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Securing Compliance with Arms Control Agreements

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**Securing Compliance with Arms
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Executive Summary

Violations of arms control agreements are a problem of the past, the present, and almost certainly the future. This report analyzes four cases over the past 100 years through the lens of twelve core questions, in an effort to discern patterns of noncompliance and potential strategies to secure compliance in the future. The four cases are:

1. Allied Powers Versus the German Violations of the Versailles Treaty Disarmament Clauses, 1919-1935.
2. United States Versus the Soviet Krasnoyarsk Radar Violation of the Anti-Ballistic Missile (ABM) Treaty, 1983-1993.
3. United States and Others Versus the Iraqi Real and Apparent Violations of the United Nations Security Council Resolutions (UNSCRs) on Weapons of Mass Destruction (WMD) Disarmament, 1991-2003.
4. United States and Others Versus North Korean Violations of its Nuclear Arms Control Obligations, 1992-2020.

Of the four cases, only the Soviet Krasnoyarsk radar violation was peacefully resolved by agreement between the parties. The Allies ultimately acceded to Germany's noncompliance with the disarmament obligations of the Versailles Treaty; the eventual outbreak of war in 1939 was unrelated to Germany's arms control noncompliance. Iraq's violations of its arms control obligations under several UNSCRs led directly to war, although ironically the cause was primarily Iraq's failure to disclose that it no longer held the prohibited WMD and longer-range missiles. Finally, every effort over the past three decades has failed to secure North Korean compliance with its nuclear arms control obligations.

This *Occasional Paper* is an updated, shorter version of Susan Koch, Kurt Guthe and Thomas Scheber, *Securing Compliance with Arms Control Agreements* (Fairfax, VA: National Institute for Public Policy Press, 2018).

While each of the four cases is unique, they demonstrate patterns of noncompliance; our understanding of, and response to, those patterns may help to improve our ability to secure better compliance in the future.

First, authoritarian regimes are more prone to noncompliance than democratic ones. They have little if any respect for the rule of law and are accountable to no one but themselves. Next, governments are more likely to violate agreements that they are forced to accept. Countries that are thoroughly defeated in war may be more prepared to accept victors' demands than others. Contrast Germany's very different compliance behavior after the First and Second World Wars.

Asymmetries in stakes and resolve among the parties may be the most critical determinants of noncompliance. In the Versailles and North Korean cases, the violators' stake in noncompliance was greater than the enforcers' stake in compliance. In the Iraq case, the same was true for many years, until the United States and United Kingdom – but not other members of the First Gulf War coalition – chose to go to war. In the fourth case, the U.S. determination to see the Krasnoyarsk radar eliminated was longer-lasting than the Soviet desire to retain it, allowing the peaceful resolution of the issue.

Three of the four cases demonstrate that where violators are determined, the most effective inducement may be the threat of military action, whether occupation or attack. However, only in the Iraqi case, did two of the main parties follow through with actual invasion. While that certainly resolved the compliance issues, the price was enormous.

Compliance is generally easier to enforce for bilateral than multilateral agreements. The only successful case studied in this report is also the only purely bilateral one.

Finally, violations of arms control agreements are difficult – and perhaps nearly impossible – to deter. Arms control agreements over the past 100-plus years that were

never violated are rare. The demilitarization of Germany and Japan were exceptions, but in both cases, the leadership and the population embraced that outcome only after the devastation of the Second World War.

The first element of a strategy to secure arms control compliance must be a clear-headed analysis of whether the agreement serves the national interest. If it does not, the effort should not be pursued, no matter how politically popular it might be. If a potential agreement passes the first test, the next task would be to prepare for noncompliance. For most agreements, the Reagan maxim of “trust but verify” should be amended to “verify but still don’t trust.” Carefully-crafted monitoring and verification measures are required. A party should never assume that weaker provisions are acceptable because of improved relations with the other. If on-site monitoring is not possible, as with some UNSCRs, every effort should be made to ensure that the resolution empowers member states to enforce its provisions, consistent with international law.

The Versailles and Iraq cases demonstrate the difficulty of securing compliance by a party that is forced to accept a post-war agreement, but has not been destroyed in the war. This is not to argue that war aims should always include destruction and regime overthrow, but that the compliance implications should be carefully considered in devising the peace or armistice arrangements. Perhaps the most effective approach would be to require armed military escorts for post-conflict inspectors, with authorization to use force if required. As a last resort, national rights to use force to compel compliance should be recognized.

The case studies in this report also demonstrate that it is more difficult to secure compliance with multilateral agreements than with bilateral. In some instances, such as the UNSCRs, there is no alternative to multilateral approaches. In others, a multilateral agreement might be preferable, in order to involve all of the states required to

enforce compliance. Multilateral compliance enforcement might be improved with carefully-developed rules for inspectors' rights, responsibilities and decision procedures. The leadership of international disarmament commissions should be chosen for expertise and dedication, not to satisfy political criteria such as national representation.

Further, the United States must consider what violations might be most likely and what to do if they occur. Anticipation of potential violations and responses would be both technically and politically difficult, but would send an essential deterrent message. While the United States must make clear that it will respond decisively to arms control violations, it must not establish red lines that it is not prepared to honor. Messages of intent to respond must be clear and credible to be effective.

No foolproof strategy is available to deter or otherwise prevent future violations of arms control agreements, or to ensure effective responses to cheating. However, we can seek to improve our ability to prevent violations and restore compliance. Implementation of the recommendations presented here would take considerable effort, but would be well worth it if they enhanced the chances of securing compliance.

Introduction

Violations of arms control agreements are a problem of the past, the present, and almost certainly the future. Arms control agreements limit aspects of arms competition, but not the underlying rivalries, ambitions, and insecurities that motivate states to seek military advantage through, among other means, cheating on agreements. Failure to prevent or respond to violations could place the United States and our allies at a disadvantage and potentially in danger, and also weaken arms control as an instrument for decreasing the likelihood of conflict, limiting the destructiveness of war, and reducing the burden of defense.

This paper examines four case studies of arms control violations spanning 100 years:

1. Allied Powers Versus the German Violations of the Versailles Treaty Disarmament Clauses, 1919-1935.
2. United States Versus the Soviet Krasnoyarsk Radar Violation of the Anti-Ballistic Missile (ABM) Treaty, 1983-1993.
3. United States and Others Versus the Iraqi Real and Apparent Violations of the UNSCRs on WMD Disarmament, 1991-2003.
4. United States and Others Versus North Korean Violations of its Nuclear Arms Control Obligations, 1992-2020.

The final section of this paper answers the following questions about the four cases in order to discern patterns that may provide lessons on improving arms control compliance.

1. Did the character of the government committing the violation incline it toward breaching the agreement?

2. What did the violator hope to gain? What consequences did it anticipate?
3. Had the violator accepted the agreement willingly or under duress? Was acceptance of the agreement the result of a strategic decision or was it a tactical expedient?
4. Were there aspects of the agreement that increased the likelihood of violations? Were there deficiencies in verification capabilities that the violator could exploit?
5. Were the proscribed capabilities easy or hard to conceal? Could they be clandestinely obtained from third parties?
6. When detected, was the violation blatant or plausibly ambiguous? Were its consequences seen as serious or relatively unimportant?
7. Was the response to the violation undertaken by one or multiple parties? Were there differences within the government, or within and among the governments, responding to the violation? Were there differing assessments of the violation and possible responses?
8. What types of responses to the violation were considered or adopted? How effective were those that were pursued?
9. If the response involved inducements as well as penalties, was the combination more effective than either alternative alone?
10. What tools and tactics were available to the violator to inhibit, fend off, or withstand a response? Which were chosen and why?

11. Were there important asymmetries in the stakes and resolve between the violator and the enforcer(s) that had a significant influence on the outcome of the case?
12. Why did deterrence of the violation fail? Why did efforts to restore compliance succeed or fail?

Case Study One: Allied Powers Versus the German Violations of the Versailles Treaty Disarmament Clauses, 1919-1935

The years 1919-1935 covered two very different periods. Throughout the 1920s, the democratic governments of the Weimar Republic committed numerous Versailles violations, in large part clandestinely. When some of those violations were discovered, the German Government complied to the minimum extent required, and/or played down their significance. None of the Weimar violations had a dramatic military effect by itself, but together many helped to lay the foundations for the rearmament of the 1930s. The second period began with the ascension to power of Adolf Hitler. Clandestine violations at first accelerated and expanded. Within two years, they gave way to overt remilitarization. Hitler officially repudiated the Versailles military clauses in January 1935, and ended the last vestige of Versailles arms control when he sent troops into the demilitarized zone on the left bank of the Rhine.

In May 1919, the German Government received the Versailles Treaty; it did not participate in the negotiations, and the changes it requested were mostly rejected.¹ The

¹ Norman A. Graebner and Edward M. Bennett, *The Versailles Treaty and Its Legacy: The Failure of the Wilsonian Vision* (New York: Cambridge University Press, 2011), pp. 57-58.

provisions concerning military force were designed to make Germany incapable of any external military action. The major ones were as follows:

- Army: reduction to 100,000 men, including no more than 4000 officers; abolition of the Great General Staff, staff colleges and military academies; abolition of conscription; required service periods of 25 years for officers and 12 for enlisted men; prohibition of tanks, heavy artillery and chemical weapons; deep reductions in other armaments and ammunitions;
- Air: abolition of the Flying Corps and prohibition of military aircraft;
- Navy: reduction to 15,000 sailors, including no more than 1500 officers; limit of 6 battleships, 6 light cruisers, 12 destroyers, 12 torpedo boats; strict limits on displacement of any replacements; ban on submarines;
- Other: reduction of national police force to 150,000 lifetime employees; ban on paramilitary organizations; ban on import of all arms and military materiel; closure of all military production, development, design or storage facilities unless approved by the Allies; ban on any military forces on the left bank of the Rhine or within 50 kilometers of the right bank.

The Treaty created three Inter-Allied Commissions of Control (IACCs) with “anytime, anywhere” access to monitor the army, naval and air provisions that had a time limit. A serious problem developed after the Allies decided to require a German liaison committee to coordinate

disarmament. This became “a committee of obstruction,”² often blocking or delaying IACC access to military or industrial sites. The IACCs ended in early 1927, even though several compliance issues remained. Responsibility for investigating compliance with the Versailles disarmament provisions devolved to the League of Nations, which did precisely nothing.

Weimar Republic

The environment in the 1920s for implementation of the Versailles disarmament provisions was not propitious. The Versailles provisions were rejected as unfair and unacceptable by most segments of German society—from the political and military leadership to the workers whose jobs were threatened by disarmament and to all whose livelihood was threatened by rampant postwar inflation. The period saw the rise of both the Bolshevik movement and the ultimately more important far-right paramilitary groups. The pre-1918 military and monarchy were not discredited; blame for Germany’s postwar difficulties was placed instead on a supposed “stab in the back” by the Weimar Government and its supporters in accepting the Versailles terms. Further, because Germany was not invaded during the First World War, its civilian and military-related infrastructures was intact. All of those factors helped the Weimar Government to sustain and foster a personnel, technological and industrial foundation for the rearmament of the 1930s.³

² Barton Whaley, *Covert German Rearmament, 1919-1939: Deception and Misperception* (Frederick, MD: University Publications of America, Foreign Intelligence Book Series, 1984), p. 9.

³ See Philip Towle, “Forced Disarmament in the 1920s and After,” *Journal of Strategic Studies*, Vol. 29, No. 2 (August 2006), pp. 323-344, and Andrew Barros, “Disarmament as a Weapon: Anglo-French Relations

The German Army worked from the start to delay or evade implementation of the Versailles military clauses. The Great General Staff was technically abolished, but in fact immediately reestablished in the guise of the Troops Office. Although the Army reportedly sought to keep its treaty noncompliance secret from the central government, at least some senior civilian leaders apparently knew of and supported military evasions of Versailles.⁴

The Allies reportedly succeeded in persuading Germany to reduce its army to 100,000 men.⁵ However, this “legal army” kept close relations with numerous large paramilitary groups, often composed of demobilized troops. The police forces were never reduced to their 1913 level or decentralized in accordance with the Treaty. The hundreds of thousands of German police and paramilitary groups helped to provide an important basis for the large *Wehrmacht* of the 1930s.⁶

Further, contrary to the Allies’ intention, the ban on conscription and the length of service times, combined with the retention of the *de facto* General Staff and the nationalist backlash to Versailles, led to the German army being “forged into a tightly-knit, highly disciplined cadre force,

and the Problems of Enforcing German Disarmament, 1919-28,” *Journal of Strategic Studies*, Vol. 29, No. 2 (April 2006), pp. 301-321.

