

Coast Guard Uses New Tech for Oil Spill Response



Kirsten Trego talks about the USCG – Oil Spill Response: Tech Effort on the Horizon in the exhibit hall.

When most people think of the U.S. Coast Guard, they envision daring rescues at sea. But the USCG has a variety of lesser-known but equally important duties, said USCG Capt. (Ret.) Kirsten Trego.

During the Monday morning presentation, “USCG Oil Spill Response: Tech Efforts on the Horizon,” Trego discussed how the Coast Guard is the federal on-scene coordinator for oil-discharge cleanup in the coastal zone. That zone not only includes the nation’s shores, but also rivers, waterways, the Great Lakes and more.

“If something happens, we’re the best prepared,” she said.

The USGS has a 30-person team dedicated to oil-spill

responses. One of the team's focuses is working with the oil and gas industry, state and local governments, federal agencies and academia to research how oil spills are evolving and how best to deal with them.

Trego said these research initiatives include the Great Lakes Oil Center of Expertise, which is dedicated to research, training and testing focused on freshwater and cold-weather conditions during an oil-spill response.

The Coast Guard is also increasingly relying on uncrewed systems to more quickly and safely respond to spills, Trego said. New technology like sub-surface remote sensing uses long-range autonomous underwater vehicles to detect oil under ice in the Great Lakes. There is also an air focus, including remote-sensing unmanned aircraft systems (UAS).

"And where the fun is, is the NOAA MESDIS Marine Pollution Surveillance Program from space," Trego said. Remote-sensing UAS can see oil spills from space, characterize them and report the data.

Trego anticipates more UAS involvement in oil-spill responses in the future. "In the changing landscape of more oil exploration and more risk, traditional methods are no longer viable," she said. "When spills happen, we need to be ready and available to handle them."

Panelists Discuss Challenges in Navigating Space as a

Warfighting Domain



Space may have been the final frontier for the Starship Enterprise, but it's the current frontier for the worlds' fighting forces. As nations race to conquer this military high ground, the U.S. Department of Defense and private industry are increasingly working together to ensure American warfighters' place in space now and in the future.

During the Monday afternoon panel, "Space: The 5th Warfighting Domain," four representatives from the military and industry discussed the following questions from moderator Theresa Hitchens, a reporter with Breaking Defense, and audience members.

We've heard a lot about how the threat environment is changing. What keeps you up at night in that regard?

VADM Jeffrey Trussler, USN, deputy chief of naval operations for information warfare, N2/N6, Office of the Chief of Naval

Operations/Director of Naval Intelligence, said he's concerned about both the expanded use of the RF spectrum and China's efforts in space.

Because the Navy is reliant on RF, it needs to look at the best ways to use the RF spectrum as the space layer proliferates, he said.

Meanwhile, China has made its intentions for space supremacy public knowledge, and that's earned the attention of the Department of Defense.

"I've never seen a department more focused on an adversary and what we need to do," Trussler said. "The work we're doing in space, we're going to move out and move out fast."

Derek Tournear, PhD, executive director, Space Development Agency, discussed resiliency. His company launched 10 satellites on Sunday as part of its effort to put hundreds of small satellites in the sky rather than a few large ones that are easier to shoot down. Tournear said Space Development Agency is also concerned about common mode failures, especially cyberthreats, RF spectrum threats, and supply-chain threats.

Steven Butow, director, space portfolio, Defense Innovation Unit, said from a commercial standpoint, economic security and national security are intertwined. That makes it important to work across all levels of government for financial stability.

How do you deal with overclassification?

Butow said an argument can be made that moving fast is more effective than locking down information for long periods of time.

"Industry knows how to lock down information, but also how to release it and commoditize it," he said.

Ed Zoiss, president, space & airborne systems, [L3Harris](#)

[Technologies](#), said a private company can be a matchmaker when its customers are working on similar classified technologies.

Trussler believes the problem isn't just overclassification. "Even our simple acquisition processes give information to China," he said. "It's about how we share information and doing it right. It's not as simple as overclassification."

Tournear made the case for selectively releasing information. "We can't deter if can't talk about it. Thirty years ago, we couldn't say 'national reconnaissance office,' but the Soviets already knew we had it," he said. "We need to make sure we know what we need to protect, but also talk about what we're doing so there's a deterrence factor."

