

Securing the Backbone: The Defense Industrial Base



PHOTO BY: Air Force Staff Sgt. Marco Gomez

By [Ryan Caughill](#), President, Western New York Council, Navy League of the United States.

“You can’t fight tomorrow’s war with yesterday’s plans.”

In the summer of 2018, I completed my internship at Moog Inc., one of the United States’ premier defense contractors. My role was in Environmental Health & Safety, but my mission went deeper: I was tasked with modernizing and guiding emergency management planning across an organization that was deeply integrated into the Defense Industrial Base (DIB), and yet, lacked a dedicated emergency management function.

Like my time later at M&T Bank, this experience left a lasting impression. It showed me that even companies at the forefront of defense technology can have blind spots when it comes to continuity, resilience, and crisis preparedness.

[While this article isn't just about my singular experience, but a holistic and general overview,] that's what makes the Defense Industrial Base one of the most paradoxical critical infrastructure sectors in America: incredibly advanced, but dangerously lacking.

The Backbone Behind the Uniform

The Defense Industrial Base is more than just tanks, missiles, or aircraft. It's an expansive network of over 100,000 private companies that provide products, services, logistics, and technologies to support the U.S. military.

This includes:

- Weapons systems and munitions
- Aerospace components and military-grade software
- Advanced electronics and cyber capabilities
- Research and development institutions
- Transportation and supply chain networks
- Small manufacturers producing critical, often irreplaceable, parts

Some of these are Fortune 500 giants. Many are small, family-owned machine shops in rural communities. All are vital.

But here's the problem: there is no unified resilience standard across the DIB. And that's a problem hiding in plain sight.

The Vulnerabilities No One Wants to Talk About

During my time at Moog, I saw firsthand how emergency management often sits outside the core of DIB corporate culture. Not out of apathy, but due to the sheer scale and

complexity of operations. Many companies have excellent safety and security programs, but few have comprehensive crisis management systems. Fewer still have trained emergency managers or business continuity professionals guiding cross-functional coordination across cyber, physical, and operational risks. This isn't to say they don't exist, I've met some, and they do a really great job.

That makes this sector vulnerable in ways most people don't understand.

The DIB is:

- Extremely decentralized: A single failed supplier can halt delivery of critical weapons platforms.
- Highly classified: Cyber breaches can compromise national defense secrets, yet many companies, especially smaller ones, lack mature cyber defenses.
- Logistically fragile: Long-lead items, global supply chains, and just-in-time manufacturing leave little room for error.
- Resource-limited: Many smaller firms simply don't have the bandwidth or expertise to build robust resilience programs.

Worse yet, we take it for granted that these companies – because of what they do – are already hardened. That's not always true.

Why This Sector Isn't Taken Seriously – Until It's Too Late

The Defense Industrial Base occupies an odd place in the national consciousness. We respect the military. We fund the military. But we rarely consider who makes the military work.

The supply chains, R&D labs, fabrication shops, and logistics hubs that build and sustain America's warfighting capability are not invincible. And yet, the DIB isn't regularly treated

like critical infrastructure in the traditional emergency management sense , even though it underpins our strategic deterrence, military readiness, and wartime surge capacity.

That disconnect has consequences. If a natural disaster, ransomware attack, insider threat, or geopolitical disruption strikes a key node in this ecosystem, the effects won't be immediate headlines. They'll show up months or years later when a military platform is delayed or compromised.

In an age of strategic competition with China and resurgent threats in Europe and the Middle East, that delay could mean the difference between deterrence and disaster.

Strengthening the Arsenal of the Republic

If we want the DIB to remain viable, competitive, and secure, we must elevate resilience as a strategic imperative, not an afterthought.

At the Federal Level:

- The DoD must go beyond cybersecurity compliance and require holistic emergency management, business continuity, and crisis communications programs for Tier 1 and Tier 2 contractors
- Congress should fund regional DIB resilience initiatives and technical assistance hubs to help small firms build preparedness capacity
- DIB firms must be integrated into DHS-FEMA and CISA exercises, not treated as isolated contractors

In the Private Sector:

Contractors should invest in full-time emergency managers or resilience officers, especially at multi-site operations
Continuity of Operations plans (COOP) must be tested regularly and integrated across functions – especially cyber, facilities, HR, and production

Leadership should prioritize exercises and scenario planning, particularly for cyber-physical convergence threats

Across the Supply Chain:

Vendors must be mapped and tiered by criticality, with redundancy plans in place for sole-source dependencies. Smaller manufacturers should be given access to resilience toolkits and grant-supported planning assistance.

