

U.S. Military Forces in FY 2022

Army

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This paper is part of *U.S. Military Forces in FY 2022*. The U.S. Army's force structure remains steady even though its budget declined by \$3.6 billion dollars. The Army does this by cutting modernization and readiness. In the long term, the Army's force structure is at risk because of the strategic focus on China, perceived as primarily an air and naval theater.

KEY TAKEAWAYS

- Many strategists, including those in the new administration, would cut Army end strength to fund Navy, Space, and Air Force capabilities for use against China. The Army argues to maintain its force structure and modernization because it provides many capabilities globally, including in the Indo-Pacific theater.
- In FY 2022, the Army took a big risk: despite a declining budget, it held onto structure. This reflects a strategic decision to fight in the ongoing strategy development process, with the hope of maintaining its share of the budget.
- Thus, the Army maintained its personnel strength in FY 2022, both regular and reserve components, at roughly the FY 2021 level. FY 2022 targets include: 485,000 in the regular Army, 336,000 in the National Guard, and 189,500 in the Army Reserve.
- To maintain end strength within a declining total budget, the Army cut (1) modernization, hoping that Congress would add the cuts back (a risk that may pay off), and (2) readiness, despite having rebuilt readiness over the last few years.
- The active-reserve mix has stabilized at 48 percent active, 52 percent National Guard/Army Reserve.
- The long-term Army force structure depends on budgets. A flat budget, as projected by the Trump administration and implied by the Biden administration, would entail deep force structure cuts. Proposed congressional budget increases might avert those cuts.
- Army modernization procures existing systems in FY 2022 but at slower rates. A few new systems are coming out of the research, development, testing, and evaluation (RDT&E) “primordial soup.” However,

most major elements of Army modernization—referred to as the “31+4” programs—are still in the future. The Army acknowledges that it cannot afford them all but has not indicated which ones will go forward. Additionally, the new administration may have a different set of modernization priorities.

- In an environment of constrained end strength, the Army will need to cut existing brigade combat teams (BCTs) if it wants to build new units. So far it has been unwilling to do this.
- Constrained resources may also push the Army into battles with the Office of the Secretary of Defense over strategic direction, with the Air Force over long-range strike, and with the National Guard over distribution of budget cuts.

Force Structure in FY 2022

Table 1: Army End Strength – Regular and Civilians

	Regular Army		Civilian Full-Time Equivalents (000s)
	Brigade Combat Teams	End Strength	
FY 2020 Actual	31	485,400	192,100
FY 2021 Actual	31	485,900	194,800
FY 2022 Request	31	485,000	196,700

Source: Department of the Army, *Army FY2022 Budget Overview* (Washington, DC: May 2021), 6, 11, https://www.asafm.army.mil/Portals/72/Documents/BudgetMaterial/2022/pbr/FY22_PB_brief_28MAY21.pdf.

Regular Army end strength holds steady. Recruiting adjusts to the pandemic by leveraging remote operations and is helped by high unemployment. As the economy has opened up, the Army has returned to its normal recruiting practices, but the decline in unemployment may create challenges.

Civilian personnel levels are climbing back after a dip in 2020.

Table 2: Army End Strength – National Guard and Reserve

	Army National Guard		Army Reserve
	Brigade Combat Teams	End Strength	Authorized End Strength
FY 2020 Actual	27	336,000	189,500
FY 2021 Actual	27	336,500	189,800
FY 2022 Request	27	336,000	189,500

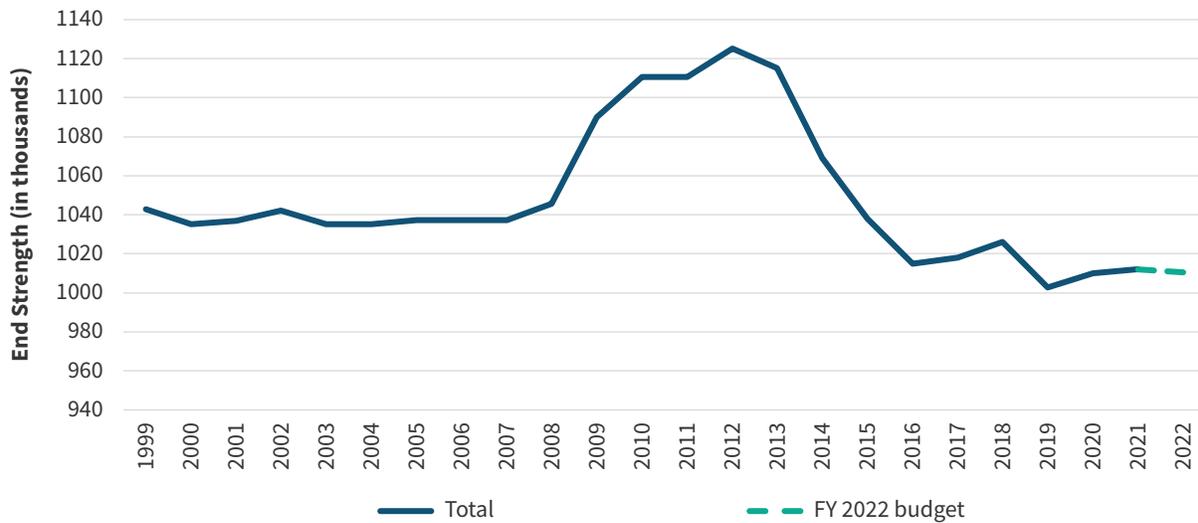
Source: BCT data in Office of the Undersecretary of Defense (Comptroller), *Defense Budget Overview: Fiscal Year 2021 Budget Request* (Washington, DC: May 2020), Appendix A, Table A-4, A-6, https://comptroller.defense.gov/Portals/45/Documents/defbudget/fy2021/fy2021_Budget_Request_Overview_Book.pdf. End strength data in Paul Chamberlain, *Army Fiscal Year 2021 Budget Overview* (Washington, DC: February 2020), 8, https://www.asafm.army.mil/Portals/72/Documents/BudgetMaterial/2021/pbr/Overview%20and%20Highlights/Army_FY_2021_Budget_Overview.pdf.

End strength for the Army reserve components held steady, with minor variations. In recent years, the reserve components have been constrained as much by recruiting challenges as by funding.

On average over the last five years, about 25,000 Army reservists and National Guard personnel have been mobilized at any time, mainly supporting operations in the Middle East.¹ With high force demands on the Army continuing, this level of mobilization will likely persist.

Since March 2020, the National Guard has been activated to deal with the pandemic, unrest following the murder of George Floyd, and the events of January 6. These activations have helped law enforcement and public health officials. Repeated deployments have stressed the Guard. Activations peaked at 23 percent of National Guard personnel in June 2020.²

Figure 1: Total Army End Strength FY 1999–FY 2022



Source: Office of the Under Secretary of Defense (Comptroller), National Defense Budget Estimates for FY 2022 (Washington, DC: Department of Defense, July 2021), Table 7-5, 286–288, https://comptroller.defense.gov/Portals/45/Documents/defbudget/FY2022/FY22_Green_Book.pdf; and Office of the Under Secretary of Defense (Comptroller), Defense Budget Overview Fiscal Year 2022 Budget Request (Washington, DC: Department of Defense, May 2021), A-4, https://comptroller.defense.gov/Portals/45/Documents/defbudget/FY2022/FY2022_Budget_Request_Overview_Book.pdf.

