Introduction

The United States maintains a military force primarily to protect the homeland from attack and to protect its interests abroad. There are obvious secondary uses—assisting civil authorities in times of emergency, for example, and maintaining the perception of combat effectiveness to deter enemies—that 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 United States prefers to lead through "soft" elements of national power-diplomacy, economic incentives, and cultural exchangesbut 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 confronted by physical threats to U.S. national security interests, it is the hard power of the U.S. 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 perception of American weakness-in the aging and shrinking of America's military forces and in their reduced presence in key regions since the end of the Cold War-is contributing to destabilization in many parts of the world and prompting 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 the defense establishment is called upon to protect, and there continues to be a significant 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 significantly weaker America.

This can seem odd to many observers because U.S. forces have dominated on 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 the 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 sufficient to replace 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 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 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. 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 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, reviewing the current condition of its subjects within the assessed year and describing 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 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.

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 fivecategory 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. 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 so decisive in war that numerically smaller or qualitatively inferior but welltrained and experienced forces can defeat a larger or qualitatively superior adversary.

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 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. It means only 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 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 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 irrespective 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 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 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, and provide a descriptive overview of current U.S. ballistic missile defense capabilities and challenges. The *Index* does not assess the U.S. Space Force, the newest of the military services. There are no viable metrics at this point by which to measure the service's capacity, capability, or readiness, and it is not yet clear how one would assess the Space Force's role in measuring "hard combat power," 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.

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

Lieutenant General Sean B. MacFarland, U.S. Army (Ret.), writes about the war-winning importance of "Joint Force Experimentation for Great-Power Competition." Each of the services is developing new concepts for how to use military power in an evolving multi-actor world in which threats advance rapidly as new technologies such as artificial intelligence, robotics, cyber, hypervelocity platforms, and information sharing are harnessed to improve weapons, defenses, and sensors. While each service is focused on its own efforts and readily acknowledges that it will need the support of and be able to contribute to the efforts of the other services, the level of Joint Force experimentation is less than it was in previous decades. In his essay, General MacFarland explores the status of Joint Force experimentation and its implications for combat effectiveness in current and projected combat environments.

- Before World War II, the U.S. was already emerging as a major industrial power and had the luxury of expanding its capacity for war before it actually entered the war. The end of the Cold War a half-century later led to a dramatic contraction of America's defense industrial base, with just a few major companies producing every major platform and weapon system. If war were to occur with one or more major competitors, what challenges would need to be overcome to expand industrial capacity to meet war demands? What risks does the U.S. currently run in this regard, and how might this influence national security policies? Dr. John "Jerry" Mc-Ginn answers these questions in "Building Resilience: Mobilizing the Defense Industrial Base in an Era of Great-Power Competition."
- In "Strategic Mobility: The Essential Enabler of Military Operations in Great-Power Competition," John Fasching describes the strategic advantage the U.S. has had over all other competitors in its ability to move forces, equipment, and supplies great distances and to sustain operations over time with critical logistics lines that span continents and oceans. But as the overall size of the Joint Force has declined since the end of the Cold War, so too has the mobility community, and all of the major platforms essential to strategic lift have aged rapidly. This essay looks at the status of strategic mobility across the Joint Force, how it compares to historical use, and what this portends for the ability of the U.S. military to respond to potential future conflict.
- David R. Shedd takes a hard look at "The Intelligence Posture America Needs in an Age of Great-Power Competition." During the Cold War, the U.S. intelligence

community (IC) developed a sophisticated, deeply immersed community of Sovietologists who worked for decades to understand the nature, motivations, and intent of America's chief competitor. This body of expertise was disestablished following the collapse of the USSR. Since September 11, 2001, the IC has focused on terrorist and other non-state actors and has struggled to reprise the equivalent of its old expertise and apply it to a greater number of state actors: China, Russia, Iran, and North Korea. What are the implications of a return to great-power competition that now includes several major state threats?

Arguably, much of the success of America's military operations hinges on the support and contributions provided by allies and partners. American forces must have access to foreign-controlled ports, bases, and airfields, and the political support of allies can be indispensable. But what if the actual ability to provide credible military support is lacking? Dr. Andrew A. Michta addresses all of this in "U.S. Alliances: Crucial Enablers in Great-Power Competition."

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.

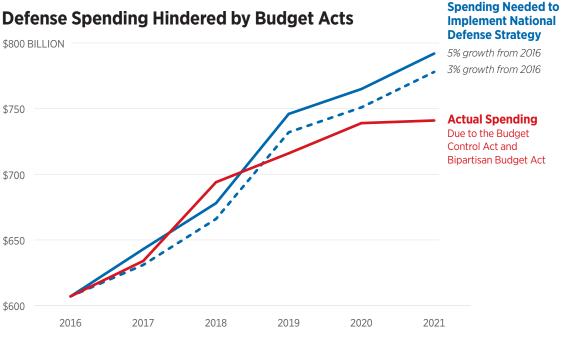
Each region of the world has its own set of characteristics that include terrain; man-made infrastructure (roads, rail lines, ports, airfields, power grids, etc.); and states with which the United States has relationships. In each case, these factors combine to create an environment that is either favorable 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 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 continue to be 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 2021 Index, noting how conditions have changed during the preceding year helps to shed light on the effect 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 *2021 Index of U.S. Military Strength* describes changes that occurred during the preceding year, with updates current as of mid-September 2020.

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



SOURCE: Frederico Bartels (ed.), "How the 2021 National Defense Authorization Act and the Defense Appropriations Act Can Prepare the U.S. for Great Power Competition," March 23, 2020, Heritage Foundation *Special Report* No. 222, https://www.heritage.org/defense/report/how-the-2021-national-defense-authorization-act-and-the-defense-appropriations-act.

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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 that constrains its ability to sustain its forces 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.