For the Defense Community:

Collaboration must improve across DoD, DHS, and the intelligence community to identify emerging threats to the DIB. Emergency management professionals should be embedded, or a partner, in acquisition planning and supplier vetting. The public and political class must recognize that defense readiness includes domestic resilience.

Resilience is Readiness

The Defense Industrial Base is one of the quietest, but most consequential, sectors in the nation's infrastructure portfolio. You don't see it in parades. But it's there in every missile defense test, every jet engine, every encrypted radio, and every armored vehicle.

If we allow it to weaken, structurally, logistically, or digitally, we erode not just our defense capability, but our credibility.

We cannot afford to wait for crisis to realize that the arsenal of our Republic isn't just built on innovation or budgets.

It's built on resilience.

These challenges aren't theoretical, they're unfolding in real time. Delays in the F-35 rollout, the Navy's struggles and eventual cancellation with the Littoral Combat Ship (LCS) program, and schedule slippages in the next-generation

aircraft carriers, guided missile frigates, and Columbia-class ballistic missile submarines all point to a sector under immense strain. While these issues stem from a mix of design complexity, funding cycles, and industrial bottlenecks, one thing is clear: the Defense Industrial Base cannot afford additional disruption.

A well-funded, well-placed crisis management function, integrated at both the facility and enterprise level, won't solve design flaws or procurement hurdles, but it can absorb shock, accelerate recovery, and ensure continuity when disaster strikes. In a sector already grappling with compounding risks, crisis management isn't a luxury, it's a strategic buffer against the unpredictable threats of 21st century warfare.

RTX's Raytheon Awarded \$250 Million Contract From MELCO for ESSM Block 2 Licensed Production



Contract represents the latest milestone in the companies' longstanding partnership

From RTX, June 24, 2025

TUCSON, Ariz. (June 24, 2025) – Raytheon, an RTX (NYSE: RTX) business, has been awarded a \$250 million contract from Japan's Mitsubishi Electric Corporation (MELCO) for ESSM Block 2 licensed production.

Under the Direct Commercial Sale contract, Raytheon will provide missile kits, parts, and components as well as technical support for missile production at MELCO in Japan.

“This innovative licensed production arrangement is the culmination of decades of partnership,” said Barbara Borgonovi, president of Naval Power at Raytheon. “As Japan invests in this critical weapon system, it will strengthen their defense capabilities while reinforcing the vital security alliance between our nations.”

Raytheon and MELCO have a longstanding partnership spanning over 50 years on critical defense programs. This contract represents the latest chapter in their collaborative

relationship and allows Japan to enhance its domestic defense manufacturing and missile defense capabilities, while also strengthening the broader U.S.-Japan security partnership.

ESSM Block 2 is a short to medium-range, ship-launched, dual-mode, guided missile that has increased maneuverability and improved performance over its Block 1 predecessor. The newest variant reduces dependence on shipboard illumination and is integrated on a wide variety of combat systems and launchers, delivering improved performance in stressing marine environments, and has significant digital processing margin to keep pace with evolving threats through software improvements.

Japan is a customer nation of ESSM, which is managed by the NATO SEASPARROW Consortium composed of 12 nations.

Saildrone, Meta Complete Unmanned, Autonomous Deep- Water Route Survey



Saildrone Surveyor SD-3000 is Saildrone's first production Surveyor-class USV.

The 26-day mission demonstrated that Saildrone can deliver deep-water mapping accuracy comparable to traditional vessels while reducing HSE risk and cost.

From Saildrone

ALAMEDA, Calif.— In a first-of-its-kind demonstration mission, Saildrone, in partnership with Meta, successfully completed a deep-water cable route survey in the North Atlantic using the Saildrone Surveyor, a 20-meter uncrewed surface vehicle (USV). This innovative project represents a major milestone in the evolution of ocean survey technology, proving that autonomous platforms can deliver data quality and performance on par with traditional crewed survey vessels – while dramatically reducing risk and cost.

