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Research Report

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Deterring Russia and Iran

Improving Effectiveness and Finding Efficiencies

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About This Report

The increased prominence of deterrence since 2014 raises the question of how to reinvigorate U.S. military contributions to deterrence without crowding out investments in other priority missions, principally competing with China in the Indo-Pacific. The question comes to a head in Europe and the Middle East, where the U.S. military has substantial requirements to deter Russia and Iran, but with uncertain return on investment given the difficulty in determining whether deterrence operations are translating into the desired outcome. This report is designed to support defense planners in selecting deterrence strategies that are the most promising for achieving their objectives. It is also designed to identify areas where defense planners may look for efficiencies, thereby preserving resources for other priorities.

The research reported here was commissioned by then–Brig Gen Adrian Spain, Director of A5/8/9, U.S. Air Forces Europe, and conducted within the Strategy and Doctrine Program of RAND Project AIR FORCE as part of a fiscal year 2021 project, "Deterring Russia and Iran as an Economy of Force Operation." Sponsorship was subsequently transitioned to Brig Gen Jason T. Hinds, who became Brigadier General Spain's successor in summer 2021. This research was completed before the February 2022 Russian invasion of Ukraine. It has not been subsequently revised.

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One of our research methods was structured roundtables. Because they were conducted under the Chatham House Rule, which prohibits revealing the identities of speakers at a meeting, we cannot thank the participants by name, but we are appreciative of their inputs and their patience with participating in a virtual environment given COVID-19 restrictions. We also thank David Cherry, Sonia Wellington, Carmen Richard, and Mark Bond for their help in executing the roundtables. Our quantitative analysis depended on access to data, which was facilitated by 5th Fleet Public Affairs and by RAND Corporation colleagues Anthony Rosello and Caitlin Lee, to whom we are grateful.

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Summary

The United States makes significant investments in military activities intended to deter Russia and Iran. These investments have only grown in Europe since Russia's 2014 invasion and subsequent annexation of Crimea and remain substantial in the Middle East despite the overall trend of the United States reducing its forward posture in that theater. Juxtaposed against the priority of competing with China in the Indo-Pacific, extended deterrence requirements in Europe and the Middle East naturally lead defense planners to consider how the United States can most effectively and most efficiently deter Russia and Iran while balancing those missions against its other global priorities.[1]

Approach

We used a multimethod approach to generate a baseline assessment of deterrence in the two theaters we considered (U.S. European Command [EUCOM] and U.S. Central Command) to anticipate the impact on deterrence if U.S. military activities were reduced in these theaters and to assess the deterrent values of different U.S. operations, activities, and investments (OAIs) on deterrence outcomes. We accomplished this through a literature review, structured roundtables with subject-matter experts, quantitative analysis, and a multi-episode case study. We then organized our results by category of OAI (forward posture, exercises and short-term deployments, and security cooperation). Finally, we interpreted the results by theater, since the characteristics of U.S. extended deterrence and the nature of the threat posed by the adversary vary considerably between Europe and the Middle East.

Findings

Table S.1 illustrates our findings by OAI category. U.S. forward presence generated the clearest evidence of deterrent value, although all OAI categories we analyzed may contribute to deterrence and are fielded for multiple reasons, including to satisfy the interrelated objective of reassurance. Because deterrence can be achieved via denial of adversary benefits or threat of punishment, elements of forward posture that communicate these consequences should have the greatest deterrent effect. Such capabilities could include basing infrastructure that enables rapid reinforcement during times of crisis or strike capability that holds the adversary at risk.

For strategists and defense planners focused on finding efficiencies in deterrence missions, exercises and short-term deployments appear most ripe for reductions given the weaker empirical

[1] This research was completed in September 2021, before the February 2022 Russian invasion of Ukraine. It has not been subsequently revised.

basis for their deterrent impact. Cuts to the frequency of exercises rather than their scale might be particularly feasible. Intelligence, surveillance, and reconnaissance (ISR) capabilities, often provided by the Department of the Air Force, were identified as crucial in both theaters for early warning and attribution of adversary actions. Because the early warning and attribution provided through ISR facilitate a rapid response to deter an adversary at the outset of an action, ISR is an essential enabler of deterrence.

Table S.1. Findings on OAI Deterrent Effects, by Research Method

OAI	Existing Literature	Roundtables	Quantitative Analysis	Case Study
Forward posture	Very important for crisis deterrence, but there are some conflicting findings on importance for general deterrence	Most important OAI for deterrence in EUCOM; infrastructure for rapid reinforcement is key to both theaters	Not applicable	Declining U.S. forward presence in EUCOM may have contributed to deterrence failure in Crimea, but how much to weight this factor is uncertain
Exercises and short-term deployments	Larger, outside-in deployments increase chances of successful deterrence	Exercise size and complexity are more important than frequency	Naval presence missions and bomber task forces (BTFs) either are positively correlated with adversary actions or have no statistically significant effect	Not applicable
Security cooperation	Not applicable	Important for reassurance; deterrent effect is unclear	Not applicable	May have contributed to Russia limiting its aims in eastern Ukraine after Minsk II, but to what extent is uncertain

Recommendations

Our research culminated in the following recommendations:

- Adopt more-specific ways of describing adversary actions than "malign influence." Tailored deterrence strategies require a more precise definition of the adversary actions that the United States seeks to prevent.
- Align U.S. forward presence to reinforce clear deterrence logics. The ability to rapidly reinforce signals the denial of adversary benefits, whereas the posturing of additional strike assets signals the threat of punishment.
- Clarify the logic of BTF and naval presence missions to ensure that the deployments strengthen deterrence by signaling the denial of adversary benefits or the threat of punishment.
- Consider cost in the implementation of force employment concepts, differentiating between applications of dynamic force employment or agile combat employment that are fertile for generating efficiencies and those that generate additional requirements for which there is an opportunity cost.

- Should resource considerations lead to a reduction in OAIs for deterrence, be attentive to how such reductions are communicated and executed so as to reduce potential backlash from allies and partners and avoid telegraphing opportunities to adversaries.

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1. Introduction

How can the United States continue to effectively deter such adversaries as Russia and Iran as the military reorients its global footprint to compete with the pacing threat of China?[2] The 2021 *Interim National Security Strategic Guidance* highlights the need "to deter and prevent adversaries from directly threatening the United States and our allies, inhibiting access to the global commons, or dominating key regions."[3] The guidance goes on to stipulate the need to achieve deterrence against state adversaries of different types, reinforce U.S. extended deterrence commitments to U.S. allies and partners, and apply deterrence to adversaries' gray zone activities. The posture statements of U.S. geographic commands also stress deterrence as a key military mission and are similarly expansive in identifying the scope of the requirement; U.S. European Command (EUCOM) notes that its "strategy prioritizes supporting NATO's [the North Atlantic Treaty Organization's] deterrence and defense of the Euro-Atlantic area,"[4] and a recent U.S. Central Command (CENTCOM) posture statement underscored, "Deterring Iran from its destructive and destabilizing activities in the military domain underpins everything we do, and is CENTCOM's top priority."[5]

Yet deterrence is only one military mission that U.S. military forces must undertake. And among U.S. adversaries, China has been identified as the long-term pacing threat that resources should be prioritized against, with CENTCOM already experiencing a drawdown of U.S. forces and additional reductions in forward presence anticipated to come.[6] How, then, can the United States strike a balance in meeting its deterrence objectives outside U.S. Indo-Pacific Command (INDOPACOM), finding ways to deter U.S. adversaries without crowding out competition with China or investment in U.S. military modernization?

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[2] This research was completed in September 2021, before the February 2022 Russian invasion of Ukraine. It has not been subsequently revised.

[3] Joseph R. Biden, Jr., *Interim National Security Strategic Guidance*, Washington, D.C.: White House, March 2021, p. 9.

[4] Tod D. Wolters, "Statement of General Tod D. Wolters, United States Air Force Commander, United States European Command," Washington, D.C.: U.S. Senate Committee on Armed Services, April 13, 2021a, pp. 1–2.

[5] CENTCOM, "Command Priorities," webpage, undated. See also Kenneth F. McKenzie, Jr., Commander, U.S. Central Command, "Posture Statement of General Kenneth F. McKenzie, Jr., Commander, United States Central Command Before the Senate Armed Services Committee, March 12, 2020," Washington, D.C.: U.S. Senate Committee on Armed Services, March 12, 2020a.

[6] Gordon Lubold, Nancy A. Youssef, and Michael R. Gordon, "U.S. Military to Withdraw Hundreds of Troops, Aircraft, Antimissile Batteries from Middle East," *Wall Street Journal*, last updated June 18, 2021.

Research Questions and Motivation

The goal of this research project is to improve understanding of (1) which U.S. military actions have the desired deterrent effect and (2) where efficiencies may be found by adjusting the operations, activities, and investments (OAIs) the U.S. military undertakes for deterrence. Our intent is to support military planners in tailoring deterrence that achieves the objective—demonstrating to adversaries that "the costs and risks of aggression remain out of line with any conceivable benefit,"[7] in the words of Secretary of Defense Lloyd J. Austin III—while recognizing that an optimal approach to deterrence would accomplish that objective with a judicious use of resources. In studying the use of military OAIs for deterrence, we are conscious that other tools—such as economic or political sanctions or positive inducements—also play a significant role in deterrence of great-power aggression. Even as other U.S. government departments and agencies exercise nonmilitary tools, an independent focus on the role of military OAIs is important because the U.S. Department of Defense (DoD) must formulate appropriate OAIs for its deterrence role in coordination with other stakeholders.

Since Russia's seizure and subsequent annexation of Crimea in 2014, establishing deterrence has become a much-discussed topic among U.S. political and military leadership. Some see deterrence as a concept that was neglected during the immediate post–Cold War period and look to raise its prominence as an objective of the U.S. military.[8] Others have criticized the surge in attention to deterrence, which they argue has been used as a catchall for justifying military deployments that lack well-defined objectives.[9] Current officials, including Secretary of Defense Austin and Under Secretary of Defense for Policy Colin Kahl, have called for new deterrence concepts and suggested that integrated deterrence, which in its early incarnation appears to be aimed at achieving deterrence across military domains, across the spectrum of competition and conflict, integrated with nonmilitary tools, and in tandem with allies and partners, will be featured in the 2022 National Defense Strategy.[10] In the backdrop of these discussions is the question of how to achieve deterrence without generating requirements that consume readiness for other missions.

Debates over what constitutes the right level of investment in deterrence often come to a head in EUCOM and CENTCOM, where the United States faces two state adversaries: Russia

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[7] Lloyd J. Austin III, "Opinion: The Pentagon Must Prepare for a Much Bigger Theater of War," *Washington Post*, May 5, 2021.

[8] For a call to reinvigorate thinking on deterrence prior to Russia's seizure of Crimea, see Richard K. Betts, "The Lost Logic of Deterrence: What the Strategy That Won the Cold War Can—and Can't—Do Now," *Foreign Affairs*, March–April 2013. For a post-Crimea call, see Robert P. Haffa, Jr., "The Future of Conventional Deterrence: Strategies for Great Power Competition," *Strategic Studies Quarterly*, Winter 2018.

[9] Mara Karlin, "You Get Deterrence, and You Get Deterrence, Everybody Gets Deterrence!" *War on the Rocks*, May 5, 2017.

[10] Jim Garamone, "Official Talks DOD Policy Role in Chinese Pacing Threat, Integrated Deterrence," DoD News, June 2, 2021.

and Iran. Deterring them from undertaking aggression against the United States and its allies and partners would appear to require significant effort and could result in deterrence requirements that pull attention and resources away from the priority long-term threat posed by China in INDOPACOM.[11] On the one hand, there is the risk of underinvesting in deterrence in EUCOM and CENTCOM and thus insufficiently posturing forces and conducting activities (e.g., exercises, security cooperation) to deter Russian and Iranian aggressions. On the other hand, there is the opposite risk of overinvesting in deterrence in these two theaters, thereby depriving the military of the resources necessary to effectively compete with China, modernize forces, or build readiness via continental United States (CONUS)–based training.

The challenge of how to resource deterrence missions cuts across commands, and geographic combatant commands operate as the natural advocates for additional forces to deter adversaries in their theaters.[12] For example, the EUCOM commander has pointed to a need to better match resources to the evolving nature of the threat environment in Europe,[13] and the CENTCOM commander has described the state of deterrence with Iran as "contested" and has been a strong advocate for additional forces to restore deterrence in his area of responsibility (AOR).[14] As force providers, the military services have an interest in deterrence missions not overconsuming readiness or crowding out investment in modernization.[15]

To explore how to reach a balance of investing in deterrence without generating unnecessary requirements, we investigate whether and how the concept of *economy of force* (EoF) can be usefully applied to deterrence missions in EUCOM and CENTCOM.[16] We do not begin this study from the premise that EoF is a concept that is suitable to all deterrence missions or that could be applied in the same way to two theaters that have major differences in underlying conditions (e.g., extent of the adversary's conventional and nuclear capabilities, existence of U.S. treaty allies). Instead, we see EoF as a concept that provides a way to explore the potential to

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[11] Some argue that the different U.S. military capabilities most relevant for each theater (e.g., maritime capabilities for INDOPACOM, land forces for EUCOM) mean that theaters are not necessarily competing for the same forces.

[12] Mackenzie Eaglen, "Putting Combatant Commanders on a Demand Signal Diet," *War on the Rocks*, November 9, 2020.

[13] U.S. Department of State, "Telephonic Press Briefing with General Tod Wolters, Command (USEUCOM) Commander and NATO Supreme Allied Commander Europe (SACEUR)," special briefing via telephone, February 3, 2021b.

[14] Kenneth F. McKenzie, Jr., "Marine Corps General Kenneth F. McKenzie Jr., Commander, U.S. Central Command Holds a Press Briefing on Defensive Strikes Against Iran," transcript, U.S. Department of Defense, March 13, 2020b.

[15] For an example of the trade-offs between service modernization and meeting geographic combatant commanders' requests for forces, see Rebecca S. Zimmerman, Kimberly Jackson, Natasha Lander, Colin Roberts, Dan Madden, and Rebeca Orrie, *Movement and Maneuver: Culture and the Competition for Influence Among the U.S. Military Services*, Santa Monica, Calif.: RAND Corporation, RR-2270-OSD, 2019, pp. 59–60.

[16] This report does not include a cost analysis of deterrence missions, which may be a logical follow-on effort. Rather, we investigate which OAIs have the greatest deterrent effect, which can help policymakers and defense planners prioritize investments in OAIs.

realize efficiencies in how deterrence missions are executed while also weighing the potential negative consequences of adopting such an approach.

We investigate our research questions with respect to Russia and Iran because they are the two state threats identified in U.S. strategic guidance that are not in INDOPACOM, the theater that is expected to be a strong focus of U.S. military activities in coming years. Russia and Iran pose very different challenges from each other; key distinguishing factors are the much greater threat posed by Russia's conventional forces in its near abroad and the quality and quantity of Russia's nuclear arsenal. However, both countries require the United States to engage in deterrence activities in theaters where policymakers may seek more-efficient approaches to addressing threats. To sufficiently address the differences between the two adversaries, the chapters in this report and the appendixes treat each adversary separately, albeit in a parallel structure.

Key Concepts

Although deterrence has spawned numerous definitions, scholars and practitioners typically agree on its general characteristics.[17] In classic deterrence literature, political scientists Alexander George and Richard Smoke describe deterrence as "simply the persuasion of one's opponent that the costs and/or risks of a given course of action he might take outweigh its benefits."[18] RAND researcher Michael Mazarr defines it as "the practice of discouraging or restraining someone—in world politics, usually a nation-state—from taking unwanted actions, such as an armed attack. It involves an effort to stop or prevent an action."[19] A contested part of the concept is what range of adversary actions it encompasses. In the narrowest definition, the actions to be deterred are major aggressions, such as a territorial grab.[20] In the broadest definition, the action to be deterred might encompass lower-level actions below the threshold of war (e.g., airspace violations), nonkinetic activities (e.g., the use of cyberspace to spread disinformation),[21] or even the adversary's development of new capabilities (e.g., Russia's

[17] This review of key concepts assumes that the reader has some exposure to deterrence. To keep the discussion as brief as possible, we do not address the point that, in the literature, deterrence is typically treated as a subset of coercion.

[18] Alexander L. George and Richard Smoke, *Deterrence in American Foreign Policy: Theory and Practice*, New York: Columbia University Press, 1974, p. 11.

[19] Michael J. Mazarr, *Understanding Deterrence*, Santa Monica, Calif.: RAND Corporation, PE-295-RC, 2018, p. 2.

[20] For an argument against expanding the scope of military objectives that are considered deterrence missions, see Al Mauroni, "Deterrence: I Don't Think It Means What You Think It Means," Modern War Institute at West Point, October 8, 2019.

[21] Michael J. Mazarr, Joe Cheravitch, Jeffrey W. Hornung, and Stephanie Pezard, *What Deters and Why: Applying a Framework to Assess Deterrence of Gray Zone Aggression*, Santa Monica, Calif.: RAND Corporation, RR-3142-A, 2021.

attempts to acquire hypersonic weapons).[22] The bounds of the aggressor activity to be deterred also encompass the issue of whether the action has already occurred. To distinguish between aggressor actions that the United States would seek to reverse or prevent a reoccurrence of and actions that have not occurred, scholars differentiate between *deterrence* and *compellence*,[23] use the term *roll back* to signal the aim of reversing an adversary's action,[24] or note the need to "restore deterrence" retroactively.[25]

These conceptual issues are important for our research questions because one potential way to execute deterrence along EoF principles is to limit the scope of aggressor activities the United States attempts to deter. This report does not adopt a narrow or broad formulation of the set of activities the United States should attempt to deter; rather, it highlights that the choice has implications for finding efficiencies in the deterrence mission and that the broader the conception of deterrence employed, the harder it will be to realize efficiencies. Simply put, if deterrence is narrowly defined as preventing adversaries from undertaking large-scale aggressions, that is a mission that is likely to be achievable with less deterrence inputs than if the deterrence mission is broadly defined as preventing adversary actions below the threshold of war, such as airspace violations, or encompasses restoring deterrence in cases in which the adversary has already established a pattern of behavior (e.g., Iranian harassment of U.S. naval ships in the Persian Gulf).

In addition to the types of adversary actions the United States is trying to deter, there are several ways to categorize deterrence according to the adversary capabilities employed, the target of the aggression, and the stage of the crisis when it takes place. The most common distinctions are via the type of attack being deterred (i.e., conventional or nuclear attack), the target of the aggression (i.e., direct deterrence for actions against the United States versus extended deterrence for U.S. support of an ally or partner), and whether the deterrence is aimed at an adversary during the absence of a crisis or in the midst of an escalation (i.e., general versus immediate deterrence).

Our study is primarily focused on conventional deterrence. We acknowledge that in the EUCOM theater, the nuclear capabilities of the United States and its allies, on the one hand, and Russia, on the other, are a fundamental characteristic of the regional security system that affects all sides' calculations. Yet we focus on conventional deterrence for several reasons. First, for

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[22] For an example of using deterrence in this way, see comments by Senator Joe Manchin: "It sounds to me as if hypersonic weapons and other future weapons have been more advanced by other countries such as China, even Russia coming back into the scene in a real aggressive way. . . are we going to deter them from moving forward?" (Eunjung Cho, "US Senators Point to 'Hypersonic Gap' with Russia, China," Voice of America, February 13, 2020).

[23] Thomas C. Schelling, *Arms and Influence*, New Haven, Conn.: Yale University Press: 1966, pp. 71–76.

[24] Melanie W. Sisson, James A. Siebens, and Barry Blechman, eds., *Military Coercion and US Foreign Policy: The Use of Force Short of War*, New York: Routledge, 2020.

[25] Michael Eisenstadt, Kori Schake, and David Deptula, "U.S. Strategy Toward Iran: Restoring Deterrence, Enabling Diplomacy," Policy Watch 3265, Washington Institute for Near East Policy, February 14, 2020.

scoping reasons, the primary interest of the study's sponsor was on identifying economies of force associated with OAIs related to conventional forces. Second, existing analysis of the nuclear dynamics of the region suggests that Russia might have a degree of escalation dominance that limits the efficacy of U.S. nuclear weapons to deter a potential Russian attack, which highlights the challenges of a nuclear weapon–focused strategy for deterrence. In particular, in a 2019 RAND study that used a wargame to examine the potential for using a nuclear strategy for deterrence in the Baltic states, the researchers assessed that "NATO would lack escalation dominance" in a nuclear exchange emerging from a conflict in the Baltics.[26] The report noted that nuclear weapons and modernization could contribute to a credible deterrence strategy, but it suggested that the priority is strengthening conventional forces. A third reason for our focus on OAIs associated with conventional forces is that these capabilities might be especially important for deterring the initial stages of conflict and for deterring forms of aggression other than a Russian attack against a NATO member. Nevertheless, some of the OAIs that we explore may have an impact because they involve dual-use capabilities, such as bomber task forces (BTFs), although there is a risk of inadvertent escalation, as the roundtables described in Chapter 3 considered.[27] In the CENTCOM AOR, although Iran may consider the nuclear capabilities of the United States in developing its foreign policy, OAIs associated with nuclear weapons do not appear to play a significant or plausible role in U.S. deterrent missions as we identify them. Given the scope of this effort, further study of the role of nuclear weapons for deterrence in Europe, including exploring conventional-nuclear integration and the role of U.S. and NATO nuclear modernization, is merited. Such study might need to consider factors that are beyond the scope of this report, including nuclear use doctrine, intra-conflict escalation, and the possible dynamics of strategic escalation.

In terms of the target of adversary actions, in EUCOM, our research focuses on extended deterrence requirements because the primary deterrence objective of the United States in that theater is deterring Russian attacks on its NATO allies. In the CENTCOM theater, U.S. deterrence is also extended but is somewhat complicated by the fact that U.S. forward presence is one target of Iranian aggression, whether those assets are based in the sovereign territory of U.S. partners (e.g., U.S. ground forces in Iraq) or in the global commons (e.g., U.S. naval presence in the Persian Gulf). And some Iranian attacks specifically target U.S. forces and not Washington's regional partners. For this reason, our analysis in this theater covers extended deterrence and the gray area between direct and extended deterrence in which the target of the aggression might be U.S. forces—and not necessarily U.S. partners—and might occur in the global commons.

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[26] Paul K. Davis, J. Michael Gilmore, David R. Frelinger, Edward Geist, Christopher K. Gilmore, Jenny Oberholtzer, and Danielle C. Tarraf, *Exploring the Role Nuclear Weapons Could Play in Deterring Russian Threats to the Baltic States*, Santa Monica, Calif.: RAND Corporation, RR-2781-RC, 2019, p. x.

[27] See also Ulrich Kühn, "NATO's Options," *Preventing Escalation in the Baltics: A NATO Playbook*, Washington, D.C.: Carnegie Endowment for International Peace, 2018.

Scholars have also highlighted a distinction between *deterrence by denial*—meaning the application of actions that would prevent an adversary from achieving a particular action—and *deterrence by punishment*—meaning threatening the imposition of costs to an adversary for an action.[28] Deterrence by denial is sometimes believed to be more effective because the threat of punishment might not be credible to a potential adversary. Although this distinction is sometimes useful in considering the utility of OAIs, we do not organize the articulation of OAIs around these categories because, in many cases, OAIs can contribute to both deterrence by denial and deterrence by punishment. For example, as we explain in Chapter 2, intelligence, surveillance, and reconnaissance (ISR) capabilities can contribute to denying objectives by providing early warning of adversary aggression and an ability to respond and can facilitate future punishment of the adversary.

Finally, our research encompasses both general deterrence and immediate (also called *crisis*) deterrence.[29] Scholars have usefully differentiated between these two types of deterrence to understand the different requirements of preventing an adversary aggression without advance warning of an imminent attack versus preventing an adversary from escalating an action during a crisis.[30] On the one hand, there can be an overlap between general and crisis deterrence, as the military activities and policy positions taken by the defender and aggressor during peacetime will almost certainly shape the crisis response. Moreover, it can be difficult in the real world to differentiate between periods of general and crisis deterrence, particularly when relations are highly adversarial and there are slow-burn crises or frequent small-scale escalations. On the other hand, the distinction should not be underplayed, as the variety of actions taken by the defender during crises will almost certainly include much greater enhancements of posture and demonstrations of capability than during peacetime. Because our intent is for a military planner to be able to use this research to inform how the United States postures to deter adversary aggressions, and those aggressions could occur through either pathway, we note this distinction when addressing prior literature. However, our original research does not code cases as strictly corresponding to either general or crisis deterrence. A EUCOM or CENTCOM planner must be prepared to think through how OAIs can be leveraged to prevent adversary actions however the aggressions develop. And all of our original research deals with the post-2014 EUCOM and CENTCOM theaters, in which there have been frequent escalations.

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[28] Schelling, 1966, p. 70.

[29] James Fearon identifies general deterrence as occurring when "no threats are issued between states that are involved in a generally adversarial relationship" and immediate deterrence as "becom[ing] an issue after one state has decided to threaten or to take other actions that suggest the possible use of force" (James D. Fearon, "Signaling Versus the Balance of Power and Interests: An Empirical Test of a Crisis Bargaining Model," *Journal of Conflict Resolution*, Vol. 38, No. 2, June 1994, p. 240).

[30] Bryan Frederick, Stephen Watts, Matthew Lane, Abby Doll, Ashley L. Rhoades, and Meagan L. Smith, *Understanding the Deterrent Impact of U.S. Overseas Forces*, Santa Monica, Calif.: RAND Corporation, RR-2533-A, 2020; Mazarr et al., 2021.

Because this study examines how deterrence can be achieved while remaining sensitive to competing demands, our research looks at the intersection of deterrence with EoF principles. Joint doctrine defines EoF as "the judicious employment and distribution of forces so as to expend the minimum essential combat power on secondary efforts to allocate the maximum possible combat power on primary efforts."[31] The concept focuses on two interrelated considerations. The first is that combat power should be applied "judiciously" or in a manner that is the "minimum essential" to achieve the task. The second is the idea that applying EoF is based on a distinction between primary and secondary efforts, with resources surged to primary efforts and reduced toward secondary efforts. Service-level military doctrine—including U.S. Air Force doctrine—is consistent in these regards, stressing the same fundamental considerations.[32]

In considering what EoF means, it is useful to note what it does not mean but is sometimes confused with. EoF does not mean withdrawal from a conflict or theater of operations, but rather employing the minimum effort required to achieve a secondary objective. As clarified by the Chairman of the Joint Chiefs of Staff,

> The proper term would be economy of force, which doesn't mean zero . . . . It just means you've got to right-size it to the tasks and the threats at a level of effort that's appropriate to achieve your objectives. . . . Economy of force means you are going to use the least amount of force to achieve the minimum amount of objectives that you can achieve in support of the broader main effort.[33]

Doctrine does not specify the variety of mechanisms that could be used to implement EoF, but, according to public statements made by U.S. military leadership, the mechanisms appear to encompass posture (e.g., reducing the scale of U.S. forward presence and capabilities in theater), force employment (e.g., using concepts that require less than a standard sized military unit, such as agile combat employment [ACE], which may involve forward deploying less than a squadron-sized package of aircraft to forward operating locations), and reliance on contributions from allies and partners rather than U.S. military capabilities.

Given the current strategic priorities, there are two potential motivations for applying EoF principles to deterrence in EUCOM and CENTCOM. The first would be to avoid operationalizing deterrence in the two theaters in ways that would divert military capabilities from other nondeterrence missions. The second would be to better prioritize deterrence objectives within each theater so as to focus U.S. deterrence inputs on deterring the adversary aggressions that are the most threatening to U.S. interests or the most "deterrable" given the

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[31] Joint Publication 3-0, *Joint Operations*, Washington, D.C.: Joint Chiefs of Staff, January 17, 2017, incorporating change 1, October 22, 2018, p. GL-8.

[32] U.S. Air Force doctrine states, "To ensure overwhelming combat power is available, maximum effort should be devoted to primary objectives. At the operational level of war, commanders ensure that any effort made towards secondary objectives does not degrade achievement of the larger operational or strategic objectives" (Curtis E. LeMay Center, *Volume 1: Basic Doctrine*, Washington, D.C.: Chief of Staff, U.S. Air Force, last updated February 27, 2015).

[33] Luis Martinez, "Pentagon to Decide Soon on Possible Troop Cut in West Africa," ABC News, January 16, 2020.

defenders' and aggressors' respective interests and the local balance of forces. For both applications, EoF is a relevant principle that could help U.S. military planners avoid the trap of establishing ever higher deterrence requirements that tie down military capabilities for which there is an opportunity cost.

However, in applying EoF to deterrence, planners would need to be cognizant of the risk of underinvesting in deterrence and thereby potentially inviting an adversary aggression that would have otherwise been preventable. As observed by political scientist Richard Betts, there are two unintended consequences that can result from poorly executed deterrence: wasting resources on an unnecessary activity and inadvertently provoking conflict.[34] And there is also the risk that the defender commitment will be insufficient and deterrence will fail. Of these outcomes, Betts persuasively argues that although overinvesting in deterrence is suboptimal, the other outcomes are of much greater concern. Thus, while all defense planners and policymakers can presumably agree that the ideal is to deter without expending unnecessary effort, reasonable people can disagree on the level of risk they are willing to accept to deter efficiently. And debate is all the more likely given the uncertain returns on deterrence inputs and the uncertain intentions of U.S. adversaries to undertake specific aggressions.

Despite these analytic challenges and real-world uncertainties, there will be an increasing need to make the most of resources across U.S. global commitments. This, in turn, may lead policymakers to pressure defense planners to find efficiencies in deterring adversaries, forcing tough decisions on trade-offs between deterrence activities. This research provides a tool for informing this debate.

Drawing on Existing Literature

Deterrence is a vast field of study that has produced much analysis—and debate—over the past half century. Because the body of literature on deterrence is extensive and classic deterrence theory has been thoroughly discussed in other work, we focused our literature review on empirical analyses of deterrence effectiveness. In particular, we searched for work that offered operationally relevant findings about the effectiveness of different military inputs on deterrence outcomes. Additionally, we looked for work that either produced original data sets or analyzed other data sets related to deterrence in which the United States was the deterrer in at least one (but preferably more) of the examined cases. We began with recent RAND work and then expanded our search to include other institutions. We restricted our search to articles in peer-reviewed journals, published books, and RAND reports. Our search yielded three RAND reports and ten other studies that met our strict criteria, as well as a host of other articles that we do not discuss in depth but that provided us with valuable background information. Table 1.1 provides a snapshot of the studies examined in our literature review.

[34] Betts, 2013.

Table 1.1. Overview of Empirical Studies Reviewed

Study	Methodology	Period Examined	Type of Deterrence Examined
Paul Huth and Bruce Russet, "What Makes Deterrence Work? Cases from 1900 to 1980," July 1984.	Statistical analysis	1900–1980	Extended, immediate deterrence
Paul Huth and Bruce Russett, "Deterrence Failure and Crisis Escalation," March 1988.	Statistical analysis	1885–1984	Extended, immediate deterrence
Paul K. Huth, *Extended Deterrence and the Prevention of War*, 1988.	Statistical analysis, case studies	1885–1984	Extended, immediate deterrence
Paul K. Huth, "Extended Deterrence and the Outbreak of War," June 1988.	Statistical analysis	1885–1984	Extended, immediate deterrence
James D. Fearon, "Signaling Versus the Balance of Power and Interests: An Empirical Test of a Crisis Bargaining Model," 1994.	Game-theoretic analysis	1885–1984	Extended, immediate deterrence
Melanie W. Sisson, James A. Siebens, and Barry M. Blechman, *Military Coercion and US Foreign Policy: The Use of Force Short of War*, May 2020.	Statistical analysis, case studies	July 1991–June 2018	Immediate (crisis) deterrence; coercion
Barry M. Blechman and Stephen S. Kaplan, *Force Without War: U.S. Armed Forces as a Political Instrument*, 1978.	Descriptive statistics and case studies	1946–1975	Coercion with some cases of immediate deterrence
Jesse C. Johnson, Brett Ashley Leeds, and Ahra Wu, "Capability, Credibility, and Extended General Deterrence," 2015.	Statistical analysis (large-*N* probit analysis)	1816–2000	Extended, general deterrence
Vesna Danilovic, *When the Stakes Are High: Deterrence and Conflict Among Major Powers*, 2002.	Historical research, empirical analysis	1895–1985	Extended, immediate deterrence; general deterrence; direct deterrence between major powers
Stephen L. Quackenbush, "General Deterrence and International Conflict: Testing Perfect Deterrence Theory," March 2010.	Statistical analysis	1816–2000	General, direct deterrence
Bryan Frederick, Stephen Watts, Matthew Lane, Abby Doll, Ashley L. Rhoades, and Meagan L. Smith, *Understanding the Deterrent Impact of U.S. Overseas Forces*, 2020.	Statistical analysis, case studies	1950–2010	General deterrence, immediate deterrence
Michael J. Mazarr, Arthur Chan, Alyssa Demus, Bryan Frederick, Alireza Nader, Stephanie Pezard, Julia A. Thompson, and Elina Treyger, *What Deters and Why: Exploring Requirements for Effective Deterrence of Interstate Aggression*, 2018.	Quantitative analysis; historical case studies	1945–2018	Extended, general deterrence; extended, immediate deterrence
Angela O'Mahony, Miranda Priebe, Bryan Frederick, Jennifer Kavanagh, Matthew Lane, Trevor Johnston, Thomas S. Szayna, Jakub P. Hlávka, Stephen Watts, and Matthew Povlock, *U.S. Presence and the Incidence of Conflict*, 2018.	Statistical analysis	1951–2007	Extended, general deterrence

Explanations of Deterrence Success

Existing literature identifies several variables that affect the success of—or, conversely, can lead to the failure of—deterrence. The variables can largely be categorized as pertaining to capability, credibility, intent, resolve, and the broader context in which deterrence efforts take place. Table 1.2 summarizes these variables. Credibility, intent, and resolve are concepts that may overlap, depending on how they are treated in specific research.

Table 1.2. Variables Affecting Deterrence

Capability	Credibility	Intent	Resolve	Contextual Factors
• Military capability of defender (plus its protégés/ allies) and challenger • Regional or local balance of forces • Proximity of defender's forces or capabilities to challenger (indicates ability to surge forces)	• Challenger's perceptions of credibility of defender's threats and capabilities • Clarity of messaging and communication • Automaticity of defender's response (if challenger takes unwanted action)	• Intentions of defender and challenger • Clarity on the part of the challenger about what behavior the defender is seeking to deter and what actions the defender will take if threat is ignored • Defender's understanding of challenger's intent	• Levels of will, motivation, commitment of defender and challenger • Degree to which defender's and challenger's core interests are involved • Continuity of presence (signals sustained commitment) • Permanence of deterring forces or capabilities (signals sustained commitment)	• Broader geopolitical context • Domestic pressures, cultural preferences • Security dilemma (action-reaction cycle) • Cumulative effects and sequencing of actions

SOURCE: Compiled by the authors through a review of the literature. See especially Frederick et al., 2020; and Michael J. Mazarr, Arthur Chan, Alyssa Demus, Bryan Frederick, Alireza Nader, Stephanie Pezard, Julia A. Thompson, and Elina Treyger, *What Deters and Why: Exploring Requirements for Effective Deterrence of Interstate Aggression*, Santa Monica, Calif.: RAND Corporation, RR-2451-A, 2018.

Several of the studies we reviewed provide insights into how these variables contribute to deterrence success or failure and which of these variables may play more of a role than others. Some of the factors on which there is general agreement are intuitive and, therefore, likely already assumed by military planners, but there is still value in validating these assumptions empirically. For example, a recent RAND study found no instances of U.S. deterrence failure when

- the aggressor's motivation is [assessed] as low
- the United States is clear—both about what it wants, and the consequences for crossing the United States

- there is a clear U.S. and allied advantage in the local balance of forces.[35]

Instructive for military planners, the local balance of forces, when viewed in isolation from the other factors, was not found to be determinative of the deterrence outcome. This underscores that although adjustments in U.S. military OAIs are an important factor in achieving deterrence, whether the United States achieves its desired outcome depends on a broader set of conditions, many of which cannot be easily addressed through a change in forward posture. As will be brought out in subsequent chapters, one of these crucial variables is political will or depth of commitment by the defender.

Key Findings from Existing Literature on the Effects of U.S. Military Inputs on Deterrence

While there are many empirical studies on factors affecting deterrence success and failure, there are far fewer studies that analyze the effects of specific types of U.S. OAIs on deterrence. Moreover, there are some conflicting findings among the handful of studies that do analyze the effects of military inputs on deterrence.

A recent book edited by Melanie Sisson and colleagues provides analysis of 115 cases of military coercion since the end of the Cold War—meaning cases in which the United States "used the armed forces to coerce another country without resorting to actual war," with the U.S. objective in the majority of cases (83 of 115) coded as deterrence.[36] A key finding of the study is that the "size of pre-existing permanently stationed US forces in-region does not have a significant effect on the outcomes of immediate coercive events."[37] Put another way, while the authors did not make a judgment on the value of U.S. forward presence for achieving general deterrence, they did not find a positive correlation between that presence and the likelihood of successfully deterring adversaries in cases of immediate or crisis deterrence. However, they did find that additional U.S. deployments sent from outside the theater—and of various types, including air, ground, and naval forces—"increase significantly the likelihood that US policy objectives will be achieved" during crises that require immediate deterrence.[38] If these findings from Sisson and colleagues are correct and hold into the future, this would partially support the proposition of applying EoF principles to deterrence, since the authors discount the value of large-scale forward presence for improving outcomes when crises arise.

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[35] Mazarr et al., 2018, p. 39.

[36] Sisson, Siebens, and Blechman, 2020, p. 34. All but one of the remaining cases considered were coded by the authors as compellence.

[37] Sisson, Siebens, and Blechman, 2020, p. 43.

[38] Sisson, Siebens, and Blechman, 2020, p. 44.

It is also significant that Sisson and colleagues conclude that the scope of the additional deployments to theater—what they call "outside-in deployments"—matters and that, in general, larger reinforcements, of 1,000 or more personnel, have a greater deterrent effect than smaller deployments. Although their research cannot determine why that is the case, it might be that larger force packages simultaneously address capability gaps while communicating political will. The one exception is that the research did not show greater returns to additional naval deployments beyond what were already garnered through the surging of one amphibious ready group (ARG) or carrier strike group (CSG) to the theater. The implications of the research challenge applying EoF principles to immediate deterrence—except possibly for naval forces—since the authors found that a greater scale of additional deployments at a time of crisis has a greater deterrent value.

The application of the findings to the two adversaries that we consider in this study—Russia and Iran—must take into account that both adversaries qualify as what Sisson and colleagues deem "strong" challengers, since the authors' findings and implications vary according to the relative power of the challenger. For strong states like Russia and Iran, the authors recommend that "the US should deploy ground forces and is advantaged by deploying at least a brigade of soldiers or Marines"; if the challenger is a weak state, then "the US should deploy air or naval forces; air forces should be sent in relatively large numbers."[39]

Another consideration for military planners applying the findings of Sisson and colleagues is that the cases considered in the study are all from the post–Cold War period. So, if the reader believes that the future is likely to have considerable continuity with the pattern of U.S. deterrence over the past 30 years, the lessons of this study will be relevant. Other books, like the classic text *Force Without War*,[40] by Barry Blechman and Stephen Kaplan, draw from Cold War–era cases. So, for readers who see greater parallels between the current environment and that period, *Force Without War* is a relevant resource. Interpretation of the findings from *Force Without War* for our study question, however, presents several challenges. First, although Blechman and Kaplan draw on a broad sample of cases (215 cases) in which the United States used military force as a "political instrument" short of war, their findings are presented in detail for only a small proportion of the total cases (33 cases). Second, while Blechman and Kaplan note which contextual factors and types of military deployments are associated with positive outcomes, their approach allowed each overall case to be coded as designed to achieve multiple actions (i.e., assurance, deterrence, compellence, and inducement), with compellence being the most frequent, obscuring the relationship between different military inputs and *deterrence* outcomes. What can be gleaned from this research is that U.S. extended deterrence efforts from the end of World War II to 1975 were generally successful; 17 of the 20 cases (85 percent of the

[39] Sisson, Siebens, and Blechman, 2020, p. 48.

[40] Barry M. Blechman and Stephen S. Kaplan, *Force Without War: U.S. Armed Forces as a Political Instrument*, Washington, D.C.: Brookings Institution Press, 1978.

cases) that Blechman and Kaplan analyzed that were designed to achieve extended deterrence realized that goal over the short term. And most of those positive outcomes endured over the medium term.[41]

A recent RAND study by Bryan Frederick and colleagues, *Understanding the Deterrent Impact of U.S. Overseas Forces*, seeks to answer similar questions as Sisson and colleagues and Blechman and Kaplan. Frederick and his coauthors examined a large number of deterrence outcomes to discern the impacts of different military inputs on the success of the deterrence efforts and supplemented their statistical analysis with case studies. This work encompasses both the Cold War and post–Cold War periods. Frederick and colleagues found that "the more mobile forces are, the less evidence we have that they deter, possibly because of the lesser degree of high-level or long-term U.S. commitment they represent or the greater difficulties in measuring their effects."[42] Moreover, the RAND study found "consistent evidence for the deterrent effects of heavy ground forces and air defense capabilities, especially when deployed in the general theater of interest but not necessarily on the front lines of a potential conflict."[43] The authors found little evidence to suggest that naval forces have a significant deterrent effect. However, the study found that light ground forces—when stationed in the country targeted for aggression rather than near to it—were actually associated with higher levels of escalation (although still short of full-scale war) rather than deterrence.

An area of agreement between Sisson et al. and Frederick et al. is that the ability to flow forces into theater rapidly during a crisis has a significant deterrent impact. According to Frederick and colleagues, "the historical record suggests that crisis deployments are strongly associated with a lower risk of escalation to major conflict or war. Approximately two-thirds of crises escalate to major clashes or outright wars, but when the United States deploys forces into a crisis, little more than one-quarter of crises escalate."[44] The study found that the type of forces deployed matters, noting that "these effects are particularly strong for ground forces (no crises in our analysis escalated to major confrontation or war) and air forces (only one crisis escalated)."[45] Finally, the authors observe that their case studies reinforce the importance of steady-state, permanent deployments:

> The case studies . . . highlight the somewhat artificial distinction between general and immediate deterrence (or steady-state posture and crisis deployments). Steady-state posture is part of the reason that the United States was able to deploy forces rapidly during a crisis. And if crisis deployments become

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[41] Blechman and Kaplan, 1978, looks at whether the objective is achieved during the initial six months (the short term) after the U.S. military input and whether the objective remains realized after three years (the medium term).

[42] Frederick et al., 2020, p. 139.

[43] Frederick et al., 2020, p. xvii.

[44] Frederick et al., 2020, p. 140.

[45] Frederick et al., 2020, p. 140.

> persistent, they can, in turn, help reinforce general deterrence long after a crisis is over."[46]

The evidence for the deterrent effect of rapid reinforcement suggests that, among forward presence, installations and units that enable the reception, staging, onward movement, and integration of forces and materiel into the theater are crucial for effective deterrence. Among U.S. Air Force capabilities, aerial ports of debarkation would be crucial nodes.

The findings of prior empirical studies on specific military contributions to deterrence provide important insights for our work. Some insights, like those highlighting the deterrent value of large-scale ground deployments, or work that questions the deterrent effect of small-scale trip wires,[47] challenge the premise of applying EoF principles to deterrence. Other insights, such as those stressing the importance of sending signals during crises, including modest signals, such as small-scale deployments, suggest potential pathways for applying EoF principles to deterrence. And because many studies note the unintended consequences of deterrence efforts provoking escalation,[48] there is further motivation for examining the utility of applying EoF principles to deterrence.

Because we found no existing studies that focused specifically on examining how EoF principles could be applied to deterrence,[49] we conducted original research in Chapters 2–5 that explores the application of EoF principles to deterrence in EUCOM and CENTCOM, the two theaters that are often characterized as priority theaters of U.S. national security strategy after INDOPACOM. Our original research fills a gap in exploring the application of EoF to deterrence and leverages data not available to prior researchers. For the quantitative component of the research, we were able to use more-precise data on U.S. Air Force deployments, specifically the deployment of BTFs, which is a major U.S. Air Force input to deterrence. This is as a result of efforts by RAND colleagues Caitlin Lee and Anthony Rosello, who shared the Logistics, Installations, and Mission Support–Enterprise View (LIMS-EV) data encompassing bomber sorties over time that they have used in their own RAND research. We were also able to use more-granular data of U.S. Navy deployments over time—down to weekly intervals—for the presence of ARGs and CSGs in the CENTCOM AOR and guided-missile destroyers in the Black Sea. Furthermore, in contrast to many of the studies that relied on statistical analyses, case studies, or a mixture of the two, this report also generates findings from expert elicitation gleaned from two structured workshops.

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[46] Frederick et al., 2020, p. 141.

[47] Dan Reiter and Paul Poast, "The Truth About Tripwires: Why Small Force Deployments Do Not Deter Aggression," *Texas National Security Review*, Vol. 4, No. 3, Summer 2021.

[48] Robert Jervis, *Perception and Misperception in International Politics*, Princeton, N.J.: Princeton University Press, 1976; Stephanie Pezard and Ashley L. Rhoades, *What Provokes Putin's Russia? Deterring Without Unintended Escalation*, Santa Monica, Calif.: RAND Corporation, PE-338-A, 2020.

[49] There is an equivalent literature for nuclear deterrence, which focuses on the concept of minimum credible deterrence.

Report Structure and Research Design

Informed by our literature review, the remainder of this report presents our original research. We begin in Chapter 2 by analyzing the baseline posture and OAIs by which the U.S. military seeks to deter Russia and Iran. The analysis identifies the causal logic by which posture and activities are linked to expected deterrence outcomes. For example, we examine how forward U.S. Army presence could create a trip wire that might signal U.S. credibility to intervene on behalf of an ally and how a BTF mission may demonstrate quick response capability with the ability to deliver standoff fires or a large number of munitions. This review creates a basis for understanding U.S. investment in deterrence as a mission in these two theaters and a point of departure for considering the applicability of current deterrence logic to our understanding of the prevailing threats posed by Russia and Iran.

In Chapter 3, we present the results from two structured workshops that were designed to elicit subject-matter expert judgments on the effectiveness of different approaches to deterrence. Specifically, RAND virtually convened ten to 15 subject-matter experts on each theater—composed of a mix of regional experts and defense planners from inside and outside the U.S. government—to judge adversary reactions to hypothetical reductions in U.S. posture and OAIs. The purpose was to test what impact those reductions would have on the adversary's calculus to undertake aggression. If reductions did not correspond to an expected increase in adversary aggressions, this would suggest potential efficiencies that could be gained. If the reductions did correspond to an uptick in adversary aggressions, this would highlight the strategic risk of applying EoF principles to deterrence in these theaters. The main limitation of this approach is that subject-matter experts have only partial insight into the precise calculus that informs Russian and Iranian decisionmaking around military actions, so the outcomes of these workshops must be treated as informed judgments only. However, this research approach has the advantage of allowing us to directly examine the efficiency-versus–strategic risk trade-off to hypothetical future U.S. defense policies.

In Chapter 4, we take a more quantitative approach by examining the correlation between the U.S. injection of deterrence inputs (e.g., posture enhancements, BTFs, additional U.S. Navy presence) and the success or failure of deterrence. The advantage of this approach is that it allows us to analyze the effectiveness of different deterrence inputs relative to observed outcomes. The chapter also has the advantage of examining real-world deterrence inputs as applied to EUCOM and CENTCOM in theater-specific contexts. There are four main limitations to this analysis that can be only partially mitigated. First, because there are a limited number of large-scale deterrence failures to analyze, we are forced to consider lower-level incidents (e.g., adversary shows of force) as a proxy for adversary aggression. Second, deterrence successes must be presumed by the absence of an observed incident, although it is almost certain that a large number of these "successes" are owed not to U.S. deterrence inputs but to the adversaries' lack of interest in taking the considered aggressions. Third, it is difficult to isolate the effects of

the deterrence inputs relative to other explanations because adversary uses of force or shows of force are likely driven by a host of factors (e.g., changes in the domestic environment, changes in the regional security environment) that might be more important than and, thus, might drown out the impact of U.S. military activities preceding and during a crisis. And fourth, because the United States often surges forces and activities at times of heightened crisis, the introduction of additional deterrent measures is likely to correspond to observed escalations that can appear to be deterrence "failures," even if the larger deterrent objective (e.g., prevent a major attack) is achieved.

In Chapter 5, to complement the structured workshops and quantitative analysis, we present a multi-episode case study of deterrence in Ukraine. First, we consider the Russian seizure and subsequent annexation of Crimea in 2014 as an example of a deterrence failure. Our focus is on investigating how the U.S. "defender commitment," as communicated through U.S. military posture, forward activities, and stated policies, may have affected Russia's decision to take this action, but we also consider alternative explanations. The case study on Ukraine then addresses a second episode, the conflict in the Donbas, focusing on the post–Minsk II period (2015 onward) to explore whether the relatively modest U.S. investment in deterrence in and around Ukraine might be contributing to the limits on aggression (i.e., not further expanding the geographic scope of separatist control) or the forms of aggression (e.g., naval actions, cyber actions) that Russia has undertaken in this period.

Chapter 6 summarizes the study findings and puts forward recommendations for how to weigh the costs and benefits of applying the concept of EoF in our two theaters of interest—EUCOM and CENTCOM. Appendixes A and B explore the nature of Russian and Iranian interests in the theaters and how these countries' pursuit of those interests could challenge U.S. deterrence objectives. These appendixes are designed to help readers understand how adversaries' strategic objectives and OAIs could be used to challenge U.S. deterrence of adversary actions, and they are an important complement to the main body of the report because they provide more insight into the adversary (vice U.S.) perspective.

The research design is intended to provide policymakers and defense planners with as much fidelity as possible on the answer of which U.S. military OAIs have the greatest deterrent impact on the two adversaries considered. For this reason, we present our findings in Chapter 6 OAI by OAI while also noting which method produced which results. We do this for the sake of research transparency, understanding that it creates somewhat artificial divides among OAI categories, whereas real-world deterrence activities often span categories.

This multimethod research design is an important study contribution. Although it did not yield an easy-to-implement formula for deterring the two adversaries we considered, it did reveal different ways to think about the challenge, and it problematizes neat answers by revealing that different methods generate different findings and that many of those findings are dependent on context. This suggests that the ultimate answer to deterring Russia and Iran is less likely to be the

application of a formula and more likely to come from an integrated approach in which activities rooted in a clear deterrence logic are combined and tailored to the context at hand.

2. Baseline Analysis of Deterrence in EUCOM and CENTCOM

This chapter presents a baseline analysis of U.S. extended deterrence requirements in EUCOM and CENTCOM. First, the chapter identifies the specific deterrence objectives the United States is committed to in each theater. Then, the chapter introduces the deterrence logics that undergird U.S. military OAIs, with a focus on how forward posture, exercises and short-term deployments, and security cooperation are employed by the United States to strengthen deterrence. Appendixes A and B are available to readers who are interested in how the primary state adversaries in each theater (Russia and Iran) define their own national security interests, how those interests might challenge U.S. deterrence objectives, and what each country's military development suggests about its priorities and the military challenges they pose to U.S. allies and partners.

U.S. Deterrence Objectives in EUCOM

U.S. strategic documents, statements by U.S. officials, and observation of U.S. actions lead us to infer three core U.S. deterrence objectives related to Russia in EUCOM: (1) deter military aggression by Russia against NATO members, (2) deter further or escalated military aggression against European countries that are not NATO members, and (3) deter future malign Russian activity below the threshold of armed conflict in Europe and against the United States.[50] Although the United States seeks to discourage Russia from undertaking these actions, U.S. commitment and willingness to expend resources varies across the deterrence objectives. This is a crucial consideration because deterrence is based on both capability and will to act.

Deter Russian Aggression Against NATO Member States

The foundational objective in the EUCOM AOR is to deter Russian aggression against NATO member states through the NATO alliance. Echoing decades of U.S. commitment to NATO allies, President Joseph Biden has described the U.S. commitment to NATO as a "sacred obligation,"[51] invoking a connection from World War II to reinforce the U.S. resolve to come to the defense of its European allies. EUCOM Commander Gen Tod Wolters, who is dual-hatted as NATO's Supreme Allied Commander Europe, similarly asserts that EUCOM's "primary mission is to compete, deter, and respond to aggression with the full weight of the NATO Alliance."[52]

[50] Biden, 2021; EUCOM Public Affairs, "USEUCOM 2019 Posture Statement," webpage, March 5, 2019; Tod D. Wolters, "Key Points: SASC-HASC Written Statement," April 13 and 15, 2021b.

[51] Sabine Siebold, Steve Holland, and Robin Emmott, "NATO Adopts Tough Line on China at Biden's Debut Summit with Alliance," Reuters, last updated June 14, 2021.

[52] Wolters, 2021b.

Although *aggression* is not clearly defined in U.S. strategic or policy documents, in this context it generally seems to refer to an armed attack, such as through large-scale military operations, seizure of territory, or destructive and deadly attacks on U.S. or allied troops or assets in Europe.[53]

Geographically, Wolters identifies Poland and the Baltic states as a "strategic focal point," and he argues that these countries could be targets of Russian aggression.[54] Western think tanks have postulated several scenarios for potential Russian aggression in northeastern Europe. A 2016 RAND report described a series of wargames in which players representing Russia attacked Latvia and engaged in a secondary attack on Estonia.[55] The International Institute for Strategic Studies (IISS) proposes a scenario in which a cycle of exercises leads to misinterpretation and, ultimately, escalation, in which Russian forces eventually move into Lithuania and Poland attacks into Kaliningrad.[56] The Swedish Defence Research Agency (FOI) considered a conflict scenario in which Russia pursued an attack into Lithuania from Belarus, securing the "Suwalki Gap," the strip of land between Kaliningrad and Belarus.[57] Russian aggressions in other regions against NATO countries are sometimes considered but receive less attention, such as escalation on the border with Norway or aggression against Bulgaria and Romania from the Black Sea.[58] Crisis deterrence and control of escalation are important throughout the theater, as few hypothesized scenarios anticipate a Russian attack absent prior escalatory dynamics.[59]

If an armed attack by Russia against a NATO member were to occur, the United States would be committed under Article 5 of the North Atlantic Treaty to treat it as an attack on the homeland.[60] A failure to respond could cause major damage to the credibility and viability of the Alliance. However, a NATO military response could escalate to a high-intensity conflict between

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[53] The term *armed attack* appears in Article V of the North Atlantic Treaty:

> The Parties agree that an armed attack against one or more of them in Europe or North America shall be considered an attack against them all and consequently they agree that, if such an armed attack occurs, each of them, in exercise of the right of individual or collective self-defence . . . will assist the Party or Parties so attacked by taking forthwith, individually and in concert with the other Parties, such action as it deems necessary, including the use of armed force" (NATO, The North Atlantic Treaty, Washington, D.C., April 4, 1949).

[54] Wolters, 2021b.

[55] David A. Shlapak and Michael W. Johnson, *Reinforcing Deterrence on NATO's Eastern Flank: Wargaming the Defense of the Baltics*, Santa Monica, Calif.: RAND Corporation, RR-1253-A, 2016.

[56] Douglas Barrie, Ben Barry, Lucie Béraud-Sudreau, Henry Boyd, Nick Childs, and Bastian Giegerich, *Defending Europe: Scenario-Based Capability Requirements for NATO's European Members*, Washington, D.C.: International Institute for Strategic Studies, April 2019.

[57] Eva Hagström Frisell and Krister Pallin, eds., *Western Military Capability in Northern Europe 2020: Part I: Collective Defence*, Swedish Defence Research Agency, FOI-R--5012--SE, February 2021, p. 101.

[58] Samuel Charap, Alice Lynch, John J. Drennan, Dara Massicot, and Giacomo Persi Paoli, "Threat Perceptions," *A New Approach to Conventional Arms Control in Europe: Addressing the Security Challenges of the 21st Century*, Santa Monica, Calif.: RAND Corporation, RR-4346, 2020, pp. 15–38.

[59] See also Kühn, 2018.

[60] NATO, "Collective Defence—Article 5," webpage, February 8, 2021a.

Russia and NATO that could ultimately risk the use of nuclear weapons. To avoid these outcomes, NATO has pursued a policy of "deterrence and defence."[61]

Deter Russian Aggression Against Non-NATO Countries

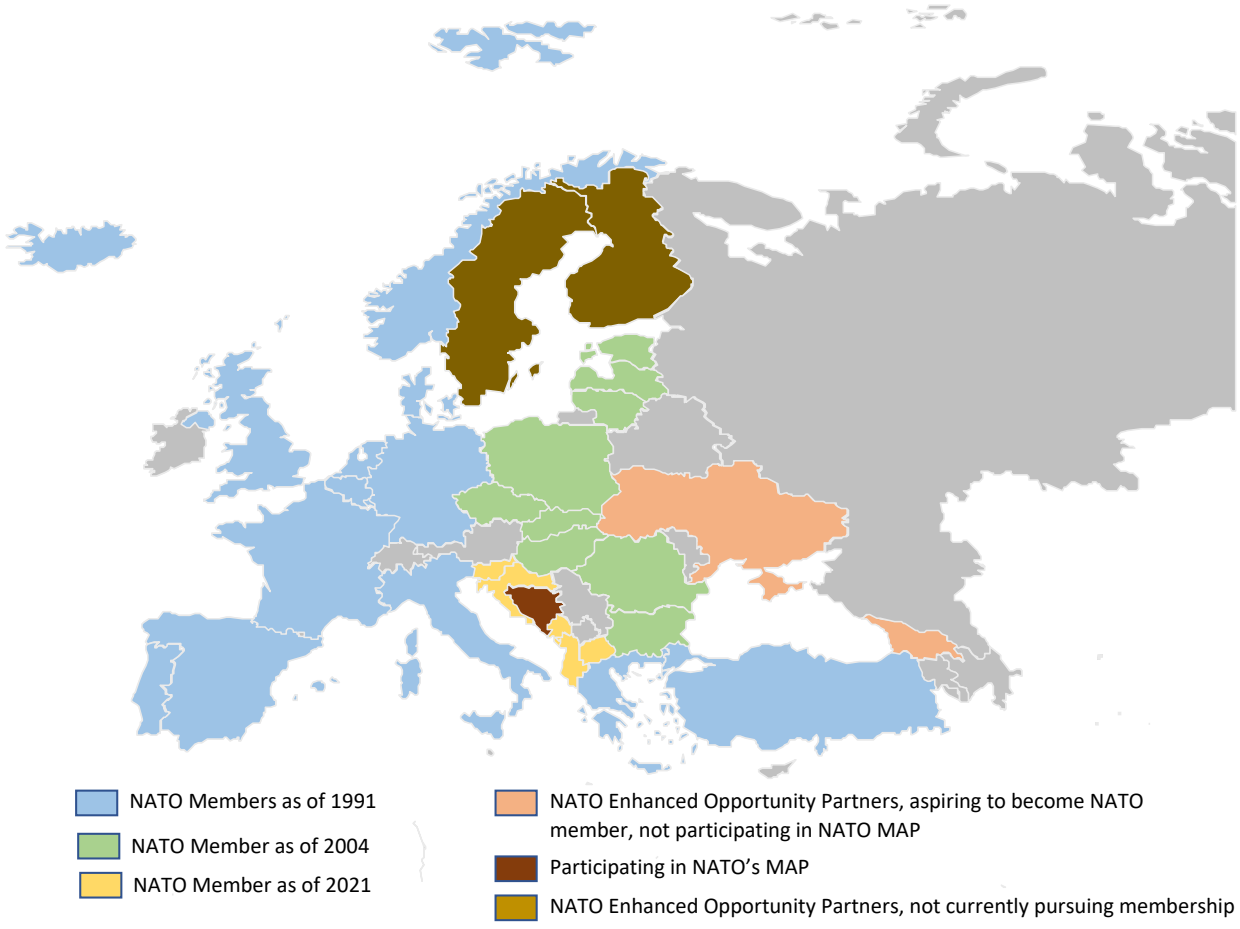
Discouraging Russian aggression against European countries who are not members of NATO appears to be a U.S. extended deterrence objective, though one to which the United States is less committed. The challenge of deterring the threat to non-NATO countries has developed from the partial and gradual expansion of NATO following the collapse of the Soviet Union and the Warsaw Pact. Beginning in the mid-1990s, the United States supported the right of European countries to join the Alliance, first through partnership activities and then through a formal accession process. NATO expansion in 1999 and 2004 brought members of the former Warsaw Pact and the Baltic states into the Alliance (see Figure 2.1).[62] While U.S. and NATO leaders did make a firm commitment under Article 5 to come to the defense of NATO members once they joined the organization, this commitment does not extend to partner countries that aspire to membership, such as Georgia and Ukraine.[63]

[61] NATO, 2021a.

