

CTMA CONNECTOR

WINTER 2024

Improved Radiation Simulators Train NATO First Responders

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February 25-27, 2025

[NCMS Sustainment Accelerator: US Naval Shipyard Repair Facility & Japan Regional Maintenance Facility](#)
Yokosuka, Japan

Spring 2025

Expeditionary Maintenance
Little Creek, VA

June 16-18, 2025

[CTMA Partners Meeting](#)
Jacksonville, FL

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About NCMS

The National Center for Manufacturing Sciences (NCMS) is a cross-industry technology development consortium, dedicated to improving the competitiveness and strength of the US industrial base. As a member-based organization, it leverages its network of industry, government, and academic partners to develop, demonstrate, and transition innovative technologies efficiently, with less risk and lower cost.

About CTMA

The CTMA Program offers a unique contracting vehicle for industry, academia, and the DOD sustainment community to work collaboratively. Through these efforts they promote the demonstration, evaluation, and validation of new and innovative technologies that enhance warfighter readiness at optimal value and lowest risk. This non-FAR based contracting vehicle is the only DOD-wide program focused solely on maintenance and sustainment.

In Memoriam: Brett Anderson

It is with a heavy heart we at NCMS share the passing of Brett Anderson, NUWC Division, Keyport Fleet Readiness Department leader and Deputy Sustainment Technology Program Manager, age 44, who passed away on Sunday, November 24.

Brett began his service to the Department of Defense in July 2003 and spent his entire career with the Navy. Starting as an apprentice at Puget Sound Naval Shipyard (PSNS) and Intermediate Maintenance Facility, Brett's career quickly took off. Throughout his tenure at PSNS, Brett wore many hats: machinery maintenance mechanic, workload forecaster, production controller, and deputy planning manager, to name a few. In 2018, Brett took a position at NAVSEA 04X3 as Business Financial Manager for the Advanced Shipyard Technology Program, and in 2019 he was hired as the Business Financial Manager for NAVSEA 05T1 Cold Spray and DISTT. Always an innovator at heart, Brett was directly responsible for the contract that established the highly successful Cold Spray Pop-Up Cells, which to this day are used widely by the Navy to repair parts that create supply chain bottlenecks.

Brett was a true believer in the CTMA Program's mission and process. Working closely with Debbie Lilu, NCMS EVP Mx and Sustainment, Business Development, Brett was instrumental in creating the first 7600A blanket support agreement and paved the way for other services to replicate its success. The blanket support agreement allowed the services to effectively and quickly execute a project and streamline the project formation process. This is just one example of Brett's Herculean effort and creative thinking, which resulted in shorter maintenance and sustainment technology transition cycle-times.

From this interaction, Brett's career began to run parallel with NCMS, his endeavors intersecting multiple times with our own events here. Those from NCMS who were close to Brett worked collaboratively with him to execute the first-ever REPTX, where NAVSEA and NCMS worked in conjunction to present and coordinate challenging expeditionary repair and sustainment scenarios for broad industry participation to demonstrate repair technologies on working Navy ships.

"Brett was the ultimate mover and shaker within the NAVSEA innovation community," said Lilu. "He was so instrumental in bringing tools and technologies to sailors and shipyard artisans who keep ships ready and affordable. He recognized



Left to right: NAVSEA 05T colleagues Jeff Campbell, Suzie Simms, Janice Bryant, Brett Anderson, and Phillip Borrelli. (Photo courtesy of Phil Borrelli.)

the power of the NCMS collaboration and the CTMA process to rapidly innovate ship sustainment and his passing leaves a giant void in our hearts."

As impressive as Brett's working resume is, it is his character, leadership, competence, wit, and humor that we will remember the most. "No" was not a word in Brett's vocabulary. When presented with a problem, no matter how complex, he always strove (and usually succeeded) to find the "yes." And even in his latest significant leadership positions, Brett was always the first to "roll up his sleeves" and work up and down the chain of command—with the seaman to the admiral—to get the job done. Brett had a deep sense of duty and knew who the customer was at all times. The execution of his vast responsibilities was magnetic, prompting those around him to work harder for those we serve. No matter what problem he faced, he was always up for the challenge. Brett's sunny demeanor and life-of-the-party persona radiated from him, and many flocked to him to gain his energy and strive to do their best. He always set the bar high.

