BRYAN FREDERICK, STEPHEN WATTS, MATTHEW LANE, ABBY DOLL,
ASHLEY L. RHOADES, MEAGAN L. SMITH

Understanding the Deterrent Impact of U.S. Overseas Forces

Support RAND
Make a tax-deductible charitable contribution at
www.rand.org/giving/contribute

www.rand.org

Preface

This report documents research and analysis conducted as part of a project entitled *Limited War: The Role of Ground Forces in Extended Deterrence and Escalation Management*, sponsored by the Office of the Deputy Chief of Staff for Operations, Plans, and Training (G-3/5/7), U.S. Army. The purpose of the project was to provide the Army with an analysis of the role of ground forces in deterring state adversaries while securing U.S. interests and controlling escalation in the event of a crisis.

Contents

Figures

Tables

Summary

In the aftermath of Russian military aggression against Ukraine in 2014, and with tensions over North Korea's nuclear program rapidly escalating, many are looking to U.S. overseas military presence as a critical element of deterrence.[1] At the same time, U.S. overseas military commitments are increasingly coming into question at home, both among the public at large and among many foreign- and defense-policy experts. Within these broad debates about the contributions of U.S. forward posture to international stability are nested narrower debates about the types of forces required to deter aggression, the scale on which they must be deployed, and where they should be stationed. On one end of the debate, several prominent American realists have called for a grand strategy of "offshore balancing," in which the United States would maintain its military forces in the United States, dispatching them abroad only as an option of last resort. On the other side of the debate, some advocate for expanding the number of U.S. forces permanently stationed overseas to bolster U.S. deterrence in critical regions of Europe and Asia. Yet others see in standoff weaponry and long-range strike technologies an intermediate option: the opportunity to deter potential aggressors from air and sea without maintaining a sizable U.S. military footprint in foreign countries.

---

[1] For example, Elbridge Colby, before assuming his current position as U.S. Deputy Assistant Secretary of Defense for Strategy and Force Development, and Jonathan Solomon cited previous RAND research in recommending the deployment of three U.S. armored brigades to Europe to deter Russian aggression in the Baltics. See Elbridge Colby and Jonathan Solomon, "Facing Russia: Conventional Defence and Deterrence in Europe," *Survival*, Vol. 57, No. 6, 2015, p. 34.

This report provides evidence on the deterrent effects of U.S. overseas military presence. It does not seek to answer overarching questions about the United States' role in the world or its ability to sustain the costs of deterrence. Rather, it focuses on establishing, as rigorously as possible, the extent to which forward deployments of U.S. forces contribute to the deterrence of attacks against U.S. allies and partners (what is known in the literature as *extended deterrence*). It also offers guidance about the types, sizes, and locations of the forces required. More specifically, it seeks to answer the following questions:

- To what extent do steady-state overseas deployments of U.S. forces contribute to interstate deterrence? Do they make militarized disputes (such as shows of force or other forms of "saber-rattling") or outright wars launched by potential U.S. adversaries more or less likely?
- If U.S. steady-state forward posture is inadequate to deter an international crisis, can rapid deployments of U.S. forces to the region prevent further escalation of the crisis? Can such crisis deployments secure better bargaining outcomes?
- For both steady-state and crisis deterrence, do different types of forces produce different effects? Are large numbers of forces necessary, or is a symbolic (or "tripwire") presence sufficient to establish deterrence?

Research Approach

Deterrence is a complex phenomenon, and each case of deterrence involves a unique constellation of factors. Geography matters considerably: While deterrence against China might rely on strategies that emphasize air and naval forces (such as "offshore control" or "active denial"), deterrence against Russia and North Korea is more likely to require ground forces. Technology also matters: Distant bases are less secure now than they were before precision-guided munitions and long-range strike capabilities, which may, in turn, influence the deterrent potential of different types of forces. Perhaps most importantly, different adversaries—possessing different degrees of risk tolerance,

different domestic political considerations, and different histories with the United States—are likely to react differently. Because of this complexity, some observers believe that case studies offer the most appropriate approach to understanding deterrence.

This report adopts a different approach. It attempts to establish general propositions about the average deterrent effects of different types of U.S. forces forward-deployed in both steady-state and crisis periods. To establish such trends, we use statistical analyses of historical patterns of militarized disputes and crises. To better understand the precise reasons behind these trends, as well as some of the subtleties underlying deterrence that cannot be assessed through quantitative measures, we also provide two case studies.

Statistical analyses cannot, by themselves, adequately account for the nuances of specific cases. They can, however, provide an important tool for policymakers grappling with two forms of uncertainty. First, studies of deterrence have repeatedly found that decisionmakers misjudged their adversaries' intentions and capabilities and their own ability to correctly interpret efforts at signaling. When faced with such high levels of uncertainty, statistical baselines provide an important tool for making sense of individual situations. Decisionmakers can start with the general trends revealed by statistical analyses, then adjust the implications or lessons learned from these trends according to perceptions of specific situations. Second, decisionmakers must make decisions about foreign basing or force structure that may require anticipating needs five, ten, or even 15 years or more in the future. Because the nuances of future deterrence requirements cannot possibly be known, statistical analysis provides an important baseline from which decisions can be made.

The statistical analyses in this report build on previous research conducted at RAND by Angela O'Mahony and colleagues and published in 2017.[2] That previous work assessed the deterrent value of overall U.S. forward presence, using troop locations and total numbers of

---

[2]   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*, Santa Monica, Calif.: RAND Corporation, RR-1906-A, 2017.

military personnel deployed as the key variables in the analysis. This report extends the previous research in two ways. First, it examines the relative value of forces in different domains (air, land, and sea) and of different types of forces (heavy versus light ground forces, bombers versus fighters, and so on). Second, it examines trade-offs over time: What is the value of forces permanently stationed abroad (providing *general deterrence* in what the U.S. military sometimes calls "phase 0") versus forces surged forward in times of crisis (*immediate deterrence*).

The quantitative analyses in this report are followed by two case studies: the 1961 Berlin crisis and the 1994 crisis with Iraq. We chose these two cases for several reasons. First, they offer both an example of high-stakes confrontation between two nuclear-armed superpowers and an example of a confrontation with a regional power, thus demonstrating that the relationships we find in our quantitative analysis can be found across a wide range of adversaries. Second, these two case studies offer an opportunity to view U.S. deterrence policy shifting from general (steady-state) to immediate (crisis) deterrence and back again, allowing us to examine both types of deterrence and the relationships between these two phases. In effect, these changes over time mean that each case is a collection of several different case studies, with U.S. deterrence being challenged in different ways in different phases. The third reason for choosing these two cases was practical: A wealth of primary and secondary sources is available for each case, providing a rich base for analysis.

Research Findings

The statistical research reported here suggests several conclusions about U.S. forward posture and deterrence. First, consistent with prior RAND research, our analysis 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. Second, we generally found that the more mobile forces are, the less evidence we have that they deter. This is possibly because mobile forces represent a lesser degree of high-level or long-term U.S. commitment or possibly because

measuring their effects is more difficult. Thus, we found the clearest evidence for the deterrent impact of heavy ground forces and little, if any, evidence for the deterrent impact of air and naval forces.

Our findings also suggest that forward-deployed forces may involve important trade-offs. Again consistent with prior RAND work, we found that when U.S. forces, particularly light ground forces, are stationed inside the borders of the ally or partner to be defended rather than in nearby states in the broader theater, they are associated with an increased likelihood of militarized disputes, including those of both lower and higher intensity, though not including war. This pattern may be the result of probing, signal-sending, and friction between U.S. forces and those of its adversaries operating in close proximity. It should be noted that this finding relies heavily on the experience of a single host of U.S. forces—Japan—and may therefore be less generalizable. It is also possible, however, that more in-depth analyses might reveal that light ground forces do indeed tend to provoke escalating tensions. Perhaps light forces represent a more rapidly deployable capability that provokes U.S. adversaries without representing sufficient capabilities to deter.

If the United States opts not to deploy forces overseas in steady-state conditions, or if the forces it does forward-deploy are not sufficient to establish and maintain deterrence, the United States can attempt to re-establish deterrence during international crises by surging forces toward the contested area. Such crisis deployments are not without risks: They occur in periods of heightened tension, when foreign decisionmakers operating under enormous stress must make decisions about whether to preemptively attack. Despite these risks, the historical record suggests that very few crises escalate when the United States deploys forces to the crisis region. Although approximately two-thirds of all crises escalate to major clashes or outright wars, little more than one-quarter of crises escalate when the United States deploys forces into a crisis. These effects are particularly strong for ground forces, where no crises have escalated to major confrontation or war, and for air forces, where only one crisis has escalated. The small number of crisis deployments reduces our confidence in the generalizability of these findings, but, in the cases that do exist, the reduction in the risk

associated with ground and air forces is extremely large (and still sizable in the case of naval forces).

Although crisis deployments appear successful in reducing the risk of escalation, they are not similarly successful in improving bargaining outcomes for partner states. Indeed, countries supported by U.S. crisis deployments appear no more likely to achieve their strategic goals in a crisis than countries that do not enjoy such support. These results suggest that U.S. crisis deployments can help maintain the status quo at reduced risk of war, but they do not readily translate into bargaining leverage or improved long-term positions for partner states.

Our case studies are generally consistent with the results of our statistical analyses and provide additional nuance, caveats, and clarity about the reasons why U.S. forces achieved the effects they did. Distinguishing the independent effects of forward-deployed U.S. forces from the other factors in play is difficult: Decisionmakers typically reach decisions on the basis of a complex calculus of costs and benefits, and the relative weight of different factors in the final decisions is often not clear to the decisionmakers. But in both the Berlin crisis of 1961 and Operation Vigilant Warrior in the Persian Gulf in 1994, U.S. forces in theater appear to have played an important role in deterring U.S. adversaries. The reinforcement of U.S. forces in West Berlin during the crisis and robust plans to enhance U.S. posture in Europe over the long term helped shift Soviet perceptions of U.S. commitment and contributed to the de-escalation of the crisis. It is even more difficult to distinguish the effects of different types of forces; however, in the case of Iraq, where we have access to a much more complete archival record, it appears that Saddam Hussein's regime particularly feared ground forces because they (as opposed to air strikes) were perceived as posing a threat of forcible regime change. Consequently, the Iraqis appear to have taken the deployment of U.S. ground forces to the theater particularly seriously.

Policy Implications

The findings of this study have two important implications for policy, but both come with caveats.

Heavy Ground Forces Are the Most Likely to Enhance Deterrence

Our results provide 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. Although we cannot establish a causal relationship, the statistical findings are robust. The effects of these two types of forces were almost consistently positive, strongly statistically significant, and robust to multiple model specifications. There is evidence that light ground forces, particularly when deployed directly inside the borders of the partner or ally being threatened, may be associated with a higher risk of low-intensity militarized disputes, but we do not find similar evidence of this risk for heavy ground forces in our statistical models. It is worth noting, however, that the Berlin 1961 case study highlights the potential risks associated with ground forces, including heavy forces, operating in close proximity to U.S. adversaries.

Of course, the United States' decisions about forward posture are made on the basis of more than just deterrence considerations, and not all adversaries may react the same way to the introduction of U.S. forces. Although, in the average case, heavy forces appear to successfully contribute to deterrence, such forward posture can also come at a cost. The presence of U.S. forces in a particular country carries both a financial and an opportunity cost. Forces deployed in one location may be less available for contingencies elsewhere. Furthermore, this study has not examined the broader effects of U.S. forward posture on geopolitics, including the potential for forward basing to lead to higher levels of nonmilitarized hostility between the United States and potential adversaries. If steady-state forward posture leads to a breakdown in diplomatic cooperation, potential deterrence gains may not be worth the costs to other U.S. interests. These broader strategic considerations were outside the scope of this study but are certainly questions that policymakers should ask.

Crisis Deployments May Prevent Escalation but Do Not Improve Partners' Leverage

If the United States does not forward-deploy its forces in steady-state conditions, or if it does so in numbers insufficient to achieve deterrence, it can attempt to compensate by surging forces forward in the event of an international crisis. The number of such crisis deployments is small enough that we should be careful about generalization, but analysis of the roughly two dozen crises in which the United States did rush forces forward shows a large decline in the incidence of major clashes or war. Deployments of ground and air forces, in particular, were associated with an extremely low incidence of further escalation.

As with steady-state deterrence, however, this finding comes with important caveats for military planners. First, geography and infrastructure matter a lot. Because ground forces take a substantial amount of time to transport, the United States was generally able to deploy them where it already had considerable forward posture and infrastructure to handle the logistical requirements. Even with such factors working in the United States' favor, the ability of crisis deployments to prevent no-notice or short-notice *faits accomplis* launched by highly capable adversaries is limited.

This limitation, in turn, highlights the importance of a second caveat. Crisis deployments appear better at reducing the risk of escalation than they are at improving the defended state's long-term bargaining leverage. In other words, while crisis deployments can help maintain the status quo between states, they are not necessarily well-suited to altering the long-term strategic dynamics between states. Consequently, crisis deployments seem best suited to maintaining the status quo rather than reversing facts on the ground.

Acknowledgments

Abbreviations

AWACS	Airborne Warning and Control System
CIA	Central Intelligence Agency
CSG	carrier strike group
DMDC	Defense Manpower Data Center
DoD	U.S. Department of Defense
GDP	gross domestic product
GDR	German Democratic Republic
ICB	International Crisis Behavior
IHS	inverse hyperbolic sine
IISS	International Institute of Strategic Studies
JCS	Joint Chiefs of Staff
MID	militarized interstate dispute
NATO	North Atlantic Treaty Organization
OVW	Operation Vigilant Warrior
STRAC	Strategic Army Corps
UAE	United Arab Emirates

UN	United Nations
UNSC	United Nations Security Council
UNSCOM	United Nations Special Commission
USAF	U.S. Air Force
USAFE	U.S. Air Forces in Europe
USAREUR	U.S. Army Europe
WMD	weapon of mass destruction

Introduction

In the aftermath of Russian military aggression against Ukraine in 2014, and with tensions over North Korea's nuclear program rapidly escalating, many policymakers are looking to U.S. overseas military presence as a critical element of deterrence. Latvian Foreign Minister Edgars Rinkevics, for instance, publicly stated that the Baltic states (Estonia, Latvia, and Lithuania) wanted "a very blunt and strong statement" from the North Atlantic Treaty Organization (NATO) that a strong deterrent force will be in place "as long as necessary."[1] Elbridge Colby, before assuming his current position as U.S. Deputy Assistant Secretary of Defense for Strategy and Force Development, and Jonathan Solomon cited previous RAND research in recommending the deployment of three U.S. armored brigades to Europe to deter Russian aggression in the Baltics.[2] Michael Green, former senior director for Asian Affairs on the National Security Council staff, and Georgetown University professor Matthew Kroenig argue for reinforcing U.S. deterrence in the Korean peninsula through forward-stationing additional missile defense capabilities and more-frequent deployment of stealth bombers.[3]

---

[1] Karen DeYoung, "Baltic Countries Want a Longer NATO Commitment to Counter Russia," *Washington Post*, February 26, 2016.

[2] Elbridge Colby and Jonathan Solomon, "Facing Russia: Conventional Defence and Deterrence in Europe," *Survival*, Vol. 57, No. 6, 2015, p. 34.

[3] Michael J. Green and Matthew Kroenig, "A New Strategy for Deterrence and Rollback with North Korea," War on the Rocks, October 19, 2017.

At the same time, U.S. overseas military commitments are increasingly coming under attack at home. Recent public opinion data suggest that Americans are less supportive of the United States' international commitments than they have been in decades.[4] Aside from concerns about the costs of these commitments, some critics contend that they fail to deter aggression.[5] Others contend that U.S. overseas bases actually make armed conflicts more likely by provoking potential adversaries.[6] Perhaps it should not be surprising, then, that leading figures in U.S. politics and the policy community—including voices in the White House—have openly questioned the value of overseas deployments of U.S. forces.[7]

Within these broad debates about the contributions of U.S. forward posture to international stability are nested narrower debates about the types of forces required to deter aggression, the scale on which they must be deployed, and where they should be stationed. On one end of the debate, several prominent American realists have called

---

[4]   One 2016 poll found that nearly six in ten Americans say that the United States should "deal with its own problems and let other countries deal with their problems the best they can" (Pew Research Center, *Public Uncertain, Divided over America's Place in the World*, Washington, D.C., April 2016, p. 11). Overall, internationalist sentiment has reached historical lows in the past several years. See Pew Research Center, *Public Sees U.S. Power Declining as Support for Global Engagement Slips: America's Place in the World 2013*, Washington, D.C., December 3, 2013.

[5]   American University professor David Vine, for instance, claimed that "little if any empirical research proves the effectiveness of overseas bases as a form of long-term deterrence" (David Vine, "Don't Just Close Bases at Home, Close Them Overseas," *New York Times*, July 27, 2015).

[6]   See, for instance, John Glaser, *Withdrawing from Overseas Bases: Why a Forward-Deployed Military Posture Is Unnecessary, Outdated, and Dangerous*, Washington, D.C.: CATO Institute, Policy Analysis No. 816, July 18, 2017, pp. 9–10. For a related argument about the threat posed to Russia by NATO enlargement, see John J. Mearsheimer, "Why the Ukraine Crisis Is the West's Fault: The Liberal Delusions That Provoked Putin," *Foreign Affairs*, September/October 2014.

[7]   Stephen Bannon, for instance, while still chief strategist to President Donald Trump, publicly stated that he "might consider a deal in which United States troops withdrew from South Korea in exchange for a verifiable freeze in the North's nuclear program." See Jane Perlez and Chie Sang-Hun, "Bannon and Dunford Remarks Muddle U.S. Strategy for North Korea," *New York Times*, August 16, 2017.

for a grand strategy of "offshore balancing," in which the United States would maintain its military forces in the United States, dispatching them abroad only as an option of last resort.[8] On the other side of the debate, some advocate for expanding the number of U.S. forces permanently stationed overseas to bolster U.S. deterrence in critical regions of Europe and Asia. Indeed, there is some evidence that large-scale forward posture appears to be associated with a lower likelihood of interstate war.[9] Yet others see in standoff weaponry and long-range strike technologies an intermediate option: the opportunity to deter potential aggressors from air and sea without maintaining a sizable U.S. military footprint in foreign countries.[10]

This report provides evidence on the deterrent effects of U.S. overseas military presence. We do not seek to answer overarching questions about the United States' role in the world or its ability to sustain the costs of deterrence. Rather, we focus on establishing as rigorously as possible the extent to which forward deployments of U.S. forces contribute to the deterrence of attacks against U.S. allies and partners (what is known in the literature as *extended deterrence*). We also offer guidance about the types, sizes, and locations of the forces required. More specifically, we seek to answer the following questions:

- To what extent do steady-state overseas deployments of U.S. forces contribute to interstate deterrence? Do they make militarized disputes (such as shows of force or other forms of "saber-rattling") or

---

[8]   Christopher Layne, "From Preponderance to Offshore Balancing: America's Future Grand Strategy," *International Security*, Vol. 22, No. 1, Summer 1997; and John J. Mearsheimer and Stephen M. Walt, "The Case for Offshore Balancing: A Superior U.S. Grand Strategy," *Foreign Affairs*, July/August 2016.

[9]   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*, Santa Monica, Calif.: RAND Corporation, RR-1906-A, 2017.

[10]   See, for instance, Wade S. Karren, "Long-Range Strike: The Bedrock of Deterrence and America's Strategic Advantage," *Air & Space Power Journal*, May–June 2012; and Michael Gerson and Daniel Whiteneck, *Deterrence and Influence: The Navy's Role in Preventing War*, Alexandria, Va.: Center for Naval Analysis, 2009.

outright wars launched by potential U.S. adversaries more or less likely?

- If U.S. steady-state forward posture is inadequate to deter an international crisis, can rapid deployments of U.S. forces to the region prevent further escalation of the crisis? Can such crisis deployments secure better bargaining outcomes?
- For both steady-state and crisis deterrence, do different types of forces exercise different effects? Are large numbers of forces necessary, or is a symbolic (or "tripwire") presence sufficient to establish deterrence?

In making decisions about specific deterrence situations, leaders must grapple with a wide range of factors. Well-informed decisions require an understanding of the risk tolerance of foreign leaders, their domestic political circumstances, and how they have reacted to prior U.S. actions.[11] Decisions should also be informed by the timelines on which adversaries could strike in a no-notice or short-notice contingency and the corresponding time available for U.S. military reinforcements.

Notwithstanding the importance of such factors, the ability of policymakers to take them into account may be limited in practice. Decisionmakers inevitably must make decisions with incomplete information. First, they must deal with the pervasive role of misperceptions. National leaders have routinely misunderstood how adversaries have reacted or are likely to react to U.S. efforts to signal its resolve.[12] Second, leaders must contend with the inherent uncertainty of the future. Many policy decisions must be made, in part, based on decisionmakers' expectations of what will happen in five, ten, or even 20 years. Decisions to build overseas military bases or to relocate U.S.

---

[11] See, for instance, Richard Ned Lebow and Janice Gross Stein, "Rational Deterrence Theory: I Think, Therefore I Deter," *World Politics*, Vol. 41, No. 2, January 1989; and Bryan Frederick, Matthew Povlock, Stephen Watts, Miranda Priebe, and Edward Geist, *Assessing Russian Reactions to U.S. and NATO Posture Enhancements,* Santa Monica, Calif.: RAND Corporation, RR-1879-AF, 2017.

[12] Lebow and Stein, 1989; and Robert Jervis, "Deterrence and Perception," *International Security*, Vol. 7, No. 3, Winter 1982/1983.

forces from overseas bases back to the United States involve very long time horizons; once made, these decisions are generally difficult to reverse. Investments in particular force structures (with the concomitant investments in acquisitions, leader development, and so on) also have long-term implications. Decisions to rely on greater use of rapid deployments of U.S. forces in response to international crises entail necessary investments in expeditionary capabilities and high levels of readiness. Decisionmakers must anticipate the signal that these decisions will send not only to adversaries they know but also to unknown ones that may arise in the future.

For these reasons, this study focuses on establishing general relationships between the United States' *force posture* (that is, the types, quantities, and locations of U.S. forces) and the risk of interstate conflict. It does so through a combination of statistical models and case studies. The statistical models build on prior research conducted at RAND to establish broad relationships between U.S. force posture and the likelihood of militarized disputes or wars. The case studies help us understand whether the quantitative relationships revealed through statistical analysis are occurring for the reasons we believe they are and are useful in highlighting important mechanisms and contexts that are not explicitly detailed in our statistical models. The findings presented in this report should not be used by themselves to make specific posture decisions. But the statistical baselines presented here represent an important aid in making choices about particular cases.[13]

It is important to note the scope of this report at the outset. The analysis here is focused exclusively on how to achieve deterrence. It does not examine the unintended consequences of actions taken to deter an adversary, such as potentially emboldening a partner or ally (as in the "chain-ganging" theory of alliance behavior). Nor does it examine the costs of deterrence, such as direct budgetary costs, indi-

---

[13] Scholars have found that even experts routinely overestimate their ability to predict the outcomes of specific policies. Consequently, these scholars recommend statistical analysis as an important baseline, which can then be modified to take into account the characteristics of a particular situation. See, for instance, Philip E. Tetlock, *Expert Political Judgment: How Good Is It? How Can We Know?* Princeton, N.J.: Princeton University Press, 2006; and Daniel Kahneman, *Thinking Fast and Slow*, New York: Farrar, Straus and Giroux, 2011.

rect costs (e.g., from encouraging "free riding" among allies), or the costs of potentially harming diplomatic relations with an adversary with whom cooperation may have otherwise been possible on at least a limited basis. All of these questions are important to consider in the development of an overall security strategy. This report is more narrowly focused on military planning considerations.

The remainder of this report proceeds in several steps. Chapter Two provides an overview of the debates about deterrence that motivated this report. Chapter Three provides a statistical analysis of the deterrent effects of U.S. force posture under steady-state conditions, while Chapter Four offers a statistical analysis of deterrence in crises. The next two chapters examine two cases of general and immediate deterrence: the Berlin crisis in 1961 during the Cold War (Chapter Five) and Operation Vigilant Warrior (OVW) in the Persian Gulf in 1994 (Chapter Six). Chapter Seven concludes with a summary of our findings and their implications for future force posture decisions. The main body of the report, including the statistical analyses, is written for a broad audience. For those wanting a deeper understanding of the data and statistical models used in Chapters Three and Four, Appendixes A and B, respectively, provide technical details.

Debates over the Deterrent Impact of U.S. Forces

Following others, we define *deterrence* as "the persuasion of one's opponent that the costs and/or risks of a given course of action he might take outweigh its benefits."[1] Preventing an attack on a country's own territory is known as *direct deterrence*, while preventing an attack on an ally or partner is known as *extended deterrence*. Deterring an attack during a period of crisis, after an adversary has signaled potentially aggressive intent, is often termed *immediate deterrence*, while efforts to prevent such crises from ever arising are termed *general deterrence*.[2]

This study examines the contributions of U.S. conventional military forces to both general and immediate (or crisis) extended deterrence. It does not seek to understand the full range of determinants of successful deterrence.[3] Rather, it focuses more narrowly on the pragmatic questions that U.S. defense planners might ask: What sorts of conventional forces are most likely to deter? Where should they be stationed? To what extent can the United States compensate for limited

---

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

[2] These concepts are also complementary. Deterring an attack on an ally or partner during a period of crisis, for instance, is known as *extended immediate deterrence.* See Paul K. Huth, *Extended Deterrence and the Prevention of War*, New Haven, Conn.: Yale University Press, 1991; and Paul K. Huth, "Deterrence and International Conflict: Empirical Findings and Theoretical Debates," *Annual Review of Political Science*, Vol. 2, 1999, p. 27.

[3] For excellent reviews of this literature, see Huth, 1999; Jack S. Levy, "When Do Deterrent Threats Work?" *British Journal of Political Science*, Vol. 18, No. 4, 1988; and Austin G. Long, *Deterrence—From Cold War to Long War: Lessons from Six Decades of RAND Research*, Santa Monica, Calif.: RAND Corporation, MG-636-OSD/AF, 2008.

numbers of forces prepositioned in theater by surging them forward during a crisis? These questions are vital from the standpoint of U.S. decisionmakers but have been largely neglected by academic studies of deterrence.

This chapter frames the questions and debates that are evaluated in the rest of the report. We begin by examining potential trade-offs between time and space—that is, where U.S. forces should be stationed to prevent the outbreak of conflict and how the timing of U.S. forces' arrival in a theater shapes the likelihood of war. Next, we review debates over the deterrent impact of different types of forces. Finally, we conclude with an overview of the research approach the rest of the report adopts to try to provide answers to the questions and debates posed in this chapter.

Forward Posture and Crisis Deployments: Where and When Do Forces Deter?

Decisionmakers have three basic choices when considering where to station U.S. forces:

- in the United States, as recommended by proponents of offshore balancing
- in an ally or partner country that is directly at risk of aggression (on the "front lines")
- in a potential theater of operations but not on the front lines of potential conflicts.

Proponents of offshore balancing recommend that the United States station its forces within its own borders, as it typically did before World War II. This posture affords the United States maximal flexibility. Instead of precommitting its forces to specific countries or theaters, it can choose where and when it intervenes, if at all. Such a posture encourages U.S. partners and allies to provide for their own defense (that is, it discourages free riding), does not needlessly provoke potential U.S. adversaries, and reduces the added budgetary costs of main-

taining forces so far away from the United States' borders. Moreover, it reduces the vulnerability of U.S. forces to a potential first strike by an adversary.[4]

The price of such flexibility, however, may be greater instability in the international system and ultimately a greater need for the United States to fight. The United States adopted a forward posture after World War II precisely because it feared that the Soviet Union would otherwise threaten its allies in Europe and East Asia, drawing the United States into another world war or making strategic gains on the continent before the United States could sufficiently react. Even after the end of the Cold War, U.S. decisionmakers have largely relied on forward posture to deter conflict, most notably in the Persian Gulf.[5]

Prior research suggests that the local balance of power matters considerably for deterrence. It is not so much a country's overall military potential that deters as much as its ability to concentrate forces rapidly to counter a specific act of aggression.[6] Moreover, forward deployment of forces provides a costly signal of the defender's intent to protect a protégé. Forward posture, therefore, might afford the United States less flexibility, but it also may reduce the number of contingencies into which the United States is drawn.

Even if the United States commits to forward posture as a tool of deterrence, many questions remain about exactly where to station these forces and how much the United States should rely on the ability to reinforce forward positions. Prior RAND research suggests an important nuance in debates about forward posture. While U.S. forces in theater are associated with a lower likelihood of conflict (even when controlling for other possible explanations), U.S. forces stationed directly in states that are a potential target of aggression (i.e., on the front lines) are associated with an increased number of low-level mili-

---

[4] Layne, 1997; Mearsheimer and Walt, 2016.

[5] Chapters Five and Six of this report provide more details on forward posture in both of these cases.

[6] See, for instance, Paul Huth and Bruce Russett, "Deterrence Failure and Crisis Escalation," *International Studies Quarterly*, Vol. 32, No. 1, March 1988.

tarized disputes, such as added shows of force or increased posturing along borders.[7] These low-level disputes may arise for a variety of reasons. Potential aggressors may seek to probe the extent of U.S. resolve, as Saddam Hussein appeared to do throughout the 1990s. Adversaries who fear encirclement by a hostile United States may also provoke low-level disputes in an effort to demonstrate their own willingness to fight, arguably a description of contemporary Russian behavior. And some disputes may arise inadvertently from the friction associated with having rival forces operating so near one another, such as the accidental downing of aircraft that occurred with some regularity during the Cold War in Europe. Given the potential for such low-level disputes to escalate, this finding poses cause for concern.

Stationing forces nearby but not directly in the countries most threated by potential adversaries may seem like a prudent compromise. But this option also poses risks. Several scholars have argued that one of the most common paths to aggression is an adversary's belief that it can succeed in a low-cost *fait accompli*.[8] While aggressors may have no appetite for a costly war of attrition, they may believe that if they can seize a territory before other powers can respond, then the other powers are likely to acquiesce to the new state of affairs. Well-known examples include Saddam's invasion of Kuwait and Argentina's annexation of the Falkland Islands (Islas Malvinas). One recent statistical analysis of land grabs over the past century found more than 100 instances of annexations achieved through *faits accomplis*—nearly ten times the number that were achieved through extended campaigns of coercion that would provide substantial warning time.[9] If short-notice or no-notice *faits accomplis* are indeed a major risk, they pose a serious challenge to a general extended deterrence strategy that relies on the defender stationing forces in potential theaters of conflict but not on the front lines of a potential contingency (i.e.,

---

[7]   O'Mahony et al., 2017.

[8]   The seminal work on this issue is John J. Mearsheimer, *Conventional Deterrence*, Ithaca, N.Y.: Cornell University Press, 1983.

[9]   Dan Altman, "By Fait Accompli, Not Coercion: How States Wrest Territory from Their Adversaries," *International Studies Quarterly*, Vol. 61, No. 4, December 2017.

in the protégé itself). Short-notice contingencies pose an enormous logistical challenge to a defender whose forces must travel substantial distances—especially if they have to fight their way into the contested territory. These logistical challenges make it more likely that the aggressor can seize the territory in question and reinforce its positions before the protégé state's defender ever arrives—a situation that NATO, for instance, would face in a hypothetical Russian invasion of the Baltic states.[10] Whether or not defenders actually do acquiesce to *faits accomplis*, the fact that aggressors sometimes believe they will acquiesce weakens the deterrent impact of forces that would be slow to arrive.

A second risk of relying on forces in theater but not directly within the borders of a potential target of aggression concerns decisionmaking during moments of crisis. Typically, wars do not occur with no warning at all. There is some period of time, ranging from days to weeks or months, during which tensions are clearly building and the heightened risk of war becomes apparent. Countries usually attempt to resolve such crises through some combination of deterrence and diplomacy. If a defender providing an extended deterrence guarantee to a protégé does not have sufficient forces forward-stationed to have a chance of blunting an attack, it is likely to surge additional forces toward the front lines to bolster its deterrent capacity (such as the U.S. deployment of forces to Kuwait in 1994, or OVW, which we discuss in Chapter Six). Such crisis deployments might be particularly effective deterrents because they provide a clear signal of resolve on the part of the extended state providing extended deterrence on behalf of a partner. On the other hand, such crisis deployments may be particularly likely to touch off a war they were meant to prevent. Crises are periods in which decisionmakers are under enormous stress to make literally life and death decisions within a short amount of time. Mutual suspicions are high, and the time necessary to acquire and process information

---

[10] For an in-depth analysis of this contingency, see 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.

about an adversary's intentions is limited.[11] Consequently, even crisis deployments that are intended as purely defensive precautions may be perceived as preparations for a preemptive strike. Rapid deployments may thus inadvertently trigger a war that both parties would have preferred to resolve through diplomacy.

There are thus many potential trade-offs between time and distance. Keeping U.S. forces stationed at home maximizes flexibility for U.S. decisionmakers, but doing so may fail to deter conflicts that could have been deterred through a stronger forward posture. Forces stationed directly in a likely target of aggression may be required to prevent a *fait accompli*, but they risk provoking low-level militarized disputes that have the potential to inadvertently escalate. Forces stationed in theater but not on the front lines may seem like the "Goldilocks solution"— not too close yet not too far away. But depending on where they are stationed and what the local transportation infrastructure is like, they

---

[11] One summary of the literature on crisis decisionmaking offers a stark warning and is worth quoting at length:

> Although the literature on decision-making during international crises is both voluminous and heterogeneous, there is a fair degree of convergence on at least one basic proposition. Virtually every researcher has found that the threat to important values, which in effect defines a serious crisis, produces a distinct and significant pattern of changes in the decision-making process. As a crisis intensifies, the environment becomes more unstable; as the military machine moves to a higher state of readiness, the volume of information to be processed grows and the message traffic with friend and foe alike increases. These changes induce increased perceptions of time pressure in leaders, who begin to see their freedom of action as more and more restricted while their adversary's options are perceived to increase. They begin to focus on short-term "quick fixes" rather than long-term solutions, concentrate on preexisting rather than novel information, and communicate more and more with allies and subelites, and less and less with adversaries or would-be mediators. Psychological research in the areas of information processing and problem solving has produced quite similar conclusions . . . .

> The importance of this attenuated complexity of information processing lies in the fact that it is closely related to crisis outcome. [Researchers] found that crises which resulted in all-out war were preceded by a substantial drop in integrative complexity among representatives of the nations involved in the crisis. By contrast, crises resolved by means short of war were characterized by continued high levels of integrative complexity among national leaders. (Michael D. Wallace and Peter Suedfeld, "Leadership Performance in Crisis: The Longevity-Complexity Link," *International Studies Quarterly*, Vol. 32, No. 4, 1988, pp. 440–441)

may not be able to arrive in time to deter a short-notice act of aggression. And even if the forces are rapidly surged forward before an attack is launched, such crisis deployments may foreclose diplomatic options and inadvertently touch off the wars they were intended to deter.

The Contributions of Different Domains: Which Forces Deter?

Beyond questions of where to station forces and whether to surge reinforcements forward during moments of crisis, defense planners must consider which types of forces are most likely to deter. Many of the arguments about where to station U.S. forces arise again in debates about which types of forces best contribute to deterrence: The arguments of offshore balancers are linked to proponents of air and naval (standoff) capabilities, while proponents of forward posture often note the unique contributions of ground forces.

In line with the claims of offshore balancers, advocates for standoff capabilities emphasize these capabilities' flexibility, survivability, and acceptability to both partner nations and—allegedly—adversaries. Because these forces are highly mobile, they can be reallocated quickly from one contingency to another. Their mobility also allows them to be stationed in the United States, thus avoiding the political problems sometimes encountered when the United States maintains large military bases overseas.[12] Some forms of these capabilities (including long-range strike weapon systems and submarines) are more survivable than

---

[12] Overseas bases present two types of political challenges. On the one hand, such bases sometimes face U.S. domestic political opposition. For instance, the most recent U.S. drawdown of forces from Europe, begun under President George W. Bush and continued under President Barack Obama, was motivated partly by the fact that a majority of Americans wanted those forces withdrawn ("51% Think U.S. Should Withdraw All Troops from Europe," Rasmussen Reports, May 22, 2012). Overseas bases also frequently provoke domestic political backlash in the countries in which they are stationed—not only in relatively recent allies (such as Saudi Arabia) but also in long-standing allies (such as Japan, where U.S. bases in Okinawa face persistent opposition). For an analysis of many of these issues, see Alexander Cooley, *Base Politics: Democratic Change and the U.S. Military Overseas*, Ithaca, N.Y.: Cornell University Press, 2008.

forces tied to fixed bases within easy striking distance of adversaries. And standoff capabilities may be less likely to needlessly provoke adversaries in that they cannot seize and hold enemy territory.[13]

Proponents of ground power contest all of these claims. But their primary arguments focus on the strong signal of resolve represented by forward-deployed ground forces and the necessity of land-based capabilities for certain contingencies.

According to land-power advocates, one of the supposed strengths of air and naval forces—their mobility—also represents one of their limitations. Ground forces cannot quickly or easily be moved between theaters. When they are stationed in a foreign country, this posture represents a strong commitment to defending that country and critical U.S. interests in the broader region. In contrast, because air and naval forces can be relatively easily redeployed between theaters, their presence represents a weaker signal of commitment. Similarly, ground forces' vulnerability when stationed overseas also represents a strong signal of resolve; indeed, this vulnerability is necessary for "tripwire" deployments (that is, smaller numbers of ground forces stationed to ensure that U.S. forces quickly become directly involved in a potential adversary invasion) to be effective. Submarines, for instance, may be much more survivable, but because they are difficult for foreign powers to detect and target, they also fail to "tie the hands" of U.S. decision-makers and thus cannot be used effectively to signal commitment.[14]

---

[13] For arguments in favor of emphasizing air and naval forces, see, for instance, Karren, 2012; Gerson and Whiteneck, 2009; David Blagden, "Sea Power Is Benign Power: The International Case for a Maritime Posture," RUSI Journal, Vol. 159, No. 3, 2014; and Robert Martinage, *Toward a New Offset Strategy: Exploiting U.S. Long-Term Advantages to Restore U.S. Global Power Projection Capability*, Washington, D.C.: Center for Strategic and Budgetary Assessments, 2014.

[14] For a discussion of various mechanisms of signaling resolve, see James Fearon, "Signaling Foreign Policy Interests: Tying Hands Versus Sinking Costs," *Journal of Conflict Resolution*, Vol. 41, No. 1, 1997. On the signaling effects of ground forces in particular, see David E. Johnson, Karl Mueller, and William H. Taft, *Conventional Coercion Across the Spectrum of Operations: The Utility of U.S. Military Forces in the Emerging Security Environment*, Santa Monica, Calif.: RAND Corporation, MR-1494-A, 2003; and 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.

Beyond the signal that forward-deployed U.S. ground forces represent, these forces also provide capabilities that may be necessary for certain types of contingencies. In particular, large-scale invasions are difficult to repulse without ground forces.[15] Ground forces stationed in the United States can, of course, later be deployed to roll back foreign acts of aggression (as in Operation Desert Storm). But relying on the prospect of rollback may weaken deterrence if aggressors truly are seduced by the prospect of a *fait accompli*.

Research Approach: Testing Arguments About Forward Posture and Crisis Deployments

This report combines quantitative and qualitative approaches to better understand deterrence dynamics.

Chapters Three and Four use statistical models to establish general propositions about the average deterrent effects of different types of U.S. forces forward-deployed in both steady-state and crisis periods. Prior quantitative RAND research evaluated arguments about where U.S. conventional forces are best postured to deter aggression.[16] This report extends on this prior work in two ways. First, it examines the relative value of forces in different domains (air, land, and sea) and of different types of forces (heavy versus light ground forces, bombers versus fighters, and so on). Second, it examines whether crisis deployments might be useful to re-establish deterrence when steady-state forward posture has failed to prevent a descent into crisis. Chapter Three focuses on steady-state or general deterrence, and Chapter Four examines crisis or immediate deterrence. Both chapters differentiate among various types of forces.

---

[15] Mearsheimer, 1983. For an analysis of the contemporary challenge posed by Russia in the Baltics, see Shlapak and Johnson, 2016. Operation Desert Storm is sometimes erroneously cited as an example of the ability of air power to largely neutralize an invading ground force on its own; see Daryl C. Press, "The Myth of Air Power in the Persian Gulf War and the Future of Warfare," *International Security*, Vol. 26, No. 2, Fall 2001.

[16] O'Mahony et al., 2017.

Deterrence is a complex phenomenon, and each case of deterrence involves a unique constellation of factors. Geography matters considerably: While deterrence against China might rely on strategies that emphasize air and naval forces (such as "offshore control" or "active denial"), deterrence against Russia and North Korea is more likely to require ground forces.[17] Technology also matters: Distant bases are less secure now than they were before precision-guided munitions and long-range strike capabilities, which may, in turn, influence the deterrent potential of different types of forces.[18] Perhaps most importantly, different adversaries—possessing different degrees of risk tolerance, different domestic political considerations, and different histories with the United States—are likely to react differently. Statistical models can translate only a fraction of these factors into quantitative variables and therefore inevitably suffer from omitted variable bias. Because of this complexity, some observers believe that case studies offer the most appropriate approach to understanding deterrence.[19]

Others argue that statistical models are flawed for a different reason. Deterrent deployments do not occur at random. Instead, defenders often send their forces to protect the protégé states that are most at risk of attack. Deterrent deployments may therefore seem to fail or even to be counterproductive precisely because they are sent to the most difficult cases rather than the typical ones. Any statistical analysis that fails to account for these dynamics (called *selection effects* in social science) would reach faulty conclusions about the efficacy of deterrence.[20]

---

[17] On offshore control, see T. X. Hammes, "Offshore Control: A Proposed Strategy for an Unlikely Conflict," Strategic Forum, Washington, D.C.: National Defense University, June 2012; on active denial, see Eric Heginbotham and Jacob L. Heim, "Deterring Without Dominance: Discouraging Chinese Adventurism Under Austerity," *Washington Quarterly*, Vol. 38, No. 1, 2015.

[18] See, for instance, Martinage, 2012; Heginbotham and Heim, 2015.

[19] See, for instance, George and Smoke, 1974; Lebow and Stein, 1989.

[20] The seminal statement of this argument can be found in James D. Fearon, "Selection Effects and Deterrence," *International Interactions*, Vol. 28, No. 1, 2002.

Details about the statistical models used in this study are provided in Chapters Three and Four and those chapters' accompanying technical appendixes (Appendixes A and B, respectively). These concerns about the limitations of statistical models, however, are fundamental to the analysis of this report and so deserve some consideration here at the outset.

The problems posed by selection effects can be ameliorated through certain statistical procedures and careful interpretation of statistical results. Our analysis of general deterrence (the subject of Chapter Three) includes enough cases that we can use propensity scores to account for selection effects in strategies of U.S. forward presence. In essence, propensity scores are a quantitative summary of defenders' propensity to select certain protégé states for deterrent deployments, based partly on the likelihood that a specific partner will be the target of a belligerent state. These scores thus can help account for the fact that defenders tend to select the hardest cases. Unfortunately, we do not have enough cases of immediate extended deterrence to use similar procedures to analyze crisis deployments. For this analysis (the subject of Chapter Four), we instead must rely on a combination of broad, correlational analysis to illustrate broad trends and qualitative analysis designed to tease out the dynamics of specific cases.

Complexity and omitted variable bias represent a more fundamental challenge—in this study and in all observational analyses, both quantitative and qualitative. The most that researchers performing either kind of research can do is grapple with potential alternative explanations and be clear about their limitations. The statistical analyses do not purport to offer a full explanation for the causes of the outcome in any single case of deterrence. Rather, they try to provide a rigorous baseline assessment of the importance of U.S. forward posture as one explanation of deterrence (albeit an important one, as our statistical results indicate).[21]

---

[21] Omitted variables introduce bias only if they are correlated with the explanations (independent variables) being tested. Our statistical analysis does not, for instance, incorporate variables related to cognitive factors, and so it is an incomplete explanation of any given deterrence outcome. Unless these cognitive factors correlated closely with the deployment of U.S. forces, however, they would not account for the statistical relationships we find between

Despite the limitations of statistical analyses, they offer valuable tools to assist decisionmakers in the face of uncertainty. Policy decisions on deterrence must contend with two types of uncertainty. First, studies of deterrence have repeatedly found that decisionmakers misjudged their adversaries' intentions and capabilities and their own ability to correctly interpret efforts at signaling.[22] When faced with such high levels of uncertainty, analysts of decisionmaking have recently argued that statistical baselines provide an important tool for making sense of individual situations and protecting against cognitive biases. Decisionmakers can start with the general trends revealed by statistical analyses, then adjust the implications or lessons learned from these trends according to perceptions of specific situations.[23] Second, decisionmakers must make decisions about foreign basing or force structure that may require anticipating needs five, ten, or even 15 years or more in the future. Because the nuances of future deterrence requirements cannot possibly be known, statistical analysis provides an important baseline from which decisions can be made. No research can substitute for policymakers' judgment in individual cases. Statistical research can, however, provide an important tool to inform judgment, particularly in the face of high levels of uncertainty.

The quantitative analyses in Chapters Three and Four are followed by case studies intended to bolster the credibility of the statistical relationships by illustrating the ways in which U.S. forces had the deterrent impact suggested by our quantitative findings.[24] We chose two case studies—the 1961 Berlin crisis (Chapter Five) and the 1994 OVW crisis with Iraq (Chapter Six)—for several reasons. First,

---

U.S. force deployments and deterrence outcomes. We thus offer an estimate of the average effect of U.S. forces, but it is important to recognize that these forces are only one of many factors that shape overall outcomes.

[22] Lebow and Stein, 1989; Jervis, 1982/1983.

[23] Tetlock, 2006; Kahneman, 2011.

[24] In social science terms, these case studies are used to demonstrate that the causal mechanisms implied by our discussion in this chapter are indeed responsible for the correlations that we see in the quantitative analysis. On the pairing of case studies with quantitative analysis, see John Gerring, *Case Study Research: Principles and Practices*, New York: Cambridge University Press, 2007, especially Chapter 3.

they offer both an example of high-stakes confrontation between two nuclear-armed superpowers and an example of a confrontation with a regional power, thus demonstrating that the relationships we find in our quantitative analysis can be found across a wide range of adversaries. Second, these two case studies offer an opportunity to view U.S. deterrence policy shifting from general (steady-state) to immediate (crisis) deterrence and back again, allowing us to examine both types of deterrence and the relationships between these two phases. In effect, these changes over time mean that each case is actually a collection of several different case studies, with U.S. deterrence proving more or less effective in different phases. The third reason for choosing these two cases was practical: A wealth of primary and secondary sources is available for each case, providing a rich base for analysis.

Even with studies like this one, deterrence remains a complicated subject. The remainder of this report, however, can offer at least some insights into key defense planning decisions.

General Deterrence

Since 1945, U.S. forces have been forward-deployed in other countries for many reasons, but key among these are the possible effects on reducing the likelihood of interstate conflict. As the 2015 National Military Strategy notes,

> The presence of U.S. military forces in key locations around the world underpins the security of our allies and partners, provides stability to enhance economic growth and regional integration, and positions the Joint Force to execute emergency actions in response to a crisis.[1]

While forward deployments are undertaken in part for their role in facilitating crisis response (the subject of the next chapter), they are also intended to have a steady-state effect, enhancing security and stability more generally. Given that overseas forces have been one of the linchpins of U.S. grand strategy since the end of World War II, empirical assessments of the effect that they have had in promoting stability and reducing conflict are important.

This is particularly so because the academic literature highlights potential concerns about whether U.S. forces can or have had their intended effect. The United States has tremendous military capabilities, and potential adversaries, fearing U.S. retaliation, may well react

---

[1] Joint Chiefs of Staff (JCS), *The National Military Strategy of the United States of America*, Washington, D.C., June 2015, p. 11. It should be noted that U.S. presence comprises more than the deployment of military forces. This chapter aims to account for other aspects of presence, such as alliances and assistance, while focusing on the effects of military forces.

to closer deployments of these capabilities by being deterred from potential aggressive actions. But they may also feel threatened by these capabilities and thus seek to demonstrate through their own aggressive actions that the United States should be cautious in dealing with them as well. This is the classic security dilemma (discussed in Chapter Two) in which efforts that each state makes to enhance its own security threaten the security of other states.[2] Given these competing theoretical possibilities, whether U.S. forces deployed overseas have tended primarily to deter potential aggressors or to threaten and provoke them is an important empirical question.

RAND has undertaken substantial earlier research on this question, including a 2017 report that lays the groundwork for the present report.[3] That study, relying on a series of statistical models, found an empirical association between U.S. forward troop presence and a reduced likelihood of certain types of interstate conflict. The findings were contingent, however, on the relative geographic location of the troops involved and the intensity of the conflict in question. Troops in the host country, or defender state, were associated with a net increase in the likelihood of low-intensity militarized disputes, while troops nearby but not in the country in question were associated with a net decrease in the likelihood of interstate war.[4] Although the study concentrated on finding overall empirical patterns rather than identifying specific causal pathways, the prevalence of lower-intensity disputes when U.S. forces are located in a targeted country could result from some combination of potential adversaries' (1) testing the extent of U.S. resolve and probing for indications of U.S. capabilities and responsiveness and (2) feeling a greater need to demonstrate their own resolve to defend themselves militarily.

---

[2] Robert Jervis, "Cooperation Under the Security Dilemma," *World Politics*, Vol. 30, No. 2, 1978.

[3] O'Mahony et al., 2017. The methodological approach this study took is discussed in greater detail later in this chapter and in Appendix A.

[4] *Low-intensity militarized disputes* include such actions as threats to use force and troop mobilizations, while *interstate war* refers to armed conflicts between states with more than 1,000 battlefield deaths per year. More details on the use of these metrics are included in the next section.

The 2017 RAND study made certain simplifying assumptions to facilitate statistical analysis. In particular, it considered only U.S. troop numbers, effectively assuming that potential adversaries would perceive troops operating strategic bombers or tank battalions to be as equally deterring or threatening as support personnel would be.

There is, however, evidence that suggests that different military capabilities are likely to not be perceived the same way by potential adversaries.[5] Capabilities that are more difficult to move in the event of a crisis, as well as those that are more expensive or rare, are generally believed to signal a greater U.S. commitment and have more-pronounced effects on adversary calculations than those that can be more easily withdrawn or replaced. Heavy ground forces, for example, would be considered more likely to have a deterrent effect than light forces, and both likely constitute a stronger signal of U.S. commitment than the deployment of highly transitory naval assets.

