

Introduction

The United States maintains a military force primarily to protect the homeland from attack and to protect its interests abroad. Other uses, of course—assisting civil authorities in times of emergency, for example, and maintaining the perception of combat effectiveness to deter enemies—amplify other elements of national power such as diplomacy or economic initiatives, but 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.

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 assesses how the condition of the military has changed during the preceding year. The *Index* is not meant either to predict what the U.S. military might be able to do in the future or to accord it efficacy today based on the promise of new technologies that are in development rather than fielded and proven in use. It is a report to American citizens on the status of the military that they join, that they support, and on which they depend.

The United States prefers to lead through “soft” elements of national power—diplomacy, economic incentives, and cultural exchanges—but soft power cannot substitute for raw military power. When soft approaches like diplomacy work, their success often owes much to the knowledge of all involved that U.S. “hard power” stands ready, however 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 the United States is confronted by physical threats to its national security interests, it is the hard power of its military that carries the day. In fact, the absence of military power or the perception that one’s hard power is insufficient to protect one’s interests will frequently—and predictably—invite challenges that soft power is ill-equipped to address. Thus, hard power and soft power are complementary and mutually reinforcing.

The decline of America’s military hard power, historically shown to be critical to defending against major military powers and to sustaining operations over time against lesser powers or in multiple instances simultaneously, is thoroughly documented and quantified in this *Index*. It is harder to quantify 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 aging and shrinking of America’s military forces, their reduced presence in key regions since the end of the Cold War, and various distractions created by America’s domestic debates have created a perception of American weakness that contributes to destabilization in many parts of the world and prompts old friends to question their reliance on America’s assurances. For decades, the perception of American strength and resolve has helped to deter adventurous bad actors and tyrannical dictators.

Regrettably, both that perception and, as a consequence, its deterrent effect are eroding.

Recognition of this problem is growing in the U.S. and was forcefully addressed in the 2018 National Defense Strategy (NDS), which called for a renewal of America’s military power. However, spending on defense must be commensurate with the interests that the defense establishment is called upon to protect, and there continues to be a significant—even growing—gap between the two. Meanwhile, America’s allies continue to underinvest in their military forces, and the United States’ chief competitors are hard at work improving their own. The result is an increasingly dangerous world threatening a weaker America.

This can seem odd to many observers because U.S. forces have dominated the battlefield in tactical engagements with enemy forces over the past 30 years. Not surprisingly, the forces built to battle those of the Soviet Union have handily defeated the forces of Third World dictators and terrorist organizations. These military successes, however, are quite different from lasting political successes and have masked the deteriorating condition of America’s military, which has been able to undertake such operations only by “cashing in” on investments made in the 1980s and 1990s. Unseen by the American public, our military readiness has been consumed at a rate that has not been matched by corresponding investments in replacements for the equipment, resources, and capacity used up since September 11, 2001.

It is therefore critical that we 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.

The U.S. Constitution opens with a beautiful passage in which “We the People” state

that among their handful of purposes in establishing the Constitution was to “provide for the common defence.” The Constitution’s enumeration of limited powers for the federal government 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 in defense are achieving their desired results.

What is needed is a publicly accessible reference document that uses a consistent, methodical, and 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 that are relevant to the United States’ vital national interests and the 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 serves as a benchmark against which to measure current capacity. Top-level national security documents issued by a long string of presidential Administrations have consistently made clear

that three interests are central to any assessment of national military power:

- 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 nations of the world conduct their business.

Every President has recognized that protecting America from attack is one of the U.S. military's fundamental reasons for being. Going to war has always been controversial, but 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 requirement for the U.S. military to be able 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. The basic argument is this: The nation should have the ability to engage and defeat one opponent and still have the ability to guard against competitor opportunism: that is, to prevent someone from exploiting the perceived opportunity to move against U.S. interests while America is engaged elsewhere.