Note: This and several other historical charts begin with the year 1999 because it is before the 9/11 buildup but after completion of the post-Cold War reductions.

Figure 1 shows the Army’s growth in the 2000s for the wars in Iraq and Afghanistan and its subsequent drop as the wars wound down. The total Army today is 33,000 soldiers below its pre-9/11 level.

The Army had fought hard against plans in the Obama administration to drop to 980,000 soldiers—regular, National Guard, and Army Reserve—or fewer. The Trump administration’s FY 2019 plan called for expansion to 1,040,000 by FY 2023, and Army officials had talked about even higher levels. However, such talk has nearly disappeared as the Army has struggled to maintain its current strength. That also means deferring earlier plans to fill operational units at 105 percent to ensure rapid deployability without having to draw personnel from other units, thus further straining near-term readiness.³

1. Military Manpower Data Center, Weekly Reserve Activation Reports [limited distribution, not publicly available].

2. Mark Cancian, *What Did the US Military Learned during the First Year of the Pandemic?* (Washington, DC: CSIS, March 2021), 15, https://csis-website-prod.s3.amazonaws.com/s3fs-public/publication/210323_Cancian_What_Military.pdf.

3. Units need extra personnel (105 percent) because at any particular time some members are non-deployable because of temporary health problems (for example, broken limbs), personal hardship, legal difficulties, or pending transfers.

There are no major Army force structure changes in FY 2022. The regular Army will maintain 31 brigade combat teams (BCTs) and 11 combat aviation brigades (CABs). The Army National Guard will maintain its current force of 27 BCTs, 2 CABs, and 6 expeditionary CABs, for a total of 8 aviation brigades. The Army Reserve, which consists mostly of support units (“enablers”), will retain two theater aviation brigades (TABS) and makes no major changes in its functional and support brigades.

The Army has finished establishing the security force assistance brigades (SFABs), five in the regular force and one in the National Guard. SFABs “train, advise, assist, enable, and accompany operations with allied and partner nations,” thus reducing the burden on BCTs, which would otherwise have to deploy in pieces for this mission. SFABs could also provide the basis for future BCTs if the Army needed to expand. Although they initially focused on Afghanistan and Iraq, they have a broad mission and have worked with a wide variety of partners and allies. As a result, they will likely continue in a Biden administration that focuses on China.

The total Army has been getting slightly heavier, which is unsurprising since it has reoriented itself from a focus on counterinsurgency, which needs infantry, to a focus on great power conflict with a particular emphasis on Russia, which needs firepower. The Army argues that operational plans drive the mix of heavy, medium, and light forces and the balance between the components. The implication is that operational plans for Russia and North Korea (and perhaps others) require heavy forces early.

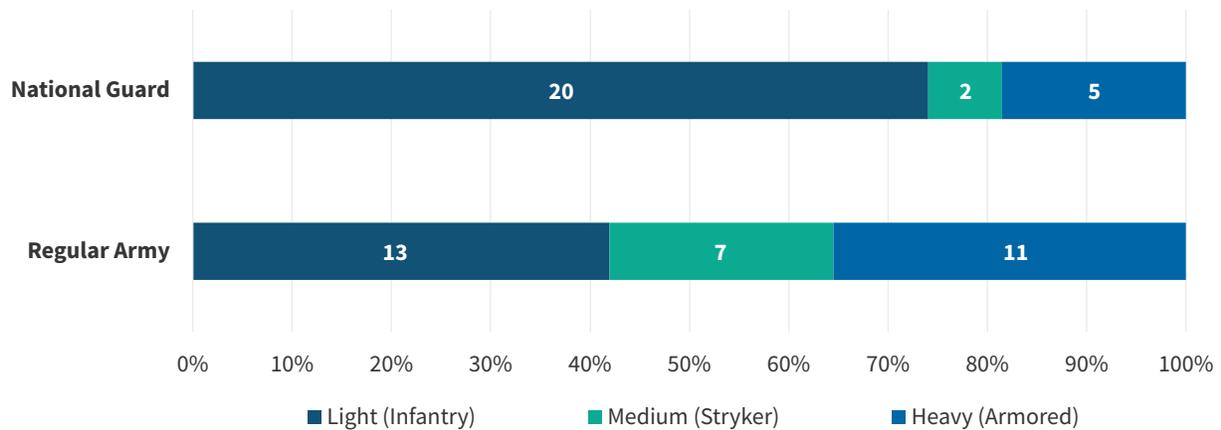
Table 3: Army BCT Balance by Type

	Light (Infantry)	Medium (Stryker)	Heavy (Armored)
2017	33	9	14
2022	33	9	16

Source: Department of the Army, *Fiscal Year (FY) 2022 Budget Estimates, Volume I, Operations and Maintenance* (Washington, DC: May 2021), 2, https://www.asafm.army.mil/Portals/72/Documents/BudgetMaterial/2022/Base%20Budget/Operation%20and%20Maintenance/OMA_VOL_1_FY_2022_PB.pdf; Department of the Army, *Fiscal Year (FY) 2021 Budget Estimates: Operations and Maintenance: Army*, Volume 1 (Washington, DC: February 2020), 35, https://www.asafm.army.mil/Portals/72/Documents/BudgetMaterial/2021/Base%20Budget/Operation%20and%20Maintenance/OMA_VOL_1_FY_2021_PB_Army_Volume_1.pdf; and Department of the Army, *Fiscal Year 2017 Budget Estimates: Operations and Maintenance, Army Justification of Estimates* (Washington, DC: February 2016), 2, <https://www.asafm.army.mil/Portals/72/Documents/BudgetMaterial/2017/base%20budget/operation%20and%20maintenance/Army%20Vol%201%20-%20Justification%20Book.pdf>.

However, there is a major difference in the BCT balance between the components. The National Guard is mostly infantry (74 percent). This reduces the need for vehicle maintenance and gunnery training, which are difficult with part-time personnel. The regular Army is more equipment intensive, with 65 percent of BCTs being medium or heavy.

Figure 2: Army BCT Balance by Component



Source: Paul Chamberlain, *Fiscal Year (FY) 2022 Budget Estimates* (Washington, DC: Department of the Army, May 2021), https://www.asafm.army.mil/Portals/72/Documents/BudgetMaterial/2022/pbr/FY22_PB_brief_28MAY21.pdf; and Paul Chamberlain, *Army Fiscal Year 2021 Budget Overview* (Washington, DC: February 2020), https://www.asafm.army.mil/Portals/72/Documents/BudgetMaterial/2021/pbr/Overview%20and%20Highlights/Army_FY_2021_Budget_Overview.pdf.

The Army Budget

In FY 2022 the Army took a big risk: despite a declining budget, it held onto structure. This reflects a strategic decision to fight in the ongoing strategy development process with the goal of maintaining its share of the budget. As John Whitley, the acting secretary the Army stated, “What we’ve got now is an Army budget that has risk built into it.”⁴

In current dollars, the Army budget declined by \$3.6 billion, from \$176.6 billion to \$173.0 billion. In constant dollars, the decline was even larger, \$5.5 billion. Some of this decline reflects the planned reduction in Middle East operations. However, some is just a cut.

