DEFENSE STRATEGIES INSTITUTE PRESENTS:

9TH ANNUAL MILITARY ADDITIVE MANUFACTURING SUMMIT & TECHNOLOGY SHOWCASE

MILAM 2025

AGENDA & SHOW GUIDE

FEBRUARY 11-13, 2025 | TAMPA, FL

SUMMIT OVERVIEW

Program Design and Goal:

The 9th Military Additive Manufacturing Summit (MILAM) will convene experts and senior leaders across the DoD, Federal government, International Partners, Academia, and Industry to discuss the continued embrace of 3D printing capabilities across the Defense Industrial Base. Senior leaders will discuss how additive manufacturing is being integrated to maintain a technological edge, rapidly respond to emerging threats, and optimize budget allocations by reducing material waste and production times.

This Summit will highlight how AM is crucial for DoD and Federal Government initiatives due to its ability to enhance supply chain resilience and reduce logistical constraints. For example, DoD can now produce spare parts for military equipment on-demand, minimizing downtime and dependency on traditional supply chains. In 2024, the US Navy employed 3D printing to produce critical components for submarines, significantly reducing repair times and costs. This capability is particularly vital in remote or combat environments where traditional manufacturing resources are scarce, and ensures operational readiness and agility. The US Air Force harnessed additive manufacturing to create lightweight, high-strength parts for advanced aircraft, contributing to both improved performance and fuel efficiency. This technology is also enabling improved rapid prototyping, resulting in faster iteration and deployment of essential components. The US Space Force is working to leverage next-gen commercial space capabilities to modernize its supply chain and global communications network. Finally, the US Army is modernizing its organic industrial base by prioritizing collaboration between private and public stakeholders at the leading edge of 3D printing innovation.

Attendees will participate in panel discussions comprised of different uniformed and civilian SME's in the additive space; one panel which will provide an international component designed to underscore the transformative impact 3D printing is having on a global scale; another will examine tactical additive solutions and define AM requirements across the Military Services.

Operating Guidelines:

MILAM directly supports DoD/Federal Government priorities by providing a conduit for officials to efficiently reach audiences outside of their respective offices that directly impact their department's mission success, at no charge to the government, and in an efficient expenditure of time.

MILAM will provide a forum to address and improve internal and external initiatives, meet with and hear from partner organizations, disseminate vital capability requirements to industry, increase visibility within the larger community, and generally support their mission.

*The Summit is open and complimentary to all DoD and Federal Government employees and is considered an educational and training forum.

Industry and academia members are charged a fee of attendance.

Summit is CLOSED TO PRESS / NO RECORDINGS

SUMMIT OVERVIEW

General Target Audience

US Military Services, US Military Commands, Military and Government Research Labs, Government Agencies, Academia, and US Technology Solution Providers, 3D Printing Companies, Prototyping, Supply Chain Solutions, Logistics, International AM/3D Printing Community

Specific Topics to be Discussed

- Creating DoD's Largest Printable Part Repository to Overcome the Limitations of Traditional Acquisition Systems
- Employing Tactical Additive Solutions Across the Services: Meeting AM Requirements for Modern Warfare
- Validating AM Technology to Address Maintenance Operations Across the Fleet
- Securing the Global Communication Network in LEO: How Industry Can Aide in Bolstering USSF's Supply Chain By Delivering Next Gen Space Capabilities
- Stressing the Importance of Collaboration Between Private and Public Stakeholders to Drive 3D Printing Innovation Across the Army
- Advancing Air Superiority: Pioneering USAF Efforts in Additive Manufacturing
- Leveraging Additive Manufacturing to Ensure Materiel Readiness Across for MAGTF Expeditionary Environments
- Driving the Strategic Impact of Additive Manufacturing and 3D Printing on Global Military Operations

VENUE:

Tampa Convention Center

333 S. Franklin Street,
Tampa, FL

SUMMIT SCHEDULE

DAY 1: TUESDAY, FEBRUARY 11

7:00—8:00 AM ***Registration and Light Breakfast Reception Open***

8:00—8:15 AM **Opening Remarks and Presentation of Colors — Tampa ROTC**

8:15—8:30 AM **Chairperson Opening Remarks**
Avi Reichental (Confirmed)
Chairman & Co-founder | Nexa3D