[62] NATO, "Member Countries," webpage, last updated September 24, 2020c.

[63] For more on aspirant countries, the accession process, and the rationale for NATO enlargement, see NATO, "Enlargement," webpage, last updated May 5, 2020b.

Figure 2.1. NATO Member States and Candidate Countries



SOURCES: NATO, "What Is NATO?" webpage, undated; NATO, "Partnership Interoperability Initiative," webpage, August 24, 2021f; NATO, "Membership Action Plan (MAP)," webpage, last updated March 23, 2020a.
NOTE: MAP = Membership Action Plan.

The past record of U.S. responses to Russian aggression toward states that aspire to become NATO members demonstrates the U.S. desire to deter Russian aggression while also revealing the limits of U.S. commitment. In 2008, NATO committed at the Bucharest Summit that Georgia and Ukraine, both former Soviet republics bordering Russia with close ties, would eventually become part of NATO.[64] In 2008, Russia invaded Georgia, and, in 2014, following the Maidan protests, Russia seized Crimea and supported separatists in the Donbas region. In both cases, the United States decried Russian aggression, provided economic support, initiated sanctions, and

[64] NATO, "Bucharest Summit Declaration," press release, April 3, 2008a.

offered limited military aid to the violated countries.[65] These actions increased costs for Russia while also avoiding the potential for a direct confrontation between U.S. and Russian forces. At the 2021 summit, NATO reaffirmed that Ukraine would eventually join the Alliance and called on Russia to reverse its aggression, but the limits on U.S. support to the region remain evident.[66] We explore the U.S. approach to deterrence in Ukraine in more detail in the case study in Chapter 5.

Other close NATO partners are the Nordic states of Finland and Sweden, but these countries are not actively pursuing NATO membership. Although Russian aggression against these countries is conceivable, their defensive capabilities are robust, and such scenarios seem more likely to be tied to aggression against other NATO members than these countries on their own.[67] Bosnia and Herzegovina (BiH) is another potential target, as it is currently the only European country that is participating in NATO's Membership Action Plan, which will enable it to eventually join NATO.[68] However, BiH's location and political context make Russian malign influence more plausible than military aggression.[69]

The U.S. approach to deterring Russian military action against other European countries with close ties to Russia—Belarus, Serbia, Armenia, Azerbaijan, and Moldova—is more limited. These countries have close ties with Russian military forces, including basing, security cooperation, and participation in joint exercises. However, U.S. policy might take a harder line if Russia were to take military action against these countries in the midst of democratic protests, as it did in Ukraine after 2014.

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[65] See Michael Kofman, "The August War, Ten Years On: A Retrospective on the Russo-Georgian War," *War on the Rocks*, August 17, 2018; Jim Nichol, *Russia-Georgia Conflict in August 2008: Context and Implications for U.S. Interests*, Washington, D.C.: Congressional Research Service, RL34618, March 3, 2009; Cory Welt, *Georgia: Background and U.S. Policy*, Washington, D.C.: Congressional Research Service, R45307, updated June 10, 2021, p. 2.

[66] Samuel Charap, "Expanding the Scope for Statecraft in U.S. Policy," *War on the Rocks*, May 14, 2021; NATO, "Brussels Summit Communiqué," press release, June 24, 2021e.

[67] Christopher S. Chivvis, Raphael S. Cohen, Bryan Frederick, Daniel S. Hamilton, F. Stephen Larrabee, and Bonny Lin, *NATO's Northeastern Flank—Emerging Opportunities for Engagement: An Overview*, Santa Monica, Calif.: RAND Corporation, RR-1467/1-AF, 2016; F. Stephen Larrabee, Stephanie Pezard, Andrew Radin, Nathan Chandler, Keith Crane, and Thomas S. Szayna, *Russia and the West After the Ukrainian Crisis: European Vulnerabilities to Russian Pressures*, Santa Monica, Calif.: RAND Corporation, RR-1305-A, 2017.

[68] Within the Balkans, only Kosovo, Serbia, and BiH are currently not members of NATO. Kosovo has expressed its desire to join NATO, but its ongoing conflict with Serbia and lack of recognition as a sovereign state by some NATO members preclude its progress. Serbia, meanwhile, has indicated that it has no desire to join NATO. BiH's membership prospects are challenging given Bosnian Serb opposition (Harun Cero, "BIH at the Crossroads: Membership or Partnership with NATO?" European Western Balkans, March 1, 2021; Hamza Karčić, "Why Biden Should Fast-Track Bosnia's NATO Accession," RUSI, May 24, 2021).

[69] Raphael S. Cohen and Andrew Radin, *Russia's Hostile Measures in Europe: Understanding the Threat*, Santa Monica, Calif.: RAND Corporation, RR-1793-A, 2019.

Deter Russian Malign Activity Below the Threshold of Armed Conflict

U.S. officials regularly articulate concern with Russian "malign activities," including political interference, influence operations (particularly in terms of exploiting cultural, ethnic, and religious ties), propaganda and information operations, cyber operations, support for proxy groups, economic coercion or interference (particularly in the energy sector), and military intimidation or violent coercion.[70] Russian malign influence may be directed at any country in the world; Russian influence in U.S. elections is one of the few examples of a direct impact on the homeland from Russian activities.[71] As Appendix A explains, Russia's resources and its desire for malign activities vary, and it tends to have greater interest and influence in its immediate neighborhood.[72] In parallel, the intent with which the U.S. government, and DoD in particular, is willing and able to respond to Russian malign influence greatly varies. The U.S. ability and desire to deter Russian malign influence might be highest for activities directed at the United States and NATO members as compared with non–NATO members, for example.[73]

A particular concern for DoD is Russia's use of naval and air forces to challenge borders, restrict freedom of navigation, or harass deployed military forces. For example, EUCOM indicated concern over Russian antagonistic behavior toward allied and partner vessels operating in the Eastern Mediterranean, as well as more broadly across Europe.[74] Although such operations do involve the use of armed forces, they clearly fall below the level of armed conflict. To date, incidents at sea have been relatively minor, but a larger-scale event—even if unintentional—could trigger a Russia-NATO conflict at sea that could escalate into a broader conflict. Russia's use of exercises as a coercive signal, as in the case of the buildup of Russian military forces on Ukraine's border in early 2021, is also concerning. Although EUCOM statements highlight the risk that these exercises pose for sparking unintentional escalation,[75] it might be that there is little that the United States can do to deter Russian military actions within Russia's own borders.

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[70] U.S. Department of State, "Integrated Country Strategy: Russia," March 11, 2019; Tod D. Wolters, "Statement of General Tod D. Wolters, United States Air Force Commander, United States European Command," Washington, D.C.: U.S. House Armed Services Committee, April 15, 2021c.

[71] Center for Strategic and International Studies, "Significant Cyber Incidents Since 2006," 2021.

[72] See Cohen and Radin, 2019; and Larrabee et al., 2017.

[73] Previous RAND research has examined Russia's motivation and capabilities for malign influence and likely U.S. responses; see Cohen and Radin, 2019; Mazarr et al., 2021; Andrew Radin, Alyssa Demus, and Krystyna Marcinek, *Understanding Russian Subversion: Patterns, Threats, and Responses*, Santa Monica, Calif.: RAND Corporation, PE-331-A, 2020; and Linda Robinson, Todd C. Helmus, Raphael S. Cohen, Alireza Nader, Andrew Radin, Madeline Magnuson, and Katya Migacheva, *Modern Political Warfare: Current Practices and Possible Responses*, Santa Monica, Calif.: RAND Corporation, RR-1772-A, 2018.

[74] EUCOM Public Affairs, 2019.

[75] EUCOM, "Remarks by General Scaparrotti at Deterrence Symposium," transcript, July 28, 2016.

U.S. Deterrence Objectives in CENTCOM

With the winding down of combat operations in CENTCOM, deterring Iranian aggression has become the principal military objective in the theater. The command's 2021 posture statement affirmed that CENTCOM's "first line of effort is to deter Iranian aggression against U.S. forces and interests, and strengthen our partners' capabilities to defend themselves against Iranian and proxy and aligned group aggression."[76] This was the second consecutive posture statement that characterized deterrence of Iran as the command's top priority,[77] underscoring that this military requirement transcends the different policy approaches taken by the Trump administration and the Biden administration toward Iran.

Using a review of U.S. strategy documents, statements by U.S. officials, and U.S. actions, we distilled U.S. deterrence goals in CENTCOM into three key objectives: (1) deter Iran and Iranian-backed proxies from attempting to restrict access to the global commons, (2) deter Iran and Iranian-backed proxies from targeting U.S. personnel deployed in CENTCOM, and (3) deter Iran and Iranian-backed proxies from attacking U.S. partners.[78] Table 2.1 summarizes these deterrence objectives and highlights areas of particular concern within each.

Table 2.1. Summary of U.S. Deterrence Objectives in CENTCOM

Deterrence Objective	Partner Countries or Areas of Highest Concern
Deter Iran and Iranian-backed proxies from attempting to restrict access to the global commons	Persian Gulf, Strait of Hormuz, Gulf of Oman, Bab El-Mandeb, Red Sea
Deter Iran and Iranian-backed proxies from targeting U.S. personnel deployed in CENTCOM	Iraq, Eastern Syria, Bahrain, Kuwait, Qatar, Saudi Arabia, United Arab Emirates (UAE)
Deter Iran and Iranian-backed proxies from attacking U.S. partners	Iraq, Lebanon, Saudi Arabia, UAE

The first two deterrence objectives in the table are well enshrined in strategy, planning documents, and real-world precedents. The Biden administration's *Interim National Security Strategic Guidance* explicitly calls for deterring adversaries from "inhibiting access to the global commons,"[79] and the public summary of the 2018 National Defense Strategy flagged the need

[76] CENTCOM, "Statement of General Kenneth F. McKenzie, Jr. on the Posture of U.S. Central Command – HASC Hearing Mar 10, 2020," webpage, April 22, 2021b, p. 4.

[77] According to CENTCOM's website, "Deterring Iran from its destructive and destabilizing activities in the military domain underpins everything we do, and is CENTCOM's top priority" (CENTCOM, undated; see also McKenzie, 2020a).

[78] We do not treat the U.S. policy goal of preventing Iran's acquisition of nuclear weapons as a deterrence objective. U.S. and allied efforts have focused on arms control negotiations and undermining the existing program.

[79] Biden, 2021, p. 9.

for the United States to contribute to "stable global energy markets and secure trade routes."[80] Although the United States has greatly reduced its dependence on foreign energy generally and on Middle Eastern oil specifically,[81] U.S. leaders have claimed an enduring interest in deterring the closure of strategic choke points because of allies' dependence on this energy and to uphold the principle of access to the commons. In April 2021, CENTCOM Commander Gen Kenneth McKenzie noted, "if the Strait of Hormuz were closed, it would have a significant effect on the global economy, particularly oil exports to a number of nations, which would ultimately have an effect on us. So, there's a lot of good reasons to have the capability [to] keep . . . the Strait open."[82] In those same remarks, McKenzie noted that the threat to these waterways emanates not only from Iran but also from Iranian-backed proxy groups. Strategy documents and public statements that articulate this deterrence objective are further underscored by U.S. military measures, such as U.S. participation in the International Maritime Security Construct, a coalition of countries whose operational arm, Coalition Task Force Sentinel, is designed for "deterring and exposing state-sponsored malign activity that threatens security of the maritime commons in the Arabian Gulf, Gulf of Oman, Arabian Sea, Gulf of Aden and the Southern Red Sea."[83]

The second objective—deter Iran and Iranian-backed proxies from attacking U.S. personnel in CENTCOM—requires little explanation. As in any other theater, the United States is concerned about force protection and seeks to deter adversaries from targeting its forward forces. This objective is of particular concern in CENTCOM given the history of Iran and Iranian-backed proxies waging attacks on U.S. forces deployed to the theater. These attacks have occurred during military interventions (e.g., the 1983 bombing of the Marine Corps barracks in Lebanon, Iranian-backed militias targeting U.S. forces with explosively formed penetrators in Iraq in the late 2000s) and during steady-state deployments at times of crisis (e.g., Iran's firing of ballistic missiles at Iraqi bases hosting U.S. military forces in the wake of the U.S. targeted killing of Islamic Revolutionary Guard Corps–Quds Force [IRGC-QF] commander Qasem Soleimani in 2020). Given the persistence of the threat, the United States often issues statements underscoring its commitment to respond to any targeting of U.S. military personnel or civilians in the theater.[84] And in the event of specific intelligence or an attack, the United States

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[80] DoD, *Summary of the 2018 National Defense Strategy of the United States of America: Sharpening the American Military's Competitive Edge*, Washington, D.C., 2018, p. 9.

[81] U.S. Energy Information Administration, "Oil and Petroleum Products Explained: Oil Imports and Exports," webpage, last updated April 13, 2021.

[82] DoD, "General Kenneth F. McKenzie Jr., Commander, U.S. Central Command, Holds a Press Briefing," transcript, April 22, 2021.

[83] "International Maritime Security Construct Releases New Bridge Reference Card Edition," *Seapower*, May 17, 2021.

[84] Former Secretary of State Mike Pompeo remarked, "We must also use this opportunity to remind Iran's leaders that any attacks by them, or their proxies of any identity, that harm Americans, our allies, or our interests will be answered with a decisive U.S. response" (Shawn Snow, "Pompeo Warns of 'Decisive US Response' If Iran Harms US Troops or Allies," *Military Times*, December 13, 2019).

undertakes actions expressed in deterrence logic. For example, then–Chairman of the Joint Chiefs of Staff General Joseph Dunford noted that, in response to intelligence in April 2019 suggesting that Iran and Iranian-backed proxies were planning to mount a "widespread almost campaign like" series of operations targeting U.S. interests in the region, including U.S. personnel, he recommended the deployment of a second CSG, bomber presence, and additional missile defense capabilities "to enhance our deterrence."[85]

As evidence that this deterrence objective applies equally to Iran and Iranian-backed proxy groups, the United States has taken a series of punitive strikes against Iraqi militia groups that have targeted U.S. personnel in attacks using rockets and unmanned aerial systems (UAS) under the Trump and Biden administrations.[86] U.S. military responses are consistently couched in the language of deterrence. For example, after the June 2021 strikes on Iranian-backed groups on the Iraqi-Syrian border that were believed to be responsible for an uptick in attacks on U.S. forces in Iraq, both a DoD spokesman and Secretary of State Antony Blinken noted, "We took necessary, appropriate, deliberate action that is designed to limit the risk of escalation, but also to send a clear and unambiguous deterrent message."[87]

Although the United States has demonstrably committed to the first two deterrent objectives identified in Table 2.1, the scope of the third objective—deter Iran and Iranian-backed proxy attacks against U.S. partners—is less certain. This is particularly so for the extent to which the United States is committed to deterring Iranian-backed proxy groups' attacks on U.S. partners. On the one hand, the United States is working with CENTCOM partners to enhance their self-defense capabilities, including those relevant to thwarting proxy attacks; thus, an argument could be made that the United States is contributing to partner deterrence by denial. On the other hand, U.S. measures generally take the form of security cooperation rather than using the threat of future punishment or posturing forces to deny these proxies the benefit they seek from an attack on these partners. Moreover, the United States often takes no kinetic military action against Iranian-backed proxy groups in the wake of attacks on partners.

An example helps illustrate the ambiguity of the objective. As is explored in greater detail in Chapter 4, the most-frequent attacks by an Iranian-backed proxy group on U.S. partners are the Houthis' use of missile forces, UAS, and remotely detonated boats used as improvised explosive

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[85] Brookings Institution, "A Conversation with Chairman of the Joint Chiefs of Staff General Dunford," video, May 29, 2019.

[86] For an example of such strikes under the Trump administration, see Eric Schmitt and Thomas Gibbons-Neff, "U.S. Carries Out Retaliatory Strikes on Iranian-Backed Militia in Iraq," March 12, 2020. For an example under President Biden, see the next footnote.

[87] John Kirby, "Statement by the Department of Defense," press release, U.S. Department of Defense, June 27, 2021; "Blinken Says He Thinks Air Strikes Send Important Message to Iran-Backed Militias," U.S. News & World Report, June 28, 2021.

devices to target Saudi Arabia and the UAE. In the initial phases of the Yemen conflict,[88] the United States enabled its partners' attempts to neutralize these attacks by providing aerial refueling, munitions, and targeting assistance.[89] Washington also postured missile defense capabilities in Saudi Arabia to intercept Houthi missile attacks. Whether this is better characterized as a deterrence mission or as operational support to a partner-led intervention and security cooperation is debatable, but this would be the outer edge of what the United States undertakes to deter Iranian proxy attacks against partners. The United States does not, for instance, undertake aerial strikes against Houthi positions in the wake of attacks on its partners.

Finally, in considering what U.S. deterrence objectives entail and do not entail in CENTCOM, it is useful to draw an important distinction from the deterrence objectives outlined for EUCOM. Unlike in EUCOM, where the United States is part of a collective defense arrangement (NATO) with mutual defense commitments (Article 5), the United States does not have treaty allies in CENTCOM.[90] The absence of a mutual defense obligation should not be construed as meaning that the United States can avoid extended deterrence requirements in the theater, but rather that the extent of those commitments is less clear cut than in Europe.[91]

The United States is viewed as the primary security guarantor in the region; key partners among the smaller Gulf littoral states (e.g., Qatar, Kuwait, Bahrain) lack the population base, military capabilities, and strategic depth to provide for their own defense in the case of a serious military challenge absent external support. It took some time after the United Kingdom withdrew its forces "East of the Suez" in 1971 before the United States took up the mantle of regional security guarantor, but since the Carter Doctrine articulated core U.S. interests in the theater in the late 1970s and committed the United States to intervene to defend them, Washington has been considered the main security provider for partners that lack sufficient self-defense capabilities.[92]

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[88] Aerial refueling was eventually ended under the Trump administration, and the other forms of support were subsequently terminated by the Biden administration (Ellen Knickmeyer, "Biden Ending US Support for Saudi-Led Offensive in Yemen," AP News, February 4, 2021; Phil Stewart, "U.S. Halting Refueling of Saudi-Led Coalition Aircraft in Yemen's War," Reuters, last updated November 9, 2018).

[89] Helene Cooper, Thomas Gibbons-Neff, and Eric Schmitt, "Army Special Forces Secretly Help Saudis Combat Threat from Yemen Rebels," *New York Times*, May 3, 2018; Robert Karem, "SFRC Hearing on Yemen," testimony to Senate Foreign Relations Committee," Washington, D.C., April 17, 2018; U.S. Senate Committee on Foreign Relations, "U.S. Policy in Yemen," hearing, Washington, D.C., April 17, 2018.

[90] The United States has seven CENTCOM partners designated as major non-NATO allies (Bahrain, Egypt, Jordan, Israel, Kuwait, Pakistan, and Qatar). However, this designation comes with no explicit mutual defense commitment.

[91] We understand that there is considerable debate over how Article 5 commitments would be interpreted under different circumstances. The point here is simply that a treaty alliance containing mutual defense commitments—even if gray areas exist—is a stronger commitment than the absence of one.

[92] Dalia Dassa Kaye, Linda Robinson, Jeffrey Martini, Nathan Vest, and Ashley L. Rhoades, *Reimagining U.S. Strategy in the Middle East: Sustainable Partnerships, Strategic Investments*, Santa Monica, Calif.: RAND Corporation, RR-A958-1, 2021; Jeffrey Martini, Becca Wasser, Dalia Dassa Kaye, Daniel Egel, and Cordaye Ogletree, *The Outlook for Arab Gulf Cooperation*, Santa Monica, Calif.: RAND Corporation, RR-1429-RC, 2016.

And although the United States does not have formal treaty allies in the theater, it does have bilateral defense agreements with CENTCOM partners. The precise contents of these agreements are not public and thus could include provisions for how the United States would coordinate responses with these partners during a security crisis.[93] In addition, there are public statements affirming U.S. security commitments to CENTCOM partners, such as former President Barack Obama's pledge that the commitment of the United States to its partners' security is "ironclad," a statement he made in a summit with Gulf Cooperation Council (GCC) leaders in 2015.[94] Perhaps most importantly, there are strong precedents demonstrating U.S. commitments to partner security, including the reflagging and naval convoy mission in the Persian Gulf during the 1984–1988 Tanker War and the U.S. intervention to restore Kuwait's sovereignty and defend against potential Iraqi aggression against Saudi Arabia in the 1990–1991 Gulf War. All of this together implies a significant commitment by the United States to defend its partners in the case of aggressors' attempts to limit access to the global commons or challenge the sovereignty and territorial integrity of U.S. partners.

Further supporting the perspective that the United States is a provider of extended deterrence, the scope of U.S. deployments to the theater, and, in particular, to states hosting forward command headquarters—such as U.S. Army Central (ARCENT) in Kuwait; U.S. Air Forces Central (AFCENT), Special Operations Command Central, and CENTCOM in Qatar; and U.S. Navy Central (NAVCENT) and U.S. Marine Corps Forces Central Command (MARCENT) in Bahrain—along with substantial U.S. deployments to Jordan, Saudi Arabia, and the UAE, makes it difficult to separate extended deterrence from deterrence of attacks on U.S. personnel in these countries, since U.S. personnel would be at risk during any large-scale aggression against these partners. As observed by Daniel Byman and Sara Bjerg Moller, U.S. military presence in Jordan and the Gulf states

> enables them to resist pressure from hostile neighbors while simultaneously providing protection from outright invasion. So should Iran threaten the Gulf states with military force or increased subversion, the presence of American troops is a visible symbol that the United States will aid its allies in resisting Tehran.[95]

However, there are genuine questions about the precise scope of U.S. extended deterrence as it applies to Iranian-backed proxies. This is important because the most frequent use of force in the theater comes from these nonstate actors rather than from Iran itself. And the depth of U.S.

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[93] Kenneth Katzman, *Iran's Foreign and Defense Policies*, Washington, D.C.: Congressional Research Service, R44017, updated January 11, 2021a.

[94] Aru Pande and Luis Ramirez, "Obama: US Has 'Ironclad' Commitment to Gulf Security," Voice of America, last updated May 14, 2015.

[95] Daniel Byman and Sara Bjerg Moller, "The United States and the Middle East: Interests, Risks, and Costs," in Jeremi Suri and Benjamin Valentino, eds., *Sustainable Security: Rethinking American National Security Strategy*, Oxford University Press, 2016, p. 36.

commitment to this deterrence objective may be further doubted by partners and adversaries alike given the drawdown of U.S. military forces in the theater.

U.S. Extended Deterrence Logics

In this section, we analyze how the United States leverages different types of OAIs to deter Russian and Iranian aggression. We begin by identifying the causal logic of how forward posture, exercises and short-term deployments, and security cooperation contribute to deterrence.[96] This is expressed in three "deterrence logics" that correspond to the three categories of OAIs we focus on in this report. Because the application of these logics varies by theater, we analyze each deterrence logic as applied first in EUCOM and then in CENTCOM.

Deterrence Logic 1a: Forward Posture Is Intended to Demonstrate Capability to Quickly Deny and Punish Russian Aggression

U.S. forward posture in Europe appears to be designed for three objectives: to provide a trip wire in frontline states, to provide sufficient forces to defend against and deter Russian aggression, and to provide supporting infrastructure that enables rapid reinforcement of forces if and when necessary. This makes forward posture one of the more versatile tools for deterrence, in that it signals both capability and will and can be used in service of both deterrence by denial and deterrence by punishment. In assessing the impact of U.S. forward posture on deterrence of Russia, EUCOM Commander General Wolters noted, "Russia monitors the disposition and assessed readiness of U.S. and NATO forces. Combat forces perceived to be extremely capable, proficient and able to quickly close on an enemy across all domains represents the most significant deterrent effect on Russia."[97]

U.S. Air Forces Europe (USAFE) posture includes six fighter squadrons and supporting capabilities, such as aerial refueling, cargo, airborne early warning, battle management, and ISR aircraft. The main operating bases are Royal Air Force (RAF) Lakenheath and RAF Mildenhall (United Kingdom); Ramstein Air Base and Spangdahlem Air Base (Germany); Aviano Air Base (Italy); Lajes Field (Azores); and Incirlik Air Base (Turkey).[98] USAFE presence in frontline states also includes MQ-9 unmanned aerial vehicle (UAV) squadrons in Poland and Romania, an

[96] Because unclassified strategy guidance does not typically spell out the full logic of how military activities advance U.S. deterrence objectives, we infer the underlying logic through our assessment of the military value of each activity, what adversary activity it would appear to be aimed at blunting or responding to in kind using denial or punishment, and how the signal to the adversary is explained by senior U.S. defense leaders.

[97] U.S. Senate Armed Services Committee, "Advance Policy Questions for General Tod D. Wolters, USAF Nominee for Appointment to the Position of Commander, United States European Command and Supreme Allied Commander, Europe," April 2, 2019, p. 15.

[98] U.S. Air Force, "United States Air Forces in Europe," fact sheet, July 2014.

air detachment in Poland for rotational fighter presence, and rotations with other NATO countries for air policing in the Baltics and Romania.[99]

Fighter aircraft based in Europe make credible the imminent threats of denial and punishment. U.S. F-15C and F-16 squadrons could help gain and maintain air superiority. The strike-capable F-15Es and the eventual F-35 presence in the United Kingdom could be used for strikes, interdiction, and support of ground forces. The 48th Fighter Wing in Lakenheath is a dual-capable fighter unit, capable of nuclear and conventional operations.[100] The Baltic Air Policing mission, in which U.S. and NATO fighters visually identify and escort Russian aircraft that encroach on the airspace of the Baltic states, is a good example of U.S. and NATO allies' attempts to enhance deterrence of Russia by demonstrating situational awareness and resolve to defend NATO sovereignty, including control of NATO allies' airspace. Because of their stealth capabilities, U.S. fifth-generation F-35 aircraft have particular utility for Suppression of Enemy Air Defenses (SEAD) and Destruction of Enemy Air Defenses (DEAD), which undermine Russia's ability to keep allied airpower from operating near Russian territory.[101] Forward-based ISR platforms complement strike capabilities by providing situational awareness, advanced warning, and targeting.

With regard to U.S. ground forces, the largest elements in Europe are based in Germany. These include U.S. Army Europe (USAREUR) headquarters units, training centers, special forces, a Stryker brigade combat team (BCT), and a combat aviation brigade. An infantry BCT (airborne) is based in Italy. In Poland, USAREUR provides an aviation and armored brigade on a rotational basis, as well as a division headquarters and prepositioned materiel. U.S. ground forces are closely integrated with their NATO allies in deployed units. Rotational elements of a combat aviation brigade and a Stryker battalion are based in Latvia and Lithuania, respectively, for about six months out of the year.[102] U.S. forces participate in NATO's enhanced Forward Presence (eFP) in the three Baltic states and Poland, each of which has a separate eFP battlegroup of

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[99] Preston Cherry, "MQ-9 Detachment Becomes Fully Operational," U.S. Air Forces in Europe and Air Forces in Africa, March 4, 2019; Savannah L. Waters, "MQ-9s Execute New Mission in Romania," U.S. Air Force, February 5, 2021.

[100] RAF Lakenheath Force Support Squadron, "CINC Award: We Won! You Did This," August 4, 2021.

[101] Former Secretary of the Air Force Deborah Lee James and Daniel Gouré write,

> Fifth-generation aircraft offer NATO proven means of countering Russia's massive investment in layered air defenses, thereby restoring deterrence. In the event of conflict, fifth-generation forces will be able to penetrate and degrade hostile air defenses and deliver decisive effects (kinetic, electronic, and cyber) against enemy forces, infrastructure, and networks, thereby helping to defend Alliance territory and deny Russian forces their objectives. (Deborah Lee James and Daniel Gouré, *The Implications of Fifth-Generation Aircraft for Transatlantic Airpower: A Primer*, Washington, D.C.: Atlantic Council, October 2019, p. 3)

[102] For details, see U.S. Army Europe and Africa, "Atlantic Resolve," webpage, undated (including specific media releases). This section also draws on inputs from subject-matter experts from the workshops described in Chapter 3.

1,000–1,500 personnel.[103] They also contribute to NATO's considerably smaller tailored Forward Presence (tFP) in Romania for operations in the Black Sea region.[104] Finally, Ukraine and Georgia are Enhanced Opportunity Partners of NATO. U.S. Army presence at training centers in Ukraine (Joint Multinational Training Group–Ukraine) and Georgia (Georgia Defense Readiness Program–Training) signals to Russia that the United States supports NATO partners that have suffered Russian aggression in Crimea and the Donbas region (Ukraine) and Abkhazia and South Ossetia (Georgia).[105]

USAREUR's posture facilitates a concept of operations of providing immediate defense of contested areas and serves as a trip wire before the arrival of greater U.S. support for countering Russian attacks. Prepositioning of stock allows reinforcements to quickly fall in on equipment in forward areas rather than transporting it from CONUS. The logic is not that the United States and its NATO allies would have overmatch for defeating every conceivable Russian aggression, but rather that the United States would have forces forward and the infrastructure in place to rapidly reinforce if necessary. GEN Curtis Scaparrotti, the EUCOM commander from 2016 to 2019, described the strategy as such:

> . . . we've looked to rapid deployment as really our strategy for deterrence and defense in Europe. To do that . . . we have to reinforce at the speed of conflict. And for that to work you have to have mobility . . . . Essentially our strategy rests on the fact that we have to be able to move large forces quickly to have a credible deterrent.[106]

The U.S. naval strategy for Europe appears to be concentrated on providing presence in the theater and executing multinational exercises with NATO allies. Such maritime activities could support deterrence by demonstrating to Russia that the United States will not tolerate aggressive maritime activities and could complicate Russian planning and operations by raising the costs of Russian aggression in the Black Sea, the Barents Sea, and other waters that are contiguous with NATO-ally shorelines. There has also been discussion of initiating freedom-of-navigation operations to challenge excessive Russian maritime claims in the Arctic and unilateral Russian claims of sovereignty in international waters.[107] Like other U.S. activities discussed in this section, these naval operations are also a form of competition with Russia, and where one objective (i.e., deterrence) ends and another (i.e., competition) begins is not precisely identifiable.

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[103] NATO, "NATO's Enhanced Forward Presence," fact sheet, March 2021b.

[104] NATO, "Boosting NATO's Presence in the East and Southeast," webpage, April 26, 2021c.

[105] Ukraine has a partnership agreement with NATO dating back to 1997, and Georgia has had a strategic partnership with the United States since 2009 and is considered a potential member of NATO.

[106] Atlantic Council, "Moving Out: Military Mobility in Europe," video starting at minute 14:20, April 23, 2020.

[107] See Paul McLeary, "Navy Secretary: U.S. Plans Patrols Near Russian Arctic Bases," *Breaking Defense*, January 5, 2021.

There are four guided-missile destroyers stationed in Rota, Spain, that support the presence of roughly one U.S. or allied ship in the Black Sea for two-thirds of the year.[108] Flagging the intended deterrent effect of the increased presence of destroyers in the AOR, EUCOM Commander General Wolters has noted three distinct advantages that this deployment brings: enhanced ISR capabilities, greater command and control (C2) capabilities, and the ability to deliver naval fires.[109] The U.S. Navy conducts missions in the Black Sea with EP-3 Aries maritime surveillance aircraft. In addition, deployed naval forces have increased operations in the North Atlantic. The Navy reestablished the 2nd Fleet in Norfolk, which is the fleet that was originally designated to confront the Soviet Navy in the North Atlantic during the Cold War, and is emphasizing anti-submarine warfare. U.S. naval reinforcements from the 2nd Fleet would be intended to challenge Russia's operations of its Northern, Black Sea, and Baltic fleets, as well as to ensure the viability of sea lines for reinforcements sent from CONUS in case of conflict in Europe. The Marine Corps has returned to preparing for conflict with Russia in Scandinavia and has established a rotational presence and placed prepositioned equipment in Norway.[110]

Deterrence Logic 1b: U.S. Posture Is Intended to Demonstrate Capability to Quickly Deny and Punish Iranian Aggression Against U.S. Interests

In its deterrent role, U.S. force posture in CENTCOM is designed to rapidly react to Iranian conventional military aggression against U.S. forces and to punish Iranian actions while also providing escalatory options. Such U.S. actions could be taken alone; with extraregional U.S. allies, such as the United Kingdom and France; or with regional allies. The posture also provides the infrastructure to quickly reinforce from outside the AOR, including high-capacity bases to receive forces and the prepositioning of materiel to fall in on. The bulk of current forward posture is situated well within operating distance of Iranian territory and airspace and allows ISR assets to collect intelligence and provide indications and warnings. The posture offers a wide array of U.S. Air Force capabilities, including strike, ISR, command and control, mobility, special operations, and agile combat support. Army and Navy capabilities are also considerable and include such key assets as ballistic missile defenses, minesweepers, and frequent deployments of CSGs.

However, the United States does not posture forces forward to signal to Iran that it has conventional overmatch at any given moment. Rather, the critical message is signaling commitment through the ability to rapidly reinforce. General McKenzie notes,

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[108] The limitation on U.S. presence appears to be due in part to the limitations of the Montreux Convention (Megan Eckstein, "USS Porter Heads to Black Sea for Second Patrol This Year," USNI News, June 17, 2020).

[109] General Wolters noted "the need for two additional destroyers in the area of indications and warnings and command and control, as well as, the lethality that they bring is what we need to continue to work for to have that competitive edge to ensure that we can continue to deter effectively" (Wolters, 2021a).

[110] See Marine Corps Forces Europe, "New Marine Rotational Force Deploys to Norway for Winter Training Alongside Norwegian Allies," October 28, 2020.

> While our steady-state posture does not require offensive forces in theater to achieve overmatch or unintentionally provoke Iran's regime, our presence sends a clear and unambiguous signal of our capabilities and, most importantly, the will to defend partners and U.S. national interests. This exemplifies the concept of deterrence.[111]

In this deterrence logic, there are some parallels to U.S. posture in Europe to deter Russia on NATO's eastern flank.

The bulk of AFCENT's posture is concentrated in the Gulf at al-Dhafra Air Base, UAE, and al-Udeid Air Base, Qatar, where all of the capabilities mentioned above are based. IISS figures suggest that there are some six fighter-attack squadrons, including F-35As at al-Dhafra, Global Hawk and U-2S ISR squadrons, E-3 airborne early warning and control (AWACS) and E-8 Joint Surveillance Target Attack Radar System (JSTARS) units, and KC-135 and KC-10 tanker wings. In addition, AFCENT runs an Air Operations Center at al-Udeid to allocate and control U.S. and allied sorties across the various contingency operations. Moreover, MQ-9 Reapers have operated from Ali Salem Air Base in Kuwait, and F-15s and F-16s from Prince Sultan Air Base in Saudi Arabia. Diego Garcia also provides a base for U.S. bomber deployments. The U.S. Air Force presence in the Levant is much smaller and includes F-15E and MQ-9 squadrons at Muwaffaq Salti Air Base in Jordan and an MQ-9 squadron in Iraq.[112]

Air forces in theater can help deter Iran in several ways: They can make credible and imminent direct strikes against Iranian territory and forces inside and outside Iran, maintain air superiority over allies and the commons, suppress Iranian air defenses, conduct interdiction (although Iran does not field a capable air force), and provide air support to U.S. and partner combat forces on the ground. U.S. F-16s and F-22s can provide air superiority, while F-15Es, F-35s, and MQ-9s can threaten strikes with standoff and penetration in contested areas and provide close air support to ground forces. Global Hawks, U-2s, E-3s, and JSTARS provide U.S. and allied indications and warning through ISR and airborne early warning missions, while C-17s, C-130s, KC-10s, and KC-135s demonstrate the mobility required to sustain and reinforce personnel and equipment. As emphasized by General McKenzie, "a key part of deterrence is intelligence, surveillance, and reconnaissance (ISR). While presence can fluctuate based on deterrence needs, consistent ISR is necessary to identify subtle changes that shape posture and ensure we align our presence appropriately."[113]

There is also a deterrence logic that ISR is of particular value in the case of deterring Iran, given that Tehran is known for using plausible deniability to complicate U.S. response options. The U.S. ability to attribute attacks to Iran should increase deterrence insofar as it makes a U.S. response more credible and improves the chances of the United States receiving partner support

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[111] CENTCOM, undated.

[112] International Institute for Strategic Studies, *The Military Balance 2021*, London, United Kingdom, 2021a.

[113] McKenzie, 2020a, p. 6.

through the provision of necessary access, basing, and overflight. For these reasons, attribution has been a recent focus area for forces operating in the theater.[114]

Like USAFE, AFCENT has demonstrated the resilience and survivability of U.S. forces to generate airpower through ACE that would complicate Iranian targeting of U.S. forces with ballistic and cruise missiles and UAVs. In-theater ACE training and exercises show that assets can be shifted away from large main operating bases to secondary partner military and civilian airfields, still generating sorties while operating as smaller units. Some recent examples of ACE concepts tested in AFCENT are hot refueling,[115] converting commercial-grade jet fuel into military-grade fuel to sustain operations from a commercial airport if necessary,[116] and using fighter aircraft to ferry additional munitions beyond those needed to execute the air tasking order—"tac ferrying"—to cut down on sustainment times.[117]

ARCENT maintains key capabilities in the region for deterrent purposes. Its deployment of Patriot and Terminal High-Altitude Area Defense (THAAD) ballistic missile defense capabilities serves to protect U.S. and allied forces and other assets in Kuwait, Bahrain, Saudi Arabia, Qatar, the UAE, Jordan, and Iraq. Some of these deployments were the result of Iranian actions: Four Patriot batteries went to Iraq following the January 2020 Iranian missile attack on U.S. forces at al-Asad Air Base and Erbil International Airport, and THAAD was deployed to Saudi Arabia after the September 2019 Iranian drone attack on a Saudi oil facility.[118] ARCENT's main presence is in Kuwait, where it has a forward headquarters. IISS figures indicate that U.S. Army presence in Kuwait encompasses a combat aviation brigade, a support brigade, and prepositioned materiel for an armored brigade and an infantry brigade. There is also an armored brigade in Qatar, an area support group in Jordan, and an airborne brigade and an AH-64 Apache squadron in Iraq to support training and operations of Iraqi forces against the Islamic State of Iraq and Syria (ISIS). The U.S. Army permanently bases about 100 troops on Israel's Mt. Keren in the Negev Desert—the only foreign troops stationed on Israeli soil—to operate a U.S. long-range X-band AN/TPY-2 radar to detect and track ballistic missiles, with data feeds going into both U.S. and Israeli early warning capabilities.[119]

The conventional ground threat that Iran poses to U.S. allies and forces in the Persian Gulf region is less robust than that posed by Russia in the EUCOM AOR. ARCENT's concept of

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[114] U.S. Department of State, "Special Briefing with General Kenneth McKenzie, Commander of the U.S. Central Command," special briefing via telephone, June 7, 2021e.

[115] AFCENT Public Affairs, "Capstone Event Validates AFCENT ACE Capabilities," U.S. Air Force, March 12, 2021.

[116] Kylee Gardner, "AUAB Tests, Proves New ACE Refueling Concept," U.S. Air Forces Central, June 16, 2021.

[117] AFCENT, "Deployed Fighters Utilize ACE Concept, Execute Tactical Munitions Ferry," April 28, 2021.

[118] Lubold, Youssef, and Gordon, 2021.

[119] Joseph Trevithick, "US Army Opens Permanent Base in Southern Israel as Trump Slams Iran Deal," *The Drive*, September 19, 2017.

operations appears to have emphasized protection of U.S. assets from Iranian missile attack and the use of relatively mobile combat forces that could respond quickly to aggressive actions by Iranian forces or Iran-backed militias. ARCENT has also long emphasized the ability to rapidly reinforce ground forces if needed, and its Army Prepositioned Stock sites in Kuwait are a manifestation of this concept.

Because the United States is concerned that Iran is developing anti-access/area denial (A2/AD) capabilities to deny the ability of the U.S. military to rapidly reinforce in a crisis,[120] CENTCOM has prioritized the establishment of the Western Sustainment Network, which would allow the flow of U.S. forces and materiel into the theater through Jordan and Saudi Arabian Red Sea bases. Articulating the logic behind this move, General McKenzie observed,

> The Arabian Gulf would be contested waters under any scenario of armed conflict with Iran, so you look at the places where you would move your forces as they enter the theater from being in a contested area . . . . the Red Sea, the western [part] of the Arabian peninsula presents those opportunities.[121]

In this way, CENTCOM is improving deterrence by denial by signaling to Iran that, despite its A2/AD gains, the United States and its partners still have the ability to deny Iran the benefits of military actions.

NAVCENT provides maritime forces in the region to safeguard freedom of navigation in the Persian Gulf, the Strait of Hormuz, and the Gulf of Oman; to challenge or respond to aggressive Iranian activities in these waters; and to serve as a platform for operations—including strike and over-the-horizon amphibious capabilities—that are relatively free from potential political constraints that may accompany U.S. land-based air and ground assets in the region. The U.S. Navy also conducts freedom-of-navigation operations to challenge Iranian claims in the Persian Gulf and Strait of Hormuz.

As the headquarters of the 5th Fleet, Bahrain provides the center of gravity for U.S. maritime operations in the region. It also hosts EP-3E Aries for maritime reconnaissance and P-8 Poseidon aircraft for anti-surface, anti-submarine, and maritime and littoral ISR missions. These aircraft can provide situational awareness on Iranian activities in the Persian Gulf and the Strait of Hormuz and can help counter Iranian efforts to conduct aggressive nonattributable actions. In addition, maritime prepositioning ships stationed at Diego Garcia provide rapid transport of heavy equipment for U.S. Marine Corps force deployments. Finally, carrier battle groups and ARGs provide a metered presence in the region—at least one carrier group was present throughout 2020, and one amphibious group was present for about half the year.

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[120] Defense Intelligence Agency (DIA), *Iran Military Power: Ensuring Regime Survival and Securing Regional Dominance*, Washington, D.C.: U.S. Government Publishing Office, 2019, pp. 32–33.

[121] Katie Bo Williams, "Saudis Expanding US Military Access to Airfields, Port, to Counter Iran," *Defense One*, January 25, 2021.

Just as the Western Sustainment Network is the most recent CENTCOM initiative to expand options for flowing forces and materiel into the theater in the event of a contingency, U.S. investment in port infrastructure in Oman is an important development in the maritime domain. And the logic is similar. Unlike ports inside the Persian Gulf, which are more vulnerable to Iranian A2/AD strategies, Omani ports provide the ability for the United States to flow naval assets into theater and sustain them without having to transit the Strait of Hormuz. This helps explain the U.S. emphasis on building up the port of Duqm in Oman and exercising forces in Fujairah (UAE); both have more-defensible geography and would allow amphibious forces to land in the event that Iran did move to close the Strait. In advocating for unfunded fiscal year (FY) 2021 priorities, General McKenzie noted that Duqm "supports a more efficient, flexible, and resilient USCENTCOM posture with dispersed aerial- and sea- port of debarkation capabilities that mitigate movement constraints through strategic maritime chokepoints."[122]

As our research was concluding, the U.S. administration made a decision to reduce key elements of U.S. posture in the region. According to public reports, the United States would be withdrawing some ballistic missile defenses from the region, including eight Patriot batteries from Iraq, Kuwait, Jordan, and Saudi Arabia and the THAAD system from Saudi Arabia. In addition, fighter squadrons assigned to the region would be reduced.

Deterrence Logic 2a: Exercises and Short-Term Deployments Demonstrate U.S. Commitment and Readiness to Conduct Countervailing Operations as an Alliance

U.S. military exercises and short-term deployments appear to be intended to provide deterrence by signaling U.S. commitment, demonstrating an ability for rapid reinforcement, and increasing local combat capabilities and U.S.-allied interoperability. They are signals of both U.S. capability and U.S. will to enter a conflict together with U.S. allies and partners should deterrence fail. The United States regularly exercises with both NATO allies and NATO partners, and the communication of U.S. commitment is reflected in the messaging incorporated in these exercises. Exercises also demonstrate new warfighting concepts that are developed to counteract Russian military advantages and complicate Russian planning. Short-term deployments, such as BTF missions, in which Europe- or U.S.-based bomber aircraft fly over selected territory near areas of Russian interest, demonstrate readiness and a potential to strike Russia if a conflict were to break out.

Major exercises since at least 2018 have included multinational and multidomain events focused on demonstrating unity with U.S. partners in Europe and showcasing advanced weapon system capabilities. One of the largest exercises is Trident Juncture, a triennial NATO event in Norway, the North Atlantic, and the Baltic Sea. In 2018, the exercise included the participation of more than 14,000 U.S. personnel and a total NATO footprint of more than 50,000 personnel,

[122] Paul McLeary, "CENTCOM Asks for More Drones, Money to Build Up Base in Oman," *Breaking Defense*, February 21, 2020.

largely focused on maritime and large-scale marine maneuver elements in Norway. Aviation generally played a supporting role. The exercise involved approximately 250 aircraft, 65 ships, and up to 10,000 vehicles.[123]

Saber Strike is an annual land-based exercise executed in Poland and the Baltics that involves approximately 3,000 U.S. personnel and a combined force strength of 18,000 personnel. This exercise was incorporated into Defender-Europe 20, which was billed as one of the largest exercises since the end of the Cold War. Defender-Europe 20 was designed to demonstrate reinforcement—in particular, the "US military's ability to quickly deploy a large force to support NATO and respond to any crisis."[124] As a division-scale exercise, the event was originally planned to involve 20,000 U.S. personnel, which would have been the largest deployment of U.S.-based forces to Europe in 25 years, and 17,000 other NATO partner personnel.[125] However, the event was scaled back because of the coronavirus disease 2019 (COVID-19) pandemic.

Defender-Europe 21 commenced in early May 2021. This exercise focused on Southeast Europe and, like Defender-Europe 20, was intended to demonstrate the ability to rapidly respond to any crisis in Europe and prepare for large-scale follow-on combat operations if necessary. The 2021 iteration was somewhat larger than Defender-Europe 2020, involving 26 countries and 28,000 personnel. In July, the United States cohosted Sea Breeze 2021 with Ukraine, which included 32 countries. U.S. personnel noted that the intent of the exercise was to demonstrate "that the Black Sea is an international sea," not under Russian control.[126] The exercise followed similar exercises from previous years, including Sea Breeze 2014, which was "a signal of the alliance's resolve to support east European members who have been unnerved by Russia's behavior in the Ukraine crisis."[127]

In addition to large-scale exercises that are conducted with intended predictability, the United States has applied the concepts of ACE and dynamic force employment (DFE) to demonstrate new concepts that could be leveraged to respond to Russian aggression. DFE is a DoD-wide concept developed under U.S. Secretary of Defense Jim Mattis to "more flexibly use ready forces," to achieve operational unpredictability.[128] ACE enables U.S. air forces to operate from a variety of partner military and civilian airfields rather than limiting operations to main operating

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[123] NATO, "NATO Secretary General Briefs on Exercise Trident Juncture," October 24, 2018.

[124] Harry Lye, "Defender Europe 20: Building Bridges and NATO Readiness," Army Technology, December 12, 2019.

[125] Paul McLeary, "Massive NATO Wargame Seeks to Shore Up Fraying Alliance," *Breaking Defense*, October 14, 2019.

[126] Robyn Dixon, "The U.S.-Ukraine Sea Breeze Naval Exercises, Explained," *Washington Post*, July 2, 2021.

[127] "Seven NATO Countries End Black Sea War Games," Reuters, last updated July 17, 2014.

[128] DoD, 2018, p. 7; James N. Mattis, "Remarks by Secretary Mattis on the National Defense Strategy," transcript, U.S. Department of Defense, January 19, 2018.

bases. These short-term deployments in Europe outside of main operating bases complement the larger-scale multimodal events described above.[129]

BTFs also employ the ACE concept, and have done so at air stations in Norway and the Azores.[130] BTFs are made up of at least one of the strategic bomber assets, which are the B-52, B-1, and B-2.[131] The concept is not altogether new. In the early 2000s, the United States launched Global Power missions to demonstrate bomber capabilities. And immediately prior to the establishment of the BTF concept, the United States had Bomber Assurance and Deterrence Missions, lasting from 2014 to 2017, when the United States began the BTF missions.[132] BTFs operate either from a forward position, such as RAF Fairford in the United Kingdom or Morón Air Base in Spain,[133] or as a CONUS-to-CONUS mission, relying on U.S. and allied or partner forces' refueling capabilities. Often, bombers deployed on BTFs conduct interoperability training with regional allies and partners.

Deterrence Logic 2b: Exercises and Short-Term Deployments in CENTCOM Demonstrate U.S. Commitment and Interoperability with Partners

There are several large, recurring exercises in the Levant and the Gulf. Eager Lion is a multinational, two-week exercise that had been held annually—and is now held biennially—in Jordan since 2011. In 2019, 8,000 personnel from 30 countries participated in the exercise, bringing together air, land, maritime, and special operations capabilities to conduct a global strike mission and combined ground operations.[134] Underscoring the challenge of separating out OAIs that support deterrence from those that support other missions in the theater, the exercise has addressed conventional threats but also involves training in counterterrorism and counterinsurgency operations, border security, noncombatant evacuation, reconnaissance operations, force protection, and logistics.[135] Bright Star, last held in 2018, is another long-standing, multinational, biennial exercise. It is held in Egypt and involves a command-post

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[129] Air Combat Command Public Affairs, "ACC Establishes Task Force to Prepare for High-End Fight," May 12, 2021.

[130] The Air Force Global Strike Command has developed a Bomber Agile Combat Employment concept, which "uses a global network of bases to complicate adversary targeting, enhance force survivability, enable maneuver options, generate multiple avenues of attack, and build relationships with joint and international partners" (Keefer Patterson, "Bomber Agile Combat Employment Gives Air Force Global Strike Command Competitive Edge," Air Force Global Strike Command Public Affairs, April 9, 2021).

[131] John A. Tirpak, "Ray Claims Big Success with Bomber Task Forces," *Air Force Magazine*, February 25, 2021.

[132] Kelley J. Stewart, "B-1B Lancers Return to Indo-Pacific for Bomber Task Force Deployment," U.S. Strategic Command, May 1, 2020.

[133] U.S. Air Forces in Europe and Air Forces Africa, "B-52H Aircraft Arrive in Spain for Bomber Deployment," May 17, 2021.

[134] "US and Jordan Begin Multinational Training Exercise Eager Lion 2019," Army Technology, August 27, 2019.

[135] Tawfiq al-Marzouq, "Eager Lion Celebrates 10 Years: Jordan Has Successfully Hosted Some of the Middle East's Largest Military Exercises for a Decade," *Unipath*, last updated March 10, 2021.

exercise on multiple conventional and irregular warfare scenarios, as well as combined training.[136]

The United States plans and participates in several other multinational exercises in the Gulf region. The biannual Joint Air Defense Exercise features GCC and coalition partners in a Combined Air Operations Center to test multilayered, integrated air and missile defense capabilities, as does the annual Falcon Shield exercise, hosted by the Joint Air Warfare Center in the UAE. These exercises include live-fly events and simulated scenarios involving air and ballistic missile attacks.[137] The semiannual Air and Missile Defense Exercise (AMDEX) also focuses on integrated air and ballistic missile defense and tests the abilities to execute distributed operations from locations in the United States and the Gulf and to transition quickly from the steady state to active defense of the region.[138] Lt Gen Joseph Guastella, commander of AFCENT, noted, "Of the many missions in the CENTCOM AOR . . . AMDEX is an opportunity to exercise a critical role: deterrence and defense of our Gulf partners along with US interests in the region."[139]

The International Maritime Exercise (IMX), held periodically since 2012 and last executed in 2019 out of Bahrain, is a large freedom-of-navigation exercise involving some 50 countries. The fleet-training part of the exercise involves "air, surface and underwater mine countermeasures, maritime security operations, coordination with industry and commercial shipping, and harbor force protection scenarios incorporating unmanned underwater vehicles and marine mammals."[140] VADM Jim Malloy, commander of NAVCENT, emphasized IMX as "an important demonstration of global commitment to freedom of navigation and the free flow of maritime commerce in this critical region."[141] Eagle Resolve is another large multilateral exercise, held in Kuwait between the United States and its GCC partners, that focuses on asymmetric warfare. Last held in 2017 and postponed in 2020, it includes execution of air defense concepts, border security, counterterrorism, and consequence management.[142]

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[136] Jeffrey Dallin Belnap, "Bright Star Command Post Exercise Pursues Strategic Partnership," U.S. Army Central, September 15, 2018.

[137] Dustin Mullen, "AFCENT Hosts Regional Joint Air Defense Exercise 21-01," U.S. Central Command, February 24, 2021.

[138] Carrie Volpe, "AMDEX 21-02 Tests AFCENT, Partner Defense Readiness," U.S. Central Command, April 16, 2021.

[139] Ava Margerison, "Strengthening Partnerships Through Air and Missile Defense Exercises," U.S. Central Command, October 24, 2018.

[140] Collette M. Murphy, "IMX 19 Concludes in U.S. 5th Fleet Area of Operations," U.S. Naval Forces Central Command, November 14, 2019.

[141] Murphy, 2019.

[142] Angel Jackson, "Multinational Forces Wrap Up Exercise Eagle Resolve 2017 in Kuwait," U.S. Army, April 19, 2017.

Multiple smaller bilateral and multilateral exercises are designed to support U.S.-partner interoperability and signal deterrent value in more-focused ways. For example, the United States and Israel conduct Enduring Lightning exercises with their F-35 fleets multiple times per year, with the U.S. F-35s, along with tankers, reportedly coming from al-Dhafra in the UAE.[143] Likewise, the two allies conduct biennial two-week ballistic missile defense exercises known as Juniper Cobra, in which forces respond to simulated cyber and missile attacks and other threats.[144] According to USAFE deputy commander Lt Gen Steven Basham, the exercise improves U.S.-Israeli "combined ability to deter, and if needed, defend against missile threats by bolstering the integration and interoperability of our two forces."[145]

Some CENTCOM partners take the lead in designing and planning multinational exercises that involve U.S. forces. For example, in 2018, Saudi Arabia held GCC-focused Gulf Shield-1 in its Eastern Province with 24 participating countries from the region, as well as the United States, the United Kingdom, Pakistan, India, and Malaysia. The exercise followed three main phases: joint operational planning and a command-post exercise, live-fire field training, and consequence management after a simulated ballistic missile strike. Operations included coastal defense and irregular warfare.[146]

In addition to exercises, there are frequent short-term deployments to the theater, often fielded for crisis deterrence. In recent years, BTFs have conducted dedicated deterrence missions to the region, accompanied by U.S. Air Force fighters and aircraft from other nations, including Israel, Qatar, and Saudi Arabia.[147] Short-term deployments of fighter squadrons and U.S. Navy and Marine Corps units have also been used to enhance the deterrent and signal U.S. commitment to regional allies. BTFs have been one of the main features of U.S. deterrence activities during the cycle of escalation with Iran that corresponded with the maximum-pressure campaign (see Table 2.2). For example, BTFs to the theater were generated after the May 2019 Iranian attacks on commercial vessels; after the September 2019 Iranian attack on Saudi oil infrastructure; and ahead of the one-year anniversary of the Soleimani killing, when an Iranian attack was feared. In all instances, these short-term deployments were explained in reference to deterrence objectives.

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[143] Seth J. Frantzman, "Stealth Allies: Israel Completes Third F-35 Joint Training with U.S.," *National Interest*, October 20, 2020.

[144] Jonathan Stefanko, "1st CBCS Return Home from Israel, Juniper Cobra 16," Ramstein Air Base, March 9, 2016.

[145] U.S. Air Forces in Europe and Air Forces Africa, "USEUCOM, IDF to Participate in Exercise Juniper Cobra 20," March 4, 2020a.

[146] Shaul Shay, "Boosting Regional Cooperation: Behind Gulf Shield 1," *Israel Defense*, April 22, 2018.

[147] CENTCOM, "Bomber Task Force Mission to Middle East," press release, March 7, 2021a.

Table 2.2. Timing of Bomber Task Forces in Response to Iranian Attacks or Ahead of Iranian Threats

Date	Attack or Threat	BTF Deployment
Early May 2019	U.S. defense leaders report "'recent and clear' indications that the Iranian military or its proxy forces were making preparations to possibly attack American troops in the region" (Rempfer, 2019b)	
May 12, 2019	Iran is believed to be behind an attack on four commercial vessels in the Gulf of Oman	
May 12, 2019		B-52s fly BTF, operating from al-Udeid
June 14, 2019	Iran is believed to have mined two oil tankers in the Gulf of Oman	
September 14, 2019	Iran is believed to have executed the cruise missile and UAS attack on Saudi energy infrastructure	
October 24, 2019		B-1Bs conduct BTF to Prince Sultan Air Base
December 10, 2020		B-52Hs conduct CONUS-to-CONUS BTF
January 3, 2021	One-year anniversary of the Soleimani killing	

SOURCES: 28th Bomb Wing Public Affairs, "Bomber Task Force Makes Quick Deployment to Saudi Arabia," Ellsworth Air Force Base, October 29, 2019; Lolita C. Baldor, "US B-52H Bombers Fly to Middle East in Mission to Deter Iran," *Air Force Times*, December 10, 2020; Brian W. Everstine, "B-52 Flies First Mission in Task Force Deployment," *Air Force Magazine*, May 13, 2019; Mark Landler, Julian E. Barnes, and Eric Schmitt, "U.S. Puts Iran on Notice and Weighs Response to Attack on Oil Tankers," *New York Times*, June 14, 2019; Vivian Lee, "Claim of Attacks on 4 Oil Vessels Raises Tensions in Middle East," *New York Times*, May 13, 2019; Kyle Rempfer, "B-52 Bombers Are Off to Rebuff Iran After Threats to US Troops; DoD Won't Say What Those Were," *Military Times*, May 7, 2019b.

