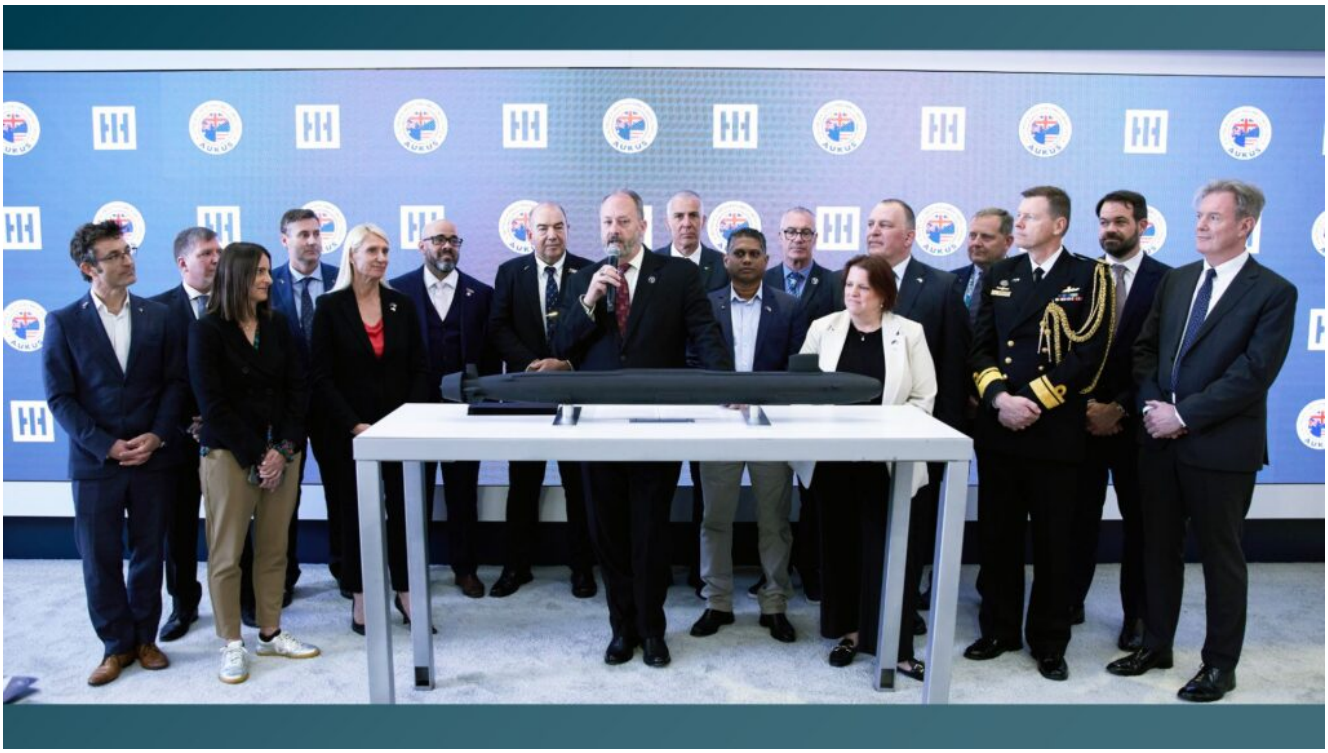
# HII Recognizes Australian Firms at Sea Air Space 2025, Advancing AUKUS Industrial Integration



Representatives from five Australian companies were presented with certificates recognzing their participation in HII-led supplier development initiatives. *Photo credit: HII*

NATIONAL HARBOR, Md. – At the HII booth during the U.S. Navy League's annual Sea Air Space 2025 Expo, representatives from five Australian companies were presented with certificates recognizing their successful participation in HII-led supplier development initiatives and received a Newport News Shipbuilding (NNS) supplier identification number.

The supplier development initiatives include state-led Supplier Capability Uplift Programs, which will feed into the new Australian Submarine Supplier Qualification (AUSSQ) program, announced by Deputy Prime Minister Richard Marles on March 6, 2025.

Eric Chewning, executive vice president of strategy & development for HII; Cullen Glass, vice president of supply chain management for HII's Newport News Shipbuilding; and Michael Lempke, president of the global security group at HII's Mission Technologies division, presented certificates to:

- Century Engineering (South Australia)
- MacTaggart Scott Australia (South Australia)
- Hofmann Engineering (Western Australia)
- Levett Engineering (South Australia)
- VEEM Ltd. (Western Australia)

The supplier identification number signifies that, upon full certification through the AUSSQ process, these companies are qualified to participate in the NNS supply chain in support of nuclear-powered submarine construction.

