

# U.S. Army

The U.S. Army is America's primary land warfare component. Although it addresses all types of operations across the range of ground force employment, its chief value to the nation is its ability to defeat and destroy enemy land forces in battle.

Like the other services, the U.S. Army has been required "to take risk when meeting current operational requirements while maintaining a ready force for major combat operations."<sup>1</sup> Fiscal challenges have strained the Army's ability to meet the national security requirements outlined in the Defense Planning Guidance as it works to balance readiness, modernization, and end strength.

Army leaders have testified that Congress "stopped the bleeding" by including additional Army end strength in the 2017 National Defense Authorization Act (NDAA) and through supplemental funding in response to a May 2017 "Request for Additional Appropriations,"<sup>2</sup> but significant issues of size, readiness, modernization, and operational tempo still remain unaddressed. Chief of Staff General Mark Milley has testified that the Army is too small to accomplish the missions outlined in the National Security Strategy and Defense Planning Guidance, that "modernization has been sacrificed for current operations," and that only one-third of the Army's brigade combat teams (BCTs) are at an acceptable state of readiness.<sup>3</sup> Acting Secretary of the Army Robert M. Speer has testified that the Army's "pace of operations is as high as it has been in the past 16 years" despite ostensible reductions in troop deployments to Iraq and Afghanistan.<sup>4</sup>

In fiscal year (FY) 2017, the Army's active-duty end strength was 476,000, down from a height of 566,000 in FY 2011.<sup>5</sup> The Obama Administration had planned to cut active Army end strength even further to as low as 450,000 by 2018.<sup>6</sup> Although the Bipartisan Budget Act of 2015 provided a brief period of stability for the Department of Defense (DOD), current funding levels continue to force the Army to prioritize readiness. The trade-offs in that decision were "a smaller Army, smaller investments in modernization, and deferring installation maintenance. The principal negative impacts of these trade-offs have been stress on the force, eroded competitive advantage, and deteriorating installations."<sup>7</sup> Army leaders have testified that if Budget Control Act-mandated budget caps return in FY 2018, the result will be a "hollow Army."<sup>8</sup>

Operationally, the Army has approximately 186,000 soldiers forward stationed across 140 countries.<sup>9</sup> This is very similar to last year's level of 190,000, reinforcing the point that the Army continues to experience a historically high level of operational tempo,<sup>10</sup> but does not include a probable increase of as many as 3,900 soldiers in the number of U.S. forces in Afghanistan that is reportedly near approval by the Trump Administration.<sup>11</sup> Of the total number of U.S. forces deployed globally, "[t]he Army currently provides 48% of planned forces committed to global operations and over 70% of forces for emerging demands from Combatant Commanders," highlighting the key role that the Army plays in the nation's defense.<sup>12</sup>

## Capacity

The 2017 NDAA increased Army authorized end strength to 1,018,000 soldiers: 476,000 Active soldiers, 199,000 in the Army Reserve, and 343,000 in the Army National Guard, reversing years of reductions.<sup>13</sup> Because the outgoing Obama Administration had not requested this funding, additional funding was requested by the Trump Administration and provided in the May 2017 supplemental funding package.<sup>14</sup> As noted, General Milley has testified that the Army is too small for the missions it has been assigned. He believes that the Active Army should number between 540,000 and 550,000, the Army National Guard from 350,000 to 355,000, and the Army Reserve between 205,000 and 209,000.<sup>15</sup>

The Army normally refers to its size in terms of brigade combat teams. BCTs are the basic “building blocks” for employment of Army combat forces. They are usually employed within a larger framework of U.S. land operations but are sufficiently equipped and organized so that they can conduct independent operations as circumstances demand.<sup>16</sup> A BCT averages 4,500 soldiers depending on its variant: Stryker, Armored, or Infantry. A Stryker BCT is a mechanized infantry force organized around the Stryker ground combat vehicle (GCV). Armored BCTs are the Army’s principal armored units and employ the Abrams main battle tank and the M2 Bradley fighting vehicle. An Infantry BCT is a highly maneuverable motorized unit. Variants of the Infantry BCT are the Airmobile BCT (optimized for helicopter assault) and the Airborne BCT (optimized for parachute forcible entry operations).

The Army also has a separate air component organized into combat aviation brigades (CABs), which can operate independently.<sup>17</sup> CABs are made up of Army rotorcraft, such as the AH-64 Apache, and perform various roles including attack, reconnaissance, and lift.