⁴ See Hans W. Gatzke, *Stresemann and the Rearmament of Germany* (Baltimore: Johns Hopkins University Press, 1954), and Burns and Urquidi, *op. cit.*, p. 176.

⁵ Richard J. Shuster, *German Disarmament after World War I: The Diplomacy of International Arms Inspection 1920-1931* (New York: Routledge 2006) pp. 77-78.

⁶ Neal H. Petersen, “The Versailles Treaty: Imposed Disarmament,” in Richard Dean Burns, ed., *Encyclopedia of Arms Control and Disarmament*, Vol. II, Part 3: Historical Dimensions to 1945 (New York: Charles Scribner’s Sons, 1993), p. 631.

designed not only to resist foreign attack but to provide the basis for later expansion.”⁷

The IACCs also focused on the major German weapons firms, especially Krupp. Under strict allied supervision, the Krupp complex in Germany was allowed to produce only four types of guns and replacement parts for ships, but maintained much of its skilled work force. Further, Krupp developed and produced new artillery, anti-aircraft guns and tanks in wholly-owned plants in Sweden and the Netherlands.⁸ These plants circumvented Versailles, but probably did not violate it because arms production abroad was not explicitly prohibited

As required by the Treaty, the German army destroyed virtually all of its tanks, armored cars and heavy artillery. Army leaders reportedly saw this as another opportunity to lay a foundation for a future modern military—unlike France and Great Britain, which had huge quantities of aging equipment. Beginning in 1925, top Krupp arms designers, operating under a false name, “developed eight types of heavy artillery, howitzers, and light field guns; a new, mobile 201-mm mortar; and an entire family of tanks.” Secret prototype production of tanks and armored cars began in 1926 and also took place openly in Sweden.⁹ The 1922 Treaty of Rapallo between Germany and the Soviet Union led quickly to clandestine military cooperation which further circumvented the Versailles provisions. A Junkers aircraft plant became one of the most important in the

⁷ Richard Dean Burns and Donald Urquidi, *Disarmament in Perspective: An Analysis of Selected Arms Control and Disarmament Agreements between the World Wars 1919-1939*, Vol. I Disarmament and the Peace Conference (Los Angeles: California State College at Los Angeles Foundation, July 1968), p. 176.

⁸ Burton Whaley, *Covert German Rearmament, 1919-1939: Deception and Misperception* (Frederick, MD: University Publications of America, Foreign Intelligence Books Series, 1984), pp. 10-11.

⁹ Whaley, *op. cit.*, pp. 28-33.

Soviet Union, and a joint armored warfare testing facility in Kazan reportedly was critical to later German tank warfare.¹⁰

The German Navy in the 1920s also helped to establish a foundation for Hitler's navy a decade later. After an initial violation of the Treaty (when the Navy scuttled its fleet in Scapa Flow rather than surrender it to the Allies), the Navy complied with the central limits on the size and number of its ships. However, in the mid-1920s, it secretly trained volunteer sailors who could function as a reserve.¹¹ More important, development and production of German-designed submarines took place in the Netherlands, Japan, Spain, Finland and Turkey. Late in the period of this case study, U-boat frames and parts were smuggled into the Kiel naval base; by 1934, 12 submarines simply awaited assembly.¹² In 1929, production started on three pocket battleships that would exceed the Treaty tonnage limits.¹³

Violations of the air provisions of Versailles were widespread and often difficult to detect, given the dual-use nature of aircraft. Experienced pilots were incorporated throughout the Army, and the War Ministry secretly funded private aviation activities. German aircraft development work took place in the Netherlands, Denmark, Switzerland, Sweden, and Russia. The 1926 creation of Lufthansa as the state commercial airline

¹⁰ Ian Johnson, "Sowing the Wind: The First Soviet-German Military Pact and the Origins of World War II," in *War on the Rocks*, available at <https://warontherocks.com>.

¹¹ Captain Schuessler (Navy), ed., "The Fight of the Navy Against Versailles 1919-1935," Published by the High Command of the German Navy Berlin 1937, in Nuernberg Military Tribunal, *Trials of War Criminals before the Nuernberg Military Tribunals Under Control Council Law No. 10, Nuernberg, October 1946-April 1949*, Vol. X (Washington: Government Publishing Office, 1951), pp. 447-448.

¹² Whaley, op. cit., pp. 27-28.

¹³ Burns, ed., op. cit., p. 14.

provided a perfect cover for air force testing and training.¹⁴ Also important was the clandestine German-Soviet air training and testing facility at Lipetsk, at which almost 1000 German pilots, mechanics and engineers trained, and all German aircraft manufacturers tested their prototypes.¹⁵ Thus, as with the Army and Navy, violations and circumventions of the Versailles air clauses helped to build a solid foundation for the Nazi *Luftwaffe*.

Germany was, of course, fully responsible for its violations and evasions of the Versailles disarmament clauses. Weakness of enforcement, however, contributed importantly, caused by serious British-French differences and from a combination of “enforcement fatigue” and wishful thinking that affected even France by 1925.

France initially insisted on strict implementation of all Versailles Treaty provisions, in an effort to prevent Germany from ever again threatening France. Most battles of the First World War took place on French territory, with consequent huge economic damage and loss of life. France and Belgium occupied the Ruhr in 1923 after Germany failed to meet its reparations obligations, and advocated Rhineland occupations in response to disarmament shortcomings.

The British motivations were completely different. London wanted early implementation of the major Versailles disarmament provisions, an end to the IACCs within months, and German admission to the League of Nations. The United Kingdom seemed more concerned with threats from the Soviet Union, the German Communist Party and an overly-dominant France than with German resurgence. Further, many in the British Government and

¹⁴ *Ibid.*, pp. 14-15.

¹⁵ Johnson, *op. cit.*, pp. 2-3.

society came to view the Treaty as unduly harsh, meriting loose enforcement at most.¹⁶

In the early 1920s, when Britain and France presented a united front and brandished the threat of new or continued territorial occupations, they had some success in persuading Germany to improve compliance. But the outcome was different after the Allied Control Commission in December 1924 reported several areas of continued German noncompliance: reconstruction of the Great General Staff; recruitment and training of volunteers; conversion of arms factories; excess military equipment; and failure to reorganize the police, to prohibit war material export and import, or to adjust Army recruitment and organization.¹⁷ Germany reacted with a proposal for a western security treaty, which supposedly would address France's fundamental concerns about German armament. The result was the October 1925 Locarno Pact, for which the French, British and Germany Foreign Ministers received the Nobel Peace Prize. The "Spirit of Locarno" – wishful thinking reinforced by fatigue – led the French to join the British in withdrawal from the Rhineland on January 31, 1926, despite the outstanding compliance issues.¹⁸ One year later, the IACCs were disbanded, even though most of those issues were unresolved. With the end of Allied monitoring, German research development and production of prohibited arms began to accelerate. Moreover, the absence of in-country monitors and the weakness of Allied intelligence "meant that design, testing, and training could proceed under thinner, less hampering cover."¹⁹

Nazi Rearmament

¹⁶ Barros, op. cit., *passim*.

¹⁷ Gatzke, op. cit., pp. 28-29.

¹⁸ *Ibid.*, pp. 34-45.

¹⁹ Burns, ed., op. cit., p. 17.

For the first two years that Hitler was in power, he continued the Weimar practice of covert violations and open evasions, but on a much greater scale. In 1933, he put the main paramilitary organizations under Army jurisdiction. To circumvent the conscription ban, Hitler in 1934 created the National Labor Service, obligatory for 18-year-old males. The secret air force was expanded, under civilian cover. In April 1934, rearmament was secretly ordered.

In March 1935, Hitler publicly renounced the Versailles disarmament provisions. He introduced universal military service and announced the creation of the *Wehrmacht*, which was to have 500,000 men in 36 divisions. Air Minister Hermann Goering announced the formation of the *Luftwaffe*. The Allies objected, but took no action. In April 1935, the French, British and Italian prime ministers reaffirmed the Locarno Pact and agreed to oppose *any further* German effort to change the Versailles Treaty; the pattern of 1930s appeasement was established.

In March 1936, German troops marched into the Rhineland. The British and French responded with strong words. The Allied reactions to the remilitarization of the Rhineland, as well as to all the other military actions by Hitler starting in 1935, were based on a strong overestimation of German military strength, consequent fear of armed conflict, and a British tendency toward appeasement that would find its apotheosis at Munich in 1938.

Case Study Two: United States Versus the Soviet Krasnoyarsk Radar Violation of the Anti-Ballistic Missile (ABM) Treaty, 1983-1989

The central obligation of the 1972 Treaty between the United States and the Soviet Union on the Limitation of Anti-Ballistic Missile Systems (ABM Treaty) was “not to deploy ABM systems for a defense of the territory of its country and not to provide a base for such a defense, and not to deploy ABM systems for defense of an individual region except as provided for in Article III of the Treaty.” Article III allowed two ABM deployment sites of 100 launchers each—one around the national capital and one around an intercontinental ballistic missile (ICBM) silo field; a 1974 protocol reduced that to one site, defending either the national capital or an ICBM field.

Large-phased array radars (LPARs) for ballistic missile detection and tracking were considered the long-lead-time components for defense of the national territory. The Treaty allowed early-warning LPARs only on the national periphery and oriented outward—thus permitting legitimate early warning capabilities, while limiting the tracking and handoff capability that could give the radars an active missile defense role.²⁰ ABM radars, whose numbers and capabilities were specified, were allowed only at the permitted ABM deployment sites. The Treaty did not mention, and therefore did not constrain, LPARs other than for early warning and ABM.

In July 1983, the Intelligence Community discovered an LPAR under construction near the city of Krasnoyarsk in

²⁰ Carnes Lord and Roger Barnett, *Soviet Arms Control Violations and United States Compliance Policy* (Fairfax, VA: National Security Research, August 1988), p. 230.

Siberia.²¹ Analysts estimated that construction started in 1981 or 1982. We do not know why it took U.S. intelligence a year or more to find this huge installation. The LPAR could not be hidden, even in early construction stages. The transmitter building grew to approximately 180 feet tall, 500 feet long and 300 feet wide; the receiver was just as long and wide, but even taller, at 270 feet.²²

The Krasnoyarsk radar was neither located on the periphery of Soviet territory nor oriented outward. Instead, it was over 700 km. from the nearest border (to the south), and oriented northeast. The radar clearly violated the Treaty unless it was to operate for a purpose other than ballistic missile detection and tracking. As a result, the Soviets for several years argued that the radar was for space track, but its design, location and orientation were ill suited for that purpose.

In 1986, the Central Intelligence Agency (CIA) found that “the primary mission of this radar is ballistic missile detection and tracking. Further, we believe the Krasnoyarsk LPAR closes the final gap in the Soviet ballistic missile early warning (BMEW) and tracking network that includes LPARs and the older Hen House type radars.” The CIA report – or at least those portions made public – did not address whether the Krasnoyarsk radar was well suited for a battle management role, which would greatly enhance its potential contribution to a territorial ballistic missile defense.²³

The first Presidential Report to Congress on Soviet arms control compliance after the discovery of the Krasnoyarsk radar found that it “*almost certainly* [emphasis added]

²¹ Central Intelligence Agency, Directorate of Intelligence, *The Krasnoyarsk Radar: Closing the Final Gap in Coverage for Ballistic Missile Early Warning*, June 19, 1986, Release as Sanitized 2000, p. 1.

²² Lord and Barnett, op. cit., p. 236.

²³ Central Intelligence Agency, op. cit., p. 1.

constitutes a violation of legal obligations under the Anti-Ballistic Missile Treaty of 1972.”²⁴ Subsequent annual reports made progressively stronger judgments. In 1985, the United States found for the first time that the radar “and other ABM-related Soviet activities suggest that the USSR may be preparing an ABM defense of its national territory.”²⁵ In 1987, the radar was judged “a significant violation of a central element” of the Treaty.²⁶ That essentially meant that it was a material breach of the ABM Treaty.

