# AFTER DEFEAT A TIME TO REBUILD

We lost people, we lost aircraft, we lost a campaign, we lost prestige, but we did not lose forever. It is time to look beyond the sense of finality that comes with defeat. We can decide not to lose. After suffering tremendous moral and physical attrition, it is time to rebuild. We cannot waste this crisis. We must implement the necessary changes to be victorious, next time.

ullet am often asked: "What keeps you up at night?" The answer is simple. We know that we must change, but the internal and external forces opposing change will not allow lacksquare it, and we lose. We lose aircraft. We lose Airmen. We lose a campaign. We lose the confidence of our friends and the respect of our foes. Then, those of us who remain have to put the defeat behind us and rebuild.

No one wants to discuss the possibility of defeat. In our military careers, we are told repeatedly that "failure is not an option." Unfortunately, as a nation and as the Department of Defense, we have been unable to enact real change. When that fact is combined with our poor record of matching military means with political ends, failure becomes possible. Ignoring that possibility will not make it go away.

The following is a fictional work set in the future. It explores the possibility of failure, why it might happen, and how we might respond. It is intended to help us think about the future we are building for tomorrow's Airmen and what we might do now to help them succeed.

"Accelerate change or lose." In retrospect, General CQ Brown's words cut deep both a warning unheeded and an opportunity unanswered. We knew we had to change. We tried, but we did not . . . not enough at least. So we lost. And here we are—picking up the pieces, burying the dead, and experiencing the shame. America loves winners. America hates losers. That is what we are, at least in this moment. It hurts. I feel ashamed. We have worked hard to provide the next generation a winning Air Force, just like others did for us. Our predecessors succeeded. We failed.

We must move forward, but before we can, I need to reflect on where we have been. Are we in the middle of the story or at its end? Because this defeat feels final.

### The Postmortem

My mind is filled with so many questions: Why could we not change? Did we see the danger in time, or was it too late? What could we have done differently? Undoubtedly, many factors contributed, both internal and external. Taken together, they hindered us from appreciating the extent to which our military advantage had eroded. Once we did see it, we could not change fast enough to make a difference.

After the Vietnam conflict, our damaged and depleted military was rebuilt by courageous and committed leaders—a major factor in an unexpected close to the Cold War. Along with this shock to the international system, the Persian Gulf War proved to be a turning point, both for us and for our adversary. For us, it represented vindication and triumph. Aerospace power showed itself as decisive as any form of military power, and much less costly than most. Our forces were tactically and operationally brilliant, employing a mix of precision firepower with intelligence and communications that allowed our forces to dismantle a state in short order.

Even more impressive, however, was our logistical system that moved and sustained our force. It is hard to overstate how complete our victory felt at the time. Yet we would eventually realize the operational success of Desert Storm was not a victory at all. The indecisive end to the military operation led to years of pseudo-war, keeping us mired in the Middle East, draining our attention, depleting our resources, and engendering resentment. At the time, however, we felt an overwhelming sense of relief and elation. Hubris would follow close behind.

Our adversary took notice. Their military strategists studied our success and began conceptualizing a military that could stand against our preferred way of war. It must be acknowledged that, at a time when their GDP was barely 7 percent of ours and poverty was rampant, they conceived of a plan to assert control of their fate and began to execute it.<sup>2</sup> As we look back, we must acknowledge the power of their belief. It is one of the many things that makes them a worthy rival.

As our adversary resolved to build their military for confrontation, we spent much of our attention and resources in the Middle East. I can remember patrolling the nofly zones in Iraq and marveling at how much time, effort, and money we were willing to spend to keep the Iraqis from flying over their own territory. This occurred during the time of the First Austerity.

After the Gulf War, there was great hope for a "peace dividend." From 1988 to 1997, the US military budget decreased by 30 percent in real terms.<sup>3</sup> When democracies face austerity, their militaries tend to gravitate to the same things: they cut force structure, they defer modernization, or they do both, because that is where the real money is.

<sup>1.</sup> See James Kitfield, Prodigal Soldiers (Washington DC: Brassey's, 1997).

<sup>2.</sup> Roger Cliff, Anti-Access Measures in Chinese Defense Strategy (Santa Monica, CA: RAND Corporation, January 27, 2011), https://www.rand.org/.

<sup>3.</sup> Congressional Budget Office (CBO), Illustrative Options for National Defense under a Smaller Defense Budget (Washington, DC: CBO, October 2021), 6.