CABs and Stryker, Infantry, and Armored BCTs make up the Army’s main combat force, but they do not make up the entirety of the Army. About 90,000 troops form the

Institutional Army and provide such forms of support as preparing and training troops for deployments, carrying out key logistics tasks, and overseeing military schools and Army educational institutions. The troops constituting the Institutional Army cannot be reduced at the same ratio as BCTs or CABs, and the Army endeavors to insulate these soldiers from drawdown and restructuring proposals in order to “retain a slightly more senior force in the Active Army to allow growth if needed.”<sup>18</sup> In addition to the Institutional Army, a great number of functional or multifunctional support brigades (amounting to approximately 13 percent of the active component force based on historical averages<sup>19</sup>) provide air defense, engineering, explosive ordnance disposal (EOD), chemical/biological/radiological and nuclear protection, military police, military intelligence, and medical support among other types of battlefield support for BCTs.

While end strength is a valuable metric in understanding Army capacity, the number of BCTs is a more telling measure of actual hard-power capacity. In preparation for the reduction of its end strength to 460,000, the planned level for FY 2017,<sup>20</sup> the Active Army underwent brigade restructuring that decreased the number of BCTs from 38 to 31. When Congress reversed that reduction in end strength and authorized an active-duty level of 476,000 for 2017, instead of “re-growing” BCTs, the Army chose primarily to “thicken” the force and is raising the manning levels within the individual BCTs and thereby increasing readiness.<sup>21</sup>

The 2015 NDAA established the National Commission on the Future of the Army to conduct a comprehensive study of Army structure. To meet the threat posed by a resurgent Russia and others, the commission recommended that the Army increase its numbers of Armored BCTs.<sup>22</sup> The FY 2018 budget will support the conversion of one Infantry BCT into an Armored BCT, marking the creation of the Army’s 15th Armored BCT.<sup>23</sup>

In 2017, in a major initiative personally shepherded by General Milley, the Army established the first of a planned six Security Force

Assistance Brigades (SFABs). These units, composed of about 530 personnel each, are designed specifically to train, advise, and mentor other partner nation military units. The Army had been using regular BCTs for this mission, but because train and assist missions typically require senior officers and noncommissioned officers, a BCT comprised predominantly of junior soldiers is a poor fit. The Army envisions that these SFABs will be able to reduce the stress on the service.<sup>24</sup> It plans to activate two SFABs in 2017, but further activations are on hold until final decisions on long-term Army end strength are made.<sup>25</sup>

Army aviation units also have been reduced in number. In May 2015, the Army deactivated one of its 12 Combat Aviation Brigades (though retaining a headquarters element),<sup>26</sup> leaving only 11 CABs in the active component.<sup>27</sup> This left U.S. Army Europe without a forward stationed CAB, forcing the Army to rely on rotational forces from the United States.

The reductions in end strength since 2011 have had a disproportionate effect on BCTs. The Active Army has been downsized from 45 BCTs (552,100 soldiers) in FY 2013 to 31 BCTs (476,000 soldiers) in FY 2017.<sup>28</sup> Put another way, a 14 percent reduction in troop numbers has resulted in a 31 percent reduction in BCTs.

In addition to the increased strategic risk, the result of fewer BCTs and a reduced Army end strength, combined with an undiminished daily global demand, has been a corresponding increase in operational tempo (OPTEMPO). The Army also uses the term “dwell time” to refer to the time soldiers and units are back at their home stations between deployments. The chief personnel officer for the Army has described the current situation:

[M]any thought the dwell time had gone down because the troop levels have reduced in Afghanistan and Iraq, and that’s really not the case. You know we’re rotating forces right now into Korea. We’re rotating forces into Kuwait. We’re rotating forces into Europe along with Iraq and Afghanistan. So, the dwell time has not come down.<sup>29</sup>

As part of these rotations, the Army has begun to rotate Armored BCTs to Europe on a “heel-to-toe” basis, using the funding provided in the European Reassurance Initiative (ERI). The first of these rotational BCTs, the 3rd BCT of the 4th Infantry Division, arrived in January 2017 and is engaged in a series of exercises with NATO allies.<sup>30</sup>

To capture operational tempo, the Army uses a ratio referred to as “BOG/Dwell,” which is the ratio of Boots on the Ground (BOG, or deployed) to Dwell (time back at home station). As of May 2017, Army BOG/Dwell rates were extraordinarily high.<sup>31</sup> For example, a 1:1 ratio for Division Headquarters means that for every year that Army division headquarters are deployed, they are at home station for a year. Primarily because of the stress on soldiers, these ratios are unsustainable.