Steve McKee, Director, Maintenance Technology Team with the Office of the Deputy Assistant Secretary of Defense for Material Readiness, met Brett during their time in the Puget Sound area. Their journeys may have taken them in different directions, but they continued to remain close work colleagues.

"Brett Anderson was a great friend and visionary maintainer of naval ships," McKee said. "He was a man of great wit, tireless dedication, and selfless service. His contribution to the Puget Sound Naval Shipyard, Naval Sea Systems Command, and the Joint Technology Exchange Group will continue to reverberate for many years and, he will be missed by all who knew him," said McKee.

So many people here at NCMS were touched by Brett. He will be happily remembered and sorely missed. ■

Advanced Composite Shelters Support DOD's 2024 Arctic Strategy

In a climate of mounting Chinese and Russian threats in the Arctic, the DOD recently released its [2024 Arctic Strategy](#). As the DOD regularly trains in the Arctic and conducts routine operations critical to upholding deterrence and homeland defense, the CTMA Program launched an initiative to improve mobile structures capable of withstanding the Arctic climate.

The project team built three shelters with advanced composite materials and tested them at the [McKinley Climatic Laboratory at Eglin Air Force Base](#) in Florida, which contains the largest environmental chamber in the world. The shelters successfully retained an internal temperature of 100 degrees Fahrenheit in an external environment of -65 degrees Fahrenheit.



Tactical Composites has developed an Arctic-ready rigid walled shelter (RWS) made from advanced composite materials. (Photo courtesy of Tactical Composites.)

The project brought together three Army organizations: Project Manager Medical Sustainment Systems (PM MSS), Combat Capabilities Development Command Soldier Center (CCDC SC), and Materiel Development Activity (MMDA), along with industry partner [Tactical Composites](#). The shelters built by the team will be used by the US Army Medical Materials Development Activity (USAMMDA) Medical Field Systems (MFS).

“Our team met with doctors and nurses in the Army Medical Corps to understand the problems with legacy aluminum rigid walled shelters,” said Benjamin Cornell, Chief Operating Officer, Tactical Composites. “Those issues include corrosion/rust, maintenance costs, payload, and stiffness of the floors.”

In the first phase, the team designed a prototype rigid walled shelter that was successfully tested at the US Army Aberdeen Proving Ground facility in Maryland. In the second phase, they took the lessons learned from testing and manufactured two pre-production shelters for additional testing.

“We solved the problems of legacy rigid walled shelters by building new shelters with advanced composite materials including carbon fiber, fiberglass, phenolic resin, and a variety of different foam core materials,” said Cornell. “The main design is basically a 20-foot shipping container, with

two variations. In one version, one side expands. In the other version, both sides expand. That’s because the Army Medical Corps uses both one-side expandable and two-side expandable shelters when they set up expeditionary

hospital centers. The shelters have the various medical missions including operating room, laboratory, blood bank, pharmacy, and radiology.”

The shelters made with advanced composite materials have multiple benefits.

“The advanced composite materials are stiffer and prevent the vibration and bouncing that happened with metal floors in legacy shelters,” said Cornell. “We also increased the payload on the floor from 7,500 pounds to 15,000 pounds. A lot of the ocean ships that these shelters are transported on have gone from 6 containers high to 9 containers high, so we increased the shelter capability to 9-high stacking, which gives the logistics crew a lot more ability to move them around. The maintenance costs will be dramatically reduced because the shelters won’t be rusting or corroding. Composite shelters will last 100 years.”

The team is also focusing on shielding the shelters from electromagnetic interference (EMI).

“We’ve done a number of different programs with the Air Force and the Marine Corps making electromagnetically shielded shelters,” said Cornell. “When we talked with our partners in the Army Medical Corps, that is a massive issue for them because MRI machines, X-rays, CT scanners,

defibrillators, and other equipment used by medical personnel have electronics in them. As we've all seen with the war in Ukraine with Russia, electronic warfare has become a mainstay. That poses a huge risk for shelters that house medical equipment and the ability of our DOD medical personnel to treat soldiers in the field."

Beyond the DOD, the shelters built in this project have multiple applications for the public good.