This was certainly true for the Air Force. In 1989, there were approximately 571,000 active-duty Airmen. By 2000, this number had decreased to just over 357,000.4 At the same time, our leading modernization programs—the C-17, B-2, and F-22—kept slipping "to the right." Both the B-2 and F-22 programs would be severely truncated below what would be needed against our adversary, although we did not understand it at the time.

In reality, there was little pressure to modernize.<sup>5</sup> We enjoyed a high degree of overmatch over adversaries in plausible scenarios, as was illustrated in NATO's intervention in Kosovo and the subsequent air war over Serbia where aerospace power achieved the political objective, losing only two aircraft in over 35,000 sorties.<sup>6</sup>

Moreover, the essential linkages between air and space were proven through the combination of intelligence, surveillance, and reconnaissance, precision navigation and timing, global satellite communications, plus aircraft and weapons that could take advantage of all of these. It was a magnificent performance by a professional military in limited war. To many, warfare itself appeared to be changing, with the new sense of possibility captured by the word *transformation*.

Then came 9/11, and the world changed again. It was a shocking event that would burn into our psyche. I remember feeling ashamed then, too. I was ashamed that our powerful military and numerous intelligence activities had not prevented the attack. For those of us serving at the time, I think this brought on a crisis of conscience. We appeared to be focused on the wrong things. Our magnificent military was capable of dismantling states, but a state did not attack us.

As they say, when all you have is a hammer, everything looks like a nail. Our first response, therefore, was to dismantle a state, if that is what you considered Afghanistan under the Taliban. Aerospace power played a decisive role in that operation too, with our precision firepower called down from the heavens by special tactics teams working with our rebel allies. Our aerospace power gave us the advantage, and the Taliban quickly realized they could not survive as a fixed force. Instead, they retreated into the vast terrain and rediscovered their martial roots. Importantly, we (along with our Allies and partners) decided to assume the role of protector and nation builder, and thus began Occupation #1.

Almost as soon as the Taliban government fell, we began planning for the takedown of Iraq and Saddam Hussein, another nail for our hammer. I was personally involved in planning, and I now look back with a sense of great dissonance. On the one hand, the initial invasion of Iraq was one of the finest military operations ever executed. Our sanctions and policing over 12 years had crippled the Iraqi military, and the invasion was a combined arms masterpiece that leveraged a limited number of ground forces with massive amounts of aerospace power and logistics to move quickly to

<sup>4. &</sup>quot;USAF Almanac: The Air Force in Facts and Figures," Air Force Magazine 83, no. 5 (May 2000): 55.

<sup>5.</sup> See Michael E. O'Hanlon, The Plane Truth: Fewer F-22s Mean a Stronger National Defense (Washington, DC: Center for Strategic and International Studies, September 1, 1999).

<sup>6.</sup> O'Hanlon, The Plane Truth.

Baghdad. Entire armies were wiped off the map within hours of contact, and at the same time, we executed a full systemic attack of the Iraqi state. The result: systemic paralysis, just as John Warden predicted.<sup>7</sup>

Unfortunately, there was a day after, and we had no executable plan. I remember receiving the full operations plan brief in the months leading to the invasion, including hundreds of detailed slides. When the brief got to the phase for consolidation and peace building, however, there was an "under construction" sign. That was it. In the remaining months before the campaign kicked off, I never saw any real planning for rebuilding Iraq after the invasion. More than once, I heard people say, "that is State's job." That is how Occupation #2 began, with predictable results.

It could have been so different. At the policy level, the initial phases of the Afghanistan War were necessary given the 9/11 attacks, but the occupation was a choice. Moreover, both the Iraq War and the subsequent occupation were choices. 8 I will not debate the merits of those choices here, except to say they had far-reaching consequences. Supporting these occupations would be the preeminent problem for the Department of Defense for the next 20 years, and because aerospace power was so valuable, large amounts of it would be dedicated to the efforts. Since we did not have an Air Force that was tooled for irregular warfare at capacity, we dedicated our front-line fighters, bombers, tankers, and intelligence, surveillance, and reconnaissance aircraft to the daily struggle of insurgency and counterinsurgency. There was never a break, ever.

Defense budgets went up during these years, but we should be clear about what that meant. We spent massive amounts on current operations, including an expensive network of bases in the Middle East with the logistics and contract support to keep them going. We built a massive enterprise around the Predator and Reaper aircraft, which we scaled to the limit of our ability to support. We flew our aircraft incessantly and expended weapons at unprecedented rates.