Also in attendance were Rear Adm. Ian Murray, Australian Defence attaché; Linda Dawson, deputy director general for industry, science and innovation, Western Australian Government; and Sir Nick Hine, executive director of H&B Defence and former second sea lord of the Royal Navy.

This milestone reflects deepening industrial integration under the AUKUS trilateral security partnership between Australia, the United Kingdom and the United States. HII's work, under contract with the Australian Government, supports the development of sovereign industrial capabilities and enables Australian companies to enter U.S. defense supply chains.

# Sea-Air-Space: Lockheed Martin Touts Readiness to Build ‘Golden Dome’ Missile Shield


Lockheed Martin’s Dan Tenney speaks with reporters at Sea-Air-Space 2025. *Photo credit: Lockheed Martin*

A representative from Lockheed Martin said at Sea-Air-Space 2025 the firm is “ready now” to help the nation stand up the

“Golden Dome” missile defense system, a new priority of the Trump administration that resurrects some aspects of the Reagan-era Strategic Defense Initiative.

“What does it mean to be ready now? I think it means we have systems that are fielded, they’re operational, they’re proven,” said Dan Tenney, vice president of Strategy and Business Development for Lockheed Martin’s Rotary and Mission Systems section. “They’re actually in operation today.”

A Jan. 27 White House executive order calling for America to develop its own version of Israel’s Iron Dome air defense system unleashed a flood of activity in the defense community. This comes as the government develops the fiscal 2026 defense budget request to Congress, which reportedly could approach $1 trillion, to jumpstart Golden Dome and to support the many other defense priorities.

A March 19 story published by DOD News confirmed the Pentagon is working to bring the Golden Dome from concept to reality.

“Consistent with protecting the homeland and per President Trump’s [executive order], we’re working with the industrial base and [through] supply chain challenges associated with standing up the Golden Dome,” said Steven J. Morani, acting undersecretary of defense for acquisition and sustainment, in the article. “This is like the monster systems engineering problem. This is the monster integration problem.”

This is also a costly proposition. So far, the United States has funneled around $3 billion to Israel – an 8,500-square-mile country roughly the size of New Jersey – for batteries, interceptors and other costs related to Iron Dome, which it stood up in 2011, according to a 2023 Congressional Research Service report.

Establishing a missile defense system covering the entire United States – with a land area of nearly 3.8 million square miles – is estimated to cost billions of dollars annually and

present many more barriers to success.

Nevertheless, Tenney said Bethesda-based Lockheed Martin is well positioned to assist.

“We think the future is really going to be around this integration,” Tenney said. “We do operate from seabed to space,” he said, with deep experience developing systems in global positioning, missile warning and tracking, radar, missile defense, high-energy lasers and other capabilities.

“When I think about Golden Dome,” Tenney said, “in so many ways I think we’re going to use existing systems but bring them together.”

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# Sea-Air-Space: CMS Breakfast Panel Discusses How to Make Future Shipbuilding Shipshape

Navy, Coast Guard and industry officials discuss the rebuilding of the United States' shipbuilding industry.
*Photo Credit: Dan Goodrich*

During his March 4 joint address to Congress, President Donald Trump vowed to establish a new office of shipbuilding within the White House and "resurrect" America's shipbuilding industry.

Implementing that vision poses both opportunities and challenges, said military and shipbuilding leaders during the April 8 Sea-Air-Space Center for Maritime Strategy Breakfast session, "Navigating Tomorrow: Forging a New Era in Innovation and Shipbuilding."

U.S. Navy Admiral Daryl Caudle, commander of U.S. Fleet Forces Command, said one issue is there is a set of strategic assumptions regarding shipbuilding that most people take for granted, and those assumptions "limit intellectual honesty and our perspective about the size, scale and scope of our challenges."

Caudle said the largest assumption has to do with combat shipbuilding capacity. He said it's commonly thought the attack on Pearl Harbor awoke a sleeping shipbuilding giant,

but “the only reason we were able to achieve that level of production was because of the groundwork of two years earlier.”

Caudle said there’s a tendency to focus on the decay of U.S. shipbuilding capacity since World War II, but before the war, the U.S. contributed a relatively small amount of global shipbuilding.

“I bring these up to show we have faced the odds before,” he said, adding he’s quite confident solutions are available as long as people are open and honest about the problems, the scale of those problems, and are proactive in solving them without having to undergo a crisis like Pearl Harbor and 9/11.

