

6TH MILITARY ADDITIVE MANUFACTURING SUMMIT & TECHNOLOGY SHOWCASE



26-27
JANUARY
2022



OFFICIAL
AGENDA

TAMPA,
FLORIDA



Program Design & Goal:

DSI's 6th Annual Military Additive Manufacturing Summit is designed as an educational "Town Hall" forum, where thought leaders & key policymakers across military services, defense agencies, & civilian organizations can come together for actionable discussions & debate. This year's Summit will focus on the current and future advancements made in the 3D printing space as well as how the **DoD is working to quickly integrate AM technologies** in order to supply durable, affordable equipment & parts to the Warfighter in the battlespace. Additive manufacturing solutions are helping to enhance Warfighter capability. They are also helping to reinvigorate the Defense Industrial Base as well as solve supply chain issues across the U.S. Military.

This event will focus on collaborations with key industry partners on how to leverage advanced manufacturing products & solutions for military operations. Military commands & defense agencies will have the opportunity to learn how to deploy limited use parts to the point of need, increase the size, weight, & power (SWaP) of their platforms/weapons systems, & enable the Warfighter to more rapidly replace legacy/obsolete parts. Senior leaders from across the services will explain their overall goals in utilizing 3D printing capabilities to transform materiel/combat readiness.

Panel discussions at this Summit will also focus on emerging topics in the additive manufacturing community to include; **innovative 3D Printing Methods that are empowering future human exploration to space, leveraging advances in Metal 3D printing to increase operational flexibility & readiness, & how 3D printing can revolutionize the way rocket engine parts are engineered.**

Operating Guidelines:

DSI's Military Additive Manufacturing Summit 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, & in an efficient expenditure of time.

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

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

(Industry & 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 & Government Research Labs, Government Agencies, Academia, & US Technology Solution Providers, 3D Printing Companies, Prototyping, Supply Chain Solutions, Logistics

Specific topics to be discussed include:

- Leading DoD Initiatives Toward Investing in Additive Manufacturing
- Integrating Additive Manufacturing Technologies Into the Army's Tactical, Operational & Organic Industrial Base to Enable Enhanced Soldier Capability
- Utilizing 3D Printing to Transform Aircraft Maintenance & Overall Operational Efficiency Across the U.S. Air Force
- Leveraging Advances in Metal 3D Printing to Increase Efficiency & Solve Supply Chain Issues Across the U.S. Military
- Implementing Emerging Technologies Such as Additive Manufacturing to Enable an Effective Naval Logistics Enterprise
- Advancing 3D Printing Capabilities in Support of a More Expeditionary & Lethal MAGTF
- Driving DLA Initiatives to Partner With the DoD to Transform the Future of Additive Manufacturing
- Pioneering Innovative 3D Printing Methods to Empower Future Human Exploration to Space
- Revolutionizing the Way Rockets, Engines & Space Vehicles are Engineered Through the Integration of Additive Manufacturing Technologies



WELCOME RECEPTION COCKTAIL HOUR

SPONSORED BY: ADDMAN ENGINEERING



Castheon



ALL REGISTERED ATTENDEES WELCOME

TUESDAY, JANUARY 25TH @ 6-7 PM
211 RESTAURANT (IN HILTON DOWNTOWN LOBBY)

SUMMIT SCHEDULE

JANUARY 25-26

JANUARY 25 Welcome Reception, Sponsored by: ADDMAN Engineering
6:00-7:00 PM Location: 211 Restaurant in Hilton Lobby

JANUARY 26 *Registration and Light Breakfast Reception Open*

7:45—8:30 AM

8:30—8:45

Chairperson Opening Remarks

Elisa Teipel, Ph.D., Chief Development Officer, Co-Founder, Essentium

8:45—9:00

Moderator Remarks:

LTG David Halverson, USA (Ret), Chairman & CEO, Cypress International Inc.