"These shelters can be used by many industries including drilling, mining, forestry, scientific research, anything

where people are out in harsh environments," said Cornell. "Shelters that are built from composite materials, as opposed to metal or wood, will not rust or degrade, and will have significantly lower maintenance costs and a longer life. These shelters are also more energy efficient. We calculated that there will be a 10 percent carbon footprint reduction compared to traditional materials, which is good for fuel prices and the environment."

Currently, the project is nearing completion. This winter, the shelters will be tested at the US Army base Fort Wainwright in Alaska. ■

Condenser Tube Cleaning Innovation Achieves 83% Process Savings

Testing Proves Successful at Puget Sound Naval Shipyard & Intermediate Maintenance Facility

A current CTMA project dramatically improved the process of cleaning condenser tubes, an essential maintenance requirement in multiple industrial environments. Condensers, devices that remove excess heat from a system with the assistance of water or air, are vital to many industries including power plants, petroleum, chemical, food processing, marine, and more. Condenser tubes require cleaning at regular intervals to ensure efficient operation and effective heat transfer. This project, a collaboration between Puget Sound Naval Shipyard & Intermediate Maintenance Facility (PSNS & IMF) and industry partner StoneAge, Inc. demonstrated an improved method for cleaning condenser tubes on submarines.

Cleaning condenser tubes on submarines at PSNS & IMF has historically employed high-pressure jets of water, known as hydrolance systems, to remove fouling. A crew of four maintainers works together to push a high-pressure lance equipped with a spray nozzle through each condenser tube. The high-pressure waterjet (5,000 pounds per square inch) removes the deposits and biological growth. This process is extremely labor intensive, and operator fatigue produces variable results. This variability contributes to the re-cleaning of tubes, which places maintainers in a challenging work environment. The process also consumes significant amounts of time due to the large number of tubes on each platform.

This CTMA project sought to demonstrate a safer, more efficient condenser tube cleaning technology that reduces the need for re-cleaning and increases the overall cleanliness of condenser tubes.

"The primary purpose of this project is to assemble and demonstrate a lance feeder system and lance positioning

system that will work together as a high-pressure water system for cleaning condenser tubing on Navy submarines that was initially and successfully developed for our aircraft carriers," said Ryan Marson, cell manager, Code 100TO.4, Digital Transformation Office, Puget Sound Naval Shipyard & Intermediate Maintenance Facility. "This system will improve the efficiency of maintenance and sustainment activities and extend the life of these critical assets."

The project, currently in its third phase, successfully demonstrated a condenser cleaning system, with automatic feeding and positioning, to serve as high-pressure water system specifically for cleaning condenser tubes on submarine platforms. The system demonstrated in this project is expected to reduce the crew size to 2-3 personnel for submarine cleaning operations, thereby reducing maintenance costs.

The project team has identified multiple successful outcomes of this project.

"Collaboration between the industry partner, the government, engineers, and end users resulted in a workable, repeatable, and optimal solution to the problem," said Marson. "The project achieved 83% process savings, along with the three orders of magnitude reduction in re-cleaning of the tubing that was realized from phases 1 and 2."

The project has been so successful that it is expanding into an additional phase.

"We are initiating a phase 4 to add another platform and some further refinements including additional equipment interchangeability and standardization between

platforms,” said Marson. “The project is applicable in the other public shipyards.”

The technology demonstrated in this project also has multiple public benefits.

“The project has saved time and money in the cleaning operations themselves and has increased energy efficiency and reduced environmental impacts due to the cleaning,” said Marson. “These benefits could immediately apply to

commercial marine applications or other industries.”

The high-pressure water system for cleaning condenser tubes demonstrated in this project can benefit the commercial ship maintenance and sustainment community, along with any industry with equipment that uses condenser tubes including power generation, chemical processing, agriculture, HVAC, and more. ■

Float Kit to Add Amphibious Capability to an Autonomous Ground Vehicle

Autonomous systems and vehicles are an increasingly important part of the National Defense Strategy. “The next great revolution of warfare is autonomous vehicles, and the side that embraces this technology first will have the upper hand,” remarked Maj. Brian Mathews in [Army Sustainment](#). A recent CTMA collaboration successfully developed a float kit concept to increase the amphibious capabilities of autonomous ground vehicles through a collaboration with US Army Ground Vehicle Systems Command and the University of Maine’s Advanced Structures and Composites Center (ASCC).