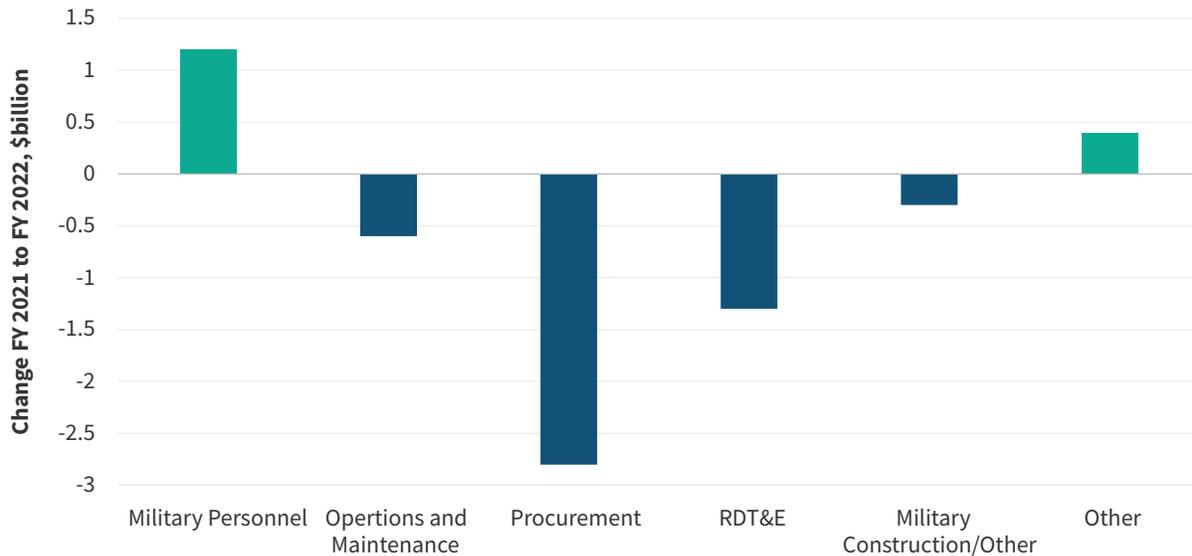
The Army leadership argues that they are at the end of finding internal savings. They point to the Army’s multiyear “night court” process, which identified and cut lower-priority programs, claiming \$7.3 billion in savings between FY 2020 and FY 2022.⁵ The Army published details on these cuts, so they were credible. However, the Army leadership also argues that this process has run its course and identified only \$70 million in savings in FY 2022.⁶

4. Sydney Freedberg, Jr., and Paul McCleary, “House Appropriators Fear Army Cuts, Continuing Resolution,” *Breaking Defense*, May 5, 2021, <https://breakingdefense.com/2021/05/house-appropriators-fear-army-cuts-continuing-resolution/>.

5. Assistant Secretary of the Army, *Army FY 2022 Budget Highlights* (Washington, DC: Department of the Army, May 2021), 19, https://www.asafm.army.mil/Portals/72/Documents/BudgetMaterial/2022/pbr/PBHL%20FY%202022%2025%20MAY%202021_V21.pdf.

6. “The Army in the Indo Pacific: a Conversation with Gen. James McConville and Gen. Paul Lacamera,” (public event, CSIS, Washington, DC, March 30, 2021), <https://www.csis.org/events/army-indo-pacific-conversation-general-james-mcconville-and-general-paul-lacamera>.

Figure 3: Army Budget FY 2021/FY 2022 Comparison by Appropriation



Source: Paul Chamberlain, *Fiscal Year (FY) 2022 Budget Estimates* (Washington, DC: Department of the Army, May 2021), https://www.asafm.army.mil/Portals/72/Documents/BudgetMaterial/2022/pbr/FY22_PB_brief_28MAY21.pdf; and Paul Chamberlain, *Army Fiscal Year 2021 Budget Overview* (Washington, DC: February 2020), https://www.asafm.army.mil/Portals/72/Documents/BudgetMaterial/2021/pbr/Overview%20and%20Highlights/Army_FY_2021_Budget_Overview.pdf.

In FY 2022, every account declines except for military personnel (and “other,” driven by small increases in specialized accounts, such as Arlington National Cemetery).

- The cut in procurement, \$2.8 billion, meant shaving a variety of ongoing procurement programs, as described later.
- The cut in RDT&E meant slowing modernization efforts. This cut came mainly from the science and technology category, falling \$1.3 billion, a congressional favorite and likely to be restored. That allowed most existing development programs to continue while reducing long-term efforts, which will be unpopular with the technology community.
- The cut in operations and maintenance (O&M) meant taking risk in readiness since some activities such as civilian personnel and healthcare increase. Congress may restore some of these cuts, which the Army put on its “unfunded requirements list.”
- The Army secretary and chief of staff testified that “the Army is moving to a foundational readiness model that prioritizes the training of individuals and small units at the company level and below.”⁷ That means reducing the training of higher-level units, a reversal of its strategy in the past several years.
- The number of BCT rotations through the combat training centers declines from 19 to 14.⁸

7. John E. Whitley and James P. McConville, *On the Posture of the United States Army*, Statement before the Subcommittee on Defense, House Appropriations Committee, 117th Cong., 2nd sess., May 5, 2021, https://www.army.mil/e2/downloads/rv7/aps/aps_2021.pdf.

8. Department of the Army, *Fiscal Year (FY) 2022 Budget Estimates, Volume I, Operations and Maintenance* (Washington, DC: May 2021), 115, https://www.asafm.army.mil/Portals/72/Documents/BudgetMaterial/2022/Base%20Budget/Operation%20and%20Maintenance/OMA_VOL_1_FY_2022_PB.pdf.

- Active-duty unit training declines, with “full-spectrum training miles” cut from 1,549 in FY 2020 to 1,109 proposed for FY 2022 (a decline of 40 percent), and monthly flying hours per crew cut from 11.6 in FY 2020 to 10.2 proposed for FY 2022 (a fall of 14 percent).⁹ Similarly, Army National Guard full-spectrum training miles decrease from 604 in 2020 and 624 in FY 2021 to 581 proposed for 2022. Army National Guard rotations at the combat training centers will decline from four planned in previous years to two. Army Reserve readiness is mixed, with some elements declining (training miles for support brigades) and other elements increasing (flying hours from 17.6 to 20.7 per year).¹⁰

The Future Size of the Army

Three opposing dynamics pull the future size and shape of the Army: guidance to focus on China, demands of day-to-day operations, and potential recruiting challenges.

The Interim National Security Strategic Guidance directs a focus on great power conflicts, especially China. Many statements by senior Biden administration officials reinforce that guidance. As noted in the overview chapter, that focus implies a force equipped with advanced, and likely very expensive, technologies paid for, if necessary, by cuts to structure and Army modernization that is not aligned to great power conflict with China.

Many strategists have explicitly proposed cutting Army end strength to fund Navy and Air Force capabilities for conflict against China in the Western Pacific. Their notion is that this theater is primarily a maritime and air theater and that, while the Army has some useful capabilities, these are not needed in the quantities available. A few illustrative citations make that point.