The United States first raised the Krasnoyarsk violation in the Standing Consultative Commission (SCC), the ABM Treaty implementation body, in Summer 1983. The Soviet delegation insisted that the radar was for space track, and that in any case compliance determinations would not be possible before the radar began to operate.²⁷

Beginning in January 1985, bilateral consideration of the Krasnoyarsk radar shifted to the ministerial and Presidential levels. Foreign Minister Shevardnadze and General Secretary Gorbachev, who came into office in March 1985, did not repeat the space track argument, but instead floated various proposals to resolve the issue. One

²⁴ The White House, Office of the Press Secretary, *The President's Report to the Congress on Soviet Noncompliance with Arms Control Agreements*, January 31, 1984, available at <https://www.cia.gov>, p. 4.

²⁵ The White House, Office of the Press Secretary, *The President's Unclassified Report on Soviet Noncompliance with Arms Control Agreements*, December 23, 1985, available at <http://www.presidency.ucsb.edu>, pp. 6-8.

²⁶ The White House, Office of the Press Secretary, *The President's Unclassified Report on Soviet Noncompliance with Arms Control Agreements*, December 2, 1988, p. 16.

²⁷ “Decisions Regarding Instructions for the SCC Session Beginning October 9, 1985,” September 28, 1985, attachment to *Memorandum for Director of Central Intelligence, From Chief, Arms Control Intelligence Staff, Subject: SCC-XXIX Decision Document, 7 October 1985, Sanitized Copy Approved for Release 2011/06/04*, available at www.cia.gov, p. 33.

idea was to cease construction at Krasnoyarsk if the United States would do the same with LPAR construction at Thule, Greenland and Fylingdales, the United Kingdom. The United States countered that those two radars were “grandfathered” under the ABM Treaty, and were simply being modernized in accordance with the Treaty.²⁸ In one final effort to salvage the Krasnoyarsk radar, Gorbachev proposed in September 1988 to convert it into a “Center for International Cooperation in Peaceful Space Activities,” and to invite American scientists to the site.²⁹ The proposal was a non-starter: it did not meet the U.S. requirements for dismantlement, and the site was an impractical, inhospitable one for an international center. Finally, in September 1989, Gorbachev wrote to President George H.W. Bush that the Soviet Union would dismantle the Krasnoyarsk radar without conditions.³⁰ One month later, in a speech to the Supreme Soviet, Shevardnadze announced that the radar was a “clear violation” of the ABM Treaty and would be dismantled.

We likely will never know why or precisely for what specific functions(s) the Soviet Union decided to locate the LPAR at Krasnoyarsk. Most former Soviet officials maintain that it was for early warning, designed to close a gap in early warning coverage. They claim that they

²⁸ See, for example, Department of State Briefing Paper, *The Geneva Talks*, n.d. [October 16, 1985], p. 2; and Department of State, Executive Secretariat, “Memorandum of Conversation, The Secretary’s Meeting with Shevardnadze – Second Small Group Meeting: Arms Control Issues,” Washington, September 22, 1988, in James Graham Wilson, ed., *Foreign Relations of the United States, 1981-1988*, Volume VI – Soviet Union October 1986-January 1989 (Washington: United States Government Publishing Office, 2016), pp. 1157-1159.

²⁹ Idem.

³⁰ The White House, *Memorandum of Conversation: Meeting with Eduard Shevardnadze, Foreign Minister of the Soviet Union*, September 21, 1989, declassified on August 21, 2009, p. 4, available at <https://bush41library.tamu.edu>.

originally chose a location in the far northeast that would be both Treaty-compliant and effective in closing the gap. However, that site was both remote and above the permafrost, making the radar difficult and expensive to construct, maintain and operate. These same commentators claim that the Soviet Government knew the Krasnoyarsk radar would violate the ABM Treaty, but doubted that the United States would see it as more than a technical violation.³¹

From the time the Krasnoyarsk construction was discovered, U.S. Government agencies agreed that it violated the ABM Treaty, but differed on the reasons for the site and its battle management potential. Defense Department officials dismissed the production costs/difficulty arguments used to justify the choice of Krasnoyarsk. They found the site to be optimized for battle management, in conjunction with the other Pechora-class LPARs.³²

The United States held steadfastly to its position that the only way to resolve the Krasnoyarsk violation was to dismantle the radar. Only the foundations of the transmitter and receiver buildings could remain.³³ That resistance to compromise, and continued pressure at the highest levels, combined with the Gorbachev Government's desire to forge closer relations with the West including through arms control, ultimately proved effective in persuading the Soviets to abandon the Krasnoyarsk LPAR.

³¹ Aleksandr G. Savelyev and Nikolay Detinov. "View from Russia: The Krasnoyarsk Affair," *Comparative Strategy*, Vol. 12, No. 3 (1993), pp. 345-346, and Raymond Garthoff, "Case of the Wandering Radar," *Bulletin of the Atomic Scientists*, Vol. 47, No. 6 (July-August 1991), pp. 7-8.

³² For a detailed discussion of this issue, see Lord and Barnett, op .cit., pp. 253-261.

³³ See, for example, The White House, *National Security Directive 36: United States Arms Control Policy*, February 6, 1990, declassified on March 22, 2010, p. 6, available at <https://bush41library.tamu.edu>.

Still, the United States did little to threaten consequences if the Soviet Union continued to pursue the Krasnoyarsk radar and other treaty violations. In May 1986, the President announced responses to Soviet arms control violations. The primary ones were abandonment of the interim restraint policy,³⁴ and continuation of the strategic modernization and Strategic Defense Initiative (SDI) programs. The President also directed a Defense Department study of further ICBM options and acceleration of the advanced cruise missile program. There were no responses tailored specifically to the Krasnoyarsk violation.

While the United States held firm in demanding the full dismantlement of the Krasnoyarsk radar, it did not sustain the one diplomatic threat it made to induce Soviet compliance. In March 1987, the President stated that: "Compliance with past arms control commitments is an essential prerequisite for future arms control agreements."³⁵ Yet nine months later, in December 1987, the United States and Soviet Union signed the Intermediate-Range Nuclear Forces (INF) Treaty.

Thereafter the U.S. Government continued to link the Defense and Space and START agreements to resolution of compliance issues. For example, at the August 1988 ABM Treaty Review Conference, the United States "made clear that the continuing existence of the Krasnoyarsk radar makes it impossible to conclude any future arms agreements in the START or Defense and Space areas."³⁶

³⁴ Under the interim restraint policy, adopted in 1982, the United States would continue to abide by the provisions of SALT II as long as the Soviet Union did the same and the sides were negotiating a new START Treaty.

³⁵ The White House, Office of the Press Secretary, *The President's Unclassified Report on Soviet Noncompliance with Arms Control Agreements*, March 10, 1987, available at <https://www.presidency.ucsb.edu>, p. 3.

³⁶ "United States Unilateral Statement Following ABM Treaty Review," Geneva, Switzerland, August 31, 1988, available at <https://2009-2017.state.gov>. The Nuclear and Space Talks (NST), which began in

That condition was relaxed after the Soviet admission of the Krasnoyarsk violation and agreement to dismantle the radar. In July 1991, President Bush and General Secretary Gorbachev signed the START Treaty.

In January 1993, the George H.W. Bush Administration—in its last compliance report and the first after the fall of the Soviet Union – reported that: “In April 1992, the United States, in light of the changed political and security relationship between the two countries, agreed in principle to a Russian request to convert the Krasnoyarsk radar (which it has been dismantling, as an ABM Treaty violation), into a furniture factory.”³⁷ Press reports indicated that the transmitter and receiver buildings were significantly reduced by February 1993.

In 1993, the annual compliance report stated that “the United States detected no activities on the part of the states of the former Soviet Union that gave rise to questions regarding compliance with the provisions of the ABM Treaty.”³⁸ The Krasnoyarsk issue was over. Completely unrelated, the Treaty would end in June 2002.

March 1985, formed the umbrella for three different U.S.-Soviet negotiations, on INF, START and Defense and Space arms control. Initially, the Soviet Union insisted that none of the agreements could be completed until all three were. Gorbachev dropped that linkage at Reykjavik in October 1986. The INF and START Treaties were signed in 1987 and 1991, respectively; the sides never completed a Defense and Space agreement.

³⁷ The U.S. Arms Control and Disarmament Agency, *Adherence to and Compliance with Arms Control Agreements and The President's Report to Congress on Soviet Noncompliance with Arms Control Agreements*, January 14, 1993, available at <https://babel.hathitrust.org>, p. 12. During the period of this report, Congress ceased to require the Soviet noncompliance report, and called instead for a broader compliance report.

³⁸ Department of State, *Adherence to and Compliance with Arms Control Agreements: 1998 Report Submitted to the Congress*, Washington, DC, n.d. [probably 1999], p. 4, available at <https://1997-2001.state.gov>.

Case Study Three: United States and Others Versus the Iraqi Real and Apparent Violations of the UNSCRs on WMD Disarmament, 1991-2003

Iraq's disarmament obligations arose from its August 1990 invasion of Kuwait and subsequent defeat in the 1991 Gulf War. From April 1991 to November 2002, the UN Security Council passed seven resolutions on Iraq's WMD disarmament and related obligations. The first and most important was UNSCR 687, which required Iraq to "unconditionally accept the destruction, removal or rendering harmless, under international supervision, of all chemical and biological weapons and all stocks of agents and all related subsystems and components and all research, development, support and manufacturing facilities... all ballistic missiles with a range greater than one hundred and fifty kilometers and related major parts, and repair and production facilities." UNSCR 687 also forbade Iraq to acquire or develop nuclear weapons, nuclear-weapons material or any related subsystems, components, research, development, support or manufacturing facilities. It required Iraq to declare locations and amounts of all prohibited items, to accept on-site inspection, and to turn over all prohibited items for elimination or removal. UNSCR 687 created the UN Special Commission (UNSCOM) to carry out inspections and address chemical and biological weapons and related components, equipment and facilities. The International Atomic Energy Agency (IAEA) was to do the same in the nuclear area. If

Commercial satellite photography in 2017 revealed that at some point the radar was completely dismantled.

and when Iraq accepted the resolution, a formal cease-fire would take effect.³⁹

UNSCOM inspectors were withdrawn from Iraq in November 1998. In December 1999, UNSCR 1284 in December 1999 created the UN Monitoring and Verification Commission (UNMOVIC) to replace UNSCOM. Neither UNMOVIC nor the IAEA was able to enter Iraq for almost three years after the passage of this resolution. Finally, in November 2002, the Security Council unanimously passed UNSCR 1441 – the last and the most emphatic of the WMD compliance resolutions. Finding Iraq in “material breach of its obligations under relevant resolutions,” and giving it “a final opportunity to comply,” the resolution required Iraq to provide “a currently accurate, full, and complete declaration of all aspects of its [WMD and delivery vehicle] programmes” and to grant expanded access to UNMOVIC and IAEA inspectors.⁴⁰

Closely related to the UNSCRs on Iraqi disarmament were those on sanctions. UNSCR 661 in August 1990 imposed comprehensive economic and financial sanctions on Iraq.⁴¹ UNSCRs in 1991 softened those slightly, allowing limited oil sales with revenue to go to humanitarian relief. In 1995, the UNSC created the Oil-for-Food Program, which was to finance humanitarian relief and reparations to Kuwait. Although Iraq blatantly exploited the program, it continued until just before the 2003 invasion.

After agreeing to UNSCR 687, Iraq tried to get by with incomplete accounting, deception, and impediments to UN

³⁹ United Nations Security Council, *Resolution 687 (1991) Adopted by the Security Council at its 2981st meeting on 3 April 1991*, S/RES/687 (1991), available at <http://un.org>, paras. 8-13.

⁴⁰ United Nations Security Council, *Resolution 1441 (2002) Adopted by the Security Council at its 4644th meeting, on 8 November 1992*, S/RES/1441 (2002), paras. 1, 2, 3, 5, 7, 9 and 13, available at <http://www.un.org>.