## Capability

The Army’s main combat platforms are ground vehicles and rotorcraft. The upgraded M1A2 (M1A2SEP v.3) Abrams and M2/M3 Bradley vehicles are used primarily in active component Armored BCTs, while Army National Guard ABCTs still rely on variants.<sup>32</sup> Stryker BCTs are equipped with Stryker vehicles. In response to an Operational Needs Statement, Stryker vehicles in Europe are being fitted with a 30mm cannon to provide an improved anti-armor capability. Fielding will begin in 2018.<sup>33</sup> Infantry BCTs have fewer platforms and rely on lighter platforms such as trucks and High Mobility Multipurpose Wheeled Vehicles (HMMWVs) for mobility. CABs are composed of Army helicopters including AH-64 Apaches, UH-60 Black Hawks, and CH-47 Chinooks.

Overall, the Army’s equipment inventory, while increasingly dated, is well maintained. Some equipment has been worn down by usage in Afghanistan and Iraq, but the Army has undertaken a “reset” initiative that is discussed below in the readiness section. Most Army vehicles are relatively “young” because of recent remanufacture programs for the Abrams and Bradley that have extended the service life of

both vehicles beyond FY 2028.<sup>34</sup> While the current equipment is well maintained, however, “Army leadership notes for the first time since World War I, that the Army does not have a new ground combat vehicle under development and ‘at current funding levels, the Bradley and Abrams will remain in the inventory for 50 to 70 more years.’”<sup>35</sup>

The Army has been methodically replacing the oldest variants of its rotorcraft and upgrading others that still have plenty of airframe service life. Today, the UH-60M, which is a newer version of the UH-60A, makes up approximately two-thirds of the total UH-60 inventory. Similarly, the CH-47F Chinook, a rebuilt variant of the Army’s CH-47D heavy lift helicopter, is expected to extend the platform’s service life at least through 2038.<sup>36</sup> However, at \$3.1 billion, the 2018 budget request for aircraft procurement for Apache, Blackhawk, and Chinook helicopters stands at \$1.3 billion less than the FY 2017 President’s budget.<sup>37</sup> The proposed 2018 budget will further delay complete modernization of the Apache and Black Hawk fleets, respectively, from 2026 to 2028 and from 2028 to 2030.<sup>38</sup>

In addition to the viability of today’s equipment, the military must ensure the health of future programs. Although future modernizing programs are not current hard-power capabilities that can be applied against an enemy force today, they are a significant indicator of a service’s overall fitness for sustained combat operations. The service may be able to engage an enemy but be forced to do so with aging equipment and no program in place to maintain viability or endurance in sustained operations.

The U.S. military services are continually assessing how best to stay a step ahead of competitors: whether to modernize the force today with currently available technology or wait to see what investments in research and development produce years down the road. Technologies mature and proliferate, becoming more accessible to a wider array of actors over time.

The Army is currently undertaking several modernization programs to improve its

ground combat vehicles and current rotorcraft fleet. However, cuts in research and development, acquisition, and procurement accounts because of budget reductions levied in previous years have significantly affected these efforts. As the Vice Chief of Staff of the Army recently testified, the modernization budget is “50 percent of what it was in 2009. In FY ’17 it’s \$24.8 billion, it was \$45.5 billion in 2009.”<sup>39</sup> Summarizing the impact of these reductions at a November 2016 conference, Major General Eric Wesley, Commanding General, U.S. Army Maneuver Center of Excellence repeated an assessment that “of 10 major capabilities that we use for warfighting, by the year 2030, Russia will have exceeded our capacity in six, will have parity in three, and the United States will dominate in one.”<sup>40</sup>

