

Managing Risk in Force Planning

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The United States is a global power with global commitments. As such, it cannot focus on a single problem or threat to the exclusion of others, nor can it seek to minimize risk across the board. To do so would be financially infeasible. Instead, the United States must seek to manage risk, setting priorities and allocating scarce resources to the most salient threats while accepting risk in other, less critical areas. As the United States enters another defense budget downturn, these choices become even more challenging as Congress and the Department of Defense (DOD) must grapple with what programs to cancel, curtail, or at least defer to balance the books.

Although the fiscal year (FY) 2022 defense budget request is essentially flat after accounting for inflation, rising internal costs, particularly for operations and maintenance (O&M) and compensation for U.S. servicemembers, mean that DOD must find savings elsewhere to offset this cost growth.¹ Congress, already aware of the many programs and expenses for which the Pentagon has requested funding, will deliberate on the implications of budgets that fall short of needs. This typically leads to hearings during which a Member asks someone from the Pentagon about the potential consequences of a loss of funding for something or another and the answer is usually, “Well, we’d have to operate at increased risk.”

Although correct in the strict sense, when the term “risk” is used repeatedly in this vague manner to explain the implications of virtually any defense cut, it quickly loses all meaning.

This lack of clarity and understanding of risk undermines effective decision-making for defense planning—something the United States cannot afford at a time of simultaneously growing threats to U.S. national security and fewer resources with which to deal with them.

Risk to What?

The first step in reaching a more precise understanding is to clarify what is at risk. From a force planning perspective, there are two relevant types of risk: operational and strategic. When Pentagon officials testify before Congress about the potential implications of programmatic cuts, they are typically referring to a form of operational risk, which broadly refers to the probability that a military force will be unable to achieve an operational mission objective set out for it within the current defense strategy.

The objectives of a national defense strategy are operationalized in a “force planning construct” that defines the number, types, and frequency of operations for which the U.S. military should be sized and shaped to support. For example, the unclassified summary of the 2018 National Defense Strategy (NDS) outlines that the U.S. military should be sized and shaped to “deter aggression in three key regions—the Indo-Pacific, Europe, and Middle East; degrade terrorist and WMD threats; and defend U.S. interests from challenges below the level of armed conflict” in peacetime.² In wartime, “the fully mobilized Joint Force will be capable of defeating aggression by a major power;

detering opportunistic aggression elsewhere; and disrupting imminent terrorist and WMD threats.”³ The strategy also requires the U.S. military to remain prepared to “deter nuclear and non-nuclear strategic attacks and defend the homeland” in both peace and wartime.⁴

Broadly, the U.S. military’s ability to meet these objectives can be compromised in one of two ways:

- It lacks the capability and/or capacity to achieve current and future military objectives (risk to mission), or
- It is unable to provide and sustain the force over time at an acceptable level of readiness and across the range of objectives it is expected to execute (risk to force).

Risk to Mission. Risk to mission reflects the force’s capability and capacity to conduct current operations at an acceptable human, material, and financial cost as well as its expected performance against emerging or anticipated threats as laid out in the defense strategy. Whereas current operations have focused on the ongoing conflicts in Iraq and Afghanistan, as well as on deterring rogue regimes such as North Korea, the 2018 NDS made clear that the priority would now be confronting Russia and/or China. However, because these are not active conflicts, risk to mission relative to these objectives must be assessed against planning scenarios.

The most important and stressing scenarios for which the 2018 NDS called on the services to prepare involve defeating the invasion of a U.S. ally or friend by China or Russia before the invader can achieve a *fait accompli*.⁵ In this context, a *fait accompli* involves a peer adversary seizing territory before the U.S. military can respond effectively and then presenting an escalation dilemma that would coerce the United States and its allies into relenting and accepting the new status quo.⁶

DOD planning scenarios include a Chinese invasion to occupy Taiwan and a Russian

invasion of NATO’s eastern flank, mostly likely in the Baltic Sea region. In recent years, when DOD and others have used war games to assess these scenarios, the United States military has consistently lost.⁷ Given these discouraging results, the question that naturally follows is: What can be done to reduce this risk to mission?