Deterrence Logic 3a: Security Cooperation Enhances the Position of U.S. Allies and Partners in the Local Balance of Forces Against Russia

Security cooperation appears to benefit deterrence by increasing the capacity of allies, partners, and the overall NATO alliance; by signaling military capability through exercises; and by building, maintaining, or expanding U.S. access to partner bases and information, facilitating the posture and exercises discussed prior. Enhanced integration and interoperability likely enable a more coordinated, capable response in the event of a Russian aggression. According to General Wolters, the European Deterrence Initiative and international security cooperation programs "enhance U.S. and Alliance readiness and posture to respond in crisis or conflict."[148]

For NATO allies, beyond the exercises and forward basing discussed earlier, cooperation often takes the form of information- and intelligence-sharing, cooperative production, and sale of advanced arms. For the U.S. Air Force, perhaps the most prominent form of security cooperation

[148] Wolters, 2021a, p. 20.

is the incorporation of the F-35 into the inventories of several NATO-member air forces, including those of the United Kingdom, Italy, Denmark, Norway, the Netherlands, Belgium, and Poland.[149] These and other arms transfers of advanced U.S. weapon systems, as well as the training that accompanies them, enhance partner capabilities while maintaining interoperability. The U.S. Air Force also participates in personnel exchanges through the Military Personnel Exchange Program, which also build interoperability and mutual understanding. Cooperation in specialty fields, such as medical and cyber operations (including an extensive program with Estonia, for example), improve national-level capabilities and the ability to work with the United States.[150] Note that security cooperation related to intelligence-sharing, cyber defense, and information warfare could support deterrence of gray zone activity by improving the ability of partners to deny Russian actions and attribute actions to Russia.[151]

For non-NATO partners, such as Georgia and Ukraine, security cooperation may play a role in increasing the partners' capabilities and insert some level of uncertainty in Russian minds about potential U.S. involvement in the event of future aggression, including by enabling partners to employ concepts and systems that are compatible with those of the United States and NATO. General Wolters has noted that security cooperation with Ukraine "help[s] build Ukrainian military capability, competence, and interoperability" and "enables Ukraine to defend its sovereignty against well-armed Russian-backed forces."[152] The Joint Multinational Training Group–Ukraine, for example, provides collective training to Ukrainian brigades.[153] The Georgia Defense Readiness Program–Training and the Georgia Deployment Program help train select Georgian units, especially those who are deploying to NATO missions.[154] Engagements by National Guard state partners in 22 European nations also increase temporary U.S. presence and build long-term relationships that may facilitate crisis action.[155]

The above security cooperation activities are enabled by bilateral and multilateral defense-related agreements, which determine the scope of U.S.-ally defense relationships, U.S. military presence and short-term deployments, and base access. Among these are foundational defense cooperation agreements, which lay out U.S.-partner defense relationships over a set period;

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[149] A. A. H. (Tom) de Bok and Erik van de Ven, "F-35, the Backbone of Next Generation NATO Operations," *Journal of the JAPCC*, ed. 18, November 2013.

[150] Terri Moon Cronk, "U.S., Estonia Sign 5-Year Road Map of Defense Cooperation," U.S. Department of Defense, May 22, 2019.

[151] See Radin, Demus, and Marcinek, 2020.

[152] Wolters, 2021a, pp. 17–18.

[153] 7th Army Training Command, "Joint Multinational Training Group-Ukraine," webpage, undated b.

[154] See 7th Army Training Command, "Georgia Defense Readiness Program-Training," webpage, undated a; and Defense Visual Information Distribution Service, "Georgia Deployment Program - Resolute Support Mission," webpage, undated.

[155] See National Guard, "State Partnership Program," webpage, undated. A map at this website identifies the 22 European countries with state partnerships.

status of forces agreements, which determine the legal rights and responsibilities of U.S. personnel based in partner nations; and acquisition and cross-servicing agreements, which allow DoD to directly acquire or provide logistics support, supplies, and services in a partner country. Other agreements determine the scope of information-sharing and communications, and the U.S. services, including the Air Force, have direct agreements with their foreign counterparts related to cooperative research and development and personnel exchanges.

One telling example of these agreements is the Enhanced Defense Cooperation Agreement between the United States and Poland, signed in 2020, which provides the legal framework for the addition of U.S. troops in Poland, the expansion of U.S. access to Polish military facilities, and the sharing of logistical and infrastructure costs associated with the U.S. presence. Estonia, Lithuania, and Latvia each signed bilateral defense cooperation agreements in 2017, as well as five-year security cooperation roadmaps defining priorities between 2019 and 2024. Together with the United States and NATO, the Baltics are developing an integrated air and missile defense command and control network that, according to LTG Stephen M. Twitty, deputy commander of EUCOM, "will contribute to NATO deterrent efforts [and] the overall combat-credibility of our combined force posture."[156] Likewise, the United States signed a Statement of Intent in 2018 with non-NATO partners Sweden and Finland "to expand trilateral dialogue on defense policy, improve interoperability, enhance situational awareness in the Baltic Sea region, and strengthen military capabilities and defense posture."[157]

Deterrence Logic 3b: Security Cooperation Helps Allies and Partners Defend Themselves Against Iranian Attack and Promotes Interoperability with U.S. Forces

Security cooperation is a key tool that the United States applies in the Middle East to build the capacity of frontline states against Iran, expand interoperability, and demonstrate ongoing support for regional allies and partners. DoD, EUCOM, and CENTCOM have prioritized sales of equipment to the region and have conducted a variety of security cooperation activities with multiple countries. As in Europe, this has included training, military-to-military contacts and personnel exchanges, intelligence- and information-sharing, cooperative production of arms, and extensive contractor logistics support. Security cooperation appears intended to support deterrence by ensuring that U.S. access to partner bases and information is maintained and expanded and by seeking to increase the capacity of partners to counter Iranian military attacks against their sovereign territories and airspace and to operate alongside U.S. forces to deny or punish Iranian actions against common interests.

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[156] Commission on Security and Cooperation in Europe, "Baltic Sea Regional Security: A Field Hearing of the U.S. Commission on Security and Cooperation in Europe," July 2, 2019, Washington, D.C.: U.S. Government Publishing Office, 2019, p. 20.

[157] U.S. Department of State, "U.S. Security Cooperation with Finland," fact sheet, Bureau of Political-Military Affairs, January 20, 2021a.

The United States engages partner nations in the region through many billions of dollars in some of the most advanced military equipment, training, and other security cooperation activities. In the Levant, security cooperation with Israel has been consistently robust and largely focused on countering Iran. The cooperation involves the transfer of fifth-generation aircraft, such as the F-35—Israel was the first foreign country to purchase and operate it—as well as cooperative development of Israel's ballistic missile defenses, including its Arrow variants, David's Sling, and Iron Dome. Israel is also the second country that was approved to receive the new KC-46A multirole tanker aircraft. U.S.-Israeli cooperation also covers joint development on specific areas of interest, such as anti-tunnel technology and counter-drone defenses. U.S. law requires that the United States preserve Israel's "qualitative military edge" in the region and expedited aid and arms sales.[158] The United States and Jordan also enjoy a close security cooperation relationship. At least $350 million in Foreign Military Financing (FMF) and DoD assistance goes to Jordan to help fund its F-16 and UH-60 Blackhawk capabilities and training and precision-guided munitions, as well as its state-of-the-art border security system. Designated as a major non-NATO ally, Jordan has received excess defense articles, training, and loans of equipment for cooperative research and development. In addition, Jordan receives one of the largest allotments of funding for International Military Education and Training (IMET). IMET graduates include King Abdullah II himself and much of the leadership of the Jordanian armed forces.[159]

U.S. security cooperation with the GCC states is extensive and features large purchases of advanced weapon systems and associated training and maintenance support by these countries. The Royal Saudi Air Force continues to operate the F-15 and the E-3 AWACS. An extensive training program is overseen by the U.S. Military Training Mission to Saudi Arabia, which has been active under a special bilateral agreement since the 1950s. It has recently sought to foster training for special operations and help the Kingdom integrate air and missile defenses, improve cyber defenses, and enhance maritime security.[160] The UAE is also a key recipient of advanced systems and training; according to one expert source, "The UAE's ability to project power in the region is a product of many years of U.S.-UAE defense cooperation that includes U.S. arms sales and training, strategic planning, and joint exercises and operations."[161] The UAE operates the F-

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[158] See Jim Zanotti, *Israel: Background and U.S. Relations in Brief*, Washington, D.C.: Congressional Research Service, R44245, updated January 27, 2021, p. 5; and Jeremy M. Sharp, *U.S. Foreign Aid to Israel*, Washington, D.C.: Congressional Research Service, RL33222, last updated November 16, 2020b, pp. 5–24.

[159] Jeremy M. Sharp, *Jordan: Background and U.S. Relations*, Washington, D.C.: Congressional Research Service, RL33546, last updated June 18, 2020a, pp. 14–15.

[160] Robert Springborg, F. C. "Pink" Williams, and John Zavage, *Security Assistance in the Middle East: A Three-Dimensional Chessboard*, Carnegie Middle East Center, February 2020, p. 22. See also Christopher M. Blanchard, *Saudi Arabia: Background and U.S. Relations*, Washington, D.C.: Congressional Research Service, R33533, February 18, 2020, p. 23.

[161] Kenneth Katzman, *The United Arab Emirates (UAE): Issues for U.S. Policy*, Washington, D.C.: Congressional Research Service, RS21852, updated September 4, 2020a, p. 13.

16 Block 60 multirole fighter and the C-17 Globemaster cargo aircraft and has ordered the F-35. The United States has also helped the Emiratis establish and operate two regional training centers in the UAE—the Joint Air Warfare Center at al-Dhafra Air Base and the Integrated Air and Missile Defense Center at al-Bateen Air Base—to conduct continuous training programs for regional forces to improve common capabilities and help maintain currency of allied forces.

U.S. security cooperation with the other GCC nations—Qatar, Bahrain, Kuwait, and Oman—is also significant. They all participate in U.S. training programs for the advanced systems that they purchase. Qatar, Bahrain, and Kuwait have sought advanced fighter aircraft and ballistic missile defense systems from the United States, which includes a Qatari request for THAAD. Qatar began receiving F-15s in 2021, Bahrain and Oman fly F-16s, and Kuwait flies F/A-18s. Bahrain and Kuwait have been designated major non-NATO allies, which entitles them to increased defense-related research and development cooperation and entitles Bahrain to certain U.S. arms and excess defense articles.[162]

Underpinning U.S. security cooperation and presence in the region are several defense-related agreements and memoranda of understanding (MoUs) that the United States has forged or renewed with many of the countries under consideration. For example, the U.S.-Jordanian MoU signed in 2018 (the third between the two allies) commits the United States to providing nearly $1.3 billion per year in foreign assistance over five years, including $350 million per year in FMF, and is a 27-percent increase over the previous MoU.[163] A ten-year U.S.-Israeli MoU signed in 2016 commits the United States to annual sums of $3.3 billion in FMF and $500 million in joint missile defense programs from 2019 to 2028.[164] The United States has renewed defense cooperation agreements with several of its partners, which provide a framework for access for U.S. forces and the training of partner forces. The ten-year defense cooperation agreement with Qatar, part of it classified, was renewed in 2013 and "reportedly addresses U.S. military access to Qatari military facilities, prepositioning of U.S. armor and other military equipment, and U.S. training of Qatar's military forces."[165] In 2017, the United States and Bahrain renewed their defense cooperation agreement for 15 years; the agreement includes access, basing, overflight rights, and a status of forces agreement.[166] The 15-year defense cooperation agreement with the

[162] Kenneth Katzman, *Bahrain: Unrest, Security, and U.S. Policy*, Washington, D.C.: Congressional Research Service, 95-1013, September 25, 2020b, p. 12; and Kenneth Katzman, *Kuwait: Governance, Security, and U.S. Policy*, Washington, D.C.: Congressional Research Service, RS21513, updated October 14, 2020c, p. 8.

[163] Sharp, 2020a, p. 12.

[164] Zanotti, 2021, p. 5.

[165] Kenneth Katzman, *Qatar: Governance, Security, and U.S. Policy*, Washington, D.C.: Congressional Research Service, R44533, updated April 7, 2021b, p. 13.

[166] Katzman, 2020b, p. 12.

UAE, also concluded in 2017, governs the basing of U.S. forces, operation of the Joint Air Warfare Center, and education and training of Emirati forces.[167]

Conclusion

This chapter has documented a wide array of U.S. military activities designed to support extended deterrence in EUCOM and CENTCOM. Although it is not possible to neatly isolate the OAIs designed for deterrence from those designed for other missions, such as competition or reassurance, there are clear deterrence logics in each theater that undergird the military activities discussed (Table 2.3).

Table 2.3. OAIs and Associated Deterrence Logics

OAI Type	Deterrence Logic
Forward presence	Quickly deny and punish aggression
Exercises and short-term deployments	Demonstrate U.S. commitment, readiness, and interoperability with allies and partners
Security cooperation	Improve local balance of forces and interoperability with allies and partners

The largest investments in deterrence in EUCOM are aligned with the objective of deterring aggression against NATO allies. Secondarily, there are modest but growing U.S. investments in extended deterrence of non-NATO partners, and there are attempts to deny Russia opportunities for malign activity below the threshold of war, primarily by improving ally and partner resilience that is consistent with deterrence by denial.

Some of the deterrence gaps in EUCOM appear to be associated more with U.S. will than with U.S. capability. Simply put, it is not clear what the ultimate extent of U.S. commitment is to non-NATO partner security should Russia undertake military action against these states that could escalate into war. Chapter 5 of this report takes up that issue more fully via a multi-episode case study of deterrence in Ukraine. Where there are gaps in capability, they are confined to areas close to Russia's frontier where the local balance of forces favors Russia, particularly in the early phase of a conflict and in instances of limited warning.

In CENTCOM, the focus of U.S. investment in deterrence aligns with the objective of preventing Iran from restricting access to the global commons or launching standoff attacks against U.S. forces or partners via Iran's missile forces, which may be paired with other capabilities, such as UAS. The United States engages in efforts to strengthen partners against Iranian proxy groups but only selectively employs deterrence by punishment against proxy actors.

[167] Katzman, 2020c, p. 14.

The United States enjoys a strong conventional advantage over Iran, leaving the main gaps in deterrence for Iranian subconventional activities targeting U.S. partners. Like in EUCOM, the gap appears to be owed more to will than to capability, insofar as the United States appears to have determined that the resources and the potential for escalation outweigh the benefit of establishing deterrence against the full array of Iranian actions.

3. Roundtables

As an alternative methodology to explore which U.S. OAIs were the most effective and efficient for deterrence, two subject-matter expert roundtables that focused on Russian and Iranian decisionmaking were convened in April 2021. The roundtables were designed to elucidate how Russia and Iran might react if there were hypothetical reductions in specified U.S. OAIs. The intent was to see which OAIs are the most influential on adversary decisionmaking: If adversaries undertook more aggression in response to reductions in particular OAIs, it would imply that those OAIs were important for deterrence.

The first section of this chapter describes the design and assumptions of the roundtables in more detail. The second section summarizes the structure and results of the EUCOM-focused roundtable, while the third section documents the CENTCOM-focused event. The chapter provides highlights of the roundtables rather than a detailed account of everything that was said. The final section offers overarching findings for the two events. It notes that the participants in the roundtables focused on the political rather than military impact of the hypothetical reductions, especially because of the potential impact on allies and partners. We also observed an *extended deterrence trap*—the idea that once the United States begins OAIs to support extended deterrence, it becomes politically difficult to reduce these OAIs.

Workshop Design

The premise of our workshops was that understanding how Iran and Russia might shift their policies in response to changes in U.S. OAIs would shed light about which OAIs are the most important for deterrence. If the experts believed that there was a greater likelihood or intensity of adversary aggression if the United States were to reduce its force posture, one can conclude that force posture is important for deterrence and could pose strategic risk if reduced. Alternatively, if an OAI, such as exercises, could be reduced without much likelihood of increased adversary activity, that might indicate that exercises could be reduced with limited impact or risk to U.S. interests and that possible efficiencies might be realized in that area.

One assumption underlying the design of the workshop is that the subject-matter experts we identified would have insight into how adversaries might behave in counterfactual scenarios. To draw on a wide range of expertise, we conducted the workshops at the unclassified level with subject-matter experts from within and outside the U.S. government, including uniformed and civilian officials and analysts from allied and partner countries. The Russia-focused workshop had 12 participants, including one from the U.S. government (others were invited but could not attend) and representatives from think tanks in the United Kingdom, Norway, Sweden, and Estonia. The Iran-focused workshop had ten participants; four were from DoD organizations, and

the others were from U.S. research organizations. We selected regional subject-matter experts on Russia and Iran using their prior publications and other professional work, drawing on our own connections within the Russia- and Iran-focused research community. The experts that we selected are widely read and closely track the behaviors of these countries. Of course, there are limits to how accurately subject-matter experts can predict adversary activities. The immediate influences on Russian President Vladimir Putin or Iranian Supreme Leader Ali Khamenei are unknown to Western researchers, and these leaders may take actions that are surprising and difficult to predict from past behavior.

To enable the participants to engage in a frank discussion, we conducted the workshops under the Chatham House Rule of nonattribution. We also emphasized that the proposed scenarios were strictly for research purposes and did not reflect any official U.S. government position. Given the ongoing limitations of the COVID-19 pandemic in April 2021, we conducted the workshops virtually, using ZoomGov.

Both workshops had a similar structure and method, although some of the organization varied with the geography and political context of each region. In each workshop, we first presented a baseline assessment of current U.S. and adversary OAIs. These assessments informed and reflected the material presented in Chapter 2 and Appendixes A and B, drawing on open sources, such as the IISS *Military Balance* and available U.S. military public statements and documents. We also solicited corrections from the participants, which were invaluable for revising our assessments of current OAIs.

After the baseline presentations, experts were divided into breakout sessions associated with the different subregions of the EUCOM or CENTCOM AOR. Each breakout session considered scenarios of hypothetical reductions in force posture, exercises and short-term deployments, or security cooperation. The principles of the hypothetical reductions were similar throughout, although the specific reductions varied depending on the local circumstances. Each hypothetical scenario was designed to represent a plausible but not currently planned reduction in U.S. OAIs. To consider a round number, we generally focused on cutting approximately 50 percent of the OAI. With that target in mind, for each region and scenario, we used current levels of OAIs and the regional context to develop specific reductions. Although we sought to be as specific as possible, in some cases we described reductions in purely qualitative terms. In these cases, providing a specified percentage of reductions was not feasible given available knowledge of the relevant OAIs, and providing a quantitative estimate would have given false precision.

The political rationale of the reductions proved to be a complicating factor, especially because participants anticipated that adversaries' responses would be based on their interpretation of the political intent. We hoped to encourage the participants to focus on the military impacts of the reductions rather than on identifying how an adversary might respond to shifting U.S. political messaging. With this goal in mind, we explained that most of the reductions were based on increasing demands for U.S. resources in other theaters rather than on any change in U.S. commitment to allies or partners or change in policy in the respective region.

To explain the posited reductions, we noted that increased resources would be needed to face China in the Indo-Pacific and that this demand would lead to reductions in EUCOM, which does seem to reflect current U.S. policy discussions.[168] In the case of one of the scenarios in the CENTCOM roundtable, we also assumed that progress in the U.S.-Iran nuclear negotiations would enable a reduction in U.S. OAIs.

EUCOM Roundtable

As outlined in Chapter 2 and elaborated on in Appendix A, in the EUCOM theater, U.S. forces are primarily postured in Western Europe, while the greatest threat from Russia is faced by frontline states bordering Russia. This geography informed the structure of the roundtable—we assumed that reductions in OAIs would primarily occur from the frontline states, but we wanted the experts to have an understanding of the current U.S. posture in Western Europe. Consequently, we organized the roundtable into three sessions (see the box on the next page for a summary). During the first session, we briefed the participants on current U.S. and Russian OAIs, reflecting the material presented in Chapter 2 (for example, Figure 3.1 was presented to display U.S. posture). In the second session, the participants were divided into three breakout groups that considered different subregions of Europe: the Baltic states and Poland, the Black Sea, and the Nordic/Arctic region. Each breakout group was briefed on the baseline OAIs in their respective region and considered two scenarios: a reduction in exercises and short-term deployments and a reduction in force posture. After the breakout session, the entire group of experts reconvened to consider several cross-Europe scenarios and provide concluding comments.

[168] See, for example, Office of the Under Secretary of Defense (Comptroller)/Chief Financial Officer, "Defense Budget Overview: United States Department of Defense Fiscal Year 2022 Budget Request," briefing slides, Washington, D.C., May 2021.

Summary of Scenarios for EUCOM Roundtable

The Baltic States and Poland

- Scenario 1: Reduction in exercises and short-term deployments
  - 50-percent reduction in the size of larger exercises, including Defender-Europe and Baltic Operations (BALTOPS)
  - 50-percent cut in the frequency of smaller exercises and deployments, including by National Guard state partners
  - 50-percent reduction in the frequency of BTF sorties
- Scenario 2: Reduction in force posture
  - 50-percent reduction, including size of eFP battalions, MQ-9s deployed, and rotations of combat aviation brigades and armored BCTs

The Black Sea

- Scenario 1: Reduction in exercises and short-term deployments
  - 50-percent cut in the size of larger exercises, including Defender-Europe and Sea Breeze
  - 50-percent cut in the frequency of smaller exercises
  - Smaller and fewer U.S. Army deployments to Multinational Division Southeast in Romania
  - Reduction in the frequency of BTF sorties
- Scenario 2: Reduction in force posture
  - Reduced air policing in Bulgaria and Romania
  - Cessation of troop rotations and 50-percent cut in MQ-9s in Romania
  - End to U.S. deployments in Ukraine and Georgia
  - Reduction in naval presence and surveillance flights in the Black Sea

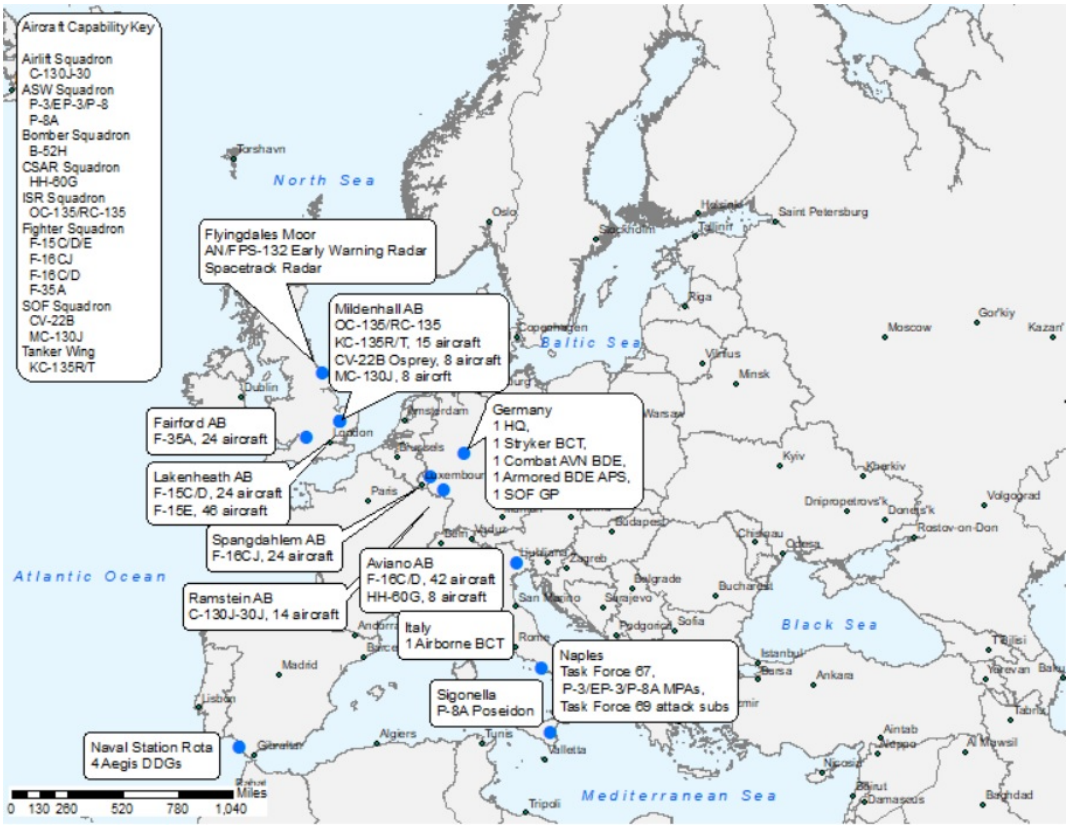
The Nordic/Arctic Region

- Scenario 1: Reduction in exercises and short-term deployments
  - 50-percent reduction in the size of large exercises, such as Trident Juncture
  - 50-percent reduction of smaller exercises
  - Reduce BTF sorties and air patrols around the Arctic
- Scenario 2: Reduction in force posture
  - Reduced Marine Corps presence in Norway
  - Delay in air and naval investments and reduction in operations from Alaska

Whole-of-Europe Scenarios

- Scenario 1: Cross-Europe cut in exercises, including scenario 1 from each of the three regions above
- Scenario 2: Large curtailment of BTF missions across Europe
- Scenario 3: Combination of increased security cooperation and reduced force posture
  - Reduction in force posture as described in scenario 2 in each of the regions above
  - Increase in security cooperation, including more-favorable F-35 pricing, enlarged Baltic Security Initiative, and new Black Sea Initiative

Figure 3.1. Posture in Western Europe



SOURCE: IISS, 2021a, Ch. 2, 4.
NOTE: AB = Air Base; APS = Army Prepositioned Stock; AVN = aviation; BDE = brigade; DDG = guided-missile destroyer; GP = group; HQ = headquarters; MPA = maritime patrol aircraft; SOF = special operations forces.

Findings from Individual Sessions

Poland and the Baltics

The baseline U.S. OAIs in Poland and the Baltic states as presented to the group are shown in Table 3.1. Key developments include the NATO eFP battlegroups; the U.S. Army rotational presence in Poland; the UAVs in Poland; large-scale exercises, such as Defender-Europe; and smaller engagements, such as national readiness exercises and BTF deployments. Russian OAIs in the region, noted in Appendix A, include modernization in the Western military district, scheduled and snap exercises, and influence operations among Russian speakers in the Baltic states.

Table 3.1. Presentation of U.S. OAIs for Poland and Baltic States Breakout Group

Baltics Base	Baltics	Poland Land	Poland Air, Sea, Cyber
Force posture/ regular presence	• 3 eFP BN (NATO) • Baltic Air Policing mission in Lithuania (6 aircraft) and Estonia (4 aircraft), F-15C or NATO equivalent	• Atlantic Resolve—DIV HQ becoming Corps FWD • Rotational combat aviation BDE, armored BDE • NATO eFP BN (U.S.-led) • APS for armored BCT	• Air: 1 sqn MQ-9 at Łask and additional contractor-operated at Mirosławiec
Exercises and short-term deployments	• Defender-Europe 20 (division-sized exercise with subexercises reduced because of COVID-19) • National readiness exercises; BALTOPS (annual multinational maritime), with BTF component • Aviation detachment: F-16s, C-130s deploy 4 times per year for 2 weeks to Poland • State Partnership Program activities • BTF deployments		
Security cooperation	• Support for border security, air defense, ground forces, facilities (European Deterrence Initiative, Baltic Security Initiative)	• MILCON at 11 facilities • ATACMS • HIMARS • Patriot PAC-3	• 32 F-35s, sustainment for 48 F-16s

SOURCES: U.S. Army Europe and Africa, undated; see also Chapter 2 of this report.
NOTE: APS = Army Prepositioned Stock; ATACMS = Army Tactical Missile System; BDE = brigade; BN = battalion; DIV = division; FWD = Forward; HIMARS = High Mobility Artillery Rocket System; HQ = headquarters; MILCON = military construction; sqn = squadron.

The first scenario proposed to the Baltics and Poland group specified a reduction in exercises and short-term deployments: specifically, a 50-percent reduction in the size of larger exercises, such as Defender-Europe and BALTOPS; a 50-percent reduction in the frequency of smaller exercises and deployments (such as National Guard state partners); and a 50-percent reduction in the frequency of BTF sorties.[169] Experts said they thought there would be little change in Russia's actions. They noted that Russia already operates from a position of strength, given its conventional capabilities in the Baltic region. In addition, in the current environment, Russia has not shown a willingness to engage in aggression against NATO countries. Participants still saw the need for deterrence, especially during a crisis, and they expressed concern that the proposed reductions in OAIs would weaken deterrence even if they did not foresee these reductions precipitating a Russian military attack. The group discussed the concept that the U.S. deterrent signal to Russia was communicated through a host of different activities, but any single reduction in activities could offer a countervailing signal that would weaken Russia's belief that

[169] The proposed reduction in the size and frequency of exercises was intended to take account of the fact that many exercises are necessary for units to validate their readiness. Because the intent of the reduction was to reduce only exercises and not force posture, the proposed reduction sought to leave space for forward-postured units to maintain necessary exercises.

the United States was committed to the defense of its European allies. We pushed participants to specify a level of exercises that indicates a sufficient U.S. commitment, but experts explained that they were unable to provide a precise answer. This reinforced the difficulty in determining a precise deterrent value associated with OAIs, given uncertainty over how Russia updates its assessments based on changes in U.S. OAIs. Participants speculated that any change or reduction in U.S. activities would be noticed and taken as a signal of shifting political intent, even if it had no noticeable impact on the military balance. The participants did not disagree with our speculation that uncertainty about the right level of capabilities for deterrence has led the United States to gradually increase its OAIs to provide an increasingly credible signal.

The second scenario involved a 50-percent reduction in force posture, which consisted of a 50-percent cut in the size of the NATO eFP battlegroups, cuts in U.S. Army rotations and Army Prepositioned Stock in Poland, and reduction in the size of the air policing mission and MQ-9s in Poland. Experts said they thought that these changes would be less reversible and more impactful on Russian perceptions than the proposed reduction in exercises. The proposed changes in posture were perceived to send a stronger political signal of diminished U.S. commitment to the Baltic states and Poland. Experts also feared that the changes might indicate reduced U.S. capability to fight a war, especially if there were reductions in infrastructure present in the Baltic states. One participant noted that reductions in force posture could be mitigated if the forces were moved elsewhere in Europe. They also suggested that careful strategic messaging would be necessary to signal continued commitment if such reductions were considered. Experts noted that frontline allies and partners would be deeply concerned about reductions in U.S. posture and could undermine NATO unity by protesting the U.S. decision in Brussels. As highlighted earlier, this is an example of how the roundtable subject-matter experts focused on the political rather than military impact of OAI changes.

The Black Sea

U.S. posture in the Black Sea region is lower than in the Baltics and Poland (see Table 3.2). Key deployments include NATO air policing, persistent U.S. battalion rotations, and MQ-9 UAVs in Romania; small training missions, periodic exercises, and security cooperation in Ukraine and Georgia; and a limited Black Sea naval presence. Short-term deployments also include occasional BTF missions, with integration into exercises in the region.

Table 3.2. Presentation of U.S. OAIs for Black Sea Breakout Group

Black Sea Base	Bulgaria and Romania	Ukraine	Georgia	Black Sea and Turkey
Force posture/ regular presence	• NATO air policing at Mihail Kogalniceanu AB (Romania) • Persistent BN rotations at Mihail Kogalniceanu AB • NATO tFP (multinational BDE, multinational DIV HQ) • MQ-9 at Turzii (Romania)	• Joint Multinational Training Group–Ukraine	• Georgia Defense Readiness Program–Training	• Guided-missile destroyer presence • Reconnaissance flights
Exercises and short-term deployments	• Defender-Europe 21 • Rapid Buzzard (Bulgaria) • Operation Porcupine (Romania) • Novo Selo Training Area (Bulgaria) • U.S. BTF missions and integration	• Sea Breeze • Rapid Trident • U.S. BTF missions and integration	• Noble Partner • Sea Breeze • Saber Junction • Georgia Deployment Program (for AFG) • BTF missions and integration	• Sea Breeze • Joint naval exercises with Turkey
Security cooperation	• Procurement of F-16s (8 for Bulgaria, 5 for Romania) • Patriot PAC-2/3 • ATACMS • HIMARS	• Javelins • Coast Guard patrol craft • Radios • TPQ-36 Firefinders	• Coast Guard cooperation • Javelins	• Not applicable

SOURCES: Chapter 2; "500 U.S. Troops Arrive in Romania to Bolster Defense," AP News, February 14, 2017; and Supreme Headquarters Allied Powers Europe, "Romania's Multi-National Brigade - Bolstering NATO's Tailored Forward Presence," 2018.
NOTE: AB = Air Base; AFG = ; ATACMS = Army Tactical Missile System; BDE = brigade; BN = battalion; DIV = division; HIMARS = High Mobility Artillery Rocket System; HQ = headquarters.

The first scenario, focusing on decreasing exercises and short-term deployments, proposed a 50-percent cut in the size of the Defender-Europe exercise and the Sea Breeze exercises with Ukraine, smaller and fewer Army deployments in Romania, and a cut in or elimination of BTF sorties. Experts generally anticipated a more hawkish response by Russia in the Black Sea region, although they offered few ideas on specific actions that Russia would take. They saw exercises as a principal U.S. deterrent signal in the region, given only small levels of posture and security cooperation. They anticipated that Russia would be surprised by the reversal,

anticipating a U.S. reaction elsewhere or, by one account, a new U.S. weapon system that might explain the lack of need for activity in the region. However, participants also anticipated that Russia would see any reduction in the region as potentially only a temporary development. With that in mind, analysts saw some risk that Russia could exploit the window of opportunity to take aggressive actions in Ukraine.

The second scenario in the Black Sea region, focused on reduced posture, anticipated smaller air deployments in Romania, an end to U.S. deployments in Ukraine and Georgia, and reduced naval presence and surveillance flights in the Black Sea. Experts in the group surmised that Russia would be emboldened by this scenario, especially since the changes would seem more permanent and since U.S. posture in the region was already small. From the perspective of several analysts, Russian decisionmakers would interpret that the United States was "giving up" on Russia's challenge to Crimea and the Sea of Azov. Participants particularly focused on how a reduced presence would hinder U.S. ISR capability in the Black Sea, which they thought would lead Russia to conclude that the United States no longer sought to maintain visibility of the region or to become more involved in the future. The participants also flagged allies' and partners' concerns and said they thought allies and partners would heavily lobby NATO and the U.S. government to reverse a decision for reduced posture in the region. One expert observed that reduced U.S. ground forces would leave fewer options for escalation, leaving only options for more-significant escalation.

The Nordic/Arctic Region

In developing the roundtable, we determined that there might be interesting regional dynamics, both within the Nordic region, including the North Sea and the Nordic countries, and in the Arctic, especially with regard to the Northern Sea Route, a new maritime shipping route. Given limited time, and because there might be interconnections between the two regions, both regions were included for discussion within the same breakout session, although participants argued that they were separate regions with different dynamics.

The baseline U.S. OAIs presented for the Nordic/Arctic region are shown in Table 3.3. Highlights include the Marine Corps presence in Norway; exercises in the North Sea; and increasing U.S. investment in defense of the Arctic, based largely in Alaska.

Table 3.3. Presentation of U.S. OAIs for Nordic/Arctic Region Breakout Group

North Base	Norway	Sweden and Finland	Arctic/Other
Force posture	• Marine Corps Rotational Force and Prepositioning	• None	• U.S. Air Force in Alaska: 1 sqn F-22, 1 sqn F-35 • Icebreaker investment, 2024

North Base	Norway	Sweden and Finland	Arctic/Other
Exercises and short-term deployments	• Trident Juncture (50,000) • Cold Response (15,000) • Joint Viking (1,000 marines) • Dynamic Mongoose ASW • BTF 2xB-1s	• Aurora (Sweden 21,000)	• Northern Viking (Iceland) air and maritime defense • 2nd Fleet reestablished • USS *Truman* above Arctic Circle 2018 • U.S. Coast Guard Polar Star to Arctic; U.S. SAG first time in the Barents Sea since 1980s
Security cooperation	• F-35s, F-16s	• Cooperation with Sweden on Gripen • NATO Enhanced Opportunity Partners	• NORAD (Canada)

NOTE: ASW = anti-submarine warfare; NORAD = North American Aerospace Defense Command; SAG = surface action group; sqn = squadron.

The first scenario on reduced exercises specified a 50-percent reduction in the size of Trident Juncture, the triennial NATO exercise in the region; a 50-percent reduction in the frequency of BTFs in the region; and fewer air patrols around the Arctic. Overall, experts noted that the changes in exercises would be noticed by Russia, but they said that Russia would probably not increase the frequency or intensity of its own activities in response. They noted that Russia indicated its discontent with Trident Juncture in 2018 by holding exercises in the same area. Experts explained that Russia sees exercises as a demonstration of capabilities, and larger events show greater capabilities than smaller events, so smaller NATO exercises might send a somewhat weaker signal of NATO capabilities. By contrast, experts saw the frequency of these exercises as less impactful, implying that NATO could hold fewer exercises without diminishing deterrence. Experts and the research team also noted that Russia would certainly notice the change in BTF missions, but even a smaller number of flights would still garner Russian attention because of the importance of the capability being demonstrated. Some Russian activity in the Arctic might be curtailed if U.S. bomber flights were reduced, while other activity might continue, especially because some Russian flights are driven by internal training requirements. Overall, the group did not voice confidence that any reduction in BTF missions or other missions would necessarily produce a more accommodative response from Russia.

The second scenario proposed a reduction in force posture, including reductions in the Marine Corps presence in Norway and aircraft in Alaska. Participants observed that Russia would likely become bolder in response to any Western reductions, but they also noted that the force levels that would be present after such a reduction would be similar to pre-2015 levels and that Russia had been deterred from aggression in the region when forces were at those levels. At the same time, participants observed that Russia is inclined to interpret any change in U.S. behavior as intended to undermine its position, even if the shift represented an accommodation to

Russian preferences. Participants worried that a reduction in U.S. activities in the region, particularly if coupled with reductions elsewhere in Europe, could signal a reduced U.S. commitment to NATO and invite Russia to be more aggressive. Experts further noted that they saw actions within a NATO framework as less provocative than those outside of NATO. Another complicating thread is that the Nordic countries seek to engage with Russia; participants noted that reductions in U.S. capabilities could make it easier to have regional cooperation discussions with Russia. Finally, the participants argued that Russia tends to be sensitive about maintaining control over the Northern Sea Route and might react strongly to preparations for freedom-of-navigation operations.

Whole-of-Europe Scenarios

After the breakout sessions, the entire group convened to briefly consider scenarios involving a change in U.S. OAIs across the entire European continent. The first such scenario was a cross-Europe cut in exercises, including enacting the reductions in the first scenario considered in each breakout group. Participants reiterated observations from the breakout groups that there would not be much of a change in the military balance but that Russia would likely take the reduction in exercises as a mild signal of reduced U.S. commitment and an opportunity for more-aggressive behavior. There would need to be a strong narrative to avoid Russia interpreting the reduction as a diminished U.S. commitment. One participant noted that a unilateral U.S reduction was effectively giving something away for nothing—instead, the United States might be able to negotiate for a bilateral reduction in activities.

The second whole-of-Europe scenario was a theaterwide curtailment in BTF missions. Experts generally saw the BTF missions as both unnecessary and provocative, reflecting some observations from the breakout sessions. Still, experts acknowledged that there were benefits from BTF missions, including interoperability, a demonstration of operational capability, and appreciation from allies and partners. One participant noted that BTFs could be reduced by half without any impact, while recognizing that a minimum level of bomber missions was desirable to demonstrate capability and maintain interoperability.[170]

The third scenario focused on security cooperation, particularly whether an increase in security cooperation could make up for reductions in U.S. exercises and force posture. The group said that the Baltic states probably could not absorb increased U.S. investments in military capabilities, while Western European countries might benefit more from additional U.S. assistance. Several experts described the presence of U.S. capabilities as particularly important for deterrence and saw European capabilities, on their own, as a weaker deterrent signal to Russia.

[170] The workshops discussed only the deterrent value of BTFs and not their contribution to competition, which may be another benefit of BTFs.

Conclusions and Additional Comments from the EUCOM Roundtable

Overall, participants did not suggest that any of the reduced OAIs would lead to major Russian aggression in the form of an overt, armed attack. They did anticipate somewhat more-aggressive Russian behavior, especially in the form of intensified measures short of war for some of the proposed reductions, especially in force posture, on the grounds that Russia would read these reductions as a signal of reduced U.S. commitment to the European theater. Given the low trust between NATO and Russia, there was little confidence that Russia would read U.S. reductions as a positive sign or as a justification for reducing its own OAIs. Rather, Russia would anticipate that a reduction in one region would likely be accompanied by an increase in another, or that U.S. reductions were a window of opportunity to gain influence. Hence, while the participants did not believe that even relatively severe reductions in U.S. OAIs would motivate major Russian aggression, they also feared the consequences of such reductions. They argued against the policy implication that the United States should reduce OAIs out of pure efficiency considerations. In their view, this would be bad policy because it would effectively confer a benefit to Russia without Russia having to offer anything in return. Rather, the experts argued that reductions in U.S. OAIs should be part of a negotiated process in which Russia also agreed to reduce the scope of its military activities.

One potential concern about the experts' views is that we may have unintentionally selected a biased group—i.e., experts who believed that Russia is more hawkish or dovish than it is. This is particularly a concern in running only one roundtable, especially because experts' views of Russia can vary substantially—from ascribing particularly malign intentions to Russia to seeing Russia as responding to aggressive Western behavior. We sought to balance the overall group and the breakout sessions with experts who, to the best of our knowledge, held a variety of views of Russia, but our selection may have been imperfect. One potential sign of balance in the experts' views is that the participants simultaneously expressed the view that (1) clear U.S. accommodation in regions of concern to Russia would yield only more-aggressive Russian actions and (2) reductions in U.S. OAIs would not lead to armed military aggression.

Perhaps the most tangible concern expressed by the workshop participants was that reduced U.S. OAIs would lead to a backlash among allies and partners. In many cases, experts argued that it would be a mistake to cut particular U.S. OAIs because of their reassurance value. In response, we pointed out to the participants that frontline allies and partners lack viable alternatives to the United States—it is hard to imagine the Baltic states, Poland, Romania, or Ukraine adopting pro-Russian policies. Experts in multiple breakout rooms argued in return that the United States should be concerned about allies expressing frustration within NATO and within Washington, D.C., since this disagreement would undermine Western unity.

Participants did have several concrete suggestions about which U.S. OAIs are the most important for deterrence. In the case of exercises, participants from multiple breakout sessions saw the size, scale, and complexity of exercises as more important than how frequently they

were held. Experts also tended to see reductions in posture as especially damaging for deterrence. Participants tended to argue that infrastructure was valuable for permitting the deployment of follow-on forces and that forward posture was harder to move and so demonstrated a hard-to-change commitment. This aligns with the deterrence logic, articulated in Chapter 2, that the infrastructure that allows for rapid reinforcement during security crises (e.g., aerial ports of debarkation) is important for deterrence.

Participants raised concerns about the sufficiency of current U.S. strategic messaging about deterrence, including the degree to which U.S. activities are communicated to Russia or to U.S. allies and partners. One anecdote from our own experience is telling. The participants, who had greater knowledge in some areas than we did, noted that our open-source assessment of current U.S. OAIs missed some activities. For example, for Poland and the Baltic states, we did not observe the six-month rotation of part of a combat aviation battalion into Latvia or the deployment of a battalion of the 2nd Cavalry Regiment to Lithuania. These activities are clearly not intended to be sensitive—*Stars and Stripes* reported on the latest arrival in Lithuania[171]—but a specific search was necessary to find this information rather than it being readily available.[172] Russia might already be aware of U.S. activities given its intelligence capabilities, but overt U.S. deterrence activities might have more impact if they are better publicized.

CENTCOM Roundtable

The CENTCOM roundtable had a similar approach as the EUCOM event, but it had a different arrangement of regional breakout groups and scenarios. The event was divided into two regional breakout groups: the GCC states, with a focus on Kuwait, Bahrain, Qatar, the UAE, and Saudi Arabia; and the Levant, which included Iraq, Jordan, Syria, Lebanon, and Israel. Unlike in the case of EUCOM, in which most U.S. force posture is in Western Europe, far from Russia, in CENTCOM, most U.S. posture is positioned in the Gulf, quite close to Iran. Furthermore, U.S. presence in Iraq, Syria, and Jordan is nominally focused on the counterterrorism mission, although it is at risk from Iranian proxies and may also play a role in combating and deterring Iranian activities in the larger region. In particular, Jordan has attractive basing infrastructure for flowing U.S. forces into the theater that is farther removed from Iran's most precise missile forces.

The political context of U.S. policy toward Iran is also changing, which added a wrinkle to the workshop. The Trump administration rejected the Joint Comprehensive Plan of Action (JCPOA) with Iran and pursued a "maximum pressure" policy of increased sanctions coupled with U.S. military forces in the region. For example, from 2017 to 2020, the United States exited

[171] "US Cavalry Unit Takes Up Position in Lithuania," *Stars and Stripes*, January 5, 2021.

[172] USAREUR's website does provide fact sheets that list the overall level of activities for Atlantic Resolve at an aggregate level (see U.S. Army Europe and Africa, undated). USAFE does not seem to provide an equivalent fact sheet, and deployments had to be individually identified.

the JCPOA, ratcheted up pressure on Iran through sanctions, and killed Soleimani with a drone strike in Iraq. By contrast, the Biden administration began negotiations with Iran to return to compliance with the JCPOA, with the outcome yet to be determined at the time of this writing.[173]

Because Iran's response to changes in U.S. OAIs is influenced by the direction of U.S. policy, we integrated different political assumptions about the JCPOA and U.S. policy into the scenarios considered in the roundtable. Consideration of different scenarios of reduced OAIs—with varying assumptions about U.S. policy—and observation of Iran's recent behavior enable exploration of how Iran could plausibly respond to varying levels of U.S. OAIs under different levels of U.S. pressure.

The box on the next page provides a summary of the scenarios. The first two scenarios involved reductions in force posture, exercises, and, as an excursion of the second scenario, a reduction in security cooperation. The roundtable used an assumption during these scenarios that successful negotiations with Iran led to a return to compliance with the JCPOA. We did not provide specifics of what a U.S.-Iranian agreement might be beyond noting that it might include sanctions relief and verification by the International Atomic Energy Agency that Iran had limited its enrichment of fissile material. We hypothesized that the reduction in OAIs could be justified, given reduced tensions with Iran. Under this assumption, participants considered Iranian reactions to hypothetical reductions in U.S. force posture, exercises and short-term deployments, or security cooperation.

For the third scenario, the workshop operated under an assumption that the Biden administration failed to achieve successful negotiation of a return to the JCPOA, and sanctions would remain in place. There is a common assumption that higher-pressure policies on Iran require higher levels of OAIs for deterrence, and that was the apparent decision during the Trump administration. Instead, under this third scenario, there would be a decision to reduce U.S. force posture and exercises in the CENTCOM AOR given increased demand for U.S. forces in the Indo-Pacific.

Prior to the consideration of these scenarios in the breakout sessions, and drawing on information in Chapter 2 and Appendix B, we characterized U.S. deterrence objectives for Iran and offered a baseline of U.S. OAIs in the GCC states and the Levant (shown in Figures 3.2 and 3.3). We also presented an assessment of Iranian OAIs in these regions. The U.S. OAIs presented in Chapter 2 reflect a revision of what was originally presented in the roundtables, in part based on feedback from participants. Specifically, the posture presented in Figures 3.2 and 3.3 should be seen as a ceiling—a top-level estimate—of what forces the United States could have in theater at a given time rather than the current actual force posture.

[173] "Can America and Iran Revive Their Nuclear Deal?" *The Economist*, July 10, 2021.

Summary of Scenarios for CENTCOM Roundtable

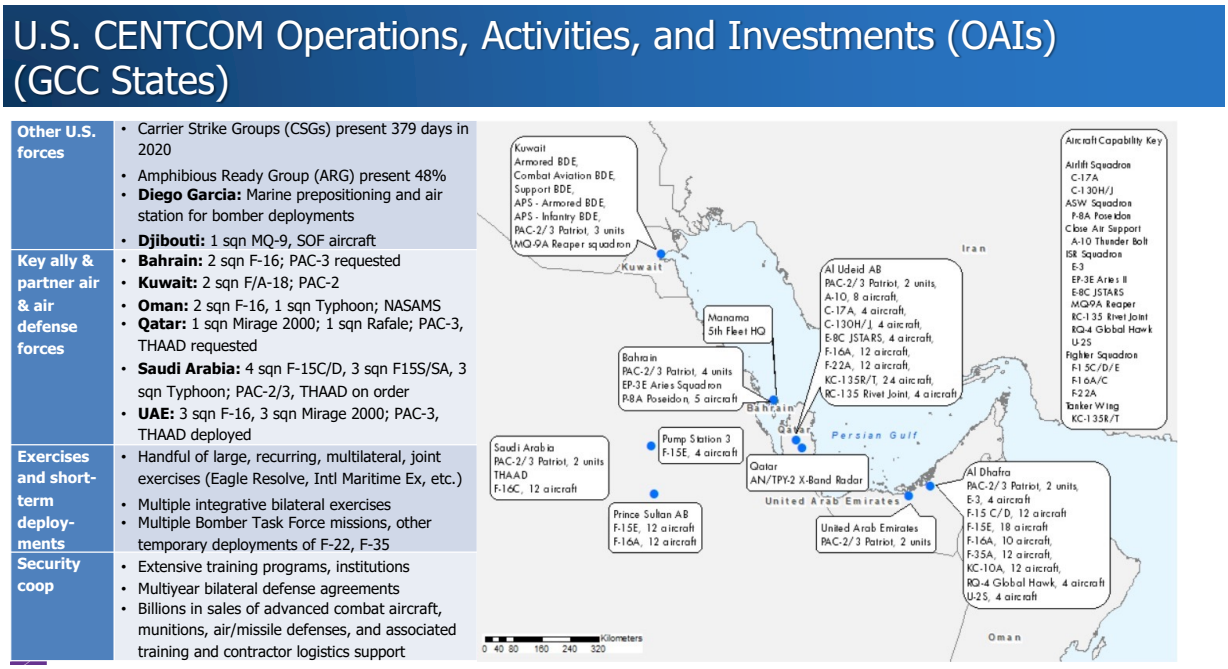
GCC

- Scenario 1: Force posture reductions, assuming agreement to return to compliance with the JCPOA
  - 50-percent cut of strike aircraft across Qatar, UAE, and Saudi Arabia
  - 50-percent reduction in ISR and tanker support
  - Removal of BCT and combat aviation brigade from Kuwait
  - Reduction in CSG and ARG presence by about 50 percent each
- Scenario 2: Reduction in exercises and security cooperation, assuming return to compliance with the JCPOA
  - Cut in size and frequency of multinational exercises
  - 50-percent cut in BTF missions
  - Cut in advanced weapon sales and contractor support to Saudi Arabia, end to participation in training centers in UAE and Saudi Arabia
- Scenario 3: Force posture and exercise cuts, assuming no return to the JCPOA
  - 50-percent cut of strike aircraft across Qatar, UAE, and Saudi Arabia
  - 50-percent reduction in ISR and tanker support
  - Removal of BCT and combat aviation brigade from Kuwait
  - Reduction in CSG and ARG presence by about 50 percent each
  - Cut in size and frequency of multinational exercises
  - 50-percent cut in BTF missions

Levant

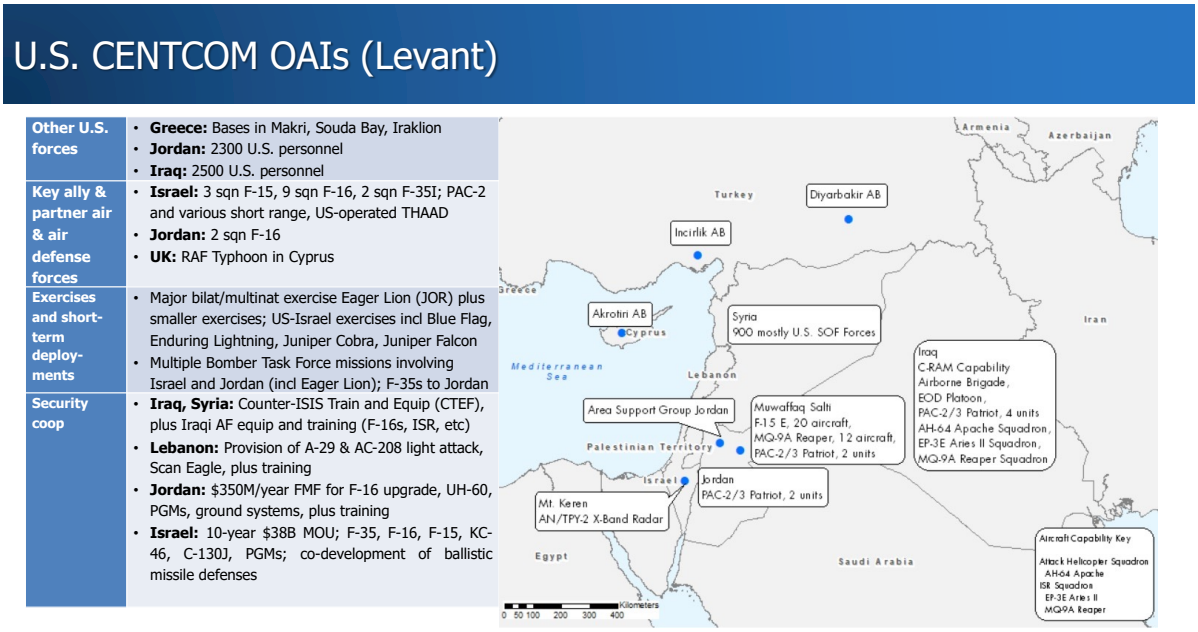
- Scenario 1: Force posture reductions, assuming agreement to return to compliance with the JCPOA
  - 50-percent reduction in force posture in Jordan, including strike aircraft
  - 50-percent reduction in presence in Iraq
  - 50-percent reduction in special operations forces in Syria
- Scenario 2: Reduced exercises and security cooperation, assuming return to compliance with the JCPOA
  - Elimination of bilateral version of Eager Lion; United States still participates in multilateral version every other year
  - 50-percent cut in BTF missions
  - 50-percent cut in Counter-ISIS Train and Equip Fund (CTEF) in Iraq
  - Reduced training and equipment for Lebanese armed forces
- Scenario 3: Force posture and exercise cuts, assuming no return to the JCPOA
  - 50-percent cut of strike aircraft across Qatar, UAE, and Saudi Arabia
  - 50-percent reduction in ISR and tanker support
  - Removal of BCT and combat aviation brigade from Kuwait
  - Reduction in CTG and ARG presence by about 50 percent each
  - Cut in size and frequency of multinational exercises
  - 50-percent cut in BTF missions

Figure 3.2. Baseline U.S. OAIs in the Gulf Cooperation Council States Presented to Workshop Participants



SOURCE: IISS, 2021a.
NOTE: AB = Air Base; APS= Army Prepositioned Stock; ASW =anti-submarine warfare; BDE = brigade; coop = cooperation; HQ = headquarters; NASAMS = Norwegian Advanced Surface-to-Air Missile System; SOF = special operations forces; sqn = squadron.

Figure 3.3. Baseline U.S. OAIs in the Levant States Presented to Workshop Participants



SOURCES: Peter Baker and Julie Hirschfeld Davis, "U.S. Finalizes Deal to Give Israel $38 Billion in Military Aid," *New York Times*, September 13, 2016; CENTCOM, 2021a; Defense Security Cooperation Agency, "Iraq," webpage, undated; Frantzman, 2020; IISS, 2021a, Ch. 4, 7; Office of the Secretary of Defense, *Justification for FY 2022: Counter-Islamic State of Iraq and Syria (ISIS) Train and Equip Fund (CTEF)*, Washington, D.C., May 2021; Sharp, 2020b, pp. 5–24; Shay, 2018; Stefanko, 2016; Joseph Trevithick, "Two Air Force F-35s Make Rapid Deployment to Jordan to Get Closer to Syria Action," *The Warzone*, April 20, 2020; U.S. Department of State, "U.S. Security Cooperation with Jordan," fact sheet, Bureau of Political-Military Affairs, May 21, 2021c; U.S. Department of State, "U.S. Security Cooperation with Lebanon," fact sheet, Bureau of Political-Military Affairs, May 21, 2021d; "U.S. and Jordan Begin Multinational Training Exercise Eager Lion 2019," 2019; Zanotti, 2021, p. 5.
NOTE: AB = Air Base; AF = Air Force; coop = cooperation; C-RAM = Counter-Rocket, Artillery, Mortar; EOD = Explosive Ordnance Disposal; incl = including; JOR = Jordan; NASAMS = Norwegian Advanced Surface-to-Air Missile System; PGM = precision guided munitions; SOF = special operations forces; sqn = squadron.

Findings from the Gulf Cooperation Council Breakout Session

The first scenario involved a reduction in force posture with the assumption that the United States would reenter the JCPOA. The reductions proposed were as follows:

- reducing strike aircraft by approximately 50 percent (from about ten squadrons to about five squadrons), including eliminating the U.S. Air Force presence at Prince Sultan Air Base except for short-term deployments
- reducing ISR and tanker aircraft by 50 percent
- removing the BCT and the combat aviation brigade from Kuwait
- reducing CSG and ARG presence to 50 percent for the CSG and 25 percent for the ARG. This compares with current figures of approximately 379 carrier days in 2020 (including some periods during which there was more than one carrier present) and about a 48-percent presence of an ARG.

Overall, participants were skeptical that there would be much of an increase in Iranian aggression given these reductions. They anticipated that Iran would be pleased with the

reductions and would see an implicit message of reduced U.S. commitment to allies and partners. But they saw few desirable options for large-scale aggression from Iran's perspective, especially given continued U.S. conventional strength, the negative impact of a conflict on Iran's economic welfare, and the potential for reintroducing sanctions. The participants noted that Iran would see support for proxy groups or related subconventional activities as more attractive than major military aggression.

Participants similarly expressed the view that Iran would be unlikely to change its behavior given reduced exercises and BTF missions, the second scenario. One participant noted that "chances are Iran doesn't know about a lot of things we're doing anyway," so it would be unlikely to react if U.S. activities were reduced, absent a major public announcement. Another participant noted that Iran had previously not reacted to changes in the intensity of U.S. exercises over the past 20 years. At the same time, the participant noted that Iran might react to unpredictable activities—for example, a BTF mission in Azerbaijan might "spook" Iran. Another participant noted that because Iran and the United States would be returning to compliance with the JCPOA under this scenario, Iran would be unlikely to find a BTF mission concerning. We also proposed cutting security cooperation with Saudi Arabia and the UAE to see whether that changed participants' views, but experts did not anticipate a reduction in security cooperation changing Iranian reactions in the short term, especially because security cooperation activities have a long lead time, and changes in local capabilities or U.S. presence associated with security cooperation would be slow to materialize.

The final scenario consisted of the United States making the cuts in posture and exercises specified in the box on p. 63 even though the JCPOA negotiations collapsed and sanctions remained in place. In this scenario, the participants anticipated that Iran would become more aggressive around the region through proxies or other subconventional activities but did not anticipate that Iran would block the Strait of Hormuz or take other overt escalatory actions. One participant noted that the United States had deterred Iran "fairly well" in terms of strikes against U.S. facilities in the past, so deterrence of conventional aggression was also likely in this scenario. Another participant argued that Iran would be inclined to take more risk, which could include threatening freedom of navigation. Participants focused on reduced ISR in the region as a particular risk point because it would diminish U.S. awareness of Iranian activities. It was unclear whether participants fully considered whether reduced ISR would be exploited by Iran, leading to a greater incidence of deterrence failures—or whether participants were characterizing ISR as important for U.S. situational awareness, and thus the U.S. ability to respond to security crises, but did not think that the amount of U.S. ISR in the theater would change Iran's calculus for aggression.

Overall, while most experts agreed that Iran would be concerned by the continued sanctions and that the reduced U.S. presence would be more favorable to Iran's interests, they emphasized that overt aggressive action posed many risks for Iran. For example, closing the Strait of Hormuz could provoke a negative reaction from China, a major purchaser of Iranian oil. Some of the

experts also noted that there could be challenges in rapidly moving U.S. forces back into the theater in the event of a crisis, as demonstrated by the blockage of the Suez Canal by the *Ever Given* container ship, and that partners might be less eager to welcome U.S. forces back into the region after a U.S. withdrawal.