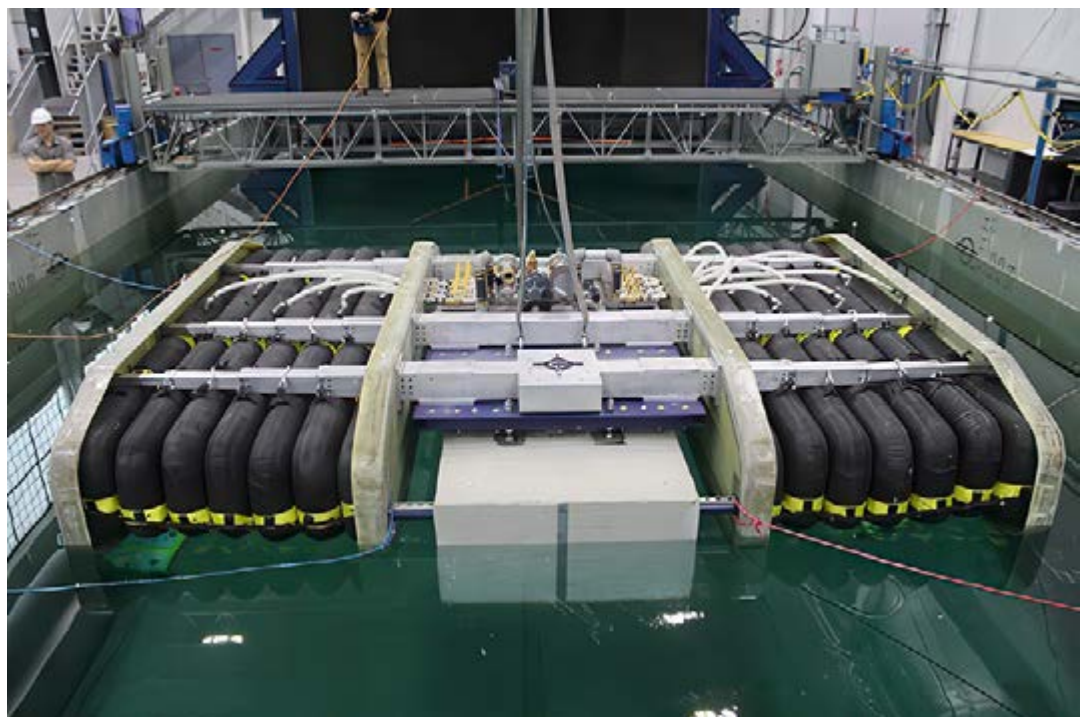
“We explored numerous concepts before development of the selected design began,” said Benjamin Dwyer, Senior R&D Program Manager at the University of Maine’s Advanced Structures & Composites Center (ASCC).

After producing a test article, the team achieved a milestone this April, when the University of Maine’s ASCC hosted GVSC and NCMS for a float kit demonstration. The team tested the float kit at the University of Maine’s Alford Wind and Wave (W2) Ocean Engineering Lab. This lab accurately simulates tow tests, variable water depths, and scaled wind and wave conditions that represent some of the worst storms possible anywhere on earth.

“After successfully demonstrating floating capability of the prototype,”

said Dwyer, “we turned on the wave generator and created waves that exceeded what would typically be encountered during operations. We also simulated damage to the kit that could be incurred in the field. The float kit continued to perform very well and was robust to the simulated damage.”

This version of the kit will be able to float an autonomous ground vehicle of up to 10,000 pounds, bringing more versatility to autonomous vehicles, which are expected to play a critical role in future warfare. The float kit produced in this project will support the Army in Multi-Domain Operations (MDO) providing a durable capability that can support warfighters in highly contested operational environments. ■



Float kit concept prototype being tested in the University of Maine’s Alford Wind and Wave (W2) Ocean Engineering Lab using a concrete block representing the mass of an autonomous military ground vehicle. (Photo courtesy of University of Maine.)

Improved Radiation Simulators Train NATO First Responders

Radiation detection training equipment developed in a current CTMA project was recently used by military first responders in the 2024 NATO Clean Care (CC24) exercise, which trains NATO member states on providing chemical, biological, radiological, and nuclear (CBRN) defense. Held every two years and organized by the NATO Centre of Excellence for Military Medicine (NATO MILMED COE), this year's exercise took place in Bakonykúti, Hungary. The exercise simulated three separate radiological and nuclear training scenarios: a drone-delivered radiological dispersal device (dirty bomb), patients with radioactive shrapnel embedded in wounds arriving at a triage and decon site, and an explosion at a fuel storage facility and the resulting blast pattern.