It is widely acknowledged that DOD suffers from both capability and capacity shortfalls. However, a better understanding of what they are and how to address them requires operating concepts that link DOD’s planning guidance to its resource requirements. In other words, how much of what type of military power is needed to do what the planning scenarios or strategy demand?

Operating concepts seek to solve operational challenges—in this case Russia’s or China’s *fait accompli* strategies—by describing the military objectives that military forces should achieve and how those forces should be organized and employed to achieve them in the smartest possible fashion. Critically, by describing solutions to concrete problems in terms that are understandable to all relevant stakeholders, operating concepts foster better understanding of what capabilities and force structure are needed, convey the potential implications of not resourcing a given program, and provide a foundation for an assessment of where potential tradeoffs exist—including across services—to accomplish a mission in the most effective and efficient manner possible.

The Army’s experience with its AirLand Battle doctrine provides insight into how operating concepts can help to focus attention on operational risks and close gaps between strategy and resources. In the wake of the Vietnam War, the Army found itself with a force that had hollowed out its high-end warfighting capabilities for a potential conflict against the Soviet Union to prioritize organizing, training, and equipping forces to support irregular warfare and counterinsurgency operations in Southeast Asia. To rebuild itself, the Army focused on the most salient, threat-based problem of the

day: a Soviet attack by a numerically superior force against NATO in Central Europe.

AirLand Battle, a combined-air/land doctrinal concept, sought to address this problem with land forces maneuvering in an aggressive defense while air forces attacked rear-echelon enemy forces feeding their front. By providing an understandable framework for how the services would execute the concept, AirLand Battle helped to rationalize and build support for the Army's "Big Five" modernization priorities: the M-1 Abrams tank, Bradley Infantry Fighting Vehicle, Apache attack helicopter, Black Hawk utility helicopter, and Patriot air defense system, all of which continue to be mainstays of the Army today. Critically, the concept also acknowledged the limitations of what the Army could accomplish on its own and fostered greater interservice cooperation and synchronization, recognizing that the Air Force was better suited to providing deep attacks beyond the forward edge of the battle area.

Risk to Force. Risk to force relates to the ability of the services to generate and sustain military forces over time. Risk to force can manifest itself in several ways. For example, the military could struggle to meet current campaign and contingency mission requirements, which could be an issue of either supply of or demand for forces. On the supply side, the force could be too small to maintain sustainable force rotations at the desired operational tempo and for all the tasks the defense strategy expects it to execute. Over time, this kind of force generation imbalance can break the force: too few people and too little equipment trying to handle too much work.

This has been a chronic problem for the Air Force, which since the end of the Cold War has received insufficient funding to modernize and recapitalize its force.⁸ Unable to procure enough aircraft to modernize its fleet, the Air Force has had to rely on an aging and progressively smaller force, which in turn costs more to maintain and therefore crowds out even more resources that could have been used to acquire newer aircraft. The bomber force is

emblematic of this modernization death spiral. After almost three decades of budget pressures, the bomber force has dropped from a high of 422 bombers in FY 1988⁹ to just 158 today.¹⁰ At the same time, demand for bombers has risen dramatically, with one Air Force commander noting that the mission-driven need for bombers has risen 1,100 percent over a five-year period.¹¹

The lack of sufficient funding for new aircraft combined with higher-than-expected usage of current aircraft has accelerated the wear and tear on the bomber force. This dynamic is why the Air Force felt compelled to retire 17 of its most worn B-1Bs to sustain the remaining bombers and to help fund its modernization programs.¹² A similar pattern holds across most of the Air Force fleet, 44 percent of which is now operating beyond its planned service life.¹³

The flip side of this is that the demand for forces from combatant commanders may be more than the military can support. Some analysts have recently pointed out the need to review and potentially curb combatant commanders' "unbounded demands for U.S. forces, primarily for an ever-growing list of presence missions" for which they "have no incentive to be sparing."¹⁴ This puts tremendous strain on the service chiefs, who must balance meeting the demand for forces from combatant commanders with other priorities such as much-needed force modernization.