Findings from the Levant Breakout Session

For the first scenario on force reductions in the context of a U.S. return to the JCPOA, we proposed the following changes:

- reducing force posture in Jordan by 50 percent, including the strike aircraft at Muwaffaq Salti Air Base
- reducing U.S. forces in Iraq by 50 percent
- reducing special operations forces in Syria by 50 percent.

Participants anticipated that Iran would take advantage of the reduced U.S. forces to "consolidate its gains" and expand its influence throughout the Levant rather than "picking fights" with the United States. The experts also noted that Iran's reactions to these force posture changes would be based on its assessment of the overall political environment, including whether the NATO mission in Iraq might replace a U.S. presence and whether the Abraham Accords, an August 2020 agreement between Israel and several Arab countries, had improved relations in the region. One expert observed that Iran sees the Levant as one large geographic space of "SyIraq" and would evaluate the changes across the subregion. Overall, the experts anticipated that Iran would take a "slow and steady" approach of continuing to build assets and influence throughout the region. Participants flagged reductions at al-Tanf, a base at the intersection of the Jordanian, Iraqi, and Syrian borders, as offering a particular opportunity for Iran. Putting the U.S. posture in the region in context, one participant emphasized that the U.S. presence in Iraq, Syria, and Jordan is officially intended to combat ISIS, although it also has "second- and third-order" effects against Iran.

For the second scenario, also in the context of a U.S. return to the JCPOA, we proposed reductions in exercises and short-term deployments. Because exercises and deployments in the region are already relatively limited, we proposed limiting the Eager Lion exercises to the multilateral version, which happens only every other year, and cutting 50 percent of the BTF missions. The participants doubted whether these changes would have any meaningful impact on Iran. They noted that Iran had been deterred despite larger U.S. reductions in the past, including in 2008 and 2011, when two CSGs left the theater, and that BTF missions are unlikely to have any impact on Iran's calculations about unconventional escalation.

We also proposed a potential cut in security cooperation to accompany the reduction in exercises and BTFs. This cut consisted of a 50-percent reduction in the CTEF in Iraq and reductions in assistance to the Lebanese armed forces. One participant observed that Iran would likely interpret the cut in the CTEF as a political signal and not see any significant military

outcomes, since the effects of the reduction in security assistance would not be immediately felt in the local balance of power. Furthermore, the CTEF mission is focused on countering ISIS, so it has only a secondary impact on deterring Iranian activity. Another expert noted that there is a record of strong U.S. support for Lebanon's armed forces, so reductions in U.S. support could be a signal that something has radically changed in the country. A discontinuity in U.S. policy could thereby risk renewed conflict between Israel and Hizballah. Overall, the expert participants were skeptical that reductions in security cooperation would have much impact on Iran's behavior in the short to medium term.

The third scenario, as in the GCC group, assumed that there was not progress toward returning to the JCPOA and that U.S. sanctions remained in place but that the United States proceeded with the reductions in force posture, exercises, and short-term deployments described above (but not the reductions in security cooperation). The participants agreed that Iranian behavior might become more aggressive under these circumstances, but they were skeptical that Iran would turn to conventional escalation given the costs and risks. One participant explained that even a reduced U.S. posture did not give Iran a feasible military option: "The Iranians aren't suicidal; they know they can't win a conventional war against the U.S." Iran would instead likely pursue its nuclear program and its goal of getting sanctions lifted. Iranian conventional escalation in this scenario would risk coalescing international opinion against Iran, reinforcing the sanctions. Finally, the participants expected that Iran would fear that provocative action would lead the United States to return to the region militarily.

Conclusions and Additional Comments from the CENTCOM Roundtable

Experts did not anticipate Iranian conventional escalation under any of the proposed scenarios—even with significant reductions in U.S. capabilities and continued pressure on Iran. When pressed, experts said they thought that the only event that might provoke a major Iranian conventional escalation was a U.S. attack on Iranian nuclear facilities.

Instead of concern about Iranian reactions to reductions in U.S. OAIs in the region, much of the experts' concern stemmed from possible reactions from allies and partners. Experts feared that Israel in particular might take undesired military action if the United States were to reduce its presence and if the experts were concerned that Iran might still seek to develop a nuclear weapon. Even with a reduced U.S. presence, Israel might believe that it had U.S. support to strike Iranian nuclear infrastructure. Other U.S. partners in the region, such as the Gulf states, might shift their allegiances to Russia and China and be less keen to welcome U.S. forces.

The participants also tended to frame the key U.S. deterrence question in the Middle East as how to deter Iranian unconventional activities, in part because of a belief that changes in U.S. conventional forces and activities were unlikely to make a meaningful difference. Participants consistently indicated that Iran would intensify its unconventional activities in the region under most of the provided scenarios. One rationale for this observation was that the United States has not been able to deter such activities with current force levels or with past force levels that were

higher than current levels. The participants therefore anticipated that the United States would be unlikely to deter Iranian activities with fewer forces, arguing that Iran would have continued interests in the region that would motivate future engagements with proxies and partners.

Finally, the group discussed options for finding efficiencies, especially because, overall, the roundtable anticipated limited Iranian reaction to reductions in U.S. OAIs. The participants did not necessarily endorse the proposed reductions, because of their observations about reactions by allies and partners and concerns about intensified Iranian measures short of war. They did propose alternative concepts for more-efficient employment of forces: additional temporary deployments in lieu of permanent posture, and the placement of capabilities in geographic areas where they could contribute to two theaters, such as in the Eastern Mediterranean.

Roundtable Conclusions

The roundtables provided insight on our question of which U.S. OAIs are the most effective, generally validating the argument in the deterrence literature that forward deployed forces have a greater impact on deterrence than exercises and short-term deployments or security cooperation. Experts generally said that reductions in forward posture would lead to greater adversary reactions than reduced exercises, short-term deployments, or security cooperation. The participants also noted that some capabilities appeared to be particularly important for deterrence, including basing infrastructure to facilitate U.S. forces returning to a region in the event of a crisis and ISR capabilities to demonstrate that the United States maintains situational awareness of adversary aggression.

However, the participants questioned any simple, direct relationship between current U.S. OAIs and deterrence of Russia or Iran. Participants doubted that even significant reductions (of 50 percent or more) in forward presence, exercises, and security cooperation would lead adversaries to take the aggressions that the United States seeks to deter, with the exception of the adversaries' ongoing measures short of war. One reason for this skepticism is that participants doubted that adversaries had *interests* in taking the more provocative aggressions spelled out in Chapter 2 and Appendixes A and B. For example, given Iran's interest in getting sanctions relaxed, actions to block the Strait of Hormuz might be counterproductive. Similarly, analysts doubted that Russia would have an interest in attacking the Baltic states, although it might have reason to do so in the future.

Participants also doubted that the proposed reductions would change the regional balance of military power in either theater in a way that would permit a dramatically different adversary response. In the case of Russia, this meant that Russia would continue to have a significant local conventional advantage on its borders. In the case of Iran, given the speed with which U.S. forces could be moved into the theater, significant reductions in OAIs would not change Iran's conventional disadvantage. Experts did anticipate some increased adversary response to reduced

OAIs but suggested that these reactions were limited to intensifying ongoing hybrid or subconventional activities, such as working with proxies or conducting information operations.

Instead of a change in the military balance, experts also tended to look for a political signal implied by the reductions in U.S. OAIs, despite our best efforts to focus the roundtables on the military implications of the scenarios. Experts anticipated that Iranian and Russian decisionmaking about how to respond would be largely based on how these countries interpreted the political message that was implicit in the change in U.S. OAIs. Part of the reason for this judgment may have been what the participants perceived was the small impact that the proposed changes in OAIs would have on the overall conventional balance. Another reason might be the inherent limitations of drawing primarily on civilian regional experts; many of them are more professionally focused on political issues than on military issues. There were uniformed participants in both sessions, but greater military participation could have broadened the perspectives offered.

The roundtables offered conflicting views of some current U.S. Air Force policies. One participant in the EUCOM roundtable referenced the utility of operational surprise for making limited deterrence activities more effective, and this point was echoed in the CENTCOM event. Increased temporary deployments through DFE, from this perspective, could mitigate reductions in other OAIs. An alternative perspective is that Russia might find these employments to be unpredictable and possibly linked to escalatory behavior by the United States, which could increase the risk of Russian aggression. In the CENTCOM event, the experts seemed less concerned that Iran might respond to unpredicted U.S. activities, perhaps in part because Iran has less awareness of current U.S. activities.

Perhaps the perceived least effective OAIs were the BTF missions, especially those against Russia. Some saw these missions in the EUCOM theater as a direct provocation and argued that reducing them would mean that Russia would also reduce its own aggressive behavior. When pressed to identify positives from the BTF missions, the participants acknowledged that the missions are popular among allies and demonstrate the ability of the United States to execute complex, coordinated operations from long distances. In CENTCOM, these missions were seen more as a simple, temporary increase in local capabilities that was unlikely to meaningfully sway Iran.

In both roundtables, there was strong concern about negative reactions from U.S. allies and partners to U.S. reductions. Participants noted that some of the OAIs were particularly desirable more for their impact on reassuring allies and partners than for their impact on deterring adversary aggression. In assessing the implication of these observations, it is worth asking what allies and partners might do given their increased concerns. Arguably, U.S. policy should be designed around serving U.S. interests rather than those of U.S. allies and partners while taking into account the policy priority of building strong alliances and partnerships. In any event, if there is a decision to reduce U.S. OAIs, it will be important to take measures to mitigate allied

and partner reactions to avoid such reactions as increased lobbying by European frontline states and more-aggressive actions by Israel.

Overall, experts' reactions at the roundtables point to what we identify as an *extended deterrence trap*—that U.S. forward deployments and activities for deterrence are difficult to reduce, for fear of adversary and allied reactions; hence, the forces that are committed are somewhat "trapped." This is not to say that there is no way out of this trap—clearly, the United States has reduced forces from theaters before, including from Europe following the Cold War. In the concluding chapter, we will return to the extended deterrence trap and discuss some potential ways to ease concerns.

4. Quantitative Assessment

This chapter presents a quantitative assessment of the effects of various U.S. deterrence inputs on Russian, Iranian, and Iranian proxy activities in the EUCOM and CENTCOM theaters. Our purpose is to understand whether changes in U.S. posture and short-term deployments have the intended deterrent impact on adversary actions. Our effort is different from existing literature in two ways. First, we leverage data on U.S. military inputs that we believe are more precise—U.S. Navy presence reported at weekly or biweekly intervals and comprehensive bomber sortie data—than the data used in the main empirical studies of deterrence that we reviewed in Chapter 1. Second, we narrowly focus on recent history (2014–2020) and dig deep into specific adversary actions (e.g., Russian actions in the Black Sea and Iranian actions in the Persian Gulf and the Gulf of Oman). This second choice comes with a clear advantage and a clear disadvantage. The advantage is that it avoids the concern that analysis derived from different contexts (e.g., location, adversary, time period) will limit the portability of findings to specific areas of interest. The drawback is that our analysis does not encompass the broader period or global scope of other work,[174] limiting our sample of cases to draw from and limiting its applicability to specific adversary actions in EUCOM and CENTCOM.

To measure changes in U.S. deterrence inputs, we collected data on U.S. Air Force and Navy forces operating in both AORs. To measure adversary reactions to these deterrence inputs, we gathered data on specific show-of-force and use-of force activities by Russia, Iran, and the Houthi rebels in Yemen (an Iranian proxy force) from open-source reporting and social media. This comparative exercise allowed us to weigh to what degree these OAIs generated deterrence against specific Russian and Iranian behaviors. The precise relationship between U.S. OAIs and adversarial behavior is difficult to assess. We therefore limit ourselves to trying to establish correlations between U.S. inputs and adversary activities as a first and crucial step in understanding any potential patterns or lack thereof.

Table 4.1 presents a rough schematic of the U.S. OAIs in each theater matched to the adversary actions against which we are assessing them. Because we cannot probe every possible type of provocative activity conducted by Russian and Iranian forces, we limited ourselves to a few key areas and activities. Within EUCOM, we specifically look at Russian use-of-force and show-of-force actions, which we define below. We examine a possible relationship between BTFs flown by the U.S. Air Force in EUCOM and levels of Russian aggression across the theater. In addition to this theaterwide look at Russian actions, we narrow our geographic focus, examining Russian use-of-force and show-of-force actions in the Black Sea against the presence of U.S. Navy Aegis Combat System–equipped ships in this body of water.

[174] Blechman and Kaplan, 1978; Frederick et al., 2020; Sisson, Siebens, and Blechman, 2020.

In the CENTCOM AOR, we look at two adversary actions. The first is maritime incidents involving Iranian ships directed against the U.S. Navy and the vessels of partner nations in the Persian Gulf and the Gulf of Oman. The second is the Houthis' use of missiles against countries outside Yemen. The Houthis are currently part of a civil war in Yemen. We compare the Iranian actions with U.S. Navy and Marine Corps presence in the Persian Gulf, an area of strategic priority for both Iran and the United States and the site of most incidents between the two countries' navies. We compare the Houthi actions with U.S. Navy and Marine Corps presence in the Red Sea and the Gulf of Aden, the two bodies of water adjacent to Houthi-controlled territory from where the Houthis' missile strikes are launched.

Table 4.1. Quantitative Cases in EUCOM and CENTCOM

AOR	Russian or Iranian Action	U.S. Deterrence Input
EUCOM	• Russian use of force or show of force • Russian Black Sea incidents	• EUCOM BTFs (CONUS and Europe) • Aegis-equipped ships in Black Sea
CENTCOM	• Iranian Persian Gulf maritime incidents • Houthi (proxy) missile attacks	• CSG and ARG presence in Persian Gulf • CSG and ARG presence in Red Sea or Gulf of Aden

The choice of these actions was driven by several considerations. First, we wanted to leverage data that we had access to that other researchers might not have had, including more-precise data on the number of BTF sorties fielded in Europe, U.S. Navy presence missions in both the Black Sea and waters in the CENTCOM AOR, and adversary incident data sets that we compiled for this effort. Second, we needed enough variation in the outcomes (adversary actions) to conduct correlation analysis with U.S. deterrence inputs. This ruled out the land domain, in which there are far fewer incidents; as we discuss later, most adversary activity is focused on the air and maritime domains.

There were some methodological considerations and challenges associated with our effort. As noted, the potential deterrence relationship between adversary actions and U.S. military activities is difficult to parse. There are several reasons for this. First, we relied exclusively on open-source reporting of incidents. Because only those incidents that are reported in news and social media are included in our data, our incident database is more likely to reflect the most-severe or most-egregious behaviors. Thus, the adversary incidents that we describe are likely an undercount of the actual number of incidents and unsafe activities that we are attempting to catalog. In this regard, our data should be seen as a lower bound of activity.

Second, these observations do not occur in a vacuum. That is, there is a geopolitical context within which the incidents transpired. This creates a potential selection effects issue given that the United States might be surging military capabilities to the theater when an escalation is already underway. Because the United States would presumably take costly measures, such as

steaming a carrier to the Persian Gulf, when a crisis is significant, this type of activity could increase the incidence of this type of deployment coinciding with an adversary action that could look like a deterrence failure, even if a greater adversary aggression was avoided. Third, the question of causality looms large. Which way, if any, might the causal arrow point for the variables that we examine? Do more U.S. military assets and operations in a theater *provoke* or *discourage* certain behaviors from Russia and Iran (or Iran's proxy forces)? Under what conditions might we be able to assess such a relationship? These difficult issues notwithstanding, establishing correlations is an essential first step toward understanding the potential relationship between adversary actions and U.S. military inputs.[175] This is precisely what we present in this chapter.

EUCOM

For the EUCOM AOR, we present two general assessments: The first considers what we describe as Russian uses of military force or shows of military force anywhere in the theater between January 2014 and November 2020, and the second looks specifically at Russian uses of military force or shows of military force in and around the Black Sea during the same period. Russian uses or shows of military force involve Russian military behavior against U.S. or partner forces that is generally understood to be contravening international law or norms of accepted military operational behavior. Specifically, show-of-force incidents entail provocative military behavior that does not involve loss of life or damage to military or other assets. For example, in 2016, a Russian fighter jet intercepted a U.S. Navy P8 maritime patrol aircraft in international airspace over the Black Sea. The Russian jet was armed with missiles and came within roughly 6 m of the Navy plane but did not harm the U.S. aircraft or its personnel. Use-of-force actions are those against the United States or its allies that result in loss of life or damage to military assets, such as ships or aircraft. An example of such behavior is the Russian annexation of the Ukrainian territory of Crimea in March 2014.[176] Uses of force are obviously much rarer then shows of force by the Russian military; there are only five instances of Russian use of force in our data,[177] which encompass 85 Russian actions covering the nearly seven-year span.

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[175] This also keeps the analytical effort parsimonious and straightforward. Moreover, we are able to probe correlations without having to gather information on possible control variables (which more-sophisticated econometric techniques would necessitate).

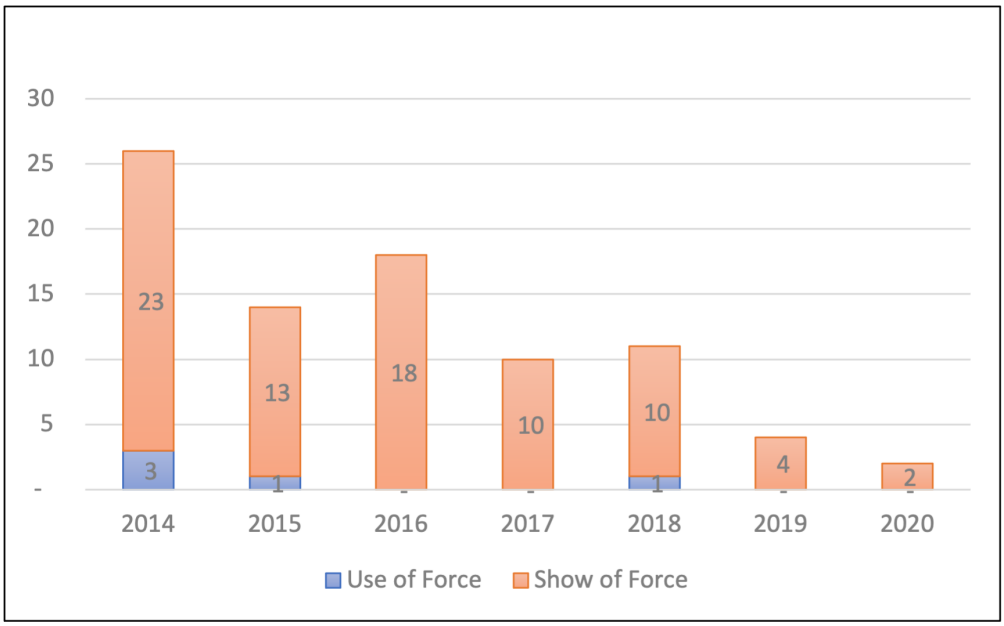
[176] We collected these observations using the following open-source databases: ASP Russia Military Incident Tracker, Global Zero Military Incidents Database, University of Pittsburgh/European Leadership Network, and IHS Janes. We supplemented these sources through media searches in LexisNexis and ProQuest, yielding articles from the following publications: Agence France Press, The Aviationist, the BBC, *The Drive*, Fox, *The Independent*, Interfax, the *New York Times*, and UNA News. The U.S. Navy provided additional information.

[177] The five instances of the use of force in EUCOM are the following: (1) the Russian invasion of Crimea in February 2014, (2) the downing of a U.S. surveillance drone over Crimea in March 2014, (3) the Russian/proxy missile downing of a commercial airliner over eastern Ukraine in July 2014, (4) the renewed violence in violation of

The EUCOM Theater

Figure 4.1 shows the Russian incidents throughout the theater from 2014 to 2020, broken down into shows and uses of force. As is evident in the figure, 2014 had the most incidents, while 2020 had the fewest. Figure 4.2 depicts the same observations but distinguishes between maritime and air incidents. In all but one year (2020), air incidents far exceeded maritime aggressions. Of the 85 total incidents, 81 occurred in these two domains (i.e., air and maritime); only four Russian actions took place by land.

Figure 4.1. Russian Uses and Shows of Force in EUCOM, 2014–2020



SOURCES: Authors' observations compiled from an analysis of reports and other data retrieved in May and June 2021 from American Security Project, "Russian Military Incident Tracker," last updated May 6, 2022; Global Zero, "Military Incidents Project," database, undated; Janes, "Violent Risk Intelligence Bulletin — 08 March 2019," Jane's Country Risk Daily Report, March 8, 2019; and Denitsa Raynova and Lukasz Kulesa, *Russia-West Incidents in the Air and at Sea 2016–2017: Out of the Danger Zone?* London, United Kingdom: European Leadership Network, October 2018. These data were supplemented through media searches in LexisNexis and ProQuest, yielding articles from the following media sources: Agence France Presse, The Aviationist, the BBC, *The Drive*, Fox, *The Independent*, Interfax, the *New York Times*, and UNA News. The U.S. Navy provided additional information.

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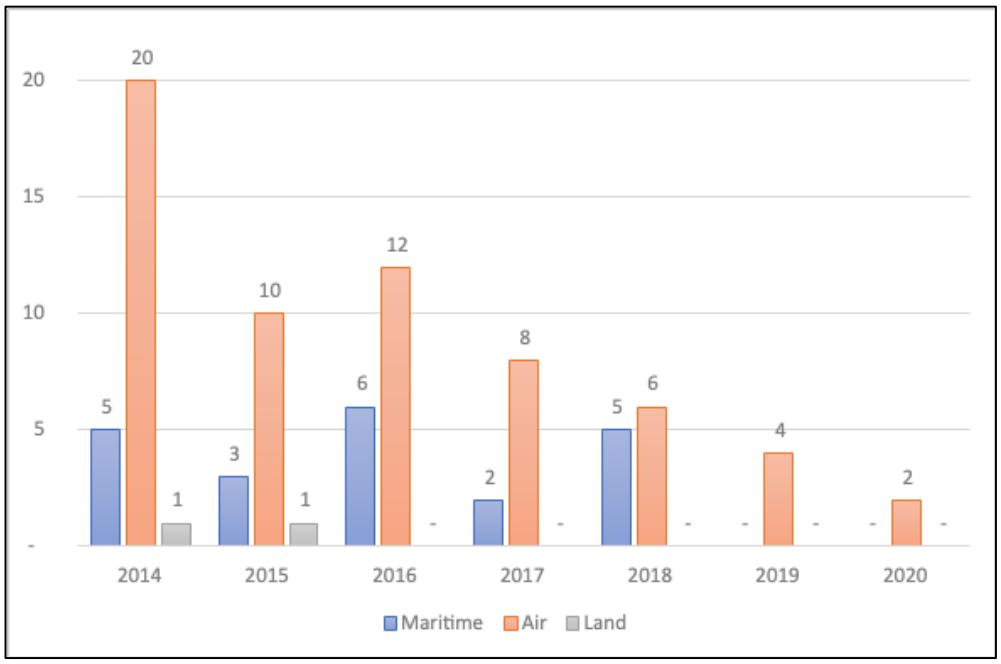
the September 2014 truce in eastern Ukraine in January 2015, and (5) the ramming of Ukrainian vessels in the Kerch Strait in November 2018.

Figure 4.2. Russian Uses and Shows of Force in EUCOM by Domain, 2014–2020



SOURCES: Authors' observations compiled from an analysis of reports and other data retrieved in May and June 2021 from American Security Project, 2022; Global Zero, undated; Janes, 2019; and Raynova and Kulesa, 2018. These data were supplemented through media searches in LexisNexis and ProQuest, yielding articles from the following media sources: Agence France Presse, The Aviationist, the BBC, *The Drive*, Fox, *The Independent*, Interfax, the *New York Times*, and UNA News. The U.S. Navy provided additional information.

We examined these Russian actions alongside U.S. Air Force sorties that were part of BTF missions flown in Europe or from CONUS to Europe during the same period (2014–2020). The sortie data that we collected for this effort are from the LIMS-EV data set, an unclassified logistics database maintained by the U.S. Air Force for the purpose of centralizing logistics data.[178] Each observation is an individual line in the LIMS-EV database, corresponding to one sortie.[179] These BTF sorties were conducted by B-1, B-2, and B-52 aircraft and correspond to bombers that take off from CONUS and then transit EUCOM before returning to CONUS, as well as bombers that temporarily deploy to EUCOM and conduct multiple sorties while in the theater. Because the LIMS-EV data set includes more sorties than are relevant for our research purposes, we narrowed our selection of sorties by including only three TUCs: HHQ DIRECTED

[178] The data are accessible via a Common Access Card–enabled Air Force portal at my.af.mil. For the purpose of our analysis, we pulled database-formatted information on individual sorties. This enabled us to track takeoff and landing locations and some other information associated with a given sortie. We tied these data to open-source data on airport International Civil Aviation Organizations, GPS coordinates, and other relevant geographic markers.

[179] Sorties that were related to BTF missions are not explicitly called out in the LIMS-EV data. Therefore, we included all sorties by bombers (B-1B, B-2A, and B-52H) that landed at bases in EUCOM, as well as all flights from bases in U.S. Northern Command that (1) were longer than 15 hours and (2) were tagged with one of three Type Utilization Codes (TUCs): O1ZZ (HHQ DIRECTED OPS MISSION), A7HZ (CLASSIFIED/SPECIAL HHQ MISSION), and A7GZ (CLASSIFIED/SPECIAL DEPLOY/REDEPLOY).

OPS MISSIONS, CLASSIFIED/SPECIAL HHQ MISSION, and CLASSIFIED/SPECIAL DEPLOY/REDEPLOY.[180] We selected these codes after we identified several publicized BTF missions in the press that were explicitly messaged as aimed at deterring Russia. We were then able to locate or cross-reference these sorties within the LIMS-EV database. Of the publicized BTF missions that we identified, each was logged in LIMS-EV as corresponding to one of the TUCs noted above. We believe that they are, therefore, the most relevant for our central research question of deterrence. While including only sorties categorized under one of these three TUCs for the CONUS-to-CONUS flights obviously undercounts the number of U.S. Air Force bomber sorties to the theater, it limits our assessment to include flights with a reasonable expectation of affecting Russian behavior.[181]

Figure 4.3 combines the data on Russian incidents with the LIMS-EV BTF sortie data. The dashed blue line displays the maximum number of sorties in a week.[182] The gray areas correspond to the number of bombers present in the theater. The bomber sorties clearly cluster around the gray areas indicating bomber presence. The red lines indicate the frequency of Russian actions covering the seven-year period.[183] The primary takeaway is evident from the visual: There is no strong relationship between U.S. BTF sorties and Russian actions. The correlation coefficient between the two is –0.02, and it is not estimated to be statistically significant. Effectively, there is no correlation between Russian uses and shows of force and U.S. BTFs into EUCOM.

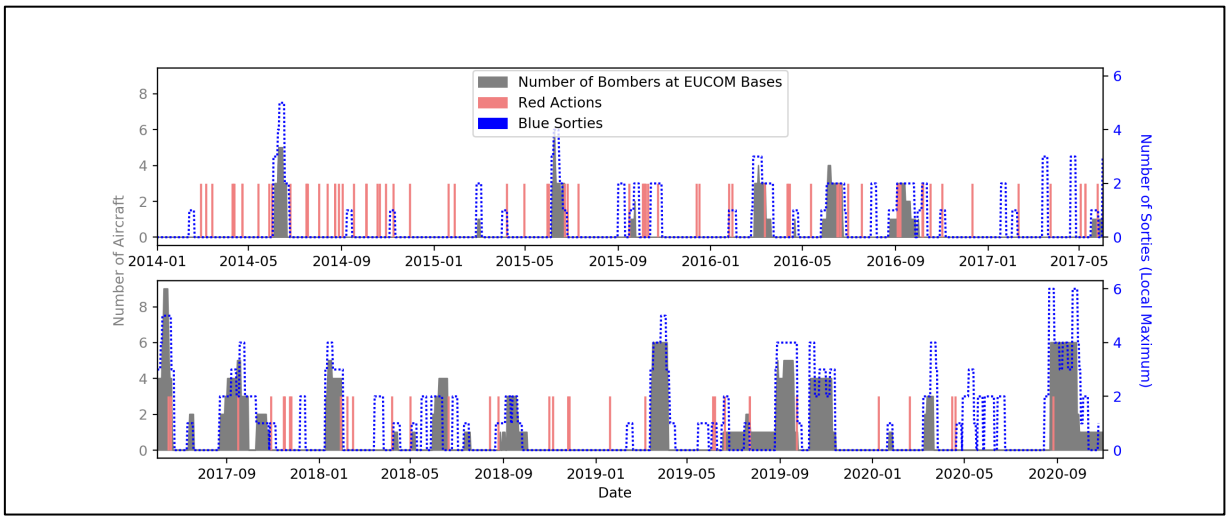
[180] Examples of CONUS-to-CONUS bomber sorties with flight times of more than 15 hours that would not be included in our count are those logged under the following TUCs: OPERATIONS AND CONTINUATION TRAINING, TEST MISSIONS, and OFS DEPLOY/REDEPLOY.

[181] For example, we assume that training flights are less likely to have a deterrent impact than directed operational missions.

[182] We display the sortie data in this manner because they are reported daily, which is not conducive to producing a figure spanning seven years. Using the maximum number of sorties in a week slightly amplifies the number. Using the mean or median number of sorties offers similar results.

[183] Note that red lines are indicative of any Russian activity within the period.

Figure 4.3. BTFs Versus Russian Uses and Shows of Force in EUCOM, 2014–2020



SOURCES: Sortie and bomber numbers come from LIMS-EV database (One Cow Standing, "U.S. Air Force," webpage, undated). Russian uses and shows of force are from authors' observations compiled from an analysis of reports and other data retrieved in May and June 2021 from American Security Project, 2022; Global Zero, undated; Janes, 2019; and Raynova and Kulesa, 2018. These data were supplemented through media searches in LexisNexis and ProQuest, yielding articles from the following media sources: Agence France Presse, The Aviationist, the BBC, *The Drive*, Fox, *The Independent*, Interfax, the *New York Times*, and UNA News. The U.S. Navy provided additional information.

Our correlation analysis cannot explain why U.S. BTFs in EUCOM were not associated with a decrease in Russian uses and shows of force. One potential explanation is that this correlation analysis does not look at the association between BTFs and Russian actions in a geographically constrained space, rather, it looks at the aggregate relationship across EUCOM. In other words, if we had data that included the flight paths of the bomber sorties and compared BTF missions over a more specific geographic area (e.g., in the vicinity of the Baltics) with adversary actions in the same area, we might see a stronger relationship between BTFs and adversary actions.

However, it should not be surprising that there might be a weak relationship between BTFs and observable deterrence outcomes given the broad nature and purpose of BTFs. BTF sorties remain an important component of flexible deterrent operations. They serve to remind adversaries—including Russia—of U.S. power projection abroad. They also enhance the limited force presence of the United States overseas. It is likely that, although they are not correlated with the Russian behavior examined here, they do impact Russia's long-term strategic calculus and planning, and thus contribute to general deterrence. They help frame the set of options available to Moscow and, in this manner, might be an important factor in reducing risks. It might very well be, therefore, that these sorties influence Russian behavior in ways that we do not observe.

The Black Sea

If we narrow our scope to a more confined geographic region, we uncover a stronger relationship between U.S. deterrent inputs and Russian actions. In this subsection, we limit our examination of Russian activities to those conducted in and around the Black Sea. We compare these Russian actions to the presence of Aegis-enabled U.S. Navy ships in the Black Sea. We sourced U.S. naval presence from the *Bosphorus Naval News* blog, which includes entry and exit dates for ships in the Black Sea.[184] Because all ships entering the Black Sea must transit the narrow Bosphorus Strait, tracking U.S. Navy warships is relatively simple. We singled out the presence of U.S. guided-missile frigates, guided-missile cruisers, and guided-missile destroyers in the Black Sea. Although other types of U.S. Navy warships, primarily from the 6th Fleet, also transit these waters, we elected to only focus on the possible deterrent effect of ships equipped with the Aegis Combat System, which is associated with ships that are more highly capable.

Figure 4.4 combines the Russian and U.S. presence data for the Black Sea, again covering 2014 to 2020. The data are broken into two-week segments. The left axis reports the number of Russian incidents in a given two-week period. The right axis reports the rate of U.S. Navy presence from 0 to 1 in each two-week segment; 0 corresponds to no presence, and 1 reflects the presence of U.S. Navy ships in the Black Sea for the entire two-week period.[185] As one might expect, the correlation between Russian actions and U.S. Navy presence in the Black Sea is positive and statistically significant. The precise correlation coefficient is 0.23. This relationship reflects the growing tensions between Russia and NATO since the annexation of Crimea in 2014. It is not uncommon for Russian fighter aircraft, often displaying anti-ship missiles, and patrol vessels to operate uncomfortably close to U.S. and allied ships. Some of these unsafe encounters receive attention in the press and in social media, such as the USS *Donald Cook* incident in 2016, when a Russian Su-24 passed within 30 ft of a U.S. *Arleigh Burke*–class destroyer. The U.S. Navy's 6th Fleet shared a video of the encounter on Twitter. Clearly, more U.S. ships present more opportunities for incidents with the Russian military. It is worth highlighting that although the data reflect a pause in Russian activity against U.S. ships in the Black Sea beginning in 2019, these unsafe encounters resumed in 2021.[186]

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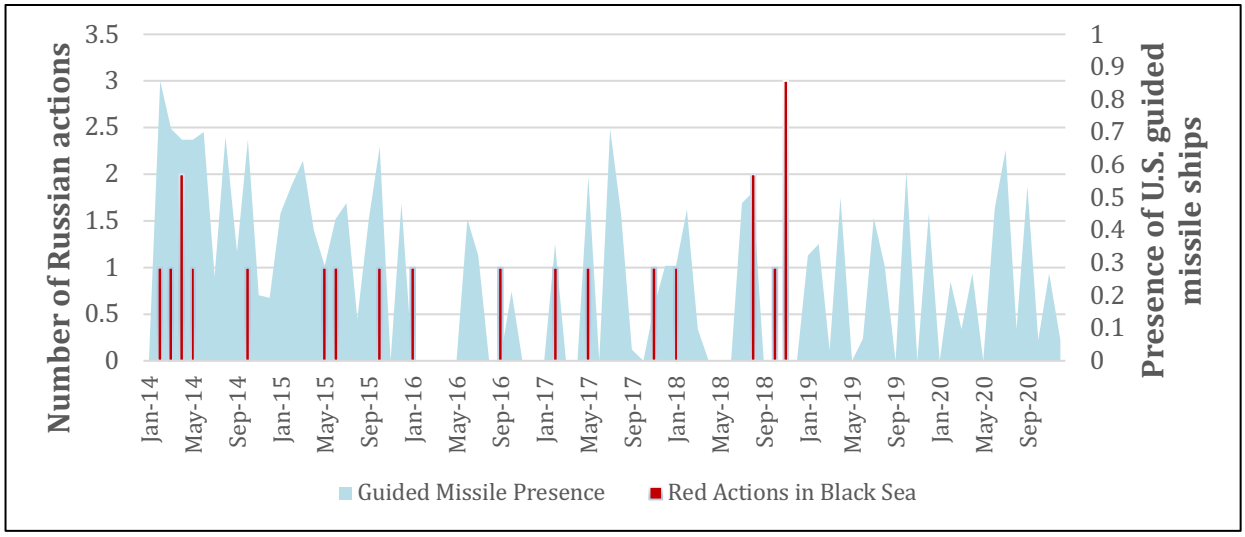
[184] Based in Turkey, *Bosphorus Naval News* aggregates amateur reports of military ships entering and exiting the Black Sea through the Bosphorus Strait. Data on U.S. military ships entering and exiting the Black Sea begin in 2014 (*Bosphorus Naval News*, blog, homepage, undated).

[185] In the few instances in which the United States deployed multiple Aegis-equipped ships in the Black Sea during a two-week interval, we code that presence as 1.

[186] These more recent incidents are not reflected in our data.

Figure 4.4. Russian Incidents and U.S. Ship Presence in the Black Sea, 2014–2020



SOURCES: All ship data are from *Bosphorus Naval News* (see *Bosphorus Naval News*, undated); Russian uses and shows of force are from authors' observations compiled from an analysis of reports and other data retrieved in May and June 2021 from American Security Project, 2022; Global Zero, undated; Janes, 2019; and Raynova and Kulesa, 2018. These data were supplemented through media searches in LexisNexis and ProQuest, yielding articles from the following media sources: Agence France Presse, The Aviationist, the BBC, *The Drive*, Fox, *The Independent*, Interfax, the *New York Times*, and UNA News. The U.S. Navy provided additional information.

Although our analysis demonstrates that U.S. Navy presence in the Black Sea is a target of Russian shows of force, readers should not jump to the conclusion that this presence is counterproductive for broader U.S. deterrence objectives. On the one hand, deploying U.S. ships into the Black Sea does correspond to minor Russian actions that could pose escalation risk. On the other hand, U.S. naval presence may have an unseen deterrent effect that would not be captured through our statistical analysis. For example, if Moscow considers this naval presence a signal of U.S. resolve to defend Black Sea partners, such as Georgia, naval presence may have deterred further Russian actions that would not be apparent in our correlation analysis.

CENTCOM

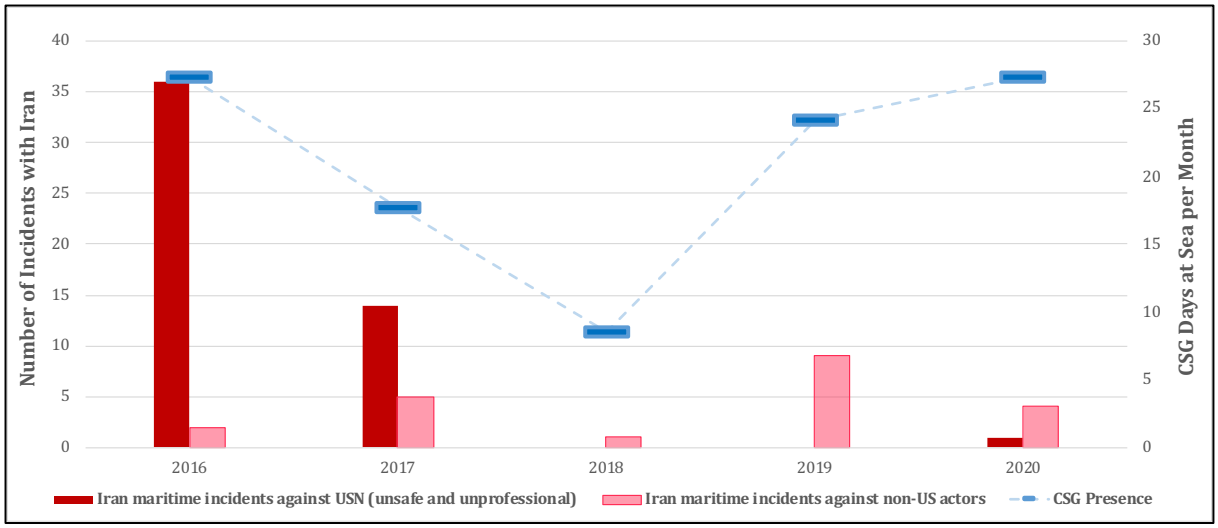
Iran

In this subsection, we examine Iranian behavior and U.S. Navy presence in the CENTCOM AOR. We present data on Iranian maritime incidents involving U.S. and partner-nation ships in the Persian Gulf and the Gulf of Oman. This includes the harassment of ships, the seizure of oil tankers, or the mining of commercial vessels by Iranian naval and Revolutionary Guard naval forces. The Iranian Navy conducts operations in the Persian Gulf and in the Gulf of Oman on the eastern side of the Strait of Hormuz, through which 20 percent of all oil traded passes. By way of example, the Iranian Navy seized two U.S. Navy patrol boats and their ten crew members in January 2016, and it seized the *Stena Impero*, a British-flagged tanker, in the Strait of Hormuz in

spring 2019. In addition to such behavior, we track the presence of U.S. aircraft carriers in these waters. The data on Iranian maritime incidents directed against the U.S. Navy were provided by U.S. Navy 5th Fleet Public Affairs. The data for U.S. ship presence came from the U.S. Naval Institute's Fleet Tracker, which reports CSG and ARG presence by theater. The data on Iranian attacks against non-U.S. ships were compiled from several sources, including the Center for Strategic and International Studies Missile Defense Project and IHS Janes.[187]

Figure 4.5 presents Iranian unsafe and unprofessional maritime incidents in the Persian Gulf and Gulf of Oman from 2016 to 2020. The red bars reflect incidents against U.S. Navy ships. The pink bars reflect incidents against non-U.S. ships, most being commercial vessels. The axis for these incidents is on the left side of the figure. The horizontal blue lines indicate the number of days per month that the U.S. Navy operated CSGs in these waters. The axis for these days is on the right side of the figure.

Figure 4.5. Iranian Maritime Incidents and U.S. Navy Carrier Presence, 2016–2020



SOURCES: Authors' observations compiled from an analysis of data retrieved in May and June 2021 from the BBC, Bloomberg, *Business Insider*, the *Daily Star*, *The Independent*, IntelliNews, MailOnline, Middle East Business Magazine and News, the *New York Times*, Plus Media Solutions, the Syrian Observatory for Human Rights, *The Telegraph*, the U.S. Naval Institute, the U.S. Navy, Voice of America News, and the *Washington Post*.
NOTE: USN = U.S. Navy.

Several findings of note emerge from the figure. First, U.S. carrier presence in these waters is generally high. The United States averaged 20 or more days of carrier presence per month in the Persian Gulf or the Gulf of Oman for all the years covered except 2018, when U.S. presence fell

[187] We supplemented these sources through media searches in LexisNexis and ProQuest, generating articles from the following news outlets: the BBC, Bloomberg, *Business Insider*, the *Daily Star*, *The Independent*, IntelliNews, MailOnline, Middle East Business Magazine and News, the *New York Times*, Plus Media Solutions, the Syrian Observatory for Human Rights, *The Telegraph*, Voice of America News, and the *Washington Post*.

to around ten days per month. (This likely had less to do with the mission of deterring Iran and more to do with a decrease in airstrikes against the Islamic State, a portion of which were launched from carriers during the height of combat operations against the group.) Iranian incidents against U.S. ships fell precipitously from a high of 35 in 2016 to zero in 2018 and 2019. In 2020, there was just one incident. This drop looks to be partially offset by incidents against non-U.S. vessels. They peak in 2019 at nine incidents but fall to four the following year.

What are we to make of these data and patterns? For one, carrier activity appears to have little impact on Iranian behavior in these waters. If carrier presence were deterring Iran from taking actions against U.S. or commercial vessels, then the red and pink bars should be lowest during the years when the blue line on the graph is highest. This is not the case. Iranian behavior against U.S. ships has been both high (2016) and low (2018–2020) while the United States has maintained fairly consistent CSG presence in the area. 2016 in particular presents an interesting relationship. 2016 was tied with 2020 as having the largest U.S. naval presence for the period that we reviewed and would appear to be a fortuitous time for potential U.S.-Iran de-escalation given that the JCPOA was still in effect, the Obama administration generally favored greater engagement with Iran, and the United States and Iran were both supporting Baghdad in the fight against ISIS. Yet that year had the highest number of unsafe and unprofessional Iranian actions against U.S. ships.

Our correlation analysis cannot explain what accounts for the result in 2016. One potential explanation is that opponents of the JCPOA within Iran were taking escalatory actions in an effort to hedge against further U.S.-Iran détente or to signal limited scope for cooperation beyond arms control. This would have supported the institutional interest of the IRGC in preventing any softening in positions that challenged the IRGC's harder-line narrative and its elevated place in the regime as one of Iran's more capable defense forces.[188] Another potential explanation is that Iran viewed the policies of the Obama administration toward Iran as signaling less political will to respond to low-level military provocations.

A second striking trend is the change in targets over time. When the United States was party to the JCPOA in 2016 and 2017, the vast majority of ships targeted by Iran in unsafe and unprofessional encounters were U.S. naval vessels. After the United States withdrew from this agreement in 2018 and initiated its maximum-pressure campaign, a part of which was aimed at bringing Iranian energy exports "to zero,"[189] Iran increased its actions—including uses of

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[188] A *Financial Times* article suggests that these incidents may have reflected the Iranian military's antipathy for the nuclear agreement: "The military's anger at the nuclear deal was made clear by Islamic vigilantes' attack on the Saudi embassy in Tehran and a brief seizure of two US navy command boats in early 2016. 'All happened to make the nuclear deal fail,' [Mohammad Javad] Zarif said" (Najmeh Bozorgmehr, "Zarif Leak Reveals Who Really Wields Power in Iran Nuclear Deal," *Financial Times*, April 28, 2021). Zarif was Iran's chief nuclear negotiator for the 2015 deal.

[189] White House Archives, "President Donald J. Trump Is Working to Bring Iran's Oil Exports to Zero," April 22, 2019.

force—against commercial vessels in the Persian Gulf and Gulf of Oman. These actions included employing limpet mines against ships and seizing vessels, actions that went well beyond the prior unsafe and unprofessional encounters with the U.S. Navy.

One potential explanation for this trend is that Iran adapted to the Trump administration's maximum-pressure campaign by substituting target types. Rather than risk a military confrontation with the United States at a time of heightened tensions, Iran may have calculated that its "maximum resistance" strategy would be better served by meting out costs to U.S. partners (e.g., to UAE and Saudi shipping) and by signaling that attempts to bring its energy exports to zero would incur retaliatory actions aimed at disrupting global energy markets.[190] This switch in target types could have been motivated by concern in Tehran that the Trump administration had a low threshold for entering a conflict with Iran.

Iranian Proxy Forces in Yemen

In this final subsection, we examine the possible deterrence relationship between U.S. naval presence in the waters around Yemen and the use of missiles by the Houthi forces in that country. The Houthis are a movement from northwestern Yemen's Saada province. Iran is known to back the Houthis, providing weapons, training, and financial support. The group has fought Yemen's government since 2004 and, as of this writing, controls the capital and most of the territory formerly known as the Yemen Arab Republic (also sometimes referred to as North Yemen). In response to these advances, Saudi Arabia and the UAE launched a military campaign in March 2015. The Houthis responded by launching repeated missile and drone attacks against Saudi military bases, critical infrastructure, and population centers.

We examine data on U.S. carrier and ARG presence in the Red Sea and Gulf of Aden, the two bodies of water adjacent to Yemen. Again, the data on U.S. Navy ship activity come from the U.S. Naval Institute's Fleet Tracker. It offers roughly weekly information to track CSGs and ARGs. With this information, we were able to create a timeline of U.S. CSG and ARG activity in the Red Sea and Gulf of Aden. We contrast these observations with the use of missiles by Houthi forces on targets outside Yemen. These attacks vary, but they typically target Saudi Arabia and the UAE, with far fewer attacks in the maritime domain against the vessels of Arab states or the U.S. Navy. These data were generated via media searches in LexisNexis and ProQuest.[191] The data begin in summer 2017 and continue through March 2021.

Figure 4.6 shows both Houthi missile attacks and U.S. Navy CSG and ARG presence in the waters surrounding Yemen. The missile attacks are shown in red, and the axis on the left

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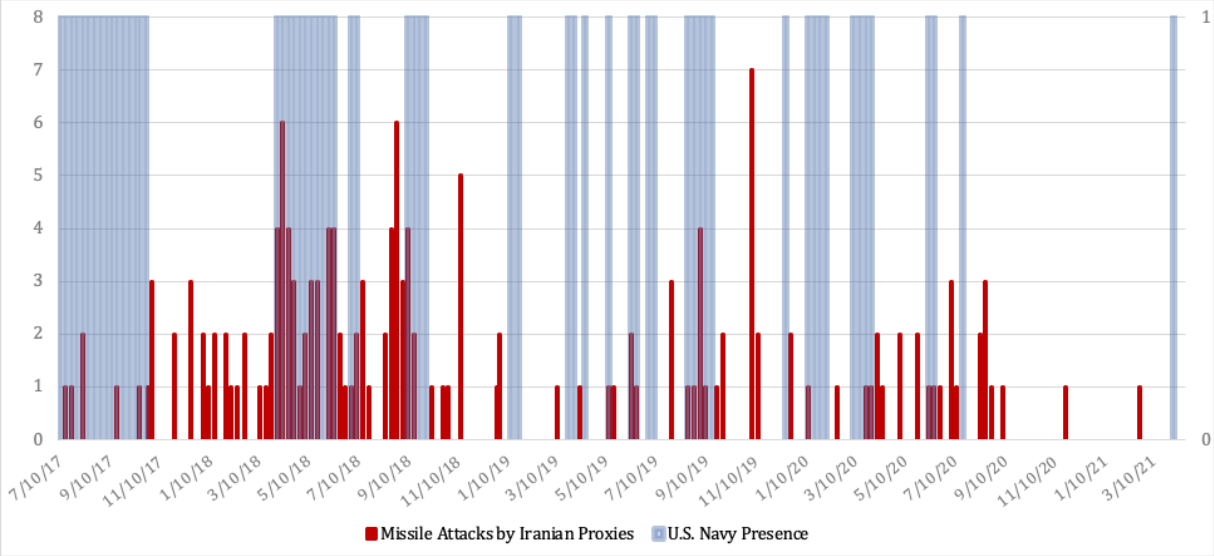
[190] Ali Vaez and Naysan Rafati, "U.S. Maximum Pressure Meets Iranian Maximum Pressure," International Crisis Group, November 5, 2019.

[191] Once again, our searches generated articles from the following news outlets: BBC, Bloomberg, *Business Insider*, the *Daily Star*, *The Independent*, IntelliNews, MailOnline, Middle East Business Magazine and News, the *New York Times*, Plus Media Solutions, the Syrian Observatory for Human Rights, *The Telegraph*, Voice of America News, and the *Washington Post*.

indicates the number of attacks. U.S. Navy ship presence is shown in light blue. The blue bars indicate CSG or ARG presence in the Red Sea or the Gulf of Aden. Each bar corresponds to a one-week interval. If there was no U.S. Navy presence during any part of this time frame, the chart is white. The takeaway from the figure is simple. The Houthis appear to be completely unaffected by U.S. Navy presence in the waters off the coast of Yemen—at least, the use of missiles by the Houthis is in no way diminished or lessened on account of U.S. naval forces near Yemen. The correlation coefficient between U.S. Navy presence and Houthi rocket use is positive. The precise estimate is 0.10, but it is not statistically significant. It is questionable how much leverage the Iranians exercise over the Houthis when it comes to the firing of missiles. What is less questionable is that the Houthis do not appear to be much deterred in their employment of missiles by U.S. Navy forces operating in the littoral waters of Yemen.

Figure 4.6. Houthi Missile Attacks and U.S. Navy Presence, 2017–2021



SOURCES: Authors' observations compiled from an analysis of data retrieved in May and June 2021 from the BBC, Bloomberg, *Business Insider*, the *Daily Star*, *The Independent*, IntelliNews, MailOnline, Middle East Business Magazine and News, the *New York Times*, Plus Media Solutions, the Syrian Observatory for Human Rights, *The Telegraph*, the U.S. Naval Institute, the U.S. Navy, Voice of America News, and the *Washington Post*.
NOTE: The left *y*-axis shows the number of Houthi missile attacks. The right *y*-axis shows the carrier presence.

The lack of deterrent value from U.S. naval presence on Houthi missile attacks might be explained by several factors. First, the level of Houthi aggression might be better explained by the movement's calculations regarding the Saudi-led intervention. For instance, the choice of when to increase missile strikes might be driven by Houthi retaliation against Saudi Arabia for its military intervention, or it might be related to a Houthi view of how pressure against the Saudi-led coalition could lead to war termination on terms that are more favorable to the Houthis. Second, there is limited U.S. commitment to achieving deterrence through the threat of punishment against the Houthis. Although the United States has committed to the defense of its

partners and has temporarily increased its missile defense capabilities in Saudi Arabia to combat the threat posed by missiles from Iran,[192] the U.S. Navy has only fired on the Houthis when the movement targeted U.S. vessels in the Red Sea with cruise missiles. Initially, the U.S. response was confined to deploying cruise missiles as defensive weapons to intercept Houthi missiles targeting U.S. ships.[193] Subsequently, a U.S. guided missile destroyer did employ Tomahawk Land Attack Missiles to target Houthi coastal radars used to coordinate actions against the USS *Mason*, an *Arleigh Burke*–class destroyer.[194] However, the United States has not employed its own firepower to strike Houthi units targeting Saudi Arabia or other U.S. partners in their attacks.

Summary

In this chapter, we have taken a narrow look at the possible deterrent effects of U.S. military inputs on Russian and Iranian behavior. As noted, this is a difficult relationship to parse. A small number of major attacks or incidents has forced us to rely on a sample of observations that vary in type and severity. Yet Russian and Iranian military actions against the United States, its allies, and its partner nations are not all equally undesirable. A violation of NATO airspace by a Russian fighter is not equivalent to the seizure of parts of the Donbas by Russian and proxy forces. And the latter incident might be broadly reflective of shifting political contexts rather than explainable by the type and scope of U.S. military activities.

These difficulties notwithstanding, there are a few points that emerge from this effort that are worth highlighting. First, the absence of a clear relationship between U.S. OAIs and adversary behavior in no way implies that the United States should suspend or reduce such operations. As acknowledged, the relationship between U.S. military inputs and an adversary's calculus is complex; these activities are but one component of this mosaic. Furthermore, U.S. OAIs, such as conducting BTFs and freedom-of-navigation operations, are more than exercises in deterrence. They offer assurance to allies and partners alike. Finally, we simply do not know whether the signals of capability and commitment sent by U.S. military activities in EUCOM and CENTCOM deterred Russia or Iran from conducting a major attack beyond what each undertook from 2014 to 2020.

Second, all of the U.S. military activities that we have examined have the capacity to both provoke and prevent behaviors. Ship presence in the Black Sea can create opportunities for Russian activity, as our effort in this chapter suggests. But such presence also sends a clear signal

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[192] C. Todd Lopez, "U.S. Sends Additional Capabilities to Saudi Arabia," U.S. Department of Defense, October 11, 2019.

[193] Sam LaGrone, "USS Mason Fired 3 Missiles to Defend from Yemen Cruise Missiles Attack," USNI News, last updated October 12, 2016.

[194] Matthew Rosenberg and Mark Mazzetti, "U.S. Ship off Yemen Fires Missiles at Houthi Rebel Sites," *New York Times*, October 12, 2016.

regarding U.S. interest in the area. Therefore, a positive and statistically significant correlation is not only expected, but it might also be a clear indication that the U.S. message is being received. By contrast, U.S. carrier and ARG presence in the Persian Gulf and Gulf of Oman is not a likely explanation for the Iranian actions that we investigated in this chapter. Still, both CSGs and ARGs are a critical component of U.S. presence in an unstable part of the world. They offer important crisis response capabilities, as well as assurances to allies in the region.

Finally, while the relationships under examination in this chapter are clearly uncertain, it is impossible to know what adversary behavior might have looked like in the absence of the U.S. OAIs that we cataloged. When deterrence works, it often goes unobserved. BTFs play an important role in U.S. relationships with Russia and other adversaries. They send a clear signal of resolve and capability that likely does not go unnoticed by allies and adversaries alike.

5. Case Study of Ukraine

In this chapter, we examine past cases of U.S. deterrence efforts in Ukraine to consider how varying and low levels of U.S. OAIs may have influenced Russia's decision to undertake aggression against Ukraine. We focus on two key episodes: (1) Russia's seizure and annexation of Crimea and (2) the absence of further action by the Kremlin to escalate conflict in eastern Ukraine in the wake of the Minsk II agreement. The first case represents a potential deterrence failure; to the extent that the United States sought to deter Russian aggression against non-NATO countries, U.S. OAIs or other actions did not dissuade Russian military action. The second case represents a potential deterrence success; Russia paused its escalation of the conflict in Ukraine at the same time that the United States gradually increased its OAIs, although U.S. OAIs in Ukraine remained relatively low compared with U.S. OAIs in NATO countries. In both cases, factors other than U.S. military inputs—including Russia's interests and other, nonmilitary U.S. policies—played an important role. A key goal of the case studies is to assess the impact of U.S. military OAIs relative to these other factors to help answer the study question of which OAIs are more effective and efficient for deterrence.

Building on the literature review in Chapter 1, we explore deterrence by trying to understand how the Russian and U.S. actions shaped the perceptions of each country. For deterrence to be successful, the United States must persuade Russia that the costs that it would incur by acting outweigh any potential benefits that it might secure in doing so and/or that the stated costs outweigh the risks of inaction.[195] Hence, to understand how U.S. OAIs influenced the Kremlin's calculus on Crimea and the Donbas, we must understand how Russia perceived U.S. commitments and intentions in Ukraine. U.S. perceptions are also germane in that the OAIs that the United States chose to conduct in and around Ukraine were likely shaped by Washington's understanding of Russian capabilities and intentions. This chapter also draws on the case study methodology used by scholars Alexander George and Richard Smoke in their seminal work on deterrence.[196]

We begin this chapter by examining the Crimea episode, providing a brief overview of the case's background. This is followed by a discussion of whether and how Washington's and Moscow's *realized* and/or *stated* commitments, capabilities, and intentions shaped each country's *perceptions* of its rival's capabilities and intentions at key points throughout the crisis. We follow the logic a step further in exploring how each state's perceptions of the other

[195] See Robert Jervis, "Deterrence Theory Revisited," *World Politics*, Vol. 31, No. 2, January 1979; Amir Lupovici, "The Emerging Fourth Wave of Deterrence Theory—Toward a New Research Agenda," *International Studies Quarterly*, Vol. 54, No. 3, September 2010; and Stephen L. Quackenbush, "Deterrence Theory: Where Do We Stand?" *Review of International Studies*, Vol. 37, No. 2, April 2011.

[196] George and Smoke, 1974.

ultimately influenced its own behavior, focusing principally on U.S. military OAIs and their effect (or lack thereof) on Russia's calculus and subsequent actions. Our treatment of the Donbas episode unfolds in much the same way. Lastly, we address the findings of our analysis and their implications for the application of EoF principles to deterrence missions more broadly.

Crisis in Crimea

Overview of the Crisis

In late 2013, after months of work with the European Union (EU) to iron out the details of a Ukraine-EU Association Agreement, authorities in Kyiv unexpectedly suspended the country's preparations to sign the agreement. The decision was met with large protests in the capital and other cities across Ukraine. In mid-February 2014, after months of peaceful protests, tensions between anti-government activists and the authorities led to violence. After demonstrators were killed, Kremlin-aligned Ukrainian President Viktor Yanukovych was removed from office.

The removal of Yanukovych raised the question of how Russia would respond, but Western leaders did not appear to anticipate the Russian use of force. Just one day after the Ukrainian leader was ousted, then–National Security Advisor Susan Rice intimated that the Obama administration considered the use of force unlikely, noting that "see[ing] the country split," referring to Ukraine, was not "in the interests of . . . Russia."[197] Rice also signaled that such a move would be "a grave mistake."[198]

Days later, undisclosed troops materialized at strategic sites across Crimea, where they seized control of the peninsula. Although Moscow denied allegations that the so-called little green men responsible for the seizure were Russian forces, early signs indicated that the operation was the Kremlin's initiative.[199] Russia's operation seemed to surprise U.S. policymakers and the U.S. intelligence community. As the first territorial annexation by force in Europe since the Second World War, Russia's violation of Ukrainian territorial integrity had both tangible and symbolic security implications for the United States and its European partners and allies.[200] As the seizure was unfolding, then–Secretary of Defense Chuck Hagel warned Russia, "We expect other nations to respect Ukraine's sovereignty and avoid provocative action. . . . That's why I'm

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[197] NBC News, "Meet the Press Transcript: Feb. 23, 2014," February 23, 2014.