8:30—8:45 AM **Moderator Remarks**
GEN (Ret.) Edward M. Daly, USA (Confirmed)
DALY Consulting & Logistics;
Former Commanding General, U.S. Army Materiel Command

8:45—9:20 AM **Advancing Additive Manufacturing in Defense Logistics and Supply Chain Management**

- Integrating DLA AM efforts with DLA Organic Manufacturing Strategy to enhance the efficiency and effectiveness of defense logistics and supply chain management
- Discussing the challenges and opportunities of implementing AM in defense logistics and supply chain
- Partnering to expand the AM vendor base and increase competition in the AM marketplace

Emily Vogeler, SES (Confirmed)
J34 Executive Director, Logistics Policy and Programs, Defense Logistics Agency

9:20—9:35 AM **Industry Perspective: Velo3D**

9:35—10:10 **Fireside Chat: Maximizing Automation by Leveraging 3D Printing Tools to Keep Apace with Policymaking**

DoD's first National Defense Industrial Policy lays out long-term priorities that will guide DoD actions and resource prioritization with the aim of creating a modern, resilient defense industrial ecosystem designed to deter U.S. adversaries and meet the production demands posed by evolving threats. This fireside chat aims to cover how the newly released strategy will ensure that the U.S. defense industrial base meets the demands of a challenging national security landscape well into the future.

Moderator: John Wilczynski (Confirmed) Executive Director, America Makes

- **Patrick Kelleher, SES (Invited)**
  Deputy Assistant Secretary of Defense for Materiel Readiness, OUSD (A&S)
- **Adele Ratcliff, (Tentatively Confirmed)**
  Director, Innovation Capability and Modernization, Industrial Base Policy, Assistant

SUMMIT SCHEDULE

DAY 1: TUESDAY, FEBRUARY 11

10:10—10:40 AM **Industry Perspective: Stratasys**

10:40—11:50 AM **Networking and Exhibition**

15-Minute Tech Talks | Location: Tech Talk Arena in Exhibit Hall

10:50—11:05 AM **DMG MORI Federal Services**

11:15—11:30 AM **VJ Technologies**

11:50 AM—12:50 PM **Employing Tactical Additive Solutions Across the Services: Meeting AM Requirements for Modern Warfare**

This Panel will explore the essential role of additive manufacturing in modernizing and streamlining tactical operations across various branches of the U.S. military. By discussing the latest advancements and specific requirements for on-site manufacturing and rapid prototyping, the panel aims to highlight how these technologies can enhance operational efficiency and responsiveness in combat and support scenarios. Experts from each service will share insights into how additive manufacturing is being integrated into their respective operations, showcasing real-world applications and future potential.

Moderator: Robert Davies (Confirmed)
Advanced Manufacturing Systems Team Lead , Marine Corps Systems Command

- **First Class Cory "Mike" Hover, USN (Confirmed)**
  Machinery Repairman, LHD-5 USS BATAAN, U.S. Navy
- **MSgt Blake Davis, USAF (Confirmed)**
  Metals Technology Shop Chief,183rd Wing, Air National Guard, U.S. Air Force
- **GySgt Quincy Reynolds, USMC (Confirmed)**
  Senior Machinist, 3rd Sustainment Group (Experimental), 3rd Marine Logistics Group
- **SGM Michael Perry III, USA (Confirmed)**
  Senior Enlisted Advisor to the Deputy Chief of Staff, G-9 , HQDA
- **CW3 Shauna Carruth, USA (Confirmed)**
  Aviation Main General Foreman, Mississippi AVCRADU.S. Army

12:50—1:50 PM **Networking Lunch**

1:50—2:05 PM **Presentation of MILAM 2025 3D Printing Awards**

- **Technical Achievement Award for 3D Printing Innovation**
- **Lifetime Achievement Award**
- **Award for Expeditionary and Tactical 3D Printing Excellence**
- **Education & Workforce Development Award -** Presented in Partnership with America Makes

