

Introduction

The United States maintains a military force primarily to protect the homeland from attack and to protect its interests abroad. Although there are secondary uses for the military—such as assisting civil authorities in times of emergency or deterring enemies—that amplify other elements of national power such as diplomacy or economic initiatives, America’s armed forces exist above all else so that the U.S. can physically impose its will on an enemy and change the conditions of a threatening situation by force or the threat of force.

Each year, The Heritage Foundation’s *Index of U.S. Military Strength* gauges the ability of the U.S. military to perform its missions in today’s world and how the condition of the military has changed from the preceding year.

The United States prefers to lead through “soft” elements of national power: diplomacy, economic incentives, and cultural exchanges. When soft approaches such as diplomacy work, that success often owes much to the knowledge of all involved that U.S. “hard power” stands ready, if silently, in the diplomatic background. Soft approaches cost less in manpower and treasure than military action costs and do not carry the same risk of damage and loss of life, but when confronted by physical threats to U.S. national security interests, soft power cannot substitute for raw military power. In fact, an absence of military power or the perception that one’s hard power is insufficient to protect one’s interests often invites challenges that soft power is ill-equipped to address. Thus, hard power and soft power are complementary and mutually reinforcing.

The continuing decline of America’s military hard power is thoroughly documented and

quantified in this report. More difficult to quantify, however, are the growing threats to the U.S. and its allies that are engendered by the perception of American weakness abroad and doubts about America’s resolve to act when its interests are threatened. The anecdotal evidence is consistent with direct conversations between Heritage scholars and high-level diplomatic and military officials from countries around the world: The perception of American weakness is destabilizing many parts of the world, prompting old friends to question their reliance on America’s assurances. For decades, the perception of American strength and resolve has served as a deterrent to adventurous bad actors and tyrannical dictators. Regrettably, both that perception and, as a consequence, its deterrent effect are eroding. The result is an increasingly dangerous world threatening a significantly weaker America.

It is therefore critical to understand the condition of the United States military with respect to America’s vital national security interests, the threats to those interests, and the context within which the U.S. might have to use hard power. It is likewise important to know how these three areas—operating environments, threats, and the posture of the U.S. military—change over time, given that such changes can have substantial implications for defense policies and investments.

In the opening paragraph of the U.S. Constitution, “We the People” stated that among their handful of purposes in establishing the Constitution was to “provide for the common defence.” The enumeration of limited powers for the federal government in the Constitution includes the powers of Congress “To declare

War,” “To raise and support Armies,” “To provide and maintain a Navy,” “To provide for calling forth the Militia,” and “To provide for organizing, arming, and disciplining, the Militia” and the power of the President as “Commander in Chief of the Army and Navy of the United States, and of the Militia of the several States, when called into the actual Service of the United States.” With such constitutional priority given to defense of the nation and its vital interests, one might expect the federal government to produce a standardized, consistent reference work on the state of the nation’s security. Yet no such single volume exists, especially in the public domain, to allow comparisons from year to year. Recently, the Department of Defense has moved to restrict reporting of force readiness even further. Thus, the American people and even the government itself are prevented from understanding whether investments made in defense are achieving their desired results.

What is needed is a publicly accessible reference document that uses a consistent, methodical, repeatable approach to assessing defense requirements and capabilities. The Heritage Foundation’s *Index of U.S. Military Strength*, an annual assessment of the state of America’s hard power, fills this void, addressing both the geographical and functional environments relevant to the United States’ vital national interests and threats that rise to a level that puts or has the strong potential to put those interests at risk.

Any assessment of the adequacy of military power requires two primary reference points: a clear statement of U.S. vital security interests and an objective requirement for the military’s capacity for operations that serve as a benchmark against which to measure current capacity. A review of relevant top-level national security documents issued by a long string of presidential Administrations makes clear that three interests are consistently stated:

- Defense of the homeland;
- Successful conclusion of a major war that has the potential to destabilize a region of critical interest to the U.S.; and

- Preservation of freedom of movement within the global commons: the sea, air, outer-space, and cyberspace domains through which the world conducts business.