In recent years, all of the services have struggled to keep up with demand for their forces.

- To help bridge the gap between retiring its aging KC-10s and KC-135s and bringing its new KC-46s online, the Air Force was thinking of contracting privately operated tankers to help meet more than 25,000 hours of non-supported flying hours.¹⁵
- Navy aircraft carriers have repeatedly had to conduct back-to-back deployments without major maintenance periods. Last year, the USS *Stout*, a guided missile

destroyer, spent a record 215 straight days at sea, reflecting a U.S. Navy without enough ships to execute the tasks required of it.¹⁶

- The Army has struggled with deployment to dwell time ratios far above what is sustainable in the long term for the current force.¹⁷

Another way risk to force can manifest itself is through attrition in the execution of missions that leaves forces vulnerable or unable to respond to other challenges. Over the past several decades of operating against less capable adversaries, the U.S. military has grown accustomed to astonishingly low attrition rates. Quite simply, this would not be the case in the event of a peer conflict. For context, during the 1973 Yom Kippur War, the Israeli Air Force (IAF) lost 102 of its 390 aircraft in 19 days of operations against a peer adversary (a collection of Arab countries led by Egypt and Syria) and suffered a total aircraft lost or damaged rate of 4.8 percent during the first week of fighting.¹⁸

If the U.S. Air Force continues to skew its forces toward older aircraft that lack the degree of survivability that will be needed to operate in future threat environments, it should expect to experience similar loss rates or worse in a conflict with China or Russia. A recent analysis by the Mitchell Institute for Aerospace Studies shows that if a similar 5 percent attrition rate were applied to U.S. fighters in a simulated conflict with China, a U.S. force of 791 combat-coded fighters could be reduced to 236 fighters remaining available after just 19 days of combat.¹⁹

Lacking any spare capacity, it would take years to recover from such losses, during which time the United States would be exceedingly vulnerable to other threats. For example, a recent study determined that it would take the industrial base an average of 8.4 years at surge production rates to replace current inventories of combat aircraft, ships, and other major weapons systems.²⁰

Of course, this risk is not limited to platforms. The Air Force has an ongoing shortage of pilots that, despite reduced competition from airlines due to the COVID-19 pandemic, has not abated.²¹ The lack of sufficient pilots even during a time of relative peace means that virtually no elasticity exists to replace highly trained combat pilots in the event of combat casualties. As with aircraft, it would take years and significant investments to replace these lost pilots. According to a recent RAND study, it costs between \$5.6 million and \$10.9 million to train a basic qualified fighter pilot.²² Replacing potentially hundreds of pilots lost in battle would be enormously expensive just in dollars, not to mention the time it takes to train new pilots.

Shortfalls in munitions and other expendables are also a perpetual concern.²³ In a peer conflict, current inventories of preferred munitions such as Advanced Medium-Range Air-to-Air Missiles (AMRAAM) and Joint Air-to-Surface Standoff Missiles (JASSM) would be expended rapidly and could not be replenished quickly. Once depleted, U.S. forces would have to reduce their operational tempo or revert to less effective and shorter-range weapons that expose the launching aircraft to greater risk from enemy defenses.

Risk to National Interests

Strategic risk relates to threats posing dangers directly to the United States including its population, territory, civil society, critical infrastructure, and/or interests. The 2018 NDS encapsulates what this means in practice for the Department of Defense as being “prepared to defend the homeland, remain the preeminent military power in the world, ensure the balances of power remain in our favor, and advance an international order that is most conducive to our security and prosperity.”²⁴

Assessing strategic risk involves a complex cumulative judgement based on the priorities assigned to various objectives within a given strategy as well as the aggregated operational risk. As noted, there is strategic risk inherent in every defense strategy: There simply are not

enough resources to minimize risk across the board. Instead, a well-crafted defense strategy manages risk by establishing priorities based on its assessment of what the most salient threats are and, by extension, accepting more risk in areas deemed less critical. For example, the 2018 NDS prioritizes confronting China and Russia at the expense of dedicating a greater share of resources to combating terrorism.