Taken together, the academic literature, including the 2017 RAND study, would therefore suggest the following four main hypotheses regarding the effects of U.S. forces on the incidence of interstate conflict:

- U.S. forces have a generally deterrent effect (once the conflict-proneness of the locations where the United States sends its forces is accounted for, and subject to the caveat in the fourth bullet).
- Less-mobile forces signal greater commitment (and thus provide a stronger deterrent) than more-mobile forces; thus, ground forces are expected to deter more effectively than air forces (specifically those that require land basing), which, in turn, are expected to deter more effectively than naval forces.
- Heavier forces generally have a greater deterrent effect than lighter forces.
- The three prior hypotheses are subject to an important caveat: In-country forces, particularly those with substantial offensive capa-

---

[5]   Blechman and Kaplan, 1978; Johnson, Mueller, and Taft, 2003.

bilities, are likely to prompt low-level disputes because of probing, friction, and signal-sending.[6]

In this report, we evaluate these hypotheses using a much more detailed measurement of U.S. overseas capabilities than has previously been available and identify which types of steady-state military capabilities have historically contributed the most to U.S. goals of deterrence and stability. To do so, we build on newly collected data on the overseas presence of different types of U.S. military forces.

Measuring U.S. Presence and Interstate Conflict

To understand the relationship between U.S. presence and interstate conflict, we first needed to develop reliable ways to measure each. As noted, the 2017 RAND study relied on a relatively straightforward measure of the presence of U.S. forces: numbers of troops stationed in different countries.[7] The Pentagon's Defense Manpower Data Center (DMDC) provides data on the number and service of military personnel stationed overseas since 1950.[8] While an invaluable resource, these military personnel numbers provide only a very rough approximation of U.S. combat capabilities and commitments that are likely to affect the calculations of other states. For example, some capabilities, such as strategic bombers, may require relatively few personnel but represent substantial potential combat power. To improve on this metric, we collected extensive annual data on the U.S. military units or hardware present in individual countries, breaking down U.S. capabilities into the following eight categories:

---

[6] *In-country forces* refers to those located directly in the country that may be the target of potential aggression. The precise operationalizations of this metric and the related *nearby forces*, a distance-weighted metric of forces in other countries, are discussed in the "Research Approach" section later in this chapter. An illustration of the differences between the two is included in Figure 3.6.

[7] O'Mahony et al., 2017.

[8] DMDC, "Historical Reports—Military Only (Aggregated Data, 1950–Current)," spreadsheet, Alexandria, Va., 2016.

- heavy ground forces, including armored, mechanized, artillery, and combat aviation units
- light ground forces, including light infantry, airborne, and some special forces units
- air defense artillery, counting only stand-alone units and not those embedded in larger light or heavy forces
- other ground forces, including support units, such as logistics and engineer units
- U.S. Air Force (USAF) fighter aircraft
- the presence of USAF bombers, noting countries hosting bombers, though not their numbers[9]
- other USAF personnel, including support staff, intelligence, and commands
- Navy carrier strike groups (CSGs), including their actual locations rather than their home ports.

These data were collected through extensive historical research, including at archives, such as the Air Force Historical Research Agency, and in combination with invaluable secondary sources, such as the International Institute of Strategic Studies (IISS)'s annual *Military Balance*.[10] All in all, we consulted dozens of sources on deployments dating back to 1946.[11]

---

[9] Other than assuming that the number of bombers present in the United States was higher than the number of bombers based elsewhere, our data do not identify the number of bombers present in locations where they were hosted. See Appendix A for more details on this limitation.

[10] Air Force Historical Research Agency, homepage, undated; IISS, *The Military Balance*, London, various years. Additional information on the data collection process is discussed in Appendix A.

[11] See, for example, W. Eugene Cobble, H. H. Gaffney, and Dmitry Gorenburg, *For the Record: All U.S. Forces' Responses to Situations, 1970–2000 (with Additions Covering 2000–2003)*, Alexandria, Va.: Center for Strategic Studies, May 2005; Harry R. Fletcher, *Air Force Bases*, Vol. 2: *Air Bases Outside the United States of America*, Washington, D.C.: Center for Air Force History, U.S. Air Force, 1993; and Adam B. Siegel, *The Use of Naval Forces in the Post-War Era: U.S. Navy and U.S. Marine Corps Crisis Response Activity, 1946–1990*, Arlington, Va.: Center for Naval Analyses, February 1991. In Appendix A, we identify more of the sources consulted.

As shown in Figure 3.1, major U.S. military capabilities, such as combat ground forces and USAF fighters (excluding those actively engaged in combat operations), were much more prevalent overseas during the Cold War, although they remain deployed overseas in substantial numbers today.

Regionally, major U.S. capabilities not involved in combat operations have historically been heavily concentrated in Europe and in East and Southeast Asia, as shown in Figure 3.2.

From 1955 to 2014, heavy ground forces largely resided in Europe, while light forces were largely deployed to East and Southeast Asia. The reason for this divergence is at least partly geographic: Islands, such as Japan and Taiwan, a more natural fit for lighter, more easily transportable forces. It is worth noting, though, that through the 1950s, most

Figure 3.1
Number of Selected U.S. Forces Overseas Not Engaged in Combat, 1955–2014
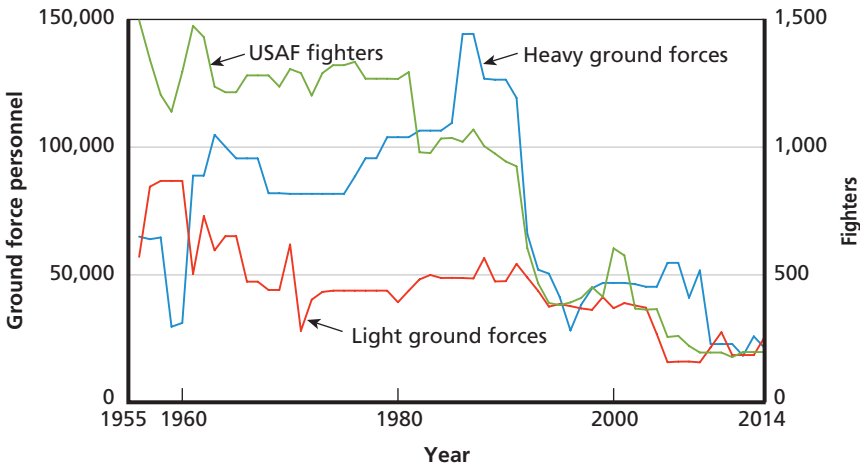
SOURCE: To create this figure, the authors consulted dozens of sources on U.S. military deployments across all services dating back to 1946. These include publicly available U.S. government sources, such as official DMDC statistics and historical information from the U.S. Army Center of Military History and the Air Force Historical Research Agency, as well as numerous nongovernmental sources, such as IISS's *Military Balance*. (Footnotes in this chapter and Appendix A identify several specific sources.) The authors assessed and integrated hundreds of pieces of data from these various sources to arrive at the estimates presented in this figure.

RAND *RR2533-3.1*

Figure 3.2
Regional Concentration of Selected Types of U.S. Forces Overseas,
1955–2014
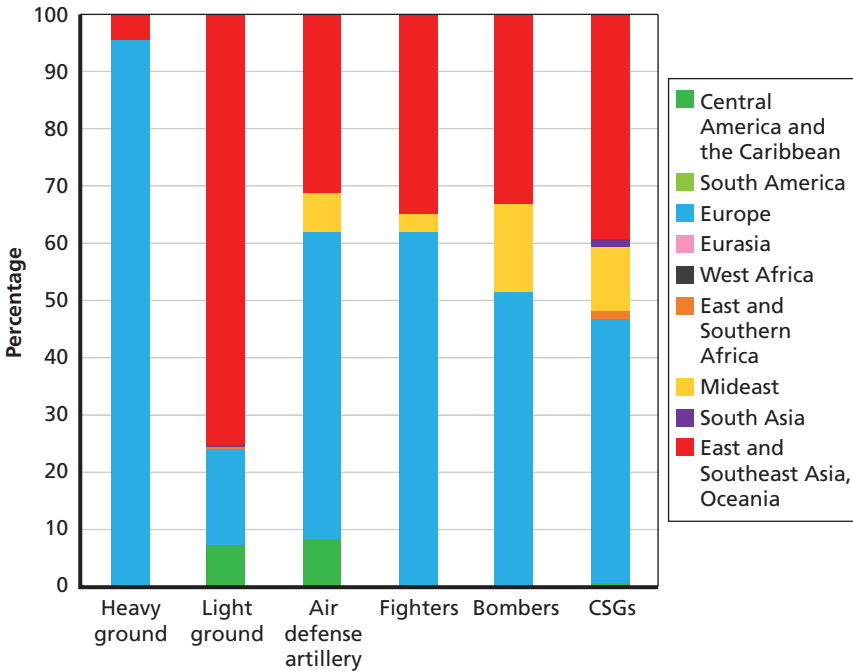
SOURCE: Author analysis of data compiled for this study, as described in Figure 3.1.
NOTE: This figure was generated by taking the size of U.S. forces of different types in
each region and dividing each by the total size of U.S. forces of that type located
outside the United States. That is, the figure is intended to show which regions have
historically hosted the greatest concentration of different types of U.S. forces. As an
exception, the bombers bar shows the number of location-years where bombers were
present overseas rather than the number of total bombers.
RAND *RR2533-3.2*

U.S. ground forces in Europe were light, shifting over to heavy forces
only in the early 1960s. The dispersion of these forces within regions
has also varied. For example, in 1985, heavy ground forces in Europe
were found in West Germany, Italy, Greece, and Turkey, but by 2005,
such forces in Europe resided only in Germany.

Other capabilities have also been concentrated primarily in
Europe and secondarily in East and Southeast Asia, although the gap

between the two is not as pronounced as it is with heavy and light ground forces. The Mideast has also been host to substantial air and naval assets, and Central America and the Caribbean have hosted light ground and air defense capabilities, primarily in Panama. Although other regions, such as sub-Saharan Africa, South America, and South Asia, have been host to limited or occasional U.S. capabilities, these instances have been comparatively rare. U.S. deployments to these regions, when they have occurred, have primarily been to pursue combat operations, such as the interventions in Afghanistan or Somalia (which are excluded from these figures, as noted later).

We also faced an important challenge in measuring the incidence of interstate conflict. Large-scale interstate wars involving substantial numbers of deaths have fortunately been comparatively rare in the post-1945 era, but this rarity also creates an analytical challenge, hamstringing efforts to statistically investigate the factors that may encourage or inhibit these conflicts.[12] To address this issue, we measure not just the incidence of interstate wars but also lower levels of conflict that have been more frequent. To do so, we rely (as did the previous RAND effort) on data on militarized interstate disputes (MIDs).[13] MIDs incorporate widely varying intensities of interstate conflict, from interstate wars in which thousands may die to lower-intensity, nonviolent disputes that may involve only troop mobilizations or threats to use force. Figure 3.3 summarizes the different intensity levels used in the MID data, as well as the number of observations (dyad-years; that is, the number of years that a pair of states were in conflict) in each category among the cases we investigated.[14]

---

[12] Statistical investigations require a certain degree of variation on the variable being studied. If nearly all states with all different characteristics were not involved in interstate wars, then it is difficult to learn about the specific factors that promoted this widespread peace.

[13] Glenn Palmer, Vito d'Orazio, Michael Kenwick, and Matthew Lane, "The MID4 Dataset, 2002–2010: Procedures, Coding Rules and Description," *Conflict Management and Peace Science*, Vol. 32, No. 2, 2015.

[14] Specifically, these are directed dyad-years, with one observation if State X initiated a dispute directed at State Y, and another observation if State Y initiated a dispute directed at State X.

Figure 3.3
Militarized Interstate Dispute Intensity Levels

	Highest Hostility Level	Examples	Dyad-Years Observed
High intensity	War	2003: U.S.-led invasion of Iraq	146
	Use of force	2008: Border clashes between India and Pakistan following Mumbai terrorist attacks	1,280
Low intensity	Display of force	2004: U.S. deployment of new air defense batteries to the Korean DMZ	557
	Threat of force	2005: Taiwanese threats to board a Chinese surveillance ship that is in Taiwan's territorial waters	73

SOURCE: Author analysis of Palmer et al., 2015.
NOTE: DMZ = Demilitarized Zone.
RAND *RR2533-3.3*

Both higher- and lower-intensity MIDs have been relatively common throughout the post-1945 era, as shown in Figure 3.4. Interstate wars are an exception; they did not occur at all from 2003 to 2010 (the endpoint of the MID data) and were infrequent in certain earlier periods, such as the late 1950s.

Geographically, MIDs have been present across regions, making it unlikely that any single pair or group of states would unduly influence our results. MIDs have nonetheless been notably more common in some regions, including East and Southeast Asia, the Mideast, and Europe, than in others, as shown in Figure 3.5.

Although these data are only at the regional level, a comparison of Figures 3.2 and 3.5 still suggests some patterns that will be important to recall as we discuss our final results. In particular, MIDs have historically been most common in East and Southeast Asia, the Mideast, and Europe. These regions have also been host to high concentrations of U.S. light ground forces, U.S. air and naval assets, and U.S. heavy ground forces, respectively. On one level, this is to be expected; the United States deploys forces to areas at greater risk of interstate conflict

Figure 3.4
Militarized Interstate Disputes, by Intensity Level, 1946–2010
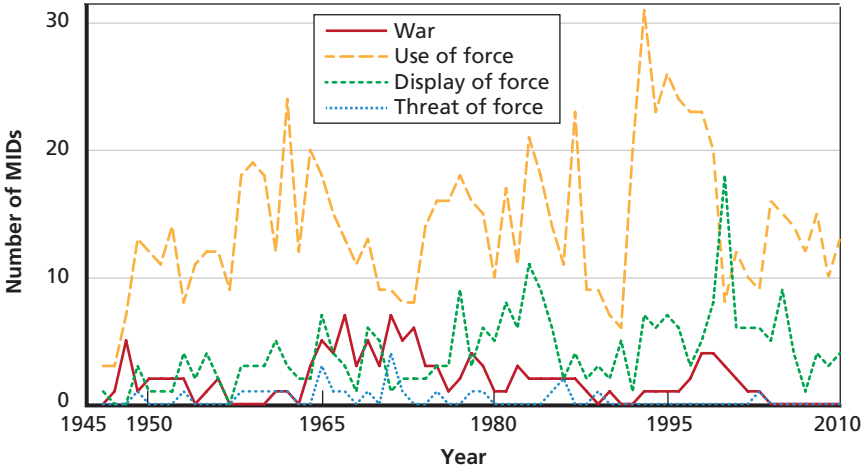
SOURCE: Author analysis of Palmer et al., 2015.
RAND *RR2533-3.4*

Figure 3.5
Militarized Interstate Disputes, by Region, 1946–2010
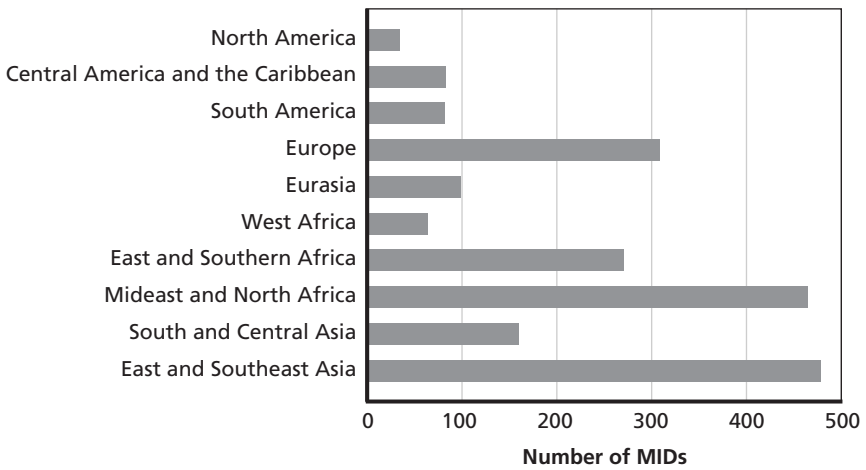
SOURCE: Author analysis of Palmer et al., 2015.
RAND *RR2533-3.5*

at least, in part, precisely to try to prevent such conflicts. This over-all positive geographic association between U.S. forces and conflict, however, underlines the difficulty of properly isolating any potential deterrent effects that U.S. forces may have. If the United States deploys forces to regions at high risk of conflict, then it may look like U.S. forces are causing the conflicts when, in fact, it was the risk of conflict that caused U.S. forces to be deployed. That is, the causality of the relationship may be the opposite of what we seek to test in our analysis. The following section describes our approach for dealing with this and related challenges.

Research Approach

Assessing the effects that forward-deployed U.S. forces have on the incidence of conflict requires untangling several complex relation-ships. U.S. forces are often deployed specifically to engage in conflict, such as in Vietnam or Iraq, or to locations where the risk of conflict is perceived to be high and deterrence is in need of strengthening, such as in West Germany or South Korea. As a result, one would expect U.S. force presence to be highly correlated with conflict, although this would not suggest any causal effect attributable to the forces them-selves. Furthermore, the effects of U.S. forces on the likelihood of con-flict between two states are likely to be affected by the relationship that each state has with the United States, as well as the resulting expectations that each state has regarding the potential for U.S. inter-vention in its conflict. The effect of U.S. forces may also have changed over time, affecting the behavior of states differently during the Cold War than after; that is, the presence of a peer competitor in the Soviet Union may have altered perceptions of U.S. willingness to get involved in certain conflicts.

The rich history of persistent U.S. overseas military presence since 1945 provides an opportunity to disentangle some of these relationships and to better understand, in a typical or average case, what the overall effect of U.S. forces on the likelihood of conflict has been. Analyzing these historical patterns will allow us to better understand whether,

and under what circumstances, U.S. forces contribute to deterrence or whether and when they tend to threaten potential adversaries and provoke hostile action—the trade-off often at the heart of U.S. forward posture decisions.

To take full advantage of the lengthy record of post-1945 U.S. overseas deployments, we relied on statistical models to assess the relationship between U.S. forces and the likelihood of conflict. In doing so, we built on a modeling approach developed in the previously mentioned 2017 RAND study for the U.S. Army.[15] These models have several key characteristics designed to help isolate the effects of steady-state U.S. forces on the incidence of conflict and avoid the potentially entangling relationships noted earlier. Those characteristics are as follows:

- *Assess state pairs with potential for conflict.* The models incorporate annual observations of pairs of states with the realistic potential to come into conflict with one another.[16] Furthermore, the models account for the direction of any potential hostility. For example, they consider both the possibility that North Korea may initiate hostilities against South Korea in a given year and the possibility that South Korea may do the same against North Korea in that same year.[17]
- *Exclude U.S. forces already engaged in combat.* U.S. forces directly engaged in hostilities in the year in question, such as those in Vietnam in the late 1960s or in Iraq in the mid-2000s, were excluded from our model. Because these forces were sent to these locations specifically to fight a conflict, including these forces would have

---

[15] O'Mahony et al., 2017.

[16] We assume that all states are physically able to fight with their neighbors and that great and regional powers are able to fight with other states as well, ranging from all states in their home region to all states in the world, in the case of the United States. For a similar approach common in the literature, see Douglas Lemke and William Reed, "The Relevance of Politically Relevant Dyads," *Journal of Conflict Resolution*, Vol. 45, No. 1, 2001.

[17] That is, the models include directional dyad-years between militarily-relevant dyads.

made disentangling the relationship between their presence and the incidence of conflict quite difficult.[18]

- *Incorporate a one-year lag of U.S. force presence.* To assess the likelihood of a conflict in a given year, the models consider the presence of U.S. forces in the previous year. This further allows the models to avoid instances in which the United States sends forces to a country or region specifically in anticipation of a potential conflict and to instead focus on steady-state, or long-term, force presence.

- *Include substantive control variables.* The models incorporated two main sets of control variables to capture factors that may have been correlated with the likelihood of conflict and the likelihood of U.S. troops being present in the country.[19] The first set of variables related to the underlying risk of conflict between each pair of states and included the balance of capabilities, the presence of a territorial dispute, and the presence of a military alliance. The second set related to the nature of the relationship between the United States and the potential targeted state, including whether it had an alliance with the United States, the extent of U.S. military assistance, and the overall global level of U.S. military personnel in the year in question.

- *Incorporate the relative location of U.S. forces.* The models distinguish between forces that are directly in the target or defender state (hereafter "in-country") and those elsewhere, with their strength discounted depending on their distance from the target country (hereafter "nearby"). Forces closer to a potential adver-

---

[18] We excluded all forces in a country in which the United States was engaged in combat operations, regardless of the actual activities being performed by those forces. We further excluded naval and air forces directly participating in combat operations from other locations, provided that they were moved to those countries specifically for the purpose of engaging in combat. Forces that were part of a long-term presence that may also have participated in combat operations were not excluded. So, for example, U.S. carriers (and the aircraft they carried) deployed off the coast of Vietnam to participate in the conflict there were excluded, but any aircraft based in Japan that may have participated would not have been excluded.

[19] A full list of these variables, and how each was operationalized, is included in Appendix A.

sary would likely have different deterrent and threatening effects than those located farther away.[20]

With these factors accounted for, these models then assessed the likelihood that a given State A (the aggressor) would initiate hostilities against a given State B (the defender), dependent on the U.S. forces present in and nearby State B. Figure 3.6 illustrates the observations that make up these models.

The five characteristics of the statistical models roughly describe our "baseline" statistical models—that is, our least complex attempt to evaluate how U.S. troop presence affects the likelihood of interstate conflict. To gauge the robustness of results from these models, we also investigated alternative specifications across two main dimensions.[21] We considered models that restrict both the types of states that could be considered as possible aggressors to be deterred or threatened by

Figure 3.6
Hypothetical Illustration of the Relationship Among States in the Statistical Models
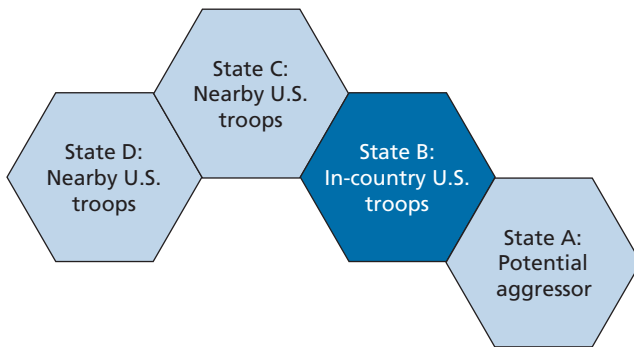
RAND *RR2533-3.6*

---

[20] Full details on how we applied the loss of strength gradient to discount forces farther away from the target country are included in Appendix A. Of note, we made different assumptions regarding the rate at which capabilities would degrade over distance for each different capability; for example, the effect of heavy ground forces declined much more rapidly over distance than that of fighters or bombers.

[21] See Appendix A for complete discussion of these different models.

U.S. forces (State A, in Figure 3.6) and the types of states that could be potential targets to be defended (State B, in Figure 3.6).[22] We also considered models that explored different aspects of U.S. troop presence, including models that incorporate "tripwire" measurements of U.S. forces and those that consider the effects of troop withdrawals.[23] Results from all of these models were considered together when determining our level of confidence in potential relationships between different types of U.S. capabilities and interstate conflict.

Results of Statistical Models

The overall results of our statistical analyses largely confirm our prior hypotheses, with a few important differences. In reviewing our results, it is important to first keep in mind two features of the statistical models that produced them. First, these findings represent average effects across the world over the past six decades. It is likely, indeed probable, that U.S. forces have had different effects from those presented in this section at different places and different times, depending on local context. Second, as discussed earlier, U.S. forces are likely to simultaneously deter and threaten potential adversaries. Although our findings reflect the net effect of different U.S. forces, both dynamics are likely always in operation.

These important notes aside, Table 3.1 summarizes the results of our statistical models for the effects of nearby, but not in-country, U.S. forces, as distinguished in Figure 3.6. In-country results are discussed in Table 3.2. Cells marked in green indicate that the particular type

---

[22] These models include restrictions of potential targets to those with whom the United States had provided a formal security guarantee and of potential adversaries to those states most dissimilar from the United States in their alliance networks.

[23] Tripwire models consider all deployments of a given capability over a certain minimum size threshold to be the same. That is, they treat the presence of 100,000 light personnel the same as 10,000 personnel and 1,000 fighter aircraft the same as 50. They are therefore intended to look at the effects of U.S. forces above a minimum threshold regardless of size. Withdrawal models consider the percentage change in U.S. capabilities from two years before the observation year to one year before the observation year.

of U.S. force overall has a deterrent effect (i.e., fewer MIDs), and cells marked in red indicate that the forces, on balance, have an escalatory, or threatening, effect (i.e., more MIDs). The shading in the cells indicates the extent of our confidence in the results. Darker colors represent greater confidence in our findings, resulting from a consistent pattern of results across multiple different model specifications and even after efforts to account for the idiosyncratic effects of certain outlier cases. Lighter shades, in contrast, represent lower levels of confidence. In these cases, particular countries or regions might be playing an outsized role in the overall relationship, or certain model specifications might produce somewhat different results. Tables 3.1 and 3.2 provide results for three types of MIDs, reflecting the categories summarized earlier in Figure 3.3. While our primary analysis focuses on the distinction between low-intensity and high-intensity MIDs, we also, where

Table 3.1
Summary of Statistical Results for Nearby U.S. Forces

Type of Forces	Type of Conflict		
	Low-Intensity	High-Intensity	War
Heavy ground		██	██
Light ground	░░		
Air defense artillery	██	▒▒	
USAF fighters	▒▒	▓▓	░░
USAF bombers	░░	░░	
Navy CSGs			░░

■ ■ Strongest evidence of a deterrent or threatening effect; most-reliable performance across models, and the examination of influential cases supports the finding.

■ ■ Moderate evidence of a deterrent or threatening effect; good performance in some models, but there are reasons for caution, or influential cases do not support the finding.

■ ■ Limited evidence of a deterrent or threatening effect; based only on isolated models, and examination of influential cases suggests the finding is likely just coincidence.

possible, conducted analyses looking specifically at the incidence of war, given the greater substantive importance of this event.

Several nearby U.S. capabilities are associated with a net deterrent effect at higher MID intensity levels, but the clearest evidence for such an effect is with heavy ground forces. This finding is roughly in keeping with prior expectations. Heavy ground forces, being expensive and difficult to move, represent a notable commitment by the United States, as well as substantial combat power. Nearby stand-alone air defense forces are also associated with relatively clear deterrent effects, particularly at lower intensity levels. By contrast, we found little or no evidence of clear effects from light ground or naval forces. This was expected in the case of naval forces, which are highly mobile, and whose presence in a prior year might be expected to have minimal deterrent or threatening effects, but somewhat unexpected in the case of light ground forces, which were assessed to have dramatically less certain effects than heavy ground forces, or even air forces under most circumstances. While light forces are of course more mobile and less expensive than heavy ground forces, we might still have expected them to be associated with a clearer deterrent effect than air or naval forces.

Nearby U.S. air forces had the most-complex results. We found only slight evidence of a clear effect from nearby bombers. This could be because other states do not attach additional weight to the nearby presence of U.S. bombers, given the ability of bombers based at great distances to execute many missions using aerial refueling or other efforts, or it could be that bombers tend to have roughly similarly sized deterring and threatening effects, which our model cannot disentangle. It could also be that our inability to acquire accurate data on the size of U.S. bomber deployments, rather than just their locations, handicaps our ability to isolate this relationship.

USAF fighters, meanwhile, are associated with moderately clear deterrent effects for low-intensity MIDs, as well as moderately clear threatening or escalatory effects for high-intensity MIDs, although this does not extend to full-scale interstate war. We would instead have expected the opposite pattern (increasing low-intensity MIDs but decreasing high-intensity MIDs) from the prior literature. This finding could suggest that nearby USAF fighters, and the combat power

that they increasingly represent, effectively raise the stakes for potential adversaries. That is, the fighters discourage low-intensity disputes that might be undertaken more casually but also substantially threaten states and encouraging them to engage in riskier behaviors to signal their resolve in the face of a greater perceived potential for U.S. aggression.[24] The forward presence of fighters is associated with a reduced likelihood of war in a limited number of models, although we assess that, in general, the evidence for the relationship is relatively weak.

Overall, the presence of U.S. forces in nearby countries tends to be associated with a deterrent effect, with the clearest such evidence for heavier, less-mobile forces. In only three of the cells in Table 3.1 were nearby U.S. forces associated with an escalatory effect, and these results were relatively less robust (that is, more dependent on model specification or the effects of only a handful of outlier cases to become statistically significant).[25] While the clearest effects we observed from nearby U.S. forces were generally deterring, or conflict-reducing, in nature, this did not extend to U.S. in-country forces. As discussed previously, we expect in-country forces to be associated with more low-level disputes, as potential adversaries probe for information on U.S. commitment and military capabilities and try to demonstrate their own resolve and capabilities to the United States and its allies. We expect these effects to be most pronounced among forces with substantial offensive capabilities and much less pronounced (or nonexistent) among forces that are more defensive in nature. Air defense assets may represent such

---

[24] It is also possible, however, that the extreme mobility of air forces makes calculating an appropriate loss of strength gradient for them quite difficult and that our model results for air forces are therefore unreliable. Appendix A discusses our efforts to deal with this challenge.

[25] As a further point of interpretation, findings related to nearby forces should be relatively more robust to outlier observations or individual cases than those related to in-country forces. Although there are a relatively limited number of states that host substantial numbers of U.S. forces, all states have varying degrees of nearby U.S. forces, adjusted by the relevant loss of strength gradient, meaning that high concentrations of MIDs in a single dyad, for example, should have less effect on the overall model. Out of an abundance of caution, we also investigated each of our findings for potentially influential single observations or states, as discussed in Appendix A. The results presented here take these potential issues into account.

defensive capabilities in many circumstances, although the extent to which they present a threat will differ depending on context.

Table 3.2 summarizes our findings on the effects of in-country U.S. forces. Again, colors are used to indicate the direction of the relationship (green represents deterrent effects, red represents escalatory effects, and empty cells represent no statistically significant relationship), and shading is used to indicate the degree of confidence in our results (darker shades represent more-robust results). As can be seen from the table, our results are generally consistent with our initial expectations. In-country forces with substantial offensive potential do indeed seem to be associated with low-intensity hostilities, although this effect did not extend to more-defensive air defense assets. Results at higher intensity levels were more surprising.

When analyzing in-country forces, heavy ground forces were again associated with a clear deterring effect for high-intensity MIDs, but they were also associated with a weaker threatening or escalatory effect for low-intensity MIDs. This pattern is consistent with the lit-

Table 3.2
Summary of Statistical Results for In-Country U.S. Forces

Type of Forces	Type of Conflict		
	Low-Intensity	High-Intensity	War
Heavy ground	(limited threatening)	(strongest deterrent)	
Light ground	(strongest threatening)	(moderate threatening)	
Air defense artillery	(strongest deterrent)		
USAF fighters			

■ (green)	■ (red)	Strongest evidence of a deterrent or threatening effect; most-reliable performance across models, and the examination of influential cases supports the finding.
■ (light green)	■ (light red)	Moderate evidence of a deterrent or threatening effect; good performance in some models, but there are reasons for caution, or influential cases do not support the finding.
■ (pale green)	■ (pale red)	Limited evidence of a deterrent or threatening effect; based only on isolated models, and examination of influential cases suggests the finding is likely just coincidence.

erature and our prior hypotheses. In-country stand-alone air defense forces were, by contrast, associated with a clear deterring effect on low-intensity MIDs but had no clear effect on MIDs of higher intensity. In-country light ground forces, meanwhile, were associated with relatively clear threatening or escalatory effects, particularly for low-intensity MIDs but also for high-intensity MIDs. That in-country light ground forces should be more threatening or escalatory than heavy ground forces seems surprising, although it is important to remember the caveats regarding net effects noted at the beginning of this section. It may be that both in-country heavy ground forces and in-country light ground forces are escalatory or threatening to a relatively similar degree but that light forces fail to provide the same type of deterrent value as heavy forces do to shift their net effect on the likelihood of conflict. It might also be that light forces are more threatening than heavy forces to some adversaries precisely because of their greater mobility, potentially providing adversaries with less warning time before they are moved and sent into combat in unexpected locations, where, despite their more limited combat power, they could be backed by formidable U.S. air and long-range strike capabilities.

We did not find consistent effects associated with air and naval in-country forces. Bombers have historically been located overseas only in a handful of countries, making assessments of their in-country effects difficult, and in-country naval forces were excluded by definition, because they were assumed to always be operating offshore. The effects of in-country fighters were assessed, but we found no consistent relationships. This was generally unsurprising given the high mobility of air forces and the potential in a conflict for such forces to be quickly rebased farther from the front lines.

Analysis and Implications

Three sets of results stand out from our findings for their substantive importance and potential implications for the Army. The first of these is the effect of heavy ground forces. Alone among the capabilities we investigated, heavy ground forces were clearly associated with a reduced

likelihood of high-intensity MIDs, whether in-country or nearby. Furthermore, nearby heavy ground forces were associated with a reduced likelihood of interstate war, the only capability we found to have such a relationship. The apparent size of the effect of heavy ground troops is also relatively substantial, as can be seen in Figure 3.7.

This figure shows the probability of high-intensity MIDs between states, given different concentrations of nearby heavy ground troops, holding other factors constant. Although high-intensity MIDs are relatively rare to begin with, occurring in roughly 3 percent of cases in our data, substantial numbers of nearby heavy ground troops are associated with notable reductions in the risk of such MIDs, by roughly half with the effective presence of approximately 100,000 heavy ground troops. This represents a substantial number of forces, but even the more modest reductions associated with 10,000 or 20,000 heavy ground

Figure 3.7
Marginal Effects of Nearby Heavy Ground Forces
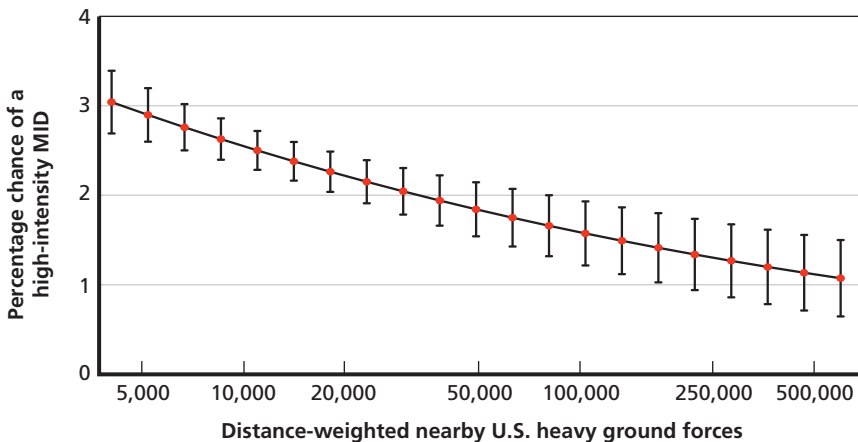
SOURCE: Author analysis of Palmer et al., 2015, and data compiled for this study, as described in Figure 3.1.
NOTE: Vertical lines represent the 90-percent confidence interval around the point estimates. This figure is derived from our baseline models.
RAND RR2533-3.7

troops are notable in percentage terms.[26] Stand-alone air defense forces were associated with the next-most consistent deterring effects, whether nearby or in-country, although these effects were generally confined to low-intensity MIDs.[27]

Our results therefore provide substantial evidence that heavy ground forces, on average, may help deter potential adversaries and reduce the likelihood of interstate conflict. Although this finding is important, it is also accompanied by important caveats. These statistical results reflect overall relationships, so increasing heavy ground forces around a specific potential adversary at a specific time and place would not necessarily be expected to experience the same increase in conflict reduction. Furthermore, although the statistical models include large numbers of observations, this finding is ultimately heavily influenced by the case of Cold War Europe and the massive U.S. forward-deployed heavy ground forces there.[28] Although this is a rightly influential case for our models, it is still rooted in certain historical factors that may have enhanced U.S. deterrence regardless of the heavy ground force presence but that our statistical models may do an inadequate job of capturing.[29] Further research is required to properly assess whether

---

[26] In-country heavy ground forces were also associated with an increase in low-intensity MIDs, although many of these involved the complex case of U.S. forces deployed to Kosovo before its independence from Serbia, as well as subsequent MIDs between Serbia and several NATO members.

[27] Air defense forces could therefore form a natural pairing with heavy ground forces, if each is more effective at deterring different intensity levels of conflict. However, it should be noted that this pairing and any interactive effects between the two types of forces has not been tested explicitly in our models.

[28] In robustness checks we performed (see Table A.12), the deterring effect of in-country heavy ground forces was found to be driven largely by the U.S. Cold War presence in West Germany, while the deterring effect of nearby heavy ground forces was more widespread, at least for higher-intensity conflict. We have taken these results into account when describing our findings, but we emphasize them here to provide additional context and underline the contingent nature of particularly the results related to in-country heavy forces.

[29] For example, although our models reflect the treaty alliances between the United States and NATO members, and some models account for the nuclear status of the United Kingdom and France, our models may not fully capture the centrality of Western Europe for U.S. Cold War strategy that made it credible, or indeed plausible, that the United States would in fact "trade New York for Paris." See John F. Kennedy and Charles de Gaulle, "'30. Memo-

particular theaters of interest to policymakers are likely to see their risk of conflict reduced by introducing heavy ground forces. The findings to this point should be considered a useful baseline, but they must be considered in light of each specific context.

The second main finding of interest has to do with the apparent association between in-country light ground forces and the likelihood of MIDs, particularly those of low intensity. Although nearby light ground forces also had some association with low-intensity MIDs, this effect was relatively inconsistent. The apparent size of the in-country light ground forces' effect on the likelihood of low-intensity MIDs can be seen in Figure 3.8.

Figure 3.8
Marginal Effects of In-Country Light Ground Forces
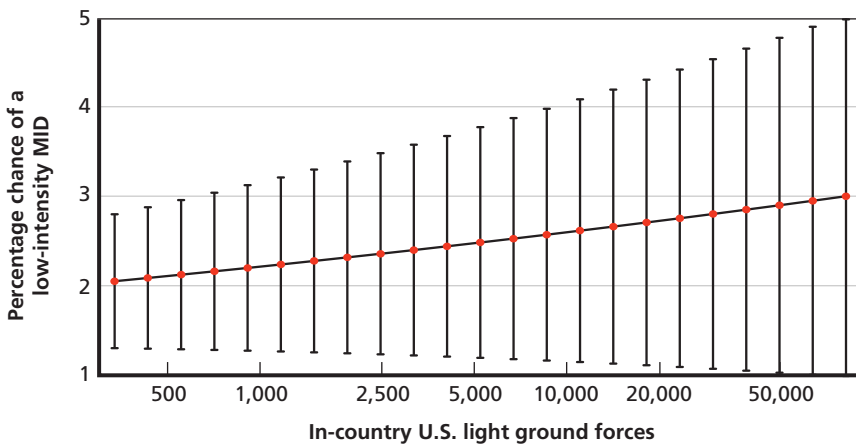
SOURCE: Author analysis of Palmer et al., 2015, and data compiled for this study, as described in Figure 3.1.
NOTE: Vertical lines represent the 90-percent confidence interval around the point estimates. This figure is derived from our baseline models.
RAND *RR2533-3.8*

randum of Conversation,' Paris, May 31, 1961, 12:30 p.m.," in Charles S. Sampson and Glenn W. LaFantasie, eds., *Foreign Relations of the United States, 1961–1963*, Vol. 14: *Berlin Crisis, 1961–1962*, Washington, D.C.: U.S. Department of State, Office of the Historian, 1993.

The figure shows that the overall effect of light ground forces is statistically significant, but the chart also highlights that the effect does not appear to be as robust as that shown in Figure 3.7 for nearby heavy ground forces. The confidence intervals associated with small numbers of light ground forces in the hundreds and more-substantial numbers in the tens of thousands are overlapping, suggesting that smaller and larger numbers of such forces may produce no clear difference in the likelihood of low-intensity MIDs. Because the model overall still suggests a statistically significant effect, that effect appears to be driven by isolated outlier cases. In fact, our further investigations revealed that this result is driven almost entirely by a single case with large numbers of in-country light ground forces and a high frequency of being targeted by low-intensity MIDs: Japan.

The United States has maintained large numbers of light ground forces in Japan since 1945, except for a modest drawdown at the height of the Vietnam War. At the same time, Japan has been one of the most frequent targets of MIDs in the international system, initiated primarily by North Korea and the Soviet Union or Russia. The case of Japan drives the association in our models between in-country light ground forces and MIDs, primarily of low intensity. It is nonetheless difficult to assess the extent to which this relationship might be generalizable to other contexts. For example, if the United States had placed heavy ground forces in Japan, even in Okinawa (far south of the Japanese main islands), would potential adversaries (such as the Soviet Union) have perceived the U.S. commitment to the defense of Japan or the intent to undertake aggressive actions against the Soviet Union differently? It is possible. Committing heavy ground forces to an island location from which they could not be quickly relocated would certainly send a strong signal of commitment, and their lack of mobility would also make these forces more difficult to employ in a quick strike against Soviet territory, potentially reducing the threat they appeared to pose. But this remains, in effect, a single case—and one with an unusual set of geographic factors not found in many other circumstances. The findings associated with light forces are cautionary, but they also should be considered limited in their generalizability.

The third main finding from our results is a primarily negative one: the relative lack of a relationship between air and naval forces and the likelihood of conflict. We found no consistent relationship between in-country air forces and the incidence of conflict. Nearby naval forces were also not generally associated with any clear deterring or threatening effect.[30] The high mobility of these forces makes it perhaps unsurprising that measuring their presence in the year before a potential conflict may not identify clear relationships. Their effects may be more salient for shorter-term, crisis situations, which are discussed in the next chapter.

Nearby air forces, meanwhile, were associated with some generally deterring effects, as well as with some more-contradictory results. Nearby bombers were associated with a lower likelihood of MIDs in most of our baseline models, but in other robustness checks, such bombers had no apparent effect or were associated with an increase in high-intensity MIDs. Nearby fighters, meanwhile, were associated with a reduced likelihood of MIDs, and even interstate war, in some models; yet, in other models, these fighters appeared to have the opposite effect.

The inconsistent effects of nearby air forces could suggest that they have potentially strong effects but that these effects are highly context-dependent—that is, more prone to shifting with the inclusion or exclusion of limited numbers of cases. These effects could also, however, reflect limitations in our modeling strategy. Determining how to discount the effects of aircraft by distance when they can fly around the world in a matter of hours, with aerial refueling assistance, is a tricky proposition. Our approach to this challenge is discussed in greater detail in Appendix A. It may be, however, that assessing the effects of nearby air forces requires a more fundamentally different modeling strategy. Regardless, the potential effects of air forces on the likelihood of conflict remains an area for further study, given the sometimes contradictory evidence we have identified.

---

[30] The limited association seen between nearby CSGs and interstate war appears to be driven by coincidental cases, such as U.S. carriers near China in 1961–1962 associated with the war between India and China in the Himalayas at that time.

Crisis Deterrence

As discussed in Chapter Two, the United States can attempt to compensate for a lack of (or inadequate) forward posture by surging forces forward at a time of crisis. Because such crisis deployments are a highly visible reaction to a very specific threat, they might be particularly effective in demonstrating the United States' resolve and regaining extended deterrence against an adversary threatening a U.S. partner. On the other hand, the rapid influx of U.S. forces to a theater of operations might be perceived as threatening or inflammatory by U.S. adversaries, especially in a moment of crisis when there is little time for diplomacy and when decisionmakers are operating under considerable stress. Crisis deployments, in other words, might either deter further escalation of crises or touch off the very conflict that the United States sought to deter.

In this chapter, we describe the basic elements of our research approach and the analyses used to examine the effects of U.S. military crisis deployments on the escalation and outcome of international crises. We begin the chapter by discussing the collection of interstate crises examined in our analyses, as well as how we measure the concepts of crisis escalation and outcome. Second, we discuss definitions and data for U.S. crisis deployments. We then discuss the effects of U.S. crisis deployments on the escalation dynamics of international crises, as well as the effects of U.S. crisis deployments on the bargaining dynamics and outcomes of interstate crises. We primarily examine whether U.S. crisis deployments deter adversary states from escalating crises with U.S. partners and whether U.S. partner states fare better in the outcomes of crises following U.S. involvement.

To establish broad trends, we conducted a statistical analysis of all international crises in which the United States was involved since the end of World War II. Because the number of cases involving U.S. crisis deployments is relatively small, we can use only simple statistical procedures to examine the deployments' impact on crisis dynamics. Although these data limitations reduce the degree of inference that we can draw from our findings relative to what we could achieve through more-sophisticated statistical techniques, the trends are nonetheless remarkably consistent. To help compensate for the limitations of the statistical analysis, we provide a brief, qualitative discussion of selected crises at the end of this chapter, as well as more in-depth discussions of two cases in Chapters Five and Six.

This discussion was written for a general audience; readers interested in the more technical details of our analyses, as well as in additional analyses not presented here, should consult Appendix B.

Research Approach and Data Measurement

International Crisis Escalation and Outcome

Our analyses examine the effects of U.S. crisis deployments on international crises since World War II. Our information on international crises comes from the International Crisis Behavior (ICB) project, which records information on all political and military crises in the international system.[1] While the ICB project includes crises both within and between states, we limit our analyses to crises that involve at least two states and, furthermore, to crises that occur outside of an ongoing war.[2] By excluding intrastate and intrawar crises, we found 259 crises between states since World War II.

---

[1]   Michael Brecher and Jonathan Wilkenfeld, *A Study in Crisis*, Ann Arbor, Mich.: University of Michigan Press, 2000. For updated data, see Michael Brecher, Jonathan Wilkenfeld, Kyle Beardsley, Patrick James, and David Quinn, *International Crisis Behavior Data Codebook*, Version 12, 2017.

[2]   Because we were conceptually interested in extended immediate deterrence, we further excluded crises in which the United States was the sole actor on one side of a crisis. On the

The following three conditions must be met for an international incident to be considered an international crisis in the ICB data:

1. A state must perceive a threat to at least one of its basic values.
2. The affected states' decisions related to an incident must be made within a finite period.
3. There must be a heightened risk of military hostilities related to the incident.[3]

That is, all international crises involve some challenge or threat to states, as well as some inherent risk of escalation. The inclusion of this latter condition makes the ICB data particularly well-suited for our analyses of crisis escalation; furthermore, the data are openly accessible, widely used and accepted in the academic and policy communities, and transparently constructed.

We examine the relationship between U.S. crisis deployments and two separate outcomes: (1) whether a crisis escalated and (2) whether states supported militarily by the United States were able to achieve an acceptable outcome at the end of a crisis. An interstate crisis is considered to have escalated if it resulted in all-out war between the crisis participants or reached the level of "serious clashes" short of war involving major exchanges of violence between states, such as in the first Taiwan Straits crisis in 1954 or the Mayaguez Incident in 1975.[4] Bargaining outcomes are considered to be acceptable if the targeted state either achieved outright victory over its opponent in the crisis or at least reached a negotiated settlement and was satisfied with the terms of the agreement.[5]

---

rationale for this decision, see J. Joseph Hewitt, "Dyadic Processes and International Crises," *Journal of Conflict Resolution*, Vol. 47, No. 5, 2003.

[3]   Brecher and Wilkenfeld, 2000.

[4]   In Appendix B, we provide further analyses of the effects of U.S. crisis deployments exclusively on the escalation of crises to full-scale war.

[5]   In Appendix B, we provide further analyses of the effects of U.S. crisis deployments exclusively on whether targeted states achieved outright victory over challenger states to end a crisis.

Definitions and Data for U.S. Crisis Deployments

Broadly, we define a *crisis deployment* as the nonroutine deployment of U.S. military forces to a crisis zone in support of partner states targeted by international aggressors. Because we were interested in the use of crisis deployments to support partner states and deter challenger states in a crisis, we excluded situations in which the United States deployed military forces to a crisis zone as a general contingency or humanitarian mission or simply to observe the course of a crisis for the possibility of a future contingency, such as when the United States deployed naval forces to monitor dynamics of the 1982 Israel-Lebanon war. We also did not place any limits on the origins of U.S. forces being deployed; as long as military forces were deployed to crisis zones on nonroutine missions in response to an ongoing crisis, forces may have been deployed either from the continental United States or from a forward position.

For each interstate crisis, we assessed whether the United States utilized a nonroutine crisis deployment of its military forces to deter opposing states and support partner states during the crisis. To distinguish crisis deployments from U.S. steady-state posture, we restricted crisis deployments to the deployments of forces that occurred only after the outbreak of an international crisis and further excluded forces that were already forward-positioned in the area of crisis when it started. Furthermore, to more accurately capture the deterrent effects of U.S. crisis deployments, we restricted our measure of crisis deployments exclusively to those forces deployed to a crisis zone before the crisis escalated to the level of major violence or outright war.

We further distinguished U.S. crisis deployments in two ways. First, we distinguished U.S. crisis deployments by the type of capabilities—naval, land-based air, and ground combat—deployed to crisis zones.[6] Second, we distinguished U.S. crisis deployments by the

---

[6]   Because the deployment of naval forces often inherently entails the deployment of naval air assets, we treated naval air assets as part of naval capabilities as opposed to land-based air capabilities. Furthermore, to distinguish ground-based land combat forces, such as Army units, from amphibious land-combat forces, such as Marine Corps expeditionary units, which often deploy via naval assets, we treated the latter as part of our naval capabilities measure.

magnitude of those capabilities—minor, medium, and major.[7] Furthermore, because we were primarily interested in the deterrent effects of U.S. crisis deployments, we specifically measured instances in which the United States deployed its military forces in support of a targeted state during an international crisis. Among the 259 international crises in our analyses, the United States deployed its forces in support of targeted states in only 21 crises. Figure 4.1 displays the frequency of U.S. crisis deployments in support of targeted partner states by capability.[8] Table 4.1 lists all international crises involving U.S. crisis deployments, as well as the associated level of escalation and outcomes.[9]

As seen in Figure 4.1, the United States has most frequently used its naval assets when responding to international crises. This is not necessarily surprising; naval capabilities are the most easily deployed of the United States' military capabilities, because they are mostly self-sufficient and do not require the large supporting footprints of land-based air or ground-combat capabilities during deployments. In addition, naval forces are perhaps the most flexible in terms of reach and deployability. That is, naval forces, with their organic air capabilities, can reach most states from international waters, and their broad forward presence around the globe makes them ideally suited to quickly reach areas far from the continental United States.

In contrast, ground-combat capabilities are deployed the most infrequently. Again, this is not necessarily surprising, because ground-combat capabilities require large logistics footprints and must operate in the territory of partner states, requiring additional levels of international cooperation.

---

[7] Prolonged crises often entail multiple separate deployments of capabilities, to either relieve or further bolster previously deployed forces. In these cases, we recorded the largest size of forces present during the crisis.