LEO (low earth orbit) has thousands of satellites. How concerned are you about debris, signal interference and collision?

"Two thoughts: Space is congested, and space is big – it depends on the orbital regime," Tournear said. There can be unintended consequences to mitigating congestion, but he believes that policies that promote being a good steward in your orbital slot can be effective.

Butow pointed out that there are more planes in the U.S. airspace than satellites in LEO, but the planes are regulated. That's why he thinks it's important that a space traffic commission be formalized and adopted on a global scale.

Transition

Connection

Provides Career Support for Service Members



Over a million men and women serve as active-duty members of our military, with an additional 800,000 in reservist roles. Every year, approximately 200,000 of those service members transition out of the military and into civilian roles. That transition is not always easy.

Transition Connection is an important hiring and networking event that links everyone in the military community, from enlisted service members to veterans to military spouses and civilians, with organizations looking for the caliber of employees that come from having a strong military connection.

Navy League CEO Mike Stevens kicked off the event, introducing Dr. Ernie Rosado, Director of Military Outreach for Columbia Southern University. The Navy League has recently partnered with Columbia Southern to offer a new scholarship for military

spouses that grants 60 credit hours towards any degree program at CSU.

“You folks are critical in this next process for all these folks that are transitioning,” said Rosado. “I know you will match that individual that has been protected by the military for years. And now they’re stepping out and they’re by themselves with their families. So, help them out. Let’s do a good job today,” he said.

During the four-hour event, members of the military had the opportunity to meet with some of the leading employers seeking to make offers to individuals that are either transitioning out of military service, trying to find a job that offers flexibility for military families on the move, or looking for out-of-the box options and support for civilian employment.

First time participants from [American Systems](#) commented on the big turnout and were excited to assist service members with the hiring process. “We support a number of different types of programs throughout the country and enterprise,” said Ed Wakeley and Chris McBeth of American Systems. “I support mostly Navy waterfront programs,” commented McBeth. “So engineering, training of getting ships ready to get back out to the South China Sea.”



Amazon, a regular Sea-Air-Space participant, have pledged to hire 100,000 transitioning service members, veterans, and spouses over the course of five years, said representatives John Pierce and Matt McGury. “As transitioned service members and advocates, we’re here to help answer questions [and] give guidance,” said Pierce. He also stressed that [many of the roles at Amazon](#) are a good fit because they utilize similar skill sets. “A lot of our data center positions are cleared facilities [...] operations mission critical facilities, very similar for military individuals. The skill sets that they offer work very well within our teams and the jobs that we have,” Pierce said.

Laura Hatcher, a 31-year [Navy veteran turned photographer](#), wasn’t at the event to hire, but to provide professional headshots to attendees at no cost. “This is my second career, and the majority of my clients are transitioning veterans,

because that's what I went through," Hatcher said. "I understand it. And I love these kinds of events, mainly because you get to stay in the community and [help] a lot of people that are looking for jobs," she said.

HII Dedicated to STEM



Amidst a maze of colorful exhibition booths, a bustling stream of kids and parents explore cutting edge tech, including 3D printers, tablet-controlled robots, rocket testing stations, and hands on (literally!) electricity experiments.

America's largest shipbuilder, HII, is at the center of it all with a huge variety of interactive exhibit stations and lots of smiles from their enthusiastic staff. Grant Ronquillo and Kelsie Rountree (mechanical engineer and trade school

coordinator for HII, respectively) both talked about the fun being at the Navy League Expo, grinning as they watched kids learn how to weld in a virtual reality simulator.

President and CEO of HII, Chris Kastner, also spoke with Seapower about HII's dedication to STEM, including a rigorous internship program. "We have a good conversion rate from our interns, especially our technical interns, because we actually give them real work to do when they come into the company," he said. "They're not just doing busy work."

But ultimately, HII's focus is on the benefit to the larger community.

"If we don't invest our communities, in STEM, and make sure we have technical talent that can work in the shipyards, then we're not doing the right thing for the community," said Kastner.

Building a City



The Exhibit Hall under construction.