9:00—9:45

Driving DLA Initiatives to Partner With the DoD to Transform the Future of Additive Manufacturing

- Integrating AM capabilities into supply chain systems & processes
- Developing processes, tools, and framework to standardize AM across DoD
- Leveraging JAMMEX enable AM technical data sharing & interoperable capability

Kristin French, SES (Confirmed)

Deputy Director, Logistics, J3

Defense Logistics Agency

9:45—10:30

Integrating Additive Manufacturing Technologies Into the Army's Tactical, Operational & Organic Industrial Base to Enable Enhanced Soldier Capability

- Augmenting the supply chain & operationalizing 3D printing solutions to ensure Army materiel readiness
- Establishing a data repository of 3D printed drawings that can be utilized by units at the tactical edge
- Empowering forward Advance Manufacturing (AdvM) capability of the future Army to produce parts at the tactical point of need

Deacon Maddox, SES (Confirmed)

Director, Supply Chain Management

U.S. Army Materiel Command (AMC)

10:30—11:00

Industry Session: NPI for Stratasys & Government Sector

Mark Menninger (Confirmed)

Director, Government Segment, Stratasys

Foster Ferguson (Confirmed)

Business Development Manager, Stratasys

11:00—12:00 **Networking & Exhibition**

10-Minute Industry Tech Talk: Location: Exhibit Hall Stage

**Chris Peitsch, BD Manager, X-ray/CT Systems
(Confirmed)** *Advancements in Non-destructive CT
Inspection for Additive Manufacturing*



12:00—1:00 **Revolutionizing the Way Rockets, Engines & Space Vehicles are Engineered Through the Integration of Additive Manufacturing Technologies**

Josh Brost (Confirmed)

VP
Relativity Space

Paul Gradi (Confirmed)

Senior Propulsion Engineer/Principal Investigator
NASA Marshall Space Flight Center

1:00—2:00 **Networking Lunch**

2:00—2:15 **Presentation of MilAM 2022 3D Printing Awards**

- **Technical Achievement Award for 3D Printing Innovation**
- **Lifetime Achievement Award**
- **Award for Expeditionary & Tactical 3D Printing Excellence**

For more information and to make a nomination, please visit:

militaryam.dsigroup.org/awards/

2:15—3:00 **N4 Strategic Goal: Integrating Emerging Technologies Such as Additive Manufacturing to Enable an Effective Logistics Enterprise for the Warfighter**

- Leveraging 3D printing across the Navy to enhance lethality and sustainability
- Utilizing AM technologies to enhance Fleet readiness
- Near term goals toward strengthening partnerships to improve logistics interoperability

VADM Ricky Williamson, USN (Confirmed)

Deputy Chief of Naval Operations for Fleet Readiness and Logistics
N4, Office of the Chief of Naval Operations

3:00—3:10 An Automotive Engineers Perspective on Innovation within the Department of Defense
Michael Cao, CEO (Chief Extrusion Officer), IC3D, Inc. (Confirmed)

3:10—4:10 **Networking & Exhibition**

10-Minute Industry Tech Talk: Location: Exhibit Hall Stage

Rick Lucas, CTO (Confirmed)

Binder Jet Additive Manufacturing for Defense



4:10—5:15 **Pioneering Innovative 3D Printing Methods to Empower Future Human Exploration to Space**

NASA engineers are exploring a new way to 3D print rocket engine parts using metal powder and lasers. The method, called blown powder directed energy deposition, is faster and more affordable than conventional fabrication methods. The development is part of NASA's Game Changing Development Program. This panel will feature the managers & principal investigators from government & academia responsible for these technology advancements. The discussion will also detail how the aerospace industry will be able to do the same and apply this manufacturing technology to other industries such as medical, transportation, & infrastructure.

Panel Moderator:

John Vickers (Confirmed)

Principal Technologist for Advanced Manufacturing
Space Technology Mission Directorate, NASA

Panelists:

Drew Hope (Confirmed)

Deputy Program Executive of Technology Maturation
Space Technology Mission Directorate, NASA

Paul Gradl (Confirmed)

Senior Propulsion Engineer/Principal Investigator
NASA Marshall Space Flight Center

James Burnum (Confirmed)

Assistant Manager, Liquid Engines Office, Space Launch System
NASA Marshall Space Flight Center

Nima Shamsaei (Confirmed)

Director, National Center for Additive Manufacturing Excellence (NCAME)
Auburn University

5:15 **End of Day 1**

SUMMIT SCHEDULE

JANUARY 27

8:00—8:45 *Registration and Light Breakfast Reception Open*

8:45—9:00 Moderator Remarks:
LTG David Halverson, USA (Ret), Chairman & CEO, Cypress International Inc.