[8] Note that, in some cases, the United States deploys several types of capabilities to the same crisis zone. The sum of naval, air, and ground deployments is therefore greater than the 21 total deployments, some of which involved multiple services in the same deployment.

[9] In Appendix B, we further detail our methodology for distinguishing U.S. crisis deployments by the magnitude of forces deployed and present additional analyses of more-nuanced effects of U.S. crisis deployments on the dynamics of interstate crises by both magnitude and capabilities deployed.

Figure 4.1
Number of U.S. Crisis Deployments in Support of Targeted States, by Military Capability, 1946–2015
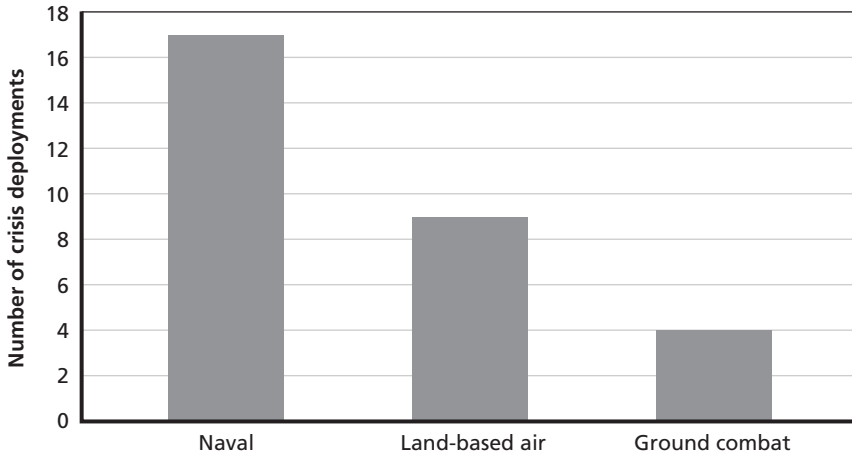
SOURCE: Author analysis of ICB data from Brecher et al., 2017, and of data compiled for this study, as described in Figure 3.1.
RAND *RR2533-4.1*

In general, however, the United States utilizes crisis deployments relatively infrequently compared with the number of available opportunities. This perhaps signals a greater reliance on forward-postured steady-state forces rather than expeditionary forces to meet the United States' deterrent responsibilities. Relatedly, we found no discernible statistical patterns that the United States uses crisis deployments in more-serious or more-threatening crises, meaning that, in general, the nation continues to rely on steady-state forces even in the direst of circumstances.[10]

---

[10] Chi-square tests for frequency of U.S. crisis deployments against the gravity of international crises—measured as whether crises posed a "territorial threat," "threat of grave damage," or "threat to the existence" of crisis actors—for each capability were not statistically significant.

Table 4.1
Details of U.S. Crisis Deployments in Support of Targeted States, 1946–2015

ICB Crisis Number	Crisis Name	U.S.-Supported State(s)	Year Crisis Triggered	Magnitude of U.S. Naval Deployment	Magnitude of U.S. Ground-Based Air Deployment	Magnitude of U.S. Ground Combat Deployment	Escalation	Outcome for the Targeted State
111	Turkish Straits Crisis	Turkey	1946	Medium			Major clashes	Victory
123	Berlin Blockade	France; United Kingdom	1948	Medium	Major		No major clashes	Victory
131	Yugoslavia Council for Mutual Economic Assistance Expulsion	Yugoslavia	1949	Major			Major clashes	Victory
144	Honduras-Guatemala Conflict	Honduras	1953	Medium			No major clashes	Victory
146	First Taiwan Strait Crisis	Taiwan	1954	Major			Major clashes	Satisfactory settlement
152	Sinai-Suez Conflict	France; Israel; United Kingdom	1956	Major			Full-scale war	Did not prevail
166	Second Taiwan Strait Crisis	Taiwan	1958		Major		Major clashes	Victory

Table 4.1—Continued

ICB Crisis Number	Crisis Name	U.S.-Supported State(s)	Year Crisis Triggered	Magnitude of U.S. Naval Deployment	Magnitude of U.S. Ground-Based Air Deployment	Magnitude of U.S. Ground Combat Deployment	Escalation	Outcome for the Targeted State
168	Berlin Deadline	France; United Kingdom; West Germany	1958	Major	Major	Major	No major clashes	Satisfactory settlement
185	Berlin Wall[a]	France; United Kingdom; West Germany	1961	Medium	Major	Major	No major clashes	Did not prevail
198	Dominican Republic–Haiti Conflict	Dominican Republic	1963	Medium			No major clashes	Did not prevail
202	Greece-Turkey Conflict over Cyprus	Cyprus	1963	Medium			Major clashes	Satisfactory settlement
224	Pueblo Incident	South Korea	1968	Major	Major		No major clashes	Victory
238	Black September Conflict	Jordan	1970	Major			Full-scale war	Victory
340	Libya Threat to Sudan	Egypt; Sudan	1983	Medium	Minor		No major clashes	Victory

Table 4.1—Continued

ICB Crisis Number	Crisis Name	U.S.-Supported State(s)	Year Crisis Triggered	Magnitude of U.S. Naval Deployment	Magnitude of U.S. Ground-Based Air Deployment	Magnitude of U.S. Ground Combat Deployment	Escalation	Outcome for the Targeted State
342	Chad-Libya Conflict	Chad; France	1983		Medium		No major clashes	Did not prevail
350	Omdurman Bombing	Egypt; Sudan	1984		Minor		No major clashes	Victory
412	Operation Vigilant Warrior	Kuwait; Saudi Arabia	1994	Major	Major	Major	No major clashes	Victory
415	Fourth Taiwan Strait Crisis	Taiwan	1995	Major			No major clashes	Satisfactory settlement
456	Djibouti-Eritrea Border Dispute	Djibouti	2008			Minor	No major clashes	Did not prevail
459	North Korea Satellite Launch	Japan; South Korea	2009	Minor			No major clashes	Did not prevail
462	Yeonpyeong Island Conflict	South Korea	2010	Medium			No major clashes	Did not prevail

SOURCE: Author analysis of ICB data from Brecher et al., 2017, and of data compiled for this study, as described in Figure 3.1.

NOTE: COMECOM = Council for Mutual Economic Assistance.

[a] We refer to this as the *1961 Berlin crisis* in our analysis.

Quantitative Findings and Analyses

Effects of U.S. Crisis Deployments on Crisis Escalation

Because of the severely limited number of U.S. crisis deployments in our analyses, we were unable to utilize robust methods of quantitative analysis, such as regression models, to empirically assess the broad effects of U.S. crisis deployments in support of targeted states on crisis deterrence and dynamics of crisis escalation. As a result, we can offer only initial evidence for the escalatory or de-escalatory effects of U.S. crisis deployments during international crises.

Figure 4.2 summarizes the relationship between U.S. crisis deployments of naval, land-based air, and ground-combat capabilities in support of targeted states and those crises' escalation to war or major conflict.[11] The red portions of the bars reflect the percentage of inter-

Figure 4.2
Escalation to Major Violence of International Crises in Targeted States Supported by U.S. Crisis Deployments, by Military Capability, 1946–2015
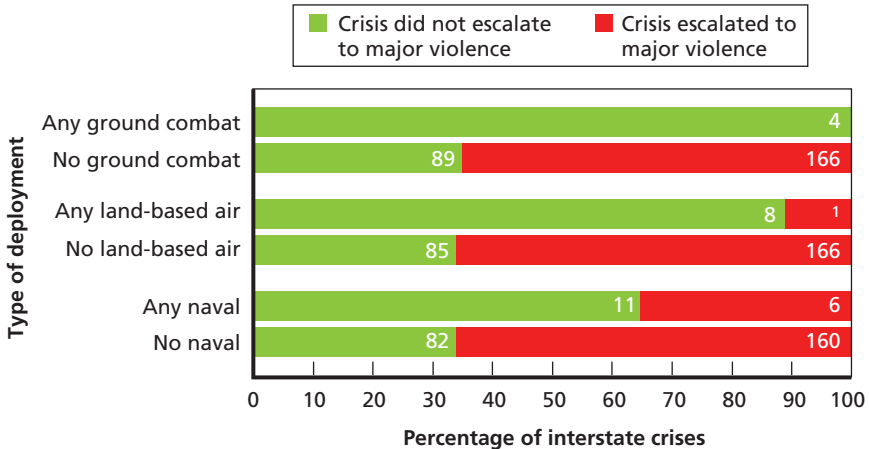
SOURCE: Author analysis of ICB data from Brecher et al., 2017, and of data compiled for this study, as described in Figure 3.1.
RAND *RR2533-4.2*

---

[11] In Appendix B, we provide cross-tabulation tables relating to the frequencies of crises involving U.S. crisis deployments in support of targeted states and rates of crisis escalation to major conflict.

state crises involving U.S. crisis deployments of various capabilities that escalate to war or major clashes. The green portions of the bars reflect the percentage of such interstate crises that do not escalate to war or major clashes. The numbers on each bar show the number of crises that did (red) or did not (green) escalate to the level of war or major clashes.

As can be seen in Figure 4.2, interstate crises in which the United States has deployed naval, air, or ground forces have historically had a significantly lower likelihood of escalation than crises to which the United States did not send forces. In particular, international crises involving deployments of U.S. forces have remained below the threshold of major violence and war a greater percentage of the time than crises in which the United States has not deployed its military forces. In fact, ground forces have a perfect record and air forces a nearly perfect record of success in preventing escalation—albeit in only a small number of cases. These differences in outcomes between crises in which the United States deployed forces and those in which it did not are all statistically significant (using a simple chi-square test).[12]

The number of cases is small enough that we should be careful about generalizations. As discussed in the case studies in Chapters Five and Six, however, we also have strong qualitative evidence that suggests that U.S. crisis deployments—and especially deployments of ground forces—have generally deterred further escalation of crises.

Effects of U.S. Crisis Deployments on Crisis Outcomes

We conducted similar analyses of the effects of crisis deployments on bargaining outcomes in international crises. More specifically, we examined whether the targeted states in international crises achieved a satisfactory outcome following U.S. deployments of military forces to the crisis zone, meaning that the targeted states either achieved out-

---

[12] In independent chi-square tests, the effect of naval deployments on crisis escalation was significant at the $p = 0.042$ level, the effect of land-based air deployments was significant at the $p = 0.009$ level, and the effect of ground-combat deployments was significant at the $p = 0.026$ level.

right victory over their opponent or at least signed a negotiated settlement and were supportive of its content.[13]

Figure 4.3 summarizes the relationship between U.S. crisis deployments of naval, land-based air, and ground-combat capabilities and the likelihood that targeted states supported by the United States achieved a satisfactory outcome in the crisis.[14] The red portions of the bars represent the percentage of interstate crises with U.S. deployments in which the supported targeted state did not achieve a satisfactory outcome, while the green portions of the bars represent the percentage of cases in which the targeted state did achieve a satisfactory outcome.

Figure 4.3
Satisfactory Outcome for Targeted States Supported by U.S. Crisis Deployments, by Military Capability, 1946–2015
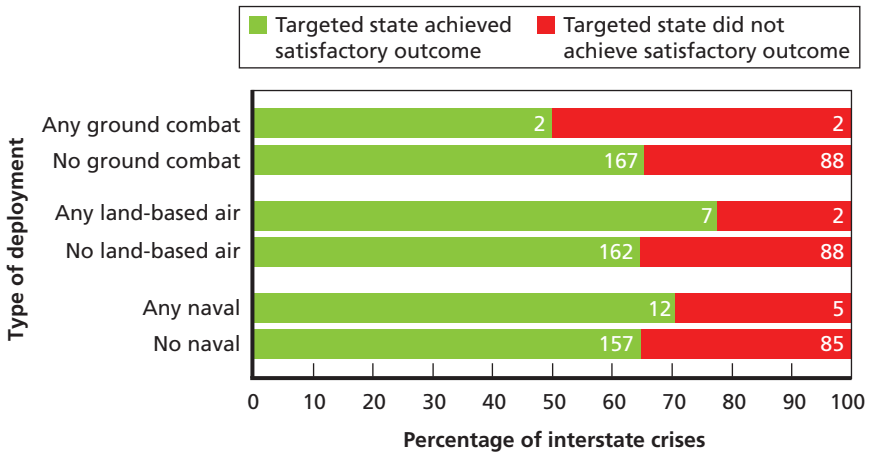
SOURCE: Author analysis of ICB data from Brecher et al., 2017, and of data compiled for this study, as described in Figure 3.1.
RAND *RR2533-4.3*

---

[13] In Appendix B, we provide additional analyses of the relationship between U.S. crisis deployments and the rates at which targeted states exclusively achieve outright victory during international crises.

[14] In Appendix B, we provide cross-tabulation tables relating the frequencies of crises involving U.S. crisis deployments in support of targeted states and the rates at which targeted states bargained a satisfactory outcome at the end of crises.

The numbers on each bar show the number of crises in which targeted states did (green) or did not (red) achieve a satisfactory outcome in each scenario.

The relationships in Figure 4.3 do not generally support the notion that U.S. crisis deployments of all capabilities help targeted states achieve satisfactory outcomes in international crises. Overall, when the United States does not militarily support a targeted state with crisis deployments, those states typically achieve satisfactory outcomes in international crises, from a U.S. perspective, about 60 percent of the time. When the United States does deploy its military forces in support of targeted states, the results remain mixed. Across the capabilities we analyzed, deployments of naval and land-based air capabilities result in a greater likelihood that supported states achieve a satisfactory outcome, and deployments of ground-combat capabilities are associated with targeted states being comparatively less likely to achieve a satisfactory outcome. However, none of these relationships is statistically significant using chi-square tests. Simply put, these data provide no evidence that U.S. crisis deployments change bargaining outcomes on behalf of partner states for better or for worse.

Of particular note, however, we found that targeted states achieved a satisfactory outcome in an international crisis following U.S. support in several cases, including the Berlin Deadline, OVW, and several crises in the Taiwan Straits. The first two of these crises are particularly interesting because they both involved major deployments of all three types of U.S. combat capabilities. In both cases, the overwhelming surge of U.S. combat power to the crisis zone was associated not only with sustained deterrence but also with favorable outcomes for U.S. partner states. It is conceivable that, because the United States deploys its forces to crisis zones relatively infrequently, this infrequency, when coupled with significant magnitudes of forces deployed, is particularly adept at sending strong signals of U.S. resolve and capabilities to maintain deterrence.

Overall, our statistical analyses of U.S. crisis deployments suggest that such deployments have little to no generalized effect on crisis outcomes but may significantly affect the escalation dynamics of interstate crises, especially when those deployments involve ground-combat ele-

ments. However, these insights are correlational and rely on few historical cases for inference. To help compensate for the limitations of such analyses, we briefly describe the outcomes of several selected cases in the following section, followed by a more in-depth discussion of two cases in the following two chapters.

Qualitative Analysis of Crisis Deployments

Correlational analyses like the ones in this chapter are useful for understanding broad trends. They are limited in their ability to determine causal relationships, however. Just because U.S. crisis deployments were associated with a lower incidence of crisis escalation does not necessarily mean that U.S. actions were responsible for this outcome. It may be that U.S. decisionmakers avoid potentially incendiary deployments of forces into the most-volatile crises, in which case the lower incidence of crisis escalation associated with U.S. deployments may reflect only the caution or prudence of U.S. decisionmakers. On the other hand, the United States might not bother to send forces to situations where adversaries can be easily deterred. In this case, because the United States would be sending forces to only the most-difficult situations, the trends of the previous section—which showed almost no cases of crisis escalation in the face of U.S. ground-combat forces or land-based air forces—are that much more remarkable.[15] Finally, given the small number of cases, it could be that differences in the rates of crisis escalation shown in our correlational analysis are due to mere chance, although the preceding section suggests that it is unlikely that chance fully accounts for the patterns we observe.[16]

---

[15] For a full discussion of these dynamics, see James D. Fearon, "Domestic Political Audiences and the Escalation of International Disputes," *American Political Science Review,* Vol. 88, No. 3, 1994. For a more recent—and more complex—discussion, see Eugene Gholz and Daryl Press, "Untangling Selection Effects in Studies of Coercion," unpublished manuscript, University of Texas and University of Pennsylvania, undated.

[16] It may well be that several individual cases did not escalate for reasons that had nothing to do with U.S. crisis deployments, but the results of the chi-squared tests concerning U.S. deployments and crisis escalation in the previous section suggest that it is unlikely that U.S. crisis deployments played no role in any of the cases.

Qualitative analyses can help untangle these relationships. Chapters Five and Six provide detailed accounts of the 1961 Berlin crisis of the Cold War and OVW in the Persian Gulf, respectively. But a brief review of other post–World War II crises involving the United States can further help determine the extent to which U.S. crisis deployments were responsible for the observed outcomes. Because the quantitative evidence of deterrence was strongest for ground-combat and land-based air capabilities, in this section, we briefly examine all cases from Table 4.1 in which the United States deployed either of those types of forces, consistent with our definitions and data on crisis deployments.[17] These cases are grouped into three subsections: (1) the Cold War–era Berlin crises of 1948 (Berlin Blockade) and 1958 (Berlin Deadline), (2) the East Asian crises during the Cold War (the Second Taiwan Strait crisis in 1958 and the *Pueblo* incident in 1968), and (3) a series of incidents involving Libya in the 1980s.

In most cases, the evaluation of deterrence success is complex, and this challenge can be seen in the cases discussed in this section. First, this evaluation requires understanding the true intentions of the United States' adversary. Developing such an understanding is complicated by the fact that we do not often have access to the archival records of the states involved. Even when archival records do exist, they present challenges of their own. For instance, an authoritarian decisionmaker, such as Saddam Hussein, may be posturing before his generals even in internal meetings. All decisionmakers may not even be certain in their own minds how far they are willing to push a crisis.

Second, evaluating deterrence success requires understanding outcomes over time. Often, crises begin as limited probes. If the aggressor perceives that a forceful response is not forthcoming, what may have begun as a limited probe may become much more ambitious. Nazi Germany's remilitarization of the Rhineland and annexation of the

---

[17] These cases represent all post–World War II crises to which the United States deployed ground-combat or land-based air forces, with three exceptions. We defer an in-depth discussion of the Berlin Wall crisis and OVW to the next two chapters. We also do not include a discussion of the Djibouti-Eritrea border clashes in 2008, because these were extremely minor clashes, and the U.S. crisis deployment was minimal.

Sudetenland, for instance, can be understood as limited probes that led to more far-reaching aggression.

Third, such evaluation requires differentiating between deterrence and compellence. The two are usually distinguished in terms of demands relative to the status quo: Is the state that is deploying forces trying to preserve the status quo or change it? This judgment, however, requires us to determine what exactly counts as the status quo. Is the status quo the situation as it exists after an aggressor's first move but before a crisis deployment begins? Or is it the situation as it existed before the aggressor's action? Can we even determine who the aggressor is?

Despite these complexities, the qualitative evidence helps refine the quantitative analysis in the previous two sections. Including the two cases described in Chapters Five and Six, there are ten cases in which the United States deployed ground-combat or land-based air forces into a crisis. Although the historical record is ambiguous in some instances, the overall pattern is consistent with the hypothesis that, on average, U.S. crisis deployments do, in fact, help deter escalation but do not appreciably improve bargaining outcomes.

Crises in Cold War–Era Berlin

Berlin was the site of numerous crises between the Soviet Union and the United States and its allies during the early Cold War period. The 1961 crisis, which involved the construction of the Berlin Wall, is discussed in detail in the next chapter. The previous two crises, in 1948 and 1958, respectively, and the effects of U.S. and allied ground force movements in preventing their escalation are assessed here.

In spring 1948, the Soviet Union imposed a ground blockade of the U.S., French, and United Kingdom occupation zones in West Berlin, an isolated enclave inside Soviet-controlled East Germany. The Soviets had two main motivations in initiating the crisis. By threatening the ability of the West to remain in Berlin, they sought leverage to forestall efforts to constitute a separate, capitalist West German state in close alliance with the United States in favor of a unified, demilitarized Germany more open to Soviet influence. If leverage over Berlin proved insufficient to achieve this objective, a Western withdrawal from the

city would still limit the contagion of a capitalist system operating in close proximity to East Berlin and the rest of East Germany, as well as constitute a blow to Western prestige and U.S. credibility.[18] In the end, the Soviets achieved neither objective.

In a surprise anticipated by neither side, the West was able to institute an airlift of sufficient size to supply the entirety of West Berlin by air, eliminating the need for any choice between withdrawal or capitulation to other Soviet demands.[19] The United States undertook shifts in its forces throughout the crisis, including massive increases in available aircraft and the pointed relocation of a squadron of B-29 bombers to the United Kingdom, the same type as those tasked with carrying nuclear weapons.[20] Regardless of these moves, the United States and its allies still faced a massive discrepancy in conventional forces, of roughly 15:1 in Berlin and the immediate vicinity.[21] Despite this numerical superiority, there do not appear to have been any Soviet plans to actually attack the city, because the Soviets were not interested in starting a war so soon after 1945, particularly with the United States still in possession of a monopoly on deliverable nuclear weapons.[22] Increases in U.S. forces were therefore important to resolving the crisis, but mostly because they were necessary to carry out the airlift. In this case, U.S. crisis deployments may have prevented escalation not so much because they deterred the Soviets (although this possibility cannot be ruled out entirely) but because they provided additional options that allowed the United States to secure its goals in the crisis without itself resorting to escalation.

---

[18] Thomas D. Parrish, *Berlin in the Balance, 1945–1949: The Blockade, the Airlift, the First Major Battle of the Cold War*, Reading, Mass.: Addison-Wesley, 1998, pp. 142–143; Daniel F. Harrington, *Berlin on the Brink: The Blockade, the Airlift, and the Early Cold War*, Lexington, Ky.: University Press of Kentucky, 2012, pp. 44–45; Michail M. Narinskii, "The Soviet Union and the Berlin Crisis," in Francesca Gori and Silvio Pons, eds., *The Soviet Union and Europe in the Cold War, 1943–1953*, New York: St. Martin's Press, 1996, pp. 65, 69.

[19] Parrish, 1998, pp. 320–131.

[20] Roger G. Miller, *To Save a City: The Berlin Airlift, 1948–1949*, Washington, D.C.: Air Force History and Museums Program, 1998, pp. 24–25; Harrington, 2012, p. 122.

[21] Parrish, 1998, pp. 138, 175.

[22] Parrish, 1998, pp. 143–144; Miller, 1998, p. 25; Harrington, 2012, pp. 295–296.

By 1958, the situation in Germany had evolved on two key fronts, setting the stage for Soviet initiation of an additional crisis. The economic performance of West and East Germany, and of the Western and Eastern zones of Berlin, was beginning to diverge sharply, creating incentives for large-scale emigration out of East Germany, taking advantage of the free movement of people allowed within Berlin.[23] This situation threatened the long-term viability of East Germany. In addition, West Germany, now a full member of NATO, was militarily rearming. The Soviets were particularly concerned about the potential for West Germany to develop its own nuclear deterrent, as the United Kingdom had done in 1953, a move the Soviets feared could embolden West Germany to pursue revanchist claims against East Germany.[24]

Against this backdrop, new Soviet Premier Nikita Khrushchev in November 1958 demanded a Western withdrawal from Berlin, threatening to conclude a separate peace treaty between the Soviet Union and East Germany within six months, turning over control of West Berlin access to the East Germans and invalidating existing agreements between the Soviets and the West guaranteeing access to the city.[25] The Western response was relatively unified and clear: Although Western states were willing to hold additional discussions on Berlin, they would not accept any Soviet proposals issued as an ultimatum, and they would not withdraw from the city or weaken their defensive commitment to it.[26] Although the United States did reposition military forces to increase its ability to reinforce the city should the crisis escalate (e.g., placed a Marine Corps unit on alert and moved a carrier to the Mediterranean), these do not appear to have figured prominently

---

[23] André Steiner, "From the Soviet Occupation Zone to the 'New Eastern State': A Survey," in Hartmut Berghoff and Uta Andrea Balbier, eds., *The East German Economy, 1945–2010: Falling Behind or Catching Up?* Cambridge, UK: Cambridge University Press, 2013, pp. 25–26.

[24] Marc Trachtenberg, *A Constructed Peace: The Making of the European Settlement, 1945–1963*, Princeton, N.J.: Princeton University Press, 1999, pp. 194–195, 252.

[25] Trachtenberg, 1999, p. 251.

[26] Trachtenberg, 1999, pp. 258–261; and Elisabeth Barker, "The Berlin Crisis 1958–1962," *International Affairs*, Vol. 39, No. 1, 1963, p. 64.

in Soviet decisions to avoid further escalation.[27] By September 1959, the crisis had largely been put on hold after Khrushchev accepted U.S. President Dwight D. Eisenhower's invitation to visit the United States and held direct talks at Camp David, although the underlying issues were not resolved.[28] This was, ultimately, an effort at diplomatic probing for Khrushchev. Instead of forcing the issue, he decided to try again after the 1960 elections to see whether a new U.S. President might be more pliable.[29] The results of the 1961 crisis over the Berlin Wall are discussed in detail in the next chapter.

East Asian Crises During the Cold War

During the Cold War, there were two major crises in East Asia to which the United States deployed land-based air forces: the Second Taiwan Strait crisis and the *Pueblo* incident with North Korea. The former involved contested control of the islands of Kinmen and Mazu (alternatively, Quemoy and Matsu), and the latter concerned North Korea's seizure of the U.S. intelligence vessel *Pueblo* and the holding of its crew as prisoners.

In 1958, China began to shell the Nationalist-controlled islands of Kinmen and Mazu, ultimately raining hundreds of thousands of shells on the islands and nearby waters in an effort to blockade the islands. The United States responded by deploying a wing of F-4 bombers, as well as wings of F-106 and F-86 fighter aircraft, to Taiwan.

Chinese leader Mao Zedong appears to have had several motives for increasing pressure on the islands, including a desire to probe the extent of the United States' commitment to its protégé, underline Chinese willingness to defend itself, better position China within broader

---

[27] Brecher and Wilkenfeld, 2000, p. 348.

[28] Vladislav Martinovich Zubok, "Khrushchev and the Berlin Crisis (1958–1962)," Working Paper No. 6, Cold War International History Project, Woodrow Wilson International Center for Scholars, May 1993, p. 14.

[29] Frederick Kempe, *Berlin 1961: Kennedy, Khrushchev, and the Most Dangerous Place on Earth*, New York: G. P. Putnam's Sons, 2011, pp. 38–39, 73–75.

geostrategic rivalries, and arouse Chinese nationalist fervor during the domestic strains of the Great Leap Forward.[30]

None of these motives required China to actually seize the islands, and, indeed, U.S. officials at the time did not expect China to launch a major military attack.[31] The fact that the crisis did not escalate, therefore, is not necessarily due to the U.S. crisis deployment. On the other hand, much like in the 1948 Berlin Blockade crisis, U.S. forces helped break the blockade without the need to further escalate the situation.

Moreover, although Mao may well have doubted that he would gain control of the islands through his artillery attacks and may have been able to achieve all of his objectives without doing so, he also appears to have anticipated the possibility that he would succeed beyond his modest expectations. According to a memoir by Wu Lengxi, then the director of the New China News Agency, although Mao did not expect to seize the islands, he would certainly have been willing to take them had Taiwan and the United States not mounted a defense of them:

> We . . . did not intend to launch an immediate landing on Jinmen-Mazu. [Our bombardment] was merely aimed at testing and scaring the Americans, but we would land if circumstances allowed. Why should we not take over Jinmen-Mazu if there came an opportunity?[32]

The U.S. crisis deployment may thus have helped break the blockade, strengthen Taiwanese resolve, and make clear to the mainland Chinese that the islands were not ripe for seizure. Although the evidence is not clear enough to consider this case an unambiguous suc-

---

[30] See, for instance, George and Smoke, 1974, Chapter 12; Thomas J. Christensen, *Useful Adversaries: Grand Strategy, Domestic Mobilization, and Sino-American Conflict, 1947–1958*, Princeton, N.J.: Princeton University Press, 1996; and M. Taylor Fravel, "Power Shifts and Escalation: Explaining China's Use of Force in Territorial Disputes," *International Security*, Vol. 32, No. 3, Winter 2007/2008.

[31] M. H. Halperin, "The 1958 Taiwan Straits Crisis: A Documented History," Santa Monica, Calif.: RAND Corporation, RM-4900-ISA, December 1966.

[32] Li Xiaobing, Chen Jian, and David L. Wilson, trans., "Mao Zedong's Handling of the Taiwan Straits Crisis of 1958: Chinese Recollections and Documents," Cold War International History Project, Bulletin 6–7, Winter 1995/1996, p. 210.

cess, it also would be wrong to dismiss the role that the U.S. deployments played.

The *Pueblo* incident does not provide evidence in support of the deterrent effects of crisis deployments, but U.S. actions also did not provoke an escalation of the crisis. In the wake of the North Korean seizure of the *Pueblo*, the United States dispatched a carrier task force, several submarines, and other warships to the surrounding area, as well as hundreds of new combat aircraft to Korea, Japan, and Guam. U.S. leaders also authorized thousands of additional soldiers to bring manning levels in the two U.S. Army divisions in South Korea up to strength. Unfortunately, the United States was trying to reverse an act of aggression (North Korea's seizure of the *Pueblo* and its crew) rather than deter one. U.S. decisionmakers quickly came to believe that military options short of all-out war were unlikely to force North Korea to return the sailors or the ship. Because the United States was already heavily committed in Vietnam and could ill-afford a second front in Asia, a large-scale confrontation was not a serious option. In this case, U.S. crisis deployments did not achieve their compellent aims of securing the return of personnel and property, and it is also not likely that the North Koreans were deterred from undertaking any additional actions that they had planned. On the other hand, the situation also did not escalate any further.[33]

Libyan Crises of the 1980s

Following his seizure of power in 1969, Libyan leader Muammar Qaddafi adopted a highly adventurist foreign policy, funding insurgencies and terrorist groups around the world and especially in the Sahel region of Africa. These policies were, in part, an outgrowth of his radical Third Universal Theory, a blend of militant Islamism and Marxism. But these policies also derived from a sense of vulnerability: Despite its oil wealth, Libya had an extremely small population, and much larger neighbors, such as Egypt and Sudan, had had difficult

---

[33] Richard Mobley, "*Pueblo*: A Retrospective," *Naval War College Review*, Vol. 54, No. 2, Spring 2001; and B. C. Koh, "The *Pueblo* Incident in Perspective," *Asian Survey*, Vol. 9, No. 4, April 1969.

relations with the Libyan leader from the outset. Indeed, both Egypt and Sudan harbored Libyan opposition members.[34]

Qaddafi's policies led to three crises in the 1980s in which the United States played at least a minor role: direct Libyan military support for rebels in Chad in 1983; Libyan threats against Sudan in 1983; and an alleged Libyan bombing of Omdurman, Sudan, in 1984. In response to all three, the United States shifted some land-based air assets to the region, backed up by nearby CSGs.

The Omdurman bombing provides little clear-cut evidence of either the effectiveness or ineffectiveness of U.S. crisis deployments. Indeed, even the bombing itself is a matter of dispute; many observers question whether Libya was responsible for the bombing at all.[35] The other two cases, however, provide stronger support for the claim that U.S. crisis deployments can be an effective tool of deterrence.

In the case of direct Libyan support for rebels in northern Chad, French military actions were likely primarily responsible for Libya's proposal to withdraw its forces; France ultimately deployed nearly 3,000 ground forces and flew combat sorties against rebel forces. The United States, however, supported these efforts, sending two Airborne Warning and Control System (AWACS) early-warning and combat escort aircraft to the region. Although the U.S. crisis deployment was likely not the primary factor influencing Qaddafi's decisionmaking calculus, it reinforced the message that Libyan aggression in Chad would be met with a united front among Western powers with vastly superior military capabilities. In the end, Libya did not withdraw all of its forces and continued to provide military support to rebel groups. However, the extent of that support diminished greatly, and the insurgent forces remained confined to the north of Chad. Although French and U.S. crisis deployments did not secure an end to the conflict, they

---

[34] For background on Libya's foreign policy in this period, see Mary-Jane Deeb, "Qaddafi's Calculated Risks," *SAIS Review*, Vol. 6, No. 2, Summer–Fall 1986; Oye Ogunbadejo, "Qaddafi and Africa's International Relations," *Journal of Modern African Studies*, Vol. 24, No. 1, March 1986; and I. William Zartman, "Foreign Relations of North Africa," *Annals of the American Academy of Political and Social Science*, Vol. 489, No. 1, January 1987.

[35] Ogunbadejo, 1986, p. 38.

did prevent it from escalating or from turning decisively against the government of Chad.

In the same year as the crisis in Chad, Libya also precipitated a crisis with neighboring Sudan. Libya began to deploy large numbers of combat aircraft near its border with Sudan. Both Sudan and its ally Egypt accused Libya of plans to overthrow the government of Sudan— a charge made credible by Libya's actions in Chad and its history of support for Sudanese opposition groups. In response to Sudanese and Egyptian requests for support, the United States deployed four AWACS surveillance aircraft and the CSG of the USS *Nimitz*. The crisis passed without any further Libyan actions to threaten or destabilize Sudan.

None of the U.S. deployments decisively ended the threat that Libya posed to its neighbors in these years. But in all three cases, the immediate crises were diffused without further escalation.

Conclusion

In our analysis, there are ten cases in which the United States deployed ground-combat or land-based air forces. Only one of those saw significant clashes after the United States surged forces to the crisis region. Although not obviously de-escalatory, this rate of escalation is vastly preferred to the rate of escalation when no U.S. forces were deployed (when two-thirds of the crises escalated to major clashes or war). At a minimum, it appears that U.S. crisis deployments do not typically lead to inadvertent escalation (although it is always a risk to be considered).

It is more challenging to determine whether U.S. forces deterred an adversary from more-aggressive action. In some cases (such as the 1961 Berlin crisis), it appears clear that the United States' adversary had no intention of escalating to full-fledged war unless the United States itself escalated to that point. In such cases, it is hard to say that U.S. crisis deployments successfully deterred adversary actions. On the other hand, there are other cases in which the adversary's aggressive intent was either ambiguous (as in the 1994 OVW crisis) or clear (such as Qaddafi's war in Chad), and in none of these cases did the adversaries further escalate the situation. Moreover, even in cases in which

U.S. adversaries had no immediate intention to escalate, U.S. crisis deployments may have sent a strong signal that prevented future escalation. The deployment of U.S. forces during the 1961 Berlin crisis, for instance, underscored U.S. commitments to the defense of the city and highlighted the risks that Khrushchev would run in pursuing further escalation, as discussed in Chapter Five. Saddam may not have intended to invade Kuwait in 1994, but as Chapter Six shows, both Iraqi internal deliberations and the record of Iraqi actions throughout the 1990s show constant efforts to probe for any signs of weakness in the United States' commitment to defend its protégé in the Gulf. Thus, while not every case of U.S. crisis deployment in Table 4.1 provides unambiguous evidence of deterrence, there is evidence in the record overall to suggest that, on average, crisis deployments do help to deter.

1961 Berlin Crisis

Although statistical analyses like the ones in Chapters Three and Four can identify general relationships between U.S. forces and the outcomes of interest (deterrence and escalation), these relationships may not necessarily be causal. These analyses also cannot account for all of the nuances of individual cases. Consequently, we examine two cases in depth—the 1961 Berlin crisis and the 1994 OVW crisis in the Persian Gulf—to understand whether U.S. forces did, at least in these cases, have the deterrent effects that our statistical analyses suggest they do. In both cases, the United States had established a posture designed to promote general deterrence but nonetheless saw tensions increase and felt the need to augment its steady-state posture with crisis deployments, thus allowing us to examine deterrence in two different phases. Because U.S. interests in these regions remained essentially constant, we can disentangle the deterrent effects of U.S. forces from underlying conditions, including the importance of the stakes involved.[1] By choosing one case of deterrence with a nuclear-armed superpower and one

---

[1]   That said, each of these cases was relatively important for the United States. Although U.S. interests remained constant, allowing us to isolate the effects of U.S. forces within this context, it remains quite possible that U.S. forces would not have the same deterrent effects in cases in which U.S. interests were much lower. The extent to which the presence of U.S. forces signals a credible intent to use them likely depends on whether substantial U.S. interests are at stake. Most cases of interest to policymakers involve similarly high stakes for the United States, but it is worth noting that our findings may not be fully generalizable to cases in which this condition does not hold.

case with a regional power, we can also explore the extent to which our findings are broadly generalizable across different contexts.[2]

The two crises over Berlin in 1958 and 1961 represent two of the handful of cases in which two nuclear-armed adversaries (the United States and the Soviet Union) engaged in a direct, conventional crisis.[3] From the perspective of this study, the period between June 1961 and November 1961, in particular, offers rich examples of several variables examined in the quantitative analysis. During this Berlin crisis, the United States not only deployed temporary reinforcements to bolster its deterrent position but also initiated considerable changes to its permanent posture in Europe. Declassified documentation offers insight behind the John F. Kennedy administration's deliberations and intent, as well as intelligence estimates regarding Soviet actions, messaging, and estimated perceptions. Furthermore, archival materials from the former Soviet Union have offered scholars an enhanced understanding of Soviet perspectives during the crisis.

Together, these sources allow us to investigate a key question for this report: What role did U.S. conventional forces play in Khrushchev's decision to de-escalate the crisis and abandon his prior ultimatum for a change in the status of West Berlin? The political and strategic aspects of the 1961 Berlin crisis have been examined in great detail elsewhere[4]; this case study, however, focuses on U.S. military actions, both at the

---

[2]   Neither case resulted in a clear failure of immediate deterrence, but there is nonetheless some within-case variation in the success of deterrence. In particular, the erosion of the effectiveness of general deterrence in certain phases of these cases appears to have contributed to the adversary's decision to test U.S. resolve in the more acute crisis phase. Although it would have been interesting to investigate a case of clearly failed U.S. deterrence that led to war, such cases are, at best, quite rare in the post-1945 era, and arguably none involved substantial forward posturing of U.S. troops and clear security guarantees.

[3]   Other notable examples include the 1969 Sino-Soviet border conflict, the 1999 Kargil war between India and Pakistan, and the 1962 Cuban Missile Crisis between the United States and the Soviet Union.

[4]   See, for example, Jack M. Schick, *The Berlin Crisis, 1958–1962*, Philadelphia, Pa.: University of Pennsylvania Press, 1971; Richard D. Williamson, *First Steps Toward Détente: American Diplomacy in the Berlin Crisis, 1958–1963*, Lanham, Md.: Lexington Books, 2012; and John Gearson and Kori Schake, eds., *The Berlin Wall: Perspectives on Cold War Alliances*, New York: Palgrave Macmillan, 2002.

strategic and theater levels. With this context, we then overlay Soviet actions, rhetoric, and deliberations, when available, to ascertain how U.S. deployments or force posture enhancements influenced Soviet calculations during the crisis. Because these military deployments and force posture changes did not occur in a vacuum, we also highlight key political or economic considerations that may have bolstered the effects of these actions or may provide an alternative explanation for Soviet behavior. At the very general level, it appears that, after Soviet perceptions of Kennedy's resolve (particularly following the Bay of Pigs incident) called the strength of the U.S. commitment into question, military actions by the United States primarily served to bolster the credibility of its commitment to West Berlin and alter Soviet perceptions of the desirability of further efforts to alter the situation on the ground. That is, U.S. actions helped enhance deterrence by increasing Soviet estimates of the likelihood that the United States would be willing to fight to maintain its position in West Berlin. Together with other factors, such as the Western acquiescence to the building of the Berlin Wall, these conventional military actions helped bring about a peaceful resolution to the crisis.

Background and U.S. and Soviet Goals

Since the end of World War II, Berlin was a source of tension between the Soviet Union and the Western powers. The Yalta Conference of 1945 led to the division of the defeated Germany into separate occupation sectors by the Americans, Soviets, British, and French. The capital Berlin, inside the Soviet sector, was likewise split into four occupation zones by the four powers, although ground access rights to Berlin by the Americans, British, and French remained unspecified.[5] Despite the agreement, Joseph Stalin wished to unify all four sectors with a government open to Soviet influence, because the Soviets feared a resurgent Germany and its further alignment with the West. In June 1948, the Soviet Union blocked all ground routes to West Berlin, including road

---

[5] Parrish, 1998, pp. 24–25.

and rail, citing the need to protect East Berlin from economic disruption (instigating the Berlin Blockade crisis; see Table 4.1). The United States and United Kingdom responded by undertaking a massive airlift of supplies to the sieged sector and conducted a counter-blockade on the eastern sector. By May 1949, the blockade was lifted, and shortly after, the states of East and West Germany were established.[6]

As the Berlin Blockade ended, the strategic environment also began to shift. In 1949, the Soviet Union shattered the U.S. nuclear monopoly by conducting its first nuclear test. Shortly prior to the lifting of the blockade, NATO came into being, and six years later in response, the Soviet Union established the Warsaw Pact. The situation in Germany also began to shift, as a steady flow of refugees took advantage of the freedom of movement offered by West Berlin, which greatly reduced the population and weakened East Germany economically.

On November 27, 1958, the Soviet foreign ministry issued an ultimatum, demanding that the United States, United Kingdom, and France withdraw their forces from Berlin (to be followed by a reciprocal withdrawal of forces by the Warsaw Pact states) and make West Berlin a "free city." If not undertaken within six months, the Soviet Union would unilaterally pursue an agreement with East Germany (officially the German Democratic Republic [GDR]), handing over access control.[7]

In his effort to reopen the confrontation over Berlin, Khrushchev was likely motivated by two main factors. First, Khrushchev faced substantial concerns over the stability and long-term viability of the Soviet client states in Eastern Europe, and in particular the GDR, led by

---

[6]   For additional reading on the Berlin Blockade, see Daniel F. Harrington, "The Berlin Blockade Revisited," *International History Review*, Vol. 6, No. 1, 1984; and Avi Shlaim, *The United States and the Berlin Blockade, 1948–1949: A Study in Crisis Decision-Making*, Berkeley, Calif.: University of California Press, 1983.

[7]   "Note from the Soviet Foreign Ministry to the American Ambassador at Moscow (Thompson), Regarding Berlin (November 27, 1958)," in *Documents on Germany, 1944–1959: Background Documents on Germany, 1944–1959, and a Chronology of Political Developments Affecting Berlin, 1945–1956*, Washington, D.C.: U.S. General Printing Office, 1959.

Walter Ulbricht.[8] Prior arrangements allowing the free movement of peoples across the zones of Berlin provided, in effect, an escape hatch for Eastern Bloc citizens to migrate to the West, and thousands did so every week, as shown in Figure 5.1. These refugees were further concentrated in younger, more-productive workers, which threatened to undermine the economic viability of Communist areas.[9] Ulbricht felt these pressures most acutely, but Khrushchev was also concerned that the collapse of the GDR could unravel the entire Soviet project and sphere of influence in Eastern Europe.

Figure 5.1
West Berlin Refugee Totals, 1960 Versus 1961
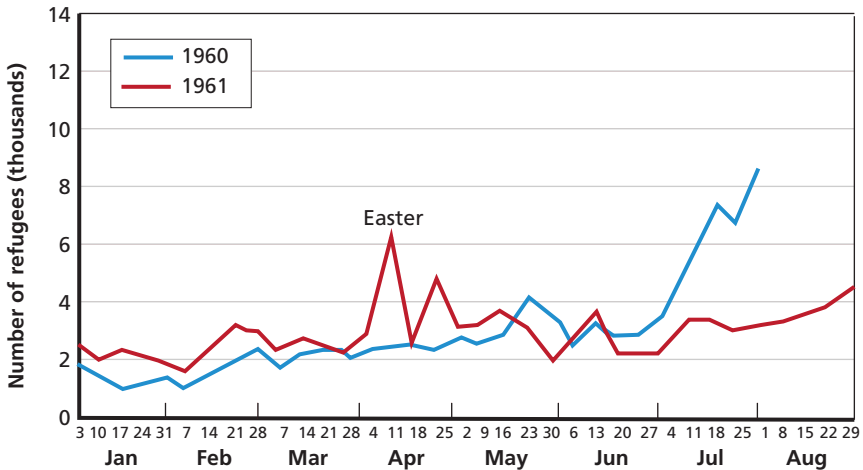
SOURCE: Central Intelligence Agency (CIA), *Central Intelligence Bulletin*, August 9, 1961.

RAND *RR2533-5.1*

---

[8]   See Michael Tatu, *Power in the Kremlin: From Khrushchev to Kosygin*, New York: Viking Press, 1971; Norman Gelb, *The Berlin Wall*, London: Michael Joseph, 1986; and Hope M. Harrison, "Ulbricht and the Concrete 'Rose': New Archival Evidence on the Dynamics of Soviet-East German Relations and the Berlin Crisis, 1958–1961," Working Paper No. 5, Cold War International Project, Woodrow Wilson International Center for Scholars, May 1993.

[9]   Steiner, 2013, pp. 25–26.

The second major factor motivating Khrushchev to threaten the West's position in Berlin was his concern over a resurgent and potentially nuclear-armed West Germany.[10] To be sure, Soviet leaders had general concerns about the threat that West German rearmament posed for the Soviet Union, just more than a decade after World War II. The more acute concern, however, was that an independent nuclear capability could make a West Germany that had not yet accepted the division of Germany more willing to intervene directly in East Germany to pursue revanchist goals.[11] Notably, resolutions to Soviet concerns about refugee flows and West German nuclearization did not necessarily require ejecting the United States and its allies from Berlin. Instead, Berlin provided a convenient point of leverage to try to exact the desired concessions from the United States.

After a series of talks, Khrushchev entered into meetings with President Eisenhower in September 1959, optimistic about solving the German question. Bypassing the "capitalist magnates" whom he believed dictated foreign policy, Khrushchev felt that he could gain more leverage by bolstering Eisenhower's position, which he assumed was open to concessions. Avoiding implicating Eisenhower, he revealed in May 1960 that the Soviet Union had downed a U-2 spy plane. When the President announced that he personally approved the flights, Khrushchev decided to double down at the Paris summit, demanding a public apology and a stop to all further reconnaissance flights. Eisenhower, however, refused to back down, and on the way back in East Berlin, Khrushchev remarked that "it would pay off to wait a little longer and try to find a solution for the ripe issue of a peace treaty with both German states" and that odds may be better with the next administration.[12]

After Kennedy's election in November 1960, Khrushchev waited to renew his demands directly until the June 1961 Vienna summit,

---

[10] Michael Beschloss, *The Crisis Years: Kennedy and Khrushchev, 1960–1963*, New York: HarperCollins, 1991; and Hannes Adomeit, *Soviet Risk-Taking and Crisis Behavior: A Theoretical and Empirical Analysis*, Boston, Mass.: George Allen and Unwin, 1982.

[11] Trachtenberg, 1999, p. 252.

[12] P. Lunák, "Khrushchev and the Berlin Crisis: Soviet Brinkmanship Seen from Inside," *Cold War History*, Vol. 3, No. 2, 2003, p. 68.

where he and Kennedy met face-to-face. Khrushchev presented Kennedy with an aide-memoire, proposing a peace treaty conference with both the Federal Republic of Germany (West Germany) and the GDR, as well as "free city" status for West Berlin. He demanded that the treaty be negotiated by December, after which the Allies would lose automatic access to Berlin. Kennedy responded that it would be a "cold winter" and, in a public address, described the summit as "a very sober two days."[13]

At the Vienna summit, Khrushchev arrived with a confidence in the Soviet Union's upper hand in the situation and the U.S. lack of will to challenge the ultimatum. Just prior to the summit, Khrushchev described the military preponderance the Soviet Union enjoyed in Berlin, stating "we have the advantage—we do not have to relocate our forces anywhere, our militaries are in East Germany, whereas [the U.S.] would have to invade a foreign territory."[14] Although Khrushchev greatly doubted that Kennedy would agree to the peace treaty, because it would undermine the Alliance, Western fear of conflict and the potential loss of Berlin nonetheless provided an excellent point of leverage to achieve other Soviet goals, at relatively low risk. "We are 95% sure," he declared, "that there will not be a war because of West Berlin."[15] It is highly likely that Khrushchev also viewed the failed Bay of Pigs invasion from April as a strong indicator that Kennedy would indeed back down under pressure.[16]

---

[13] U.S. Department of State, "Talking Points Reviewing Conversations Between President Kennedy and Chairman Khrushchev (June 3–4, 1961)," Washington, D.C., June 1961a; and John F. Kennedy: "Radio and Television Report to the American People on Returning From Europe," in Gerhard Peters and John T. Woolley, American Presidency Project, Santa Barbara, Calif., June 6, 1961a.

[14] "Notes on the Meeting of N. S. Khrushchev with Leading Representatives of the Central Committee of the Communist Party of Czechoslovakia and the Government of the Czechoslovak Socialist Republic in Smolenice, Near Bratislava, and Khrushchev's Toast at Lunch, 1 June 1961, Prague," Parallel History Project on Cooperative Security, June 1, 1961.

[15] "Notes on the Meeting of N. S. Khrushchev . . . ," 1961.

[16] Beschloss, 1991; Lawrence Freedman, *Kennedy's Wars: Berlin, Cuba, Laos, and Vietnam*, Oxford, UK: Oxford University Press, 2000.

Surprised by Khrushchev's forcefulness at the summit, Kennedy set his administration to work preparing possible responses to the Soviet Union's pressures. At a National Security Council meeting on July 19, the participants agreed that the vital interests and goals for the United States in responding to the crisis included

- presence and security of Western forces in West Berlin
- the security and viability of West Berlin
- physical access to West Berlin
- the security of the Federal Republic of Germany (West Germany) against attacks from the east.[17]

As noted earlier, these U.S. goals did not necessarily conflict with the key Soviet goals in the crisis, and this compatibility helped facilitate the eventual resolution of the crisis. To reach such a mutually acceptable outcome, however, Khrushchev first had to be convinced that unilateral Soviet attempts to force a resolution would be unsuccessful or highly costly. U.S. conventional forces played an important role in this regard.

U.S. Conventional Forces

To help ensure the security of its position in Berlin, and in Europe more generally, the United States took several steps, including efforts to bolster its capabilities and deterrent posture in Germany. Loud voices within the Alliance and the U.S. administration expressed worry that an increased emphasis on conventional capabilities could undermine the nuclear deterrent.[18] Kennedy, however, pushed for a nonnuclear strategy with options to provide a greater pause before both he and

---

[17]   Foy D. Kohler, "Subject: NSC Meeting of July 19, 1961," memorandum, 1961.

[18]   Several European leaders, in particular, argued that a conventional buildup would be seen as a sign that the United States was unwilling to risk a nuclear exchange in defense of Western Europe. See discussion in Gearson and Schake, 2002; and Jane E. Stromseth, *The Origins of Flexible Response: NATO's Debate over Strategy in the 1960s,* London: Macmillan Press, 1988.