What we did not do was modernize. With the focus on winning the war we were in, the extant crises crowded out future investments. This became our Second Austerity. Essentially, the heavy imbalance toward supporting the occupations—an imbalance that affected both resources and the attention of DOD leaders and planners—left little room for reinventing our Air Force and our broader military, despite massive technological shifts that were transforming warfare itself. When then-Secretary of Defense Robert M. Gates accused the Air Force of "next war-itis" and decapitated its leadership, his message was clear and forceful.

I have noticed too much of a tendency towards what might be called "Next-War-itis"—the propensity of much of the defense establishment to be in favor of what might be needed in a future conflict. . . . But in a world of finite knowledge and limited resources, where we have to make choices and set priorities, it makes sense to lean toward the most likely and lethal scenarios for our military. And it is hard to conceive of any country confronting the United States

<sup>7.</sup> John A. Warden III, "The Enemy as a System," Airpower Journal 9, no. 1 (Spring 1995).

<sup>8.</sup> See Richard N. Haass, War of Necessity, War of Choice, (New York: Simon and Schuster: 2009).

directly in conventional terms—ship to ship, fighter to fighter, tank to tank—for some time to come.9

In retrospect, it is clear we spent a lot of time, money, and leader bandwidth in the occupations, with little return on that investment. At the same time, we did not invest enough in new equipment or in the development of new war-fighting concepts. Yet the occupations were choices, and these insurgencies would never become a strategic threat to the United States. The true strategic threat lay in the consequences of those choices, particularly the high opportunity cost incurred. At a time of relative peace and prosperity, we could have used our time and resources to invest, develop, retool, and prepare. Instead, we doubled down on a bet we were likely to lose. 10 In my opinion, the seeds of our defeat were sown in Afghanistan and Iraq.

As we committed this strategic error, our adversary took advantage. Its efforts to negate our preferred way of war began to bear fruit. The adversary began to field military capabilities designed to challenge information superiority, deny operational sanctuary, and attack key nodes such as ports, airfields, and fuel storage—assets critical to our preferred fighting concepts. 11 These included "carrier killer" ballistic missiles along with increasing numbers of modern cruise missiles, warships, aircraft, antisatellite, and electronic warfare systems.

Additionally, the adversary executed a masterful incremental strategy in the South China Sea, building military bases and expanding its area of control. The west hoped international norms would slow this advance, but with no enforcement mechanism, they did not.12

While our adversary focused on achieving its strategy through a specific conceptual approach, we remained unfocused. Our strategic guidance at the time failed to set real priorities or make difficult choices. For example, the 2014 Quadrennial Defense Review contained expansive aims but little more than vague discussions of attendant risk.<sup>13</sup> We had become so accustomed to being dominant in warfare that we made the mistake of thinking we could do everything (or most things) with acceptable risk. In reality, we focused on the crisis of the day, which was usually violent extremism, especially in Iraq and Afghanistan, but also in Libya, Syria, and the Sahel. Every once in a while, North Korea or Iran would act up just enough to steal our focus but not enough to provoke a forceful response.

<sup>9.</sup> Robert M. Gates, "Remarks to the Heritage Foundation," delivered on May 13, 2008 in Colorado Springs, CO.

<sup>10.</sup> See Douglas Olivant, "Gates: What He Really Thought about the Afghan War," The South Asia Channel, Foreign Policy, February 6, 2014, https://foreignpolicy.com/.

<sup>11.</sup> Christopher M. Dougherty, Why America Needs a New Way of War (Washington, DC: Center for a New American Security, June 2019), 32-33.

<sup>12.</sup> Hal Brands and Zach Cooper, "Getting Serious about Strategy in the South China Sea," Naval War College Review 71, no. 1 (2018).

<sup>13.</sup> Chuck Hagel, Quadrennial Defense Review 2014 (Washington, DC: Office of the Secretary of Defense, March 4, 2014), https://www.acq.osd.mil/.

At the same time, in what the late Senator John McCain called the militaryindustrial-congressional complex, the focus was stovepiped and disjointed. Many DOD leaders concentrated on their specific piece of the puzzle, usually to the detriment of the whole. One of the defining characteristics of the Department in this period was an incredible diffusion of power and decision-making authority. For each of these power centers, it was much easier to veto a threatening proposal for change than to make progress in high-end warfighting.