DAY 1: TUESDAY, FEBRUARY 11

2:05—2:40 PM **Fireside Chat: Validating AM Technology to Address Maintenance Operations Across the Fleet**

Ensuring the security of our nation requires technology that can successfully work in all environments – including at sea. The aim of these exercises is to demonstrate additive manufacturing capabilities for maritime repair without requiring dangerous and expensive lasers or inert gasses, and no extensive prior expertise with AM technology required to operate the machines. This fireside chat aims to discuss how such exercises address maintenance operations that will improve ship material conditions and battle damage repair and contribute to the future of AM on the naval front.

Moderator: VADM (Ret.) William Galinis, USN (Confirmed)
Former NAVSEA Commander

- **RDML Peter Small, USN (Confirmed)**
  Chief Engineer & Deputy Commander of Naval Systems, NAVSEA
- **Dr. Susan Goodfellow, SES (Confirmed)**
  Assistant Deputy Chief of Naval Operations Fleet Readiness and Logistics Chief of Naval Operations

2:40—2:55 PM **Industry Perspective**

2:55—3:30 PM **Defining the Role That DoD ManTech/JAMWG Plays in the AM Community and How Industry Can Aide in Solving Warfighter Capability Gaps**

Keith DeVries (Confirmed)
Director, DoD Manufacturing Technology Program, OUSD (R&E)
Chair, JAMWG

3:30—4:30 PM **Networking and Exhibition**

SUMMIT SCHEDULE

DAY 1: TUESDAY, FEBRUARY 11

	15-Minute Tech Talks | Location: Tech Talk Arena in Exhibit Hall
3:40—3:55 PM	**Cdr Max Plattt, RN (Confirmed)** Royal Navy Submarine Delivery Agency Additive Manufacturing Lead
4:05—4:20 PM	*The DIU Blue Manufacturing Initiative* **Travis DeMeester (Confirmed)** Program Manager, Defense Innovation Unit (DIU)
4:30—5:30 PM	**Closing Highlight: Panel Discussion by Nexa3D: Leveraging AI and Additive Manufacturing: Emerging Technologies Shaping National Security and Government Operations** **Panelists Coming Soon!**
5:30—6:30 PM	**Cocktail Reception** Sponsorship of the Cocktail Hour is available. Contact Amanda Delgado at adelgado@dsigroup.org | 201.940.6680 for details
6:45 PM	**Exhibit Hall Closes, End of Day 1**

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DAY 2: WEDNESDAY, FEBRUARY 12

7:45—8:30 AM ***Registration and Light Breakfast Reception Open***

8:30—8:45 AM **Chairperson Opening Remarks**
Avi Reichental (Confirmed)
Chairman & Co-founder | Nexa3D

8:45—9:00 AM **Moderator Remarks**
GEN (Ret.) Edward M. Daly, USA (Confirmed)
DALY Consulting & Logistics,
Former Commanding General, U.S. Army Materiel Command

9:00—9:35 AM **Leveraging Additive Manufacturing to Ensure Materiel Readiness Across for MAGTF Expeditionary Environments**

- Driving efforts to modernize national defense systems to improve performance using AM-designed equipment
- Increase materiel readiness to rapidly prototype and produce direct parts and reducing the risk of obsolete hardware
- Enabling warfighters to employ innovative solutions on the battlefield through AM capabilities in expeditionary environments

LtGen Stephen Sklenka, USMC (Confirmed)
Deputy Commandant for Installations and Logistics, HQMC

9:35—10:20 AM **Fireside Chat: Advancing Air Superiority: Pioneering USAF Efforts in Additive Manufacturing**

The Air Force Sustainment Center and Air Force Life Cycle Management Center are actively advancing the integration of additive manufacturing to enhance aircraft maintenance, repair, and overall operational efficiency. AFLCMC is focusing on the production of critical components using 3D printing, while AFSC is utilizing AM to bolster rapid prototyping and field repairs. This Fireside chat will highlight these latest projects undertaken within the AFSC and AFLCMC to leverage AM technologies supporting air superiority.