General Mark Milley, chairman of the Joint Chiefs of Staff, noted: “Look, I’m an Army guy, and I love the Army . . . but the fundamental defense of the United States, and the ability to project power forward [are] going to be naval and air and space power.”¹¹

Blake Herzinger, a naval commentator, stated: “The U.S. National Defense Strategy clearly names the People’s Republic of China as America’s primary strategic competitor, while the secretary of defense made clear that China is, and will remain, America’s ‘pacing challenge.’ That challenge is playing out on the world’s oceans, and it is likely to intensify. . . . For a 7 percent decrease in active-duty Army garrison strength, the Navy could purchase 40 new ships over the current procurement plan and extend the service lives of 10 guided missile cruisers.”¹²

A CSIS study group likewise noted: “Ground forces under the Innovation Superiority Strategy [a concept for countering China] see a sizeable reduction relative to the DoD’s current force structure plans for FY 2030. Army Active Component Infantry Brigade Combat Teams are reduced in line with the strategy’s plan to withdraw from Afghanistan and Syria and reduce U.S. ground presence in Europe.”¹³

9. Paul Chamberlain, *Fiscal Year (FY) 2022 Budget Estimates* (Washington, DC: Department of the Army, May 2021), https://www.asafm.army.mil/Portals/72/Documents/BudgetMaterial/2022/pbr/FY22_PB_brief_28MAY21.pdf; and Paul Chamberlain, *Army Fiscal Year 2021 Budget Overview* (Washington, DC: February 2020), 8, https://www.asafm.army.mil/Portals/72/Documents/BudgetMaterial/2021/pbr/Overview%20and%20Highlights/Army_FY_2021_Budget_Overview.pdf.

10. Office of the Under Secretary of Defense (Comptroller)/Chief Financial Officer, *Operation and Maintenance Overview* (Washington, DC: DOD, February 2020), OP-5, 44, https://comptroller.defense.gov/Portals/45/Documents/defbudget/fy2021/fy2021_OM_Overview.pdf.

11. John Grady and Sam LaGrone, “CJCS Milley: Character of War in Midst of Fundamental Change,” USNI News, December 4, 2020, <https://news.usni.org/2020/12/04/cjcs-milley-character-of-war-in-midst-of-fundamental-change>.

12. Blake Herzinger, “The Budget (And Fleet) That Might Have Been,” War on the Rocks, June 10, 2021, <https://warontherocks.com/2021/06/the-budget-and-fleet-that-might-have-been/>.

13. Seamus Daniels et al., “Getting to Less? The Innovation Superiority Strategy,” CSIS, CSIS *Brief*, January 23, 2020, <https://www.csis.org/analysis/getting-less-innovation-superiority-strategy>.

The Army makes several arguments for its relevance to the new strategy.¹⁴

- It brings a variety of traditional capabilities to a conflict in the Pacific, such as theater logistics and air and ballistic missile defense.
- The Army can bring new capabilities such as long-range ground and anti-ship fires. In this, the Army would seem to be competing with the Marine Corps, which makes a similar strategic argument. However, the Army argues that it brings mass and depth that the Marine Corps lacks.¹⁵
- Ground forces can employ these capabilities from inside the Chinese defensive zone because ground forces can move and are hard to find. Thus, they are less vulnerable than air or naval forces.
- Army forces are relevant to conflicts globally—in Europe against Russia and for other threats such as North Korea and Iran.

Besides wartime requirements, the Army notes the high day-to-day demand for forces to deploy to the Middle East, Europe, and elsewhere: “171,000 soldiers deployed worldwide in 140 countries on six continents.”¹⁶ That implies the need for a larger force that may not require the most advanced technologies. Army statements do not complain about stress, unlike statements through about 2016, which did express concerns about high personnel tempo. This implies that the Army is at a sustainable level of deployment given its current force structure. Demands in the Middle East have declined substantially from their peak in the 2000s, though increased deployments to Europe and the Pacific have filled some of the slack. Some communities, such as air defense, are an exception, being at their maximum deploy-to-dwell ratio.¹⁷

Difficulties in recruiting and retention may drive force size regardless of strategy. Recruiting difficulties kept Army end strength lower than planned in FY 2019, but improved recruiting and retention allowed the Army to reach its target end strength in FY 2020 and beyond. However, as the Heritage Foundation points out, the recruiting environment will continue to be challenging as the propensity to enlist among U.S. youth declines and as many of the target demographics have difficulty meeting military requirements for education, physical fitness, and drug/legal suitability.¹⁸

14. For these arguments, see Mark Milley and Mark Esper, “The Army Strategy,” Department of Defense, 2018, https://www.army.mil/e2/downloads/rv7/the_army_strategy_2018.pdf; also, Sydney Freedberg, “Land Forces Are Hard to Kill’: Army Chief Unveiled Specific Strategy,” *Breaking Defense*, March 23, 2021, <https://breakingdefense.com/2021/03/land-forces-are-hard-to-kill-army-chief/>.

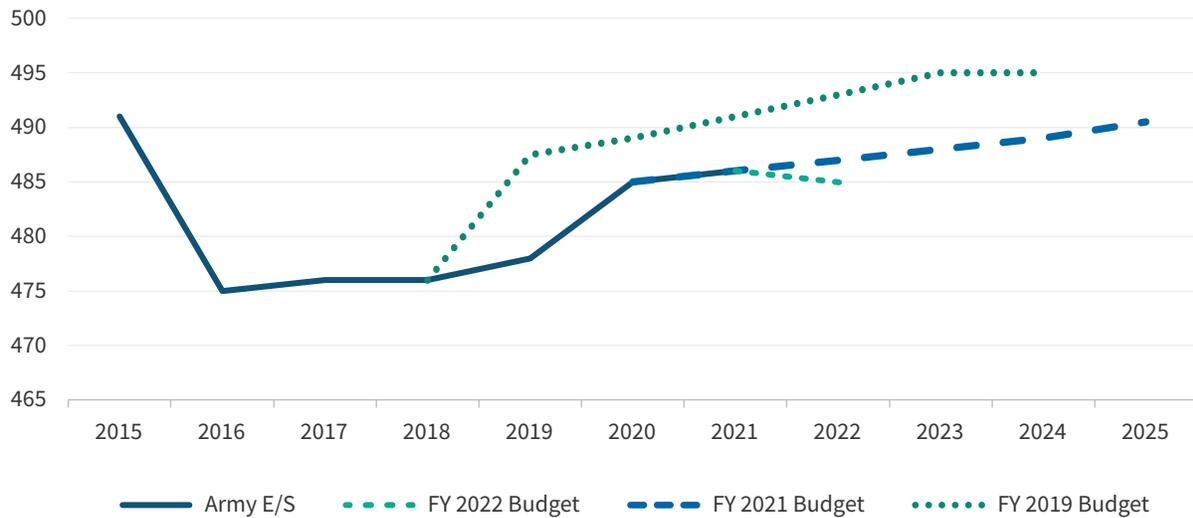
15. “The Army in the Indo Pacific,” CSIS.

16. Department of the Army, *Fiscal Year (FY) 2022 Budget Estimates, Volume I*.

17. For a full discussion of day-to-day deployment demands and their impact on force structure, see the overview chapter of this series.

18. Thomas Spoehr, *The Looming National Security Crisis: Young Americans Unable to Serve in the Military* (Washington, DC: Heritage, February 2018), <https://www.heritage.org/defense/report/the-looming-national-security-crisis-young-americans-unable-serve-the-military>.