Armchair experts and motivational speakers the world over are fond of saying that Rome wasn't built in a day. Less an historical account of Roman expediency, the saying is meant to convey the idea that great things take time. Civilizations don't happen overnight. And certainly, building a city represents a commitment to an idea.

The sprawling city you see before you here at Sea-Air-Space 2023 also wasn't built in a day. But close. It took three.

Last Thursday, these exhibit halls were empty shells. Footsteps rang across football-field expanses, voices echoed, and dust motes – not bands – played in ballrooms. We got to work. Everyone, from Navy League staff to contractors and vendors, to exhibit builders, to operations and logistics experts rolled up their sleeves and began the process of turning nothing into something. And not just any something, but something amazing.

The exhibition booths themselves are an incredible feat on

their own. They showcase possibilities, and in many cases, fantastic realities of technology and innovation that will bulwark our sea services and support their missions in the years to come. The panel discussions and other events are built as well, and not only with the physical infrastructure of microphones, lights, speakers, and chairs. Our Navy League team built these events with dedication, with people, and with a commitment to an idea.

Our idea is this: What if we amass the best and brightest together for three days once a year, put our collective heads together, and create real solutions that affect the viability of our seapower. What if we change our world. What if.

Welcome to our city.

Q&A with Naval Supply Systems Command

Seapower magazine interviews Vice Commander Kurt J. Wendelken

What are the roles of the Naval Supply Systems Command?

1. NAVSUP and the Supply Corps conduct and enable supply chain, acquisition, operational logistics and Sailor & family care activities with our mission partners to generate readiness and sustain naval forces worldwide to prevent and decisively win wars.

How is the era of great power competition affecting NAVSUP's roles and responsibilities?

1. As Navy's end-to-end supply chain integrator, NAVSUP is working hard to maximize efficiencies and effectiveness in Navy's supply chains. One major initiative is Naval Sustainment System-Supply (NSS-S). Naval Sustainment System (NSS) is a combination of commercial best practices, process improvements, governance and oversight to maximize efficiencies and effectiveness within available means. NSS-Supply embraces industry best practices tailored for specific Navy needs and fleet operations in order to reduce maintenance turnaround times, increase end-to-end velocity of spares, repairs, and reduce costs.

Why does the Navy's supply chain need the transformation of the Naval Sustainment System-Supply?

1. NSS-Supply seeks to strengthen Navy's supply chain in order to increase readiness, thus enhancing combat capability and creating a model of sustainment that will allow the Navy to effectively generate readiness and sustain global navy power.

How does NAVSUP fit in the Navy's push for more distributed maritime operations and in the Marine Corps' expeditionary advance base operations?

1. Combined with the most robust, end-to-end logistics doctrine that the world has ever seen, NAVSUP provides uninterrupted (despite contested environment) supply chain management, bulk and aviation fueling capability, material handling equipment, contracting, hazardous material management, household goods and vehicle processing and postal operations to fleet, installation and other service components throughout every area of operations.

How will management of the supply chain be more integrated and streamlined with the warfighting commands?

1. By extension, NSS-Supply embraces industry best practices tailored for specific Navy needs and fleet operations in order to reduce maintenance turnaround times, increase end-to-end velocity of spares, repairs, and reduce costs.

What major segments of the supply chain are not owned by NAVSUP? How does the Defense Logistics Agency's roles compare with those of NAVSUP?

1. NAVSUP and the Supply Corps conduct and enable service specific supply chain, acquisition, operational logistics, and Sailor & family care activities with our mission partners to generate readiness and sustain naval forces worldwide to prevent and decisively win wars. The Defense Logistics Agency is the DoD executive agent for specific classes of supply that are common across the military services like food, fuel, construction material, and medical supplies. They also provide extensive warehousing services across DoD.

What are that current challenges that NAVSUP faces with the defense industry in executing the supply chain?

1. Executing an effective naval supply chain is increasingly challenging, in part due to the Defense Department's pressure on industry to become lean. We now face raw material shortages, weapon systems obsolescence, a shrinking skilled labor pool, excessive acquisition lead times, and a dwindling sub vendor base with a heavy reliance on sole source vendors. Maintaining our current warfighting edge requires better

collaboration and transparency with industry. We need to invest in sustainment up front, consider where prepositioning materials makes sense, and work better to reverse the current trends deteriorating material lead times.