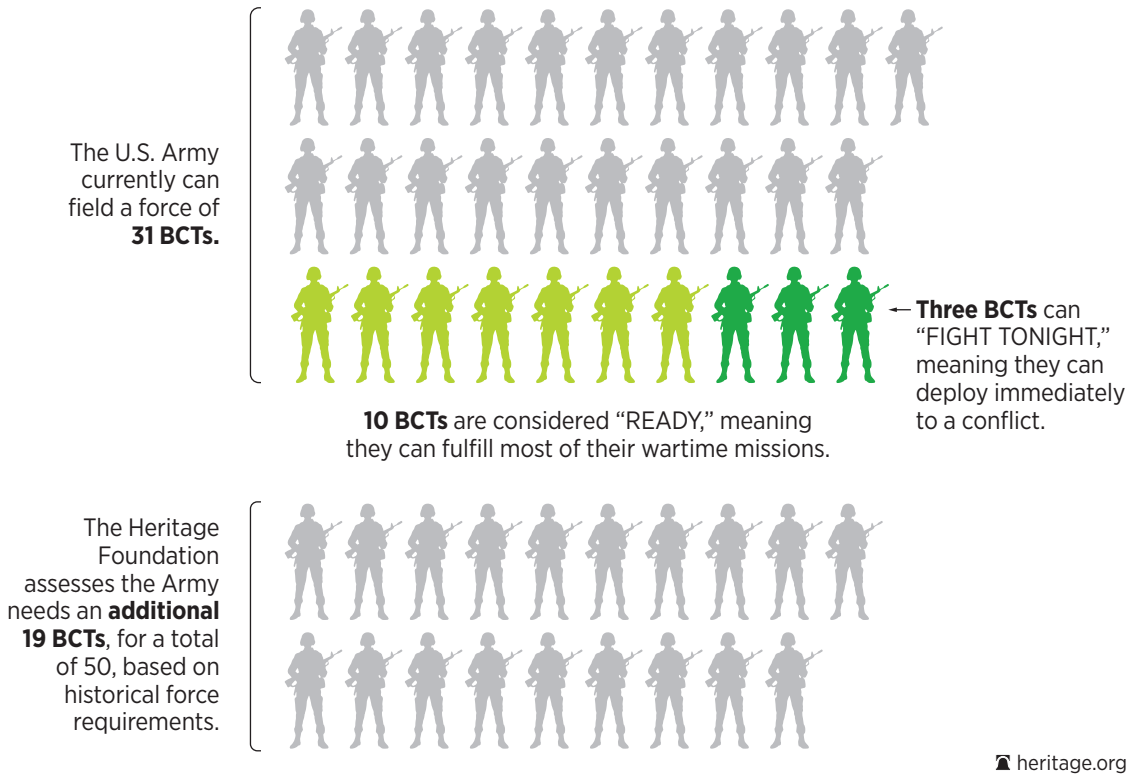
Army leaders have testified that they have “deferred many modernization investments which allowed our competitors to gain advantages in such areas as fires, air and missile defense, and armor.”<sup>41</sup> As the Acting Secretary of the Army warned in June 2017, “a consequence of underfunding modernization for over a decade is *an Army potentially outgunned, outranged, and outdated* on a future battlefield with near-peer competitors.”<sup>42</sup>

The anemic nature of the Army’s modernization program is illustrated by the fact that its highest-profile joint service Major Defense Acquisition Program (MDAP) is a *truck* program, the Joint Light Tactical Vehicle (JLTV). Intended to combine the protection offered by Mine Resistant Ambush Protected Vehicles (MRAPs) with the mobility of the original unarmored HMMWV, the JLTV is a follow-on to the HMMWV (also known as the Humvee) and features design improvements that will increase its survivability against anti-armor weapons and improvised explosive devices (IEDs). The Army plans to procure 49,099 vehicles over the life of the program, replacing only a portion of the current HMMWV fleet. The program is heavily focused on vehicle survivability and is not intended as a one-for-one replacement of the HMMWV. In fact, the JLTV is intended to take on high-risk missions traditionally tasked

FIGURE 6

## Army Readiness: Brigade Combat Teams

In 2012, the Army fielded 45 active component Brigade Combat Teams (BCTs). Due to budget cuts, that number has been reduced to 31.



to the HMMWV, to include scouting and troop transport in adverse environments, guerrilla ambushes, and artillery bombardment.

Several issues, including changed requirements and some technical obstacles in the early development phases, delayed the JLTV program from its originally intended schedule by about one year. FY 2018 Base Procurement of \$804.4 million supports 2,110 JLTVs of various configurations to fulfill the requirements of multiple mission roles and minimize ownership costs for the Army’s Light Tactical Vehicle fleet.<sup>43</sup>

Other Army MDAPs of note in FY 2018 include the M1A2 Abrams Equipment Change Program (ECP); M2 Bradley modifications; M109A6 Paladin 155mm Howitzers (Paladin Integrated Management); and munitions

including Guided Multiple Launcher Rocket System (GMLRS) and Hellfire missiles.<sup>44</sup>