This was especially true for the combatant commanders. Their short-term focus drove their recommendations and decisions, with no real counterbalance in place. In addition, there were key leaders at each agency, service, and secretariat that opposed real change because it would come at the expense of their short-term priorities. Importantly, almost all of them found allies on Capitol Hill, where many lawmakers focused on defending their local interests, especially those of the units and bases in their states and districts, plus the defense industries that provided jobs. For their part, these defense companies focused on the incentives in front of them. The money was in current operations and sustainment. In comparison, betting on modernization programs was a crapshoot that seldom paid off in the Second Austerity.

Then came sequestration. Looking back, these mindless cuts represented the nadir of what James Mattis called our "strategy-free environment;" he was right when he testified about sequestration: "no foe in the field can wreak such havoc on our security." <sup>14</sup>

In 2018, we began to recognize the danger posed by this toxic mix. In an unusual attempt at clarity, the Department crystalized the situation in a highly classified brief to Congress called "Overmatch" that presented the results of major wargames against both Russia and China in plausible scenarios. It was dismal and shocking to many.<sup>15</sup> This was followed shortly thereafter by a new National Defense Strategy that finally set real priorities and made difficult choices. At its core was the message that we had entered a period of great power competition, and the focus of the Department needed to return to high-end warfighting. 16 This hard-hitting document was highly praised, even in Congress, and it seemed to be the right strategy at the right time. Agents of change within the Department began to hope.

Unfortunately, that hope turned to cynicism when we failed to implement this strategy. There were many lost opportunities over the years, but this one sticks out to me. We had hard evidence to show we were losing ground, we had a good strategy to counter this, we had a growing consensus that change was necessary, and we even had

<sup>14.</sup> Hearing to Receive Testimony on Global Challenges and US National Security Strategy, United States Senate Committee on Armed Services, 114th Cong. (January 27, 2015) (87, 13) (statement of General James N. Mattis, USMC (Ret.)), https://www.armed-services.senate.gov/.

<sup>15.</sup> See Christian Brose, The Kill Chain: Defending America in the Future of High-Tech Warfare (New York: Hachette, 2020), introduction.

<sup>16.</sup> Hearing on Implementation of the National Defense Strategy, United States Senate Committee on Armed Services, 116th Cong. (January 29, 2019) (statement of Elbridge A. Colby, director of the Defense Program, Center for a New American Security), https://www.armed-services.senate.gov/.

some budget increases. Yet we could not develop a shared sense of urgency, and many leaders—internal and external—fought change with their soft vetoes and firm alliances.

This was when General Brown issued "Accelerate Change or Lose." Despite this, we failed to make a convincing case, and our stakeholders did not buy in. We did not accelerate, and so we lost. And here we are—picking up the pieces, burying the dead, and experiencing the shame.

## What Now?

Fortunately, this is not the end of the story. One of the most important lessons I have learned about strategy came from my professor at the School of Advanced Air and Space Studies, Dr. Everett Dolman. He argued that despite our professional education, we should not assume that a strategy consists of the "three-legged stool" of ends, ways, and means. Instead, he taught us that strategy, "in its simplest form, is a plan for attaining continuing advantage."18

Moreover, he taught us that "strategy is not about winning," because there is no true end state . . . there is always a day after. 19 It is the continuing interaction that determines outcomes, a concept that Simon Sinek echoes in his book, The Infinite Game. 20 Dolman also highlighted a particularly insightful (and controversial) statement that Richard Hart Sinnreich—leader of the Army's School of Advanced Military Studies—had the audacity to make in the Washington Post: "It's not the winner who typically decides when victory in a war has been achieved. It's the loser."21

The first time I read those words, I did not believe them. Now, I am profoundly thankful that they are true. We lost people, we lost aircraft, we lost a campaign, we lost prestige, but we did not lose forever. It is a new day. Great strategists are able to see past the sense of finality that comes with defeat. We must now be great strategists. We can decide not to lose. Indeed, we must. After suffering tremendous moral and physical attrition, our job now is to rebuild. We cannot waste this crisis. We must implement the changes that we knew we needed. It is our one chance.

### A Time to Rebuild

For the next phase of the contest with our adversary, it is likely our political leaders will tell us to do the following, in priority order:

1. Defend the people of the United States, our territories, and our interests by deterring further attacks in air and space. Our defeat will be interpreted as weakness.

