Command of the Commons in East Asia," *International Security* 41, no. 1 (Summer 2016): 7–48, https://dx.doi.org/10.1162/ISEC_a_00249; and Sayers, "The Intermediate-Range Nuclear Forces Treaty and the Future of the Indo-Pacific Military Balance."

⁷⁴ Montgomery, "Contested Primacy in the Western Pacific"; Shugart and Gonzalez, *First Strike*; and Defense Department, "Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2017," 57, https://www.defense.gov/Portals/1/Documents/pubs/2017_China_Military_Power_Report.PDF?ver=2017-06-06-141328-770.

⁷⁵ Shugart and Gonzalez, First Strike, 4.

⁷⁶ Eric Heginbotham et al., The U.S.-China Military Scorecard: Forces, Geography, and the Evolving Balance of Power 1996–2017 (RAND Corporation, September 2015), 47–54, https://www.rand.org/content/dam/rand/pubs/research_reports/RR300/RR392/RAND_RR392.pdf.

⁷⁷ Heginbotham et al., The U.S.-China Military Scorecard.

way, China has successfully employed a relatively inexpensive "projectile-centric strategy" against America's cost-prohibitive and transitory platform-based delivery (i.e., aircraft, ship, and submarine) alternative. Additionally, China is executing this strategy with a PLA Rocket Force (PLARF), the strength of which is around 100,000 people, which is approximately 10 times the size of the U.S. 20th Air Force, America's main ballistic-missile unit.

What does all this mean when it comes to potential conventional military conflict between the United States and China? In 2017, Thomas Shugart and Javier Gonzalez, two active-duty U.S. Navy fellows assigned to the Center for a New American Security and Johns Hopkins University Applied Physics Laboratory, respectively, conducted an extensive modeling and simulation effort to find out. The results showed the "potential for devastation of U.S. power projection forces and bases in Asia."80 While using only about 20 percent of the PLARF's short-range ballistic missiles, 25 percent of its medium-range ballistic missiles, and 34 to 95 percent of its ground-launched cruise missiles (depending on source), the simulation demonstrated that within minutes after launch the following U.S. capabilities in Japan could be struck: all major command fixed headquarters, almost all U.S. ships in port, nearly every runway at all U.S. airbases, and more than 200 aircraft that were trapped due to runway cratering.81 Shugart and Gonzalez's realistic modeling and simulation effort confirmed this 2013 assessment of China scholar Ian Easton:

The Chinese military may achieve strategic effects that until recently were only achievable through the use of nuclear weapons...during the Cold War, both NATO and Warsaw Pact forces tasked nuclear

missile units with the mission of destroying the other's key air bases. The PLA plans to achieve the same effect with a relatively small number of ballistic missiles armed with conventional runway penetrating submunitions.⁸²

Such dire predictions are likely why the incoming and outgoing heads of U.S. Pacific Command expressed in congressional testimony their serious concern with America's continued commitment to the INF Treaty.

conjunction implementing with "projectile-centric strategy," China is steadily increasing its economic and military influence in the South China Sea and beyond. The most recent electronic warfare, HQ-9 surface-to-air missile, and YJ-12 supersonic anti-ship cruise-missile deployments in the Spratly Islands are just a few examples of the influence extension. A recent fleet naval exercise, including a Chinese aircraft carrier sailing near Taiwan, was another.83 Beyond these military actions, China is leveraging its growing economy to buy influence in key locations in Asia as well. After U.S. special forces helped the Filipino Marine Corps destroy the Islamic State of the Levant (ISIL)/Islamic State Province in East Asia in Marawi last year, Chinese investors swooped in to help rebuild the town.84 Further south, Chinese businesses are heavily investing in Darwin, Australia.85 Darwin is home to a deep-water port and multiple nearby strategic airfields and bases that the U.S. military uses and that were used extensively in World War II. Additionally, in April 2018, Chinese investors bid to build an airfield and shopping mall complex on Guadalcanal in the Solomon Islands.86 Between August 1942 and February 1943, in the first offensive U.S. land battle in the Pacific during World War II,

⁷⁸ Hendrix, "At What Cost a Carrier."

⁷⁹ Shugart and Gonzalez, First Strike, 2.

⁸⁰ Shugart and Gonzalez, First Strike, 1.

⁸¹ Shugart and Gonzalez, First Strike, 13; T.X. Hammes, "America Is Well Within Range of a Big Surprise, So Why Can't It See?" War on the Rocks, March 12, 2018, https://warontherocks.com/2018/03/america-is-well-within-range-of-a-big-surprise-so-why-cant-it-see/. For more on the increasing lethality of such weapons, see Keir A. Lieber and Daryl G. Press, "The New Era of Counterforce: Technological Change and the Future of Nuclear Deterrence," International Security 41, no. 4 (Spring 2017): 9-49, https://doi.org/10.1162/ISEC_a_00273.

⁸² Ian Easton, "China's Military Strategy in the Asia-Pacific: Implications for Regional Stability," Project 2049 Institute, Sept. 26, 2013, 13–14, https://project2049.net/2013/09/27/chinas-military-strategy-in-the-asia-pacific-implications-for-regional-stability/.

⁸³ James Pearson and Greg Torode, "Exclusive: Satellite Images Reveal Show of Force by Chinese Navy in South China Sea," Reuters, March 27, 2018, https://www.reuters.com/article/us-china-defence/exclusive-satellite-images-reveal-show-of-force-by-chinese-navy-in-south-china-sea-id-USKBN1H3135

⁸⁴ Ben C. Solomon and Felipe Villamor, "Filipinos Get a Glimpse of Their Ruined City. The Chinese Get the Contract," New York Times, April 10, 2018, https://www.nytimes.com/2018/04/10/world/asia/marawi-duterte-china-rebuilding.html.

⁸⁵ Helen Davidson, "Chinese Company Secures 99-Year Lease of Darwin Port in \$506M Deal," *Guardian*, Oct. 13, 2015, https://www.theguardian.com/australia-news/2015/oct/13/chinese-company-secures-99-year-lease-of-darwin-port-in-506m-deal.

⁸⁶ Bernard Lagan, "Australia Fears China's Military Might on Pacific Isle," *Times* (London), May 1, 2018, https://www.thetimes.co.uk/article/australia-fears-china-s-military-might-on-pacific-isle-cdh36vl9z.

1,490 Americans were killed in action, with 4,804 others wounded, seizing Guadalcanal from the Japanese.⁸⁷ One of the mission's main purposes was to establish an airfield to enable the Allied "island hopping" campaign to continue further to the west.

Cumulatively, China's steady pressure over multiple decades, steps often just short of instigating a war, have left U.S. policymakers in an extremely tenuous position. In response to China's increasingly aggressive actions, they have had three options: They could begrudgingly accept Chinese gains; protest by means of increasingly less effective and more dangerous freedom-of-navigation exercises; or hope that America's nuclear superiority alone will prevent China from ever attempting to seize Taiwan, disputed territory within the Senkaku Islands, or other claimed territories in the South China Sea.⁸⁸

Unipolar Moment, Counterterrorism, and U.S. Priorities, 1991 to 2017

After the collapse of the Soviet Union and the decisive U.S.-led military victory expelling Saddam Hussein's army from Kuwait in 1991, numerous scholars and foreign policy analysts argued that the bipolar order of the Cold War had been replaced with America's "unipolar moment." In a *Foreign Affairs* article titled "The Unipolar Moment," Charles Krauthammer wrote:

It has been assumed that the old bipolar world would beget a multipolar world with power dispersed to new centers in Japan, Germany (and/or "Europe"), China and a diminished Soviet Union/Russia. [This is] mistaken. The immediate post-Cold War world is not multipolar. It is unipolar. The center of world power is an unchallenged superpower, the United States, attended by its Western allies.⁸⁹

Such unipolar euphoria continued throughout the 1990s and into the early 21st century. Part of this euphoria included U.S. officials' desire to further integrate China into the global economy. At the time, China's military expansion was not a major concern. Instead, further opening the Chinese economy to Western markets was a top priority. For this reason, the U.S. encouraged and welcomed China's entrance into the World Trade Organization in November 2001.