Whereas the prioritization and reorientation of DOD's planning and resourcing toward great-power competition are reasonable and long overdue, other strategic risks accepted by the 2018 NDS warrant greater scrutiny. One notable example is the fact that its force planning construct requires the services to organize, train, and equip to fight either China or Russia—not both. This single-war condition represents a significant break from previous post-Cold War defense strategies, all of which considered it critical that the U.S. maintain the capacity to fight two wars nearly simultaneously. The logic of the two-war strategy was to have sufficient capacity and capability to deter a second opportunistic aggressor from taking advantage of a U.S. military that is already engaged against a different adversary in another theater.

The timing of the shift to a single-war construct is perplexing, considering that the United States faces more threats today than at any other time since the end of the Cold War. Rather than being strategy based, this situation was driven by arbitrary budgets set by Congress without any relationship to the content of the national security and national defense strategies. The reality is that senior DOD leaders have concluded that a two-war force cannot be achieved with the budget constraints imposed by Congress.²⁵ Unfortunately, the current DOD budget does not even support the projected cost of rebuilding the U.S. military to win a single war against a great-power adversary at a moderate level of confidence.

Simply put, the U.S. military today lacks the capacity and capability to defeat China in a military conflict.²⁶ Although perhaps understandable from a budgetary perspective, this

also increases the strategic risk that a second adversary could launch a major military operation that threatens America's vital interests. For example, the United States risks failing to defend NATO from opportunistic Russian aggression if U.S. forces are already locked in an existential fight with China in the Indo-Pacific theater.

The DOD leadership has a responsibility to make clear to the current Administration, the Congress, and the American people the shortfalls and risks to readiness of a defense budget that is unable to meet the requirements of the national defense strategy, and this requires a clear problem statement. For example, the Air Force's 2018 statement of need for 386 operational squadrons—24 percent larger than the 312 that exist today—made clear what was necessary to meet the demands of the national defense strategy. That requirement has not changed.

The services must submit budgets in accordance with directed guidance from the White House, but they also have a responsibility to advocate for what they need to execute the defense strategy. Conflating budget submissions with the actual defense strategy requirement can give the false impression that missions can be met no matter how small the budget may be.

Historically, the military services recognized a *planning force* (what it needed) and a *programming force* (what the budget allowed). The space between the two was a measure of risk. The planning force was eliminated in the late 1990s, and there is now no easy means to recognize the gap between what the military needs to execute the defense strategy and what it can field with the budget that it is issued.

The Biden Administration should reinstate the process of submitting both a planning force and a programming force. The formal re-establishment of the planning force on an annual basis would provide a visible measure of risk between what the military has and what it needs.

Given its more abstract nature, strategic risk is rarely discussed in the context of programmatic or capability decisions. One notable exception to this rule is the United States'

nuclear forces. Since the 1960s, the nuclear triad and its associated nuclear command, control, and communications (NC3) system have served as the bedrock of U.S. national security by providing a continuous deterrent to nuclear-armed adversaries who pose an existential threat to the United States and its allies. Over the past 30 years, however, nuclear modernization programs have repeatedly been truncated, deferred, or cancelled in favor of other programs that were deemed higher priority at the time.

The culmination of these decisions that used nuclear modernization as a “bill payer” is a triad that is on the brink, with nearly all of its major systems operating well beyond their original planned service lives. Although the same critics who argued against previous nuclear modernization initiatives are once again arguing against the need to modernize DOD’s nuclear enterprise,²⁷ the reality is that failure to modernize America’s nuclear forces in a timely manner would diminish the nation’s strategic nuclear deterrence posture even as the international security environment grows more dangerous, punctuated by Russia and China continuing to invest significant resources into their nuclear forces.

Risk in Time?

There is also a temporal element to risk: For a given decision, there can be tradeoffs in risk across time. One of the fundamental tradeoffs that defense planners must confront is that between investment in readiness, capability, and capacity.

- Readiness is the condition of forces with respect to their equipment, personnel, skills, proficiency, and sustainment necessary to fight and win the nation’s wars.
- Capability in this context refers not only to old equipment that may still be effective, but also to investments in the future force and is generally reflected in the budgets for modernization and research, development, test, and evaluation (RDT&E).