What new technologies look promising in aiding NAVSUP in streamlining the supply chain?

1. NAVSUP manages Navy's globally distributed, highly complex, and increasingly digital supply chains. LOG IT and Supply Chain systems are critical enablers in generating and sustaining readiness. NAVSUP is proactively taking steps to deliver modern digital solutions that support real-time operations to include system modernization, leveraging internet of things (IOT) technology and machine learning/artificial intelligence to improve asset visibility.

What can be done to expand competition among suppliers?

1. NAVSUP contracting offices attempt to enhance competition through early outreach in an effort to identify as many potential sources as possible. The use of Industry Days is also a popular method among NAVSUP contracting offices for specific types of procurements, such as ship repair or husbanding. These are established days where potential sources are invited to attend and learn as NAVSUP provides guidance on doing business with the government. This is a way to ease private sector concerns and generate interest.

What can the defense industry do to help the Navy improve its supply chain?

1. Just as the Navy has incorporated a “Get Real, Get Better” mantra, so we ask industry to embrace the same. We are all working towards a collective goal of supporting national defense, and it is imperative to operate with transparency and honesty, not distrust. Short-term, be accurate with contract schedules and deliver on time in accordance with contractual commitments. Increase the number and scope of strategic contracts to help offset material, labor, and financial stressors. Long-term, deepen the partnership with the Navy to create a more effective sustainment environment earlier in weapons system development. With more agility and cooperation, we can identify, plan, and overcome supply chain barriers to better support our fleet, which is the ultimate goal.
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Navy Prioritizes Mental Health with New Playbook

The U.S. Navy has always been dedicated to ensuring that the bodies and minds of its Sailors are ready and prepared to win in combat. But there have been challenges over the years in helping Sailors with mental-health resources during active service, and as they transition out of the Navy into civilian life.

The Navy Culture and Resilience Office, N17, Office of the Chief of Naval Operations is addressing those challenges through its new Mental Health Playbook. This 28-page playbook, which was released in February, is designed to put mental health tools and resources into the hands of every Navy leader, no matter what their rank.

“Our goal is that everyone in our great Navy develops a shared understanding about how to conduct mental-health and preventative maintenance for our people, and then where to go for additional resources,” said Rear Admiral Brett Mietus, director of N17. “It’s an incredibly important topic to me and all of the Navy’s senior leadership.”

The Navy already offers a variety of mental-health resources. Navy N9 quality-of-life programs include Morale, Welfare and Recreation (MWR); Wounded Warrior; Mind Body Mental Fitness (MBMF); and Sailor Assistance and Intercept for Life (SAIL). There are also family advocacy programs, childcare and relocation programs, assistance programs, non-medical counseling at fleet and family-support centers, and more.

The Navy League of the United States has mental-health resources as well. For example, Sea-Air-Space’s Transition Connection Job Fair, which will be held from 10 a.m. to 2 p.m. on Monday in the Cherry Blossom Ballroom, is one of the ways the Navy League helps with transitioning Sailors’ overall well-being.

The Mental Health Playbook complements all these efforts through its mission to create a “climate of trust and respect with open, two-way communication; challenging inappropriate conduct or poor leadership; and eliminating stigma for seeking help.” The Playbook is organized into five sections:

- Roles and Responsibilities, which is geared toward helping commanders create, “a community of support, where sailors feel connected to the mission, the command and each other.”
- Conversations That Matter, which provides strategies for conducting mental-health discussions.
- Identifying and Responding to a Mental Health Related Concern, which discusses what to do when sailors are in mental or emotional distress.

- Navigating Support Systems, which helps sailors find the right support at the right time.
- Navy's Mental Health Capabilities and Resources, which describes the clinical and non-clinical tools available both inside and outside the military and provides contact information for a variety of programs.

"Most of the resources that are in the playbook have been out there, but they just haven't been put together in a way that's easily digestible and then usable by a fleet leader," Mietus said.

Mietus said the playbook is a response to requests and concerns from fleet members about the Navy's approach to mental health. He noted that while older Sailors aren't necessarily used to acknowledging or discussing mental-health issues, younger generations are much more attuned to their mental and emotional needs.