<sup>17.</sup> Charles Q. Brown Jr., Accelerate Change or Lose (Washington, DC: Department of the Air Force, August 31, 2020).

<sup>18.</sup> Everett Carl Dolman, Pure Strategy: Power and Principle in the Space and Information Age (New York: Frank Cass, 2005), 6.

<sup>19.</sup> Dolman, Pure Strategy, 5.

<sup>20.</sup> Simon Sinek, The Infinite Game (New York: Penguin Random House, 2019).

<sup>21.</sup> Richard Hart Sinnreich, "Winning Badly," Washington Post, October 27, 2003.

Our homeland has been attacked; Andersen is decimated, Pearl-Hickam is barely functioning, and our logistics systems are unusable. The threat of further attack will continue as we progress to low-grade, protracted conflict somewhere between war and peace. After decades of emphasizing offense, we must focus on defense and deterrence.

2. Rebuild security partnerships with our key Allies and partners. Our defeat will be interpreted as weakness. Many of our security partners will conclude they must bandwagon with our adversary or find some way to preserve neutrality. We must identify the security partners who are still with us and seek true security cooperation, not the parent-child approach we adopted during the last several decades. In this, we have no choice. We share core interests and are dependent on each other for prosperity and security. None of us can stand alone.

Aerospace power cannot accomplish either of these objectives alone, but it remains essential, perhaps more so than ever. Importantly, while we will continue to have separate Air and Space Forces, I remain convinced we cannot think of air and space as distinct and separate forms of military power. The arc of technological development is in the opposite direction, and if we allow the exisiting bureaucratic separation to grow into a conceptual one, others will be able to exploit this error. Indeed, this is what our adversary did. For this reason, we must think of aerospace power in the singular.

There can be no homeland defense without aerospace defense. There can be no deterrence without the ability to hurt our adversary through air and space. There can be no use of the global commons without the ability to project aerospace power. Our Allies and partners need all of these aerospace capabilities as well. In order to produce this military aerospace power, we must lead and influence our country's aerospace enterprise, in all its forms. This will also become our third objective below.

3. Rebuild our aerospace nation, and help our Allies and partners do the same. Our military aerospace power arises from a strong aerospace foundation across industry, government, and academia. We must use our influence to build holistic health and create positive incentives across these societal arenas.

# Objective #1: Deterrence and Defense

Military power deters in two ways. It disables (deterrence by denial) and it hurts (deterrence by punishment). In modern conflict, there is no capability to deny or punish apart from access to air and space. In our most recent conflict, unfortunately, we were unable to project sufficient aerospace power to deny, and our threats of punishment through air and space were insufficient. We must address both sides of the equation.

Our nuclear forces did what they were supposed to do. They served as a backstop to all-out war with a peer. In fact, perhaps one of the few successes we can claim over the last decade is that we have been modernizing these forces. These were critical in the signaling between us and our adversary. They remain so today. One indication of the continued importance of nuclear deterrence is the choice several of our allies have made to field their own nuclear deterrent in the wake of our defeat. They would not do this unless they thought it was essential to their survival.

Despite this, it is clear nuclear forces are not enough to deter our adversary from attempting limited objectives, especially when there is an imbalance of interests between us. When the adversary cares about something more than we do, it is not enough to signal a vague threat of punishment that might include a nuclear response. It is just not credible. It was not for our adversary, and when it called our bluff, we were not willing to go there.

So as we go back to basics on what deters a peer adversary, we must acknowledge our conventional aerospace power was not enough to deter. This was especially true as we consider the fundamental reasons for our services' existence: superiority in air and space. The effectiveness of our entire Joint Force depends on air and space superiority, and we never established either one, at least not where it mattered. If we are to rebuild, this is where we must start.

Prior to the conflict, the Space Force was executing a plan to preserve the use of space assets while denying that use to our adversary. They were hamstrung, however, by a slow start due to policy concerns as well as the brittle architecture they inherited from decades of assuming space was not a warfighting domain. Our adversary intended all along to challenge our use of space, but it took too much time for our policy to catch up to this reality. When it did, we just did not have enough time or money to field capabilities adequate to defend the old architecture, especially against the combination of direct-ascent anti-satellites to geosynchronous orbit and directed energy from Earth's surface. As a result, we suffered attrition, and the brittle architecture broke down.