“Shipbuilding has taken on a prominence and importance we haven’t seen in a century. Coast Guard shipbuilding continues to move, but not move fast enough,” said U.S. Coast Guard Acting Commandant Admiral Kevin Lunday.

He said America is demanding more of its Coast Guard, “but we are less ready than in any time in our history since World War II.”

Admiral Daryl Caudle, left, Admiral Kevin Lunday and Rick Hunt share thoughts during the panel.
*Photo credit: Dan Goodrich*

Lunday said Coast Guard fleet cutters and boats are at "significant decline," and there's a shift to almost complete corrective maintenance of the fleet. "No ship gets underway today without stripping another for parts," he said. "The pace of modernization has not kept pace with the rate of change."

However, there are positives on the horizon, Lunday said, citing the U.S. Coast Guard Force Design 2028's transformative capabilities, along with significant government support. "I've not seen this level of support from [the Navy] secretary and the Office of Budget and Management certainly in my career, and maybe in our history," he said.

**Shipbuilding Perspective**

A trio of shipbuilders closed out the panel presentations. Retired U.S. Navy Vice Admiral Rick Hunt, president of Fincantieri Marinette Marine, addressed shipbuilding from the

perspective of the end user, including Sailors on a ship and operational commanders.

“I think the focus has to be on platforms that deliver top-level requirements, like combat systems, range, speed, durability and endurance,” he said. But there are challenges to achieving that. “Top of my list is readiness,” he said.

For instance, Hunt said maintenance is a key issue for surface warfare, and condition-based maintenance can be revolutionary. Cyber resilience is also important. “I think that’s where the next war starts and maybe the next war ends,” he said.

Hunt said he believes there needs to be continual engagement between the military and industry when it comes to shipbuilding.

“The primes, the subs and the suppliers – we need to bring all those guys in,” he said. “We can’t have a serial, time-consuming, somewhat bureaucratic process to identify things we need to change and understand the impacts of change. Remember, Sailors are the ultimate customers.”

Kari Wilkinson, executive vice president of HII and president of Newport News Shipbuilding, said she believes “now is the time to challenge what we think about the business. We do things in shipbuilding as we have since the beginning of time.”

But there is now the opportunity to use tools like algorithms and AI and integrate across portfolios, she said.

Mark Rayha, president of General Dynamics Electric Boat, said he’s heartened by the different attitude toward shipbuilding espoused by the current administration. “We talk a lot about the time we’re in – we need to do more; we need to deliver more,” he said.

# Sea-Air-Space: Private Equity Floats Role in U.S. Military and Commercial Shipbuilding


A McKinsey & Company luncheon and a Navy-Coast Guard panel, shown here, at Sea-Air-Space both addressed the issue of investing to help spur the shipbuilding industry. *Photo credit: Dan Goodrich*

Could private equity investments and business practices jolt the United States' shipbuilding industry, helping onshore military and commercial capacity to deliver more Navy ships "very fast, very soon," as President Trump called for in his joint address to Congress last month?

In many ways, yes, argued Benjamin Plum and Christian Rodriguez, associate partners at McKinsey & Company's

Aerospace & Defense Practice, at a Sea-Air-Space 2025 luncheon April 7.

“In shipbuilding,” Plum said, “there’s more appetite for private capital than there has been before because of the stronger demand signals that we’re seeing, both [as] part of this administration but I think more broadly – right? This is a theme that’s continuing.”

**Outstripping Capacity**

Government, industry, associations and academia have in recent years agonized over ways to increase the speed and scale of shipbuilding – to meet Navy goals for building new ships; upgrading existing ships, submarines, and unmanned systems; and recruiting and training qualified Sailors and mariners. According to a report by the Congressional Budget Office, the 2025 Navy shipbuilding plan calls for 515 “naval platforms,” which includes 381 battle force ships (from 295 today) and 134 unmanned surface and undersea vessels. (The U.S. blue-water flag fleet for international commerce is less than 80 ships.)

“If fully implemented, the plan would eventually result in the fleet’s being larger than it has been at any time since 2001,” CBO said. “However, if the Navy is unable to reduce the maintenance delays that it has been experiencing for more than a decade, it would not be able to deploy as many ships as achieving its 381-ship goal would suggest.”

Speaking at a House Armed Services Committee’s Seapower and Projection Forces Subcommittee hearing last month, Brett A. Seidle, deputy assistant secretary of the Navy for research, development and acquisition, acknowledged the erosion of tier-one shipyards since the end of World War II. Contributing factors, he said in a March 11 DOD News article, include changing Navy requirements, acquisition red tape, worker shortages, and underinvestment and industry consolidation. “Cost and schedule performance remain challenging with

deliveries approximately one to three years late and cost rising faster than overall inflation," he said.