⁴¹ United Nations Security Council, *Resolution 661 (1990) of 6 August 1990*, available at <http://www.un.org>.

inspections. Its first formal declarations about its WMD programs in April 1991 declared that it had 53 Scud-type missiles, some chemical weapons, and no biological weapons or nuclear weapons program.⁴² That was all a lie. Iraq also tried to sanitize some sites before inspections and to hide many records documenting its WMD programs. In November 1993, Iraq agreed to the UN demand for a permanent UNSCOM/IAEA monitoring system.⁴³ As UN inspectors conducted a “baseline survey,” Iraq formed a counterpart organization to monitor their movement, obstruct any surprise inspections, and prevent inspectors from finding anything that Iraq did not want them to find.⁴⁴

Over time, the Iraqi regime manipulated various UN participants in an effort to gain some more control over the inspection process as well as over its facilities and capabilities. Toward this end, Iraq reportedly used bribes and other economic incentives to win the support of countries with influence in the UNSC, most notably Russia and France.⁴⁵

In August 1995, Hussein Kamel, the son-in-law of Saddam Hussein and the person responsible for Iraq’s military industry and WMD, fled Iraq and was granted asylum in Jordan. Thereafter, Iraqi officials quickly provided new information on WMD programs to UNSCOM and the IAEA, and blamed the earlier, evasive declarations on Kamel himself. The new revelations included documentation of biological weapons production and a “crash program” to develop a nuclear weapon. The nuclear

⁴² Charles Duelfer, *Hide and Seek: The Search for Truth in Iraq* (New York: Public Affairs, 2009), p. 79.

⁴³ “Regime Strategy and WMD Timeline Events,” in *Comprehensive Report of the Special Advisor to the DCI on Iraq’s WMD*, September 30, 2004, available at <https://www.cia.gov>.

⁴⁴ Duelfer, *op. cit.*, pp. 92-93.

⁴⁵ *Ibid.*, p. 170.

program involved diverting “fissionable material from research reactor fuel that was under IAEA safeguards.”⁴⁶

Revelations from the Kamel defection reenergized inspection activities, dimmed the Iraqis’ hope of having sanctions lifted, and ultimately led to increase Iraqi opposition to UNSCOM. In October 1997, Iraq expelled all U.S. members of inspection teams. The UN withdrew all inspectors in protest and the United States and Great Britain once again began a military buildup in the Gulf.⁴⁷ Inspections resumed in February 1998, were suspended in October, and then resumed in November. They did not continue for long.

In December 1998, the heads of UNSCOM and the IAEA reported on their experience in Iraq over the previous month. The IAEA said that it had received “the necessary level of cooperation to enable [inspections, visits, interviews and technical discussions] to be completed efficiently and effectively.”⁴⁸ The UNSCOM judgment was very different, reporting that during the previous month Iraq had initiated “new forms of restrictions” on the Commission’s work” and “ensured that no progress was able to be made in either the fields of disarmament or accounting for its prohibited weapons programs.”⁴⁹

⁴⁶ Hans Blix, *Disarming Iraq* (New York: Pantheon Books, 2004), p. 30.

⁴⁷ U.S. Department of Defense, *Fact Sheet on Operation Desert Fox*, available at http://archive.defense.gov/specials/desert_fox/.

⁴⁸ “Annex I: Letter dated 14 December 1998 from the Director General of the International Atomic Energy Agency addressed to the Secretary-General,” in *Letter Dated 15 December 1998 from the Secretary-General Addressed to the President of the Security Council, S/1998/1172*, available at <http://www.us.org>.

⁴⁹ “Annex II: Letter Dated 15 December 1998 from the Executive Chairman of the Special Commission established by the Secretary-General pursuant to paragraph 9(b)(i) of Security Council resolution 687 (1991) addressed to the Secretary-General,” in *Letter Dated 15 December 1998*, op. cit., p. 7.

That night, inspectors began evacuating Iraq.⁵⁰ The next day, the United States and Great Britain launched Operation Desert Fox – a 70-hour air campaign against key targets in Iraq, including WMD- and missile-related facilities.⁵¹ According to the US Air Force, “Operation Desert Fox inflicted serious damage to Iraq’s missile development program, although its effects on any WMD program were not clear.”⁵²

Inspectors were not allowed in Iraq between Operation Desert Fox in December 1998, and November 2002 (just after passage of the UNSCR essentially approving the subsequent invasion). Saddam Hussein undoubtedly hoped that a new show of cooperation would stave off the invasion. In January 2003, UNMOVIC briefed the UNSC that it still had major unanswered questions about Iraqi work on VX, unaccounted chemical bombs, anthrax production and stockpiling, and development of two new missiles tested beyond 150 km.⁵³ Two weeks later, the IAEA reported much more positively that “the IAEA concluded, by December 1998, that it had neutralized Iraq’s past nuclear programme and that, therefore, there were no unresolved disarmament issues left at that time.... We have to date found no evidence of ongoing prohibited nuclear or nuclear related activities in Iraq.”⁵⁴

On March 18, 2003, all UNMOVIC and IAEA inspectors left Iraq. Two days later, United States and coalition forces

⁵⁰ Duelfer, *op. cit.*, pp. 157-158.

⁵¹ Department of Defense, *Operation Desert Fox*, *op. cit.*

⁵² Captain Gregory Ball, USAFR, “1998 – Operation Desert Fox,” August 23, 2011; available at www.afhistory.af.mil.

⁵³ *The Security Council, 27 January 2003: An Update on Inspection, Executive Chairman of UNMOVIC, Dr. Hans Blix*, as delivered, available at <http://www.un.org>.

⁵⁴ “Mohamed El Baradei’s report to the UN security council,” *The Guardian*, February 14, 2003, available at <https://www.theguardian.com>.

launched Operation Iraqi Freedom. It was only after the 2003 invasion that the United States and other countries discovered that virtually all Iraqi WMD and prohibited missile capabilities had already been destroyed – including those described by UNMOVIC as outstanding issues in January.

Nevertheless, Iraq clearly and repeatedly violated successive UNSCRs, including by its false declarations, unilateral destruction of prohibited items without inspectors' supervision, and obstruction of inspection teams. The U.S. Iraq Survey Group (ISG) also found that Saddam Hussein planned to resurrect Iraq's WMD and longer-range missile capability after sanctions were lifted, focusing initially on chemical weapons and ballistic missiles, and looking to biological and nuclear weapons capability over the longer term.⁵⁵

This case study ends with a major outstanding question, which may never be fully resolved. Why did Saddam Hussein go to such lengths to create strong suspicions in the international community that he retained chemical and biological weapons, longer-range missiles, and associated capabilities – thus violating UN Security Council transparency obligations, and inviting the military action that he wanted to avoid?

Case Study Four: United States and Others Versus the North Korean Violations of Its Nuclear Arms Control Obligations, 1992-2020

Throughout the period of this case study, North Korea's noncompliance with its nuclear agreements and

⁵⁵ "Key Findings: Biological," in *Comprehensive Report of the Special Advisor to the DCI on Iraq's WMD*, op. cit.

international resolutions followed a repetitive, cyclical pattern. The list of nuclear-related international obligations that the North Koreans violated during the period of this case study is a long one:

- The Nuclear Nonproliferation Treaty (NPT), to which it acceded in December 1985;
- The January 1992 IAEA Safeguards Agreement;
- The January 1992 Joint Declaration of South and North Korea on the Denuclearization of the Korean Peninsula (hereafter “Denuclearization Agreement”);
- The October 1994 Agreed Framework between the United States and the Democratic People’s Republic of Korea;
- The September 2005 Joint Statement of the Fourth Round of the Six-Party Talks;
- The February and October 2007 Implementation Agreements for the Si-Party Talks Joint Statement; and
- UNSCRs 1695 (July 2006), 1718 (October 2006), 1874 (June 2009), 2094 (March 2013), 2270 (March 2016), 2321 (November 2016), and 2375 (September 2017).

The main actors involved with those agreements were North and South Korea, the United States, Japan, China, Russia, the IAEA and the UNSC. The focus in the 1990s was on bilateral agreements with North Korea: first by South Korea, and then by the United States. During the George W. Bush Administration, attention shifted to multilateral efforts, in the Six-Party Talks,⁵⁶ the IAEA and the UNSC. Under President Obama, the sole focus came to be the UNSC. The Trump Administration adopted a new bilateral

⁵⁶ The Six Parties were China, Japan, North Korea, Russia, South Korea, and the United States.

approach, featuring personal diplomacy between the President and Chairman Kim Jong-Un. Despite these different approaches over the past three decades, the outcomes have remained the same: continued North Korean noncompliance and consequent qualitative and quantitative improvements in its nuclear weapons programs.

The Agreement-Violation Cycle

North Korea joined the NPT in 1985, and violated it almost immediately. Pyongyang failed to comply with the NPT obligation to conclude a comprehensive IAEA safeguards agreement within 18 months of Treaty accession. In what became a continuing pattern, the visible compliance issue involved monitoring and verification, but behind North Korea's refusal to accept international nuclear monitoring lay its determination to preserve and advance its nuclear weapons program.

In January 1992, North and South Korea completed the Joint Declaration on the Denuclearization of the Korean Peninsula, under which they committed not to produce, possess, store, deploy or use nuclear weapons, or to pursue uranium enrichment or nuclear reprocessing. The Denuclearization Agreement also provided for verification by mutually agreed inspections.⁵⁷ That provision was never implemented. Even more important were North Korea's violations of the core elements of the agreement: its continued clandestine efforts to develop fissile material and nuclear weapons.

North Korea finally concluded an IAEA Safeguards Agreement in April 1992.⁵⁸ True to form, it submitted

⁵⁷ *Joint Declaration of the Denuclearization of the Korean Peninsula*, available at <https://2001-2009.state.gov>.

⁵⁸ International Atomic Energy Agency Information Circular, *Agreement of 30 January 1992 between the Government of the Democratic People's*

woefully incomplete nuclear material declarations to the IAEA, declaring a mere 90 grams of plutonium and seven nuclear facilities. After North Korea refused to allow IAEA inspections of two undeclared facilities, the IAEA Board of Governors in February 1993 required North Korea to accept a mandatory “special inspection” of the two facilities. In response, North Korea not only refused to comply, but gave notice of intent to withdraw from the NPT.⁵⁹

On June 11, 1993, just one day before that NPT withdrawal was to take effect, senior U.S. and North Korean negotiators issued on June 11, 1993 a Joint Statement, under which the two sides “agreed to principles of: assurances against the threat and use of force, including nuclear weapons; peace and security in a nuclear-free Korean Peninsula, including impartial application of full-scope safeguards, mutual respect for each other’s sovereignty, and non-interference in each other’s internal affairs; and support for the peaceful reunification of North Korea.” In exchange, the DPRK suspended its withdrawal from the NPT.⁶⁰

Despite this agreement, North Korea systematically stymied IAEA inspection efforts over the next year. Then,

Republic of Korea and the International Atomic Energy Agency for the Application of Safeguards in Connection with the Treaty on the Non-Proliferation of Nuclear Weapons, INFIRC/403, May 1992, available at <https://www.iaea.org>.

⁵⁹ David Fischer, “The DPRK’s Violation of the NPT Safeguards Agreement with the IAEA,” excerpt from *History of the International Atomic Energy Agency* (Vienna: IAEA, 1997), available at <https://www.iaea.org>, pp. 1-2; and International Atomic Energy Agency, *Fact Sheet on DPRK Nuclear Safeguards*, n.d., available at <https://www.iaea.org>.

⁶⁰ Embassy of Korea in the U.S., *Joint Statement of Democratic People’s Republic of Korea and the United States of America, New York, June 11, 1993*” available at www.nautilus.org. See Also Joel S. Wit, Daniel B. Poneman and Robert L. Gallucci, *Going Critical: The First North Korean Nuclear Crisis* (Washington, DC: Brookings Institution Press, April 2004), Chapter 3.

in June 1994, Pyongyang gave notice of intent to withdraw from the IAEA.⁶¹ In response, the United States considered various options – military, economic, diplomatic – none of which was deemed both effective and palatable.