Moderator: Lt Gen (Ret.) Robert McMurry, USAF, Jr. (Confirmed)
Former Commander of AFLCMC/PEO AF RSO

- **Lt Gen Donna Shipton, USAF (Confirmed)**
  Commander, Air Force Life Cycle Management Center
- **Lt Gen Stacey Hawkins, USAF (Confirmed)**
  Commander, Air Force Sustainment Center

10:20—10:50 AM **Industry Perspective: Pratt and Whitney**

SUMMIT SCHEDULE

DAY 2: WEDNESDAY, FEBRUARY 12

10:50—11:50 AM **Networking and Exhibition**

15-Minute Industry Tech Talks | Location: Tech Talk Arena in Exhibit Hall

Tech Talks available with purchase of a Gold Sponsorship
Contact Amanda Delgado at adelgado@dsigroup.org | 201.940.6680 for details

11:50—12:35 PM **NIAR Panel: Moving Forward With Military AM**

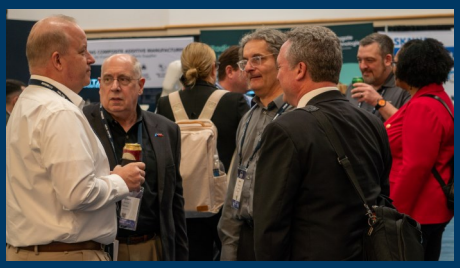
Panel Moderator: Mark Shaw (Confirmed)
Chief Engineer, NIAR

- **Patrick Kelleher, SES (Confirmed)**
  Deputy Assistant Secretary of Defense for Materiel Readiness, OUSD (A&S)
- **Tracy Frost, SES (Confirmed)**
  Director, Technology Industrial Innovation Base
- **Major General Phil Prosser CBE (Confirmed)**
  Director of Joint Support, United Kingdom Strategic Command
- **Slade Gardner (Confirmed)**
  President, Big Metal Additive
- **Steve Fournier (Confirmed)**
  Additive Design and Manufacturing Center of Excellence, General Atomics

12:35—12:50 PM **Industry Perspective: Available with Platinum Sponsorship.**

Contact Amanda Delgado at adelgado@dsigroup.org | 201.940.6680 for details

12:50—1:50 PM **Networking Lunch and Exhibits**

DAY 2: WEDNESDAY, FEBRUARY 12

1:50—2:50 PM

International AM Panel Discussion: Driving the Strategic Impact of Additive Manufacturing and 3D Printing on Global Military Operations

Additive manufacturing and 3D printing technologies are enhancing operational readiness on a global scale by allowing for on-site manufacturing and repairs, reducing supply chain dependencies and lead times. This panel will highlight the ability to customize equipment and parts on-demand provides a strategic advantage, allowing defense forces to adapt quickly to evolving threats and operational needs. Experts on this panel will also discuss how the integration of AM in defense supports greater innovation, cost efficiency, and operational agility, strengthening national security capabilities globally.

Panel Moderator: Dr. Bryan Wells (Invited)
NATO Chief Scientist

- **Rear Admiral Rachel Durbin, CSC, RAN, (Invited)**
  Head of Navy Engineering, Royal Australian Navy
- **Shingo Mizuiwa (Invited)**
  Air Defence Attaché, Embassy of Japan in the UK
- **Peng Yam Tan (Invited)**
  Chief Defence Scientist, Singapore
- **Senior Representative (Confirmed)**
  Republic of Korea

2:50—3:25 PM

Stressing the Importance of Collaboration Between Private and Public Stakeholders to Drive 3D Printing Innovation Across the Army

- Highlighting how public-private partnerships can expedite the development and deployment of cutting-edge solutions such as digital thread within the Army's manufacturing and logistics processes
- Enabling the Army to swiftly adapt to emerging technologies and integrate advanced 3D printing capabilities into its strategic and tactical operations
- Utilizing additive manufacturing for modernizing depots, arsenals, and ammunition plants, enhancing their efficiency and production capabilities to meet contemporary defense demands