Every President has recognized that one of the fundamental purposes of the U.S. military is to protect America from attack. While going to war has always been controversial, the decision to do so has been based consistently on the conclusion that one or more vital U.S. interests are at stake.

This *Index* embraces the “two-war requirement”—the ability to handle two major wars or two major regional contingencies (MRCs) successfully at the same time or in closely overlapping time frames—as the most compelling rationale for sizing U.S. military forces. In the *2015 Index*, Dr. Daniel Gouré provided a detailed defense of this approach in his essay, “Building the Right Military for a New Era: The Need for an Enduring Analytic Framework,” which is further elaborated upon in the military capabilities assessment section. The basic argument, however, is this: The nation should have the ability to engage and defeat one opponent and still have the ability to guard against competitor opportunism (i.e., to preclude someone’s exploiting the perceived opportunity to move against U.S. interests while America is engaged elsewhere).

The *Index* is descriptive, not prescriptive, reviewing the current condition of its subjects within the assessed year and describing how conditions have changed from the previous year, informed by the baseline condition established by the inaugural *2015 Index*. In short, the *Index* answers the question, “Have conditions improved or worsened during the assessed year?”

This study also assesses the U.S. military against the two-war benchmark and various metrics explained further in the military capabilities section. Importantly, this study measures the hard power needed to win conventional wars rather than the general utility of the military relative to the breadth of tasks it

might be (and usually is) assigned to advance U.S. interests short of war.

Assessing the World and the Need for Hard Power

The assessment portion of the *Index* is composed of three major sections that address the aforementioned areas of primary interest: America's military power, the operating environments within or through which it must operate, and threats to U.S. vital national interests. For each of these areas, this publication provides context, explaining why a given topic is addressed and how it relates to understanding the nature of America's hard-power requirements.

The authors of this study used a five-category scoring system that ranged from "very poor" to "excellent" or "very weak" to "very strong" as appropriate to each topic. This particular approach was selected as the best way to capture meaningful gradations while avoiding the appearance that a high level of precision was possible given the nature of the issues and the information that was publicly available.

Some factors are quantitative and lend themselves to discrete measurement; others are very qualitative in nature and can be assessed only through an informed understanding of the material that leads to an informed judgment call.

Purely quantitative measures alone tell only a part of the story when it comes to the relevance, utility, and effectiveness of hard power. Assessing military power or the nature of an operating environment using only quantitative metrics can lead to misinformed conclusions. For example, the mere existence of a large fleet of very modern tanks has little to do with the effectiveness of the armored force in actual battle if the employment concept is irrelevant to modern armored warfare. (Imagine, for example, a battle in rugged mountains.) Also, experience and demonstrated proficiency are often decisive factors in war—so much so that numerically smaller or qualitatively inferior but well-trained and experienced forces can defeat a larger or qualitatively superior adversary.

However digital and quantitative the world has become thanks to the explosion of advanced technologies, it is still very much a qualitative place, and judgment calls have to be made in the absence of certainty. We strive to be as objective and evenhanded as possible in our approach and transparent in our methodology and sources of information so that readers can understand why we came to the conclusions we reached and perhaps reach their own. The end result will be a more informed debate about what the United States needs in military capabilities to deal with the world as it is. A detailed discussion of scoring is provided in each assessment section.

In our assessment, we begin with the operating environment because it provides the geostrategic stage upon which the U.S. attends to its interests: the various states that would play significant roles in any regional contingency; the terrain that enables or restricts military operations; the infrastructure—ports, airfields, roads, and rail networks (or lack thereof)—on which U.S. forces would depend; and the types of linkages and relationships the U.S. has with a region and major actors within it that cause the U.S. to have interests in the area or that facilitate effective operations. Major actors within each region are identified, described, and assessed in terms of alliances, political stability, the presence of U.S. military forces and relationships, and the maturity of critical infrastructure.

Our assessment focuses on three key regions—Europe, the Middle East, and Asia—because of their importance relative to U.S. vital security interests. This does not mean that we view Latin America and Africa as unimportant. Rather, it means that the security challenges within these regions do not currently rise to the level of direct threats to America's vital security interests as we have defined them. We addressed their current condition in the *2015 Index* and will provide an updated assessment when it is warranted.