This “first North Korean nuclear crisis” was resolved (at least temporarily) in October 1994, when the United States and North Korea signed the Agreed Framework. Under that accord, Pyongyang would receive substantial benefits essentially for complying with its NPT, IAEA Safeguards and Denuclearization Agreement obligations.

In the Agreed Framework, the United States committed to:

- Provide formal assurances to North Korea against the threat of U.S. nuclear weapons use;
- Create an international consortium to supply two light water power reactors (LWRs) to the North;
- Arrange for heavy fuel oil (HFO) supplies to the North;
- Work with the North on means to store and dispose of spent fuel without reprocessing;
- Ease trade restrictions and progress toward diplomatic relations.

North Korea committed to:

- Remain an NPT party;
- Allow implementation of its IAEA safeguards agreement, although full compliance would await “significant completion” of the LWR project;

⁶¹ International Atomic Energy Agency General Conference, *Implementation of the Agreement between the Agency and the Democratic People’s Republic of Korea for the Application of Safeguards in Connection with the Treaty on the Non-Proliferation of Nuclear Weapons* (INFIRC/403, GC(XXXVIII/19), September 16, 1994, available at <https://www.iaea.org>).

- “consistently take steps to implement” the 1992 Denuclearization Agreement, and engage in a North-South dialogue;
- Freeze its graphite-moderate reactors and related facilities, and finish dismantling them when the LWR project was completed.⁶²

The Agreed Framework collapsed in Fall 2002. In October, North Korea admitted privately to a U.S. Government delegation that it had a clandestine uranium enrichment program. In response, the North was found in noncompliance with all of its nuclear obligations—NPT, IAEA Safeguards, Denuclearization Agreement and Agreed Framework—and HFO deliveries were suspended. The LWR project was suspended in 2003, and finally terminated in November 2005.

In December 2002, following suspension of HFO deliveries, North Korea announced that it would restart the nuclear facilities frozen under the Agreed Framework. It cut all IAEA seals, disrupted surveillance equipment, and ordered all inspectors to leave the country. On January 6, the IAEA Board of Governors found North Korea in noncompliance with its Safeguards Agreement.⁶³ On January 10, Pyongyang announced that it would withdraw from the NPT the next day. North Korea claimed that it did

⁶² International Atomic Energy Information Circular, *Agreed Framework of 21 October 1994 between the United States of America and the Democratic People’s Republic of Korea*, INFCIRC/457, November 2, 1994, available at <https://www.iaea.org>.

⁶³ International Atomic Energy Agency Media Advisory, *IAEA Board of Governors Adopts Resolution on Safeguards in North Korea*, 6 January 2003, available at www.iaea.org. The resolution found North Korea in violation of its Safeguards Agreement, but did not address NPT compliance. Because the IAEA is not a party to the NPT, it cannot judge any state’s compliance with the Treaty; however, it is a party to all Safeguards Agreements.

not need to wait the required three months before withdrawal, because in 1993 it had suspended withdrawal only one day before the end of the notification period. Many governments and observers questioned that argument, but China blocked any UNSC consideration of the legality of the withdrawal.⁶⁴

In response to North Korea's NPT withdrawal, the United States levied some new unilateral sanctions, but also pursued a diplomatic track in the Six-Party Talks. Those resulted on September 19, 2005 in a Joint Statement in which:

- The parties reaffirmed the goal of "the verifiable denuclearization of the Korean Peninsula in a peaceful manner;"
- North Korea committed to abandoning all nuclear weapons and nuclear programs, and "returning, at an early date," to the NPT;
- The sides reaffirmed the 1992 North-South Denuclearization Agreement;
- The U.S. affirmed that it had no nuclear weapons on the Peninsula "and has no intention to attack or invade the DPRK with nuclear or conventional weapons;"
- The United States and Japan undertook to take steps to normalize their relations with North Korea;
- The sides agreed to pursue bilateral and/or multilateral cooperation on energy, trade and investment;

⁶⁴ See George Bunn and John B. Rhinelander, "NPT Withdrawal: Time for the Security Council to Step In," *Arms Control Today*, Vol. 35 (May 2005).

- China, Japan, South Korea, Russia and the United States expressed willingness to provide energy assistance to the DPRK;⁶⁵
- South Korea reaffirmed a proposal to provide two million kilowatts of electric power to the North;
- The parties “agreed to discuss, at an appropriate time, the subject” of LWRs
- The “directly related parties” committed to negotiate a “permanent peace regime on the Korean Peninsula at an appropriate separate forum;”
- The parties “agreed to take coordinated steps to implement the aforementioned consensus in a phased manner in line with the principle of ‘commitment for commitment, action for action.’”⁶⁶

The next three and a half years witnessed a cycle of escalating North Korean provocations and U.S. concessions. On July 4, 2006 U.S. time (a date hardly chosen at random), Pyongyang launched seven ballistic missiles in rapid succession; the UNSC responded with its first sanctions resolution. This, and all subsequent UNSCRs on North Korea, demanded that it return to, and comply with, the NPT, and end all ballistic missile programs. The subsequent resolutions also called for an end to North Korean nuclear programs. The North ignored all of them.

⁶⁵ While not an explicit part of the Joint Statement, the energy assistance was agreed to include 50,000 MT of HFO in a first phase and the equivalent of up to one million MT of HFO in a second phase. “Before the Six Party Talks broke down in March 2009, the DPRK had received 500,000 MT of HFO and equipment and 245,110 MT of fuel-equivalent assistance.” Mark E. Manyin and Mary Beth D. Nikitin, *Foreign Assistance to North Korea*, Congressional Research Service R40095, April 2, 2014, p. 6.

⁶⁶ Ministry of Foreign Affairs of the People’s Republic of China, *Joint Statement of the Fourth Round of the Six-Party Talks*, Beijing, 19 September 2005, available at www.fmprc.gov.cn.

October 2006 saw the first North Korea nuclear test, and a UNSCR with substantially stronger sanctions. Still, the United States and its partners chose to put new emphasis on negotiations and concessions. In February 2007, the Six-Party Talks agreed on initial steps to implement the Joint Statement, including a North Korean commitment to declare all of its nuclear programs and disable its nuclear facilities in return for an additional 950,000 tons of HFO or its equivalent. The United States would then help provide the energy aid, begin the process of removing North Korea from the state sponsors of terrorism list, and end the application of the Trading with the Enemy Act toward North Korea.⁶⁷

However, North Korea still did not comply with the Six-Party agreements. In January 2008, it finally submitted a declaration on its nuclear activities, but it was very incomplete. In response, the United States made more concessions. In June 2008, the United States agreed that North Korea could delay declaring uranium enrichment activities.⁶⁸ Further, even though the DPRK had not complied with its February 2007 commitments, the United States removed North Korea from the Trading with the Enemy Act, informed Congress it would do the same with the state sponsors of terrorism list, and signed into law an ability to waive Glenn Amendment sanctions on North Korea.

The revised declaration that North Korea submitted in June 2008 was much fuller than its predecessor regarding plutonium production, although silent on uranium enrichment. Still, North Korea steadfastly refused the

⁶⁷ Ministry of Foreign Affairs of the People's Republic of China, *Initial Actions for the Implementation of the Joint Statement*, Beijing, February 13, 2007, available at www.fmprc.gov.cn.

⁶⁸ Christopher R. Hill, *Outpost, Life on the Frontlines of American Diplomacy: A Memoir* (New York: Simon and Schuster, 2014), Chapter 19.

verification protocol that the United States deemed necessary. The Six-Party Talks collapsed over the issue, convening for the last time in November 2008.

On April 5, 2009, North Korea conducted a failed satellite launch, which the UNSC condemned a week later. One day after the UNSC action, on April 14, North Korea declared that it would no longer participate in the Six-Party Talks or be bound by any of its agreements, and expelled IAEA and U.S. inspectors from the Yongbyon nuclear complex. In May 2009, Pyongyang conducted its second nuclear test.

Bilateral talks by the Obama Administration in 2009 aimed at restarting the Six-Party process came to nothing.⁶⁹ Nuclear-related international obligations on North Korea were thereafter imposed by successive, increasingly strong, UNSC sanctions resolutions, in response to both long-range missile launches and to the third, fourth and fifth nuclear tests in February 2013, January 2016 and September 2016. International compliance with those resolutions severed most North Korean external economic dealings; the most important exceptions were those with China.⁷⁰ Supported by China and the black market, and willing to subject its population to severe hardship, North Korea consistently violated all provisions of the UNSCRs.

New, far more troubling developments occurred in Summer 2017. In July, North Korea tested two ICBMs; in September, its sixth nuclear test was the most powerful ever. The UNSC imposed additional, stronger sanctions,

⁶⁹ See Scott Snyder, "U.S. Policy toward North Korea," *SERI Quarterly*, January 2013.

⁷⁰ See Anthony Ruggiero, "Severing China-North Korea Financial Links, 3rd April 2017," *Foundation for Defense of Democracy Analysis and Commentary*, available at www.defenddemocracy.org; and Victor Cha, *The Impossible State: North Korea Past and Future* (New York: Harper Collins, 2013), pp. 315-345.

but failed to adopt the even stricter ones proposed by the United States.

Early in President Trump's Administration, the United States announced a policy toward North Korea of "maximum pressure and engagement," under which it increased sanctions but also expressed openness to negotiations if Pyongyang would take concrete steps toward reducing its weapons programs. In August 2017, President Trump shifted to military threats, saying that "North Korea will be met with fire and fury like the world has never seen," should it make more threats against the United States. A few days later, the President tweeted that "military solutions are now fully in place, locked and loaded, should North Korea act unwisely."⁷¹ On September 3, North Korea conducted its sixth nuclear test, which it claimed was of a thermonuclear weapon. That cannot be confirmed, but experts assessed that the yield was over 100 kt., significantly higher than that of any previous North Korean test and consistent with the thermonuclear claim. In late 2017, the bellicose US and North Korean rhetoric continued unabated, and the United States returned Pyongyang to the State Sponsor of Terrorism list.

US-North Korean relations changed dramatically in the next year, with the June 2018 meeting between the President and Kim Jong-Un in Singapore. All previous US Presidents had refused to meet with Kim Jong-Un, his father or grandfather, absent significant change in North Korea's political and military behavior. The mere fact of the meeting was a major concession by the United States. The Summit Joint Statement repeated familiar themes:

1. The United States and the DPRK commit to establish new US-DPRK relations;

⁷¹ Arms Control Association, *Chronology of US-North Korean Nuclear and Missile Diplomacy*, July 2020, available at <https://www.armscontrol.org>.

2. The United States and the DPRK will join their efforts to build a lasting and stable peace regime on the Korean Peninsula;
3. Reaffirming the April 27, 2018 Panmunjom Declaration [with the South Korean President], the DPRK commits to work toward complete denuclearization of the Korean Peninsula;
4. The United States and the DPRK commit to recovering POW/MIA remains, including the immediate repatriation of those already identified.⁷²

In a press conference after the Summit, the President announced an end to joint military exercises with South Korea, which he denounced as “provocative.”⁷³

President Trump and Kim Jong-Un met twice more over the next year, in Hanoi (February 2019) and the Korean Demilitarized Zone (June 2019). The latter visit was the first time that a sitting US President stepped foot on North Korean soil. The US cancelled a planned military exercise with South Korea in October 2018 and indefinitely postponed another in November 2019. Nevertheless, there was no progress on denuclearization. Beginning in late 2019, North Korea refused further negotiations until the United States ended its sanctions. It has conducted several tests of missiles which can reach our East Asian allies, but has not tested a nuclear warhead or ICBM since 2017. Its reasons for not doing so are unknown, at least publicly.

⁷² “Joint Statement of President Donald J. Trump of the United States of America and Chairman Kim Jong-Un of the Democratic People’s Republic of Korea at the Singapore Summit,” June 12, 2018, available at <https://trumpwhitehouse.archives.gov>.

⁷³ US Embassy and Consulate in the Republic of Korea, “Press Conference by President Trump,” June 12, 2018, available at <https://kr.usembassy.gov>.

Lessons Learned and Strategies for the Future

This section provides answers to the questions introduced at the start of this paper, identifies recurrent patterns in noncompliance and response, and recommends strategies for the future.