"Our goal is to eliminate stigma when it comes to mental-health care. I think the important thing for us all is to normalize conversations around it," he said.

Small Businesses Make Big Waves



The demand for small business innovation, technology, and solutions has never been higher

If rural western Massachusetts looks like something out of a Norman Rockwell painting, it's because that's where Rockwell kept his studio. But in addition to the picturesque college towns, quaint villages, covered bridges, and magnificent scenery, the region also has a long history of heavy industry that dates to the industrial revolution. These industries historically harnessed rivers for power and created mill towns that made textiles, paper, leather goods, electrical components, automobiles, and guns.

Pittsfield, Massachusetts is located 40 miles from Albany, New York and 140 miles from Boston. With a population of about 44,000, it is the county seat of Berkshire County (pop. 129,000). For many years the town's business was defined by its largest employer, the General Electric Company, which manufactured transformers, electronics and plastics, and employed 10,000 workers. Like much of western Massachusetts' heavy industry, it has moved elsewhere.

When General Electric left, it took many good paying jobs with

it. But today, General Dynamics Mission Systems (GDMS) has a large, state-of-the-art facility involved in the design and manufacturing of complex electronics for defense purposes, such as submarine combat systems. In fact, General Dynamics' business is growing, attracting new and highly skilled workers, and providing an economic engine for Pittsfield and its surrounding communities.

Global Threats Push Innovation

According to Ann Rusher, GDMS vice president of supply chain management, there have been unprecedented changes in the national security business, largely because, "China and Russia are introducing new technology and new capability at an alarming rate."

To counter that trend, Rusher said defense companies have had to accelerate the pace of innovation to work closely and more collaboratively with smaller businesses, including those that have not previously worked in the defense sector. "We need that innovative spirit and agility that small businesses can bring."

To accomplish that, GDMS is fostering better ties with the community and its supplier base. The company brought together vendors and partners – particularly small businesses – to the Berkshire Innovation Center (BIC) for a "Supplier Day."

Rusher said the event was aimed at reestablishing connections and relationships, and to make small companies aware of the resources in and around the Pittsfield area, as well as across the country, to help them, "learn about, grow, and partner with us."

She said that big companies like General Dynamics truly rely on small companies, with their innovation and agility. Rusher said that today, more than 60% of GDMS current active supplier base are small businesses. "We added 104 small businesses to our active database just in 2021. And across all categories of

small business, we've increased our spend over the last five years by over 15%. And every single one of the categories of small business – the HUBZone, service disabilities, veterans, and women owned – they've all been increasing, from five percent all the way to doubling."

Supply Chain Challenges

Rusher said General Dynamics not only wants to foster relationships between the company and small businesses, but also wants to facilitate the growth of those small businesses so that they can provide support to the entire defense industry. "By doing that, we can be a force multiplier for the government, and we can bring that innovative spirit, not just to us, but to the to the betterment of the country."

"We're a very successful company with an extremely talented workforce, but sometimes we need partners to help to solve some difficult problems," Rusher said. "Not only have these small companies helped us solve tough technical issues, but they often bring a technology or a capability that's so unique and state-of-the-art that when combined with the mission knowledge that General Dynamics has, it really is the differentiator to solve a problem and deliver exceptional capability."

However, while the demand for innovative technology and solutions has never been higher, the number of small companies in the defense sector has declined precipitously.

According to *Inside Cybersecurity*, Deputy Assistant Secretary of Defense for Industrial Policy Jesse Salazar acknowledged that small businesses are under immense market pressures.

"The number of DIB (defense industrial base) small businesses has shrunk by more than 40 percent over the past decade," Salazar said. "One of seven believe they will never return to pre-pandemic levels of performance."

“Just when we need them the most, the supply chain is shrinking,” Rusher said.

Rusher admits that it might be a little intimidating for a small company to establish a relationship and work with a large defense contractor like General Dynamics. “It might even be tempting to think that we like to go it alone. True, General Dynamics can do a lot of things. And we can do many of the things that perhaps a small business could do. But the reality is the small businesses we work with bring something very different, and way more than what we can do by ourselves,” she said.