[198] NBC News, 2014.

[199] For background on the term *little green men* and the evidence of their origin early in the crisis, see Mark Galeotti, "'Hybrid War' and 'Little Green Men': How It Works, and How It Doesn't," in Agnieszka Pikulicka-Wilczewska and Richard Sakwa, eds., *Ukraine and Russia: People, Politics, Propaganda and Perspectives*, Bristol, United Kingdom: E-International Relations Publishing, 2015; and Vitaly Shevchenko, "'Little Green Men' or 'Russian Invaders'?" BBC News, March 11, 2014.

[200] Lucian Kim, "How People in Crimea View the Union with Russia," radio segment with Ari Shapiro on *All Things Considered*, NPR, March 6, 2018.

closely watching Russia's military exercises along the Ukrainian border, which they just announced yesterday."[201]

If we assume that Washington aimed to deter Russia from forcibly intervening in Ukraine, this raises the question of why Kremlin leadership then chose to violate Ukrainian territorial integrity and annex Crimea. And how did the U.S. OAIs devoted to this deterrence mission shape Russia's calculus to take the action in Crimea? There are several potential explanations for Russia's decision to seize the peninsula and for Washington's lack of a strong deterrent posture prior to it. First, Russia may have chosen a response option—quickly seizing Crimea by capitalizing on surprise—rather than attempting to dissuade Ukrainians from removing a Kremlin-aligned president and signaling to the West that its support for his removal would lead to a Russian military response in Ukraine. In this way, the Kremlin may have deliberately masked its intent. For its part, the United States may have failed to recognize Russia's demonstrations of its capabilities and intent, or it could have misread them.

If the United States anticipated the potential for Russian use of force in Ukraine, it could have failed to articulate its own deterrence strategy clearly. Relatedly, the Kremlin may have failed to associate U.S. OAIs in allied Europe and the smaller number of OAIs in and immediately around Ukraine as U.S. commitments to Ukrainian security. Likewise, Russian leaders could have read the modest number of U.S. OAIs in Ukraine as Western indifference. Lastly, Putin and his advisers could have weighed possible risks and rewards, deciding that the benefit of demonstrating Russia's influence in Ukraine outweighed the potential perils of a U.S. military response. It is also possible that reality was a hybrid of the above.

To gauge whether the modest U.S. investment in OAIs in and around Ukraine played a role in the deterrence failure in Crimea, we first explore the capabilities, intent, and commitments of both the United States and Russia in the prelude to the crisis.

Signals from Moscow on Crimea

Russia's Position on Ukraine

At various points throughout Ukraine's history, parts or all of the country have been subject to Russian (and Soviet) rule.[202] Ukraine and Russia share a long land border, and, given the absence of any natural geographic barriers along Russia's western frontier, Moscow has long viewed Ukraine as a buffer state between itself and the West.[203] Likewise, the two states' economies are closely interconnected. In the years preceding the Crimea crisis, Putin had pushed to further cement these economic ties through the establishment of the Eurasian Economic

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[201] "Hagel Warns Russia Not to Intervene in Ukraine," *NATOSource*, blog, February 27, 2014.

[202] Rajan Menon and Eugene Rumer, *Conflict in Ukraine: The Unwinding of the Post–Cold War Order*, Cambridge, Mass.: The MIT Press, 2015, pp. 5–7.

[203] Andrei Tsygankov, "Vladimir Putin's Last Stand: The Sources of Russia's Ukraine Policy," *Post-Soviet Affairs*, Vol. 31, No. 4, February 4, 2015, p. 288.

Union.[204] On the issue of Crimea, the peninsula has long been home to Russia's (and formerly the Soviet Union's) Black Sea Fleet. Although Russia had been granted long-term access to the naval base at Sevastopol through an agreement with the government of Ukraine, first in the 1990s and then in 2010, anxieties about naval access in the Black Sea continued to unsettle Kremlin leadership.[205]

Moscow did not hide its position on Ukraine, or Crimea specifically, in the years before 2014. Rather, Russia's expectations for Ukrainian-Russian relations, Ukraine's role in assuaging Russia's own security concerns on its western border, and Russia's willingness to use military force to protect its interests were all visible to U.S. leadership from the early post–Cold War period through the annexation of Crimea.

Russia had long protested the accession of post-Soviet states—particularly Ukraine and Georgia—to Euro-Atlantic institutions. As far back as the early 1990s, Kremlin leadership protested any expansion of the Alliance eastward toward Russian borders.[206] Speaking to President Bill Clinton in a private meeting in 1995, then–Russian President Boris Yeltsin shared that some in Moscow viewed these developments as "a new form of encirclement" contributing to "a sense of fear" among "many Russians," including Yeltsin himself.[207] And yet, much to the chagrin of the Russian government, NATO welcomed Poland, Hungary, and the Czech Republic in 1999; Bulgaria, Slovenia, Slovakia, Romania, and the three Baltic states in 2004; and Albania and Croatia in 2009. If Kremlin rhetoric is any indication of authentic Russian threat perceptions, reassurances from the West appear to have done little to placate Russian concerns about U.S. and Western intentions and posture in the 1990s and early 2000s. The 2004 arrival of NATO troops and equipment (including F-16s) to states neighboring Russia was characterized as "aggressive" by then–defense minister Sergei Ivanov and "created a kind of paranoia in Russia," according to foreign minister Sergey Lavrov.[208]

As meaningful as these threat perceptions may have been, the states admitted to NATO in the 1990s and 2000s were not as sensitive as Ukraine is to Russia. Russia's perception of its relationship with Ukraine is distinct from its perceived relationship with its Baltic neighbors.[209]

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[204] James Marson, "In Ukraine, Economic Ties to Russia Are Hard to Break," *Wall Street Journal*, May 17, 2015.

[205] Center for Strategic and International Studies, "Crimea's Strategic Value to Russia," blog post, March 18, 2014.

[206] Although many observers have questioned the authenticity of Russian concerns, evidence suggests that Alliance expansion has provoked changes to Russian presence and posture (Andrew T. Wolff, "The Future of NATO Enlargement After the Ukraine Crisis," *International Affairs*, Vol. 91, No. 5, September 2015, p. 1107).

[207] Elias Götz, "Explaining Russia's Opposition to NATO Enlargement: Strategic Imperatives, Ideas, or Domestic Politics?" in Daniel S. Hamilton and Kristina Spohr, eds., *Open Door: NATO and Euro-Atlantic Security After the Cold War*, Washington, D.C.: Foreign Policy Institute/Henry A. Kissinger Center for Global Affairs, Johns Hopkins University SAIS, 2019, p. 486.

[208] Steven Lee Myers, "As NATO Finally Arrives on Its Border, Russia Grumbles," *New York Times*, April 3, 2004; "Seven Join NATO in Biggest Expansion," *The Guardian*, April 2, 2004.

[209] Andrew Radin and Clint Reach, *Russian Views of the International Order*, Santa Monica, Calif.: RAND Corporation, RR-1826-OSD, 2017, pp. 9–14.

Kremlin leadership has emphatically and consistently voiced opposition to Ukrainian and Georgian accession to, and close cooperation with, Euro-Atlantic institutions for as long as the two states have been independent. In 1997, for instance, NATO's annual Sea Breeze exercise was set to take place in Ukraine. The exercise's scenario had U.S. marines "deploy[ing] onto the plains surrounding" the strategically significant naval base at Sevastopol to "intervene in a mythical ethnic conflict in which rebels aided by a neighboring power sought to overthrow the government of 'the orange country'"—in other words, Ukraine.[210] Authorities in Moscow, who reportedly interpreted this as a forewarning of NATO's expected response should Russia attempt to seize Crimea, publicly opposed the scenario. Russian objections were so vocal that NATO revamped the scenario in response.

When the George W. Bush administration sought support for Ukrainian and Georgian NATO membership at the Alliance's 2008 summit, the tone of Russia's reactions to the prospect of further expansion shifted from begrudging acceptance to categorical objection. Publicly, Lavrov vowed to "do everything possible to prevent the accession of Ukraine and Georgia to NATO."[211] The Russian military establishment warned that Russia would take military and "other measures" to block Ukrainian and Georgian accession to the Western military alliance.[212] Behind closed doors at the summit, an indignant Putin reportedly told Bush that Ukraine would "cease to exist" if it joined the Alliance.[213] Putin reportedly argued to President Bush that "Ukraine isn't even a state. What is Ukraine? Part of its territory is Eastern Europe, and part of it, a significant part, was given by us!"[214] Putin's remarks demonstrate the weight that Ukraine carried within the Kremlin; the lengths to which Moscow was willing to go to protect its perceived interests in Ukraine; and the fact that Putin rejected the West's premise that Ukrainian territorial integrity was inviolable, since, from Putin's perspective, Ukraine was not a true state.

At the outset of the 2014 crisis, Russian officials weighed in on the developments in Kyiv, characterizing the civil unrest in Ukraine as a "violent attempt to seize power" by "extremists" involving "Nazi elements."[215] According to Moscow, the ousting of Yanukovych was an illegal move. On the issue of Crimea, however, senior Russian decisionmakers were tight-lipped in the days before the operation. The Kremlin issued no explicit threats and betrayed few indications

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[210] Carol J. Williams, "U.S.-Ukraine Military Exercises Rub Russians the Wrong Way," *Los Angeles Times*, August 29, 1997.

[211] NATO, "NATO Off the Wire: April 9, 2008," webpage, last updated April 10, 2008b.

[212] Steven Woehrel, *Ukraine: Current Issues and U.S. Policy*, Washington, D.C.: Congressional Research Service, updated June 23, 2008, p. 8.

[213] "Redrawing the MAP in Europe," *The Economist*, April 12, 2008.

[214] Jeffrey Tayler, "The Next Flashpoint: Ukraine," *The Atlantic*, September 2008. See also James Marson, "Putin to the West: Hands off Ukraine," *TIME*, May 25, 2009.

[215] Nate Rawlings, "Russia Condemns Ukraine's 'Extremists,'" TIME, February 20, 2014; Andrei Soldatov and Michael Rochlitz, "The *Siloviki* in Russian Politics," in Daniel Treisman, ed., *The New Autocracy: Information, Politics, and Policy in Putin's Russia*, Washington, D.C.: Brookings Institution, 2018, pp. 98–99.

that it was planning to mount an offensive in Crimea. The same could be said for Russia's military activities. Moscow's preparations for the seizure—from the departure of Spetsnaz and airborne forces from their garrisons on February 22 and 23, to the arrival of units from the 810th Naval Infantry in the Sevastopol city square on February 24, to the fabrication of online personas masquerading as locals calling for Crimea's separation from Ukraine—were deliberately shrouded in secrecy.[216] This is to say that in the immediate prelude to the crisis, there were few signals from which the United States could divine Russian intentions. Moscow's approach would have challenged the ability of the United States to engage in crisis deterrence, since Russia's preparations for the seizure of Crimea were not easily observed.

Signals of Russian Capability and Will

Although the final preparations for seizing the Crimean peninsula were intended to reduce warning, Russia may have expected that the United States interpreted its position on related issues as indicative of its stance on Ukraine. Here, the 2008 Russo-Georgian War, which served as a barometer of Russia's willingness to mount military operations when the Kremlin perceived its key interests to be threatened, is a key episode. In August 2008, as violence between Georgian forces and separatists in the regions of Abkhazia and South Ossetia intensified, the Kremlin chose to intervene militarily in Georgia in support of the separatists. Although this case is far from a perfect analogue, there are important parallels between the two cases. First, Russia's decision to intervene in Georgia signaled the value that Moscow placed on preserving its position in states that the Kremlin viewed as within its sphere of interest. Russian discourse on Ukrainian and Georgian accession to NATO and the EU suggests that these states held equivalent positions among Russian priorities. Second, as early as late 2008, evidence surfaced that Russia had been distributing passports to residents of Crimea, a tactic used in advance of Moscow's incursion into Georgia as a way to legitimize the Russian invasion.[217] The Georgian campaign, therefore, demonstrated Russia's will to act if it felt that its core interests, including preserving its role in Ukraine, were threatened. On the other hand, the Russian military's performance in Georgia revealed a force suffering from command and control, manpower, coordination, technological, and other challenges.[218]

By early 2014, however, Russia was well into its yearslong program to overhaul the country's military forces. These far-reaching reforms—retooling the force structure, revamping training and exercising, fielding new equipment, and more—had by this point caught the

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[216] Michael Kofman, Katya Migacheva, Brian Nichiporuk, Andrew Radin, Olesya Tkacheva, and Jenny Oberholtzer, *Lessons from Russia's Operations in Crimea and Eastern Ukraine*, Santa Monica, Calif.: RAND Corporation, RR-1498-A, 2017, pp. 6–7.

[217] Askold Krushelnycky, "Fears That Crimea Could Be Next Flashpoint for Conflict with Russia," Radio Free Europe/Radio Liberty, August 24, 2008.

[218] Bettina Renz, *Russia's Military Revival*, Cambridge, United Kingdom: Polity Press, 2018, pp. 61–67.

attention of the U.S. defense establishment. Writing in late 2013, scholar Nikolas K. Gvosdev noted,

> Russian plans for military reform and rearmament have generated some concern, particularly in the U.S. national-security establishment, which had assumed that Russia would not be in a position to project much power across its borders. The resumption of bomber patrols in the Atlantic and Pacific oceans, the dispatch of task forces (particularly to the Caribbean), the 2008 campaign against Georgia, and the growing size and sophistication of yearly joint maneuvers with the Chinese army and navy have all worked to resurrect the image of Russia as a military threat. Justification for U.S. defense expenditures, which previously focused largely on increases in Chinese spending, now take into account Russia's military buildup as well.[219]

Thus, some U.S. observers were taking note of Russia's increased military capabilities. This could have prompted U.S. decisionmakers to assess the Kremlin as possessing the capability to invade a neighboring state to protect its core interests, but it does not appear that the specific contingency (Russia's seizure of Crimea) was necessarily seen as an important deterrence requirement.

Signals from Washington on Crimea

U.S. Commitments to European Security and Ukraine

U.S. strategic documents from the first years of the Obama presidency articulate a two-pronged approach to Russia—cooperation on areas of mutual interest accompanied by reassertions of the U.S. position of support for neighboring states' independence and sovereignty. The 2010 *National Security Strategy* and *Quadrennial Defense Review Report* identify counterterrorism, countering nuclear proliferation, and arms control as potential avenues for cooperation. By the same token, both documents hint at Washington's stance on Russian interference in Ukraine and other post-Soviet states without explicitly noting what kind of response such behavior might provoke. For Kremlin leadership who did not view Ukraine as a separate and autonomous state but rather as a client, as evidenced by previous Russian rhetoric, the *National Security Strategy* and *Quadrennial Defense Review Report* assertions that the United States would engage with "Russia's neighbors" as "fully independent and sovereign states" may have stirred unease in Moscow.[220] The documents' language may have deepened Russian suspicions that the United States aimed to compete with Russia for influence in the post-Soviet space.[221]

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[219] Nikolas K. Gvosdev, "The Bear Awakens: Russia's Military Is Back," *National Interest*, October 3, 2013.

[220] DoD, *Quadrennial Defense Review Report*, Washington, D.C., February 2010, p. 59.

[221] The 2012 Defense Strategic Guidance strikes a more conciliatory note insofar as it does not include a reference to engaging with Russia's neighbors as "fully independent and sovereign states" (DoD, *Sustaining U.S. Global Leadership: Priorities for 21st Century Defense*, Washington, D.C., January 2012).

In addition to formal U.S. strategy documents, U.S. actions in the years leading up to the Crimea incursion likely shaped Russian perceptions of U.S. intentions and commitments, though these may have sent mixed signals. Washington pursued policies in and around Ukraine that could have been perceived as evidence of Washington's de-prioritization of European security. For instance, one of the Obama administration's early decisions on European security was jettisoning plans for the U.S. European missile defense shield—a long-standing point of contention between Washington and Moscow in the post–Cold War era.[222] This move could have been perceived as favorable to Russia and an acknowledgment of its threat perceptions even though U.S. officials alleged that this was not the policy's intent. In Moscow, the decision was celebrated as a positive development in U.S.-Russian relations in the short term.[223]

In January 2012, the Pentagon took another step that could have been construed as the United States reducing its military commitments to Europe. DoD leadership unveiled a new U.S. defense strategy designed to accommodate shrinking budgets, as well as reprioritized threats.[224] The global posture and presence of the United States would be reshaped to focus on two geographic regions—the Asia-Pacific and the Middle East.[225] Sizable reductions in DoD's overall budget meant that, in practice, DoD would need to economize in other geographic regions to preserve funding for its new stated priorities. This translated into significant posture reductions to the U.S. forward presence in Europe.[226]

As part of this effort, the U.S. Army announced the withdrawal of two of its four forward-stationed heavy brigades in Europe in 2012 and 2013 and announced that its V Corps (a major component of the U.S. military's footprint in Europe) would not be returning to the continent after completing its deployment supporting Operation Enduring Freedom.[227] In lieu of the service's more robust permanent presence, U.S.-based forces would rotate to the European

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[222] From Moscow's perspective, the placement of U.S. land-based radars and interceptors in Poland and the Czech Republic would allow the United States to target Russia's nuclear arsenal (and, by extension, other sites with strategic significance), thereby destabilizing the nuclear balance (Luke Harding and Ian Traynor, "Obama Abandons Missile Defence Shield in Europe," *The Guardian*, September 17, 2009).

[223] Russian policymakers later critiqued the Obama administration's decision to pursue the Phased Adaptive Approach to missile defense in Europe, which proposed putting off the deployment of interceptors to Romania and Poland until 2018 (Harding and Traynor, 2009; David M. Herszenhorn and Michael R. Gordon, "U.S. Cancels Part of Missile Defense That Russia Opposed," *New York Times*, March 16, 2013; Angela Stent, "U.S.-Russia Relations in the Second Obama Administration," *Survival*, Vol. 54, No. 6, November 30, 2012).

[224] DoD, 2012.

[225] Leon E. Panetta, "Statement on Fiscal 2013 Budget," Washington, D.C.: Pentagon Press Briefing Room, January 26, 2012.

[226] Although Pentagon leadership presented these changes in the context of DoD's new strategy, the cuts to U.S. forces in Europe were first announced in 2004 as part of the previous administration's Global Posture Review. That said, it is not clear from the available evidence whether Russia tracks such nuances. See Stacie L. Pettyjohn, *U.S. Global Defense Posture, 1783–2011*, Santa Monica, Calif.: RAND Corporation, MG-1244-AF, 2012, p. 93.

[227] Andrew Feickert, *Army Drawdown and Restructuring: Background and Issues for Congress*, Washington, D.C.: Congressional Research Service, May 18, 2012.

theater for training and exercises.[228] For its part, the U.S. Air Force announced that it would deactivate two squadrons based in Europe. These moves totaled a 50-percent cut to Army forces in Europe and a 25-percent cut to U.S. manpower in Europe overall.[229]

The 2012 unveiling of Pentagon posture changes was paired with a U.S. messaging campaign. Senior policymakers underscored that the new, "leaner" military, in the words of President Obama, would be equally capable against "a full range of contingencies and threats."[230] Public remarks by Secretary of Defense Leon Panetta and Secretary of State Hilary Clinton in the weeks following the announcement reiterated reassurances to European allies, particularly NATO member states, of Europe's continued importance in Washington.[231] Yet despite U.S. assurances, the announcement disquieted some observers in Washington, as well as in capitals across the Atlantic.[232] A 2012 Congressional Research Service report outlined the concerns raised by critics of the withdrawals, noting,

> The remaining two BCTs . . . will represent the only remaining European-based power projection forces. These BCTs and supporting units are also viewed by some as being a deterrence to potential 'Russian adventurism' and also serve as a form of reassurance and U.S. commitment to former Soviet-controlled states.[233]

This line of argumentation was not new. In 2010, former EUCOM Commander ADM James Stavridis told the congressional armed services committees that "deterrence and reassurance [were] at increased risk" if any of EUCOM's four BCTs were eliminated.[234]

The troop reductions announced in early 2012 were reflective of a broader trend in U.S. force presence in Europe in the post–Cold War era. Spurred by the collapse of the Soviet Union and German reunification, the services undertook major drawdowns of personnel, as well as the shuttering or turning over of most installations to their home countries.[235] Over the course of the 1990s, the United States withdrew 60 percent of its forces in EUCOM.[236] When Putin entered office in 2000, nearly 114,000 active duty, National Guard, and reservist troops hailing from all

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[228] Feickert, 2012, p. 23.

[229] David Alexander, "Panetta Faces Tough NATO Meeting After Budget Shift," Reuters, last updated February 1, 2012; John Vandiver, "Marines Gear Up for East European Mission," *Stars and Stripes*, December 15, 2011.

[230] White House, Office of the Press Secretary, "Remarks by the President on the Defense Strategic Review," transcript, January 5, 2012.

[231] "US Reassures Europe of Commitment to Security," Deutsche Welle, February 4, 2012.

[232] "US Reassures Europe of Commitment to Security," 2012.

[233] Feickert, 2012, p. 21.

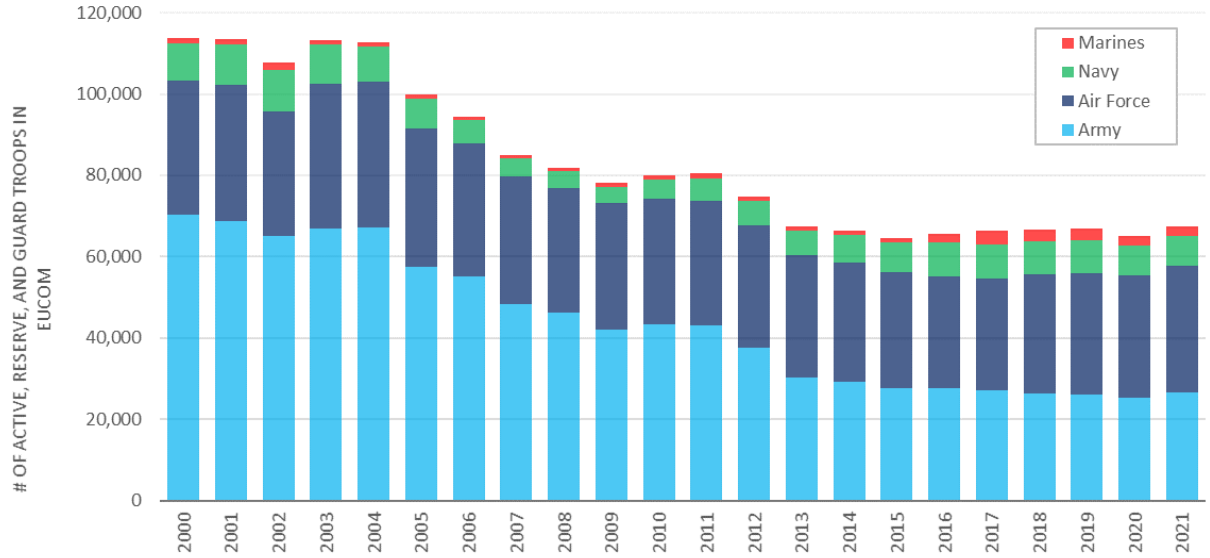
[234] Alexander, 2012.

[235] Alisa M. Federico, ed., *Report 4: Restructuring the US Military Bases in Germany: Scope, Impacts, and Opportunities*, Bonn, Germany: Bonn International Center for Conversion, June 1995.

[236] This figure is derived from data from the Defense Manpower Data Center that indicate that the total number of U.S. forces in EUCOM in 1990 was 291,520, whereas the total in 1999 was 112,742 (Defense Manpower Data Center, "DoD Personnel, Workforce Reports & Publications," webpage, undated).

four services were stationed in EUCOM.[237] By the time the Pentagon's announcement to enact further reductions was made in 2012, that number had shrunk to nearly 75,000 (see Figure 5.1).[238]

Figure 5.1. Decline in U.S. Forward Presence in EUCOM Over Time



SOURCES: Defense Manpower Data Center, undated. The post-2014 DMDC data for parts of Eastern and Central Europe have been supplemented with RAND U.S. Ground Intervention Dataset (RUGID) estimates to more accurately reflect additional rotational deployments to deter Russian aggression since the annexation of Crimea (i.e., under Operation Atlantic Resolve and NATO's eFP). These consist of annual estimates for Estonia, Latvia, Lithuania, Poland, Romania, Hungary, and Bulgaria from 2014 to 2018. For more information on RUGID, see Jennifer Kavanagh, Bryan Frederick, Matthew Povlock, Stacie L. Pettyjohn, Angela O'Mahony, Stephen Watts, Nathan Chandler, John Speed Meyers, and Eugeniu Han, *The Past, Present, and Future of U.S. Ground Interventions: Identifying Trends, Characteristics, and Signposts*, Santa Monica, Calif.: RAND Corporation, RR-1831-A, 2017.

Although there is little concrete evidence indicating how Russian decisionmakers interpreted the cuts, the high visibility of large-scale U.S. forward presence suggests that Kremlin leadership was at the very least aware of these developments on a macro level. Given Russian protestations over U.S. troop presence in Europe, we assume that the troop reductions were taken as a positive development in Moscow. That said, the concurrent waves of eastward NATO expansion in the 1990s and 2000s, which inflamed Russian threat perceptions, may have negated any reductions in Russian threat perceptions engendered by U.S. troop reductions in Europe.

Given Russia's interests in Ukraine, it is likely that U.S. demonstrations of commitments *specific* to Ukraine in the years preceding the annexation of Crimea were also on the Kremlin's radar, although the commitments were sparse. First, the United States had very few forces

[237] Defense Manpower Data Center, undated.

[238] Defense Manpower Data Center, undated.

located in Ukraine throughout the 1990s and 2000s. Between 1990 and 2013, overall troop numbers across the four services (including National Guard and reservist troops) ranged between five and 28 personnel.[239] In 2013, the year preceding the invasion of Crimea, there were 15 personnel.[240] Although these figures are considerably smaller than the analogous figures for several Alliance states in this period, they are consistent with those for other post-Soviet states at the time.

U.S. and Ukrainian forces were involved in a handful of military exercises and demonstrations in the years leading up to the invasion of Crimea. In 2010, for instance, the U.S. Marine Corps established the Black Sea Rotational Force, a Security Cooperation Marine Air-Ground Task Force that conducted military-to-military engagements with partners in the Black Sea region, including Ukraine.[241] Aside from the existence of the force, the character of the force might not have signaled close cooperation between the United States and Ukraine. First, the force was not exclusive to Ukraine but rather involved several regional partners. Moreover, prior to the annexation of Crimea, the force's engagements with partner states focused on training and exercising counterinsurgency and peacekeeping tactics. Thus, these engagements were not explicitly designed to deter Russian aggression—although it is possible that Russia viewed any military cooperation between the U.S. military and the forces of the Black Sea states as threatening. Lastly, U.S. messaging on the initiative did not mention deterrence as an objective of the engagements in the years before Crimea.[242]

In 2011, U.S. troops participated in Jackal Stone, a multilateral special operations exercise with the U.S. Air Force providing air support. Ukraine was one of several participating states. Safe Skies 2011, a joint U.S., Ukrainian, and Polish exercise involving the Air National Guard, marked the first time that U.S. military jets touched down in Ukraine in the post–Cold War era.[243] Outside of military activities, U.S. foreign assistance funding to Ukraine had been steadily declining since the 1990s.

Verbal U.S. commitments specific to Ukraine in the form of public remarks by decisionmakers were also relatively limited. In 2010, Secretary of State Clinton publicly affirmed the U.S. position on Ukrainian independence at a joint press conference with then–Ukrainian President Viktor Yanukovych. The secretary conveyed U.S. hopes that Ukraine would maintain amicable relationships with Russia and the West but underscored that the United States did "not believe in the concept of spheres of influence" and restated the U.S. position that Kyiv had the right to "chart [its] own course."[244] That said, Clinton's remarks did not explicitly

[239] Defense Manpower Data Center, undated.

[240] Defense Manpower Data Center, undated.

[241] Christopher Flurry, "Black Sea Rotational Force Officially Kicks Off," Marines, May 18, 2010.

[242] Vandiver, 2011.

[243] Matthew T. Mutti, "Air Guard Partners Exercise in Ukraine," Air Force, July 18, 2011.

[244] "Clinton Reaffirms Support for Non-Aligned Ukraine," Voice of America, July 1, 2010.

articulate whether the United States was prepared to back its position on Ukrainian sovereignty with specific actions and, if so, how the United States might respond to a violation of Ukrainian sovereignty. Then, in 2012, both Clinton and Secretary of Defense Panetta embarked on a European reassurance tour with the aim of allaying European concerns regarding U.S. troop reductions in Europe. Neither Clinton's nor Panetta's remarks referenced deterrence or Ukraine.[245]

In the prelude to the Crimean crisis specifically, U.S. decisionmakers signaled their commitment to democracy and self-determination in Ukraine, to the ousting of Yanukovych and to the new authorities in Kyiv, and to the peaceful transition of power. On the issue of external interference, U.S. leaders issued warnings that Russian intrusion would not be tolerated. But they stopped short of explicitly detailing what kind of response such interference might provoke.

When confrontations in Kyiv between police forces and demonstrators escalated to violence on February 19, 2014, President Obama weighed in, signaling the U.S. commitment to peaceful protests by threatening "consequences if people step over the line."[246] The day after Yanukovych's ousting (February 23), then–U.S. National Security Advisor Susan Rice was asked on NBC's *Meet the Press* about the possibility of a Russian incursion into Ukraine to forcibly reinstall a government sympathetic to Kremlin demands. Rice cautioned that it was in "nobody's interest to see violence return and the situation escalate."[247] Two prominent U.S. lawmakers from the other side of the aisle, Republican senators John McCain and Bob Corker, also weighed in publicly. Both senators encouraged the Obama administration to firmly communicate the U.S. commitment to Ukrainian territorial integrity. The "message has to be sent to [Putin] that . . . the Ukrainian people determine their own future, and a partition of Ukraine . . . is totally unacceptable," McCain said on CBS's *Face the Nation*. Corker echoed McCain's admonitions.[248]

Although the United States took a handful of diplomatic steps to demonstrate its support for Ukrainian self-determination—mainly visits to Kyiv from senior U.S. officials and the imposition of travel bans on Ukrainian authorities responsible for violent crackdowns—Washington decided against the use of any military OAIs in and around Ukraine in this period.[249] In sum, U.S. overtures hinted that there would be repercussions for Russian interference in Ukraine, but Washington did not explicitly articulate what U.S. policy to deter Russian

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[245] Elisabeth Bumiller and Steven Erlanger, "Panetta and Clinton Seek to Reassure Europe on Defense," *New York Times*, February 4, 2012.

[246] Krishnadev Calamur, "Anti-Government Protests in Ukraine Turn Deadly," NPR, February 18, 2014; Arlette Saenz, "Obama Threatens 'Consequences' for Violence in Ukraine," ABC News, February 19, 2014.

[247] Will Dunham and Ros Krasny, "In No One's Interest for Ukraine to Split Apart—US's Rice," Reuters, last updated February 23, 2014.

[248] Dunham and Krasny, 2014.

[249] Lesley Wroughton, "U.S. Says Imposes Visa Bans Against 20 Ukrainian Officials," Reuters, last updated February 19, 2014.

provocations in Ukraine consisted of in practice. And yet the Kremlin's covert approach to its operation in Crimea offered the United States little to react to immediately prior to the annexation. This is to say that, in the absence of signaling by Russia of its intentions in Crimea specifically, the United States did not have a clear signal of what to design a deterrence strategy against.

View in Washington—U.S. Deterrence Policy and Perceptions of Russian Intentions

As we established in our earlier discussion of Russian signaling, in the years preceding the annexation of Crimea, the Kremlin had consistently articulated and demonstrated both its position on Ukraine and its intention to maintain Kyiv in its orbit. U.S. discourse indicates that Russia's message was received by some observers in Washington who raised concerns when senior U.S. leaders deliberated on policies that could be seen as threatening Russian interests in Ukraine. For instance, in a report prepared for Congress following the NATO Bucharest Summit in 2008, analyst Steven Woehrel of the Congressional Research Service identified Russian "efforts to encourage secessionist or other centrifugal forces in eastern and southern Ukraine, especially in the Crimea," as a possible Russian response to Ukrainian accession to NATO.[250] The Kremlin, he argued, "could make territorial claims against the city of Sevastopol in Crimea (where Russia has a naval base) or the Crimean peninsula as a whole."[251] Woehrel was not alone in his observation of Russia's demonstrations of its intentions in Ukraine.

Others in Washington, however, viewed Russian threat perceptions through a different prism. At a September 2008 congressional testimony, then–Assistant Secretary of State for European and Eurasian Affairs Daniel Fried revealed how the Bush administration had interpreted Russia's reactions to U.S. campaigning for Ukrainian and Georgian NATO accession. According to Fried, the Kremlin was intent on "drawing a line down the center of Europe and declaring that nations on the wrong side of that line belong to Moscow's 'sphere of influence' and therefore cannot join the great institutions of Europe and the transatlantic family."[252] Fried explicitly identified "blunt[ing]" Russian efforts to partition Europe as a core U.S. objective, but he did not articulate how the United States might respond to Russian provocations in Georgia and Ukraine in practice.

In addition, although Russia had clearly signaled its position on Ukraine, relevant U.S. audiences may have been dulled to Kremlin rhetoric by early 2014. By this point, observers in the United States had been inundated with Moscow's framing of the West as the aggressor and

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[250] Woehrel, 2008, p. 11.

[251] Woehrel, 2008, p. 11.

[252] Daniel Fried, Assistant Secretary of State for European and Eurasian Affairs, "U.S.-Russia Relations in the Aftermath of the Georgia Crisis," testimony before the House Committee on Foreign Affairs, Washington, D.C., September 9, 2008.

Russia as the aggrieved party.[253] Although Russia's stated position in Ukraine appears to be largely genuine with hindsight, it may not have been perceived this way in Washington prior to the events of 2014.

With respect to Russia's seizure of Crimea specifically, Washington's surprise at Russia's annexation of Crimea suggests that U.S. decisionmakers largely misjudged Russia's intentions.

Conclusion of Crimea Episode—Russia's Decision to Intervene and Perceptions of U.S. Commitments and Intent

In summary, it appears that Russia found U.S. commitments to Ukraine's integration into Euro-Atlantic institutions throughout the post–Cold War era to be highly threatening to its influence and security. Moreover, U.S. support for democratic grassroots revolutions in the former Soviet space and during the Arab Spring likely only magnified Russian threat perceptions. From their seats in the Kremlin, Putin and other elites witnessed the ousting of friendly regimes by their own publics, emboldened by the overt endorsement of the U.S. government.[254] According to scholars, senior Russian decisionmakers viewed this overt support—in the form of decisionmaker rhetoric, facetime with senior U.S. leaders, or counseling for civil society organizations and others—as evidence of covert U.S. efforts to back domestic opposition to depose objectionable regimes.[255] Thus, by the time Washington publicly affirmed its support for the Maidan demonstrations in Ukraine, Russian decisionmakers were primed to perceive such developments as threatening. Viewed through this prism, even if traditional Western military threats to Russia were perhaps waning, threats to Russian interests were not. This would logically have led to a highly resolved Russia seeking to halt these actions.

Evidence also suggests that U.S. OAIs in European NATO countries did not weigh heavily in Russia's calculus on the seizure of Crimea. The bulk of U.S. forward presence was geographically removed from Russia's eastern flank and likely was interpreted as a signal of U.S. commitments to NATO members. Russia's objections to Kyiv joining the Alliance indicate that Moscow viewed the distinction between member and nonmember states as a significant one. Thus, although the reduced U.S. troop presence in Europe, primarily in NATO states, may have affected Russian perceptions of U.S. commitments to Alliance security, it is unlikely that Moscow associated this with Ukrainian security. Moreover, the quick seizure of Crimea would have left no time for even rapid reinforcement from basing infrastructure in Western Europe. This suggests that reduced U.S. military OAIs in Europe, while perhaps an enabling factor, may not have been a decisive factor in Russia's calculus.

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[253] Katherine P. Avgerinos, "Russia's Public Diplomacy Effort: What the Kremlin Is Doing and Why It's Not Working," *Journal of Public and International Affairs*, Vol. 20, 2009.

[254] Soldatov and Rochlitz, 2018, pp. 98–99.

[255] Soldatov and Rochlitz, 2018, pp. 98–99.

Perhaps more important than the capability of U.S. forces forward deployed to Europe was the absence of a strong signal of political will to use them to defend non-NATO partners. In the absence of an explicit articulation of the costs that Russia would incur if it violated Ukrainian sovereignty, Kremlin leaders were left to fill in the blanks, drawing more heavily from their own perceptions of U.S. intentions and commitments. If, for instance, Kremlin decisionmakers applied lessons from the 2008 Georgian case to Crimea, they may have assumed that a Russian incursion into Crimea would not prompt a major U.S. military response.

Ultimately, U.S. overtures signaling Washington's commitment to Ukrainian territorial integrity did little to dissuade Kremlin policymakers from pursuing their objectives in Crimea. On February 26, under the guise of major snap exercises, the Russian military began positioning forces for the incursion into Crimea.[256] In the following days, Russian forces cloaked as local defense groups seized key strategic locations on the peninsula. The sequence of events in this period sheds light on Russia's calculus and its decision to intervene in Crimea.

On February 22, the same night that Yanukovych was removed from office, Putin summoned the heads of Russia's security services and defense ministry to discuss developments in Ukraine. They were tasked with engineering Yanukovych's safe exfiltration from Ukraine in order to "save the life of the president of Ukraine," which Putin has said he believed was at risk with the installment of new authorities in Kyiv.[257] As the all-night meeting drew to a close, Putin pivoted to a related topic. In his own words, Putin later recounted, "we finished at about seven o'clock in the morning. As we parted, I will not hide it, I told all of my colleagues, there were four of them: The situation has unfolded in Ukraine in such a way that we have to start work on the return of Crimea to being part of Russia."[258]

If we take Putin at his word, this narrative suggests that the ousting of Yanukovych and associates and the subsequent transition of power in Kyiv (against the backdrop of the Euromaidan movement) served as a turning point in Kremlin decisionmaking. Alternatively, Putin's comments—which were released as part of a state-sanctioned documentary a year after the annexation—could be the product of Kremlin efforts to frame events ex post facto.[259]

Yanukovych's ousting at the hands of pro-Western (and anti-Russian) authorities in Kyiv, specifically, appears to have shifted Russia's calculus in Ukraine. Not only was the Kremlin's main ally now persona non grata in Kyiv, but the 2004 constitution's resurrection would mean that any future president—Kremlin associate or not—would have less autonomy to set the

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[256] Kofman et al., 2017, pp. 8–10.

[257] John W. Parker, *Understanding Putin Through a Middle Eastern Looking Glass*, Washington, D.C.: Institute for National Strategic Studies, Strategic Perspectives, No. 19, July 2015, pp. 28–29.

[258] Parker, 2015, p. 29. See also Carl Schreck, "From 'Not Us' to 'Why Hide It': How Russia Denied Its Crimea Invasion, Then Admitted It," Radio Free Europe/Radio Liberty, February 26, 2019.

[259] Either way, Putin's retelling of the events of that evening does not reveal whether plans for a Crimean operation existed or needed to be engineered from the ground up (Laura Mills, "Putin Describes Meeting to Take Crimea Before Referendum," AP News, March 9, 2015).

direction of the country.[260] The timing of events suggests that the Kremlin officials also perceived the transition of power in Kyiv as a serious threat to Russian interests in Crimea, most notably Russia's access to the naval base at Sevastopol. As George and Smoke observe, visible and tailored signaling is a necessary but insufficient factor in successful deterrence policy:

> Effective deterrence and effective signaling require . . . that the interests of the United States be sufficiently engaged by what is at stake in the area or country in question. Commitments which rest on relatively weak national motivation are more likely to be challenged. Technical proficiency in signaling commitment may not compensate in situations in which the motivation of the United States as the protecting power is weak relative to the opponent's strong desire to change the status quo.[261]

To George and Smoke's point, there was a strong asymmetry of U.S. and Russian interests in Ukraine. For the Kremlin, access to Crimea held key military significance, as well as symbolic importance. U.S. interests, by contrast, were less tangible. Supporting Ukraine represented the preservation of democracy and the contestation of Russia's ability to exert influence in post-Soviet states. Even if U.S. commitments to Ukrainian security and territorial integrity included additional military OAIs in and around Ukraine, it is unlikely that the costs they would have signaled to the Kremlin would have exceeded Russia's perceived costs in losing access to Crimea.

Crisis in the Donbas

Overview of the Crisis

Shortly after Yanukovych was deposed and new, pro-Western authorities assumed power in Kyiv in February 2014, protests contesting the president's dismissal occurred in cities across eastern Ukraine. Although observers debate the level to which these demonstrations were manufactured by Moscow, most agree that some of the protesters were local Ukrainians who mobilized organically.[262] After all, a significant fraction of eastern Ukrainians had voted for the ousted president. In early March 2014, demonstrators seized government buildings in the eastern cities of Kharkiv, Donetsk, and Luhansk.[263] Then, in early April, figures with ties to Russia emerged as leaders of the movements.[264]

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[260] Likewise, the Kremlin may have perceived these developments as the Ukrainian people's second rejection of the kind of "managed democracy" that has emerged in Russia, the first being the Orange Revolution.

[261] George and Smoke, 1974, p. 60.

[262] Moreover, the largely Russophone populations in eastern Ukraine were anxious about the new, pro-Western authorities' decision to remove Russian as an official language, likely one of several factors motivating early demonstrations (Kofman et al., 2017, pp. 33–36).

[263] Kofman et al., 2017, p. 34.

[264] Kofman et al., 2017, p. 38.

With this development, the character of the events in eastern Ukraine started to evolve from civil unrest to armed aggression. The groups' demands also shifted, from calls for increased regional autonomy to calls for secession.[265] Separatist forces mounted offensives to seize government sites throughout the region in April and May, which brought them into contact with Ukrainian government forces deployed in response to the unrest. Meanwhile, in Kyiv, pro-Western businessman-turned-politician Petro Poroshenko was elected as Ukraine's new president on May 25. The battle for the Donetsk airport in late May between Ukrainian government forces and the separatist forces represents an important turning point for Russia's involvement in the emerging conflict.[266]

The Kremlin chose once again to escalate its involvement in the Donbas in late August 2014. Russian forces crossed the border, defeating Ukrainian forces at the Battle of Ilovaisk and opening up a new front toward Novoazovs'k, a Ukrainian border town situated on the Sea of Azov.[267] With its August 2014 escalation, the Kremlin crossed a new threshold, from bolstering separatist forces to mounting a conventional military incursion. This decision profoundly altered the course of the conflict in favor of the flagging separatists. Soon after, leaders of the self-proclaimed Donetsk People's Republic (DNR, for *Donec'ka Narodna Respublika* [transliterated from Ukrainian]) and Luhansk Peoples Republic (LNR, for *Luhans'ka Narodna Respublika*) convened with Ukrainian authorities in the presence of officials representing Russia and the Organization for Security and Co-operation in Europe (OSCE). These discussions ultimately yielded the Minsk Protocol (colloquially referred to as Minsk I), which included a ceasefire, the withdrawal of all "foreign mercenaries," and three clauses proposed by Russia granting occupied Donbas increased autonomy.[268] Soon thereafter, fighting in eastern Ukraine resumed, although at a lower tempo and magnitude.[269]

In January 2015, separatists and Russian forces mounted a new offensive in the Donbas and seized control of several strategic sites in the region.[270] This escalation in violence and increasing calls from decisionmakers in Washington to arm Ukraine prompted French and German officials to hold discussions with U.S., Russian, and Ukrainian leaders on possible peace proposals in

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[265] Kofman et al., 2017, p. 39.

[266] Elena Kostyuchenko, "Battle for Donetsk Airport: The Story of One Russian Fighter," *The Guardian*, June 27, 2014.

[267] Andrew E. Kramer and Michael R. Gordon, "Ukraine Reports Russian Invasion on a New Front," *New York Times*, August 27, 2014; "'Significant Escalation': Russian Tanks Enter Ukraine," CBS News, last updated August 28, 2014.

[268] Duncan Allan, *The Minsk Conundrum: Western Policy and Russia's War in Eastern Ukraine*, London, United Kingdom: Chatham House, May 2020; "Ukraine Deal with Pro-Russian Rebels at Minsk Talks," BBC News, September 20, 2014.

[269] Kofman et al., 2017, pp. 44–45; and "Ukraine Crisis: Russian Troops Crossed Border, NATO Says," BBC News, November 12, 2014.

[270] James Rupert, "Russian Troops Lead Moscow's Biggest Direct Offensive in Ukraine Since August," Atlantic Council, January 23, 2015.

early February 2015.[271] On February 11, the parties once again convened in Minsk, where they hammered out an agreement involving a truce and several other provisions.[272] Although the security-related aspects of Minsk II, such as the agreement on a ceasefire and the withdrawal of "foreign" forces and equipment, were favorable to Ukraine, the deal included a requirement for the formal "decentralization" of occupied Donbas and the "adopt[ion of] permanent legislation on the special status of certain areas of the Donetsk and Luhansk regions."[273] However, these measures were not implemented as of this writing.

The years since have witnessed continued fighting and intermittent flare-ups in violence, punctuated by ceasefire attempts. Nevertheless, the Russian military has not mounted another major offensive in the Donbas since Minsk II and, at most, has engaged in intimidation against Ukraine, including the buildup of forces on Ukraine's border in April 2021 and the limitation of freedom of navigation in the Sea of Azov.[274] Beginning in fall 2014, and especially after 2015, the United States bolstered its military commitments to Kyiv as detailed below, at first providing nonlethal material assistance and deploying small numbers of U.S. forces to train Ukrainian forces, and, after 2017, providing lethal assistance. In the remainder of this chapter, we explore what may have shaped Russia's decision to pause its military's escalations in eastern Ukraine after 2015, comparing such factors as Russia's achievement of its goals, U.S. political and economic actions, and U.S. military OAIs.

Signals from Moscow on the Donbas

Signals of Russia's Position on and Intent in the Donbas

As discussed above, the Kremlin clearly and consistently articulated its position on Ukraine's status and Kyiv's formal and informal allegiances throughout the post–Cold War period. However, on the issue of the Donbas specifically, Moscow's messaging has been more opaque. The denied nature of Russia's operations in the Donbas during peak Russian military involvement (2014–2015) complicated efforts by the Kremlin to signal its intentions in eastern Ukraine. It was not until December 2015 that Putin acknowledged the presence of Russian military specialists in the Donbas, but, even then, the Kremlin leader continued to deny having sent regular troops into Ukraine.[275]

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[271] Neil MacFarquhar, "World Leaders Meet in Belarus to Negotiate Cease-Fire in Ukraine," *New York Times*, February 11, 2015.

[272] Allan, 2020.

[273] Allan, 2020; "Factbox: Minsk Agreement on Ukraine," Reuters, February 12, 2015.

[274] Tom Balmforth and Matthias Williams, "Russia Orders Troops Back to Base After Buildup Near Ukraine," Reuters, April 22, 2021; Paul Goble, "Russia Effectively Seizes Control of Sea of Azov, Threatening Ukraine," *Eurasia Daily Monitor*, Vol. 18, No. 63, April 20, 2021.

[275] Shaun Walker, "Putin Admits Russian Military Presence in Ukraine for First Time," *The Guardian*, December 17, 2015.

In light of these self-imposed constraints, Russian signaling appears to have instead attempted to frame international discourse on the conflict. Early on, Russia took steps to legitimize the actions of the separatists' political arms, the Donetsk People's Republic and the Luhansk People's Republic, by recognizing both bodies' elections in 2014.[276] If we assume that Moscow's support was not purely rhetorical, these actions indicate that Russia was throwing its weight behind increased autonomy for the separatist regions. Furthermore, for the first year of the conflict, Putin adopted the use of the Tsarist-era term *Novorossiya* ("new Russia") when referencing southeastern Ukraine. By alluding to the substantially larger swath of land conquered by Tsarist forces in the late 18th century, Putin's comments fueled concerns that Russia had designs to expand its military operation in Ukraine.[277] But, following Minsk II, Kremlin references to *Novorossiya* petered out, which may have been an indicator of evolving Russian intentions.[278]

Lastly, the Kremlin's agenda items at the Minsk negotiations offer indications of Moscow's position and intentions in the Donbas. At both sets of negotiations, Kremlin representatives pushed for provisions that granted the separatist regions greater autonomy; formalized separatist territorial gains; and normalized the conflict in eastern Ukraine and resultant divisions as the new status quo.[279]

Signals of Russian Capability and Will

By the time Minsk II was agreed to in February 2015, Russia had demonstrated its willingness to use military force in service of its interests in eastern Ukraine. On three occasions, the Kremlin deliberately chose to respond to unfavorable developments on the ground by escalating its military support to separatist forces. Russian so-called volunteers first appeared on the Ukrainian battleground in May 2014, followed by a major Russian effort to supply the separatists with arms, ammunition, and equipment.[280] In late August 2014, Russia sent regular Russian troops (between 1,000 and 4,000; accounts vary) across the border.[281] Lastly, in January 2015, separatists and Russian forces once again ratcheted up the pace and scale of their military activities in eastern Ukraine, including seizing control of the Donetsk airport and conducting a

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[276] "Ukraine Crisis: Russia to Recognize Rebel Vote in Donetsk and Luhansk," BBC News, October 28, 2014.

[277] David M. Herszenhorn, "What Is Putin's 'New Russia?'" *New York Times*, April 18, 2014.

[278] Paul Sonne, "'Novorossiya' Falls from Putin's Vocabulary as Ukraine Crisis Drags," *Wall Street Journal*, May 29, 2015.

[279] Allan, 2020.

[280] According to a 2017 RAND study on the conflict, "From June until the end of August, Russia trickled in mechanized equipment, armor, and advanced munitions to the separatist forces, as well as medium air defenses (such as Buk-M1 capable of high-altitude interception) operated by its own units" (Kofman et al., 2017, p. 44). Separatists' use of a Russian-supplied Buk 9M83 surface-to-air missile to down civilian airliner Malaysian Airlines Flight 17 over eastern Ukraine in mid-July 2014 serves as evidence to substantiate these claims ("MH17 Ukraine Plane Crash: What We Know," BBC News, February 26, 2020).

[281] Kramer and Gordon, 2014.

successful siege against Ukrainian forces in Debaltseve, a significant transportation hub.[282] In late January, separatists and Russian forces began shelling the port city of Mariupol—the last city in the Donbas under Ukrainian government control.[283] The events of late 2014 and early 2015 represented a series of setbacks for the Ukrainian military, including the loss of around 200 square miles of territory since Minsk I.[284]

Despite Moscow's official position that any Russians fighting in the Donbas were there of their own volition, by early 2015, Western officials formally acknowledged the presence of Russian troops and equipment in the Donbas.[285] Effectively, the Kremlin had signaled that it possessed the capability and will to conduct a flexible but limited military intervention to shore up separatist efforts in the Donbas as needed. Given the Russian military's considerable reforms by 2015 and the relative strength of Russian forces (compared with Ukraine's), it is unlikely that any observers questioned Russia's capability to conduct a more robust campaign in eastern Ukraine. That said, Moscow's appetite for mounting an overt or larger-scale operation remained unclear.

Signals from Washington and Western Allies on the Donbas

When measured against the U.S. approach leading up to the annexation of Crimea, Washington's deterrence strategy vis-à-vis Russian provocations in the Donbas was more appreciable. This may have been because the United States had a better understanding of Russian intent, with Washington having updated its threat assessment of Russia after the seizure and annexation of Crimea. It could also be explained by the fact that the crisis in the Donbas allowed more time for the United States to ratchet up its deterrent posture, whereas the annexation of Crimea unfolded quickly, limiting U.S. policy options. The U.S. strategy was composed of two main thrusts: commitments designed to bolster Ukraine's capacity to defend itself (deterrence by denial) and those designed to impose costs on Russia in response to its behavior in Ukraine (deterrence by punishment).[286]

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[282] Rupert, 2015.

[283] "Rebels Press Ukraine Offensive as Obama Pledges Action," Reuters, last updated January 26, 2015.

[284] MacFarquhar, 2015.

[285] "Ukraine Crisis: NATO Images 'Show Russia Troops,'" BBC News, August 28, 2014.

[286] For discussions of these two forms of deterrence identified in deterrence theory, see Glenn H. Snyder, "Deterrence and Power," *Conflict Resolution*, Vol. IV, No. 2, June 1, 1960. While Snyder was the first to distinguish between these two forms, a robust literature examining the behavior both in theory and in practice has since emerged.

Commitments Designed to Bolster Ukraine's Capacity to Defend Itself

U.S. Diplomatic Commitments

U.S. decisionmakers verbally articulated their commitment to Ukraine's territorial integrity with the decision to formally reject the outcome of the Crimean referendum vote.[287] The White House announced that the United States would not recognize the peninsula as Russian territory—a position U.S. leaders have maintained since.

U.S. Economic Commitments

Within weeks of the annexation, the U.S. Congress approved a financial package that extended a $1 billion loan guarantee to Ukraine, in addition to $150 million in direct aid to authorities in Kyiv.[288] Between FY 2015 and FY 2019, the United States increased its nonmilitary foreign assistance to Ukraine, which rose to approximately $321 million annually, on average.[289] For comparison, these figures are orders of magnitude higher than their pre-2014 equivalents.[290]

U.S. Military Commitments

Although some U.S. legislators floated various military aid packages for Ukraine in the first weeks following Crimea's annexation, the White House had early reservations about providing Kyiv with any military aid.[291] It was not until mid-April, after Ukrainian forces launched their Anti-Terrorist Operation and first engaged separatists in the Donbas, that the White House agreed to provide Ukraine with nonlethal materiel, including medical supplies, clothing, and Meals Ready to Eat.[292] This package deliberately excluded such equipment as night vision goggles and body armor, perhaps because of concerns of Russian escalation.[293]

With each Russian escalation in the Donbas, the United States began to increase its assistance and expand the variety of assistance provided. Following Russia's August 2014 offensive, the White House announced a new $46 million aid package for the Ukrainian military

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[287] White House, Office of the Press Secretary, "FACT SHEET: U.S. Efforts in Support of NATO Allies and Partners," March 26, 2014d.

[288] Paul Lewis, "Congress Approves Ukraine Aid Package," *The Guardian*, March 28, 2014.

[289] This figure includes all U.S. Department of State and United States Agency for International Development bilateral assistance except FMF and International Military Education and Training funding. See Welt, 2021, p. 37.

[290] For instance, U.S. Department of State and United States Agency for International Development assistance, including FMF, which the figures for FYs 2015–2019 do not include, total about $105 million annually for the five years preceding Russia's intervention in Ukraine. See Welt, 2021, p. 37.

[291] Seung Min Kim, "Ukraine Bill Sent to Obama," *Politico*, April 1, 2014.

[292] Richard Sisk, "US Money for Ukrainian Border Guards," Military.com, May 7, 2014.

[293] Julie Pace and Robert Burns, "US Working on Non-Lethal Aid Package for Ukraine," *The Sentinel*, April 16, 2014; Sisk, 2014.

that would include such equipment as body armor, binoculars, and counter-artillery radars.[294] EUCOM announced the creation of the Ukraine-U.S. Joint Commission in October 2014 to help coordinate future assistance.[295] After the January escalation, Obama indicated that his administration was actively examining "all additional options that are available . . . short of military confrontation,"[296] implying the consideration of lethal assistance, although the administration ultimately chose not to pursue this course of action.[297] In early 2015, the United States also began to deploy forces to train Ukrainian forces. These rotational U.S. forces later evolved into the Joint Multinational Training Group–Ukraine, whose mission it is to "reinforce defensive skills of the Ukrainian Ground Forces in order to increase their capacity for self-defense."[298]

It was not until late 2017, under the Trump administration, that the United States began to provide lethal aid to Ukraine. In practice, this meant that Kyiv was given the opportunity to purchase arms, including approximately 210 FGM-148 Javelin anti-tank missiles and around 37 command launch units, which it did in early 2018, and again in 2019.[299] According to DoD, security assistance in the period between 2017 and 2020 also included capabilities for "maritime situational awareness[;] sniper rifles, rocket-propelled grenade launchers, and counter-artillery radars; command and control; electronic warfare detection and secure communications; military mobility; night vision; and, military medical treatment."[300] The United States also provided patrol boats to the Ukrainian Navy through Excess Defense Articles. [301]

In addition to changes in the local balance of forces, U.S. politics around the issue of deterring Russia had changed substantially from the pre-2014 period. The need to beef up deterrence in EUCOM gained support from major factions in both main U.S. political parties,[302]

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[294] Julie Pace, "Ukraine's Pleas for Lethal Aid from US Go Unmet," AP News, September 18, 2014; Warren Strobel and Patricia Zengerle, "Exclusive: U.S. Increasing Non-Lethal Military Aid to Ukraine," Reuters, last updated November 20, 2014.

[295] U.S. European Command Media Operations Division, "Readout of Ukraine-US Joint Commission," Stuttgart, Germany, October 21, 2014.

[296] "Rebels Press Ukraine Offensive as Obama Pledges Action," 2015.

[297] Michael R. Gordon and Eric Schmitt, "U.S. Considers Supplying Arms to Ukraine Forces, Officials Say," *New York Times*, February 1, 2015.

[298] Elizabeth Tarr, "JMTG-U Commander Bids Farewell to Ukraine," U.S. Army, December 9, 2016.

[299] Kyle Rempfer, "More Lethal Aid to Ukraine? US Trainers, Javelins Have Already Made Russians a Little More Nervous," *Military Times*, March 6, 2019a; "US Announces Sale of Lethal Aid to Ukraine," Voice of America, March 1, 2018.

[300] Cory Welt, *Ukraine: Background, Conflict with Russia, and U.S. Policy*, Washington, D.C.: Congressional Research Service, R45008, updated September 19, 2019, p. 38.

[301] Andrew Strike, "Former U.S. Coast Guard Patrol Boats to Serve Again in the Ukrainian Navy," *DipNote*, blog, July 2, 2021.

[302] Chris Van Hollen, "U.S. Policy Toward Russia: A View from Congress," transcript, Center for Strategic and International Studies forum, November 21, 2019.

leading to increased defense spending on such projects as the European Reassurance Initiative (ERI) and, subsequently, the European Deterrence Initiative. During this period, there were notable foreign policy voices pushing back against any residual efforts at resetting relations with Russia,[303] strengthening the message of political will that accompanied these increases in U.S. military capabilities forward and partner self-defense capacity.

Pentagon commitments in the form of bilateral and multilateral military exercises involving Ukrainian armed forces appear to have been largely maintained at pre-2014 levels. However, the U.S. decision to proceed with Rapid Trident and Sea Breeze, the Pentagon's two annual exercises with Ukraine, was symbolically significant. The autumn 2014 iteration of Rapid Trident represented the first time that U.S. military personnel had deployed to Ukraine in significant numbers since war broke out in the Donbas.[304] Sea Breeze 2014, an exercise involving U.S. and Ukrainian naval forces, was conducted in the Black Sea, home to the then–recently annexed Crimean peninsula.[305] The Pentagon's decision to press forward with both exercise series indicated that neither events in Crimea nor the presence of Russian troops in the Donbas would dissuade the United States from honoring its existing defense commitments with Ukraine.