**Renewed National Focus**

To reduce delays and jumpstart the industry, the Trump administration is reportedly preparing an executive order to revamp the industry, including creating a White House office of shipbuilding focused on the issue. A bipartisan group of lawmakers late last year introduced the SHIPS for America Act, to oversee and provide consistent funding for U.S. maritime policy.

This situation could also present opportunities for private equity to step into the breach, Plum and Rodriguez said at the Sea-Air-Space event. "What we're starting to see [in shipbuilding] is a desire for a more organized, tiered system like you would see in aerospace," Plum said.

Risk-averse investors can look to the Navy shipbuilding plan and the federal budget for insights into opportunities in the naval shipbuilding market, Rodriguez said.

According to Plum and Rodriguez, private-capital investments can improve shipyard operations and combat the industry's perennial problem of retaining skilled workers in the following ways:

- Higher wage levels: "These are very, very difficult jobs that are done often outside in arduous conditions, and I think making sure the entry-level pay rate is right is very important," Plum said.
- Better quality of facilities: The industry needs climate-protected facilities that make the work doable and attractive.
- Advanced technology: "We have to bring technology to shipbuilding in a way that other industries have done," Plum said, including incorporating advanced

manufacturing “to attract and retain new talent.”

- More outsourcing: The shipbuilding industry is historically involved in every phase of ship construction. However, private companies can implement money-saving process efficiencies and develop modern, modular systems that improve ships, shipbuilding processes, and facilities.

**Diversify the Industry**

Navy and Coast Guard officials said at an afternoon Sea-Air-Space panel on priority defense investments that the government is doing more strategic outsourcing to spur shipbuilding.

The big yards can push component manufacturing to different locations to better produce on the timelines needed for a 30-year shipbuilding plan, said Gordon Jaquith, executive director of the Department of Navy Relations and vice president and director of the Systems, Tactics, and Force Development Division at CNA, a nonprofit research and analysis firm.

Yet big challenges remain. “The way to onshore an entire industry, meaning shipbuilding, back to the United States is not something we can do overnight,” said Rear Admiral Matt Lake, assistant commandant for resources and chief financial officer at the U.S. Coast Guard.

This requires addressing some of the root causes for stagnation in shipbuilding, he said, including barriers to entry for basic services in areas such as ship design, lack of an ecosystem of suppliers to feed parts into the industrial base, and federal domination that leads to monopolistic practices and undermines diversification.

“To solve that problem and bring shipbuilding back you absolutely have to look at the commercial sector as well,”

Lake said.

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# Sea-Air-Space: Looking Ahead to a Modern Marine Corps


Major General Jason Woodworth makes a point during the panel on modernizing the Marine Corps. *Photo credit: Dan Goodrich*

Six years into its modernization initiative, the Marine Corps has a head start on some of its sister services. But there's still more to be done, said panelists during the April 8 session "Modernizing the Marine Corps: Building an Agile, Lethal and Resilient Force."

"It's exciting and we need to go faster," summed up Lieutenant General Eric Austin, deputy commandant for combat development and integration and commanding general of the Marine Corps

Combat Development Command.

Austin emphasized the Marine campaign of learning and its influence on force design. “How we responsibly modernize the Marine Corps is how we execute force design,” he said.

Lieutenant General Benjamin Watson, commanding general, Training and Education Command, said the Corps has traditionally relied on brick-and-mortar training solutions, “but that’s not the world we’re in these days.”

He cited initiatives like Project Triumph’s emphasis on leveraging technology to be more efficient and effective, and Project Tripoli’s emphasis on a live, virtual and constructive training environment.

“We’re increasingly fielding more complicated and sophisticated systems that are tougher and more costly to train on. I think if you look at what we’re seeing in contemporary conflict, it’s not much of a stretch to say we will never fight again with what’s traditionally known as air superiority,” Watson said, citing the need for unmanned systems integration, data and artificial intelligence.


“It’s exciting, and we need to go faster,” said Lieutenant General Eric Austin. *Photo credit: Dan Goodrich*

“One of our mantras is the idea that any Marine using a precision weapon can kill someone who needs killing at 500 meters. But now that’s up to 15, 20 kilometers and beyond” through the use of technology like first-person view drones, he said.

