It has become commonplace to observe that U.S. military forces are experiencing a period of rapid and profound change. Three important factors that determine the size and characteristics of military forces have changed markedly over the past decade and remain in flux:

- With the collapse of the Soviet Union, the chief threat to U.S. national security no longer stems from a superpower adversary but rather from a handful of hostile or potentially hostile regional powers.

- U.S. forces can expect to face opponents armed with capabilities different from those of our Cold War adversary. Our most likely opponents today field forces with modest numbers of weapons, many of which are a generation or more behind the state of the art; but the prospect is for fairly rapid modernization in selected capabilities.

- Rapid technological advances in such areas as sensors, information processing, and materials are making possible radically new operational concepts that can allow U.S. forces to accomplish their missions in new ways and with far greater levels of efficiency and effectiveness.

Defense planning in the United States has yet to come to grips with the full implications of these far-reaching changes. Within the Department of Defense (DoD), neither resource allocation patterns nor investment priorities have changed much since the 1980s: With some exceptions, the United States is providing somewhat “less of
the same" basic forces that it has fielded for the past several decades. And while selected elements of the force, such as battlefield sensors, precision weapons, and stealthy air vehicles, have undergone spectacular improvements in recent years, many think the basic division of labor among joint forces remains essentially the same as it has been for decades.

This is not necessarily wrong: Military missions and the capabilities required to achieve them have a certain enduring quality. For centuries, states have called upon their military forces to defend their borders, to deter adversaries and reassure friends, to impose order on unruly elements, and to act as agents of influence abroad. Yet from time to time, we have seen profound transformations in the tools and, hence, the concepts and strategies with which these missions are accomplished. The most important finding of the research documented in this volume is that U.S. forces are now in the midst of such a historic transformation. The pace of that transformation and, more important, the ability of future U.S. forces to perform their assigned missions will depend critically on the resources that are devoted to the development, testing, and fielding of new systems and concepts.

Just as many observers note the vast change in the defense planning environment, so too do many call for accelerated innovation in U.S. military forces. Calls for a “revolution in military affairs”—within which systems, doctrines, and organizations for warfare would be fundamentally transformed—are legion. The goal of this study is to go beyond advocating change and innovation for their own sake and to base arguments for new capabilities on a set of quantitative and qualitative assessments of future operational needs and opportunities. Without such assessments, arguments for one course of action over another become little more than a competition among judgments or opinions without the possibility of replication or meaningful comparison.

The assessments offered here are of two broad types:

- First, using a novel and fairly transparent quantitative approach we estimate the ability of forces employing advanced firepower to attrit and halt an invading mechanized ground force. This analysis constitutes the centerpiece of the study.
• Second, we incorporate and summarize results from other relevant assessments to evaluate supporting or ancillary aspects of the “halt” campaign. Some of these assessments were made to support this study, others were adapted for this effort.

In both cases, the assessments are presented in the context of future operational needs, as determined from an examination of representative scenarios and alternative strategies for coping with them.

**APPROACH AND OVERVIEW**

In Chapter Two, we describe a prudent and appropriate generic scenario for assessing the capabilities of U.S. forces in future theater conflicts. In Chapter Three, we digress briefly to describe two alternative, competing concepts for theater military operations that seem to be held currently by U.S. military professionals and defense planners. Chapter Four presents our approach to assessing the capabilities of joint forces to halt armored invasions, as well as the results from applying that approach to a series of different cases within our generic scenario. Chapter Five offers our views on investment priorities as informed by the scenario analysis. Finally, in Chapter Six we suggest the implications for the overall U.S. defense program, including which types of capabilities merit special attention and support and which types might be reduced.

The focus of this analysis is on forces and capabilities needed for large-scale power projection and theater warfare. This focus is appropriate even though U.S. forces are most often engaged in other activities, such as normal training, conducting routine operations abroad to project influence and stability, enforcing international norms on recalcitrant states, combating terrorism, protecting U.S. citizens and others overseas, and providing humanitarian assistance. Nevertheless, the ultimate purpose of U.S. forces—and the
one for which the bulk of the U.S. force structure is fielded—is to defend the United States and its interests against attack. North Korea, Iraq, Iran, Libya, and other states continue to espouse objectives antithetical to those of the United States and its allies, and these hostile states field military forces that are seen as threatening by neighboring states. In the future other, more powerful states might also adopt objectives and strategies fundamentally at odds with our own. In many cases, only the United States can provide the military power needed to prevent intimidation and deter aggression by adversary states.

The capability for large-scale power projection is what sets the U.S. military establishment apart from every other military in the world today. And it is that ability that allows the United States to credibly underwrite its treaty commitments. Sustaining the capability to defeat major aggression far from our own shores is therefore essential if the United States is to continue to play a leading role in shaping the international security environment. Hence, assessing U.S. forces in terms of their ability to defeat large-scale aggression is properly the main (albeit not the sole) focus of defense planning.