CSIS BRIEFS

Six Days in October

Russia's Dirty Bomb Signaling and the Return of Nuclear Crises

By Lachlan MacKenzie

SEPTEMBER 2024

THE ISSUE

As competition between the United States and its nuclear-armed adversaries intensifies, the risk of future nuclear crises grows. Russia's dirty bomb signaling in the fall of 2022 is an important reminder about the threat of nuclear escalation in regional conflicts involving U.S. partners or allies. The scare also highlights an enduring feature of nuclear crises: uncertainty about adversary intentions. To prepare for the next nuclear crisis and the uncertainty that it will entail, the United States should develop detailed plans for a wide range of nuclear contingences, including those short of nuclear use. A close examination of Russia's dirty bomb signaling in October 2022 offers three principles for doing so.

INTRODUCTION

In fall 2022, the United States faced what may have been its most dangerous nuclear crisis in decades. Confronted by intensifying Russian nuclear rhetoric and intercepted conversations about nuclear use in the Russian military, Western leaders were deeply worried about escalation risks. President Biden **warned** that Putin was "not joking . . . about the potential use of tactical nuclear weapons," and National Security Advisor Jake Sullivan **asserted** that the United States took the threat of nuclear use "deadly seriously." Behind closed doors, the United States and its allies urgently **planned** for a Russian nuclear strike. Of particular concern were Russia's dirty bomb claims. At the end of October, amid a string of battlefield setbacks, senior Russian military and political leaders began a coordinated messaging effort **claiming** that Ukraine planned to use a dirty bomb. U.S. officials **worried** that this narrative was an effort to establish a pretext for nuclear use.

This incident illustrates a critical and unresolved challenge: nuclear crises are likely to continue, and the United States will be forced to respond to cryptic signals and escalatory rhetoric with imperfect information. Even today, the true purpose of Russia's dirty bomb claims remains unclear. While Russian signaling may have been related to planned nuclear use, there are a variety of other plausible explanations, including that the narrative aimed to sway domestic audiences or reflected genuine Russian concerns. U.S. policymakers have faced uncertainty in past crises, but the ambiguity that they faced in October 2022 was fundamentally different. Whereas U.S. leaders have often broadly **understood** the adversary's objectives and the connection between the adversary's signaling and those objectives, in October 2022, U.S. leaders were unsure how the dirty bomb narrative connected to the Kremlin's broader objectives in Ukraine or whether it was even intended as a nuclear signal. As tensions with nuclear rivals persist, the United States may face similarly ambiguous signaling in future crises over areas such as the Taiwan Strait, Korean Penin-

This incident illustrates a critical and unresolved challenge: nuclear crises are likely to continue, and the United States will be forced to respond to cryptic signals and escalatory rhetoric with imperfect information.

sula, or Eastern Europe. This uncertainty is increasingly likely due to U.S. adversaries' growing **reliance** on nuclear threats, the sometimes **confusing** nature of their signaling, and the **challenges** that the United States faces in collecting intelligence about their decisionmaking. The United States should therefore prepare for future crises by developing plans for a wide range of nuclear contingencies, including those short of nuclear use. An analysis of the October 2022 crisis offers three guiding principles for doing so.

NUCLEAR SIGNALING IN THE UKRAINE WAR

The CSIS Project on Nuclear Issues recently published a **study** cataloguing and analyzing Russian and NATO statements about nuclear weapons during the first 18 months of the war in Ukraine. The study found that Russia's nuclear signaling initially focused on deterring direct Western intervention in Ukraine. Putin **issued** the first threat against Western intervention in his February 24 announcement of the "special military operation in Ukraine," and **he** and **other** Kremlin officials echoed the threat in the following weeks. Russian officials often warned broadly against "**interference**" in the war and made repeated, ambiguous **references** to Russia's nuclear doctrine writ large but were generally **clear** that direct Western intervention in Ukraine would **likely** prompt a nuclear response.

Beyond retaking territory—which Russia claimed as its own on September 30—Ukraine's push in the south threatened to trap approximately 25,000 Russian troops on the west bank of the Dnipro.