Major General Jason Woodworth, commander, Marine Corps Installations Command, and assistant deputy commandant, Installations and Logistics, discussed the importance of Barracks 2030, noting that modernizing aging structures is one of the commandant’s top priorities.

“It’s where warrior and family readiness starts. If Marines are good at home, they’re better at work,” he said.

Brigadier General Robert Brodie, director, Expeditionary Warfare OPNAV N95, said he’s seeing good collaboration between the Marine Corps and industry on modernization initiatives. He said in terms of shipbuilding, the most successful companies

have great relationships with other industry partners as well.

Brodie and the other panelists said to further facilitate Marine-industry partnerships, members of the Corps need to do a better job of defining exactly what they're looking for from industry – including opportunities for industry to help them understand a problem, define the problem and shape solutions.

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# Sea-Air-Space: TRANSCOM Chief Touts Navy, Merchant Marine Cooperation

Air Force General Randall Reed, commander of U.S. Transportation Command, discussed the strength of the Navy-Merchant Marine connection on April 8. *Photo credit: Dan Goodrich*

Air Force General Randall Reed, commander of U.S. Transportation Command, walked attendees at the Navy League Luncheon on April 8 through a history lesson of national and international conflicts to show the importance of the team of the U.S. Navy and Merchant Marine.

As a boy growing up in the Hampton Roads, Virginia, area, he would ride his bicycle to the historic Fort Grove and watch commercial ships sail by, followed by gray Navy ships from Norfolk Naval Base.

“The inextricable link between Navy combatants and our commercial Merchant Marine, the combination of those two makes our country great and that is what also makes TRANSCOM great,”

he said.

Throughout American history, the Navy, often at incredible odds, has made the waterways safe so merchant ships could carry supplies. Some of the historical issues are familiar to the audience at Sea-Air-Space, Reed said.

During this year's conference, "We've talked about trouble with shipbuilding, we've talked about supply chains, we've talked about contested logistics, long distances. And the next fight we have coming up, there's this thing about blockades we have to consider. We have very capable adversaries with very large fleets. There's a need for shallow draft ships and we have to get the mission done for sustainment. If this isn't enough to keep you up at night, then you probably miss the fact that I'm not talking about today. I'm actually talking about the challenges that we had during the Revolutionary War," Reed said.

"And the message here, ladies and gentlemen, is we've been here before, and during that time we had just as much uncertainty."

Lessons from other periods in history are also still relevant, Reed said, such as during the War of 1812, when the U.S. Navy swept away threats on the water, in this case Lake Eerie, so the Merchant Marine could supply the front lines from behind.

"So, in this case, once again, it's the Navy being able to fight, set the conditions to get some kind of sea control, to allow the Merchant Marine to provide the sustainment that's needed for the rest of the force."

That carried on through two world wars, and especially World War II, when the Merchant Marine was called upon to perform sustainment heroics, at great cost to its ships and crews.

"And with that, we became the nation that the world needed us to be, to have great influence to partner with allies,

partners and friends, in order to create a period of peace for the last 80 years that has delivered for all of us, I'm told, economic prosperity that the world has never seen," Reed said. "And so with that, I want to take a moment to pause and say the combination of the Navy and the Merchant Marine at that time was really incredible and actually changed the world."

Going forward, Reed said sustainment is still the "name of the game," only now it's contested by groups such as the Houthi rebels from Yemen who don't have to have a lot in the way of resources.

The Merchant Marine needs newer ships and better equipment, Reed said, and he's been telling that to supportive members of the U.S. House and Senate.

"I'm telling them that the ages of our ships right now are way too old, and we need to get younger ships and I'll take them however I can get them. But the main thing is, it's not necessarily for the ships and the platforms, it's also for the proof force because we have a very capable proof force and they need the best in the biggest equipment that we can absolutely get for them."

This was brought home to him during a recent visit to the Merchant Marine Academy in Kings Point, New York, Reed said. There, he witnessed 14 cadets receiving expeditionary medals from the secretary of transportation, a scene he said nearly brought him to tears.

"Think about that. Expeditionary medals on a cadet because as part of their education they take to sea, and these cadets have actually seen combat. They've actually been in harm's way. They were actually telling us stories of what it's like to sail past Yemen and watch things go over their head or to watch the Navy actually engage targets to protect them. And they were not afraid. In fact, they were ready to go back for more. And so, ladies and gentlemen, we need to do this for

them.”