In the winter of 2001, the United States was newly engaged in war in Afghanistan. After the Sept. 11, 2001 attacks, countering terrorism was America's foremost national security priority. Terrorism remained the steady priority for nearly 17 years, consistently consuming a preponderance of U.S. policymakers' attention and budgeting resources in campaigns that expanded from Afghanistan to Iraq, Syria, Libya, Yemen, Somalia, Pakistan, Niger, Mali, and other undisclosed locations. The U.S. Navy's senior intelligence officer in the Pacific recently described the Defense Department's priorities since 2001 in an article titled "How We Lost the Great Pacific War":

Moving limited resources from the desert to the fleet was a challenge. Every year brought a new fight in the Mideast, which, while never an existential issue for the nation, carried the urgency of real-world operations. Saying no to U.S. Central Command for anything required steeling the soul for bureaucratic battle.⁹¹

Given the primary national security focus in U.S. Central Command and the Middle East since 2001, combined with enduring INF Treaty constraints on the United States and the overly lengthy celebration of America's unipolar moment, China could not have picked a more appropriate strategy to deliberately and patiently reassert itself in the Western Pacific.

<u>U.S. Goals in the</u> Indo-Pacific in the Future

During a January 2018 speech at Johns Hopkins University's Paul H. Nitze School of Advanced International Studies, U.S. Defense Secretary James Mattis announced, "Inter-state strategic competition, not terrorism, is now the primary concern in U.S. national security." Mattis's

⁸⁷ Aaron B. O'Connell, *Underdogs: The Making of the Modern Marine Corps* (Cambridge, MA: Harvard University Press, 2012), 46–48; and Edwin Howard Simmons, *The United States Marines: A History* (Annapolis, MD: Naval Institute Press, 1974), 136–37.

⁸⁸ Cronin and Stires, "China Is Waging a Maritime Insurgency in the South China Sea. It's Time for the United States to Counter It."

⁸⁹ Charles Krauthammer, "The Unipolar Moment," Foreign Affairs 70, no. 1 (1990/1991), 23, https://www.foreignaffairs.com/articles/1991-02-01/unipolar-moment.

^{90 &}quot;China Officially Joins WTO," CNN, Nov. 11, 2001, http://www.cnn.com/2001/WORLD/asiapcf/central/11/10/china.WTO/index.html.

⁹¹ Dale Rielage, "How We Lost the Great Pacific War," *Proceedings* 144, no. 5 (May 2018), https://www.usni.org/magazines/proceedings/2018-05/how-we-lost-great-pacific-war.

⁹² William Braniff and Alex Gallo, "New Defense Strategy Requires Paradigm Shift in US Counterterrorism," Hill, Jan. 27, 2018, http://thehill.com/opinion/national-security/370748-new-defense-strategy-requires-paradigm-shift-in-us-counterterrorism.

remarks came on the heels of the *National* Security Strategy⁹³ released in December 2017 that specifically calls out China (and Russia) for

The U.S. has a clear overmatch against China in nuclear weapons capability; however...this overmatch does not extend to the most important conventional warfighting capabilities in the Western Pacific.

wanting to shape international affairs in ways that are antithetical to America's values. Additionally, the strategy explicitly states that "China seeks to displace the United States in the Indo-Pacific region ... and reorder the region in its favor." The strategy also recognizes that those who believed that welcoming China's rise and encouraging its integration into the global economy would lead to Beijing liberalizing and accepting the post-World War II international order have, unfortunately, been proven mistaken.

After describing how China is openly challenging U.S. values and interests in Asia, the National Security Strategy describes multiple broad objectives for addressing the problem. First, the strategy directs that the United States must retain overmatch against potential greatpower competitors. Overmatch is explained as a combination of "capabilities in sufficient scale to prevent enemy success and to ensure that America's sons and daughters will never be in a fair fight."95 The United States has a clear overmatch against China in nuclear weapons capability; however, as Adm. Davidson, Thomas Shugart, and Javier Gonzalez have cautioned, this overmatch does not extend to the most important conventional warfighting capabilities in the Western Pacific. This is critical because the strategy further states that the United States "must convince adversaries that we can and will defeat them — not just punish them if they attack the United States."96

As things stand, however, it is highly unlikely, for all the reasons described in Shugart and Gonzalez's

"First Strike" report, that Chinese leaders fear the United States and its allies defeating them in a traditional conventional sense. Further, given

the ongoing U.S. failure to stop Beijing's expansionary efforts in the South China Sea — which since early 2017 have included building "about 72 acres, or 290,000 square meters, of new real estate at Fiery Cross, Subi, and Mischief Reefs in the Spratlys, and North, Tree, and Triton Islands in the Paracels" — along with not being willing to include Filipino claims in these disputed waters as part of the U.S.-Philippines mutual defense treaty, it is also likely that Chinese

leaders do not believe American policymakers will resort to nuclear war to halt future expansion.⁹⁷

<u>Options for Ensuring a Favorable U.S.</u> Military Balance in Asia in the Future

The preceding sections' analysis makes clear that the United States and its allies no longer have full-spectrum conventional overmatch in the Western Pacific. Additionally, the analysis describes how China maintains an increasingly dominant advantage in the conventional capabilities that arguably matter most in the region given geography: ground-launched shortrange ballistic missiles, medium-range ballistic missiles, intermediate-range ballistic missiles, and ground-launched cruise missiles. The National Security Strategy directs that the Pentagon "will maintain a forward military presence capable of deterring and, if necessary, defeating any adversary, while strengthening our long-standing military relationships and encouraging the development of a strong defense network with our allies and partners."98 This section analyzes the four primary options available for achieving these goals: prioritizing a favorable nuclear warfighting capability balance without seeking to regain conventional overmatch against China; seeking to regain conventional warfighting overmatch under the current INF Treaty restrictions; seeking advantages in potential leap-ahead technologies, such as hypersonic weapons and AI-enabled lethal

⁹³ National Security Strategy.

⁹⁴ National Security Strategy, 25.

⁹⁵ National Security Strategy, 28.

⁹⁶ National Security Strategy, 28.

^{97 &}quot;A Constructive Year for Chinese Base Building," Asia Maritime Transparency Initiative and the Center for Strategic and International Studies, Dec. 14, 2017, https://amti.csis.org/constructive-year-chinese-building/; Poling and Cronin, "The Dangers of Allowing U.S.-Philippine Defense Cooperation to Languish."

⁹⁸ National Security Strategy, 45.

autonomous weapons systems, to offset inferiority in traditional conventional warfighting; and the United States renegotiating the INF Treaty or exercising its right to withdraw.

Depend on Nuclear Superiority

In his new book, *The Logic of American Nuclear Strategy*, Matthew Kroenig argues that states that possess nuclear superiority over others "are more likely to achieve their goals in international crises and less likely to be targeted with military challenges in the first place." This argument is the foundation of Kroenig's "superiority-brinksmanship synthesis theory":

A robust nuclear posture reduces a state's expected cost of war, increasing its resolve in international political disputes, and thus providing it with a coercive advantage over states more vulnerable to a nuclear exchange. When political conflicts of interest emerge, nuclear inferior opponents are less likely to initiate a military challenge and more likely to back down if the crisis escalates.¹⁰⁰

Kroenig's book provides more than 70 years' worth of insightful analysis to support his argument. This analysis includes comparisons between the impact of nuclear versus conventional warfighting superiority in determining outcomes of international crises. Kroenig concludes by explaining that "conventional military power matters in international politics, but not to the exclusion of the nuclear balance." Kroenig further emphasizes that in crises among nuclear-power states, "the nuclear balance was generally more central than the conventional balance."