Questions

1. *Did the character of the government committing the violation incline it toward breaching the agreement?*

The four case studies clearly demonstrate that authoritarian regimes are more prone to noncompliance than others. Saddam Hussein, Kim Jong-Il and Hitler were completely unaccountable domestically and determined to terminate—or simply ignore—all external constraints on their ambitions. While their aims were similar, their success varied. Hitler was able to act as he wished until September 1939, especially because of British and French reluctance to confront him militarily. Until 2009, Kim Jong-Il occasionally chose to appear to cooperate—while violating agreements clandestinely—in order to win as many concessions as possible. From time to time, Saddam Hussein was forced to come into compliance with some obligations. In those instances, he seemed to do the minimum possible in order to achieve an end to sanctions and a subsequent reemergence of his WMD and longer-range missile programs. A great irony is that the secretive, authoritarian nature of the regime enabled Saddam Hussein to keep the secret—the paucity of his WMD holdings by 2003—whose nondisclosure brought about his downfall.

The Weimar Republic was democratic, but its military leaders retained the authoritarian characteristics of their imperial predecessors and were determined to evade the

Versailles constraints. While it is unclear how much Weimar political leaders knew about the military's noncompliance, they shared a common nationalism and opposition to the Treaty. At the same time, the relative weakness of the Weimar Government forced it to comply at least to some extent when the Allies discovered violations and took strong stands against them.

The Soviet governments responsible for the Krasnoyarsk radar differed among themselves. The traditional *apparatchik* regimes of Brezhnev, Andropov and Chernenko were definitely authoritarian, and tended to defer to the military's stated requirements. Gorbachev's approach was quite different, wanting improved relations with the United States more than it wanted to retain the Krasnoyarsk radar. Gorbachev also aimed to curb military spending, and his *glasnost* policy made it increasingly difficult to pursue clandestine arms control violations.

Authoritarian regimes have little patience with arms control constraints on their preferred actions, and do not face an unruly democratic process in pursuit of violations. That does not mean that democratic regimes assuredly will comply with arms control agreements. As the Versailles case study demonstrates, respect for the rule of law is more important than democracy *per se* in inclining a government to comply with arms control agreements. Although democratic governments tend to have respect for the rule of law, that is not inevitable—with consequent potentially adverse results for compliance.

2. *What did the violator hope to gain? What consequences did it anticipate?*

In at least three, and perhaps all, of the four cases, the violator sought to create a basis for eventual freedom from arms control constraints—whether through breakout, withdrawal or mutual agreement of the parties. Thus, the

Weimar Republic military (and perhaps political) leadership, and Hitler during his first two years in power, worked to provide a foundation for a resurgent military once the Versailles provisions were lifted. In 1935, Hitler simply disavowed those provisions unilaterally.

Saddam Hussein also hoped to revive his WMD and longer-range missile programs once the Gulf War sanctions ended. Lifting sanctions would require only simple changes to UNSCRs. By the late 1990s, Russia and China showed considerable sympathy for doing so. The UNSC did not go nearly that far, but agreed to progressive weakening of sanctions through the Oil-for-Food program.

Kim Il-Sung, Kim Jong-Il and Kim Jong-Un continued their nuclear and ballistic missile programs throughout the period of this report's case study, little constrained by the arms control agreements they concluded. The Agreed Framework provided significant economic benefits even as the North Koreans pursued their clandestine violations. They almost certainly expected the same from the 2005 Joint Statement, but were stymied by the other parties' demands for at least some verification. As a result, they ultimately chose their nuclear and ballistic missile programs over the political and economic benefits of the agreement. After the collapse of the Six-Party Joint Statement, Pyongyang ceased using arms control as a cover for its nuclear and missile programs. North Korea has not even pretended to comply with any of the UNSCRs against it – instead flaunting its increasing, and increasingly threatening, violations.

The Krasnoyarsk radar case might, or might not, differ from the other three regarding the fundamental aim(s) of the violation. It would differ if the Soviet/Russian explanation – that the location was chosen for financial and convenience reasons – is true. But it would resemble the other three if the underlying aim was to enable a territorial defense. The actual motives may have been a combination of the two. If the government wanted the Krasnoyarsk

radar to provide a critical element for a nationwide defense, it would be very convenient if it saved time and money – providing a comparatively benign alternative explanation for the violation into the bargain.

The Weimar Republic and Saddam Hussein sought to satisfy enforcers' demands to the minimum extent necessary when violations were detected. Both became more cooperative when faced with the threat or reality of military action, but neither completely came into compliance. In contrast, North Korea responded to detection with defiance, and was rewarded with new concessions by the United States and its partners. Particularly as "enforcement fatigue" grew through the 1920s and early 1930s, the Weimar Republic and then the Nazi regime could expect that discovered violations would not be severely punished. Saddam Hussein may have made a similar gamble in the period leading up to the Second Gulf War; that gamble did not pay off. Germany's gamble did pay off, until September 1939. We do not yet know the eventual outcome for North Korea.

Here as well, the Krasnoyarsk case differs from the others. The Soviets assumed the United States would quickly discover the early stages of the radar's construction, but also wrongly expected that the United States would consider it a minor technical violation, and accede to it.

3. *Had the violator accepted the agreement willingly or under duress? Was acceptance of the agreement the result of a strategic decision or was it a tactical expedient?*

The Weimar Republic and Iraq were forced to accept the relevant agreements. Neither government ever considered its disarmament obligations to be legitimate, and focused on creating the basis for their termination.

In contrast, the Soviet Union was a full, willing participant in the ABM Treaty. It appears to have done so

both as a tactical expedient and as a strategic decision, seeing it as a means to constrain the U.S. Safeguard program and to free resources for its offensive missile program. There is no evidence that it considered construction of the LPAR at Krasnoyarsk until some years after Treaty signature.

North Korea was pressured by the Soviet Union to join the NPT, but willingly agreed over time to the IAEA Safeguards Agreement, the North-South Denuclearization Agreement, the Agreed Framework and the 2005 Joint Statement. In all of those instances, it did so strictly as a tactical expedient—a convenient means to stave off political, economic and even military costs, while gaining economic and political benefits, all while maintaining clandestine nuclear programs. The UNSCRs between 2006 and 2017 all were imposed on Pyongyang, and all have been ignored.

4. *Were there aspects of the agreement that increased the likelihood of violations? Were there deficiencies in verification capabilities that the violator could exploit?*

The likelihood of violations was extremely high in three of the four cases, above all because the violators never accepted the agreements except on paper. The Versailles Treaty and the UNSCRs were imposed on Germany and Iraq, respectively. North Korea entered freely into its denuclearization agreements, but had no intention of complying with them. Here too the Krasnoyarsk case was an exception. The Soviet Union was a willing party to the ABM Treaty and saw much to gain from it. However, it readily violated the Treaty when it found its provisions inconvenient and/or it chose to create the basis for a territorial defense.

Some features of agreements studied here also contributed to violations. The depth and breadth of the

Versailles disarmament provisions made them impossible to monitor fully. The absence of constraints on missiles under 150 km range helped Iraq to maintain capabilities that could be used later to develop and produce longer-range missiles. The lack of ABM Treaty restrictions on LPARs for purposes other than early warning or ABM led at least some Russians to believe that they might succeed in convincing the United States that the Krasnoyarsk radar was for space track.

The four cases vary regarding verification capabilities. The inspection teams of the Versailles IACCs were too small to monitor compliance thoroughly and were hampered by the German liaison committee. After the last occupying troops were withdrawn in 1926, and the IACCs dissolved a year later, Allies were left only with their rather limited national intelligence capabilities.

The ABM Treaty provided for no verification other than National Technical Means (NTM.) Yet on-site measures would not have helped to find the Krasnoyarsk radar; only NTM could do that. On-site inspections would have helped to judge any internal conversion progress, but NTM were adequate to confirm that the site was essentially destroyed.

On paper, UNSCOM and the IAEA had unlimited power to monitor Iraq's WMD and prohibited missile programs and ensure their termination. In practice, however, they were continually hampered by Iraqi obstructionism, by their inability to threaten military action, and over time, by differences among the UNSC members. Iraq did not significantly increase its openness and cooperation until the threat of military invasion loomed in November 2002; even then, it was far from fully transparent.

Finally, North Korea systematically refused to accept effective verification of its nuclear program. While a few facilities were subject to IAEA and/or U.S. monitoring from time to time, those did not cover all of Pyongyang's nuclear

facilities or activities. Most overt North Korean violations of its nuclear agreements concerned monitoring measures. The UNSCRs against North Korea do not include any verification measures.

5. *Were the proscribed capabilities easy or hard to conceal? Could they be clandestinely obtained from third parties?*

In three of the four cases, many violations were relatively easy to conceal, although for different reasons. The extent of the Versailles provisions and German obstructionism made it virtually impossible to gather complete, accurate information on Treaty implementation. Further, many proscribed capabilities could be developed under civilian cover. Finally, the Treaty did not prohibit German arms development and production abroad.

In Iraq, it was ironically not so much the proscribed chemical, biological and missile capabilities that were easy to conceal, as the fact that most had been destroyed. Nuclear was different. After the Kemal defection in 1995, Iraq was largely forthcoming about its nuclear programs, leaving the IAEA with only a few outstanding questions by early 2003.

A “foreign national” – identified unofficially as A.Q. Khan – offered nuclear assistance to Iraq in October 1990, but there is no evidence that Iraq accepted the offer. The ISG found considerably more evidence of clandestine Iraqi procurement and technical assistance for its missile programs, especially from North Korea, Russia and Syria.

The uniquely closed nature of the North Korean regime and nation, combined with its mountainous topography and the weaknesses of the verification measures to which it was subject, made it easy to conceal its nuclear holdings, facilities and activities. North Korea also worked closely with A.Q. Khan, and some observers believe that its ballistic missile cooperation with Iran extended to nuclear issues, especially after its first nuclear test in 2006.

Once again, the Krasnoyarsk case was different. NTM should have quickly detected the huge radar complex. The United States has never explained why it failed to do so.

6. *When detected, was the violation blatant or plausibly ambiguous? Were its consequences seen as serious or relatively unimportant?*

The Weimar Republic violations were often ambiguous, and viewed by the British as unimportant. The French, on the other hand, saw every shortcoming as serious. Few observers understood the strategic purpose behind the Weimar violations and circumventions of the Treaty. In contrast, Hitler's 1935 disavowal of the Versailles disarmament provisions was as blatant as possible. The Allies agreed that his action was very serious, but responded with appeasement—setting in motion a cycle that was not broken until September 1939.

The Krasnoyarsk violation was blatant, in its illegal location and orientation for an early-warning radar. The Reagan and Bush Administrations also found it unambiguous that the radar had a battle management purpose, and that it violated the Treaty as soon as construction started. Many Congressional and outside observers disagreed with those two findings, and tended to view the violation as less serious than the Executive Branch did.

Some Iraqi violations were blatant, including those concerning its obligations to provide “full, final and complete” declarations of its prohibited programs, and to allow unrestricted access to inspectors. The most important question, however, remained unanswered until after the Second Gulf War: whether Iraq retained significant quantities of, and capabilities for, WMD and prohibited missiles. Well before that war, UNSC permanent members disagreed on the significance of Iraq's violations and

outstanding issues. Russia, China and France were ready to lift many or all sanctions. For the United States and United Kingdom, in contrast, the belief that Iraq retained substantial quantities of WMD and related programs was reason to go to war.

North Korea's verification violations were unambiguous, but many interlocutors did not consider them to be very serious. In contrast, North Korea's pursuit of nuclear weapons and fissile material production was always extremely serious and became more blatant over time. Still, many aspects of it remained – and still remain – unknown.

- 7. Was the response to the violation undertaken by one or multiple parties? Were there differences within the government, or within and among the governments, responding to the violation? Were there differing assessments of the violation and possible responses?*

Of the four case studies, only the ABM Treaty was bilateral. The United States Government remained firm and united in demanding dismantlement of the Krasnoyarsk radar. Nevertheless, U.S. agencies differed on how to respond to the violation. The Defense Department favored an end to the interim restraint policy; the State Department, opposed that action. State and Defense also differed on whether to declare the Soviet Union in material breach of the Treaty and on the emphasis to put on the territorial defense issue. The final White House responses tended to be compromises between State and Defense.