“We don’t just want to work with you; we need to work with you,” she said to the Supplier Day attendees.

BIC Innovation Hub

The BIC in Pittsfield is a multimillion-dollar collaborative initiative between the Commonwealth of Massachusetts, private industry, local colleges, and local government that opened in 2020. BIC serves as a confluence of technology and ideas. It offers conference rooms, offices and laboratory space, all designed to bring people together so they share knowledge and expertise to address challenges and seize opportunities.

“We offer world-class research and development facilities and equipment, interactive training and conference facilities, and shared access to advanced technology for local manufacturers,” said Ben Sosne, BIC’s executive director. “We can do more together.”

Innovation centers like the BIC can offer online advanced manufacturing courses and access to content that serves companies and students, both locally and elsewhere. When potential employees learn about the technology being developed in the Pittsfield area, it can attract new qualified workers to companies like General Dynamics.

According to Sosne, a workforce with higher digital skills can command higher wages, but it also attracts more employers looking for people with those skills. "When we have a pipeline of new talent through apprenticeships, and the adoption of new technology, the higher the wages you can offer, and the more that you can attract that new talent. By working with local employers like General Dynamics and developing a curriculum that teaches methods and processes that meet their needs, you are essentially graduating an industry-ready group of engineering professionals and technologists."

"Employers like General Dynamics are an economic engine and a jobs-multiplier," said Benjamin Lamb Director of Economic Development with 1Berkshire. "One manufacturing job in the Berkshires supports 4.8 other jobs in the county."

The official regional economic development organization and regional tourism council of Berkshire County, 1Berkshire, represents the Berkshire business community and offers a powerful network of resources for members and companies. "This is where the synergy of marketing and economic development within the same organization in the same building with the same team can become very powerful," said Lamb.

Small Businesses are Essential Partners

"General Dynamics designs, engineers and makes all kinds of systems that are used for national security, so we take a lot of pride in that," said Pittsfield Mayor Linda Tyer. "They are an essential partner here in the city of Pittsfield and throughout the Berkshires. They are a large employer, providing 1,600 skilled jobs for our community. But there are many opportunities for our small companies to be part of the supply chain that serves General Dynamics, so that we are strengthening the economy here in Pittsfield and the Berkshires. Our plastics manufacturers and engineering companies help provide plenty of opportunity for those small businesses to benefit from the presence of General Dynamics."

Tyer said that workforce development is an essential part of the future and the success of General Dynamics and small businesses, no matter what kind of work they are doing. "It's incumbent upon academic institutions like our community colleges and four-year colleges, as well as institutions like the Berkshire Innovation Center (BIC), as well as the state agencies that provide workforce training opportunities and internship programs, to make sure they are partnering with each other and the employers who need talent and have the job opportunities," she said. "That's why having the BIC here is so important to the future of the innovation economy here in Pittsfield."

State Representative Tricia Farley-Bouvier, who represents Pittsfield, agrees. "General Dynamics reaches throughout the region to bring new talent to the Berkshires, not only with intellect and their skills, but the energy that they bring to our community. They spend their dollars in the outdoors and arts economy and in our shops and cafes, and volunteer in the Berkshire County. We want to ensure that we have a reliable local supply chain for this global company of General Dynamics, and ensure that the pipeline is a short one," she said. "I think workforce development is the biggest challenge right now, and that's across the board in every industry here in western Massachusetts. But we're very well positioned in Berkshire County because our high schools are producing really good workers and launching them into STEM careers, and that is an excellent source of talent for General Dynamics."

Farley-Bouvier cautioned that General Dynamics can't stand back and wait for the workforce to come to them. "General Dynamics has been and needs to continue to be part of that solution. They need to continue to be in at Taconic High School, MCLA (Massachusetts College of Liberal Arts), and Berkshire Community College and be part of those solutions. One of the most successful things that General Dynamics has done, and other smaller companies around Berkshire County have

copied, is to provide paid internships. Paid internships are critically important because they level the playing field. It used to be that everybody took unpaid internships because there weren't a lot of jobs out there. But the only people who could take an unpaid internship were those students whose families could support them. The young people who were economically distressed had to take those low paying service jobs over the summer because they had to pay their bills," she said.