Figure 4: Evolution of Regular Army End Strength Plans, FY 2019 to FY 2022 (000s)



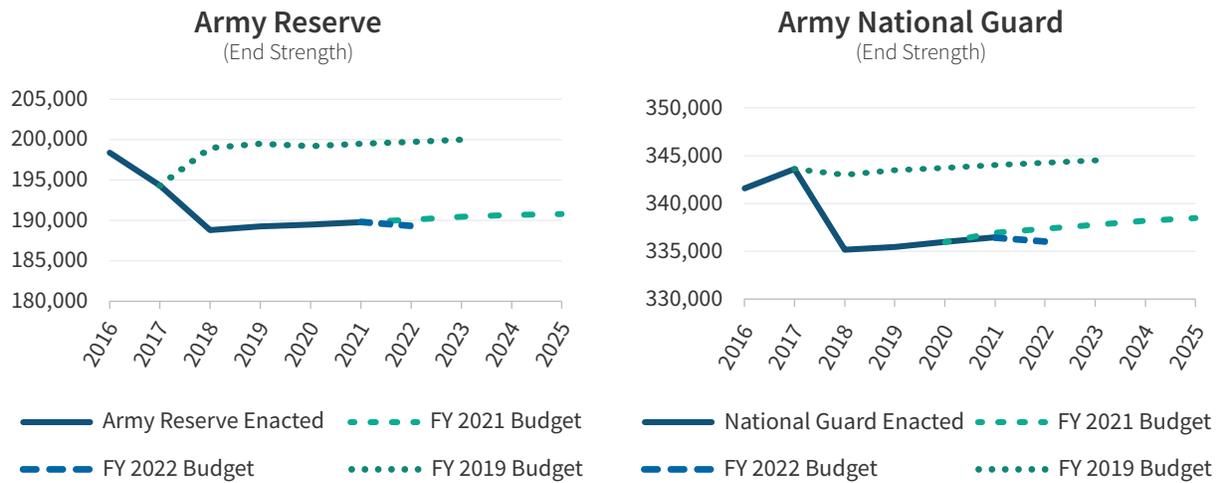
Source: Data compiled from multiple sources.¹⁹ Please reference the corresponding footnote for a detailed list.

In the long term, the regular Army had hoped to get to 495,000 by 2023. Even that was a reduced goal. The chief of staff has stated that the regular Army needs 540,000 to 550,000 soldiers to fill its structure and meet all its peacetime and wartime commitments.²⁰

19. Assistant Secretary of the Army (Financial Management and Comptroller), *FY 2022 President's Budget Highlights* (Washington, DC: Department of the Army, May 2021), https://www.asafm.army.mil/Portals/72/Documents/BudgetMaterial/2022/pbr/PBHL%20FY%202022%2025%20MAY%202021_V21.pdf; Assistant Secretary of the Army (Financial Management and Comptroller), *FY 2021 President's Budget Highlights* (Washington, DC: Department of the Army, February 2020), https://www.asafm.army.mil/Portals/72/Documents/BudgetMaterial/2021/pbr/Overview%20and%20Highlights/Army_FY_2021_Budget_Highlights.pdf; Assistant Secretary of the Army (Financial Management and Comptroller), *FY 2020 President's Budget Highlights* (Washington, DC: Department of the Army, March 2019), <https://www.asafm.army.mil/Portals/72/Documents/BudgetMaterial/2020/Roll%20Out/Overview%20and%20Highlights/Army%20FY%202020%20Budget%20Highlights.pdf>; U.S. Army, *Fiscal Year (FY) 2019 Budget Estimates* (Washington, DC: Department of the Army, February 2018), <https://www.asafm.army.mil/Portals/72/Documents/BudgetMaterial/2019/Base%20Budget/Military%20Personnel/Military%20Personnel%20Army.pdf>; U.S. Army, *Fiscal Year (FY) 2018 Budget Estimates* (Washington, DC: Department of the Army, May 2017), <https://www.asafm.army.mil/Portals/72/Documents/BudgetMaterial/2018/Base%20Budget/Military%20Personnel/Military%20Personnel%20Army.pdf>; U.S. Army, *Fiscal Year (FY) 2017 President's Budget Submission* (Washington, DC: Department of the Army, February 2016), <https://www.asafm.army.mil/Portals/72/Documents/BudgetMaterial/2017/base%20budget/military%20personnel/Military%20Personnel%20Army.pdf>; U.S. Army, *Fiscal Year (FY) 2016 President's Budget Submission* (Washington, DC: Department of the Army, February 2016), <https://www.asafm.army.mil/Portals/72/Documents/BudgetMaterial/2016/base%20budget/military%20personnel/Military%20Personnel%20Army.pdf>

20. Caitlin Kenny, "Army Leaders Have Agreed to Troop Size, Top General Says," *Defense One*, May 10, 2021, <https://www.defenseone.com/policy/2021/05/army-leaders-have-agreed-cap-troop-size-top-general-says/173938/>.

Figure 5: Army Reserve and Army National Guard End Strength



Source: Data compiled from multiple sources.²¹ Please reference the corresponding footnote for a detailed list.

As Figure 5 shows, the Army Reserve had planned to increase to 200,000 and the Army National Guard planned to increase to 343,000. Instead, both now aim to maintain their current end strength.

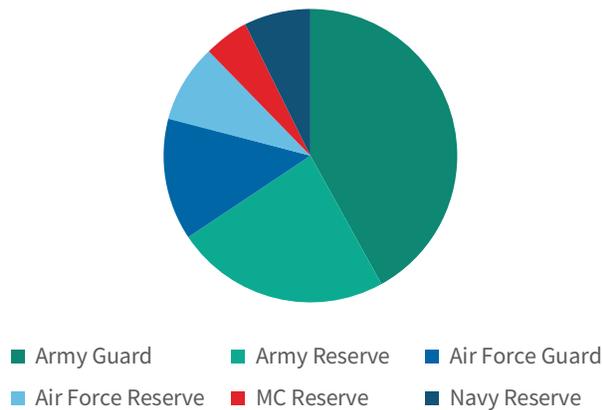
Balance of Regular and National Guard/Army Reserve Forces

The bottom line is that the Army seems to have reached equilibrium at 48 percent regular, 52 percent reserve components, a level attained in FY 2015. Although the active/reserve mix has frequently been a source of tension in the Army, those tensions have eased in recent years as a result of closer consultation arising from a 2016 commission, higher budgets that benefit both components, and the difficulty that both components have in recruiting and retaining additional soldiers. With lean budgets ahead, this conflict may reemerge.

Nevertheless, given the different cultures, missions, and histories of the two components, the active-reserve mix is a tension that must be managed, not a problem that can be solved.