Stephanie Hoaglin (Confirmed)
Director, OIB Modernization Taskforce, U.S. Army Materiel Command

COL David Guida, USA (Confirmed)
Commander, Rock Island Arsenal-Joint Manufacturing Technology Center, U.S. Army Tank-Automotive Command

DAY 2: WEDNESDAY, FEBRUARY 12

3:25—4:00 PM — **Final Networking Break**
4:00pm—Exhibitor break down begins

4:00—5:00 PM — **Closing Highlighted Panel:**
AM Working Level Panel; Attaining the "Ground Truth" on What AM Programs of Record Need

Moderator: Kristin Schaaf, PhD (Confirmed)
Deputy Director, Innovation Capability and Modernization (ICAM) Office,
Industrial Base Analysis and Sustainment (IBAS) Program,
Office of the Deputy Assistant Secretary of Defense (Industrial Base Resilience)

- **Jim Pluta (Confirmed)**
  Additive Manufacturing (AM) PM, NAVSEA
- **Theodore Gronda (Confirmed)**
  PM, Additive Manufacturing Team, NAVAIR
- **Adrian Bailey (Confirmed)**
  Capability Developer, Army Futures Command
- **Matthew Audette (Confirmed)**
  Marine Corps Systems Command
- **Steven McCabe (Confirmed)**
  Life Cycle Manager Additive Manufacturing and Repair, Air Force RSO

5:00 PM — **End of Main Conference**

WORKSHOP DAY

The MILAM 2025 Workshop Day will offer attendees a deep dive into the various use cases and applications in 3D printing across federal government, industry, and academia. Two distinctive tracks will not only feature unique AM SME perspectives from organizations such as NASA, FAA, and DOE on their role in integrating 3D printing technologies for aerospace, but also provide detailed sessions on the applications of transformative AM technologies such as binder jetting, cold spray, metal printing and the digital thread to enhance military manufacturing for the end user. Register today to have a chance to learn more and join in on the conversations surrounding the future of impactful additive manufacturing capabilities.

3D Printing for Aerospace Track:

- Importance of additive manufacturing in aerospace applications to revolutionize design, production, and logistics in federal agencies.
- Contribution to National Security Strategy strengthens technological superiority by enabling rapid development of aerospace systems..

Technical Focus Track:

Applying Cold Spray & Additive Construction Technologies to Transform Infrastructure & Supply Chains

- Exploring the integration of cold spray technologies for commercial and military end users.
- Driving the age of additive construction and the opportunities it provides for operational efficiency, adaptability, and resilience.

WORKSHOP DAY

DAY 3: THURSDAY, FEBRUARY 13

3D Printing for Aerospace Track

8:00—8:45 AM **Registration and Breakfast**

8:45—9:00 AM **Moderator Opening Remarks**

9:00—9:40 AM **NSF Focus: Leveraging Ongoing Investments in 3D Printing for Aerospace to Drive Research and Innovation**

- Accelerating breakthroughs in key technology areas such as 3D printing materials to grow long-term U.S. competitiveness
- Driving the education and workforce development of advanced materials practitioners
- Supporting a network of research centers that are facilitating advanced manufacturing for all sectors including aerospace

Erwin Gianchandani (Invited)
Assistant Director for Technology, Innovation and Partnerships, NSF

9:40—10:40 AM **Panel: Elevating the Certifications and Standards Surrounding the FAA's Role in 3D Printing for Aerospace**

This panel will explore how the Federal Aviation Administration (FAA) is integrating additive manufacturing (AM) into aerospace safety and certification processes. Participants will learn about the FAA's efforts to establish guidelines and standards for AM in aviation, ensuring that new technologies meet rigorous safety and performance requirements. The discussion will highlight case studies of AM applications in aircraft components, the challenges of certification, and how the FAA collaborates with industry to advance AM while maintaining the highest safety standards.