"Fortunately, General Dynamics is really invested in these students, and it's paid off for them," said Farley-Bouvier. "And we need to do a lot more of that to ensure that we have a reliable local supply chain for this global company of General Dynamics."

**Ports Seen as 'Vital
Resource' for National
Security**



Rear Adm. John Mauger, Coast Guard assistant commandant for prevention policy, makes a point during a port security panel discussion at Sea-Air-Space 2022. *LISA NIPP*

NATIONAL HARBOR, Md. – The economic role U.S. ports play can't be overstated because they are a vital resource, a Coast Guard official said in an April 6 panel discussion at Sea-Air-Space 2022.

"Twenty five percent of U.S. GDP and employment for one in seven Americans are generated because of port-based activity," said Rear Adm. John Mauger, assistant commandant for prevention policy. "We also know this is a vital resource for our national security. It's how we project power and [provide] humanitarian aid around the globe."

Tony Padilla, a senior adviser for maritime trade and development at the U.S. State Department, agreed on the importance of ports.

"International trade in our nation's ports support the employment of nearly 31 million people, provide about \$1.5

trillion in personal income and generate over \$5.5 trillion in economic activity, thereby accounting for one quarter of the nation's GDP," Padilla said. "Many of our ports safeguard government owned vessels and commercial sealift vessels, so our military can project power abroad. Simply put, without seaports, our economy would be crippled."

There's also a dark side to ports that is difficult to monitor said Christopher Hickey, a senior systems engineer at the Naval Research Laboratory.

"There are about 250,000 ship tracks worldwide on a good day," Hickey said. "But you have to add in the hundreds of thousands of dark ships – the ships not emitting AIS [automatic identification system] – that traverse the globe. While a fair amount of illicit maritime activity takes place aboard AIS-compliant ships, it is these dark ships, or dark targets, that typically pose the greatest threats.

"Domestically, the United States has long maritime borders that for the most part are not monitored on a 24/7 basis, creating a permissive environment that enables massive amounts of illicit goods and cargos to be imported and exported. Drugs. Money. Weapons. And, worst of all, the trafficking of people – all of this moving illegally across our maritime borders every day," he said.

**L3Harris Forms Agile
Development Group to Address**

Near-Peer Threats



NATIONAL HARBOR, Md. – L3Harris Technologies has established a new entity, the Agile Development Group, or ADG, to foster rapid technology development to counter near-peer security threats through innovation and cooperation.

Speaking to *Seapower* at Sea-Air-Space 2022, Sean Stackley, president of Integrated Mission Systems at L3Harris, introduced Dave Duggan, president of the new L3Harris Agile Development Group. The group is dedicated to overcoming inertia and rapidly developing the technology to address future threats with new ideas and acquisition of or partnering with enterprises and allies with high-potential technology.

“Our mission is to deliver innovative, vital solutions within a fraction of the time and cost of industry norms,” Duggan said in a release announcing the group. “We’re listening to our customers and taking calculated risks to rapidly develop new capabilities that will urgently address emerging threats.”

Duggan told *Seapower* that the group is comprised of “highly empowered development teams working with the latest digital

tools with an agile development process that backs it up to enable us to respond to our customers need for doing business differently and developing new capabilities in a much faster timeline than historical norms.”

Duggan said the building of the ADG began four to five years ago and has grown to about 2,500 employees, which the company described as “dedicated engineers, program managers, technicians and operations professionals focused on advanced, front-end and rapid capability development.”

The ADG entity expects to add additional personnel as it grows.

Initial projects of the ADG included broadband RF, advanced optics, and advanced unmanned systems and weapons, Duggan said.

The ADG has facilities in Florida, Texas, Ohio, California and Virginia.

“The ADG will have a designated internal investment fund to mature and burn down risk of critical enabling technologies. The ADG’s lean, empowered development teams and digital engineering development approach will deliver solutions at the expeditious pace the [Department of Defense], allies and other domestic and international customers demand,” the release said.

L3Harris, headquartered in Melbourne, Florida, said the fiscal 2023 budget proposes a 10% increase in research and development funds which, if enacted, will provide opportunities for the ADG to demonstrate its value.