Russian signaling changed in two important ways in the early fall of 2022. Beginning in September, Russian officials warned that Russia could use nuclear weapons to defend annexed Ukrainian territory. The motivation for these threats was unclear. Some analysts **assessed** that the Kremlin sought to deter Ukrainian counteroffensives, but this rhetoric instead may have been related to efforts to legitimize the annexation referendums that Putin **announced** on September 21. Also in September, Russian officials began warning about nuclear risks created by Western aid to Ukraine. Russian officials specifically **targeted** the U.S. supplying of long-range missiles to Ukraine, **warning** that the delivery of those weapons would cross a "red line" and make the United States a party to the conflict. Other officials **cautioned** more broadly against continued military aid for Ukraine and the risk such aid carried, namely direct **conflict** between the two nuclear powers.

SIX DAYS IN OCTOBER

Russian signaling took a dramatic shift in late October 2022. Russian state media **reported** that Ukraine was close to completing work on a dirty bomb, whose use would enable Ukraine to accuse Russia of using a nuclear weapon and thereby "trigger a powerful anti-Russian movement in the world aimed at undermining trust in Moscow."[1]

These accusations followed a series of Russian battlefield setbacks over the preceding two months. In late August, Ukraine **launched** an offensive to liberate Kherson Oblast, including Kherson City—the most populous and economically significant prize that Putin had captured in his invasion. This push made slow progress but put Russian forces on the west bank of the Dnipro River in an increasingly precarious position as the fall progressed. In early September, Ukrainian forces **launched** a surprise offensive in Kharkiv Oblast that made rapid gains, having caught Russian forces off guard. Beyond retaking territory—which Russia **claimed** as its own on September 30—Ukraine's push in the south **threatened** to trap approximately **25,000** Russian troops

1 Translations generated by author with assistance from Yandex Translate.

on the west bank of the Dnipro.

By October 22, Ukrainian gains in Kharkiv had slowed and Russian forces had begun to **withdraw** across the Dnipro, though it remained **unclear** whether they would be able to complete the evacuation in good order. It was in this context that Kremlin officials began to warn about a Ukrainian dirty bomb. What follows is a brief chronology of these warnings from their introduction on October 23 to their conclusion on October 28.

OCTOBER 23

On October 23, the same day that Russian state media first reported Ukraine's dirty bomb plans, Russian defense minister Sergei Shoigu called his **U.S.**, **UK**, **French**, and **Turkish** counterparts to discuss the alleged threat.

Quickly following Shoigu's calls, the United States, the United Kingdom, and France rejected Russia's claims in a P3 foreign ministers **statement**: "Our countries made clear that we all reject Russia's transparently false allegations that Ukraine is preparing to use a dirty bomb on its own territory. The world would see through any attempt to use this allegation as a pretext for escalation."

OCTOBER 24

The following day, October 24, Chief of the Russian General Staff Valery Gerasimov **called** his U.S. and UK counterparts to discuss the alleged threat. Separately, the chairman of the lower house of the Duma **posted** on Telegram that Ukraine's supporters were sponsors of nuclear terrorism. Russia's UN ambassador **wrote** a letter to the UN secretary general warning that Russia would view Ukraine's use of a dirty bomb as an act of "nuclear terrorism." The head of Russia's radiological, biological, and chemical defense forces, meanwhile, delivered a **briefing** in which he stated that Russian forces were preparing to operate in a radioactive environment. In response to the P3 statement the day prior, presidential spokesperson Dmitry Peskov and Foreign Minister Sergei Lavrov **insisted** that the dirty bomb threat was real.

Western officials continued to reject Russian officials' claims. State Department spokesperson Ned Price **described** the claims as a pretext for escalation, and NATO secretary general Jens Stoltenberg **cautioned** that Russian claims could signal preparations for a false flag attack.

OCTOBER 25

In response to Western officials' continued rejection of the dirty bomb narrative, Peskov and Russia's ambassador to the United States **reiterated** Russia's claims and **criticized** the West's response to Russian warnings as "far from serious."

Responding to a reporter's question about whether Putin was preparing to use a dirty bomb, Biden **warned** that it would be an "incredibly serious mistake" to use a tactical nuclear weapon in Ukraine.

OCTOBER 26

Putin echoed the dirty bomb claims during an October 26 **meeting** of security and intelligence heads of the Commonwealth of Independent States. Earlier in the day, he **had overseen** Russia's annual Grom nuclear drill, which **simulated** the delivery of a "massive" nuclear strike and involved the launch of an SLBM and an ICBM.

The same day, Shoigu called his **Indian** and **Chinese** counterparts to discuss the alleged dirty bomb threat. India's defense minister, Rajnath Singh, **warned** Shoigu that neither side should resort to using nuclear or radiological weapons, since their use would violate "the basic tenets of humanity."