9:00—9:45 **Additive Manufacturing to Transform Aircraft Maintenance & Overall Operational Efficiency Across the U.S. Air Force**

- The need to leverage advanced manufacturing solutions to drive reliability and reduce costs of Air Force legacy systems
- Importance of collaboration with industry and educational institutions to advance rapid sustainment innovations
- Partnership opportunities with industry to deploy technologies and processes across the Air Force enterprise at scale

Lt Gen Shaun Q. Morris, USAF (Confirmed)
Commander
Air Force Life Cycle Management Center

9:45—10:30 **Advancing USMC Training Using Additive Manufacturing Technologies**

LtCol Julian Tsukano, USMC (Confirmed)
Commanding Officer Marine Detachment Fort Lee

10:30—11:00 **Mission Critical Support: When lead time matters!**

Mark Mohr, Executive VP, DMG MORI (Confirmed)

Nils Niemeyer, GM, Additive Manufacturing Excellence Center, DMG MORI (Confirmed)

11:00—
12:00 **Networking & Exhibition**

10-Minute Industry Tech Talk: Location: Exhibit Hall Stage

**Travis Kneen, Technical Analyst, DSIAC
(Confirmed)**

*Advancing Research and Collaboration Across the
Federal Government, Industry, and Academia*



12:00—12:45 Advancing 3D Printing Capabilities in Support of a More Expeditionary & Lethal MAGTF

- Guiding the implementation AM technologies to increase the endurance and speed of the MAGTF
- Leading USMC modernization efforts to bolster manufacturing & material development
- Near-term I&L goals to foster a culture of logisticians that will help facilitate proficiency in expeditionary AM operations

BGen Adam L. Chalkley, USMC (Confirmed)
Assistant Deputy Commandant for Logistics Policy
HQMC

12:45—12:55 High Energy Applications for Additive Manufacturing

Jim Schulz (Confirmed)
Southeast Sales Executive
North Star Imaging, Inc.

12:55—1:55 Networking Lunch

1:55—3:00 Industry Panel Focus: Fielding the Next Generation of Additive Manufacturing Solutions for the Defense Industrial Base

Various key members of industry are actively working to deliver smart, innovative and sustainable 3D printing solutions for their customers. This panel will examine some of their perspectives on what the future outlook for AM technologies will look like. Senior leaders from across the defense industry will provide the end-user perspective and detail how ground-breaking innovations in AM will continue to help drive the significant advancement in military parts manufacturing. They will also offer insight into new projects that they are overseeing & how advanced manufacturing will continue to help reinvigorate the U.S. supply chain & modernize weapons systems.

Panel Moderator:

John Wilczynski (Confirmed)
Executive Director, America Makes

Panelists:

Eric Barnes (Confirmed)
Technical Fellow, Northrop Grumman Corp.

James Simpson (Confirmed)
Executive, Additive & CMC Design, GE Aviation

Leah Battle (Confirmed)
Additive Manufacturing Technology Director, Raytheon Technologies

Glynn Adams (Confirmed)
Advanced Technology Center Technical Fellow, Lockheed Martin Space

- 3:00—3:10** **Additive Solutions in the Attributable Engine Design Space**
Sean Jackson (Confirmed)
Rapid Prototyping and SME Program Manager
Advanced Military Engine Programs - GATORWORKSsm
Pratt & Whitney
- 3:10—3:40** **Final Networking Break – Exhibit Breakdown**
3:40—Exhibitors break down begins
- 3:40—5:00** **Productionizing Metal 3D Printing to Increase Efficiency & Solve Supply Chain Issues Across the U.S. Military**
Metal 3D printing & the benefits of this technology is allowing various Military Services to design more intricate and complex materials as compared to traditional manufacturing solutions. Experts from across the services and academia will examine how metal 3D printing is helping to improve readiness & keep current/legacy systems in operation longer, saving both time & money. Each panelist will then go into detail about the various projects they are working on with regard to metal 3D printing & how newly designed steel alloys will help in the production & sustainment of legacy & obsolete parts at the point of need.
- Panel Moderator:**
Todd Palmer, Ph.D. (Confirmed)
Professor of Engineering Science and Mechanics and Materials Science and Engineering
Penn State University
- Panelists:**
Alan Pentz, PhD (Confirmed)
Additive Manufacturing Lead, Naval Air Warfare Center – Aircraft Division, Air Systems Group
Melanie Jonason (Confirmed)
Chief Engineer, Propulsion Sustainment Division, USAF
Dr. Brandon McWilliams (Confirmed)
Metals AM Team Lead , CCDC ARL
Mark Shaw (Confirmed)
Director, DoD AM, GE Additive
- 5:00** **End of Summit**