Beijing's ongoing grab for power and influence in the South China Sea presents an interesting case study for Kroenig's theory. It appears that China is consistently accomplishing its goals against the United States and its allies despite Washington having an advantage of approximately 2,000 nuclear warheads when it comes to either nation's ability to strike the mainland of the other.¹⁰³ Why might this be the case?

Five points can help explain why the ongoing China case might be an outlier to Kroenig's theory. First, Chinese leaders appear to have mastered the concept of brinkmanship as explained by former U.S. Secretary of State John Foster Dulles: "The ability to get to the verge without getting into the war is the necessary art ... If you try to run away from it, if you are scared to go to the brink, you are lost."104 This ties directly into the second matter: For the past 17 years, Chinese leaders have known that the U.S. military has been focused on the Middle East and that the South China Sea has not been a vital American security interest. Further, between 2008 and 2016, U.S. political leaders went out of their way not to identify China as a potential rival and great-power strategic competitor in the South China Sea, including when President Barack Obama refused Filipino requests to confirm that the bilateral mutual defense treaty between the United States and the Philippines applied to the Spratly Islands similarly to what Obama had agreed to do "for the U.S.-Japan Mutual Security Treaty and the disputed Senkaku Islands in the East China Sea."105 Third, given the analysis within Shugart and Gonzalez's "First Strike" report, Chinese leaders know they can destroy the majority of U.S. power-projection capabilities in the Western Pacific within days, if not minutes, of a conflict breaking out, regardless of their nuclear inferiority. Fourth, Chinese leaders know that the United States has a limited capacity of long-range conventional bombers. While these bombers can be launched from outside the PLARF's missile range and still reach the Chinese mainland, most are vulnerable to China's increasingly advanced integrated airdefense systems. This assumes, of course, that U.S. policymakers believe the stakes involved in countering a given Chinese action are worth risking American lives. And thus far, they have not been. 106 Fifth, and specific to China's nuclear inferiority relative to the United States, Chinese

⁹⁹ Matthew Kroenig, The Logic of American Nuclear Strategy (New York: Oxford University Press, 2018), 189.

¹⁰⁰ Kroenig, Logic of American Nuclear Strategy, 3-4.

¹⁰¹ Kroenig, Logic of American Nuclear Strategy, 192.

¹⁰² Kroenig, Logic of American Nuclear Strategy, 192.

¹⁰³ Kroenig, Logic of American Nuclear Strategy, 154.

¹⁰⁴ Kroenig, Logic of American Nuclear Strategy, 154.

¹⁰⁵ Bill Hayton, "Is Tillerson Willing to Go to War Over the South China Sea?" Foreign Policy, Jan. 13, 2017, http://foreignpolicy.com/2017/01/13/is-tillerson-willing-to-go-to-war-over-the-south-china-sea/; Poling and Cronin, "The Dangers of Allowing U.S.-Philippine Defense Cooperation to Languish."

¹⁰⁶ Ross Babbage, "It Is High Time to Outmaneuver Beijing in the South China Sea," War on the Rocks, Dec. 28, 2016, https://warontherocks.com/2016/12/it-is-high-time-to-outmaneuver-beijing-in-the-south-china-sea/.

leaders have avoided crossing thresholds that they know are more likely to trigger nuclear retaliation, such as attempting to invade Taiwan. All five points have allowed China to methodically expand its military, economic, and even diplomatic influence in the Western Pacific. If the United States and its allies do not pursue a fundamentally different approach, there is no justifiable reason to believe Beijing will halt its aggressive expansionary actions in the South China Sea. Significant nuclear inferiority alone has yet to slow China's actions.

Seek Conventional Warfighting Overmatch Within INF Treaty Restrictions

In a recent article titled "America Is Well Within Range of a Big Surprise, So Why Can't It See?" T.X. Hammes describes a hypothetical scenario in 2020 that leaves the United States helpless, outside of employing nuclear weapons, to respond to a Chinese invasion of Taiwan.107 Similar to Shugart and Gonzalez's "First Strike" report, Hammes describes how easily U.S. forward bases and port facilities could be eliminated within the opening phase of a Chinese invasion of Taiwan. A graphic within his article illustrates China's overwhelming long-range, ground-launched conventional strike advantage over the United States - even if U.S. aircraft carriers are already at sea. Beyond this range imbalance, Hammes focuses on the value of relatively inexpensive, ground-launched cruise missiles, of which China has approximately 200 to 300 with ranges in excess of 1,500 kilometers. He assesses that the ease in moving and hiding these missiles would make them "immune to most preemptive strikes."108 His article concludes with a disturbing warning:

By remaining focused on offensive operations employing air, land, and sea legacy systems that have been dominant in their domains for over 70 years, the Pentagon risks going the same way as the armored knights and battleships. Rather than continue to invest in systems which are already range obsolete, it is essential for defense analysts to rethink their current procurement strategy.¹⁰⁹

While range obsolescence is a serious concern for these U.S. conventional capabilities, their cost perhaps provides reason to be even more worried. The Hammes graphic includes the approximately 625-mile range of the F-35 "A" and "C" variant jets. These aircraft cost around \$95 million (F-35A) to \$122 million (F-35C) per plane.110 The Marines' F-35B, not shown in the graphic likely due to range limitations, costs around \$122 million each. The F-35As are intended to operate from air bases well within range of Chinese ballistic and cruise missiles. The F-35Cs are envisioned to operate from the Navy's new \$13 billion Gerald Ford-class aircraft carriers.111 The Marines' shorter-range F-35Bs are projected to operate from \$3 billion amphibious assault ships and, assuming the aircraft's high maintenance and sustainment costs can be greatly reduced, expeditionary advanced bases that will, in theory, be harder for China to target due to anticipated difficulty in locating the sites.112 Each service's F-35 operating concept briefs well until challenged with realistic assessments of Chinese ballistic- and cruise-missile capabilities. When these assessments are incorporated, it quickly becomes apparent how illogical the Pentagon's F-35 procurement plans are. Moreover, given that the U.S. national debt recently eclipsed \$21 trillion, the F-35's range obsolescence and cost,113 along with the even more expensive ships required to bring them to the fight (F-35B/C) and land- and sea-based missile-defense systems required in hopes of protecting the F-35s, one cannot help but wonder whether there are better options to counter China's growing conventional warfighting superiority.114

¹⁰⁷ Hammes, "America Is Well Within Range of a Big Surprise, So Why Can't It See?"

¹⁰⁸ Hammes, "America Is Well Within Range of a Big Surprise, So Why Can't It See?"

¹⁰⁹ Hammes, "America Is Well Within Range of a Big Surprise, So Why Can't It See?"

¹¹⁰ Jeff Daniels, "Lockheed's F-35 Deal Ratchets Up Pressure to Slash Production Costs," CNBC, Feb. 3, 2017, https://www.cnbc.com/2017/02/03/lockheeds-f-35-deal-ratchets-up-pressure-to-slash-production-costs.html.

¹¹¹ Sydney J. Freedberg Jr., "F-35C & Ford Carriers — A Wrong Turn for Navy: CNAS," *Breaking Defense*, Oct. 19, 2015, https://breakingdefense.com/2015/10/f-35c-a-wrong-turn-for-navy-cnas/.

¹¹² Sam LaGrone, "Keel Laid for Amphibious Warship Tripoli," *USNI News*, June 20, 2014, https://news.usni.org/2014/06/20/keel-laid-amphibious-warship-tripoli; Robert C. Owen, "Distributed STOVL Operations and Air-Mobility Support: Addressing the Mismatch Between Requirements and Capabilities," *Naval War College Review* 69, no. 4 (2016): 30–48, https://digital-commons.usnwc.edu/nwc-review/vol69/iss4/6/.