Although there were many parties to the Versailles Treaty, monitoring and enforcement of disarmament were left to the United Kingdom and France. During the Weimar Republic, they were most effective in inducing compliance on the few occasions when they acted together, especially by threatening new or continued military occupation. After 1935, Britain and France more often took a common

approach to German violations, but it was one of appeasement.

The response to Iraq's violations was centered in the UNSC, composed of five permanent members and 10 for two-year terms. Over the period of this case study, 64 states held UNSC seats. The large number of participants meant that unity of purpose was very difficult to sustain. The United States and United Kingdom insisted on complete Iraqi compliance with UNSCR 687 before sanctions could be lifted, although they accepted the Oil-for-Food program. France and Russia, in contrast, wanted sanctions to be lifted gradually, in exchange for what they saw as significant, if incomplete, compliance with its disarmament obligations.

International responses to North Korea's nuclear violations were undertaken first by the IAEA and eventually the UNSC. UNSC sanctions strengthened over time, as North Korea repeatedly violated the resolutions. International compliance with the resolutions also strengthened; China was an important exception. For much of the period of this case study, United States Government agencies differed within and among themselves on whether to emphasize sanctions or concessions vis-à-vis North Korea. That dynamic was observed in the run-up to the Agreed Framework, and especially between the 2005 Joint Statement and the end of the George W. Bush Administration. The Bush Administration multilateral approach was a response to the failure of the Agreed Framework, but the Six-Party Talks were no more successful in inducing North Korea compliance than were the Agreed Framework or the later UNSCRs.

8. *What types of responses to the violation were considered or adopted? How effective were those that were pursued?*

The main responses to the Weimar Republic violations of the Versailles Treaty disarmament provisions were either

inaction or actual or threatened military occupation. Economic sanctions were not seriously considered. In the 1930s, inaction and accommodation became the primary responses. In 1935, the British and French proposed to Germany a new treaty providing for equal force limits, which would have totally overturned the Versailles disarmament provisions. Hitler did not respond to the proposal.

The principal Reagan Administration responses to Soviet arms control noncompliance (including, but not limited to, the Krasnoyarsk radar) were abandonment of the interim restraint policy, and maintenance of the strategic modernization and SDI programs. Economic sanctions were apparently not considered. Diplomatically, the Reagan Administration linked the completion of new arms control agreements to resolution of compliance concerns, but relaxed that policy when convenient. The most effective response may simply have been the constant diplomatic pressure at the highest levels.

The main responses to Iraq's violations included economic sanctions, strengthening of inspections, and the threat to use military force. Although the use of military force in 1998 proved counterproductive, the threat in November 2002 of much greater military force inspired Iraq to increased – if still incomplete – compliance.

For most of the period of the North Korea case study, the United States and its partners adopted a range of responses to Pyongyang's violations. A combination of diplomatic pressure, the threat of military action, and political and economic inducements led to the Agreed Framework. After the collapse of that agreement and North Korea's withdrawal from the NPT, the United States imposed some sanctions, but also resumed negotiations in the Six-Party Talks. When North Korea balked at required monitoring, the United States offered repeated political and economic inducements and verification compromises – to

no avail. From 2009 through 2017, the only significant responses to North Korea's nuclear and missile provocations came from the UNSC, which imposed progressively stricter economic and financial sanctions on the country. The Trump Administration adopted a very different approach in 2018, granting Kim Jong-Un the long-sought meetings with the President that the United States had always refused. Whatever the response, there was no change to North Korea's consistent pattern of noncompliance.

9. *If the response involved inducements as well as penalties, was the combination more effective than either alternative alone?*

All four case studies involved some inducements as well as penalties. However, in the only successful case—the Krasnoyarsk radar—the United States response lacked tailored inducements or penalties. The most important factor was probably the general promise of a more productive relationship with the West if the issue was resolved.

In the Versailles case, the most effective penalty was the threat to maintain or undertake military occupation, but it was used sparingly. The first noticeable inducement was the Locarno Treaty, but the Allies never sought to link it to German compliance. The British and French response to violations in the 1930s consisted of accommodations and inducements, without any penalties.

In the Iraq case, UNSC economic sanctions were the core penalty; the promise to lift them in exchange for full compliance was the intended inducement. As years passed, Russia, China and France became increasingly supportive of lifting sanctions. While most sanctions still were retained, some were eased in the Oil-for-Food program. In 1998, the United States and United Kingdom turned to

military action to punish Iraqi noncompliance, but it was ineffective. Iraq reacted more cooperatively to the threat of much greater military force in November 2002, but its reaction was too little, too late.

The United States and (beginning in 2006) the UNSC levied progressively stronger economic, financial and political sanctions against North Korea. The United States also promised or provided inducements aimed at North Korean acceptance of verifiable denuclearization. Inducements ceased for several years after the collapse of the Six-Party Talks. In 2018, President Trump made an unprecedented political concession to North Korea, treating Kim Jong-Un as his equal. Despite all of those different approaches, the outcome remained the same: continued North Korean defiance of its disarmament obligations and major progress in its nuclear and ballistic missile programs.

10. What tools and tactics were available to the violator to inhibit, fend off, or withstand a response? Which were chosen and why?

The Weimar Republic used a combination of secrecy, circumvention, evasion and obstruction of inspections to fend off a response. When the government felt forced, it complied to the minimum necessary to avoid or curtail military occupation. Hitler also relied on secrecy to inhibit Allied response, but for a contrary purpose; instead of understating his military power, he overstated it. The bluff worked, until 1939.

Because the Krasnoyarsk radar could not be hidden, the Soviets at first lied about its purpose. When that failed, they tried a series of negotiated fallbacks. Ultimately, they admitted the violation and effectively destroyed the radar.

Iraq extensively used secrecy and obstruction to avoid compliance, while still hoping for relief from penalties. Initially the penalties were economic sanctions; in 2002, the

greatest threat was military force. Saddam Hussein's secrecy gave the impression that he had more military capabilities than was the case. Iraq also offered economic incentives to Russia, France and China to encourage them to lift economic sanctions.

The authoritarian nature of the Nazi and Iraqi made it easier for them to maintain secrecy about their noncompliance. The extreme totalitarianism of North Korea enabled it to go much further, ignoring its arms control obligations despite devastating economic damage. The closed nature of the regime, and the weakness of monitoring made it difficult for other states to confirm violations until Pyongyang revealed them. A final critical factor was China's unwillingness to enforce sanctions strictly, lest the regime collapse.

11. Were there important asymmetries in the stakes and resolve between the violator and the enforcer(s) that had a significant influence on the outcome of the case?

In the Versailles case, Germany had a powerful stake in restoring what it saw as its rightful status as a great power. Until the mid-1920s, France had at least as strong a stake in preventing Germany from achieving its ambitions. Great Britain's main aim at that time was to restore stability in Europe, making it sympathetic to some of the German goals. After Locarno, France grew closer to the more relaxed British attitude toward compliance. That developed into appeasement after Hitler's disavowal of the Versailles disarmament provisions.

The stakes and resolve of the Soviet Union and the United States for much of the Krasnoyarsk case were strikingly symmetrical: one was determined to retain the radar, and the other to see it dismantled. The violation ended when the United States' resolve proved longer-lasting than that of the Soviets. The change in Soviet policy

might not have happened if the Gorbachev Government had not come to power.

Saddam Hussein had an overriding stake in the survival of his regime and ability to deter regional adversaries, especially Iran. Few UNSC members had equally strong stakes in Iraqi compliance with the UNSC arms control obligations. The exceptions were the United States and United Kingdom, which were willing to go to war at least in part because of Iraq's apparent retention of chemical and biological weapons and missiles of 150 km range or greater. Saddam Hussein almost certainly miscalculated the strength of the two countries' resolve.

It is difficult to imagine more determination than that of the Kims in their pursuit of nuclear weapons and delivery capabilities. No price thus far has deterred them from these programs, which they view as essential to the regime's survival. While the United States, Japan, South Korea, and the international community have a strong stake in an end to the North's nuclear threat, they have yet to define effective and acceptable options to achieve that outcome. Much may depend on China. Thus far, it has demonstrated an overriding stake in avoiding regime collapse in Pyongyang and peninsula reunification under a government allied with the United States. North Korea's ability to retain and advance its nuclear and missile capabilities might wane if China decided that nuclear North Korea posed a greater threat – at least in part because it might induce Japan and South Korea to acquire nuclear weapons.

12. Why did deterrence of the violation fail? Why did efforts to restore compliance succeed or fail?

In none of the four cases were the violations deterred. All of the violators expected, at least initially, that the benefits would outweigh the costs. Germany, Iraq and North Korea

all believed that they could avoid detection, and that the responses would not be unduly severe if the violations were discovered. North Korea has yet to change that view. Germany was ultimately severely punished, but for its territorial aggression rather than Versailles violations. Only Iraq paid a severe price for its violations, even though those ironically did not include retention of large WMD capabilities. Unlike the other three, the Soviet Union expected that its violation would be quickly discovered, but that the United States would view it as a technical issue and allow it to continue.

The Krasnoyarsk case is also the only one of the four where efforts to restore compliance – or at least efforts short of war – succeeded. Two factors were primarily responsible for that positive, and rare, outcome. Most important was the firmness with which the United States held, year after year, to its position that the radar must be dismantled. The second factor was the coming to power of Mikhail Gorbachev.

The difference in stakes among the main states concerned appears to have been the primary reason that compliance enforcement failed in Germany. During the Weimar period, only the threat of military occupation had much effect in inducing compliance. Yet neither Britain nor France had an interest in continuing occupation past 1926. After Hitler came to power, early military action might have been effective, at least in demilitarizing the Rhineland. Still, subsequent history suggests that nothing short of all-out conflict could thwart Hitler's territorial ambitions over the long term – if he remained in power.

In Iraq, differences in stakes also were major factors in the failure of compliance enforcement. As time passed, Russia, China and France encouraged Saddam Hussein to believe that sanctions might be lifted – or at least substantially weakened – despite continued non-compliance. These same states argued that false

declarations, obstruction of inspections, and occasional discovery of small amounts of WMD and other prohibited items were not major violations requiring retention of full sanctions—let alone enforcement by military force. Another essential factor was that Iraq largely met the central obligation of the UNSCRs in secret. The outcome probably would have been substantially different if Iraq had disclosed, and opened to inspection, its chemical, biological and missile activities, including unilateral destruction, to the same extent as it disclosed its nuclear program. Finally, the strange history of Iraq's deceptions and obstruction from 1991 to 2003 would not have been possible without the authoritarian regime and nature of Saddam Hussein.

North Korea's regime was even more authoritarian, able to continue its violations despite the severe economic impact on the population. It also was free from outside inspections, except for the limited, on-and-off IAEA presence until April 2009. Asymmetries in the parties' resolve were also critical. The Kims saw their nuclear weapons program as critical to their regime's survival. Only one or both of two developments – each posing greater risks to their survival – might have persuaded them to come into compliance: a credible, major U.S. military threat, and/or a withdrawal of Chinese support. As of this writing, North Korea has not had to confront that choice.

Patterns of Noncompliance and Response

Each of the four case studies was unique. At the same time, they have enough commonalities to allow us to identify patterns of noncompliance and response.

First, authoritarian regimes are more prone to noncompliance than democratic governments. They have little if any respect for the rule of law, are secretive, and unaccountable to anyone but themselves. They have

absolute power over the government and population, and brook no dissent.

Next, governments are more likely to violate agreements that they are forced to accept. The Weimar Republic was democratic, but never accepted the legitimacy of the Versailles Treaty. Political leaders were either sympathetic to the military's determination to evade Treaty constraints, or too weak to resist in the light of popular support for the military.

Difficult though it may be to admit, countries that are thoroughly defeated in war may be more prepared to accept victors' demands than others. The likelihood of Iraqi compliance with UNSCR transparency obligations after the First Gulf War was low from the start, when Saddam Hussein remained in power. While Germany had a new, democratic government after World War I, the country had not been invaded, its infrastructure was intact, and many military leaders were still in place. As a result, the military leadership and a large part of the population refused to admit that Germany had been defeated or that the Versailles Treaty was legitimate. Contrast West Germany after World War II, which readily accepted disarmament, Allied occupation, and the 1948 Basic Law (essentially the constitution), drafted at Allied insistence and heavily influenced by U.S. officials.