During the 26-day survey conducted in June and July 2024, the Saildrone Surveyor mapped more than 4,500 km of seabed, including complex topographies and challenging conditions, without a port call or outside assistance. Operating under sail and motor-sail modes and equipped with a Kongsberg EM304 MKII multibeam sonar, the Surveyor achieved swath coverage of

up to 10 km in water depths of up to 5,500 meters.

The demonstration focused on collecting bathymetric data along the established Anjana cable route and the recently surveyed Aurora route to directly compare the Saildrone Surveyor's performance against traditional crewed survey vessels. Key operational metrics – route fidelity, line keeping, data transmission, and depth accuracy – met or exceeded expectations across the board.

“This mission demonstrated that autonomous ocean mapping is not just possible – it's here, and it's incredibly effective,” said Andy Palmer-Felgate, subsea cable engineer at Meta. “Saildrone delivered data that matched legacy surveys with exceptional accuracy, all while operating remotely and with minimal environmental impact. As capacity needs increase, Meta continues to invest in cutting-edge infrastructure technologies—and our subsea cable strategy work is critical to these efforts. Ocean mapping plays an important role, and the implications for subsea cable route surveys are profound.”

Using the Saildrone Mission Portal and real-time, high-bandwidth satellite connectivity, Saildrone hydrographic surveyors and pilots monitored vehicle performance and dynamically re-tasked it to investigate features of interest – such as seamounts and canyons – critical for route optimization. Previously limited to crewed vessels, this capability opens the door to more agile, responsive, and distributed survey operations.

A critical focus of the mission was minimizing Health, Safety, and Environmental (HSE) risks associated with offshore operations, demonstrating significant benefits to the quality of life for hydrographic surveyors, cable route engineers, and client representatives who can now perform their work remotely from shore-based offices or home offices, reducing time away from family and minimizing the physical and mental strain associated with offshore deployments. Furthermore, the mission

avoided an estimated 243 tons of CO₂ emissions – over 50 times less than a conventional vessel – highlighting the sustainability advantages of uncrewed systems.

“This is a turning point for deep-ocean survey,” said Brian Connon, VP Ocean Mapping at Saildrone. “The Surveyor’s performance on this mission proves that we can deliver high-resolution, deep-water bathymetry with a fraction of the fuel, cost, and risk. As our fleet expands, we envision a global network of Surveyor USVs supporting offshore industries with safe, efficient, and scalable data solutions.”

This demonstration paves the way for broader adoption of USVs in subsea telecom, offshore energy, and national hydrographic programs. Future developments will focus on expanding operational range, improving weather resilience, and integrating new technologies like AI-based navigation and expendable bathythermographs.

UTIC Advances Workforce Development with Sonar Technology Training

From The Undersea Technology Innovation Consortium, June 4, 2025

MIDDLETOWN, R.I. – Over 100 Undersea Technology Innovation Consortium (UTIC) member company employees recently completed a successful sonar training course through a partnership with the University of Rhode Island (URI). The partnership, aimed at strengthening the defense technology workforce, allowed UTIC members to take the Principles of Sonar, Underwater

Sound, and Undersea Systems Course for non-credit during the Spring 2025 semester. Several URI graduate students also completed the course for credit. The course was offered virtually and in person.

“Access to targeted education and technical training is essential in a field where the pace of technology change is increasing,” said UTIC Chief Executive Officer Molly Donohue Magee. “Our mission is to enable member organizations with the tools, knowledge, and resources to stay competitive and advance their technology.”

Led by Dr. John Short—a nationally recognized expert in sonar and undersea systems—the program provided valuable insights and knowledge transfer to both emerging professionals and longtime engineers. Dr. Short emphasized the importance of initiatives like this in sharing and advancing expertise across generations.

“This course represents more than just professional development—it’s an investment in the future of our industry,” said Dr. Short. “Continued education gives industry professionals the opportunity to apply what they’ve learned to their own work and to build on existing and emerging innovations. With a focus on both practical application and fundamental principles, this course provided students with technical skills, hands-on experience, and an understand of lessons learned.”

Principles of Sonar, Underwater Sound, and Undersea Systems is a graduate-level course that introduces the core concepts of sonar technology, underwater acoustics, and undersea system engineering. Students explore active and passive sonar design, acoustic modeling, and ocean environment fundamentals. Emphasis is placed on practical applications, including performance estimation, system tradeoffs, and the value of in-water testing. The course will be offered again in the Spring 2026 semester.