21. Assistant Secretary of the Army (Financial Management and Comptroller), *FY 2022 President's Budget Highlights* (Washington, DC: Department of the Army, May 2021), https://www.asafm.army.mil/Portals/72/Documents/BudgetMaterial/2022/pbr/PBHL%20FY%202022%2025%20MAY%202021_V21.pdf; Assistant Secretary of the Army (Financial Management and Comptroller), *FY 2021 President's Budget Highlights* (Washington, DC: Department of the Army, February 2020), https://www.asafm.army.mil/Portals/72/Documents/BudgetMaterial/2021/pbr/Overview%20and%20Highlights/Army_FY_2021_Budget_Highlights.pdf; Assistant Secretary of the Army (Financial Management and Comptroller), *FY 2020 President's Budget Highlights* (Washington, DC: Department of the Army, March 2019), <https://www.asafm.army.mil/Portals/72/Documents/BudgetMaterial/2020/Roll%20Out/Overview%20and%20Highlights/Army%20FY%202020%20Budget%20Highlights.pdf>; U.S. Army Reserve, *Fiscal Year (FY) 2019 Budget Estimates* (Washington, DC: Department of the Army, February 2018), <https://www.asafm.army.mil/Portals/72/Documents/BudgetMaterial/2019/Base%20Budget/Military%20Personnel/Reserve%20Personnel%20Army.pdf>; and Army National Guard, *Fiscal Year (FY) 2019 Budget Estimates* (Washington, DC: Department of the Army, February 2018), <https://www.asafm.army.mil/Portals/72/Documents/BudgetMaterial/2019/Base%20Budget/Military%20Personnel/National%20Guard%20Personnel%20Army%20-%20Vol%201.pdf>.

Figure 6: Reserve Component Size

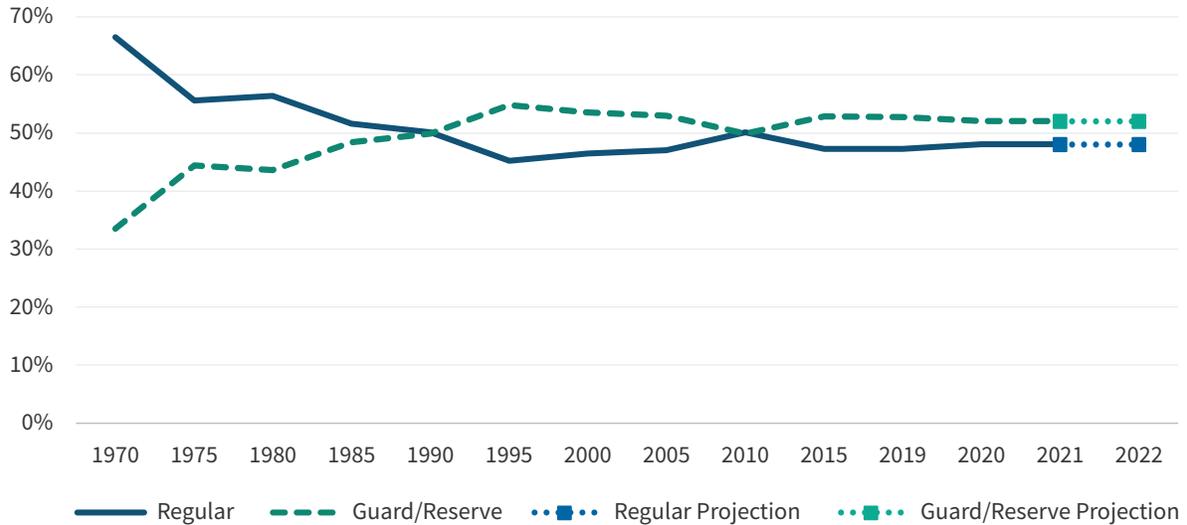


Source: Under Secretary of Defense(Comptroller), *Military Personnel Records (M-1)* (Washington DC, Department of Defense, May 2021), https://comptroller.defense.gov/Portals/45/Documents/defbudget/FY2022/FY2022_m1.pdf.

Tensions between regulars and reservists have existed since the founding of the United States. This tension is particularly an issue for the Army because it has the largest reserve component by far, both in relative and absolute terms. For example, 52 percent of the total Army is in the reserve components, compared to only 35 percent of the total Air Force, 18 percent of the total Marine Corps, and 15 percent of the total Navy. As Figure 6 shows, Army reserve components (green) are nearly twice the size of all the other reserve components put together (in FY 2022, 525,500 versus 274,000).

As Figure 7 shows, the Army's active/reserve balance has shifted over time. The ratio moved away from an active-heavy force to parity between the components due to the establishment of the Total Force Policy in 1970, which called for increased reliance on the reserves; the initiation of the Volunteer Force in 1973, which raised the cost of military personnel; and the end of the draft in 1973, which cut off an easy supply of active-duty personnel.

Figure 7: Army Force Mix Ratio, 1970–2022



Source: Office of the Under Secretary of Defense (Comptroller), *National Defense Budget Estimates for FY 2022*, Table 7-5, 266–268, https://comptroller.defense.gov/Portals/45/Documents/defbudget/FY2022/FY22_Green_Book.pdf; and Department of the Army, *Fiscal Year (FY) 2022 Budget Estimates, Volume I, Operations and Maintenance* (Washington, DC: May 2021), 12, https://www.asafm.army.mil/Portals/72/Documents/BudgetMaterial/2022/Base%20Budget/Operation%20and%20Maintenance/OMA_VOL_1_FY_2022_PB.pdf.

However, this balance has been dynamic. With the end of the Cold War, the ratio changed to a reserve-heavy force as the regular force decreased more rapidly than the reserves. The ratio reached parity again with expansion of the regular force during the wars in Iraq and Afghanistan but has returned to what appears to be a strategically stable level: 48 percent regular, 52 percent National Guard/Army Reserve.

Instead of large growth in either the regular or National Guard/Army Reserve force, the Army, and DOD in general, has turned to contractors, as discussed in a later section in this series.

Tensions between the components peak during drawdowns when constrained resources force difficult trade-offs. Thus, there was a crisis in the late 1990s during the post-Cold War drawdown and another in 2014 during the post-Iraq/Afghanistan drawdown. Key to easing recent tensions was the 2016 National Commission on the Future of the Army. The commission looked broadly at all the components and the total Army's needs and published a set of recommendations that all components could accept.²² The recent budget increases have helped implement the commission's recommendations and eased tensions generally, as the Army does not need to make trade-offs between the components.

However, a budget downturn might bring these tensions to the surface again. Further, a national defense strategy that requires rapid reaction—as the 2018 National Defense Strategy came close to doing—would also increase tension by moving capabilities from the reserve components to the active components. Finally, the large number of infantry BCTs (20 of the Army's total of 33) in the National Guard may exceed strategic needs when the strategy is moving away from counterinsurgency and stability operations.

The Future Structure of the Army: Modernization, New Capabilities, and New Units

Broadly, Army modernization is a “good news, bad news” story: the good news is that the Army continues production of proven systems—though at lower rates in 2022—and has a well-modernized force as a result. More good news is a few new systems are coming out of the RDT&E “primordial soup.” The bad news is that the Army is still several years away from having a new generation of systems in production to take it into the 2020s and beyond and set it up for combat against great power adversaries. More bad news is that the Army cannot afford all the systems it is developing and does not have a clear path for selecting which technologies to take forward. Finally, the new administration will likely have different modernization priorities than the Army, setting up future tensions.

