

**The Honorable Eric Fanning
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“The State of the Defense Industrial Base”
House Committee on Armed Services
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Introduction

Chairman Rogers, Ranking Member Smith, and members of the committee, thank you for inviting me to appear today. My name is Eric Fanning, and I serve as the President and CEO of the Aerospace Industries Association (AIA). For over 100 years, AIA has advocated for America’s aerospace and defense (A&D) companies and the more than two million men and women who are the backbone of our industry. AIA serves as a bipartisan convener, bringing people together to find consensus on important topics, like effective federal investments and adaptation of policies empowering our defense industrial base (DIB) and country for the 21st century and beyond.

AIA applauds this committee for its ongoing leadership in listening to A&D industry leaders and its willingness to act on new and innovative approaches that will support and strengthen our industry and our nation’s security.

The DIB is the Department of Defense’s (DoD) most important partner in equipping and protecting our warfighters and defending our country. To fulfill this vital role, the companies that make up the DIB rely on clear demand signals from Congress, sufficient federal investment, a regulatory environment that allows us to innovate and move at the speed of relevance, and a healthy and resilient supply chain. Recently, a confluence of challenges – the pandemic; record inflation eroding not only DoD’s purchasing power but how every company is doing business; workforce challenges, including rising labor costs that have grown at a much higher rate for our industry and the persistent struggle to recruit and retain qualified workers; supply chain disruptions; and a major war in Europe, to name a few – has put significant pressure on our industry.

To best address these challenges, it is crucial to understand our industry. The defense industrial base – and its ability to respond to these challenges – is shaped by a single customer: the federal government. That is an important distinction from the commercial marketplace, and one that has an outsized impact on its products, people, and performance. Federal investment helps ensure the overall health of the industry. That means that the number of programs prescribed by the Pentagon has a direct correlation to the contours of the industry. Competition within the industry ecosystem is driven by identifying something for which to compete – companies react accordingly. A good example is UAVs; there are hundreds of programs and hence a multitude of competitors.

The industrial base is not monolithic. It is a diverse ecosystem, with companies of all sizes, each with their own role to play. While small companies can be innovation incubators by virtue of their size and ability to speed decisions, prime contractors bring scalability, capability, and cash flow, as well as a

large talent pool with extensive experience. Primes can also afford to maintain a workforce in ready state to meet evolving needs.

Another way these companies drive innovation, recruit, and retain the best talent, and maintain operations, is by leveraging outside investment – which requires a business model that demonstrates some profitability. No business can survive without profit. The industrial base leverages it to drive innovation and investment in our national defense. Profit margins for most aerospace and defense companies are significantly lower than other industries, like technology, operating at profit margins multiple times of the A&D industry. These margins put our industry on a similar level to staple industries like food and health care.

Our current industrial base is maximized to meet peacetime needs. That means excess capacity for surging is not always built into the system. We are optimized for efficiency, both from an infrastructure and workforce standpoint. With the possibility of conflict on the horizon, we need to consider how we resource and support the capacity and resilience of the defense industrial base. Both Congress and the Department have a role to play.

While these challenges have come to a head within the last several years, the contours of the DIB and its ability to respond to these challenges are rooted in policy and funding decisions made years ago. The levels of appropriated federal funding, the annual reliance on short-term funding measures, and the constant specter of government shutdowns have created deep-seated and disruptive instability and uncertainty. Furthermore, well-meaning but burdensome statutes and government policies drive up the cost and complexities of doing business with the federal government.

As a result, some companies within the DIB are choosing to no longer do business with the DoD, reducing the competition needed for the DIB to thrive and for DoD to consider the broadest range of technological solutions. Those companies committed to remaining in the DIB, particularly small- and medium-sized businesses, are often hamstrung by regulations and requirements, inhibiting innovation and modernization. These challenges have real consequences for our armed forces. In the absence of new entrants and small businesses, our military can no longer access the full range of innovative solutions to meet the growing, geographically diverse, and evolving mission set positioned against a backdrop of competition with China, a war in Ukraine, and the possibility of conflict in Taiwan, as well as a range of other threats.

There is good news: Over the last several years, Congress – on a bipartisan, bicameral basis – has boosted investment in national defense, which is critical to ensuring our defense industrial base can support and equip our warfighters. We are encouraged by our continuous engagement with the DoD and steps taken to spur innovation, address acquisition challenges, support small businesses, and work with the DIB.