- Capacity relates to the size of the force, typically measured in terms of end strength or operational units.

The task that confronts the service chiefs and defense planners is attempting to find the proper balance among these three factors, making decisions on when and where to take risk in the current force to prepare for the future or else taking risk in future capabilities if they assess that the demand for current capabilities cannot be put in jeopardy.

Deputy Secretary of Defense Kathleen Hicks has referred to this balancing act as the “iron triangle of painful trade-offs” because defense planners “can nuance the edges of the dilemma, but for the most part, the [triangle] forecloses radical changes in the defense strategy.”²⁸ She further adds that, in general, as long as U.S. forces are engaged in active conflicts, investments in future capabilities are the most easily deferred.

Two change-minded leaders, Air Force Chief of Staff General Charles “CQ” Brown and Marine Corps Commandant General David H. Berger, recently co-wrote an op-ed that attempts to tilt the readiness balance in favor of modernization by introducing the future into the readiness part of the equation. In line with the 2018 NDS’s decision to accept more risk in the near term to modernize for future conflicts, the service chiefs argue that “we, as members of the Joint Chiefs of Staff, should embrace a framework for readiness that manages the relationship between today’s combatant command requirements with the modernization imperatives required to enable tomorrow’s combatant commanders.”²⁹

In other words, they are attempting to reframe readiness in terms of readiness to execute the mission from a capability perspective, which in their assessment requires placing more emphasis on future combat readiness and capabilities even at the expense of current readiness.

On the one hand, they have a valid point. Critical elements of readiness include sufficient and capable forces that can meet the anticipated

threats. Decades of deferred, truncated, or cancelled modernization mean that in the event of a major conflict, the United States would have to rely predominantly on 1970s and 1980s technology. Today, for example, the average Air Force tanker is more than 50 years old, and less than 20 percent and 13 percent of the fighter and bomber fleets, respectively, are stealthy.³⁰

Simply put, in view of the way that the character of the threat is advancing, the United States would not be able to sustain the fight against a peer adversary with such outdated equipment even if it achieved 100 percent readiness across its forces. In this sense, the effort by Generals Brown and Berger to redefine readiness to place greater emphasis on modernization has significant merit.

On the other hand, although this effort to change the framework is clever rhetorically, it does not provide a fundamental escape from the iron triangle of painful tradeoffs. The services are making big bets on future technologies that hold potential, such as artificial intelligence and hypersonic weapons, in the hope that they ultimately will help the United States to maintain its comparative military advantage against such peer competitors as China and Russia. Secretary of Defense Lloyd Austin has remarked that the FY 2022 defense budget includes “the largest-ever request for RDT&E for development of technologies,” with Joint Chiefs of Staff Chairman General Mark Milley adding that the budget “biases the future, slightly” over the present.³¹

However, in the rush to modernize, the challenge remains: How well will the military transform for an uncertain future as well as hedge for unexpected contingencies in the present? What remains unsaid is that these investments in the future are coming at the cost of having to divest existing force structure and current combat-credible readiness. Furthermore, budget constraints are compelling the services to divest current forces on the bet that their replacements will be fielded sometime in the next 10 years rather than waiting until the new capabilities have entered the force and demonstrated their combat relevance.

In the hope of staying ahead of the technology curve, the services are also forgoing sufficient procurement of capabilities that are available today. For example, instead of increasing procurement of F-35As to 80 per year as it once intended, the Air Force has requested only 48 F-35As per year in its three most recent budgets. At that rate, the Air Force will not fully field its planned F-35A force until the mid-2040s.³² Although preparing the force for the future as technology advances is critical, this approach dramatically increases the risk that the United States will lose a peer conflict if it occurs in the near term—something of which potential adversaries are undoubtedly aware and are monitoring closely.