Speaking with reporters, Stoltenberg **asserted** that Russian leaders understood there would be "severe consequences" for nuclear use.

OCTOBER 27

Putin reiterated his claims that Ukraine would use a bomb to accuse Russia of detonating a nuclear weapon at an October 27 **meeting** of the Valdai Club. At the same time, he asserted that Russia did not need to use nuclear weapons in Ukraine, saying "there is no sense in it for us, neither political nor military."

U.S. secretary of defense Lloyd Austin, speaking at a press conference, **explained** that the United States was concerned about escalation in Ukraine and warned that nuclear use would be met with a "very significant response."

OCTOBER 28

Russia's first deputy permanent representative to the United Nations—Dmitry Polyansky—**issued** the last explicit warning about a Ukrainian dirty bomb on October 28, asserting that Ukraine sought to use the bomb to trigger direct Western intervention in Ukraine. Russia's warnings about an imminent Ukrainian dirty bomb attack then abruptly ended.

DENOUEMENT

The next statement by a senior Russian official about nuclear risks came on November 1, when Dmitry Medvedev **wrote** on Telegram that Ukraine's declared aim of liberating all of its occupied territory posed a threat to the existence of the Russian state. The following day the Russian Ministry of Foreign Affairs released a **statement** on preventing nuclear war, which reaffirmed Russia's commitment to avoiding nuclear war and called on the five permanent members of the UN Security council to cease "encouraging provocations with weapons of mass destruction, which can lead to catastrophic consequences."

Russian forces successfully **completed** their withdrawal from Kherson City on November 9. While Russian officials have occasionally **referenced** the possibility of Ukraine building a dirty bomb since October 28, these statements have lacked the urgency and coordination that characterized Russia's October warnings.

A NUCLEAR CLOSE CALL?

While U.S. officials dismissed Russia's dirty bomb claims as an effort to establish a pretext for nuclear use, they appeared uncertain of the narrative's true purpose. Biden, for example, **admitted** on October 25 that he did not know the purpose of the narrative, saying "I'm not guaranteeing you that it's a false flag operation yet. I don't know." Subsequent reporting about the crisis also pointed to confusion about the rationale for the narrative. The ***New York Times*** and CNN's Jim **Sciutto** both wrote that *some* officials were concerned that the narrative could have been a pretext for nuclear use or as preparation for a false flag, suggesting that there was no consensus on the subject.

In fact, one can identify at least five plausible explanations for Russia's dirty bomb signaling:

1. **Preparation for nuclear use:** Putin was considering or had already decided to use nuclear weapons in October 2022 and sought to use dirty bomb claims to establish a pretext.
2. **Coercive threat:** The Kremlin intended the dirty bomb narrative as a veiled nuclear threat to influence the behavior of Ukraine and its Western backers.
3. **Sincere belief:** Putin and Russian national security officials genuinely believed that Ukraine might use a dirty bomb and sought to deny Ukraine a pretext, generate international pressure against the threat, and turn global opinion against Ukraine and its Western supporters.
4. **Domestic signaling:** The Kremlin sought to use the threat of a dirty bomb to instill fear in the Russian population and thereby boost support for the war in Ukraine.
5. **Distraction:** The Kremlin sought to use dirty bomb claims to distract from other military or political activity in which Russia was concurrently engaged.

Many of these explanations are mutually compatible and it is impossible to definitively determine which are relevant from open sources. Nonetheless, some explanations are stronger than others. The "preparation for nuclear use" and "sincere belief" explanations, for example, both align with much of the available evidence, including public statements and international outreach about a dirty bomb and Russia's announcement of preparations to operate on a radioactive battlefield. The "coercive threat" explanation, on the other hand, is comparatively weaker; the dirty bomb narrative did not feature clear threats or demands and U.S. officials did not **observe** any unusual movements of Russia's nuclear forces—behavior that one might expect if the Kremlin sought to credibly threaten nuclear escalation. While it is more difficult to assess the "distraction" and "domestic signaling" explanations from open sources, the latter has historical precedent. Putin has **fabricated** foreign threats to rally support for his wars in the past and had **planned** to do so to justify his invasion of Ukraine.