But more can and must be done to meet this moment. Congress should review outdated and burdensome policies and regulations and give agencies authorities that will speed up the acquisition process to encourage commercial companies and other new entrants to participate in our national security network. Equally important is ensuring that DOD leadership is in place to fulfill roles in execution. Pentagon nominees playing an important role in serving as a conduit between the military, the Administration, Congress, and industry. We urge members of this committee to encourage your Senate counterparts to prioritize consideration of Pentagon nominees.

Who We Are

Today, AIA represents more than 300 A&D companies ranging from family-run businesses to multinational corporations, operating up and down the supply chain. Our membership includes aircraft and engine manufacturers and companies that design and build cutting-edge military and dual-use technology second to none. Our members have a worldwide reputation of global technological leadership, and the A&D industry represents a dynamic workforce composed of many types of workers.

Our industry is not only integral to national security, but is also a significant driver of the American economy. Despite the inflationary pressure and ongoing pandemic recovery, the industry's workforce generated \$892 billion in sales in 2021, a 2.1 percent increase from the prior year despite the ongoing pandemic at that time.

Even when facing challenges, the 2021 A&D workforce stood at more than 2.1 million strong. The industry supports jobs representing approximately 1.4 percent of the nation's total employment base. More than 57 percent of employment comes from the shared A&D supply chain and an extensive network of suppliers composed of thousands of small- and medium-sized businesses located every state in the United States.

While the defense industrial base continues to innovate at an unprecedented rate, it must also continue to produce older technologies that remain relevant, like Javelins, which have only a single supplier for some of its key parts. We must ensure that these companies are healthy enough to do both, which is clearly a financial challenge. Integration of merchant suppliers and increased investment are options to overcome this challenge and keep our nation secure.

The Challenges We Face

Our military faces a growing, geographically diverse, and evolving mission set. The DIB, which is an essential element of troop readiness, is confronted with these tests as well. Effectively addressing these threats will require focused changes in federal policy and investment, which continues to be unpredictable and inconsistent. Nearly a year on, the Ukraine conflict is testing our country's ability to maintain a high state of readiness while also surging to respond to conventional conflict. We also find ourselves in a renewed debate about arbitrarily cutting federal investment in defense just as we are digging out of the Budget Control Act's arbitrary budget caps, supply chain disruptions and related material shortages, and a global pandemic, as well as our two most serious challenges: workforce issues that plague the broader economy and significant economic pressure from record inflation. A recent survey of AIA members showed that inflation is the top pain point for our companies participating in the defense industrial base, and that wage competition has been the top obstacle to retention. At the same time, we see China, which DoD has identified as its "pacing threat," undertaking an unprecedented campaign of military modernization, underscored by significant investment in its armed forces and national security infrastructure.

The sense of urgency for increased production extends beyond Ukraine to our allies and partners, as well as to addressing China, and must be matched with an equal sense of urgency when it comes to building our budget. Returning to regular order and providing on-time, predictable, and sufficient funding for the departments and agencies that work with the DIB is the first and most important step. At all costs, we must avoid arbitrarily cutting the budget or defaulting to the use of stopgap funding legislation, which relies on two-year-old funding levels to meet the challenges of today, wastes money on programs no longer needed, and prevents new programs from getting off the ground. Over the last 25 years, Congress

has relied on short-term funding bills to prevent government shutdowns more than 120 times. Aside from the very real harm this inflicts on the wellbeing and morale of our troops, Continuing resolutions (CRs) muddy the demand signals Congress sends the DIB, slow or even halt the development of cutting-edge technologies, and force businesses into stop-and-start cycles that are hugely inefficient.

Furthering our challenge is the substantial decline in the number of companies in the DIB over the past decade. Companies seeking to enter the DIB must contend with a multitude of laws and regulations that are cost- and time-prohibitive, disrupt established supply chains, and require implementation of new systems, processes, and procedures. Congress and the DoD have correctly recognized the need to expand the DIB and reduce the barriers to entry. For example, Congress, in the FY22 National Defense Authorization Act (NDAA), directed the DoD to assess policies, regulations, and oversight processes that create a barrier to the commercial sector's willingness to do business with the federal government.

Multiple senior DoD officials have also acknowledged the shift in the DIB. In one example, Deputy Secretary of Defense Kathleen Hicks stated, "Yet, over the past decade, small businesses in the defense industrial base shrunk over 40 percent. The data shows that if we continue along the same trend, we could lose an additional 15,000 suppliers over the next 10 years." This recognition is not translating into action, as Congress and the DoD continue to seek new laws and regulations every year before properly assessing current policies and the cumulative impact on the health of the DIB.