Medal of Honor winner Edward C. Byers Jr. was awarded the Admiral Arleigh Burke Leadership Award.
*Photo Credit: Dan Goodrich*

**Awards**

Following the lunch, the annual Navy League Awards were presented:

- The Admiral Vern Clark Individual Award went to Angelo Owens, the safety and occupational health division director at the Fleet Readiness Center East.
- The Admiral Vern Clark Unit Safety Award went to Airborne Command & Control (VAW) 117 Wallbangers.
- The General James L. Jones Individual Award went to

Deputy Chief Ryan Tworek at Marine Corps Logistics Base Barstow, California.

- The General James L. Jones Unit Safety Award went to Marine Corps Air Station Miramar, California.
- The Albert A. Michelson Award went to Robert Taylor of Bardex Corp.
- The Fleet Chester W. Nimitz Award went to Robert "Scott" Forney III of General Atomics Electromagnetic Systems.
- The Admiral Arleigh Burke Leadership Award went to Master Chief Special Warfare Operator (SEAL) Edward C. Byers Jr., U.S. Navy, retired.

"I really do look out at this room and I see the fabric of America, the threads that hold our nation together during our most precious times" Byers said upon accepting the award.

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# Sea-Air-Space: Saildrone, Thales Australia Create Alternative to Traditional Surveillance Platforms

A Saildrone Surveyor SD-3002. *Photo credit: Saildrone*

Through a project funded by the Office of Naval Research, Saildrone (Booth 1905) has integrated its Surveyor with a BlueSentry thin-line towed array from Thales Australia (Booth 1247), creating a system for autonomous long-endurance undersea maritime domain awareness.

Extensive sea trials conducted off the coast of California have demonstrated this system can effectively detect and classify both underwater and surface threats and report this information to decision makers in real time. During the ONR trial, the Saildrone Surveyor and BlueSentry system operated continuously for 26 days and maintained uptime greater than 96%.

The trials showed that, under wind propulsion, the Surveyor provided a near-zero self-noise environment, significantly improving the detection capabilities of the BlueSentry sonar system.

Using Starlink and Iridium satellite communications, the

system is capable of persistent, secure data transmission even in sensitive and remote locations that have significant operational challenges. The system is also designed to pave the way for greater naval interoperability between AUKUS partners and delivers on AUKUS Pillar 2 undersea warfare requirements.

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# Sea-Air-Space: Navy Spearheads Historic Investments in Shore Infrastructure


Representatives from government and industry discuss the need to update the nation's aging shore infrastructure, including speeding ship construction through practical reforms. *Photo credit: Erika Fitzpatrick*

The U.S. Navy is modernizing the condition, configuration and affordability of its public shipyards and shore infrastructure, according to Rear Admiral Dean VanderLey, including by departing in some cases from traditional acquisition strategies.

"Our shore infrastructure on our Navy bases primarily [is] where we train our Sailors and maintain our ships and warfare platforms, and so is very critical to the ultimate readiness of our forces," VanderLey, commander of Naval Facilities Engineering Systems Command, said April 8 in the panel discussion, "Revitalizing Shore Infrastructure: Meeting Modern Naval Demands."

The Navy's four public shipyards – Norfolk (Virginia) Naval

Shipyard, Portsmouth (Maine) Naval Shipyard, Puget Sound (Washington) Naval Shipyard and Intermediate Maintenance Facility, and Pearl Harbor (Hawaii) Naval Shipyard and Intermediate Maintenance Facility – were first built in the 19th and 20th centuries.

“Now we’re using them to maintain nuclear-powered vessels,” VanderLey said. The youngest, Pearl Harbor, was founded in 1908 – the year the Ford Model T rolled off the assembly plant and was offered for sale at $850.

“After 100 years, it’s probably time to do something,” quipped panelist Mark Edelson, program executive officer for Industrial Infrastructure at the Department of the Navy. “Everything has gotten bigger and needs more power.”

**Upgrading and Modernizing**

Fortunately, Edelson said, the Navy has recognized the foundational element of naval installations to all the combat forces, and, in 2018, established the Navy’s Shipyard Infrastructure Optimization (SIOP) to upgrade shore infrastructure. Naval ports and bases face myriad issues, including aging facilities and equipment, insufficient utilities and information technology, lack of worker amenities, and rising waters in some places and diminishing sources of fresh water in others.

“We’re benefiting from historic investments in the shipyards to get after all of those things,” Edelson said.

SIOP, led by Program Executive Office, Industrial Infrastructure and supported by the Naval Facilities Engineering Systems Command, Naval Sea Systems Command and Commander, Navy Installations Command, to date has finished 44 facilities projects worth nearly $1.2 billion, according to the Navy. Another 48 projects are under contract for $6 billion in additional improvements, including construction of four dry docks and upgrades to shipyard utilities.