The U.S. activities in Ukraine contrast with the U.S. OAIs provided to NATO member states, as detailed in Chapter 2. For example, in early March 2014, the Alliance began conducting reconnaissance flights over Poland and Romania—both NATO member states bordering Ukraine—with AWACS planes in an effort to "enhance the alliance's situational awareness" on developments transpiring in neighboring Ukraine.[306] Then, in mid-March, the Pentagon deployed 12 F-16s and several hundred airmen to Poland for joint aviation detachment training, at Poland's request.[307] The higher level of OAIs continued with the early June announcement of the proposed U.S. ERI, which, although it identified a goal of building partner capacity in Ukraine, Moldova, and Georgia, focused primarily on bolstering U.S. military presence in European NATO states.[308]

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[303] David J. Kramer, "Opinion: No, Now Is Not the Time for Another Russia Reset," *Politico*, August 11, 2020.

[304] Peter Apps, "U.S., Allies to Stage Exercises in West Ukraine as Battle Rages in East," Reuters, September 2, 2014.

[305] "Seven NATO Countries End Black Sea War Games," 2014.

[306] "NATO to Fly AWACS Planes over Poland, Romania to Monitor Ukraine Crisis," Reuters, March 10, 2014.

[307] White House, Office of the Press Secretary, 2014d.

[308] Although ERI funds dedicated to building up partner capacity grew substantially between FY 2015 and FY 2021, they continue to represent only a small fraction of the overall ERI budget (FY 2015 ~1.3 percent; FY 2016 ~8 percent; FY 2017 ~2.5 percent; FY 2018 ~5.6 percent; FY 2019 [request] ~5.4 percent; FY 2020 ~7.1 percent) (Office of the Undersecretary of Defense [Comptroller], *European Deterrence Initiative: Department of Defense Budget Fiscal Year (FY) 2016*, Washington, D.C., February 2015, p. 1; Office of the Undersecretary of Defense [Comptroller], *European Deterrence Initiative: Department of Defense Budget Fiscal Year (FY) 2018*, Washington, D.C., May 2017, p. 1; Office of the Undersecretary of Defense [Comptroller], *European Deterrence Initiative:*

NATO Commitments

The Alliance rhetorically signaled its support for Ukraine on numerous occasions, including in 2014, when NATO leaders told Ukrainian President Poroshenko that their "support is concrete and tangible. . . . Ukraine has stood by NATO. Now in these difficult times, NATO stands by Ukraine."[309] Beginning in September 2014, NATO and Ukraine established a series of Trust Funds, formal venues for capability development and capacity-building in Ukraine.[310] Following the 2016 NATO Summit in Warsaw, all NATO-Ukraine efforts were subsumed under the Comprehensive Assistance Package for Ukraine, whose stated objective was to "enable Ukraine to become more resilient, to better provide for its own security and to carry out essential reforms, in particular in the security and defence sector."[311] With the exception of Lithuania, NATO allies declined to provide lethal aid to Ukraine early in the conflict, although they have relaxed policies on commercial arms and ammunition sales since the start of U.S. lethal aid provision in 2017.[312]

Measures Designed to Impose Costs on Russia for Its Provocations in Ukraine

The United States and its allies and partners sought to impose sanctions to penalize Moscow for its past provocations in Ukraine (retrospective) and to indicate that Russia would suffer further sanctions if it acted in a similar manner in the future (prospective).

Diplomatic Sanctions

In an effort to diplomatically isolate the Kremlin, the United States announced in late March 2014 that it would pause its participation in the U.S.-Russia Bilateral Presidential Commission and freeze several joint commission projects.[313] In the same vein, multilateral fora, such as the Group of Eight and the NATO-Russia Council, agreed to suspend Russia's membership or halt joint dialogues as a reprisal for Russia's incursions in Ukraine.[314]

Economic Sanctions

Economic sanctions were at the center of the U.S. response to Russia's aggression. Soon after Russia's seizure of Crimea, President Obama authorized U.S. sanctions, including visa restrictions, targeting Russians and Ukrainians who were known to have had a hand in the

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Department of Defense Budget Fiscal Year (FY) 2021, Washington, D.C., February 2020, p. 2; White House, Office of the Press Secretary, "Remarks by President Obama and President Komorowski of Poland in a Joint Press Conference," transcript, June 3, 2014e).

[309] NATO, "NATO Leaders Pledge Support to Ukraine at Wales Summit," September 4, 2014.

[310] NATO, "Relations with Ukraine," webpage, April 27, 2021d.

[311] NATO, "Comprehensive Assistance Package for Ukraine," fact sheet, July 2016.

[312] Peter J. Marzalik and Aric Toler, "Lethal Weapons to Ukraine: A Primer," Atlantic Council, January 26, 2018.

[313] Alexei Anishchuk, "Russia to U.S. on Crimea Annexation: Accept It and Move On," Reuters, April 3, 2014.

[314] White House, Office of the Press Secretary, 2014d.

annexation.[315] On March 20, the Obama administration moved to impose sanctions freezing the property of specific individuals involved in the annexation, and these sanctions expanded in July to major institutions in Russia's energy, financial, and arms sectors.[316] The United States also enacted measures prohibiting the issuance of licenses to U.S. firms exporting military products, defense services, and dual-use products to Russia.[317] After Malaysian Airlines Flight 17 was struck by a Buk surface-to-air missile over separatist-controlled territory in eastern Ukraine, killing the nearly 300 civilians on board, U.S. and EU officials once again coordinated to impose additional sanctions on the energy, arms, and finance sectors of the Russian economy.[318]

U.S. Military Sanctions

For its part, DoD suspended all U.S. military engagements with the Russian Ministry of Defense, including port visits and joint exercises (save communications between high-ranking defense officials) in early March 2014.[319] As observers familiar with Pentagon norms and protocols have noted, the dissolution of military-to-military engagements is not a decision the department takes lightly given these engagements' central role in preventing dangerous miscalculations.[320] Beginning with the 2015 National Defense Authorization Act, Congress also restricted bilateral cooperation between the United States and Russia.[321]

U.S. policymakers drew a stark line between the guarantees to fellow Alliance states and those to non-NATO member states. Speaking to a Dutch audience at The Hague in late March 2014, for instance, President Obama explained that support to "border countries that are outside of NATO" like Ukraine included economic support, diplomatic initiatives, and defense engagements aimed at strengthening these states' geopolitical standing and defenses.[322] But "a

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[315] U.S. Department of State, "Ukraine and Russia Sanctions," webpage, 2014.

[316] Anishchuk, 2014; Thomas Grove, "Aiming at Russia's Iconic Arms Firms, U.S. Sanctions Pack a Punch," Reuters, July 17, 2014; William Mauldin, "U.S. Levels New Sanctions on Crimea, Putin Supporters," *Wall Street Journal*, December 19, 2014; Arshad Mohammed, "Exclusive: U.S. to Sanction Sberbank, Tighten Limits on Other Russian Banks: Sources," Reuters, September 11, 2014; White House, Office of the Press Secretary, "Statement by the President on Ukraine," transcript, March 6, 2014a; White House, Office of the Press Secretary, "Statement by the President on Ukraine," transcript, March 20, 2014b; White House, Office of the Press Secretary, "Statement by the President on Ukraine," transcript, July 29, 2014f.

[317] "U.S. Bans Licenses for Military Exports to Russia," Reuters, last updated March 27, 2014.

[318] White House, Office of the Press Secretary, 2014f.

[319] Cheryl Pellerin, "DOD Supports U.S., Allied Response to Russia-Ukraine Crisis," Joint Chiefs of Staff, 2014.

[320] Associated Press and Erin Fuchs, "The Pentagon Stops Military Engagements with Russia," *Business Insider*, March 3, 2014; Phil Stewart, "U.S. Halts Military Engagements with Russia in Rebuke over Ukraine," Reuters, last updated March 3, 2014.

[321] Andrew S. Bowen and Cory Welt, *Russia: Foreign Policy and U.S. Relations*, Washington, D.C.: Congressional Research Service, R-46761, updated April 15, 2021; Public Law 113-291, Carl Levin and Howard P. "Buck" McKeon National Defense Authorization Act for Fiscal Year 2015, December 19, 2014.

[322] White House, Office of the Press Secretary, 2014d.

potential military response," Obama clarified, was reserved for NATO member states; "that's what NATO is about," said the President.[323]

View in Moscow—How Russian Perceptions of U.S. Commitments and Intent Influenced Kremlin Decisionmaking

Given the opacity of government decisionmaking in general and Kremlin decisionmaking in particular, sketching out an accurate portrait of Russian perceptions of U.S. commitments and intentions at any given time with any degree of certainty is a challenge. Russian rhetoric and behavior offer some indications. Likewise, we can draw inferences about how U.S. OAIs and messaging may have looked to observers at the macro level, recognizing that these data are often distorted when filtered through institutional and individual perceptual lenses.[324]

In the months between Russia's annexation of Crimea and its August 2014 escalation in eastern Ukraine, the overall volume and tempo of U.S. OAIs devoted to supporting Ukraine and reassuring Alliance states increased. This trend was likely observable, including to those in the Kremlin. Still, Russian perceptions of U.S. intentions and commitments were likely shaped by more than the sum of U.S. OAIs in and around Ukraine. Interested parties in Moscow would have likely also looked to the types of U.S. responses and their framing by policymakers in public discourse as indicators.

Russian reactions offer a window into Moscow's perceptions of early U.S. overtures and policies. First, Russian rhetoric suggests that Kremlin officials viewed events in Ukraine, starting in late 2013 with the Euromaidan revolution, through the lens of their concern about color revolution.[325] From this perspective, the removal of Yanukovych was spurred not by an organic grassroots movement, but rather by a U.S.-manufactured fifth column.[326] Speaking to the Foreign and Defense Policy Council in November 2014, Russian Foreign Minister Lavrov argued that Western sanctions were designed to induce regime change in Russia, not policy change toward Ukraine.[327] At around the same time, plummeting oil prices and the accumulating Western sanctions in Russia sparked a sharp devaluation of the ruble and financial challenges for Russia.[328] And yet, as before, Kremlin decisionmakers chose to escalate Russia's role in the

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[323] White House, Office of the Press Secretary, "Press Conference with President Obama and Prime Minister Rutte of the Netherlands, transcript, March 25, 2014c.

[324] For a discussion of cognitive consistency and the implications of cognitive distortion for decisionmaking, see Jervis, 1976, pp. 118–202.

[325] Although some observers have questioned the authenticity of the Kremlin threat perceptions vis-à-vis color revolutions, Russia's recent enactment of laws and policies curtailing Russian freedoms of expression serves as evidence that Moscow's fears of a color revolution are authentic.

[326] See Kremlin, "Address by the President of the Russian Federation," Moscow, Russia, March 18, 2014.

[327] "Ukraine Crisis: Lavrov Warns over Russia 'Regime Change' Goal," BBC News, November 22, 2014.

[328] Mauldin, 2014.

Donbas in January 2015. This suggests that Russia perceived that the cost of inaction outweighed the pain of mounting sanctions.

Still, evidence suggests that there was a shift in Russia's calculus after Minsk II. Following the agreement, the Kremlin did not mount additional major offensives using a significant number of regular forces as it had before. This raises the question—why? As is the case with any examination of potential deterrence success, the latter half of the Donbas episode is complicated because it involves a counterfactual. That is, we are attempting to explain why some event did not take place—in this case, why the Russian military did not escalate after Minsk II, including by pushing fighting into new swaths of Ukrainian territory.

Three things may have changed after Minsk II that might explain the change in Russia's behavior. First, the political and military achievements of early 2015 may have convinced Russia that further aggression was not needed. In principle, the territorial gains, complemented with the requirement for constitutional reforms in the Minsk II agreement, may have given Russia the view that the separatist movement could hold off a Ukrainian attack and that the separatist-held territory would preserve Russia's influence in Ukraine. If Russia's satisfaction that it achieved its interests is the most important factor, limits on Russian action in the post–Minsk II period were neither a deterrence success nor a failure, since Moscow would have had no intent to further aggress. Second, increasing U.S. and European sanctions may have also made further aggression less desirable. If sanctions were the most important factor, then Russia was deterred, albeit via economic coercion. Third, growing U.S. military OAIs may have given Russia pause either because they strengthened the Ukrainian forces relative to the Russian-backed separatists or because they raised the prospect that the United States might become involved if Russia were to escalate. If growing U.S. OAIs were the most important factor, then Russia was deterred by U.S. military inputs.

Unfortunately, we lack specific data to adjudicate the relative weight of each of these factors—and all of them may have been important. Whatever the underlying cause of Russia's decision to pause aggression, it did not persuade Russia to cease its intimidation or influence in Ukraine. For example, in 2021, at the same time as a significant buildup of Russian forces around Ukraine's border, Russia announced that it was closing off the Sea of Azov, a body of water east of Crimea that connects parts of Ukraine to the Black Sea.[329] Whatever impact U.S. OAIs had on Russian-backed military aggression in eastern Ukraine, there appeared to be little that the existing U.S. OAIs could do to affect Russian military activity around Ukraine.

Conclusion

This chapter focuses on two episodes—the annexation of Crimea and Russia's decision not to pursue additional escalations following Minsk II—to offer insight on how U.S. OAIs may

[329] Goble, 2021.

have played a role in Russia's decisions about military actions. First, it is unlikely that Russia viewed U.S. military OAIs in service of broader European security missions as indicators of U.S. commitments or intentions in Ukraine, particularly when these OAIs took place in and with Alliance states. In both episodes, the United States clearly articulated two sets of commitments, those afforded to NATO member states and those to nonmember states, Ukraine being one of the latter. Given the consistent U.S. messaging underscoring this motif, it is unlikely that Russia interpreted U.S. assurances directed at NATO as signals of U.S. commitments in Ukraine. Russia's relationship with Ukraine is such that any number of perceived threats to Moscow's influence in Ukraine would outweigh most costs that the United States would be willing to impose. Lastly, given available evidence, we are unable to say whether specific U.S. policies, including Washington's provision of defensive lethal aid and the uptick in U.S. military OAIs in and around Ukraine, influenced Russia's calculus during and after Minsk II. The uptick in U.S. OAIs, in combination with U.S. sanctions, does appear to be one of several factors that may have together shifted Russia's calculus. Russian perceptions of U.S. political will loom large in both episodes and might be the strongest explanation of the outcomes.

6. Conclusions and Recommendations

The final chapter in this report summarizes the main findings from our research and their implications for more effectively and efficiently deterring Russia and Iran. The broadest takeaway from this study is that neither existing literature nor our original research provides definitive answers of how the United States can precisely optimize its deterrence missions against Russia and Iran. The research is able to highlight U.S. OAIs that appear to have more of an effect than others and sheds light on OAIs that do not have as strong empirical evidence for contributing to deterrence. However, these findings should not be interpreted as ironclad rules for determining deterrence requirements.

What has held back previous research and constrains our original research is the same set of four confounding issues. First, except in rare instances in which archival material provides a direct window into adversary thinking or deterrence visibly fails, it is usually unclear whether the adversary had the intent to take the action that the United States was attempting to deter. This creates what is known as a type I error, or a "false positive," in which what appears to be a deterrence success might have nothing to do with U.S. deterrence inputs but is simply a reflection of the adversary not having seriously considered taking the action.

The second issue is how to reliably disentangle the effects of multiple factors when determining what accounts for an outcome. If Russia or Iran does not take a given action that it has seriously considered, is that owed to U.S. forward presence, security cooperation with partners, declaratory policy, potential economic impacts that would result from the action, reputational concerns in the international community, domestic constraints, or something else? There are qualitative and quantitative techniques to mitigate this challenge, but it is extremely difficult to render high-confidence judgments about what is driving the observed adversary behavior, as illustrated in our case study of deterrence in Ukraine (Chapter 5).

Third, there are few large-scale deterrence failures in which the United States was the provider of extended deterrence from which to distill generalizable lessons, and several of these are from historical periods that occurred under a different international security order. It is fortunate that there are few Iraqi invasions of Kuwait and Russian annexations of Crimea to draw on. But this presents a serious research impediment. As a result, it is necessary to rely on the study of much smaller-scale adversary actions, including actions well short of war. Yet it is not clear that the incidences of these smaller-scale adversary actions (e.g., airspace violations, unsafe approaches at sea) are a reliable indicator of the deterrent impact of U.S. OAIs.

Fourth, notable deterrence successes and failures are often interpreted in light of very specific context that includes the mindsets of the key leaders and the geopolitical situation that the episode grew out of. We could partly control for this in our original research, which focuses on just two adversaries over a short period when many of the national leaders remained the same.

But even with this advantageous scoping, it is impossible to control for all of this important context.

Given the limitations of generating a blueprint for achieving deterrence, attempting to generate efficiencies in deterrence missions introduces risk that cannot be precisely quantified. On the one hand, a strong case can be made that the United States is overinvesting in deterrence against certain contingencies in both theaters (EUCOM and CENTCOM). It could be, for example, that Russia has no serious intent to invade the Baltics (see Appendix A for a discussion of this issue). In this case, some U.S. efforts to reinforce NATO allies in northeast Europe—while having reassurance benefits that might translate into a stronger NATO alliance—might not be needed to deter Russia. Likewise, it might be that Iran would not seriously consider closing the Strait of Hormuz except under the narrowest circumstances, which the United States could avoid through its overall policy toward Tehran. If that statement is true, then U.S. Navy presence in the theater might be inefficient from a pure deterrence perspective. But because these propositions are ultimately unknowable, risk-averse policymakers and defense planners are likely to continue investing in these missions to mitigate against bad outcomes, without being certain that they are generating the intended deterrent effect or doing so efficiently. This is another dimension of the deterrence trap, which we highlighted in Chapter 3.

Although our overall message is one of caution to policymakers and defense planners seeking a definitive answer to how the United States can more effectively deter an adversary without wasting unnecessary effort in the process, the study did identify some considerations for what U.S. OAIs could be reduced and how to make these reductions. These considerations can assist decisionmakers facing the challenge of resourcing deterrence more efficiently. First, U.S. political and military leadership will need to start with a clearer intra-theater prioritization of deterrence missions. To apply EoF principles, we find that decisionmakers must first identify clear priorities among the adversary actions that the United States seeks to deter. And while the National Defense Strategy identifies a clear prioritization among the different geographic combatant commands, we did not find a clear articulation of the priority of deterrence missions within each theater we considered. Relatedly, strategic guidance could help clarify which military capabilities are effectively zero sum in the sense that allocating these forces to one geographic command leads to shortfalls in another, and which capabilities are strongly suited to a specific geographic command, relieving planners of the need to dwell on these trade-offs.

Once a clear hierarchy of U.S. deterrence objectives has been established, then the findings of this study and others like it can help guide the deterrence inputs that are put against each objective. Another consideration is how to execute reductions once a decision has been made. The roundtable discussions make clear that allies and adversaries are likely to respond according to the implied signal of reductions rather than the actual military effect. Careful execution to limit any political backlash might make it more practical for the U.S. Air Force and DoD to implement any desired reductions. The next section of this chapter summarizes these findings.

Key Findings by OAI Category

For defense planners looking to make the best use of OAIs to achieve effective deterrence, Table 6.1 summarizes what each of our research methods suggests about the deterrent effect of different categories of OAIs. The often conflicting or caveated nature of the findings underscores the central message of our research, which is that there is no simple formula for identifying deterrence requirements capable of preventing adversary aggression. With some exceptions across the research methods we employed, forward posture is seen as an important demonstration of U.S. commitment that has a deterrent effect. Within forward posture, infrastructure that enables rapid reinforcement undergirds deterrence logics in both theaters. Among the OAI categories that can be marshaled by the U.S. military for deterrence, forward posture was seen by roundtable participants as the most critical signal of U.S. commitment. But as to whether the inverse logic holds—that declining U.S. forward presence invites adversary aggression—our Ukraine case study is inconclusive.

Short-term deployments and exercises also generated conflicting findings. On the one hand, existing literature shows that certain short-term deployments—like those undertaken in the midst of a crisis—increase the chances of deterring adversary actions. On the other hand, roundtable participants found this logic less compelling, seeing short-term deployments and exercises as important demonstrations of capability but as less effective than forward posture for demonstrating commitment. And our original quantitative analysis found that short-term naval presence missions and the launching of BTF sorties do not have statistically significant effects on deterrent outcomes or might actually increase the chances that the adversary would undertake limit-testing behavior. Security cooperation is the OAI category with the least empirical evidence to determine whether investments improve deterrence outcomes.[330]

For readers focused on applications to a specific theater, the following subsection summarizes findings for EUCOM and then for CENTCOM.

[330] However, some would argue that security cooperation is a key enabler of U.S. forward presence and access, and therefore an entry cost for that OAI.

Table 6.1. Findings on OAI Deterrent Effects, by Research Method

OAI	Existing Literature	Roundtables	Quantitative Analysis	Case Study
Forward posture	Very important for crisis deterrence, but there are some conflicting findings on importance for general deterrence[a]	Most important OAI for deterrence in EUCOM; infrastructure for rapid reinforcement is key to both theaters	Not applicable	Declining U.S. forward presence in EUCOM may have contributed to deterrence failure in Crimea, but how much to weight this factor is uncertain
Exercises and short-term deployments	Larger, outside-in deployments increase chances of successful deterrence[b]	Exercise size and complexity are more important than frequency	Naval presence missions and BTFs either are positively correlated with adversary actions or have no statistically significant effect	Not applicable
Security cooperation	Not applicable	Important for reassurance; deterrent effect is unclear	Not applicable	May have contributed to Russia limiting its aims in eastern Ukraine after Minsk II, but to what extent is uncertain

[a] Frederick et al., 2020, p. xiv, suggests that "at least some types of U.S. forward posture do indeed generally have deterrent effects when deployed near the ally or partner state to be defended." Sisson, Siebens, and Blechman found that the "size of pre-existing permanently stationed US forces in-region does not have a significant effect on the outcomes of immediate coercive events" (Sisson, Siebens, and Blechman, 2020, p. 43).
[b] Sisson, Siebens, and Blechman found that outside-in deployments "increase significantly the likelihood that US policy objectives will be achieved" (Sisson, Siebens, and Blechman, 2020, p. 44).This is similar to findings from Frederick et al., 2020.

EUCOM Findings

Overall, deterrence in the EUCOM AOR, especially of Russian aggression against NATO countries, appears to be relatively well achieved, given the balance between U.S. objectives, Russian interests, and U.S. OAIs.

Our baseline assessment in Chapter 2 highlighted that most U.S. OAIs appear to be focused on the bedrock U.S. deterrence objective—deterring Russian aggression against a NATO member. These OAIs include increased forward posture in frontline states, large-scale exercises, and robust security cooperation. By contrast, there are fewer resources available for the second U.S. deterrence objective, deterring further aggression against non-NATO countries, as shown by the small U.S. presence in Georgia and Ukraine. Few U.S. OAIs are clearly suited to deterrence of Russian measures short of war. At the same time, Russia's interests as detailed in Appendix A—protecting its security, expanding influence in its periphery, and projecting global influence—appear to be most focused on preventing NATO expansion in the former Soviet states, with some resources devoted to strategic deterrence of a perceived risk of Western

military aggression. In the sense that Russia appears unlikely under current circumstances to contemplate aggression against the Baltic states, deterrence in the region appears strong.

One central finding of the roundtable, detailed in Chapter 3, is that no experts anticipated that there would be Russian military aggression against the Baltic states or other NATO countries directly in response to the hypothetical reductions in U.S. forward posture or exercises and short-term deployments that we presented. Experts were concerned that these reductions might weaken deterrence, but not in a way that would result in a concrete risk of large-scale aggression, like a Russian territorial grab on NATO's eastern flank. The experts were also vague about what actions against non-NATO countries or measures short of war Russia might increase in response to U.S. reductions. Part of the challenge might be that Russia has already undertaken a variety of aggressive actions, from seizing and annexing a part of a neighboring state to engaging in cyberattacks and election interference. Experts were more likely to see Russia as having exhausted likely targets of aggression (i.e., Ukraine and Georgia) or as undertaking repeat aggressive actions (e.g., more election interference) than to anticipate new Russian actions outside of these precedents. But focusing on the core U.S. deterrent objective, preventing aggression against NATO, the roundtable participants pointed out that there could be reductions with apparently limited risks.

The quantitative analysis drew on the best available data on U.S. OAIs and Russian actions, but it reinforced the challenge of determining whether U.S. OAIs are reducing or increasing small-scale aggressions. While U.S. BTF missions appear to be statistically uncorrelated with Russian aggressions, there is a positive, significant correlation between U.S. naval presence in the Black Sea and Russian aggressions. It is impossible to be confident about the direction of causality between U.S. and Russian actions, but to the extent that the additional U.S. presence is driving Russian behavior, it appears to be leading to more aggressive Russian behavior at the lower end of the conflict spectrum. If the pattern in the Black Sea persists, there is some reason to think that Russian OAIs would reduce if U.S. OAIs were also diminished.

The case study of Russia's action in Ukraine highlights the difficulty of identifying the impact of any single factor on Russian decisionmaking. Russian aggression against Crimea did occur in the context of very limited U.S. OAIs in Ukraine and declining U.S. force presence elsewhere in Europe, but the decision appears to have been driven especially by the centrality of Ukraine in Russia's hierarchy of interests. Similarly, in the case of Russia's decision not to escalate further after February 2015, although U.S. OAIs were increasing, the impact of these limited OAIs—including nonlethal and, later, lethal material assistance; limited training; and some exercises—appears to have been less important than the fact that Russia may have achieved its goals with its past aggression. Uncertainty about the impact of U.S. OAIs in Ukraine does not mean that these OAIs are ineffective or inefficient, especially because they are relatively inexpensive. They might still be worthwhile if they have any impact on Russian decisionmaking and might independently be desirable for signaling U.S. support for Ukraine.

CENTCOM Findings

The baseline assessment of U.S. deterrence activities in CENTCOM, in Chapter 2, showed that the United States focused on deterring Iranian attempts to restrict access to the commons and mount standoff attacks against U.S. forces and U.S. partners. There are three major differences from the EUCOM theater. The first is that the United States lacks treaty allies with mutual defense commitments in CENTCOM, and this introduces more uncertainty into the degree to which the United States is committed to extended deterrence. Second, in recent history, U.S. forward presence and activities were driven by the need to carry out combat operations against violent extremist organizations, and, as the United States reduces its prioritization of that mission, the degree to which the residual military presence will be sufficient to carry out the three primary deterrence missions identified is unclear. Finally, the United States must contend with deterring a broad array of militia forces that are aligned with Iran. On the one hand, these forces possess less threatening capabilities than a state military power. On the other hand, they raise some unique challenges for how the United States can deter Iranian proxies without getting pulled into intrastate conflicts.

Appendix B suggests that, because of Tehran's desire to limit U.S. regional presence and strengthen Iran's position as a regional power, Iran and its proxy groups might have a national security interest in conducting significant actions that require deterrence, although much of Iran's behavior can also be interpreted as being designed around the imperative of regime survival. Should Iran be actively considering major aggression (such as closing the Strait of Hormuz or using missile forces against a GCC state), the U.S. military capabilities in the theater—even with the current drawdown—could inflict substantial punishment on Iran. That capability should lead Iran to reject such aggression under any reasonable cost-benefit analysis. Whether U.S. posture is well calibrated to deter Iran from backing potential actions by its proxy groups is less clear cut. In some cases, such as Iraq, the United States has clearly established a deterrent posture against these groups that encompasses both deterrence by denial and deterrence by punishment. However, as illustrated in the quantitative analysis in Chapter 4, for other Iranian proxies, such as the Houthis in Yemen, the United States has communicated only deterrence by denial—not by punishment—for attacks on U.S. partners. This reinforces a theme across our study, which is that adversary perception of U.S. political will is just as important as the demonstration of U.S. military capabilities in achieving successful deterrence outcomes.

The presentation of our expert elicitation exercise, in Chapter 3, casts some doubt on two important propositions. Some experts questioned whether Iran really had much of an intent to launch significant attacks on U.S. interests absent a crisis. Effectively, these experts questioned whether the United States needs to resource a substantial general deterrence mission in the theater. Second, some experts doubted the relevance of U.S. OAIs for deterring Iran given that past changes in U.S. forward posture and activities have not achieved the desired Iranian

response (i.e., more OAIs leading to less Iranian aggression, fewer OAIs leading to more Iranian aggression).

Like for EUCOM, the quantitative results for CENTCOM were unable to validate the expected deterrent effect of U.S. military inputs on adversary activity. Specifically, carrier presence in the Persian Gulf and the Gulf of Oman was not correlated with levels of Iranian maritime actions in the form of unsafe and unprofessional actions toward the U.S. Navy or higher-end aggressions against commercial shipping. And U.S. Navy presence in the Red Sea and the Gulf of Aden was actually positively correlated with Houthi missile attacks on U.S. partners, although this result was not statistically significant. However, our correlation analysis is not able to "credit" the OAIs for unobserved aggression that did not occur, perhaps because these OAIs were present. Thus, readers should not assume that these U.S. investments did not have deterrent value. Rather, all we can say from the analysis is that increased U.S. maritime presence did not correspond to a decrease in Iranian limit-testing at sea or Houthi use of fires, primarily against Saudi Arabia.

Possible Efficiencies

In considering initiatives aimed at making U.S. deterrence missions more efficient, a strong distinction should be drawn between the two theaters we analyzed. Russia is a great-power competitor, it poses significant threats to its neighbors, and U.S. political and defense leadership have prioritized investments to deter it; the trend line in EUCOM is for more investment in the deterrence of Russia, at least in the short term. Iran was defined in the last national defense strategy as a "rogue regional power," and, although it is of concern, Iran is not judged to be as significant of a threat to U.S. national security interests as Russia. Furthermore, although the United States has commitments of various types to allies and partners in both theaters, Washington seems to place a higher priority on NATO treaty allies, at least as measured by the existence of mutual defense commitments, the transfer of the most-sensitive military technology, or the enduring participation in military coalitions. The different features of the theaters mean that the scope of efficiencies that would likely be under consideration for EUCOM is smaller than for CENTCOM.

EUCOM Efficiencies

Of the OAIs we considered, U.S. forward posture seems to be the most difficult area to reduce. This is despite the fact that one of our research methods—expert elicitation—did not anticipate significant Russian aggression even if the United States undertook a substantial reduction in forward presence. Such a move is hard to envision for two reasons. First, a U.S. policymaker or defense planner cannot rule out with certainty that a reduction in U.S. forward posture would not lead to increased Russian aggression. Second, a reduction in U.S. forward posture would seem to contradict the positive momentum of increasing U.S. posture in Europe

since 2014 and might provoke a strong reaction from allies and partners who seek U.S. assistance. It may be that efficiencies in U.S. extended deterrence in Europe are ultimately to be had through increasing these allies' and partners' own investments in their security, but it is unclear whether a reduction in U.S. posture would motivate that outcome or undermine Washington's leverage to press for it.

Over the longer term, if the United States does have to consider stark choices around forward posture given increasing demands in the Indo-Pacific, our study did identify some high-leverage capabilities, including basing infrastructure and the logistics capability to rapidly reinforce in the event of a contingency. Preserving ISR also seems particularly important in order to avoid reducing warning times or sending a signal that the United States is ambivalent about observing Russian aggression. Having sufficient ISR in the theater might simply enable a more effective U.S. response should deterrence fail, or it might contribute to deterrence if Russia concludes that U.S. early warning would deny Russia the benefits it seeks through the contemplated action.

There might be greater efficiencies to be found in exercises and short-term deployments. Several methods suggested that this might be the best area to seek efficiencies. Specifically, the roundtable participants argued that Russia focuses especially on the overall capabilities that are demonstrated within an exercise rather than how often that exercise is held. That might indicate that major exercises, such as Defender Europe, could be held every other year without much negative impact on deterrence, although there might be other reasons to hold these large exercises. BTF missions could also be reduced in number and lead to a perhaps lower tempo of Russian activities—but, again, this mission might have ancillary benefits for training and reassurance.

From our findings, it is difficult to anticipate meaningful cuts in security cooperation inside NATO. Cuts to arms sales appear unlikely because the United States benefits financially from this security cooperation, including through the sales of advanced aircraft. Aid programs offered to NATO member states, such as the Baltic Security Initiative, are relatively small, so they might not offer much in savings—for example, the Baltic Security Initiative is approximately $169 million for FY 2021.[331] There is slightly higher savings, and much higher risk, to cutting cooperation with Georgia and Ukraine—Congress allocated $275 million for Ukraine in FY 2021[332]—but none of these cuts would make an appreciable difference in overall U.S. spending. Participants in the roundtable raised serious concerns about the risk of intensified Russian activities in the event of ending the U.S. training presence in these countries. And the case study showed that U.S. OAIs in Ukraine increased at the same time as Russia paused its aggression. But in either method, the impact of security cooperation on Russian aggression is uncertain. It may be that Russia has little interest to escalate beyond its current actions, since its current position in Ukraine achieves its main goals, or that the limited level of U.S. OAIs—training and

[331] Jari Tanner, "US Grants $169M in Military Aid to Baltic Nations for 2021," AP News, December 23, 2020.

[332] Jeff Seldin, "US Sending Ukraine Millions in Security Assistance," Voice of America, June 11, 2021.

small-scale material assistance—shift Russia's calculus. On balance, there seems to be little benefit to reducing U.S. security cooperation given the potential risks and scarce cost savings.

CENTCOM Efficiencies

There is already a visible effort underway to right-size U.S. military activities in CENTCOM to reflect the U.S. prioritization of the theater relative to U.S. global interests. This effort has included reductions in U.S. ground forces, some small consolidation of basing infrastructure, and drawdowns in air and missile defense systems. There was also what appeared to be an initial reduction in U.S. naval presence, but, as of this writing, that reduction was subsequently offset by the need to surge naval forces to complete the U.S. withdrawal from Afghanistan.

If the United States is to realize further efficiencies in posture, these efficiencies would have to occur in the GCC states or Jordan, as these countries are where the bulk of U.S. forward presence resides, with Bahrain, Kuwait, Qatar, and the UAE hosting the largest contingents.[333] Because none of these states faces a credible threat of direct invasion by Iran, a drawdown of U.S. forces would not be risking such an outcome. However, these countries have already raised concerns about the depth of U.S. commitment to their security and do face real security threats from other types of Iranian and Iranian proxy aggression: in the maritime domain, via potential missile attacks, or in the form of proxy group destabilization. Our research cannot support a conclusion that further drawing down U.S. forward presence would or would not invite a significant security risk in these areas. Such decisions ultimately come down to policymaker judgments that will, unfortunately, need to be exercised with imperfect information. What can be said is that because Iran often pursues actions seeking plausible deniability in the effort to reduce its vulnerability to retaliation, ISR for attribution of attacks would appear particularly important to maintaining or improving deterrence outcomes in the theater. And because Iran, like Russia, has incorporated A2/AD principles into its strategy, maintaining basing options outside Iran's immediate threat rings is necessary for the United States to credibly signal rapid reinforcement.

There are fewer opportunities in CENTCOM than in EUCOM to realize efficiencies in exercises. The United States previously fielded very large-scale exercises in the theater, such as iterations of Bright Star that included tens of thousands of participants,[334] but exercises have already been significantly scaled down. Where there might be further efficiencies to be had, however, are in short-term crisis deployments, such as the launching of BTFs or surging of

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[333] Personnel numbers for CENTCOM are notoriously difficult to parse. The Defense Manpower Data Center's reporting rules result in a substantial undercount on personnel in key locations. For example, the most recent DMDC figures reported as of this writing, which are for June 2021, are 1,360 and 225 active, reserve, and DoD Appropriated Fund civilian personnel permanently assigned to Kuwait and the UAE, respectively. Commonly reported numbers are ten times higher than those, and the difference hinges on the definitions employed. For example, compare Defense Manpower Data Center, undated, with Miriam Berger, "Where U.S. Troops Are in the Middle East and Afghanistan, Visualized," *Washington Post*, January 4, 2020.

[334] GlobalSecurity.org, "Bright Star," webpage, undated.

maritime naval presence. It is not clear how often the United States needs to field BTFs to signal messages of capability and commitment. For example, Tehran is fully aware of the unique capabilities that these platforms bring in terms of quick response times, long range, large loadouts, and, in some cases, stealth capability. As for their signal of commitment during crises, it is unclear whether the current rate of BTF sorties is necessary to demonstrate U.S. resolve, particularly given the prior record of the U.S. use of force against adversaries in the region. Moreover, our expert elicitation and quantitative analysis suggest that these missions may generate less deterrent value than expected.

There are two main considerations that hinder finding efficiencies in U.S. security cooperation in CENTCOM as judged against the benefits of the security cooperation. The first is that, even for readers who might be skeptical of the deterrent value of security cooperation, the largest CENTCOM arms transfers are conducted via sales and not grants. According to the most recently available State Department data on foreign military sales, Saudi Arabia, the largest sales case, recently averaged three times the value of annual arms transfers as Israel, the largest grants case.[335] The second consideration is that the grants provided to the three largest recipients—Israel, Egypt, and Jordan—were not designed with a deterrence logic in mind. Those grants are meant to sustain Israel's peace agreements with "frontline" Arab states while maintaining Israel's qualitative military edge, not necessarily to deter Iranian aggression.

Recommendations

The U.S. military appears to be at a fairly early stage of the process of determining how to find efficiencies in its deterrence missions. That makes sense because, during the Cold War, deterrence was heavily focused on a single adversary—the Soviet Union—which required less prioritization across theaters. In one demonstrative example from that case, a focus of efforts to improve deterrence under the first offset was using nuclear weapons as a potential counter to Soviet conventional superiority for some contingencies in Europe.[336] In the post–Cold War period, efficiencies were realized in deterrence missions, but under the assumption that the United States was facing a more benign threat environment—and those efficiencies were ultimately shifted to new defense burdens in countering terrorism after the attacks on September 11, 2001. Only since 2014 has deterrence reemerged in a major way. If the United States seeks to decrease its deterrence-related investments in EUCOM and CENTCOM, it will need to develop new measures to mitigate the deterrence trap, which we outlined in Chapter 3.

In terms of strategy development, our recommendation is that both EUCOM and CENTCOM adopt more-specific ways of describing adversary activities than "malign influence." This term is

[335] Kaye et al., 2021, p. 25.

[336] Gian Gentile, Michael Shurkin, Alexandra T. Evans, Michelle Grisé, Mark Hvizda, and Rebecca Jensen, *A History of the Third Offset, 2014–2018*, Santa Monica, Calif.: RAND Corporation, RR-A454-1, 2021, pp. 9–11.

too broad and might not be useful for geographic combatant commands and their component commands to prioritize OAIs within their theaters. For example, if EoF principles are to be applied to deterrence missions in CENTCOM, than the strategic guidance and resulting planning must state which adversary action is the highest-priority deterrence requirement. Staying with CENTCOM as the example, the first-order question is whether the highest priority for the United States is to deter a potential closure of the Strait of Hormuz, to deter Iranian missile attacks on U.S. partners, or to deter Iranian proxy activity against U.S. personnel. Of course, the tendency in these situations is to declare that all of these are priorities, but that would preclude applying EoF principles to deterrence activities, since the first step is to designate the secondary effort. Because a clear prioritization risks telegraphing opportunities to Iran and alienating U.S. partners, we recommend that this prioritization occur in classified planning documents. The theater campaign plan is one candidate for where to incorporate this prioritization.

In addition to clearer prioritization, short-term deployments, such as the launching of BTFs and naval presence operations, should be accompanied by a clear deterrence logic that identifies how the deployment strengthens deterrence by signaling the denial of adversary benefits or the threat of punishment. If the theater's deterrence missions are subject to EoF principles, a key question would be what new capabilities or new signal of commitment the additional BTF or naval deployment provides that was not communicated by prior iterations. The same logic should be applied to exercises, with scrutiny on what new information or signal the event sends to the adversary that would not have been gleaned from recent exercises. If the intent is simply to reinforce prior signals, then the deployment or exercise might be further scrutinized as to whether the current security environment necessitates that investment. The deployment might be valuable for training purposes or some other objective, but it would be useful to understand such purposes in judging the value of these short-term deployments. There will, of course, be subjective judgments that enter into this calculus.

Because recent years have seen emphasis on force employment concepts like DFE and ACE, defense planners will also need to weigh whether these concepts are paths to greater efficiencies or could inadvertently contribute to the deterrence trap of putting ever greater resources against deterrence requirements with uncertain return. Our recommendation would be for the Joint Staff and the relevant services (e.g., the U.S. Air Force for ACE) to consider cost in the development of these concepts, differentiating between applications of DFE or ACE that are fertile for generating efficiencies (e.g., deploying smaller than standard sized units) and those that may generate additional requirements for which there is an opportunity cost (e.g., deploying carriers to the High North). It may be that new force employment concepts, including applications that create additional requirements, are worth the investment in terms of their anticipated deterrent value, but it may be that some new applications of the concepts will not meet this standard and should be scrutinized with resource considerations in mind.

Furthermore, as it continues exploring potential reductions, the United States should be attentive to how such reductions are communicated and executed so as to reduce potential

backlash from allies and partners and to avoid telegraphing opportunities to adversaries. Observers will inevitably interpret changes in the U.S. commitment to allies and partners even if no such changes are occurring. Options for mitigating such risks include articulating the capabilities that will remain or could be easily deployed, ensuring that any capabilities are reduced gradually, and expressing both publicly and privately that such reductions will not have a meaningful impact on the local military balance.

This study has provided a tool to assist policymakers and defense planners with addressing the hard trade-offs between military activities across theaters. In light of China emerging as the pacing threat, the issue of how to effectively—but also efficiently—deter secondary adversaries is a pressing defense policy issue. The analysis that we provide is based on a multimethod approach that has value for planners thinking through the trade-offs of what military activities to field and where to field them for deterrence. The results from our analysis cannot replace practitioners' judgments and do not provide a ready-made formula for achieving deterrence in all times and places. Our focus on U.S. military OAIs must also be considered in light of the fact that political will is arguably an equal factor in achieving deterrence, since no capability or strategy can compensate for adversary certainty that the United States will not contest an aggression. The results of this study provide a guide of some of the more promising OAIs while identifying other OAIs for which the deterrent value is not as well established by the empirical record. Ultimately, practitioners will need to use the best available evidence to build a deterrence strategy that follows from a clear logic and likely incorporates multiple categories of OAIs to achieve the strongest deterrent effect.

Appendix A. Russian Strategic Interests and Supporting OAIs

This appendix outlines Russia's strategic interests and the extent to which those interests challenge U.S. deterrence objectives. First, drawing on Russian strategic documents, discourse, and past research, we outline core Russian national security interests. Second, we assess the extent to which each interest does or does not appear to imply a Russian intent to undertake activities that challenge the U.S. deterrence objectives outlined in Chapter 2. In making the assessment of the potential challenge to U.S. deterrence objectives, we consider a variety of plausible scenarios, especially scenarios motivated by a challenge to Russia's security interests. Lastly, we document trends in Russian OAIs (military posture, exercises, security cooperation, combat operations, and foreign deployments) that Moscow uses to pursue its interests.

Russian Strategic Interest 1: Ensure the National Security, Sovereignty, and Territorial Integrity of the Russian Federation and Its Government

Russia's primary national security interest is to preserve the security and sovereignty of the Russian Federation and its government.[337] A first risk identified in Russian strategic documents is a decapitating nuclear or conventional strike on Russian decisionmaking centers and critical targets.[338] This is not to say that Russian strategists see these events as immediate threats; rather, these events are seen as persistent challenges in an environment in which strategic stability is declining. Russian strategy states that, as of 2016, "a large-scale war, including nuclear war, between major powers remains unlikely" but describes an increased risk of "being drawn into regional conflicts and escalating crises."[339]

Russian strategy and leadership statements also express concern about the buildup of NATO forces in areas that are contiguous with Russia's borders.[340] Russian officials allege that the

[337] Ministry of Foreign Affairs of the Russian Federation, *Foreign Policy Concept of the Russian Federation*, 2016; President of the Russian Federation, *National Security Strategy of the Russian Federation*, Moscow, Decree No. 683, December 31, 2015.

[338] Russia defines a *critical target*, or *critical infrastructure target*, as a target that is essential for state functioning. These targets range from military targets, such as bases and early warning radars; to political centers, such as local municipal government sites; to economic targets, such as factories and other critical production centers (N. V. Tsygichko, "Obespecheniye bezopasnosti kiriticheskikh infrastruktur v SShA [Ensuring the Security of Critical Infrastructure in the United States]," *Trudy Instituta Sistemnogo Analiza RAN* [*Proceedings of the Institute for Systems Analysis of the Russian Academy of Sciences*], No. 27, 2006).

[339] "Military Doctrine of the Russian Federation," RG.RU, December 30, 2014; Ministry of Foreign Affairs of the Russian Federation, 2016.

[340] The Russian Federation's 2014 Military Doctrine explains,

buildup of U.S. force posture in Europe is intended to threaten or intimidate Russia from multiple directions.[341] Russia shows the greatest sensitivity to NATO posture buildup in the Baltics, northeastern Europe, and, increasingly in recent years, the Black Sea. Russia appears to believe that the presence of NATO equipment (particularly equipment capable of launching medium- or long-range strikes) in range of sensitive Russian population centers and industrial or military sites poses a security challenge.[342]

Another regional concern is control of the Arctic. As outlined in Russia's Arctic strategy to 2035, Russia will defend its economic interests and northern border in the Arctic by ensuring year-round navigation throughout the entire area of the Northern Sea Route, creating a headquarters for maritime operations to manage shipping, and expanding force posture there because of the "growth of a conflict potential in the Arctic requiring a constant increase in the combat capabilities of the grouping of forces of the Armed Forces of the Russian Federation."[343] Other Russian policies under consideration include foreign transit requests or notification, and even a Russian escort during Northern Sea Route transit.[344] These actions could be perceived as a challenge to the principle of freedom of navigation in international waters and global commons.

A final, critical component of Russia's security interests is the perceived threat from domestic protests, possibly leading to challenges to regime survival. Russian leadership in recent years has devoted significant policy attention and state resources to preventing mass protests or revolutions (what it calls *color revolutions*) inside Russia that would challenge or overthrow the government. In the view of Russian leadership, protests can occur organically within Russia, but, most often in Russian strategy discourse, regime change emerging from protests is considered an

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> The main external military risks are: buildup of the power of the North Atlantic Treaty Organization (NATO) and vesting NATO with global functions carried out in violation of the rules of international law, bringing the military infrastructure of NATO member countries near the borders of the Russian Federation, including by further expansion of the alliance. ("Military Doctrine of the Russian Federation," 2014)

[341] "Russia to Form 20 New Military Units in West to Counter NATO," Euronews, May 31, 2021.

[342] V. Gerasimov, "Generalnii shtab i oborona strany [General Staff and Defense of the Country]," *Voenno-promyshlennyi kur'er* [*Military-Industrial Courier*], February 3, 2014; V. I. Polegaev and V. V. Alferov, "O neyadernom sderzhivanii, ego roli i meste v sisteme strategicheskogo sderzhivaniya [On Non-Nuclear Deterrence, Its Role and Place in the System of Strategic Deterrence]," *Voennaya mysl'* [*Military Thought*], No. 7, 2015.

[343] President of the Russian Federation, *Plan for the Development of the Northern Sea Route to the Period of 2035*, Moscow, December 21, 2019. Russia seeks to ensure

> a favorable operational regime in the Arctic zone, including maintaining the level of combat readiness of the groupings of troops (forces) of the Armed Forces of the Russian Federation, other troops, military formations and bodies in accordance with the actual and forecasted nature of military dangers and military threats of the Russian Federation in the Arctic. (President of the Russian Federation, *Plan for the Development of the Northern Sea Route to the Period of 2035*, Moscow, December 21, 2019)

[344] Russia claims that the Northern Sea Route passes through several straits that Russia considers internal waters, and it has already promulgated regulations requiring shipping vessels to request permission to transit with Russian icebreakers under Article 7.4 of its Regulations for Navigation on the Seaways of the Northern Sea Route.

event likely to be fomented by hostile external powers.[345] This concern is driven by senior Russian officials who have a worldview of the West that ranges from pessimistic to conspiratorial.

Potential Challenge to U.S. Deterrence Objectives from Russian Interest 1: Ensure the National Security, Sovereignty, and Territorial Integrity of the Russian Federation and Its Government

Perhaps the greatest concern is that Russia might be motivated to undertake aggression against a NATO country, challenging the first U.S. deterrence objective outlined in Chapter 2, deterring Russian aggression against NATO member states. In some Western analysis, Russia's interests are hypothetically connected to the potential for military scenarios against a NATO country in the context of three potentially interconnected issues: the specific military capabilities of NATO military forces near Russian territory, escalatory dynamics between NATO and Russia (discussed further after the U.S. OAIs),[346] and the Russian population in the Baltic states.[347] Concern about NATO forces near its borders, in combination with other interests, does seem to lead Russia to take such actions as increasing its force posture and intimidating neighboring countries, as spelled out in the OAIs section below. However, it is important to recognize that Russian strategic literature does not appear to provide any basis for a Russian intent to seize or annex portions of NATO countries along the lines of the scenarios proposed by Western analysts.[348] Russian conflict scenarios near the Baltics focus on Western incursions into Belarus and otherwise defending against an air assault.[349] Russian analysts generally reject postulated scenarios of Russian action against NATO countries, with analysts describing such scenarios as "sci fi."[350] In addition, although intentions are unpredictable and can always change, it is clear

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[345] President of the Russian Federation, 2015.

[346] Shlapak and Johnson, 2016, p. 4, posits a Russian attack on the Baltic states that is based on a motivation to "demonstrate NATO's inability to protect its most vulnerable members." In the FOI scenario, the intent of a Russian attack could be to "expand [Russia's] influence in the 'near abroad', and strike a blow against NATO" (Frisell and Pallin, 2021, p. 101). For IISS, a scenario of a Russian attack develops from a cycle of exercises leading to misinterpretation and escalation, in which Russian forces eventually move into Lithuania and Poland attacks into Kaliningrad (Barrie et al., 2019).

[347] Russia's motivation of real or feigned concern about the population in the Baltics is more closely linked with Russia's desire for influence in its region, the second Russian interest discussed below. Because potential Russian aggression in the Baltics is interwoven with Russia's security interests, we discuss the potential for this interest to play into a potential military aggression in the Baltics.

[348] Agnia Grigas, *Legacies, Coercion, and Soft Power: Russian Influence in the Baltic States*, briefing paper, London, United Kingdom: Chatham House, August 2012.

[349] Mathieu Boulègue, "Five Things to Know About the Zapad-2017 Military Exercise," Chatham House, September 25, 2017.

[350] If pressed for what might motivate a Russian attack, Russian analysts acknowledge issues described above, such as an accident or a miscalculation, a major buildup of Western military forces in the Baltic region, continued NATO

that Russia takes seriously the consequences of a war with NATO, which could bring about the very destruction that Russia is trying to avoid.

Russian security interests in preventing NATO enlargement are connected to the second U.S. deterrent objective, preventing Russian aggression against a non-NATO country. In examining aggression against non-NATO countries, there is a challenge in determining whether Russia's motivation might be undermining NATO, maintaining influence in Russia's periphery (a separate but interrelated interest discussed below), or some combination of the two. To avoid repetition, in the next section we discuss possible aggression by Russia against its non-NATO neighbors that might be motivated in part by NATO enlargement, focusing on Russia's interests in its periphery. We recognize that Russian motivation for such scenarios might be a combination of both interrelated interests.

With regard to the third U.S. objective, deterring malign influence, Russia's security interests directly connect to its malign influence campaign. Radin, Demus, and Marcinek argue that one reason that Russia engages in subversion in the West is as a response to its own perception of a threat of Western involvement in Russia's domestic politics.[351] Russian decisionmakers likely perceive their own offensive operations abroad as efforts to neutralize or counter such attempts by hostile foreign powers, including by influencing Western elections to ensure the selection of leaders who are less likely to enact threatening policies. Russia's use of intimidation or coercion through exercises or other demonstrations of force appears designed to deter or counter the buildup of hostile military forces on Russian borders.

Russian Strategic Interest 2: Maintain and Expand Influence in Periphery States

Russia seeks to maintain a zone of privileged influence in neighboring states for several reasons. As the previous section noted, Russia has a security motivation of maintaining a strategic buffer zone to prevent the approach of NATO, which it sees as an unfriendly alliance close to its territory, and the stationing of NATO forces in neighboring countries. Beyond this logic, Russia has defense ties to several non-NATO and former Soviet countries, as well as political, economic, cultural, and ideological affinity with these countries or populations within them. Russia seeks to be the leader in the Eurasian region as part of the multipolar world order of great powers that it predicts will be the future world order. According to President Putin,

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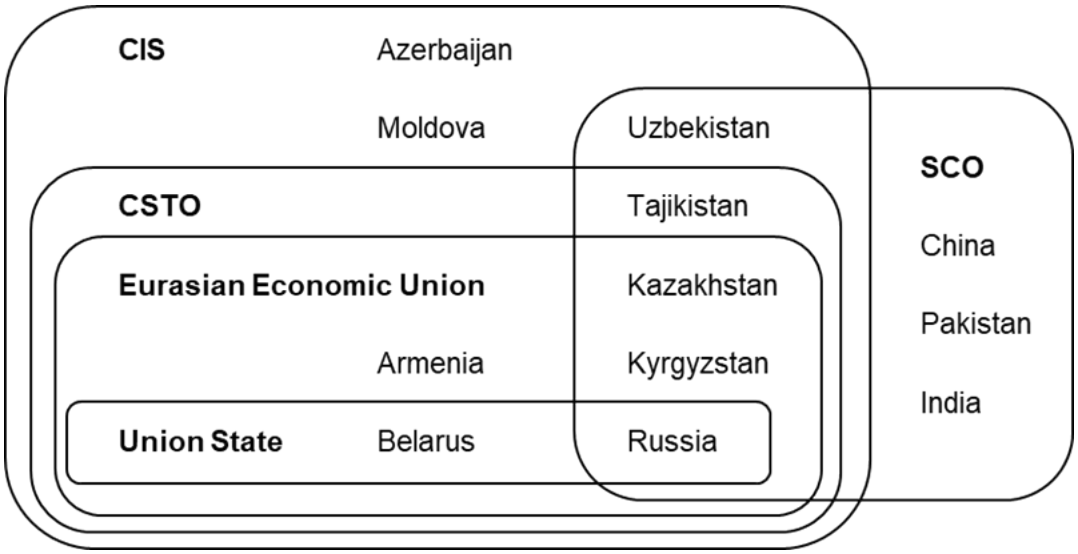
enlargement, or a "pogrom" against Russian speakers in the Baltic states (Andrew Radin, "How NATO Could Accidentally Trigger a War with Russia," *National Interest*, November 11, 2017; Andrew Radin, Lynn E. Davis, Edward Geist, Eugeniu Han, Dara Massicot, Matthew Povlock, Clint Reach, Scott Boston, Samuel Charap, William Mackenzie, Katya Migacheva, Trevor Johnston, and Austin Long, *The Future of the Russian Military: Russia's Ground Combat Capabilities and Implications for U.S.-Russia Competition*, Santa Monica, Calif.: RAND Corporation, RR-3099-A, 2019).

[351] Radin, Demus, and Marcinek, 2020. See also Cohen and Radin, 2019.

Eurasian integration—led by Moscow—is "a chance for the entire post-Soviet space to become an independent centre for global development, rather than remaining on the outskirts of Europe and Asia."[352] Russia uses various organizations, such as the Collective Security Treaty Organization (CSTO), Commonwealth of Independent States (CIS), Shanghai Cooperation Organisation (SCO), and Eurasian Economic Union, to bolster these ties (see Figure A.1). Russia's largest trading partners are its neighbors, and the Russian economy depends on gas exports through neighboring countries, ties established through the Eurasian Economic Union. Perhaps the closest cultural affinity for Russia is its connection with the Russian-speaking population and shared Soviet past in periphery states. A central component of Russia's policy in its neighborhood is its compatriot policy, which seeks "to ensure comprehensive, effective protection of the rights and legitimate interests of Russian citizens and compatriots residing abroad" and to "consolidate the Russian-speaking diaspora."[353]

Figure A.1. Selected Regional Organizations in Which Russia Participates



SOURCE: Compiled from CSTO, "Countries," webpage, undated; Eurasian Economic Union, "EAEU Member-States," webpage, undated; Information Analysis Portal of the Union State, "About Union State," webpage, undated; Nuclear Threat Initiative, "Commonwealth of Independent States (CIS)," webpage, undated; and SCO, "Member States of the Shanghai Cooperation Organisation," webpage, June 6, 2018.

[352] Vladimir Putin, "Vystuplenie na zasedanii kluba 'Valdai' [Meeting of the Valdai International Discussion Club]," September 19, 2013.

[353] Ministry of Foreign Affairs of the Russian Federation, 2016.

Russia's influence among neighboring states varies.[354] Past RAND work has described Russia's desired sphere of influence as a set of overlapping circles (Figure A.2). Although Russia seeks influence in the Baltics, the Baltics are sometimes excluded by Russian analysts from being part of the *near abroad*, a concept used by Russia for Central Asian nations, Belarus, Ukraine, Moldova, and nations of the Caucasus.[355] One potential motivation and means of Russia's influence in the Baltic states is the significant Russian speaking population, defined as the population of Soviet-era migrants from Russia or other Soviet republics and their descendants. The population of Russian speakers in Estonia during the last census, in 2011, was 30 percent, of which 25 percent were ethnic Russians, and Russian speakers in Latvia made up 35 percent of the population in 2015, of which 27 percent were ethnic Russians.[356] Ultimately, Russian influence in the Baltics is made up of economic ties in certain sectors; the political co-option of certain political groups; cultural and media ties among the Russian-speaking populations; and, from a hard-power perspective, espionage, frequent military exercises, posture changes in Kaliningrad, and occasional threats.[357]

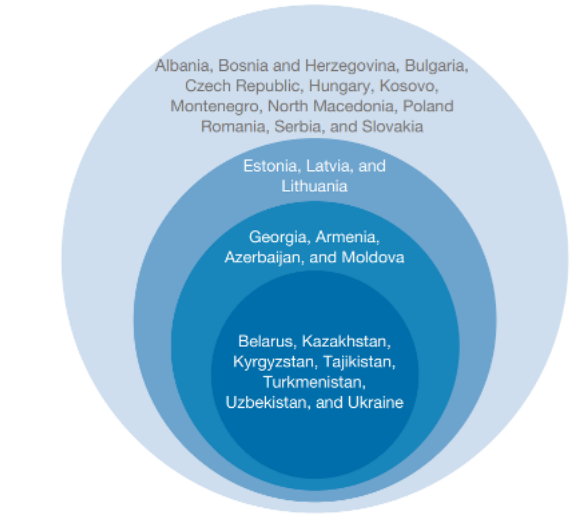
[354] Ministry of Foreign Affairs of the Russian Federation, 2016. Russian strategy states that Russia wishes to "pursue neighborly relations with adjacent states, assist them in eliminating the existing threats and preventing the emergence of new hotbeds of tension and conflicts on their territory" (Ministry of Foreign Affairs of the Russian Federation, 2016). Another concept and policy initiative, the "Russian World" ("Russkiy Mir") concept of the cultural alignment of Russian-speaking former Soviet states, such as Ukraine and Central Asian countries, met with mixed success. This strategy states, "While respecting the right of its partners within the CIS to establish relations with other international actors, Russia expects the CIS member States to fully implement their obligations within integration structures that include Russia, as well as further promote integration and mutually beneficial cooperation in the CIS space" (Ministry of Foreign Affairs of the Russian Federation, 2016).

[355] Radin, Demus, and Marcinek, 2020.