¹¹³ Aaron Mehta, "Pentagon 'Can't Afford the Sustainment Costs' on F-35, Lord Says," *Defense News*, Feb. 1, 2018, https://www.defensenews.com/air/2018/02/01/pentagon-cant-afford-the-sustainment-costs-on-f-35-lord-says/.

¹¹⁴ Robert Schroeder, "U.S. National Debt Exceeds \$21 Trillion for First Time," *MarketWatch*, March 16, 2018, https://www.marketwatch.com/story/us-national-debt-exceeds-21-trillion-for-first-time-2018-03-16.

Potential Leap-Ahead Technologies

In addition to describing the benefits of landbased missiles that are easy to disperse and hide, the Hammes article emphasized the importance of investing in autonomous systems and other emerging technologies, such as AI and additive manufacturing. "The convergence of advances in task-specific AI, advanced manufacturing, and drones," Hammes wrote, "are creating a new generation of small, smart, and cheap weapons that have significant range advantage over America's current arsenal of few but exquisite weapons."115 Other observers have come to similar conclusions when focused specifically on military operational challenges in the Western Pacific.116 Semiautonomous and autonomous systems, including AI-enabled lethal autonomous weapons systems, have great potential to help the United States and its allies regain their conventional military superiority in the South China Sea. This, of course, assumes that China does not gain overwhelming overmatch first, which could happen given reports suggesting Beijing has already fielded a reverse-engineered, 500-kilometer-range lethal autonomous weapons system to target adversary radars.117 China has also already demonstrated a 56-unmanned boat swarm focused on targeting ships and has an exhibit at its military museum depicting "a UAV swarm combat system with swarms used for reconnaissance, jamming, and 'swarm assault' targeting an aircraft carrier."118

Hypersonic weapons are another promising innovation on the horizon. These weapons are envisioned to be able to reliably travel at speeds greater than five times that of sound. The Defense Advanced Research Projects Agency is already working with the U.S. Air Force on multiple

hypersonic weapons programs. Flight testing is expected to start in 2019, with initial prototypes built in 2022. If these weapons meet their potential, they will be able to defeat all current missile-defense systems while traveling at multi-thousand-mile ranges. China claims to have successfully tested its first hypersonic weapon in August 2018. A month earlier, Russia released a video purportedly showing its own hypersonic weapon test.

The potential upside of emerging technologies such as AI, AI-enabled lethal autonomous weapons systems, and hypersonic weapons is enormous. Successfully developing these capabilities is essential for future U.S. security interests, particularly given how heavily China and Russia are investing in them already. Specific to the ongoing problem in the South China Sea, though, it would be unwise to place in these new technologies all hopes of the United States regaining competitive conventional warfighting advantage in the near term. Most of the technologies are in their initial development phases. How they will perform in live combat conditions is far from certain. As has been described when discussing the potential of hypersonic weapons, "[I]t is nearly impossible to predict how a bunch of interconnected metal and electronics are going to behave moving at those speeds."123 In the case of AI-enabled lethal autonomous weapons systems, Defense Department Directive 3000.09 even appears to prohibit their development, as described earlier when highlighting the confusion over the "appropriate levels of human judgment over the use of force" criterion. 124 While some have suggested the directive could permit AI-enabled lethal autonomous weapons systems approved waivers, the confusion alone has already delayed their development and is likely to continue

¹¹⁵ Hammes, "America Is Well Within Range of a Big Surprise, So Why Can't It See?"

¹¹⁶ David Ignatius, "The Chinese Threat that an Aircraft Carrier Can't Stop," Washington Post, Aug. 7, 2018, https://www.washingtonpost.com/opinions/the-chinese-threat-that-an-aircraft-carrier-cant-stop/2018/08/07/0d3426d4-9a58-11e8-b60b-1c897f17e185_story.html; and Jeff Cummings, Scott Cuomo, Olivia Garard, and Noah Spataro, "Marines, Algorithms, and Ammo: Taking 'Team of Teams' to the Contested Littorals," War on the Rocks, Dec. 14, 2017, https://warontherocks.com/2017/12/marines-algorithms-ammo-taking-team-teams-contested-littorals/.

¹¹⁷ Scharre, Army of None, 47-50.

¹¹⁸ Kelsey Atherton, "See China's Massive Robot Boat Swarm in Action," *C4ISRNET*, June 1, 2018, https://www.c4isrnet.com/unmanned/2018/06/01/see-chinas-massive-robot-boat-swarm-in-action; and Elsa B. Kania, "Battlefield Singularity: Artificial Intelligence, Military Revolution, and China's Future Military Power," Center for a New American Security, November 2017, 23, https://s3.amazonaws.com/files.cnas.org/documents/Battlefield-Singularity-November-2017.pdf?mtime=20171129235805.

¹¹⁹ Patrick Tucker, "The US Is Accelerating Development of Its Own 'Invincible' Hypersonic Weapons," *Defense One*, March 2, 2018, https://www.defenseone.com/technology/2018/03/united-states-accelerating-development-its-own-invincible-hypersonic-weapons/146355/.

¹²⁰ Tucker, "The US Is Accelerating Development of Its Own 'Invincible' Hypersonic Weapons."

¹²¹ Jessie Yeung, "China Claims to Have Successfully Tested Its First Hypersonic Aircraft," CNN, Aug. 7, 2018, https://www.cnn.com/2018/08/07/china/china-hypersonic-aircraft-intl/index.html.

¹²² Yeung, "China Claims to Have Successfully Tested Its First Hypersonic Aircraft."

¹²³ Tucker, "The US Is Accelerating Development of Its Own 'Invincible' Hypersonic Weapons."

^{124 &}quot;Autonomy in Weapon Systems," http://www.esd.whs.mil/Portals/54/Documents/DD/issuances/dodd/300009p.pdf.

to do so.¹²⁵ For this reason, it is essential to clarify Directive 3000.09 to ensure that the military services — particularly officials in requirements and acquisitions — understand that "human start the loop" lethal autonomous weapons systems are authorized. The potential for such systems to raise adversary escalation costs is immense, especially if fielded to the nation's close-combat forces operating in thick vegetation and complex terrain within the "first island chain."

Even if the U.S. military already had access to proven hypersonic weapons and AI-enabled lethal autonomous weapons systems, military innovation literature consistently highlights that technology alone is not sufficient to produce an increase in capability. How new technologies are integrated throughout military organizations, from doctrine development to employment concepts to manning and training, is ultimately what proves decisive. For all of these reasons, the United States should continue to invest in developing these emerging capabilities, aggressively experiment

Specific to the ongoing problem in the South China Sea, though, it would be unwise to place in these new technologies all hopes of the U.S. regaining competitive conventional warfighting advantage in the near term.

with prototypes, war-game potential operational concepts, and seek to field the best technological innovations as quickly as possible. At the same time, however, U.S. policymakers should develop a plan that sets America and its allies on course to regain full-spectrum conventional warfighting dominance in the Western Pacific within the next few years. These emerging capabilities can then add to this dominance.

Renegotiate or Exercise the Right to Withdraw from the INF Treaty

The final option involves doing what the president recently ordered since Russia refuses to return to compliance with the treaty and China continues to express no interest in joining it: make clear that America will exercise its legal right to withdraw while expressing a desire to renegotiate the treaty should Moscow and Beijing choose to be responsible members of the international community.128 To be sure, the INF Treaty's Euro-centric focus has had a net-positive impact in Europe over the past 31 years, and most NATO allies strongly support maintaining the INF regime in some form. It is past time to address the treaty's debilitating impacts on U.S. security interests in the Western Pacific. As Adm. Harry B. Harris explained to the Senate Armed Services Committee in April 2017:

I think there's goodness in the INF Treaty, anything you can do to limit nuclear weapons writ large is generally good ... But the aspects of the INF Treaty that limit our ability to counter Chinese and other countries' cruise missiles, land-based missiles, I think is problematic ... I would never advocate unilateral withdrawing from the treaty because of the nuclear limitation part of it, but I do think we should look at renegotiating the treaty, we should consider it, because ... there's only two countries that signed on to it and one of them doesn't follow it, so that becomes a unilateral limitation on us.¹²⁹

What are the best ways to go about accomplishing Adm. Harris's goals?