Moderator: **Daniel Braley (Confirmed)**
Technical Fellow, Boeing Global Services

- **Thomas Broderick, PhD (Confirmed)**
  Chief Scientist and Technical Advisor (CSTA) for Advanced Manufacturing and Materials, FAA
- **Nima Shamsaei, PhD (Confirmed)**
  Director, National Center for Additive Manufacturing Excellence (NCAME), Auburn University
- **Andy Perry, PhD (Confirmed)**
  Consulting Engineer - Additive Materials, GE Aerospace
- **Wesley Mooty (Invited)**
  Acting Executive Director of the Aircraft Certification Service (AIR), FAA

WORKSHOP DAY

DAY 3: THURSDAY, FEBRUARY 13

3D Printing for Aerospace Track

10:40—11:10 AM **Networking Break**

11:10—11:50 AM **NASA Strategic Perspective: Driving Investments in Commercial Additive Manufacturing Technology Innovation to Bolster the Aerospace Sector**

- Fielding AM technologies to bolster material design for complex alloy structures with tailored properties, enhancing performance and efficiency in aerospace and defense applications
- Accelerating 3D printing innovation & development to help reduce lead times, lower costs, & enable the faster deployment of new aerospace technologies
- Near term considerations toward leveraging industry to advance additive innovation at NASA

Daniel Lockney (Confirmed)
Technology Transfer Program Executive, NASA

11:50 AM—12:50 PM **Panel: Exploring NASA's Pioneering Applications of Additive Manufacturing**

This panel will delve into NASA's groundbreaking use of additive manufacturing (AM) to advance aerospace technology. Attendees will hear how NASA leverages AM for developing high-performance components, from spacecraft to satellites, utilizing the tech for biomedical purposes in space, and enhancing mission capabilities. The discussion will cover NASA's research into novel materials, the integration of AM in space missions, and the agency's role in setting industry standards for AM practices. Insights into successful projects and future directions will highlight how NASA's innovations are shaping the future of aerospace manufacturing.

Moderator: Dr. Eduardo Barocio (Invited)
Director of the Composites Additive Manufacturing and Simulation Consortium. Purdue University

- **Lynn Rothschild, PhD (Confirmed)**
  Sr. Scientist, NASA Ames Research Center; Adjunct Professor, Brown University
- **Dr. J.D. Polk (Confirmed)**
  Chief Health and Medical Officer, NASA
- **Brodan Richter, PhD (Tentatively Confirmed)**
  Research Materials Engineer, NASA Langley Research Center
- **Peter Spaeth (Tentative)**
  Senior Research Physicist, NASA Langley Research Center

12:50—1:50 PM **Networking Lunch**

WORKSHOP DAY

DAY 3: THURSDAY, FEBRUARY 13

3D Printing for Aerospace Track

1:50—2:30 PM

Strengthening Key Materials in Aerospace and Energy-Generation Applications

- Ensuring materials withstand extreme conditions such as high temperatures and tensile stresses without failing
- Looking towards future 3D printing of metal alloys, including modification for high-reflectivity copper and fracture suppression for superalloys
- Harnessing the impact of precision and scalability that comes with 3D printing on design for nuclear, aerospace, and all energy generation in the future

Philseok Kim, PhD (Confirmed)
Program Director, ARPA-E

Hang Yu, PhD (Confirmed)
Associate Professor
Virginia Tech

2:30—3:30 PM

Understanding the Power of Innovation through the Department of Energy's Impact on AM for Aerospace

This panel will examine the Department of Energy's (DOE) role in advancing additive manufacturing (AM) technologies and their applications in energy and defense sectors. Attendees will gain insights into how the DOE supports AM research and development, particularly in creating high-performance materials and components for energy systems and national security. The discussion will cover the DOE's initiatives to enhance AM capabilities, improve manufacturing efficiency, and drive technological innovation through partnerships and research programs. Real-world applications and future directions will showcase the transformative potential of AM in enhancing energy infrastructure and defense systems.