Participants trained using new and improved SIM-Teq® radiation simulator sources, called TWR Mini Source devices, which were developed as part of a CTMA collaboration between industry partner Radiation Safety & Control Services, Inc. and the Navy's four public shipyards: Norfolk, Portsmouth, Puget Sound, and Pearl Harbor. The new devices have been optimized in their design and operation to include a variety of new features in comparison with their first-generation predecessor. They are smaller, more robust, and emit configurable levels of both simulated gamma and neutron radiation. The devices can be configured to be made up of a mix of radioactive isotopes, used when training with instruments able to identify the isotopes which make up the radiation source. These new devices, along with two high fidelity SIM-Teq training probes that plug into the Navy's real RADIAC meter and a simulated dosimeter commonly used throughout the Navy, were created to improve the capabilities of the Navy's training on radiation detection and will replace the outdated multi-function RADIAC training system.

"The new TWR Mini Source greatly improved the SIM-Teq

system through the CTMA project," said Stephen Nester, Business Development Manager, Radiation Safety & Control Services, Inc. "They are essential, state-of-the-art tools for instructors to create simulated radiologically hazardous environments, ranging from simple setups to highly complex scenarios. Each trainee's simulated instrument auto-detects and measures the emission from each simulated source. Multiple sources can be configured either uniformly or with varying settings to create a realistic, customized, high-hazard training environment that closely mirrors real-world conditions. Up to 40 SIM-Teq training instruments will respond to up to 10 sources within a single training environment. The advanced capabilities of these devices were successfully demonstrated during the NATO exercise in Hungary."



Soldiers survey a contaminated patient with a GMP-25TD contamination probe during the 2024 NATO Clean Care exercise. (Photo courtesy of Radiation Safety & Control Services, Inc.)

Beyond the NATO exercise, the training system can support radiation detection training for over 1.5 million American workers who are occupationally exposed to ionizing radiation each year, primarily those who work in nuclear power, military, maritime, construction, nuclear medicine, radiology, oncology, and public safety.

The emission settings of the simulated source can be tailored to represent either very small radiation sources,



Soldiers train on the SIM-Teq system during the 2024 NATO Clean Care Exercise. (Photo courtesy of Radiation Safety & Control Services, Inc.)

the field doesn't become obsolete," said Nester. "We offer free firmware updates that can be conveniently downloaded from our website. SIM-Teq equipment owners can easily access these updates and install them directly onto their computers and then their devices, ensuring that their equipment is fully compatible with the latest advancements to the system."

The optimized SIM-Teq system serves the public good by providing a radiation detection training simulator that can meet the needs of numerous public and private organizations.

detectable only at close range, or larger sources that can be detected from distances exceeding 30 meters. Additionally, the device offers enhanced functionality by supporting a configurable isotopic mix of up to five isotopes from the American National Standard Performance Criteria for Handheld Instruments for the Detection and Identification of Radionuclides (N42.34-2021) library.

The SIM-Teq system enables instructors to run seamless training exercises through the Simulation Control Center (SCC) software.

"The SCC runs the entire SIM-Teq system," said Nester. "It's Windows 11 compatible and runs on a PC or a tablet with a touch screen so instructors can walk around in a training session."

The SCC enables instructors to view the dynamic measurement and status from all wirelessly connected devices; set source emission levels, model-specific configurations, and alarm thresholds; and manually control the displayed measurement, faults, and alarms of any training instrument.

"Our system design ensures that every SIM-Teq device created is backwards compatible so that equipment in

"The result of this project is a very powerful system, to build upon further, to create a potential standard for a simulation system for all segments of the radiological community that use detection equipment, whether it be in a hospital, a firehouse, a police squad, in the nuclear power community, in academia, or in the military," said Nester.

The flexibility of the CTMA Program was one of the key elements that contributed to this project's success.