Khrushchev had to choose between "retreat or nuclear war" should the crisis boil over.[19]

Steady-State Posture

As the crisis reheated in the first half of 1961, the United States had five Army divisions in Europe, two in the Far East, one in Hawaii, and six in the United States. In Berlin, the U.S. Army had three armored cavalry regiments and two battle groups augmented by surface-to-surface missile battalions and other supporting units. The force, however, paled in comparison with the Russian forces, numbering an estimated ten tank and ten motorized rifle divisions in East Germany alone with the ability to reinforce across direct lines of communication.

Driven by the intensification of hostilities over Berlin, U.S. officials began efforts to substantially increase the number and, perhaps more importantly, the combat capability of U.S. forces in Europe. Most of these changes were not executed until 1962, after the acute crisis over Berlin had passed, but it is worth briefly summarizing the mooted changes because their announcements and the initial preparations for them may have helped signal increased commitment and credibility on the part of the United States to defend of Europe in general and Berlin in particular.

After Khrushchev's demands in June, Kennedy's administration set to examining immediate responses and contingency planning in the event that Western access became denied. Secretary of Defense Robert S. McNamara outlined a plan on July 19 in which six U.S.-based divisions and supporting air units would become combat ready by January 1962, with four of the divisions being available to deploy to Europe.[20] President Kennedy decided to pursue this plan, which called for bringing units within the five divisions in Europe to full strength,

---

[19] Beschloss, 1991, pp. 246–247.

[20] Walter S. Poole, *The Joint Chiefs of Staff and National Policy*, Vol. 8: *1961–1964*, Washington, D.C.: Office of Joint History, Office of the Chairman of the Joint Chiefs of Staff, 2011.

totaling 133,000 military personnel at $1.3 billion.[21] On July 25, Kennedy made an address to the nation, stressing that West Berlin "has now become—as never before—the great testing place of Western courage and will, a focal point where our solemn commitments . . . and Soviet ambitions now meet in basic confrontation."[22] To address the threat, he requested the following from Congress, approved on July 28:

1. $3.247 billion in additional fiscal year appropriations for military forces, with $1.8 billion for procuring nonnuclear weapons, ammunition, and equipment
2. an increase in the Army's total authorized strength, from 875,000 to approximately 1 million personnel
3. an increase of 29,000 active-duty personnel for the Navy and 63,000 for the Air Force
4. authority to extend tours of duty and to order to active duty certain ready reserve units, air transport squadrons, and Air National Guard tactical air squadrons
5. retention or reactivation of several ships and planes recently or planned to be retired.

For the additional personnel and equipment to fill out and mechanize depleted units in Europe, however, deployment was not slated to begin until December 1, with any major reinforcement units to be sent, if deemed necessary, only after January 1, 1962. But general, overall military force enhancements continued. In early August, the U.S. Department of Defense (DoD) alerted 250,000 reservists and

---

[21] Office of the Chief of Military History, "U.S. Army Expansion, 1961–1962," Washington, D.C.: U.S. Department of the Army, 1963, p. 33.

[22] John F. Kennedy, "Radio and Television Report to the American People on the Berlin Crisis," in Gerhard Peters and John T. Woolley, American Presidency Project, Santa Barbara, Calif., July 25, 1961b. Beyond announcing the deployment of additional forces, the speech can be seen as an attempt to generate *audience costs*—that is, political consequences that Kennedy would face if he were later seen to back down from the commitment to Berlin, and that therefore enhance the credibility of that commitment. The speech and these issues are discussed in greater detail later in this chapter.

193 Air National Guard units for possible activation.[23] It also ordered three training divisions into combat-ready status and announced that 270 B-47 medium bombers would remain in service despite earlier plans for their retirement.[24]

Following the surprise August 13 construction of the Berlin Wall, the United States further accelerated and expanded efforts to enhance its posture in Europe. The next day, Kennedy stressed to McNamara that "we should hasten to Europe all reinforcements needed to make the present garrison completely combat ready."[25] DoD subsequently announced on September 9 that 40,000 additional troops would deploy to Europe to strengthen existing combat and combat support forces, and on September 18, DoD called 73,000 reservists to active duty, including one armored and one infantry National Guard division, bringing the total Guardsmen slated for active duty to 44,371.[26]

Given the evolving crisis, McNamara presented his department's recommended force enhancement options on October 10, which included placing prepositioned equipment for one armored division and one infantry division in Europe.[27] In an attempt to both show commitment and control the escalation of the situation, the President authorized preparations for additional divisional forces but not

---

[23] U.S. Department of State, Bureau of Public Affairs, *Crisis over Berlin: American Policy Concerning the Soviet Threats to Berlin, November 1958–December 1962*, Part 6: *Deepening Crisis over Berlin--Communist Challenges and Western Responses, June–September 1961*, Washington, D.C., April 1970, p. 46; and U.S. Air Forces in Europe (USAFE), "Air National Guard Deployment to USAFE Area, 1961–1962," Historical Division, Office of Information, December 1962, p. 7.

[24] Raymond L. Garthoff, *The Interaction of Soviet and Western Military Postures (Memorandum on the Role of Military Demonstrations in the Politico-Military Confrontation over Berlin Attached)*, Washington, D.C.: U.S. Department of State, Executive Secretariat, October 13, 1961.

[25] White House, "Kennedy's Plans for Reinforcing Troops in Europe," August 14, 1961.

[26] JCS, "Public Affairs Release Confirming the Military Build-Up in Germany," JCS 1425, September 8, 1961; Garthoff, 1961.

[27] McGeorge Bundy, "Minutes of Meeting, October 10, 1961: Berlin Build-Up and Contingency Planning," in Charles S. Sampson and Glenn W. LaFantasie, eds., *Foreign Relations of the United States, 1961–1963*, Vol. 14: *Berlin Crisis, 1961–1962*, Washington, D.C.: U.S. Department of State, Office of the Historian, 1993.

their forward deployment. The JCS directed U.S. Army Europe (USAREUR) two days later to begin the preparation and storage of 125,000 short tons of equipment and supplies for an armored division and an infantry division in dispersed locations. These efforts were the first steps toward establishing the Prepositioning of Material Configured to Unit Sets, or POMCUS, that would endure for the rest of the Cold War and beyond.[28] Kennedy also authorized the deployment of the 3rd Armored Cavalry Regiment with attached intelligence attachment (around 2,800 personnel), which began to move toward Europe on October 24 and became operational by November 24 in Kaiserslautern, West Germany. The other forces began arriving on the following timeline:

- October 31: 1,200 personnel to restore deletions in USAREUR units; 15,000–16,000 personnel for supporting units
- November 20–December 1: 56 shiploads of equipment (48,510 long tons) for prepositioned divisions
- December 15: 4,000 personnel to restore deletions in USAREUR units; 1,000–2,000 personnel for supporting units
- December 16: shipments for support units in prepositioned stocks.[29]

By the end of 1962, the steady-state posture had modestly increased through fillers for already-existing, depleted divisions; additional combat support units; the deployment of the 3rd Armored Cavalry Regiment; and the new prepositioned equipment. By June 1962, six new F-105 squadrons were operational in Europe, in addition to other temporary deployments.[30] Altogether, the Air force expanded from 22 to 31 tactical aircraft and missile wings and called to active duty 25 National Guard fighter and transport squadrons and five Air

---

[28] Donald A. Carter, *Forging the Shield: The U.S. Army in Europe, 1951–1962*, CMH Pub 45-3-1, Washington, D.C.: Center of Military History, U.S. Army, 2015.

[29] Compiled from Office of the Chief of Military History, 1963.

[30] DoD, "Release of Reservists Involuntarily Recalled to Active Duty," Office of the Secretary, April 1962.

Force Reserve troop carrier squadrons, totaling 27,000 service members. The Navy ordered 40 destroyer-type ships with reserve crews into active service, reactivated 33 amphibious and support ships from reserve fleets, and retained six ships scheduled for activation. It also commissioned three aircraft carriers, a nuclear-powered cruiser, and eight guided-missile frigates and destroyers. By the end of fiscal year 1962, the Navy had increased strength from 627,000 to 666,000 personnel and from 819 ships (375 warships) to 900 (397 warships).[31] The aggregate effect of these changes on U.S. posture in Europe is summarized in Table 5.1.

Many of these deployments, however, occurred after the crisis in Berlin had largely abated, although their preparations and initial stages were clearly visible earlier. Beyond these U.S. plans for a revitalized steady-state posture in Europe, the forces deployed during the crisis itself require close examination.

The construction of the Berlin Wall in mid-August 1961 led to an acceleration of U.S. efforts to increase its steady-state force posture in

Table 5.1
Ground Enhancements to U.S. Posture in Europe

	Number of Forces
Program strength as of June 30, 1961	228,800
Mechanization of three divisions	3,000
Fillers for table of organization and equipment line deletions	16,900
Strategic Army Forces nondivisional units	18,700
3rd Armored Cavalry Regiment	2,800
Caretaker and maintenance detachments	3,400
Special forces	200
Miscellaneous losses	(–400)
Program strength as of September 1, 1962	273,400

SOURCE: Office of the Chief of Military History, 1963, p. 109.

---

[31] Office of the Chief of Military History, 1963.

Europe. In addition, the Kennedy administration sent temporary air, ground, and sea augmentations as tensions heightened in the second half of the year. Planning for these temporary reinforcements, however, had begun much earlier, even prior to Khrushchev's June ultimatum. At the end of May, McNamara sent a request to the JCS for recommendations on such actions, including a mobility exercise, division movement, or calling of reserves to active duty. He stated,

> It may soon become desirable to show more clearly to the [Soviet Union], without fanfare, the US determination and ability to apply military power in the Berlin situation. I consider that temporary reinforcement of US forces in Europe and some expansion of US capability to reinforce further are among the most meaningful acts towards this purpose. The primary objective of such actions would be to deter the [Soviet Union] from initiating a Berlin crisis.[32]

In response to McNamara's request, and shortly after the conclusion of the Vienna summit, the JCS offered several rapid reinforcement options and estimations, listed in Table 5.2. In addition to ground forces, the JCS also estimated that the deployment of five squadrons of F-100s and their air base augmentation units would take about 27.5 hours for four squadrons to arrive in France and 43.5 hours for one squadron to arrive at Incirlik, Turkey. In addition, elements of the 2nd Fleet could quickly divert to war stations and exercise from UK ports and in the Norwegian sea, although such a diversion would preclude the use of those elements in the event of a Caribbean crisis.

As noted, however, McNamara, cognizant of the large cost and impacts on flexibility to deploy to other theaters, delayed approving deployments of both steady-state posture enhancements and temporary deployments until Soviet intentions became clearer. After the construction of the Berlin Wall began on August 13, preparations began in earnest for a clear U.S. response. Various forms of public and private

---

[32] Robert S. McNamara, "Subject: Temporary Reinforcement as a Berlin Deterrent," memorandum, Washington, D.C.: National Security Archive, May 29, 1961.

Table 5.2
Temporary Deterrent Ground Reinforcement Options Considered for Berlin, June 1961

Units	Personnel	Short Tons of Equipment	Sorties Required	Closure Estimation	Cost ($)
2 STRAC airborne battle groups	4,216	3,465	224 aircraft sorties	4.5 days	12.75 million
1 STRAC division (all air)	11,555	8,213	560 aircraft sorties	9.0 days	34.6 million
1 STRAC division (–)ᵃ (2 battle groups by air,	4,216	3,465	224 aircraft sorties	4.5 days	17.03 million
the rest by sea)	7,339	4,964	3 troop transports, 3 cargo ships	17.0 days	

SOURCE: Thomas D. White, Chief of Staff of the Air Force, "Subject: Temporary Reinforcement as Berlin Deterrent," memorandum to the Secretary of Defense, Washington, D.C.: National Security Archive, June 6, 1961.

NOTE: STRAC = Strategic Army Corps.

ᵃ A *division (–)* is a division that does not have the full complement of personnel.

protest were sent by the U.S., British, and French governments, but Kennedy deemed that a more visible response was required as well.[33]

Air forces were the first to arrive in theater. Because of the long lead times for spinning up National Guard units, USAFE Chief of Staff Curtis Lemay and GEN Lauris Norstad decided on September 2 to send active-duty force squadrons in the interim. Called Operation Tack Hammer, six F-100 and two F-104 squadrons, totaling 144 aircraft, began deploying on September 3 to air bases in Germany, France, and Spain.[34] On September 19, the JCS gave the code name "Stair Step" to the planned augmentation of U.S. European Command with Air National Guard units to "provide additional conventional weapons capability for use in a Berlin military contingency without degrading

---

[33] U.S. Department of State, "Transmittal of Agreed Text of Protest Notes to Be Delivered to the Soviets on August 17," Washington, D.C., Telegram 438, August 15, 1961b.

[34] In particular, the units were based in Spangahlem, Hahn, and Ramstein, Germany; Morón, Spain; and Chamblay, France. USAFE, 1962, p. 14.

the preexisting USAFE nuclear capability."[35] The Kennedy administration moved the original launch date from December to November, and advance parties began deploying on October 19, with the official order for the aircraft occurring on October 26. The aircraft deployment, totaling 228 fighter, reconnaissance, and trainer aircraft, plus six C-47 support planes, was the largest single overseas transfer of tactical aircraft since World War II.[36] Additional lift for headquarters and support units required around 370 air transport sorties carrying 2,400 tons of cargo, and an additional 10,000 tons of cargo traveled by sealift.[37] Naval activity specific to the Berlin Wall crisis was much more limited, entailing the deployment of an antisubmarine task group to the northeast Atlantic Ocean in November. An exercise near Turkey by the 6th Fleet, planned prior to the onset of renewed tensions, also occurred during the crisis.[38]

As noted earlier, the day after the Berlin Wall's construction began, President Kennedy requested that planned steady-state reinforcements be accelerated, but this response would still take several weeks to implement and would thus not be obviously tied to the construction of the wall. As an additional signaling measure, Kennedy agreed on August 17 to send GEN Lucious D. Clay and Vice President Lyndon B. Johnson to Berlin and reinforce the Berlin garrison with one battle group drawn from forces already in West Germany, moved through the Autobahn.[39] The commander of USAREUR subsequently instructed the 7th Army the next day to prepare the 1st Battle Group of the 18th Infantry, rein-

---

[35] USAFE, 1962, pp. 39–40.

[36] USAFE, 1962, p. 28.

[37] USAFE, 1962, p. 32.

[38] Bendix Corporation, Office of National Security Studies, *The Navy and Sub-Limited Conflicts: Final Report*, BSR 1407, September 30, 1966, p. A-45.

[39] While Johnson was in Berlin on a short visit to show administration support for the city, Clay temporarily took over command of the city's garrison. DoD, "Notification That President Kennedy Has Sent Personal Messages to Charles de Gaulle and Harold Macmillan Proposing a Possible Declaration on Western Determination on Berlin," Telegram 135, August 17, 1961; and Charles S. Sampson and Glenn W. LaFantasie, eds., *Foreign Relations of the United States, 1961–1963*, Vol. 15: *Berlin Crisis, 1962–1963*, Washington, D.C.: U.S. Department of State, 1994, pp. 345–346.

forced by a howitzer battery and combat engineer company, for road march deployment to Berlin on August 20.

The 1,600 personnel, entering East Germany through the Helmstedt-Berlin Autobahn checkpoint, encountered minor delaying tactics at checkpoints, East German police stationed 250 yards apart on both sides of the Autobahn, and buzzing by a Soviet twin-engine jet plane. However, the three-serial convoy reached West Berlin by noon without major incident and was greeted by cheering crowds and Vice President Johnson.[40] It is important to note that all vehicles involved in the convoy were wheeled. Heavier, tracked vehicles were omitted because of their slow rate of movement.[41] Because it was assumed that the evolving political situation would require continued augmentation of the Berlin garrison, the JCS approved the Commander in Chief of U.S. European Command's plan to rotate whole 7th Army battle groups (minus tracked vehicles) at two- to three-month intervals, moved by administrative convoy along the Helmstedt-Berlin Autobahn. The 1st Battle Group, 18th Infantry, was thus relieved on December 8 by the 1st Battle Group, 19th Infantry.[42] Figure 5.2 shows the route taken by the augmenting battle groups, as well as the patrols described next.

In response to a detention of two U.S. soldiers on the Autobahn on August 22, Berlin Command began conducting patrols on the approach routes several times a day. When the Soviet Union protested the continuing patrols a month later, Berlin Command insisted that they were simply normal procedure, similar to practices conducted routinely for years prior. East German police detained more U.S. personnel on the Autobahn, leading the patrols to increase to six round trips a day. Conversations with West Berlin leadership and the populace led USAREUR to conclude that "the patrolling, more than any other act, proved the U.S. determination with respect to Berlin."[43]

---

[40] USAREUR, Operations Division, *Annual History United States Army Europe: 1 January–31 December 1961*, Washington, D.C.: U.S. Department of the Army, 1962.

[41] Maxwell Taylor, "Subject: Further Information on Troop Movement to Berlin," memorandum to the President, August 13, 1961.

[42] USAREUR, Operations Division, 1962.

[43] USAREUR, Operations Division, 1962.

Figure 5.2
Helmstedt-Berlin Autobahn

SOURCE: Map created from Google Maps. Photograph from Marty Gershen, "The Helmstedt-Berlin Autobahn: An Adventuresome Strip of Highway," *Stars and Stripes*, May 18, 1961. Used with permission.
RAND *RR2533-5.2*

In addition to these measures, President Kennedy authorized on October 1, 1961, a strategic mobility exercise known as Operation Long Thrust II. As with other courses of action taken, the planning had already been taking place. In September 1960, the JCS proposed a strategic mobility exercise and composite air strike force deployment to Europe and Turkey during the first half of May 1961 (known then as

Operation Long Thrust). This exercise would not only improve readiness and test contingency plans but also demonstrate continued U.S. resolve in the theater to West Berliners.[44] Kennedy approved the exercise in February 1961 with the following objectives, as written in memoranda from National Security Adviser McGeorge Bundy and Chairman of the JCS GEN L. L. Lemnitzer, respectively:

- "To increase the operational readiness of U.S. forces by exercising and testing the strategic deployment capability of elements of STRAC, [Tactical Air Command], and [Military Air Transportation Service]."[45]
- "To emphasize the capability of U.S. forces to support [Supreme Allied Commander Europe's] strategic general war posture by bolstering the NATO shield."[46]

Named Operation Long Thrust, the exercise would entail the deployment of three airborne infantry battle groups of the 101st Airborne Division and a composite force of bombers and fighters of the 9th and 12th Air Forces to Germany.[47] The Military Air Transportation Service would provide long-range transport aircraft to lift the battle groups,[48] while additional air wings would provide the combat

---

[44] USAREUR, Operations Division, "The Replacement and Augmentation Systems in Europe (1945–1963)," Historical Section, Historical Manuscript Collection, 1964, 8-3.1 CU 3 through 8-3.1 CW 4 c.2.

[45] McGeorge Bundy, "Memorandum for Deputy Assistant Secretary of Defense William Bundy, Deputy Undersecretary of State Raymond Hare," John F. Kennedy Presidential Library, February 21, 1961.

[46] L. L. Lemnitzer, "Subject: Strategic Mobility Exercise in USCINCEUR Area During FY 1961 (Long Thrust)," memorandum to Brigadier General Clifton, CM-148-61, John F. Kennedy Presidential Library, March 24, 1961.

[47] "Army May Deploy 5,000 from U.S. for NATO Exercise," *European Stars and Stripes*, February 27, 1961, p. 2; and "101st Abn Units Picked for 'Long Thrust,'" *European Stars and Stripes*, March 26, 1961.

[48] These groups were identified as the 2nd Airborne Battle Group, 187th Infantry; 1st Airborne Battle Group, 327th Infantry; and 1st Airborne Battle Group, 501st Infantry.

and support air elements.[49] After rapid deployment to Rhine-Main Air Base followed by staging at Ingolstadt Air Base, the 6,000 ground troops would move to the Hohenfels maneuver area, where elements of the French and German armies would join them for field exercises.[50] Developing crises in Southeast Asia, however, led the administration as early as March 1961 to question the prudence of committing forces and airlift capacity to Europe. Although the first Long Thrust exercise did not occur, its basic plan endured as a response option to further Soviet provocations in Berlin.

After the construction of the Berlin Wall began, General Norstad (Supreme Allied Commander Europe and Commander in Chief of U.S. European Command) instructed General Lemnitzer to prepare for a Long Thrust execution within ten to 14 days from time of decision. Given the precarious situation, however, Norstad stated that it was unclear whether the exercise timing in mid-October "would be desirable, would be merely acceptable, or would be most undesirable."[51]

The lack of a firm date for Long Thrust's rescheduling arose from uncertainty about how the Soviet Union and NATO allies alike would react to such military measures, particularly as they pertained to the potential for negotiations or escalation. Hostilities had increased significantly since Kennedy's July response to Khruschev's ultimatum.[52] State Department cables between Washington, Paris, Bonn, and Moscow cautioned that the Soviets would feel pressure to respond to such maneuvers in kind, and Allied nations may view such moves as

---

[49] These air wings were identified as the 401st Tactical Fighter Wing, 4th Tactical Fighter Wing, 832nd Air Division, 363st Tactical Recon Wing, 838th Air Division, and 4505th Air Refueling Wing.

[50] "6,000 Troops in U.S. Wait Long Thrust," *European Stars and Stripes*, April 29, 1961, p. 1.

[51] Lauris Norstad, "Memo to General Lemnitzer from General Norstad," Washington, D.C.: National Security Archive, August 30, 1961.

[52] This perception is verified by Russell J. Leng's quantitative study of actions during the Berlin crisis from June to November 1961. See Russell J. Leng, *Bargaining and Learning in Recurring Crises: The Soviet-American, Egyptian-Israeli, and Indo-Pakistani Rivalries*, Ann Arbor, Mich.: University of Michigan Press, 2000, pp. 65–68.

unnecessary saber-rattling that would derail ongoing progress toward a peaceful, negotiated settlement. Several noted that these risks outweighed what they viewed as a limited deterrent signal.[53]

The Kennedy administration recognized the limitations and potential dangers, but it also feared that the military balance in the Berlin area deprived the United States of adequate conventional options should the crisis intensify. "The value of exercise Long Thrust," Secretary of State Dean Rusk finally concluded, "lies almost exclusively in its prospective usefulness as a military measure," not as a rapid deployment capability demonstration to enhance deterrence.[54] Long Thrust's initial role as a reinforcement mechanism as opposed to a demonstration is further reflected in the pre-exercise brief to NATO's North Atlantic Council, which heavily emphasized a passive, low-key public affairs approach. In fact, government airlift of foreign and domestic media representatives was eventually disapproved altogether.[55] Operation Long Thrust II was eventually announced in January 1962, after tensions in Berlin had eased somewhat, and was executed, along with a series of successor exercises, over the next three years to provide an enhanced consistent rotational presence in Europe.[56]

---

[53] William M. McSweeney, "Telegram from Moscow (McSweeney) to Secretary of State," Papers of John F. Kennedy, Presidential Papers, National Security Files, Series 04, Departments and Agencies, Box 279, JFKNSF-279-003, August 30, 1961. This was also echoed by Thomas K. Finletter, "Telegram from Paris (Finletter)," Papers of John F. Kennedy, Presidential Papers, National Security Files, Series 04, Departments and Agencies, Box 279, JFKNSF-279-003, August 30, 1961a.

[54] Dean Rusk, "Telegram from Dean Rusk to American Embassies in Paris, Bonn, London, Moscow, Rome," Papers of John F. Kennedy, Presidential Papers, National Security Files, Series 04, Departments and Agencies, Box 279, JFKNSF-279-003, September 9, 1961.

[55] Thomas K. Finletter, "Telegram from Paris (Finletter) to Secretary of State," John F. Kennedy Presidential Library, November 1, 1961b; Office of the Secretary of Defense, "Telegram from OSD to SecArmy, SecNav, SecAir Force, CJCS, CINCStrIKE," John F. Kennedy Presidential Library, January 11, 1962.

[56] "Subject: Situation Report on Exercise Long Thrust," memorandum to the Joint Chiefs of Staff, John F. Kennedy Presidential Library, January 22, 1962; Herb Scott, "3,500 Troops Launch Long Thrust III," *European Stars and Stripes*, May 8, 1962, p. 1; and "8th Inf Group Will Replace Berlin Unit," *European Stars and Stripes*, June 20, 1962.

Local Actions

In addition to making longer-term posture adjustments and taking temporary reinforcement measures, the United States also engaged in local actions using the conventional military forces present in Berlin. Although this report focuses on the effects of steady-state forces and crisis deployments, these local actions are important to survey because they illustrate the types of risks that can result from forces operating in close proximity to one another in a crisis environment.

One of the most punctuated incidents of the 1961 Berlin crisis was the standoff at Checkpoint Charlie near Friedrichstrasse toward the end of October. On September 19, General Clay became Kennedy's special representative in West Berlin. In October, Clay and MG Albert Watson began advocating for probes to test the U.S. right to use different sector crossing points outside of Friedrichstrasse. Both Clay and Watson argued that these probes would help mend the damage done to the U.S. image from previous Allied inaction when the East Germans unilaterally reduced crossing points during the construction of the wall. GEN Bruce Clarke and Norstad opposed the probes, stating that visible failures to gain access to East Berlin would harm U.S. prestige and West Berliner confidence. Clay retorted that "we talk a lot about leaning, when all we do is lean backward. We cannot lean forward and expect to win each time, but taking the initiative is worth some failures. We gain prestige by trying rather than doing nothing. Anyway, since the wall, we have little prestige left."[57] Limited probes were authorized to begin. Meanwhile, Clay had secretly ordered the construction of a Berlin Wall replica to practice demolition tactics. Specially configured bulldozer tanks practiced tearing down sections until Clarke caught wind and ordered Clay to cease.[58] Although the Soviets had been aware of Clay's preparations for some time, enhancing their concern about the prospects for unilateral U.S. military steps to challenge the construction of the wall, Washington had been unaware

---

[57] USAREUR, Operations Division, 1962, p. 51.

[58] Raymond Garthoff, "Berlin 1961: The Record Corrected," *Foreign Policy*, No. 84, Autumn 1991, pp. 147–148.

of the mock wall, leading to a perception gap in how each side understood the other's actions.[59]

The first probe occurred on October 10, when U.S. vehicles unsuccessfully attempted to re-enter West Berlin through Sonnallee. On the same day, U.S. forces resumed daily patrols along the sector border.[60] U.S. civilians were denied access four separate times on October 15, and when the United States protested, Soviet Colonel Lazarev stated that if the United States supplied photographs and descriptions of U.S. license plates, the Soviets would provide this information to the East German authorities and "everything would be alright."[61] Kennedy approved National Security Action Memorandum 107 on October 18, which permitted moving tanks to the Friedrichstrasse crossing point if the East Germans attempted to close it or create unacceptable delays. If necessary, the tanks would destroy any barrier but then withdraw into the western sector.[62]

The next major incident occurred on October 22, when East German border guards denied the senior U.S. diplomat in West Berlin, E. Allan Lightner, entry into East Berlin and refused to summon Soviet officers when asked. Armed U.S. guards then escorted Lightner into East Berlin, and four U.S. tanks and two armored personnel carriers came within 500 yards of the sector border.[63] After consultation, Soviet Colonel Lazarev acknowledged that the East German guards were at fault and affirmed that Lightner could drive his car across the border.[64] After several more incidents, GDR officials stopped a vehicle on October 25, and U.S. military police escorted it through. In response to protests, the Soviet command denied that it gave assurances on Octo-

[59] Kempe, 2011, p. 418.

[60] "Berlin Command Resumes Patrol Activity Along the U.S.-USSR Border," United States Mission, West Berlin, October 10, 1961.

[61] E. Allan Lightner, "Conversation with the Soviet Political Advisor Concerning the October 15th Incident at the Friedrichstrasse Crossing Point," Telegram 762, October 17, 1961.

[62] U.S. Department of State, Bureau of Public Affairs, 1970, pp. 108–110.

[63] Garthoff, 1991, p. 148.

[64] CIA, Office of Current Intelligence, "Current Intelligence Weekly Summary [Summary of Border Incidents]," October 27, 1961b.

ber 17 that problems would cease and asserted that the East Germans had the right to regulate access and that U.S. civilians must start showing identification.[65] Three tanks and three armored personnel carriers then moved to the checkpoint and parked at the boundary line, and, despite there being no incident in the vicinity, three British tanks and an infantry company approached the Brandenburg gate. The armored vehicles withdrew later that day.[66]

The following day, another vehicle, this time carrying two uniformed officers and a civilian, was denied entrance to East Berlin at the crossing point and was then escorted by U.S. military police. As the officer and civilian tried to return, East Germans barred their exit, and the military police again escorted them across the border. This time, large crowds on both the East and West Berlin sides gathered to watch the exchange. Meanwhile, the Soviets moved a battalion of 33 tanks into East Berlin one mile from the checkpoint, exactly matching the number of tanks the United States had in West Berlin. Soviet tanks had not entered Berlin proper since riots in June 1953.[67]

The probe episode reached its peak on October 27 when the United States moved ten M-48 tanks, two armored personnel carriers, and five jeeps with infantry to the checkpoint. According to one account, the lead tanks were equipped with bulldozer attachments.[68] These then withdrew once East Germans granted access for a vehicle, but soon afterward, the Soviets moved ten tanks to the crossing point, with seven other T-54s 100 yards from the border. The U.S. tanks then returned, facing off directly across from the Soviets for several hours.[69]

In response to the incident, Kennedy called General Clay, who assured him that the Soviets "don't intend to do anything" and that he was more worried about the nerves in Washington than those on the ground in Berlin. Kennedy replied that while others may have lost their

---

[65] CIA, Office of Current Intelligence, 1961b.

[66] Garthoff, 1991, p. 148.

[67] Garthoff, 1991, p. 144.

[68] Garthoff, 1991, p. 149.

[69] USAREUR, Operations Division, 1962.

nerve, he had not. Kennedy instructed U.S. Attorney General Robert F. Kennedy to informally relay a message for Khrushchev through Georgi Bolshakov, a press attaché and probable KGB (Committee for State Security) officer at the Soviet embassy in Washington. President Kennedy offered that if the Russians removed their tanks in 24 hours, the United States would reciprocate and also show "certain flexibility" in the future on Berlin matters.[70] On October 28, the Soviet tanks withdrew, followed soon after by the U.S. tanks. The backchannel negotiations remained unknown to the public and the forces on the ground, who speculated that "the withdrawal of the Soviet tanks was apparently prompted by the news that the United States would not send any further 'probes' into East Berlin for the time being, but would attempt to resolve the problem on the diplomatic level."[71] On November 7, USAREUR suspended the ability of, but did not yield right of access for, military dependents and civilian personnel to enter East Berlin, and all U.S. military personnel crossing the sector border were required to be in uniform.[72] Although minor incidents occurred thereafter, the Berlin Wall crisis had reached its peak and then began to return to a more steady-state tension.

Political Context and Soviet Responses

U.S. actions immediately after the June Vienna summit between Kennedy and Khrushchev were limited as the Kennedy administration debated internally and deliberated with allies. On July 3, however, *Newsweek* leaked internal proposals by the JCS, discussed earlier, which included transferring one additional division to Germany, declaring a limited national emergency, partially mobilizing National Guard and Reserve units, increasing draft quotas, and demonstrating intent to use nuclear weapons.[73] Within a week, Khrushchev declared

---

[70] Beschloss, 1991, pp. 334–335.

[71] USAREUR, Operations Division, 1962.

[72] USAREUR, Operations Division, 1962.

[73] "'If You Want Peace . . . ,'" *Newsweek*, July 3, 1961, pp. 13–14.

a suspension of previously announced manpower reductions and an increase in defense expenditures. Actions and reactions, however, accelerated after Kennedy's July 25 speech to the American people.

Kennedy's July 25 Speech

The unequivocal language in Kennedy's July 25 address,[74] as well as the breadth of his force enhancement requests to Congress and subsequent limited reinforcements involving conventional forces, appear to have shifted Khrushchev's perceptions of U.S. commitment to defend West Berlin by force. Based partly on Kennedy's behavior during the disastrous Bay of Pigs invasion the prior April, Khrushchev initially assumed that Kennedy was unlikely to substantially resist Soviet efforts to change the situation on the ground in Berlin.[75] Khrushchev therefore did not perceive threatening the U.S. position in West Berlin to be overly risky.[76] By mid-August, however, following Kennedy's speech, the substantial increase in force requests to Congress, and the change to heightened readiness and mobilization of certain units, Khrushchev shifted notably away from rhetoric that directly called into question Allied presence and access rights to West Berlin.[77] He also became increasingly concerned about the potential risks for war over Berlin, although Soviet motivations to stop the refugee flows were sufficient that these heightened risks did not impede plans to construct the Berlin Wall. As the United States officially alerted reserves and National Guard units in early August, Khrushchev attempted to send a message to Kennedy through his discussions with Italian President Amintore Fanfani, stressing around 12 separate times that war over Berlin would become nuclear immediately. Most interesting, however, was Khrushchev's assessment of the U.S. decisionmaking process. The United States, he fretted, "is barely a governed state. . . . Hence, everything is

---

[74] Kennedy, 1961b.

[75] Lunák, 2003, p. 54; Kempe, 2011, p. 307; and William Taubman, *Khrushchev: The Man and His Era*, New York: W.W. Norton and Company, 2003, p. 495. Kennedy's speech can be seen as an attempt to generate audience costs, as described earlier. See Fearon, 1994.

[76] Kempe, 2011, p. 25.

[77] Kempe, 2011, pp. 244–246, 424.

possible in the United States. War is also possible. . . . There are more stable situations in England, France, Italy, Germany."[78] President Kennedy and his administration, it appeared, were not as predictable as he would have hoped. Although evidence does not exist to assess whether Kennedy's rhetoric or the shifts in U.S. military readiness and posture played a greater role in altering Khrushchev's thinking, it seems likely that both played a role.

In these discussions, Khrushchev also referenced conciliatory statements recently made by U.S. Senators Mike Mansfield and J. William Fulbright, particularly stating that the GDR had the right to restrict refugee flow and that Berlin should have free-city status.[79] It is possible that Khrushchev was attempting to gauge Kennedy's reaction to the future construction of the Berlin Wall. Given available documentation, scholars disagree over how the decision was made regarding the timing of the Berlin Wall. It is generally accepted that the final decision was reached at the August 3–5 Warsaw Pact conference, in which Ulbricht presented a 40-page speech on the wall's necessity.[80]

On August 12, the GDR issued a decree stating that special permits were required for East Germans wishing to travel to West Berlin and limited the number of border crossing sites to 13. Early the next morning, East German police began laying barbed wire, commandeering buildings on the border, and cutting telephone communications to West Berlin. Concurrently, two motorized Soviet rifle divisions with full combat equipment deployed south and west of Berlin, and a tank division deployed south of Berlin.[81] After the West did not challenge the construction except with verbal admonishments, these forces were withdrawn to assembly areas on August 16.[82]

---

[78] Zubok, 1993, pp. 25–26.

[79] Amintore Fanfani, "Message from Italian President Fanfani to President Kennedy," U.S. Embassy in France, SECTO 46, August 8, 1961.

[80] Lunák, 2003, p. 76.

[81] "Summary of Events in Berlin from Early Morning to Mid-Afternoon," United States Mission, West Berlin, 186, August 13, 1961.

[82] CIA, Office of Current Intelligence, "Current Intelligence Weekly Summary [Situation Report on Wall Crisis Developments]," August 17, 1961a.

Reactions to the Berlin Brigade Augmentation, Accelerated Deployments, and Planned Exercises

As discussed earlier, Soviet and GDR forces allowed the U.S. battle group augmentation in August to transit the Autobahn to East Berlin relatively unharassed. Intelligence estimates on August 28 noted that additional Soviet military preparations had not been made, with responses being only "in like measure" to U.S. actions. Soviet forces were not preparing, or prepared, to fight a general war with NATO.[83] The fact that Khrushchev had not mentioned the treaty deadline during August was also noted.[84]

Prior to Khrushchev's public October 17 waiver of the peace treaty deadline, the United States began conducting probes of the East-West Berlin sector border and increased patrols on the Autobahn.[85] DoD announced that it would send 40,000 additional personnel to Europe and called reservists and guardsmen across the armed services to active duty. Large air packages deployed to Europe in September and October, with initial ground fillers for existing divisions and divisional prepositioned equipment also beginning to arrive in October. Finally, several preplanned U.S. and NATO exercises took place, including Checkmate I and II and Sky Shield II, which was the largest air defense maneuver to date. As September began, intelligence reports noted Khrushchev's suggestions that both sides "revoke" their military preparations and his lack of reference to new defense expenditures in speeches as possibly revealing reluctance to accelerate

---

[83] Taubman, 2003, p. 504.

[84] U.S. Department of State, Bureau of European Affairs, "Assessment of Current Soviet Intentions in the Berlin Crisis," August 29, 1961.

[85] The construction of the wall violated postwar agreements that guaranteed passage across the different occupation zones in the city, but the fact that it was East German troops guarding the checkpoints was also a point of substantial tension. The occupation of Berlin was being legally conducted by the four wartime allies: the United States, the Soviet Union, the United Kingdom, and France. By substituting East German troops for its own, the Soviet Union was calling into question the continued relevance of those wartime agreements, which would, in turn, call into question Western rights to remain in the city. This is why U.S. forces insisted on dealing with Soviet troops and border guards during the crisis instead of with East German guards who, according to wartime agreements, had no rights in the city.

the developing security dilemma.[86] Little attention was paid in Soviet media to the announcement regarding the additional 40,000 troops or unit activations, and reactions to the planned exercises were standard, although Soviet media continued to denounce U.S. preparedness measures.[87] On September 14, the Soviet Union announced that Soviet Minister of Foreign Affairs Andrei Gromyko was prepared to hold discussions with Rusk regarding the peace treaty and the Berlin situation at large.[88] Subsequently, the Soviet Union announced that large-scale Warsaw Pact maneuvers would take place in October and November. Presumably planned during a September 8–9 Warsaw Pact meeting, the exercises most likely, according to the intelligence community, were for the purposes of strengthening bargaining positions and providing military options for future contingencies.[89] Despite this increased military action, with apparent Western acquiescence to the construction of the wall, the Soviet Union and East Germany began signaling a willingness to reduce tensions, with Khrushchev suggesting on September 29 that he and Kennedy exchange personal letters to discuss a settlement and Ulbricht placing an unusual qualification in his October 6 speech, where he urged "*gradual* transformation of West Berlin into a free demilitarized city" (emphasis added).[90] The maneu-

---

[86] U.S. Department of State, Bureau of Intelligence and Research, "Assessment of Current Soviet Intentions in the Berlin Crisis: September 4-11, 1961," research memorandum RSB-3, September 11, 1961a.

[87] U.S. Department of State, Bureau of Intelligence and Research, "Assessment of Current Soviet Intentions in the Berlin Crisis: September 11–18, 1961," research memorandum RSB-3.2, September 18, 1961b.

[88] U.S. Department of State, Bureau of Public Affairs, 1970, p. 134.

[89] U.S. Department of State, Bureau of Intelligence and Research, "Assessment of Current Soviet Intentions in the Berlin Crisis: September 25–October 3, 1961," research memorandum RSB-3.4, October 4, 1961c.

[90] Ernest R. May, Thomas W. Wolfe, and John D. Steinbruner, *History of the Strategic Arms Competition, 1945-1972*, Part II, Washington, D.C.: U.S. Department of Defense, Office of the Secretary, Historical Office, March 1981, p. 682.

vers themselves were not accompanied by significant propaganda fan-
fare, signaling a continued muted approach.[91]

With the Berlin Wall alleviating the most pressing issue driving
the urgency of the crisis on the part of the Soviets, Khrushchev sought
ways to calm the situation, which seemed to progressively be getting
more out of hand. In particular, he worried that economic repercus-
sions of sanctions or other actions against East Germany would destroy
gains achieved by the wall's stabilization of the refugee problem and
have cascading economic effects on other Warsaw Pact members,
which had been attempting to rebuff East Germany's requests for aid.
Subsequently, at the 22nd Congress of the Soviet Communist Party
on October 17, Khrushchev waived the end-of-year deadline for the
peace treaty as long as the United States "showed a readiness to settle
the German problem." To counterbalance this concession, he also
announced that the Soviet Union would test a 50-megaton bomb (the
largest thus far in the nuclear test series) in the next few days and that
his country also had possession of a 100-megaton bomb.[92] Although
it was a significant development toward de-escalating the crisis, the
October 17 waiver of the deadline did not immediately decrease ten-
sions, as local actions in Berlin led to the Checkpoint Charlie standoff.

Reactions During the Checkpoint Charlie Incident
The incident at Checkpoint Charlie illustrates both the importance of
understanding localized actions in the larger context and the impor-
tance of leadership visibility and central management of subordinates'
actions. As noted earlier, General Clay had ordered the construction
of a mock wall to test tactics in demolition using tanks with bulldozer
attachments. Although General Clarke was aware of Clay's actions and
immediately ordered the mock wall's removal, Soviet intelligence had
already photographed and reported the operation to Moscow. Report-

---

[91] U.S. Department of State, Bureau of Intelligence and Research, "Assessment of Current
Soviet Intentions in the Berlin Crisis: October 2–October 9, 1961," research memorandum
RSB-3.5, October 10, 1961d.

[92] U.S. Department of State, Bureau of Intelligence and Research, "Assessment of Current
Soviet Intentions in the Berlin Crisis: October 17–October 24, 1961," research memoran-
dum RSB-3.7, October 24, 1961e.

edly, however, no one in Washington was aware of Clay's actions.[93] Concurrently, with the blessing of the President, Deputy Secretary of Defense Roswel Gilpatric publicly discounted the supposed missile gap between the United States and the Soviet Union, emphasizing that the former enjoyed a considerable strategic advantage. Obliquely referencing Berlin, Gilpatric noted that "if forceful interference with our rights and obligations would lead to violent conflict—as it well might—the United States does not intend to be defeated."[94] Instead of reciprocating Khrushchev's major concession of October 17, the United States appeared determined to aggressively establish an advantage in Berlin through preparing to breach the wall and brandishing its nuclear capabilities, although some of these signals were not intended by Kennedy.

The earlier section has already detailed the tit-for-tat actions by the United States and Soviet Union at the sector crossing where tanks of both sides faced off against one another. The United States viewed the incident as a victory, successfully facing down a Soviet and East German challenge to U.S. transit rights and successfully reemphasizing Four Power authority over East German authority in Berlin by forcing Soviet intervention. The Soviets, however, viewed the incident as a successful deterrence of U.S. aggression. After receiving Kennedy's request that the Soviet tanks leave in 24 hours and offers of "certain flexibility" regarding future talks on Berlin, Khrushchev reportedly stated that U.S. leaders had "gotten themselves into a difficult situation . . . and they don't know how to get out of it. They're looking for a way out, I'm sure. So let's give them one."[95]

The Crisis Winds Down, but Tension Remains

On November 9, 1961, Khrushchev confirmed in a letter to Kennedy that the December deadline for the peace treaty had been abandoned, although he couched the affirmation by stressing, "I have no ground

---

[93] Garthoff, 1991.

[94] Roswell L. Gilpatric, address before the Business Council at the Homestead, Hot Springs, Va., October 21, 1961.

[95] Garthoff, 1991, p. 145.

to retreat further. There is a precipice behind."[96] The Long Thrust II exercise began without incident or heightened rhetoric in January 1962. February and March saw a slight rise in tensions as the Soviets attempted to hamper Allied use of the Berlin air corridors by engaging in altitude and time reservations, chaff drops, identification passes, buzzing, and minor jamming and electronic interference. By April, however, the incidents ceased, and Kennedy announced that "unless there is a serious deterioration in the international situation," activated National Guard divisions and reservists would be released in August.[97] In February, Khrushchev told Ulbricht that the peace treaty was now off the table, reportedly saying "with regard to the peace treaty, I believe there would be no war, but who can guarantee that? What is pushing us to a peace treaty? Nothing. Until August 13, we were racking our brains over how to move forward. Now, the borders are closed."[98]

Conclusion

Numerous factors helped prevent further escalation in the 1961 Berlin crisis. Most notably, although the precarious Western position in Berlin was a useful point of leverage for the Soviets, ejecting the West from the city was not one of Khrushchev's primary goals in the crisis. Instead, as discussed earlier, he was focused on stopping the flow of refugees from East Germany through the city and preventing the nuclearization of West Germany. Kennedy's acquiescence to the building of the wall, despite Soviet fears that the United States might use force to tear it down, allowed Khrushchev to achieve this aim without the further need to risk war with NATO. Similarly, with regard to whether West Germany should be permitted to develop an independent nuclear capa-

---

[96] May, Wolfe, and Steinbruner, 1981, p. 682.

[97] John F. Kennedy, "Statement by the President on the Release of National Guard and Reserve Units," April 11, 1962.

[98] "Note on the Discussion Between Khrushchev and Ulbricht in Moscow, 26 February 1962 (excerpts)," in Douglas Selvage, trans., "The End of the Berlin Crisis: New Evidence from the Polish and East German Archives," Cold War International History Project, Bulletin 11, Winter 1998.

bility, the Soviets saw substantial promise and flexibility in the U.S. position by the time the Berlin Wall crisis wound down in November 1961. Although the Eisenhower administration had refused to rule out the possibility of independent European nuclear deterrents, including for West Germany, and had practiced relatively loose "nuclear sharing" arrangements with NATO allies (including West Germany), the Kennedy administration took a dimmer view of both.[99] In negotiations with the Soviets throughout the summer and fall of 1961, the Kennedy administration signaled that it was open to an arrangement that would prevent West Germany from acquiring a nuclear weapon capability but ensure Soviet recognition of the Western position in Berlin and of the status quo in Germany more generally.[100] Negotiations on these issues continued throughout 1962 and 1963 and were seriously tested by the differing preferences of France and West Germany and the events surrounding the Cuban Missile Crisis, but the outlines of the eventual informal arrangement that emerged followed those being discussed at the end of 1961.[101]

By fall 1961, Soviet motivations to escalate tensions with the West over Berlin had been substantially reduced. This was primarily due to the Soviet Union having achieved, at least in part, its main goals rather than having been deterred from pursuing them. That said, conventional U.S. forces do appear to have had two notable effects on the course of the crisis. First, the robust, rapid, and comprehensive efforts to augment both steady-state U.S. posture in Europe and short-term reinforcements sent to Berlin in the late summer and fall of 1961 likely helped shift Khrushchev's perceptions of the credibility of Kennedy's promises to use force to stay in Berlin rather than be pushed out. Although pushing the West out of Berlin was not an important Soviet goal in the crisis, the threat to do so was the key point of leverage being used to extract other concessions. By clarifying that a push to eject U.S. forces would lead to war, Kennedy made clear that the brinksmanship strategy being pursued by Khrushchev could have costs for the Soviet

---

[99] Trachtenberg, 1999, pp. 304–306, 328–329.

[100] Trachtenberg, 1999, pp. 328–329.

[101] Trachtenberg, 1999, pp. 355–356.

Union as well and that there were limits to what the United States would be willing to trade to avoid war. This likely encouraged Khrushchev, ever the opportunist, to limit his goals for the crisis and not push for additional gains that might be beyond U.S. redlines. Thus, the U.S. crisis deployments and plans for greater future steady-state forces likely helped enhance deterrence and encourage de-escalation.

However, the actions undertaken by the forces the United States did send to West Berlin were, from the Soviet perspective, provocative and increased the risk of escalation, sometimes inadvertently. General Clay's maneuvers practicing to tear down the Berlin Wall led to a Soviet perception that the United States was planning to do exactly that, timed to coincide with the Soviet October Party Congress and intended to humiliate Khrushchev and weaken his political power.[102] Of course, nothing of the sort was intended by U.S. leaders, and Kennedy was not even aware of Clay's initiative. Furthermore, repeated probing by U.S. forces of the border crossings through the newly constructed wall involved several tense encounters with East German and Soviet forces, including, most memorably, the Checkpoint Charlie standoff on October 27, when a failure of nerve by local commanders could have precipitated a conflict not sought by either Washington or Moscow.[103] Rather than being considered unusual accidents of history, these sorts of misperceptions and tensions seem better considered as very possible, if not likely, outcomes of having large numbers of adversarial forces in close proximity.

Thus, the 1961 Berlin crisis illustrates two key findings from our statistical work. First, the deployment of additional forces, including ground troops, to Berlin likely contributed to the eventual de-escalation of the crisis by underlining U.S. commitment to the city and U.S. willingness to fight rather than be ejected from it. This mirrors the findings for crisis deployments discussed in Chapter Four. However, the presence of the enhanced U.S. forces in Berlin, alongside an enhanced Soviet presence, likely increased the frequency of low-intensity militarized behavior and probing by both sides. This is in keeping with the

---

[102] Kempe, 2011, p. 447.

[103] Garthoff, 1991, pp. 144–149.

findings associated with in-country troops discussed in Chapter Three. Although these incidents did not lead to war in Berlin, or in the typical case in our statistical models, they nonetheless represent some inherent risk of escalation that needs to be considered alongside the deterrent value that such forces can provide.

Operation Vigilant Warrior

Although Operation Desert Storm drove the Iraqi military out of Kuwait in 1991, it did not entirely put an end to Iraqi leader Saddam Hussein's irredentist ambitions. Driven by economic desperation and fear of a coup, Saddam continued to probe the extent of U.S. resolve throughout the 1990s. With each of these probes, he looked for indications that new U.S. administrations might be less committed to restraining Iraq and supporting the Gulf Cooperation Council states or that U.S. preoccupation with other international crises might increase Iraqi room for maneuver. In 1994, Saddam sought to test U.S. resolve for defending Kuwait by moving two elite Iraqi divisions close to the Kuwaiti border. The United States responded with a display of force known as OVW, eventually involving tens of thousands of ground forces and hundreds of aircraft.

OVW is generally considered to be an example of successful immediate deterrence. The United States' success was due, in part, to the unique circumstances surrounding the implementation of OVW. The United States had clearly demonstrated both its willingness to intervene in Persian Gulf affairs and the devastating potential of its military capabilities just three years earlier. The United States had also developed capabilities for rapid redeployment to the theater, allowing it to respond quickly to the Iraqi provocations in 1994. These background conditions, however, were not enough to prevent Saddam Hussein from believing that he could, at a minimum, provoke a crisis that would improve his bargaining position and ideally accomplish even more-ambitious goals. In carrying out OVW, the United States employed sound deterrence practices, such as clear messaging, swift-

ness and magnitude of response, and demonstration of continued resolve, all of which contributed to the successful outcome of restoring the status quo ante and deterring Iraq from invading Kuwait a second time. The U.S. military response was a critical part of U.S. efforts to contain Saddam, but it was supplemented by important diplomatic initiatives, including pressure from the French, Chinese, and Russians focused on persuading Iraq to back down, as well as the passage of a series of United Nations (UN) resolutions designed to restrain Saddam's actions.