Moderator: William H. Peter (Invited)
Advanced Manufacturing Program Director, Oak Ridge National Laboratory

- **Huijuan Dai, PhD (Confirmed)**
  Next Generation Materials & Processes Program Manager, U.S. Department of Energy
- **Dr. Michael Kirka (Confirmed)**
  Senior Research Staff—Group Leader of Deposition S&T Group, Oak Ridge National Laboratory
- **Howard "Howie" Marotto (Confirmed)**
  AM Business Director, EWI

MILAM 2025

WORKSHOP DAY

DAY 3: THURSDAY, FEBRUARY 13

3D Printing for Aerospace Track

3:30—4:00 PM **Networking Break**

4:00—4:40 PM **3D Printing Rocket Motors/Engine Parts: Accelerating Material Development and Qualification Processes for AM Aerospace Applications**

- Developing metallic alloys for solid rocket motors and copper and nickel alloys for liquid rocket engines
- Advanced 3D printers for rapid prototyping to enhance overall propulsion technologies
- Working toward electron reusability & other advanced R&D efforts for 3D printing rocket components

Matt Gratias (Invited)
VP, Federal Programs
Relativity Space

Andrew Bunker (Invited)
VP, Government Operations
Rocket Lab

4:40—5:30 PM **Fireside Chat — From Blueprint to Blazing Speed: Revolutionizing Hypersonics with Additive Manufacturing**

- Exploring how 3D printing allows programs to quickly create complex components and opening up novel possibilities for creating new weapons
- Eliminating the need to have complex welds or brazing joints by allowing scramjet components to be made from high-temperature metals
- Forging strong relationships and partnerships within the AM ecosystem, including technology providers, materials suppliers, research institutions, and key industry players to advance DoD hypersonic initiatives

Moderator: Christina Bain (Invited)
Engineering Excellence Cultural Initiatives Senior Manager, Lockheed Martin

- **Keith DeVries (Confirmed)**
  Director, DoD Manufacturing Technology Program, OUSD (R&E)
  Chair, JAMWG
- **Mark Benedict, PhD, ST (Invited)**
  AFRL AM Lead
  America Makes CTO

MILAM 2025

WORKSHOP DAY

DAY 3: THURSDAY, FEBRUARY 13

Technical Focus Track: Applying Cold Spray & Additive Construction Technologies to Transform Infrastructure & Supply Chains

8:00—8:45 AM **Registration and Breakfast**

8:45—9:00 AM **Moderator Opening Remarks**

9:00—9:40 AM **Addressing Challenges and Opportunities in Scaling Metal Cold Spray 3D Printing Technologies Across the Army**

- Scaling metal 3D printing capabilities is key to meeting increasing demands for high-performance components in defense and federal sectors
- Exploring technological advancements in metal cold spray technologies
- Highlighting successful scaling efforts and the lessons learned in integrating metal 3D printing into large-scale manufacturing operations

Dr. Zackery Mcclelland (Confirmed)
Research Mechanical Engineer, U.S. Army Engineer Research and Development Center

9:40—10:40 AM **Panel: Driving Commercial Advances in Military Manufacturing by Applying Cold Spray and Metal Printing for End Users**

This panel will explore the transformative potential of cold spray and metal printing technologies that commercial industry to striving to develop for government and military applications. Cold spray technology, which uses supersonic particles to bond metal coatings to substrates, offers unique advantages for repairing and manufacturing critical components. Paired with metal printing advancements, these technologies can enhance durability, reduce lead times, and offer tailored solutions for end users in the defense sector. Expert leaders from across academia & industry will focus on the practical implementations, benefits, and future directions for integrating these techniques to advance overall military supply chains & maintenance programs.

Moderator: Danielle Cote, Ph.D. (Confirmed)
Associate Professor, Mechanical & Materials Engineering, Worcester Polytechnic Institute

- **Arvind Argawal, PhD (Confirmed)**
  Distinguished Professor, Department of Mechanical and Materials Engineering, Florida International University
- **Byron Kennedy (Confirmed)**
  CEO, SPEE3D
- **Aaron Nardi (Confirmed)**
  CTO, VRC Metal Systems
- **Dominic Parsonson (Confirmed)**
  General Manager - Americas, Titomic

10:40—11:20 AM **Networking Break**

WORKSHOP DAY

DAY 3: THURSDAY, FEBRUARY 13

Technical Focus Track: Applying Cold Spray & Additive Construction Technologies to Transform Infrastructure & Supply Chains