"We've worked on various government contracts before, but this is our first experience with the CTMA Program," said Nester. "It's an excellent platform for collaboration because it inherently provides flexibility, which is incredibly valuable for both industry and government partners. This is especially true in the realm of electronics and software applications, where rapid technological advancements, particularly with the new influences of AI, require adaptability. The CTMA Program allows partners to pivot as needed, ensuring that we're not locked into solutions that may become obsolete. This flexibility enables industry and government partners to collaboratively adjust and optimize for the best possible outcomes, making the most of both time and financial investments." ■

NCMS Digital Enterprise Team Announces Winners of New Army Digital Transformation Challenge

This fall, the NCMS Digital Enterprise team launched a new competition, the Army Digital Transformation Challenge, designed to identify innovative and transformative technologies, techniques, or capabilities with the greatest potential to make the US Army more digitally agile, effective, efficient, affordable, and scalable. Two winners were selected by a panel of Army subject matter experts from a field of eight finalists—out of a total 64 entries—at a private virtual event on November 15:

- **SBE Vision Digital Engineering Ecosystem, by SBE Vision**
- **IRONPIPE with RAG Capabilities: Revolutionizing Army Digital Transformation with IoT and Generative AI, by Aptima, Inc.**

Digital Engineering Ecosystem

SBE Vision launched the SBE Digital Thread Platform (SBE Platform) in 2017. Engineered to manage large-scale data through advanced cloud-based technology and a distributed architecture, a defining feature of the SBE Platform is its cloud-agnostic deployment capability, which allows it to operate in on-premise, cloud, or hybrid environments. In addition to this flexibility, the platform's innovative hub-and-spoke model enables the traceability and auditability of data across the digital engineering ecosystem (DEE). The creation of the DEE, powered by the SBE Digital Thread, provides end-to-end traceability, giving management the assurance that all design requirements are met. With intuitive dashboards and deep analytical capabilities, the platform empowers users to gain comprehensive insights into product design and performance.

The use of ontologies—standardized representations of data—play a crucial role in this process, as they provide a human-readable format that simplifies data management. By utilizing a unified language for diverse data, the digital thread makes it easier for engineers to work with complex information within the confines of their individual tool, reducing

cognitive load and supporting innovation.

By employing an ontology-based approach, SBE Vision enables seamless data integration across a variety of engineering applications, including, but not limited to, requirements management, system architecture, PLM, simulation, and CAD tools. As the needs of the DEE evolve, and additional tools are integrated, data is transformed between tools without requiring constant updates to individual connections. Users are also empowered to design adapters for legacy or custom-built systems, thereby fostering a collaborative and cohesive environment across the enterprise.

IRONPIPE with RAG Capabilities

Aptima, Inc. also won for the IRONPIPE platform, an IoT-based, cloud-integrated system designed to address digital transformation challenges in distributed operational environments. Originally developed for the Department of Navy, IRONPIPE provides real-time situational awareness by consolidating data from environmental, human, and machine sensors into a unified Common Operating Picture (COP). This enables rapid decision-making, efficient resource allocation, and enhanced safety.

Building on this foundation, Aptima's latest innovation—Retrieval Augmented Generation (RAG)—introduces



A representation of the SBE Vision Digital Engineering Ecosystem. (Graphic courtesy of SBE Vision.)

generative AI capabilities to the IRONPIPE platform. RAG allows users to automatically generate actionable reports on-demand based on real-time data collected from IRONPIPE sensors. This eliminates the need for manual data analysis and report generation, providing critical insights on personnel, equipment, and environmental conditions. RAG supports both automatic and user-driven report generation, making it a flexible tool for enhancing operational efficiency.



A representation of IRONPIPE with RAG. (Photo illustration courtesy of Aptima, Inc.)

IRONPIPE with RAG significantly improves the Army's digital agility by streamlining operations, reducing decision-making time, and minimizing manual reporting efforts. It supports Army digital transformation efforts by integrating multi-modal data from distributed sensors, ensuring that commanders have the information needed for effective decision-making. Additionally, IRONPIPE's cloud architecture enables scalable deployment across various facilities, making it applicable to multiple operational scenarios.

NCMS will award each winner's innovations with \$50,000 of in-kind support and \$50,000 in project funding, applicable to a future DOD demonstration project.

"The team was impressed with both the quantity and quality of entries," said Jon Riley, NCMS Senior Vice President, Digital Enterprise & Initiatives. "A total of 64 entries were submitted and reviewed by senior Army Ground Vehicle Systems Center (GVSC) leaders. The review and selection process provides great exposure as all submissions have been published online."