[356] By contrast, only approximately 8 percent of the Lithuanian population were Russian speakers (Agnia Grigas, "The New Generation of Baltic Russian Speakers," EURACTIV, November 28, 2014; Andrew Radin, *Hybrid Warfare in the Baltics: Threats and Potential Responses*, Santa Monica, Calif.: RAND Corporation, RR-1577-AF, 2017, p. 14).

[357] See Cohen and Radin, 2019.

Figure A.2. Russia's Desired Sphere of Influence



SOURCE: Radin, Demus, and Marcinek, 2020.

A key implication of Russian strategy and activity in this region is that Russia believes that this is its sphere of privileged interest, where neighboring countries must consult with Russia on security, political, and many economic matters. In practice, this means that Russia aims to curb what it judges to be hostile third-party military presence or influence in its near abroad—specifically, the presence of the United States or NATO, and, even more specifically, their military presence. Russia also seeks to limit the political and economic influence of its competitors in these regions. It does this by maintaining periphery state dependence on Russia by providing security to friendly (if beleaguered) regimes, such as the Lukashenko government in Belarus. Russia is highly resistant to efforts to bring former Soviet states like Belarus into multilateral Western institutions like the EU, although Moscow's economic and political leverage over Ukraine and Georgia has been declining since their military operations over the past decade. Russia is keenly focused on ensuring that Belarus—which is part of the "Union State" with Russia—maintains its alignment with Moscow and has politically supported Lukashenko during protests in 2020 and 2021.[358] In Ukraine and Georgia, Russia has sought dominant influence and the prevention of a Western-aligned government, remaining particularly opposed to NATO membership for these two countries.

Finland and Sweden are not members of NATO, although they maintain close ties with the Alliance. Their nonaligned status suits Russian interests, and Russia does not commit the same level of strategic attention and resources to its Nordic neighbors as it does to strategically critical countries elsewhere, such as Belarus, Ukraine, and countries to its south. Instead, Russian leaders make their positions clear. President Putin noted in 2018 about Finland joining NATO that "how

[358] "Putin Hails Closer Relations with Belarus in Meeting with Lukashenko," France 24, May 28, 2021.

they assure the safety and independence of their own country is the Finns' choice. Undoubtedly we appreciate Finland's neutral status." In the same statement, he rhetorically asked whether Russia would continue to base its troops "1500 kilometres" from Finland's border if Finland joined NATO.[359] Putin has taken a similar approach when asked how Russia would respond if Sweden joined NATO: "If Sweden joins NATO, it will negatively affect our relations because it will mean that NATO facilities will be set up in Sweden so we will have to think about the best ways to respond to this additional threat. . . . We will consider this as an additional threat for Russia and will search for ways to eliminate it."[360] Russia notices when these two countries expand participation with NATO during training events, conclude related access agreements on airspace or territorial waters, or enhance cooperation with regional NATO allies like Denmark and Norway.[361] Both Finland and Sweden in recent years have expanded defense spending and plan to increase troop levels primarily because of the threat from Russia, but Russia has yet to respond with permanent posture changes related to those developments.[362]

Potential Challenge to U.S. Deterrence Objectives from Russian Interest 2: Maintain and Expand Influence in Periphery States

With regard to the second U.S. objective—deterring Russian aggression against non-NATO members—Russia's security interests and desire for influence within its periphery have led to aggression in the past. In 2008, Russia took military action against Georgia, where it maintains military presence in two separatist regions. In 2014, Russia seized and annexed Crimea, and it continues to support separatists in eastern Ukraine. Russian leaders feared that both countries would ultimately be welcomed into NATO and sought to prevent the establishment of hostile military bases adjacent to Russian territory.[363] Other areas along the Russian periphery that are vulnerable to such Russian pressure include the South Caucasus or Central Asia; Belarus; Moldova, where Russia maintains a small military presence in the separatist region of

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[359] "Putin Warns Finland: Russia Will Respond If Helsinki Joins NATO," Euronews, last updated January 7, 2016.

[360] "Putin Emphasizes that Sweden's Entry to NATO Would Jeopardize Ties with Moscow," TASS, June 1, 2017.

[361] Gerard O'Dwyer, "Nordic Militaries Rekindle Old Alliances, as Russia Warms to the Region," Defense News, June 22, 2020; "Russia Concerned by Efforts to Draw Finland, Sweden into NATO - Defense Minister," Sputnik, July 24, 2018.

[362] Finland's military will grow by 20 percent, and Finland will raise defense spending from 1.4 percent to 1.6 percent of its GDP ("Finland to Ramp Up Troops Levels amid Heightened Russian Tensions," Deutsche Welle, February 16, 2017). Sweden will double its military in size by 2030 and increase defense spending by 40 percent, to around 2 percent of GDP ("Sweden Ups Defense Budget 40% due to Regional Tensions," Defense News, December 15, 2020).

[363] This concern is explicitly named as a danger in Russia's 2014 Military Doctrine, which describes

> the establishment of regimes in states contiguous with the Russian Federation, including as a result of the overthrow of legitimate state authorities, and having a policy threatening interests of the Russian Federation; [and the] subversive activities of special forces and organization of foreign states and their coalitions against the Russian Federation. (Military Doctrine of the Russian Federation, 2014)

Transnistria; and Serbia. Russia's past behavior in Ukraine and Georgia demonstrates one logic of influence: If Russia cannot remain the premier economic, political, and military partner for these nations, and it believes that an anti-Russian, pro-Western government is coming to power, then it might engage in aggression, in part to create conditions in which periphery states are undesirable or ineligible for membership in NATO or the EU.

Russia's desire for influence in its region have also frequently led to malign influence, challenging the third U.S. deterrent objective—deter Russian malign activity below the threshold of armed conflict. Russia uses commonalities of language and history as a tool of leverage in Europe. Russia's links with Russian-speaking populations and other cultural ties arguably provide the strongest connection and may offer a strong motivation for Russian influence, especially through information operations. Russia's actions in the media environment of the Baltic states, for example, have ensured that many Russian speakers in Estonia and Latvia live in a different information space from the rest of the Estonian and Latvian population. In other countries in Southern Europe, Russia draws on commonalities, such as the Orthodox religion, Slavic languages, or history.[364] Russia has also attempted to use gray zone techniques to discourage North Macedonia and Montenegro from joining Europe. The OAI section below details these means of influence that are used in multiple parts of Europe and documents Russia's use of its military to coercively signal Ukraine and Belarus.

Russian Strategic Interest 3: Expand Russia's Position Internationally

The third core Russian national security objective is to expand Russia's global influence and "consolidate the Russian Federation's position as a center of influence in today's world."[365] This study focuses on deterring Russia within the EUCOM AOR, so Moscow's global ambitions are beyond our research scope. However, the global interest provides additional context for Russia's behavior, so we include a brief exploration for the sake of completeness. With the exception of Russian hybrid activity, examples of which are discussed in the OAI section below, there seems to be little direct threat from Russia's global interests to U.S. deterrence objectives in EUCOM, so we do not include a section linking this Russian interest to U.S. deterrence objectives.

Russia seeks opportunities to improve its freedom of action on the world stage and strengthen its domestic and international position. While Russian analysts and officials typically recognize the limits of Russian power, Russia's National Security Strategy states the beliefs that a unipolar world order led by the United States is approaching its end and that a multipolar world of rising

[364] Cohen and Radin, 2019.

[365] Ministry of Foreign Affairs of the Russian Federation, 2016. Russian strategy seeks to "create a favorable external environment that would allow Russia's economy to grow steadily and become more competitive"; "to strengthen Russia's position in global economic relations and prevent any discrimination against Russian goods, services and investments."

powers and regional great powers will replace it—with Russia being one of the regional great powers.[366]

Russia seeks to compete against U.S. soft power and the "Western liberal order," which it argues predominantly serves U.S. and European interests. To this end, Russia devotes resources to advancing pro-Russian policy positions, its worldview on geopolitics and the international order, and its preferred narratives using diplomatic efforts, economic or security cooperation outreach, and media messaging.[367] Russia also uses its positions in international fora, such as the United Nations Security Council, to oppose U.S., NATO, or coalition campaigns or to hinder others' efforts to interfere in the internal affairs of other states.[368]

Although Russia considers NATO and the United States to be its most pressing challenge, it has many other important national security objectives beyond Europe that demand its attention, planning, and resources. Russia is building political and financial relationships with other rising powers to pivot away from the West. It is attempting, with varying degrees of success, to create alternate coalitions of like-minded states that would serve as a political counterweight to Western political bloc behavior on the world stage and would lessen the impact of Western sanctions. Russia is an important member of the SCO and other regional groups in the Middle East, Africa, and Asia, as well as a founding member of BRICS (Brazil, Russia, India, China, and South Africa). Russia is deepening ties with China, including through joint military exercises and energy agreements. Russia's military activities in Syria and Venezuela in recent years demonstrate Russia's goals of using instruments of state power to prevent U.S.-led regime change among Russian partner states, as well as a desire to maintain or build influence in these regions.

Russia's military actions in Syria do not directly affect EUCOM deterrence objectives, beyond humanitarian-related refugee flows from the Middle East or occasional tensions with Turkey and harassment of NATO naval assets in the Eastern Mediterranean. One possible concern is that Russian military action in Syria or elsewhere could lead to accidental escalation

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[366] President of the Russian Federation, 2015.

[367] Ministry of Foreign Affairs of the Russian Federation, 2016. Russia is actively attempting to bolster "the standing of Russian mass media and communication tools in the global information space and convey Russia's perspective on international processes to a wider international community."

[368] According to Ministry of Foreign Affairs of the Russian Federation, 2016, Russia intends to

> counter politically motivated and self-interested attempts by some States to arbitrarily interpret the fundamental international legal norms and principles such as non-use of force or threat of force, peaceful settlement of international disputes, respect for sovereignty and territorial integrity of States, right of peoples to self-determination; counter attempts to represent violations of international law as "creative" applications of such norms; counter attempts to interfere in the domestic affairs of States with the aim of unconstitutional change of regime, including by supporting non-State actors, such as terrorist and extremist groups; to prevent military interventions or other forms of outside interference contrary to international law, specifically the principle of sovereign equality of States, under the pretext of implementing the "responsibility to protect" concept.

with NATO member states. However, Turkey's shootdown of a Russian aircraft in 2015, the U.S. operation against Wagner personnel in 2018, and Syria's accidental shootdown of a Russian aircraft during a concurrent operation against Israel in 2018 did not lead to uncontrolled escalation.[369]

Overview of Trends in Russian OAIs

Trends in Russian Posture

Changes in Russia's military posture since 2014 appear to primarily contribute to the first interest noted above, Russia's security interests, especially because there are signs from Russia's choices about where to station units that it declined to posture more forces close to NATO's territory. There are also ways in which the posture plays into Russia's influence in its periphery, especially with forces near Ukraine, as well as its global influence.

The Russian posture near EUCOM's AOR has strengthened since 2014, building on a trend beginning in 2008 following the war with Georgia. From a Russian perspective, the 2008 war spurred reform by "highlight[ing] fundamental shortcomings in force composition, training, command and control, equipment and doctrine."[370] The State Armament Program adopted in late 2010, defining Russia's procurement plans for 2011–2020, set a goal of providing the military with at least 70 percent of new or modernized equipment by 2020.[371] The arrival to the Ministry of Defense of Sergei Shoigu in 2012 reinvigorated reform. Shoigu went beyond the prior investment in low- and medium-intensity local and regional conflicts (like the one in Georgia),[372] to emphasize preparation for a high-intensity conflict with NATO.[373]

Identifying a unique strategic intent for particular Russian military investments is challenging because forces can be used for multiple purposes. Still, by considering investment priorities and choices, RAND researchers have sought in previous work to link Russian military developments to Russian interests, including by proposing five interrelated tasks for the armed forces, with associated capabilities: (1) strategic deterrence (including such capabilities as nuclear forces; air defense; long-range strike; and command, control, communications, computers, and ISR); (2)

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[369] Russian and Turkish bilateral relations did suffer for a time, with Russia cancelling commercial flights, but within a few years bilateral ties resumed as before ("Putin and Erdogan Mend Ties After Russia-Turkey Jet Incident," BBC News, June 29, 2016). Syrian Air Force units fired on what they assumed were Israeli aircraft but downed a Russian military aircraft instead. Other than sharp rebukes by senior Russian military officials, Russian and Israeli relations did not suffer after this incident (Oliver Holmes and Andrew Roth, "Moscow Blames Israel After Syria Shoots Down Russian Military Plane," *The Guardian*, September 18, 2018).

[370] IISS, "Russia," *The Military Balance*, February 3, 2010, p. 211.

[371] Keith Crane, Olga Oliker, and Brian Nichiporuk, *Trends in Russia's Armed Forces: An Overview of Budgets and Capabilities*, Santa Monica, Calif.: RAND Corporation, RR-2573-A, 2019, p. 15.

[372] IISS, "Russia and Eurasia," *The Military Balance*, February 5, 2014, p. 162.

[373] Konrad Muzyka, *Russian Forces in the Western Military District*, Arlington, Va.: CNA, June 2021, pp. 52–53.

regional dominance (focusing on rapidly deployable forces in the near abroad); (3) expeditionary operations (naval capabilities); (4) preparedness in case of major war (requiring large-scale combat formations and reserves); and (5) domestic stability (primarily executed by internal security forces).[374] RAND researchers observed that Russia has made investments across the board but has prioritized increasing capabilities for strategic deterrence and regional dominance, as well as preparation for major war. These choices seem to align with Russia's greatest interests—protecting its own security and preserving regional influence.

In terms of ground force posture, force structure changes have focused on the defense of key cities, as well as increasing posture on the Ukrainian border. The 6th Combined Arms Army, headquartered in St. Petersburg, was established in 2010, and the 1st Guards Tank Army on the outskirts of Moscow was stood up in 2014. At the same time, Russian forces were built up near the Ukrainian border, including the 8th Combined Arms Army in 2017 in Novocherkassk (50 miles from the Ukrainian border) and, in 2015, the moving of the headquarters of the 20th Combined Arms Army from Nizhnii Novgorod, which is east of Moscow, to Voronezh, closer to the Ukrainian border. In 2016, the 11th Army Corps was re-created in Kaliningrad and, in 2017, the 22nd Army Corps in Crimea.[375]

These units benefited from expanded formations, including the conversion of brigades into divisions and the creation of new divisions with established armies.[376] In Kaliningrad Oblast, for example, the 18th Motor Rifle Division was formed from the 79th Motor Rifle Brigade, the 275th and 280th Motor Rifle Regiments, and the 11th Tank Regiment (itself created in 2018).[377] None of the new divisions joined the 6th Combined Arms Army, which was headquartered near the Baltic states. According to Muzyka, 2021, the 6th Combined Arms Army, comprising nine brigades and regiments, is the least developed army in the Western Military District.[378] The fleet of main battle tanks, infantry fighting vehicles, and armored personnel carriers was also

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[374] Radin et al., 2019.

[375] Muzyka, 2021, p. 42. See also Alexandra Kuimova and Siemon T. Wezeman, *Russia and Black Sea Security*, Solna, Sweden: Stockholm International Peace Research Institute, December 2018.

[376] The formation of those divisions led to the more than doubling of their size, from six motor rifle brigades or regiments, two tank regiments, two artillery regiments, and two air defense regiments to 12 motor rifle regiments, eight tank regiments, five artillery regiments, and five air defense regiments (Scott Boston and Matthew Povlock, "Maneuver Ground Forces," in Andrew Radin, Lynn E. Davis, Edward Geist, Eugeniu Han, Dara Massicot, Matthew Povlock, Clint Reach, Scott Boston, Samuel Charap, William Mackenzie, Katya Migacheva, Trevor Johnston, and Austin Long, *The Future of the Russian Military: Russia's Ground Combat Capabilities and Implications for U.S.-Russia Competition: Appendixes*, Santa Monica, Calif.: RAND Corporation, RR-3099-A, 2019, pp. 70–73; Muzyka, 2021, pp. 9–23).

[377] Alexei Ramm and Anna Cherepanova, "On That and the Division: In Kaliningrad Complete the Creation of a New Compound," *Izvestiya*, May 13, 2021.

[378] Muzyka, 2021, pp. 18–19.

gradually modernized across the Western Military District, as part of a larger plan for modernization.[379]

Modernization and reinforcements have also been visible in indirect fires and long-range strike capabilities. In 2017, the 45th Svir Order of Bogdan Khmelnitskiy Heavy Artillery Brigade was reinstated. The missile forces have transitioned from Tochka ballistic missiles with a maximum range of 185 km to Iskander missiles with a declared range just below 500 km (and with an alleged range of up to 2,000 km).[380] The 152nd Missile Brigade, based in the Kaliningrad Oblast, received the Iskander complex as the next to last missile brigade in the Russian ground forces.[381] Russia gradually updates artillery systems, including the introduction of new multiple rocket launchers (Tornado-G, Tornado-S, and Uragan-1M) with improved guidance, accuracy, rate of fire, and/or control systems.[382]

Russia also invested in lighter, higher readiness and more-professional forces. The Airborne Forces, or *Vozdushno-desantnye voiska* (VDV), and the GRU[383] Spetsnaz received new equipment, including tanks (starting in 2016 and expanding gradually from companies to battalion-level formations[384]), UAVs, and electronic warfare capabilities.[385] According to Muzyka, 2021, between 2016 and 2020, the VDV received new airborne infantry fighting vehicles: around 320 BMD-4Ms and 180 BTR-MDMs.[386] The size of the VDV was expected to increase from approximately 42,000 to 60,000 troops by 2020; however, there is no indication that this happened. Such forces could be used in the event of a conflict with the West, although the experience in Ukraine suggests applicability for conflicts in the non-Baltic near abroad.

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[379] Boston and Povlock, 2019, pp. 74–78.

[380] Edward Geist, "Long-Range Strike," in Andrew Radin, Lynn E. Davis, Edward Geist, Eugeniu Han, Dara Massicot, Matthew Povlock, Clint Reach, Scott Boston, Samuel Charap, William Mackenzie, Katya Migacheva, Trevor Johnston, and Austin Long, *The Future of the Russian Military: Russia's Ground Combat Capabilities and Implications for U.S.-Russia Competition: Appendixes*, Santa Monica, Calif.: RAND Corporation, RR-3099-A, 2019b, pp. 115–118.

[381] Geist, 2019b, pp. 119–120; Muzyka, 2021, p. 45.

[382] Edward Geist, "Indirect Fires," in Andrew Radin, Lynn E. Davis, Edward Geist, Eugeniu Han, Dara Massicot, Matthew Povlock, Clint Reach, Scott Boston, Samuel Charap, William Mackenzie, Katya Migacheva, Trevor Johnston, and Austin Long, *The Future of the Russian Military: Russia's Ground Combat Capabilities and Implications for U.S.-Russia Competition: Appendixes*, Santa Monica, Calif.: RAND Corporation, RR-3099-A, 2019a, pp. 91–100.

[383] GRU stands for *Glavnoe razvedyvatel'noe upravlenie*, or the Main Intelligence Directorate.

[384] Muzyka, 2021, p. 29.

[385] William Mackenzie and Clinton Reach, "Rapidly Deployable Forces," in Andrew Radin, Lynn E. Davis, Edward Geist, Eugeniu Han, Dara Massicot, Matthew Povlock, Clint Reach, Scott Boston, Samuel Charap, William Mackenzie, Katya Migacheva, Trevor Johnston, and Austin Long, *The Future of the Russian Military: Russia's Ground Combat Capabilities and Implications for U.S.-Russia Competition: Appendixes*, Santa Monica, Calif.: RAND Corporation, RR-3099-A, 2019, p. 147.

[386] Muzyka, 2021, p. 32.

Russia also made major investments in air defense and air forces, which contribute in large part to strategic deterrence. In 2015, Russia integrated the air and air defense assets under the Aerospace Forces, which was followed by the creation of air and air defense armies, including the 6th Air and Air Defense Army, which is headquartered in St. Petersburg. Organizational changes were coupled with the delivery of new systems. Between 2008 and 2020, the Aerospace Forces received 475 fixed-wing combat aircraft, with deliveries peaking in 2014.[387] New combat and airlift helicopters were also delivered, including possibly to the 15th Army Aviation Brigade in Ostrov, close to the Estonian and Latvian borders.[388] In the Kaliningrad Oblast, air assets were strengthened through the delivery of eight Su-30SM fighters in 2018 and the modernization of the air base in Chkalovsk.[389]

Air defense units are gradually strengthened with new S-300V4 and S-400 batteries, extending the range of air defense to 400 km. New systems were deployed in particular near St. Petersburg, where five air defense regiments are located; in the Kaliningrad Oblast (most recently to the 1545th Air Defense Regiment, stationed in Gvardeisk);[390] and in Crimea (armed with an S-400 regiment and an S-300PS regiment under the command of the 4th Air and Air Defense Army with the headquarters in Rostov-na-Donu).[391] S-400 battalions are guarded by Pantsir-S1 air-defense missile-gun systems, providing layered air defense. Short-range and intermediate air defense systems are also being upgraded (Tor-M2 and Buk-M3, respectively).[392]

Posture in the Kaliningrad Oblast was additionally strengthened with new coastal defense and electronic warfare systems. In the past few years, the Baltic Fleet received two new corvettes and two small missile ships; deliveries of additional corvettes armed with Kalibr cruise missiles are expected.[393] However, all in all, the Baltic Fleet has shrunk since 2014.[394]

In the Arctic, the basing region of the Northern Fleet, Russia maintains two-thirds of its nuclear submarine fleet. The posture in the region was strengthened first by the establishment of the Joint Strategic Command–North (2014) and then by the elevation of the Northern Fleet to a full military district (2021). In the past decade, Russia constructed new military bases and reopened decommissioned Soviet Arctic bases along the Northern Sea Route, arming them with

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[387] Muzyka, 2021, p. 38.

[388] Muzyka, 2021, p. 36.

[389] Muzyka, 2021, pp. 50–51.

[390] Muzyka, 2021, p. 50.

[391] Clinton Reach, "Air Defenses," Andrew Radin, Lynn E. Davis, Edward Geist, Eugeniu Han, Dara Massicot, Matthew Povlock, Clint Reach, Scott Boston, Samuel Charap, William Mackenzie, Katya Migacheva, Trevor Johnston, and Austin Long, *The Future of the Russian Military: Russia's Ground Combat Capabilities and Implications for U.S.-Russia Competition: Appendixes*, Santa Monica, Calif.: RAND Corporation, RR-3099-A, 2019, pp. 173–174.

[392] Reach, 2019, p. 175.

[393] "Russia's Baltic Fleet to Receive 4 Ships with Kalibr Missiles and Pantsir Systems," TASS, May 18, 2020.

[394] Muzyka, 2021, pp. 47–49.

new radar systems for surveillance and early warning and layered air defense systems (including S-400 on Kotelny Island and Novaya Zemlya).[395] In 2015, an Arctic Brigade was formed from the 200th Motor Rifle Brigade in Pechenga and the 80th Motor Rifle Brigade in Alakurtti, close to the Finnish border.[396] As of 2019, Russia had opened 14 airfields in the region.[397] Russia is also developing and fielding Arctic-capable and Arctic-specific military capabilities, including new nuclear-powered icebreakers, [398] armored personnel carriers, and UAVs.[399]

Russia also expanded its posture in the Black Sea region, with both naval and A2/AD capabilities. From 2014 to 2018, the Black Sea Fleet received six new Kilo-class submarines, three frigates, and other smaller vessels.[400] The 27th Composite Air Division was formed in Belbek from the 37th Composite Aviation Regiment, the 38th Fighter Regiment, and the 39th Helicopter Regiment. Additional air defense assets were deployed (on top of those taken from Ukraine with the seizure of Crimea), including S-300V4 and S-400 systems guarded by Pantsir-S1 systems.[401] In ground forces, the 22nd Army Corps was re-created with a coastal defense brigade, a reconnaissance brigade, a logistics and supply brigade, an artillery regiment, and an electronic warfare center. In 2017, the 171st Separate Air Assault Battalion was created.[402]

Trends in Russian Military Exercises

The Russian armed forces have an active campaign of large-scale exercises, including annually scheduled strategic exercises and unannounced combat readiness inspections (also called *snap exercises*). One goal of the exercises is to improve capabilities in support of Russia's security interests; exercises provide a basis for assessment and improve the ability to conduct strategic-level, multidirectional, or multidomain operations on short notice, from the top military-political command and control level down through the chain of command to live-fire exercises of all armed services.[403] Exercises also play a role in enhancing Russia's security and

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[395] Stephanie Pezard, Abbie Tingstad, Kristin Van Abel, and Scott Stephenson, *Maintaining Arctic Cooperation with Russia: Planning for Regional Change in the Far North*, Santa Monica, Calif.: RAND Corporation, RR-1731-RC, 2017.

[396] Mathieu Boulègue, *Russia's Military Posture in the Arctic: Managing Hard Power in a 'Low Tension' Environment*, London, United Kingdom: Chatham House, June 2019, pp. 16–18.

[397] Boulègue, 2019, p. 12.

[398] Pezard et al., 2017, p. 12.

[399] Boulègue, 2019, pp. 21–22.

[400] Clint Reach, "The Military Role in Russia's Black Sea Strategy," in Stephen J. Flanagan, Anika Binnendijk, Irina A. Chindea, Katherine Costello, Geoffrey Kirkwood, Dara Massicot, and Clint Reach, *Russia, NATO, and Black Sea Security*, Santa Monica, Calif.: RAND Corporation, RR-A357-1, 2020.

[401] Reach, 2020, pp. 64–65.

[402] Reach, 2020, p. 68.

[403] Johan Norberg, *Training for War: Russia's Strategic-Level Military Exercises 2009–2017*, Swedish Defence Research Agency, October 2018, p. 35.

influence in its region. The exercises serve as shows of force to convey to potential aggressors and to Russia's neighbors that the costs of a potential fight would be high.[404]

The increase in size and complexity of exercises appears to have been initiated as one of the elements of Shoigu's reform of the armed forces beginning in 2012. A surge in exercise activities was first recorded in 2013, when the Russian Ministry of Defense reintroduced snap exercises—for the first time since the end of the Cold War.[405]

Russia's annual strategic exercises are the largest in scope. They are the culmination of the annual readiness cycle. Their location rotates between four military districts: Western (Zapad-2013, Zapad-2017), Eastern (Vostok-2014, Vostok-2018), Central (Tsentr-2015, Tsentr-2019), and Southern (Kavkaz-2016, Kavkaz-2020). The Northern Fleet, now elevated to a full military district, does not host annual strategic exercises; however, its units participate in the effort every year (except 2010).[406] This geographical diversity allows the training of force movement and strategic-level operations in different terrain and infrastructure.

The scenarios that are officially reported by the Ministry of Defense are defensive, and they usually start with territorial defense or the neutralization of extremist and illegal armed groups. The scope of operations indicates that the exercise scenarios simulate a war with NATO (for example, defense of Moscow against a mass cruise missile attack).[407] Some of the key capabilities trained during the exercise are command and control for joint operations, with civil-military cooperation and with coalition forces,[408] potentially conducted in two different war theaters;[409] strategic mobility (primarily by rail, but also by airlift),[410] including planning, infrastructure, and equipment; sustainment;[411] combat readiness of rapid response forces;[412] and mobilization of the reserve.[413] The presence of the Northern Fleet, which hosts two-thirds of Russia's nuclear submarine fleet, might indicate that scenarios underpinning the exercises

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[404] Boulègue, 2017.

[405] Johan Norberg, *Training to Fight—Russia's Major Military Exercises 2011–2014*, Swedish Defence Research Agency, December 2015, p. 24.

[406] Norberg, 2018, p. 39.

[407] Dave Johnson, "ZAPAD 2017 and Euro-Atlantic Security," *NATO Review*, December 14, 2017.

[408] The latter especially during Tsentr-2015, Tsentr-2019, Kavkaz-2020, see Ministry of Defence of the Russian Federation, "Maneuvers Kavkaz 2020," webpage, undated a; Ministry of Defence of the Russian Federation, "The Strategic Command-and-Staff Exercise Center – 2015," webpage, undated c; Ministry of Defence of the Russian Federation, "Tsentr-2019 Maneuvers," webpage, undated d;.

[409] Tsentr-2015; see Norberg, 2018, p. 68.

[410] Norberg, 2018, p. 49.

[411] Kavkaz-2016; see Norberg, 2018, p. 71.

[412] Especially Vostok-2014; see Norberg, 2018, p. 64.

[413] Vostok-2014; see Norberg, 2018, p. 66. Kavkaz-2016; see Norberg, 2018, p. 70.

include nuclear escalation.[414] Exercises also involve the use of dual-capable weapon systems (strategic bombers and ballistic and cruise missiles).

Norberg, 2018, notes that the reported size of exercises increased from 10,000 to 20,000 personnel in 2009–2012 to between 90,000 and 150,000 personnel in 2013–2017;[415] the biggest exercise so far was Vostok-2018, for which the Ministry of Defense reported the participation of 300,000 servicemen, more than 1,000 aircraft and UAVs, 80 ships, and 36,000 tanks and other vehicles.[416] However, reporting on the size of strategic exercises is somewhat inconsistent. It appears that the Russian Ministry of Defense underreports the number of troops involved in exercises in the western part of Russia, likely to avoid the foreign observers that are mandatory under the Vienna Document 2011.[417] At the same time, Moscow overreports figures for exercises conducted in eastern Russia, probably including Vostok-2018, likely to maximize the political impact of the exercises.[418]

Snap exercises can also involve a large number of troops, but they technically do not require advanced notification of OSCE under the Vienna Document 2011.[419] The main purpose of snap exercises seems to be a combat readiness check, which focuses on the ability of troops to deploy into the area of operation (which is sometimes far away from their bases) and tests command and control issues, including the transfer of authority between military districts. According to Russian general Valery Gerasimov, Russia carries out four to six comprehensive inspections per year at various levels, including the military district, fleet, service, and branch levels.[420] Usually, a snap exercise immediately precedes a strategic exercise.[421]

Snap exercises also may be used to intimidate neighbors and, occasionally, to provide cover for combat operations or support to proxy forces, especially in the context of Russia's influence

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[414] Norberg, 2018, p. 46.

[415] Norberg, 2018, p. 38.

[416] Ministry of Defence of the Russian Federation, "Maneuvers Vostok-2018," webpage, undated b.

[417] Norberg, 2018, pp. 69–70.

[418] Dave Johnson, "VOSTOK 2018: Ten Years of Russian Strategic Exercises and Warfare Preparation," *NATO Review*, December 20, 2018.

[419] OSCE, *Vienna Document 2011: On Confidence- and Security-Building Measures*, FSC.DOC/1/11, November 30, 2011.

[420] Ministry of Defence of the Russian Federation, "Abstracts of the Speech of the Chief of the General Staff of the Armed Forces of the Russian Federation at a Briefing on the Preparation of Maneuvers of Troops (Forces) 'Vostok-2018,'" webpage, 2018. It appears that Gerasimov was referring only to large-scale inspections ordered by the president, because hundreds of military district–level inspections can be carried out in a year. See Ministry of Defence of the Russian Federation, "In 2016, Formations and Units of the Western Military District Raised the Alarm More Than 170 Times," December 22, 2016; Ministry of Defence of the Russian Federation, 2018.

[421] Zapad-2017 was somewhat an exception because the Russian Ministry of Defense did not announce large snap exercises before it; however, Norberg, 2018, p. 84, notes that they might have happened under a different name.

in its periphery.[422] For example, Russia's seizure of Crimea in 2014 was preceded by a no-notice readiness inspection in the Western and Central military districts, involving 150,000 troops.[423] In April 2021, Russia massed 100,000 troops on Ukraine's border during intensifying clashes in the Donbas.[424] As concern spread throughout Europe and the United States, the Kremlin and the Russian military offered vague and conflicting accounts before belatedly claiming that the event was a training exercise and attempting to link it to NATO's Defender exercise.[425] The Russian "exercise" included field hospitals, signals units, long-range artillery units, and other logistical equipment, making the event more complex than a typical exercise and difficult to distinguish from preparations for conducting ground operations.[426] Russia's Ministry of Defense ordered several units back to their bases at the end of April.[427] However, many of the troops remained in the area.[428]

In addition, some of the drills are timed to coincide with NATO exercises, especially when they are conducted in naval and air domains. This timing raises tensions and, at times, creates dangerous situations of close encounters between the opposing forces. The most recent example is the Sea Breeze 2021 NATO exercise in the Black Sea, during which Russia tested the readiness of its air defense systems in Crimea, deploying around 20 warplanes and helicopters, including Su-24M bombers, as well as S-400 and Pantsir surface-to-air missile systems.[429] Russian aircraft and coast guard vessels participating in the exercise harassed the British warship HMS *Defender*, which, according to Russia, passed too close to the Crimean peninsula.[430]

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[422] For a discussion of exercises as a hostile measure of influence, see Ben Connable, Stephanie Young, Stephanie Pezard, Andrew Radin, Raphael S. Cohen, Katya Migacheva, and James Sladden, *Russia's Hostile Measures: Combating Russian Gray Zone Aggression Against NATO in the Contact, Blunt, and Surge Layers of Competition*, Santa Monica, Calif.: RAND Corporation, RR-2539-A, 2020, pp. 19, 43–44.

[423] Kofman et al., 2017, pp. 8, 24.

[424] Andrew E. Kramer, "Fighting Escalates in Eastern Ukraine, Signaling the End to Another Cease-Fire," *New York Times*, last updated April 30, 2021.

[425] Matthew P. Funaiole, Joseph S. Bermudez, Jr., Heather A. Conley, and Cyrus Newlin, "Unpacking the Russian Troop Buildup Along Ukraine's Border," Center for Strategic and International Studies, April 22, 2021; "Russia Keeps Close Eye on NATO Forces' Deployment in Europe During Drills—Top Brass," TASS, April 27, 2021.

[426] The amount of force brought to the border was large and included multiple units from the Southern Military District and more than a dozen from across Russia, including elite airborne units. The Black Sea Fleet was reinforced with Caspian Flotilla ships (Thomas Bullock and Samuel Cranny-Evans, "Russian Troop Build-Up Continues on Ukrainian border," Janes, April 14, 2021; Tim Ripley and Thomas Bullock, "Russian Troop Build-Up Sparks Concern in Ukraine," Janes, April 9, 2021).

[427] "Russia to Pull Troops Back from Near Ukraine," BBC News, April 22, 2021.

[428] Roger McDermott, "As Russian Military Prepares for Zapad 2021, Heavy Armed Forces Stay Close to Ukraine," *Eurasia Daily Monitor*, Vol. 18, No. 104, June 30, 2021.

[429] "Russia Tests Crimean Air Defence Systems as Ukraine, U.S. Hold Black Sea Drills," Reuters, June 29, 2021.

[430] "HMS Defender: Russian Jets and Ships Shadow British Warship," BBC News, June 23, 2021.

Trends in Russian Security Cooperation

Russia's security cooperation appears to serve each of Russia's interests. For the security interests, cooperation bolsters Russia's partners, such as Belarus, that provide a buffer against potential Western aggression. Arms sales strengthen Russia's domestic military industry. Security cooperation, including through basing and arms sales, also enhances Russia's influence in its near abroad and around the world. Below, we summarize security cooperation and Russia's agreements with different countries on basing, joint exercises, and arms sales.

Russia has an extensive array of bilateral security cooperation relationships throughout the world, including agreements with countries in Asia, Africa, and South and Central America. According to the Institute for the Study of War, since 2014, Russia has signed more than 90 agreements with 73 countries and multilateral organizations, including 45 agreements with Asian countries, 30 with African states, and 13 with South and Central American governments but only four with European countries (Belarus, Moldova, and Serbia).[431]

Perhaps Russia's most important security cooperation relationship is with Belarus.[432] As a member of the Union State, Russia is committed to respond to aggression against Belarus with "retaliatory measures."[433] According to the Russian defense minister, Sergei Shoigu, Russia and Belarus have already adopted a common military doctrine, created the Regional Group of Forces and the regional Air Defense System,[434] and conducted joint military planning.[435] Belarus hosts two Russian military installations: the Vileyka very low frequency transmitter of the 43rd Communications Center of the Russian Navy and the Hantsavichy radar station, which is a part of Russia's ballistic missile early warning system and, as such, has strategic importance, even if it has a complementary role to radar stations in the Kaliningrad and Leningrad oblasts.[436] However, Belarus still refuses to host a Russian air base, claiming that Russian aircraft can use existing facilities.[437]

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[431] Nataliya Bugayova, Mason Clark, and George Barros, with Aleksei Zimnitca, Aidan Therrien, and Kayla Grose, *Russian Security Cooperation Agreements Post-2014*, Washington, D.C.: Institute for the Study of War, 2020.

[432] Information Analysis Portal of the Union State, Treaty on the Establishment of the Union State, December 8, 1999.

[433] "Military Doctrine of the Russian Federation," 2014.

[434] Wilk posits that the Regional Group of Forces consists of the Belarusian land forces and special operations forces and Russian forces of the Western Military District (Andrzej Wilk, *Russia's Belarusian Army: The Practical Aspects of Belarus and Russia's Military Integration*, Warsaw: Centre for Eastern Studies, OSW report, March 2021, p. 7). The Belarusian Air Force is a component of the Regional Air Defense System. In both cases, the actual control is exercised by the Russian Joint Strategic Command–West.

[435] Ministry of Defence of the Russian Federation, "Russian Defense Minister General of the Army Sergei Shoigu Took Part in a Meeting of the Joint Collegium of the Military Departments of Russia and Belarus," October 27, 2020b.

[436] Wilk, 2021, p. 22.

[437] "Lukashenko Offered to Place Russian Planes in Belarus," *Kommersant*, March 2, 2021.

Russia also has military bases in Armenia, Kyrgyzstan, Tajikistan, Kazakhstan, separatist-controlled regions of Georgia and Moldova, and Crimea.[438] Outside the post-Soviet space, Russia has secured long-term access to an air and naval base in Syria and access to Cam Ranh Bay Naval Base in Vietnam.[439] Reportedly, Russia is seeking to establish military bases in the Central African Republic, Egypt, Eritrea, Madagascar, Mozambique, and Sudan but has been unsuccessful to date.[440]

With regard to joint exercises, Minsk also has a uniquely central role. Every two years, Belarus joins Russia's annual strategic exercise; the country cohosts the Zapad strategic exercise (2009, 2013, 2017) and participates in the operational-level Union Shield exercise conducted during the Tsentr strategic exercises (2011, 2015, 2019).[441] The Regional Group of Forces, created to increase interoperability between Russian and Belarusian forces, also conducts tactical-level exercises. In total, Russia and Belarus hold around 60 joint operational and combat training events annually.[442]

Other CSTO countries also participated in Tsentr-2011 and Tsentr-2015, as well as the joint strategic-operational exercise *Boevoe bratstvo* ("Combat Brotherhood").[443] Since 2017, *Boevoe bratstvo* has essentially become an annual event, organized in the fall, comprising several smaller exercises of a longer tradition, including *Vzaimodeistvie* ("Interaction," a training of the CSTO Collective Operational Reaction Forces[444]) and *Nerushimoe bratstvo* ("Unbreakable Brotherhood," a peacekeeping forces exercise[445]). In May 2015, the CSTO Collective Operational Reaction Forces underwent a surprise readiness inspection.[446] Another multilateral exercise, held annually since 2015, is *Slavyanskoe bratstvo* ("Slavic Brotherhood"), conducted jointly by Russia, Belarus, and Serbia (except for *Slavyanskoe bratstvo* 2020, when Serbia withdrew its participation because of pressure from the EU[447]). Russia has also expanded its joint

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[438] Agnieszka Rogozińska and Aleksander Ksawery Olech, *The Russian Federation's Military Bases Abroad*, Institute of New Europe, 2020.

[439] Rogozińska and Olech, 2020.

[440] Oliver Towfigh Nia, "Russia Building Military Bases in Africa: Report," Anadolu Agency, April 8, 2020.

[441] Norberg, 2018, p. 68.

[442] Ministry of Defence of the Russian Federation, 2020b. In March 2021, the Russian and Belarusian ministers of defense agreed to create three joint military training centers, two in Russia and one in Belarus ("Russia and Belarus Agreed on the Creation of Military Training Centers," *Kommersant*, March 5, 2021).

[443] Ministry of Defence of the Russian Federation, "Combat Brotherhood 2017 CSTO Strategic Exercise," 2017.

[444] Ministry of Defence of the Russian Federation, "Joint Exercise of the CSTO Collective Rapid Reaction Force 'Interaction-2015,'" 2015.

[445] Ministry of Defence of the Russian Federation, "Unbreakable Brotherhood 2020 CSTO Exercise Starts in Belarus," October 12, 2020a.

[446] CSTO, "CSTO CRRF Raised to Conduct a Surprise Check of Combat Readiness," May 12, 2015.

[447] Nicole Wolkov, "CSTO Military Exercises to Take Place in Belarus," Caspian Policy Center, September 30, 2020.

exercises with other powers, including through China's participation in the Vostok-2018 exercise and through the multinational antiterrorism exercises of the SCO.[448]

Russia's arms sales are a key component of its global influence. Russia is the world's second largest arms exporter, accounting for 20 percent of global arms exports.[449] The Ministry of Defense's official data approximate the value of Russian arms exports in 2019 at $15.2 billion, which is consistent with recently reported levels.[450] According to estimates from the Stockholm International Peace Research Institute, between 2014 and 2020, Russia's biggest arms customers were India, China, and Algeria, followed by Vietnam, Egypt, and Iraq, as shown in Figure A.3.[451] In that period, aircraft amounted to approximately half of all Russian arms transfers, with missiles occupying a distant second (12 percent).[452] Russia is one of the only arms suppliers to CSTO countries (approximately 80–95 percent of their arms imports come from Russia), except Kazakhstan (less than 50 percent comes from Russia).[453] At the same time, together, exports to the CSTO countries amount to less than 8 percent of Russia's arms exports.[454]

[448] Johnson, 2018; Ministry of Defence of the Russian Federation, "Peaceful Mission 2014—Joint Anti-Terrorist Exercise of the SCO Member States," August 29, 2014; Ministry of Defence of the Russian Federation, "Indra 2019 Joint Russian-Indian Exercise," 2019.

[449] Pieter D. Wezeman, Alexandra Kuimova, and Siemon T. Wezeman, "Trends in International Arms Transfers, 2020," fact sheet, Stockholm International Peace Research Institute, March 2021.

[450] Interfax, "The Ministry of Defence of the Russian Federation Assessed the Export of Weapons for 2019," March 23, 2020.

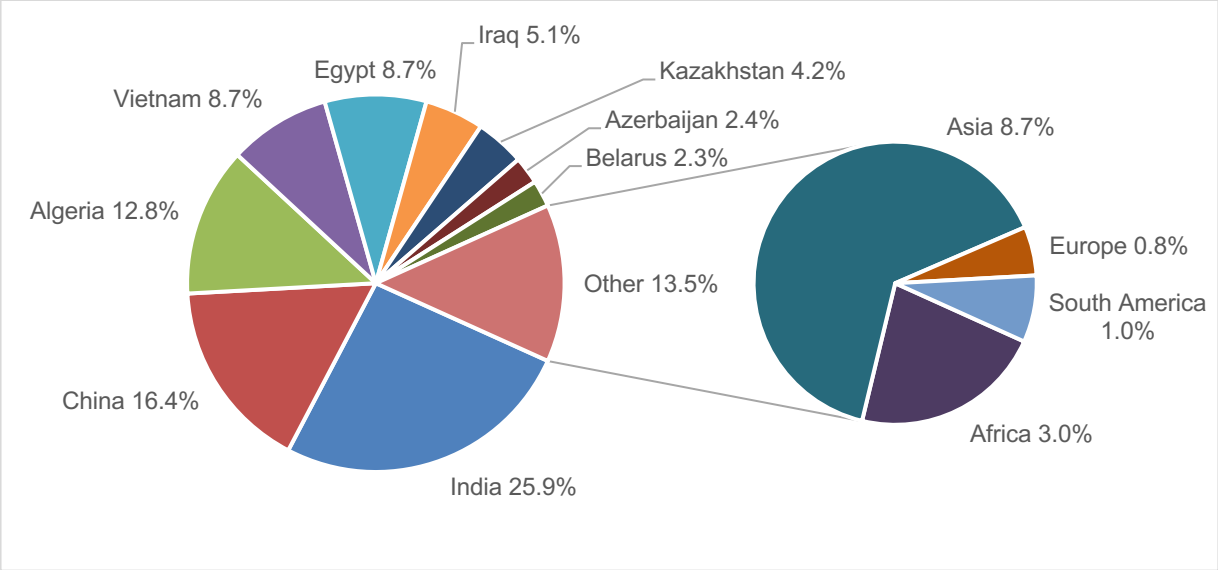
[451] Stockholm International Peace Research Institute estimates do not represent sales prices for arms transfers, but rather the volume of international transfers of major conventional weapons, converted to a common unit. The estimates account for sales of new weapons, weapons that have been in service previously (40 percent of a new weapon value), and weapons that have been significantly refurbished or modified by the supplier before delivery (66 percent of a new weapon value) (Stockholm International Peace Research Institute, "Sources and Methods," webpage, undated).

[452] Stockholm International Peace Research Institute, "Importer/Exporter TIV Tables," database, 2017a.

[453] Richard Weitz, *Assessing the Collective Security Treaty Organization: Capabilities and Vulnerabilities*, Carlisle Barracks, Pa.: United States Army War College Press, October 2018, pp. 123–135.

[454] Stockholm International Peace Research Institute, 2017a.

Figure A.3. Importers of Russian Arms



SOURCE: RAND calculations based on Stockholm International Peace Research Institute, 2017a.

Historically, NATO countries have made up a very small share of Russian arms exports. Apart from Greece's purchases of air defense systems in the late 1990s and early 2000s, sales to NATO countries were in low single-digit percentage points.[455] However, in 2017, Turkey signed a $2.5 billion contract for four batteries of Russian S-400 air defense systems, and the first shipments reportedly arrived in 2019.[456] The Trump administration issued sanctions on Turkey in response, and, at the time of writing, the Biden administration had not resolved the dispute.[457]

Trends in Russian Combat Operations and Foreign Deployments

Russia's foreign deployments and combat operations include "peacekeeping" deployments in former Soviet countries, in part as a legacy from the 1990s; operations in Ukraine and Georgia; expeditionary operations in Syria; and Russian aircraft and ships challenging NATO boundaries, aircraft, and vessels. These missions contribute to the variety of Russian interests—Russia's security concerns about NATO enlargement, desire for influence in its periphery, and aspirations for global influence.

Many of Russia's foreign deployments developed from what Russia saw as peacekeeping missions around the Soviet Union in the 1990s. In 1992, in Transnistria, which is part of

[455] Stockholm International Peace Research Institute, "Trade Registers," database, 2017b.

[456] Tuvan Gumrukcu and Ece Toksabay, "Turkey, Russia, Sign Deal on Supply of S-400," Reuters, December 29, 2017; Ece Toksabay, "Turkey's First S-400 Shipment Complete, Second Planned for Ankara: Officials," Reuters, last updated July 25, 2019.

[457] Amanda Macias, "Biden Unable to Reach Agreement with Turkey's Erdogan over Russian Missile System Deal During NATO Summit," CNBC, last updated June 17, 2021.

Moldova, the Russian 14th Guards Army provided separatist forces decisive support against the Moldovan government. The 14th Guards Army later stayed in the region as a peacekeeping force established under the ceasefire signed by the presidents of Russia and Moldova.[458] Despite many calls from the Moldovan government and the international community for the withdrawal of Russian troops,[459] Russia refused to end the mission.[460] In South Ossetia and Abkhazia, in Georgia, Russia's role during the 1992–1994 wars of secession was more ambiguous; however, the end state was similar—it led to the creation of Russian-led peacekeeping forces, which Georgia regarded as occupation.[461] Even the Russo-Georgian War of 2008 was dubbed by Russia as an operation to "coerce Georgia to peace."[462] In the aftermath of the war, Moscow recognized Abkhazia and South Ossetia as independent and thereby regarded the presence of Russian troops in the separatist regions as forward basing.[463] When the civil war in Tajikistan broke out in the early 1990s, Moscow did not have a clear policy, and Russian forces spontaneously reacted to the emerging situation, siding with the communist government.[464] In 1993, Russian involvement in the conflict took the form of a CIS peacekeeping mission.[465]

In hindsight, Russian peacekeeping troops in Georgia and Moldova contributed to Moscow's ability to limit the countries' aspirations for EU and NATO enlargement. However, Russian forces in these countries also seemed to be more of a legacy of the Soviet Union than an intentional strategic deployment.[466] Officially, Moscow's policy toward these civil wars was

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[458] Sabine Fischer, ed., *Not Frozen! The Unresolved Conflicts over Transnistria, Abkhazia, South Ossetia and Nagorno-Karabakh in Light of the Crisis over Ukraine*, Berlin: Stiftung Wissenschaft und Politik, German Institute for International and Security Affairs, RP 9, September 2016, p. 28.

[459] United Nations, "General Assembly Adopts Texts Urging Troop Withdraw from Republic of Moldova, Strengthening Cooperation in Central Asia," meeting coverage, GA-12030, June 22, 2018.

[460] "Rogozin: Russia Will Not Wind Down the Peacekeeping Mission in Transnistria," Gazeta, April 15, 2018.

[461] Fischer, 2016, pp. 44–46.

[462] Roy Allison, "Russia Resurgent? Moscow's Campaign to 'Coerce Georgia to Peace,'" *International Affairs*, Vol. 84, No. 6, November 2008.

[463] RIA Novosti, "Military Bases of the Russian Federation Abroad. Reference," webpage, last updated February 29, 2020.

[464] Arkady Yu. Dubnov, "Tadjikistan," in Jeremy R. Azrael and Emil A. Payin, eds., *U.S. and Russian Policymaking with Respect to the Use of Force*, Santa Monica, Calif.: RAND Corporation, CF-129-CRES, 1996, p. 32.

[465] "The History of the Participation of Russian Military Personnel in Peacekeeping Missions," TASS, November 10, 2020.

[466] This is perhaps with the exception of Georgia, where the pressure for access to the Black Sea was present from the start. See Evgeny M. Kozhokin, "Georgia-Abkhazia," in Jeremy R. Azrael and Emil A. Payin, eds., *U.S. and Russian Policymaking with Respect to the Use of Force*, Santa Monica, Calif.: RAND Corporation, CF-129-CRES, 1996, p. 77.

neutrality, although in practice it amounted to military involvement because of insubordination, corruption, and generally weak oversight in the armed forces during the transition period.[467]

After 2014, peacekeeping missions remained an option, as proven by the ceasefire agreement of the 2020 Nagorno-Karabakh war.[468] However, the Russian modus operandi shifted with the operations in Ukraine, as detailed in the case study in Chapter 5. Russia seized and illegally annexed the Crimean peninsula in 2014 and created a new separatist conflict rather than responding to long-standing ethnic conflict.[469] The war in Ukraine also shows an expanded range of Russian tactics, including intensified influence operations, the provision of proxies with weaponry, the deployment of advisers, and, eventually, the direct participation of Russian combat forces—all while Russia denied involvement.[470] Despite the signing of Minsk II and the ceasefire agreement, combat continues. Monthly casualties in the Donbas have been reported in the single or low double digits.[471]

Although Russia's intervention in Syria is outside EUCOM, it also serves as a useful example of Russia's capabilities and aspirations for global influence. The mission was launched at the end of September 2015, first as an air operation. The Kremlin initially insisted that "no ground troops will be sent,"[472] but naval troops were ultimately deployed alongside the Aerospace Forces. The footprint remains low: on average, 24 to 40 fixed-wing aircraft (a mix of Soviet and new Russian bombers, fighters, and attack aircraft), 16 to 40 helicopters, and not more than 5,000 personnel.[473] From the Russian perspective, the operation not only prevents the collapse of a friendly regime and checks the expansion of Islamic extremism but also provides an opportunity for the Russian armed forces to test new weapons and concepts of operations and to gain combat experience.[474]

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[467] Dubnov, 1996, p. 44; Irina F. Selivanova, "Trans-Dniestria," in Jeremy R. Azrael and Emil A. Payin, eds., *U.S. and Russian Policymaking with Respect to the Use of Force*, Santa Monica, Calif.: RAND Corporation, CF-129-CRES, 1996, p. 57.

[468] Vladimir Socor, "Russian 'Peacekeeping' in Karabakh: Old Model, New Features, Mission Creep (Part One)," *Eurasia Daily Monitor*, Vol. 18, No. 11, January 21, 2021.

[469] There is no preexisting Novorussian people, language, or culture (Kofman et al., 2017, pp. xii–xiii).

[470] Connable et al., 2020, p. 43; Kofman et al., 2017, pp. 38–45; Radin, Demus, and Marcinek, 2020, pp. 9–15.

[471] Knyga pam'jati poleglyh za Ukrai'nu [Book of Remembrance of the Fallen for Ukraine], "Zagybli/pomerli po misjacjah vijny (stanom na 14.09.2021 r.) [Killed/Dead by Months of War (as of September 14, 2021)]," webpage, undated.

[472] "Only Aviation Support Will Be Provided to Regular Syrian Army—Russian Lawmaker," TASS, September 30, 2015.

[473] Robert E. Hamilton, Chris Miller, and Aaron Stein, eds., *Russia's War in Syria: Assessing Russian Military Capabilities and Lessons Learned*, Philadelphia, Pa.: Foreign Policy Research Institute, 2020, p. 51.

[474] Samuel Charap, Elina Treyger, and Edward Geist, *Understanding Russia's Intervention in Syria*, Santa Monica, Calif.: RAND Corporation, RR-3180-AF, 2019, pp. 3–6.

Conflicts in Syria and Ukraine, as well as in Libya and several other African countries,[475] also featured private military companies (PMCs), the most well-known being the Wagner Group.[476] Using PMCs allows the Kremlin to maintain a limited official footprint in foreign deployments, which is cheaper and politically safer than using regular armed forces.[477] At the same time, these organizations can provide an easily scalable but significant combat capability with reconnaissance, motor rifle, tank, and artillery units.[478] PMCs are involved in training, asset protection, supply of weaponry, and combat tasks, preparing the ground for future government-led security cooperation. For example, PMCs have been active in all six African countries where Russia reportedly seeks to establish military bases, as mentioned in the previous section.

The final notable Russian deployments are hostile provocations conducted by Russian aircraft and vessels. Russia regularly flies military planes close to the Alliance's borders. In 2020, NATO reported 350 cases of Russian military aircraft flying with their transponders switched off, without filing a flight plan, and without communicating with air traffic controllers.[479] Such cases have also been taking place before 2014, but at a 50 percent lower rate.[480] Most of the intercepts happen over Baltic airspace; however, Russian aircraft have also been intercepted off the coast of Alaska.[481] Although many of those intercepts are conducted in international airspace, Russia also routinely violates the airspace of NATO members, especially during NATO exercises.[482]

In international waters and airspace, Russian provocations take the form of harassment of NATO aircraft and vessels, often via flybys at high speed and in dangerous proximity. Some of the latest examples have taken place in or over the Black Sea, where, in August 2020, two Russian Su-27s intercepted a U.S. Air Force B-52 bomber, crossing multiple times within 100 feet of its nose; the afterburner caused turbulence that restricted the bomber's ability to

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[475] Brian Katz, Seth G. Jones, Catrina Doxsee, and Nicholas Harrington, *Moscow's Mercenary Wars: The Expansion of Russian Private Military Companies*, Washington, D.C.: Center for Strategic and International Studies, September 2020.

[476] Congressional Research Service, "Russian Private Military Companies (PMCs)," *In Focus*, September 16, 2020, p. 1.

[477] Congressional Research Service, 2020, p. 2.

[478] Chuck Bartles and Lester Grau, *Russia's War in Syria: The Russian Ground-Based Contingent in Syria*, Philadelphia, Pa.: Foreign Policy Research Institute, September 2020, p. 10.

[479] NATO, "NATO Intercepts Hundreds of Russian Military Jets in 2020," December 28, 2020d.

[480] Brad Lendon, "NATO Jets Scrambled More Than 400 Times This Year for Russian Intercepts," CNN, November 21, 2014.

[481] Stephen Losey, "NORAD F-22s Intercept Russian Fighters, Bombers Near Alaska," *Air Force Times*, October 20, 2020.

[482] Jari Tanner, "Estonia Says Russian Planes Violate Its Airspace, Again," AP News, June 16, 2021.

maneuver.[483] In January 2021, a Russian Su-24 flew low over the destroyer USS *Donald Cook* of the 6th Fleet at the distance of 100 yards from the port beam.[484]

The third and most serious form of Russian provocation is restricting freedom of movement, often around Ukraine. In November 2018, the Russian coast guard fired upon and captured three Ukrainian naval vessels passing through the Kerch Strait on their way to the port of Mariupol. Russia claimed that the Ukrainian ships illegally entered Russian territorial waters, whereas Kyiv considers Crimea and its waters part of Ukraine.[485] So far, there has been only one documented case of such a violation of international norms.

[483] U.S. Air Forces in Europe and Air Forces Africa, "Unsafe, Unprofessional Intercept of US Bomber by Russian Aircraft over the Black Sea," August 29, 2020b.

[484] Geoff Ziezulewicz, "Russian Jet Buzzes US Warship in the Black Sea," *Navy Times*, February 1, 2021.

[485] "Tension Escalates After Russia Seizes Ukraine Naval Ships," BBC News, November 26, 2018.

Appendix B. Iranian Strategic Interests and Supporting OAIs

This appendix follows the same format as the prior appendix. First, we outline core Iranian national security interests. Second, we assess the extent to which each interest does or does not appear to imply an Iranian intent to undertake activities that challenge the U.S. deterrence objectives outlined in Chapter 2. In making the assessment of the potential challenge to U.S. deterrence objectives, we consider a variety of plausible scenarios. Lastly, we document trends in Iranian OAIs that Tehran uses to pursue its interests.

Iranian Strategic Interest 1: Enhance Regime Survival by Limiting U.S. Military Presence Around Iran

Since the Islamic Republic was established in 1979, the regime has often defined its foreign and defense policies in opposition to the United States; Western allies, such as the United Kingdom; and regional powers, such as Israel and Saudi Arabia.[486] In 2017, then–Defense Minister Brigadier General Hossein Dehghan noted, "Today, we regard the system of hegemony, meaning the Americans, as the main and very real threats against us, and then alongside them, the Zionists [Israel] and their allies."[487] Iran's political leadership has put forward the withdrawal of U.S. military forces from the region as a core demand. Supreme Leader Ayatollah Ali Khamenei stated in 2020, "What is important is ending the corrupting presence of America in the region. . . . This region will not accept the presence of America."[488]

Unlike Russia, Iran does not publish its military doctrine or strategy documents. Iran's constitution provides the foundation for its national security interest in resisting foreign interference:

> The foreign policy of the Islamic Republic of Iran is based upon the rejection of all forms of domination, both the exertion of it and submission to it, the preservation of the independence of the country in all respects and its territorial integrity, the defence of the rights of all Muslims, nonalignment with respect to the hegemonist superpowers, and the maintenance of mutually peaceful relations with all non-belligerent States.[489]

[486] For a foundational study on Iranian foreign policy, see R. K. Ramazani, *Independence Without Freedom: Iran's Foreign Policy*, Charlottesville, Va.: University of Virginia Press, 2013.

[487] "Defence Minister Describes USA as 'Main Threat' to Iran," BBC Monitoring, February 7, 2017.

[488] Parisa Hafezi, "Iran's Supreme Leader Says Missile Strike a 'Slap on the Face' for U.S.," Reuters, January 8, 2020.

[489] Iranian Constitution, Chapter X, Article 152, Tehran, Iran, December 3, 1979.