Deputy Secretary Hicks has also acknowledged that doing business with the Department is "not always easy" due to the many and varied security requirements and operating policies. Layers of existing reporting requirements, coupled with proposed additions to an already complex regulatory system, are a serious operational challenge for many of our businesses. One example is the Federal Acquisition Rule to Minimize the Risk of Climate Change. Industry shares the goal of addressing climate change and has made a number of commitments to reduce environmental impacts. However, the draft rule would allow an international body to determine whether a defense contractor can continue to do business with the federal government, putting significant strain on the supply chain including small and medium sized businesses that are already stressed due to macro-economic factors, and is asking industry to report on standards that do not exist and are subject to change. This uncertainty will add complexity and cost to the process, impacting the workforce and operations.

Cybersecurity compliance is critically important, but additional Cybersecurity Maturity Model Certification (CMMC) compliance requirements, while rooted in the important necessity of safeguarding sensitive information, create an additional layer of costs. According to our recent survey, more than three-fourths of AIA member companies are seriously or somewhat concerned about CMMC 2.0 implementation this year. By way of illustration, a certified woman-owned small business and AIA member has seen its IT expenses increase by 50 percent since 2018, and its IT department has doubled in size during that time span. Because its business relies heavily on commercial aerospace as well, this company is still recovering from the pandemic. To remain compliant with CMMC requirements, the company sought an estimate for implementation, and the quote received was "huge": \$150,000 for the actual assessment; \$500 per hour for the lead assessor; and \$400 per hour for the Certified CMMC Assessor, plus any additional staff needed for an estimated four-week assessment. Combined with the additional certification costs already in place to do business with the DoD and the need to recertify every three years, the estimated costs are not achievable for many small businesses, and they will risk losing small suppliers that opt out and leave the DIB.

While Congress is rightly renewing its focus on fragilities in our supply chain and the erosion of America's innovation in critical technologies compared to China, it is important to recognize the critical

role of the tax code in incentivizing the private sector, and particularly the A&D industry, to do what it always does best: find and develop the next generation of technologies to keep the warfighter and everyday Americans safe and maintain our global economic competitiveness.

Our competition is not backing away from this challenge; in fact, they are investing more into innovation than ever. Between 2000 and 2019, China's share of global R&D rose nearly 488 percent, from 4.9 percent to 23.9 percent. At the same time, China extended its super deduction for R&D expenses for manufacturing companies to an extra 100 percent of eligible R&D expenses in addition to actual expenses incurred. That means for every \$100 spent on innovation, Chinese companies can deduct \$200, 10 times more than American companies in a similar situation. Congress must restore competitive R&D tax amortization rules to strengthen our global R&D posture relative to China and other nations.

From the global perspective, the U.S. defense and commercial industrial base is and will continue to be tightly connected to the defense industrial bases of our ally and partner countries. It is impossible to separate the U.S. industrial complex from our shared, global industrial bases. The U.S. DIB shares a supply chain with democratic nations across the world. Items produced in the United States, the UK, Australia, the EU, and major allied partners are therefore integrated together and naturally form a DIB that is democratically aligned. U.S. investment in an integrated industrial base that includes democratically aligned nations should be encouraged – not discouraged by byzantine, bureaucratic, Cold War-era systems – as a mechanism to achieve broader U.S. economic and national security interests.

Therefore, U.S. policymakers must implement clear systems and flexible policies that both incentivize and enhance cooperation while building collective capacity with trusted partners. These systems and policies should enable resiliency in our overall supply chains, draw partners and allies closer together, and establish long-term industrial and economic relationships that allow like-minded nations to deter and respond to shared global threats. Just as NATO has come together to further integrate its supply chain in defense of Ukraine, the United States must also pursue an integrated industrial policy to address and prepare for potential conflicts in other parts of the world.

What Can This Committee Do?

In the FY23 NDAA, Congress provided a measured, temporary ability for government funds to be used to modify the terms and conditions of a contract or option to provide an economic price adjustment. In fact, Congress acknowledged that:

“...higher than anticipated economic inflation continues to challenge the budgeting and execution processes of the Department of Defense and defense industrial base (DIB). The ability of the Department and DIB to adapt to economic conditions is a critical factor in maintaining the health of the DIB, especially when economic conditions are unusually volatile and in regard to firm fixed price contracts where industry bears the predominant financial risk.

This new authority is limited in scope and time. We are hearing from our members that small suppliers are refusing to sign long-term agreements due to the unpredictability of ongoing high levels of inflation. When combined with the slow bureaucratic process, short-term supply agreements will bring the contracting process to a halt and result in higher costs to the DoD. Congress should take additional steps to provide greater authority to the DoD to respond to the effects of recent and current inflation levels to protect the health of the DIB.