Ideally, the services would be able to fund current combat-credible readiness *and* make significant investments in future capabilities. However, this would be executable only if the military received significant funding increases. Instead, the services are constrained by the current budget environment, and this places them in the uncomfortable position of trying to choose the least bad option. Ultimately, it is up to Congress and the American people to decide whether they are willing to provide the military with the additional resources it needs. But regardless of the outcome, these decisions should be made with a full appreciation of the risks involved in not doing so.

How Much Risk?

Obviously, not all risks are created equal. The level of risk associated with a given threat or hazard is a function of two variables: the probability that a negative event will occur and the expected severity of the resulting harm. A greater level of risk is assumed either when it becomes more likely that a negative event will occur or when the likely harmful consequences of such an event become more severe. The potential harm or consequences of such an event are in turn estimated by considering the value of the interest at stake, the extent of the damage that can be done, and the permanence of the potential damage inflicted.

Based on the assessed probability and potential consequences of a negative event occurring, each potential threat is characterized with an associated level of risk ranging from low to high. Although bounded to the extent possible by empirical data, risk judgment is ultimately a qualitative effort that depends upon, among other things, the relative importance that a decision-maker assigns to more likely or more consequential threats.

By its nature, risk assessment is an inexact science hampered by a combination of the complexity of the subject matter, uncertainty driven by incomplete knowledge, and the ambiguity that can result in competing yet equally reasonable interpretations of the same sources of risk. However, current defense planners suffer from another, more avoidable challenge: The gap in threat perception between themselves and the broader American public they serve has grown alarmingly wide.

In this sense, the U.S. military has been a victim of its own success. For 30 years, the United States has had the uncontested ability to do virtually whatever it wanted militarily anywhere in the world. Additionally, the size of the force needed for post-Cold War operations in which the United States has engaged was such that the U.S. military could sustain those deployments indefinitely. The result of this recent dominance is that many can no longer conceive of a world in which U.S. military supremacy is not a given, and this has biased the perception of both inputs to the calculation of risk.

First, having grown accustomed to U.S. military superiority over lesser adversaries and not having experienced a larger, conventional war in more than 30 years, the public's perception of the likelihood of armed conflict between the United States and a peer competitor such as China or Russia is that it is highly unlikely. Furthermore, the public believes that the United States far outpaces any other power in defense spending—though the margin has in fact narrowed significantly³³—and this reinforces the belief that even should a conflict occur, it would be virtually impossible for the United States to lose. The reality, however, is

that both the possibility of war and the possibility that the United States might lose are very real and continue to grow more likely as the United States' military advantage in key regions continues to erode.

Second, the public also tends to underestimate the potential consequences of the risk posed by China and Russia. Reminiscent of debates during the Cold War over whether the United States would be willing to trade New York for Paris in a potential nuclear exchange, there is significant handwringing today over public willingness to go to war with a major power over Taiwan or Estonia, neither of which is perceived as a vital U.S. national interest. However, the potential consequences are profound. As the 2018 NDS points out, “failure to meet our defense objectives will result in decreasing U.S. global influence, eroding cohesion among allies and partners, and reduced access to markets”³⁴ that for decades have helped make Americans secure, prosperous, and free.

The fear is that it is going to require a significant defeat to wake up Congress and the American people to the danger. The United States could very well lose the next battle—and perhaps the next war—if it does not change course. Perhaps only then will the Administration, Congress, and the American people realize that the only thing more expensive than a first-rate military is a second-rate one. Unfortunately, by then, it may be too late to reverse the damage.

Conclusion

Making better-informed decisions about the acceptability of risk and, by extension, what should be done about it requires better communication among all relevant stakeholders: the Administration, defense planners in the Office of the Secretary of Defense, the armed services, Congress, and the American public. Effective communication should aim to reduce potential misunderstandings and potential surprises as they relate to risk.

The single most important step that DOD could take to improve the understanding of

both the nature and the extent of risk would be to require the services to release both a planning force that is sized to meet the demands of the national defense strategy and a programming force that reflects what can be achieved within the constraints of congressional appropriations. In this construct, the difference between the two equates to risk. This would dramatically improve transparency and insight into the degree of risk the U.S. military faces because of differences between what America's armed services need and what they are allocated.

Endnotes

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