Pursuing INF Treaty renegotiation would inevitably be a complex and multifaceted endeavor. Reaching a bilateral agreement on the treaty in 1987 took more than six years and involved inching ever closer to nuclear war, complex alliance negotiations with NATO, and a nuclear disaster at Chernobyl. Regardless of the likely challenges to renegotiation, continuing to express a willingness

¹²⁵ Scharre, Army of None, 88-89.

¹²⁶ Cummings, Cuomo, Garard, and Spataro, "Marine Warbot Companies"; and Jeff Cummings, Scott Cuomo, Olivia Garard, and Noah Spataro, "How the Marines Will Help the U.S. Navy and America's Allies Win the Great Indo-Pacific War of 2025," *War on the Rocks*, Sept. 26, 2018, https://warontherocks.com/2018/09/how-the-marines-will-help-the-u-s-navy-and-americas-allies-win-the-great-indo-pacific-war-of-2025/.

¹²⁷ Michael C. Horowitz, The Diffusion of Military Power: Causes and Consequences for International Politics (Princeton, NJ: Princeton University Press, 2010), 5.

¹²⁸ Radio Free Europe/Radio Liberty, "U.S. to Terminate Arms-Control Treaty Over Russia's 'Violations.'"

¹²⁹ Megan Eckstein, "PACOM: U.S. Should Renegotiate INF Missile Treaty to Better Compete with China," *USNI News*, April 27, 2017, https://news.usni.org/2017/04/27/pacom-u-s-should-renegotiate-inf-treaty-that-limits-conventional-mid-range-missiles.

to pursue such an endeavor is worthwhile, if for no other reason than as a good-faith gesture by the United States to the rest of the world. In the long run, this endeavor might be the only way to save the spirit of the INF Treaty from meeting the same fate as the 1972 Anti-Ballistic Missile (ABM) Treaty. When exercising America's legal right to withdraw from this treaty in 2002 for reasons of U.S. national security, President George W. Bush explained that "we no longer live in the Cold War world for which the ABM Treaty was designed." 130

President Bush's observation is similarly applicable today regarding the INF Treaty. We live in a multipolar world, and it includes two revisionist, strategic-power competitors that routinely challenge U.S. interests. One of these powers, Russia, has ignored its obligations under the INF Treaty for nearly four years. The other power, China, refused U.S. and Russian offers in 2007 and 2008 to become a treaty member and has fielded around 2,000 missiles that are not compliant with the INF Treaty and are holding at risk U.S. and allied forces in the Western Pacific.

These hard truths should form the foundation of renegotiation efforts. Specifically, U.S. policymakers should make clear these three points going into such talks:

- The INF Treaty's status-quo impact on U.S. security interests in the Western Pacific is no longer acceptable.
- As per Section 1243 in the 2019 National Defense Authorization Act, should Russia remain in violation of the INF Treaty, continued U.S. compliance is also unacceptable.¹³²
- The United States does not want a new arms race of 500- to 5,500-kilometer range, ground-launched missiles in Asia — or in Europe. However, if Russia and China refuse to change their positions on the INF Treaty, the United States will have no choice but to

exercise its right to withdraw.

To address these points, the United States could initially request a trilateral summit on the future of the INF Treaty. 133 At such a summit, Washington should offer five potential paths forward:

- All three nations advocate a worldwide ban on the missiles and launchers currently prohibited by the INF Treaty. This would require Russia to return to compliance and China — as well as other countries, such as India, Pakistan, and South Korea — to eliminate its inventories of these systems.¹³⁴
- 2. A new INF Treaty with three signatories: the United States, Russia, and China. This treaty would maintain the 1987 restrictions, as well as requiring Russia to return to compliance within a period of six months. China would have to begin destruction of missiles and launchers immediately, with all non-compliant missiles eliminated within four years, similar to the timeframe for the United States and Soviet Union to destroy all of their systems. All signatories would also participate in regular compliance inspections for a period spanning no less than 15 years.
- 3. A three-signatory treaty akin to the Strategic Arms Limitations Talks (SALT) focused on numerical limitations on missiles with a range of 500 to 5,500 kilometers, capping each nation's inventory at no more than 100 weapon systems. This quantity would provide each nation a credible deterrent capability without giving any country an asymmetric offensive advantage. 135
- 4. A modified and re-ratified U.S.-Russian bilateral INF Treaty that permitted, as per Jim Thomas's recommendations, relaxing limitations on land-based missile capabilities outside of Europe.¹³⁶ These modifications would also include permitting deployment of "forward-based, ground-launched systems

¹³⁰ Wade Boese, "U.S. Withdraws from ABM Treaty; Global Response Muted," *Arms Control Association*, July/August 2002, https://www.armscontrol.org/act/2002_07-08/abmjul_aug02.

^{131 &}quot;Trump Administration INF Treaty Integrated Strategy," State Department, Dec. 8, 2017, https://www.state.gov/r/pa/prs/ps/2017/12/276363. htm; and Michael R. Gordon, "Russia Deploys Missile, Violating Treaty and Challenging Trump," New York Times, Feb. 14, 2017, https://www.nytimes.com/2017/02/14/world/europe/russia-cruise-missile-arms-control-treaty.html.

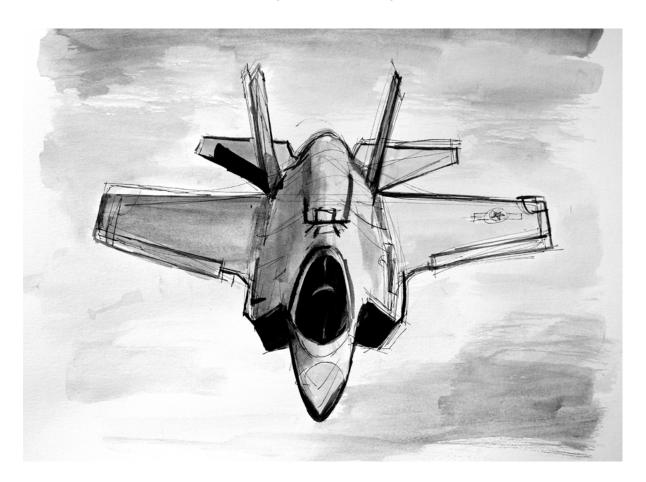
 $^{132\ \} H.R.\ 5515, "John S.\ McCain \ National \ Defense \ Authorization \ Act for Fiscal Year 2019," \ 1029-34, \ https://docs.house.gov/billsthisweek/20180723/CRPT-115hrpt863.pdf.$

¹³³ Assuming such a summit achieved positive progress with the three nations agreeing to one of the first three subsequently described pathways, or just the United States and Russia agreeing to the fourth pathway, then a subsequent summit would be held that includes Belarus, Ukraine, and Kazakhstan. As former Soviet states, these are the only other three nations that are both legally bound by the treaty and that have participated in discussions associated with the treaty's future.

¹³⁴ Kelsey Davenport, "India Tests Long-Range Missile," Arms Control Association (January/February 2017), https://www.armscontrol.org/ACT/2017_01/News-Briefs/India-Tests-Long-Range-Missile.

^{135 &}quot;Strategic Arms Limitation Talks (SALT I) (narrative)," State Department Bureau of Arms Control, Verification and Compliance, https://www.state.gov/t/isn/5191.htm.

¹³⁶ Thomas, "Statement Before the House Armed Services Subcommittee on Strategic Forces on the Future of the INF Treaty."