Despite generally favorable conditions for the United States, the outcome of the 1994 crisis was not preordained. Internal Iraqi records from Saddam's regime indicate that he hoped to escape an extremely difficult domestic political situation by continuing to threaten Kuwait. Even with the Iraqi archival records that became accessible after 2003, it remains unclear whether Saddam sought to annex all or part of Kuwait in the crisis of 1994 or whether he expected only to increase existing pressures on the United States to reduce or remove sanctions. In fact, these two objectives were not incompatible. Saddam may have sought to increase his bargaining leverage, at a minimum, while using his force movements as a low-cost probe of U.S. resolve. Had the United States not responded forcibly, Saddam might have continued to press his advantage either immediately or over the longer term, with the ultimate goal of annexing a portion or all of Kuwait. OVW thus helped to set the stage for future U.S. confrontations with Iraq, making it clear that the U.S. steady-state presence in the Gulf could be rapidly supplemented to achieve overwhelming regional military superiority. Thus, it is an instructive case of immediate deterrence against a middle-tier adversary.

This chapter has five main sections. First, we provide a brief narrative history of the crisis and OVW. Second, we discuss the Iraqi perspective, including Iraq's intentions and goals in precipitating the crisis and, third, summarize U.S. perspectives on the crisis. Fourth, we provide a history of U.S. deterrence efforts in the region from 1990 through and including OVW in order to place OVW into the proper context. Fifth, we provide a detailed assessment of Iraqi perceptions of and reactions to OVW.

Overview of the Crisis and the U.S. Military's Response

In 1994, just three years after the Gulf War concluded, U.S. intelligence detected alarming changes in Iraqi force posture that suggested that Saddam was preparing to invade Kuwait a second time. On October 4, Saddam directed two of the Iraqi Republican Guard's armored divisions—Hammurabi and al Nida—to move into the Basra region north of Kuwait and position themselves about 20 km from the Kuwaiti border.[1] Once in place, the Hammurabi division's mechanized brigade oriented its artillery south toward Kuwait in a worrying display of aggression.[2] At the same time, Iraq also issued antagonistic statements about its desire to annex Kuwait and threatened to expel United Nations Special Commission (UNSCOM) inspectors from Iraq.[3] Iraq's steady-state force posture consisted of 50,000 troops near Basra and the Kuwaiti border, which were usually preoccupied with maintaining civil order; the addition of two Republican Guard divisions brought the number of troops in the region up to about 80,000 and skewed the balance of forces to appear much more offensive.[4]

In response to this display of Iraqi aggression, U.S. Central Command activated its crisis action team at noon on October 7, and the following day, President Bill Clinton ordered a large, immediate deployment of U.S. troops to Kuwait.[5] Specific deployments in this initial phase included special operations forces; a Marine Corps expeditionary unit; lead companies of the 24th Infantry Division deployed from Fort Steward, Georgia, which joined up with equipment prepositioned in Kuwait; two Army brigades; Air Force squadrons; a Navy

---

[1]   W. Eric Herr, "Operation Vigilant Warrior: Conventional Deterrence Theory, Doctrine, and Practice," master's thesis, Maxwell Air Force Base, Ala.: Air University, June 1996, pp. 28–29; and J. H. Binford Peay, "The Five Pillars of Peace in the Central Region," *Joint Forces Quarterly*, No. 9, Autumn 1995, p. 32.

[2]   Herr, 1996, p. 29.

[3]   Daniel Byman, Kenneth Pollack, and Matthew Waxman, "Coercing Saddam Hussein: Lessons from the Past," *Survival*, Vol. 40, No. 3, Autumn 1998, p. 137.

[4]   Herr, 1996, p. 30.

[5]   Herr, 1996, p. 1.

CSG, including the USS *George Washington* aircraft carrier, four Aegis cruisers, and the USS *Tripoli* amphibious ready group; more than 500 U.S. Marine Corps and U.S. Air Force aircraft; Marine and Army ships carrying equipment; Patriot missile batteries; maritime prepositioning ships from Diego Garcia; and warships from the United Kingdom and France.[6]

Probing the limits of U.S. resolve, Saddam initially ignored these U.S. and allied deployments and moved a third division of the Republican Guard to the Kuwaiti border.[7] In response, on October 9, President Clinton escalated by deploying an additional 36,000 troops and 51 more ground-attack aircraft and fighter jets to Kuwait.[8] On October 10, Iraq's ambassador to the UN, Nizar Hamdoon, declared to the General Assembly that the Republican Guard divisions in Basra would withdraw to rear positions, purportedly to complete what Iraqi leadership claimed was a training exercise all along.[9] Still, troops and aircraft continued to flow into the Gulf, and Clinton continued publicly messaging U.S. commitment to defend Kuwait.

A week after the crisis began, U.S. intelligence confirmed that the Iraqi troops had begun their retreat.[10] Yet the U.S. deployments continued, and as of October 11, approximately 19,000 members of the U.S. military were en route to Kuwait or already in theater, and

---

[6] David S. Yost, "New Approaches to Deterrence in Britain, France, and the United States," *International Affairs*, Vol. 81, No. 1, January 2005, p. 102; Byman, Pollack, and Waxman, 1998, p. 137; Herr, 1996, p. 24; and Peay, 1995, p. 32.

[7] Kevin M. Woods, David D. Palkki, and Mark E. Stout, eds., *The Saddam Tapes, 1978–2001: The Inner Workings of a Tyrant's Regime*, New York: Cambridge University Press, 2012, p. 26.

[8] Frank P. Harvey and Patrick James, "Deterrence and Compellence in Iraq, 1991–2003: Lessons for a Complex Paradigm," in T. V. Paul, Patrick M. Morgan, and James J. Wirtz, eds., *Complex Deterrence: Strategy in the Global Age*, Chicago, Ill.: University of Chicago Press, 2009, p. 24; and Michael R. Gordon, "Threats in the Gulf: The Military Buildup; At Least 36,000 U.S. Troops Going to Gulf in Response to Continued Iraqi Buildup," *New York Times*, October 10, 1994.

[9] Harvey and James, 2009, p. 16.

[10] Ann Devroy and Thomas W. Lippman, "Clinton Doubts Iraq's Word on Retreat; President Sends More Warplanes to Gulf," *Washington Post*, October 11, 1994.

44,500 more were in various stages of deployment.[11] Moreover, Clinton had placed an additional 156,000 ground troops on alert as part of a longer-term plan to "contain" Iraq beyond the immediate crisis.[12] As part of this containment strategy, U.S. officials also considered establishing a ground equivalent of the southern no-fly zone that would prevent Iraq from moving its troops back into position along the Kuwaiti border. Madeleine Albright, who was then serving as the U.S. ambassador to the UN, pitched the idea of a "containment zone" to the United Nations Security Council (UNSC) on October 12, but the proposal was met with resistance from the other permanent UNSC members, particularly France and Russia.[13] Therefore, the United States revised its deterrence strategy and on October 13 announced a new plan that entailed bolstering the U.S. military's steady-state presence in the Gulf, including the "positioning of American warplanes and a division's worth of tanks and armor on the borders of Iraq—mainly in Saudi Arabia, the United Arab Emirates, and Kuwait."[14]

To complement its military actions, on October 15, 1994, the United States pressed the UNSC to pass UNSC Resolution 949, which stipulated that Iraq must return to its usual force posture on the Kuwait border and could not deploy more troops into southern Iraq (thereby establishing a "no-drive" zone).[15] On October 16, Iraq accepted the terms of the UNSC resolution through statements on Iraqi government-controlled news outlets, an uncharacteristic form of public commitment for Saddam that suggested he truly intended to comply with the resolution.[16] Despite this seemingly credible verbal compliance, U.S. leadership remained skeptical that Saddam would

---

[11] Herr, 1996, p. 52.

[12] Herr, 1996, p. 31.

[13] Harvey and James, 2009, p. 17.

[14] Harvey and James, 2009, p. 7.

[15] Daniel Byman, "U.S. Policy Toward Iraq Since 1991," *Political Science Quarterly*, Vol. 115, No. 4, Winter 2000–2001, p. 506.

[16] David Palkki, "Deterring Saddam Hussein's Iraq: Domestic Audience Costs and Credibility Assessments in Theory and Practice," dissertation, University of California, Los Angeles, ProQuest, 2013, p. 187.

follow through with his promise to pull back and thus continued U.S. force deployments into Kuwait until the Republican Guard divisions had fully retreated to their regular positions. At this point, the United States canceled its deployment plans for an additional 174,000 personnel and took them off alert on October 20, just more than two weeks after the outbreak of the crisis.[17] Over the next few weeks, the United States continued to slowly but steadily deploy a smaller number of troops to the Gulf as part of its longer-term containment strategy. On November 10, roughly a month after the initial U.S. force deployment, Baghdad officially recognized Kuwait's sovereignty and the revised Iraq-Kuwait border as called for under previous UNSC resolutions, thus bringing the crisis to an end.[18]

Iraq's Intentions and Goals

Scholars, policymakers, and military leaders have long debated the intentions behind Iraq's October 1994 movement of forces. Even though we have access to Iraqi archival records, Saddam's tendency to compartmentalize, manipulate, and withhold information, even from his closest advisers, makes it very difficult to divine his true intentions with absolute certainty. Given these limitations of the historical record, researchers from the academic, political, and military communities have not reached a consensus on Saddam's motivations behind his October 1994 maneuvers. However, analyzing primary source materials from the Iraqi archives, as well as the broader patterns of Saddam's behavior throughout the 1990s, permits well-informed interpretations of Iraqi intentions in this crisis.

Despite his decisive defeat by the U.S.-led coalition forces in 1991, Saddam continued to view Kuwait as a rightful province of Iraq—one that contained valuable oil reserves that he was still eager to possess. He could not, however, afford another full-blown war with the United

---

[17]   Woods, Palkki, and Stout, 2012, p. 337.

[18]   Barbara Crossette, "Iraqis to Accept Kuwait's Borders," *New York Times*, November 11, 1994.

States. As a result of the Gulf War, Saddam had a much clearer understanding of the scope of U.S. military power and a better gauge of the credibility of U.S. commitments to its coalition partners in the Middle East, even if he perennially sought to exploit weaknesses in the latter. Moreover, Saddam had sustained considerable damage to his reputation as a result of his crushing defeat in the Gulf War, and although his forces had managed to quash a series of rebellions in the aftermath of the war, thereby enabling him to stay in power, his military emerged from the conflict greatly weakened.[19] Given the state of Iraq's domestic affairs and his newfound appreciation of U.S. military might, Saddam wished to avoid another direct confrontation with the Americans, particularly in a full-scale ground war.[20] Despite his public bluster, he knew that if events escalated to this level, he would suffer another defeat at the hands of the United States, which would incur further reputational costs that he may not be able to weather so soon after the calamitous result of the Gulf War.

Nonetheless, by 1994, Saddam found the status quo nearly intolerable. UNSC Resolution 687, together with a slew of other UNSC resolutions passed in 1991, called for Iraq to recognize Kuwaiti sovereignty and pay reparations to Kuwait, banned Iraq from pursuing weapons of mass destruction (WMDs), and mandated constant monitoring and verification of Iraqi facilities to ensure compliance.[21] The accompanying sanctions regime caused rampant inflation, high poverty levels, and the collapse of the private sector, which, in turn, created strife within Saddam's middle-class, Baghdad-centric power base.[22] The state of the Iraqi economy made it imperative that Saddam end the UN sanctions regime in the short term and ideally gain control of

---

[19] Kenneth M. Pollack, "Next Stop Baghdad?" *Foreign Affairs*, Vol. 81, No. 2, March–April 2002, p. 40.

[20] National Security Archive, "Saddam Hussein Talks to the FBI: Twenty Interviews and Five Conversations with 'High Value Detainee #1' in 2004," Electronic Briefing Book No. 279, July 1, 2009, Conversation Four, p. 4.

[21] CIA, "Regime Strategic Intent," in *Comprehensive Report of the Special Advisor to the DCI on Iraq's WMD*, Vol. 1, Langley, Va., September 30, 2004, p. 42.

[22] CIA, 2004, p. 42.

Kuwaiti oil reserves in the longer term, particularly once the lifting of sanctions made it possible for Iraq to resume selling oil on the international market.

Saddam spent much of 1994 fighting to overturn UN sanctions through diplomatic overtures and other channels. He appealed to France, Russia, and China for assistance, because these three permanent UNSC members had been advocating a relatively lenient "bargaining approach, in which the [Security] Council would respond to partial compliance by Iraq with a partial lifting of sanctions, in order to both ease the humanitarian crisis and encourage further Iraqi compliance."[23] In addition to whatever principles or humanitarian impulses motivated these three countries' efforts on Iraq's behalf, Russia and France both had strong economic motives for wanting sanctions lifted off Iraq. Russia and France had been Iraq's top business partners before the Gulf War, and both were eager to get involved in lucrative postwar reconstruction efforts.[24] Moreover, by 1994, Iraq owed France and Russia approximately $5 billion and $7 billion, respectively, and there was no way Iraq would be able to repay these debts while the sanctions regime remained in place.[25] On the other end of the spectrum, the United States and the United Kingdom were adamant that Iraq must comply with every stipulation of UNSC Resolution 687 before they would grant any easing of sanctions. Although France, Russia, and China were sympathetic to Saddam, their efforts to advocate for the lifting of sanctions had proven futile, as the United States made it clear that it would exercise its veto power if need be and was willing to act on its own to keep Saddam in check.[26] On October 3, 1994, UNSCOM

---

[23] Brian Frederking, *The United States and the Security Council: Collective Security Since the Cold War,* New York: Routledge, 2007, p. 71. See also Joy Gordon, *Invisible War: The United States and the Iraq Sanctions*, Cambridge, Mass.: Harvard University Press, 2012, p. 206.

[24] Frederking, 2007, p. 71.

[25] Frederking, 2007, p. 71.

[26] Sarah Graham Brown, *Sanctioning Saddam: The Politics of Intervention in Iraq*, London: I.B. Tauris Publishers, 1999. See also UNSC, "Agenda: The Situation Between Iraq and Kuwait," Forty-Ninth Year, 3438th Meeting, New York, Provisional, S/PV.3438, October 15, 1994.

director Rolf Ekeus made it clear that his forthcoming October 10 report to the Secretary-General would indicate that Iraq had not fulfilled its obligations under the pertinent UNSC resolutions.[27] In light of this information, Saddam abandoned his attempts at diplomacy and sought to achieve the lifting of sanctions through other means.

Saddam and his inner circle met several times in the lead-up to the events of October 1994 to discuss potential courses of action. Captured records of these meetings indicate that because Saddam's entreaties to France, Russia, and China had not produced the desired results, he calculated that his best bet was to create a crisis that would force them to intervene on his behalf and help negotiate the easing of sanctions at the Security Council. In a recorded conversation around October 9 or 10, 1994, Saddam informed his inner circle that he had ordered the Republican Guard divisions to move to the Kuwaiti border with the aim of sparking a crisis and garnering international attention. In this conversation, Saddam states,

> We have reached the conclusion that if the sanctions are not lifted in the upcoming round . . . I mean on the tenth [of October] . . . then we have to proceed to a crisis. And this crisis might create new horizons where the political environment will be more conducive. It might lead to much stronger capabilities and stronger proof to develop the situation with those concerned with international politics.[28]

Saddam notes that his deployment of troops to the Kuwaiti border meant that there were now four Republican Guard divisions in close proximity to each other; he argued that this, coupled with "the presence of army capabilities in depth," made it "apparent to [the United States] that such a capability can carry out a serious action."[29] Saddam anticipated that moving these troops into the Basra region bordering

---

[27] Charles A. Duelfer and Stephen Benedict Dyson, "Chronic Misperception and International Conflict: The U.S.-Iraq Experience," *International Security*, Vol. 36, No. 1, Summer 2011, p. 88.

[28] Woods, Palkki, and Stout, 2012, p. 267.

[29] Woods, Palkki, and Stout, 2012, p. 267.

Kuwait would immediately set off alarm bells with U.S. leaders, who would be wary of the looming possibility of another invasion.

Saddam believed that by starting this crisis, he would gain leverage with which to negotiate the lifting of sanctions and the end of the inspections regime. The specific goals of Saddam's manufactured crisis were to "portray Iraq as a victim, gain a clearer understanding of inspections and timeline of lifting of sanctions, and . . . elicit support from Russia and China and create opportunities for them to help Iraq."[30] He asserted, "a crisis like this one requires . . . give and take, as the political literature states. I have spoken about mobilization and I believe that mobilization must continue because the sanctions continue. Our clear objective in this phase . . . is the lifting of the sanctions."[31] To this end, Saddam also dictated to his advisers the following message to convey to the French, Chinese, and Russians once they inevitably reached out to Iraq regarding the movement of troops:

> We are free to carry out an action as long as we are in our territory . . . to move our forces to confront any possibility, or for the purpose of training we carry out. Despite that, we want to give you an opportunity to strengthen your efforts, so that we see the outcome of your efforts, and we hope that your effort will yield the favorable and specific result of lifting the sanctions off the Iraqi people.[32]

In the event that France, China, or Russia seized this new "opportunity" to advocate at the UNSC for easing Iraq's plight under sanctions, Saddam said that Iraq should then issue a statement saying that "the command has decided on the withdrawal of these forces and [they are] completing their training in another governorate, and not Basra governorate," thus bringing an end to the crisis.[33] Ultimately, the goal

---

[30] Scott D. Sagan, *Deterring Rogue Regimes: Rethinking Deterrence Theory and Practice*, Palo Alto, Calif.: Center for International Security and Cooperation, Stanford University, July 8, 2013, p. 10.

[31] Woods, Palkki, and Stout, 2012, p. 268.

[32] Woods, Palkki, and Stout, 2012, p. 268.

[33] Woods, Palkki, and Stout, 2012, p. 268.

of these troop movements was "to break the diplomatic logjam regarding the sanctions and let the French and the Russians, who had been friendly to Iraq, do the rest."[34]

Although Saddam's immediate aim behind this military action was a diplomatic settlement to lift sanctions, he left open the option of pursuing more-ambitious goals if his initial actions did not meet with a strong U.S. response. Ra'ad al-Hamdani, a Lieutenant General in the Republican Guard, stated that Saddam convened Republican Guard leadership in October 1994 and had his son Qusay announce that Iraq was planning to invade Kuwait again.[35] Although Iraq's defeat in the 1991 war would seem to rule out a similar act of aggression, Saddam seemed to believe that the United States was preoccupied by its entanglements with Haiti and North Korea and would thus be over-committed, creating the potential opportunity for a second attempt to annex Kuwait.[36] Saddam was not entirely off-base with this assumption: Then–U.S. Secretary of Defense William Perry later stated that the prospect of simultaneous military engagements in North Korea and Iraq was "a very great concern" for him and that the administration "took the danger of two major regional conflicts very seriously." He noted that his "own belief, which [was] a well-validated belief, was that we did not have the capability of dealing with two at once."[37]

Beyond the archival evidence suggesting preparations for an invasion, there are at least three reasons to believe that Saddam may have been inclined toward highly risky uses of military force. First, the collapse of the Iraqi economy under UN sanctions appears to have engendered in Saddam a willingness to accept considerable risks, con-

[34] Amatzia Baram, "Deterrence Lessons from Iraq: Rationality Is Not the Only Key to Containment," *Foreign Affairs*, Vol. 91, No. 4, July/August 2012, pp. 86–87.

[35] Kevin M. Woods and Mark E. Stout, "Saddam's Perceptions and Misperceptions: The Case of 'Desert Storm,'" *Journal of Strategic Studies*, Vol. 33, No. 1, February 19, 2010.

[36] Herr, 1996, p. 20.

[37] Miller Center, "William Perry Oral History, Deputy Secretary of Defense; Secretary of Defense Transcript," Presidential Oral Histories, Charlottesville, Va.: University of Virginia, February 21, 2006, p. 73.

sistent with international relations scholarship about risk acceptance.[38] Second, as a military leader unconstrained by powerful civilians within his regime, Saddam may have been particularly predisposed to uses of military force.[39] Finally, as will be discussed in more detail later, this risk-acceptant, militarized behavior seems to fit a general pattern of Iraqi behavior throughout the 1990s, in which Saddam pressed for advantage wherever possible, just up to the point of provoking a decisive U.S. response.

The existing evidence is sufficiently ambiguous that no consensus has emerged about Saddam's motives. Many scholars in this field, however, believe that Saddam would have ultimately pressed into Kuwait once again had the United States not deterred renewed aggression.[40]

How the United States Perceived Iraq's Intentions in the 1994 Crisis

Because Iraq had assembled a force on the border of Kuwait and invaded in 1990, the United States had every reason to believe that Iraq would follow through on the threat of invasion again in 1994. As President Clinton declared in a speech on October 10, 1994,

> Saddam Hussein has shown the world before, with his acts of aggression and his weapons of mass destruction, that he cannot

---

[38] More specifically, Saddam's very high willingness to accept risk is consistent with prospect theory (on the assumption that Saddam was operating in a so-called domain of losses) and with the "gambling for resurrection" theory of leader decisionmaking when an autocrat faces catastrophic defeat. See Rose McDermott, *Risk-Taking in International Politics: Prospect Theory in American Foreign Policy*, Ann Arbor, Mich.: University of Michigan Press, 2001.

[39] Jessica L. Weeks, "Strongmen and Straw Men: Authoritarian Regimes and the Initiation of International Conflict," *American Political Science Review*, Vol. 106, No. 2, May 2012.

[40] See, for example, Herr, 1996, p. 22; Byman, Pollack, and Waxman, 1998, pp. 127, 137. Moreover, in a late-1990s assessment of OVW and other measures to contain Saddam, the Clinton White House also maintained that "intelligence reports subsequently showed that Saddam's threat to Kuwait was real and that this rapid, forceful response caused him to back down." See White House, "Containing Saddam Hussein's Iraq," Washington, D.C., December 19, 1998.

be trusted. Iraq's troop movements and threatening statements in recent days are more proof of this. In 1990, Saddam Hussein assembled a force on the border of Kuwait and then invaded. Last week, he moved another force toward the same border. Because of what happened in 1990, this provocation requires a strong response from the United States and the international community.[41]

Indeed, Saddam's buildup of forces along the border looked almost identical to the Iraqi military's force posture prior to invading Kuwait in 1990, so the United States—which had largely ignored Saddam's declarations and actions in 1990 until it was too late—was understandably keen to avoid the mistakes of the past and to prevent history from repeating itself. Thus, U.S. officials did not spend long debating Saddam's intentions, instead calculating that it was better to proceed as though Saddam was definitely planning to invade Kuwait again and respond directly to the displayed capabilities of the Iraqi forces.

Although their response was designed to address the worst-case scenario, most U.S. policymakers recognized that Saddam's goal was likely to garner international attention and force the lifting of sanctions. GEN Norman Schwarzkopf, who had led all coalition forces in the Gulf War, concluded that "the most plausible explanation for the Iraqi troop movements was that Saddam thought that if he created a crisis, Jimmy Carter would travel to Iraq, as he recently had to North Korea and Haiti, to pursue a compromise that would benefit Iraq."[42] Similarly, former Chairman of the JCS Colin Powell asserted in 1996 that Saddam's movement of troops was "a paltry attempt to look tough while trying to get relief from UN sanctions."[43] Nevertheless, Perry, who was Secretary of Defense in 1994, later maintained that—despite not being able to determine Saddam's precise motivations—U.S. intelligence reports at the time indicated that Iraq posed a genuine threat to Kuwait, and "American analysts concluded that Iraq would be capable

---

[41] William J. Clinton, "Address to the Nation on Iraq," in Gerhard Peters and John T. Woolley, American Presidency Project, Santa Barbara, Calif., October 10, 1994b.

[42] Palkki, 2013, p. 174.

[43] Colin L. Powell and Joseph E. Persico, *My American Journey*, New York: Random House, 1996, p. 526.

of attacking Kuwait with five divisions in seven days" from the start of the crisis.[44] Saddam's pattern of aggressive behavior in the years leading up to 1994 had demonstrated to U.S. decisionmakers the importance of responding forcefully to Saddam's transgressions in order to prevent escalation.[45] Because U.S. officials could not rule out the possibility that Saddam would follow through with a second invasion of Kuwait, they responded with decisive and overwhelming force to remove invasion as an option for Saddam.

U.S. Efforts to Establish a State of General Deterrence over Iraq

The U.S. Military's Steady-State Presence in the Gulf After 1991

After the Gulf War ended in February 1991, the number of active-duty U.S. military personnel in the Gulf and Iraq's neighboring countries steadily decreased, although the United States maintained significant afloat reserves and prepositioned stocks in theater, allowing for the rapid surge capacity demonstrated during OVW. The U.S. Army established its first prepositioned stockpile afloat in 1994, including two sets of "vehicles and equipment for an armored brigade, with its slice of combat support and combat service support elements, a theater support base, theater opening equipment (port handling), and 30 days' supplies for the force" stored ashore in the Gulf with further afloat reserves at Diego Garcia. Here, we summarize the array of U.S. military equipment and capabilities present in the Gulf prior to the start of OVW in 1994.[46]

In Kuwait, the Army had prepositioned equipment for

- one tank battalion
- one mechanized battalion

---

[44] Palkki, 2013, p. 173; Peay, 1995, p. 32.

[45] Palkki, 2013, p. 173.

[46] To reach these equipment and capability numbers, we analyzed data from IISS, *The Military Balance 1994*, Vol. 94, No. 1, 1994, pp. 13–33.

- one artillery battery, including 58 main battle tanks
- 72 armored infantry fighting vehicles
- eight artillery battalions
- one Patriot battalion.

For the Navy, Joint Task Force Middle East was at sea in the Persian Gulf or North Arabian Sea. The average composition of the U.S. naval carrier battle group deployed to the region was as follows:

- one aircraft carrier
- two guided-missile cruisers
- two guided-missile frigates
- one fast combat support ship
- two attack submarines.

The U.S. Air Force was engaged in Operation Poised Hammer and Operation Southern Watch, deploying aircraft to enforce the no-fly zones over northern and southern Iraq. In addition, the Air Force had the following types of aircraft on rotational detachment in Saudi Arabia:

- F-4G
- F-15
- F-16
- F-117
- C-130
- KC-135
- U-2
- Joint Surveillance Target Attack Radar System (JSTARS).

Although there were significant capabilities present in the Gulf in the lead-up to OVW, the level of active-duty personnel in the region was not as robust. Prior to Iraq's movement of troops to the Kuwait border, the U.S. military had active-duty personnel stationed throughout the Middle East, including in Bahrain, Jordan, Kuwait, Oman, Saudi Arabia, Turkey, and the United Arab Emirates (UAE). Most crucially, the U.S. military also had personnel and resources located at

Diego Garcia and afloat in the Gulf. Table 6.1 summarizes the numbers of U.S. military personnel in the Gulf region and the countries bordering Iraq as of September 1994.

The U.S. military presence in Kuwait and Saudi Arabia dipped drastically following the Gulf War, which may have contributed to Saddam's pre-OVW belief that a second invasion of Kuwait could be feasible. In fact, the numbers of personnel in theater in the immediate lead-up to OVW were among the lowest for the entire decade. The events of OVW and Saddam's subsequent displays of aggression in the latter half of the 1990s led to changes in the U.S. military's steady-state posture in the Gulf, including an increased presence in Kuwait and Saudi Arabia.[47] Figure 6.1 illustrates the overall trajectory of U.S. steady-state deployments in the Gulf and around Iraq's borders throughout the 1990s.

Table 6.1
Numbers of U.S. Military Personnel Deployed Near Iraq, September 1994

	Army	Navy	Marine Corps	Air Force	Total
Afloat	0	2,719	1,876	0	4,595
Bahrain	10	406	14	14	444
Diego Garcia	5	766	93	24	888
Jordan	10	0	9	5	24
Kuwait	243	11	8	7	269
Oman	2	1	9	14	26
Saudi Arabia	423	45	52	190	710
Turkey	273	24	20	3,760	4,077
UAE	8	5	6	1	20

SOURCE: Author analysis of DMDC, "Active Duty Military Strength by Service, Historical Reports, FY 1994," Alexandria, Va., 1994.

---

[47] Jim Broderick, "Managing the Risks of War: Deterrence and the Persian Gulf Conflict 1990–91," *Risk Management*, Vol. 2, No. 4, 2000, p. 23.

Figure 6.1
U.S. Military Steady-State Deployments in the Gulf Region, 1990–1999
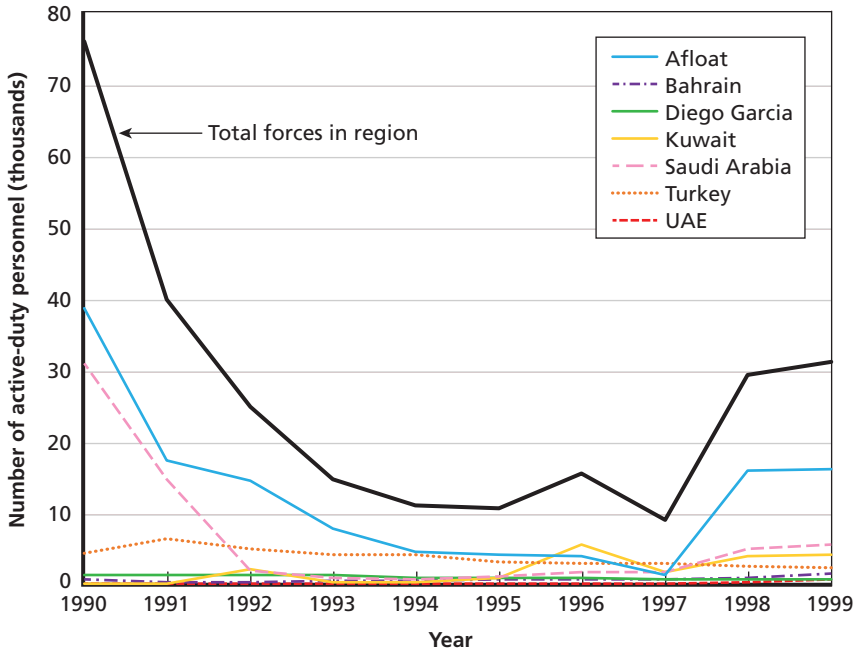
SOURCE: Author analysis of DMDC, 1994.
NOTE: "Total Forces in Region" includes data for Iraq, Syria, Qatar, Jordan, and Oman in addition to the data for the displayed series. These five countries each had fewer than 500 personnel deployed in-country over the course of the entire decade, and were thus omitted from the graph for the sake of visual clarity.
RAND *RR2533-6.1*

　　Even when the United States had a substantial presence in the Gulf and around Iraq's borders, U.S. regional force posture still proved inadequate to deter Saddam from aggressive behavior. That said, the baseline capabilities present in the region following the Gulf War paved the way for successful immediate deterrence in OVW.

The Post–Gulf War U.S.-Iraqi Deterrence Dynamic

Following the Gulf War, the United States and the coalition did not want to have to "deter, repel, or reverse another Iraqi invasion; they wanted to deny Saddam the wherewithal to mount a threat to his

neighbors in the first place."[48] Therefore, they employed a combination of military, economic, and diplomatic measures to keep Iraq contained. In order to keep the Iraqi military weak, the United States, through UN resolutions, imposed restrictions on Iraqi oil sales and how the proceeds could be used.[49] Also in the aftermath of the Gulf War, the United States and its coalition allies established and enforced no-fly zones over Iraq, which were meant to serve as a deterrent against future actions.

Despite these efforts, it is clear in hindsight that U.S. steady-state force posture in the Gulf region was unable to impose a state of general deterrence against Iraq following the Gulf War. There were several instances in which Saddam acted aggressively despite the U.S. military presence in the region, apparently motivated by a desire to maintain the appearance of strength and obtain regional hegemony. Unable to deter these actions, the United States had to employ limited force on several occasions to keep Iraq contained. In one instance in December 1992, Iraq violated the southern no-fly zone and threatened to shoot down U.S. patrol aircraft with surface-to-air missiles it had moved into position. Simultaneously, Iraq denied UNSCOM inspections of WMD sites, and Iraqi troops made incursions into Kuwaiti territory. U.S. and coalition forces responded by conducting a series of air strikes against selected military targets in Iraq, including a nuclear complex near Baghdad.[50] Following this event, Iraq ceased its aggressive behavior, but only for a short while. In 1993, the U.S. military launched cruise missiles at the Iraqi Intelligence Service in retaliation for the attempted assassination of former President George H. W. Bush.

This pattern of intermittent U.S. military action was punctuated by the deterrent success of OVW in 1994, but even then, the United States needed to intervene again just two years later. In September 1996, Saddam moved into northern Iraq in response to calls for assistance by the Kurdish Democratic Party and began attacking the opposing Patriotic Union of Kurdistan. Because this region

---

[48] Pollack, 2002, p. 33.

[49] Byman, 2000–2001, p. 496.

[50] Byman, 2000–2001, p. 496.

was ostensibly under the protection of the United States, the United States responded with Operation Desert Strike, which entailed launching cruise missiles from naval assets and Guam-based B-52s, attacking military targets in southern Iraq, and extending the no-fly zone.[51] Saddam pulled his forces back to the cease-fire line fairly quickly in response to these strikes. But again, in 1998, Iraq failed to comply with UNSCOM inspections, prompting the United States to launch Operation Desert Fox, an intense bombing campaign designed to force Baghdad back into compliance. According to one analysis from 1998, "Saddam knows from October 1994 that the U.S. can concentrate formidable military power in the region quickly, but he must be convinced that Washington will do so whenever he tries to break free of his containment."[52] The frequent U.S. and allied strikes against Iraq throughout the late 1990s demonstrated the United States' willingness to use force to contain Iraq when necessary, but until the invasion of 2003, U.S. responses remained relatively restrained.[53] Because the United States seemed unwilling to commit to regime change, prolonged bombing campaigns, or another ground campaign in the aftermath of the Gulf War, Saddam continued to try his luck and test U.S. resolve in the pursuit of his regional goals. However, he quickly backed down from any potential entanglement once it became clear that the United States was indeed committed to the fight.

U.S. Immediate Deterrence Efforts Against Iraq

Accounting for the Failure of Deterrence to Prevent the 1990 Invasion of Kuwait

To understand why deterrence worked in OVW, it is important to understand why it failed just a few years prior in a similar scenario between Iraq and the United States. Although the Gulf War resulted in a clear triumph for the U.S. military and its coalition partners, the

---

[51] Byman, 2000–2001, p. 509.

[52] Byman, Pollack, and Waxman, 1998, p. 145.

[53] Byman, 2000–2001, p. 511.

United States failed to deter Saddam from invading Kuwait in the first place and had to resort to fighting a ground war to eject Iraq from Kuwait.

Several factors contributed to the failure of U.S. deterrence in the lead-up to the Gulf War. First, the United States failed to clearly and credibly communicate its intention to respond with force if Saddam invaded Kuwait. In their interactions leading up to the Iraqi invasion of Kuwait, U.S. and Iraqi officials largely talked past each other, both failing to correctly comprehend the interests and intentions of the other party. Saddam interpreted the lack of a clear statement of opposition or forceful response from the U.S. government as tacit consent for his impending invasion of Kuwait.[54] Additionally, based on historical precedent, Saddam perceived U.S. interests in the Middle East to be rather superficial and its regional commitments to be lacking in credibility.[55] Conversely, Saddam went into the 1990s with strong regional ambitions and a dogged determination to take Kuwait.[56]

The allure of Kuwait's vast amounts of oil, which could be used to replenish Iraq's dwindling coffers, proved strong motivation, as did the ideological belief that Kuwait rightfully belonged to Iraq.[57] Although Saddam did anticipate that there would be some form of U.S. counter-

---

[54] Byman, 2000–2001, p. 81.

[55] Saddam did not perceive as credible U.S. commitments in the region, having observed the U.S. decision not to intervene on behalf of its staunchest regional ally, the Shah of Iran, in the 1979 revolution, as well as the rapid withdrawal of the Marine Corps from Lebanon after the terrorist attack on the Beirut barracks in 1983. The Iranian hostage crisis also signaled to Saddam that U.S. policy could rather easily be manipulated through acts of terrorism. As one author summarizes U.S. policy toward the Middle East, "Jimmy Carter had spoken softly, Reagan had talked tough, but from 1976 to 1990 American policy had stayed the same: tentative, hesitant, and irresolute" (R. Stephen Humphreys, *Between Memory and Desire: The Middle East in a Troubled Age*, Berkeley, Calif.: University of California Press, 2005, pp. 106–107). See also Barry R. Schneider, "Deterrence and Saddam Hussein: Lessons from the 1990–1991 Gulf War," *The Counterproliferation Papers*, Future Warfare Series No. 47, USAF Counterproliferation Center, Maxwell Air Force Base, Ala.: Air University, August 2009, p. 21.

[56] Patrick Morgan, "Deterrence and the Contemporary Situation in the Middle East," Special Policy Forum 9/11, Nautilus Institute for Security and Sustainability, October 30, 2002, p. 6.

[57] Schneider, 2009, p. 12.

attack following his invasion of Kuwait, he believed the response would be limited to air strikes and that, in the event of a ground attack, he could force the United States to stand down by attacking U.S. bases and inflicting an unacceptable number of casualties on coalition forces.[58] Saddam understood that the United States had superior military capabilities in 1990, but he did not realize the degree to which he was overmatched until the Iraqi military was unable to even come close to inflicting its desired amount of damage on U.S. troops in the Gulf War. As a result, the overwhelmingly disproportionate strength of the U.S. military failed to have a deterrent effect on Saddam prior to his invasion of Kuwait. Moreover, because the United States had not prepared for this scenario, the U.S. military and coalition forces were fairly slow to arrive in theater because it took time to build the coalition and mobilize and deploy U.S. forces to the Gulf.

By failing to deter Saddam from invading Kuwait, the United States faced a much more difficult situation in which it had to use force to compel Saddam to withdraw from Kuwait. Once Saddam had launched his attack on Kuwait and declared it the 19th province of Iraq, he deemed the cost of capitulating to U.S. demands for withdrawal to be too high. Instead, he calculated that, "in terms of his overall goals in the region and in terms of the likelihood of his being able to hold on to power in Baghdad, it would be better to be defeated militarily by the overwhelming forces that had been arrayed against him than to knuckle down to U.S. demands."[59] Had Saddam backed down without a fight once the invasion of Kuwait was already under way, he would have incurred significant reputational costs among his support base. Thus, he was much more difficult to deter at this stage than he had been prior to the launch of the attack on Kuwait, and the threat of force alone could not stop him from proceeding with the attack. Indeed, this episode illustrates the importance of establishing deterrence in Phase 0 in order to prevent crises from escalating to war.

---

[58] Barry M. Blechman and Tamara Cofman Wittes, "Defining Moment: The Threat and Use of Force in American Foreign Policy," *Political Science Quarterly*, Vol. 114, No. 1, Spring 1999, p. 15.

[59] Blechman and Wittes, 1999, p. 15; Schneider, 2009, p. 12.

Because the stakes involved in a conflict tend to escalate after it begins, deterrence in Phase 0 may be much more achievable than deterrence or compellence in later phases.

Ultimately, U.S. attempts at deterrence failed in the lead-up to the Gulf War because of both parties' misreading of each other's intentions and capabilities, the difficulty of enacting immediate deterrence without having established any baseline capabilities in the region, and the increased difficulty of deterring Saddam once he publicly committed himself to the fight and began his military operation. Although the Gulf War ended in an unquestionable military victory for U.S. and coalition forces, it still failed to establish a state of general deterrence over Iraq because the U.S. military stopped short of regime change and left Saddam in power. This gave way to the deterrence dynamic of the 1990s, in which the United States had to use force on several occasions to keep Saddam in check.

Explaining the Success of Immediate Deterrence in Operation Vigilant Warrior

The goals of the United States in launching OVW were to deter Saddam from invading Kuwait again; ensure the continued containment of Saddam and Iraq; uphold commitments to Kuwait, the rest of the Gulf Cooperation Council members, and other regional allies; and minimize the risk of long-term engagement in Iraq by preventing another invasion of Kuwait. To accomplish these goals, the United States adopted a deterrence strategy based on responding swiftly with a large show of force, establishing resolve and commitment, and reinforcing military actions with clear political messaging.

Responding with Formidable Speed

OVW was impressive in the sheer speed and size of the U.S. military response and was one of the fastest deployments the U.S. military had ever conducted. The speed of the deployment was particularly remarkable compared with Operation Desert Shield, for which it took about 30 days for the first U.S. military forces to arrive in Saudi Arabia.[60] In OVW, it took only three days from the start of the crisis for the first

---

[60] Peay, 1995, p. 32.

wave of troops to arrive in Kuwait, proving that with the appropriate infrastructure in place, the U.S. military can flow forces into a theater very quickly. While sizable, the U.S. deployment was not the largest show of force relative to the Iraqis (who had some 71,000 men on the border of Kuwait), but the speed of delivery made it appear overwhelming and signaled the potential for large numbers of follow-on forces. According to one report,

> U.S. and Coalition defenders in or on the way to the [area of responsibility] had abundant capability—superior training, equipment, and doctrine—but they were greatly outnumbered by the 71,000 Iraqis they faced. The speed of the U.S. response, more than the specific forces selected to deploy, was the primary source of U.S. deterrent power.[61]

In other words, OVW deterred Saddam by showing him that the United States was capable of quickly concentrating high levels of military power in his backyard. The United States had already demonstrated that it was willing to use force to keep Iraq in check, but it was this rapid surge capacity that distinguished this operation from the pre–Gulf War efforts at deterrence.[62]

Several factors enabled this swift response by the U.S. military. First, the United States was far more prepared to handle Iraq in 1994 than it was in 1990, having spent the past few years building up U.S. capabilities and facilities in the Gulf.[63] Logistically, the use of prepositioned equipment (ashore and afloat) in the Gulf helped greatly in facilitating this rapid response. In describing the initial phase of OVW, Secretary of Defense Perry highlighted the importance of prepositioning in overcoming logistical hurdles and enabling quick action:

> Between what we had in Saudi Arabia and what we had in the Gulf and what we had with this rapid reinforcement, we would have

---

[61] Herr, 1996, pp. 28–29.

[62] Byman, 2000–2001, p. 513.

[63] Blechman and Wittes, 1999, p. 16; and Bradley L. Bowman, "After Iraq: Future U.S. Military Posture in the Middle East," *Washington Quarterly*, Vol. 31, No. 2, Spring 2008, p. 81.

a very formidable force on the ground within maybe 48 hours.
The response plan was that we would immediately declare to Iraq
that this was unacceptable, that those armored divisions had to
get back to barracks within 24 hours and that we were making
major and immediate reinforcements of our troops in Kuwait to
deal with this problem and increasing our airborne overflights we
were already conducting. Prior to that time . . . in anticipation of
contingencies like that . . . we had gotten permission to deploy all
the equipment for armored brigades in Kuwait, in Saudi Arabia,
and the Diego Garcia island so that we would not have to move
all the armored equipment over. All we had to do was move our
soldiers, which we could do very quickly.[64]

Additionally, the Gulf War experience benefited OVW's plan-
ners because "detailed plans [from the Gulf War] were available and
commanders were [already] familiar with the theater infrastructure."[65]
Because it had been through the process of assembling the Gulf War
coalition only a few years prior, the United States also had secured pre-
established basing rights and interoperability with specific partners in
the region.

Ultimately, the U.S. defense apparatus was able to respond much
more rapidly the second time around because government and mil-
itary decisionmakers had been through a very similar experience in
1990 and were able to apply the lessons learned from the Gulf War to
improve the pace and design of the response in OVW.

Ensuring Clarity and Cohesion of Messaging

In contrast to the alleged ambiguity of U.S. messaging to Iraq during
the prelude to the 1990 invasion of Kuwait, the United States signaled
its intentions very clearly in the lead-up to OVW. Learning from its
mistakes in failing to deter Saddam's earlier invasion, this time the
United States made clear its commitment to defend Kuwait. U.S. senior
leaders were vocal and cohesive in their messaging, with news outlets
echoing President Clinton's statement that a major U.S. force deploy-

---

[64] Miller Center, 2006, p. 73.

[65] Herr, 1996, p. 30.

ment would begin in response to Iraq's movements and his demand for Iraq to leave the Kuwaiti border. Clinton made frequent and consistent statements reiterating U.S. commitment to defending Kuwait and repeating the mantra that it "would be a grave error for Iraq to repeat the mistakes of the past or to misjudge either American will or American power."[66] Meanwhile, U.S. diplomats echoed the same message, with Madeleine Albright sternly warning Iraq in a speech at the UN against attempting to invade Kuwait again. This clear messaging, coupled with the speed and size of the deployment, made it evident to the Iraqis that the United States was committed to the defense of its partners in the Gulf.

Establishing Credibility

Comparing the U.S. attempts to deter Saddam in the lead-up to the Gulf War with its deterrent operation in 1994 suggests that the credibility of the U.S.-issued threats and perceived strength of U.S. resolve were the primary determinants of the respective failure and success of these missions. Albright later reflected that "the key difference between August 1990 and October 1994 [was] the resolute security response of the United States [and its allies]."[67] Other key officials, such as Perry, emphasized that the massive and swift deployment of U.S. troops deterred Saddam from proceeding with a second invasion in 1994.[68] By continuing to flow more troops and equipment into the Gulf theater even after Iraq began its retreat, the U.S. military demonstrated its persistent resolve beyond the immediate crisis.

---

[66] See William J. Clinton, "Remarks on Iraq," in Gerhard Peters and John T. Woolley, American Presidency Project, Santa Barbara, Calif., October 8, 1994a; Clinton, 1994b; William J. Clinton, "Remarks on Iraq," in Gerhard Peters and John T. Woolley, American Presidency Project, Santa Barbara, Calif., October 11, 1994c; William J. Clinton, "Remarks on Iraq," in Gerhard Peters and John T. Woolley, American Presidency Project, Santa Barbara, Calif., October 15, 1994d; and William J. Clinton, "Letter to Congressional Leaders Reporting on Iraq's Compliance With United Nations Security Council Resolutions," in Gerhard Peters and John T. Woolley, American Presidency Project, Santa Barbara, Calif., October 27, 1994e.

[67] Palkki, 2013, p. 176.

[68] Palkki, 2013, p. 178

Iraq's Perceptions of and Response to Operation Vigilant Warrior

Throughout his time in power, Saddam was synonymous with Iraq; he spoke for the regime and controlled nearly every aspect of Iraq's decisionmaking. Therefore, even if there was a diversity of opinion among the ranks of the Iraqi military or government, and even if these officials had the temerity to voice their dissenting views, Saddam still conducted his own analysis, unilaterally made decisions, and selected courses of action. Although his behavior has seemed irrational at times, Saddam was known to carefully deliberate and heavily rationalize every decision he made, albeit within the parameters of the deluded reality he had constructed for himself. According to one account,

> Saddam would repeatedly construct convoluted scenarios that allowed him to believe events would play out in the way that he wanted, even though others could see that such outcomes were highly unlikely. Rather than regard information about an opponent's intentions or even capabilities as givens, he would simply assert that they were what he wished them to be. And he treated learning the same way, drawing on his past experiences selectively, idiosyncratically, and only to suit his current purposes.[69]

Saddam's flawed reasoning process had led him to miscalculate and misgauge U.S. intentions and red lines in the past, as illustrated by the outbreak of the Gulf War. However, his quick capitulation to U.S. demands in 1994 in response to the large, rapid-fire U.S. deployments suggests that he learned his lesson from the Gulf War and correctly gauged the U.S. will to intervene this time if it became necessary.

OVW also succeeded in deterring another Iraqi invasion of Kuwait because it threatened Saddam's centers of gravity and raised the costs of invading to intolerable levels. Rapid U.S. deployment of large numbers of ground troops to the Gulf signaled to Saddam that his forces would have to face the United States in another full-scale ground war if he chose to proceed with a second invasion of Kuwait. Such a

---

[69] Baram, 2012, p. 77.

war would jeopardize the survival of Saddam's regime by holding at risk key combat units of the Republican Guard, public opinion, chemical weapon capabilities, the economy and oil wealth, and Saddam's power base (which included military and paramilitary organizations, as well as an array of intelligence and security services).[70] In contrast to the U.S. reliance on air strikes to compel Iraqi compliance later in the 1990s, the threat of a new ground war was perceived by Saddam as an intolerable risk to his ability to maintain power. Because Saddam had not yet invaded Kuwait when the United States deployed its forces, he could back down without greatly damaging his credibility among his officers and population.

The Deterrent Power of Specific Types of U.S. Military Capabilities on Iraq

U.S. military deployments as a whole compelled Saddam to back down, but within this overall package, different types of forces sent different signals. Saddam evaluated the level of threat posed by different forms of U.S. military power based on which targets could be leveraged against.[71] Saddam feared any U.S. capabilities that could lead to regime change and was particularly wary of attacks on "Iraq's elite military and regime-protection units, such as the Iraqi Air Force, the Republican Guard, [and the] Special Security Organisation."[72] He placed a particular emphasis on U.S. ground troops and nuclear weapons, believing these to be the most likely means of effecting regime change. According to declassified CIA reports, "throughout the 1990s, Saddam and the Ba'th Regime considered full-scale invasion by U.S. forces to be the most dangerous potential threat to unseating the Regime."[73] Prior to the Gulf War, Saddam vastly underestimated the effects of air power. But even after the United States demonstrated its technological superiority and the extent of what air power could achieve, Saddam remained

---

[70] Byman, Pollack, and Waxman, 1998, p. 138.

[71] Pollack, 2002, p. 38.

[72] Byman, Pollack, and Waxman, 1998, p. 145.

[73] CIA, 2004, p. 30.

more concerned by ground forces. Addressing the Islamic Conference in Baghdad in January 1991, Saddam asserted,

> Under all circumstances, one who wants to evict a fighter from the land will eventually depend on a soldier who walks on the ground and comes with a hand grenade, rifle, and bayonet to fight the soldier in the battle trench. All this technological superiority, which is on paper, will eventually be tested in the theater of operations. We are not people who speak on the basis of books; we are people with experience in fighting.[74]

Saddam's emphasis on ground power was also due to his perception of Iran—which sought to annex southern Iraq—as the number one threat to Iraq throughout the 1990s and early 2000s. Consequently, Saddam told his inner circle that U.S. air strikes were less of a worry than an Iranian land attack.[75] Therefore, the orientation of most Iraqi ground forces toward the Iranian border remained unchanged throughout the period Iraq was under the sanctions regime.