The M1A2 is currently being enhanced with Vehicle Health Management and Power Train Improvement and Integration Optimization to upgrade the tank’s reliability, durability, and fuel efficiency so that it can provide ground forces with superior battlefield firepower.<sup>45</sup> Similarly, the M109A6 is being outfitted with the Paladin Integrated Management (PIM) program, which consists of a new drivetrain and suspension components, to sustain the platform’s utility in combat through 2050.<sup>46</sup>

The Armored Multi-Purpose Vehicle (AMPV), the program to replace the Army’s 1960s-vintage M113 Armored Personnel Carrier, is a new start in FY 2018. The AMPV will

have five mission modules: General Purpose, Medical Treatment, Medical Evacuation, Mortar Carrier, and Mission Command. FY 2018 Base Procurement dollars of \$193.715 million will procure 42 AMPVs. This represents the first year of Low Rate Initial Production (LRIP). The Army acquisition objective for AMPVs is 2,897 vehicles.<sup>47</sup>

Significantly, the Army's rotorcraft modernization programs do not include any new platform designs. Instead, the Army is upgrading current rotorcraft to account for more advanced systems.

The Army's main modernization programs are not currently encumbered by any major problems, but there is justifiable concern about the lack of new development programs underway. In the words of an Army Deputy Chief of Staff, because of 15 years of sustained combat operations and limited resources, we have "forfeited the modernization of our weapons systems."<sup>48</sup>

## Readiness

The combined effects of the Budget Control Act of 2011, an unrelenting global demand for forces, and reductions in end strength have caused Army readiness to decline to the point where only one-third of Army BCTs are now considered "ready" and only three are ready to "fight tonight."<sup>49</sup> The Chief of Staff of the Army recently testified that they "have much, much more work to do to achieve full-spectrum readiness and modernization."<sup>50</sup>

Congress provided much-needed relief in May 2017 by appropriating approximately \$15 billion for the Pentagon in response to the Administration's request for additional appropriations, the bulk of which was targeted directly at increasing wartime readiness.<sup>51</sup> This, combined with the increase in Army end strength authorized in the 2017 NDAA, provided a desperately needed measure of relief. For FY 2018, training activities are relatively well resourced. When measuring training resourcing, the Army uses training miles and flying hours, which reflect the number of miles that armor formations can drive their tanks

and aviators can fly their helicopters. According to the Department of the Army's budget justification, "The FY 2018 base budget funds 1,188 Operating Tempo Full Spectrum Training Miles and 10.6 flying hours per crew, per month for an expected overall training proficiency of BCT(-)."<sup>52</sup> These are significantly higher than resourced levels of 839 miles and 9.5 hours in FY 2017.<sup>53</sup>

Nonetheless, structural readiness problems summarized by too small a force attempting to satisfy too many global presence requirements and Operations Plan (OPLAN) warfighting requirements have led to a force that is both unable to achieve all required training events and overly stressed. As a result, the Army continues to "protect current readiness at the expense of future modernization and end strength."<sup>54</sup> In the words of Army Vice Chief of Staff General Daniel Allyn, "fifteen years of sustained counter-insurgency operations have degraded the Army's ability to conduct operations across the spectrum of conflict and narrowed the experience base of our leaders."<sup>55</sup>

Recognizing the risk that degraded readiness introduces into its ability to respond to an emergent threat, the Army continues to prioritize operational readiness over other expenditures for FY 2018. A return to "full spectrum combat readiness" will require sustained investment for a number of years. As a result of years of high operational tempos and sustained budget cuts, the Army now does not expect to return to "full spectrum readiness" until "best case 2021, worst case 2023."<sup>56</sup>

This tiered readiness strategy means that only a limited number of BCTs are available and ready for decisive action. Accordingly, the tiered readiness model employed by the Army has resulted in approximately one-third of the 31 Active BCTs being ready for contingency operations in FY 2017 compared to a desired readiness level of two-thirds.<sup>57</sup>

As part of its new Sustainable Readiness Model (SRM),<sup>58</sup> the Army uses Combat Training Centers (CTCs) to train its forces to desired levels of proficiency. Specifically, the mission of the CTC program is to "provide realistic Joint

and combined arms training” to approximate actual combat and increase “unit readiness for deployment and warfighting.”<sup>59</sup> The Army requested financing for 19 CTC rotations in FY 2018, including four for the Army National Guard.<sup>60</sup> Another change in the Army’s training model involves the implementation of a system of “Objective T” metrics that seeks to remove the subjectivity behind unit commander evaluations of training. Under the Objective T program, the requirements that must be met for a unit to be assessed as fully ready for combat are to be made clear and quantitative.<sup>61</sup>