(conventional weapons delivery only) outside that geographic area with ranges between 500 to 2,000 kilometers." These two steps would allow adequate targeting range to potentially counter the most pressing Chinese threats while still prohibiting land-based missiles with ranges of 2,000 to 5,500 kilometers. This latter constraint would likely address anticipated concerns of European allies by preventing Russian missile units from being permitted to move west of the Ural Mountains. Simultaneously, the constraint would likely allay Russian concerns that any future conventionally armed U.S. (or U.S. ally) ground-launched missile deployment would threaten Moscow.138

5. If none of these pathways is deemed acceptable, an understanding that the United States will follow through on President Trump's announcements and withdraw from the INF Treaty in 2019. Should this be the only pathway, the United States will then field ground-launched missile capabilities commensurate to those China currently

employs. Additionally, the United States will be open to providing these weapons systems to mutual defense treaty allies and strategic partners in Asia. This path would also include a dual-track component similar to the one offered by NATO in 1979: If Russia and China ultimately agree to a new INF Treaty, then the United States would eliminate its newly fielded missiles while encouraging its treaty allies to do the same.

Unfortunately, it would not be a surprise if the proposed U.S. good-faith effort met outright resistance from Russia and China. Both nations' actions over the past decade provide plentiful reasons to consider with skepticism the first four proposed pathways. Regardless of the low probability that Russia and China would agree with any of the four proposals, the United States would be well-served by one last good-faith attempt. U.S. allies and partners would likely welcome this approach as responsible and understandable. Additionally, achieving a decision on any of these five pathways would give the head of U.S. Indo-Pacific Command and policymakers in Washington

¹³⁷ Thomas, "Statement Before the House Armed Services Subcommittee on Strategic Forces on the Future of the INF Treaty."

¹³⁸ Thomas, "Statement Before the House Armed Services Subcommittee on Strategic Forces on the Future of the INF Treaty."

the opportunity to enhance U.S. deterrence capabilities in the Western Pacific.139 All of these pathways would also provide U.S. policymakers the ability to conduct diplomacy regarding Chinese economic and military expansion efforts from a position of conventional strength, which they do not possess today. And of the four potential options considered within this section — depend on nuclear superiority, seek conventional warfighting overmatch within INF Treaty restrictions, pursue potential leap-ahead technologies, and renegotiate or withdraw from the INF Treaty — to achieve the National Security Strategy's goals, renegotiation or withdrawal is the only viable option in the near term. Adding a layer (or layers) to this option over the next five years with capabilities such as AI-enabled lethal autonomous weapons systems, focused specifically against potential adversary assault support platforms required to conduct a conventional military force invasion, should be a goal as well.

New U.S. Military Strategic Approach in the Western Pacific, 2018 and Beyond

While it would be ideal if Russia and China agreed to a three-party INF Treaty, or advocated a comprehensive worldwide INF Treaty or even a SALT-like one, this section proceeds with the assumption that both Russian and Chinese behavior over the past decade provide plenty of evidence to suggest that they would deem none of these pathways acceptable. This, then, leaves pathways four and five as the most likely probabilities. In either of these cases, the recommended military strategic approach for the United States in the Western Pacific would be similar.

The overarching goal would be to increase U.S. conventional deterrence capabilities by drastically raising escalation costs should China contemplate attacking key American allies or continuing expansion efforts in the South China Sea.¹⁴⁰ Decreasing China's

probability for success calculus would be a concurrent goal. Simultaneously, the new strategy would make unmistakably clear to mutual defense treaty allies and regional partners that the United States has every intention of not merely maintaining but expanding its commitments in Asia.

Further strengthening U.S. security relationships with treaty allies Japan and the Philippines would be central pillars of the strategy. For Japan, this would involve locating new ground-launched missiles within Okinawa Prefecture that could threaten Chinese military forces in the Western Pacific. Due to China's ongoing military build-up and aggressive behavior, Japan's Self-Defense Force is currently taking actions that would have been unthinkable to many only 10 to 15 years ago. 141 For example, the Japanese Self-Defense Force now has a surveillance radar site at Miyako, within Okinawa Prefecture; the Japanese are in the process of installing anti-ship missiles throughout their southwestern islands; and they are already working closely with U.S. units to ensure that these types of capabilities are interoperable between both nations' militaries.142 The new missile units would be in thickly vegetated areas or underground, and they would be roadmobile to complicate Chinese targeting efforts. Finding missile systems that routinely move within thickly vegetated areas would compel China to commit extensive intelligence, surveillance, and reconnaissance resources to the task. It would also incentivize China to invest in more missile-defense capabilities. Ultimately, for the U.S.-Japanese alliance, the long-term goal would be for these forces to be partnered and fully interoperable such that both nations' military units possessed the capabilities and are able to deter and, if required, respond to Chinese aggression in the South China Sea as well as in the East China Sea. 143

Given recent tensions between the United States and the Philippines — which include President Rodrigo Duterte openly stating that America "cannot be trusted to fulfill its treaty commitments" — bolstering the U.S. security relationship with Manila would likely prove harder than doing so

¹³⁹ Sayers, "The Intermediate-Range Nuclear Forces Treaty and the Future of the Indo-Pacific Military Balance."

¹⁴⁰ Thomas, "Statement Before the House Armed Services Subcommittee on Strategic Forces on the Future of the INF Treaty."

¹⁴¹ Tim Kelly, "Japan Eyes Defense Budget Hike to Fortify Island Chain Facing China," *Reuters*, Aug. 31, 2015, https://www.reuters.com/article/us-japan-defense-budget/japan-eyes-defense-budget-hike-to-fortify-island-chain-facing-china-idUSKCNOROOHX20150831.

¹⁴² Steven Stashwick, "Japan Considering New Anti-Ship Missiles for Its Southwestern Islands," *Diplomat*, March 1, 2018, https://thediplomat.com/2018/03/japan-considering-new-anti-ship-missiles-for-its-southwestern-islands/; and William Cole, "US and Japan Fire Missiles to Sink Ship During RIMPAC," *Military.com*, July 15, 2018, https://www.military.com/daily-news/2018/07/14/us-and-japan-fire-missiles-sink-ship-during-rimpac.html.

¹⁴³ For an explanation of the differences between compellence and deterrence, see Thomas C. Schelling, Arms and Influence (New Haven: Yale University Press, 2008).

with Tokyo.¹⁴⁴ "Harder" is not hopeless, however. If new land-based missiles can provide U.S. policymakers with warfighting capability deemed strong enough to warrant granting the Philippines' territorial claims in the Spratly Islands as part of the 1951 Mutual Defense Treaty, the Filipino president might welcome this type of cooperation.