Asymmetries in stakes and resolve among the parties may be the most critical determinants of noncompliance. In the Versailles Treaty and North Korea cases, the violators' stake in noncompliance generally was far greater than the enforcers' stake in compliance. In the Iraq case, the same was true for many years, until the United States and United Kingdom—but not most other members of the First Gulf War coalition—chose to go to war. Germany in the 1920s wanted to restore national greatness. Saddam Hussein and Kim Jong-Il believed their regimes were at stake, and sought (temporary) compromise only when they were threatened

militarily. On the other hand, Britain and France were simply tired of Versailles compliance enforcement by 1927, several UNSC members wanted after a few years to return to normal (and economically beneficial) relations with Iraq, and the United States moved from threats to inducements after the signature of the Agreed Framework.

In the fourth case, the dynamics were quite different. The Reagan and George H.W. Bush Administration's stake in demanding compliance with arms control agreements was initially just as strong as the Soviet Union's stake in retaining the Krasnoyarsk radar. Ultimately, U.S. resolve proved longer-lasting—although the Soviet Union might have remained more resistant if it were not for the change to the Gorbachev Government.

Three of the four cases demonstrate that where compliance is elusive—as with authoritarian regimes or those who accepted the agreement under duress – the most effective inducement may be the threat of military action, whether occupation or attack. Only in the Iraqi case, however, did two of the main parties, the United States and United Kingdom, follow through with actual invasion. While that certainly resolved the compliance issues, the price was enormous.

It may be stating the obvious, but compliance is generally easier to enforce for bilateral than multilateral agreements. The only successful case studied in this report is also the only purely bilateral one. U.S. Allies were skeptical about the seriousness of the Krasnoyarsk violation. If they had been parties to the ABM Treaty, it is questionable whether they would have demanded for over six years that the radar be dismantled.

While the Versailles Treaty had many parties, only the United Kingdom and France were important to enforcement of the disarmament provisions. They were allies, and few in number, yet in the 1920s, they disagreed more often than not on compliance issues – differences that

the Weimar Government was able to exploit. During the next decade, they tended more to be in agreement, but in favor of inaction and appeasement.

The UNSCRs on Iraq involved many states. Of the permanent UNSC members, only the United States and United Kingdom remained firm in demanding complete Iraqi compliance.

North Korea's nuclear obligations were a hybrid, but primarily multilateral. The NPT, IAEA Safeguards Agreement and UNSCs involve most states in the world. The Agreed Framework was bilateral, but South Korea and Japan were critical to its implementation. The Six-Party Talks were obviously multilateral, but the United States led in both demands and concessions. The North Korean case fully demonstrates that a bilateral, or clearly U.S.-led, agreement by no means guarantees either compliance or a firm response to noncompliance.

Finally, violations of arms control agreements are difficult—and perhaps nearly impossible—to deter. One might argue that the case studies in this report are a skewed sample, because they all involve noncompliance. However, arms control agreements over the past 100-plus years that were never violated are rare indeed. The demilitarization of Germany and Japan were exceptions, but in both cases, the leadership and the population embraced that outcome only after the devastation of the Second World War.

Fear of detection and response had some deterrent effect in the Weimar and Iraqi cases, but that was by no means complete. When discovered, the violators sought to appease the enforcers through partial compliance. The same was true of North Korea, although its compliance concessions were even more limited than those of Iraq or Weimar Germany. Finally, expectation of detection did not deter the Soviets from building the Krasnoyarsk radar; they simply assumed an acceptable response.

Colin Gray's "arms control paradox" may well be at work: "Arms control regimes worthy of the name are achievable only between states who do not need them. ...The motive to cooperate is overridden by the motive to compete. The arms control paradox argues that the reasons why states may require the moderating influence of an arms control regime are the very reasons why such a regime will be unattainable."⁷⁴

Strategies for the Future

The patterns of noncompliance and response in the four case studies of this report amply underscore the difficulty of securing compliance with arms control agreements. In no case were violations prevented. In only one was the violation resolved peacefully. In a second case, violations were resolved—and full information discovered—only as a result of war. In a third, they have yet to be resolved. And in the fourth, the continuing violations significantly contributed to the growth of German power and ambition, and therefore to the outbreak of World War II.

No foolproof strategy seems likely to deter, or to respond effectively to, all arms control cheating. However, we can seek better to secure compliance. Following are recommendations for approaches to future arms control agreements, based on the patterns of noncompliance and response found in this study:

- *Determine the national interest to be served by the proposed agreement.*

It is tempting to conclude that the best way to avoid noncompliance with arms control agreements or with obligations imposed by UNSCRs is not to enter into them. Sometimes that will be an option. For example, it is

⁷⁴ Colin S. Gray, *House of Cards: Why Arms Control Must Fail* (Ithaca, NY: Cornell University Press, 1992), p. 27.

questionable whether the United States derived significant national security benefits from the Interim Agreement, SALT II or the ABM Treaty. The military benefits, if any, were small; the political benefits of *detente* were dramatically reduced after the invasion of Afghanistan and Soviet violations of the agreements. In other instances, the agreement is in the national interest. In still other cases, the agreement may be necessary, especially to resolve or end a conflict peacefully.

Therefore, the first element of a strategy to secure compliance with arms control agreements must be a clear-headed analysis of whether the agreement serves the national interest. If it does not, the effort should not be pursued, no matter how politically popular it might be.

- *Develop effective monitoring and verification provisions.*

If a potential agreement passes the first test, the next task would be to prepare for noncompliance. Some agreements may not lend themselves to verification and will inevitably be violated, but might still be valuable for setting international norms. The Biological Weapons Convention is a good example. For most agreements, however, the Reagan Administration maxim of “trust but verify” should be amended, in light of the case studies covered here, to “verify but still don’t trust.” The party entering the agreement should carefully develop the monitoring and verification measures required to deter and detect any cheating, no matter how unlikely it might appear at the time. As an example, the INF Treaty was of indefinite duration. All U.S. and Soviet ground-based INF missiles were to be destroyed within three years of Treaty entry into force, and verification provisions were to continue for another ten years. At the time, ten years seemed adequate or better. That was shown not to be the case when the Russian violation was announced 15 years after INF verification ended.

In devising verification measures, a party should not assume that weaker provisions are acceptable because of improved relations with the other party. The dramatic changes in U.S. relations with Russia since the fall of the Soviet Union demonstrate how foolhardy that can be.

On-site monitoring may not be possible for some arms control instruments, such as the UNSCRs on North Korea. In those cases, every effort should be made to ensure that the resolution empowers member states to enforce its provisions, consistent with international law. For example, the September 2017 resolution passed after the sixth North Korean nuclear test strengthens earlier UNSC provisions encouraging all states to interdict ships carrying cargo suspected of violating the resolution.

- *Understand the motives of the potential violator*

The experiences with the Versailles Treaty and the Iraq cease-fire resolution demonstrate that it is particularly difficult to ensure compliance by a party that is forced to accept a post-war agreement, but has not been destroyed in the war. This is not to argue that war aims should always include destruction and regime overthrow, but that the compliance implications should be carefully considered – at a minimum before concluding the conflict, and in devising the peace settlement or armistice arrangements. The threat of military occupation was the most effective sanction in Germany for the short term, but may have fueled anti-Versailles resentment over the longer term. Former deputy head of UNSCOM Charles Duelfer argues that the UNSC's inability to make military threats against Iraq seriously weakened the inspection system. Yet Operation Desert Fox, the 1998 military operation by the United States and United Kingdom in response to Iraqi obstructionism, was counterproductive. Perhaps the most effective approach would be to require armed military escorts for post-conflict inspectors, with authorization to use force if necessary. As

a last resort, national rights to use force to compel compliance should be recognized.

- *Understand the costs and benefits of multilateral versus bilateral agreements.*

The case studies in this report also demonstrate that it is more difficult to secure compliance with multilateral agreements than with bilateral. In some instances, such as the UNSCRs on Iraq and North Korea, there is no alternative to multilateral approaches. In others such as the Six-Party Talks, a multilateral agreement might be preferable, in order to involve all of the states required to enforce compliance. If a multilateral agreement is either preferable or necessary, compliance enforcement might be improved with carefully-developed rules for inspectors' rights, responsibilities and decision procedures. If international commissions analogous to UNSCOM and UNMOVIC are created to carry out monitoring, their leadership should be chosen carefully for expertise and dedication, not to satisfy political *desiderata* such as national representation.

- *Identify in advance likely violations and potential responses*

Further, the United States must consider what violations might be most likely and what it would do if they occur. An important vehicle to assist that would be an arms control "Red Team" to anticipate potential noncompliance and propose responses. Such a Red Team would be most useful if it was involved from the start, with critical input into the decision whether to pursue negotiations in the first place.

Anticipation of potential violations and responses would be both technically and politically difficult. For example, when the ABM Treaty was signed, an illegal LPAR was thought to be very unlikely because of the expected ease of detection. Politically, a government might be reluctant to let it be known that it is preparing to respond to

arms control cheating. Yet that would send an essential deterrent message to a potential violator. Moreover, given the noncompliance record so far, the United States Executive Branch might be compelled to undertake such advance planning before the Senate would give advice and consent to ratification of a new arms control agreement. Identification of likely violations and preferred responses would be especially difficult for multilateral agreements. Still, the UNSC provisions on interdiction are a start.

Moreover, the United States must make clear that it will respond decisively to arms control violations. In doing so, it must not establish red lines that it is not prepared to honor. Messages of intent to respond must be clear and credible to be effective.

Conclusion

No foolproof strategy is available to deter or otherwise prevent future violations of arms control agreements, or to ensure effective responses to cheating. However, we can seek to improve our ability to prevent violations and restore compliance.

An important lesson from the cases studied in this paper is that the single most important factor behind peaceful resolution of noncompliance issues may be that the enforcer feels as great a stake in compliance as the violator in noncompliance. It is ironic that some of the most vocal proponents of arms control are often eager to excuse violations, or to dismiss them as unimportant, with the goal of sustaining the agreement. But the agreement may be meaningless or actually damaging to national security if it is violated.

Calling for a vigorous, consistent response to compliance does not mean that enforcers should always be ready to withdraw from the Treaty or to go to war to end the violation(s). However, a consistent, unwavering

insistence on compliance, with an accompanying promise of improved relations if the issue is resolved satisfactorily, may have a real positive impact. Contrast the outcome in the case of the Krasnoyarsk radar with that achieved in the repeated agreement-violation-concessions cycle observed over many years in United States arms control relations with North Korea.

In addition, the recommendations presented here might strengthen parties' ability to prevent violations and restore compliance. It may seem unduly simplistic and obvious to argue that we should enter into arms control negotiations only if those are clearly in the national interest. However, a careful examination and analysis of that question could well help to give the parties a greater stake in compliance with any resultant agreement. Implementation of the recommendations here would take considerable effort, but would be well worth it if they enhanced the chances of securing compliance.

About the Author

Dr. Susan Koch is a National Institute Senior Scholar specializing in weapons of mass destruction arms control and proliferation issues. She is a Distinguished Research Fellow at the National Defense University Center for the Study of Weapons of Mass Destruction and an associate faculty member in the Department of Defense and Strategic Studies at Missouri State University. From 1982 until 2007, Dr. Koch held a series of senior positions in the White House National Security Council Staff, the Office of the Secretary of Defense, the Department of State and the U.S. Arms Control and Disarmament Agency, focused on nonproliferation and arms reduction policy. Dr. Koch began her government career in the Directorate of Intelligence of the Central Intelligence Agency, analyzing West European political issues. Dr. Koch has received the Presidential Distinguished Executive Award, the Presidential Meritorious Executive Award, the Department of Defense Distinguished Civilian Service Medal five times, the Department of Defense Nunn-Lugar Trailblazer Award, and the Arms Control and Disarmament Agency Distinguished Honor Award. Dr. Koch received a B.A. from Mount Holyoke College and an M.A. and Ph.D. in political science from Harvard University.

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