MODERNIZING THE CURRENT FORCE

In the near term, the Army is sensibly plugging its most serious capability gaps by upgrading the major systems it has. As CSIS acquisition experts Andrew Hunter and Rhys McCormick point out, focusing on capabilities through upgrades rather than developing major new systems avoids the technical, budgetary, and political risk of relying on a few costly, high-profile programs.²³

Thus, the Army FY 2022 budget funds the latest versions of existing systems. These programs run smoothly, produce equipment at known costs and on predictable schedules, and avoid acquisition scandals that in the past embarrassed the Army in front of Congress and the public. However, the Army cut down on most procurement quantities compared with FY 2021 levels to meet the budget reduction, as described earlier.

Despite the strategic emphasis on unmanned systems, the Army (like the other services) seemingly deemphasized that capability in FY 2022.

22. National Commission on the Future of the Army, *Report to the President and Congress of the United States* (Washington, DC: January 2016), <https://fas.org/man/eprint/ncfa.pdf>.

23. Rhys McCormick and Andrew Hunter, “The U.S. Army's Next Big 5 Must Be Capabilities, Not New Platforms,” *Defense One*, July 25, 2017, <https://www.defenseone.com/ideas/2017/07/us-armys-next-big-5-must-be-capabilities-not-new-platforms/139714>.

Table 4: Major Army Procurement in FY 2022

System	First Fielded	Current Version	FY 2021 Enacted	FY 2022 Proposed
M1 Abrams tank	1981	M1A2 SEP V2	102	70
Bradley Fighting Vehicle M-2/3	1981	M2A4		
Stryker fighting vehicle	2003	Double V-Hull, 30 mm gun	254	187
M109 Paladin self-propelled howitzer	1963	M109 PIM (A7)	31	25
UH-60 Blackhawk	1978	M-model	42	24
AH-64 Apache	1987	E-model	50	30
CH-47 Chinook	1962	F- and G-models	12	6
Great Eagle	2009	C-model	1	0

Source: Assistant Secretary of the Army, *Army FY 2022 Budget Highlights* (Washington, DC: May 2021), 22–27, https://www.asafm.army.mil/Portals/72/Documents/BudgetMaterial/2022/pbr/PBHL%20FY%202022%2025%20MAY%202021_V21.pdf.

Three relatively new programs are also in production: the Joint Light Tactical Vehicle (JLTV, an armored light truck and replacement for the up-armored HMMWVs), the Armored Multipurpose Vehicle (AMPV, a replacement for the M113 armored personnel carrier), and the Mobile Protected Firepower system (MPF, a light tank to support the infantry).

Table 5: Major Army Procurement in FY 2022 – New Systems

System	First Fielded	FY 2021 Enacted	FY 2022 Proposed
JLTV	2016	884	575
AMPV	2020	63	105
MPF	2022	0	287

Source: Department of the Army, *Justification Book 1 of 3: Other Procurement, Army* (Washington, DC: DOD, 1–48), https://www.asafm.army.mil/Portals/72/Documents/BudgetMaterial/2022/Base%20Budget/Procurement/OPA_BA_1_FY_2022_PB_Other_Procurement_BA1_Tactical_and_Support_Vehicles.pdf; Office of the Under Secretary of Defense (Comptroller)/Chief Financial Officer, *Defense Budget Overview* (Washington, DC: Department of Defense, May 2021), https://comptroller.defense.gov/Portals/45/Documents/defbudget/FY2022/FY2022_Budget_Request_Overview_Book.pdf; and Assistant Secretary of the Army, *Army FY 2022 Budget Highlights* (Washington, DC: May 2021), 22–27, https://www.asafm.army.mil/Portals/72/Documents/BudgetMaterial/2022/pbr/PBHL%20FY%202022%2025%20MAY%202021_V21.pdf.

The Army’s FY 2022 budget continues robust funding for long-range munitions, for example, the Guided MLRS rocket, Precision Strike Missile, and Patriot missiles (MSE). This reflects preparation for the intense combat that conflict with a great power would entail. Conversely, funding for short-range missiles, such as Hellfire anti-tank missiles, was halved from \$516.6 million in FY 2021 to \$230.0 million in FY 2022.²⁴

24. Office of the Under Secretary of Defense (Comptroller)/Chief Financial Officer, *Defense Budget Overview*, 2–12.

Table 6: Major Army Procurement in FY 2022 – Long-Range Fires

System	FY 2021 Enacted	FY 2022 Proposed
Patriot Missile (MSE)	146	180
Guided MLRS Rocket	5,796	5,886
Precision Strike Missile	30	110

Source: Assistant Secretary of the Army, *Army FY 2022 Budget Highlights* (Washington, DC: May 2021), 22–27, https://www.asafm.army.mil/Portals/72/Documents/BudgetMaterial/2022/pbr/PBHL%20FY%202022%2025%20MAY%202021_V21.pdf.

The effect of this approach, combined with the large wartime procurements and rebuilds/upgrades funded by the Overseas Contingency Operations (OCO) reset during the 2000s, is that the Army’s force structure is filled with relatively new equipment. For example, the Apache fleet averages 8 years old, the Chinook fleet averages 10 years old, and the ground combat vehicle fleets are all at about 10 years old.²⁵ Gone are prewar concerns about aging equipment fleets.

CREATING NEW CAPABILITIES AND NEW UNITS

A long-standing concern about Army modernization is that there are few new systems coming online to replace the existing generation. This was the result of a “triple whammy”: a missed procurement cycle due to program failures, a focus on near-term systems for wartime operations, and modernization funding reductions in the postwar drawdown.²⁶

The Army has divided its development effort into six major priorities (sometimes known as “the big six”): Long Range Precision Fires (artillery), Next Generation Combat Vehicle (armor), Future Vertical Lift (aviation), Air and Missile Defense, Soldier Lethality (infantry), and Army Network. The Army has added two more capability areas—Assured Positioning, Navigation, and Timing and Synthetic Training Environment—so the modernization effort is often referred to as “6+2.”

The Army points to “31+4” systems in development (31 overseen by Army Futures Command, 4 overseen by the Rapid Capabilities Office). For a long time, the Army has known that this number is far more than it can afford to procure and field. General John Murray, head of the Army Futures Command, made that point again this year: “We have made a bunch of our choices, and are going to have to make more hard choices. In many cases, it’s almost at the point of being impossible.”²⁷

Unlike in previous years, the Army did not publish its funding in the six priority areas and show changes from the previous year. That is likely because the news was not good: most areas went down.

Shown below are major initiatives in development. The list gives a sense of systems that might enter the force in the future. Of these, 22 are planned for delivery by FY 2025.²⁸

25. Congressional Budget Office, *Cost of Replacing Today’s Army Aviation Fleet* (Washington, DC: May 2019), Table A-1, <https://www.cbo.gov/system/files/2019-05/55180-ArmyAviation.pdf>; and Edward Keating and Adebayo Adedeji, *Projected Acquisition Costs for the Army’s Ground Combat Vehicles* (Washington, DC: Congressional Budget Office, April 2021), 4, <https://www.cbo.gov/publication/57085>.

26. Rhys McCormick, “The Army Modernization Challenge: A Historical Perspective,” CSIS, March 31, 2016, <http://fysa.csis.org/2016/03/31/the-army-modernization-challenge-a-historical-perspective>.