CRISIS MANAGEMENT UNDER UNCERTAINTY

The October 2022 crisis underscores an enduring dilemma the United States is likely to face in future nuclear crises: how to make decisions about escalation and de-escalation based on ambiguous signals from adversaries. While uncertainty is not new for U.S. policymakers, in October 2022, the Biden administration fundamentally did not understand if or how the dirty bomb narrative related to the Kremlin's broader objectives in Ukraine or if it was intended as a nuclear signal. The causes for this unusual degree of ambiguity are not fully clear, but heightened nuclear tensions and sustained Russian nuclear signaling in the weeks and months prior were important pieces of context that muddied the waters and raised questions about the purpose of subsequent Russian narratives.

Continued tensions between the United States and Russia over Ukraine and the looming threat of conflicts in the Taiwan Strait and the Korean Peninsula point to the risk of another nuclear crisis in the coming years.

Continued tensions between the United States and Russia over Ukraine and the looming threat of conflicts in the **Taiwan Strait** and the **Korean Peninsula** point to the risk of another nuclear crisis in the coming years. Given the growing frequency with which key U.S. adversaries **rattle** the nuclear saber, the sometimes **ambiguous** nature of their signaling, and the **difficulties** that the United States faces in collecting intelligence about their decisionmaking, U.S. leaders should prepare to navigate future nuclear crises with limited understandings of adversary intentions and objectives. The context and specifics of future crises will differ but, as in October 2022, there will be a range of plausible explanations for adversary signaling. Given this, three principles apply.

BEWARE INADVERTENT ESCALATION

When facing uncertainty about the motivations for adversary nuclear rhetoric or posturing, U.S. leaders should refrain from actions that the adversary may misinterpret and respond to with escalation. Measures that the United States has taken to demonstrate resolve in past crises, such as bomber patrols, **alerts**, and **missile tests**, can carry unseen risks when the adversary's motivations are unknown. If, for example, an adversary's nuclear signaling is driven by concerns about U.S. or allied intentions, they may interpret U.S. nuclear posturing as confirmation that that an attack is imminent. The United States' response to Russia's dirty bomb allegations consisted almost entirely of verbal statements and back-channel diplomacy, thus avoiding actions that could have provoked inadvertent escalation.

THE ADVERSARY CAN BE WRONG

It may be tempting to assume the worst when faced with deep uncertainty about adversaries' intentions. U.S. leaders should keep in mind that U.S. adversaries are fallible, and that their confusing behavior might be the product of faulty assumptions or poor information. The dirty bomb scare may have reflected sincere concern on the part of Russia's leaders resulting from flawed intelligence; it is impossible to be sure. U.S. policymakers should resist the urge to interpret adversary rhetoric and posturing through the lens of worst-case thinking and should consider all possible explanations when weighing how to respond to ambiguous signaling.

DIPLOMACY IS CHEAP

Building international pressure against nuclear use is a relatively cheap, risk-free tool to pressure adversaries to either de-escalate or clarify their signaling. The United States made good use of this tool during the October 2022 crisis, when it **encouraged** India and China to publicly oppose nuclear use in Ukraine. U.S. officials later **asserted** that Indian and Chinese pressure helped to deter Putin from using nuclear weapons. Going forward, diplomatic outreach to influential third parties should be a tool of first resort during periods of heightened nuclear risk.

PREPARING FOR THE NEXT NUCLEAR CRISIS

To crystallize the lessons of the October 2022 crisis, the incoming administration should establish an interagency planning group—modeled after the Ukraine **Tiger Team** created in 2021—to game out whole-of-government responses to a wide range of nuclear contingencies. The group should consider potential crises in both the Indo-Pacific and Eastern Europe, and should plan for scenarios short of nuclear use, including periods of acute nuclear tension and ambiguous adversary signaling. Further, the group should consider the **challenges** posed by opportunistic aggression and plan out responses to scenarios involving multiple simultaneous or successive nuclear crises across different theaters. Given that future nuclear crises will almost certainly involve allied forces, territory, or interests, it will be crucial to involve allies in the planning process. While the circumstances of future crises will vary and contingency plans developed today will inevitably lose relevance over time, a rigorous planning process may yield durable crisis management insights that can help future administrations avoid the planning crunch that the Biden administration faced in the fall of 2022. ■

Lachlan MacKenzie *is a program coordinator and research assistant with the Project on Nuclear Issues at the Center for Strategic and International Studies in Washington, D.C.*

This brief was made possible by general support to CSIS. No direct sponsorship contributed to this brief.