11:20 AM—12:20 PM **Panel: Revolutionizing Military Infrastructure and the Strategic Impact of Additive Construction of Concrete**

Additive Construction (AC) of concrete or concrete 3D printing is emerging as a critical technology for defense, offering the ability to rapidly build durable structures in challenging environments. This innovation has the potential to significantly reduce construction time and labor, allowing for the swift deployment or repair of essential infrastructure such as barracks. gap crossing structures, or barrier obstacles during contingency operations. The U.S. military's investment in this technology underscores its potential to enhance operational efficiency, adaptability, and resilience. The integration of autonomous or semi-autonomous systems in AC technologies promises even greater precision and sustainability, making it a transformative tool for future military engineering efforts. This panel will highlight the importance and strategic benefits of AC in enhancing military infrastructure and operational capabilities.

Panel Moderator: Jim Mantes (Confirmed)
Principal Program Manager, ARA

- **Megan Kreiger (Confirmed)**
  Program Manager Additive Construction - Lead Mechanical Engineer, U.S. Army Engineer Research and Development Center
- **Charles Nikon (Confirmed)**
  Additive Manufacturing Engineer, Air Force Civil Engineering Center
- **Matt Friedell (Confirmed)**
  Vice President of Operations, Robotic Construction Technologies

12:20—1:20 PM **Networking Break**

1:20—2:20 PM **Panel: Leveraging Advances in Cold Spray Technologies to Drive Military Innovation in AM and Accelerate Warfighter Readiness**

This panel will explore the transformative potential of cold spray and metal printing technologies for direct military integration and where each service is currently at with leveraging the technology to advance Warfighter readiness. SME's from across academia and the military services will discuss how they are currently using the technology as well as offer their thoughts on the future directions for integrating these techniques to transform military supply chains & for their specific maintenance programs.

Moderator:
Timothy Eden, PhD (Confirmed)
Head of the Materials Processing Division The Applied Research Laboratory, Pennsylvania State University**,** Academic Director, Cold Spray Action Team

Panelists:

Ashley Filling (Confirmed)
Engineering Branch Chief, Letterkenny Army Depot

Dan Stanley (Confirmed)
NESAR/Cold Spray Program Manager, NAVSEA 05T1

Dr. Brian James (Confirmed)
Director, Additive Manufacturing Flight, 28th Maintenance Group, Ellsworth AFB

Bobby Hager (Invited)
Executive Director, Fleet Readiness Center East, Marine Corps Air Station

WORKSHOP DAY

DAY 3: THURSDAY, FEBRUARY 13

Technical Focus Track: Applying Cold Spray & Additive Construction Technologies to Transform Infrastructure & Supply Chains

2:20—3:00 PM — **Networking Break**

3:00—3:40 — **Expanding Additive Manufacturing Capacity for Cold Spray Technologies to Help in Transforming Infrastructure & Supply Chains**

- Exploring how cold spray technologies can be utilized & rapidly scaled to respond to crises and emergent needs
- Addressing urgent supply chain disruptions, support rapid prototyping and production, and ensure operational readiness during critical times
- Providing actionable insights for adapting AM capabilities to dynamic and challenging environments

Michael Guinn (Confirmed)
OSD MCEIP Acquisition PM (CTR), MRG Advancements

John Boyer (Confirmed)
Director, KVG

3:40—4:30 PM — **Fireside Chat: Additive Construction - The Path to Standardization & Innovation**

- Discussing current additive construction capability gaps in the current standard documents and how the industry can fill these gaps
- Leveraging commercial innovation to integrate robotic 3D printing for construction and the overall bolstering of infrastructure
- Taking a deep dive into advanced materials & topology optimization for 3D printing in concrete

Moderator:
Shawn Platt (Confirmed)
Research Civil Engineer, NIST

Panelist:
Osman Ozbulut (Invited)
Professor, Department of Civil & Environmental Engineering, University of Virginia

Ryan Lusk (Invited)
CEO, Branch Technology

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