Elements of this stance have deep historical foundations; for example, Persia tapped into nationalism to avoid being colonized by outside forces. However, portions of Iran were occupied during World War II, and the Allied powers forced the exile of Reza Shah. American and British activities in and around Iran throughout the 20th century to support the Shah's repressive rule placed the United States and post-1979 Iran in opposing arenas. "Marg bar Amrika"—death to or down with America—is a foundational element of Tehran's policies, regardless of whether Iran's leaders believe it literally or use it instrumentally to rally the people to the flag.[490]

Iranian leadership views U.S. military presence and activity throughout the Middle East as destabilizing to the region and as having the aim of undermining the Iranian regime. Iranian threat perceptions of the United States and its allies attempting to foment unrest inside Iran have only increased since the Green Movement protests following the 2009 Iranian presidential election, which was viewed as being supported by the United States,[491] and the 2011 Arab Spring, which threatened Tehran's only Arab ally—Damascus. Many Iranians perceive these as only the latest examples of outside powers attempting to play on divisions within Iran and its neighboring states to create political outcomes that are favorable to the West. This perception is further strengthened by the historical example of American and British involvement in the 1953 removal of Prime Minister Mohammad Mossadegh,[492] which in Iran is viewed as exposing the depth of Western ambitions to control the country.

A theme in current leadership statements is that U.S. aggression against Iran has only grown in the 70 years since the removal of Mossadegh and transcends U.S. party politics. Ayatollah Khamenei argues,

> And the purpose of all their [U.S.] maneuvering was to overthrow the Iranian government. If today, this idea [to overthrow] is being echoed in the statements of American officials, this is not a new concept: this was their goal since day one [of the revolution]. Their previous president [Barack Obama] who kept announcing that their goal is not to plot a coup, he even pursued a goal to overthrow [Iran's governing body].[493]

This rhetoric also serves the regime's interest in focusing the public on foreign threats, so it is likely that statements like this one reflect in part genuine Iranian leadership views of U.S. intent

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[490] Joshua Keating, "'Death to America,' Explained (by Ayatollah Ali Khamenei)," *Slate*, November 3, 2015.

[491] "Conservative Paper Calls Musavi Collaborator of America," BBC Monitoring, November 3, 2009; "Iranian Daily Accuses Green Movement Leaders of Coalition with Israel," BBC Monitoring, December 8, 2012; "Iranian Official Says 'America Initiated Green Movement in Iran,'" BBC Monitoring, October 8, 2009.

[492] This is according to declassified CIA records of the operation against Mossadegh (Malcolm Byrne, ed., "CIA Confirms Role in 1953 Iran Coup: Documents Provide New Details on Mosaddeq Overthrow and Its Aftermath; National Security Archive Calls for Release of Remaining Classified Record," Washington, D.C.: National Security Archive, Electronic Briefing Book No. 435, August 19, 2013).

[493] "Imam Khamenei Sets 7 Conditions for Europe to Prevent Breaching of Their Commitments," Khamenei.ir, May 23, 2018.

but also some political calculation aimed at shoring up domestic support while deflecting attention from any domestic governing or economic failures.

In addition to the threat of the United States attempting to orchestrate an uprising in Iran, there is a fear that as long as U.S. forces remain forward postured in the region, the potential exists for those forces to invade Iranian territory and overthrow the regime. Just as Iranian concerns over U.S. efforts to foment internal unrest are rooted in Iran's read of history, Iran's fears of an invasion scenario are fanned by its being situated between Afghanistan and Iraq and thus having witnessed large-scale U.S. interventions that removed the regimes of its immediate neighbors to the east and west.[494] Iranian leaders also cite the incursions made by Saddam Hussein's Iraq in the 1980–1988 war, which they link to French and U.S. support,[495] as another example of outside powers attempting to occupy Iranian territory.

Potential Challenges to U.S. Deterrence Objectives from Iranian Interest 1: Enhance Regime Survival by Limiting U.S. Military Presence Around Iran

Iran's concerns over the perceived threat posed by the U.S. military have reinforced Iran's desire to remove U.S. forces from the region. To the extent that Iran attempts to achieve this objective through military force, its efforts would obviously conflict with the U.S. deterrence objective to protect U.S. military personnel forward deployed in the theater. Commonly discussed scenarios by Western analysts of Iranian state threats to U.S. military personnel are those posed by Iranian naval forces to U.S. Navy, Marine Corps, and Coast Guard assets in the Persian Gulf and the Gulf of Oman and Iran employing its missile forces against U.S. personnel located in the GCC states.

In the maritime domain, there is fear that Iran could deliberately attack U.S. personnel at sea or that inadvertent escalation could lead to naval skirmishes. For example, to advance its interest in limiting U.S. forward presence, Iran could mount an attack using mines, fast boats, and missile forces against U.S. Navy assets. Some have speculated that Iran might have the ultimate intent to sink a U.S. aircraft carrier inside the Persian Gulf, or to at least raise the risk to a level that would keep the United States from deploying carriers in close proximity to Iran's coastline.[496] Other analysts argue that Iran lacks the current capability to execute such an attack, given the limited warhead size of its anti-ship missiles and the strength of U.S. missile defense systems on

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[494] Frederick Wehrey, David E. Thaler, Nora Bensahel, Kim Cragin, Jerrold D. Green, Dalia Dassa Kaye, Nadia Oweidat, and Jennifer Li, *Dangerous But Not Omnipotent: Exploring the Reach and Limitations of Iranian Power in the Middle East*, Santa Monica, Calif.: RAND Corporation, MG-781-AF, 2009.

[495] Annie Tracy Samuel, "Viewpoint Iran: The Past and Present of the U.S.-Iran Standoff," *Origins*, Vol. 7, No. 1, October 2013.

[496] Michael Moran, "The U.S. Navy Isn't Ready to Take On Iran," *Foreign Policy*, September 30, 2019.

accompanying guided-missile destroyers, but aspires to overcome these constraints in the future.[497]

A second high-intensity scenario discussed by U.S. military commanders and Western analysts is the potential that Iran could target GCC military bases at which U.S. forces are deployed, such as al-Udeid in Qatar or al-Dhafra in the UAE, with its missile forces. The U.S. Air Force and CENTCOM, as the relevant geographic combatant command, have already taken several measures to reduce the vulnerability of U.S. personnel and systems operating in Iran's "ballistic missile engagement zone."[498] General McKenzie has noted,

> But I will tell you that one of the most disturbing things about Iran over the last 10 years has been their build out of their ballistic missile force. It is large, it is capable, as we saw in their attack on al-Assad. They have very accurate missiles as well. I am very concerned about the Iranian ballistic missile force.[499]

For the purpose of this analysis, the point is not to assert that Iran would undertake such highly escalatory actions absent a crisis or even necessarily during a crisis, but that Iran's interest in reducing U.S. military presence could result in attacks of different types against U.S. forces, with these representing the highest-end Iranian state attacks generally discussed by Western analysts and defense planners.

In addition to Iran's use of state capabilities to aggress U.S. forces that are forward deployed to the theater, there is already an established pattern of Iran working through proxies to raise the risk to U.S. personnel in the theater, presumably with the aim of compelling U.S. withdrawals over time or at least hampering the effectiveness of deployed personnel by reducing their ability to operate given force protection considerations. The most notable instance of this pattern was the experience of the so-called Shia militia Special Groups that launched attacks in Iraq in the late 2000s and are believed to be responsible for the deaths of hundreds of U.S. personnel during that period in the form of explosively formed projectile attacks on U.S. forces.[500] Since the end of combat operations against ISIS, Iranian-aligned Iraqi militia groups have adopted the tactic of

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[497] Kyle Mizokami, "Expert: Iran Can't Sink a U.S. Navy Aircraft Carrier in a War (For Now)," *National Interest*, September 15, 2019.

[498] Brian W. Everstine, "Iranian Ballistic Missile Launch Briefly Raises Alarm at Al Udeid, Al Dhafra," *Air Force Magazine*, July 28, 2020.

[499] Kenneth F. McKenzie, Jr., "General Kenneth F. McKenzie, Jr. Sky News Arabia Interview, May 18, 2021," transcript, U.S. Central Command, May 19, 2021.

[500] The precise number depends on the attribution of specific attacks, but the lower-end estimate is that 196 U.S. personnel were killed in Iraq by Iranian-provided explosively formed penetrators between late 2005 and 2011 (Andrew Tilghman, "DoD Discloses Data on Iraq War Deaths Linked to Iran," *Military Times*, September 16, 2015).

using rockets to attack Iraqi military installations hosting U.S. personnel, having failed to force a withdrawal of U.S. forces via parliamentary action.[501]

Iran's interest in enhancing national security by limiting U.S. forward presence around Iran could also manifest in Iranian aggression against U.S. partners. The logic is that, because these partners host key U.S. capabilities, Iran might target them with military attacks to coerce them into limiting the access, basing, and overflight that the United States seeks. As it pertains to this Iranian national security interest (enhancing regime survival) and not the second interest, discussed below (strengthening Iran's position as a regional power), Iranian aggression against these partners would be more likely during the period in which the United States would be pursuing crisis deterrence. Specifically, in the midst of a crisis, Iran might execute an attack on U.S. partners (e.g., Saudi Arabia, the UAE) to signal to them that they would be the target of reprisals if they facilitated a U.S. attack on Iran by acquiescing to combat operations being launched against Iran from their territory.[502] In addition, Iranian support to and encouragement of proxies and opposition groups against regional governments provides another element of pressure to influence the GCC states against allowing U.S. access, basing, and overflight in their countries.

Iranian Strategic Interest 2: Strengthen Iran's Position as a Regional Power

Given the size of its population—which is significantly larger than the combined populations of the GCC states[503]—and its technological development, Iran is a natural candidate to be a leading power in the Persian Gulf. There is some debate within the analyst community as to whether Iran seeks to become the dominant regional power or simply wants to be recognized as a regional power.[504] Setting aside the issue of whether Tehran seeks regional hegemony, what is

[501] The Iraqi parliament did pass a resolution in 2020 calling for the removal of U.S. forces from Iraq, but that resolution did not compel Iraq's executive to take the action and has not resulted in a withdrawal, although it led to arrangements that restrict the role of U.S. forces in country (Jane Arraf, "Iraqi Parliament Votes to Expel U.S. Troops, Trump Threatens Sanctions," radio segment with Rachel Martin on "Morning Edition," NPR, January 6, 2020.)

[502] Lynn E. Davis, Jeffrey Martini, Alireza Nader, Dalia Dassa Kaye, James T. Quinlivan, and Paul Steinberg, *Iran's Nuclear Future: Critical U.S. Policy Choices*, Santa Monica, Calif.: RAND Corporation, MG-1087-AF, 2011.

[503] The World Bank reports Iran's population as nearly 84,000,000 in 2020 and that of the six GCC states as totaling less than 60,000,000, and a significant portion of the GCC population numbers includes expatriates (World Bank, "Population, Total," webpage, 2021).

[504] According to the DIA, "While attempting to strengthen its deterrence against foreign attack and influence, Tehran has committed itself to becoming the dominant power in the turbulent and strategic Middle East" (DIA, 2019, p. v). For an alternate perspective, see Justin Logan, "How Washington Has Inflated the Iran Threat," CATO Institute, August 4, 2015.

clear is that Iranian officials view their country as an important actor in the Middle East and wish to further strengthen its position.[505]

Iranian leaders characterize their objectives as defensive in nature, casting Iran as having to respond to military action initiated against it (e.g., Iraq's incursions into Iranian territory during the 1980–1988 Iran-Iraq War) or its partners (e.g., the Saudi-led intervention in Yemen). "Our [military] doctrine is not a doctrine of war. Our doctrine is a doctrine of defence. Our strategy has always been a strategy of active deterrence for establishing peace and security in this country and in regional countries," then–President Hassan Rouhani noted in 2015.[506] However, even when stressing the defensive nature of its intent, Iran often translates the means of achieving security into a strategy of enhancing Iran's influence outside its borders. As noted in a 2019 Iranian military journal article, "Historically, whenever Iran defined its national security within its political border, its independence and national sovereignty were violated and its territorial integrity threatened. . . . Therefore, Iran cannot counter external threats absent a robust regional . . . presence."[507]

As will be discussed in greater detail in our section on Iranian OAIs, this regional presence is achieved through the cultivation of Iranian proxy forces in the Levant and the Arabian Peninsula. Iran sees these forces as playing multiple roles, ranging from a deterrent against external attack to a conduit for expanded Iranian regional influence.[508] According to an Iranian military journal, the first aim follows the logic of creating a "threat in response to threat,"[509] with Iranian-backed proxies contributing to the deterrence of external actors (e.g., Israel, Saudi Arabia) from taking military actions against Iran. In addition, these groups serve as a mechanism for strengthening Iran's role in each proxy actor's home country, providing Iran with a lever for influence in Lebanon, Iraq, and Yemen, among other states that Tehran judges as fertile for expanding its reach. In articulating the progress that Iran has made in achieving this interest, Iranian leaders

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[505] Iran scholar Suzanne Maloney notes, "Under almost any conceivable leadership, Iran would seek to play an outsized role in the broader Middle East," highlighting historical, current, and future Iranian leadership mindsets (Suzanne Maloney, *The Roots and Evolution of Iran's Regional Strategy*, Washington, D.C.: Atlantic Council, September 2017, p. 2).

[506] "Iran Has Defensive Military Doctrine—President," BBC Monitoring, April 18, 2015.

[507] Ali Alfoneh, "What Iran's Military Journals Reveal About the Goals of the Quds Force," blog post, Arab Gulf States Institute in Washington, June 9, 2020.

[508] Ariane M. Tabatabai, Jeffrey Martini, and Becca Wasser, *The Iran Threat Network (ITN): Four Models of Iran's Nonstate Client Partnerships*, Santa Monica, Calif.: RAND Corporation, RR-4231-A, 2021.

[509] Asghar Eftekhari and Fatallah Kalantari, "Evaluating and Defining the 'Threat in Response to Threat' Strategy in Iran's Defense Policy," *Journal of Defense Policy*, Vol. 22, No. 88, Fall 2014; J. Matthew McInnis, "Iranian Deterrence Strategy and Use of Proxies," statement before the Senate Committee on Foreign Relations on "Defeating the Iranian Threat Network: Options for Countering Iranian Proxies," November 29, 2016.

sometimes strike a triumphalist tone, claiming that four Arab capitals (Baghdad, Beirut, Damascus, and Sanaa) are now aligned with Iran.[510]

Although this interest (strengthening Iran's regional position) includes seizing opportunities to build aligned movements in neighboring countries, it also requires supporting existing allies that face threats to their control. In recent years, the most significant of these threats was posed by the Syrian armed opposition to the Assad regime in Syria, which Tehran judged as significant enough to deploy both irregular and regular forces to support Damascus's efforts to combat this threat.[511] This intervention has imposed a military and financial cost on Tehran but serves multiple Iranian objectives. It backstops Iran's lone Arab ally, protecting a key node in Iran's regional influence. It also provides an opportunity for Iran to strengthen a land bridge—effectively a series of ground lines of communication that stretches from Iran across the Levant—enhancing Iran's ability to support aligned groups in Iraq, Syria, and Lebanon.[512]

Potential Challenges to U.S. Deterrence Objectives from Iranian Interest 2: Strengthen Iran's Position as a Regional Power

There are several paths by which Iran's pursuit of this interest could challenge U.S. deterrence objectives. The first is that Iranian-backed proxies that are nodes of Iran's regional influence could seek to challenge control of a U.S. partner country. The states that are the most vulnerable to such a scenario, according to the scenarios posited by U.S. defense planners and Western analysts, are Iraq and Lebanon.[513] Bahrain is sometimes flagged as a candidate for such a scenario, but not in the immediate term given the current weakness of its armed challengers.[514] Not coincidentally, all three are either Shia-majority or Shia-plurality countries, a characteristic that typically enhances Iranian influence given religious ties. And in two of the three countries (Iraq and Lebanon), Iran has already built up armed groups (Lebanese Hizballah and the Popular Mobilization Units) that could conceivably challenge state control if they turned their weapons on the state.

However, as discussed in the U.S. deterrence objectives section of Chapter 2, it is not clear whether the United States would characterize its current strategy as designed to deter these outcomes. The United States is explicit that it has an interest in reducing Iranian influence in

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[510] Samia Nakhoul, "Iran Expands Regional 'Empire' Ahead of Nuclear Deal," Reuters, last updated March 23, 2015.

[511] Karim Sadjadpour, "Iran's Unwavering Support to Assad's Syria," *CTC Sentinel*, Vol. 6, No. 8, August 2013.

[512] Fabrice Balanche, "The Iranian Land Bridge in the Levant: The Return of Territory in Geopolitics," *Telos*, September 14, 2018.

[513] Renad Mansour, "More Than Militias: Iraq's Popular Mobilization Forces Are Here to Stay," *War on the Rocks*, April 3, 2018; Lina Khatib, *How Hezbollah Holds Sway over the Lebanese State*, London, United Kingdom: Chatham House, June 2021.

[514] Michael Knights and Matthew Levitt, "The Evolution of Shi'a Insurgency in Bahrain," *CTC Sentinel*, Vol. 11, No. 1, January 2018.

these countries and in supporting government forces as a counterbalance to Iran,[515] and it is engaged in substantial security cooperation with Iraq and Lebanon in particular that would bolster these states' capabilities that might prevent such a scenario. But these efforts might be better understood as a different military mission, such as foreign internal defense, than as deterrence. And in the event of a crisis in which Iranian-aligned groups challenged state control, it is unclear whether the United States would attempt to deter them through the threat of military punishment. The fact that the United States made no overt military threats when Lebanese Hizballah conducted a show of force in Beirut in 2008 that was designed to demonstrate that the group's "capabilities exceed those of the legitimate Lebanese security services and the United Nations Interim Force in Lebanon"[516] suggests that the United States might not consider deterrence of this outcome as a military requirement.

A second path by which Iran's pursuit of this interest could challenge U.S. deterrence objectives would be if Iran used its state-directed military capabilities to coerce U.S. partners. This might include a campaign of attacks similar to those that occurred in 2019 and 2020, when Iran targeted Saudi energy infrastructure with its cruise missile and UAS attack on Aramco facilities and its attacks on commercial shipping in the Persian Gulf and the Gulf of Oman. Although these events occurred in the midst of the Trump administration's maximum pressure campaign against Iran and almost certainly had Washington as a primary audience, they underscore that Iran has the capability to use its military forces overtly—or covertly in a bid for plausible deniability—to target U.S. partners. In this escalation, the United States took measures that it characterized as designed to "restore deterrence," with former Secretary of State Mike Pompeo arguing that the restoration of deterrence was achieved with the eventual targeted killing of IRGC-QF commander Qasem Soleimani.[517]

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[515] The U.S. Department of State's Integrated Country Strategy says the following about Bahrain: "The Mission will work to support Bahraini efforts to strengthen domestic stability and address security challenges, including countering Iran-supported militant groups operating in Bahrain" (U.S. Department of State, "Integrated Country Strategy: Bahrain," August 19, 2018c, p. 6). The State Department says that Iraq "will remain a critical foreign policy priority for the United States over the next four years as we seek to help Iraq chart a security and foreign policy path separate from that of Iran or other neighbors" (U.S. Department of State, "Integrated Country Strategy: Iraq," August 13, 2018b, p. 2). The State Department says that Lebanon "is at the forefront of U.S. efforts to . . . counter Iran's expanding influence in the Middle East" (U.S. Department of State, "Integrated Country Strategy: Lebanon," August 9, 2018a, p. 2).

[516] Jeffrey D. Feltman and Daniel Benjamin, joint prepared statement presented before the Senate Committee on Foreign Relations on June 8, 2010, Washington, D.C.: U.S. Government Printing Office, 2010; Robert F. Worth and Nada Bakri, "Hezbollah Seizes Swath of Beirut from U.S.-Backed Lebanon Government," *New York Times*, May 10, 2008.

[517] Michael R. Pompeo, "The Restoration of Deterrence: The Iranian Example," speech, January 13, 2020.

Overview of Trends in Iranian OAIs

Trends in Iranian Posture

Iran recognizes its conventional inferiority to the United States and to its regional adversaries. It has, therefore, focused its military development on asymmetric tactics and capabilities, which are difficult to deter and provide plausible deniability. Since 2014, Tehran has focused on the continued development and improvement of its three core deterrence and defense capabilities: ballistic missiles, support to proxies,[518] and naval capabilities. Iran's sixth five-year development plan (2016–2021) focuses on improving Iranian capabilities in the development and production of missile and naval defenses, along with UAS and electronic warfare systems.[519] All allow Iran to engage and deter adversaries from a standoff position, protecting Iranian territory from invasion and projecting strength while also conflicting with CENTCOM's deterrence objectives when employed against U.S. personnel and U.S. partners. In this section, we will discuss improvements to the ballistic missile force, UAS development, and development of naval capabilities in turn.

Developing and building a significant missile force, including ballistic and cruise missiles, is a foundational element of Iranian defense doctrine. One of the key lessons learned by Iranian leadership from the "War of the Cities"—a component of the Iran-Iraq War that featured Iraqi missile attacks on Iranian population centers—was to maintain a missile force with a variety of ranges to provide a standoff defense capability and deterrence to adversaries.[520] Erik Olson argues,

> Tehran's inability to respond proportionately to the Iraqi missile attacks early in the war or to deter Iraq from continuing the attacks was not only a further indictment of the shah's military doctrine but also left an indelible psychological mark on the Iranian government, people, and the IRGC—motivating a deep need to acquire ballistic missiles.[521]

Iranian military leaders continue to view missile capabilities as a nonnegotiable, core element of Iran's national security.[522] Despite decades of sanctions against the Iranian regime, the IRGC has been able to acquire, test, and indigenously develop and produce a variety of cruise and short-range, medium-range, and intercontinental ballistic missiles. Throughout the 2010s, the

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[518] Discussion of developments in support to proxies is provided in the section on security cooperation.

[519] DIA, 2019, p. 84.

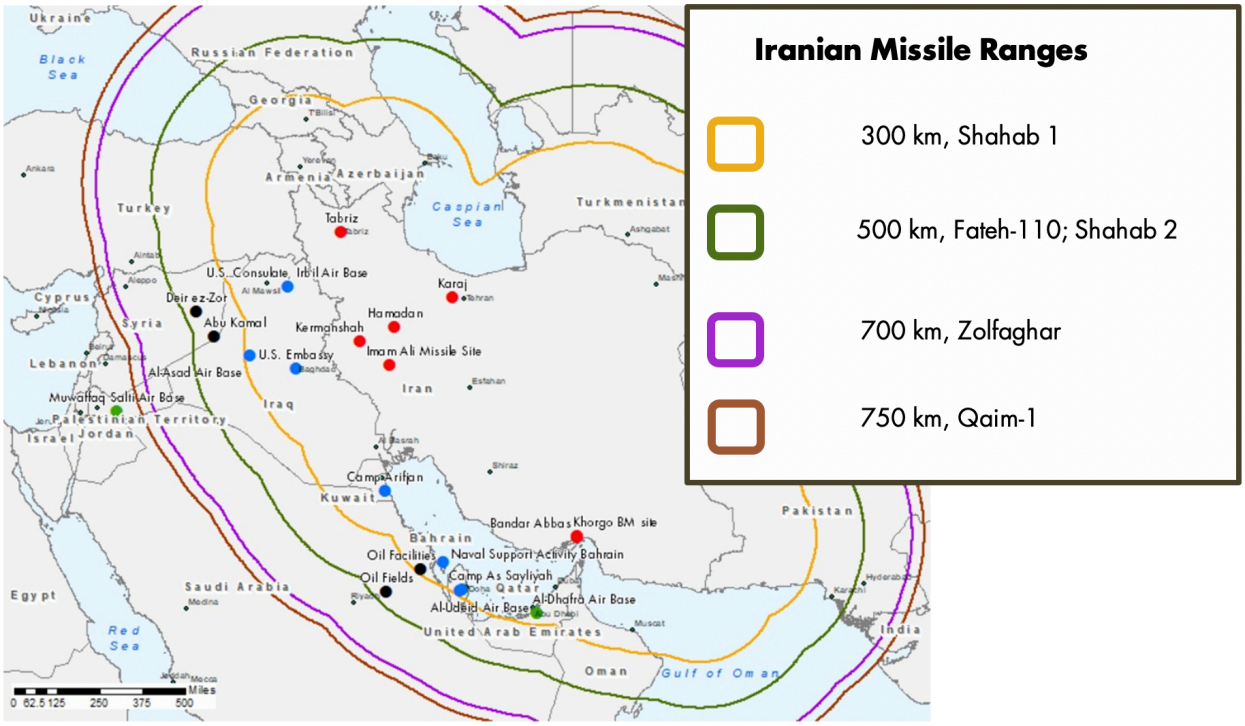
[520] "Iran Rejects 'Concerns' by UK, France on Missile Programme," BBC Monitoring, February 20, 2018.

[521] Erik A. Olson, "Iran's Path Dependent Military Doctrine," *Strategic Studies Quarterly*, Vol. 10, No. 2, Summer 2016, p. 73.

[522] Ali Arouzi and Saphora Smith, "Iran's Ballistic Missile Program Is Non-Negotiable, President Hassan Rouhani Says," NBC News, December 14, 2020; "Iran Guards to 'Continue Developing Missiles," BBC Monitoring, February 9, 2019.

IRGC prioritized the development of precision guidance systems,[523] which have provided Iran with ballistic missile capabilities that can target most locations within the Middle East from bases that are strategically located in western Iran. These locations were originally chosen to deter against Saddam Hussein's Iraq, but they currently provide proximity to U.S. forces in the region (see Figure B.1).

Figure B.1. Iranian Ballistic Missile Range Rings and Key U.S. Facilities in the Middle East



SOURCE: Derived from DIA, 2019.
NOTES: There are several longer-range Iranian missile systems that are excluded from the map. Red dots represent Iranian military bases, blue dots represent U.S. military and diplomatic facilities, green dots represent partner military bases, and black dots represent sites against which Iran has fired ballistic missiles.

Although Iran has placed great emphasis on developing its missile arsenal, its use of those missile forces in combat is limited. Iran has launched ballistic missiles against the United States once, in retaliation for the assassination of Soleimani in January 2020. This attack illustrated the improved capability of the Zolfaghar short-range ballistic missile, which is part of the Fateh-110 family and has a precision guidance system.[524] Tehran has also launched missiles from bases in western Iran against nonstate armed groups: the Islamic State in 2017 and 2018,[525] and Kurdish

[523] Michael Elleman, "Iran's Ballistic Missile Program," *Iran Primer*, blog, January 13, 2021.

[524] Elleman, 2021.

[525] DIA, 2019, p. 45.

militants in 2018.[526] When Iran used missiles in 2017, U.S. forces were in proximity to Iran's targeting of Islamic State militants in eastern Syria. Finally, Iran used cruise missiles paired with UAS in its 2019 attack on Saudi energy infrastructure.

Iranian proxies have received and used transferred missile technology more often. Starting in 2016, IRGC-QF transferred short- and medium-range ballistic missiles to Lebanese Hizballah and the Houthis; Hizballah also received conversion kits to provide guidance systems for its rockets. In 2018, Iraqi proxies Kata'ib Hizballah and Saraya al-Jihad received short-range ballistic missiles from IRGC-QF, but, as of February 2021, neither group had launched them.[527] The development, usage, and proliferation of missile technology has led to the injuries of multiple U.S. service members and caused destruction to Iran's regional adversaries at the hands of Iranian proxies, particularly the Houthis against Saudi Arabia, supporting both of Iran's strategic goals.

The second major technological development in posture has been in UAS capabilities and usage. UAS partially fill a gap presented by aging aircraft and afford Iran aerial defensive, offensive, and deterrent capabilities.[528] They also provide Iran with more mobility and leverage in applying asymmetric and unconventional tactics, techniques, and procedures (TTPs) when interacting with U.S. forces and regional adversaries. Tehran has spent the past decade indigenously producing more-advanced UAS, including increasing loiter time and integrating weapons. Iran's UAS development may have been aided by the acquisition of U.S. remotely piloted aircraft that crashed or were hacked by Iranian forces.[529] In early January 2021, a major Iranian exercise tested UAS in a variety of roles, which included dropping munitions, intercepting threats, and carrying out reconnaissance missions.[530] In mid-January 2021, the IRGC conducted exercises in which ballistic missile launches were coordinated with UAS,[531] which was similar to the September 2019 coordinated drone and missile strike against Saudi Arabia.[532] Exercises have mirrored IRGC drone activity in the Persian Gulf against U.S. naval vessels, consisting of UAS harassing and buzzing U.S. aircraft carriers and fighter jets. UAS technology allows Tehran to buttress its deterrence capabilities while threatening both U.S. forces and regional adversaries.

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[526] Missile Defense Project, "Missiles of Iran," *Missile Threat*, Center for Strategic and International Studies, June 14, 2018, last updated July 16, 2020.

[527] Andrew Hanna, "Iran's Missiles: Transfer to Proxies," *Iran Primer*, blog, last updated February 17, 2021.

[528] IISS, *Open-Source Analysis of Iran's Missile and UAV Capabilities and Proliferation*, London, United Kingdom, April 2021b, p. 23.

[529] IISS, 2021b, p. 23.

[530] "Iran Tests Drones in Military Exercise," U.S. News & World Report, January 5, 2021.

[531] "Iran's Guards Hold Missile, Drone Drill," *Defense Post*, January 15, 2021.

[532] Kelly McCleary, Barbara Starr, and Nic Robertson, "Iran Says It Held Military Exercises in Strait of Hormuz," CNN, last updated August 5, 2018; Barbara Starr and Ryan Browne, "Iran Readying Massive Military Exercise in Persian Gulf, Officials Say," CNN, last updated August 2, 2018.

Finally, Iran has developed naval capabilities to protect its southernmost maritime boundary along the Persian Gulf. Swarm tactics by small, fast boats have been used against U.S., partner, and commercial vessels on a regular basis; Iran continues to invest in building these boats domestically.[533] Moreover, the development of cruise missiles and the laying of maritime mines support Iran's ability to contest freedom of navigation in the Persian Gulf should it choose to.

Trends in Iranian Military Exercises

This subsection focuses on exercises that could be used to challenge the three U.S. deterrence objectives for CENTCOM, identified in Chapter 2. Like all modern militaries, Iran conducts exercises to demonstrate capabilities, train, and build force readiness. Given Iranian interests in deterring U.S. attacks against Iran and raising costs to U.S. forces that would compel the United States to limit its forward presence around Iran, many Iranian exercises are designed to signal military capabilities to the United States and its regional partners.

In the 2020 iteration of the Noble Prophet exercise series, the IRGC launched anti-ship missiles against a mockup of a U.S. aircraft carrier; a similar scenario was used in the 2015 iteration of Noble Prophet.[534] IRGC-Navy exercises often incorporate the use of fast boats and testing of TTPs, which are then implemented in actual operations to harass U.S. naval vessels in the Persian Gulf. Iran also fields quick-turn exercises that are designed to show readiness when Iran is faced with new threats. For example, when the United States deployed an *Ohio*-class guided-missile submarine to the Persian Gulf in January 2021 and took the unusual step of announcing it,[535] Iran countered with a cruise and ballistic missile test and reinforced the intended signal by declaring, "Enemies should know that any violation and invasion of Iranian marine borders will be targeted by the cruise missiles from both coast and sea."[536] Iran's efforts to reinforce response options against U.S. military capabilities highlight the threats to U.S. forces in the region, particularly during cycles of escalation.

Tehran's exercises can also be interpreted as efforts to coercively signal to regional adversaries and the United States the repercussions of any potential actions against Iran and its interests. In 2018, some Iranian exercises began to exhibit offensive tactics, such as amphibious assault capabilities.[537] Traditionally, Iranian military officials have emphasized the defensive nature of Iran's military capabilities. However, doctrine began to shift in 2016, with IRGC officials noting, "Iran's defence doctrine has changed from [pure] defence deterrence of the

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[533] "(Corr) Iran's Navy Hands Warships to Guards Corps—Agency," BBC Monitoring, March 10, 2016.

[534] Kyle Mizokami, "Iran Blows Up Fake U.S. Aircraft Carrier. Again," *Popular Mechanics*, July 28, 2020.

[535] "US Nuclear Submarine Transits Strait of Hormuz amid Tensions," Associated Press, December 21, 2020.

[536] "Iran Tests Missiles Under Apparent Watch of US Nuclear Sub," Associated Press, January 14, 2021.

[537] DIA, 2019, p. 41.

period after Iraq-Iran war to defence and offence deterrence in the current situation,"[538] which echoed Supreme Leader Khamenei's mandate in the same year to improve offensive capabilities in defense of the country.[539] Exercises that highlight offensive capabilities in addition to defensive ones signal to U.S. forces and regional partners that Tehran considers offensive operations part of securing its national security interests. An IRGC exercise in January 2021 with drones and missiles, the first known exercise of its type, mirrored Iran's attack against Saudi Arabia in 2019.[540] In addition, some of the capabilities highlighted in naval exercises, such as fast boat capabilities and TTPs that threaten U.S. forces, can be leveraged against freedom of navigation in the Strait of Hormuz. An August 2018 naval exercise with multiple fast boats in the strait delayed the free passage of commercial vessels; this exercise was timed with the reimposition of sanctions on Iran by the United States and provided a reminder of the IRGC-Navy's ability to impede freedom of navigation.

Iranian naval forces have also conducted multiple port calls and short-term deployments outside the Persian Gulf. Beginning in 2009, the Islamic Republic of Iran Navy (IRIN) supported the counterpiracy mission in the Gulf of Aden with short-term deployments. These supplemented Iran's efforts to increase defense in depth and deterrence through developing the IRIN's blue-water capabilities,[541] which also expanded the IRIN's regional reach. The IRIN has also conducted port calls stretching from the Mediterranean Sea to the Strait of Malacca, including on the Indian subcontinent and in South Africa.[542] These port visits do not yet demonstrate Iran's ability to conduct sustained kinetic operations out of theater, but rather might indicate an aspiration to eventually develop Iran's navy into a blue-water navy.

Trends in Iranian Security Cooperation

Iran maintains two paths for its security cooperation efforts.[543] The first is via Tehran's relationships with regional proxies and the second is via cooperation with extraregional powers, including Russia. We begin by discussing Iran's assistance to proxy groups, which occupies such

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[538] "Iran Changes Defence Doctrine to 'Pose Threats to Enemy,'" BBC Monitoring, October 1, 2016.

[539] "Iran's Khamenei Says Need to Boost Offensive Military Capabilities," Reuters, last updated August 31, 2016.

[540] Jon Gambrell, "Iranian Guard Drones in Drill Mirror Those in Saudi Attacks," AP News, January 15, 2021.

[541] Joshua C. Himes, "The Iranian Navy's Historic Mediterranean Deployment: Timing Is Everything," Center for Strategic and International Studies, March 21, 2011; Office of Naval Intelligence, *Iranian Naval Forces: A Tale of Two Navies*, Washington, D.C., 2017, p. 24.

[542] DIA, 2019, p. 17.

[543] We use the term *security cooperation* to parallel the OAI categories that we use for the United States and Russia. We understand that training and equipping proxies is the more common way for Western analysts to describe these activities.

a privileged place in Iranian military strategy that some analysts have dubbed Iran a "proxy power."[544]

Supporting proxy groups is a foundational element of Iran's national security interests, initially used to export the 1979 Islamic Revolution and currently used to develop an "axis of resistance" against the United States and its regional partners.[545] Coming from a position of conventional inferiority, Iran has invested in unconventional and asymmetric capabilities to ensure the defense of its territory and to coerce neighbors. Proxies, even with the principal-agent dilemma in which Iran does not exert full control over these groups,[546] provide Iran with options to horizontally escalate in the midst of a conflict. These forces have directly attacked regional adversaries, such as Israel and Saudi Arabia, and they threaten countries where Iran is seeking to expand its influence, such as Bahrain, Iraq, and Lebanon. Through IRGC-QF, Tehran has established, trained, equipped, and financially supported a variety of proxy groups to establish an in-depth regional defense capability since the early days of the Islamic Republic. These relationships ultimately allow Iran to target U.S. forces in the Middle East, expand its regional influence, and maintain a defensive capability and are a force multiplier beyond its borders.[547]

Since 2014, Iran appears to have changed its approach to selecting candidate proxy groups for its support. Historically, Iran would often build relationships with existing groups. The groups might not have been the largest or most influential at the beginning of the relationship, but, through Iran's provision of funding, equipment, and training, these groups developed new capabilities and expanded their influence. Cultivating relationships with group leaders (Hizballah or Islamic Supreme Council of Iraq and Badr Organization) and splintering organizations (multiple Iraqi Shia militias in the early 2000s) were staples of Iranian proxy strategy. However, Iran supported the establishment of the Syrian National Defense Force and Local Defense Forces soon after the onset of the Syrian civil war and then mirrored that approach in Iraq by helping stand up militias under the umbrella of the Popular Mobilization Forces.[548] In this way, IRGC-QF took a more active role in recruiting fighters into proxy groups. Some of these groups were then integrated into state security organs, such as the National Defense Forces in Syria in 2016, as well as the Iraqi Popular Mobilization Forces, which operate under a government-sanctioned

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[544] Ranj Alaaldin, "How the Iran-Iraq War Will Shape the Region for Decades to Come," *Order from Chaos*, blog, October 9, 2020.

[545] DIA, 2019, p. 15.

[546] Trevor Johnston, Matthew Lane, Abigail Casey, Heather J. Williams, Ashley L. Rhoades, James Sladden, Nathan Vest, Jordan R. Reimer, and Ryan Haberman, *Could the Houthis Be the Next Hizballah? Iranian Proxy Development in Yemen and the Future of the Houthi Movement*, Santa Monica, Calif.: RAND Corporation, RR-2551-OSD, 2020.

[547] DIA, 2019, p. 15; Tabatabai et al., 2021.

[548] Payam Mohseni and Hussein Kalout, "Iran's Axis of Resistance Rises: How It's Forging a New Middle East," *Foreign Affairs*, January 24, 2017.

commission.[549] In addition, IRGC-QF recruited and trained Afghan and Pakistani Shia to fight in the Syrian civil war as members of the Fatemiyoun and Zaynabiyoun brigades, respectively, over which Iran maintained operational control.[550] Iranian proxy support was adapted to environments in which national security forces were under extreme pressure and failed to contain violence.

During the past seven years, as circumstances required, IRGC-QF further developed its proxies as expeditionary forces. Tehran first tested this capability with Lebanese Hizballah to train and support select Iraqi Shia militia groups in the late 2000s.[551] Hizballah and Iraqi Shia groups also provided training to Yemen's Houthis and additional battlefield training to the Afghan and Pakistani foreign fighters. IRGC-QF integrated its capabilities with those of its most trusted and reliable proxies when present on the same battlefields, such as in Syria. Through the independent establishment of local militias, Iran expands its response options to increase and strengthen its regional influence and position and to avoid being reliant on preexisting forces. This mirrors Iranian internal defense plans, allowing Iranian security forces to refine and test capabilities while becoming more operationally effective.

Moreover, Iran has expanded proxy activities throughout the region, whether by focusing on previously low-priority regions or by increasing capabilities against long-standing adversaries. Support to the Houthis illustrates increasing Iranian attention to groups that previously had limited relationships with IRGC-QF. In the case of the Houthis, the Yemeni Civil War and the role of the Saudi-led intervention pushed some Yemeni factions to seek their own external patron, creating an opening for Iran to expand its influence in Yemen. Through the provision of ballistic missiles and UAS technology, Iran has boosted the Houthis' military capabilities, thereby increasing the political and military costs on Saudi Arabia via Houthi targeting of the Kingdom's military airfields, oil infrastructure, and civilian population centers. In addition, Iran's provision of mines and explosive-laden boats allows the Houthis to target maritime interests in the Red Sea and Bab el-Mandeb, as Iran does with its national military forces in the Persian Gulf and Strait of Hormuz.[552]

Iranian support to the Houthis is just one instance of increasing technological transfers to proxies. IRGC-QF also transfers ballistic missiles to its regional proxies in Lebanon, Iraq, and the Palestinian territories, and it is supporting the development of indigenous missile production facilities where sustained resupply is most challenging. In January 2021, IRGC Aerospace Force Commander Brigadier General Ali Hajizadeh remarked that "all the missile power that you see

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[549] Navvar Saban, "Factbox: Iranian Influence and Presence in Syria," *MENASource*, blog, November 5, 2020; Renad Mansour, *Networks of Power: The Popular Mobilization Forces and the State in Iraq*, London, United Kingdom: Chatham House, February 2021.

[550] Mohseni and Kalout, 2017; Tobias Schneider, *The Fatemiyoun Division: Afghan Fighters in the Syrian Civil War*, Washington, D.C.: Middle East Institute, October 2018.

[551] Kimberly Kagan, "Iran's Proxy War Against the United States and the Iraqi Government," *Iraq Report*, August 2007; Dean Yates, "Hezbollah Training Iraqis in Iran: U.S. Military," Reuters, last updated May 5, 2008.

[552] DIA, 2019, p. 53.

in Gaza and Lebanon [is] because of the Islamic Republic of Iran's support."[553] This statement was echoed by Hamas and Palestinian Islamic Jihad during the 2021 conflict between Israel and Palestinians.[554]

In addition to providing assistance to proxies, Iran has been expanding its security cooperation relationships with state actors. In this realm, Iran is often a recipient rather than a provider of assistance. Proud of its status as a nonaligned power, Iran has military cooperation agreements and has conducted limited military exercises with other nonaligned states, including those in adversarial relationships with the United States. Of note is increased Iranian cooperation with both China and Russia. Tehran likely has multiple motivations for its expanding security cooperation with Russia and China. First, these states have been important sources of Iranian technological advancement given U.S. sanctions limiting the transfer of dual-use technology to Tehran. Second, Iran might be signaling an alternative security structure for the region—specifically, looking to rebut the U.S. argument that there is no viable alternative to U.S. leadership of the regional security order. Third, Iran may calculate that it increases its deterrence of the United States initiating a conflict with Iran when Russia and China are deepening their ties with Iran.

To these ends, in March 2021, Iran and China signed a 25-year cooperation program that focused primarily on economic development, but reports indicate that it also included proposals to deepen security cooperation efforts, such as joint military exercises and training, research and weapon development, and intelligence-sharing.[555] Iran and China have conducted only two bilateral naval exercises—in 2014 and 2017[556]—but have conducted multilateral naval exercises with Russia in the Persian Gulf beginning in 2019 and have participated in military exercises in Russia.[557]

Tehran and Moscow's cooperation also includes a long-standing bilateral relationship. Russia's support to the Assad regime's fight in the Syrian civil war, while at times leading to tensions with Iran, has provided for combined military operations,[558] along with temporary

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[553] "Commander: Lebanon, Palestinians' Missile Power Comes from Iran," BBC Monitoring, January 2, 2021.

[554] Scott Peterson, "From Tehran to Jerusalem via Gaza: A Hamas Rocket's Trajectory," *Christian Science Monitor*, May 28, 2021.

[555] Farnaz Fassihi and Steven Lee Myers, "Defying U.S., China and Iran Near Trade and Military Partnership," *New York Times*, July 11, 2020.

[556] Hiddai Segev, *China and Iran: Resurging Defense Cooperation?* Institute for National Security Studies, May 10, 2021.

[557] Najmeh Bozorgmehr and Henry Foy, "Russia, China and Iran Launch Gulf of Oman War Games," *Financial Times*, December 27, 2019; Bhvishya Patel, "Russia Announces Joint Naval Drill with China and Iran in the Indian Ocean 'Soon,'" *Daily Mail*, last updated February 8, 2021; "Iran, China, Others to Be Part of Joint Military Drills in Russia," Tasnim News Agency, September 10, 2020; "Russia, China, Pakistan, Iran Start One of World's Most Fiercest Military Drills," *EurAsian Times*, September 21, 2020.

[558] Seth G. Jones, Nicholas Harrington, and Joseph S. Bermudez, Jr., *Dangerous Liaisons: Russian Cooperation with Iran in Syria*, Washington, D.C.: Center for Strategic and International Studies, July 2019.

Russian use of Iranian air bases.[559] Tehran and Moscow have signed multiple bilateral military cooperation agreements, increasing training exercises and reciprocal port visits, among other issues.[560] Upon the signing of the 2015 agreement, then–Iranian Defense Minister Dehghan explicitly tied the relationship to U.S. activity in the Middle East, arguing, "since the U.S. and other Western countries are following the policy on eroding independent states' capacities and strategic infrastructures, Iran and Russia can counter their plots by boosting bilateral cooperation and activating their strategic capacities."[561] Of particular concern for CENTCOM deterrence objectives is Iran's interest in purchasing Russian weapons following the October 2020 expiration of the United Nations arms embargo against Iran, enshrined in United Nations Security Council Resolution 2231.[562]

Overview of Trends in Iranian Combat Operations and Foreign Deployments

For a significant period following the Iran-Iraq War in 1988, Iran's military accumulated no combat experience outside Iran.[563] After the Arab Spring in 2011, two of Iran's key state allies, Iraq and Syria, came under threat from different sources. In both instances, Iran responded by providing conventional military support to the governments while also leveraging its proxies in supporting efforts. Iran's interventions serve several purposes. First, they help prevent the loss of Tehran's partners via insurgency while strengthening Iran's position as a reliable security provider. Second, they provide Iran with opportunities to test the IRGC's capabilities, facilitating real-world experience in sustaining overseas deployments, resupplying partners engaged in combat, and executing foreign internal defense rather than IRGC-QF's typical mission—irregular warfare.[564] Third, these interventions provide Iran with an opportunity to strengthen the land bridge that connects Iran to the Levant, enhancing proxy access to Israel and creating opportunities to target U.S. forces in Iraq and Syria.[565]

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[559] Ahmad Majidyar, "Iran Will Allow Russia Limited Use of Iranian Air Bases for Syria Strikes," webpage, Middle East Institute, March 28, 2017.

[560] Franz-Stefan Gady, "Russia and Iran Sign Military Cooperation Agreement," *The Diplomat*, January 21, 2015.

[561] "Iran, Russia Sign Defence-Military Cooperation Accord," BBC Monitoring, January 20, 2015.

[562] "Iran Shows Interest in Various Types of Russian Weapons, Says Military Cooperation Chief," TASS, June 1, 2021; United Nations Security Council, Resolution 2231, July 20, 2015.

[563] Iran has faced internal conflict during this period, particularly in minority areas, such as Baluchistan, Khuzestan, and Kurdish regions. Iranian security services have been used to quell this unrest.

[564] Moreover, Iran has incorporated lessons learned from its activities in Syria and Iraq into professional military education to capitalize on nearly a decade of operations in both countries. See DIA, 2019, p. 34.

[565] DIA, 2019, p. 9; Ephraim Kam, "Iranian Military Intervention in Syria: A New Approach," *Strategic Assessment*, Vol. 20, No. 2, July 2017.

In 2012, IRGC-QF began sending small numbers of forces to Syria to support the Assad regime in violently quelling the uprising against it. Although Russia provided additional military support in 2015, Iran provided ground forces—from the IRGC-GF, *Artesh*, and *Basij*—making it the only country to support Damascus in this manner.[566] Operations in Syria allowed Iranian forces to conduct their first combined military operations with allied forces and capabilities, including Russian forces.[567] Iranian ground forces complemented the support that IRGC-QF rallied from proxies, such as Hizballah, Iraqi Shia militias, and Shia foreign fighters from Afghanistan and Pakistan,[568] to support Syrian regime offensives in western Syria.[569]

The Syrian civil war provided Tehran with the opportunity to support an allied government, demonstrating that it was a reliable partner and enhancing its influence over the future of Syria. Through these efforts, Iranian forces established or expanded their presence at bases in Syria and enhanced their ability to resupply Hizballah and other proxies. Iranian resupply to proxies would have been impeded in the event that Damascus fell to the opposition or in the event that the United States and its partner forces had secured all ground lines of communication transiting Iraq and Syria to Lebanon.[570] Forward bases also offered opportunities for Iran to collect intelligence on and threaten Israel. Specifically, forward presence supported Iran's efforts to open additional fronts against Israel and to enhance deterrence against potential Israeli strikes on Iran's nuclear program.[571] Iran's backing of local militias in Syria also supported Iran's interests in having options to impose costs on U.S. military deployments.[572]

Iran also supported Iraq in its fight against the Islamic State, becoming the first country to provide military aid, including ground forces, in June 2014.[573] However, Tehran primarily worked through its Shia militia proxy groups that were loosely grouped together under the umbrella of the Popular Mobilization Forces, which became part of the official Iraqi security

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[566] Kam, 2017.

[567] DIA, 2019, p. 34.

[568] Exact numbers of proxy and Shia foreign fighters vary from the high tens of thousands to nearly 200,000 at any point during the Syrian civil war (Zeina Karam, "Analysis: Iran Role in Syria Key Item at Trump-Putin Summit," AP News, July 13, 2018; Reinoud Leenders and Antonio Giustozzi, "Foreign Sponsorship of Pro-Government Militias Fighting Syria's Insurgency: Whither Proxy Wars?" *Mediterranean Politics*, November 24, 2020).

[569] Seth G. Jones, *War by Proxy: Iran's Growing Footprint in the Middle East*, Washington, D.C.: Center for Strategic and International Studies, March 2019.

[570] Rasha Elass, "Iran's Military Assets Inside Syria," Tehran Bureau, October 18, 2020; "Satellite Images Show Iran Building Military Base in Syria," SOFREP, March 1, 2018.

[571] Dean Shmuel Elmas, "Turkish Study Maps Out Iran's Entrenchment in Syria," *Israel Hayom*, September 8, 2020; Nader Uskowi, *The Evolving Iranian Strategy in Syria: A Looming Conflict with Israel*, Washington, D.C.: Atlantic Council, September 2018.

[572] Barbara Starr and Nicole Gaouette, "US Forces in Syria Came Under Rocket Fire, a Day After US Carried Out Airstrikes on Iranian-Backed Militias," CNN, last updated June 28, 2021.

[573] Babak Dehghanpisheh, "Insight - Iran's Elite Guards Fighting in Iraq to Push Back Islamic State," Reuters, August 3, 2014; Farnaz Fassihi, "Iran Deploys Forces to Fight al Qaeda–Inspired Militants in Iraq," *Wall Street Journal*, last updated June 12, 2014.

apparatus in 2016.[574] In the fight against the Islamic State, Iraqi officials had to balance support from the Iranian regime in ways the Syrian government did not, because Baghdad received significant aid from the U.S.-led coalition to counter the Islamic State. Hence, IRGC-QF leveraged its proxy relationships, such as with the Badr Organization, Kata'ib Hizballah, and Asa'ib Ahl al-Haq—rather than sending overt deployments of Iranian forces. Since the territorial defeat of the Islamic State, Tehran has leveraged its influence with Iraqi groups in attempts to remove U.S. forces from the country politically, as seen following the assassination of Soleimani outside Baghdad International Airport.[575] In addition, the Iraqi Shia militia groups conduct rocket launches and other attacks against the U.S. embassy and military bases where U.S. forces are housed, in efforts to hasten their departure—activities which have been consistent over the past two decades.[576]

Overview of Trends in Other Iranian Military OAIs

Iran has developed or reinvigorated two additional capabilities that conflict with CENTCOM's deterrence objectives: cyber capabilities and the use of Ministry of Intelligence and Security (MOIS) and IRGC-QF assets to conduct assassinations and bombings. Although these capabilities most often focus on targeting regional adversaries, as Iranian competency with these skills increases, the potential for use against U.S. forces and military interests in the Middle East also increases.

Iranian cyber capabilities have been expanding for over a decade, although they remain relatively underdeveloped compared with the cyber capabilities of the United States and its highly capable partners, such as Israel.[577] Through hackers affiliated with the IRGC, Tehran has intentionally targeted U.S. military UAS platforms in the region, beginning with the 2011 purported hacking of an RQ-170 Sentinel.[578] More recently, in late June 2019, Iran shot down an RQ-4A Global Hawk in international airspace over the Strait of Hormuz, a week after shooting at and missing another surveillance drone in the same area.[579] Iraqi Shia militants purportedly

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[574] Ranj Alaaldin, "To Save Iraq from Economic Collapse and Fight ISIS, Contain Iran's Proxies," *Order from Chaos*, blog, February 17, 2021.

[575] Arraf, 2020.

[576] Dan De Luce, "Iranian-Backed Militias Likely Behind Deadly Rocket Attack on U.S.-Led Base, Experts Say," NBC News, February 19, 2021; Michael R. Gordon and Jared Malsin, "Iran-Backed Militias Fire Rockets in New Attack Aimed at U.S. Forces," *Wall Street Journal*, last updated June 28, 2021.

[577] DIA, 2019, p. 36.

[578] Nick Waters, "Has Iran Been Hacking U.S. Drones?" Bellingcat, October 1, 2019.

[579] Nasser Karimi and Jon Gambrell, "Iran Shoots Down US Surveillance Drone, Heightening Tensions," AP News, June 20, 2019.

accessed unencrypted U.S. military UAS feeds in Iraq, likely with the help of Iran.[580] Iranian cyber targeting of U.S. technology is a concern not only because of immediate counterintelligence and force protection issues but also because Iranian military engineers reverse-engineered UAS to indigenously produce their own versions of the platforms.[581] In addition, IRGC hackers targeted the U.S. financial system from 2011 to 2013, conducting coordinated distributed denial-of-service attacks on dozens of major banks.[582] Other victims of IRGC hacking efforts over the past decade include more than 300 U.S. and Western universities, a dam in New York,[583] two U.S. states, and the United Nations.[584]

Iran's attacks on U.S. government and private infrastructure mirror Iranian cyberattacks on regional targets, particularly in Saudi Arabia. In 2012, Iran launched a computer virus to destroy data on Saudi Aramco's network.[585] The virus has since been utilized multiple times, including on the Saudi aviation sector in 2016 and on other companies associated with petrochemicals in 2017.[586] In August 2017, a separate cyberattack, attributed to Iran, against Saudi oil infrastructure attempted to halt operations and cause an explosion but failed.[587] Iran has also launched attacks against other regional governments and private industry, often as punishment for initiatives that run counter to Iranian interests—for example, Iran launched cyberattacks against the UAE following its normalization of relations with Israel.[588] Continued focus on and development of IRGC cyber capabilities will allow Tehran to asymmetrically confront CENTCOM's deterrence goals and to advance its interests against the United States and regional adversaries.

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[580] Noah Shachtman, "Insurgents Intercept Drone Video in King-Size Security Breach (Updated, with Video)," *Wired*, December 17, 2009.

[581] David Hambling, "Clone Wars: Why Iran Will Copy Captured U.S. Global Hawk Drone," *Forbes*, July 16, 2020; Scott Peterson and Payam Faramarzi, "Exclusive: Iran Hijacked US Drone, Says Iranian Engineer," *Christian Science Monitor*, December 15, 2011.

[582] Federal Bureau of Investigation, "International Cyber Crime: Iranians Charged with Hacking U.S. Financial Sector," March 24, 2016; Dustin Volz and Jim Finkle, "U.S. Indicts Iranians for Hacking Dozens of Banks, New York Dam," Reuters, last updated March 24, 2016.

[583] Tracy Connor, Tom Winter, and Stephanie Gosk, "Iranian Hackers Claim Cyber Attack on New York Dam," NBC News, last updated December 23, 2015.

[584] U.S. Department of Justice, Office of Public Affairs, "Nine Iranians Charged with Conducting Massive Cyber Theft Campaign on Behalf of the Islamic Revolutionary Guard Corps," press release, March 23, 2018.

[585] Kate Fazzini, "The Saudi Oil Attacks Could Be a Precursor to Widespread Cyberwarfare—With Collateral Damage for Companies in the Region," CNBC, last updated September 22, 2019.

[586] Jose Pagliery, "Hackers Destroy Computers at Saudi Aviation Agency," CNN Business, December 2, 2016; "Saudi Arabia Warns on Cyber Defense as Shamoon Resurfaces," Reuters, last updated January 23, 2017.

[587] Nicole Perlroth and Clifford Krauss, "A Cyberattack in Saudi Arabia Had a Deadly Goal. Experts Fear Another Try," *New York Times*, March 15, 2018.

[588] Center for Strategic and International Studies, "Publicly Reported Iranian Cyber Actions in 2019," webpage, undated; Center for Strategic and International Studies, 2021.

In addition to cyberattacks, in recent years, both the MOIS and IRGC-QF have increased their extraterritorial operations in the form of attempted assassinations and bombings. Some incidents targeting Iranian political dissidents have consisted of Iranian security forces conducting assassinations and bombings throughout Europe and the United States, albeit with limited impact.[589] However, Iran has also conducted operations against Israeli or Jewish interests globally (such as the 1992 and 1994 bombings in Buenos Aires, Argentina, with the support of Hizballah) or against Arab adversaries. One of the most brazen efforts was an IRGC-QF plot to assassinate the Saudi ambassador to the United States in September 2011, which failed.[590] Since 2014, Israeli embassies have twice been the target of Iranian operations,[591] and, in 2020, the U.S. ambassador to South Africa was reportedly considered as a target for assassination following the U.S. assassination of Soleimani.[592]

[589] Andrew Hanna and Garrett Nada, "Timeline: Iran's Assassinations and Plots," *Iran Primer*, blog, last updated September 21, 2020.

[590] Peter Finn, "Man in Iran-Backed Plot to Kill Saudi Ambassador Gets 25 Years," *Washington Post*, May 31, 2013.

[591] Hanna and Nada, 2020.

[592] Nahal Toosi and Natasha Bertrand, "Officials: Iran Weighing Plot to Kill U.S. Ambassador to South Africa," *Politico*, September 13, 2020.

Abbreviations

A2/AD	anti-access/area denial
ACE	agile combat employment
AFCENT	U.S. Air Forces Central
AOR	area of responsibility
ARCENT	U.S. Army Central
ARG	amphibious ready group
AWACS	airborne early warning and control
BALTOPS	Baltic Operations
BCT	brigade combat team
BTF	bomber task force
CENTCOM	U.S. Central Command
CIS	Commonwealth of Independent States
CONUS	continental United States
COVID-19	coronavirus disease 2019
CSG	carrier strike group
CSTO	Collective Security Treaty Organization
CTEF	Counter-ISIS Train and Equip Fund
DFE	dynamic force employment
DIA	Defense Intelligence Agency
DoD	U.S. Department of Defense
eFP	enhanced Forward Presence
EoF	economy of force
ERI	European Reassurance Initiative
EU	European Union
EUCOM	U.S. European Command
FMF	Foreign Military Financing
FOI	Swedish Defence Research Agency
FY	fiscal year
GCC	Gulf Cooperation Council
IISS	International Institute for Strategic Studies
INDOPACOM	U.S. Indo-Pacific Command
IRGC	Islamic Revolutionary Guard Corps
IRGC-QF	Islamic Revolutionary Guard Corps–Quds Force
ISIS	Islamic State of Iraq and Syria
ISR	intelligence, surveillance, and reconnaissance

JCPOA	Joint Comprehensive Plan of Action
JSTARS	Joint Surveillance Target Attack Radar System
LIMS-EV	Logistics, Installations, and Mission Support–Enterprise View
MOIS	Ministry of Intelligence and Security
NATO	North Atlantic Treaty Organization
NAVCENT	U.S. Navy Central
OAIs	operations, activities, and investments
OSCE	Organization for Security and Co-operation in Europe
RAF	Royal Air Force
SCO	Shanghai Cooperation Organisation
THAAD	Terminal High-Altitude Area Defense
tFP	tailored Forward Presence
TTPs	tactics, techniques, and procedures
TUC	Type Utilization Code
UAE	United Arab Emirates
UAS	unmanned aerial systems
UAV	unmanned aerial vehicle
USAFE	U.S. Air Forces Europe
USAREUR	U.S. Army Europe

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