27. Sydney Freedberg, “Army Faces ‘Almost Impossible Choices’: Gen. Murray,” *Breaking Defense*, May 12, 2021, <https://breakingdefense.com/2021/05/army-faces-almost-impossible-choices-gen-murray/>. Christine Wormuth, the recently confirmed secretary of the Army, made a similar point about “tough choices ahead.” Colin Clark, “Wormuth Hints at Cuts to 35 Core Army Modernization Programs,” *Breaking Defense*, September 8, 2021, <https://breakingdefense.com/2021/09/wormuth-hints-at-cuts-to-35-core-army-modernization-programs/>.

28. List comes from Andrew Feickert and Brendan W. McGarry, *Army’s Modernization Strategy: Congressional Oversight Considerations*,

Table 7: Major Development Initiatives

<p>Long Range Precision Fires</p>	<p><i>Strategic Long-Range Cannon</i></p> <p><i>Precision Strike Missile (PrSM)</i></p> <p><i>Extended Range Cannon Artillery (ERCA)</i></p> <p><i>Long-range hypersonic weapon</i></p>	<p>Because of the strategic emphasis on long-range precision strike, these programs have received highest priority. PrSM is in production now and others will follow soon. However, they have engendered a debate about roles and missions with the Air Force because of their range. Air Force advocates have called the Army long-range weapons “duplicative [of bombers] . . . prohibitively expensive, non-reusable and requiring extensive deployment logistic support.”²⁹</p> <p>The fortunes of the artillery have turned around substantially in the last decade. During the stabilization conflicts of the 2000s, artillery was considered a “dead branch walking” because there was less need for firepower. Now, it may be the premier branch.</p>
<p>Next Generation Combat Vehicles</p>	<p><i>Armored Multi-Purpose Vehicle</i></p> <p><i>Mobile Protected Firepower</i></p> <p><i>Optionally Manned Fighting Vehicle (OMFV, Bradley replacement)</i></p> <p><i>Robotic Combat Vehicle: 3 variants</i></p> <p><i>Decisive Lethality Platform (Abrams replacement)</i></p>	<p>The AMPV is in production now; the MPF will enter production in FY 2022. The other programs are further in the future.</p> <p>Support for improvements to existing systems is likely to remain strong.</p> <p>The OMFV is a high Army priority but will face challenges because of its high cost and appearance of being a legacy capability.</p> <p>Many observers question whether the Army can develop a new fighting vehicle, given its failure to do so in the past.</p>
<p>Future Vertical Lift</p>	<p><i>Future Attack Reconnaissance Aircraft (FARA, Apache replacement)</i></p> <p><i>Future Long-Range Assault Aircraft (FLRAA, Black Hawk replacement)</i></p> <p><i>Future Attack Unmanned System</i></p>	<p>FARA and FLRAA are major, longer-term programs that will go into production in the late FY 2020s. Many question the relevance of these two programs in a conflict with China, given the vast expanses of the theater and China’s capable air defenses. Further, plans for a manned (even optionally manned) reconnaissance helicopter run into advocates who claim that this mission can be done better by totally unmanned systems. These programs also face an affordability challenge since the Army is at the same time trying to recapitalize its 2,000 Blackhawk helicopters.</p>

CRS Report No. R46216 (Washington, DC: Congressional Research Service, February 2020), <https://fas.org/sgp/crs/natsec/R46216.pdf>, supplemented by information in the FY 2022 budget materials.

29. David A. Deptula, “Opinion: US Army Missile Buying Spree Is a Waste of Money,” *Aviation Week*, March 15, 2021.

Air and Missile Defense	<i>Maneuver Short-Range Air defense (M-SHORAD)</i> <i>Indirect Fire Protection Capability (IFPC).</i>	<p>Air and missile defense has received a lot of attention recently because of its applicability to great power conflicts and because support for this mission in Congress and DOD will continue to be strong.</p> <p>M-SHORAD is in production now. The Indirect Fire Protection Capability, designed to defend fixed points against cruise missiles and UAVs, will be fielded in FY 2023.³⁰</p> <p>Two Iron Dome batteries purchased from Israel provide an interim point defense system.</p> <p>Near-term capabilities will use missiles; longer-term capabilities may use directed energy.</p>
Soldier Lethality	<i>Next Generation Squad Weapons – Automatic Rifle</i> <i>Next Generation Squad Weapons – Rifle</i>	<p>The Army is fielding many small improvements in this area. New generation weapons may use a 6.8 mm round (as opposed to the current 5.56 mm and older 7.62 mm) but are still in the testing phase.</p> <p>These are inexpensive programs with direct applicability to troops and are likely to retain strong support in DOD and with Congress.</p>
Army Network		<p>Cyber expansion seems to be complete since it has mostly disappeared from Army statements. Although cyber receives a lot of attention, the Army component numbers only several hundred personnel.³¹ In the longer term, the Army intends to build integrated intelligence—cyber-electronic warfare units—as part of the multidomain forces.</p> <p>Building networks remains a challenge for the joint force, and the Army is no exception; the Army, after having severe problems with its Warfighter Information Network-Tactical, needs to convince sceptics that its most recent efforts will work.</p>

The Army’s overall concept for multidomain operations is called AimPoint, and the current thinking is that the major changes will occur at higher echelons, division and above.³²

Ultimately, the Army intends to develop “multidomain task forces” that would integrate space, cyber, air, ground, and maritime “to execute simultaneous and sequential operations using surprise and the rapid and

30. Ethan Sterenfeld, “Army Asks Congress to slow IFPC Increment 2,” Inside Defense, June 9, 2021, <https://insidedefense.com/daily-news/army-asks-congress-slow-ifpc-increment-2>.

31. Sydney Freedberg, “Army Struggles To Man New Cyber/EW Units: GAO,” Breaking Defense, August 16, 2019, <https://breakingdefense.com/2019/08/army-struggles-to-man-new-cyber-ew-units-gao/>.

32. Devon Suits, “Futures and Concepts the Center Evaluates the Future for Structures,” Army New Service, April 22, 2020, https://www.army.mil/article/234845/futures_and_concepts_center_evaluates_new_force_structure; and Andrew Feickert, *The Army’s AimPoint Force Structure Initiative*, Congressional Research Service, May 8, 2020, <https://sgp.fas.org/crs/natsec/IF11542.pdf>.

continuous integration of capabilities across all domains to present multiple dilemmas to an adversary.”³³ These remain mostly conceptual, although the Army has published concepts and built an experimental unit using an artillery brigade as the base unit. The Army plans to build five Multi-Domain Task Forces: two aligned to the Indo-Pacific, one aligned to Europe, one positioned in the Arctic and oriented on multiple threats, and the final aligned for global response.³⁴

Project Convergence is a major Army experimental effort to knit together capabilities from launchers, munitions, intelligence, cyber, and intelligence, surveillance, and reconnaissance (ISR).

If the Army wants to build new kinds of units in an environment of constrained end strength, it will need to reduce or eliminate some existing units. Because the active force has so few support units left, most having been transferred to the reserve components, that will mean eliminating or slimming down BCTs, with infantry BCTs being the likely target. ■

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33. “Multi-Domain Operations,” U.S. Army Training and Doctrine Command, October 4, 2018, <https://www.army.mil/standto/2018-10-04>.

34. “Army Multi-Domain Transformation: Ready to Win in Competition and Conflict,” Department of the Army, March 2021, <https://api.army.mil/e2/c/downloads/2021/03/23/eeac3d01/20210319-csa-paper-1-signed-print-version.pdf>.