The *Index* is descriptive, not prescriptive: It reviews the current condition of its subjects within the assessed year and describes how conditions have changed during 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 that are explained further in the military capabilities section. Importantly, the

Index 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 in order to advance U.S. interests short of war.

The authors acknowledge that advances in technology bring new capabilities into the military. New tools, platforms, and weapons tend to prompt some observers to assume that older capabilities can easily be replaced with new ones, often in reduced numbers, or that the current force will be transformed in ways that make it decisively better than an opponent's. Typically missing in the most optimistic assessments of what the military might then be able to do is a corresponding recognition that competitors quickly adopt similar technological advances in their own militaries or that the new capability might not be as effective as believed during its development.

The historical record of war shows repeatedly that new technologies convey temporary advantages: The force that wins is usually the one that is best able to sustain operations over time, replace combat losses with fresh forces and equipment, and use its capabilities in novel ways that account for the enemy, terrain, time, and achievable objectives. This reality has led the authors to return consistently to an appreciation for force capacity, the modernity of its capabilities, and the readiness of its forces for close combat with an equally capable and competent enemy. Consequently, this *Index* continues to emphasize the importance of the two-war force sizing benchmark and the necessity of ensuring that the current force is ready for war and materially capable of winning in hard combat.

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: the operating environments within or through which America's military must be employed, threats to U.S. vital national interests, and the U.S. military services themselves. For each of

these areas, the *Index* 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 ranges from "very poor" to "excellent" or "very weak" to "very strong" as appropriate to each topic. This 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.

By themselves, purely quantitative measures tell only part of the story when it comes to the relevance, utility, and effectiveness of hard power. Using only quantitative metrics to assess military power or the nature of an operating environment 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 so decisive in war that numerically smaller or qualitatively inferior but well-trained and experienced forces can defeat a larger or qualitatively superior adversary that is inept or poorly led.

The world is still very much a qualitative place, however digital and quantitative it has become thanks to the explosion of advanced technologies, 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 as transparent as possible in our methodology and sources of information so that readers can understand why we reached the conclusions we reached—and perhaps reach their own as well. The result will be a more

informed debate about what the United States needs in terms of 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 its linkages and relationships 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, economic, and diplomatic interests. This does *not* mean that we view Latin America and Africa as unimportant. It means only that the security challenges within these regions do not currently rise to the level of direct threats to America's vital interests as we have defined them. We addressed their condition in the *2015 Index* and will provide updated assessments when circumstances make such reassessments necessary.

Next is a discussion of threats to U.S. vital interests. Here we identify the countries and non-state actors that pose the greatest current or potential threats to U.S. vital interests based on two overarching factors: behavior and 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 regardless of intent. For example, a state full of bluster but with only a moderate ability to act accordingly poses a lesser threat, and a state that has great capabilities and a pattern of bellicose behavior that is opposed to U.S. interests still warrants attention even if it is relatively quiet in a given year. The combination of behavior and ability to pose a credible threat eliminates most smaller terrorist, insurgent, and criminal groups and many problematic states because they do not have the ability to challenge America's vital national interests.

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 to win in combat, and is its equipment materially ready?

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, and provide a descriptive overview of current U.S. missile defense capabilities and challenges.

The *Index* provides our first assessment of the U.S. Space Force, the newest of the military services, noting its success in consolidating the

space-specific resources and missions of the other services without any decrement in support to the force. We continue to defer assessing U.S. cyber capabilities. There are no viable metrics at this point by which to measure the capacity, capability, or readiness of U.S. Cyber Command, its constituent service components, and elements of the government that contribute to activities in the cyber domain, and it is not yet clear how one would assess its role in contributing to "hard combat power," which is the focus of this publication.

Topical Essays

Since January 2018, when then-Secretary of Defense James N. Mattis released the 2018 NDS, the military establishment has focused its efforts on the NDS's major theme: a return to great-power competition. Secretary Mattis noted that a quarter of a century after the Soviet Union had collapsed and 17 years after the terrorist attacks of September 11, 2001, world events had brought the United States back into direct, long-term competition with major powers—China and Russia in particular.