Building and strengthening the resiliency of the global supply chain is a strategic imperative for the A&D industry and our government partners. This is essential to the health of the civil aviation sector, the DIB, and overall defense and deterrence. We are a long-lead supply chain industry. Our companies order materials, parts, and components months in advance and are generally able to manage short- and medium-term disruptions. They also work on mitigation strategies in the event of long-term disruptions. Expanding the DIB with new commercial entities is vital to improving this resiliency, while also spurring Innovation and competition.

But perturbations can take a while to become apparent. Russia's invasion of Ukraine has heightened supply chain challenges even as it places increased pressures on industry to bolster production. That's why we must set the right policy conditions when it comes to investment, and a framework to support the long-term health of the DIB and the effectiveness of our security partnerships. To manage growing supply chain hurdles and inflation uncertainty, we need on-time, stable, sufficient funds, and long-term policy that is both clear and flexible to enable surge capacity and to target material shortages and other supply chain gaps.

Open access to a global supply chain supports our industry's efforts to deliver the best quality products at the best price to our U.S. and global customers. U.S. companies acquire parts and components from the global market, including from U.S. sources, and then integrate those items in the final product for export. This includes both U.S. suppliers that support the design, production, and maintenance of U.S. systems sold to global customers, as well as foreign systems that incorporate U.S. products.

The time it takes between the release of a final solicitation to the award of a contract continues to rise. Prime contracts with estimated sales of more than \$100 million averaged over 300 days. For commercial companies that are used to working quickly, the delays in awarding contracts and executing agreements is a strong disincentive to work for the DoD. Such delays also increase costs to contracts and delay capabilities from getting to warfighters. To defer, and if necessary, defeat our adversaries, we must be able to get capability into the warfighter's hands as quickly as possible. Emerging technology from commercial or non-traditional defense contractors can't – or won't – wait on convoluted, outdated contracting processes.

Mergers and acquisitions (M&A) should be viewed as a tool to strengthen the industrial base and provide stability to the workforce and business operations. Too often, these opportunities are reflexively dismissed rather than reviewed on the individual merits. M&A is a tool for companies to grow and to stabilize the workforce, unleash innovation, bolster performance, and strengthen capability and capacity. Some companies need to access the tools and resources of a larger company to continue development, while some investors view M&A as a faster path than becoming a program of record. Given the potential opportunity to bolster the health and resiliency of the DIB through these strategies, there should not be a predisposition to oppose mergers and acquisitions outright.

To meet the growing demands on both delivery and innovation within the DIB, there is a systemic need to address today's workforce needs by meeting the demand for skilled and diverse talent pipeline. In 2018, the Deloitte and the Manufacturing Institute whitepaper "Skills Gap and Future of Work Study" projected the manufacturing skills gap in the U.S. to reach 2.1 million unfilled jobs by 2030¹. Coupled with a 2019 U.S. Bureau of Labor Statistics report projecting science, technology, engineering, and mathematics (STEM) occupations to grow over two times faster than the total for all occupations in the next decade. Investing in STEM education, reskilling current industry employees for new technologies, and enhancing our country's training efforts, including apprenticeship programs, on-the-job training, and

certification and credentialing programs, are vital to expanding talent pools and ensuring a highly skilled, dynamic future workforce.

Congress, working with industry, should take on this challenge to increase the speed of delivering capabilities by:

- **Providing More Flexibility:** The Federal Acquisition Regulation (FAR) allows for some flexibility and Congress has authorized additional flexibility to the DoD, but oversight and aversion to taking risks result in many/most procurements not pursuing flexibility already available.
- **Adjusting Decision-Making Authority:** Driving down decision-making authorities to the lowest level will save time and empower program managers to lead, take appropriate risk, and deliver effective capabilities to meet warfighter requirements. This will also require a culture change to incentivize and reward the workforce for innovation-driven decision-making.
- **Accelerating Contractual Innovation:** We must identify and fully understand risk. A government contract must share risk fairly with a company, and provide enough stability and profit to encourage innovation, investment in workforce and productive capacity, and the ability to surge in a crisis.
- **Reforming Labor Categories:** Federal contracts often contain highly specific educational and experiential requirements for contractors. In today's tightening labor market, readily available, highly skilled talent is increasingly scarce; and many companies are shifting to skills-first hiring practices. Significant investments are being made to train and develop a ready workforce, but narrow contractual requirements on labor categories limit the industry's ability to recruit and retain top-tier talent. Strict degree requirements, oftentimes far exceeding the scope of necessary skills to perform on a contract, hinder contractor placement and delay work until these employees that meet these narrow requirements can be hired.
- **Increased Utilization of Government-Industry Exchange Programs:** More than 15 programs currently exist for federal employees and industry or academics to exchange roles, including DoD's Public-Private Talent Exchange (PPTe) and the Office of Director of National Intelligence's Intelligence Community PPTe. Intended to increase exposure and improve collaboration between the public and private sectors, government-industry exchange programs can be a highly effective tool to strengthen the federal workforce and equip it with tools to keep pace with the agile nature of private industry, including evolving technologies, group management practices, and professional development opportunities. Despite these benefits, these programs have historically been underutilized due to a lack of guidance for effective implementation and statutory limitations that disincentivize individual participation, such as compensation structures. Congress and implementing agencies should consider common-sense changes to these programs to maximize the benefits of cross-sector collaboration and better incentivize participation by industry, especially from small and medium sized companies.
- **Limiting Over-Classification:** Reducing over-classification to improve the acquisition process, capability delivery times, and operations information sharing, including removing duplicative classification of the same programs and architectures amongst different DoD and intelligence community (IC) organizations. Congress, the DoD, and IC should leverage the current focus on reducing over-classification to clearly communicate legislative priorities; create better