The ongoing challenge for the Army remains a serious one: Despite increased levels of funding for training, if the size of the Army remains the same and global demand does not

diminish, “at today’s end-strength, the Army risks consuming readiness as fast as we build it,” which means that the date by which Army leaders hope to regain full spectrum readiness will continue to be pushed back, prolonging strategic risk for the nation.<sup>62</sup>

Another key factor in readiness is available quantities of munitions. The Army’s chief logistician warned recently about shortages of “preferred munitions—Patriot, THAAD, Hellfire and our Excalibur which are howitzer munitions,” adding that “if we had to surge, if we had a contingency operation, and if there are—continue to be emerging threats which we see around the world, I am very concerned with our current stockage of munitions.”<sup>63</sup>

## Scoring the U.S. Army

### Capacity Score: Weak

Historical evidence shows that, on average, the Army needs 21 brigade combat teams to fight one major regional conflict. Based on a conversion of roughly 3.5 BCTs per division, the Army deployed 21 BCTs in Korea, 25 in Vietnam, 14 in the Persian Gulf War, and around four in Operation Iraqi Freedom—an average of 16 BCTs (or 21 if the much smaller Operation Iraqi Freedom initial invasion operation is excluded). In the 2010 Quadrennial Defense Review, the Obama Administration recommended a force capable of deploying 45 active BCTs. Previous government force-sizing documents discuss Army force structure in terms of divisions; they consistently advocate for 10–11 divisions, which equates to roughly 37 active BCTs.

Considering the varying recommendations of 35–45 BCTs and the actual experience of nearly 21 BCTs deployed per major engagement, 42 BCTs would be needed to fight two MRCs.<sup>64</sup> Taking into account the need for a strategic reserve, the Active Army force should also include an additional 20 percent of the 42 BCTs.

- **Two-MRC Benchmark:** 50 brigade combat teams.
- **Actual 2017 Level:** 31 brigade combat teams.

The Army’s current Active Component BCT capacity meets 64 percent of the two-MRC benchmark and thus is scored as “weak.”

### Capability Score: Marginal

The Army’s aggregate capability score remains “marginal.” While the Army will continue to pursue the aim of improving readiness levels in FY 2018 over the previous year, and while Congress increased end strength slightly and provided a modest amount of additional funding, the service’s overall capability score remains static due to unrelenting global demands for Army forces with no additional BCTs, CABs, or Divisions to satisfy those demands. Additionally, in spite of modest progress with the JLTV and AMPV, research, development, and procurement budget levels remain well below the levels needed to begin even a minimal modernization program, thereby negatively affecting platform innovation

and modernization. These subsequent reductions continue to limit the Army’s development of future capabilities needed to remain dominant in any operational environment.

This aggregate score is a result of “marginal” scores for “Age of Equipment,” “Size of Modernization Programs,” and “Health of Modernization Programs.” The Army scored “weak” for “Capability of Equipment.”

**Readiness Score: Weak**

Just over a third of Active BCTs were ready for action according to official Army testimony by the Chief of Staff in May 2017.<sup>65</sup> The Army had 31 BCTs; therefore, roughly 10 of the Active Army BCTs were considered ready for combat. For that reason, this *Index* assesses Army readiness as “weak.” However, it should be noted that the Vice Chief of Staff also reported

in February that of the BCTs fully trained for “decisive action operations,” only three were ready to “fight tonight.”<sup>66</sup> With this in mind, *actual* readiness is therefore likely dangerously close to nearing a state of “very weak.”

**Overall U.S. Army Score: Weak**

The Army’s overall score is calculated based on an unweighted average of its capacity, capability, and readiness scores. The average score was 2.3; thus, the overall Army score is “weak.” This was derived from the aggregate score for capacity (“weak”); capability (“marginal”); and readiness (“weak”). This score is the same as the score in the *2017 Index* and indicates continued concerns for the Army, particularly when it comes to capacity in light of increased demand on the service around the globe.

**U.S. Military Power: Army**

	VERY WEAK	WEAK	MARGINAL	STRONG	VERY STRONG
Capacity		✓			
Capability			✓		
Readiness		✓			
<b>OVERALL</b>		✓			



## Endnotes

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