Next is a discussion of threats to U.S. vital interests. Here we identify the countries that pose the greatest current or potential threats

to U.S. vital interests based on two overarching factors: their behavior and their capability. We accept the classic definition of “threat” as a combination of intent and capability, but while capability has attributes that can be quantified, intent is difficult to measure. We concluded that “observed behavior” serves as a reasonable surrogate for intent because it is the clearest manifestation of intent.

We based our selection of threat countries and non-state actors on their historical behavior and explicit policies or formal statements vis-à-vis U.S. interests, scoring them in two areas: the degree of provocative behavior that they exhibited during the year and their ability to pose a credible threat to U.S. interests irrespective of intent. For example, a state full of bluster but with only a moderate ability to act accordingly poses a lesser threat, while a state that has great capabilities and a pattern of bellicose behavior opposed to U.S. interests still warrants attention even if it is relatively quiet in a given year.

Finally, we address the status of U.S. military power in three areas: capability (or modernity), capacity, and readiness. Do U.S. forces possess operational capabilities that are relevant to modern warfare? Can they defeat the military forces of an opposing country? Do they have a sufficient amount of such capabilities? Is the force sufficiently trained and its equipment materially ready to win in combat? All of these are fundamental to success even if they are not de facto determinants of success (something we explain further in the section). We also address the condition of the United States’ nuclear weapons capability, assessing it in areas that are unique to this military component and critical to understanding its real-world viability and effectiveness as a strategic deterrent.

Topical Essays

The *2018 Index* departs from the previous *Index* themes of strategic, regional, and functional topics to focus on the domains in and through which military operations are conducted. Nearly all discussions of military

power and the forces used to wield it focus on the forces themselves or the areas of competition between forces as evolving technologies are harnessed to gain advantage over an enemy. Seldom does one read about the domains themselves that shape the nature of employment and the characteristics of the forces used. The characteristics of the domains both facilitate and inhibit operations, impose constraints, and make demands on time, energy, firepower, cost, size, and durability associated with military actions.

Our authors take on the challenge of describing the various operating domains available to military forces—land, sea, air, space, and cyberspace—and how they inform the design of platforms, the size and endurance of forces, and expectations for how easily (or not) the U.S. military can accomplish objectives.

- Dr. James Jay Carafano leads off with “America’s Joint Force and the Domains of Warfare,” an overview of the concept of “jointness,” an idea much larger than U.S. forces simply acting in concert with each other. Per Dr. Carafano, “The future focus of jointness will be on ensuring that U.S. armed forces retain the ability to operate effectively in all domains in a theater...and to exploit the ability to use advantages in one domain to operate in another.”
- Dr. David E. Johnson, in “An Overview of Land Warfare,” notes that “the land domain has the greatest ability to create operational friction.” Land is not only where people live, but also where challenges to the conduct of war are most apparent. Land forces must contend directly with cities, forests, mountains, deserts, and the impact of weather. The physicality of the land domain makes operations hard, but once forces are established, dislodging them is quite difficult as well.
- The vastness of the oceans and the characteristics of water impose their own challenges on the projection of military

power via the seas. In “The Naval Warfare Domain,” Thomas Callender explores how the breadth, depth, salinity, and physical properties of the maritime domain affect naval forces and how they operate. Callender explains how the seas have their own “terrain” that provides cover and avenues through which to advance, much as land does for ground forces, while also imposing obstacles to rapid movement and sustained presence.

- Harry Foster provides a deeply informed primer on the complexities of air operations with “The Air Domain and the Challenges of Modern Air Warfare.” “*The speed possible in the air domain shrinks time*” and provides advantages in vantage, maneuverability, flexibility, and range but also imposes limitations on payload, persistence, and the ability to mask one’s actions in such a transparent medium. Foster provides the “why” for each of these and concludes with thoughts on the evolving nature of competition in this domain.
- In “Space 201: Thinking About the Space Domain,” Dean Cheng provides the basis for understanding how space can be leveraged to support the protection of national security interests and why it is so costly to do so. Space, arguably the harshest and most technically challenging of operating environments, is crucial to modern military operations. Cheng helps the reader understand why maintaining mastery of it, especially relative to competitors, is essential.
- Finally, Dr. G. Alexander Crowther tackles the always mentioned but consistently misunderstood world of cyber in “National Defense and the Cyber Domain.” Dr. Crowther outlines the players, roles, and infrastructure of the cyber domain but takes the discussion further in pointing out that “[h]umans are the weakest link in the cybersecurity system. Unlike the