Assuming this enhanced capability, combined with America's nuclear superiority relative to China, achieves this Duterte goal, then multiple options exist for how the land-based missiles could be employed. A permanently based U.S. missile

unit in the Philippines is likely to be a non-starter for Manila. Rotating such units into the Philippines on training exercises as part of the 2014 U.S.-Philippines' Enhanced Defense Cooperation Agreement could be welcomed in concert with other confidence-building steps. After all, Article 1 of the agreement explains that the pact is

intended to ensure that both countries can satisfy mutual defense treaty obligations to "maintain and develop their individual and collective capacity to resist armed attack," and Duterte recently began allowing U.S. multi-domain task forces to conduct training exercises with the Filipino military toward this end.146 He also approved further increasing exercises with U.S. military forces. 147 China is the only potential state-actor threat to the Philippines in the South China Sea. Perhaps even more welcome than only rotating U.S. land-based missile units through would be if Washington provided the capabilities for the Filipino military. On multiple occasions, Duterte has expressed displeasure with the quantity and quality of U.S. military aid to the Philippines.148 Receiving new, conventionallyarmed, ground-launched missiles would almost certainly bolster Duterte's confidence in the U.S. commitment to the Philippines. Once in the Philippines, missiles would ideally be deployed to

Palawan Island, which ranges from approximately 333 to 750 kilometers from the Spratly Islands and is home to one of the agreed-upon coalition bases for the United States to use. 149 Deploying missiles underground or within Palawan's thickly vegetated areas would, much like doing so in Okinawa Prefecture, greatly complicate Chinese targeting efforts. These missiles would also provide the Philippines an enduring ability to hold Chinese military forces in the South China Sea — such as the ones on Subi Reef — at risk. That is a significant capability gap typically only filled when

Ultimately, for the U.S.-Japanese alliance, the long-term goal would be for these forces to be partnered and fully interoperable...

a U.S. aircraft carrier is deployed in the region. ¹⁵⁰ Even during these times, depending on U.S. aircraft carriers for support in or near the Spratly Islands is an increasingly risky proposition due to the PLARF's increasing DF-21 capabilities. ¹⁵¹

Changing the INF Treaty would not require major modifications in relationships with U.S. allies and partners in Asia outside of Japan and the Philippines, although such changes could potentially create opportunities to strengthen those bonds. The new missile units could participate in routine joint exercises and coalition training. They would also reassure allies and partners of how seriously the United States is committed to maintaining peace and security in the Western Pacific.

This reassurance applies to potential U.S. missile units positioned in American territories in the Pacific as well. Moreover, this reassurance would apply for easily maneuverable U.S. close-combat units that are hard to track and locate and that

¹⁴⁴ Poling and Cronin, "The Dangers of Allowing U.S.-Philippine Defense Cooperation to Languish."

¹⁴⁵ Poling and Cronin, "The Dangers of Allowing U.S.-Philippine Defense Cooperation to Languish."

¹⁴⁶ Poling and Cronin, "The Dangers of Allowing U.S.-Philippine Defense Cooperation to Languish"; Alyssa Morales, "U.S., Philippines and Japan Conduct Amphibious Landing in the Philippines," *Marines.mil*, Oct. 8, 2018, https://www.marines.mil/News/News-Display/Article/1657152/us-philippines-and-japan-conduct-amphibious-landing-in-the-philippines/; and Ben Werner, "U.S. and Philippine Militaries Will Increase Security Cooperation in 2019," *USNI News*, Oct. 3, 2018, https://news.usni.org/2018/10/03/37054.

¹⁴⁷ Werner, "U.S. and Philippine Militaries Will Increase Security Cooperation in 2019."

¹⁴⁸ Nick Penzenstadler, "Philippines' Duterte to U.S. over aid: 'Bye-bye America," USA Today, Dec. 17, 2016, https://www.usatoday.com/story/news/world/2016/12/17/philippines-duterte-us-over-aid-bye-bye-america/95557384/.

¹⁴⁹ Poling and Cronin, "The Dangers of Allowing U.S.-Philippine Defense Cooperation to Languish."

¹⁵⁰ Poling and Cronin, "The Dangers of Allowing U.S.-Philippine Defense Cooperation to Languish."

¹⁵¹ Hendrix, "At What Cost a Carrier," 8.

are equipped with AI-enabled lethal autonomous weapons systems designed to destroy adversary landing craft and other platforms required to conduct an invasion.¹⁵²

Possible Objections

Before considering likely objections from critics, it is important to emphasize — again — that the strategic approach proposed in this article assumes China will continue to refuse, at least initially, any effort to globalize the INF Treaty and that Russia will not resume compliance. Since the 2007 and 2008 offers to China to join the INF Treaty, Beijing has expanded the PLARF's land-based missile capabilities. Further, this article assumes that China will not unilaterally decide to eliminate its thousands of ground-launched missile capabilities. These baseline assumptions are important when considering possible objections.

Some will argue that modifying the INF Treaty as described in the fourth pathway or withdrawing from it altogether would lead to an arms race in Asia. But China has already decided to pursue this option and was not satisfied with a missile advantage in the tens or even hundreds. Beijing has obtained an estimated 2,000 missiles — the clear majority of which falls within the parameters banned by the INF Treaty. If China continues to refuse to globalize the treaty or to unilaterally and voluntarily eliminate its 2,000 missiles, then the United States has no choice but to pursue withdrawal from the treaty.

Others are likely to argue that U.S. allies will not welcome Washington renegotiating, or worst case, withdrawing from the treaty, nor will they allow American ground-launched ballistic or cruise missiles to be forward-based in their countries. In the case of Europe, NATO's Secretary General, Jens Stoltenberg, has supported the United States' decision, stating, "[T]he treaty is not working if it's only being respected by one side. The problem, the threat, the challenge is Russian behavior, which has been ongoing for a long time."155 Such an argument may have merit in South Korea amid ongoing "de-nuclearization" talks. 156 However, given all that Japan is investing in its military, including for missile-defense systems, F-35As, long-range surveillance aircraft, land-based anti-ship missiles, naval combatant vessels, amphibious ships, and even creating an "Amphibious Rapid Deployment Brigade,"157 it is unlikely that Tokyo would deny such a request. 158 While Japan's Chief Cabinet Secretary, Yoshihide Saga, recently described potential U.S. withdrawal from the INF Treaty as "undesirable," he also said, "[C]hanges in the global security environment, such as Russia's significant violation ... are serious issues in light of our country's peace and stability." 159 It is more likely that Japan would eventually ask to partner with the United States, having their own interoperable systems. As previously mentioned, the government in Manila might request an interoperable capability for the Filipino army, while possibly allowing new U.S. systems to participate in training exercises such as the recently completed Balikatan or KAMANDAG. 160 Australia, like Japan, has heavily invested in new advanced capabilities to help counter China's aggressive actions. These capabilities, including an amphibious brigade, ships for this force, F-35As, and long-range surveillance aircraft, were carefully chosen to ensure maximum interoperability with the U.S. military.161 Additionally, Australia has

¹⁵² Cummings, Cuomo, Garard, and Spataro, "Marine Warbot Companies" and "How the Marines Will Help the U.S. Navy and America's Allies Win the Great Indo-Pacific War of 2025."

¹⁵³ Thomas, "Statement Before the House Armed Services Subcommittee on Strategic Forces on the Future of the INF Treaty"; and Panda, "The Uncertain Future of the INF Treaty."

¹⁵⁴ Defense Department, "Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2017," 57.

^{155 &}quot;NATO Chief Backs Trump, Says Russia Violating Nuke Treaty," CBS News, Oct. 24, 2018, https://www.cbsnews.com/news/nato-jens-stoltenberg-donald-trump-russia-violating-inf-nuclear-arms-treaty/.

¹⁵⁶ While South Korea might not welcome new U.S. missile systems on the peninsula, the Republic of Korea Army already fields non-compliant INF systems.

¹⁵⁷ Grant Newsham, "Japan Activates Amphibious Rapid Deployment Brigade: What Now?" Japan Forward, April 9, 2018, https://japan-forward.com/japan-activates-amphibious-rapid-deployment-brigade-what-now/.

^{158 &}quot;Japan's 2017 Defense Spending to Hit \$43.6Bn; Interceptor Missile System Procurement Likely," *DefenseWorld.net*, Dec. 23, 2016, http://www.defenseworld.net/news/18045/Japan_s_2017_Defense_Spending_To_Hit__43_6Bn__Interceptor_Missile_System_Procurement_Likely.

^{159 &}quot;Japan to Urge U.S. not to Leave Nuke Pact, Citing Possible Arms Race, North Korea Denuclearization," *Japan Times*, Oct. 23, 2018, https://www.japantimes.co.jp/news/2018/10/23/national/politics-diplomacy/japan-wants-u-s-rethink-withdrawal-nuke-pact-russia/ - .W9lggskpCgF.