Although Iran was a longstanding enemy of Iraq, after 1991, Iraqi military and intelligence officers perceived there to be an equally pressing threat stemming from the United States. Although Iraq had limited intelligence collection capabilities, it derived as much information as it could about U.S. military capabilities from its military attachés at embassies and from television, the internet, and other open sources (e.g., *Jane's Defence Weekly*).[76] The Directorate General of Military Intelligence and Iraqi army staff regularly conducted studies and assessments "to evaluate the size, composition, and probable disposition of U.S. forces and identif[y] the U.S. aircraft carriers immediately available to attack Iraq."[77] Saddam would frequently analyze this information himself and come to his own conclusions about the level and type of threat posed by the United States. After the Gulf War,

---

[74] Janice Gross Stein, "Deterrence and Compellence in the Gulf, 1990–91: A Failed or Impossible Task?" *International Security*, Vol. 17, No. 2, Fall 1992, p. 174.

[75] CIA, 2004, p. 29.

[76] CIA, 2004, p. 30.

[77] CIA, 2004, p. 31.

Iraqi intelligence collected on U.S. capabilities suggested that the "the imbalance in power between Iraq and the United States was so disparate that Iraq would be incapable of halting a U.S. invasion."[78] Saddam indicated in later interviews that he was very concerned about the United States' advanced technological capabilities and resources and thus sought to avoid another entanglement with U.S. troops.[79] This factored into Saddam's strategic calculus when deciding whether to proceed with a second invasion of Kuwait.

Although U.S. air power clearly wreaked havoc on Iraq in the Gulf War and several times thereafter, Saddam displayed a nonchalance about air campaigns, as past experiences had led him to believe that air power alone was incapable of effecting regime change. In several documented conversations, Saddam stated that he believed the Americans would use "only" air power against Iraq, and he "later regarded the air strikes associated with Desert Fox in December 1998 as the worst he could expect from Western military pressure."[80] Although Desert Fox's brief but intense air campaign strategically targeted elements of Saddam's power base and nearly led to a coup attempt, Saddam and his remaining loyal forces had been able to quash the resulting unrest, thus reinforcing the idea that his regime could withstand limited air campaigns unaccompanied by ground forces.[81]

In contrast to his views on air power, Saddam greatly feared the United States' nuclear capabilities. Believing that his use of chemical weapons against U.S. troops would prompt a U.S. nuclear response, he made it a matter of policy that Iraq would not use chemical weapons against the United States unless the United States used nuclear weapons against Iraq. His continual pursuit of WMDs was largely based on the belief that these weapons would deter the United States (or any other adversary) from invading Iraq.[82]

---

[78] CIA, 2004, p. 31.

[79] National Security Archive, 2009, p. 4.

[80] CIA, 2004, p. 31; Baram, 2012, p. 89.

[81] Pollack, 2002, pp. 40–41.

[82] CIA, 2004, p. 32.

In summary, the totality of U.S. military power, the speed of its deployment, and the goals behind its application appear to be the sources of its deterrent power over Saddam's Iraq, although he was more susceptible to the threat of ground forces and nuclear weapons than to other forms of U.S. military power.

The Iraqi Response

OVW differed from later U.S. operations because it included large numbers of ground troops. Saddam quickly capitulated to U.S. demands in 1994 in response to the large, rapid-fire U.S. deployments, but later threats of air strikes and attempts to enforce no-fly zones failed to have the same deterrent effect. Moreover, the specific nature of Saddam's response to OVW illustrates that he was willing to incur substantial reputational costs to avoid fighting another full-scale ground war against the U.S. military. Even though Saddam did not succeed in eliciting the desired lifting of sanctions through his engineered crisis, he not only immediately backed down in response to the U.S. deployments but also agreed to the harsh terms of additional UN resolutions. Most notably, the United States and the UN demanded that Iraq formally recognize the sovereignty of Kuwait and the established border through the same channels it used to declare Kuwait a province of Iraq in 1990. This meant that the declaration recognizing Kuwait's sovereignty and borders would have to be formally ratified by the Revolutionary Command Council and Iraqi parliament and subsequently published in the *Official Gazette of Iraq*, the means by which Iraqi laws are introduced into force.[83] This was a humiliating and exacting stipulation for Iraq because it was a complete reversal of the position Iraq had taken on Kuwait since its 1990 invasion. Yet, Saddam still deemed this resolution to the crisis to be a better option than having to face the U.S. military on the battlefield in the lingering shadow of the Gulf War.

---

[83] Palkki, 2013, p. 187.

Conclusion

The various attempts by the United States to deter Iraq illustrate the importance of crafting deterrence strategies that demonstrate credibility and resolve in addition to military capability. The U.S. track record in deterring Iraq throughout the 1990s can be characterized as follows:

1. failure of U.S. deterrence to prevent Saddam's first invasion of Kuwait and the outbreak of the Gulf War
2. success of OVW in preventing Saddam from invading or otherwise threatening Kuwait for a second time
3. partial success in the aftermath of OVW, in that U.S. efforts prevented Saddam from attempting to annex Kuwait ever again but failed to prevent other forms of Iraqi aggression.

A combination of military and diplomatic factors led to OVW succeeding where deterrence efforts both before and after the Gulf War failed. Chief among these factors were the shared experience of the Gulf War that provided both parties with a better understanding of each other's intentions and capabilities; the post–Gulf War buildup of baseline capabilities for launching subsequent military operations; the extremely swift response by U.S. troops; the established credibility of U.S. threats and repeated emphasis on U.S. resolve and commitment; clear messaging and alignment between diplomatic and military measures; Saddam's limited objectives in this scenario and reluctance to face U.S. troops in another war; and the massive deployment of ground troops, which Saddam perceived as a major threat to his centers of gravity and effectively raised the costs of a second invasion of Kuwait to unacceptable levels. In this instance, Saddam evaluated U.S. capabilities and credibility against his own resolve and decided to back down.[84] Through OVW, the United States successfully enacted immediate deterrence and derailed Saddam's future designs on Kuwait but was unable to dissuade Iraq from repeatedly testing U.S. resolve in the years ahead.

---

[84] Byman, Pollack, and Waxman, 1998, p. 137.

Conclusion and Policy Implications

In this chapter, we review the key findings from our analysis and outline the policy implications for the United States, particularly as they relate to force posture.

Summary of Findings

In this report, we have sought to evaluate several critical propositions about deterrence and translate them into guidance for U.S. forward posture decisions. We have done so primarily through statistical analyses, supplemented by qualitative analyses of critical cases.

The statistical research reported here suggests several general conclusions about U.S. forward posture and deterrence. First, consistent with prior RAND research, our analysis suggests that certain types of U.S. forward posture are indeed generally associated with deterrent effects when deployed near the ally or partner state to be defended. Second, we 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. Thus, we found the clearest evidence for the deterrent impact of heavy ground forces and little, if any, evidence for the deterrent impact of air and naval forces.

Our findings also suggest that forward-deployed forces may involve important trade-offs. Again, consistent with prior RAND work, we found that when U.S. forces, particularly light ground forces, are stationed inside the borders of the ally or partner to be defended

rather than in nearby states in the broader theater, they are associated with an increased likelihood of militarized disputes, including those of both lower and higher intensity, though not including war. This pattern may be the result of probing, signal-sending, and friction between U.S. forces and those of its adversaries operating in close proximity. It should be noted that this finding relies heavily on the experience of a single host of U.S. forces—Japan—and may therefore be less generalizable. It is also possible that more in-depth analyses might reveal that light ground forces do indeed tend to provoke escalating tensions. Perhaps light forces represent a more rapidly deployable capability that provokes U.S. adversaries without representing sufficient capabilities to deter. Further research on this finding is warranted.

If the United States opts not to deploy forces overseas in steady-state conditions or if the forces it does forward-deploy are not sufficient to establish and maintain deterrence, the United States can attempt to re-establish deterrence during international crises by surging forces toward the contested area. Such crisis deployments are not without risks; they occur in periods of heightened tension, when foreign decisionmakers operating under enormous stress must make decisions about whether to preemptively attack. Despite these risks, 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. 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). The small number of crisis deployments reduces our confidence in the generalizability of these findings, but, in the cases that do exist, the reduction in risk associated with ground and air forces in particular is extremely large (and still sizable in the case of naval forces).

Although crisis deployments appear successful in reducing the risk of escalation, they are not similarly successful in improving bargaining outcomes for partner states. Indeed, countries supported by U.S. crisis deployments appear no more likely to achieve their strategic goals in a crisis than countries that do not enjoy such support. These results sug-

gest that U.S. crisis deployments can help maintain the status quo at reduced risk of war, but they do not readily translate into bargaining leverage or improved long-term positions for partner states.

Our case studies are generally consistent with the results of our statistical analyses while providing additional nuance, caveats, and clarity about the reasons why U.S. forces achieved the effects they did. Distinguishing the independent effects of forward-deployed U.S. forces from the other factors in play is difficult: Decisionmakers typically reach decisions on the basis of a complex calculus of costs and benefits, and the relative weight of different factors in the final decisions is often not clear to the decisionmakers. But in both the Berlin Wall crisis of 1961 and OVW in 1994, U.S. forces in theater appear to have played an important role in deterring U.S. adversaries. The reinforcement of U.S. forces in West Berlin during the crisis and robust plans to enhance U.S. posture in Europe over the long term helped shift Soviet perceptions of U.S. commitment and contributed to the de-escalation of the crisis. It is even more difficult to distinguish the effects of different types of forces; however, in the case of Iraq, where we have access to a much more complete archival record, it appears that Saddam's regime particularly feared ground forces because they (as opposed to air strikes) were perceived as posing a threat of forcible regime change. Consequently, the Iraqis appear to have taken the deployment of U.S. ground forces to the theater particularly seriously. The case studies also 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 persistent, they can, in turn, help reinforce general deterrence long after a crisis is over.

Policy Implications

The findings of this study have two important implications for policy, but both come with caveats.

Heavy Ground Forces Are the Most Likely to Enhance Deterrence

Our results provide 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. Although we cannot establish a causal relationship, the statistical findings are robust. The effects of these two types of forces were almost consistently positive, strongly statistically significant, and robust to multiple model specifications. There is evidence that light ground forces, particularly when deployed directly inside the borders of the partner or ally being threatened, may be associated with a higher risk of low-intensity militarized disputes, but we do not find similar evidence of this risk for heavy ground forces in our statistical models. It is worth noting, however, that the case study of the 1961 Berlin crisis highlights the potential risks associated with ground forces, including heavy forces, operating in close proximity to U.S. adversaries.

Of course, the United States' decisions about forward posture are made on the basis of more than just deterrence considerations, and not all adversaries may react the same way to the introduction of U.S. forces. Although, in the average case, heavy forces appear to successfully contribute to deterrence, such forward posture can also come at a cost. The presence of U.S. forces in a particular country carries both a financial and an opportunity cost. Forces deployed in one location may be less available for contingencies elsewhere. Furthermore, this study has not examined the broader effects of U.S. forward posture on geopolitics, including the potential for forward basing to lead to higher levels of nonmilitarized hostility between the United States and potential adversaries. If steady-state forward posture leads to a breakdown in diplomatic cooperation, potential deterrence gains may not be worth the costs to other U.S. interests. These broader strategic considerations were outside the scope of this study but are certainly questions that policymakers should ask.

Crisis Deployments Can Prevent Escalation but Do Not Improve Partners' Leverage

If the United States does not forward-deploy its forces in steady-state conditions or if it does so in numbers insufficient to achieve deterrence, it can attempt to compensate by surging forces forward in the event of an international crisis. Despite the risk of inadvertent escalation, the historical record suggests that such crisis deployments have generally been successful in reducing the risk of major clashes or war, with ground and air forces having been particularly effective. The number of such crisis deployments is small enough that we should be careful about generalization, but analysis of the roughly two dozen crises in which the United States has rushed forces forward shows a large decline in the incidence of escalation.

As with steady-state deterrence, however, this finding comes with important caveats for military planners. First, geography and infrastructure matter a lot. Because ground forces take a substantial amount of time to transport, the United States was generally able to deploy them where it had already had considerable forward posture and infrastructure to handle the logistical requirements. Even with such factors working in the United States' favor, the ability of crisis deployments to prevent no-notice or short-notice *faits accomplis* launched by highly capable adversaries is limited.

This limitation, in turn, highlights the importance of a second caveat. Crisis deployments are much better at preventing escalation than they are at improving the defended state's long-term bargaining leverage. In other words, while crisis deployments can help maintain the status quo between states, they are not necessarily well-suited to altering the long-term strategic dynamics between states. Consequently, crisis deployments seem best suited to maintaining the status quo rather than reversing facts on the ground.

General Deterrence Models

This appendix provides additional details regarding the statistical models assessing the effects of steady-state U.S. forces on the likelihood of interstate conflict, as summarized in Chapter Three. Many of the particulars regarding the underlying structure of the models are built on a 2017 RAND study, reported in *U.S. Presence and the Incidence of Conflict*.[1] Although this appendix summarizes relevant sections from that report as needed, it focuses primarily on ways that the current report differs from the previous effort.

Collecting Data on U.S. Military Capabilities Overseas

The major advancement in this report is the disaggregation of U.S. presence into distinct capabilities rather than using aggregate personnel numbers. This section describes the particular categories of capabilities used, as well as the methods to collect the necessary data to measure those capabilities.[2]

---

[1] O'Mahony et al., 2017.

[2] Several of the sources we used to compile data for our project-specific data set were identified in Chapter Three (Air Force Historical Research Agency, undated; Cobble, Gaffney, and Gorenburg, 2005; Fletcher, 1993; IISS, various years; Siegel, 1991). We also consulted, among other sources, John T. Correll, *The Air Force in the Vietnam War*, Arlington, Va.: Air Force Association, December 2004; Larissa Forster, *Influence Without Boots on the Ground: Seaborne Crisis Response*, Newport, R.I.: Naval War College Press, January 2013; Richard R. Grimmett, *Instances of Use of United States Armed Forces Abroad, 1798–2009*, Washington, D.C.: Congressional Research Service, RL32170, January 27, 2010; Robert B. Mahoney, Jr.,

Data on Naval Forces

Our data on U.S. naval forces concentrated on deployments of U.S. aircraft carriers from 1946 to 2016. Carriers are used as the unit of measurement because they are at the center of each of the Navy's CSGs, comprising destroyers, submarines, other ships, and aircraft. CSGs are generally deployed together for both standard deployments and crisis response. Carrier deployment data give us insight into when, where, and under what circumstances the U.S. Navy deploys. Light carriers, largely used in the decade after World War II, are excluded from these data.

To develop the data, we first collected the deployment schedules of all carriers from 1946 to 2016. These data include the start and end dates of deployments rather than the exact dates of each port visit or crisis response. To address this issue, we determined a primary location for each deployment, which is set to the nearest country. A ship that was primarily based in the Caribbean Sea, for example, might be given a location of Cuba for geographic estimation purposes. The primary location determination was based on rough estimates of the length of stay and the deployment purpose that is outlined in the historical record. The data were then refined to include only deployments longer than six months in a given year. This allowed us to develop a rough estimate of the number of carriers deployed to each location each year.

The number of U.S.-based carriers was determined by subtracting the number of deployed carriers from the total number of carriers in the fleet each year. We subtracted two additional carriers from this estimate to account for those dry docked and unavailable as they underwent maintenance at U.S. shipyards.[3]

U.S. Navy Responses to International Incidents and Crises, 1955–1975 Survey of Navy Crisis Operations, Arlington, Va.: Center for Naval Analyses, July 1977; Naval History and Heritage Command, *Naval Aviation News*, various years; and Kurt Wayne Schake, *Strategic Frontier: American Bomber Bases Overseas, 1950–1960*, Norwegian University of Science and Technology, Department of History, January 1998.

[3]   This estimate is based on conversations with RAND subject-matter experts on the U.S. Navy, as well as Jessie Riposo, Michael E. McMahon, James G. Kallimani, and Daniel Tremblay, *Current and Future Challenges to Resourcing U.S. Navy Public Shipyards*, Santa Monica, Calif.: RAND Corporation, RR-1552-NAVY, 2017.

Data on Air Forces

Our data on U.S. air forces contain information on long-term deployments of U.S. fighter jets and bombers to countries in which the Air Force has historically had the greatest presence. We include data on 27 countries that have historically based the largest number of Air Force personnel according to DMDC personnel data.

Focusing on these countries, we determined estimates for the number of fighter aircraft based in a country using histories from the Air Force Historical Research Agency and IISS's annual *Military Balance*.[4] Data reporting varies significantly across sources and over time, with fighters reported by the number of aircraft, squadrons, or wings in different time periods and sources. To normalize, we assumed 22 fighters per squadron because the standard squadron size is between 18 and 24 fighters. We assumed 75 fighters per wing unless it was explicitly stated that a specific number of squadrons in the wing were fighter squadrons. We did not include squadrons that rotated into countries for short periods of time unless they were part of a continuous rotation with other squadrons. In some circumstances, the number of aircraft in country was unavailable. In these cases, we averaged the aircraft to personnel ratio across known observations and used this to create a proportional estimate based on USAF staff in country.

The basing of bomber aircraft, and particularly the number of bombers at a specific site, is sensitive and often not reported in open-source documents. Because we were unable to determine the number of bomber aircraft based in each country, we used a binary variable to indicate their presence.

In addition to the number of aircraft, we included data on the additional support staff in country. In some countries, particularly the home bases of combatant commands, additional support staff can be quite large. To determine additional support staff, we used an estimate of 300 staff per fighter squadron based on 1996 estimates from the then–U.S. General Accounting Office.[5] The number of remaining

---

[4] Air Force Historical Research Agency, undated; IISS, various years.

[5] U. S. General Accounting Office, *Air Force Aircraft: Consolidating Fighter Squadrons Could Reduce Costs*, Washington, D.C., GAO/NSIAD-96-82, May 1996.

support staff was estimated by subtracting the fighter staff from the estimated total in-country USAF staff available from DMDC.

The air data were collected using two primary sources: Volumes 1 and 2 of *Air Force Bases* (used mostly for pre-1960 data) and IISS's annual *Military Balance* (used for post-1960 data).[6] Because reporting is inconsistent across years, we supplemented these data using other sources, including squadron and wing histories, installation histories, and news articles.

Data on Ground Forces

To identify U.S. ground capabilities, we collected data on the size and general composition of Army and Marine Corps deployments from 1950 to the present. The objective of this data set is to estimate the share of four broad categories of ground forces in overall deployments. Those categories are

1. light (light infantry, airborne, and some special forces units)
2. heavy (armored, mechanized, artillery, and combat aviation units)
3. air defense artillery
4. other (support units, such as logistics and engineer units).

After identifying the countries that have seen significant U.S. ground deployments since 1950, we determined the overall size of the Army and Marine Corps yearly presence in those countries. Whenever possible, DMDC data were used for this step. In some cases, DMDC data were supplemented by additional research to obtain accurate numbers of deployed troops. In addition, DMDC data for 1953 were used in some cases for 1951 and 1952, because data for those years were unavailable.

Next, research was conducted to determine the type and quantity of units deployed in each country of interest. IISS's annual *Military Balance* provided much of these yearly data. This source was supple-

---

[6] Robert Mueller, *Air Force Bases*, Vol. 1, *Active Air Force Bases Within the United States of America on 17 September 1982*, Washington, D.C.: Office of Air Force History, U.S. Air Force, 1990; Fletcher, 1993; and IISS, various years.

mented by a variety of other secondary sources, primarily Army and Marine Corps official histories. We then assigned each unit to one of the four ground force categories. The data collection focused on higher-level independent units and did not attempt to achieve a high degree of granularity by parsing the constituent parts of those units. For example, an infantry division (considered light by our taxonomy) might contain a tank battalion (a heavy unit), but we still considered the entire infantry division to be categorized as light. In another case, an air defense artillery battalion within an armored brigade would not be included in the air defense category for a given country year. However, if that battalion appeared to be deployed independently and was not obviously a portion of another unit, it would be counted as an air defense unit. The majority of the data collection concentrated on identifying units within the first three categories. For units categorized as other, we assumed that the remainder of the force that did not fall into light, heavy, or air defense would fall into the other category. Accordingly, for country years in which no light, heavy, or air defense units were identified, all present troops were assumed to fall under the fourth category (other).

When collecting yearly unit data, we made assumptions about deployment composition when there were gaps in available information. When research suggested continuity over a certain period, we used the most alike closest year for which there was information to fill in a year without data.

Once the number and type of units involved in each deployment were identified, the size of those units was estimated. Whenever possible, official Army and Marine Corps unit organizations were used. This allowed for estimates of the number of troops in each category. As noted earlier, any troops not assigned to one of the first three categories were assigned to the fourth category (other). This practice led to the issue of overcounting the first three categories (and thus undercounting the fourth category) in some cases, because the strength of deployed units may, for a variety of reasons, not coincide with official authorized strengths for those units. As a result, some of the estimates derived from the sizes of units exceeded the total number of troops in a given country year.

To address this issue for larger deployments, we assumed that one-third of any country-year deployment of 10,000 troops or more would be composed of troops in the other category. For these calculations, the estimated totals of the light, heavy, and air defense categories were used rather than the DMDC numbers, because the latter were often fewer than the former. Light, heavy, and air defense categories were correspondingly reduced by one-third to account for the presence of troops categorized as other. In country years with fewer than 10,000 troops, totals for light, heavy, and air defense were simply subtracted from the total troop number to estimate troops in the other category. Although this likely does not capture a completely accurate picture of deployment composition, we assume that many of the units categorized as other that would probably be present would be included in a parent unit belonging to one of the first three categories.

Constructing the Statistical Models

As noted earlier, the statistical models we employed for this study were based on those developed for a 2017 RAND report.[7] As in that study, the models we employed were built on a data universe of pairs of states, or dyads, with the potential to come into conflict with one another in a given year.[8] In total, our data universe included 66,602 observations between 1950 and 2010.[9]

For our measure of conflict, we relied on the MID data set, as described in Chapter Three. MID data allowed us to assess potentially differing effects of U.S. forces on different intensity levels of conflict. Expanding our analysis to include lower-intensity forms of conflict also helped address the difficulties of the rarity of interstate wars in

---

[7] O'Mahony et al., 2017.

[8] O'Mahony et al., 2017, pp. 35–37. Briefly, the models include directional dyad-years of all contiguous states, as well as dyad-years involving (1) regional powers and other states in their region and (2) great powers (such as the United States) and states in other regions.

[9] For years later than 2010, data for a dependent variable, MIDs, were not available. For years prior to 1950, data for our primary independent variables of interest, U.S. forces, could not be consistently collected.

the post–World War II era. In the 1950–2010 period, only 115 of our dyad-years involved interstate war (0.17 percent) while MIDs, in general, were much more frequent (present in 2,003 of our dyad-years, or 3.0 percent of cases), which enabled more-robust statistical analysis of the factors associated with them.

Because the presence or absence of a MID in a given dyad-year is a binary variable, we used logistic regressions as the most appropriate choice for binary dependent variables. Although logit models are a workhorse of quantitative political science research, they come with some weaknesses that are salient in the case of the data we employed; thus, we took additional steps to address these weaknesses. Logit models assume that the likelihood of the dependent variable occurring for each observation in the model is independent of the likelihood of it occurring in every other observation, which is unlikely to be true, given that our model is made up of repeated dyad-year observations, and the chances of conflict in one dyad-year likely affects the likelihood of conflict in another. To compensate, we included separate control variables for temporal dependence and used robust clustered standard errors on the directed dyad.[10]

Each of our statistical models also included a standard set of control variables, designed to incorporate factors that could potentially be correlated with the likelihood of U.S. force deployments, the underlying risk of conflict, or both.[11] These factors included

- whether the state had a defensive alliance with the United States
- the amount of military assistance the state received from the United States
- whether the two states in the dyad were involved in a higher-salience territorial claim
- whether both states in the dyad were established democracies

---

[10] A fuller discussion of this issue is available in O'Mahony et al., 2017, p. 43. The temporal control variables included were peace-year polynomials, as recommended in David B. Carter and Curtis S. Signorino, "Back to the Future: Modeling Time Dependence in Binary Data," *Political Analysis*, Vol. 18, No. 3, 2010.

[11] These factors, and the data sources used to construct them, are specified in detail in O'Mahony et al., 2017, pp. 39–42.

- the minimum gross domestic product (GDP) per capita level of the states in the dyad[12]
- the relative balance of military capabilities between the two states in the dyad
- whether the two states in the dyad were allies of one another
- the total size of the U.S. military in the year in question
- whether the year in question was during the Cold War.

These variables were included both to better isolate the effects of U.S. forces from other aspects of U.S. power and influence and to address *endogeneity*—that is, the possibility that a heightened risk of conflict causes the United States to send forces to a country or region, rather than vice versa. Although we believe that these control variables account for some of these selection effects, we took an additional step to better account for them as well. To identify the types of countries in which the United States was most likely to place its forces, we developed a "first-stage" selection model in which the dependent variable was a binary measurement of whether the country was above the 90th percentile of countries hosting U.S. troops. This model included several variables thought likely to encourage the United States to deploy troops, including the country being at risk of external aggression and having a close relationship with the United States. The results of these selection models are shown in Table A.1.

Table A.1
Results of First-Stage Selection Models for U.S. Troop Presence

	Threat Scale Index	Threat Scale Index Components	Threat Scale Index, Alliance Control Omitted
Large imbalance in capabilities, 1-year lag		0.247 (0.908)	
Lack of dyadic democracy, 1-year lag		−0.275 (0.314)	

---

[12] For this factor and the military assistance factor, we measure using the *inverse hyperbolic sine* (IHS), a mathematical transformation similar to a natural log.

Table A.1—Continued

	Threat Scale Index	Threat Scale Index Components	Threat Scale Index, Alliance Control Omitted
History of MIDs, 1-year lag		0.715**	
		(0.314)	
Higher-salience territorial claim, 1-year lag		0.543*	
		(0.294)	
Threat scale index for regional states, 1-year lag	0.356***	0.225*	0.180
	(0.135)	(0.133)	(0.126)
Nearby U.S. troop presence, 1-year lag	0.018***	0.016***	0.017***
	(0.004)	(0.004)	(0.004)
Alliance with the United States, 1-year lag	1.236***	1.245***	
	(0.386)	(0.381)	
U.S. military assistance, IHS, 1-year lag	−0.015	−0.009	0.004
	(0.015)	(0.015)	(0.015)
Military strength, 1-year lag	−0.234**	−0.328***	−0.273***
	(0.091)	(0.076)	(0.086)
Proximity of U.S. rivals, 1-year lag	−0.584	−0.934	−0.607
	(0.618)	(0.574)	(0.592)
State engaged in rivalry, 1-year lag	−0.055	−0.044	−0.056
	(0.326)	(0.311)	(0.341)
GDP per capita, IHS, 1-year lag	0.928***	1.084***	1.194***
	(0.200)	(0.179)	(0.196)
Cold War dummy variable	0.570***	0.682***	0.695***
	(0.167)	(0.177)	(0.174)
Threat scale index, 1-year lag[a]	0.284***		0.268**
	(0.104)		(0.106)
Constant	−9.982***	−9.638***	−11.140***
	(1.538)	(1.650)	(1.642)
Observations	6,584	5,788	6,584
Pseudo R-squared	0.2156	0.2418	0.1860

NOTE: This table reports regression coefficients. Robust standard errors are shown in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

[a] The threat scale index incorporates multiple variables, including a large imbalance of capabilities, a lack of dyadic democracy, a history of MIDs, and a higher-salience territorial claim between the state and one of its neighbors. These variables are disaggregated in the second model.

We then used the first of these models, the threat scale index model, to calculate the likelihood that U.S. troops above the 90-percent threshold would be deployed to the state. This likelihood was then incorporated into our "second-stage" models (in which the incidence of MIDs was the dependent variable) as the propensity weighting for the likelihood of U.S. forces being present.[13] This technique has the potential to introduce additional errors in our results, but we felt that it was justified in this case because of the likely extensive selection effects related to where the United States decides to deploy its forces.

The key independent variables of interest for our models were, of course, the measures of U.S. forces present. As discussed earlier, we collected data on the location and size of eight different naval, air, and ground capabilities. In our statistical models, we focused on six of these as the most salient for this research question:[14]

- heavy ground forces
- light ground forces
- stand-alone air defense artillery
- USAF fighters
- USAF bombers[15]
- Navy CSGs.

We then calculated two different versions of these variables (in-country and nearby), as discussed in Chapter Three and illustrated in Figure 3.6. First, we calculated the forces present in each state in our

---

[13] For a discussion of the pros and cons of employing propensity weighting in this manner, see David A. Freedman and Richard A. Berk, "Weighting Regressions by Propensity Scores," *Evaluation Review*, Vol. 32, No. 4, 2008.

[14] We excluded ground and air personnel categorized as "other," including primarily support personnel, because we deemed them less likely to affect potential adversary calculations.

[15] As discussed in the section on data collection, we were unable to identify the precise number of bombers present; instead, we identified only locations that hosted bombers in particular years. Other than assuming that the number of bombers located in the United States was larger, we treated other bomber locations as being the same size.

data universe in a given year.[16] We then took the IHS of the raw numbers in order to limit the difficulties that very wide number ranges can introduce into statistical models. Second, we calculated the effective number of nearby forces relative to each state in a given year and again applied an IHS transformation. In doing so, we took into account all U.S. forces in the world, including those in the United States, and discounted their presence relative to the distance between their location and the state in question.[17] However, the manner in which that discounting, or loss-of-strength gradient, was calculated varied depending on the capability.[18] Air forces, for example, have much greater transit speeds and operational ranges than ground forces, so the distance penalty applied to air forces should be commensurately less.[19] It should be

---

[16] The one exception is that we did not calculate an in-country metric for CSGs, because we assumed that, while carriers can deploy near a specific country, they are quite likely to be some distance offshore and are not, in that sense, comparable to other types of forces located within a country's territory.

[17] This builds on the approach used in O'Mahony et al., 2017, p. 34.

[18] For ground forces, we began by identifying regions likely to have relatively greater endowments of military infrastructure that could speed the flow of forces, based on regions that were host to higher concentrations of U.S. forces overall. We then estimated, based on data from Lostumbo and colleagues (2013), the number of kilometers per day that heavy, light, and air defense units could transit, building in assumptions regarding how long it would take these units to begin moving at typical forward-deployed states of readiness. Light forces were assumed to move roughly 33 percent faster than heavy forces. We assumed that movement for all units in regions with high infrastructure, such as Europe, would be roughly four times faster than movement in regions with notable low infrastructure, such as West Africa. Regions with moderate levels of infrastructure, such as the Mideast, were assumed to be in between. (See Michael J. Lostumbo, Michael J. McNerney, Eric Peltz, Derek Eaton, and David R. Frelinger, *Overseas Basing of US Military Forces: An Assessment of Relative Costs and Strategic Benefits*, Santa Monica, Calif.: RAND Corporation, RR-201-OSD, 2013, pp. 41–52.) For naval forces, we assumed that CSGs traveled at roughly 24 knots, or 44 km per hour, below the top speed of carriers, in keeping with the need to travel with support ships. (See U.S. Navy, "Aircraft Carriers—CVN," Fact File, January 31, 2017.) For a more general discussion of the use of a loss-of-strength gradient in this manner, see Douglas Lemke, *Regions of War and Peace*, Cambridge, UK: Cambridge University Press, 2002.

[19] We assumed that USAF fighters in regions with sufficient air infrastructure would likely be able to rebase where most useful for a particular conflict. We further assumed that the aircraft should be based outside immediate anti-air range—approximately 400 km. Assuming some inefficiency in basing options, we estimated 500 km as fighters' rebased distance from the country in question in the event of a crisis, and we added a one-day penalty to conduct

noted that air forces posed a particular challenge in this regard because of how much more rapidly they can travel and their potential to be rebased quickly, at least in regions with sufficient infrastructure. The assumptions we made regarding how to discount air forces seem logical, but we also acknowledge substantially greater uncertainty regarding such questions as how widely available midair refueling capability should be assumed to be. The greater complexity of calculating this "nearby" variable for air forces limits our confidence in the results for the nearby air force variables, as we discussed in Chapter Three.

In our statistical models, each capability measure was lagged by one year in order to reduce the likelihood that our models would measure U.S. forces deployed specifically in response to conflict, instead of the intended measure of later conflicts that occurred or did not occur in response to U.S. presence. We further calculated two related measures for each capability for use in additional robustness checks. First, for each in-country measure, we calculated a "tripwire" version for each capability, indicating whether forces in this category were present in the state, irrespective of size. Second, we calculated a withdrawal percentage variable, expressed as the percentage difference between the forces present two years before the observation year and those present one year beforehand.

---

the rebasing. We then assumed a cruising speed of roughly 926 km per hour for an F-16, or roughly 7,408 km per day, assuming operation of the aircraft for about eight hours per day. For fighter aircraft operating in regions without sufficient air infrastructure, we assumed that, even though refueling or equivalent rebasing options are available to enable operations, these capabilities (absent supporting infrastructure) essentially just enable extended range (with a one-day penalty over aircraft operating from bases within that radius) rather than rebasing and a new, closer location for faster sortie generation. So, for states in low-infrastructure regions, we continued to use the original location where the aircraft were based for the purposes of calculating distance, and for speed, we used 926 km per hour, or 7,408 km per day. For more information, see U.S. Department of the Air Force, "F-16 Fighting Falcon," webpage, September 23, 2015a. For bombers, we assumed a similar model, except that bombers were assumed to have roughly 3.5 times longer ranges than fighters. For more information, see U.S. Department of the Air Force, "B-52 Stratofortress" webpage, December 16, 2015b.

Results and Interpretation

This section presents the full regression table results from all of the statistical models we explored. We begin with our baseline models (Table A.2) and then present the various alternative versions we ran, with brief descriptions before each set of models explaining how it differs from the baseline set. Following these tables, we summarize the results for the relevant variables of interest—in-country and nearby U.S. forces—and discuss our interpretation of the results. We also discuss the additional robustness checks we performed in order to better understand the historical cases driving each result, as well as our resulting assessment of the plausibility of each result.

Most sets of models consider all MIDs together and then separately consider low-intensity MIDs and high-intensity MIDs. Models considering the incidence of interstate war were included when there were sufficient observations for those models to converge, although this occurred only in a few sets of models.

Table A.2
Statistical Results for the Baseline Models

	All MIDs	Low-Intensity MIDs	High-Intensity MIDs	Interstate War
In-country heavy ground personnel, not engaged in combat, IHS, 1-year lag	0.00995 (0.0254)	0.133*** (0.0446)	−0.0578* (0.0349)	0.138 (0.109)
In-country light ground personnel, not engaged in combat, IHS, 1-year lag	0.0629*** (0.0235)	0.0764* (0.0407)	0.0292 (0.0303)	
In-country air defense ground personnel, not engaged in combat, IHS, 1-year lag	−0.113** (0.0480)	−0.331*** (0.0630)	−0.0454 (0.0470)	
In-country USAF fighters, not engaged in combat, IHS, 1-year lag	0.0137 (0.0435)	0.0356 (0.0821)	0.0320 (0.0426)	
In-country USAF bomber presence, not engaged in combat, IHS, 1-year lag	−0.233 (0.307)	−0.869 (0.572)	0.00400 (0.326)	

Table A.2—Continued

	All MIDs	Low-Intensity MIDs	High-Intensity MIDs	Interstate War
Effective nearby heavy ground personnel, not engaged in combat, IHS, 1-year lag	−0.174*** (0.0544)	−0.152 (0.102)	−0.252*** (0.0653)	−0.589* (0.353)
Effective nearby light ground personnel, not engaged in combat, IHS, 1-year lag	0.247* (0.142)	0.712*** (0.251)	0.0804 (0.126)	−1.046 (0.780)
Effective nearby air defense ground personnel, not engaged in combat, IHS, 1-year lag	−0.0847 (0.0738)	−0.192* (0.117)	0.0141 (0.0564)	0.120 (0.140)
Effective nearby USAF fighters, not engaged in combat, IHS, 1-year lag	0.404 (0.255)	0.140 (0.307)	0.605** (0.297)	−0.667* (0.395)
Effective nearby Navy CSGs, not engaged in combat, 1-year lag	−0.00521 (0.00907)	−0.0296 (0.0241)	0.000869 (0.0104)	0.129*** (0.0240)
Effective nearby USAF bomber presence, not engaged in combat, 1-year lag	−0.0154** (0.00743)	−0.0237** (0.0121)	−0.0139* (0.00840)	−0.0275 (0.0457)
Alliance with United States, 1-year lag	0.0644 (0.178)	−0.206 (0.351)	0.231 (0.188)	−2.363** (0.936)
U.S. military assistance, 1-year lag	0.00550 (0.00587)	−0.00520 (0.00928)	0.00434 (0.00710)	0.00745 (0.0262)
Higher-salience territorial claim, 1-year lag	0.956*** (0.141)	0.874*** (0.235)	1.129*** (0.188)	2.257*** (0.652)
Dyadic democracy, 1-year lag	−0.964*** (0.188)	−1.220*** (0.298)	−0.887*** (0.231)	0.479 (0.804)
GDP per capita, minimum value, IHS, 1-year lag	−0.106 (0.0738)	−0.0590 (0.104)	−0.145 (0.0899)	−0.0223 (0.239)
Balance of capabilities in dyad	−1.428*** (0.338)	−1.994*** (0.630)	−1.356*** (0.420)	−3.892** (1.621)
Alliance in dyad	0.0363 (0.167)	0.191 (0.292)	−0.0948 (0.164)	−1.169** (0.596)
Total U.S. military personnel	−0.867*** (0.309)	−1.592*** (0.548)	−0.664 (0.530)	−0.688 (1.358)

Table A.2—Continued

	All MIDs	Low-Intensity MIDs	High-Intensity MIDs	Interstate War
Cold War	−0.0195	−0.129	0.160	1.156
	(0.208)	(0.298)	(0.249)	(0.846)
Peace years	−0.485***			
	(0.0299)			
Peace years squared	0.0185***			
	(0.00153)			
Peace years cubed	−0.000201***			
	(2.18e-05)			
Peace years		−0.260***		
		(0.0414)		
Peace years squared		0.00864***		
		(0.00173)		
Peace years cubed		−8.18e-05***		
		(2.03e-05)		
Peace years			−0.625***	
			(0.0397)	
Peace years squared			0.0253***	
			(0.00224)	
Peace years cubed			−0.000290***	
			(3.45e-05)	
Peace years				−1.054***
				(0.254)
Peace years squared				0.0662***
				(0.0165)
Peace years cubed				−0.00116***
				(0.000322)
Constant	3.894	7.189	2.205	27.80***
	(3.651)	(5.309)	(4.986)	(10.13)
Observations	42,559	42,559	42,559	42,559
Log likelihood	−10,761	−5,637	−7,110	−598.5
Chi-squared	1,201	474.9	1,238	810.1
Pseudo R-squared	0.283	0.143	0.338	0.394

NOTE: This table reports regression coefficients. Robust standard errors are shown in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

The next set of models limited the potential aggressor states to those identified as being more likely to be U.S. adversaries. This determination was made by comparing the alliance portfolio of these states relative to the United States and selecting the bottom 10 percent of states as potential adversaries. Statistical results are shown in Table A.3.

Table A.3
Statistical Results for the Potential Adversary Models

	All MIDs	Low-Intensity MIDs	High-Intensity MIDs
In-country heavy ground personnel, not engaged in combat, IHS, 1-year lag	0.0677 (0.0498)	0.204*** (0.0785)	−0.0384 (0.0742)
In-country light ground personnel, not engaged in combat, IHS, 1-year lag	0.106** (0.0438)	0.0739 (0.0629)	0.0128 (0.0571)
In-country air defense ground personnel, not engaged in combat, IHS, 1-year lag	−0.124 (0.0871)	−0.365*** (0.139)	0.0188 (0.112)
In-country USAF fighters, not engaged in combat, IHS, 1-year lag	−0.0723 (0.0952)	-0.235** (0.106)	0.219 (0.139)
In-country USAF bomber presence, not engaged in combat, IHS, 1-year lag	0.176 (0.644)	−1.126 (0.699)	0.598 (0.835)
Effective nearby heavy ground personnel, not engaged in combat, IHS, 1-year lag	0.274 (0.337)	0.686 (0.460)	−0.137 (0.356)
Effective nearby light ground personnel, not engaged in combat, IHS, 1-year lag	0.750** (0.347)	0.983*** (0.326)	0.843 (0.599)
Effective nearby air defense ground personnel, not engaged in combat, IHS, 1-year lag	−0.327* (0.179)	−0.527 (0.335)	−0.0625 (0.120)
Effective nearby USAF fighters, not engaged in combat, IHS, 1-year lag	−1.913*** (0.540)	−1.626** (0.690)	−1.214 (0.874)
Effective nearby Navy CSGs, not engaged in combat, 1-year lag	−0.0116 (0.0304)	0.00202 (0.0331)	−0.0311 (0.0481)
Effective nearby USAF bomber presence, not engaged in combat, 1-year lag	−0.0178 (0.0233)	−0.0635 (0.0417)	0.0138 (0.0235)

Table A.3—Continued

	All MIDs	Low-Intensity MIDs	High-Intensity MIDs
Alliance with United States, 1-year lag	0.633 (0.445)	0.564 (0.559)	0.633 (0.691)
U.S. military assistance, 1-year lag	−0.0198 (0.0160)	−0.0280 (0.0209)	−0.0141 (0.0255)
Higher-salience territorial claim, 1-year lag	0.838* (0.443)	1.326* (0.747)	0.697*** (0.251)
Dyadic democracy, 1-year lag	−0.809 (0.708)	−1.269 (0.892)	0.994 (1.012)
GDP per capita, minimum value, IHS, 1-year lag	0.416 (0.334)	0.733** (0.301)	−0.142 (0.541)
Balance of capabilities in dyad	−4.215*** (1.454)	−6.460*** (1.766)	−3.583* (1.890)
Alliance in dyad	0.809** (0.350)	−0.231 (0.432)	1.844*** (0.340)
Total U.S. military personnel	−1.800 (1.674)	−2.086 (1.720)	−0.185 (1.188)
Cold War	−0.173 (0.761)	1.183* (0.689)	−1.240 (0.935)
Peace years	−0.457*** (0.0868)		
Peace years squared	0.0205*** (0.00523)		
Peace years cubed	−0.000242*** (7.60e-05)		
Peace years		−0.360*** (0.108)	
Peace years squared		0.0115** (0.00537)	
Peace years cubed		−9.29e-05 (6.64e-05)	
Peace years			−0.717*** (0.170)
Peace years squared			0.0326*** (0.00996)
Peace years cubed			−0.000397*** (0.000149)

Table A.3—Continued

	All MIDs	Low-Intensity MIDs	High-Intensity MIDs
Constant	25.22	18.67	9.211
	(17.06)	(14.57)	(16.20)
Observations	3,229	3,229	3,229
Log likelihood	−1,044	−650.5	−489.5
Chi-squared	498.4	198.3	907.1
Pseudo R-squared	0.295	0.264	0.429

NOTE: This table reports regression coefficients. Robust standard errors are shown in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

The next set of models incorporated tripwire variables—that is, binary measurements of the presence of different capabilities in each state, regardless of size. These measures replaced the normal metrics for in-country capabilities in the other models. Statistical results are shown in Table A.4.

Table A.4
Statistical Results for the In-Country Tripwire Models

	All MIDs	Low-Intensity MIDs	High-Intensity MIDs
Dummy: 1 battalion or more in-country heavy ground forces, not engaged in combat, 1-year lag	−0.153 (0.246)	0.957*** (0.365)	−1.352*** (0.481)
Dummy: 1 battalion or more in-country light ground forces, not engaged in combat, 1-year lag	0.743*** (0.229)	0.744** (0.313)	0.578* (0.310)
Dummy: 1 battalion or more in-country air defense ground forces, not engaged in combat, 1-year lag	−0.959** (0.429)		0.125 (0.421)
Dummy: More than 1 squadron in-country fighters, not engaged in combat, 1-year lag	0.00141 (0.212)	−0.124 (0.441)	−0.0147 (0.236)
In-country USAF bomber presence, not engaged in combat, IHS, 1-year lag	−0.178 (0.311)	−0.586 (0.630)	0.204 (0.352)
Effective nearby heavy ground personnel, not engaged in combat, IHS, 1-year lag	−0.168*** (0.0548)	−0.140 (0.110)	−0.168*** (0.0626)
Effective nearby light ground personnel, not engaged in combat, IHS, 1-year lag	0.237* (0.141)	0.735*** (0.238)	−0.114 (0.130)
Effective nearby air defense ground personnel, not engaged in combat, IHS, 1-year lag	−0.0837 (0.0739)	−0.181 (0.117)	−0.0109 (0.0695)
Effective nearby USAF fighters, not engaged in combat, IHS, 1-year lag	0.408 (0.256)	0.147 (0.299)	0.515* (0.308)
Effective nearby Navy CSGs, not engaged in combat, 1-year lag	−0.00430 (0.00898)	−0.0332 (0.0229)	0.0137 (0.00998)
Effective nearby USAF bomber presence, not engaged in combat, 1-year lag	−0.0152** (0.00746)	−0.0205* (0.0113)	−0.00950 (0.00913)

Table A.4—Continued

	All MIDs	Low-Intensity MIDs	High-Intensity MIDs
Alliance with United States, 1-year lag	0.0535	−0.215	0.191
	(0.182)	(0.367)	(0.194)
U.S. military assistance, 1-year lag	0.00578	−0.00736	0.0121
	(0.00586)	(0.00872)	(0.00771)
Higher-salience territorial claim, 1-year lag	0.956***	0.461*	1.049***
	(0.141)	(0.240)	(0.190)
Dyadic democracy, 1-year lag	−0.947***	−1.048***	−0.789***
	(0.190)	(0.302)	(0.239)
GDP per capita, minimum value, IHS, 1-year lag	−0.110	−0.0416	−0.139
	(0.0738)	(0.106)	(0.0977)
Balance of capabilities in dyad	−1.433***	−1.664***	−1.160**
	(0.338)	(0.629)	(0.465)
Alliance in dyad	0.0321	0.218	−0.0773
	(0.167)	(0.297)	(0.166)
Total U.S. military personnel	−0.849***	−1.638***	−0.366
	(0.309)	(0.534)	(0.443)
Cold War	−0.0187	−0.111	0.0277
	(0.209)	(0.313)	(0.265)
Peace years	−0.484***	−0.256***	−0.611***
	(0.0300)	(0.0379)	(0.0409)
Peace years squared	0.0184***	0.00835***	0.0249***
	(0.00153)	(0.00168)	(0.00250)
Peace years cubed	−0.000200***	−8.11e−05***	−0.000287***
	(2.18e−05)	(2.07e−05)	(4.00e−05)
Dummy: 1 battalion or more in-country air defense ground forces, not engaged in combat		0	
		(0)	
Constant	3.759	6.520	1.215
	(3.672)	(5.298)	(4.311)
Observations	42,559	42,257	42,559
Log likelihood	−10,761	−5,552	−7,309
Chi-squared	1,235	394.5	1,234
Pseudo R-squared	0.283	0.155	0.320

NOTE: This table reports regression coefficients. Robust standard errors are shown in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

The next set of models combined elements of the previous two: replacing the in-country metrics with binary measures and limiting potential aggressors to potential adversaries of the United States. Results are shown in Table A.5.

Table A.5
Statistical Results for the Adversary, In-Country Tripwire Models

	All MIDs	Low-Intensity MIDs	High-Intensity MIDs
Dummy: 1 battalion or more in-country heavy ground forces, not engaged in combat, 1-year lag	0.591 (0.531)	1.661** (0.699)	−0.585 (0.782)
Dummy: 1 battalion or more in-country light ground forces, not engaged in combat, 1-year lag	1.060** (0.417)	0.593 (0.688)	0.687 (0.536)
Dummy: 1 battalion or more in-country air defense ground forces, not engaged in combat, 1-year lag	−0.782 (0.844)		1.354* (0.807)
Dummy: More than 1 squadron in-country fighters, not engaged in combat, 1-year lag	−0.632 (0.432)	−1.892** (0.811)	0.731 (0.672)
In-country USAF bomber presence, not engaged in combat, IHS, 1-year lag	0.366 (0.636)	−0.407 (1.095)	1.655 (1.029)
Effective nearby heavy ground personnel, not engaged in combat, IHS, 1-year lag	0.296 (0.347)	0.530 (0.418)	−0.251 (0.377)
Effective nearby light ground personnel, not engaged in combat, IHS, 1-year lag	0.724** (0.340)	0.785** (0.363)	0.828 (0.595)
Effective nearby air defense ground personnel, not engaged in combat, IHS, 1-year lag	−0.331* (0.188)	−0.523 (0.362)	0.0611 (0.165)
Effective nearby USAF fighters, not engaged in combat, IHS, 1-year lag	−1.916*** (0.521)	−1.513*** (0.536)	−2.493** (1.156)
Effective nearby Navy CSGs, not engaged in combat, 1-year lag	−0.0101 (0.0284)	−0.0223 (0.0312)	−0.00614 (0.0563)
Effective nearby USAF bomber presence, not engaged in combat, 1-year lag	−0.0167 (0.0235)	−0.0440 (0.0321)	0.0333 (0.0303)
Alliance with United States, 1-year lag	0.662 (0.435)	0.653 (0.522)	0.549 (0.621)

Table A.5—Continued

	All MIDs	Low-Intensity MIDs	High-Intensity MIDs
U.S. military assistance, 1-year lag	−0.0196	−0.0408	0.0111
	(0.0161)	(0.0262)	(0.0267)
Higher-salience territorial claim, 1-year lag	0.797*	0.352	1.006***
	(0.439)	(0.989)	(0.376)
Dyadic democracy, 1-year lag	−0.822	−1.176	0.137
	(0.713)	(0.871)	(1.047)
GDP per capita, minimum value, IHS, 1-year lag	0.411	0.609*	−0.0690
	(0.336)	(0.313)	(0.560)
Balance of capabilities in dyad	−4.236***	−5.433***	−3.412
	(1.463)	(1.622)	(2.242)
Alliance in dyad	0.808**	−0.230	2.143***
	(0.352)	(0.402)	(0.393)
Total U.S. military personnel	−1.817	−1.519	−2.398
	(1.717)	(1.219)	(2.817)
Cold War	−0.156	0.281	−1.175
	(0.782)	(0.646)	(1.397)
Peace years	−0.455***	−0.293***	−0.670***
	(0.0866)	(0.0976)	(0.155)
Peace years squared	0.0205***	0.0119**	0.0328***
	(0.00522)	(0.00590)	(0.00958)
Peace years cubed	−0.000242***	−0.000128	−0.000417***
	(7.59e-05)	(8.27e-05)	(0.000145)
Constant	25.46	16.19	39.11
	(16.89)	(10.57)	(31.61)
Observations	3,229	3,196	3,229
Log likelihood	−1,043	−694.9	−518.5
Chi-squared	619.2	165.3	790.1
Pseudo R-squared	0.296	0.213	0.395

NOTE: This table reports regression coefficients. Robust standard errors are shown in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

The next set of models investigated the percentage changes in U.S. forces, from two years before the observation year to one year before the observation year. Results are shown in Table A.6.