A similar story played out in the air domain. We became accustomed to the lightly contested use of the air, and we allowed the momentum of a failing approach to bring us down. Specifically, our approach was to field capable fighter aircraft (flown by highly trained pilots) at ever-increasing cost and ever-decreasing numbers. At the same time, our ability to maintain air awareness waned as the airborne warning and control system (AWACS) aircraft became unsustainable due to age, and we were not able to field a suitable replacement for the high-end fight.

There was a point where we explored fielding larger numbers of unpiloted aircraft as "loyal wingmen," but we did not go fast enough in this area. As in space, we were brittle to attrition, and we paid the price. When we could get to the fight, our pilots and aircraft did well, until they ran out of missiles and were overwhelmed.

We now have a clean sheet to rebuild air and space superiority through a systemof-systems approach that leverages capabilities in all domains. This will include developing domain awareness in new ways, especially as space assets are able to determine what is flying in the air and air assets can do the same for space. Communication links must be reliable and redundant, with global communication through space as the foundational capability supported by many others, including highly specialized and secure datalinks for aircraft.

Battle management will increasingly migrate to an all-domain capability conducted on behalf of the Joint Force commander. We should welcome this evolution, as it will allow us the flexibility to use other domains to achieve air and space superiority.

Warfighting effects can and must be employed across domains, as air platforms will be able to shoot into space, and space platforms will shoot in and through the air. Finally, both air and space forces must be more resilient to attrition. We should aim to exhaust or negate the adversary's number of weapons at acceptable cost, ideally less than it will cost the adversary to replace those weapons. This will require us to field much larger numbers of aircraft and spacecraft of various capabilities and price points.

Of course there are many other aspects to rebuilding, but we must start with these essential elements: a modern, resilient nuclear deterrent combined with the ability to establish air and space superiority to counter the ongoing threat of attack from our adversary. We must maintain the threat of punishment through our nuclear deterrent while also bolstering the threat of denial in air and space. Until the threat to our homeland abates, everything else is secondary. Moreover, the ability to project superiority into the air and space is essential to reestablishing widespread use of these commons, a condition that will be critical to rebuilding transportation flows across the global economy. But we cannot do this alone.

# Objective #2: True Partnerships

Our global system of partnerships and Alliances has been severely challenged in the aftermath of our defeat. We spent decades building that system, but the nations of the world, and especially the nations of Asia, are now torn between the options of balancing against or bandwagoning with our adversary. For many, fear and uncertainty will drive bandwagoning behavior—or at least a move toward neutrality, which will require deemphasizing security cooperation with us.

Some will make the courageous choice to balance, however, at least for the time being, and we must give these allies a reason to continue close cooperation with us. If we cannot do this, we can expect two results: the collapse of the balancing coalition in Asia, and the establishment of a hostile hegemon there. 22 It is not an overstatement to say that the long-term conflict between us and our adversary will be decided according to the perceptions of the third-party states forced to choose between us. Accordingly, we must leverage the common need for aerospace power to encourage these states to continue security partnerships with us.

We will do this through several lines of effort. First, we will develop shared awareness of the security environment with our allies. In our world, information continues to grow in value. An understanding of the security environment is a critical form of sovereignty for our allies. We will codevelop systems that gather information across the globe—at all classification levels—and convert this information into shared understanding through powerful technological tools. The goal will be to build on this understanding to increase trust and achieve a common framework for collective action.

<sup>22.</sup> Elbridge A. Colby, A Strategy of Denial: American Defense in an Age of Great Power Conflict (New Haven, CT: Yale University Press, 2021), 118.

Second, we will conduct integrated defensive planning with our allies. Just as defense and deterrence is the priority for us, this is true for our allies as well. One of the most effective ways to work together is to conduct detailed defensive planning with them. This raises the credibility of our collective defenses and, therefore, their deterrent value. This is especially true if the planning can take advantage of new capabilities that we develop and field together . . .

Third, we will codevelop defensive capabilities that are both effective and interoperable. We have allowed a limiting paradigm to harm our security cooperation with our most capable allies. We were the world leader in foreign military sales for so long that we adopted a haughty mindset: we assumed we had the best stuff, and we were willing to sell it to you, but only if you complied with our rules (which in some cases meant giving up aspects of your sovereignty). Plus you needed to pay a premium for the privilege.