Some of these projects are hardly straightforward. A recent project to build a new Waterfront Production Facility at the Portsmouth Naval Shipyard required negotiating with the state historic preservation office to retain the building's original architectural features while modernizing ship servicing capabilities and improving workflow.

"Now the light machine shop, the artisans, the engineers are all in the same building next to two dry docks to get the throughput that we need," Edelson said.

**Departing from Tradition**

VanderLey said the Navy is making practical reforms to speed up infrastructure modernization by:

▪ Prioritizing resources. The Navy is first upgrading the most critical infrastructure, including dry dock improvements to support the "future force," including USS Gerald R. Ford-class aircraft carriers, and future versions of the Virginia- and Columbia-class submarines.

▪ Reforming acquisition strategies.The Navy is in some cases departing from the traditional acquisition process, which typically involves firms bidding on Navy-defined requirements in design and construction. It's now involving contractors earlier, to mold project design, VanderLey said. That's helpful in complex infrastructure projects, he said, when cost and schedule are "less about what you're building than about how you have to build it."

The Navy is also awarding design-build-to-budget contracts, which allow flexibility and speed while controlling costs.

▪ Alternating construction methods. VanderLey said the Navy is capitalizing on the trend of "industrialized construction" or "off-site construction," where certain parts or modules – child care centers, barracks, or dorms – are prefabricated off-site for later assembly into the overall build. "In Europe

about 45% of their construction is done that way; in the United States, it's about 5%," he said.

"We see potential for savings in cost and schedule of roughly 30%," VanderLey added. "So, we're aggressively going after those types of approaches."

Commercial shipbuilding faces similar challenges to the Navy in needing to upgrade its similarly aging infrastructure, in part to recruit and retain workers.

"People need infrastructure too," said Roger Camp, senior director for Business Development, Naval Programs, at Hanwha Defense USA, a subsidiary of South Korean defense giant Hanwha Group, which purchased the Philly Shipyard last year for $100 million.

He said his firm is exploring ideas to make the maritime facility more attractive to workers, by locating parking closer to the plant, outfitting training areas with virtual reality tools, and expanding – not replacing – production resources through use of AI and robotics.

"We have to have technical infrastructure," Camp said. "Not just piers not just buildings, but the actual facilities to be able to augment the humans that build our ships."

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# Sea-Air-Space: U.S., Canada Support Investment to Maintain Arctic Security

Vice Admiral Angus Topshee, commander of the Canadian Navy, right, and Coast Guard Vice Admiral Tom Allan discuss polar security in a changing world. *Photo credit: Seapower magazine*

The U.S. Coast Guard was pleased to hear of President Trump's interest in acquiring as many as 40 new icebreakers, said Coast Guard Vice Admiral Tom Allan, the acting deputy commandant for operations.

"Whenever your boss is interested in 40 icebreakers, you are very happy, right?" he said in response to a question during the April 7 panel on "Demanding Presence in the Poles: How a Good Arctic Strategy is Park of our National Security."

"I mean, this has been something that we've been trying to do for a long time, I'll tell you that," Allan said.

They wouldn't all need to be heavy icebreakers like the aging Polar Star, in service since the 1970s, he said, as studies have show the Coast Guard wouldn't need more than eight or nine of those. There are smaller ships that could do icebreaking as part of their other functions, and some could

be used on the Great Lakes.

Adding those in, “you get up to that 40 number pretty quick,” Allan said,” because that’s what we need … to make sure that domestic operations continue and that we are poised to have that presence in the high Arctic and Antarctic. So, I’ll just say it’s very exciting to see your boss point towards a vision that we’ve had for a long time.”

**Blue Water and Commercial Activity**

The United States and Canada must maintain a strong presence in the poles, especially as warming trends lead to more commercial activity, including shipping and mining, speakers from those nations said during the panel.

Operating in the region is challenging, the panelists said, not only because of ice but also from wind and fog, which can hamper aviation.

“So, having properly equipped vessels, training crews, and most importantly, [having] icebreakers is essential to giving the U.S. assured access to these critical areas,” Allan said.

“We must meet presence with presence, or even better, meet presence with strength. If we aren’t present, others will fill that void, nations whose interests may not align with ours or our allies. Russia controls nearly half of the Arctic, and we’re seeing increased cooperation between Russia and China in this space,” Allan said. “From resource shipments to military operations, we must lead the polar region … if we fail to act, we’ll be left on the sidelines, watching others shape the future of the region in ways that cannot serve our national interest.”