¹⁶⁰ Prashanth Parameswaran, "What Does a Bigger 2018 Balikatan Military Exercise Say About US-Philippines Alliance Under Duterte?" *Diplomat*, May 8, 2018, https://thediplomat.com/2018/05/what-does-a-bigger-2018-balikatan-military-exercise-say-about-us-philippines-alliance-under-duterte/; and Morales, "U.S., Philippines and Japan Conduct Amphibious Landing in the Philippines." KAMANDAG is an acronym for the Filipino phrase Kaagapay Ng Mga Mandirigma Ng Dagat, or cooperation of warriors of the sea.

¹⁶¹ Murielle Delaporte, "Aussie F-35A Drives Historic Shift to USAF Focus from USN," *Breaking Defense*, April 3, 2018, https://breakingdefense.com/2018/04/aussie-f-35a-drives-historic-shift-to-usaf-focus-from-usn/.

welcomed a semi-permanent, multi-thousand-personnel U.S. Marine force operating out of Darwin. The proposed land-based missile units could become part of this semi-permanent force in the future, operated by the United States alone, in partnership with the Australian Defense Force, or possibly by only the Australian force. The U.S. military could also forward-base new capabilities in Guam, as it already does with long-range bombers, surveillance aircraft, submarines, and a variety of other capabilities, or position them in other U.S. territories in the Pacific. 163

Other critics might argue that renegotiating or following through and withdrawing from the INF Treaty in 2019 would risk stalling or even derailing "de-nuclearization" efforts with North Korea. In fact, the world will know in the coming months how committed Kim Jong-un is to dismantling his nuclear weapons program. If it is clear that he is serious and that the United States renegotiating or withdrawing from the INF Treaty could cause him to change course, then perhaps the United States might want to delay such efforts by a few months, while prioritizing elimination of nuclear weapons on the Korean Peninsula first. Even if this path is pursued, initial development efforts for a new Pershing II or similar missile should commence in 2019. After all, the United States is the only major power abiding by the INF Treaty. Simultaneously, the United States should set concrete timelines with North Korea on dismantling its nuclear program. If, within a year, Kim Jong-un has not demonstrated major dismantlement on the path toward complete elimination, and allowed international inspectors to confirm this, the United States should proceed with INF Treaty renegotiation or withdrawal efforts.

Another potential objection is that renegotiating or withdrawing from the INF Treaty and creating new integrated ground-launched cruise- and ballistic-missile concepts of employment are not necessary to accomplish U.S. security objectives in the Western Pacific. Instead, those holding this belief might argue that all that is necessary to stop Chinese aggression and expansionary efforts is for the United States to confirm publicly that Filipino territorial claims within the Spratly Islands are part of the 1951 U.S.-Philippines Mutual Defense Treaty. 164 As such, if China were to violate Filipino

sovereignty, it would automatically be declaring war on the United States (and its superior nuclear arsenal). In other words, those making this argument would say that the United States simply needs to make clear to Beijing that Filipino claims in the Spratly Islands are the equivalent of American claims, And if these claims are violated,

For the United States to achieve the objectives described in the National Security Strategy, thereby stopping China from achieving its goals, it must renegotiate or exercise its right to withdraw from the INF Treaty immediately.

Matthew Kroenig's "superiority-brinksmanship synthesis theory" directly applies, which China likely does not account for absent this public commitment from Washington.165 Of the four possible objections, this one is the most interesting because it is all but impossible to know whether it would work. Kroenig's historical analysis suggests that it would. Yet if public recognition by the United States of Filipino claims in the South China Sea were all that is needed to halt China's expansion and militarization efforts in the disputed waters, then why hasn't Washington already done so? It is likely that growing gaps in U.S. conventional warfighting capability relative to China are the primary reason this has not happened. U.S. policymakers likely believe, given the geography and relative differences in conventional combat power in the South China Sea, that depending on nuclear superiority alone is too risky.

Peace Through Strength

So where does the United States go from here on the INF Treaty? This article argued that the United

^{162 &}quot;Record Numbers of US Marines Arrive in Darwin for Six Months of Joint Training," ABC News (Australia), April 24, 2018, http://www.abc.net.au/news/2018-04-23/largest-ever-contingent-of-us-marines-arrive-in-darwin/9689326.

¹⁶³ Adam Ashton, "Quietly, Guam Is Slated to Become Massive New U.S. Military Base," *McClatchy*, Nov. 22, 2015, http://www.mcclatchydc.com/news/nation-world/world/article45241053.html.

¹⁶⁴ Poling and Cronin, "The Dangers of Allowing U.S.-Philippine Defense Cooperation to Languish."

¹⁶⁵ Kroenig, Logic of American Nuclear Strategy, 3-4.

States should continue to try to make a deal on a renegotiated INF Treaty while also making clear that if Moscow and Beijing do not both commit to doing so then Washington will, as the least preferred option, exercise its right to withdraw from the treaty in 2019. Simultaneously, the United States should field AI-enabled lethal autonomous weapons systems to its military forces. These capabilities are critical to restoring America's full-spectrum conventional military warfighting dominance in the Western Pacific. I also reviewed how the United States and its treaty allies lost this dominance over the past few decades - how China took advantage of U.S. overconfidence in its unipolar moment and, since 2001, the overwhelming U.S. focus on counterterrorism operations in the Middle East to exploit gaps in the INF Treaty. China has fielded around 2,000 ground-launched ballistic and cruise missiles around 95 percent of which would violate the INF Treaty if China were a signatory — that hold at risk all U.S. bases, ports, and even deployed ships in the Western Pacific. China has also fielded a 500-kilometer range lethal autonomous weapon system. With this overwhelming advantage in conventional-strike capability, China subsequently embarked on an aggressive campaign to build and occupy islands in the South China Sea to expand its economic and military influence. Next, I described the National Security Strategy's intent to restore American dominance in the Western Pacific. The article considered four potential options for the United States to regain its conventional warfighting advantage, alongside its nuclear superiority, in the region. I ultimately recommended the path that America is headed down, a dual-track withdrawal from the INF Treaty as the only viable near-term path to achieve the National Security Strategy intent, while encouraging fielding specifically focused AI-enabled lethal autonomous weapons systems to U.S. close-combat units as quickly as possible. Finally, the article considered the most likely objections to this recommendation.

To be sure, it is unfortunate that China's pursuit of a "projectile-centric" anti-access/area-denial strategy, in conjunction with Beijing's increasingly aggressive economic and military expansion efforts in the South China Sea, has forced the United States into a position requiring INF Treaty renegotiation or withdrawal, as well as embracing AI-enabled lethal autonomous weapons systems. After welcoming and even encouraging China's acceptance into the global economy shortly after the Sept. 11, 2001, attacks and later offering to "globalize" the INF Treaty, one might have hoped that Beijing would have taken a different path.

But China did not. It is also increasingly clear that China seeks to dominate the South China Sea, erode U.S. military alliances in Asia, and threaten the post-World War II rules-based international order, including with autonomous weapons. For the United States to achieve the objectives described in the National Security Strategy, thereby stopping China from achieving its goals, it must renegotiate or exercise its right to withdraw from the INF Treaty immediately. Simultaneously, the Pentagon should move as quickly as possible to equip closecombat units with AI-enabled lethal autonomous weapons systems to add another key layer to its deterrent capabilities. These actions are essential to future U.S. security interests in the Pacific.

Acknowledgements: For helpful discussions and suggestions, the author would like to thank Michael Albertson, Elizabeth Charles, T.X. Hammes, Frank Hoffman, Ben Jensen, Matthew Kroenig, James Graham Wilson, Ryan Evans, an anonymous reviewer, and the Texas National Security Review editing team. Any remaining shortcomings are solely the author's responsibility.

Scott A. Cuomo is a Marine infantry officer and operational planner currently participating in the Commandant of the Marine Corps Strategist Program at Georgetown University.