physical world, in which potential human activity is limited by geographic and space limitations...[e]veryone who has a desktop, laptop, or smartphone is an actor and a potential problem.” He concludes by observing that “[a]lthough military leaders understand the importance of cyber and information, not all understand the scope of the opportunities and challenges that cyber provides.” This essay should help in that regard.

Scoring U.S. Military Strength Relative to Vital National Interests

The purpose of this *Index* is to make the national debate about defense capabilities better informed by assessing the ability of the U.S. military to defend against current threats to U.S. vital national interests within the context of the world as it is. Each of the elements can change from year to year: the stability of regions and access to them by America’s military forces; the various threats as they improve or lose capabilities and change their behavior; and the United States’ armed forces themselves as they adjust to evolving fiscal realities and attempt to balance readiness, capacity (size and quantity), and capability (how modern they are) in ways that enable them to carry out their assigned missions successfully.

Each region of the world has its own set of characteristics that include terrain; man-made infrastructure (roads, rail lines, ports, airfields, power grids, etc.); and states with which the United States has relationships. In each case, these traits combine to create an environment that is either favorable or problematic when it comes to U.S. forces operating against threats in the region.

Various states and nonstate actors within these regions possess the ability to threaten—and have consistently behaved in ways that threaten—America’s interests. Fortunately for the U.S., these major threat actors are currently few in number and continue to be confined to three regions—Europe, the Middle East, and Asia—thus enabling the U.S. (if it will do so) to focus its resources and efforts accordingly.

As for the condition of America's military services, they continue to be beset by aging equipment, shrinking numbers, rising costs, and problematic funding: four factors that have accelerated over the past year at a time when threats to U.S. interests continue to rise.

These four elements interact with each other in ways that are difficult to measure in concrete terms and impossible to forecast with any certainty. Nevertheless, the exercise of describing them and characterizing their general condition is worthwhile because it informs debates about defense policies and the allocation of resources that are necessary for the U.S. military to carry out its assigned duties. Further, as seen in this *2018 Index*, noting how conditions have changed from the preceding year helps to shed light on the effect that policies, decisions, and actions have on security affairs involving the interests of the United States, its allies and friends, and its enemies.

It should be borne in mind that each annual *Index* assesses conditions as they are for the assessed year. This *2018 Index of U.S. Military Strength* describes changes that occurred during the preceding year, with updates current as of mid-September 2017.

Assessments for U.S. Military Power, Global Operating Environment, and Threats to Vital U.S. Interests are shown in the Executive Summary. Factors that would push things toward "bad" (the left side of the scales) tend to move more quickly than those that improve one's situation, especially when it comes to the material condition of the U.S. military.

Of the three areas measured—U.S. Military Power, Global Operating Environment, and

Threats to Vital U.S. Interests—the U.S. can directly control only one: its own military. The condition of the U.S. military can influence the other two because a weakened America arguably emboldens challenges to its interests and loses potential allies, while a militarily strong America deters opportunism and draws partners to its side from across the globe.

Conclusion

During the decades since the end of the Second World War, the United States has underwritten and taken the lead in maintaining a global order that has benefited more people in more ways than at any other period in history. Now, however, that American-led order is under stress, and some have wondered whether it will break apart entirely. Fiscal and economic burdens continue to plague nations; violent, extremist ideologies threaten the stability of entire regions; state and nonstate opportunists seek to exploit upheavals; and major states compete to establish dominant positions in their respective regions.

America's leadership role remains in question, and its security interests are under significant pressure. Challenges are growing, old allies are not what they once were, and the U.S. is increasingly bedeviled by debt that constrains its ability to sustain its forces commensurate with its interests.

Informed deliberations on the status of the United States' military power are therefore desperately needed. This *Index of U.S. Military Strength* can help to inform the debate.