This is true for Canada as well, said Vice Admiral Angus Topshee, commander of the Canadian Navy.

Canada has made substantial investments in domain awareness in

the region, from over-the-horizon radars to a network of subsurface sensors “designed to make sure we know what’s going on in that region,” he said, which includes adding six ice-breaking warships to its fleet.

The Arctic is remote to Canada as well, he noted. Going from Halifax, Nova Scotia, across the Atlantic and into the Mediterranean is a quicker trip than visiting the Arctic, he said.

“That’s a shorter trip than up into our Arctic. So, for us, it’s an expeditionary theater,” which means working closely with the territorial governments in the region to understand the security challenges they face.

Vice Admiral Doug Perry, commander of U.S. 2nd Fleet, said his fleet was stood up in 2018 “in recognition of there are some real threats that come from the Arctic and through the Arctic,” similar patterns of activity to the Cold War.

“We’re back to needing to be there with persistence today,” Perry said. That includes using space assets and radars for domain awareness and having ships in the region when needed.

“There’s less and less sea ice. There’ll be more and more blue water every day of the year going forward,” he said. “And so, that demands that if we value international freedom of the seas and international rules-based order, if you will, then we actually have to be there and be present and have persistent presence to demonstrate that we will enforce international law” even in some countries illegitimately claim to own particular sea routes.

Perry said seven of the eight Artic nations are members of NATO, “all of whom are thoroughly invested in Arctic security” and are making investments in their capabilities.

# Sea-Air-Space: ThayerMahan's Outpost TM001 Christened on Show Floor


Australian Ambassador to the U.S. Kevin Rudd speaks as Courtney and ThayerMahan CEO Michael Connor look on. *Photo credit: Brett Davis*

After speaking on a panel about AUKUS, the partnership to build submarines and share technology between the United States, United Kingdom and Australia, Rep. Joe Courtney (D-Connecticut) took to the show floor to celebrate an early technology partnership.

Courtney broke a bottle of "champagne" against the hull of an unmanned surface vessel, the Bluebottle USV from Australia's

Ocius Technology Ltd. The vehicle is equipped with a towed sensor array and related technology from Connecticut-based ThayerMahan (Booth 2039).

That vehicle is the first of six to be delivered from Ocius to ThayerMahan and is now named the ThayerMahan Outpost, TM001, aimed at performing persistent surveillance. (Because the event was on the show floor, the bottle was plastic and not filled with bubbly.)

Outpost can be built and deployed quickly and for less than 1% of the cost and personnel compared with legacy acoustic surveillance platforms, the company said. In fact, the Outpost can usually be operated by just one person sitting before a monitor, said retired Navy Vice Admiral Michael Connor, CEO of the company he founded in 2016.

“We were just having a great conversation about AUKUS Pillar 2, and this is it, in three dimensions,” Courtney said before the christening.

He said Connor, the former commander of U.S. submarine forces who became enthusiastic about unmanned systems before they were mainstream is “a prophet, ahead of his time.”


Rep. Joe Courtney of Connecticut prepares to christen the TM001 USV on the show floor. *Photo credit: Brett Davis*

Kevin Rudd, the Australian ambassador to the United States, said the Outpost is “innovation writ large,” with a “cheap, usable, deployable, flexible, all-purpose platform” equipped with a sail, solar power and the ability to generate power from wave motion.

“This is quite extraordinary, but also it becomes this wide-area surveillance platform for multiple applications, both civilian and military,” Rudd said, later joking that TM001 should be christened with a bottle of Foster’s lager and the use of champagne is “possible un-Australian activity.”

Robert Dane, CEO of Ocius Technology Ltd., said the second platform sold to ThayerMahan, TM002, is already in the country and TM003 is on its way, “and it’s our job to get 4, 5 and 6 here by the end of the financial year, which is June in Australia.”

Dane also described the partnership with ThayerMahan an “AUKUS

Pillar 2 success.”

Speaking earlier to Seapower, Connor said, “the thing that we produce is valuable for both countries in that we do wide-area acoustic surveillance for surface ships and submarines for about a penny on the dollar relative to how we do it with ships, aircraft and submarines. The fact that we do it together with an Australian partner is, I think, a very positive aspect of relations between the countries. We bring a best-of-breed sonar and they bring a best-of -breed vehicle.”

He said ThayerMahan had tested is sonar array on virtually every one of the USVs on display at Sea-Air-Space, but “only this one can really handle the size of the array that you need to get the performance.”