The six finalists were:

- **AI-Driven Digital Engineering: Transforming Army Readiness Through Personalized Skill Development**, by Enterprise Minds, Inc
- **Altair Graph Studio for the Army Digital Transformation Challenge**, by Altair
- **AURA SmartThread**, by AURA Technologies, LLC
- **Collaborative Digital Engineering Environment**, by Pratt & Miller Defense
- **Intentional Design of Tailored Digital Engineering Technical Reviews**
- **(T-DETRs) for GVSC**, by George Mason University
- **Secure Resilient Data Infrastructure for Digital Transformation**, by Kinnami

RAG allows users to automatically generate actionable reports on-demand based on real-time data collected from IRONPIPE sensors, [eliminating] the need for manual data analysis and report generation.

For more information about the 2024 Army Digital Transformation Challenge, visit: <https://ncms.org/events/2024-army-dtc>. ■

NCMS Digital Enterprise Team Hosts Digital Transformation Workshop

NCMS has long been strongly committed to advancing digital enterprise as a means of collaboration and innovation. [The NCMS Digital Enterprise \(DE\)](#)—a secure, multi-cloud digital ecosystem—provides access to next-generation engineering tools in which government, industry, and academic partners can safely collaborate and demonstrate capabilities. This October, the NCMS Digital Enterprise team held a two-day workshop on digital transformation, “Discovering Digital Transformation: Model Based Technical Reviews,” at NCMS headquarters in Ann Arbor, Michigan. Attended by 45 participants, the workshop explored the foundation of digital engineering and focused specifically on how it can benefit the Army.

“This workshop supported the US Army’s Digital Transformation Strategy to rapidly adopt and institutionalize digital engineering practices,” said Jon Riley, NCMS Senior Vice President, Digital Enterprise & Initiatives. “Advanced digital engineering capabilities now make it possible to perform a full spectrum system

analysis with connected models throughout the system life cycle, such as analyzing the impact of requirements and conceptual design changes on the system manufacturing and sustainment. Similarly, the technical program reviews of systems that allow life cycle advancements, such as the critical design review and preliminary design reviews, can be enhanced by digital engineering.”

The workshop introduced model-based design practice and the currently evolving world of digital engineering, setting the foundations needed for digital transformation and adoption. The first day introduced the system life cycle model, system engineering reviews, and model-based systems engineering with system modeling language (SysML), along with examples of how to build a digital engineering model with SysML. The second day covered state-of-the-art and emerging trends in digital engineering, demonstrating industry tools for designing workflows and conducting system engineering reviews in virtual space. ■



Registration Open for 2025 CTMA Partners Meeting in Jacksonville, FL

The 2025 CTMA Partners Meeting has been scheduled for June 16-18, 2025, at the Hyatt Regency Jacksonville Riverfront in Jacksonville, FL. Don’t miss the opportunity to attend this unique event designed to promote an exchange of ideas among leaders in government, industry, and academia. This event is the only DOD-wide forum dedicated to advancing maintenance and sustainment capabilities, where the primary focus is on innovations and ideas that drive the evolution of M&S strategies to promote warfighter readiness.

This year’s event will see the return of the evening table-top receptions and the CTMA Technology Competition, both of which offer many opportunities for industry and

academic partners to display next-generation technology solutions to reach a broad cross-section of decision-makers throughout the DOD. New this year for the CTMA Technology Competition, the entry requirements will be scenario-based, to enable participants to select a focus area geared specifically toward the MRO challenges of Fleet Readiness Center Southeast in Jacksonville, FL. Stay tuned for more information about exhibiting, entering the technology competition, sponsorship opportunities, speakers, the agenda, early bird prices, discounted hotel rooms, and more.

For more information and to register, visit: <https://ncms.org/events/2025-ctma-partners-meeting>. ■



New NCMS Sustainment Accelerator Series to Launch at US Naval Facility in Yokosuka, Japan

NCMS Technology Showcases have served the DOD community for nearly a decade. Hundreds of companies have visited dozens of military installations over the years, showcasing how their capabilities can solve the unique challenges of each location. While demonstrations have always been encouraged at Technology Showcases, demos will be the sole purpose of the new NCMS Sustainment Accelerators.