Leidos Acquires Kudu Dynamics, Advancing AI Capabilities For Cyber Warfighters

RESTON, Va. (May 28, 2025) – [Leidos](#) (NYSE:LDOS) announced today that it has acquired Kudu Dynamics, accelerating Leidos' rapid scaling of artificial intelligence (AI)-enabled cyber capabilities for defense, intelligence and homeland security customers.

Leidos' extensive current AI-enabled cyber offerings arm users with the rapid capability and scale needed to automate vulnerability detection, enhance novel defenses, neutralize attacker advantages and evade adversary defenses. Acquiring Kudu Dynamics will accelerate Leidos' strategy for AI-enabled offensive cyber, electromagnetic spectrum operations and vulnerability research.

Founded in 2013, Kudu Dynamics has rapidly grown its work across the Department of Defense, leading the industry in automated targeting, scalable hardware reverse engineering and the generation of other non-kinetic effects.

"Kudu's ability to generate new cyber capabilities with AI perfectly complements our strategy to rapidly grow differentiated offensive cyber technology capabilities," said Leidos Chief Executive Officer Tom Bell. "This acquisition underlines Leidos's commitment to continue to build smarter full-spectrum cyber capabilities, so that the U.S. and its allies dominate the cyber warfighting domain."

“We’re excited to deliver the next level of capabilities to our customers as we bring together the highly innovative cyber professionals and disruptive technologies of Kudu with the scale, resources and experience of Leidos,” said Kudu Dynamics’ Founder and CEO Mike Frantzen. “In Leidos, we’ve found a partner who shares our ethic of purposeful innovation in support of our nation’s most critical missions.”

The Kudu Dynamics purchase marks Leidos’ first acquisition in two-and-a-half years. Increasing investment in the company’s already formidable cyber capabilities is among the five strategic growth pillars of its new NorthStar 2030 strategy, developed through a year of deep strategic thinking in 2024.

The approximately \$300 million all-cash acquisition closed May 23.

Advisors

Baird served as exclusive financial advisor to Kudu Dynamics on this transaction.

Ultra Maritime and General Atomics Announce Strategic Partnership

From Ultra Maritime, May 20, 2025

COLUMBIA CITY, Indiana – General Atomics Aeronautical Systems, Inc. (GA-ASI) and Ultra Maritime are proud to announce a strategic partnership to substantially advance the state of the art in unmanned airborne detection and tracking of enemy

submarines. By combining the world's most advanced and prolific unmanned aerial system (UAS), GA-ASI's MQ-9B SeaGuardian®, with the world's only miniaturized, low power sonobuoys and receivers, the strategic partnership will make it possible for the U.S. and its allies to use sophisticated techniques to track submarines in hostile, GPS-denied environments.

As adversary submarines proliferate and become stealthier, unmanned underwater vehicles grow in number and GPS jamming becomes more prevalent, the need for assured and affordable anti-submarine warfare (ASW) solutions is more critical than ever. While unmanned technologies are the clear best solution to this challenge, limitations to date in suitable ASW technologies have prevented real world solutions from emerging. This strategic partnership will provide a significant new capability where small form factor sonobuoys and receivers, aboard a long-range unmanned aircraft, can provide autonomous, low cost ASW in a GPS-denied environment.

The GA-ASI MQ-9B SeaGuardian provides unmatched multi-domain intelligence, surveillance, reconnaissance and targeting (ISR&T). GA-ASI will integrate the MQ-9B SeaGuardian with Ultra Maritime's exclusive small form factor (half size) sonobuoys to double UAS capacity. These sonobuoys will provide Multi-static Active (MSA) capabilities achieving unprecedented wide-area search. Furthermore, Ultra Maritime's new acoustic receivers will be half the traditional size, making them ideal for UAS deployment. The receivers will enable more effective ASW in GPS-denied environments and will monitor more sonobuoys per MQ-9B mission through advanced communications technology. The solution is fully funded by internal research and development, and an integrated operational demonstration of this capability will occur in the Indo Pacific and other theaters beginning in 2025.