Unfortunately, spending on the military has not kept pace with inflation, much less the increased rates above inflation that Secretary Mattis, among others, have said are needed to rebuild U.S. forces exhausted by (now) 20 years of continuous operations so that they might be ready for the next major conflict. When queried about the potential effect of less-than-desired levels of funding, military officials will often say that the military will have to operate at increased risk, but few attempt to define exactly what risk means in the context of great-power competition or America's ability to defend its interests.

This question provides the theme for the essays in this edition of the *Index*. Our essayists address risk within the context of great-power competition and its implications for the United States from various perspectives.

- The U.S. military must always balance demands that compete for resources and attention as it assesses how much it needs

in forces, as well as what types of forces it needs, to deal with current challenges while also looking ahead to future challenges. It must also account for how the use of the forces it has today affects what it will have tomorrow. Lieutenant General David A. Deptula, USAF (Ret.), addresses how we should understand risk in this context in “Managing Risk in Force Planning.”

- Dr. Sarah Kirchberger shoulders the task of addressing risk as it relates to the challenge of dealing with China, the most profound, multifaceted, and capable competitor the U.S. has faced since the Soviet Union. In “Understanding Risk in the Great Competition with China,” she illuminates how China’s behavior, capabilities, investments, and intentions frame risk as a factor in U.S. defense planning.
- In “What We Risk If We Fail to Fully Modernize the U.S. Nuclear Deterrent,” Rebecca L. Heinrichs explains how U.S. investment—or lack of investment—in the nuclear enterprise strengthens or weakens America’s interests in non-proliferation and deterrence, as well as allies’ and competitors’ perceptions of U.S. capabilities.
- Finally, concerns about changes in the Earth’s climate have been raised for decades, but the topic and its implications for national security, especially as it relates to the U.S. military, have received increased attention over the past 20 years or so. Dr. Rebecca Grant, in “How Prioritizing Climate Change Could Weaken America’s Military,” looks into the nature of the debate and the effect it has on the military through the lens of risk: what risks the country may be running if it expects the military to do specific things related to a changing climate but does not account for this in funding and proper equipping and fails to appreciate the

degree to which such a course of action might affect the ability of the military to prepare for war.

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 U.S. military’s ability 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 factors combine to create an environment that is either favorable or problematic when it comes to the ability of U.S. forces to operate against threats in the region.

Various states and non-state actors within these regions possess the ability to threaten—and have consistently behaved in ways that do threaten—America’s interests. Fortunately for the U.S., these major threat actors are 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 are still beset by aging equipment, shrinking numbers, rising costs, and problematic funding (which make their improvements in current readiness quite remarkable achievements). These four elements interact 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 if the U.S. military is to carry out its assigned duties. Further, as seen in this *2022 Index*, noting how conditions have changed during the preceding year helps to shed light on the effects that policies, decisions, and actions have on security affairs that involve 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 *2022 Index of U.S. Military Strength* describes changes that occurred during the preceding year, with updates current as of early September 2021.

Assessments for global operating environment, threats to vital U.S. interests, and U.S. military power are shown in the Executive Summary. Factors that would push things toward “bad” (the left side of the scale) 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—global operating environment, threats to vital U.S. interests, and U.S. military power—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 as fiscal and economic burdens (exacerbated by the costs incurred in dealing with the COVID-19 pandemic) continue to plague nations, violent extremist ideologies threaten the stability of entire regions, state and non-state 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 continue to grow, long-standing allies are not what they once were, and the U.S. is increasingly bedeviled by debt and domestic discord that constrain its ability to sustain its forces at a level commensurate with its interests.

Informed deliberations on the status of America’s military power are therefore desperately needed. It is our hope that this *Index of U.S. Military Strength* will help to facilitate those deliberations.