Unfortunately, this approach limited the opportunities to codevelop capabilities with our closest allies, some of whom were surpassing us in their technological prowess. It is time to leave that approach behind. We now have an opportunity to codevelop elements of a shared defensive systems of systems. Numbers matter in the contest with our adversary and so does forward basing. Working together with key allies, we can field these capabilities in greater numbers, closer to where they will be needed. As an example, we should leverage the potential of large numbers of unpiloted platforms to blunt aggression by our adversary. The result will be a more credible threat of defense through denial.

Fourth, we will help our selected allies field a safe, secure, and reliable nuclear deterrent. In the wake of our defeat, some of our allies decided that they needed their own nuclear deterrent to protect themselves. In a better world, we would have wanted the established nonproliferation regime to continue, but that is not the reality. Accordingly, we have a common interest to help our allies field a deterrent using best practices in safety, surety, and reliability, which means sharing our data and lessons learned. Additionally, should the president direct, we must be prepared to conduct common planning with our allies to increase the credibility of our combined nuclear forces.

If we are to be successful in building a common defense, we must change our thinking. Our key allies are not "nice to haves." They are essential for our own safety and security. We will either act accordingly or undermine our core interests.

# Objective #3: Rebuilding the Aerospace Nation

The next phase of the conflict between us and our adversary will depend how our economies recover. At the moment, we have an opening, as much of the world is repelled by their aggression. Power is power and interests are interests, however. We must leverage every advantage while we can. One of those lasting advantages is our aerospace sector. It has been a remarkably durable element of the United States economy, and it remains so, despite our defeat. Our job will be to rebuild on this foundation, using our influence to strengthen the holistic health of the aerospace nation.

Military power—including aerospace power—springs from other forms of national power. In aerospace, military power arises from many related activities, including:

- advances in science and technology (including those driven by commercial incentives)
- companies that develop and invest in aerospace products and services
- markets for aerospace products and services, including emerging markets
- a free enterprise system that rewards the creation of value and protects intellectual property
- an educational system that inspires and develops young talent
- government oversight, with a balanced approach to preserving safety and creating opportunity

All of these came together to make us an aerospace nation. Fortunately for us, these elements are still in place, but our adversary is catching up. As military leaders in aerospace, we must cultivate an understanding of how scientific research, technological developments, market dynamics, and government regulation affect aerospace power. But this is not enough. We cannot be passive spectators in the advancement of aerospace—we must be active participants. We can use our influence as respected Airmen and Guardians to advance aerospace power in all its forms. It is the fastest and best approach to rebuilding—sustainable over the next several decades of challenge and conflict.

To be more specific, we must lead by leveraging our influence to incentivize:

- advances in science and technology (both military-specific technologies such as infrared countermeasures as well as dual-use technologies such as aircraft capable of high-speed vertical takeoff and landing)
- the growth of new aerospace markets (particularly with dual-use technologies, including affordable space launch and point-to-point logistics delivery through the air and space)
- balanced approaches to government oversight (especially where we have privileged the safety risk over the opportunity cost to our economy, such as with flying cars using electric vertical take-off and landing technology within the national airspace structure)

It is time to rebuild. As we heal, we must remember that we still possess many strengths and advantages. We have lost battles and even wars before, but we have learned from our shortcomings, reformed our institutions, and mobilized the creativity of our people. We must do so again. Our resources are finite, but they are considerable. Our situation requires focus and discipline, and perhaps that is easier to establish in the wake of defeat. We could not find this focus and discipline prior to conflict, and

our adversary took advantage, exerting control over its near abroad. Our adversary does not control our choices, however. Only we can choose to lose . . . or to win.

*In this article, I have written about a future that does not have to happen. Unfortu*nately, it is becoming increasingly likely. Every day we fail to change is a day we move closer to potential defeat. Time is not on our side. I challenge you to think about what you would do if we lost. What recommendations would you make to rebuild? Then ask the really important question: why aren't we doing those things now? Æ

#### Lieutenant General S. Clinton Hinote, USAF

Lieutenant General Hinote is the deputy chief of staff for Strategy, Integration, and Requirements, Headquarters US Air Force.

#### Disclaimer and Copyright

The views and opinions in Æther are those of the authors and are not officially sanctioned by any agency or department of the US government. This document and trademarks(s) contained herein are protected by law and provided for noncommercial use only. Any reproduction is subject to the Copyright Act of 1976 and applicable treaties of the United States. The authors retain all rights granted under 17 U.S.C. §106. Any reproduction requires author permission and a standard source credit line. Contact the Æther editor for assistance: aether-journal@au.af.edu.