Austal USA Welcomes Rear Admiral Jonathan Rucker



From Austal USA

MOBILE, Ala. – Austal USA welcomed Rear Admiral (RADM) Jonathan Rucker, PE0 Attack Submarines, at the company's Mobile, Ala. shipyard yesterday. RADM Rucker began his visit by addressing more than 200 members of the Austal USA and General Dynamics Electric Boat submarine manufacturing team. RADM Rucker emphasized the valuable work they are doing for the Virginia-and Columbia-class submarine programs. He then toured Austal USA's advanced ship manufacturing facility and discussed the company's critical role as a strategic partner to grow the submarine industrial base.

During the tour, RADM Rucker also viewed the progress being made on the construction of Austal USA's new 369,600 square foot module manufacturing facility purpose-built to produce submarine modules, Module Manufacturing Facility-3 (MMF 3). MMF-3, which will achieve initial operating capability next summer, is a critical component in increasing the capacity of the submarine industrial base. The building will incorporate industry 4.0 features to provide enhanced efficiency and increase throughput.

"We appreciated the opportunity to host Rear Admiral Rucker this morning and show him the commitment of the entire Austal USA shipbuilding team to supporting the submarine industrial base," stated Austal USA President Michelle Kruger. "From the on-going work on manufacturing modules to the construction underway for our new production facility, our team is fully focused on increasing our production in support of the Columbia- and Virginia-class programs."

Austal USA has delivered 32 ships to the Navy over the company's 25-year history. As part of the company's efforts to expand the production capacity of the submarine industrial base, Austal USA is manufacturing and outfitting modules for the Virginia- and Columbia-class programs. Seven modules under construction were on display for RADM Rucker during his tour today.

Austal USA is also leading the standup of the Navy Additive Manufacturing Center of Excellence in Danville, Va. In this capacity, the company is responsible for developing a national network of vendors with qualified additive manufacturing machines and processes to provide critical submarine parts.

HII Welcomes High School Seniors to Shipbuilding Careers at Newport News Shipbuilding



[From HII](#)

NEWPORT NEWS, Va., May 09, 2025 (GLOBE NEWSWIRE) – More than two dozen high school seniors know what they’ll be doing after graduation this year, after accepting offers to begin their shipbuilding careers at HII’s (NYSE: HII) Newport News Shipbuilding division.

The shipyard participated in the [New Horizons Regional Education Centers](#) (NHREC) Good Life Solution Program’s Career Selection Day Thursday, in Hampton. During the event, 18 students accepted employment offers from NNS, to either begin full-time trade positions within the shipyard or attend [The Newport News Shipbuilding Apprentice School](#). Funded by HII to train and develop the next generation of shipbuilders, The

Apprentice School offers four- to eight-year, tuition-free apprenticeships in 19 trades and seven optional programs.

The [Good Life Solution Program](#) is a collection of partnerships between NHREC and local employers looking to improve the way they recruit, hire, train and retain entry-level new hires out of high school.

Additionally, The Apprentice School held a ceremony April 29 to recognize high school students who participated in the Youth Builders program, with 13 of those students accepting offers to attend The Apprentice School. Youth Builders is a pre-apprenticeship workforce readiness program open to 11th and 12th grade students with interest in shipbuilding careers.

Photos accompanying this release are available at: <https://hii.com/newsroom/>.

“These students are embarking on careers where the mission and purpose is clear: delivering the submarines and aircraft carriers our nation needs,” said Xavier Beale, NNS vice president of human resources. “We are thrilled to welcome them into our shipbuilding family as they build their careers while making important contributions to our national security.”

For more information about careers at Newport News Shipbuilding visit, hii.com/careers.

Rite-Solutions Awarded \$234M SBIR Phase III Contract for

Combat Systems of the Future

From Rite Solutions

MIDDLETOWN, R.I. (May 6, 2025)—On May 1st, the Naval Sea Systems Command (NAVSEA) awarded a 5-year, SBIR Phase III contract to Rite-Solutions. This \$243M contract – the largest in the history of the company – will enable Rite-Solutions to provide innovative solutions in systems and software engineering that are geared towards maximizing the effectiveness and suitability of future combat system while reducing risk and total cost.