“We are enhancing static tabletop displays with active engagement and live demonstrations to accelerate technology transition,” said Debbie Lilu, NCMS Executive Vice President, Maintenance and Sustainment, Business Development, and CTMA Program.

Sustainment Accelerators will enable demonstrators to show DOD leadership, maintenance managers, and technicians how their technology works in real-time. Through hands-on demonstrations, end users will be able to assess the ease of use, adaptability, and effectiveness of technologies in addressing critical maintenance and sustainment challenges.

NCMS will host its first Sustainment Accelerator at the US Naval Shipyard Repair Facility and Japan Regional Maintenance Facility (SRF-JRMC) in Yokosuka, Japan February 25-27, 2025. The goal of this event is to connect US Fleet Activities Yokosuka to companies and organizations whose technologies can benefit shipyard operations at the installation.

This event is an opportunity for participants to demonstrate their products, processes, and capabilities, and meet directly with DOD personnel. Participants will not only gain high visibility for their products and services, but they’ll also learn about opportunities for collaboration directly from the leading technology experts who serve the Navy’s maintenance community.

To see a list of capability priorities the SRF-JRMC would like to see demonstrated at this event, please visit: <https://ncms.org/ncms-sustainment-accelerator-us-naval-shipyard-repair-facility-and-japan-regional-maintenance-facility#desired-capabilities>. ■

FEATURED NEW MEMBERS

AirBoss Engineered Products

AirBoss Engineered Products (AEP) provides custom rubber compounds and product design, testing, and manufacturing solutions tailored to defense, automotive, and multiple other industries. In conjunction with Airboss Rubber Solutions, one of the largest rubber compounding and mixing enterprises in North America, AEP has access to over 2,000 custom proprietary rubber compounds or can quickly formulate a new compound to meet customers' needs.

AEP can 3D print, rigorously test, redesign, reprint, and re-test multiple iterations of a rubber part in the time it previously took to dropship a new prototype. AEP engineers conduct pre-production modeling and design with CAD and CAE. Using mold flow modeling software, the AEP engineering team optimizes tool design and material to ensure the highest quality production part is made. AEP's material development specialists formulate compounds to improve durability, increase temperature tolerances, or enhance any number of advanced rubber traits.

At its Michigan based manufacturing campus, AEP has refined and optimized the design, prototyping, testing, and mass production processes. With on-site R&D test labs, in house mold making, rapid prototyping machines, and a dedicated prototyping area, AEP can dramatically speed up the concept to production process. In-house machining and tooling experts adjust manufacturing machinery and fine-tune equipment to meet any customer manufacturing need.

To learn more about AirBoss Engineered Products, please visit <https://airbossengineeredproducts.com/>.

DMG MORI Federal Services

DMG MORI is a leading global manufacturer of high-precision machine tools. The company's machines cover the full range of functions—turning, milling, ultrasonic, lasertec, additive manufacturing, grinding, and boring—along with automation and software solutions to work seamlessly with those machines. DMG MORI offers hardware and manufacturing technology solutions to its customers across the healthcare, energy, auto, defense, and aerospace industries. DMG MORI Federal Services (DMFS) is DMG MORI Group's initiative focused on growing United States government contracting opportunities in advanced manufacturing.

As the world's largest machine tool manufacturer, DMG MORI utilizes on-site engineering design teams to prepare unique manufacturing specifications for each customer's machine and works with assembly technicians to implement all custom features. The company is a vertically integrated manufacturer with in-house sheet metal and electrical cabinet manufacturing, reducing machine lead times and reliance on third party suppliers.

DMG MORI is NIST complaint, has Level 2 qualifications of the Cybersecurity Maturity Model Certification (CMMC) Version 2.0, and operates on the Microsoft GCC High environment. Additionally, the company is registered with the Directorate of Defense Trade Controls (DDTC) / International Traffic in Arms Regulations (ITAR).

With over 100 application and engineering specialists and over 200 factory-trained field service technicians, the company helps to train clients' workforces through its National Institute for Metalworking Skills (NIMS)-accredited academy and online courses. Headquartered in Chicago and with domestic manufacturing in Davis, California, DMG MORI's growing reach includes additional facilities in Cypress, CA; Sommerville, MA; Irving, TX; and Charlotte, NC.

To learn more about DMG MORI Federal Services, please visit <https://dmgmori-fs.com/>. ■