Table A.6
Statistical Results for the Withdrawal, In-Country Tripwire Models

	All MIDs	Low-Intensity MIDs	High-Intensity MIDs
Dummy: 1 battalion or more in-country heavy ground forces, not engaged in combat, 1-year lag	0.591 (0.531)	1.661** (0.699)	−0.585 (0.782)
Dummy: 1 battalion or more in-country light ground forces, not engaged in combat, 1-year lag	1.060** (0.417)	0.593 (0.688)	0.687 (0.536)
Dummy: 1 battalion or more in-country air defense ground forces, not engaged in combat, 1-year lag	−0.782 (0.844)		1.354* (0.807)
Dummy: More than 1 squadron in-country fighters, not engaged in combat, 1-year lag	−0.632 (0.432)	−1.892** (0.811)	0.731 (0.672)
In-country USAF bomber presence, not engaged in combat, IHS, 1-year lag	0.366 (0.636)	−0.407 (1.095)	1.655 (1.029)
Effective nearby heavy ground personnel, not engaged in combat, IHS, 1-year lag	0.296 (0.347)	0.530 (0.418)	−0.251 (0.377)
Effective nearby light ground personnel, not engaged in combat, IHS, 1-year lag	0.724** (0.340)	0.785** (0.363)	0.828 (0.595)
Effective nearby air defense ground personnel, not engaged in combat, IHS, 1-year lag	−0.331* (0.188)	−0.523 (0.362)	0.0611 (0.165)
Effective nearby USAF fighters, not engaged in combat, IHS, 1-year lag	−1.916*** (0.521)	−1.513*** (0.536)	−2.493** (1.156)
Effective nearby Navy CSGs, not engaged in combat, 1-year lag	−0.0101 (0.0284)	−0.0223 (0.0312)	−0.00614 (0.0563)
Effective nearby USAF bomber presence, not engaged in combat, 1-year lag	−0.0167 (0.0235)	−0.0440 (0.0321)	0.0333 (0.0303)
Alliance with United States, 1-year lag	0.662 (0.435)	0.653 (0.522)	0.549 (0.621)

Table A.6—Continued

	All MIDs	Low-Intensity MIDs	High-Intensity MIDs
U.S. military assistance, 1-year lag	−0.0196 (0.0161)	−0.0408 (0.0262)	0.0111 (0.0267)
Higher-salience territorial claim, 1-year lag	0.797* (0.439)	0.352 (0.989)	1.006*** (0.376)
Dyadic democracy, 1-year lag	−0.822 (0.713)	−1.176 (0.871)	0.137 (1.047)
GDP per capita, minimum value, IHS, 1-year lag	0.411 (0.336)	0.609* (0.313)	−0.0690 (0.560)
Balance of capabilities in dyad	−4.236*** (1.463)	−5.433*** (1.622)	−3.412 (2.242)
Alliance in dyad	0.808** (0.352)	−0.230 (0.402)	2.143*** (0.393)
Total U.S. military personnel	−1.817 (1.717)	−1.519 (1.219)	−2.398 (2.817)
Cold War	−0.156 (0.782)	0.281 (0.646)	−1.175 (1.397)
Peace years	−0.455*** (0.0866)	−0.293*** (0.0976)	−0.670*** (0.155)
Peace years squared	0.0205*** (0.00522)	0.0119** (0.00590)	0.0328*** (0.00958)
Peace years cubed	−0.000242*** (7.59e-05)	−0.000128 (8.27e-05)	−0.000417*** (0.000145)
Constant	25.46 (16.89)	16.19 (10.57)	39.11 (31.61)
Observations	3,229	3,196	3,229
Log likelihood	−1,043	−694.9	−518.5
Chi-squared	619.2	165.3	790.1
Pseudo R-squared	0.296	0.213	0.395

NOTE: This table reports regression coefficients. Robust standard errors are shown in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

Another set of models explored alternatives to controlling for the possession of nuclear weapons. These models used as their dependent variable the incidence of a MID of any intensity level. Results are shown in Table A.7.

Table A.7
Statistical Results for the Nuclear Weapon Models, Assessing All Militarized Interstate Disputes

	Nuclear Weapon Controls	Nuclear Weapon Initiators Only	Nuclear Weapon Initiators Only, Non-U.S. Ally	Nuclear Weapon Initiators Only, U.S. Adversary
In-country heavy ground personnel, not engaged in combat, IHS, 1-year lag	0.0128 (0.0236)	−0.0505 (0.0323)	0.000121 (0.0296)	0.0437 (0.0453)
In-country light ground personnel, not engaged in combat, IHS, 1-year lag	0.0625*** (0.0223)	0.126*** (0.0357)	0.124*** (0.0399)	0.175** (0.0804)
In-country air defense ground personnel, not engaged in combat, IHS, 1-year lag	−0.115** (0.0498)	−0.197*** (0.0432)	−0.172*** (0.0394)	−0.196*** (0.0580)
In-country USAF fighters, not engaged in combat, IHS, 1-year lag	0.00159 (0.0423)	−0.0187 (0.0592)	−0.0878 (0.0683)	−0.129 (0.106)
In-country USAF bomber presence, not engaged in combat, IHS, 1-year lag	−0.214 (0.300)	−0.279 (0.448)	0.131 (0.493)	−0.0283 (0.562)
Effective nearby heavy ground personnel, not engaged in combat, IHS, 1-year lag	−0.174*** (0.0600)	0.144 (0.249)	0.225 (0.279)	0.114 (0.300)

Table A.7—Continued

	Nuclear Weapon Controls	Nuclear Weapon Initiators Only	Nuclear Weapon Initiators Only, Non-U.S. Ally	Nuclear Weapon Initiators Only, U.S. Adversary
Effective nearby light ground personnel, not engaged in combat, IHS, 1-year lag	0.203* (0.119)	0.404 (0.255)	0.381 (0.261)	0.689** (0.316)
Effective nearby air defense ground personnel, not engaged in combat, IHS, 1-year lag	−0.0957 (0.0750)	−0.196 (0.169)	−0.229 (0.178)	−0.277 (0.199)
Effective nearby USAF fighters, not engaged in combat, IHS, 1-year lag	0.382 (0.266)	−1.174* (0.631)	−1.625*** (0.568)	−2.368*** (0.614)
Effective nearby Navy CSGs, not engaged in combat, 1-year lag	−0.00425 (0.00951)	−0.0240 (0.0232)	−0.0280 (0.0228)	0.00461 (0.0696)
Effective nearby USAF bomber presence, not engaged in combat, 1-year lag	−0.0159** (0.00765)	−0.00708 (0.0144)	−0.00405 (0.0166)	−0.00322 (0.0217)
Alliance with United States, 1-year lag	0.115 (0.159)	0.174 (0.303)	0.311 (0.362)	0.566 (0.510)
U.S. military assistance, 1-year lag	0.00633 (0.00589)	0.0154 (0.0138)	0.0177 (0.0163)	−0.00765 (0.0213)
Higher-salience territorial claim, 1-year lag	0.984*** (0.146)	1.010*** (0.362)	1.301*** (0.400)	0.924 (0.910)
Dyadic democracy, 1-year lag	−0.933*** (0.189)	−1.914*** (0.514)	−0.791 (0.502)	
GDP per capita, minimum value, IHS, 1-year lag	−0.131* (0.0705)	0.0470 (0.154)	0.192 (0.179)	0.812** (0.318)
Balance of capabilities in dyad	−1.575*** (0.324)	−2.912*** (0.785)	−3.498*** (0.883)	−2.830 (2.244)
Alliance in dyad	0.0444 (0.153)	0.684*** (0.259)	0.915*** (0.260)	1.089** (0.552)

Table A.7—Continued

	Nuclear Weapon Controls	Nuclear Weapon Initiators Only	Nuclear Weapon Initiators Only, Non-U.S. Ally	Nuclear Weapon Initiators Only, U.S. Adversary
Total U.S. military personnel	−0.910*** (0.330)	−0.552 (1.042)	−0.573 (1.208)	−1.044 (2.163)
Cold War	−0.0240 (0.211)	−0.917*** (0.288)	−0.599** (0.296)	−0.703 (0.922)
Nuclear weapon state, A	0.392*** (0.140)			
Nuclear weapon state, B	0.157 (0.177)	0.230 (0.269)	0.153 (0.317)	1.136 (0.805)
Peace years	−0.484*** (0.0296)	−0.483*** (0.0577)	−0.436*** (0.0623)	−0.360*** (0.108)
Peace years squared	0.0185*** (0.00152)	0.0197*** (0.00332)	0.0178*** (0.00377)	0.0156** (0.00615)
Peace years cubed	−0.000202*** (2.17e-05)	−0.000227*** (4.84e-05)	−0.000201*** (5.46e-05)	−0.000180** (8.29e-05)
Constant	5.206 (4.123)	13.91 (11.61)	17.16 (12.32)	20.46 (19.47)
Observations	42,559	8,980	5,256	2,781
Log likelihood	−10,729	−1,927	−1,609	−789.2
Chi-squared	1,326	700.7	801.2	373.2
Pseudo R-squared	0.285	0.332	0.296	0.296

NOTE: This table reports regression coefficients. Robust standard errors are shown in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

The next set of models built on the previous set to explore the effects of nuclear weapon possession but instead used as their dependent variable the incidence of high-intensity MIDs. Results are shown in Table A.8.

Table A.8
Statistical Results for the Nuclear Weapon Models, Assessing High-Intensity Militarized Interstate Disputes

	Nuclear Weapon Controls	Nuclear Weapon Initiators Only	Nuclear Weapon Initiators Only, Non-U.S. Ally	Nuclear Weapon Initiators Only, U.S. Adversary
In-country heavy ground personnel, not engaged in combat, IHS, 1-year lag	−0.0716** (0.0350)	−0.305*** (0.103)	−0.228*** (0.0669)	−0.0653 (0.0828)
In-country light ground personnel, not engaged in combat, IHS, 1-year lag	0.0279 (0.0328)	0.104* (0.0569)	0.111** (0.0502)	0.0753 (0.0837)
In-country air defense ground personnel, not engaged in combat, IHS, 1-year lag	0.00337 (0.0539)	−0.0532 (0.0948)	−0.113 (0.0810)	−0.208** (0.0954)
In-country USAF fighters, not engaged in combat, IHS, 1-year lag	0.0211 (0.0482)	0.0819 (0.125)	0.167 (0.112)	0.257 (0.188)
In-country USAF bomber presence, not engaged in combat, IHS, 1-year lag	0.129 (0.354)	0.661 (0.530)	0.381 (0.458)	0.271 (0.594)
Effective nearby heavy ground personnel, not engaged in combat, IHS, 1-year lag	−0.166*** (0.0633)	−0.159 (0.182)	−0.236 (0.191)	−0.138 (0.369)
Effective nearby light ground personnel, not engaged in combat, IHS, 1-year lag	−0.0464 (0.140)	−0.449 (0.300)	−0.467 (0.356)	0.727* (0.400)

Table A.8—Continued

	Nuclear Weapon Controls	Nuclear Weapon Initiators Only	Nuclear Weapon Initiators Only, Non-U.S. Ally	Nuclear Weapon Initiators Only, U.S. Adversary
Effective nearby air defense ground personnel, not engaged in combat, IHS, 1-year lag	0.00273 (0.0625)	0.220** (0.109)	0.183 (0.120)	0.231 (0.160)
Effective nearby USAF fighters, not engaged in combat, IHS, 1-year lag	0.545* (0.307)	−0.802 (0.676)	−0.829 (0.786)	−2.013 (1.416)
Effective nearby Navy CSGs, not engaged in combat, 1-year lag	0.0135 (0.00968)	0.0266 (0.0216)	0.0233 (0.0245)	0.0806 (0.0792)
Effective nearby USAF bomber presence, not engaged in combat, 1-year lag	−0.0101 (0.00887)	0.0318*** (0.0119)	0.0385*** (0.0139)	0.0313 (0.0207)
Alliance with United States, 1-year lag	0.154 (0.190)	−0.589 (0.390)	−0.958** (0.462)	0.227 (0.756)
U.S. military assistance, 1-year lag	0.0125 (0.00774)	0.0525** (0.0207)	0.0654*** (0.0250)	0.0541 (0.0379)
Higher-salience territorial claim, 1-year lag	1.089*** (0.181)	1.013** (0.500)	1.203** (0.592)	−0.774 (1.058)
Dyadic democracy, 1-year lag	−0.800*** (0.238)	−0.868* (0.452)	0.128 (0.523)	
GDP per capita, minimum value, IHS, 1-year lag	−0.140 (0.0967)	0.135 (0.258)	0.276 (0.281)	0.436 (0.571)
Balance of capabilities in dyad	−1.132** (0.467)	−3.062** (1.436)	−4.000*** (1.304)	−0.599 (2.917)
Alliance in dyad	−0.0796 (0.171)	0.366 (0.329)	0.659* (0.361)	2.680*** (0.714)
Total U.S. military personnel	−0.272 (0.424)	0.604 (1.627)	0.473 (1.960)	−2.135 (4.123)
Cold War	0.0351 (0.263)	−0.777 (0.890)	−0.182 (1.020)	−0.0954 (2.345)

Table A.8—Continued

	Nuclear Weapon Controls	Nuclear Weapon Initiators Only	Nuclear Weapon Initiators Only, Non-U.S. Ally	Nuclear Weapon Initiators Only, U.S. Adversary
Nuclear weapon state, A	−0.0773 (0.208)			
Nuclear weapon state, B	−0.293 (0.298)	−0.463 (0.361)	−0.634* (0.351)	0.128 (0.818)
Peace years	−0.612*** (0.0405)	−0.770*** (0.0880)	−0.682*** (0.129)	−0.547*** (0.211)
Peace years squared	0.0249*** (0.00247)	0.0331*** (0.00521)	0.0311*** (0.0112)	0.0236** (0.0107)
Peace years cubed	−0.000287*** (3.96e-05)	−0.000411*** (8.89e-05)	−0.000417* (0.000240)	−0.000293* (0.000161)
Constant	−0.604 (4.374)	7.464 (14.05)	8.674 (17.23)	23.09 (33.91)
Observations	42,559	8,980	5,256	2,781
Log likelihood	−7,311	−932.1	−769.5	−291.6
Chi-squared	1,277	709.6	502.6	687.4
Pseudo R-squared	0.320	0.415	0.380	0.402

NOTE: This table reports regression coefficients. Robust standard errors are shown in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

Another set of models restricted the identity of the potential aggressor state to potential U.S. adversaries only (as discussed earlier) and the identity of potential targeted states to U.S. treaty allies only. Results are shown in Table A.9.

Table A.9
Statistical Results for the Adversary-Ally Models

	All MIDs	Low-Intensity MIDs	High-Intensity MIDs
In-country heavy ground personnel, not engaged in combat, IHS, 1-year lag	−0.0161 (0.0496)	0.129 (0.0961)	0.0235 (0.0669)
In-country light ground personnel, not engaged in combat, IHS, 1-year lag	0.0570 (0.0352)	−0.00537 (0.0671)	0.0653 (0.0564)
In-country air defense ground personnel, not engaged in combat, IHS, 1-year lag	−0.0710 (0.0752)	−0.220* (0.129)	−0.0269 (0.0970)
In-country USAF fighters, not engaged in combat, IHS, 1-year lag	0.107 (0.0994)	0.0223 (0.121)	0.313 (0.195)
In-country USAF bomber presence, not engaged in combat, IHS, 1-year lag	0.603 (0.644)	−0.251 (0.994)	0.759 (0.489)
Effective nearby heavy ground personnel, not engaged in combat, IHS, 1-year lag	−0.00493 (0.189)	−0.0816 (0.312)	0.106 (0.307)
Effective nearby light ground personnel, not engaged in combat, IHS, 1-year lag	0.814*** (0.306)	1.089** (0.545)	1.385*** (0.459)
Effective nearby air defense ground personnel, not engaged in combat, IHS, 1-year lag	−0.178** (0.0785)	0.187 (0.186)	−0.176** (0.0814)
Effective nearby USAF fighters, not engaged in combat, IHS, 1-year lag	−0.561 (1.041)	−0.534 (2.675)	−0.0616 (1.172)
Effective nearby Navy CSGs, not engaged in combat, 1-year lag	0.0912 (0.103)	0.0465 (0.0634)	0.0872 (0.134)
Effective nearby USAF bomber presence, not engaged in combat, 1-year lag	0.00495 (0.0193)	−0.0222 (0.0161)	0.00417 (0.0249)
U.S. military assistance, 1-year lag	−0.0320 (0.0196)	−0.0772*** (0.0255)	0.0489* (0.0253)

Table A.9—Continued

	All MIDs	Low-Intensity MIDs	High-Intensity MIDs
Higher-salience territorial claim, 1-year lag	1.719*** (0.640)	−0.156 (0.755)	0.961 (0.691)
Dyadic democracy, 1-year lag	−2.024** (0.934)	−1.663 (1.058)	
GDP per capita, minimum value, IHS, 1-year lag	0.0468 (0.597)	−0.537 (0.744)	−0.416 (0.762)
Balance of capabilities in dyad	−2.898 (1.896)	−1.477 (1.549)	−5.417*** (1.848)
Total U.S. military personnel	−3.717** (1.637)	−6.946** (3.128)	−0.954 (2.216)
Cold War	0.144 (0.827)	1.819 (1.478)	−0.478 (1.406)
Peace years	−0.154* (0.0800)	0.0470 (0.135)	−0.219*** (0.0604)
Peace years squared	0.00472 (0.00424)	−0.00327 (0.00578)	0.00605* (0.00322)
Peace years cubed	−2.77e−05 (5.44e−05)	5.43e−05 (6.72e−05)	−2.71e−05 (4.85e−05)
Constant	28.62 (20.66)	54.22* (30.52)	−3.401 (19.25)
Observations	736	736	736
Log likelihood	−269.9	−169.4	−125.3
Chi-squared	1,274	339.5	5,846
Pseudo R-squared	0.342	0.231	0.544

NOTE: This table reports regression coefficients. Robust standard errors are shown in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

The last set of models considered only aggregate personnel numbers of ground and air units in lieu of the more disaggregated capability-based metrics used in other models. Naval personnel data could not be reliably collected in the same manner and were thus excluded. Results are shown in Table A.10.

Table A.10
Statistical Results for the Personnel Models

	All MIDs	Low-Intensity MIDs	High-Intensity MIDs	Interstate War
In-country ground personnel, not engaged in combat, IHS, 1-year lag	−0.00625 (0.0209)	0.00744 (0.0403)	−0.0202 (0.0271)	−0.250** (0.0984)
In-country USAF personnel, not engaged in combat, IHS, 1-year lag	−0.00657 (0.0234)	−0.00195 (0.0366)	−0.00744 (0.0281)	−0.0567 (0.104)
Effective nearby ground personnel, not engaged in combat, IHS, 1-year lag	−0.145 (0.163)	0.409 (0.309)	−0.400*** (0.144)	−1.113* (0.620)
Effective nearby USAF personnel, not engaged in combat, IHS, 1-year lag	0.117 (0.279)	−0.685 (0.529)	0.519** (0.259)	−0.117 (0.870)
Alliance with United States, 1-year lag	0.373*** (0.141)	0.251 (0.229)	0.499*** (0.168)	−1.089 (0.696)
U.S. military assistance, 1-year lag	0.00228 (0.00567)	−0.0117 (0.00947)	0.00311 (0.00676)	0.0224 (0.0233)
Higher-salience territorial claim, 1-year lag	1.005*** (0.132)	0.961*** (0.227)	1.185*** (0.176)	2.109*** (0.666)
Dyadic democracy, 1-year lag	−1.037*** (0.196)	−1.442*** (0.299)	−0.916*** (0.238)	0.349 (0.807)
GDP per capita, minimum value, IHS, 1-year lag	−0.165** (0.0746)	−0.191 (0.129)	−0.181** (0.0814)	0.0110 (0.250)
Balance of capabilities in dyad	−1.232*** (0.334)	−1.672*** (0.572)	−1.141*** (0.436)	−3.374*** (1.263)
Alliance in dyad	−0.00718 (0.172)	0.107 (0.295)	−0.145 (0.161)	−1.120* (0.595)
Total U.S. military personnel	−0.884** (0.377)	−1.998*** (0.630)	−0.699 (0.528)	0.868 (2.182)
Cold War	0.0643 (0.190)	0.0466 (0.282)	0.155 (0.267)	0.838 (0.859)

Table A.10—Continued

	All MIDs	Low-Intensity MIDs	High-Intensity MIDs	Interstate War
Peace years	−0.488***			
	(0.0298)			
Peace years squared	0.0184***			
	(0.00151)			
Peace years cubed	−0.000199***			
	(2.15e-05)			
Peace years		−0.269***		
		(0.0436)		
Peace years squared		0.00881***		
		(0.00177)		
Peace years cubed		−8.28e-05***		
		(2.01e-05)		
Peace years			−0.623***	
			(0.0395)	
Peace years squared			0.0252***	
			(0.00222)	
Peace years cubed			−0.000288***	
			(3.44e-05)	
Peace years				−0.958***
				(0.248)
Peace years squared				0.0593***
				(0.0149)
Peace years cubed				−0.00103***
				(0.000259)
Constant	8.629**	21.18***	4.737	5.948
	(4.079)	(5.993)	(4.825)	(17.90)
Observations	42,559	42,559	42,559	42,559
Log likelihood	−10,841	−5,777	−7,146	−611.7
Chi-squared	1091	332.9	1018	367.7
Pseudo R-squared	0.278	0.122	0.335	0.381

NOTE: This table reports regression coefficients. Robust standard errors are shown in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

Given the large number and wide range of different models we explored, we created a summary table. Table A.11 lists all of the capability measures (e.g., in-country heavy ground, nearby USAF fighters), and for each one, it shows the models in which the measure was found to be statistically significant in deterring conflict (by resulting in fewer MIDs) or threatening or increasing conflict (by resulting in more MIDs), as well as the models in which the capability appeared to have no statistically significant relationship. The table also shows which MID intensity levels were tested: all, low, high, or interstate war; in the table, an intensity level of "all" refers to findings that apply to models that considered all types of MIDs together. Furthermore, we offer an initial assessment regarding whether there appeared to be a potential effect associated with that capability that was worthy of further investigation (represented by bold text in the last column of the table).

Table A.11
Summary Table of Regression Model Results

Capability Measure	Deterring Effect (Fewer MIDs)	Threatening Effect (More MIDs)	No Effect	Interpretation[a]
In-country heavy ground	• Baseline: High • Tripwire: High • Nuclear: High	• Baseline: Low • Tripwire: Low • Adversary: Low • Adversary Tripwire: Low	• Baseline: All • Baseline: War • Adversary: High • Adversary: All • Adversary: Low • Tripwire: All • Adversary Tripwire: All • Adversary Tripwire: High • Withdrawal: * • Adversary-Ally: * • Nuclear: All	**Likely a net deterring effect for high-intensity MIDs and a threatening effect for low-intensity MIDs, but seems to be highly affected by adversary specification**
In: country light ground		• Baseline: All • Baseline: Low • Adversary: All • Tripwire: * • Adversary Tripwire: All • Nuclear: High • Nuclear: All	• Baseline: High • Adversary: Low • Adversary: High • Adversary Tripwire: Low • Adversary Tripwire: High • Withdrawal: * • Adversary-Ally: *	**Likely a net threatening effect for MIDs short of war**
In-country air defense ground	• Baseline: All • Baseline: Low • Adversary: Low • Tripwire: All • Nuclear: High • Nuclear: All • Adversary-Ally: Low	• Adversary Tripwire: High	• Baseline: High • Adversary: All • Adversary: High • Tripwire: High • Adversary Tripwire: All • Withdrawal: * • Adversary-Ally: All • Adversary-Ally: High	**Potential net deterring effect, especially for lower-intensity MIDs, but limited stand-alone air defense artillery gives some concern**

Capability Measure	Deterring Effect (Fewer MIDs)	Threatening Effect (More MIDs)	No Effect	Interpretation[a]
In-country ground personnel	• Personnel: War		• Personnel: All • Personnel: Low • Personnel: High	Potential net deterring effect only for interstate war, but limited models to support this finding
In-country USAF fighters	• Adversary Tripwire: Low	• Adversary: Low • Adversary-Ally: High	• Baseline: * • Adversary: All • Adversary: High • Tripwire: * • Adversary Tripwire: All • Adversary Tripwire: High • Withdrawal: * • Nuclear: High • Nuclear: All • Adversary-Ally: All • Adversary-Ally: Low	Likely no reliable effect
In-country USAF personnel			• Personnel: *	Likely no reliable effect
Nearby heavy ground	• Baseline: All • Baseline: High • Baseline: War • Tripwire: All • Tripwire: High • Withdrawal: * • Nuclear: High • Nuclear: All		• Baseline: Low • Adversary: * • Tripwire: Low • Adversary Tripwire: * • Adversary-Ally: *	**Likely a net deterring effect, especially for higher intensities, although the result may be sensitive to adversary specification**

Table A.11—Continued

Capability Measure	Deterring Effect (Fewer MIDs)	Threatening Effect (More MIDs)	No Effect	Interpretation[a]
Nearby light ground		• Baseline: All • Baseline: Low • Adversary: All • Adversary: Low • Tripwire: All • Tripwire: Low • Adversary Tripwire: All • Adversary Tripwire: Low • Adversary-Ally: * • Nuclear: All	• Baseline: High • Baseline: War • Adversary: High • Tripwire: High • Adversary Tripwire: High • Withdrawal: * • Nuclear: High	**Likely a net threatening effect, especially for lower intensities, but inconsistent results**
Nearby air defense ground	• Baseline: Low • Adversary Tripwire: All • Withdrawal: High • Withdrawal: War • Adversary-Ally: All • Adversary-Ally: High	• Nuclear: High	• Baseline: All • Baseline: High • Baseline: War • Adversary: * • Tripwire: * • Adversary Tripwire: Low • Adversary Tripwire: High • Withdrawal: All • Nuclear: All • Adversary-Ally: Low	**Potential net deterring effect, but some concern about this conclusion, given the relative rarity of stand-alone air defense artillery, as well as inconsistent results**
Nearby ground personnel	• Personnel: High • Personnel: War		• Personnel: All • Personnel: Low	Potential net deterring effect for higher intensities, but limited models to support this finding

Table A.11—Continued

Capability Measure	Deterring Effect (Fewer MIDs)	Threatening Effect (More MIDs)	No Effect	Interpretation[a]
Nearby USAF fighters	• Baseline: War • Adversary: All • Adversary: Low • Adversary Trip-wire: * • Nuclear: All	• Baseline: High • Tripwire: High • Withdrawal: High • Withdrawal: War	• Baseline: All • Baseline: Low • Adversary: High • Tripwire: All • Tripwire: Low • Withdrawal: All • Nuclear: High • Adversary-Ally: *	**Highly inconsistent effects; further investigation needed to understand the results**
Nearby USAF bomber presence	• Baseline: All • Baseline: Low • Baseline: High • Tripwire: All • Tripwire: Low • Nuclear: All	• Nuclear: High	• Baseline: War • Adversary: * • Tripwire: High • Adversary Tripwire: * • Withdrawal: * • Adversary-Ally: *	**Potential net deterring effect, but somewhat inconsistent results**
Nearby USAF personnel		• Personnel: High	• Personnel: All • Personnel: Low • Personnel: War	Potential net threatening effect on high-intensity MIDs, but limited models to support this finding

Table A.11—Continued

Capability Measure	Deterring Effect (Fewer MIDs)	Threatening Effect (More MIDs)	No Effect	Interpretation[a]
Nearby Navy CSGs		• Baseline: War	• Baseline: All • Baseline: Low • Baseline: High • Adversary: * • Tripwire: * • Adversary Tripwire: * • Nuclear: High • Nuclear: All • Adversary-Ally: * • Withdrawal: *	**Likely no reliable results, although the baseline: war relationship is worth investigating**

NOTE: An asterisk (*) indicates every intensity level of MIDs (all, low, high, and interstate war). An intensity level of "all" refers to models that considered all types of MIDs together (but only for that one type of model).

[a] Bold indicates that this measure was selected for further analysis.

Based on the results summarized in Table A.11, we identified nine potential relationships, or findings, that appeared to have sufficient evidence to be considered more closely. Relationships not considered more closely were those for which a lack of statistical significance was the primary result across a wide range of models. We then performed additional robustness checks on these nine relationships. The checks performed and results are shown in Table A.12.

The robustness checks described in this table had two main goals:

1. Identify the observations that were driving the main pattern behind the results.
2. Relatedly, understand why some results were in contradictory directions in different models.

Following the results of these robustness checks, we made an aggregate assessment of the reliability of each potential relationship. To do so, we interpreted the results across models in light of the following questions:

1. Do the observations driving the results of each model individually make sense with our knowledge of the history of the cases involved? Are they driven by single countries whose calculations U.S. forces could not plausibly have influenced? That is, if we have a result suggesting that U.S. carriers in the Pacific made India more likely to attack China in the Himalayas, does that seem plausible? Do results assume that the United States would have been viewed as coming to the aid of a clear adversary, such as the Soviet Union or North Korea? On the other hand, if we have a finding suggesting that heavy ground forces in Europe may have made the Soviet Union less likely to attack West Germany, a clear U.S. policy goal, that would tend to increase our confidence in the results of that model.
2. What is the relative consistency of results across models, relative to each level of MID intensity? While each of our models has certain limitations and advantages, is it possible to explain why results appear in some models but not others, based on the cases

Table A.12
Additional Robustness Checks Performed on Potential Results

Potential Finding	Additional Robustness Checks Performed	Interpretation
Deterring effect of in-country heavy forces	Dummies for key heavy ground locations (Germany, South Korea, Greece, Italy)	This effect is relatively heavily dependent on Germany. A Germany dummy variable eliminates the effect in two of the three models in which it is observed. In the tripwire model, it persists. This makes sense because the tripwire model assigns equal weight to deployments in Germany, Italy, Greece, Turkey, and South Korea, whereas the size of the German heavy deployment dwarfs other countries. This result remains relevant, but this information provides context for the result's generalizability. Low-intensity threatening results appear driven by forces in Serbia and Kosovo, and then by MIDs between Serbia and NATO members. This therefore appears to be a more artificial result, not in keeping with the assumed structure of our models, which should be discounted.
Threatening effect of in-country light ground forces	Exclude Japan, Japan dummy, island dummy, island interaction variable with capability metrics	This effect largely appears to reflect the experience of Japan. Simply including a Japan dummy variable consistently eliminates the effect. Accounting for whether the state is an island sometimes does the same, but it does so much more inconsistently. This should affect generalizability of the result, but it does remain salient.
Deterring effect of in-country stand-alone air defense forces	Dummies for key air defense artillery locations (Germany, Saudi Arabia, South Korea), Europe regional dummy	The effect is persistent in tested models despite these controls. It does not appear to be the product of a single influential country, despite the limited number of air defense locations.

Potential Finding	Additional Robustness Checks Performed	Interpretation
Deterring effect of nearby heavy ground forces	Africa dummies and interactions, NATO and Warsaw Pact membership, regional controls for Europe and Latin America, dummies for and elimination of key U.S. adversaries that get involved in MIDs (Russia, North Korea)	Controlling for sub-Saharan Africa generally eliminates the deterring effect for all MID or low-intensity models but generally only modestly weakens the effect for higher-intensity models. Accounting for NATO and Warsaw Pact membership, broader regional dummies, and key U.S. adversaries also has no effect on high-intensity models. So, there does appear to be a reliable effect here, limited to high-intensity MIDs.
Threatening effect of nearby light ground forces	Dummies for and exclusion of states with high numbers of nearby light ground forces and frequent low-intensity MIDs (China, Russia, North Korea); regional dummies for East Asia, Europe, Latin America	Simultaneously excluding Russia, China, and North Korea from being the targeted state, as is presumably logical from a U.S. perspective, greatly weakens or eliminates even the low-intensity relationship (and the all-MID relationship more definitively). This suggests that the result may be an emboldening one, encouraging the targeting of U.S. adversaries. But this is true even in adversary models, suggesting that light ground forces are affecting intra-adversary relations. This is possible, but it seems perhaps more plausible that forces are deployed to high-conflict regions generally, and there are more MIDs among adversaries than among U.S. allies. Indeed, an East Asian regional control has an effect similar to eliminating Russia, North Korea, and China. Either way, the case for this really being a threatening or escalatory effect, as opposed to a selection effect, based on the cases involved seems weak.
Deterring effect of nearby stand-alone air defense forces	Dummy variables for and exclusion of Russia, NATO, Warsaw Pact, South Korea	Most relevant cases (high nearby air defense, low or no MIDs) seem to be between East and Western European states during the Cold War (e.g., Soviet Union versus France, Netherlands, etc.). However, adding dummies for these variables generally does not eliminate the effect, and in some cases, strengthens it. Moreover, the strongest performance is in the most restrictive or structured models, the Adversary-Ally models. So, it looks like there is an effect here, even though it rests on relatively few cases.

Table A.12—Continued

Potential Finding	Additional Robustness Checks Performed	Interpretation
Mixed effects of nearby USAF fighters	Russia dummy variable; exclusion of East Asia, Europe, Latin America dummies	The deterring effects seem generally more sensitive to influential cases (such as those affected by the dummy variables), while the threatening cases are relatively more robust. The vast majority of cases of states experiencing MIDs with high levels of nearby fighters involve Russia or the Soviet Union as the targeted state. However, even when eliminating Russia as the targeted state, most of the models persist. Thus, there is relatively more evidence for lower-intensity deterrence and higher-intensity threatening (or a selection effect), but neither effect is that clear or consistent.
Deterring effect of nearby USAF bomber presence	Europe dummy, dummy for and exclusion of France, dummy for and exclusion of Russia, dummy for and exclusion of Japan, year > 1960, dummy for and interaction for East Asia	China and Russia are the initiators in most relevant cases, but the targets are a wider range: NATO, but also Japan and Russia. Eliminating Russia target cases doesn't get rid of the one threatening effect. Most MIDs are in 1950s, but limiting to post-1960 doesn't eliminate the threatening effect either. So, the threatening effect in the lone model cannot be easily or logically eliminated, which lowers confidence in the otherwise relatively consistent deterrent effect in other models.
Threatening effect of nearby Navy CSGs	Individual investigations of the four war-years that had a large nearby carrier presence in the prior year: India-China 1961, India-China 1962, Honduras-El Salvador 1969, Iran-Iraq 1982.	The result is technically robust to dropping or controlling for these individual observations or dyads. However, in each case, we saw no plausible story about how either of the parties might have been more motivated to pursue war by the U.S. carrier presence. This looks like, essentially, a coincidence, without substantive implications, at least for steady-state presence.

that appear to be driving each finding or nonfinding? If we can understand why divergent results appear, then we can make an assessment regarding which set of cases seems most logical and plausible. Divergent results across different MID intensities were not treated as divergent, provided they could be explained, because they may just have been evidence that different effects occurred at different levels of intensity.

In answering these questions, we modified our relative confidence regarding the preliminary results described in Table A.11. Some results, such as those related to nearby ground forces or in-country light ground forces, were generally confirmed by our robustness checks. Other results, such as the relationship between CSGs and interstate war, were substantially undermined. Our final results incorporating these assessments are presented in Chapter Three but, for clarity, are reproduced here as Table A.13 and Table A.14.

Table A.13
Summary of Statistical Results for Nearby U.S. Forces

Type of Forces	Type of Conflict		
	Low-Intensity	High-Intensity	War
Heavy ground		■	■
Light ground	■		
Air defense artillery	■	■	
USAF fighters	■	■	■
USAF bombers	■	■	
Navy CSGs			■

■ ■ Strongest evidence of a deterrent or threatening effect; most-reliable performance across models, and the examination of influential cases supports the finding.

■ ■ Moderate evidence of a deterrent or threatening effect; good performance in some models, but there are reasons for caution, or influential cases do not support the finding.

■ ■ Limited evidence of a deterrent or threatening effect; based only on isolated models, and examination of influential cases suggests the finding is likely just coincidence.

Table A.14
Summary of Statistical Results for In-Country U.S. Forces

Type of Forces	Type of Conflict		
	Low-Intensity	High-Intensity	War
Heavy ground	▨	▨	
Light ground	▨	▨	
Air defense artillery	▨		
USAF fighters			

▨ ▨   Strongest evidence of a deterrent or threatening effect; most-reliable performance across models, and the examination of influential cases supports the finding.

▨ ▨   Moderate evidence of a deterrent or threatening effect; good performance in some models, but there are reasons for caution, or influential cases do not support the finding.

▨ ▨   Limited evidence of a deterrent or threatening effect; based only on isolated models, and examination of influential cases suggests the finding is likely just coincidence.

Crisis Deterrence Models

This appendix accompanies Chapter Four and provides greater detail relevant to the research design and statistical analyses presented in that chapter. Here, we also discuss several additional models referenced, but not specifically discussed, in Chapter Four. In this appendix, we use statistical analyses to assess the effects of U.S. military deployments to interstate crises, which we term *crisis deployments*, on the risk that interstate crises escalate to interstate war or to major exchanges of violence between states. We also assess the effects of U.S. crisis deployments on the bargaining dynamics and outcomes of interstate crises for the supported states involved.

Research Approach and Data Measurement

Universe of International Crises

The universe of relevant cases used in our statistical models consists of all interstate crises since World War II, drawn from the ICB project.[1] The following three conditions must be met for an international incident to be coded as an international crisis in the ICB data:

1. A state must perceive a threat to at least one of its basic values.
2. The affected states' decisionmaking related to an incident must be made within a finite period.

---

[1] Brecher et al., 2017.

3. There must be a heightened risk of military hostilities related to the incident.

These guidelines make the ICB data particularly useful for analyses of crisis escalation and outcomes because all ICB crises involve some challenge or threat to states, as well as some inherent risk of escalation to greater hostilities.

In line with the goals of this project, we modified the ICB's initial list of crises in two ways. First, because we were interested in how U.S. actions affect the dynamics of international crises between states, we excluded all crises that were internally focused and involved only a single state, such as the Chinese Civil War.[2] Second, we excluded crises that occurred during the course of a broader war, such as the battle of Pleiku or the Tet Offensive during the Vietnam War. After accounting for these cases, we were left with 259 crises between states since the end of World War II.

Measuring Crisis Escalation and Crisis Outcomes

Our analyses were concerned with the effects of U.S. crisis deployments on escalation and outcome dynamics of international crises between states. We used two separate indicators to measure levels of crisis escalation. First, we used a dichotomous indicator that measures whether the severity of violence experienced in each crisis escalated to the level of full-scale war, as coded by the ICB project. Because few international crises actually escalate to the level of full-scale war, we also used a second indicator of whether the crisis escalated to the exchange of major clashes between the states in the dispute. This second threshold includes both full-scale war and major exchanges of violence short of war, such as during the Taiwan Strait crises of 1954 and 1958.

We also used two separate indicators to measure crisis outcomes. First, we used a dichotomous indicator that measures whether the targeted state in a crisis achieved outright victory over the challenger state, meaning that the targeted state fully achieved its basic goals in a crisis

---

[2] Hewitt, 2003.

and forced the challenger state to back down from its threat.[3] States do not necessarily have to outright win in a crisis to be satisfied, however, and many crises terminate following compromised settlements that are satisfactory to the targeted state. To operationalize this possibility, we also used a second dichotomous indicator that measures whether the crisis terminated with either outright victory for the targeted state or a negotiated settlement that at least minimally satisfied the goals of the targeted state.

Measuring U.S. Crisis Deployments

We define a *crisis deployment* as the nonroutine deployment of U.S. military forces to a crisis zone in support of partner states targeted by international aggressors. For each international crisis, we recorded whether the United States utilized a nonroutine crisis deployment of military capabilities to support a partner state and deter challenger or belligerent states. Because we were specifically interested in the deterrent effects of U.S. crisis deployments, we only recorded instances in which the United States deployed its forces specifically to support partner states; we did not record instances in which the United States deployed its forces for general contingencies or third-party observer missions. We also did not place any geographic constraints on our measure of crisis deployments and recorded instances in which the United States deployed its forces both from the continental United States and from steady-state forward positions, such as USAREUR.

To distinguish crisis deployments from U.S. steady-state posture, we further define *crisis deployments* as instances in which the United States deployed military forces to a crisis zone after the outbreak of an international crisis but before the crisis escalated to major violence or outright war. Thus, we excluded forces already forward-positioned near the crisis zone and those that arrived to the area after the outbreak of major hostilities.

We further distinguished U.S. crisis deployments in two ways. First, we distinguished U.S. crisis deployments by the type of capabilities—naval, land-based air, or ground combat—deployed to

---

[3]   Brecher and Wilkenfeld, 2000.

crisis zones.[4] Second, we distinguished U.S. crisis deployments by the magnitude of those capabilities deployed to crisis zones.[5] Because the U.S. military often deploys forces tailored to either specific mission requirements or the types of forces available, resulting in myriad combinations of units and capabilities across crises, we aggregated the magnitude of each crisis deployment under the broad umbrella categories of *minor*, *medium*, and *major* deployments based on the general size of forces deployed for each capability.[6] Table B.1 provides a summary of the forces deployed for each capability and the magnitude of deployment.

Because we were primarily interested in the deterrent effects of U.S. crisis deployments, we specifically measured instances in which the United States deployed its military forces in support of a targeted state during an international crisis. Among the 259 international crises

Table B.1
U.S. Crisis Deployment Categories

Deployment Magnitude	Naval	Land-Based Air	Ground Combat
Major	2 or more CSGs (and associated combat ships)	2 or more combat aircraft wings	2 or more brigade-sized forces
Medium	1 CSG (and associated combat ships)	1 combat aircraft wing or combined radar and combat aircraft	1 brigade-sized force
Minor	Combat ships, but no CSG	Less than 1 combat aircraft wing, transport aircraft, radar aircraft	Less than 1 brigade-sized force

---

[4]   We treated naval air assets as part of naval capabilities rather than land-based air capabilities. Furthermore, we treated amphibious land-combat forces, such as Marine Corps expeditionary units, as naval capabilities rather than as ground-combat capabilities.

[5]   In cases of prolonged crises involving multiple deployments of U.S. forces, we recorded the largest magnitude of forces present during the crisis.

[6]   We adapted these coding rules from a similar taxonomy in Blechman and Kaplan, 1978.

in our analyses, the United States deployed its forces in support of targeted states in only 21 crises. Figure B.1 displays the frequency of U.S. crisis deployments in support of targeted partner states by capability and magnitude.[7]

The United States deploys its military forces to crisis zones relatively infrequently, but when it does, it ostensibly does so in force, because the majority of U.S. crisis deployments feature major force elements. This notion is true across all three types of military capabilities and regardless of whether the United States deployed its forces in support of challenger or targeted states. This suggests that, although used infrequently, military crisis deployments are designed to send particularly strong signals to adversary states to either quickly deter or compel de-escalation on the part of belligerents.

Figure B.1
Number of U.S. Crisis Deployments in Support of Targeted States, by Military Capability and Deployment Magnitude
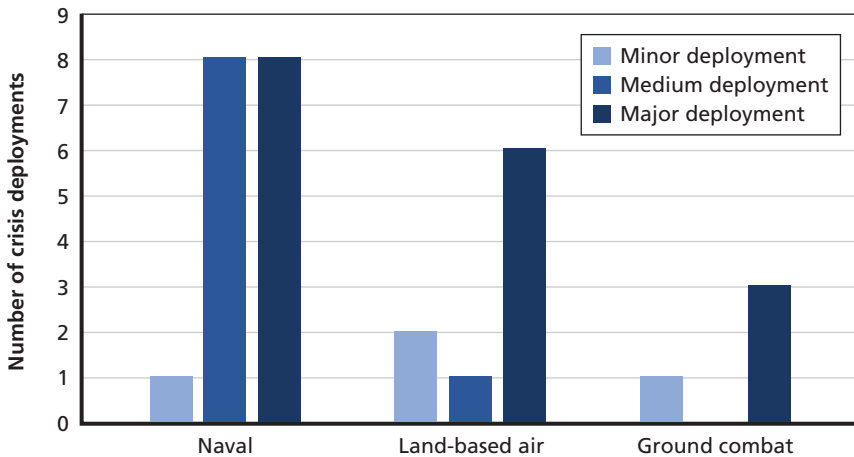
SOURCE: Author analysis of ICB data from Brecher et al., 2017, and of data compiled for this study, as described in Figure 3.1.
RAND *RR2533-B.1*

---

[7]   Note that, in some cases, the United States deploys several types of capabilities to the same crisis zone. The sum of naval, air, and ground deployments is therefore greater than the 21 total deployments, some of which involved multiple services in the same deployment.

Findings and Analyses

Effects of U.S. Crisis Deployments on Crisis Escalation

The small number of U.S. crisis deployments limits our ability to conduct robust statistical analyses concerning the effects of U.S. crisis deployments on crisis escalation. Because of these limitations, we were unable to use robust methods of statistical analysis; instead, we offer initial insights about the relationship between U.S. crisis deployments and crisis escalation.

Figure B.2 summarizes the relationship between U.S. crisis deployments in support of targeted states and those crises' escalation to war or major conflict. The red portions of the bars reflect the percentage of interstate crises involving U.S. crisis deployments of various capabilities and magnitudes that escalate to war or major clashes. The green portions of the bars reflect the percentage of such interstate crises that do not escalate to war or major clashes. The numbers on each bar show the number of crises that did (red) or did not (green) escalate to the level of war or major clashes.

Figure B.2 provides suggestive evidence of the de-escalatory effects of U.S. crisis deployments and their impact on crisis deterrence. A series of chi-square tests of these relationships were statistically significant for all three types of capabilities, meaning that we can claim with some initial statistical support that U.S. naval, land-based air, or ground-combat capabilities deployed in support of targeted states significantly lower the risk of those crises escalating to major conflict or war.

The relationships displayed in Figure B.2 are quite striking and generally point toward the de-escalatory effects of U.S. crisis deployments when in support of targeted partner states. The vast majority of crises involving air and naval crisis deployments by the United States have not escalated to the threshold of major clashes or war between states.

Furthermore, no crises in which the United States has deployed its ground-combat capabilities to the crisis zone have escalated to serious levels of violence. This latter point is strongly supported by the historical record, as the three cases of major ground-combat deployments noted in Figure B.2—deployments of ground-combat capa-

Figure B.2
Escalation to Major Violence of International Crises in Targeted States Supported by U.S. Crisis Deployments, by Military Capability and Deployment Magnitude, 1946–2015
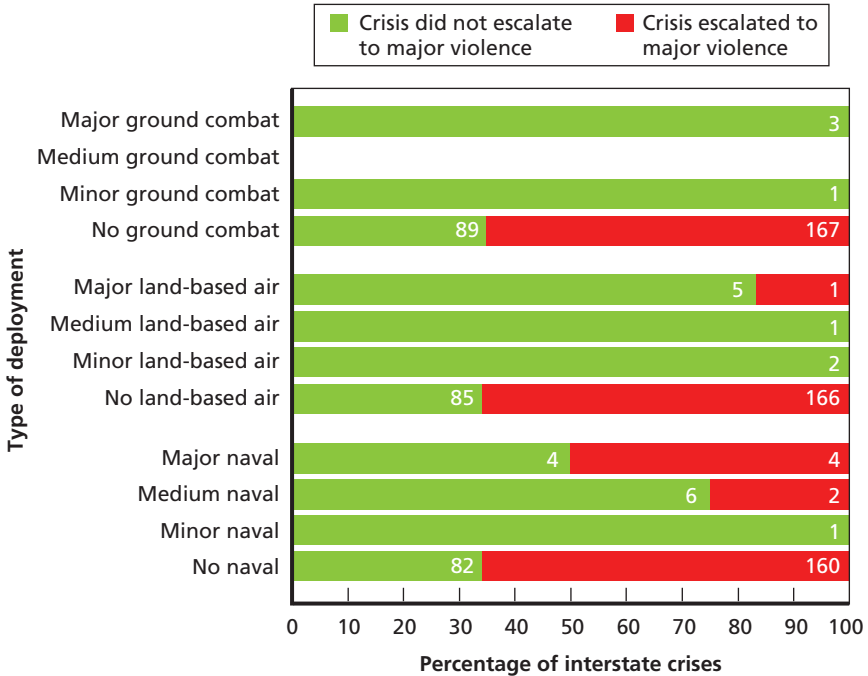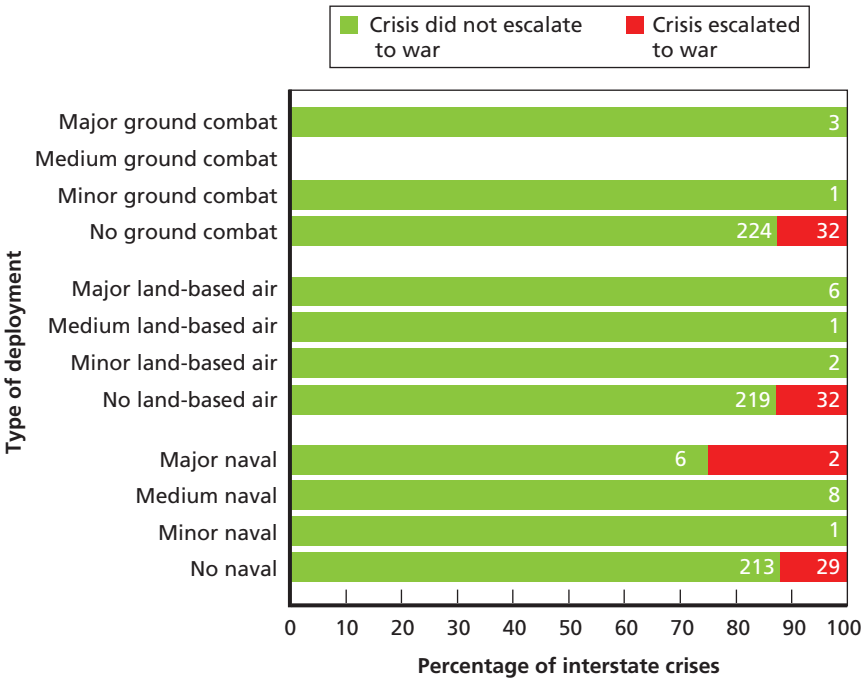

SOURCE: Author analysis of ICB data from Brecher et al., 2017, and of data compiled for this study, as described in Figure 3.1.
RAND *RR2533-B.2*

bilities during the Berlin Deadline, the 1961 Berlin Wall crisis, and OVW—are all well-known cases of successful crisis deterrence by the U.S. Army. Again, although these patterns are not necessarily generalizable through empirical analyses, they suggest that, when used sparingly, U.S. crisis deployments are often de-escalatory in nature. However, these patterns are only suggestive of broader effects and require additional research to determine in which contexts U.S. crisis deployments are most useful for de-escalating ongoing crises.