“This contract award is one of the most significant achievements in the history of our company,” said CEO and Co-Founder Joe Marino. “We are extremely excited to be able to bring our innovation and energy to the next evolution of combat systems.” Co-Founders and Board members Jim and Linda Lavoie agree, stating that “this contract, resulting from the hard work and excellent support of our workforce, solidifies our place as a significant contributor to the advancement of our Undersea Warfare capabilities.”

The goals of the CSoF initiative include (1) improving mission effectiveness while achieving optimal manning levels and reducing total life-cycle costs; (2) inserting new functionality and capability for current and future ship platform and combat systems improvements in both organic and off-hull systems; and (3) leveraging systems engineering to develop cost-effective improvements in the lab environment for modeling, simulation, test and integration. Efforts will be focused on new submarine platforms, including but not limited to the Next-Generation Attack Submarine (SSN(X)), to support technology innovations and improvements, acquisition, research and development, design, specification development, and test

and evaluation.

“This is a big win for Rite-Solutions and our many talented industry partners,” said Laurie Carter, Executive Vice President for Business Development and CSoF Capture Manager. “We are eager to get started – bringing our innovative mindset to the goal of building a more efficient, flexible and adaptable combat system.”

Execution of tasking under the CSoF contract will be managed by Mike Miller, CSoF Director and Program Manager, who will be responsible for coordinating the efforts of Rite-Solutions and nearly 20 industry partners.

UNITAS 2025 Mid Planning Conference Concludes



NAVAL STATION MAYPORT, Florida – (Apr. 7, 2025) – Led by Rear

Adm. Carlos Sardiello, Commander U.S. Naval Forces Southern Command/U.S. 4th Fleet, more than 100 Sailors, Marines, and civilians gathered onboard Naval Station Mayport in support of the UNITAS 2025 Mid-Planning Conference. (U.S. Navy illustration by MCC John Fischer)

By USNAVSOUTH/4th Fleet Public Affairs, April 11, 2025

NAVAL STATION MAYPORT, Fla. – U.S. Naval Forces Southern Command/U.S. 4th Fleet completed the UNITAS 2025 mid planning conference on board Naval Station Mayport in Jacksonville, Apr. 7-11. Held virtually and in-person, the conference brought together commands from the U.S. and partner nations to plan for UNITAS 2025, the 66th iteration of the world's longest-running multinational maritime exercise.

UNITAS 2025 will feature a range of maritime operations, including a live-fire sinking exercise (SINKEX) and amphibious landings. The exercise will take place Sept. 15-Oct. 6 off the East Coast of the United States, with shore-based events at Naval Station Mayport, Marine Corps Base Camp Lejeune, North Carolina, and Naval Station Norfolk, Virginia.

“The level of participation and plans being developed are paramount to a successful exercise and are all oriented to expanding and strengthening our maritime partnerships,” said Rear Adm. Carlos Sardiello, commander of U.S. Naval Forces Southern Command/U.S. 4th Fleet. “Already steeped in a long history of success, UNITAS 2025 will continue to solidify a legacy of maritime partnerships.

More than 250 representatives from 23 countries and all branches of the U.S. military participated in person and virtually, including Argentina, Belize, Brazil, Canada, Chile, Colombia, Dominican Republic, Ecuador, El Salvador, France, Germany, Greece, Guatemala, Honduras, Jamaica, Japan, Mexico, Panama, Paraguay, Peru, Singapore, Spain, and the United States.

Participants refined the exercise scenario and objectives, the list of participating units and personnel, and logistics and communications plans. UNITAS is designed to strengthen relationships and foster interoperability among participating nations.

UNITAS 2025 will showcase maritime technology, including unmanned and hybrid fleet systems, building on last years integration of unmanned undersea vehicles. The exercise will culminate in high-end warfighting events.

“The combined efforts of all planners have shaped UNITAS 2025 to be the largest and most robust iteration of the exercise to date,” said Patrick Cooper, UNITAS 2025 lead planner. “The level of expertise and enthusiasm of every participant at the MPC has been truly astounding.”

UNITAS 2025 will also help set the stage for events celebrating the U.S. Navy’s 250th anniversary, a monumental event. Planning efforts will continue until the Final Planning Conference (FPC) scheduled to be held in June.

U.S. Naval Forces Southern Command/U.S. 4th Fleet is the maritime partner for Caribbean, Central and South American maritime forces, working to improve unity, security and stability.