collaboration with allies and industry; and ease the barriers to partnership between the government, allies, and industry.

- **Fixing the Budgeting Process:** Realigning the acquisition and budget process via a more agile alternative to traditional Planning, Programming, Budgeting, and Execution (PPBE) will better reflect a marketplace that moves more quickly than the Program Objective Memorandum (POM) cycle and will create flexibility to proactively leverage emerging technologies that weren't known or required when the budget was approved two years prior.
- **Reforming Foreign Military Sales:** In the case of supporting partners and allies via Foreign Military Sales (FMS), which is only executed via the DoD acquisition system, a standard contract for an FMS program takes on average 18 months to award, with complex FMS programs taking longer. Given the strategic importance of FMS, the DoD and the entire government must evaluate the overall process to deliver the best capability to partners on an accelerated timeline. The speed of the contracting process and delivery schedule should be informed by the global threat environment, U.S. national security and foreign policy objectives, and the foreign partner's defense and budgetary needs – not opaque processes. Further, FMS contracts lead to protracted negotiations at the expense of delivering much-needed capability in a timely manner. Several sophisticated foreign partners are willing to accept more risk acquiring capability than is typically permitted by program offices under current FMS operating procedures.
- **Reducing the Cost of Compliance:** Additional compliance requirements, such as CMMC, will further stress an already vulnerable supply chain, and more companies will exit the DIB due to the real costs associated. Congress and the DoD must do more to lower the costs of compliance and offer assistance to small businesses that are critical to the DIB.
- **Eliminating Unnecessary and Outdated Policies:** Over the years, Congress, with the best of intentions, has added layers of bureaucracy to safeguard sensitive information, protect our troops, and maintain our competitive edge. At times, additional oversight and regulations have been levied without regard to efforts – either from prior legislation or from within the DoD – to address the same challenges, or without understanding the intended and unintended consequences of prior reforms. The DoD's actions on intellectual property rights, pricing, and overall increase in contracting regulations are stifling the innovation and directly impacting the health of the DIB. Congress working with industry should examine existing policies; take stock in what is working and what is not working; and remove duplicative, overly onerous, and/or outdated policies that hinder innovation, impede participation in the DIB and mire the Department in red tape. Clearing this underbrush will allow both the DoD and the DIB to focus on what really matters and will streamline how the DIB does business with its primary customer.
- **Ensuring Sufficient Resourcing:** America's national security is an enduring responsibility that requires sufficient, stable, and predictable funding. The most important factor in the success of our military, and in turn, the DIB is the provision of sufficient resources to meet the challenges outlined in the National Defense and National Security Strategies.

This committee can send a clear signal early in the annual budgeting process by authorizing a strong defense topline to meet the defense strategy, and working with the appropriations committees to ensure that funding bills are enacted into law ahead of the September 30 fiscal

year deadline. Every step should be taken to avoid the damage inflicted by stopgap funding bills, especially a long-term or full-year continuing resolution.

In addition, Congress should consider how crucial cash flow is to companies of all sizes. We continue to hear from our members, especially small businesses, that progress payments play an outsized role in keeping their operations and workforce funded to meet the customer's needs.

Conclusion

The A&D companies within the DIB share Congress' enduring commitment to national security and the defense of the American way of life. The government has a willing partner in the DIB to address these challenges, accelerate innovation and acquisition, and set the United States on a stronger course for a more secure future.

In closing and on behalf of AIA and our members, I thank you for your time and consideration of these matters. As always, AIA is available to address any questions or concerns the Committee has now and in the future.