The apparently de-escalatory nature of U.S. crisis deployments is even more stark when considering whether international crises escalate exclusively to the level of full-scale war. Figure B.3 broadly summarizes the relationship between the magnitude and capabilities of U.S. crisis deployments and the risk that crises escalate to full-scale war. The red portions of the bars represent the percentage of interstate crises involving U.S. crisis deployments of various capabilities and magnitudes that escalate to the level of full-scale war. The green portions of the bars represent the percentage of such crises that do not escalate to full-scale war. The numbers on each bar show the number of crises that did (red) or did not (green) escalate to full-scale war.

Figure B.3
Escalation to Full-Scale War of International Crises in Targeted States Supported by U.S. Crisis Deployments, by Military Capability and Deployment Magnitude, 1946–2015

SOURCE: Author analysis of ICB data from Brecher et al., 2017, and of data compiled for this study, as described in Figure 3.1.
RAND *RR2533-B.3*

To be sure, international crises escalate to full-scale war much more infrequently than they escalate to levels of major violence. That said, Figure B.3 provides further suggestive evidence that U.S. crisis deployments are de-escalatory. In our analyses, international crises involving U.S. deployments of land-based air and ground-combat capabilities in support of targeted states never escalated to full-scale war. In addition, only two crises involving U.S. naval deployments in support of targeted states, the Suez conflict in 1956 and the Black September crisis in 1970, escalated to full-scale war.

While substantively notable, chi-square tests of these relationships were not statistically significant, meaning that we cannot claim with statistical accuracy that these apparent relationships are empirically supported. However, these patterns are suggestive of potential de-escalatory effects of U.S. crisis deployments, perhaps suggesting that such forces warrant further attention to better understand the context of these effects.

Effects of U.S. Crisis Deployments on Crisis Outcomes

We conducted similar analyses concerning the effects of U.S. crisis deployments on the outcomes of interstate crises. Specifically, our analyses examined whether U.S. crisis deployments significantly affected whether partner states targeted in international crises achieved satisfactory outcomes or outright victory over their opponents.

Figure B.4 summarizes the relationship between U.S. crisis deployments of various capabilities and magnitudes and the outcomes of crises for partner states, measured as whether a partner state achieved either outright victory over its opponent or at least reached a satisfactory compromise with the challenger. The red portions of the bars in Figure B.4 represent the percentage of interstate crises with U.S. deployments in which the supported targeted state did not achieve a satisfactory outcome in the crisis, while the green portions of the bars represent the percentage of cases in which the targeted state did achieve a satisfactory outcome. The numbers on each bar show the number of crises in which targeted states did (green) or did not (red) achieve a satisfactory outcome in each scenario.

Figure B.4
Satisfactory Outcome for Targeted States Supported by U.S. Crisis Deployments, by Military Capability and Deployment Magnitude, 1946–2015
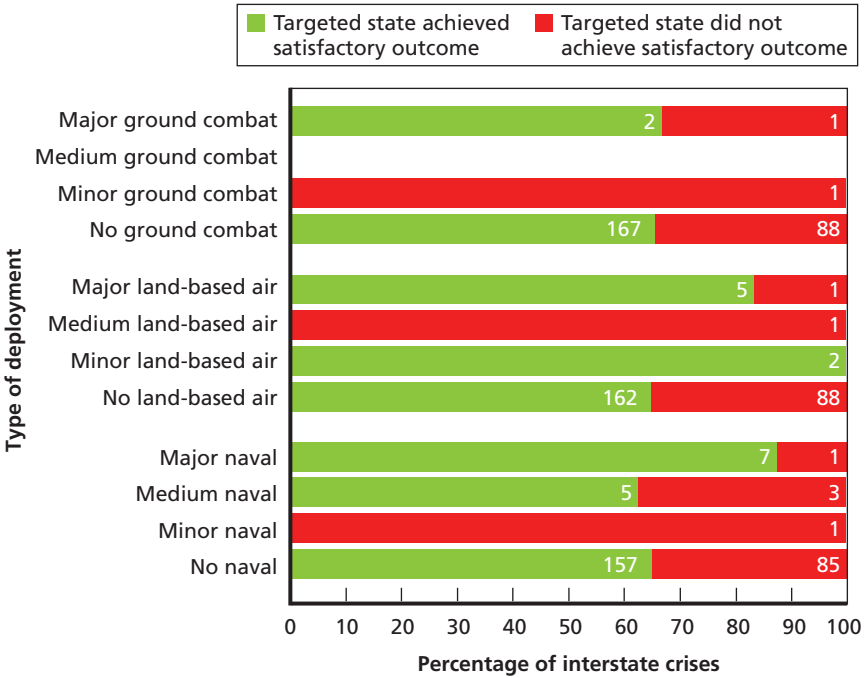
SOURCE: Author analysis of ICB data from Brecher et al., 2017, and of data compiled for this study, as described in Figure 3.1.

RAND *RR2533-B.4*

In general, targeted states appear significantly more likely to achieve a satisfactory outcome than to not achieve such an outcome in international crises, regardless of whether the United States deploys military forces to the crisis zone. Among crises involving U.S. crisis deployments, however, there are only slight patterns suggesting that U.S. crisis deployments significantly affect whether targeted states achieve satisfactory outcomes in a crisis. Across naval, land-based air, and ground-combat capabilities, it appears most clearly that major deployments of forces have benefited targeted states, but the outcomes

for targeted states following minor or medium deployments are less clear. This is supported by chi-square tests of these relationships, which suggested that only the relationship between U.S. deployments of air capabilities and crisis outcomes was statistically significant. This trend was also mirrored qualitatively: While crises involving U.S. deployments of naval and ground-combat capabilities were roughly divided between crises in which the targeted state achieved a satisfactory outcome and crises in which it did not, crises involving deployments of air capabilities appeared much more likely to end with the targeted state prevailing over the challenger states.

Figure B.5 summarizes the relationship between the capabilities and magnitudes of U.S. crisis deployments and the likelihood that targeted states achieved outright victory in a crisis. The red portions of the bars in Figure B.5 represent the percentage of interstate crises with U.S. deployments in which the supported targeted state did not achieve outright victory in the crisis, while the green portions of the bars represent the percentage of cases in which the targeted state achieved outright victory. The numbers on each bar show the number of crises in which targeted states did (green) and did not (red) achieve outright victory in each scenario.

Targeted states are generally less likely to achieve outright victory over challenger states than they are to achieve some satisfactory outcome. This has been true when the United States has not deployed military capabilities to crisis zones. When U.S. forces have been deployed in support of targeted partner states, however, the results for partners are again mixed, and no clear patterns emerge.

These disparate findings could result from the general scarcity of outright victories by targeted states in international crises. That is, because achieving outright victory is a high bar for states in crisis, it may be the case that states opt to negotiate satisfactory compromises with challenger states to assure peace rather than prolong crises in hopes of outright victory. Subsequently, this may partly explain why crises, both in general and in cases involving U.S. crisis deployments, trend toward more outcomes involving negotiated settlements and fewer outcomes involving outright victories for states.

Figure B.5
Outright Victory for Targeted States Supported by U.S. Crisis Deployments in Support of Targeted States, by Military Capability and Deployment Magnitude, 1946–2015
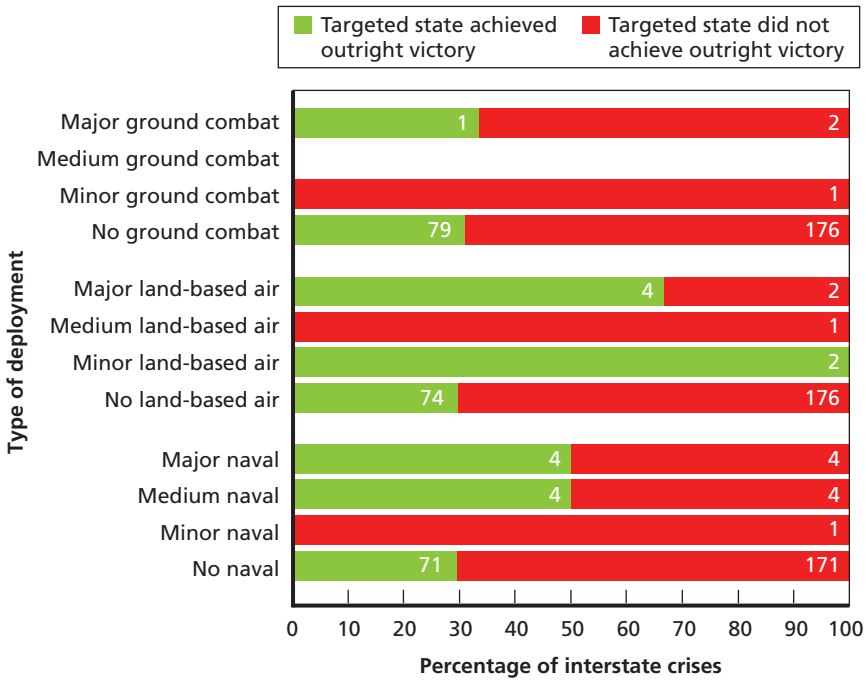
SOURCE: Author analysis of ICB data from Brecher et al., 2017, and of data compiled for this study, as described in Figure 3.1.
RAND *RR2533-B.5*

    Two cases of targeted states achieving outright victory over challenger states are notable, however. The first is OVW, which involved major deployments of all U.S. military capabilities to deter Iraqi aggression against Kuwait. The second is the *Pueblo* incident, which involved coupling major deployments of U.S. naval and land-based air assets with significant ground-combat forces in the Korean peninsula, leading to North Korean military forces backing down. In both cases, the deployment of significant military capabilities, coupled with the relative infrequency of U.S. crisis deployments, perhaps resulted in a very

strong signal of U.S. intentions, which helped partner states ultimately emerge victorious over threatening challenger states.

These are only initial insights, however, and, because of data limitations, cannot currently be generalized through statistical analyses beyond these few cases. That said, these findings point toward some trends in how U.S. crisis deployments affect the escalatory and bargaining dynamics of international crises that may be further explored through additional qualitative approaches to gain further context and generalizable insights.

References

"8th Inf Group Will Replace Berlin Unit," *European Stars and Stripes*, June 20, 1962.

"51% Think U.S. Should Withdraw All Troops from Europe," Rasmussen Reports, May 22, 2012. As of January 13, 2018: http://www.rasmussenreports.com/public_content/politics/general_politics/may_2012/51_think_u_s_should_withdraw_all_troops_from_europe

"101st Abn Units Picked for 'Long Thrust,'" *European Stars and Stripes*, March 26, 1961.

"6,000 Troops in U.S. Wait Long Thrust," *European Stars and Stripes*, April 29, 1961.

Adomeit, Hannes, *Soviet Risk-Taking and Crisis Behavior: A Theoretical and Empirical Analysis*, Boston, Mass.: George Allen and Unwin, 1982.

Air Force Historical Research Agency, homepage, undated. As of October 7, 2017: http://www.afhra.af.mil

Altman, Dan, "By Fait Accompli, Not Coercion: How States Wrest Territory from Their Adversaries," *International Studies Quarterly*, Vol. 61, No. 4, December 2017, pp. 881–891.

"Army May Deploy 5,000 from U.S. for NATO Exercise," *European Stars and Stripes*, February 27, 1961.

Baram, Amatzia, "Deterrence Lessons from Iraq: Rationality Is Not the Only Key to Containment," *Foreign Affairs*, Vol. 91, No. 4, July/August 2012, pp. 76–90.

Barker, Elisabeth, "The Berlin Crisis 1958–1962," *International Affairs*, Vol. 39, No. 1, 1963, pp. 59–73.

Bendix Corporation, Office of National Security Studies, *The Navy and Sub-Limited Conflicts: Final Report*, BSR 1407, September 30, 1966.

"Berlin Command Resumes Patrol Activity Along the U.S.-USSR Border," United States Mission, West Berlin, October 10, 1961.

Beschloss, Michael, *The Crisis Years: Kennedy and Khrushchev, 1960–1963*, New York: HarperCollins, 1991.

Blagden, David, "Sea Power Is Benign Power: The International Case for a Maritime Posture," *RUSI Journal*, Vol. 159, No. 3, 2014, pp. 54–61.

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

Blechman, Barry M., and Tamara Cofman Wittes, "Defining Moment: The Threat and Use of Force in American Foreign Policy," *Political Science Quarterly*, Vol. 114, No. 1, Spring 1999.

Bowman, Bradley L., "After Iraq: Future U.S. Military Posture in the Middle East," *Washington Quarterly*, Vol. 31, No. 2, Spring 2008. As of October 1, 2017: https://muse.jhu.edu/article/232358

Brecher, Michael, and Jonathan Wilkenfeld, *A Study in Crisis*, Ann Arbor, Mich.: University of Michigan Press, 2000.

Brecher, Michael, Jonathan Wilkenfeld, Kyle Beardsley, Patrick James, and David Quinn, *International Crisis Behavior Data Codebook*, Version 12, 2017. As of June 7, 2018: http://sites.duke.edu/icbdata/data-collections/

Broderick, Jim, "Managing the Risks of War: Deterrence and the Persian Gulf Conflict 1990–91," *Risk Management*, Vol. 2, No. 4, 2000, pp. 19–28.

Brown, Sarah Graham, *Sanctioning Saddam: The Politics of Intervention in Iraq*, London: I.B. Tauris Publishers, 1999.

Bundy, McGeorge, "Memorandum for Deputy Assistant Secretary of Defense William Bundy, Deputy Undersecretary of State Raymond Hare," John F. Kennedy Presidential Library, February 21, 1961.

———, "Minutes of Meeting, October 10, 1961: Berlin Build-Up and Contingency Planning," in Charles S. Sampson and Glenn W. LaFantasie, eds., *Foreign Relations of the United States, 1961–1963*, Vol. 14: *Berlin Crisis, 1961–1962*, Washington, D.C.: U.S. Department of State, Office of the Historian, 1993, pp. 1542–1550.

Byman, Daniel, "U.S. Policy Toward Iraq Since 1991," *Political Science Quarterly*, Vol. 115, No. 4, Winter 2000–2001, pp. 493–516.

Byman, Daniel, Kenneth Pollack, and Matthew Waxman, "Coercing Saddam Hussein: Lessons from the Past," *Survival*, Vol. 40, No. 3, Autumn 1998, pp. 127–151.

Carter, David B., and Curtis S. Signorino, "Back to the Future: Modeling Time Dependence in Binary Data," *Political Analysis*, Vol. 18, No. 3, 2010, pp. 271–292.

Carter, Donald A., *Forging the Shield: The U.S. Army in Europe, 1951–1962*, CMH Pub 45-3-1, Washington, D.C.: Center of Military History, U.S. Army, 2015.

Central Intelligence Agency, *Central Intelligence Bulletin*, August 9, 1961.

———, "Regime Strategic Intent," in *Comprehensive Report of the Special Advisor to the DCI on Iraq's WMD*, Vol. 1, Langley, Va., September 30, 2004. As of October 1, 2017:
https://www.cia.gov/library/readingroom/docs/DOC_0001156395.pdf

Central Intelligence Agency, Office of Current Intelligence, "Current Intelligence Weekly Summary [Situation Report on Wall Crisis Developments]," August 17, 1961a.

———, "Current Intelligence Weekly Summary [Summary of Border Incidents]," October 27, 1961b.

Christensen, Thomas J., *Useful Adversaries: Grand Strategy, Domestic Mobilization, and Sino-American Conflict, 1947–1958*, Princeton, N.J.: Princeton University Press, 1996.

CIA—*See* Central Intelligence Agency.

Clinton, William J., "Remarks on Iraq," in Gerhard Peters and John T. Woolley, American Presidency Project, Santa Barbara, Calif., October 8, 1994a. As of January 25, 2018:
http://www.presidency.ucsb.edu/ws/?pid=49261

———, "Address to the Nation on Iraq," in Gerhard Peters and John T. Woolley, American Presidency Project, Santa Barbara, Calif., October 10, 1994b. As of October 1, 2017:
http://www.presidency.ucsb.edu/ws/?pid=49264

———, "Remarks on Iraq," in Gerhard Peters and John T. Woolley, American Presidency Project, Santa Barbara, Calif., October 11, 1994c. As of January 25, 2018:
http://www.presidency.ucsb.edu/ws/?pid=49266

———, "Statement on United Nations Security Council Action on Iraq," in Gerhard Peters and John T. Woolley, American Presidency Project, Santa Barbara, Calif., October 15, 1994d. As of January 25, 2018:
http://www.presidency.ucsb.edu/ws/?pid=49310

———, "Letter to Congressional Leaders Reporting on Iraq's Compliance With United Nations Security Council Resolutions," in Gerhard Peters and John T. Woolley, American Presidency Project, Santa Barbara, Calif., October 27, 1994e. As of January 25, 2018:
http://www.presidency.ucsb.edu/ws/?pid=49379

Cobble, W. Eugene, H. H. Gaffney, and Dmitry Gorenburg, *For the Record: All U.S. Forces' Responses to Situations, 1970–2000 (with Additions Covering 2000–2003)*, Alexandria, Va.: Center for Strategic Studies, May 2005.

Colby, Elbridge, and Jonathan Solomon, "Facing Russia: Conventional Defence and Deterrence in Europe," *Survival*, Vol. 57, No. 6, 2015, pp. 21–50.

Cooley, Alexander, *Base Politics: Democratic Change and the U.S. Military Overseas*, Ithaca, N.Y.: Cornell University Press, 2008.

Correll, John T., *The Air Force in the Vietnam War*, Arlington, Va.: Air Force Association, December 2004.

Crossette, Barbara, "Iraqis to Accept Kuwait's Borders," *New York Times*, November 11, 1994. As of October 1, 2017:
http://www.nytimes.com/1994/11/11/world/iraqis-to-accept-kuwait-s-borders.html

Deeb, Mary-Jane, "Qaddafi's Calculated Risks," *SAIS Review*, Vol. 6, No. 2, Summer–Fall 1986, pp. 151–162.

Defense Manpower Data Center, "Active Duty Military Strength by Service, Historical Reports, FY 1994," spreadsheet, Alexandria, Va., 1994. As of October 1, 2017:
https://www.dmdc.osd.mil/appj/dwp/dwp_reports.jsp

———, "Historical Reports—Military Only (Aggregated Data, 1950–Current)," spreadsheet, Alexandria, Va., 2016.

Devroy, Ann, and Thomas W. Lippman, "Clinton Doubts Iraq's Word on Retreat; President Sends More Warplanes to Gulf," *Washington Post*, October 11, 1994.

DeYoung, Karen, "Baltic Countries Want a Longer NATO Commitment to Counter Russia," *Washington Post*, February 26, 2016. As of October 8, 2017:
https://www.washingtonpost.com/world/national-security/
baltic-countries-want-a-longer-nato-commitment-to-counter-russia/
2016/02/26/811c200c-dcae-11e5-81ae-7491b9b9e7df_story.html?utm_
term=.f5f5a22c7dde

DMDC—*See* Defense Manpower Data Center.

DoD—*See* U.S. Department of Defense.

Duelfer, Charles A., and Stephen Benedict Dyson, "Chronic Misperception and International Conflict: The U.S.-Iraq Experience," *International Security*, Vol. 36, No. 1, Summer 2011.

Fanfani, Amintore, "Message from Italian President Fanfani to President Kennedy," U.S. Embassy in France, SECTO 46, August 8, 1961.

Fearon, James D., "Domestic Political Audiences and the Escalation of International Disputes," *American Political Science Review*, Vol. 88, No. 3, 1994, pp. 577–592.

———, "Signaling Foreign Policy Interests: Tying Hands Versus Sinking Costs," *Journal of Conflict Resolution*, Vol. 41, No. 1, 1997, pp. 68–90.

———, "Selection Effects and Deterrence," *International Interactions*, Vol. 28, No. 1, 2002, pp. 5–29.

Finletter, Thomas K., "Telegram from Paris (Finletter)," Papers of John F. Kennedy, Presidential Papers, National Security Files, Series 04, Departments and Agencies, Box 279, JFKNSF-279-003, August 30, 1961a.

———, "Telegram from Paris (Finletter) to Secretary of State," John F. Kennedy Presidential Library, November 1, 1961b.

Fletcher, Harry R., *Air Force Bases*, Vol. 2: *Air Bases Outside the United States of America*, Washington, D.C: Center for Air Force History, U.S. Air Force, 1993.

Forster, Larissa, *Influence Without Boots on the Ground: Seaborne Crisis Response*, Newport, R.I.: Naval War College Press, January 2013.

Fravel, M. Taylor, "Power Shifts and Escalation: Explaining China's Use of Force in Territorial Disputes," *International Security*, Vol. 32, No. 3, Winter 2007/2008, pp. 44–83.

Frederick, Bryan, Matthew Povlock, Stephen Watts, Miranda Priebe, and Edward Geist, *Assessing Russian Reactions to U.S. and NATO Posture Enhancements*, Santa Monica, Calif.: RAND Corporation, RR-1879-AF, 2017. As of June 4, 2018: https://www.rand.org/pubs/research_reports/RR1879.html

Frederking, Brian, *The United States and the Security Council: Collective Security Since the Cold War*, New York: Routledge, 2007.

Freedman, David A., and Richard A. Berk, "Weighting Regressions by Propensity Scores," *Evaluation Review*, Vol. 32, No. 4, 2008, pp. 392–409.

Freedman, Lawrence, *Kennedy's Wars: Berlin, Cuba, Laos, and Vietnam*, Oxford, UK: Oxford University Press, 2000.

Garthoff, Raymond L., *The Interaction of Soviet and Western Military Postures (Memorandum on the Role of Military Demonstrations in the Politico-Military Confrontation over Berlin Attached)*, Washington, D.C.: U.S. Department of State, Executive Secretariat, October 13, 1961.

———, "Berlin 1961: The Record Corrected," *Foreign Policy*, No. 84, Autumn 1991, pp. 142–156.

Gearson, John, and Kori Schake, eds., *The Berlin Wall: Perspectives on Cold War Alliances*, New York: Palgrave Macmillan, 2002.

Gelb, Norman, *The Berlin Wall*, London: Michael Joseph, 1986.

George, Alexander L., and Richard Smoke, *Deterrence in American Foreign Policy*, New York: Columbia University Press, 1974.

Gerring, John, *Case Study Research: Principles and Practices*, New York: Cambridge University Press, 2007.

Gershen, Marty, "The Helmstedt-Berlin Autobahn: An Adventuresome Strip of Highway," *Stars and Stripes*, May 18, 1961.

Gerson, Michael, and Daniel Whiteneck, *Deterrence and Influence: The Navy's Role in Preventing War*, Alexandria, Va.: Center for Naval Analyses, 2009.

Gholz, Eugene, and Daryl Press, "Untangling Selection Effects in Studies of Coercion," unpublished manuscript, University of Texas and University of Pennsylvania, undated. As of June 8, 2018:
http://utip.lbj.utexas.edu/colloquium/Gholz.pdf

Gilpatric, Roswell L., address before the Business Council at the Homestead, Hot Springs, Va., October 21, 1961.

Glaser, John, *Withdrawing from Overseas Bases: Why a Forward-Deployed Military Posture Is Unnecessary, Outdated, and Dangerous*, Washington, D.C.: CATO Institute, Policy Analysis No. 816, July 18, 2017.

Gordon, Joy, *Invisible War: The United States and the Iraq Sanctions*, Cambridge, Mass.: Harvard University Press, 2012.

Gordon, Michael R., "Threats in the Gulf: The Military Buildup; At Least 36,000 U.S. Troops Going to Gulf in Response to Continued Iraqi Buildup," *New York Times*, October 10, 1994.

Green, Michael J., and Matthew Kroenig, "A New Strategy for Deterrence and Rollback with North Korea," War on the Rocks, October 19, 2017. As of January 13, 2018:
https://warontherocks.com/2017/10/
a-new-strategy-for-deterrence-and-rollback-with-north-korea

Grimmett, Richard R., *Instances of Use of United States Armed Forces Abroad, 1798–2009*, Washington, D.C.: Congressional Research Service, RL32170, January 27, 2010.

Halperin, M. H., "The 1958 Taiwan Straits Crisis: A Documented History," Santa Monica, Calif.: RAND Corporation, RM-4900-ISA, December 1966. As of June 8, 2018:
https://www.rand.org/pubs/research_memoranda/RM4900.html

Hammes, T. X., "Offshore Control: A Proposed Strategy for an Unlikely Conflict," Strategic Forum, Washington, D.C.: National Defense University, June 2012.

Harrington, Daniel F., "The Berlin Blockade Revisited," *International History Review*, Vol. 6, No. 1, 1984.

———, *Berlin on the Brink: The Blockade, the Airlift, and the Early Cold War*, Lexington, Ky.: University Press of Kentucky, 2012.

Harrison, Hope M., "Ulbricht and the Concrete 'Rose': New Archival Evidence on the Dynamics of Soviet-East German Relations and the Berlin Crisis, 1958–1961," Working Paper No. 5, Cold War International Project, Woodrow Wilson International Center for Scholars, May 1993.

Harvey, Frank P., and Patrick James, "Deterrence and Compellence in Iraq, 1991–2003: Lessons for a Complex Paradigm," in T. V. Paul, Patrick M. Morgan, and James J. Wirtz, eds., *Complex Deterrence: Strategy in the Global Age*, Chicago, Ill.: University of Chicago Press, 2009.

Heginbotham, Eric, and Jacob L. Heim, "Deterring Without Dominance: Discouraging Chinese Adventurism Under Austerity," *Washington Quarterly*, Vol. 38, No. 1, 2015, pp. 185–199.

Herr, W. Eric, "Operation Vigilant Warrior: Conventional Deterrence Theory, Doctrine, and Practice," master's thesis, Maxwell Air Force Base, Ala.: Air University, June 1996.

Hewitt, J. Joseph, "Dyadic Processes and International Crises," *Journal of Conflict Resolution*, Vol. 47, No. 5, 2003, pp. 669–692.

Humphreys, R. Stephen, *Between Memory and Desire: The Middle East in a Troubled Age*, Berkeley, Calif.: University of California Press, 2005.

Huth, Paul K., *Extended Deterrence and the Prevention of War*, New Haven, Conn.: Yale University Press, 1991.

———, "Deterrence and International Conflict: Empirical Findings and Theoretical Debates," *Annual Review of Political Science*, Vol. 2, 1999, pp. 25–48.

Huth, Paul K., and Bruce Russett, "Deterrence Failure and Crisis Escalation," *International Studies Quarterly*, Vol. 32, No. 1, March 1988, pp. 29–45.

"'If You Want Peace . . . ,'" *Newsweek*, July 3, 1961, pp. 13–14.

IISS—*See* International Institute for Strategic Studies.

International Institute for Strategic Studies, *The Military Balance*, London, various years. As of June 4, 2018:
https://www.tandfonline.com/toc/tmib20/118/1?nav=tocList

———, *The Military Balance 1994*, Vol. 94, No. 1, 1994.

JCS—*See* Joint Chiefs of Staff.

Jervis, Robert, "Cooperation Under the Security Dilemma," *World Politics*, Vol. 30, No. 2, 1978, pp. 167–214.

——— "Deterrence and Perception," *International Security*, Vol. 7, No. 3, Winter 1982/1983, pp. 3–30.

Johnson, David E., Karl Mueller, and William H. Taft, *Conventional Coercion Across the Spectrum of Operations: The Utility of U.S. Military Forces in the Emerging Security Environment*, Santa Monica, Calif.: RAND Corporation, MR-1494-A, 2003. As of June 4, 2018:
https://www.rand.org/pubs/monograph_reports/MR1494.html

Joint Chiefs of Staff, "Public Affairs Release Confirming the Military Build-Up in Germany," JCS 1425, September 8, 1961.

———, *The National Military Strategy of the United States of America*, Washington, D.C., June 2015. As of September 2017:
http://www.jcs.mil/Portals/36/Documents/Publications/
2015_National_Military_Strategy.pdf

Kahneman, Daniel, *Thinking Fast and Slow*, New York: Farrar, Straus and Giroux, 2011.

Karren, Wade S., "Long-Range Strike: The Bedrock of Deterrence and America's Strategic Advantage," *Air & Space Power Journal*, May–June 2012, pp. 70–81.

Kempe, Frederick, *Berlin 1961: Kennedy, Khrushchev, and the Most Dangerous Place on Earth*, New York: G. P. Putnam's Sons, 2011.

Kennedy, John F., "Radio and Television Report to the American People on Returning from Europe," in Gerhard Peters and John T. Woolley, American Presidency Project, Santa Barbara, Calif., June 6, 1961a. As of October 20, 2017:
http://www.presidency.ucsb.edu/ws/?pid=8180

———, "Radio and Television Report to the American People on the Berlin Crisis," in Gerhard Peters and John T. Woolley, American Presidency Project, Santa Barbara, Calif., July 25, 1961b. As of June 11, 2018:
http://www.presidency.ucsb.edu/ws/?pid=8259

———, "Statement by the President on the Release of National Guard and Reserve Units," April 11, 1962.

Kennedy, John F., and Charles de Gaulle, "'Memorandum of Conversation,' Paris, May 31, 1961, 12:30 p.m.," in Charles S. Sampson and Glenn W. LaFantasie, eds., *Foreign Relations of the United States, 1961–1963*, Vol. 14: *Berlin Crisis, 1961–1962*, Washington, D.C.: U.S. Department of State, Office of the Historian, 1993, pp. 306–317. As of September 2017:
https://history.state.gov/historicaldocuments/frus1961-63v14/d30

Koh, B. C., "The *Pueblo* Incident in Perspective," *Asian Survey*, Vol. 9, No. 4, April 1969, pp. 264–280.

Kohler, Foy D., "Subject: NSC Meeting of July 19, 1961," memorandum, 1961.

Layne, Christopher, "From Preponderance to Offshore Balancing: America's Future Grand Strategy," *International Security*, Vol. 22, No. 1, Summer 1997, pp. 86–124.

Lebow, Richard Ned, and Janice Gross Stein, "Rational Deterrence Theory: I Think, Therefore I Deter," *World Politics*, Vol. 41, No. 2, January 1989, pp. 208–224.

Lemke, Douglas, *Regions of War and Peace*, Cambridge, UK: Cambridge University Press, 2002.

Lemke, Douglas, and William Reed, "The Relevance of Politically Relevant Dyads," *Journal of Conflict Resolution*, Vol. 45, No. 1, 2001, pp. 126–144.

Lemnitzer, L. L., "Subject: Strategic Mobility Exercise in USCINCEUR Area During FY 1961 (Long Thrust)," memorandum to Brigadier General Clifton, CM-148-61, John F. Kennedy Presidential Library, March 24, 1961.

Leng, Russell J., *Bargaining and Learning in Recurring Crises: The Soviet-American, Egyptian-Israeli, and Indo-Pakistani Rivalries*, Ann Arbor, Mich.: University of Michigan Press, 2000.

Levy, Jack S., "When Do Deterrent Threats Work?" *British Journal of Political Science*, Vol. 18, No. 4, 1988, pp. 485–512.

Li Xiaobing, Chen Jian, and David L. Wilson, trans., "Mao Zedong's Handling of the Taiwan Straits Crisis of 1958: Chinese Recollections and Documents," Cold War International History Project Bulletin, Bulletin 6–7, Winter 1995/1996.

Lightner, E. Allan, "Conversation with the Soviet Political Advisor Concerning the October 15th Incident at the Friedrichstrasse Crossing Point," Telegram 762, October 17, 1961.

Long, Austin G., *Deterrence—From Cold War to Long War: Lessons from Six Decades of RAND Research*, Santa Monica, Calif.: RAND Corporation, MG-636-OSD/AF, 2008. As of June 4, 2018:
https://www.rand.org/pubs/monographs/MG636.html

Lostumbo, Michael J., Michael J. McNerney, Eric Peltz, Derek Eaton, and David R. Frelinger, *Overseas Basing of US Military Forces: An Assessment of Relative Costs and Strategic Benefits*, Santa Monica, Calif.: Rand Corporation, RR-201-OSD, 2013. As of June 4, 2018:
https://www.rand.org/pubs/research_reports/RR201.html

Lunák, P., "Khrushchev and the Berlin Crisis: Soviet Brinkmanship Seen from Inside," *Cold War History*, Vol. 3, No. 2, 2003, pp. 53–82.

Mahoney, Robert B., Jr., *U.S. Navy Responses to International Incidents and Crises, 1955–1975 Survey of Navy Crisis Operations*, Arlington, Va.: Center for Naval Analyses, July 1977.

Martinage, Robert, *Toward a New Offset Strategy: Exploiting U.S. Long-Term Advantages to Restore U.S. Global Power Projection Capability*, Washington, D.C.: Center for Strategic and Budgetary Assessments, 2014.

May, Ernest R., Thomas W. Wolfe, and John D. Steinbruner, *History of the Strategic Arms Competition, 1945–1972*, Part II, Washington, D.C.: U.S. Department of Defense, Office of the Secretary, Historical Office, March 1981.

McDermott, Rose, *Risk-Taking in International Politics: Prospect Theory in American Foreign Policy*, Ann Arbor, Mich.: University of Michigan Press, 2001.

McNamara, Robert S., "Subject: Temporary Reinforcement as a Berlin Deterrent," memorandum, Washington, D.C.: National Security Archive, May 29, 1961.

McSweeney, William M., "Telegram from Moscow (McSweeney) to Secretary of State," Papers of John F. Kennedy, Presidential Papers, National Security Files, Series 04, Departments and Agencies, Box 279, JFKNSF-279-003, August 30, 1961.

Mearsheimer, John J., *Conventional Deterrence*, Ithaca, N.Y.: Cornell University Press, 1983.

———, "Why the Ukraine Crisis Is the West's Fault: The Liberal Delusions That Provoked Putin," *Foreign Affairs*, September/October 2014.

Mearsheimer, John J., and Stephen M. Walt, "The Case for Offshore Balancing: A Superior U.S. Grand Strategy," *Foreign Affairs*, July/August 2016, pp. 70–83.

Miller, Roger G., *To Save a City: The Berlin Airlift, 1948–1949*, Washington, D.C.: Air Force History and Museums Program, 1998.

Miller Center, "William Perry Oral History, Deputy Secretary of Defense; Secretary of Defense Transcript," Presidential Oral Histories, Charlottesville, Va.: University of Virginia, February 21, 2006. As of January 25, 2018: https://millercenter.org/the-presidency/presidential-oral-histories/ william-perry-oral-history-deputy-secretary-defense

Mobley, Richard, "*Pueblo*: A Retrospective," *Naval War College Review*, Vol. 54, No. 2, Spring 2001, pp. 98–117.

Morgan, Patrick, "Deterrence and the Contemporary Situation in the Middle East," Special Policy Forum 9/11, Nautilus Institute for Security and Sustainability, October 30, 2002. As of October 1, 2017: https://nautilus.org/napsnet/special-policy-forum-911/ deterrence-and-the-contemporary-situation-in-the-middle-east-2/

Mueller, Robert, *Air Force Bases*, Vol. 1, *Active Air Force Bases Within the United States of America on 17 September 1982*, Washington, D.C.: Office of Air Force History, U.S. Air Force, 1990.

Narinskii, Michail M., "The Soviet Union and the Berlin Crisis," in Francesca Gori and Silvio Pons, eds., *The Soviet Union and Europe in the Cold War, 1943–1953*, New York: St. Martin's Press, 1996.

National Security Archive, "Saddam Hussein Talks to the FBI: Twenty Interviews and Five Conversations with 'High Value Detainee #1' in 2004," Electronic Briefing Book No. 279, July 1, 2009. As of October 7, 2017: http://nsarchive.gwu.edu/NSAEBB/NSAEBB279/index.htm

Naval History and Heritage Command, *Naval Aviation News*, various years. As of June 29, 2018: https://www.history.navy.mil/research/histories/naval-aviation-history/ naval-aviation-news/back-issues.html

Norstad, Lauris, "Memo to General Lemnitzer from General Norstad," Washington, D.C.: National Security Archive, August 30, 1961.

"Note from the Soviet Foreign Ministry to the American Ambassador at Moscow (Thompson), Regarding Berlin (November 27, 1958)," in *Documents on Germany, 1944–1959: Background Documents on Germany, 1944–1959, and a Chronology of Political Developments Affecting Berlin, 1945–1956*, Washington, D.C.: U.S. General Printing Office, 1959, pp. 317–331.

"Note on the Discussion Between Khrushchev and Ulbricht in Moscow, 26 February 1962 (excerpts)," in Douglas Selvage, trans., "The End of the Berlin Crisis: New Evidence from the Polish and East German Archives," Cold War International History Project, Bulletin 11, Winter 1998, pp. 225–226.

 "Notes on the Meeting of N. S. Khrushchev with Leading Representatives of the Central Committee of the Communist Party of Czechoslovakia and the Government of the Czechoslovak Socialist Republic in Smolenice, near Bratislava, and Khrushchev's Toast at Lunch, 1 June 1961, Prague," Parallel History Project on Cooperative Security, June 1, 1961. As of June 4, 2018: http://www.php.isn.ethz.ch/lory1.ethz.ch/collections/coll_berlin/ meeting_khrushchev_smolenice78c2.html?navinfo=16161

Office of the Chief of Military History, "U.S. Army Expansion, 1961–1962," Washington, D.C.: U.S. Department of the Army, 1963.

Office of the Secretary of Defense, "Telegram from OSD to SecArmy, SecNav, SecAir Force, CJCS, CINCStrIKE," John F. Kennedy Presidential Library, January 11, 1962.

Ogunbadejo, Oye, "Qaddafi and Africa's International Relations," *Journal of Modern African Studies*, Vol. 24, No. 1, March 1986, pp. 33–68.

O'Mahony, Angela, 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*, Santa Monica, Calif.: RAND Corporation, RR-1906-A, 2017. As of June 4, 2018: https://www.rand.org/pubs/research_reports/RR1906.html

Palkki, David, *Deterring Saddam Hussein's Iraq: Domestic Audience Costs and Credibility Assessments in Theory and Practice*, dissertation, University of California, Los Angeles, ProQuest, 2013.

Palmer, Glenn, Vito d'Orazio, Michael Kenwick, and Matthew Lane, "The MID4 Dataset, 2002–2010: Procedures, Coding Rules and Description," *Conflict Management and Peace Science*, Vol. 32, No. 2, 2015, pp. 222–242.

Parrish, Thomas D., *Berlin in the Balance, 1945–1949: The Blockade, the Airlift, the First Major Battle of the Cold War*, Reading, Mass.: Addison-Wesley, 1998.

Peay, J. H. Binford, "The Five Pillars of Peace in the Central Region," *Joint Forces Quarterly*, No. 9, Autumn 1995, pp. 32–39.

Perlez, Jane, and Chie Sang-Hun, "Bannon and Dunford Remarks Muddle U.S. Strategy for North Korea," *New York Times*, August 16, 2017. As of October 8, 2017:
https://www.nytimes.com/2017/08/16/world/asia/
north-korea-trump-moon-jae-in-south.html

Pew Research Center, *Public Sees U.S. Power Declining as Support for Global Engagement Slips: America's Place in the World 2013*, Washington, D.C., December 3, 2013. As of October 9, 2017:
http://www.people-press.org/2013/12/03/
public-sees-u-s-power-declining-as-support-for-global-engagement-slips

———, *Public Uncertain, Divided over America's Place in the World*, Washington, D.C., April 2016.

Pollack, Kenneth M., "Next Stop Baghdad?" *Foreign Affairs*, Vol. 81, No. 2, March–April 2002, pp. 32–47.

Poole, Walter S., *The Joint Chiefs of Staff and National Policy*, Vol. 8: *1961–1964*, Washington, D.C.: Office of Joint History, Office of the Chairman of the Joint Chiefs of Staff, 2011.

Powell, Colin L., and Joseph E. Persico, *My American Journey*, New York: Random House, 1996.

Press, Daryl C., "The Myth of Air Power in the Persian Gulf War and the Future of Warfare," *International Security*, Vol. 26, No. 2, Fall 2001, pp. 5–44.

Riposo, Jessie, Michael E. McMahon, James G. Kallimani, and Daniel Tremblay, *Current and Future Challenges to Resourcing U.S. Navy Public Shipyards*, Santa Monica, Calif.: RAND Corporation, RR-1552-NAVY, 2017. As of June 4, 2018:
https://www.rand.org/pubs/research_reports/RR1552.html

Rusk, Dean, "Telegram from Dean Rusk to American Embassies in Paris, Bonn, London, Moscow, Rome," Papers of John F. Kennedy, Presidential Papers, National Security Files, Series 04, Departments and Agencies, Box 279, JFKNSF-279-003, September 9, 1961.

Sagan, Scott D., *Deterring Rogue Regimes: Rethinking Deterrence Theory and Practice*, Palo Alto, Calif.: Center for International Security and Cooperation, Stanford University, July 8, 2013.

Sampson, Charles S., and Glenn W. LaFantasie, eds., *Foreign Relations of the United States, 1961–1963*, Vol. 15: *Berlin Crisis, 1962–1963*, Washington, D.C.: U.S. Department of State, Office of the Historian, 1994.

Schake, Kurt Wayne, *Strategic Frontier: American Bomber Bases Overseas, 1950–1960*, Norwegian University of Science and Technology, Department of History, January 1998.

Schick, Jack M., *The Berlin Crisis, 1958–1962*, Philadelphia, Pa.: University of Pennsylvania Press, 1971.

Schneider, Barry R., "Deterrence and Saddam Hussein: Lessons from the 1990–1991 Gulf War," *The Counterproliferation Papers*, Future Warfare Series No. 47, USAF Counterproliferation Center, Maxwell Air Force Base, Ala.: Air University, August 2009. As of October 1, 2017:
http://www.dtic.mil/dtic/tr/fulltext/u2/a518900.pdf

Scott, Herb, "3,500 Troops Launch Long Thrust III," *European Stars and Stripes*, May 8, 1962.

Shlaim, Avi, *The United States and the Berlin Blockade, 1948–1949: A Study in Crisis Decision-Making*, Berkeley, Calif.: University of California Press, 1983.

Shlapak, David A., 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. As of June 4, 2018:
https://www.rand.org/pubs/research_reports/RR1253.html

Siegel, Adam B., *The Use of Naval Forces in the Post-War Era: U.S. Navy and U.S. Marine Corps Crisis Response Activity, 1946–1990*, Arlington, Va.: Center for Naval Analyses, February 1991.

Stein, Janice Gross, "Deterrence and Compellence in the Gulf, 1990–91: A Failed or Impossible Task?" *International Security*, Vol. 17, No. 2, Fall 1992, pp. 147–179.

Steiner, André, "From the Soviet Occupation Zone to the 'New Eastern States': A Survey," in Hartmut Berghoff and Uta Andrea Balbier, eds., *The East German Economy, 1945–2010: Falling Behind or Catching Up?* Cambridge, UK: Cambridge University Press, 2013, pp. 17–52.

Stromseth, Jane E., *The Origins of Flexible Response: NATO's Debate over Strategy in the 1960s*, London: Macmillan Press, 1988.

"Subject: Situation Report on Exercise Long Thrust," memorandum to the Joint Chiefs of Staff, John F. Kennedy Presidential Library, January 22, 1962.

"Summary of Events in Berlin from Early Morning to Mid-Afternoon," United States Mission, West Berlin, Telegram 186, August 13, 1961.

Tatu, Michael, *Power in the Kremlin: From Khrushchev to Kosygin*, New York: Viking Press, 1971.

Taubman, William, *Khrushchev: The Man and His Era*, New York: W. W. Norton and Company, 2003.

Taylor, Maxwell, "Subject: Further Information on Troop Movement to Berlin," memorandum to the President, August 13, 1961.

Tetlock, Philip E., *Expert Political Judgment: How Good Is It? How Can We Know?* Princeton, N.J.: Princeton University Press, 2006.

Trachtenberg, Marc, *A Constructed Peace: The Making of the European Settlement, 1945–1963*, Princeton, N.J.: Princeton University Press, 1999.

United Nations Security Council, "Agenda: The Situation Between Iraq and Kuwait," Forty-Ninth Year, 3438th Meeting, New York, Provisional, S/PV.3438, October 15, 1994.

UNSC—*See* United Nations Security Council.

USAFE—*See* U.S. Air Forces in Europe.

U.S. Air Forces in Europe, "Air National Guard Deployment to USAFE Area, 1961–1962," Historical Division, Office of Information, December 1962.

USAREUR—*See* U.S. Army Europe.

U.S. Army Europe, Operations Division, *Annual History United States Army Europe: 1 January–31 December 1961*, Washington, D.C.: U.S. Department of the Army, 1962.

———, "The Replacement and Augmentation Systems in Europe (1945–1963)," Historical Section, Historical Manuscript Collection, 1964.

U.S. Department of the Air Force, "F-16 Fighting Falcon," webpage, September 23, 2015a. As of September 1, 2017:
http://www.af.mil/About-Us/Fact-Sheets/Display/Article/104505/f-16-fighting-falcon/

———, "B-52 Stratofortress," webpage, December 16, 2015b. As of September 1, 2017:
http://www.af.mil/About-Us/Fact-Sheets/Display/Article/104465/b-52-stratofortress/

U.S. Department of Defense, "Notification That President Kennedy Has Sent Personal Messages to Charles de Gaulle and Harold Macmillan Proposing a Possible Declaration on Western Determination on Berlin," Telegram 135, August 17, 1961.

———, "Release of Reservists Involuntarily Recalled to Active Duty," Washington, D.C.: Office of the Secretary of Defense, April 1962.

U.S. Department of State, "Talking Points Reviewing Conversations Between President Kennedy and Chairman Khrushchev (June 3–4, 1961)," Washington, D.C., June 1961a.

———, "Transmittal of Agreed Text of Protest Notes to Be Delivered to the Soviets on August 17," Washington, D.C., Telegram 438, August 15, 1961b.

U.S. Department of State, Bureau of European Affairs, "Assessment of Current Soviet Intentions in the Berlin Crisis," August 29, 1961.

U.S. Department of State, Bureau of Intelligence and Research, "Assessment of Current Soviet Intentions in the Berlin Crisis: September 4–11, 1961," research memorandum RSB-3, September 11, 1961a.

———, "Assessment of Current Soviet Intentions in the Berlin Crisis: September 11–18, 1961," research memorandum RSB-3.2, September 18, 1961b.

———, "Assessment of Current Soviet Intentions in the Berlin Crisis: September 25–October 3, 1961," research memorandum RSB-3.4, October 4, 1961c.

———, "Assessment of Current Soviet Intentions in the Berlin Crisis: October 2–October 9, 1961," research memorandum RSB-3.5, October 10, 1961d.

———, "Assessment of Current Soviet Intentions in the Berlin Crisis: October 17–October 24, 1961," research memorandum RSB-3.7, October 24, 1961e.

U.S. Department of State, Bureau of Public Affairs, *Crisis over Berlin: American Policy Concerning the Soviet Threats to Berlin, November 1958–December 1962*, Part 6: *Deepening Crisis over Berlin—Communist Challenges and Western Responses, June–September 1961*, Washington, D.C., April 1970.

U.S. General Accounting Office, *Air Force Aircraft: Consolidating Fighter Squadrons Could Reduce Costs*, Washington, D.C., GAO/NSIAD-96-82, May 1996. As of October 8, 2017:
http://www.gao.gov/assets/230/222462.pdf

U.S. Navy, "Aircraft Carriers—CVN," Fact File, January 31, 2017. As of September 1, 2017:
http://www.navy.mil/navydata/fact_display.asp?cid=4200&tid=200&ct=4

Vine, David, "Don't Just Close Bases at Home, Close Them Overseas," *New York Times*, July 27, 2015. As of October 8, 2017:
https://www.nytimes.com/2015/07/27/opinion/
dont-just-close-bases-at-home-close-them-overseas.html

Wallace, Michael D., and Peter Suedfeld, "Leadership Performance in Crisis: The Longevity-Complexity Link," *International Studies Quarterly*, Vol. 32, No. 4, 1988, pp. 439–451.

Weeks, Jessica L., "Strongmen and Straw Men: Authoritarian Regimes and the Initiation of International Conflict," *American Political Science Review*, Vol. 106, No. 2, May 2012, pp. 326–347.

White, Thomas D., "Subject: Temporary Reinforcement as Berlin Deterrent," memorandum to the Secretary of Defense, Washington, D.C.: National Security Archive, 1961.

White House, "Kennedy's Plans for Reinforcing Troops in Europe," August 14, 1961.

———, "Containing Saddam Hussein's Iraq," Washington, D.C., December 19, 1998. As of February 13, 2017:
https://clintonwhitehouse5.archives.gov/WH/EOP/NSC/html/nsc-11.html

Williamson, Richard D., *First Steps Toward Détente: American Diplomacy in the Berlin Crisis, 1958–1963*, Lanham, Md.: Lexington Books, 2012.

Woods, Kevin M., David D. Palkki, and Mark E. Stout, eds., *The Saddam Tapes, 1978–2001: The Inner Workings of a Tyrant's Regime*, New York: Cambridge University Press, 2012.

Woods, Kevin M., and Mark E. Stout, "Saddam's Perceptions and Misperceptions: The Case of 'Desert Storm,'" *Journal of Strategic Studies*, Vol. 33, No. 1, February 19, 2010.

Yost, David S., "New Approaches to Deterrence in Britain, France, and the United States," *International Affairs*, Vol. 81, No. 1, January 2005, pp. 83–114.

Zartman, I. William, "Foreign Relations of North Africa," *Annals of the American Academy of Political and Social Science*, Vol. 489, No. 1, January 1987, pp. 13–27.

Zubok, Vladislav Martinovich, "Khrushchev and the Berlin Crisis (1958–1962)," Working Paper No. 6, Cold War International History Project, Woodrow Wilson International Center for Scholars, May 1993.

RAND ARROYO CENTER

n the aftermath of Russian military aggression against Ukraine in 2014, and with increasing tensions in the U.S.-China strategic competition, the question of whether U.S. overseas military presence can enhance deterrence remains central. At the same time, U.S. overseas military commitments are increasingly coming under question at home, both among the public at large and among many foreign- and defense-policy elites.

This report provides empirical evidence on the deterrent effects of U.S. overseas military forces. It investigates how these effects might vary by the type, size, and location of these forces. The analyses provide the clearest evidence in support of the deterrent effect of heavy ground forces, particularly when deployed near but not directly bordering potential adversaries. The analyses show that the more mobile forces are, the less evidence there is of a deterrent effect. The report also assesses the effects of the deployment of U.S. forces during crises, finding that, although they can help avoid escalation and maintain the status quo, they are not necessarily well suited to altering the long-term strategic dynamics between states.

$39.00

www.rand.org